



KAV-280p
Remote Control
Preamplifier

Instructions for Use

Owner's Reference

KAV-280p
Remote Control Preamp
Instructions for Use
v 02.0

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

WARNINGS

Do not place the preamplifier where it could be exposed to dripping or splashing.

The ventilation grids on the top and bottom of the KAV-280p must be unobstructed at all times during operation. Do not place flammable material on top of or beneath the component.

Do not remove or bypass the ground pin on the end of the AC cord. This may cause RFI (radio frequency interference) to be induced into your playback system.

When making connections to this or any other component, make sure all components are off. Turn off all systems' power before connecting the KAV-280p to any other component. Make sure all cable terminations are of the highest quality, free from frayed ends, short circuits, or cold solder joints.

When the line fuse needs to be replaced, use the spare fuse provided. Unplug the component before replacing the fuse.

THERE ARE NO USER-SERVICEABLE PARTS INSIDE ANY KRELL PRODUCT.

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

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Introduction

Thank you for your purchase of the Krell KAV–280p Remote Control Preamplifier. The KAV-280p uses current mode and surface mount technologies derived directly from the state-of-the-art Krell KCT Preamplifier.

The Class A direct-coupled design of the KAV–280p means that the signal path is fully balanced from input to output. This includes a fully balanced volume control. Circuits are powered by a dedicated supply with discrete voltage regulators and there is a separate, dedicated power supply for all digital control circuits. All signal switching is accomplished via hermetically sealed multiple contact precision relays.

The KAV–280p provides a high level of operational convenience and functional versatility. It is easy to integrate into your system. The remote control accesses all amplifier functions, and remote control connection options on the back panel allow the KAV–280p to be easily connected with other components. With its unique Theater Throughput™ feature, the KAV–280p can easily adapt to home theater applications.

This owner's reference manual contains important information on the placement, installation, and operation of the KAV–280p. Please read this information carefully. A thorough understanding of these details will help ensure satisfactory operation and long life for your KAV–280p and related system components.

Definition of Terms

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

CONFIGURATIONS

Theater Throughput

Theater Throughput is a Krell configuration option that allows the signal from a surround preamp/processor to pass through a Krell preamplifier or integrated amplifier with no gain, for integrated volume and balance management of Krell home theater systems.

INPUT AND OUTPUT CONNECTIONS

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. Balanced connections are completely immune to induced noise from the system or the environment.

Single-ended

A two-wire input or output circuit. Use care when using single-ended connections as 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 connections requiring long cable runs.

OPERATION

Off

The component is off when the AC power cord is unplugged from the wall receptacle.

Stand-by Mode

A low power consumption status that keeps the audio circuits at idle. When you plug the AC power cord into the wall receptacle, the red stand-by LED illuminates. The component is now ready to be switched to the operational mode. Krell recommends leaving the component in the stand-by mode when it is not playing music.

Operational Mode

When the component is in the stand-by mode, and you press the power button on the front panel or the power key on the remote control, the blue power LED illuminates. The component is in the operational mode and is ready to play music.

TECHNOLOGY

Krell Current Mode

A proprietary Krell circuit topology in which the audio gain stages of a component operate in the current rather than voltage domain. This unique technology provides the component with exceptional speed and a wide bandwidth.

Surface Mount Technology (SMT)

SMT allows individual circuit elements to be placed very close together. This shortens signal paths and allows circuit elements to operate at the same temperature, resulting in more accurate signal transfer and enhanced reliability.

Unpacking

1. Open the shipping box and remove the top layer of foam. The following items are visible:
 - 1 KAV–280p Remote Control Preampfier
 - 1 Accessory Kit containing:
 - 1 AC power cord
 - 1 12 VDC (12 V trigger) cable
 - 1 KAV–280p remote control
 - 1 CR2025 lithium battery for the remote
 - 1 Packet containing the owner's reference and the warranty registration card.
2. Grasp the underside of the preamplifier and lift it straight out of the packing box.
3. Place the preamplifier in a safe location and remove the protective plastic wrapping.

Notes

If any of these items are not included please contact your authorized Krell dealer.

Save all packing materials. If you must ship your KAV–280p in the future, repack the unit in its original packaging to prevent shipping damage.

Placement

Before you install the KAV–280p into your system, review the following guidelines to choose the location for the KAV–280p. This will facilitate a clean, trouble-free installation. The KAV–280p does not require any type of special rack or cabinet for installation. For the dimensions of the KAV–280p, see **Specifications**, on the back cover.

Place the KAV–280p on a firm, level surface, away from excessive heat, humidity, or moisture. The KAV–280p is not hum-sensitive. Other components may be placed on or around the KAV–280p. Make sure the top and bottom ventilation grids are unobstructed.

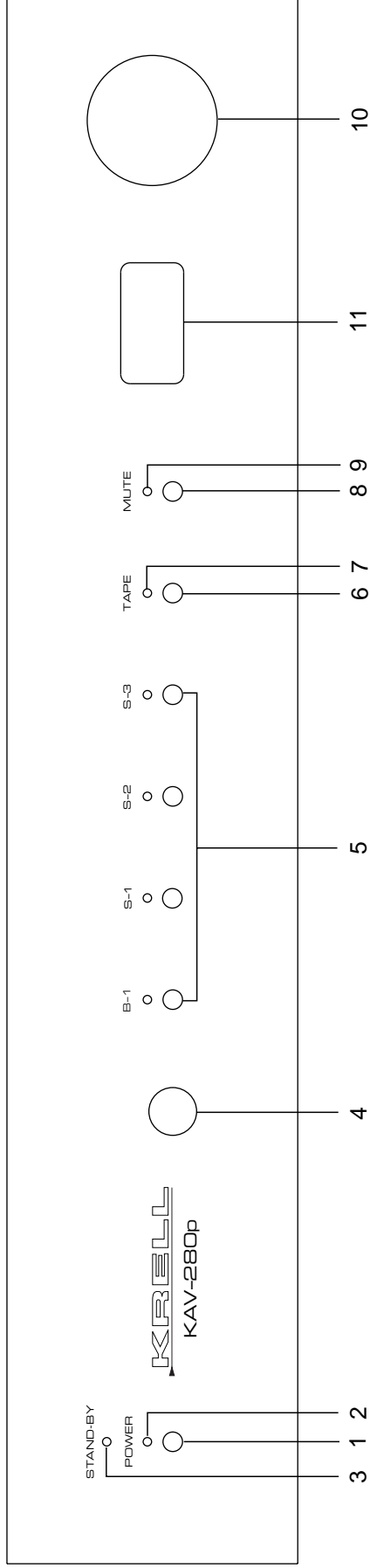
You may experiment with feet or cones as long as they are not permanently affixed to the chassis. Any unauthorized modifications to the electronics or chassis will void the warranty.

AC Power Guidelines

The KAV–280p has superb regulation and does not require a dedicated AC circuit. Avoid connections through extension cords or multiple AC adapters. High quality 15 amp grounded AC strips are acceptable. High quality AC line conditioners or filters may be used if they are grounded. Contact your authorized Krell dealer, distributor, or Krell before using any devices designed to alter or stabilize the AC power for the KAV–280p.

The KAV–280p should be operated only with the power cord supplied.

Figure 1 The KAV-280p Front Panel



Power

- 1 Power Button
- 2 Power LED
- 3 Stand-by LED
- 4 Infrared Sensor

Analog Devices

- 5 S-1, S-2, S-3, and B-1 Buttons and LEDs
- 6 Tape Button
- 7 Tape LED

Mode Indicators

- 8 Mute Button
- 9 Mute LED

Volume Adjustment Functions

- 10 Level Knob
- 11 Front Panel Display

Front Panel Description

See Figure 1 on page 5

Front Panel Functions

The front panel of the KAV–280p accesses power on and off, analog input selections, volume control, and mute. The front panel display shows the volume and balance levels, and Theater Throughput status.

POWER

1 Power Button

Use this button to switch the KAV–280p between the stand-by and the operational modes.

2 Power LED

The blue power LED illuminates when the KAV–280p is in the operational mode. The power LED also flashes when any remote control key is pressed.

3 Stand-by LED

The red stand-by LED illuminates when the KAV–280p is plugged into a standard AC wall receptacle, indicating that the amplifier is in the stand-by mode and ready to be switched to the operational mode.

4 Infrared Sensor

The infrared sensor receives commands from the KAV–280p remote control. For proper remote control operation, make sure the infrared sensor is clear of any obstructions.

ANALOG SOURCE COMPONENTS

5 S-1, S-2, S-3, and B-1 Buttons and LEDs

Use these buttons to select a balanced analog source component (B-1) via an XLR connector or a single-ended analog source component (S-1, S-2, or S-3) via single-ended RCA connectors. The selected button's LED illuminates.

6 Tape Button

Use this button to playback pre-recorded tapes. You may also use this button to compare the output signal of an analog tape recorder to an audio source. See *Tape Input and Output*, on page 18.

7 Tape LED

The red tape monitor LED illuminates when the tape monitor is activated. The LED does not illuminate when an audio source is activated.

MODE INDICATORS

8 Mute Button

Use this button to interrupt the signal from the active source you have selected. When the red mute LED (9) on the KAV–280p is illuminated, there is no signal output.

To unmute the signal from the active source, press the mute button again. The red mute LED extinguishes.

9 Mute LED

The red mute LED illuminates when you have interrupted the signal from the active source using the mute button (8) on the front panel or mute key (25) on the remote.

VOLUME ADJUSTMENT FUNCTIONS

10 Level Knob

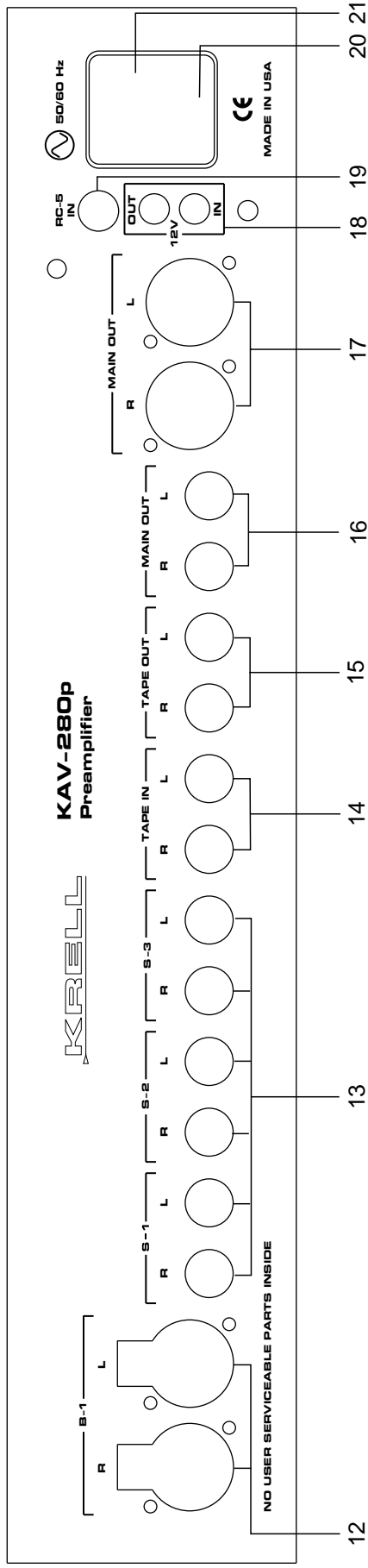
The volume level knob adjusts the processor output level, which is indicated numerically on the front panel display (11); range is 0-151.

To access the balance feature, use the remote control. See ***Balance Keys***, on page 13.

11 Front Panel Display

The front panel display shows volume levels, balance levels, and Theater Throughput status.

Figure 2 The KAV-280p Back Panel



Analog Inputs

- 12 Left and Right Balanced Analog Inputs
- 13 Left and Right Single-ended Analog Inputs
- 14 Left and Right Tape Inputs

Analog Outputs

- 15 Left and Right Tape Outputs
- 16 Left and Right Single-ended Outputs
- 17 Left and Right Balanced Outputs

Remote Connections

- 18 12 VDC Out and In
- 19 RC-5 In

Power

- 20 Line Fuse and Fuseholder
- 21 IEC Connector

Back Panel Description

See Figure 2 on page 8

Back Panel Functions

The KAV–280p back panel provides connections for all inputs and outputs, power on/off, and additional remote connections.

ANALOG INPUTS

12 Left and Right Balanced Analog Inputs

The KAV–280p is equipped with one pair of balanced (B-1) inputs via XLR connectors.

13 Left and Right Single-ended Analog Inputs

The KAV–280p is equipped with three pairs of single-ended (S-1, S-2, or S-3) inputs via RCA connectors.

14 Left and Right Tape Inputs

The KAV–280p is equipped with a pair of single-ended tape inputs via RCA connectors.

ANALOG OUTPUTS

15 Left and Right Tape Outputs

The KAV–280p is equipped with a pair of single-ended tape outputs via RCA connectors.

16 Left and Right Single-ended Outputs

The KAV–280p is equipped with a pair of single-ended preamplifier outputs.

17 Left and Right Balanced Outputs

The KAV–280p is equipped with a pair of balanced preamplifier outputs.

BACK PANEL REMOTE CONNECTIONS

17 12 VDC Out

The KAV–280p is equipped with an output that sends 12 VDC (12 V trigger) power on/off signals to other Krell components and other devices that incorporate a 12 V trigger. This allows you to turn other components on or off, or to and from stand-by, from the KAV–280p. When the KAV–280p is switched between stand-by and operate, it sends a signal from the 12 VDC Out that will switch other components, allowing whole systems or parts of systems to be easily coordinated.

Back Panel Description, continued

**BACK PANEL REMOTE
CONNECTIONS, continued**

17 12 VDC In

The KAV–280p is equipped with an input that receives 12 VDC (12 V trigger) power on/off signals from other Krell components and other devices that incorporate a 12 V trigger. This allows you to turn the KAV–280p on or off, or to and from stand-by, from other components.

Notes

The 12 VDC output current is limited to 30 ma.

Consult the owner's reference of the components used in a custom installation to take full advantage of the remote capability of the KAV–280p.

18 RC-5 In

The KAV–280p is equipped with an RC-5 input that makes custom installation easy and secure by accepting baseband RC-5 input commands from hardwired remote controllers.

POWER

19 Line Fuse and Fuseholder

The 50/60 Hz line fuse protects the KAV–280p in the event of a component failure.

The fuseholder drawer houses two line fuses: one is functional and one is a spare.

Note

When the line fuse needs to be replaced, use the spare fuse provided. Unplug the component before replacing the fuse. Use a 0.5A, slow-blow, 5 x 20 mm fuse for 100-120 VAC, or a 0.25A, slow-blow, 5 x 20 mm fuse for 220-240 VAC.

20 IEC Connector

The connector is for use with the provided IEC standard 15 amp power cord.

Figure 3 The KAV-280p Remote Control

Power

- 22 Power Key
- 23 Pre Key

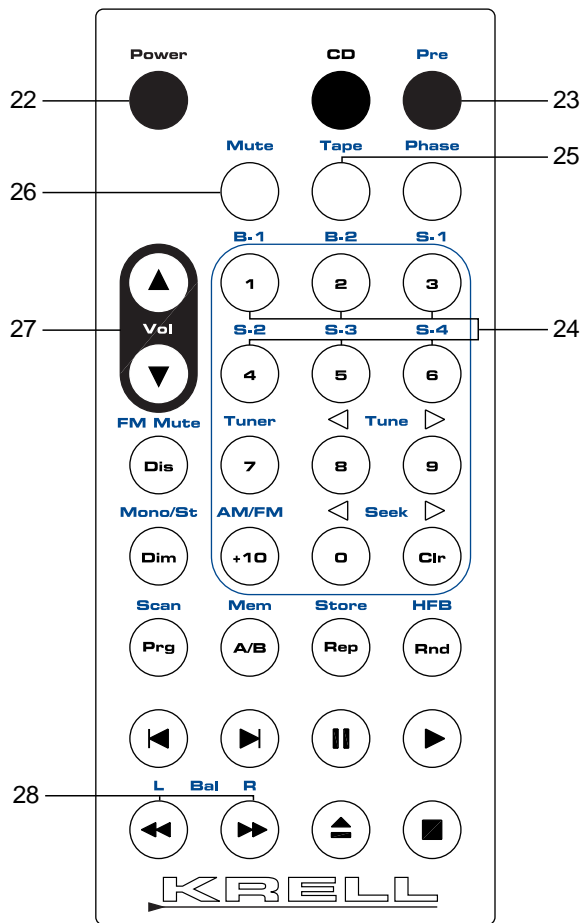
Analog Functions

- 24 Analog Input Keys
- 25 Tape Key

Output Control

Functions

- 26 Mute Key
- 27 Vol (Volume) Keys
- 28 Bal (Balance) Keys



Note

The remote control keys listed above function with the KAV-280p. Other keys on this remote control may activate other Krell components, for example, other compact disc players. Consult the Krell owner's reference manual for each component to review the remote control capabilities for each Krell component.

Remote Control Description

See Figure 3 on page 11

Battery Installation and Removal

The KAV–280p remote control uses one CR2025 lithium battery, which is included with the shipment.

To open the battery compartment on the back of the remote control:

1. Place the remote face down on the table.
2. Use your thumbnail or a small jeweler's or eyeglass screwdriver to move the small switch toward the center of the remote, while using your index fingernail or screwdriver to pull down gently on the slot to the right of the switch. The battery compartment will slide out.

Note

Do not use a knife or other sharp objects to open the battery compartment; they will scratch the remote control finish.

3. Place the battery, positive side up, in the battery tray.
4. Slide battery compartment back into the remote until you hear a click.

The remote control is ready for operation.

Notes

Replace battery when remote control function becomes intermittent.

Remove battery if the remote control is not used for a long period of time. Battery leakage can damage the remote control.

Remote Control Functions

The KAV–280p remote control accesses all preamplifier functions. A description of the remote control keys that activate the KAV–280p follows.

Note

When you press a function key on the remote, the blue power LED (2) will flash. (The LED will flash repeatedly if a key is held down.)

POWER

22 Pwr (Power) Key

Use this key to switch the KAV–280p between the stand-by and the operational modes.

POWER, continued

23 Pre Key

Use this key to activate the KAV–280p remote and access other pre-amplifier commands. You can then access preamplifier commands until you press a different activation key, for example the CD key to access commands for a Krell compact disc player. To return to the preamplifier commands, press the pre key again. You only need to press an activation key once. The remote “remembers” whether the pre key or the CD key has been pressed most recently.

ANALOG FUNCTIONS

24 Analog Input Keys

Use these keys to select a balanced input (B-1) or single-ended input (S-1, S-2, or S-3). The selected input LED on the front panel illuminates.

25 Tape Key

Use this key to monitor the output signal of a three-head analog tape recorder, compared to the output signal from an audio source, when making a recording. See ***Tape Input and Output***, on page 18. The red tape monitor LED on the front panel illuminates when the tape monitor is activated.

OUTPUT CONTROL FUNCTIONS

26 Mute Key

Use this key to interrupt the signal from the active source you have selected. When the red mute LED (9) on the KAV–280p is illuminated, there is no signal output.

To unmute the signal from the active source, press the mute key again. The red mute LED extinguishes.

27 Vol (Volume) Keys

Press these keys to adjust the amplifier output level, which is indicated numerically on the front panel display (11); range is 0-151.

28 Bal (Balance) Keys

Use these keys to shift the balance to the left or the right channel, in 1 dB increments. Balance level is indicated in the front panel display (11).

Remote Control Functions *continued*

Analog Functions,
continued

To access and display balance, push either the “L” or the “R” balance key on the remote. The front panel display indicates the balance setting. After 3 seconds of inactivity or after a volume adjustment, the front panel display reverts to the volume setting.

The front panel display indicates:

– C –

when the balance is centered. If the balance is not centered, the front panel display indicates balance right or left of center, and how much the balance is off center, on a scale of 1 (slightly off center) to 5 (completely on one side).

Example: A display of:

– – 3

means that the balance is moderately right of center. A display of:

5 – –

means the balance is severely left of center.

Note

The remote control keys listed above function with the KAV–280p. Other keys on this remote control may activate other Krell components, for example, compact disc players. Consult the Krell owner’s reference manual for each component to review the remote control capabilities for each Krell component.

Connecting the KAV–280p to Your System

USING BALANCED CONNECTIONS

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.

Connection Steps

Follow these steps to connect the KAV–280p 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 KAV–280p and all system components. Separate AC wires from audio cables to prevent hum or other unwanted noises from being introduced into the system.
3. Connect the outputs of your source components to the inputs on the KAV–280p.

The KAV–280p has one pair of balanced outputs via XLR connectors and one pair of single-ended outputs via RCA connectors. Both balanced and single-ended outputs are active at all times, allowing simultaneous connections to separate amplifiers or separate systems.

Note

Do not connect both outputs to a single stereo amplifier at one time.

4. Connect the outputs of the KAV–280p to the inputs of your power amplifier.

The KAV–280p is equipped with one balanced input via XLR connectors (B-1), three single-ended inputs via RCA connectors (S-1, S-2, and S-3), and one tape input via RCA connectors. The B-1, S-1, S-2, and S-3 inputs can be configured for Theater Throughput. See ***Configuring the KAV–280p for Theater Throughput***, on page 19.

5. Plug the AC cord into the IEC connector (21) on the back panel of the KAV–280p. Plug the remaining end into the AC wall receptacle. The red stand-by LED (3) illuminates, and the front panel display will flash “— — —” for 10 seconds. When the display stops flashing, the preamplifier is ready to use.

Pin assignments for the XLR connectors

- Pin 1 Shield (ground)
- Pin 2 Non-inverting (hot) (0°)
- Pin 3 Inverting (cold) (180°)

Additional Connections

RC-5 IN

This input accepts baseband RC-5 input commands. It facilitates custom installations by allowing the KAV–280p to be controlled via hard-wired signals from various remote devices.

12 VDC REMOTE POWER IN / OUT

The input accepts 12 Volt power on/off signals from other Krell components and the output sends 12 volt power on/off signals to other Krell components, as well as to other devices that incorporate a 12-Volt power on/off trigger input.

This feature allows enables the remote turn on/off of other components when the KAV–280p is powered on/off.

Note

Consult the owner's reference of any device used in a custom installation to take full advantage of the remote capability of the KAV–280p.

Operating Your KAV–280p

This section provides information about operating the KAV–280p. The KAV–280p provides basic input selection and volume control operation from the front panel. The remote control includes additional preamplifier functions as well as CD transport and amplifier controls. See **Remote Control**, on page 12, for more information.

Preamplifier Operation

The KAV–280p Remote Control Preamplifier is easy to operate.

1. When the preamplifier is in stand-by mode, with the red stand-by LED (3) illuminated, turn the preamplifier on by pressing the power button (1), or pressing the power key (22) on the remote control. The blue power LED (2) illuminates, and the red stand-by LED (3) turns off. The preamplifier is now ready for operation.
2. To access preamplifier functions via the remote control, press the pre key (23) on the remote control.

Note

When you press a function key on the remote, the blue power LED (2) will flash.

3. Choose a listening source and select the source input.
4. Start playing the source. Set the volume to a comfortable listening level using the level knob(10) or volume keys (28).
5. When changing sources, lower the volume to the off position or mute the output (see **Mute**, on page 13). This insures that the next source played will not damage your system with a high output transient.
6. To turn the preamplifier off, press the power button (1) or power key (22). The red stand-by LED (3) illuminates.

Note

When powering up any system, always turn amplifiers on last. When powering down, always turn amplifiers off first.

Tape Input and Output

The KAV-280cd has a discrete tape input and output. The tape output is used to send an input signal from S-1, S-2, S-3, or B-1 to a recording device or processor. You can use the tape feature in three ways:

1. Use this button to playback pre-recorded tapes.
2. Use the tape input to compare the output signal of a three-head analog tape recorder to the output signal of an audio source, when making a recording. To activate this function, select an audio source for recording using either the S-1, S-2, S-3 (13), or B-1 (12) analog input buttons (5) or keys (24). Press the tape button (6) or tape key (25) on the remote control to switch between the tape recorder output (red tape monitor LED [7] illuminated) and the input source (red tape monitor LED [7] not illuminated).
3. Use the tape output to create a processor loop, when the KAV-280p is connected to a graphic equalizer or other ancillary equipment. To activate this function, connect the equipment to the KAV-280p tape outputs (15) as described in the equipment manufacturer's manual. Press the tape button (6) or tape key (25) on the remote control to switch between the processor output (red tape monitor LED [7] illuminated) and the input source (red tape monitor LED [7] not illuminated).

Note

When changing sources, lower the volume to off or mute the output. This ensures that the next source played does not damage your system with a high output transient.

Configuring the KAV–280p for Theater Throughput

To simplify the integration of an audio/video surround sound processor into your system, set any input on the KAV–280p (S-1, S-2, S-3, or B-1) to operate as a unity gain stage. Krell calls this configuration Theater Throughput.

When you configure a KAV–280p input for Theater Throughput, the KAV–280p volume and balance controls are transferred to the audio/video surround sound processor, for integrated volume and balance management as well as ease of operation. As long as the KAV–280p input is configured for Theater Throughput and connected to the audio/video surround sound processor's input configured for Theater Throughput, all KAV–280p volume and balance adjustments are made through the surround sound processor. When you disengage the KAV–280p input from Theater Throughput, the volume and balance controls revert to the KAV–280p.

How to Activate an Input for Theater Throughput

1. Turn on the KAV–280p power.
2. Press and release the button (5) for the device you wish to configure for Theater Throughput. The LED illuminates.
3. Press the button again and hold it for four seconds. The word *thr* appears on the front panel display (11).

IMPORTANT

Make sure the level on the source component is set to zero when configuring the KAV–280p input set for Theater Throughput. Source components without level controls should not be connected to an input configured for Theater Throughput. Doing so can result in excessive and possibly damaging volume levels when the source is played. Always turn off the source component before you configure any input on the KAV–280p for Theater Throughput.

How to Disengage an Input for Theater Throughput

1. Turn on the KAV–280p power.
2. Press and release the button (5) for the device you wish to disengage from Theater Throughput. The LED illuminates.
3. Press the button again and hold it for four seconds. The word *thr* disappears from the front panel display (11), indicating that Theater Throughput is disengaged.

How to Troubleshoot System Noise

AC grounding becomes critical when connecting high performance audio components. When you mix and match audio components, each with its own ground potential, a low frequency hum may occur in one or both loudspeakers. This sometimes occurs when introducing a new component into a system.

If a low frequency hum emanates from the loudspeakers when you place the KAV-280p preamplifier into the system, follow these simple troubleshooting steps:

1. Check all cable terminations, making sure they have solid solder joints and are of sound construction.
2. With the system amplifier off, remove the interconnect cables, from all the analog source components to the KAV-280p. (Leave the interconnect cables from the KAV-280p to the system amplifier.) Turn the amplifier back on.
3. If the hum disappears, turn the amplifier off and reinsert the interconnect cables from *one* of the analog source components. Turn the amplifier back on and select, on the KAV-280p, the source component you have just connected. Carefully increase the volume on the KAV-280p. If the hum reappears in one or both channels, those interconnect cables may be defective. Have the interconnect cables checked before proceeding.
4. Repeat Step 3 for each analog source component. Connect only one new component at a time. There is no need to disconnect source components you have already connected.
5. 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 solve this problem.

Questions and Answers

- Q.** Should I leave my KAV–280p on all the time?
- A.** Krell recommends leaving the amplifier in the stand-by mode, ready to play music. If you are not going to play music for a long time, you may disconnect the amplifier from AC power supply.
- Q.** When I turn on the amplifier there is a loud hum through the loudspeakers. What should I do?
- A.** When a new component is introduced into a system, a low frequency hum may occur in one or both loudspeakers. Check all input and output connections, making sure they are of sound construction. See ***How to Troubleshoot System Noise***, on page 20. If the interconnects 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 on how to solve this problem.
- Q.** When I use the KAV–280p’s Theater Throughput capability with my surround sound processor, where should I set the volume on the KAV–280p?
- A.** You do not need to set the volume on the KAV–280p because the preamplifier’s volume and balance controls are not active in the Theater Throughput mode. When using the KAV–280p’s Theater Throughput capability, the surround sound processor controls the system volume. See ***Configuring the KAV–280p for Theater Throughput***, on page 19.

Warranty

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

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 the original retail purchase, as noted on the bill of sale or receipted invoice from an authorized Krell dealer or distributor. Previously owned equipment, when re-purchased from an authorized Krell dealer or distributor, has the balance of the original warranty, based on the original date of manufacture.

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.

Return Authorization Procedure

HOW TO EXPEDITE SERVICE

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

HOW TO RETURN A PRODUCT

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

1. Obtain a Return Authorization Number (R/A number) and shipping address from the Krell Service Department.
2. Insure and accept all liability for loss or damage to the product during shipment to the Krell factory and ensure all freight (shipping) charges are prepaid.

The 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 the safe transit of the product to the factory, dealer, or distributor. Krell may, at its discretion, return a product in new packaging and bill the owner for such packaging if the product received by Krell was boxed in nonstandard 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 the product is returned.

HOW TO PURCHASE ADDITIONAL PACKING

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

SERIAL NUMBER

Your KAV-280p product serial number is: _____

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

TEL 203-799-9954, FAX 203-891-2028
E-MAIL krell@krellonline.com
WEB SITE www.krellonline.com

KAV-280p
Remote Control
Preamplifier
v 02.0

Specifications

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

FREQUENCY RESPONSE

20 Hz-20 kHz +0 dB, -0.04 dB
0.2 Hz-300 kHz +0, -3 dB

SIGNAL TO NOISE RATIO

>98 dB "A" weighted
>90 dB wideband

TOTAL HARMONIC DISTORTION (THD)

20 Hz-20 kHz <0.004%

GAIN

6.2 dB single-ended output
12.3 dB balanced output

OUTPUT

9 Vrms single-ended output
18 Vrms balanced output

INPUT IMPEDANCE

43 kOhms single-ended input
86 KOhms balanced input

OUTPUT IMPEDANCE

120 Ohms single-ended output
240 Ohms balanced output

POWER CONSUMPTION

22 W stand-by
25W on

INPUTS

(ALL INPUTS MAY BE SET UP FOR THEATER THROUGHPUT)

1 pair balanced via XLR connectors
3 pair single-ended via RCA connectors

OUTPUTS

1 pair balanced via XLR connectors
1 pair single-ended via RCA connectors

TAPE INPUT AND OUTPUT

1 pair single-ended via RCA connectors

REMOTE CONTROL

1 handheld wireless remote
1 12 VDC Out/In (12 V trigger)
1 RC-5 input via a DC power connector

DIMENSIONS

17.3w x 3.5h x 17.3d in.
43.8w x 8.9h x 43.8d cm

WEIGHT

Shipping 22.0 lb., 10.0 kg
Unit only 16.0 lb., 7.3 kg