

Balanced Audio Technology

REX

Balanced Preamplifier



*Balanced Audio Technology proudly introduces the **REX** preamplifier, a revolutionary successor to its highly regarded reference VK-51SE. **REX** not only sets a new standard for a reference line-stage preamplifier, it redefines the critical importance of a preamplifier to achieving great sound.*



Design Highlights:

Reaching a new and once-inconceivable plateau in preamplifier state of the art required Balanced Audio Technology to re-evaluate and fundamentally change existing design approaches.

REX is not just a preamplifier with an external power supply - for this conventional partition suffers from several well known drawbacks – all resulting from the remote placement of the power supply. **REX** is a very different beast altogether, with its low-impedance power supply directly connected to the critical gain block. This novel approach also preserves an upgrade path for the owner of the VK-52SE to **REX**.

Indeed, **REX** takes the Balanced Audio Technology tradition of massive and non-conventional power supplies to a level far beyond any previous Balanced Audio Technology design. For this king of preamplifiers, BAT designed each box to contain the complete power supply for one polarity – positive in the Control Module, negative in the Power Module. The **REX** approach to a two-box preamplifier is balanced design taken to a new extreme, with each individual power supply similar in size to that found in many power amplifiers. Both modules maintain true dual-mono architecture, of course.

The ten-tube Power Module's supply gets its raw power from vacuum tube rectifiers. The DC voltages then undergo several steps of filtering including the use of C-multipliers and AC Shunt regulators to minimize low-level power supply noise. The final stage of filtering incorporates BAT's newest custom oil capacitors. The same capacitors are also used in the Control Module's SUPER-PAK™.

The extreme performance of the **REX** power supply works in conjunction with a high-current differential gain stage, composed of four 6H30 SuperTubes per channel, all supported by vacuum tube current sources (located in the Power Module). The current sources can be customized to tailor the sound to the customer's needs. The gain stage continues the tradition of Balanced Audio Technology's Unistage™ approach that incorporates only a single gain element with no buffers or followers to preserve the purity of sound, and no global negative feedback employed. **REX** takes the ultimate simplicity of the Unistage™ topology to a new level by backing it up with an innovative power supply of extreme heft and purity.

The **REX** volume control provides a broad range of adjustment with 140 steps of .5dB resolution, resulting in an essentially continuous feel. Based on shunt topology and using a 16-bit digital control, it utilizes Vishay Bulk Metal® foil resistors as its pass-through devices. Finally, custom oil-filled capacitors are used at the output, resulting in an unmatched transparency and clarity of sound.

This whole package utilizes Balanced Audio Technology's powerful user interface that allows customization of each input individually, and continues to receive universal acclaim from customers and reviewers alike. Like all Balanced Audio Technology preamplifiers, **REX** can be ordered with an optional full function remote control.

Custom-tailor your sound:

REX incorporates a unique feature that allows the user to optimize its sound, tailoring it to one's individual taste or system requirements.

The vacuum tube current sources incorporated in **REX**, being part of the signal gain stage, have a direct impact on the unit's sound. Changing the tube type used in that circuit, allows the user an extra degree of control over the final sound achieved.



In its standard configuration, the **REX** current sources use the Russian 6C19 tubes. This tube is basically a miniature version of the famous 6C33 tube, and provides, in our view, the best combination of sonic characteristics and electrical performance.

However, the unique design of **REX** allows you to also use other tube types as current sources. Currently (no pun intended), the user has the following three choices for vacuum tube current sources:

1. The standard 6C19 tube current source (installed at the factory).
2. The 6H30 SuperTube current source (which requires the purchase of the X-PAK accessory).
3. The 5881 tube current source.

In order to change the tube type, the user needs to remove the installed current source board, replace it with either another board (designed for a particular tube type), or install the 5881 tubes as a direct plug-in.



Summary:

REX is an eighteen-tube powerhouse that combines simplicity with authority to establish a new pinnacle in line-stage amplification.



Specifications

| | | |
|---------------------------------|----------------|-----------------------------------|
| Inputs: | | 5 XLR's |
| Outputs: | Main: | 2 XLR's |
| | Tape Out | 1 XLR |
| Maximum Gain: | | 17dB |
| Global Feedback: | | None |
| Volume Control Resolution: | | .5dB |
| Volume Control Number of Steps: | | 140 |
| Frequency Response: | | 2 Hz to 300 kHz |
| Input Impedance (minimum:) | | 100kOhm |
| Output Impedance | | 200 Ohm |
| Noise (unweighted): | | -100 dB |
| Distortion at 2V output: | | .005% |
| Maximum Output Signal: | | 50V |
| Absolute Polarity: | | Switchable |
| Tube complement: | Control Module | 8 6H30 |
| | Power Module | 2 5AR4, 4 6C19, 2 6H30, 2 6C45 |
| Power Consumption: | Control Module | 220VA |
| | Power Module | 250VA |
| Dimensions | | 19" x 5.75" x 15.5" (each module) |
| Weight | Control Module | 40lb |
| | Power Module | 36lb |



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