

The SMI5 is a 4 channel, one way, pre-amplified microphone “listen in” surveillance kit designed to be used in applications where an audio amplifier (speaker) is not needed or is already provided in CCTV monitors or a DVR. It provides a convenient way of supplying power to the SM1s, installer friendly termination of the cable runs and a standard RCA or 3.5mm audio output connectors. The SMI5 easily connects to recording equipment such as DVRs, I/P cameras, time-lapse VCRs and audio recorders. Note the audio output signal of the kit is “line level” (0dbm).

### SM1 Microphone Placements

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

### Mounting

The SM1s can be surface or flush mounted on ceilings or walls. For flush mounting, cut a 2 ¼” by 2 ¾” hole in the wall or ceiling tile to allow room for the circuit board and mount the SM1 to the surface with screws. For surface mounting applications, Purchase SM1-LEs. Or use single gang electrical boxes.

### SMI4 location and power

The SMI4 interface box is designed to be located next to a DVR or I/P camera. The SMI4 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 20 awg, 2 conductor cable to extend the distance between the AC power source and the SMI4.

### Cable Runs

Run 4 each, 22 gauge, stranded, two conductor shielded cables between the SMI4 interface 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.

### Adjusting the SM1 Gain

Start with a midrange setting of the gain control on the SM1. Adjust the control + or – for maximum clarity. If the sound at the amplifier is distorted, rotate the control towards the – mark (counter- clockwise). If the volume at the amplifier is too low, rotate the control towards the + mark (clockwise).

### Setting the SM1 Jumpers

The SM1 microphone has jumper selectable treble boost and limiter circuits. The treble boost circuit when jumpered in, emphasizes the high frequency sounds that the microphone picks up. This is useful for improving the sound quality on slow speed tape recordings (VCR time-lapse recordings). The limiter circuit, when jumpered in, automatically reduces the SM1’s output during loud sound intervals. This eliminates the need for the listener to reduce the volume control on the amplifier when sounds get louder.

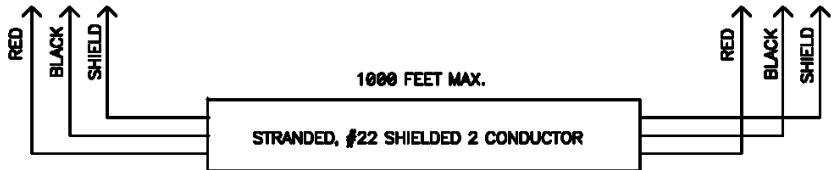
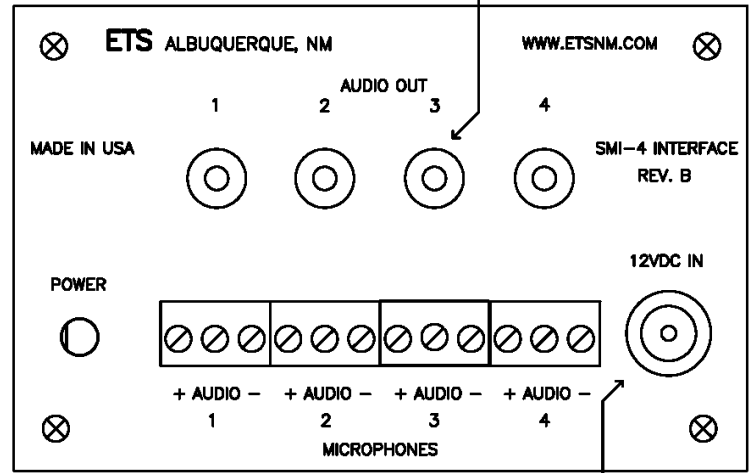
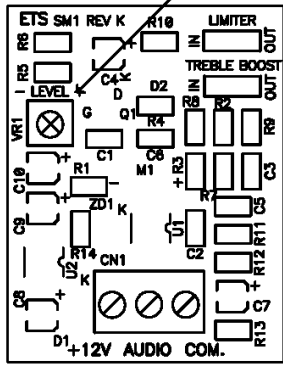
**Note:** It is not recommended to use the SM1’s limiter circuit if you are using a tape recorder or other device that already employs an AGC or limiter circuit. Most tape recorders have limiter circuits. The recommended jumper settings are as follows:

	Stand-alone Application	Tape Recorder Application
Limiter	“IN”	“OUT”
Treble Boost	“OUT”	“IN”

RCA OR 3.5MM AUDIO "LINE LEVEL" OUTPUTS TO DVR, I/P CAMERA ETC

SOUND SURVEILLANCE SERIES MICROPHONE

MICROPHONE GAIN CONTROL



12VDC AC ADAPTOR INPUT CENTER "-".

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.

Made in the USA  
by  
**ETS Inc.**