

**OWNER'S MANUAL  
CONRAD-JOHNSON  
PRE-AMPLIFIER**

**conrad-johnson design, inc.  
703 – 698 - 8581**

*Thank you* for purchasing the conrad-johnson preamplifier. We believe that it will be one of the most satisfying purchases of audio equipment that you will make. The design and materials have been carefully selected to yield many years of unvarying, excellent performance. While the use of this unit is quite straight-forward, a brief reading of the following notes for the owner will enable you to better understand its features and will inform you of the services we offer.

## **LIMITED WARRANTY for the conrad-johnson preamplifier**

1. conrad-johnson design, inc. warrants to the original purchaser that the conrad-johnson preamplifier will perform to specifications as published in the owner's manual and that it will be free of defects in materials and workmanship for a period of five years from the date of original purchase.
2. conrad-johnson will repair defective units without charge for labor or parts (with the exception of the vacuum tubes) subject to the following conditions:
  - a) The unit must not have been altered or damaged through misuse, abuse, negligence, accident, or improper operation.
  - b) The purchaser must provide evidence of purchase at the time service is requested.
  - c) All repairs must be undertaken at the factory or other service center designated by conrad-johnson, inc. Units submitted for warranty repairs must be shipped in the factory packing carton to conrad-johnson design or its designated service center, freight and insurance prepaid by the owner, and will be returned to the owner, freight and insurance prepaid by conrad-johnson design. Replacement cartons are available from the factory for a nominal charge.
  - d) Normal wear and maintenance are not covered by this warranty.
3. The above warranty may be transferred to subsequent owners provided that the warranty registration card has been returned to conrad-johnson design, inc. within 30 days of the original purchase and that the registered owner provides the factory with a signed notice giving the new owner's name and address and the model and serial number of the unit.
4. Where permitted by law, conrad-johnson design's liability shall be limited to that set forth in this warranty. No other warranty of any kind, expressed or implied, is made by conrad-johnson design, inc., and all implied warranties, including merchantability and fitness for a particular "purpose", which exceed the obligations and time limits set forth herein are hereby disclaimed. conrad-johnson design, inc. shall not be liable for incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you.
5. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Questions about warranty service should be addressed to:

Service Department  
conrad-johnson design, inc.  
2733 Merrilee Drive  
Fairfax, Virginia 22031  
phone: 703-698-8581

## **About conrad-johnson design**

We are a small company offering exclusively audiophile products designed for our own use as well as our customers'. We believe that our commitment to the purchaser of our products is nearly unique in the industry. The services we offer to conrad-johnson owners include:

- Information - Registered owners of conrad-johnson equipment will be directly informed of new equipment we have to offer. They will also be informed of any significant changes in the design of their equipment resulting from our ongoing development program.
- Factory updating - Should significant design changes be made, conrad-johnson design will, whenever practical, offer to update existing equipment. This service will be offered at a minimal charge to cover parts, labor, and handling.
- Factory service - Any conrad-johnson product may be returned to the factory for service. All equipment serviced at the factory will perform to its published specifications when returned. Factory service will be offered at reasonable rates.
- Transferable warranty - conrad-johnson design guarantees its products, not the owner. Should you decide to sell the product, the warranty may be transferred to the new owner. (See Registering the Warranty.)

## **Registering the Warranty**

Please return the enclosed card to the factory within 30 days to register the warranty. The warranty may be transferred to a new owner if it has been properly registered initially and if the registered owner sends a signed notice providing the name and address of the new owner and the model and serial number of the unit.

Proper registration of the warranty is important! Not only will it preserve transferability of your warranty, it will also enable us to inform you of any alterations in the design of a given model and of any new products we offer which are likely to be of interest to you.

## **Installation**

The Conrad-Johnson preamplifier may be installed either horizontally or vertically. In either case the unit should be supported by brackets on a shelf. An opening 4 11/16" x 13 11/16" will just clear the chassis. Ventilation above and below the unit should not be obstructed. To minimize hum pickup, keep the unit well away from power amplifier transformers, and route power cords away from input cables.

THIS UNIT IS TO BE OPERATED ONLY ON AN AC LINE OF FROM 108 TO 120 VOLTS.

## **Connection**

### **Inputs:**

Phono 1, Phono 2 - These inputs provide the additional amplification and RIAA equalization required by most high fidelity phono cartridges. Overall gain is high enough to accommodate several available moving coil cartridges directly. The ground lead from the turntable should be connected to the binding post labeled "Chassis Ground".

Tuner, Auxiliary, Tape 1, Tape 2 - These are all high level inputs and are electronically equivalent. The *output* of your tape recorder should be connected to Tape 1 or Tape 2.

### **Outputs:**

Record 1, Record 2 - Connect these to the *inputs* of your tape recorders..

### **Use of external tone controls or other external signal processing devices:**

Use Tape 1 and Record 1 for your tape recorder, as described in the preceding two paragraphs. Connect the *output* of the tone controls to Tape 2 and the *input* of the tone controls to Record 2. The Monitor 2 position of the monitor switch will insert the tone controls in the circuit; the Source position will provide flat, unprocessed response. This method of connection will permit the use of tone controls with tape playback by selecting Tape 1 in conjunction with Monitor 2.

**AC outlets:**

Six ac outlets are provided for your convenience: two, marked unswitched, are always live; the remaining four are switched by the preamp's power switch. THE TOTAL CURRENT REQUIRED OF THE SWITCHED OUTLETS MUST NOT EXCEED 4 AMPERES. This precludes the use of these outlets for high powered amplifiers. It is preferable not to switch power amplifiers by the preamplifier power switch in any case.

**Operation****Turn on:**

Because of different warm up characteristics, SPECIAL PRECAUTIONS MUST BE TAKEN WHEN TURNING ON A SYSTEM WITH A VACUUM TUBE PREAMPLIFIER AND A SOLID STATE POWER AMPLIFIER. The best procedure is to switch the preamp on independently, allowing about 30 seconds for it to warm up before switching on the power amplifier. If the power amplifier is to be switched using the preamp's power switch, you must first TURN THE VOLUME CONTROL COMPLETELY DOWN (fully counterclockwise) before switching the units on and allow 30 seconds before turning the volume up. Similarly, the volume control should be completely down before turning the system off. Failure to observe these precautions may easily result in damage to your amplifier or speakers.

**Selector:**

Use the selector switch to choose an input from Phono 1, Phono 2, Tuner, Tape 1, or Auxiliary. The selected source will be available at the Source position of the monitor switch and at both Record outputs, except Tape 1, which will not be routed to Record 1. The Tape 1 position does permit dubbing from Tape 1 to Tape 2.

**Monitor:**

This switch permits you to compare source and tape while recording on either or both tape decks from the selected input. It is also used to select the input at Tape 2. You may wish to use Tape 2 and Record 2 to install an external signal processor such as graphic tone controls. Then, the Tape 2 position will choose the processed signal while Source will choose the pure signal.

**Mode:**

(The setting of this switch does not alter the signal at the record outs.)

**Left** - Passes the left channel input only to both right and left main outputs.

**Right** - Passes the right channel input only to both right and left main outputs.

**Stereo** - Normal stereo operation.

**Stereo Reverse** - Passes the left channel input to right channel output and vice versa.

**Mono** - Passes the sum of left and right signals to both channel outputs.

**Balance:**

This control is specifically designed to minimize its influence on the circuit when centered. It adjusts the stereo image gradually, permitting unusually precise control.

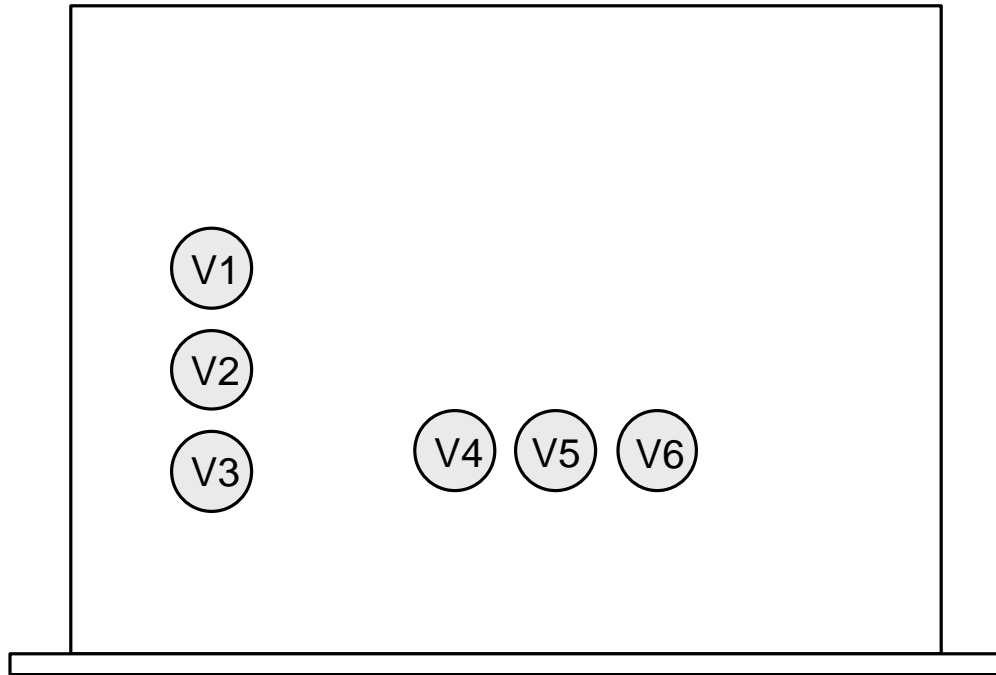
**Maintenance****Tubes:**

Modern vacuum tubes have a useful life of more than a thousand hours; however, audible performance will be subtly degraded eventually. When replacement becomes desirable the tubes must be replaced with tubes of the same type. Tube V1, V2, V3, and V6 (see tube location diagram) are of the 12AX7-7025-6681 type. The audible performance of the unit is particularly sensitive to V1 and V2. These should, if possible, be replaced with the brand of tube recommended by the factory. Tubes V4 and V5 are type 5751. The 5751s provide a subtle improvement over 12AX7 types, but the latter may be substituted if 5751s are locally unavailable. Type 5751 tubes should not be used for V1 and V2 because noticeable degradation of bass performance will result.

**Fuse:**

The AC line is fused to protect the transformer. This fuse will not fail in normal operation. Failure of the fuse is a symptom of a more serious problem, so the unit should be taken to a qualified service center. **IN NO EVENT SHOULD THE FUSE BE REPLACED WITH A FUSE OF DIFFERENT TYPE OR RATING THAN THAT SUPPLIED BY THE FACTORY.**

**Tube locations (top view):**



**Specifications:**

Gain: phono stage 34.5db  
high level 28 db

Output: maximum 25 v  
rated at 2.5 v

Phono overload: in excess of 500 mv, at 1 kHz

Response: bandpass 2 Hz to more than 100 kHz  
RIAA equalization  $\pm$ .25 db (20-20 kHz)

Total hum and noise (20-20 kHz)  
Phono inputs: 68 db below 10mv input  
High level: 84 db below 2.5 volt output

Distortion: THD less than .05 %  
IM less than .05%

Output impedance: less than 1k ohms