

## No. 132-A AMPLIFIER

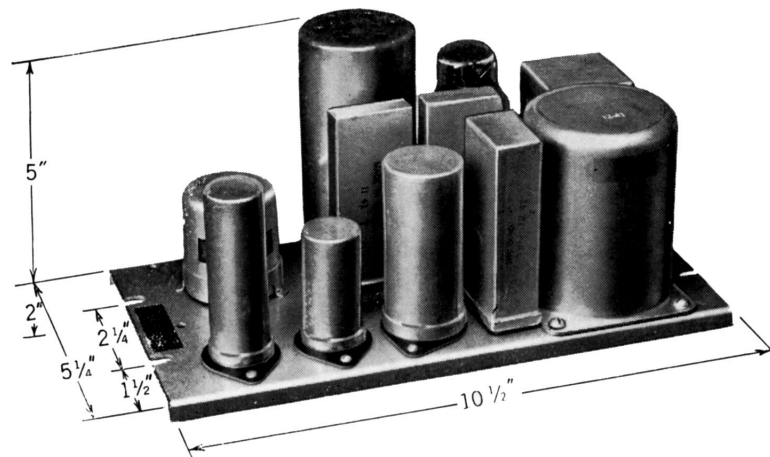


Figure 30 — 132A Main Amplifier.

**Use** — The 132A is recommended as a Main Amplifier in modern AM and FM audio system installations. In addition to feeding normally equalized transmission lines or master switching circuits, adequate power is available to handle program bus systems or studio auditioning facilities.

**Description** — This two stage amplifier has compact physical dimensions, low signal-to-noise ratio, gain and output capable of providing a suitable margin above line level to allow for losses in coupling and equalizing devices. Fidelity is maintained over the full 50-15,000 cycle range through use of stabilized feedback, and components are fully shielded to prevent self-generated noise. The 132A operates from an external power supply, and is suited for either desk or rack mounting. Resistors in cathode circuits are provided to permit tube checks.

### Features

- Latest design for modern AM and FM.
- Can handle program bus systems and studio auditioning facilities.
- High signal-to-noise ratio.
- Stabilized feedback.
- Desk or rack mounting.
- Easy checking of tubes.
- Compact.

### Specifications

**Frequency Response:** Uniform within  $\pm 1$  db over the range 50 to 15,000 cycles.

**Output Noise:** -65 dbm unweighted, -75 dbm weighted (normal ear sensitivity curve).

**Signal-to-Noise Ratio:** 73 db unweighted, 83 db weighted, for +18 dbm output.

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

**Load Impedance:** 600 ohms.

**Maximum Gain:** 48 db.

**Output Power:** +28 dbm (600 milliwatts) with 1 per cent total harmonic distortion.

**Power Supply:** Filament 6.3 volts, 1.5 amperes; plate 275 volts, 31 ma. d-c.

### VACUUM TUBES

Quantity Required	Western Electric	Commercial Receiver Types
1	348A or	6J7 (6J7G or 1620)
1	349A or	6F6 (or 6F6G)
2		

**Mounting:** Designed for console mounting; also for rack mounting on a 177 or 190 Type Mounting Plate (Capacity three 132A Amplifiers per plate). A 296 Type Panel required for each mounting plate.

**Dimensions:** 10 1/2" wide, 5 1/4" deep and 7" high (overall).

**Weight:** 6 1/2 pounds.

**Finish:** Gray.

**Accessories:** The following accessory equipment is recommended for use with this amplifier:

- 1 — KS-10003 Meter (for measuring plate currents of vacuum tubes).

# No. 132-A AMPLIFIER



# Western Electric Company

## No. 132-B AMPLIFIER

### ADDENDUM TO INSTRUCTION BULLETIN NO. 1039 COVERING THE 132A AMPLIFIER

The Western Electric 132B Amplifier is a two stage amplifier designed for use as a line amplifier in sound systems or speech input equipment. It is similar electrically and mechanically to the Western Electric 132A Amplifier with the following exceptions:

It is equipped with a 285R Input Transformer which has input connections for operation from sources having impedances

of 30 or 250 ohms and which has an electrostatic shield and an extra electromagnetic shield.

An additional resistor of 240 ohms (R3b) which can be connected across R3a to increase the gain of the amplifier by 9 db.

A schematic drawing of the 132B Amplifier is shown on other side.

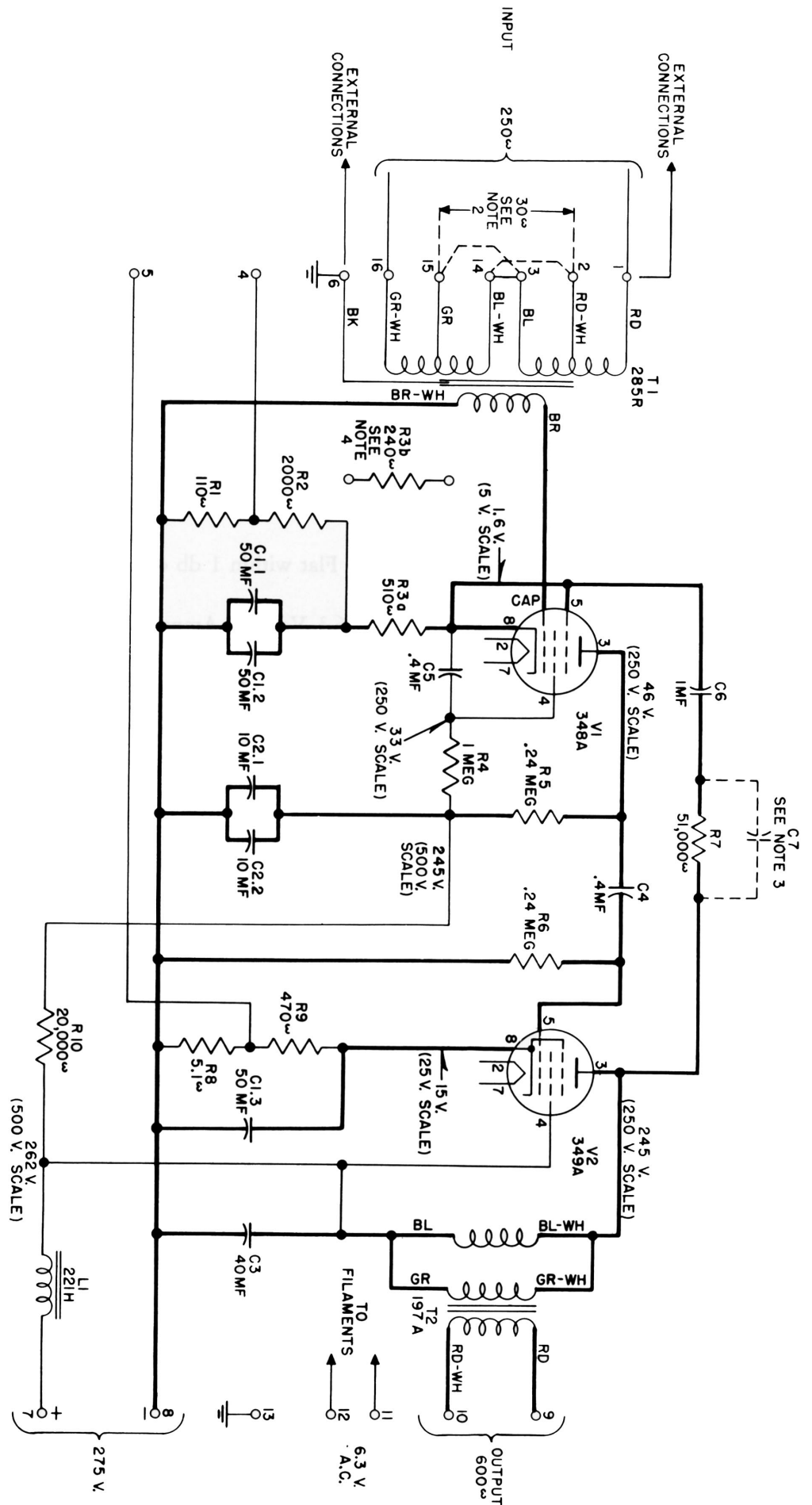
The 132B Amplifier has the following typical characteristics:

	<i>R3b</i> <i>Out of Circuit</i>	<i>R3b</i> <i>In Circuit</i>
<i>Frequency Response</i>	$\pm 1$ db 50 to 15,000 cycles	$\pm 1$ db 50 to 15,000 cycles
<i>Output Noise</i>	-64 dbm. unweighted	-58 dbm unweighted
<i>Signal-to-Noise Ratio</i>	82 db for +18 dbm output.	76 db for +18 dbm output.
<i>Source Impedance</i>	Nominal 30 or 250 ohms. These may vary up to $\pm 25\%$ with little effect on frequency response characteristics.	
<i>Load Impedance</i>	600 ohms	600 ohms
<i>Maximum Gain</i>	51 db	60 db
<i>Gain Control</i>	None	None
<i>Output Power</i>	+28 dbm, with 1% total harmonic distortion.	+24 dbm with 1% total harmonic distortion. +28 dbm with 2% total harmonic distortion.
<i>Internal Input Impedance</i>	Unterminated input transformer.	
<i>Internal Output Impedance</i>	600 ohms	600 ohms

# No. 132-B AMPLIFIER

- NOTES:
1. THE VOLTAGES SHOWN ARE TYPICAL AVERAGE VALUES OBTAINED USING A VOLTMETER WITH A RESISTANCE OF 1000 OHMS PER VOLT. VOLTAGES ARE MEASURED BETWEEN POINT SHOWN AND TERMINAL 8.
  2. FOR 30 $\omega$  OPERATION: REMOVE STRAP BETWEEN TERMINALS 3 AND 14, AT T1. ADD STRAPS 3-15 AND 2-14.

3. THE VALUE OF C7 IS DETERMINED DURING MANUFACTURE AND MAY BE ANY VALUE BETWEEN 100 AND 180 MMF.
4. R3b IS NOT WIRED IN THE CIRCUIT. IT IS FURNISHED SO THAT THE GAIN OF THE AMPLIFIER MAY BE INCREASED FROM 51db TO 60db BY SHUNTING R3a ACROSS R3a.



132B Amplifier Schematic