



MC202 Power Amplifier





See "SYSTEMS ENGINEERING" in main brochure for more on McIntosh system architectures.

The "Bifilar" winding technique used in the making of autoformers earned McIntosh one of its first patents. The design is so advanced it is still used today.





McIntosh Power Guard provides real-time clipping protection without affecting power output or sound quality.

a) test signal

b) overdriven amp <u>without</u> Power Guard has SEVERE clipping distortion

c) overdriven amp <u>with</u> Power Guard has NO clipping distortion

MC202 Power Amplifier



S ome people think that power *output* is directly proportional to power *quality*. This may often be true, but never with a McIntosh amplifier. The 200 watts per channel delivered by the MC202 is pure McIntosh power, and an ample amount for most listening rooms. With its modest price and bridged-mono capability, the MC202 also is well-suited for multichannel home theater systems.

Featured Technologies

EXCLUSIVE MCINTOSH OUTPUT AUTOFORMERS. An impedance mismatch between an amplifier and loudspeaker can cause distortion and a reduction in power. The legendary McIntosh autoformer is a hand-crafted transformer with output connections for 2, 4, and 8 ohms (plus 4, 8, and 16 ohms for the MC202's mono bridged mode), allowing an ideal impedance match. A McIntosh amplifier with an autoformer can also safely drive multiple speakers connected in parallel without shortening the life expectancy of the output stage. There is absolutely no performance penalty with an autoformer. In fact, its frequency response *exceeds* that of the output circuit itself, and extends well beyond the audible range. Distortion is so low it is virtually immeasurable.

EXCLUSIVE MCINTOSH POWER ASSURANCE SYSTEM. Power Assurance is a collection of technologies that enhance performance and reliability and protect the amp and the loudspeakers.

Power Guard® clipping protection. Power Guard ensures that the amplifier will always deliver full power without causing clipping distortion. If an amplifier channel is overdriven, Power Guard automatically reduces the input volume just enough to keep distortion below 2% and prevent any clipping distortion. Thanks to an optical resistor, Power Guard acts literally at the speed of light, producing absolutely no audible side effects. An amplifier with Power Guard will actually deliver clipping-free output well above its rated power.

Sentry Monitor[®] current protection. Sentry Monitor continually senses the voltage and current of the output stage and confines it to a safe limit. Sentry Monitor does not limit power output.

Thermal Cutout. If the cooling air is blocked and the power transistors become too hot, thermal cutouts protect against overheating until the amp cools.

DC Failure protection. In the rare event of an output circuit failure, any DC current that appears in the output is shunted to ground by the autoformer, protecting the speakers from damage.

Turn-On Delay. This circuit delays operation for about two seconds after turn-on in order to avoid any pops or thumps generated as other equipment turns on.

Soft Start inrush protection. Thermistors in the power transformer act as a cushion against inrush current, eliminating component stress during turn-on. Soft Start is one of many design details that contribute to the remarkable longevity of McIntosh equipment.

About the MC202 Companion Products

The McIntosh products shown at right are logical companions for the MC202. Separate literature is available. Check with your McIntosh dealer for any late additions. McIntosh speaker systems are also covered in detail in separate literature.

C41 Control Center. With its balanced input, the MC202 will realize its full potential when mated to a Control Center with a balanced output, such as the C41.

MX132 A/V Control Center + Processor. Multiple MC202s are a superb choice for a home theater system centered around the MX132.

MSE1 Surround Expander. Designed to operate in conjunction with the MX132, the MSE1 decodes the latest *surround-enhanced* 5.1 soundtracks that feature an additional back channel. It can also manually expand standard 5.1 soundtracks.

CR12 Multizone A/V Control Center. Multiple MC202 amps are a higher-power alternative to the MC7108 8-channel amplifier typically employed in a CR12-based multizone system.

HT Series Loudspeakers. These THX[®]-certified speakers deliver a musical, non-fatiguing sound not often heard from home theater speakers. The HT1 can be used for all three front channels or with the compact HT4 in the center. The rear-channel HT3F dipoles mount flush to a wall or ceiling and are also available in an on-wall version (HT3W). The HT2 passive subwoofer can be driven by one MC202 power amp in bridged mode. The HT2's dual 12-inch LD/HP[®] bass drivers deliver deep, well-controlled bass that will satisfy even large listening rooms.

SL6 Loudspeaker. The 4-way floorstanding SL6 features three 6.5-inch bass/mid drivers and three high-frequency drivers. Its angled front allows placement parallel to and nearer the wall.



As seen on the inside surface of this demonstration piece, the screening process for a McIntosh glass panel entails as many as 12 individual layers.

The glass panels are cut using a computer-controlled high-pressure water jet.



Featured Technologies (cont'd.)

ILLUMINATED PEAK-RESPONDING WATTMETERS. The output in watts of any amp depends on loudspeaker impedance, which varies considerably with the frequency content of music. Conventional output meters may display "watts" but they actually measure output *voltage* because they assume a *fixed* impedance. McIntosh wattmeters display *real* output in watts, and thus indicate the *real* power required to drive a particular speaker. McIntosh wattmeters respond 95% full scale to a single-cycle tone burst at 2kHz. Response is almost 10-times faster than a professional VU meter. The "hold" feature provides a longer pause at the peak reading. The meter illumination can be switched off.

BALANCED CONNECTIONS. A premium feature not usually found in consumer audio gear, balanced connections guard against induced noise and allow long cable runs without compromising sound quality. A balanced connection between the MC202 and the C41 Control Center provides 40dB more noise protection than would an unbalanced ("single-ended") connection.

REMOTE POWER CONTROL. This allows a McIntosh Control Center to turn the MC202 and other system components on/off.



C41 AUDIO CONTROL CENTER



MX132 A/V CONTROL CENTER + PROCESSOR



MSE1 SURROUND EXPANDER



CR12 MULTIZONE A/V CONTROL CENTER



HT SERIES LOUDSPEAKERS



SL6 LOUDSPEAKER

Why Choose McIntosh ? Most consumer electronics products are necessarily viewed as short-term investments because either they don't last or they quickly become obsolete in some way. *Coincidentally*, manufacturers supply a steady stream of "new-and-improved" products that you can buy. *Again*.

Behind every McIntosh is a fifty-year heritage of excellence, proudly carried forward by every employee. No production lines, no "price-point" engineering, no planned obsolescence. McIntosh equipment is made to sound better and last longer.

When McIntosh products are presented to customers, the criteria they have been conditioned to overlook – reliability, longevity, craftsmanship, ease-of-use, adaptability, pride of ownership – suddenly leap to the top of their list.

The choice becomes clear: There is nothing like a McIntosh.

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FEATURES

Stereo: 2 x 200 watts (8/4/2 ohms)

Mono bridged: 1 x 400 watts (16/8/4 ohms)

Balanced input

Exclusive McIntosh output autoformers

Wide power bandwidth

Ultra-low distortion

Exclusive McIntosh Power Assurance System: Power $\mathsf{Guard}^{\textcircled{R}}$ clipping protection

Sentry Monitor® current protection Thermal Cutout

- DC Failure protection
- Turn-On Delay
- Soft Start inrush protection

Illuminated peak-responding wattmeters with hold

Remote power control

Gold-plated high-current output terminals

Fanless convection cooling

Modular construction with steel chassis

Glass front panel with illuminated nomenclature

SPECIFICATIONS

RMS Power Output

Minimum sine wave continuous average power output from 20Hz to 20kHz with all channels operating -Stereo: 200W per channel (8/4/2 ohms) Mono bridged: 400W (16/8/4 ohms)

Output Load Impedance

Stereo: 2, 4, or 8 ohms Mono bridged: 4, 8, or 16 ohms

Rated Power Band 20Hz to 20kHz

Peak Output Current > 50 amperes

Total Harmonic Distortion

0.005% maximum at any level from 250 milliwatts to rated power output per channel from 20Hz to 20kHz with all channels operating

Intermodulation Distortion

0.005% maximum if instantaneous peak power output does not exceed twice the output power rating

Dynamic Headroom 1.9dB

Frequency Response 20Hz to 20kHz, +0 / -0.25dB 10Hz to 100kHz, +0 / -3.0dB

Input Sensitivity Unbalanced: 1.7V Balanced: 3.4V

S/N Ratio (A-Weighted) 115dB below rated output

Damping Factor > 40

Input Impedance

Unbalanced: 10k ohms Balanced: 22k ohms

Power Guard®

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

Power Requirements 120V 50/60Hz, 5A

Dimensions (h x w x d)

inch: 5.44 x 17.5 x 17.5 cm: 13.8 x 44.5 x 44.5 knob clearance: 1.125" (2.9 cm)

Weight

65 lbs. (29.5kg) net 83 lbs. (37.7kg) shipping