

Accuphase

PRECISION STEREO CONTROL CENTER

C-2300

- Balanced AAVA volume control
- 4-band tone control
- Quiet and smooth volume sensor construction
- Ample inputs: 5 Line and 2 Balanced
- Independent power supplies and unit amplifiers for left and right
- Phase setting memory for each input
- Highly reliable logic-controlled signal switching relays
- High-quality headphone amplifier
- Additional option boards support digital signals and analog records





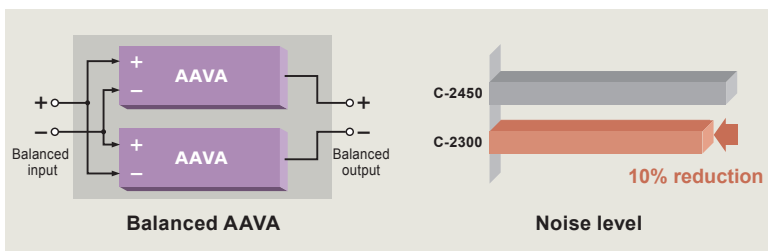
Balanced AAVA preamplifier combining sound quality and functionality

For more than half a century, Accuphase has continued its relentless pursuit of creating the ideal volume control circuitry. The C-2300 preamplifier utilizes Balanced AAVA – the successor of the AAVA system – to control volume without sacrificing vibrancy in the source sound. A newly added 4-band tone control enables fine adjustments to sound tone. Experience the sonic depth from the combined sound quality and superior features the C-2300 provides.

Innovation - Leading-edge technology

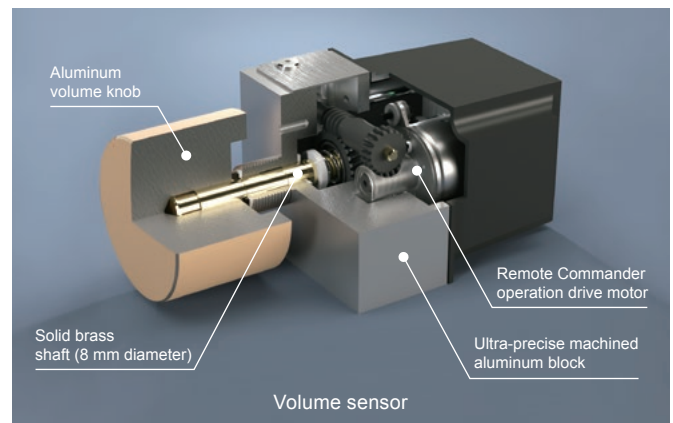
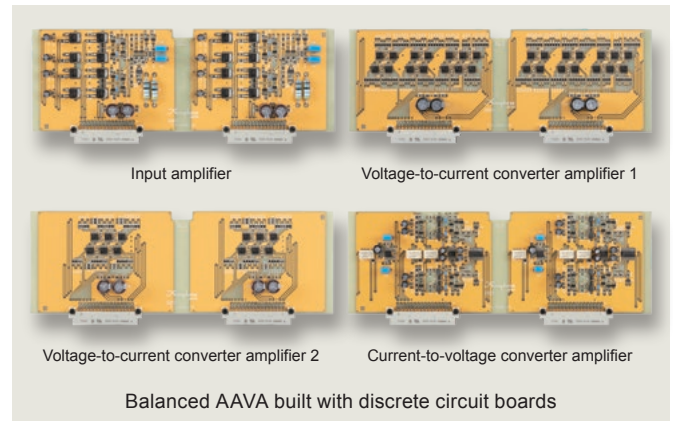
Balanced volume control, Balanced AAVA

Conventional preamplifiers use variable resistors to adjust volume, which causes contacts to deteriorate and creates grit while increasing noise at normal volume levels. AAVA, however, produces multiple, widely varying signals from the input signal and controls volume by changing the combination of those signals. This achieves minimum noise at all volume levels without any grit. The C-2300 incorporates “Balanced AAVA” consisting of balanced “AAVA” circuits, which further reduces the noise level by approximately 10% over the C-2450.



Quiet and smooth volume sensor design

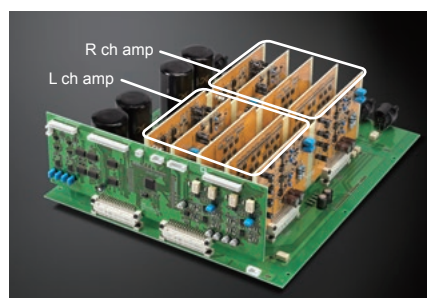
AAVA uses a volume sensor design to detect the position of the volume knob and changes the combination of signals to adjust volume. Machined from an aluminum block in an ultra-precise extrusion process, the C-2300 uses a volume sensor design developed in-house with hefty, rigid materials to achieve an utterly smooth and solid operation feel when rotating the knob for extremely accurate position detection. Operational sounds are subdued even when using the Remote Commander, resulting in quiet and gratifying volume adjustment.



Sound quality – In pursuit of the highest quality audio

Separate unit amplifiers for left and right

Music signal circuits like the AAVA contain five unit amplifiers. By separating the left and right channels, the attention to detail in the unit amplifiers works to suppress electrical interference and prevent any negative impacts on sound quality.



Separate power supplies for left and right channels

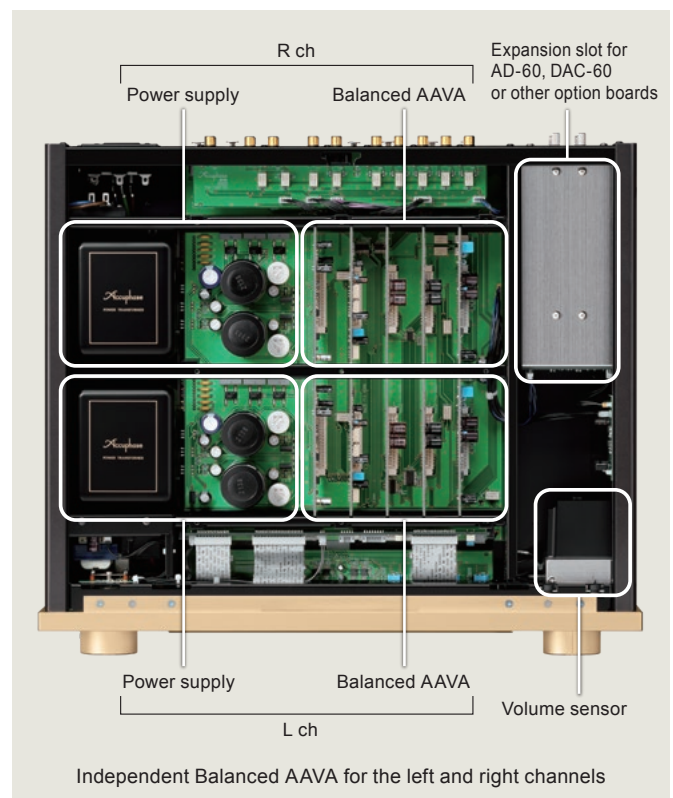
The power source driving the circuits can greatly affect sound quality. Each side of this preamplifier features a high-quality transformer housed inside its own case. The two 10,000 μF high-capacity, high-quality custom-made filtering capacitors mounted on each side supply power with margins and are highly impervious to load fluctuations.



Power transformers

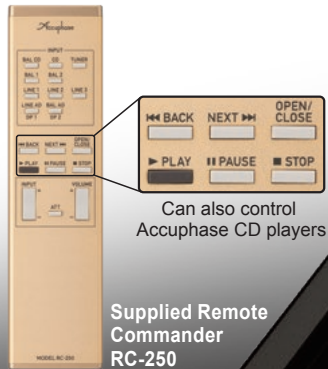
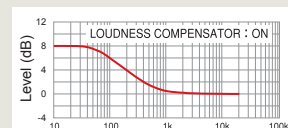
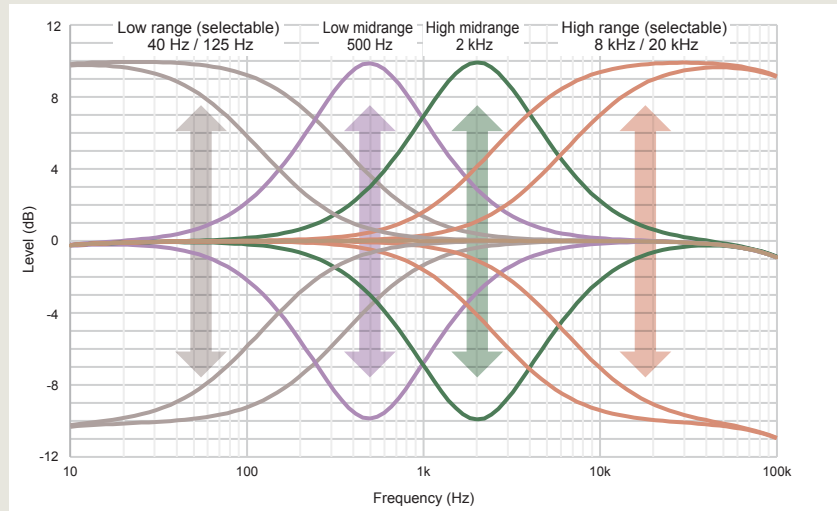
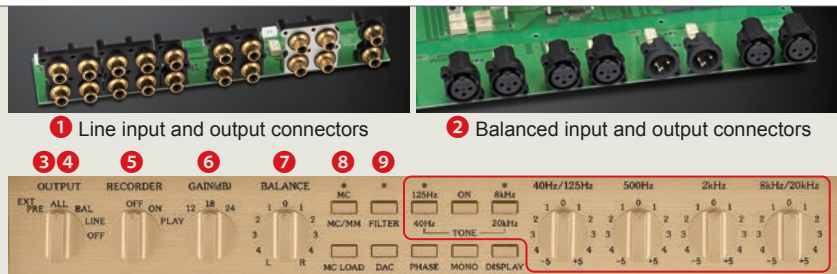


Filtering capacitors (10,000 μF \times 4 pcs)



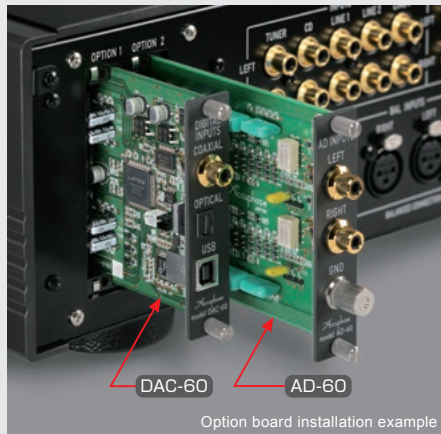
Advanced features

- **Balanced AAVA volume control**
- **Highly reliable logic-controlled signal switching relays**
- **Separate power supplies for the left and right channels**
- **Volume sensor design achieves a quiet and smooth operation feel**
- **Abundant inputs/outputs (5 line level inputs, 2 line level outputs, 2 balanced inputs, 1 balanced output).....** ① ②
- **Line level and balanced EXT PRE inputs for connection of an external preamplifier.....** ③
- **Output selection (ALL / LINE / BAL / OFF).....** ④
- **Recorder selector (OFF / ON / PLAY).....** ⑤
- **Switchable overall gain (12 dB / 18 dB / 24 dB)** ⑥
- **Left/right balance control with Balanced AAVA.....** ⑦
- **MC/MM switching (when AD-60 / AD-50 / AD-30 / AD-20 is installed).....** ⑧
- **Subsonic filter ON/OFF switching (when AD-60 is installed).....** ⑨
- **MC load input impedance switching (when AD-60 is installed, 30 / 100 / 200 / 300 ohms).....** ⑩
- **DAC input selector (when DAC-60 / DAC-50 / DAC-40 is installed)** ⑪
- **Individual phase setting for each input.....** ⑫
- **Stereo signal can be switched to monophonic operation.....** ⑬
- **Display mode selector.....** ⑭
- **4-band tone control.....** ⑮ ⑯
- **(40 Hz / 125 Hz, 500 Hz, 2 kHz, 8 kHz / 20 kHz)**
- **Discretely configured, high-quality headphone amplifier with parallel push/pull output stages** ⑰
- **High-carbon cast iron insulators for superior vibration damping** ⑱
- **Loudness compensator to adjust audible sonic balance.....** ⑲
- **Volume attenuator that can instantly reduce sound as low as -20 dB**



Option Boards

Two option boards can be installed on the rear panel. Three types of option boards are available.



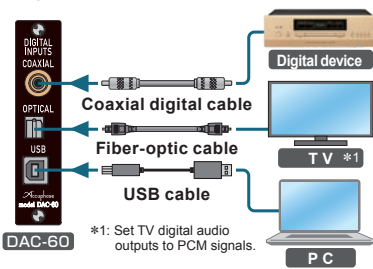
Option board installation example

Conventional models are also supported

Digital Input Board	DAC-50/DAC-40/DAC-30/ DAC-20/DAC-10
Analog Disc Input Board	AD-50/AD-30/AD-20/ AD-10/AD-9
Line Input Board	LINE-9

DAC-60 Digital Input Board

High-performance DAC with two ES9016K2M chips from ESS Technology driven in parallel.



■ The input terminal can be selected from the front panel (*2)

■ The sampling frequency can be displayed (*2)

Input	Signal	Sampling frequencies	Number of bits
USB	DSD	2.8 MHz 5.6 MHz 11.2 MHz*3	1 bit
	PCM	32 to 384 kHz	32-bit
Optical	PCM	32 to 96 kHz	24-bit
Coaxial	PCM	32 to 192 kHz	24-bit

*1: Set TV digital audio outputs to PCM signals.

*2: When DAC-60 / DAC-50 / DAC-40 is installed

*3: ASIO only

AD-60 Analog Disc Input Board

Features a high-performance phono equalizer for playback of analog discs.

- Supports MC and MM cartridges
- Load input impedance selection (MC only)
- Subsonic filter

Cartridge	MC	MM
Gain	66 dB	40 dB
Input Impedance	30 ohms	47 kilohms
	100 ohms	
	200 ohms	
300 ohms		
Subsonic Filter	25 Hz, -12 dB/octave	

■ MC/MM selection (*4), input impedance selection (*5), and subsonic filter ON/OFF (*5) can be selected from the front panel.



*4: This setting is on the option board with the AD-10 / AD-9.

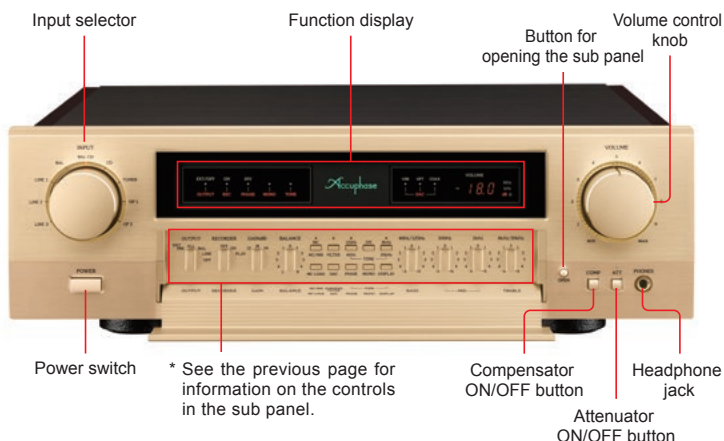
*5: This setting is on the option board with the AD-50 / AD-30 / AD-20 / AD-10 / AD-9.

LINE-10 Line Input Board



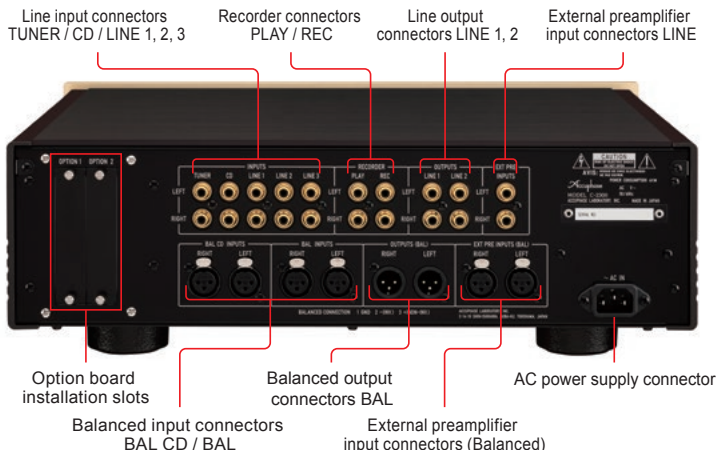
Provides an additional set of unbalanced line level inputs.

Front Panel



* See the previous page for information on the controls in the sub panel.

Rear Panel



C-2300 Guaranteed Specifications

Frequency Response	BALANCED / LINE INPUT		3 – 200,000 Hz +0 –3.0 dB	
	★AD INPUT		20 – 20,000 Hz +0 –0.2 dB	
Total Harmonic Distortion	(20 – 20,000 Hz, at rated output, all input connectors)		0.005 %	
	Input Sensitivity, Input Impedance	Input connector	Input sensitivity	Input impedance
BALANCED / LINE		At rated output	For 0.5 V output	40 kilohms (20 kilohms / 20 kilohms)
		252 mV	63 mV	
★AD: MM / 40 dB		2.5 mV	0.63 mV	47 kilohms
★AD: MC / 66 dB	0.126 mV	0.0315 mV	30 / 100 / 200 / 300 ohms	
Rated Output Voltage, Output Impedance	BALANCED / LINE OUTPUT		2 V / 50 ohms	
	★RECORDER REC (at AD input)		252 mV / 200 ohms	
S/N Ratio, Input Converted Noise	Input connector	Input shorted (A weighting)	S/N ratio (EIA)	
	BALANCED / LINE	S/N ratio at rated output		
		111 dB	108 dB	
	★AD: MM / 40 dB	80 dB	80 dB	
★AD: MC / 66 dB	68 dB	80 dB		
Max. Output Voltage	BALANCED / LINE OUTPUT		7.0 V	
	(Distortion: 0.005%, 1 kHz) RECORDER REC (at AD output)		6.0 V	
Max. Input Voltage	BALANCED / LINE INPUT		6.0 V	
	(Distortion: 0.005%, 1 kHz)	★AD MM / 40 dB INPUT	60.0 mV	
		★AD MC / 66 dB INPUT	3.0 mV	

Minimum Load Impedance	BALANCED / LINE OUTPUT		600 ohms
	RECORDER REC		10 kilohms
Crosstalk	-74 dB / 10 kHz		
Gain (Gain switching: 18 dB)	INPUT		OUTPUT
	BALANCED / LINE	BALANCED / LINE	Gain
	BALANCED / LINE	RECORDER REC	18 dB
	★AD MM: 40 dB	BALANCED / LINE	0 dB
	★AD MM: 40 dB	RECORDER REC	58 dB
★±6 dB GAIN switching possible for all modes except REC OUTPUT	★AD MM: 40 dB	RECORDER REC	40 dB
	★AD MC: 66 dB	BALANCED / LINE	84 dB
	★AD MC: 66 dB	RECORDER REC	66 dB
Loudness compensation	+6.0 dB (100 Hz)		
★Subsonic filter	25 Hz	-12 dB/octave	
Headphone jack	Suitable impedance	8 ohms or higher	
	Output level	2 V (40 ohms)	
Attenuator	-20 dB		
Power requirements	120 V, 220 V, 230 V AC (voltage as indicated on rear panel)		
	50 / 60 Hz		
Power Consumption	41 W (when option board AD-60 and DAC-60 are installed)		
Maximum dimensions	Width 465 mm (18.3") × Height 150 mm (5.9") × Depth 405 mm (15.9")		
Mass	Net	19.3 kg (42.5 lbs)	
	In shipping carton	25 kg (52 lbs)	

★ Indicates properties with the analog disc input board AD-60 installed.

Supplied accessories

- AC power cord
- Remote Commander RC-250
- Audio cable with plugs AL-10, 1 m (39.4")

Remarks

- ★ This product is available in versions for 120/220/230 V AC. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- ★ The 230 V version has an Eco Mode that switches power off after 120 minutes of inactivity.
- ★ The shape of the plug of the supplied AC power cord depends on the voltage rating and destination country.



ACCUPHASE LABORATORY, INC.