

ETS Inc. SM1-PE2-PDM6 Microphone Instructions

The SM1-PE2-PDM6 is a high quality, 12-24vdc powered, flush mount, omni-directional, pre-amplified microphone with enhanced features for use with DRVs, IP cameras, etc. Note- the audio output of the SM1-PE2-PDM6 is switch selectable “line level” (0db) or “microphone level” (-30db).

SM1-PE2-PDM6 Microphone Placement

Do not mount the microphone near air conditioning vents, light fixtures or electrical equipment. The SM1-PE2-PDM6 should be placed as close as possible to the subject(s) to be monitored. The SM1-PE2-PDM6 is usable at distances of up to 100 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 SM1-PE2-PDM6 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 SM-PE2-PDM6 is designed to be mounted on a wall with the bracket it comes with. Different mounting configurations are available. Please contact ETS with your requirements for a custom solution. The pickup pattern of the microphone is beam-like, so it should be pointed in the direction of interest.

Adjusting the Lo-Cut and Hi-cut filters

The SM1-PE2-PDM6’s high and low frequency response can be trimmed to reduce background noise. If you are primarily interested in capturing conversations and want to reduce air conditioning and other noises, rotate both controls (hi-cut and lo-cut) to just short of full clockwise. Experimentation with the settings may be required to achieve the best results for a given environment.

Adjusting the Automatic Gain Control

The SM1-PE2-PDM6 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 SM1-PE2-PDM6 Volume

The SM1-PE2-PDM6 output level is set by selecting the desired volume range and adjusting the gain control.

The “Volume Range” switch should be set to the “LO” position when using the SM1-PE2-PDM6 with IP cameras that utilize “microphone inputs” also known as “Mic. Level” inputs. This sets the maximum gain of the SM1-PE2-PDM6’s pre-amp to x14. The switch should be placed in the “HI” position when using IP cameras with “Line level” inputs of DVRs and IP cameras. This sets the maximum gain of the SM1-PE2-PDM6’s pre-amp to x196.

The SM1-PE2-PDM6 is shipped with the Volume set at midrange. If the sound at the “head end” is too loud and / or distorted, rotate the control - CCW. If the volume at the “head end” is too low, rotate the control +CW.

