

# SL1 Renaissance Preamplifier

## BLACK PATH EXTREME

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. This preamplifier is designed to allow superior systems to reach their fullest potential.

### 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 as no other preamp can.
- Low feedback ratio eliminates 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.
- *Amazing new high technology BLACK PATH capacitors used for the ENTIRE audio signal path.*
- **NEW: BLACK PATH capacitors used throughout the power supply in the EXTREME version.**
- Balance and volume controls are military grade rotary switches with solid silver contacts and precision resistors.
- 46 position volume control now standard! *Only one NOS resistor in the signal path* for untouchable sound quality!
- 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
- Premium **BLACK PATH** audio wire used throughout.
- Rhodium/Gold jacks for superior connection.

### 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.
- Optional balanced inputs and outputs

### Specifications

Gain (@1kHz): Line 25.0 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 1000 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,  
MM Phono 47.5 kohms, 180 pf  
MC Phono 4K ohms (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)