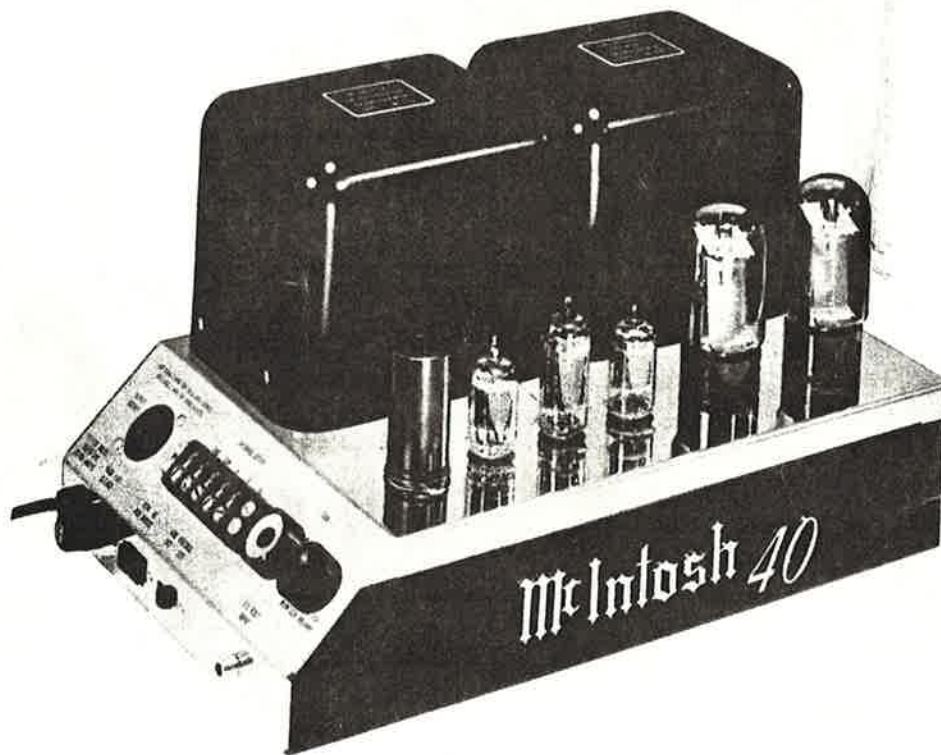


MASTER

03825600

McIntosh

MC 40



SERVICE INFORMATION

STARTING WITH SERIAL NO. 10011

McINTOSH LABORATORY INC. 2 CHAMBERS STREET BINGHAMTON, NEW YORK

MC 40

ELECTRICAL SPECIFICATIONS

Power Output

40 watts continuous

Harmonic Distortion

Less than 0.5% at 40 watts output or less, 20Hz through 20,000Hz

Intermodulation Distortion

Less than 0.5% for any combination of frequencies from 20Hz through 20,000Hz if instantaneous peak power is below 80 watts

Phase Shift

Less than +8 degrees, 20Hz through 20,000Hz

Frequency Range

At 40 watts output: +0, -0.1 dB 20Hz through 20,000Hz
+0, -0.5 dB 16Hz through 60,000Hz
At 20 watts output: +0, -1 dB 10Hz through 100kHz

Noise and Hum

90 dB or more below rated output

Output Impedance

4 ohms, 8 ohms, 16 ohms, 125 ohms, 150 ohms, and 600 ohms.
The 600 ohm winding is balanced to ground and center tapped.

Output Voltages

25 volts and 70.7 volts

Internal Impedance

Less than 10% of rated load impedance

Input

Input impedance: 250,000 ohms
Input sensitivity: 0.5 volts to 30 volts through gain control
2.0 volts with gain control turned fully clockwise

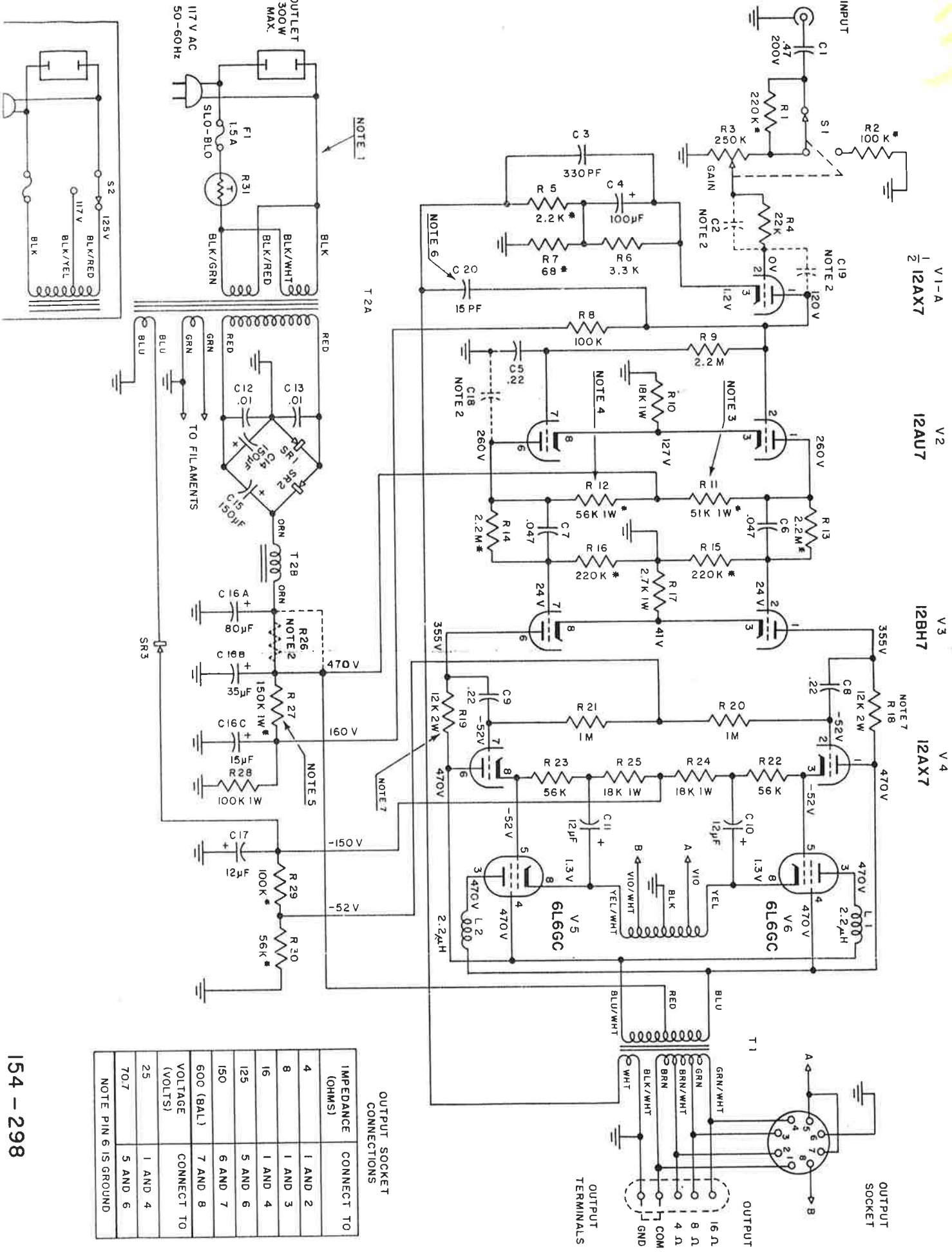
Power Requirements

117 volts AC, 50/60 cps. Uses 145 watts at 40 watts output; 75 watts at zero signal output.

SCHEMATIC NOTES

1. In units with serial numbers below 511L0, power transformer T2 is connected as shown in detail "A".
2. In units with serial numbers above 428L7; R26, C2, C18, & C19 do not appear.
3. In units with serial numbers below 428L7, R11 was 27K.
4. In units with serial numbers below 428L7, R12 was 30K.
5. In units with serial numbers below 428L7, R27 was 100K.
6. In units with serial numbers below 428L7, C 20 will not appear.
7. R18 & R19 are matched to within 1% tolerance.

3



OUTPUT SOCKET CONNECTIONS

IMPEDANCE (OHMS)	CONNECT TO
4	1 AND 2
8	1 AND 3
16	1 AND 4
125	5 AND 6
150	6 AND 7
600 (BAL)	7 AND 8
VOLTAGE (VOLTS)	CONNECT TO
25	1 AND 4
70.7	5 AND 6

NOTE PIN 6 IS GROUND

MC 40 VOLTAGE AND RESISTANCE CHART

4

Tube	Pin No.	DC Volts No. Signal	AC Volts at Rated Output	Resistance in Ohms Unit Off
12AX7 (V1)	1	138	1.5	150K*
	2	0	.3	22K (Gain CCW)
	3	1.2	.29	3.3K
	4 & 5	0	0	0
	6	0	0	0
	7	0	0	0
	8	0	0	0
	9	0	6.3	—
	12AU7 (V2)	1	270	10
2		138	1.5	150K
3		141	.66	18K
4 & 5		0	0	0
6		270	10	40K*
7		112	0	2.4M*
8		141	.66	18K
9		0	6.3	—
12BH7 (V3)		1	375	139
	2	27	10	210K
	3	45	.35	2.7K
	4 & 5	0	0	0
	6	375	139	12K
	7	27	10	210K
	8	45	.35	2.7K
	9	0	6.3	—
	12AX7 (V4)	1	470	102
2		-52	139	1M
3		-52	140	220K
4 & 5		0	0	0
6		470	102	30*
7		-52	139	1M
8		-52	140	220K
9		0	6.3	—
6L6GC (V5, V6)		1	—	—
	2	0	0	0
	3	470	102	25*
	4	470	102	30*
	5	-52	140	220K
	6	—	—	—
	7	0	6.3	—
	8	1.3	102	30

*This resistance measured with condenser C16A shorted to ground.

High impedance VTVM is used to measure the operating voltages.

Unless otherwise specified, resistance values are in ohms, 1/2 watt, and 10% tolerance. Resistors marked with an asterisk (*) are 5% tolerance. Capacitance values smaller than 1 are in microfarads (μF); values greater than 1 are in picofarads (pF). Inductors are in microhenries (μH).

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
C3	Tubular Ceramic 330pF	061-030
C4	Elect. 100 μ F 3V	066-047
C10,11	Elect. 12 μ F 250V	066-046
C14	Elect. 150 μ F 250V	066-020
C15	Elect. 150 μ F 250V	066-021
C16	Elect. 35/80/15 μ F 500/500/450V	066-030
C17	Elect. 12 μ F 250V	066-046

RECTIFIERS

SR1,2	Si. rectifier	070-032
SR3	Se. rectifier	070-005

FUSE

F1	Fuse 1.5 amp Slo-Blo	089-003
----	----------------------	---------

CHOKES

L1,2	Choke 2.2mH	122-001
------	-------------	---------

RESISTORS & POTENTIOMETERS

R3	Gain control	134-014
R31	Thermistor	144-006

SWITCH

S2	Line voltage switch	148-001
----	---------------------	---------

TUBES

V1	12AX7	165-019
V2	12AU7	165-018
V3	12BH7	165-020
V4	12AX7	165-019
V5,6	6L6GC	165-014

TRANSFORMERS

T1	Output	043-118
T2	Power (100L1 to 511L0)	043-114
T2	Power (511L0 to latest)	043-655

MISCELLANEOUS ITEMS

Mounting flanges	001-271
Plastic feet	017-040
Owners manual	038-006
Mounting template	038-008
Bottom cover	043-250
Hardware package	043-434
Gain control knob	090-017
Octal plug cap	127-004
Octal plug	127-006
Line cord	170-021
Fuseholder	178-001
Shipping carton	033-013

15C031986-M8256