

## **KAV-1500**

**Five-Channel Power Amplifier** 

## **Instructions for Use**

**Owner's Reference** 

# KAV-1500 Five-Channel Power Amplifier Instructions for Use v 00.0

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## CE

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

#### **WARNINGS**

The amplifier must be placed on a firm, level surface where it is not exposed to dripping or splashing.

The ventilation grids on the top of the amplifier and the space underneath the amplifier must be unobstructed at all times during operation. Do not place flammable material above or beneath the amplifier.

Contact your authorized Krell dealer, distributor, or Krell before using any devices designed to alter or stabilize the AC power for the KAV-1500.

Before connecting the KAV-1500, make sure the amplifier is turned off and any output device (such as a preamplifier) is in mute or stand-by mode. Make sure all cable terminations are of the highest quality and free from frayed ends, short circuits, or cold solder joints.

Use only one set of inputs to the amplifier at a time.

After reconfiguring for MAT, do not use more than one input at a time.

After bridging, one channel must remain unbridged.

THERE ARE NO USER SERVICEABLE PARTS INSIDE ANY KRELL PRODUCT.

Please contact your authorized Krell dealer, distributor, or Krell if you have any questions not addressed in this reference manual.

This product is manufactured in the United States of America. Krell<sup>®</sup> is a registered trademark of Krell Industries, Inc., and is restricted for use by Krell Industries, Inc., its subsidiaries, and authorized agents. Multi Amp Throughput™ is a trademark of Krell Industries, Inc. All other trademarks and tradenames are registered to their respective companies.

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#### Introduction

Thank you for your purchase of the Krell KAV-1500 Five-Channel Power Amplifier.

The KAV-1500 amplifier provides substantial five-channel output power that delivers realistic music reproduction at an exceptional value. The amplifier can be customized with a variety of optional system configurations, including a multi power mode using the Multi Amp Throughput (MAT) feature, and bridged operation. The KAV-1500 amplifier has balanced and single-ended inputs for compatibility with other components. The multi-channel (DB-25) input also allows you to integrate the amplifier easily and seamlessly into home theater or whole house systems. The amplifier can be operated using the 12 VDC power on/off (12 V trigger) signals from other components.

This reference manual contains important information on placement, installation, and operation of the KAV–1500 amplifier. Please read this information carefully. A thorough understanding of these details helps ensure satisfactory operation and long life for your KAV–1500 amplifier and related system components.

#### **Definition of Terms**

Following are the definitions of key terms used in your owner's reference manual.

#### **CONNECTIONS**

#### **Bridging**

A method of linking two amplifier channels by distributing the speaker load between the positive binding posts. Bridging the channels quadruples the power rating at 8 Ohms. Bridged configurations should not be used with loads under 4 Ohms.

#### **Krell Multi Amp Throughput (MAT)**

An internal connection option that sends the same music signal to all amplifier channels using one balanced or single-ended connection. MAT reduces installation complexity and cabling requirements in systems containing multiple amplifiers. MAT also allows a variety of connection scenarios, including powering multiple pairs of loudspeakers to extend the listening environment throughout your home.

#### **INPUTS AND OUTPUTS**

#### **Balanced**

A symmetrical input or output circuit that has equal impedance from both input terminals to a common ground reference point. The industry standard for professional and sound recording installations, balanced connections have 6 dB more gain than single-ended connections and allow the use of long interconnect cables.

#### **Definition of Terms, continued**

#### Single-ended

A two-wire input or output circuit. Use care when using single-ended connections, in which the ground connection is made last and broken first. Turn the system off prior to making or breaking single-ended connections. Single-ended connections are not recommended for configurations requiring long cable runs.

#### Multi-channel (DB-25)

A balanced input or output circuit that allows for the simultaneous connection of all audio outputs plus one 5 VDC (5 Volt trigger) via a single cable. DB-25 inputs and outputs are becoming popular for connecting multi-channel A/V processors and power amplifiers, simplifying the integration of the two components into your system.

#### **OPERATION**

#### Off

When the power button on the front panel is pressed and the blue power LED turns off, the component is off.

#### **Operational Mode**

When the power button on the front panel is pressed and the blue power LED illuminates, the component is in the operational mode and ready to play music.

#### Stand-by Mode

A low power consumption status that keeps the audio and regulator circuits at idle. Krell recommends leaving the component in the stand-by mode when it is not playing music.

## Unpacking

Open the shipping box, which contains:

- 1 amplifier unit (packed in foam end-caps)
- 4 ribbon connection cables

**Fuses** 

1 slow-blow (20 amp for 100/120V or 12 amp for 220/240V) line fuse

1 12 VDC output (12 V trigger) cable

1 T-15 Torx wrench

1 packet containing the owner's reference manual and the warranty registration card.

#### **IMPORTANT**

Two people are needed to remove the amplifier from the shipping box.

- 1. One person grasps the underside of the foam end-caps at one end of the amplifier; at the same time, the second person grasps the underside of the foam end caps at the other end of the amplifier.
- 2. Slowly lift the amplifier straight out of the shipping box.
- 3. Place the amplifier in a safe location and remove the protective plastic wrapping.

#### Notes

If any of these items are not included in the shipping box, please contact your authorized Krell dealer, distributor, or Krell for assistance.

Save all packing materials. If you ship your amplifier in the future, repack the unit in its original packaging to prevent transit damage. See **Return Authorization Procedure**, on page 22, for more information.

#### **Placement**

Before you integrate the KAV-1500 into your system, review the following guidelines to choose the location for the component. This will facilitate a clean, trouble-free installation.

The KAV-1500 requires at least two inches (5 cm) of clearance on each side and at least two inches (5 cm) of clearance above the component to provide adequate ventilation.

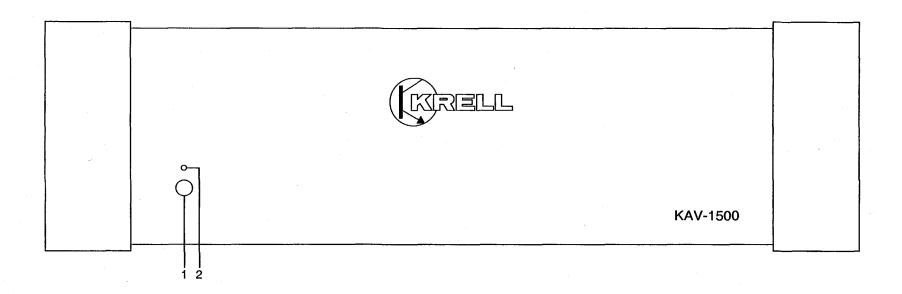
The KAV-1500 does not require any type of special rack or cabinet for installation. For the dimensions of your amplifier see *Specifications*, on page 23.

Place the amplifier as close to the loudspeakers as possible and keep the speaker cable length to a minimum. Speaker cable adds impedance to the load the amplifier must drive, regardless of the cable's gauge. Krell amplifiers drive the lowest impedances with ease, but long speaker cables reduce the maximum power that is delivered to the loudspeakers.

#### **AC POWER GUIDELINES**

Krell recommends operating each amplifier from a dedicated 15-amp AC power line. For maximum power output, operate the KAV-1500 amplifier from a dedicated 20-amp AC power line.

## FIGURE 1 THE KAV-1500 FRONT PANEL



1 Power Button

2 Power LED

## Front Panel Description: KAV-1500

#### See Figure 1 on page 5

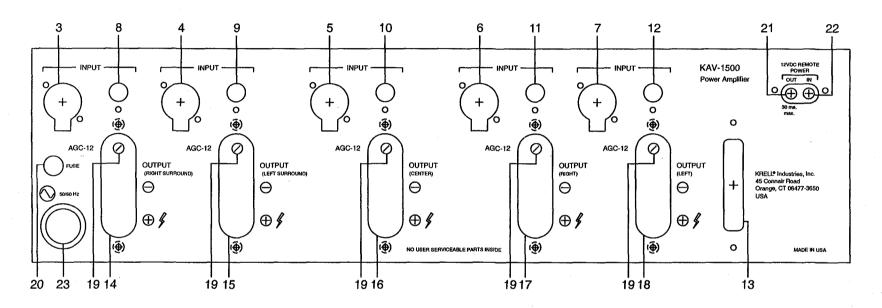
#### 1 Power Button

Use this button to switch the KAV-1500 power from off to the operational mode and also to switch the 12 VDC output (12 V trigger) on and off.

#### 2 Power LED

The blue power LED illuminates when the amplifier is in the operational mode.

#### FIGURE 2 THE KAV-1500 BACK PANEL



#### **Balanced Inputs**

- 3 Right Surround Input
- 4 Left Surround Input
- 5 Center Input
- 6 Right Input
- 7 Left Input

#### Single-ended Inputs

- 8 Right Surround Input
- 9 Left Surround Input
- 10 Center Input
- 11 Right Input
- 12 Left Input

#### **Multi-Channel Input**

13 Multi-channel Input

#### **Amplifier Channel Outputs**

- 14 Right Surround Output
- 15 Left Surround Output
- 16 Center Output
- 17 Right Output
- 18 Left Output

#### **Fuses**

- 19 AGC- **3**Fuses
- 20 Line Fuse

#### **Remote Connections**

- 21 12 VDC Remote Power Out
- 22 12 VDC Remote

## Power In Power

23 AC Power Cord

- FUSE RATING NALUE CHANGED TO AGC 8 IN 2000

## **Back Panel Description: KAV-1500**

#### See Figure 2 on page 7

The KAV-1500 back panel provides connections for all inputs and outputs, remote connection input and output links, and AC power supply.

#### **Balanced Inputs**

#### 3, 4, 5, 6, 7 Inputs

These are the right surround (3), left surround (4), center (5), right (6), and left (7) KAV-1500 channel inputs for output devices with balanced XLR connectors.

#### Single-ended Inputs

#### 8, 9, 10, 11, 12 Inputs

These are the right surround (8), left surround (9), center (10), right (11), and left (12) KAV–1500 channel inputs for output devices with single-ended RCA connectors.

See **Reconfiguring the KAV-1500 for MAT**, on page 14, and **Reconfiguring the KAV-1500 for Bridged Operation**, on page 16, for information on optional system configurations.

#### Multi-channel Input

#### 13 Multi-channel Input

This is the DB-25 input, for connecting to the DB-25 output of a preamp/processor. The DB-25 input incorporates all five channels plus a 5 VDC (5 Volt trigger), and allows you to send all audio signals and turn the amplifier on and off via a single cable.

### **Amplifier Channel Outputs**

#### 14, 15, 16, 17, 18 Outputs

These are the right surround (14), left surround (15), center (16), right (17), and left (18) KAV–1500 amplifier channel outputs with five-way loudspeaker binding posts. The loudspeaker binding post terminals accept spade lugs, bare wire, banana plugs, or pins. Use the red terminal for the positive connection and the black terminal for the negative connection.

See *Input and Output Connections*, on page 10, *Connecting the KAV-1500 Reconfigured for MAT*, on page 14, and *Connecting the Bridged KAV-1500*, on page 17, for more information on amplifier channel output connections.

#### **Back Panel Description**, continued

#### **Fuses**

#### 19 AGC-12 Fuses

The AGC 12 Volt loudspeaker fuses protect the KAV-1500 against short circuits in loudspeaker output.

#### 20 Line Fuse

The line fuse protects the KAV-1500 against short circuits in internal power supplies.

#### Note

Fuses must be replaced with the fuse value specified on the KAV-1500 back panel. Use a 20 amp slow-blow line fuse for 100/120 V systems or a 12 amp slow-blow line fuse for 220/240 V systems.

#### Remote Connections

#### 21 12 VDC Remote Power Out

The KAV-1500 is equipped with an output that sends 12 VDC power on/off (12 V trigger) signals to other Krell components and other devices that incorporate a 12 V trigger.

#### 22 12 VDC Remote Power In

The KAV-1500 is equipped with an input that receives 12 VDC power on/off (12 V trigger) signals from other Krell components and other devices that incorporate a 12 V trigger. This allows you to turn the KAV-1500 on and off using a Krell or other component in a custom installation.

#### Notes

12 VDC Out/In (12 V trigger) remote power is limited to 30 ma.

Consult the owner's manual of each component used in a custom installation to take full advantage of the KAV-1500 remote capability.

#### Power

#### 23 AC Power Cord

The KAV-1500 is equipped with a hardwired AC power cord.

## Connecting the KAV-1500 Amplifier to Your System

#### INPUT AND OUTPUT CONNECTIONS

Follow these steps to connect the KAV-1500 amplifier to your system.

- 1. Make sure all power sources and components are off before connecting inputs and outputs.
- 2. Neatly organize the wiring between the amplifier and all system components. Separate AC wires from audio cables to prevent hum or other unwanted noise from being introduced into the system.
- 3. Connect the interconnect cables from your output device to the amplifier inputs. The KAV-1500 is equipped with balanced (3, 4, 5, 6, 7) or single-ended (8, 9, 10, 11, 12) inputs located on the back panel. The balanced inputs use three-pin XLR connectors; the single-ended inputs use RCA connectors.

or

Use the multi-channel (DB-25) connector to simplify the integration of the KAV-1500 into your system.

Connect the DB-25 output on your preamp/processor to the DB-25 input (13) located on the back panel of the KAV-1500. The DB-25 cable simultaneously transmits audio outputs and Trigger 1 signals from the Krell Home Theater Standard Surround Preamp/processor (HTS) DB-25 output to all inputs and a 5 VDC (5 Volt trigger) on the KAV-1500 via the DB-25 input.

#### Note

You need to configure Trigger 1 on the HTS before operation.

#### **IMPORTANT**

Do not connect the multi-channel input and single-ended or balanced inputs at the same time.

- 4. Connect the loudspeaker cables to the KAV-1500 amplifier channel output speaker binding posts (14, 15, 16, 17, 18) located on the back panel.
  - The amplifier channel outputs for the KAV-1500 use five-way loudspeaker binding posts. The loudspeaker binding post terminals accept spade lugs, bare wire, banana plugs, or pins. Use the red terminal for the positive connection and the black terminal for the negative connection.
- 5. Plug the end of the AC power cord into the AC outlet.

The amplifier is now ready for operation. See *Amplifier Operation*, on page 19.

The KAV-1500 amplifier is shipped with shorting pins in the XLR inputs. These pins should remain in the XLR inputs if the amplifier is operating in the single-ended mode. When the shorting pin is inserted, pins 1 (lower left) and 3 (top) are shorted together. Remove the shorting pins to connect the amplifier for balanced operation.

The XLR pin configuration is described below:

Pin 1 Ground

Pin 2 Non-inverting (0°)

Pin 3 Inverting (180°)

Krell recommends using balanced interconnect cables. Balanced interconnect cables not only can minimize sonic loss but are also immune to induced noise, especially with installations using long cables. Balanced connections have 6 dB more gain than single-ended connections. When level matching is critical, keep this gain value in mind.

## **Optional System Configurations**

The KAV-1500 can be reconfigured for either Multi Amp Throughput (MAT) or bridged operation.

#### **IMPORTANT**

Removing the cover to reconfigure for MAT or for bridged operation is the **ONLY** instance 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**, on page 21.

#### **Before Reconfiguring for MAT or Bridged Operation**

Read the following important safety instructions before you attempt to reconfigure your amplifier for either MAT or bridged operation:

- 1. Unplug the power cord. Unplug the AC power cord (23) from AC power.
- Avoid the power supply. After removing the screws (see instructions below) and the cover, locate and stay aware of the location of the power supply (round, silver structures behind the amplifier front panel). Avoid making contact with that area of the amplifier.
- 3. **Remove jewelry.** Rings, necklaces, bracelets, and other pieces of metal jewelry can conduct an electrical charge. Consider removing them before attempting any reconfiguration.
- 4. Always replace cover. Make sure the amplifier's cover is properly replaced and secured by all 14 cover screws before resuming operation.

#### **IMPORTANT**

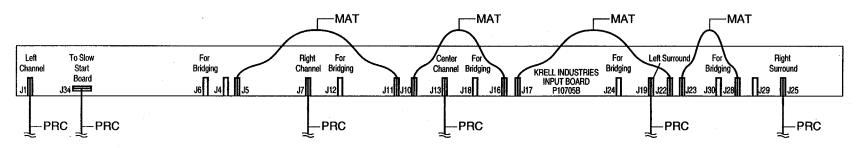
Operating the amplifier without the cover properly replaced and secured may void your warranty.

#### **MULTI AMP THROUGHPUT**

Multi Amp Throughput (MAT) is an internal connection option for the KAV-1500 that lets you send the same music signal to all amplifier channels using one balanced or single-ended connection. MAT reduces installation complexity and cabling requirements in systems containing multiple amplifiers.

#### FIGURE 3 RECONFIGURING THE KAV-1500 FOR MAT OPERATION

#### PC Input Board showing MAT jumper configuration



PRC - Permanent ribbon connections (Do Not Remove)

MAT - Multi Amp Throughput (MAT) ribbon connections

#### Reconfiguring the KAV-1500 for MAT

#### See Figure 3 on page 13

Tools needed: T-15 Torx wrench and four ribbon connection cables

- 1. Turn the KAV-1500 off by pressing the power button (1) on the front panel. The blue power LED (2) extinguishes. Unplug the AC power cord (23) from AC power.
- 2. Using the T-15 Torx wrench, remove the 14 screws that secure the amplifier cover. Carefully remove the cover.
- 3. Locate the PC input board and jumper pins at the rear of the amplifier.

#### **IMPORTANT**

Do not remove or change the ribbon connection cables already in place. These connections are polarized to ensure the correct phase.

- 4. Connect one end of the first ribbon connection cable to jumper pin J5. Connect the other end of the ribbon connection cable to jumper pin J11.
- 5. Use the remaining ribbon connection cables to connect:

J10 to J16

J17 to J22

J23 to J28

6. Replace the cover, sliding the front panel end in first and, using the T-15 Torx wrench, secure all 14 cover screws.

The KAV-1500 amplifier is now reconfigured for MAT operation.

## Connecting the KAV-1500 Reconfigured for MAT

#### See Figure 2 on page 7

1. Connect your output device to **one** of the balanced inputs (3, 4, 5, 6, or 7) or **one** of the single-ended inputs (8, 9, 10, 11, or 12) on the KAV–1500 back panel.

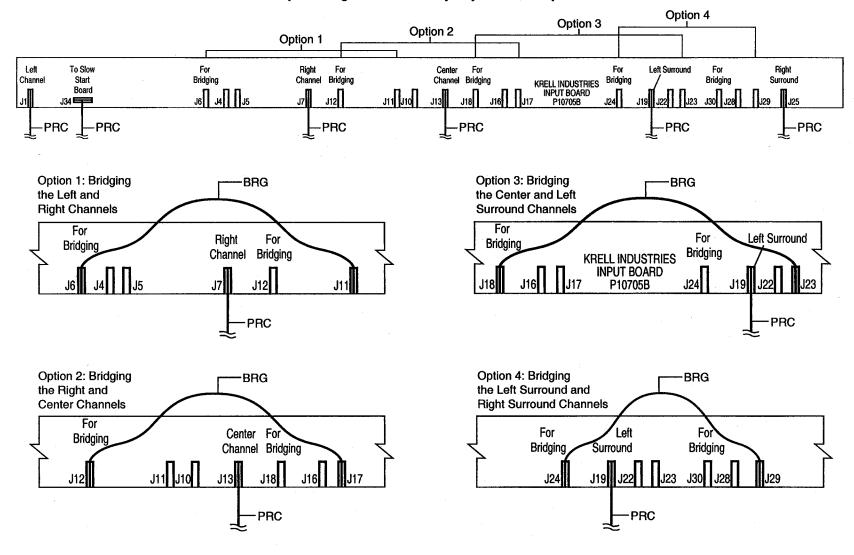
#### **IMPORTANT**

Do not use the multi-channel input if you have reconfigured the KAV-1500 for MAT or bridged operation.

2. Connect each amplifier channel output (14, 15, 16, 17, 18) to a separate loudspeaker, using the positive and negative terminals on the speaker binding posts.

#### FIGURE 4 RECONFIGURING THE KAV-1500 FOR BRIDGED OPERATION

#### Do not attempt to bridge channels in any way other than specified below.



PRC — Permanent ribbon connections (Do Not Remove)

#### **BRIDGED OPERATION**

The KAV-1500 can be reconfigured to bridge four of its amplifier channels to operate as two combined amplifier channels. The bridged amplifier channels each deliver 1,100 Watts into an 8 Ohm load. The unbridged amplifier channel can be connected to a separate loudspeaker.

#### **IMPORTANT**

One channel must remain unbridged.

#### Reconfiguring the KAV-1500 for Bridged Operation

#### See Figure 4 on page 15

Tools needed: T-15 Torx wrench and two ribbon connection cables

- 1. Turn the KAV-1500 off by pressing the power button (1) on the front panel. The blue power LED (2) extinguishes. Unplug the AC power cord (23) from AC power.
- 2. Using the T-15 Torx wrench, remove all 14 cover screws that secure the amplifier cover. Carefully remove the cover.
- 3. Locate the PC input board and jumper pins at the rear of the amplifier.
- 4. Follow the directions below. You may bridge channels using:
  - Options 1 and 3 or Options 1 and 4 or Options 2 and 4

#### **IMPORTANT**

Do not attempt to bridge channels in any way other than specified in these directions.

- **Option 1:** To bridge the **left** and **right** channels, connect one end of the ribbon connection cable to jumper pin J6. Connect the other end of the ribbon connection cable to jumper pin J11.
- **Option 2:** To bridge the **right** and **center** channels, connect one end of the ribbon connection cable to jumper pin J12. Connect the other end of the ribbon connection cable to jumper pin J17.
- **Option 3:** To bridge the **center** and **left surround** channels, connect one end of the ribbon connection cable to jumper pin J18. Connect the other end of the ribbon connection cable to jumper pin J23.
- **Option 4:** To bridge the **left surround** and **right surround** channels, connect one end of the ribbon connection cable to jumper pin J24. Connect the other end of the ribbon connection cable to jumper pin J29.
- 5. Replace the cover and, using the T-15 Torx wrench, secure all 14 cover screws. The KAV-1500 amplifier is now ready for bridged operation.

#### Connecting the Bridged KAV-1500

#### See Figure 2 on page 7

Connect the bridged channels as follows:

#### Option 1

- 1. When the left and right channels are bridged, connect the output cable from the output device to the appropriate balanced (7) or single-ended (12) left channel input.
- 2. Connect the positive loudspeaker lead (red) to the positive binding post on the left amplifier channel (18). Connect the negative loudspeaker lead (black) to the positive binding post of the right amplifier channel (17).

#### Option 2

- When the right and center channels are bridged, connect the output cable from the output device to the appropriate balanced (6) or single-ended (11) right channel output.
- 2. Connect the positive loudspeaker lead (red) to the positive binding post on the right amplifier channel (17). Connect the negative loudspeaker lead (black) to the positive binding post of the center amplifier channel (16).

#### Option 3

- 1. When the center and left surround channels are bridged, connect the output cable from the output device to the appropriate balanced (5) or single-ended (10) center channel input.
- 2. Connect the positive loudspeaker lead (red) to the positive binding post on the center amplifier channel (16). Connect the negative loudspeaker lead (black) to the positive binding post of the left surround amplifier channel (15).

#### Option 4

- 1. When the left surround and right surround channels are bridged, connect the output cable from the output device to the appropriate balanced (4) or single-ended (9) left surround channel input.
- 2. Connect the positive loudspeaker lead (red) to the positive binding post on the left surround amplifier channel (15). Connect the negative loudspeaker lead (black) to the positive binding post of the right surround amplifier channel (14).

For each option, the remaining unbridged channel may be connected to a separate loudspeaker for normal operation.

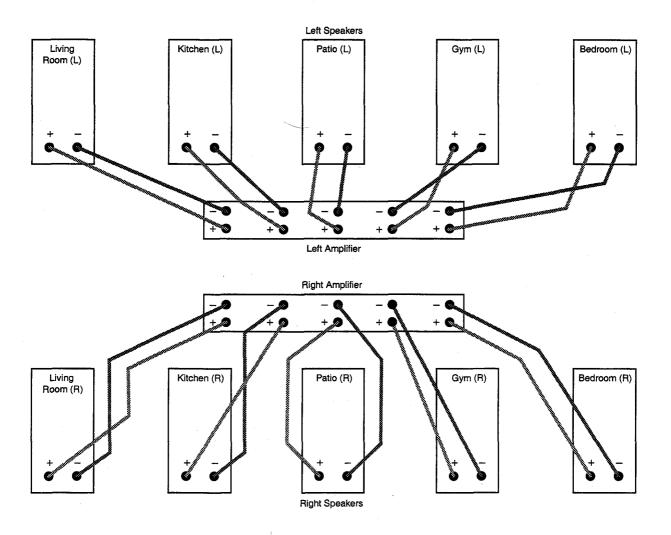
#### **IMPORTANT**

When operating the amplifier in bridged mode and using an output device with a single-ended RCA cable, be sure to remove the shorting pin from the balanced XLR input.

#### **Multi Power Mode Connection**

Multi power mode is one possible connection scenario using the KAV-1500's Multi Amp Throughput (MAT) feature. With Multi Power Mode, you can use the KAV-1500 reconfigured for MAT to independently power multiple pairs of stereo loudspeakers, to extend the listening environment throughout your home. When the KAV-1500 is reconfigured for MAT, each channel powers an individual loudspeaker, with one KAV-1500 dedicated to driving outputs to the left loudspeakers and one KAV-1500 driving outputs to the right loudspeakers.

The diagram below illustrates this connection scenario:



## **Amplifier Operation**

#### ON/OFF AND OPERATION

When powering up your system, turn amplifiers on last. When powering down your system, turn amplifiers off first. The procedures for amplifier operation follow.

- 1. Press the power button (1) on the KAV-1500 front panel. The blue power LED (2) illuminates and you hear a click. The amplifier is now ready for operation.
- 2. With the output device muted or volume control fully lowered, select an output device. Decrease or increase the volume control to the desired listening level.
- 3. Before turning the system off, mute or lower the output device volume. Press the front panel power button (1) to turn the amplifier off. It is now safe to turn off the rest of the system.

#### **IMPORTANT**

Always turn off the amplifier before changing input connections, and mute or fully attenuate the preamplifier level when switching sources.

The KAV-1500 has tremendous reserves of power and safely drives loudspeakers to extremely high sound pressure levels. However, use care when setting high playback levels and lower the volume level at any sign of loudspeaker distress.

## **Troubleshooting System Noise**

When you mix and match high-performance audio components, each with its own ground potential, a low frequency hum may occur in one or all loudspeakers. If this happens when you place the KAV–1500 into your system, follow these simple troubleshooting steps.

- 1. Check that all input and output connections are of sound construction.
- 2. With the amplifier off, remove the interconnect cables, then turn the amplifier on. If the hum disappears, turn the amplifier off and reinsert one of the interconnect cables. Turn the amplifier back on. Repeat this process for each cable.
- 3. If the hum reappears with one or both interconnect cables reinserted, the cable needs to be replaced.
- 4. If the interconnect cables are sound, you may be experiencing a ground loop. Please contact your authorized Krell dealer, distributor, or Krell for suggestions on how to eliminate it.

#### **Questions and Answers**

- Q. Should I leave the KAV-1500 amplifier on at all times?
- **A.** No. The amplifier does not have a stand-by mode. Leaving it on at all times would result in considerable heat output and power consumption. For best results, turn the amplifier off when not in use, and allow a five minute warm-up after it is switched to the operational mode. See *Amplifier Operation*, on page 19.
- Q. When I turn the amplifier on there is a loud hum through the loudspeakers. What should I do?
- **A.** When a new component is introduced, a low frequency hum may occur in one or both loudspeakers. Check that all input and output connections and cables are of sound construction. See *Troubleshooting System Noise*, on page 19. If the connections and cables are sound, you may be experiencing a ground loop. This can often be easily eliminated. Please contact your authorized Krell dealer, distributor, or Krell for suggestions.
- Q. When I connect the amplifier to my system using the single-ended inputs, a loud buzz comes from my loudspeakers. What is it?
- **A.** Check that the shorting pins for the KAV-1500 are inserted into the XLR inputs (the unit is shipped with the pins in place). When using the single-ended inputs, these shorting pins must be inserted between pins 1 and 3 to keep external noise from corrupting the signal. For more information, see *Connecting the KAV-1500 Amplifier to Your System*, on page 10.
- Q. Can I bridge all the channels on my KAV-1500?
- **A.** The KAV-1500 has five channels. You can bridge four of those channels to operate as two channels. One channel must remain unbridged. See *Bridged Operation*, on page 16.
- Q. I want to bridge the channels on my KAV-1500 but when I open the amplifier, there are ribbon connection cables already in place. Should I remove them?
- A. No. Your amplifier is shipped with ribbon connection cables in place and polarized to ensure the correct phase (see Figure 3, on page 13). Do not remove or change these ribbon connection cables. The KAV–1500 is not reconfigured for bridged or Multi Amp Throughput (MAT) operation when it is shipped to you. Use the additional ribbon connection cables shipped with the amplifier and instructions on pages 12 and 16 to reconfigure the KAV–1500 for bridged or MAT operation.

## Warranty

This Krell product has a limited warranty of five years for parts and labor on circuitry. Should this product fail to perform at any time during the warranty, Krell will repair it at no cost to the owner, except as set forth in this warranty.

The warranty does not apply to damage caused by acts of God or nature.

The warranty on this page shall be in lieu of any other warranty, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. There are no warranties which exceed beyond those described in this document. If this product does not perform as warranted herein, the owner's sole remedy shall be repair. In no event will Krell be liable for incidental or consequential damages arising from purchase, use, or inability to use this product, even if Krell has been advised of the possibility of such damages.

Proof of purchase in the form of a bill of sale or receipted invoice substantiating that the unit is within the warranty period must be presented to obtain warranty service. The warranty begins on the date of retail purchase, as noted on the bill of sale or receipted invoice from an authorized Krell dealer or distributor.

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 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.

If a unit is serviced by a distributor who did not import the unit, there may be a charge for service, even if the product is within the warranty period.

Freight to the factory is your responsibility. Return freight within the United States (U.S.A.) is included in the warranty. If you have purchased your Krell product outside the U.S.A. and wish to have it serviced at the factory, all freight and associated charges to the factory are your responsibility.

Krell will pay return freight to the U.S.A.-based freight forwarder of your choice. Freight and other charges to ship the unit from the freight forwarder to you are also your responsibility.

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 factory. You are responsible for filing claims for shipping damages during the return shipment.

Krell does not supply replacement parts and/or products to the owner of the unit. Replacement parts and/or products will be furnished only to the distributor performing service on this unit on an exchange basis only; any parts and/or products returned to Krell for exchange become the property of Krell.

No expressed or implied warranty is made for any Krell product damaged by accident, abuse, misuse, natural or personal disaster, or unauthorized modification.

Any unauthorized voltage conversion, disassembly, component replacement, perforation of chassis, updates, or modifications performed to the unit will void the warranty.

The operating voltage of this unit is determined by the factory and can only be changed by an authorized Krell distributor or at the factory. The voltage for this product in the U.S.A. cannot be changed until six months from the original purchase date.

In the event that Krell receives a product for warranty service that has been modified in any way without Krell authorization, all warranties on that product will be void. The product will be returned to original factory layout specifications at the owner's expense before it is repaired. All repairs required after the product has been returned to original factory specifications will be charged to the customer, at current parts and labor rates.

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

To register your product for warranty benefits, complete and return the Warranty Registration Card enclosed in the shipping box within 15 days of purchase. Thank you.

## Return Authorization Procedure

If you believe there is a problem with your component, please contact your dealer, distributor, or the Krell factory to discuss the problem before you return the component for repair. To expedite service, you may wish to complete and e-mail the Service Request Form in the Service Section of our website at:

http://www.krellonline.com

#### To contact the Krell Service Department

TEL

203-799-9954

Monday-Friday

9:00 AM to 5:00 PM EST

FAX

203-799-9796

E-MAIL

service@krellonline.com

WEBSITE

http://www.krellonline.com

#### **KAV-1500**

PRODUCT NAME

SERIAL NUMBER

To return this product to Krell, please follow this procedure so that we may serve you better:

- Obtain a Return Authorization Number (R/A number) and shipping address from the Krell Service Department.
- Insure and accept all liability for loss of or damage to this product during shipment to the Krell factory and prepay all shipping charges. Please see the Warranty page in this manual, concerning liability for shipping damage and shipping charges.

This product may also be hand delivered if arrangements with the Service Department have been made in advance. Proof of purchase will be required for warranty validation at the time of hand delivery.

#### **IMPORTANT**

Use the original packaging to ensure safe transit of this product to the dealer, distributor, or factory. Krell may, at its discretion, return this product in new packaging and bill the owner for such packaging if the product received by Krell was boxed in non-standard packaging or if the original packaging was so damaged that it was unusable. If Krell determines that new packaging is required, the owner will be notified before this product is returned.

To purchase additional packaging, please contact your authorized Krell dealer, distributor, or the Krell Service Department.

## **Specifications**

#### **KAV-1500 Five-Channel Amplifier**

FREQUENCY RESPONSE 20 Hz to 20 kHz +0 dB, -0.2 dB

0.4 Hz to 112 kHz +0 dB, -3 dB

SIGNAL TO NOISE RATIO

"A" WEIGHTED 118 dB

**TOTAL HARMONIC DISTORTION (THD)** 1 kHz < 0.06%

20 kHz < 0.25%

**GAIN** 26.4 dB

INPUT IMPEDANCE 100 kOhms

**INPUT SENSITIVITY** 2.15 Vrms

OUTPUT VOLTAGE Peak to Peak 166 V

RMS 59 V

OUTPUT POWER, EACH CHANNEL 8 Ohms 300 W

**DRIVEN** 4 Ohms 600 W

BRIDGED 8 Ohms 1,100 W

POWER CONSUMPTION Idle 280 W

Max. 3,460 W

**INPUTS** 5 single-ended via RCA connectors

5 balanced via XLR connectors

5 via DB-25 connector

**OUTPUTS** 5 amplifier channels via five-way speaker

binding posts

**DIMENSIONS** 19w x 6.3h x 20.25d in.

48.3w x 16h x 51.4d cm

WEIGHT Shipping 125 lb., 56.81 kg

Unit only 108 lb., 49.09 kg

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

Krell Industries, Inc. 45 Connair Road Orange, CT 06477-3650 USA

## **KAV-1500**

**Five-Channel Power Amplifier** 

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TEL 203-799-9954
FAX 203-891-2028
E-MAIL krell@krellonline.com
WEBSITE http://www.krellonline.com