

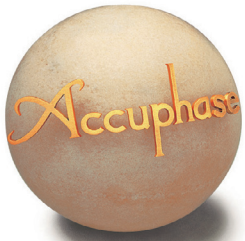
# Accuphase

PRECISION STEREO CONTROL CENTER

## C-2450

- AAVA volume control for high performance and outstanding sound
- Separate power transformers for left and right channels
- Selectable preamp gain
- Fully modular construction with individual left/right amplifier units on motherboard
- Logic-controlled relays for shortest signal paths
- Independent phase selection for each input position
- Optional phono equalizer unit enables playback of analog records
- Elegant side panels with natural wood grain finish





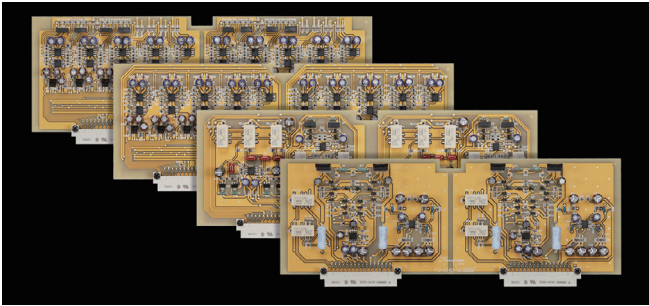
# Featuring highly sophisticated AAVA volume control technology — Next-generation preamplifier takes C-2850 technology to another plane.

Blending the purely analog AAVA volume control circuit with sophisticated technology inherited from the C-2850 results in superb S/N ratio and a refinement of expression that brings new clarity to the music. The utterly smooth operation feel of the volume sensor assembly and a top plate made of brushed aluminum with a hairline finish demonstrate a level of dedication and hands-on craftsmanship that pervades every aspect of this preamplifier. Each C-2450 is individually honed to provide nothing short of perfection. Experience music as it was meant to be heard.

## *Innovative: At the leading edge of technology*

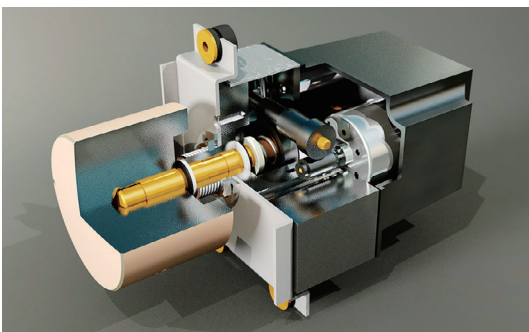
### ■ AAVA operation principle is purely analog

The AAVA circuit converts the input music signal into 16 types of weighted currents which are then combined according to the position of the volume control knob. The combination of signal currents forms a variable gain circuit that adjusts the level of the music signal.



### ■ High-accuracy, high-rigidity volume sensor assembly with responsive yet solid feel

Although AAVA adjusts the volume level by combining the output of weighted amplifiers, it is operated using a volume knob that appears similar to conventional systems. Internally however there are major differences. The volume sensor mechanism that detects the angular position of the volume knob rests on a frame extruded from a massive aluminum block and finished with utmost precision. The volume knob feels both responsive and solid when rotated and ensures extremely accurate position detection. The entire mechanism is supported on the chassis by a floating suspension using insulators, which has the added advantage of extremely quiet motor-driven operation when the remote commander is used.



### ■ Supplied Remote Commander RC-220

Allows volume adjustment and input source switching.

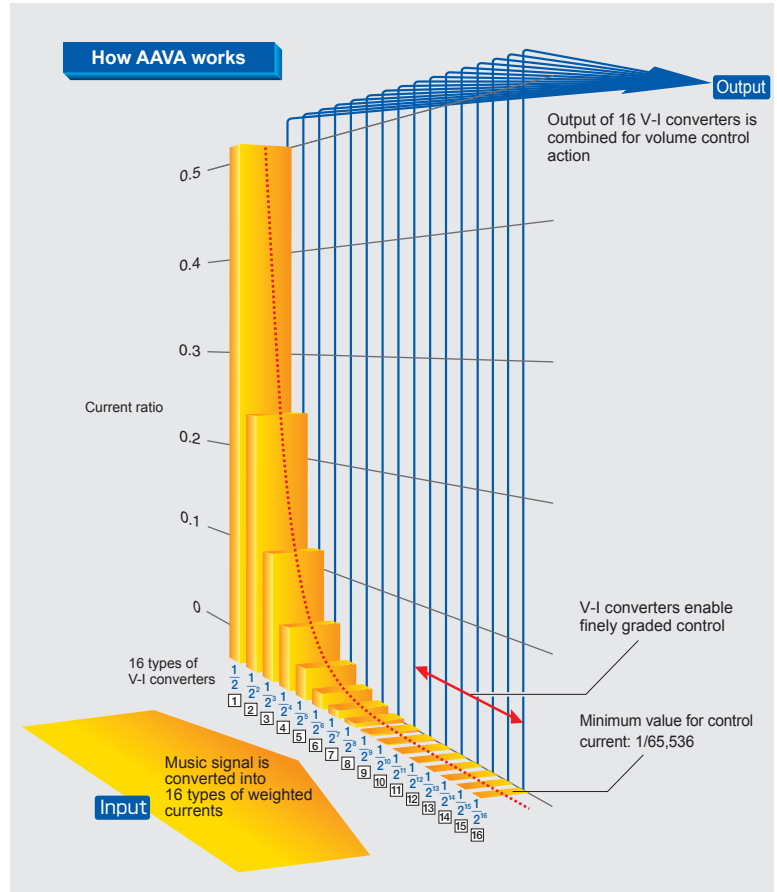
## *Sound quality: Simply aiming for the best*

### ■ Separate unit amplifiers for left and right

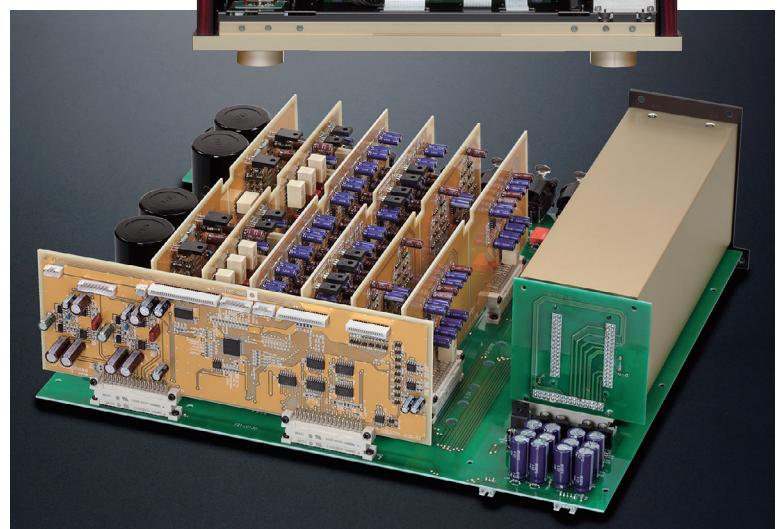
The main amplification tasks such as input buffering, AAVA, balanced output, and headphone output are handled by a total of six modular amplifiers for each channel. These unit amplifiers are mounted on a glass epoxy motherboard, with left and right sections being kept completely separate. In order to eliminate unwanted mutual interference between the amplifiers, a sturdy frame is used to provide support. As a result, both electrical interference and physical vibrations are reliably suppressed, creating an ideal operation environment.

### ■ Separate left/right power supplies

The power supply circuitry not only acts as the energy source of an amplifier, the current that it supplies to the load also has a significant influence on sound quality. The C-2450 incorporates four custom-made filtering capacitors which are rated for 10,000  $\mu\text{F}$  and have been specially tuned for optimum sonic properties. Along with the power transformer, the entire power supply section is duplicated and kept separate for the left and right channel, resulting in a full mono construction. The entire circuitry from the input right through to the output benefits from a strong and stable supply of current which enhances the quality of the musical signal.

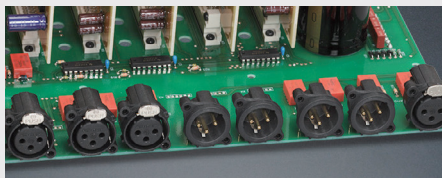


Sturdy frame construction with separate left/right layout

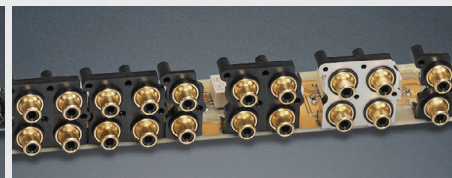


## Advanced Features

- Logic-controlled relays for signal switching assure high sound quality and long-term reliability
- Total of 10 inputs and 5 outputs**  
Thanks to a versatile complement of input and outputs, the C-2450 is ready for any program source combination.
- EXT PRE function allows use of external preamplifier**  
Setting the OUTPUT selector to the EXT PRE position allows the use of an external preamplifier or other component without having to change system connections.
- Selectable preamp gain**  
Overall gain can be set to 12 dB, 18 dB, or 24 dB.
- Eliminate phase differences in balanced connections**  
The PHASE button makes it easy to compensate for differences in absolute phase of any input or output component connected via a balanced link.
- Independent phase selection for each input position**  
The phase can be set and memorized separately for each input and recorder selector position.
- On/off switching capability for level display**
- Subsonic filter removes ultra low frequency noise**
- Loudness compensator function offsets the characteristics of human hearing**
- Tone controls using summing active filters for optimum sound quality**
- Dedicated headphone amplifier optimized for sound quality**
- Elegant side panels with natural wood grain finish**
- Thick aluminum top plate with exquisite hairline finish**



Balanced input and output connectors

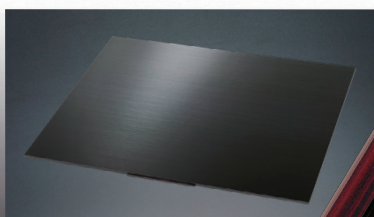
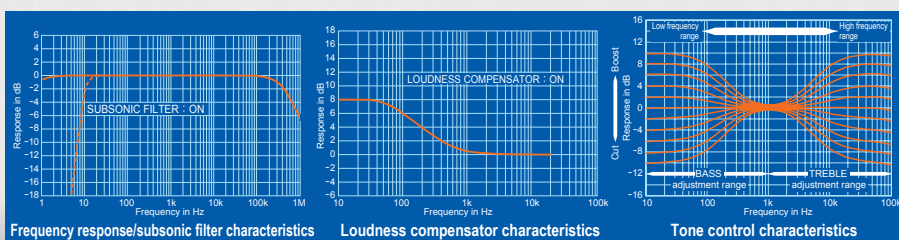


Line input and output connectors



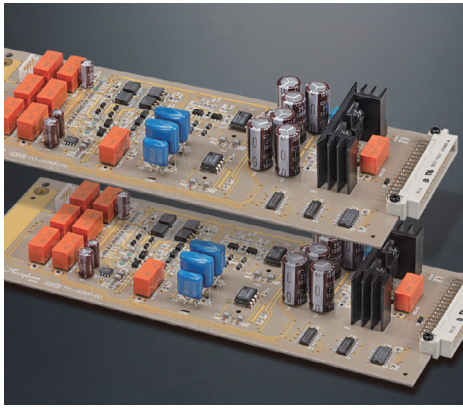
[Sub panel]

- |   |   |
|---|---|
| 1 Output selector   | 6 Headphone level selector button                                       |
| 2 Subsonic filter button for effectively removing ultra low frequency noise without affecting sound quality | 7 Gain selector   |
| 3 AD gain selector for choosing equalizer gain  | 8 Recorder selector for recording or playback                           |
| 4 MC/MM button for selecting phono cartridge type   | 9 Output phase selector button  |
| 5 MC load impedance button for selecting load impedance when using MC cartridge                             | 10 Mono/stereo selector button for combining left/right channel signals |
|   | 11 Level display on/off button  |



Top plate

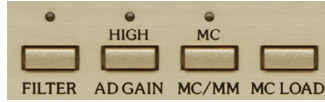




Phono equalizer with separate mono construction for left and right channel

Analog records can be reproduced by installing the dedicated phono equalizer unit AD-2850 in a rear-panel slot. The AD-2850 features separate input circuitry for MC and MM cartridges to ensure optimum matching and realize outstanding S/N ratio. The built-in differential RIAA equalizer circuit is designed to provide super accurate RIAA equalization characteristics. The printed circuit boards are made from glass cloth fluorocarbon resin and housed in a sturdy aluminum enclosure to minimize any kind of external influence.

- MC [ Gain: 60/70 dB, switchable  
Input impedance: 10/30/100/300 ohms, switchable
- MM [ Gain: 30/40 dB, switchable  
Input impedance: 47 kilohms
- Function setting controls on C-2450 front panel

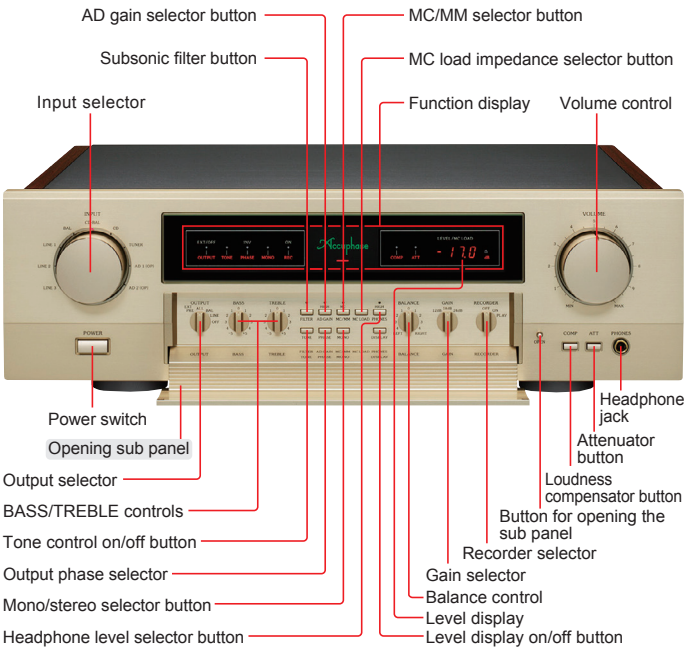


Buttons for subsonic filter, AD gain, MC/MM selection, MC load impedance

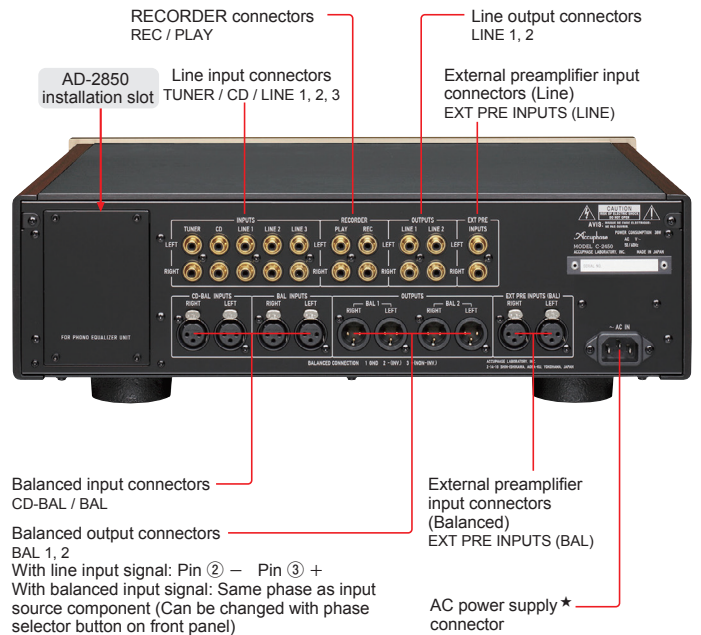


AD-2850 installation  
\*For information regarding use in other preamplifier models (C-2850, C-2420 etc.), or regarding compatibility with previous phono equalizer units (AD-2820 etc.), please contact your Accuphase dealer or distributor.

**Front Panel**



**Rear Panel**



**C-2450 Guaranteed Specifications**

\* Guaranteed specifications are measured according to EIA standard RS-490. AD: Analog Disc \* Specifications with AD-2850 installed. \* Gain selector set to 18 dB position.

<b>Frequency Response</b>	BALANCED/LINE INPUT:	3 - 200,000 Hz	+0 -3.0 dB
	AD INPUT: [MM/40dB, MC]:	20 - 20,000 Hz	+0 -0.2 dB
	AD INPUT: [MM/30dB]:	20 - 20,000 Hz	±0.3 dB

**Total Harmonic Distortion (for all inputs)** 0.005%

Input Sensitivity, Input Impedance	Input	Input Sensitivity		Input impedance
		For rated output	For 0.5 V output	
AD: MM/30 dB INPUT	8.0 mV	2.0 mV	47 kilohms	
	2.5 mV	0.63 mV	47 kilohms	
AD: MM/40 dB INPUT	0.25 mV	0.063 mV	10/30/100/300 ohms, switchable	
	0.08 mV	0.02 mV	10/30/100/300 ohms, switchable	
AD: MC/60 dB INPUT	252 mV	63 mV	40 kilohms/20 kilohms	
	252 mV	63 mV	40 kilohms/20 kilohms	

**Rated Output Voltage, Output Impedance**  
BALANCED/LINE OUTPUT: 2 V 50 ohms  
RECORDER REC (with AD input): 252 mV 200 ohms

S/N Ratio, Input-converted Noise	Input	Input shorted (A weighting)		EIA S/N
		S/N ratio at rated output	S/N ratio at rated output	
AD: MM/30 dB INPUT	94 dB	85 dB		
	84 dB	85 dB		
AD: MM/40 dB INPUT	80 dB	85 dB		
	72 dB	85 dB		
AD: MC/60 dB INPUT	110 dB	108 dB		
	110 dB	108 dB		

**Maximum Output Level**  
BALANCED/LINE OUTPUT: 7.0 V  
RECORDER REC (with AD input): 6.0 V

- **Supplied accessories**
  - Power cord
  - Audio cables with plugs (AL-10)
  - Remote commander RC-220
  - Cleaning cloth

**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 AC inlet and plug of the supplied power cord depends on the voltage rating and destination country.

<b>Maximum LINE Input Voltage</b>	BALANCED/LINE INPUT:	6.0V
	MM [30/40 dB] INPUT:	310/96.5 mV
<b>Maximum AD Input Voltage</b>	MM [30/40 dB] INPUT:	310/96.5 mV
	MC [60/70 dB] INPUT:	9.5/3.2 mV

**Minimum Load Impedance**  
BALANCED/LINE OUTPUT: 600 ohms  
RECORDER REC: 10 kilohms

<b>Gain</b>	BALANCED INPUT	→ BALANCED OUTPUT:	18 dB
	BALANCED INPUT	→ LINE OUTPUT:	18 dB
[Gain selector switch: 12/18/24 dB switchable]	LINE INPUT	→ BALANCED OUTPUT:	18 dB
	LINE INPUT	→ LINE OUTPUT:	18 dB
BALANCED/LINE INPUT	→ RECORDER REC:	0 dB	
	AD [MM: 30/40 dB] INPUT	→ BALANCED/LINE OUTPUT:	48/58 dB
AD [MM: 30/40 dB] INPUT	→ REC OUTPUT:	30/40 dB	
AD [MC: 60/70 dB] INPUT	→ BALANCED/LINE OUTPUT:	78/88 dB	
AD [MC: 60/70 dB] INPUT	→ REC OUTPUT:	60/70 dB	

**Tone Controls**  
Turnover frequency and adjustment range  
Bass: 300 Hz ±10 dB (50 Hz)  
Treble: 3 kHz ±10 dB (20 kHz)

**Loudness Compensation** +6 dB (100 Hz)

**Headphone Jack** Output level: 2 V (40 ohms), Suitable impedance: 8 ohms or above

**Subsonic Filter** 10 Hz: -18 dB/octave

**Attenuator** -20 dB

**Power Requirements** 120 V/220 V/230 V AC, 50/60 Hz (Voltage as indicated on rear panel)

**Power Consumption** 38 W

**Maximum Dimensions**  
Width 465 mm (18.3")  
Height 150 mm (5.9")  
Depth 409 mm (16.1")  
(Depth 414 mm (16.3") with AD-2850 installed)

**Mass**  
19.0 kg (41.9 lbs), 19.9 kg (43.9 lbs) with AD-2850 installed  
25.0 kg (55.1 lbs) in shipping carton

