



The Luxman 85V is one of the more interesting amplifiers in this book, being very well made and also having many facilities which are practical as opposed to frills, but naturally there is a high price to pay for an amplifier of this class.

Three high level inputs are provided comprising two auxiliary inputs and a tuner input with a pre-set rear panel gain control which allows the sensitivity to be decreased from the 200mV of the other inputs down to 1.6V. In addition, there are two magnetic cartridge phono inputs with the ideal input impedance for most cartridges but perhaps a rather high input capacitance of 330pF, and also it is perhaps surprising that no switched input impedance is provided.

Provision is made for two tape units, one of which can be fed from a DIN compatible connector. Tape monitoring and dubbing is of course available and whilst the crosstalk between inputs was very good the crosstalk across the tape monitor switch was rated as medium.

On the output end, there is a headphone jack and two sets of loudspeaker outputs which are well suited to an 8 ohm impedance, the selection of either or both sets of loudspeakers is accomplished by a rotary switch which also has an 'off' position.

The high frequency filters were excellent, with a choice of 7kHz or 12kHz turnover frequency with an attenuation of 6dB per octave, and whilst low frequency filters have their turnover frequencies well chosen at 70Hz or 20Hz it is felt that the 6dB per octave rate

of attenuation could have been bettered in the case of the 70Hz filter.

Similarly, the treble and bass tone controls are very good with a choice of three turnover frequencies in either case and the amount of cut or boost being controlled by 21-way switches which, with the exception of the end positions of the treble control, provided adequately small increments in cut or boost.

Like the tone controls the volume control is a multi-way switch which operates in conjunction with a pushbutton 20dB attenuator to give extra range. In practice, this was one of the best switched volume controls providing small increments and an adequate range for headphone listening with the added benefit that the output noise was excellent at all settings. Balance was to all intents and purposes unaffected by any control settings except that of the balance control which was excellent in its law and gave a full range at its end positions.

Other controls include a loudness control which offered either bass boost alone or combined treble and bass boost and also a mode switch which provides stereo, stereo reverse or mono functions. Finally there is associated with the phono inputs a 'linear equaliser' which provided an overall tilt to the RIAA equalisation curve; a thoroughly practical addition to the amplifier for correcting many cartridges.

Listening tests showed that the overall versatility of the controls was first class, all operations being performed without any bad effects. Noise performance was good as was

the overall dynamic range at the output from all sources, but it was considered that when the amplifier was driven into clipping, the subjective effects were rather rough. However, with an output around 100W this will hardly apply to domestic conditions.

Subjectively, this was considered to be a particularly 'clean' amplifier at all power levels, and overall there is much to praise in its design, construction and performance.

General Data

Hum modulation at rated output into 8Ω
50/100/150Hz 0dB
Damping factor ref 8Ω at 1 kHz 65
D C offset at loudspeaker and headphones L/R 13/17mV
Crosstalk at 1W output 100Hz/1kHz/10kHz -68/-62/-43dB
Loudness control effect ref 1kHz 100Hz/10kHz +5/+1dB
Frequency response deviation from 20Hz to 20kHz aux/tape/tuner <0.5dB

Power performance

Power output into 8Ω both L/R 94W
Power output into 8Ω single L/R 110W
Power output into 4Ω both L/R —W
Power output into 4Ω single L/R —W
Burst output into 8Ω single L/R 121W
Burst output into 4Ω single L/R —W
Power output into half rated load L/R 4Ω 163W
Power bandwidth 8Ω 40W L/R 10Hz to 23/43kHz
Power bandwidth 4Ω —W L/R —kHz

Distortion

Total harmonic distortion at 1W into 8Ω
1kHz/10kHz 0.03/0.04%
Total harmonic distortion at 1W into 4Ω
1kHz/10kHz —%
IM distortion at half rated power into 8Ω
DF2 1/10/100kHz >80/76/38dB
IM distortion at half rated power into 8Ω
DF3 1/10/100kHz >80/>80/52dB
IM distortion at 1W from auxiliary input DF3
1/10/100kHz >80/>80/>80dB
IM distortion at 1W from phono input DF3
1/10/100kHz >80/>80/70dB

Noise performance

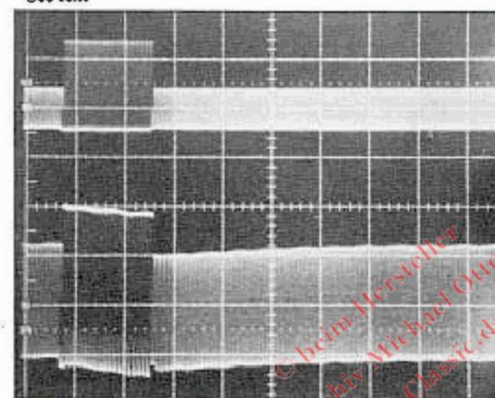
Noise ref to input — average L/R CCIR/22kHz
aux/tuner/tape 100/105dBV
Noise ref to input — average L/R CCIR/22kHz
Phono 115/116.5dBV
Noise ref to input — average L/R CCIR/22kHz
Mic —dBV
Output noise power at zero volume (8Ω)
CCIR/22kHz 0.13/0.05μW
Worst case volume setting auxiliary input (8Ω)
CCIR/22kHz 0.20/0.05μW
Burst dynamic range aux input ref 8Ω worst
channel CCIR 90dB

Inputs and outputs

Input impedance on aux/tuner/tape
..... 70/51; 41/33; 78/56k 210; 230; 100pF
Input impedance on phono 46k 330pF
Input impedance on mic

Input sensitivity and clipping point at 1kHz
aux/tuner/tape 200mV 20V⁺
Input sensitivity and clipping point at 1kHz
phono 3.1mV 380mV
Input sensitivity and clipping point at 1kHz mic —mV
Output voltage and impedance for rated output —
headphone 25V 700Ω
Output voltage and impedance for rated output —
tape 200mV VAR1Ω
Output voltage and impedance for rated output —
DIN 92mV 86kΩ
Typical selling price including VAT £410.00

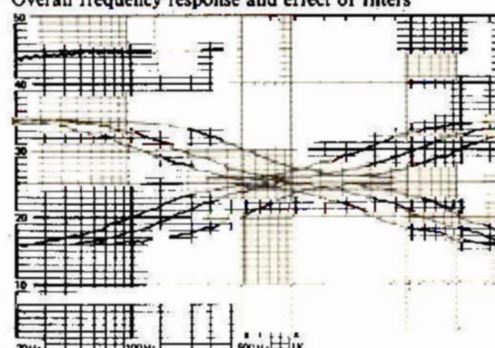
*See text



Overload recovery performance



Overall frequency response and effect of filters



Effect of tone controls and accurate equalisation