

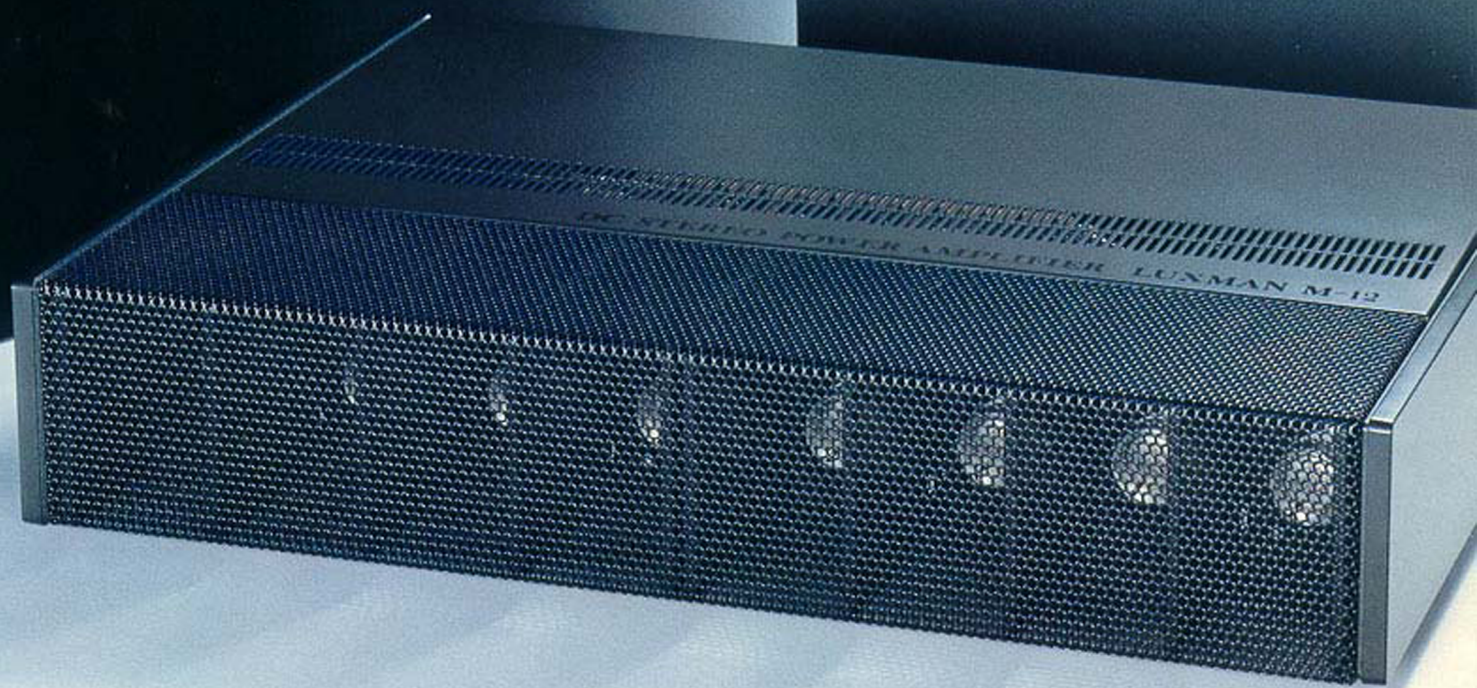


Laboratory Standard Series

SOLID STATE DC POWER AMPLIFIER

A new realtime processed power amplifier from LUXMAN!!

M-12



ULTIMATE HIGH FIDELITY STEREO COMPONENTS

LUXMAN

Ample Power Output and Perfect Elimination of Notch Distortion:

Parallel push-pull operation at the output stage easily yields the rated output of 80W per channel into 8 ohms loads, 20 - 20,000Hz, with total harmonic distortion no more than 0.006%. Under this parallel push-pull system, the amount of current per one transistor can be set at low level, and good treble response is procured along with excellent linearity against electric current. Another feature is the large amount of Pdc(collector dissipation). Furthermore, specially selected high speed transistors at the output stage in combination with a unique circuit device to accelerate overall switching speed make it possible to perfectly eliminate notch distortion inherent in a class "B" amp. Thus, despite basic class "B" amp design the notch distortion is kept as low as that of a class "A" amp.

Realtime Processed DC Amp:

In the case of an audio amplifier which deals with ever-changing music signals, the problem of transient distortion, that is of vital importance to sonic quality (though difficult to define specification) has to be solved in addition to harmonic distortion shown in the form of a measurable specification. With conventional AC amp circuitry, a large amount of NFB is applied to suppress harmonic distortion, and the large capacitor in this NFB loop induces time lag, thus causing transient distortion. Removal of this harmful capacitor led us to the unique concept of a "Realtime Processed DC amp".

At the main amp circuit, an emitter-follower driven by constant current is provided to make the most of our exclusive DML-IC's (where differential amp circuit of dual FET and its auxiliary circuits are packed into a block) and also to improve load condition in the treble range at the pre-driver stage. Another emitter-follower with a constant current circuit is placed to isolate the pre-driver stage of class "A" operation immune from the influence of the pure complementary output stage of class "AB" operation.

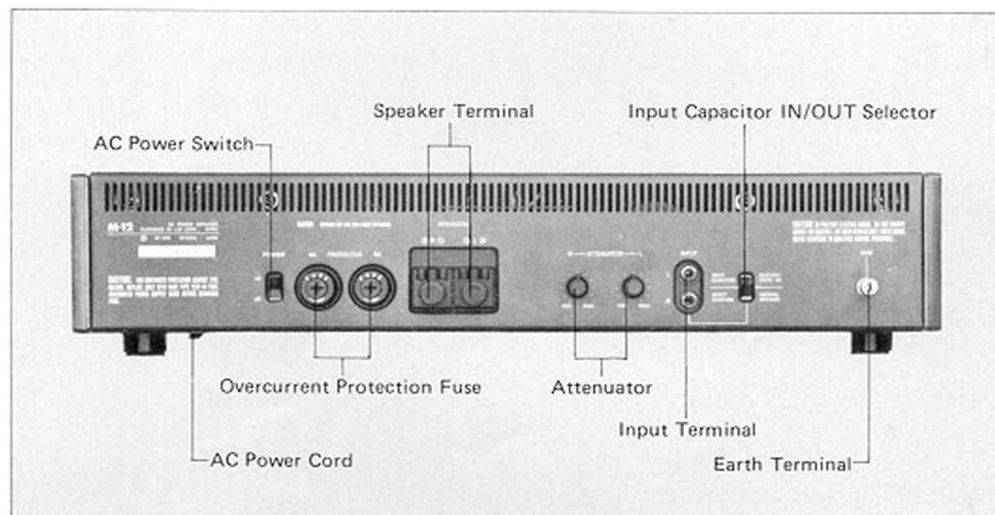
Perfect Independent Power Supply for Right and Left Channels:

In the power supply section, 2 large-sized toroidal power transformers are combined with 2

huge electrolytic capacitors (10,000 μ F x 2), and even the constant current power supply section is separated into right and left channels. Such a perfect independent power supply system eliminates mutual interference between right and left channels at the power supply section ensuring a stable power supply to all circuits of amplifier.

Special DML-IC and Strictly Selected Componentry:

To remedy DC drift - the only drawback of a DC amp, we developed the exclusive DML-IC and the drift was suppressed to a low level equalling that of conventional AC amps. Stringent selection is applied to all componentry employed, and needless to say, sonic excellence is always taken into account.



M-12 SPECIFICATIONS

Power Output:	80W minimum continuous per channel into 8-ohm loads, both channels driven at any frequency from 20Hz to 20,000Hz with no more than 0.006% total harmonic distortion.
Rated I.M.:	no more than 0.006% (8 ohms, 80W, 60Hz : 7kHz = 4 : 1)
Frequency Response:	DC - 100,000Hz (within -1dB)
Input Sensitivity:	600mV
Input Impedance:	20k ohms
Signal-to-Noise Ratio:	better than 110dB (IHF-A weighted, input short-circuited)
Channel Separation:	better than 80dB (20Hz - 30kHz)
Damping Factor:	150 (8 ohms, 1kHz)
Protection Circuits:	Speaker Protection Circuit by sensing DC drift, Overcurrent Protection Circuit.
Additional Features:	Input Capacitor IN/OUT Selector, Attenuator for both channels
Power Consumption:	320W (8 ohms, at maximum output) 400VA (CSA rated)
Dimensions:	436(W) x 328(D) x 95(H)mm (17-3/16" x 12-15/16" x 3-3/4")
Weight:	Net 14.5kgs (31.9 lbs.) Gross 16.5kgs (36.3 lbs.)

Specifications and appearance and design are subject to possible change without notice.

LUX CORPORATION, JAPAN

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