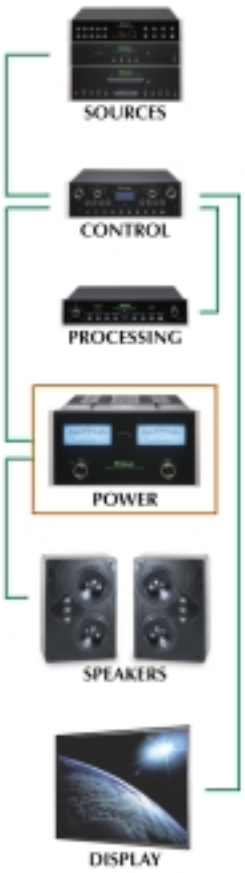
McIntosh®

THE GREAT AMERICAN POWERHOUSE

FIFTY-YEAR 50 ANNIVERSARY

MC352 Power Amplifier



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

MC352

Power Amplifier

Possessing the legendary might of its forebears, the double-balanced MC352 attains a new level of refinement. Its high-current output will drive any loudspeaker system to ultimate performance. Sonically transparent and lightning fast, the sound of the MC352 is simply the sound of music.

Featured Technologies

DOUBLE-BALANCED PUSH-PULL DESIGN. The MC352 is fully balanced from input to speaker output. Matched amplifiers operate in complimentary push-pull with their outputs combined in the McIntosh autoformer. The resulting double-balanced configuration cancels virtually all distortion. This circuit design is possible only with the McIntosh autoformer.

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 1, 2, and 4 ohms for the MC352's mono parallel 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.

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.

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.

About the MC352 Companion Products

The McIntosh products shown at right are logical companions for the MC352. Separate literature is available. Check with your McIntosh dealer for any late additions. McIntosh speaker systems are also covered in detail in separate literature.

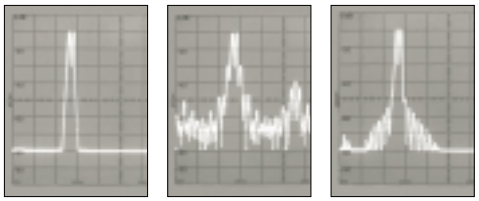
C42 Audio Control Center. The C42 and MC352 form a balanced audio system with "state-of-the-McIntosh" performance.

XRT25, XRT26 Loudspeakers. The stunning XRT loudspeakers feature patented LD/HP® bass and midrange drivers and multi-tweeter Line Source columns that increase power handling, minimize distortion, and control vertical dispersion. Useable bass response extends down to 20Hz.

XR290 Loudspeaker. The powerful XR290 provides nearly flat response all the way down to 20Hz. All drivers are in a Line Source configuration, resulting in tightly controlled vertical dispersion that minimizes floor and ceiling reflections for a deep and well-focused soundstage.

C42 AUDIO CONTROL CENTER

XRT25 LOUDSPEAKER



The patented McIntosh Power Guard in the MC352 provides real-time clipping protection without affecting power output or sound quality.
a) test signal
b) overdriven amp without Power Guard produces SEVERE clipping distortion
c) overdriven amp with Power Guard produces NO clipping distortion

XRT26 LOUDSPEAKER

Featured Technologies (cont'd.)

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.

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. Balanced connections guard against induced noise. A balanced connection between the MC352 and the C42 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 MC352 and other system components on/off.

XR290 LOUDSPEAKER

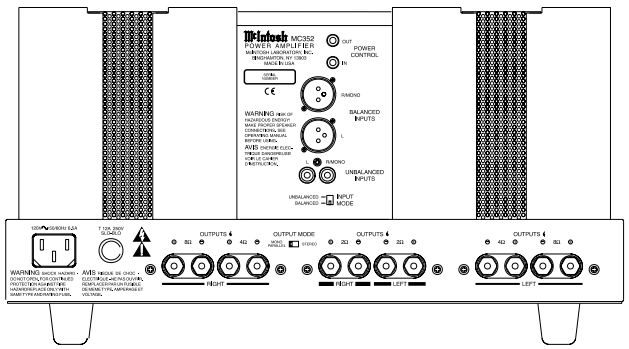
Most consumer electronics products are necessarily viewed as short-term investments because either they don't last or they quickly become obsolete in some way. *Coincidentally*, manufacturers supply a steady stream of "new-and-improved" products that you can buy. *Again*.

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.***

MC352 Power Amplifier



FEATURES

Double-balanced push-pull design

Stereo: 2 x 350 watts (8/4/2 ohms)

Mono parallel: 1 x 700 watts (4/2/1 ohms)

Balanced input

Exclusive McIntosh output autoformers

Wide power bandwidth

Ultra-low distortion

Exclusive McIntosh Power Assurance System:
- Power Guard® 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 stainless-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: 350W per channel (8/4/2 ohms)
Mono parallel: 700W (4/2/1 ohms)

Output Load Impedance
Stereo: 2, 4, or 8 ohms
Mono parallel: 1, 2, or 4 ohms

Rated Power Band
20Hz to 20kHz

Peak Output Current
> 100 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
2.1dB

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

Input Sensitivity
Unbalanced: 1.9V
Balanced: 3.8V

S/N Ratio (A-Weighted)
Unbalanced: 85dB (116dB below rated output)
Balanced: 115dB (124dB below rated output)

Damping Factor
40

Input Impedance
Unbalanced: 20k ohms
Balanced: 40k ohms

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

Power Requirements
100V 50/60Hz, 14.5A
110V 50/60Hz, 13.0A
120V 50/60Hz, 12.0A
220V 50/60Hz, 6.50A
230V 50/60Hz, 6.25A
240V 50/60Hz, 6.00A

Dimensions (h x w x d)
inch: 8.89 x 17.5 x 21
cm: 22.58 x 44.5 x 53.3
knob clearance: 1.125" (2.9 cm)

Weight
105 lbs. (47.63kg) net
138 lbs. (63kg) shipping

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McIntosh Laboratory, Inc., 2 Chambers Street, Binghamton, New York 13903
tel (607) 723–3512 • U.S. toll-free (888) 979–3737 • fax (607) 772–3308 • www.mcintoshlabs.com

0999.MC352.15k.essecomm