



# 5151RAUS, 5151AUS, 5151RHAUS and 5151HAUS Plug-in Heat Detectors

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## SPECIFICATIONS

Diameter:	10.2 cm (4")
Height:	4.8 cm (1.8")
Weight:	80g
Operating Voltage:	8.5-35 VDC
Standby Current:	30µA
Alarm Current:	10mA (Min.) 130mA (Max.) Must be limited by control panel.
Rate-of-rise and Fixed Temperature:	5151RAUS (set point 63°C); 5151RHAUS (set point 90°C)
Fixed Temperature only:	5151AUS (set point 63°C); 5151HAUS (set point 90°C)
Storage Temperature:	-20°C to 70°C
Operating Temperature Range	
5151RAUS and 5151AUS	-10°C to 50°C
5151RHAUS and 5151HAUS:	-10°C to 80°C
Operating Humidity:	95%RH noncondensing (Max. )
Latching Alarm:	Reset by momentary power interruption

## GENERAL DESCRIPTION

The 5151 Series are conventional 2-wire thermal detectors. These detectors are designed to provide open area protection when used with compatible Control & Indicating Equipment (CIE). These detectors are designed and manufactured to comply with AS7240.5-2004.

Two LEDs on each detector provide local 360° visible alarm indication. They blink every ten seconds indicating that power is applied and the detector is working properly. The LEDs latch on in alarm. LEDs will stop blinking when a trouble condition exists indicating that the detector sensitivity is outside the listed limits. Remote LED annunciator capability is standard and may be implemented through an optional accessory RA100Z. The alarm can be reset only by a momentary power interruption. This detector may be tested by activating the internal reed switch with a magnet.

## BASE WIRING GUIDE

Refer to the installation instructions for the B401 plug-in detector base for electrical specifications and wiring instructions. The base provides screw terminals for power and remote annunciator connections.

## INSTALLATION

**NOTE:** All wiring must conform to applicable installation codes and regulations.

**NOTE:** Verify that all detectors bases are installed, that the initiating device circuits have been tested, and that the wiring is correct before installing detectors.

**WARNING:** Remove power from initiating device circuits before installing detectors.

1. Install Detectors:
  - a. Place the detector into the detector base.
  - b. Turn the detector clockwise until the detector drops into place.
  - c. Continue turning the detector clockwise to lock it in place.

### Tamper-resistance Feature

This detector includes a tamper-resistance capability that prevents its removal from the base without the use of a tool. To make the detector tamper resistant, remove the smaller tab by breaking it at the scribed line on the tamper resistant tab before installing the detector. The tamper resistant tab is on the detector mounting base. To remove a tamper resistant detector from the base. Use a pocket screwdriver, or similar tool, to depress the tamper resistant tab and turn the detector counterclockwise. The tab is accessible through the slot on the mounting base.

2. After all detectors have been installed, apply power to the control unit.
3. Test the detector as described under TESTING.
4. Reset the detector at the system control panel.

5. Notify the proper authorities that the system is in operation.

The detectors must be located according to the requirements of AS1670.1-2004 (in Australia) or NZS4512-1999 (in New Zealand).

## TESTING

Before testing, notify the proper authorities that the system is undergoing maintenance and will temporarily be out of service. Disable the zone or system undergoing maintenance to prevent unwanted alarms.

Detectors must be tested after installation and periodic maintenance. The 5151 may be tested as follows:

### A. Test Magnet (p/n M02-04-01 or M02-09-00)

1. Place the magnet against the cover in the location designated by the raised mark to activate the test feature (see Figure 1).
2. The LEDs should latch ON within 5 seconds indicating alarm and annunciating the panel.

### B. Direct Heat Method (Hair dryer of 1000-1500 watts)

1. From the side of the detector, direct the heat toward the sensor. Hold the heat source about 15 cm away to prevent damage to the cover during testing.
2. The LEDs on the detector should light when the temperature at the detector reaches the set point. If the LEDs fail to light. Check the power to the detector and the wiring in the detector base.
3. Reset the detector at the system control panel.

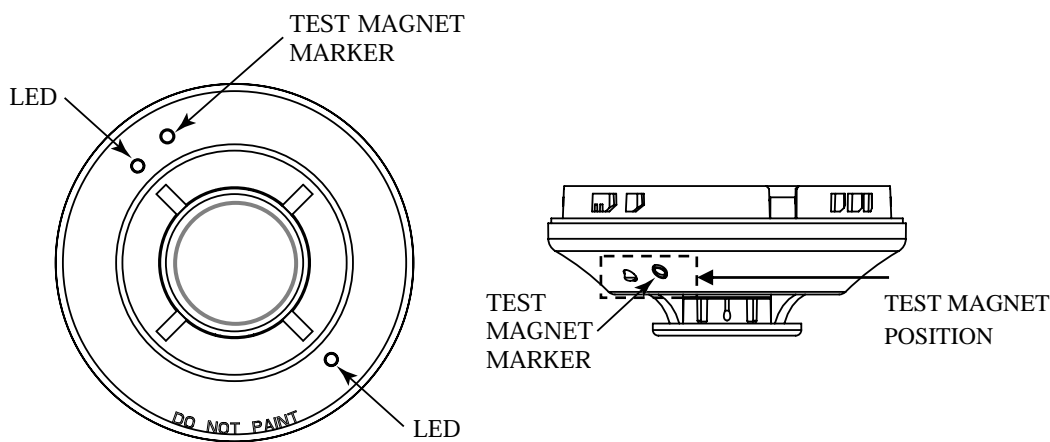


Figure 1. Bottom and side views showing position of test magnet:

NOTE: If a detector is latched in alarm, it will reset only if the detector has cooled and if its power is momentarily interrupted. In new installations, System Sensor recommends testing the alarm capability of each individual heat detector by the direct heat method. Periodic testing should be performed at least semi-annually.

Detectors that fail these tests should be replaced immediately.

## MAINTENANCE

The 5151 Series heat detectors should be maintained in accordance with AS1851-2005 (in Australia) or NZS4512-1999 (in New Zealand).

**Please refer to insert for the Limitations of Fire Alarm Systems**

## Three-Year Limited Warranty

System Sensor warrants its enclosed heat detector to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this heat detector. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the heat detector which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After Contacting your local System Sensor representative for issuing of a Return Authorisation Number (RA#) and to arrange for return of the defective units. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault.