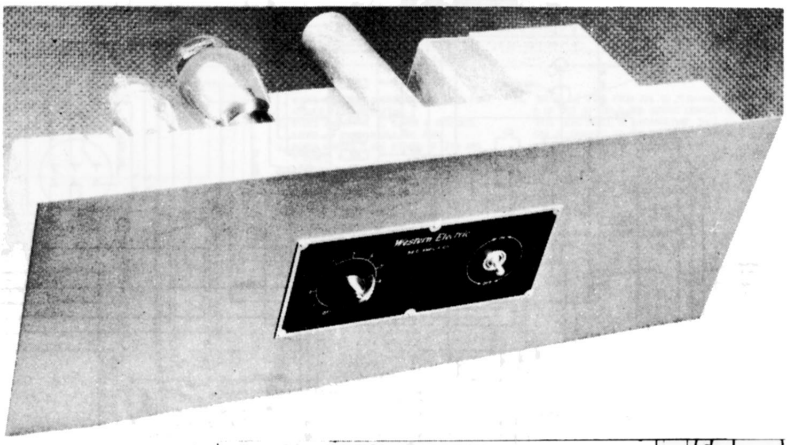
Western Electric Company

No.94-D AMPLIFIER

COMMERCIAL PRODUCTS
APPARATUS REFERENCE SHEET

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 UNDERSIDE OF THE CHASSIS, WITH THE CONTROL ELEMENTS EXTENDING THROUGH THE MAT FOR OPERATION FROM THE FACE OF THE AMPLIFIER.

FIGURE 2

POWER OUTPUT VS. TOTAL HARMONIC DISTORTION

NOTES

1. The distortion is primarily third harmonic
2. The fundamental frequency is 1000 c.p.s.

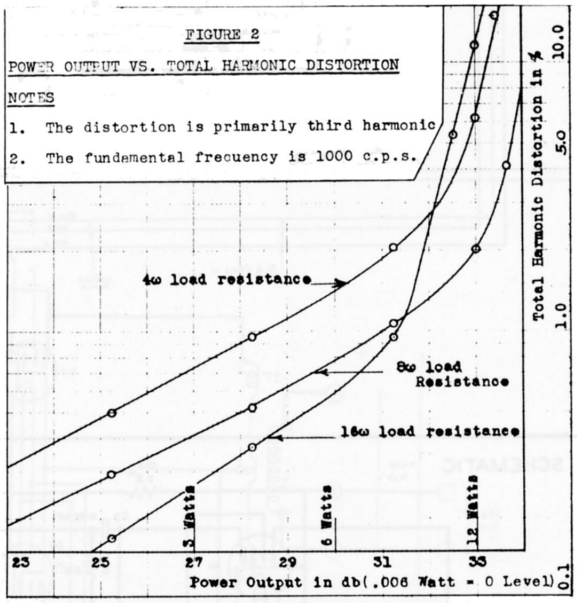


FIGURE 3

POWER OUTPUT VS. TOTAL HARMONIC DISTORTION

NOTES

1. The distortion is primarily third harmonic
2. The load resistance is 8 ohms

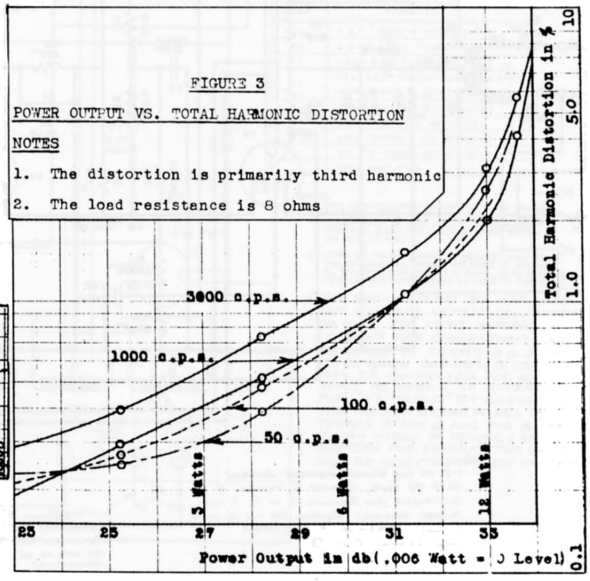
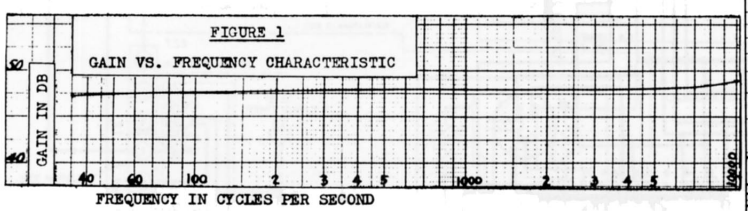


FIGURE 1

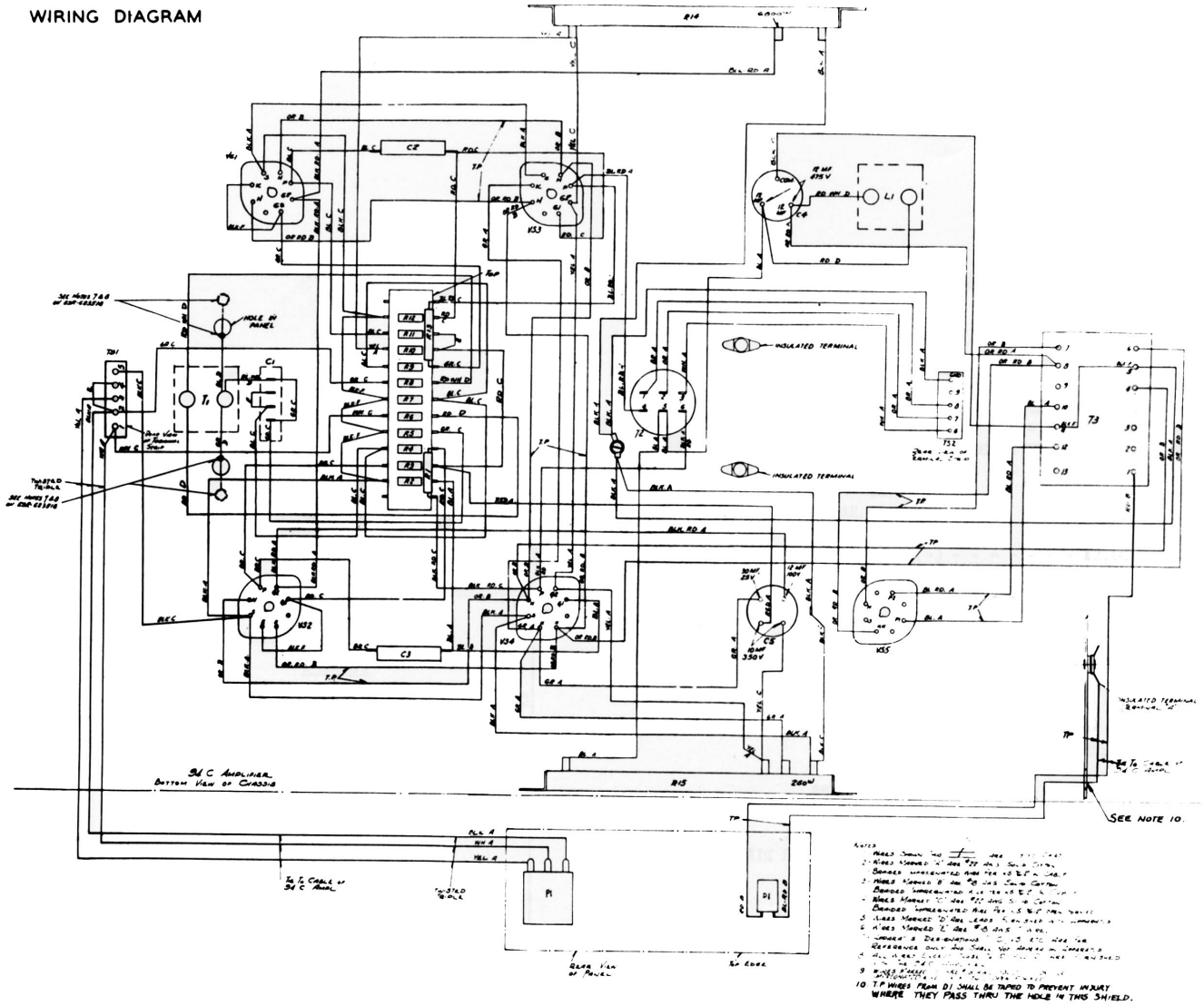
GAIN VS. FREQUENCY CHARACTERISTIC



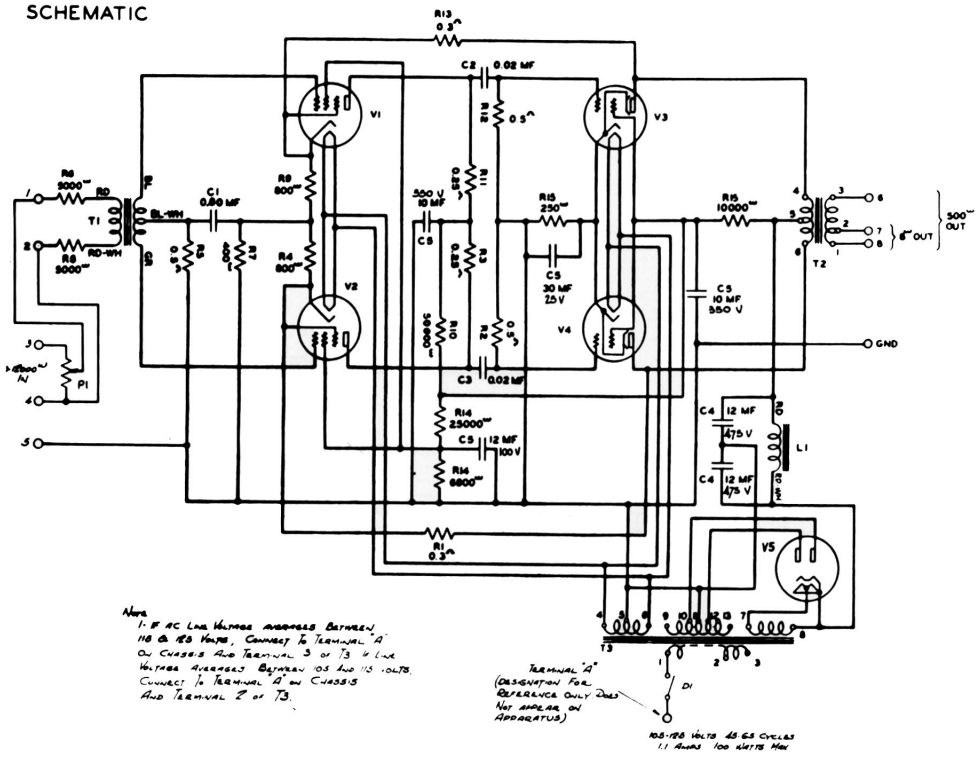
FOR WIRING DIAGRAM AND SCHEMATIC SEE REAR OF THIS SHEET

No.94-D AMPLIFIER

WIRING DIAGRAM



SCHEMATIC



DESIG.	APPARATUS
C1	D96818 CONDENSER
C2, C3	ALDROVA CONDENSER TYPE 1633 .02 MF
C4	ALDROVA ELECTROLYTIC CONDENSER TYPE 30 12-12 MF 475 V. CAN FLOATING
C5	ALDROVA ELECTROLYTIC CONDENSER TYPE 46 10-10 MF 350 V. 12 MF 100 V, 30 MF 25 V WITH MOUNTING RING AND LONG GROUND LUG
L1	721 G RETARD COIL
R1, R15	0.3Ω I.R.C. RESIST TYPE BT-1 WITH #1 TERMS.
R2, R14	0.5Ω
R3, R11	0.25Ω I.R.C. RESISTANCE, TYPE BT-½ WITH #1 TERMS
R4, R9	800Ω
R6, R8	3000Ω
R7	200Ω
R10	30000Ω
R12	I.R.C. RESISTANCE, TYPE W-1-S WITH #2 TERMINALS 31600Ω TOTAL TAPPED AT 25000Ω
R13	I.R.C. RESISTANCE, TYPE W-1-S WITH #2 TERMINALS. TWO SEPARATE SECTIONS OF 250Ω AND 10000Ω
T1	283 K INPUT TRANSFORMER
T2	171 B OUTPUT TRANSFORMER
J3	532 AA TRANSFORMER
V1, V2	TYPE 6J7 OR 6J7-G VACUUM TUBE
V3, V4	TYPE 6L6 OR 6L6-G VACUUM TUBE
V5	TYPE 5Y3 OR 83V-G VACUUM TUBE
D1	N.&H. #20252 TUMBLER SWITCH WITH ⅜ I.D. MTG. SLEEVE
P1	ALLEN BRADLEY #133 A POTENTIOMETER 25000Ω WITH 2 HOLE MTG