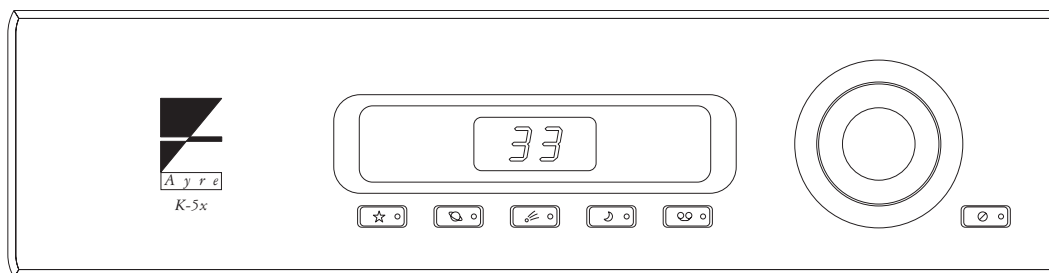


Ayre K-5x

Owner's Manual



Preamplifier

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Welcome to

Ayre

*Please send in your warranty
registration card so we can
stay in contact with you.*

Your Ayre K-5x offers a significant advance in the musical performance of high-fidelity equipment. The warmth and immediacy of a live performance are apparent from the first listening. The combination of superb resolution and a natural, relaxed quality will draw you into the music, time and time again.

This level of performance has been implemented using the highest level of workmanship and materials. You can be assured that the Ayre K-5x will provide you a lifetime of musical enjoyment.

Installation

The Ayre K-5x preamplifier is easy to hook up and use. The following guidelines will ensure that the installation goes smoothly.

Location

The infrared beam of the remote transmitter will also travel through glass.

A good location for your preamplifier is in an open-backed cabinet or on a shelf. The receiver for the infrared remote control is mounted behind the display lens on the front panel. A direct line of sight from the listening position will ensure the maximum range. However, the beam will also reflect off of most wall surfaces with a reduced range.

Inputs

When you have a choice, a balanced connection will offer slightly higher sound quality than an unbalanced connection.

The Ayre K-5x offers two pairs of balanced inputs and two pairs of unbalanced inputs. Balanced connections are made via three-pin XLR connectors, while unbalanced connections are made via RCA connectors.

The FET switches used in the input selector circuitry offer transparent, noise-free switching, with no moving parts. Please be aware that they can be overloaded if the output voltage from the source component is too high.



Do not use a source component that has an output level greater than 4 V RMS unbalanced, or 8 V RMS balanced.

Using a source component with too great an output level will cause distortion.

The input connectors on the rear panel are labeled to match the input selector buttons.

In this modern era of diverse source components, it has become impractical to pre-label the inputs with the actual name of the source. Instead, the K-5x has simple icons that allow you to easily remember the selector button associated with each source component.

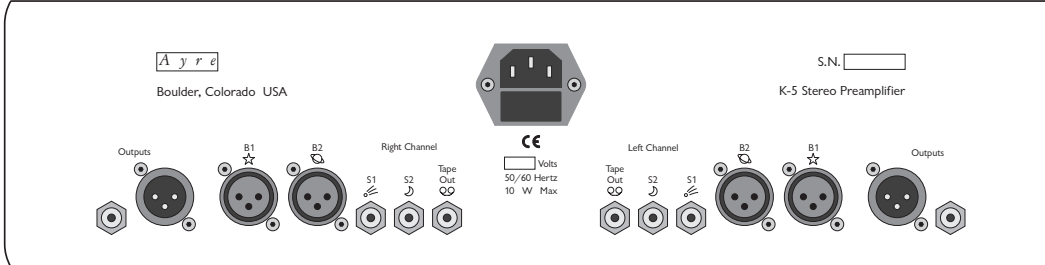
Tape Outputs

By connecting the “Tape Out” jacks on the rear of the K-5x to a recorder with analog inputs, recordings may be made directly from the other source components connected to your preamplifier. The tape outputs are switched on and off at the front panel. Please refer to the section “Controls and Operation” for further information.

If a recorder is not installed in your system, the “Moon” input performs exactly like the other unbalanced inputs.



If you are connecting a recorder to your system, be sure to connect its outputs to the “Moon” input of the K-5x.



This will prevent the undesired possibility of creating a feedback loop when making a recording.

Main Outputs

The balanced outputs use XLR connectors, while the unbalanced outputs use RCA connectors.

The Ayre K-5x offers one pair of balanced outputs and one pair of unbalanced outputs. Both pairs of outputs may be used simultaneously. However, please note that the level of the unbalanced outputs will be 6 dB lower than the balanced outputs.

AC Power

The best sound quality is normally achieved when the K-5x is plugged directly into the wall outlet, without using any power strips or power line conditioners.

Connect the Ayre K-5x to an unswitched power source. When the unit is first connected to the AC power, the input selector will default to “Star”, the volume control will default to “11”, the display will be set to “On”, and both the mute and record output will be set to “Off”. Removing the AC power from the unit will cause it to lose its current settings and revert to the default settings.

Operation

At the heart of the Ayre K-5x's control system is a sophisticated microprocessor. This microprocessor is normally "asleep" and all digital systems are turned off, including the master clock. When the microprocessor receives a command, either from the front panel or the remote control, it "wakes up" to execute the command, and then immediately returns to "sleep" mode. This system ensures noise-free reproduction of music signals.

Volume Control

The volume level is changed with the front panel knob. The remote control may also be used to change the volume.

The Ayre K-5x's exclusive volume control yields superlative sonic performance. Field-Effect Transistor (FET) switches combine with discrete metal-film resistors to create a volume control with crystal-clear transparency and no moving parts, along with digital accuracy and repeatability. The volume control comprises 66 individual levels, each with a step size of 1.0 dB allowing for precise selection of the desired volume setting.

When the unit is first connected to an AC power source, the volume level defaults to "11", a relatively



low setting. After that, the current volume setting is retained in memory, and will remain constant when changing inputs.

Input Source Selection

The source component may also be selected with the remote control.



The input selector buttons are located below the display. Icons that match the connector labels on the rear panel (Star, Planet, Comet, Moon) are used to denote the inputs. When the unit is first connected to an AC power source, the “Star” input is selected by default.

The input selector utilizes sophisticated FET switches. Both the signal and ground connections to each source component are switched, so that any un-selected components are completely disconnected from the system. This avoids any problems with undesired ground loops.



Mute

Muting and un-muting may also be performed with the remote control.

The mute button provides an easy way to temporarily turn the volume of the K-5x to “zero”. The current volume control setting is retained in memory and appears on the display.



Tape Output

The “Tape Output” function does not operate on the “Moon” input. This avoids the undesired possibility of creating a feedback loop.

When the “Tape Output” button is pressed, the indicator will light up and the signal from the currently selected source component will be routed to the “Tape Out” connectors. This allows a recording to be made.

Turn the “Tape Output” off, unless a recording is being made. This will completely disconnect the recorder from the K-5x (including the ground connection), avoiding the possibility of undesired ground loops.



Display

The display function is only available from the remote control.

The display of the K-5x may be turned off via the remote control, if desired. A single blue light indicates that the display is turned off. When further commands are received, either from the front-panel buttons or the remote control, the display will be activated for a few seconds to confirm the command, and then turn off automatically. Pressing the “Display” button on the remote control again will turn the display on.

Processor Pass-Through

When using the Ayre K-5x in a surround-sound system for home theater, it is desirable to use the “Processor Pass-Through” mode. This mode allows your two-channel music sources to be routed directly through the K-5x, avoiding the sonic degradation of most processors, and at the same time allows the front two channels of the theater system to integrate with the K-5x with the touch of a single button.

If you are using a surround-sound processor, connect the front left and right outputs of the processor to one of the inputs on the K-5x. Please note that the K-5x can accept either balanced or unbalanced signals.



To activate the “Processor Pass-Through” mode for that input, remove the AC power from the K-5x for at least 10 seconds. Then, while pressing the input selector button corresponding to the chosen surround-sound processor input, re-connect the AC power.

The chosen input is now programmed for “Processor Pass-Through” operation, disabling the now redundant volume control of the K-5x. When that input is selected, the preamplifier section of the K-5x is set to unity gain (0 dB), and the volume is controlled directly from the surround-sound processor. The volume indicator of the K-5x will display “PP” to show that the “Processor Pass-Through” mode has been selected for that input.

To clear the “Processor Pass-Through” mode from an input and restore normal operation, remove the AC power from the K-5x for at least 10 seconds. Then, while pressing the “Mute” button, re-connect the AC power.

Break-In

*100 to 500 hours of music
played through the system will
ensure full break-in.*

Due to the manufacturing processes used for the wires and capacitors, a break-in period is necessary for the amplifier to reach its full sonic potential.

Numbers and

Specifications

<i>Maximum Input Level</i>	4 V RMS – unbalanced inputs 8 V RMS – balanced inputs
<i>Input Impedance</i>	20 k Ω – unbalanced inputs 40 k Ω – balanced inputs (20 k Ω per phase)
<i>XLR Input Polarity</i>	Pin 1 – Ground Pin 2 – Non-inverting (Positive) Pin 3 – Inverting (Negative)
<i>Maximum Gain</i>	4 dB – unbalanced outputs 10 dB – balanced outputs
<i>Frequency Response</i>	DC – 200 kHz
<i>Output Impedance</i>	55 Ω – unbalanced outputs 110 Ω – balanced outputs (55 Ω per phase)
<i>Power Consumption</i>	10 watts
<i>Dimensions</i>	17- ¹ / ₄ " W x 13- ³ / ₄ " D x 4- ³ / ₄ " H 44 cm x 35 cm x 12 cm
<i>Weight</i>	25 pounds 11.5 kg

Statement of

Warranty

Please take a moment to fill out and return the enclosed warranty registration card.

Your Ayre K-5x preamplifier is warranted against defects in workmanship and materials for a period of five years from the date of purchase. This warranty is transferable to subsequent purchasers within the original five-year period. All warranty claims must be made through an authorized Ayre dealer or distributor.

Warranty Statement

1. Ayre Acoustics, Inc. (Ayre) warrants the materials and workmanship of this product for a period of five years from date of first purchase. If any defects are found in the materials or workmanship of this Ayre product within the warranty period, the unit will be repaired or replaced by Ayre or its authorized agent.
2. Purchaser must return the product, packed in the original shipping carton, freight prepaid to:

Ayre Acoustics, Inc.
2300-B Central Avenue
Boulder, Colorado 80301

or to Ayre's authorized agent.

3. Ayre reserves the right to inspect any product that is the subject of any warranty claim prior to repairing or replacing it. Final determination of warranty coverage lies solely with Ayre.

Out-of-warranty claims will be billed for labor, materials, return freight, and insurance as required. Any product for which a warranty claim is accepted will be returned to the purchaser and the cost of shipping and insurance will be factory prepaid within the boundaries of the USA. Units to be shipped outside of the USA will be shipped freight collect only.

4. Ayre strives to manufacture the finest possible equipment, and therefore reserves the right to make improvements on its products, without necessarily assuming an obligation to retrofit such changes upon its previously manufactured models.

5. The above warranty is the sole warranty given by Ayre, and is in lieu of all other warranties. All implied warranties, including warranties of merchantability or fitness for any particular purpose shall be strictly limited in duration to five years from the date of original purchase, and upon expiration of the warranty period (five years), Ayre shall have no further obligation of any kind, whether express or implied. Further, Ayre shall in no event be obligated for any incidental or consequential damages as a result of any defect or any warranty claim, whether express or implied.

6. Ayre does not authorize any third party, including any dealer or sales representative to assume any liability of Ayre or make any warranty for Ayre. The unit must not have been altered or improperly serviced. The serial number on the unit must not have been altered or removed.

7. Warranty registration cards must be completed and mailed to Ayre within 30 days of purchase. Ayre may, at its option, require from the purchaser valid proof of purchase (dated copy or photocopy of dealer's original invoice).

A Place for

Notes

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