

# Nº40

MEDIA CONSOLE





display mode

zone

mark levinson  
SOUND AUDIO LABORATORIES

standby

enter

menu select



mark levinson  
SOUND AUDIO LABORATORIES

sound mode

DVD 1  
53.8  
Dolby Digital

display intensity

recall

volume mode

mute

volume

mark levinson  
SOUND AUDIO LABORATORIES

MEDIA CONTROL  
NR 40

standby



# N°40

MEDIA CONSOLE

The N°40 Media Console sets the standard for audio and video performance, control and flexibility.

Absolute audio performance is what Mark Levinson customers have come to appreciate in the stereo audiophile world for over 30 years. The N°40 brings this same level of performance to the videophile and multichannel enthusiast. It is the first multichannel media controller to earn the Mark Levinson name and is simply the best-performing surround processor ever offered. From its' sleek, intuitive graphical user interface (GUI) to its' custom designed hybrid switching/linear power supplies, professional-grade video switcher, and proprietary output buffer topology, the N°40 has been meticulously designed in every detail to provide the absolute best listening/viewing experience available.

## Extraordinary Flexibility

A remarkable assortment of source components

may be used in modern home entertainment systems. Hence the need for equally remarkable input and output (I/O) capabilities and a clear, powerful and flexible user interface. The N°40 is designed to satisfy the most demanding enthusiasts and simplify the most complex systems.

## Input/Output Flexibility

The N°40 is modular and can accommodate many possible configurations. Of course, an expandable, modular design is of little benefit without room for expansion. Each processor has several card slots open for future use, which allows I/O to be added as system needs expand.

## Graphic User Interface

The most prominent front panel feature on the N°40 video processor is the LCD screen. This screen may be used in several helpful ways, including access to all the setup menus and control options via our graphic user interface, or GUI (graphic user interface). The GUI, which is also available on the monitor output or overlaid on the main video output, simplifies setup for even a complex system. Our GUI is implemented in the digital video domain for the greatest clarity and legibility and incorporates several proprietary

Madrigal technologies. Its hierarchical structure is logical, easily navigated and presented in a manner that shows you where you are in the menu system at all times, as well as how you got there. It is virtually impossible to get lost in such a system, no matter how deeply you delve into the hierarchy.

The Mark Levinson N°40 Media Console is a remarkably powerful and flexible control center for even the most advanced home entertainment system. However, having extraordinary capabilities is no guarantee that a component will be easy to use.

We designed the N°40 to appeal to a wide range of users. Power users demand the highest possible performance and functionality. The level of sophis-

tication required by the power user may be unnecessary for a more casual user. Our challenge was to satisfy the needs of both, balancing the tradeoff between three opposing factors:

- Functionality  
(will it do everything you want it to do?)
- Ease of use (is it simple and intuitive to use?)
- Ease of setup (is it truly “plug and play?”).

The N°40 provides an outstanding mix of all three factors. In cases where simplification was necessary, ease of initial setup was compromised in support of functionality and ease of use. After all, most of us set a system like this up only once, but rely on its functionality and ease of use every day.



*Interior of  
N°40 video processor*

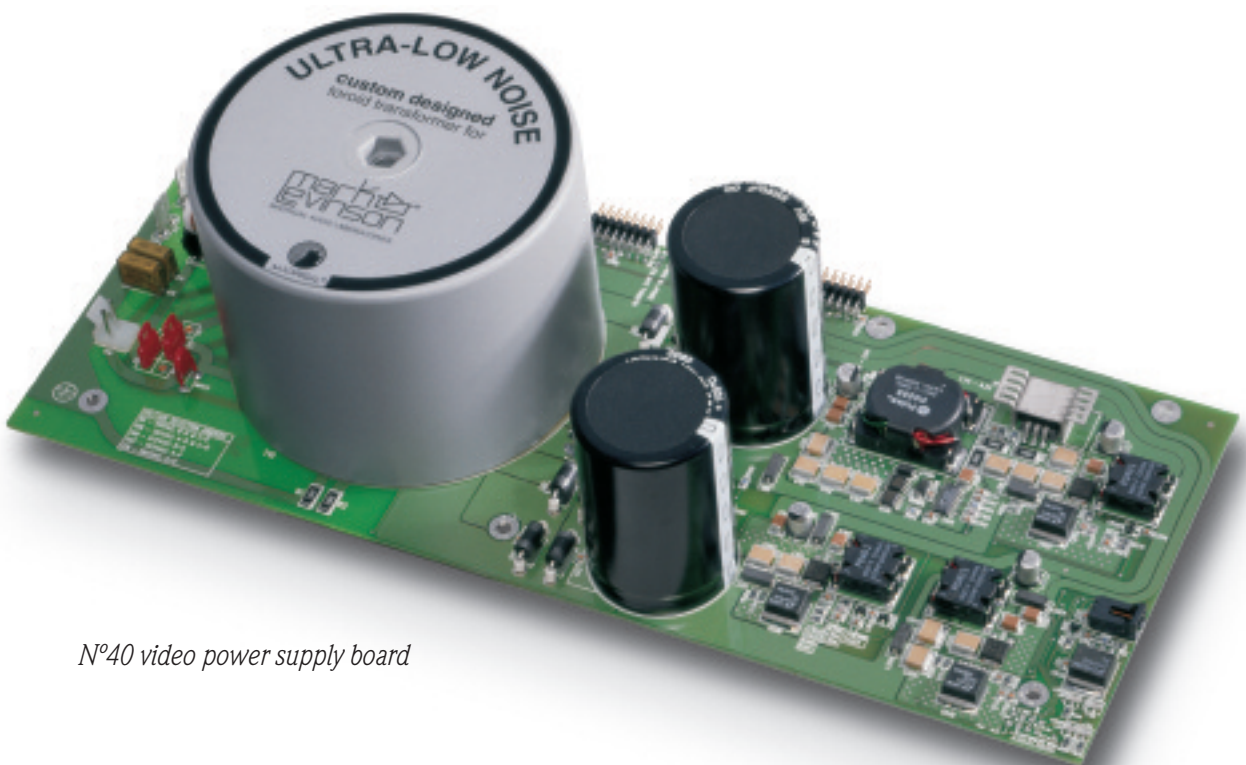
## No-Compromise Audio

As befits the first multichannel, audio/video product to carry the Mark Levinson name, the N°40 Media Console offers no-compromise audio performance. Extraordinary measures have been taken in both design and manufacturing to ensure that the sounds you enjoy from your N°40-based system will be emotionally involving and rewarding, whether you are enjoying conventional stereo recordings, multichannel music or the latest blockbuster movie.

## Signal Processing

In the main zone digital signal processing is performed by four powerful SHARC® DSP chips. These DSPs perform 32-bit fixed-point processing as well as 32-bit and 40-bit floating-point processing. This compares rather favorably with more conventional 24-bit DSPs, as 32-bit parts are 256 times more powerful than 24-bit parts. In short, the main zone has a huge amount of DSP power at its disposal, allowing it to easily perform the following simultaneously and in real time:

- Signal decoding (e.g., Dolby Digital,® DTS,® MPEG, Dolby Pro Logic II,® etc.)
- Various music and film surround mode processing to provide a multichannel experience from two-channel material
- Second-level decoding like Dolby Surround® EX and DTS ES 6.1
- Matrix processing
- Speaker crossovers and bass redirection/management
- Post-processing (e.g., the latest THX Ultra™ algorithms).



*N°40 video power supply board*



*Interior of  
N°40 audio processor*

Digital processing, digital-to-analog conversion, volume control and analog output circuitry all benefit from the latest Mark Levinson technology. Even avowed two-channel music lovers may become enthusiastic multichannel music listeners, when they hear what real ambience recreation in a listening environment sounds like through the N°40.

### **No-Compromise Video**

The N°40s' audio performance is matched only by its extraordinary video processor. It contains many innovations that have never before been available to consumers at any price. Moreover, the entire system integrates these powerful features in a way that makes it incredibly simple to use, by even the

most technology-averse user. Both the resident videophile and the technologically challenged can enjoy the system equally for what it offers.

### **High-Performance Video Switcher**

When operating as a switcher only, the N°40 offers performance comparable to the finest professional video switchers found in the post-production houses of Hollywood. The key here is the video crosspoint switch (the circuitry that allows any input to be routed to any or all outputs simultaneously). It has video frequency response in excess of 70 MHz, with a signal-to-noise ratio better than 60 dB. This is significant because it exceeds even the highest frequencies proposed for any HDTV, much less those actually implemented.

## Transcoding

The N°40 video processor will receive composite, S-video and component signals and transcode them to provide all of those formats simultaneously on the main zone outputs. It will convert signals as needed to ensure that all outputs are active, all the time, regardless of input signal. (Note, however, that we do not change frame rates or broadcast standards, e.g., we do not convert from 60 fps NTSC to 50 fps PAL or vice versa).

The N°40 allows you to make whatever connection is best for your subsequent video processor or display device and not concern yourself with switching between formats as you select sources. In the remote zones, the N°40 also provides both composite and S- video connections that are always active, even when the selected source is a component signal.

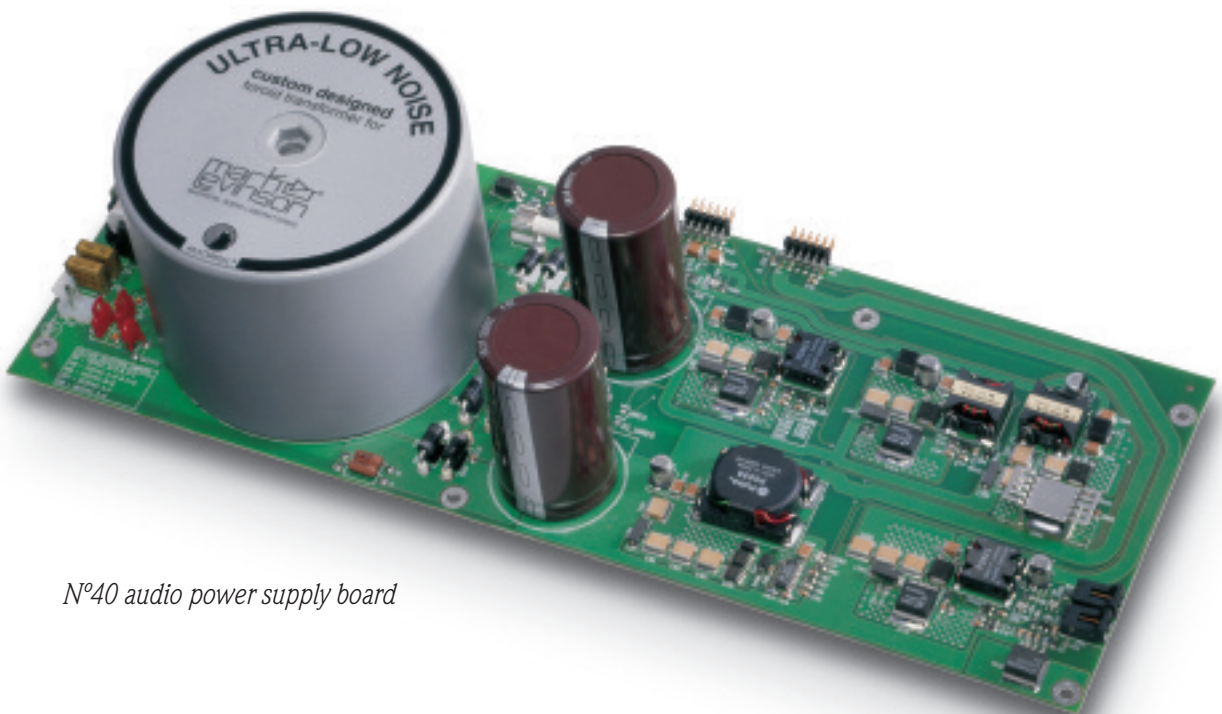
## System Control

The N°40 Media Console raises the bar by offering the finest audio and video performance ever achieved from a surround processor. But it also seamlessly facilitates control of your high-perform-

ance multichannel system, including any listening or operational preferences you may desire.

While it can be easily inserted into systems comprised of a wide range of manufacturers' products, we especially look forward to providing Mark Levinson owners with what they have been requesting for so many years—a surround processor that will match the performance of their Mark Levinson amplifiers. Never before has enjoyment of the world's best sounding products been so convenient to use—simply press PLAY on the source component and watch the N°40 communicate with your system—from your projection device and video screen, to turning the appropriate number of Mark Levinson amplifiers on for the disc you wish to enjoy.

The N°40 may be auditioned at select Mark Levinson dealers.



*N°40 audio power supply board*





Standard configuration shown.

## N°40 Video Processor\*

<b>Input complement:</b> (standard configuration):	(3) composite on RCA (6) S-video on Y/C (3) component on 75Ω BNC
<b>Video input impedance:</b>	75Ω
<b>Video output impedance:</b>	75Ω
<b>Video bandwidth:</b>	> 70MHz pass through
<b>Video signal to noise ratio:</b>	50dB through decoder > 60dB pass through
<b>Comb filter:</b>	four line adaptive
<b>Differential phase (pass-through):</b>	≤ 0.2°
<b>Differential phase (through decoder):</b>	≤ 1°
<b>Differential gain (pass-through):</b>	≤ 0.3%
<b>Differential gain (through decoder):</b>	≤ 3%
<b>Main video outputs (standard configuration):</b>	(1) YPbPr on three 75Ω BNC (1) S-video on Y/C (1) composite on RCA
<b>Monitor video outputs (standard configuration):</b>	(1) composite on RCA
<b>Available trigger current:</b>	120mA @ 5V per outlet 60mA @ 12V per outlet
<b>Power consumption:</b>	approximately 70W
<b>Operating environment:</b>	0°C to 35°C
<b>Mains voltage:</b>	100V, 120V, 200V, 230V, 240V, factory set for destination country
<b>Mains frequency:</b>	50 or 60Hz, factory set for destination country
<b>Overall dimensions:</b>	width: 17.75" (43.561cm) height: 7.206" (18.303cm) depth: 16.41" (42.686cm)
<b>Shipping weight:</b>	50lb (22.7kg)

Specifications are subject to change without notice.

\*For use with Mark Levinson N°40 Audio Processor. May not be purchased separately.



Standard configuration shown.

## N°40 Audio Processor\*

<b>Audio frequency response:</b>	20Hz–40kHz, +0.5db, –1.1dB
<b>THD +N:</b>	<0.005%
<b>Noise:</b>	<–98dB below output, 20Hz–20kHz
<b>Crosstalk:</b>	<–100dB
<b>Analog to digital converter type:</b>	24/96 multibit $\Sigma\Delta$
<b>Digital to analog converter type:</b>	balanced 24/96 multibit $\Sigma\Delta$
<b>Maximum output (XLR):</b>	12V rms
<b>Maximum output (RCA):</b>	6V rms
<b>Dynamic range:</b>	$\geq$ 98dB
<b>Analog filter:</b>	Bessel-tuned, linear phase to 40kHz
<b>Low-level linearity:</b>	Deviation less than 1dB to –100dB FS (1kHz, 20 bit data, 80kHz measurement bandwidth)
<b>Volume range:</b>	80dB user/100dB system
<b>Volume resolution:</b>	0.1dB steps above 20.0 in display 1.0dB steps between Off and 20.0 in display
<b>Digital inputs (standard configuration):</b>	(6) S/PDIF electrical on RCA (1) S/PDIF electrical on BNC (2) AES/EBU electrical (4) EIAJ optical
<b>Analog inputs (standard configuration):</b>	(1) balanced stereo pair on XLR (6) single-ended pairs on RCA
<b>Maximum input level:</b>	6V on RCA 12V on XLR
<b>Digital input impedance:</b>	75 $\Omega$ (S/PDIF electrical) 110 $\Omega$ (AES/EBU electrical)
<b>Analog output impedance:</b>	<20 $\Omega$
<b>Power consumption:</b>	approximately 70W
<b>Operating environment:</b>	0°C to 35°C
<b>Mains voltage:</b>	100V, 120V, 200V, 230V, 240V, factory set for destination country
<b>Mains frequency:</b>	50 or 60Hz, factory set for destination country
<b>Overall dimensions:</b>	width: 17.75" (43.56cm) height: 7.27" (19.38cm) depth: 16.93" (42.99cm)
<b>Shipping weight:</b>	50lb (22.7kg)

Specifications are subject to change without notice.

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Part # 072-16466



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