



ADDRESS PROGRAMMING HANDHELD DEVICE

«PRA-2»

Manual
.421242.003PS

A quality management system at manufacturing enterprise
is certified according to the standard requirements ISO9001:2015

ENG

MANUFACTURER

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The operating instructions are intended for studying the structure, operation and operating rules of the Address Programming Handheld Device "PRA-2" (hereinafter referred to as "PRA-2" device).

The following symbols are used in the text of the operating instructions:

IOU-A	– addressable input/output unit;
FSD-A	– addressable fire smoke detector;
MFD-A	– addressable manual call point;
FHD-A	– addressable fire heat detector;
FCD-A	– addressable combined fire detector (smoke and heat);
CCED	– cable for connecting external devices (MCP-A, RS-485);
RCU-A	– remote control unit (optical, infrared);
C.I.A	– addressable control and indicating equipment “Varta Adres”.

1 PURPOSE

The PRA-2 device is designed to work with addressable fire detectors («FSD-A», «FHD-A», «MFD-A», «FCD-A») and addressable input-output units («IOU-A») manufactured by ALC«SCB «ELEKTRONMASH».

The PRA-2 device provides:

- Simultaneous work with only one addressable detector.
- Manual and semi-automatic (auto - increment / decrement of the address) addressing of addressable detectors.
- Monitoring and displaying the states of addressable detectors.
- Sending commands via infrared channel to addressable detectors (RCU function).
- Reading and displaying measurements of «IOU-A» channels in real time.
- Autonomous operation from 2 standard AA batteries (2x1.5V), or operation from an external power supply unit with a constant stabilized voltage (7-15)V.

The PRA-2 device is made in a convenient ergonomic case, equipped with an informative graphic display and a full-fledged numeric keypad. It has a small size, weight and dimensions.

When operating on batteries, the remote control automatically turns off when not in use to save battery life.

2 SPECIFICATIONS

2.1 Electrical parameters:

- Supply voltage (DC) of external power supply – (7...15) V
- Current consumption from the power supply unit, no more – 100 mA
- Maximum battery supply voltage, no more – 3,5 V
- Minimum control panel start voltage from batteries, no more – 1,6 V
- Battery discharge depth up to – 0,3 V
- Average current consumption from batteries ($U_{bat}=3.0V$) , no more – 55 mA
- Detector supply voltage – (25...30) V

2.2 Operating conditions of the device:

- Ambient temperature from $+1^{\circ}C$ to $+40^{\circ}C$;
- Relative air humidity up to 90% at $+25^{\circ}C$;
- Atmospheric air pressure from 84 kPa to 107 kPa;
- Operating mode of the device - round the clock.

2.3 Other specifications:

- Operating range of the RCU-A, no more – 5 m;
- Auto-off time when inactive (battery operation) - 5 (+2) min;
- Dimensions are shown in Appendix A;
- Weight of the device without batteries and connected detector, no more – 0,5kg.

3 HOW TO WORK WITH DEVICE

Persons who are familiar with this manual and with the documentation for addressable detectors, addressable input/output unit «IOU-A» and the addressable control and indicating equipment «Varta-Address» are allowed to work with the PRA-2 device.

3.1 Preparing the device for use

3.1.1 Operation from batteries (autonomous operation)

Batteries must be «AA» saline or alkaline, nickel-cadmium (NiCd) or nickel-metal-hybrid (NiMH) «AA» batteries are also allowed. The cells must be the same and have the same charge capacity. Discharged elements must not be installed in the PRA-2 device.



ATTENTION! THE PRA-2 DEVICE DOES NOT CHARGE BATTERIES !

To install batteries in the battery compartment, unscrew the screw fixing the compartment cover (see Appendix A), and then open the battery compartment.

Install two good «AA» cells, observing the polarity, into the battery compartment.

Replace the cover, tighten the fixing screw.

When operating from batteries, you should take into account the possible discharge of batteries up to 0.3 V, which can lead to deep discharge and failure of nickel-cadmium (NiCd) or nickel-metal-hybrid (NiMH) batteries.

When the PRA-2 device is idle for a long time or when the batteries are discharged, it is necessary to remove them from the battery compartment to prevent possible leakage of electrolyte into the PRA-2 device.

Used, discharged batteries must be handed over to specialized places for the delivery of used primary power sources for their subsequent disposal.

3.1.2 Operation from an external power supply

The power supply must be galvanically isolated from the mains 220 V, with an output power of at least 1.5 W and an output constant voltage from 7 V to 15 V. The power supply connector must have an outer diameter of 5mm and an inner diameter of 2.5mm, the «+» supply voltage must be inside the connector, and the «-» on the outside. The PRA-2 device is equipped with reverse polarity protection, but it will not work if connected incorrectly.

It is allowed to connect an external power supply with batteries installed, while the current consumption from them will be no more than 0.2 mA.

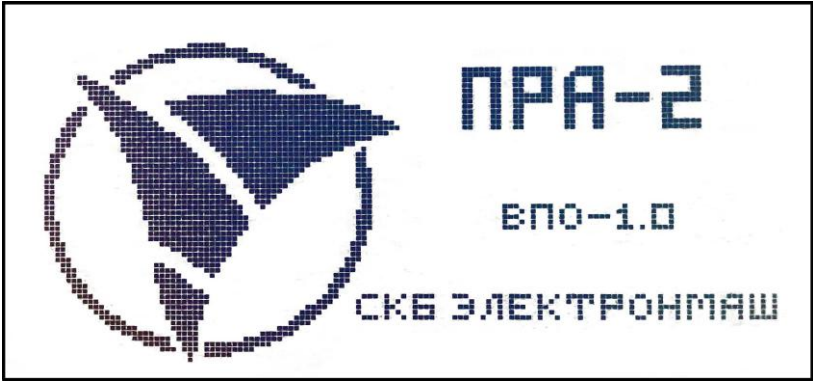
When powered by an external power supply, the PRA-2 device is always on (does not turn off) and the backlight of the keyboard and display is always on.

3.1.3 Turning on the PRA-2 device

When power is supplied from an external power source, the panel will turn on by itself.

When operating autonomously from internal batteries, to turn on, press and hold the button for 2-4 seconds «#». After switching on, the button can be released, the PRA-2 device will remain on.

When turned on, an audible signal will sound and a startup screen will appear on the display for a few seconds with the name of the product, version of the firmware, the name and logo of the manufacturer. After the start screen saver, the main menu will appear on the PRA-2 device display.



When the PRA-2 device is powered by batteries, if the PRA-2 device is inactive (no buttons are pressed, the detector is not connected / disconnected to the PRA-2 device), the PRA-2 device will turn off automatically after 5 (+2) minutes.

You can force the PRA-2 device to turn off by pressing and holding the button. .

The **"Reset"** button is used for hardware reset of the device. To turn on the PRA-2 again, press the «#» button.

3.2 Main menu

The menu is intended for selecting functional submenus.

The main menu consists of four items available for selection. The selection is made with the buttons «↑» and «↓», the selected menu is accessed by pressing the button «#».



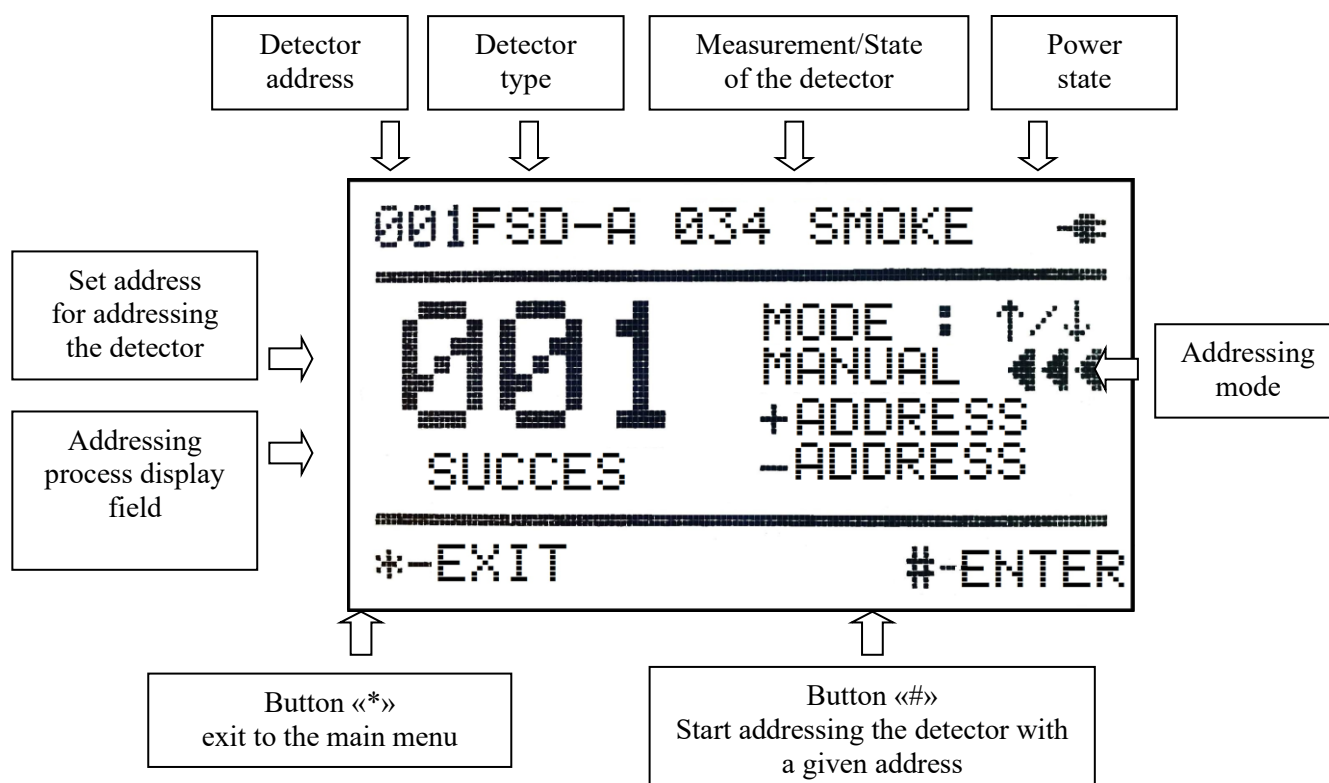
In the upper right corner of the screen (in any menu item), the power status symbol is displayed, which can take on the following values:

External power	Autonomous power supply		
			
Displayed when powered from an external source voltage > 7V	Autonomous power supply voltage < 2.2V	Autonomous power supply voltage 2,2B < ... < 2,8B	Autonomous power supply voltage > 2,8B

3.3 Menu «ADDRESSING»

The menu is intended for manual and semi-automatic addressing of the connected detector.

In the « ADDRESSING » menu, the following information is displayed on the screen:



The detector address is set using the numeric keypad in the range 1...127 in any addressing mode.

Addressing is started with the «#» button, after which the following inscriptions will briefly appear in the addressing process display field: «ADDRESSING», and after «SUCCESS» (in case of successful addressing) or «ERROR» (in case addressing failed).

There are three addressing modes:

- «MANUAL» - starting addressing only manually with the button «#».
- «+ADDRESS» - addressing starts automatically after the installation of the next detector and, in case of successful addressing after removing the previously addressed detector, an automatic increment (increase, +1) of the specified address is carried out.

- «-ADDRESS» - addressing starts automatically after the installation of the next detector and, in case of successful addressing after removing the previously addressed detector, an automatic decrement (decrease, -1) of the specified address is carried out.

Changing the addressing mode is carried out using the «↑» and «↓» buttons indicating the selected mode with a marker.

In the «+ADDRESS» and «-ADDRESS» modes, you can set the address from the keyboard and start addressing manually with the «#» button, similarly to the «MANUAL» mode.

After addressing, the detector switches to the addressing mode and the «detector measurement» field will display the status «IN ADDRESSING».

Connection of addressable detectors «FSD-A», «FHD-A» to the PRA-2 is carried out in the socket located on the back side of the PRA-2 housing.

Connecting the manual call point «MFD-A» to the PRA-2 is carried out through the cable for connecting external devices «CCED» (included in the PRA-2 kit). To connect, you need to connect the cable to the PRA-2 in the connector located at the end of PRA-2 (see Appendix A). «MFD-A» must be with the rear cover removed to provide access to the cable connection terminals.

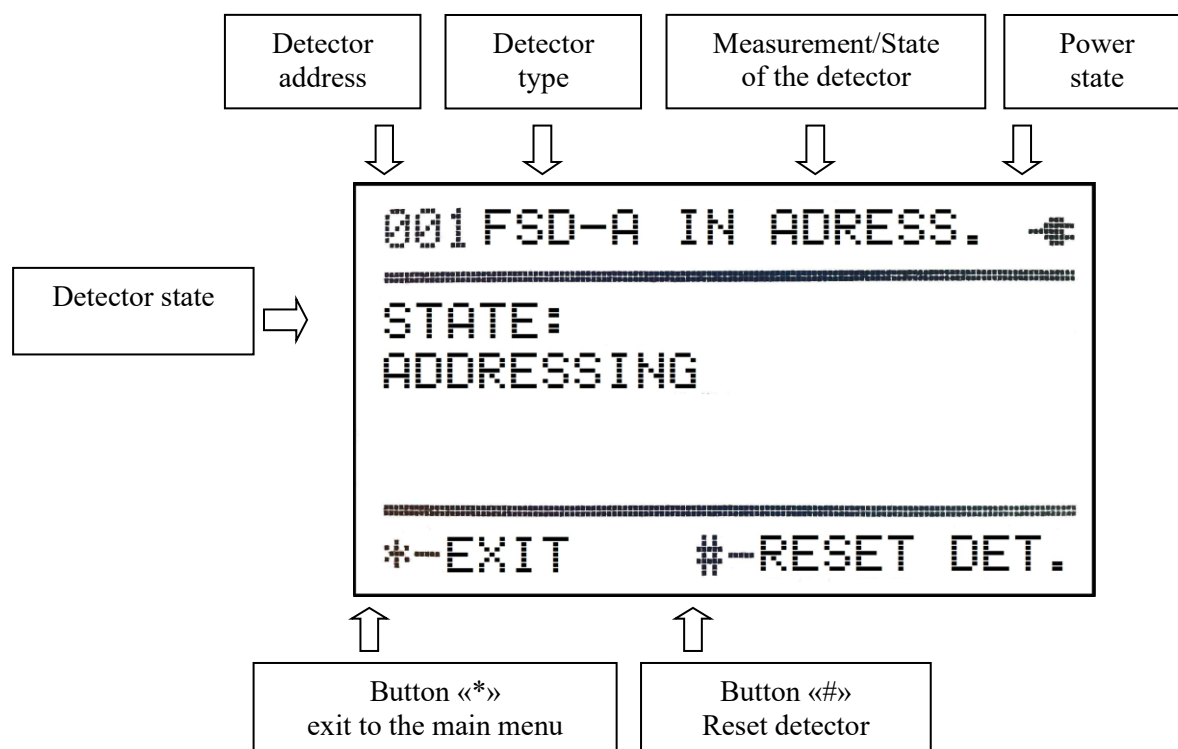
To connect the cable to the «MFD-A», it is necessary to remove the «FL_in.» terminal from the detector and connect to the released contacts «+» and «-» of the detector, the cable terminal «CCED» to the contacts «+FL/1» and «-FL/4» observing the polarity.

Only one detector can be connected to the PRA-2 at a time.

Exit to the main menu by pressing the button «*».

3.4 Menu «STATE»

The menu is designed to display all states of the connected detector. In the «STATE» menu, the following information is displayed on the screen:



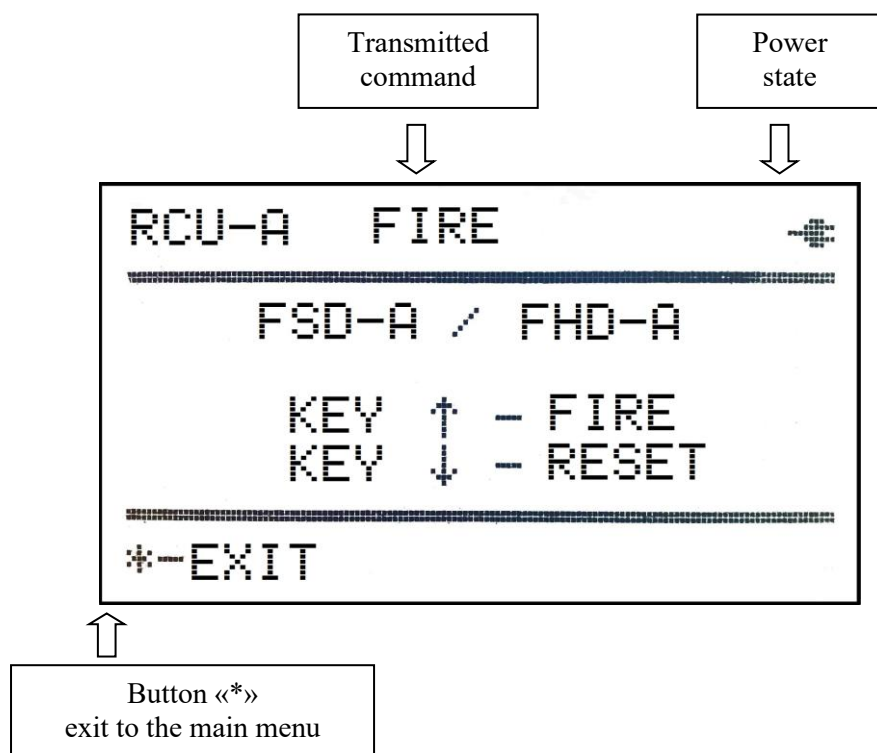
The «STATE» field displays all states of the detector: FIRE, ATTENTION, ADDRESSING, DISCONNECTED, RCU-A.

To reset the detector, press the button «#» and to exit to the main menu, press the button «*».

3.5 Menu «RCU-A»

The menu is intended for sending commands via infrared channel (RC function) to automatic addressable detectors «FSD-A» and «FHD-A».

The following information is displayed on the screen in the «RCU-A» menu:



Two commands are available: «FIRE» and «RESET».

The transmission of the «FIRE» command is carried out by pressing the «↑» button, and the «RESET» command - by the «↓» button.

After pressing the send command buttons, for the duration of the transmission, the display field of the transmitted command displays the inscriptions «FIRE» or «RESET», which correspond to the actual command.

To send a command to the addressable detector, it is necessary to combine the radiation axes of the infrared LED of the remote control and the receiving photodiode of the detector, press and hold the corresponding command button for 2-3 seconds. Transmission time is 3-5 seconds.

4 MANUFACTURER'S WARRANTY

4.1 The manufacturer guarantees the compliance of the PRA-2 device with the requirements of the design documentation and this manual, provided that the consumer observes the conditions of transportation, storage and operation, as well as the installation requirements given in the operational documentation for the device.

4.2 The warranty period of operation of the device is 18 months from the date of commissioning, but not more than 24 months from the date of shipment by the manufacturer.

4.3 Warranty period of storage of the device in the original packaging of the manufacturer is 12 months from the date of manufacture, subject to the storage rules.

4.4 Devices, which during the warranty period of operation, subject to the observance of the operating rules, will reveal non-compliance with the requirements of this manual, are replaced or repaired by the manufacturer.

4.5 Any interference with the circuit or design of the console is prohibited. If this requirement is violated, the manufacturer's warranties and liability will be null and void, regardless of the duration of the violation.

4.6 The requirement (claim) of the consumer (buyer) to the manufacturer of products (supplier) to eliminate the identified shortcomings (incompleteness) in the products provided (sold) to him is drawn up in writing with the addition of this passport.

The claim is accepted (confirmed) if the malfunctions of the product are caused by a defect related to its production.

4.7 The claim is rejected (not accepted) if the deficiencies in the operation of the product associated with its improper operation or are not confirmed at all.

4.8 For any damage caused by a violation of the rules of operation and testing, the operation of faulty consoles or incorrectly made connection, the manufacturer is not responsible.

5 DISPOSAL INFORMATION

5.1 The product and its components do not belong to household waste.

5.2 After the end of the product's service life or the impossibility of repairing it, the product must be disposed of in accordance with applicable law.

5.3 When batteries reach the end of their useful life, they must be dismantled and disposed of separately. To dispose of batteries, contact a specialized organization or hand them over to specialized places for the reception of spent primary power sources for their further disposal.

Appendix A

General view of the PRA-2 device

