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N^o502

MEDIA CONSOLE

Nº502 MEDIA CONSOLE

Modern home-entertainment systems are composed of an assortment of components; however, it's the media console that defines the boundaries of the systems' overall potential. It is responsible for many different critical functions and has a direct influence on everything from the picture on the screen to the sound that emanates from the speakers. From the precisely machined aluminum surfaces of the chassis to the elegant, backlit, engraved-glass logo embedded in the front panel, the Nº502 is a modern interpretation of the Mark Levinson aesthetic, but that is only the beginning.



AV-507 MEDIA CONSOLE

Mark Levinson

- Setup
- Display
- Speakers
- Video Profiles
- Audio Profiles
- Activation
- User Options

- Power
- Mute/Volume
- Input Control
- Media Play
- Home

VOLUME

STANDBY



N°502

MEDIA CONSOLE

THE SOUND

Mark Levinson products have always been highly regarded for their sound quality, and the N°502 is no exception. Toward that end, every part of the audio path from input to output was carefully considered and designed to ensure optimal sound quality. The N°502 utilizes two totally independent power supplies to isolate the digital and analog signal paths completely. A digital power supply runs the digital circuits, and a toroidal transformer power supply runs the analog circuits. In addition, a chamber inside the chassis thoroughly shields both power supplies to prevent transformer noise from leaking into the delicate analog circuits and degrading the sound quality. Another method employed to reduce noise is the unprecedented use of 18-layer circuit boards, which help to lower radiated emissions within the chassis. The N°502 also isolates the control signals to ensure that they do not interfere with the audio signals. All internal analog signals are fully balanced to cancel noise.

To reduce jitter and digital noise, the N°502 uses a specially-designed, low-voltage differential signaling circuit. A proprietary direct-digital-synthesizer frequency-locked loop controls the audio master clock, resulting in extraordinary jitter reduction. This closed-loop-control algorithm improves bandwidth and resolution. Great care was also taken in the implementation of the level controls for the N°502, which offer an adjustment range of 120dB while preserving the full resolution of the signal.

The N°502 features Harman International's proprietary Logic 7® technology in addition to the standard suite of Dolby® and DTS® listening modes. Logic 7 processing is widely regarded in the industry as the best surround-sound process available.

In simple terms, Logic 7 processing works by utilizing a unique algorithm that engages all of the speakers in a system to enhance the realism of the sound. By analyzing the spatial cues included in the original sound, Logic 7 processing presents them in a manner that makes the overall experience much more engaging and enveloping.

THE PICTURE

Although Mark Levinson products are known for their superlative sound quality, the N°502 also establishes a new benchmark for picture quality. In addition to providing an array of analog and High-Definition Multimedia Interface (HDMI™) inputs and outputs, the N°502 also includes a state-of-the-art video processor that can convert all of the inputs into a single output and scale them to the optimum resolution for driving the display device. This process simplifies the overall system configuration while providing the absolute best picture quality possible. To clean up and sharpen compressed images from sources such as standard DVD and satellite/cable TV broadcasts, the N°502 includes advanced noise reduction and detail enhancement. Combined with the built-in scaler, standard-definition sources approach the look of true high-definition sources. The N°502 also includes motion-adaptive video de-interlacing with edge interpolation to improve both standard-definition and high-definition sources. And for the highest-quality video sources currently available, the N°502 handles 1080P/24Hz and 60Hz video inputs and outputs with ease. The N°502 features an impressive six HDMI inputs, each with its own receiver, to deliver the ability to "preview" one



HDMI input while watching another. It also features two HDMI outputs, so it can alternately drive two different displays. With its impressive video-processing capabilities, the N^o502 sets a new standard for picture quality, even when compared to dedicated, stand-alone video processors.

THE EXPERIENCE

Perhaps the most unexpected aspect of the N^o502 is the impressive graphical user interface (GUI). It uses a separate graphics engine with bit-accurate graphics for all output resolutions. As a result, setting up and using the N^o502 is an absolute joy. You can set up the console by using the remote control and screen in your home theater or by using the buttons and the screen on the front panel. The hierarchical structure of the menus makes the console easy to navigate. Each screen displays a menu path, ensuring that you know where you are in the menu system at all times.

The N^o502 is equipped with an auto-calibration system that accurately calculates speaker distances, output levels and full-room equalization in less than ten minutes. Automatic calibration is available for every speaker configuration and improves sound quality by removing the interference of sound reflections that are caused by the room itself. These reflections, or room modes, can be detrimental to your listening experience by making the sound appear too loud or too soft at various frequencies and cause lingering resonances, which mask the finer details in the sound. The N^o502 room equalization effectively minimizes these room modes and makes the entire system, including the room itself, sound more neutral and true to the original recording.

Once set up, the N^o502 is a breeze to use. Day-to-day controls are kept separate from set-up controls, and all you need to do is select an activity such as "Watch a film," "Listen to music" or "Watch TV," and adjust the volume. Each activity automatically loads a speaker configuration, an audio profile and a video profile. This process allows the N^o502 to reconfigure itself automatically to provide the desired listening and viewing experience for each and every activity. You can control the N^o502 in a number of ways. There is the die-cast metal remote control, which feels both substantial and elegant in your hand and was designed with a minimal amount of buttons to make it easy to use. There are the front-panel controls for when you are within reach of the N^o502. But perhaps the most extensive way to control the N^o502 is by using its RS-232 port in conjunction with a third-party controller, such as one of those available from Crestron or AMX. This system allows true two-way control of the N^o502 in that you can control it remotely as well as receive data from the N^o502

using simple text or numbers. If the control system also has video-input capability, the N^o502 can send the picture that is normally displayed on its front panel directly into the control system. This setup puts the N^o502's GUI and preview feature right into the touch-screen controller itself, allowing you to use these features wherever the controller is located. In addition, the N^o502 includes a proprietary Mark Levinson protocol called ML Net, which utilizes Ethernet to provide additional functions when other ML Net-equipped devices are connected to the N^o502.

THE FINAL WORD

The N^o502 is a remarkably powerful and flexible media console for the ultimate home-entertainment system and is designed in every detail to provide the absolute best in film and music reproduction. It is this meticulous attention to detail that makes a Mark Levinson product stand above the rest. It sets a new standard for audio and video performance, control and flexibility. Using only the finest materials and parts, the N^o502 honors the Mark Levinson tradition and is sure to satisfy even the most demanding enthusiast.

N^o502 Main Video Board

Video board with twin Sigma Designs VXP[®] 10-bit broadcast quality-processors for 7.8 gigaflops of processing power.

ZBC technology allows the power and ground planes to act as a distributed capacitor, which functions much better at high frequencies than conventional bypass capacitors. This technology reduces radiated emissions and helps to lower the overall noise in the system.

18-Layer PCB allows more of the signals to be routed on internal layers. When signals are routed between ground and power layers, they are effectively shielded and radiate considerably less. This process significantly enhances video signal-to-noise ratio.





N°502 MEDIA CONSOLE

Inputs	
HDMI	Six HDMI Type A
Analog Video	Four component Three S-Video Three composite
Digital Audio	Six S/PDIF coaxial Three S/PDIF optical (TOSlink) Two AES/EBU
Analog Audio	One unbalanced 8-channel input array Four unbalanced stereo pairs Two balanced stereo pairs
Outputs	
HDMI	Two HDMI Type A
Analog Video	One component One composite (monitor)
Analog Audio	One unbalanced 7.4-channel array, RCA connectors One balanced 7.4-channel array, XLR connectors
Remote Zone	One unbalanced stereo pair
Control Inputs & Outputs	One RS-232 port One Ethernet port One ML link port Four programmable trigger outputs One IR input
Dimensions (H x W x D)	9.46" x 17.48" x 17.4" (240mm x 444mm x 442mm)
Weight	Net weight: 54.5 lbs (24.6kg)



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Features, specifications and appearance are subject to change without notice. Part No. ML502LIT 5/09

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