

The CSM8-C5 is a combination 70V speaker and **pre-amplified** microphone designed to flush mount in an acoustic ceiling tile, drywall, etc. The CSM8-C5 is designed to directly interface **ONLY** with the ETS SMAx-xx-C5 for connection to DVRs, I/P cameras, etc. *CSM8-C5 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-C5 Microphone / Speaker Placement.

Locate the CSM8-C5 speaker / microphone near the area of interest in the space to be monitored. If a large area is to be monitored, locate the CSM8-C5 in the middle of the space if possible. Avoid mounting the speaker / microphone near air conditioning vents, light fixtures or electrical equipment. The CSM8-C5 should be placed as close to the subject(s) as possible. 5 to 10 feet is ideal. The CSM8-C5 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.

Cable Run

Run a single CAT5 cable from the HSM11-C5 Speaker / Microphone and the SMAx-LP interface box. Keep the cable run distance at or below 1000 feet and away from AC power sources, light fixtures and electrical equipment. Wire the RJ45 cable connectors in the following order:

Pair 1	1	CALL SW
	2	CALL SW
Pair 2	3	SPEAKER (70V) +
	4	SPEAKER (70V) –
Pair 3	5	MICROPHONE +
	6	MICROPHONE –
Pair 4	7	+12V (MICROPHONE)
	8	COM (MICROPHONE)

Call Switch Connections

The HSM11-C5 features a call switch input. This pair of wires is isolated from all other circuitry and can be used for a call switch, door contact, door release relay, etc. Terminal block connections are "broken out" on the HSM11-C5 and any ETS SMAx-LP interface ordered with the –C5 option.

CSM8-C5 Mounting

The CSM8-C5 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-C5 to the surface with screws after making connections. For surface mounting, purchase a CSM8-C5-S surface mount adaptor kit. Leave **the** factory set jumper on the MSI circuit board in the 5 watt position.

CSM8-C5 Speaker Volume

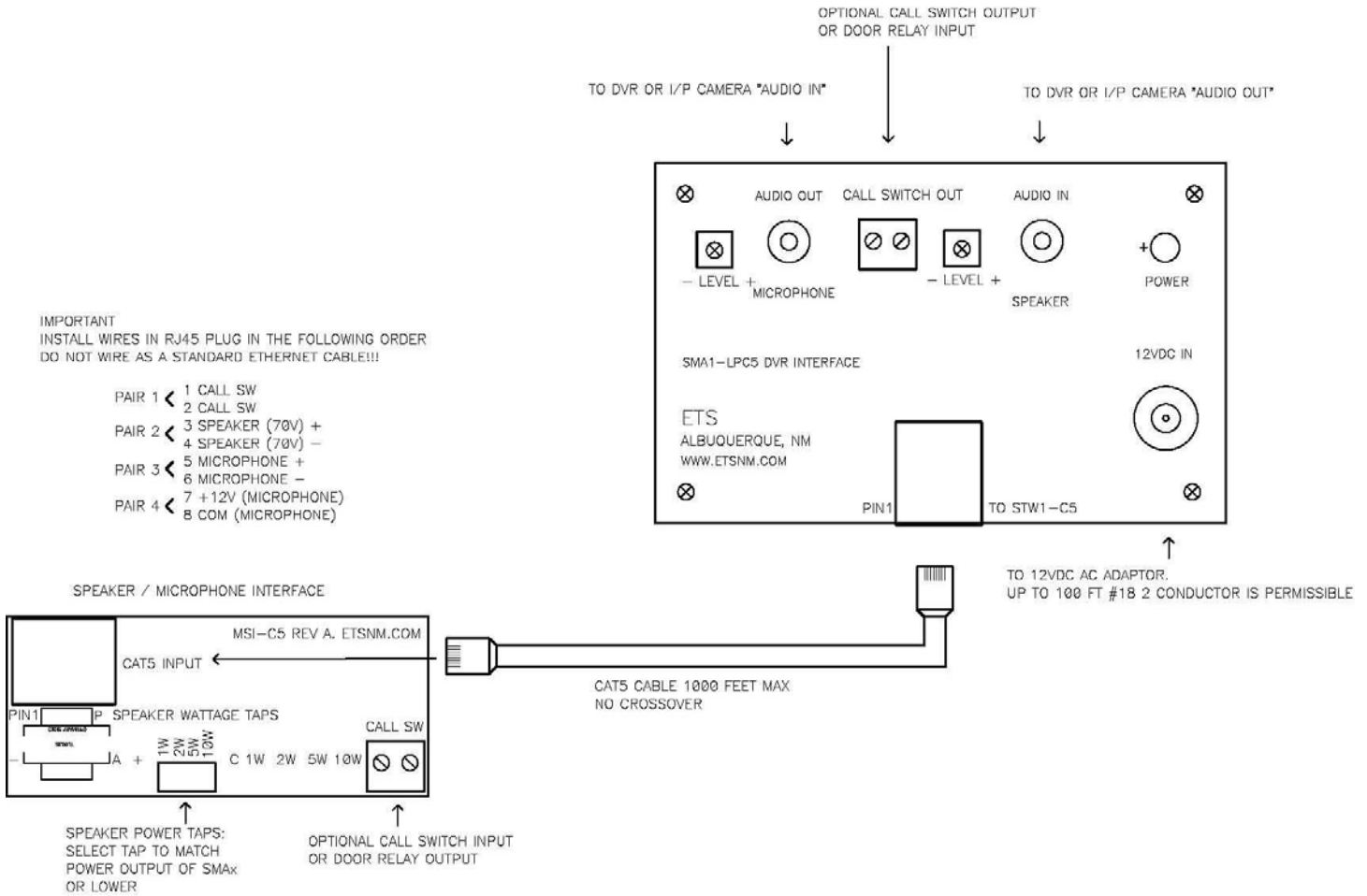
The volume of the CSM8-C5 speaker can be changed by moving the jumper on the MSI-1 interface board. Move the jumper to the 5W position for the loudest setting and .5W for the lowest setting.

CSM8-C5 Microphone gain

The CSM8-C5'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 clockwise for less gain.

If the SMAx-LPxx-C5 will be plugged into a "microphone level" input of an I/P camera, set the microphone gain of the CSM8-C5 slightly clockwise (or 1/8 of a full turn) from full counter-clockwise. Then use the "level control" on the SMAx-LPxx-C5 to set a volume that produces an acceptable audio level at the head end.

If the SMAx-LPxx-C5 will be used with a "line level" input, turn the gain control of the CSM8-C5 to 3/4 full clockwise and adjust the level control on the SMAx-LPxx-C5 to produce the clearest audio level at the head end.



CONNECTIONS MSI-C5 to SMA1-LP-C5 (FOR EXAMPLE)

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.