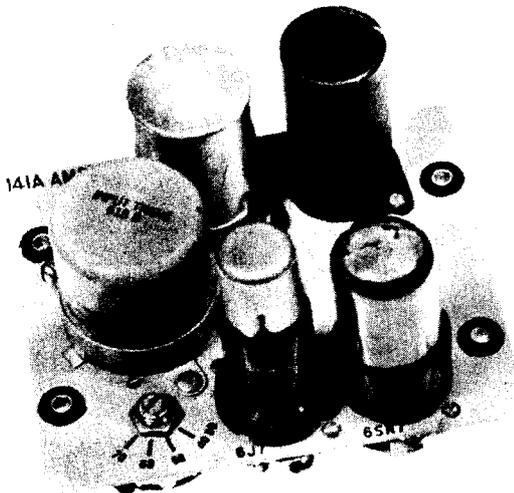


## 141A AMPLIFIER — DESCRIPTION



### GENERAL

The 141A amplifier is a three-stage booster or preamplifier having adjustable gain and a cathode-follower output stage affording a low output impedance that permits the 141A preamplifier to be located remotely from the power amplifier which it drives. The 141A amplifier is designed to derive power and filament supply from the amplifier to which it is connected or from an external power supply. One 141A amplifier can drive as many as 40 amplifiers of the 142A or 143A type, simultaneously. The 141A amplifier may be mounted on the chassis of a 142A or 143A amplifier in space provided for that purpose.

### ELECTRICAL CHARACTERISTICS

Gain - - - - - 70 db maximum with 600-ohm load.

Source Impedance - - 30, 250, or 600 ohms nominal. It may be  $\pm 40\%$  from these values with little effect upon the response characteristics.

Internal Input Impedance - - - Greater than 10 times nominal source impedance over most of the frequency range.

Internal Output Impedance - - - Less than 150 ohms.

Load Impedance - - - 600 ohms or greater.

Output Level - - - -  $+11$  dbm (12 milliwatts) to  $+17$  dbm (50 milliwatts) depending on gain, load impedance, etc, as specified on the schematic. Levels given are for not more than 1% total harmonic distortion, 50 to 7500 cycles.

Output Noise - - - - 70 db gain:  $-45$  dbm (unweighted)  $-55$  dbm (program weighting).  
40 db gain:  $-75$  dbm (unweighted)  $-85$  dbm (program weighting). The input transformer may be rotated to obtain minimum hum.

Frequency Response -  $\pm 1$  db, 50 to 15,000 cycles.

Gain Control - - - - Adjustable in three steps of 10 db each.

Power Supply - - - - 6.3 volts, 0.9 amperes, ac or dc. 275 to 350 volts, 15 milliamperes, dc. May be obtained from Western Electric 18- or 20-type rectifier, Langevin 201B Power Supply, Altec Lansing Corp. 530A Power Supply or from an external amplifier.

### EQUIPMENT CHARACTERISTICS

Dimensions - - - - - 5-3/16" long 4-7/16" wide extends 2-1/2" above the panel and approximately 1-7/8" below the panel.

Weight - - - - - 3 pounds.

Finish - - - - - Gray.

Mounting - - - - - Mounts on 142A or 143A amplifier or three 141A amplifiers may be mounted on a 5-1/4" high relay rack panel using 203A mounting plates.

### ELECTRON TUBES

(These tubes are not supplied with the amplifier and must be ordered separately.)

1 - - - - - 1620 or 6J7  
1 - - - - - 6SN7GT

Note: The clip attached to the flexible lead projecting through the panel should be put on the grid cap at the top of the 6J7. The metal grid cap shield must be in place on the top of the 6J7 tube at all times.

### REFERENCES

BO-75226 - - - - - Assembly and Stock List  
BO-147040 - - - - - Wiring Diagram  
BO-75227 - - - - - Schematic  
BSP 024-106-300 - - 142-Type Amplifier  
BSP 024-106-500 - - 142-Type Amplifier  
BSP 024-106-100 - - 142-Type Amplifier  
BSP 024-106-101 - - 142A Amplifier - Input Circuit Variations

