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CAUTION	
	WARNING
	
CAUTION: 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 recommended that during extended periods of non-use the unit's power cord be unplugged from its AC power source.
 - Route the AC power cord so that it will not be damaged or walked on.

Thank you for selecting Coda Technologies and our precision line of of high definition, high value audio components. The Control Amplifier CSi Balanced is a precision device, designed in an effort to provide the listener with unmatched sound quality, design, and construction. The CSib will provide you with many years of listening enjoyment.

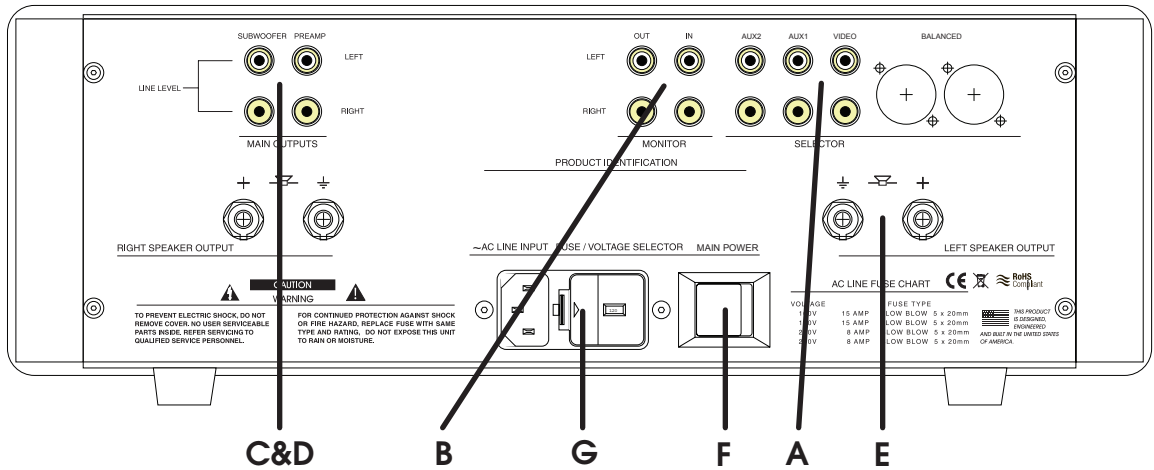
The Control Amplifier CSi Balanced is the latest refinement of the Control Amplifier CSi, itself a substantially improved evolution of the highly regarded Unison Ultra. Most notable are the styling and industrial design changes, introduced with the CSi, bringing the CSib harmony with the Coda C series line styling changes introduced in 2006.

The preamplifier and amplifier sections remain virtually unchanged from the Unison Ultra, while the power supply and output stages have been improved to increase power to 220W per channel.

The CSib also includes an extended preamplifier section incorporating a new balanced audio input. The preamplifier in the CSib has been fully modularized, becoming a separate unit from the amplifier itself and increasing future extensibility.

Other functional, optional, or operational changes are noted throughout this manual. In order to operate your amplifier properly and to realize all of the capabilities of the CXi, we recommend that you read this entire manual carefully to insure maximum benefit from your audio system.

REAR PANEL CONNECTIONS



To provide for adequate ventilation you should allow at least six inches of unobstructed space above and a couple of inches on each side of the amplifier. Because of its large power supply, a local magnetic field may be created and picked up by CD players, turntables and similar equipment. For this reason you should provide at least a foot of space between the **CSib** and these components.

A. INPUT SELECTOR

Signal inputs for Disc, Video, Aux and Aux2.

B. MONITOR

Signal inputs and outputs for a tape deck or other recording device.

C. PREAMPLIFIER OUTPUTS

Signal outputs for an additional outboard amplifier.

D. SUBWOOFER OUTPUTS

Variable outputs for a powered subwoofer which track the master volume. Future upgrades will provide for these 2 outputs to be used independently for Subwoofer and Center Channel control

E. AMPLIFIER OUTPUTS

Amplified outputs to connect to speakers. To ensure identical speaker phasing connect both speakers with the same polarity (positive to positive, negative to negative).

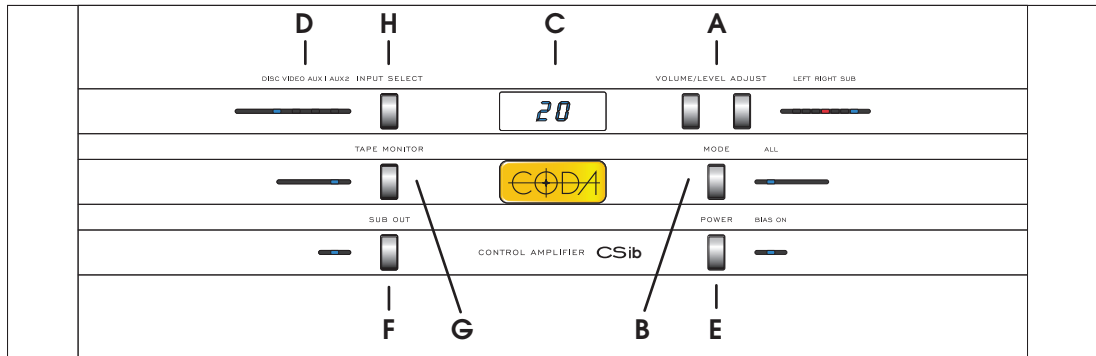
F. POWER SWITCH

Main power switch. This power switch is intended only for complete shutdown while connecting and disconnecting cables. The rocker switch must be in the "ON" position for the **CSib** to operate. Rather than switching off the amplifier entirely when it is not in use, the bias pushbutton on the front panel should be used to toggle the amplifiers bias off when it is in standby.

G. AC LINE INPUT AND FUSE HOLDER

110 or 220 volt power input, fused as specified on the rear panel. To replace a blown fuse, insert a small screwdriver into the slot next to the fuse drawer, indicated by a fuse icon, and twist to release the drawer. Replacement fuses must match the original fuse as specified on the rear panel.

FRONT PANEL CONTROLS AND OPERATION



A. LEVEL ADJUST

Controls the currently-selected audio level visible on the LED display.

B. MODE

Selects the audio level to adjust. Cycles between volume, left / right channel attenuation, and subwoofer level.

C. LED DISPLAY

Displays the currently-selected audio level. Level is indicated in decibels, with 99 being maximum volume and 00 being 100dB of attenuation.

D. LEVEL / INPUT INDICATORS

Indicates which audio level is selected for adjustment (right) or which audio input is selected (left). The three LEDs in the level indicator indicate left and right channels and subwoofer. The LED indicator for the main volume level is located next to the MODE pushbutton.

E. BIAS

Toggles the amplifiers bias. With the bias off the amplifier will not produce any audio, effectively operating in standby. In this mode the amplifier will draw negligible current, and can be left on indefinitely.

F. SUBWOOFER

Toggles (mutes/unmutes) the subwoofer output.

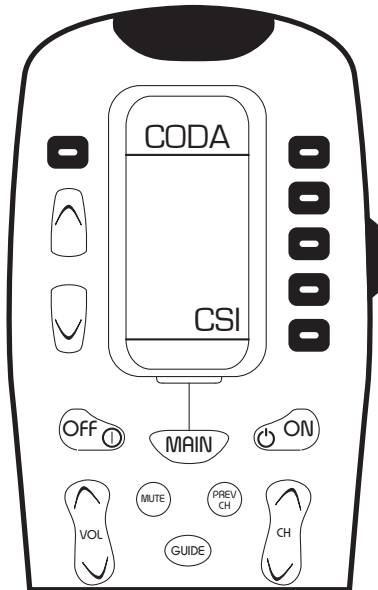
G. MONITOR

Enables the monitor input, overriding all other inputs.

H. INPUT SELECTOR

Selects the active audio input. Cycles through disc, video, aux and aux2.

REMOTE OPERATION

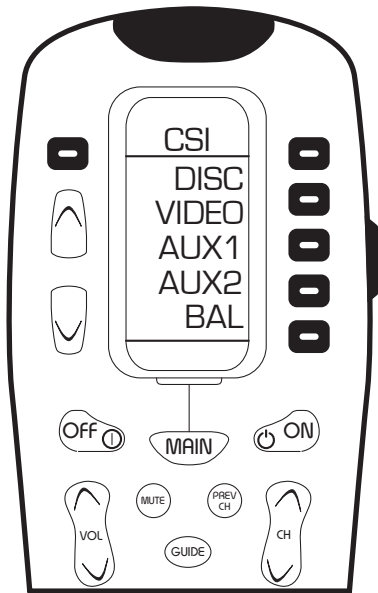


The CSib can be operated by remote control. The MX-350 Learning Remote is included with the amplifier. The relevant pages of the remote interface are described below. For instructions on using the MX-350 itself see the manual included with the remote.

The five buttons to the right of the LCD are used to select the functions shown in the display window. Select (CSI) to control the CSib. The same remote is used for both the CSib and CSI.

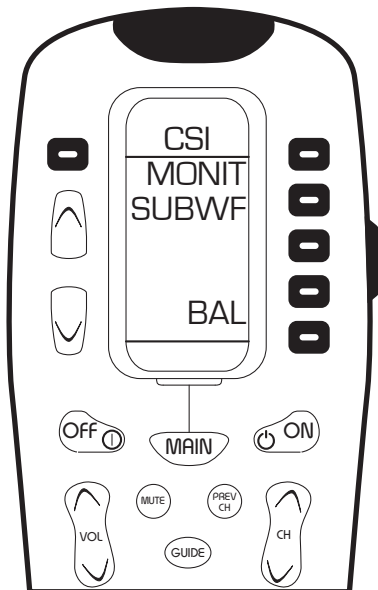
GLOBAL CONTROLS

VOL	Changes audio level
MUTE	Mutes the amplifier
ON / OFF	Turns bias on and off
PAGE	Cycles through available remote commands.



CSI PAGE 1

DISC VIDEO AUX1 AUX2	Selects audio input.
BAL	Cycles through audio level adjustment modes.



CSI PAGE 2

MONIT	Selects audio input.
SUBWF	Mutes the amplifier
BAL	Cycles through audio level adjustment modes.

The interior of the unit requires no special care. If external cleaning beyond simple dusting 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 harder tool steels. Avoid exposing the unit to direct sunlight, and keep it away from sources of intense heat.

It is recommended that you keep the carton and associated packing material. They are ideal if you need to pack the unit for transportation and if service is required they will be absolutely necessary for safe shipment.

The remote controlled Coda **Control Amplifier CSi Balanced** is designed with thoroughness reserved only for the finest preamplifier and amplifier gain stages. Analytical design techniques, both objective and subjective, were applied in an open-minded fashion with musical perfection as the goal. The **CSib** features a wide range of design topologies and components ported from both broad lineage and the most recent advances in the Coda products and design topologies.

Unlike other integrated amplifiers, the **CSib** offers true "separates" performance. The **CSib** is, internally, essentially a Stereo Amplifier CS with a separate preamplifier section based on the circuit topology of the Coda Preamplifier CL.

On the faceplate, the straightforward controls and display provide comprehensive functionality to the user. All input selections have LEDs to show when they are in use. Buttons control both volume and balance, with an LED display to show which channels are being adjusted. Gain is controlled by a high performance Burr-Brown PGA2310 analog attenuator. This digitally controlled analogue device features an improved output buffer and increased voltage swing for high level input signals. Digitally controlled level tracking allows 1 dB per step attenuation without error. The digitally controlled stepped resistors & zero crossing detection circuit allow for "zipper-free" operation. Total harmonic distortion is less than 0.004% with a signal to noise ratio approaching 130 dB.

The preamplifier section has its own separate power supply with multiple independent transformer taps. A reference voltage is developed by delivering constant current to zener diodes. The resulting voltage is heavily filtered and delivered through class-A followers to provide absolutely stable power to the preamplifier section. A separate power supply is provided for all controls and microprocessor control system.

In the amplifier section of the **CSib**, differential voltage gain throughout provides exceptional rejection of external noise and contributes to the inherent stability of the circuit. 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 amplifier's overbuilt power supply take a very direct approach to high performance by utilizing a top quality 2.0 kVA custom toroidal transformer, IXYS high speed rectifiers and a 60,000 μ F capacitor filter bank with very low ESR and inductance.

This latest generation output stage design is capable of producing peak currents in excess of 100 peak amperes with a degree of linearity and speed unmatched by other designs producing only a fraction of this massive amount of 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 over 4,000 watts and 125 amperes and a bandwidth of 30 MHz. The **CSib** operates in Class A up to approximately 20 watts. At higher output levels, 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. 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 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.

RATINGS

Rated Power	330 watts @ 8Ω 600 watts @ 4Ω Class A to 5W @ 8Ω
Frequency Response	DC to -3dB @ 100kHz
Distortion	< .04% from 10 Hz to 20kHz @ 330 Watts
Gain	26dB
Maximum Current	150 Amperes peak
Noise	-110dB referenced to rated output
Input Impedance	50kΩ unbalanced/1kΩ balanced
Output Impedance	.04Ω from 20Hz to 20kHz

POWER SUPPLY

Transformer Type	Multi-tap, multi-winding toroidal
Power Filtering	80,000 μF
Transformer Rating	2,000VA
Power Requirement	45 watts @ Standby (bias on)

DIMENSIONS

Height	5.5" Faceplate, 6.0" Overall
Width	17.0" Faceplate, 16.75" Chassis
Depth	14" Overall
Weight	55 lbs.



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