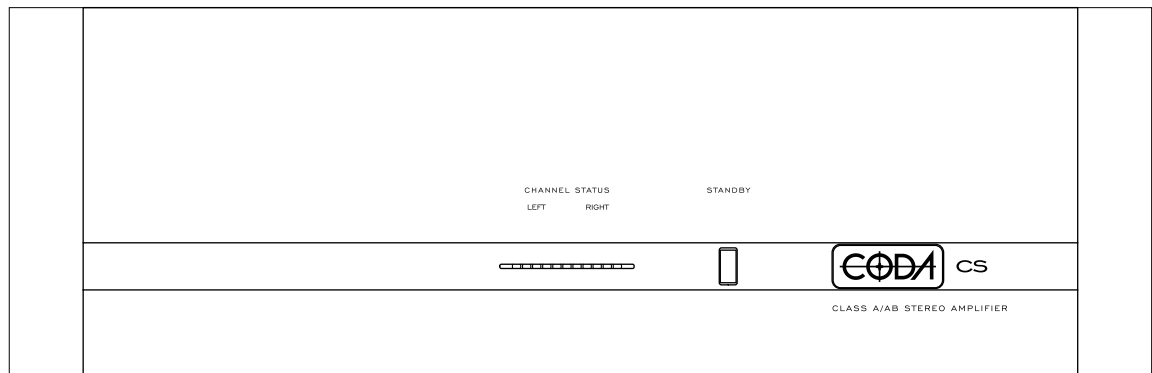






TECHNOLOGIES INC.

# Amplifier CS OPERATION MANUAL



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<b>CAUTION</b>		
	<b>WARNING</b>	
<b>CAUTION:</b> TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		
	THIS SYMBOL IS TO ALERT YOU OF THE PRESENCE OF UNINSULATED DANGEROUS VOLTAGE WITHIN THE UNIT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.	
	THIS SYMBOL IS INTENDED TO ALERT YOU OF THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE UNIT.	

**WARNING:** TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. TO AVOID ELECTRICAL SHOCK, DO NOT OPEN THE UNIT. REFER SERVICING TO QUALIFIED PERSONNEL.

- CAUTION** - Never install or remove the power cord from the chassis unless it has been disconnected from the AC power source first.
- Never pull on the power cord when removing it from an AC power source. Grasp it by the plug.
  - Do not leave the power cord connected to an AC power source unless it is connected to the unit.
  - It is recommend that during extended periods of nonuse that the units power cord be unplugged from its AC power source.
  - Route the AC power cord so that it will not be damaged or walked on.

This amplifier is a precision device, designed in an effort to provide the listener with unmatched sound quality, design, and construction. In order to operate your amplifier properly and to realize all of the capabilities of the AMPLIFIER CS, we recommend that you read this entire manual carefully.

The Coda CS/C300 amplifier is designed with the same level of thoroughness usually reserved for the finest amplifier gain stages. Balanced interconnections are provided to take advantage of their greater noise rejection they provide. Differential voltage gain throughout provides exceptional rejection of external noise and contributes to the inherent DC stability of the circuit. This allows direct coupling at the Balanced Inputs without servo circuitry. The unit also uses output followers operating without feedback.

The front end is designed to provide a slew rate of 50 V/us without entering Class B operation as is common in many other designs. This combined with excellent high frequency design insures linear operation at high speed. The supplies take a very direct approach to high performance. A top quality 2000VA toroidal transformer with independent rectifiers and about 80,000 uf of total capacitance with very low ESR and inductance is used.

The current stage is capable of producing peak currents in excess of 100 peak Amperes with a degree of linearity and speed which is not matched by other designs when producing only a fraction of of this current. This is achieved by the implementation of several distinct circuit features.

Each channel uses 18 individual output transistors with a combined power rating of 3600 Watts and 75 Amps with a bandwidth of 10 Mhz.

The bias section is designed to produce a precision transition with no abrupt changes in distortion or output impedance. This "Precision Bias" technique yields seamless performance regardless of the complexity of the load impedance. With such linearity and bandwidth no overall feedback correction is used. One advantage of this is a high degree of immunity from interactions with complex speaker loads or cables.

## I. Source-Output, Power Connections and Controls

The connectors and controls are clearly marked on the back panel of the AMPLIFIER CS. Note the correct left or right channel orientation. The function and channel markings on the rear panel correspond to the front panel controls and their signal paths.

1.The UNBALANCED OR BALANCED inputs should be attached to the appropriate unbalanced OR balanced outputs of a preamplifier either directly or through a crossover or processor, as appropriate to the application. Only one input may be used.

2.The LEFT OUTPUT, RIGHT OUTPUT should be attached to the left and right speakers.  
**NOTE: THERE ARE NO OUTPUT FUSES SO AS TO INSURE A LOW OUTPUT IMPEDANCE. SPEAKER PROTECTION IS LEFT TO THE SPEAKER MANUFACTURER AS THEY WOULD BEST KNOW HOW TO PROTECT THEIR SPEAKER.**

3. The MAIN POWER switch, once all appropriate connections are made, may be left on as the AMPLIFIER CS draws a negligible amount of current when the BIAS is turned off.

4.The FUSE AND VOLTAGE SELECTOR houses a 5 X 20 slow blow fuse and voltage selector cartridge. Should the fuse blow, contact a Coda dealer or call Coda directly. When changing the fuse, or altering the voltage selection be sure this unit is disconnected from its AC power source.

5.The AC LINE INPUT should be attached to the power cable provided with the amplifier. After making the appropriate connections insert the three prong safety plug into an appropriate AC power source. Once the AMPLIFIER CS is properly connected, the power switch may be turned on and the led on the front panel will light indicating a ready state.

## II. Front Panel Control Functions and Indicators

1. The STANDBY button turns on the amplifier on and off.

2. The 2 LEDs on in the center of the front panel indicate the amplifier is on and that each channel's power supply is working correctly.

The interior of the unit requires no special care. If it becomes necessary to clean the exterior, a simple dusting may be all that is required. If a cleaner is necessary, any dilute commercial ammonia based product will be appropriate. NEVER use any abrasive rags, cleaners or chemical solvents on Coda products.

When handling the unit, take care not to mar the aluminum. Aluminum is a medium hardness metal and can be scratched by the harder tool steels.

Avoid exposing the unit to direct sunlight, and keep it away from sources of intense heat.

Do not throw away the carton or associated packing material. They are ideal if you need to pack the unit for moving and in the unlikely event that servicing is needed, they will be necessary for safe shipment.

Be sure to provide adequate insurance when shipping.

**RATED POWER**

300 Watts/channel, 20Hz to 20kHz, both channels driven into 8 Ohms

600 Watts/channel, 20Hz to 20kHz, both channels driven into 4 Ohms

**BANDWIDTH**

DC or -3dB at 5 Hz through 100kHz depending on input

**DISTORTION**

Less than .05% from 10Hz to 20kHz at 220 Watts both channels driven into 2 through 8 Ohms

**GAIN**

26dB

**CURRENT CAPABILITY**

100 Amperes peak per channel

**SLEW RATE**

50 Volts/microsecond

**INPUT IMPEDANCE**

50k Ohms unbalanced/1k Ohms balanced

**OUTPUT IMPEDANCE**

.08 Ohms from 20Hz to 20kHz

**NOISE**

More than 110dB referenced to rated output

**POWER SUPPLY**

2,000VA toroidal transformer with independent rectifiers and 80,000 uF of capacitance

**DIMENSIONS**

Faceplate: 17 inches wide by 5.5 inches tall

Chassis: 16.75 inches wide by 6 inches tall by 14 inches deep

**WEIGHT**

55 lbs

# WARRANTY

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I. Warranty- Any failure of Coda products to operate or to meet specifications, applicable at time of manufacture, due to a manufacturing defect or component failure, will be corrected by Coda Technologies, Inc. without charge for parts, or labor for a period of **ten years** from date of original purchase. Coda Technologies, Inc. will provide for surface transportation to the Coda factory from an authorized Coda Technologies, Inc. authorized dealer for a period of one year from date of purchase.

Maximum term for any warranty claim shall be **ten years** from date of original sale, or 11 years from date of manufacture, whichever is shorter. Date of manufacture shall only be defined only manufacture date imbedded in serial number of product.

Warranty shall be transferrable for a period of five years from the date of purchase. Subsequent owners are required to provide proof of sale/transfer from the original owner. Original owner may transfer warranty for the entire period of the warranty. Coda Technologies reserves the right to make the final determination as to validity of warranty claims in cases where ownership or manufacture date is not clear and substantiated in writing.

II. Procedure- If the product should require service under warranty, take it with proof of purchase date, with its carton and packing material, to a Coda Technologies, Inc. dealer. The dealer will arrange for service. Direct shipments to the factory will be not be accepted without advance written authorization (RMA). Coda products purchased outside of the U.S. will be covered by those warranty conditions extended by the importing distributor which may differ in some respects from those given above. Warranty service, if required, is the responsibility of the importing distributor. If a Coda Technologies, Inc. product is removed from the country of original purchase, Coda Technologies, Inc. distributors or dealers are not obligated by the conditions of this warranty and repairs will be affected at their discretion.

III. Exclusion of Coverage- At the sole opinion of Coda Technologies, Inc. the following situations are specifically excluded from coverage:

1. Any product not operated in accordance with the instructions contained in this manual, or otherwise subjected to abuse, tampering, modification, accidental damage, or serial number defacement.
2. Damage to other property caused by any defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss, or any other damage whether incidental, consequential, or otherwise.
3. It is Coda Technologies, Inc. policy to extend coverage when reasonable doubt exist; however, freight and diagnostic charges will be billed for any units returned under warranty and found by the company to be operating according to specification.

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

Coda Technologies, Inc. continually researches new techniques, designs, and construction methods and so reserves the right to introduce refinements into current product lines without notice or obligation. The company may offer product modifications to make these refinements available to earlier production units.



# WARRANTY REGISTRATION

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Fill in and retain this copy of the warranty registration sheet for your records .  
To validate your registration, please call, mail, email, or FAX a copy of this registration to Coda at 916.386.8296 within 30 days of date of purchase. Please include proof of purchase with your submission.

**MODEL DESIGNATION:** \_\_\_\_\_

**SERIAL NUMBER:** \_\_\_\_\_

**DATE OF PURCHASE:** \_\_\_\_\_

**PLACE OF PURCHASE**

Dealer: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

**PURCHASER**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

**NOTES:** \_\_\_\_\_  
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Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

**PURCHASER**

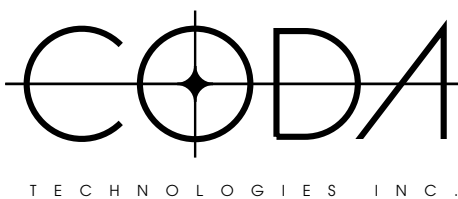
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Phone: \_\_\_\_\_

**NOTES:** \_\_\_\_\_  
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