

AMPULATOR

Vacuum Tube Power Amp and Speaker Emulator

The ultimate in emulation includes tube poweramp.

The AMPULATOR is a single rack space tube power amp emulator and cabinet emulator which takes into account every characteristic and nuance of real tube poweramps, drivers, and speaker cabinets. It takes a guitar preamp signal and processes it for direct

AMPULATOR while listening through the control room's reference monitors. The front panel of the AMPULATOR is divided into two main sections: a vacuum tube power amp and a reactive load speaker emulator. The Push-Pull Tube Amp & Power Emulator section al-

raspy characteristics found in some power amps. The Miked Cabinet Emulator section provides a real reactive load for the push-pull tube power amp. Controls include section bypass, cabinet design (open/closed back), number of speakers (1, 2 or 4), and size of



recording or a line level feed to a house sound system. The AMPULATOR incorporates a tube power amp directly coupled to a reactive speaker load emulator, eliminating the need for large power amps (guitar heads), speaker cabinets, or microphones. The guitarist can simply dial-in power amp and speaker cabinet characteristics on the

controls for choice of power type and class (triode/pentode) and class A, AB, or B (smooth to harsh distortion). The power amp can be overdriven, compressed and even have AC hum added at high signal levels to simulate power amps run beyond their operating limits. Tube matching allows the user to match or mismatch the output tubes to simulate the

the driver (10 or 12 inch). The EQ section of the cabinet has both a Lo Frequency Resonance and a Hi Balance (microphone proximity and placement axis). The rear panel includes 1/4" balanced and unbalanced inputs and XLR balanced (switchable ground lift) and 1/4" unbalanced outputs.



Made in America for Musicians by Musicians

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SPECIFICATIONS:

PUSH-PULL TUBE AMP & POWER EMULATOR SECTION:

DRIVE LEVEL: Increases the signal strength to the phase splitter of the power amp.

CLEAN, COMPRESS, and OVERDRIVE LED indicators: Show conditions of drive level to achieve the desired amount of tube distortion.

PRESENCE: Negative feedback high frequency control to overcome high frequency loss during output saturation of tube power amps.

TUBE MATCHING: Adjusts the output tube bias of the Push-Pull output amplifier.

HUM INJECTION: Induces A.C. hum into high level signals, simulating poorly filtered, "sagging" power supplies of older guitar amps.

TUBE BIAS: Sets the class of operation for the tube power amp.

CLASS INDICATOR: Displays class A, AB, or B as set by the Tube Bias control.

POWER LEVEL: Sets power level emulation into various reactive speaker loads. Ranges from 0.2 to 200 watts.

CHARACTER: Selects the two types of tubes, TRIODE or PENTODE, commonly used in power amps. A TRIODE is less efficient than a PENTODE and will tend to have a better damping factor, and a larger range of compression before actual signal clipping occurs.

MIKED CABINET EMULATOR SECTION:

CABINET BYPASS: Removes the cabinet emulation from the signal path.

SPEAKER ARRAY: Selects the number of speakers in the cabinet.

SPEAKER SIZE: Selects the speaker size, either 10 or 12 inch.

DRIVER: Selects either BRIGHT or DARK speaker frequency response characteristics simulating older (darker) or newer (brighter) cone designs.

CABINET: Selects either OPEN or CLOSED back speaker cabinet design, effecting low frequency behavior and also distortion characteristics at loud signal levels.

LO RESONANCE: Allows the addition of a boost at low frequencies similar to the peak in many cardioid-type microphones when they are placed close to the sound source.

HI BALANCE: Sets the final rate and cutoff point of the high frequencies in the emulated speaker cabinet. Since this is also governed by mic axis, it can be viewed as a control of the microphone's angle of placement of the cabinet. The +6dB setting would be fully on axis. The cutoff frequency ranges from 1kHz to 6kHz with a final roll off of 18dB/octave.

OUTPUT SECTION:

OUTPUT LEVEL: Allows matching the level of the signal leaving the Ampulator to the level coming into it.

OUTPUT CLIP LED: Lights when the Output Level control needs to be decreased.

SYSTEM OUT/IN: Completely bypasses all tone modifying circuits and level controls. When the button is out, the input signal appears at the Output jack.

REAR PANEL:

INPUT: The input jack will accept up to +20dBV balanced or unbalanced connectors.

INPUT IMPEDANCE: 50K ohm

MAXIMUM INPUT: +20dBV

OUTPUTS: Line level unbalanced via a 1/4" phone jack, and balanced via a separate line level (0dB) or mic level (-30dB) switch selectable XLR connector. The max signal output is +12dBm. The XLR connector has a pin 1 ground lift switch to avoid ground loops.

MAXIMUM OUTPUT: +19dBm

TUBE COMPLEMENT: one 12AX7A

FUSE: USA: 3/16 Amp, Slo-Blow

DIMENSIONS: 1 rack unit. D=5"; W=19"; H=1.75"

WEIGHT: 5.6 lbs., 6.6 lbs shipping

POWER REQUIREMENTS: USA: 117VAC +10%/-15% 60Hz, 20 watts maximum.
Foreign: 230VAC +10%/-15% 50Hz, 20 watts maximum

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