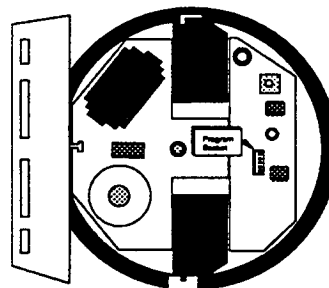# SMOKE SENSOR
ITI Part # 60-106

Note: One (1) Smoke Sensor required for U.L. installations.

Description and Applications

The **Smoke Sensor** is a Photo-Electric type that contains its own Alarm Horn and Low Battery Interior Siren. It has an output that will trip a special transmitter already built into the sensor. The built in alarm horn will sound as long as smoke remains in the Smoke Sensor.

Battery Power. The unit is powered by two 9 Volt Alkaline batteries connected in parallel. The batteries are monitored by the sensor transmitter for proper voltage. If a low battery is detected the **Trouble Routine** will be initiated with *"Sensor nn Trouble"* as the phone announcement message. In addition, the detector has a secondary low battery detect feature which will activate a periodic beep from the sensor itself if the condition is not corrected in a week or so.

Supervision. The sensors are also supervised so if they are not heard from by the CPU the **Trouble Routine** will be initiated with *"Sensor nn Failure"* as the phone announcement message. In addition, if a sensor fails to restore because it has not cleared of smoke or some other reason, the **Trouble Routine** will be initiated with the message *"SENSOR nn FIRE TROUBLE"*. The **Trouble Routines** can be terminated by correcting the problem and causing a normal transmission to be received by the CPU.

Temperature Range. 10°F to 120°F.

Installing Smoke Sensors

Sensor Location Considerations. While it is not possible to get too specific about Smoke Sensor location (since each house has different design requirements), there are some guidelines that can be followed. Refer to the sensors Owners Manual for detailed information on sensor location. Some additional hints appear below:

• Determine the best locations for each Smoke Sensor so as to optimize early detection, and maintain accessible escape routes out of the building.
• Stairways - A Smoke Sensor should be located at the bottom of the basement stairwell(s). For all other levels, it is usually best to locate Smoke Sensors at the top of the stairwell.
• Sleeping Areas - A Smoke Sensor should be located in any hallway servicing bedrooms. For maximum protection, place a Smoke Sensor inside each bedroom, especially smoker's bedrooms or bedrooms where electric blankets or other electrical devices are used.
• Ceilings - Whenever possible, mount sensors on ceilings, make sure that the sensor is no closer than 4 inches from any wall. For wall mounting, make sure that the nearest edge of the sensor is at least 4" and no more than 6" from the ceiling.

- Mobile Homes and RV's - The metal outside walls and roofs of mobile homes and recreational vehicles can transfer heat and cold from outdoors, making the air right next to the ceilings and outer walls hotter or colder than the rest of the inside air. These layers of hotter or colder air can prevent smoke from reaching a Smoke Sensor in one of these locations. Therefore, put Smoke Sensors in mobile homes and RV's only on inside walls, between 4 and 6 inches from the ceiling. Minimum protection requires one sensor as close to the sleeping area as possible.
- Avoid mounting sensors on any sloped surface.
- Try to keep the Smoke Sensor within 100' of the CPU.
- Check for areas of the installation which may inhibit the Smoke Sensors radio signals from reaching the CPU. This would include areas with excessive metallic surfaces or high voltage wiring.

Turn system option ✱ 1 7 "ON" to comply with UL 985.

Refer to the Owners Manual included with each Smoke Sensor for detailed information on the sensor. Also, be sure to give the Smoke Sensor's Owners Manual to the purchaser of the system after the installation is complete.

Additional information on Household Fire Warning is available at nominal cost from: the National Fire Protection Association, Battery Mark Park, Quincy, MA 02269. Request NFPA Standard 74.

Permanently Mount the Smoke Sensor
- Remove the sensor's mounting bracket to screw onto mounting surface, then re-attach sensor onto the mounting bracket.
- Mount directly onto wood surfaces using 1 1/2" wood screws. If mounting onto plaster or dry wall use molly bolts or appropriate plaster anchors.

Testing the Smoke Sensor. Refer, **also,** to the Smoke Sensor's installation manual for testing procedures. To completely test sensors, alert the Central Station if necessary and use "canned smoke" sparingly from a distance of 2-3 feet or a smoldering hemp rope to set the sensor off. Too much can permanently impair the sensor's sensitivity. You can also press the sensor's test button but this will not test the entire detector mechanism. A steady siren sound should be heard with a periodic "FIRE" announcement if the siren speakers are installed. To reset the alarm, fan the smoke from the sensor and enter arming level one.

NOTE 1. The alarm system sirens and the smoke sensor's built in siren will **both** sound when smoke is detected. The CPU alarm is cancelled from the Touch Tone phone and the detector's alarm is cancelled by fanning the sensor free of smoke, or by releasing the test button.

Note 2. If the phone jack is plugged in, the Central Station will receive the alarm. The Central Station must be informed before testing begins.

Note 3. There is a 5 -10 second delay between sensor activation and transmission to the CPU.

Repeat the above steps for all Smoke Sensors.

THIS SMOKE SENSOR REQUIRES DURACELL ALKALINE BATTERIES (NEDA 1602). DO NOT USE SUBSTITUTES.