

## Installation and Maintenance Instructions for Addressable Plug-in Model H350R Rate of Rise Temperature Sensor with Fixed Temperature Alarm

### GENERAL DESCRIPTION

Model H350R is an addressable sensor that uses a state-of-the-art thermistor sensing circuit for fast response. This sensor is designed to provide open area protection with 50 foot spacing capability, and is intended for use with compatible control panels only. The sensor responds to rate of rise conditions of greater than 15°F/minute. The sensor also provides fixed temperature alarm detection at 135°F.

Two LEDs on each sensor light to provide a local, visible sensor indication. Remote LED annunciator capability is available as an optional accessory (Part No. RA400Z).

### SPECIFICATIONS

Diameter:	6.1 inches (155 mm) installed in B310LP
Height:	2.0 inches (51 mm)
Weight:	5 ounces (150 gm)
Installation Temperature:	-4°F to 100°F (-20°C to 38°C)
Operating Humidity Range:	10% to 93% Relative Humidity Noncondensing
Mounting:	B310LP flanged base
Voltage Range:	15 to 32 Volts DC Peak
Standby Current:	300 $\mu$ A @ 24 VDC (one communication every 5 sec. with LED blink enabled)
LED Current:	6.5 mA @ 24 VDC
Fixed Temperature Setpoint:	135°F (57°C)
Rate of Rise Detection:	Responds to greater than 15°F/min.

### WIRING GUIDE

Refer to the installation instructions for the plug-in base being used. Bases are equipped with screw terminals for power, ground, and remote annunciator connections. See Figure 1.

NOTE: All wiring must conform to applicable local codes, ordinances, and regulations.

NOTE: Verify that all sensor bases are installed and that the wiring polarity is correct at each base.

WARNING: Disconnect the power from the loop before installing sensors.

Before installing sensors, please thoroughly read the system wiring and installation manual, which provides detailed information on sensor spacing, placement, zoning, and special applications. Copies of these manuals are available from Fire-Lite. NFPA standard 72 should also be referenced.

Please refer to insert for the Limitations of Fire Alarm Systems

### **FCC Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

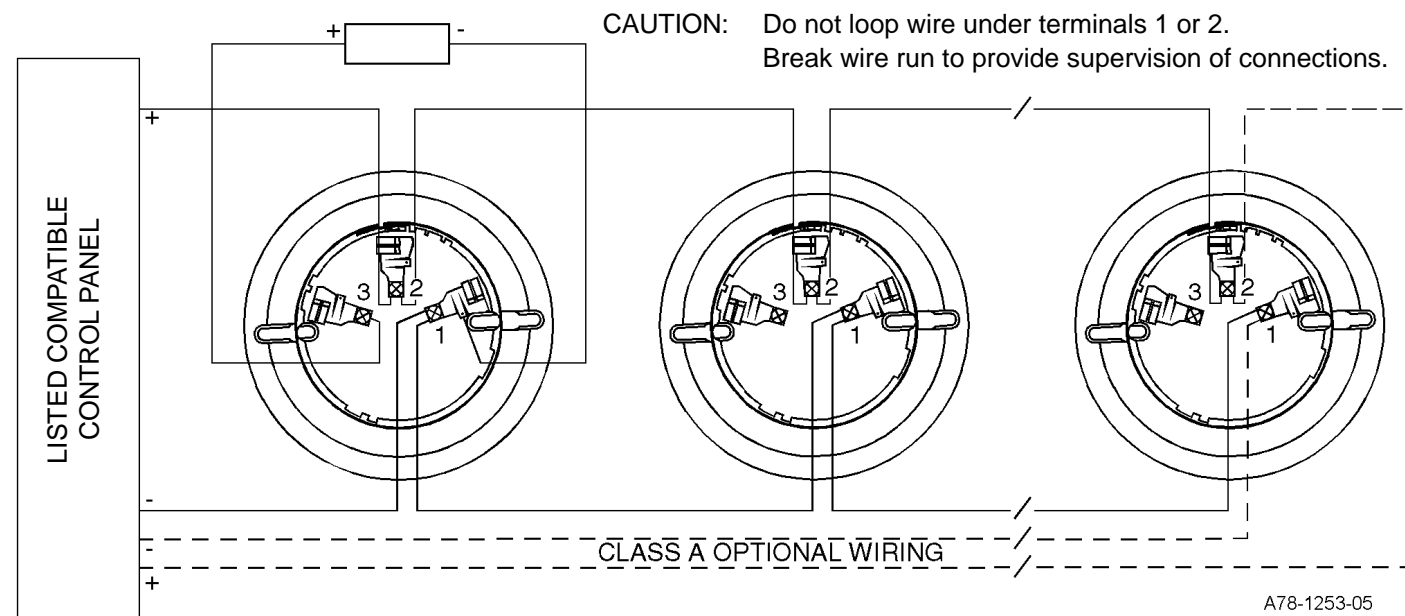


Figure 1

1. Install Sensors:

- a. Verify that the sensor type matches the type written on the label in the base.
- b. Set the address on the sensor per job drawings.  
Note: Some panels support extended addressing. In order to set the sensor above address 99 on compatible systems, carefully remove the stop on the upper rotary switch with thumb or finger as shown in Figure 2.
- c. Place the sensor into the sensor base.
- d. Turn the sensor clockwise until it drops into place.
- e. Continue turning the sensor clockwise to lock it in place.

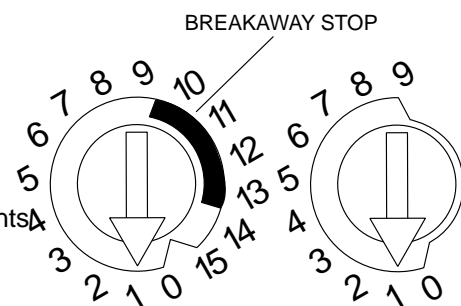


Figure 2

2. Tamper Resistance

The sensor base includes a tamper proof feature which when activated prevents removal of the sensor without the use of a tool. See the installation instruction manual for the sensor base for details in using this feature.

3. After all sensors have been installed, apply power to the control unit.

4. Test the sensor by placing a magnet against the sensor plastic, as shown in Figure 3. The alarm level should be recognized at the panel and the LED controlled by communication command from the panel.

5. The reset of the sensor LED is controlled by communication command from the panel.

**TESTING SENSITIVITY**

Sensors must be tested after installation and periodic maintenance. The sensitivity may be tested in the following ways.

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

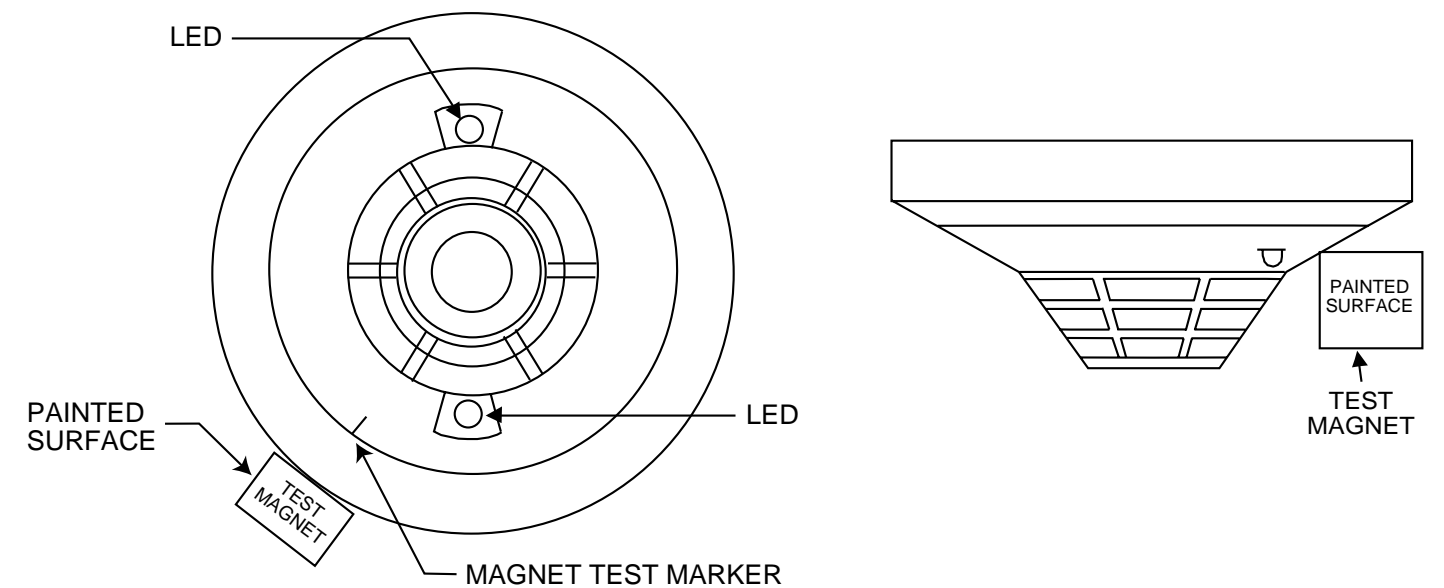
1. Place the optional test magnet against the cover in the magnet test area, as shown in Figure 3, to activate the test feature.
2. The LEDs should latch on within 10 seconds, indicating alarm and annunciating the panel.
3. Reset the detector at the system control panel.

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 6 inches (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 alarm setpoint. 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.

Detectors that fail these tests should be returned for repair.

Figure 3. Views showing position of test magnet.



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