

—MC—
2505—
Amplifier

McIntosh

MC 2505



SERVICE INFORMATION

FROM SERIAL NO. 10K01 TO 15K00

McINTOSH LABORATORY INC. 2 CHAMBERS STREET BINGHAMTON, NEW YORK

MC 2505

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, -0.25dB, 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 200,000 ohms.

Hum & Noise:

Greater than 90dB below rated output.

Output Power Monitor Meter:

Meter is calibrated to read 0dB when amplifier produces rated output. Meter range switch increases meter sensitivity by 10dB or 20dB.

Power Requirements:

117 volts AC 50-60 cycles, 75 watts at zero signal output, 250 watts at rated output.

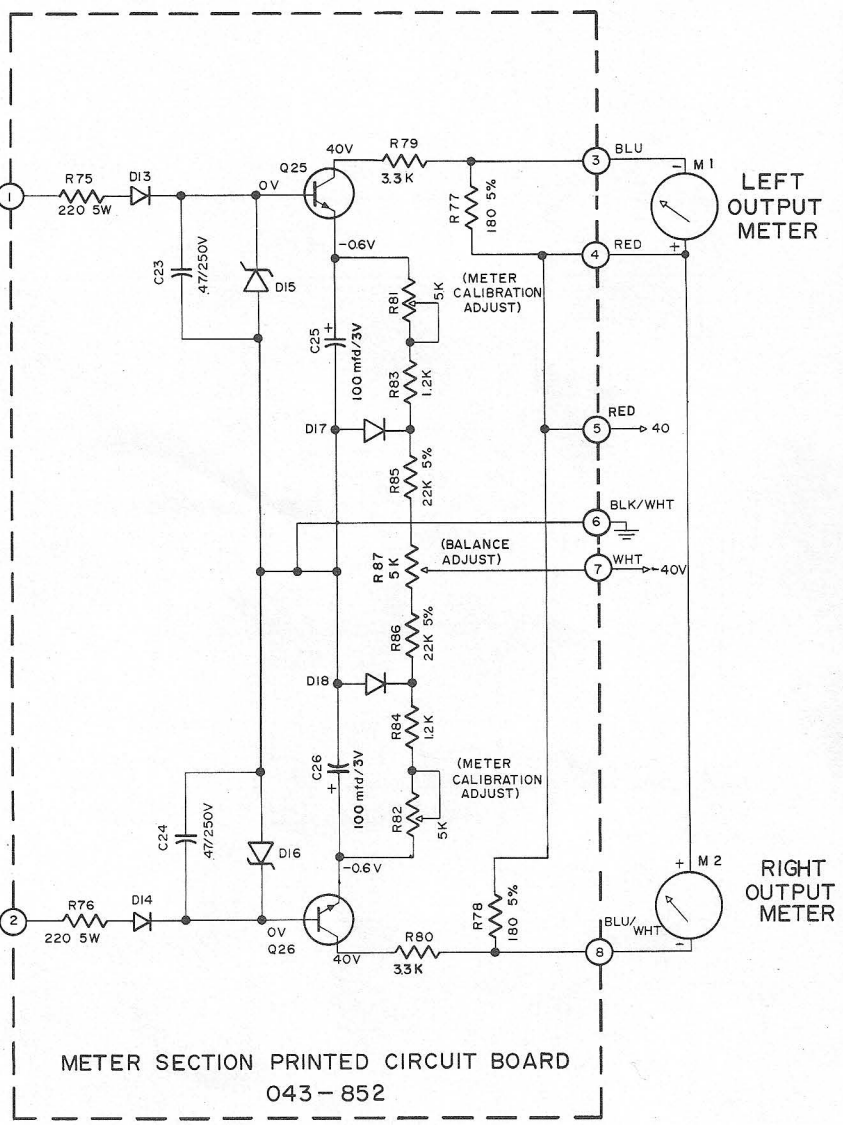
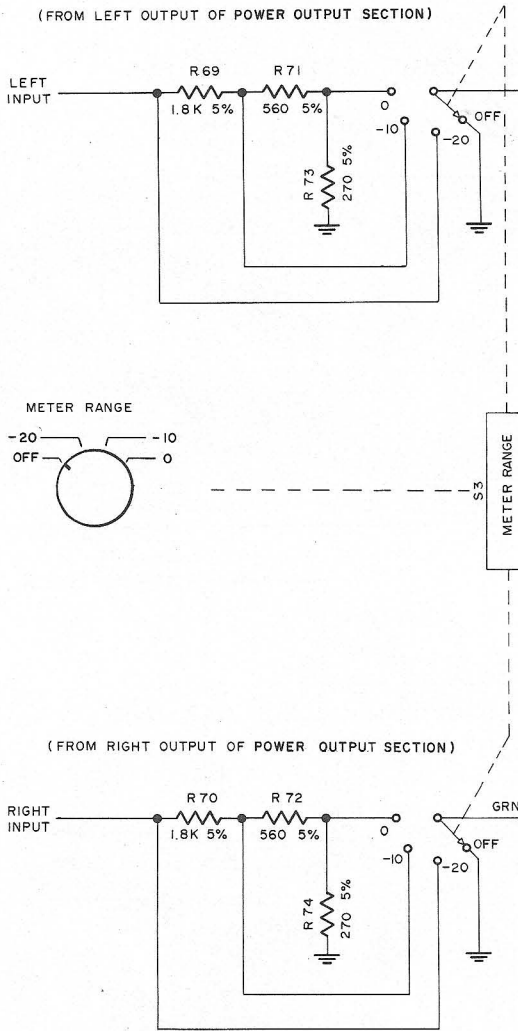
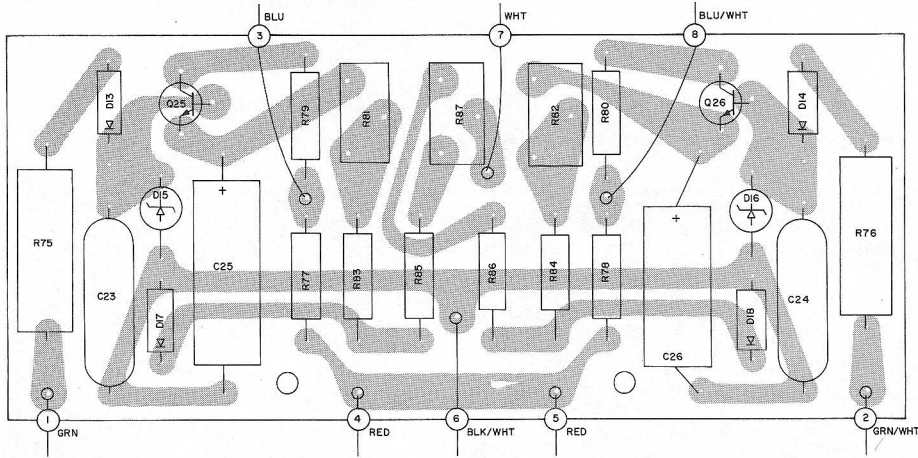
Unless otherwise specified, resistance values are in ohms, 1/2 watt, and 10% tolerance. Capacitance values smaller than 1 are in microfarads (mfd); values greater than 1 are in picofarads (pF).

All voltages are measured under the following conditions:

1. Use of an 10 megohm input impedance VTVM voltmeter.
2. All voltages +10% with respect to ground.
3. No signal at input terminals.
4. AC input at 117 volts, 50/60 cycles.
5. Front panel controls at:

Left Gain	Fully Counterclockwise
Meter Range	Off
Right Gain	Fully Counterclockwise
Speakers	On
Power	On

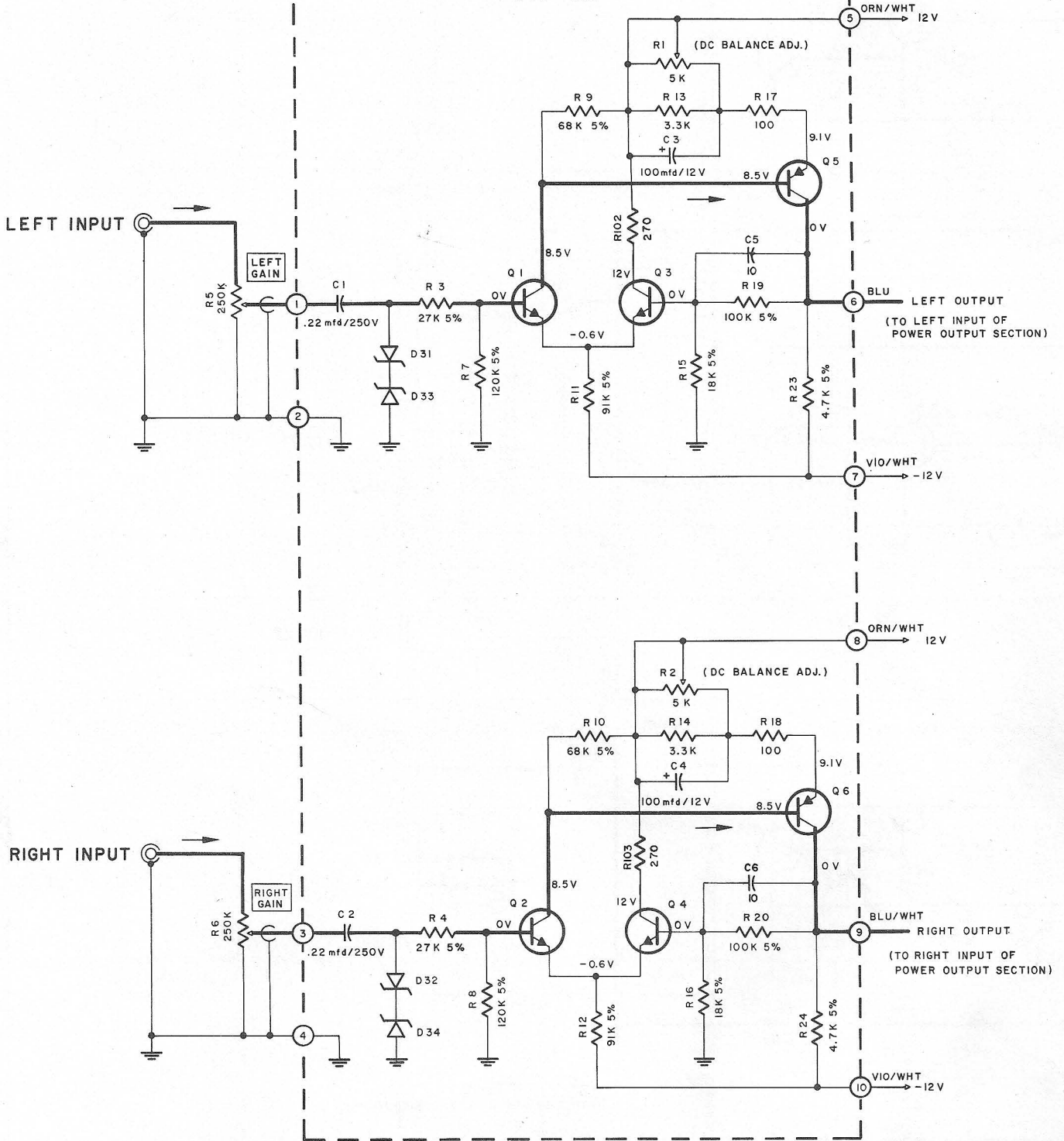
METER SECTION PRINTED CIRCUIT BOARD 043-852



METER SECTION
MC 2505 154-306

INPUT SECTION PRINTED CIRCUIT BOARD

043 - 851



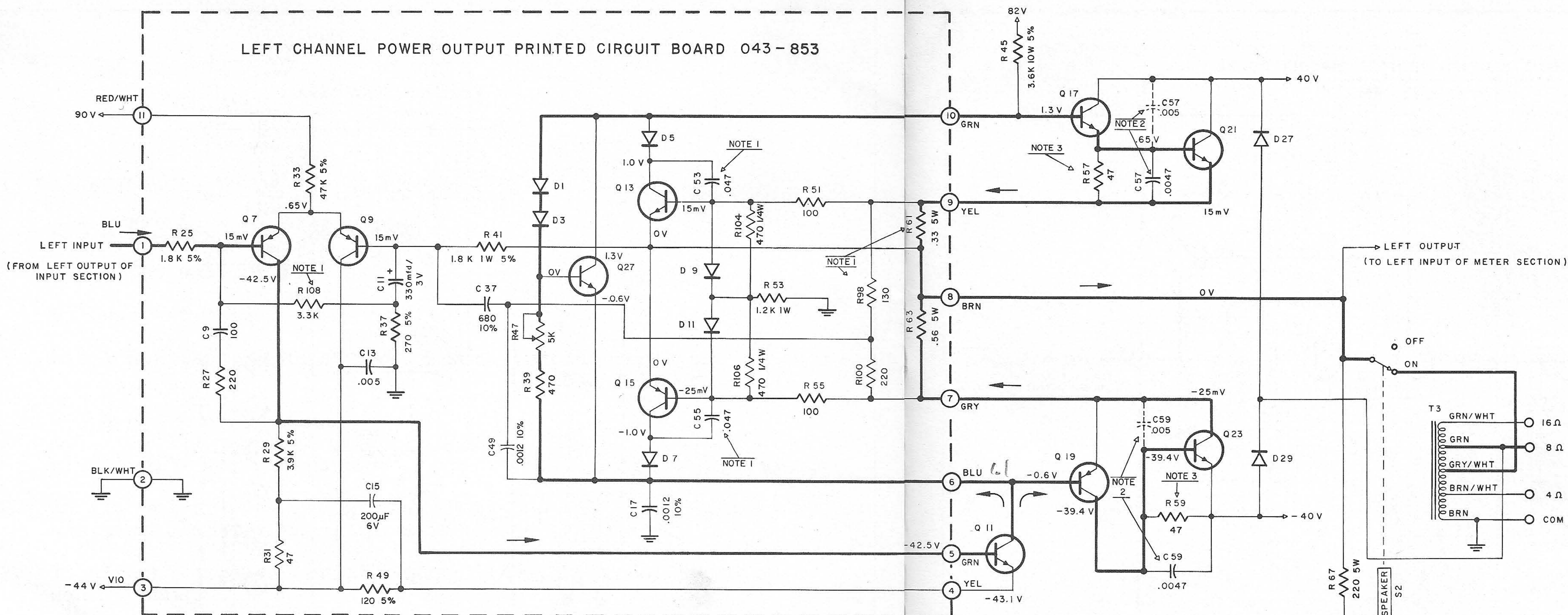
HEAVY LINE SHOWS PRIMARY SIGNAL PATH

INPUT SECTION

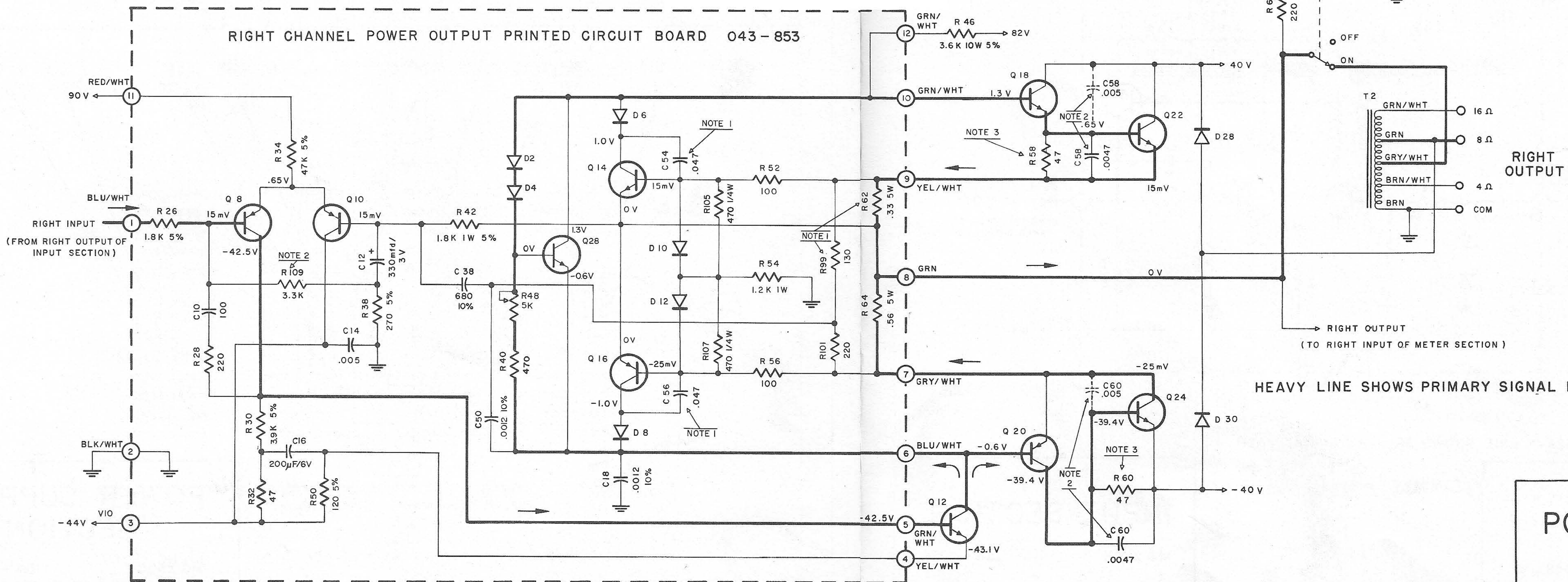
MC 2505

154 - 305

LEFT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD 043-853



RIGHT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD 043-853

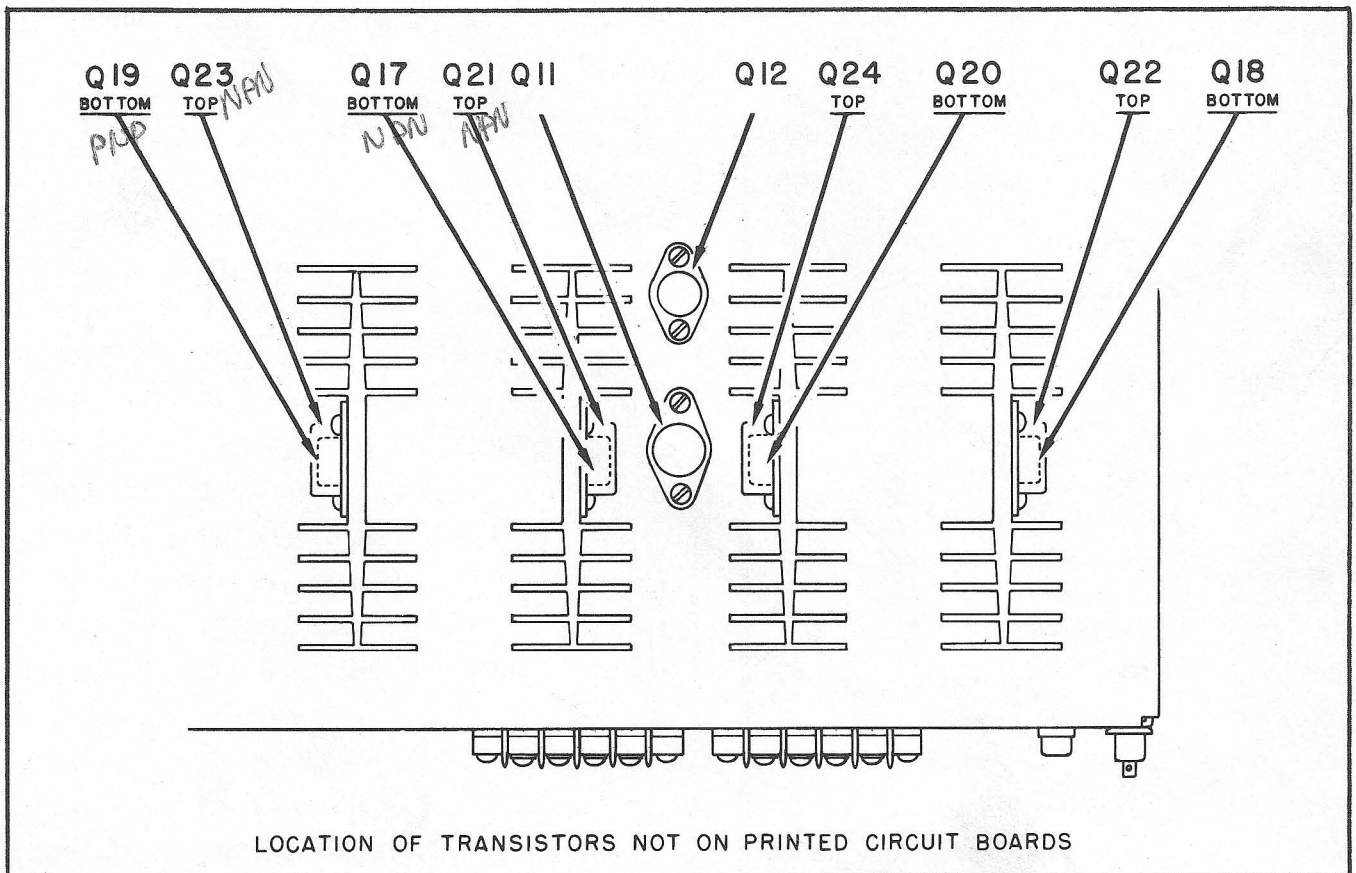


HEAVY LINE SHOWS PRIMARY SIGNAL PATH

POWER OUTPUT SECTION

SCHEMATIC NOTES

1. In all units below serial number 11K55
C53 & C54 was $.01\mu\text{F}$ (Disc)
C55 & C56 was $.01\mu\text{F}$ (Disc)
C61 was not used
R61 & R62 was $.56$ ohms, 10%, 5 watt (replacement part number 139-048)
R98 & R99 was 220 ohms
R108 & R109 was not used
2. In all units below serial number 11K50, C57, 58, 59, & 60 was in the dotted position and was $.005\mu\text{F}$ (Disc).
3. In all units below serial number 11K50, R57, 58, 59, & 60 was 27 ohms.



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
C15,16	Elect. 200 μ F 6V	066-108
C23,24	Mylar .47 μ F 250V	064-045
C25,26	Elect. 100 μ F 3V	066-047
C29,30	Elect. 9300 μ F 45V	066-106
C31	Mylar .22 μ F 250V	064-043
C33	Elect. 80/80/150/50 μ F 200/200/150/150V	066-095
C34	Elect. 200/500 μ F -100/-75V	066-093
C35,36	Elect. 500 μ F 16V	066-107
C53,54	Mylar .047 μ F 250V	064-044
C55,56	Mylar .047 μ F 250V	064-044
C61	Mylar .22 μ F 250V	064-043

DIODES

D1,2	Si. signal diode	070-022
D3,4	Si. signal diode	070-022
D5,6	Si. rectifier	070-028
D7,8	Si. rectifier	070-028
D9,10	Si. signal diode	070-022
D11,12	Si. signal diode	070-022
D13,14	Ge. signal diode	070-003
D15,16	Zener diode 5.6V	070-035
D17,18	Ge. signal diode	070-003
D19,20	Si. rectifier	070-041
D21,22	Si. rectifier	070-041
D23,24	Si. rectifier	070-031
D25,26	Si. rectifier	070-031
D27,28	Si. rectifier	070-031
D29,30	Si. rectifier	070-031
D31,32	Zener diode 5.6V	070-035

D33,34 Zener diode 5.6V 070-035

CIRCUIT BREAKERS

CB1 Circuit breaker 2.5 amp 088-001

METERS

M1,2 Meter (power level) 124-013

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
Q13,14	Si. NPN transistor	132-021
Q15,16	Si. PNP transistor	132-032
Q17,18	Si. NPN transistor	132-524
Q19,20	Si. PNP transistor	132-530
Q21,22	Si. NPN transistor	132-536
Q23,24	Si. NPN transistor	132-536
Q25,26	Si. NPN transistor	132-502
Q27,28	Si. NPN transistor	132-021

POTENTIOMETERS

R1,2	DC balance adjust	134-120
R5,6	Gain controls	134-187
R47,48	Bias adjust	134-120
R81,82	Meter calibration adjust	134-120
R87	Meter balance adjust	134-120

RESISTORS

R45,46	Wirewound 3.6K 5% 10W	139-047
R61,62	Wirewound .56 ohms 5W	139-048
R61,62	Wirewound .33 ohms 5W	139-036
R63,64	Wirewound .56 ohms 5W	139-048
R67,68	Wirewound 220 ohms 5W	139-009
R75,76	Wirewound 220 ohms 5W	139-009
R95	Wirewound 400 ohms 5W	139-049

SWITCHES

S1	Power on-off switch	146-102
S2	Speaker switch	146-103
S3	Meter range switch	146-109
S4	Thermal cut-out	153-007
S5	Thermal cut-out	153-007

TRANSFORMERS

T1	Power (10K01 to 11K00)	043-857
T1	Power (11K01 & Above)	043-605
T2	Output (right)	043-606
T3	Output (left)	043-607

FRONT PANEL AND TRIM

	Front panel	043-712
	Front panel end caps	018-120
	Knobs (all controls)	043-428

LAMPS

	#1866 (for wording)	058-014
	#1888 (for meters)	058-029

PANLOC SYSTEM

	Shelf bracket (right)	043-592
	Shelf bracket (left)	043-593
	Mounting template #100	038-179
	Hardware package	043-608

MISCELLANEOUS ITEMS

	Plastic feet	017-041
	Shipping carton	043-819
	Owners manual	038-145
	Line cord	170-021
	Output terminal block	174-001

038-250