Installation Note

AVTECH's Smoke Sensor w/Escape Light is a battery-powered smoke detector with additional electronics that allow it to interface with Room Alert as a switch sensor; you may set up and receive alerts remotely when the switch state changes to assist your IT staff in monitoring and protecting your valuable IT equipment.
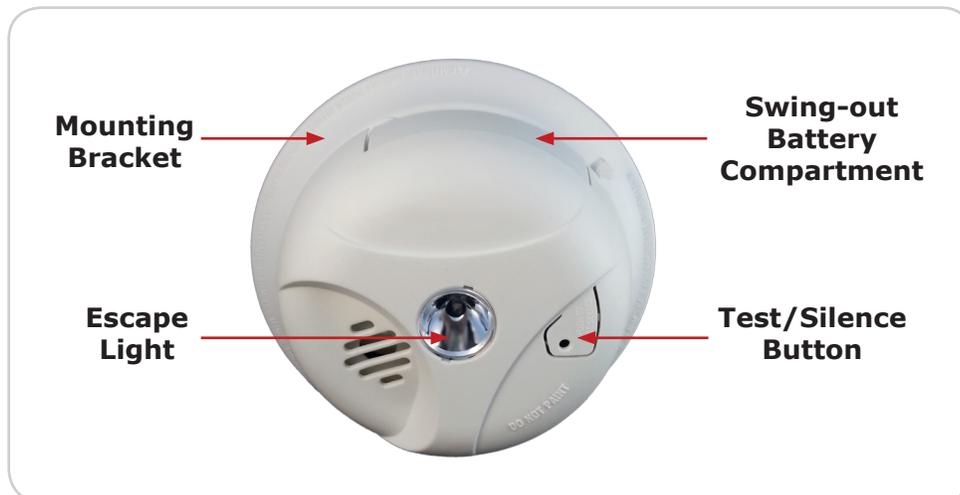
The Smoke Sensor monitors the air, and when smoke reaches its sensing chamber, it alarms. This unit will not sense gas, heat, or flame.

Smoke Sensor Package Contents

- One (1) Smoke Sensor
- One (1) 25' speaker cable
- One (1) 9V alkaline battery
- Two (2) mounting screws with two (2) plastic screw anchors

Smoke Sensor

Mounting Bracket • Swing-out Battery Compartment • Escape Light • Test/Silence Button

Install Your Smoke Sensor

⚠️ Do not use this sensor in hazardous (classified) locations or life safety applications.

Do not use this sensor as a substitute for a complete fire detection system.

⚠️ Attach the Smoke Sensor directly to wallboard or flat wall or ceiling surface.

Do not attach the Smoke Sensor to an electrical junction box as this may impair the sensor's operation.

Before you begin:

Read [Avoid These Locations](#) in this document for placement recommendations.

Step 1: Attach the included Mounting Bracket to the ceiling (or wall).

1. Remove the mounting bracket from the Smoke Sensor base by holding the Smoke Sensor and twisting the mounting bracket clockwise (right). (Set the unit aside where it won't get covered with dust when you drill mounting holes later.)

2. Hold the mounting bracket against the ceiling (or wall) and mark the center of each of the mounting slots with a pencil.

3. Using a ³⁄₁₆" (5 mm) drill bit, drill a hole through each pencil mark.

4. Insert the included plastic screw anchors into the holes. Tap the screw anchors gently with a hammer, if necessary, until they are flush with the ceiling or wall.

5. Tighten the included screws into the screw anchors.

Step 2: Activate the included battery.

Your Smoke Sensor ships to you with the battery in backwards to prevent the sensor from alarming during transit. To activate the battery:

1. Open the Battery Compartment of the Smoke Sensor.

2. Re-insert the battery so its terminals match the terminals on the Smoke Sensor: match "+" to "+" and "-" to "-". Push the battery in until it snaps in securely. (Note that the Smoke Sensor may beep briefly when you install the battery.)

3. Close the Battery Compartment.

Step 3: Attach the Smoke Sensor to the mounting bracket.

Position the base of the Smoke Sensor over the mounting bracket and turn clockwise (right) until the unit is in place.

Do not paint over the Smoke Sensor. Paint may clog the openings to the sensing chamber and prevent the unit from operating properly.

Step 4: Test your Smoke Sensor

See [Test Your Smoke Sensor](#) in this document for instructions.

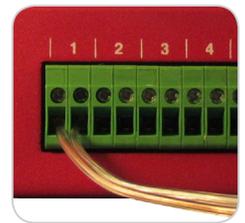### Step 5: Connect your Smoke Sensor to Room Alert.

Do not connect the switch sensor inputs (dry contacts) on AVTECH products to any live circuit.

Use only low-voltage 2-wire cable to connect switch sensor inputs.

Your Smoke Sensor comes with one end of the 25' speaker cable already attached. Follow these steps to attach the other end to a switch port on your Room Alert:

1. Separate and strip the leads on the free end of the speaker cable, exposing about ¼" of wire.

2. Run the speaker cable back to your Room Alert. Try to avoid running it near large electromagnetic devices or fluorescent lights, which produce EMI and can interfere with sensor readings.

3. Connect the free ends (the ¼" leads) of the speaker cable to an open switch port on your Room Alert. Be sure the bare wire, not the insulation, connects to the port. The leads are non-polarized, so you may connect either lead to either side of the open port.

Avoid These Locations

- **Over an electrical junction box**

  Do not install this unit over an electrical junction box. Air currents around junction boxes can prevent smoke from reaching the sensing chamber and prevent the unit from alarming.

- **Where combustion particles are produced**

  Combustion particles form when something burns. Areas to avoid include poorly ventilated kitchens, garages and furnace rooms.

  Keep the Smoke Sensor at least 20 feet (6 meters) from the sources of combustion particles (stove, furnace, water heater, space heater) if possible. In areas where this distance is not possible, place the Smoke Sensor as far from these fuel-burning sources as possible.

  The placement recommendations are intended to keep the Smoke Sensor at a reasonable distance from a fuel-burning source, reducing "unwanted" alarms.

- **In air streams near kitchens**

  Air currents can draw cooking smoke into the sensing chamber of a Smoke Sensor near the kitchen.

- **In very damp, humid or steamy areas, or directly near bathrooms with showers**

  Keep units at least 10 feet (3 meters) away from showers, saunas, dishwashers, etc.

- **Where the temperatures are regularly below 40° F (4.4° C) or above 100° F (37.8° C)**

- **In very dusty, dirty or greasy areas**

  Do not install a Smoke Sensor directly over the stove or range. Keep laundry room Smoke Sensors free of dust or lint.

- **Near fresh air vents, ceiling fans or in very drafty areas**

  Drafts can blow smoke away from the unit, preventing it from reaching the sensing chamber.

- **In insect infested areas**

  Insects can clog openings to the sensing chamber and cause unwanted alarms.

- **Less than 12 inches (305 mm) away from fluorescent lights.**

  Electrical "noise" can interfere with the sensor.

- **In "dead air" spaces.**

  "Dead air" spaces may prevent smoke from reaching the Smoke Sensor. To avoid dead air spaces:

  - On ceilings, install Smoke Sensors as close to the center of the ceiling as possible. If this is not possible, install the Smoke Sensor at least 4" (102 mm) from the wall or corner.

  - For wall mounting (if allowed by building codes), place the top edge of the Smoke Sensor between 4" and 12" (102 and 305 mm) from the wall/ceiling line, below typical "dead air" spaces.

  - On a peaked, gabled or cathedral ceiling, install the first Smoke Sensor within 3' (0.9 meters) of the peak of the ceiling, measured horizontally. Additional Smoke Sensors may be required depending on the length, angle, etc. of the ceiling's slope.

Maintain Your Smoke Sensor

Test your Smoke Sensor

Test your Smoke Sensor at least once a week.

To test, hold down the Test/Silence Button until the alarm sounds and the Escape Light

turns on:

- A loud, repeating horn pattern will sound: 3 beeps, pause, 3 beeps, pause, etc.
- The Escape Light will turn on.
- The LED on the Test/Silence Button will flash once every second.

The sensor may continue to alarm for a few seconds after you release the Test/Silence button.

If the alarm does not sound during testing, try installing a new battery, and make sure it is snapped in securely. If it still does not alarm, replace the sensor immediately.

If the Escape Light doesn't light during testing, make sure the bulb is working properly. If you suspect the bulb is burned out, it is not replaceable.

Clean your Smoke Sensor

Clean the Smoke Sensor at least once a month.

- You may gently vacuum the outside of the Smoke Sensor using your a vacuum's soft brush attachment or use a can of clean compressed air.

- Do not use water, cleaners or solvents as they may damage the unit.

- If the Smoke Sensor becomes contaminated by excessive dirt, dust and/or grime, and cannot be cleaned to avoid unwanted alarms, replace the unit immediately.

Relocate your Smoke Sensor if necessary

Relocate the unit if it sounds frequent unwanted alarms. See Avoid These Locations in this document for more information.

Replace the battery

When the battery becomes weak, the Smoke Sensor unit will "chirp" about once a minute, which is the low battery warning. The low battery warning should last for 30 days, but you should replace the battery immediately.

Use only the following replacement batteries: Duracell #MN1604, (Ultra) #MX1604, U9VL-J-P. The unit may not operate properly with other batteries.

Never use rechargeable batteries since they may not provide a constant charge.

Replace Your Smoke Sensor

- Replace your Smoke Sensor immediately if it is not operating properly.

- Replace your Smoke Sensor 10 years from date of purchase. You may write the purchase date on the space provided on back of unit.

The Silence Feature

The Silence Feature can temporarily quiet an unwanted alarm for several minutes.

To use this feature, press the Test/Silence button on the cover. The Escape Light will turn off and the LED will flash every 10 seconds (for up to 10 minutes) to remind you the alarm has been silenced.

> ⚠️ Do not stand too close to the unit when the alarm is sounding. Exposure to the horn at close range may harm your hearing.
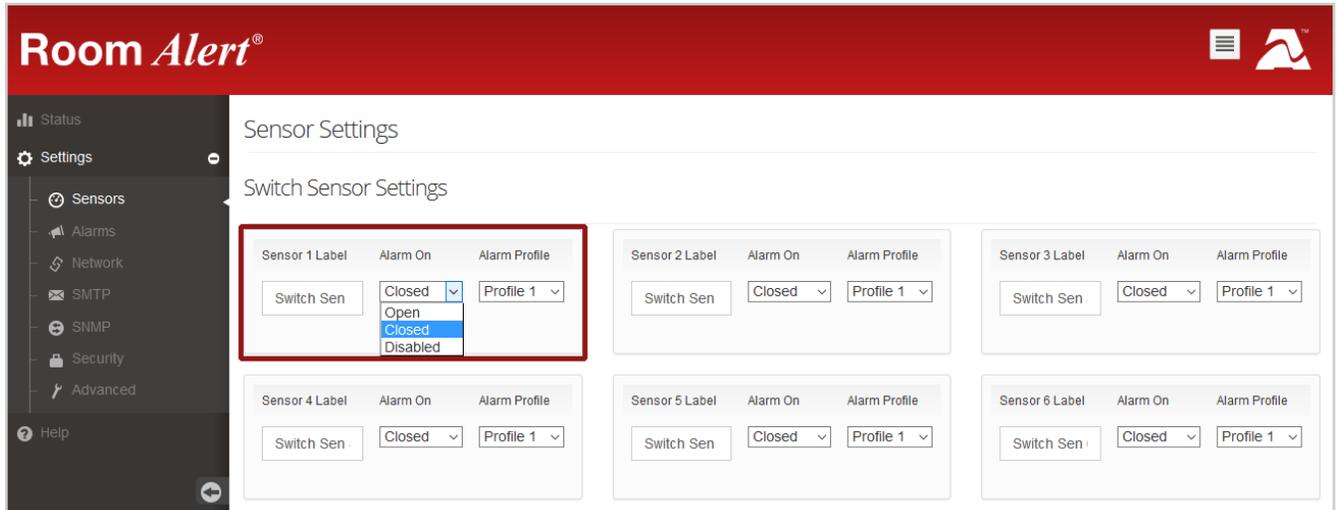
Sensor Features & Specifications

Environment Condition Monitored	Smoke
Type Of Sensor	Switch
Normal State	Open (Smoke Sensor not triggered)
Alarm State	Closed (Smoke Sensor triggered)
Power Supply	9V alkaline battery
Sensor Cable Type	Low-voltage two-wire speaker cable
Included	Yes
Length	25'
Maximum Extendible Length	900'
Operating Temperature	40° F (4.4° C) to 100° F (37.8° C)
Compatible Products	Any Room Alert model or Wireless Sensor Hub

Configure Your Switch Sensor

Use Room Alert's Built-In Web Interface

Navigate to **Settings** → **Sensors** in your Room Alert web interface. The options you see below will vary depending on your Room Alert model.

1. Scroll down to *Switch Sensor Settings*.

2. Find the switch sensor label that matches the port you connected your switch sensor to. For example, if you used the first switch sensor port on your Room Alert, look for *Sensor 1 Label*; if you used the second, look for *Sensor 2 Label*, and so on.

3. In *Sensor X Label*, you may leave the default, "Switch Sen X," or enter something more descriptive of up to 15 characters. You may use the following characters in sensor labels: letters, numbers, spaces, hyphens (-), underscores (_) and periods (.).

4. In *Alarm On*, select the alarm state (**Open** or **Closed**) for your switch sensor. You may find the alarm state of your switch sensor under the *Features & Specifications* section of this Installation Note.

5. In *Alarm Profile*, which controls light towers and relays on your Room Alert, you may leave the default, **Profile 1**, or choose another profile from the drop-down menu.

6. Select **Save Settings** at the top or bottom of the page. Your Room Alert will automatically reboot and commit your changes.

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