

Learn Mode Rate of Rise Heat Sensors Installation Instructions

Introduction

This is the **Learn Mode Rate-of-Rise Heat Sensors Installation Instructions**. The sensors ([Figure 1](#)) combine a Chemetron heat detector and a learn mode wireless transmitter in one unit. A built-in thermostat trips the transmitter when the temperature at the sensor location reaches about 135°F (57°C) or 200°F (94°C), depending on the model installed.

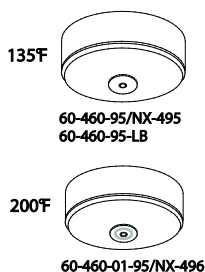
135°F models

60-460-95/NX-495, 60-460-95-LB

200°F models

60-460-01-95/NX-496

Figure 1. Sensor models



Since many fires grow rapidly in intensity causing a rapid temperature increase, the thermostat also trips the transmitter if the temperature rises 15°F (8°C) or more per minute.

All models can be powered by one 9-volt alkaline battery that can last 12 to 18 months, or by one 9-volt lithium battery that can last up to twice as long.

Note: Battery life depends on how often the sensor transmits signals, but is more dependent on the temperature of the installation environment. Alkaline batteries self-discharge more rapidly when used in high temperature environments.

When the battery voltage gets low, the sensor transmits a low battery signal to the panel. The panel then activates sirens with trouble beeps to notify the customer that the sensor battery must be replaced

Caution: SX-V Special panels must have software version 8.0 or later installed for correct response from the sensors. Do not install Learn Mode Rate of Rise Heat sensors if the panel an earlier software version. Contact Interlogix technical support at 888.437.3287 for assistance.

Installation

Use the following installation guidelines:

- Heat sensors should be installed to provide property protection. Reliance should not be placed on heat detectors for life safety. Where life safety is involved, smoke sensors must also be installed.
- The sensors allow for normal temperature fluctuations, however, ceiling temperatures should not exceed 100°F (37°C) when installing 135°F models, or 150°F (66°C) when installing 200°F models.
- Mount the sensor in a central location of the area to be protected, either on the ceiling or on a wall.
- If mounting on a ceiling, the sensor must be at least 4 in. (10 cm) away from any walls.
- If mounting on a wall, the top of the sensor must be within 4 to 6 in. (10 to 15 cm) of the ceiling.
- The UL maximum spacing allowance of the sensor is 50 x 50 ft. (15 x 15 m). Refer to the NFPA Standard 72 for application requirements.

- Do not mount the sensor close to devices that change temperature rapidly, such as ovens, heat vents, furnaces, or boilers.

Equipment needed

You will need the following equipment to install the sensors:

- Phillips and flathead screwdrivers
- Appropriate learn mode control panel documentation (for programming information)

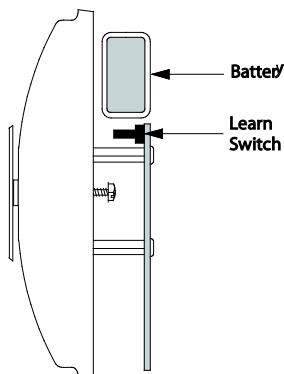
Programming

The panel must learn (program) the sensor ID code in order to respond to sensor signals. For complete programming information, refer to the specific control panel documentation.

To add the sensor to panel memory, do the following:

1. Separate the sensor from the base by twisting the sensor counter-clockwise and pulling the sensor off the base. Set the base aside.
2. Place the panel in program mode.
3. Proceed to the Learn Sensors menu. When the panel prompts you for a sensor group number, enter the group number (26).
4. Select the desired sensor number.
5. When the panel prompts you to trip the sensor, press and hold the learn switch on the sensor ([Figure 2](#)) until the panel beeps, indicating successful programming.

Figure 2. Learn switch



6. Exit program mode.

Testing

Before permanently securing the sensor to the wall or ceiling, test the sensor from the installation location using one of the following methods.

Caution: The test method described only tests rate-of-rise operation. These sensors cannot be field tested for their fixed temperature ratings without being destroyed. When used with care, the heat from a portable hair dryer (method 2) can be used for testing. Do not aim the hair dryer directly at the round disc on the sensor as this can cause it to pop off. If this happened, the sensor must be replaced.

Method 1

To test the sensor, do the following:

1. Place the panel in sensor test mode.
2. Rub your hands together vigorously, until they feel hot.
3. Place the palm of one hand on the round disc of the sensor, for about 7 to 10 seconds.
4. Listen for the appropriate number of beeps from interior sirens and speakers (refer to the specific panel documentation).
5. Exit sensor test mode.

The sensor should reset in less than one minute.

Method 2

To test the sensor, do the following:

1. Place the panel in sensor test mode.
2. Plug in a portable hair dryer.
3. Hold the hair dryer about 12 to 18 in. away from the sensor, aiming it at the side of the sensor.
4. Listen for the appropriate number of beeps from interior sirens and speakers (refer to the specific panel documentation).
5. Exit sensor test mode.

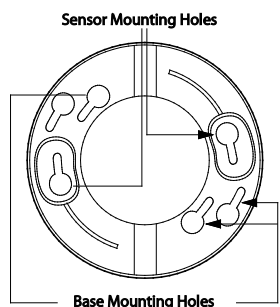
The sensor should reset in less than one minute.

Mounting the sensor

To secure the sensor to its permanent location, do the following:

1. Locate the base mounting holes (inner pair and outer pair) and mount the base to the wall or ceiling with the appropriate hardware ([Figure 3](#)).
2. Attach the sensor to the base.

Figure 3. Mounting holes



Replacing the batteries

When the sensor battery gets low, the sensor transmits a low battery signal. The panel receives this signal and sounds trouble beeps through the system sirens. Pressing the Status button identifies the sensor with the low battery.

Replace the battery immediately when this condition occurs, using the following batteries: Eveready® 9-Volt Alkaline Energizer (No. 522); Duracell® 9-Volt Alkaline (MN1604); or UltraLife® 9-Volt Lithium.

Battery disposal

Alkaline and lithium batteries that are not longer usable are considered hazardous waste. Be sure to properly dispose of the old batteries according to your local hazardous waste disposal laws.

Specifications

Compatibility	Interlogix/GE Learn Mode panels and receivers
Frequency	319.5 MHz
Power requirements	One 9-volt alkaline or lithium battery
Operating temperature	60-460-95/NX495, 60-460-95-LB: 40 to 100°F (4 to 37°C) 60-460-01-95/NX-496: 32 to 150°F (0 to 66°C)
Storage temperature	60-460-95/NX-495, 60-460-95-LB: -30 to 120°F (-34 to 48°C) 60-460-01-95/NX-496: -30 to 140°F (-34 to 60°C)
Maximum humidity	90% relative humidity, noncondensing
Dimensions	4.4 in. (11.18 cm) diameter x 2.2 in. (5.59 cm) depth

Regulatory information

Manufacturer	UTC Fire & Security Americas Corporation, Inc. 1275 Red Fox Rd., Arden Hills, MN 55112-6943, USA
UL listings	UL 985 Household Fire Warning System Units UL 521 Heat Detectors for Fire Protective Signaling Systems

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.

Changes or modifications not expressly approved by UTC Fire and Security could void the user's authority to operate the equipment.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada exempts de licence standard RSS (s). Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris celles pouvant causer un mauvais fonctionnement de l'appareil.

In accordance with FCC requirements of human exposure to radiofrequency fields, the radiating element shall be installed such that a minimum separation distance of 20 cm is maintained from the general population.

FCC: B4Z-569E-LMRISE
IC: 1175C-569EROR

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Contact information

For contact information, see www.utcfireandsecurity.com or www.interlogix.com.

For technical support, toll-free: 888.437.3287 in the US including Alaska, Hawaii, Puerto Rico, and Canada. Outside the toll-free area, contact your dealer.

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