

PRECISION STEREO PREAMPLIFIER C-2900



Accuphase Laboratory, Inc.

1

As you may remember the C-2800 in 2002 was an epoch-making preamp, that was firstly equipped with the AAVA volume control system, after the steady evolution with the C-2810 in 2006, the C-2820 in 2011, and the C-2850 in 2016, Accuphase proudly launch the C-2900 of the 5th generation precision stereo preamp.

C-2900 firmly carries on the superb technologies of the flagship C-3900, the balanced AAVA system is firstly applied in C-2800 series, and makes the C-2900 ideal preamp.

The balanced AAVA principle utilizes two balanced-connection AAVA circuits and reduces noise levels in the C-2900 roughly 20% over conventional preamps.

The faithful reproduction of delicate musical performance by the C-2900 makes it the perfect preamp for passionate audiophiles.

Dimensions and weight

- Same unit dimensions as the former model



Accuphase Laboratory, Inc.

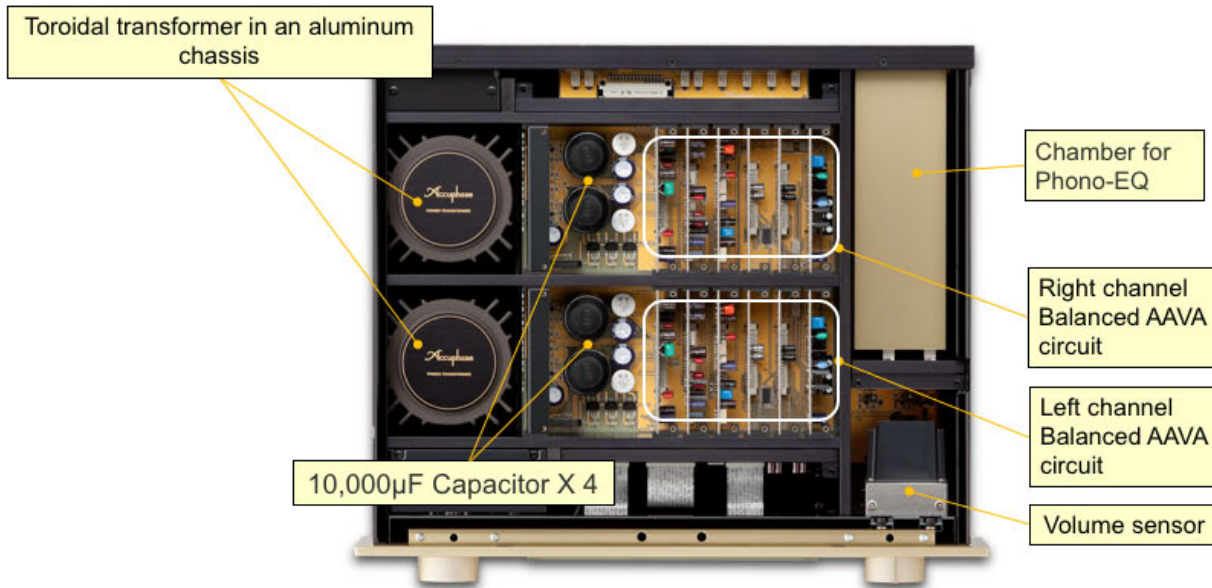
2

The dimensions of C-2900 are exactly same as the former model C-2850.

The weight of C-2900 is almost same as the former model as well.

**Weight of C-2850: 24.5kg

Internal view



Accuphase Laboratory, Inc.

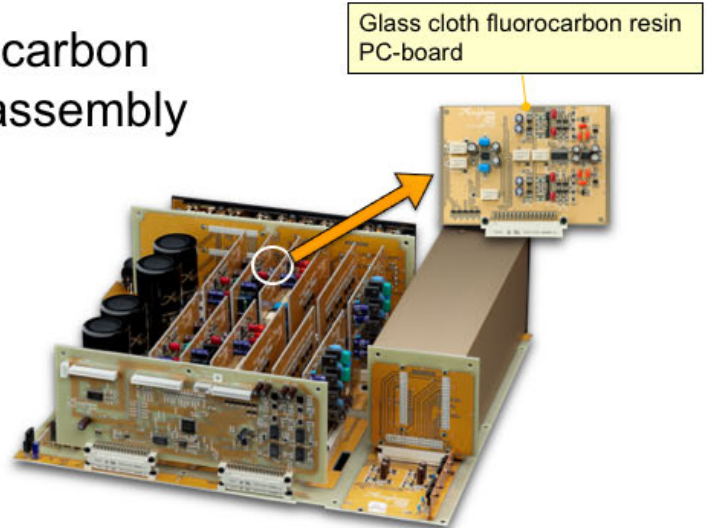
3

C-2900 inherits C-2850's internal construction as it is.

It has the complete symmetric layout centered on strong power supply by large toroidal transformer with heat-radiation fins and 4 pieces of special made 10000µF capacitors.

Circuit assembly structure

- Fully modular construction
- Gold plated glass cloth fluorocarbon resin PC-board for amplifier assembly



Accuphase Laboratory, Inc.

4

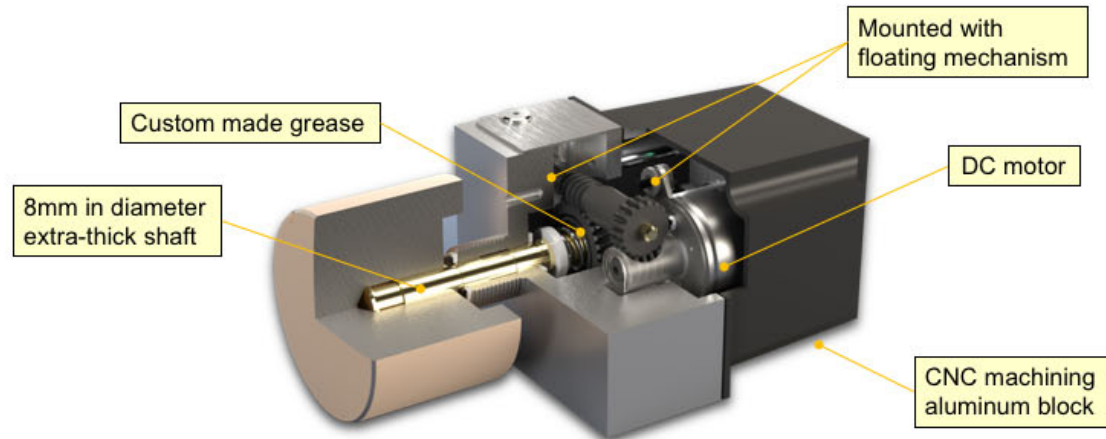
Circuit Assembly boards are housed in the rigid aluminum frames and arranged in a neat layout.

Separate unit amplifiers for left and right helps to suppress electrical interference and crosstalk.

Amplifier circuits are mounted on gold plated glass cloth fluorocarbon resin PC-board by fully modular construction which has beneficial effects on the heat dissipation performance and the ease of maintenance.

Volume sensor mechanism

- Distinguished operation feeling
- Reduced mechanical and motor noise



Accuphase Laboratory, Inc.

5

The music signal does not pass volume mechanism in AAVA and also balanced AAVA. It is just a position sensor to set sound volume.

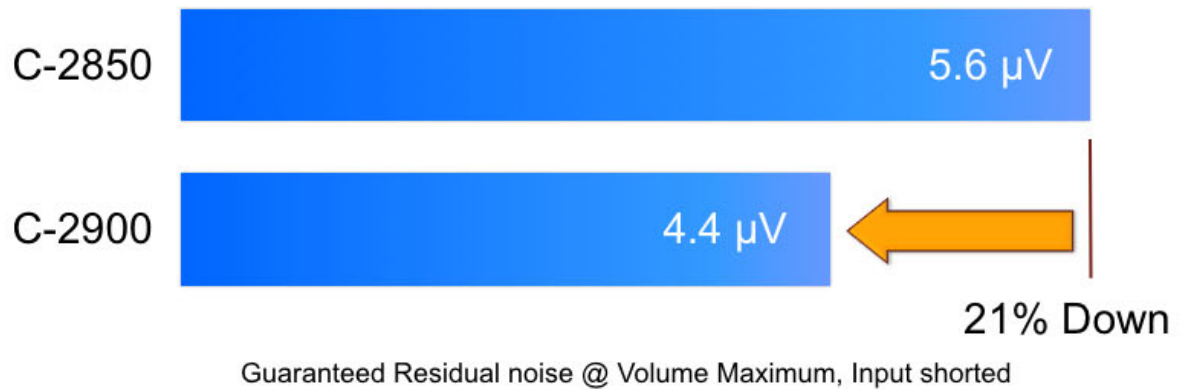
However, the feeling of the volume knob is very important for audio enthusiasts.

In the C-2900, the motor and the set of gears are mounted with the floating mechanism, and with the custom-made grease, the knob provides a smooth operation feel and super-quiet volume adjustment.

The volume sensor mechanism float from the chassis to block off the vibration with specially made silicon rubbers.

Ultra low noise

- 21% lower than the former model
 - Guaranteed S/N ratio: 113dB



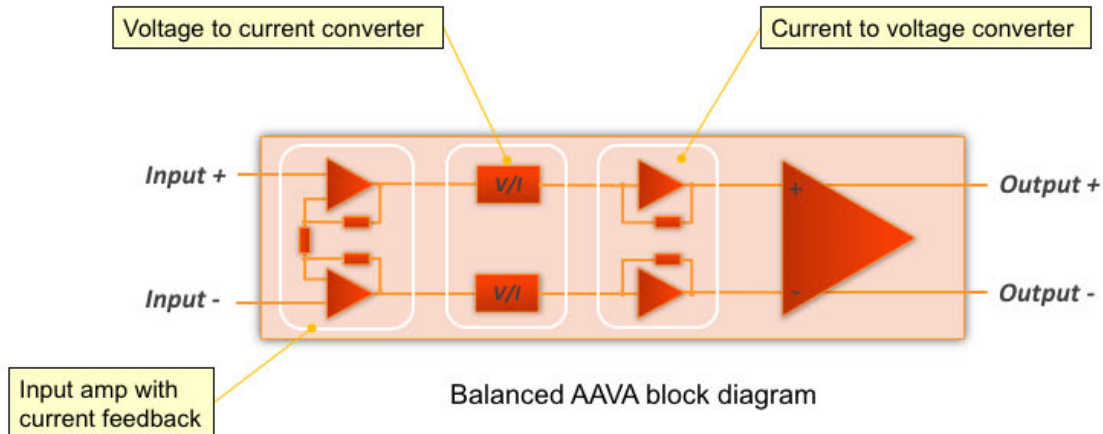
Accuphase Laboratory, Inc.

6

The Balanced AAVA principle reduces noise level in the C-2900 21% over the former C-2850. it make the significant improvement in sonic performance.

Technology for ultra low noise

- Balanced AAVA
 - Balanced AAVA with discrete architecture principle



Accuphase Laboratory, Inc.

7

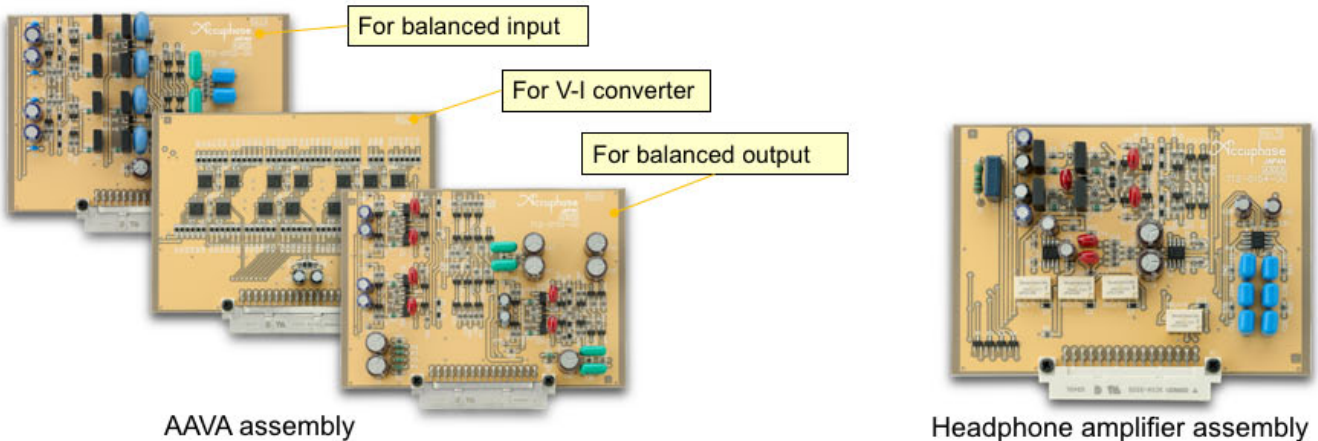
The AAVA(Accuphase Analog Vari-gain Amplifier) is a radically different volume control principle that eliminates all variable resistors from the signal path.

C-2900 employs two AAVA modules in a fully balanced configuration from input to output. It's called Balanced AAVA.

This breakthrough architecture minimizes the external noise or internally-initiated noise by balancing the internal signal transmissions.

Technology for ultra low noise

- All AAVA circuits made by fully discrete configuration
- Headphone Amplifier drives every single headphone.



AAVA assembly

Headphone amplifier assembly

Accuphase Laboratory, Inc.

8

All AAVA Assembly boards have discrete and balanced configurations to achieve the ultra low noise characteristics.

High-gained Balanced Input amp shows the great noise performance at high volume level.

Discretely configured, high-quality headphone amplifier drives every single headphone all over the world, with high output current provided from the dedicated power source.

Further more ...

- Custom components for ultimate sound quality
 - Strong power supply for each channels
 - High quality remote commander



Power Transformer



Custom made Capacitor



RC-250
Remote Commander

Accuphase Laboratory, Inc.

9

C-2900 consists of many custom-made parts.

In power supply section, to provide the stable power to other sections, C-2900 mounts the power transformer having the same capacitance as the C-3900.

Luxury 40000uF of filtering capacitors are the exclusive design for the C-2900, this special component is tuned through the hundreds of auditions and trials pursuing the fascinating sound.

Elegant and high-quality remote commander is supplied with.

Dedicated Phono Equalizer Unit

AD-2900



Accuphase Laboratory, Inc.

10

The AD series Phono Equalizer unit has been newly developed, every time the new pre amplifier series is launched. They are not just a minor update but always thoroughly pursuing the high-performance and sophisticated sound quality that goes with the times.

The AD-2900 is no exception, it's been dramatically improved its sonic performance to perfectly fit with the epoch-making C-2900 pre-amp.

The MC load setting value "200 ohm" is newly applied, high-gained AD-2900 perfectly supports from the vintage masterpiece to the state-of-the-art cartridges.

The AD-2900 fully reproduces the potential of Analog records, and offers the wonderful experience of new discovery from the familiar discs.

Functions

- Gain switchable
 - MC: 64dB, MC: 70dB
 - MM: 34dB, MM: 40dB
- Input impedance selectable
 - MC: 10, 30, 100, 200, 300 ohm
 - MM: 47k ohm



Function buttons on C-2900 sub panel



Accuphase Laboratory, Inc.

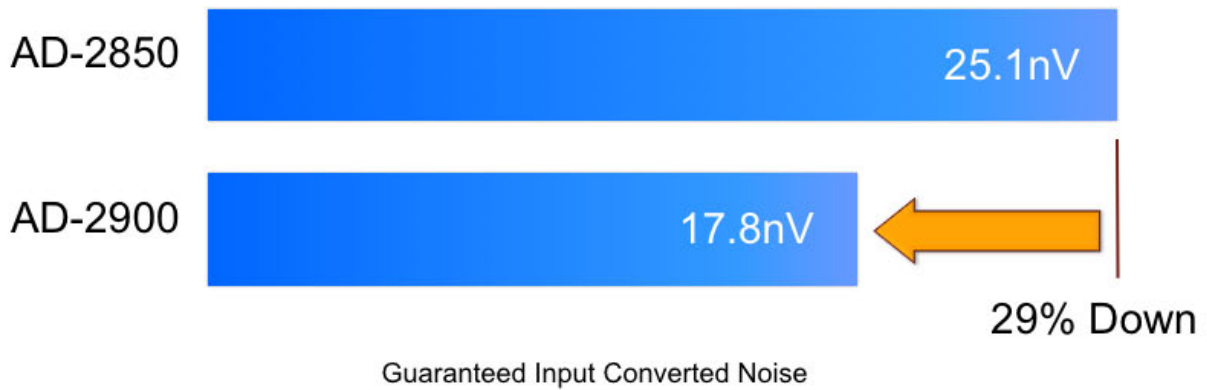
11

The gain values can be set to 64/70dB for MC (AD-2850:60/70dB), and to 34/40dB (AD-2850:30/40dB) for MM, It enhances the excellent usability in low gain setting of general cartridges.

The MC Input impedance can be selected from 5 values for MC, “200 ohm” is newly added, they are easily switchable from the C-2900’s front sub-panel. The MM input impedance is fixed to 47k ohm.

Ultra low noise

- 29% lower than the former model
 - Guaranteed Input converted noise: -155dBV



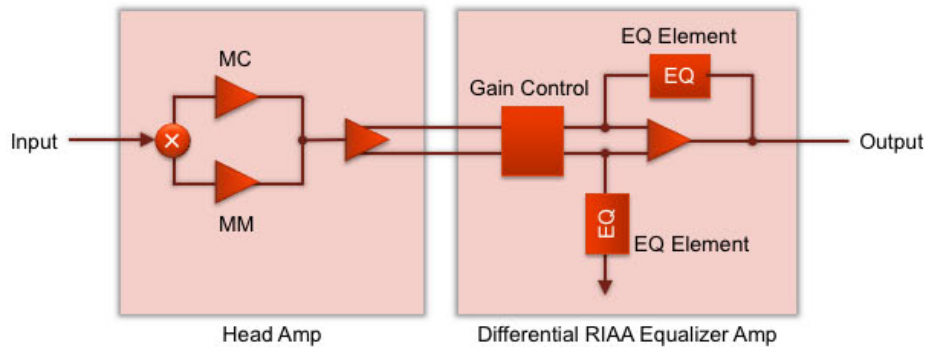
Accuphase Laboratory, Inc.

12

Optimizing the gain distribution for the Head amp and the RIAA Equalizer amp results in the exquisite noise performance at MC input, AD-2900 achieves 29% lower noise compared to the former AD-2850.

Technology for ultra low noise

- Differential RIAA equalizer configuration
 - Low RIAA equalization errors: $\pm 0.2\text{dB}$ (MC64/70)



AD-2900 has quite unique configurations, as it consists of two amplifiers, Head Amp and Differential RIAA Equalizer Amp.

The first stage of Head Amp features separate input circuitry, it switches between bipolar-transistor for MC type cartridges and junction-FET for MM type cartridges, and realizes ultra low noise performance.

Differential RIAA Equalizer Amp is balanced input EQ amplifier, it is designed to provide low RIAA equalization errors when changing the AD GAIN value.

Backward compatibility

- Available model
 - C-2800, C-2810, C-2820, C-2850, C-2900
 - C-2400, C-2410, C-2420, C-2450
 - C-290, C-290V



Accuphase Laboratory, Inc.

14

AD-2900 is supported by not only C-2900 but following models for backward compatibility.

- C-2850, C-2820, C-2810, C-2800
- C-2450, C-2420, C-2410, C-2400
- C-290V, C-290

Remarks;

1. MC LOAD impedance 300 Ω and 200 Ω is not available for any models other than C-2900, C-2850, C-2820 and C-2420 due to no impedance selector button.
2. For any models other than C-2900, C-2850, C-2820 and C-2420, AD GAIN value should be unified into MC: 60/70dB & MM: 30dB/40dB different from the inscribed values on products.