

## MC-8

*Digital Controller*

- > Eight channels, eight configurable inputs, and two zones
- > Up to two 5.1-channel analog audio inputs
- > Analog bypass available for stereo and 5.1-channel analog audio inputs
- > 24-bit/192kHz digital-to-analog converters (DACs)
- > Balanced main and second zone audio outputs (balanced version only)
- > Stereo side and rear outputs and a dedicated subwoofer output
- > S/PDIF coaxial and S/PDIF optical digital audio inputs
- > S/PDIF coaxial digital audio output
- > Automatic switching between analog and digital audio inputs
- > Two broadcast-quality video switchers
- > Three component video inputs with full high-definition television compatibility
- > Eight S-video and five composite video inputs
- > Four 32-bit, floating-point DSP engines
- > Separate DSP engine to decode Dolby Digital and DTS signals
- > LOGIC 7 decoding
- > Dolby Digital Surround EX and Dolby Pro Logic II decoding
- > DTS 96/24, DTS Neo:6, and DTS-ES (matrix and discrete) decoding
- > THX Ultra2 and THX Surround EX decoding
- > Two trigger outputs, rear panel IR input, and RS-232 control
- > Optional rack mount kit

Based on the MC-12 Digital Controller, the MC-8 is ideal for less complex multi-channel systems in which sound quality, picture quality, ease-of-use and reliability are still of paramount importance. The MC-8 is equipped with two independent zones, eight configurable inputs, and eight channels of output, and is both physically smaller and more affordable than the MC-12. Drawing on Lexicon's legendary expertise in digital audio, the MC-8 offers superior performance and value for today's music and home theater devotee.

At the heart of the MC-8 are four Analog Devices SHARC® digital signal processing engines, one Cirrus Logic DSP engine, and ten 24-bit/192kHz digital-to-analog converters - an architecture that is nearly identical to the MC-12. As a result, the MC-12 and MC-8 share the same tremendous processing power and sonic soul. The MC-8 includes THX Ultra2 certification and dts 96/24 decoding. Its impressive list of playback technologies also includes Dolby Digital EX, Pro-Logic II, DTS-ES, DTS Neo:6, and LOGIC 7.

The MC-8 Balanced includes balanced audio outputs for all channels, including Zone 2. In many installations, the Digital Controller is located in an equipment rack along with tuners, satellite receivers, and so forth which can introduce audible interference into the system. By using balanced audio connections between the digital controller and the power amplifier, the potential for audio interference is minimized. For systems utilizing amplified speakers, balanced connections will eliminate noise introduced on cables between the digital controller and the speakers.

With the advent of formats such as DVD-Video, DVD-Audio, Super Audio CD, and High-Definition TV, the demand for input connectors has grown.

The MC-8 provides compatibility with these formats, offering three component video inputs and eight configurable analog inputs. The analog inputs can be configured as eight stereo inputs, five stereo inputs plus one 5.1-channel input, or two stereo inputs plus two 5.1-channel inputs (useful for systems containing separate DVD-A and SACD sources).

Like the MC-12, the MC-8 software is easily upgradeable via a rear panel RS-232 port. There are also two internal upgrade slots and two rear panel access plates, which allow for additional connections should upgrades be made available by Lexicon.

The MC-8 uses the same intuitive on-screen menu system as the MC-12 for navigation of the set-up options and features. Both new users and those that are familiar with Lexicon digital controllers will instantly feel at home with the MC-8 and will be fine-tuning it in minutes.

Designed with a careful balance of performance and function, the MC-8 is sure to impress with its stellar performance, simple user interface, flexibility, and expandability. Combined with an RT-20 disc player and an LX series power amplifier, the MC-8 serves as the core of a high performance, high value home theater system.



# MC-8 Specifications

## Audio Inputs and Outputs

<i>Analog Audio Inputs</i>	Eight stereo pairs (RCA) or five stereo pairs and one 5.1-channel analog input or two stereo pairs and two 5.1-channel analog inputs
<i>Digital Audio Inputs</i>	Four S/PDIF coaxial (RCA), four S/PDIF optical (TosLink); coaxial and optical inputs conform to IEC-958, S/PDIF standards
Sample Rates:	44.1, 48, 88.2, 96kHz
Accepts:	16-24 bits PCM audio, Dolby Digital, DTS and DTS-ES discrete data formats
<i>Main Audio Outputs</i>	Eight unbalanced (RCA) and eight balanced (XLR, MC-8 Balanced only) for Front L/R, Center, Subwoofer, Side L/R, Rear L/R
<i>Zone 2 Audio Outputs</i>	One unbalanced stereo pair (RCA, variable output level); One balanced stereo pair (XLR) variable output (MC-8 Balanced only) One coaxial (RCA) S/PDIF output

## Performance (Main Zone)

<i>Analog-to-Digital Conversion</i>	24-bit, 96kHz, dual-bit $\Delta\Sigma$ architecture
<i>Digital-to-Analog Conversion</i>	24-bit, 44.1 to 192kHz, multi-bit $\Delta\Sigma$ architecture
<i>Frequency Response</i>	10Hz to 20kHz, +0.05dB/-0.1dB, -0.5dB at 40 kHz, reference 1kHz
<i>THD + Noise</i>	Below 0.008% at 1kHz, maximum output level
<i>Dynamic Range</i>	108dB minimum, 22kHz bandwidth
<i>Signal-to-Noise Ratio</i>	108dB minimum, 22kHz bandwidth
<i>Input Sensitivity</i>	200mVrms (2Vrms for maximum output level) at 0dB input gain
<i>Input Impedance</i>	100k $\Omega$ in parallel with 150pF
<i>Output Level</i>	150mVrms typical, 6Vrms maximum (RCA outputs); 300mVrms typ, 12Vrms maximum (XLR outputs, MC-8 Balanced only); maximum value with full-scale input signal and volume at +12dB
<i>Output Impedance</i>	100 $\Omega$ in parallel with 150pF (RCA outputs); 50 $\Omega$ in parallel with 150pF (XLR outputs, MC-8 Balanced only)

## Performance (Zone 2)

<i>Digital-to-Analog Conversion</i>	24-bit, 44.1 to 192kHz, multi-bit $\Delta\Sigma$ architecture
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<i>Frequency Response</i>	10Hz to 20kHz, +0.1dB/-0.25dB, -0.75dB at 40kHz, reference 1kHz
<i>THD + Noise</i>	Below 0.005% at 1kHz, maximum output level
<i>Dynamic Range</i>	103dB minimum, 22kHz bandwidth
<i>Signal-to-Noise Ratio</i>	103dB minimum, 22kHz bandwidth
<i>Input Sensitivity</i>	200mVrms (4Vrms for maximum output level)
<i>Input Impedance</i>	100k $\Omega$ in parallel with 150pF
<i>Output Level</i>	200mVrms typical, 4Vrms maximum (RCA outputs); 400mVrms typical, 8Vrms maximum (XLR outputs, Zone 2 only, MC-8 Balanced only); maximum value with full-scale input signal and volume at 0dB
<i>Output Impedance</i>	100 $\Omega$ in parallel with 150pF (RCA outputs); 50 $\Omega$ in parallel with 150pF (XLR outputs, Zone 2 only, MC-8 Balanced only)

## Video Inputs and Outputs

<i>Video Inputs</i>	Five composite (RCA), five S-video, and three component video (RCA)
<i>Video Outputs</i>	Two composite (RCA, one monitor and one Zone2), two S-video (one monitor and one Zone2), and one component (RCA)

## Performance (Composite & S-video)

<i>Compatibility</i>	NTSC, PAL, and SECAM
<i>Switching</i>	Active
<i>Output Level</i>	1.0V peak-to-peak
<i>Impedance</i>	75 $\Omega$
<i>Input Return Loss</i>	>40dB
<i>Differential Gain</i>	<0.5%
<i>Differential Phase</i>	<0.5°
<i>Bandwidth</i>	>25MHz
<i>K Factor</i>	<0.3%
<i>Gain</i>	$\pm 0.15$ dB
<i>Signal/Noise Ratio</i>	>65dB
<i>Frequency Response</i>	10Hz to 10MHz + 0.1/-0.3dB

## Performance (Component Video)

Compatibility	3-channel (Y, Pr, Pb), format-independent
Switching	Passive
Impedance	75Ω
Bandwidth	>150MHz
Insertion Loss	<3dB

## Other

Trigger Outputs	One power on/off trigger, one programmable trigger; +12 VDC, 0.5 amps each; detachable screw terminals
RS-232 Serial Input/Output	Two 9-pin D-sub connectors for system control and software upgrades
Power Requirements	90-250 VAC, 50-60Hz, 60W (universal line input), detachable power cord

### Dimensions

MC-8:

Height (with feet)	3.81" (97mm) (two rack units without feet)
Width	17.3" (440mm)
Depth	14.85" (377mm)

MC-8 Balanced:

Height (with feet)	5.04" (128mm) (~three rack units without feet)
Width	17.3" (440mm)
Depth	14.85" (377mm)

### Weight

MC-8:	17lbs (7.6kg)
MC-8 Balanced:	24lbs (10.7kg)

### Rack Mounting

Optional brackets are available for installing either unit in a standard 19-inch equipment rack (two rack units required for MC-8, three rack units required for MC-8 Balanced).

### Environment

Operating Temp:	0° to 35°C (32° to 95°F)
Storage Temp:	-30° to 75°C (-22° to 167°F)
Relative Humidity:	95% maximum without condensation

### Remote Control

Hand-held, backlit infrared remote control unit  
Batteries: Two AA

Specifications subject to change without notice.

