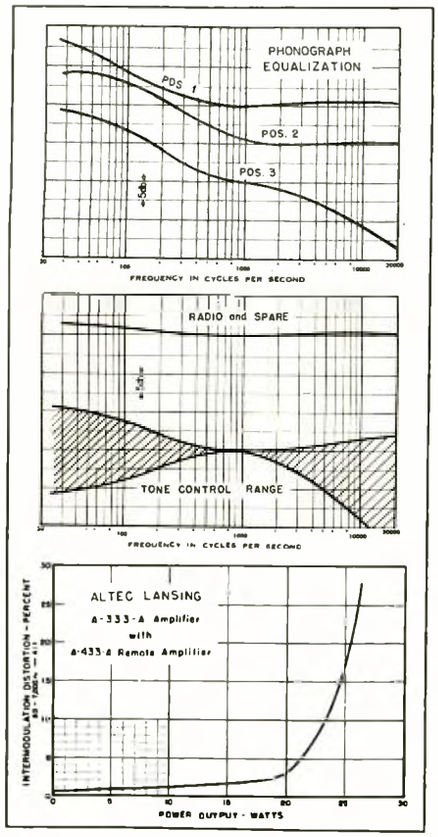
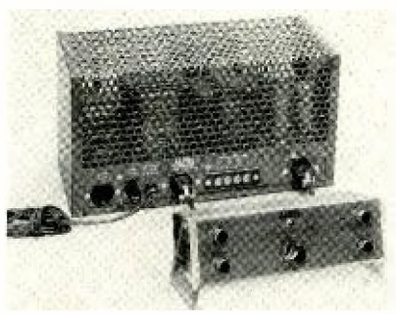




Altec Lansing A-333-A Amplifier with A-433-A Preamplifier and Control Unit

CONTINUING THE TESTS upon commercially available home music system equipment, the second of this series is the two-unit combination built by Altec Lansing under the numbers A-333-A and A-433-A. The former is a three-stage power amplifier, using a 6SJ7 as a voltage amplifier stage, followed by a direct-coupled 6J5 cathodyne phase inverter, followed in turn by a pair of 6L6's as tetrodes. Probably because of the unique method of maintaining the screens at a fixed potential *difference* below the plate supply, this amplifier measures with the lowest distortion encountered to date, arriving at 8 per cent IM distortion at a power output of 22 watts, and with less than 2 per cent IM distortion up to an output of 15 watts.

On the debit side of the report must be listed the difficulty of removing the protective screen cover on the power amplifier for such purposes as changing tubes, and the fact that it is difficult to use the amplifier with the screen cover removed because one apron of the chassis is actually a portion of the cover. However, amplifiers serve most of their time working, rather than lying on the service bench, so this difficulty is of minor importance.

The preamplifier-control unit is well designed, and the equalization provided for magnetic pickups appears to be well chosen, particularly in view of the present general popularity of LP records. Three positions of equalization are provided—the first with a turnover frequency of 300 cps and the second with a turnover frequency of 800 cps. Both of these positions are provided with a "flat" high end—that is, with no roll-off. The third position has a turnover of 500 cps, and in addition has a roll-off designed to match the LP curve. Thus it is not necessary to adjust the tone controls to achieve the roll-off required for LP records, although the tone controls may be used to modify the curve as desired, as well as to introduce the required roll-off to match records being played on positions 1 and 2.

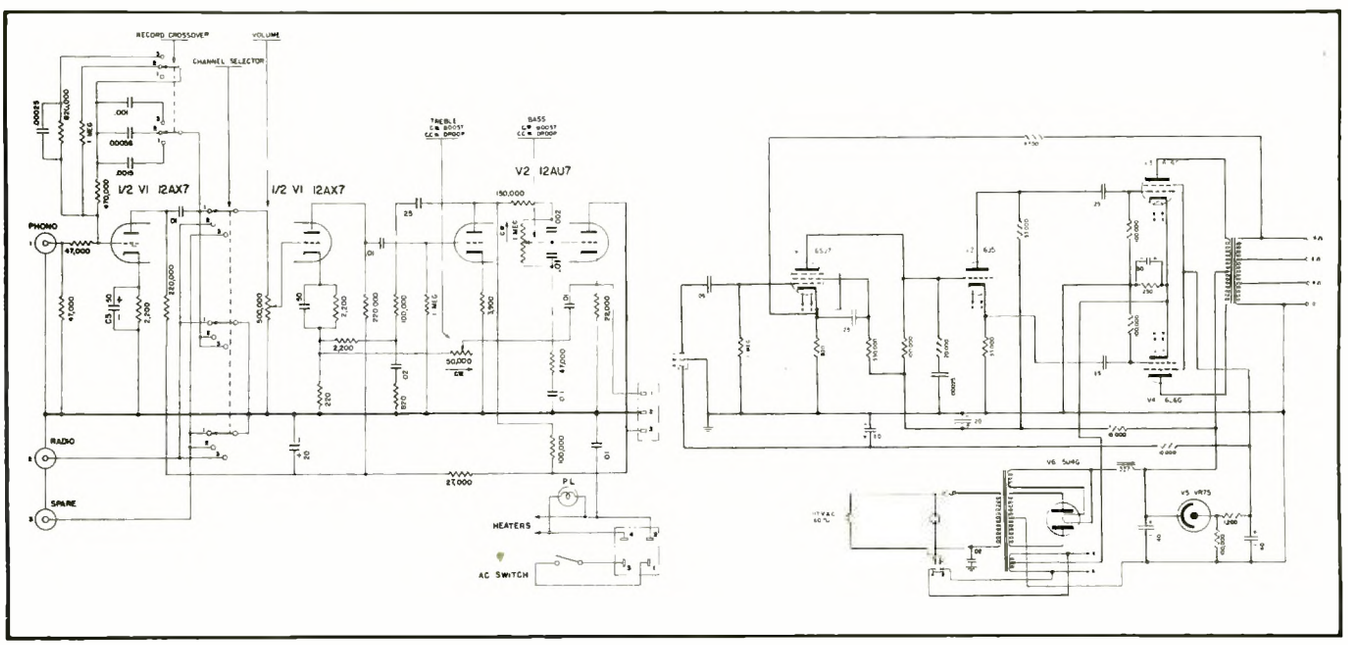
Gain is adequate for any standard magnetic pickup, and for any tuner likely to be used with a home system, as shown in the table of input signal voltages.

SIGNAL INPUT VOLTAGES

for 1-watt output

(1000 cps, volume control maximum, tone controls "flat")

Input	Voltage
Radio	.0157
Spare	.0157
Phono	.0024
Pwr. Ampl.	0.58



Schematic of entire Altec amplifier. Unit at left is the A-433-A preamplifier and control unit; at right, the A-433-A power amplifier. The two units are connected by means of two cables, with a.c. circuits in one, d.c. and audio circuits in the other.