

# Technical Manual

# JBL M712 TWO CHANNEL GATING COMPRESSOR/LIMITER



## SPECIFICATIONS

### ELECTRICAL SPECIFICATIONS:

- Frequency Response: 10 Hz (-0.5 dB) to 50 kHz (-3 dB)
- THD + Noise: Less than 0.03%
- Noise: Better than -94 dB unweighted
- Maximum Input Level: +24 dBu (XLR balanced)
- Maximum Output Level: +27 dBu; +25 dBm (XLR balanced)
- Input Impedance:
  - Balanced: 20 kOhms differential
  - Unbalanced: 10 kOhms
  - Side-Chain Input: 10 kOhms
- Output Impedance:
  - Balanced: 51 Ohms
  - Unbalanced: 102 kOhms
  - Side-Chain Input: 10 kOhms
- Noise Gate Control Ranges:
  - Threshold: -60 dBu (Open) to +10 dBu
  - Attenuation: 54 dB
  - Attack Time: 470 microseconds

- Noise Gate Control Ranges: (*Cont'd*)
  - Hold Time: 200 microseconds
  - Release Time: 95 msec
- Compressor Control Ranges:
  - Threshold: -40 dBu to +20 dBu
  - Ratio: 1:1 to ∞:1 (165:1)
  - Attack Time: 1 msec to 100 msec
  - Release Time: 100 msec to 1.5 seconds
  - Output Gain: -20 dB to +20 dB
  - 0 dBu = .775V; 0 dBm = 1mW

### PHYSICAL SPECIFICATIONS:

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

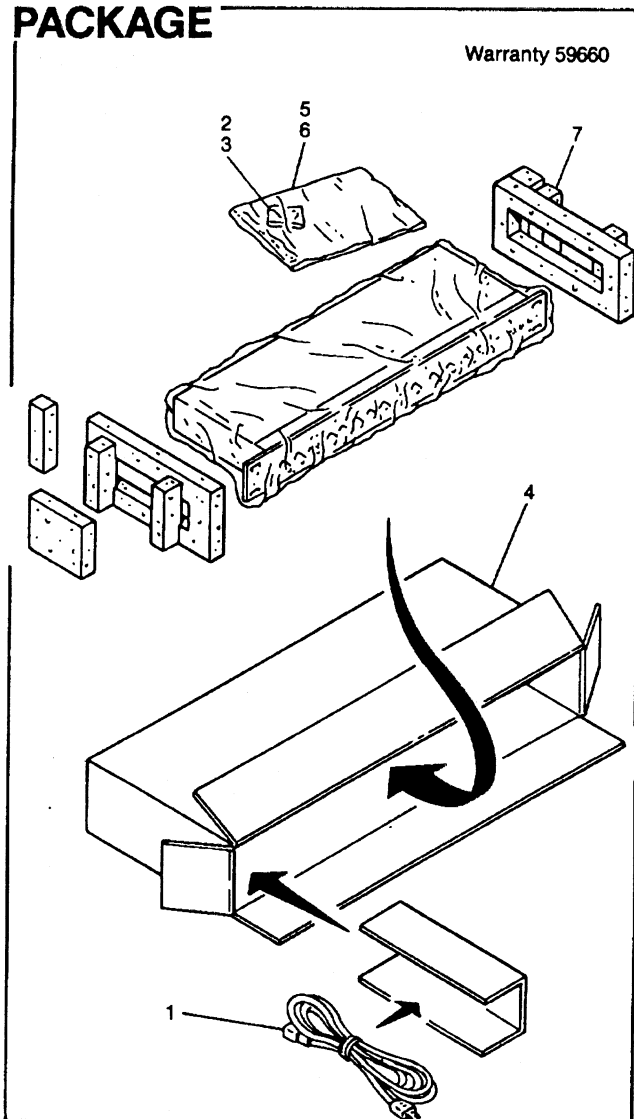
### WARRANTY INFORMATION:

- Refer to the Warranty Statement packed with each product.

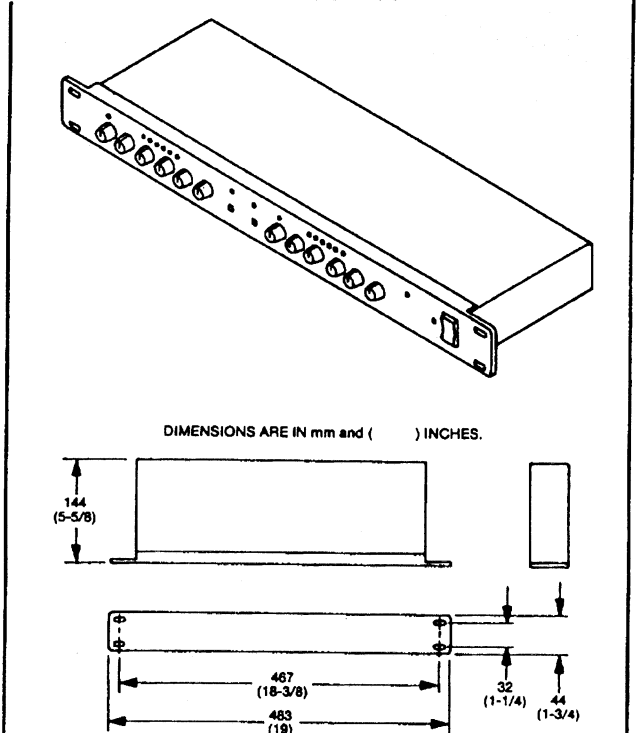
### ACCESSORY:

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	18-0414	1	M712 OWNER'S MANUAL

JBL M712 REV A

Please add the letters JBL behind part numbers when ordering.

# JBL M712

## COMPONENT PARTS LIST

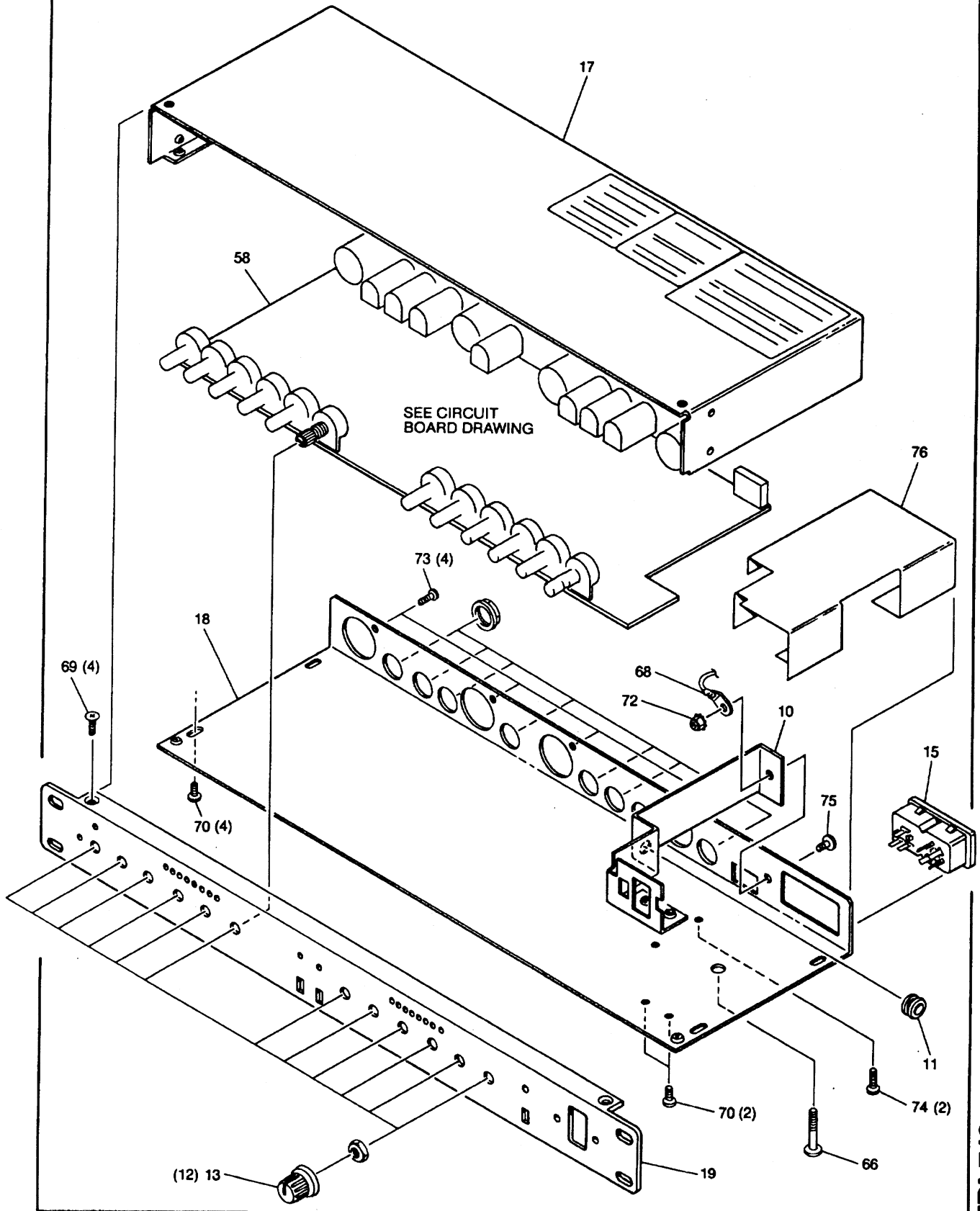
ITEM	PART NO.	QTY	DESCRIPTION
7	—	2	INSERT, FOAM
8	32-1090	1	M SERIES POWER LED HARNESS
9	70-2061	1	LED SMALL RED DIFFUSED T1
10	24-0209	1	JBL OEM POWER SUPPLY SHIELD
11	24-0043	1	RUBBER GROMMET
12	32-0002	2	FUSE 200MA 5x20MM (200-250V)
13	34-0080	12	M SERIES KNOB REAN (LW)
14	80-4007-B	1	AL660/M712 FRONT PCB RAW
15	32-0056	1	AC RECEPTACLE MULTI VOLTAGE (CERT)
16	44-0010	1	M SERIES POWER SWITCH
17	14-1000-B	1	A/L GENERIC TOP REV B
18	10-1355	1	M712 CHASSIS PAINTED
19	10-1354	1	M712 FRONT PAINTED
20	70-4209	1	INSULATOR FOR HS-2 HEATSINK - REV A
21	70-4200-A	1	HEATSINK SPACER ALUM
22	70-4204	1	HS-1 3REG HEATSINK TOP - REV A
23	70-4203	1	HS-2 3REG HEATSINK BASE - REV A
24	70-4123	1	7815 +15V REGULATOR T0-220 1500MA
25	72-4250	2	SSM2120 PRECISION LINEAR
26	72-4023	4	5532 DUAL LOW NOISE OP AMP
27	34-0050	3	M SERIES MINI SWITCH CAP
28	44-0022	1	MINI IN/OUT 6PDT SWITCH (18 PIN)
29	44-0026	2	MINI IN/OUT 4PDT SWITCH (12 PIN)
30	42-0222	2	TRIM POT 50K OHM HORIZONTAL 10MM V
31	40-2012	2	RACK 100K POT SMOOTH W-TAPER
32	40-2021	10	RACK 10K POT B TAPER
33	42-0211	4	TRIM POT 10K OHM HORIZONTAL 10MM
34	42-0219	2	TRIM POT 5K OHM HORIZONTAL 10MM V
35	32-0198	2	XLR MALE PCB MOUNT REAN
36	32-0199	2	XLR FEMALE PCB MOUNT REAN
37	32-0300	1	2 POS PCB BARRIER STRIP A/L
38	72-4051	2	2150A DBX VCA
39	70-1008	2	2N4125 PNP TRANSISTOR
40	70-1009	1	2N4124 NPN TRANSISTOR
41	32-0091	8	BIG JACK PCB 1/4 M203-92
42	32-1069	1	5 PIN HEADER STRAIGHT PIN
43	32-1067	2	14 PIN HEADER STRAIGHT PIN
44	32-1071	1	5 PIN LOCKING HEADER
45	60-0063	2	1000 UF 35V 13x28 BODY
46	60-0051-01	6	10 NP 16V DOG LEG 5x11 BODY
47	60-0048-01	2	4.7 UF 16V DOG LEG 5x7 BODY
48	60-0055	4	100 UF 25V 8x11 BODY

ITEM	PART NO.	QTY	DESCRIPTION
49	60-0065-01	2	47 LL 16V DOG LEG 6x11 BODY
50	60-0050-01	4	10 UF 25V DOG LEG 5x7 BODY
51	60-0045-01	4	1 LL 50V DOG LEG 5x7 BODY
52	70-0129	1	D-101 BRIDGE RECTIFIER (100V)
53	70-3025	2	22 PIN SKINNY DIP SOCKET
54	70-3020	4	8 PIN DIP SOCKET
55	72-4030	7	LF353 DUAL JFET INPUT WIDE BANDWIDTH
56	72-4031	2	LM358N DUAL PWR OP AMP
57	72-4053	6	LM339 QUAD COMPARATOR
58	80-4006-B	1	AL660/M712 MAIN PCB RAW
59	28-1011	1	15 POSITION LED SPACER
60	28-1012	6	1 POSITION LED SPACER
61	38-0105	2	"AF" HARNESS 12 PIN 5 INCH
62	70-2066	1	LED SMALL YELLOW DIFFUSED T1
63	70-2061	20	LED SMALL RED DIFFUSED T1
64	24-0201-A	1	TOROID CUSHION
65	24-0035	1	TOROID RETAINER
66	28-0076	1	10-32x1-1/4 PHIL PAN SCREW STEEL BLK
67	26-0048	1	4 TAP TOROID TRANSFORMER
68	32-2103	1	NO. 6 SOLDER LUG LOCKING TERMINAL
69	28-0060	4	6-32x1/2 POZI FLAT TR3 BLK
70	28-0059	8	6-32x1/4 POZI PAN TR3 BLK .250
71	28-0291	3	4-40x1/4 PHIL PAN SCREW .250
72	28-0065	1	6-32 KEPS HEX NUT
73	28-0263	4	NO. 4x3/8 PLASTITE SCREW PHIL HEAD
74	28-0058	4	6-32 x 3/8 POZI PAN TR3 BLK .375
75	28-0055	1	6-32x1/4 SMOOTH TRUSS HD SCREW BLK
76	24-0206-A	1	PCB INSULATOR LEXAN (A/L)
77	32-2082	4	.250" FASTON CONNECTOR
78	28-0204	1	NO. 6 INTERNAL TOOTH LOCKWASHER BLK
79	70-4124	1	7915 -15V REGULATOR T0-220 1500MA
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JBL M712

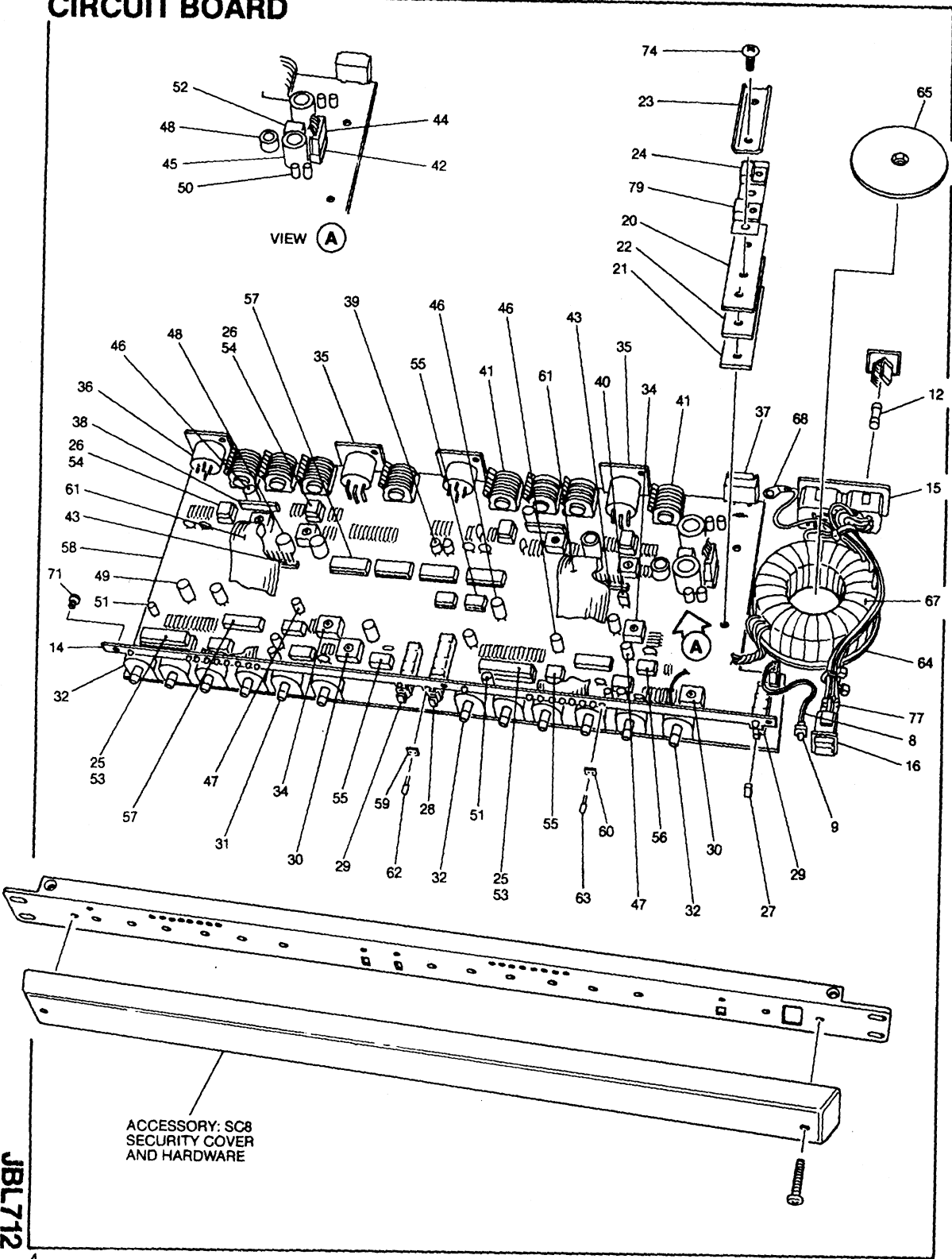
# JBL M712

## COMPONENT EXPLODED VIEW



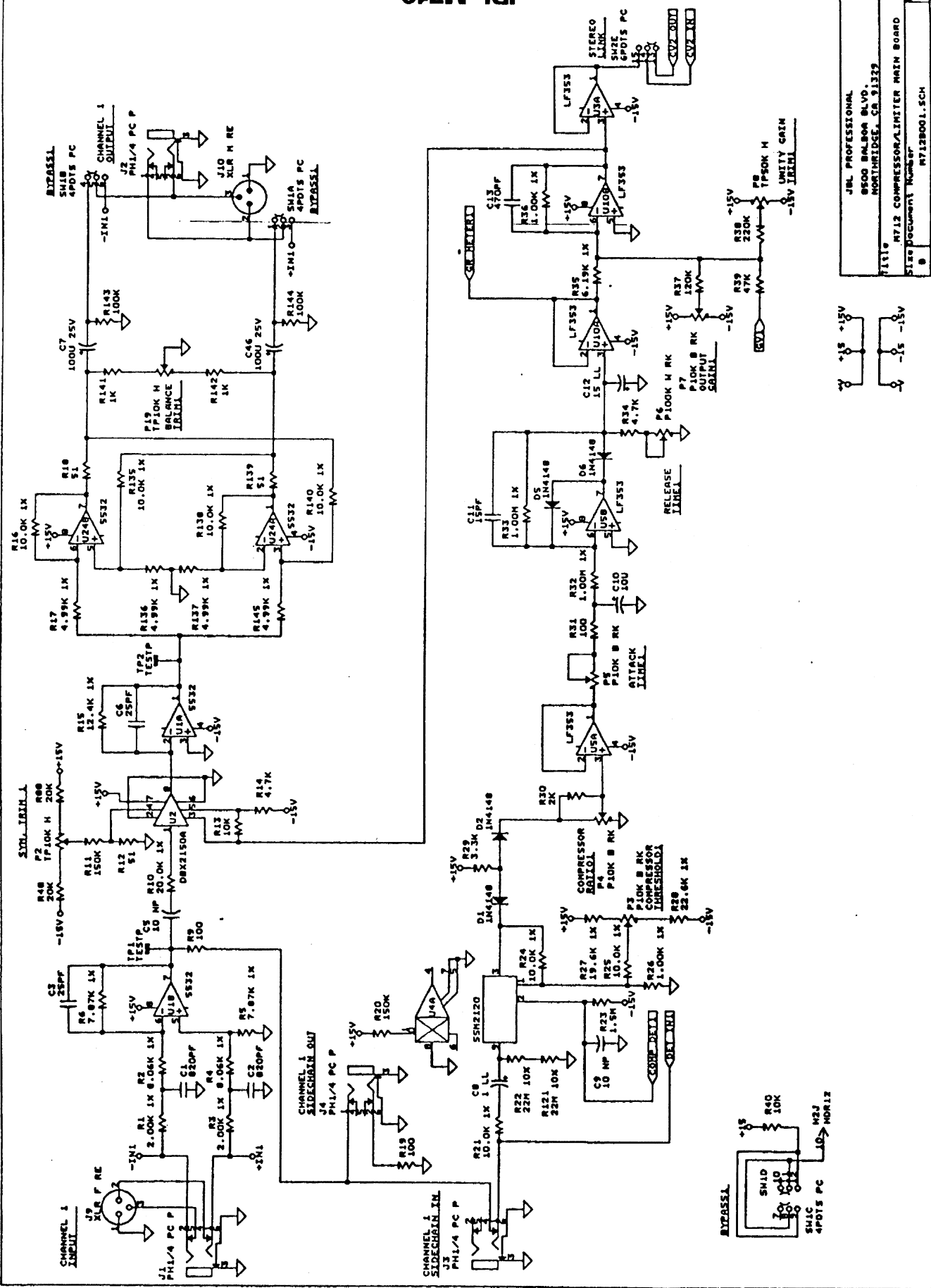
# JBL M712

## CIRCUIT BOARD

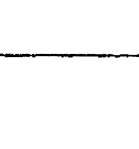
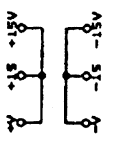


JBL712

JBL M712



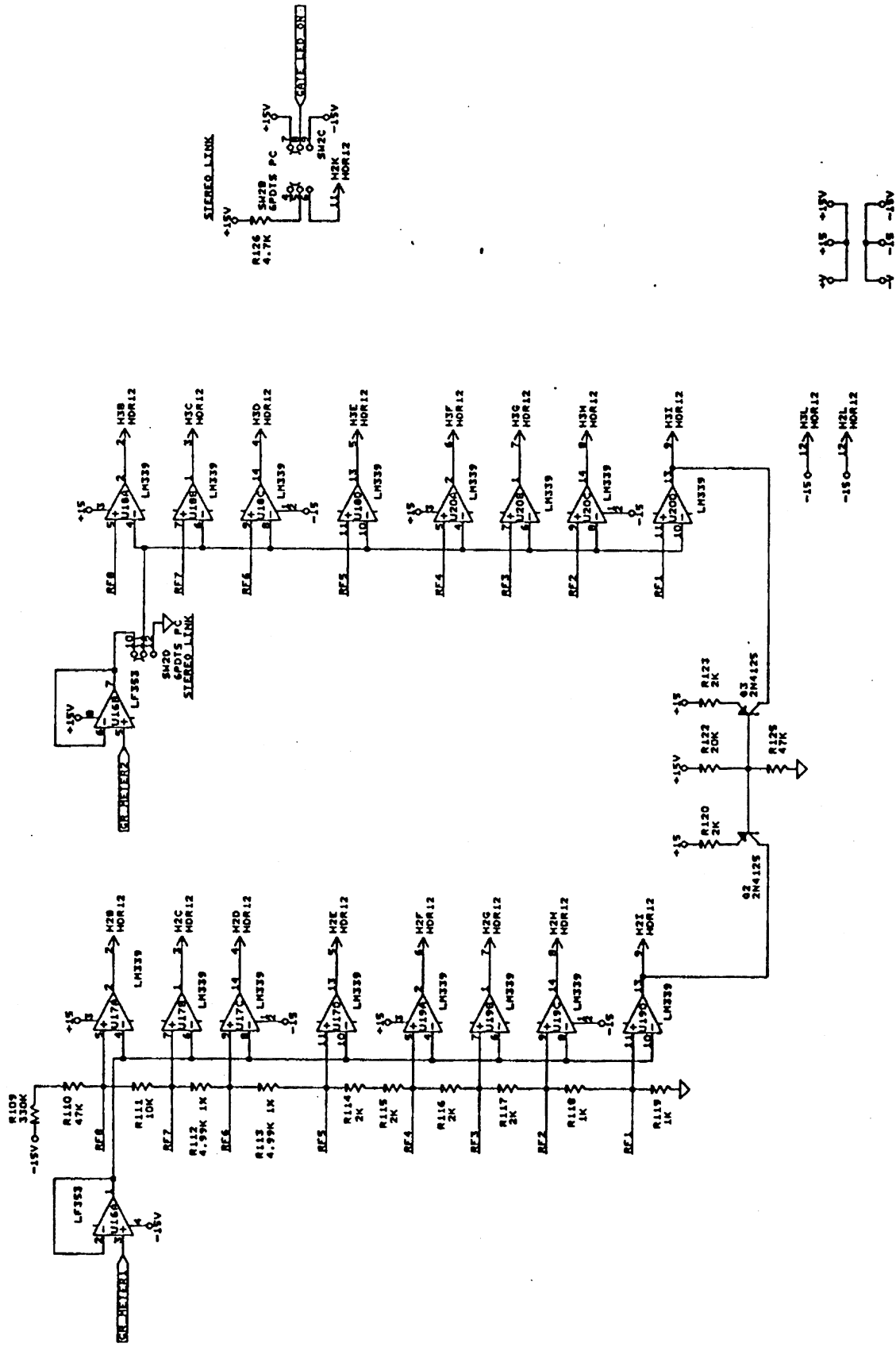
JBL PROFESSIONAL	REV
9500 BALBOA BLVD.	80
NORTHBRIDGE, CA 91329	90
Title: M712 COMPRESSOR/LIMITER MAIN BOARD	REV
Size: Document Number	0
Date: JANUARY 20, 1992	REV







# JBL712



JBL PROFESSIONAL  
 9500 BALBOA BLVD.  
 NORRIMIDGE, CA 91322

Part Number: JBL712  
 Revision: 00

File Name: JBL712COMPRESSORLIMITER MAIN BOARD

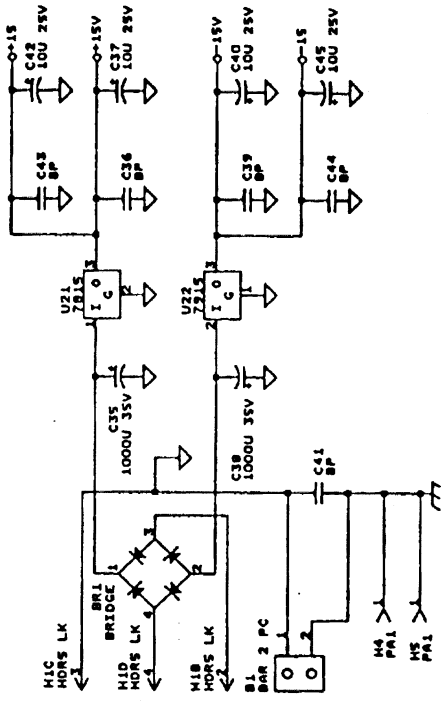
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File Date: 12/28/83

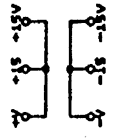
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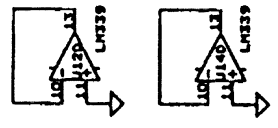
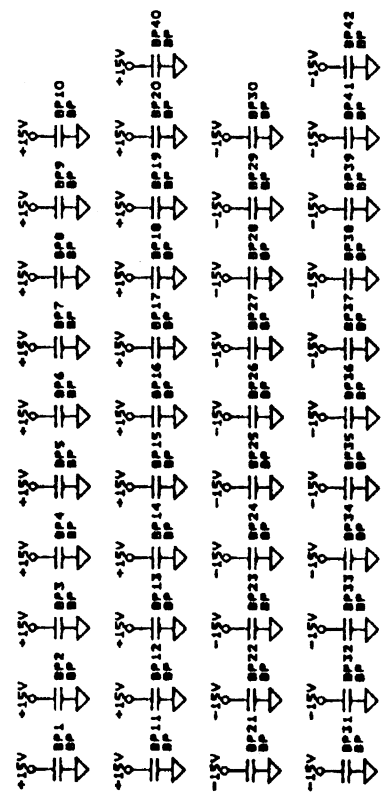
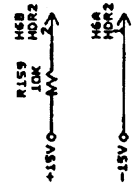


NOTE: -15V AND +15V INDICATE SIGNAL AND CONTROL SUPPLIES.  
 -15 AND +15 INDICATE LED AND COMPANATOR SUPPLIES



LAST REF.
BR42
BR1
C47
C48
U8
J12
P20
Q13
Q15
S43
T46
U25

NOT USED



JBL PROFESSIONAL 9500 BALBOA BLVD. NORTHRIDGE, CA 91329	
TITLE	M712 COMPRESSOR/LIMITER MAIN BOARD
SIC DOCUMENT NUMBER	M7128005.SCH
REV	80
DATE	12/28/80