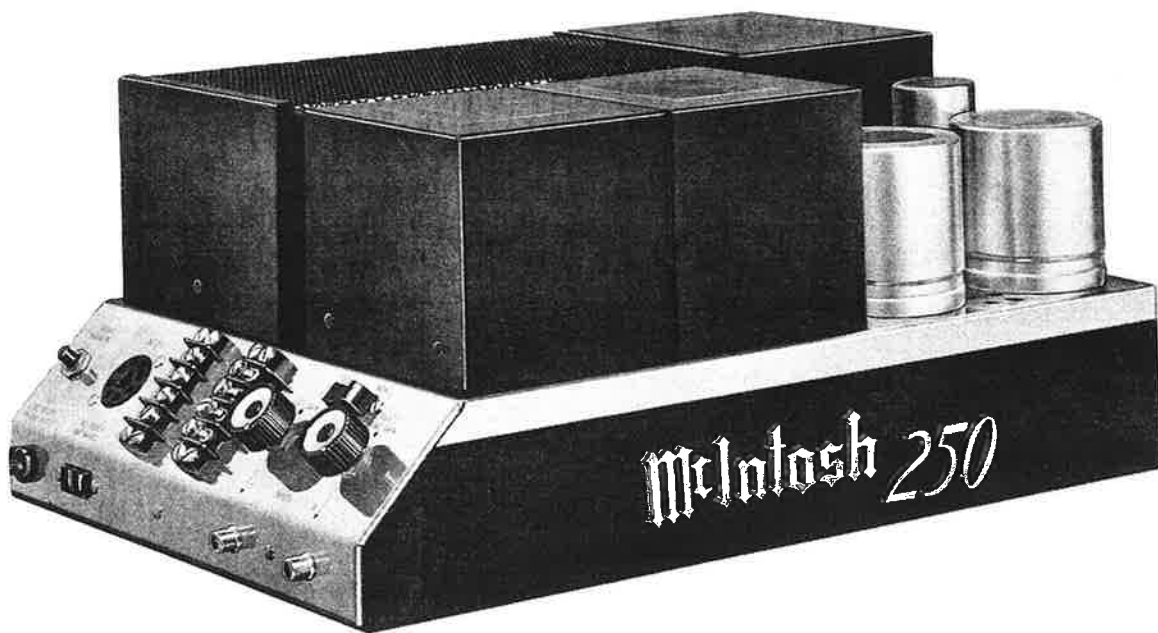


McIntosh

MC 250



SERVICE INFORMATION

FROM SERIAL NO. 10L01 TO 21L97

McINTOSH LABORATORY INC. 2 CHAMBERS STREET BINGHAMTON, NEW YORK

MC 250

ELECTRICAL SPECIFICATIONS

Power Output:

100 watts RMS continuous, 50 watts per channel operating simultaneously, into 4 ohm, 8 ohm, or 16 ohm loads.

Harmonic Distortion:

Less than 0.25% at rated power output from 20Hz to 20,000Hz.

Intermodulation Distortion:

Less than 0.25% for combinations of frequencies between 20Hz and 20,000Hz.

Frequency Range:

At rated output both channels: +0 to -0.25dB from 20Hz through 20,000Hz.

Output Damping Factor:

Greater than 10 for any output tap.

Input Sensitivity & Impedance:

Input sensitivity is 0.5 volts. Input impedance is 200K ohms.

Hum & Noise:

Greater than 90dB below rated output.

Power Requirements:

117 volts AC, 50-60Hz, 50 watts at zero signal output, 250 watts at rated output.

SCHEMATIC NOTES

Unless otherwise specified: Resistance values are in ohms, 1/2 watt, and 10% tolerance; capacitance values smaller than 1 are in microfarads (mfd); capacitance values greater than 1 are in picofarads (pF); inductors are in microhenries (μ H).

Printed circuit board components are outlined on the schematics by dotted lines. The circled numbers on the dotted lines correspond to the numbers on the PC board layouts.

The heavy lines on the schematics denote the primary signal path.

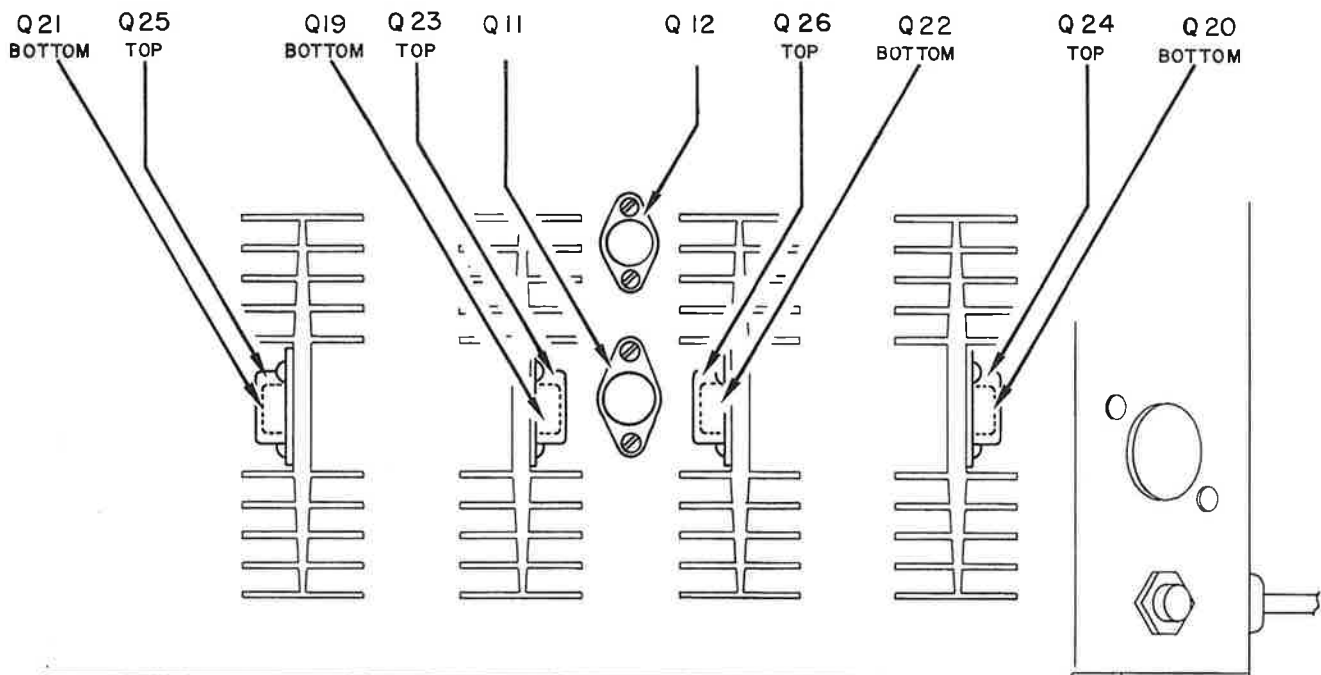
The terminal numbering of rotary switches is for reference only.

All voltages indicated on the schematics are measured under the following conditions:

- a. Use of an 11 megohm impedance VTVM.
- b. All voltages $\pm 10\%$ with respect to chassis ground.
- c. No signal at input terminals.
- d. AC input at 117 volts AC, 50/60Hz.
- e. Front panel controls at:

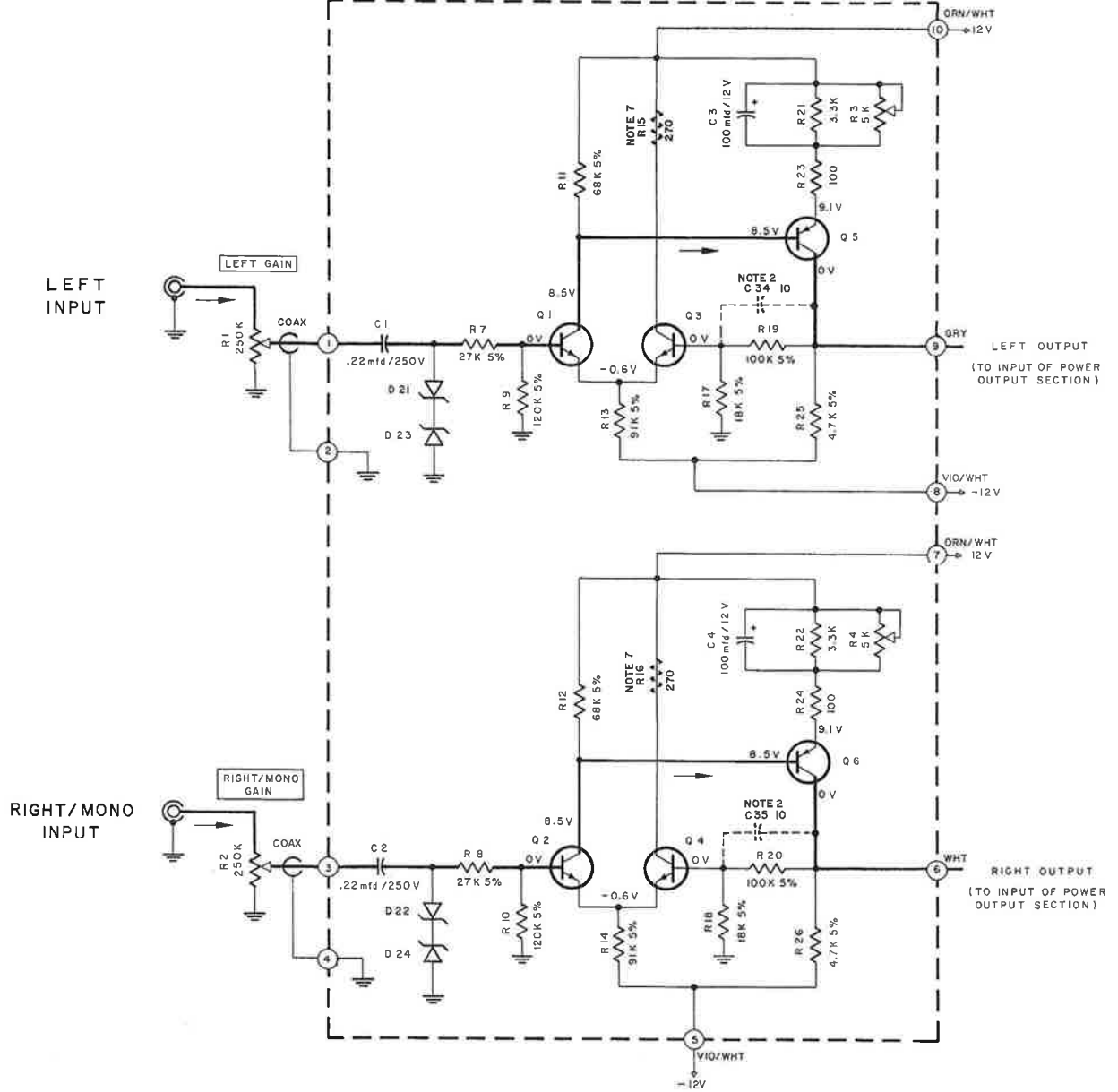
Left Gain	FULL CCW
Right Gain	FULL CCW
Mode	STEREO

1. C37 & C38 are .01 μ F, 250V in early units (part number 064-050).
2. In units with serial numbers below 12L75: C13 & C14 are 680pF, R81 & R82 are 47 ohms; C13 is connected to R41, and C14 is connected to R42 as shown by dotted lines; R53, R54, R55, R56, R75, R76, R77, and R78 are used and connected as shown by dotted lines; C39 & C40 are not used; C34 & C35 are used.
3. In units with serial numbers below 15L50: D1 is two diodes D1 & D3 (part number 070-022) and D2 is two diodes D2 & D4 (part number 070-022).
4. R83 is not used in early units.
5. R51 & R52 is 100 ohms in units below serial number 10L75.
6. R81, R82, C37, and C38 are not used in early units.
7. R15 & R16 are used in early units.



LOCATION OF TRANSISTORS NOT ON PRINTED CIRCUIT BOARDS

INPUT SECTION PRINTED CIRCUIT BOARD 043-708

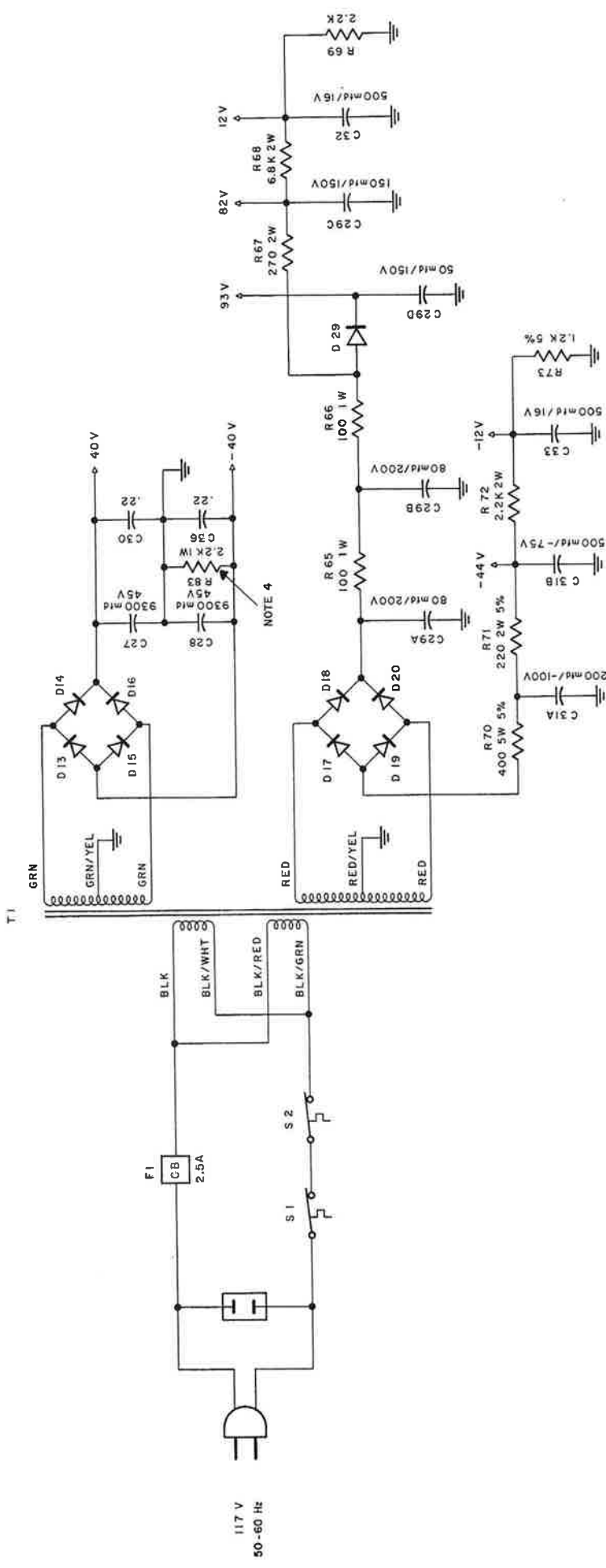


HEAVY LINE SHOWS PRIMARY SIGNAL PATH

INPUT SECTION

MC250

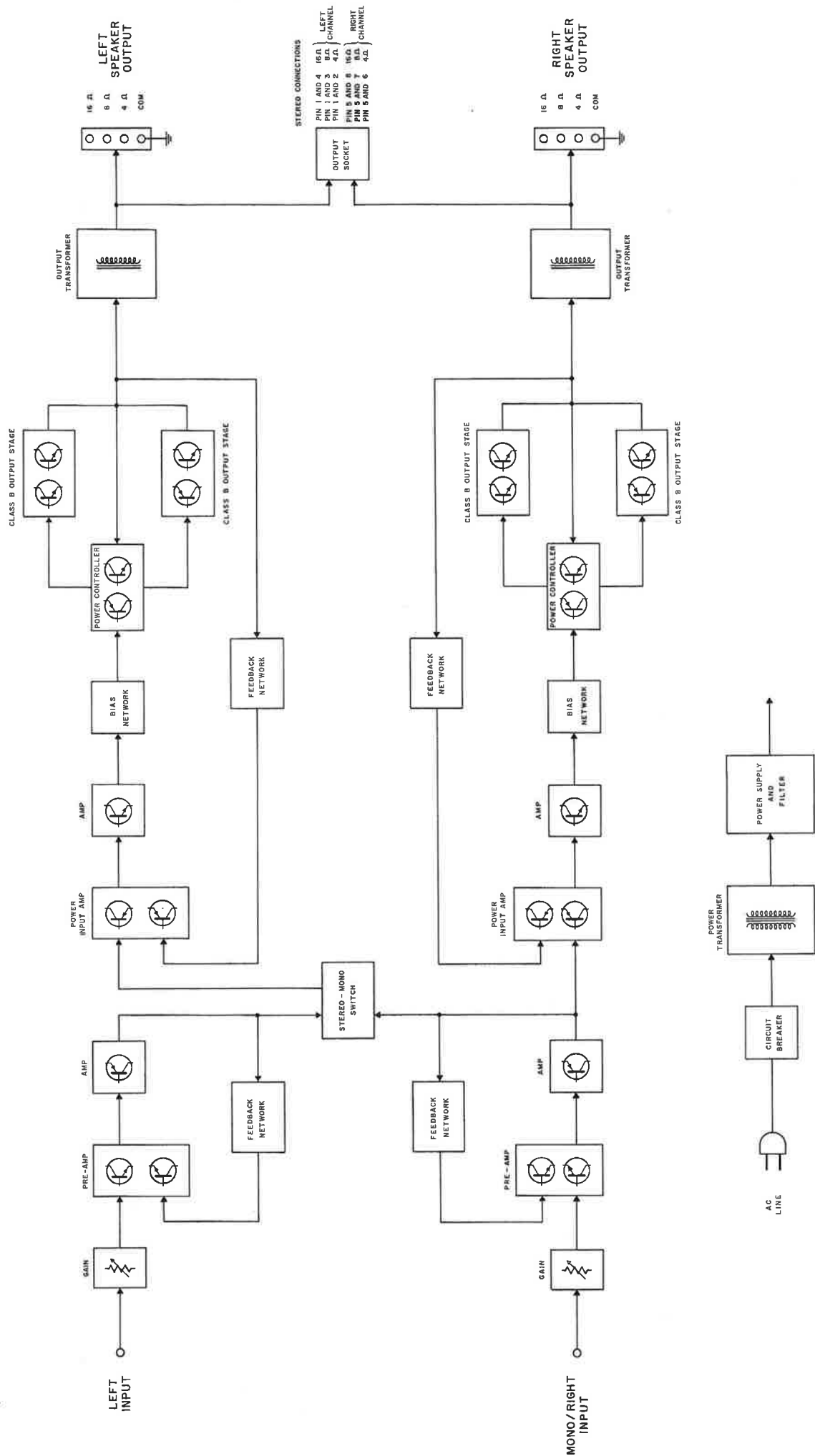
154-336



POWER SUPPLY SECTION

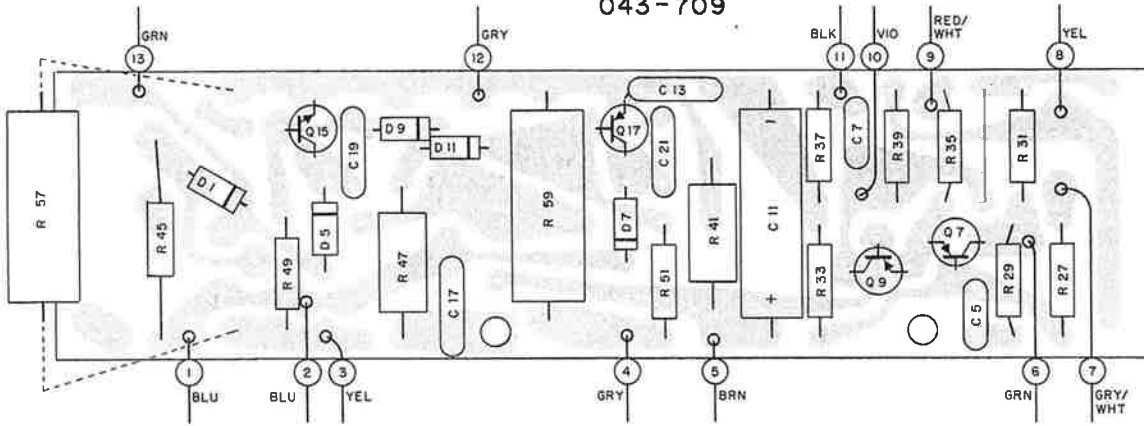
MC250

'54-335

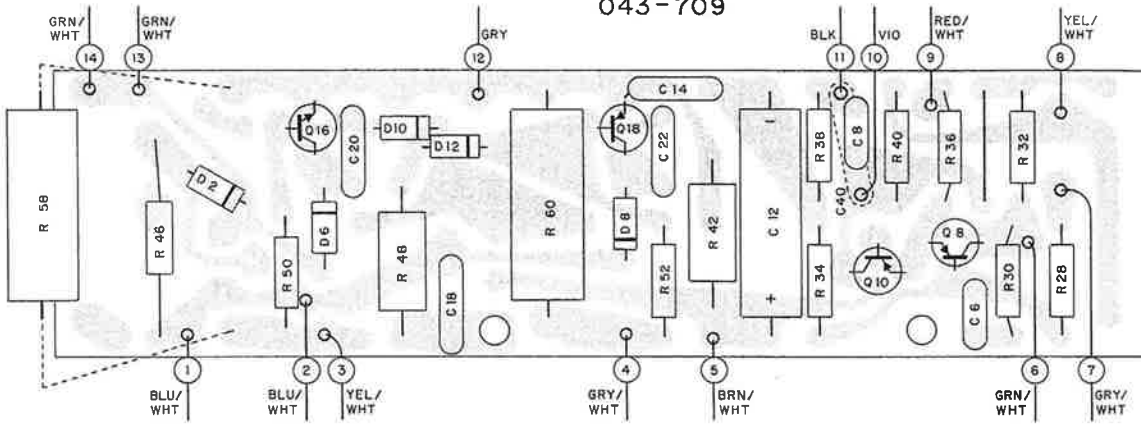


MC 250 BLOCK DIAGRAM

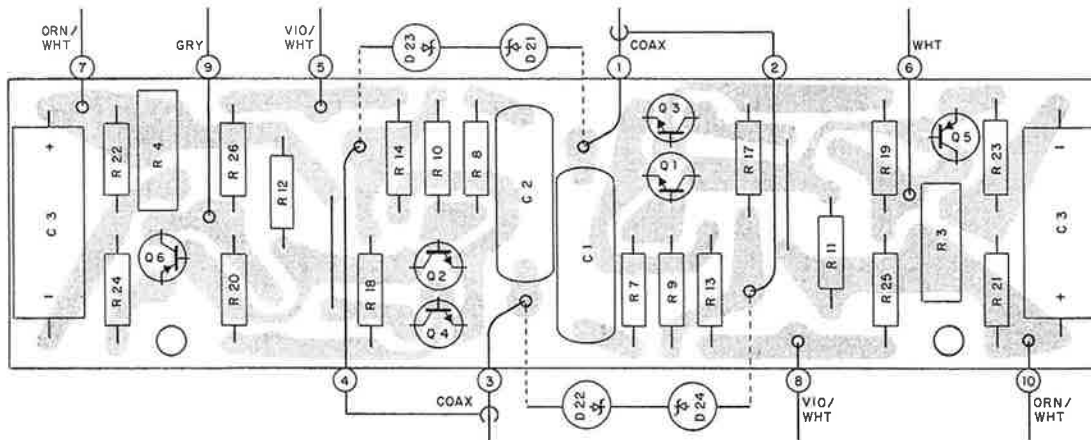
LEFT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD
043-709



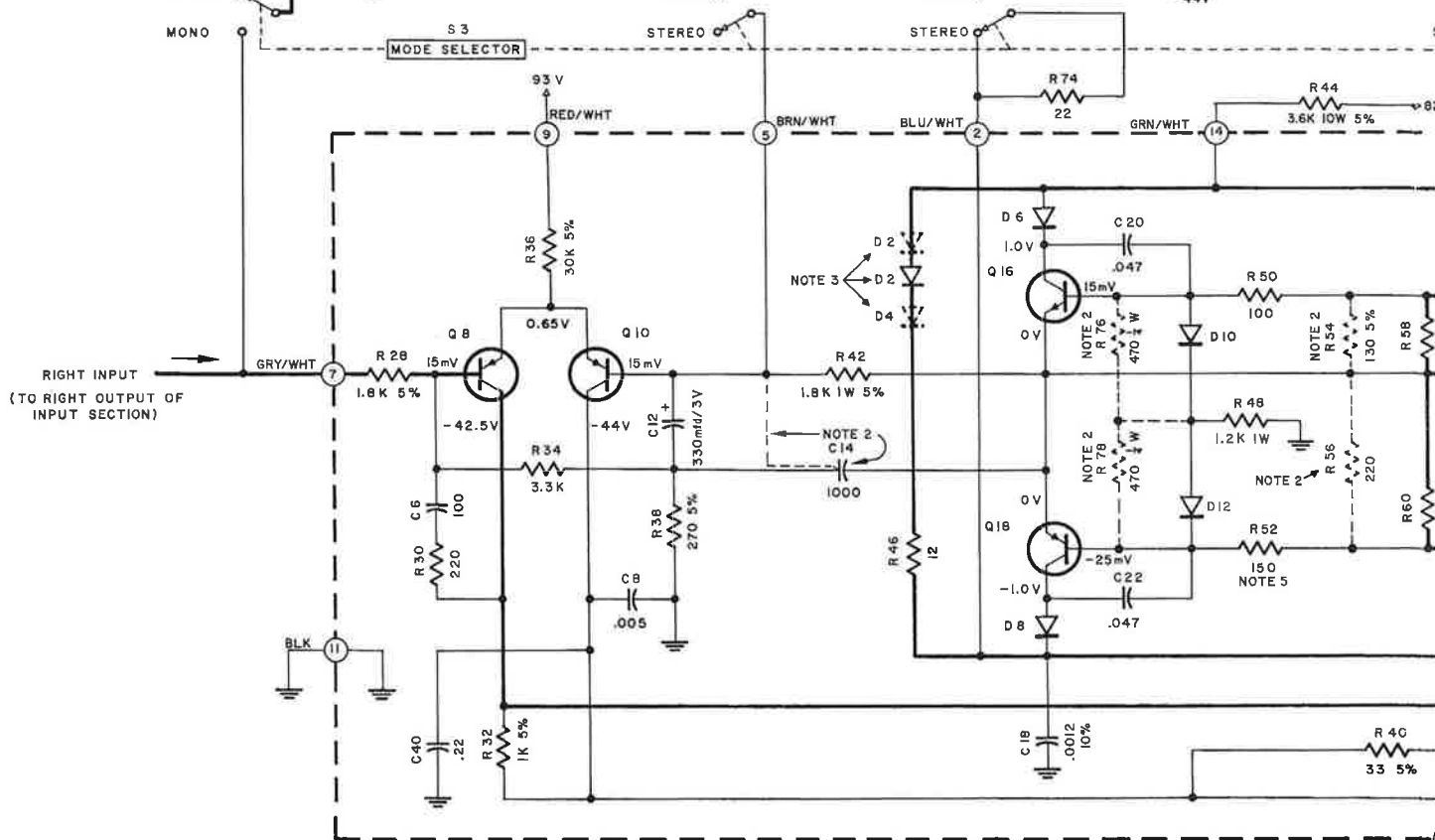
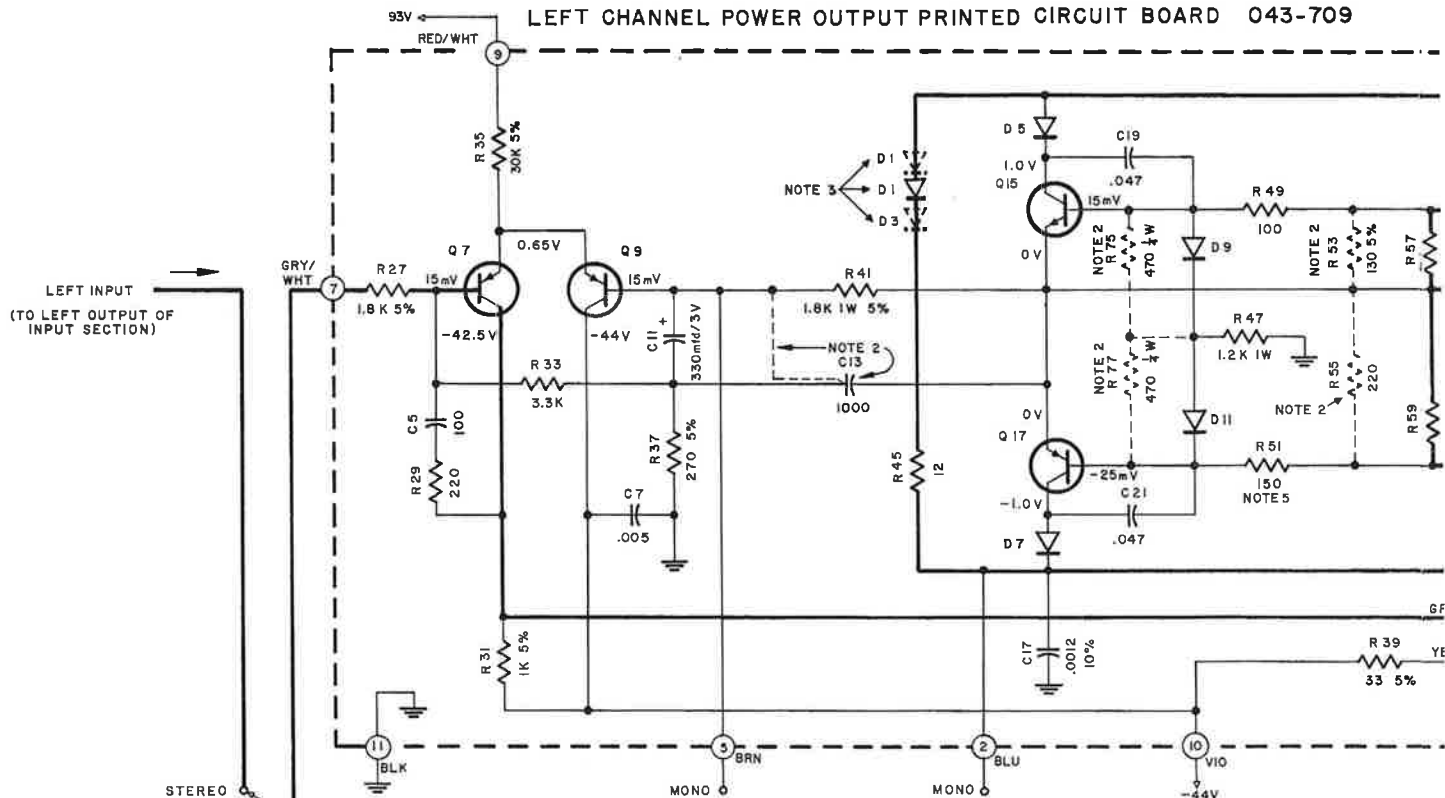
RIGHT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD
043-709



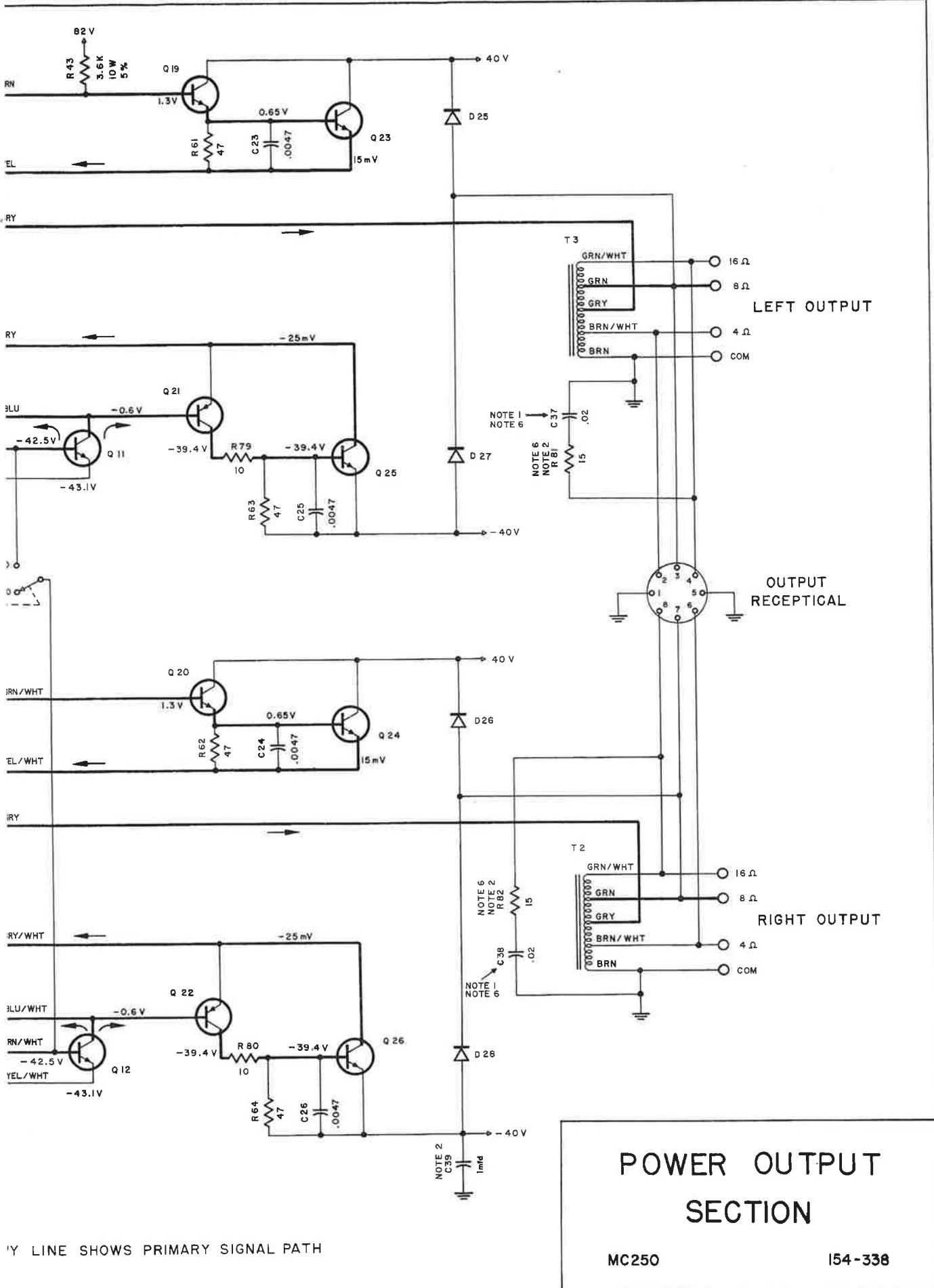
INPUT SECTION PRINTED CIRCUIT BOARD 043-708



LEFT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD 043-709



RIGHT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD 043-709



DASHED LINE SHOWS PRIMARY SIGNAL PATH

SECTION

'54-335

MC250

REPLACEMENT PARTS

All parts not listed are common items obtainable from radio parts jobbers.

Replacement parts may be obtained when ordered by PART NUMBER from:

McIntosh Laboratory Inc.
Customer Service Department
2 Chambers Street
Binghamton, New York 13903
(telephone 607-723-3512)

CAPACITORS

Symbol Number	Description	Part Number
C1,2	Mylar .22 μ F 250V	064-043
C3,4	Elect. 100 μ F 12V	066-018
C11,12	Elect. 330 μ F 3V	066-105
C27,28	Elect. 9300 μ F 45V	066-106
C29	Elect. 80/80/150/50 μ F 200/200/150/150V	066-095
C30	Mylar .22 μ F 250V	064-043
C31	Elect. 200/500 μ F -100/-75V	066-093
C32,33	Elect. 500 μ F 16V	066-107
C36	Mylar .22 μ F 250V	064-043
C40	Mylar .22 μ F 250V	064-043

DIODES

D1,2	Si. reference diode	070-040
D5,6	Si. rectifier	070-028
D7,8	Si. rectifier	070-028
D13,14	Si. rectifier	070-041
D15,16	Si. rectifier	070-041
D17,18	Si. rectifier	070-031
D19,20	Si. rectifier	070-031
D21,22	Zener diode 5.6V	070-035
D23,24	Zener diode 5.6V	070-035
D25,26	Si. rectifier	070-031
D27,28	Si. rectifier	070-031
D29	Si. rectifier	070-030

FUSES

F1	2.5A circuit breaker	088-001
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TRANSISTORS

Q1,2	Si. NPN transistor	132-501
Q3,4	Si. NPN transistor	132-501
Q5,6	Si. PNP transistor	132-031
Q7,8	Si. PNP transistor	132-029

Q9,10	Si. PNP transistor	132-029
Q11,12	Si. NPN transistor	132-515
Q15,16	Si. NPN transistor	132-021
Q17,18	Si. PNP transistor	132-032
Q19,20	Si. NPN transistor	132-524
Q21,22	Si. PNP transistor	132-530
Q23,24	Si. NPN transistor	132-536
Q25,26	Si. NPN transistor	132-536

POTENTIOMETERS

R1	Left gain	134-020
R2	Right/mono gain	134-020
R3,4	Voltage adjust	134-120

RESISTORS

R43,44	Wirewound 3.6K 10W	139-047
R57,58	Wirewound .33 ohms 5W	139-036
R59,60	Wirewound .56 ohms 5W	139-048
R70	Wirewound 400 ohms 5W	139-049

SWITCHES

S1,2	Thermal cut out	153-007
S3	Mode selector	153-008

TRANSFORMERS

T1	Power transformer	043-605
T2	Output transformer (right)	043-667
T3	Output transformer (left)	043-668

MISCELLANEOUS ITEMS

Plastic feet	017-040
Owners manual	038-154
Gain control knob	090-017
Shipping carton	033-077
AC power cord	170-021

8C0819S6-M8279