

C.E.C.

CONTROL / POWER AMPLIFIER  
**AMP3300R**

Features the Load Effect Free (LEF) circuit  
Pure class A single-ended, no-feedback circuit  
Volume control with "Intelligent Gain Management" (IGM)  
One balanced XLR input and four unbalanced RCA inputs.



# High-quality sound reproduction for true music lovers. CEC's unique LEF circuit and IGM volume control applied.



## Pure class A single-ended amplifier

The AMP3300R is a class A amplifier that features an extremely pure single-ended circuit with one voltage amplifier stage and one current amplifier stage that handle all music signal processing. The AMP3300R overcame the inefficient and extremely low output, which earlier class A amplifiers had, by combining the high-quality class A amplification with the Load Effect Free (LEF) circuit that avoids various sources of nonlinearities.

## CEC's original LEF circuit

The AMP3300R features CEC's unique Load Effect Free (LEF) circuit to completely avoid all factors that result in deterioration of sound quality. The LEF circuit makes possible pleasing and detailed playback as well as high efficiency. Every amplifier should be a perfect voltage source in theory, while the current into the speaker is likely out of phase in relation to the voltage. The phase relation varies with the frequency, and it is even dynamically moving. NFB amplifiers are sensitive to this matter, specifically to the dynamic changes. The LEF's current control stage is not linked to the signal voltage, and just checks the current requirement that depends on the speaker load without "knowing" about the phase relation to the voltage. This "phase independent operation" is an important reason for the obvious drive ability as well as sound quality. The AMP3300R also has an automatic bias adjust function for stable signal processing.

## Fully balanced signal processing circuit

The AMP3300R adopts a full-balanced circuit design to achieve extremely high-speed and low-distortion signal transmission. Unbalanced input is converted to a balanced signal in the very first stage of the amplifier with no deterioration of sound quality, resulting in a fully balanced output signal. In addition, the left and right signals are processed in circuits divided to two different layers to ensure channel separation and a high-level stereo image.

## IGM volume control

The Intelligent Gain Management (IGM) system is applied to minimize signal loss during volume adjustment. Sound level is adjusted by controlling the amplifier gain itself with a knob on the front panel. The input signal is not degraded by any mechanical volume resistor or CMOS device. As a result of this, lowest noise, low distortion and highest dynamic performance has been achieved.

## Input and output

The AMP3300R has four conventional unbalanced RCA inputs and one balanced XLR input that enables a high quality balanced connection with a player like CEC's CD3300R. In addition, the AMP3300R can be connected to a recording devices such as tape recorder. The speaker output with plastic cover in consideration of safety can be connected with a banana-plug or a Y-shaped plug.

## Protection function

When continuous clipping is detected, the volume level is reduced automatically. In case of overheating, the unit is completely shut down. After cooling down, it turns on automatically.

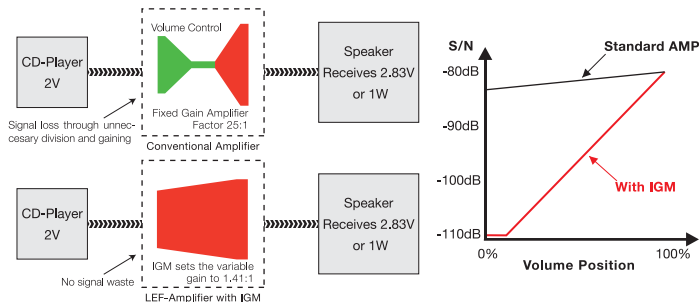
## AMP3300R Specifications

<b>Rated output</b>	64W + 64W (8ohm)
<b>Frequency response</b>	0.5Hz – 200kHz/±1dB
<b>S/N ratio</b>	102dB
<b>THD</b>	0.015%/50mW
<b>Gain</b>	18dB/XLR, 24dB/RCA (max. volume)
<b>Input terminal</b>	balanced XLR x 1, unbalanced RCA x 4
<b>Output terminal</b>	TAPE rec. (RCA) x 1, speaker x 1
<b>Power supply</b>	120 / 230VAC, 60 / 50Hz (specified on the rear panel)
<b>Power consumption</b>	min. 32W, max. 300W
<b>Dimensions</b>	approx. 435(w) x 350 (d) x 102 (h) cm (incl. Heatsink, leg & knob)
<b>Weight</b>	approx. 9.2kg
<b>Accessory</b>	AC power cord, remote control, manual
<b>Color</b>	Black / Silver

※ Specifications and exterior appearance are subject to change for improvements without prior notice.

## IGM - Intelligent Gain Management

Example of IGM compared to usual amplifier operation for 1W / 8ohm(2.83V)



## ⚠ Safety Notices

Be sure to read the user's manual carefully before using the AMP3300R and follow all instructions.

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