



C1000

PREAMPLIFIER

SERIAL NO. WG1000 And Above



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SERVICE MANUAL

Serial Number WG1001 And Above

PERFORMANCE SPECIFICATIONS

Power Requirements

100 Volts, 50/60Hz at 120 watts
110 Volts, 50/60Hz at 120 watts
120 Volts, 50/60Hz at 120 watts
220 Volts, 50/60Hz at 120 watts
230 Volts, 50/60Hz at 120 watts
240 Volts, 50/60Hz at 120 watts

Note: Refer to the rear panel of the C1000 Controller for the correct voltage.

General Specifications

Frequency Response

+0, -0.5dB from 10Hz to 40,000Hz

Total Harmonic Distortion

0.002% from 20Hz to 20,000Hz

Signal To Noise Ratio

High Level, 100dB
Phono, 88dB

Maximum Voltage Output

12V RMS Unbalanced, 25V RMS Balanced

Output Impedance

220 ohms

Sensitivity

High Level, 450mV for 2.5V rated output
Phono MM, 4.5mV for 2.5V rated output
Phono MC, 0.45mV for 2.5V rated output

Input Impedance

High Level, 22K ohms
Phono MM, 47K ohms; 50 to 750pF, in 50pF steps
Phono MC: 25, 50, 100, 200, 400 or 1,000 ohms; 100pF

Maximum Input Signal

High Level, 5V Unbalanced, 10V Balanced
Phono MM, 50mV
Phono MC, 5mV

Overall Dimensions

C1000C:

Width is 17-1/2 inches (44.45cm)
Height is 6 inches (15.24cm) including feet
Depth is 24 inches (61.0cm) including the Front Panel, Knobs and Interconnect Cables¹

C1000P:

Width is 17-1/2 inches (44.45cm)
Height is 6 inches (15.24cm) including feet
Depth is 24 inches (61.0cm) including the Front Panel and Interconnect Cables¹

C1000T:

Width is 17-1/2 inches (44.45cm)
Height is 6 inches (15.24cm) including feet
Depth is 24 inches (61.0cm) including the Front Panel and Interconnect Cables¹

Weight

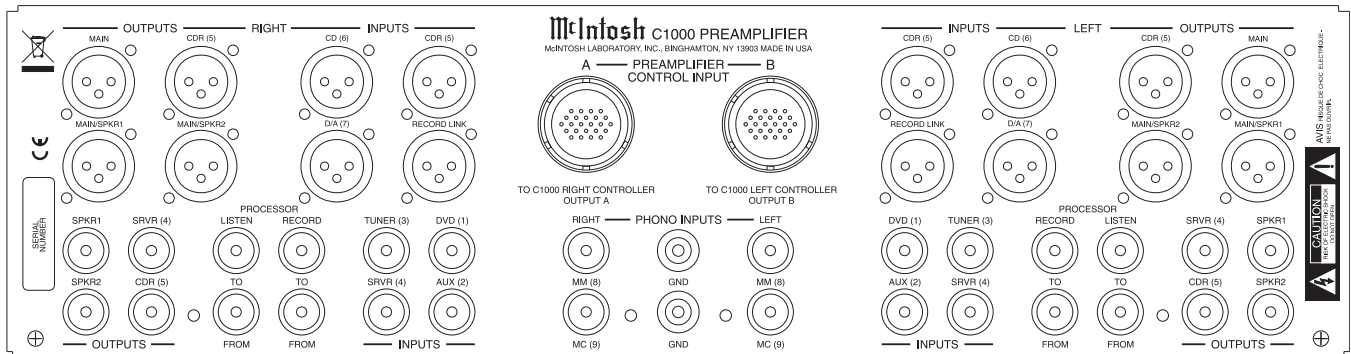
C1000C - 39.0 pounds (17.7 kg) net
61.4 pounds (27.9 kg) in shipping carton
C1000P - 33.0 pounds (15.0 kg) net
53.6 pounds (24.3 kg) in shipping carton
C1000T - 34.0 pounds (15.4 kg) net
54.6 pounds (24.8 kg) in shipping carton

¹ Interconnect Cables are supplied with the C1000 Preamplifier and C1000 Tube Preamplifier. They are used to connect Preamplifier(s) to the C1000 Controller.

NOTES

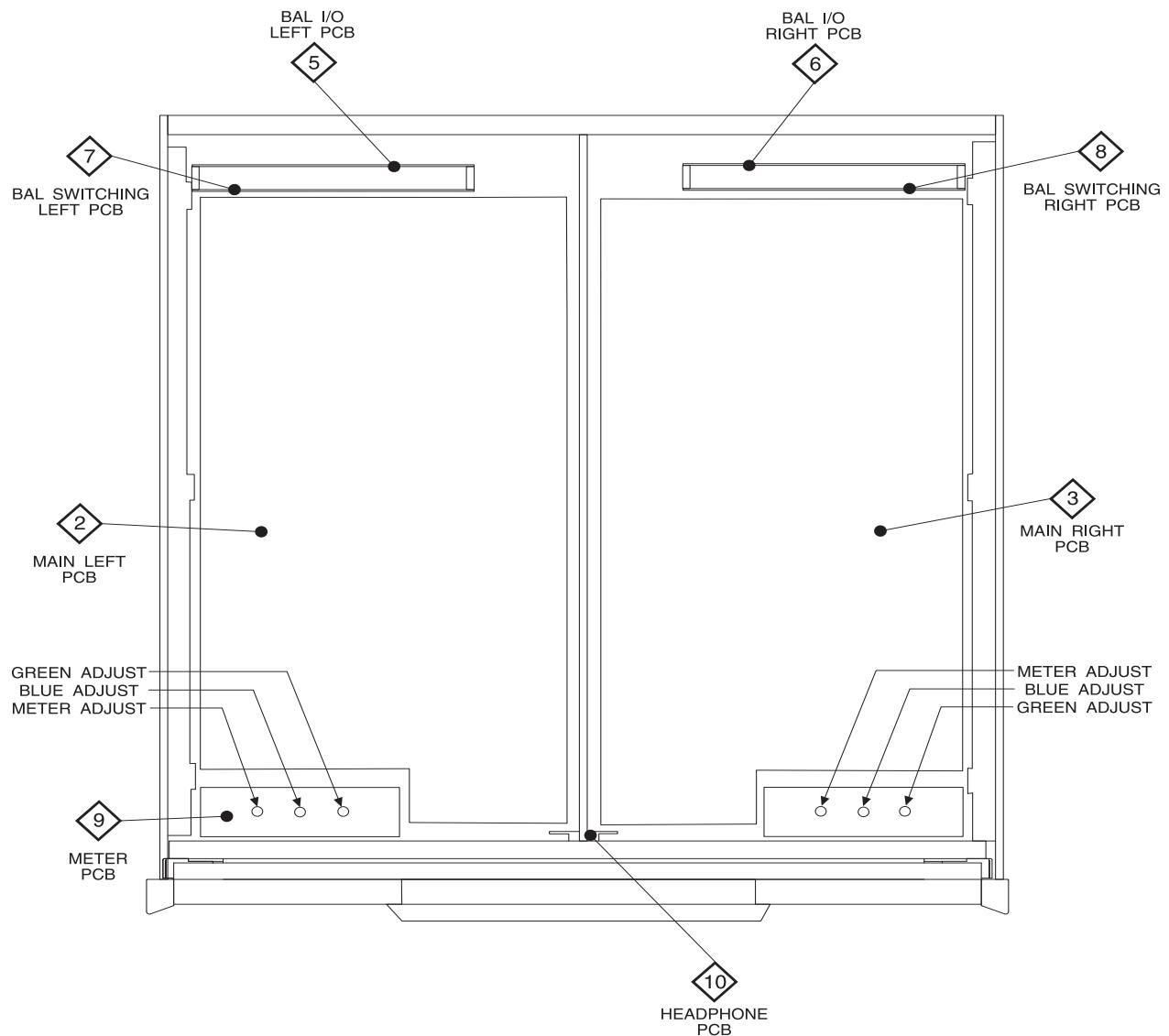
1. The heavy notes on the schematic denote the primary signal path.
2. Unless otherwise noted, all voltages indicated on the schematics are measured under the following conditions:
 - a. AC input at 120 volts, 50/60Hz.
 - b. All voltages are +/-10% with respect to ground. A high impedance (10 megaohm) voltmeter must be used.
3. Unless otherwise specified:
 - a. Resistor values are in ohms.
 - b. Capacitor values are microfarads (uF).
 - c. Inductor values are in microhenries (uH).
4. On PC board drawings, Square pad indicates:
 - a. Polarized Capacitors - Positive
 - b. Diodes - Cathode
 - c. Others - Pin 1
5. **WARNING**
Parts marked with the symbol  have critical characteristics. Use only replacement parts recommended by the manufacturer.

REAR PANEL

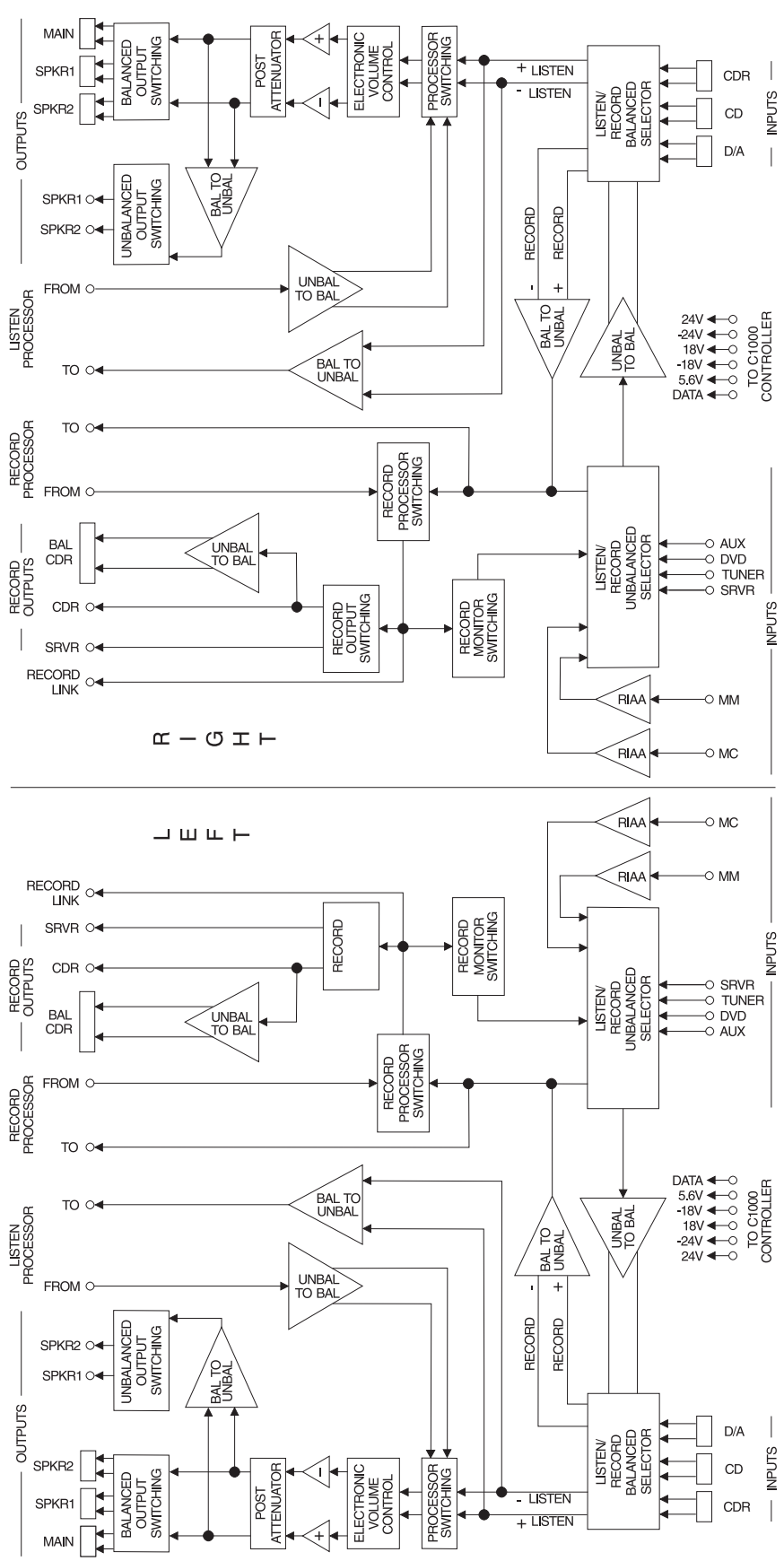


SECTION LOCATIONS

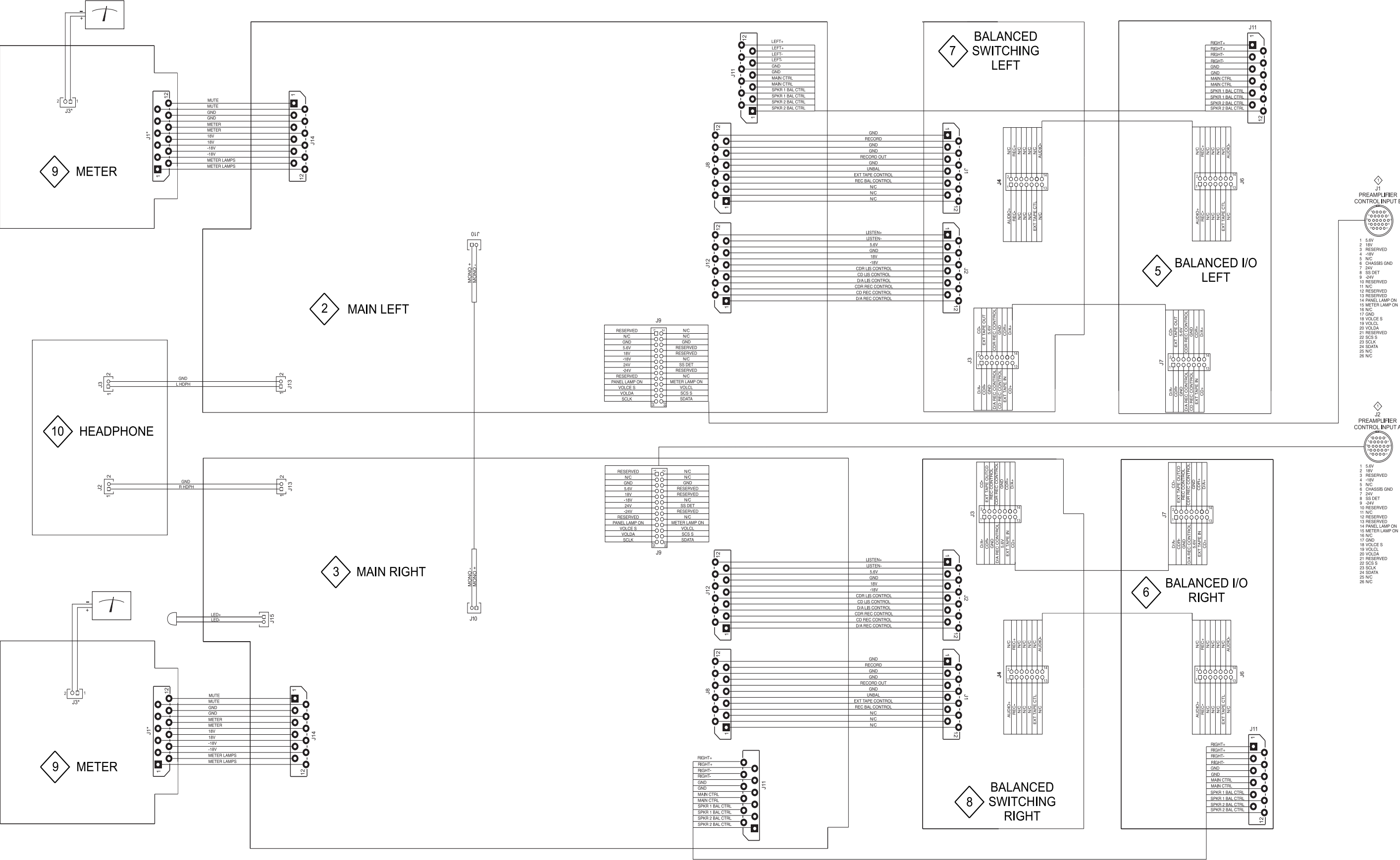
TOP VIEW WITH COVER REMOVED

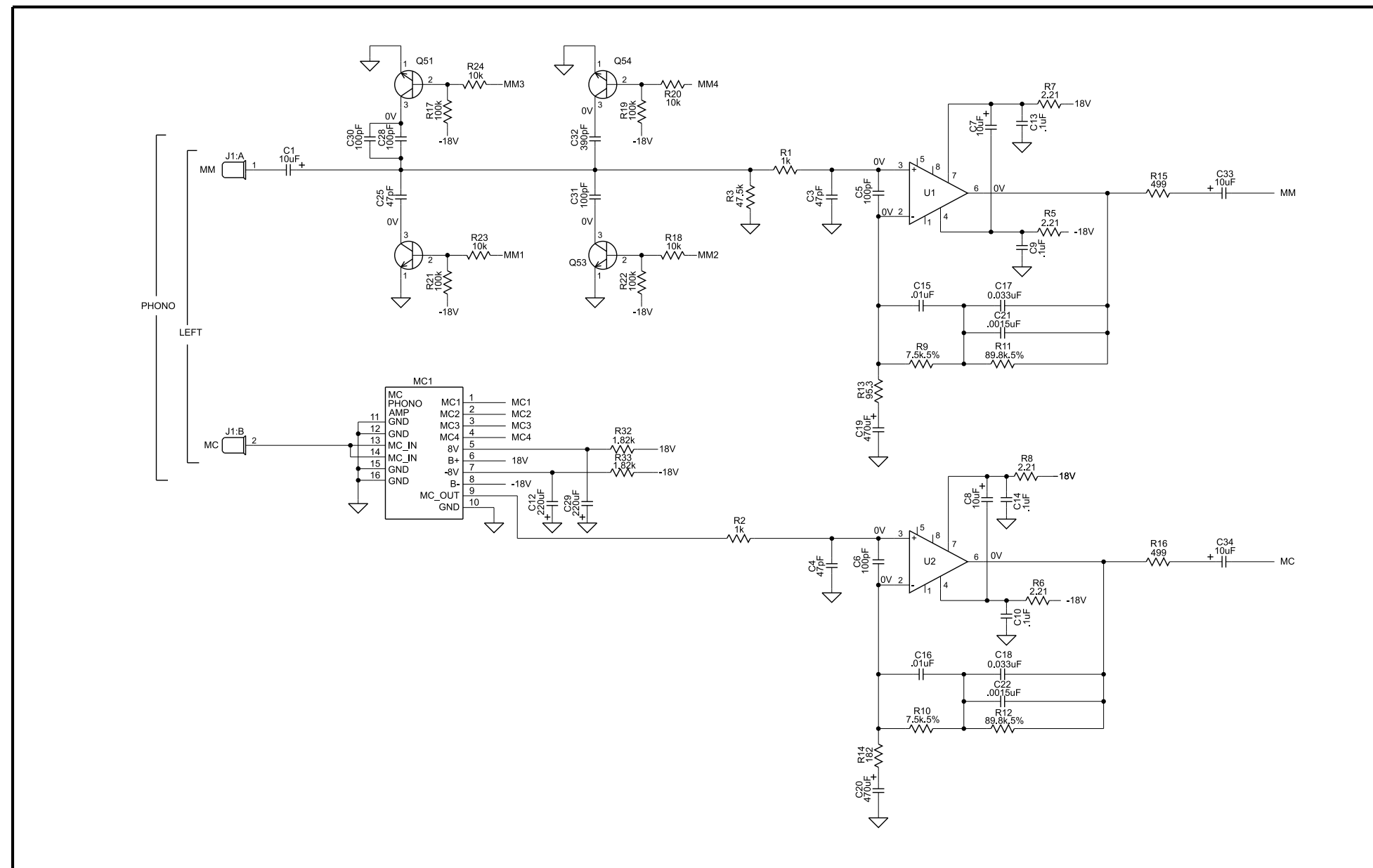


BLOCK DIAGRAM

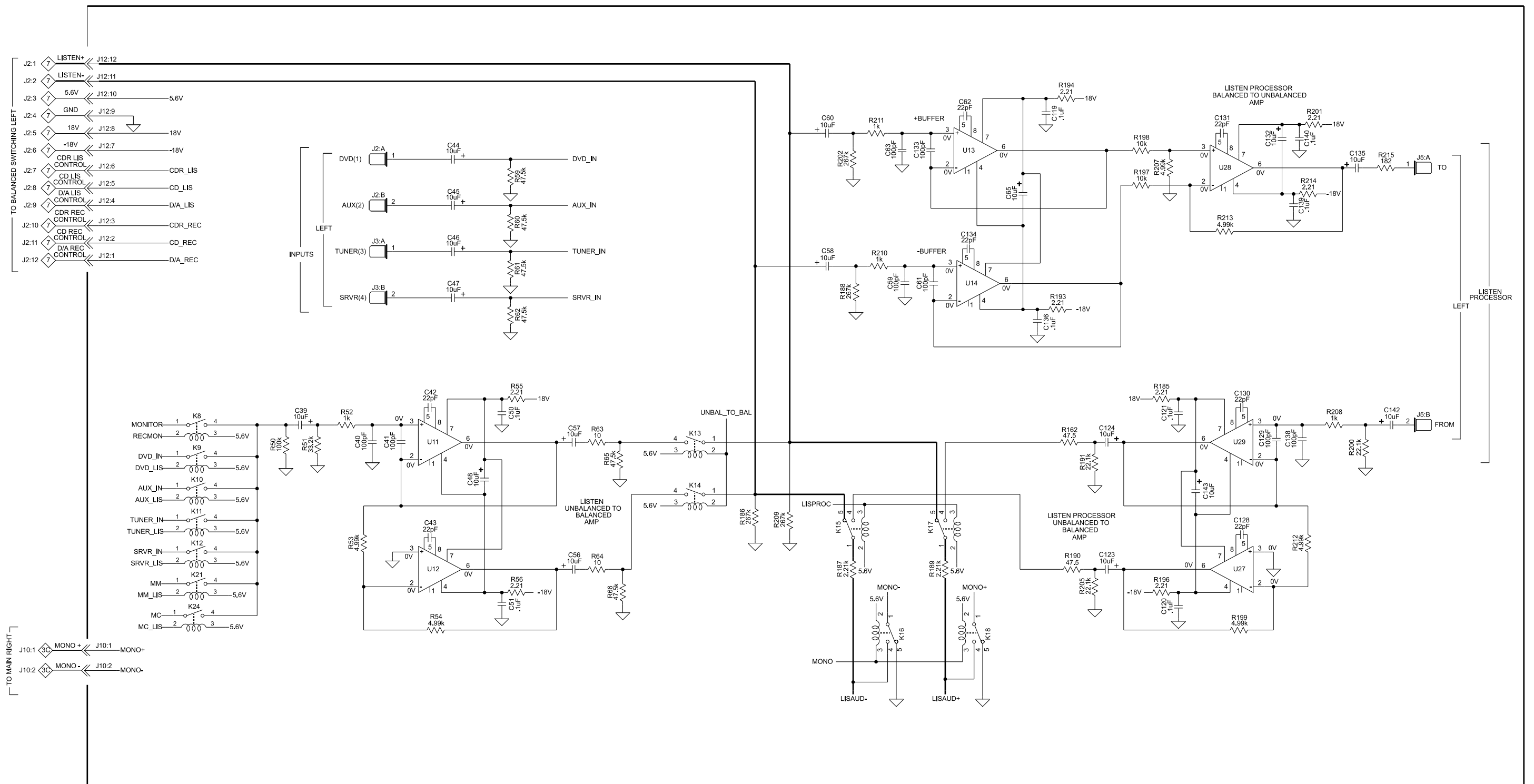


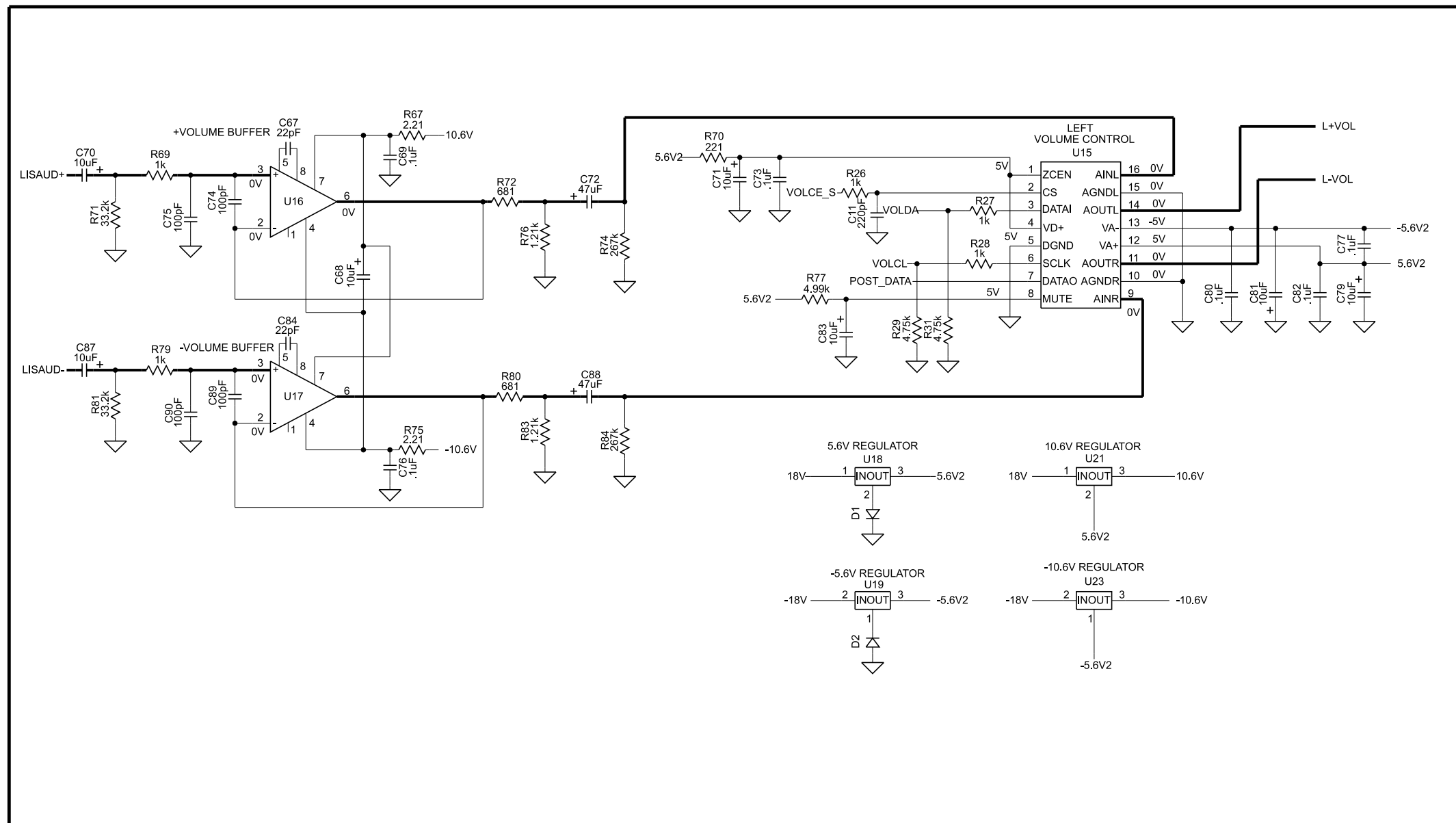
INTERCONNECT

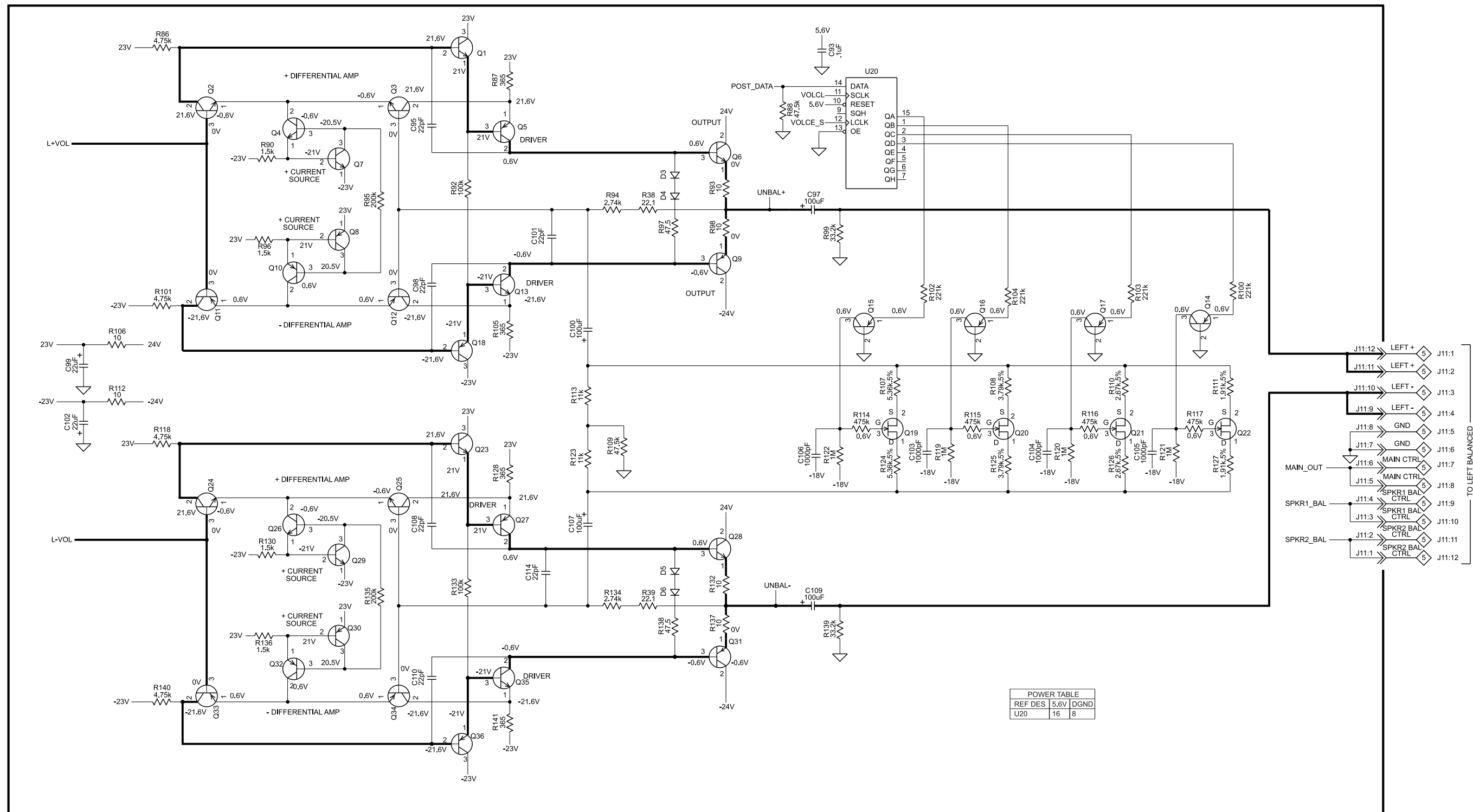


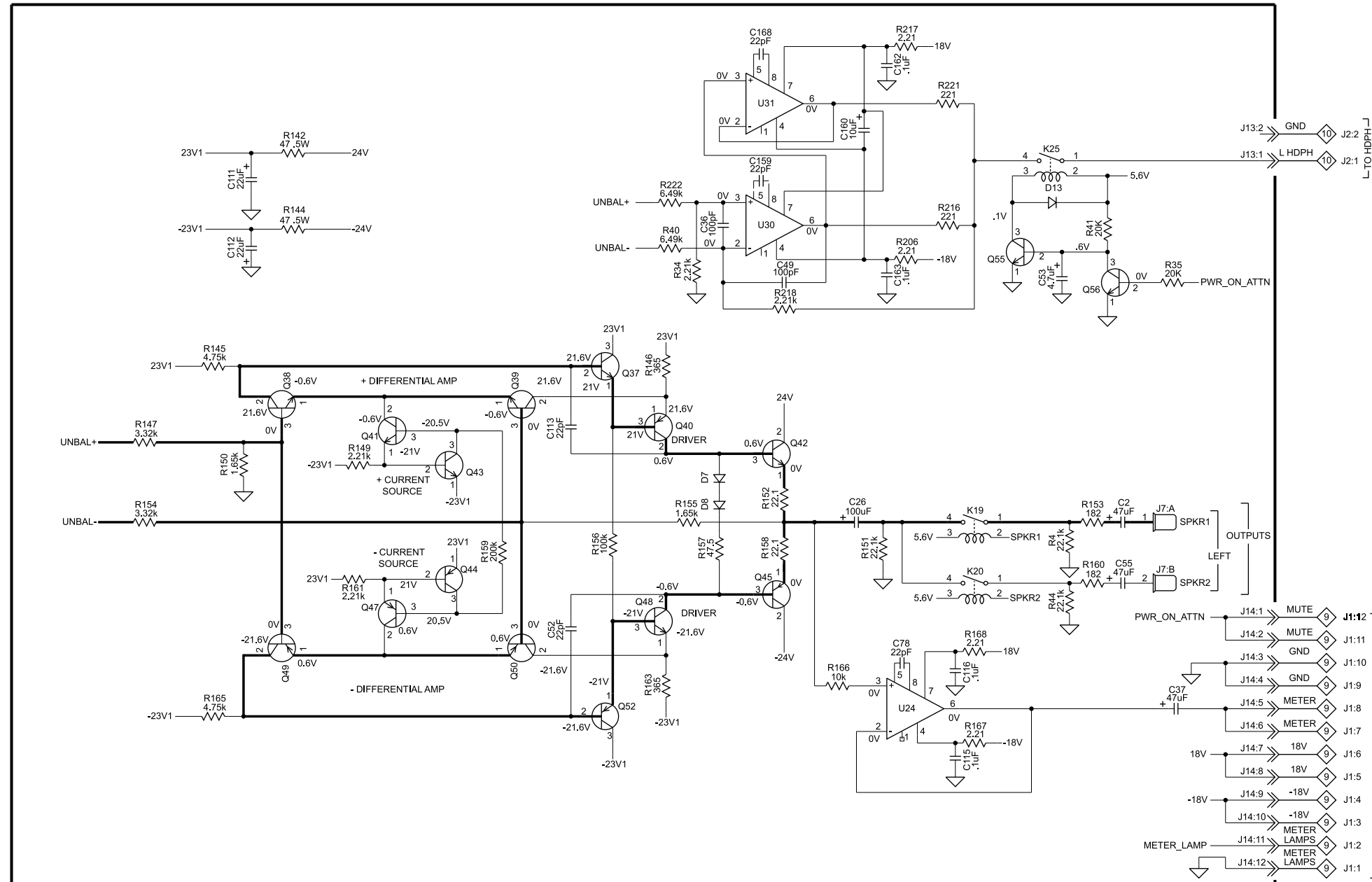


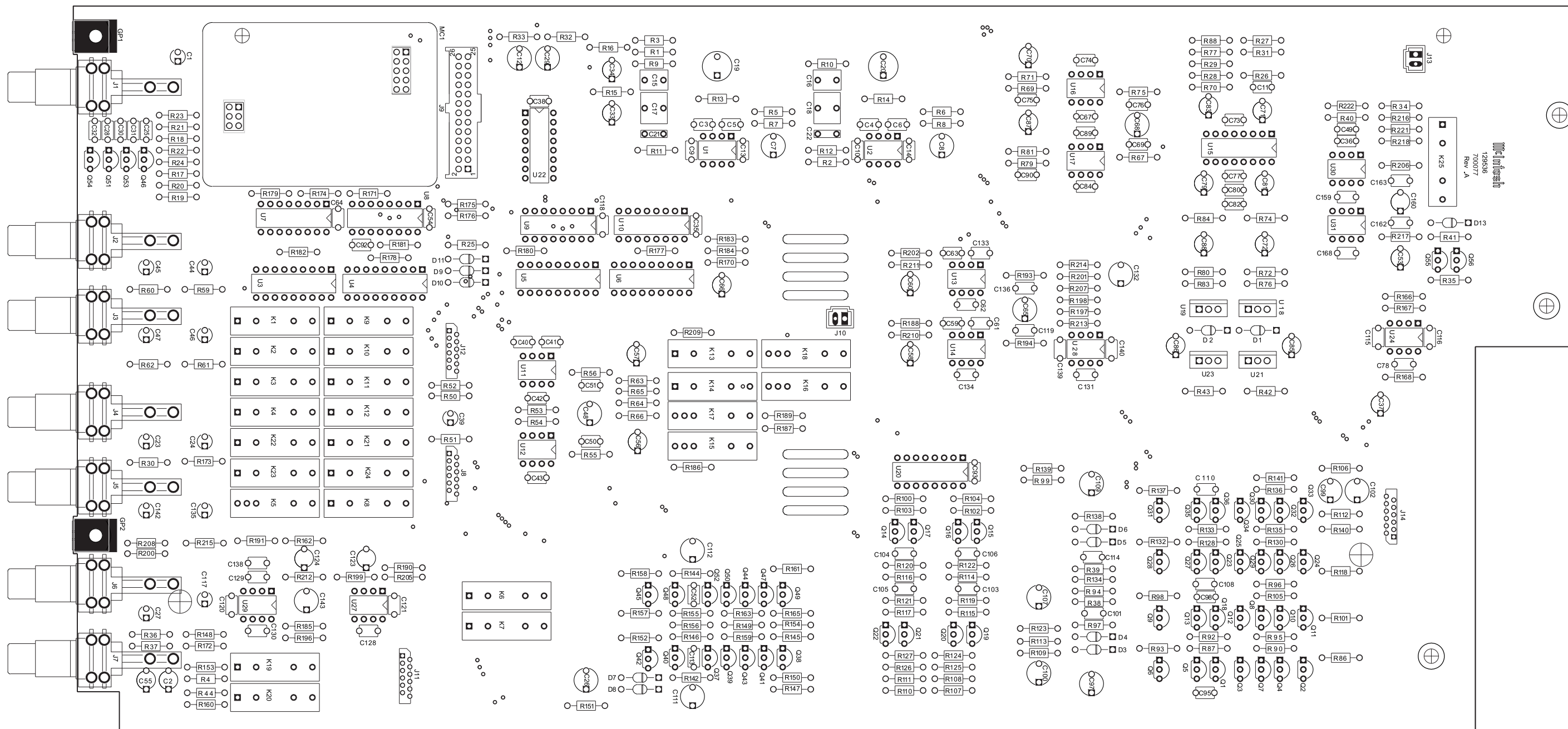


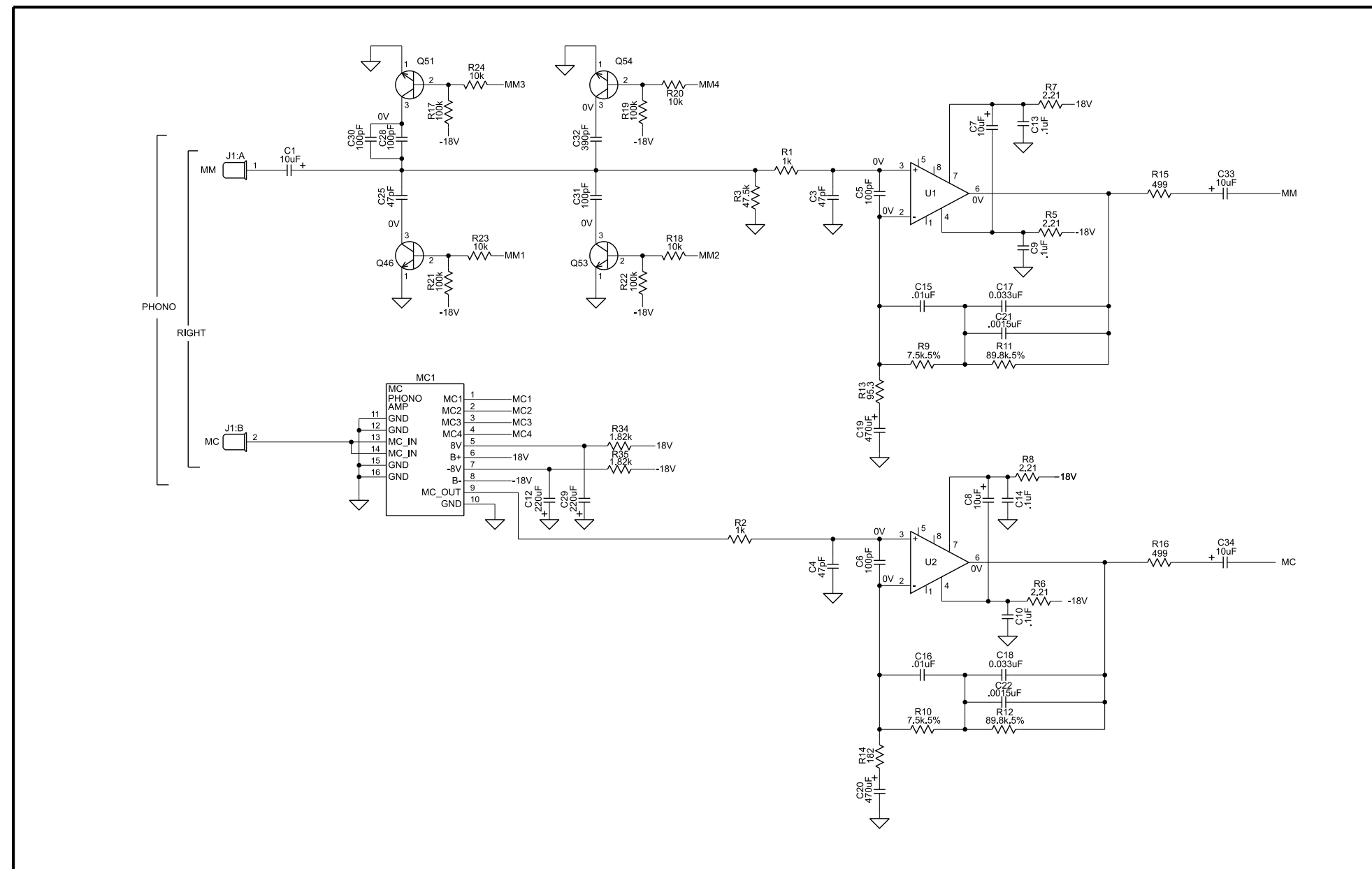


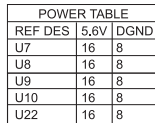


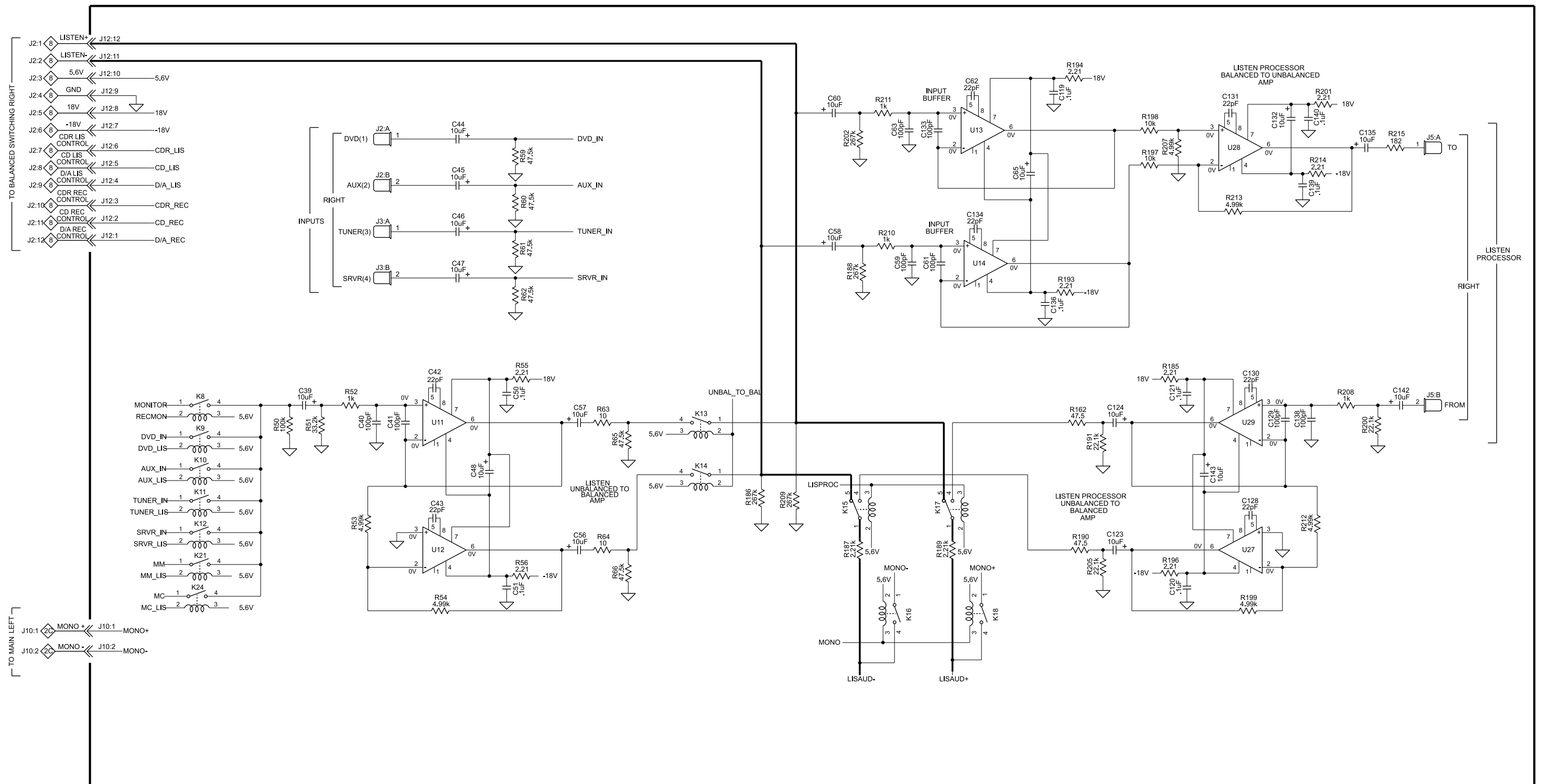


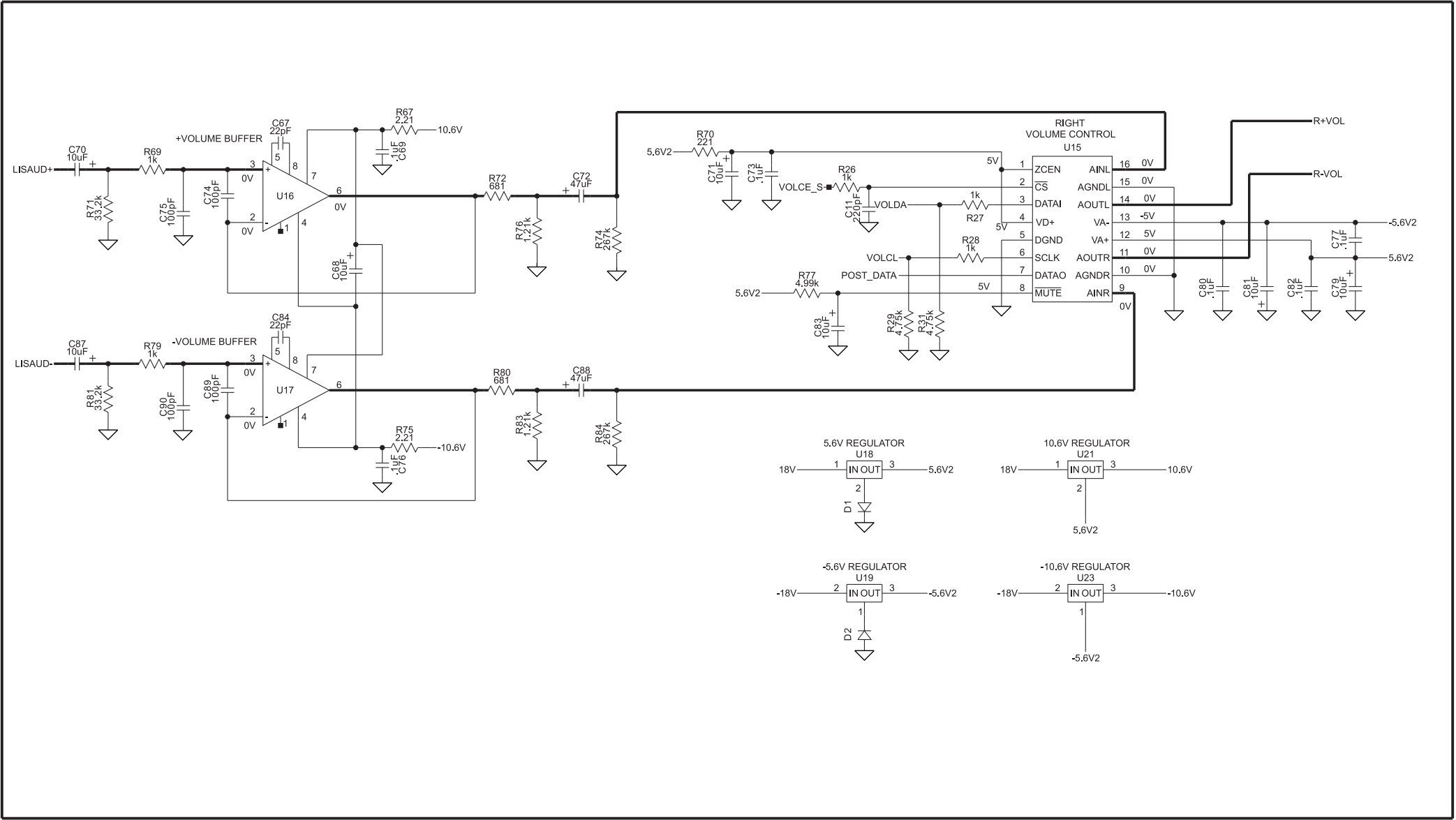


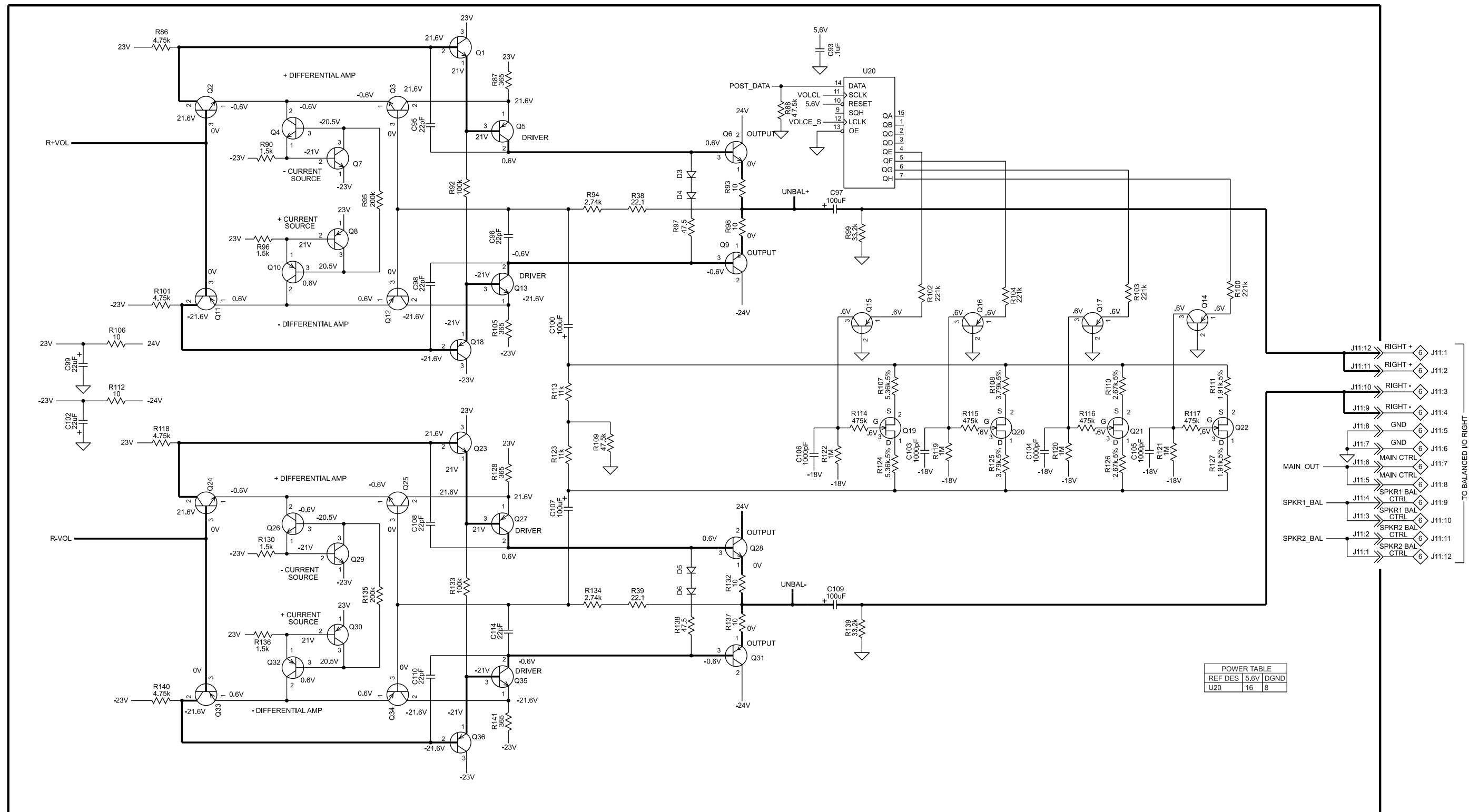


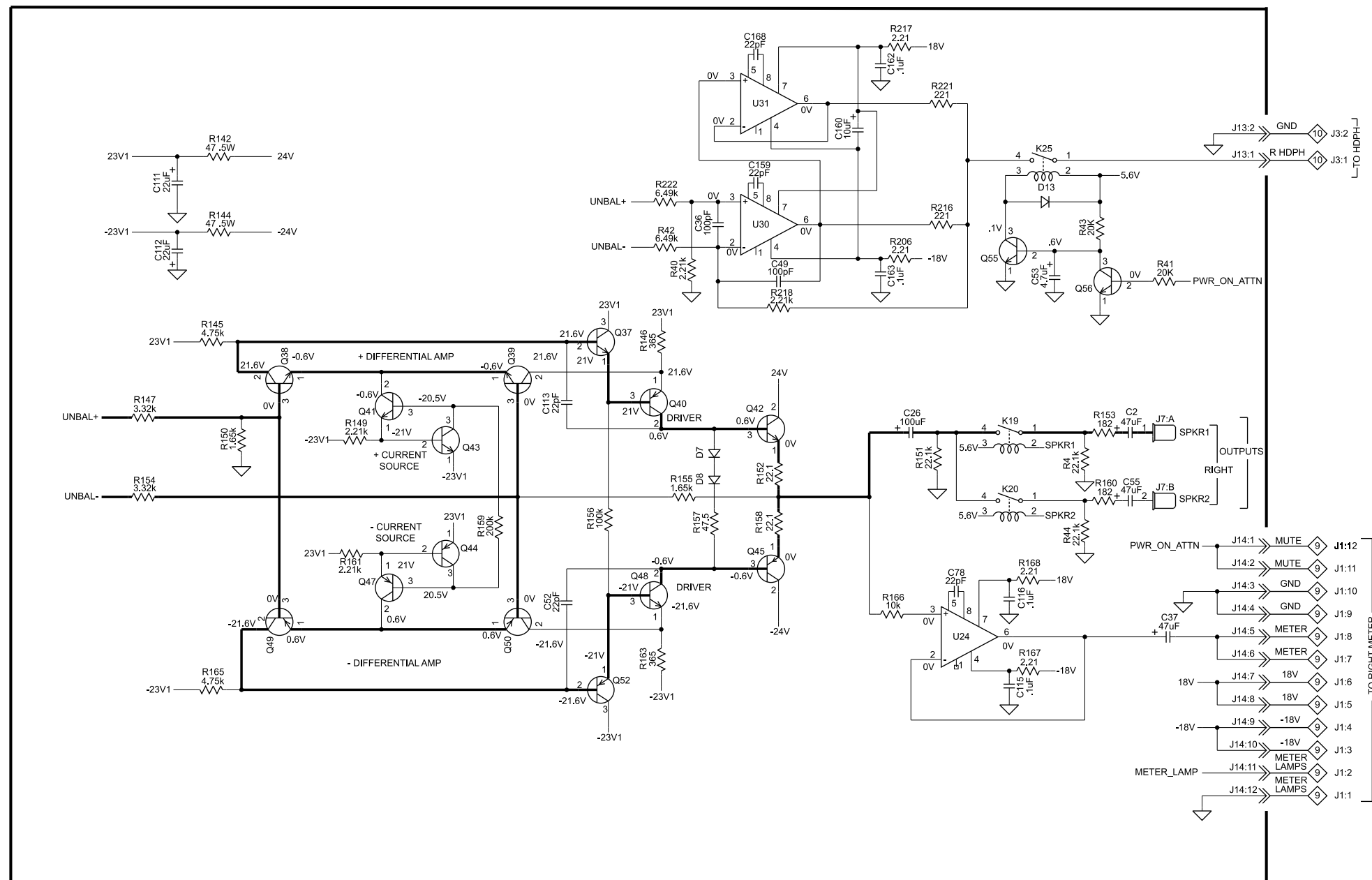






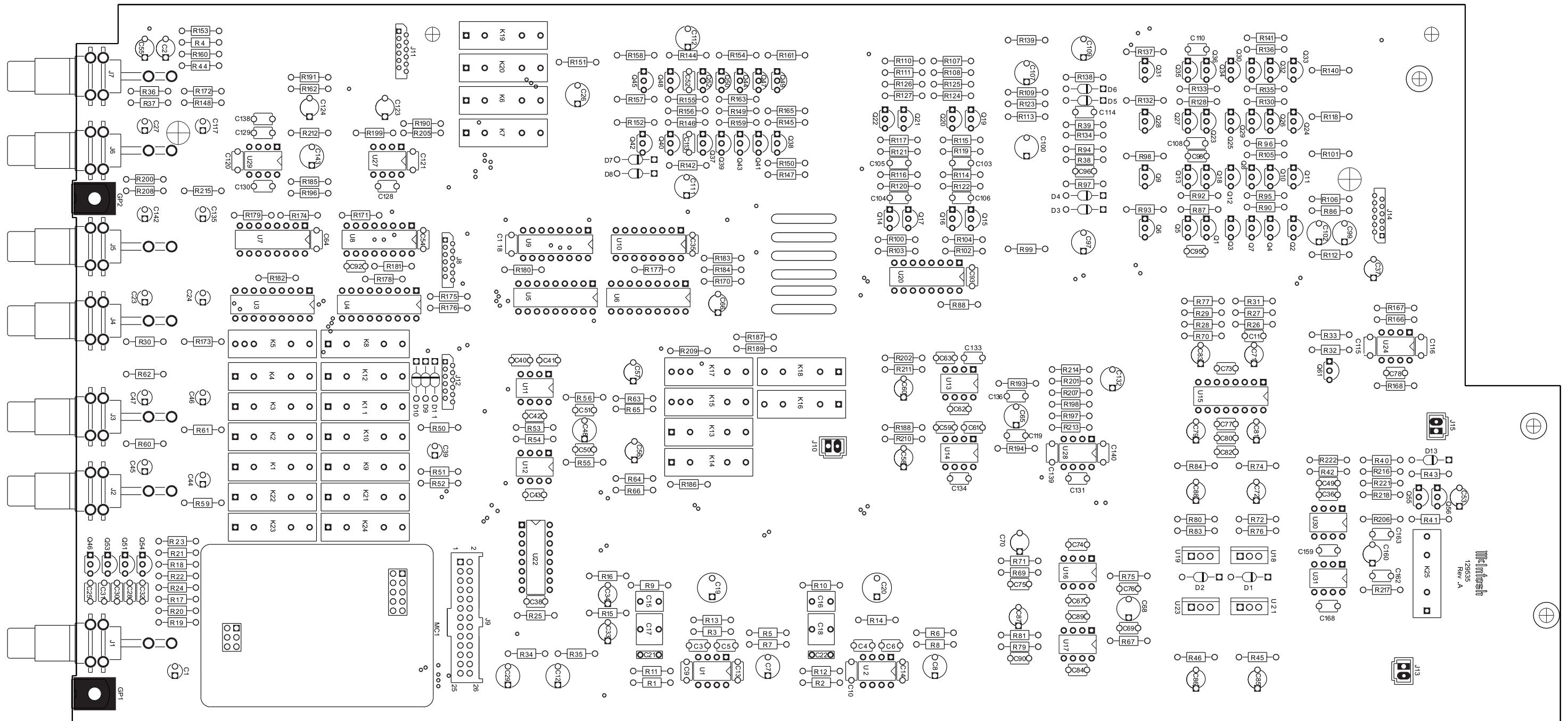






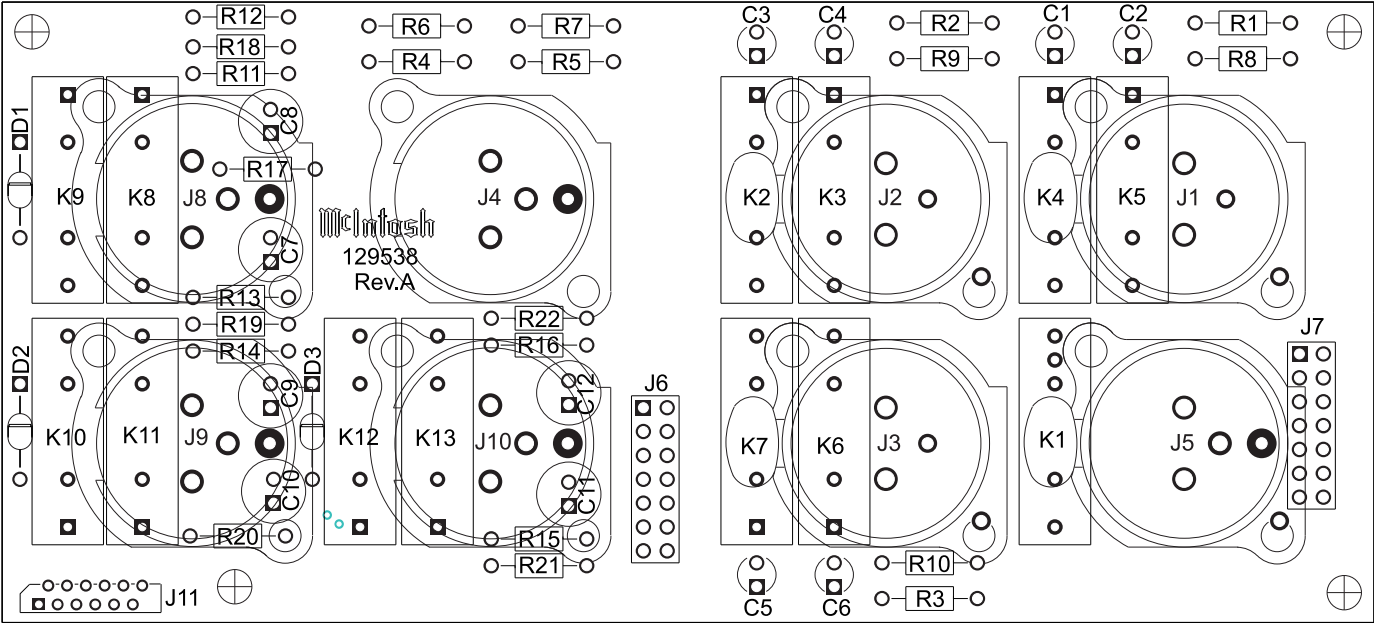
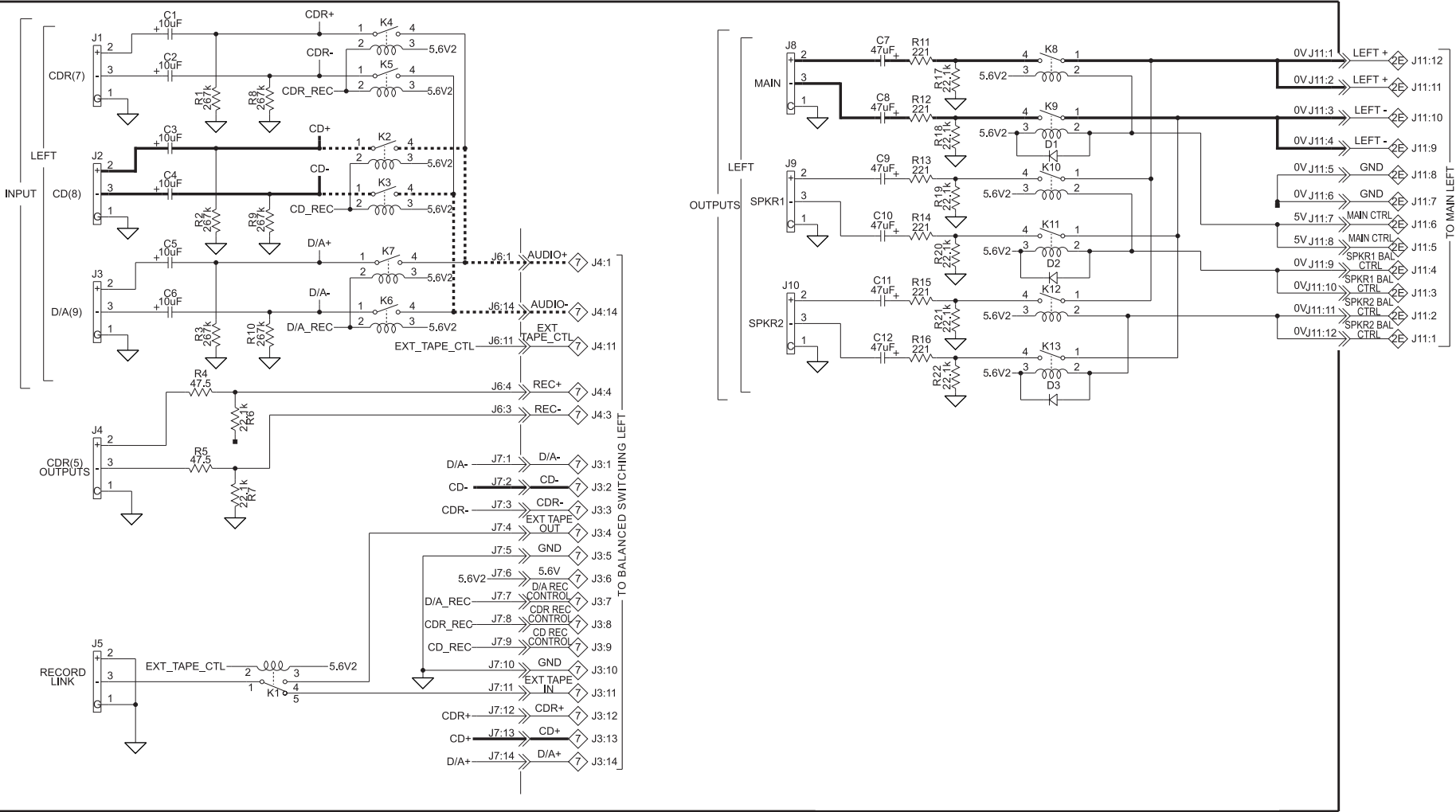
3 MAIN RIGHT 050102 PCB

C1000 PREAMPLIFIER



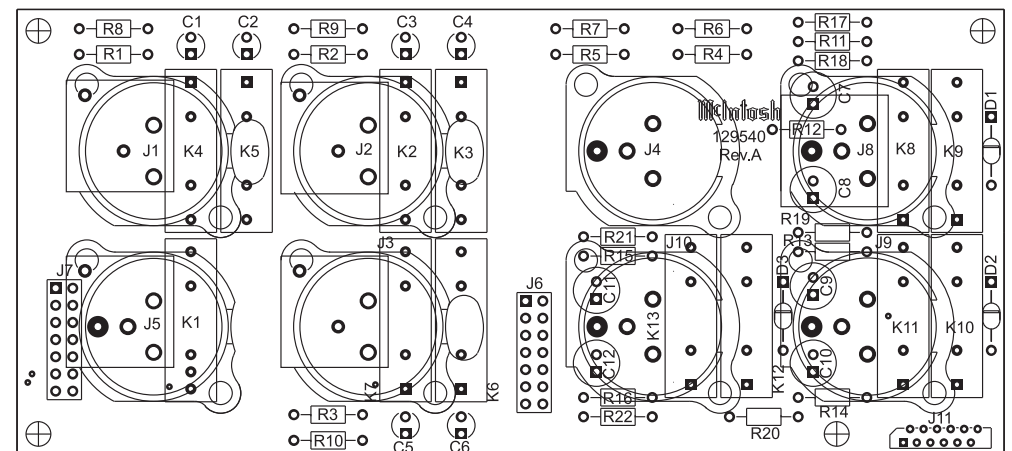
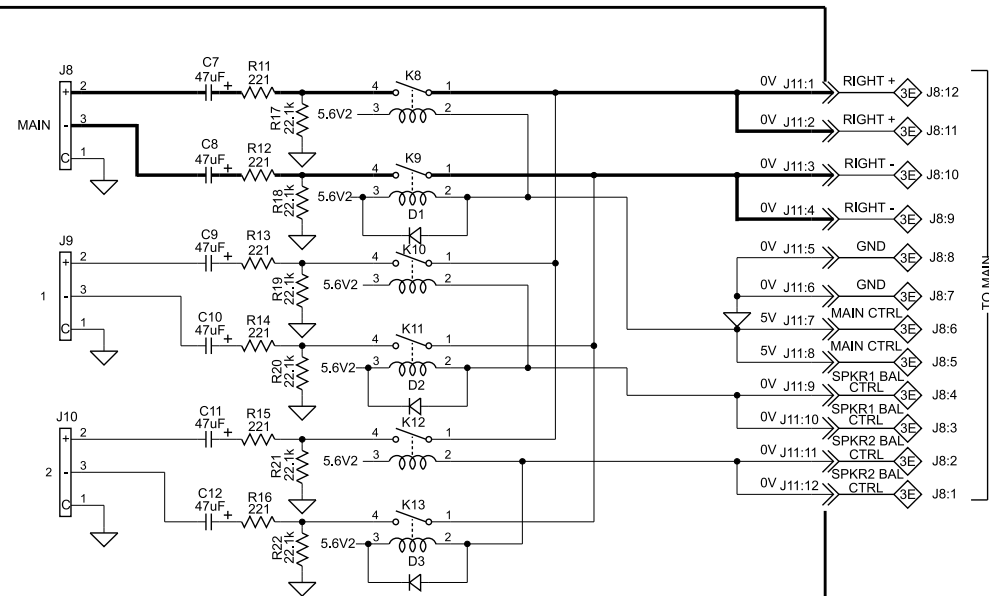
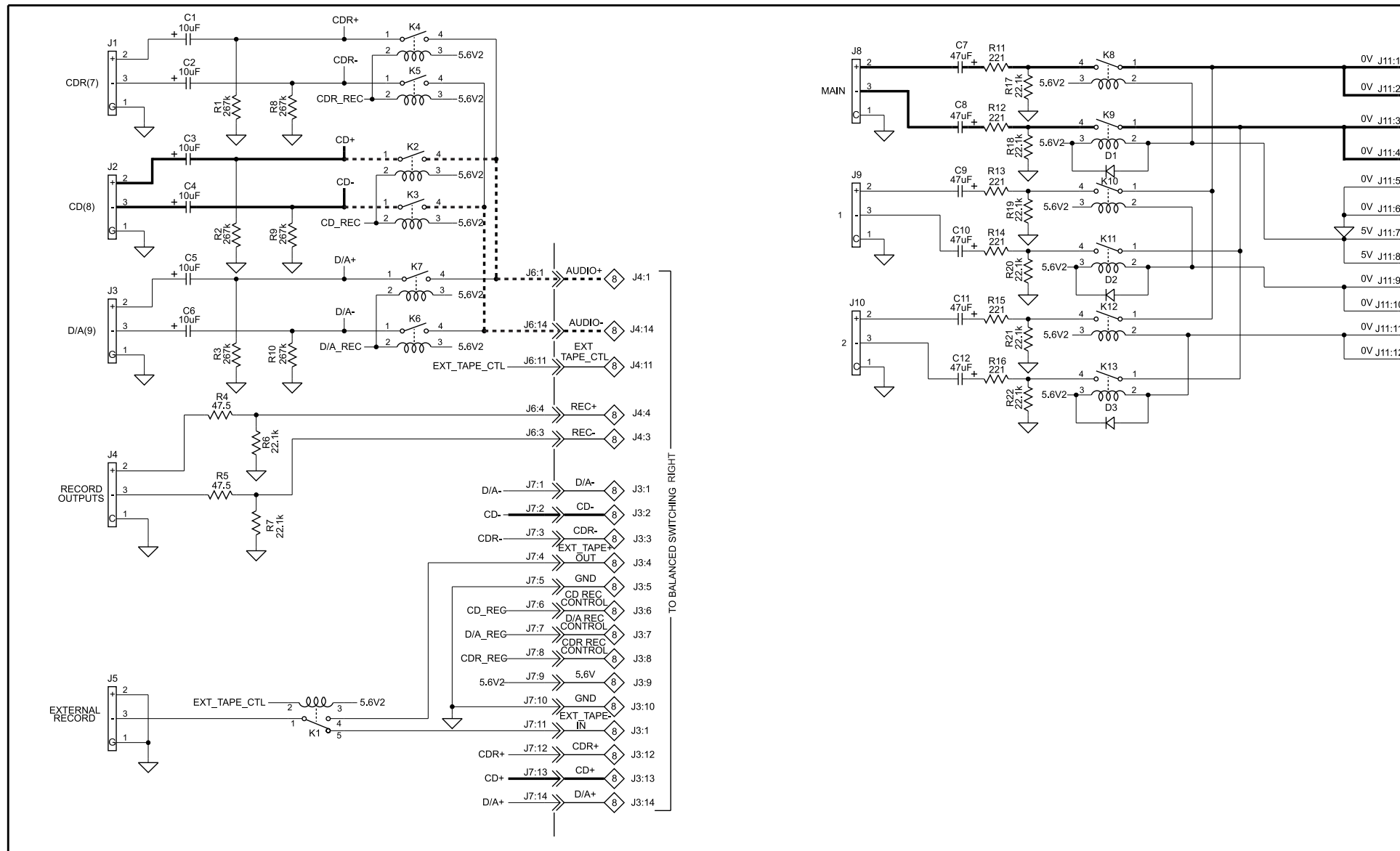
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BALANCED I/O LEFT 050105 SCH and PCB



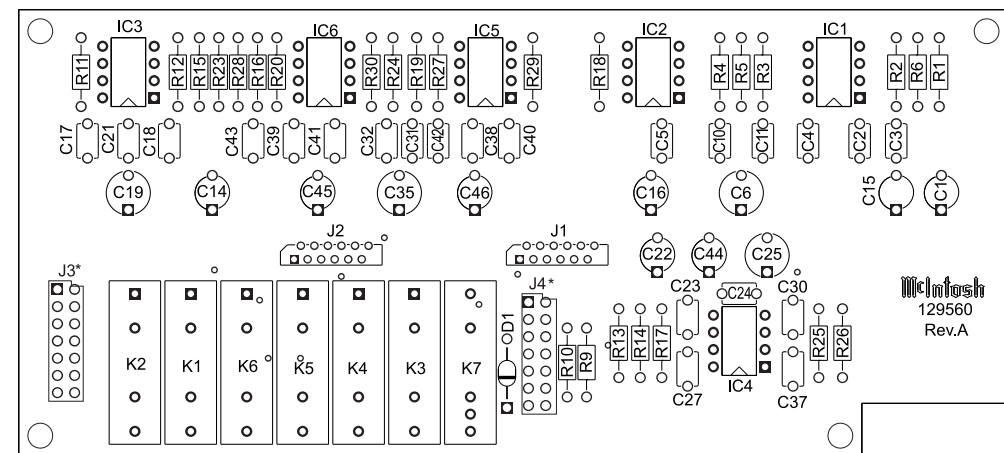
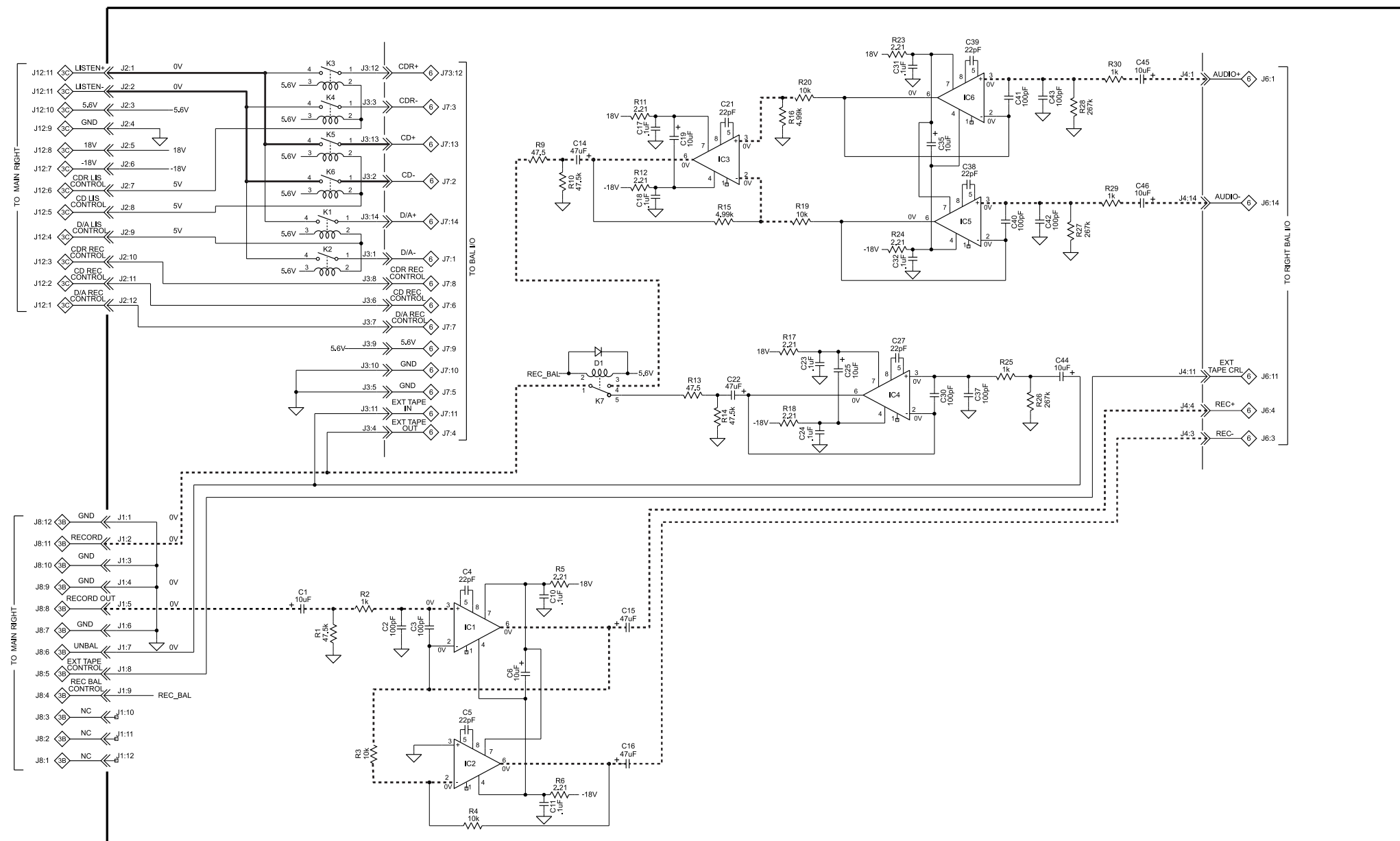
C1000
PREAMPLIFIER

6 *BALANCED I/O RIGHT* 050107 SCH and PCB

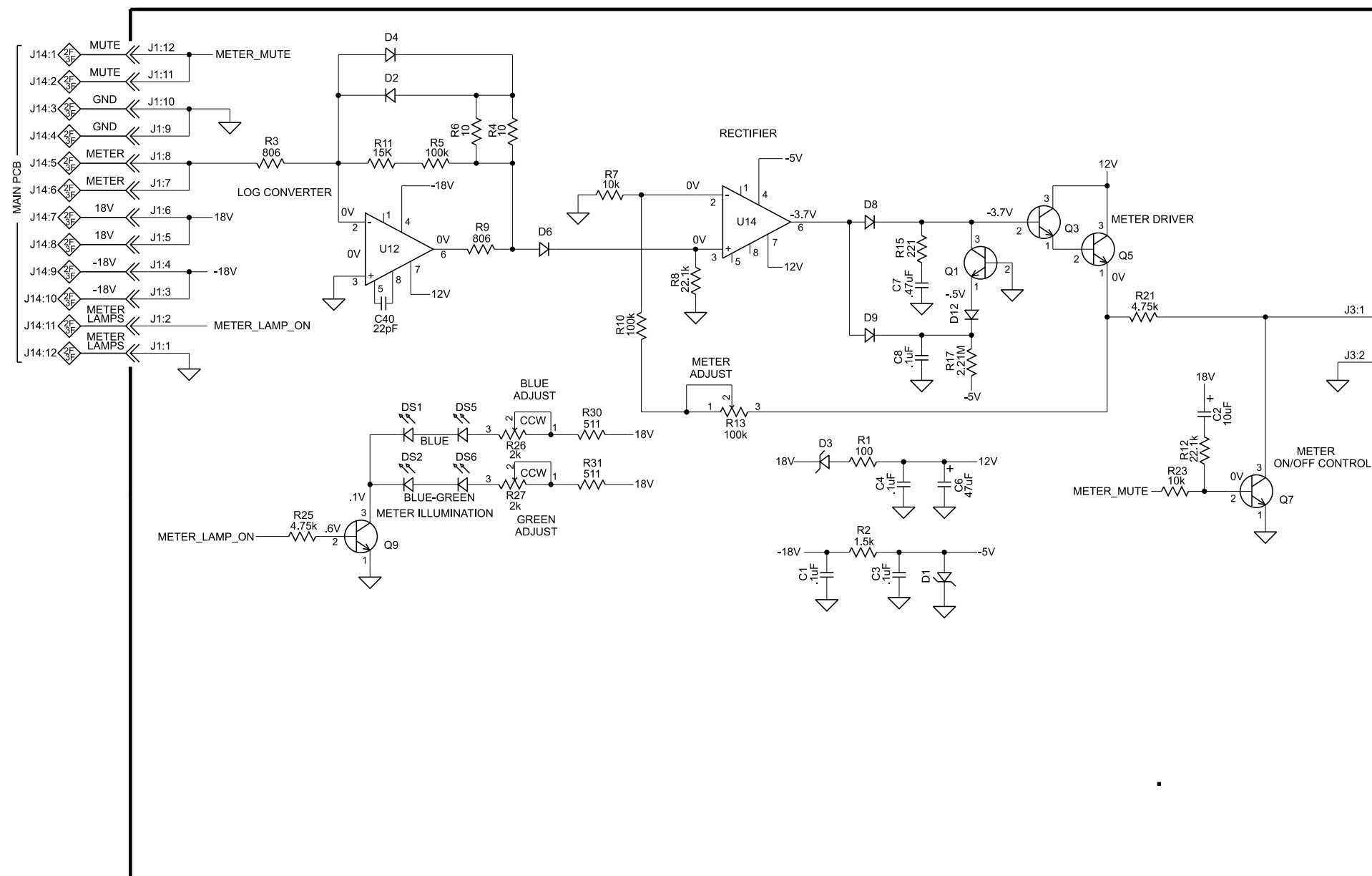


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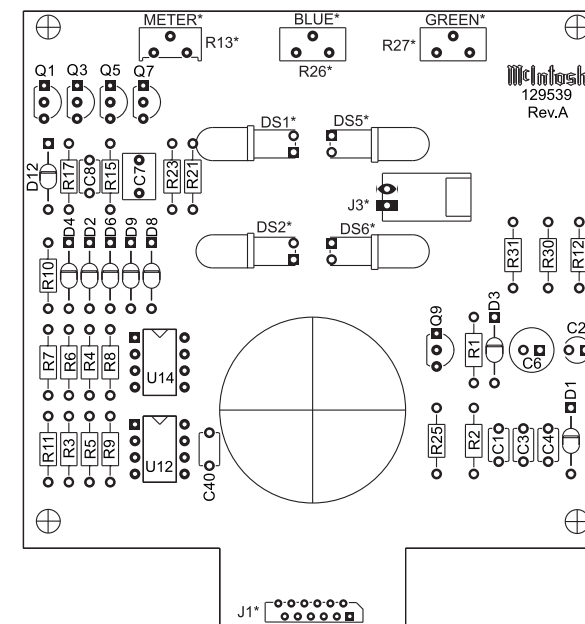




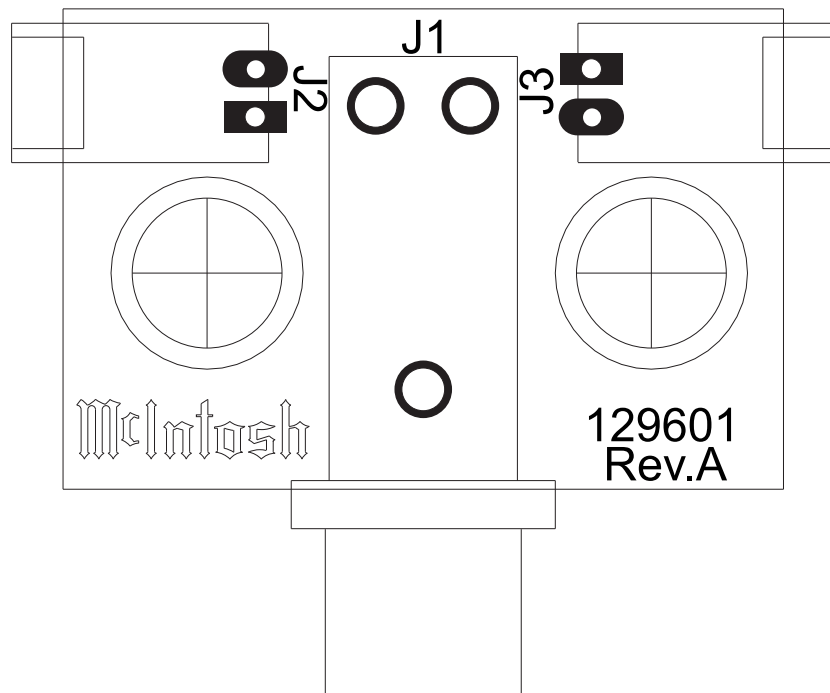
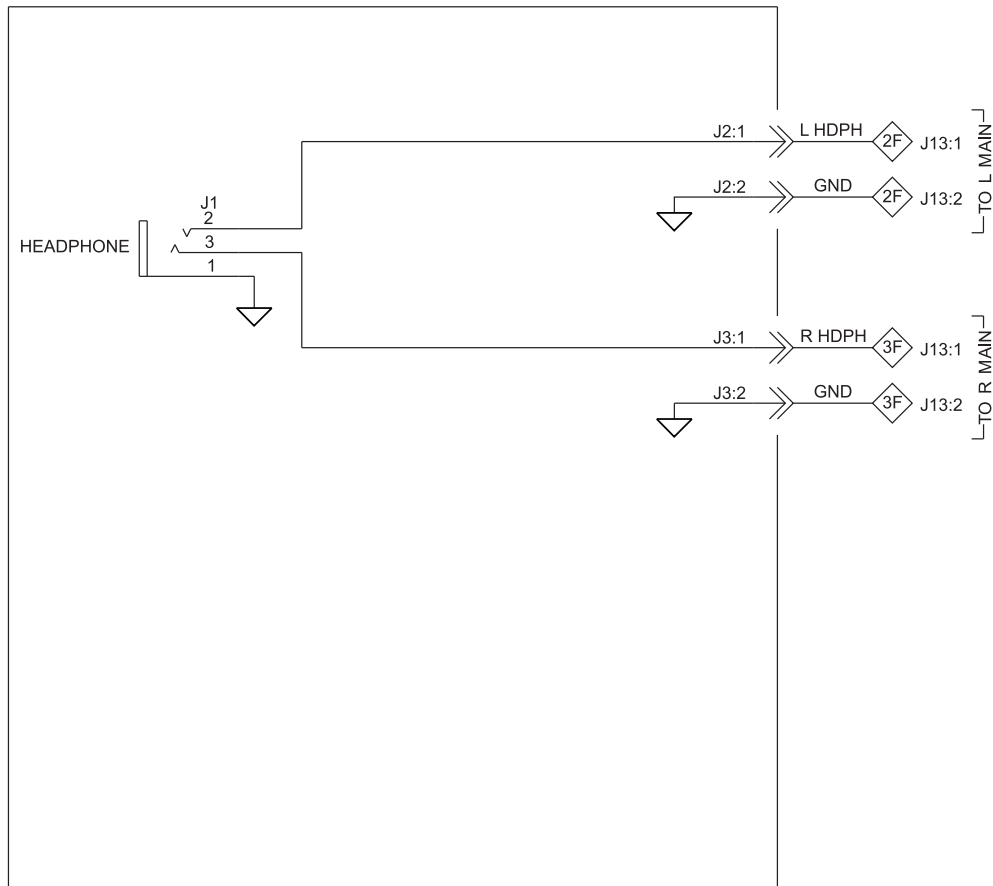
9 METER 050106 SCH and PCB



METER ADJUSTMENT PROCEDURE
Apply a 1kHz signal to both channels. Adjust the level for 2.5VAC at L and R SPKR1 unbalanced output. Adjust R13 for 0dB on the C1000 left and right meters



10 HEADPHONE 050262 SCH and PCB



NOTES

PARTS LIST

2 MAIN LEFT PCB 050103

Ref. No.	Description	Part No.	Ref. No.	Description	Part No.
C1	CAP ELECT 10UF 16V	066555	C68	CAP ELECT 10UF 100VDC	066462
C2	CAP ELECT 47UF 35V	066446	C69	CAP MONO .1UF 50V 20%	061305
C3	CAP MONO 47PF 200V 10% NPO	061299	C70	CAP ELECT 10UF 50V	066445
C4	CAP MONO 47PF 200V 10% NPO	061299	C71	CAP ELECT 10UF 50V	066445
C5	CAP MONO 100PF 100V 10% NPO	061300	C72	CAP ELECT 47UF 35V	066446
C6	CAP MONO 100PF 100V 10% NPO	061300	C73	CAP MONO .1UF 50V 20%	061305
C7	CAP ELECT 10UF 100VDC	066462	C74	CAP MONO 100PF 100V 10% NPO	061300
C8	CAP ELECT 10UF 100VDC	066462	C75	CAP MONO 100PF 100V 10% NPO	061300
C9	CAP MONO .1uF 50V 20% Z5U	061305	C76	CAP MONO .1UF 50V 20%	061305
C10	CAP MONO .1uF 50V 20% Z5U	061305	C77	CAP MONO .1UF 50V 20%	061305
C11	CAP MONO 220PF 200V 10%	061301	C78	CAP MONO 22PF 200V 10% NPO	061298
C12	CAP ELECT 220UF 25V	066507	C79	CAP ELECT 10UF 50V	066445
C13	CAP MONO .1uF 50V 20% Z5U	061305	C80	CAP MONO .1UF 50V 20%	061305
C14	CAP MONO .1uF 50V 20% Z5U	061305	C81	CAP ELECT 10UF 50V	066445
C15	CAP POLYPROP 0.01UF 63V 2.5%	064444	C82	CAP MONO .1UF 50V 20%	061305
C16	CAP POLYPROP 0.01UF 63V 2.5%	064444	C83	CAP ELECT 10UF 50V	066445
C17	CAP POLYPROP .033uF 63V 2.5%	064446	C84	CAP MONO 22PF 200V 10% NPO	061298
C18	CAP POLYPROP .033uF 63V 2.5%	064446	C85	CAP ELECT 10UF 50V	066445
C19	CAP ELECT 470UF 16V	066508	C86	CAP ELECT 10UF 50V	066445
C20	CAP ELECT 470UF 16V	066508	C87	CAP ELECT 10UF 50V	066445
C21	CAP MPF 0.0015UF 5% 63VDC	064302	C88	CAP ELECT 47UF 35V	066446
C22	CAP MPF 0.0015UF 5% 63VDC	064302	C89	CAP MONO 100PF 100V 10% NPO	061300
C23	CAP ELECT 10UF 16V	066555	C90	CAP MONO 100PF 100V 10% NPO	061300
C24	CAP ELECT 10UF 16V	066555	C92	CAP MONO 220PF 100V 10% NPO	061301
C25	CAP MONO 47PF 200V 10% NPO	061299	C93	CAP MONO .1UF 50V 20%	061305
C26	CAP ELECT 100UF 25V	066447	C95	CAP MONO 22PF 200V 10%	061298
C27	CAP ELECT 10UF 16V	066555	C97	CAP ELECT 100UF 25V	066447
C28	CAP MONO 100PF 100V 10%	061300	C98	CAP MONO 22PF 200V 10%	061298
C29	CAP ELECT 220UF 25V	066507	C99	CAP ELECT 22UF 100V	066506
C30	CAP MONO 100PF 100V 10%	061300	C100	CAP ELECT 100UF 25V	066447
C31	CAP MONO 100PF 100V 10%	061300	C101	CAP MONO 22PF 200V 10%	061298
C32	CAP MONO 390PF 200V 5%	061314	C102	CAP ELECT 22UF 100V	066506
C33	CAP ELECT 10UF 50V	066445	C103	CAP MONO 1000PF 50V 10%	061303
C34	CAP ELECT 10UF 50V	066445	C104	CAP MONO 1000PF 50V 10%	061303
C35	CAP MONO .1UF 50V 20%	061305	C105	CAP MONO 1000PF 50V 10%	061303
C36	CAP MONO 100PF 100V 10% NPO	061300	C106	CAP MONO 1000PF 50V 10%	061303
C37	CAP ELECT 47UF 35V	066446	C107	CAP ELECT 100UF 25V	066447
C38	CAP MONO .1UF 50V 20%	061305	C108	CAP MONO 22PF 200V 10%	061298
C39	CAP ELECT 10UF 16V	066555	C109	CAP ELECT 100UF 25V	066447
C40	CAP MONO 100PF 100V 10% NPO	061300	C110	CAP MONO 22PF 200V 10%	061298
C41	CAP MONO 100PF 100V 10% NPO	061300	C111	CAP ELECT 22UF 100V	066506
C42	CAP MONO 22PF 200V 10% NPO	061298	C112	CAP ELECT 22UF 100V	066506
C43	CAP MONO 22PF 200V 10% NPO	061298	C113	CAP MONO 22PF 200V 10% NPO	061298
C44	CAP ELECT 10UF 16V	066555	C114	CAP MONO 22PF 200V 10%	061298
C45	CAP ELECT 10UF 16V	066555	C115	CAP MONO .1UF 50V 20%	061305
C46	CAP ELECT 10UF 16V	066555	C116	CAP MONO .1UF 50V 20%	061305
C47	CAP ELECT 10UF 16V	066555	C117	CAP ELECT 10UF 16V	066555
C48	CAP ELECT 10UF 100VDC	066462	C118	CAP MONO .1UF 50V 20%	061305
C49	CAP MONO 100PF 100V 10% NPO	061300	C119	CAP MONO .1UF 50V 20%	061305
C50	CAP MONO .1UF 50V 20%	061305	C120	CAP MONO .1UF 50V 20%	061305
C51	CAP MONO .1UF 50V 20%	061305	C121	CAP MONO .1UF 50V 20%	061305
C52	CAP MONO 22PF 200V 10% NPO	061298	C123	CAP ELECT 10UF 50V	066445
C53	CAP ELECT 4.7UF 50V	066512	C124	CAP ELECT 10UF 50V	066445
C54	CAP MONO .1UF 50V 20%	061305	C128	CAP MONO 22PF 200V 10% NPO	061298
C55	CAP ELECT 47UF 35V	066446	C129	CAP MONO 100PF 100V 10% NPO	061300
C56	CAP ELECT 10UF 50V	066445	C130	CAP MONO 22PF 200V 10% NPO	061298
C57	CAP ELECT 10UF 50V	066445	C131	CAP MONO 22PF 200V 10% NPO	061298
C58	CAP ELECT 10UF 50V	066445	C132	CAP ELECT 10UF 100VDC	066462
C59	CAP MONO 100PF 100V 10% NPO	061300	C133	CAP MONO 100PF 100V 10% NPO	061300
C60	CAP ELECT 10UF 50V	066445	C134	CAP MONO 22PF 200V 10% NPO	061298
C61	CAP MONO 100PF 100V 10% NPO	061300	C135	CAP ELECT 10UF 16V	066555
C62	CAP MONO 22PF 200V 10% NPO	061298	C136	CAP MONO .1UF 50V 20%	061305
C63	CAP MONO 100PF 100V 10% NPO	061300	C138	CAP MONO 100PF 100V 10% NPO	061300
C64	CAP MONO .1UF 50V 20%	061305	C139	CAP MONO .1UF 50V 20%	061305
C65	CAP ELECT 10UF 100VDC	066462	C140	CAP MONO .1UF 50V 20%	061305
C66	CAP ELECT 4.7UF 50V	066512	C142	CAP ELECT 10UF 16V	066555
C67	CAP MONO 22PF 200V 10% NPO	061298	C143	CAP ELECT 10UF 100VDC	066462

MAIN LEFT PCB 050103 (Cont'd)

Ref. No.	Description	Part No.	Ref. No.	Description	Part No.
C159	CAP MONO 22PF 200V 10%	061298	Q12	TRANSISTOR PNP POWER	132255
C160	CAP ELECT 10UF 50V	066445	Q13	TRANSISTOR SI NPN 25V	132254
C162	CAP MONO .1UF 50V 20%	061305	Q14	TRANSISTOR PNP	132224
C163	CAP MONO .1UF 50V 20%	061305	Q15	TRANSISTOR PNP	132224
C168	CAP MONO 22PF 200V 10%	061298	Q16	TRANSISTOR PNP	132224
D1	DIODE SILICON	070047	Q17	TRANSISTOR PNP	132224
D2	DIODE SILICON	070047	Q18	TRANSISTOR PNP	132224
D3	DIODE SILICON	070047	Q19	TRANSISTOR N JFET	132222
D4	DIODE SILICON	070047	Q20	TRANSISTOR N JFET	132222
D5	DIODE SILICON	070047	Q21	TRANSISTOR N JFET	132222
D6	DIODE SILICON	070047	Q22	TRANSISTOR N JFET	132222
D7	DIODE SILICON	070047	Q23	TRANSISTOR NPN	132223
D8	DIODE SILICON	070047	Q24	TRANSISTOR SI NPN 25V	132254
D9	DIODE SILICON	070047	Q25	TRANSISTOR SI NPN 25V	132254
D10	DIODE SILICON	070047	Q26	TRANSISTOR SI NPN 25V	132254
D11	DIODE SILICON	070047	Q27	TRANSISTOR PNP POWER	132255
D13	DIODE SILICON	070047	Q28	TRANSISTOR NPN	132262
GP1	BRACKET PCB CARD MOUNTING	003611	Q29	TRANSISTOR NPN	132223
GP2	BRACKET PCB CARD MOUNTING	003611	Q30	TRANSISTOR PNP	132224
J1	JACK PHONO GOLD	117862	Q31	TRANSISTOR PNP	132261
J2	JACK PHONO GOLD	117862	Q32	TRANSISTOR PNP POWER	132255
J3	JACK PHONO GOLD	117862	Q33	TRANSISTOR PNP POWER	132255
J4	JACK PHONO GOLD	117862	Q34	TRANSISTOR PNP POWER	132255
J5	JACK PHONO GOLD	117862	Q35	TRANSISTOR SI NPN 25V	132254
J6	JACK PHONO GOLD	117862	Q36	TRANSISTOR PNP	132224
J7	JACK PHONO GOLD	117862	Q37	TRANSISTOR NPN	132223
J8	CONN 12 PIN FFC	117720	Q38	TRANSISTOR SI NPN 25V	132254
J9	HEADER SHROUDED 2ROW 26PIN	117870	Q39	TRANSISTOR SI NPN 25V	132254
J10	HEADER 2 PIN LATCHING	117766	Q40	TRANSISTOR PNP POWER	132255
J11	CONN 12 PIN FFC	117720	Q41	TRANSISTOR SI NPN 25V	132254
J12	CONN 12 PIN FFC	117720	Q42	TRANSISTOR NPN	132262
J13	HEADER 2 PIN LATCHING	117766	Q43	TRANSISTOR NPN	132223
J14	CONN 12 PIN FFC	117720	Q44	TRANSISTOR PNP	132224
K1	RELAY REED FORM 1A 5V 500 OHMS	087050	Q45	TRANSISTOR PNP	132261
K2	RELAY REED FORM 1A 5V 500 OHMS	087050	Q46	TRANSISTOR NPN	132223
K3	RELAY REED FORM 1A 5V 500 OHMS	087050	Q47	TRANSISTOR PNP POWER	132255
K4	RELAY REED FORM 1A 5V 500 OHMS	087050	Q48	TRANSISTOR SI NPN 25V	132254
K5	RELAY REED FORM 1C 5V 125 OHM	087056	Q49	TRANSISTOR PNP POWER	132255
K6	RELAY REED FORM 1A 5V 500 OHMS	087050	Q50	TRANSISTOR PNP POWER	132255
K7	RELAY REED FORM 1A 5V 500 OHMS	087050	Q51	TRANSISTOR NPN	132223
K8	RELAY REED FORM 1A 5V 500 OHMS	087050	Q52	TRANSISTOR PNP	132224
K9	RELAY REED FORM 1A 5V 500 OHMS	087050	Q53	TRANSISTOR NPN	132223
K10	RELAY REED FORM 1A 5V 500 OHMS	087050	Q54	TRANSISTOR NPN	132223
K11	RELAY REED FORM 1A 5V 500 OHMS	087050	Q55	TRANSISTOR NPN	132223
K12	RELAY REED FORM 1A 5V 500 OHMS	087050	Q56	TRANSISTOR NPN	132223
K13	RELAY REED FORM 1A 5V 500 OHMS	087050	R1	RES MF 1K 1% 1/4W	144090
K14	RELAY REED FORM 1A 5V 500 OHMS	087050	R2	RES MF 1K 1% 1/4W	144090
K15	RELAY REED FORM 1C 5V 125 OHM	087056	R3	RES MF 47.5K 1% 1/4W	144108
K16	RELAY REED FORM 1C 5V 125 OHM	087056	R4	RES MF 22.1K 1% 1/4W	144187
K17	RELAY REED FORM 1C 5V 125 OHM	087056	R5	RES MF 2.21 OHM 1/4W 1%	144378
K18	RELAY REED FORM 1C 5V 125 OHM	087056	R6	RES MF 2.21 OHM 1/4W 1%	144378
K19	RELAY REED FORM 1A 5V 500 OHMS	087050	R7	RES MF 2.21 OHM 1/4W 1%	144378
K20	RELAY REED FORM 1A 5V 500 OHMS	087050	R8	RES MF 2.21 OHM 1/4W 1%	144378
K21	RELAY REED FORM 1A 5V 500 OHMS	087050	R9	RES MF 7.5K OHM 1/4W 0.5%	144376
K22	RELAY REED FORM 1A 5V 500 OHMS	087050	R10	RES MF 7.5K OHM 1/4W 0.5%	144376
K23	RELAY REED FORM 1A 5V 500 OHMS	087050	R11	RES MF 89.8K 1/4W 0.5%	144377
K24	RELAY REED FORM 1A 5V 500 OHMS	087050	R12	RES MF 89.8K 1/4W 0.5%	144377
K25	RELAY REED FORM 1A 5V 500 OHMS	087050	R13	RES MF 95.3 OHM 1% 1/4W	144220
MC1	ASSY PCB PHONO MC	050104	R14	RES MF 182 OHM 1% 1/4W	144273
Q1	TRANSISTOR NPN	132223	R15	RES MF 499 OHM 1% 1/4W	144087
Q2	TRANSISTOR PNP	132254	R16	RES MF 499 OHM 1% 1/4W	144087
Q3	TRANSISTOR PNP	132254	R17	RES MF 100K 1% 1/4W	144113
Q4	TRANSISTOR PNP	132254	R18	RES MF 10K 1% 1/4W	144053
Q5	TRANSISTOR PNP POWER	132255	R19	RES MF 100K 1% 1/4W	144113
Q6	TRANSISTOR NPN	132262	R20	RES MF 10K 1% 1/4W	144053
Q7	TRANSISTOR NPN	132223	R21	RES MF 100K 1% 1/4W	144113
Q8	TRANSISTOR PNP	132224	R22	RES MF 100K 1% 1/4W	144113
Q9	TRANSISTOR PNP	132261	R23	RES MF 10K 1% 1/4W	144053
Q10	TRANSISTOR PNP POWER	132255	R24	RES MF 10K 1% 1/4W	144053
Q11	TRANSISTOR PNP POWER	132255	R25	RES MF 1K 1% 1/4W	144090

PARTS LIST *Cont'd*

MAIN LEFT PCB 050103 (Cont'd)

Ref. No.	Description	Part No.	Ref. No.	Description	Part No.
R26	RES MF 1K 1% 1/4W	144090	R107	RES MF 5.36K .5% 1/4W	144399
R27	RES MF 1K 1% 1/4W	144090	R108	RES MF 3.79k .1%	144398
R28	RES MF 1K 1% 1/4W	144090	R109	RES MF 47.5K 1% 1/4W	144108
R29	RES MF 4.75K 1% 1/4W	144097	R110	RES MF 2.67K .5%	144397
R30	RES MF 267K 1% 1/4W	144118	R111	RES MF 1.91K .5% 1/4W	144395
R31	RES MF 4.75K 1% 1/4W	144097	R112	RES FP 10 OHM 5% 1/4W	137025
R32	RES MF 1.82K 1% 1/4W	144296	R113	RES MF 11K 1% 1/4W	144101
R33	RES MF 1.82K 1% 1/4W	144296	R114	RES MF 475K 1% 1/4W	144364
R34	RES MF 2.21K 1% 1/4W	144298	R115	RES MF 475K 1% 1/4W	144364
R35	RES MF 20K 1% 1/4W	144104	R116	RES MF 475K 1% 1/4W	144364
R36	RES MF 267K 1% 1/4W	144118	R117	RES MF 475K 1% 1/4W	144364
R37	RES MF 182 OHM 1% 1/4W	144273	R118	RES MF 4.75K 1% 1/4W	144097
R38	RES MF 22.1 OHM 1% 1/4W	144160	R119	RES MF 1M 1/4W 1%	144269
R39	RES MF 22.1 OHM 1% 1/4W	144160	R120	RES MF 1M 1/4W 1%	144269
R40	RES MF 6.49K .5% 1/4W	144401	R121	RES MF 1M 1/4W 1%	144269
R41	RES MF 20K 1% 1/4W	144104	R122	RES MF 1M 1/4W 1%	144269
R42	RES MET OX 430 OHM .5W 5%	137095	R123	RES MF 11K 1% 1/4W	144101
R43	RES MET OX 430 OHM .5W 5%	137095	R124	RES MF 5.36K .5% 1/4W	144399
R44	RES MF 22.1K 1% 1/4W	144187	R125	RES MF 3.79k .1%	144398
R50	RES MF 100K 1% 1/4W	144113	R126	RES MF 2.67K .5%	144397
R51	RES MF 33.2K 1% 1/4W	144015	R127	RES MF 1.91K .5% 1/4W	144395
R52	RES MF 1K 1% 1/4W	144090	R128	RES MF 365 OHM 1/4W	144071
R53	RES MF 4.99K 1% 1/4W	144098	R130	RES MF 1.5K 1% 1/4W	144128
R54	RES MF 4.99K 1% 1/4W	144098	R132	RES MF 10 OHM 1% 1/4W	144157
R55	RES MF 2.21 OHM 1/4W 1%	144378	R133	RES MF 100K 1% 1/4W	144113
R56	RES MF 2.21 OHM 1/4W 1%	144378	R134	RES MF 2.74K 1% 1/4W	144304
R59	RES MF 47.5K 1% 1/4W	144108	R135	RES MF 200K 1% 1/4W	144117
R60	RES MF 47.5K 1% 1/4W	144108	R136	RES MF 1.5K 1% 1/4W	144128
R61	RES MF 47.5K 1% 1/4W	144108	R137	RES MF 10 OHM 1% 1/4W	144157
R62	RES MF 47.5K 1% 1/4W	144108	R138	RES MF 47.5 OHM 1% 1/4W	144442
R63	RES MF 10 OHM 1% 1/4W	144157	R139	RES MF 33.2K 1% 1/4W	144015
R64	RES MF 10 OHM 1% 1/4W	144157	R140	RES MF 4.75K 1% 1/4W	144097
R65	RES MF 47.5K 1% 1/4W	144108	R141	RES MF 365 OHM 1/4W	144071
R66	RES MF 47.5K 1% 1/4W	144108	R142	RES MET OX 47 OHM .5W 5%	137096
R67	RES MF 2.21 OHM 1/4W 1%	144378	R144	RES MET OX 47 OHM .5W 5%	137096
R69	RES MF 1K 1% 1/4W	144090	R145	RES MF 4.75K 1% 1/4W	144097
R70	RES MF 221 OHM 1% 1/4W	144172	R146	RES MF 365 OHM 1/4W 1%	144071
R71	RES MF 33.2K 1% 1/4W	144015	R147	RES MF 3.32K 1% 1/4W	144095
R72	RES MF 681 OHM 1% 1/4W	144195	R148	RES MF 182 OHM 1% 1/4W	144273
R74	RES MF 267K 1% 1/4W	144118	R149	RES MF 2.21K 1% 1/4W	144298
R75	RES MF 2.21 OHM 1/4W 1%	144378	R150	RES MF 1.65K 1% 1/4W	144093
R76	RES MF 1.21K 1% 1/4W	144191	R151	RES MF 22.1K 1% 1/4W	144187
R77	RES MF 4.99K 1% 1/4W	144098	R152	RES MF 22.1 OHM 1/4W 1%	144160
R79	RES MF 1K 1% 1/4W	144090	R153	RES MF 182 OHM 1% 1/4W	144273
R80	RES MF 681 OHM 1% 1/4W	144195	R154	RES MF 3.32K 1% 1/4W	144095
R81	RES MF 33.2K 1% 1/4W	144015	R155	RES MF 1.65K 1% 1/4W	144093
R83	RES MF 1.21K 1% 1/4W	144191	R156	RES MF 100K 1% 1/4W	144113
R84	RES MF 267K 1% 1/4W	144118	R157	RES MF 47.5 OHM 1% 1/4W	144442
R86	RES MF 4.75K 1% 1/4W	144097	R158	RES MF 22.1 OHM 1/4W 1%	144160
R87	RES MF 365 OHM 1/4W	144071	R159	RES MF 200K 1% 1/4W	144117
R88	RES MF 47.5K 1% 1/4W	144108	R160	RES MF 182 OHM 1% 1/4W	144273
R90	RES MF 1.5K 1% 1/4W	144128	R161	RES MF 2.21K 1% 1/4W	144298
R92	RES MF 100K 1% 1/4W	144113	R162	RES MF 47.5 OHM 1% 1/4W	144442
R93	RES MF 10 OHM 1% 1/4W	144157	R163	RES MF 365 OHM 1/4W 1%	144071
R94	RES MF 2.74K 1% 1/4W	144304	R165	RES MF 4.75K 1% 1/4W	144097
R95	RES MF 200K 1% 1/4W	144117	R166	RES MF 10K 1% 1/4W	144053
R96	RES MF 1.5K 1% 1/4W	144128	R167	RES MF 2.21 OHM 1/4W 1%	144378
R97	RES MF 47.5 OHM 1% 1/4W	144442	R168	RES MF 2.21 OHM 1/4W 1%	144378
R98	RES MF 10 OHM 1% 1/4W	144157	R170	RES MF 100K 1% 1/4W	144113
R99	RES MF 33.2K 1% 1/4W	144015	R171	RES MF 4.75K 1% 1/4W	144097
R100	RES MF 221K 1% 1/4W	144421	R172	RES MF 267K 1% 1/4W	144118
R101	RES MF 4.75K 1% 1/4W	144097	R173	RES MF 182 OHM 1% 1/4W	144273
R102	RES MF 221K 1% 1/4W	144421	R174	RES MF 4.75K 1% 1/4W	144097
R103	RES MF 221K 1% 1/4W	144421	R175	RES MF 4.75K 1% 1/4W	144097
R104	RES MF 221K 1% 1/4W	144421	R176	RES MF 4.75K 1% 1/4W	144097
R105	RES MF 365 OHM 1/4W	144071	R177	RES MF 1K 1% 1/4W	144090
R106	RES FP 10 OHM 5% 1/4W	137025	R178	RES MF 1K 1% 1/4W	144090

MAIN LEFT PCB 050103 (Cont'd)

Ref. No.	Description	Part No.
R179	RES MF 1K 1% 1/4W	144090
R180	RES MF 1K 1% 1/4W	144090
R181	RES MF 1K 1% 1/4W	144090
R182	RES MF 1K 1% 1/4W	144090
R183	RES MF 4.75K 1% 1/4W	144097
R184	RES MF 4.75K 1% 1/4W	144097
R185	RES MF 2.21 OHM 1/4W 1%	144378
R186	RES MF 267K 1% 1/4W	144118
R187	RES MF 2.21K 1% 1/4W	144298
R188	RES MF 267K 1% 1/4W	144118
R189	RES MF 2.21K 1% 1/4W	144298
R190	RES MF 47.5 OHM 1% 1/4W	144442
R191	RES MF 22.1K 1/4W	144187
R193	RES MF 2.21 OHM 1/4W 1%	144378
R194	RES MF 2.21 OHM 1/4W 1%	144378
R196	RES MF 2.21 OHM 1/4W 1%	144378
R197	RES MF 10K 1% 1/4W	144053
R198	RES MF 10K 1% 1/4W	144053
R199	RES MF 4.99K 1% 1/4W	144098
R200	RES MF 22.1K 1% 1/4W	144187
R201	RES MF 2.21 OHM 1/4W 1%	144378
R202	RES MF 267K 1% 1/4W	144118
R205	RES MF 22.1K 1% 1/4W	144187
R206	RES MF 2.21 OHM 1% 1/4W	144378
R207	RES MF 4.99K 1% 1/4W	144098
R208	RES MF 1K 1% 1/4W	144090
R209	RES MF 267K 1% 1/4W	144118
R210	RES MF 1K 1% 1/4W	144090
R211	RES MF 1K 1% 1/4W	144090
R212	RES MF 4.99K 1% 1/4W	144098
R213	RES MF 4.99K 1% 1/4W	144098
R214	RES MF 2.21 OHM 1/4W 1%	144378
R215	RES MF 182 OHM 1% 1/4W	144273
R216	RES MF 221 OHM 1% 1/4W	144172
R217	RES MF 2.21 OHM 1% 1/4W	144378
R218	RES MF 2.21K 1% 1/4W	144298
R221	RES MF 221 OHM 1% 1/4W	144172
R222	RES MF 6.49K .5% 1/4W	144401
U1	IC OPERATIONAL AMP LOW NOISE	133067
U2	IC OPERATIONAL AMP LOW NOISE	133067
U3	IC OCTAL DARLNGTON TRANS ARRAY	133258
(U3)	SOCKET IC 18-PIN DIP	178109
U4	IC OCTAL DARLNGTON TRANS ARRAY	133258
(U4)	SOCKET IC 18-PIN DIP	178109
U5	IC OCTAL DARLNGTON TRANS ARRAY	133258
(U5)	SOCKET IC 18-PIN DIP	178109
U6	IC OCTAL DARLNGTON TRANS ARRAY	133258
(U6)	SOCKET IC 18-PIN DIP	178109
U7	IC SHFT REG SER-PAR	133186
U8	IC SHFT REG SER-PAR	133186
U9	IC SHFT REG SER-PAR	133186
U10	IC SHFT REG SER-PAR	133186
U11	IC OPERATIONAL AMP LOW NOISE	133067
U12	IC OPERATIONAL AMP LOW NOISE	133067
U13	IC OPERATIONAL AMP LOW NOISE	133067
U14	IC OPERATIONAL AMP LOW NOISE	133067
U15	IC STEREO DGTL VOLUME CONTROL	133331
U16	IC OPERATIONAL AMP LOW NOISE	133067
U17	IC OPERATIONAL AMP LOW NOISE	133067
U18	IC REGULATOR 5V	133250
U19	IC -5V REGULATOR	133253
U20	IC SHFT REG SER-PAR	133186
U21	IC REGULATOR 5V	133250
U22	IC SHFT REG SER-PAR	133186
U23	IC -5V REGULATOR	133253
U24	IC OPERATIONAL AMP LOW NOISE	133067
U27	IC OPERATIONAL AMP LOW NOISE	133067
U28	IC OPERATIONAL AMP LOW NOISE	133067
U29	IC OPERATIONAL AMP LOW NOISE	133067
U30	IC OPERATIONAL AMP LOW NOISE	133067
U31	IC OPERATIONAL AMP LOW NOISE	133067

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MAIN RIGHT PCB 050102

Ref. No.	Description	Part No.
C1	CAP ELECT 10UF 16V	066555
C2	CAP ELECT 47UF 35V	066446
C3	CAP MONO 47PF 200V 10% NPO	061299
C4	CAP MONO 47PF 200V 10% NPO	061299
C5	CAP MONO 100PF 100V 10% NPO	061300
C6	CAP MONO 100PF 100V 10% NPO	061300
C7	CAP ELECT 10UF 100VDC	066462
C8	CAP ELECT 10UF 100VDC	066462
C9	CAP MONO .1uF 50V 20% Z5U	061305
C10	CAP MONO .1uF 50V 20% Z5U	061305
C11	CAP MONO 220PF 200V 10%	061301
C12	CAP ELECT 220UF 25V	066507
C13	CAP MONO .1uF 50V 20% Z5U	061305
C14	CAP MONO .1uF 50V 20% Z5U	061305
C15	CAP POLYPROP 0.01UF 63V 2.5%	064444
C16	CAP POLYPROP 0.01UF 63V 2.5%	064444
C17	CAP POLYPROP .033uF 63V 2.5%	064446
C18	CAP POLYPROP .033uF 63V 2.5%	064446
C19	CAP ELECT 470UF 16V	066508
C20	CAP ELECT 470UF 16V	066508
C21	CAP MPF 0.0015UF 5% 63VDC	064302
C22	CAP MPF 0.0015UF 5% 63VDC	064302
C23	CAP ELECT 10UF 16V	066555
C24	CAP ELECT 10UF 16V	066555
C25	CAP MONO 47PF 200V 10%	061299
C26	CAP ELECT 100UF 25V	066447
C27	CAP ELECT 10UF 16V	066555
C28	CAP MONO 100PF 100V 10%	061300
C29	CAP ELECT 220UF 25V	066507
C30	CAP MONO 100PF 100V 10%	061300
C31	CAP MONO 100PF 100V 10%	061300
C32	CAP MONO 390PF 200V 5%	061314
C33	CAP ELECT 10UF 50V	066445
C34	CAP ELECT 10UF 50V	066445
C35	CAP MONO .1UF 50V 20%	061305
C36	CAP MONO 100PF 100V 10%	061300
C37	CAP ELECT 47UF 35V	066446
C38	CAP MONO .1UF 50V 20%	061305
C39	CAP ELECT 10UF 16V 4X5 CASE	066555
C40	CAP MONO 100PF 100V 10% NPO	061300
C41	CAP MONO 100PF 100V 10% NPO	061300
C42	CAP MONO 22PF 200V 10% NPO	061298
C43	CAP MONO 22PF 200V 10% NPO	061298
C44	CAP ELECT 10UF 16V	066555
C45	CAP ELECT 10UF 16V	066555
C46	CAP ELECT 10UF 16V	066555
C47	CAP ELECT 10UF 16V	066555
C48	CAP ELECT 10UF 100VDC	066462
C49	CAP MONO 100PF 100V 10%	061300
C50	CAP MONO .1UF 50V 20%	061305
C51	CAP MONO .1UF 50V 20%	061305
C52	CAP MONO 22PF 200V 10% NPO	061298
C53	CAP ELECT 4.7UF 50V	066512
C54	CAP MONO .1UF 50V 20%	061305
C55	CAP ELECT 47UF 35V	066446
C56	CAP ELECT 10UF 50V	066445
C57	CAP ELECT 10UF 50V	066445
C58	CAP ELECT 10UF 50V	066445
C59	CAP MONO 100PF 100V 10% NPO	061300
C60	CAP ELECT 10UF 50V	066445
C61	CAP MONO 100PF 100V 10% NPO	061300
C62	CAP MONO 22PF 200V 10% NPO	061298
C63	CAP MONO 100PF 100V 10% NPO	061300
C64	CAP MONO .1UF 50V 20%	061305
C65	CAP ELECT 10UF 100VDC	066462
C66	CAP ELECT 4.7UF 50V	066512
C67	CAP MONO 22PF 200V 10% NPO	061298
C68	CAP ELECT 10UF 100VDC	066462
C69	CAP MONO .1UF 50V 20%	061305

PARTS LIST *Cont'd*

MAIN RIGHT PCB 050102 (Cont'd)

Ref. No.	Description	Part No.	Ref. No.	Description	Part No.
C70	CAP ELECT 10UF 50V	066445	C163	CAP MONO .1UF 50V 20%	061305
C71	CAP ELECT 10UF 50V	066445	C168	CAP MONO 22PF 200V 10%	061298
C72	CAP ELECT 47UF 35V	066446	D1	DIODE SILICON	070047
C73	CAP MONO .1UF 50V 20%	061305	D2	DIODE SILICON	070047
C74	CAP MONO 100PF 100V 10% NPO	061300	D3	DIODE SILICON	070047
C75	CAP MONO 100PF 100V 10% NPO	061300	D4	DIODE SILICON	070047
C76	CAP MONO .1UF 50V 20%	061305	D5	DIODE SILICON	070047
C77	CAP MONO .1UF 50V 20%	061305	D6	DIODE SILICON	070047
C78	CAP MONO 22PF 200V 10% NPO	061298	D7	DIODE SILICON	070047
C79	CAP ELECT 10UF 50V	066445	D8	DIODE SILICON	070047
C80	CAP MONO .1UF 50V 20%	061305	D9	DIODE SILICON	070047
C81	CAP ELECT 10UF 50V	066445	D10	DIODE SILICON	070047
C82	CAP MONO .1UF 50V 20%	061305	D11	DIODE SILICON	070047
C83	CAP ELECT 10UF 50V	066445	D13	DIODE SILICON	070047
C84	CAP MONO 22PF 200V 10% NPO	061298	GP1	BRACKET PCB CARD MOUNTING	003611
C85	CAP ELECT 10UF 50V	066445	GP2	BRACKET PCB CARD MOUNTING	003611
C86	CAP ELECT 10UF 50V	066445	J1	JACK PHONO GOLD	117862
C87	CAP ELECT 10UF 50V	066445	J2	JACK PHONO GOLD	117862
C88	CAP ELECT 47UF 35V	066446	J3	JACK PHONO GOLD	117862
C89	CAP MONO 100PF 100V 10% NPO	061300	J4	JACK PHONO GOLD	117862
C90	CAP MONO 100PF 100V 10% NPO	061300	J5	JACK PHONO GOLD	117862
C92	CAP MONO 220PF 100V 10% NPO	061301	J6	JACK PHONO GOLD	117862
C93	CAP MONO .1UF 50V 20%	061305	J7	JACK PHONO GOLD	117862
C95	CAP MONO 22PF 200V 10% NPO	061298	J8	CONN 12 PIN FFC	117720
C96	CAP MONO 22PF 200V 10% NPO	061298	J9	HEADER SHROUDED 2ROW 26PIN	117870
C97	CAP ELECT 100UF 25V	066447	J10	HEADER 2 PIN LATCHING	117766
C98	CAP MONO 22PF 200V 10% NPO	061298	J11	CONN 12 PIN FFC	117720
C99	CAP ELECT 22UF 100V	066506	J12	CONN 12 PIN FFC	117720
C100	CAP ELECT 100UF 25V	066447	J13	HEADER 2 PIN LATCHING	117766
C102	CAP ELECT 22UF 100V	066506	J14	CONN 12 PIN FFC	117720
C103	CAP MONO 1000PF 50V 10%	061303	J15	HEADER 2 PIN LATCHING	117766
C104	CAP MONO 1000PF 50V 10%	061303	K1	RELAY REED FORM 1A 5V 500 OHMS	087050
C105	CAP MONO 1000PF 50V 10%	061303	K2	RELAY REED FORM 1A 5V 500 OHMS	087050
C106	CAP MONO 1000PF 50V 10%	061303	K3	RELAY REED FORM 1A 5V 500 OHMS	087050
C107	CAP ELECT 100UF 25V	066447	K4	RELAY REED FORM 1A 5V 500 OHMS	087050
C108	CAP MONO 22PF 200V 10% NPO	061298	K5	RELAY REED FORM 1C 5V 125 OHM	087056
C109	CAP ELECT 100UF 25V	066447	K6	RELAY REED FORM 1A 5V 500 OHMS	087050
C110	CAP MONO 22PF 200V 10% NPO	061298	K7	RELAY REED FORM 1A 5V 500 OHMS	087050
C111	CAP ELECT 22UF 100V	066506	K8	RELAY REED FORM 1A 5V 500 OHMS	087050
C112	CAP ELECT 22UF 100V	066506	K9	RELAY REED FORM 1A 5V 500 OHMS	087050
C113	CAP MONO 22PF 200V 10% NPO	061298	K10	RELAY REED FORM 1A 5V 500 OHMS	087050
C114	CAP MONO 22PF 200V 10% NPO	061298	K11	RELAY REED FORM 1A 5V 500 OHMS	087050
C115	CAP MONO .1UF 50V 20%	061305	K12	RELAY REED FORM 1A 5V 500 OHMS	087050
C116	CAP MONO .1UF 50V 20%	061305	K13	RELAY REED FORM 1A 5V 500 OHMS	087050
C117	CAP ELECT 10UF 16V	066555	K14	RELAY REED FORM 1A 5V 500 OHMS	087050
C118	CAP MONO .1UF 50V 20%	061305	K15	RELAY REED FORM 1C 5V 125 OHM	087056
C119	CAP MONO .1UF 50V 20%	061305	K16	RELAY REED FORM 1A 5V 500 OHMS	087050
C120	CAP MONO .1UF 50V 20%	061305	K17	RELAY REED FORM 1C 5V 125 OHM	087056
C121	CAP MONO .1UF 50V 20%	061305	K18	RELAY REED FORM 1A 5V 500 OHMS	087050
C123	CAP ELECT 10UF 50V	066445	K19	RELAY REED FORM 1A 5V 500 OHMS	087050
C124	CAP ELECT 10UF 50V	066445	K20	RELAY REED FORM 1A 5V 500 OHMS	087050
C128	CAP MONO 22PF 200V 10% NPO	061298	K21	RELAY REED FORM 1A 5V 500 OHMS	087050
C129	CAP MONO 100PF 100V 10% NPO	061300	K22	RELAY REED FORM 1A 5V 500 OHMS	087050
C130	CAP MONO 22PF 200V 10% NPO	061298	K23	RELAY REED FORM 1A 5V 500 OHMS	087050
C131	CAP MONO 22PF 200V 10% NPO	061298	K24	RELAY REED FORM 1A 5V 500 OHMS	087050
C132	CAP ELECT 10UF 100VDC	066462	K25	RELAY REED FORM 1A 5V 500 OHMS	087050
C133	CAP MONO 100PF 100V 10% NPO	061300	MC1	ASSY PCB PHONO MC	050104
C134	CAP MONO 22PF 200V 10% NPO	061298	Q1	TRANSISTOR NPN	132223
C135	CAP ELECT 10UF 16V	066555	Q2	TRANSISTOR PNP	132254
C136	CAP MONO .1UF 50V 20%	061305	Q3	TRANSISTOR PNP	132254
C138	CAP MONO 100PF 100V 10% NPO	061300	Q4	TRANSISTOR PNP	132254
C139	CAP MONO .1UF 50V 20%	061305	Q5	TRANSISTOR PNP POWER	132255
C140	CAP MONO .1UF 50V 20%	061305	Q6	TRANSISTOR NPN	132262
C142	CAP ELECT 10UF 16V	066555	Q7	TRANSISTOR NPN	132223
C143	CAP ELECT 10UF 100VDC	066462	Q8	TRANSISTOR PNP	132224
C159	CAP MONO 22PF 200V 10% NPO	061298	Q9	TRANSISTOR PNP	132261
C160	CAP ELECT 10UF 50V	066445	Q10	TRANSISTOR PNP POWER	132255
C162	CAP MONO .1UF 50V 20%	061305	Q11	TRANSISTOR PNP POWER	132255

MAIN RIGHT PCB 050102 (Cont'd)

Ref. No.	Description	Part No.	Ref. No.	Description	Part No.
Q12	TRANSISTOR PNP POWER	132255	R26	RES MF 1K 1% 1/4W	144090
Q13	TRANSISTOR PNP	132254	R27	RES MF 1K 1% 1/4W	144090
Q14	TRANSISTOR PNP	132224	R28	RES MF 1K 1% 1/4W	144090
Q15	TRANSISTOR PNP	132224	R29	RES MF 4.75K 1% 1/4W	144097
Q16	TRANSISTOR PNP	132224	R30	RES MF 267K 1% 1/4W	144118
Q17	TRANSISTOR PNP	132224	R31	RES MF 4.75K 1% 1/4W	144097
Q18	TRANSISTOR PNP	132224	R32	RES MF 4.75K 1% 1/4W	144097
Q19	TRANSISTOR N JFET	132222	R33	RES MF 100 OHM 1% 1/4W	144196
Q20	TRANSISTOR N JFET	132222	R34	RES MF 1.82K 1% 1/4W	144296
Q21	TRANSISTOR N JFET	132222	R35	RES MF 1.82K 1% 1/4W	144296
Q22	TRANSISTOR N JFET	132222	R36	RES MF 267K 1% 1/4W	144118
Q23	TRANSISTOR NPN	132223	R37	RES MF 182 OHM 1% 1/4W	144273
Q24	TRANSISTOR PNP	132254	R38	RES MF 22.1 OHM 1% 1/4W	144160
Q25	TRANSISTOR PNP	132254	R39	RES MF 22.1 OHM 1% 1/4W	144160
Q26	TRANSISTOR PNP	132254	R40	RES MF 2.21K 1% 1/4W	144298
Q27	TRANSISTOR PNP POWER	132255	R41	RES MF 20K 1% 1/4W	144104
Q28	TRANSISTOR NPN	132262	R42	RES MF 6.49K .5% 1/4W	144401
Q29	TRANSISTOR NPN	132223	R43	RES MF 20K 1% 1/4W	144104
Q30	TRANSISTOR PNP	132224	R44	RES MF 22.1K 1% 1/4W	144187
Q31	TRANSISTOR PNP	132261	R45	RES MET OX 430 OHM .5W 5%	137095
Q32	TRANSISTOR PNP POWER	132255	R46	RES MET OX 430 OHM .5W 5%	137095
Q33	TRANSISTOR PNP POWER	132255	R50	RES MF 100K 1% 1/4W	144113
Q34	TRANSISTOR PNP POWER	132255	R51	RES MF 33.2K 1% 1/4W	144015
Q35	TRANSISTOR PNP	132254	R52	RES MF 1K 1% 1/4W	144090
Q36	TRANSISTOR PNP	132224	R53	RES MF 4.99K 1% 1/4W	144098
Q37	TRANSISTOR NPN	132223	R54	RES MF 4.99K 1% 1/4W	144098
Q38	TRANSISTOR PNP	132254	R55	RES MF 2.21 OHM 1/4W 1%	144378
Q39	TRANSISTOR PNP	132254	R56	RES MF 2.21 OHM 1/4W 1%	144378
Q40	TRANSISTOR PNP POWER	132255	R59	RES MF 47.5K 1% 1/4W	144108
Q41	TRANSISTOR PNP	132254	R60	RES MF 47.5K 1% 1/4W	144108
Q42	TRANSISTOR NPN	132262	R61	RES MF 47.5K 1% 1/4W	144108
Q43	TRANSISTOR NPN	132223	R62	RES MF 47.5K 1% 1/4W	144108
Q44	TRANSISTOR PNP	132224	R63	RES MF 10 OHM 1% 1/4W	144157
Q45	TRANSISTOR PNP	132261	R64	RES MF 10 OHM 1% 1/4W	144157
Q46	TRANSISTOR NPN	132223	R65	RES MF 47.5K 1% 1/4W	144108
Q47	TRANSISTOR PNP POWER	132255	R66	RES MF 47.5K 1% 1/4W	144108
Q48	TRANSISTOR PNP	132254	R67	RES MF 2.21 OHM 1/4W 1%	144378
Q49	TRANSISTOR PNP POWER	132255	R69	RES MF 1K 1% 1/4W	144090
Q50	TRANSISTOR PNP POWER	132255	R70	RES MF 221 OHM 1% 1/4W	144172
Q51	TRANSISTOR NPN	132223	R71	RES MF 33.2K 1% 1/4W	144015
Q52	TRANSISTOR PNP	132224	R72	RES MF 681 OHM 1% 1/4W	144195
Q53	TRANSISTOR NPN	132223	R74	RES MF 267K 1% 1/4W	144118
Q54	TRANSISTOR NPN	132223	R75	RES MF 2.21 OHM 1/4W 1%	144378
Q55	TRANSISTOR NPN	132223	R76	RES MF 1.21K 1% 1/4W	144191
Q56	TRANSISTOR NPN	132223	R77	RES MF 4.99K 1% 1/4W	144098
Q61	TRANSISTOR NPN	132223	R79	RES MF 1K 1% 1/4W	144090
R1	RES MF 1K 1% 1/4W	144090	R80	RES MF 681 OHM 1% 1/4W	144195
R2	RES MF 1K 1% 1/4W	144090	R81	RES MF 33.2K 1% 1/4W	144015
R3	RES MF 47.5K 1% 1/4W	144108	R83	RES MF 1.21K 1% 1/4W	144191
R4	RES MF 22.1K 1% 1/4W	144187	R84	RES MF 267K 1% 1/4W	144118
R5	RES MF 2.21 OHM 1/4W 1%	144378	R86	RES MF 4.75K 1% 1/4W	144097
R6	RES MF 2.21 OHM 1/4W 1%	144378	R87	RES MF 365 OHM 1% 1/4W	144071
R7	RES MF 2.21 OHM 1/4W 1%	144378	R88	RES MF 47.5K 1% 1/4W	144108
R8	RES MF 2.21 OHM 1/4W 1%	144378	R90	RES MF 1.5K 1% 1/4W	144128
R9	RES MF 7.5K OHM 1/4W 0.5%	144376	R92	RES MF 100K 1% 1/4W	144113
R10	RES MF 7.5K OHM 1/4W 0.5%	144376	R93	RES MF 10 OHM 1% 1/4W	144157
R11	RES MF 89.8K 1/4W 0.5%	144377	R94	RES MF 2.74K 1% 1/4W	144304
R12	RES MF 89.8K 1/4W 0.5%	144377	R95	RES MF 200K 1% 1/4W	144117
R13	RES MF 95.3 OHM 1% 1/4W	144220	R96	RES MF 1.5K 1% 1/4W	144128
R14	RES MF 182 OHM 1% 1/4W	144273	R97	RES MF 47.5 OHM 1% 1/4W	144442
R15	RES MF 499 OHM 1% 1/4W	144087	R98	RES MF 10 OHM 1% 1/4W	144157
R16	RES MF 499 OHM 1% 1/4W	144087	R99	RES MF 33.2K 1% 1/4W	144015
R17	RES MF 100K 1% 1/4W	144113	R100	RES MF 221K 1% 1/4W	144421
R18	RES MF 10K 1% 1/4W	144053	R101	RES MF 4.75K 1% 1/4W	144097
R19	RES MF 100K 1% 1/4W	144113	R102	RES MF 221K 1% 1/4W	144421
R20	RES MF 10K 1% 1/4W	144053	R103	RES MF 221K 1% 1/4W	144421
R21	RES MF 100K 1% 1/4W	144113	R104	RES MF 221K 1% 1/4W	144421
R22	RES MF 100K 1% 1/4W	144113	R105	RES MF 365 OHM 1% 1/4W	144071
R23	RES MF 10K 1% 1/4W	144053	R106	RES FP 10 OHM 5% 1/4W	137025
R24	RES MF 10K 1% 1/4W	144053	R107	RES MF 5.36K .5% 1/4W	144399
R25	RES MF 1K 1% 1/4W	144090	R108	RES MF 3.79k .5% 1/4W	144398

PARTS LIST *Cont'd*

MAIN RIGHT PCB 050102 (Cont'd)

Ref. No.	Description	Part No.	Ref. No.	Description	Part No.
R109	RES MF 47.5K 1% 1/4W	144108	R182	RES MF 1K 1% 1/4W	144090
R110	RES MF 2.67K .5%	144397	R183	RES MF 4.75K 1% 1/4W	144097
R111	RES MF 1.91K .5% 1/4W	144395	R184	RES MF 4.75K 1% 1/4W	144097
R112	RES FP 10 OHM 5% 1/4W	137025	R185	RES MF 2.21 OHM 1/4W 1%	144378
R113	RES MF 11K 1% 1/4W	144101	R186	RES MF 267K 1% 1/4W	144118
R114	RES MF 475K 1% 1/4W	144364	R187	RES MF 2.21K 1% 1/4W	144298
R115	RES MF 475K 1% 1/4W	144364	R188	RES MF 267K 1% 1/4W	144118
R116	RES MF 475K 1% 1/4W	144364	R189	RES MF 2.21K 1% 1/4W	144298
R117	RES MF 475K 1% 1/4W	144364	R190	RES MF 47.5 OHM 1% 1/4W	144442
R118	RES MF 4.75K 1% 1/4W	144097	R191	RES MF 22.1K 1% 1/4W	144187
R119	RES MF 1M 1/4W 1%	144269	R193	RES MF 2.21 OHM 1/4W 1%	144378
R120	RES MF 1M 1/4W 1%	144269	R194	RES MF 2.21 OHM 1/4W 1%	144378
R121	RES MF 1M 1/4W 1%	144269	R196	RES MF 2.21 OHM 1/4W 1%	144378
R122	RES MF 1M 1/4W 1%	144269	R197	RES MF 10K 1% 1/4W	144053
R123	RES MF 11K 1% 1/4W	144101	R198	RES MF 10K 1% 1/4W	144053
R124	RES MF 5.36K .5% 1/4W	144399	R199	RES MF 4.99K 1% 1/4W	144098
R125	RES MF 3.79k .1% 1/4W	144398	R200	RES MF 22.1K 1% 1/4W	144187
R126	RES MF 2.67K .5% 1/4W	144397	R201	RES MF 2.21 OHM 1/4W 1%	144378
R127	RES MF 1.91K .5% 1/4W	144395	R202	RES MF 267K 1% 1/4W	144118
R128	RES MF 365 OHM 1% 1/4W	144071	R205	RES MF 22.1K 1% 1/4W	144187
R130	RES MF 1.5K 1% 1/4W	144128	R206	RES MF 2.21 OHM 1/4W 1%	144378
R132	RES MF 10 OHM 1% 1/4W	144157	R207	RES MF 4.99K 1% 1/4W	144098
R133	RES MF 100K 1% 1/4W	144113	R208	RES MF 1K 1% 1/4W	144090
R134	RES MF 2.74K 1% 1/4W	144304	R209	RES MF 267K 1% 1/4W	144118
R135	RES MF 200K 1% 1/4W	144117	R210	RES MF 1K 1% 1/4W	144090
R136	RES MF 1.5K 1% 1/4W	144128	R211	RES MF 1K 1% 1/4W	144090
R137	RES MF 10 OHM 1% 1/4W	144157	R212	RES MF 4.99K 1% 1/4W	144098
R138	RES MF 47.5 OHM 1% 1/4W	144442	R213	RES MF 4.99K 1% 1/4W	144098
R139	RES MF 33.2K 1% 1/4W	144015	R214	RES MF 2.21 OHM 1/4W 1%	144378
R140	RES MF 4.75K 1% 1/4W	144097	R215	RES MF 182 OHM 1% 1/4W	144273
R141	RES MF 365 OHM 1% 1/4W	144071	R216	RES MF 221 OHM 1% 1/4W	144172
R142	RES MET OX 47 OHM .5W 5%	137096	R217	RES MF 2.21 OHM 1/4W 1%	144378
R144	RES MET OX 47 OHM .5W 5%	137096	R218	RES MF 2.21K 1% 1/4W	144298
R145	RES MF 4.75K 1% 1/4W	144097	R221	RES MF 221 OHM 1% 1/4W	144172
R146	RES MF 365 OHM 1% 1/4W	144071	R222	RES MF 6.49K .5% 1/4W	144401
R147	RES MF 3.32K 1% 1/4W	144095	U1	IC OPERATIONAL AMP LOW NOISE	133067
R148	RES MF 182 OHM 1% 1/4W	144273	(U2)	IC OPERATIONAL AMP LOW NOISE	133067
R149	RES MF 2.21K 1% 1/4W	144298	U3	IC OCTAL DARLNGTON TRANS ARRAY	133258
R150	RES MF 1.65K 1% 1/4W	144093	(U3)	SOCKET IC 18-PIN DIP	178109
R151	RES MF 22.1K 1% 1/4W	144187	U4	IC OCTAL DARLNGTON TRANS ARRAY	133258
R152	RES MF 22.1 OHM 1% 1/4W	144160	(U4)	SOCKET IC 18-PIN DIP	178109
R153	RES MF 182 OHM 1% 1/4W	144273	U5	IC OCTAL DARLNGTON TRANS ARRAY	133258
R154	RES MF 3.32K 1% 1/4W	144095	(U5)	SOCKET IC 18-PIN DIP	178109
R155	RES MF 1.65K 1% 1/4W	144093	U6	IC OCTAL DARLNGTON TRANS ARRAY	133258
R156	RES MF 100K 1% 1/4W	144113	(U6)	SOCKET IC 18-PIN DIP	178109
R157	RES MF 47.5 OHM 1% 1/4W	144442	U7	IC SHFT REG SER-PAR	133186
R158	RES MF 22.1 OHM 1% 1/4W	144160	U8	IC SHFT REG SER-PAR	133186
R159	RES MF 200K 1% 1/4W	144117	U9	IC SHFT REG SER-PAR	133186
R160	RES MF 182 OHM 1% 1/4W	144273	U10	IC SHFT REG SER-PAR	133186
R161	RES MF 2.21K 1% 1/4W	144298	U11	IC OPERATIONAL AMP LOW NOISE	133067
R162	RES MF 47.5 OHM 1% 1/4W	144442	U12	IC OPERATIONAL AMP LOW NOISE	133067
R163	RES MF 365 OHM 1% 1/4W	144071	U13	IC OPERATIONAL AMP LOW NOISE	133067
R165	RES MF 4.75K 1% 1/4W	144097	U14	IC OPERATIONAL AMP LOW NOISE	133067
R166	RES MF 10K 1% 1/4W	144053	U15	IC STEREO DGTL VOLUME CONTROL	133331
R167	RES MF 2.21 OHM 1/4W 1%	144378	U16	IC OPERATIONAL AMP LOW NOISE	133067
R168	RES MF 2.21 OHM 1/4W 1%	144378	U17	IC OPERATIONAL AMP LOW NOISE	133067
R170	RES MF 100K 1% 1/4W	144113	U18	IC REGULATOR 5V	133250
R171	RES MF 4.75K 1% 1/4W	144097	U19	IC -5V REGULATOR	133253
R172	RES MF 267K 1% 1/4W	144118	U20	IC SHFT REG SER-PAR	133186
R173	RES MF 182 OHM 1% 1/4W	144273	U21	IC REGULATOR 5V	133250
R174	RES MF 4.75K 1% 1/4W	144097	U22	IC SHFT REG SER-PAR	133186
R175	RES MF 4.75K 1% 1/4W	144097	U23	IC -5V REGULATOR	133253
R176	RES MF 4.75K 1% 1/4W	144097	U24	IC OPERATIONAL AMP LOW NOISE	133067
R177	RES MF 1K 1% 1/4W	144090	U27	IC OPERATIONAL AMP LOW NOISE	133067
R178	RES MF 1K 1% 1/4W	144090	U28	IC OPERATIONAL AMP LOW NOISE	133067
R179	RES MF 1K 1% 1/4W	144090	U29	IC OPERATIONAL AMP LOW NOISE	133067
R180	RES MF 1K 1% 1/4W	144090	U30	IC OPERATIONAL AMP LOW NOISE	133067
R181	RES MF 1K 1% 1/4W	144090	U31	IC OPERATIONAL AMP LOW NOISE	133067

5 BALANCE I/O LEFT PCB 050105

Ref. No.	Description	Part No.
C1	CAP ELECT 10UF 16V	066555
C2	CAP ELECT 10UF 16V	066555
C3	CAP ELECT 10UF 16V	066555
C4	CAP ELECT 10UF 16V	066555
C5	CAP ELECT 10UF 16V	066555
C6	CAP ELECT 10UF 16V	066555
C7	CAP ELECT 47UF 16V	066380
C8	CAP ELECT 47UF 16V	066380
C9	CAP ELECT 47UF 16V	066380
C10	CAP ELECT 47UF 16V	066380
C11	CAP ELECT 47UF 16V	066380
C12	CAP ELECT 47UF 16V	066380
D1	DIODE SILICON	070047
D2	DIODE SILICON	070047
D3	DIODE SILICON	070047
J1	XLR FEMALE VERTICAL WITH LATCH	117813
J2	XLR FEMALE VERTICAL WITH LATCH	117813
J3	XLR FEMALE VERTICAL WITH LATCH	117813
J4	RECEPTACLE XLR MALE	117669
J5	XLR FEMALE OR MALE	117813
(J5)	XLR FEMALE OR MALE	117669
J6	TERMINAL STRIP 14 PIN .025 SQ	117647
(J6)	SOCKET	117644
J7	TERMINAL STRIP 14 PIN .025 SQ	117647
(J7)	SOCKET	117644
J8	RECEPTACLE XLR MALE	117669
J9	RECEPTACLE XLR MALE	117669
J10	RECEPTACLE XLR MALE	117669
J11	CONN 12 PIN FFC	117720
K1	RELAY REED FORM 1C 5V 125 OHM	087056
K2	RELAY REED FORM 1A 5V 500 OHMS	087050
K3	RELAY REED FORM 1A 5V 500 OHMS	087050
K4	RELAY REED FORM 1A 5V 500 OHMS	087050
K5	RELAY REED FORM 1A 5V 500 OHMS	087050
K6	RELAY REED FORM 1A 5V 500 OHMS	087050
K7	RELAY REED FORM 1A 5V 500 OHMS	087050
K8	RELAY REED FORM 1A 5V 500 OHMS	087050
K9	RELAY REED FORM 1A 5V 500 OHMS	087050
K10	RELAY REED FORM 1A 5V 500 OHMS	087050
K11	RELAY REED FORM 1A 5V 500 OHMS	087050
K12	RELAY REED FORM 1A 5V 500 OHMS	087050
K13	RELAY REED FORM 1A 5V 500 OHMS	087050
R1	RES MF 267K 1% 1/4W	144118
R2	RES MF 267K 1% 1/4W	144118
R3	RES MF 267K 1% 1/4W	144118
R4	RES MF 47.5 OHM 1% 1/4W	144442
R5	RES MF 47.5 OHM 1% 1/4W	144442
R6	RES MF 22.1K 1% 1/4W	144187
R7	RES MF 22.1K 1% 1/4W	144187
R8	RES MF 267K 1% 1/4W	144118
R9	RES MF 267K 1% 1/4W	144118
R10	RES MF 267K 1% 1/4W	144118
R11	RES MF 221 OHM 1% 1/4W	144172
R12	RES MF 221 OHM 1% 1/4W	144172
R13	RES MF 221 OHM 1% 1/4W	144172
R14	RES MF 221 OHM 1% 1/4W	144172
R15	RES MF 221 OHM 1% 1/4W	144172
R16	RES MF 221 OHM 1% 1/4W	144172
R17	RES MF 22.1K 1% 1/4W	144187
R18	RES MF 22.1K 1% 1/4W	144187
R19	RES MF 22.1K 1% 1/4W	144187
R20	RES MF 22.1K 1% 1/4W	144187
R21	RES MF 22.1K 1% 1/4W	144187
R22	RES MF 22.1K 1% 1/4W	144187

6 BALANCE I/O RIGHT PCB 050107

Ref. No.	Description	Part No.
C1	CAP ELECT 10UF 16V	066555
C2	CAP ELECT 10UF 16V	066555
C3	CAP ELECT 10UF 16V	066555
C4	CAP ELECT 10UF 16V	066555
C5	CAP ELECT 10UF 16V	066555
C6	CAP ELECT 10UF 16V	066555
C7	CAP ELECT 47UF 16V	066380
C8	CAP ELECT 47UF 16V	066380
C9	CAP ELECT 47UF 16V	066380
C10	CAP ELECT 47UF 16V	066380
C11	CAP ELECT 47UF 16V	066380
C12	CAP ELECT 47UF 16V	066380
D1	DIODE SILICON	070047
D2	DIODE SILICON	070047
D3	DIODE SILICON	070047
J1	XLR FEMALE VERTICAL WITH LATCH	117813
J2	XLR FEMALE VERTICAL WITH LATCH	117813
J3	XLR FEMALE VERTICAL WITH LATCH	117813
J4	RECEPTACLE XLR MALE	117669
J5	XLR FEMALE OR MALE	117813
(J5)	XLR FEMALE OR MALE	117669
J6	TERMINAL STRIP 14 PIN .025 SQ	117647
(J6)	SOCKET	117644
J7	TERMINAL STRIP 14 PIN .025 SQ	117647
(J7)	SOCKET	117644
J8	RECEPTACLE XLR MALE	117669
J9	RECEPTACLE XLR MALE	117669
J10	RECEPTACLE XLR MALE	117669
J11	CONN 12 PIN FFC	117720
K1	RELAY REED FORM 1C 5V 125 OHM	087056
K2	RELAY REED FORM 1A 5V 500 OHMS	087050
K3	RELAY REED FORM 1A 5V 500 OHMS	087050
K4	RELAY REED FORM 1A 5V 500 OHMS	087050
K5	RELAY REED FORM 1A 5V 500 OHMS	087050
K6	RELAY REED FORM 1A 5V 500 OHMS	087050
K7	RELAY REED FORM 1A 5V 500 OHMS	087050
K8	RELAY REED FORM 1A 5V 500 OHMS	087050
K9	RELAY REED FORM 1A 5V 500 OHMS	087050
K10	RELAY REED FORM 1A 5V 500 OHMS	087050
K11	RELAY REED FORM 1A 5V 500 OHMS	087050
K12	RELAY REED FORM 1A 5V 500 OHMS	087050
K13	RELAY REED FORM 1A 5V 500 OHMS	087050
R1	RES MF 267K 1% 1/4W	144118
R2	RES MF 267K 1% 1/4W	144118
R3	RES MF 267K 1% 1/4W	144118
R4	RES MF 47.5 OHM 1% 1/4W	144442
R5	RES MF 47.5 OHM 1% 1/4W	144442
R6	RES MF 22.1K 1% 1/4W	144187
R7	RES MF 22.1K 1% 1/4W	144187
R8	RES MF 267K 1% 1/4W	144118
R9	RES MF 267K 1% 1/4W	144118
R10	RES MF 267K 1% 1/4W	144118
R11	RES MF 221 OHM 1% 1/4W	144172
R12	RES MF 221 OHM 1% 1/4W	144172
R13	RES MF 221 OHM 1% 1/4W	144172
R14	RES MF 221 OHM 1% 1/4W	144172
R15	RES MF 221 OHM 1% 1/4W	144172
R16	RES MF 221 OHM 1% 1/4W	144172
R17	RES MF 22.1K 1% 1/4W	144187
R18	RES MF 22.1K 1% 1/4W	144187
R19	RES MF 22.1K 1% 1/4W	144187
R20	RES MF 22.1K 1% 1/4W	144187
R21	RES MF 22.1K 1% 1/4W	144187
R22	RES MF 22.1K 1% 1/4W	144187

PARTS LIST *Cont'd*

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BALANCE SWITCHING LEFT PCB 050108

Ref. No.	Description	Part No.
C1	CAP ELECT 10UF 50V	066445
C2	CAP MONO 100PF 100V 10% NPO	061300
C3	CAP MONO 100PF 100V 10% NPO	061300
C4	CAP MONO 22PF 200V 10% NPO	061298
C5	CAP MONO 22PF 200V 10% NPO	061298
C6	CAP ELECT 10UF 100VDC	066462
C10	CAP MONO .1uF 50V 20% Z5U	061305
C11	CAP MONO .1uF 50V 20% Z5U	061305
C14	CAP ELECT 47UF 35V	066446
C15	CAP ELECT 47UF 35V	066446
C16	CAP ELECT 47UF 35V	066446
C17	CAP MONO .1uF 50V 20% Z5U	061305
C18	CAP MONO .1uF 50V 20% Z5U	061305
C19	CAP ELECT 10UF 100VDC	066462
C21	CAP MONO 22PF 200V 10% NPO	061298
C22	CAP ELECT 47UF 35V	066446
C23	CAP MONO .1uF 50V 20% Z5U	061305
C24	CAP MONO .1uF 50V 20% Z5U	061305
C25	CAP ELECT 10UF 100VDC	066462
C27	CAP MONO 22PF 200V 10% NPO	061298
C30	CAP MONO 100PF 100V 10% NPO	061300
C31	CAP MONO .1uF 50V 20% Z5U	061305
C32	CAP MONO .1uF 50V 20% Z5U	061305
C35	CAP ELECT 10UF 100VDC	066462
C37	CAP MONO 100PF 100V 10% NPO	061300
C38	CAP MONO 22PF 200V 10% NPO	061298
C39	CAP MONO 22PF 200V 10% NPO	061298
C40	CAP MONO 100PF 100V 10% NPO	061300
C41	CAP MONO 100PF 100V 10% NPO	061300
C42	CAP MONO 100PF 100V 10% NPO	061300
C43	CAP MONO 100PF 100V 10% NPO	061300
C44	CAP ELECT 10UF 50V	066445
C45	CAP ELECT 10UF 50V	066445
C46	CAP ELECT 10UF 50V	066445
D1	DIODE SILICON	070047
IC1	IC OPERATIONAL AMP LOW NOISE	133067
IC2	IC OPERATIONAL AMP LOW NOISE	133067
IC3	IC OPERATIONAL AMP LOW NOISE	133067
IC4	IC OPERATIONAL AMP LOW NOISE	133067
IC5	IC OPERATIONAL AMP LOW NOISE	133067
IC6	IC OPERATIONAL AMP LOW NOISE	133067
J1	CONN 12 PIN FFC	117720
J2	CONN 12 PIN FFC	117720
J3	SOCKET STRIP 14 PIN .025 SQ	117644
J4	SOCKET STRIP 14 PIN .025 SQ	117644
K1	RELAY REED FORM 1A 5V 500 OHMS	087050
K2	RELAY REED FORM 1A 5V 500 OHMS	087050
K3	RELAY REED FORM 1A 5V 500 OHMS	087050
K4	RELAY REED FORM 1A 5V 500 OHMS	087050
K5	RELAY REED FORM 1A 5V 500 OHMS	087050
K6	RELAY REED FORM 1A 5V 500 OHMS	087050
K7	RELAY REED FORM 1C 5V 125 OHM	087056
R1	RES MF 47.5K 1% 1/4W	144108
R2	RES MF 1K 1% 1/4W	144090
R3	RES MF 10K 1% 1/4W	144053
R4	RES MF 10K 1% 1/4W	144053
R5	RES MF 2.21 OHM 1/4W 1%	144378
R6	RES MF 2.21 OHM 1/4W 1%	144378
R9	RES MF 47.5 OHM 1% 1/4W	144442
R10	RES MF 47.5K 1% 1/4W	144108
R11	RES MF 2.21 OHM 1/4W 1%	144378
R12	RES MF 2.21 OHM 1/4W 1%	144378
R13	RES MF 47.5 OHM 1% 1/4W	144442
R14	RES MF 47.5K 1% 1/4W	144108
R15	RES MF 4.99K 1% 1/4W	144098
R16	RES MF 4.99K 1% 1/4W	144098
R17	RES MF 2.21 OHM 1/4W 1%	144378

R18	RES MF 2.21 OHM 1/4W 1%	144378
R19	RES MF 10K 1% 1/4W	144053
R20	RES MF 10K 1% 1/4W	144053
R23	RES MF 2.21 OHM 1/4W 1%	144378
R24	RES MF 2.21 OHM 1/4W 1%	144378
R25	RES MF 1K 1% 1/4W	144090
R26	RES MF 267K 1% 1/4W	144118
R27	RES MF 267K 1% 1/4W	144118
R28	RES MF 267K 1% 1/4W	144118
R29	RES MF 1K 1% 1/4W	144090
R30	RES MF 1K 1% 1/4W	144090

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BALANCE SWITCHING RIGHT PCB 050155

Ref. No.	Description	Part No.
C1	CAP ELECT 10UF 50V	066445
C2	CAP MONO 100PF 100V 10% NPO	061300
C3	CAP MONO 100PF 100V 10% NPO	061300
C4	CAP MONO 22PF 200V 10% NPO	061298
C5	CAP MONO 22PF 200V 10% NPO	061298
C6	CAP ELECT 10UF 100VDC	066462
C10	CAP MONO .1uF 50V 20% Z5U	061305
C11	CAP MONO .1uF 50V 20% Z5U	061305
C14	CAP ELECT 47UF 35V	066446
C15	CAP ELECT 47UF 35V	066446
C16	CAP ELECT 47UF 35V	066446
C17	CAP MONO .1uF 50V 20% Z5U	061305
C18	CAP MONO .1uF 50V 20% Z5U	061305
C19	CAP ELECT 10UF 100VDC	066462
C21	CAP MONO 22PF 200V 10% NPO	061298
C22	CAP ELECT 47UF 35V	066446
C23	CAP MONO .1uF 50V 20% Z5U	061305
C24	CAP MONO .1uF 50V 20% Z5U	061305
C25	CAP ELECT 10UF 100VDC	066462
C27	CAP MONO 22PF 200V 10% NPO	061298
C30	CAP MONO 100PF 100V 10% NPO	061300
C31	CAP MONO .1uF 50V 20% Z5U	061305
C32	CAP MONO .1uF 50V 20% Z5U	061305
C35	CAP ELECT 10UF 100VDC	066462
C37	CAP MONO 100PF 100V 10% NPO	061300
C38	CAP MONO 22PF 200V 10% NPO	061298
C39	CAP MONO 22PF 200V 10% NPO	061298
C40	CAP MONO 100PF 100V 10% NPO	061300
C41	CAP MONO 100PF 100V 10% NPO	061300
C42	CAP MONO 100PF 100V 10% NPO	061300
C43	CAP MONO 100PF 100V 10% NPO	061300
C44	CAP ELECT 10UF 50V	066445
C45	CAP ELECT 10UF 50V	066445
C46	CAP ELECT 10UF 50V	066445
D1	DIODE SILICON	070047
IC1	IC OPERATIONAL AMP LOW NOISE	133067
IC2	IC OPERATIONAL AMP LOW NOISE	133067
IC3	IC OPERATIONAL AMP LOW NOISE	133067
IC4	IC OPERATIONAL AMP LOW NOISE	133067
IC5	IC OPERATIONAL AMP LOW NOISE	133067
IC6	IC OPERATIONAL AMP LOW NOISE	133067
J1	CONN 12 PIN FFC	117720
J2	CONN 12 PIN FFC	117720
J3	SOCKET STRIP 14 PIN .025 SQ	117644
J4	SOCKET STRIP 14 PIN .025 SQ	117644
K1	RELAY REED FORM 1A 5V 500 OHMS	087050
K2	RELAY REED FORM 1A 5V 500 OHMS	087050
K3	RELAY REED FORM 1A 5V 500 OHMS	087050
K4	RELAY REED FORM 1A 5V 500 OHMS	087050
K5	RELAY REED FORM 1A 5V 500 OHMS	087050
K6	RELAY REED FORM 1A 5V 500 OHMS	087050
K7	RELAY REED FORM 1C 5V 125 OHM	087056
R1	RES MF 47.5K 1% 1/4W	144108
R2	RES MF 1K 1% 1/4W	144090
R3	RES MF 10K 1% 1/4W	144053
R4	RES MF 10K 1% 1/4W	144053

PARTS LIST Cont'd

BALANCE SWITCHING RIGHT PCB 050155 (Cont'd)

Ref. No.	Description	Part No.
R5	RES MF 2.21 OHM 1/4W 1%	144378
R6	RES MF 2.21 OHM 1/4W 1%	144378
R9	RES MF 47.5 OHM 1% 1/4W	144442
R10	RES MF 47.5K 1% 1/4W	144108
R11	RES MF 2.21 OHM 1/4W 1%	144378
R12	RES MF 2.21 OHM 1/4W 1%	144378
R13	RES MF 47.5 OHM 1% 1/4W	144442
R14	RES MF 47.5K 1% 1/4W	144108
R15	RES MF 4.99K 1% 1/4W	144098
R16	RES MF 4.99K 1% 1/4W	144098
R17	RES MF 2.21 OHM 1/4W 1%	144378
R18	RES MF 2.21 OHM 1/4W 1%	144378
R19	RES MF 10K 1% 1/4W	144053
R20	RES MF 10K 1% 1/4W	144053
R23	RES MF 2.21 OHM 1/4W 1%	144378
R24	RES MF 2.21 OHM 1/4W 1%	144378
R25	RES MF 1K 1% 1/4W	144090
R26	RES MF 267K 1% 1/4W	144118
R27	RES MF 267K 1% 1/4W	144118
R28	RES MF 267K 1% 1/4W	144118
R29	RES MF 1K 1% 1/4W	144090
R30	RES MF 1K 1% 1/4W	144090

9 METER PCB 050106

Ref. No.	Description	Part No.
2	LOGO	
C1	CAP MONO .1UF 50V 20%	061305
C2	CAP ELECT 10UF 16V	066555
C3	CAP MONO .1UF 50V 20%	061305
C4	CAP MONO .1UF 50V 20%	061305
C6	CAP ELECT 47UF 16V	066380
C7	CAP MPF 0.47UF 5% 50/63VDC	064333
C8	CAP MONO .1UF 50V 20%	061305
C40	CAP MONO 22PF 200V 10% NPO	061298
D1	DIODE ZENER 5.1V	070132
D2	DIODE SILICON	070047
D3	DIODE ZENER 5.1V	070132
D4	DIODE SILICON	070047
D6	DIODE SILICON	070047
D8	DIODE SILICON	070047
D9	DIODE SILICON	070047
D12	DIODE SILICON	070047
DS1	LED BLUE 5MM HI-INT	058166
(DS1)	SPACER LED	112108

METER PCB 050106 (Cont'd)

Ref. No.	Description	Part No.
DS2	LED BLUE-GREEN HI-INTENSITY	058176
(DS2)	SPACER LED	112108
DS5	LED BLUE 5MM HI-INT	058166
(DS5)	SPACER LED	112108
DS6	LED BLUE-GREEN HI-INTENSITY	058176
(DS6)	SPACER LED	112108
J1	CONN 12 PIN FFC	117720
J3	CONNECTOR HEADER 2PIN RT ANGLE	117873
Q1	TRANSISTOR NPN	132223
Q3	TRANSISTOR NPN	132223
Q5	TRANSISTOR NPN	132223
Q7	TRANSISTOR NPN SILICON	132171
Q9	TRANSISTOR NPN	132223
R1	RES MF 100 OHM 1% 1/4W	144196
R2	RES MF 1.5K 1% 1/4W	144128
R3	RES MF 806 OHM 1% 1/4W	144089
R4	RES MF 10 OHM 1% 1/4W	144157
R5	RES MF 100K 1% 1/4W	144113
R6	RES MF 10 OHM 1% 1/4W	144157
R7	RES MF 10K 1% 1/4W	144053
R8	RES MF 22.1K 1% 1/4W	144187
R9	RES MF 806 OHM 1% 1/4W	144089
R10	RES MF 100K 1% 1/4W	144113
R11	RES MF 15K 1% 1/4W	144412
R12	RES MF 22.1K 1% 1/4W	144187
R13	POT TRIM 100K OHM 20%	134383
R15	RES MF 221 OHM 1% 1/4W	144172
R17	RES MF 2.21M 1/4W	144265
R21	RES MF 4.75K 1% 1/4W	144097
R23	RES MF 10K 1% 1/4W	144053
R25	RES MF 4.75K 1% 1/4W	144097
R26	POT TRIM 2K OHM 20%	134384
R27	POT TRIM 2K OHM 20%	134384
R30	RES 511 OHM 1% 1/4W	144123
R31	RES 511 OHM 1% 1/4W	144123
U12	IC OPERATIONAL AMP LOW NOISE	133067
U14	IC OPERATIONAL AMP LOW NOISE	133067

10 HEADPHONE PCB 050262

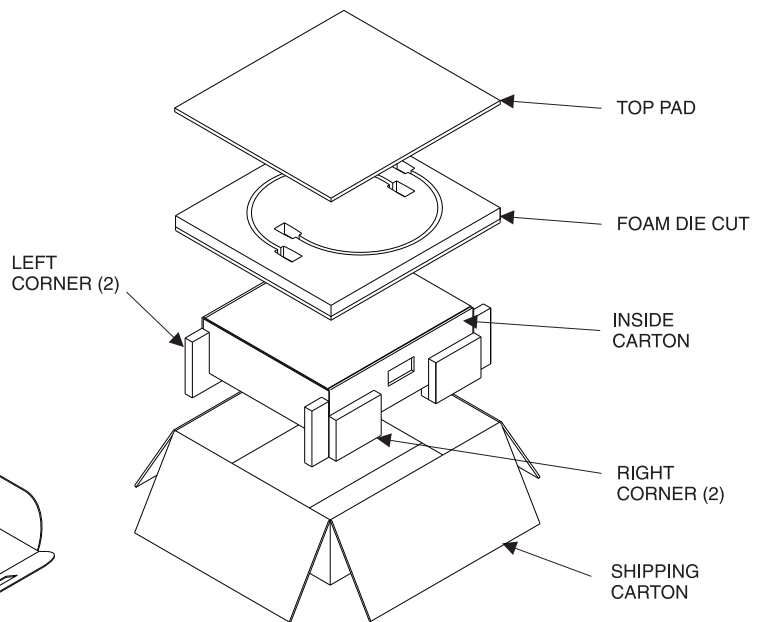
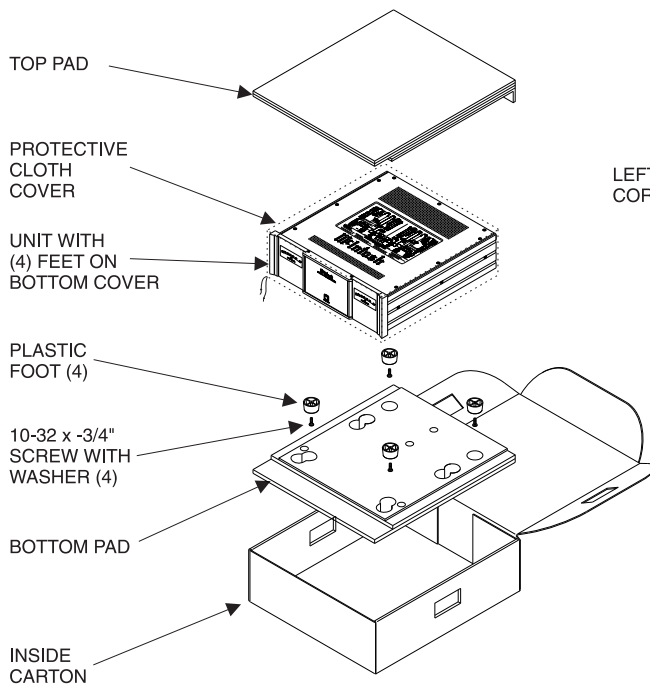
Ref. No.	Description	Part No.
2	LOGO	
J1	HEADPHONE JACK 1/4	117881
J2	CONNECTOR HEADER 2PIN RT ANGLE	117873
J3	CONNECTOR HEADER 2PIN RT ANGLE	117873

REPACKING INSTRUCTIONS

In the event it is necessary to repack the equipment for shipment, the equipment must be packed exactly as shown below. It is very important that the four plastic feet are attached to the bottom of the equipment. This will ensure the proper equipment location on the bottom pad. Failure to do this will result in shipping damage.

Use the original shipping carton and interior parts only if they are all in good serviceable condition. If a shipping carton or any of the interior part(s) are needed, please call or write Customer Service Department of McIntosh Laboratory. Refer to page 4. Please see the Part List for the correct part numbers.

Qty.	Part No.	Description
1	033888	Shipping carton only
2	034346	Foam left corner
2	034347	Foam right corner
1	034348	Foam top pad diecut for Manual and accessories
1	034345	Foam top pad diecut for cables
1	034351	Top pad
1	033836	Inside carton only
1	033725	Top pad
1	034301	Bottom pad
1	034355	Protective blue cloth cover
4	017937	Plastic foot
4	100159	#10-32 x 3/4" Machine screws
4	104080	Washer flat #10



C1000

PREAMPLIFIER

SERVICE MANUAL

SERIAL NO. WG1000 And Above



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