



MX134 A/V Control Center  
MC206 6-Channel Power Amplifier

# MX134

A/V Control Center



# MC206

## 6-Channel Power Amplifier



## Featured Technologies

**24-BIT SIGNAL PROCESSING.** The MX134 features one of the most powerful DSP engines ever. A Motorola 24-bit DSP handles Dolby® Digital/Pro Logic, DTS®, THX® processing, and bass management.

**THX SURROUND EX AND DTS ES.** The latest 7.1 multi-channel formats are supported to reproduce the Back Surround channel information. This produces the most convincing soundstage ever.

**PRO LOGIC II DECODING FOR MOVIES AND MUSIC.** Dolby's latest technology improves the surround imaging by providing separate surround channel information, as opposed to the mono surround channel used in standard Pro Logic. For music, Pro Logic II allows full range reproduction from the surround speakers with no added delay.

**HOME THX® CINEMA.** The latest Speaker Position Time Synchronization and Decorrelation enhancements for Dolby Digital, Pro Logic II, and DTS optimize sound in rooms lacking proper speaker locations.

**24-BIT CONVERSION.** A 24-bit stereo A/D converter on the analog input and four 24-bit stereo D/A converters at the DSP output provide a 96kHz throughput sampling frequency.

**PURE STEREO MODE.** In Stereo Mode, analog signals bypass all DSP processors for the purest audiophile sound. Digital signals of any type are down-mixed to a stereo output.

**TWO INDEPENDENT ZONES.** By using the RECORD output and an additional power amp, a second zone can be created with independent control of power, volume, and input selection via an IR sensor or keypad.

**OPTIONAL INTERNAL TUNER.** The MX134 has provisions for adding the McIntosh TM1 AM/FM Tuner Module. The module is a dealer-installed option.

**AUTOMATIC INPUT LEVEL CONTROL.** The analog input to the DSP features a circuit similar to the Power Guard® used in McIntosh amplifiers. AILC continuously monitors input voltage and if overdrive occurs reduces the input level, preventing distortion.

**REMOTE SELECTION OF MODES AND TRIM SETTINGS.** All surround modes and settings for speakers and tone can be adjusted using the remote control from the listening position or by using the TRIM LEVEL knob on the front panel.

**ON-SCREEN SETUP.** Speaker size selection, room calibration, sound enhancement features, and other system settings can be set from the listening position via remote control. Default settings are chosen to work with McIntosh Home Theater speakers, allowing customers to get excellent performance right out of the box.

**SYSTEM CALIBRATION.** The MX134 has internal sequential channel switching and a special sound generator to aid in setting output levels for all speakers.

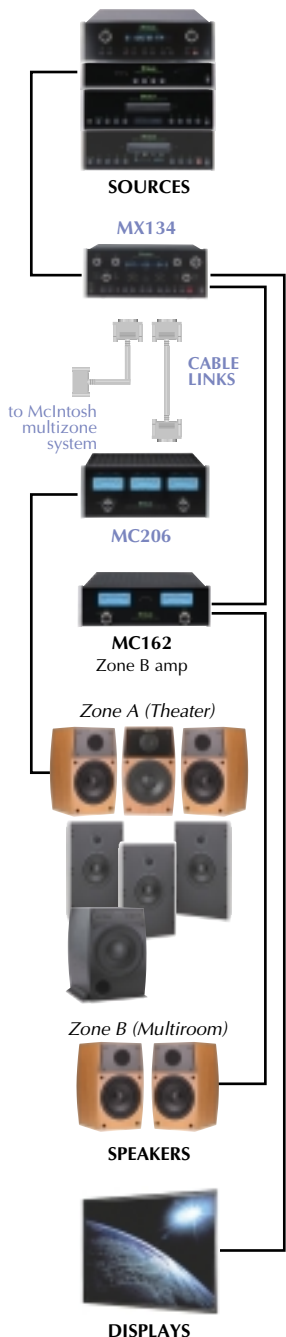
**RE-ASSIGNABLE INPUT SELECTION.** Any or all of the 11 A/V inputs can be re-assigned (e.g., change the name TAPE2 to the name DVD2). Unused inputs can be turned off so that the Input knob skips over them. All six digital inputs and component video inputs may also be assigned to any A/V source.

**CONTROL DATA OUTPUTS.** To facilitate system integration, the MX134 outputs control data for McIntosh source components. This also allows remote operation of non-McIntosh components either by direct connection to compatible data inputs or via a McIntosh Remote Translator.

**REMOTE POWER CONTROL.** The MC206 receives power on/off data via its cable link to the MX134. Power control jacks provide the same capability when the units are used independently.

**RS232 PORT.** In addition to connections for McIntosh keypads and other external IR sensors, the MX134 includes an RS232 port for use with popular touchscreen remote controls (e.g., Crestron® and AMX®).

**SUPER-TRACKING VOLUME CONTROL.** Level differences among channels in a stereo or surround system compromise sound imaging. The MX134 uses an electronic volume control with tracking accuracy better than 0.5dB for all eight channels.



All it takes is one cable to join the MX134 and the MC206 (or MC126)... and one more to link a home theater to a multizone system.

## MX134/MC206 Companion Products

The McIntosh products shown at right are logical companions for the MX134/MC206. Separate literature is available. Check with your McIntosh dealer for late additions.

**TM1 Optional Internal AM/FM Tuner.** The dealer-installed TM1 delivers the same exceptional performance as the stand-alone MR85 tuner.

**MVP841 DVD/CD/Video CD Player.** The MVP841 delivers crystal-clear DVD video and outputs 5.1 digital surround sound.

**RCT4 Remote Translator.** The Translator allows non-McIntosh components to be operated with a McIntosh IR remote or keypad controller. It connects to the data outputs on the MX134.

**PC4 AC Power Control.** The PC4 provides six outlets (five switched) for turning non-McIntosh components on and off automatically when it is connected to the power control output of the MX134.

**HC1 Home Controller.** The HC1 connects to the MX134's HOME data output and allows remote operation of other home devices such as lights and movie screens.

**WK2, WK3, WK4 Keypad Controllers.** These can be used to operate Zones A and B of the MX134. In addition, an RS-232 port makes the MX134 compatible with popular touchscreen remotes.

**CR16 Multizone A/V Control Center.** A single cable connects the MX134 and the CR16, integrating a McIntosh home theater and a multizone system. This lets the two systems share one group of source components, including the MX134's optional TM1 AM/FM tuner.

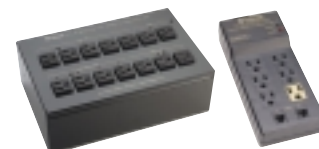
**Academy Series Loudspeakers.** The Academy speakers satisfy the often contradictory demands of pure music versus movie sound. All McIntosh loudspeakers use the acclaimed LD/HP® driver, which significantly reduces bass distortion while increasing power handling. The compact **HT5** has a small footprint. The **LS320** and **CS350** feature arched bridge truss construction that is virtually immune to vibrations that can distort sound. The tweeter plate in the LS320 reduces edge diffraction cancellation. The CS350 center channel speaker is sonically matched to the LS320 and features five tweeters wired in a Bessell Function Array that acts as a point source. The **WS320** is the wall-mount sibling of the LS320 and comes in a paintable white finish. At 400 watts, the **PS112** is McIntosh's most powerful amplified subwoofer. It features arched bridge truss construction and a black glass control panel. (All Academy speakers are fully described in a separate brochure.)



MVP841 DVD/CD/VIDEO CD PLAYER



RCT4 REMOTE TRANSLATOR



PC3, PC4 AC POWER CONTROLLERS



HC1 HOME CONTROLLER



TM1 OPTIONAL INTERNAL AM/FM TUNER

## Featured Technologies (cont'd.)

**ACTIVE VARIABLE LOUDNESS COMPENSATION.** Typical loudness circuits apply a fixed amount of compensation for listening at low volume. The MX134 includes a *separate* variable loudness control that applies compensation proportionately. When off, the loudness circuit elements are *completely* removed from the signal path.

**COMPONENT VIDEO SWITCHING AND UP-CONVERSION.** High-resolution DVDs demand high-quality video switching. The MX134 handles composite, "S", and component video signals. New Digital Video Processing Circuitry will up-convert composite video to "S" video (Zones A and B) and composite and "S" video to component video (Zone A only). Video buffer amps feed the two monitor video outputs, ensuring no loss in picture quality.

**EXCLUSIVE MCINTOSH POWER ASSURANCE SYSTEM.** Power Assurance is a collection of technologies that enhance performance and reliability and protect the MC206 and the loudspeakers.

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



WK2, WK3, WK4 KEYPAD CONTROLLERS AND R649 IR SENSOR



CR16 MULTIZONE A/V CONTROL CENTER

academy  
LOUDSPEAKERS



HT5



LS320



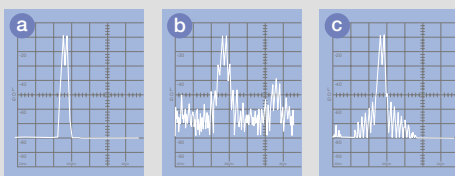
CS350



WS320



PS112



The patented McIntosh Power Guard in the MC206 provides real-time clipping protection without affecting power output or sound quality.

**a.** test signal **b.** overdriven amp without Power Guard produces SEVERE clipping **c.** overdriven amp with Power Guard produces minimal distortion.

**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 Protection.** If the cooling air is blocked and the power transistors become too hot, thermal cutouts protect against overheating.

**Turn-On Transient Protection.** 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 input circuit primary 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.

**ILLUMINATED PEAK-RESPONDING METERS.** McIntosh meters respond 95% full scale to a single-cycle tone burst at 2kHz. Response is more than 10 times faster than a professional VU meter. In the MC206, a four-position switch selects the channels to be monitored by the three meters. When the MC206 and MX134 are linked via the single cable connection, the correct meter mode is selected automatically when the system is calibrated. The meter illumination can also be switched off.



## MX134 A/V Control Center



- A/V Control Center
- Single-cable connection to McIntosh MC206 6-Channel Power Amplifier
- Single-cable connection to McIntosh CR16 Multizone A/V Control Center (MX134 becomes "master" preamp)
- 24-bit DSP Dolby Digital®, Pro Logic, and DTS®
- THX Surround EX and DTS ES
- 24-bit D/A converters
- 24-bit A/D conversion of analog source signals
- THX® ULTRA certified
- Home THX Cinema enhancements
- Switchable dynamic compressor for "late night" Dolby Digital
- Stereo Mode (no DSP) for 100% pure analog sound
- Optional internal AM/FM tuner module (TM1) with the RAA1 Remote AM Antenna
- 11 audio and video source selections with re-assignable naming
- 6 digital audio inputs (can create a digital processor loop) with re-assignable naming
- 2 digital outputs (can connect to a CD recorder or external processor)
- 2 component video inputs, 1 output
- 8-channel input for use with an external processor, DVD-Audio, and SAC
- Automatic Input Level Control (AILC)
- Precision volume control
- Active variable loudness compensation
- Control data output for source components
- Matched and buffered video switching
- S-video and composite video connections with composite-to-S converter
- Automatic format switching for surround sources
- Auto-memory recall of last mode setting for each input
- Permanent (non-volatile) memory of all system settings
- LED indicators for mode and speaker configuration
- Internal signal source for system calibration
- On-screen assistance for speaker size, room calibration, sound enhancements, and other system settings
- On-screen adjustable 8-speaker time delay (Speaker Position Time Synchronization)
- Remote control of all mode and trim settings for easy setup and calibration
- Independent listen and record selection
- Dual-zone operation using record selection for Zone B
- Independent remote control of Zones A and B
- Keypad controller connections (also compatible with Xantech sensors)
- RS232 port for use with popular touchscreen controllers
- Remote operation of lights, screens, and drapes with McIntosh HC1 Home Controller
- Remote power control
- Gold-plated input and output jacks
- Modular construction with steel chassis
- Glass front panel with illuminated nomenclature
- Infrared remote control with illuminated buttons

## MC206 6-Channel Power Amplifier



- Six-Channel Power Amplifier for home theater systems
- Single-cable connection to MX134 A/V Control Center
- 6 x 200 watts (4 ohms) or 6 x 120 watts (8 ohms)
- Wide power bandwidth
- Ultra-low distortion
- Exclusive McIntosh Power Assurance System:
  - Power Guard® clipping protection
  - Sentry Monitor® current protection
  - Thermal Protection
  - Turn-On Delay
  - Soft Start inrush protection
- Illuminated peak-responding wattmeters with four-position monitoring switch and auto mode selection with MX134
- Low-noise toroid power transformer
- Remote power control
- Gold-plated high-current output terminals
- Fanless convection cooling
- Modular construction with steel chassis
- Glass front panel with illuminated nomenclature



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The latest surround-sound technologies promise the most convincing home theater experience ever. Once again, McIntosh delivers on this promise with the MX134 Control Center. Loaded with the latest enhancements to Dolby® Digital and DTS®, the MX134 combines with the potent six-channel MC206 to deliver movie sound and music with unequalled definition and soundstaging. The MX134 features the most powerful digital processing engine available for surround sound. Yet despite being the most advanced digital component ever produced by McIntosh, the MX134 is easy to set up and operate, handles audio and video signals in purist fashion, and integrates elegantly with other McIntosh systems and components.





# MX134 A/V Control Center



## SPECIFICATIONS

### Frequency Response

#### Mono and stereo:

*L, C, R channels (large speakers)*

20Hz to 20kHz, +0 / -0.5dB

Music Surround Modes

*L, C, R, LS, RS, BSL, BSR channels*

20Hz to 20kHz, +0 / -0.5dB

### Dolby Pro Logic II

*L, C, R channels*

20Hz to 20kHz, ± 0.5dB

*LS, RS channels*

20Hz to 6.3kHz, +1 / -3dB

Note: Response is 20Hz to 20kHz in Pro Logic II music mode.

### Dolby Digital, DTS, and Ext. processor input:

*L, C, R, LS, RS, LBS, RBS channels*

20Hz to 20kHz, +0 / -0.5dB

### All modes:

*Subwoofer channel, low pass*

10Hz to 80Hz corner frequency

with 24dB per octave rolloff

Note: High pass rolloff is 12dB per octave when using small speakers

### Rated Voltage Output

2Vrms

### Maximum Voltage Output

8Vrms

### Output Impedance

100 ohms

### Total Harmonic Distortion

0.005% max. all channels from 20Hz to 20kHz

### Input Sensitivity

Line level: 100mV

Dolby level: 200mV input

External processor ref. level:

200mV input

### Maximum Input Signal

High level: 6V

### S/N Ratio (A-Weighted)

> 90dB below ref. level

### Input Impedance

High level: 22k ohms

### Voltage Gain

High level to tape: 0dB

High level to main: 14dB

### Tone Controls

Bass and treble: ±12dB

### OPTIONAL INTERNAL TM1 TUNER MODULE

#### FM SECTION

##### Useable Sensitivity

14dB (1.4uV across 75Ω)

### 50dB Quieting Sensitivity

Mono: 19dB (2.4uV across 75Ω)

Stereo: 35dB (15uV across 75Ω)

### Signal-to-Noise Ratio

Mono: 75dB • Stereo: 70dB

### Frequency Response

Mono: 20Hz to 15kHz, +0 / -1dB

Stereo: 20Hz to 15kHz, +0 / -1dB

### Harmonic Distortion

Mono: 0.3% @ 100Hz

0.3% @ 1kHz

0.3% @ 10kHz

Stereo: 0.45% @ 100Hz

0.45% @ 1kHz

0.65% @ 10kHz

### Intermodulation Distortion

Mono: 0.25%

Stereo: 0.45%

### Capture Ratio

1.2dB

### Alternate Channel Selectivity

75dB

### Spurious Response Rejection

100dB

### Image Rejection

75dB

### RF Intermodulation

65dB

### Stereo Separation

45dB at 100Hz

50dB at 1kHz

35dB at 10kHz

### SCA Rejection

65dB

### AM SECTION

#### Sensitivity

20uV (ext. ant., 50Ω signal source)

#### Signal-to-Noise Ratio

48dB at 30% modulation

58dB at 100% modulation

#### Harmonic Distortion

0.5% maximum at 50% modulation

#### Frequency Response

50Hz to 6kHz NRSC

#### Adjacent Channel Selectivity

55dB minimum IHF

#### Image Rejection

65dB minimum from 540kHz to 1600kHz

#### IF Rejection

80dB minimum

### GENERAL

#### Power Requirements

120V 50/60Hz, 65W

#### Dimensions (h x w x d)

inch: 7.125 x 17.5 x 21

cm: 18.1 x 44.5 x 53.2

knob clearance: 0.75" (1.9 cm)

#### Weight

32.5 lbs. (14.8kg) net

53.5 lbs. (24.3kg) shipping

# MC206 6-Channel Power Amplifier



## SPECIFICATIONS

### RMS Power Output

200 watts (4Ω) or 120 watts (8Ω)

min. sine wave continuous avg.

output per channel with all

channels operating:

### Output Load Impedance

8 or 4 ohms

### Rated Power Band

20Hz to 20kHz

### Peak Output Current

> 25 amperes

### Total Harmonic Distortion

0.005% max. at any level from

250mW to rated output from

20Hz to 20kHz

### Intermodulation Distortion

0.005% maximum if instantaneous

peak output does not exceed twice

the output power rating

### Dynamic Headroom

1.6dB

### Frequency Response

20Hz to 20kHz, +0 / -0.25dB

10Hz to 100kHz, +0 / -3.0dB

### Input Sensitivity

1.0V (2.0V at gain control

center detent)

### A-Weighted S/N Ratio

92dB below rated output

### Wide Band Damping Factor

200 (8 ohms); 100 (4 ohms)

### Input Impedance

10k ohms

### Power Guard®

THD does not exceed 2% with up

to 14dB overdrive at 1kHz

### Power Requirements

120V 50/60Hz, 11A

### Dimensions (h x w x d)

inch: 7.062 x 17.5 x 20

cm: 17.9 x 44.5 x 50.8

### Weight

57 lbs. (25.9kg) net

76 lbs. (34.5kg) boxed

