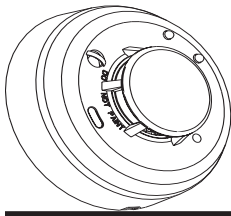


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Client: Sequel Technologies, LLC
Model: STWS-SMK
Standard: FCC 15.231
FCC ID: V4X-SMKX01
Report #: 2008058

Appendix G: Manual

Please see the following pages.



Wireless Smoke Detector (SMK)

Installation Instructions

Sequel Technologies, LLC

General Description

The wireless, low profile, photoelectric smoke detector is based on the System Sensor i3™ series platform. The detector has a green LED to indicate standby within proper sensitivity and a red LED to indicate alarm, maintenance, and low battery. The detector features a state-of-the-art optical sensing chamber, a built-in sounder, and a mechanical test switch.

Additional Information:

- Tamper-resistant feature that prevents removal from the mounting base without the use of a tool.
 - Powered by 3-volt lithium battery
 - 85 dB sounder
 - Built-in test switch
 - Mounts to octagonal and single-gang back boxes, 4-square back boxes, or direct to ceiling.
 - Removable detector cover and chamber
 - Drift Compensation™ and smoothing algorithms reduce nuisance false alarms and trouble signals.
 - Each transmitter has a unique factory-programmed code that distinguishes itself to the receiver.
- When more than one detector is required, spacing of 30 feet (9.1m) may be used as a guide on ceilings.
Note: Consult NFPA 72, the local Authority Having Jurisdiction (AHJ), and/or applicable codes for specific information regarding the spacing and placement of smoke detectors.
 - Avoid mounting near kitchens, wood stoves, garages, furnaces, and bathrooms.
 - Mount all smoke alarms within 100 feet of the panel or transceiver.
 - Install a smoke detector in the hallway outside of each bedroom.

Installation

Placement and Spacing

Use the following location guidelines to maximize reliability and reduce false alarms:

- For ceiling-mounting, install smoke detectors in the center of the room or hallway and at least 4 inches from walls.
- When wall-mounting, install smoke detectors so the top edge of the unit is 4 to 12 inches below where the wall and ceiling adjoin. See Figure 1.
- Install smoke detectors in a suitable environment that maintains a temperature between 32°F (0°C) and 100°F (38°C) and humidity levels between 0 and 95% non-condensing.
- Avoid mounting near air conditioners, heating registers, and other ventilation sources that may interfere with smoke entering the chamber.

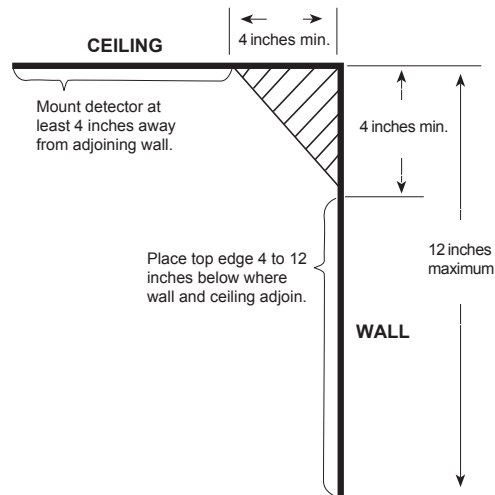


Figure 1: Smoke Detector Placement

Tamper-Resistant Feature

Each detector is equipped with a tamper-resistant feature that prevents removal from the mounting base without the use of a tool. To engage the tamper-resistant feature, remove the small plastic tab located on the mounting base (Figure 2). To remove the detector from the base once it has been made tamper resistant, use a small screwdriver to depress the square tamper release tab, located on the skirt of the mounting base, and turn the detector counterclockwise. **Note:** For installations where unauthorized removal of the detector head is not a concern, the head can be removed by simply turning counterclockwise.

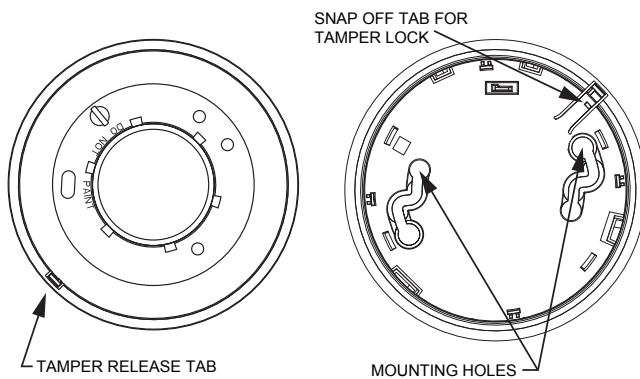


Figure 2: Tamper-Resistant Feature

Installing the Mounting Base

The mounting base can install directly to standard single-gang electrical boxes, 4-inch square or octagonal boxes, 3.5-inch octagonal boxes, or directly mounted to a wall or ceiling using drywall fasteners.

1. Select a sensor location using applicable requirements and the guidelines presented in the Installation section of this manual.
2. Separate the mounting base from the unit by turning the smoke detector counterclockwise.
3. Secure the mounting base to the desired surface. If mounting onto plaster or dry wall, use appropriate anchors.
4. Align the molded line on the base with the raised marks on the smoke detector and turn clockwise to lock in place.
5. To remove the smoke detector from the base, simply twist counter-clockwise to unsnap.

Programming

The following instructions provide a guideline for programming the SMK into system memory.

To enroll a SMK into system memory:

1. Enter program mode (NEXT + NEXT + NEXT + <Prog> + Installer PIN)
2. The keypad will display “Devices Available.” Select <Learn>. The display shows “Auto Enroll On.”
3. To enroll the SMK, insert a small screwdriver or allen wrench (0.18” max.) into the test switch opening; push and hold. Alternatively, activate the alarm by using “Smoke! in a Can®” or direct actual smoke into the smoke chamber until an alarm occurs.
4. Upon enrollment, the keypad emits one beep and the display shows the zone number and sensor ID.
5. Continue enrolling additional sensors if desired. When finished, press <Done> to exit.

Testing

The following steps provide a general procedure for testing the smoke detector.

Smoke Entry

Test the detector for smoke entry using one of the following methods:

- Use “Smoke! in a Can®” and follow the directions on the can.
- Hold a smoldering punk or cotton wick close to the unit and gently direct the smoke into the smoke chamber for 20 seconds or until an alarm occurs.

Test Switch

1. An opening for the recessed test switch is located on the detector housing (See Figure 4).
2. Insert a small screwdriver or allen wrench (0.18” max.) into the test switch opening; push and hold.
3. If the detector is within the listed sensitivity limits, the detector’s red LED should light within one second.

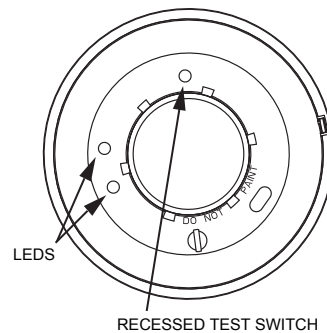


Figure 3 Recessed Test Switch

Walk Test

1. Press NEXT + NEXT and the keypad will display LOG TEST RESET.
2. Select <Test> and enter the installer or user PIN. The display will show WALK COMM.
3. Select <Walk> and the keypad will display “Walk Test Active.”
4. Trip each zone/sensor one at a time and the system responds with a tone from the keypad.
5. As each tested sensor is added to a scrolling list of tested sensors, the signal strength will be shown on the LCD display as 1-10. A higher value indicates a stronger signal level. A minimum level of five is recommended.
6. Exit walk test mode by pressing <Done>.

Maintenance

Cleaning

1. Place the system in walk test mode.
2. Remove the detector from the base by turning counter-clockwise.
3. Remove the top half of the screen/sensing chamber by lifting straight up (Figure 4).
4. Vacuum or use canned air to remove any dust or particles that are present on both chamber halves.
5. Replace the top half of the screen/sensing chamber by aligning the arrow on the screen/sensing chamber with the arrow on the housing. Press down firmly until the screen/sensing chamber is fully seated.
6. Replace the detector cover by placing it over the screen/sensing chamber and turning it clockwise until it snaps into place.
7. Reinstall the detector and test.

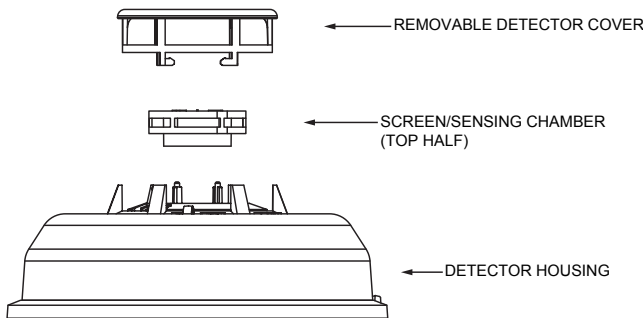


Figure 4: Removing Screen/Sensing Chamber

Battery Replacement

1. Replace the battery when the smoke alarm or panel notifies you that the battery is low. When the battery needs to be replaced, the smoke detector transmits a signal to the control panel. If the battery is not replaced within 7 days, the unit will announce a single beep approximately every 60 seconds.
2. Remove the smoke detector from the base and remove the battery cover.
3. Observe correct polarity and insert the battery into the battery holder.

Troubleshooting

Problem	Action
The system indicates a sensor trouble for a wireless sensor.	<ul style="list-style-type: none"> • A trouble is caused when the sensor tamper switch is activated — i.e. the sensor cover is off, not secured, or the sensor is not mounted properly. Secure the sensor over and trip sensor to clear the trouble.
The panel does not respond to wireless sensors. There are no alarm, chime, or walk test responses.	<ul style="list-style-type: none"> • Verify that the EXT is enrolled. This can be done by checking option “EXT Module” (60401) in the “ST - Modules” menu in programming. If this option is 0, the EXT is not recognized by the system. Remove the EXT and see if a trouble occurs. If not, replace the EXT. • Bring the wireless sensors closer to the EXT and test again. If signals are properly received, the issue may be related to environmental noise or interference. • Distance from the receiver and/or installation environment will affect the sensor signal strength. Reposition the sensor and/or EXT if necessary.
The system indicates a sensor low battery.	<ul style="list-style-type: none"> • Replace the sensor’s battery. Test the sensor after replacing the battery. Testing the device allows the control panel to receive a signal with the new battery information.

Specifications

- Compatibility: All Sequel Technologies ST Security Systems (ST8 requires Expansion Transceiver Module)
- Dimensions (including base): 5.3" x 2.0" (D x H)
- Battery: 3.0V CR123A, Lithium battery (average battery life is 3-5 years)
- Diameter (including base): 5.3 inches
- Height (including base): 2.0 inches
- Sensitivity: 2.5%/ft. nominal
- Sound Pressure Output: 85 dBA
- Mounting:
 - 3½-inch or 4-inch octagonal back box
 - Single gang back box
 - 4-inch square back box with a plaster ring
 - Direct mount to ceiling
- Transmitting Frequency: 319.5 MHz and 345 MHz
- Supervision Interval: 60 minutes
- Transmit Range: 500 feet, open air
- Operating Temperature: 32° to 100°F (0° to 38°C)
- Storage Temperature: – 4° to 158°F (– 20° to 70°C)
- Max. Humidity: 90% relative humidity, non condensing
- Regulatory Approvals: FCC 15, UL (Pending)

FCC Notice

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. Changes and/or modifications not approved by Sequel Technologies, LLC could void the user's authority to operate the equipment.

FCC ID: V4X-SMKX01



Sequel Technologies

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