

NO	I-33
AMPLIFIER	
D-151195	

4-24-41

GENERAL

This is a high gain low power amplifier for sound system and audiphone use. It is designed to operate from either of two crystal pickups such as microphones, and into a low impedance loud speaker, audiphone head sets or both. Mounting holes are provided for the addition of a 618 Type input transformer for applications of low source impedance, and for mounting a 221G retard coil to replace the main filter resistance, R17, when improved filtering is required.

ELECTRICAL CHARACTERISTICS

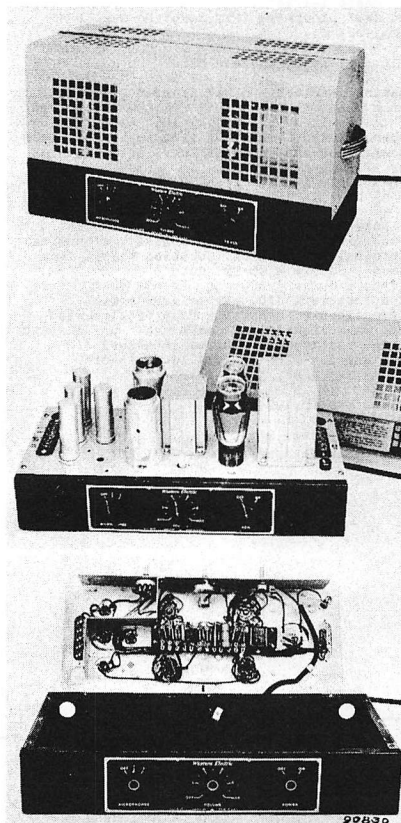
Gain	See Curves (115 db if equipped with 618A input transformer)
Gain Control	40 db continuously variable, with "off" position. Paralleled remote control may be used if desired
Source Impedance	Crystal pickup or up to 5 megohms resistance
Internal Input Impedance	5 Megohms
Load Impedance	Nominally 4.8 or 0.8 ohms. Designed to operate into simultaneous loads of 8 ohms and from 1 to 130 head sets.
Internal Output Impedance	35 ohms for 4.8 ohm terminals
Output Power	5 watts with approximately 10% total harmonic
Output Noise Unweighted	-20 db (1 mw basis) as shipped with low frequencies attenuated -15 db if modified for flat low frequency response
Power Supply	110 - 125 volts, 60 cycles, 0.6 amperes, 75 watts maximum. Fused with .75A Slo Blo Littlefuse

EQUIPMENT CHARACTERISTICS

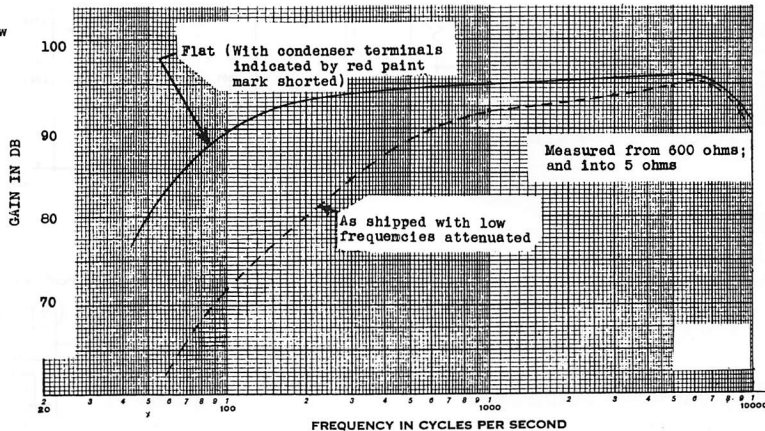
Dimensions	17" wide (housing), 19" over handles 7" deep (housing), 8" over controls 9" high
Weight	Approximately 20 lbs.
Mounting	Table type
Vacuum Tubes	1 - 6L7, 1- 6J7G, 1-6L6G, 1-5Y3G
Finish	Base - Black orinkle lacquer Cover - Blue-gray orinkle lacquer
Connections	Input and Output connections to screw terminals under cover. 7/8" holes for conduit termination if desired Power - 8' power cord and plug

REFERENCES

Schematic ES0-746526  
 Data NB-15400 p. 98 - 101  
 Frequency Response ES-746534  
 Photographs - 90827, 90828, 90829, 90830



FREQUENCY RESPONSE



PARTS LIST

- |  |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
|--|--|--------------|------------------|-----------------|----------------|-----------|---------------|--------------|------------|---------------|--------------|------------|------------|---------|---------|---------|----------|----------|----------|
| <p>3 Mallory FP Electrolytic Condensers<br/>3 sections, 1" by 3" can with metal mounting plate - 50 mf at 25 volts, 30 mf at 450 volts, 5 mf at 450 volts - Manufacturer's name to be omitted</p> <p>1 Mallory Type FP Electrolytic Condenser<br/>1 section, 1" by 3" can with metal mounting plate - 40 mf at 450 volts, Manufacturer's name to be omitted</p> <p>1 Yaxley Type 3125 Switch with 1/4" rolled bushing, 17/32" punched locating lug located vertically, 2 pole 3 positions; contacts 12, 1 and 2; 6, 7 and 8. Shaft 1-1/16" long with flat 5/8" by .216" located 240° clockwise from locating lug. P. R. Mallory Co.</p> <p>3 S-292-IL Kurz Kasch Knobs - Black</p> <p>1 G.E. Mazda 6 - 8 volt No. 47 frosted pilot lamp or Weston KD-21865 6 - 8 volt frosted pilot lamp</p> <p>1 Escutcheon Plate, Same as WR-128A Amplifier Plate except marked D-151195 Amplifier. Metal Etching Company, Brooklyn, New York</p> <p>1 Par Metal DF-717-BT Box and Cover</p> <p>1 Hart &amp; Hegeman Rotopower Switch, single pole No. 1651. 1-1/16" shaft with flat 60° clockwise from terminals when in off position viewed from shaft end - Supply with two nuts</p> <p>1 IRC Type C Curve A 5000 ohm Volume Control with open circuit in extreme counter clockwise position when viewed from shaft end. 0 resistance in extreme clockwise position. Standard 3/8" threaded bushing with nut and lock washers. Dimensions C = 5/8", A = 1-1/16"</p> <p>4 Eby Sockets per EB-10067</p> <p>1 5 Terminal Terminal Strip<br/>American Radio Hardware Company No. 1511</p> | <p>1 4 Terminal Terminal Strip<br/>American Radio Hardware Company No. 1509</p> <p style="text-align: center;">IRC BT 1/2 Resistances</p> <table border="0"> <tr> <td>1 - 5 Megohm</td> <td>3 - 250,000 ohms</td> </tr> <tr> <td>2 - 20,000 ohms</td> <td>1 - 1/2 Megohm</td> </tr> <tr> <td>1 - 500 "</td> <td>1 - 2250 ohms</td> </tr> <tr> <td>1 - 35,000 "</td> <td>1 - 4000 "</td> </tr> <tr> <td>2 - 150,000 "</td> <td>1 - 25,000 "</td> </tr> </table> <p>1 IRC BT 1 Resistance - 100,000</p> <p style="text-align: center;">IRC BT 2 Resistances</p> <table border="0"> <tr> <td>1 - 10,000</td> </tr> <tr> <td>2 - 40,000</td> </tr> <tr> <td>1 - 200</td> </tr> <tr> <td>1 - 350</td> </tr> </table> <p>1 IRC Type AB 8 ohms ± 10% 5 watt resistance</p> <p>1 .005 mf Type 1 W Cornell Dublier Condenser</p> <p>1 .00025 mf Type 5 W Cornell Dublier Condenser</p> <p>1 .002 mf Type 4 Cornell Dublier Condenser 2500 volt test</p> <p>1 .02 mf 600 volt condenser type TVC-4 Cornell Dublier</p> <p>1 Kenyon Output Transformer No. S-13008</p> <p>1 Kenyon Power Transformer No. S-13007</p> <p>1 8' Tyrex SJ Power Cord with soft rubber moulded unpolarized power plug G.E. Company</p> <p>2 Aluminum Goods Manufacturing Company Tube shield No. 00234 - Base No. 0354</p> <p>1 Little Fuse Extractor Fuse Post No. 1075</p> <p>1 0.75 Ampere Slo Blo Littlefuse</p> <p>1 Panel Lamp Socket - American Radio Hardware Co. No. 1725 with up clip on 7/8" bracket</p> <p>2 Cable Clamps Zerlok No. 78</p> <p style="text-align: center;">Vacuum Tubes Shipped from Commercial Stock</p> <table border="0"> <tr> <td>1 - 6L7</td> </tr> <tr> <td>1 - 6J7G</td> </tr> <tr> <td>1 - 6L6G</td> </tr> <tr> <td>1 - 5Y3G</td> </tr> </table> | 1 - 5 Megohm | 3 - 250,000 ohms | 2 - 20,000 ohms | 1 - 1/2 Megohm | 1 - 500 " | 1 - 2250 ohms | 1 - 35,000 " | 1 - 4000 " | 2 - 150,000 " | 1 - 25,000 " | 1 - 10,000 | 2 - 40,000 | 1 - 200 | 1 - 350 | 1 - 6L7 | 1 - 6J7G | 1 - 6L6G | 1 - 5Y3G |
| 1 - 5 Megohm   | 3 - 250,000 ohms   |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 2 - 20,000 ohms  | 1 - 1/2 Megohm   |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 500 "  | 1 - 2250 ohms  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 35,000 "   | 1 - 4000 "   |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 2 - 150,000 "  | 1 - 25,000 "   |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 10,000   |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 2 - 40,000   |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 200  |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 350  |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 6L7  |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 6J7G   |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 6L6G   |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |
| 1 - 5Y3G   |  |              |                  |                 |                |           |               |              |            |               |              |            |            |         |         |         |          |          |          |

