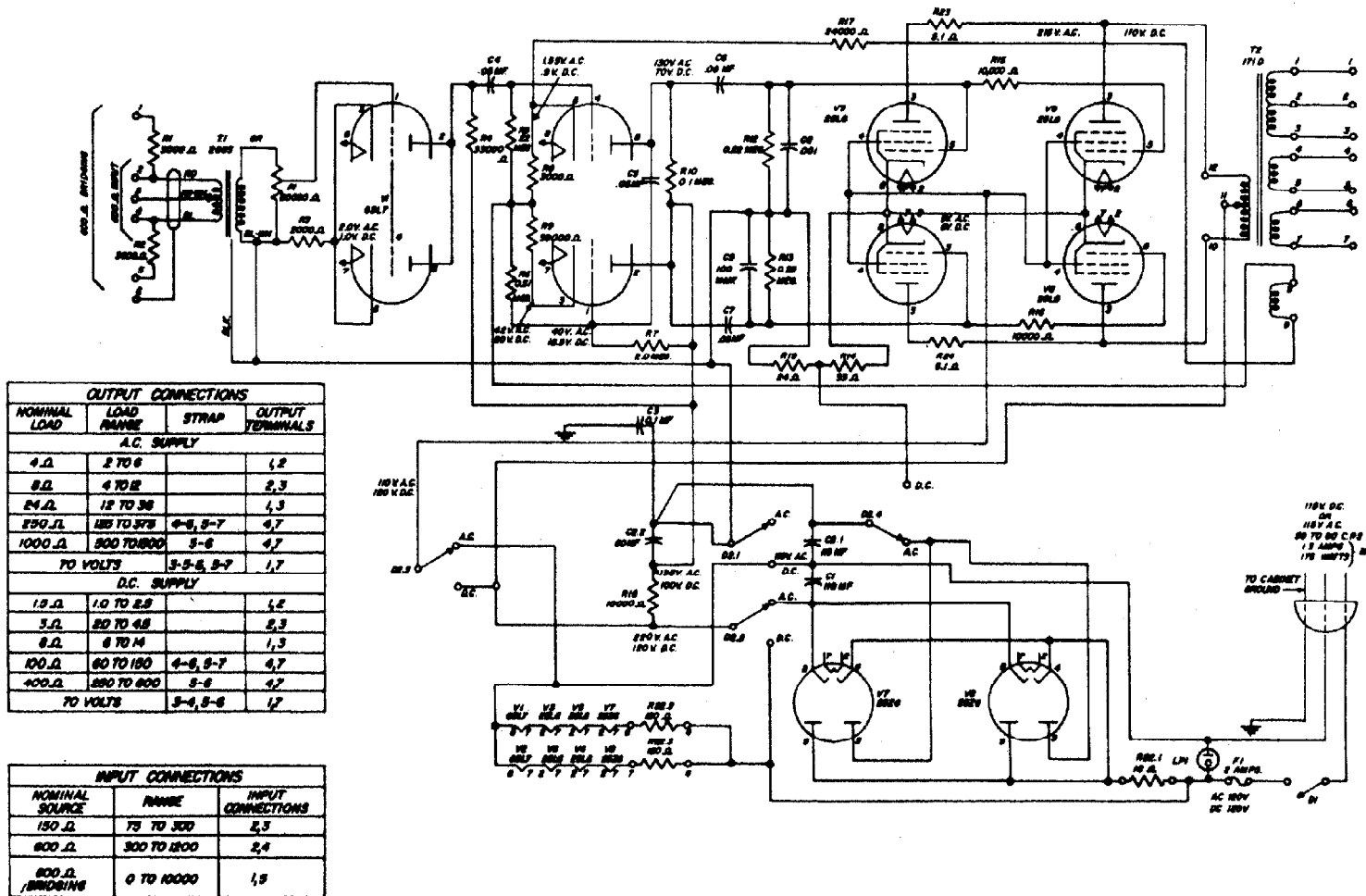


**FIG. 45 (MFG. DISC.)**  
140A AMPLIFIER

**NOTES:**

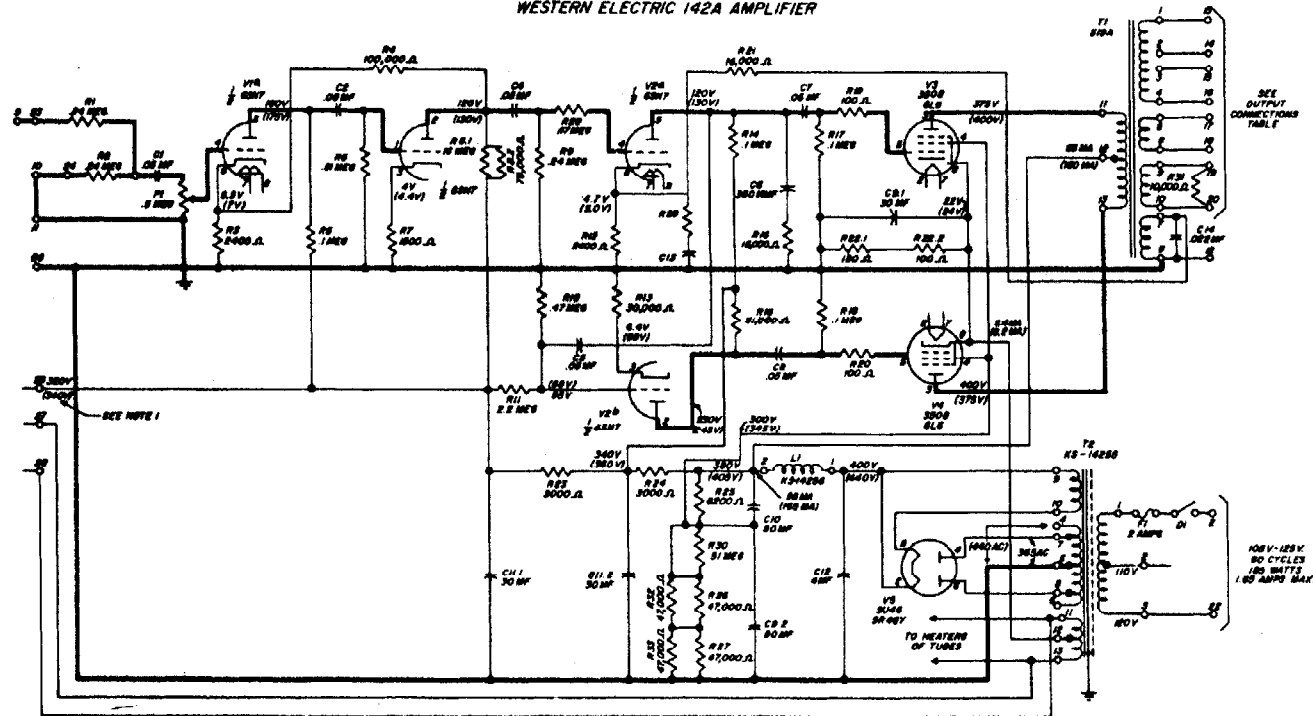
1. VOLTAGES SHALL BE MEASURED BETWEEN POINT INDICATED B-B (NOT CHASSIS). VALUES SHOWN ARE FOR 120V. LINE VOLTAGE MEASUREMENTS WITH VOLTMETER WHICH HAS RESISTANCE OF AT LEAST 20,000 OHMS PER VOLT. MEASURED VALUES MAY DEPART 10% FROM VALUES SHOWN.



OUTPUT CONNECTIONS		
NOMINAL LOAD	LOAD RANGE	OUTPUT TERMINALS
A.C. SUPPLY		
4 Ω	2 TO 8	1,2
8 Ω	4 TO 16	2,3
24 Ω	12 TO 36	4,3
150 Ω	120 TO 375	6-5, 5-7
1000 Ω	800 TO 2000	5-6
70 VOLTS	5-5-5, 5-7	1,7
D.C. SUPPLY		
1.5 Ω	1.0 TO 2.5	1,2
3 Ω	2.0 TO 4.8	2,3
8 Ω	6 TO 14	1,3
100 Ω	80 TO 180	4-5, 5-7
100 Ω	180 TO 800	5-6
70 VOLTS	5-4, 5-6	1,7

INPUT CONNECTIONS		
NOMINAL SOURCE	RANGE	INPUT CONNECTIONS
150 Ω	75 TO 300	2,3
800 Ω	300 TO 1800	2,4
800 Ω BRIDGING	0 TO 10000	1,5

**FIG. 46 (MFR. DISC.)**  
WESTERN ELECTRIC 142A AMPLIFIER



**NOTES**

1. CIRCUIT SHOWN FOR 12 WATTS POWER SUPPLY OUTPUT. THE NUMBERS IN PARENTHESES ARE THE VALUES FOR THE 25 WATT CONDITION.
2. WHEN FIG. 35 IS ADDED IT BECOMES A 142B AMPLIFIER.
3. WHEN FIG. 36 IS ADDED IT BECOMES A 142C AMPLIFIER.
4. WHEN FIG. 37 IS ADDED IT BECOMES A 142D AMPLIFIER.

**OUTPUT CONNECTIONS TABLE**

NOMINAL LOAD IMPEDANCE	WORKING RANGE OF LOAD IMPEDANCE	STRAP CONNECTIONS	OUTPUT CONNECTIONS
200 Ω	150 Ω TO 300 Ω	—	19 & 20
24 Ω	18 Ω TO 36 Ω	14-15, 16-17	13 & 18
12 Ω	9 Ω TO 18 Ω	13-15, 16-17	13 & 18
8 Ω	6 Ω TO 12 Ω	14-15	13 & 16
4 Ω	3 Ω TO 6 Ω	—	17 & 18
2 Ω	1.5 Ω TO 3 Ω	13-15, 14-16	13 & 16
400 Ω	300 Ω TO 600 Ω	14-15, 16-17, 18-19	13 & 20

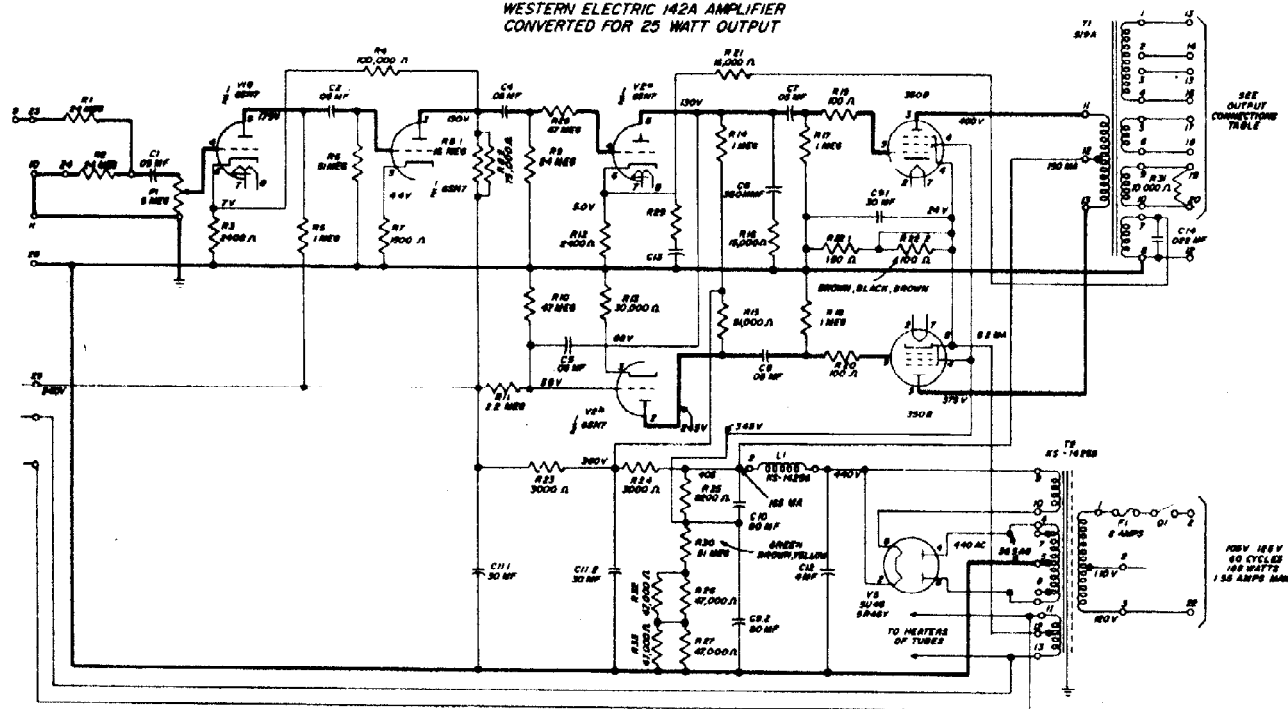
**70 V. LOUDSPEAKER DISTRIBUTION LINE CONNECTIONS**

POWER OUTPUT CONDITION	STRAP TERMINALS	OUTPUT CONNECTIONS
12 WATTS	14-15, 16-17, 18-19	13 & 20
25 WATTS	—	19 & 20

# 142A AMP (CONVERTED FOR 25w)

# Western Electric

**FIG. 47** (MFR. DISC.)  
WESTERN ELECTRIC 142A AMPLIFIER  
CONVERTED FOR 25 WATT OUTPUT



### NOTES

- FOR 25 WATTS OUTPUT THE FOLLOWING CHANGES ARE NECESSARY:
  - USE 350B TUBES.
  - SHORT R 22.2.
  - AT TRANSFORMER T2 TRANSFER LEAD FROM TERMINAL 7 TO TERMINAL 4 AND LEAD FROM TERMINAL 8 TO TERMINAL 6.
  - REMOVE SHORT ACROSS R30

2. LINE INPUT CONNECTIONS 142C & 142D

SOURCE OHMS	STRAP TERMINALS	CONNECT TO
600 Ω	6 - 7	4 AND 8
150 Ω	6 - 7, 6 - 8	4 AND 8

3. AMPLIFIER

AMPLIFIER	REMOVE STRAP BETWEEN TERMS.	STRAP TERMINALS
142 B	9 - 23	10 TO 11
142 C	8	10 TO 11
142 D		10 TO 11

COLOR CODE FOR FIXED RESISTORS

COLOR	1ST BAND	2ND BAND	3RD BAND	END BAND
BLACK	0	0	NONE	GOLD 5%
BROWN	1	1	0	SILVER 10%
RED	2	2	00	NONE 20%
ORANGE	3	3	000	
YELLOW	4	4	0000	
GREEN	5	5	00000	
BLUE	6	6	000000	
VIOLET	7	7	0000000	
GRAY	8	8	00000000	
WHITE	9	9	000000000	

OUTPUT CONNECTIONS TABLE

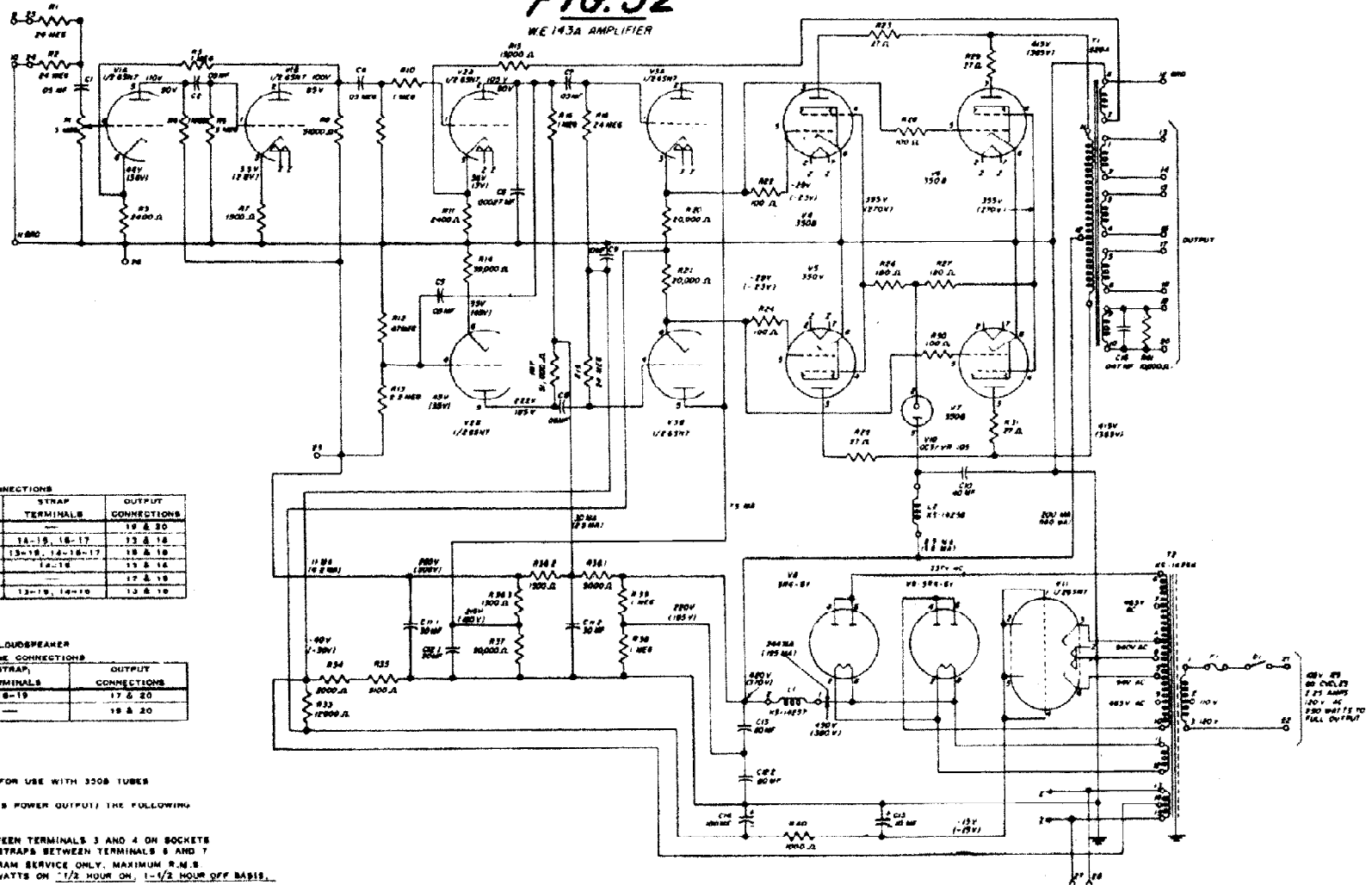
NOMINAL LOAD IMPEDANCE	WORKING RANGE OF LOAD IMPEDANCE	STRAP TERMINALS	OUTPUT CONNECTIONS
200 Ω	150 Ω TO 300 Ω		19 & 20
64 Ω	18 Ω TO 36 Ω	14-15, 16-17	13 & 18
12 Ω	9 Ω TO 18 Ω	13-15, 14-16-17	15 & 16
8 Ω	6 Ω TO 12 Ω	14-15	15 & 16
4 Ω	3 Ω TO 6 Ω		17 & 18
2 Ω	1.5 Ω TO 3 Ω	13-15, 14-16	15 & 18
400 Ω	300 Ω TO 600 Ω	14-15, 16-17, 18-19	15 & 20

70 V. LOUDSPEAKER DISTRIBUTION LINE CONNECTIONS

POWER OUTPUT CONDITION	STRAP TERMINALS	OUTPUT CONNECTIONS
12 WATTS	14-15, 16-17, 18-19	15 & 20
25 WATTS		19 & 20

FIG. 52

WE 143A AMPLIFIER



OUTPUT CONNECTIONS

NOMINAL LOAD IMPEDANCE	WORKING RANGE OF LOAD IMPEDANCE	STRAP TERMINALS	OUTPUT CONNECTIONS
56.2 Ω	80 Ω TO 100 Ω	—	19 & 20
28 Ω	16 Ω TO 36 Ω	14-19, 16-17	13 & 14
12 Ω	6 Ω TO 18 Ω	13-19, 14-16-17	18 & 19
6 Ω	3 Ω TO 12 Ω	14-16	13 & 14
4 Ω	3 Ω TO 6 Ω	—	17 & 18
2 Ω	1.5 Ω TO 3 Ω	12-19, 14-19	13 & 19

FOR 75 VOLT LOUDSPEAKER  
DISTRIBUTION LINE CONNECTIONS

POWER OUTPUT CONDITION	STRAP TERMINALS	OUTPUT CONNECTIONS
50 WATTS	18-19	17 & 20
75 WATTS (SEE NOTE 3)	—	18 & 20

NOTE:

- CIRCUIT SHOWN CONNECTED FOR USE WITH 350B TUBE (75 WATTS POWER OUTPUT)
- TO USE 6L6 TUBES (50 WATTS POWER OUTPUT) THE FOLLOWING CHANGES ARE NECESSARY:
  - SHORT CIRCUIT R34
  - REMOVE STRAPS BETWEEN TERMINALS 3 AND 4 ON SOCKETS V8 AND V9 AND ADD STRAPS BETWEEN TERMINALS 6 AND 7
- RATED 75 WATTS FOR PROGRAM SERVICE ONLY. MAXIMUM R.M.S. POWER OUTPUT RATING 75 WATTS ON 1/2 HOUR ON, 1-1/2 HOUR OFF BASIS. (SEE TEST)