

- NOTES
- 1 IF AC LINE VOLTAGE AVERAGES BETWEEN 115-125 VOLTS, CONNECT AC LINE TO TERMINALS 1 AND 3 OF NO. 352 J TRANSFORMER. IF AC LINE VOLTAGE AVERAGES BETWEEN 105-115 VOLTS, CONNECT AC LINE TO TERMINALS 1 AND 2 OF NO. 352 J TRANSFORMER.
  - 2 HEAVY LINES INDICATE SPEECH CIRCUITS.
  - 3 TERMINALS 1A AND 2A OF FIGURE 1A ARE CONNECTED TO TERMINALS 1 AND 2 RESPECTIVELY OF FIGURE 1
  - 4 UP DENOTES SHIELDED TWISTED PAIR

Schematic

NO 1-11
AMPLIFIER
94D
2-15-38

ELECTRICAL CHARACTERISTICS

GAIN - - - - - 48 DB(MAX) WHEN WORKING BETWEEN A 600-OHM GENERATOR AND A 500 OR 8-OHM LOAD. FIG. 1

OPERATES FROM - - - - - 0-12000 OHMS

INTERNAL INPUT IMPEDANCE - 25000 OHMS

OPERATES INTO - - - - - 8 OR 500 OHMS

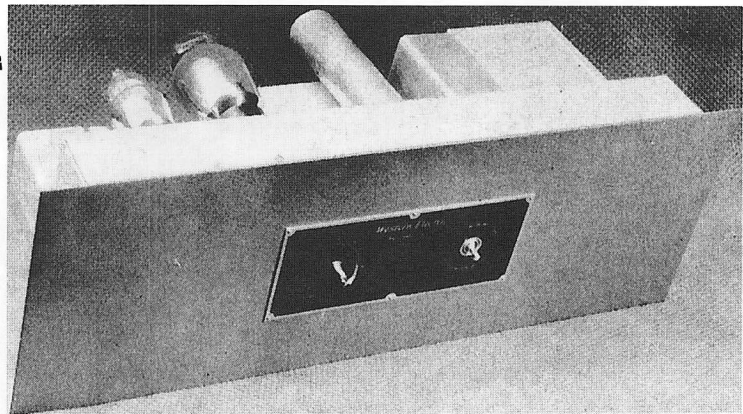
INTERNAL OUTPUT IMPEDANCE - 1/2 OF LOAD IMPEDANCE

OUTPUT POWER - - - - - 12 WATTS OR +33DB (0 LEVEL - .006 WATTS) 5% TOTAL HARMONIC DISTORTION. FIGS. 2&3

OUTPUT NOISE - - - - - (-) 40 DB UNWEIGHTED (0 LEVEL - .006 WATTS)

POWER SUPPLY - - - - - 105-125 VOLTS, 45-65 CYCLES, 100 WATTS. FUSE FOR 1.25 AMPS.

GAIN CONTROL - - - - - 25,000 OHM POT.(UNBAL.)



EQUIPMENT CHARACTERISTICS

PANEL DIMENSIONS - - - - - 19" x 7"

DEPTH - - - - - 7 1/2"

WEIGHT - - - - - APPROX. 20 LBS.

MOUNTING - - - - - STD. 19" RELAY RACK OR SUITABLE CABINET.

NOTE: THE 94D AMPLIFIER MAY BE ORDERED WITH DIFFERENT MAT FINISHES AS FOLLOWS:

CODE NO.	FINISH
94D-3	RUBBER FINISH BLACK JAPAN
94D-15	ALUMINUM GRAY FINISH
94D-24	ALUMINUM LACQUER FINISH

VACUUM TUBES

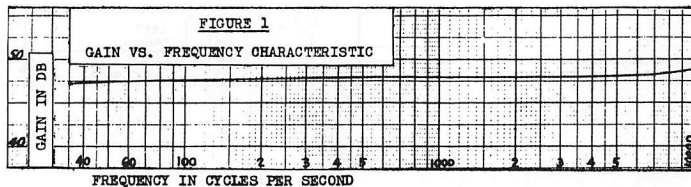
	METAL	GLASS
FIRST STAGE	TWO - 6J7	OR TWO 6J7G
SECOND STAGE	TWO - 6L6	OR TWO 6L6G
RECTIFIER	ONE - 5T4	OR ONE 5U4G

REFERENCES

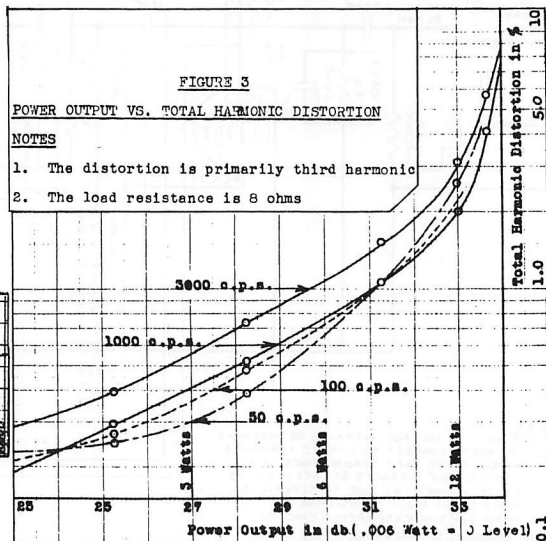
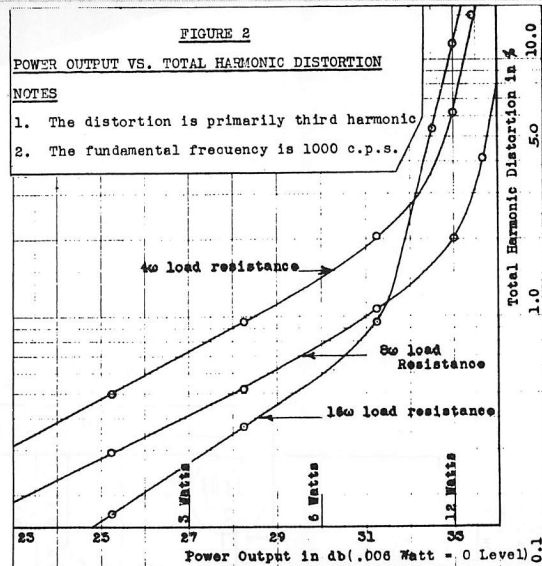
ESR-624213 ASSEMBLY  
 ESO-624214 SCHEMATIC  
 ESR-624215 WIRING DIAGRAM

ES-743672) POWER OUTPUT VS. TOTAL HARMONIC  
 ES-743673) DISTORTION

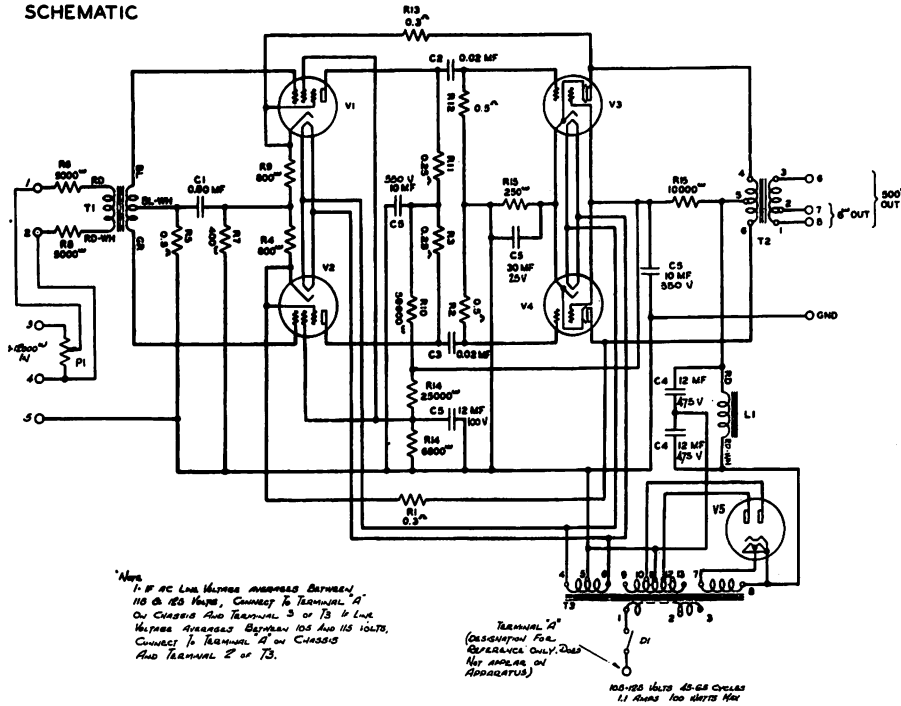
NOTE: THE 94D AMPLIFIER IS SIMILAR TO THE 94C AMPLIFIER EXCEPT THAT IT HAS A VOLUME CONTROL AND A POWER SWITCH MOUNTED ON A BRACKET ON THE UNDER-SIDE OF THE CHASSIS, WITH THE CONTROL ELEMENTS EXTENDING THROUGH THE MAT FOR OPERATION FROM THE FACE OF THE AMPLIFIER.



FOR WIRING DIAGRAM AND SCHEMATIC SEE REAR OF THIS SHEET



**SCHEMATIC**

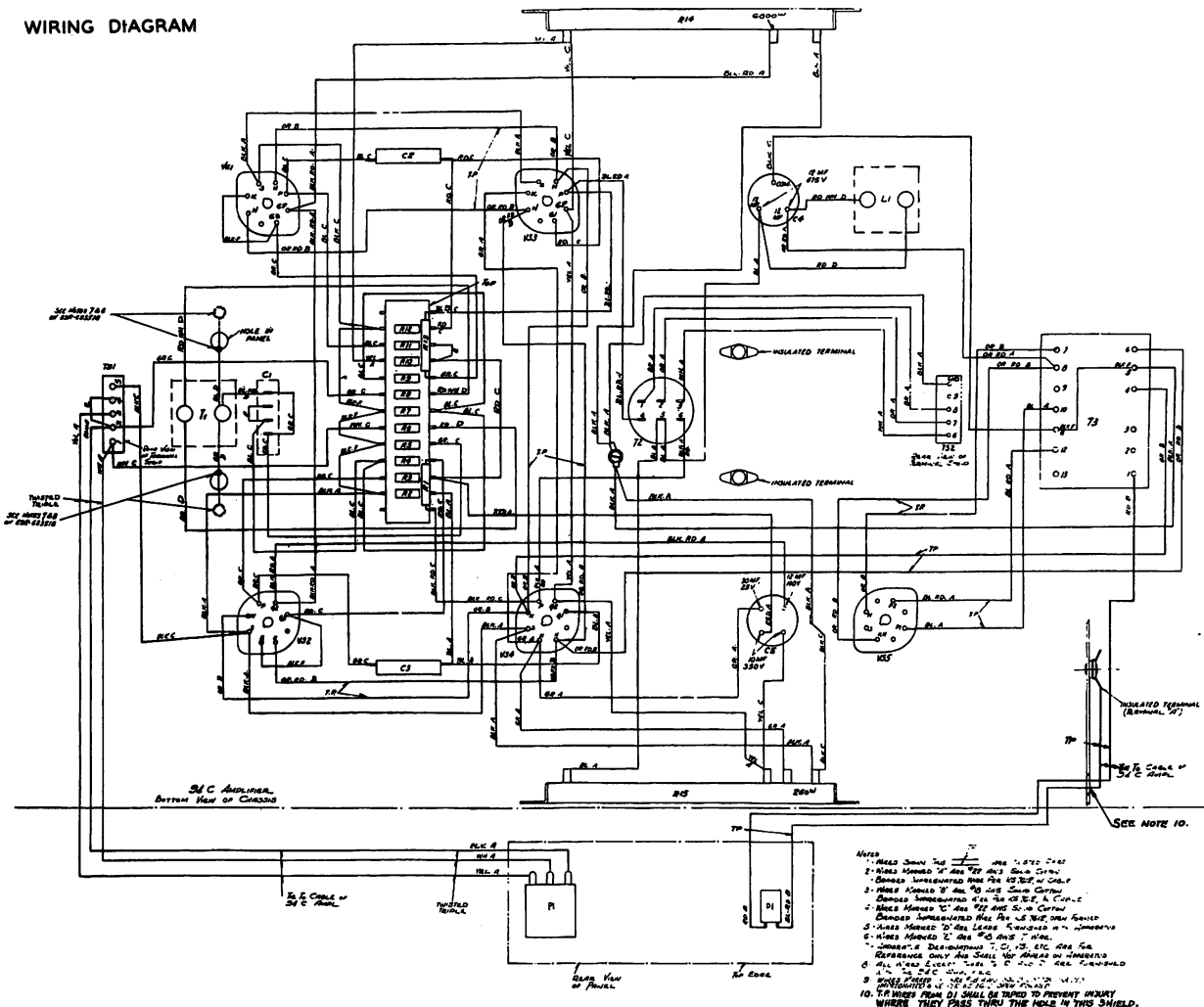


DESIGN	APPROXIMATE
C1	0.25 MF CONDENSER
C2, C3	MINIATURE CONDENSER TYPE 1033 .02 MF
C4	MINIATURE ELECTROLYTIC CONDENSER TYPE 50 10-10 MF 350 V CAP. FLOATING
C5	MINIATURE ELECTROLYTIC CONDENSER TYPE 46 10-10 MF 350 V, 15 MF 100 V, 30 MF 25 V WITH LEADING EDGE AND LEAD GROUND LEAD-TO-E RATED CAP.
L1	0.5 H
R1, R2	0.5 W 1/2 WATT TYPE 01 WITH 1/2 TURNS
R3, R11	0.5 W
R5, R11	0.25 W
R7, R8	5000 W
R9	500 W
R10	5000 W
R12	100 W
R13	100 W
R14	100 W
R15	100 W
R16	100 W
R17	100 W
R18	100 W
R19	100 W
R20	100 W
R21	100 W
R22	100 W
R23	100 W
R24	100 W
R25	100 W
R26	100 W
R27	100 W
R28	100 W
R29	100 W
R30	100 W
R31	100 W
R32	100 W
R33	100 W
R34	100 W
R35	100 W
R36	100 W
R37	100 W
R38	100 W
R39	100 W
R40	100 W
R41	100 W
R42	100 W
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R85	100 W
R86	100 W
R87	100 W
R88	100 W
R89	100 W
R90	100 W
R91	100 W
R92	100 W
R93	100 W
R94	100 W
R95	100 W
R96	100 W
R97	100 W
R98	100 W
R99	100 W
R100	100 W

NOTE: 1. IF AC LINE WATTS AVAILABLE BETWEEN 115 & 120 Hertz, CONNECT TO TERMINAL 'A' ON CHASSIS AND TERMINAL 3 OF T3 & LINE WATTS AVAILABLE BETWEEN 105 AND 115 10/75, CONNECT TO TERMINAL 'A' ON CHASSIS AND TERMINAL 2 OF T3.

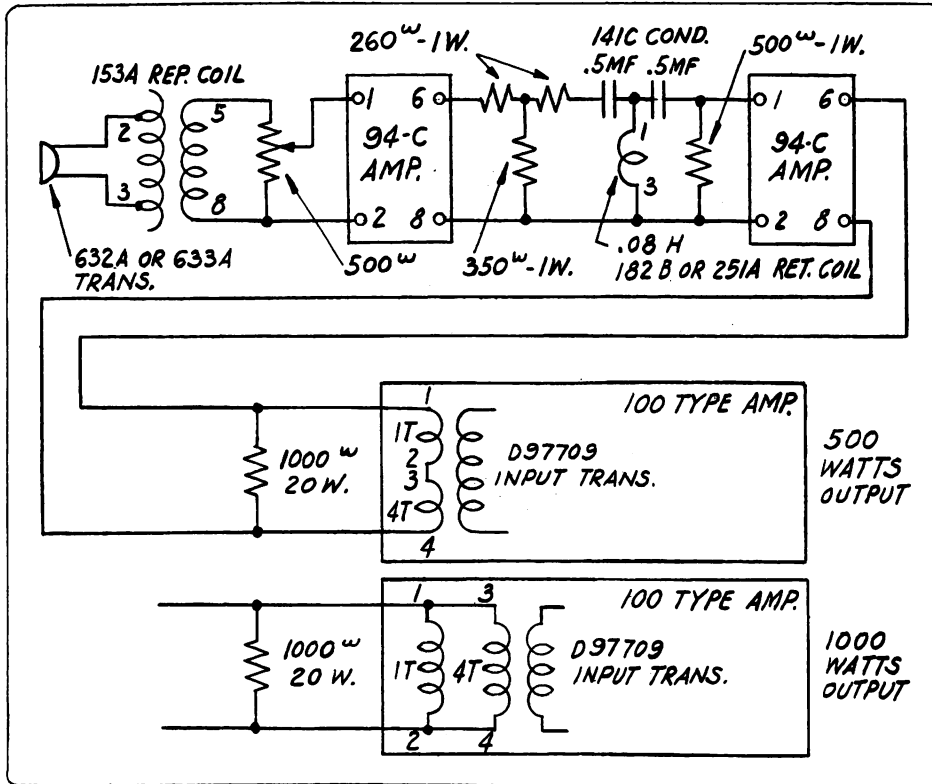
TERMINAL 10 (DESIGNATION FOR REFERENCE ONLY, DOES NOT APPEAR ON APPARATUS)  
100-100 Hertz 45-60 CYCLES 11 Amps 100 WATTS MAX

**WIRING DIAGRAM**



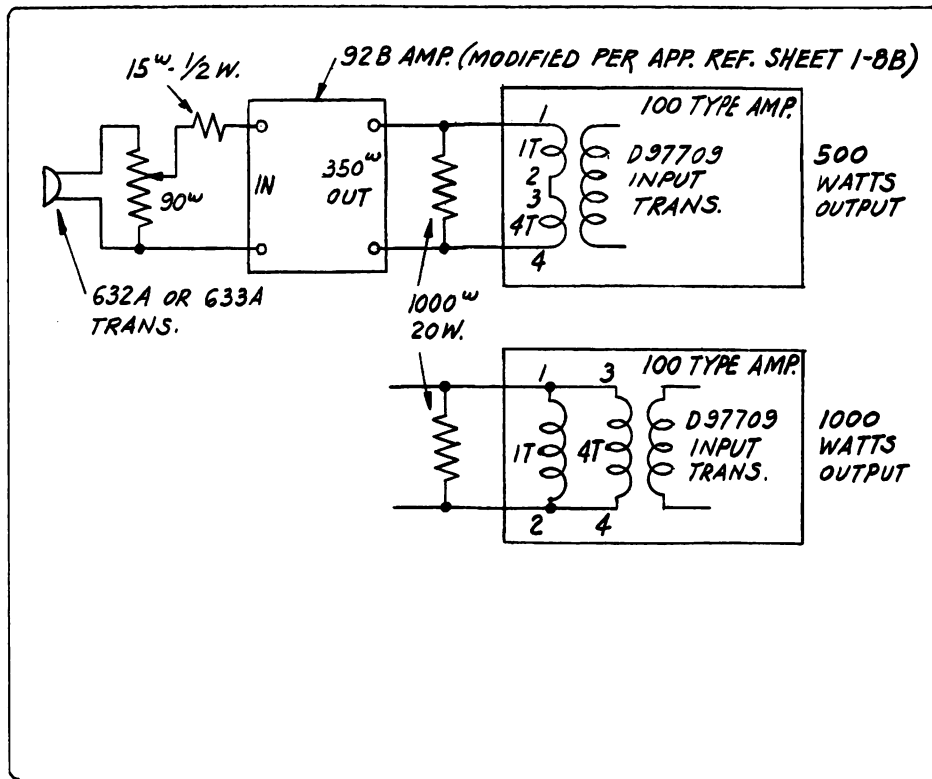
NOTE 10: 1. WIRE MUST BE... 2. WIRE MUST BE... 3. WIRE MUST BE... 4. WIRE MUST BE... 5. WIRE MUST BE... 6. WIRE MUST BE... 7. WIRE MUST BE... 8. WIRE MUST BE... 9. WIRE MUST BE... 10. WIRE MUST BE... WHERE THEY PASS THRU THE HOLES IN THIS SHIELD.

NO	1-8D
100 TYPE AMPLIFIER	
DRIVEN BY 94C	
3-22-38	



1000 WATT AMPLIFIER  
DRIVEN BY  
94C AMPLIFIER

NO	1-8C
100 TYPE AMPLIFIER	
DRIVEN BY 92B	
3-22-38	



1000 WATT AMPLIFIER  
DRIVEN BY  
MODIFIED 92B AMPLIFIER