



KRC-3
REMOTE CONTROL LINE-LEVEL
PREAMPLIFIER

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INTRODUCTION

Thank you for your purchase of the KRELL KRC-3 remote control preamplifier. KRELL has built a reputation for blazing the evolutionary path in audio technology. Our new KRC-3 continues this tradition by mating the essential KRELL technologies of Class A operation and discrete circuitry with current mode amplification and our High Resolution volume control.

First developed for our Reference 64 D/A processor, current mode amplification utilizes gain stages that operate exclusively in the current domain. This inherently linear and ultra-fast circuit topology effortlessly captures the most extreme transients while preserving all the nuances and subtleties of the musical performance.

The KRC-3 uses our new High Resolution sixteen bit system to resolve line level attenuation. This control selects from over 300 discrete resistor network combinations to provide a perfectly proportioned and highly precise attenuation curve. This system allows for a fine vernier of adjustment and the creation of a custom logarithmic level taper perfectly suited for audio. KRELL-written control software inserts only the appropriate individual resistor values into the signal path rather than subjecting the musical signal to the sonic degradations inherent in a conventional resistive potentiometer. This translates into resolving power that delivers an even quieter, or "blacker", background to all forms of music, allowing more of the natural textures of the music to be brought forth.

To obtain the best performance from your KRC-3, careful attention should be paid to its placement, installation, and operation. A thorough understanding of these details will help insure satisfactory operation and a long life for the KRC-3 and related system components.

This Owner's Reference is divided into several sections, each designed to perform a different function. As you read through the Owner's Reference you will become better acquainted with the features and functions that make the KRC-3 an outstanding performer and a superb value. A Question and Answer section is included where answers to common questions are provided. Should you have any questions or suggestions please feel free to contact your authorized dealer or the KRELL staff for assistance.

In the unlikely event that your KRC-3 should require service, you will be pleased to know that it is backed by a comprehensive Customer Satisfaction policy and one of the most advanced service facilities in the industry. For detailed information on the terms and conditions of service, please consult your warranty registration card, your KRELL Dealer or Distributor.

UNPACKING AND ASSEMBLY

1. After opening the box and removing the top layer of foam, the KRC-3 and the following items will now be visible:
 - 1 KRC-3 remote control
 - 1 T-10 Torx wrench
 - 1 AC power cord
 - 1 Owner's Reference
 - 1 Warranty card

NOTE: If any of these items are not included please contact your authorized dealer immediately for assistance.

NOTE: Save all packing materials. If you must ship your KRC-3 in the future, repack the unit in its original packing to prevent damage in transit.

BASIC INSTALLATION

1. Place the unit on a firm level surface free from excessive dirt or moisture. The KRC-3 is not particularly hum sensitive, therefore other components can be placed on or around the KRC-3.

NOTE: While the KRC-3 has a superb power supply and does not require a dedicated circuit, we strongly advise against any connections through extension cords or multiple AC adapters. High quality 15 amp line conditioners or grounded AC strips are acceptable.

INPUT AND OUTPUT CONNECTIONS

CAUTIONS: When making connections to this or any other component, make sure all components are OFF. Make sure all cable terminations are of the highest quality, free from frayed ends, shorts, or cold solder joints.

1. Connect the left and right outputs of your source components to the input on the KRC-3.

The KRC-3 is equipped with four single-ended inputs (S1, S2, S3/proc, and S4/tape) and one balanced input (B1). The S1 and S2 inputs are standard single-ended inputs while S3/proc and S4/tape have user-configurable options. The S3/proc and S4/tape are set as standard inputs from the factory. The S3/proc input can be set for use as a surround processor throughput and the S4/tape can be set as a tape monitor input. Both options will be discussed on page 6 in Optional Configurations.

2. Connect the output of the KRC-3 to the input of your power amplifier.

The KRC-3 has balanced outputs via XLR type connectors and single-ended outputs via RCA type connectors. Both outputs are active at all times, allowing simultaneous connection to separate amplifiers. Only one of these outputs should be connected to a single stereo amplifier.

NOTE: When connecting inputs or outputs to the KRC-3, remember that the balanced connections will have 6dB more gain than the single-ended connections. When level matching is critical in your installation, keep this specification in mind.

3. Plug the AC cord into the receptacle on the back of the KRC-3. Plug the remaining end into the AC wall receptacle. The blue pilot LED will illuminate, and the KRC-3 will be ready for operation.

BASIC PREAMPLIFIER OPERATION

The KRC-3 provides basic input selection and volume control operation from the front panel. The remote control includes additional preamplifier functions as well as KRELL CD transport and amplifier controls (see Remote Control page 8 for more information).

NOTES ON THE VOLUME CONTROL

The level control on the KRC-3 is quite unique in that the volume level is indicated by illuminated LEDs around the outside of the level control, not by the physical position of the level control. When you change level with the remote control, the position of the level control knob does not change. This is because the volume is electronically regulated without the use of a potentiometer. When volume is increased manually or by remote control, the indicator LED will illuminate clockwise. When volume is decreased, the indicator LED will illuminate counterclockwise. When the level is fully off, no indicator LEDs will be illuminated.

BASIC OPERATION

1. Turn the volume control fully counterclockwise to the off position, no LEDs illuminated.
2. Turn on the power amplifier.
3. Choose a listening source and select that input either manually or via the remote control.
4. Start play of the source.
5. Set volume to a comfortable listening level.
6. When changing sources, lower volume to the off position. This insures that the next source played will not damage your system with a high output transient.

BASIC PREAMPLIFIER OPERATION

MUTE

Front panel: To mute, press the active source's input button.

Remote control: Press the mute button.

Front panel: To unmute the KRC-3, press the active source's input button again. If the source is changed while the KRC-3 is muted, press the new source's input button a second time to unmute the KRC-3.

Remote control: Press the mute button.

OPTIONAL CONFIGURATIONS

S3/proc: For simplified integration of an A/V surround sound processor, the S3/proc input can be set to operate as a unity gain stage. In this mode, when the S3/proc input is selected, the KRC-3's volume control and balance is disabled. Volume control is transferred from the KRC-3 to the A/V surround processor connected to the S3/proc input. The left and right channel volume settings are now independent of the KRC-3's volume control and the overall system level is determined by the A/V surround processor exclusively.

S4/tape: The S4/tape input is set to operate as a tape monitor. A tape monitor allows you to listen to the output from your recorder and enables you to examine your recording for imperfections or distortions. After selecting a source for recording (B1, S1, S2, or S3), repeated pressing of the S4/Tape button will toggle between the tape recorder output (LED illuminated) and the input source (LED not illuminated).

If your system does not include a tape recorder, the S4/Tape input can be configured for operation as a standard input identical to the S1 and S2 inputs.

NOTE: The factory default positions sets S3/Proc as a standard input and S4/Tape as a tape monitor input.

OPTIONAL CONFIGURATIONS

To enable these options, it is necessary to remove the top cover of the KRC-3.

1. Unplug the KRC-3 from the AC outlet.
2. Remove the KRC-3 top cover screws with the supplied T-10 Torx wrench. Lift the cover from the KRC-3.
3. Find the two switches located toward the front of the board that are labeled S3/proc and S4/tape. Set the dip switches to the position appropriate for your application.
4. Place the top cover back on the KRC-3 and insert the cover screws.
5. Plug the KRC-3 back into the AC outlet.

REMOTE CONTROL

NOTE: When a function button on the remote control is pressed, the blue pilot LED will flash on the KRC-3. When the button is released the flashing stops.

PREAMPLIFIER FUNCTIONS

LEVEL △	Raises volume
LEVEL ▽	Lowers volume
B-1	Selects B-1 input
S-1	Selects S-1 input
S-2	Selects S-2 input
S-3	Selects S-3/Proc input
S-4	Selects S-4/Tape when input is configured as a standard input
TAPE	Selects S-4/Tape when input is configured as a tape monitor
PHASE	0 or 180°, LED illuminates when phase is reversed 180°.
MUTE	No signal output when LED is illuminated.
BALANCE L	Shifts balance to the left in 1dB increments. "L" position mutes the right channel.
BALANCE R	Shifts balance to the right in 1dB increments. "R" position mutes the left channel.

CD FUNCTIONS

PLAY	Starts CD playback on KRELL CD transports.
PAUSE	Temporarily suspends playback of current track. Second press of the Pause button resumes play.
TRACK PREV	Selects and begins playing the track previous to the current track.
TRACK NEXT	Selects and begins playing the track after the current track.

AMPLIFIER FUNCTIONS

- PWR** Turns KRELL Audio Standard or S-Series amplifiers On or Off.
- MTR** Turns KRELL S-Series amplifiers bias level meters On or Off and cycles through KRELL Audio Standard meter functions.

NOTE: The B2 and GAIN buttons are not functional with the KRC-3.

BATTERY INSTALLATION

NOTE: Batteries (AAA) should be replaced when the KRC-3 does not readily respond to remote commands.

1. Remove the four torx screws from the remote control's back plate.
2. Remove the back plate to expose the battery storage compartment.
3. Insert batteries (refer to the polarity drawing while inserting batteries.)
4. Replace the back plate and insert the four torx screws.

REAR PANEL DESCRIPTION

INPUTS

Four single-ended inputs via RCA connectors

S-1

S-2

S-3/proc

S-4/tape

One balanced input via XLR connectors

One tape output via RCA connectors

MAIN OUTPUTS

Single ended RCA output connectors

Balanced XLR output connectors

XLR input and output pin configuration:

Pin 1	Shield (ground)
Pin 2	Non-inverting (hot)
Pin 3	Inverting

Q. When I turn up the volume on the KRC-3 a loud hum is present from the loudspeakers; what could it be?

A. Hum can be caused by several different disturbances. Check to make sure all of the cables into and out of the KRC-3 are sound and making proper contact. Make sure there are no power supplies or hum inducing components on top or directly below the KRC-3.

You could also be experiencing a ground loop in the system. Put a 3 prong to 2 prong AC adapter (cheater plug) on the KRC-3. This should eliminate the hum. If the hum persists, you may need to repeat this procedure on additional components in the system. Please contact your dealer or equipment manufacturer before lifting the ground on any component. Remember to always keep one major component grounded. If these suggestions do not lead to a solution, please consult your dealer or KRELL.

Q. Can the KRC-3 be used to control more than one system?

A. Yes, the KRC-3 has both single-ended and balanced outputs that can be used simultaneously to control two different systems.

Q. When I select the B1 input on KRC-3, one channel seems to have less gain than the other. Is something wrong with the preamplifier?

A. More than likely there is not a problem with the KRC-3. The balanced input or output internal cable terminations could be incorrect. Locate the channel of the system that appears to have less gain. Switch that channel's input cables. If the problems now appears in the other channel, it is a defective cable. If the problem remains in the original channel, check the KRC-3 output cables using the same procedure. If it is not cable or source related, call your dealer or KRELL.

Check to make sure there are no Balance LEDs illuminated. If there are, correct the balance by pressing the balance control buttons on the remote control until no LEDs are illuminated.

Q. When I use my surround processor, where should I set the volume on the KRC-3?

A. When using the KRC-3's Theater Throughput capability, the system volume control is performed by the surround sound processor. This eliminates the need to predetermine a proper volume setting for the KRC-3 as the KRC-3's level control is not active in this mode (See Optional Configurations page 6 for more information).

SPECIFICATIONS

GAIN:

6.5dB

SIGNAL TO NOISE:

>98dB; "A" weighted

FREQUENCY RESPONSE:

20 Hz to 20 KHz, +/-0.05dB

.3 Hz to 300 KHz, +/-3dB

THD:

<0.009%, 20Hz to 20 KHz

INPUT VOLTAGE TO OVERLOAD:

8.5V RMS

INPUT IMPEDANCE:

47,500 Ohms (47.5 K Ohm)

OUTPUT IMPEDANCE:

15 ohms

OUTPUT VOLTAGE:

9 V/18 V RMS (single-ended/balanced)

DIMENSIONS:

Unit:

19.0" Wide	47.5 cm Wide
15.5" Deep	38.75 cm Deep
3.5" High	8.75 cm High

WEIGHT:

Shipping

28 lbs. 12.7 kg.

Unit only

19 lbs. 8.6 kg.

All operational features, functions, and specifications and policies are subject to change without notification.

WARRANTY AND SERVICE

NOTE: Warranty does not apply to damage caused by acts of God or nature.

The KRC-3 has a limited warranty and transferable warranty of five years for parts and labor. The warranty begins on the date of retail purchase, as noted on the retail sales slip provided by an authorized KRELL Dealer or Distributor, or on the warranty registration card sent to KRELL. In the event adequate proof of purchase date is unavailable, the warranty period will begin on the date the unit was originally shipped from the KRELL factory. The original ship date can be determined by KRELL from the serial number.

The warranty for KRELL products is valid only in the country to which they were originally shipped, through the authorized KRELL Distributor for that country, and at the KRELL factory. There may be restrictions on or changes to KRELL's warranty because of regulations within a specific country. Please check with your Distributor for a complete understanding of the warranty in your country.

Freight to the KRELL factory is your responsibility. Return freight within the United States is included in the warranty. If you have purchased your KRELL product outside the United States and wish to have it serviced at the KRELL factory, all freight and associated charges to the KRELL factory are your responsibility. KRELL will pay return freight to the USA-based freight forwarder of your choice. Freight and other charges to ship the unit from the freight forwarder to you are also your responsibility.

The operating voltage of this unit is determined by the KRELL factory and can only be changed by an authorized KRELL distributor or at the KRELL factory. The voltage for the KRC-3 in the USA cannot be changed for six months from the original purchase date. Any unauthorized voltage conversion, disassembly, component replacement, perforation of chassis, updates, or modifications performed to the unit will void the warranty. KRELL is not responsible for any damage incurred in transit. KRELL will file claims for damages as necessary for units damaged in transit to the KRELL factory. You are responsible to file claims for shipping damages during the return shipment.

The use of any packing material other than the original is not recommended. KRELL may, at its discretion, pack a unit in new material for the return shipment. KRELL will bill you for such if the unit was shipped in non standard packing or if the original packing is so damaged as to be unusable. If you need to purchase additional packing, please contact your authorized KRELL Dealer, Distributor or KRELL for assistance.

IMPORTANT: If you believe there is a problem with your unit, please contact your Dealer, Distributor, or the KRELL factory immediately. Do not return any unit to KRELL for repair without first calling to discuss the problem and to obtain a Return Authorization number.

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