PRECISION STEREO CONTROL CENTER

C-2420

- AAVA volume control for high performance and outstanding sound
- Separate power transformers for left and right channels
- Selectable preamp gain
- Fully modular construction with separate left/right units for each amplifier stage
- Logic-controlled relays for shortest signal paths
- Independent phase selection for each input position
- Optional phono equalizer unit allows playback of analog records
- Side panels with elegant natural wood finish
Further advanced AAVA volume control elevates performance to a new realm — A preamplifier for the next generation, featuring AAVA technology developed for the C-2820. Modular design of AAVA and other amplifier sections realized in a dual-mono construction with separate power supplies. Preamplifier overall gain selection setting and phase selection settings for each input position stored in memory. Numeric indication of volume level. Optional phono equalizer unit allows playback of analog records with ultimate fidelity.

The Precision Stereo Control Center C-2420 reflects the refined sonic sensitivity of Accuphase while incorporating advanced technology features developed for the C-3800 and C-2820. A full model change has further elevated performance and sound quality to new heights. Ever since being first introduced in the C-2820 preamplifier in 2002, AAVA technology has been continually refined and improved, while of course retaining the underlying principle. The AAVA volume control operates fully in the analog domain, but it eliminates all potentiometers from the signal path. The advantages of this approach are many: outstanding S/N ratio, extremely low distortion, no change in frequency response and sound quality at any listening level, no left/right level differences or crosstalk, and no other performance related degradations. The conventional concept of volume control in analog preamplifiers is now well and truly a thing of the past. Like the C-2820, the new C-2420 features a high-rigidity, high-precision volume sensor extruded from a solid aluminum block and linked directly to the massive volume knob. Both operation feel and accuracy of operation are significantly improved by this design.

The C-2420 features separate power supplies for left and right channel, each with a dedicated power transformer, filtering capacitors and peripheral circuitry. Other circuit stages are arranged separately for left and right channels. A wide variety of versatile functions make the C-2420 a true control center. There are tone controls designed for optimum sonic performance, a loudness compensator, subsonic filter, recorder related functions, overall preamp gain selection, EXT PRE provision for use of another preamplifier, individual phase selection for each input position, and more.

The separately available Phono Equalizer Unit AD-2820 supports both MC and MM cartridges and allows the reproduction of analog records with utmost fidelity. Advanced technology enables performance and sound quality on a level that approaches the realm of top-of-the-line products. The C-2420 ushers in a new era of preamplifier excellence.
AAVA (Accuphase Analog Vari-gain Amplifier) Volume Control

Total of 18 V-I converter amplifiers, with dual buffer amplifiers in input stage for powerful drive capability

The AAVA input stage uses separate buffers for the inverted and non-inverted side of the balanced input, and features 18 V-I amplifiers, with the amplifiers for the upper two bits being paralleled for further improved SN ratio.

No more left/right tracking differences or crosstalk

Because the channels can be kept separate, there is virtually no left/right tracking error also at very low volume levels, and crosstalk does not present a problem.

Amplifier display shows accurate gain

When the volume knob is turned, the selected volume level is clearly indicated by the numeric display on the front panel.

AAVA ensures high SN ratio, low distortion, as well as uniform frequency response and sound quality at any volume

Because AAVA does not introduce a change in impedance, there is no deterioration of SN ratio at any volume setting, and frequency response remains totally uniform. Therefore the tone quality is practically not altered.

Volume control resolution

AAVA adjusts the listening volume by means of 16 weighted V-I converter amplifiers which are controlled by current switches. The number of possible volume steps set by the combination of these converter amplifiers is 2 to the power of 16 (65,536).

Attenuator and left/right balance control also implemented by AAVA

Keeping the circuit configuration simple helps to maintain high performance and sonic purity.

High performance and sound quality to last

AAVA unifies the amplifier and volume control functions, resulting in a circuit that is electrically very simple. Long-term reliability is excellent, with performance and sound quality that will remain unchanged also after protracted use.

AAVA means analog processing

The AAVA circuit converts the music signal from a voltage into a current, alters gain by means of current switches, and then reconverts the current into a voltage. The entire process is carried out in the analog domain.

Same operation feel as a conventional high-quality volume control

Operating the volume knob feels exactly the same as with a conventional control, and operation via the remote commander is also possible.

AAVA operation principle

The music signal is converted into 16 types of weighted current by V-I (voltage - current) converting amplifiers [1/2, 1/2^2, ..., 1/2^16]. The 16 currents are turned on or off by 16 current switches, and the combination of switch settings determines the overall volume. The switching operation is controlled by a CPU to match the position of the volume control knob. The combined current forms a variable gain circuit that adjusts the volume of the music signal. The respective currents are combined and converted back into a voltage by an I-V (current - voltage) converter.
Analog records can be reproduced by installing the dedicated phono equalizer unit AD-2820 in a special slot on the rear panel. The AD-2820 features separate input circuitry for MC and MM cartridges to ensure optimum matching for each cartridge type. The balanced output stage configuration minimizes noise and ensures highly pure playback. The printed circuit boards are made from glass cloth fluorocarbon resin and housed in a sturdy aluminum case for complete protection against any external interference. Shortest possible connection between inputs and amplifier circuitry assures outstanding S/N ratio.

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**Specifications and design subject to change without notice for improvements.**

**Supplied accessories**
- Power cord
- Audio cables with plugs (1 m)
- Remote commander RC-220
- Cleaning cloth

**Remarks**
- This product is available in versions for 120/220/230 V A.C. Make sure that the voltage shown on the rear panel matches the AC line voltage in your area.
- 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.