Nº526 & Nº523
DUAL-MONAURAL PREAMPLIFIERS

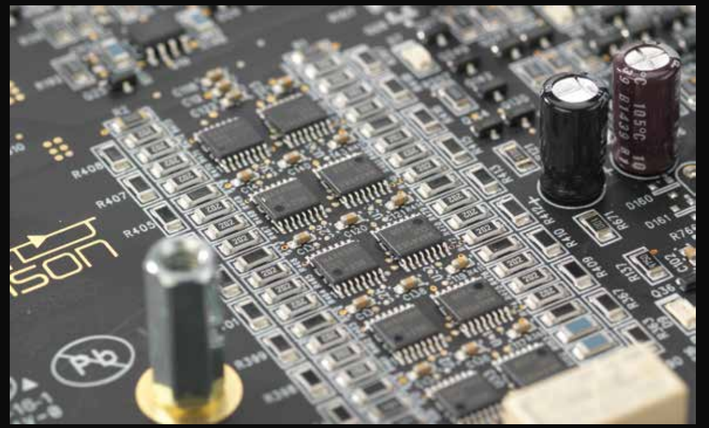
mark levinson®

Since 1972, Mark Levinson has been dedicated to the uncompromising art of sound, with the guiding principle of musical purity above all else. To achieve that goal like never before, Mark Levinson engineers scoured company archives, ultimately developing a circuit-design philosophy called Pure Path. On a conceptual level, its hallmark principles include a discrete, direct-coupled, fully balanced, dual-monaural signal path that delivers unrestricted, uncompromised sonic purity.

Far from merely arranging high-quality components in an intelligent manner, Pure Path is the meeting of science and art: Mark Levinson engineers are tasked to create the best possible measured AND subjective performance.

THE FINE ART OF CONTROL

The Mark Levinson Nº 523 and Nº 526 are the definitive preamplifiers for today's music lover. Six analog line-level and phono inputs, plus an additional six digital inputs on the Nº 526 travel through the Mark Levinson proprietary Pure Path discrete, direct-coupled, fully balanced, dual-monaural signal path entirely in class A for breathtaking purity and performance. With precision control and processing including a discrete, balanced R-2R Ladder volume control, the acclaimed 32-bit Precision Link DAC, Pure Phono stage, and HARMAN Clari-Fi® music restoration technology, the Nº 523 and Nº 526 preamplifiers deliver uncompromising performance regardless of source.



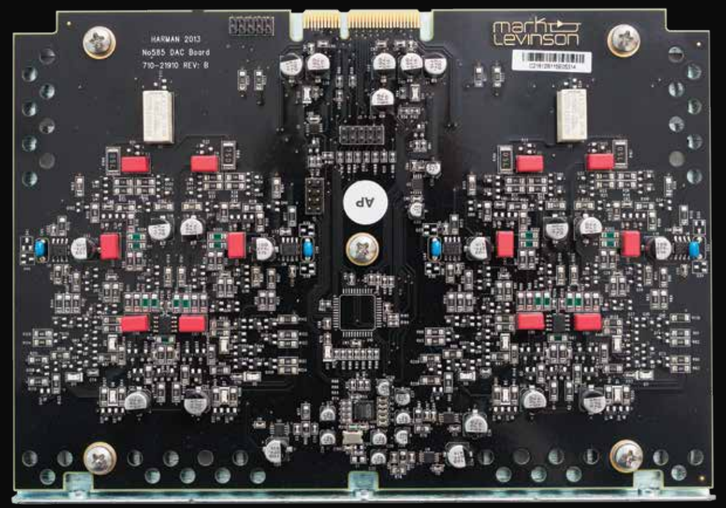
VOLUME CONTROL

The basis of many volume controls is the venerable analog potentiometer, a device with a number of performance drawbacks. The mechanical connection wears out, creating scratching or crackling noises; it is nearly impossible to manufacture an identically performing pair, and mismatches in a stereo pair can cause level imbalances between the two channels; and due to their varied reaction to parasitic capacitances at different volume settings, the sound changes depending on where the volume is set. Rather than attempting to improve upon this flawed design, Mark Levinson engineers abandoned it. Instead, they employed a complex circuit architecture called an R-2R Ladder. Currents are determined by fixed resistors, capable of very tight tolerances, able to be closely matched to one another in value.
The analog switches that "steer" the currents are precision devices and have no mechanical contacts to wear out.
In short, the R-2R Ladder solves all the problems inherent to potentiometer-based volume controls.

TRANSFORMATIVE DIGITAL

The Mark Levinson Precision Link DAC in the №526 transforms digital data streams into analog audio art. The Precision Link DAC operates its ESS Sabre32 converter chip's outputs in current mode, where they are fed into a fully balanced current-to-voltage (I/V) converter that provides the exact signal level desired. Maintaining near-zero voltage keeps the current sources virtually immune to nonlinearity, maximizing bandwidth and minimizing distortion. Common-mode noise and distortion are cancelled in this mirror-imaged, differential configuration, resulting in a pristine signal with a vanishingly low noise floor.

Also contributing to the Mark Levinson Precision Link DAC's low noise floor is its unique power supply configuration: five independent power supplies operate the converter chip alone, and individual linear power supplies for the left and right channels power the discrete I/V and antialiasing filter circuits.



MADE IN THE USA

All Mark Levinson equipment employs electronic components carefully chosen for their specific task. Tantalum nitride thin-film resistors in critical gain-setting and feedback locations make the sound revealing and effortless, free of the low-level nonlinearities caused by lesser resistive materials. An extremely costly material, tantalum nitride typically finds use in sensitive military equipment because it is unusually stable with respect to temperature, exhibits very low noise, and is unaffected by magnetic fields. Similarly, film-type capacitors in critical filtering locations perform extremely consistently, regardless of temperature and frequency.

Housed in an aircraft-grade 6000-series extruded and machined aluminum chassis, the Nº 523 and Nº 526 feature extremely high build precision, to exceedingly low tolerances. Attention to detail is evident even in individual components, each of which is carefully selected and precisely placed for ultimate sonic purity and visual composition.

Mark Levinson equipment is designed at the HARMAN Engineering Center of Excellence in Shelton, CT, prototyped in-house, and handcrafted exclusively at an ISO 9001 facility in Massachusetts under strict Mark Levinson engineering and quality supervision.

MAKE THE CONNECTION

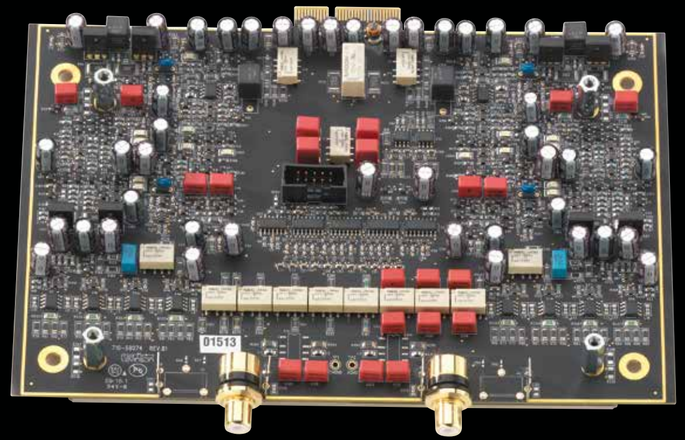
The №523 and №526 deliver their signal to balanced and single-ended stereo outputs, as well as a Main Drive Headphone output integrated into the front panel – a first for Mark Levinson. The Main Drive Headphone amplifier circuit drives up to 32-ohm headphones in class A by employing the main output circuit rather than a secondary signal path.

A selectable fourth-order 80Hz high-pass filter enables seamless integration of subwoofers, and unity-gain SSP mode enables home theater integration. For modern system integration capabilities, Ethernet, RS-232, DC triggers, infrared remote control and input, and USB for monitoring and network control are included.

PURE PHONO

The №526 and №523 preamplifiers introduce a new Mark Levinson phono stage – Pure Phono. The Pure Phono stage is a discrete design with no op-amps and operates exclusively in class A throughout, employing tantalum nitride thin-film resistors and polypropylene capacitors with exceptionally low tolerances.

A fixed-gain MM section with five capacitive cartridge-loading settings, and an MC section with three gain settings and 10 resistive cartridge-loading settings ensures optimization for any cartridge. And an ultrasonic filter intelligently compensates for rumble and warping. The Pure Phono stage also contains physically separated channels and balanced inputs for purity.



IN SUMMARY

- Pure Path class A, discrete, direct-coupled, fully balanced, dual-monaural signal path
- Discrete, balanced R-2R Ladder volume control for precision and performance
- Pure Phono stage with physically separated channels for MC and MM
- 32-bit Precision Link DAC with three selectable filters and seven power supplies (№526 only)
- Main Drive Headphone output for up to 32-ohm headphones using main circuit
- Six line-level analog and phono inputs; balanced, single-ended, and headphone outputs
- Six digital inputs support high-resolution 32-bit, 192kHz PCM and 5.6MHz DSD (№526 only)
- Selectable fourth-order 80Hz high-pass filter allows seamless integration of subwoofers
- Designed and handcrafted in the USA

№523 SPECIFICATIONS

CONNECTIVITY

- ANALOG INPUTS: 2 balanced (XLR), 3 single-ended (RCA) line, 1 single-ended (RCA) phono w/ ground
- DIGITAL INPUTS: 1 balanced (XLR); 2 coaxial (RCA); 2 optical (Toslink); 1 USB-B asynchronous
- ANALOG OUTPUTS: 1 balanced (XLR); 1 pair single-ended (RCA), 1 headphone (¼", 6.3mm TS)
- CONTROL CONNECTORS: Ethernet (RJ45), RS-232 (RJ12), Trigger In and Out, IR In, USB-A, Mini USB

ANALOG AUDIO PERFORMANCE

- LINE STAGE GAIN, NORMAL GAIN SETTING: 13.5dB balanced; 7.5dB single-ended
- LINE STAGE FREQUENCY RESPONSE, 20Hz TO 20kHz: ±0.02dB
- LINE STAGE FREQUENCY RESPONSE, 0.4Hz TO 370kHz: +0.1 / -3dB
- THD+N @ 1kHz (2VRMS SINGLE-ENDED OR 4VRMS BALANCED OUTPUT): < 0.003%
- SIGNAL-TO-NOISE RATIO (REF. TO 2VRMS SINGLE-ENDED OR 4VRMS BALANCED, MAX VOL): >115dB @ 1kHz
- CROSSTALK @ 1kHz: <-107dB
- CHANNEL SEPARATION: below noise floor (>115dB @ 1kHz)
- INPUT IMPEDANCE: >45kΩ
- OUTPUT IMPEDANCE: < 80Ω single ended, < 160Ω balanced
- MAXIMUM INPUT LEVEL, NORMAL GAIN SETTING: >10VRMS, single ended, >15VRMS, balanced
- MAXIMUM OUTPUT LEVEL: >11VRMS single ended, >22VRMS balanced

MAIN DRIVE HEADPHONE CIRCUIT

- HEADPHONE OUTPUT IMPEDANCE: selectable; < 3Ω or 75Ω
- HEADPHONE MAXIMUM OUTPUT, LOW IMPEDANCE SETTING, 30Ω (0.3W), 20 TO 20kHz, < 0.1% THD: >3VRMS
- HEADPHONE MAXIMUM OUTPUT, LOW IMPEDANCE SETTING, 300Ω, 20Hz TO 20kHz, < 0.1% THD: >9VRMS
- HEADPHONE THD+N, 20Hz TO 20kHz, 2V RMS: < 0.03% @ 30Ω, < 0.01% @ 300Ω

PHONO STAGE

- RIAA FREQUENCY RESPONSE: 20Hz to 20kHz, ±0.3dB
- INFRASONIC FILTER: defeatable, 15Hz, 2nd order (12dB/octave)

MOVING MAGNET MODE:

- INPUT RESISTANCE: 47kΩ
- INPUT CAPACITANCE: selectable; 50, 100, 150, 200, or 680pF
- GAIN: 40dB @ 1kHz
- THD+N, 20Hz TO 20kHz, 2VRMS OUTPUT: < 0.03%

MOVING COIL MODE:

- INPUT RESISTANCE: selectable; 20, 33, 50, 66, 100, 200, 330, 500, 1000, or 47kΩ
- INPUT CAPACITANCE: 50pF
- GAIN: selectable; 50, 60, or 70dB @ 1kHz
- THD+N, 20Hz TO 20kHz, 2VRMS OUTPUT: < 0.02%, 50 or 60dB settings, < 0.04, 70db Setting

A/C POWER

- MAINS VOLTAGE: 100VAC, 115VAC, or 230VAC, factory set
- POWER CONSUMPTION: 0.4W Green Standby, 5W Power Save, 72W Normal Standby, 75W On, idle

DIMENSIONS

Height (with feet): 3.75" (10.2cm)

Height (without feet): 3.25" (8.9cm)

Width: 17.25" (43.8cm)

Depth: 18" (45.7cm)

WEIGHT

Net weight: 39 lbs (17.7kg)

Shipping weight: 58 lbs (26.3kg)

№526 SPECIFICATIONS

CONNECTIVITY

- ANALOG INPUTS: 2 balanced (XLR), 3 single-ended (RCA) line, 1 single-ended (RCA) phono w/ ground
- DIGITAL INPUTS: 1 balanced (XLR); 2 coaxial (RCA); 2 optical (Toslink); 1 USB-B asynchronous
- ANALOG OUTPUTS: 1 balanced (XLR); 1 pair single-ended (RCA), 1 headphone (¼", 6.3mm TS)
- CONTROL CONNECTORS: Ethernet (RJ45), RS-232 (RJ12), Trigger In and Out, IR In, USB-A, Mini USB

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- LINE STAGE FREQUENCY RESPONSE, 20Hz TO 20kHz: ±0.02dB
- LINE STAGE FREQUENCY RESPONSE, 0.4Hz TO 370kHz: +0.1 / -3dB
- THD+N @ 1kHz (2VRMS SINGLE-ENDED OR 4VRMS BALANCED OUTPUT): < 0.003%
- SIGNAL-TO-NOISE RATIO (REF. TO 2VRMS SINGLE-ENDED OR 4VRMS BALANCED, MAX VOL): >115dB @ 1kHz
- CROSSTALK @ 1kHz: <-107dB
- CHANNEL SEPARATION: below noise floor (>115dB @ 1kHz)
- INPUT IMPEDANCE: >45kΩ
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- MAXIMUM INPUT LEVEL, NORMAL GAIN SETTING: >10VRMS, single ended, >15VRMS, balanced
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- HEADPHONE MAXIMUM OUTPUT, LOW IMPEDANCE SETTING, 30Ω (0.3W), 20 TO 20kHz, < 0.1% THD: >3VRMS
- HEADPHONE MAXIMUM OUTPUT, LOW IMPEDANCE SETTING, 300Ω, 20Hz TO 20kHz, < 0.1% THD: >9VRMS
- HEADPHONE THD+N, 20Hz TO 20kHz, 2V RMS: < 0.03% @ 30Ω, < 0.01% @ 300Ω

PHONO STAGE

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- THD+N, 20Hz TO 20kHz, 2VRMS OUTPUT: < 0.03%

MOVING COIL MODE:

- INPUT RESISTANCE: selectable; 20, 33, 50, 66, 100, 200, 330, 500, 1000, or 47kΩ
- INPUT CAPACITANCE: 50pF
- GAIN: selectable; 50, 60, or 70dB @ 1kHz
- THD+N, 20Hz TO 20kHz, 2VRMS OUTPUT: < 0.02%, 50 or 60dB settings, < 0.04, 70db Setting

DIGITAL AUDIO PERFORMANCE

- DAC OUTPUT VOLTAGE @ FULL SCALE (0DBFS): 3.7VRMS
- DAC FREQUENCY RESPONSE: 20Hz to 20kHz, +0 / –0.2dB
- DAC THD, FULL SCALE (0DBFS): < 0.0001% @ 1kHz, < 0.0003% @ 20kHz
- DAC SNR (REFERRED TO 3.7VRMS / 0DBFS OUTPUT): >120dB (A-weighted)
- PCM SAMPLE RATES/BIT DEPTH: 32, 44.1, 48, 88.2, 96, 176.4, or 192kHz; up to 32 bits
- DSD: Native or DoP (DSD over PCM), single- and double-speed (2.8 and 5.6MHz)

A/C POWER

- MAINS VOLTAGE: 100VAC, 115VAC, or 230VAC, factory set
- POWER CONSUMPTION: 0.4W Green Standby, 5W Power Save, 72W Normal Standby, 75W On, idle

DIMENSIONS

Height (with feet): 3.75" (10.2cm)
Height (without feet): 3.25" (8.9cm)
Width: 17.25" (43.8cm)
Depth: 18" (45.7cm)

WEIGHT

Net weight: 41 lbs (17.7kg)
Shipping weight: 60 lbs (26.3kg)

For more detailed specifications visit Mark Levinson.com

HARMAN International Industries, Incorporated
8500 Balboa Boulevard, Northridge, CA 91329
marklevinson.com

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