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ISO 14001:2015 ISO 9001:2015 Certified Company

Made in EU

**DMTech LTD, Pleven**

**Addressable Fire Alarm Panel**

**FP9000A**


# Instruction manual for installation, setup and exploitation

Revision 03.24

# 1. INTRODUCTION

## 1.1. General description

The fire alarm panel is an addressable fire alarm panel of maximum possible coverage of 8 zones in 1 loop. The fire alarm panel supports DME(Loop) communication protocol.

**Up to 250 units (modules and/or fire detectors regardless of their type) can be connected to the Loop.**

To each zone can be connected up to 80 units, of which 60 fire detectors and 20 Input-Output devices, thus providing easy adaptation of the system to any type of configuration. To avoid or reduce significantly possible problems during system installation it shall be carefully designed before the final installation of the panel and the fire detectors. The design includes: assigning an address to each device and planning a name for it, maximum length 20 symbols (spaces included), so it can be easily found in the configured system.
**The devices shall be grouped in zones in compliance with current standards applicable to installation of fire alarm systems and according to building blueprints.**

## 1.2. General characteristics

The front panel consists of alphanumeric LCD display (4 lines x 20 symbols), functional buttons and LED indicators. Access to panel functions is organized in three separate levels.

The fire alarm panel has a built-in real-time clock and calendar, allowing for day mode and night mode of operation. Switching between the two modes is done automatically or manually. Events like FIRE, RESET, FAULT, etc. are being stored in the memory, creating a log file of events. The log file contains time and date, address and name of device, number and name of zone, etc.

### 1.2.1. Main technical characteristics

- Loops – 1;
- Number of devices in a loop: up to 250 units (modules and/or fire detectors, regardless of their type). Their total consumption shall not exceed 0.5 A. For this purpose you can use the specialized DM- Calculator at www.dmtech-ltd.com (It offers calculation of total consumption of the devices in the loop,as well as wire's diameter and length for the loop)
- Maximum number of zones – 8 (Up to 60 detectors and 20 I/O devices for each zone);
- 2 monitored potential outputs: OUT1; OUT2 - 0,5A/24VDC;
- Relay output for fault condition FAULT, not monitored, parameters: 0.3A@30VDC;
- Relay output for fire condition Rel 3, not monitored, parameters: 1A@24VDC;
- 2 programmable relay outputs Rel 1, Rel 2, not monitored, parameters: 1A@24VDC;
- 20 delayed outputs and 10 outputs without delay – configurable through program menu of the front panel;
- 1 conventional line – Up to 32 conventional devices;
- Alphanumeric LCD display (4 lines x 20 symbols);
- Real-time clock powered by built-in Lithium battery - 3V, CR3032 type;
- Memory for 1024 events with registered date and time of occurring;
- Programming option for Day/Night Mode of Operation;
- Operation menus in Bulgarian/English language;
- Setup via computer and USB, using software;
- Developed in compliance with the requirements of EN54-2:1997/A1:2006, EN54-2:1997/AC:1999, EN54-4:1997/AC:1999, EN54-4:1997/A1:2002, EN54-4:1997/A2:2006 Standard;
- Wall mounted box: case (313x218x85) and lid (314x219x18)

### 1.2.2. Operational environment

- Protection degree: IP30
- Ambient temperature: -5ºC to +40ºC
- Relative humidity: to 95% (no condense)
- Storage temperature: -10ºC to +60ºC
- Weight (no battery): ~ 1.8 kg

### 1.2.3. Electrical characteristics

**Earthing**

Earthing shall be completed in compliance with electrical safety rules and the total resistance of the earthing wire and earther shall be less than 10Ω. The earthing wire must be connected to fire alarm panel's terminal earthing output – see *p.2.4. Connection to main power supply*

**The fire alarm panel must not be installed in close proximity to sources of strong electromagnetic field (radio transmitting devices, electrical motors, etc.)!**

**Main power supply**

Under normal conditions the fire alarm panel is power supplied by the electrical grid. In case of failure in the power supply from the mains, a backup battery provides supply to the panel.
Characteristics of the main supply unit:

- Voltage: 187 ~ 244 VAC
- Frequency: 50/60 Hz

**Backup battery supply**

- Charge voltage (U): 27.3V
- Storage battery: 2 x 12V / 5Ah, lead-acid, encapsulated
- Storage battery internal resistance Ri: < 1.75Ω
- Storage battery maximum dimensions: 2 pcs – 90x98x70mm
- Type of connection to battery: cable terminal

**Load capacity**

- Maximum load capacity of loop: 500 mA DC
- Maximum load capacity of *AUX*: 500 mA DC
- Maximum load capacity of outputs *OUT1* and *OUT2*: 500 mA/24V DC
- Maximum load capacity of outputs *FIRE*, *FAULT* and *EXT*: 300 mA/30V DC
- Maximum total load (sum up of the 4 above): 2.0 A DC
- Programmable relay outputs: 1A@24VDC

**List of fuses**

- Main power supply: 4A, T-type, slow-melting, 5x20 mm
- Storage battery: 6.0A, T-type, slow-melting, 5x20 mm
-

**Contents of delivery: Addressable Fire Alarm System FP9000A**

| | | |
|---|---|---|
| 1 | Fire alarm panel FP 9000A | 1 pc |
| 2 | Fuse 6,3A | 1 pc |
| 3 | Fuse 4,0A | 1 pc |
| 4 | Jumper for backup batteries | 1 pc |
| 5 | Packing | 1 pc |
| 6 | Resistor 4.7κΩ | 3 pcs |

**WARNING!**

**The fire alarm panel must be installed by a qualified staff only.**
**Panel's electronic components are vulnerable to electrostatic discharge.**
**DO NOT make any hardware changes in panel's configuration while the panel is powered by grid or backup batteries.**

# 2. INSTALLATION

## 2.1. Mounting

- Choose the most suitable location for the fire alarm panel in the premise (Fig. 1), away from heating appliances,points of dust accumulation or access to water; ambient temperature between -5°C and +40°C. Warning: the fire alarm panel is not waterproof!
- Unpack the panel and inspect the unit for any visible damages caused during transportation or due to long-termshelf storage.
- Open the front lid (Fig. 2).
- Remove the front lid by unscrewing the screw under the front panel (Fig. 2, position 3).

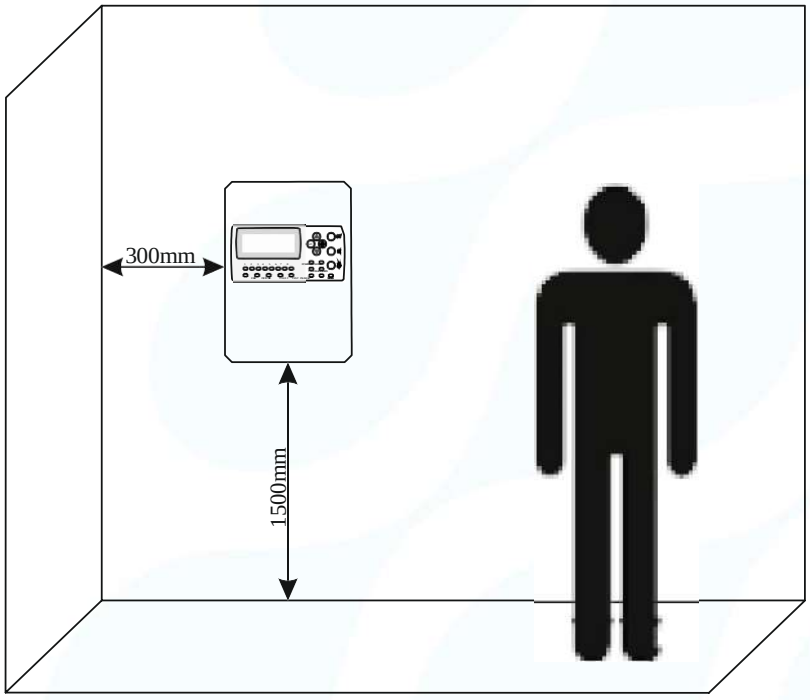



Fig. 1

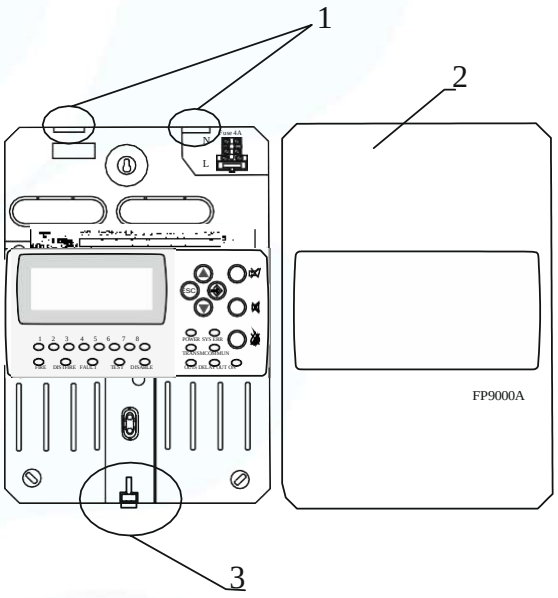



Fig. 2

- In compliance with the dimensions provided in Fig.3 drill holes in the mounting surface.
- Drill holes in the wall and fasten the box.
- All external cables must be pulled through in the box, to make the connection, BUT DO NOT CONNECT THEM TO POWER YET. THE POWER CABLE MUST BE PULLED THROUGH THE DESIGNATED HOLE AND MUST BE KEPT AWAY FROM LOW VOLTAGE CONNECTIONS.
- Connect the power supply and the ground to power supply terminal (see Fig.3), but do not supply power yet.
- Put the backup batteries in place.

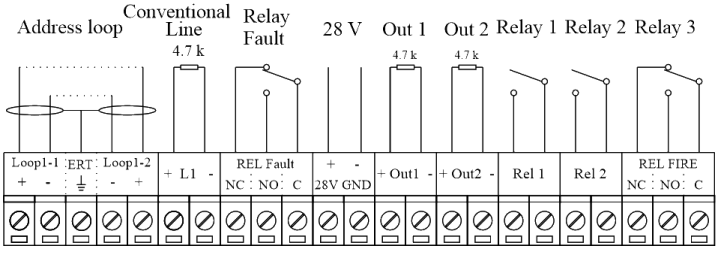
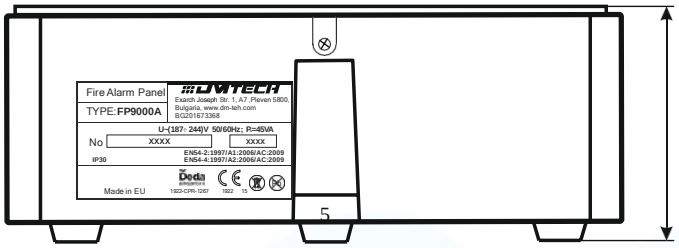


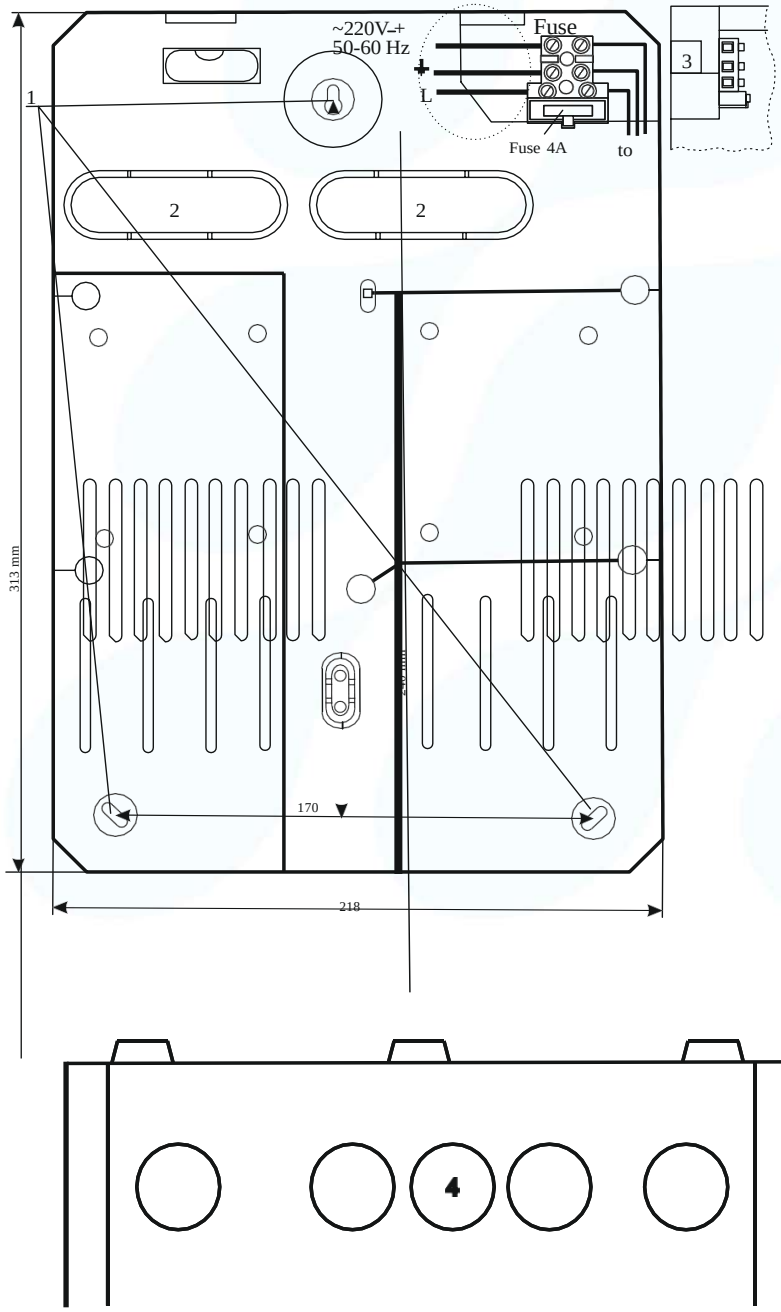

*Fig.3 - Terminal block on the main board*

- Replace the front lid by mounting the lid to the circuit board box and fasten with the screw following the description on Fig.2 in reverse order.
- Proceed to initiation and testing of the system.

a)




b)




c)




**Cable specifications:**

| | |
|---|---|
| Line | 3 wire, 1mm2, 18AWG |
| Neutral | |
| Ground | |
| Loop + | 2 wire, 1mm2*, Shielded |
| Loop - | |
| *Refer to Loop Calculator! | |

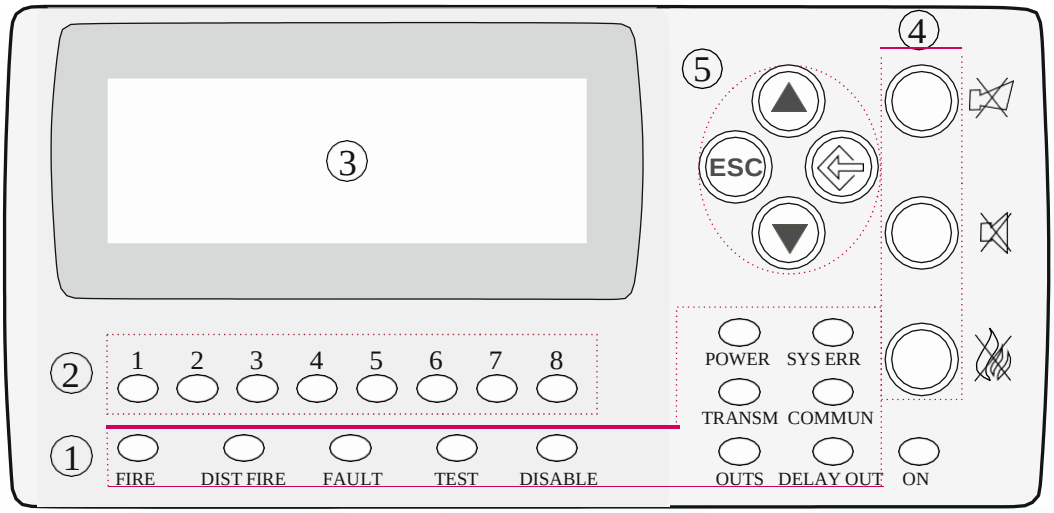
**Fig. 4 – Circuit board components for mounting:**

a) View from the bottom;
b) Front view;
c) View from the top.

1 – Central mounting holes
2 – Holes for pulling cables through
3 – Holes for pulling main supply cable through
4 – Additional holes for cable pulling

### 2.2. System elements

**2.2.1. Front panel – front panel is shown on Fig. 4. Puncture line separates logically buttons and indicators according to their purpose.**




**Description of elements:**

1 – LED indicators with events description
2 – LED indicators for zones
3 – Alphanumeric LCD display (4x20)
4 – Functional buttons
5 – Navigation and control buttons

**Fig. 5**

**1 – Description of LED indication of events:**

| LED | Indication/ Description |
|---|---|
| FIRE | **FIRE INDICATOR**. Illuminates continuously in case of alarm for fire event, after received signal from automated fire detector, manual call point or from another external device connected to panel's output |
| DIST FIRE | **DISTANT FIRE INDICATOR**. Illuminates continuously in red, in case of alarm for fire event in a distant fire alarm panel, after received signal from automated fire detector, manual call point or from another external device connected to distant panel's outputs |
| FAULT | **FAULT**. Illuminates continuously in yellow, in case of fault event in the system |
| TEST | **TEST**. Illuminates continuously in yellow upon system testing |
| DISABLE | Disabled component – Disabled Component indicator illuminates in continuous yellow light |
| POWER | **FAULT IN POWER SUPPLY**. Illuminates in continuous yellow light in case of fault condition in 220V main supply or battery |
| SYS ERR | **CPU FAILURE**. Illuminates continuously in case of CPU failure (System Error) |
| TRANSM | Signal for fire event is being transmitted to a remote center |
| COMMUN | Data communication via LAN – continuous yellow light |
| OUTS | Fault condition in controllable outputs – the indicator for fault in controllable outputs illuminates in continuous yellow light |

| | |
|---|---|
| DELAY OUT | The indicator for output delay illuminates in continuous yellow light |
| ON | The indicator for power supply illuminates in continuous green light |

**2 – Description of LED indication for zones in use:**

| LED | Indication/ Description |
|---|---|
| 1 2 3 4 5 6 7 8 | **ZONE IN FIRE CONDITION**. Separate indicators for fire condition in zones 1-8 – in case of fire they illuminate in red light and the sounder releases a continuous signal. |
| 1 2 3 4 5 6 7 8 | **ZONE IN FAULT CONDITION**. In case of fault condition the indicator for the relevant zone 1-8 illuminates in yellow and the sounder releases an interrupted signal. |

**3 – Description of LCD display**

The fire alarm panel has an alphanumeric LCD display (4 lines x 20 symbols). It displays information on registered events. The display visualizes menus for panel settings (menus are tree-structured, see Fig.11) that can be accessed consecutively using the navigation buttons. The user can assign freely names to zones and devices, using the buttons for navigation and control.

**4 – Description of functional buttons:**

| Button | Description |
|---|---|
| Outputs button | Functional button for sounder silencing – illuminates in red when silenced |
| Alarm button | Fire condition and Fault condition - Functional button for suppressing the local sounder – illuminates in red |
| Line reset button | Functional button for Fire Alarm Mode resetting. Requires access level 2 password. |

**5 – Description of navigation and control buttons:**

| Button | Action | Description |
|---|---|---|
| MENU button  | Entering the menu OK | The button is for entering the MENU option. It also acts as an OK/confirmation button. |
| UP button  | Up | The button increases a highlighted value with one step, or enables access to an ascending menu. |
| DOWN button  | Down | The button decreases a highlighted value with one step, or enables access to a descending menu. |
| EXIT button   | Exiting the menu | The button is for exiting the menu. It is active at access level 1,2 and 3. |

### 2.2.2. Position of modules in the box

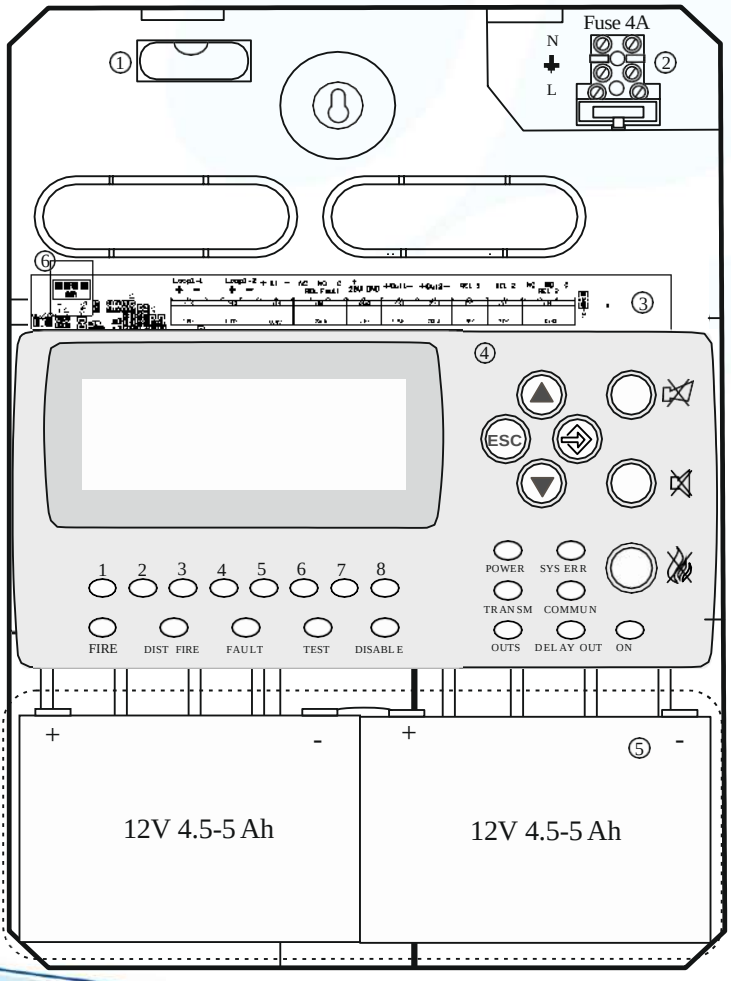



**Fig. 6 – Position of modules in the box:**

**1** – Box leveling ampule;

**2** - 220V terminal for main power supply cable

**3** – Main PCB with built-in power supply

**4** – Chassis with ready-to-use alphanumeric display window, waveguides for light indication, buttons

**5** – Space for storage batteries, 2 x 12V/ 4.5–5Ah

**6** – Coupling for USB connection to a computer

### 2.2.3. Description of main PCB

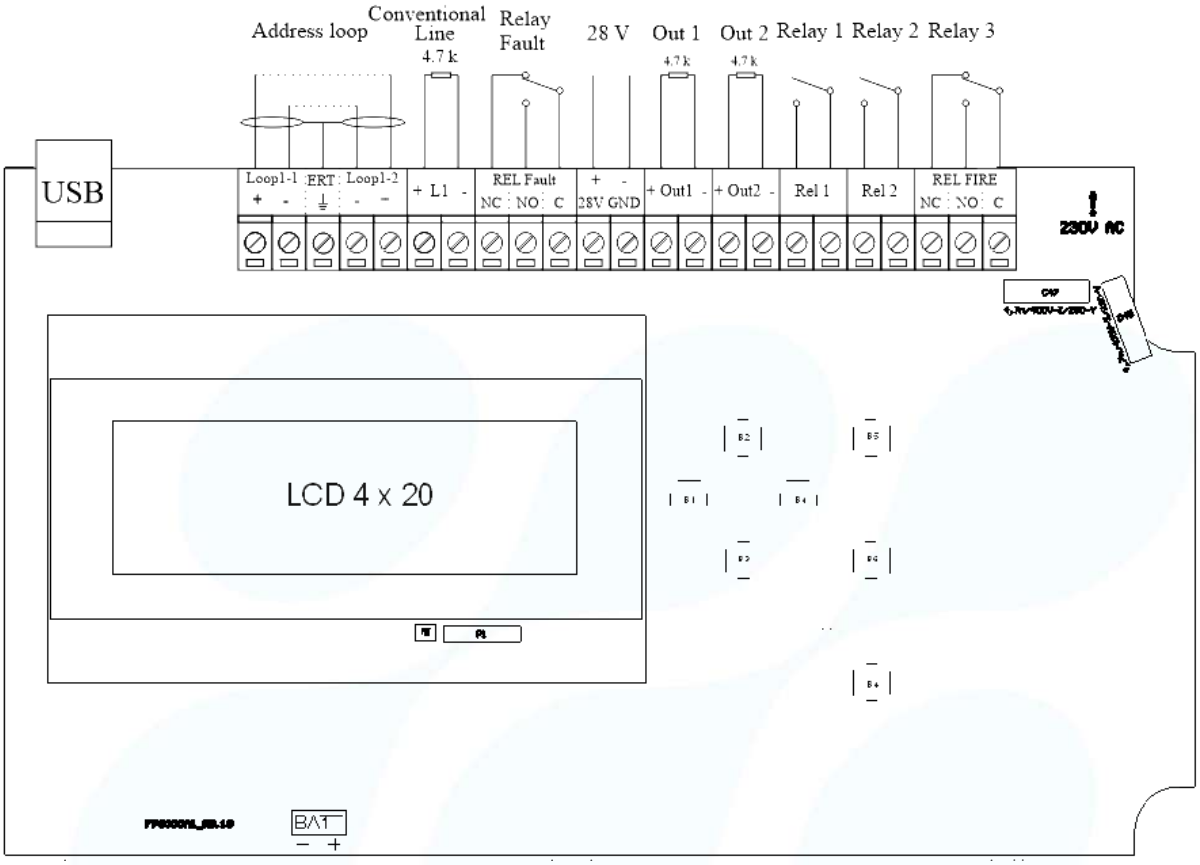



*Fig. 7 – Main PCB of the fire alarm panel*

***Terminal strip description (from left to right):***

- **LOOP 1** (-LOOP+ / +ERT / -LOOP+) – Terminal strip for connecting Loop 1 to the fire alarm panel.
- **LINE** – Conventional line
- **FAULT** – Potential output connecting external devices, 24 VDC/ 0.3A. It is deactivated in fault conditionof in the system.
- **28V** – User power supply
- **RELAY FAULT -** the fault relay is activated when the panel is in fault mode – 3 positions provided for Nc (default) condition and No condition
- **OUT1 –** Monitored output OUT1 – a 4.7 кOhm terminating resistor shall be connected in parallel to thedevice far off from the panel
- **OUT2 -** Monitored output OUT2 - a 4.7 кOhm terminating resistor shall be connected in parallel to thedevice far off from the panel
- **RELAY 1** – Programmable relay 1 – the relay function shall be assigned in settings menu
- **RELAY 2** – Programmable relay 2 – the relay function shall be assigned in settings menu
- **RELAY 3** – The relay is activated in fire mode. 3 No terminals are provided, Normally open contact, Nc normally closed contact and center.
- **USB** –USB B/ micro connector; communication with the fire alarm panel from a computer via specialized software
- **BATT –** Pin connector (red and black pins) for connection to the storage battery. An additional Ø5mmcable ar connector is installed to each cable terminal (M5)

### 2.2.4. Connecting the main supply

Power to the fire alarm panel is provided by connecting the main power supply cable to a 220V terminal, installed in fire alarm panel's box, see Fig.5, position 2. The wiring between the 220V terminal and the power supply unitis done by the producer. The connection between the main power supply cable and the 220V terminal is shown in Fig.3.

### 2.2.5. Connecting the storage battery

Storage battery connecting pins are situated at the base of the PCB. The connection to the storage battery is shown in Fig.7. The fire alarm panel box has a cable, with installed cable ear terminals for serial connection of storage batteries.

**WARNING: Storage battery must be charged at maximum current value I = 2A and voltage U =** 27.2V **±1%.**

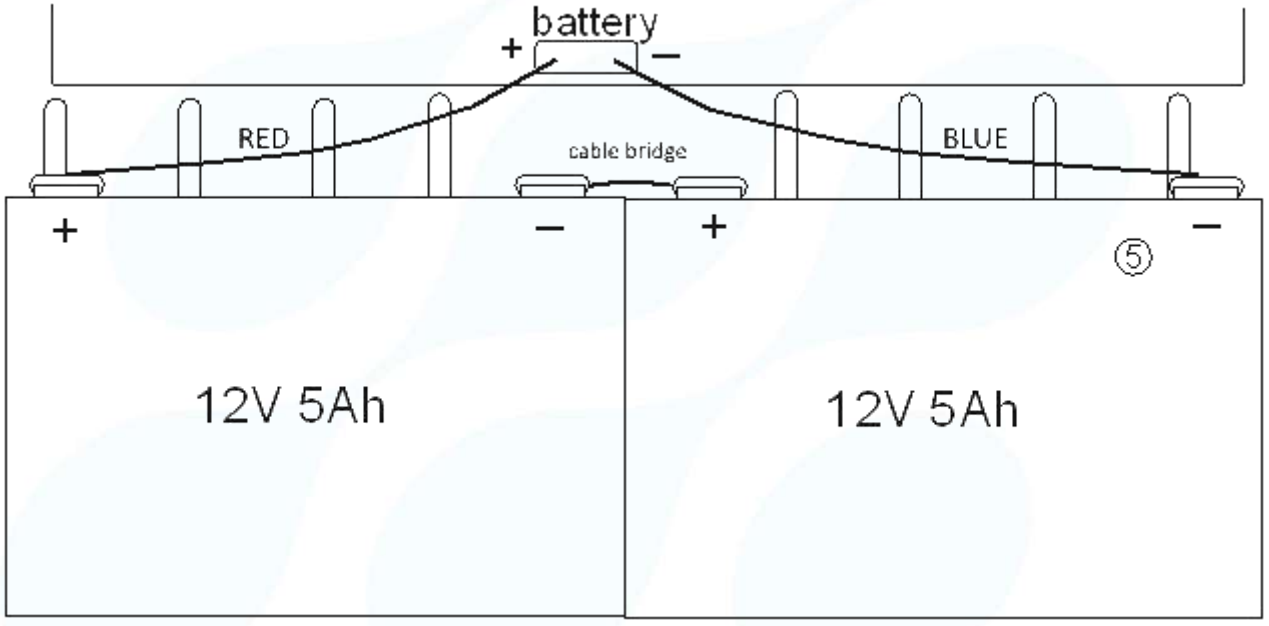



**Fig. 8 Connecting the storage batteries**

## 2.3. Connecting devices

### 2.3.1. Connecting devices to a loop

A terminal strip and an example for connecting devices to the loop are shown in Fig. 8. Up to 250 devices can be connected to the loop.

**ATTENTION: It is recommendable that the first, the last device and each 32nd device in the loophave a built-in short circuit isolator! In the event of a short circuit, only the detectors between the first and the 32nd with built-in isolators will fail.**

The cross-section and the Ohm resistance of the cable used for connecting the devices to the loop shall be carefully assessed, the loop length varies.

**For convenience, a calculator has been developed for calculating the loop length and the cable cross section according to specified number and type of devices. - [www.dmtech-ltd.com](http://www.dmtech-ltd.com)*

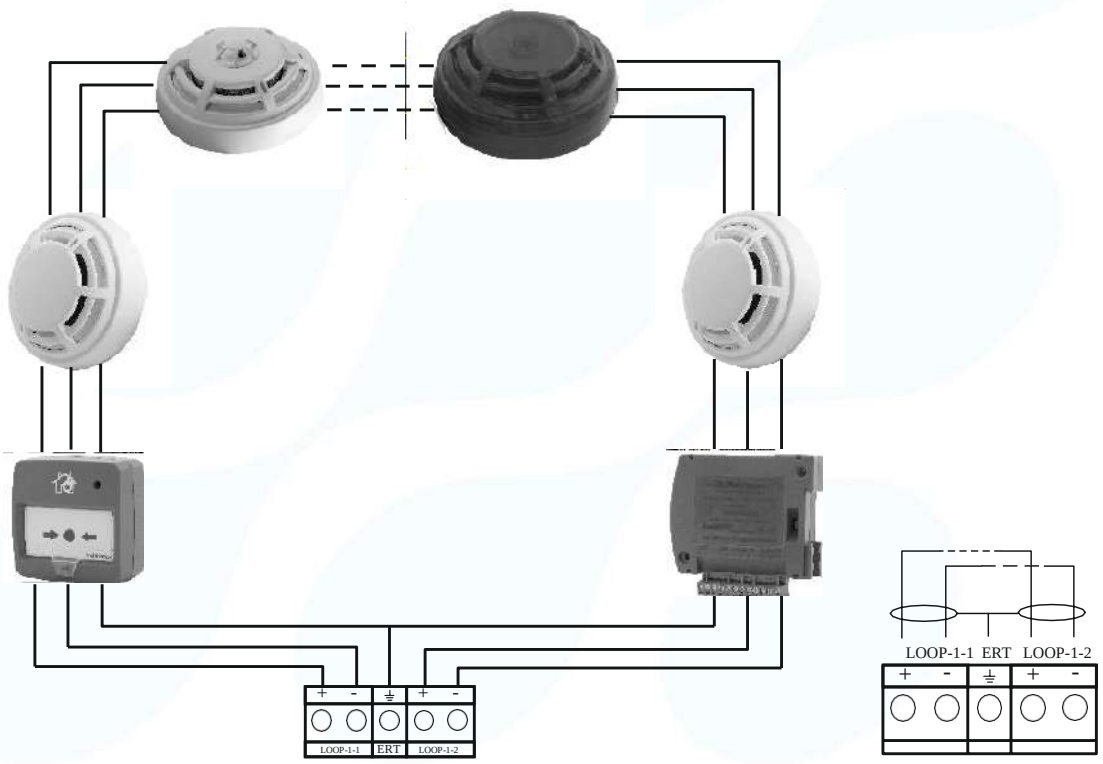



Fig. 9 Example of devices connected in a loop

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### 2.3.2. Connecting devices to a conventional line

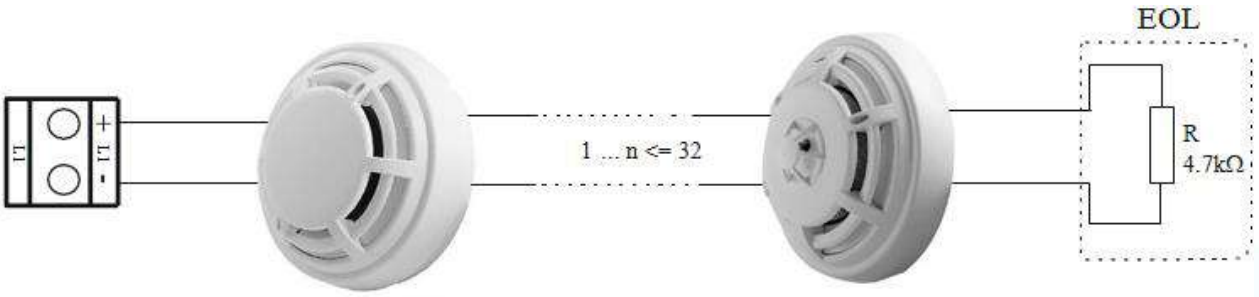



**Fig. 10 – Example of devices connected to conventional line**

### 2.3.3. Connecting signaling devices

**Monitored outputs OUT1 and OUT2 provide 24VDC 0.5A to load, connected between them and a mass*.**
**A 4.7 кOhm terminating resistor shall be connected in parallel to the device far off from the panel in the loop, so the panel is able to check the loop integrity – see Fig.10.**

Signaling or other devices can be connected to each monitored output **OUT 1, OUT2** - Fig. 10. Device's maximum consumption shall not exceed 0.5A. A 4.7 кOhm terminating resistor **must** be connected in parallel to the loop.

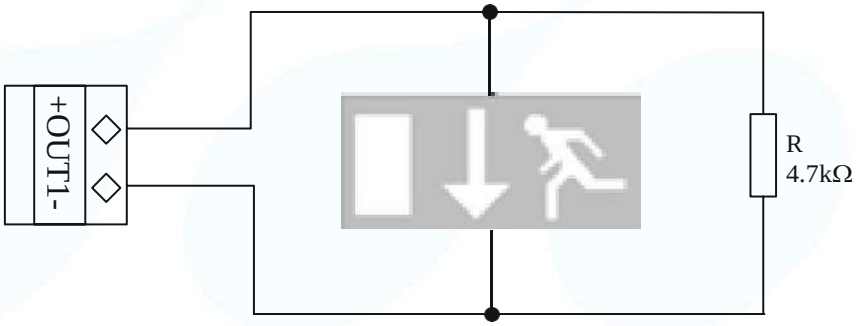



*Fig. 11 – Example of an exit sign device connected to an output*

## 3. Program menus and settings of the fire alarm panel

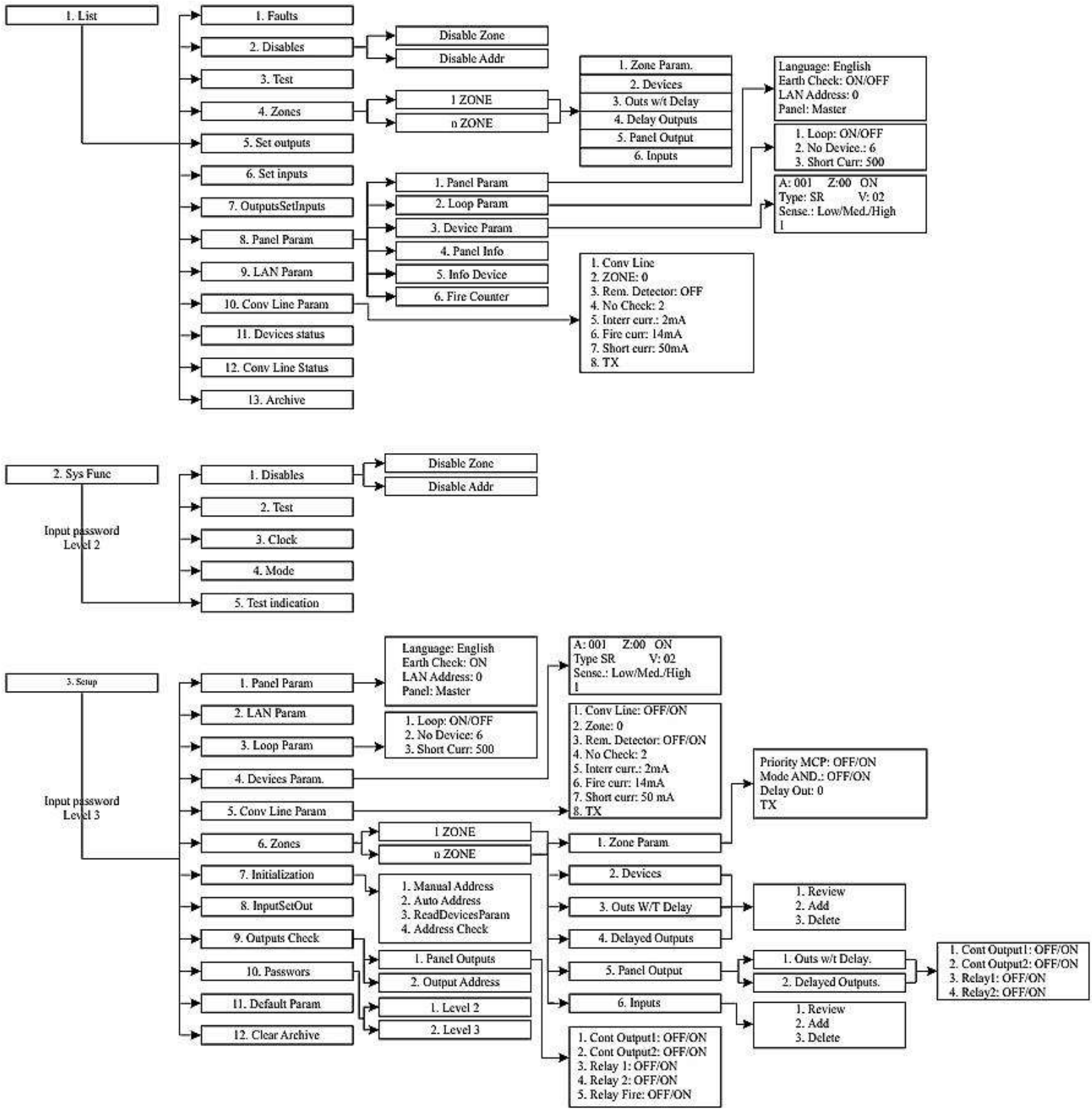
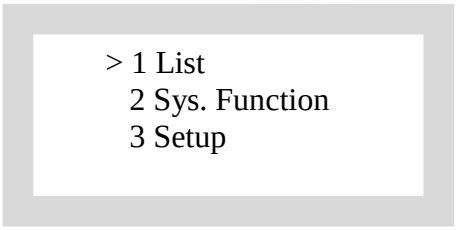
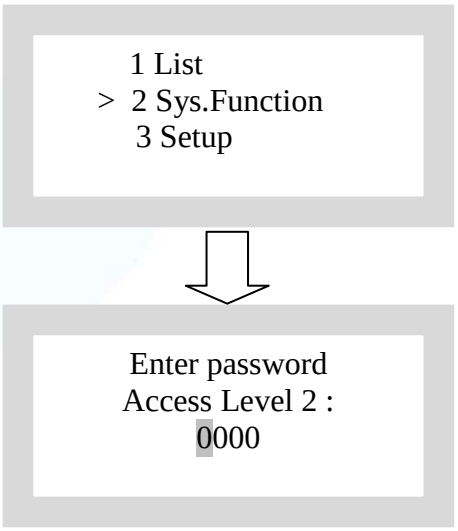



Fig. 12 General diagram of menus




***3.1.*** **List** Menu – provides access to information about the system. **No password is required (access level 1).**
****Access level 1*** *does not allow changing parameters, only reading them! For this reason the menu does not require access level password. After switching on the control panel the main menu is accessed by pressing the "OK" button. It contains three main menus – Lists, Sys. Functions and Setup (Fig. 12) The "Up" and "Down" buttons are used to cycle through all the program menus. The desired program menu is selected with the "OK" button. Exit the menu with the "Exit" button. Navigate through all submenus the same way. (Fig. 12)*

3.1.1. **Faults** (Fig.12 pos.1-1) – displays all faults registered by the panel
3.1.2. **Disables** (Fig.12 pos.1-2) – displays a list of disabled zones and/or addresses
3.1.3. **Test** (Fig.12 pos.1-3) – displays a list of zones that are currently in Test
3.1.4. **Zones** (Fig.12 pos.1-4) – displays a list of registered zones as well as information about a specified zone. (If no zones are set in the Zone menu, the message "No zones" will be displayed!).
3.1.5. **Set outputs** (Fig.12 pos.1-5) – displays a list with all active outputs of the panel
3.1.6. **Set inputs** (Fig.12 pos.1-6) - displays a list with all active inputs of the panel
3.1.7. **OutputsSetInputs** (Fig.12 pos.1-7) – the menu displays output information about Outputs that are triggered according to the state of a particular input/s
3.1.8. **Panel parameters** (Fig.12 pos.1-8) — the menu displays information about the Panel Parameters, Loopparameters, Devices Parameters, Panel information and Fire counter
3.1.9. **LAN parameters** (Fig.12 pos.1-9) – Displays the network parameters
3.1.10. **Conv line parameters** (Fig.12 pos.1-10) – displays information about the conventional line settings
3.1.11. **Devices status** (Fig.12 pos.1-11) – displays the status of the devices; allows making inspections rounds and reading devices' parameters
3.1.12. **Conv line status** (Fig.12 pos.1-12) – displays the conventional line status ON/OFF
3.1.13. **Archive** (Fig.12 pos.1-13) – provides access to the archive of events



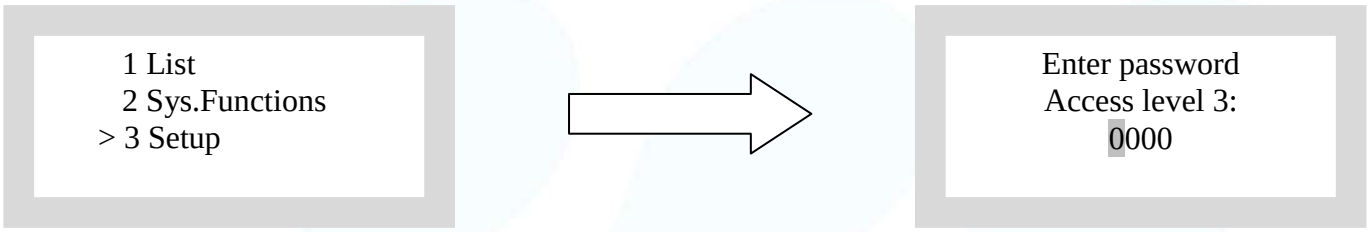

**3.2.** **SysFunc** Menu – **access level 2 password is required to access system functions*!**
** In System Functions menu functions and panel modes of the control panel can be changed. For this reason the menu requires a password for access level 2!*
*The password consists of 4 digits and can be set by the "Up" and "Down" buttons as in the end is confirmed with the "OK" button. The default password is 0000.*

3.2.1. **Disables** (Fig.12 pos.2-1) – provides options for disabling zones and addresses, Disabled zones and addresses cannot cause a fire alarm, regardless of their status.
3.2.2. **Test Zones** (Fig.12 pos.2-2) — provides options to test each of the zones — Enable and Disable. Thepurpose is to test the serviceability of the devices connected to a zone.
3.2.3. **Clock** (Fig.12 pos.2-3) – to setup the astronomical time of the fire alarm panel
3.2.4. **Mode** (Fig.12 pos.2-4) – the fire alarm panel provides operation in two modes – DAY MODE and NIGHT MODE. In the current version this option is not active!!!

3.2.5. **Test indication** (Fig.12 pos.2-5) — triggers a test mode allowing to perform functionality check of panel's light and sound indication. All LEDs, display elements and buzzers will be switched on simultaneously! The test indication is exited with the "Exit" button (ESC).

**3.3. Setup** Menu – **to access the menu a password for access level 3 is required!**

** Parameters and settings of the control panel can be changed in the Setup menu! For this reason it requires a password for access level 3. The password is 4 digits and can be set by the "Up" and "Down" buttons as in the end is confirmed with the "OK" button. The default password is 0000.*

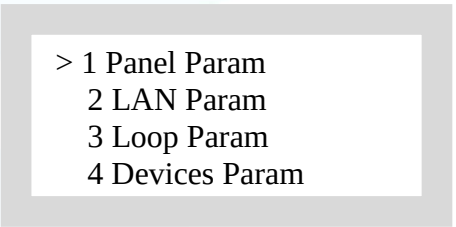


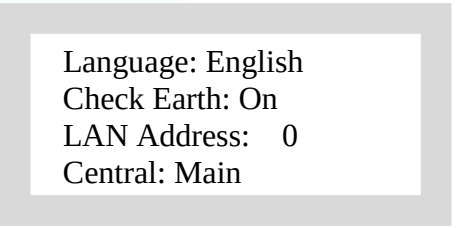

**ATTENTION: When exit (ESC) the "Setup" menu, the control panel restarts in order to save and update the changed parameters!**

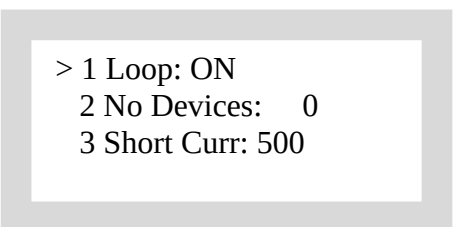
3.3.1. **Panel Parameters** (Fig.12 pos.3-1) — the menu provides access to otpions for changing Panel Language, Ground Check, Panel Network (LAN address) and Panel's priority level of communication (Master or slave).

**Use the "Up" and "Down" buttons, also called "arrows", to cycle through all the parameters in the selected submenu. The "OK" button selects the parameter to be adjusted. Once the parameter is selected its value is adjusted with the arrows . The new parameter value is saved by pressing the "Exit" button (ESC)!*

*The parameters in the following submenus are changed the same way!*




3.3.2. **LAN param** (Fig.12 pos.3-2) – settings for communication between panels

3.3.3. **Loop param** (Fig.12 pos.3-3) — loop parameters are set through the menu:

- Loop on/off
- Number of devices in the loop
- Current monitoring for short circuit

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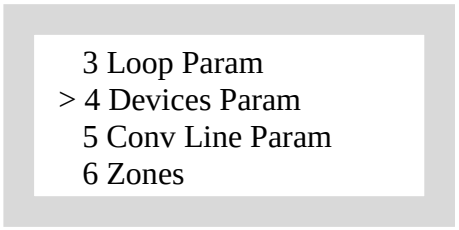
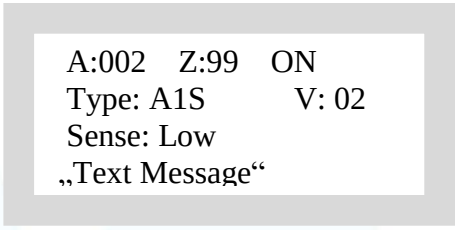
3.3.4. **Devices param** (Fig.12 pos.3-4) – the menu provides access to the parameters of each connected device

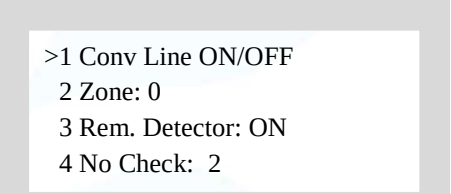
- A: xx – device address: for addressing, see **section 4.**
- Z: xx – the zone number to which the device is assigned. If the device has not been assigned to any zone, the display indicates Z: 99). To change the zone, see **section 5.2.2.**
- Device status (ON/OFF)
- Type: xxxxx – device type (A1R; A1S; S; SR; M; IO; A…….)
- V: xx – displays version of the device
- Sensitivity: High/Medium/Low – shows the sensitivity of the device
- The fourth line of the display in this menu is provided with space for entering a logical device name in text using the arrows for easy recognition and confirm with the "OK" button .

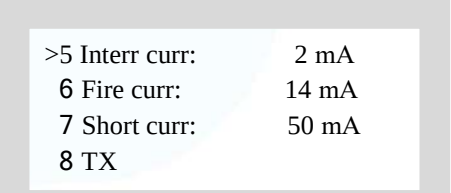



**3.3.5. Conv Line Param** (Fig.12 pos.3-5) – Conventional line parameters

1. Conv Line: ON/OFF – switching ON/OFF the conventional line
2. Zone: xx - assigning the conventional line to a specified zone
3. Rem. Detector: ON/OFF – ceases and starts check for removed fire detector
4. No Check: 2 - number of checks to be performed
5. Interr curr: 2 mA – current threshold below which a signal will notify interrupted line
6. Fire curr: 14 mA – current threshold above which the panel goes into „Fire alarm" condition
7. Short curr: 50 mA – current threshold above which a short circuit will be registered in the line
8. TX – text message field for the line, up to 20 characters max.

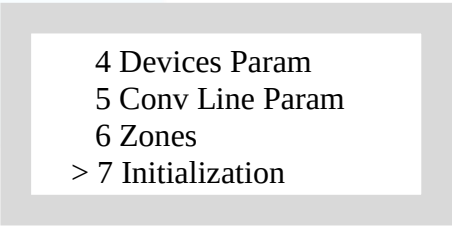


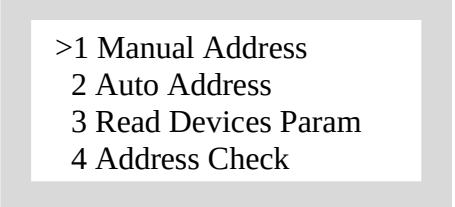

3.3.6. **Zones** (Fig.12 pos. 3-6) – allows assigning a name to a zone, adding devices to a zone. More details and options are given in section 5.

3.3.7. **Initialization** (Fig.12 pos. 3-7) – addresses are assigned to the devices from this menu

*Allows manual and automatic (sequential) append of addresses to new devices. The procedure is described in more details in* ***section 4****.*




- Manual addressing – manually add an address to each device.
  **When the "Please wait" message is displayed – Please wait for the corresponding process to complete!*
- Auto addressing – in automatic addressing all devices in the loop are read sequentially and are assigned sequential addresses (*for more detail check* ***section 4***)
  **When the "Please wait" message is displayed – Please wait for the corresponding process to complete!*



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- Read Devices Param — this menu allows reading of devices previously addressed with a programmer, or in case of having replaced the panel due to defects occurred in the previous one. (Example: We have 10 devices pre-addressed with a programmer and installed in the corresponding places in the loop (See Fig. 9). The fire alarm panel is switched on and starts operation with default parameters. In the menu Setup > Parameters Loop – we turn on the loop and set the number of devices in the loop to 10. The control panel needs to read the parameters of each device and write them to its memory for correct operation. This is done from the Read Devices Param menu.

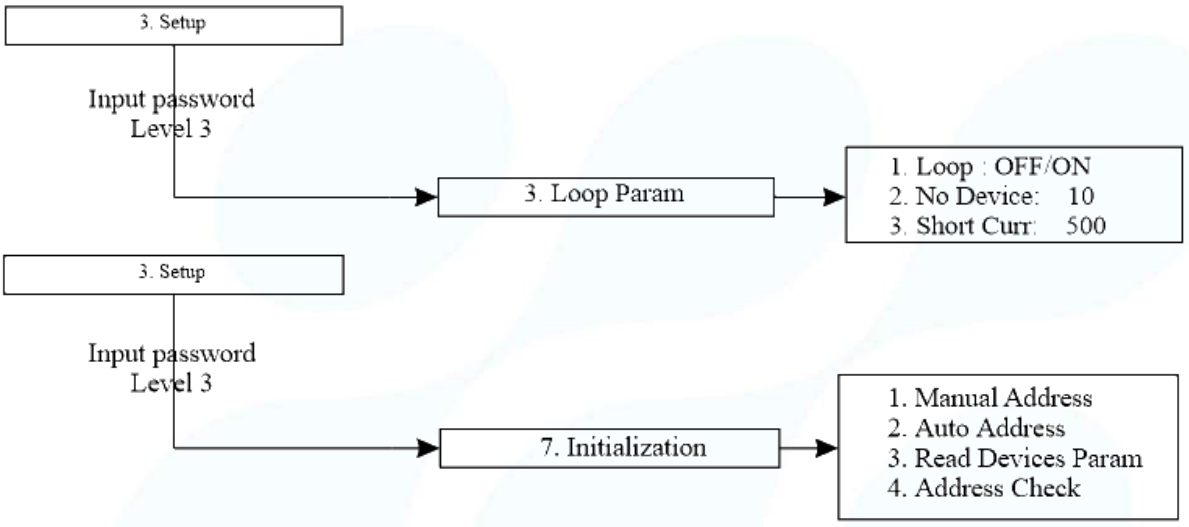


***Fig. 13 – Menu for changing loop parameters and reading the devices' parameters***

- Address Check – the address of the searched device is set from the menu.

The device's light indicators illuminate to identify the device and record its location.
**When the "Please wait" message is displayed – Please wait for the corresponding process to complete!*

*When the message "Error in comm." appears the device is not read or connected to the panel.*

3.3.8. InputSetOut (Fig.12 pos.3-8) – setting outputs enabled according the status of a specific input. If there are no inputs activated, the menu will display message "*No inputs*".

3.3.9. Outputs Check (Fig.12 pos.3-9) – the menu allows checking the functionality of the control panel outputs and the M9000A IO addressable devices outputs.

- Panel outputs – checked by manually triggering each of the outputs listed with a tick in the menu.

  1 – Cont Output1: OFF/ON
  2 – Cont Output2: OFF/ON
  3 – Relay1: OFF/ON
  4 – Relay2: OFF/ON
  5 – Relay Fire: OFF/ON

> 1 Panel Outputs
  2 Output Address

> 1 Cont Output1:OFF
  2 Cont Output2:OFF
  3 Relay1: OFF
  4 Relay2: OFF

The FIRE output will be triggered when the plant enters the FIRE state only if it is ON!

- Addressable outputs — check is performed by selecting the address of the device that will be tested (analogically as in menu Check Address).
  If there are no M9000A IO devices connected to the loop, a "No Devices" message will be displayed.

  2 Cont Output2:OFF
  3 Relay1: OFF
  4 Relay2: OFF
> 5 Relay Fire: OFF/ON

3.3.10. Passwords (Fig.12 pos. 3-10) – allows setting a password for access level 2 and 3

- Access level 2 – sets the password for access level 2
  Up to 4 access level 2 passwords can be set.
  Use the arrows to cycle through passwords 1 to 4. Select with "OK" (e.g. 1), edit the first character with the arrows and save with "OK" moving to the next, etc. The updated password is saved when the "Exit" (ESC) button is pressed.
- Access level 3 - sets a password for access level 3
  The password is edited in the same way as passwords for access level 2.

Access level 2

2: 0000

3.3.11. Default Parameters (Fig. 12 pos. 3-11) – the default parameters are restored and the fire alarm panel restarts. THE DEFAULT LANGUAGE OF THE PANEL IS ENGLISH!

**3.3.12.** Clear Archive (Fig. 12 pos. 3-12) – files with registered events are deleted, **requires a confirmation and a password for access level 3!**

**WARNING: After exiting Setup menu (ESC) the Fire panel will reset itself !!!**

**The archive is a list of all events the panel has registered, such as fires, failures, recovery from failures, and restarts. Deleting the archive may prevent the ability to track fire and fault events!**

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# 4. Addressing devices in a loop

Each device must assigned an individual address so it can be identified by the fire alarm panel. Device addressing is completed as follows:

4.1. **Loop setup** - Before starting with device addressing it is necessary to enable the loop from Settings -> Loop Parameters (Fig.12 position 3.3.) as well as to configure number of devices = 0. At initial start of the loop the number of devices is 0. As each device is added the Device Count (number of devices) increases automatically.

On line 3 Short current sets the current in the loop, which, when exceeded, will allow the fire alarm panel to detect a short circuit and to trigger the protection (For example 500mA).

After the loop is switched on, enter menu Settings, submenu Initialization (Fig.12 position 3.7). Device addressing modes here are also two - Manual Addressing and Auto Addressing

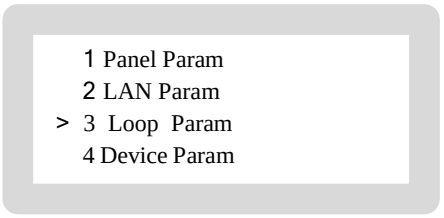
4.2. **Auto addressing (Fig. 12 pos. 3.-7.-2.)** – as soon as a device is attached to its base, thefire alarm panel recognizes it and assigns a sequential address.

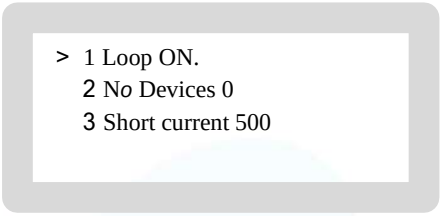
When **Auto Addressing** is selected, the message “DEVICE PLACE” IS displayed on the screen. When addressable device is attached, the device indicator lights briefly illuminate and the control panel screen displays the message “ADDRESSABLE ADDRESS” and the sequential address is set automatically.
A “PLEASE WAIT” message follows.
*When the message “PLEASE WAIT” is displayed – please wait for the corresponding process to finish!*

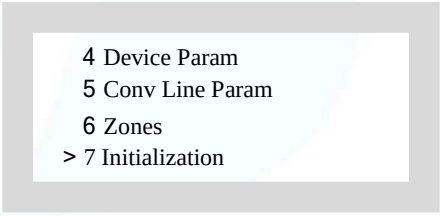
When the first device’s recognition has been finished and its address programmed, "DEVICE PLACE" is displayed again and the control panel waits for the next device to be added.

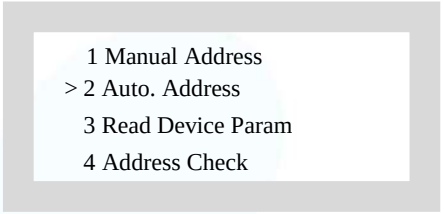
The procedure is repeated until all devices in the loop are hooked up.

To exit the automatic addressing sequence, the "Exit" (ESC) button is pressed.

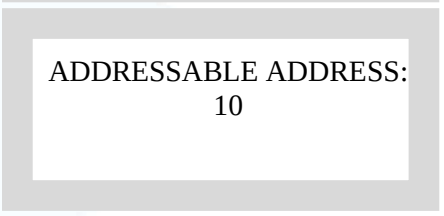







4.3. **Manual addressing** (Fig.11 position 3.-7.-2.) – as soon as a device is attached to its base, the fire alarm panel recognizes it and suggestsa sequential address, but awaits confirmation.

A specific number can be assigned to each device in this menu (once an address has been selected, it's not suggested again).

> 1 Manual Address
2 Auto. Address
3 Read Device Param
4 Address Check

Where **Manual addressing** is selected (Fig.11 position 3.7.1.), the sequence of actions is the same as in auto addressing. The only difference is that the fire alarm panel suggests an address and waits until it is selected and confirmed with the "OK" button.

ADD DEVICE

The user then has the option to use sequential numbers as addresses or to assign a specific number (from the available numbers) at his choice.

After the device attached, "ADDRESSABLE ADDRESS" and a number appear below.

ADRRESS FOR ADDRESSING
10
PLEASE WAIT

The navigation buttons "Up" and "Down" are used to set the desired device address. When a device is addressed with one address, the control panel does not offer this address a second time for addressing a subsequent device. After selecting the desired address and setting it with the "OK" button, " DEVICE ADD" is displayed again and the control panel waits again for the next device to be added.

## 5. Assigning names to devices and adding devices to a LOOP.

*To ensure easy orientation, the fire alarm panel allows assigning an individual name to each device. The devices also can be grouped in ZONES.*

5.1. **Assigning names to devices.** Enter Setup -> Device Parameters (Fig.12 pos. 3.-4.). Use the arrows to cycle through the parameters of the device. To enter a text in line 3 select a symbol from the letters list consecutively, using the arrows . The "OK" button is used to save the current character and move to the next one. The entered text is saved when the "Exit" button is pressed.

2 LAN Param
3 Loop Param
> 4 Device Param
5 Conv Line Param

A:001 Z:99 ON
Type: A1S V: 02
SUGGESTED NAME

5.2. **Assigning names to zones and adding devices to zones**. Enter Settings menu and select ZONES submenu (Fig.11 pos. 3-6.) As each zone is set, the menu automatically includes it.

From the Setup menu, select the Zones submenu (Fig. 12 pos. 3.-6.). By setting up a Zone, the menu automatically grows with 1 Zone (1 … n).

4 Device Param
5 Conv Line Param
> 6 Zones
7 Initialization

5.2.1. **Zone Parameters**. From the menu Zones -> 1 ZONE -> Zone parameters (Fig.12 pos.3-6-1...n-1) the following zone parameters can be set:

- Priority Manual Call Point: Prioritized activation through a manual call point ON/OFF.
  Where the set priority is ON and the manual call point is activated, the fire alarm panel enters "FIRE ALARM" mode regardless of anything else set for this zone.
- Coincidence Mode: The options are ON/OFF. After one fire detector is activated, the fire alarm panel waits for a signal from a second detector before entering "FIRE ALARM" mode.

- Delayed Outputs: xxxxx After a delay is set, the zone will enter "FIRE ALERT" condition.
  *The delay is set in seconds!*

- ZONE 1: Name of the zone. The user can change the name using the arrows and the "OK" button. After exiting After exiting the menu with the "Exit" button and re-entering, there will be a new zone available with a default name and parameters (n+1 ZONE) that can be edited to create a new one. *Zones are also added via the FP9000A configuration software - DMTechFP!*
  *If no zones are set in the Zones menu there will only be 1 ZONE with default parameters.*

> 1 Zone Param
  2 Devices
  3 Outputs w/t Delay
  4 Delayed Outputs

> Call Point Priority: OFF
  Coincidence Mode: OFF
  Delayed Outputs: 20
  ZONE1

5.2.2. **Devices (Fig. 12 pos. 3.-6.1 … n)**: The following options are available in Devices submenu: Review/ Add/ Delete/. If any of the devices signals an alarm or fault, the corresponding zone switches to the corresponding condition ("Fire alert" or "Fault").

In the Review submenu a list of devices added to the zone is displayed. If no devices have been added, "NO DEVICES" message appears!

In the Add submenu devices are added to the zone. Already addressed devices are selected!
Use the arrow keys to select the device that is meant to be added to the selected zone. The selection is confirmed with the "OK" button. Once a device is added to the zone, it will no longer be visible in this submenu!
Already added devices can be deleted (removed) from the zone via Delete submenu in the same way they are added!

>1 Review
  2 Add
  3 Delete

Device 1 от 7
A:001 Type:SR ON
1

  1 Review
> 2 Add
  3 Delete

A:008 Type:SR ON
8

5.2.3. **Outputs without delay:** The following options are available: Review/ Add/ Delete/. Addressable Outputs that are to be triggered in case of occurred events in the zone are added.
Addresses of actuators in the loop, such as S9000AF addressable sirens, are added as address outputs.
In the Add submenu (Fig. 3.-6.-1. … n - 2) or Delete submenu (Fig. 3.-6.-1. … n - 3), using the arrows , select an address output and add/remove with the "OK" button. Exit the submenu with the "Exit" button.

```
  1 Review
> 2 Add
  3 Delete
```

```
Output 1 от 6
A:014  Type:S  ON
14
```

5.2.4. **Delayed outputs:** The following options are available: Review/ Add/ Delete/. Addressable outputs, that are to be activated with delay after some time period in case of events in the zone have occured, are added to the zone.

**In case that delayed outputs (on a panel or device) are set only with delay, the LED indicator "DELAY OUT" will light up !**

5.2.5. Panel Output -> Outputs without delay (Fig. 12 pos 3.-6.-1. … n-3) or Outputs with delay (Fig. 12 pos.3.-6.-1. … n-4) are the submenus that can be used to set which Outputs of the control panel are to be activated in case of fire with/without delay. The outputs that can be set are:

1 - Controllable Output 1: OFF/ON
2 – Controllable Output 2: OFF/ON
3 – Relay 1: OFF/ON
4 – Relay 2: OFF/ON

```
>1 Contr Output 1: OFF
 2 Contr Output 2: OFF
 3 Relay 1: OFF
 4 Relay 2: OFF
```

5.2.6. **Inputs:** The following options are available: Review/ Add/ Delete/ . The inputs of input/output devices (M9000A IO) are connected to the loop.

```
  1 Review
  2 Add
  3 Delete
```

EXAMPLE:

Let's assume that devices are allocated in a building as follows:
1. Automated fire detectors - 10 devices on each floor. A1R, A1S, SR, MSR
2. Manual call points MCP – 3 on each floor
3. Sound and light indicator S9000A – 2 on each floor

We assume that each device has been addressed and has an individual address (point 4). Each device has a name (p.5) For example, the manual call point at building's entrance on floor 1 has been assigned the name MCP Entrance. The manual call point near the stairs – MCP Stairs Floor 1, etc. The same logic is applied to automated fire detectors.

The zones may get names like: FLOOR 1, FLOOR 2, FLOOR 3.

The addressable devices shall be added to the relevant zone. The sound and light indicators shall be added to zone addressable outputs. The location of the relevant zone and the path for evacuation shall be carefully considered here. Example: In case of FIRE in zone FLOOR 1, zones FLOOR 2 and FLOOR 3 must be evacuated; therefore, the sound and light indicators shall be activated on all three floors.

For this purpose all sounders shall be added to zone 1 FLOOR 1, using submenu Outputs w/t Delay (if we want them activated immediately). Analogically, for floor 2, all sounders available on floor 2 and 3 shall be added. For floor 3 – only the sounders available on floor 3.

2 Devices
3 Outputs w/t Delay4
4 Delayed Outputs
>5 Panel Outputs

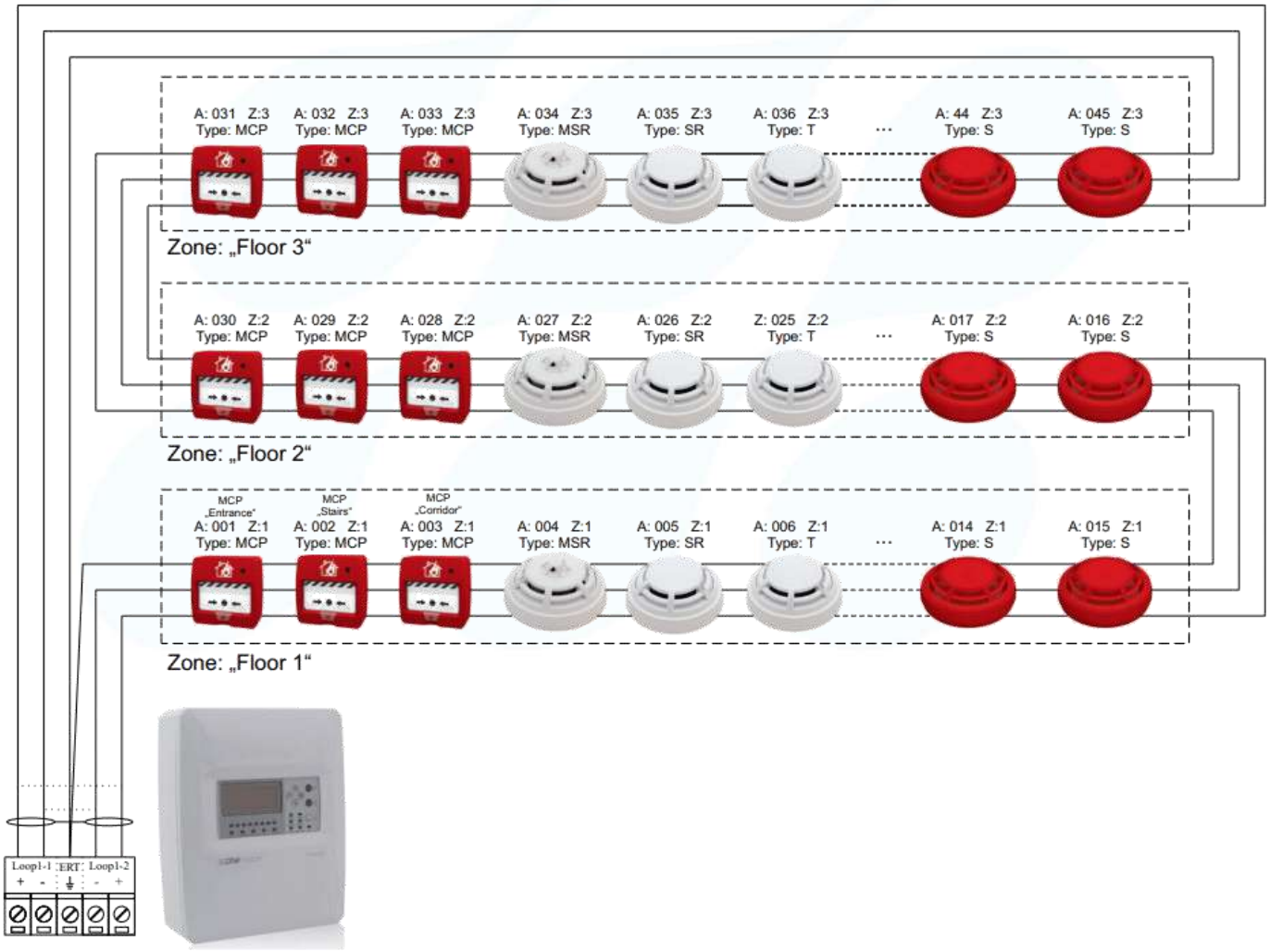



*Fig. 13 - Example of setting Zones and Device Names in 1 Loop*

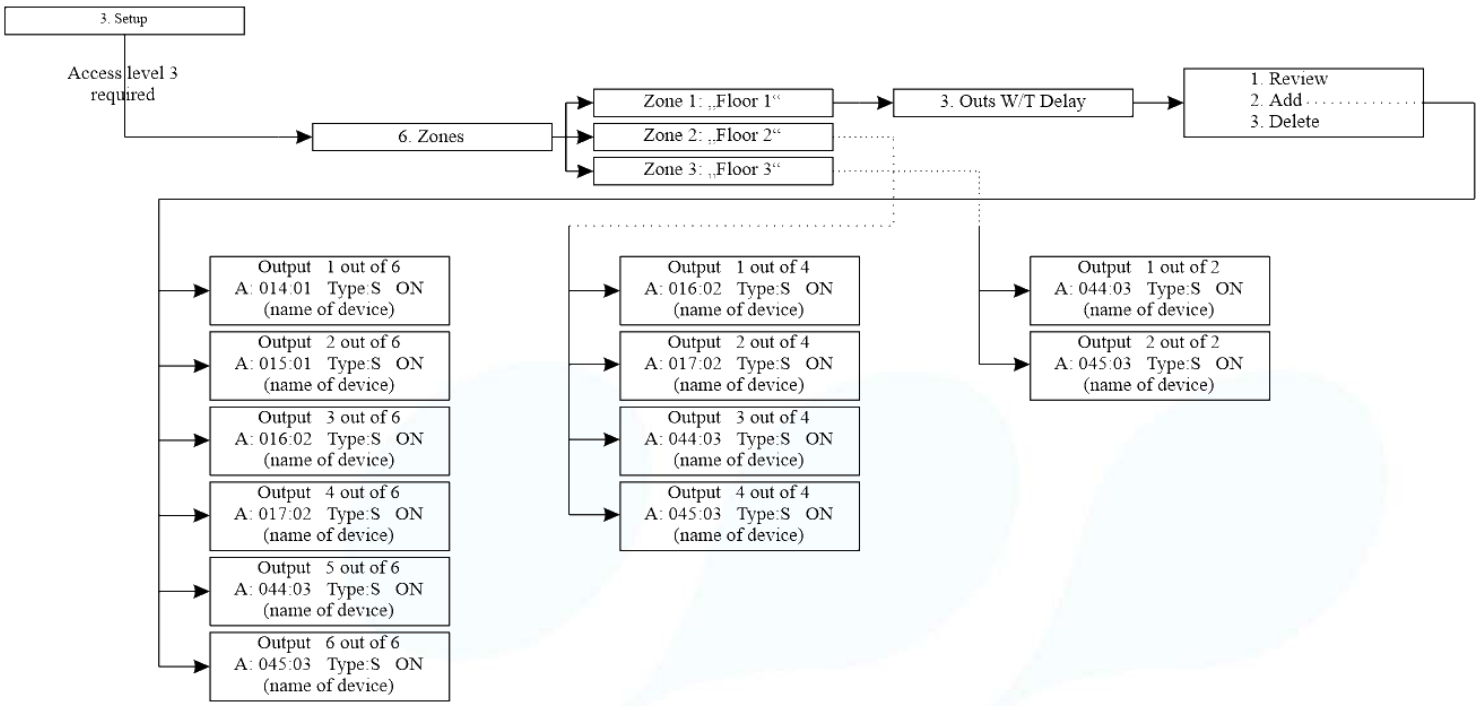



***Fig. 14 – Setting outputs without delay to individual Zones in the Loop (See subsections 5.2.3.; 5.2.4. for further information)***

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