

ETS Inc. VBF-4 Microphone Bandpass Filter / Interface Instructions

The VBF-4 is a 4 channel voice bandpass filter / interface for use with all SM1 series microphones. The VBF-4 is useful installed in environments with high levels of background noise. VBF-4 features a convenient way of supplying power to the SM1s and installer friendly termination of the cable runs. The VBF-4 is typically connected to recording equipment such as DVRs, IP cameras, etc. Note the audio output signals of the VBF-4 are line level (0dbm).

SM1 Microphone Placement

Locate the SM1 microphone in the center of the space to be monitored. If a large area is to be monitored, locate the SM1 in the middle of the room. Do not mount the microphone near air conditioning vents, light fixtures or electrical equipment. The SM1 should be placed as close as possible to the subject(s) to be monitored. The SM1 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.

VBF-4 location and power

The VBF-4 interface box is designed to be located next to a DVR or IP camera. The VBF-4 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 22 awg, 2 conductor cable to extend the distance between the AC power source and the VBF-4.

Cable Run

Run a 22 gauge, stranded, two conductor shielded cables between the VBF-4 interface and the SM1 microphones. Keep the cable run distance at or under 1,000 feet and away from AC power sources, light fixtures and electrical equipment. *See Figure 1 for connection diagram.*

Adjusting the SM1 gains and VBF-4 level controls

If the VBF-4 will be plugged into a “microphone level” input of an IP camera, set the SM1 gains slightly clockwise (or 1/8 of a full turn) from full counter-clockwise. Then use the “level controls” on the VBF-4 to set the volume of each microphone to produce an acceptable audio level at the head end.

If the VBF-4 will be used with a “line level” inputs, turn the gain controls of the SM1s to 3/4 full clockwise and adjust the level controls on the VBF-4 to produce the clearest audio levels at the head end.

SM1 filters

Switch both LC and HC filters of the SM1s to the ‘in’ positions to further enhance the voice band pass of the VBF-4.

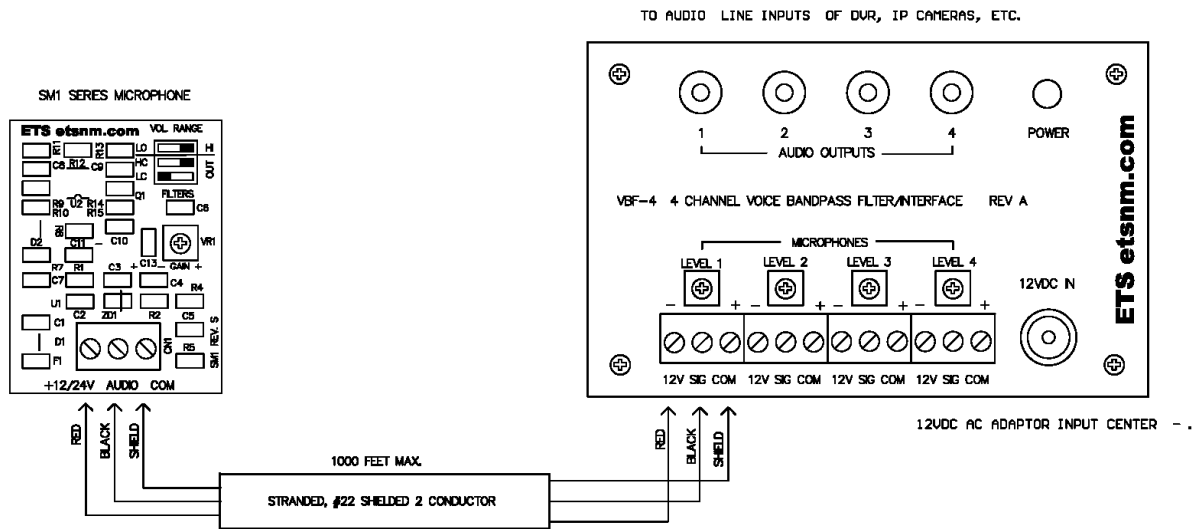


Figure 1.

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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