

The CSM8 is a combination 70V speaker and **pre-amplified** microphone designed to flush mount in an acoustic ceiling tile, drywall, etc. The CSM8 is designed to directly interface with the ETS SMA1 for connection to DVRs, IP cameras, etc. but, can be used with other comparable equipment. *CSM8 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.*

**CSM8 Microphone / Speaker Placement.**

Locate the CSM8 speaker / microphone near the area of interest in the space to be monitored. If a large area is to be monitored, locate the CSM8 in the middle of the space if possible. Avoid mounting the speaker / microphone near air conditioning vents, light fixtures or electrical equipment. The CSM8 should be placed as close to the subject(s) as possible. The CSM8 is still useable at distances of up to 25 feet 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 CSM8 microphone / speaker and the SMA1-xx or other equipment. 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.*

**CSM8 Mounting**

The CSM8 can be surface or flush mounted on ceilings or walls. For flush mounting, cut a 8.5" diameter hole in the wall or ceiling tile to allow room for the speaker / microphone assembly and mount the CSM8 to the surface with screws after making connections. For surface mounting, purchase a CSM8-S surface mount adaptor kit. Leave **the** factory set jumper on the MSI circuit board in the 5 watt position.

**CSM8 Speaker Volume**

The volume of the CSM8 speaker can be changed by moving the jumper on the MSI-1 interface board. Move the jumper to the 5W position for the loudest setting and .5W for the lowest setting.

**CSM8 Microphone gain**

The CSM8's microphone output level can be adjusted by removing the speaker from the grill (four Kepnuts). Locate the blue gain control on the SM1 board adhered to the grill. Adjust the control clockwise for more gain and counter clock-wise for less gain.

CSM8 MICROPHONE / SPEAKER INTERFACE BOARD

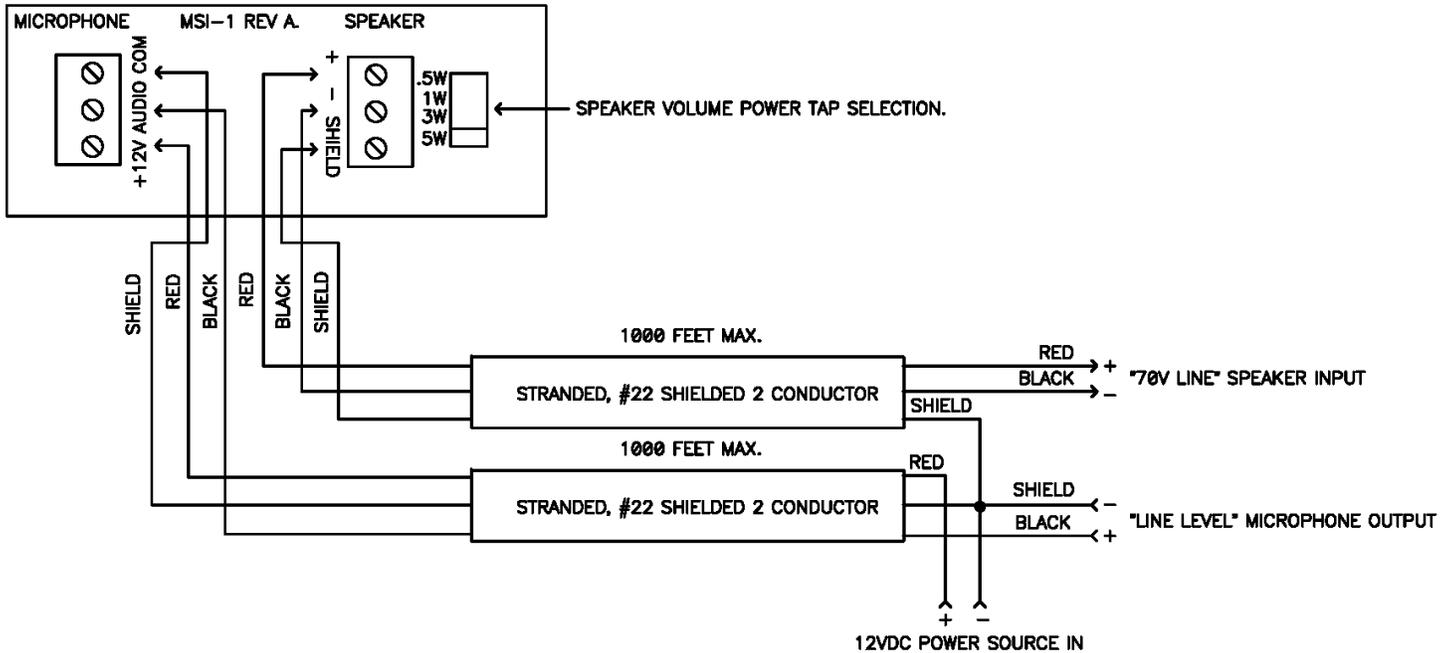


Figure 1.

**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.**