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## QUANTUM BLENDER



The Quantum Blender is designed for mixing a piezo transducer with a microphone, magnetic pickup, or another piezo pickup.

Please use the supplied 12-volt DC wall-adaptor or one of equal specifications to power the unit. Polarization (plus/minus direction) of the DC plug is irrelevant; your Quantum Blender takes care of this.

Channel 1 is switchable from mic to pickup impedance. It can be used with any "2 wire" powered lavalier type condenser mic or with a piezo or magnetic pickup. You can also use a dynamic mic with an appropriate microphone impedance matching transformer.

Channel 2 is designed for K&K's Trinity System or Pure pickup, but it works well with all types of piezo transducers.

### Gain

The gain controls allow for adjusting the input sensitivity of each channel. You can set the sensitivity of each channel to fit different pickups, microphones or transducers. If the gain is set too high, distortion may occur. Always set the gain at the lowest possible setting for your application and turn the volume control on the front panel all the way up, rather than the other way round.

### Inputs

Stereo 1/4" line input  
2 individual mono 1/4" line inputs

### Outputs

Balanced XLR Mix out (carries both channels)  
Line level 1/4" Mix out (carries both channels)  
Individual 1/4" line outputs of channel 1 and 2

### Effect Loop

The effect loop allows for connecting to an effect unit (like reverb) via a special 1/4" stereo cable with a stereo plug on one side and two mono 1/4" plugs on the other. Effect send goes to the TIP, effect return to the RING terminal. Please keep in mind that once you hook up an effect unit of lower quality, you introduce additional noise. The effect loop sends the entire signal through the effect unit and back into the Quantum Blender. If you use a mixing board and if you are looking for the best possible noise specifications, we recommend you add the effect on the aux-bus (auxiliary) or effect-bus of the board.

## Sound Adjustment

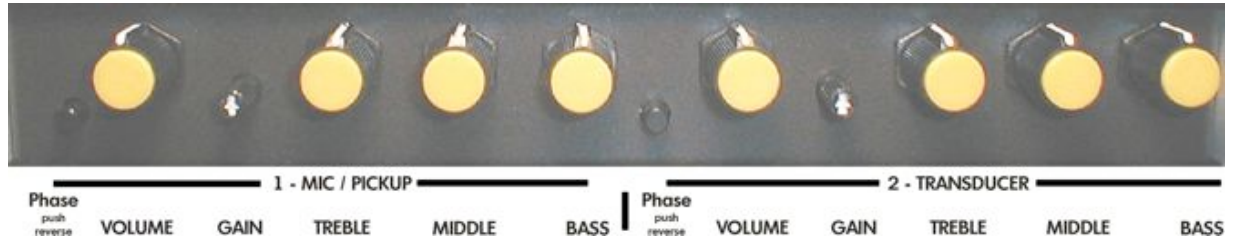
We suggest you start with all controls at zero position (fully counterclockwise) and the phase switches in non-inverted (not pushed in) position. First turn up the volume then the gain, until you reach the desired volume level. Then "dial in" the frequencies starting with bass then mid and treble.

## Adjusting the Sound of an Internal Guitar Mic

An internal guitar mic does not need any significant frequency boost. Preferably keep bass and midrange down and optionally dial in some treble. We found that the Trinity mic sounds best with all 3 EQ bands almost at a zero position.

## Specifications

### Front panel:



### Rear panel:



## Technical Data

EQ Frequencies channel 1:

Bass: 100 Hz (high pass filter) +/- 18 dB

Midrange: 1500 Hz (band pass filter) +/- 12dB

Treble: 8000 Hz (low pass filter) +/- 18 dB

EQ Frequencies channel 2:

Bass: 100 Hz (high pass filter) +/- 15 dB

Midrange: 1500 Hz (band pass filter) +/- 18dB

Treble: 10 000 Hz (low pass filter) +/- 15 dB

Frequency Response:

Channel 1: 10Hz to 35KHz.

Channel 2: 10Hz to 35KHz.

Distortion: Less than 0.005% @ 1KHz

Signal to noise ratio: - 85dB - A weighted, referred to nominal - 20dBV input

Input Impedance:

Channel 1 pickup: 1 Meg Ohms.

Channel 1 mic: 3 Kilo Ohms.

Channel 2 transducer: 1 Meg Ohms.

Mic Power: 9volt DC max

Power source: 12 volt DC - 700 milli amp minimum- automatic polarizing