

SLP-70

Instruction Manual



CARY
*Audio Design*TM

Introduction

The Cary Audio Design SLP-70 is a control center for your high end stereo and video system. The SLP-70 preamplifier is used in conjunction with basic power amplifiers such as the Cary Audio SLA-70, SLM-70's and a must for the CAD-300B triode amplifier. The SLP-70 is available in two versions. One is full featured with a built in phono stage. The other version is an active line stage only.

The most exciting feature of the SLP-70 is the method of input selection and tape monitor loop control. On the double sided, plated through P.C. board, containing the preamps electronics, are six gold plated DPDT 12 volt DC relays. These relays serve two functions. The first is a method to select the five inputs being fed to the preamp and the second is to provide a purely resistive load source to the input when a particular source is not in use. The tape monitor loop also functions with DC relay control. one example of the benefit of this selector method is as follows: the audiophile is listening to a phono source and the FM tuner, video, along with the CD player are feeding signals into the SLP-70. All but the phono source in this example would be active with all other inputs resistively terminated. This of course eliminates any bleed through or cross talk. Another fantastic feature of this input selection system is the elimination of the bundle of long input leads from the rear panel to a front panel selector switch. The SLP-70 system keeps all the input wires in a straight short path.

Operating the Cary SLP-70 preamplifier is a simple procedure, since each unit is designed for long term stability in virtually any home operating situation. The SLP-70 is a sophisticated electronic instrument, despite the straight forward design and minimal user required adjustment. Therefore, damage may result, if the unit is operated outside the parameters outlined in the owner's manual. Please read this manual carefully before putting your new Cary Audio Design SLP-70 in operation.

Specifications

When the following cautionary terms are used in this manual. These definitions apply.

WARNING
ELECTRICAL HAZARD. MISUSE OR FAILURE TO FOLLOW INSTRUCTION PROPERLY MAY RESULT IN PERSONAL INJURY OR DEATH

Caution
No risk or personal injury, however, misuse or failure to follow instructions may result in damage of the equipment.

Note
No risk of personal injury or equipment damage, however misuse or failure to follow instructions may prevent proper performance of the equipment

1.2 Specifications

This section describes the basic specifications of the SLP-70 at the time of printing. Specifications are subject to change without notice.

DIMENSIONS: 165 W x 4 H x 115 D

WEIGHT: 21lbs with power pac

CIRCUIT TYPE: Class "A" Triode

INPUT IMPEDENCE : 12,700 ohms Line Stage
47,000 ohms Phono Section

OUTPUT IMPEDENCE: ⁸⁰⁰~~300~~ ohms

GAIN: 240 millivolt input = 1 volt output; 12 dB gain line stage
2.3 millivolt input = 1 volt output dB gain Phono stage

SIGNAL/NOISE RATIO: -88dB

RESISTORS: 1% metal-film

CAPACITORS: Polystyrene and Polypropylene

POWER TRANSFORMER: 100% duty cycle

Specifications

AC POWER CORD: 3 conductor double shielded, EI Laminated

TUBE: ^{Six} **SIX** total 2-ECC 83/12AX7 Phono section 2-6SL7 Line Stage
TWO 12AU7 Buffer Output

POWER SUPPLY: Dual regulated 12 volts DC, Regulated 160 Volts DC

AC POWER REQUIREMENTS: 100 to 130 volts AC 50/60 hz
fused at 1 amp (export 208 to
240 volts AC 50 hz fused at
1/2 amp)

WARM-UP TIME: 3 minutes

INPUT AND OUTPUT JACKS: Gold plated "Tiffany" with Teflon

DUTY CYCLE: Continuous duty all modes 24 hours a day

1.3 Front Panel Features

RED LED: Indicates AC Power On

POWER SWITCH: Rocker switch turns AC power on and off

STANDBY SWITCH: Turns B+ on and off – B+ is on in the up position

LISTENING LEVEL: Equal control of audio output to both left and right channels

TAPE MONITOR: for listening to a tape recording at time of taping or for recorder input

INPUT: Selection switch for source input

BALANCE: Center position equal output for left and right channel

1.4 Rear Apron Features

GND: ground lug for turntable chassis

PHONO: These jacks are to be used with magnetic cartridges or high output moving coils

VIDEO, CD, TUNER AND TAPE: These inputs accept auxiliary service requiring flat frequency response

TAPE IN – for use with tape recorders that have a head and amp to monitor the tape as it is recorded

TAPE OUT – Constant output of selected input signal for recording independent of volume control on front of SLP-70

OUTPUT – Connect directly to the input of the power amps

FUSE – 1 amp SLOW BLOW ONLY (1/2 amp 220 VAC version)

POWER CORD – 50/60 hz only to house current mains

CAUTION

NEVER REMOVE/INSERT AC LINE CORD WHEN THE UNIT IS ON

2.1 Installation

This section describes the unpacking and installation procedures for the SLP-70 preamplifier

WARNING

MAKE NO ATTEMPT TO PUT THE PREAMP IN SERVICE OUTSIDE OF THE CABINET — CONTACT WITH VOLTAGE IN THE SLP-70 CAN BE FATAL!!!

2.2 Unpacking

All shipping containers have been specially designed to protect their contents and special care has been taken to prevent damage under normal shipping conditions. Mishandling should be evident upon inspection of the shipping container. If damage is found after visual inspection, take care not to destroy the evidence. If necessary, document the damage with photographs and contact the transport carrier immediately.

Carefully remove your new SLP-70 preamplifier from its packing carton, and examine it closely for signs of shipping damage. It is recommended to save all original packing cartons to protect your amplifier from damage should you wish to store it or ship it for after-sales service.

2.3 Warranty Card

If you were the original purchaser of this unit and you purchased it in the United States, you should fill out the enclosed warranty registration card and return to Cary Audio Design, Inc. within 10 days of your purchase. Cary Audio Design, Inc. also suggests that you keep your original packing cartons in case you need to ship the unit. Warranty restrictions apply. Consult the warranty section of this manual for details.

2.4 SLP-70 Placement

The SLP-70 is designed for use inside homes. It must be protected from the elements and temperature extremes. For example, avoid placing the unit in extremely hot locations such as near radiators or other heating units. Its location among the user's audio components is not critical, however certain precautions must be taken. Your CD player may be stacked on top of the SLP-70 if you wish.

2.5 Power Requirements

The SLP-70 is designed to operate from house current mains. The design voltage is 117 VAC at 50/60Hz. (Foreign units 234 VAC at 50/60Hz)

2.6 Cables

The interconnect cables from the output jacks of the SLP-70 to the input jacks on the basic amplifiers can be any convenient length your set-up requires. The best installation is with a Cary monobloc amplifier next to each speaker. The choice of a high quality interconnect cable is important. Most audio dealers will have proper speaker cable in stock for this purpose.

3.1 Operation

Your new SLP-70 is ready for operation after all the interconnect cables have been installed. The SLP-70 is provided with functional, useful front panel controls with a logical layout. The listening level is conveniently located in the center.

3.2 AC On Power Switch

Controls AC line voltage to SLP-70

3.3 Stand-By Switch

Controls the B+ high voltage in the "UP" position the SLP-70 is functional. In the down position only filament voltage is on to the tubes. Because of the amount of electrolytic capacitance in the SLP-70 it will take up to 30 minutes for the caps to discharge. It will seem as though this switch is not functioning if just flipped up and down. The STAND-BY switch is a great feature for audiophiles and warmed up 24 hours a day.

3.4 Selector Switch

This rotary switch connects a choice of program source, both channels simultaneously, together with proper amplification and equalization for the magnetic phono source. All program sources, including tape deck playback, are selected by this switch. As you switch from source to source you will hear the clicking of the input board relays. This click is normal and proper.

3.5 Balance

This control is normally in the vertical 12:00 o'clock position. That position will provide equal outputs on both channels if the output signal is equal from the driving source. The balance control has a very gradual action in the first 90 degree of rotation each side of center.

3.6 Listening Level

The output of both left and right channels is controlled simultaneously by this control. The control potentiometer is of such high quality that the tracking error is less than .5 dB from 0 to -60 dB. The program source remains in balance over the entire range of this control. The taper rate of the volume control has been chosen to provide a slow increase in gain over the first half of rotation and a more rapid gain increase above 12:00 o'clock.

3.7 Tape Monitor

In the "UP" position the green LED will light, indicating that only TAPE In is active to the line stage. As you switch the tape monitor switch you will hear the clicking of the gold plated relay. This click is normal and proper.

4.1 SLP-70 Preamplifier

After completely disconnecting your SLP from the AC power source, wait 30 minutes so all electrolytic capacitors have discharged through their bleeder resistors. The top cover can then be safely removed by taking out the top and side row of screws.

Since the top cover is vented, the pre-driver will collect particles of dust which must be periodically removed. The frequency of cleaning will be governed by how many hours the SLP-70 is operated, and by operating environment cleanliness. The best way to clean the SLP-70 is to blow the dust out with compressed air. If compressed air is not available, a soft-bristled one inch paint brush can be used to brush the chassis and components clean. Observe directions in this manual.

4.2 Tube Replacement

If it becomes necessary to replace the tubes in the preamp the same brand should be used. A new tube kit is available from Cary Audio Design, Inc. Although tube life varies depending on the nature and degree of use, under normal operating conditions for home use, the tubes in the SLP-70 should last several years and may last much longer.

4.3 Factory Service

Careful consideration has been given to the design of your SLP-70 to keep maintenance problems to a minimum. However, it is possible that some problems may arise which cannot be cured by tube substitution. At this point we suggest that you contact our Customer Service Department at phone number 1-919-481-4494 to describe your problem in detail. Do not return the CAD-SLP-70 to the factory without a return authorization number from the Customer Service Department. Cary Audio Design, Inc. will assume no responsibility if the transportation company refuses to pay damage claim due to your improper packing or lack of insurance should the unit be lost in shipment.

Non-Warranty Repairs

Cary Audio Design, Inc. will provide repair service for its products charging on a time and expense basis for the repairs.

WARNINGS

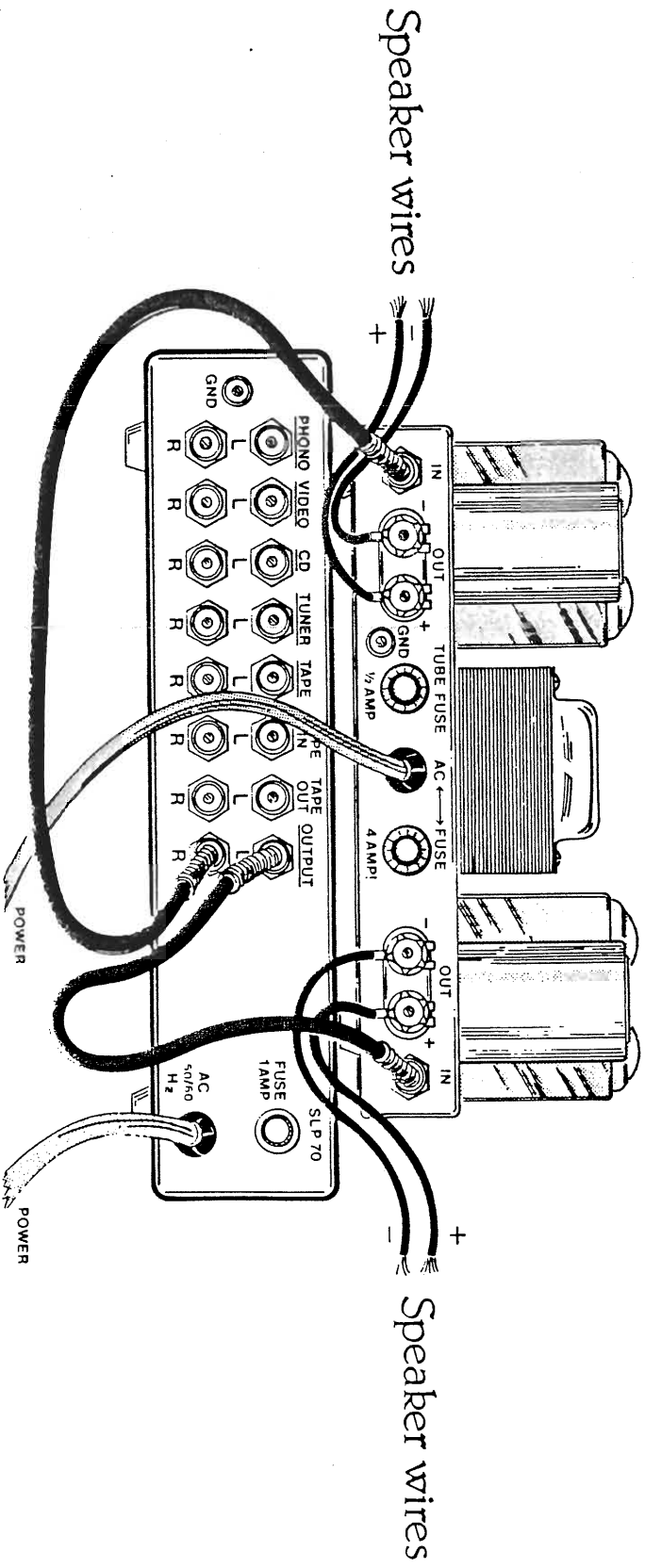
**MAKE NO ATTEMPT TO PUT THE SLP-70 IN SERVICE OUTSIDE OF THE CABINET.
CONTACT WITH HIGH VOLTAGES FOUND IN THE UNIT CAN BE FATAL!!!**

COMPLETELY REMOVE AC POWER PLUG FROM THE WALL AND ALLOW 30 MINUTES FOR THE HIGH VOLTAGE CAPACITORS TO DISCHARGE THROUGH BLEEDER RESISTORS BEFORE ATTEMPTING TO CHANGE TUBES OR CLEAN THE INSIDE OF THE AMPLIFIER.

CAUTIONS

**NEVER REMOVE/INSERT AC PLUG WHEN THE UNIT IS ON OR THE AC POWER SWITCH IS IN THE ON POSITION.
OBSTRUCTION OF THE TOP PORTION OF THE SLP-70 WILL RESULT IN TUBES OVERHEATING.**

SLP-70



UNITED STATES LIMITED WARRANTY

Cary Audio Design, Inc. warrants to the original United States purchaser for use in the United States, that this product shall be free from defects in material (except tubes and AF output transistors) or workmanship for three (3) years from the date of the original purchase.

During the warranty period, Cary Audio Design, Inc. or an authorized Cary Audio Design, Inc. service facility will provide free of charge both parts (except tubes and AF output transistors) and labor necessary to correct defects in material or workmanship.

To obtain such warranty service, the original purchaser must:

- (1) Complete and send in the Warranty Registration Card.
- (2) Notify Cary Audio Design, Inc. as soon as possible after the discovery of a possible defect of:
 - (a) The model number and serial number;
 - (b) The identity of the seller and the approximate date of purchase;
 - (c) A detailed description of the problem, including details on the electrical connection in the associated equipment and the list of such equipment.
- (3) Deliver the product to Cary Audio Design, Inc. or the nearest authorized service facility, or ship the same in its original container or equivalent, fully insured and the shipping charges prepaid.

Correct maintenance, repair and use are important to obtain performance from the product. Therefore, carefully read the Instruction Manual. This warranty does not apply to any defect that Cary Audio Design, Inc. in its sole discretion determines is due:

- (1) Improper maintenance or repair, including the installation of parts or accessories that does not conform to the quality and the specifications of the original parts.
- (2) Misuse, abuse, neglect or improper installation.
- (3) Accidental or incidental damage.

Warranty Disclaimer

Except for the express warranties stated herein, Cary Audio Design, Inc. disclaims all other warranties including, without limitation, all implied warranties of merchantability and fitness for a particular purpose.

Exclusive Remedy

Notwithstanding the foregoing, the purchaser's exclusive remedy for any breach of warranty, express or implied, is limited to the repair or replacement of the defective unit or the refund of the purchase price, at the option of Cary Audio Design, Inc. Under no circumstances is Cary Audio Design, Inc. liable for incidental or consequential damages. Any implied warranties imposed by law terminate one (1) year from the date of the original purchase.

Foreign Purchasers

Cary Audio Design, Inc. warrants its merchandise to purchasers in the United States for use in the United States. It provides no other warranties. If you are a foreign purchaser, consult with your dealer to determine whether your dealer provides any warranty.

The foregoing constitutes Cary Audio Design, Inc.'s entire obligation with respect to this product, and the original purchaser and any user or owner shall have no other claim for incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

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