KAV-500
MULTI-CHANNEL POWER AMPLIFIER

v 99.0

OWNER'S REFERENCE

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CE MARKING

This product complies with the EMC directive (89/336/EEC) and the low-voltage directive (73/23/EEC).

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TABLE OF CONTENTS

4	INTRODUCTION
5	UNPACKING AND ASSEMBLY
6	BASIC INSTALLATION
7	INPUT AND OUTPUT CONNECTIONS
10	CONFIGURATION CHANGES
12	TROUBLESHOOTING
14	WARRANTY
15	RETURN AUTHORIZATION PROCEDURE
BACK COVER	SPECIFICATIONS

INTRODUCTION

Thank you for your purchase of the KRELL KAV-500 Multi-Channel Power Amplifier. The modular nature of the KAV-500 makes it the ideal amplifier for the variety of configurations encountered in music and home theater systems.

The KAV-500 can be configured with two to five channels of amplification. The operation of the amplifier remains the same whether it is equipped with two, three, four, or five amplifier channels. Each amplifier channel is rated at 100 watts @ 8Ω. Any two adjacent channels can be bridged together to form one 400 watt channel. The flexibility was a primary design feature for the KAV-500. The result is an amplifier that can be tailored to meet the requirements for a great variety of system arrangements.

To obtain the best performance from your KAV-500, careful attention should be paid to its placement, installation and operation. A thorough understanding of these details will help insure satisfactory operation and long life for the KAV-500 and related system components.

The 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 KAV-500 a superb value. A Troubleshooting section is included with solutions to potential problems. 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 KAV-500 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, or your KRELL Dealer or Distributor.

UNPACKING AND ASSEMBLY

After opening the box and removing the top layer of foam, the KAV-500 and the following items will now be visible:

1 5/32" hex wrench
1 T-10 Torx wrench
1 T-15 Torx wrench
2 Bridging jumpers
1 20 Amp slow blow fuse (100/120 Volt only)
1 12 Amp slow blow fuse (200/220/240 Volt only)
4 12 Amp standard fuses
1 12 VDC (12 V trigger) cable
1 AC power cord
1 Owner's Reference
1 Warranty card

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

NOTE: Save all packing materials. If you must ship your KAV-500 in the future, re-pack the unit in its original packaging to prevent shipping damage.

BASIC INSTALLATION

Place the unit on a firm level surface free from excessive dirt or moisture. When using custom racks or cabinetry, keep in mind the weight and ventilation requirements for this amplifier. It is preferable to run long balanced interconnect cables to the amplifier and keep speaker cable length to a minimum. Although the KAV-500 is designed to have minimal interaction with speaker cable, long runs of cable add impedance to the load the amplifier must drive. This is true regardless of the speaker cable's gauge.

CABINETRY CONSIDERATIONS

When the KAV-500 is in use, it can become quite warm. Therefore, the KAV-500 should be installed in a location that provides unobstructed ventilation. If you must locate the unit within a closed cabinet, extra ventilation is advised. This can often be accomplished with cabinet shelf spacing or alternate unit placement. In more extreme instances the use of small fans can aid in removing excessive heat from internal spaces. Consult your dealer for assistance.

Generally, with the front and rear of a cabinet open, one inch of clearance on each side and two inches of vertical clearance will provide adequate ventilation.

Since the bottom of the amplifier gets quite hot, caution should be used when placing the amplifier on deep pile carpeting, as discoloration may result through prolonged use.

AC CONSIDERATIONS

While the KAV-500 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 component or any other, make sure the power amplifier is off and the preamplifier/processor is in the mute or stand-by mode.

The wiring to and from the amplifier, and all components in general, should be arranged in a neat, organized manner. Specifically, AC wires should be separated from audio cables. This practice avoids hum or other unwanted noise from being introduced into the system.

1. Connect the speaker cables to the amplifier's output terminals.

   The KAV-500 utilizes standard binding posts for each amplifier channel. These connectors accept bare wire, banana plugs, pins, or spade lugs. The red terminal is used for the positive connection and the black terminal is used for the negative connection.

CAUTION: Make sure all cable terminations are of the highest quality, free from frayed ends, shorts, or cold solder joints.

2. Connect the interconnect cables from your preamplifier/processor to the inputs of the KAV-500.

   Each KAV-500 channel has balanced and single-ended inputs. The balanced inputs use standard three pin XLR connectors and the single-ended inputs use standard RCA connectors. We recommend use of balanced interconnects; they reduce noise and do not incur significant sonic loss due to extreme cable lengths.

   Use of a balanced connection in any channel will increase gain by 6 dB in that particular channel. This gain increase is a characteristic of balanced circuitry. For systems that include both balanced and single-ended connections, each KAV-500 channel is equipped with a gain switch, located next to the input connectors, to compensate for this difference. Generally, the appropriate position of this switch is dictated by the inputs used. The following two guidelines address the vast majority of systems:

   a. All balanced or all single-ended connections:

   All KAV-500 channel switch settings should be at either 0 dB or +6 dB. This choice will depend on the sensitivities of the speakers connected to the amplifier.

b. Combination of balanced and single-ended connections:

All channels using balanced connections should be set at 0 dB. The channels utilizing single-ended connections should be set at +6 dB.

These settings are meant as starting points. Individual speaker sensitivities, processor adjustment capabilities and listening room characteristics are among the variables that dictate the final switch settings for each KAV-500 channel. Please consult your KRELL dealer for additional assistance.

CAUTION: Use only one input to each amplifier channel at a time. The KAV-500 is shipped with shorting pins in the XLR inputs. These pins should remain in the XLR inputs if you are operating a KAV-500 channel in the single-ended mode. When the shorting pin is inserted, pins one and three are shorted together. The shorting pins must be removed to connect a KAV-500 channel for balanced operation.

The pin assignments for the XLR connectors are:

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

3. Power up the source components, preamplifier/processor and then engage the power switch on the KAV-500.

   The KAV-500 power supply incorporates a slow start protection circuit that prevents excessive current from reaching the audio circuitry upon initial turn on.

   After pressing the power switch, the pilot light will illuminate. There is a short delay, followed by an audible click. This click is the protection circuitry disengaging. The amplifier is now ready for operation. Should you have any questions regarding system set-up, contact your dealer or KRELL.

USING A DEDICATED AC WALL OUTLET AND SWITCH

The KAV-500 Multi-Channel Power Amplifier can be powered on from an AC wall receptacle with a dedicated wall switch rather than from the front panel power button or optional remote control. Please contact your authorized KRELL dealer, distributor, or KRELL for more information before you connect your amplifier to a dedicated AC wall outlet with a switch

12 VDC POWER OUT AND IN (12 V TRIGGER)

The KAV-500 is equipped with an output that sends 12 VDC power on/off (12 V trigger) signals to other KRELL components and an input that recognizes 12 VDC power on/off signals from other KRELL components and devices that incorporate a 12 V trigger. This allows the remote turning on and off of the KAV-500 with the power activation of another KRELL component and with other components used in a custom installation.

CONFIGURATION CHANGES

The modular nature of the KAV-500 makes changing the original configuration of the amplifier a simple procedure. Configuration changes are made by adding, bridging or removing KAV-500 amplifier channels.

IMPORTANT

Removing the cover to reconfigure for bridged operation and to change fuses (see Troubleshooting) are the ONLY instances you are authorized to remove the cover of any KRELL component without voiding your Warranty. For more information on product limitations and restrictions, see Warranty page.

1. To install an additional amplifier channel.

a. Turn the amplifier off.

b. Remove the two screws on the top rear edge of the amplifier channel and the two screws on the bottom rear edge of the amplifier channel that secure the blank panel to the rear of the KAV-500 at the new amplifier channel location.

c. Each amplifier channel is equipped with three male banana plugs. Slide the amplifier channel into the chassis until the three plugs lock into place at the rear of the front panel.

d. With the supplied 5/32" hex wrench, install the ten hex bolts on the bottom of the amplifier, firmly securing the T-bar heatsink to the chassis. Do not tighten the bolt until all ten are threaded.

e. Install the two screws on the top rear edge of the amplifier channel and the two screws on the bottom rear edge of the amplifier channel. These screws are situated on the plate to which the binding posts are mounted.

f. Connect input and output cables.

g. Set the gain switch following the guidelines outlined previously.

h. Power up all source and control components and then the KAV-500.

2. Bridging two amplifier channels

Any two adjacent channels can be combined, or bridged, to form one 400 watt channel. The KAV-500 can support two bridged 400 watt channels.

a. Turn the amplifier off.

b. Remove the top cover using the supplied T-10 and T-15 Torx wrenches.