

CARY AUDIO DESIGN, INC.

SLA - 88  
OPERATING MANUAL

**NOTE:**

Before installing your new amplifier, please read this manual carefully as it will inform you of the unit'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 SLA-88.

**SLA-88**  
**Stereo Amplifier**

**INTRODUCTION**

The Cary Audio Design SLA-88 is a compact vacuum tube stereo audio power amplifier. The SLA-88 is constructed to the highest commercial standards utilizing a grain-oriented stainless steel chassis. All resistors are 1% metal film and the audio coupling capacitors are made of polypropylene. Each SLA-88 amplifier is hand wired point-to-point. The high voltage DC power supply contains two 1200 MFD electrolytic capacitors for a total of 2400 MFD. The SLA-88 uses a pair of KT-88 output tubes per channel driven by the famous 6SL7GT dual triode input tube. The SLA-88 utilizes two 5V4/CV729 tubes in the full wave rectifier power supply. This brings the total to: 4 - KT-88, 2 - 6SL7GT and 2 - 5V4/CV729 vacuum tubes to power your new SLA-88. Every SLA-88 amplifier is tested at its specified power input and output levels and should require a minimum of maintenance through years of operations. All amplifiers are burned in at the factory for a 48 hour period. This burn-in period will assure you of a trouble-free amplifier right out of the box.

The most exciting feature of the SLA-88, aside from how gorgeous it looks, is the delightful, sensual beauty of the music it recreates. The first thing that strikes you about your new SLA-88 is its incredible transparency and resolution of detail in the music. The SLA's sensual nature is best revealed in the sense of life it displays in female vocalists. This amp presents music with such presence and directness, you'll be drawn into the music hour after musically satisfying hour. This is the result of circuit techniques, which eliminate any discernable crossover notch at low levels, and also contributes to the freedom from listening fatigue. The SLA-88 will draw you in even further as you realize how lucid and utterly uncolored neutrality reveals delicate nuances in the sound stage.

## SPECIFICATIONS

Operating the SLA-88 stereo amplifier is a simple procedure since each unit is designed for long term stability in virtually any home operating situation. Therefore, if the unit is operated outside the parameters outlined in this owner's manual, damage may result. Please read this manual carefully before putting your new Cary Audio Design SLA-88 in operation.

The following definitions are applicable to this manual. These definitions must be followed explicitly.

### **WARNING**

**HAZARD PRESENTS PERSONAL INJURY OR DEATH**

### **Caution**

**EQUIPMENT DAMAGE MAY OCCUR BUT NOT PERSONAL INJURY**

### **Note**

Proper performance of the amplifier cannot be ensured if disregarded

## **1.2 Specifications for SLA-88**

The following section describes the SLA-88's basic specs. Specifications are subject to change without notice or obligation.

**DIMENSIONS:** 6"H x 13"W x 12"D

**WEIGHT:** 38 Lbs.

**CIRCUIT TYPE:** Push-Pull in Class AB

**POWER OUTPUT:** 1KHz sign wave  
14 volts RMS across 4 ohms=49 watts  
20 volts RMS across 8 ohms=50 watts

**INPUT SENSITIVITY:** 1.5 volts for full output

**INPUT IMPEDANCE:** 150,000 ohms

**NOISE AND HUM:** 80dB below rated output

**FREQUENCY RESPONSE** (at one watt output): 10Hz to 30,000Hz + 0 - 0.75dB  
(at full power output): 21Hz to 19,000Hz + .5 - 0.50dB

**TUBES:** 2-6SL7 predrivers, 4-KT-88 output tubes, 2-CV729 rectifier

**TRANSFORMERS:** 1-EI laminated core power transformer  
2-Tetrode output transformers  
100% duty cycle on all transformers

**RESISTORS:** 1% metal film

CAPACITORS: Polystyrene and polypropylene

POWER SUPPLY CAPACITORS: 2-1200 MFD @ 450VDC, 223 Joules

AC CORD: 3 conductor shielded-detachable

AC POWER REQUIREMENTS: 110 volts AC 50/60Hz  
250 watts operate  
117 volts AC 50/60 Hz  
250 watts operate  
220 volts AC 50/60 Hz  
250 watts operate

WARM-UP TIME: 3 minutes

BREAK-IN PERIOD: 100 hours of music playing time

FINISH: Nickel chrome plated stainless steel

### 1.3 Front Panel Features

AC-ON SWITCH: Turns AC power on in the "up" position

LED'S: RED indicates high voltage DC "on"

### 1.4 Rear Apron Features

INPUT: Signal input connection via shielded interconnect cable

OUTPUT: The 5-way binding posts provide the output to the speaker system. Red=+, Black=-

AC: 3 conductor shielded power cord to AC power mains

#### CAUTION

USE OF ANY OTHER PROTECTION FUSE CAN DAMAGE UNIT

FUSE: AC power fuse. Never replace with any other value than 3 AMP  
SLOW BLOW! 250 VOLT!

TUBE FUSE: This is an overcurrent protection fuse for the output tubes. Never replace with any other value than 1/2 AMP  
FAST BLOW! 250 VOLT!

GND: For "audio-purists" this should be connected to an earth ground rod via the shortest lead possible - this is not essential for proper operation. The earth ground will help insure immunity to RF interference and AC ground loops.

**CAUTION**

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

## INSTALLATION

This section describes the unpacking and installation procedures for the SLA-88 stereo amplifier.

**WARNING**  
**MAKE NO ATTEMPT TO PUT THE SLA-88 AMPLIFIER IN SERVICE**  
**WITHOUT THE BOTTOM PLATE ATTACHED - CONTACT WITH VOLTAGE**  
**IN THE SLA-88 CAN BE FATAL!!**

### 2.2 Unpacking

Carefully remove your new SLA-88 amplifier 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.

All shipping containers have been specifically 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.

### 2.3 Warranty Card

Fill out the enclosed warranty registration card and return to Cary Audio Design, Inc. within 10 days of original purchase. Keep your original sales slip with the packing cartons should you ever need it for reference. **Failure to register warranty will limit the warranty to one year.**

### 2.4 Amplifier Placement

In general, the location of your new SLA-88 amplifier is not critical. The best placement in your system is near the speaker system with short lengths of speaker cables. Certain precautions must be taken to ensure optimum performance. Avoid extremely hot locations such as near radiators or other heating units. Keep the top of the SLA-88 clear of books, paper or other equipment to protect against overheating.

## 2.5 Cables

The speaker cables from the output posts of the SLA-88 to the speaker system can be any convenient length your set-up requires. Select speaker cables of sufficient size to preserve the outstanding performance capabilities of your SLA-88. Heavy gauge #16 wire is suitable for distances up to 10 feet; #12 for 25 feet. Most audio dealers will have proper speaker cable in stock for this purpose.

## OPERATION

Signal input connections are made via the input jack on the rear of the SLA-88 located next to the output binding posts. The interconnect cables from the output of the preamplifier can be any convenient length your set-up requires. The choice of a high quality interconnect cable is important. Once again, your audio dealer will have the proper cables in stock for this purpose.

### 3.1 Operation

Your new SLA-88 is ready for operation after the speaker, interconnect cables and all the tubes have been installed. Refer to the tube outline drawing inserted in this manual for tube placement.

### 3.2 AC On Power Switch

Simply push the AC rocker switch up to the ON position. After about 30 seconds as the B+ high voltage comes up the Red LED will light if the stand by switch is in the UP position. Observe that all tubes are lit (filaments).

### 3.3 Break In Period

The tubes, capacitors and output transformers take approximately 100 hours of music playing to fully settle in for peak performance. The SLA-88 may seem sterile or thin sounding right out of the box. After the first couple of hours you will notice increased depth and tighter bass. This break in period defies all engineering theory, but is true with most audio amplifiers.

<p style="text-align: center;"><b>WARNING</b> <b>MAKE SURE AMPLIFIER IS UNPLUGGED FROM AC MAINS</b> <b>FOR ANY SERVICE OR CLEANING!</b></p>
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## SERVICE AND CARE

### 4.1 SLA-88 Care and Cleaning

The chassis of the SLA-88 may be cleaned with a soft rag and Windex (or a similar window cleaner). The frequency of cleaning will be governed by how many hours the SLA-88 is operated and by operating environmental cleanliness.

### 4.2 Tube Replacement

If it becomes necessary to replace the tubes in the SLA-88 amplifier, a matched set of tubes of the same brand should be used. A new tube kit is available from Cary Audio Design, Inc. You should get year's from the output tubes with everyday usage and many, many years of use from the 6SL7 input tubes and CV729 rectifier tubes.

### 4.3 Service

Careful consideration has been given to the design of your SLA-88 amplifier 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 ACE Audio Service Department.

#### WARNINGS

**MAKE NO ATTEMPT TO PUT THE SLA-88 IN SERVICE OUTSIDE OF THE CABINET. CONTACT WITH HIGH VOLTAGES FOUND IN THE UNIT CAN BE FATAL!!!**

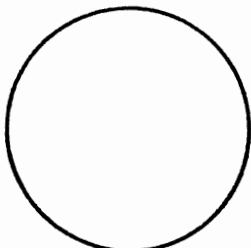
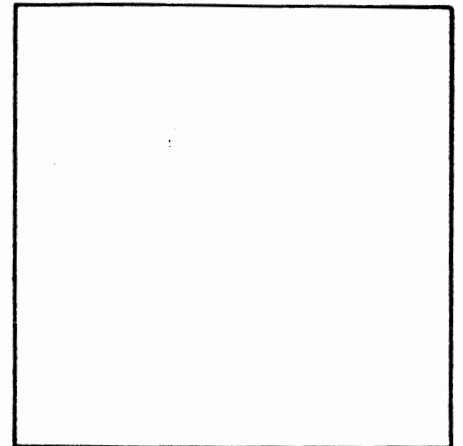
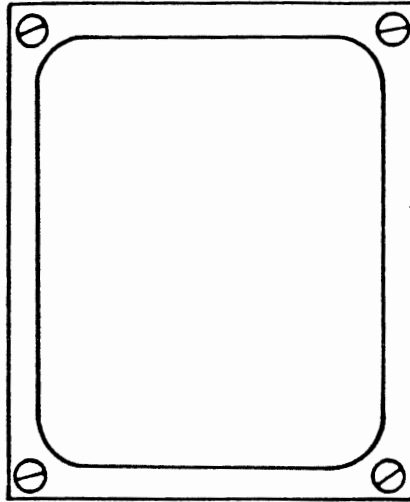
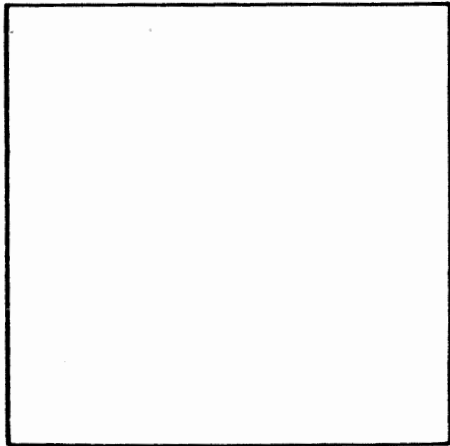
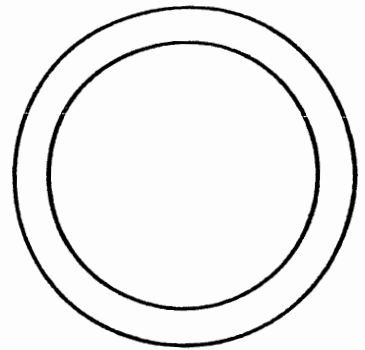
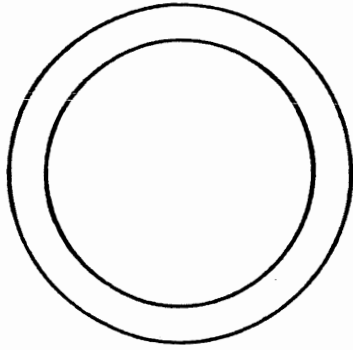
**COMPLETELY REMOVE AC POWER PLUG FROM THE WALL AND ALLOW 30 MINUTES FOR THE HIGH VOLTAGE CAPACITORS TO DISCHARGE THROUGH BLEEDER RESISTORS BEFORE ATTEMPTING TO CHANGE TUBES OR CLEAN THE INSIDE OF THE AMPLIFIER.**

#### CAUTIONS

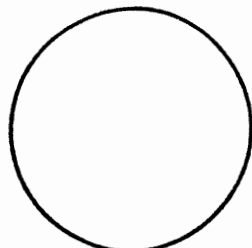
**NEVER REMOVE/INSERT AC PLUG WHEN THE UNIT IS ON OR THE AC POWER SWITCH IS IN THE "ON" POSITION.**

**OBSTRUCTION OF THE TOP PORTION OF THE SLA-88 WILL RESULT IN TUBES OVERHEATING.**

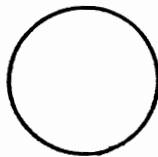
**\*\*\*OBSERVE DIRECTIONS IN THIS MANUAL\*\*\***



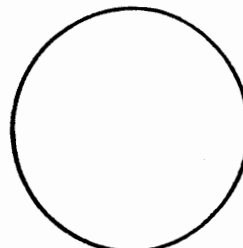
KT 88



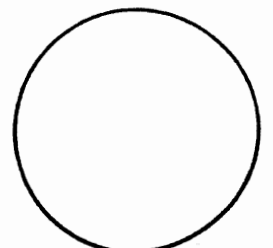
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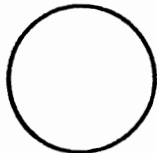
CV729



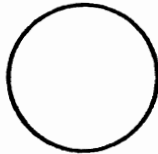
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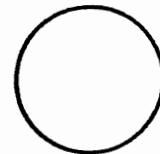
KT 88



6SL7



CV729



6SL7

SLA \_\_\_\_\_  
SR # \_\_\_\_\_

**CARY**  
*Audio Design*  
INC