McIntosh

MC 100

POWER AMPLIFIER

SERVICE INFORMATION

STARTING WITH SERIAL NO. 1S001

McINTOSH LABORATORY INC. 2 CHAMBERS STREET BINGHAMTON, NEW YORK

ELECTRICAL SPECIFICATIONS

POWER OUTPUT:

100 RMS watts continuous into 4, 8, or 16 ohms.

HARMONIC DISTORTION:

Less than 0.20% at 100 watts power output from 20 Hz to 20 kHz. Typical performance is less than 0.1% at full power. Distortion decreases as output power is reduced.

INTERMODULATION DISTORTION:

Less than 0.20% if instantaneous peak power output is 200 watts or less for any combination of frequencies 20 Hz and 20 kHz.

FREQUENCY RANGE:

20 Hz to 20 kHz +0, -0.1 dB at 100 watts

10 Hz to 50 kHz +0, -0.5 dB at 100 watts

7 Hz to 100 kHz +0, -3.0 dB at 50 watts

NOISE AND HUM:

90 dB or more below rated output

OUTPUT IMPEDANCE:

4, 8, and 16 ohms

OUTPUT VOLTAGES:

25 volts

DAMPING FACTOR:

27 at 4 ohms output

16 at 8 ohms output

12 at 16 ohms output

INPUT IMPEDANCE:

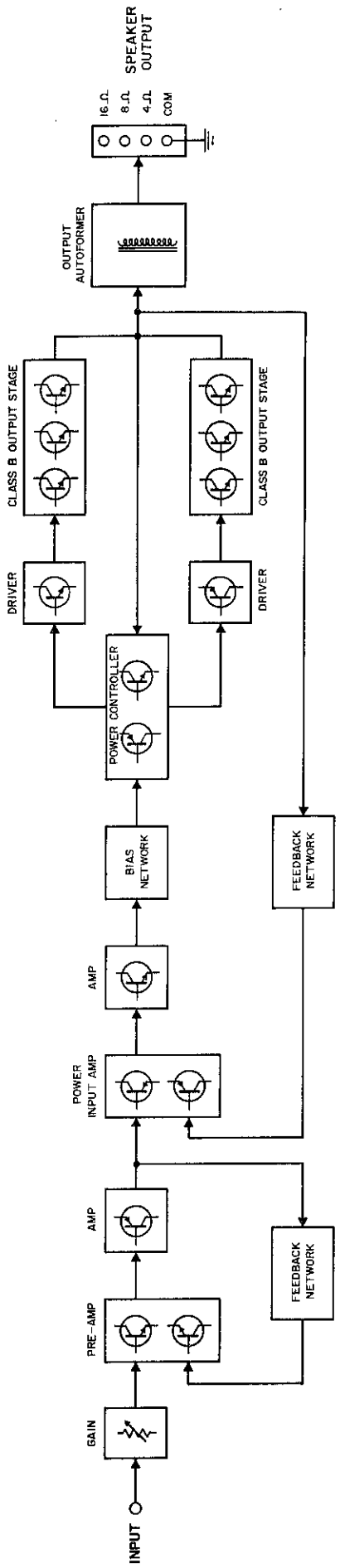
200,000 ohms

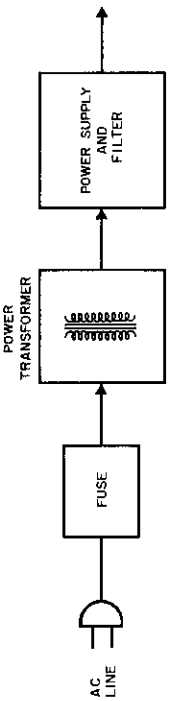
INPUT SENSITIVITY:

0.5 volts. Level control provided for higher input voltage.

POWER REQUIREMENTS:

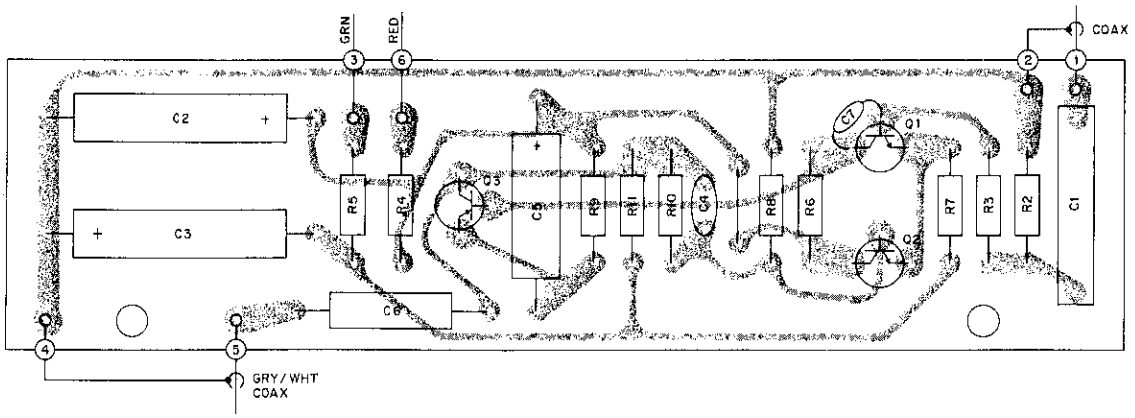
117 volts AC 50 - 60 Hz, 40 watts at zero signal output, 230 watts at 100 watts output.



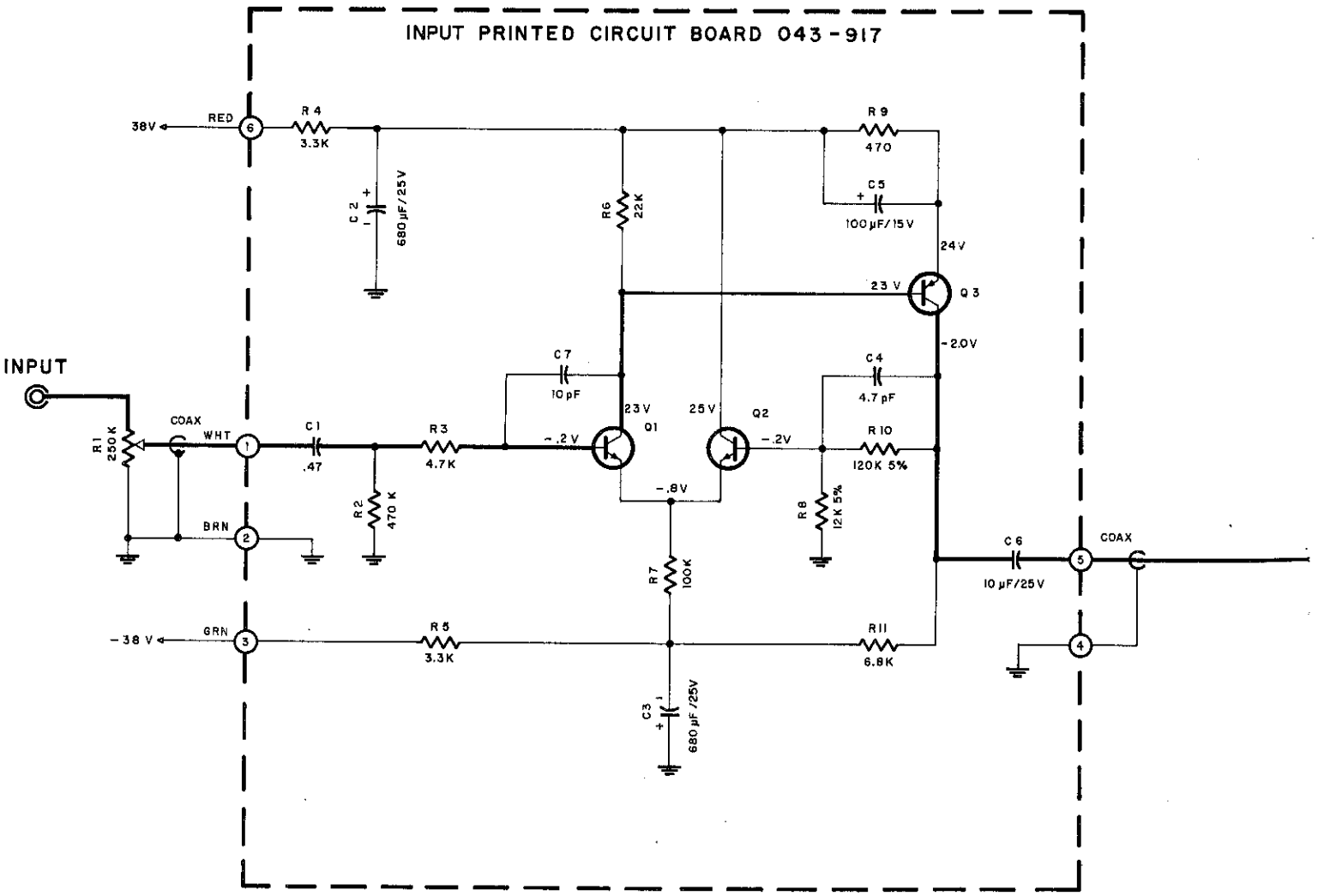


MC 100 BLOCK DIAGRAM

INPUT PC BOARD 043-917



INPUT PRINTED CIRCUIT BOARD 043-917



SCHEMATIC NOTES

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

2. 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.

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

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

   a. Use of an 11 megohm impedance VTVM.

   b. All voltages ±10% with respect to chassis ground.

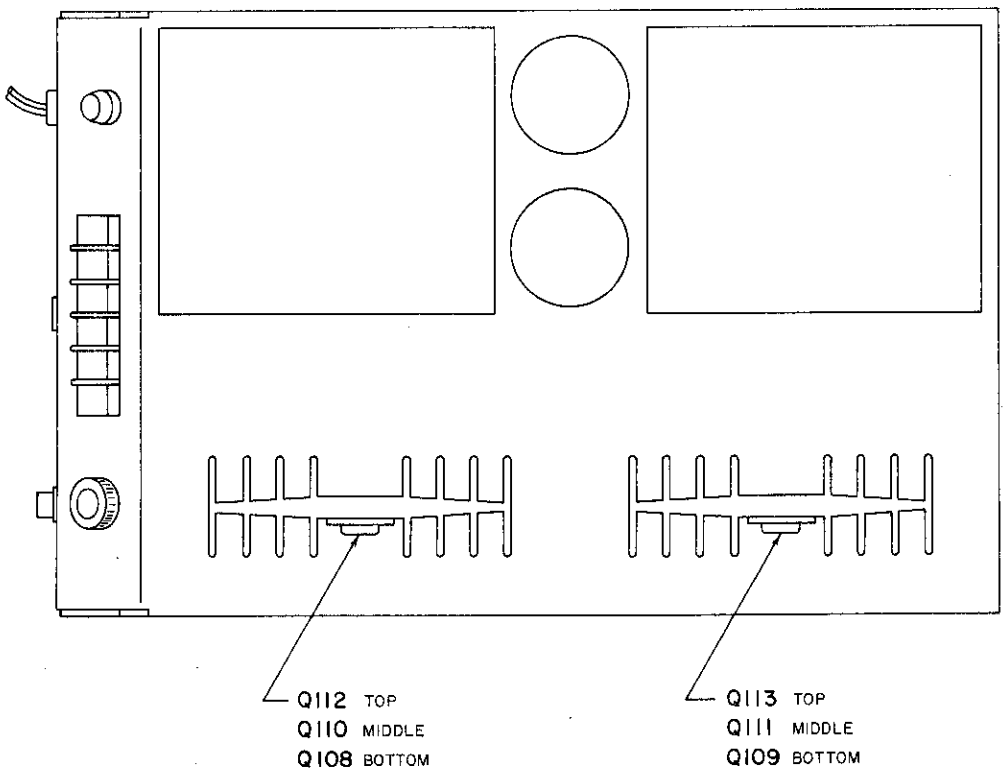
   c. No signal at input terminals.

   d. AC input at 117 volts AC, 50/60Hz.

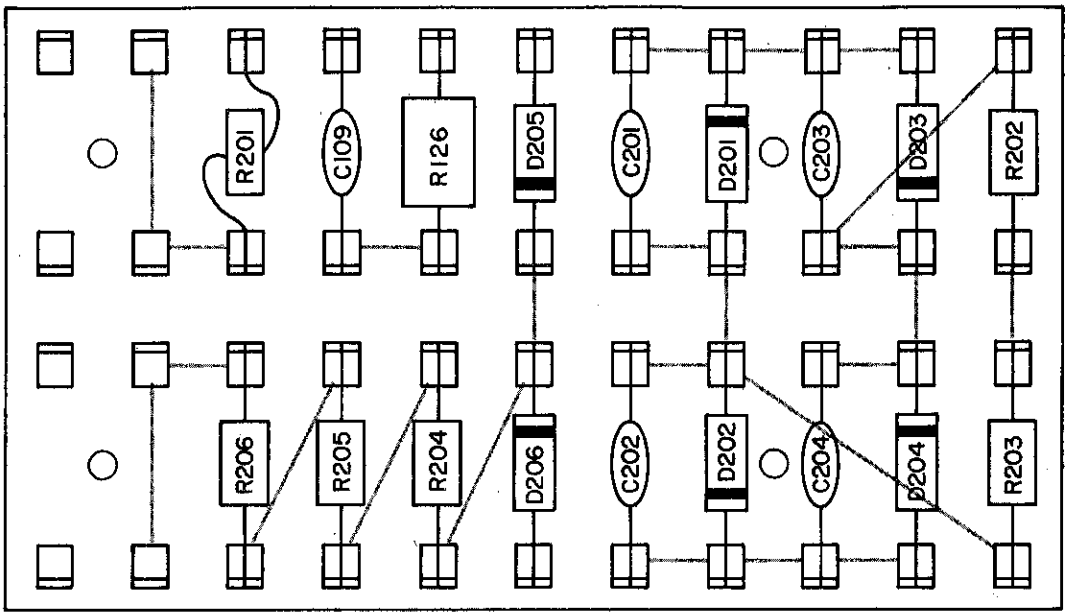
   e. Front panel controls at:

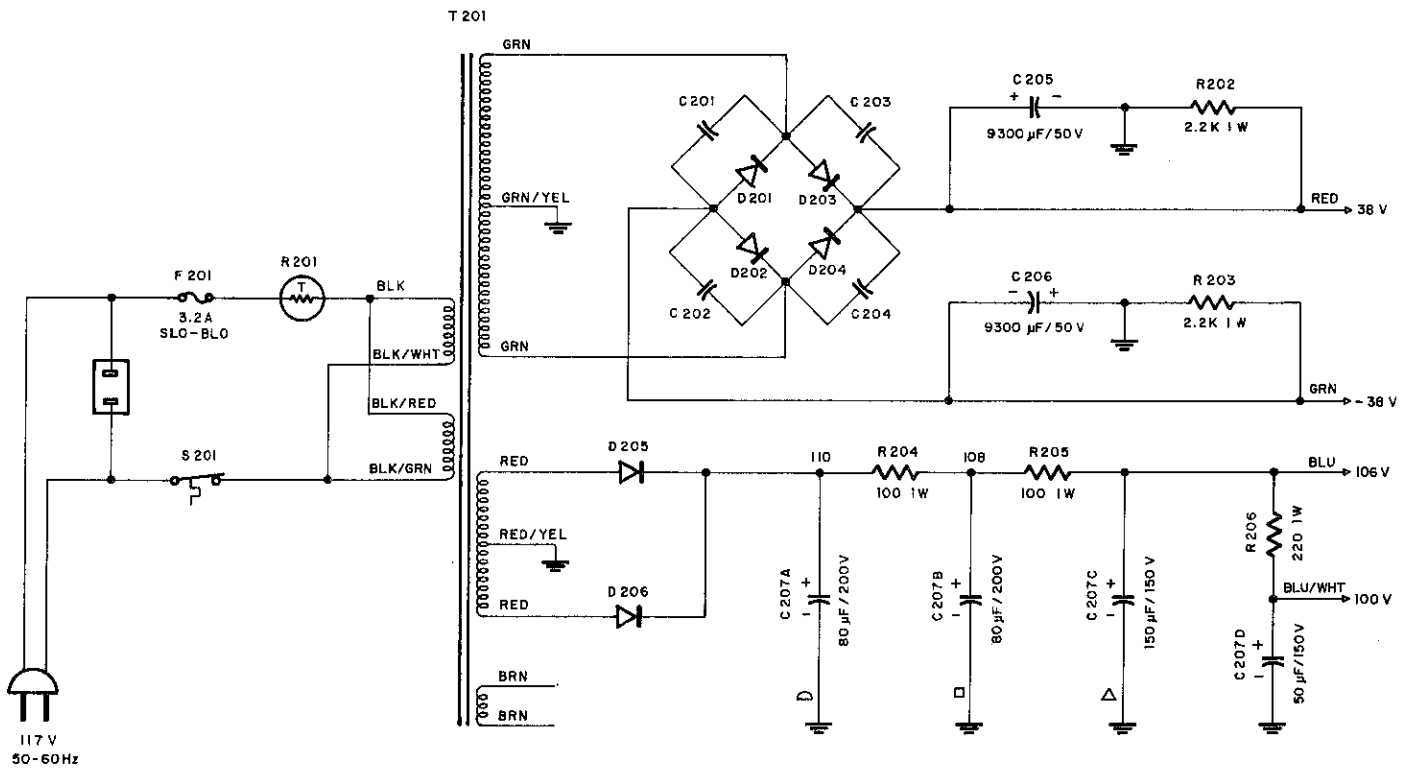
      Gain Full CCW

LOCATION OF TRANSISTORS NOT ON PRINTED CIRCUIT BOARDS



POWER SUPPLY PARTS CARD





POWER SUPPLY SECTION

MC 100 154-424

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	Mylar	.47μF	250V	064-069
C2,3	Elect.	680μF	25V	066-135
C5	Elect.	100μF	15V	066-127
C6	Elect.	10μF	25V	066-005
C101	Elect.	330μF	3V	066-105
C107	Elect.	150μF	50V	066-152
C205,206	Elect.	9300μF	50V	066-153
C207	Elect.	80/80/150/50μF 200/200/150/150V		066-095

DIODES

D101,102	Si. signal diode	070-022
D103	Si. signal diode	070-022
D104	Si. reference diode	070-040
D201,202	Si. rectifier	070-041
D203,204	Si. rectifier	070-041
D205,206	Si. rectifier	070-031

FUSES

F201	Fuse	3.2A	slo-blo	089-006

TRANSISTORS

Q1,2	Si. NPN transistor	132-054
Q3	Si. PNP transistor	132-056
Q101,102	Si. PNP transistor	132-056
Q103	Si. NPN transistor	132-028
Q104	Si. NPN transistor	132-021
Q105	Si. PNP transistor	132-032
Q106	Si. NPN transistor	132-038
Q107	Si. PNP transistor	132-039
Q108,109	Si. NPN transistor	132-070
Q110,111	Si. NPN transistor	132-070
Q112,113	Si. NPN transistor	132-070

POTENTIOMETERS

R1	Gain control	134-206

RESISTORS

R105	Wirewound	3.6k	5W	139-065
R119,120	Wirewound	.56Ω	5W	139-061
R121,122	Wirewound	.33Ω	5W	139-071
R123,124	Wirewound	.33Ω	5W	139-071
R125	Wirewound	.33Ω	5W	139-071

SWITCHES

S201	Thermal cut-out	153-007

TRANSFORMERS

T101	Output transformer	044-096
T201	Power transformer	043-605

MISCELLANEOUS ITEMS

	Plastic feet	017-040
	Owners manual	038-366
	Gain control knob	090-017
	Shipping carton	033-108
	AC power cord	170-021
	Fuseholder	178-001