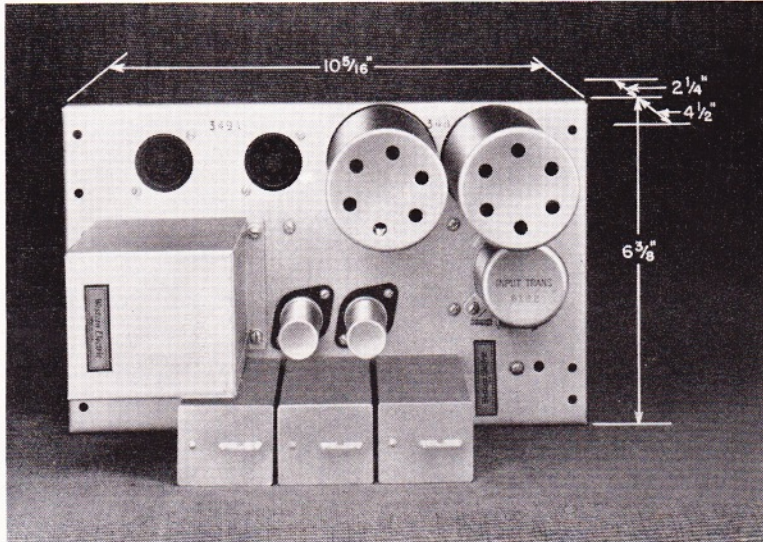


OK FOR FM

MONITOR AMPLIFIER

AMPLIFIER
131A
<i>Western Electric</i>



(5 Watt)

for use

IN SPEECH INPUT or
SOUND SYSTEMS

THE WESTERN ELECTRIC 131A Amplifier is a compact single unit, especially designed for studio-

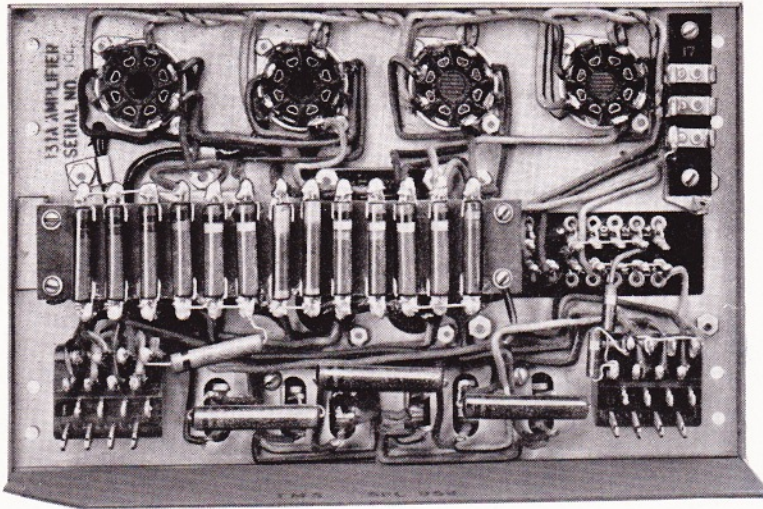
booth monitoring applications where the control booth operator requires a means for talk-back and program cuing to performers in an associated studio or to remote pickup lines. A booth and two studio loudspeakers, as well as line cue-feeding circuits, can be served from its output network. Taps are provided in the output transformer which permit adjustment to work into impedances from 1 to 1200 ohms, thus assuring high quality performance over a wide variety of loudspeaker impedance combinations.

The 131A Amplifier is of the two-stage push-pull type and possesses adequate gain to operate either from the output of a single pre-amplifier or to be bridged across the output of a main amplifier. Output power is sufficient to satisfy normal booth and studio requirements. The unit is constructed for operation from an external power supply source.

LOUDSPEAKER CUT-OFF FEATURE

Each of the three loudspeaker branch circuits is provided with a cut-off relay which may be connected to operate from microphone or talk-back keys so that switching a microphone on will, at the same time, automatically silence the loud-

Western Electric



Wiring Side of the 131A Amplifier

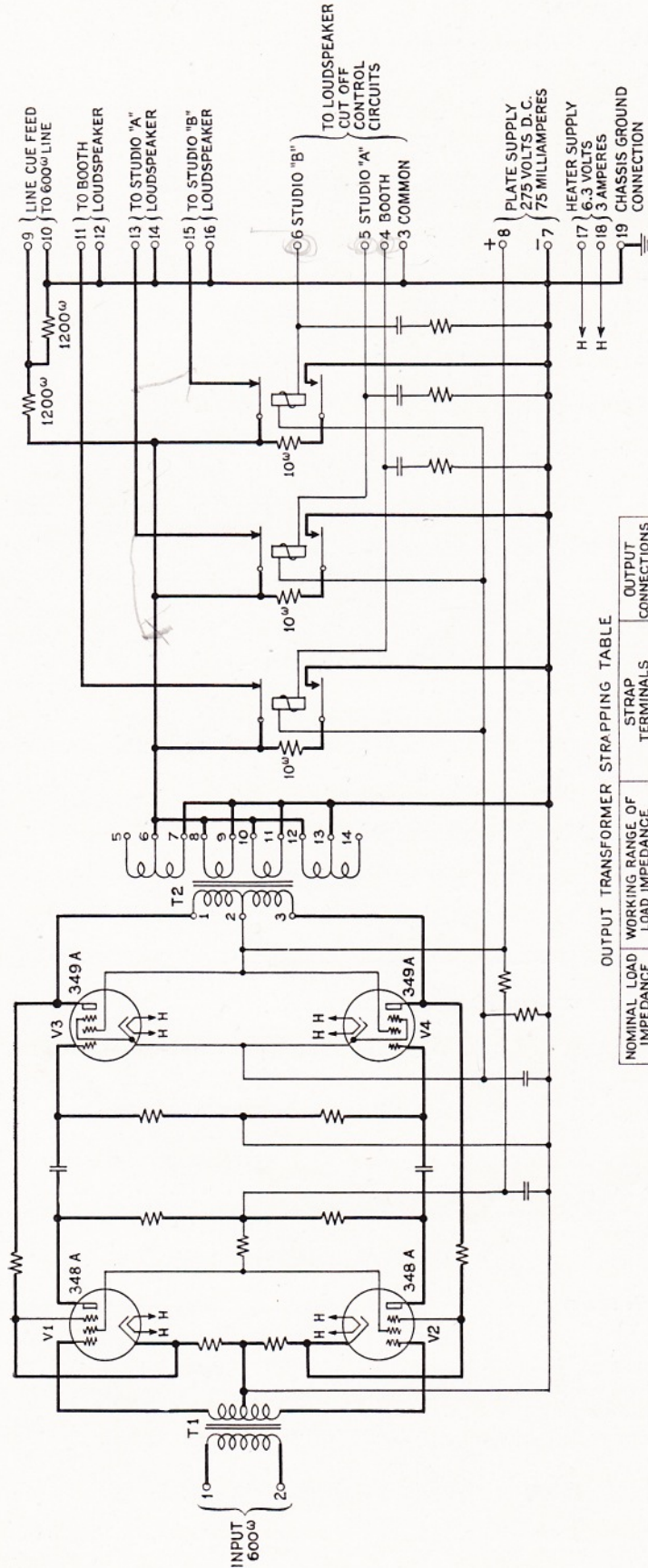
speaker. This feature is desirable where microphone and loudspeakers are located in the same room since it offers a safeguard against acoustic feedback or "singing" which is likely to occur when a microphone is exposed to sound from a loudspeaker connected to the same amplifier channel.

Power for operating the relays is obtained from the power stage cathode circuit of the amplifier so that a separate signal power supply is not required for these relays.

TYPICAL ELECTRICAL CHARACTERISTICS

Gain:	50 db maximum.
Gain Control:	Not included. Specify to suit circuit requirements.
Operates From:	600 ohms.
Operates Into:	Tapped output transformer provides for operation into any impedance from 1 ohm to 1200 ohms.
Output Power:	5 watts (+37 dbm*) with 5% harmonic distortion; 3.2 watts (+35 dbm*) with 1% harmonic distortion.
Output Noise:	-55 dbm*, unweighted, with maximum gain. Signal to noise ratio over 90 db under conditions of normal gain and output level.
Frequency Characteristic:	Flat within 1 db over the range 30 to 15,000 cycles.
Power Supply:	Filament 6.3 volts, 3 amperes ac or dc. Plate 275 volts, 75 milliamperes, dc. (Filament and plate supply may be obtained from 18 or 20 type Rectifiers.)

*Reference: 1 milliwatt



OUTPUT TRANSFORMER STRAPPING TABLE

NOMINAL LOAD IMPEDANCE	WORKING RANGE OF LOAD IMPEDANCE	STRAP TERMINALS	OUTPUT CONNECTIONS
600 ω	300 ω TO 1200 ω	7-8, 9-10, 11-12	5 & 14
150 ω	70 ω TO 300 ω	7-8, 9-14, 11-12, 5-10	5 & 14
30 ω	20 ω TO 70 ω	7-8, 9-10, 11-12	6 & 13
16 ω	10 ω TO 20 ω	7-8-10, 9-11-12	6 & 13
7.5 ω	3 ω TO 10 ω	7-9-10-12, 6-8, 11-13	6 & 13
1.75 ω	1 ω TO 3 ω	6-8-10-12, 7-9-11-13	6 & 13

131A AMPLIFIER SCHEMATIC

EQUIPMENT CHARACTERISTICS

Panel Size: $6\frac{3}{8}$ " x $10\frac{5}{16}$ ". The apparatus extends approximately $4\frac{1}{2}$ " from the front and $2\frac{1}{4}$ " from the rear of panel.

Weight: $7\frac{3}{4}$ pounds.

Mounting: Designed for mounting in the 25 type Speech Input Console Unit. Can be adapted for mounting on 177 type Mounting Plate which requires $10\frac{1}{2}$ inches of rack space on standard 19 inch racks or bay cabinets. (Capacity 2 amplifiers per plate.) A 296 type Panel is required as a face mat for the Mounting Plate. Flexible rubber insulating mountings are furnished.

Vacuum Tubes: The following vacuum tubes required for operation must be specified separately on the order:

Western Electric

2 — 348A

2 — 349A

In an emergency, if these tubes are not available, the following may be used:

1620 or 6J7 in place of 348A

6F6 in place of 349A

Accessory Equipment:

The following accessory equipment is recommended for use with the 131A Amplifier:

Western Electric 18 or 20 type Rectifier

Western Electric 177 type Mounting Plate (one plate can mount two amplifiers)

Western Electric 296 type Panel (blank face mat for 177 type Mounting Plate)

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