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McIntosh

MC 2100

AMPLIFIER



SERVICE INFORMATION

STARTING WITH SERIAL NO. 10W01

McINTOSH LABORATORY INC. 2 CHAMBERS STREET BINGHAMTON, NEW YORK

ELECTRICAL SPECIFICATIONS

POWER OUTPUT:

- Stereo - 105 RMS watts continuous per channel into 4, 8, or 16 ohms both channels operating.
- Mono - 210 RMS watts continuous into 2, 4, or 8 ohms.

HARMONIC DISTORTION:

- Stereo - Less than 0.25% at 105 watts output from 20Hz to 20kHz both channels operating. Typical performance is less than 0.1% at rated power. Distortion decreases as output power is reduced.
- Mono - Less than 0.25% at 210 watts output from 20Hz to 20kHz. Typical performance is less than 0.1% at rated power. Distortion decreases as output power is reduced.

INTERMODULATION DISTORTION:

- Stereo - Less than 0.25% if instantaneous peak power output is 210 watts or less per channel with both channels operating for any combination of frequencies 20Hz to 20kHz.
- Mono - Less than 0.25% if instantaneous peak power output is 420 watts or less for any combination of frequencies 20Hz to 20kHz.

FREQUENCY RANGE:

- 20Hz to 20kHz +0, -0.1dB at rated power.
- 15Hz to 60kHz +0, -0.5dB at rated power.
- 10Hz to 100kHz +0, -3.0dB at one-half of rated power.

NOISE AND HUM:

- 90dB or more below rated output.

OUTPUT IMPEDANCE:

- Stereo - 4, 8, and 16 ohms
- Mono - 2, 4, and 8 ohms

OUTPUT VOLTAGES:

- 25 volts

DAMPING FACTOR:

- 20 at 4 ohms output
- 14 at 8 ohms output
- 11 at 16 ohms output

INPUT IMPEDANCE:

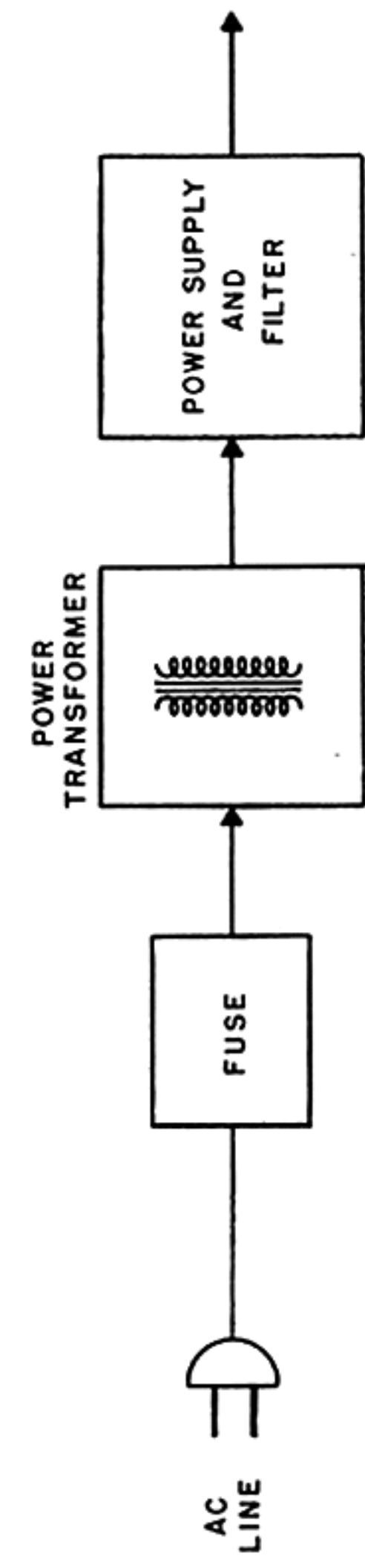
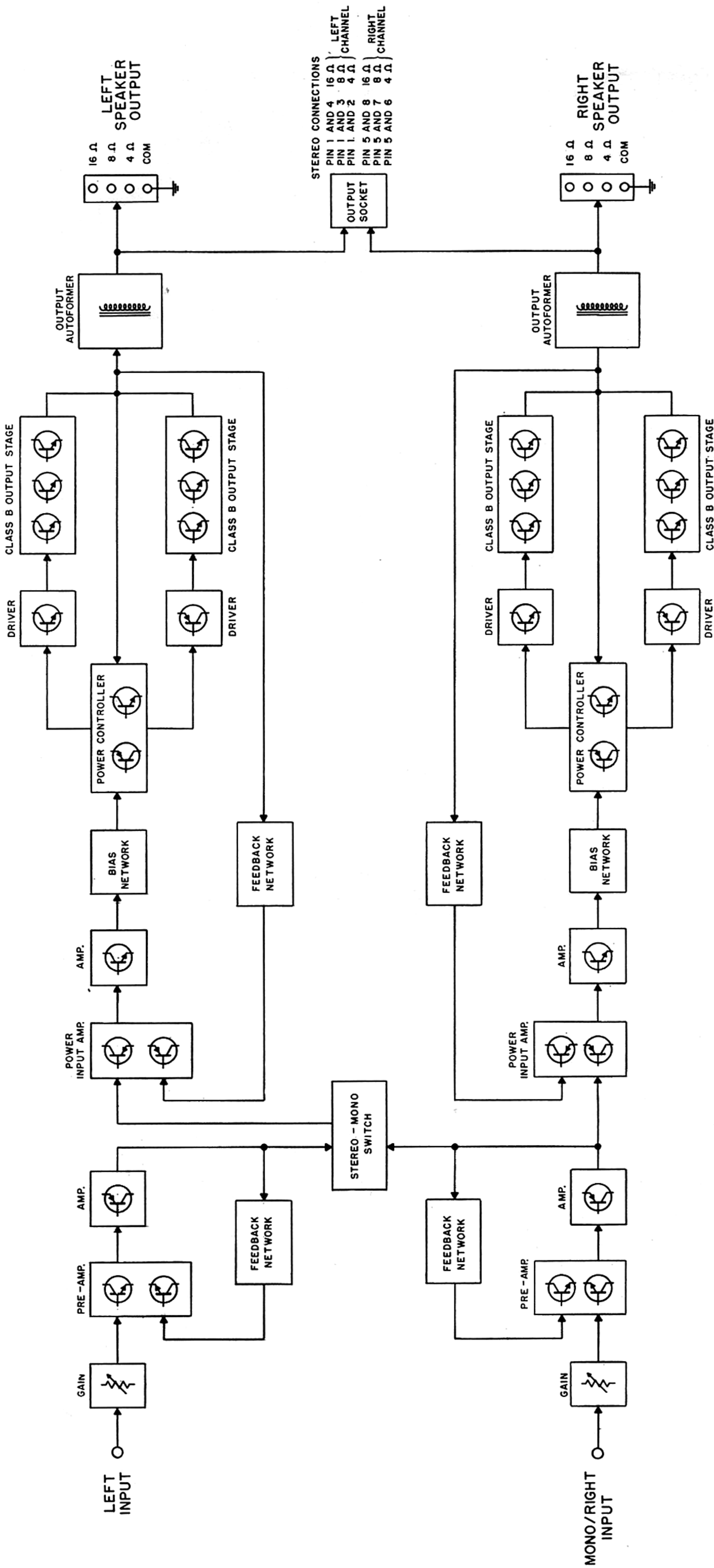
- 200,000 ohms

INPUT SENSITIVITY:

- 0.5 volts. Level control provided for higher input voltage.

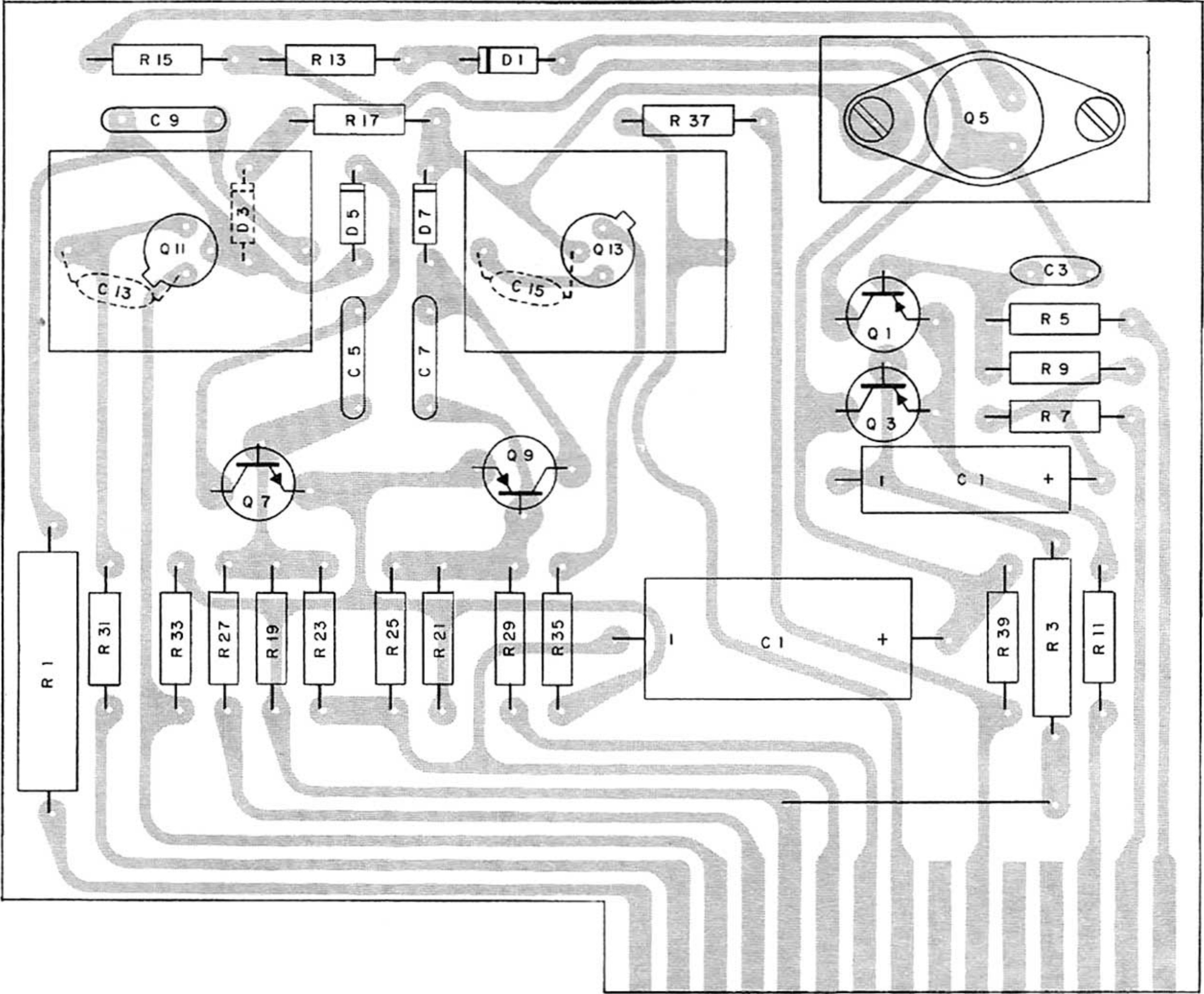
POWER REQUIREMENTS:

- 120 volts AC 50/60 Hz, 50 watts at zero signal output.
- 450 watts at rated output.

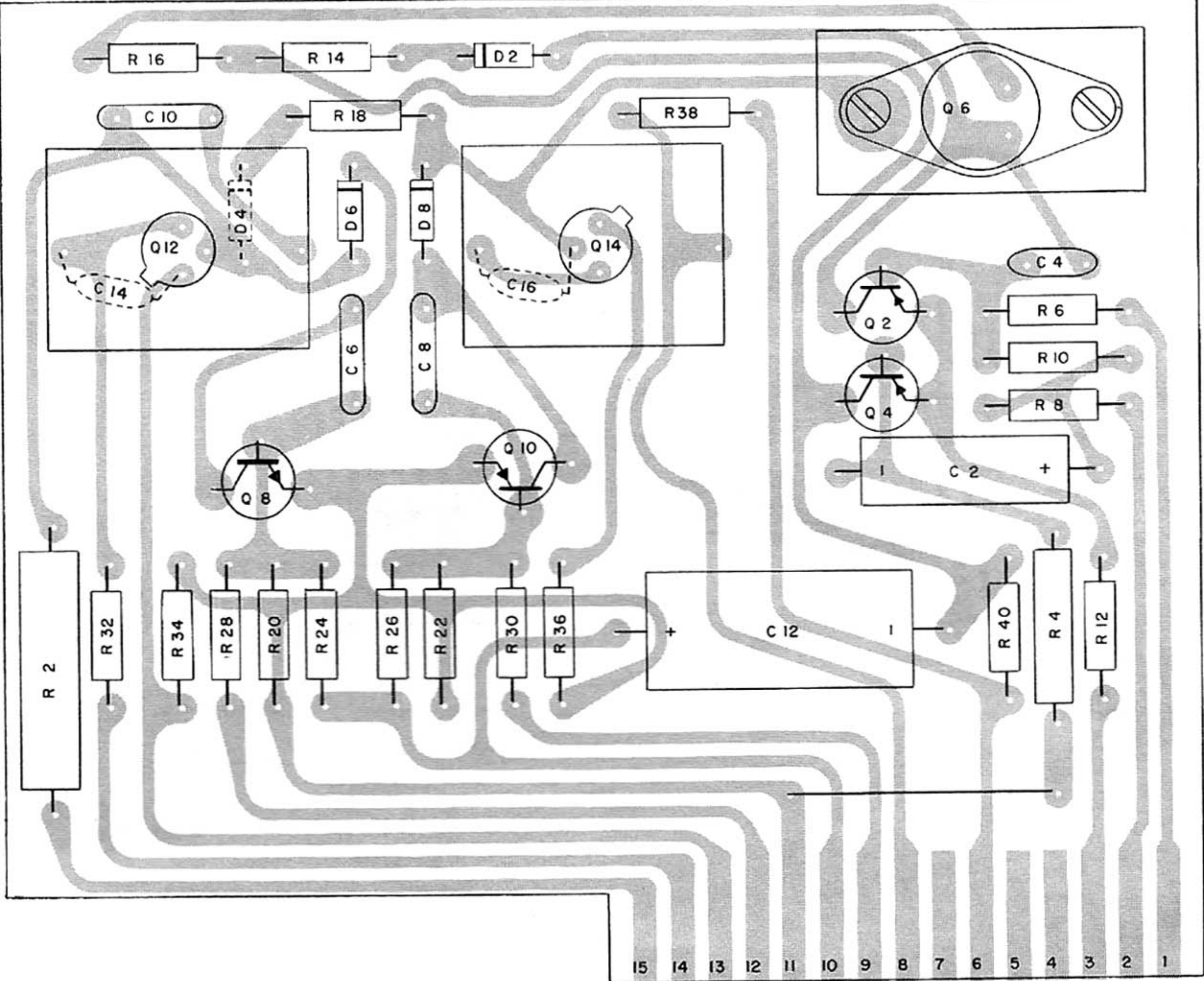


MC 2100 BLOCK DIAGRAM

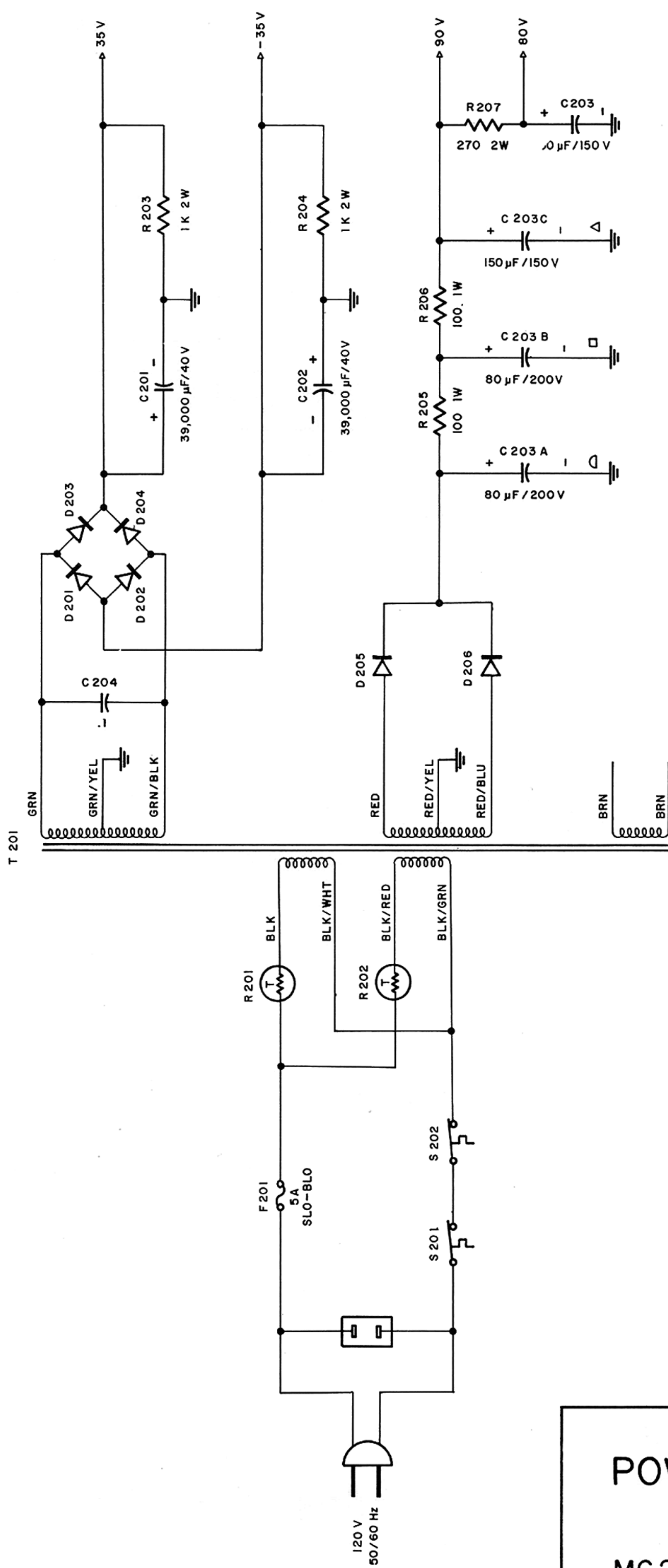
LEFT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD 043-899



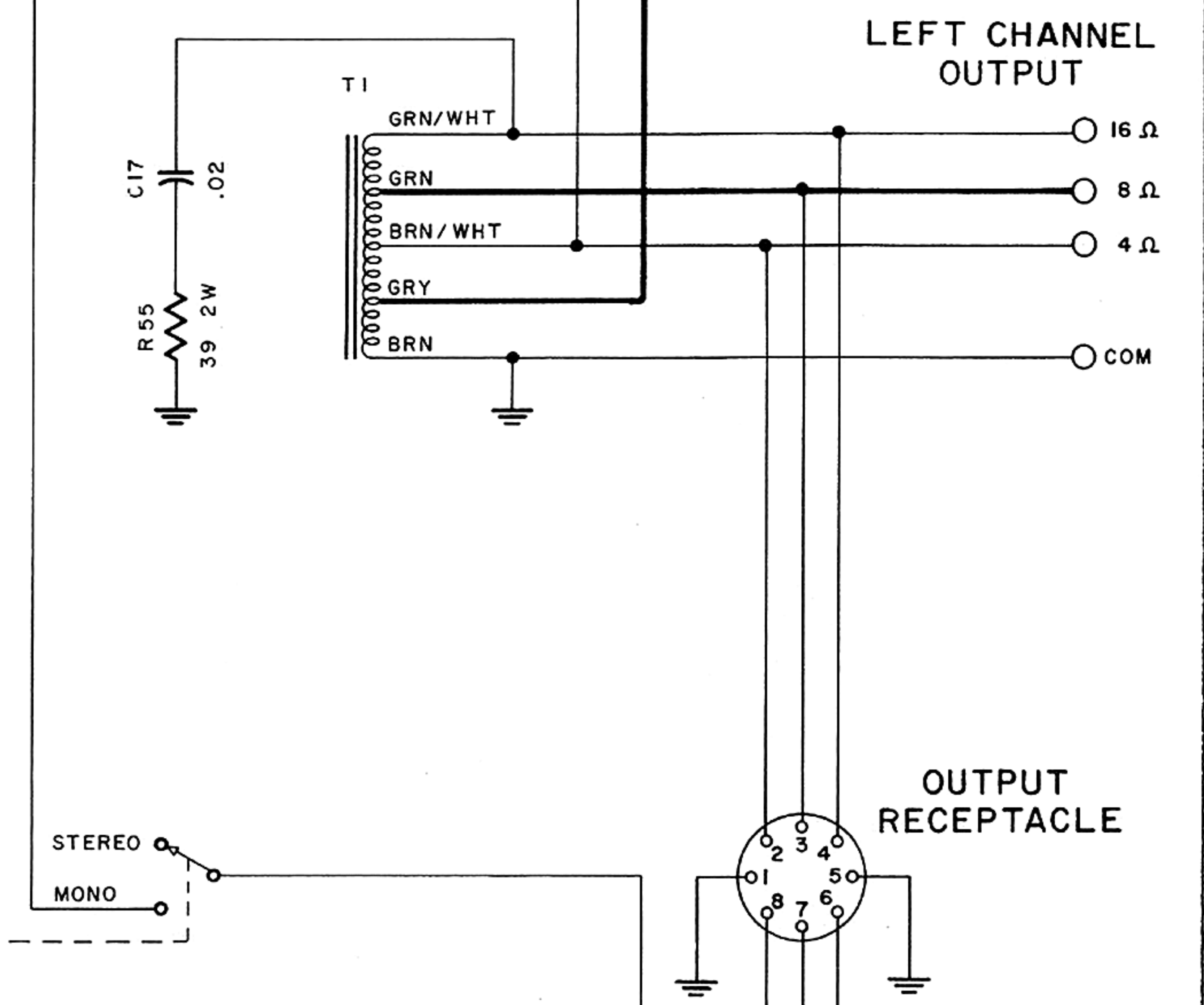
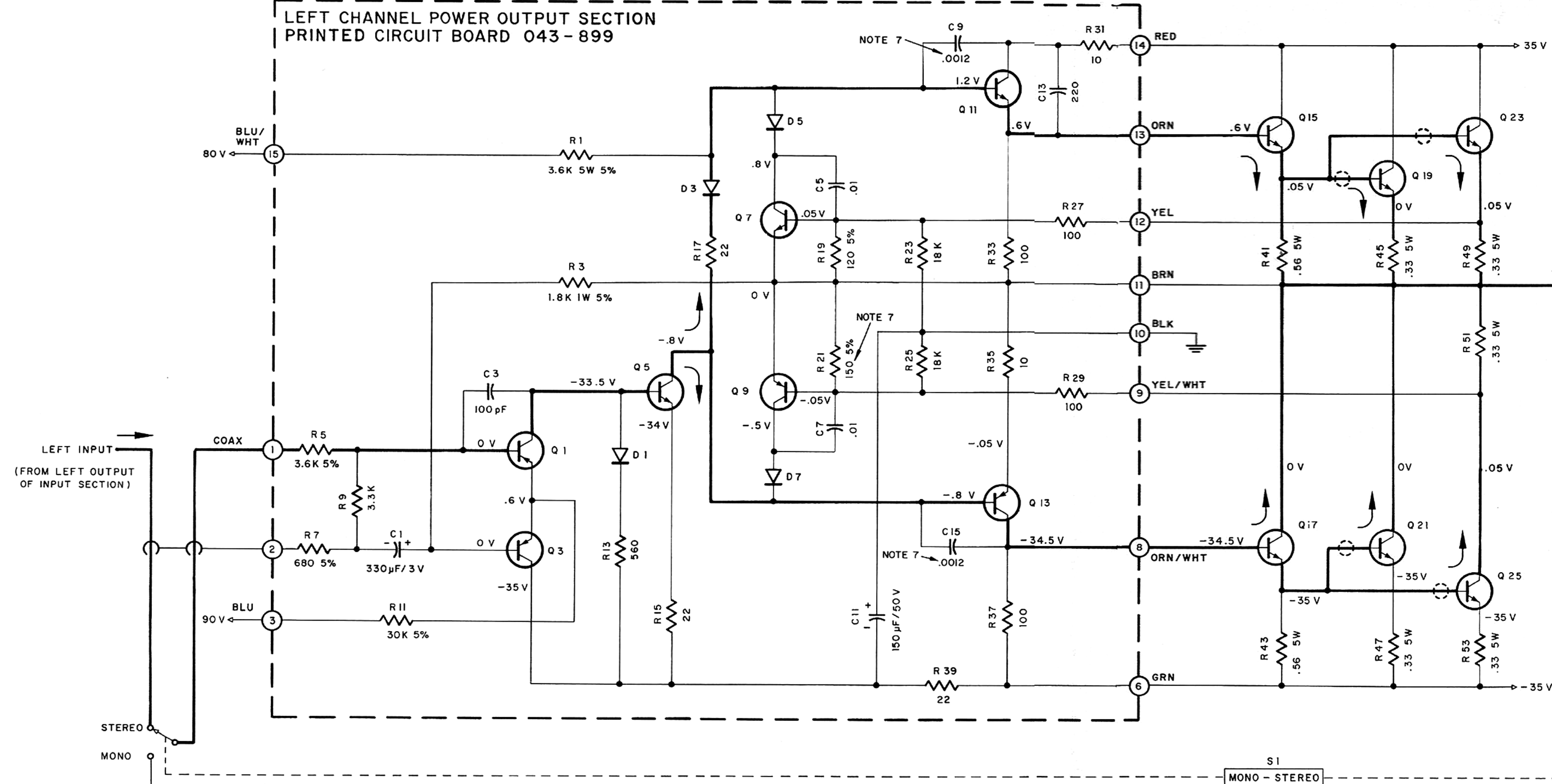
RIGHT CHANNEL POWER OUTPUT PRINTED CIRCUIT BOARD 043-899



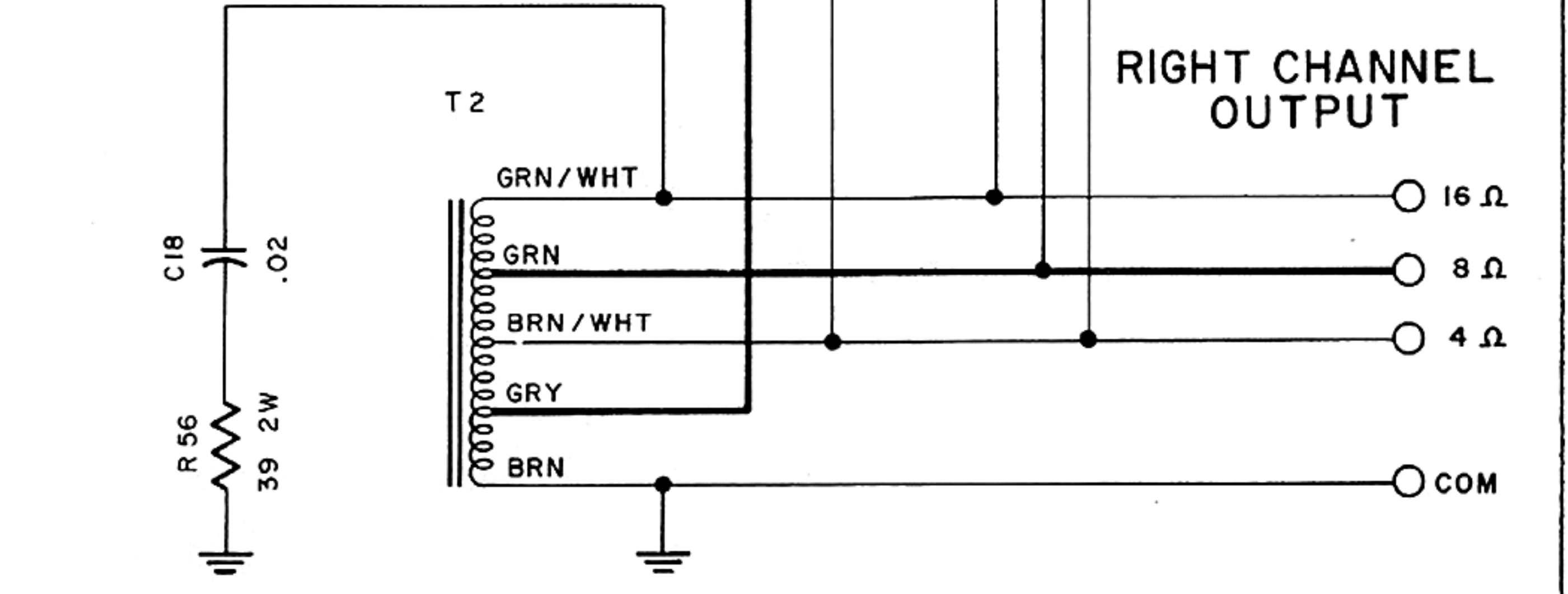
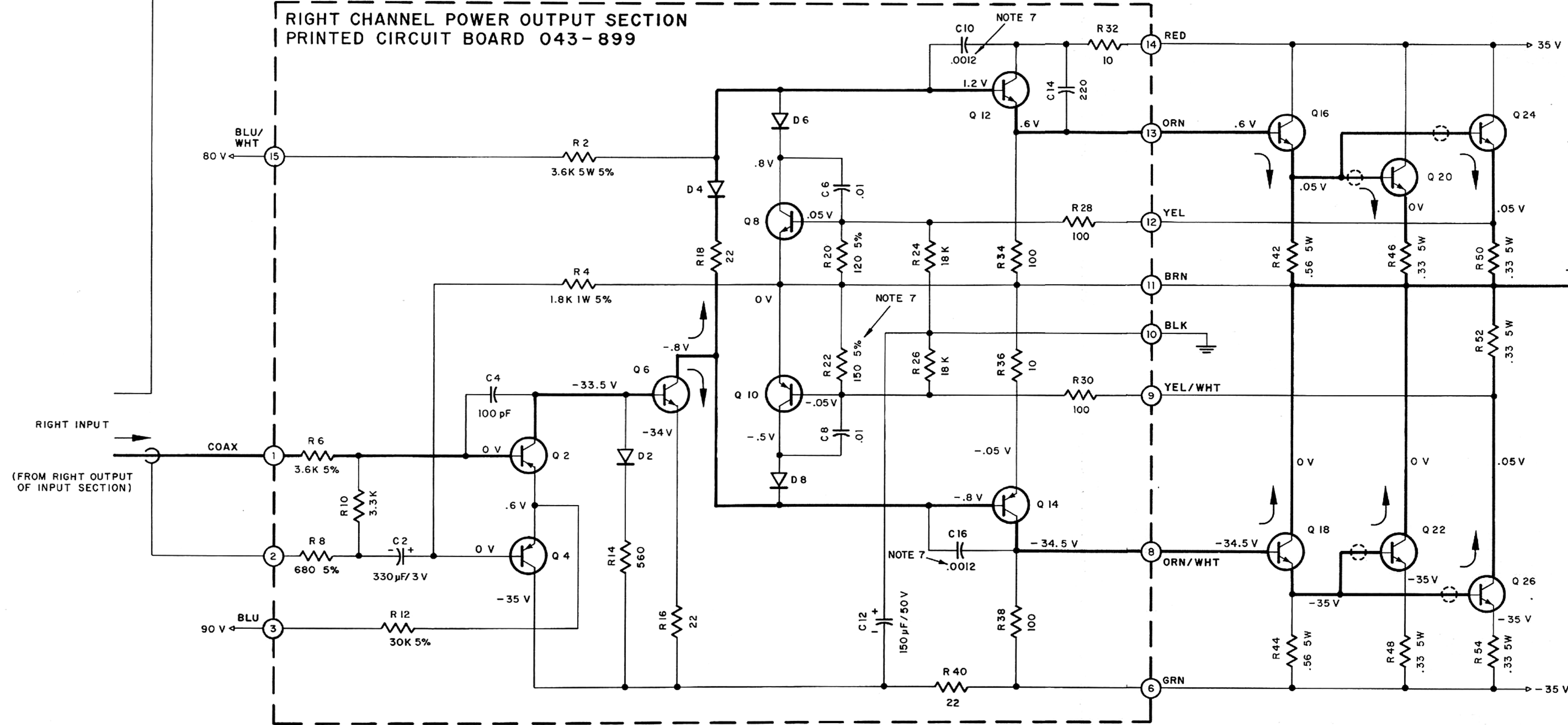
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LEFT CHANNEL POWER OUTPUT SECTION
PRINTED CIRCUIT BOARD 043-899

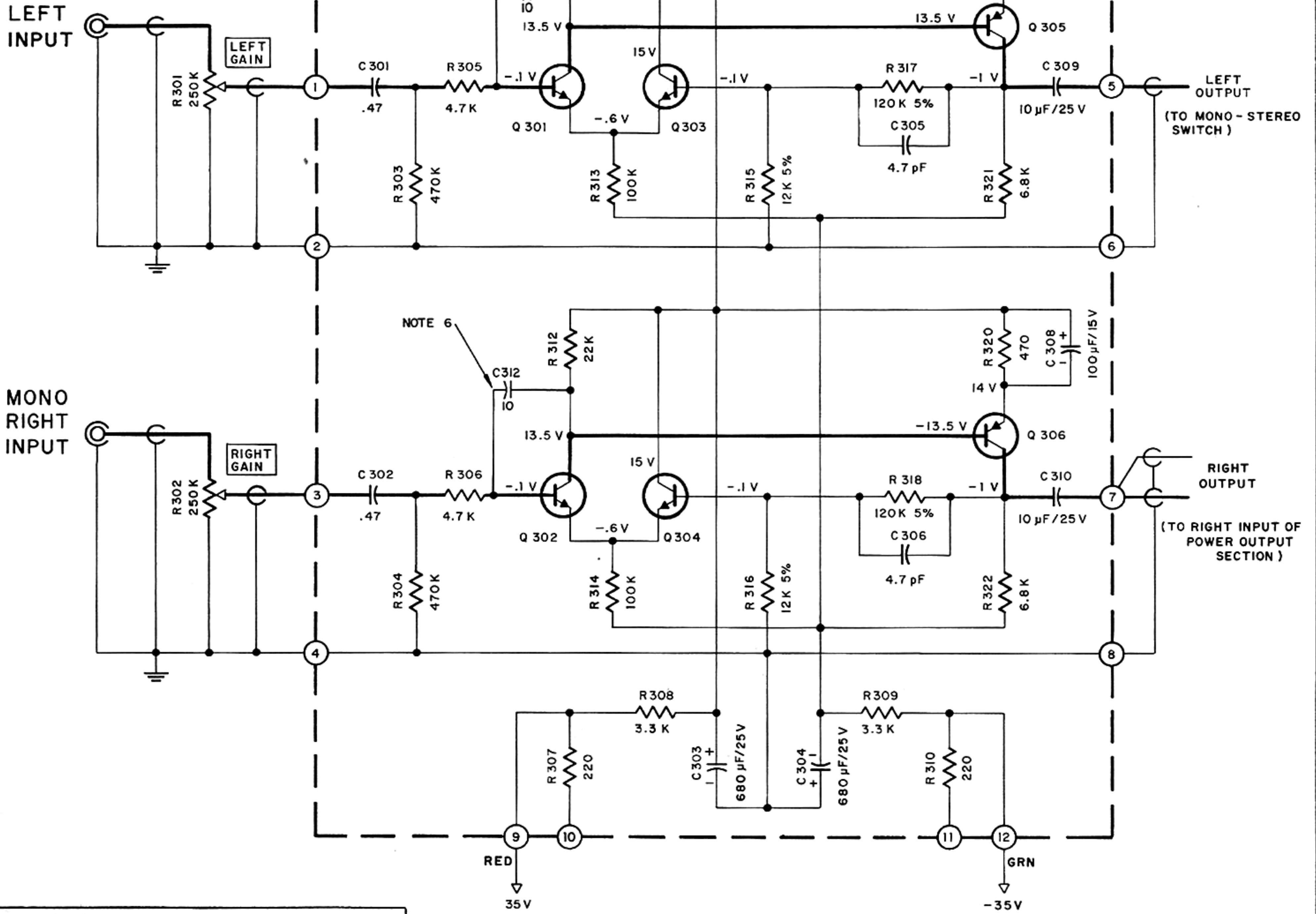


RIGHT CHANNEL POWER OUTPUT SECTION
PRINTED CIRCUIT BOARD 043-899



POWER OUTPUT
SECTION

INPUT SECTION PRINTED CIRCUIT BOARD 043 - 795

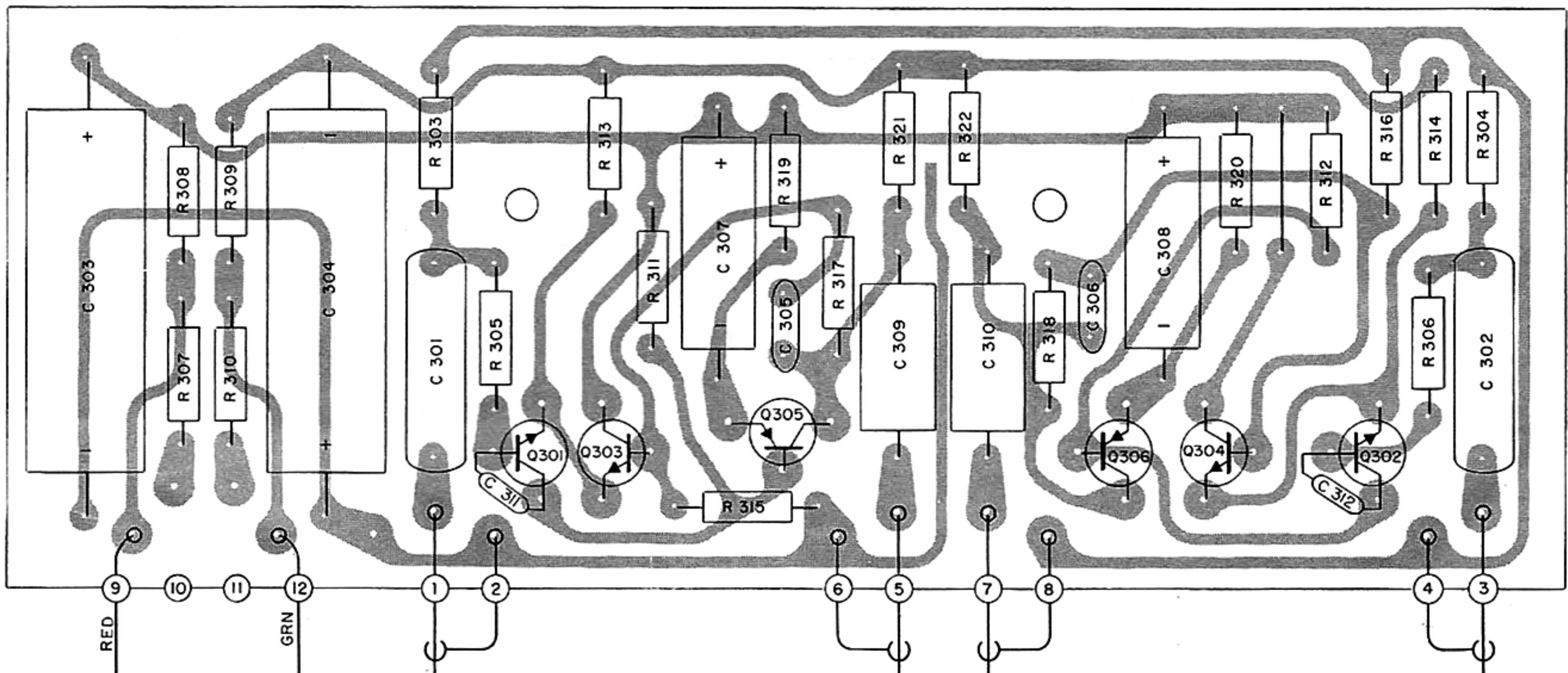


INPUT SECTION

MC 2100

154 - 423

INPUT SECTION PRINTED CIRCUIT BOARD 043 - 795

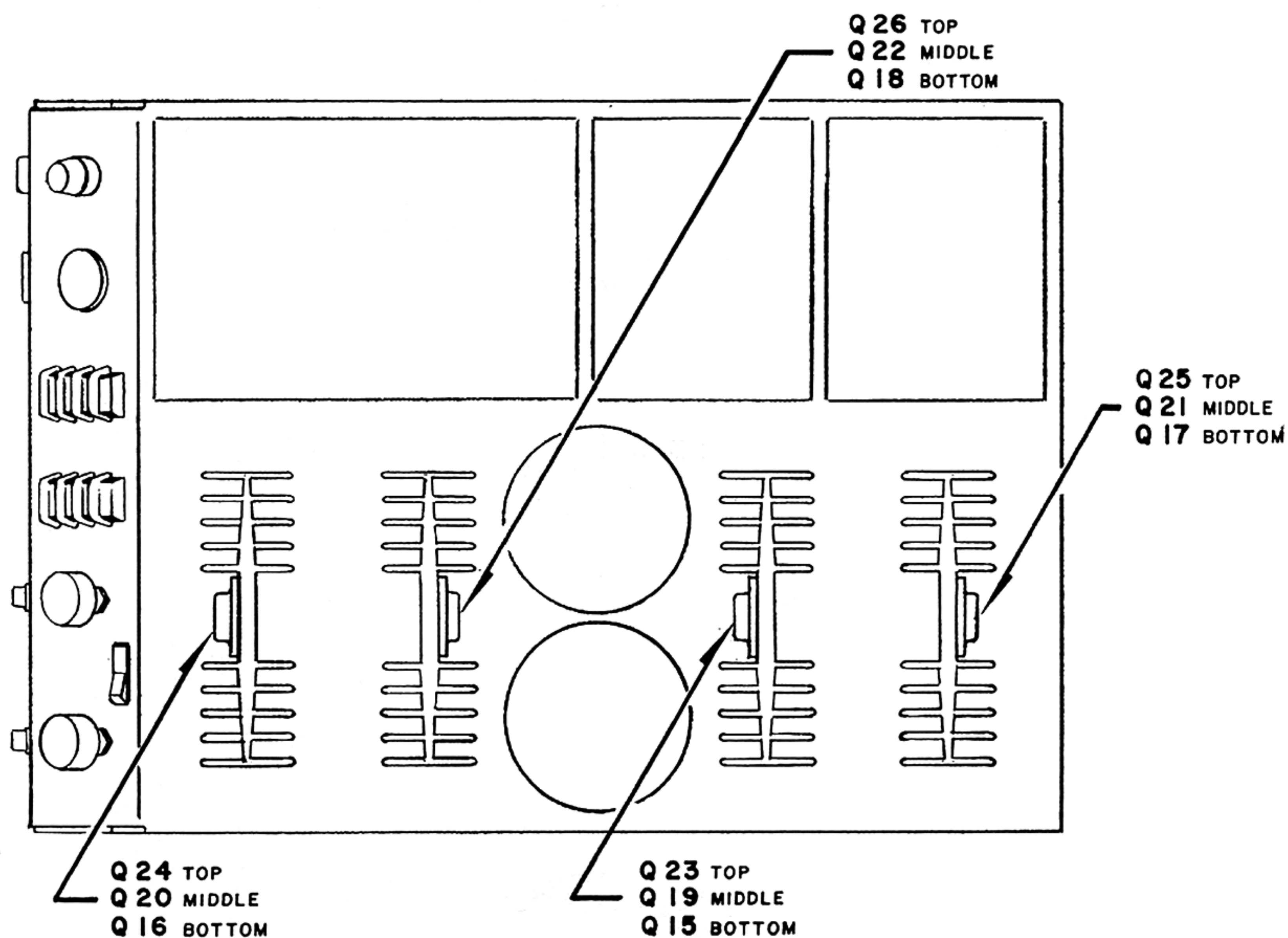


SCHEMATIC NOTES

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); inductors are in microhenries (μH).
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. The terminal numbering of rotary switches is for reference only.
5. 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
6. In units with Serial No.'s below 10W84, C311 & C312 are not used.
7. In units with Serial No.'s below 13W25: R21 & R22 are 120 Ω and C9, C10, C15, & C16 are 680pF.

LOCATION OF TRANSISTORS NOT ON PRINTED CIRCUIT BOARDS



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	Elect.	330 μ F	3V	066-105
C11,12	Elect.	150 μ F	50V	066-152
C201,202	Elect.	39000 μ F	40V	066-119
C203	Elect.	80/80/150/50 μ F 200/200/150/150V		066-095
C301,302	Mylar	.47 μ F	250V	064-045
C303,304	Elect.	640 μ F	25V	066-157
C307,308	Elect.	100 μ F	12V	066-127
C309,310	Elect.	10 μ F	25V	066-005

DIODES

D1,2	Si. signal diode	070-022
D3,4	Si. reference diode	070-040
D5,6	Si. signal diode	070-022
D7,8	Si. signal diode	070-022
D201,202	Si. rectifier	070-038
D203,204	Si. rectifier	070-039
D205,206	Si rectifier	070-031

FUSES

F201	Fuse	5 amp, slo-blo	089-007
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TRANSISTORS

Q1,2	Si. PNP transistor	132-056
Q3,4	Si. PNP transistor	132-056
Q5,6	Si. NPN transistor	132-028
Q7,8	Si. NPN transistor	132-021
Q9,10	Si. PNP transistor	132-032
Q11,12	Si. NPN transistor	132-038
Q13,14	Si. PNP transistor	132-039
Q15,16	Si. NPN transistor	132-070
Q17,18	Si. NPN transistor	132-070
Q19,20	Si. NPN transistor	132-070
Q21,22	Si. NPN transistor	132-070
Q23,24	Si. NPN transistor	132-070
Q25,26	Si. NPN transistor	132-070

Q301,302	Si. NPN transistor	132-054
Q303,304	Si. NPN transistor	132-054
Q305,306	Si. PNP transistor	132-056

POTENTIOMETERS

R301	Left gain	134-206
R302	Right gain	134-206

RESISTORS

R1,2	Wirewound	3.6k	5W	139-065
R41,42	Wirewound	.56 Ω	5W	139-061
R43,44	Wirewound	.56 Ω	5W	139-061
R45,46	Wirewound	.33 Ω	5W	139-071
R47,48	Wirewound	.33 Ω	5W	139-071
R49,50	Wirewound	.33 Ω	5W	139-071
R51,52	Wirewound	.33 Ω	5W	139-071
R53,54	Wirewound	.33 Ω	5W	139-071
R201,202	Thermistor			144-012

SWITCHES

S1	Mode selector	153-008
S201,202	Thermal cut-out	153-007

TRANSFORMERS

T1,2	Audio autoformer	043-694
T201	Power transformer	043-693

MISCELLANEOUS ITEMS

Plastic feet	017-040
Owners manual	038-457
Gain control knob	090-017
Shipping carton	033-099
AC power cord	170-021
Fuseholder	178-001