

Congratulations on your purchase of the conrad-johnson D/A-1 digital processor. You have acquired one of the finest pieces of music reproduction equipment available today. The D/A-1 has been designed with the goal of faithfully reproducing the dynamics, tonalities, textures and ambience of a live musical performance. The design and materials have been carefully selected to yield years of unvarying excellence.

Please take a few minutes to read this manual so that you will better understand the features and capabilities of your D/A-1.

LIMITED WARRANTY FOR CONRAD-JOHNSON AUDIO COMPONENTS

1. **conrad-johnson design, inc.** warrants that conrad-johnson brand audio components purchased from an authorized conrad-johnson dealer in the United States for use in the United States will be free of defects in materials and workmanship 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.
2. During the warranty period, **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 design, inc.** Units submitted for warranty repair must be shipped in factory packing 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 to any destination in the United States prepaid by conrad-johnson design.
 - d) Normal wear and maintenance are not covered by this warranty.
3. 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 limitations or exclusions may not apply to you.
4. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.
5. 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 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 Service Department can also be reached by phone at 703-698-8581, or by fax at 703-560-5360

SERVICE

In the event your conrad-johnson audio component requires service, repack it with the original packing material and ship to the Service Department address above. If you do not have the original packing material, replacements are available from conrad-johnson design for a nominal charge. Be sure to include a copy of your sales receipt from the original purchase, along with a note explaining the problem you are having in as much detail as possible. If the problem is intermittent, please indicate. 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 your approval before commencing service.

REGISTERING THE WARRANTY

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

***I*NSTALLATION**

The D/A-1 should be mounted horizontally on a flat hard surface. Vertical installation is not recommended.

To minimize hum pickup, keep the unit well away from the power amplifier, and route power cords away from input cables.

The D/A-1 requires an ac power line providing between 108 and 125 volts at 50 to 60 Hz. Alternatively, the D/A-1 is optionally available for operation on 100, 220, or 240 volt power lines.

CONNECTION

The D/A-1 provides three separate digital inputs (two coaxial, and one optical) and a coaxial digital output. Connect your digital sources (CD transport, Laser Disc Player, DCC recorder) to any of these inputs, and a DCC or other digital tape recorder to the digital output.

Digital Inputs

Coaxial 1: Transformer coupled coaxial input with BNC connector

Coaxial 2: Direct coupled coaxial input with phono connector

Optical: TOSLINK optical connector. The TOSLINK connector is supplied with a plug to prevent dust from accumulating on the lens of the receiver. Leave this plug in place whenever this input is unused.

The D/A-1 is optionally available with an additional ST glass optical connector. This option includes a back panel mounted toggle switch to select between the two optical connectors.

Outputs

Digital Output: A BNC connector is provided to send the digital signal out to another digital device (normally a DCC recorder).

Analog Outputs: These are the audio outputs, to be connected to a line-level input on your preamplifier.

CONTROLS

INPUT: coax one, coax two, optical: This selector switch is used to choose a digital input for listening. The selected digital signal is also sent to the digital output. On units with the optional ST glass optical input fitted, the selecting "optical" on the input selector will connect the optical input that has been selected by the back panel toggle switch.

Phase: This switch allows selection of **0** degrees "phase correct" and **180** degrees "inverted" of phase shift in the absolute phase of the audio output signal to compensate for phase incorrect recordings.

Because the discrete analogue audio circuits require a long warm-up time before they reach optimal performance, the D/A-1 is intended to remain on at all times, and no on/off switch is provided.

***G*ETTING THE MOST FROM YOUR D/A-1**

The Conrad-Johnson D/A-1 offers a remarkable level of sophistication and refinement in music reproduction, but it cannot transform an inferior stereo system. Only high quality amplifiers and loudspeaker systems will be capable of fully revealing the capabilities of this precision instrument.

Given a system of high quality components, there remain a number of important details which must be attended to.

ABSOLUTE PHASE

Musical notes are heard through the ear's response to waves of alternating rise and fall of air pressure. Musical transients are almost exclusively positive: that is, the initial effect is a rise in pressure. The ear is capable of distinguishing these positive transients from the musically unnatural alternative of a negative transient (an initial fall in air pressure). In terms of your stereo system, these transients are created by your loudspeakers. If the speakers respond to musical transients by first moving out, they are creating a rise in pressure, and the system is said to be "phase correct". If they respond by moving in, they create a fall in pressure and the system is said to be phase inverting.

Each component in the stereo system is either phase correct or phase inverting (including the source and speakers—these are normally phase correct). It is of no consequence if an individual component is phase inverting, as long as the system as a whole is phase correct. This will be the case as long as the number of phase inversions is even (or zero). A system with an odd number of phase inversions can be corrected by adding one more inversion by reversing the positive and negative speaker leads.

We recommend that you connect your system for correct absolute phase, and use the phase invert switch on the D/A-1 to correct for phase incorrect recordings.

THE IMPORTANCE OF WIRES

Both digital and analog interconnect wires are an important element in the performance of your digital playback system. Interconnects are available which will permit a reference quality system to fulfill its promise of musical reality, whereas others will fall far short. Consult your Conrad-Johnson dealer for recommendations for your specific system.

Questions: If you have questions about the installation or function of your D/A-1 do not hesitate to call Customer Service at (703) 698-8581.

D/A-1 SPECIFICATIONS

Output @ 0 dB: 1.0V

Frequency Response: 5Hz to 20kHz +0,- .5 dB

Hum and noise: 92dB below 1.0V output

Output impedance: less than 200 ohms

Mechanical:

Dimensions: : 19"W x 3.315"H x 14.375"D

Net Weight: 16 lbs.