

No. 124-C AMPLIFIER

COMMERCIAL PRODUCTS APPARATUS REFERENCE SHEET

NO	I-28
AMPLIFIER	
124C	
4-15-41	

GENERAL

This is a power amplifier, similar to the 94-type, for use whenever a carbon microphone source is required. It is used in the 103C Amplifier. It replaces the 109A and 109B Amplifiers.

ELECTRICAL CHARACTERISTICS

Gain (W.E. Tubes)*	50 db - Bridging Input - Terminals 1 & 3 58 db - High Gain Input - Terminals 1 & 2 Measured between nominal impedances
Gain Control	45 db Continuously Variable - High Gain Input only. The potentiometer should be set at "Maximum" when the Bridging Input is used.
Source Impedance	Bridging Input, 0-25,000 ohms 600 ohms nominal High Gain Input, 0-1000 ohms 50 ohms nominal
Internal Input Impedance	Bridging Input, 27,000 ohms High Gain Input, 150 ohms
Load Impedance	1-1200 ohms Nominal load impedances - 600, 150, 30, 16, 7.5 or 1.75 ohms See strapping data on schematic
Internal Output Impedance	3/4 of nominal load impedance
Output Power	12 watts, 2.0% total harmonics at 400 cycles into nominal load impedance May be reconnected for 20 watts with 5% harmonic content
Output Noise	Unweighted, -37 db relative to .001 watt
Maximum Input Level	0.85V single frequency Bridging Input 5.0 V single frequency High Gain Input
Power Supply	105-125 Volts 50-60 cycles Using 12 watt output 1.1A amperes 105 watts Using 20 watt output 1.25 ampere 125 watts Standby Power -55 watts approx. Fused with 1.25 amp. Buss Fustat on chassis Power switch furnished

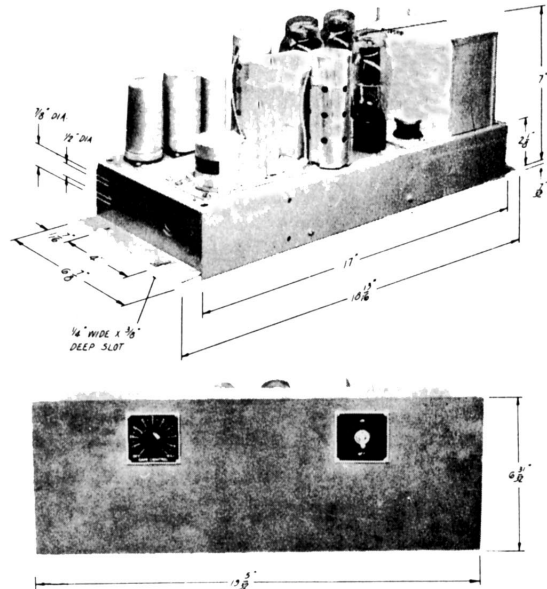
*Gain .7 db less with RCA tubes

EQUIPMENT CHARACTERISTICS

Dimensions	See photograph.
Weight	20 pounds.
Vacuum Tubes	W.E. or R.C.A. 2-348A or 2-6J7 or 6J7G 2-350B or 2-6L6 or 6L6G 1-274B or 1-5T4 or 5U4G
Finish	Chassis, Aluminum Lacquer Mat, Black Enamel - Code 124C-3 Aluminum Gray - Code 124C-15 Aluminum Lacquer - Code 124C-24

REFERENCES

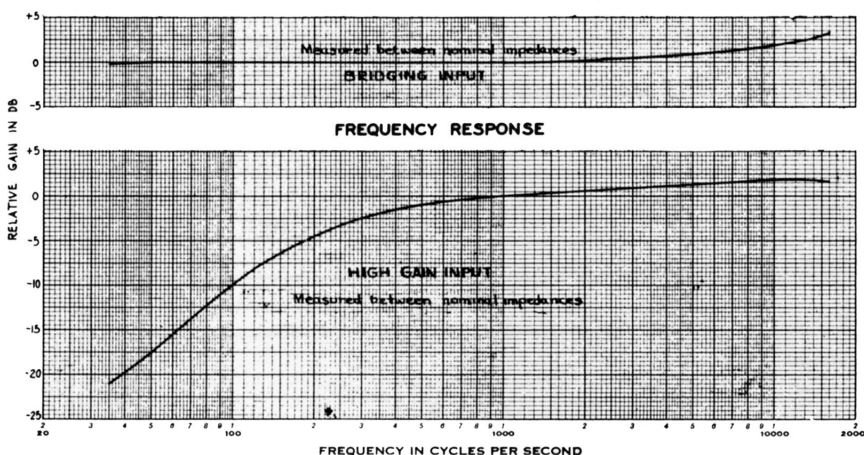
ESX-675954 -Assembly	Photographs
ESX-676165 -Schematic	92117
ESX-676168 -Wiring Diagram	92118
ESA-746281 -Harmonic Char.	



Connections - All external connections are normally made to terminals under the chassis, and knockouts are provided in the ends of the chassis to admit the wires. Additional knockouts are provided in the sides of the chassis where sockets may be installed if plug and socket connections are desired. Plugs and sockets which may be used are as follows:

Connectors to mount on chassis:
For Input Circuit - Amphenol PC4F Compact Chassis Connector
For Output Circuit - Amphenol PC3F Compact Chassis Connector
For Power Circuit - H&H #754 Flush Receptacle

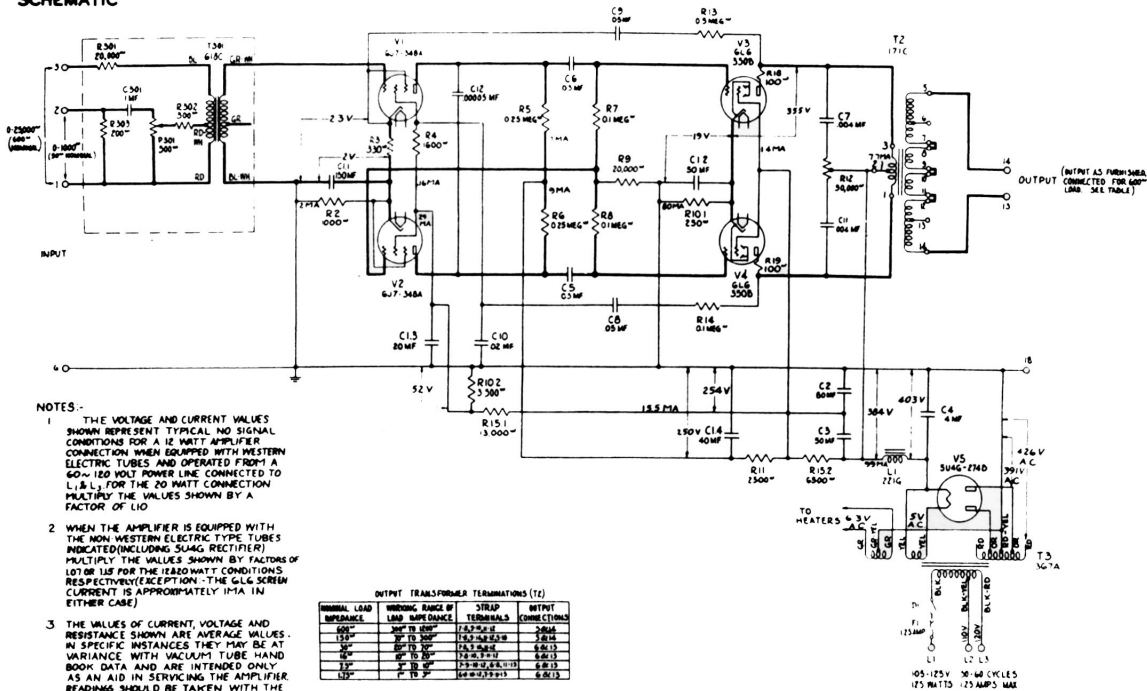
Connectors to use on cords:
For Input Circuit - Amphenol MC4M Microphone Connector
For Output Circuit - Amphenol MC3M Microphone Connector
For Power Circuit - H&H MB Cap



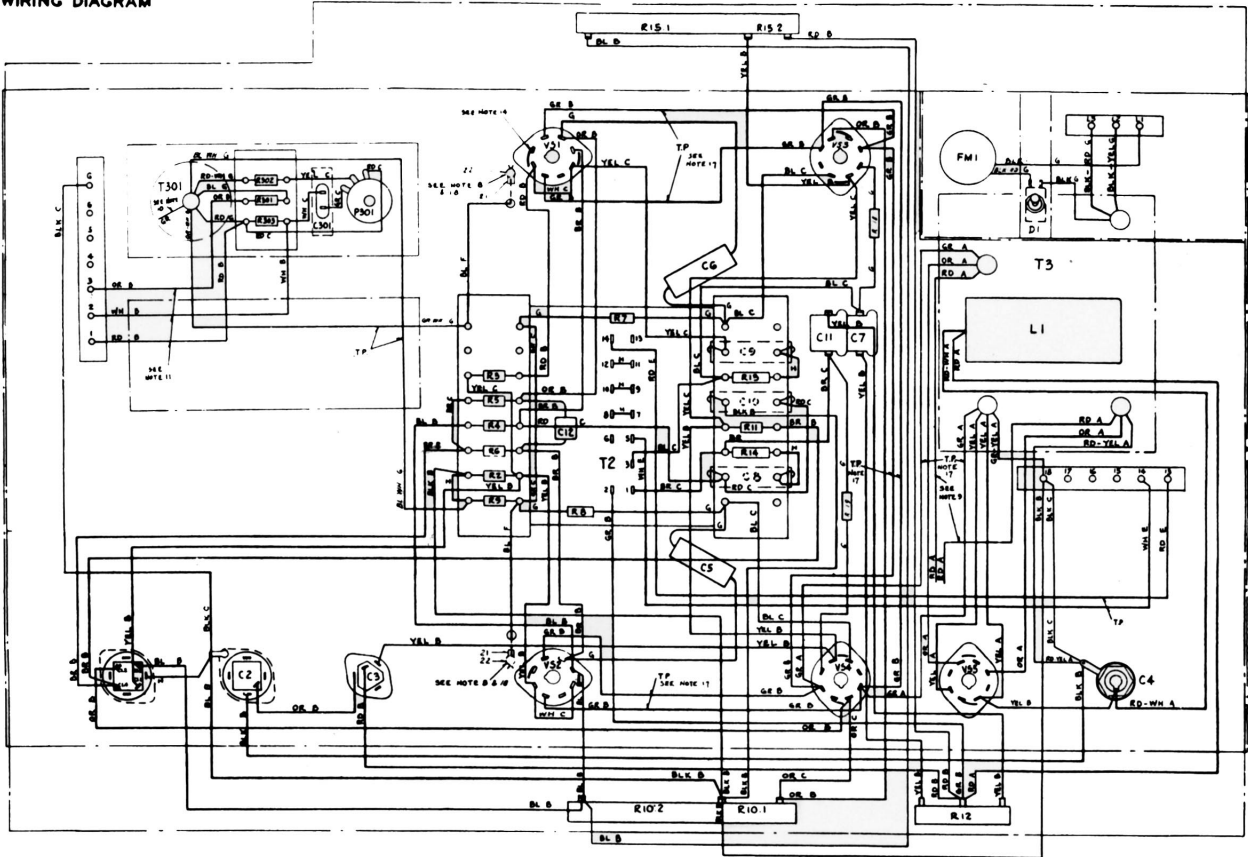
FOR WIRING DIAGRAM AND SCHEMATIC
SEE REAR OF THIS SHEET

No. 124-C AMPLIFIER

SCHEMATIC



WIRING DIAGRAM



NOTES

- WIRE 1 IS USED FOR THE 20 WATT CONNECTION.
- WIRE 2 IS USED FOR THE 10 WATT CONNECTION.
- WIRE 3 IS USED FOR THE 5 WATT CONNECTION.
- WIRE 4 IS USED FOR THE 2 WATT CONNECTION.
- WIRE 5 IS USED FOR THE 1 WATT CONNECTION.
- WIRE 6 IS USED FOR THE 0.5 WATT CONNECTION.
- WIRE 7 IS USED FOR THE 0.2 WATT CONNECTION.
- WIRE 8 IS USED FOR THE 0.1 WATT CONNECTION.
- WIRE 9 IS USED FOR THE 0.05 WATT CONNECTION.
- WIRE 10 IS USED FOR THE 0.02 WATT CONNECTION.
- WIRE 11 IS USED FOR THE 0.01 WATT CONNECTION.
- WIRE 12 IS USED FOR THE 0.005 WATT CONNECTION.
- WIRE 13 IS USED FOR THE 0.002 WATT CONNECTION.
- WIRE 14 IS USED FOR THE 0.001 WATT CONNECTION.
- WIRE 15 IS USED FOR THE 0.0005 WATT CONNECTION.
- WIRE 16 IS USED FOR THE 0.0002 WATT CONNECTION.
- WIRE 17 IS USED FOR THE 0.0001 WATT CONNECTION.
- WIRE 18 IS USED FOR THE 0.00005 WATT CONNECTION.
- WIRE 19 IS USED FOR THE 0.00002 WATT CONNECTION.
- WIRE 20 IS USED FOR THE 0.00001 WATT CONNECTION.
- WIRE 21 IS USED FOR THE 0.000005 WATT CONNECTION.
- WIRE 22 IS USED FOR THE 0.000002 WATT CONNECTION.
- WIRE 23 IS USED FOR THE 0.000001 WATT CONNECTION.
- WIRE 24 IS USED FOR THE 0.0000005 WATT CONNECTION.
- WIRE 25 IS USED FOR THE 0.0000002 WATT CONNECTION.
- WIRE 26 IS USED FOR THE 0.0000001 WATT CONNECTION.
- WIRE 27 IS USED FOR THE 0.00000005 WATT CONNECTION.
- WIRE 28 IS USED FOR THE 0.00000002 WATT CONNECTION.
- WIRE 29 IS USED FOR THE 0.00000001 WATT CONNECTION.
- WIRE 30 IS USED FOR THE 0.000000005 WATT CONNECTION.
- WIRE 31 IS USED FOR THE 0.000000002 WATT CONNECTION.
- WIRE 32 IS USED FOR THE 0.000000001 WATT CONNECTION.
- WIRE 33 IS USED FOR THE 0.0000000005 WATT CONNECTION.
- WIRE 34 IS USED FOR THE 0.0000000002 WATT CONNECTION.
- WIRE 35 IS USED FOR THE 0.0000000001 WATT CONNECTION.
- WIRE 36 IS USED FOR THE 0.00000000005 WATT CONNECTION.
- WIRE 37 IS USED FOR THE 0.00000000002 WATT CONNECTION.
- WIRE 38 IS USED FOR THE 0.00000000001 WATT CONNECTION.
- WIRE 39 IS USED FOR THE 0.000000000005 WATT CONNECTION.
- WIRE 40 IS USED FOR THE 0.000000000002 WATT CONNECTION.
- WIRE 41 IS USED FOR THE 0.000000000001 WATT CONNECTION.
- WIRE 42 IS USED FOR THE 0.0000000000005 WATT CONNECTION.
- WIRE 43 IS USED FOR THE 0.0000000000002 WATT CONNECTION.
- WIRE 44 IS USED FOR THE 0.0000000000001 WATT CONNECTION.
- WIRE 45 IS USED FOR THE 0.00000000000005 WATT CONNECTION.
- WIRE 46 IS USED FOR THE 0.00000000000002 WATT CONNECTION.
- WIRE 47 IS USED FOR THE 0.00000000000001 WATT CONNECTION.
- WIRE 48 IS USED FOR THE 0.000000000000005 WATT CONNECTION.
- WIRE 49 IS USED FOR THE 0.000000000000002 WATT CONNECTION.
- WIRE 50 IS USED FOR THE 0.000000000000001 WATT CONNECTION.
- WIRE 51 IS USED FOR THE 0.0000000000000005 WATT CONNECTION.
- WIRE 52 IS USED FOR THE 0.0000000000000002 WATT CONNECTION.
- WIRE 53 IS USED FOR THE 0.0000000000000001 WATT CONNECTION.
- WIRE 54 IS USED FOR THE 0.00000000000000005 WATT CONNECTION.
- WIRE 55 IS USED FOR THE 0.00000000000000002 WATT CONNECTION.
- WIRE 56 IS USED FOR THE 0.00000000000000001 WATT CONNECTION.
- WIRE 57 IS USED FOR THE 0.000000000000000005 WATT CONNECTION.
- WIRE 58 IS USED FOR THE 0.000000000000000002 WATT CONNECTION.
- WIRE 59 IS USED FOR THE 0.000000000000000001 WATT CONNECTION.
- WIRE 60 IS USED FOR THE 0.0000000000000000005 WATT CONNECTION.
- WIRE 61 IS USED FOR THE 0.0000000000000000002 WATT CONNECTION.
- WIRE 62 IS USED FOR THE 0.0000000000000000001 WATT CONNECTION.
- WIRE 63 IS USED FOR THE 0.00000000000000000005 WATT CONNECTION.
- WIRE 64 IS USED FOR THE 0.00000000000000000002 WATT CONNECTION.
- WIRE 65 IS USED FOR THE 0.00000000000000000001 WATT CONNECTION.
- WIRE 66 IS USED FOR THE 0.000000000000000000005 WATT CONNECTION.
- WIRE 67 IS USED FOR THE 0.000000000000000000002 WATT CONNECTION.
- WIRE 68 IS USED FOR THE 0.000000000000000000001 WATT CONNECTION.
- WIRE 69 IS USED FOR THE 0.0000000000000000000005 WATT CONNECTION.
- WIRE 70 IS USED FOR THE 0.0000000000000000000002 WATT CONNECTION.
- WIRE 71 IS USED FOR THE 0.0000000000000000000001 WATT CONNECTION.
- WIRE 72 IS USED FOR THE 0.00000000000000000000005 WATT CONNECTION.
- WIRE 73 IS USED FOR THE 0.00000000000000000000002 WATT CONNECTION.
- WIRE 74 IS USED FOR THE 0.00000000000000000000001 WATT CONNECTION.
- WIRE 75 IS USED FOR THE 0.000000000000000000000005 WATT CONNECTION.
- WIRE 76 IS USED FOR THE 0.000000000000000000000002 WATT CONNECTION.
- WIRE 77 IS USED FOR THE 0.000000000000000000000001 WATT CONNECTION.
- WIRE 78 IS USED FOR THE 0.0000000000000000000000005 WATT CONNECTION.
- WIRE 79 IS USED FOR THE 0.0000000000000000000000002 WATT CONNECTION.
- WIRE 80 IS USED FOR THE 0.0000000000000000000000001 WATT CONNECTION.
- WIRE 81 IS USED FOR THE 0.00000000000000000000000005 WATT CONNECTION.
- WIRE 82 IS USED FOR THE 0.00000000000000000000000002 WATT CONNECTION.
- WIRE 83 IS USED FOR THE 0.00000000000000000000000001 WATT CONNECTION.
- WIRE 84 IS USED FOR THE 0.000000000000000000000000005 WATT CONNECTION.
- WIRE 85 IS USED FOR THE 0.000000000000000000000000002 WATT CONNECTION.
- WIRE 86 IS USED FOR THE 0.000000000000000000000000001 WATT CONNECTION.
- WIRE 87 IS USED FOR THE 0.0000000000000000000000000005 WATT CONNECTION.
- WIRE 88 IS USED FOR THE 0.0000000000000000000000000002 WATT CONNECTION.
- WIRE 89 IS USED FOR THE 0.0000000000000000000000000001 WATT CONNECTION.
- WIRE 90 IS USED FOR THE 0.00000000000000000000000000005 WATT CONNECTION.
- WIRE 91 IS USED FOR THE 0.00000000000000000000000000002 WATT CONNECTION.
- WIRE 92 IS USED FOR THE 0.00000000000000000000000000001 WATT CONNECTION.
- WIRE 93 IS USED FOR THE 0.000000000000000000000000000005 WATT CONNECTION.
- WIRE 94 IS USED FOR THE 0.000000000000000000000000000002 WATT CONNECTION.
- WIRE 95 IS USED FOR THE 0.000000000000000000000000000001 WATT CONNECTION.
- WIRE 96 IS USED FOR THE 0.0000000000000000000000000000005 WATT CONNECTION.
- WIRE 97 IS USED FOR THE 0.0000000000000000000000000000002 WATT CONNECTION.
- WIRE 98 IS USED FOR THE 0.0000000000000000000000000000001 WATT CONNECTION.
- WIRE 99 IS USED FOR THE 0.00000000000000000000000000000005 WATT CONNECTION.
- WIRE 100 IS USED FOR THE 0.00000000000000000000000000000002 WATT CONNECTION.
- WIRE 101 IS USED FOR THE 0.00000000000000000000000000000001 WATT CONNECTION.
- WIRE 102 IS USED FOR THE 0.000000000000000000000000000000005 WATT CONNECTION.
- WIRE 103 IS USED FOR THE 0.000000000000000000000000000000002 WATT CONNECTION.
- WIRE 104 IS USED FOR THE 0.000000000000000000000000000000001 WATT CONNECTION.
- WIRE 105 IS USED FOR THE 0.0000000000000000000000000000000005 WATT CONNECTION.
- WIRE 106 IS USED FOR THE 0.0000000000000000000000000000000002 WATT CONNECTION.
- WIRE 107 IS USED FOR THE 0.0000000000000000000000000000000001 WATT CONNECTION.
- WIRE 108 IS USED FOR THE 0.00000000000000000000000000000000005 WATT CONNECTION.
- WIRE 109 IS USED FOR THE 0.00000000000000000000000000000000002 WATT CONNECTION.
- WIRE 110 IS USED FOR THE 0.00000000000000000000000000000000001 WATT CONNECTION.
- WIRE 111 IS USED FOR THE 0.000000000000000000000000000000000005 WATT CONNECTION.
- WIRE 112 IS USED FOR THE 0.000000000000000000000000000000000002 WATT CONNECTION.
- WIRE 113 IS USED FOR THE 0.000000000000000000000000000000000001 WATT CONNECTION.
- WIRE 114 IS USED FOR THE 0.0000000000000000000000000000000000005 WATT CONNECTION.
- WIRE 115 IS USED FOR THE 0.0000000000000000000000000000000000002 WATT CONNECTION.
- WIRE 116 IS USED FOR THE 0.0000000000000000000000000000000000001 WATT CONNECTION.
- WIRE 117 IS USED FOR THE 0.00000000000000000000000000000000000005 WATT CONNECTION.
- WIRE 118 IS USED FOR THE 0.00000000000000000000000000000000000002 WATT CONNECTION.
- WIRE 119 IS USED FOR THE 0.00000000000000000000000000000000000001 WATT CONNECTION.
- WIRE 120 IS USED FOR THE 0.000000000000000000000000000000000000005 WATT CONNECTION.
- WIRE 121 IS USED FOR THE 0.000000000000000000000000000000000000002 WATT CONNECTION.
- WIRE 122 IS USED FOR THE 0.000000000000000000000000000000000000001 WATT CONNECTION.
- WIRE 123 IS USED FOR THE 0.0000000000000000000000000000000000000005 WATT CONNECTION.
- WIRE 124 IS USED FOR THE 0.0000000000000000000000000000000000000002 WATT CONNECTION.
- WIRE 125 IS USED FOR THE 0.0000000000000000000000000000000000000001 WATT CONNECTION.
- WIRE 126 IS USED FOR THE 0.005 WATT CONNECTION.
- WIRE 127 IS USED FOR THE 0.002 WATT CONNECTION.
- WIRE 128 IS USED FOR THE 0.001 WATT CONNECTION.
- WIRE 129 IS USED FOR THE 0.0005 WATT CONNECTION.
- WIRE 130 IS USED FOR THE 0.0002 WATT CONNECTION.
- WIRE 131 IS USED FOR THE 0.0001 WATT CONNECTION.
- WIRE 132 IS USED FOR THE 0.005 WATT CONNECTION.
- WIRE 133 IS USED FOR THE 0.002 WATT CONNECTION.
- WIRE 134 IS USED FOR THE 0.001 WATT CONNECTION.
- WIRE 135 IS USED FOR THE 0.0005 WATT CONNECTION.
- WIRE 136 IS USED FOR THE 0.0002 WATT CONNECTION.
- WIRE 137 IS USED FOR THE