

XC-400

PROFESSIONAL SERIES POWER AMPLIFIER

GENERAL DESCRIPTION

Our market research continues to indicate strong demand for a professional power amplifier mounted in a rugged roadworthy enclosure. Many performers and groups need the professional performance offered by most rack mounted power amps but would prefer the convenience and ruggedness of a totally packaged unit as opposed to the awkward and oftentimes delicate units designed only for rack mounting. Our new XC-400 utilizes circuitry very similar in design to our popular and well-respected CS-400 and CS-800. This versatile new unit has been designed using the latest integrated and discrete semiconductor devices.

This newly engineered 300 watt RMS (2 ohms) power amplifier features our exclusive DDT® ("Distortion Detection Technique") compression circuitry that electronically senses the onset of clipping and automatically activates the compression circuit to minimize distortion in the power amp. The use of this DDT® compression circuit effectively increases the apparent headroom available, thus utilizing every precious watt of power available and allows the XC-400 to quite effectively compete with units having considerably more RMS power.

Eight high voltage "power base" output devices are bolted to a massive aluminum heatsink for continuous operation under rugged field conditions. The XC-400 features transformer balanced and unbalanced inputs with a unique capability to enable "patching through" the XC-400 to other devices in the system. An extremely wide dynamic range capability enables the input of the XC-400 to accept signal levels greater than 30 volts (speaker levels). A ten-segment LED VU display provides an accurate and instantaneous visual indication of the output power. The XC-400's circuitry is protected at both the input and output against high voltage transients, short circuits, etc., and its technical performance is comparable to most "professional amplifiers" whether they be in a rack mountable or any other type of package.

The XC-400's performance, DDT® compression circuitry, dependability, rugged package, balanced inputs and patch panel make it an exceptional choice for upgrading present systems or powering sound reinforcement or musical instrument systems.

SPECS

RATED POWER:

210 watts RMS into 4 ohms
300 watts RMS into 2 ohms

POWER @ CLIPPING:

(1% THD, 1 KHz, 120 VAC line)
Typically:
130 watts RMS into 8 ohms
225 watts RMS into 4 ohms
320 watts RMS into 2 ohms

FREQUENCY RESPONSE:

+0, -1 dB, 10 Hz to 30 kHz, 200 W RMS into 4 ohms

TOTAL HARMONIC DISTORTION:

Less than 0.1%, 200 mW to 200 W RMS, 20 Hz - 10 kHz,
4 ohms, typically below .05%

INTERMODULATION DISTORTION:

Less than 0.1%, 200 mW to 200 W RMS, 60 Hz & 5 kHz,
4 ohms, typically below .05%

HUM AND NOISE:

Greater than 90 dB below full power

SLEW RATE:

Greater than 15 volts per micro-second

LOAD IMPEDANCE:

4 ohms or greater (stable into any load configuration)

DAMPING FACTOR:

Greater than 100 @ 1 kHz, 4 ohms

INPUT SENSITIVITY:

1 V RMS for 200 W into 4 ohms

INPUT IMPEDANCE:

50K ohms (High impedance bridging inputs)
2.7K ohms (Low impedance bridging inputs)

INPUT DYNAMIC RANGE:

Greater than 30 V RMS (Will accept speaker levels)

LOAD PROTECTION:

Short, mismatch, open-circuit proof. Voltage/current limiting instantaneous with no thumps or cut-off

DDT® COMPRESSION SYSTEM

DYNAMIC RANGE:

Greater than 26 dB

MAXIMUM DISTORTION:

Less than 0.5% THD for 6 dB overload @ 1 kHz
Less than 1.0% THD for 20 dB overload @ 1 kHz

LED POWER DISPLAY:

30 dB Range @ 3 dB steps



WARNING
TO PREVENT ELECTRICAL SHOCK OR
FIRE HAZARD, DO NOT EXPOSE THIS
APPLIANCE TO RAIN OR MOISTURE.

FEATURES

TRANSFORMER BALANCED LOW IMPEDANCE INPUTS

For ultra-quiet operation in the most demanding professional situations. Balanced inputs eliminate radio frequency and light dimmer system noise, etc. particularly when long cable runs are necessary.

HIGH IMPEDANCE UNBALANCED INPUTS

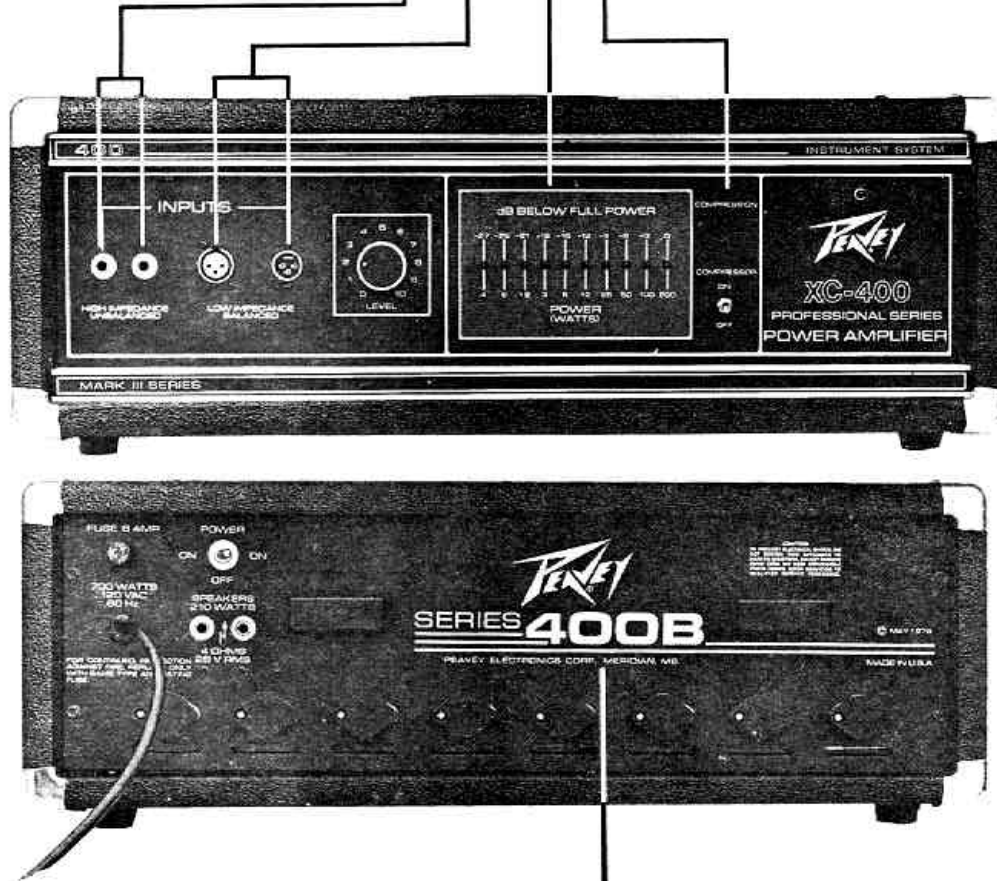
High impedance inputs with standard 1/4" phone jacks are included for convenience when balanced hookups are inconvenient or unnecessary.

LED OUTPUT LEVEL INDICATOR

Much more accurate than conventional VU meters because there are no moving parts so that even the fastest transients are displayed. Features a full 30 dB range in 3 dB steps.

COMPRESSOR

Our exclusive DDT® (Distortion Detection Technique) allows absolute maximum dynamic range available from the power amplifier and virtual elimination of power amplifier clipping.



NEW POWER MODULE

A new 400 power module now gives 300 watts RMS performance into 2 ohms and 210 watts RMS into 4 ohms.

Due to our efforts for constant improvement, features and specifications listed herein are subject to change without notice.



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