

Convergent Audio Technology

SL1 Renaissance Preamplifier

CAT's philosophy is to design our products to neither add to, nor detract from, the music. We never attempt to cover up a design problem with another problem, nor do we try to introduce a supposedly complementary problem to "synergise" with it. Two wrongs do not make a right. Only the eradication of the problem is correct.

The SL1 Renaissance is the product of relentless refinement to the original SL1 introduced in 1985. We have identified and eliminated every electronic artifact. Rather than attempting to "synergise" with badly flawed systems, this preamplifier is designed to allow superior systems to reach their fullest potential. The SL1 Renaissance also makes the perfect first step toward assembling such a system.

Power Supply

- External Power Supply Chassis contains the transformer's magnetic field eliminating it as a source of hum.
- Rectification, Initial Regulation, and Noise Filtering are all performed in the EPS thereby delivering pure quiet DC power into the main chassis eliminating the grain and dryness associated with noise intermodulation.
- Slow Filament Power-Up extends tube life greatly.
- Quadruple Cascaded Audio Power Supply combines 22 zero-feedback regulators with over 30 energy storage and bypass capacitors for unequaled dynamic life, soundstage precision and musicality.
- Isolation Transformer eliminates entry of Radio Frequency noise through the AC power line yielding greater benefits than any of the expensive add-on power line conditioners without any of their sonic shortcomings.

Circuitry

- Pure Vacuum Tube Circuitry for vibrant and natural music.
- Extraordinarily Quiet High Gain Phono Amp accommodates both high and low output cartridges.
- Fastest Tube Preamplifier, without any of the high frequency circuit-induced edginess which slower preamps frequently substitute for real speed. This speed is maintained even into long runs of cable.
- Lowest Open Loop Distortion of any preamp yields unforced detail and resolution which must be heard to be believed.
- Low Feedback Ratios eliminate the aggressiveness of high feedback designs and yet still maintains correct focus.
- Matched Output Impedance snubs reflections on interconnects quickly, yielding exquisitely lucid midrange and treble.

Chassis

- Very Strong Steel Chassis with anti-RFI plating ensures hum and RF free operating environment for the circuits.
- Damping Material lines both chassis to stop mechanical resonances which would otherwise modulate the electric fields in the preamp.
- Mechanical Isolation from floor vibrations provided by high loss viscoelastic feet.

Quality

- Exotic Low Loss Circuit Board Material combines the transparency of hard wiring with the low resonant signature and musicality of a circuit board.
- Balance and Volume Controls are military grade rotary switches with solid silver contacts wired with precision resistors.
- CAT designed MC transformer is the flattest, fastest, cleanest transformer ever made, regardless of price.
- The Best Sounding Precision Resistors are used everywhere for the best resolution and minimum unit to unit variability,
- CAT Coupling Capacitors are made to our specifications and are better than any other audiophile grade capacitor.
- Premium CAT audio wire used throughout.
- Rhodium/Gold Jacks for superior connection.
- Silver Solder used for best electrical connection.
- Custom Designed Hermetically Sealed Switches.

Convenience

- Front Panel Muting Switch.
- Internal High/Low line stage gain switch allows gain optimization for all systems.
- Automatic Mute at turn on and turn off.
- Record/Normal Front Panel taping switch
- Extra Set of Main Output Jacks for A/V and special setups.
- Load Jack allows changing MC cartridge loading while listening to music.
- A/V bypass – works when the unit is turned off for greatly extended tube life

Specifications

Gain (@1kHz): Line 25.8 dB ("high") / 15.2 dB ("low"),
Phono 47dB MM / 58 dB MC

Gain Tracking: Line .05dB, Phono .05dB

Frequency Response: Line 0.1Hz to 800kHz+0, -3dB
Phono RIAA +/- 0.1dB 20Hz to 20kHz (MC & MM)

Harmonic Distortion (@ 1 volt): Line less than .0005%
Phono less than .001%

Slew Rate: Line 15 volts/microsec, Phono 10
volts/microsec

Maximum Output (@1kHz): Line & phono 50 volts rms

Input Overload: Line 100 volts rms

Phono MM 250 mv rms at 1kHz, MC 70 mv rms

Noise: Line High 98 dBA, Low 109 dBA below 2 volt
output

Phono MM 97 dBA below 10 mv input, MC 107 dBA

Separation: Line greater than 90 dB

Phono greater than 90 dB

Input Impedance: Line 50 kohms, 20pf, Phono 47.5 kohms,
180 pf (user adjustable)

Output Impedance: Line 100 ohms, Phono 50 ohms

Maximum Load: Line under 4000 pf, over 5000 ohms
Phono under 4000 pf, over 10,000 ohms

Dimensions: Main Chassis - 19.0" X 5.24" X 12.2"

Power Supply - 12.2" X 4.0" X 6.0"

Weight: Net 64 lbs., Ship 70 lbs.

Power Requirements: 120v, 60Hz, 80 watts (export version
available)