

ETS Inc. HSM11-SMA1 Speaker / Microphone Kit Instructions

The HSM11-SMA1 kit is an indoor / outdoor two way public address, audio surveillance system that is designed to interface with DVRs and I/P cameras. The HSM11 speaker / **pre-amplified** microphone is designed to mount on hard flat surfaces such as concrete or wood. The SMA1 is typically located near the DVR or I/P camera. Note-input and output signals on the SMA1 are "line level" only. *The HSM11-SMA1 is for use in half duplex audio systems only. Audio whine or "feedback" will be result if both speaker and microphone are active at the same time.*

HSM11 Microphone / Speaker Placement.

Locate the HSM11 speaker / microphone near the area of interest in the space to be monitored. If a large area is to be monitored, locate the HSM11 in the middle of the space if possible. Avoid mounting the speaker / microphone near air conditioning vents, light fixtures or electrical equipment. The HSM11 should be placed as close to the subject(s) as possible. 5 to 10 feet is ideal. The HSM11 is still useable in the range of 15-25 feet in public address applications but is dependent on the level of background noise in the area. Experimentation in the environment will determine what distances work best.

Audio Signal Cable Runs

Recommended cable is: 2 each 22 gauge, stranded, two conductor shielded cables (one for the microphone and the other for the speaker) between the SMA1 amplifier / interface and the HSM11 microphone / speaker. Keep the cable run distances under 1,000 feet and away from AC power sources, light fixtures and electrical equipment. *Make connections as shown in Figure 1.*

HSM11 Mounting

The HSM11 is designed to be mounted on ceilings or walls and features swivel adjustments for directional aiming. Make wire connections inside the weather tight box on the back of the HSM11 and screw the lid down. Mount the speaker in a fashion that does not allow water to directly flow (from driving rain etc.) inside the junction box. Leave the factory set jumper on the MSI circuit board in the 5 watt position and the power switch setting on the horn at 8 watts. Sound levels for the speaker and microphone are user adjustable on the SMA1 interface box.

SMA1 location and power:

The SMA1 interface box is designed to be located next to a DVR or I/P camera. The SMA1 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 SMA1.

SMA1 70V / 8 Ohm direct switch:

When using the SMA1 with a HSM11 or CSM8 speaker / microphone, make sure this switch is in the 70V position.

DVR or I/P camera connections:

Connect the "audio out" of the SMA1 to the "audio in" of the DVR or I/P camera. Connect the "audio in" of the SMA1 to the "audio out" of the DVR or I/P camera. Note-input and output signals on the SMA1 are "line level" only. If the DVR or I/P camera uses screw terminals for audio connections, simply cut off the ends of the supplied RCA patch cables, strip the wires back and connect the wires to the I/P camera terminal blocks. The center conductor of a cut patch cable is + and the shield is -.

Adjusting the SMA1 Levels:

Set both level controls to 1/8 clockwise from full counter clockwise on the SMA1 before powering the system up. Adjust the controls + or - to the desired levels for both speaker and microphone. If the microphone sound at the DVR or head end is distorted, rotate the control towards the - mark (counter- clockwise). Adjust the volume of the speaker to the desired level. If the speaker volume is too high, amplifier oscillations may result. Turn the level control down if you experience this. Note-leave the MSI-1 jumper in the 5W position.

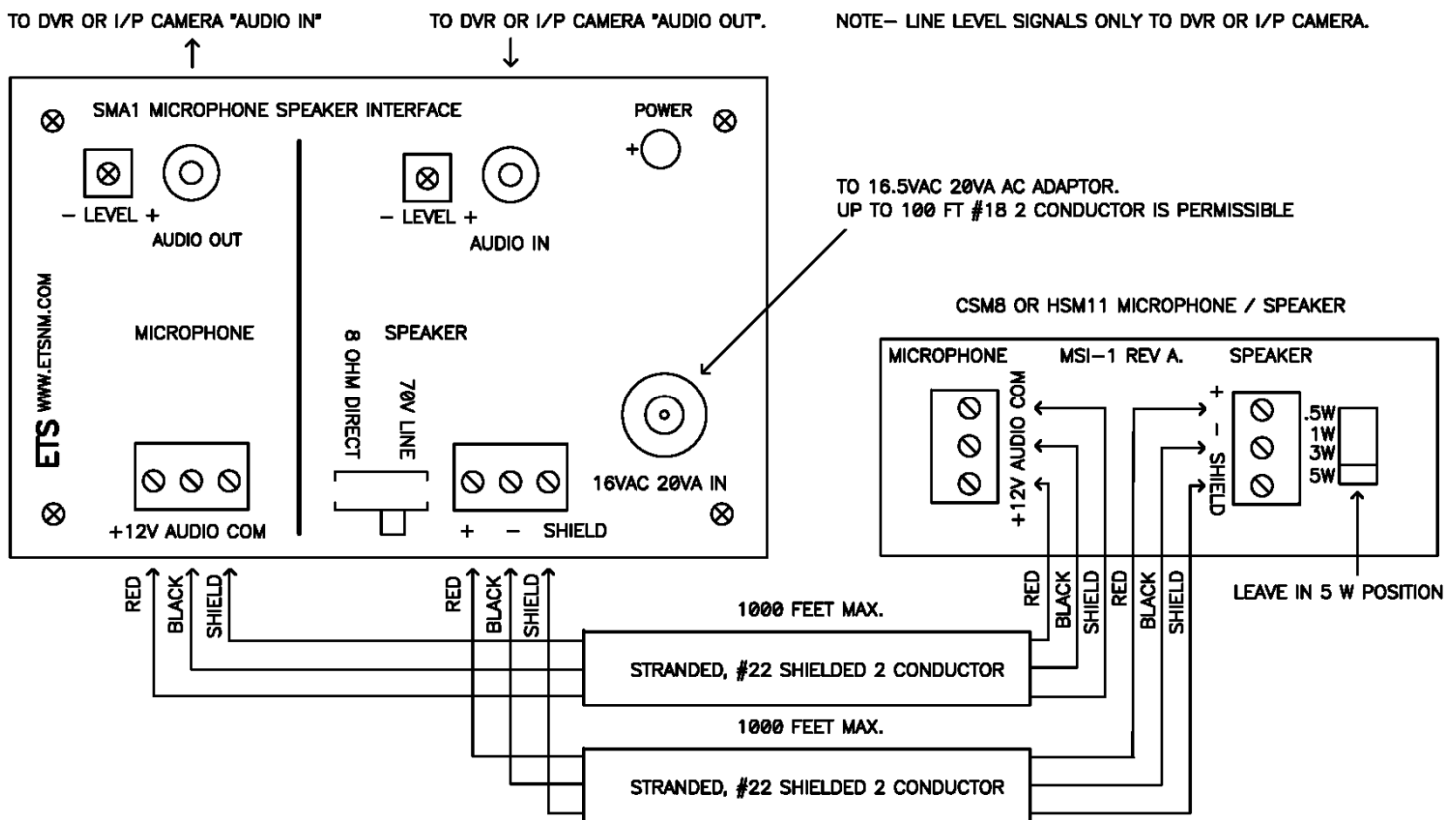


Figure 1.

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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