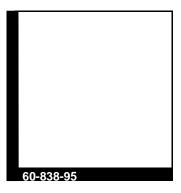
# System Sensor Smoke Sensor Model 2100ARFT

Document Number: 466-xxxx Rev. A PRELIMINARY August 1998



# INSTALLATION INSTRUCTIONS

### **Product Summary**

The System Sensor<sup>TM</sup> Smoke Sensor Model 2100ARFT (smoke alarm) is a Learn Mode, wireless, photoelectric smoke sensor with a self-contained alarm siren, a low-battery annunciator, and a status light. The smoke alarm is part of a security/fire alarm system and communicates with the system's control panel.

Figure 1 illustrates the smoke sensor's parts.

### Installation Guidelines

- Avoid installing the unit until all contsruction is completed. The mounting ring may be preinstalled.
- V Leave the orange dust cover on the unit until sheet rocking and sanding are completed; otherwise, dust can get into the unit and cause false alarms.

CAUTION: The orange dust cover must be removed for the unit to detect smoke.

- v Do not mix battery brands.
- Not compatible with CareTaker Plus or custom versions with software versions 3.0 or earlier.
- Not compatible with Commander 2000 or custom versions with software versions 4.0 or earlier. (The Commander 2000 announces the version when it is powered up or reset.)

# **EXHIBIT G**

### Tools Needed

 Phillips screwdriver and pocket-sized slotted screwdriver

### **Batteries**

UL Note: Each smoke alarm uses two 3-volt lithium batteries. For UL installations, use one of the following: Sanyo CR123A, Panasonic CR123A, or Duracell DL123A. Do not mix brands.

### Inserting Batteries

The batteries must be correctly installed before the panel can learn the smoke alarm ID. [Batteries are shipped in the unit backwards.] You must remove them and reinstall them correctly.

#### To insert batteries into the smoke sensor:

- Gently twist the cover counterclockwise to separate it from the mounting bracket.
- Remove the batteries from the battery compartment.
- Insert the batteries into the battery compartment. Observe proper polarity.
- **4.** Leave the mounting ring off and proceed to "Learning the Smoke Sensor."

### Low Batteries

When the batteries need to be replaced, the unit transmits a signal to the panel. If the batteries are not replaced within 7 days, the unit will chirp every 40 seconds until the batteries are exhausted.

**Note:** If you test the smoke alarm or it goes into alarm during this 7-day period, chirp delay is canceled and the unit begins chirping immediately.

### Programming

For more detailed programming information, refer to the specific panel's installation manual. CAUTION: If the smoke sensor is attached to the mounting bracket, the panel cannot learn the ID.

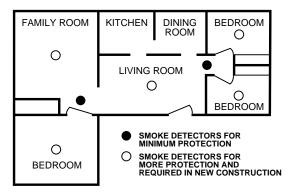
#### To add the smoke alarm to panel memory:

- 1. Put the panel in Program Mode/Learn Sensors.
- **2.** Select a group and sensor number.
- 3. Use a pencil or small screwdriver to press the smoke alarm test button for at least one second. The panel will indicate that the sensor has been learned. If you release the test button in less than 2.5 seconds, the smoke alarm siren will not sound.

### Mounting Guidelines

Determine the best mounting location for the smoke alarm using the following guidelines:

- **UL Note:** DO NOT mount a smoke alarm to a drop ceiling tile; mount it to a metal runner.
- Mount all smoke alarms within 100 feet of the panel.
- Install a minimum of two smoke alarms in any household, no matter how small it is.
- V Put a smoke alarm in the hallway outside of every bedroom area. A minimum of two smoke alarms are required in homes with two bedroom areas (see Figure 4).

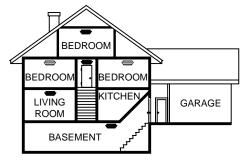


A78-1171-02

Figure 1. Residence with multiple sleeping areas.

- Put a smoke alarm on every level of a multi-level residence (Figure 5).
- v Install basement alarms on the ceiling at the bot-

tom of the basement stairwell.



■ SMOKE DETECTORS FOR MINIMUM PROTECTION
■ SMOKE DETECTORS FOR MORE PROTECTION AND

REQUIRED IN NEW CONSTRUCTION

Figure 2. Multi-level residence.

- V Install smoke alarms on the ceiling as close to the center of the room as possible. If this is not practical, install it on the ceiling no closer than 4 inches (10 cm) from any wall or corner (Figure 6).
- V If ceiling mounting is not practical, install on an inside wall between 4 and 6 inches (10 and 15 cm) from the ceiling (Figure 6).
- v Put smoke alarms at both ends of a bedroom hallway if the hallway is more than 30 feet (9 meters) long. Large rooms over 900 square feet require more than a single sensor.

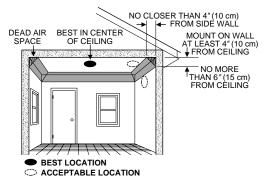


Figure 3. Smoke alarm mounting locations.

- V Areas with rough ceilings or short, transom-type walls coming down from the ceiling require additional smoke alarms.
- V Install second-floor smoke alarms on the ceiling at the top of the first-to-second floor stairwell. Be sure no door or other obstruction blocks the path of smoke to the unit.
- V In rooms with sloped, peaked, or gabled ceilings, install smoke alarms 3 feet (0.9 meter) measured down on the slant from the highest point of the ceiling (Figure 7).

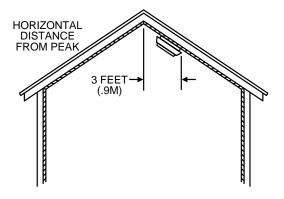


Figure 4. Sloped, peaked, or gabled ceilings.

## Do not install smoke alarms in the following locations:

- V In or near areas where combustion particles are normally present such as kitchens; in garages where there are particles of combustion in vehicle exhausts; near furnaces, hot water heaters, or gas space heaters.
- V On the ceiling in rooms next to kitchens where there is no transom between the kitchen and these rooms.
- V In damp or very humid areas, or next to bathrooms with showers. Install sensors at least 5 feet (1.5 meters) away from bathrooms.
- v In very cold or very hot areas.
- v In dusty, dirty, or insect-infested areas.
- Near fresh air inlets or returns or excessively drafty areas. Air conditioners, heaters, fans, and fresh air intakes and returns can drive smoke away from smoke alarms.
- v In dead air spaces at the top of a peaked ceiling or wall/ceiling intersect. Dead air may prevent smoke from reaching a smoke alarm.
- Near fluorescent light fixtures. Install smoke alarms at least 10 feet (3 meters) away from fluorescent light fixtures.

### Mounting

The mounting bracket must be separated from the unit before you begin.

#### To mount the smoke alarm:

1. Secure the mounting bracket directly onto wood surfaces using No. 8, 1½ inch wood screws. If mounting onto plaster or dry wall, use appropriate anchors.

**2.** Align the arrows on the mounting bracket with the raised marks on the smoke alarm. Turn the smoke alarm clockwise until it locks in place.

### **Testing**

Test each smoke alarm every week to verify that its siren and signal integrity are adequate.

#### To test the smoke alarm:

 Put the panel in sensor test mode. Refer to the panel's installation manual for details.

**Note:** To avoid a fire department dispatch from the central station, make sure the panel is in sensor test mode before testing.

Use a pencil or small screwdriver to press and hold the test button on the smoke alarm for 5 seconds (Figure 1).

The sensor should immediately send an alarm signal to the panel, causing it to beep up to 16 times, or by sounding one high-pitch beep from system sirens (refer to the panel's installation manual for response details).

After 2.5 seconds, the siren inside the smoke alarm sounds and the status light flashes rapidly.

### Maintaining the Smoke Alarm

#### **Batteries**

The 3-volt lithium batteries may last as much as 5 years before they need to be replaced.

Replace *both* batteries when the smoke alarm or panel notifies you that the batteries are low.

### Cleaning the Smoke Alarm Chamber

Clean the smoke alarm chamber at least once each year.

#### To clean the smoke alarm chamber:

- Place the panel in sensor test mode.
- **2.** Remove the batteries. Do not remove the skirt.
- Follow the instructions in the section "Removing the Shorting Blocks" to remove the cover and the screen
- **4.** Vacuum both the screen and the smoke chamber.

### **Specifications**

### Compatibility:

#### **Dimensions:**

**Operating Temperature Range:** 32° (0°C) to 100°F (38°C).

**Power Source:** Two 3-volt lithium batteries of the same type. UL-approved types: Sanyo CR123A, Panasonic CR123A, Duracell DL123A.

### **Notices**

Agency Listings: UL 268—Residential Installations

NFPA 72, Chapter 2, Section 2-2.1.1.1 states as follows: "Smoke sensors shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit, including basements and excluding crawl spaces and unfinished attics. In new construction, a smoke sensor also shall be installed in each sleeping room."

The above NFPA standard is a minimum requirement for smoke sensor installation. For better protection, we also require the installation of a smoke sensor inside every bedroom in existing construction.

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.
- This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Interactive Technologies, Inc. can void the user's authority to operate the equipment.

FCC Registratio No.: B4Z764A-SMOKE



Interactive Technologies, Inc.

2266 SECOND STREET NORTH NORTH SAINT PAUL, MN 55109

T: 651/777-2690

F: 651/779-4890

Security
Automation
Access Control

ITI is a registered trademark of Interactive Technologies, Inc. System Sensor is a trademark of System Sensor.