

CANARY AUDIO®

300B Push-Pull Parallel Mono Block
Power Amplifier

Handcrafted in California

CA-309

OWNER'S MANUAL

MADE IN USA

Dear Customer:

Please allow us to take this opportunity to thank you for purchasing this CANARY AUDIO product.

We strongly recommend that you carefully study the Safety Instructions before attempting to operate the unit.

After you have finished reading the instructions, please save this manual for future reference.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE.

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.



The lightning flash with arrowhead symbol is intended to alert the user of the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

SAFETY INSTRUCTIONS

Power Source:

- The unit should be connected to an AC power source of the proper rated voltage.
- Never replace the power supply's line fuse with the one of incorrect characteristics.

AC Cord Protection:

- Do not defeat the grounding or polarization feature of the AC cord.
- Make sure that the AC receptacle holds the AC cord plug firmly and securely.
- Keep the AC cord away from heating appliances.
- Never put heavy object on the AC cord.
- If smoke, malodors or noises are emitted from the unit, turn the power off and disconnect the AC cord.

Placement:

- Do not place the unit near a heating device or in a location where it is exposed to direct sunlight.
- Do not place the unit in an excessively humid or dusty location.
- Avoid placing the unit in the areas of vibration, impact or where the surface is tilted as the internal parts may be seriously damaged.
- Avoid placing the unit next to kitchen counters or other locations where it is subjected to oily fumes.

Keep Away from Water and Moisture:

- This unit should not be used near water.
- Keep the unit away from flower vases, bathtubs, washbowls, kitchen sinks, laundry tubs, swimming pools, etc. If liquids are spilled into the unit, serious damage could occur.

Ventilation:

- Slots and openings in the chassis and in the back or bottom are provided for necessary ventilation.
- Do not place a cloth on top of the unit or block the provided ventilation slots and openings in any other way.
- Do not place the unit on a bed, sofa, rug or other similar surface which may block the slots and openings.
- Do not place the unit in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.

Non-Use Periods:

- When left unused for a long period of time, the unit should be unplugged from the AC outlet.

PROPER CARE

Bias Settings:

- When replacing the 300B vacuum tubes, you must adjust the bias settings of the amplifier to account for the new tubes. These adjustments best performed by your Canary Audio dealer as an incorrect bias setting can cause damages to the tube and to the amplifier.

Break-in Period:

- As with most audio components, the CA-309 requires a “break-in” period. During this period the internal components will stabilize and reach their normal operating parameters. There are no special procedures required for this break-in period, just listening to your favorite music will accomplish this task all by itself.
- The time required to break in the CA-309 is approximately 30 to 50 hours. Upon completion of the break-in period you will hear an improvement in the overall sound quality of the amplifier.

Stacking:

- Place the unit in a horizontal position, and do not place anything heavy on it.
- Do not place the unit on any other equipment which may become hot.

No Fingers or Other Foreign Objects:

- Touching internal parts of this unit is dangerous and may cause serious damage to the unit. Do not attempt to disassemble the unit.
- Do not put any foreign object into the unit through the ventilation slots and openings.

Cleaning:

- A regular dusting with a soft, non-abrasive cloth will generally keep the finish of the faceplate and chassis looking like new.

Packing Materials:

- The original packing materials and shipping boxes are custom designed to prevent shipping damage from occurring.
- We recommend that you retain all of the packing materials and shipping boxes for your CA-309 to be covered by warranty.

Registration Card:

- To ensure that your CA-309 is registered, please spend a moment now to complete and return the Registration Card.
- Save a copy of the Registration Card and the bill of sale as proof of purchase for future reference.

INSTALLING THE TUBES

Be sure the amplifier is OFF before installing any tubes.

Avoid touching the tubes with bare hands to prevent skin oils from depositing on the glass surface of the tubes.

Insert each tube in the corresponding socket. Refer to Diagram 1.1 for further clarification.

The 6SN7 tubes are inserted into sockets designated as V5 and V6. Align the center key of the tube base with the slot in the center of the socket. Carefully push down the tube into the socket with a gentle rocking motion until it is firmly seated.

The 5U4GB tubes are inserted into sockets designated as V7 and V8. Align the center key of the tube base with the slot in the center of the socket. Carefully push down the tube into the socket with a gentle rocking motion until it is firmly seated.

The 300B tubes are inserted into sockets designated as V1 to V4. Pay extra attention to the tube pins and socket holes for these tubes. Identify the two larger pins and align the pins with the two larger holes on the socket. Carefully push down the tube into the socket with a gentle rocking motion until it is firmly seated.

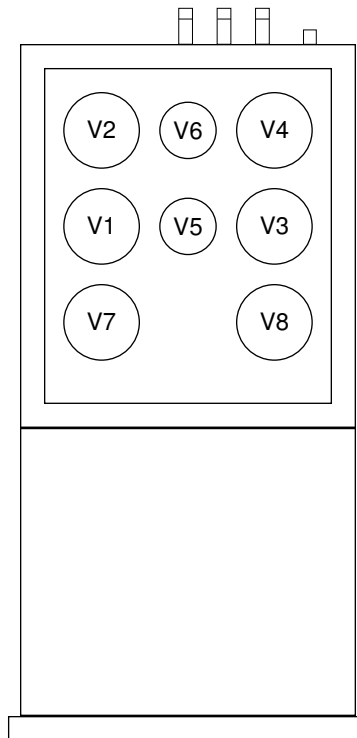


Diagram 1.1 Overview of CA-309

TUBE BIASING

Bias voltage applied to the grids of the power tubes in the output stage should be checked from time to time to keep these tubes operation at the optimum operating point. A properly biased power tube will have a longer life.

To check and adjust the bias voltage of the 300B tubes, simply follow the following procedures.

Tools Required:

Digital Multimeter
Long-handled slotted screwdriver

Procedures:

1. Making sure that the power switch is in the OFF position.
2. Install all the tubes to the corresponding sockets using a gentle rocking motion. (See "Installing the Tubes" section for detail information on installing the tubes.)
3. Connect your speaker leads, input cable and power cord to each amplifier.
4. Turn ON the amplifier.
5. Turn on the multimeter. Select the section for measuring up to DC 20V. Attach and secure the negative test lead to the chassis or to the binding post.
6. Insert the positive test lead into the bias test point marked as "300B - 1".
7. Carefully insert a long-handled slotted screwdriver into the bias adjustment pot marked as "1". Slowly rotate the screwdriver to adjust the bias voltage until it reaches 0.55V.
8. Repeat steps 6 and 7 to adjust the bias voltage for the three remaining 300B tubes in the same fashion as biasing 300B - 1. Using bias test points marked as "300B - 2, 300B - 3 and 300B - 4" for measuring, and bias adjustment pot marked as "2, 3 and 4" for adjusting. You will need to go back and forth a few times until all four 300B tubes are properly biased.
9. Once you have finished biasing all four 300B tubes, wait a few minutes and recheck the settings again.
10. Repeat these procedures to adjust the bias voltage for the 300B tubes on the other channel of the amplifier.
11. The CA-309 mono blocks power amplifier is now ready to use.

SPECIFICATIONS

Model:	CA-309
Rated Power Output:	45 Watts RMS
Input Sensitivity:	0.72 Volts for full output
Input Impedance:	150,000 Ohms
Frequency Response:	+/- 1 dB from 8 Hz to 80,000 Hz
Total Harmonic Distortion:	< 0.3%
Signal-to-Noise ratio:	-86 dB below 1 Watt
Damping Factor:	14
Power Consumption:	340 Watts (true RMS)
Output Impedance:	4, 8 Ohm
Tube Complement (per channel):	4-300B, 2-6SN7GTB, 2-5U4GB
Dimensions (per channel):	12" W x 24.5" D x 9" H
Weight (per channel):	70 lbs.

Note:

Specifications are subject to change without notice. Weight and dimensions are approximate.

LIMITED WARRANTY

Canary Audio warrants to the original purchaser that each CA-309 power amplifier is free of manufacturing defects for a period of three (3) years from the date of purchase. To receive this warranty, the original purchaser must complete the enclosed Warranty Registration Card and mail it to Canary Audio within thirty (30) days from the date of purchase. Canary Audio will then validate the warranty to the original purchaser.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse or negligence. This warranty does not cover damage due to improper operation or maintenance, use with incompatible accessory, connection to improper voltage supply, or attempted repair, modify or upgrade by anyone other than Canary Audio or a facility authorized by Canary Audio. This warranty does not cover any damages to the vacuum tubes and does not cover normal maintenance.

Canary Audio shall not be responsible in any way for consequential or indirect damages or liabilities resulting from the use and operation of the product covered herein or resulting from any breach of this warranty or any implied warranty relating to said product. Under no circumstances does Canary Audio assume liability or responsibility for injury or damages sustained in the use or operation of this equipment or for damages to any other equipment connected to it.

During this stated period, Canary Audio will repair or replace any defective components free of charge. A Return Authorization Number (RA Number) is required before any product is returned to our factory for any reason. This number must be visible on the exterior of the shipping container(s).

Units to be repaired by Canary Audio must be sent shipping and insurance prepaid by the original purchaser in the original packing material. Canary Audio will accept no responsibility for any damage occurring to the unit that is shipped in packing material other than the original packing material. A written description of the defect and a copy of the original bill of sale should be accompanied with the returned product.

This warranty applies only to the first end-user purchaser of a CA-309 power amplifier that is purchased and used in the United States of America and is not valid for subsequent purchasers. All other warranties or conditions either written or implied are void.

Canary Audio

P.O. Box 6216, Rosemead, CA 91770, USA

Telephone: (626)500-6261

[Http://www.canaryaudio.com](http://www.canaryaudio.com)