



**Astra-431 ver. RF**  
**Wireless Heat Detector**



**User Guide**

**Manufacturer:**  
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Made in Russia

Rev. 431rk-v1\_2\_instr\_en

**1 FUNCTION**

The detector is intended to detect fires by increasing the temperature and the rate of its rise in the guarded premises, forming a notification of a fire and transfer the notification to the **Security Hub** controller via radio.

The detector provides measurement and transmission via radio:

- a) the residual capacity of the battery when the capacity value is 30, 20 and 10%.
- b) ambient temperature

**2 SPECIFICATION**

Response time, sec:  
at the rate of temperature rise  
5 °C/m .....from 120 to 500  
10 °C/m .....from 60 to 242  
20 °C/m .....from 30 to 130  
30 °C/m .....from 20 to 100  
Response temperature, °C ..... from 54 to 65  
Wireless coverage range  
(line-of-sight), m .....100  
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 + 70  
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., protective cover (red) – 1 pcs., user guide – 1 pcs.

**4 INDICATION**

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

**NOTE**

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 ASSIGNING TO THE SYSTEM

- 1) Turn detector counterclockwise.
- 2) Start assigning on the Security Hub mobile or desktop app. Assigning starts for 45-60 sec.
- 3) Insert battery into the detector:  
  
**Secondary** – first  
**Primary** - next
- 4) Detector's 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

- 1) Turn detector counterclockwise.
- 2) Close the DEL contacts - the red indicator will turn on.
- 3) After turning off the red indicator, open the DEL contacts.
- 4) The detector generates a notice "No connection" and becomes available for assigning to the system.

## 7 INSTALLATION PLACE

- 1) The detector is installed under the ceiling. It is allowed to install the detector on the wall, as well as to mount it on a cable. When suspending the detector on a cable, its stable position and orientation in space must be ensured.

### To eliminate false alarms

- 2) It is forbidden to mask the detector, heat fluxes must freely penetrate through the holes in the case;
- 3) It is forbidden to install the detector in front of the air conditioner (in the zone of convection flows).

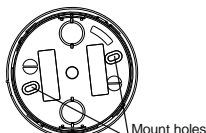
**ATTENTION!** Remove the protective cover immediately before commissioning the detector.

## 8 INSTALLATION PROCEDURE

- 1) Remove the electronic unit from the base



- 2) Mount the base on ceiling



- 3) Insert battery.

**Secondary** – first  
**Primary** - next

- 4) Install the electronic unit.
- 5) Perform detector test (see section 9).

## 9 TESTING

The test is performed by the laser tester "Astra-942" (not included in delivery set).

To activate the «**Test**» mode:

- press the **red button** of the laser tester;
  - direct laser beam to the detector's LED;
  - irradiate the LED for **1 sec.**
- LED should turn on in red for 2 sec.

### • detector's LED:

- normal work: 1x red flash in every 2 sec. during 30 sec.
- if there is a defect or malfunction: 3x red flash in 25 sec. period.
- **Security Hub mobile app:** fire alarm notification.

## 10 WARRANTY

The operation warranty period is 5 years from the date of manufacturing, which is indicated on housing and box of detector.