“unique differential design cancels noise and distortion”

Producing a minimum 400 watts per channel in stereo, 800 watts in mono, the MC402 delivers power that is fully balanced from input to speaker output. The extraordinary quad-differential design of the MC402 actually consists of four complete amplifier circuits. Each channel contains two amplifier circuits, each the mirror image of the other, whose outputs are combined in the unique McIntosh Output Autoformer® resulting in totally balanced operation from input to speaker output and the cancellation of virtually all noise and distortion.

The exclusive McIntosh Output Autoformer® is a handcrafted matching device that provides an ideal impedance match for all speaker types regardless of their rated impedance. Any departure from an optimum impedance match increases stress on the amplifier which threatens a rise in distortion as well as a reduction in the life expectancy of the amplifier. McIntosh Output Autoformers® enable the MC402 to operate at maximum efficiency and to always deliver full power, without stress, to any type of loudspeaker.
MC402
Power Amplifier

EXCLUSIVE MCINTOSH POWER ASSURANCE SYSTEM

A collection of technologies that enhance performance and reliability and protect the amp and loudspeakers.

Power Guard
A waveform comparison circuit continuously monitors both input and output signals. If any difference is detected, Power Guard dynamically adjusts the input level to ensure maximum power output while preventing harsh sounding clipping distortion.

Sentry Monitor
Current protection continually senses the voltage and current of the output stage and confines it to a safe limit, without limiting power output.

DC Failure Protection
Protects speakers against output circuit failure. Any DC current that appears in the output is shunted to ground by the output autoformer.

Thermal Sensors
Protects against overheating if cooling air is blocked and output transistors become too hot.

Turn-on Delay
Delays operation for about two seconds after turn-on, to silence any pops or thumps generated by other equipment.

Soft Start Inrush Protection
Eliminates component stress during turn-on. Thermistors in the power transformer act as a cushion against inrush current.

FREQUENCY RESPONSE
20Hz to 20kHz, +0 / -0.25dB
10Hz to 100kHz, +0 / -3.0dB

TOTAL HARMONIC DISTORTION
0.005% max. at any level from 250mW to rated power output

INTERMODULATION DISTORTION
SMpte 0.005% maximum if instantaneous peak output does not exceed twice the output rating

A-WEIGHTED SIGNAL-TO-NOISE RATIO
Unbalanced: 94dB
(120dB below rated output)
Balanced: 98dB
(124dB below rated output)

RMS POWER OUTPUT
400W min. (stereo) or 800W min. (mono) sine wave continuous average power output from 20Hz-20,000Hz

INPUT IMPEDANCE
10,000 ohms (unbalanced)
20,000 ohms (balanced)

OUTPUT LOAD IMPEDANCE
Terminals for 8, 4, or 2 ohms (stereo)
Terminals for 1, 2, or 4 ohms (mono)

INPUT SENSITIVITY
2.0V unbalanced
4.0V balanced

WIDE BAND DAMPING FACTOR
Greater than 40

DYNAMIC HEADROOM
2.1dB

RATED POWER BAND
20Hz to 20kHz

POWER GUARD®
Clipping is prevented and THD does not exceed 2% with up to 14dB overdrive at 1kHz

POWER REQUIREMENTS
120V 50/60Hz, 10A

OVERALL DIMENSIONS (H X W X D)
17 1/2 (44.45 cm) x 9 7/16 (23.97 cm) x 20 (50.8 cm)

WEIGHT
110.5 lbs. (50.1kg) net
143.5 lbs. (65.1kg) boxed