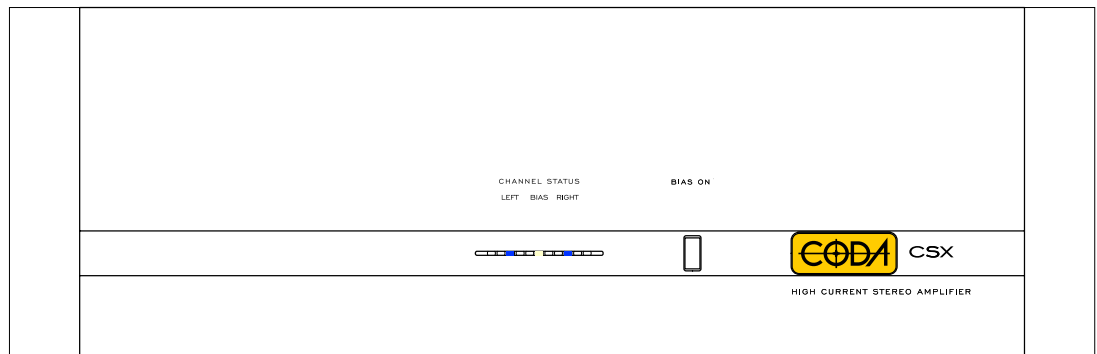






T E C H N O L O G I E S I N C .

# Stereo Amplifier **CSX**

## 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 CSX, we recommend that you read this entire manual carefully.

In early 2004, development began on the long awaited successor to the Stage 3 Amplifier. Our design goals were nothing less than improvements in sonics and industrial design sufficient to raise this product series up into the more prestigious and well known "Coda" product line. At about the same time, another well-known audio manufacturer commissioned Coda to develop a cost-no-object reference monoblock amplifier and reference preamplifier.

During this extensive 2 year development process, many new components and design enhancements were measured and subjectively evaluated on an exhaustive scale. It was during this process of experimentation that it became clear that judicious use of extreme high quality component parts and techniques could extract even greater performance out of our current designs. The resultant design evolution brought a quantum improvement in timbre and resolution to the entire component line. This was the genesis of the new **Coda "X" series...** the Monoblock Amplifier **CX**, Preamplifier **CLX**, and Stereo Amplifier **CSX**.

The **Coda Amplifier CSX** features a wide range of design topologies and components ported from the both the the broad lineage and the most recent advances in the Coda products and design topologies, which include:

- HIGH CURRENT DESIGN IDENTICAL TO THE AMPLIFIER CX · NEW VMOSFET VOLTAGE GAIN STAGE
- TRUE STANDBY MODE TURNS OUTPUT STAGE BIAS CURRENT ON AND OFF FROM THE FRONT PANEL.
- COMPONENT UPGRADES TO HARDWARE AND COMPONENT PARTS, INCLUDING Mills Custom Copper-Nickel Alloy Wirewound Emitter Resistors, IXYS High Speed Rectifiers, Black Gate and RelCap capacitors, Vishay Resistors, WBT Signature Gold Binding Posts, WBT or Vampire OFC RCA connectors, etc. · 3.0 kVA ENCLOSED TORIODAL TRANSFORMER · GOLD PLATED CIRCUIT BOARDS

The **CSX** is a stereo version of the Monoblock CX, which was originally based on the design and form factor of the Amplifier CS. The CSX design is identical to the Amplifier CX, except that the 36 output devices are split between the 2 channels of the **CSX** amplifier. The power supplies take a very direct approach to high performance. A custom 3.0kVA encased, shielded toroidal transformer with independent windings and IXYS high speed rectifiers and a total of 80,000uf supply capacitance with very low ESR and inductance is used.

Differential JFET inputs and a new Vertical MOSFET voltage gain stage provide exceptional rejection of noise and contributes to the inherent DC stability of the circuit. This allows direct coupling at the Balanced Input without servo circuitry. 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. The amplifier's excellent high frequency design insures superlative linear operation.

This latest generation Coda output stage design is capable of producing peak currents in excess of 125 peak Amperes with a degree of linearity and speed which is not matched by other designs when producing only a fraction of this massive amount of current. 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, only 6db of feedback is used to maintain damping factor while permitting the minimal value custom emitter resistors to provide current limiting only under such extreme conditions that would exceed the output stages high current capabilities. One advantage of this is a high degree of immunity from interactions with complex speaker loads or cables.

The sonic and aesthetic value of the **CSX** verses the **CS** amplifier is unquestionable. As a complement to the **CX**, **CLX**, or **05X**, the **X** components provide a rare sonic synergy and represent some of our best efforts to date and provide a clear example of what we mean by our simple mission statement to provide **"Fidelity. Performance. Value."**

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

The connectors and controls are clearly marked on the back panel of the AMPLIFIER CX. 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 - and + OUTPUTS should be attached to corresponding speaker terminals.  
**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 CX 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 CX 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's output BIAS current on and off.

2. The LED in the center of the front panel indicate the BIAS is turned on and that the amplifier is active.

3. The 2 LEDs either side of the center LED of the front panel indicate the amplifier's DC power supplies are 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**

330 Watts x2 into 8 Ohms  
660 Watts x2 into 4 Ohms  
1 Ohm load stable  
Class A to 10 Watts

**BANDWIDTH**

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

**DISTORTION**

Less than .03% from 10Hz to 20kHz at 350 Watts both channels driven into 4 through 8 Ohms

**GAIN**

26dB

**CURRENT CAPABILITY**

150 Amperes peak

**SLEW RATE**

50 Volts/microsecond

**INPUT IMPEDANCE**

50k Ohms unbalanced/1k Ohms balanced

**OUTPUT IMPEDANCE**

.04 Ohms from 20Hz to 20kHz

**NOISE**

More than 110dB referenced to rated output

**POWER SUPPLY**

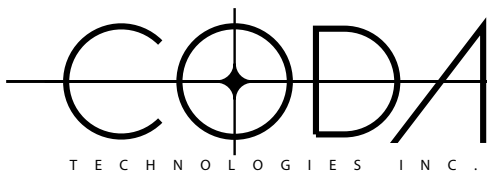
3.0 kVA toroidal transformer with independent rectifiers and 80,000 uF of capacitance

**DIMENSIONS**

Faceplate: 17 inches wide by 5.5 inches tall  
Chassis: 16.75 inches wide by 6 inches tall by 14 inches deep

**WEIGHT**

62 lbs



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