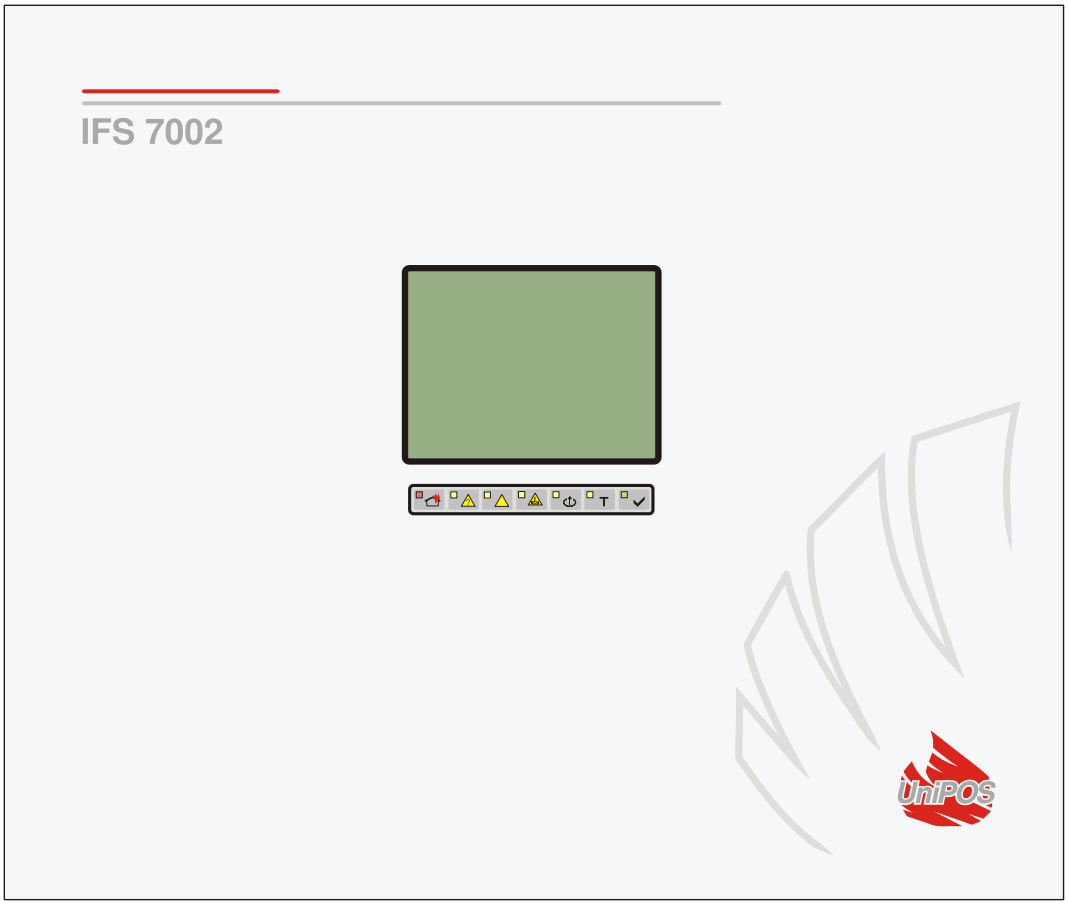
UniPOS

Interactive Fire Control Panel
IFS7002



Instruction Manual

Revision 2.05

Contents

1. Introduction

Interactive Fire Control Panel IFS 7002 is an up-to-date, high reliable, multifunctional and versatile device, providing the user with unexpected potential in the design, installation and operation of addressable fire alarm systems.

Some of its main features and possibilities are:

- Adjustment of operating modes and parameters of each fire alarm line via built in keypad;
- User oriented menu dialogue for easy and convenient operation;
- LCD for visualization of system checkup and setup modes;
- Touch-panel contributing to the creation of a dynamic keypad;
- LEDs indication for early warning of a break down or extreme conditions;
- Energy independent archive memory saving the event type, date and time, allowing for detailed analysis of the actions of the authorized personnel and of possible problems in the fire protection process of the area;
- User oriented test modes allowing for a total control of the site protected;
- Built-in serial interface for connection to other fire control panels of similar or higher level;
- Built-in serial interface for connection to second level control devices, ability for connection via telephone line and a standard modem;
- System expansion and functional modification (our goal is to constantly improve the fire alarm equipment features), no additional cabling necessary;
- Compatible to random installation design, within the range of the available fire control panels resources.

All these are realizable via fire control panel's keypad and after a detailed examination of the instructions set herewith.

2. Terminology

ACCESS LEVEL – access level to various indications and control functions.

ADDRESSABLE DEVICE – a device included in one of the *fire alarm loops* that has its own address for communication with the fire control panel. An addressable device can be a fire detector (automatic or manual call point), a conventional line-monitoring module or an input/output module.

ADDRESSABLE OUTPUT – potential or relay output of an addressable executive device included in *fire alarm loops*. The executive device can be power supplied from the *fire alarm loop* or from the *power supply loop*.

ASSOCIATED OUTPUT – *addressable monitored or relay output*, user programmed to react upon Fire condition (separately upon *Fire condition I* and *Fire condition II*) via selected *fire alarm zone*.

COINCIDENCE MODE– mode of operation of the fire alarm zones, that requires activation of at least two automatic fire detectors in a zone so the fire control panel is able to enter *Fire condition*, phase *Fire condition stage I*, in this particular zone (see section 6.3).

DEVICE REMOVED – *non-fatal fault condition* due to removed device (addressable fire detector of a specific zone and/or addressable executive device).

DISABLED ADDRESSABLE/MONITORED OUTPUT – *the addressable/ monitored output* is switched off (the executive device can not be activated) and is not monitored for a fault condition. This feature is user defined. The indication for a disabled addressable/monitored output is common light indication and text messages on the LCD display.

DISABLED DEVICE – the addressable device (a fire detector) is switched off and is not monitored for a fault condition. This feature is user defined. The indication for a disabled device is common light indication and text messages on the LCD display

DISABLED ZONE – a *zone* that is not controlled for activated fire detectors and fault condition. This condition is user defined. The indication for a disabled zone is common light indication and text messages on the LCD display.

FATAL FAULT CONDITION – fault condition that prevents the fire control panel from continuing its operation. The indication is common light indication, local sound indication and text messages on the LCD display.

FIRE ALARM LOOP (further on it will be referred as LOOP) – automatic fire detectors and addressable manual call points and addressable executive devices, physically connected by the means of two-wire connection. The basic configuration of IFS 7002 includes two fire alarm loops; a maximum of 125 devices (addressable fire detectors and/or addressable executive devices) can be integrated into each loop.

FIRE ALARM ZONE (further on it will be referred as ZONE) – logical unification of automatic fire detectors and addressable manual call points, physically allocated in fire alarm loops on random principle. Interactive Fire Control Panel IFS7002 allows for formation of a maximum of 250 zones. Up to 60 fire detectors can be integrated in each zone.

FIRE CONDITION STAGE I – phase 1 of Fire condition; upon activation of automatic fire detector the fire control panel enters Fire condition until the specified time expires. The common and local light indicators, local sound signaling and a text message displayed on the LCD display indicate the phase.

FIRE CONDITION STAGE II – phase 2 of Fire condition; the fire control panel enters Fire condition stage II when: a) the time for *Fire condition stage I* has expired or b) upon activation of a manual call point. The common light indicators, local sound signaling and a text message displayed on the LCD display indicate the phase.

GROUNDS – *non-fatal fault condition*, due to leakage to a grounded wire.

INSPECTION TIME – period of time added to the remaining time, before the system proceeds from *Fire condition stage I* to *Fire condition stage II*, when button  is pressed. Usually, this period of time is long enough for the authorized personnel to check up the indicated premises. The inspection time is user defined and is specified for each *zone*.

INTERRUPTED LOOP OR MONITORED OUTPUT – *non-fatal fault condition* due to current value in a *loop* or in *monitored output* lower than the threshold value. The user shall define the threshold value separately for each loop.

LOCAL SOUNDER – a sounder built-in the fire control panel.

LOW BATTERY – *fatal fault condition* due to full discharge of the backup batteries upon interrupted power supply.

MONITORED OUTPUT – a potential output that monitors the serviceability of the connection wires between the fire control panel and the executive device. Follow the special diagram for connection.

NON-FATAL FAULT CONDITION – fault condition that allows the fire control panel to continue operation. The indication is common light indication, local sound indication and text messages on the LCD display.

POWER LOOP – a two-wire connection supplying power to addressable executive devices in case their consumption exceeds the load carrying capacity of the fire alarm loops, which they have been integrated into. IFS7002 has 1 power loop, its load carrying capacity is 1000 mA.

PROCEEDING FROM FIRE CONDITION STAGE I TO FIRE CONDITION STAGE II – the time is user defined for each *zone* separately. During the phase *Fire condition stage I* the remaining time for the selected fire alarm line is indicated on the LCD display. During the remaining time actions can be taken, for example press  or  .

RELAY OUTPUT – a relay, potential-free switching outputs provided for controlling external executive devices.

SHORT CIRCUIT IN A LOOP – *non-fatal fault condition*, entered due to registered current value in a *loop*, exceeding a threshold value. The threshold value for each loop shall be user defined.

SHORT CIRCUIT IN A MONITORED OUTPUT – *non-fatal fault condition*, entered due to registered current value in a *monitored output*, exceeding a threshold value.

SYSTEM ERROR – *fatal fault condition* due to a fault in system's basic component

SYSTEM OPERATION – the fire control panel executes internal operations to set its registers. This is visualized on the LCD display with a text message for system operations, before the user is allowed to proceed with his work with IFS7002.

ZONE IN TEST – *a zone* set in Test condition by the user. The zone is reset (the fire detectors in fire condition receive a command to clear the condition) periodically every 60 s. The events registered in a zone in Test condition are not saved in the archive and do not trigger the associated outputs or the light and sound signalling. The indication for a zone in Test condition is common light indication.

3. Function

Interactive Fire Control Panel IFS7002 is designed to operate with addressable automatic fire detectors and manual call points. It controls addressable executive devices integrated into fire alarm loops. The addressable executive devices can be power supplied from the fire alarm loop or from a power loop. The panel has outputs provided for integration of external executive devices.

4. Technical data

4.1. Physical configuration
- 2 fire alarm loops
- 1 power loop
- 2 monitored outputs
- 2 relay outputs for fire condition
- 1 relay output for fault conditions

4.2. Fire alarm zones
- Maximum number of zones - 250
- Maximum number of fire detectors in a zone - 60

4.3. Fire alarm loops
- Maximum number of fire detectors in a loop - 125
- Connecting line - two-wire shielded
- Maximum resistance of a loop - 100Ω
- Output resistance of a loop - 20Ω
- Maximum consumption of a loop - 120mA

4.4. Power loop
- Connecting line - two-wire
- Maximum resistance of the loop - 10Ω
- Output resistance of the loop - 2Ω
- Maximum consumption of the loop - 1A

4.5. Monitored outputs
- Type - potential
- Electrical characteristics - (24±5)V/100mA

4.6. Relay outputs for fire conditions
- Type - potential free, switching,
- Electrical characteristics - 3A/125VAC; 3A/30VDC

4.7. Relay output for fault conditions
- Type - potential free, switching
- Electrical characteristics - 3A/125VAC; 3A/30VDC

4.8. Performance
- Control over fire alarm loops and monitored outputs for fault conditions (short circuit and interruption) and automatic reset
- Detection of removed devices in the loops and automatic reset
- Ability to set the zones in Coincidence Mode
- Two phases of Fire condition, programmable time for Fire condition stage I, separately for each zone
- Option to prolong the time period for Fire condition stage I with programmable inspection period, specified for each zone
- Built-in sounder for fire condition – one tonal, discontinuous, can be switched off
- Built-in sounder for fault condition – one tonal, discontinuous, can be switched off
- Built-in real time clock
- Set of test modes and options for adjustment:
  - Setting the clock;
  - Check ups on light and sound indications;
  - Test of fire alarm zones;
  - Adjustment of outputs and integrated external devices;
  - Programming of parameters and modes of operation;
  - Remote programming of the parameters from distant operator control point;
- Energy independent archive of registered events with the events type, date and hour – up to 1023 events;
- Interfaces for communication with external devices - CAN 2.0B and RS-232 (directly or via modem).

4.9. Indications of registered events
- Light indication - LED
- Text messages - LCD display, 320 x 240 points, backlit
- Sound signaling - built-in sounder

4.10. Power supply

4.10.1. Mains
- voltage - 220/230V
- frequency - 50Hz

4.10.2. Back up batteries
- battery type - lead, gel electrolyte
- number of batteries - 2 pcs
- connection - serial connection
- nominal voltage of the back up battery - 24V
- nominal capacity C_{20} - 18Ah
- extreme discharge voltage - 21V
- charge voltage - 28,2V

4.10.3. Consumption on back up batteries supply
- at 24V - < 250mA
- at 26V - < 240mA

4.10.4. Power supply to external devices

- Voltage - (24±5)V
- Maximum current value (including current of monitored outputs and power loop) - 1,5A

4.11. Dimensions

- Overall dimensions - 480x445x100mm

4.12. Weight

- Weight (batteries not included) - 7,1kg

5. Contents of delivery

- Fire control panel IFS7002 - 1 pc
- Resistors 5,6kΩ/ 0,25W - 2 pcs
- Jumper for the backup batteries - 1 pc
- Fuse 4A - 2 pcs
- Instruction manual - 1 pc
- Instructions for authorized staff - 1 pc
- Packing - 1 pc

6. General information

6.1. Access levels

4 levels of access to the variable indications and control functions of IFS7002 are available.

6.1.1. Access Level 1

All persons who would presumably find out and react to alarm upon fault condition or fire condition have access to level 1.

The following actions are accessible:

- Displaying suppressed messages for Fire condition, Fault condition, Disabled components and Zone in test (see sections 8, 12.2.1, 12.2.2 and 12.2.3);
- Entering inspection time period (see section 8.3.1);
- Forced proceeding from phase Fire condition stage I to phase Fire condition stage II (see section **8**);
- Suppressing the local sounder (see sections 8 and 9);
- Displaying program data for the fire control panel (see sections 12.2.4 to 12.2.7 and 12.2.9);
- Displaying the status of the addressable devices in the loops (see section 12.2.8);
- Displaying the archive (see section 12.2.10).

All light indicators are visible.

6.1.2. Access Level 2

The personnel in charge of the fire protection have access to level 2; they shall be authorized and trained to operate the fire control panel in the following conditions:

- Duty Mode;
- Fire condition;
- Fault condition;
- Disabled component;
- Information and adjustment.

To enter Access level 2 use your password.

The following features of the fire control panel are accessible:

- All features accessible at Level 1;
- Switching off the outputs, activated upon fire condition (see section 8);
- Exit of Fire condition (see section 8);
- System functions of the fire control panel (see section 12.3).

6.1.3. Access Level 3

Accessible for personnel trained and authorized for:

- Reconfiguration of specific data – of the protected site or of the fire control panel – saved in the memory;
- Maintenance of the fire control panel.

This level has two sublevels of access - 3A and 3B.

Level 3, sublevel 3A, is accessed through a password entered at Access level 2. At this sublevel the functions for reconfiguration of specific data for the protected site or the fire control panel are accessible (see section 13).

Level 3, sublevel 3B is accessed when the fire control panel is opened. The following features are accessible:

- Replacing a burnt fuse;
- Connecting fire alarm loops and executive devices.

6.1.4. Access Level 4

Accessible for personnel trained and authorized by the Producer to repair the fire control panel and to modify the software. Special means are required to enter this level.

6.2. Indications and buttons for control

Table 1 gives detail description of the indications for each status, Table 2 presents the basic means for control. Appendix 1 shows the front panel of IFS7002.

Table 1

Conditions of the fire control panel	Indication
All conditions - The fire control panel is power supplied	 Indicator *Power supply* – continuous green light
Fire condition	 Common indicator *Fire condition* – flashing red light
Fault condition - All faults except for *Battery Low*	 Common indicator *Fault condition* – flashing yellow light
Fault condition – System error	 Indicator *System error* - continuous yellow light
Fault condition - Fault in mains supply	 Indicator *Fault in mains supply* - flashing yellow light
Disabled component - Disabled zone, addressable device or monitored output	 Indicator *Disabled component* - continuous yellow light
Test condition	 Indicator *Test* – continuous yellow light
Fire condition	Local sounder – discontinuous signal: 0.5 s sound, followed by 0.5s break
Fault condition - All faults except for *Battery Low*	Local sounder – discontinuous signal: 1 s sound, followed by 1 s break
Fault condition - Low battery	Local sounder – discontinuous signal: 1 s sound, followed by 3 s break

Table 2

Means of control	Condition of the fire control panel	Access level	Operation
Button *Reset Fire* 	Fire condition	Level 2	To exit the Fire condition
Button *Outputs*  (no suppressed outputs) or  (suppressed outputs)	Fire condition, phase *Fire condition stage I*	Level 1	To force transition *from Fire condition stage I* to *Fire condition stage II*
	Fire condition, phase *Fire condition stage I*	Level 2	- upon activated outputs for fire condition – to suppress the outputs; - if no outputs for fire condition are activated - to force transition to phase Fire condition stage II
	Fire condition, phase *Fire condition stage II*	Level 2	- upon activated outputs for fire condition – to suppress the outputs - if no outputs for fire condition are activated – to activate all suppressed outputs
Button *Inspection* 	Fire condition, phase *Fire condition stage I*	Levels 1 and 2	To add time period for inspection
Button *Stop Alarm* 	Fire condition and Fault condition (with the exception of Fatal Fault Condition)	Levels 1 and 2	To suppress the local sounder
Button *Menu* 	Duty mode, Fire condition, Fault condition (with the exception of Fatal Fault Condition) Test mode and Disabled component	Level 1	To enter Information and Control mode
Button *Enter* 	Information and Control Mode	Level 1	To enter a selected menu
	Information and Control Mode	Level 2	- To enter a selected menu; - To execute a selected command; - To save a modified parameter
	SetUp Mode	Level 3A	
Button *Down* 	Information and Control Mode	Levels 1 and 2	To display the next element of the menu
	SetUp Mode	Level 3A	
Button *Up* 	Information and Control Mode	Levels 1 and 2	To display the previous element of the menu
	SetUp Mode	Level 3A	
Button *Exit* 	Information and Control Mode	Levels 1 and 2	To exit Information and Control Mode
	SetUp Mode	Level 3A	To exit SetUp Mode and reset the system

Means of control	Condition of the fire control panel	Access level	Operation
Button *Cancel* ←	Information and Control Mode	Levels 1 and 2	- To exit a function without saving changes in the parameter; the command will not be executed; - To exit the current menu and to move to an upper hierarchy menu
	SetUp Mode	Level 3A	
Button *Change* ↔	Information and Control Mode	Levels 1 and 2	To change an element to its next permissible
	SetUp Mode	Level 3A	
Button *Move down* ▼	Fire condition and Information and Control Mode	Levels 1 and 2	Next element (if any are available) from the left window
	SetUp Mode	Level 3A	
Button *Move up* ▲	Fire condition and Information and Control Mode	Levels 1 and 2	Previous element (if any are available) from the left window
	SetUp Mode	Level 3A	
Button *Page down* »	Information and Control Mode	Level 1	Next page from the left window
Button *Page up* «	Information and Control Mode	Level 1	Previous page from the left window
Button *To the right* ▶	Information and Control Mode	Levels 1 and 2	- To move the cursor one position to the right; - Next element (if any are available) from the left window
	SetUp Mode	Level 3A	To move the cursor one position to the right
Button *To the left* ◀	Information and Control Mode	Levels 1 and 2	- To move the cursor one position to the left; - Next element (if any are available) from the left window
	SetUp Mode	Level 3A	To move the cursor one position to the left
Button *Clear* C	Information and Control Mode	Levels 1 and 2	To delete a character pointed by the cursor (if no character is pointed, the first character to the left of the cursor will be deleted)
	SetUp Mode	Level 3A	
Buttons with digits, characters and symbols	Information and Control Mode	Levels 1 and 2	To insert a character/symbol to the left of the cursor
	SetUp Mode	Level 3A	

6.3. Zone in Coincidence Mode

Coincidence Mode allows for enhanced certainty that a zone has entered Fire condition, phase Fire condition stage I. The mode requires that at least two fire detectors from this zone shall be activated to trigger Fire condition, phase Fire condition stage I in the fire control panel.

The Coincidence Mode is not applicable to manual call points. If a manual call point, included in a zone set to Coincidence Mode, responds, the fire control panel enters Fire condition, phase Fire condition stage II in this particular zone.

Upon activation of an automatic fire detector from a zone set to Coincidence Mode, but the fire control panel has not entered Fire condition in this zone, then:

- If no other automatic fire detector is activated, the zone enters Pre-Fire condition;
- If another automatic fire detector is activated, i.e. the zone is in Pre-Fire condition, then the fire control panel enters Fire condition, phase Fire condition stage I, in this particular zone.

Exit from Pre-Fire condition in a zone is done automatically only:

- Upon activation of a second automatic fire detector in the zone within 60 s from the Pre-Fire condition (the fire control panel enters Fire condition, phase Fire condition stage I, in this particular zone);
- Upon activation of a manual call point in the zone, within 60 s from the Pre-Fire condition (the fire control panel enters Fire condition, phase Fire condition stage II, in this particular zone)
- Where the 60 s of Pre-Fire condition expire and neither of the above mentioned two conditions is carried out (the first activated fire detector then receives a command to reset the fire condition).

To set a zone in Coincidence Mode you need to appoint the parameter Coincidence Mode for this zone (see section 13.5.3).

While using the Coincidence Mode in a zone, we recommend you to include just one group of automatic fire detectors (minimum 2 fire detectors) in this zone, allocated in one and the same room, so upon activation of any two fire detectors you obtain a firm indication for fire in the room.

6.4. Operation of the fire control panel

When IFS7002 is switched on, reset of the system devices and initialization of the addressable devices integrated in the loops are being done – addressable devices parameters (address, identification number, type and class) are being verified against these saved in the energy independent memory of the fire control panel. A text message -*System operations* - is displayed on the LCD.

Upon completion of the system operations the fire control panel enters operation mode – it monitors the addressable devices (automatic fire detectors, manual call points and executive devices) by consecutively scanning their condition. Simultaneously, a constant control over the loops, the monitored outputs and the voltage for fault conditions is being carried out.

The fire control panel IFS7002 operates in eight basic modes: Duty Mode, Fire Condition, Fault Condition, Disabled Component Mode, Test Mode, Information and Control Mode, SetUp Mode and Remote Control Mode.

Duty Mode, SetUp Mode and Remote Control Mode can not be combined with another mode:

- the fire control panel enters Duty Mode after all other conditions are exited;
- when the fire control panel enters SetUp Mode or Remote Control Mode it exits all other conditions.

When the fire control panel is in Fire condition or in Fault condition or in a combination of one of these, the lighting of the display is constantly on, until you press button *Stop alarm*  (with the exception of these fault conditions – *Battery low*, discharged batteries due to interruption of mains supply, and *Fault in mains supply*). Upon *Battery low* the lighting of the display is constantly off. In all other cases the lighting is extinguished 3 min after the last pressing of any button on the display.

Up to 250 fire alarm zones can be formed in IFS7002. Except for these zones the fire control panel supports two additional zones:

- Service zone (Zone 0) – here addressable devices which location in the loop can not be detected synonymously are integrated;
- Zone 255 – here addressable devices not included or that can not be included in a fire alarm zone (addressable output and input devices) are integrated.

When a removed addressable device is replaced in a loop, the fire control panel runs initialization once again and verifies its parameters (previous address, identification number, type and class) against these saved in the energy independent memory. While this operation is being executed, the text message *ReInitialization* appears on the display.

Depending on the result of the verification, the fire control panel would execute the following operations:

a) if the fire control panel is able to synonymously detect the location of a device in a loop and to verify its parameters against these saved in the energy independent memory:
   - ♦ the device is placed in service with its previous address in the loop;
   - ♦ the fault *Removed device* is cleared;

b) if the fire control panel is able to synonymously detect the location of a device in a loop, but the device's parameters do not conform with these saved in the energy independent memory:
   - ♦ the device is placed in service with an address, corresponding to device's location in the loop;
   - ♦ a fault condition due to incompliance with identification number, type or class is added;
   - ♦ the device is included in the Service zone;

c) if the fire control panel is not able to synonymously detect the location of a device in a loop (two or more serial devices forming an area are removed, but only some replaced):
   - ♦ the device is placed in service with the first available address from the corresponding area in the loop;
   - ♦ a fault is added, *Device not initialized*;
   - ♦ the device is included in the Service zone.

When the last device for *Removed devices* area is placed, the fire control panel will synonymously detect their location. For the last placed device the fire control panel will run operations a) or b). For previously placed devices the fire control panel will run the following operations:

d) if the fire control panel detects compliance of parameters with these saved in the energy independent memory:
   - ♦ the device is placed in service with its previous address in the loop;
   - ♦ the faults *Removed device* and *Device not initialized* are cleared;
   - ♦ the device is excluded from the Service zone;

e) if the fire control panel detects incompliance of parameters with these saved in the energy independent memory:
   - ♦ the device is placed in service with an address, corresponding to device's location in the loop;
   - ♦ a fault condition due to incompliance with identification number, type or class is added;
   - ♦ the device remains in the Service zone.

In cases b), c) and e) the following actions can be taken:

- if any devices seemed to be involuntarily exchanged, they shall be placed on the proper locations;
- the device can be excluded from the Service zone by using the Menu *Readdressing* (see section 13.7.3) and setting the proper address;
- to save the new loop configuration by using the Function *Clean initialization* (see section 13.7.2).

When a new addressable device (exceeding the number of addressable devices in the loop), the fire control panel sets a temporary address for this device (the text message *Reinitialization* appears on the lower end of the display) but ignores the device during further operation. To include the device in the loop configuration you need to start the Function *Clean initialization* (see section 13.7.2).

7. Duty Mode

7.1. Description

The fire control panel is in Duty Mode, when it is not in any other of the rest 7 possible conditions.

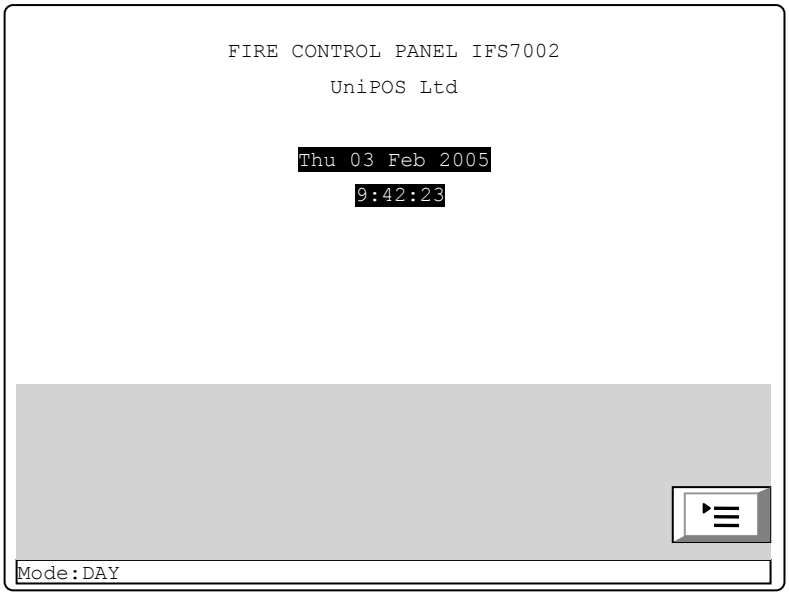
7.2. Indication

7.2.1. LED and sound indication

In Duty Mode the green LED indicator is activated  (Power supply). The local sounder is off.

7.2.2. Text message

The display shows the logo of the company-producer, information on the current local time and the mode of operation of the fire control panel (DAY or NIGHT):



7.3. Using the keypad

The only accessible button in Duty Mode is (Menu). Press it and the fire control panel enters Information and Control Mode.

8. Fire condition

8.1. Description

The fire control panel enters Fire Condition after a fire detector has been activated in one of the fire alarm zones. In Mode:DAY the condition has two phases – *Fire condition stage I* and *Fire condition stage II*. The time period for *Fire condition stage I* is limited and is user programmable, separately for each zone (up to 255 seconds). The period can be prolonged with the Inspection time (see section 8.3.1). When *Fire condition stage I* in this particular zone expires, the fire control panel enters *Fire condition stage II* in the same zone.

The fire control panel enters *Fire condition stage I* upon activation of an automatic fire detector and *Fire condition stage II* - upon activation of a manual call point.

In Night Mode the phase *Fire condition stage I* is ignored. The fire control panel enters Fire condition, phase *Fire condition stage II* upon activation of a manual call point or of an automatic fire detector. The fire control panel can be in Fire Condition in one or more zones. In the second case, when in Mode:DAY, the fire control panel can be in phase *Fire condition stage I* in part of the zones, and in phase *Fire condition stage II* in the rest of the zones.

To exit this condition press button at Access level 2 (see section 8.3.4).

8.2. Indication

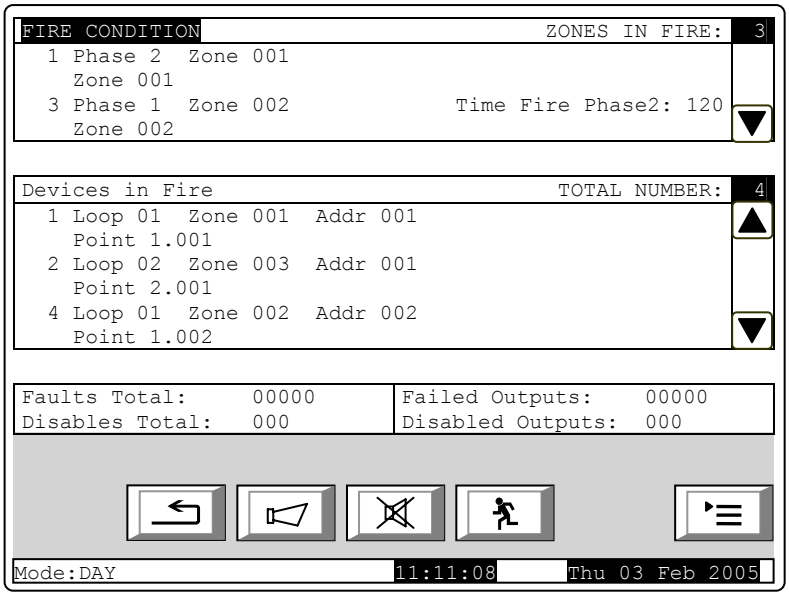
8.2.1. LED and sound indication

In this condition the common light indicator illuminates in red flashing light (Fire condition).

The local sounder produces discontinuous signal (0,5s sound, 0,5s break), if the device has not been suppressed by button (Stop Alarm).

8.2.2. Text messages

Information on zones for which the fire control panel has detected Fire condition is displayed:



For this condition the display is divided into three panels.

The first panel (the upper one) displays information on zones in fire condition. A flashing heading with the text FIRE and the total number of zones in fire condition appear. The panel is subdivided into two text fields, each providing two lines. The first line displays information on the first zone in fire condition, the second line provides information on the last zone in fire condition.

The first line of each field provides information on the type of the fire condition:

- the sequence number of the indicated fire condition;
- the phase of Fire condition detected by the fire control panel in this particular zone;
- the zone number;
- the remaining time in seconds before the fire control panel proceeds to phase *Fire condition stage II* (indicated only in *Fire condition stage I*).

The second line of each field displays a text message for the corresponding zone. If the fire control panel has entered Fire condition in more than two zones, the rest of the text messages for fire condition are suppressed. They can be displayed in the upper field by pressing the buttons on the right side (see section 8.3.5.1).

The second panel (the middle one) provides information on devices in fire condition. In the head part is displayed the total number of devices in fire condition. The panel itself is subdivided into three text fields, each providing two lines. The upper two-line field displays information on the first device that has detected fire condition; the middle two-line field displays information on the second device in fire condition, the bottom two-line field – information on the last device.

The first line of each field provides information on the device:

- the sequence number of the device in fire condition;
- the fire alarm loop where the device is integrated into;
- the zone number;
- the device address in the fire alarm loop.

The second line of each field displays text messages relevant to this particular device.

If more than three devices are activated due to fire condition, the rest of the messages are suppressed. However, they can be displayed in the upper fields, by pressing the buttons on the right side (see section 8.3.5.2).

The third panel (the bottom one) displays information on the numbers of faults and disables – total number and for the outputs (monitored outputs and addressable output devices).

8.3. Using the keypad

8.3.1. Button  (Inspection)

The button appears on the display when the fire control panel enters phase *Fire condition stage I* in a new zone; it is extinguished if pressed or if all zones in Fire condition proceed to phase *Fire condition stage II*.

When you press the Inspection button, the remaining time for the zones in *Fire condition stage I* after which they proceed to *Fire condition stage II*, is prolonged with user programmed inspection time for each particular zone. The operation can be performed only once for each zone in *Fire condition*

stage I, i.e. it is executed for zones where the remaining time has not already been prolonged with inspection time.

8.3.2. Button (Stop Alarm)

The button appears on the display when the fire control panel enters Fire condition in a new zone or upon registration of a new fault condition; it is extinguished if pressed or if the local sound signaling is suspended (fault conditions suspended and/or the fire control panel exits Fire condition).

Press it to turn off the local sounder.

Button's operation does not effect and is not cancelled by the following events:

- When the fire control panel enters Fire condition in a new zone or proceeds from *Fire condition stage I* to *Fire condition stage II*, the local sounder is activated for Fire condition only.
- A new fault condition will trigger the local sounder for Fault condition only.

8.3.3. Button (Outputs)

The button is displayed when the fire control panel is in Fire condition.

Its operation depends on the current access level and on the status of the fire control panel:

- At Access Level 1 and in the presence of zones in *Fire condition stage I*, press the button to:
  - ♦ force transition to *Fire condition stage II* – where no outputs for fire condition responded;
  - ♦ Suppress activated outputs for fire condition – where outputs for fire condition responded.
- At Access Level 2 and in absence of zones in *Fire condition stage I* (i.e. the fire control panel is in phase *Fire condition stage II* only), press the button to:
  - ♦ Suppress activated outputs for fire condition – where outputs for fire condition responded;
  - ♦ Activate suppressed outputs - where no outputs for fire condition responded.

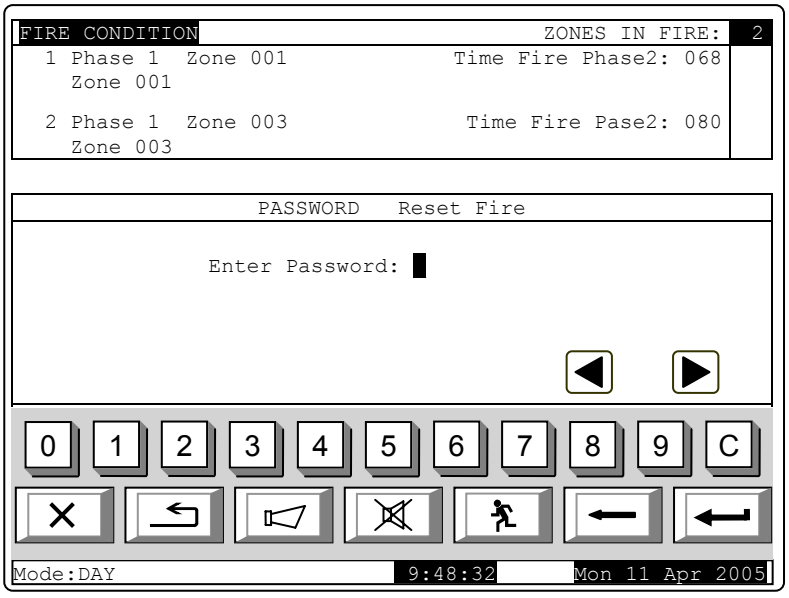
If outputs for fire condition are suppressed, the button appears with the following graphics .

8.3.4. Button (Reset Fire)

The button appears on the display when the fire control panel is in Fire condition and is provided to force the exit from Fire condition, at Access Level 2.

8.3.4.1. Access Level 1

Press the button at Access Level 1 to display a screen provided for password entry:



To enter a password use the buttons with digits – press a digit and it appears on the place of the cursor„ ”, and the previous text and the cursor itself move one position to the right. Move the cursor to the left or to the right, using buttons and . Button C will delete:

- Any digit under the cursor;
- Or, if there is no digit under the cursor, then will be deleted the first digit to the left.

The length of the password can be 10 symbols maximum. If you press a digit button when the 10-symbol password is entered, the digit will not be inserted.

The operation of button  is:

- If a wrong password is entered – the entered digits will be deleted and the cursor will appear over the password's first position;
- If one of the 10 passwords for Access Level 2 or the password for Access Level 3 is entered:
  - The fire control panel will exit the Fire condition;
  - The fire control panel will exit Information and Control Mode if it was in a combination of Fire condition and Information and Control Mode.

To exit the screen press buttons  (Exit) or  (Cancel). Then, if the fire control panel had been in a combination of Fire condition and Information and Control Mode, it would exit Information and Control Mode.

8.3.4.2. Access Level 2

At Access Level 2 press the button  and the fire control panel will exit Fire condition and Information and Control Mode.

8.3.5. Buttons  (Move down) and  (Move up)

8.3.5.1. Panel for zones in fire condition

Where suppressed messages for zones in fire condition are available they can be displayed in the text fields of the first (upper) panel on the LCD display, by the means of buttons  and  situated in the panel's right section.

Button  appears on the display where a message for a zone in Fire condition following the message in the first text field is suppressed. Press the button to display it. When the last suppressed text message for a zone in Fire condition is reached, the button  disappears.

Button  appears on the display where a message for a zone in Fire condition preceding the message in the first text field is suppressed. Press the button to display it. When the first suppressed text message for a zone in Fire condition is reached, the button  disappears.

If a suppressed message for a zone in Fire condition is displayed, 20 s after the last button is pressed, the message for the first zone in fire condition will be automatically restored.

8.3.5.2. Panel for devices in Fire condition

Where suppressed messages for devices in Fire condition are available, they are displayed in the two text fields of the second (middle) panel, by the meansp of buttons  and  situated in the right part of the panel.

Button  is activated if the numbers of the messages in the second and the third field are not consecutive. When you press the button  you will display the consecutive messages for devices in Fire condition, in the first and second text fields.

Button  is activated if the number of the message in the first text field is higher than 1. When you press the button  you will display the previous messages for devices in Fire condition, in the first and second text fields of the middle panel.

8.3.6. Button  (Menu)

Press the button to enter Information and Control Mode; the mode uses the middle and the bottom panel of the screen for Fire condition.

8.3.7. Button  (Exit)

When Fire condition is in combination with Information and Control Mode, press the button and the fire control panel exits Information and Control Mode and on the display appear all three panels of the screen for Fire condition.

9. Fault Condition

9.1. Description

The fire control panel enters Fault Condition when any of the events below have been registered:

- Fatal system error;
- Battery low – backup batteries discharged due to interruption of mains supply;
- Fault in a processor programme;
- Fault in a module;
- Fault in the real time clock;
- Fault in the external memory;
- Fault in a loop – a short circuit or a break;
- Loop not initialized;
- Higher number of devices in the fire alarm loop;
- Fault in a zone – upon detection of fault condition in a device, integrated in the zone;
- Removed device;
- Fault condition in a device;
- Activated isolator of a device;
- Activated isolator at the Power loop of a device;
- Contaminated fire detector (for optical detectors|;
- Communication error
- Device not initialized (detected new device in a loop);
- Exchanged devices;
- Different identification number of a device,
- Different device type;
- Different device class;
- Fault in a monitored output – short circuit or break;
- Fault in the mains supply;
- Fault in the backup batteries supply;
- Short circuited ground wire;
- Fault in the positive supply of the loops;
- Fault in the negative supply of the loops;
- Fault in external devices supply.

Where a fatal system error occurs, the main processor can not continue operation and the fire control panel does not control loops, outputs and other periphery devices. To exit fatal system error you have to cut off the mains supply and to repair the control panel.

Battery Low is a fatal non-system error; zones and outputs are not being services. The fire control panel enters a special condition:

- A discontinuous sound signal is produced - 1s sound, 3s break for at least 1 hour;
- Only the green LED indicator is illuminated  (Power supply).
- The lighting of the display is extinguished;
- Only the supply voltages are controlled.

The condition is exited automatically 20 s after the mains supply is restored.

All other fault conditions are not fatal and switch off some periphery devices. The condition is exited automatically 20 s after the fault is suspended.

Upon fault condition *Short circuit to ground wire* where an element of a monitored output is short circuited, fault condition in the monitored output (break) is also developed.

Fault condition is indicated by LEDs indicators and a text message on the LCD display.

9.2. Indication

9.2.1. LED and sound indication

Where fatal system errors occur the indicators (Fault condition) and (System error) illuminate in continuous yellow light. The local sounder produces continuous signal.

Upon *Low battery* fault condition no LED indicator is illuminated. The local sounder produces discontinuous signal (1 s sound, followed by 3 s break). The lighting of the LCD display is off.

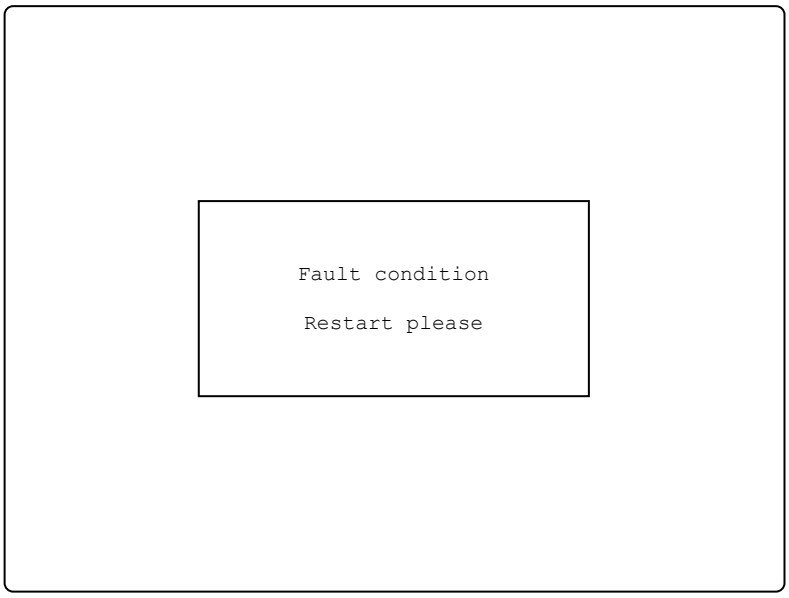
All other fault conditions are designated by indicator (Fault condition), flashing in yellow. Depending on the specific fault, the following indicators are illuminated too:

- Upon *System error* - indicator (System error) is flashing in yellow;
- Upon *Fault in mains supply* - indicator (Fault in mains supply) is flashing in yellow.

The local sounder produces discontinuous signal (1s sound, 1s break), if not previously suppressed by (Stop Alarm) button.

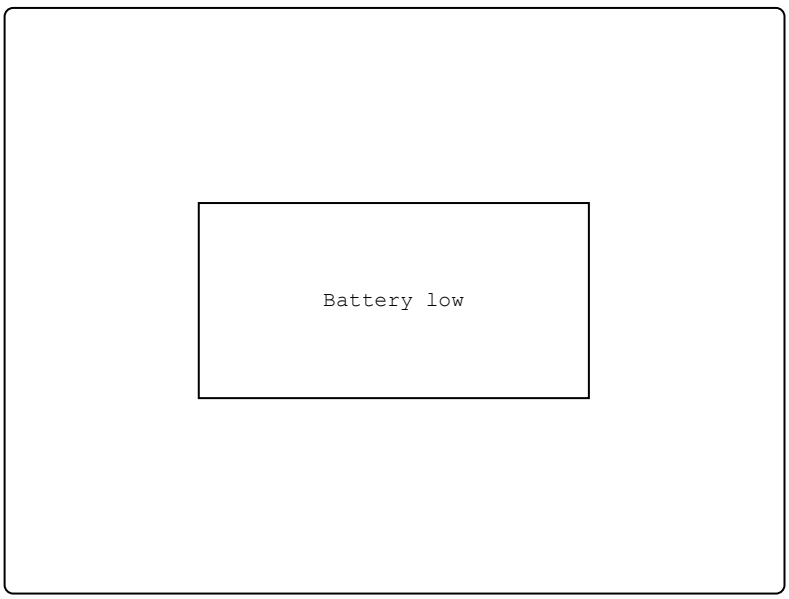
9.2.2. Text messages

Upon fatal system errors the following information screen is displayed (the first line of the text messages is information intended for the service staff):



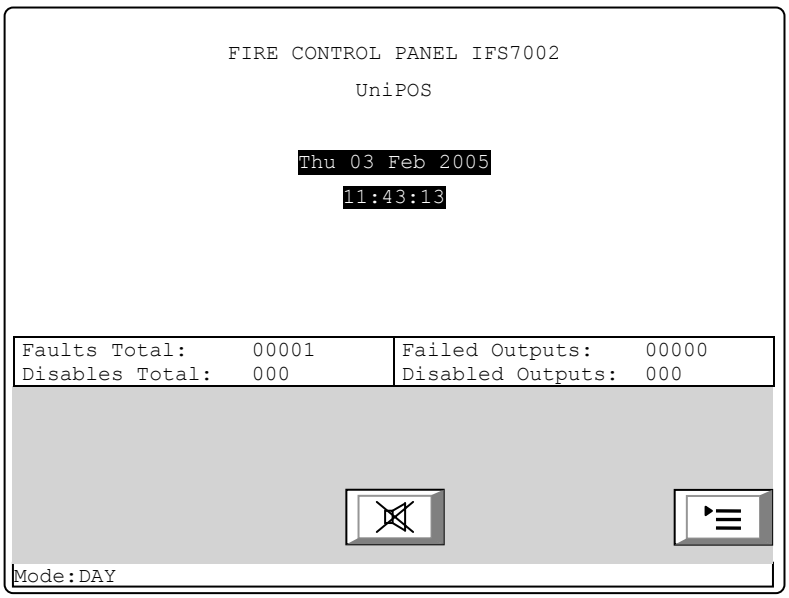
The screen suppresses all other text indications and can not be suppressed.

Upon *Battery Low* condition - full discharge of the backup batteries due to interrupted power supply – the following information screen appears:



The screen suppresses all other text indications, with the exception of *System error* message, and can not be suppressed.

For all other fault conditions a table, containing information on the number of fault events and the number of disabled devices is displayed. The first line of the tables' left column displays the total number of fault conditions; the first line of the table's right column displays only the number of faults in outputs (monitored outputs and addressable output devices):



To display the text message for each fault condition, enter Information and Control Mode (see section 12.2.1).

9.3. Using the keypad

None of the buttons is active upon fatal fault condition. For all other fault condition 2 buttons are being supported. Where the fire control panel operates in combination of other conditions, their buttons are active too.

9.3.1. Button  (Stop Alarm)

The button appears on the LCD display where the fire control panel enters fire condition in a new zone or a new fault condition occurs; it disappears if pressed or if the sound signaling is suspended (fault conditions suspended and/or fire control panel exited fire condition)

Press the button to switch the local sounder off.

The button does not affect and is not influenced by the following events:

- Fire condition in new zone or transition from phase *Fire condition stage I* to *Fire condition stage II* will trigger the local sounder and a signal for fire condition only will be produced;
- New fault condition will trigger the local sounder and a signal for fault condition only will be produced.

9.3.2. Button  (Menu)

Press the button to enter Information and Control Mode.

10. Disabled component

10.1. Description

The fire control panel enters *Disabled component* after a manual operation, disabling a specific component – a fire alarm zone, addressable device or monitored output. The condition is handled via Information and Control screens (see section 12.3.1). A disabled zone is not monitored for activated fire detectors or fault condition. A disabled addressable device is not activated (if it is an executive device) and is not monitored for activation (if it is a fire detector) or fault condition. A disabled monitored output is switched off (the executive device is not able to respond) and is not monitored for fault condition.

Where disabled zones, disabled addressable devices or disabled monitored outputs are available, the LED indication illuminates and the relevant message is displayed

10.2. Indication

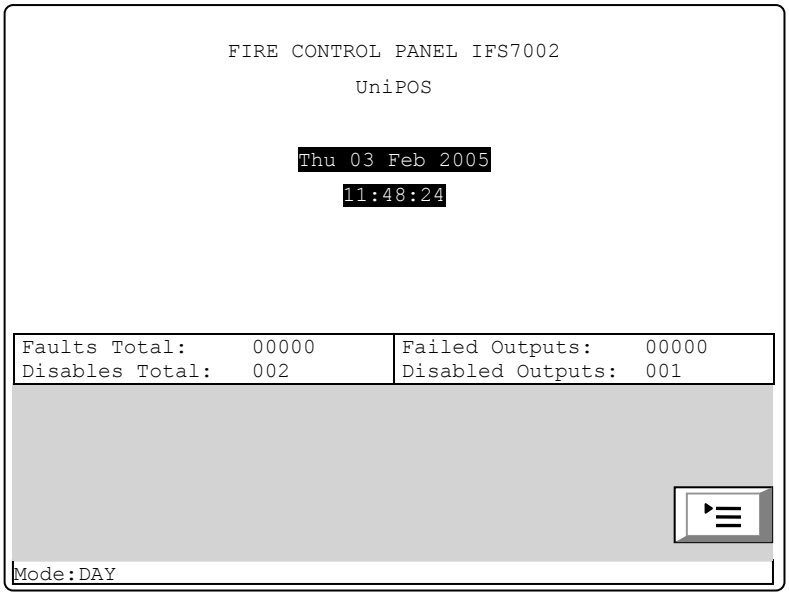
10.2.1. LED and sound indication

The condition is indicated by the Common indicator  (Disabled component) illuminated in continuous yellow light.

No sound signaling is supported for *Disabled component* condition.

10.2.2. Text messages

If a disabled component is available, a table giving information on the total number of disabled devices and faults appears on the LCD display. The second line of the table's left column displays the total number of disabled components; the second line of the table's right column – only the number of disabled outputs (monitored outputs and addressable output devices):



To display the text message for each fault condition, enter Information and Control Mode (see section 12.2.2).

10.3. Using the keypad

For *Disabled component* condition 1 active button is supported. Where the fire control panel operates in combination of other conditions, their buttons are active too.

Press button (Menu) to enter Information and Control Mode.

11. Test Mode

11.1. Description

The fire control panel enters Test Mode through manual operation setting a fire alarm zone to Test Mode. The condition is handled via Information and Control Screens (see section 12.3.2).

Where a fire alarm zone is set to Test Mode, the following changes take effect:

- Where *Fire condition stage I* or *Fire condition stage II* is detected in the zone, sound and LEDs indications, associated addressable, controllable or relay outputs are not triggered; i.e. the fire control panel does not enter Fire Condition;
- Where Fault condition in a zone is registered, (i.e. fault in any device, integrated in the zone), sound and LEDs indications or the relay output for fault condition are not triggered, i.e. the fire control panel does not enter Fault Condition (with the exception of the isolator of a device in the zone, because it would break the integrity of the loop; in this case a fault in the device would be registered, but not fault in the zone);
- Occurred events (with the exception of triggered isolator in the zone) are not saved in the energy independent memory;
- The zone is being automatically reset every 60 s (detectors in fire condition receive a command to reset the fire)

11.2. Indicators

11.2.1. LEDs and sound indicators

The common indicator for Test Condition (Test) illuminates in continuous yellow light. Sound signaling is not supported for this condition.

11.2.2. Text messages

To display the text messages for fire alarm zones in test condition enter Information and Control Mode (see section 12.2.3).

11.3. Using the keypad

For Test Condition 1 active button is supported. Where the fire control panel operates in combination of other conditions, their buttons are active too.

Press the Menu button  to enter Information and Control Mode.

12. Information and Control Mode

12.1. Description

Information and Control Mode provides the user with the possibilities to display information associated with the fire control panel, and to enter control data.

To enter Information and Control Mode, press button  on the screen for Duty Mode, Fire Condition, Fault Condition (with the exception of the screen for fatal error), Test Mode or Disabled component.

No specific LEDs or sound indication is provided for Information and Control Mode.

Where the fire control panel operates in combination of Information and Control Mode and Fault Condition, button  (Stop Alarm) is active too. Where the fire control panel operates in combination of Information and Control Mode and Fire Condition, buttons  (Stop Alarm),  (Outputs) and  (Inspection) are active; and at Access Level 2 is active button  (Reset Fire).

The screens visualized on the display are organized in a tree structure, containing subordinate menus (Appendix 2a). Transition to a lower hierarchy menu is performed by the means of button  (Enter); to revert to an upper hierarchy menu use button  (Cancel). To switch between elements of one menu use buttons  (Up) and  (Down), when the menu is displayed as an ascending window from the bottom left corner of the screen, or use buttons  (Move Up) and  (Move Down), when the menu is displayed as a panel in the middle of the screen. To exit the condition press button  (Exit) or button  (Cancel) until you exit the main menu.

When you enter Information and Control Mode, transition to the first menu is being carried out. The first menu contains three subordinate menus, requiring separate access levels:

- Lists – Access Level 1;
- System functions – Access Level 2;
- SetUp – Access Level 3.

12.2. Menu *Lists*

The menu displays detailed information associated to the current state of the fire control panel and the addressable devices, as well as for the configuration and the setup of the control panel.

Menu *Lists* contains the following subordinate menus and information screens;

- Menu *Faults;*
- Menu *Disables*;
- Menu *Tests;*
- Screen *Panel configuration;*
- Menu *Panel parameters*;
- Menu *Loops*;
- Menu *Zones*;
- Menu *Devices status*;
- Menu *Inputs*;
- Menu *Archive*.

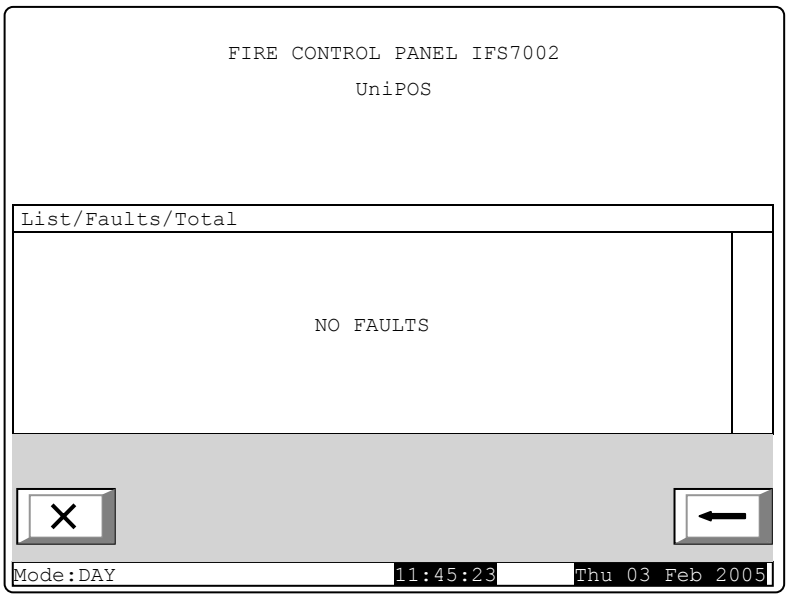
12.2.1. Menu *Faults*

Use the menu to display detailed information for faults in the fire control panel and in addressable devices.

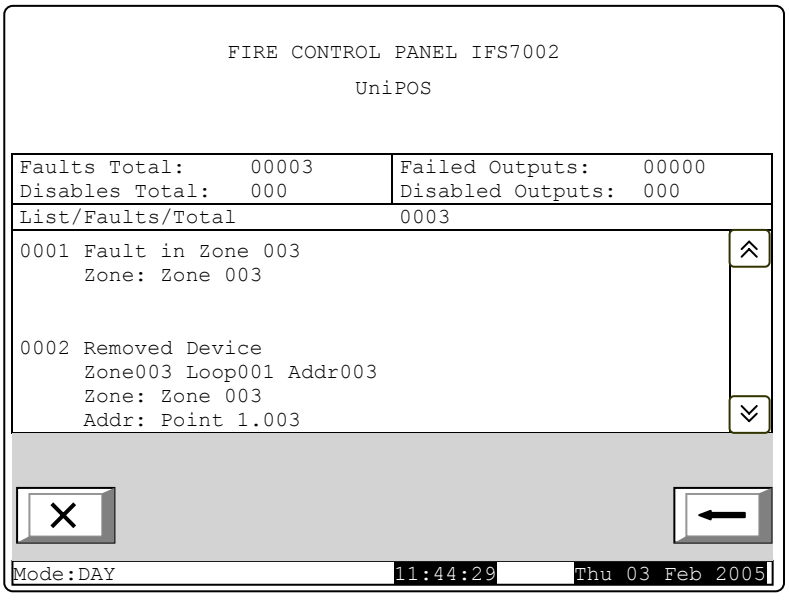
Menu *Faults* contains the following subordinate menus:

- Меню *Total* – displays information for all fault conditions;
- Menu *Zones* – displays information only for zones in fault condition;
- Menu *Devices* – displays information only for devices in fault condition;
- Menu *Outputs* – displays information only for outputs in fault condition (monitored outputs and addressable output devices).

The four subordinate menus have identical layout. If no faults are detected (or no faults of a specific type are detected) the following screen appears:



If faults are detected, the following screen appears:



Each message can be displayed in a few lines – from 1 to 4. It brings out the following information

- Text for the type of the fault – this information is mandatory;
- Information for the device (zone – if the device is fire detector, loop and address) – in case the fault condition is in an addressable device;
- Text message for the zone – visualized if the fault condition is in an addressable fire detector;
- Text message for the device – visualized if the fault condition is in an addressable device.

Buttons and situated in the right panel section scroll the pages up and down – next page or previous page (if any are available). One page contains two messages for fault condition.

12.2.2. Menu *Disables*

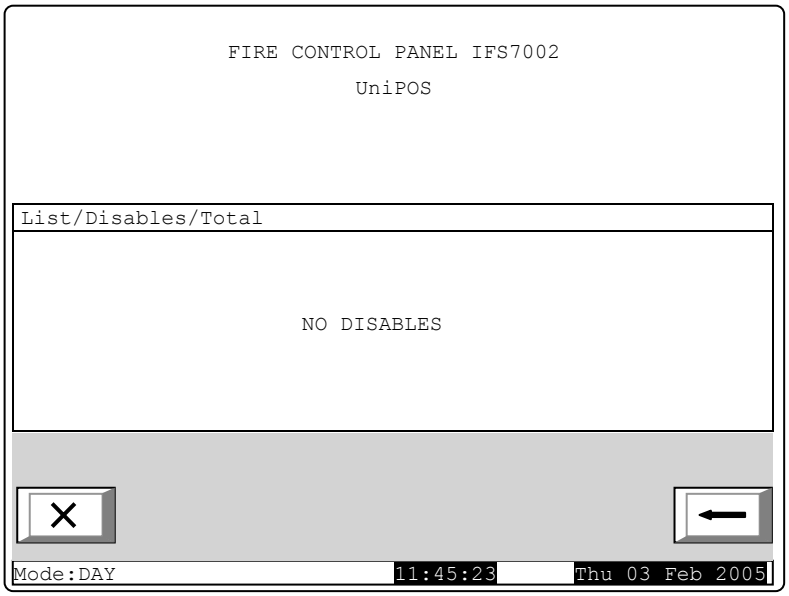
The menu displays detailed information for disabled zones, disabled addressable devices and monitored outputs of the fire control panel.

Menu *Disables* contains the following subordinate menus and screens:

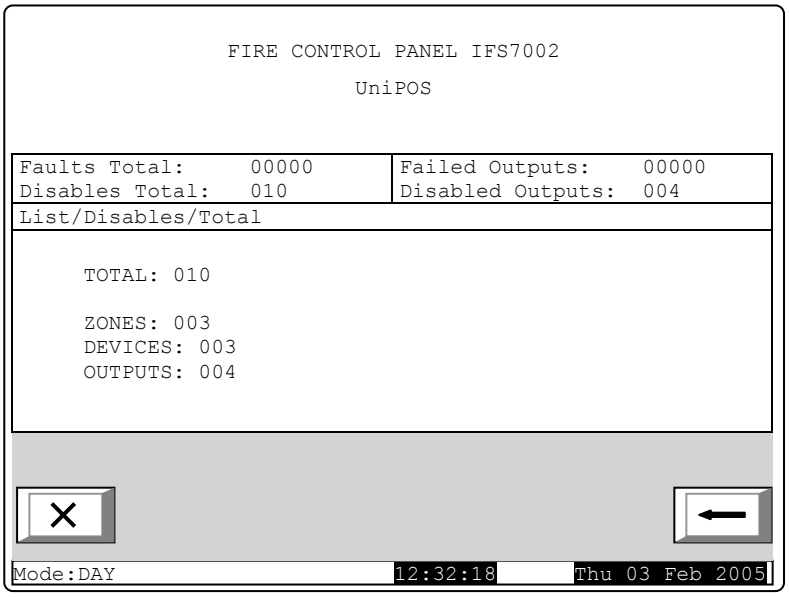
- Screen *Total* – displays information for all disables;
- Menu *Zones* – displays information only for disabled zones;
- Menu *Devices* – displays information only for disabled addressable fire detectors;
- Menu *Outputs* – display information only for disabled outputs (monitored outputs and addressable output devices).

12.2.2.1. Screen *Total*

If no disables are set, the following screen appears:



Screen *Total* has the following layout:

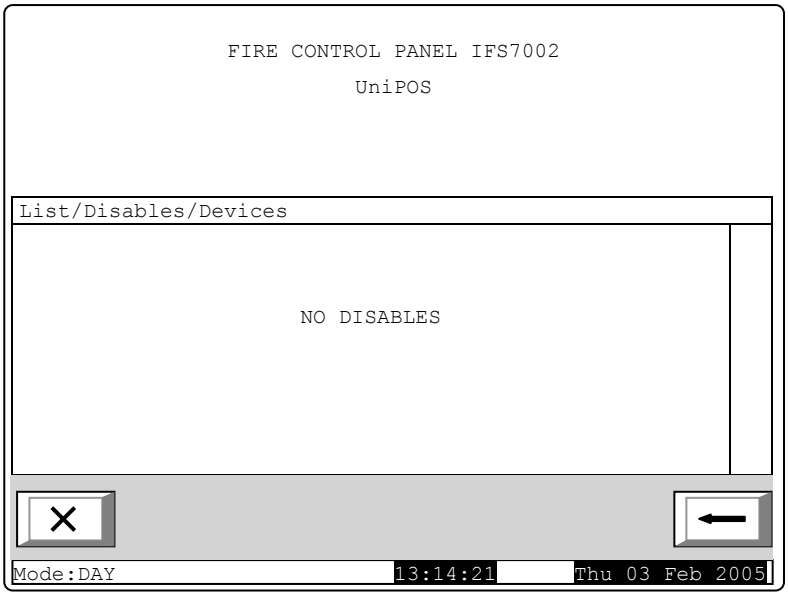


It brings information out for:

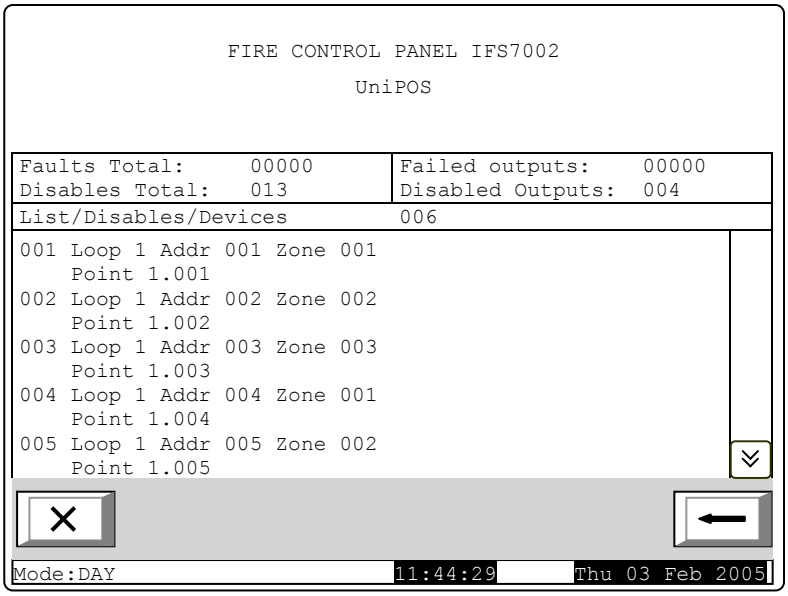
- Total number of disables;
- Number of disabled zones;
- Number of disabled detectors;
- Number of disabled outputs (monitored outputs and addressable output devices).

12.2.2.2. Menus *Zones, Devices* and *Outputs*

The three subordinate menus have identical layout. If disables of certain type are not available, the following screen appears:



If disables are available, the screen is:



Each message is displayed in two lines.

Menu *Zones* displays:

- The zone number;
- Text message for the zone.

Menu *Devices* displays:

- Information for the device – loop, address and zone;
- Text message for the device.

Menu *Outputs* displays:

- Information for the device
  - For monitored outputs – number of the monitored output;
  - For addressable output devices – loop and address;
- Text message for the device – for addressable output devices only.

Buttons [»] and [«] situated in the right panel section scroll the pages up and down and allow displaying next page or previous page. Each page contains 5 messages for disables. Button [»] appears on the screen if next page is available; button [«] appears on the screen if previous page is available.

12.2.3. Menu *Zones in Test*

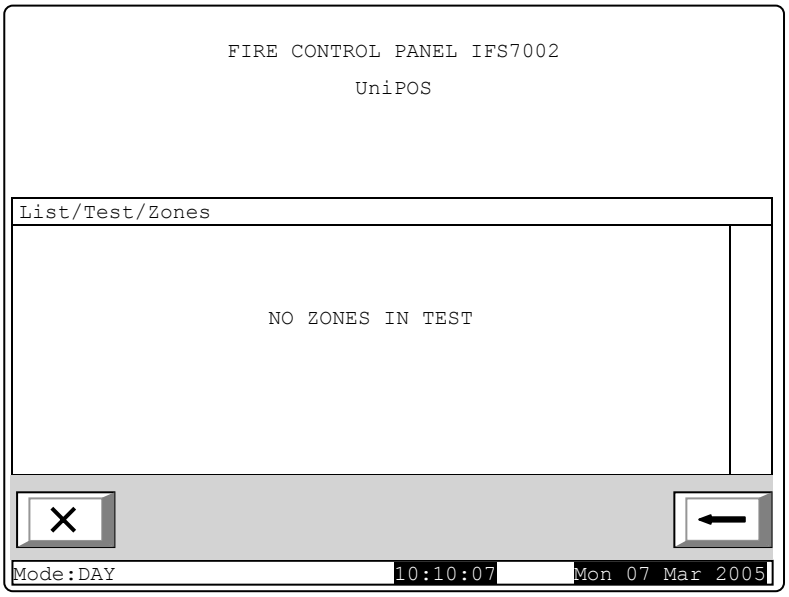
The menu is provides detailed information for zones set to Test Mode.

Menu *Zones in Test* contains the following subordinate menus:

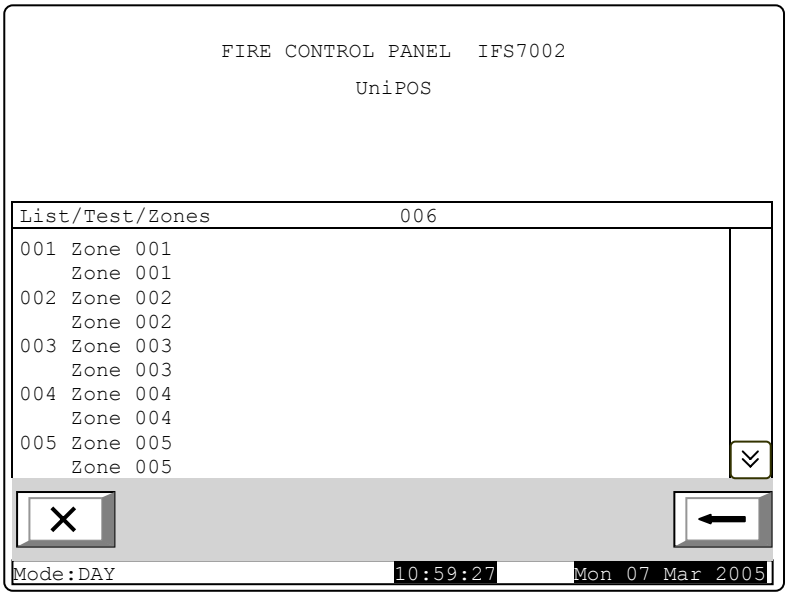
- Menu *Zones* – brings out information for zones set to Test Mode;
- Меню *Zone Status* – brings out information for the status of zones set to Test Mode.

12.2.3.1. Menu *Zones*

If no zones are set to Test Mode the following screen appears:



Where zones set to Test Mode are available, the following screen appears:



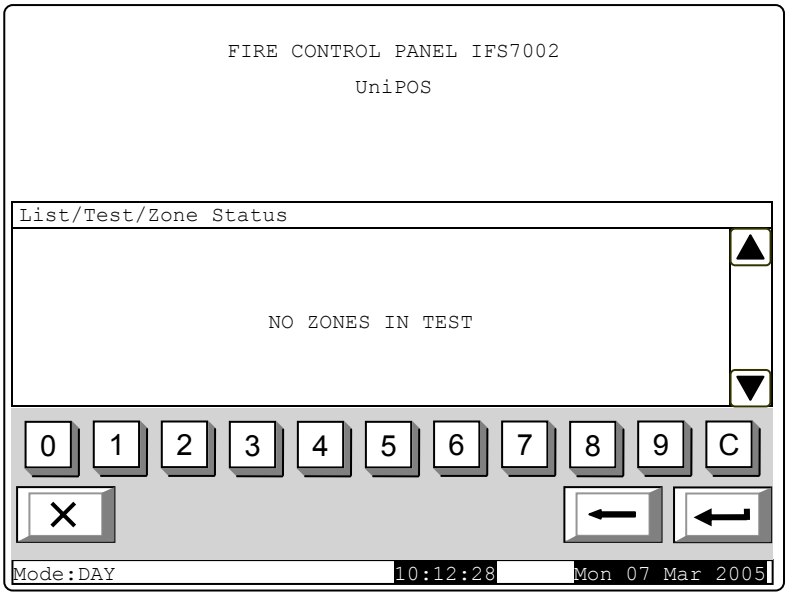
The displayed information is for

- Zone number;
- Text message for the zone

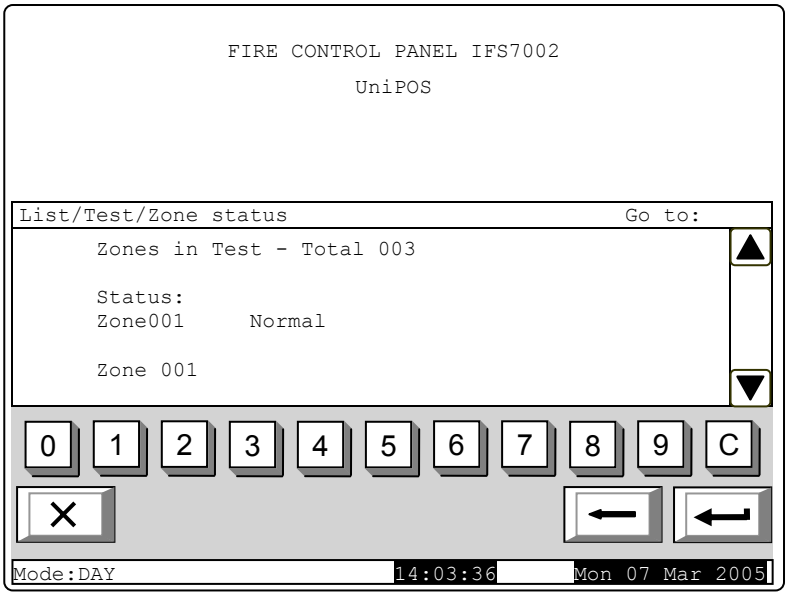
Buttons and in the right panel section scroll the pages up and down and allow displaying next page or previous page. Each page contains 5 messages for zones in Test Mode. Button appears on the screen if following page is available; button appears on the screen if previous page is available.

12.2.3.2. *Zone Status*

If no disables of specific type are available the following screen appears:



If disables are available the status of the first zone in Test Mode is displayed:



Each message is displayed in two lines, under the *Status* text message:

- The first line displays zone number and status;
- The line beneath displays text message for the zone.

Buttons ▼ and ▲ in the right panel section allow the user to display the status of the next or the previous zone (if any are available) in Test Mode.

Press a button with figure and the field *Go to* situated on the heading of the panel is activated,and you can enter a random 3-digit number of the zone. To correct the number use button C; the button deletes the last digit you entered.

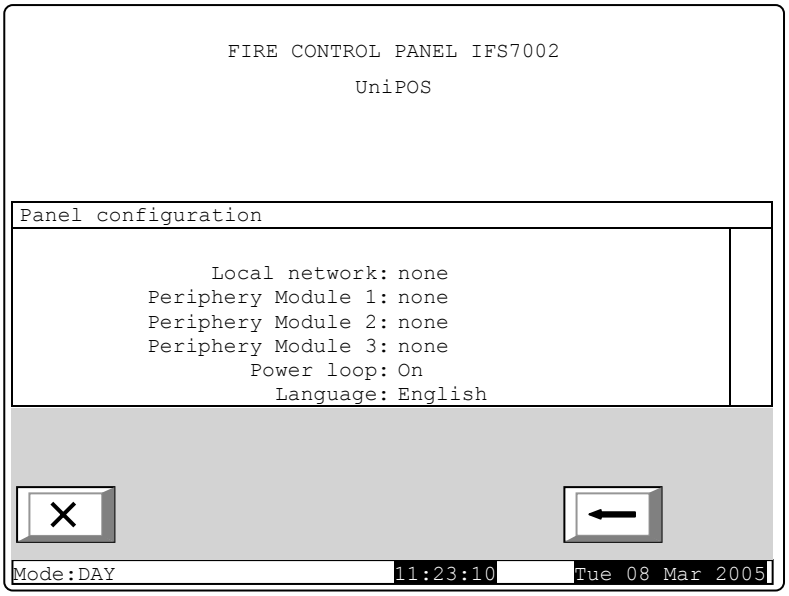
As soon as you enter a number in the field *Go to,* press button ↵ to display the status of the specified zone:

- If you select zone number 0, the status of Zone 1 will be displayed;
- If you select zone number higher than 250, the status of Zone 250 will be displayed;
- If the selected zone is not set to Test Mode, a text message NOT IN TEST appears; the text message for the zone is not displayed;
- The number in the *Go to* field is deleted, i.e. the field is deactivated.

12.2.4. Screen *Panel configuration*

The screen displays information associated with:

- The fire control panel local network; the possible conditions are *none, On* or *Off*;
- Periphery devices; their possible conditions are *none, On* or *Off*;
- The power supply loop; its possible conditions are *none, On* or *Off*;
- The language of the text messages.



12.2.5. Menu *Panel parameters*

Use the menu if the fire control panel is connected to a local network of fire control panels (see Interactive Fire Control Panel IFS 7002 – Operation in Local Network).

12.2.6. Menu *Loops*

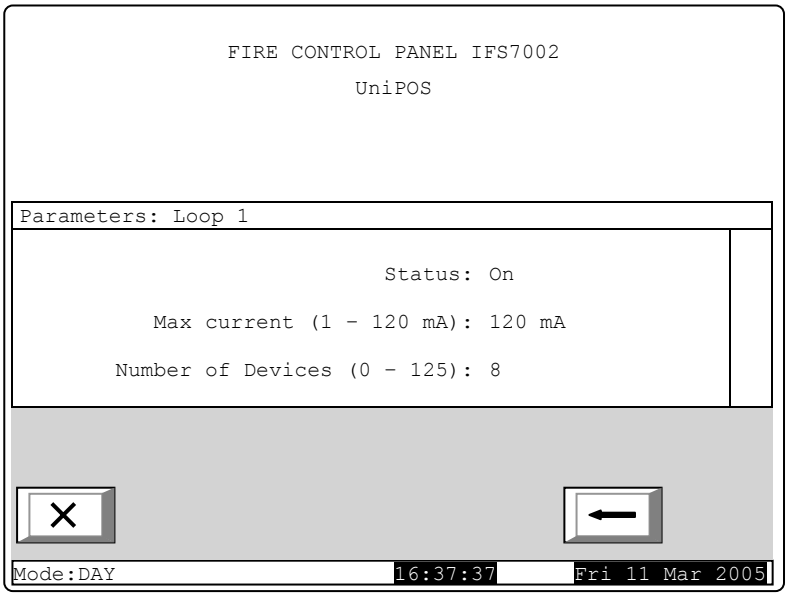
The menu displays information for the loops and the devices integrated in the loops. It contains two identically organized submenus – for Loop 1 and for Loop 2; each submenu contains:

- Screen *Loop parameters*;
- Menu *Device parameters*.

12.2.6.1. Screen *Loop parameters*

The screen provides information for fire alarm loop parameters:

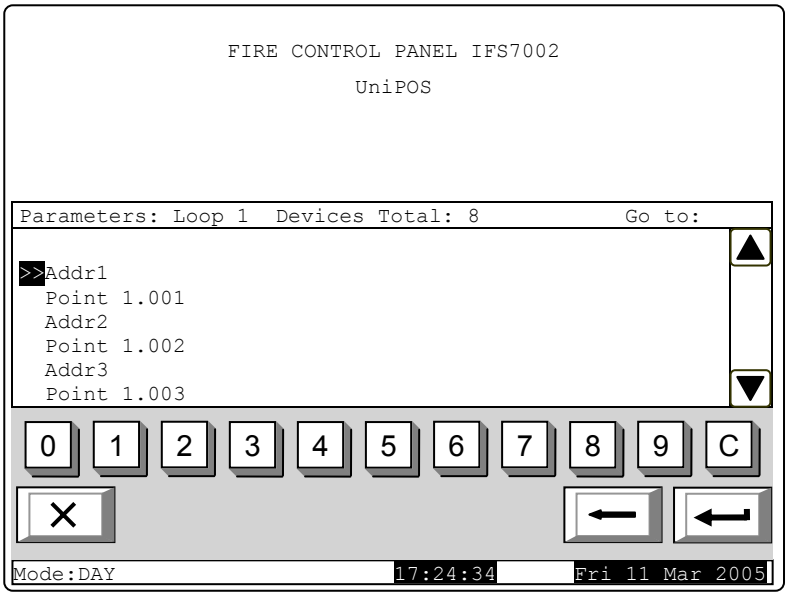
- Loop status – *On* or *Off*;
- Maximum current value set for the loop;
- Number of devices integrated in the loop.



12.2.6.2. Menu *Device parameters*

The menu provides information for the parameters of devices integrated in the fire alarm loop. Enter the menu to display:

- A screen with the message *No integrated devices* – if no devices are available in the loop; the only option is to exit the menu;
- A screen where you can select a device and display its parameters – if some devices integrated in the loop are available:



For each selected device you can display:

- Its number (address) in the fire alarm loop – in the first line;
- Text message – in the line beneath.

The device is selected by arrow – „>>".

Buttons ▼ and ▲ seen in the right panel section appear when more than one device is available in the loop;the field *Go to* and the buttons with digits appear when more than three devices are available in the loop.

Buttons ▼ and ▲ allow the user to select next device or previous device (if any are available).

When you press a digit button, the field *Go to* is activated and a random 3-digit number can be entered in the field, showing the device's address in the loop. To edit the 3-digit number, press button C and you can delete the last entered digit.

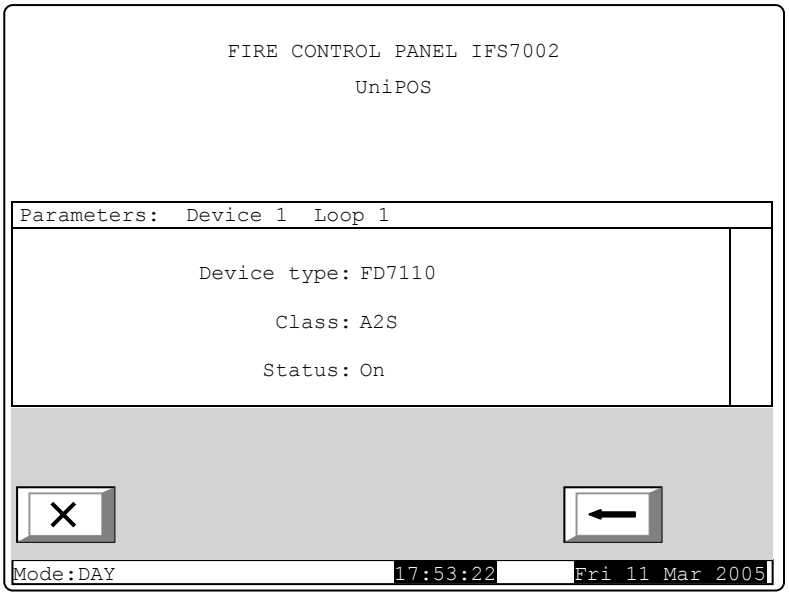
When you press button ↵ after a 3-digit number is already entered in the *Go to* field, you can select the device and its address is displayed in the field:

- If you enter 0 for a number, the device with address 1 will be selected;
- If you enter a number higher than the actual number of devices in the loop, the device having the highest number in the loop will be selected.

The number in the *Go to* field is then deleted; i.e. the field is deactivated.

If you press button ← after you entered a number in the *Go to* field, the field will be deactivated.

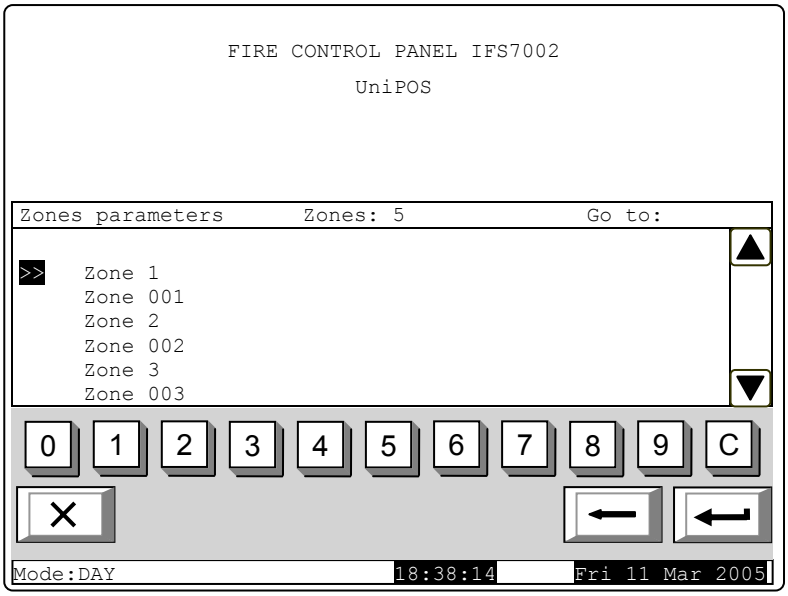
If you press button ↵ when the *Go to* field is empty, a screen with the parameters of the selected device will appear on the display:



12.2.7. Menu *Zones*

The menu provides information for the parameters of all zones established in the fire control panel. Enter the menu to display:

- A screen with the message *No zones* – appears where no zones are available; the only option is to exit the menu;
- A screen where you can select a zone and display its parameters – appears where some zones are available:



For each zone you can display:

- Its number – in the first line;
- Text message – in the line beneath.

The zone is selected by arrow – „>>".

Buttons ▼ and ▲ in the right panel section appear where more than one zone is available; the *Go to* field and the buttons with digits appear where more than three zones are available.

Buttons ▼ and ▲ allow the used to select the next or the previous zone (if any are available).

When you press a digit button, the field *Go to* is activated and a random 3-digit number designating the zone number can be entered in the field.To edit the 3-digit number, press button C and you can delete the last entered digit.

When you press button ↵ after the 3-digit number is already entered in the *Go to* field you can select a zone and its address is displayed in the field:

- If you enter 0 for a number, the zone with address 1 will be selected;
- If you enter a number higher than the actual number of zones, the zone having the highest number will be selected.

The number in the *Go to* field is then deleted; i.e. the field is deactivated

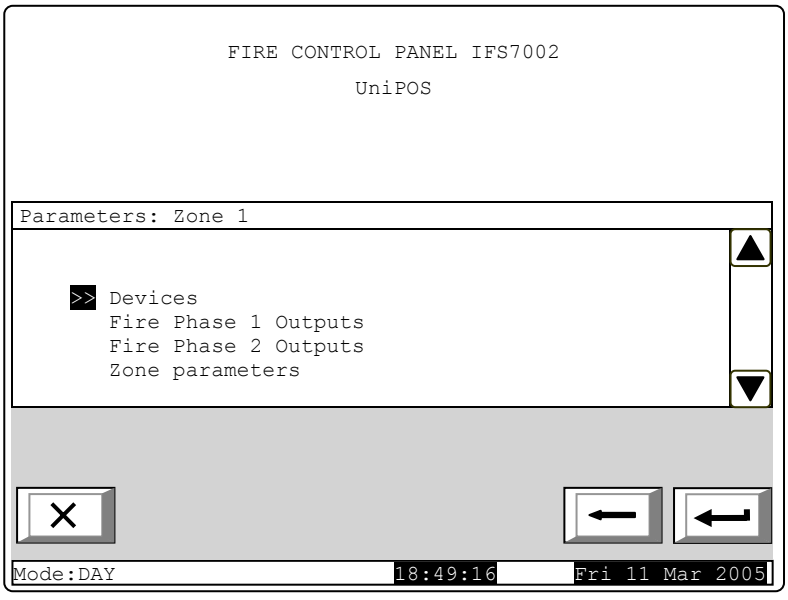
When you press button ← after the 3-digit number is already entered in the *Go to* field, the field will be deactivated.

When you press button ↵ when the *Go to* field is empty, a menu with a group of parameters of the selected zone will appear on the display:

- Screen *Devices*;
- Menu *Fire Phase 1 Outputs*;
- Menu *Fire Phase 2 Outputs*;
- Screen *Zone parameters*.

The arrow >> points at the selected group of parameters.

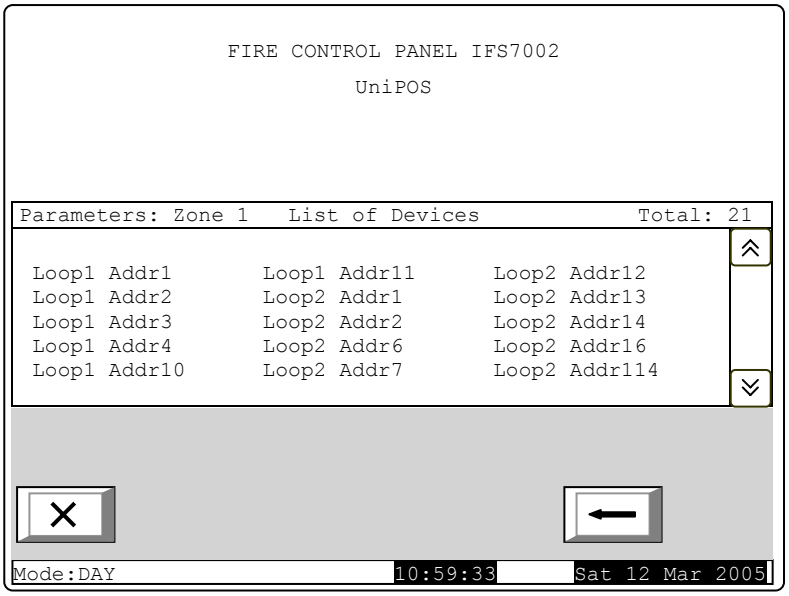
Buttons ▼ and ▲ allow the user to select the next or the previous group of parameters (if any are available).



12.2.7.1. Screen *Devices*

It displays a list of fire detectors integrated in the zone:

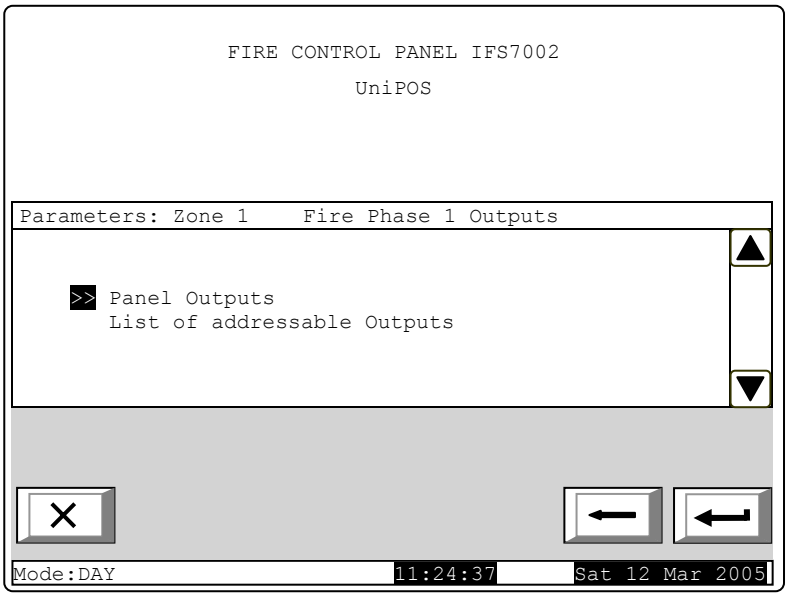
The loop where each device is integrated, as well as its address is displayed on a list. The list is visualized in the form of pages; each page contains information for a maximum of 15 devices. Buttons and in the right panel section appear where more than one page is available; they allow the user to switch between the next and previous page (if available).



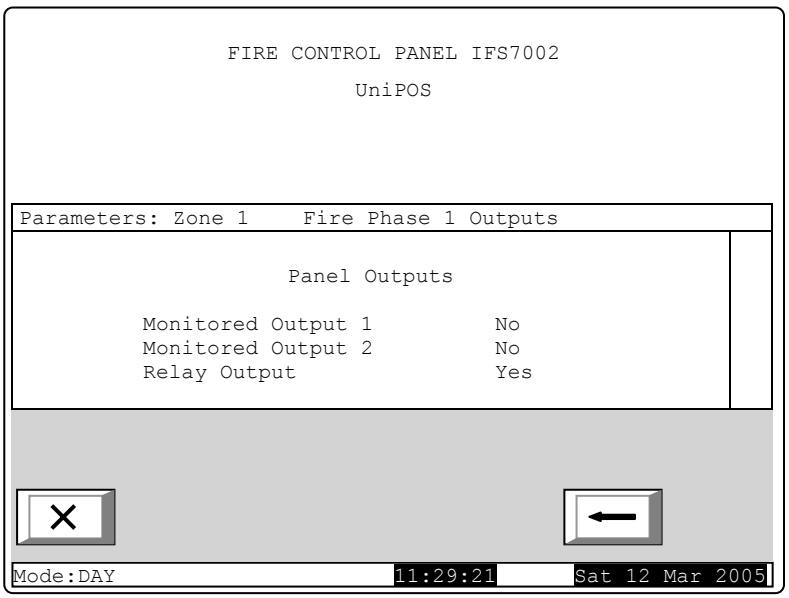
12.2.7.2. Menus *Fire Phase 1 Outputs* and *Fire Phase 2 Outputs*

The menus allow the user to display information for outputs, associated to the zone, which will respond at Fire Condition (phase Fire condition stage I or phase Fire condition stage II). The menus contain:

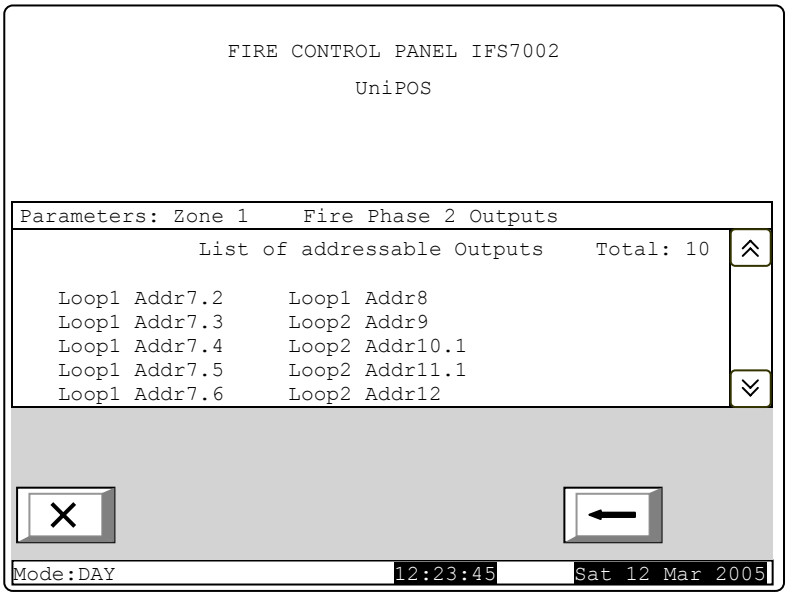
- Screen *Panel Outputs*;
- Screen *List of addressable outputs.*



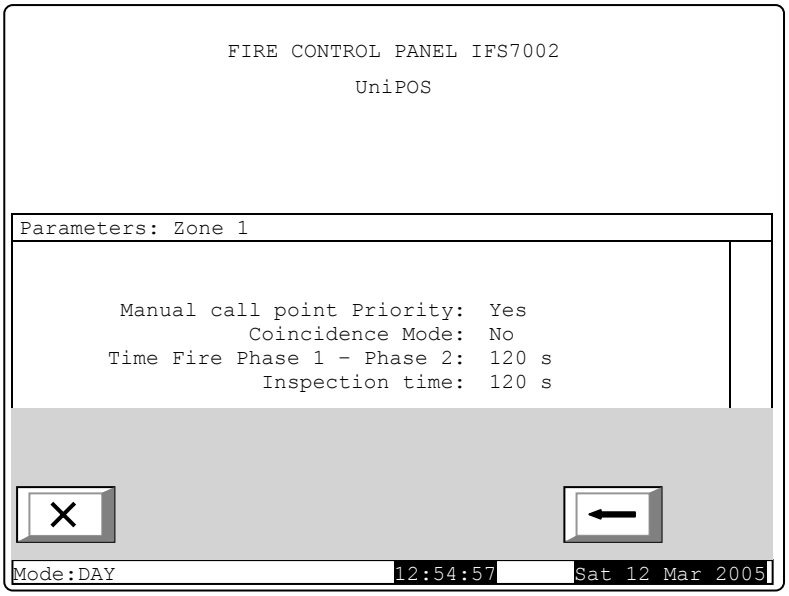
The screen *Panel Outputs* provides information for outputs responding to the relevant phase of Fire condition in the zone:



The screen *List of addressable outputs* displays information for addressable outputs associated to the zone. If no such outputs are available, a screen displaying the message *No addressable outputs activated upon Fire condition Phase X* appears. (X stands for the phase number – 1 or 2). The only option then is to exit the screen. If addressable outputs associated to the zone are available, their list is visualized. Loop number, device address in the loop and the number of the output in the device, if more than one is displayed for each device. The list is visualized in pages, each page containing a maximum of 10 devices. The buttons  and  on the right panel section appear where more than one page is available and allow the user to switch between next and previous page.



12.2.7.3. Screen *Zone Parameters*



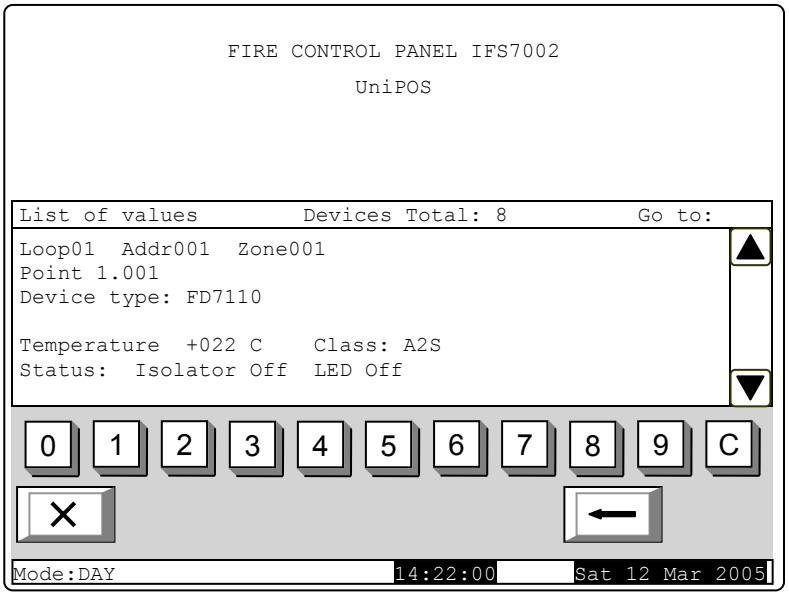
The screen displays common zone parameters:

- Manual call point priority – where the manual call points have priority, their response will force the zone to enter Fire Condition Phase 2; where the manual call points do not have priority, their response will force the zone to enter Fire Condition Phase 1, or, in other words, the manual call point will be treated as automatic fire detectors;
- Coincidence Mode – when operating in Coincidence Mode, the zone will enter Fire Condition Phase 1 upon activation of at least two low priority fire detectors;
- Time Fire Phase 1 – Phase 2 – this is the time delay before the fire control panel proceeds from Fire Condition Stage I to Fire Condition Stage II in this particular zone ;
- Inspection time – time added to the remaining time, by pressing button , before the zone proceeds from Fire Condition Stage I to Fire Condition Stage II.

12.2.8. Menu *Device Status*

The menu provides information for the current status of the devices. Enter the menu to display:

- A screen with the message *No integrated devices*, where no devices are present; the only option is to exit the menu;
- A screen for the status of the first device, where some devices are present:



Buttons and seen on the right panel section appear when more than one device is available; the *Go to* field and the digit buttons appear when more than two devices are available.

Buttons and allow the user to switch between the next and the previous device (if available).

When you press a digit button, the button appears and the *Go to* field is activated; then you may enter a random 3-digit number for the device. To edit the number press button C, and the last entered digit is deleted.

The devices get numbers according to the following sequence: from the first device in Loop 1 to the last device in Loop 2; from the first device in Loop 2 to the last device in Loop 2.

When you press button  it displays a screen for the status of the device, which number is in the field:

- If you enter 0, the first device will be selected;
- If you enter a number higher than the actual number of devices, the last device will be selected.

At the same time button  and the number in the Go to field disappear, i.e. are deactivated.

When you press button  and a number is already entered in the *Go to* field, button  and the field are deactivated.

Information for each device, saved in the fire control panel is displayed in the first three lines on the panel:

- Number of the loop where the device is integrated and device address in the loop;
- Number of the zone where the device is integrated – for fire detectors only;
- Text message for the device;
- Device type.

The rest of the panel contains information that is being sent by the device. If no communication with the device is available, the message *Removed device* appears. Otherwise information specific for each type device is displayed, including:

- For automatic fire detectors FD7110 and FD7120:
  - The temperature measured by the fire detector, in Celsius;
  - Temperature class of the fire detector;
  - Status of the detector's isolator – Off (no response) or On (responded);
  - LED status – Off (not illuminated/ not flashing) or On (illuminated);
  - Information for Fire condition – the text message *Fire Alarm* appears only when the detector responded;
  - Information for Fault condition – the text message *Fault* is displayed only when the fire detector responded to a fault condition;
- For automatic fire detectors FD7130:
  - The smoke concentration measured by the fire detector, in percentage, against the response threshold for fire condition;
  - Detector contamination, in percentage, against the maximum permissible contamination value;
  - Status of the detector's isolator – Off (no response) or On (responded);
  - LED status – Off (not illuminated/ not flashing) or On (illuminated);
  - Information for the level of detector contamination– the text message *Contaminated* appears only if the fire detector is contaminated and needs cleaning;
  - Information for Fire condition – the text message *Fire Alarm* appears only when the detector responded;
  - Information for Pre-alarm – the text message *PreAlarm* appears only if the smoke concentration value is near the response threshold for fire condition;
  - Information for Fault condition – the text message *Fault* is displayed only when the fire detector responded to a fault condition;
- For manual call points FD7150:
  - Status of the manual call point isolator – Off (no response) or On (responded)
  - LED status – Off (not illuminated/ not flashing) or On (illuminated);
  - Information for Fire condition – the text message *Fire Alarm* appears only when the manual call point responded;
  - Information for Fault condition – the text message *Fault* is displayed only when the manual call point responded to a fault condition;
- For automatic fire detectors FD7160:
  - The temperature measured by the fire detector, in Celsius;
  - Temperature class of the fire detector;
  - The smoke concentration measured by the fire detector, in percentage, against the response threshold for fire condition;

- ♦ Detector contamination, in percentage, against the maximum permissible contamination value;
- ♦ Status of the detector's isolator – Off (no response) or On (responded);
- ♦ LED status – Off (not illuminated/ not flashing) or On (illuminated);
- ♦ Information for the level of detector contamination– the text message *Contaminated* appears only if the fire detector is contaminated and needs cleaning;
- ♦ Information for Fire condition – the text message *Fire Alarm* appears only when the detector responded;
- ♦ Information for Pre-alarm – the text message *PreAlarm* appears only if the smoke concentration value is near the response threshold for fire condition;
- ♦ Information for Fault condition – the text message *Fault* is displayed only when the fire detector responded to a fault condition;

– For conventional line-monitoring modules with heat detector FD7201:
- ♦ The current value measured in the conventional fire alarm line, connected with the module;
- ♦ Information for fire condition in the conventional line – the text message *Fire Alarm* appears only when a detector in the conventional line responded;
- ♦ Information for short circuit in the conventional line – the text message Short appears only if short circuit is detected in the conventional line;
- ♦ Information for fault condition: break in the conventional line – the text message *Open* appears only if a break in the conventional line is detected;
- ♦ Information for fault condition: removed fire detector in the conventional line – the text message *Removed FD* appears only when a conventional line detector is removed;
- ♦ The temperature in the module, measured by the fire detector, in Celsius;
- ♦ Temperature class of the detector in the module;
- ♦ Status of the detector's isolator – Off (no response) or On (responded)
- ♦ LED status – Off (not illuminated/ not flashing) or On (illuminated);
- ♦ Information for Fire condition – the text message *Fire Alarm* appears only when the heat detector in the conventional line-monitoring module responded or when a fire detector in the conventional line responded;
- ♦ Information for fault condition – the text message *Fault* appears only if the conventional line-monitoring module detected a fault condition;

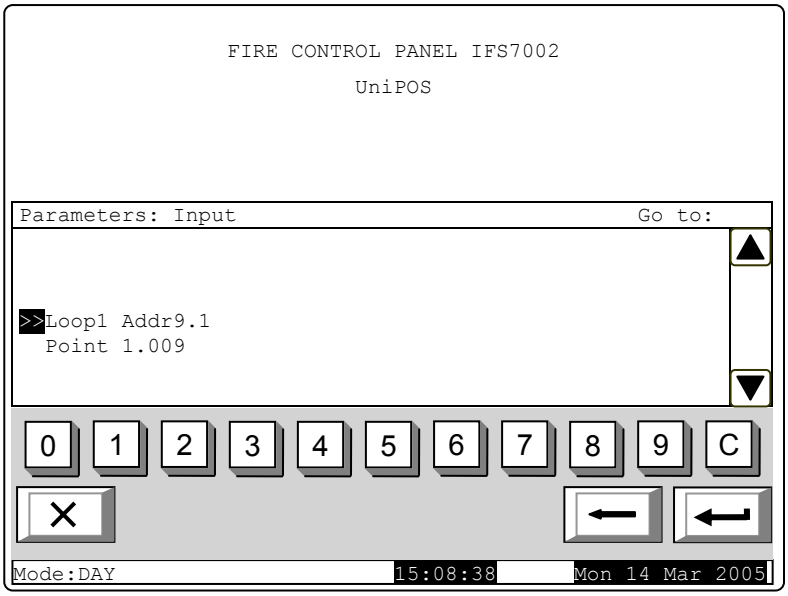
– For input/output modules FD7203:
- ♦ Outputs switched on – a list of switched on outputs, designated „Rel1" to „Rel6", or the text message *None* appears if no outputs are switched on;
- ♦ Input status – „0" (no input signal) or„1" (input signal);
- ♦ Status of the isolator of the module at the power supply loop – Off (no response) or On (responded);
- ♦ Status of the isolator of the module – Off (no response) or On (responded);
- ♦ LED status – Off (not illuminated/ not flashing) or On (illuminated);
- ♦ Information for fault condition – the text message *Fault* appears only if the module detected a fault condition

– For single output modules FD7204:
- ♦ Status of the output – *On* or *Off*;
- ♦ Status of the isolator of the module at the power supply loop – Off (no response) or On (responded);
- ♦ Status of the isolator of the module – Off (no response) or On (responded)
- ♦ LED status – Off (not illuminated/ not flashing) or On (illuminated)
- ♦ Information for fault condition – the text message *Fault* appears only if the module detected a fault condition.

12.2.9. Menu *Inputs*

The menu displays information for addressable inputs parameters. When you enter the menu the following screens are displayed:

- Where addressable input devices are not available – a screen with the message *No Outputs* appears; the only option is to exit the menu;
- Where addressable input devices are available – a screen for selection of the first addressable input whose parameters are to be displayed:



For each addressable input are displayed:

- Number of the loop, input devices address in the loop and the number of the input in the device if more than one – in the upper line;
- Text message for the device – in the bottom line.

The selected input is pointed by arrow – „>>".

Buttons ▼ and ▲ seen on the right panel section appear when more than one addressable input is available; the *Go to* field and the digit buttons appear when more than one addressable input device is available.

Buttons ▼ and ▲ allow the user to switch between the next and the previous addressable input (if available).

When you press a digit button, the arrow „>>" before the selected addressable input disappears and the *Go to* field is activated; then you may enter a random 3-digit number for the device. To edit the number press button C, and the last entered digit is deleted.

The devices get numbers according to the following sequence: from the first device in Loop 1 to the last device in Loop 2; from the first device in Loop 2 to the last device in Loop 2.

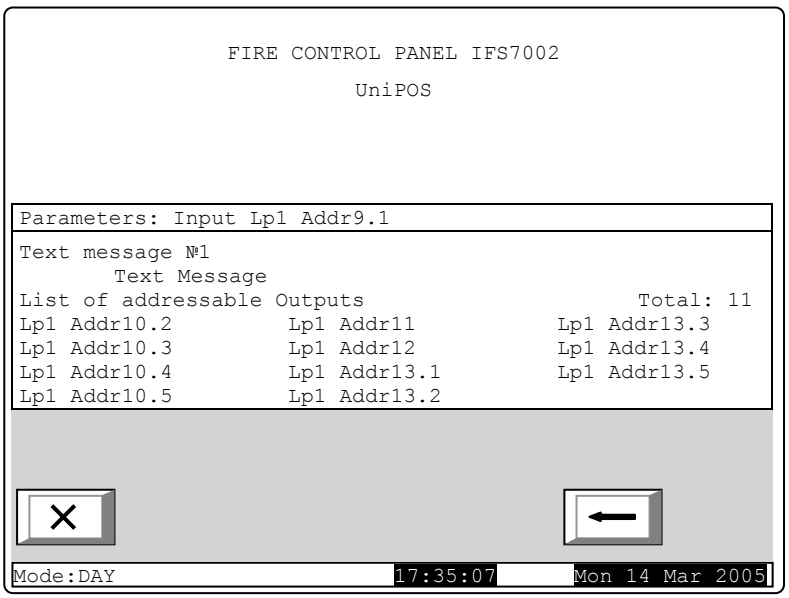
When you press button ← as soon as a number is entered in the *Go to* field, the first addressable input of the first addressable input device is selected; its number is equal to or higher than the number in the field:

- If you enter 0, the first addressable input will be selected;
- If you enter a number higher than the number of the last addressable input device, the last addressable input will be selected.

Simultaneously, the number in the *Go to* field disappears, i.e. the field is deactivated.

When you press button ← as soon as a number is entered in the *Go to* field, it will be deactivated and the arrow „>>" will appear before the selected addressable input.

When you press button and the arrow „>>" is visible (*Go to* field is empty) a screen displaying the parameters of the selected addressable input appears:



The screen provides the following information:

- Number and text of the text message that will be seen if the addressable input is triggered (the message shall be set in advance);
- The number of the addressable outputs that will be triggered upon activation of the input;
- A list of the addressable outputs or the message No addressable outputs activated by this input.

12.2.10. Menu *Archive*

The menu provides information for all events saved in the energy independent memory of the fire control panel.

The following events are registered in the fire control panel: fire condition, disables, test mode, fault condition and general conditions. For each event are displayed: number of the event as per the selected filter (total; fire conditions; fault conditions; period), serial number of the event in the archive, event code, event time and some specific information depending on the event type.

The code and the specific information for events from the type *Fire condition* are

Event character	Event code	Specific information
Fire alarm zone in Fire condition stage I upon activation of a device	Fire1	Zone number; Loop where the device is integrated; Device number in the loop; Text message of the zone; Text message of the device
Fire alarm zone in Fire condition stage II upon activation of a device (manual call point)	Fire2	
Response from a device in a zone already in Fire condition, without changes in the fire phase	Fire	
Fire alarm zone in Fire condition stage II where *Time Fire Phase 1 – Phase 2* has expired	Fire 2	Zone number; Text message of the zone
Fire alarm zone in Pre Fire Condition	PreFire	Zone number; Loop where the device is integrated; Device number in the loop; Text message of the zone; Text message of the device
Fire alarm zone exited PreFire	PreFire reset	
Fire control panel exited Fire condition	Fire reset	–

The code and the specific information for events from the type *Disables* are

Event character	Event code	Specific information
Zone disabled	Disable Zone	Zone number; Text message of the zone
Zone enabled	Disable Zone reset	
Device disabled (fire alarm detector or input device)	Disable Device	Zone number; Loop where the device is integrated; Device number in the loop; Text message of the zone; Text message of the device
Device enabled (fire alarm detector or input device)	Disable Device reset	
Output device disabled	Disable Addressable Output	Loop where the device is integrated; Device number in the loop; Text message of the device
Output device enabled	Disable Addressable Output reset	
Monitored output disabled	Disable Monitored output	Monitored output number
Monitored output enabled	Disable Monitored output reset	

The code and the specific information for events from the type *Test* are:

Event character	Event code	Specific information
Fire alarm zone set to Test Mode	Zone in Test	Zone number; Text message of the zone
Reset of Test Mode	Zone in Test reset	

The code and the specific information for events from the type *Fault* are

Event character	Event code	Specific information
Fire alarm zone in fault condition	Fault in Zone	Zone number; Text message of the zone
Fire alarm zone exited fault condition	Fault in Zone reset	
Fault condition *Removed device*	Removed device	Zone number; Loop where the device is integrated; Device number in the loop; Text message of the zone; Text message of the device
Fault condition *Removed device* exited	Removed device reset	
Fault condition *Fault in device*	Fault in device	
Fault condition *Fault in device* exited	Fault in device reset	
Fault condition *Communication error*	Communication error	
Fault condition *Communication error* exited	Communication error reset	
Fault condition *Device not initialized*	Device not initialized	
Fault condition *Device not initialized* exited	Device not initialized reset	
Fault condition *Fire detector contaminated*	Detector contaminated	

Event character	Event code	Specific information
Fault condition *Different Device ID*	Different device ID	Zone number; Loop where the device is integrated; Device number in the loop; Text message of the zone; Text message of the device
Fault condition *Different Device Type*	Different device type	
Fault condition *Different Device Class*	Different device class	
Fault condition *Device exchanged*	Device exchanged	
Fault condition *Device isolator activated*	Isolator On	
Fault condition *Device isolator activated* exited	Isolator Off	
Fault condition *Device isolator tot power loop activated*	Power loop isolator On	Loop where the device is integrated; Device number in the loop; Text message of the device
Fault condition *Device isolator at power loop activated* exited	Power loop isolator Off	
Fault condition *Short circuit in a loop*	Short circuited Loop	Fire alarm loop number
Fault condition *Short circuit in a loop* exited	Short circuited Loop reset	
Fault condition *Fire alarm loop open*	Open Loop	
Fault condition *Fire alarm loop open* exited	Open Loop reset	
Fault condition *Fire alarm loop not initialized*	Loop not initialized	
Fault condition *Fire alarm loop not initialized* exited	Loop not initialized reset	
Fault condition *Number of devices in the fire alarm loop exceeded*	Number of devices exceeded	
Fault condition *Number of devices in the fire alarm loop exceeded* exited	Number of devices exceeded reset	
Fault condition *Short circuit in the power loop*	Short circuited Loop	–
Fault condition *Short circuit in the power loop* exited	Short circuited Loop reset	
Fault condition *Break in the power loop*	Open Power Loop	
Fault condition *Break in the power loop* exited	Open Power Loop reset	
Fault condition *Short circuit in monitored output*	Short circuited monitored output	Monitored output number
Fault condition *Short circuit in a monitored output* exited	Short circuited monitored output reset	
Fault condition *Break in monitored output*	Open monitored output	
Fault condition *Break in monitored output* exited	Open monitored output reset	
Fault condition *Fault in mains supply*	Fault Mains Power	–

Event character	Event code	Specific information
Fault condition *Fault in mains supply* exited	Fault Mains Power reset	–
Fault condition *Fault in back up battery supply*	Fault Battery	
Fault condition *Fault in back up battery supply* exited	Fault Battery reset	
Fault condition *Battery low due to interruption in mains supply*	Battery Low	
Fault condition *Battery low due to interruption in mains supply* exited	Battery Low reset	
Fault condition *Fault in auxiliary supply device for external devices*	Fault Auxiliary Power	
Fault condition *Fault in auxiliary supply device for external devices* exited	Fault Auxiliary Power reset	
Fault condition *Short circuit in earthing*	Fault in Earthing	
Fault condition *Short circuit in earthing* exited	Fault in Earthing reset	
Fault condition *Fault in Module 0*	Fault Module 0	
Fault condition *Fault in Module 0* exited	Fault Module 0 reset	
Fault condition *Watchdog reset*	Watchdog reset	

Notes:

1. Exit of fault condition *Detector contaminated,* for optical-smoke detectors, is only possible through removing and cleaning the fire detector (i.e. fault condition *Removed device* is registered).
2. Exit of fault conditions *Different Device ID, Different Device Type, Different Device Class* and *Device exchanged* is possible through removing the detector (i.e. fault condition *Removed device* is registered) or through Fire control panel Set Up (i.e. after event *Manual Set Up* or *Remote Set Up*).
3. Fault condition *Device exchanged* occurs for two devices minimum.
4. Fault condition *Device isolator activated* occurs for two devices (short circuit in the loop between two devices) or is combined with fault condition *Short circuit in a fire alarm loop* (short circuit in the loop between the control panel and the first/last device). In case more than one short circuit is registered in the loop, fault *Device removed* for the devices in the isolated segment of the loop will also occur.
5. Fault condition *Device isolator to power loop activated* occurs for two devices (short circuit in the loop between both devices) or is in combination of fault *Short circuit in power loop* (short circuit in the loop between the control panel and the first/last device). If more than one shot circuit in the loop is registered, fault *Device isolator to power loop activated* for the devices in the isolated segment will also occur.
6. Exit of faults *Fire alarm loop not initialized* and *Number of devices in the fire alarm loop exceeded* can be done through re-initialization of the fire control panel (i.e. after the event *Reset Panel, Manual Set Up* or *Remote Set Up)*
7. Exit of fault *Battery low due to interruption of mains supply* is usually followed by *Reset Panel*
8. Event *Watchdog Reset* triggers reset of the fire control panel.

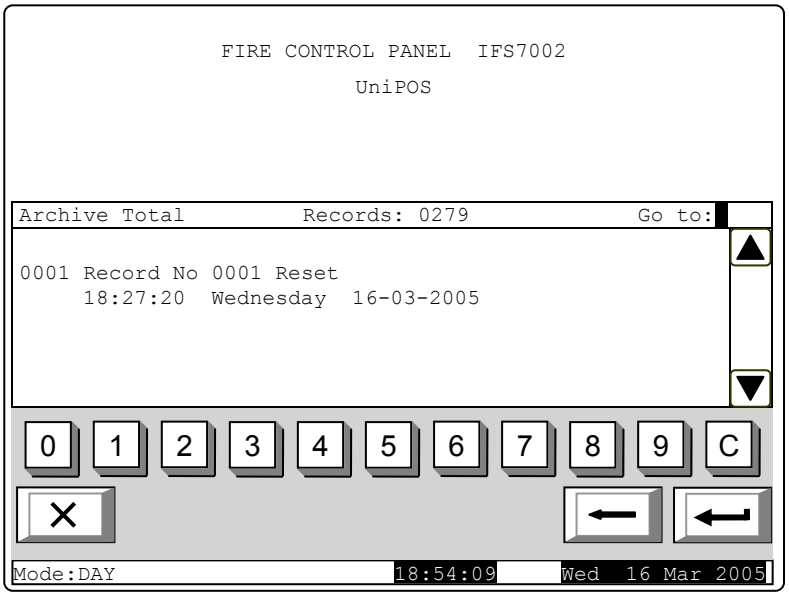
The code and the specific information for events from the type *General* are:

Event character	Event code	Specific information
Reset of the fire control panel	Reset Panel	–
Manual Set Up	Manual Set Up	
Remote Set Up	Manual Set Up	

Menu *Archive* contains the following subordinate menus:
- Menu *Total* – all records saved in the archive will be displayed (filter *Total*);
- Menu *Fire conditions* – only records for fire conditions will be displayed (filter *Fire*);
- Menu *Fault conditions* – only records for fault conditions will be displayed (filter *Fault conditions*);
- Menu *Period* – only records occurred during a specified period will be displayed (filter *After date, Before date* or *Between dates*).

12.2.10.1. Menu *Total*

The menu displays all records of events saved in the energy independent memory of the fire control panel. Filter *Total* is selected, where the serial number of the event in the filter coincides with the serial number of the event in the archive. Enter the menu to display the record for the last saved event:



Buttons ▼ and ▲ on the panel right section are seen when more than one record is available in the archive, and allow the user to scroll the page to the previous or to the next event (if available).

Using the digit buttons a random 4-digit number for the record may be entered in the *Go to* field. To edit the number press button C, and the last entered digit is deleted.

When you press button ↵ it displays the record having the number entered in the *Go to* field
- If no number is entered or the number is 0, the first record (the newest one) will be selected;
- If you enter a number higher than the actual number of records in the archive, the last records (the oldest one) will be selected.

Simultaneously, the number on the *Go to* field disappears.

12.2.10.2. Menu *Fire conditions*

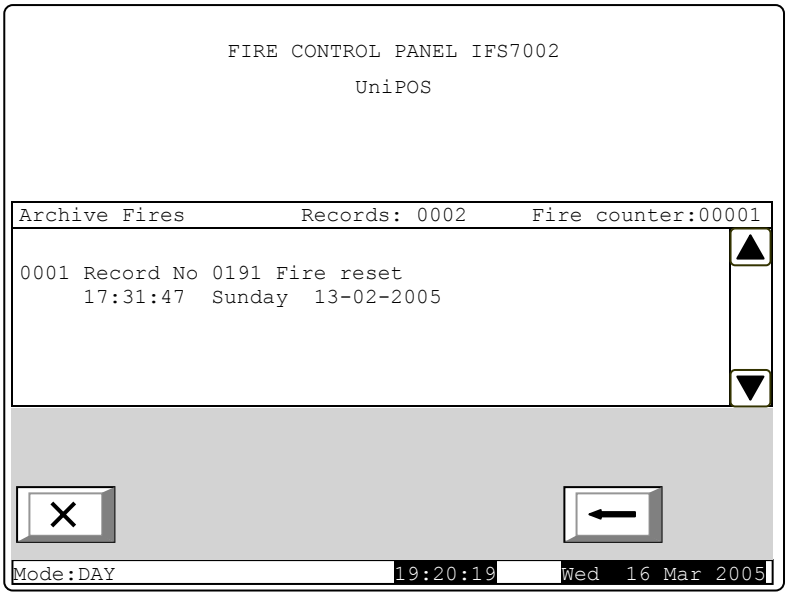
The menu displays only the records for events – filter *Fire conditions* is selected. Enter the menu to display:

- Where no records of fire conditions are available – a screen with the text message *No records in archive*, the only option is to exit the menu;

- Where records of fire conditions are available – the record of the first (the most recent) event:

Buttons ▼ and ▲ on the panel right section are seen when more than one record for fire condition is available in the archive, and allow the user to scroll the page to the previous or to the next event (if available).

At the panel right corner the fire counter will be displayed (the counter can be reset only at Access Level 4).



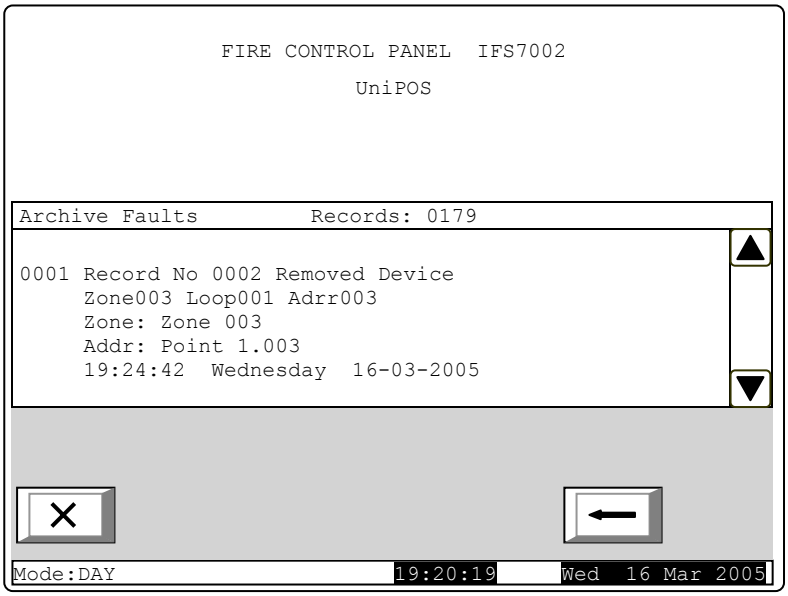
12.2.10.3. Menu *Fault conditions*

The menu displays only the records for fault conditions – filter *Fault conditions* is selected. Enter the menu to display:

- Where no records for fault conditions are available – a screen with the text message *No records in archive*; the only option is to exit the menu;

- Where records for fault conditions are available – the record of the first (the most recent) event.

Buttons ▼ and ▲ on the panel right section are seen when more than one record for fault condition is available in the archive, and allow the user to scroll the page to the previous or to the next event (if available).

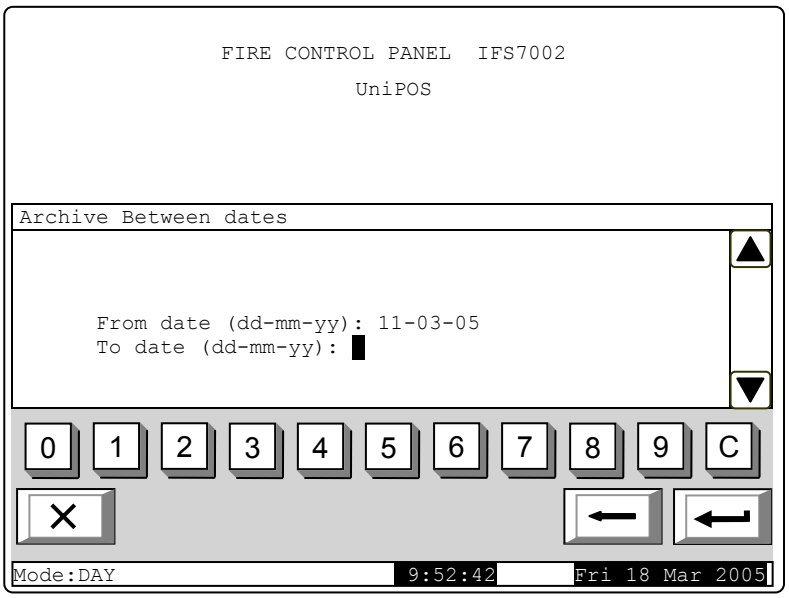


12.2.10.4. Menu *Period*

The menu displays only records of events that occurred during a specified period. It contains the following subordinate menus:

- Menu *After date* – displays only records of events that occurred after the specified date (filter *After date*);
- Menu *Before date* – displays only records of events that occurred before a specified date (filter *Before date*);
- Menu *Between dates* – displays only records of events that occurred between two specified dates (filter *Between dates*).

Enter one of the subordinate menus to display the screen where you can specify the period you need:



The menu *After date* can be displayed only from the line *From date;* the menu *Before date* can be displayed only from the line *To date*. Buttons ▼ and ▲ on the right panel section are enabled only in menu *Between dates* and allow the user to switch between the lines *To date – From date*.

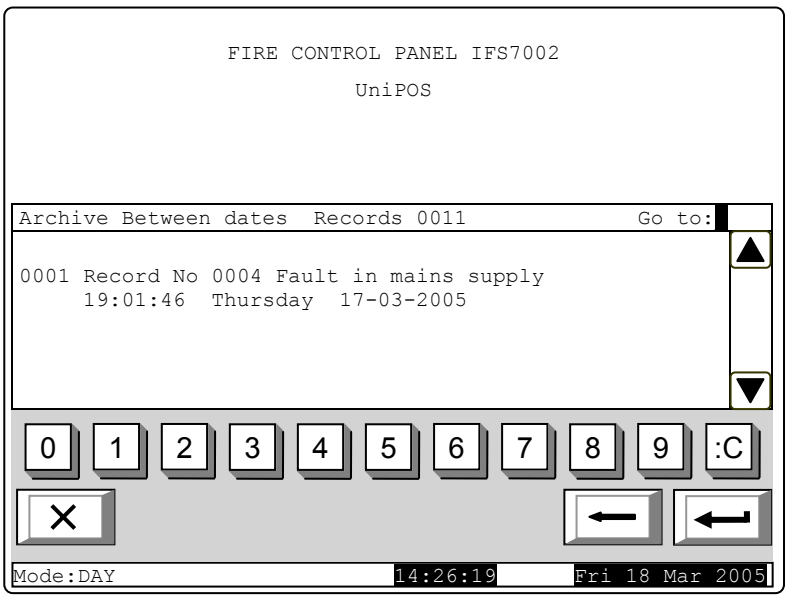
Use the digit buttons to specify the needed dates. The cursor „▮" points over the position for the relevant figure. To edit the figures, press button C, the figure before the cursor will be deleted.

The dates shall comply with the format indicated on the screen (the separator „–" appears or is deleted automatically). Incorrect dates are unacceptable – if you enter such date (for example day higher than 31, or month higher than 12) the incorrect figure is not displayed.

When you enter a subordinate menu from an upper hierarchy menu (i.e. from menu *Period*) it is compulsory to enter the dates (otherwise visualization of the relevant records saved in the archive is not possible, i.e. button ↵ is not active). If you switch back to a lower hierarchy screen, where periods are specified (i.e. from the screen for selected archive records) button ↵ is active; if the dates are not completely entered, then the previously entered valid dates will be used. Press button ↵ to display:

- Where no records of events for the specified period are available – a screen with the text message *No records in archive;* the only option is to switch back to the screen where periods are specified;

– Where records of events for the specified period are available – the record of the first (the most recent) event:



Buttons ▼ and ▲ on the right panel section are enabled if more than one record is available in the archive; they allow the user to switch between the next and the previous record (if any).

Using the digit buttons to enter in the *Go to* field a random 4-digit number for the event in the selected filter. To edit the number press button C and the last digit will be deleted.

Press button ↵ to display the record whose number is in the *Go to* field:

– If no number is entered or the number is 0, the first (the most recent) record will be selected;
– If the number is higher than the actual numbers of all records in the archive, the last (the oldest) record will be selected.

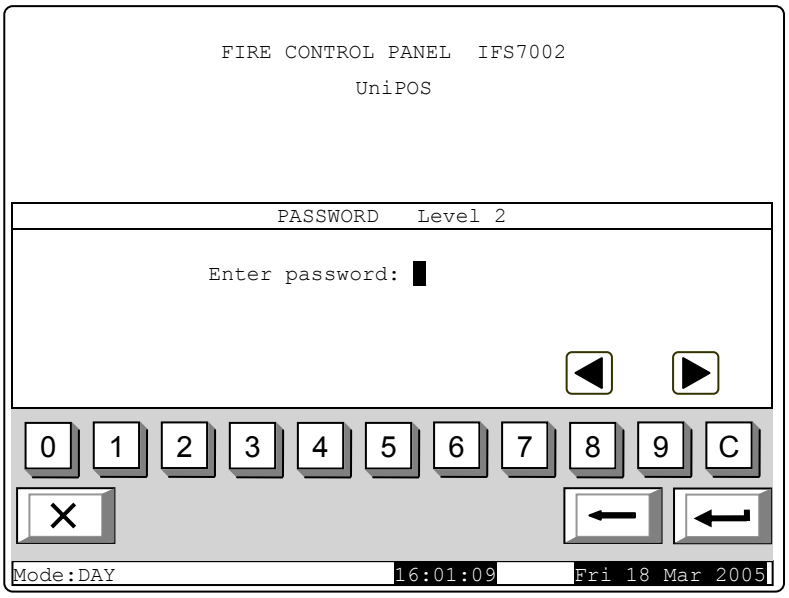
Simultaneously, the number in the *Go to* field is deleted.

12.3. Menu *System functions*

The menu contains the following subordinate menus and functions:

– Disables;
– Zones in test;
– Set Clock;
– Set Mode;
– Check LEDs and Buzzer.

Access to the subordinate menus is allowed at Access Level 2, so as soon as you enter the menu, a screen for password will appear:



Enter the password using the digit buttons – press a button to insert a digit on the place of the cursor „”; the previous text and the cursor move one position to the right. Move the cursor to the left or to the right using buttons ◀ and ▶. Press the button C to delete:

– The digit under the cursor;
– The digit to the left of the cursor if no digit is available under the cursor.

The maximum length of the password is 10 symbols. If you press a digit button after the 10-symbol password is entered, the digit is not accepted and will not be entered.

If wrong password is entered, when you press button ⏎ the digits will be deleted and the cursor will move back to the first position. If one of the 10 passwords for Access Level 2 or Access Level 3 is entered, when you press button ⏎ the menu will become active.

12.3.1. Menu *Disables*

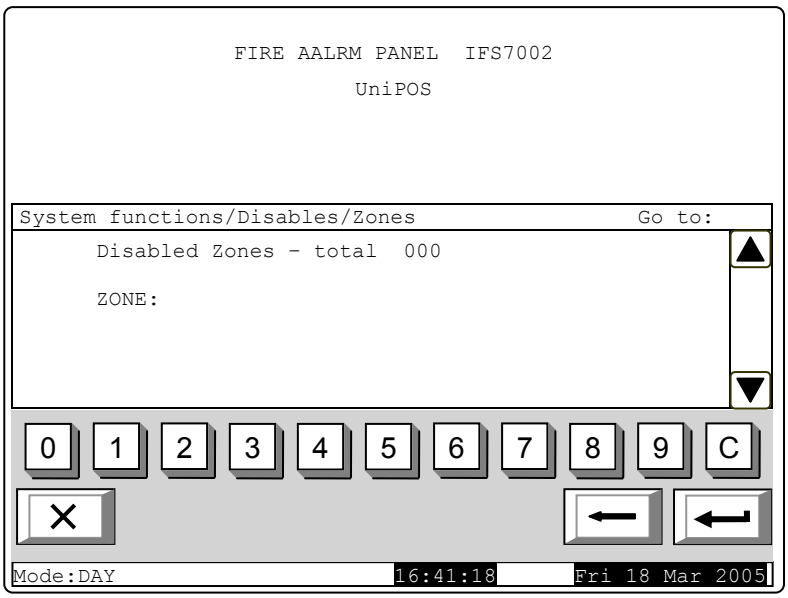
The menu is provided for disabling fire alarm zones, addressable devices and monitored outputs of the control panel. It contains the following subordinate menus:

- Menu *Zones* – provided for disabling fire alarm zones;
- Menu *Devices* – provided for disabling addressable fire detectors;
- Menu *Outputs* – provided for disabling outputs – monitored outputs and addressable output modules.

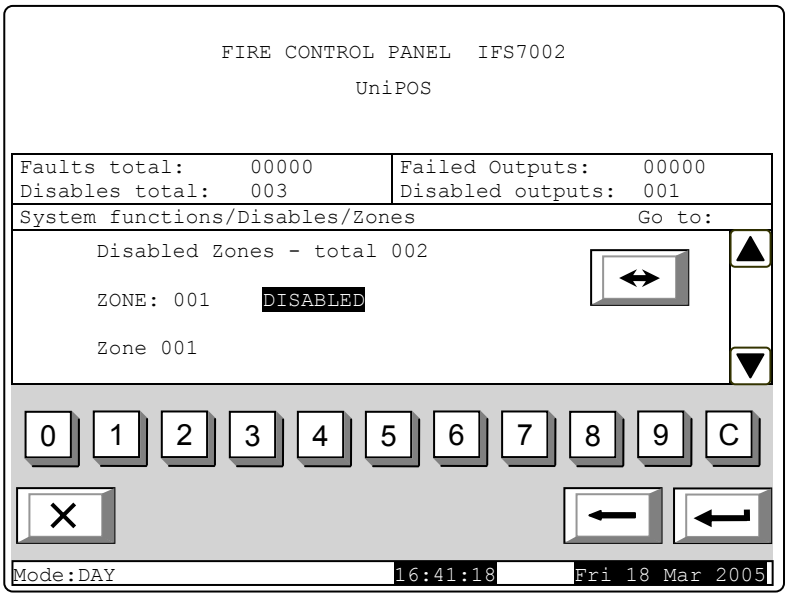
12.3.1.1. Menu *Zones*

Enter the menu to disable or enable fire alarm zones. Two screens are available here:

- If no disabled zones are available:



- If disabled zones are available – the first disabled zone is displayed, and in the bottom section of the panel appears text message for the zone:



Buttons ▼ and ▲ in the right panel section allow the user to switch between the next disabled zone and the previous disabled zone (if any).

Using the digit buttons you may enter in the *Go to* field a random 3-digit number for a fire alarm zone. To edit the number press button C, and the last entered digit will be deleted.

When you press button ⏎ after a number is entered in the *Go* to field, the status of the zone whose number is selected will be displayed:

- If the selected number is 0, the status of Fire alarm zone 1 will be displayed;

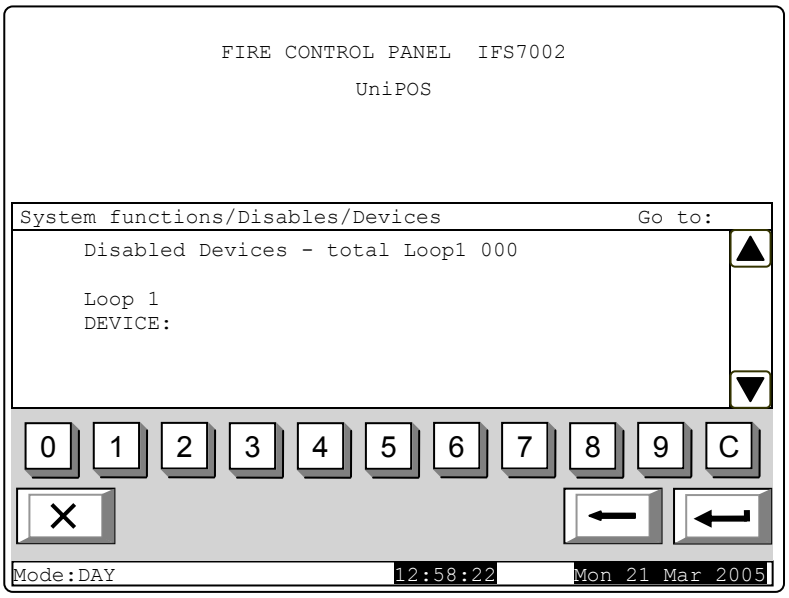
– If the selected number is higher than 250, the status of Fire alarm zone 250 will be displayed;
– If the zone has not been shaped yet, instead of text message for the zone appears *Free zone*. Simultaneously, the number on the *Go to* field is deleted, i.e. the field is deactivated.

When you press button ↔ the fire alarm zone status is being changed alternatively from *DISABLED* to *ENABLED* and reverse; in the panel bottom left section appears a reminder *Data not saved*. Changes (disable/enable zone) are accepted if you press button ↵ and the *Go to* field is empty – then the reminder *Data not saved* disappears.

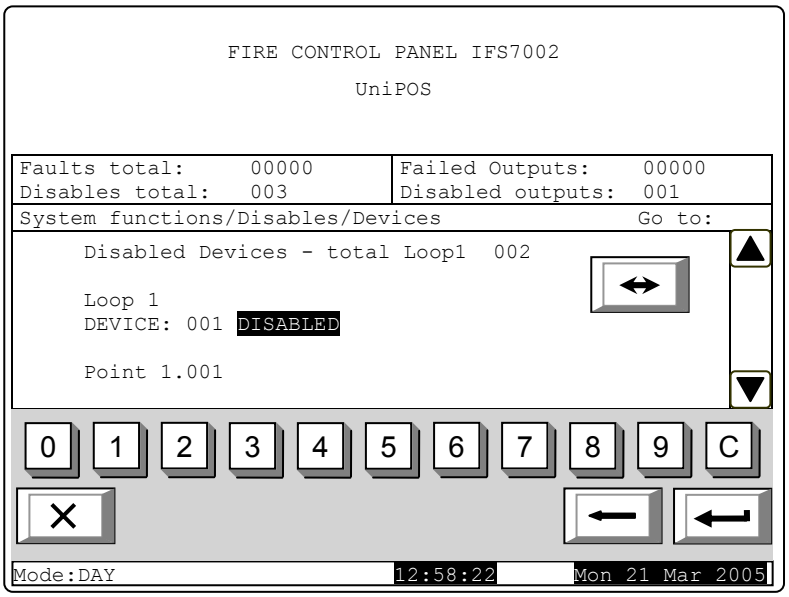
12.3.1.2. Menu *Devices*

The menu is provided to disable and enable addressable fire detectors. It contains two submenus, having similar layout – for Loop 1 and for Loop 2; enter the submenus to display one of the following screens:

– If no addressable detectors are available:



– If disabled addressable detectors are available – the first disabled fire detector, and in the bottom section of the panel appears the detector's text message:



Buttons ▼ and ▲ seen in the right panel section allow the user to switch between the next and the previous disabled addressable fire detector (if any).

Using the digit buttons you may enter in the *Go to* field a random 3-digit address for a device in the loop. To edit the number press button C and the last entered digit will be deleted.

When you press button ↵ after a number is entered in the *Go to* field, the status of the addressable fire detector whose number is selected, will be displayed:
– If the selected number is 0, the status of Device 1 will be displayed;
– If the selected number is higher than 125, the status of Device 125 will be displayed.

Simultaneously, the number in the *Go to* field will be deleted; i.e. the field is deactivated.

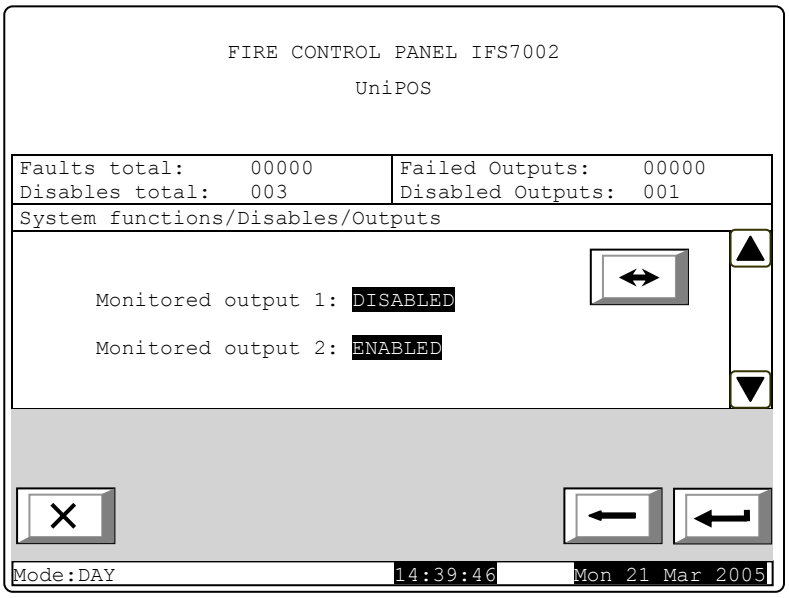
When you press button ↔ the detector status is being changed alternatively from *DISABLED* to *ENABLED* and reverse; in the panel bottom left section appears a reminder *Data not saved*. Changes (disable/enable addressable fire detector) are accepted if you press button ↵ and the *Go to* field is empty – then the reminder *Data not saved* disappears.

12.3.1.3. Menu *Outputs*

The menu is used for disabling and enabling outputs (monitored outputs and addressable output modules. It contains the following subordinate menu and functions:

- Monitored outputs;
- Addr Outputs Loop1;
- Addr Outputs Loop 2.

Upon activation of function *Monitored outputs* a screen displaying the status of the control panel's monitored outputs appears:

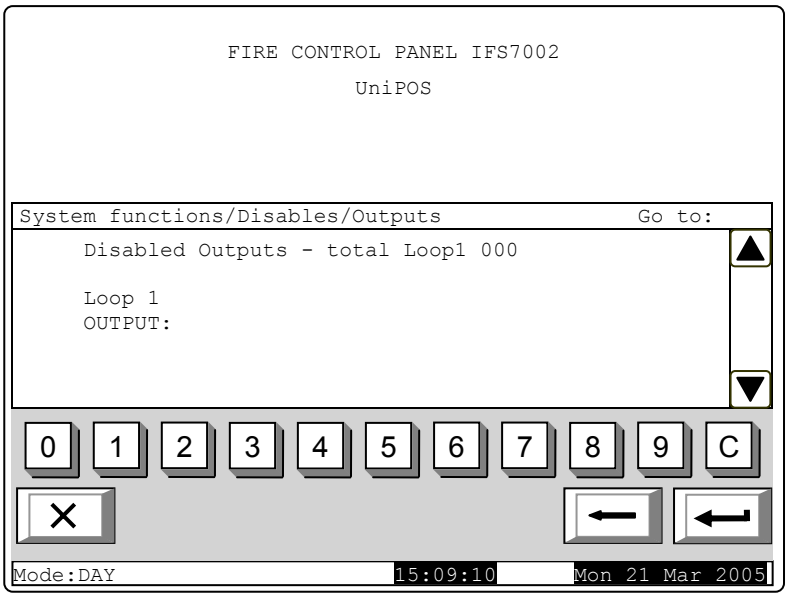


Buttons ▼ and ▲ appearing in the right panel section allow the user to switch between the first and the second monitored output.

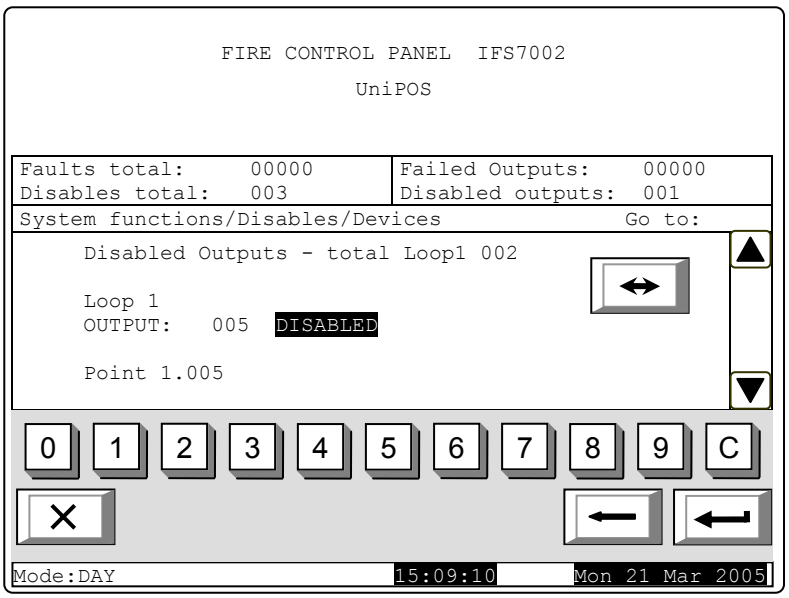
When you press button ↔ the monitored output status is being changed alternatively from *DISABLED* to *ENABLED* and reverse; in the panel bottom left section appears a reminder *Data not saved*. Changes (disable/enable addressable monitored output) are accepted if you press button ↵ and the *Go to* field is empty – then the reminder *Data not saved* disappears.

Menus *Addr Outputs Loop1* and *Addr Ouputs Loop 2* have identical layout. Enter the menus to display one of the following screens:

- If no disabled addressable output modules are available:



– If disabled addressable output modules are available – the first disabled addressable output module will be displayed, and the text message for the device will appear in the panel bottom section:



Buttons ▼ and ▲ seen in the right panel section allow the user to switch between the next and the previous disabled addressable output module (if any).

Using the digit buttons you may enter in the *Go to* field a random 3-digit address for the module in the loop. To edit the number press button C and the last entered digit will be deleted.

When you press button ↵ after a number is entered in the *Go to* field, the status of the addressable output module whose number is selected, will be displayed:

– If the selected number is 0, the status of Device 1 will be displayed;
– If the selected number is higher than 125, the status of Device 125 will be displayed.

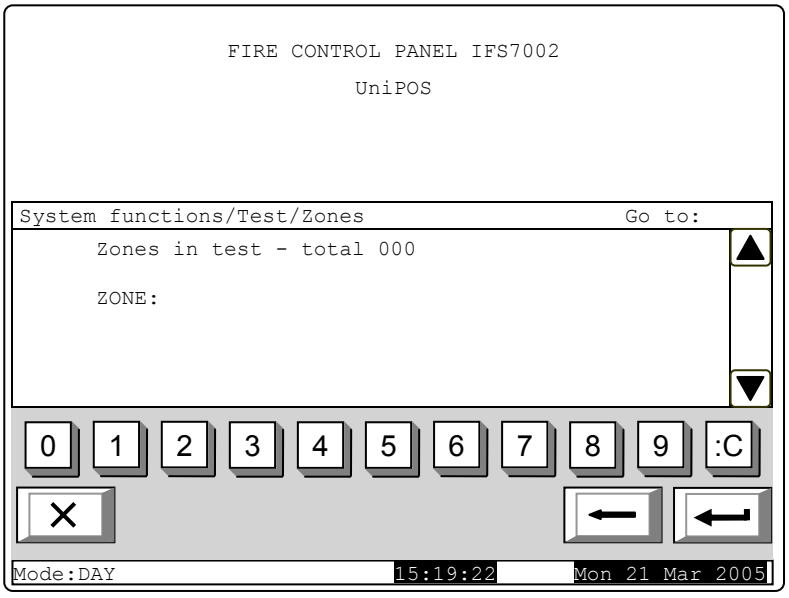
Simultaneously, the number in the *Go to* field will be deleted; i.e. the field is deactivated.

When you press button ↔ the addressable output module status is being changed alternatively from *DISABLED* to *ENABLED* and reverse; in the panel bottom left section appears a reminder *Data not saved*. Changes (disable/enable addressable output module) are accepted if you press button ↵ and the *Go to* field is empty – then the reminder *Data not saved* disappears.

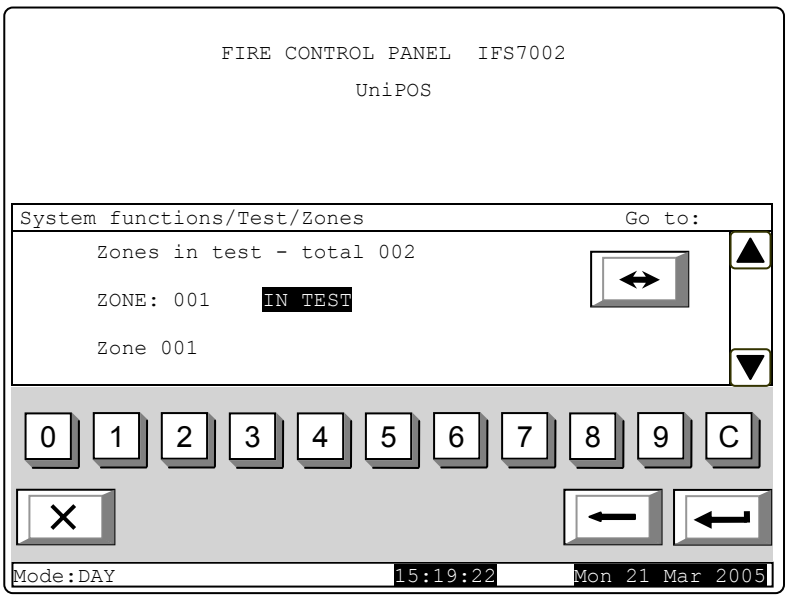
12.3.2. Menu *Zones in Test*

The menu is used to enable or disable test operation in fire alarm zones. Enter the menu to display one of the two screens:

– If no zones in test are available:



– If some zones in test are available, the first zone in test will be displayed, and in the panel bottom section will appear the text message of the zone:



Buttons ▼ and ▲ seen in the right panel section allow the user to switch between the next and the previous zone in test (if any).

Using the digit buttons you may enter in the *Go to* field a random 3-digit number of the zone. To edit the number press button C and the last entered digit will be deleted.

When you press button ↵ after a number is entered in the *Go to* field, the status of the zone whose number is selected, will be displayed:

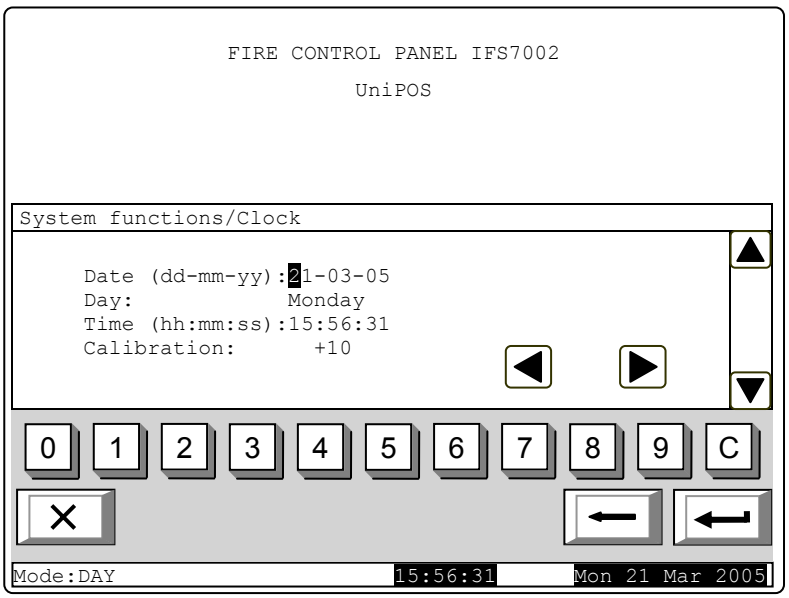
– If the selected number is 0, the status of Zone 1 will be displayed;
– If the selected number is higher than 250, the status of Zone 250 will be displayed.
– If the zone has not been formed yet, instead of text message of the zone appears *Disabled zone;*
– If the zone has not been formed yet, instead of text message of the zone appears *Free zone;*

Simultaneously, the number in the *Go to* field will be deleted; i.e. the field is deactivated.

By pressing the button ↔ the zone status is alternatively changed from *IN TEST* to *NOT IN TEST* and reverse, and in the bottom left section appears the reminder *Data not saved*. The changes (enable/disable test operation in fire alarm zone) take effect if button ↵ is pressed (and the *Go to* field is empty); then the reminder *Data not saved* is cleared.

12.3.3. Function *Set Clock*

The function is used to set the real time clock of the control panel to the correct time. Enter the function to display the screen:



Calendar date, day of the week, the time and the value of the calibration index are visualized, as per the moment when the function was activated. The cursor is located over the first position in the first line (Date).

Buttons ▼ and ▲ in the right panel section allow the user to move between the lines on the screen.

To set the correct date and time (line one and three) use:

– The digit buttons – to enter a specific digit on the position of the cursor;
– Buttons ◀ and ▶ – to move the cursor one position to the left or one position to the right.

To set the current day of the week (line two) use buttons ◀ and ▶ – they will display the previous or the next day of the week. Moving from Monday to previous day will set the day to Sunday; moving from Sunday to next day will set the day to Monday.

The calibration index (line four) can be edited using buttons ◀ and ▶ – respectively decreasing or increasing the index by a single calibration device until the minimum or maximum value is reached (–30 / +30). Each positive device accelerates the clock at the rate of 10,7s per month; each negative device delays the clock at the rate of 5,35s per month. The maximum rate is e +5,5min per month or -2,75min per month.

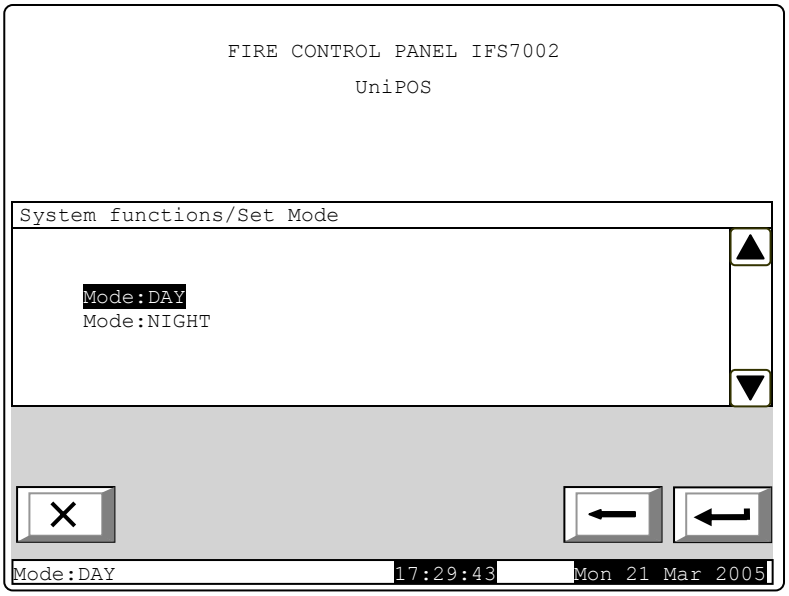
While changing the values in the bottom left section appears the reminder *Data not saved*.

Changes take effect when you press button ↵, then the reminder *Data not saved* is cleared.

12.3.4. Function *Set Mode*

The function allows the user to set the mode of operation of the fire control panel (Mode:DAY or Night Mode). While operating in Night Mode, the control panel ignores Fire condition stage I (Phase 1 of fire condition); i.e. upon activation of automatic fire detector and manual activation of manual call point, the control panel will always enter Fire condition stage II (Phase 2 of fire condition).

Enter the menu to display the screen:



The current mode of operation is displayed in inversive colours – white letters on black background.

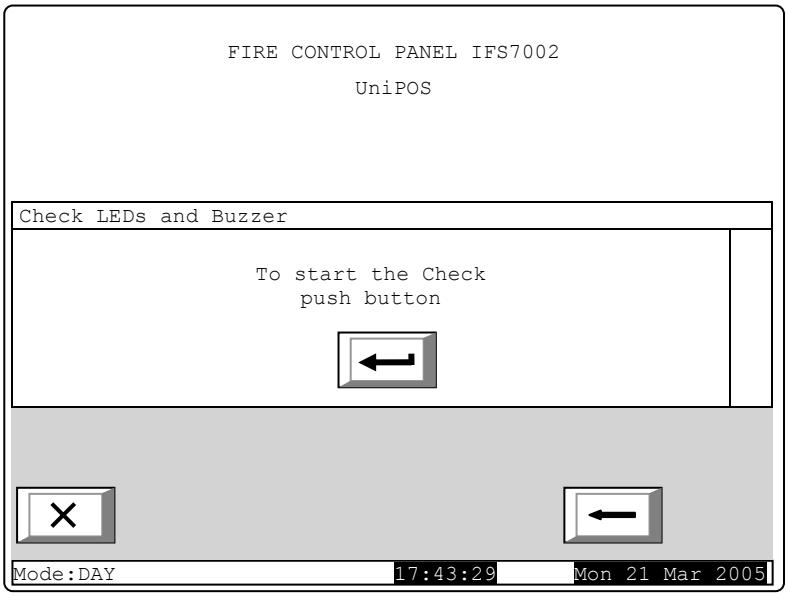
Buttons ▼ and ▲ in the right panel section allow to alternatively change the mode of operation.

When the mode is changed, in the bottom section appears the reminder *Data not saved*.

Changes take effect when you press button ↵, then the reminder *Data not saved* is cleared.

12.3.5. Function *Check LEDs and Buzzer*

The function allows checking the LEDs and the local sounder. Enter the function to display the following screen:



When you press button ↵ which is in the middle of the display, the check-up operation starts – control panel's LEDs illuminate and the local sounder produces a continuous sound. The text message on the display changes: *To stop the Check push button* ↵.

Press the button [←] once again to discontinue the check-up operation; the LEDs and the local sounder restore their initial state.

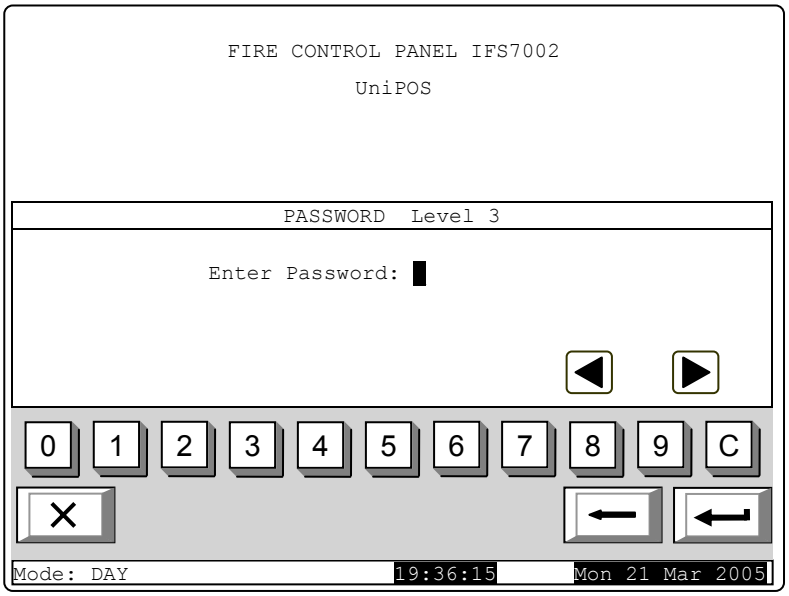
The operation of buttons [←] and [X] is extended – except for the basic functions they also discontinue the check-up if it has been started.

Note: LED [△] System Error and the local sounder are activated or deactivated a few seconds later than the rest of the LEDs.

12.4. Menu *Set Up*

This is the menu for Set Up condition (see section 13).

Access to Set Up menu is allowed at Access Level 3A; accordingly as soon as you enter the menu, a password screen appears:



To enter the password use the digit buttons – press a button and the relevant digit will be inserted in the place pointed by the cursor „", and the previous text and the cursor itself move one position to the right. Move the cursor to the right or to the left using buttons [◀] and [▶]. Press button [C] to delete:

- The digit under the cursor, if any;
- The digit to the left of the cursor if no digit is under the cursor.

Password maximum length is 10 symbols. If you press a digit button after a 10-symbol password is already entered, the extra digit is not accepted.

If the password is not correct, when you press button [←] all digits are deleted and the cursor moves back to initial position. If a password for Access Level 3 is entered, press button [←] and the fire control panel enters Set Up mode: fire detectors are being reset, monitored and addressable outputs are being switched off and the faults are being cleared. During this operation the message *Please wait* appears on the screen; as soon as the operation is completed, the menu Set Up is activated.

13. Set Up Mode

13.1. Description

Set Up mode is used for setting the configuration parameters of the control panel.

Access to the Set Up screen is provided through *Information and Control Mode* – submenu Set Up (see section 12.4).

When the control panel enters Set Up mode, it exits all other conditions and discontinues the service of fire alarm zones, addressable devices, monitored outputs and other periphery devices (all outputs are switched off). The panel can be controlled via the keypad provided for the purpose. Upon exit of Set Up mode, reset of the control panel is performed.

In Set Up mode only the green LED indicator [✓] (*Power supply*)is illuminated. The local sounder is off.

The displayed screens have a tree structure of subordinate menus (Appendix 2b). Transition to a lower hierarchy menu is performed via button [←] (*Enter*); to revert to a previous/ upper hierarchy

menu use button  (*Cancel*). To move between elements of a single menu use buttons  (*Up*) and  (*Down*) – when the menu appears as ascending window from the left bottom corner of the screen, or buttons  (*Move Up*) and  (*Move down*) – when the menu appears on a panel in the middle of the screen. To exit the condition use button  (*Exit*) or press repeatedly button  (*Cancel*) until you reach the main menu.

The screens provided for parameter changes and command execution (command screens) are of the lowest hierarchy. When a screen for parameter changes is activated, a pointer indicating the current parameter, subject to changes, appears. The pointer may be visualized as:

- a cursor, indicating the position where:
  - a symbol will be inserted – if there is a symbol under the cursor and a text at the cursor's right side, they will be moved one position to the right;
  - a symbol will be deleted – if there is a symbol under the cursor, it will be deleted; the text at the right side will be moved one position to the left; if there is no symbol under the cursor, the symbol to the left will be deleted.
- an arrow, pointing over the parameter;
- a text in inversive colours.

To move between the parameters use buttons  (next parameter) and  (previous parameter). When a parameter is changed, in the bottom left section of the panel appears the reminder *Data not saved*. To save the changes press button  and the reminder *Data not saved* is cleared.

Menu Set Up contains the following subordinate menus and functions:

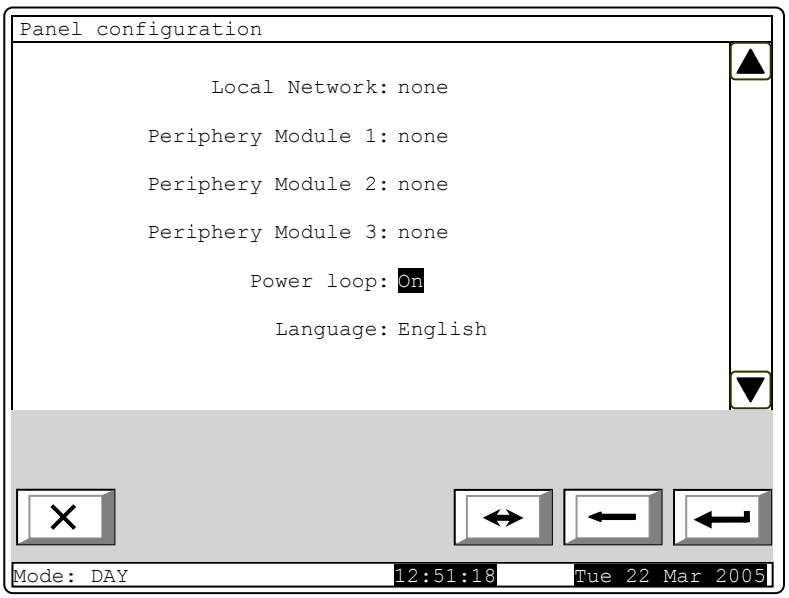
- Panel configuration;
- Panel parameters;
- Loops;
- Zones;
- Inputs;
- Initialization;
- Checks;
- New Passwords;
- Default parameters;
- Clear Archive.

13.2. Menu *Panel configuration*

The menu is used to set up:

- the local network where the control panel is included in:
  - if a local network is available, it can be switched on or off;
  - if no network is available, the message *None* appears in the field and the parameter remains inactive;
- the periphery devices in the control panel:
  - if periphery devices are present they can be switched on or off;
  - if no periphery devices are present, the message *None* appears in the field and the parameters remains inactive;
- the power loop – it can be switched on or off;
- the language of the messages – language options are Bulgarian or English.

The menu has the following layout:



The information for the first active parameter is displayed in inversive colours (white letters on black background). Buttons ▼ and ▲ at the right panel side allow the user to move between the active parameters only.

To edit the parameters use button ↔ – each time you press it the parameter value changes to the next acceptable value.

13.3. Menu *Panel parameters*

Use the menu when the control panel is integrated into a local network of panels (see Interactive Fire Control Panel IFS7002 – Operation in Local Network).

13.4. Menu *Loops*

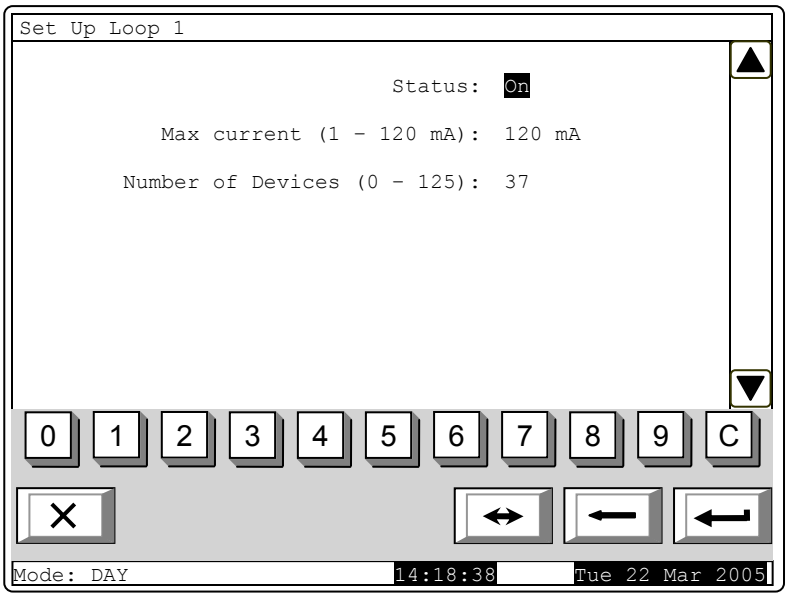
The menu is provided for set up of fire alarm loops and devices integrated in the loops. It contains two submenus of identical layout – for Loop 1 and for Loop 2. Each submenu contains:

- Menu *Loop parameters*;
- Menu *Device parameters*.

13.4.1. Menu *Loop parameters*

The menu allows the user to adjust the parameters of the fire alarm loop:

- Loop status - *On* or *Off*
- Maximum current value of the loop;
- Number of devices integrated in the loop.



To edit the *Status* parameter use button ↔ – press the button to alternatively change the parameter from *On* to *Off* and vice versa.

Use the digit buttons to edit the parameters *Maximum current* and *Number of devices*. When you press button C the digit at the cursor's left side is deleted.

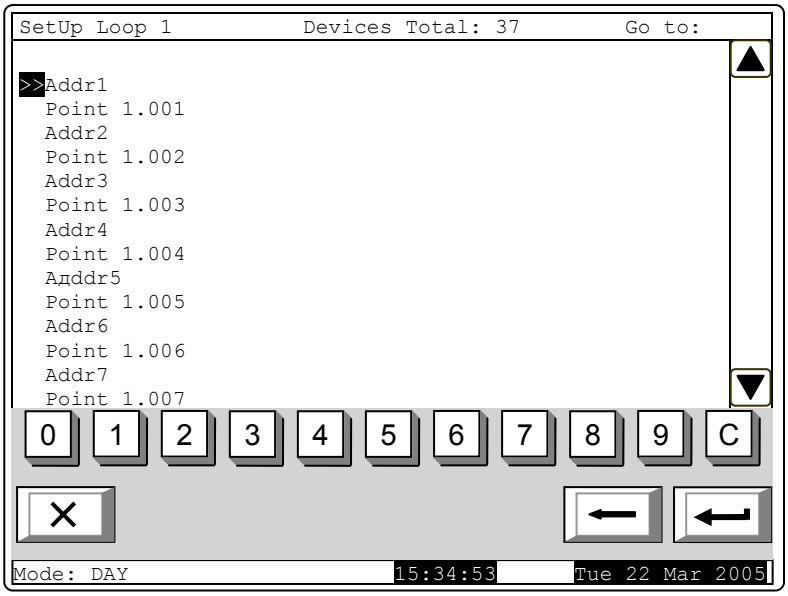
If the values of *Maximum current* and *Number of devices* are out of the specified limits they will not be accepted and saved when you press button ↵ and the reminder *Data not saved* will remain active.

13.4.2. Menu *Device parameters*

The menu is used to set up the parameters of the devices integrated in the fire alarm loop Enter the menu to display:

- If no devices are included in the loop – a screen with the message *No devices included;* the only option is to exit the menu;

- If some devices are included in the loop – a screen where you may select the device whose parameters are to be set up:



For each device are displayed:

- Its number (address) in the loop – in the top line;
- Text message – in the line beneath.

The current device is pointed by arrow – „>>".

Buttons ▼ and ▲ at the right panel side are visualized if more than one device is available in the loop; the *Go to* field on the panel heading and the digit buttons appear if more than 7 devices are available in the loop. Press a digit button, the *Go to* field is activated and a random 3-digit address for each device in the loop can be entered. To edit the address use button C; press it and the last entered digit will be deleted.

Press button ↵ after you entered a number in the *Go to* field; then the device whose address is in the field will be selected:

- If the number is 0, the device having address 1 will be selected;
- If the number is higher than the actual number of devices in the loop, the device having the highest address number will be selected

Simultaneously, the number in the *Go to* field will be deleted, i.e. the field is deactivated.

Press button ← after you entered a number in the *Go to* field and the field will be deactivated.

Press button ↵ when the *Go to* field is empty and a menu containing a group of parameters for the selected device will be displayed:

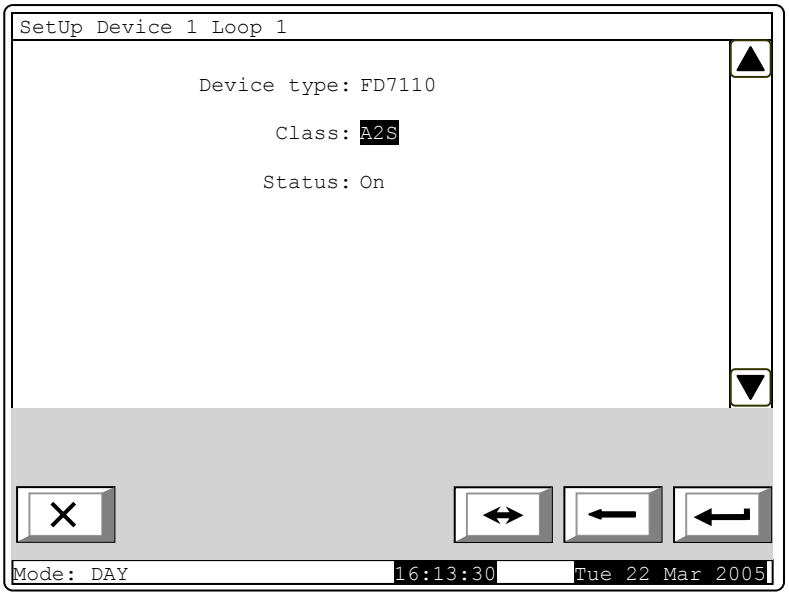
- Menu *Device parameters*;
- Screen *Text message*.

13.4.2.1. Menu *Device parameters*

The menu is used for addressable device parameters set up:

- Device temperature class – only for addressable devices type FD7110, FD7120, FD7130, FD7160 and FD7201;
- Device status – *On* or *Off.*

As a heading is displayed the type of the device:



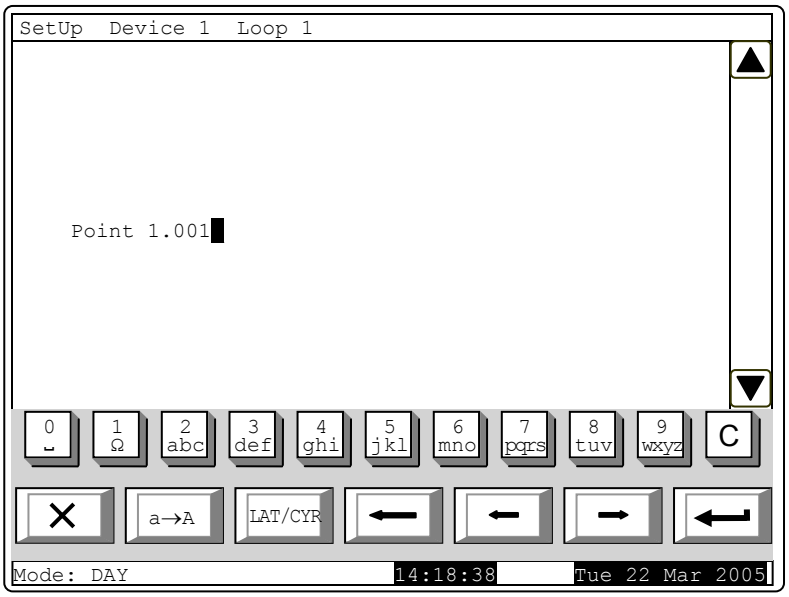
To edit the parameters use button [↔] – press it to change the parameter to the next acceptable value.

13.4.2.2. Screen *Text message*

The screen is used to assign and edit text messages for each addressable device. Upon activation of the screen a check up for available external keyboard is performed.

13.4.2.2.1. Built-in keypad

If no external keyboard is integrated in the control panel, the following screen appears:



To edit the text use the buttons having symbols – when you press a button, the symbol appears over the position of the cursor, and the previous text is moved one position to the right. The cursor remains for 1 s over the same position; if you press it again, the symbol will be changed by the next one marked on the button (the symbol Ω marked on the second button means, that the figure 1 is in combination with punctuation marks). 1 s after the last pressing the cursor moves to the next position to the right. If you press another button during this 1 second, the cursor first moves one position to the right and then the new symbol is inserted. The maximum length of the message is 40 symbols. If you press a button after a 40-symbol message is already entered, the text will not be accepted and the symbol will not be inserted (the cursor moves one position to the right if the end of the text message is not reached yet).

Press button [C] to delete:

- The symbol under the cursor, if any;
- The symbol to the left of the cursor, if there is no symbol under it.

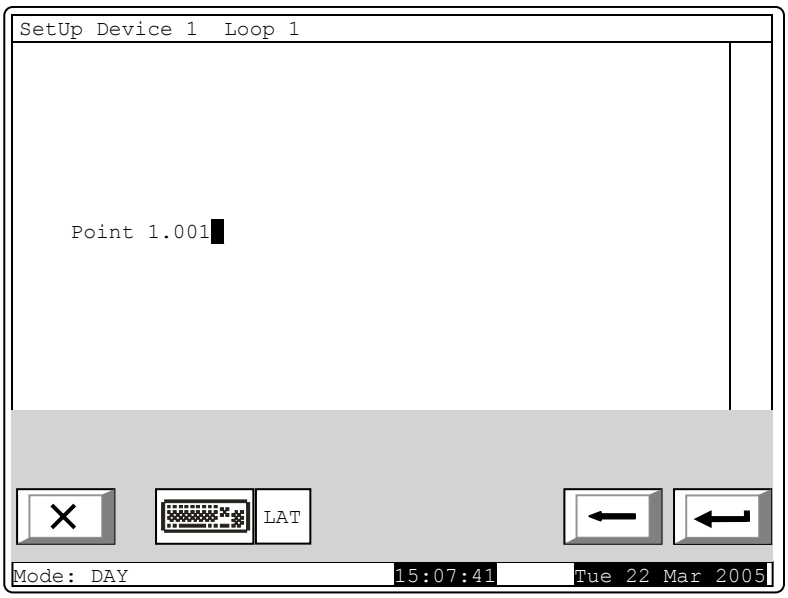
Press button [←] or [→] to move the cursor one position to the left or to the right.

Button [a→A] changes the case from lowercase to uppercase, button [A→a] changes the uppercase to lowercase.

Button [LAT/CYR] changes the Latin font to Cyrillic font; button [CYR/LAT] changes the Cyrillic font to Latin font.

13.4.2.2.2. External keyboard

If an external keyboard is included to the fire control panel the following screen appears:



To edit the text use the buttons having symbols – when you press a button, the symbol appears over the position of the cursor, and the previous text and the cursor move one position to the right

The maximum length of the message is 40 symbols. If you press a button after a 40-symbol message is already entered, the text will not be accepted and the symbol will not be inserted

Press button „Delete” to delete:

- The symbol under the cursor, if any;
- The symbol to the left of the cursor, if there is no symbol under it.

Press button [→] or [←] to move the cursor one position to the right or to the left.

Use the additional digit keypad to:

- Insert digits – when the LED „Num” is illuminated;
- Move the cursor via buttons „4 / ←” and „6 / →” (analogically to buttons [←] and [←]) – when the LED „Num” is extinguished;
- Delete a symbol via button „Del” (analogically to button „Delete”) – when the LED „Num” is extinguished.

The mode of operation of the additional keypad, indicated by the LED „Num” can be changed via button „Num Lock”.

Button „Caps Lock” alternatively changes the case from lowercase to uppercase (LED „Caps” or „A” illuminate to indicate uppercase).

Button „Ctrl” alternatively changes Latin fonts to Cyrillic fonts; the active font is indicated in the bottom section of the display – indicators [LAT] and [CYR].

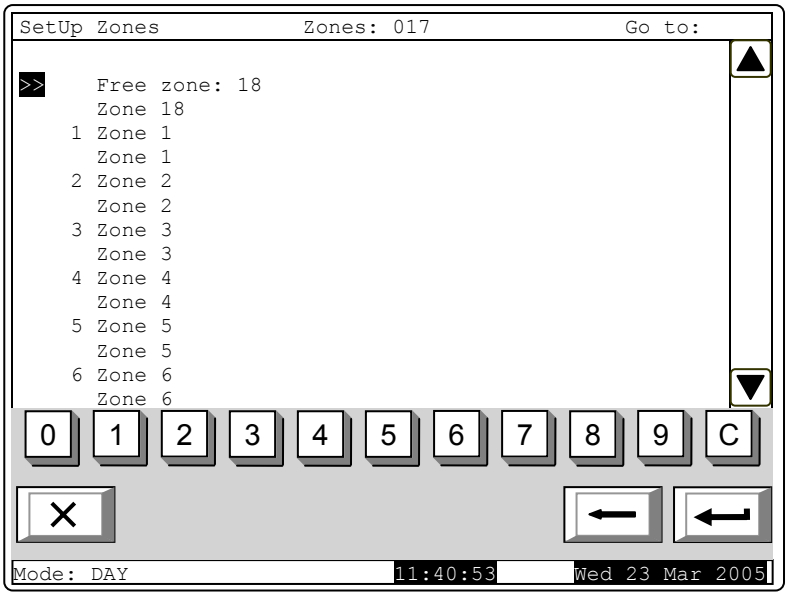
To save a text message press button [↵] on the built-in keypad or press button [↵] („Enter”) on the external keypad.

To exit the screen and revert to upper hierarchy menu use button [←] on the built-in keypad or button [←] („Back Space”) on the external keypad.

To exit Set Up use button [×] on the built-in keypad or button „Esc” on the external keypad.

13.5. Menu *Zones*

The menu allows the user to form fire alarm zones and to set up their parameters. Enter the menu to display a screen for zone selection:



For each zone are displayed:

- Its number – in the top line;
- The text message – in the line beneath.

The free zone is displayed first, i.e. the first zone where no devices is integrated in. The selected zone is pointed by arrow „>>".

Buttons ▼ and ▲ in the right panel section are visualized if at least one zone is available; the *Go to* field in the heading and the digit buttons appear if more than 6 zones are available.

When you press a digit button the *Go to* field is activated; you can enter a random 3-digit number of a zone. To edit the number use button C - the last inserted digit will be deleted.

When you press button ↵ after you entered a number in the *Go to* field, the zone whose address is in the field will be selected:

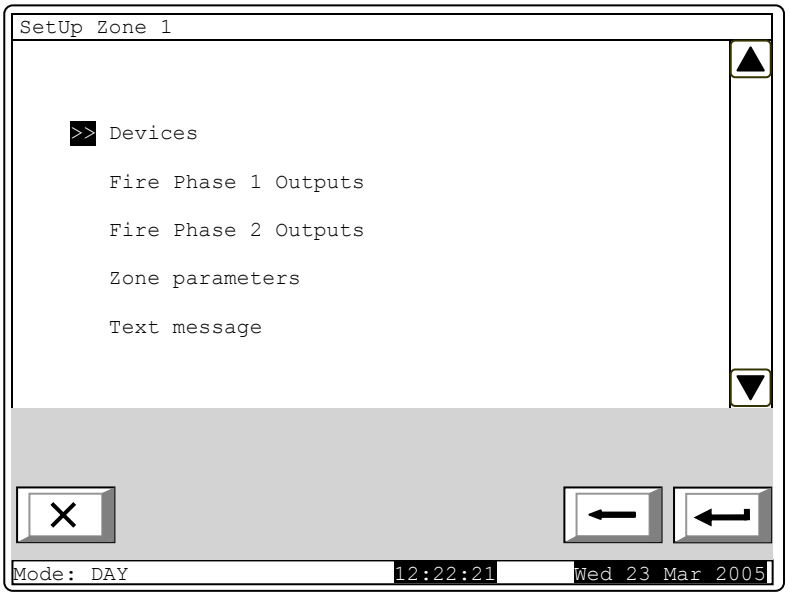
- If the number is 0, Zone 1 will be selected;
- If the number is higher than the actual number of fire alarm zones, the zone having the highest address number will be selected.

Simultaneously the number in the *Go to* field is deleted, i.e. the field is deactivated.

When you press button ← after you entered a number in the *Go to* field, the field will be deactivated.

When you press button ↵ and the field is empty, a menu containing groups of parameters for the selected zone appearsa:

- Menu *Devices*;
- Menu *Fire Phase 1 Outputs*;
- Menu *Fire Phase 2 Outputs*";
- Menu *Zone parameters*;
- Screen Text message.



13.5.1. Menu *Devices*

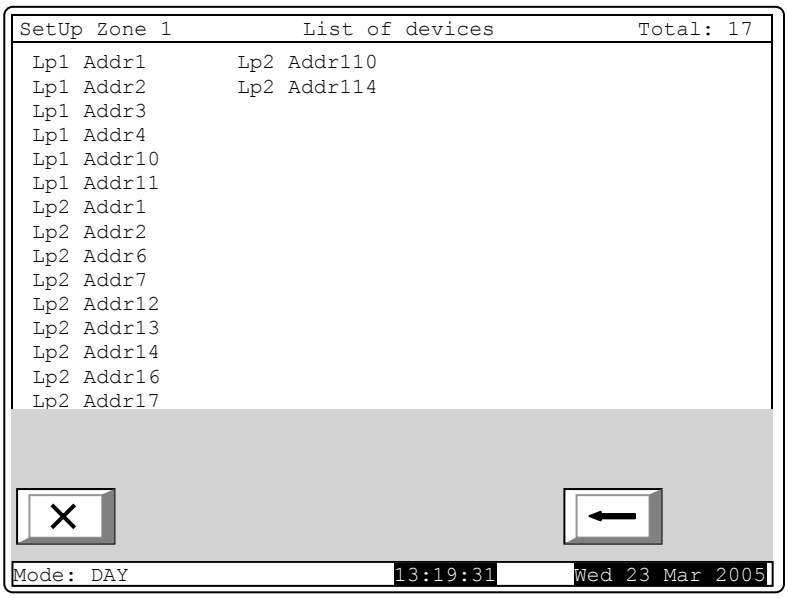
The menu allows the user to integrate (to include) a device in a zone and to exclude a device from a zone. It contains the following submenus and screens:

- Screen *List of devices*;
- Screen *Set zone as free*;
- Menu *Remove address*;
- Menu *Remove address range*;
- Menu *Add address*;
- Menu *Add address range*.

If no devices are present in the zone (free zone) screen *Set zone as free,* menu *Remove address,* and menu *Remove address range* are not accessible. If 60 devices are already added to the zone (the zone is full), the menu *Add address* and menu *Add address range* are not accessible.

13.5.1.1. Screen *List of devices*

The screen displays a list of fire detectors included in the zone. For each devices is displayed the loop where it is included and the device address in the loop:

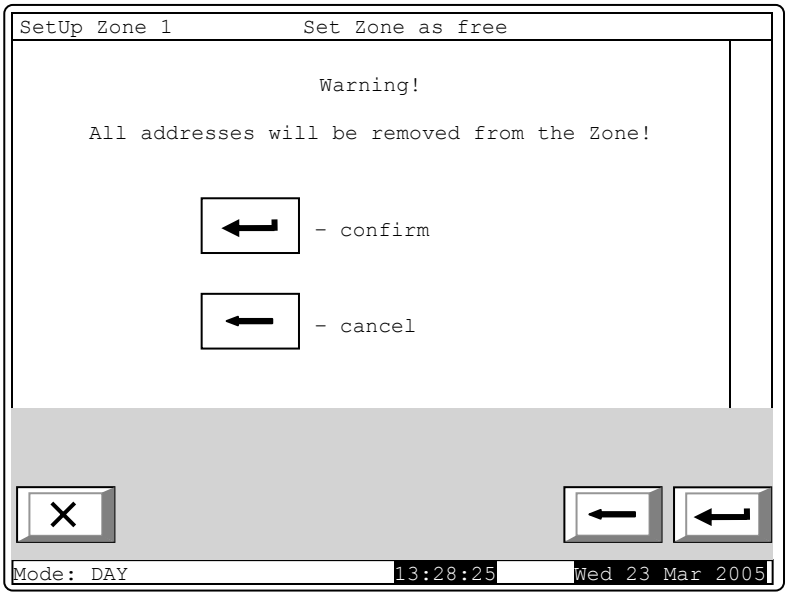


If no fire detectors are integrated in the zone, a screen with the text message *Free zone* appears.

13.5.1.2. Screen *Set zone as free*

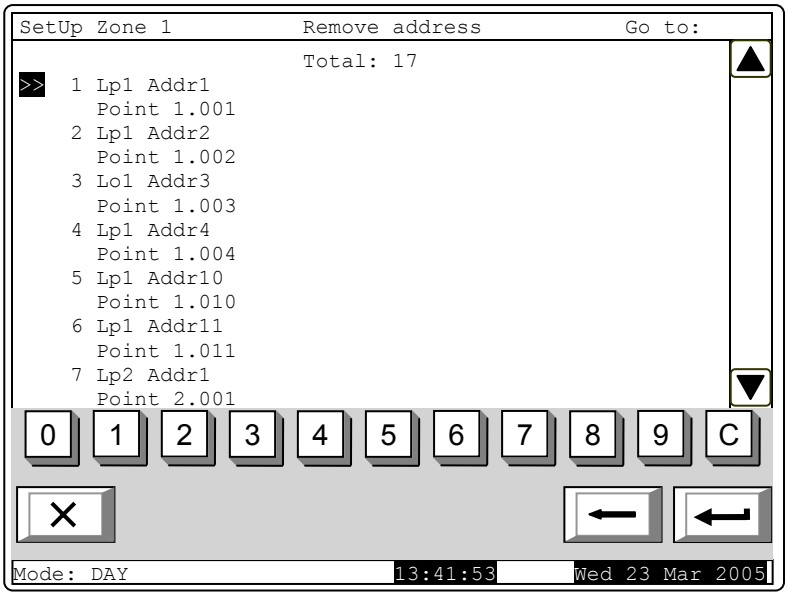
The command screen *Set zone as free* allows the user to remove all devices from the zone.

Press button  to remove the devices from the zone and to exit the screen.



13.5.1.3. Menu *Remove address*

The menu allows the user to remove particular devices from the zone:



For each device is displayed:

- Its number in the zone, the loop it is included in, and the address in the loop – in the top line
- The text message – in the line beneath.

The devices in a zone are numbered according to the following sequence:

- Devices in Loop 1 obtain numbers increasing along with the addresses;
- Devices in Loop 2 obtain numbers increasing along with the addresses.

The selected device is pointed by arrow – „>>".

Buttons ▼ and ▲ in the right panel section are visualized if more than one device is available; the *Go to* field and the digit buttons appear if more than 7 devices are available in the zone.

Press a digit button and the *Go* to field is activated; you can enter a random 2-digit number for a device in the zone. To edit the number, use button C, press the button to delete the last inserted digit.

When you press button ↵ and a number is already entered in the *Go to* field, the devices whose number is in the field will be selected:

- If the number is 0, the first device in the zone will be selcted;
- If the number is higher than the catual number of devices in the zone, the last device will be selected.

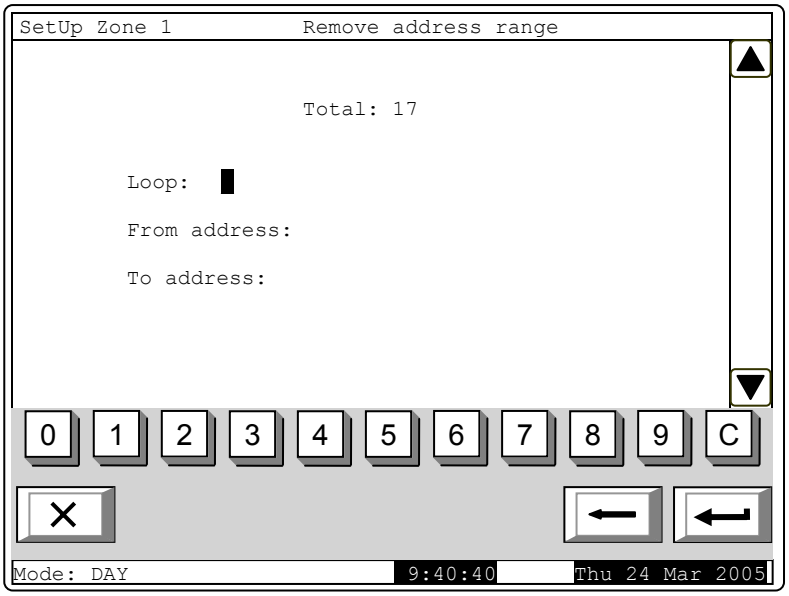
Simultaneously, the number in the *Go to* field will be deleted, i.e. the field is deactivated.

When you press button ← after a number is enterd in the *Go to* field, the field itself is deactivated.

When you press button ↵ and the *Go to* field is empty, the devices will be removed from the zone. When the last device is removed from the zone a screen with the text message *Free zone* appears; the only option is to exit the menu.

13.5.1.4. Menu *Remove address range*

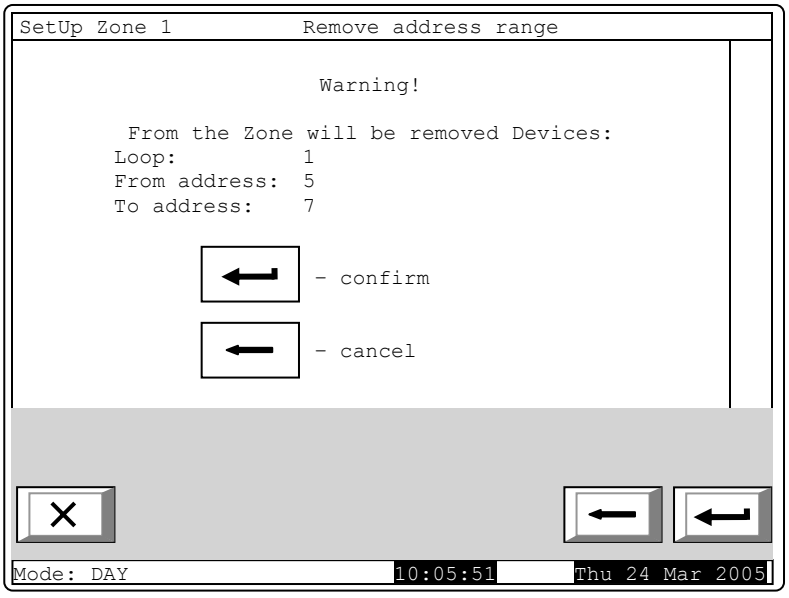
The menu allows the user to remove a group of devices from the zone, having consequent addresses in a single loop:



For each group of devices the user shall enter:

- The loop where the group is included in – if no value is entered, by default will be accepted Loop 1;
- The address of the first device in the group – if no value is entered by default will be accepted Address 1;
- The address of the last device in the group – if no value is entered by default will be accepted Address 1.

When you press button  a screen with warning message appears:



Press button  to remove from the zone devices included in the group. The screen displays:

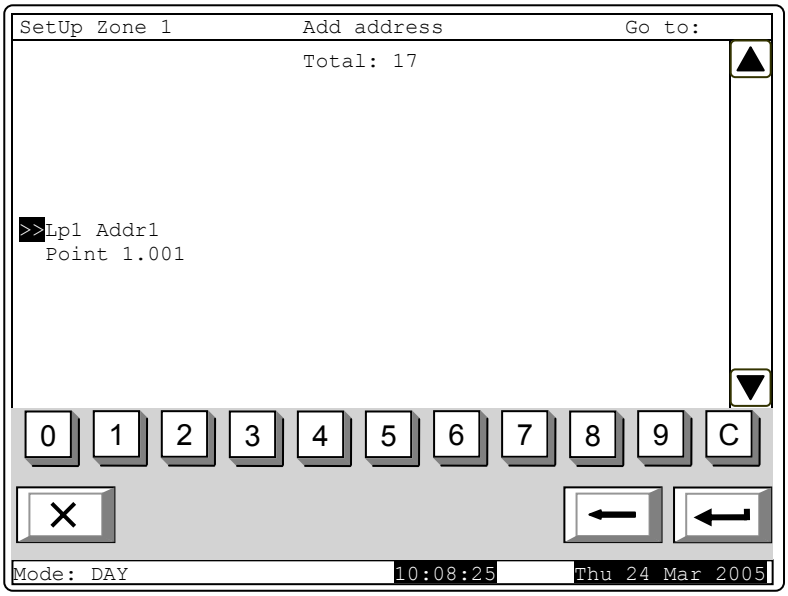
- If some devices are still in the zone – a screen for the selection of a group of devices for removal, and the most recent data are saved;
- If no devices are left in the zone – a screen with the text message *Free zone*; the only option is to exit the menu.

In both cases the number of the removed devices from the zone is displayed in the bottom section of the panel.

13.5.1.5. Menu *Add address*

The menu allows the user to add separate devices to the zone. Enter the menu to display:

- If no free device is available – a screen with the text message *All addresses are included in zones*, the only option is to exit the menu;
- If a free device is available – a screen displaying the first device that is not included in a zone:



For each device not included in a zone is displayed:

- The loop it is integrated in and the address in the loop – in the top line;
- Text message – in the line beneath.

The selected message is pointed by arrow – „>>".

Buttons ▼ and ▲ in the right panel section, the *Go to* field in the heading of the panel and the digit buttons are visualized if more than one free device is available.

When you press a digit button, the *Go to* field is activated; you can enter a random 3-digit number for a device in the field. To edit the number push button C, and the last inserted digit is deleted.

The devices get numbers in accordance with the following sequence: from the first decive in Loop 1 to the last device in Loop 1; from the first device in Loop 2 to the last device in Loop 2.

When you press button ↵ and a number is already entered in the *Go to* field, the first free device whose numer is equal to or higher than the number in the field will be selected:

- If the number is 0, the first free device will be selected;
- If the number is higher than the number of the last available free device, then the last device will be selected.

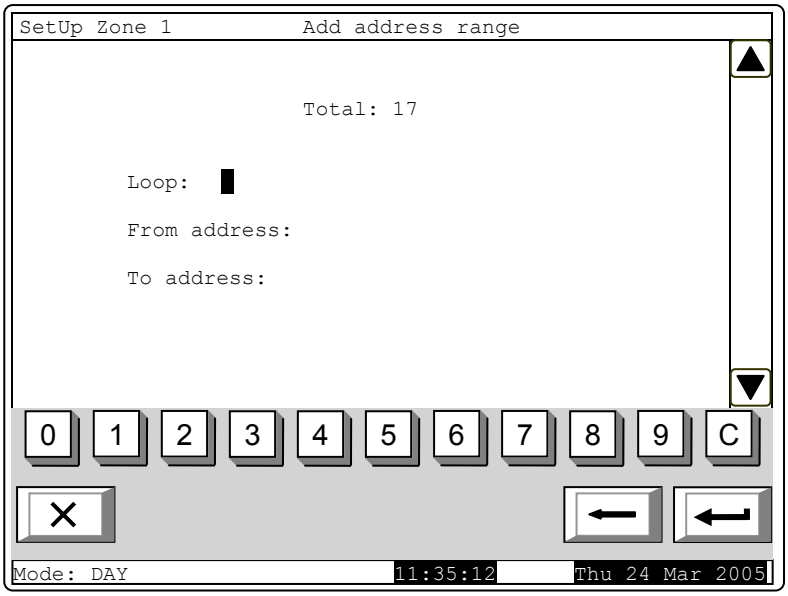
Simultaneously, the number in the *Go to* field is deleted, i.e. the field is deactivated.

When you press button ← and a number is already entered in the *Go to* field, then the field will be deactivated.

When you press button ↵ and the field is empty, then the device will be added to the zone. As soon as you add the last available free device, a screen with the text message *All addresses are included in zones;* the only option is to exit the menu. After 60th device is added to the zone, a screen with the text message *Full Zone* appears; the only option is to exit the menu.

13.5.1.6. Menu *Add address range*

The menu allows the user to add a group of devices, having consequent addresses in a single loop, to the zone:



For each group of devices the user shall enter:

- The loop where the group is included in – if no value is entered, by default will be accepted Loop 1;
- The address of the first device in the group – if no value is entered by default will be accepted Address 1;
- The address of the last device in the group – if no value is entered by default will be accepted Address 1.

Press button ↵ to add the free devices in the group to the zone; the limit of 60 devices in a zone is accordingly observed. The following information is displayed:

- If less than 60 devices are available in the zone – a screen for the selection of a group of devices that are to be added, and the most recent data is saved;
- If 60 devices are already added to the zone – a screen with the message *Full Zone* appears; the only option is to exit the menu.

In both cases the number of the devices added to a zone is displayed in the bottom section of the panel.

13.5.2. Menus *Fire Phase 1 Outputs* and *Fire Phase 2 Outputs*

The menus alow the user to associate outputs to the zone, that wil be triggered in fire condition (phase Fire condition stage I and phase Fire condition stage II). The menus contain:

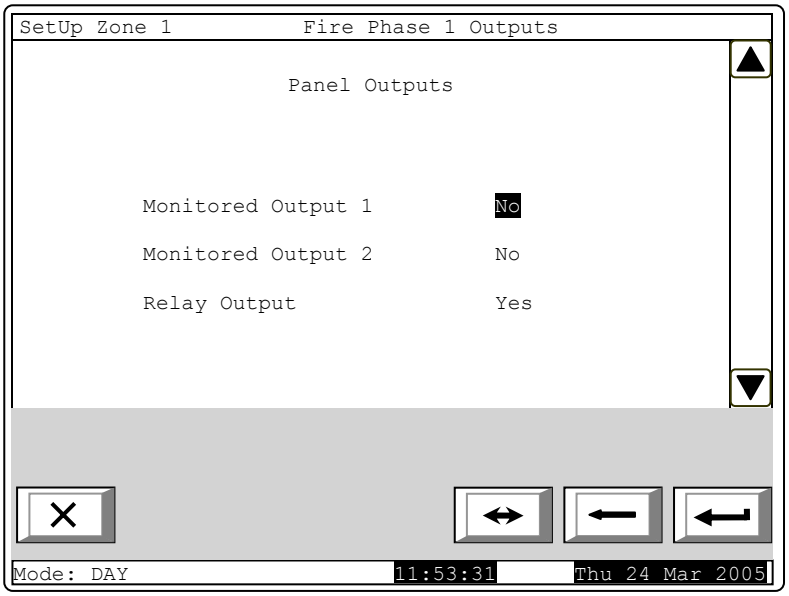
- Menu *Panel Outputs*
- Screen *List of addressable outputs*;
- Menu *Remove addressable output;*
- Menu *Add addressable output*.

If no associated addressable outputs are available, menu *Remove addressable output* is not accessible. If 30 addressable outputs are associated to the zone, menu *Add addressable output* is not accessible.

13.5.2.1. Menu *Panel Outputs*

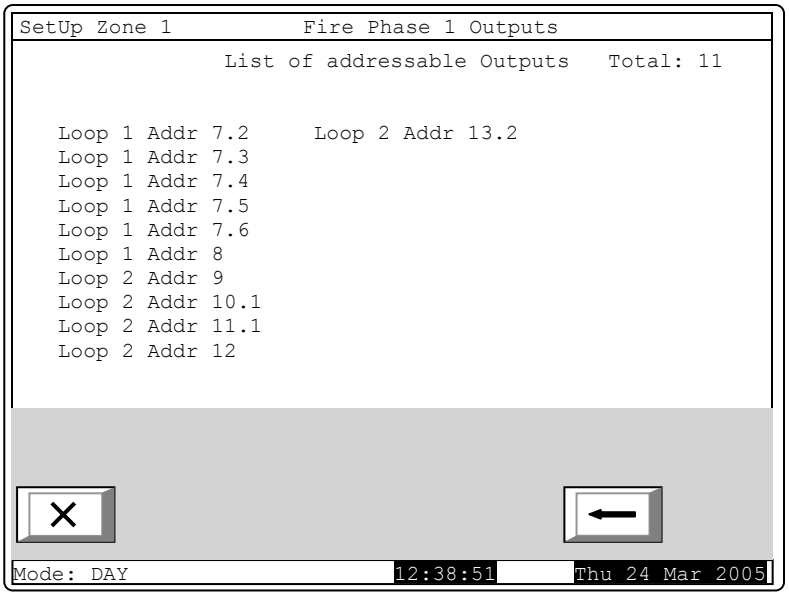
Menu *Panel Outputs* allows the user to associate control panel outputs to the zone, in accordance with the Fire phase:

To edit the parameters use button ↔ – press it to alternatively change the value of the current parameter to *Yes* (the output will be activated upon relevant phase of Fire condition in the zone) and to *No* (the output will remain inactive upon relevant phase of Fire condition in the zone) and vice versa.



13.5.2.2. Screen *List of addressable outputs*

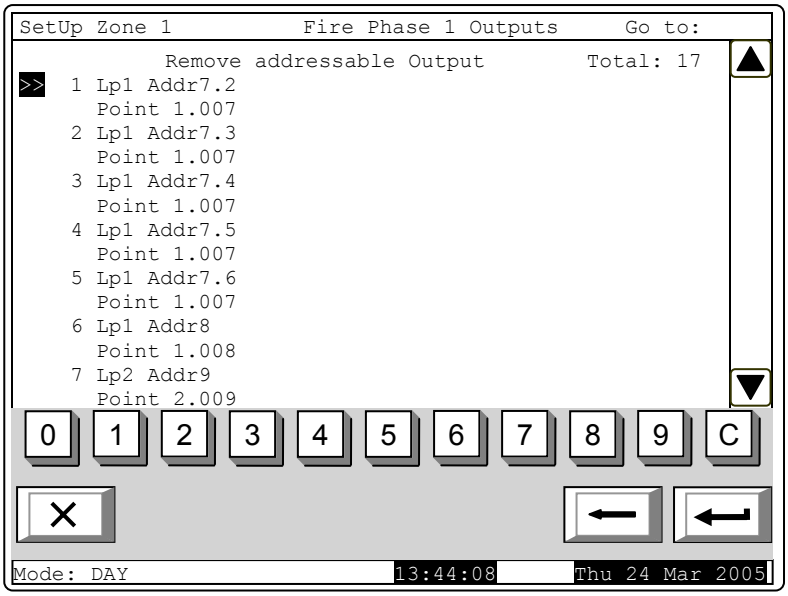
The screen displays a list of addressable outputs, associated to the zone. For each output is displayed the loop where the output module is included in, its address in the loop and the number of the output in the module, if more than one.



If no addressableoutputs are associated to the zone, a screen with the message *No addressable outputs activated upon Fire Condition Phase X* (X stands for phase number – 1 or 2)

13.5.2.3. Menu *Remove addressable output*

The menu allows the user to remove separate addressable outputs associated to the zone:



For each output is displayed:

- Its number in the zone; the loop where the device is included; the addresss of the device in the loop and the number of the output in the device, if more than one– in the top line;
- Text message for the devices – in the line beneath.

The selected output is poitned by arrow – „>>".

Buttons ▼ and ▲ in the right panel section are visualized where more than one output is available, and the *Go to* field in the heading and the digit buttons appear if more than 7 outputs associated to the zone are available.

When you press a digit button, the *Go to* field is activated; you can enter a random 2-digit number for the output in the zone. To edit the number, use button C; press it to delete the last entered digit.

When you press button ↵ and a number is already entered in the *Go to* field the output whose number is in the field will be selected:

- If the number is 0, the first output assosiated to the zone will be selcted;
- If the number is higher than the actual number of associated outputs, the last output will be selected.

Simultaneously, the number in the *Go to* field is deleted, i.e. the field is deactivated.

When you press button ← and the number is already entered in the *Go to* field, the field will be deactivated.

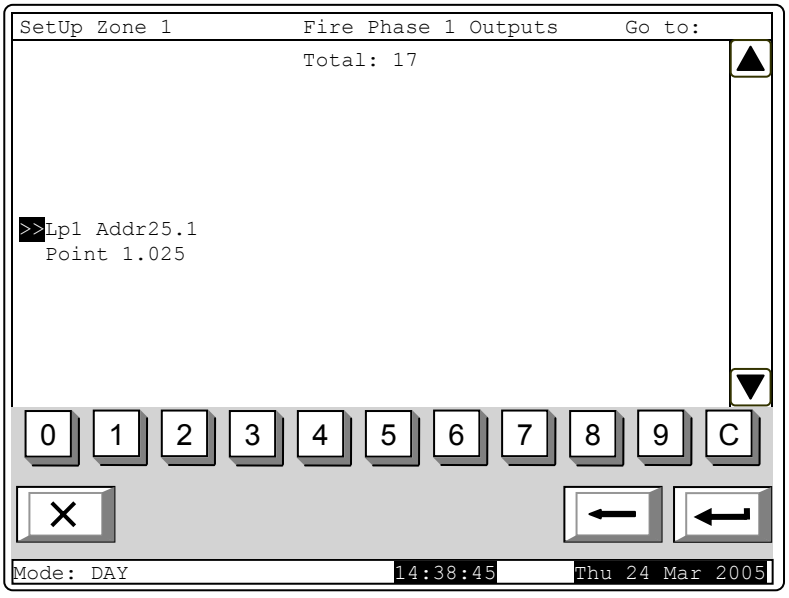
When you press button ↵ and the field is empty, the output will be remoced from the zone. When the last output associated to the zone is removed, a screen with the text message *No addressable outputs activated upon Fire Phase X* (X stands for the Phase number – 1 or 2) is displayed; the only option is to exit the menu.

13.5.2.4. Menu *Add addressable output*

The menu allows the user to associate separate addressable outputs to the zone. Enter the menu to display:

- If no free addressable outputs, not associated to a zone in accordance with the relevant fire phase are available – a screen with the message *No unused outputs* appears; the only option is to exit the menu;

- If a free addressable output, not associated to the zone in accordance with the relevant fire phase is available – a screen with the first free addressable output:



For each addressable output is displayed:

- The loop where the output module is included; the loop address and the number of the output in the module, if more than one – in the top line;
- Text message for the device – in the line beneath.

The selected addressable output is pointed by arrow – „>>".

Buttons ▼ and ▲ in the right panel section are visualized if more that one free addressable output is available, and the *Go to* field in the heading and the digit buttons appear if free addressable outputs in more than one module are available.

When you press a digit button, the *Go to* field is activated; you can enter a random 3-digit numbr for a device. To edit the number, use button C, press it and the last entered digit will be deleted.

The devices obtain numbers according to the following sequence: from the first device in Loop 1 to the last device in Loop 1; from the first device in Loop 2 to the last device in Loop 2.

When you press button ↵ and a number is entered in the *Go to* field, the first free addressable output whose number is equal to or higher than the number in the field will be selected:

- If the number is 0, the first free addressable output will be selected;
- If the number is higher than the number of the device having the last free addressable output, the last free addressable output will be selected.

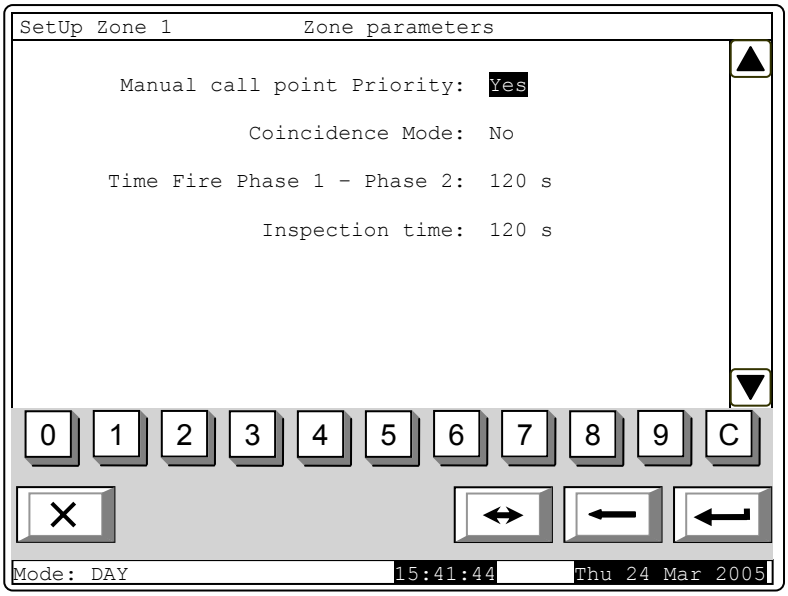
Simultaneously the number in the *Go to* field is deleted; i.e. the field is deactivated.

When you press button ← after you entered a number in the *Go to* field, the field will be deactivated

When you press button ↵ and the *Go to* field is empty, the output will be added to the outputs associated to the zone. When the last free addressable output is added, a screen with the message *No unused outputs* appears; the only option is to exit the menu. When the 30th addressable output is associated to the zone, a screen with the message *Additional addressable outputs can not be activated upon Fire Phase* X (X stands for the phase number – 1 or 2); the only option is to exit the menu.

13.5.3. Menu *Zone parameters*

The menu is provided for zone parameters set up:



- Manual call point priority – when the manual call points have priority, their response will trigger Fire condition phase 2 in the zone; if they do not have priority, their response will trigger Fire condition phase 1 in the zone; i.e. they will be treated as automatic fire detectors;
- Coincidence mode – when set to this mode, the zone will enter Fire condition phase 1 if at least 2 low priority fire detectors are activated;
- Time Fire Phase 1 – Phase 2 – the delay time before the control panel proceeds from fire condition stage I to fire condition stage II in the zone;
- Inspection time – period of time that, when you press button , will be added to the remaining time for transition from Fire condition stage I to Fire condition stage II in a zone.

To edit parameters *Manual call point priority* and *Coincidence Mode* use button – by pressing the button you can change the value of the parameter alternatively form *Yes* to *No* and vise versa.

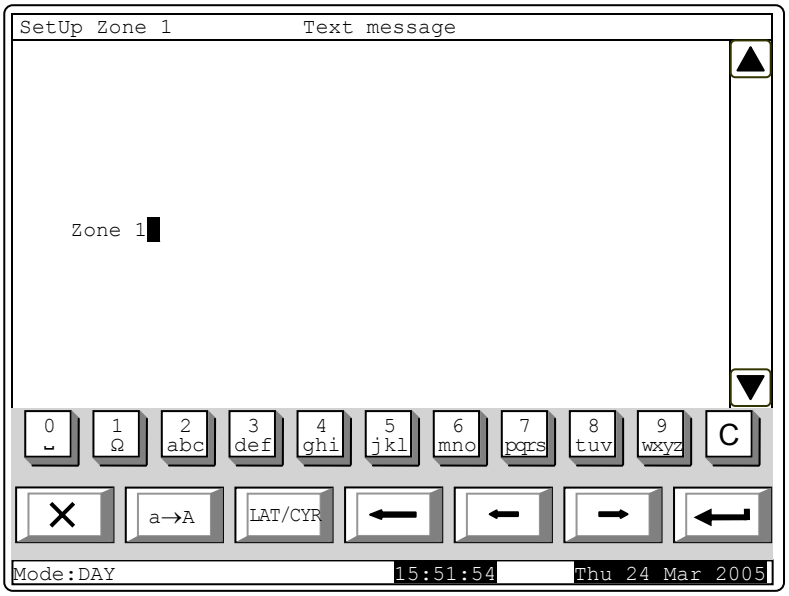
To edit parameters *Time Fire Phase 1 – Phase 2* and *Inspection time* use the digit buttons. When you press button C the digit at the left side of the cursor will be deleted. If the values for *Time Fire Phase 1 – Phase 2* and *Inspection time* are higher than 255, they will be automatically replaced by 255 as soon as the last digit is entered.

13.5.4. Screen *Text message*

The screen allows the user to insert and edit a text message for a zone. Upon activation of the screen a check up is being run for included external keyboard.

13.5.4.1. Built-in keypad

If no external keyboard is included to the control panel, then the following screen appears:



To edit the text use the buttons having symbols – when you press a button, the symbol appears over the position of the cursor, and the previous text is moved one position to the right. The cursor remains for 1 s over the same position; if you press it again, the symbol will be changed by the next one marked on the button (the symbol Ω marked on the second button means that the figure 1 is in combination with punctuation marks). 1 s after the last pressing the cursor moves to the next position to the right. If you press another button during this 1 second, the cursor first moves one position to the right and then the new symbol is inserted. The maximum length of the message is 40 symbols. If you press a button after a 40-symbol message is already entered, the text will not be accepted and the symbol will not be inserted (the cursor moves one position to the right if the end of the text message is not reached yet).

Press button [C] to delete:

- The symbol under the cursor, if any;
- The symbol to the left of the cursor, if there is no symbol under it.

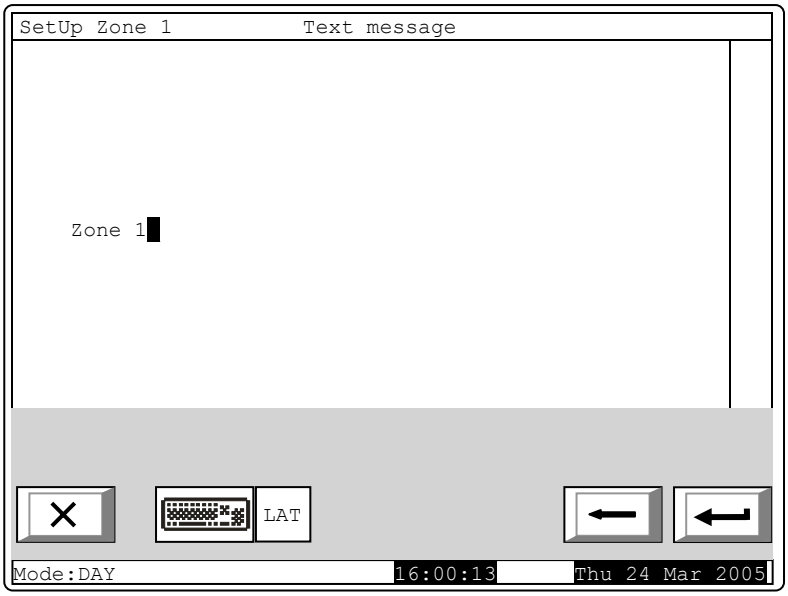
Press button [←] or [→] to move the cursor one position to the left or to the right.

Button [a→A] changes the case from lowercase to uppercase, button [A→a] changes the uppercase to lowercase.

Button [LAT/CYR] changes the Latin font to Cyrillic font, button [CYR/LAT] changes the Cyrillic font to Latin font.

13.5.4.2. External keyboard

If external keyboard is included to the control panel, the followinh screen appears:



To edit the text use the buttons having symbols – when you press a button, the symbol appears over the position of the cursor, and the previous text and the cursor move one position to the right

The maximum length of the message is 40 symbols. If you press a button after a 40-symbol message is already entered, the text will not be accepted and the symbol will not be inserted.

Press button “Delete” to delete:

- The symbol under the cursor, if any;
- The symbol to the left of the cursor, if there is no symbol under it

Press button → or ← to move the cursor one position to the right or to the left.

Use the additional digit keypad to:

- Insert digits – when the LED „Num” is illuminated;
- Move the cursor via buttons „4 / ←” and „6 / →” (analogically to buttons ← and ←) – when the LED „Num” is extinguished;
- Delete a symbol via button „Del” (analogically to button „Delete”) – when the LED „Num” is extinguished.

The mode of operation of the additional keypad, indicated by the LED „Num” can be changed via button „Num Lock”.

Button „Caps Lock” alternatively changes the case from lowercase to uppercase (LED „Caps” or „A” illuminate to indicate uppercase).

Button „Ctrl” alternatively changes Latin fonts to Cyrillic fonts; the active font is indicated in the bottom section of the display – indicators LAT and CYR.

To save a text message press button ← on the built-in keypad or press button ← („Enter”) on the external keypad.

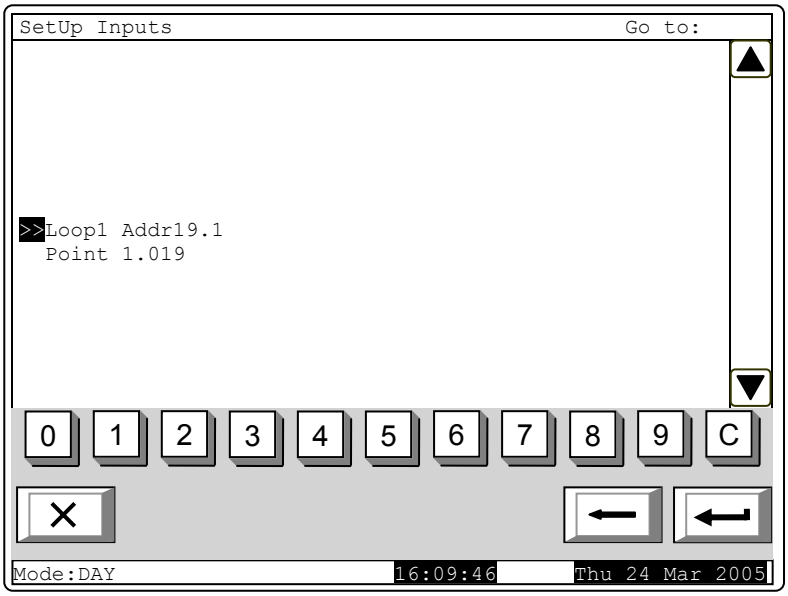
To exit the screen and revert to upper hierarchy menu use button ← on the built-in keypad or button ← („Back Space”) on the external keypad.

To exit Set Up use button × on the built-in keypad or button „Esc” on the external keypad.

13.6. Menu *Inputs*

The menu allows the user to set the parameters of the addressable inputs. Enter the menu to display:

- If no addressable input modules are available – a screen with the message *No inputs*; the only option is to exit the menu;
- If addressable input modules are available – a screen for selection of the first addressable input whose parameters are to be set:



For each addressable input is displayed:

- Loop number, input module address in the loop and the number of the input in the module if more than one – in the top line;
- Text message for the module – in the line beneath.

The selected input is pointed by – „>>".

Buttons ▼ and ▲ in the right panel section are visualized where more than one addressable input is available, the *Go to* field in the heading and the digit buttons appear if more than one addressable input module is available.

Buttons ▼ and ▲ allow the user to switch between the next and the previous addressable input (if any).

When you press a digit button the arrow „>>" will appear before the selected addressable input is deleted and the *Go to* field is activated; you can enter a random 3-digit number for the device. To edit the number press button C and the last entered digit will be deleted.

Devices obtain numbers according to the following sequence: from first device in Loop 1 to the last device in Loop1; from the first device in Loop 2 to the last device in Loop 2.

When you press button ↵ and a number is entered in the *Go to* field, the first free addressable input of the first addressable input module whose number is equal to or higher than the number in the field will be selected:

- If the number is 0, the first free addressable input will be selected;
- If the number is higher than the number of the last free addressable input module, the last free addressable input will be selected.

Simultaneously the number in the *Go to* field is deleted; i.e. the field is deactivated.

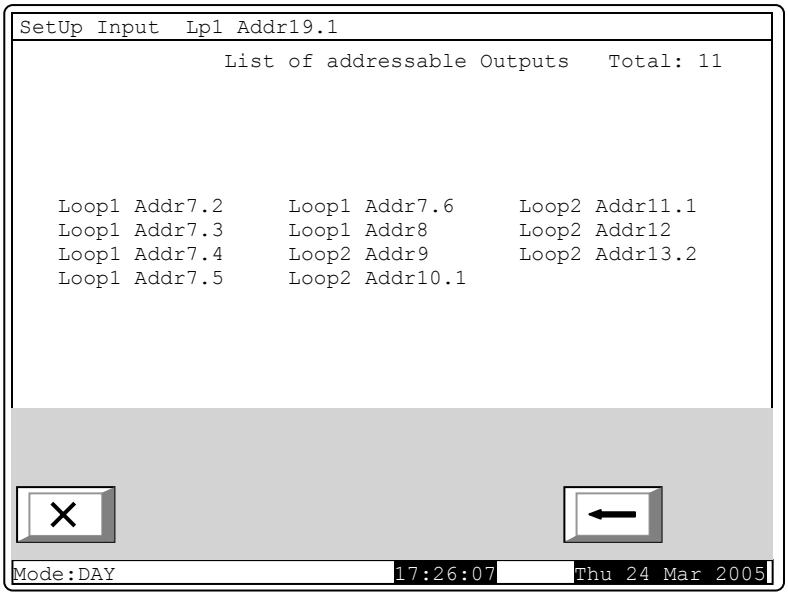
When you press button ← after you entered a number in the *Go to* field, the field will be deactivated and the arrow „>>" will appear before the selected addressable output.

Whe you press button ↵ and the arrow „>>" is visualized (*Go to* field is empty) then a menu containing groups of parameters for the selected addressable output will appear:

- Screen *List of addressable outputs*;
- Menu *Remove addressable output*;
- Menu *Add addressable output*;
- Menu *Text message*.

13.6.1. Screen *List of addressable outputs*

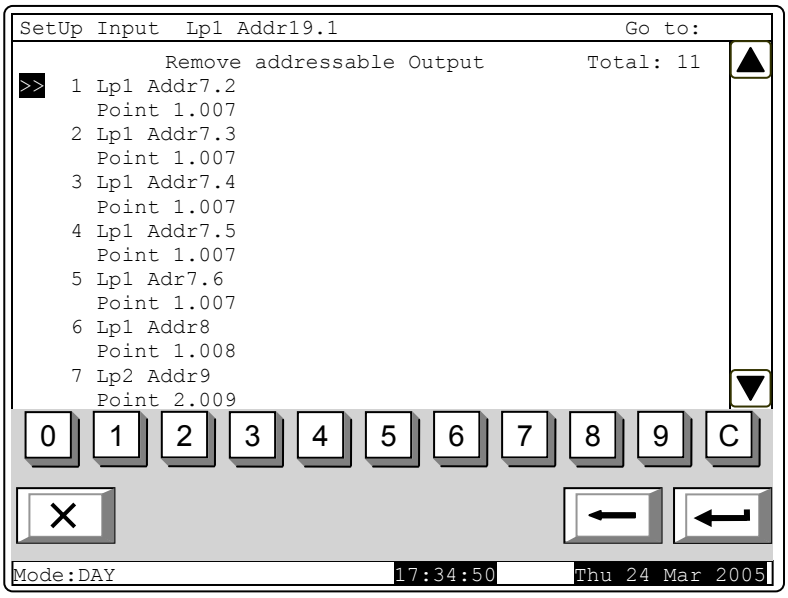
The screen displays a list of addressable outputs that will be initiated upon activation of the addressable input. For each output is displayed the loop where the output module is included in, its address in the loop and the number of the output in the module, if more than one.



If no addressable outputs subject to activation through the addressable input are available, a screen with the text message *No addressable outputs activated by this Input* appears.

13.6.2. Menu *Remove addressable output*

The menu allows the user to remove separate addressable outputs, activated by the addressable input:



For each addressable output is displayed:

- Its number in the list of outputs, activated by the addressable input; the loop where the module is included; the address of the module in the loop and the number of the output in the module, if more than one – in the top line;
- Text message for the device – in the line beneath.

The selected addressable output is pointed by arrow – „>>".

Buttons ▼ and ▲ in the right panel section are visualized if more that one addressable output is available, and the *Go to* field in the heading and the digit buttons appear if more than 7 addressable outputs activated by the input are available.

When you press a digit button, the *Go to* field is activated; you can enter a random 2-digit numbr for the output in the list of outputs activated by the input. To edit the number, use button C, press it and the last entered digit will be deleted.

When you press button ↵ and a number is entered in the *Go to* field, the output whose list number is in the field will be selected:

- If the number is 0, the first output activated bythe addressable input will be selected;

- If the number is higher than the number of outputs, activated by the addressable input the last output will be selected.

Simultaneously the number in the *Go to* field is deleted; i.e. the field is deactivated.

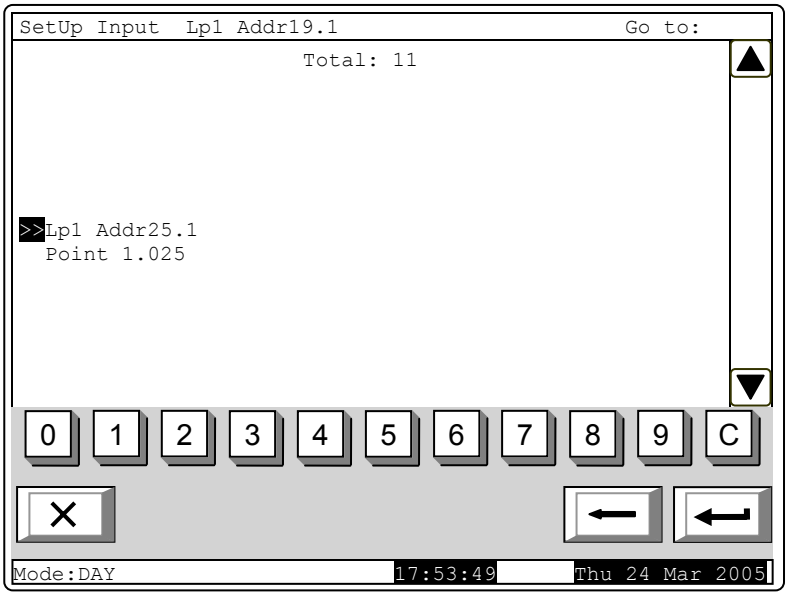
When you press button ↵ and the *Go to* field is empty, the list of outputs activated by the addressable input will be deleted. When the last output from the list is deleted, a screen with the message *No addressable outputs activated by this input* appears; the only option is to exit the menu.

13.6.3. Menu *Add addressable output*

The menu allows the user to add separate addressable outputs to the list of outputs subject to activation by the addressable input. Enter the menu to display:

- If no free addressable outputs, not included in the list, are available – a screen with the message *No unused outputs* appears; the only optio is to exit the menu;

- If a free addressable output, not included in the lis, is available – a screen displaying the first free addressable output:



For each addressable output is displayed:

- The loop where the input module is included in; the module address in the loop and the number of the output in the module, if more than one – in the top line;
- Text message for the module – in the line beneath.

The selected addressable output is pointed by arrow – „>>".

Buttons ▼ and ▲ in the right panel section are visualized if more than one free addressable output is available, the *Go to* field and the digit buttons appear if free addressable outputs in more than one module are available.

When you press a digit button, the *Go to* field is activated and you can enter a random 3-digit number for the module. To edit the number, use button C and the last inserted digit will be deleted.

Devices obtain numbers according to the following sequence: from the first device in Loop 1 to the last device in Loop 1; from the first device in Loop 2 to the last device in Loop 2.

When you press button ↵ and a number is entered in the *Go to* field, the first free addressable output in the first module whose number is equal to or higher than the number in the field will be selected:

- If the number is 0, the first free addressable output will be selected;
- If the number is higher than the number of the module having the last free addressable output, then the last output will be selected.

Simultaneously the number in the *Go to* field is deleted; i.e. the field is deactivated.

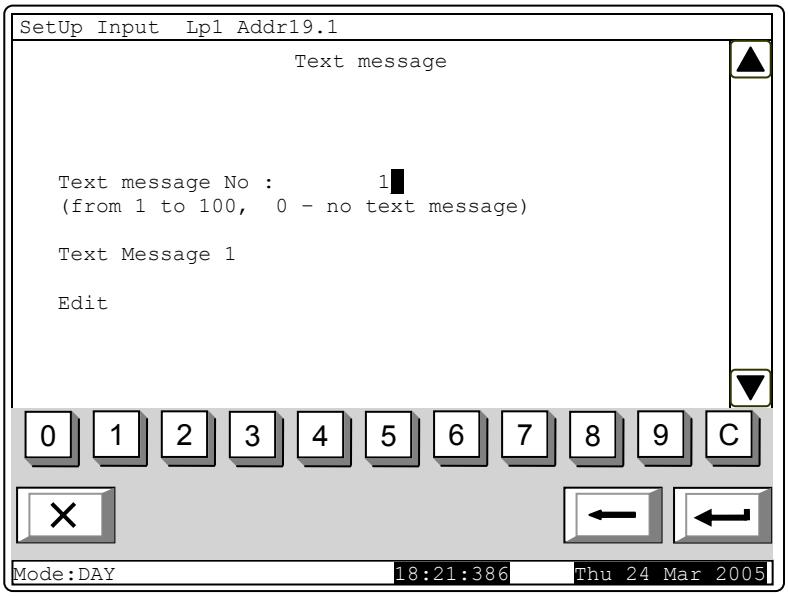
When you press button ← and a number is entered in the *Go to* field, the field will be deactivated.

When you press button ↵ and the *Go to* field is empty, the output will be added to the list of outputs, activated by the addressable input. When the last free addressable output is added, the message *No unused outputs* appears; the only option is to exit the menu. When 12th addressable

output is added to the list of outputs activated by the addressable input, the message *Additional addressable outputs can not be activated by this input* appears; the only option is to exit the menu.

13.6.4. Menu *Text message*

The menu allows the user to set a text message that will be displayed upon activation of the addressable input:



The menu contains:

- Parameter *Text message No* – it acceptes values from 0 to 100. Value 0 means, that upon activation of the addressable input no message will be displayed. Values within the range 1-100 indicate the number of the text message that shall be displayed upon activation of the addressable input;
- Subordinate screen *Edit* – the text message can be edited here.

Note: Keep in mind that one and the same text message can be displayed upon activation of a number of addressable inputs.

The content of the text message is displayed too. If no text message is set (the numer is 0) this line remains empty.

To edit the parameter *Text message №* use the digit buttons. The pointer (here visualized as cursor „") indicates the position where the digit will appear. Press button C to delete the digit before the cursor.

When you move the pointer from *Text message №* to *Edit* the content of the text message on the display is being refreshed if any changes are made in the parameter *Text message №*.

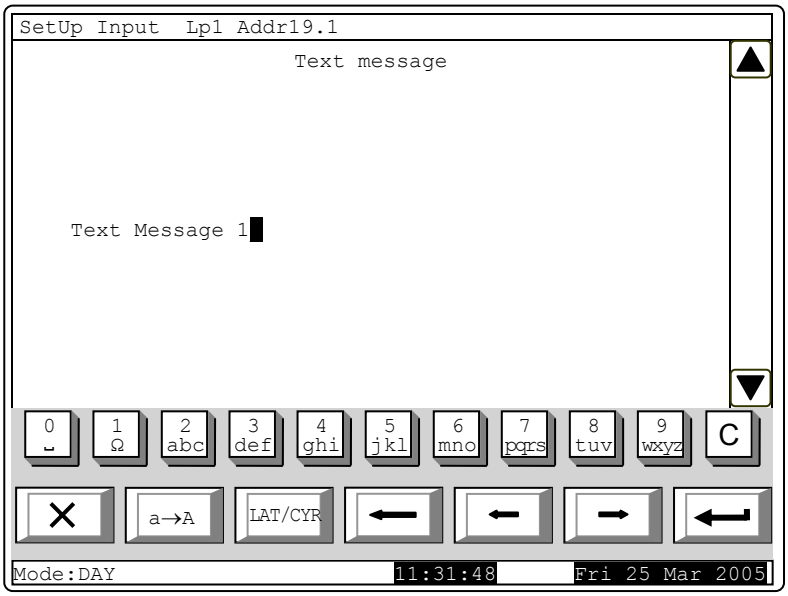
When you press button ↵ the following operation will be run:

- If any changes in the parameter *Text message №* are made – the number of the text message will be saved;
- If any changes in the parameter *Text message №* are made and the pointer is at the parameter – the content of the text message on the display will be refreshed;
- If the pointer is at parameter *Edit* and the value of *Text message №* is higher than 0 – screen *Edit* will be activated.

Screen *Edit* allows the user to set and edit a text message for the addressble input. Upon activation of the screen a check for included external keyboard is being run.

13.6.4.1. Built-in keypad

If no external keyboard is available, the following screen appears:



To edit the text use the buttons having symbols – when you press a button, the symbol appears over the position of the cursor, and the previous text and the cursor move one position to the right. The cursor remains for 1 s over the same position; if you press it again, the symbol will be changed by the next one marked on the button (the symbol Ω marked on the second button means that the figure 1 is in combination with punctuation marks). 1 s after the last pressing the cursor moves to the next position to the right. If you press another button during this 1 second, the cursor first moves one position to the right and then the new symbol is inserted. The maximum length of the message is 40 symbols. If you press a button after a 40-symbol message is already entered, the text will not be accepted and the symbol will not be inserted (the cursor moves one position to the right if the end of the text message is not reached yet).

Press button [C] to delete:

- The symbol under the cursor, if any;
- The symbol to the left of the cursor, if there is no symbol under it

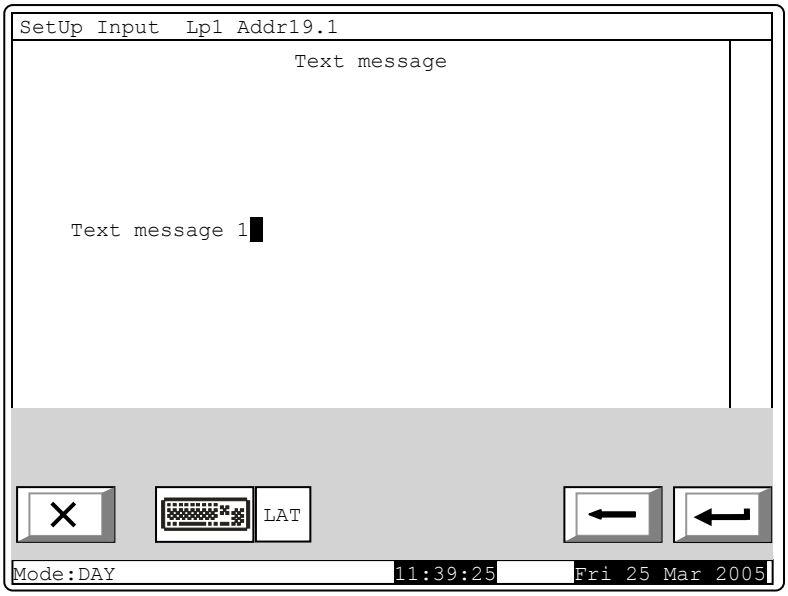
Press button [→] or [←] to move the cursor one position to the right or to the left.

Button [a→A] changes the case from lowercase to uppercase, buton [A→a] changes the case from uppercase to lowercase.

Button [LAT/CYR] changes Latin fonts to Cyrillic fonts; button [CYR/LAT] changes Cyrillic fonts to Latin.

13.6.4.2. External keyboard

If an external keyboard is included to the fire control panel, the following screen appears:



To edit the text use the buttons having symbols – when you press a button, the symbol appears over the position of the cursor, and the previous text and the cursor move one position to the right.

The maximum length of the message is 40 symbols. If you press a button after a 40-symbol message is already entered, the text will not be accepted and the symbol will not be inserted.

Press button “Delete” to delete:

- The symbol under the cursor, if any;
- The symbol to the left of the cursor, if there is no symbol under it.

Press button → or ← to move the cursor one position to the right or to the left.

Use the additional digit keypad to:

- Insert digits – when the LED „Num” is illuminated;
- Move the cursor via buttons „4 / ←” and „6 / →” (analogically to buttons ← and ←) – when the LED „Num” is extinguished;
- Delete a symbol via button „Del” (analogically to button „Delete”) – when the LED „Num” is extinguished.

The mode of operation of the additional keypad, indicated by the LED „Num” can be changed via button „Num Lock”.

Button „Caps Lock” alternatively changes the case from lowercase to uppercase (LED „Caps” or „A” illuminate to indicate uppercase).

Button „Ctrl” alternatively changes Latin fonts to Cyrillic fonts; the active font is indicated in the bottom section of the display – indicators LAT and CYR.

To save a text message press button ↵ on the built-in keypad or press button ↵ („Enter”) on the external keypad.

To exit the screen and revert to upper hierarchy menu use button ← on the built-in keypad or button ← („Back Space”) on the external keypad.

To exit Set Up use button ✕ on the built-in keypad or button „Esc” on the external keypad.

13.7. Menu *Initialization*

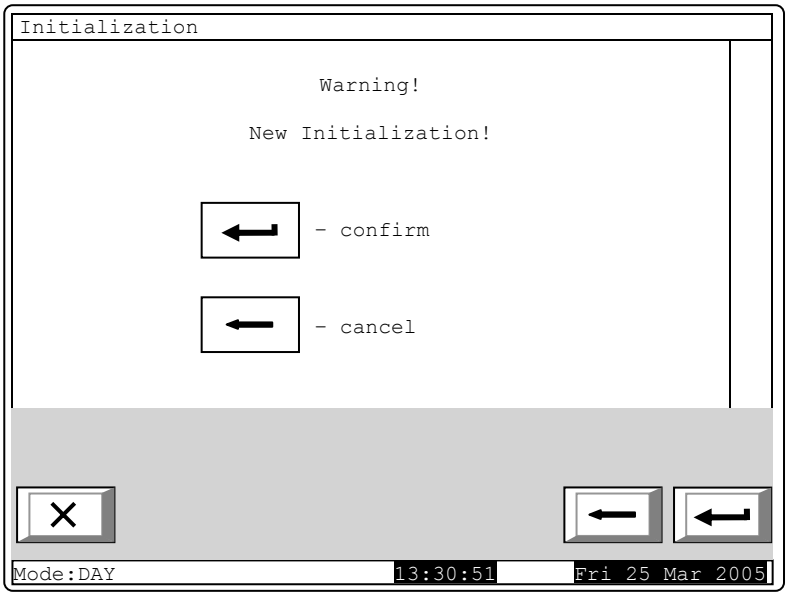
The menu is used for the settings relevant to initialization of the addressable devices in the fire alarm lopps. It contains the following submenus and functions:

- Function *Initialization;*
- Function *Clean initialization*;
- Menu *Readdressing;*
- Menu *Exclude devices*;
- Menu *Check*.

13.7.1. Function *Initialization*

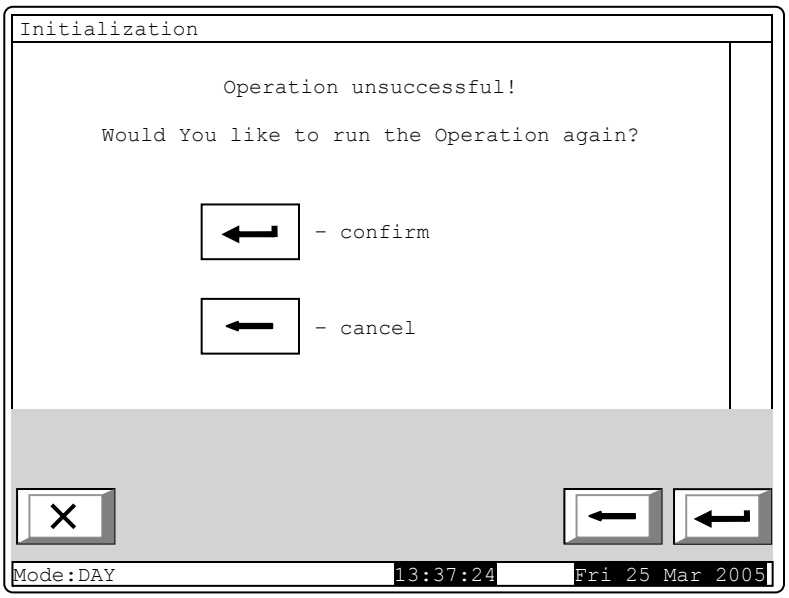
The function performs standard initialization of the addressable devices in the fire alarm loops. During the operation addressable devices parameters (address, ID number, type and temperature class) are checked against these saved in the memory of the control panel.

Upon activation of the function the following warning screen appears:



Start the initialization via button  and in the bottom line of the panel appears the message *Wait please*...

Upon unsuccessful initialization appears the following screen:



Upon successful initialization the menu will be exited automatically.

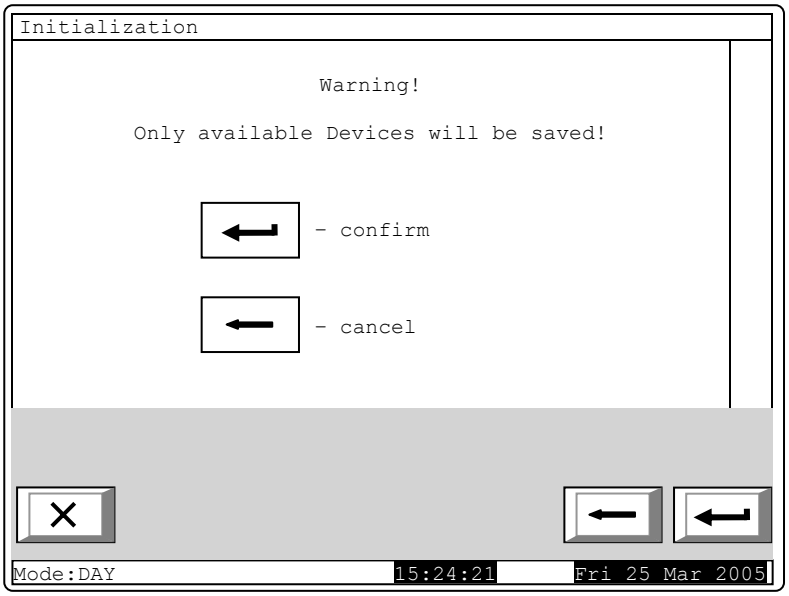
Notes:

1. Only swithed on loops can be initialized.
2. The function is not affected by removed addressable devices, i.e. the opretaion will be successful even when some devices are removed from the loops.

13.7.2. Function *Clean initialization*

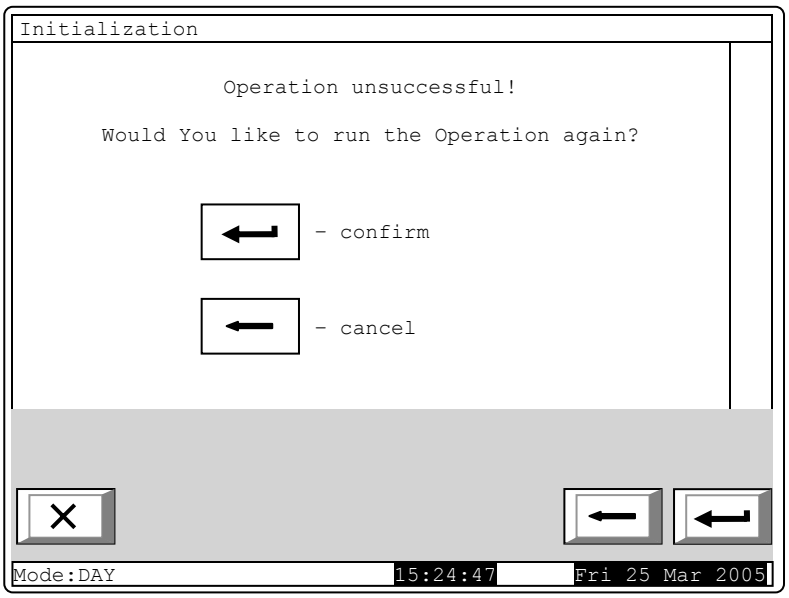
The function performs clean initialization of addressable devices in the fire alarm loops. Upon clean initialization the addressable devices detected in the loops are being addressed consecutively, and their parameters (ID number, type and temperature class) are being saved in the control panel.

Upon activation of the function the following warning screen appears:



Start the initialization via button  and in the bottom line of the panel appears the message *Wait please…*

Upon unsuccessful initialization appears the following screen:



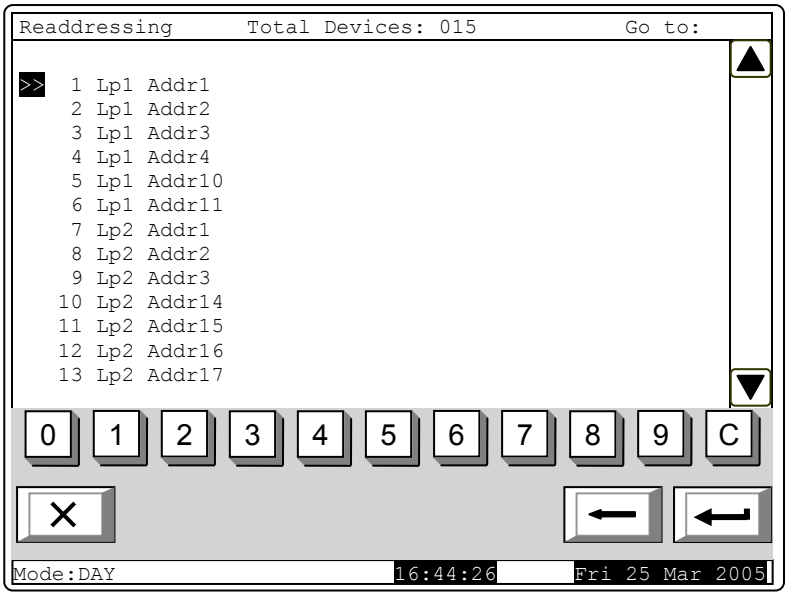
Upon successful initialization the menu will be exited automatically.

Notes: Only swithed on loops can be initialized

13.7.3. Menu *Readdressing*

The menu allows the user to exclude an addressable device from the service zone. Enter the menu to display:

- If no devices are available in the service zone – a screen with the message *The service Zone is empty*; the only option is to exit the menu.
- If some devices are included in the service zone – a screen for the selection of device that shall be excluded from the service zone:



For each device is displayed the loop it is included in and its address in the loop.

The current device is pointed by arrow – „>>".

The field *Go to* in the heading and the digit buttons are visualized if more than 13 devices are available in the service zone.

When you press a digit button, the *Go to* field is activated and you can enter a random 3-digit number for a device in the service zone. To edit the number use button C, which will delete the last digit you entered.

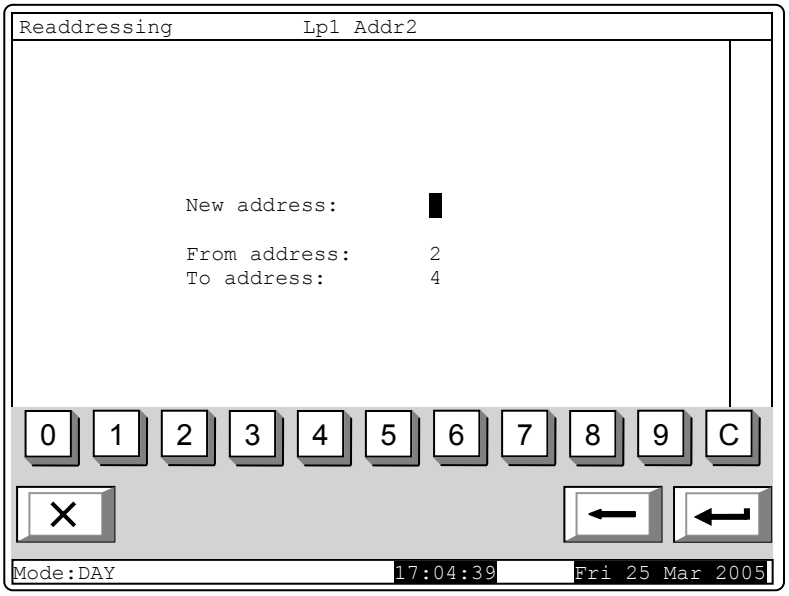
When you press button ↵ and a number is already entered in the *Go to* field, the device whose number in the service zone is in the field will be selected:

- If the number is 0, the first device in the service zone will be selected;
- If the number is higher than the actual number of devices in the service zone, then the device having the highest number in the service zone will be selected.

Simultaneously, the number in the *Go to* field is deleted, i.e the field is deactivated.

When you press button ← and a number is entered in the *Go to* field, the field will be deactivated.

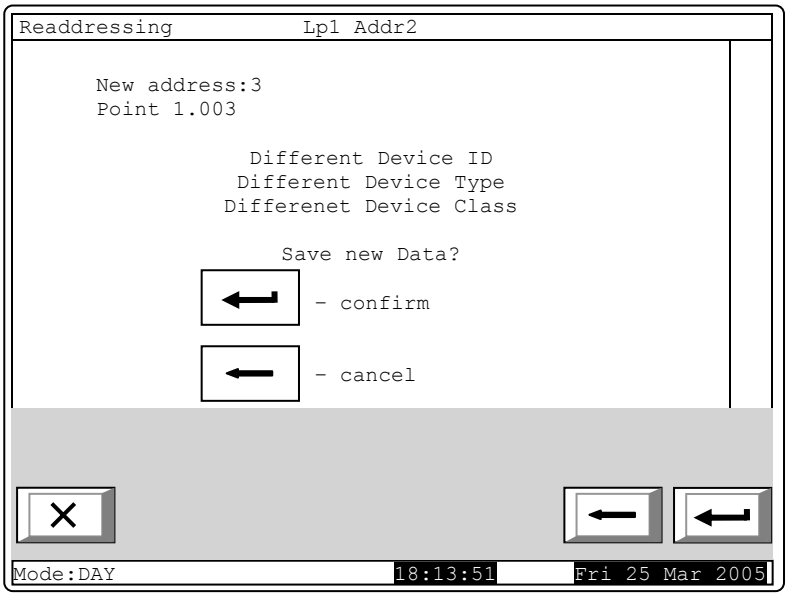
When you press button ↵ and the *Go to* field is empty, a screen for selection of new address for the device appears:



As supplementary information is visualized the address range where the new address of the device can be selected from.

To enter the new address use the digit buttons. Press button C to delete the digit to the left of the cursor.

If the new address is out of the specified range, button ⏎ is ignored. Otherwise a command screen appears where you shall confirm the readdressing:



The following information is displayed on the screen:

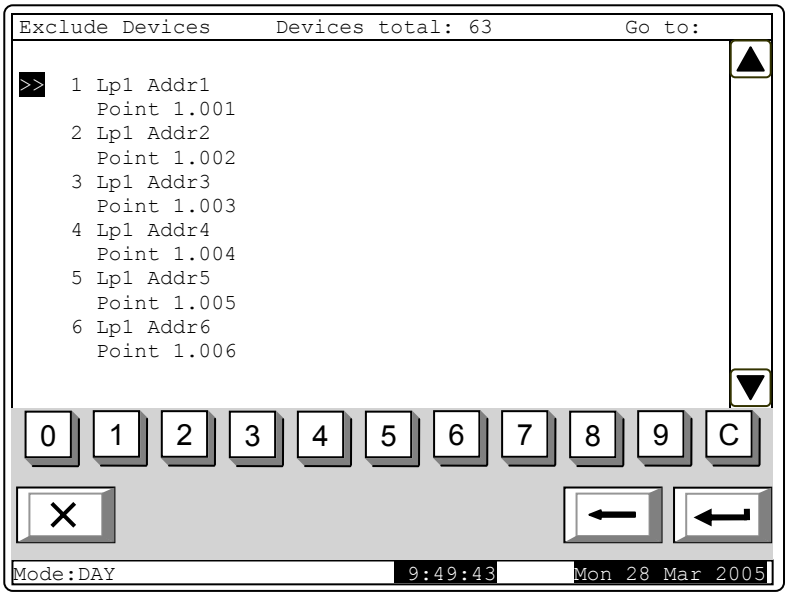
- The new address that will be assigned to the device;
- The text message specified for this address;
- Message *Different device ID* – only when the ID number of the device is different than the number for this address saved in the control panel;
- Message *Different device type* – only when the device type is different than the type saved for this addres in the control panel;
- Message *Different device class* – only when the temperature class of the device is different than the class saved in the control panel.

When you press button ⏎ the readdressing is cancelled and the screen for selection of new address is reverted.

When you press button ⏎ the readdressing is completed and the screen for selection of devices that shall be excluded from the service zone is reverted (or the screen with the message *The service zone is empty*).

13.7.4. Menu *Exclude devices*

The menu allows the user to exclude or include separate addressable devices:



All 250 (125 in each loop) addressable devices are accessible whether included physically to the fire alarm loops or not. In the middle of the heading is displayed the total number of devices included in both loops.

For each device is displayed:

- Its consecutive number, the loop it is included in and its address in the loop – in the top line;
- The text message – in the line beneath.

The devices obtain numbers according to the sequence:

- Devices in Loop 1 – numbers from 1 to 125;
- Devices in Loop 2 – numbers from 126 to 250.

The selected device is pointed by arrow – „>>”.

When you press a digit button, the *Go to* field is activated and you can enter a random 3-digit number for the device. To edit the number, press button [C] and the last entered digit will be deleted.

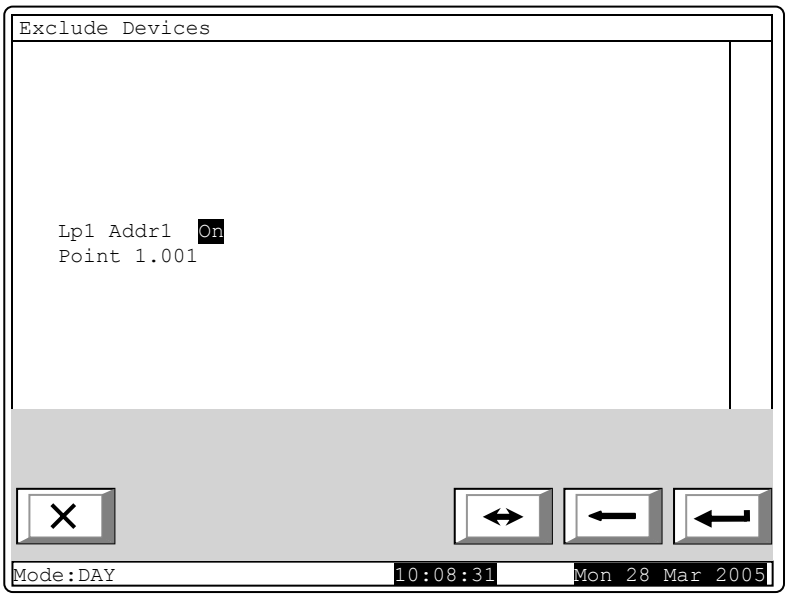
When you press button [←] and a number is already entered in the *Go to* field, the device whose number is in the field will be selected:

- If the number is 0, Address 1 in Loop 1 will be selected ;
- If the number is higher than 250, Address 125 in Loop 2 will be selected.

Simultaneously, the number in the *Go to* field is deleted, i.e. the field is deactivated.

When you press button [←] and a number is entered in the *Go to* field, the field will be deactivated.

When you press button [←] and the *Go to* field is empty, a screen for exclusion/inclusion of the addressable device appears:



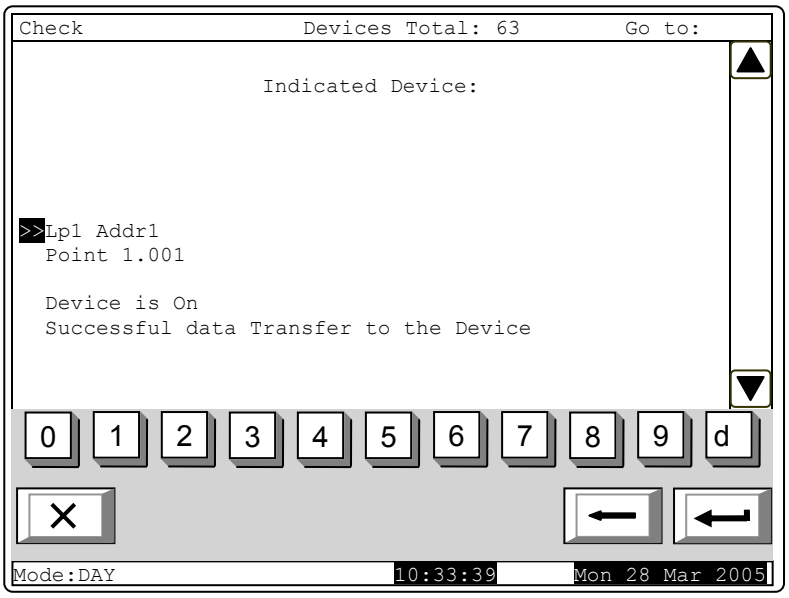
The status of the device is displayed in inversive colours. Change the status by pressing button [↔] – the status is changed alternatively from *included* to *excluded* and vice versa.

13.7.5. Menu *Check*

The menu is provided for check up of the initialization of addressable devices, included in the fire alarm loops.

When you enter the menu the following operations are being run:

- If no devices are available in the loops – a screen with the message *No devices* appears; the only option is to exit the menu;
- If some devices are available in the loops – a command for LEDs illumination is sent to the first device, if the loops are On and are initialized. A screen for the device status and for selection of the next device for check up is visualized:



For the current device is displayed:

- The loop it is included in, and its address in the loop;
- Its text message;

- Device status (On or Off) – it is displayed only when the loop the device is included in is On and is initialized;
- Information for the communication with the devices:
  - the loop is off – appears the message *The loop is off* (no attempt for communication with the device has been made);
  - the loop is On, but is not initialized – appears the message *Uninitialized loop* (no attempt for communication with the device has been made);
  - the loop is On and is initialized – as a result from communication with the device (*Successful data transfer to the device* or *Error in data transfer to the device*).

The current device is pointed by arrow – „>>".

When the data transfer is successful the device LEDs illuminate and indicate the physical device having this particular address.

When you press a digit button the *Go to* field is activated; you can enter a random 3-digit number for the device. To edit the number use button C press it to delete the last entered digit.

The devices obtain numbers according to the following sequence: from the first device in Loop 1 to the last device in Loop 1; from the first device in Loop 2 to the last device in Loop 2.

When you press button ↵ and a number is already entered in the *Go to* field, the device whose address is in the field will be selected:

- if the number is 0, the first addressable device in the control panel will be selected;
- if the number is higher than the actual number of devices in the loop, the last device in the control panel will be selected.

At the same time:

- the number in the *Go to* field is deleted, i.e. the field is deactivated;
- the device that has been checked receives a command to extinguish the LEDs, if the device loop is On and is initialized;
- the device that has been selected for check-up, receives a command to illuminate the LEDs, if the loop is On and is initialized;
- the screen is refreshing the status of the new device.

When you press button ← and a number is already entered in the *Go to* field, the field is deactivated.

When you press button ↵ and the *Go to* field is empty, the button effect is ignored.

Upon exit of the menu the last checked device receives command to extinguish its LEDs, if the loop is On and is initialized.

13.8. Menu *Checks*

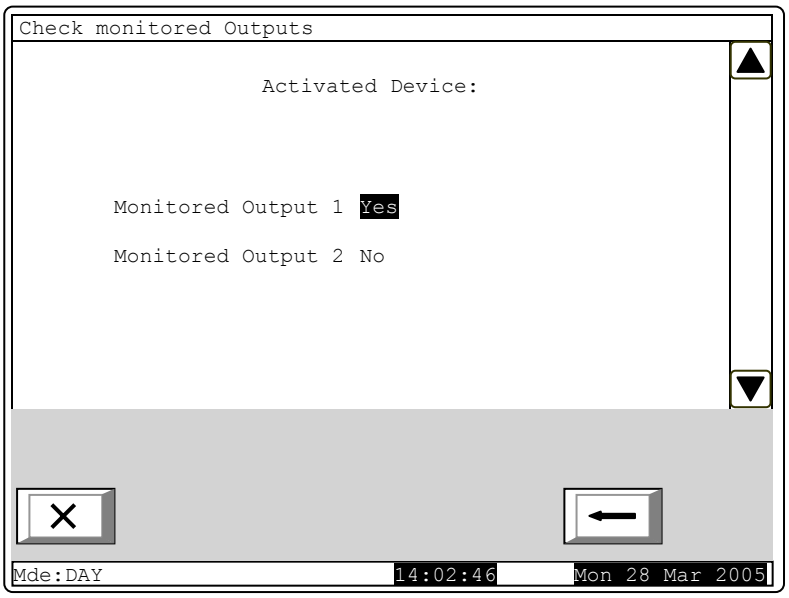
The menu allows the user to set up the control panel outputs (monitored, relay and addressable), the display and the buttons. It cointains the following submenus and functions:

- Menu *Monitored outputs*;
- Menu *relay outputs*;
- Menu *Addressable outputs*;
- Function *Display*;
- Menu *Buttons*.

13.8.1. Menu *Monitored outputs*

Using the menu you can run a check on control panel minitored outputs.

When you entere the meny Monitored output 1 is triggered (if not in Fault condition) and the following screen appears:



At the activated monitored output is displayed the message *Yes*, in inversive colours; at the output not activated yet is displayed the message *No* in general colours.

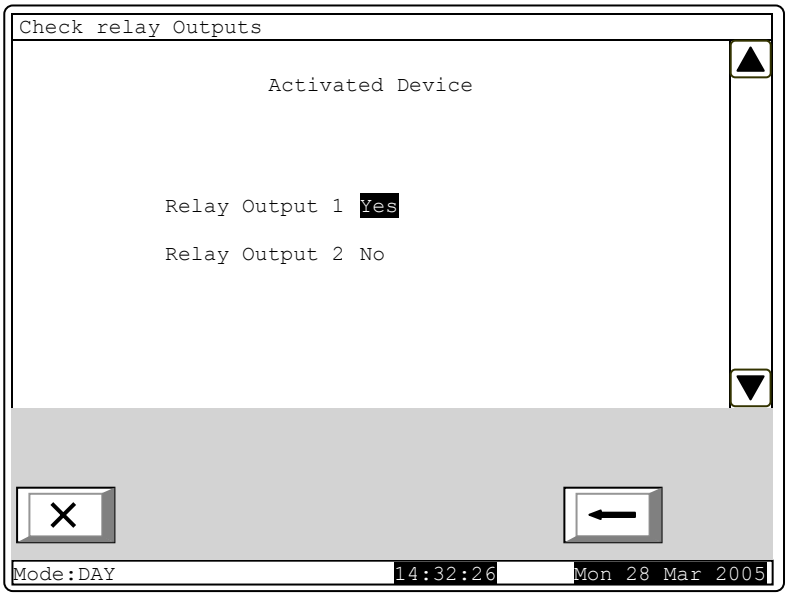
When you press button ▼ or ▲ the activated monitored output is switched off and the other output is activated (if not in fault condition).

Upon exit of the menu the activated monitored output is switched off.

13.8.2. Menu *Relay outputs*

Using the menu you can run a check on the relay outputs of the fire control panel.

When you enter the menu, Relay output 1 is activated and the following screen appears:



At the activated relay output appears the message *Yes* in inversive colours; at the realy output not activated yet appears the message *No*, in general colours.

When you press button ▼ or ▲ the activated relay outputs is switched off, and the other one is activated.

Upon exit of the menu the activated relay output is switched off.

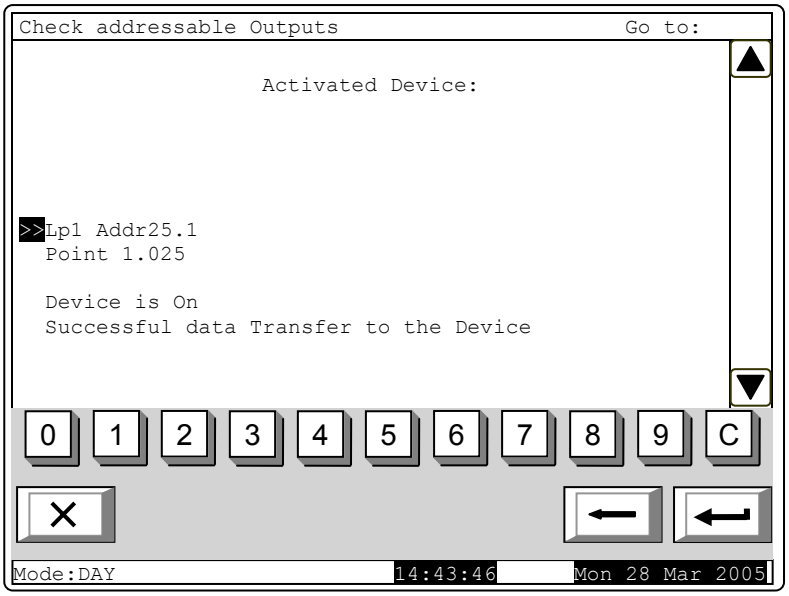
13.8.3. Menu *Addressable outputs*

Use the menu to check the addressable outputs of the control panel.

When you enter the menu the following operations are being run:

- If no addressable outputs are available – a screen with the message *No addressable outputs* appears; the only option is to exit the menu;

- If some addressable outputs are available – a command for activation is sent to the first addressable output, if the loop is On and is initialized. A screen for the output status and for selection of the next output for check up is visualized:



For the current addressable output is displayed:

- The loop it is included in, its address in the loop and the number of the output in the device, if more than one output is available;
- Device text message;
- Device status (*On* or *Off*) – it is displayed only when the loop the device is included in is On and is initialized;
- Information for the communication with the device:
  - the loop is off – appears the message *The loop is off* (no attempt for communication with the device has been made);
  - the loop is On, but is not initialized – appears the message *Uninitialized loop* (no attempt for communication with the device has been made);
  - the loop is On and is initialized – as a result from communication with the device (*Successful data transfer to the device* or *Error in data transfer to the device*).

The current addressable output is pointed by arrow – „>>".

When the data transfer is successful the device output will be activated.

Buttons ▼ and ▲ in the right panel section are visualized if more than one addressable output is available; the *Go to* field in the heading and the digit buttons appear if addressable outputs in more than one device are available.

When you press a digit button the *Go to* field is activated; you can enter a random 3-digit number for the device. To edit the number use button C press it to delete the last entered digit.

The devices obtain numbers according to the following sequence: from the first device in Loop 1 to the last device in Loop 1; from the first device in Loop 2 to the last device in Loop 2.

When you press button ↵ and a number is already entered in the *Go to* field, the first addressable output in the first device whose number is equal to or higher than the number in the field will be selected:

- if the number is 0, the first addressable output will be selected;
- if the number is higher than the number of device having the last addressable output, the last addressable output will be selected.

At the same time:

- the number in the *Go to* field is deleted, i.e. the field is deactivated;
- the output that has been checked receives a command to switch off, if the loop is On and is initialized;
- the output that has been selected for check-up, receives a command for activation, if the loop is On and is initialized;

– the screen is refreshing the status of the new output.

When you press button  and a number is already entered in the *Go to* field, the field is deactivated.

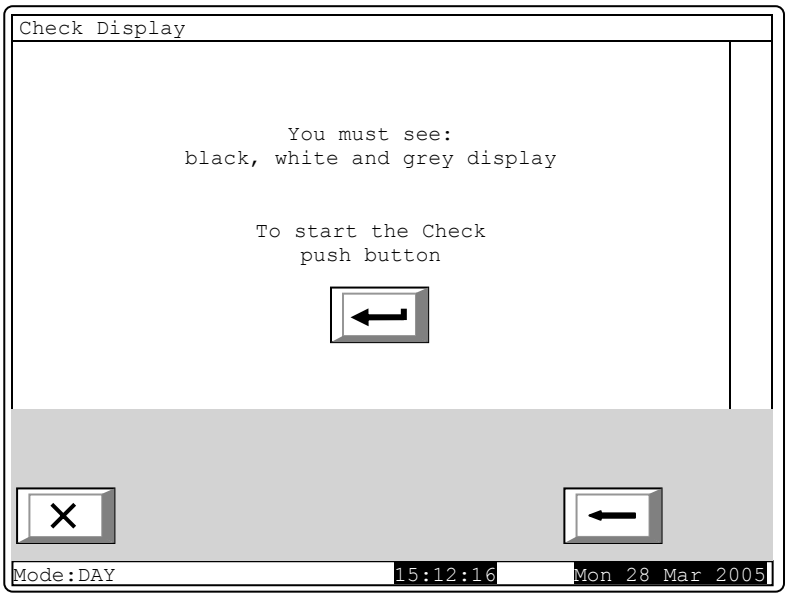
When you press button  and the *Go to* field is empty, the button effect is ignored.

Upon exit of the menu the last checked output receives command for deactivation, if the loop is On and is initialized.

13.8.4. Function *Display*

Use the function to check the LCD display of the fire control panel.

When you enter the function the following screen appears:

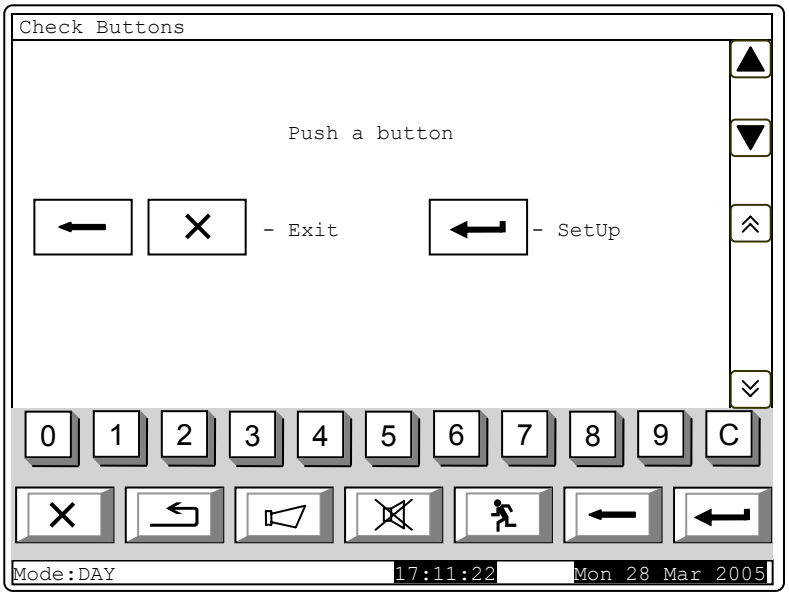


When you press button  that is in the middle of the display, the check is being started – the display changes its colour from black to white and then to grey. Each colours remains for about 4 s. After the check is completed, the initial screen appears.

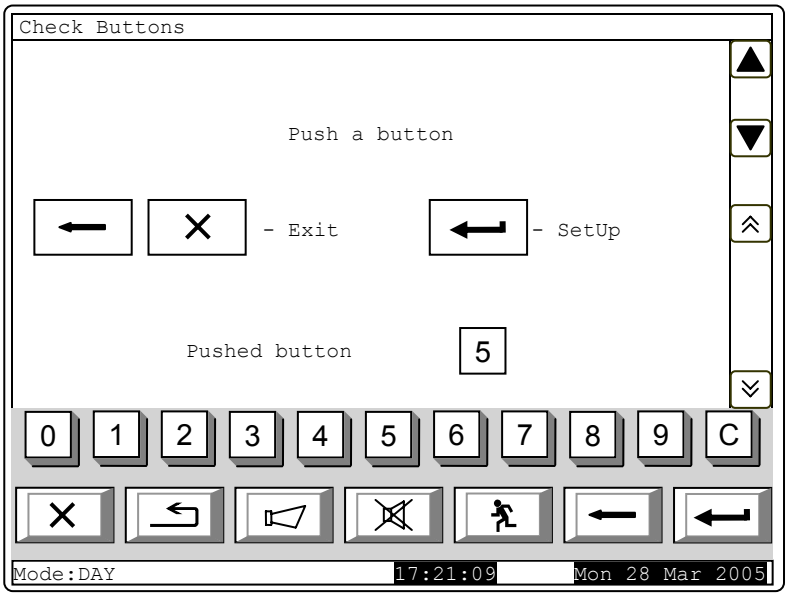
13.8.5. Menu *Buttons*

The menu is used for check-up and set up of the buttons situated on the LCD display of the control panel.

Enter the menu to display:

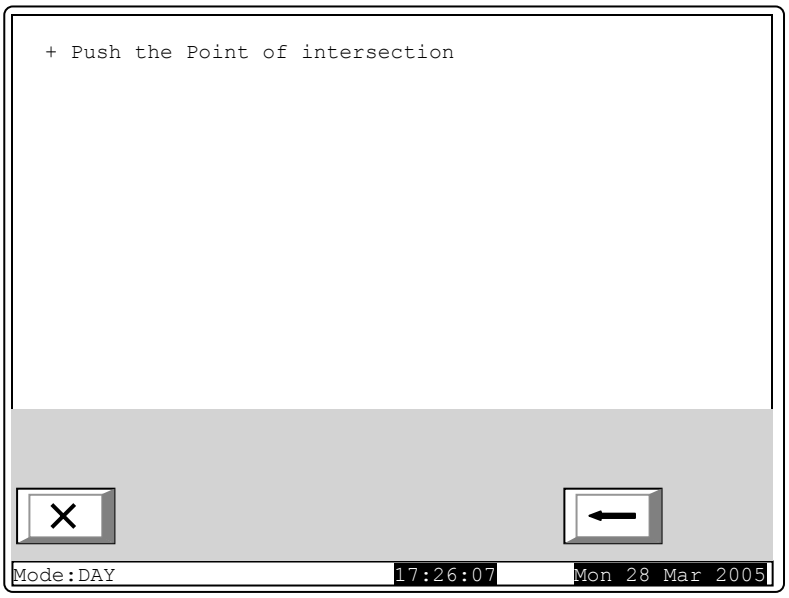


When a random button is pressed (except for buttons , and) a message and a graphic image of the presses button appear:

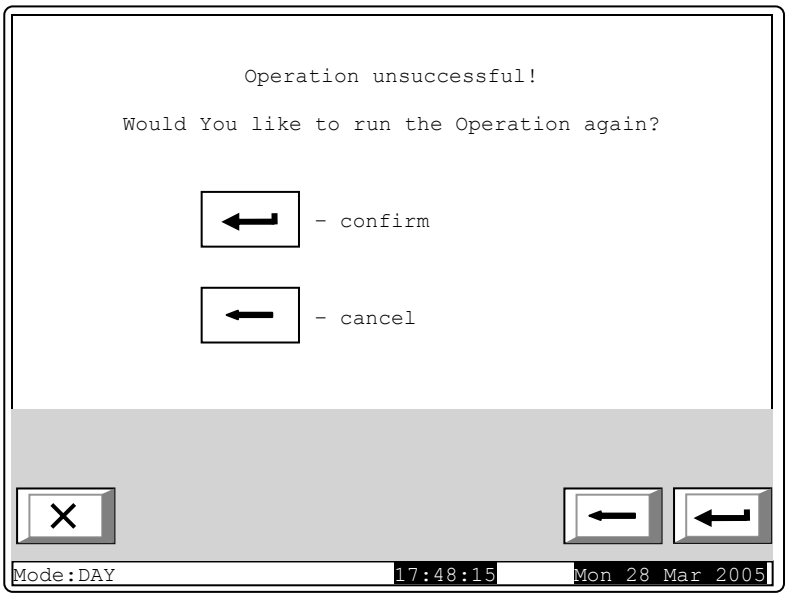


To start setting the buttons up, press button . Set up is being performed at two points on the display and is being checked at a third point. Enter the function to display the first point of set up:

The point of intersection – a cross – shall be pressed by the means of small-size round tip pointer. For point two and point three goes the same.



If the check performed at the third point is successful, the function is exited automatically. Otherwise a screen with error message appears:



The check-up can be interrupted at any stage by pressing button or .

13.9. Menu *New passwords*

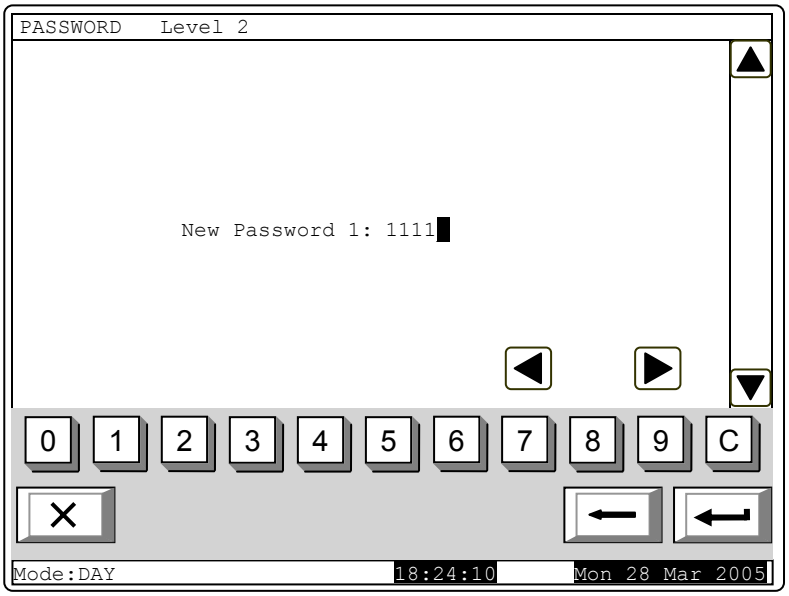
The menu allows the user to compose and edit passwords for Access Level 2 and Access Level 3. It contains:

- Menu *Level 2*;
- Function *Level 3*.

13.9.1. Menu *Level 2*

The menu allows the user to enter and edit passwords for Access Level 2.

Enter the menu and a screen where you can edit the first password for Access Level 2 appears:



To enter or edit a password use the digit buttons – when you press a button, the digit is inserted over the position of the cursor, and the previous text and the cursor move one position to the right.

Move the cursor to the left or to the right using buttons ◀ and ▶. Press C to delete:

- The digit under the cursor, if any;
- The digit to the left of the cursor, if no digit is available under the cursor.

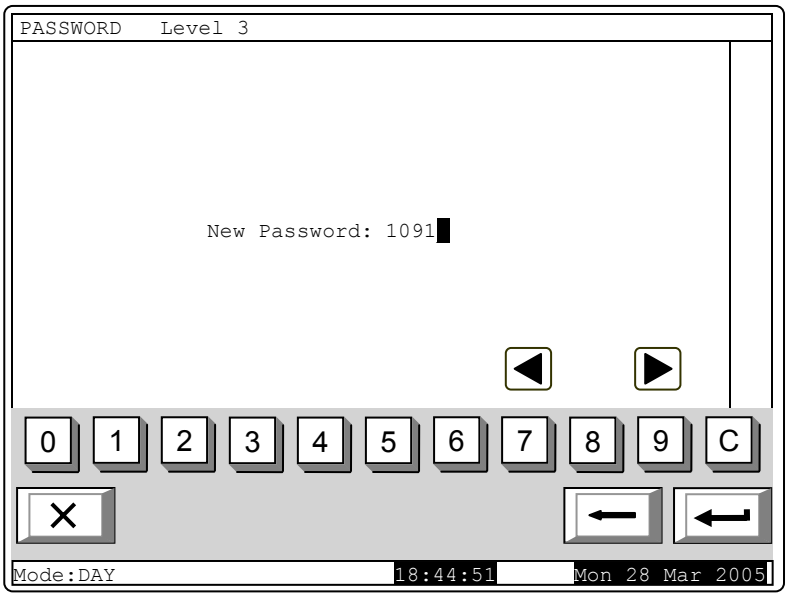
The maximum length of the password is 10 symbols. If you press a button after the 10-digit password is entered, the exceeding symbol will not be accepted.

When you press button ↵ the last entered password will be saved in the control panel.

When you press button ▼ or ▲ the previous or the next password will be displayed for edition. Any unsaved passwords will be lost.

13.9.2. Function *Level 3*

The function allows the user to enter and edit a password for Access Level 3:



To enter or edit a password use the digit buttons – when you press a button, the digit is inserted over the position of the cursor, and the previous text and the cursor move one position to the right.

Move the cursor to the left or to the right using buttons ◀ and ▶. Press C to delete:

- The digit under the cursor, if any;
- The digit to the left of the cursor, if no digit is available under the cursor.

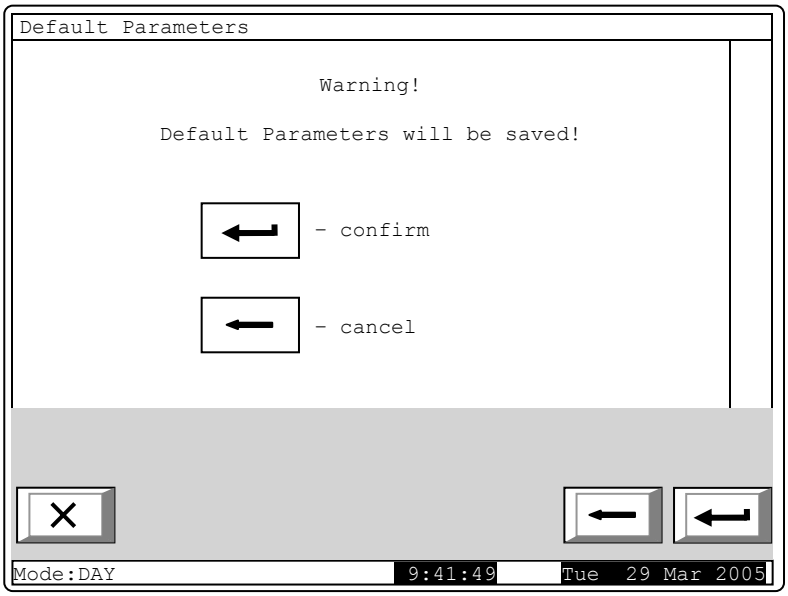
The maximum length of the password is 10 symbols. If you press a button after the 10-digit password is entered, the exceeding symbol will not be accepted.

When you press button ↵ the last entered password will be saved in the control panel.

13.10. Function *Default parameters*

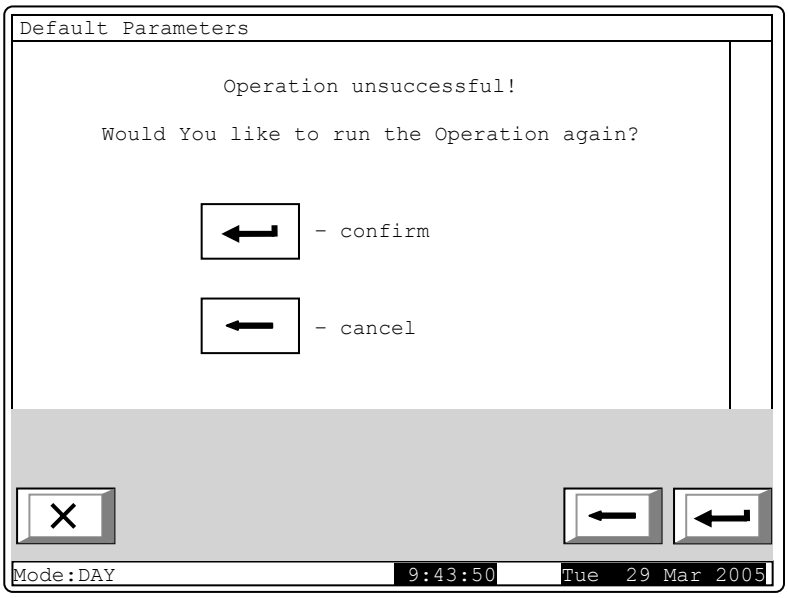
The function saves the default parameters of the control panel.

Upon activation the following screen appears:



To save the record press button ↵, in the bottom line of the panel appears the message *Wait please…*

Upon unsuccessful operation appears the following screen:



When the records are successfully saved, the menu is exited automatically.

The following default parameters are being saved:

- Control panel parameters:
  - Local network – none;
  - Periphery module 1 – none;
  - Periphery module 2 – none;
  - Periphery module 3 – none;
  - Number of zones – 0;
  - Language– English;

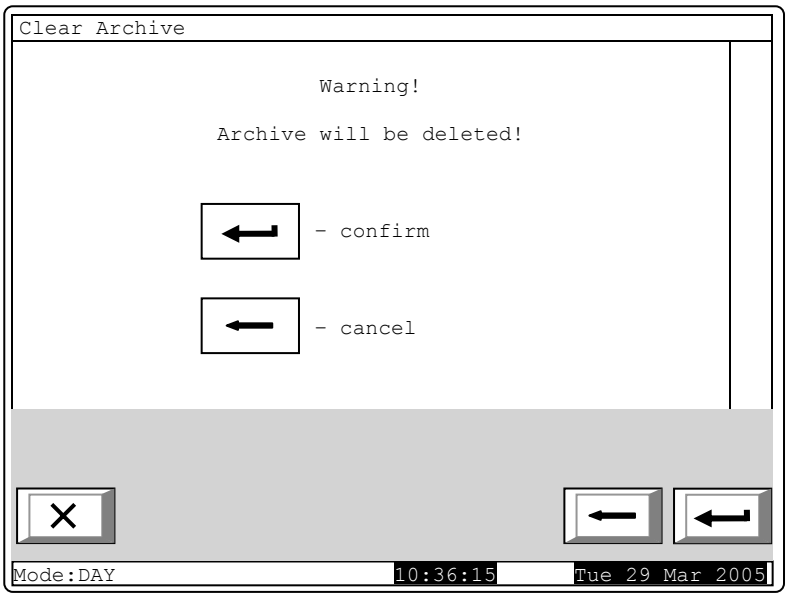
- ♦ Mode of operation – DAY;

– Loop 1 parameters:
  - ♦ The loop is On;
  - ♦ Number of devices in the loop – 0;
  - ♦ Maximum current in the loop – 120mA;
– Loop 2 parameters:
  - ♦ The loop is off;
  - ♦ Number of devices in the loop – 0;
  - ♦ Maximum current in the loop – 120mA;
– Power loop – off;
– Zone 1-250 parameters:
  - ♦ Manual call point priority – yes
  - ♦ Coincidence Mode – no;
  - ♦ Time Fire Phase 1 - Phase 2 – 120s;
  - ♦ Inspection time – 120s;
  - ♦ Number of devices in the zone – 0 (free zone);
  - ♦ Fire Phase 1 outputs – none;
  - ♦ Fire Phase 2 outputs – none;
– Device parameters (Addresses 1 to 125 in Loop 1 and addresses 1 to 125 in Loop 2)
  - ♦ Zone – 255 (not included in a zone);
  - ♦ Device is On;
– Addressable input parameters (Addresses 1 to 125 in Loop 1 and addresses 1 to 125 in Loop 2):
  - ♦ Text message – none;
  - ♦ Activated inputs – none;
– Disables:
  - ♦ zone – none;
  - ♦ devices – none;
  - ♦ outputs – none;
– Zones in test – none.

13.11. Function *Clear archive*

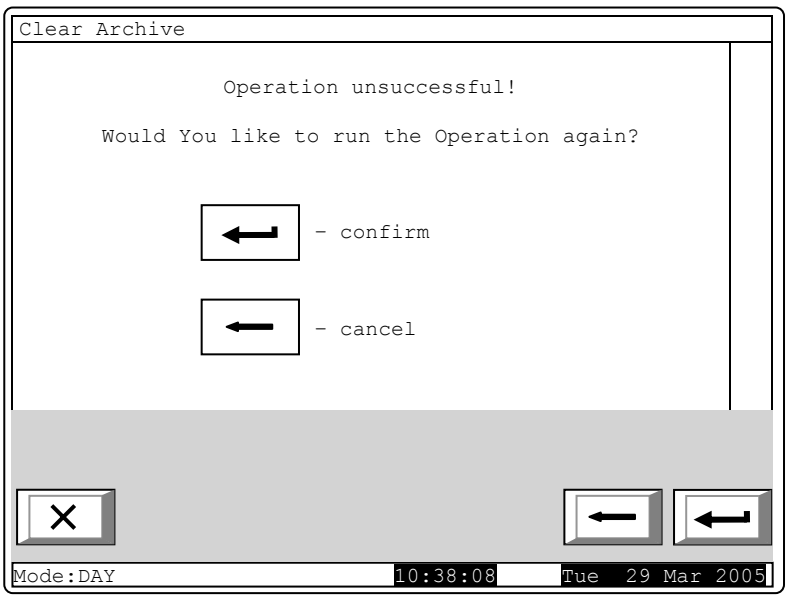
The function is provided for deleting the control panel archive.

Upon activation the following warning screen appears:



To start deleting the archive press button  , in the bottom line of the panel appears the message *Wait please…*

Upon unsuccessful operation appears the following screen:



Upon successful operation the menu will be exited automatically.

14. Remote Control Mode

14.1. Description

The control panel enters Remote Control Mode when an external control device of higher level (computer from a centralized Dispatcher Control Point or similar) performs set up of the control panel configuration parameters via serial interface. All other modes and condition are exited. When in Remote Control Mode the panel does not provide service to fire alarm zones, addressable devices, monitored outputs and other periphery devices (all outputs are off); it is under the control of the external device. Upon exit of Remote Mode reset of the control panel is performed.

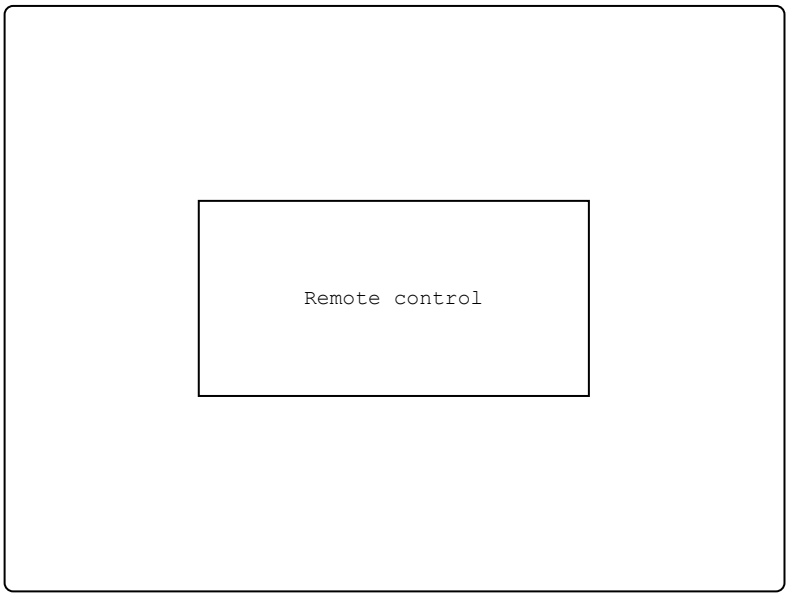
14.2. Indication

14.2.1. LED and sound indication

In Remote Mode only the green LED indicator is illuminated (*Power supply*). The local sounder is off.

14.2.2. Text messages

The following screen appears on the LCD display:



14.3. Keypad

In Remote Mode none of the buttons are active.

15. Saving the parameters

All set values for parameters or modes of operation are being saved in the energy independent memory and upon interruption of mains supply or backup batteries supply the values remain intact. After the control panel is switched on again, it starts operation in accordance with values and modes previously set.

Default parameters and modes of operation are factory set up (see section. 13.10).

User passwords are set to:

- Access Level 2 passwords:
  - Password 1 – 1111;
  - Password 2 – 2222;
  - Password 3 – 3333;
  - Password 4 – 4444;
  - Password 5 – 5555;
  - Password 6 – 6666;
  - Password 7 – 7777;
  - Password 8 – 8888;
  - Password 9 – 9999;
  - Password 10 – 1010;
- Access Level 3 password - 0000.

16. Labour protection requirements

The installation and maintenance staff shall be well grounded in equipment's mechanism and operation, as well as in common technical safety regulations.

Connection to unearthed or to indirectly earthing mains supply is prohibited.

Troubleshoots are to be cleared after disconnecting the feeding cable from the mains supply.

The control panel is designed for installing in premises with a normal fire hazard, as per the Fire Precaution Technical Regulations in Building Construction.

17. Installation and arrangements

When fire detectors and periphery devices are integrated in the system, avoid arranging wires in closed loops; it will reduce the control panel's resistance to electro magnetic interferences

17.1. To mount the fire control panel

- Unpack the device;
- put the dowels on the determined places;
- fasten the control panel to the dowels through the three holes provided on the chassis.

17.2. Periphery devices assembly

All connections are to be made by means of terminals, mounted on the printed circuit board 7002 Main (Appendix 4). Be advised, that the total consumption of the voltage powering the external devices (terminal "+ 28V") plus the consumption of the monitored outputs shall not exceed 1.5A in heavy duty mode.

17.2.1. Mounting periphery devices to monitored outputs

Terminals "+Out1", "-Out1", "+Out2", "-Out2" – monitored potential outputs, responding upon Fire condition (depending on the pre-programmed relation *fire alarm line – monitored outputs*) are to be used.

Use the special connection diagram for the executive device provided in Appendix 6a.

End of line resistors 5k6 are connected directly to the terminals of the unused monitored outputs.

17.2.2. Mounting periphery devices to relay outputs

The following terminals are used:

- Terminal "+28V" – positive lead of the stabilized direct current supplying the external devices (light and sound signaling devices, executive devices and others);
- Terminal "GND" – chassis ground (negative lead of the stabilized direct current supplying the external devices);

- Terminals “Rel1/C”, “Rel1/NO”, “Rel1/NC”, “Rel2/C”, “Rel2/NO” and “Rel2/NC” – potential free relay contacts, responding at Fire condition (in compliance with the pre-programmed relation *fire alarm line – relay outputs*);
- Terminals “REL Fault/C”, “REL Fault/NO” and “REL Fault/NC” – potential free relay contacts. When no fault condition is detected terminals “REL Fault/C” and “REL Fault/NO” are connected; upon detection of fault condition terminals “REL Fault/C” and “REL Fault/NC” are connected.

The executive device shall be connected according to Appendix 6b.

Unused relay outputs remain unoccupied.

17.3. Connecting interface devices

17.3.1. Global network

Connection of interface devices to the global network is made via serial interface RS232, using 9-lead coupling (Appendix 4). Signals distribution is given in Table 3.

Table 3

Coupling’s lead	Signal of RS232 Interface	Signal of RS485 Interface
2	RXD (input data)	Inverting input/output
3	TXD (output data)	Non inverting input/output
4	DTR	
5	GND (chassis ground)	

The fire control panel provides power supply to an external modem, if the feature has been included in the customer’s order. The power supply is tapped on a two-pole terminal on the PCB *Power supply to modem.*

17.3.2. Local network

Connection of interface devices to a local network is made via two serial interfaces CAN 2.0B using the terminals CAN1 and CAN2.

17.4. Connecting addressable fie detectors

Addressable fire detectors are connected to the fire control panel by means of two-wire insulated line of total resistance up to 100Ω (Appendix 5a). Connection is made to the terminals of the corresponding fire alarm loops (Appendix 4) observing the indicated polarity (N is the number of othe loop).

- “+LoopN-1”, “-LoopN-1” and „⏚” for the beginning of the loop;
- “+LoopN-2”, “-LoopN-2” and „⏚” for the end of the loop.

In one fire alarm loop a maximum of 125 addressable devices can be included regardless of their type.

Unused fire alarm loops remain free (no connection is made to their terminals).

It is recommended to include addressable devices in closed fire alarm loops (Appendix 5b). If branches of the loop (Apendix 5c) are to be used, the following restrictions shall be observed:

- do not connect a branch between the control panel and the first/last device in the loop (Appendix 5d);
- do not connect two or more branches between two consecutive devices in a loop (Appendix 5e).

Addressable output modules supplied by the power loop shall be connected to it by means of two-wire insulated line of total resistance not more than 10Ω (Appendix 5a). Connection is made to the terminals of the power loop (Appendix 4) observing the indicated polarity:

- “+PowerL-1” and “-PowerL-1” for the beginning of the loop;
- “+PowerL -2” and “-PowerL -2” for the end of the loop.

17.5. Power supply connection

Take out the fuse from the terminal with mains fuse (Appendix 3).

Connect a feeding cable to the terminal with mains fuse, observing the following positions (Appendix 3):

- P – power wire “Phase”;
- N – power wire “Null”;
- ⏚ - safety ground wire.

The cable shall be double insulated and of 0,5mm^2 section for the power supply wires, and of 1,5mm^2 section for the safety ground wire.

The other end of the feeding cable is connected to the mains power supply by means of junction box.

The mains power supply of the fire control panel shall be in a separate loop.

18. Fire control panel start up

Make sure that the connection to mains power supply is properly made.

Make sure that the periphery devices are correctly connected.

Place the fuse in the terminal with mains fuse, the display illuminates and appears the text *System operations.*

Connect the feeding cable and the backup batteries; the batteries shall be in a series connection.

Connect the red wire to the positive backup battery pole, and the blue wire - to the negative pole. The overall voltage of both batteries shall not exceed 17.6V, otherwise the fire control panel will not recognize them.

Enter SetUp Mode and configure the control panel as follows:

1. Save the default parameters (except for a control panel with factory set up parameters) – Function Default parameters (see section 13.10);
2. Select a language for the messages – Menu Panel configuration (see section 13.2);
3. Set the loop parameters – Menu Loop parameters (see section 13.4.1):
   - Loop status – On or Off;
   - Maximum current in the loop;
4. Exclude all unused devices in the loops, if any – Menu Exclude devices (see section 13.7.4);
5. Start clean initialization of the addressable devices in the loops – Function Clean initialization (see section 13.7.2);
6. Run a check on the initialization of the addressable devices in the loops – Menu Check (see section 13.7.5);
7. If the configuration of any of the loops does not cover your requirements, rearrange the addressable devices and repeat operations 4 – 6 set herein (regarding section 4, be advised that you might need to include devices);
8. Entera text message for each addressable device in the loop – Menu Device parameters (see section 13.4.2);
9. Form fire alarm zones and set their parameters up – Menu Zones (see section 13.5):
   - Devices in the zone – Menu Devices (see section 13.5.1);
   - Aoutputs associated to the zone – Menus Fire Phase 1 Outputs and Fire Phase 2 Outputs (see section 13.5.2);
   - Zone parameters: Manual call point priority, Coincidence mode, Time Fire Phase 1 – Phase 2 and Inspection Time – Menu Zone parameters (see section 13.5.3);
   - Ttext message for the zone – Screen Text message (see section 13.5.4);
10. Set up parameters of any addressable inputs – Menu Inputs (see section 13.6);
11. Activate the power loop if necessary – Menu Panel configuration (see section 13.2);
12. Enter the passwords for Access Level 2 and Access Level 3 – Menu New passwords (see section 13.9);
13. Clear the archive – Function Clear archive (see section 13.11).

Upon exit of SetUp Mode the control panel runs again System operations and enters Duty Mode – the fire controlpanel is ready to provide site protection.

19. Troubleshooting

Possible problems and methods of troubleshooting are described in Table 4.

Table 4

Trouble	Indication	Troubleshooting
Fatal system error	Indicators  and  illuminate in steady yellow light; the local sounder releases continuous signal	The trouble shall be fixed in Technical Service and Maintenance Department
Low backup batteries due to interrupted mains power supply	The local sounder releases discontinuous signal (1s sound, 3s break); the message *Battery Low* appears on the screen; the backlight of the display is off	Restore the mains power supply or replace the backup batteries
Short circuit or Open loop	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	Eliminate the fault (short circuit or open loop)
Activated isolator of addressable device	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	Eliminate the fault (short circuit in the loop)
Fault condition Uninitialized loop	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	- Eliminate the fault (open loop); - Restore the loop so it complies with the configuration saved in the controlpanel and start initialization of the control panel; - Start clean initialization of the control panel
Fault Exceeding number of devices in the loop, Uninitialized device, Exchanged devices, Different ID number of device, Different device type, Different device temperature class	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	- Restore the loop so it complies with the configuration saved in the controlpanel and start initialization of the control panel; - Start clean initialization of the control panel
Fault Removed device	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	Instal the device
Fault Communication error with the device or Fault in device	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	Repair or replace the device (if you replace the device then run clean initialization of the control panel)
Fault Contaminated sensor (only in detectors with optical-smoke part)	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	Remove the detector and clean the optical part and place it again.

Table 4 continued

Trouble	Indication	Troubleshooting
Fault in monitored output	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	- Eliminate the fault (short circuit or break) in the line of the monitored output or of the executive device; - Upon break check for a short-circuited element in the monitored output to a grounded wire (see also Short circuit to grounded wire)
Fault in mains supply	Indicators  and  are illuminated in steady yellow light; the local sounder produces discontinuous signal; information table with the number of faults appears on the display	- Restore the mains supply; - Replace the 4A fuse with mains fuse (Appendix 3)
Fault in backup batteries supply	Indicators  and  are illuminated in steady yellow light; the local sounder produces discontinuous signal; information table with the number of faults appears on the display	- Place or change the backup batteries - Replace the burnt fuse 4A
Fault in supply to external devices	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	Eliminate the overload to the supply of the external devices
Short circuit to grounded wire	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	Eliminate the short circuit
Fault in internal supply devices	Indicator  flashes in yellow light; the local sounder releases discontinuous signal; information table with the number of faults appears on the display	The trouble shall be fixed in Technical Service and Maintenance Department

20. Conditions of operation, storage and transportation

20.1. Operation and storage

The fire control panel shall operate and be kept in closed premises, under the following conditions:

20.1.1. Temperature

- storage - from +5 to +35°C
- transportation - from -10 to +50°C
- operational - from -5°C to +40°C

20.1.2. Relative humidity

- storage - to 80%
- operational - to 93%

20.2. Transportation

The fire control panel shall be transported by vehicles, in factory packing, in the above stated environmental conditions and at sinusoidal vibrations with accelecartion amplitude not more than 4,9m/s^2 in frequency range 10 to 150Hz.

21. Warranty

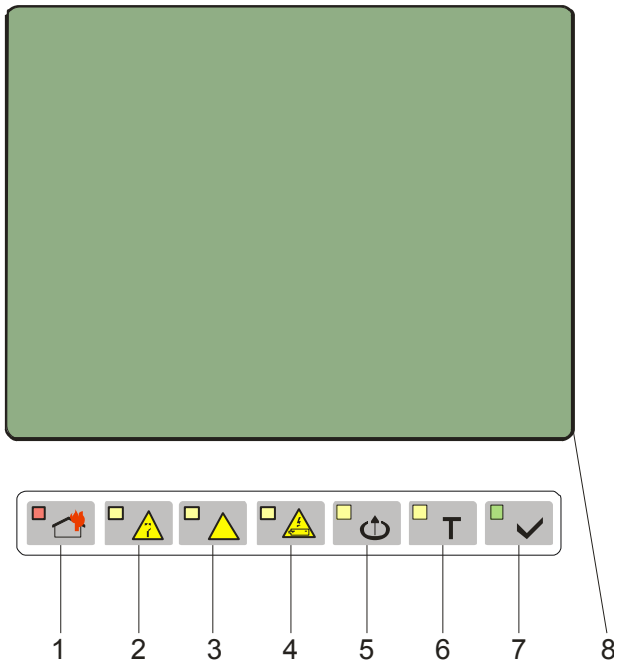
The producer guarantees compliance of the device with BDS EN 54-2: 1997. The warrant period is 18 months from the date of the purchase, providing that

- the conditions of storage and transportation have been observed;
- the startup has been done by authorized personnel only
- the requirements for operation stated herein have been observed.

UniPOS wishes you a successful work!

22. Appendixes

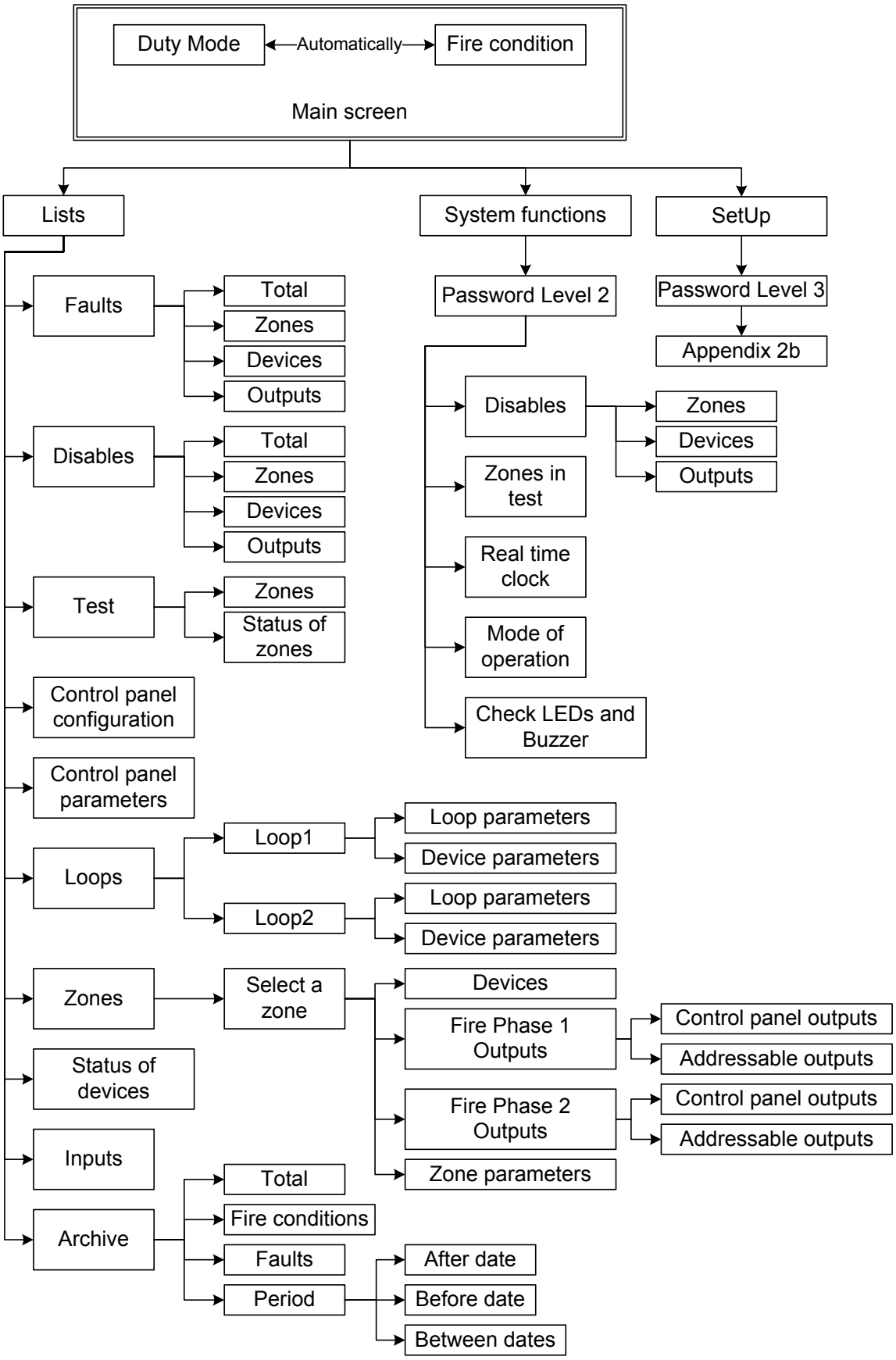
Appendix 1



1 Common indicator for fire condition
2 Common indicator for fault condition
3 Indicator for *System error*
4 Indicator for *Fault in power supply*
5 Indicator for *Disabled component*
6 Test indicator
7 Indicator for *Power supply*
8 LCD display

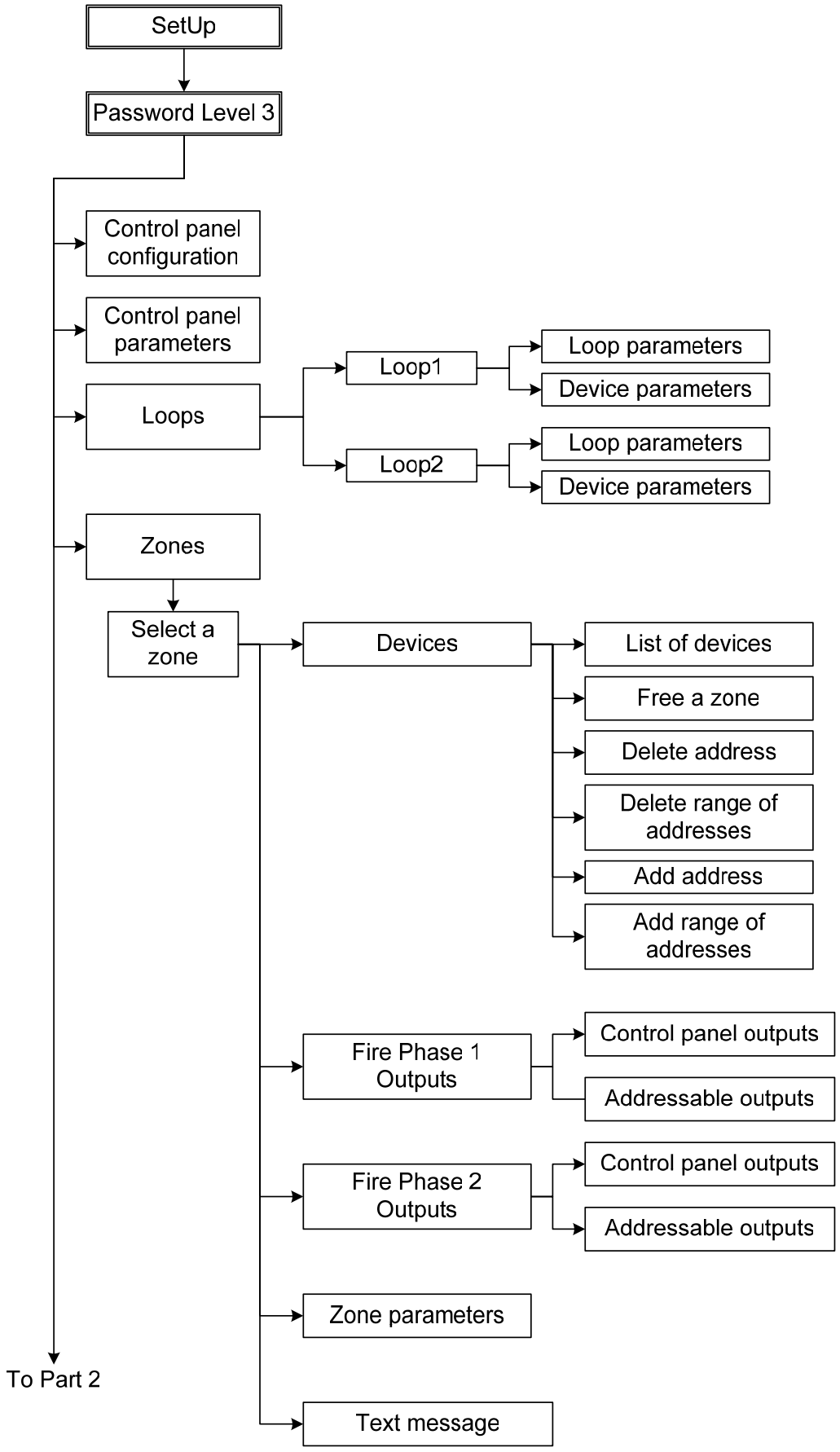
Front panel of IFS7002

Appendix 2



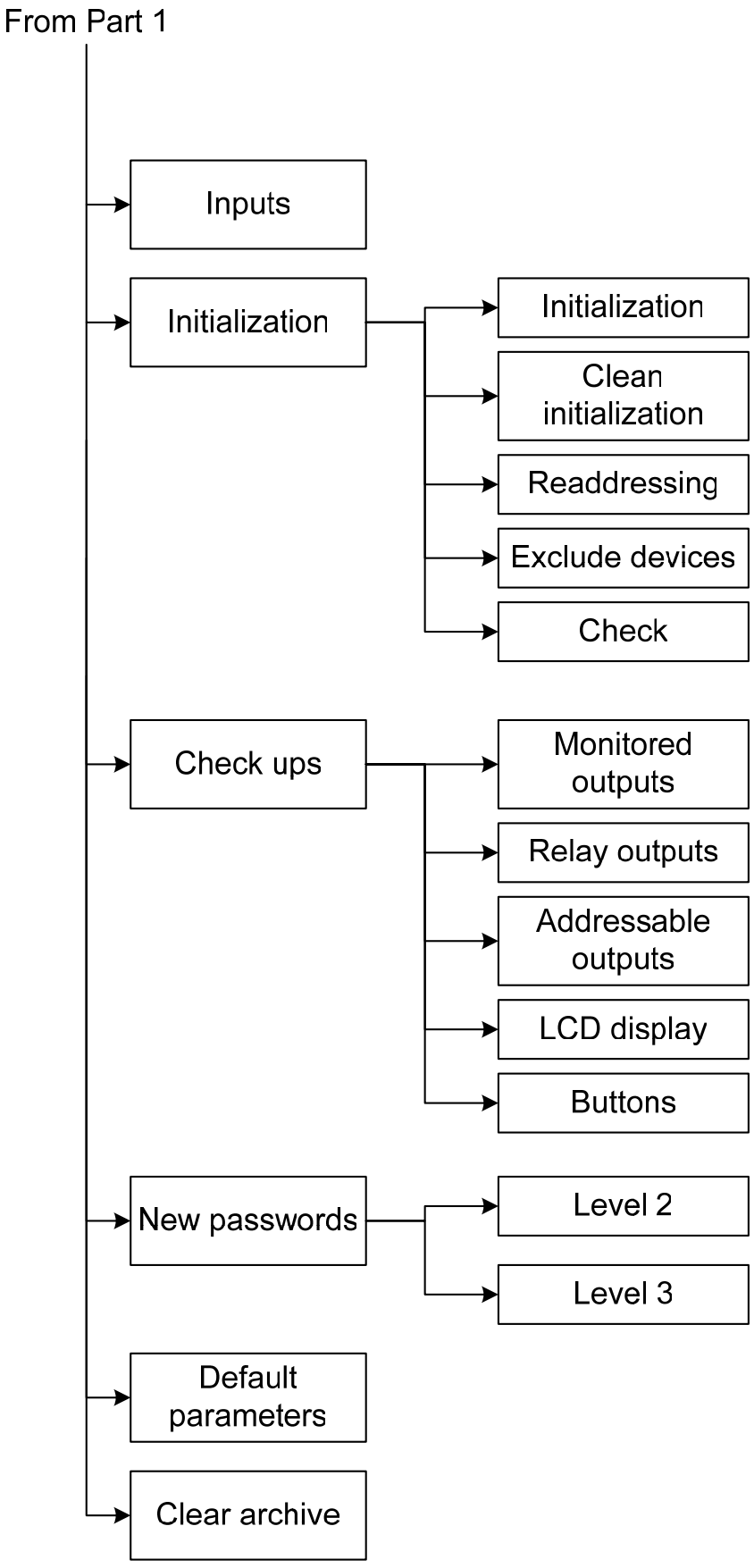
a) Main menu

Appendix 2 continued



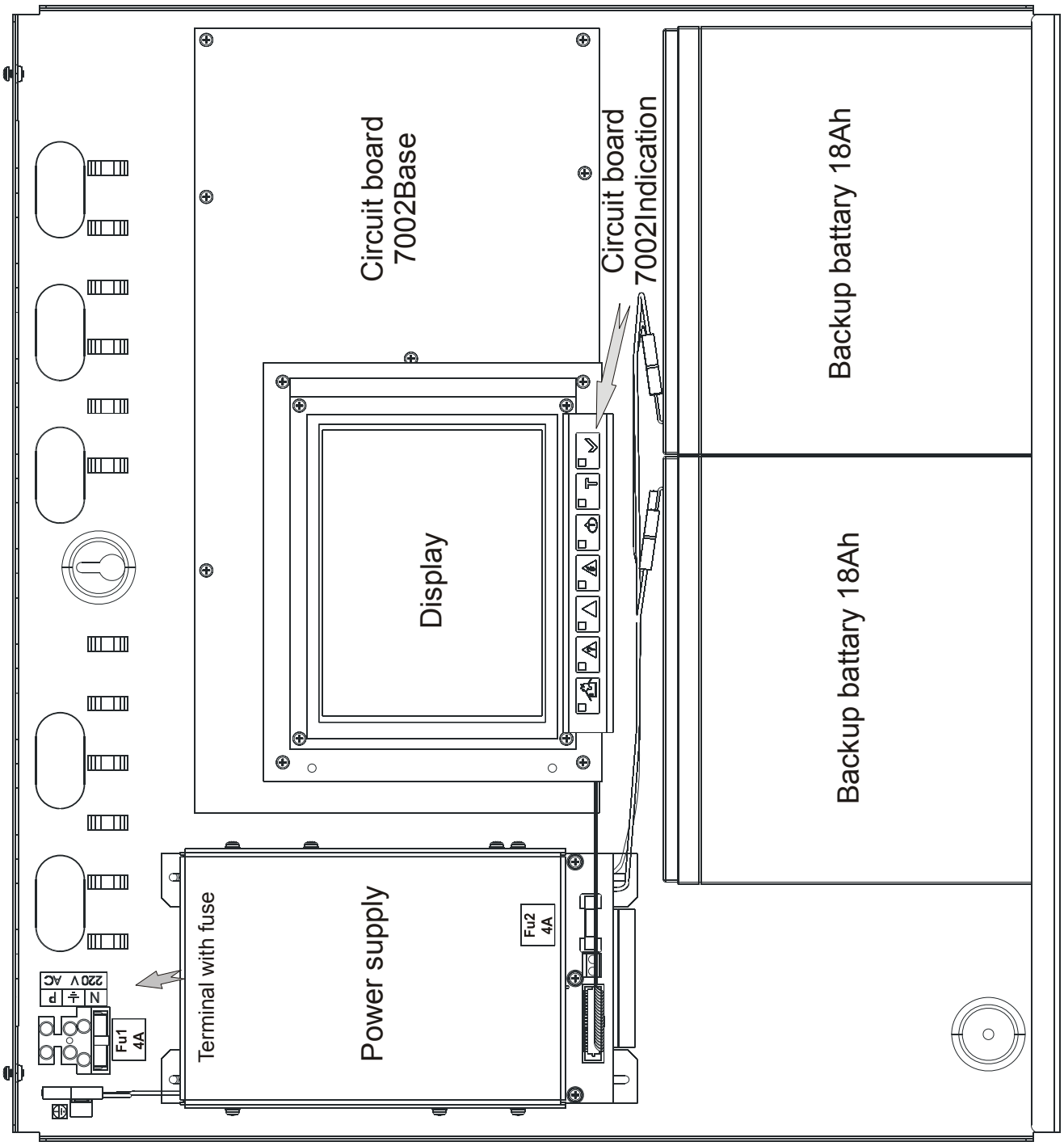
b) SetUp menu (part 1)

Appendix 2 continued



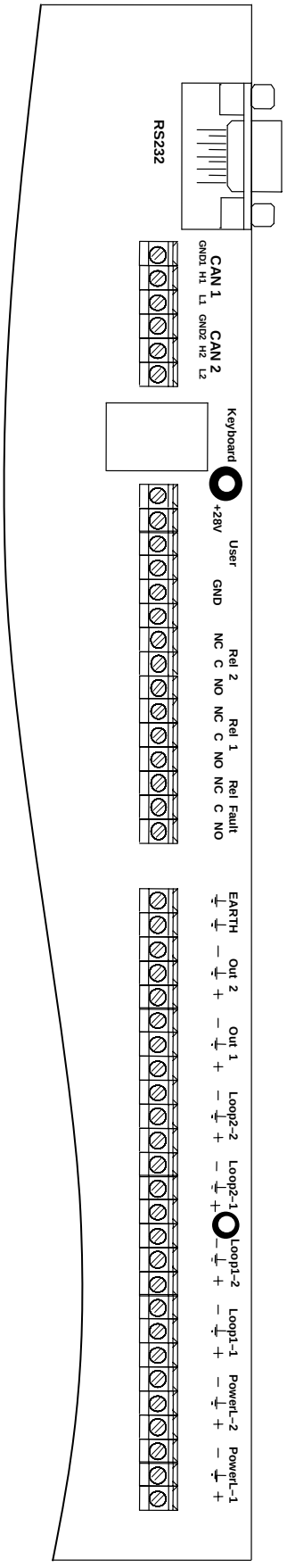
b) SetUp menu (part 2)

Appendix 3



General assembly diagram

Appendix 4



RS232 – standard 9-lead coupling for RS232 serial interface

CAN 1 – terminals for CAN 2.0B serial interface
CAN 2 – terminals for CAN 2.0B serial interface

Keyboard – PS2 standard coupling for external keyboard

User – voltage for supplyto external devices
+28V – positive lead
GND – negative lead

Rel X – relay contact for firecondition № X
C – common contact
NO – normally open contact
NC – normally closed contact

Rel Fault – relay output for fault condition
C – common contact
NO – normally open contact
NC – normally closed contact

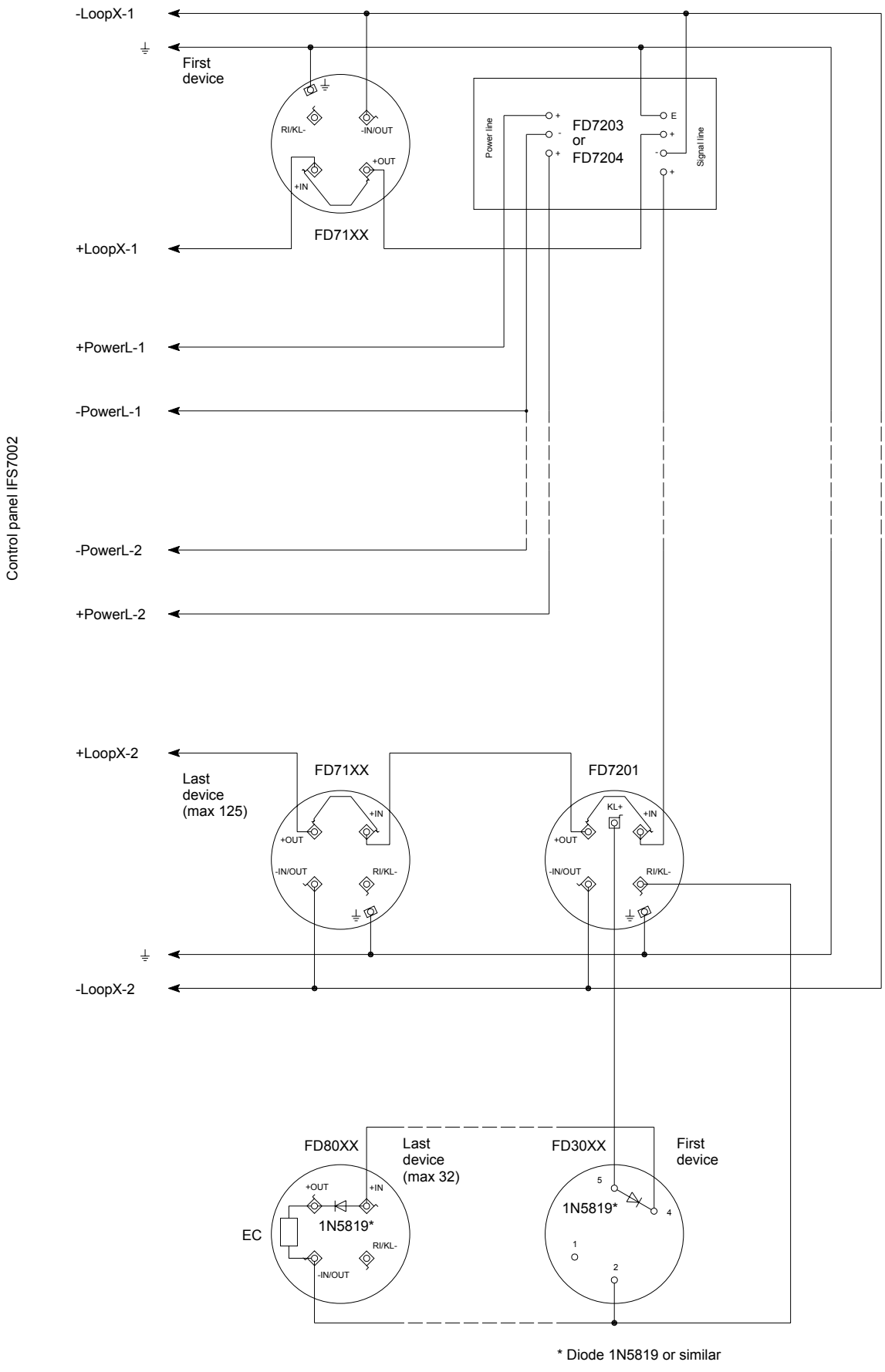
Out X – leads for monitored output № X
„+” – positive lead
„-” – negative lead
„⏚” – earthing

LoopX–1 – beginning of fire alarm loop № X
„+” – positive lead
„-” – negative lead
„⏚” – earthing
LoopX–2 – end of fire alarm loop № X
„+” – positive lead
„-” – negative lead
„⏚” – earthing

PowerL–1 – beginning of power loop
„+” – positive lead
„-” – negative lead
PowerL–2 – end of power loop
„+” – positive lead
„-” – negative lead

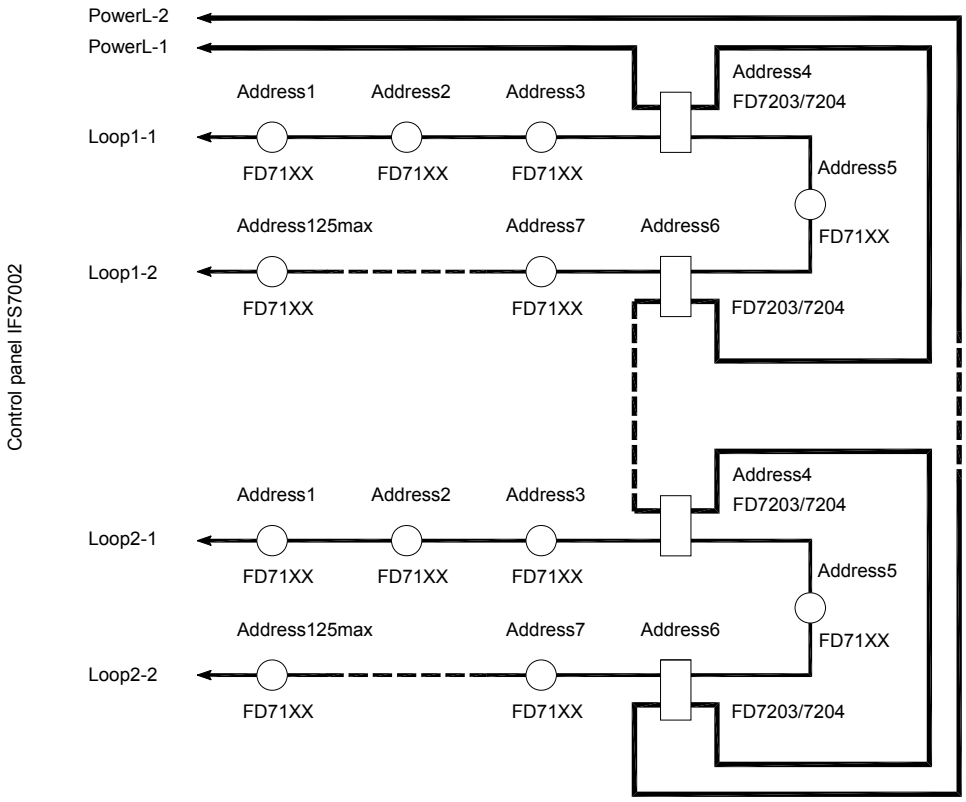
Terminals and couplings of PCB 7002Main

Appendix 5

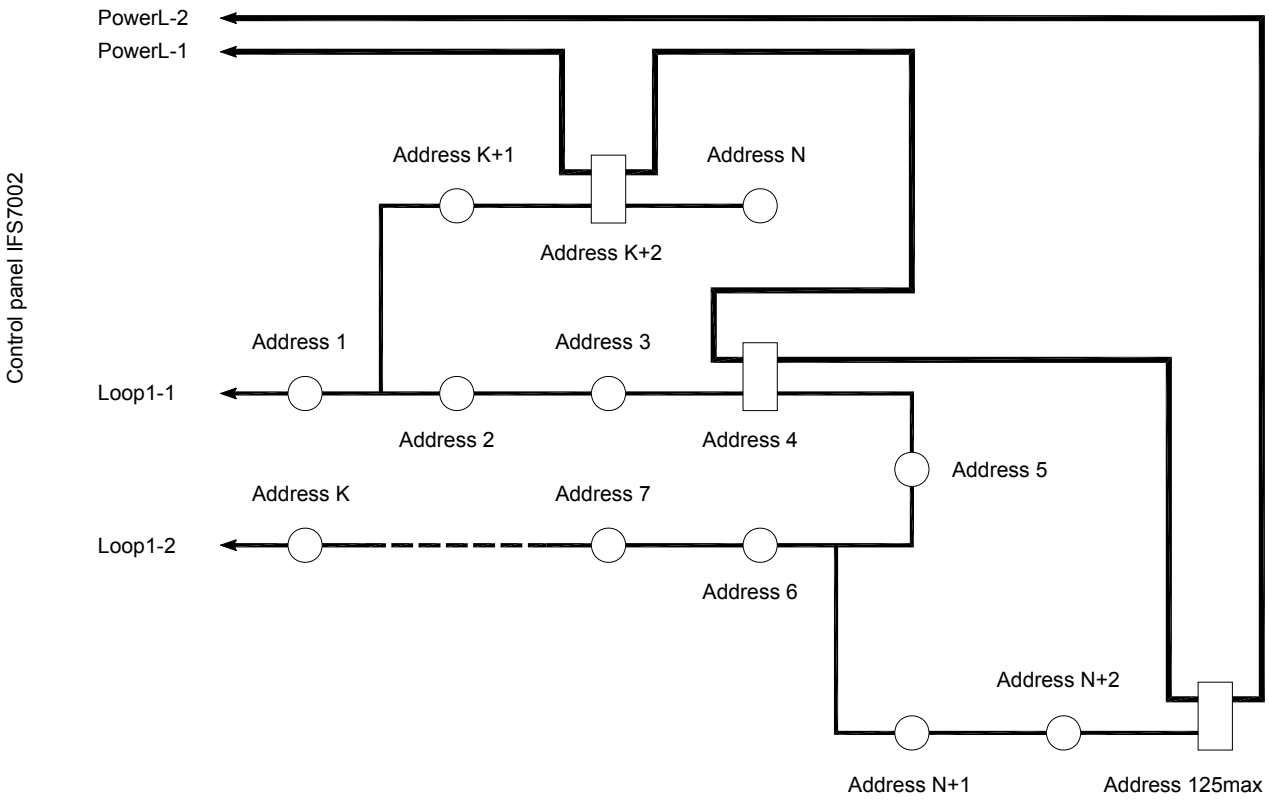


a) Connection of addressable devices to fire alarm loop and power loop

Appendix 5 continued

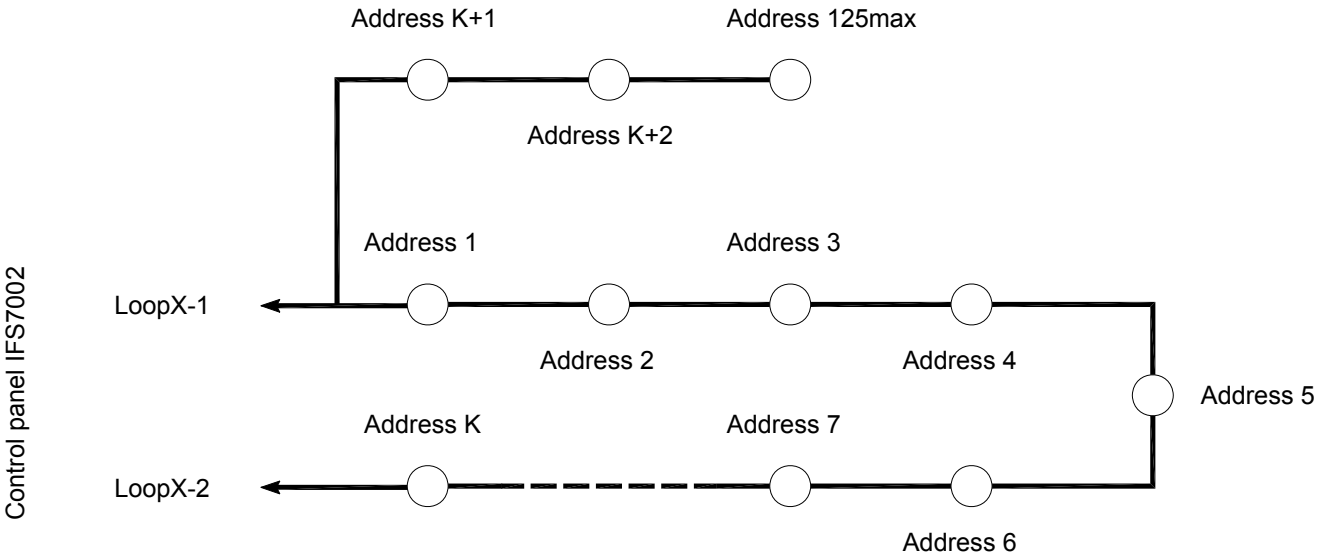


b) Configuration of Fire Alarm Loops without branches and Power Loop (recommended)

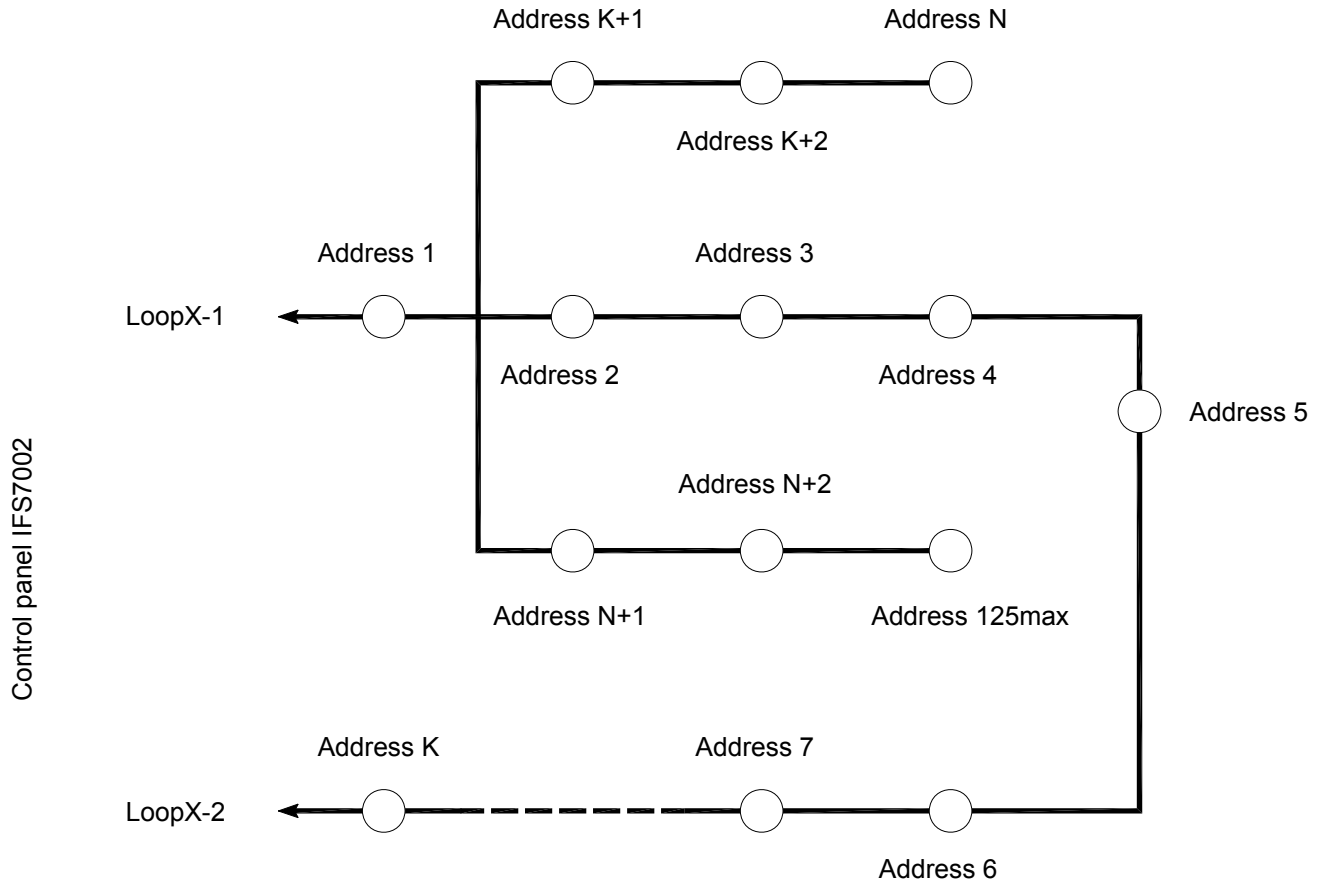


c) Configuration of Fire Alarm Loop with branches and Power Loop (proper connection)

Appendix 5 continued

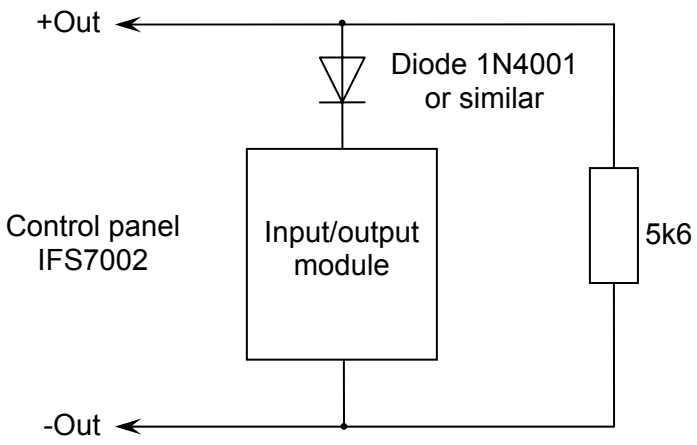


d) Improper connection of Fire alarm loop branch
(the branch is connected between the control panel and an addressable device)

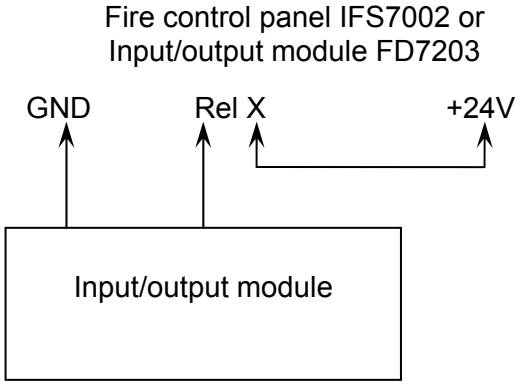


e) Improper connection of Fire alarm loop branches
(two branches are connected between two addressable devices)

Appendix 6



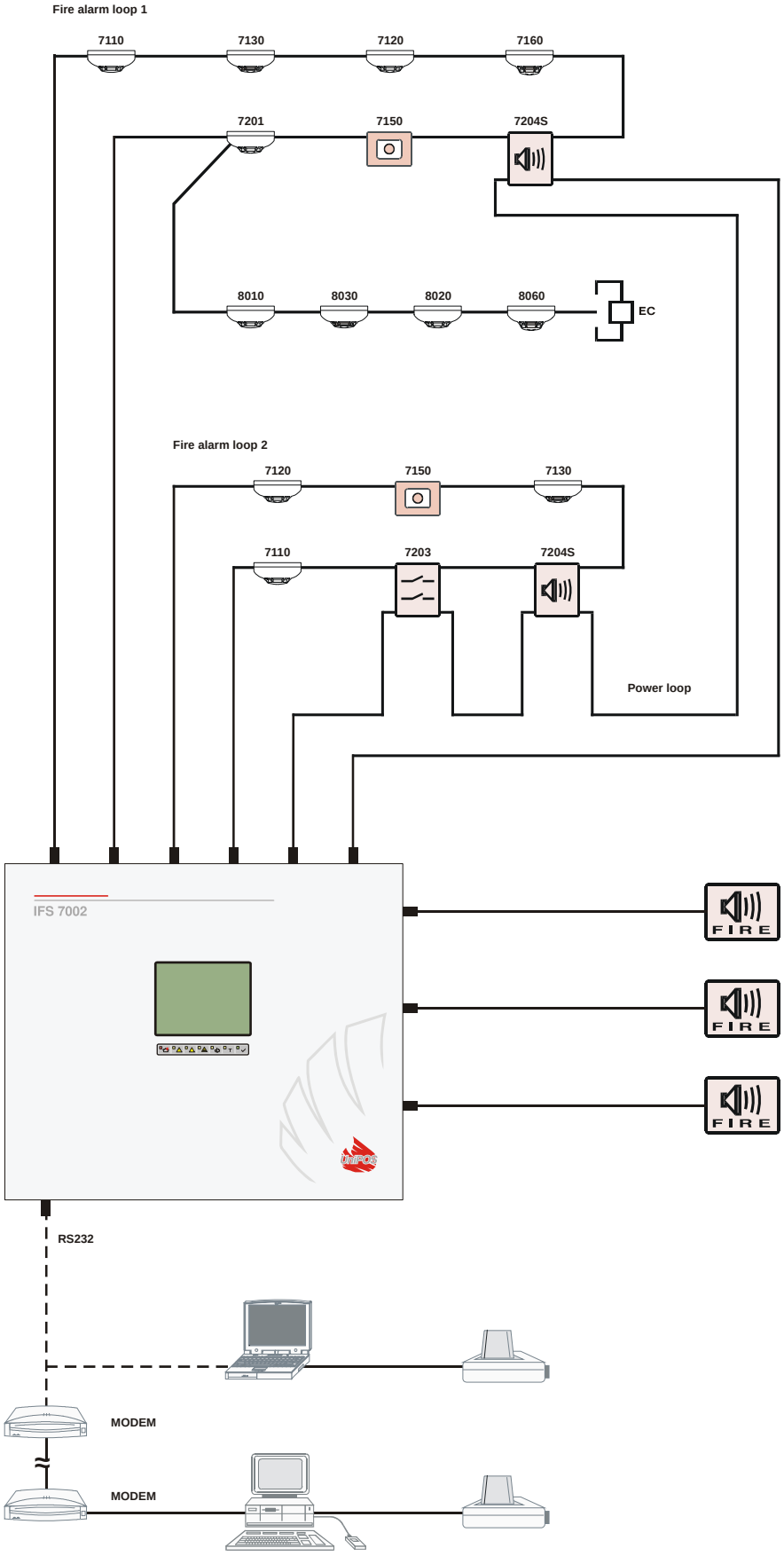
a) Diagram for connecting Input/output module to monitored output



b) Diagram for connecting Input/output module to relay output

Connection diagrams for Input/output module

Appendix 7



Block diagram of fire alarm installation designed on the base of IFS7002