# ETSInc. DM1 Microphone Instructions

DM1 microphones are 12-24vdc powered, microphones with an integrated DSP (Digital Signal Processor) based background noise eliminator unit. It is designed to Digitally screen out all repetitive background sounds and passes through / enhances the human voice.

Note- the audio output of the DM1 is "line level" (0db).

#### **DM1 Microphone Placement**

Do not mount the microphone near air conditioning vents, light fixtures or electrical equipment. The DM1 should be placed as close as possible to the subject(s) to be monitored. The DM1 is usable 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.

#### Cable Run

Run a 22 gauge, stranded, two conductor shielded cable between the DM1 microphone and the monitoring device. Keep the cable run distance under 1,000 feet and away from AC power sources, light fixtures and electrical equipment. Connect power to the + terminal, the audio signal to the "audio" terminal and ground to the – terminal. The Ground of the power and audio signal must share a common ground for proper operation. *See Figure 1 for connection diagram.* 

## Mounting

The DM1-SS can be surface or flush mounted on ceilings or walls. For flush mounting, cut a 2  $\frac{1}{4}$ " by 2  $\frac{3}{4}$ " hole in the wall or ceiling tile to allow room for the circuit board and mount the DM1-SS to the surface with screws. A single gang electrical box can be used for surface mounting or consider using an DM1-SS in place of the DM1-SS.

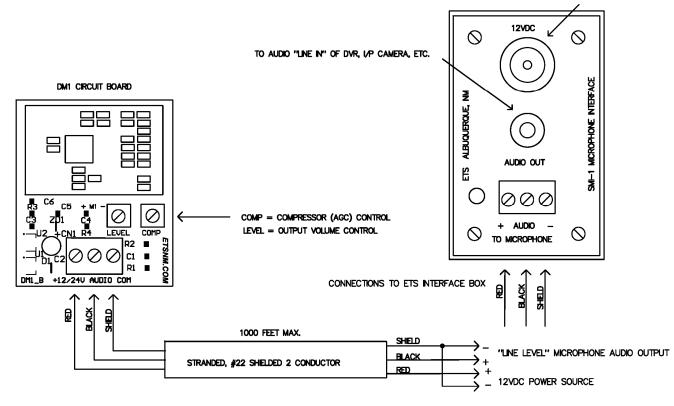
## Adjusting the Automatic Gain Control (COMP)

The DM1 features automatic control of gain. This is useful for environments where it is anticipated that sound levels will range from quiet to loud. The best way to set this control is to adjust it to a comfortable volume level (on an ETS base station or PC monitor speakers) when the loudest sounds are present and constant. Turning the control + CW will increase the amount of gain reduction during loud sound intervals. If the sound is reduced too much during loud sounds, turn the control - CCW a small amount and continue experimenting until a comfortable medium is found.

## Adjusting the DM1-SS Level

Start with the Level set at midrange. If the sound at the "head end" is distorted, rotate the control towards the – mark (counter-clockwise CCW). If the volume at the "head end" is too low, rotate the control towards the + mark (clockwise CW). Note- the DM1-SS output signal can be used to drive a microphone level input (-60db) of a DVR or IP camera by turning the volume all the way down (full CCW) and then CW a small amount.

12VDC AC ADAPTOR NPUT CENTER "-".



CONNECTIONS TO OTHER EQUIPMENT, NOTE SHARED COMMON GROUND.

#### 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.

