McIntosh

C 26

PREAMPLIFIER

SERVICE INFORMATION

STARTING WITH SERIAL NO. 10P01

McINTOSH LABORATORY INC. 2 CHAMBERS STREET BINGHAMTON, NEW YORK

C 26

ELECTRICAL SPECIFICATIONS

FREQUENCY RESPONSE

+0 to -0.5dB from 20Hz to 20,000Hz

DISTORTION

Less than 0.1% at 2.5 volts output, 20Hz to 20,000Hz

INPUT SENSITIVITY (phono 1 and phono 2)

2 millivolts for 2.5 volts output at 1kHz

INPUT SENSITIVITY (aux, tape 1, tape 2, tuner)

0.25 volts for 2.5 volts output

HUM AND NOISE (phono 1 and phono 2)

74dB below rated output for a 10 millivolt input signal

HUM AND NOISE (aux, tape 1, tape 2, tuner)

85dB below rated output

OUTPUT (main)

2.5 volts with rated input. Up to 10 volts can be developed without distortion.

OUTPUT (tape)

0.25 volts with rated input. Phono input signal of 10 millivolts produces 1.2 volts output.

OUTPUT (center channel)

2.5 volts with rated input on both channels. A level control adjusts output from -6dB to +6dB with respect to main output.

BASS CONTROL

-20dB to +16dB at 20Hz

TREBLE CONTROL

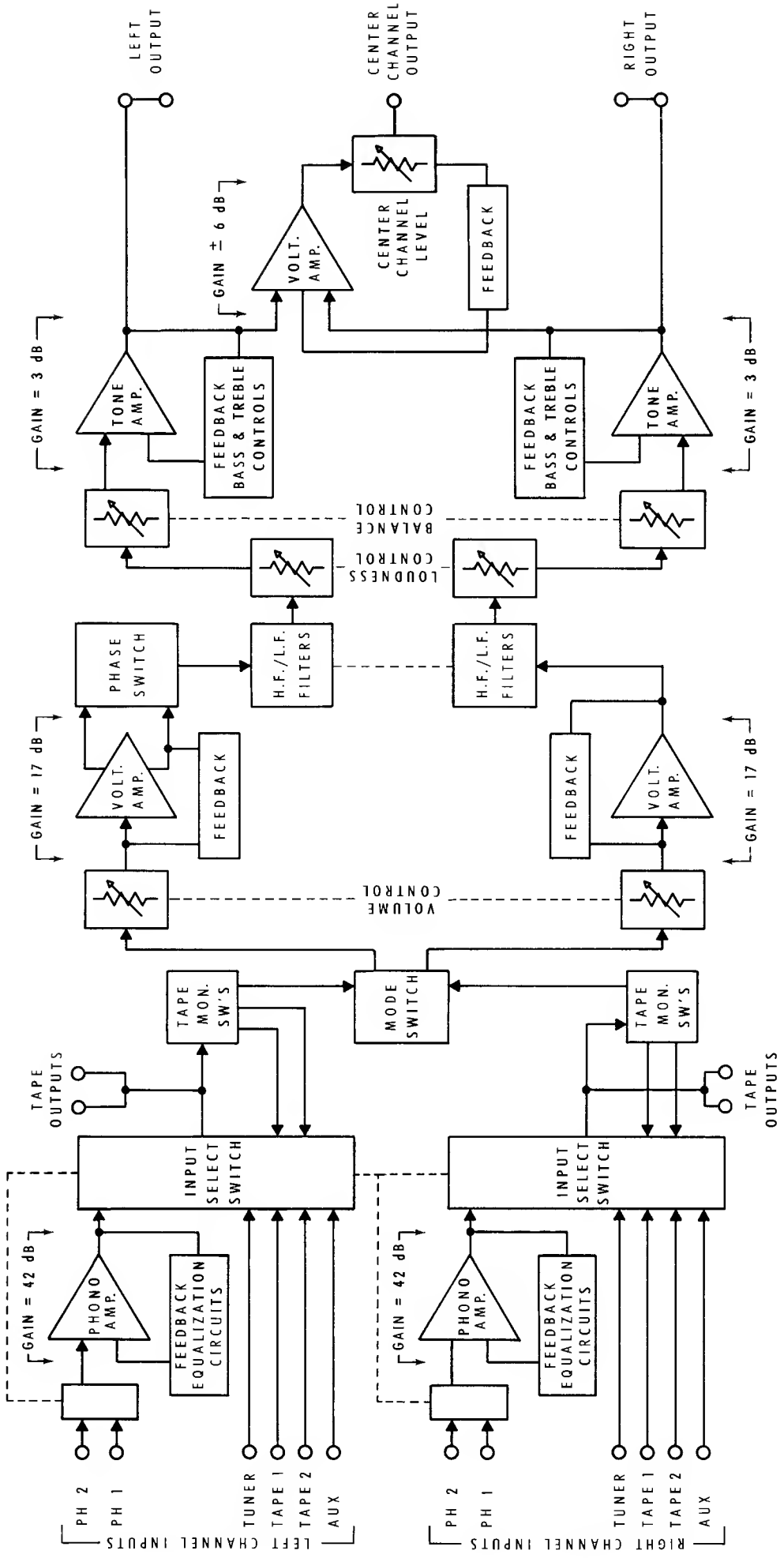
±20dB at 20,000Hz

LF FILTER

Flat or roll off below 50Hz, down 12dB at 20Hz

HF FILTER

Flat or roll of above 5,000Hz, down 12dB at 20,000Hz



C 26 BLOCK DIAGRAM

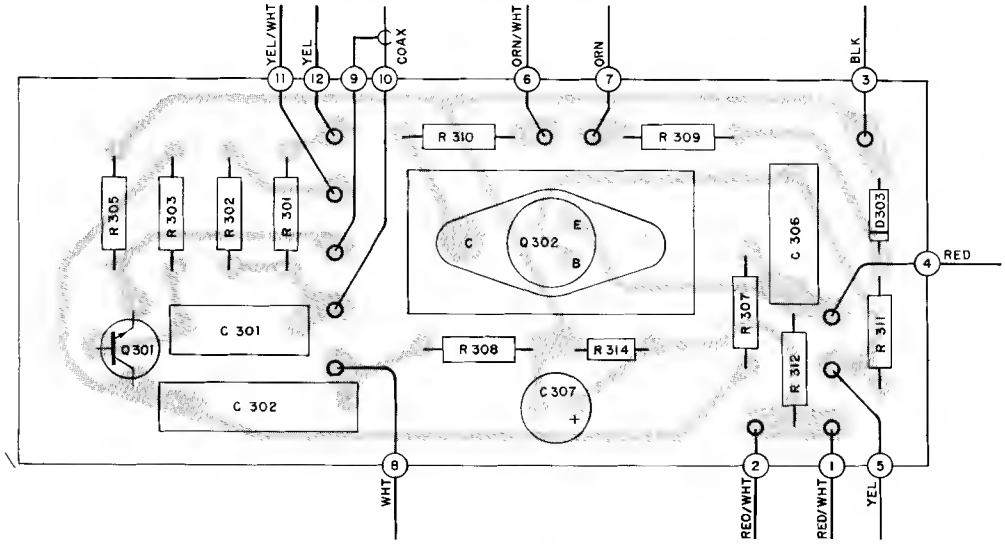
SCHEMATIC NOTES

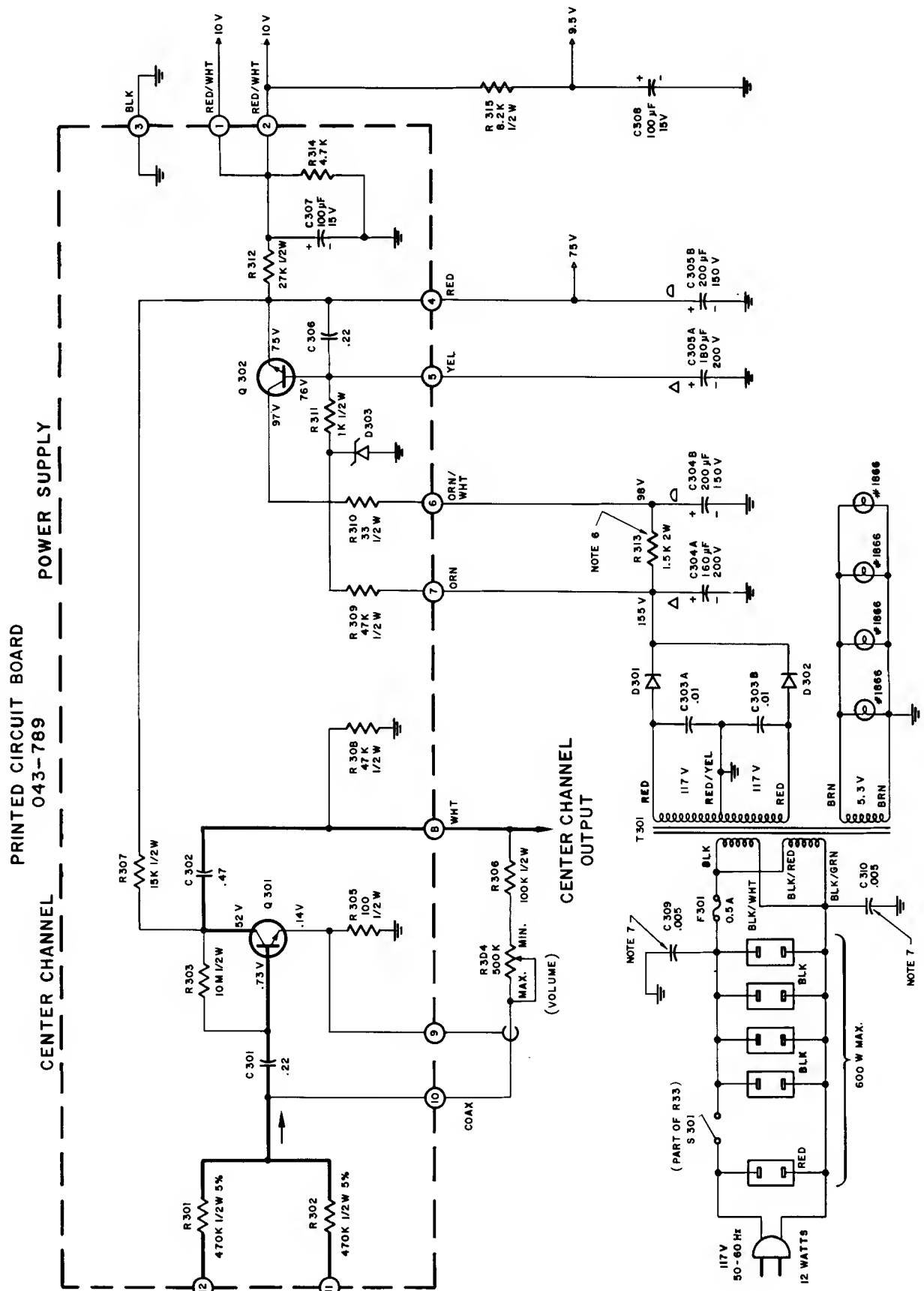
1. Unless otherwise specified: Resistance values are in ohms, 1/4 watts, and 10% tolerance; capacitance values smaller than 1 are in microfarads (μF); capacitance values greater than 1 are in picofarads (pF); inductors are in microhenries (μH).
2. Printed circuit board components are outlined on the schematics by dotted lines. The circled numbers around 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 input impedance VTVM.
   b. All voltages ± 10% with respect to chassis ground.
   c. No signal at input terminals.
   d. AC input at 117 volts, 50/60Hz.
   e. Front panel controls at:

Volume	Fully CCW, but with power switch on
Mode	Stereo
Input Selector	Phono 1
Loudness	Flat

   All other controls at normal positions.
6. R313 is 1K in early units.
7. In units with serial No's below 30P55, C309 and C310 are not used.
8. In units with serial No's below 30P50, R127 and R128 are not used.
9. In units with serial No's below 30P53, R129 and R130 are not used.
10. In units with serial No's below AG3301; C3, C4, C13 & C14 are used; C48, C49, C50, C51, C52 C53, R131 & R132 are not used; R129 & R130 are 1M.
11. In units with serial No's below AG1222; R25 & R26 are 1.8K.

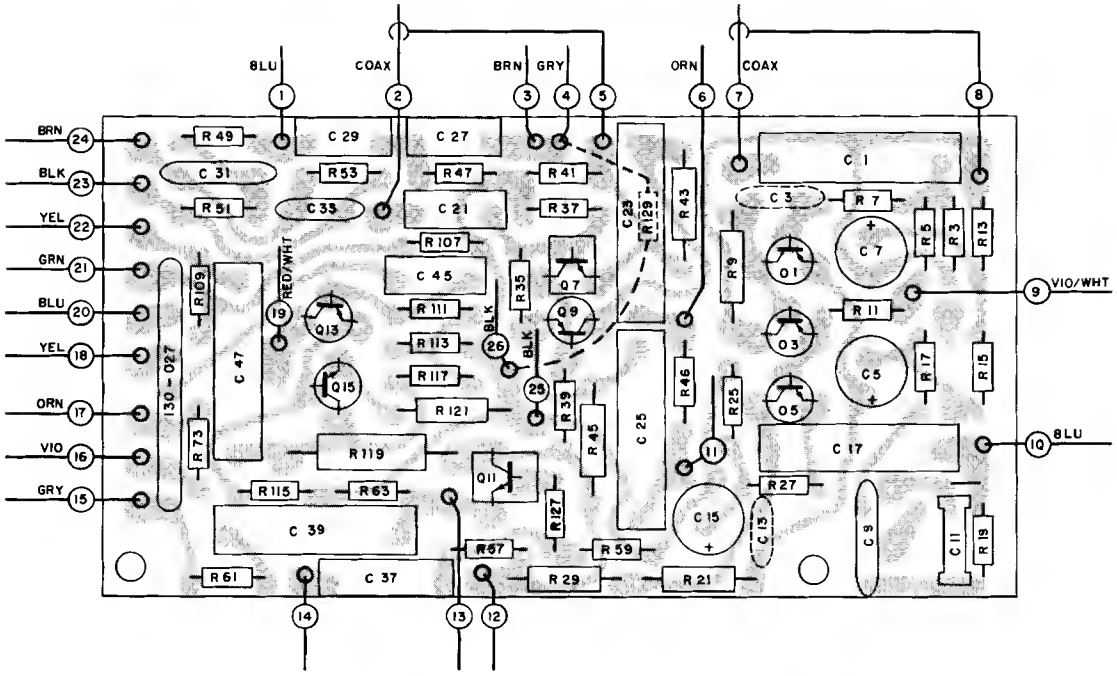
POWER SUPPLY AND CENTER CHANNEL SECTION
PRINTED CIRCUIT BOARD 043-789



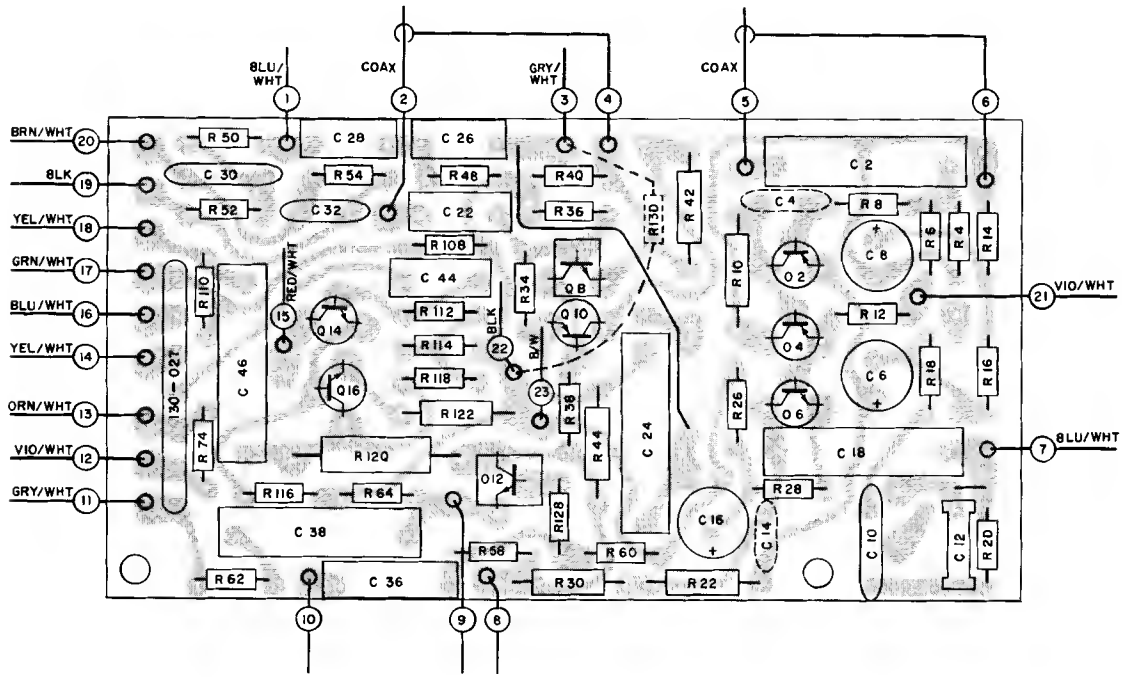


POWER SUPPLY & CENTER CHANNEL SECTION

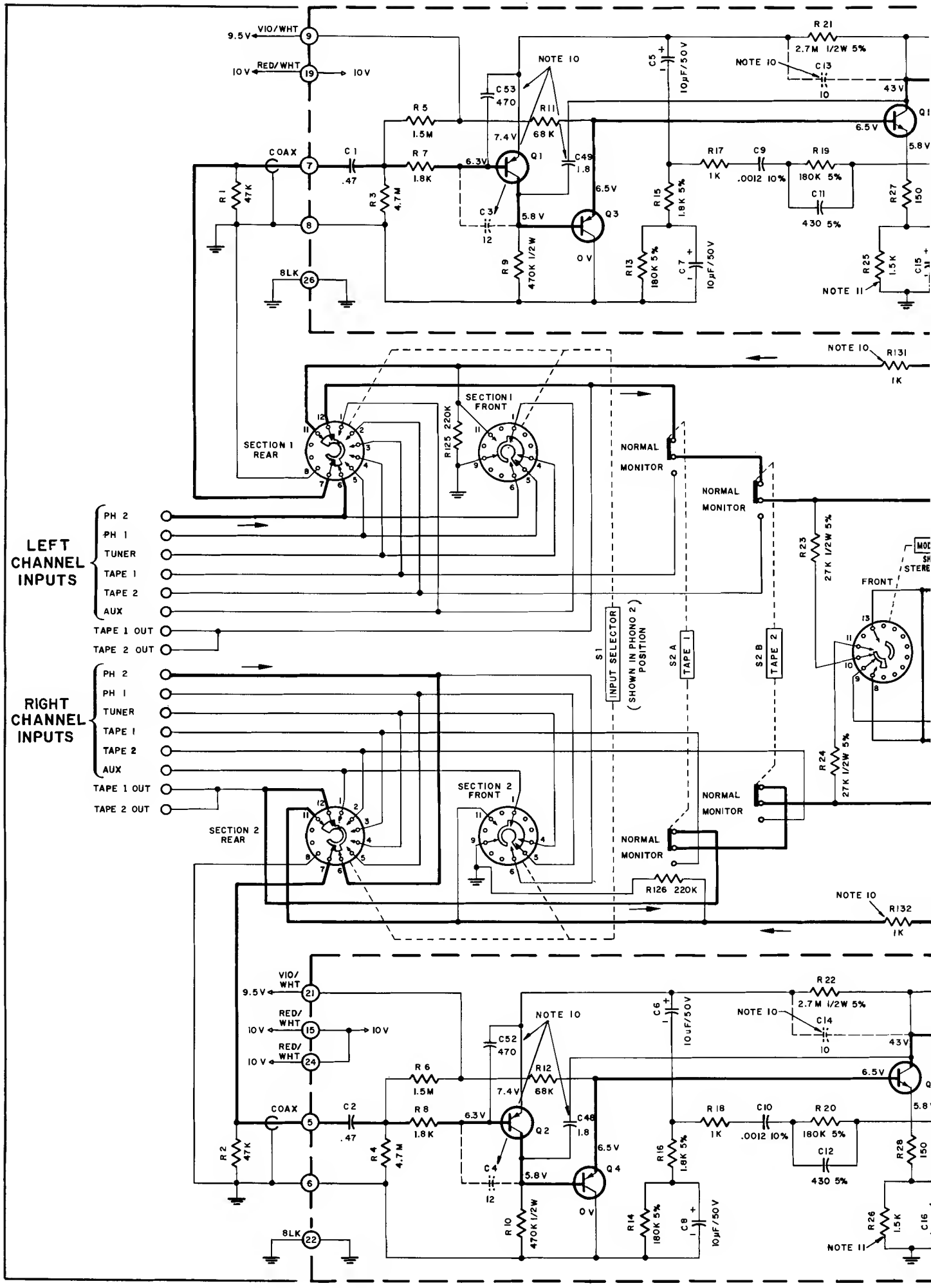
C 26 154-657

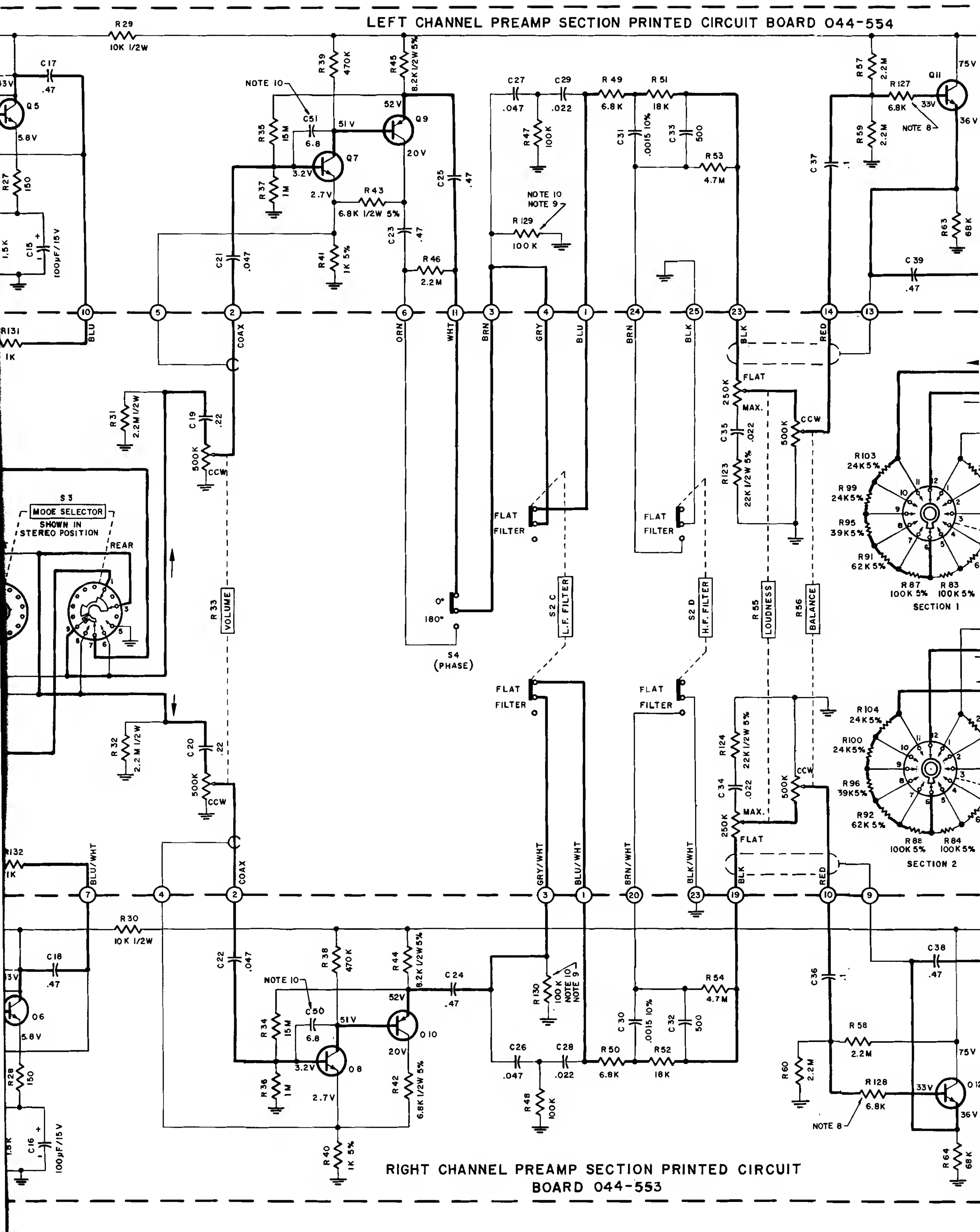


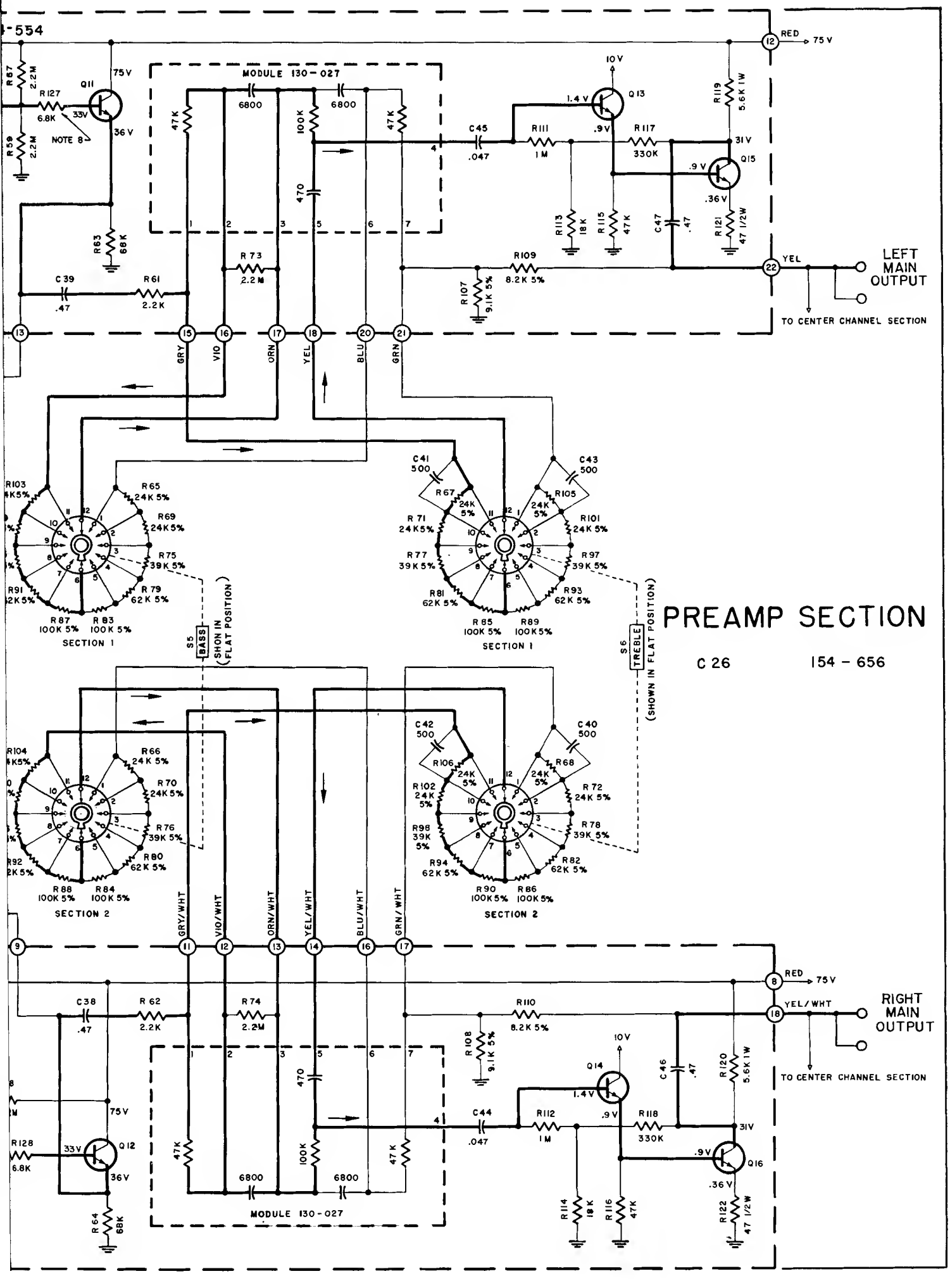
LEFT CHANNEL PREAMP PRINTED CIRCUIT BOARD 044-554

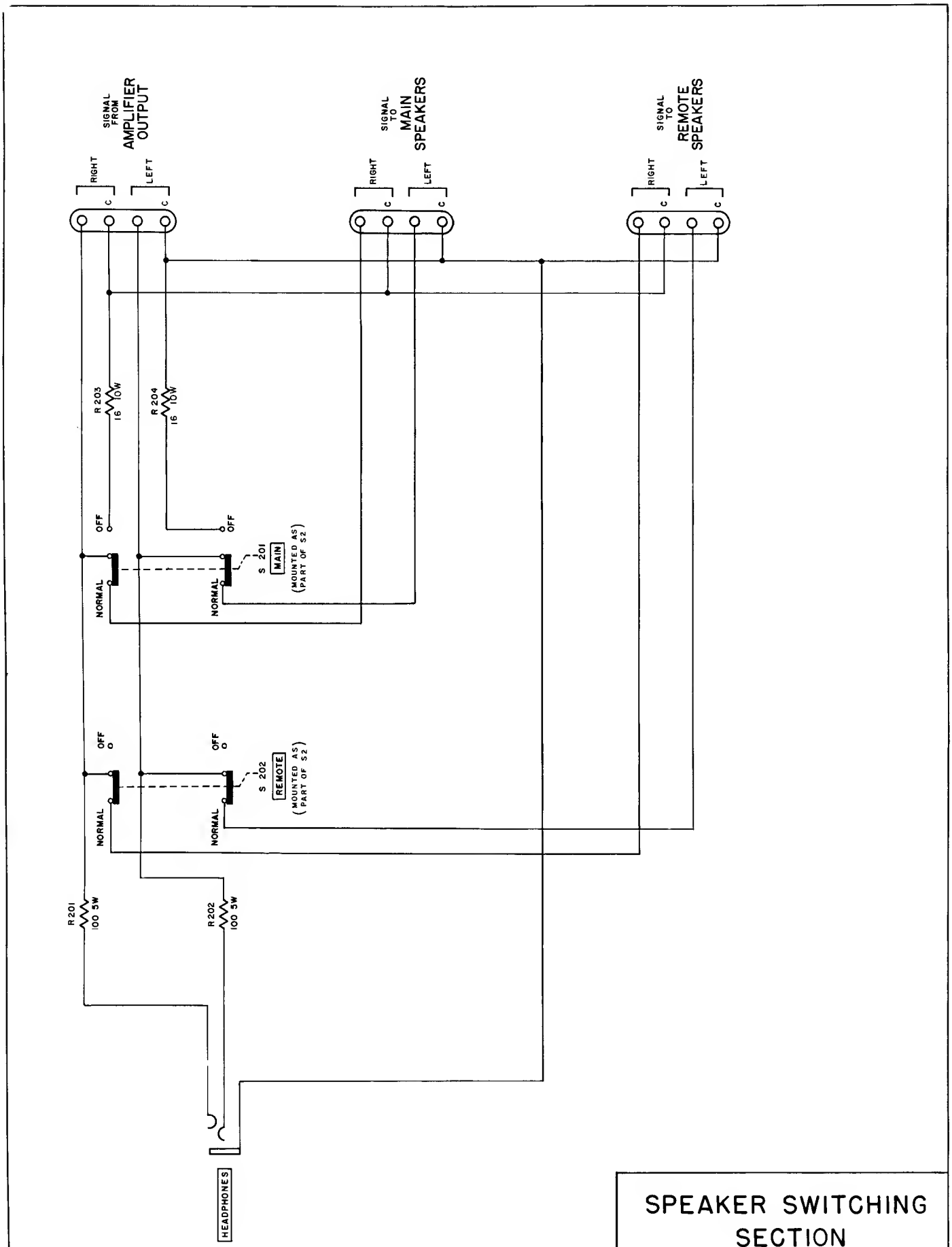


RIGHT CHANNEL PREAMP PRINTED CIRCUIT BOARD 044-553


LEFT CHANNEL INPUTS
PH 2
PH 1
TUNER
TAPE 1
TAPE 2
AUX
TAPE 1 OUT
TAPE 2 OUT
RIGHT CHANNEL INPUTS
PH 2
PH 1
TUNER
TAPE 1
TAPE 2
AUX
TAPE 1 OUT
TAPE 2 OUT
SECTION 1 REAR
SECTION 1 FRONT
SECTION 2 REAR
SECTION 2 FRONT
S1 INPUT SELECTOR (SHOWN IN PHONO 2 POSITION)
S2 A TAPE 1
S2 B TAPE 2
NORMAL MONITOR
R125 220K
R126 220K
R131 1K
R132 1K
R23 27K 1/2W 5%
R24 27K 1/2W 5%
NOTE 10
NOTE 11
VIO/WHT
RED/WHT
10V
9.5V
COAX
8LK
Q1
Q2
Q3
Q4
6.5V
7.4V
6.3V
5.8V
0V
43V


LEFT CHANNEL PREAMP SECTION PRINTED CIRCUIT BOARD 044-554
RIGHT CHANNEL PREAMP SECTION PRINTED CIRCUIT BOARD 044-553
S3
MODE SELECTOR
SHOWN IN STEREO POSITION
REAR
R 33 VOLUME
S2 C L.F. FILTER
S2 D H.F. FILTER
R 55 LOUDNESS
R 56 BALANCE
S4 (PHASE)
FLAT
FILTER
SECTION 1
SECTION 2
NOTE 10
NOTE 9
NOTE 8
R29 10K 1/2W
R30 10K 1/2W
Q5
Q6
Q7
Q8
Q9
Q10
Q11
Q12


-554
MODULE 130-027
Q11
Q12
Q13
Q14
Q15
Q16
75V
36V
33V
10V
1.4V
.9V
.36V
NOTE 8
R127 6.8K
R128 6.8K
R87 2.2M
R59 2.2M
R63 68K
R64 68K
R73 2.2M
R74 2.2M
C39 .47
C38 .47
R61 2.2K
R62 2.2K
47K
100K
6800
470
C45 .047
C44 .047
R111 1M
R112 1M
R117 330K
R118 330K
R119 5.6K 1W
R120 5.6K 1W
R113 18K
R114 18K
R115 47K
R116 47K
C47 .47
C46 .47
R121 47 1/2W
R122 47 1/2W
R109 8.2K 5%
R110 8.2K 5%
R107 9.1K 5%
R108 9.1K 5%
RED
75V
YEL
LEFT MAIN OUTPUT
TO CENTER CHANNEL SECTION
YEL/WHT
RIGHT MAIN OUTPUT
GRY
VIO
ORN
YEL
BLU
GRN
GRY/WHT
VIO/WHT
ORN/WHT
YEL/WHT
BLU/WHT
GRN/WHT
C41 500
C43 500
C42 500
C40 500
R67 24K 5%
R105 24K 5%
R106 24K 5%
R68 24K 5%
R65 24K 5%
R69 24K 5%
R66 24K 5%
R70 24K 5%
R71 24K 5%
R101 24K 5%
R102 24K 5%
R72 24K 5%
R75 39K 5%
R77 39K 5%
R97 39K 5%
R98 39K 5%
R76 39K 5%
R78 39K 5%
R79 62K 5%
R81 62K 5%
R93 62K 5%
R94 62K 5%
R80 62K 5%
R82 62K 5%
R83 100K 5%
R85 100K 5%
R89 100K 5%
R87 100K 5%
R88 100K 5%
R90 100K 5%
R84 100K 5%
R86 100K 5%
SECTION 1
SECTION 1
SECTION 2
SECTION 2
S5 BASS (SHOWN IN FLAT POSITION)
S6 TREBLE (SHOWN IN FLAT POSITION)
PREAMP SECTION
C 26 154 - 656



SPEAKER SWITCHING SECTION

C26 154-342

All part
able fro

Replacem
by PART

Symbol Number
C1,2
C5,6
C7,8
C15,16
C17,18
C19,20
C21,22
C23,24
C25
C26,27
C28,29
C34,35
C36,37
C38,39
C44,45
C46.47
C301
C302
C304
C305
C306
C307
C308
D301,302
D303
F301
Q1,2
Q3,4
Q5,6
Q7,8
Q9,10

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	.47μF	250V	064-069
C5,6	Elect.	10μF	35V	066-239
C7,8	Elect.	10μF	35V	066-239
C15,16	Elect.	100μF	16V	066-226
C17,18	Mylar	.47μF	250V	064-069
C19,20	Mylar	.22μF	200V	064-087
C21,22	Mylar	.047μF	250V	064-066
C23,24	Mylar	.47μF	250V	064-069
C25	Mylar	.47μF	250V	064-069
C26,27	Mylar	.047μF	250V	064-066
C28,29	Mylar	.022μF	250V	064-065
C34,35	Mylar	.022μF	250V	064-064
C36,37	Mylar	.1μF	250V	064-067
C38,39	Mylar	.47μF	250V	064-069
C44,45	Mylar	.047μF	250V	064-066
C46,47	Mylar	.47μF	250V	064-069
C301	Mylar	.22μF	250V	064-068
C302	Mylar	.47μF	250V	064-069
C304	Elect.	160/200μF 200/150V		066-095
C305	Elect.	160/200μF 200/150V		066-095
C306	Mylar	.22μF	250V	064-068
C307	Elect.	100μF	16V	066-226
C308	Elect.	100μF	16V	066-227

DIODES

D301,302	Si. rectifier	070-031
D303	Zener diode 75V	070-025

FUSES

F301	Fuse 1/2 ampere	089-009

TRANSISTORS

Q1,2	Si. PNP transistor	132-096
Q3,4	Si. PNP transistor	132-096
Q5,6	Si. NPN transistor	132-095
Q7,8	Si. NPN transistor	132-095
Q9,10	Si. PNP transistor	132-096
Q11,12	Si. NPN transistor	132-095
Q13,14	Si. NPN transistor	132-092
Q15,16	Si. NPN transistor	132-042
Q301	Si. NPN transistor	132-095
Q302	Si. NPN transistor	132-028

POTENTIOMETERS

R33	Volume control	134-200
R55	Loudness control	134-199
R56	Balance control	134-198
R304	Center channel level	134-196

RESISTORS

R201,202	Wirewound	100Ω	10%	5W	139-008
R203,204	Wirewound	16Ω	10%	20W	139-022

SWITCHES

S1	Input selector switch	146-121
S2	Pushbutton switch	150-006
S3	Mode selector switch	146-122
S4	Phase control switch	146-119
S5	Bass switch	146-123
S6	Treble switch	146-123
S201,202	Speaker switch	148-025

TRANSFORMERS

T301	Power transformer	043-786

MODULES

	Tone control	130-027

LAMPS

	#1866 (front panel)	058-014

FRONT PANEL AND TRIM

	Front panel	043-784
	Front panel end caps	018-120
	Volume control knob	044-372
	Balance control knob	044-372
	Loudness control knob	044-372
	Mode selector knob	044-372
	Input selector knob	044-372
	Treble knob (rear)	090-009
	Treble knob (front)	044-374
	Bass knob (rear)	090-009
	Bass knob (front)	044-374
	Phase knob	044-373
	Center channel knob	044-373

Plastic Pushbutton	017-128

MOUNTING SYSTEM

Shelf bracket (right)	043-592
Shelf bracket (left)	043-593
Mounting template #100	038-179
Hardware package	043-792

MISCELLANEOUS ITEMS

Line cord	170-021
Fuseholder	178-001
Shipping carton	043-946
Owners manual	038-867
Plastic feet	017-041
Shorting plug	127-001
Push terminal (outputs)	074-030
Audio cable (6')	170-015

15C0407S7-M6964

McIntosh **SERVICE BULLETIN**

LOW FREQUENCY FILTER SWITCH MODIFICATION

MODEL: C 26 Preamp

PURPOSE OF MODIFICATION: To eliminate a "popping" sound when the low frequency filter switch is depressed.

WHAT UNITS ARE AFFECTED: Serial No. 10P01 to 30P52 Only.

WHEN MODIFICATION SHOULD BE MADE: When the customer specifically mentions the noise or when any other service is performed on the unit.

McINTOSH MODIFICATION KIT NO.: No kit available.

PARTS REQUIRED:

Quantity	Part Number	Description
2	136-236	1 meg, 10%, 1/2W Resistor

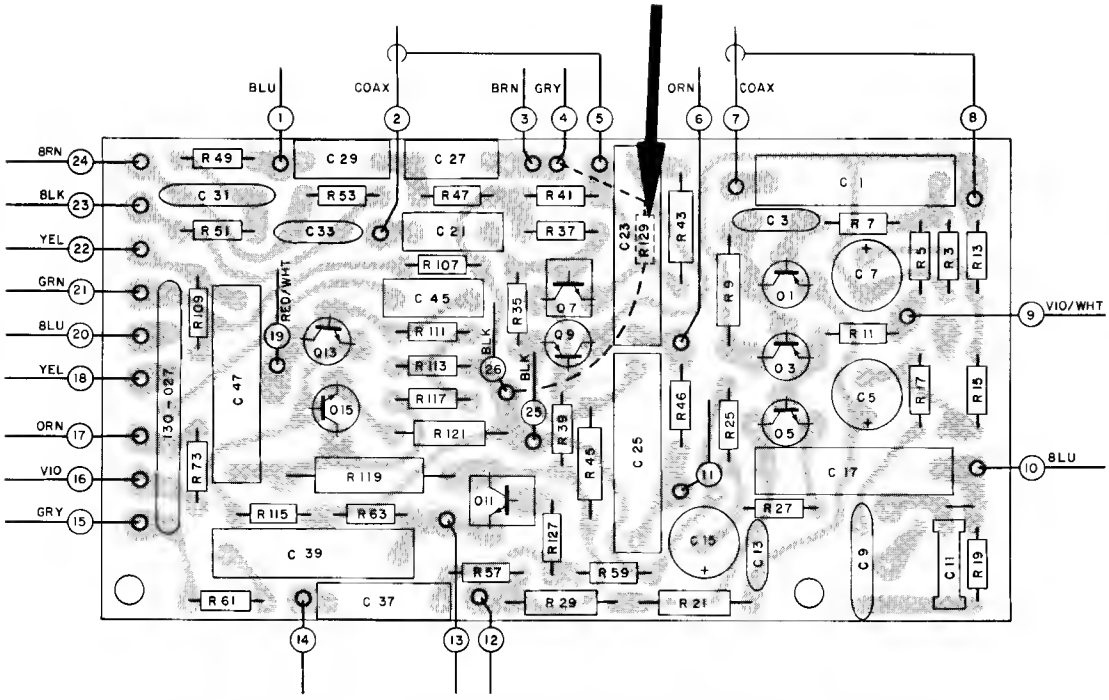
PROCEDURE:

Step 1 Remove bottom cover.

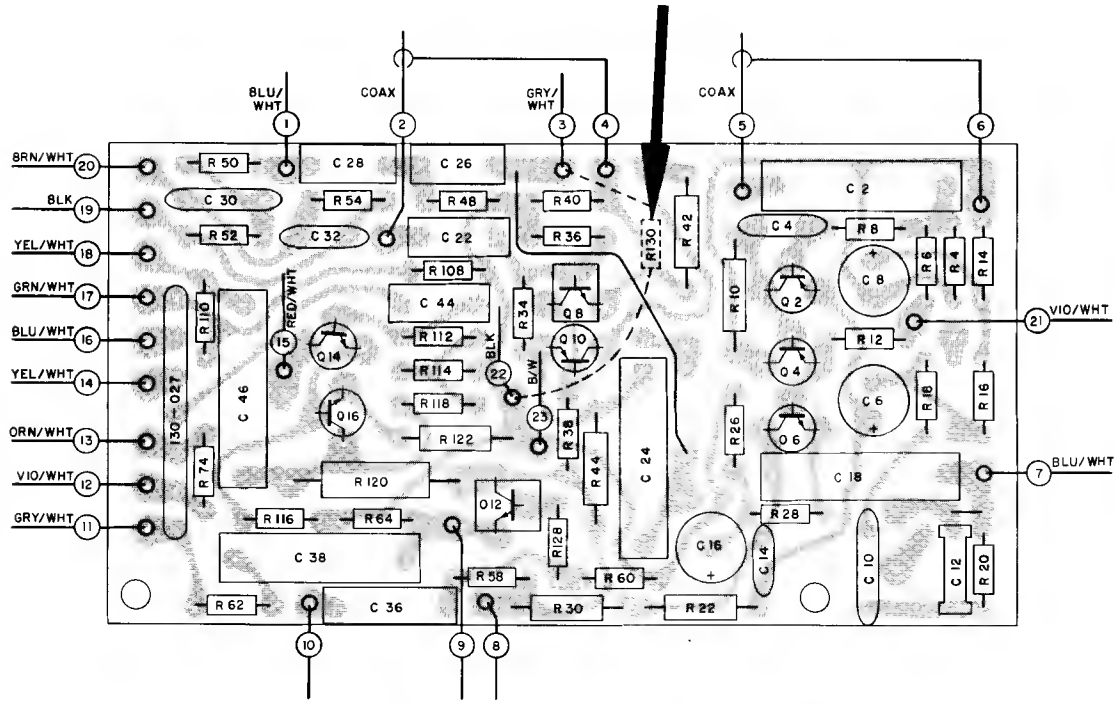
Step 2 Add 1 resistor to the bottom side of each PC board as shown. The parts appear as R129 and R130 on the drawing.

(over)

C 26
S B No. 1



LEFT CHANNEL PREAMP PRINTED CIRCUIT BOARD 043-991



RIGHT CHANNEL PREAMP PRINTED CIRCUIT BOARD 043-992

SERVICE BULLETIN

REDUCE RF INTERFERENCE

MODEL: C 26 Preamplifier

PURPOSE OF MODIFICATION: To reduce sensitivity to RF-interference.

WHAT UNITS ARE AFFECTED: All units with Serial Numbers below AG3301

WHEN MODIFICATION SHOULD BE MADE: Whenever a customer complains of undesired reception of CB and HAM-apparatus, when the unit is operating in the Phono Mode-also when interference from man-made noise is encountered, such as: Refridgerators, passing cars, etc.

PARTS REQUIRED:

QUANTITY	PART NUMBER	DESCRIPTION
2	136301	Res. = 100K, 1/4W, 10% R399,400
2	061002	Disc. Cap. = 1.8pF, ±.25pF NPO
2	061008	Disc. Cap. = 6.8pF, 20% NPO
2	061032	Disc. Cap. = 470pF, 20%
2	136296	Res. = 1K, 1/4W, 10%

PROCEDURE: This change has to be made on both left and right PC board 043091 and 043092.

1. Discard: C302, 304 = 061010 = Disc. Cap. 12pF
   C313, 314 = 061009 = Disc. Cap. 10pF
   R399, 400 = 136303 = Comp. Res. 1M

2. Connect a 061032 = 470pF capacitor between the base and the emitter of transistor Q301, 302.

C 26
S.B. No. 2

(OVER)

3. Connect a 061002 = 1.8pF capacitor from the collector of transistor Q301, 302 to the collector of transistor Q305, 306.

4. Connect a 061008 = 6.8pF capacitor from the base of transistor Q307, 308 to the collector of transistor Q307, 308.

5. Replace R399 (R400) with a 136301 = 100K resistor.

6. Add a 1000 ohm resistor (136296) in series with the blue lead that connects to pin #10 on the left preamp board. This resistor should connect directly to pin #10 and the end of the blue lead. Using leads no longer than necessary, do the same for the blue/white lead connecting to pin #7 on the right preamp board.