



# REFERENCE PHONO 2 SE

Phono Preamplifier

Audio Research continues the tradition of advancing state of the art in music reproduction with the introduction of the Reference Phono 2 SE preamplifier. Using component technologies derived directly from the acclaimed Reference Anniversary preamplifier, the Reference Phono 2 SE provides substantial sonic enhancements beyond its predecessor and brings the listener closer to the music than ever.

The Reference Phono 2 SE shares similar aesthetics with other Reference preamplifiers in form and size. The front panel has been redesigned to accommodate new metal buttons, and the faceplate and other features are available in silver or black. A large vacuum-flourescent display is clearly legible across the room and provides unit feedback. The supplied remote controls all functions.

The Reference Phono 2 SE offers an extensive feature set. There are two separate sets of inputs, with selectable gain between Low [51dB BAL / 45dB SE] and High [74dB BAL / 68dB SE]. There are seven loading selections including 47K, 1000, 500, 200, 100, 50 ohms, and Custom, which we can factory-set according to your need. In addition to standard RIAA phono equalization, the Reference Phono 2 SE also includes early stereo Columbia and Decca equalization curves. The display shows all selected functions (Input, Gain, Loading, EQ, Mute, Tube Hours) and the microprocessor remembers settings for each input.

The Reference Phono 2 SE is a fully balanced design with an input circuit that allows its RCA inputs to operate in a balanced configuration without requiring an inverter. The tube complement is similar to that of other Reference components, with four 6H30s in the gain stage with a 6550C and 6H30 in the power supply. The Reference Phono 2 also features the same basic analog stage as its acclaimed siblings. Rather than using a step-up transformer, special high-gain, extremely low-noise FETs are used in the high- gain section. This approach is costlier than using a transformer, but it is well worth the dramatic performance increase. There are new, proprietary capacitors throughout, increased power supply capacitance, and eleven stages of power supply regulation.

The Reference Phono 2 SE makes incredible music. The black background is stunning, allowing depth and texture to emerge from your recordings unlike you have ever previously experienced. Instrumentalists are painted in the recording environment with life and realism; large, complex music is unraveled before you with might and scale. In a world of remarkable turntables, tonarms, and cartridges, the Reference Phono 2 SE is the perfect pairing to take your system into another realm.

More than twenty-seven years after the introduction of the compact disc, we continue to discover how much wonderful musical information is lies within the grooves of our beloved vinyl collections. Allow the Audio Research Reference Phono 2 SE to complement your system and collection, and provide an unparalleled listening experience for you.

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## SPECIFICATIONS

**FREQUENCY RESPONSE:**  $\pm$  .2dB of RIAA, 10Hz to 60kHz; 3dB points below 0.3Hz and above 300kHz.

**DISTORTION:** Less than .002% at 1.0V RMS 1kHz output.

**GAIN:** Selectable 51dB (Low), 74dB (High) at 1kHz BAL; 45dB (Low), 68dB (High) at 1kHz SE. (MC & MM compatible).

**BUTTONS:** Front (6) Power, Input, Gain, Load, RIAA, Mute. Remote adds 'Hours' and 'Display'.

**INPUT IMPEDANCE:** 47K ohms and 100pF SE. Selectable loads: 1000, 500, 200, 100, 50 ohms and Custom.

**PHONO EQUALIZATION:** (Selectable) RIAA, Columbia, Decca.

**POLARITY:** Non-Inverting.

**OUTPUT IMPEDANCE:** 200 ohms SE, 400 ohms balanced. Recommended load 50K-100K ohms and 100pF. (10K ohms minimum and 2000pF maximum.)

**MAXIMUM INPUTS:** 250mV RMS at 1kHz (680 mV RMS at 10kHz).

**RATED OUTPUTS:** 0.5V RMS 10Hz to 20kHz, 100K ohm load (output capability is 80V RMS BAL output at 1/2% THD at 1kHz, 40V SE.)

**POWER SUPPLIES:** Electronically-regulated low and high voltage supplies. Line regulation better than .01%.

**NOISE:** 0.22uV equivalent input noise, IHF weighted, shorted (Low Gain) input (73 dB below 1mV 1kHz input). 0.055uV equivalent input noise (High Gain) (65dB below 0.1mV 1kHz input).

**TUBE COMPLEMENT:** (4) 6H30 dual triodes, plus (1 each) 6H30, 6550C in power supply.

**POWER REQUIREMENTS:** 100-135VAC 60Hz (200-270VAC 50/60Hz) 140 watts maximum. 2W standby. Line fuse 5A SLO BLO (T2A SLO BLO 230V).

**DIMENSIONS:** 19" (48 cm) W x 7" (17.8 cm) H (standard rack panel) x 15.5" (39.4 cm) D. Handles extend 1.5" (3.8 cm) forward of front panel.

**WEIGHT:** 27 lbs. (12.3 kg) Net; 38 lbs. (17.3 kg) Shipping.

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