

No. 130-B TWIN CHANNEL MAIN AMPLIFIER

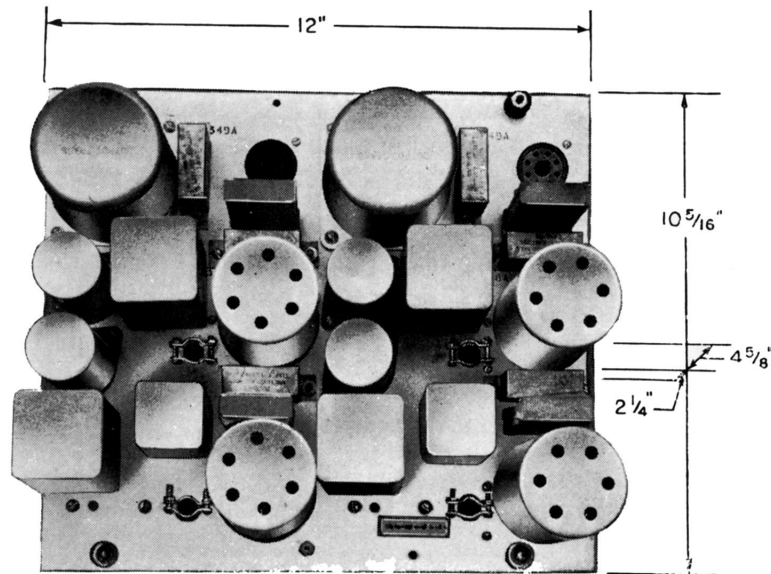


Figure 26 — 130B Twin Channel Main Amplifying Equipment.

Use — Recommended for use in high quality AM and FM audio systems where it is desirable to feed two programs through a single program production unit simultaneously. May also be used to provide one regular and one emergency transmission channel. Each amplifier element is arranged for its own interstage gain control, which is intended as the master gain control for that channel.

Description — Two identical, electrically separate, three stage amplifiers are mounted on a common chassis. In operation, cross talk between the two channels is held below audible levels through careful circuit design and expert selection of components.

By the same means a high signal-to-noise ratio and low harmonic distortion characteristic, comparable to that featured in units of the single channel type, have been achieved in this equipment. Resistors in cathode circuits are provided to permit tube checks.

Features

- Handles two programs simultaneously.
- Twin, electrically separate, three stage amplifiers.
- Crosstalk held below audible levels.
- High signal-to-noise ratio.
- Low harmonic distortion.
- Stabilized feedback.

Specifications

Frequency Response: Uniform within ± 1 db over the range 50 to 15,000 cycles.

Output Noise: Main output with maximum gain setting —37 dbm unweighted, —47 dbm weighted (normal ear

sensitivity curve).

Signal-to-Noise Ratio: 61 db unweighted, 71 db weighted; with +24 dbm output.

Source Impedance: 30, 250 or 600 ohms matching. For bridging add proper input pad.

Load Impedance: Main output 600 ohms. Monitor output 40 ohms (approximately).

Maximum Gain: 81 db.

Gain Control: Requires two (one for each amplifier unit) 100,000 ohm potentiometers mounted externally; low capacity wiring for interconnection must be used as this is a high impedance interstage gain control.

Output Power: Normal +24 dbm (250 milliwatts), for frequencies between 100 and 5,000 cycles less than 1 per cent harmonic distortion; +22 dbm (160 milliwatts) at 50 cycles 1 per cent harmonic distortion. Monitor output 20 db less than main output. (Isolation between main and monitor output is 20 db).

Power Supply for Complete Amplifier (2 amplifier units): Filament 6.3 volts, 3.6 amperes (d-c or a-c). Plate 275 volts, 65 milliamperes, d-c.

VACUUM TUBES

Quantity Required	Western Electric	Commercial Receiver Types
2		1603
2	348A or	1620 (or 6J7)
2	349A or	6F6
6		

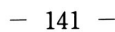


Fig. 1—Schematic