

ULTIMATE HIGH FIDELITY STEREO COMPONENT

LUXMAN

SOLID STATE
STEREO POWER AMPLIFIER

M-6000

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Archiv Michael-Otto*

LUX CORPORATION



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M-6000

A New Generation High Power Main Amplifier

300W per channel minimum continuous power, both channels driven with no more than 0.05% total harmonic distortion at any frequency from 20 ~ 20,000Hz into 8-ohm.

Many High Powered amplifiers currently available do not necessarily have a good sound at normal listening levels when compared with some of the super generation medium powered amps.

Yet, high power is necessary to drive some of today's loudspeakers effortlessly to realistic sound levels.

It was LUXMAN's task to produce a super generation high powered amplifier with our usual design philosophy of faultless tonal sound. At the same time our stylists' aim was to make this Big Amplifier look beautiful in any home decor.

LUXMAN has overcome many problems associated with the high frequency performance of many high powered amplifiers by carefully optimising every stage from the input to its full complementary output stage. This has necessitated the design of special high voltage high speed complementary transistors for the outputs. We are convinced that this gives the M-6000 a superior listening quality.

Protection of both your loudspeakers and the amplifier under adverse conditions is of ever increasing necessity today. That is why we have incorporated Speaker Protection Circuitry that senses abnormal D.C. potential in the output, plus Amplifier Protection Circuits by means of over-

• Input Level Setter

This volume control permits adjustment of the signal available at the input terminals of both Right and Left channels. A precision detent-volume control of metalized film type offers accurate adjustment. Adjustable range is between -20dB and 0dB in 1dB steps.

• Power Switch

A micro-switch is used for push-on, push-off operation. When switched on, the stand-by lamp, using LED, begins to blink and will go out in about 5 seconds, and the meter lamp lights up at the same time, when all the circuitry is put into perfect operational condition.

• Selector Switch for Meter Sensitivity

When the meter sensitivity is set at 0dB indication for maximum output of 300W/CH, the VU meter will not indicate adequately at low output level, nor will the peak indicator light up. Therefore, this set is equipped with a sensitivity selector switch so that both of the indicators may be utilized even at low output level by increasing only the metering sensitivity by 10dB independent of the gain in the power-amp circuitry itself. When this switch is set at the "OFF" position, 0dB indication is equivalent to 300W/CH, while at "ON" position 0dB is equivalent to 30W/CH.



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temperature power limiting and over-current limiting sensors.

Special circuitry is used in the unlikely event of a single power output transistor failing to allow continued operation. As it is our philosophy to ensure listener satisfaction not just "Specs" We give only minimum performance data as the only conservative way to rate our units. Monitoring of the power output is displayed in two ways — Large V.U.Meters read out the Average power and Light Emitting Diodes read out the equivalent Peak instantaneous power, which enables you to see the Dynamics of the Music you are listening to.

A sophisticated exterior design in sculptured three dimensional form includes large easy-to-read V.U.Meters and a delicate treatment for the L.E.D. peak instantaneous monitors. A bronze anodized brushed aluminium form is used for the front panel and incorporated in it is the 1dB step level set controls, a large easy-to-use Power switch plate and meter function push buttons. The rear of the unit contains an exclusive "Honey-Comb" heat sink. All this gives a solid "feel" to the unit.

■ PROTECTION CIRCUITS

M-6000 is equipped with 4 protection circuits. One is for protection of speaker systems, and the other three are for protection of the amplifier.

DC-DRIFT SENSING

This protects the speaker system by cutting off the output when some $\pm 3V$ is detected at the speaker terminals. This also operates as the muting circuitry which protects the speaker system from transient phenomena caused by the mains being turned ON.

POWER TRANSISTOR FAILURE SENSING

This shuts off the mains power when even one fuse of any power transistor is ruptured.

ABNORMAL HIGH TEMPERATURE SENSING

This shuts off the mains power when the temperature at the heat sink increases to more than $100^{\circ}C$ under hard driving for a long period of time.

OVER-CURRENT SENSING

This sensing circuit operates and shuts off the mains power when two contradictory current condition are met by the comparator. For example when at the same time music signal plus a heavy D.C. current component is sensed.



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• Protector Lamp

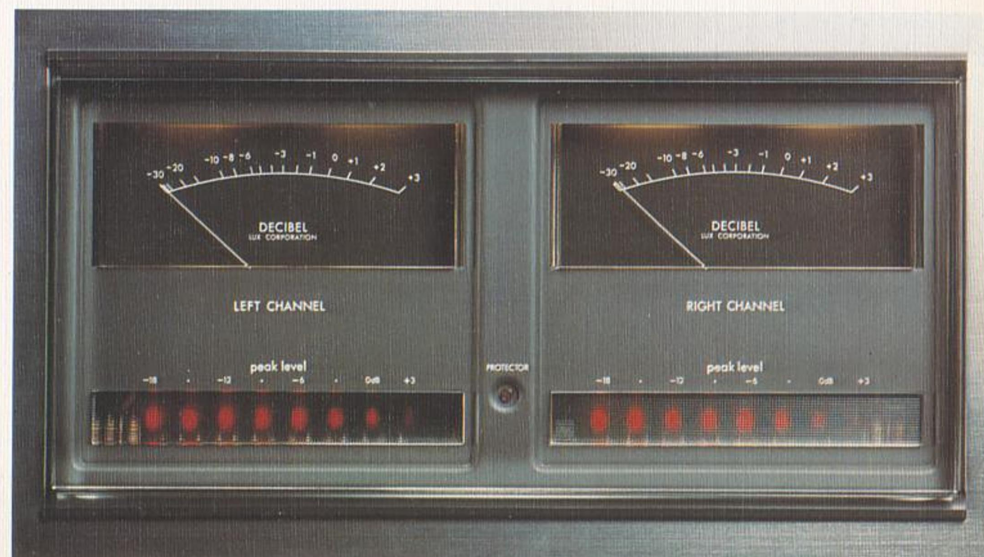
Reliable quadruple protection circuitry ensures perfect safeguard against accidental damage of both the amplifier and loudspeakers. This lamp lights up and shuts off mains power even when a single protection circuitry is put into operation.

• Switch for Remote Power Supply

In addition to the power switch, ON-OFF of the power may be controlled by the power switch of the control amp which is simultaneously used when the attached power supply cord is connected to the switched extra AC outlet on the control amp.

• Safety Switch

Voltage of some 50V is at the speaker terminals when this set is operated up to the rated output. Therefore a Micro-switch for security is provided to safeguard listeners from electrical shock hazard. Power is turned OFF when the upper wooden case is removed.



SOLID STATE STEREO POWER AMPLIFIER Model M-6000 Specifications & Standard Curves

SEMICONDUCTORS:

Transistors (158), Zener-diodes (10),
Varistors (8), Diodes (74), LED (18),
Photo-cell (2), SCR (1)

POWER OUTPUT:

300 watts minimum continuous per
channel, into 8-ohm loads, from 20Hz
to 20,000Hz, at no more than 0.05%
total harmonic distortion

RATED I.M.:

no more than 0.05%
(at 8-ohm 300W, 60 : 7KHz = 4 : 1)

FREQUENCY

RESPONSE: 5Hz ~ 50,000Hz (± 1dB)

INPUT SENSITIVITY:

1.25V

S/N RATIO:

Better than 100dB

RESIDUAL NOISE:

Below 0.5mV

CROSS TALK:

Below -70dB (at 20KHz)

DAMPING FACTOR:

100 (8-ohm)

POWER

CONSUMPTION:

150VA (at no signal), 1.3KVA
(at 8-ohm loads Maximum output)

DIMENSIONS:

570(W) x 425(D) x 220(H)mm
(22-7/16" x 16-3/4" x 8-11/16")

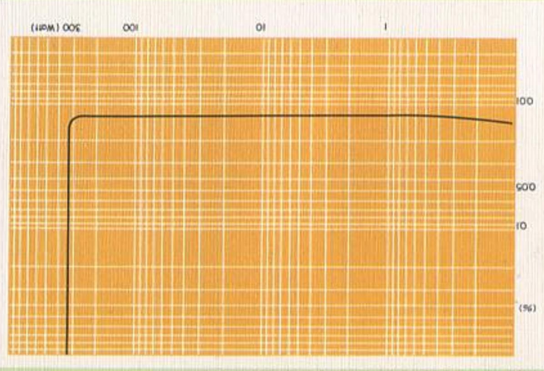
WEIGHT:

Net 52Kg (114 lbs.)
Gross 70Kgs (154 lbs.)

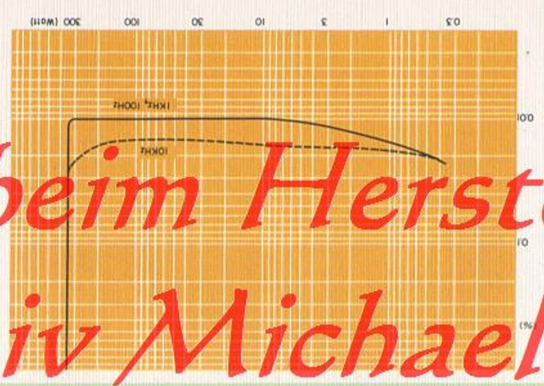
ADDITIONAL

FEATURES: VU meter, LED peak level indicator,
Muting function, Remote controllable
power on/off switch, protection circuits
(D.C. drift, temperature, over current,
individual power TR fuse)

I.M. DISTORTION VS. POWER



TOTAL HARMONIC DISTORTION VS. POWER



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We know the true measurements of minimum performance
standard of a quality amplifier must be of a very high level.
However, these figures are not the only requirements. Despite
every effort to make amplifier design a pure science one
amplifier among many with similar absolute specifications can
still have relatively far better sound quality.
The reason: there are more comprehensive theories of
amplifier design which account for such problems as harmonic
intermodulation and notch distortion, stability, filters, and
equalization as they relate to statements of power. Whatever
the scientific theory, LUX conducts the most detailed listening
tests with engineers and musicians in different fields to ensure
that LUX amplifiers sound best apart from what is considered
good in brochures.
To LUX, sound is not only a science but an art!
Listen to the ultimate difference at your nearest audio shop.