

MC402 Power Amplifier



**“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.

- Fully Balanced Differential Design
- New 3D Glass Panel Design
- Exclusive McIntosh Output Autoformer[®]
- Exclusive McIntosh Power Assurance System
- Power Guard[®] Clipping Protection
- Sentry Monitor[®] Current Protection
- Thermal Sensors
- DC Failure Protection
- Turn-On Delay
- Soft Start Inrush Protection
- Fiber-Optic Light Diffuser Illumination
- Illuminated Peak-Responding Wattmeters
- Balanced Connections
- Remote Power Control

POWER OUTPUT

A Tradition of Excellence



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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

Fully balanced differential design

400 watts (stereo) or 800 watts (mono parallel)

High output current capability (>100 amps)

Balanced and unbalanced inputs

Exclusive McIntosh Output Autoformer®

Wide power bandwidth, low distortion

Exclusive McIntosh Power Assurance System

Illuminated peak-responding, true-reading
watt meter with hold

Fiber optic light diffuser illumination for front panel
nomenclature

Remote power control

Massive gold-plated five-way output binding posts

Fanless convection cooling

Modular construction with stainless steel chassis
with super mirror finish

1/2"-thick glass front panel with illuminated nomenclature

