

***KSP-7B STEREO PREAMPLIFIER OWNER'S MANUAL***



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### **INTRODUCTION & GENERAL INFORMATION**

Thank you for purchasing the KRELL KSP-7B Preamplifier. The KSP-7B is the latest evolution of KRELL's entry level preamplifier technology. Many of its design concepts are similar to our more expensive preamplifiers and are wholly unique to KRELL. Two important design features are dual-mono operation (all active stages are powered by independent tracking regulators) and the complete absence of any capacitors in the signal path. The KSP-7B retains other features for which KRELL preamplifiers have become recognized: internally switchable loading for moving coil cartridges and input capacity rarely found on high-end preamplifiers. All circuitry in the KSP-7B is of completely new design -- many aspects of which are derived from the top-of-the-line KRS-Balanced Reference Preamplifier. The most significant of these is the fully balanced output stage. Balanced circuitry has long been standard for professional audio equipment and is rapidly becoming the standard for high-end audio equipment. The sonic benefits of balanced operation are clearly audible. A simple listening comparison between the RCA (single-ended) and the XLR (balanced) outputs will reveal improvements in all areas of sonic quality. The connection of the KSP-7B in single-ended and balanced systems is covered on page five.

Please read this manual thoroughly before using the KSP-7B. Installation and operation are simple to understand and perform.

The KSP-7B will provide many years of trouble-free performance. Please be sure to return the enclosed warranty registration card.

## **ABOUT THE OWNERS' MANUAL**

The KSP-7B Owner's Manual is divided into various groups of information. The purpose of the document as a whole is to familiarize you with the unit and guide you through its set-up, installation and operation in a logical progression. The Table of Contents is as follows:

- A. Unpacking
- B. Phono Section Set-Up
- C. Installation:
  - 1. Cautions
  - 2. Unit Location Guidelines and Installation
  - 3. Connection of Inputs and Outputs
  - 4. Turn-on of the Preamplifier
- D. Operation
- E. Warranty and Service Information

### **A. UNPACKING**

Remove the KSP-7B, power supply and accessories from the shipping container. Store all packing materials in a cool, dry place for future use. Inspect the unit for shipping damage; if any damage is evident, contact your dealer immediately. If the unit is in proper condition, proceed with installation.

In addition to the preamplifier and power supply, you will find a small "L" shaped allen driver. This is used to remove the top cover to gain access to the phono section gain and input impedance loading adjustments.

Set-up of the phono section should be completed before installation of the preamplifier.

### **B. PHONO SECTION SET-UP**

Important Note: For the initial adjustment of the phono section the KSP-7B should not be connected to its power supply. For adjustments to the phono section input impedance after the initial set-up, as discussed below, please note the following: Never adjust any of the internal switches while the amplifier the KSP-7B is driving is turned on.

Moving Coil Cartridges: The KSP-7B is shipped with the phono section gain set for moving coil cartridges and a load of 800 ohms. The load can be changed with a set of internal switches. To access these the top cover must be removed with the supplied allen driver. At the left-rear of the unit there is a two-position toggle switch. In the factory-supplied position the switch lever is towards the rear panel of the unit. If you are using a moving coil cartridge do not change the switch position. To adjust the input impedance load for different moving coils use the table below to find the optimum setting for your cartridge. Follow your dealer's or the manufacturer's recommendations first. You can also set the load using your sonic preferences as a guide. In general, lowering the impedance will make the high frequencies less prominent and the overall sound warmer. Higher loads make the overall sound more vivid and detailed. This is, of course, highly subjective and very dependent on the cartridge in use.

The various load possibilities are detailed below:

|                                   |   |             |
|-----------------------------------|---|-------------|
| all switches in the open position | = | 47,000 ohms |
| all switches open except 8 on     | = | 1,000 ohms  |
| all switches open except 7 on     | = | 800 ohms    |
| all switches open except 6 on     | = | 470 ohms    |
| all switches open except 5 on     | = | 250 ohms    |
| all switches open except 4 on     | = | 100 ohms    |
| all switches open except 3 on     | = | 47 ohms     |
| all switches open except 2 on     | = | 25 ohms     |
| all switches open except 1 on     | = | 10 ohms     |
| all switches on                   | = | 5 ohms      |

Moving Magnet Cartridges: To set the Phono section for Moving Magnet operation, with the impedance adjusted to 47,000 ohms, set the phono gain switch towards the front of the preamplifier. This lowers the gain of the phono section to compensate for the higher output of moving magnet cartridges. Set all impedance switches for both channels to off.

### C. INSTALLATION

#### 1. Cautions!

Note: These are important points of which you always should be aware. They are presented before the actual installation procedures, should you not read through the manual entirely.

- a. Do not connect the power cord into the AC mains before completing the "Installation" section!
- b. The power amplifier(s) should always be turned off while making connections.

- c. When installing the KSP-7B, always connect the DC cable between the preamplifier chassis and the power supply before plugging the power supply into the AC mains.
- d. Always disconnect the AC from the mains before disconnecting the DC cable from the preamplifier.
- e. The KSP-7B Select switch should be in the Mute position and the volume control fully counterclockwise while making connections.
- f. Our custom RCA connectors are made to very exacting standards. Connectors of lesser quality may damage them or cause poor connections. Please check with your dealer or the factory if you have any questions.

## 2. Unit Location Guidelines and Installation

The KSP-7B is designed to be set-up with the power supply installed at some distance from the preamplifier chassis. This is to eliminate the possibility of hum being induced into the phono section. The motors in CD players or tape decks can also induce hum into the phono section and, in most cases, should be placed at least a foot away from the KSP-7B.

Before proceeding with the final installation, please read and complete the set-up of the phono section loading. These operations involve removal of the top cover and are much easier to accomplish before the unit is fully in place. Instructions and settings are listed in Section B (Pages 2 & 3).

### a. Power Supply Location Guidelines

The KSP-7B power supply measures 7 1/4" wide, 8 1/4" deep and 2 1/2" high. Six foot AC and DC cables are provided with the supply. Plan the position of the supply and preamplifier within these lengths. Allow a small amount of cable to be excess so that neither cable is pulled tight. Contact the factory if the DC cable is too short. Any attempt to extend it jeopardizes the power supply and the preamplifier and will void the unit's warranty.

Although well-shielded, the power supply should not be placed close to hum-sensitive components such as turntables, phono preamplifiers or tape decks.

Allow ample air space around the supply for heat dissipation. Five inches on top and two inches on each side is adequate. This supply and any other should not be placed one on top of the other. They should be placed side-to-side.

This supply does not require that an AC circuit be dedicated for its use only. It should be connected to a 15 or 20 amp circuit that is dedicated for the source components and preamplifier. Do not connect this supply to the mains with light-gauge (18 or higher) extension cords or multiple outlet adapters. AC extension cords, outlet strips and good quality surge protectors that are rated for 15 amps and are grounded are acceptable.

#### b. Preamplifier Location Guidelines

The KSP-7B chassis measures 18 3/8" wide, 13 1/2" deep and 2" high. Four inches clearance should be allowed above the top of the KSP-7B. Only a small amount of clearance is needed on the sides. Four to six inches clearance should be allowed at the rear of the unit to provide for cables.

#### c. Power Supply & Preamplifier Installation

- i. Place the power supply in location.
- ii. Place the preamplifier in location.
- iii. Connect the DC cable from the supply to the preamplifier.
- iv. Do not plug the AC connector into the mains at this time, but make certain the cable length is adequate.

### 3. Connection of Inputs and Outputs

All source components should be off at this point.

#### a. Connection of Input Sources

Follow the markings on the rear panel for proper input assignments. Make the connections between the source components and preamplifier inputs at this time.

#### b. Connection of Record Outputs

There is one set of Record Outputs which receive the signal from the input chosen on the Select switch for sending to a tape deck. Make the connections between the Record Outputs and tape deck at this time.

#### c. Connection of Main Outputs

There are two sets of Main Outputs: one set single-ended using RCA connectors; one set balanced using XLR connectors. They are wired in parallel and can be connected and operated simultaneously. There is no degradation to either output if both are connected, whether one or both are in operation at the same time. You may even choose to drive two independent systems from your KSP-7B.

- i. For use with amplifiers with single-ended (unbalanced) inputs: connect the RCA Main Outputs to the amplifier inputs. This constitutes the conventional hook-up for a single-ended unbalanced system.
- ii. For use with amplifiers with balanced inputs: connect the XLR Main Outputs to the amplifier inputs. The pin assignments are as follows: 1 = ground, 2 = non-inverted output, 3 = inverted output.

Make the connections between the Main Outputs and amplifier(s) and/or crossovers at this time.

#### 4. Turn-on of the Preamplifier

##### a. Initial Turn-on

All source components should be off at this point. The Select switch should be set to the Mute position and the volume control should be fully counterclockwise. The amplifier(s) should be off.

Connect the power supply to the AC mains at this point. The LEDs on the power supply and KSP-7B should now be illuminated.

##### b. Future Use

The KSP-7B is designed to be "on" at all times. In other words, it is not intended to be switched on and off on a routine basis. The only times it is recommended to turn the unit off is when your system will be left unattended for a long period of time, such as during a vacation or a business trip. In these cases all other equipment should be turned off, and the KSP-7B power supply should be disconnected from the AC mains. When you return, reconnect the power supply to the AC mains before turning on other equipment.

This procedure should also be followed if you reorganize your system and need to change wiring of the supply to the preamplifier.

#### D. OPERATION

##### 1. Select

Use the Select switch to choose between the various source (playback) components for listening. Be sure to lower the volume control when switching among components, as large differences in level between sources can cause damage to other components.

There is a Mute position that should be used when source components are being turned on and off and at the completion of each listening session.

Note: Components that are not being listened to should be turned off or have their volume turned down. For instance, a tuner should be turned off or have its volume lowered while it is not being listened to.

## 2. Tape

Use the Tape switch to choose between the output of the Select switch or the playback from a tape deck for monitoring. This can be done when a recording is being made, such as with a three-head tape deck, or during playback only.

## 3. Gain

Use the Gain toggle switch to adjust the overall gain of the line section to compensate for different system efficiencies.

The amount of gain for the two settings of the Gain switch are as follows:

HI: 12 dB  
LOW: 6 dB

## 4. Phase

Use the Phase toggle switch to reverse the absolute phase of the Main Outputs. The switch is functional for both the single-ended and balanced outputs.

Many recordings have had their overall phase reversed during the various processing stages. When the absolute phase and phase relationship between channels is correct, there are improved transients and dynamic detail.

## 5. Balance

Use the Balance control to adjust the level between the two channels if necessary. The Balance control is really a balance attenuator. When the control is turned clockwise, the left channel is reduced in level in four single decibel steps; a fifth position, Off, fully clockwise, turns the left channel off.

## 6. Volume Control

Use the Volume control to adjust the listening level. It should always be fully counterclockwise when the system is not in use or when changing records or sources.



### E. WARRANTY

The KSP-7B has a limited warranty of five years from the date of purchase. Please return the completed warranty card immediately after successful installation and operation are completed.

The warranty for KRELL products is valid in the country to which they were originally shipped and at the factory. If you think there are problems with your unit, please contact your dealer or the factory immediately.

Should your unit need to be repaired, contact the factory or your dealer (distributor) for a return authorization. Freight to the factory or dealer (distributor) is your responsibility. Return freight to you will be paid by the factory or distributor.