

The SARM-1 is a single channel sound activated relay module. It is designed to connect directly to any SM1 series microphone and a DRV, I/P camera, event recorder, etc. It has a from C relay output for connection to alarm systems, DVRs, event recorder etc. Note- the audio output of the SARM-1 is "line level" (0db).

**SM1 Microphone Placement**

Locate the SM1s microphones as close as possible to the areas of interest in the space to be monitored. Do not mount the microphones near air conditioning vents, light fixtures or electrical equipment. The SM1s should be placed at least 5 feet away from the subject(s) to be monitored. An SM1 is still useable in the range of 15-25 feet but is dependent on the level of background noise in the area. Experimentation in the environment will determine what distances work best.

**SARM-1 location and power**

The SARM-1 interface box is designed to be located next to a DVR or I/P camera. The SARM-1 requires a 120VAC power source within 3 feet of its location. If this is not possible in your application, you can splice in up to 100 feet of 18 awg, 2 conductor cable to extend the distance between the AC power source and the SARM-1.

**Cable Run**

Run a 22 gauge, stranded, two conductor shielded cable between the SARM-1 module and the SM1 microphones. Keep the cable run distances under 1,000 feet and away from AC power sources, light fixtures and electrical equipment. See *Figure 1 for connection diagram.*

**Audio input**

Connect any SM1 series microphone OR any other "line level" signal. Do not use both inputs at the same time.

**Threshold**

This control adjusts how loud a sound must be to trigger the relay. Clockwise adjustment means sounds must be louder to trigger the relay.

**Trigger qualify jumper**

If this jumper is in the "short" position a loud sound is immediately detected. If this jumper is in the "long" position, a loud sound must be present for 2 seconds and the relay will trigger.

**Alarm time Range jumper**

If this jumper is in the "minutes" position, the relay upon alarm will stay closed for a period (0-60 minutes) set by the alarm time control. If this jumper is set in the "seconds" position, the relay upon alarm will stay closed also for a period (0-60 seconds) set by the alarm time control.

**SARM-1 audio output**

This output is typically connected to the audio input of the DVR, I/P camera, etc. You can extend this output up to 1000 feet using audio coaxial cable and 2 field installable RCA (or 3.5mm) connectors. This output can be connected to any ETS base station microphone input. Cut one end off the supplied patch cable. Strip the cable back and connect the center conductor of the coax to the "audio" terminal and the shield to the "-" terminal of any microphone input. No connection is needed on the "+" terminal.

**Relay output.**

Connect this to your alarm system, event recorder, DVR etc to report a loud sound detected. C= common, NC= normally closed, NO= normally open.

Note- the SARM1 can also be used to detect the absence of sound. It will simply stay in alarm until the sound levels fall below the trigger threshold.

SOUND SURVEILLANCE SERIES MICROPHONE

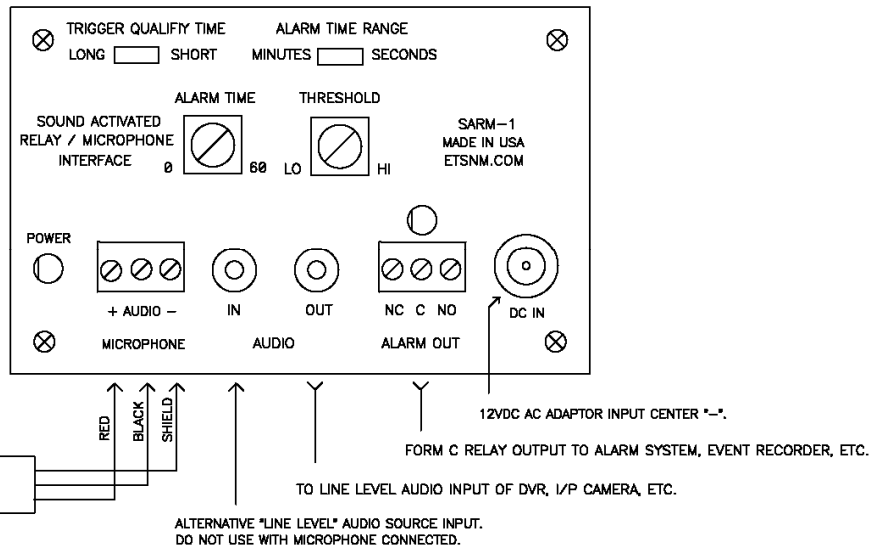
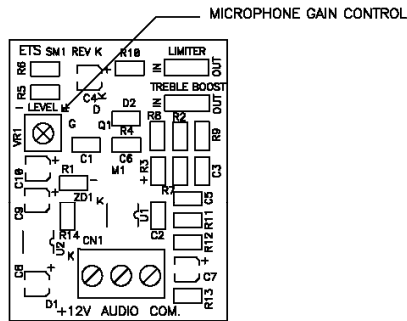


Figure 1.

**Caution**

It may be against the law to install this microphone kit in certain environments. It may also be against the law to record conversations of the person(s) being monitored without their knowledge. It is the responsibility of the installation company and end-user to determine if the application of this product is legal. These laws vary from state to state. If you are not informed on these matters, consult a qualified attorney or contact the appropriate state agency. A sticker is provided with this kit for the applications where notification must be posted.

**Warranty**

All ETS products carry a one year parts and labor warranty. This warranty does not cover damages as a result of misuse, improper handling of the unit or exposure to extreme temperatures or moisture. At its discretion, ETS reserves the right to repair or replace this unit under the conditions of the warranty. If you experience problems with your equipment call ETS at: 505-888-3923 to obtain a return authorization number. Equipment requiring repair beyond the warranty period or units that have been damaged or are not covered under the warranty can be repaired by ETS for a minimal cost under most conditions.

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by  
**ETS Inc.**