## Application Note Room Alert



## Sound, Light & Entry Sensor Instructions For Installing The Sound, Light & Entry Sensor

The Sound Light & Entry Sensor (SLE) consists of a magnetically activated Proximity Switch, Magnetic Operator, Light Sensor and Sound Sensor. The SLE provides real-time recognition of sound, light and/or entry such as a door opening, closing, etc. The SLE box is designed to be mounted on a vertical surface such as a wall or pillar with the light and sound sensors placed above so they are not blocked. This sensor is best suited for monitoring unmanned closets, telecom rooms, remote data rooms or other low traffic facilities.

Each sensor can be adjusted to a desired sensitivity level in order to accommodate a wide range of applications. To adjust the sensitivity of the sound sensor simply turn the calibration screw located on the top left of the unit next to the sound sensor input. Turning the screw clockwise will make the sensor less sensitive to common noises while turning it counter-clockwise will make it more sensitive. By default, the sound sensor will detect an alarm condition with the sound of or similar to a smoke detector.

Light sensitivity is also adjustable. The sensitivity of the light sensor can be adjusted by turning the calibration screw on the top right of the unit next to the light sensor input. Turning the screw clockwise will cause the sensor to be less sensitive to light while turning it counter-clockwise will make it more sensitive to light. Turning the screw all the way clockwise will almost disable the light sensor completely. By default, the light sensor will reach an alarm state when exposed to daylight or standard office florescent lighting.



Mount the Sound, Light & Entry Sensor where desired and run the sensor cable to the Room Alert ID Box. Connect the sensor cable to the contacts.

The Magnetic Operator of the Room Entry Sensor (component without wires) can be attached to any door, cabinet or window that you wish to monitor using two screws. Place the Magnetic Operator at a point on the desired surface edge so that the Proximity Switch (component with wires) can be fixed close to it (face to face), when the door is closed. The Proximity Switch can then be mounted to the door frame in a very close adjacent location (although not touching) to the Magnetic Operator, when the door is closed. Be sure there is room for the door to open and close without disruption. This often means locating the sensor at the top of a door where it will be less visible and less at risk. You will want to mount this inside of a secured room.

When the door is closed, the two components should be almost touching. In this position the Proximity Switch is activated or in its normal state with the output from the Room Entry Sensor being 'open'. When the door is

opened, the two components separate and the switch closes, sending a signal to the Room Alert ID Box in turn generating an alarm condition or status.

NOTE: Before connecting the Room Entry Sensor to the Room Alert ID Box, you may want to check that the switch is opening and closing properly by using a multi-meter or continuity tester.

The four sets of switch sensors on the bottom of the SLE sensor are designed to be connected to any Room Alert unit with the included speaker cable. The left switch sensor (1) is open by default, and will close when ANY of the other three sensors are changed from their default state indicating an alarm condition. The second sensor from the left (2) is open by default and will close when sound is detected. The third sensor from the left (3) is open by default and will close when light is detected. The fourth sensor from the left (4) is open by default and will close when room entry is detected. Each of the switch sensors should be connected to a separate switch channel on the back of your Room Alert unit.



Sensor cable can be any low voltage cable such as bell wire, speaker cable, data cable or telephone cable. Minimum voltage insulation 50v, minimum current carrying capacity 1A. Maximum recommended length is approximately 100 feet although shorter lengths will yield more reliable performance. Test your setup to ensure proper operation.

## **IMPORTANT SAFETY NOTICE**

The Screw Connectors On The Sensor ID Boxes Are Volt-Free Contacts Only. Do Not Connect These Terminals To Any Live Circuit. A Qualified Electrician Should Be Consulted To Test Any Wires You Connect To The Room Alert ID Box For The Presence Of Electrical Voltages And If Any Are Detected, They Must Not Be Wired To The ID Box. The ID Box May Become Dangerous If You Connect It To A Live Circuit. Never Connect Main Power To Any Of The Room Alert Sensors Unless Specifically Instructed To Do So Using The AVTECH Software 5V Power Adapter. If Required, An AVTECH Software 5V Power Adapter Will Be Included With That Sensor. DO NOT Use Switch Sensors In 'Explosive' Environments Unless Approved For Those Environments.

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