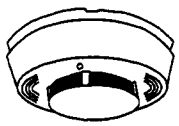


**SX-V System Sensor**
**Smoke Detector**
ITI Part #60-521
Doc #46-601-B

# INSTALLATION INSTRUCTIONS

## OVERVIEW

The System Sensor™ Smoke Detector is a photoelectronic-type detector that contains its own alarm horn and low-battery annunciator. It has an output that trips a special transmitter already built into the detector. An indicator light flashes continuously about 4 times a minute on a normally functioning smoke detector. Two 9 V batteries power the smoke detector; both batteries are monitored.

> **U.L. Note:** Each single station detector is powered by two Eveready No. 522 or Duracell MN1604 alkaline batteries rated 500 mA/h or two Ultralife® 9 VDC lithium batteries rated at 1.15 A/h.
>
> **Warning:** Use only the battery specified in battery compartment. When changing batteries, both batteries must be changed at the same time; change them one after the other to maintain sensor memory. Use of a different battery may have a detrimental effect on detector operation. Constant exposure to high humidity may reduce battery life.

The alarm horn in this smoke detector meets or exceeds current audibility requirements of Underwriters Laboratories (U L); however, the horn may not wake up a sound sleeper if a closed door is between the detector and sleeper.

Additional information on Household Fire Warning is available at nominal cost from: The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269. Request NFBA Standard 74.

The System Sensor SX-V Smoke Detector:

- is UL listed with the ITI transmitter.
- contains an RF transmitter capable of transmitting at least 1000 feet in open air.
- emits a pulsing tone and its indicator light flashes rapidly during an alarm.
- is powered by two 9 V alkaline batteries, which last about 12 months, or two 9 V lithium batteries which last about 2 years. The approved batteries are Eveready #522 or Duracell #MN1604 alkaline batteries, or Ultralife 9 VDC lithium batteries.
- has its own low-battery annunciator that emits a short "beep" sound every minute if batteries are low.
- monitors smoke detector and emits a short "beep" every minute if a failure is detected.
- sends a low-battery report (trouble) to the CPU.
- sends a supervisory signal to the CPU every 69 minutes.
- has an operating temperature range of 40° to 100° F.

It is not possible to be specific about System Sensor Smoke Detector location since each residence has different design requirements. This smoke detector should be installed in accordance with the National Fire Protection Association, Standard 74 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269).

## INSTALLATION GUIDELINES

DO

- try to keep all smoke detectors within 100 feet of the CPU. The 100-foot distance recommendation is given as a starting guideline. The smoke detector has an open air range of at least 1000 feet, but the installation environment will influence this range.
- determine the best locations for each smoke detector to optimize early detection and maintain accessible escape routes out of the building.
- place a smoke detector at the bottom of the basement stairwells. For stairwells on other levels, place smoke detectors at top of the stairwell.
- mount smoke detectors on ceilings whenever possible and make sure that the smoke detector is no closer than 4" to any wall.
- place the smoke detector no more than 6" from ceiling for wall mounting.
- locate the smoke detector in any hallway servicing bedrooms. For maximum protection, place a smoke detector inside each bedroom, especially smokers' bedrooms or rooms where electric blankets or other electrical devices are used.

DO NOT

- mount smoke detectors in rooms with sloped, peaked, or gabled ceilings whenever possible. If unavoidable, mount detectors 3 feet (0.9 meter) measured horizontally from the highest point of the ceiling. Refer to Figure 1.
- mount smoke detector in or near damp or very humid areas such as bathrooms with showers.
- install in areas with excessive metallic surfaces or electrical wiring as these may inhibit the smoke detector's signals from reaching the CPU.
- install near fluorescent light fixtures. Noise from electrical lights may cause nuisance alarms.
- place sensors in location where the temperature exceeds the smoke detector's operating limits of 40° to 100° F.
- mount in very dusty or dirty areas.
- mount near fresh air inlets or returns or excessively drafty areas.
- mount in areas where many insects are present.

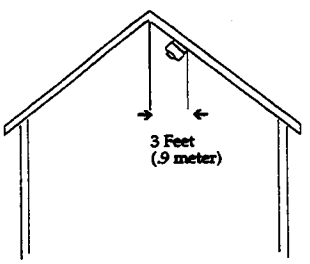



Figure 1. Slope mounting requirements

## *REMOVING AND REPLACING COVER*

**To remove the smoke sensor cover to program or service:**

1. Remove the smoke detector from the mounting bracket.
2. As you gently unclip the four cover clips with a small screw driver or pen, continually push the base away from cover as shown in Figure 2.

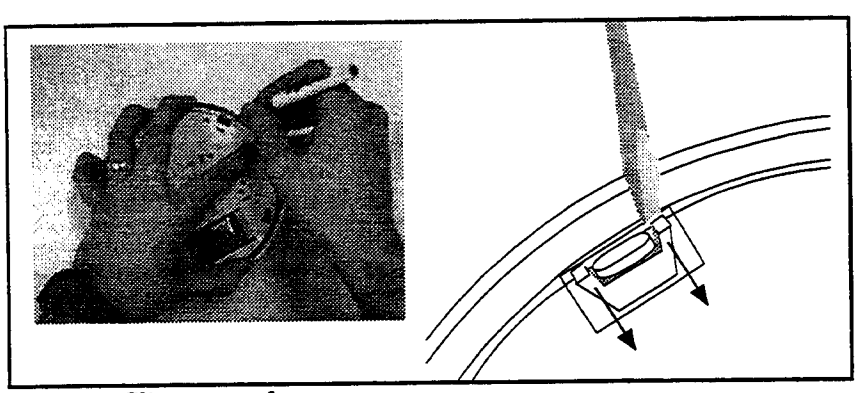


Figure 2. Clip removal

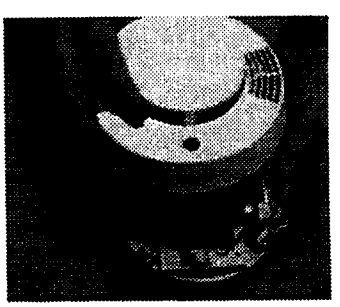


Figure 3. Cover alignment for replacing

**To replace the cover :**

1. Line up the test button hole on the cover with the test button on the detector as shown in Figure 3.
2. Gently rock the cover back and forth until the light port clears the smoke chamber and the cover seats properly over the detector.
3. Press down on cover until all four cover clips lock into place.

## *PROGRAMMING*

The programming cable for this smoke detector must be plugged in with the open face of programming cable facing away from the custom ITI chip, refer to Figure 4. With the Handheld Programmer, program the smoke detector as SENSOR TYPE 8.

**SX-V Programming**
Typically the sensor numbers for an SX-V system are 20-27.

**CareTaker Programming**
For a CareTaker systems, use program level 05. Program the house code.

**RF Commander Programming**
For an RF Commander system, program sensor number 01 or 03. Program the house code.

**NOTE:** Refer to the appropriate CPU installation manual for detailed sensor programming information.

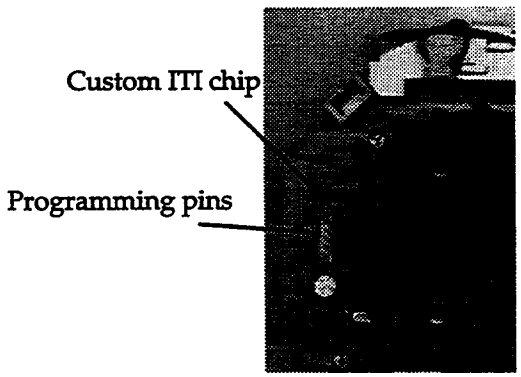
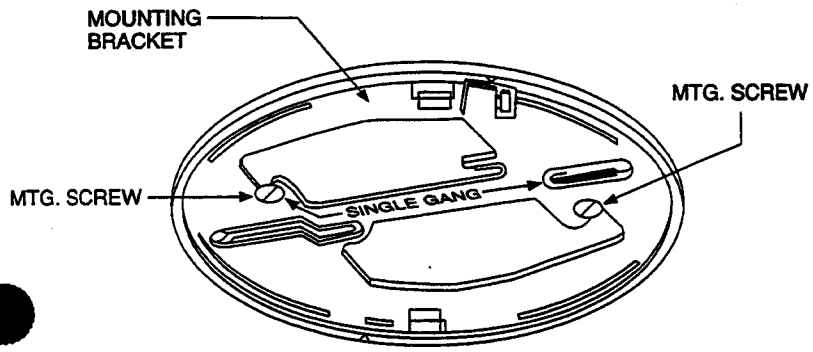


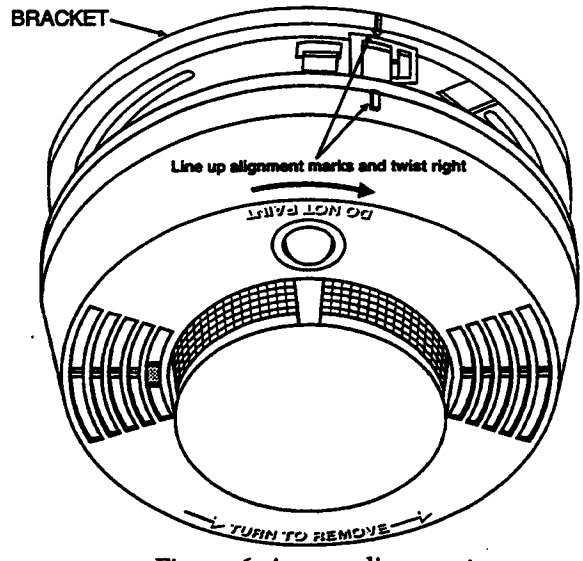

Figure 4. Programming pins and chip location

## *INSTALLATION*

1. Remove the sensor's mounting bracket to screw bracket onto mounting surface.
2. Mount bracket directly onto wood surfaces using No. 8, 1-1/2" wood screws, refer to Figure 5. If mounting onto plaster or dry wall, use appropriate anchors.
3. Insert batteries and observe proper polarity.
4. Align the arrows on mounting bracket and smoke detector, and turn smoke detector clockwise till it locks in place, refer to Figure 6. Refer to CPU installation manual to program the device into installed CPU.

**NOTE:** Refer to the appropriate CPU Installation Manual for specific instructions on programming this sensor.



## TESTING

We recommend that the smoke detectors be tested on a regular basis, for example, once a week, once a month, etc. Test each sensor to verify that its siren and signal integrity is adequate for continued proper operation of sensor.

1. Initialize sensor test mode on CPU, refer to specific installation manual to initialize sensor test mode.
2. Press and hold the test button on the smoke detector for 20 seconds, then the smoke detector's alarm horn will start and the detector's indicator light flashes rapidly. The device then transmits an alarm signal to the CPU. Refer to Figure 7 for test button location.

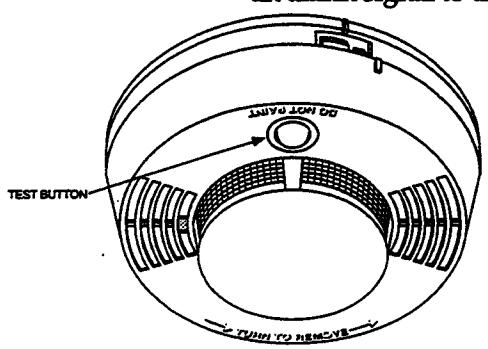



Figure 7. Test button location

**NOTE:** Refer to the appropriate CPU Installation Manual for procedures on performing a dealer sensor test on the entire system.

**IMPORTANT!** Make sure CPU is in sensor test mode before testing the sensor to avoid a Fire Department dispatch from the central station.

## OPTIONAL SYSTEM TEST

We suggest testing the smoke detector as part of the security system:

1. Notify the central station that you will be initiating a fire alarm.
2. Disarm the security system.
3. Trip the alarm by pressing and holding the test button on the smoke detector.
4. Verify that the smoke detector caused the system to go into alarm.
5. Verify with the central station that the alarm signal was received.

## CARE AND MAINTENANCE

**IMPORTANT!** Before cleaning smoke detector, the CPU must be placed in sensor test mode.

- When changing batteries, both batteries must be changed at the same time; change them one after the other to maintain sensor memory.
- Replace batteries once a year, or when the detector emits a low-battery "beep" signal. Use only Eveready #522, Duracell #MN1604 alkaline batteries or Ultralife 9V DC lithium batteries.
- Carefully vacuum the dust from black meshed area on top of smoke detector at least once a year.

## REPLACEMENT PARTS

- Mounting Bracket ITI part number 13-307
- Smoke Detector Cover ITI part number 13-308