UniPOS

Repeater IFS7002R

Instruction Manual

Revision 1/16.11.09

Contents

1. Introduction

Repeater IFS7002R is a device supplementing the range of 7000 series devices as it expands the potentials of systems established based on Fire Control Panel IFS7002.

Some of its main features and possibilities are:

- Indication of Fire condition in each zone and fire detector of the fire control panels connected to it;
- Option for reviewing and adjustment of each of the fire control panels connected to it via a built-in keypad;
- User oriented menu dialogue for easy and convenient operation;
- LCD for visualization of system checkup and setup modes;
- touch-panel contributing the creation of a dynamic keypad;
- LEDs indication for early warning of a break down or extreme conditions;
- User oriented test modes allowing for a total control of the protected site;
- Built-in serial interface for connection to PC;

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2. Function

Repeater IFS7002R, is designed to exchange data and commands with remote fire control panels IFS7002. It provides the possibility the signals from one or more fire control panels to be displayed in one or more repeaters located at different places.

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3. Technical data

3.1 Performance

- 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
- Possibility for setting up the fire control panels connected to it
- Interfaces for communication with the fire control panels IFS7002 – CAN 2.0B connected to it.
- Interfaces for communication with PC – RS-232 directly or LAN via a converter RS232 – LAN Eternet.
- Possibility for connection of PC keyboard for setting up and programming.

3.2. Indications of registered events

- Light indication - LED
- Text message - LCD display, 320 x 240 points, backlit
- Sound signaling – built-in sounder

3.3. Power supply

3.3.1. From the fire control panel connected with the repeater IFS7002R

Voltage	- (23±7)V
Maximum current value	- 180 mA

3.3.2. From external power supply (in compliance with EN54-4)

Voltage	- (12 - 30)V

Maximum current value - 300 mA

3.4. Dimensions

- Overall dimensions - 290x219x46mm

3.5. Weight

- weight - 1 kg

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4. Contents of delivery

- Repeater IFS7002R - 1 pc
- Instruction manual - 1 pc
- Instructions for authorized staff - 1 pc
- Packing - 1 pc

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5. General information

5.1. Access levels

4 levels of access to the variable indications and control functions of IFS7002R are available.

5.1.1. 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 Zones in test (see section .7.3.6, 9.2.1);
- entering inspection time period (see section 7.3.1);
- forced proceeding from phase Fire condition stage I to Fire condition stage II (see section 7.3.3.);
- suppressing the local sounder (see sections.7.3.2, 8.3.1.);
- displaying text messages from inputs;
- displaying program data for the repeater (see section 9.2.2.);
- displaying the status of the addressable devices in the loops of the fire control panels connected to it;

Al light indicators of the repeater are visible.

5.1.2. 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 repeater and the fire detecting system 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 repeater are accessible:

- all features accessible at Level 1;
- switching off the outputs, activated upon fire condition (see section 7.3.4.);
- exit of Fire condition (see section 7.3.5.);
- system functions of the repeater (see section. 9.3.).

5.1.3. Access level 3

Accessible for personnel trained and authorized to:

- reconfiguratation of specific data – of the protected site, saved in the repeater or the fire control panels connected to it (see section 10);
- maintenance the established fire detecting system.

To enter Access level 3 use your password.

5.1.4. Access level 4

Accessible for personnel trained and authorized by the Producer to repair the repeater and to modify its software.

Special means are required to enter this level.

5.2. Conditions and indications

When the repeater IFS7002R is switched on it runs an initial verification of CAN network parameters. It checks the entered fire control panels and their condition.

The repeater IFS7002R operates in eight basic modes: Duty Mode, Fire Condition, Fault Condition, Disabled Component Mode, Test Mode, Information and Control Mode and SetUp Mode:

- Duty Mode - the repeater is in Duty Mode, when the fire control panels connected to it are not in any of the rest eight possible conditions and they have a connection with it (see section 6.);
- Fire condition – The repeater enters Fire condition when a fire detector is activated in any zone of the fire control panel connected to it (see section 7.);
- Fault condition – the repeater enters this condition when a fault in any of the fire control panels connected to it is registered or its connection with any of the fire control panels has been interrupted (see section т.8.);
- Disabled component - the repeater enters Disabled component after a manual operation, disabling a certain component has been performed – fire alarm zone, addressable device or monitored output of any of the fire control panels connected to it;
- Test Mode – the repeater enters Test Mode after a manual operation setting a fire-alarm zone in test in any of the fire control panels connected to it;
- Information and Control Mode – the repeater enters Information and Control Mode when the main menu is activated in Duty Mode, Fire condition, Fault condition (except for fatal error), Test Mode and Disabled Component (see section 9);
- SetUp Mode – the repeater enters SetUp Mode after activation of submenu Set up, in Information and Control Mode (see section 10);

In any moment the repeater can be in any of the above conditions/modes, or in a random combination of Fire condition, Fault condition, Disabled component, Test mode and Information and Control mode.

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

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

The conditions of the repeater and their corresponding indication are shown in Table 1.

Table 1

Conditions of the repeater	indication
All conditions – the repeater is power supplied	 Indicator *Power supply* – continuous green light
Fire condition	 Common indicator *Fire condition* – flashing red light

Conditions of the repeater	indication
Fault condition All faults except for *Battery low*	Common indicator *Fault condition* – continuous yellow light
Fault condition – System error	Indicator *System error* - continuous yellow light
Fault condition - Fault in mains supply	Indicator *Fault in mains supply* - continuous yellow light
Disabled component - Disabled zone, addressable device or monitored output	Indicator *Disabled component* - continuous yellow light
Test condition	Indicator *Disabled component* - 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

5.3. Buttons for control and indication

Table 2 presents the basic means of control.
Appendix 1 shows the front panel of the repeater IFS7002R.

Таблица 2

Means of control	Condition of the repeater	Access level	Operation
Button *Reset Fire*	Fire condition	Level 2	To exit the Fire condition
Button *Fire condition stage II*	Fire condition, phase *Fire condition stage I*	Levels 1 and 2	To force transition to phase *Fire condition stage II*
Button *Outputs* (no suppressed outputs) or (suppressed outputs)	Fire condition	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

Means of control	Condition of the repeater	Access level	Operation
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 the selected menu
	Information and Control Mode	Level 2	- To enter the selected menu; - To execute the selected command; - To save a modified parameter
	SetUp Mode	Level 3	
Button *Down* 	Information and Control Mode	Levels 1 and 2	To display the next element of the menu
	SetUp Mode	Level 3	
Button *Up* 	Information and Control Mode	Levels 1 and 2	To display the previous element of the menu
	SetUp Mode	Level 3	
Button *Exit* 	Information and Control Mode	Levels 1 and 2	To exit Information and Control Mode
	SetUp Mode	Level 3	To exit SetUp Mode and reset the system
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 3	
Button *Change* 	Information and Control Mode	Levels 1 and 2	To change the element to its next permissible value
	SetUp Mode	Level 3	
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 3	

Means of control	Condition of the repeater	Access level	Operation
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 3	
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 3	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 3	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 3	
Buttons with digits, characters and symbols	Information and Control Mode	Levels 1 and 2	To insert a symbol to the left of the cursor
	SetUp Mode	Level 3	

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6. Duty Mode

6.1 Description

The repeater is in Duty Mode, when it is not in any of the rest eight possible conditions (There are no Fault condition, Fire conditions, Test conditions or disabled components in the system and there is a connection with all fire control panels, with which it communicates).

6.2. Indication

6.2.1. LED and sound indication

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

6.2.2. 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), the mode of control (Rep – control of the repeater or RemX – control of a remote panel, where X is the remote panel's address.

In REP mode the displays shows information from all fire control panels connected with the repeater.

In RemX mode it is shown only information about fire control panel „X".

6.3. Using the keypad

The only accessible button in Duty Mode is (Menu). Press it and the repeater enters Information and Control Mode (see section 9). The active button in Duty Mode is accessible in all four access levels.

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7. Fire condition

7.1. Description

The repeater enters Fire condition after a fire detector has been activated in one of the zones of the fire control panels connected with it.

The repeater can be in Fire condition in one or more zones from one or different fire control panels. When several zones are in Fire condition the repeater indicates the phase of the Fire condition for each zone and the remaining time for the respective zone to enter phase Fire condition stage II.

To exit this condition press button at Access level 2 or higher level (see section 7.3.5.). If two or more fire control panels are in Fire condition, select the zone of the fire control panel to exit Fire condition with buttons and moving the cursor > to the information window.

The repeater remains in Fire condition until all Fire conditions in each of the fire control panels connected with it is reset.

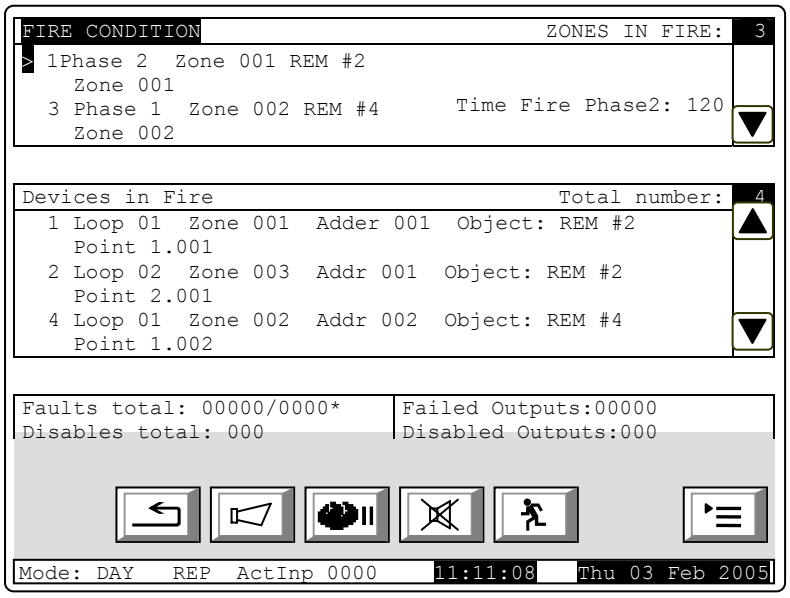
7.2. Indication

7.2.1. 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).

7.2.2. Text messages

For this condition the display is divided into three text panels, shown on fig.1



- The first panel displays information on zones and on the fire control panels in fire condition. A flashing heading with the text FIRE and the total number of zones in fire condition appear [1].

The panel is subdivided into two text fields, each providing two lines. The first line displays information on the first zone and the fire control panel in fire condition, the second line provides information on the last zone and the fire control panel for the repeater is in fire condition.

The text fields provide the following information:

- the sequence number of the indicated fire condition [2];
- the phase of Fire condition detected by the fire control panel in this particular zone [3];
- the zone number [4];
- the address of the fire control panel in fire condition [5];
- the remaining time in seconds before the fire control panel proceeds to phase Fire condition stage II (indicated only in Fire condition stage I) [6].
- text message for the respective zone [7].

. 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 first (upper) field by pressing the buttons on the right side (see section 7.3.6).

- The second panel provides information on devices in fire condition.

In the head part is displayed the total number of devices in fire condition [8].

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 text fields provide the following information:

- The sequence number of the device in fire condition [9];
- The fire alarm loop where the device is integrated to [10];
- The zone number [11];
- The device address in the fire alarm loop [12];
- The remote fire control panel address that is in Fire condition [13];
- Text message for the respective device [14].

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 first two upper fields, by pressing the buttons on the right side (see section 7.3.6.1).

- 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). [15].

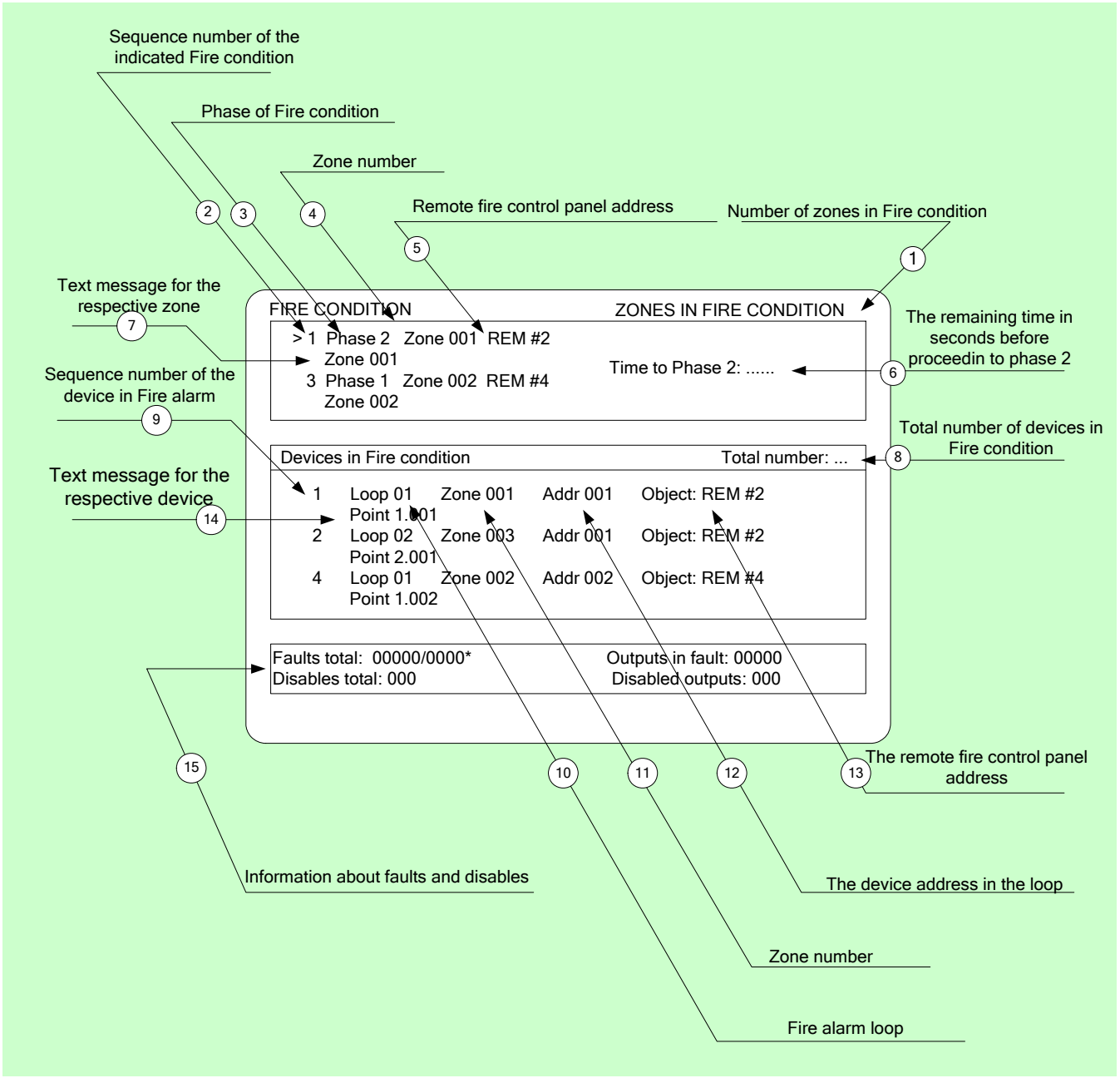


fig.1

7.3. Using the keypad

7.3.1. Accessible buttons in Fire condition – Access level 1

7.3.1.1. Button  (Inspection)

The button appears on the display when the fire control panel connected to the repeater enters Fire condition stage I and 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. 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.

7.3.1.2. Button  (Stop Alarm)

The button appears on the display:

- when the repeater enters Fire condition;
- when a Fault condition is registered.

It is extinguished:

- when pressed twice;
- when Fault conditions are eliminated
- when the fire control panels connected to the repeater exit Fire condition.

The operation of the activated button is as follows:

- Press it once to turn off the local sounder of the repeater however the button remains active on the display.
- Press it twice to suppress the activated local sounders of the connected fire control panels.

Button's operation does not effect and is not cancelled by the following events:
- Upon entering 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.
.

7.3.1.3. Button  (Fire condition stage II)

The button is seen on display when the repeater is in Fire condition and there are zones for which the fire control panel connected to the repeater is in phase Fire condition stage I. Press the button to force transition from phase Fire condition stage I to phase Fire condition stage II.

7.3.2. Accessible buttons in Fire condition - Access level 2

The following buttons from Access level 1 are accessible here, too:

7.3.2.1. Button  (Inspection) (see section 7.3.1.1.)

7.3.2.2. Button  (Stop Alarm) (see section 7.3.1.2.)

7.3.2.3. Button  (Fire condition stage II) (see section 7.3.1.3)

In addition to them, after entering a password for Access level 2 or 3

7.3.2.4. Buttons  and  (Outputs)

The buttons are seen on the display when the fire control panel connected to the repeater is in Fire condition; they serve to suppress/enable activation of the outputs for fire condition at Access level 2. Addressable outputs, activated by the inputs, can not be suppressed.

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

- entering in Fire condition in a new zone;
- transition from Fire condition stage I to Fire condition stage II

These new events will trigger the outputs for fire condition associated to this zone for the respective phase of Fire condition in the respective fire control panel.

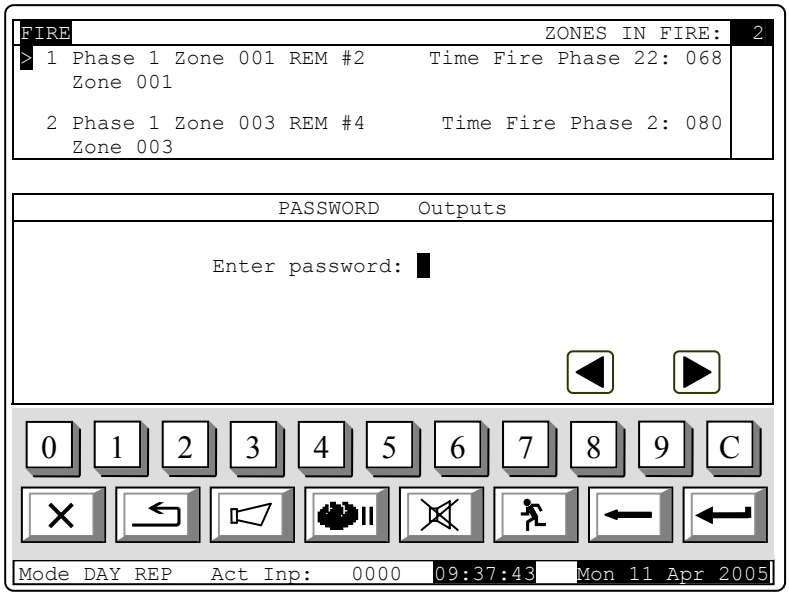
The buttons have opposite function (suppressing/enabling the activation of the outputs) and in this aspect only one of them is always shown on the display.

If any outputs for fire condition are suppressed, the button will have the following graphic 
.

7.3.2.4.1. Press the button  at Access level 1 to display a screen where the password is entered:

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  as this does not result in changing the entered symbols.

.



Button  deletes:

- any digit under the cursor;
- 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:
  - Where activated outputs for fire condition are available – these outputs will be suppressed;
  - Where activated outputs for fire condition are not available – the suppressed outputs will be activated
  - 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.

7.3.2.4.2 Press button  at Access Level 2 to:

- Where activated outputs for fire condition are available – these outputs will be suppressed;
- Where activated outputs for fire condition are not available – the suppressed outputs will be activated
- Exit Information and Control Mode.

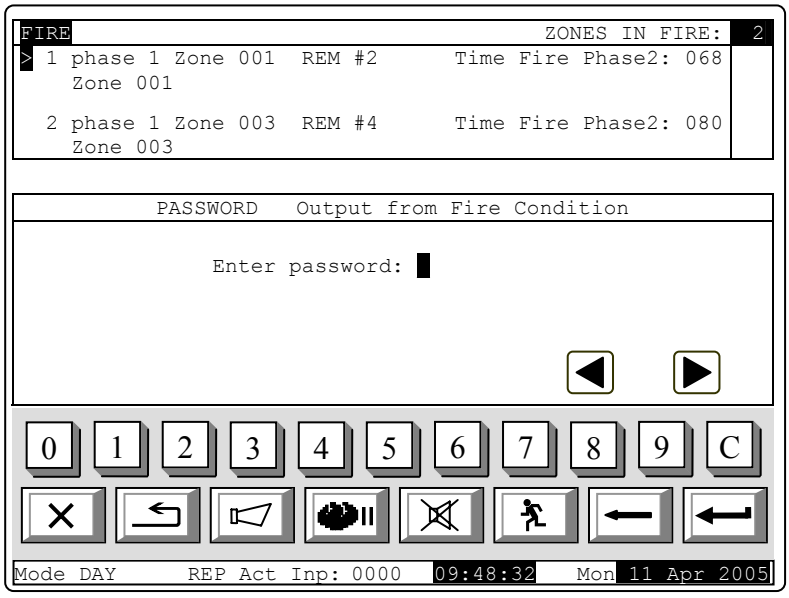
7.3.2.5. Button  ("Reset of fire condition")

The button is seen on the display when the repeater is in Fire condition and can be used to force the fire control panels connected to it to exit Fire condition at Access Level 2.

Press the button at Access Level 1 to display a screen for password entering for Access level2:

Enter the password using the buttons with figures, replacing the cursor position „", and the previously entered text and the cursor itself move one position to the right. Use buttons ◀ and ▶ to move the cursor to the left or to the right as it does not change the symbols already entered.

Button C deletes:



- any digit yunder the cursor;
- 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 in the window for Zones in Fire condition pointed by ▌will exit Fire condition;

To exit the screen, press buttons ✕ (Escape) or ← (Cancel). Press button ⮌ at Access Level 2 and the repeater and the fire control panel in Fire condition will exit Fire condition and Information and Control Mode.

7.3.2.6. Buttons ▼ (Move down) and ▲ (Move up)

7.3.2.6.1. Panel for zones in Fire condition

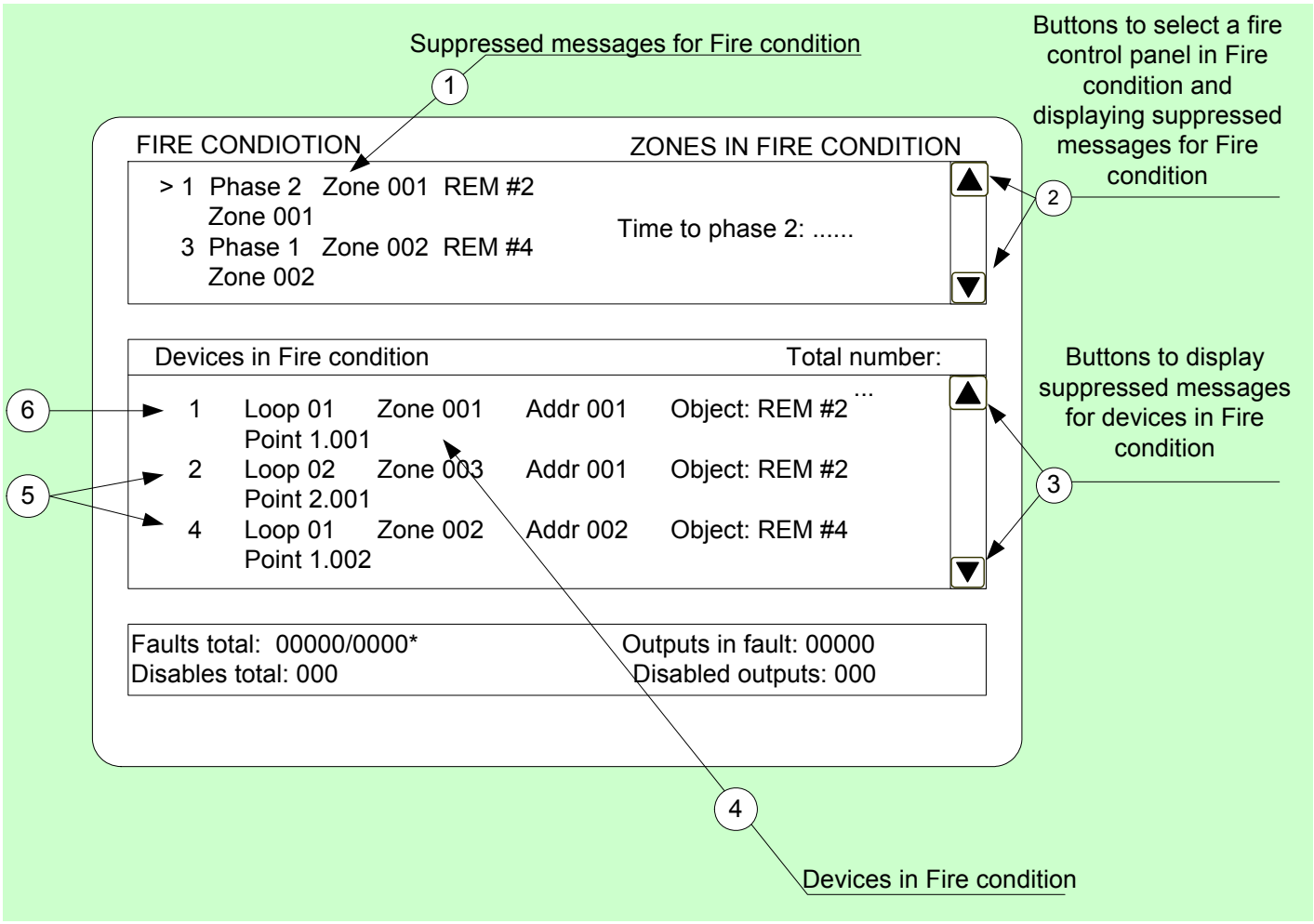
Where suppressed messages for zones in fire condition are available they can be displayed in the text fields of the first panel [1] on the LCD display, by the means of buttons ▼ and ▲ [2] situated in the panel's right section. Use these buttons to select the fire control panel that will exit the Fire condition.

7.3.2.6.2. 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 panel [4] on the LCD display by means of buttons ▼ and ▲ [3] situated in the right part of the panel.

Button ▼ is activated if the numbers of the messages in the second and the third field [5] 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 [6] 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.



7.3.2.7. Button ☰ (Menu)

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

7.3.2.8. Button ✕ (Exit)

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

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8. Fault Condition

8.1. Description

The repeater enters Fault Condition when any of the events below have been registered:

- fatal system error;
- fault in a processor programme;
- fault in the communication with the fire control panel;
- fault in the real time clock;
- fault in the external memory;

or in connected to it a fire control panel ;

- fault in the communication with the fire control panel;
- fault in the real time clock;
- fault in the external memory;
- fault in a fire control panel;
- fault in a module;
- 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 –smoke 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 loops supply;
- fault in external devices supply;
- low power supply – low backup battery during fault in the mains supply;

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

8.2. Indication

8.2.1. 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.

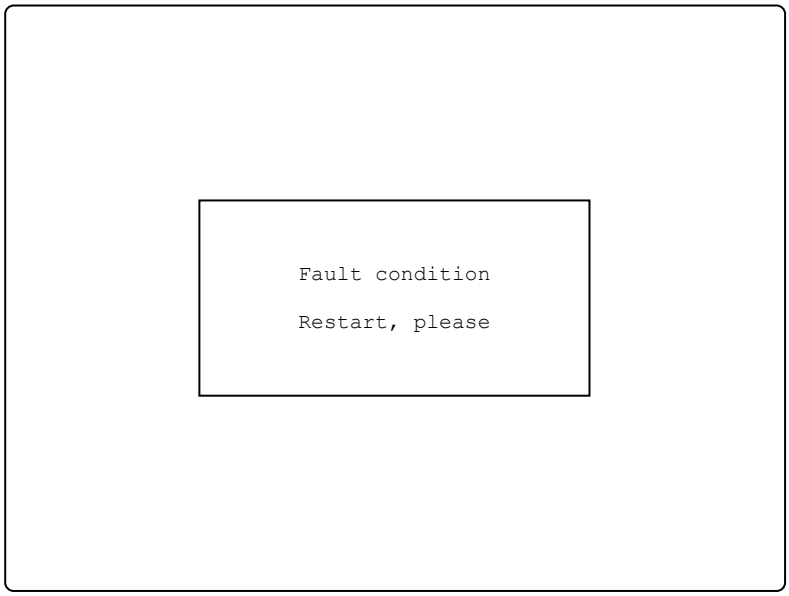
All other fault conditions are designated by indicator  (Fault condition), illuminating in continuous yellow light. Depending on the specific fault, the following indicators are illuminated too:

- Upon *System error* - indicator  (System error) in continuous yellow light;
- Upon *Fault in mains supply* - indicator  (Fault in mains supply) in continuous yellow light.

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

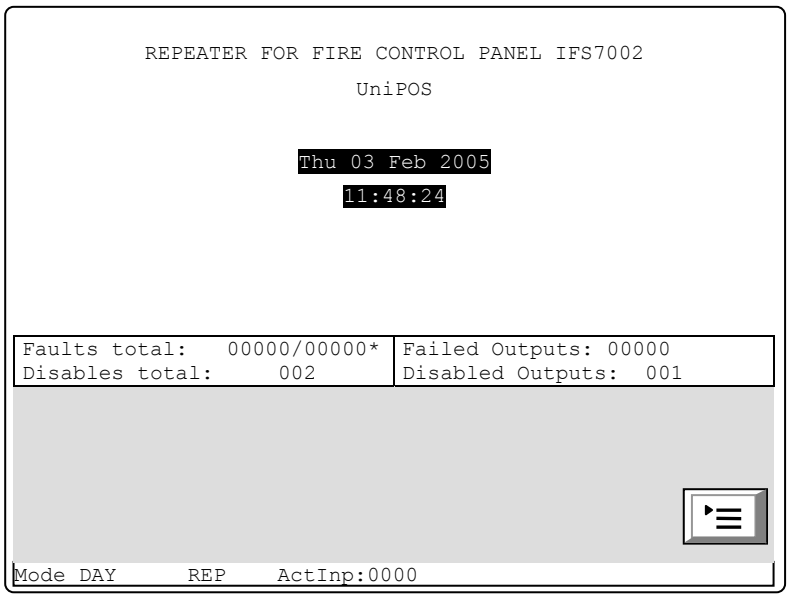
8.2.2. Text messages

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.

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 9.2.1).

8.3. Using the keypad

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

8.3.1. Button  (Stop Alarm)

The button appears on the LCD display where the repeater 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 panels connected to the repeater exited Fire condition)

Press the button once to switch the local sounder of the repeater of however the local sounder of the fire control panels connected to it is still active. The button on the screen is active too.

Press the button again to switch off the local sounder of the connected fire control panels to the repeater and the button disappears from the display.
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.

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

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9. Information and Control Mode

9.1. Description

Information and Control Mode provides the user with the possibility to display information about the repeater and the fire control panels connected to it, 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 repeater operates:

- in combination of Information and Control Mode and Fault condition, button  (Stop Alarm) is active too;
- in combination of Information and Control Mode and Fire Condition, the 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  (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.

This instruction manual describes the menus related to the control and setup of the repeater. When choosing a fire control panel to be setup, the menus and functions comply with the ones described the in the instruction manual of the fire control panel (see IFS7002 00 00 00 00 PSv7 16 11 09.pdf).

SetUps of remote fire control panels that cannot be done from the repeater panel are:

- SetUp/Loops/Loop 1/ Device parameters;
- SetUp/Loops/Loop 1/ Check;
- SetUp/Loops/Loop 1/Manual addressing;
- SetUp/Initialization/Re-addressing;
- SetUp/Initialization/Check;
- SetUp/Checks/Monitored outputs;
- SetUp/Checks/Fire control panel relay outputs;
- SetUp/Checks/Address outputs;
- System functions/Zones in test;
- Lists/Messages from inputs;

9.2. Menu Lists

The menu displays detailed information associated

- to the current state of the repeater and the fire control panels connected to it;
- the addressable devices, as well as their configuration and the setup.

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

– Menu Faults;
– Menu Disables;
– Menu Tests;
– Menu Messages from the inputs
– Menu Activated outputs
– Screen Repeater configuration;
– Menu Repeater parameters;
– Menu *Loops*;
– Menu *Zones*;
– Menu Devices status;
– Menu *Inputs*;
– Menu Archive;
– Menu Select Rep/Rem control panel.

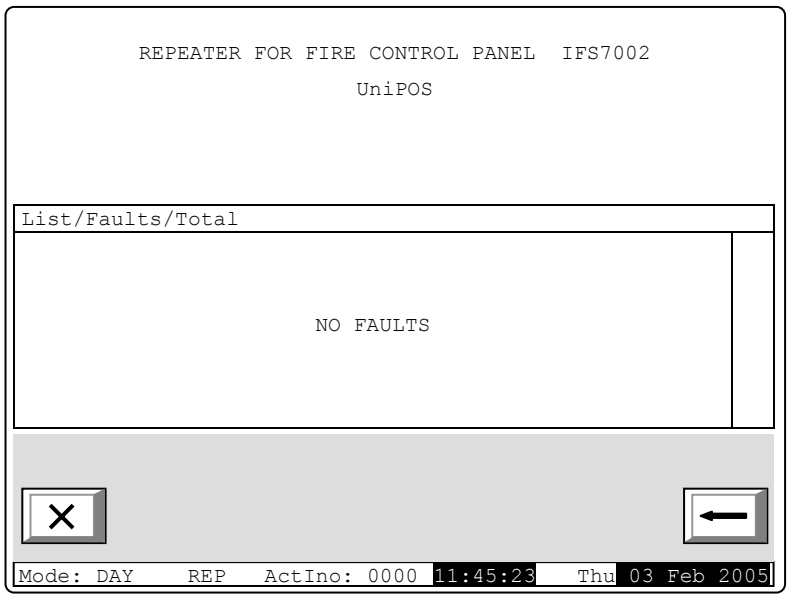
9.2.1. Menu *Faults*

Use the menu to display detailed information for faults in the repeater and the fire control panels connected to it.

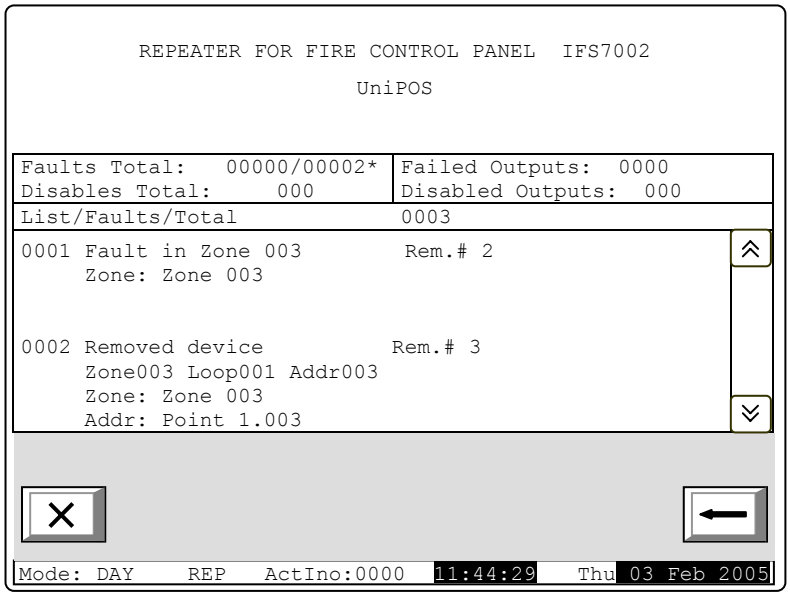
Menu *Faults* contains the following subordinate menus:

- Menu *Total* – displays information for all fault conditions;
- Menu “LAN objects” – to display individual information for the selected remote fire control.

The 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, loop, address if it is an addressable device);

The fire control panel where the event has occurred;

- 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.

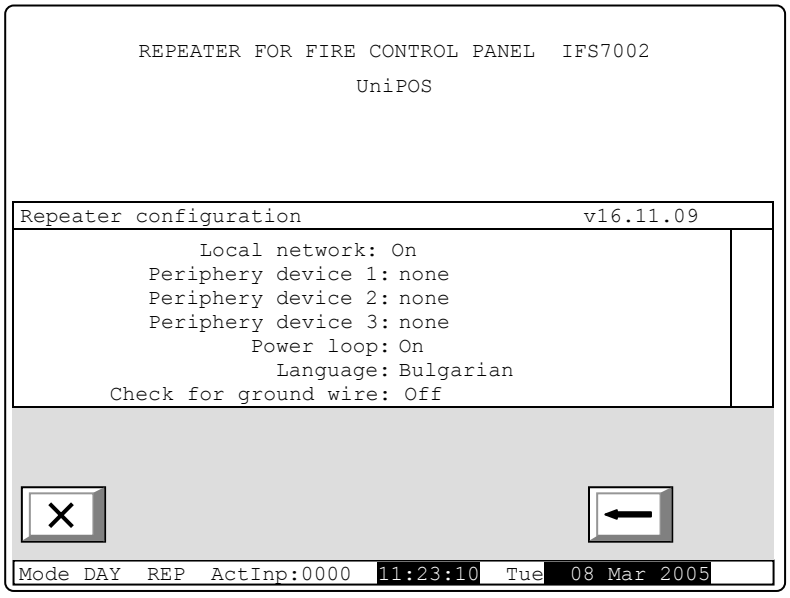
Buttons and situated in the right panel section scroll the pages up and down – next page or previous page (if any are available). One page contains two messages for fault condition.

9.2.2. Screen *Repeater configuration*

The screen displays information associated with:

- the repeater local network condition (ON or Off);
- the selected language of the text messages.
- Check for ground wire – this option is not active for the repeater.

The software version of the repeater is displayed in the right part of the heading line, for example “v16.11.09”.



9.2.3. Menu *Repeater parameters*

Use the menu if the repeater is connected to PC or to view the parameters of the established CAN network.

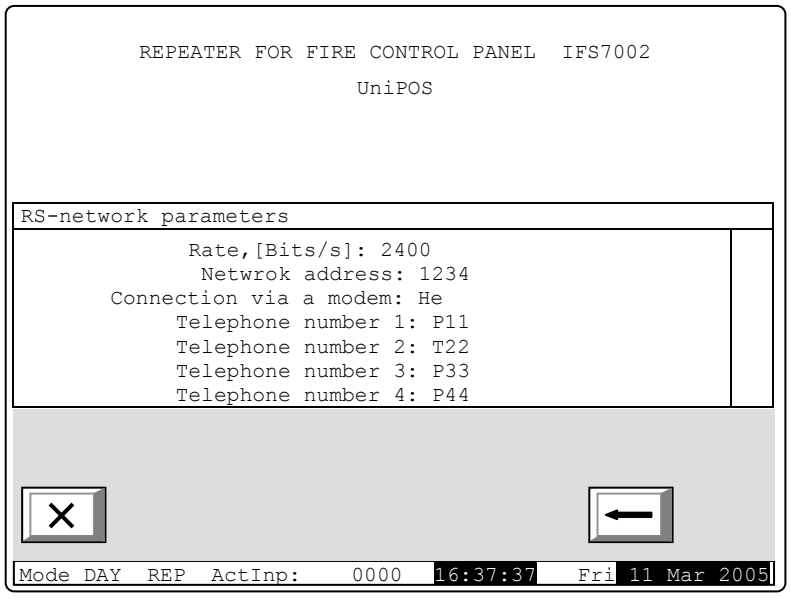
The menu contains two subordinate menus:

- Menu *Network*
- Menu *Local Network*

9.2.3.1. Menu *Network*

This menu provides information on the parameters of RS232- netwroks:

- Rate, [bits/s] – data exchange rate;
- Address in the network;
- Connection via a modem – information if the communication is executed by means of a modem. “Yes” or “No” is shown on the disply respectively;
- telephone number – four 15-digit telephone numbers can be saved., Use button ↔ to selecet before the respective number, as an alternative, the letter:
  - ”P” – for impulse dialing;
  - ”T” – for tonal dialing.

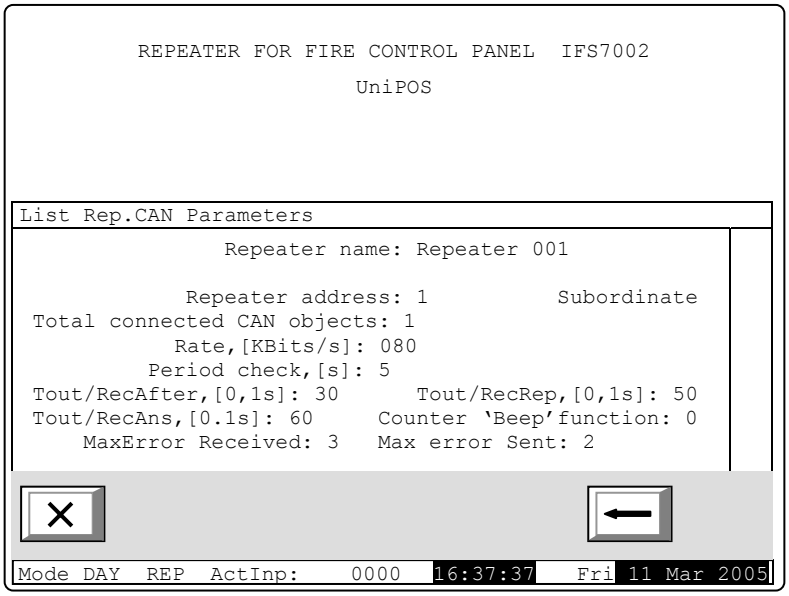


9.2.3.2. Menu *Local Network*

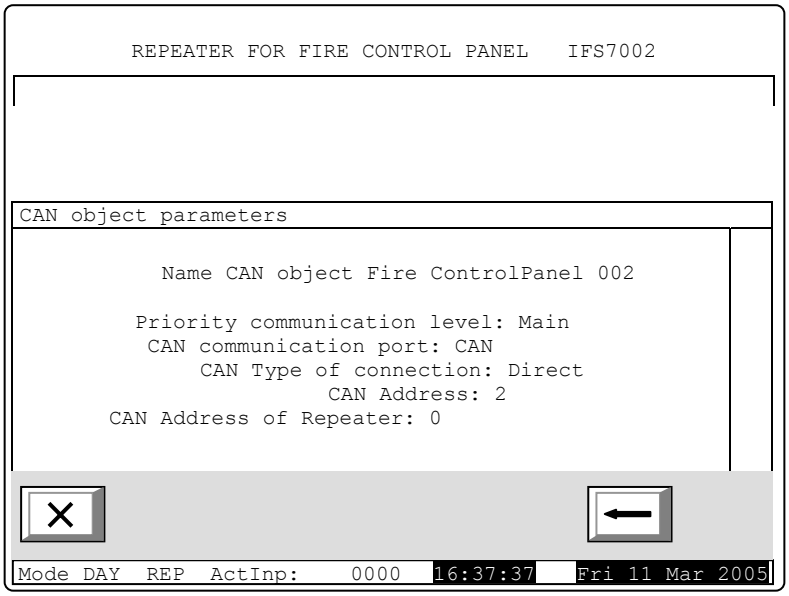
This menu provides information about the connection of the repeater in a local network with fire control panels and other repeaters.

Menu *Local Network* contains the following subordinate menus:

- Menu *CAN Local Parameters* displays information about CAN setups of the repeater;



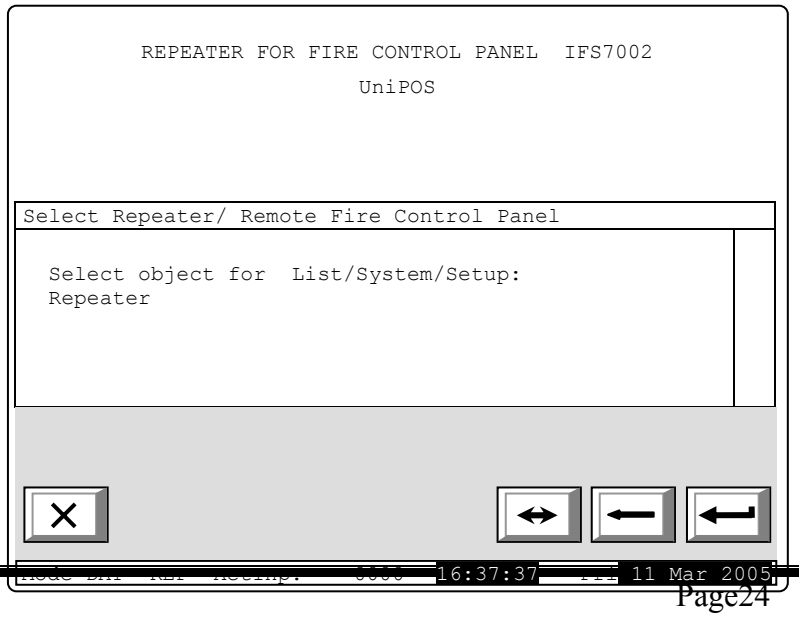
- Menu *CAN Objects* – allows CAN parameters of the fire control panels connected to the repeater to be reviewed;



9.2.4. Menu *Select Loc/Rem Fire Control Panel*

The menu provides the option to select the fire control panel to be setup or which parameters, events or status will be reviewed.

When a value is changed in the bottom left part of the panel a remainder appears: *Data not saved*. Press the button ↵ to save the changes and the remainder *Data not saved* will be cleared.

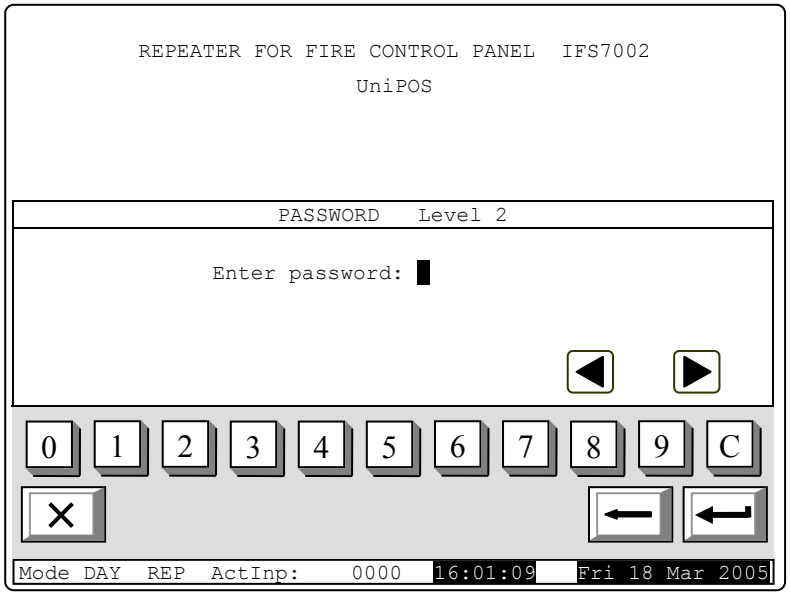


9.3. Menu *System Function*

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.

.

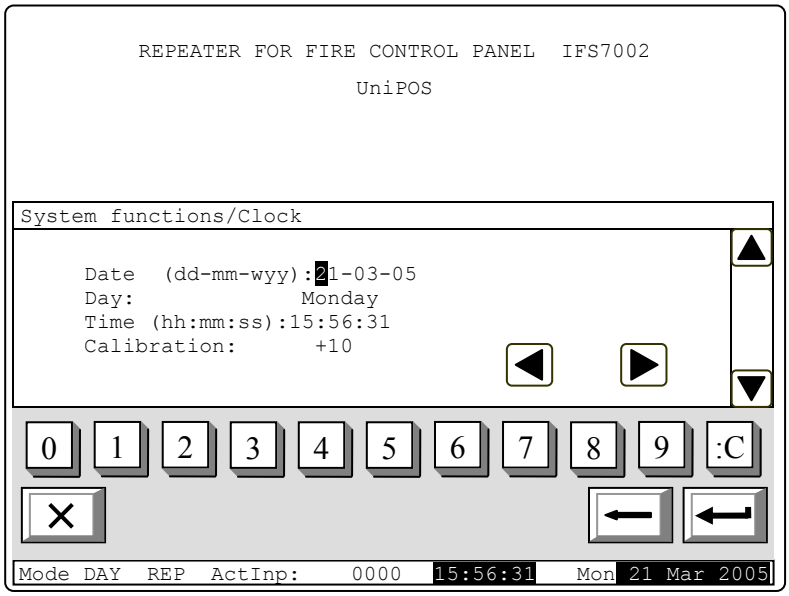
9.3.1. Function *Set Clock*

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

- calendar date;
- day of the week;
- the time
- the calibration index 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.

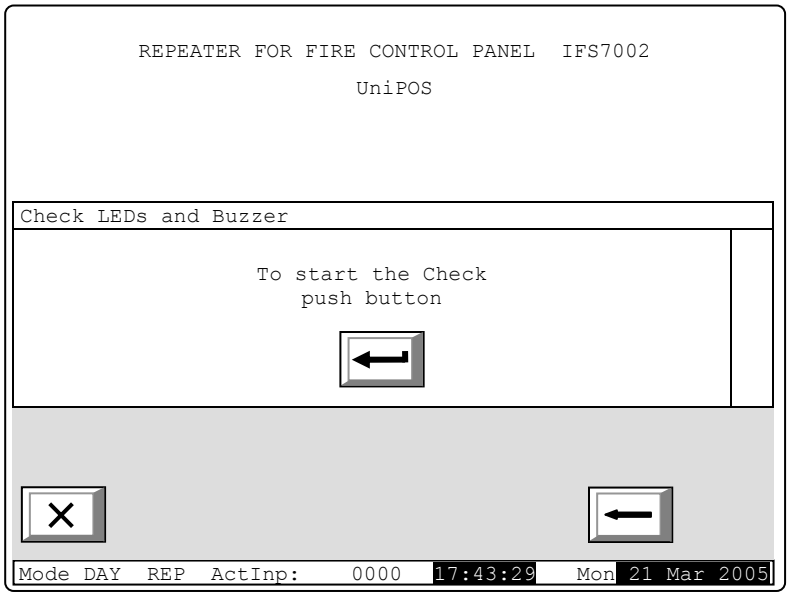
The calibration index (line four) can be edited using buttons ◀ and ▶ – respectively decreasing or increasing the index by a single calibration device until the minimum or maximum value is reached (–30 / +30). Each positive device accelerates the clock at the rate of 10,7s per month; each negative device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

9.3.2. 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 – the repeater's LEDs illuminate and the local sounder produces a continuous sound. The text message on the display changes: *To stop the Check push button* ↵.

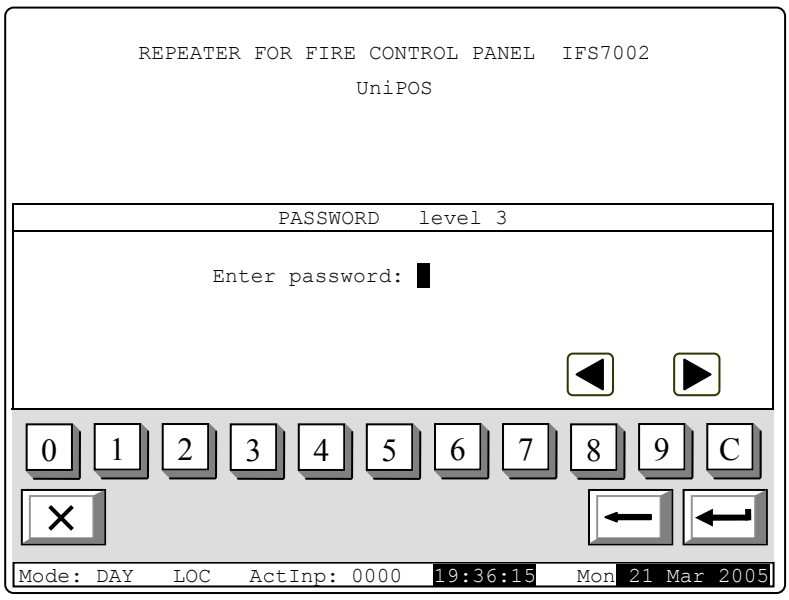
Press the button ↵ once again to discontinue the check-up operation; the LEDs and the local sounder restore their initial state.

The operation of buttons ← and ✕ 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.

9.4. Menu Set Up

Access to Set Up menu is allowed at Access Level 3; 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, the outputs (monitored and addressable) 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.

In case an external keyboard has been connected before entering the SetUp Menu, the set up of the fire control panel can be done via the keyboard.

(Back to CONTENT)

10. Set Up Mode

10.1. Description

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

Access to the Set Up screen is provided through Information and Control Mode – see(т.9.4).

When the repeater enters Set Up mode, it exits all other conditions and discontinues the service of the fire control panels connected to it. The repeater can be controlled via the keypad provided for the purpose. Upon exit of Set Up mode, reset of the repeater 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).

The following buttons for moving, selection, confirmation or canceling the set ups are active on the panel:

- 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 the elements of a single menu use the 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.

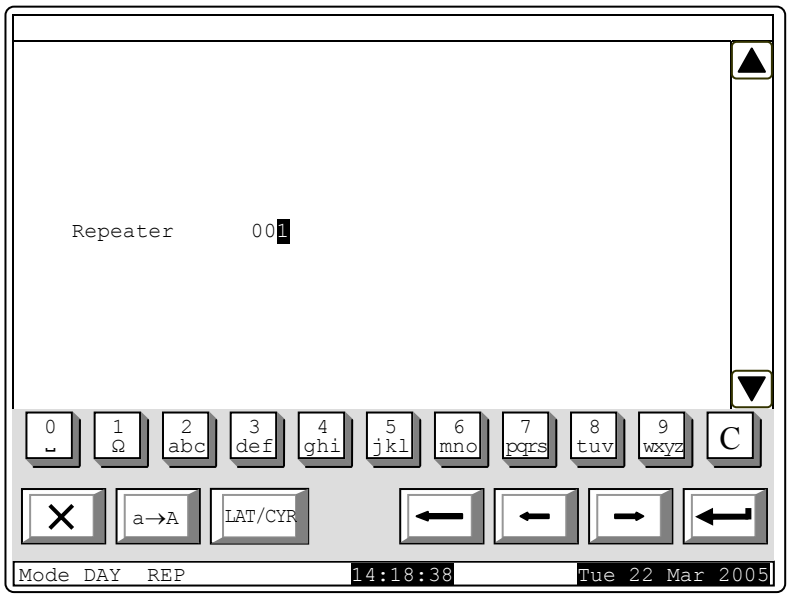
Menu Set Up contains the following subordinate menus and functions:

- Repeater configuration;
- Repeater parameters;
- *Loops;*
- *Zones;*
- *Inputs;*
- *Initialization;*
- Checks;
- New Password;
- Default parameters;
- Clear Archive.

10.2. Keypad

10.2.1. Built-in keypad

If no external keyboard is integrated in the control panel use the buttons shown on the display for the specific menu:



To edit the text use the buttons having symbols. More than one symbol is assigned to the buttons from 1 to 9. When the button is pressed they are changed alternatively as the symbol is inserted in 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.

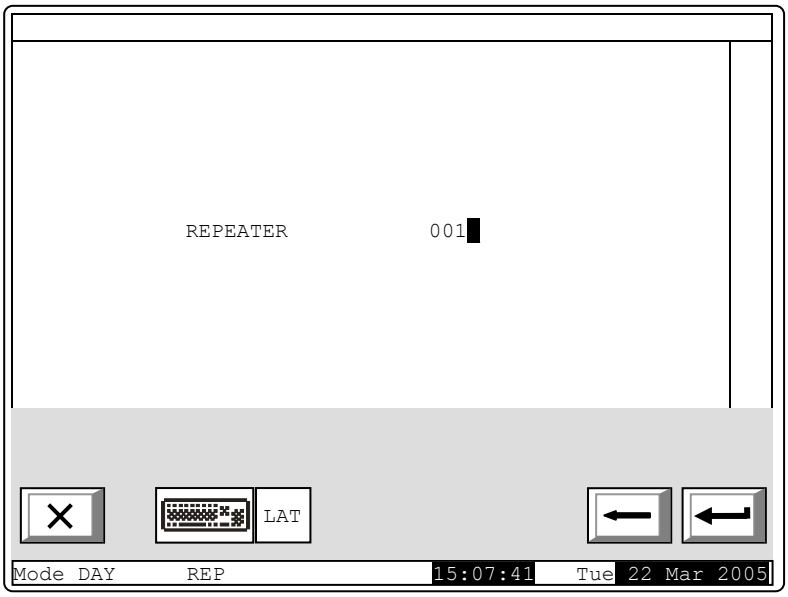
Press button [←] or [→] to move the cursor one position to the left or to the right.

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.

10.2.2. 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 on the external keyboard 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 without making any changes.

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.

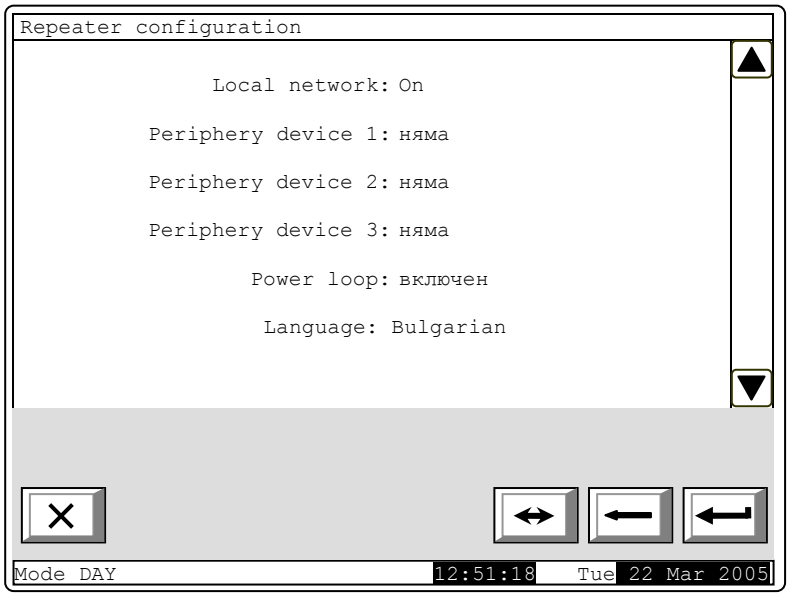
To exit Set Up use button on the built-in keypad or button „Esc” on the external keypad.

10.3. Menu Repeater Configuration

The menu is used to set up:

- The local network where the repeater is included
  (*Local Network* parameter has to be On in order to communicate with the fire control panels connected to it);
- *the periphery devices in the control panel*
  (use it when setting up fire control panels connected to the repeater);
- *the power loop;*
  - the language of the messages – language options are Bulgarian or English.

The menu has the following layout:



The value of 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.

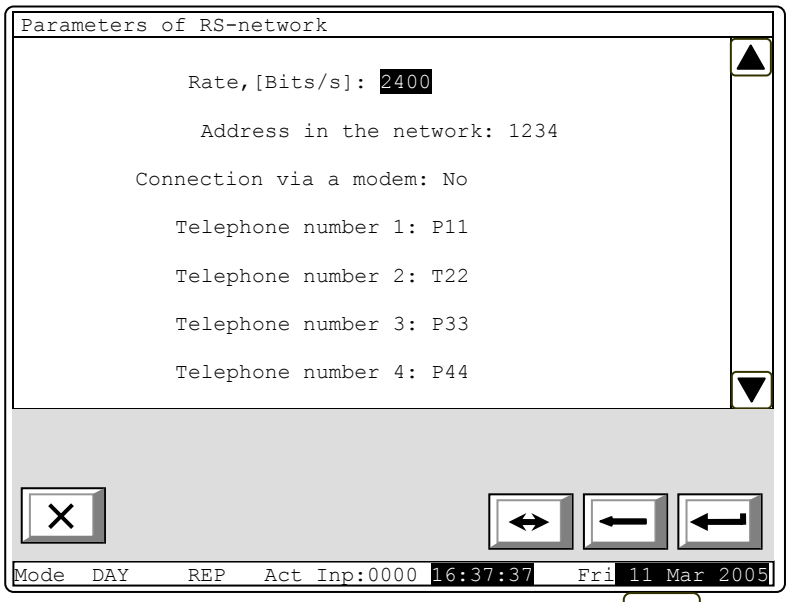
To edit the parameters use button – each time you press it the parameter value changes to the next acceptable value.

10.4. Menu Repeater Parameters

Use the menu to set up RS network for connection with PC or repeater CAN parameters for connection with the fire control panels connected to it.

10.4.1. Menu Netwrok

Use this menu to set up the parameters of RS232- network. The parameter selected to be edited is displayed in inversive colours. Edit the parameters with button ↔



If buttons with digits are available, change the parameters with them. Use buttons ▲ and ▼ to select the parameter to be set up:

- rate, [bits/s] – data exchange rate– 1200, 2400, 4800, 9600 bits/s;
- address in RS network;
- connection via a modem - choose "Yes" or "No"
- telephone number – four 15-digit telephone numbers can be entered. Use button ↔ before the respective number for:

• the letter "P" – impulse dialing
• the letter "T" – tonal dialing.

The number is entered my means of the digit buttons that appear on the display.

Upon changing a parameter, a message appears in the bottom left part reminding that a change has been made and that the new parameters should be saved.

10.4.2. Menu Local Network

Use this menu to set up CAN parameters of the repeater and CAN parameters of the fire control panels connected to it that should be entered in the repeater. It includes the following submenus:

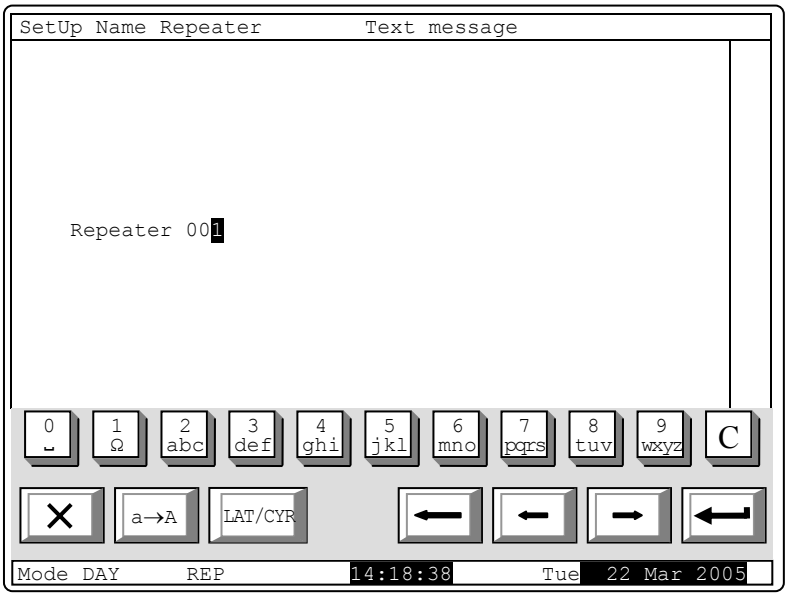
- Menu *CAN Name local object*;
- Menu *CAN Local parameters;*
- Menu *CAN Objects*;

10.4.2.1. Menu *CAN Name local object*

Enter the name of the local object (the repeater) in this menu.

The name of the local object is a random string that might contain both letters and digits (maximum 20 characters). The rules for text entry in section 10.2., are valid here too.

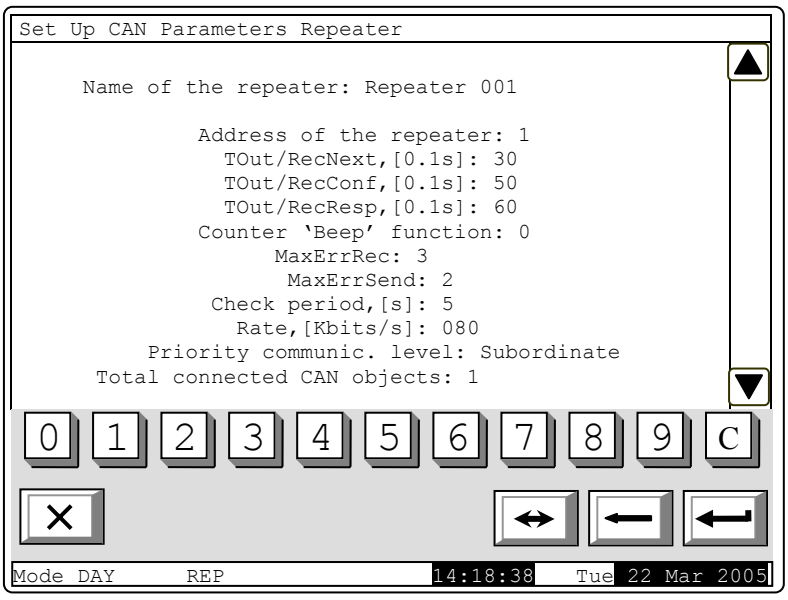
After returning to the main menu the local parameters could be configured.



10.4.2.2. Menu *CAN Local parameters;*

The screen serves for entry of CAN parameters, as on the first line the name of the repeater is visualized (see section 10.4.2.1.).

The following parameters are entered:



Parameter	Range of the receiving values	Default value of the parameter	Description
Address of the repeater	0 ÷ 127		Unique address of the repeater within the established network
Tout/RecNext,[0.1s]	1 ÷ 120	30 x 0.1s=3s	Maximum waiting time for receiving the next telegram (part) when receiving long messages.
Tout/RecConf,[0.1s]	1 ÷ 120	50 x 0.1s=5s	Maximum waiting time for receiving confirmation after a telegram –

			command/data message not requiring a response has been sent.
Tout/RecResp,[0.1s]	1 ÷ 120	60 x 0.1s=6s	Maximum waiting time for receiving a response after a telegram requiring a response has been sent.
Counter 'Beep' function	0 ÷ 100	0s	Short signaling of the sounder for the successful check of the repeater connection with the subsequent fire control panel connected to it: - If the value is 0 - no "Beep" is released - If the value is N>0, each N^{th} successful check is signaled by "beep". For example, if it is entered N=1, each check-performed at each "Period of check, [s]" seconds will be signaled.
MaxErrRec	1 ÷ 20	3	Number of CAN-communication errors when receiving telegrams from fire control panels. After this number is reached the respective fire control panel is regarded as suspended (temporarily) from CAN network and a signal is released for a Fault condition of the type "Connection failure with remote fire control panel with address…"
MaxErrSend	1 ÷ 20	3	Number of CAN-communication errors when sending telegrams to fire control panels. After this number is reached the respective fire control panel is regarded as suspended (temporarily) from CAN network and a signal is released for a Fault condition of the type "Connection failure with remote fire control panel with address…"
Check period, [s]	1 ÷ 250s	5s	A time period is entered. After it elapses the repeater scans the status of the CAN-communication with the connected fire control panels – including the suspended ones form the network at the moment.
Rate, [KBits/s]	640, 320, 213, 160, 128, 106, 91, 80, 71, 64, 58, 53, 49, 45, 42, 40, 35, 32, 29, 26, 24, 22, 21,20, 17, 16, 14, 13, 11, 10 [KBits/s]	80	The communication rate in the network;
Priority communic.level	"Main" "Subordinate"	subordinate	The location of the repeater that is being set up is specified within the structure of the local CAN network that is being

			established. One of the repeaters or the fire control panels IFS 7002 within the network should be specified to be Master, and all remaining repeaters and fire control panels – "Subordinate" (Slave). The master repeater or fire control panel must be connected with all remaining repeaters and fire control panels within the system – either directly or via a retransmitting station.

The connection of many objects (fire control panels and repeaters) in a network supposes the identification between them. Thus they should have a unique sign. In the networks it is usually a number. It is formed by decoding of several parameters – name and address. The object name is generally required for the "human interface" – the user to be able to distinguish easily the devices connected in the network. The other obligatory parameter is the address. It is the factual parameter used by the software for data exchange in the network. Each device should be assigned a name and an address during the configuration.

In IFS 7000 series the devices share a common address space. The maximum number of repeaters and fire control panels UniPOS connected in CAN network is 32. The name is of importance only for the user and an object having a local name might be assigned another name suitable for user when it is added to the list of local objects.

After the local network parameters have been configured it has to be selected:

- the devices that the local object will operate with
- what options the user wants to configure for data exchange.

Use the menu for adding an object for this purpose. Fire control panels and repeaters have to be physically connected in advance in the CAN network so that the option could be used. For their proper operation and data exchange the local parameters of these objects have also to be accurately configured before that.

The next menu provides the possibility for adding a CAN object, with which the repeater will exchange data or perform control.

10.4.2.3. Menu *CAN Objects*

It is divided in the following submenus:

- Menu *Review/Cnage CAN Objects*";
- Menu *Add New CAN Object*;
- Menu *Delete CAN Object*;

10.4.2.3.1. Menu *Add New CAN Object*

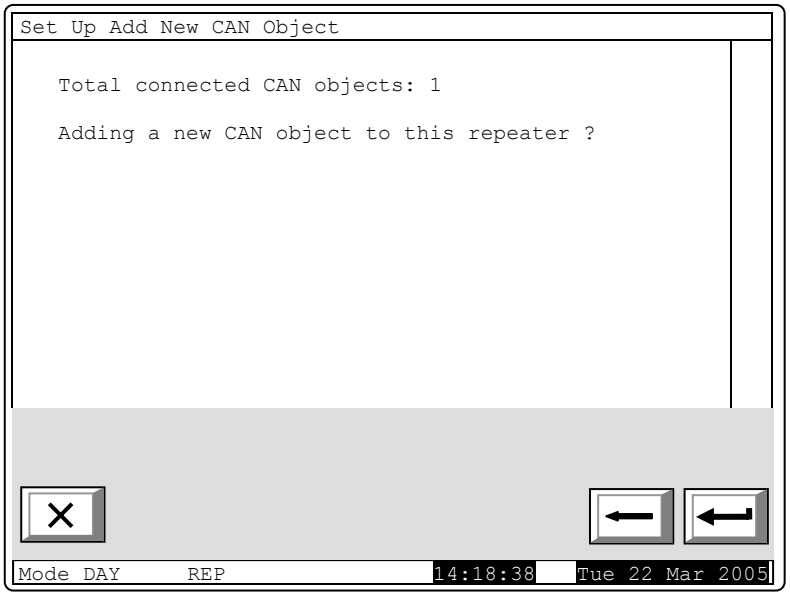
Use this menu to add new fire control panels and repeaters (CAN objects) to this repeater.

Upon entering this menu the user is provided the option to add a new CAN object to the repeater that is being set up.

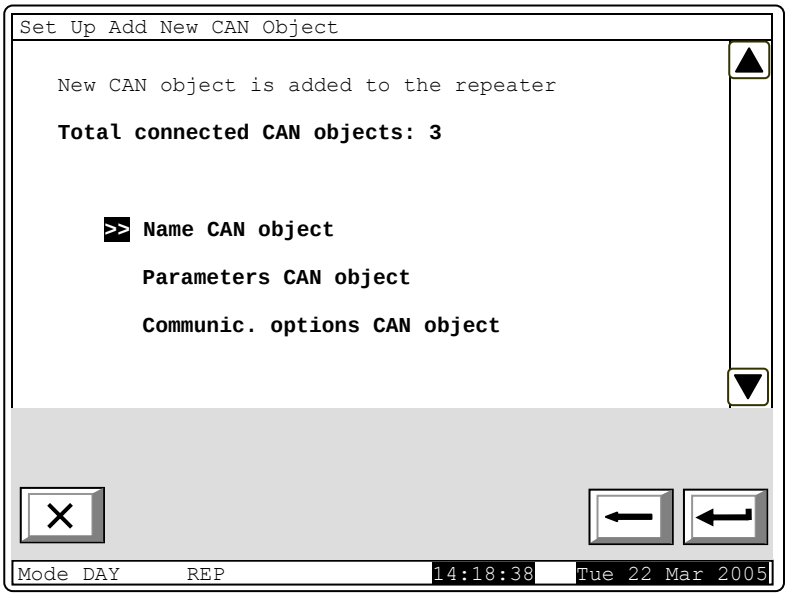
The following options are possible:

- To exit the menu without adding by means of the buttons or

- To confirm with button . A new CAN object is added automatically to the repeater and a window appear for entry of its parameters and settings;



- Enter the name of the added CAN object in submenu Name CAN Object.



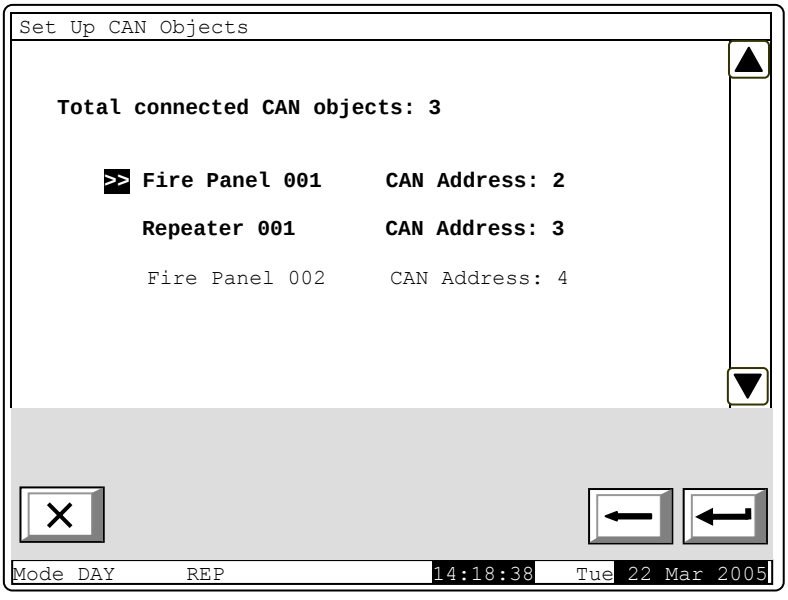
- Enter the new CAN object parameters in this menu:
  - The field “Priority communic.level” specifies the place of the described remote object (repeater/fire control panel) within the structure of the network Master or Slave.
  - The type of the connection points the way of connection. If the connection is **direct** – the objects are connected to the same CAN in the field address of the repeater. The default value is 0. In the case of connection that connects objects from CAN1 to CAN2 enter the address of the fire control panel that has to perform it. In this event the type of connection in the field CAN has to be changed.

Communication port: **Via a retransmitting station**.

- Enter the address of the retransmitting station – as CAN – address of the object – retransmitting station in the network If the connection is executed via a retransmitting station. This object – retransmitting station should be also described as connected in the CAN network to the repeater.

– 10.4.2.3.2. Menu Menu *Review/Change CAN Objects*”;

Use this menu to review and edit the parameters of the CAN objects connected to the repeater. First, select the CAN object which parameters will be reviewed and edited.
The pointer ■ appears opposite the selected object. Use the buttons ▲ or ▼ to select the CAN object. When the choice is confirmed by button ↵, menus identical with those described in section 10.4.2.3.1 are opened.

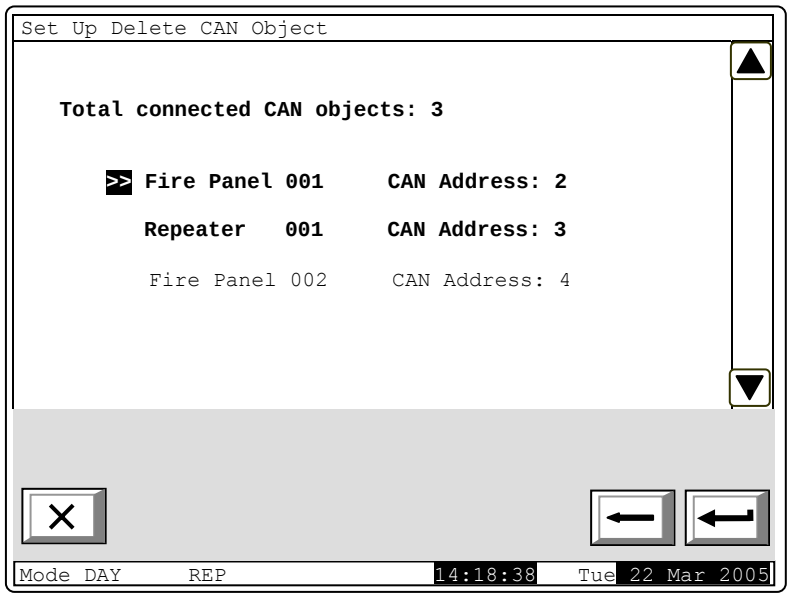


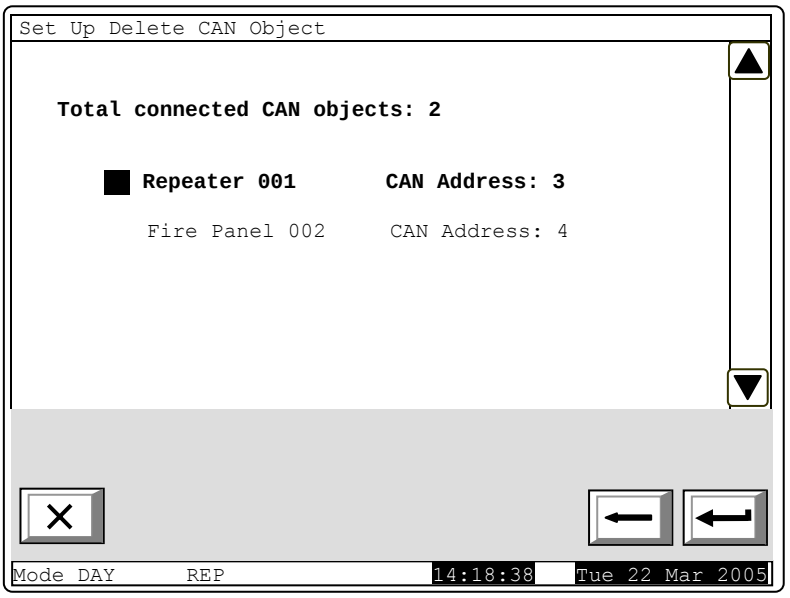
10.4.2.3.2. Menu *Delete CAN Object*;

Use this menu to delete CAN objects connected to the repeater.

When the menu is selected a window appears containing a list of the CAN objects connected to the repeater:

- Delete the object with the pointer ■ opposite it.
- Confirm delete of the marked object with button ↵. After pressing it the marked object is automatically deleted.





10.5. Menu Checks

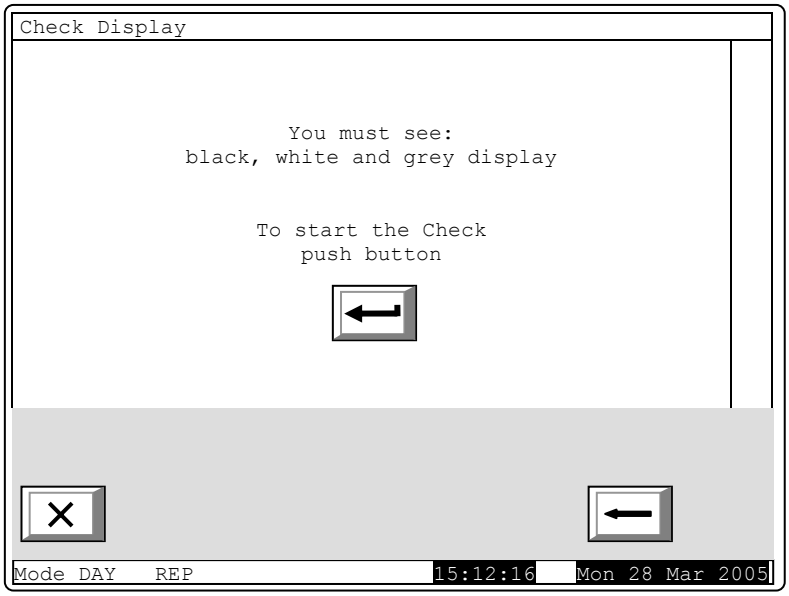
The menu allows the user to set up the display and the buttons. It contains the following submenus and functions:

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

10.5.1. Function *Display*

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

When you enter the function the following screen appears:

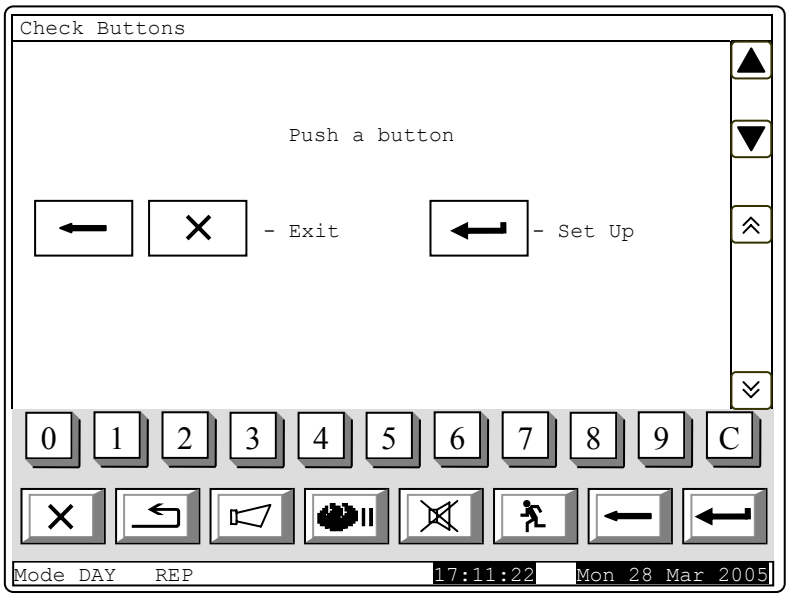


When you press button  that is in the middle of the display, the check is being started. The display changes its colour from black to white and then to grey (on dots). Each colour remains for about 4 s. After the check is completed, the initial screen appears again.

10.5.2. Menu *Buttons*

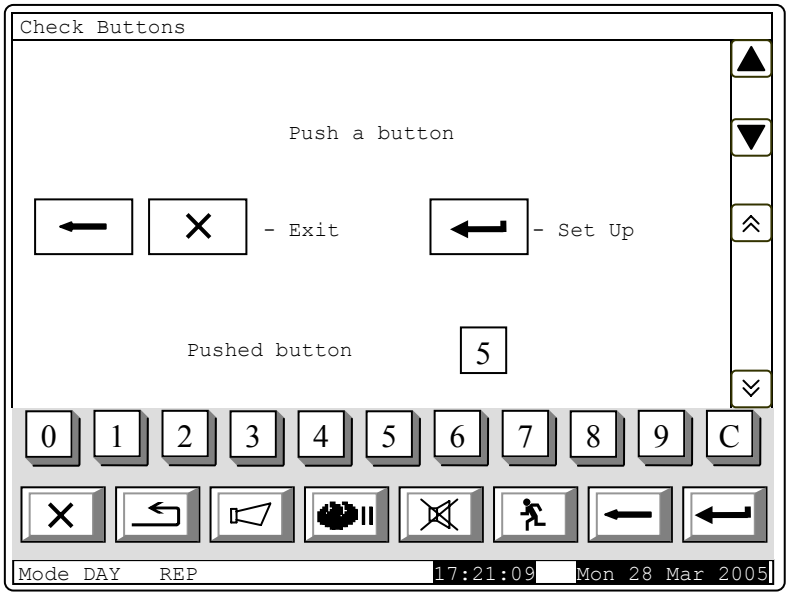
The menu is used for check-up and set up of the buttons situated on the LCD display of the repeater.

Enter the menu to display:



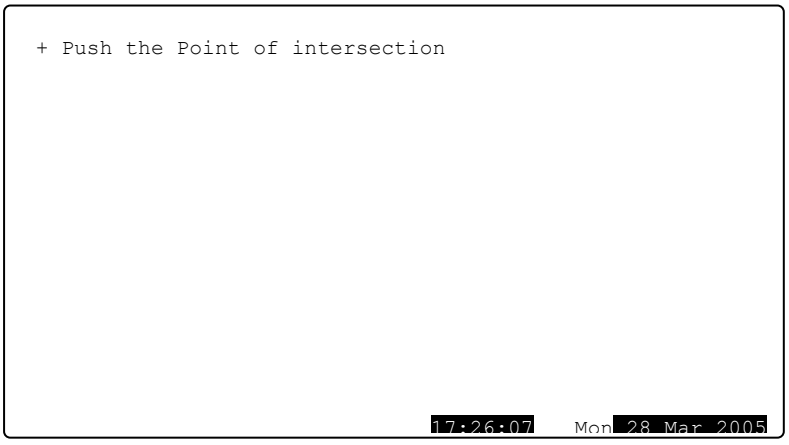
When a random button is pressed (except for buttons , and) a message and a graphic image of the presses button appear:

If the button visualized on the display does not correspond to the pushed one then the function buttons set up has to be activated.



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

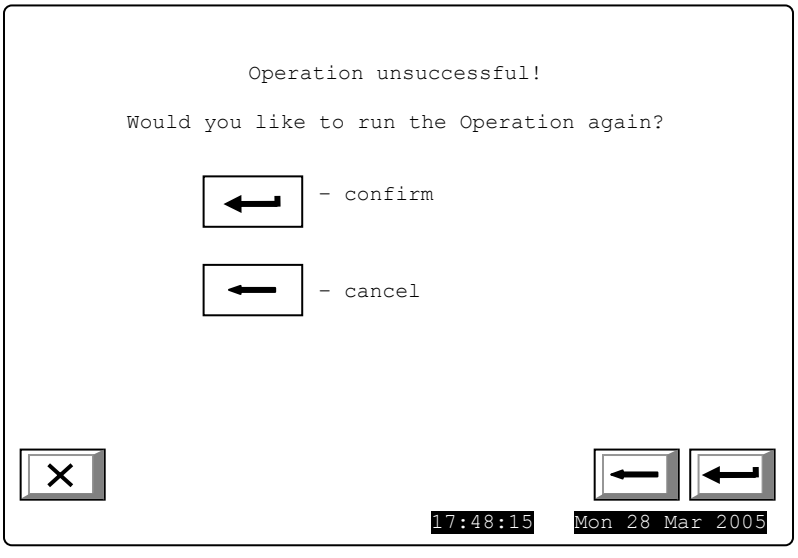
The point of intersection – a cross – shall be pressed by the means of small-size round tip pointer. For point two, point three and point four goes the same.



The options for finishing the setting up are the following:

- If the check performed at the third point and the fourth point is checked and if it is successful the function is exited automatically.
- In case the performed check at point three is unsuccessful, the first adjustment point is displayed on the screen.

In case the check at point three is successful, but at point four is not, then a screen with text message for fault condition is displayed.



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

10.6. Menu New Passwords

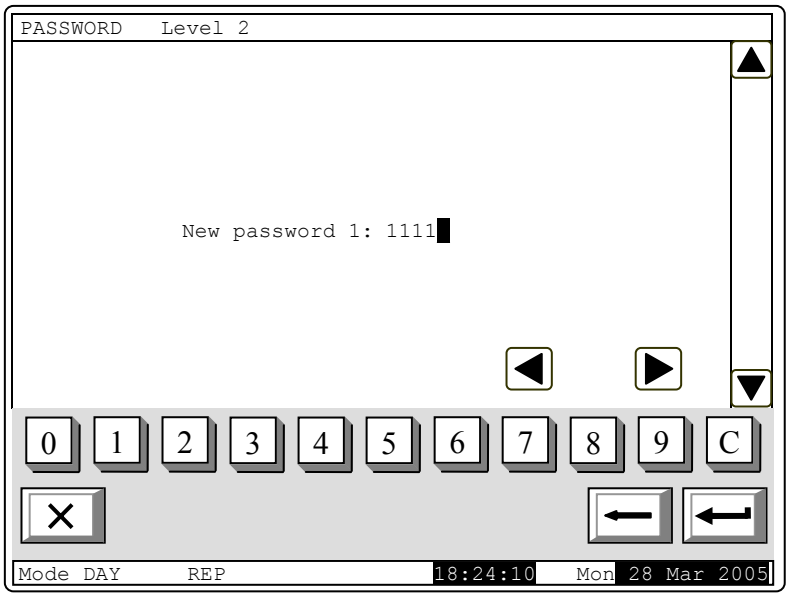
The menu allows the user to compose and edit passwords for Access Level 2 and 3. It contains:

- Menu *Level 2*;
- Menu *Level 3*";
- Menu *Options.*

10.6.1. 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.

10.6.2. Menu *Level 3*

The menu 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.

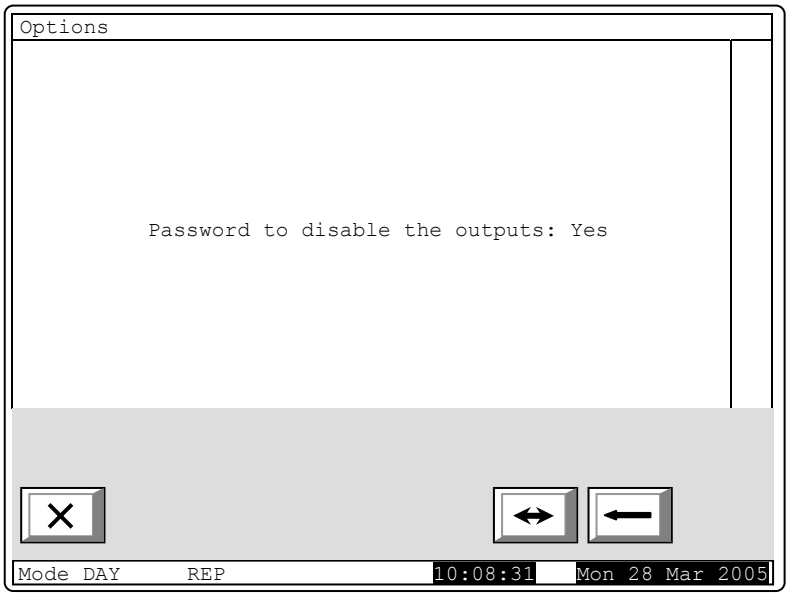
When you press button ↵ the last entered password will be saved in the control panel.

10.6.3. Menu *Options*

This menu allows or forbids a password for disabling/enabling the activated outputs in Fire conditions. Upon entering the menu the following setup window appears.

To edit the parameter press button ↔ – when pressed its value changes alternatively:
- ■ – a password for disabling/enabling the activated outputs in Fire condition is required.
- ■ – a password for disabling/enabling the activated outputs in Fire condition is not required.

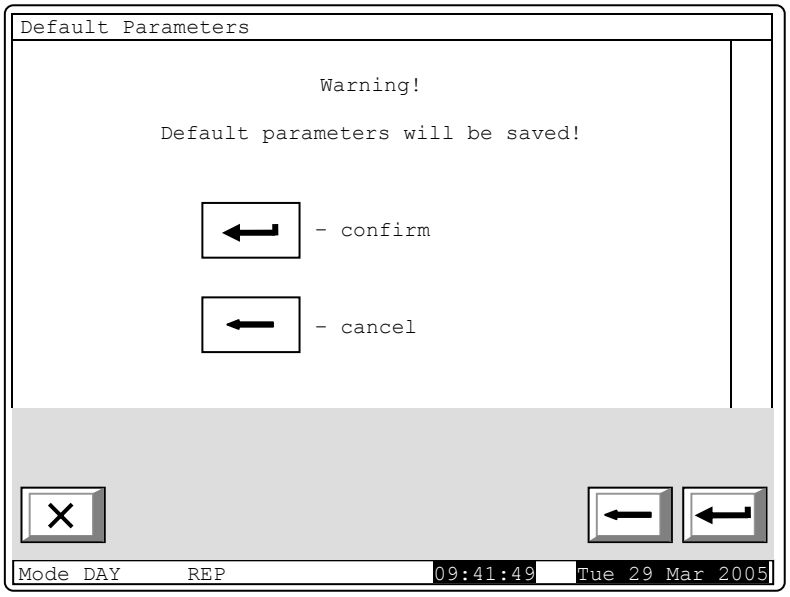
Press button ↵ to save the selected parameter in the repeater.



10.7. Function *Default parameters*

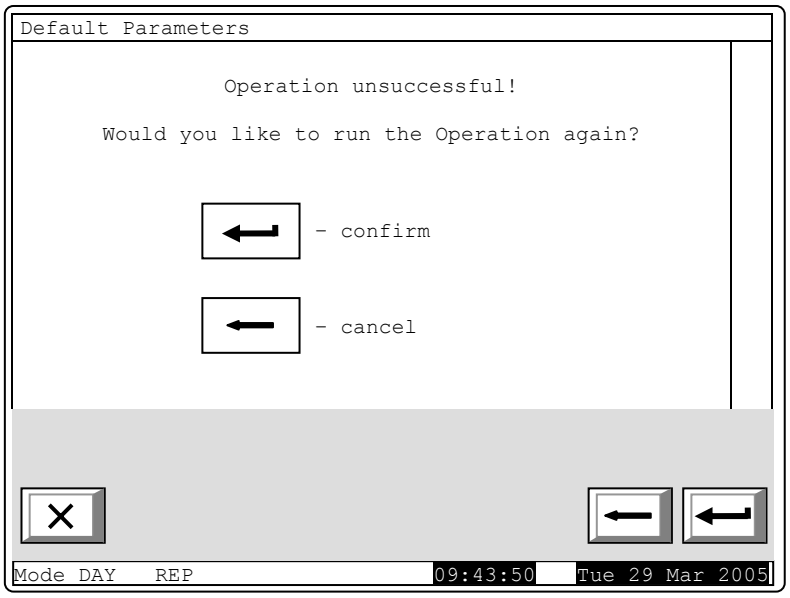
The function saves the default parameters of the repeater

Upon activation a warning 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;
  - Language – English;
  - Mode – DAY;

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11. 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 the values remain intact. After the repeater is switched on again, it starts operation in accordance with modes and values previously set.

Default parameters and modes of operation are factory set up.

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.

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

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13. Installation and arrangements

When installing the repeater and connecting it to fire control panels and repeaters integrated in the fire detecting system, avoid arranging wires in closed loops; it will reduce the resistance of the repeater to electromagnetic interferences.

13.1. To mount the repeater

- Unpack the repeater;
- Put the dowels for fixing the repeater on the determined places;
- Fasten the repeater to the dowels through the three holes provided on the bottom of the box.

13.2. Connecting interface devices

13.2.1. Global network

Connection of PC to the repeater is made via serial interface RS232 using a standard 9-lead coupling (Appendix 3). 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)	

13.2.2. Local network

Connection of interface devices to a local network is made via the serial interface CAN 2.0B using the terminals CAN (Appendix 3). If the distance is longer it is recommended the connecting wire to be screened.

13.3. Power supply connection

Connect the feeding cables to terminal *POWER* (Appendix 3), observing the polarity:

- „+" – feeding +24V DC;
- „-" – feeding cable – 24V DC;
- „Ω"– safety ground wire.

The cable shall be of at least 0,5mm^2 section.

The other end of the feeding cable is connected to the mains power supply of any of the fire control panels connected to it or another suitable power supply source.

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14. Repeater start up

- Make sure that the connection to mains supply is properly made.
- Make sure that the connection to CAN network is correctly made.
- Provide the power supply of the fire control panel that will feed the repeater or the power supply device.
- Enter Set Up Mode and configure the repeater as follows:

1. Save the default parameters (except for a repeater with factory set up) see section 10.7 – Function Default Parameters ;
2. Select the language for the messages – (see section 10.3);
3. Set CAN parameters (see section 10.4.2) ;
4. Enter the passwords for Access Level 2 and 3 - (see section 10.6);

Upon exit of Set Up Mode the repeater runs all system operations and enters Duty Mode – it is ready to fire protect the site provided that all other devices integrated in the systems have been set up.

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15. 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

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16. Conditions of operation, storage and transportation

16.1. Operation and storage

The repeater shall operate and be kept in closed premises, under the following conditions:

16.1.1. Temperature

- storage - from +5°C to +35°C

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

16.1.2. Relative humidity

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

16.2. Transportation

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

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17. 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 by the producer.
- the requirements for operation stated herein have been observed.

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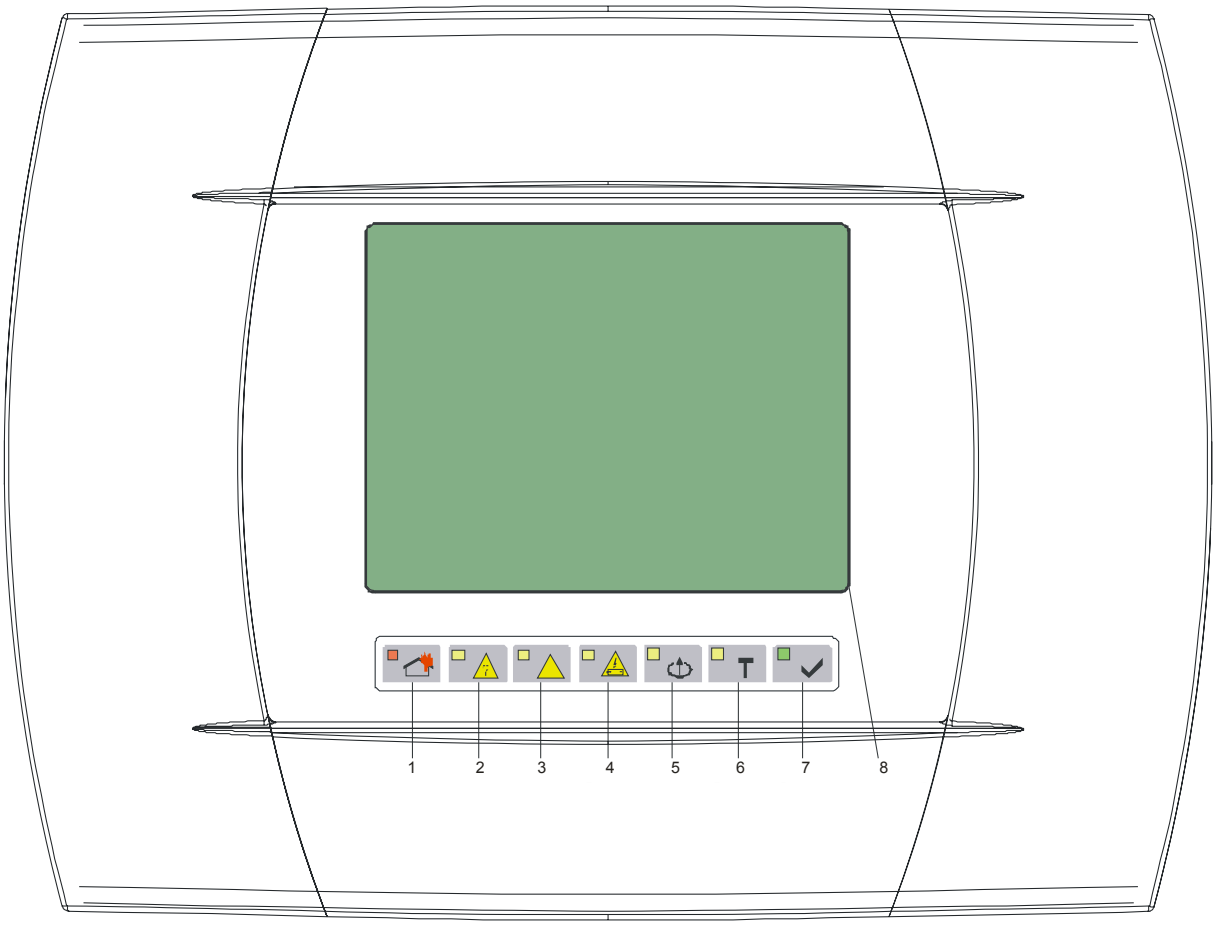
UniPOS wishes you a successful work!

18. Appendixes

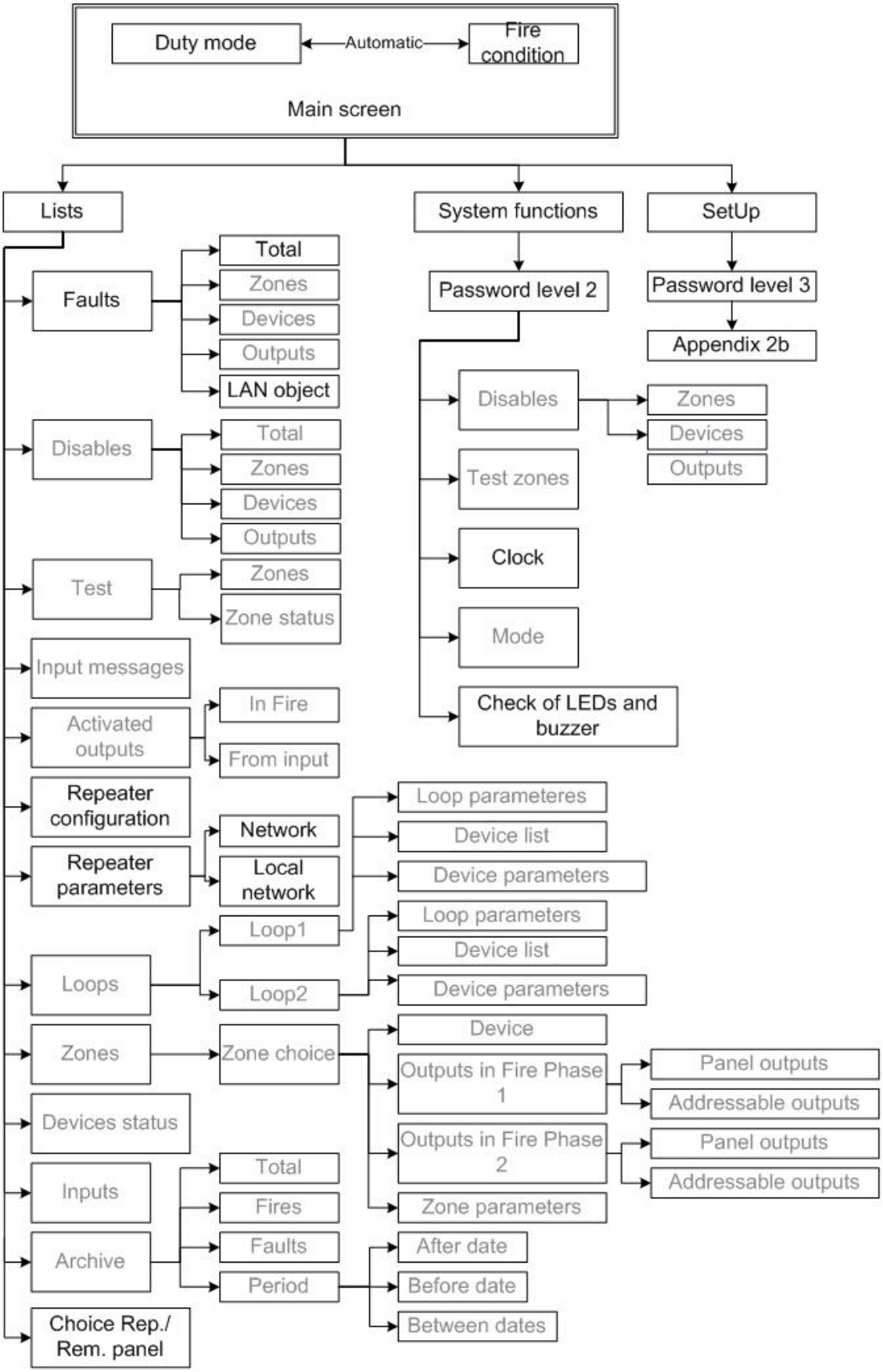
Appendix 1



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

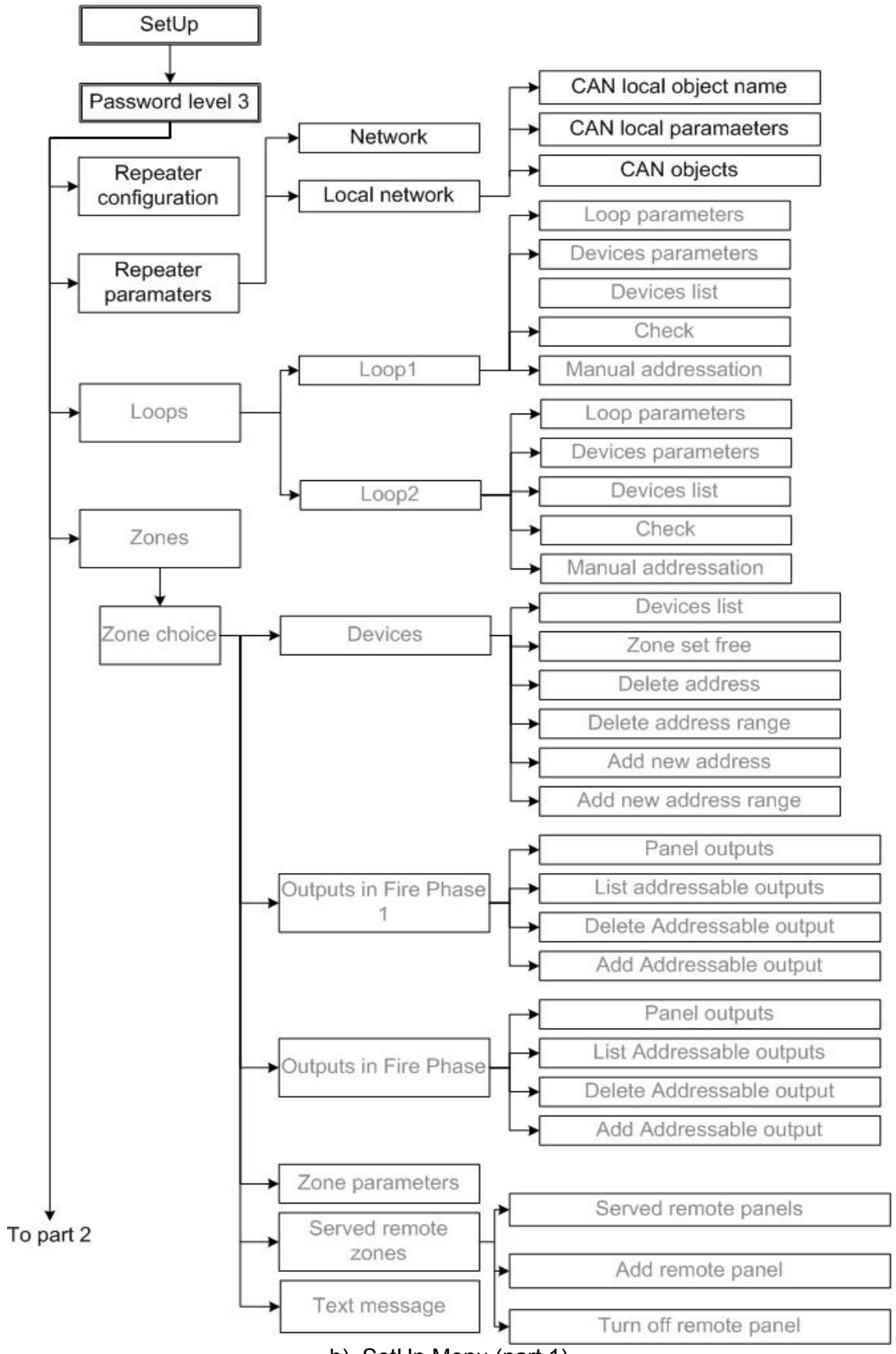
Front panel of repeater IFS7002R

Appendix 2



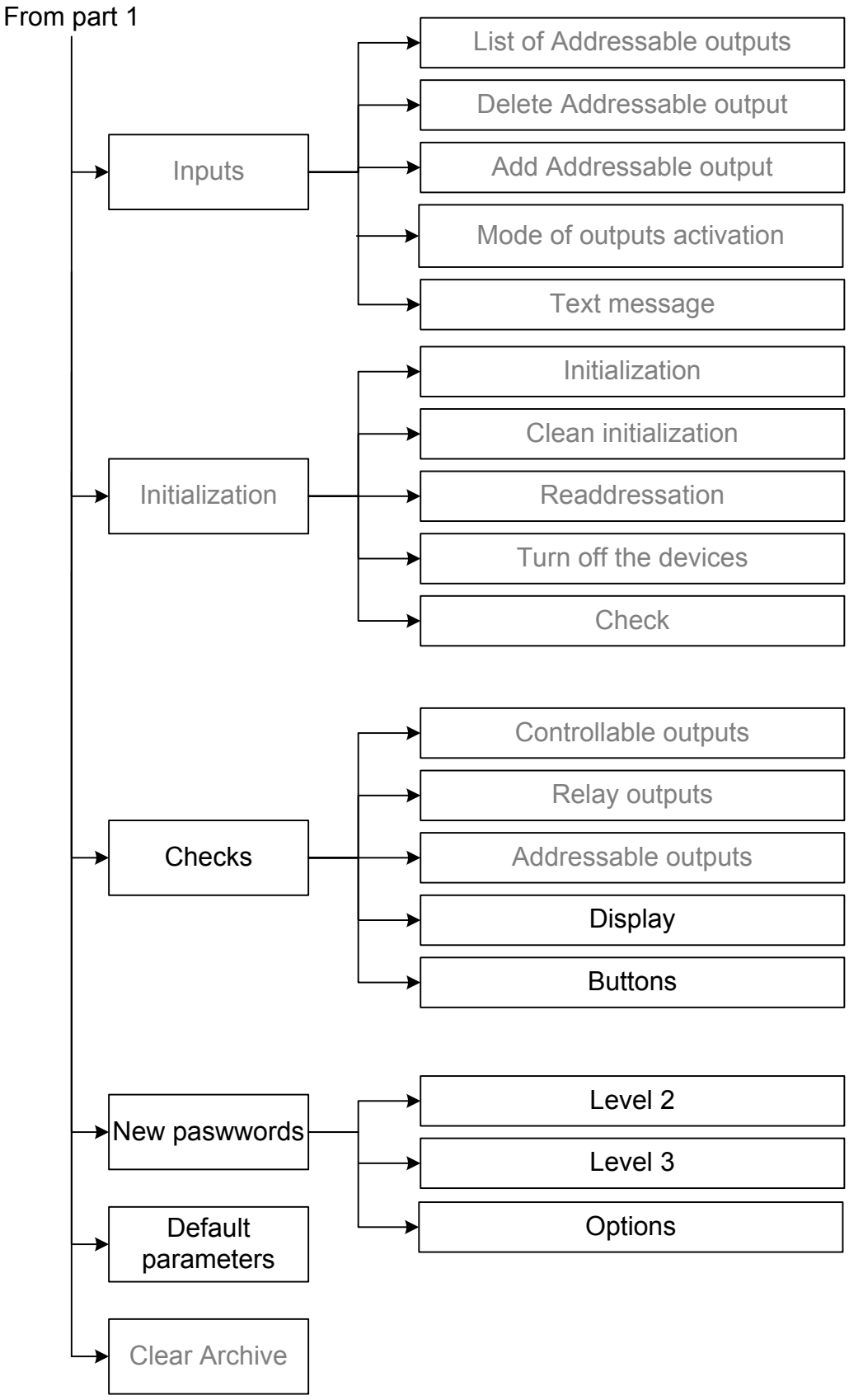
a) Main menu

Appendix 2 continued



b) SetUp Menu (part 1)

Appendix 2 continued



c) SetUp Menu (part 2)

Appendix 3