KRELL®

KRC-HR

Remote Controlled Preamplifier

Control Without Compromise

Through the implementation of a new electronic volume control system and a variety of audio circuit and power supply revisions, the KRC-HR establishes a new level of refinement in preamplifier performance.

SPECIFICATIONS

Frequency Response
20Hz-20KHz:+/-0.02dB
0.2Hz-400KHz:+ 0.0,-3dB

Signal-to-Noise Ratio
<-95dB, unweighted

THD
< 0.002%, 20Hz-20KHz

Functions
Source Selection
Tape Monitor
High/Low Gain
Absolute Phase
Balance
Level Control

Inputs
Two balanced
Four single-ended
One tape return

Outputs
One balanced Main output
One single-ended Main output
One buffered Tape output

Dimensions

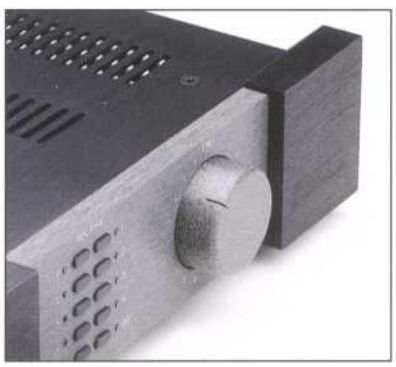
KRC-HR	*Supply*
19" wide	*8.625" wide*
2.5" high	*2.5" high*
15" deep	*11.25" deep*

Weight
Unit only: 21 lbs.
Packed: 31 lbs.

Warranty
Five years, limited and transferable

Specifications subject to change without notice.

A VIRTUE OF THE KRC-HR IS ITS SIMPLE OPERATION



One of the primary design objectives for the original KRC was to merge the convenience of mainstream audio products with the sonic attributes of high end performance. The result was a preamplifier of lifelike presentation with the user appeal previously denied to audiophiles. Through the implementation of a new electronic volume control system and a variety of audio circuit and power supply revisions, the KRC-HR establishes a new level of refinement in preamplifier performance. The HR designation stands for High Resolution, an accurate statement of the KRC-HR's most significant virtue: to unravel the complexities of music with all details intact, allowing its emotional strength to be fully conveyed.

Since the introduction of the original KRC in 1992, the resolution of source components has steadily increased. Also increasing has been discussion over the necessity for a separate preamplifier. The reality is that a high current, high voltage analog output amplifier stage is required to drive cables and power amplifier inputs. Source components are not built with this capability and the insertion of a volume control in the signal path creates far more problems than it solves. The KRC-HR embodies a vast amount of knowledge and technology, and is required for one reason only: there is no other path to sonic excellence.

CONTROL WITHOUT COMPROMISE

Volume control is an obvious preamplifier function. Less obvious is the sonic impact of potentiometers. The most significant improvement in the KRC-HR is attributable to installation of Krell's latest version electronic volume control. This is a sixteen bit system with over 300 discrete attenuation steps that actually provides more precision than possible with a potentiometer. And, because the signal is only passing through a series of 1%, mil-spec, metal film resistors rather than the mechanical element/wiper assembly of a pot, signal purity is vastly

improved. The improvement in sonic quality is not limited to one or two specific areas. Each listener has his or her idea of the most important sonic characteristics. The KRC-HR delivers on them all.

A significant percentage of research was also allotted to the development of remote-controllable, sonically neutral switching circuitry. Technology was devised using digital logic to operate networks of gold contact relays. Relays are far superior to common, less-expensive methods of electronic switching that use op amps or transistors. The result is crisp, positive switching, while absolute sonic integrity is maintained.

Organized technology: The four layer main PCB, which has over 1,100 components, is situated below the volume and switching control board. Note the volume control/encoder assembly in the left corner of the chassis.

Sonic Considerations

Equal care and effort were invested in accelerating the evolution of audio performance through the KRC-HR. Its four-layer, glass epoxy circuit board is the primary building block for the analog circuits. The four independent layers are dedicated to audio signal, DC power, and two for grounding. Many benefits are derived from this approach: Audio signals travel through much larger paths and are free from ground noise and supply interference. Active components have direct access to the power supply, insuring adequate current delivery under all conditions. Power supply modulations are eliminated as well. The use of two ground layers provides direct access to ground from any point in the circuit. This improves individual component operation and dramatically reduces noise contamination in both the audio and supply circuits.

The revised power supply system reflects long-serving Krell philosophies. Multiple supplies within the external chassis deliver tightly regulated voltages to the final regulation stages within the KRC-HR. Its current and voltage capabilities are far in excess of any potential demand created by the music. The supply can never be taxed to the point of effecting the preamplifier's sonic integrity.

Gain stages are further refinements of classic Krell designs: high bias, pure Class A and complementary. All analog circuits are direct coupled, eliminating capacitor-induced signal degradation, while servo feedback loops control DC offset.

A new, sophisticated buffer amplifier is employed for the main outputs. Multiple transistor groups, more appropriate for audio level signals, are used in place of large, single devices. This stage generates new levels of performance in the areas of transparency, speed

and image resolution, leading to greater accuracy than has been obtainable in the past.

CONTROL WITHOUT CONFUSION

A virtue of the KRC-HR is its simple operation. Use of its pushbuttons is an instinctive process. Inputs are selected and functions are changed with a press of the appropriate button. Subtly lit LEDs indicate which controls are in use.

The remote control is operated in a manner virtually identical to the front panel. When the playback level is raised or lowered remotely, a unique Krell feature is activated: a small red LED mounted within the KRC-HR's level knob illuminates during the change. This provides a useful visual reference and an unexpected element of pleasure.

The KRC-HR boasts a versatile array of inputs, including two balanced and four single-ended, one of which can be used in a home theater application.

The KRC-HR remote control deserves special mention, for it is like no other. Machined from two solid blocks of aluminum, hand polished, black-anodized and computer engraved, it is a mini, hand-sized Krell. Ultra precision internal parts and construction typical of Krell products assure a lifetime of reliable use. The tactile reward is one of those extras which makes Krell ownership such a delight.

PRACTICAL CONSIDERATIONS

Despite its dramatic presence, the KRC-HR is a supremely practical device. Its array of inputs is ideal for the majority of home systems. New in the KRC-HR is a unity gain Theater Throughput that allows installation within a home theater system without wiring changes. An optional phono stage can be added at any time. Main outputs are provided in both single-ended and balanced formats, and are capable of driving independent systems.

The purpose of a preamplifier is to provide central control over primary audio system operations. Useful features and functions are essential, but sonic quality is the overriding priority. In addressing these issues, the KRC-HR leaves nothing to chance. Convenient to use, adaptable to suit a wide range of system configurations, assertive in appearance, its true worth is fully appreciated at that special moment when the music starts.

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