



# SLP-30

## OPERATING MANUAL



### NOTE:

Before installing your new SLP-30, please read this manual carefully as it will inform you of the SLP-30's specifications, proper installation procedures and operation procedures. Also included in this manual are guidelines on how to properly service and care for your new SLP-30.

## INTRODUCTION

The Cary Audio Design, Inc. SLP-30 is a control center for your high-end stereo and video system. The SLP-30 is used in conjunction with basic power amplifiers. An ideal match in basic amplifiers for the SLP-30 are any of the Cary Audio Design basic stereo or mono-bloc offerings. The Cary CAD-300B stereo triode amplifier was the amplifier used mainly during the design of the SLP-30. The new SLA-30 stereo amplifier is the matching same size companion for your new SLP-30 preamplifier.

One of the most exciting features of the SLP-30 is the circuit design. The SLP-30 utilizes a direct-coupled constant-current device as the upper load resistor for the single-ended 12AU7 (6955) tubes in the gain stage. The linearity of the direct-couple, single-ended SLP-30 is greatly increased by this special precision constant-current arrangement. One might consider the SLP-30 as a "straight wire" preamp with gain. The advantages of achieving a low impedance output without the use of a cathode follower is quite evident in the way music is presented with the SLP-30.

Without any reservations or doubt, tube high voltage rectification in audio equipment sounds best. Your new SLP-30 uses a rugged 6CA4 full wave rectifier in the high voltage power supply. Filament voltage is DC and fully regulated in the SLP-30 as well.

Operating the SLP-30 is a simple procedure since each unit is designed for long term stability in virtually any home operating situation. The SLP-30 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 this owner's manual. Please read this manual carefully before putting your new Cary Audio Design, Inc. SLP-30 in operation.

### **SPECIAL NOTICE**

The SLP-30 output signal is an inverted signal. The emphasis in design was to achieve gain and linearity in the purest fashion. With the current source direct-coupled technique of the SLP-30 one minor inconvenience is that the output is inverted. Please be sure to reverse your speaker wires at the speaker. Further information is contained in Section 1.4 of this manual.

## SPECIFICATIONS

When the following cautionary terms are used in this manual, these definitions apply:

### **WARNING**

ELECTRICAL HAZARD! MISUSE OR FAILURE TO FOLLOW INSTRUCTIONS 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 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-30 at the time of printing. Specifications are subject to change without notice or obligation.

**DIMENSIONS:** 16-1/2"W x 4"H x 11-1/2"D

**WEIGHT:** 11 lbs.

**CIRCUIT TYPE:** Direct-coupled single-ended Class A

**INPUT IMPEDANCE:** 50,000 ohms

**OUTPUT IMPEDANCE:** 800 ohms

**OUTPUT PHASE:** Inverted

**GAIN:** 240 millivolt input = 1 volt output 12dB

**SIGNAL/NOISE RATIO:** -88dB

**RESISTORS:** 1% metal film

**CAPACITORS:** Polystyrene and polypropylene

**POWER TRANSFORMER:** 200% duty cycle 24 hours per day turn on

**TUBES:** 3 total premium tubes  
1 - 6CA4 rectifier  
2 - 12AU7 line stage preamp

**POWER SUPPLY:** Individual high voltage tube rectification. Separate regulated DC filament voltage for each channel.

**AC POWER REQUIREMENTS:** 100-130 volts AC / 50-60Hz at 50 watts  
200-245 volts AC / 50-60Hz at 50 watts

**PC BOARD:** Double sided, glass, plated through holes

**WIRE:** EE Teflon Silver

**WARM-UP TIME:** 5 minutes

**INPUT AND OUTPUT JACKS:** Gold plated with Teflon insert

**DUTY CYCLE:** Continuous duty all modes 24 hours per day

### 1.3 Front Panel Features

**POWER SWITCH:** Rotary 3 position: off, stand-by, operate

**SELECTOR:** 4 position rotary switch controlling line inputs

**RED LED:** Indicates AC power "on"

**MUTE:** Removes signal input from preamplifier gain stage

**TAPE MONITOR:** By-passes all inputs to activate incoming tape recorder signals

**LISTENING LEVEL:** Master dual volume control equally controlling input signal to line section preamplifier

**INPUT LEVEL LEFT:** Individual control of left channel level feeding to master listening level volume control

**INPUT LEVEL RIGHT:** Individual control of right channel level feeding to master listening level volume control

### 1.4 Rear Apron Features

**AUX-CD-TUNER-TAPE:** These are line level inputs requiring flat frequency response

**MONITOR:** For use with tape recorders that employ a third head to monitor a tape as it is being recorded (May be used as a flat frequency response line input)

**TAPE OUT:** Constant output of selected input signal for recording independent of volume control setting on SLP-30

**OUTPUT:** The output of the SLP-30 is an inverted signal from the input. It is very important for maximum sound staging and base response that the speaker wire leading to your speakers be reversed. In other words, place the red speaker wire on the black speaker terminals and the black speaker wire to the red speaker terminal

**AC:** Detachable power cord for AC mains voltage

**ACCESSORY POWER:** Supplies voltage power to LPP-1 phono preamplifier

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

### INSTALLATION AND UNPACKING

This section describes the unpacking and installation procedures for the SLP-30.

**WARNING**  
**MAKE NO ATTEMPT TO PUT THE PREAMP IN SERVICE OUTSIDE OF THE CABINET - CONTACT WITH VOLTAGE IN THE SLP-30 CAN BE FATAL!!!**

#### 2.1 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-30 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 preamplifier from damage should you wish to store it or ship it for after-sales service.

## 2.2 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.

## 2.3 SLP-30 Placement

The SLP-30 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.

## 2.4 Power Requirements

The SLP-30 is designed to operate from house current mains. The design voltage is 117 VAC at 50/60Hz. (Foreign units 234 VAC at 50/60Hz).

## 2.5 Cables

The interconnect cables from the output jacks of the SLP-30 to the input jacks on the basic amplifiers can be any convenient length your set-up requires. The best installation is with a Cary mono bloc 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.

## OPERATION

Your new SLP-30 is ready for operation after all the interconnect cables have been installed. The SLP-30 is provided with functional, useful front panel controls with a logical layout. The listening level is conveniently located in the center.

### 3.1 Power Switch

The power switch located at the far left on the SLP-30 front panel functions in the following manner:

"Off" - Removes all AC voltages from the SLP-30 preamp deck

"Stand-By" - Provides DC voltage through individual regulators to flow to the filaments of the preamplifier stage  
(The SLP-30 may be left in the stand-by position at

all times to keep the SLP-30 in a warmed-up, ready-to-operate mode without B+ potential. Operating in this fashion gives peak performance after only a few minutes of operating time.)

"Operate" - Turns on the B+ high voltage

### 3.2 Monitor Switch

This 3 position rotary switch will allow the user to perform the following:

TAPE: In this position the "tape in" jack on the rear serves as the input source. This function is very useful with tape decks utilizing a third head to monitor the recording directly from the tape.

MUTE: This position removes all input to the preamplifier and is most useful when lifting the tonearm on a turntable to avoid the click and thud of the stylus on the record.

SELECT: In this position the far right-hand control called "selector" is activated.

### 3.3 Listening Level

The gain 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 .5dB from 0 to -60dB. 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.

### 3.4 Input Level - Left and Right

These two potentiometers control independently the input level to each channel of the SLP-30. The input level controls on an SLP-30 take the place of an individual dual balance control used on many preamplifiers. Also, these controls may be used to reduce the overall gain of each channel on the SLP-30.

### 3.5 Selector Switch

This 4 position rotary switch connects a choice of input program source both channels simultaneously with proper amplification. All program sources are selected by this switch.

## CARE AND FEEDING

### **WARNINGS**

**MAKE NO ATTEMPT TO PUT THE SLP-30 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 PREAMPLIFIER.**

If the SLP-30 has been operated in an extremely dusty or humid environment a simple cleaning is recommended. The black front face plate and top cover may be restored to factory fresh condition by spraying and buffing utilizing Armorall. Since the top cover is vented, the SLP-30 preamplifier will collect particles of dust which should be periodically removed. The frequency of cleaning will be governed by how many hours the SLP-30 is operated. After completely disconnecting your SLP-30 from the AC power, wait 30 minutes so all electrolytic capacitors have discharged through their bleeder resistors. The top cover can be safely removed by taking out the top and side row of screws. The best way to clean the SLP-30 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 PC board and components clean. The tubes may be cleaned with windex.

### **4.1 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-30 should last several years and may last much longer.

### **4.2 Factory Service**

Careful consideration has been given to the design of your SLP-30 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 (919)481-4494 to describe your problem in detail. Do not return the SLP-30 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

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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 PREAMPLIFIER.

### 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-30 WILL RESULT IN TUBES OVERHEATING.

**PROPRIETARY RIGHTS:** Cary Audio Design, Inc. has proprietary rights in the design and components of its units. While the purchaser is entitled to use the unit for its intended purpose, use of the unit for copying, imitation, or reverse engineering is a violation of these proprietary rights and is forbidden.