Accuphase

PRECISION STEREO PREAMPLIFIER

C-3900S

● Dual Balanced AAVA volume control with ANCC ● Quiet and smooth volume sensor ● 8 parallel output amplifiers ● Left and right balance adjustment with increased adjustment steps ● 5-stage loudness compensator ● Separate toroidal power transformers for left and right ● Newly developed filtering capacitors ● Separate unit amplifiers for left and right ● Printed circuit boards using glass cloth fluorocarbon resin ● Wood cabinet with natural grain finish

A world-class preamplifier providing the pinnacle of volume control

The evolution of preamplifiers in the history of volume control. Accuphase has addressed the issue of variable resistance with our original AAVA technology, which evolved into Balanced AAVA, and later became Dual Balanced AAVA. The Dual Balanced AAVA with ANCC installed in the C-3900S represents circuitry technology that achieves the ultimate in volume control. The C-3900S is a premium preamplifier for breathing life into deeply emotional performances and songs.

Innovation: Leading-edge technology

■Revolutionary AAVA volume control
(Accuphase Analog Vari-gain Amplifier)

AAVA eliminates the entire process of resistor-based input signal attenuation. With this breakthrough principle, direct volume adjustment is performed through a combination of V-I (voltage-current) conversion circuits of different gain. As a consequence, there are no changes in impedance or frequency response and sound quality remains impeccable. Any changes in noise level related to the selected volume position are kept to an absolute minimum, thereby realizing an outstanding S/N ratio also at commonly used listening levels.

■Dual Balanced AAVA takes AAVA to new heights

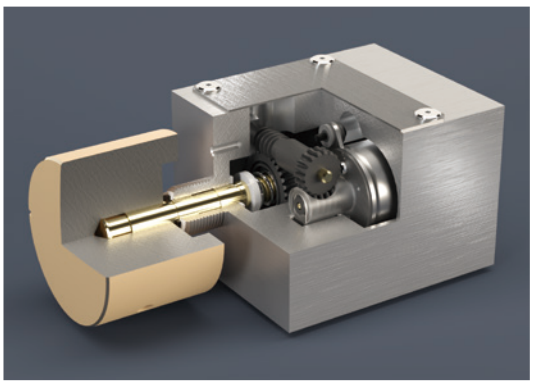
In the C-3900S, the Balanced AAVA principle which involves two balanced AAVA circuits is further elevated by driving two such units in parallel, resulting in the Dual Balanced AAVA topology with significantly improved electrical characteristics. This creates a 30% reduction to the already excellent noise level achieved by models with Balanced AAVA.

■ANCC vastly reduces distortion and noise
(Accuphase Noise and distortion Canceling Circuit)

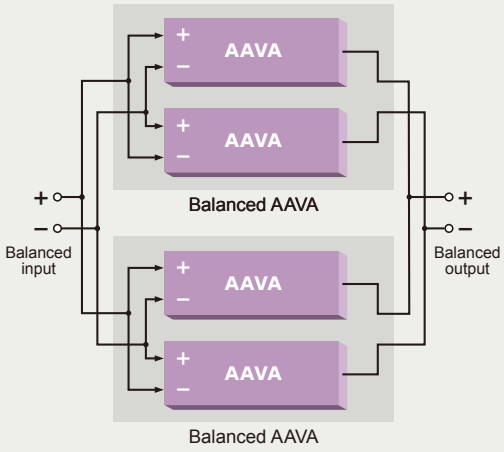
ANCC uses a secondary amplifier to cancel out noise and distortion from the main amplifier. The secondary amplifier utilizes a low-noise amplifier to increase the effect of the ANCC. Incorporating this ANCC into the Dual Balanced AAVA I-V conversion amplifier drastically improves noise suppression performance, particularly when transitioning from low volume settings to typical volume positions.

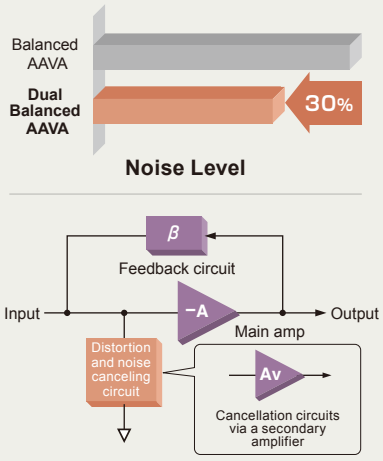
■High-accuracy, high-rigidity volume sensor design

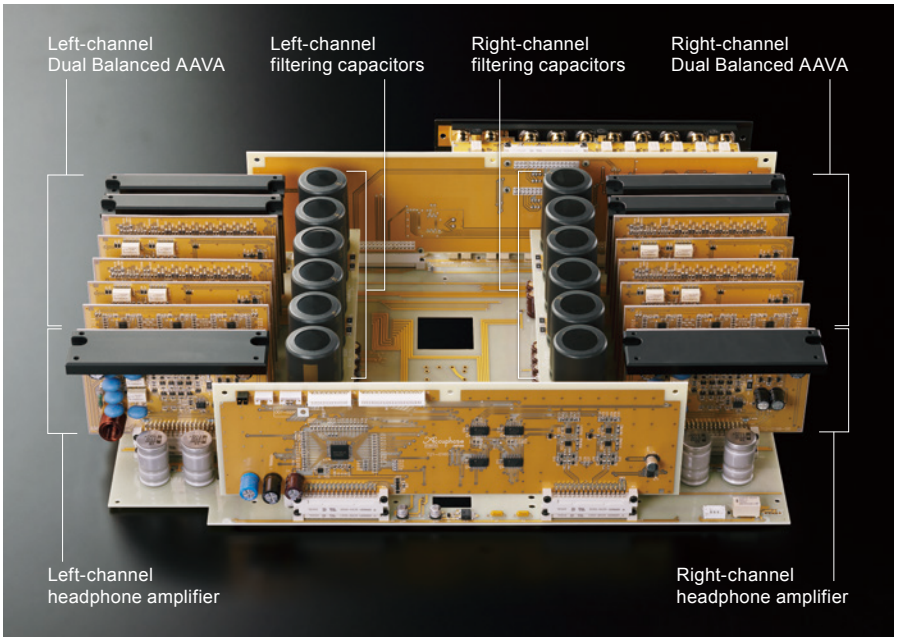
The volume sensor mechanism detects the angular position of the volume knob. Accuphase has developed the volume sensor in-house, using a massive aluminum block finished with the utmost precision. The knob itself offers an utterly solid and smooth operation feel and achieves extremely accurate position detection. When using the Remote Commander, a motor drives the volume knob via a set of gears. Generally, gears produce a meshing sound when rotating, but this position sensor is designed so that the gears mesh with each other while always maintaining a constant pressure, which enables super quiet and comfortable volume adjustment.



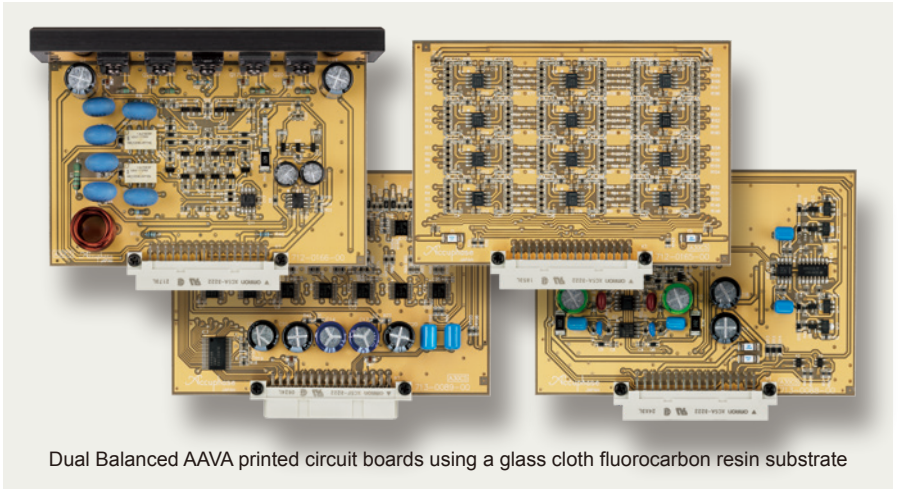
The progress of AAVA







Dual Balanced AAVA with separate configuration for left and right channels



Dual Balanced AAVA printed circuit boards using a glass cloth fluorocarbon resin substrate

Graceful

performer

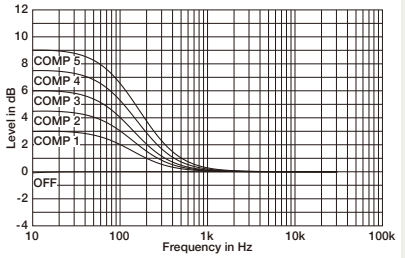

INPUT BAL CD
Accuphase
VOLUME 18.0 dB
OUTPUT EXT/OFF PHASE MONO REC ON PLAY COMP ATT
VOLUME
precision stereo preamplifier C-3900S
ATTENUATOR PHONES

Advanced features

- Dual Balanced AAVA volume control with ANCC
- Quiet and smooth volume sensor
- High-gain discrete current feedback type input amplifier
- Highly reliable logic-control signal switching relays
- Eight parallel output amplifiers (BAL, LINE)
- Printed circuit boards for signal transmission made from glass cloth fluorocarbon resin with low dielectric constant and minimum loss
- Line level and balanced EXT PRE inputs for connection of an external preamplifier ①
- Selectable output terminals (ALL, BAL, LINE, OFF) ①
- Switchable overall gain (12 dB / 18 dB / 24 dB) ····· ②
- Left and right balance adjustment with increased adjustment steps ····· ③
- 5-stage loudness compensator ····· ④
- Headphone level selector for switching headphone amplifier gain (LOW / MID / HIGH) ····· ⑤
- Individual phase setting for each input ····· ⑥
- Stereo signal can be switched to monophonic operation ··· ⑦
- Record and playback buttons for connected recorders (OFF / ON / PLAY) ····· ⑧
- Input and volume displays can be turned off ····· ⑨
- Discretely configured, high-quality headphone amplifier with parallel push/pull output stages ····· ⑩
- Abundant input and output terminals ····· ⑪
  (LINE inputs: 6, BAL inputs: 4, LINE outputs: 2, BAL outputs: 2, RECORDER PLAY: 1, RECORDER REC: 1)
- Separate left and right power supply units with toroidal power transformers and a total of twelve 10,000 µF filtering capacitors ····· ⑫
- Volume attenuator that can instantly reduce sound as low as –20 dB
- Elegant champagne gold front panel and massive wood cabinet with natural grain finish
- High carbon cast iron insulator feet with superior damping characteristics

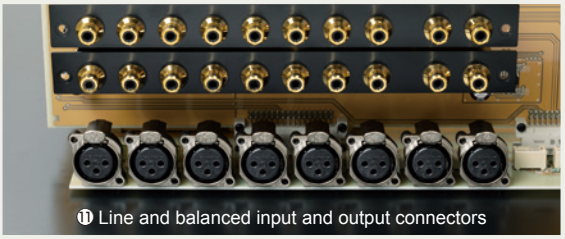
CENTER	~	5.0dB	0.2dB step
5.0dB	~	10.0dB	0.5dB step
10.0dB	~	20.0dB	1.0dB step
20.0dB	~	30.0dB	2.0dB step
30.0dB	~	50.0dB	5.0dB step
50.0dB	~	70.0dB	10.0dB step

③ BALANCE adjustment steps

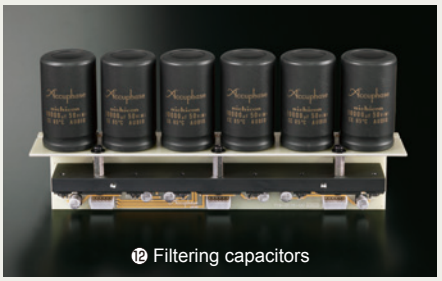


④ Loudness compensator properties

⑩ Headphone amplifier



⑪ Line and balanced input and output connectors



⑫ Filtering capacitors

⑫ Toroidal power transformers

Includes CD player operation

Supplied Remote Commander RC-260

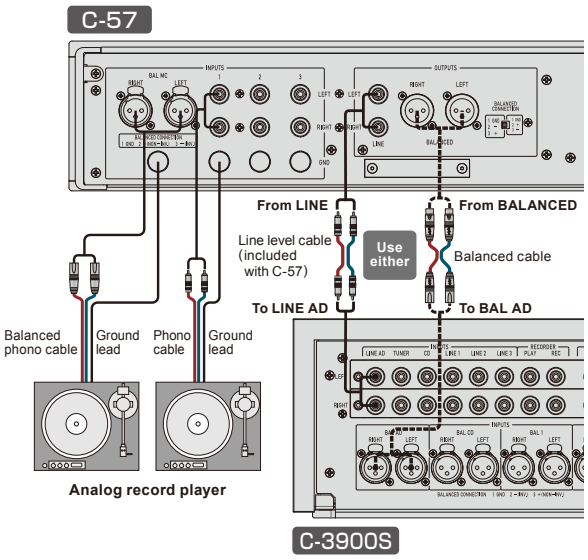
Recommended product

■Connecting the C-3900S with the C-57 Stereo Phono Amplifier enables playback of analog records.

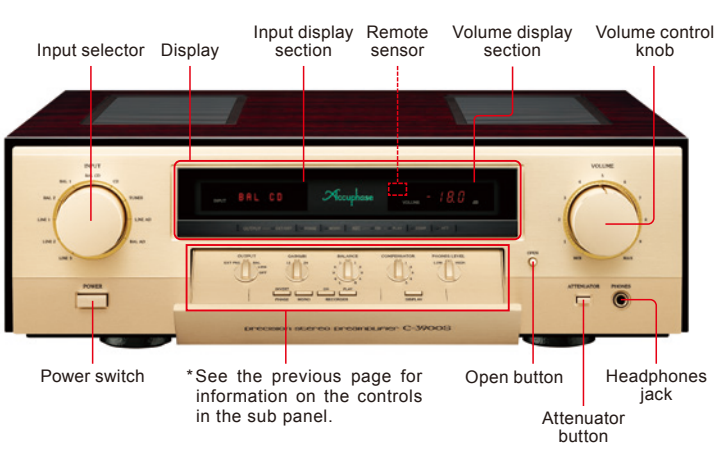
C-57 Stereo Phono Amplifier

- Head amplifier with ANCC
- Low-noise fully balanced configuration
- One dedicated balanced MC phono input and three sets of regular phono inputs
- Balanced and line level output connectors
- Separate settings memory for each input position

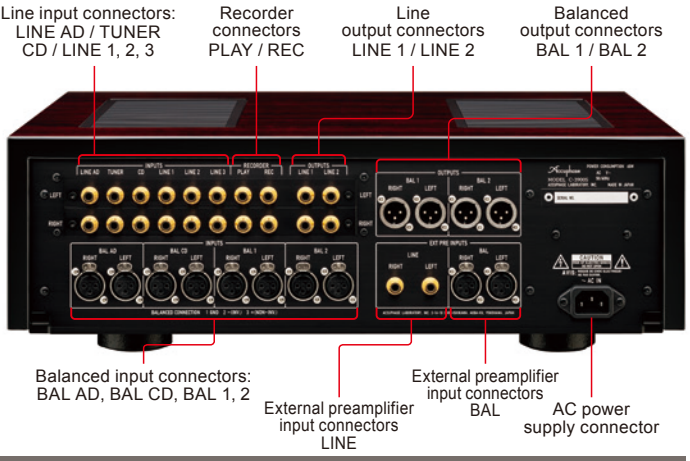
Phono cartridge	Input impedance (ohms)	Gain (dB)
MC	10/30/60/100/ 200/300/1k	64/70
MM	1k/47k/100k	34/40



Front Panel



Rear Panel



C-3900S Guaranteed Specifications

Frequency Response	BALANCED / LINE INPUT	3 to 200,000 Hz +0, –3.0 dB		
		20 to 20,000 Hz +0, –0.2 dB		
Total Harmonic Distortion (20 to 20,000 Hz, at rated output)	0.005%			
Input Sensitivity, Input Impedance	Input connectors	Input sensitivity		Input Impedance
		At rated output	0.5 V output	
	BALANCED	252 mV	63 mV	40 kilohms (20/20 kilohms)
	LINE	252 mV	63 mV	20 kilohms
Rated Output Voltage, Output Impedance	BALANCED / LINE OUTPUT	2 V, 50 ohms		
S/N Ratio, Input-Converted Noise (Gain Switch: 18 dB)	Input connector	Input shorted (A weighting)		S/N ratio (EIA)
		S/N ratio at rated output	Input-converted noise	
	BALANCED	118 dB	–130 dBV	113 dB
	LINE	118 dB	–130 dBV	113 dB
Max. Output Voltage	BALANCED / LINE OUTPUT			7.0 V
	RECORDER REC			6.0 V
Max. Input Voltage	BALANCED INPUT			6.0 V
	LINE INPUT			6.0 V

Minimum Load Impedance	BALANCED / LINE OUTPUT	600 ohms
	RECORDER REC	10 kilohms
Crosstalk (10 kHz)	–90 dB	
Gain (GAIN selector at 18 dB) ✻ Gain changes depending on the position of the GAIN selector (12 dB / 18 dB / 24 dB).	BALANCED INPUT → BALANCED OUTPUT	18 dB*
	BALANCED INPUT → LINE OUTPUT	18 dB*
	LINE INPUT → BALANCED OUTPUT	18 dB*
	LINE INPUT → LINE OUTPUT	18 dB*
	BALANCED/LINE INPUT → RECORDER REC	0 dB
Loudness compensator (100 Hz)	1: +2 dB, 2: +3 dB, 3: +4 dB, 4: +5.25 dB, 5: +6.5 dB	
Attenuator	–20 dB	
Headphones Jack	Suitable impedance	8 ohms or higher
	Output level	2 V (40 ohms)
	Level selection (LOW, MID, HIGH)	±10 dB MID baseline
Power Requirements	120 V, 220 V, 230 V AC (voltage as indicated on rear panel)	
	50 / 60 Hz	
Power Consumption	60 W	
Maximum Dimensions	Width 477 mm (18.8") × Height 156 mm (6.1") × Depth 412 mm (16.2")	
Mass	Net	25.3 kg (55.8 lbs)
	In Shipping Carton	33 kg (73 lbs)

Supplied accessories

- **AC power cord, 2 m (6.5')**
- **Audio cable with plugs ASL-10B, 1 m (3.3')**
- **Remote Commander RC-260**
- **Cleaning cloth**

• Measurement methods for Guaranteed Specifications adhere to JEITA CP-1301A and IEC 60268-3.

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

ACCUPHASE LABORATORY, INC.

• The specifications and appearance of this product are subject to change without notice.

https://www.accuphase.com/

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