

LUXMAN

L-114A

Duo-Beta Stereo Integrated Amplifier

DUO-BETA, the exclusive, innovative circuitry developed by LUX provides all the elements required for optimum sound quality.

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Archiv Michael-Otto*



LUX CORPORATION, JAPAN

Duo- β Circuitry

The word "Duo Beta" stands for the skilful utilization of 2 NFB (Negative Feedback) circuits. In the case of conventional amplifiers, a large amount of NFB has been applied to improve various characteristics. But in our case, first an amplifier having inherently good characteristics is designed and then NFB is deliberately applied to its best advantage. In this way, the new "Duo- β " circuit was born. In this system, an extremely small amount of NFB contributes soft sound reproduction in the mid to high frequency range, which is combined with a DC servo circuit for tight bass sound reproduction.

Duo-Beta Equalizer

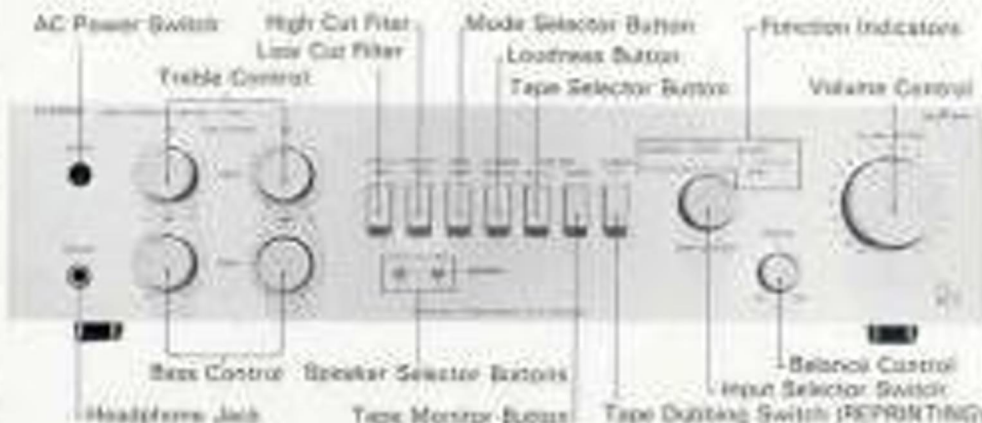
The equalizer stage employs our exclusive technique, i.e., the "Duo-Beta" circuitry. The entire circuitry was designed to provide superb open loop characteristics with a minimal application of Negative Feedback (NFB). Clear and clean sound has been realized thanks to a special new circuit in the entire spectrum of audible frequency by reducing distortion in the open loop mode and limiting the amount of NFB to the minimum amount necessary without sacrificing various other characteristics.

Exclusive windings for the equalizer and transistor ripple filter are used. The power supply section which provides voltage as high as — 42V for outstanding phono input overload capacity of 130mV at 0.05% distortion. A large leak-proof power transistor reinforces the bass range.

The initial stage has ultra-low noise PNP transistors which keeps the input resistance at 47k ohms for a fantastic S/N ratio of below 87dB (IHF-A weighted).

High Gain Power Amp Incorporating Tone Controls

The output stage features direct-coupled



DC output configuration with carefully selected large power transistors having high f_T (treble cut-off frequency) and low C_{ob} (collector output capacity), which realized lowest distortion throughout the entire spectrum of audible frequencies.

The power amp having inherently good characteristics provides high gain while retaining low distortion, which makes it possible to couple the equalizer directly.

Moreover, a unique technique is employed — the tone controls are incorporated in the power amp circuitry. Unlike conventional amplifiers having a flat amp to compensate for loss caused at tone control stage, here we totally banished such surplus circuits which are often regarded as a source of total distortion.

An ideal circuit configuration is now achieved where the superb sound combination between the equalizer and the high gain power amp section comprising tone control circuits. The L-114A uses nothing but such passive implements as filters in between the equalizer and power amp.

Construction for Long-Life, Superb Sound

To maintain ever-lasting good sonic

quality, LUX eliminated as many coupling wires as possible, placing major portion of circuits, switches and pots on a large PV board. In addition, most of the components are firmly placed in an adequate position by automatic insertion machine. All of these measures enable you to enjoy even long after the purchase the superb total quality the L-114A had at the time of manufacture.

Function

All the important functions are arranged logically on a slim, precision-look aluminum-extruded front panel. The Tape monitor and dubbing functions are centered for ease of operation. Also for easy, convenient access, placed are the precision volume control with zero-gang error and the colourful function indicators which interact with the selector switch to show the input mode. Independent tone controls in mid and high channels for boost and roll-off of the bass and treble ranges make it possible to create your favorite sound according to room acoustic, etc. Low-cut and subsonic filters help remove low-frequency noises, while high-cut filter eliminates annoying disc scratch noise and tape hiss. A loudness control is useful while listening at low level. The speaker selector permits independent or simultaneous driving of 2 pairs of loudspeakers.

SPECIFICATIONS

Power Output: 43W per channel, both channels driven into 8 ohms with no more than 0.02% total harmonic distortion. Rated 1M Ω no more than 0.02% (8 ohms, 48 W/Hz, 60 Hz - 7 kHz $\pm$ 4%). **Frequency Response:** 20 Hz - 20 kHz ($\pm$ 0.5 dB) - PHONO Input Sensitivity & Input Impedance: PHONO 2.5mV 50k ohms; TUNER 150mV 50 k ohms; AUX 150mV 50k ohms; MONITOR 150mV 50k ohms **Signal-to-Noise Ratio** (input short-circuit): PHONO better than 92 dB (IHF-A weighted, 10 mV); TUNER better than 100dB (IHF-A weighted); MONITOR better than 100dB (IHF-A weighted); **Reduced Noise:** no more than 0.5mV **Tone Control:** Bass +8dB - 10dB at 70Hz, Treble +8dB - 10dB at

14 kHz **Filter:** High Cut 7 kHz ($\pm$ 6 dB/oct); Phono Subsonic (30 Hz $\pm$ 6 dB/oct); Low Cut (70 Hz $\pm$ 6 dB/oct); **Dimensions:** 438(W) x 308(D) x 113(D) mm (17-1/4" x 12-1/16" x 4-3/32") **Weight:** Net 8.1 kg (17.8 lbs.), Gross 9.3 kg (20.5 lbs.)

Specifications and appearance design subject to change without notice.

AUTHORIZED DEALER

LUX CORPORATION, JAPAN

1-1, 1-CHOME, SHINJYU-KU, NISHIMACHI,
TOYONAKA-SHI, OSAKA, JAPAN.
PHONE: 06-624-0004. CABLE: LUXJAP (TOYONAKA). TEL. 06-254-0001

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