



Conrad-Johnson Owner's Manual:  
*HVA1 Headphone Amplifier*

conrad-johnson It just sounds right.



*Thank you* for selecting the Conrad-Johnson *HVA1 Headphone Amplifier*. Using it, we believe that you will hear more from your favorite recordings than ever before. Drawing on nearly four decades of research at conrad-johnson into the reproduction of recorded music, the *HVA1 Headphone Amplifier* excels at the recreation of the dynamics, textures, tonalities, and ambience of live musical performances.

At conrad-johnson, we expect our products to be a source of satisfaction and of pride to their owners for many years to come. Accordingly, circuit designs, parts and materials have been selected with a view to maintaining optimal performance over the years. Our reputation for producing among the industry's most reliable components is a natural consequence of this engineering approach.

Although the *HVA1* has been designed to operate in an intuitively apparent way, you will find useful information on its installation and operation in this manual. Please take a few minutes to read the manual to better understand the features and capabilities of your Conrad-Johnson headphone amplifier.

In closing, we'd like to welcome you to the family of conrad-johnson owners. We want you to enjoy your conrad-johnson product to the fullest. To this end, our staff stands ready to answer any questions you may have about the function and application of your *HVA1 Headphone Amplifier*, and to provide any needed service both during, and after the warranty period. Our goal is to heighten your enjoyment of recorded music.

## ***Limited Warranty for Conrad-Johnson Components***

Conrad-Johnson Design, Inc. will provide service under warranty to the original owner on products sold new in the United States for the lesser period of three years from the date of purchase by the original purchaser, or five years from the date of shipment to the authorized conrad-johnson dealer. During the warranty period, conrad-johnson will repair defective units without charge for labor or parts (with the exception of vacuum tubes and batteries).

Exclusions. The following are not covered under this warranty:

- a) Units which have been damaged by misuse, abuse, or accident.
- b) Units which have been modified, altered, or improperly repaired by anyone not specifically authorized by conrad-johnson design, inc.
- c) Units not purchased from an authorized conrad-johnson dealer in the United States for use in the United States.
- d) Normal wear
- e) Incidental or consequential damages are not covered under this warranty. Some states do not allow the exclusion of incidental or consequential damages, so this exclusion may not apply to you.

**Obtaining Warranty Service:** To obtain warranty service, the unit must be shipped, along with evidence of purchase, in factory packing to conrad-johnson design (or designated service center) with freight and insurance prepaid by the owner. After repair, the unit will be returned with freight and insurance prepaid by conrad-johnson design to any destination in the United States.

All implied warranties, including merchantability and fitness for a particular purpose are limited in duration to the duration of this express warranty. Some states do not allow limitations on the duration of implied warranties so the above limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Conrad-Johnson products purchased outside the United States are covered by warranty terms of the importing distributor in the country in which the product was originally purchased, which may differ from the terms set out herein. Importing distributors are not obligated to provide warranty service for products originally purchased outside their country. Conrad-Johnson will provide warranty service for products outside the United States, but in these cases, the customer must pay all shipping, handling and customs costs both to and from our Service Department.

Questions about this warranty should be addressed to:

Service Department  
conrad-johnson design, inc.  
2733 Merrilee Drive  
Fairfax, VA 22031

The conrad-johnson service department can also be reached by e-mail at [service@conradjohnson.com](mailto:service@conradjohnson.com), by phone at 703-698-858.

## *Service*

If your conrad-johnson audio component requires service, repack it using the original box and packing material and ship to the Service Department address above. Boxes and packing materials can be purchased through our service department if you no longer have yours. Include with the unit a note describing the problem you are having in as much detail as possible. It is especially important for our technician to know if the problem is intermittent. If you want an estimate of cost for out of warranty service, be sure to request it in this note. Be aware that requesting an estimate will delay service to your unit, as we will have to contact you for approval before commencing service.

## *Registering the Warranty*

Please return the enclosed card to the factory within 30 days of purchase to register the warranty

## ***Installation***

The *HVA1 Headphone Amplifier* dissipates up to 95 watts of heat, and must be adequately ventilated. Mount the unit horizontally on a flat, hard surface. Take care that the ventilation holes in the top and bottom are unobstructed. Allow at least two inches of clearance on both sides and 6 inches above. Do not operate the HVA1 in a closed cabinet installation.

All HVA1's sold in the United States are configured for operation on a 60Hz ac power line producing between 108 and 126 volts. Export versions of the *HVA1 Headphone Amplifier* will have the correct operating voltage and frequency clearly marked on the back panel of the unit, near the ac power cord. In all cases, the actual line voltage should be within + 5/- 10% of the nominal rated voltage.

## ***Electromagnetic Interference (EMI)***

Considerable care has been taken in the design of the *HVA1 Headphone Amplifier* to minimize its susceptibility to radio frequency interference and other forms of EMI. Choice of materials, physical lay-out, grounding practice, and power supply design have all been specified with a view to reducing the impact of electromagnetic fields on the performance of this unit. At the same time, however, our primary goal is the accurate reproduction of recorded music in the normal home environment, and we have elected not to compromise this objective by the application of heavy-handed RFI filters, or by using grounding practices that reduce RFI at the expense of degraded audio performance. We find that the approach we have taken has worked extremely well, resulting in only rare instances of EMI problems which could be treated locally as needed, rather than compromising the performance of our product in the 99.9% of installations where EMI is not a problem.

Care in installation can often avoid EMI induced problems. The following practices should generally be observed in any application, and will be especially important where EMI may be a problem.

Interconnect cables should be kept as short as possible. Shielded cable should be used (cable which has two center conductors, and a separate external shield connected at only one end).

Physical location and cable “dress” can be an important factor in minimizing hum pickup.

## *Connection*

**SOURCES (INPUT 1, INPUT 2):** These inputs present a 12 kOhm load to the source. Connect the corresponding source components to these inputs. INPUT 2: available with optional 12 DB attention.

**MAIN OUT:** Connect to the input of your headphones. We recommend the use of headphones with an input impedance of 20-47 ohms.

## *Controls*

<Power>: Rear panel: The HVA1 Headphone Amplifier incorporates a rear panel master power switch. After installing the AC line cord into the IEC socket move the switch upwards to turn on the front panel. Front panel: Press the switch labeled power to turn on the HVA1. A time delay auto-muting circuit is incorporated into the HVA1 Headphone Amplifier to suppress turn-on/turn-off transients. All outputs are grounded via relays for approximately 60 seconds after the unit is turned on in order to suppress warm-up transient noises.

Volume: The HVA1 Headphone Amplifier features a high-quality, 12 step attenuator.

Inputs (input 1, input 2): Press/depress the switch to select the desired input.

## ***Vacuum Tube Replacement***

The audio circuit of the HVA1 Headphone Amplifier uses two type 6922 miniature twin-triode vacuum tubes. The brand of tubes we supply has been chosen by first selecting those brands which are known to be most reliable, then by extensive auditioning of these acceptable brands with the final choices being made solely on the basis of sonic performance. We know of no vacuum tubes available which will improve the HVA1 Headphone Amplifier. The tubes in your HVA1 have been tempered by a controlled burn-in procedure that permits them to perform for a greatly extended period without sonic degradation, then selected for minimum residual noise. Replacement tubes are prepared and selected in the same way. Therefore, we highly recommend that you purchase replacement tube sets from conrad-johnson design. We anticipate tube life to accommodate two to three years of operation without degradation in normal use.

## ***Getting the Most from Your Conrad-Johnson HVA1***

In a system of commensurate high quality components, the conrad-johnson HVA1 Headphone Amplifier offers a high level of sophistication and refinement in music reproduction. To get the best performance out of any audio system, there are a number of important details that must be attended to.

## *The Importance of Wires*

Interconnect and headphone wires are an important element in your headphone system. Interconnects are available which will permit a reference quality system to blossom and fulfill its promise of musical reality. Others will strangle the system to the point where it becomes little better than average. To complicate matters, our experience suggests that the choice of interconnects will be system dependent - those that are top ranked on one system may be a poor choice for a different system. Consult your Conrad-Johnson dealer for recommendations for your specific system.

## *Performance Tip*

Warm up the *HVA1* before listening: sonic performance will improve noticeably as the unit warms up. The midrange becomes more lucid, the highs smoother, and the soundstage expands. The warm up period can be expected to last at least sixty minutes. Ultimate sonic performance will occur beyond sixty minutes of warm up, but the *HVA1* should never be left powered on for extended periods when not in use.

**Questions:** If you have questions about the installation or function of your *HVA1 Headphone Amplifier* do not hesitate to call Customer Service at (703) 698-8581.

## *Specifications*

**Power:** 3 watts per channel RMS both channels driven into 20 ohms from 30Hz to 15KHz at no more than 2.5% total harmonic distortion or inter-modulation distortion.

**Gain:** 14DB

**Sensitivity:** 1.4 V rms to rated power

**Frequency Response:** 20Hz to 20kHz +/- .3 dB

**Hum and Noise:** <200 UV below 100mw

**Input Impedance:** 12k ohms

**Output Impedance:** 20-47 ohms

### **Mechanical**

**Dimensions:** 18"D x 10.25"W x 4.1875"H

**Net Weight:** 19 lb net

## *Fuses*

The *HVA1* power transformer is protected by a fuse on the ac power line (F5 located in a compartment in the ac line-cord receptacle mounted on the back of the amplifier), and by four separate internal fuses on the primary and secondary circuits of the transformer, (F1-F4) located on the pc board. A failure of any of these fuses is a symptom of a more serious problem, and a competent service technician should be consulted. In no event should fuses be replaced with a value or type different than that originally supplied. The correct fuse values and types are:

F1: 5x20mm 2A T-type 240V  
5x20mm 3.15A T-type 120V

F2: 5x20mm 3.15A T-type

F3: 5x200mm 400MA T-type 240V  
5x20mm 800MA T-type 120V

F4: 5x20mm 500MA F-type

F5: 5x20mm 5 amp T-type if configured for 100 or 120V:  
5x20mm 3.15 amp T-type if configured for 220 or 240V.