



**Astra-421 ver. RF**  
**Wireless Optic-Electronic**  
**Smoke Detector**



**User Guide**

**Manufacturer:**  
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**Made in Russia**



Rev. 421rk2-v2\_5\_instr\_en

**1 FUNCTION**

The detector is designed to detect fires accompanied by the appearance of smoke, generate a fire notice and transmit notifications via a radio channel to the Astra-812 Pro control panel directly or through the Astra-WE 433 radio extender also to the Security Hub controller.

The detector supports two-way radio exchange mode.

**2 SPECIFICATIONS**

Detector`s sensitivity, dB/m.....from 0.05 to 0.2  
 Response time, sec., max.....10  
 Installation height, m, max .....12  
 Wireless coverage range  
 (line-of-sight), m.....300  
 Operating frequency range, MHz .....433  
 Power supply voltage, V.....from 2.1 to 3.0  
 Overall dimensions, mm..... Ø106 × 60

**Operating Conditions**

Temperature range, °C .....from - 30 to + 55  
 Relative air humidity, %..... up to 93 at + 40 °C  
 without moisture condensation

**3 DELIVERY SET**

Delivery set includes: battery, 3.0 V, (CR123A)  
 - 2 pcs.(installed), protective cover (red) – 1  
 pcs., user guide – 1 pcs.

**4 INDICATION**

Notification	Indication
Boot time	<b>1x red flash</b> then 1x white flash
Norm	<b>1x red flash</b> in 60 sec. period
Fire alarm	<b>1time/2 sec red flash</b> until the fire factor is eliminated. <b>2x flashing</b> in a period of <b>25 sec.</b> when eliminating the fire factor before receiving a command from the controller
Test	<b>1time/2 sec red flash</b> during <b>30 sec.</b> when receiving the test command from the Astra-942 laser remote control
Failure	<b>3x red flash</b> in <b>25 sec.</b> period
Power failure	<b>3x red flash</b> in <b>25 sec.</b> period
Tampering / Restore tampering	<b>1x red flash</b>
Search connection	5x white flash in 1 sec.
No connection	2x white flash in 25 sec. period
Reset	<b>2x white flash</b> in 1-2 sec.

**Notes**

1 When the message "Power failure" appears, the battery must be replaced within two months.  
 2 Indication of notifications "Power failure", "No network", "Search for network" goes off 60 minutes after turning on the power supply. The indication turns on again for 60 minutes after receiving the "Test" command from the Astra-942 laser tester.

## 5 REGISTRATION

- 1) Turn detector counterclockwise.
- 2) Start registration on the Astra-812 Pro, Security Hub mobile or desktop app. Registration starts for 45-60 sec.
- 3) Turn on the detector by pulling out the battery insulator or by installing the battery.
- 4) Detectors led start flashing: 5x white flash in 1 sec.

Make sure that the assigning is successful on the Security Hub mobile or desktop app. If assigning is unsuccessful, repeat the procedure.

## 6 RESET PROCEDURE

• Removing the detector from the wireless network is carried out via the PKM Astra Pro software or via the menu of the Astra-812 Pro control panel or via Security Hub mobile App.

• To **reset** the detector:

- 1) Turn detector counterclockwise.
- 2) Close the **DEL** contacts and hold for 5 sec. - the red led will turn on.
- 3) After turning off the red led, open the **DEL** contacts within 5 sec.
- 4) The detector generates a notification "No connection" and becomes available for registering to the system.

## 7 INSTALLATION PLACE

The distance from the ceiling level to the sensitive element at the place of its installation must be at least 25 mm and not more than 600 mm.

### • Do not install a detector:

- in front of the air conditioner (in the zone of convection currents);
- in front of a window (a temperature drop in winter with the formation of condensate or dust in the summer can cause a false alarm of the detector).

• Do not mask the detector; smoke particles must freely enter the smoke chamber.

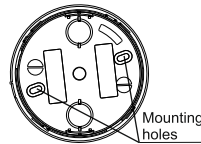
**ATTENTION!** Remove the protective cover immediately before commissioning the detector.

## 8 INSTALLATION PROCEDURE

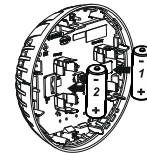
- 1) Remove the electronic unit from the base



- 2) Mount the base



- 3) Install batteries, if they were removed (first the backup "Secondary", then the main "Primary").



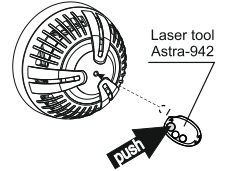
- 4) Assemble the detector.
- 5) Perform detector's testing (see p. 9)



## 9 TESTING

- 1) To activate the «Test» mode:

- push the **red button** of the laser tool;
- irradiate the LED for **1 sec.** LED should turn on in red for 2 sec.



- 2) Normal operation of the detector: led on the detector will start flashing with a period of 2 sec for 30 sec ("Test fire" notification). In the event log of Astra-812 Pro, PKM Astra Pro, the entry "Test fire" will be made.

**Note** – WE 433 leds don't display test fire.

## 10 WARRANTY

Operational warranty period: 5 years from the date of commissioning, but no more than 5 years 6 months from the date of manufacture and subject to current user guide requirements.