

1604-VLZ™

16 CHANNEL MIC/LINE MIXER

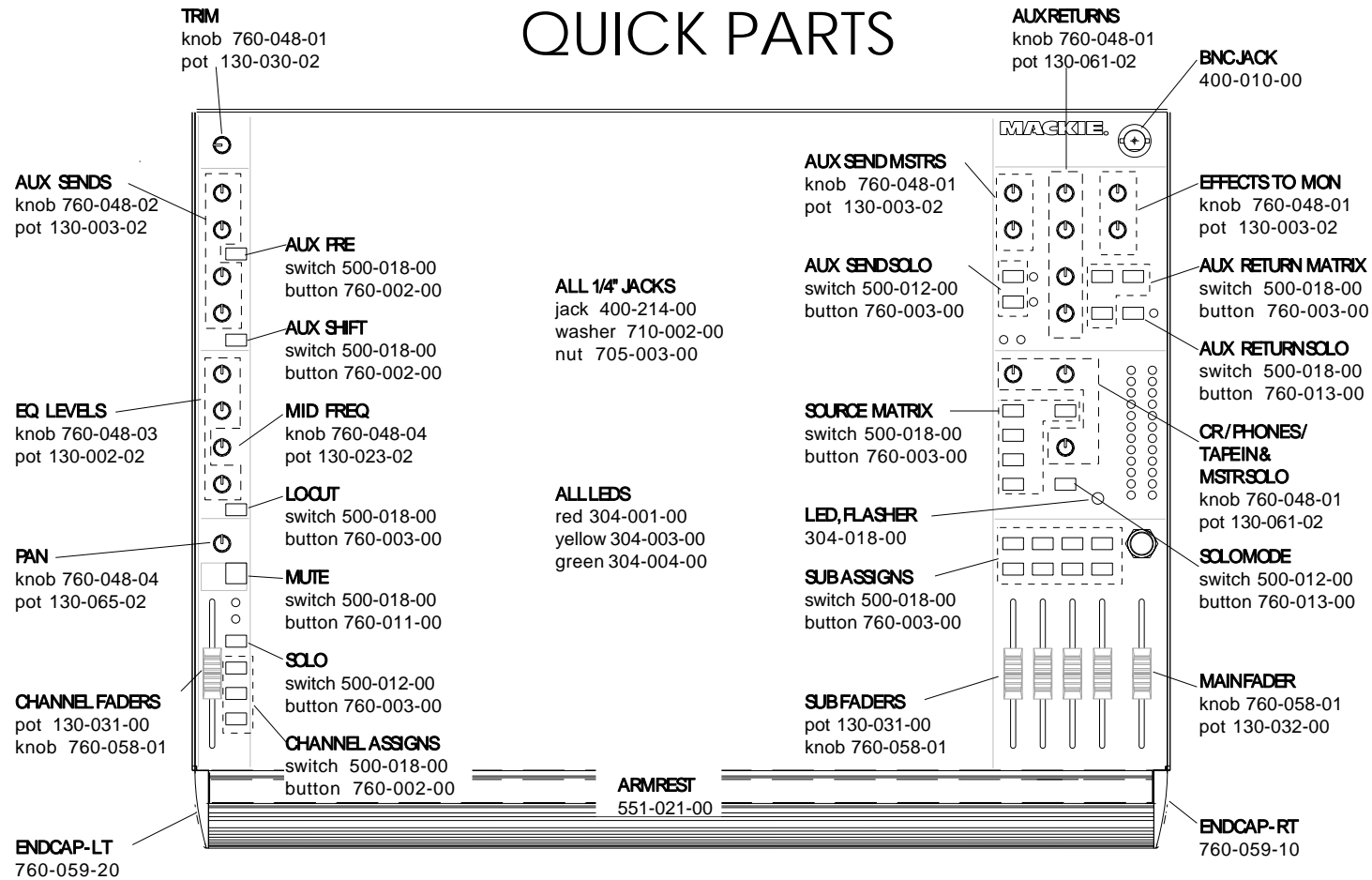


SERVICE MANUAL

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MACKIE DESIGNS INC., 16220 WOOD-RED ROAD, WOODINVILLE, WA 98072, USA
820-172-00 05/99

QUICK PARTS



POD COMPONENTS..

- ALL 1/4" JACKS**
jack 400-214-00
washer 710-00200
nut 705-003-00
- FEMALE XLR INPUT**
400-223-00
- RCA IN/OUT**
400-022-00
- IEC RECEPTACLE**
400-009-00
- PWR SWITCH**
500-013-00
- PHANTOM SW**
500-016-00
- MONO OUTPUT**
knob 760-007-00
pot 130-062-02

INTERNAL PARTS..

- TRANSFORMER**
100V 080-008-02
120V 080-008-00
230V 080-008-01
- FCB-POD**
055-219-00-01
- FCB-MAIN**
055-220-00-01
- FCB-PWR**
055-066-00

MISC...

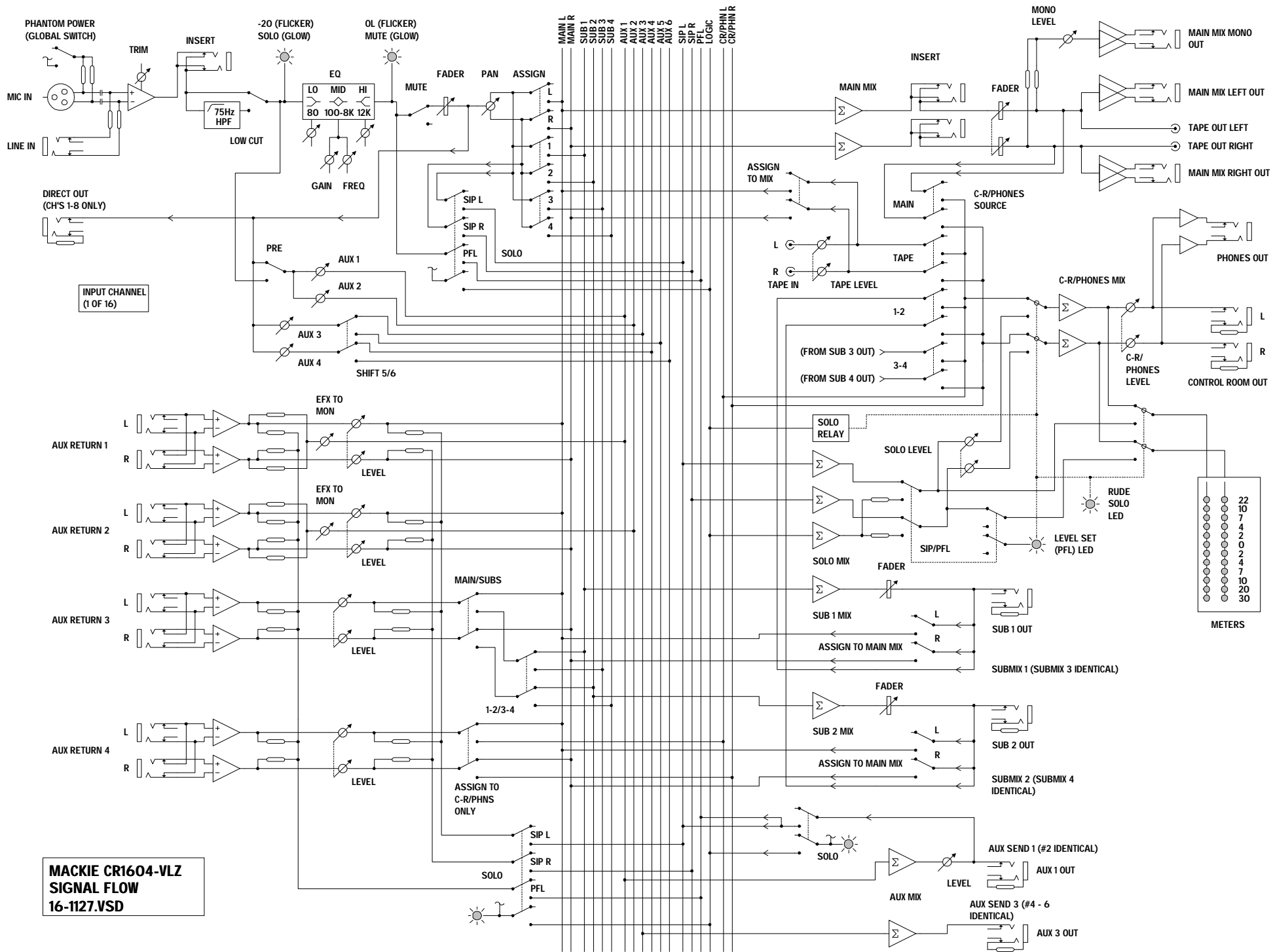
- ROTO RACK EARS**
L - 550-179-00
R - 550-180-00
- RACK EARS**
550-177-00 (X2)
- ACL IN CORD**
(120V) 640-001-00
- OWNER'S MANUAL**
820-034-01

SCREW PLACEMENT...

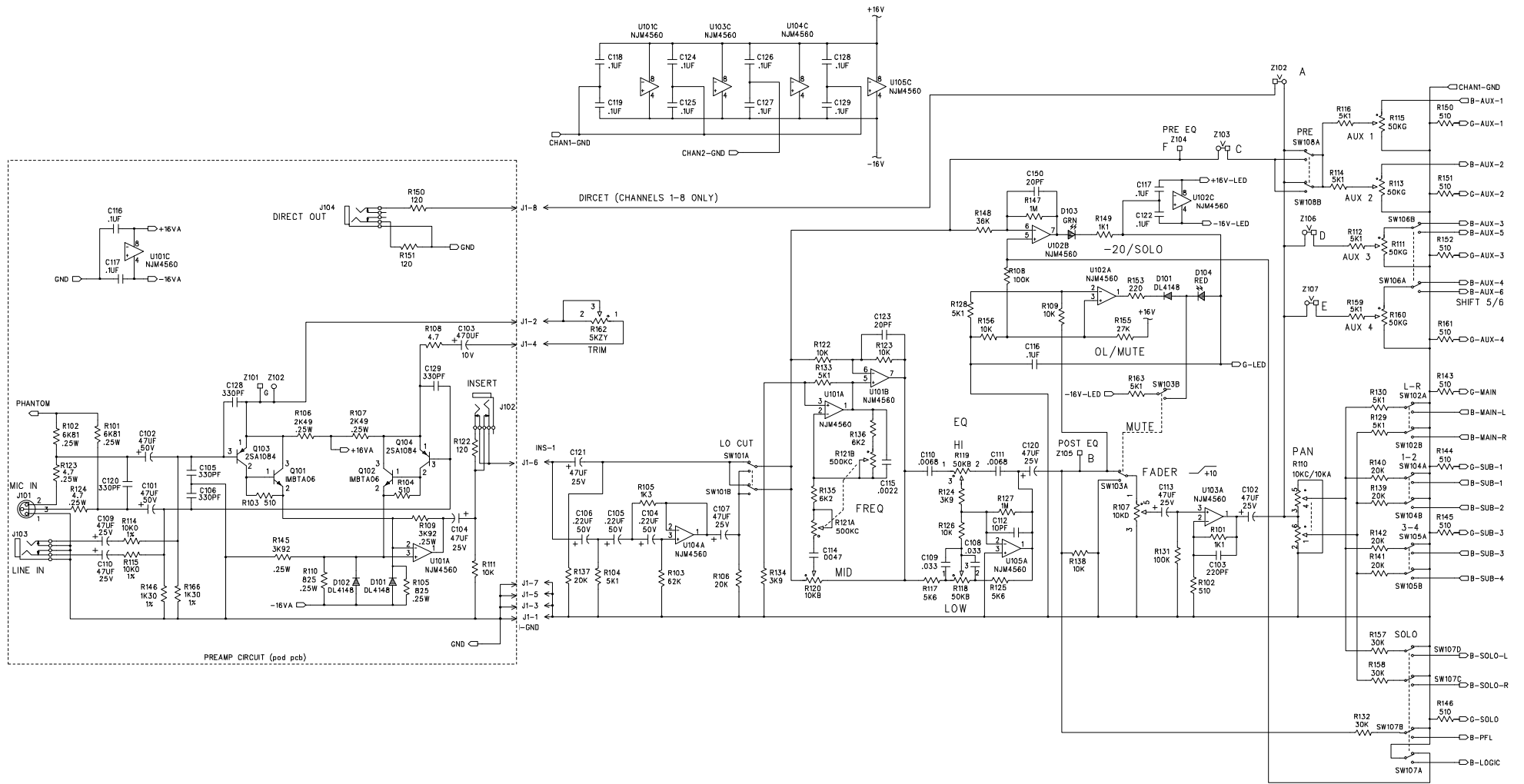
TOP ALLN SCREWS 700-011-00	SIDE SCREWS 700-006-00	XLR SCREWS 700-005-00
BOTTOM SCREWS 701-002-00	END CAP SCREWS 700-010-06	STAR GROUND screw 700-031-01 nut 705-001-00
SIDE POD SCREWS 700-004-00	PLATE SCREWS 700-010-00	

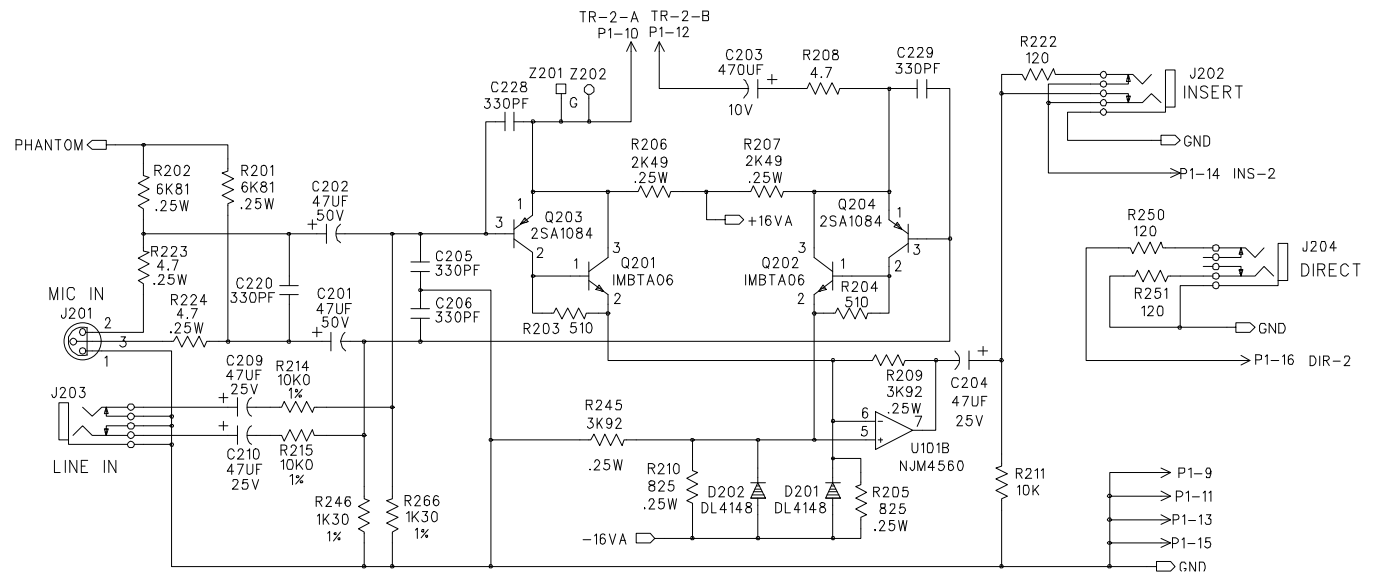
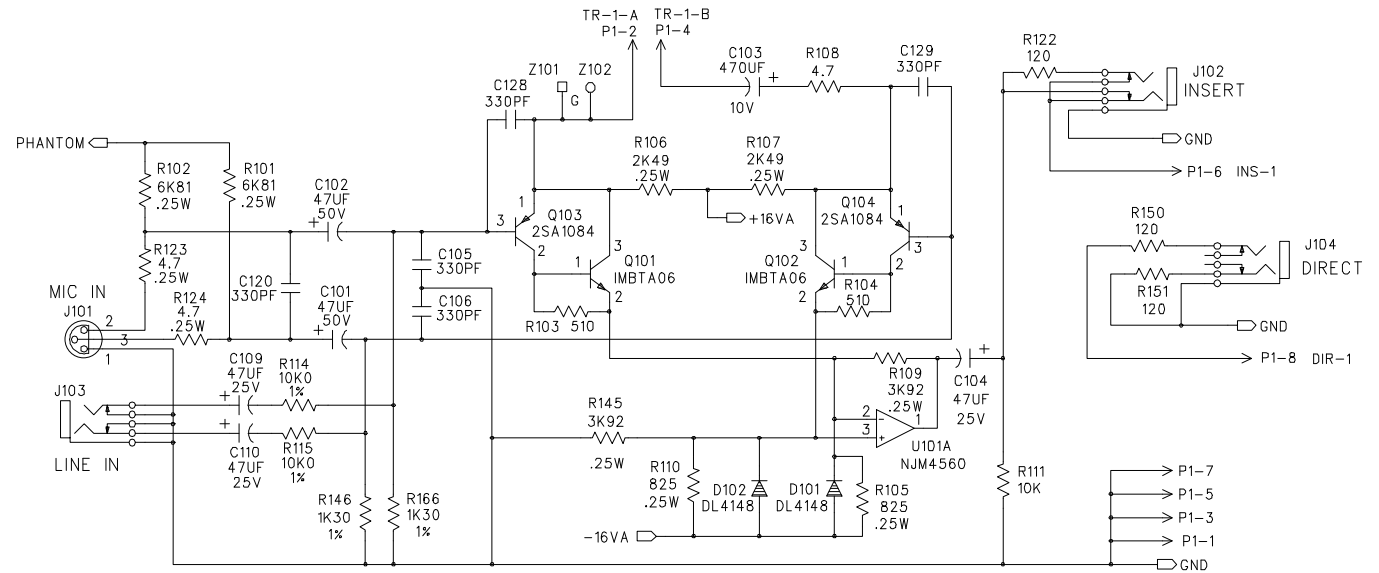
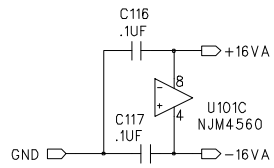
METAL...

CHASSIS BOTTOM 550-173-00	POD BOTTOM 550-175-00
CHASSIS TOP 550-172-10	POD TOP 550-174-00
CABLE PLATE 550-176-00	BUM FON 750-001-00



**MACKIE CR1604-VLZ
SIGNAL FLOW
16-1127.VSD**

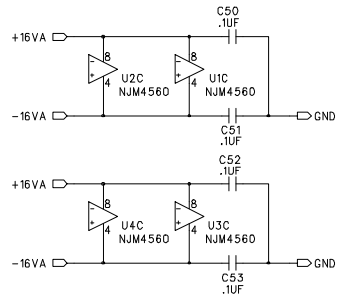
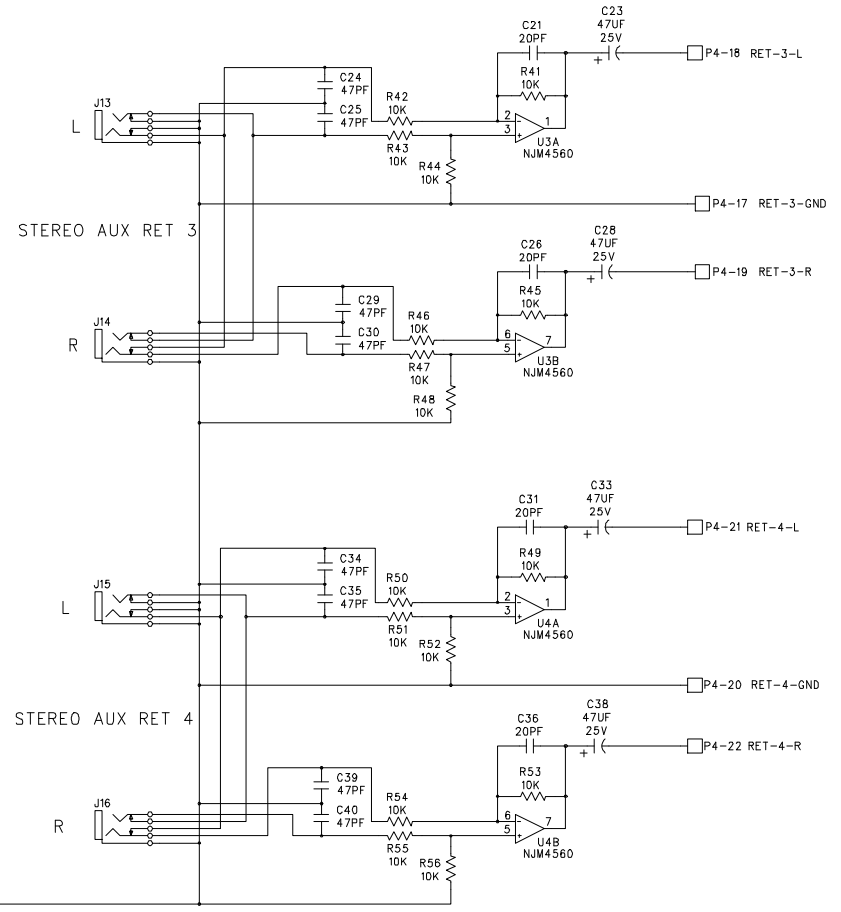
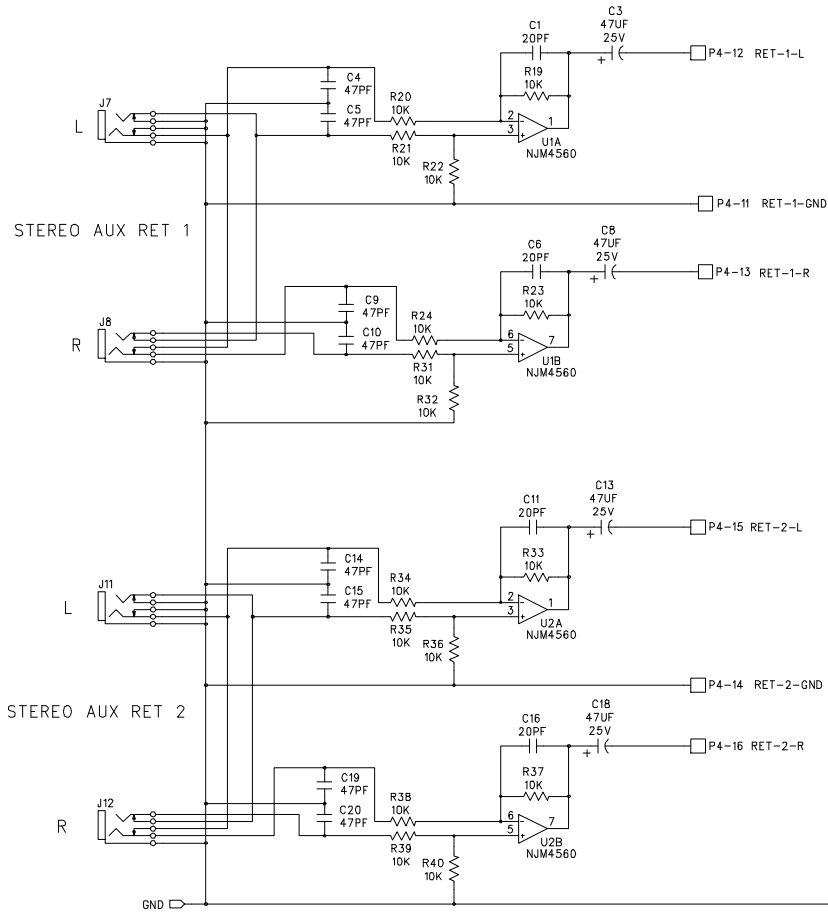




CHANNELS 1-2 SHOWN, 3-16 SIMILAR

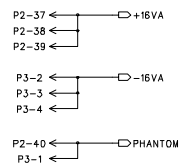
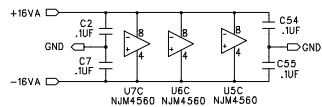
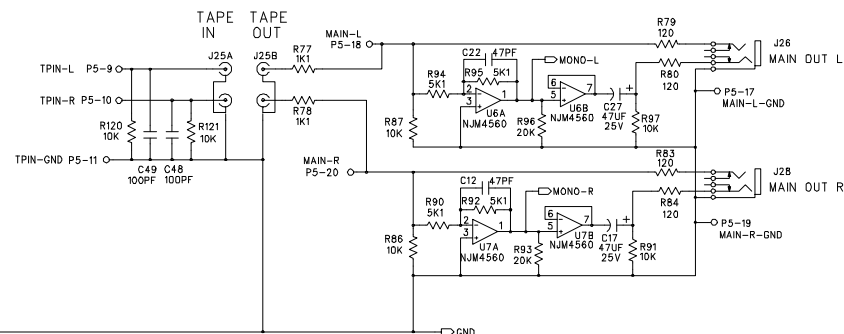
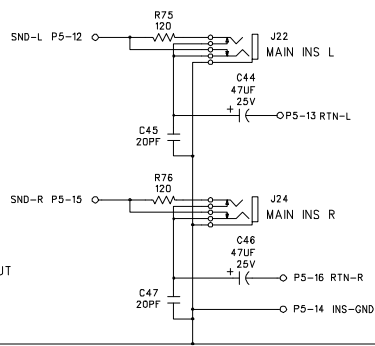
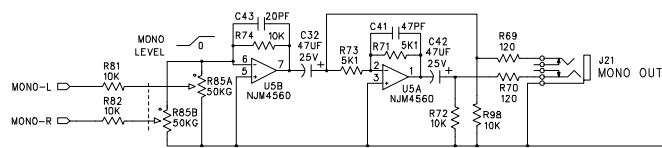
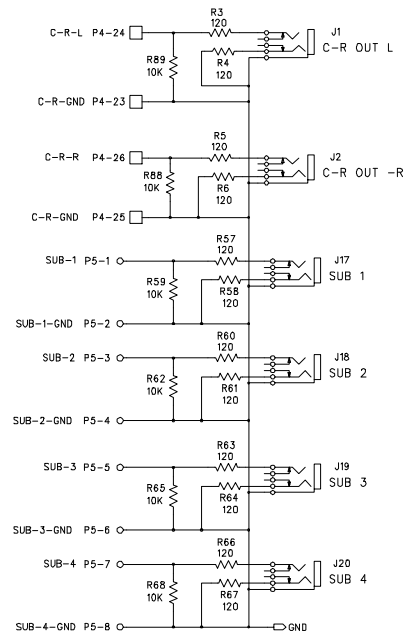
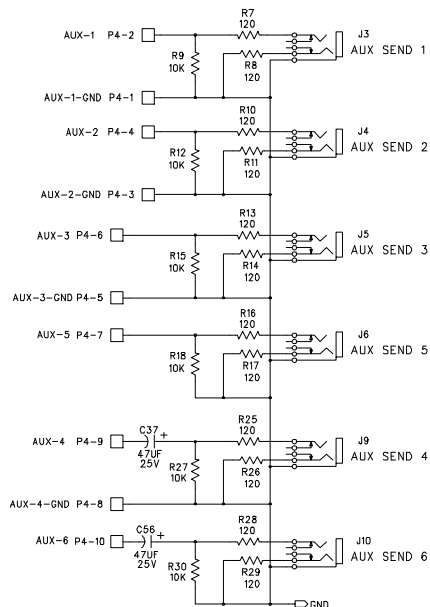
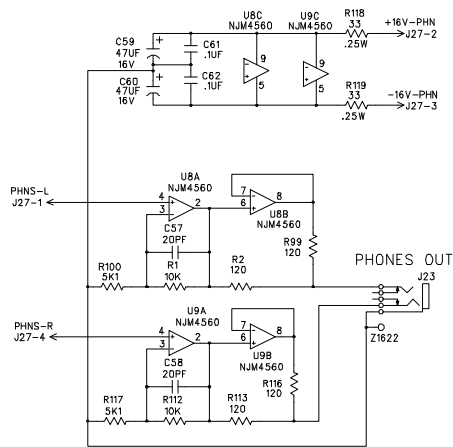
MACKIE.

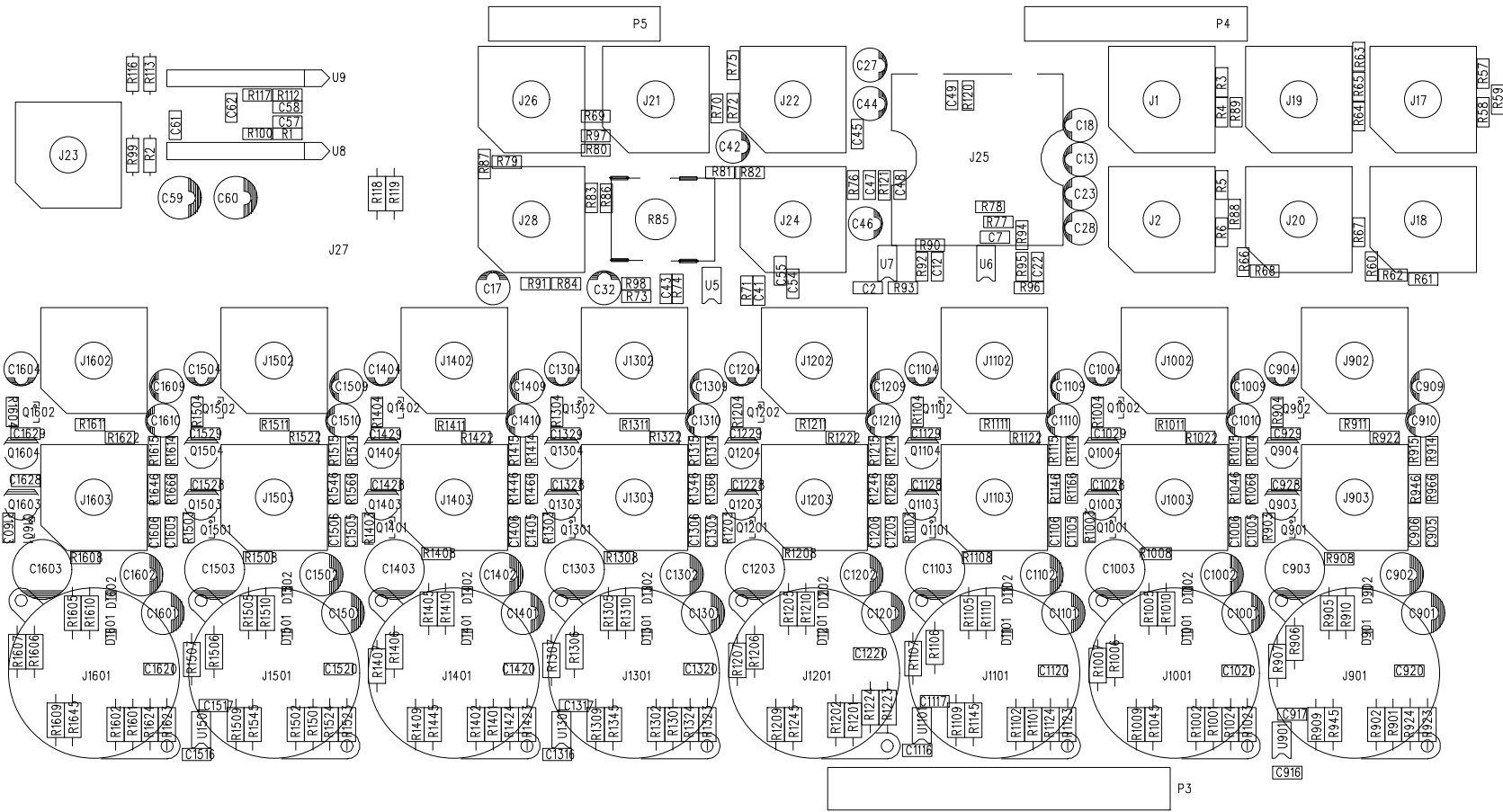
CR1604-VLZ, POD SECTION SHEET 1



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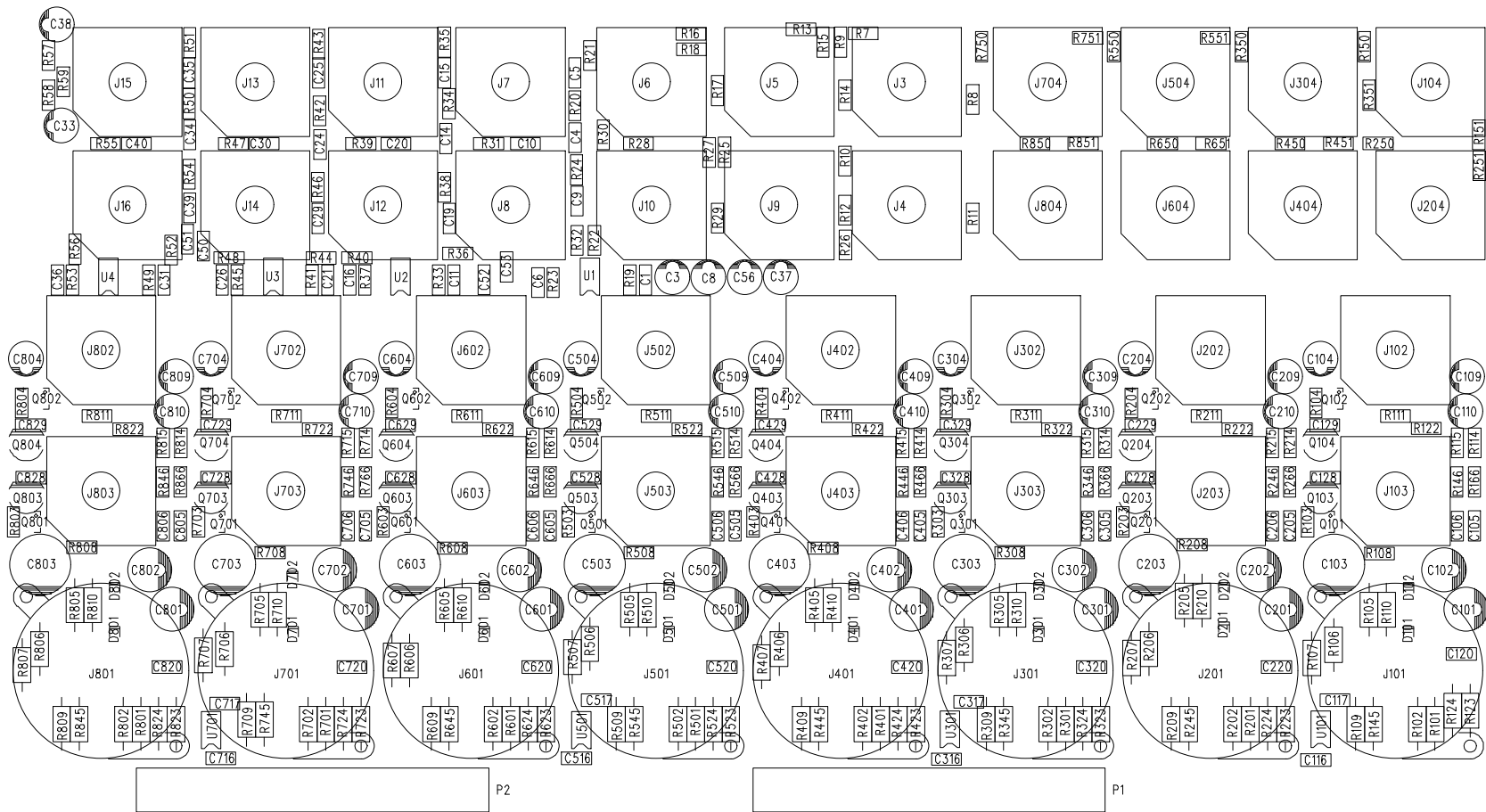
CR1604-VLZ, POD SECTION, SHEET 2





REV C

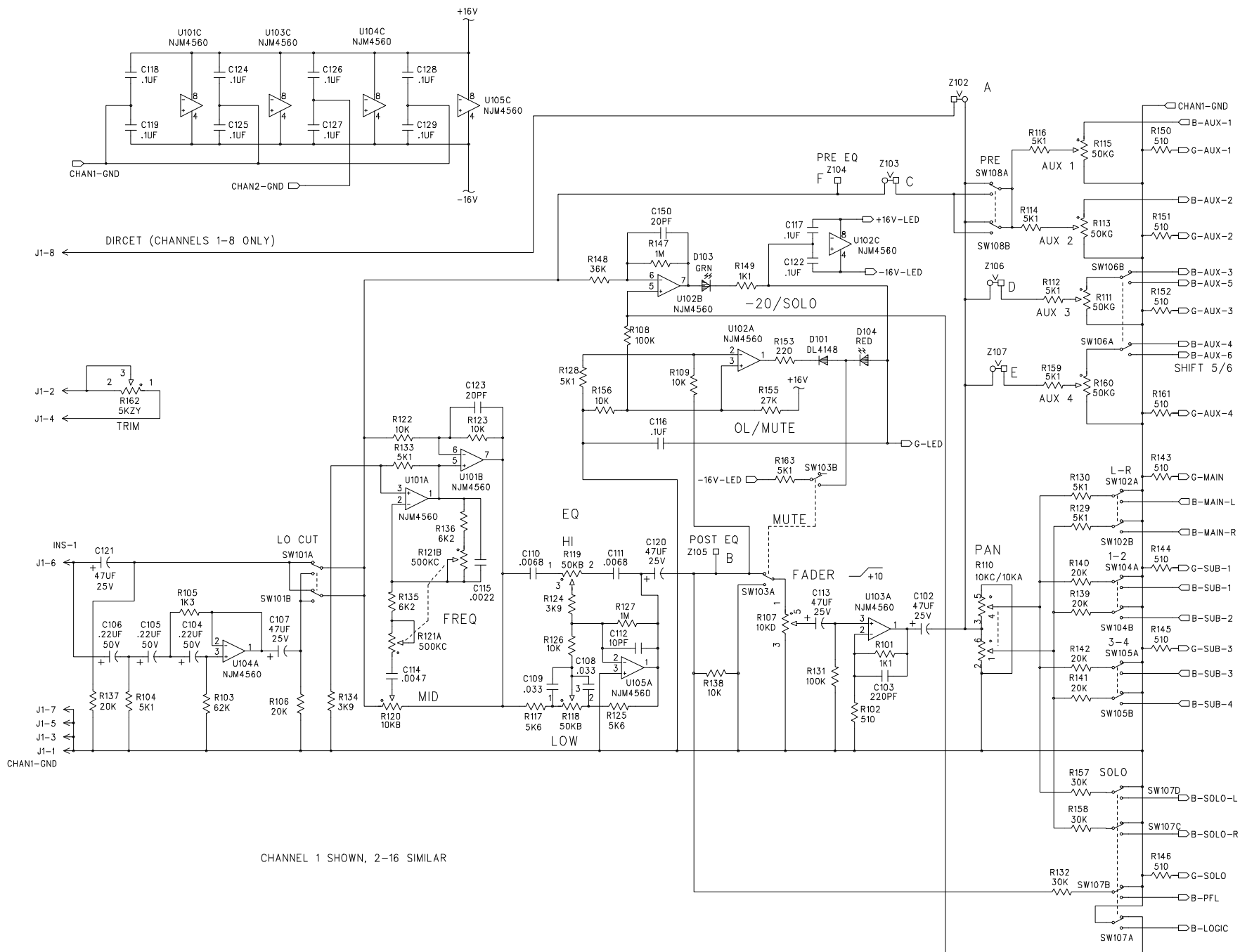
MACKIE.
CR1604-VLZ POD PCB LAYOUT, LEFT HALF



REV C

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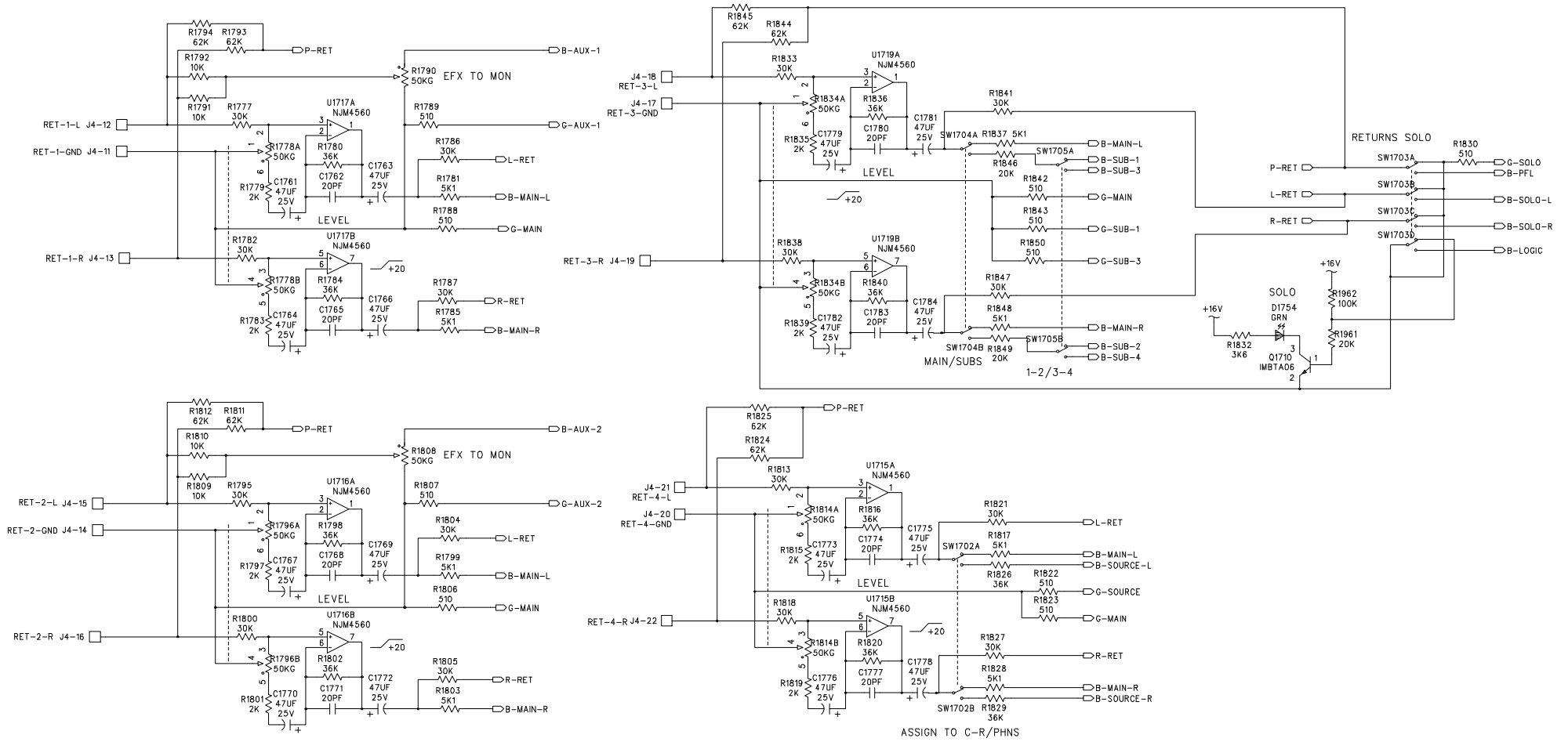
CR1604-VLZ POD PCB LAYOUT, RIGHT HALF



CHANNEL 1 SHOWN, 2-16 SIMILAR

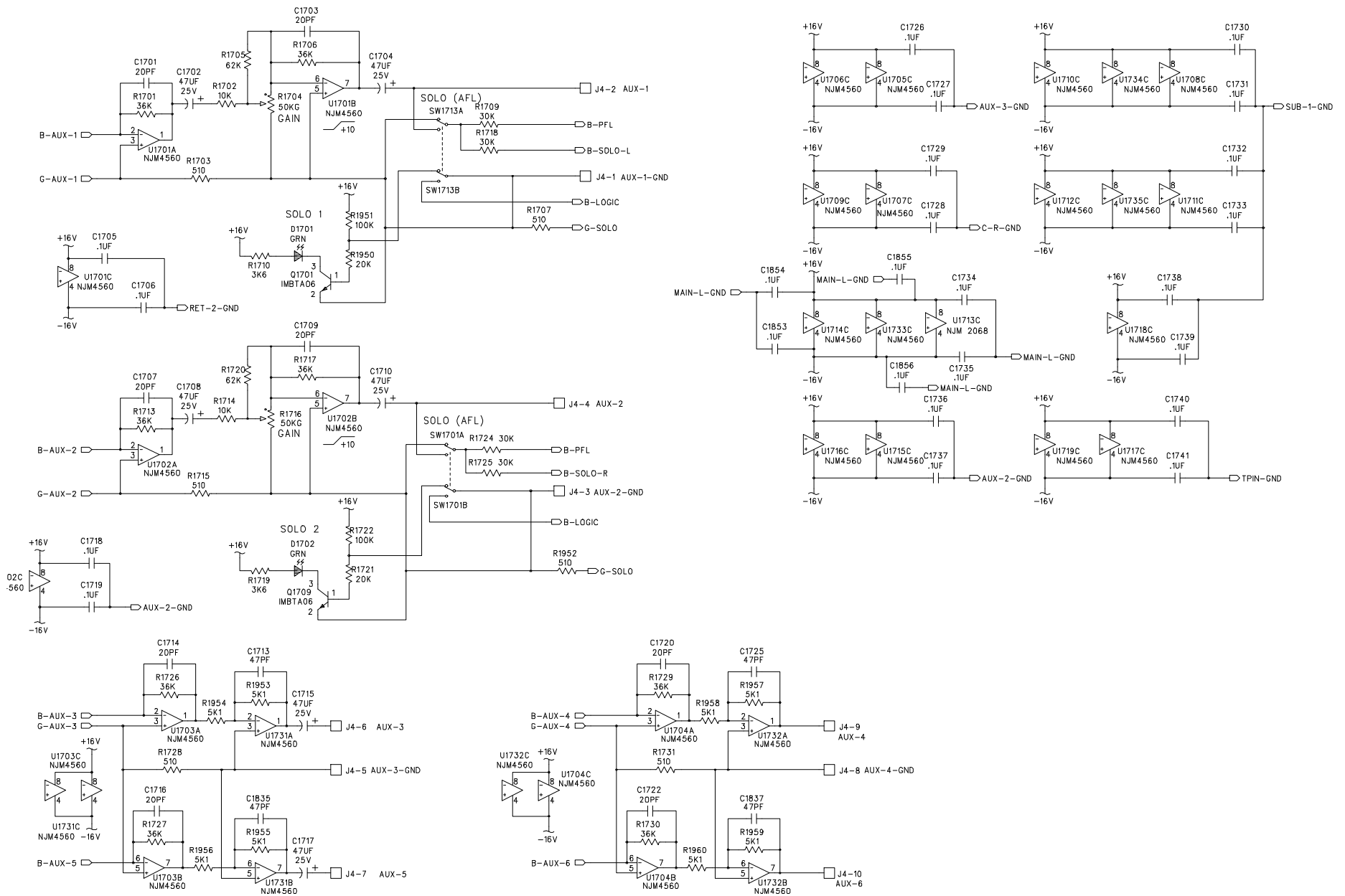
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1604-VLZ MAIN SECTION, SHEET 1

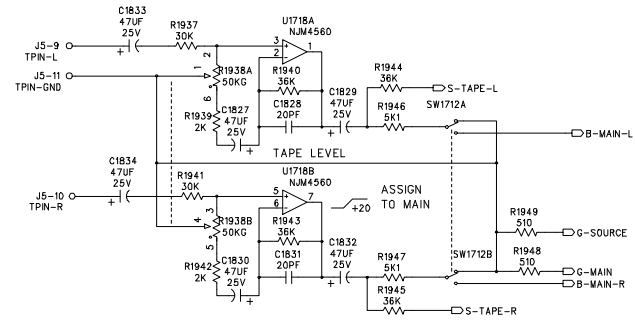
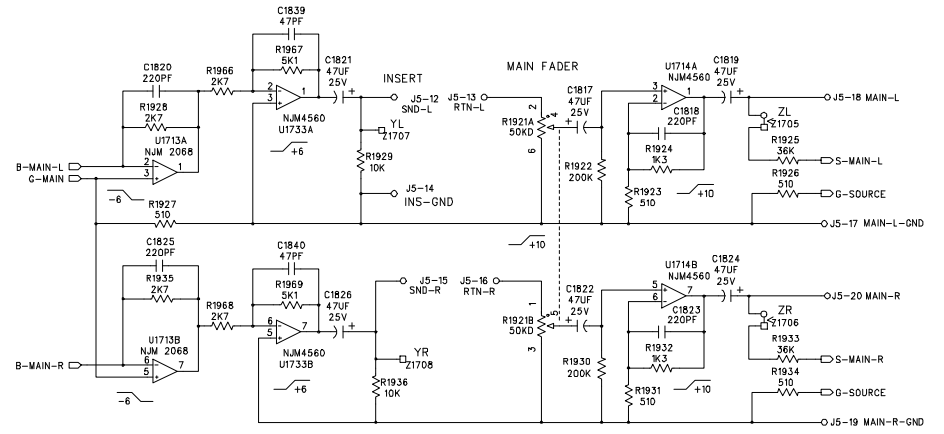
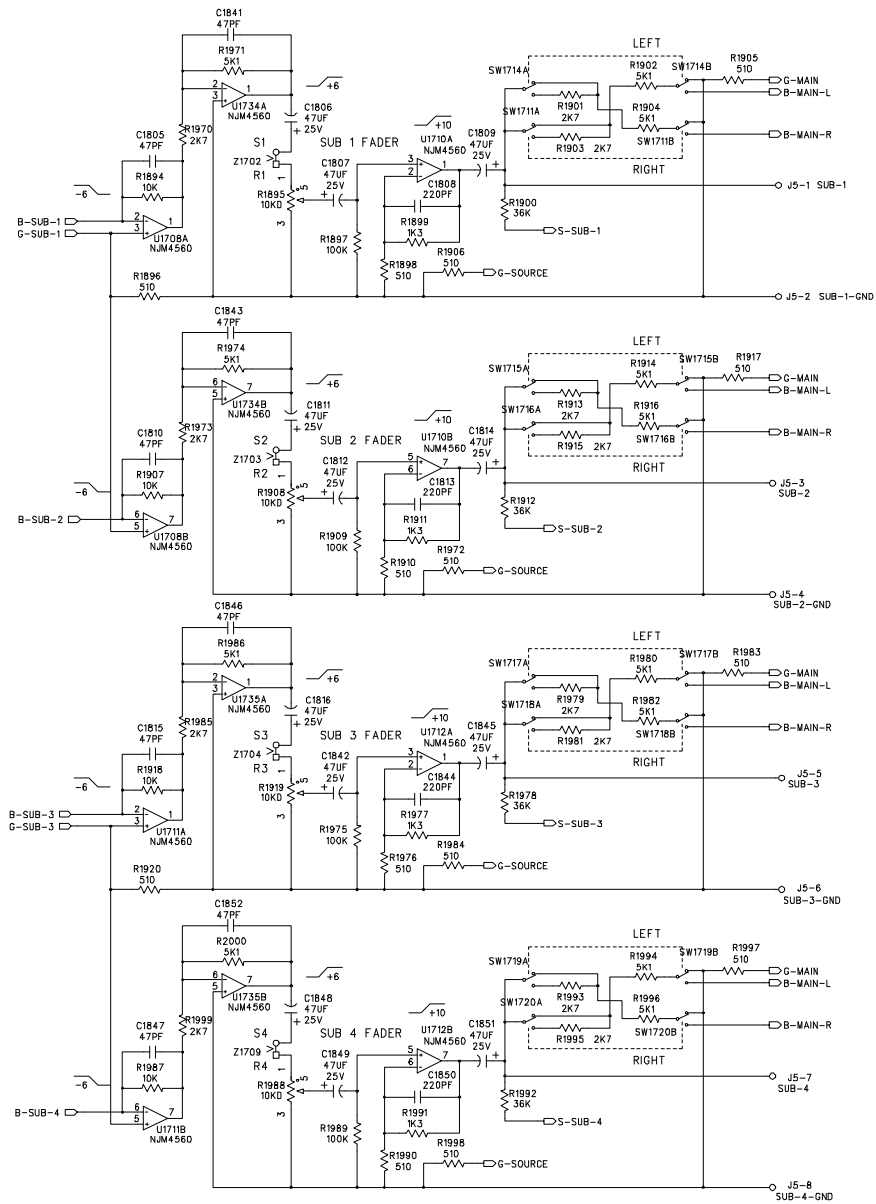


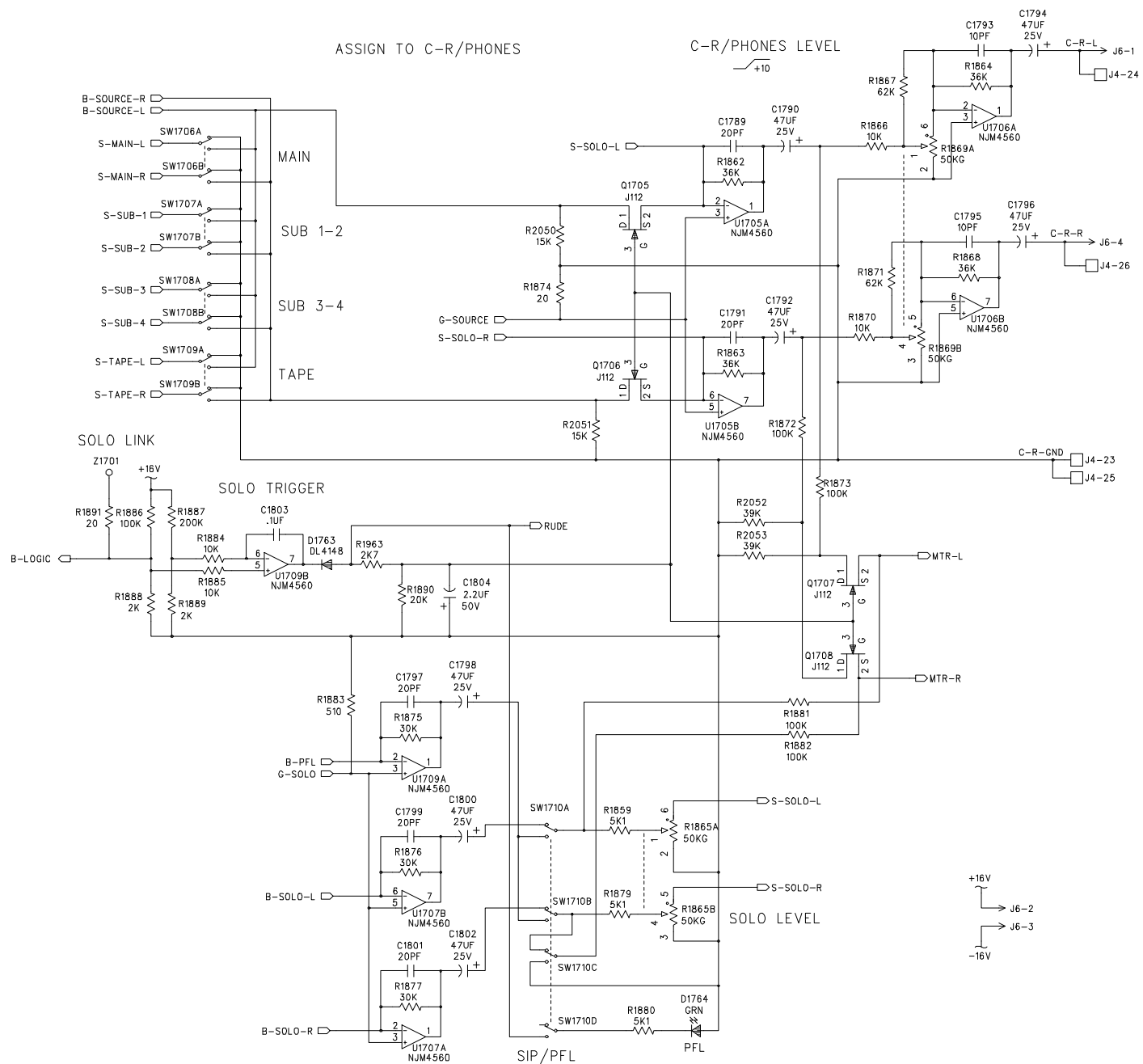
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CR1604-VLZ MAIN SECTION, SHEET 2



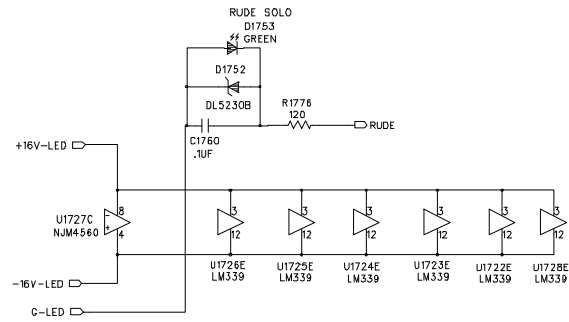
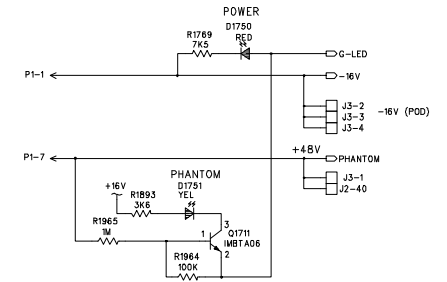
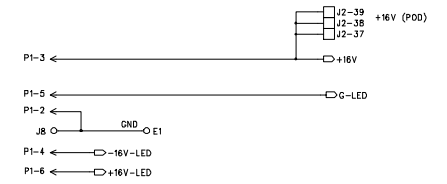
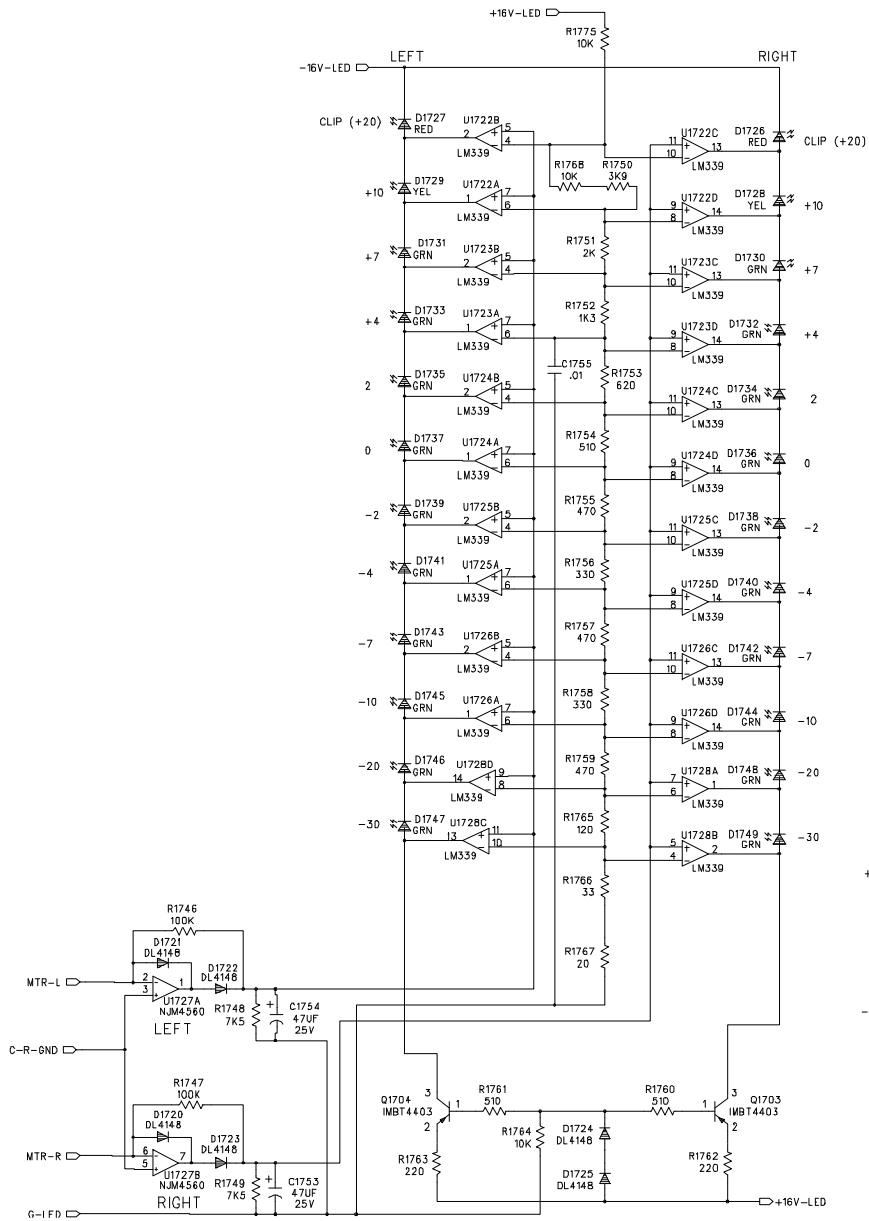
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CR1604-VLZ MAIN SECTION, SHEET 3





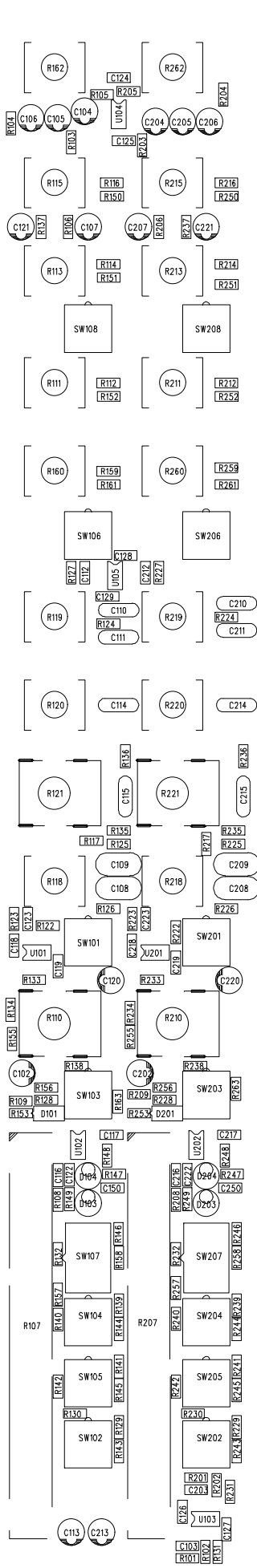
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CR1604-VLZ MAIN SECTION, SHEET 5



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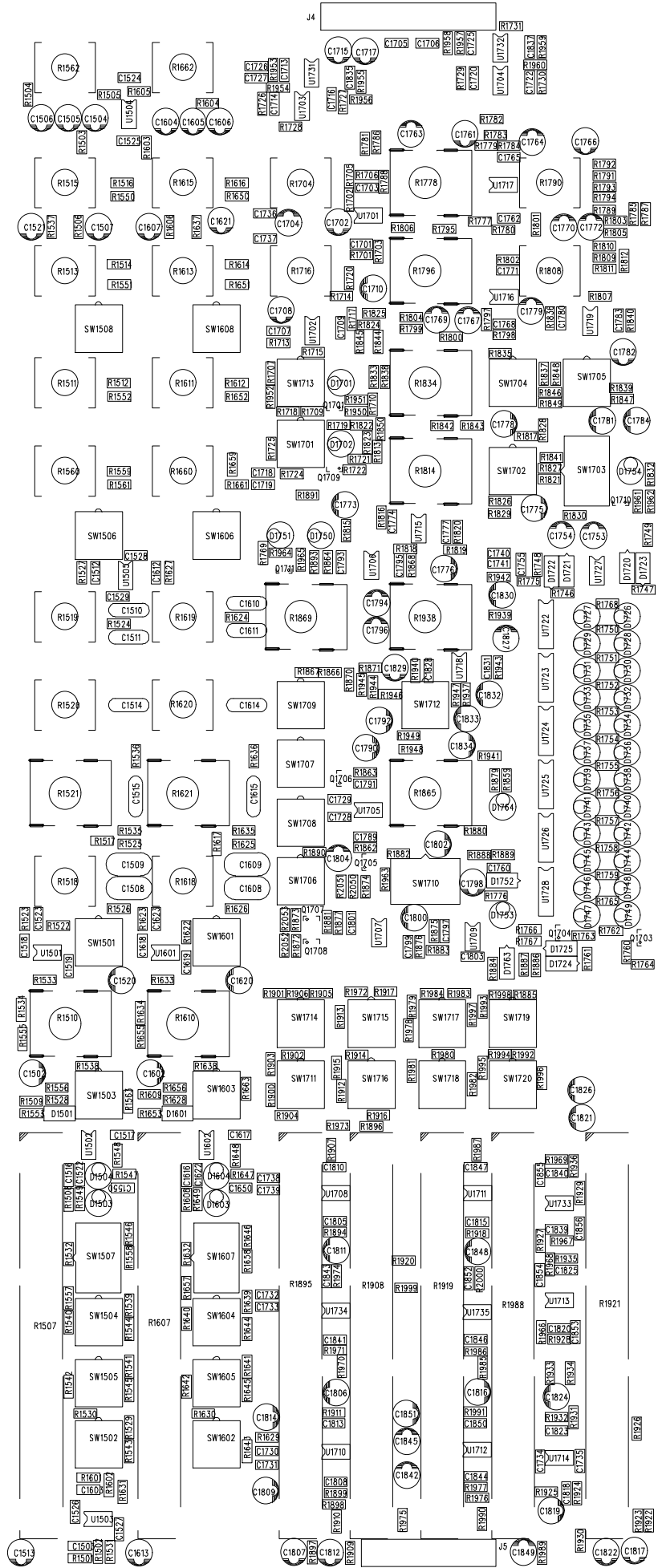
CR1604-VLZ MAIN SECTION, SHEET 6



MACKIE
CR1604-VLZ

MAIN BOARD
PCB LAYOUT
REV B

CHANNELS 3-14
NOT SHOWN,
REFER TO
CHANNELS 1-2.



MAGKIE™

CR1604-VLZ
MAIN PCB

JUMPER LOCATION
AND PINOUT

J1

40 PIN

MAIN CABLE PART # 040-076-00
POD CABLE PART # 040-073-00

J2

40 PIN

MAIN CABLE PART # 040-076-00
POD CABLE PART # 040-073-00

J3

40 PIN

MAIN CABLE PART # 040-076-00
POD CABLE PART # 040-073-00

P1

POWER DISTRIBUTION
CABLE ASSY PART # 040-078-00

J4

26 PIN

MAIN CABLE PART # 040-074-00
POD CABLE PART # 040-071-00

J5

20 PIN

MAIN CABLE PART # 040-075-00
POD CABLE PART # 040-072-00

J1			
CHANNEL 1 GND	1	2	CHANNEL 1 TRIM A
CHANNEL 1 GND	3	4	CHANNEL 1 TRIM B
CHANNEL 1 GND	5	6	CHANNEL 1 IN
CHANNEL 1 GND	7	8	CHANNEL 1 DI OUT
CHANNEL 2 GND	9	10	CHANNEL 2 TRIM A
CHANNEL 2 GND	11	12	CHANNEL 2 TRIM B
CHANNEL 2 GND	13	14	CHANNEL 2 IN
CHANNEL 2 GND	15	16	CHANNEL 2 DI OUT
CHANNEL 3 GND	17	18	CHANNEL 3 TRIM A
CHANNEL 3 GND	19	20	CHANNEL 3 TRIM B
CHANNEL 3 GND	21	22	CHANNEL 3 IN
CHANNEL 3 GND	23	24	CHANNEL 3 DI OUT
CHANNEL 4 GND	25	26	CHANNEL 4 TRIM A
CHANNEL 4 GND	27	28	CHANNEL 4 TRIM B
CHANNEL 4 GND	29	30	CHANNEL 4 IN
CHANNEL 4 GND	31	32	CHANNEL 4 DI OUT
CHANNEL 5 GND	33	34	CHANNEL 5 TRIM A
CHANNEL 5 GND	35	36	CHANNEL 5 TRIM B
CHANNEL 5 GND	37	38	CHANNEL 5 IN
CHANNEL 5 GND	39	40	CHANNEL 5 DI OUT

J2			
CHANNEL 6 GND	1	2	CHANNEL 6 TRIM A
CHANNEL 6 GND	3	4	CHANNEL 6 TRIM B
CHANNEL 6 GND	5	6	CHANNEL 6 IN
CHANNEL 6 GND	7	8	CHANNEL 6 DI OUT
CHANNEL 7 GND	9	10	CHANNEL 7 TRIM A
CHANNEL 7 GND	11	12	CHANNEL 7 TRIM B
CHANNEL 7 GND	13	14	CHANNEL 7 IN
CHANNEL 7 GND	15	16	CHANNEL 7 DI OUT
CHANNEL 8 GND	17	18	CHANNEL 8 TRIM A
CHANNEL 8 GND	19	20	CHANNEL 8 TRIM B
CHANNEL 8 GND	21	22	CHANNEL 8 IN
CHANNEL 8 GND	23	24	CHANNEL 8 DI OUT
CHANNEL 9 GND	25	26	CHANNEL 9 TRIM A
CHANNEL 9 GND	27	28	CHANNEL 9 TRIM B
CHANNEL 9 GND	29	30	CHANNEL 9 IN
CHANNEL 10 GND	31	32	CHANNEL 10 TRIM A
CHANNEL 10 GND	33	34	CHANNEL 10 TRIM B
CHANNEL 10 GND	35	36	CHANNEL 10 IN
	37	38	+16 V
	39	40	+48V PHANTOM PWR

J5			
SUB 1 OUT	1	2	SUB 1 GND
SUB 2 OUT	3	4	SUB 2 OUT
SUB 3 OUT	5	6	SUB 3 GND
SUB 4 OUT	7	8	SUB 4 GND
TAPE IN LEFT	9	10	TAPE IN RIGHT
TAPE IN GND	11	12	LEFT MAIN INS SEND
LEFT MAIN INS RETURN	13	14	INSERT GND
RIGHT MAIN INS RTN	15	16	RIGHT MAIN INS SEND
MAIN L GND	17	18	MAIN L TO POD
MAIN R GND	19	20	MAIN R TO POD

P1

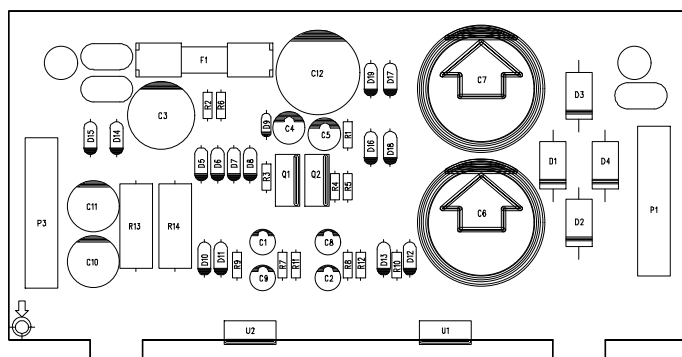
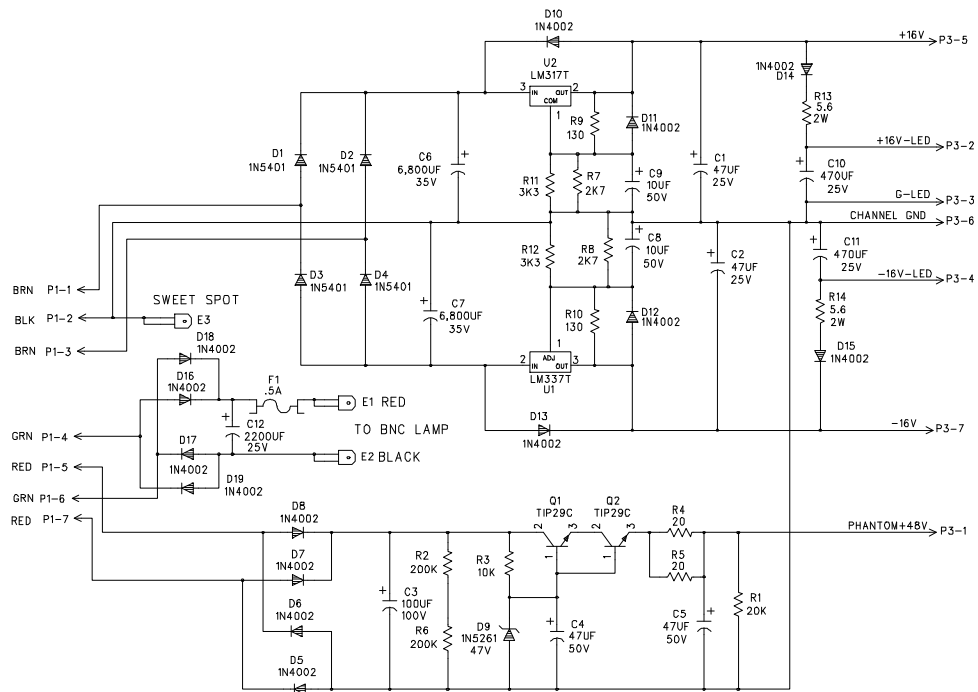
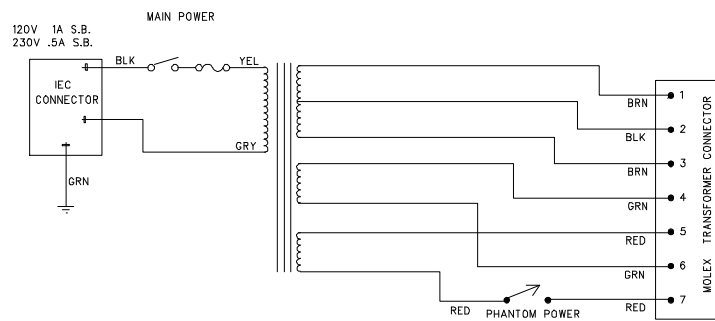
7	+48V PHANTOM
6	+16V LED
5	GND LED
4	-16V LED
3	+16V
2	GND
1	-16V

J4

AUX 1 SEND GND	1	2	AUX 1 SEND
AUX 2 SEND GND	3	4	AUX 2 SEND
AUX 3/5 SEND GND	5	6	AUX 3 SEND
AUX 5 SEND	7	8	AUX 4/6 SEND GND
AUX 4 SEND	9	10	AUX 6 SEND
AUX RETURN 1 GND	11	12	AUX RETURN 1 LEFT
AUX RETURN 1 RIGHT	13	14	AUX RETURN 2 GND
AUX RETURN 2 LEFT	15	16	AUX RETURN 2 RIGHT
AUX RETURN 3 GND	17	18	AUX RETURN 3 LEFT
AUX RETURN 3 RIGHT	19	20	AUX RETURN 4 GND
AUX RETURN 4 LEFT	21	22	AUX RETURN 4 RIGHT
CONTROL ROOM GND	23	24	CONTROL ROOM LEFT
CONTROL ROOM GND	25	26	CONTROL ROOM RIGHT

J3

+48V PHANTOM PWR	1	2	-16V
	3	4	-16V
CHANNEL 11 GND	5	6	CHANNEL 11 TRIM A
CHANNEL 11 GND	7	8	CHANNEL 11 TRIM B
CHANNEL 11 GND	9	10	CHANNEL 11 IN
CHANNEL 12 GND	11	12	CHANNEL 12 TRIM A
CHANNEL 12 GND	13	14	CHANNEL 12 TRIM B
CHANNEL 12 GND	15	16	CHANNEL 12 IN
CHANNEL 13 GND	17	18	CHANNEL 13 TRIM A
CHANNEL 13 GND	19	20	CHANNEL 13 TRIM B
CHANNEL 13 GND	21	22	CHANNEL 13 IN
CHANNEL 14 GND	23	24	CHANNEL 14 TRIM A
CHANNEL 14 GND	25	26	CHANNEL 14 TRIM B
CHANNEL 14 GND	27	28	CHANNEL 14 IN
CHANNEL 15 GND	29	30	CHANNEL 15 TRIM A
CHANNEL 15 GND	31	32	CHANNEL 15 TRIM B
CHANNEL 15 GND	33	34	CHANNEL 15 IN
CHANNEL 16 GND	35	36	CHANNEL 16 TRIM A
CHANNEL 16 GND	37	38	CHANNEL 16 TRIM B
CHANNEL 16 GND	39	40	CHANNEL 16 IN



MACKIE™
CR1604-VLZ
POWER SUPPLY