

Technical Manual JBL M553

3-WAY STEREO/4-WAY MONO VARIABLE ELECTRONIC CROSSOVER



SPECIFICATIONS

ELECTRICAL SPECIFICATIONS:

- Crossover Frequencies:
 - Stereo Mode:
 - Low/Mid: 180 to 2 kHz (Divisible by 10)
 - Mid/High: 450 to 5 kHz
 - Mono Mode:
 - Low/LowMid: 180 to 2 kHz (Divisible by 10)
 - LowMid/HiMid: 450 to 5 kHz
 - HiMid/High: 800 to 9 kHz
- Maximum Input Level: +24 dBu (XLR balanced)
- Maximum Output Level: +27 dBu; +25 dBm (XLR balanced)
- Input Impedance:
 - Balanced: 10 kOhms
 - Unbalanced: 20 kOhms
- Output Impedance:
 - Balanced: 102 Ohms
 - Unbalanced: 51 Ohms

ELECTRICAL SPECIFICATIONS: (cont'd)

- Noise: Less than -90 dBu (LF); -88 dBu (HF)
- THD + Noise: Less than 0.004% (in band)
- Frequency Response: 10 Hz (-0.5 dB) to 75 kHz (-3 dB)

PHYSICAL SPECIFICATIONS:

- Enclosure Dimensions: SEE BELOW
- Shipping Weight: 6 lbs. (2.7 kg.)

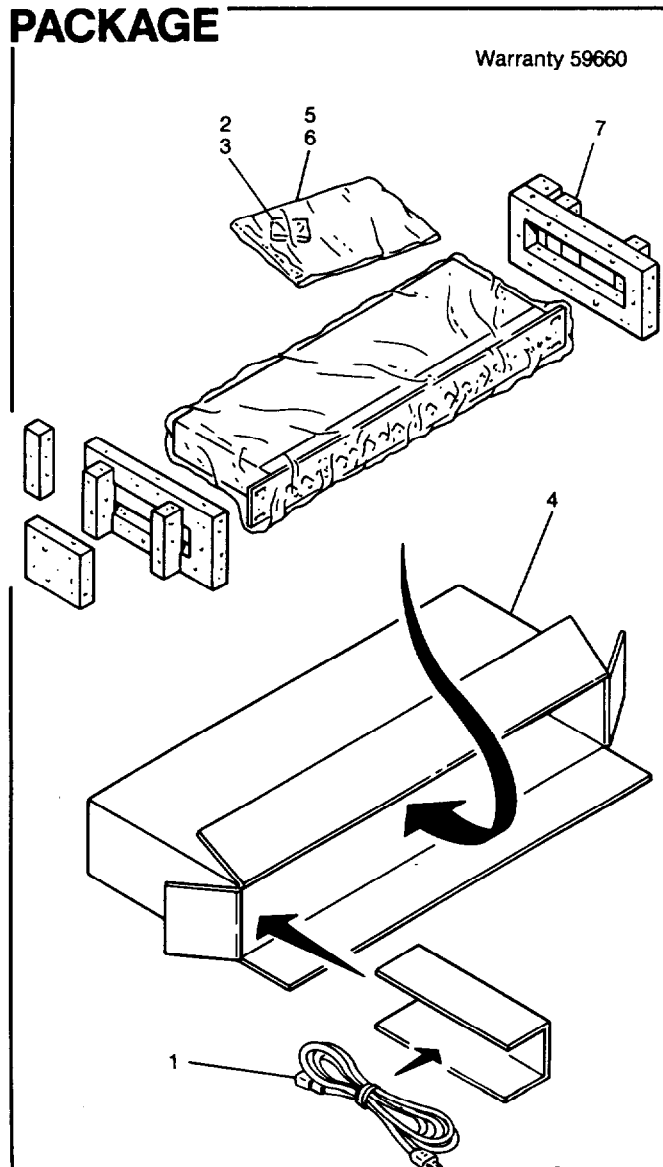
WARRANTY INFORMATION:

- Refer to the Warranty Statement packed with each product.

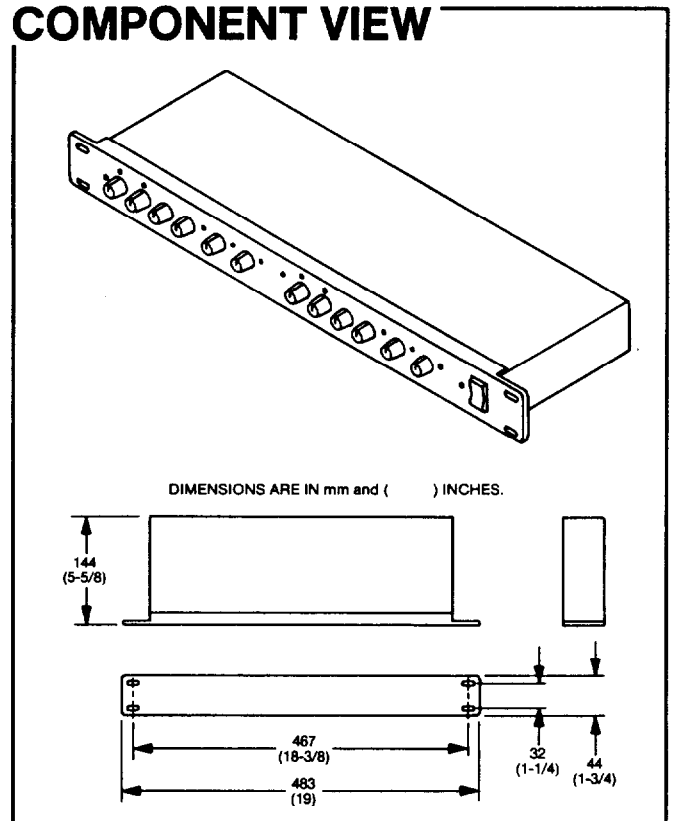
ACCESSORY:

Model SC8 Security Cover

PACKAGE



COMPONENT VIEW



COMPONENT PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	36-0061	1	US/JA USA POWER CORD BME TYPE
2	28-0095	4	JBL RACK SCREW
3	28-0096	4	JBL RACK WASHER
4	20-0080	1	M SERIES PRODUCT BOX
5	22-0020	1	LITERATURE BAG (CLEAR PLASTIC)
6	18-0411	1	M553 OWNER'S MANUAL

Please add the letters JBL behind part numbers when ordering.

JBL M553

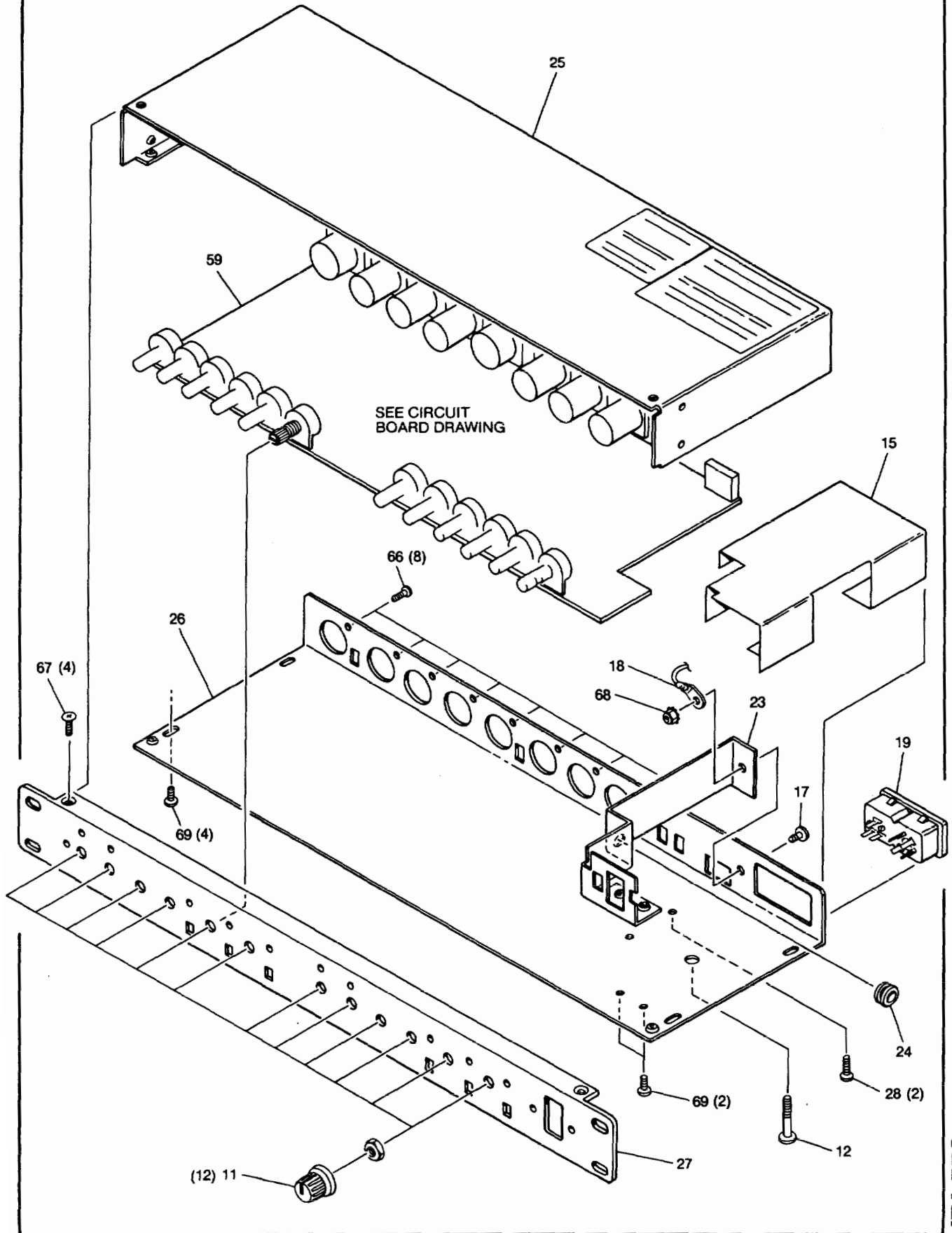
COMPONENT PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
7	—	2	INSERT, FOAM
8	32-2082	4	.250" FASTON CONNECTOR
9	32-1075	22	SHUNT/JUMPER FOR HEADER
10	32-0002	2	FUSE 200MA 5x20MM (200-250V)
11	34-0080	12	M SERIES KNOB REAN (LW)
12	28-0076	1	10-32x1-1/4 PHIL PAN SCREW STEEL BLK
13	24-0035	1	TOROID RETAINER
14	24-0201-A	1	TOROID CUSHION
15	24-0206-A	1	PCB INSULATOR LEXAN (A/L)
16	26-0048	1	4 TAP TOROID TRANSFORMER
17	28-0055	1	6-32x1/4 SMOOTH TRUSS HD SCREW BLK
18	32-2103	1	NO. 6 SOLDER LUG LOCKING TERMINAL
19	32-0056	1	AC RECEPTACLE MULTI VOLTAGE (CERT)
20	44-0010	1	M SERIES POWER SWITCH
21	70-2061	1	LED SMALL RED DIFFUSED T1
22	32-1090	1	M SERIES POWER LED HARNESS
23	24-0209	1	JBL OEM POWER SUPPLY SHIELD
24	24-0043	1	RUBBER GROMMET
25	10-2050	1	AL GENERIC TOP BLACK
26	10-1353	1	M553 CHASSIS PAINTED
27	10-1352	1	M553 FRONT PAINTED
28	28-0058	4	6-32x3/8 POZI PAN TR3 BLK .375
29	70-4209	1	INSULATOR FOR HS-2 HEATSINK - REV A
30	70-4200-A	1	HEATSINK SPACER ALUM
31	70-4204	1	HS-1 3REG HEATSINK TOP - REV A
32	70-4203	1	HS-2 3REG HEATSINK BASE - REV A
33	70-4124	1	7915 -15V REGULATOR TO-220 1500MA
34	70-4123	1	7815 +15V REGULATOR TO-220 1500MA
35	72-4023	6	5532 DUAL LOW NOISE OP AMP
36	72-4248	1	MC33078 DUAL OP-AMP
37	34-0050	10	M SERIES MINI SWITCH CAP
38	44-0027	7	MINI IN/OUT DPDT SWITCH (6 PIN)
39	44-0022	3	MINI IN/OUT 6PDT SWITCH (18 PIN)
40	42-0211	6	TRIM POT 10K OHM HORIZONTAL 10MM
41	40-2022	4	RACK 100K QUAD POT (12 PIN) 25C TAPER
42	40-2071	8	RACK POT 2B5K 16MM
43	32-0198	6	XLR MALE PCB MOUNT REAN
44	32-0199	2	XLR FEMALE PCB MOUNT REAN
45	32-0300	1	2 POS PCB BARRIER STRIP A/L
46	72-4068	4	5534 LOW NOISE OP AMP
47	72-4024	1	4558 DUAL LOW NOISE OP AMP
48	72-4248	15	MC33078 DUAL OP-AMP

ITEM	PART NO.	QTY	DESCRIPTION
49	70-1009	2	2N4124 NPN TRANSISTOR
50	32-1078	1	5 PIN HEADER STRAIGHT PIN
51	32-1071	1	5 PIN LOCKING HEADER
52	60-0063	2	1000 UF 35V 13x28 BODY
53	60-0055	16	100 UF 25V 8x11 BODY
54	60-0053-01	11	15 NP 16V DOG LEG 5x11 BODY
55	60-0050-01	4	10 UF 25V DOG LEG 5x7 BODY
56	60-0054-01	12	47 UF 16V DOG LEG 6x11 BODY
57	70-0129	1	D-101 BRIDGE RECTIFIER (100V)
58	70-3020	8	8 PIN DIP SOCKET
59	12-4045	1	M553 MAIN PCB AMISTAR ASSY REV CO
60	28-1012	11	1 POSITION LED SPACER
61	38-0105	1	"AF" HARNESS 12 PIN 5 INCH
62	70-2066	1	LED SMALL YELLOW DIFFUSED T1
63	70-2062	2	LED SMALL GREEN DIFFUSED T1
64	70-2061	8	LED SMALL RED DIFFUSED T1
65	80-4033-C	1	X34/M552 FRONT PCB
66	28-0263	8	NO. 4x3/8 PLASTITE SCREW PHIL HEAD
67	28-0060	4	6-32x1/2 POZI FLAT TR3 BLK
68	28-0065	1	6-32 KEPS HEX NUT
69	28-0059	8	6-32x1/4 POZI PAN TR3 BLK .250
70	28-0291	3	4-40x1/4 PHIL PAN SCREW .250
71	28-0204	1	NO. 6 INTERNAL TOOTH LOCKWASHER BLK
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JBL M553

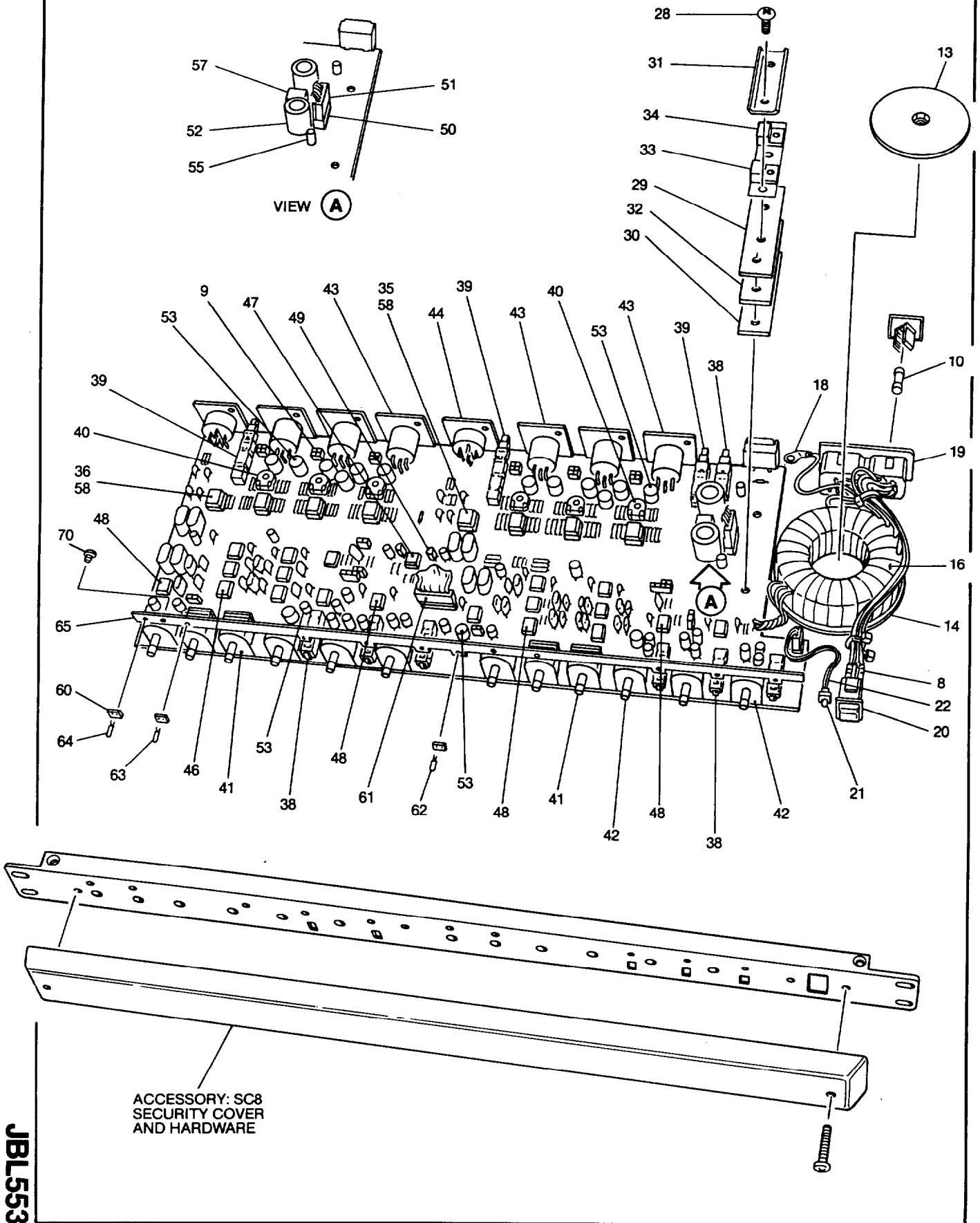
COMPONENT EXPLODED VIEW



JBL553

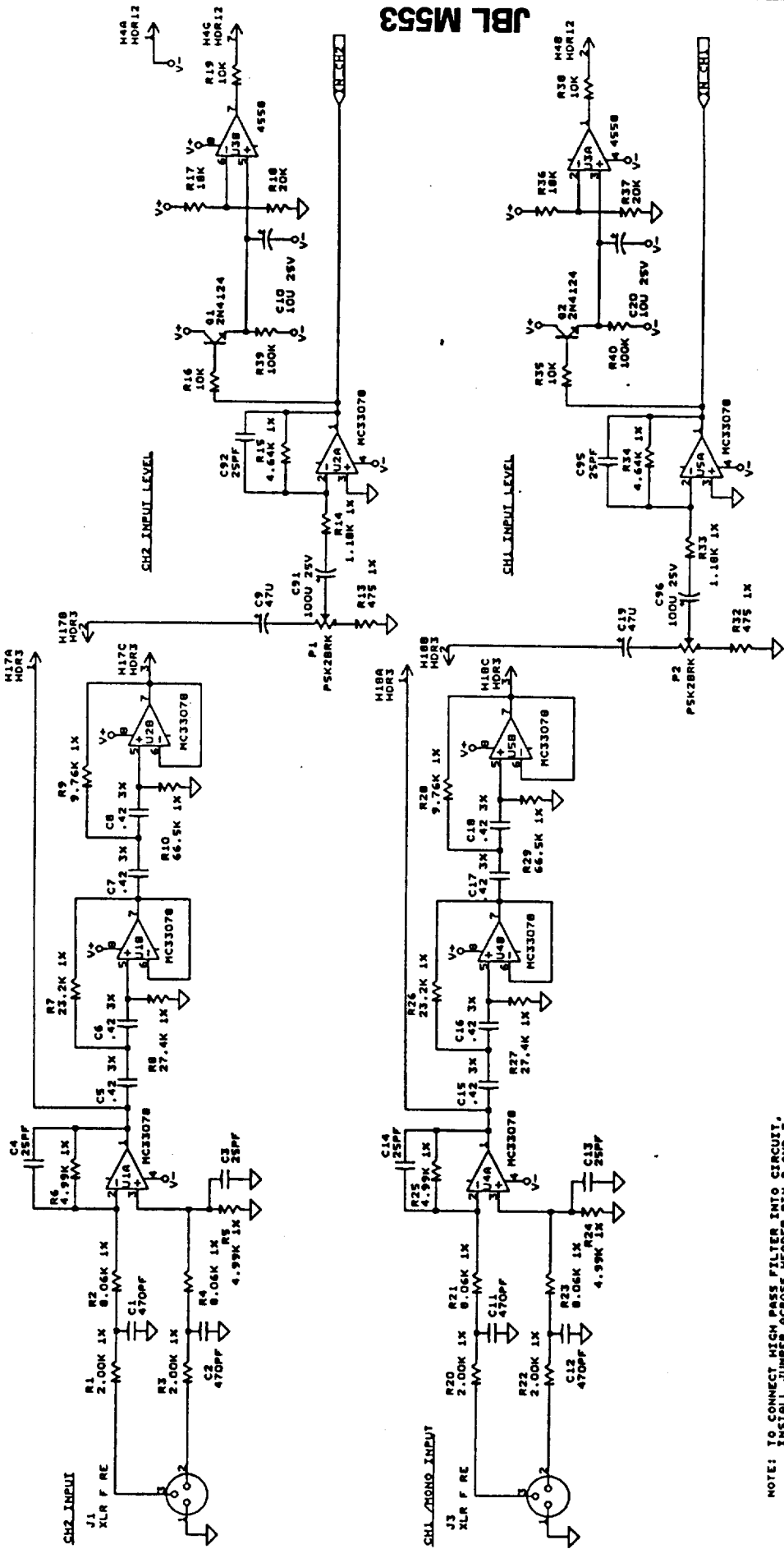
JBL M553

CIRCUIT BOARD



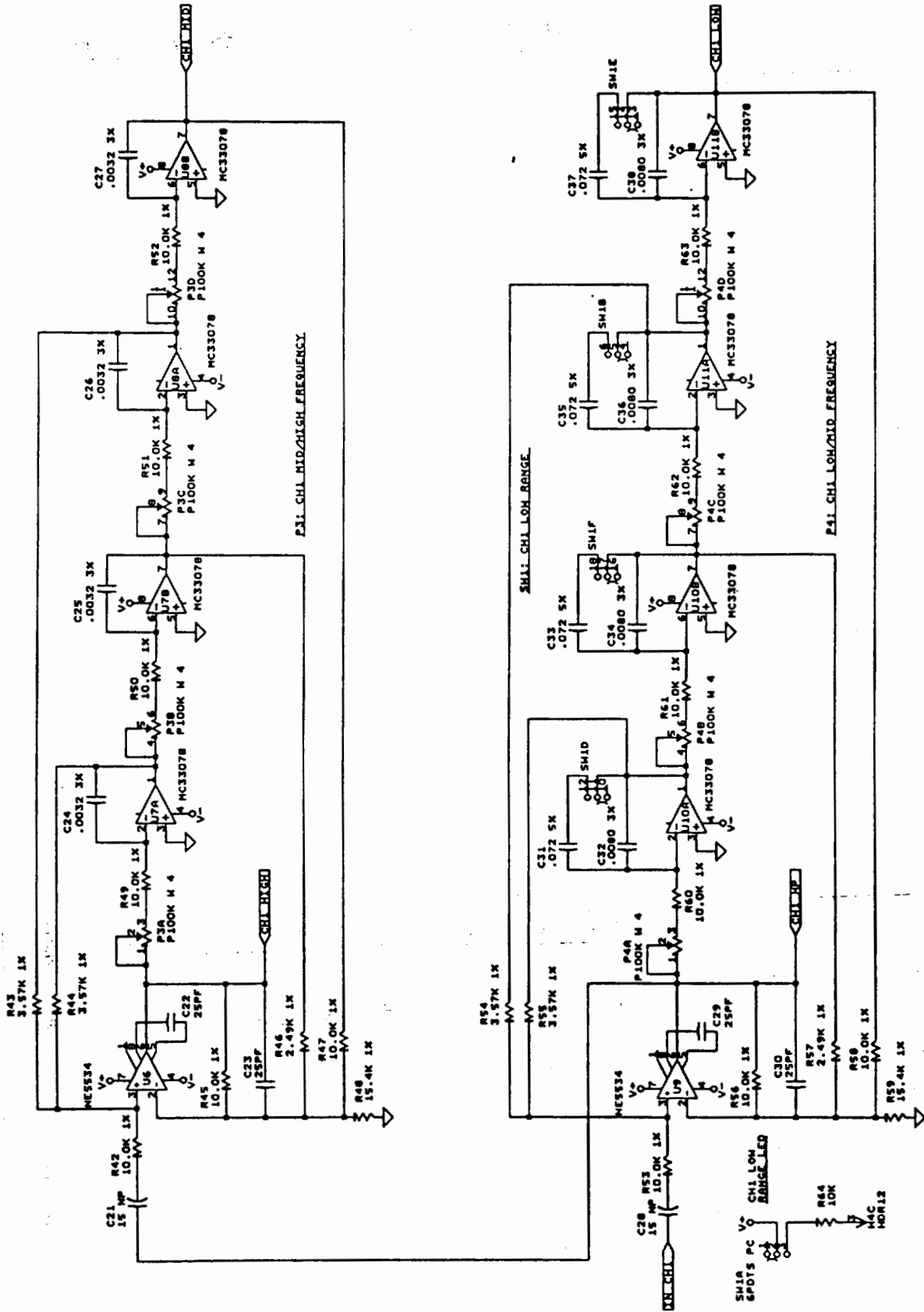
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JBL M553



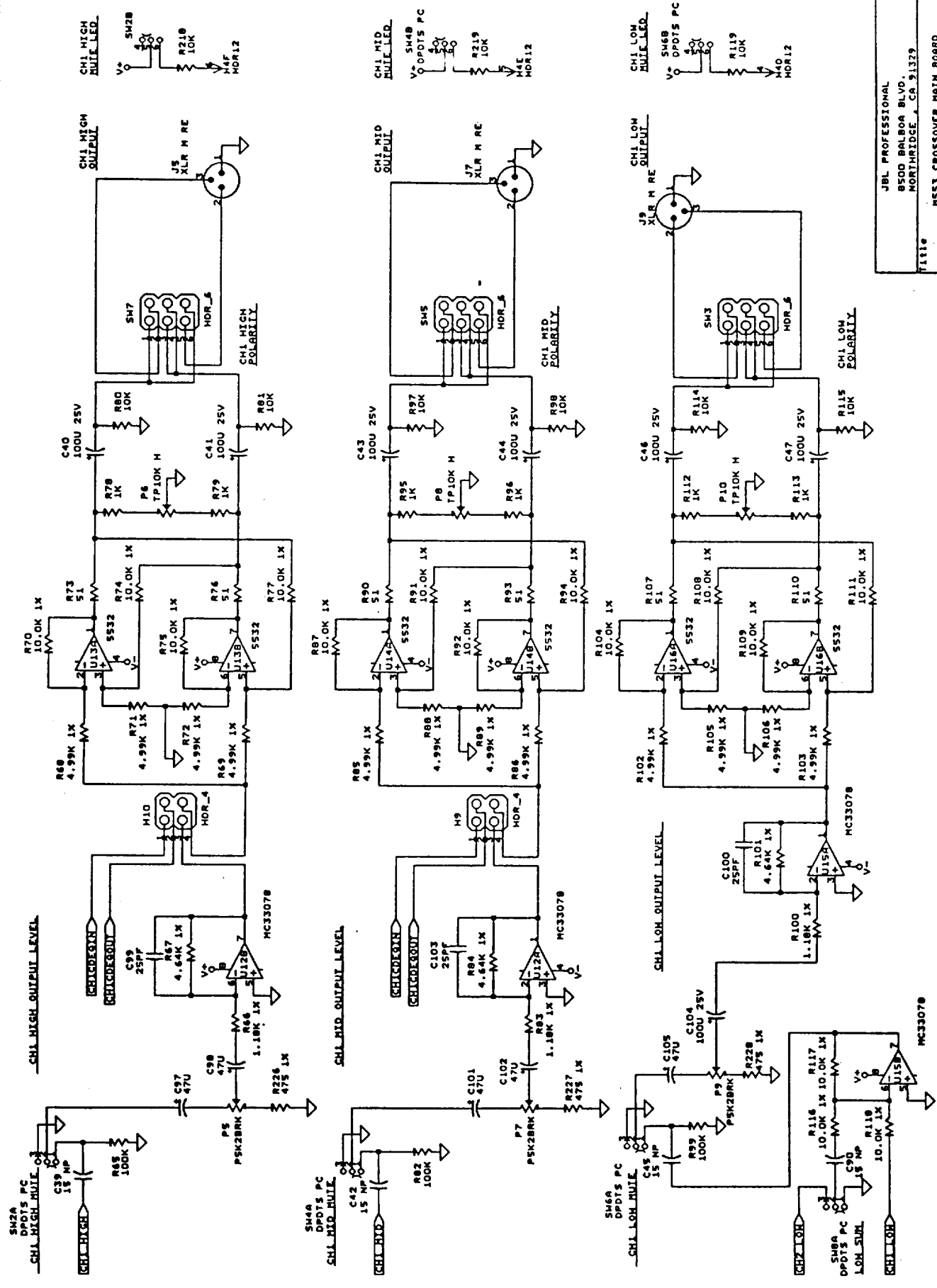
NOTE: TO CONNECT HIGH PASS FILTER INTO CIRCUIT, INSTALL JUMPER ACROSS HEADER PIN 2 AND 3 TO BYPASS HIGH PASS FILTER. INSTALL JUMPER ACROSS HEADER PIN 1 AND 2

JBL PROFESSIONAL	
8500 BALBOA BLVD.	
MONTAIRE, CA 91329	
Title: M553 CROSSOVER MAIN BOARD	
Size	Document Number
B	M553COO1.SCH
CO	REV
01	DATE: JANUARY 21, 1992



JBL PROFESSIONAL 8500 BALBOA BLVD. NORTHridge, CA 91329	
11110	REV
M553 CROSSOVER MAIN BOARD	CO
Size document Number	REV
M553C002.SCH	CO
Date: JANUARY 21, 1992	REV
3 of 9	REV

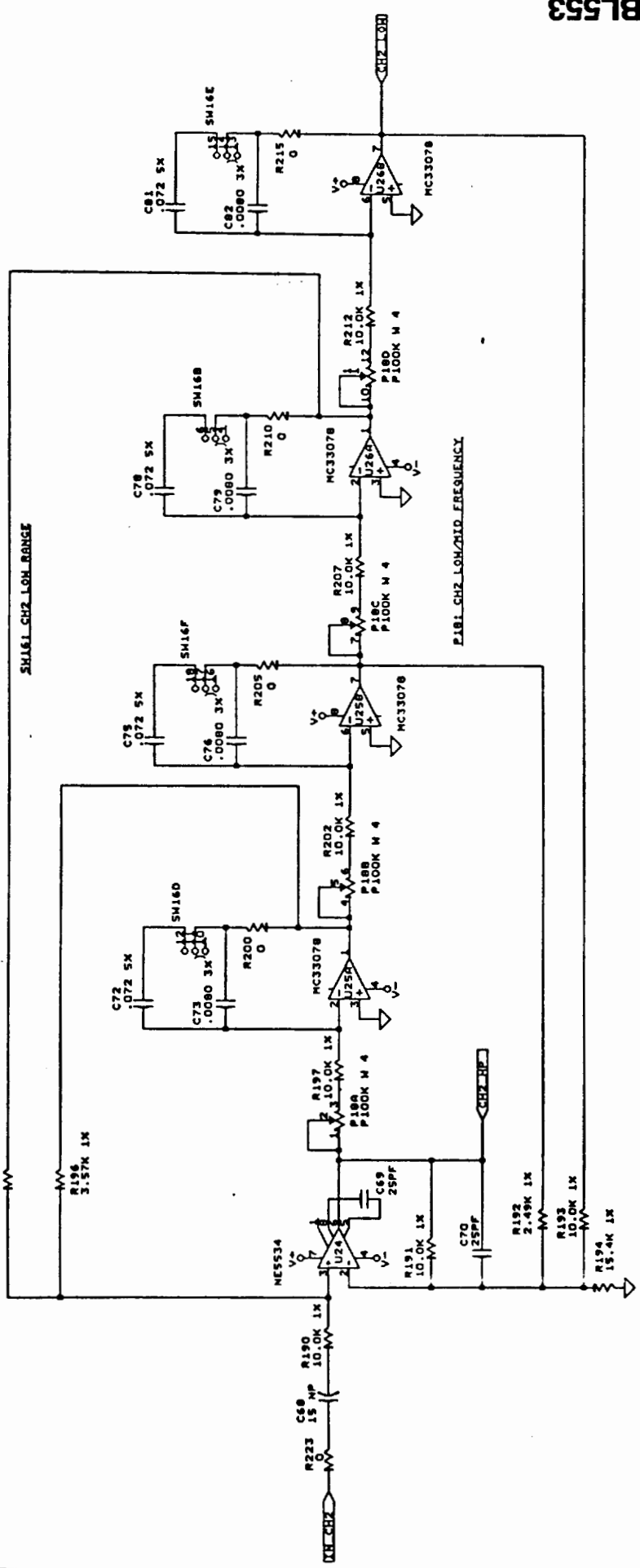
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DATE	January 21, 1992
SIZE	Sheet 3 of 8
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DESIGNER	8500 BALBOA BLVD. NORTHBRIDGE, CA 91329
DATE	

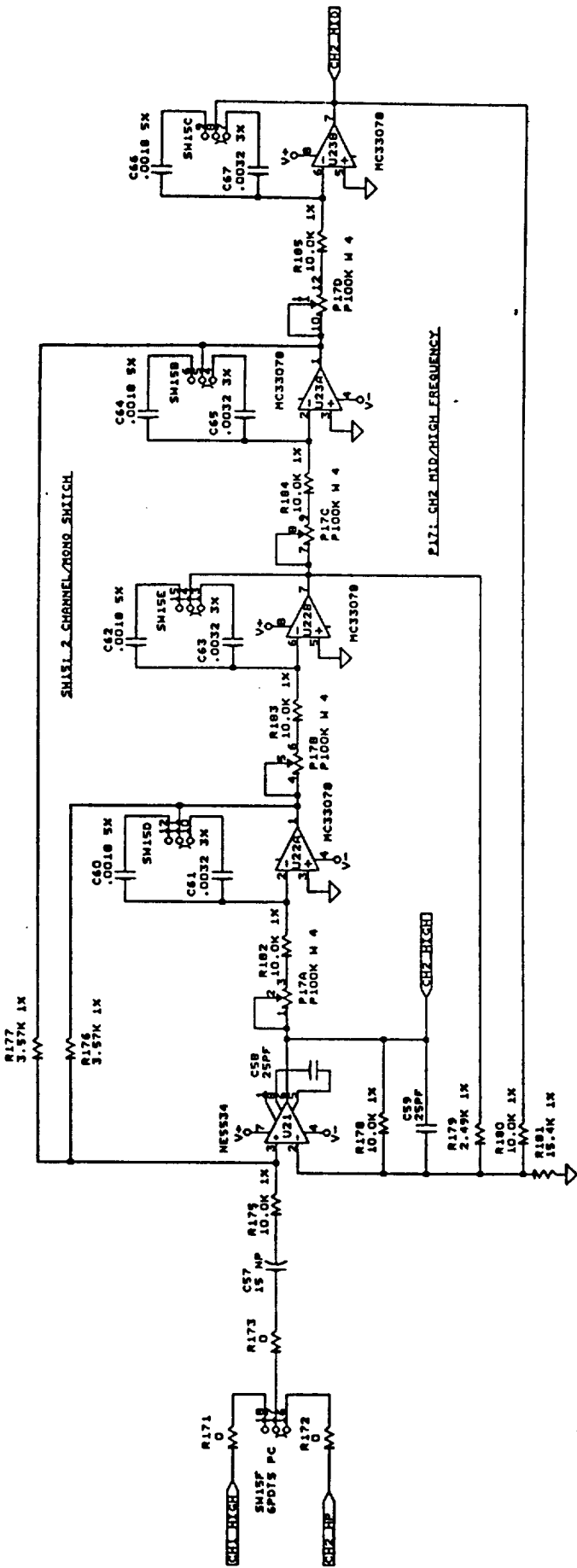
JBL PROFESSIONAL
8500 BALBOA BLVD.
NORTHBRIDGE, CA 91329

Title M553 CROSSOVER MAIN BOARD
Size Document Number M553003.SCH
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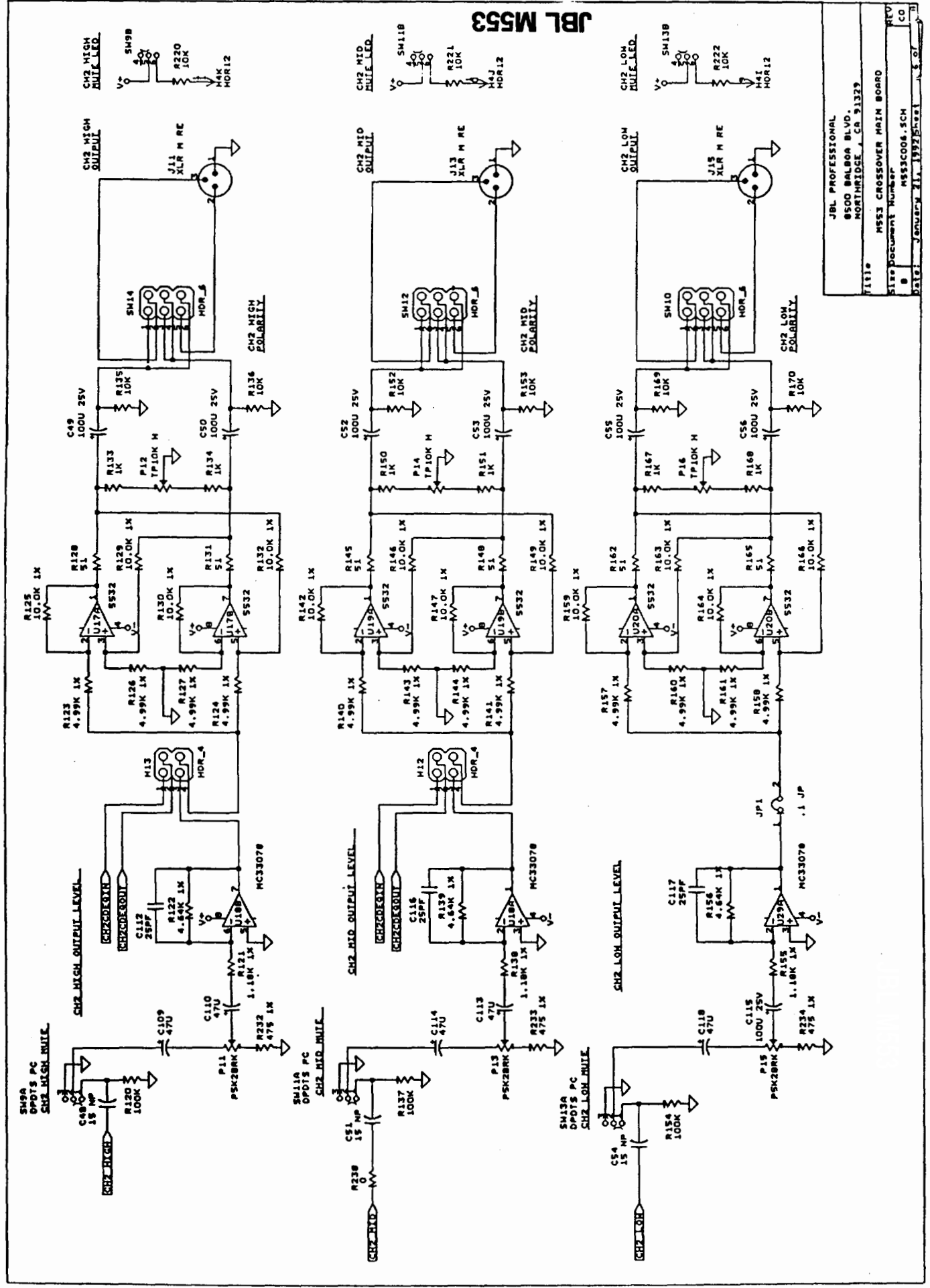
CH2 LOH
RANGE LED
V+ SW16A
SPDTS PC
R217
10K
V-
MAN
HOR12

JBL PROFESSIONAL 9500 BALBOA BLVD. NORTHBRIDGE, Ca. 91329	
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REV	CO
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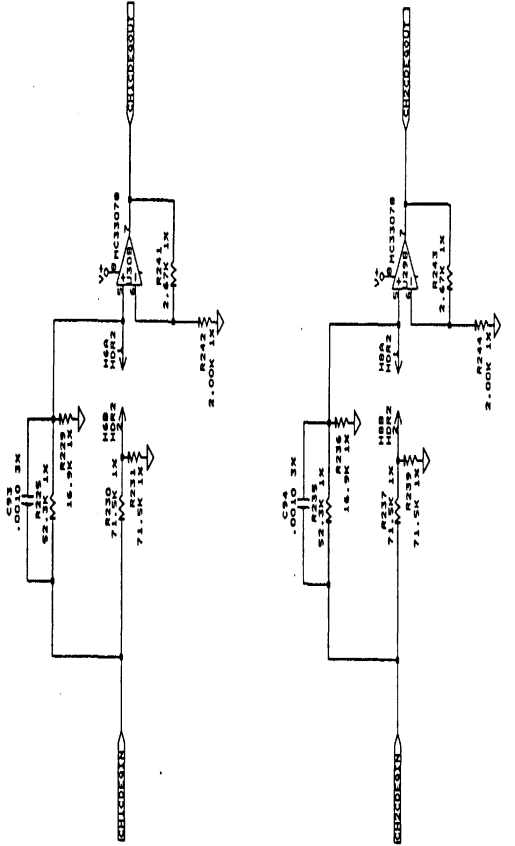


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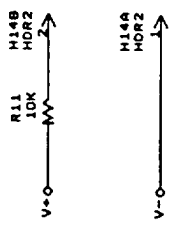
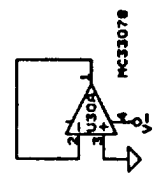
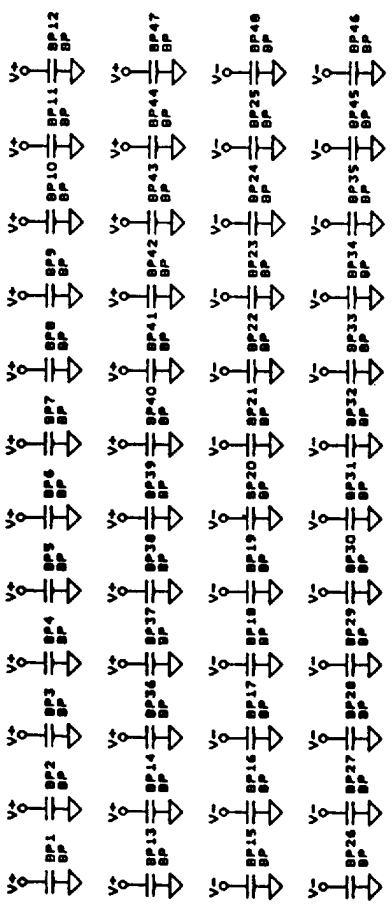
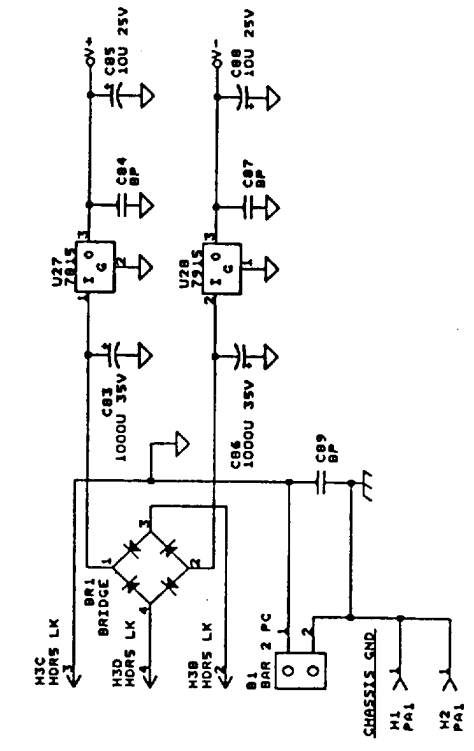
JBL M553



JBL PROFESSIONAL
 8500 BALBOA BLVD.
 NORTHBRIDGE, CR 31323
 TITLE M553 CROSSOVER MAIN BOARD
 Schematic Number M553006.SCH
 DATE January 21, 1992
 REV CO



THE MANUFACTURER AND
 HIS EMPLOYEES SHALL
 HOLD THE COMPANY
 HARMLESS FROM ALL
 LIABILITY FOR THE
 DESIGN, CONSTRUCTION,
 AND PERFORMANCE OF
 THIS CROSSOVER MAIN BOARD
 AND THE CROSSOVER MAIN BOARD
 SHALL BE THE PROPERTY OF
 THE COMPANY AND SHALL NOT BE
 REPRODUCED OR COPIED IN
 ANY MANNER WITHOUT THE
 WRITTEN PERMISSION OF
 THE COMPANY.



NOT USED
 C106
 C107
 C108
 C109
 C110
 C111
 C112
 R30
 R31

LAST REF.
 B1
 BP48
 BR1
 C118
 C119
 L4
 L5
 L6
 P18
 P246
 S416
 U30
 JPI

JBL PROFESSIONAL 9500 BALBOA BLVD. NORTHridge, CA 91329	
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Size	MS31008.SCH
Document Number	B
REV	CO
Date	JANUARY 21, 1997 Sheet 8 of 9