

CAD-805

SIGNATURE

Single-Ended, Mono Block Amplifier

OPERATING MANUAL

Before installing your new CAD-805, please read this manual carefully as it will inform you of the CAD-805's specifications, proper installation and operation procedures. Also included in this manual are guidelines on how to properly service and care for your new CAD-805.

SPECIFICATIONS

Operating the CAD-805 mono-block 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 operating your new CAD-805 amplifier.

1.1 Caution Terms

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 to equipment.

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

1.2 Specifications

This section describes the basic specifications of the CAD-805 at the time of printing. Specifications are subject to change without notice or obligation.

POWER OUTPUT: 50W Class A, Single-Ended

FEEDBACK: Zero

FREQUENCY RESPONSE: 20 to 20 kHz \pm .5dB

DIMENSIONS: 10"H x 12-1/4"W x 24"D

INPUT POWER REQUIREMENTS: 100, 110, 117, 220, 240, / 50-60Hz

NET WEIGHT: 80 lbs.

POWER CONSUMPTION: 230 watts - OPERATE, 76 watts - STANDBY

SHIPPING WEIGHT: 105 lbs.

INPUT IMPEDANCE: 150,000 ohms

OUTPUT IMPEDANCE: 4, 8 and 16 ohms

NOISE: 80dB below rated output

SENSITIVITY: .75 volt for full output

COUPLING CAPACITORS: oil filled

POWER SUPPLY CAPACITORS: 4-1500 MFD @ 450V

TRANSFORMERS: 1-EI laminated core power transformer
1-special air-gap output transformer
200% duty cycle on all transformers

TUBE COMPLIMENT: 2-6SN7 per mono-block
1-300B per mono-block
1-211 per mono-block

WARM-UP TIME: 5 minutes

BREAK-IN PERIOD: 100 hours of music playing time

FINISH: textured black

AC CORD: 3 conductor shielded and detachable

1.3 Front Panel Features

EYE TUBE: Indicates approximate power output. When the eye is completely closed the amplifier is at full output.

1.4 Top Panel Features

OFF-ON ROCKER SWITCH: Turns AC power on in the rear position. All filaments should light at this point.

STAND BY SWITCH: Turns high voltage for the 211 on in the rear position.

FEEDBACK LEVEL: Adjusts the level of feedback from 0 to 10dB

FEEDBACK OUTPUT: Selects output for feedback when feedback level is above zero. This should be set on the output in use 4,8 or 16 ohm.

The feedback output and level controls are non-functional in the signature model. The design was intended to be purely zero feedback.

1.5 Rear Apron Features

INPUT: Signal input connection via shielded interconnect cable

OUTPUT: Three 5-way copper binding posts provide output to the speaker system (4, 8 or 16 ohm).

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

TUBE FUSE: Never replace with any other fuse than 1/2 amp FAST BLOW!

INSTALLATION

This section describes the unpacking and installation procedures for the CAD-805 amplifier.

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 CAD-805 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 it to Cary Audio Design within 10 days of your purchase. Cary Audio Design 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 CAD-805 Placement

The CAD-805 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 CAD-805 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 speaker cables from the output posts of the CAD-805 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 CAD-805. 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.

2.6 Interconnects

Signal input connect is made via the input jack on the rear of the CAD-805 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.

OPERATION

Your new CAD-805 is ready for operation after the speaker, interconnect cables and three tubes have been installed. See pages 8 and 9 for tube positions. **FAILURE TO INSTALL TUBES CORRECTLY WILL DAMAGE THE UNIT.**

3.1 Off-On Power Switch

Simply push the AC rocker switch toward the rear of the "ON" position. All of the tubes will light.

3.2 Stand-By Switch

Push the switch toward the rear of the unit to operate. The high voltage will come up and the eye tube will light. Warming up the tubes before applying high voltage will extend the life of the tubes over a long period of time.

3.3 Bias Adjustment

The bias adjustment at the rear of the chassis is for the 300B tube only. It is factory preset, but it is recommended to check when units are first installed or when installing new 300B's.

3.4 Break In Period

The tubes, capacitors and output transformers take approximately 100 hours of music playing to fully settle in for peak performance. The CAD-805s 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.

SERVICE AND CARE

The CAD-805 chassis may be cleaned with a soft towel and Windex® (or a similar window cleaner). The frequency of cleaning will be governed by the number of hours the CAD-805 is operated and by operating environmental cleanliness.

4.1 Tube Replacement

If it becomes necessary to replace the tubes in the CAD-805, the same brand should be used. A new tube kit is available from Cary Audio Design. Although tube life varies depending on the nature and degree of use. Under normal operating condition for home use, the 211 output tube and the 300B driver tube should last many years in the CAD-805. The 6SN7 input tubes should last even longer.

WARNING

Make sure amplifier is unplugged from AC mains

4.2 Factory Service

Careful consideration has been given to the design of your CAD-805 to keep maintenance problems to a minimum; however, it is possible that some problems may arise which cannot be cured by tube substitution. After reading the Troubleshooting Guide at the end of this manual, 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 CAD-805 to the factory without a Return Authorization Number from the Customer Service Department.** Cary Audio Design 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 will provide repair service for its products charging on a time and expense basis for the repairs.

WARNINGS

Make no attempt to put the CAD-805 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 to the preamplifier.

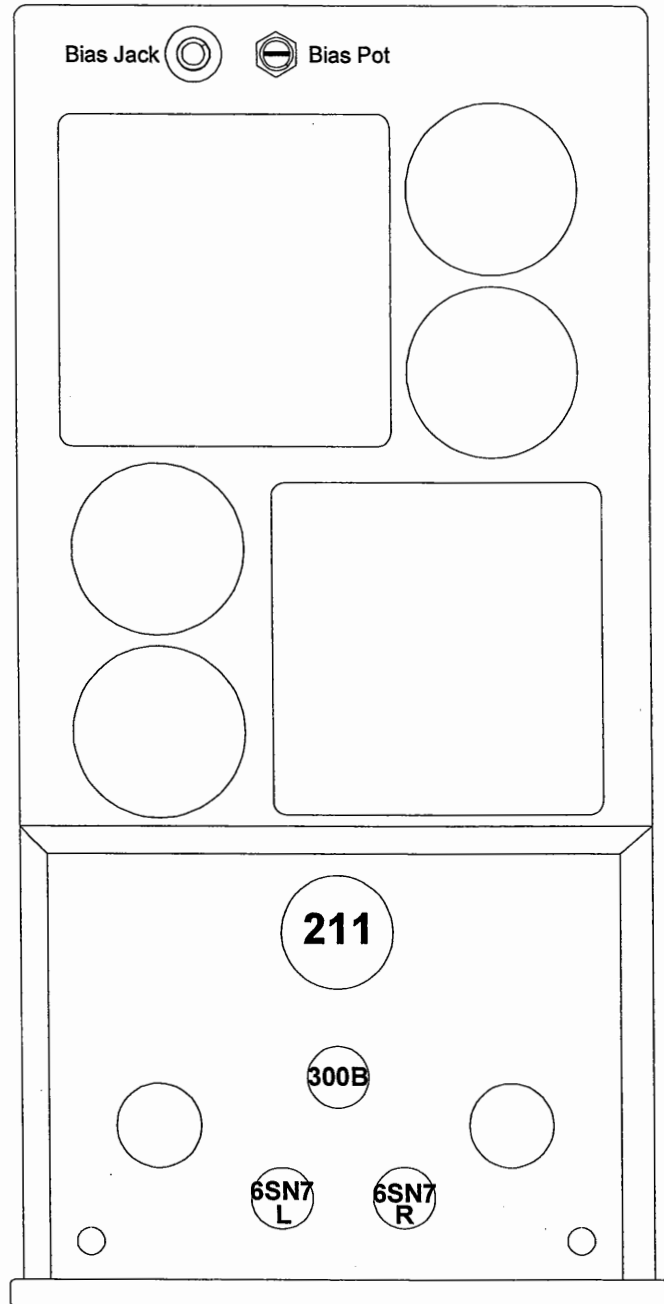
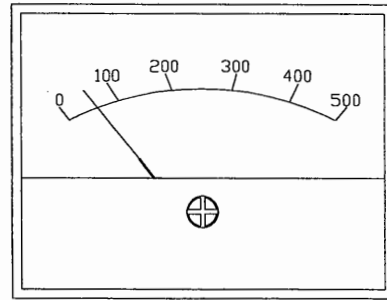
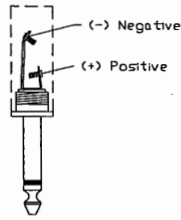
CAUTIONS

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 CAD-805 will result in tubes overheating

PROPRIETARY RIGHTS: Cary Audio Design has proprietary right 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 its intended purpose, use of the unit for copying, imitation, or reverse engineering is a violation of these proprietary rights and is forbidden.

CAD - 805 Signature Bias Adjustment



Insert meter plug into bias jack.
Adjust for 60mA reading on VOM or DC current meter.
Readjust to 60mA after after 805 is warmed up for
10 minutes. Remove plug and enjoy the music!

Note: Bias is factory preset; Bias should be reset when installing replacement 300B tubes.

300B
TUBE

THIS SIDE OF TUBE
CHIMNEY SHOULD FACE
TO THE FRONT

PRINT SHOULD FACE
TO THE FRONT

LARGE PINS TO
LARGE HOLES IN
SOCKET FRONT

300 B

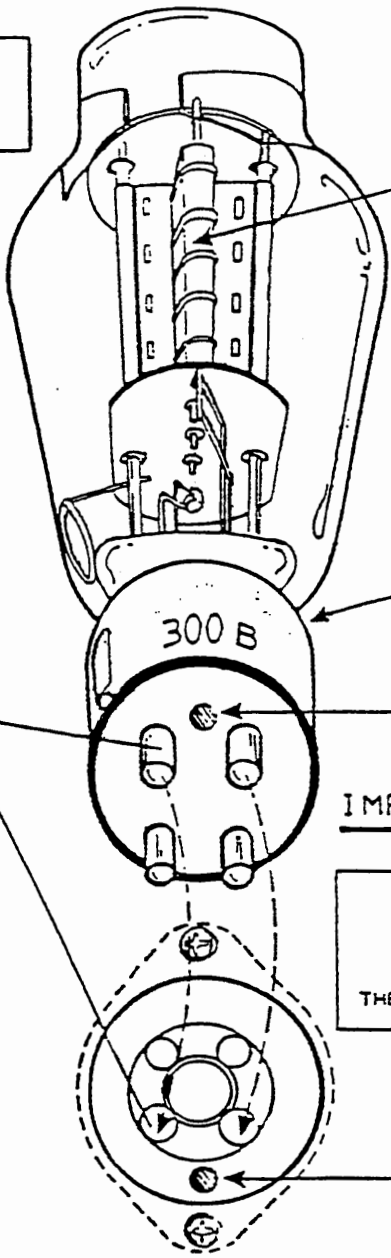
RED DOT INDICATES
LARGE PINS ON TUBE

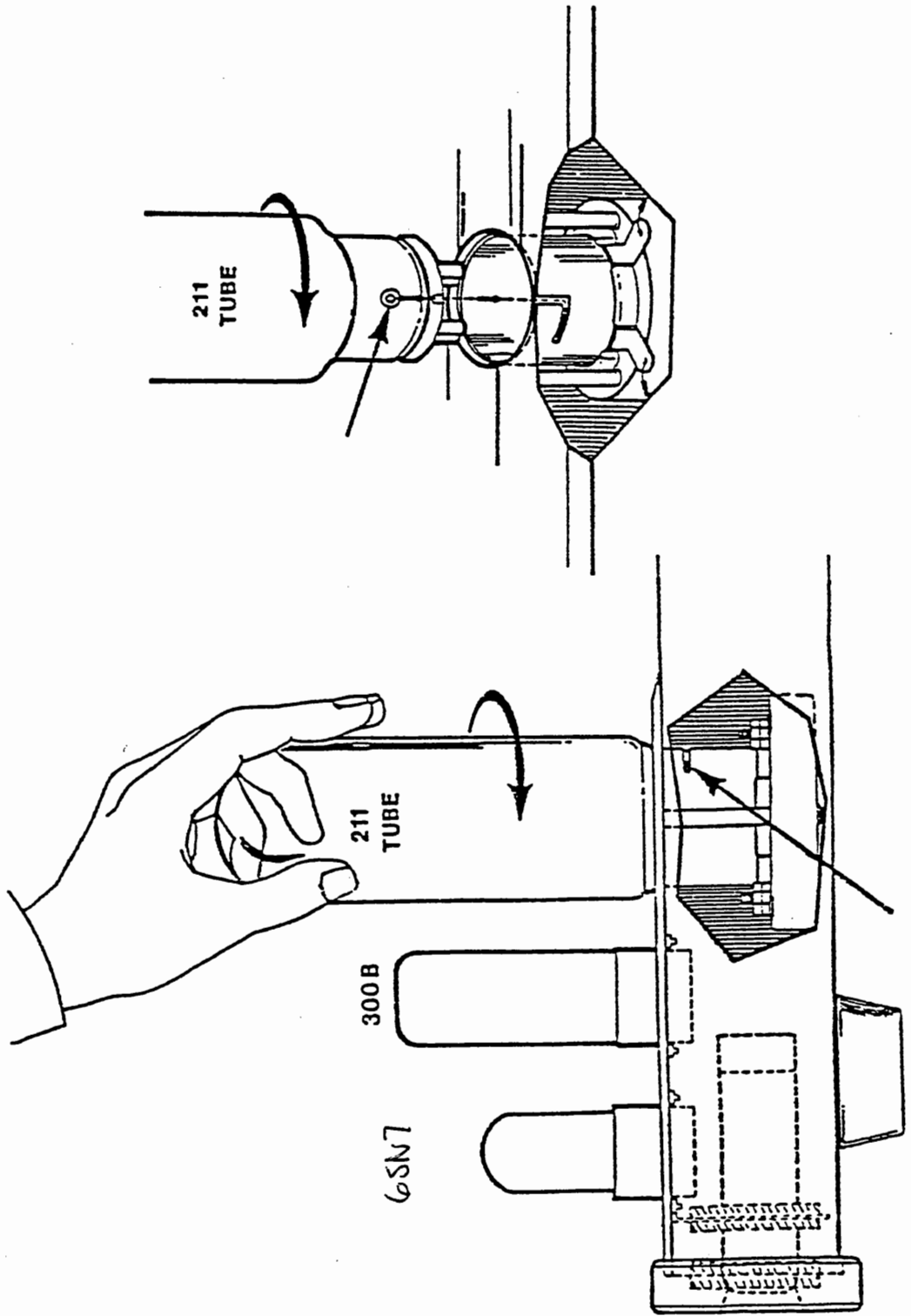
IMPORTANT! IMPORTANT!

THE TWO LARGE PINS ON THE BASE
OF THE 300B TUBES MUST FACE
THE FRONT OF THE CAD-300 AMPLIFIER!!

RED DOT INDICATES
LARGE HOLES LOCATION
AND SOCKET-FRONT SIDE

AMPLIFIER FRONT





CAD-805 TROUBLESHOOTING GUIDE

SYMPTOM	CAUSE	REMEDY
Hum or "Buzzing" through speakers	<ul style="list-style-type: none"> - Ground loop - 300B tube with high plate current - Intermittant or poor connection of interconnect ground 	<ul style="list-style-type: none"> - Install 2-pin adapter on A.C. cord to float the ground. - Check bias of 300B. If high, readjust to proper bias setting. - Replace interconnect.
"Popping or "Spitting" noise through the speaker	<ul style="list-style-type: none"> - Noisy tube 	<ul style="list-style-type: none"> - If noise is in one channel, swap one section of tubes at a time until the noise swaps channels. Replace noisy tube. - Check bias of output tubes. If high or fluctuating rapidly, replace output tube.
AC fuse blows	<ul style="list-style-type: none"> - Line voltage surge 	<ul style="list-style-type: none"> - Replace fuse.
Tube fuse blows	<ul style="list-style-type: none"> - Shorted 211 tube 	<ul style="list-style-type: none"> - Replace tube.

NOTES

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 or an authorized Cary Audio Design 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 Designs as soon as possible after the discovery of a possible defect:
 - (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 Designs 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 this product. Therefore, carefully read the Instruction Manual. This warranty does not apply to any defect that Cary Audio Design 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 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. Under no circumstances is Cary Audio Design liable for incidental or consequential damages. Any implied warranties imposed by law terminate one (1) year from the date of purchase.

FOREIGN PURCHASERS

Cary Audio Design 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'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.