

Technical Manual



JBL M644 FOUR CHANNEL NOISE GATE

SPECIFICATIONS

ELECTRICAL SPECIFICATIONS:

- Frequency Response: 10 Hz (-0.5 dB) to 40 kHz (-3 dB)
- THD + Noise: Less than 0.03% @ +4 dBm, (20 Hz to 20 kHz, unweighted)
- Noise: -105 dBu, (gate closed, with 90 db attenuation, 20 Hz to 20 kHz, unweighted)
-94 dBu, (gate open, with 90 dB attenuation, 20 Hz to 20 kHz, unweighted)
- Crosstalk Between Channels: Immeasurable (lower than noise floor)
- Maximum Input Level: +24 dBu (XLR balanced)
- Maximum Output Level: +27 dBu; +25 dBm (XLR balanced)
- Dynamic Range: 115 dB from maximum signal to noise floor
- Input Impedance: Balanced: 20 kOhms differential

- Input Impedance: (cont'd)
Unbalanced: 10 kOhms
Key Input: 10 kOhms
- Output Impedance:
Balanced: 102 Ohms
Unbalanced: 51 Ohms
- Control Ranges:
Threshold: -60 dBu (Open) to +10 dBu
Attenuation: 0 dB (open) to 90 dB
Attack Time: 50 microseconds to 25 msec
Release Time: 50 msec to 5 seconds

PHYSICAL SPECIFICATIONS:

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

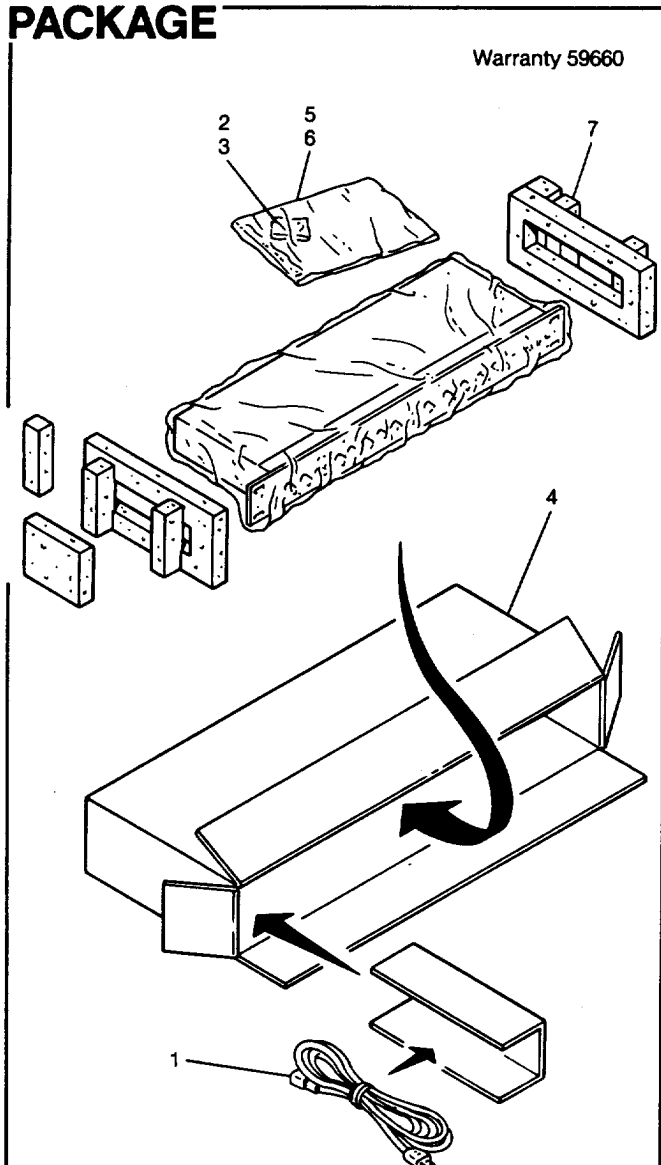
WARRANTY INFORMATION:

- Refer to the Warranty Statement packed with each product.

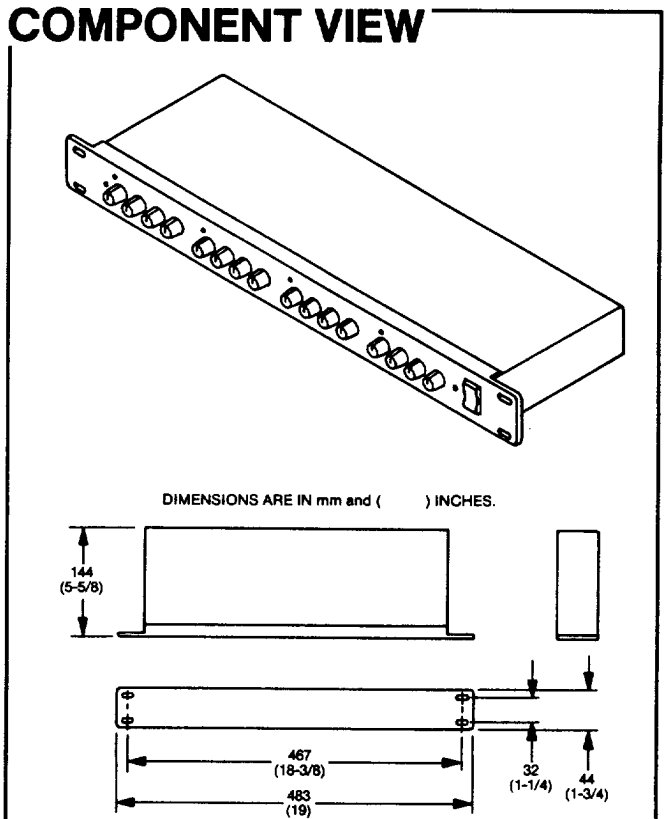
ACCESSORY:

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	18-0415	1	M644 OWNER'S MANUAL

JBL M644 REV A

Please add the letters JBL behind part numbers when ordering.

JBL M644

COMPONENT PARTS LIST

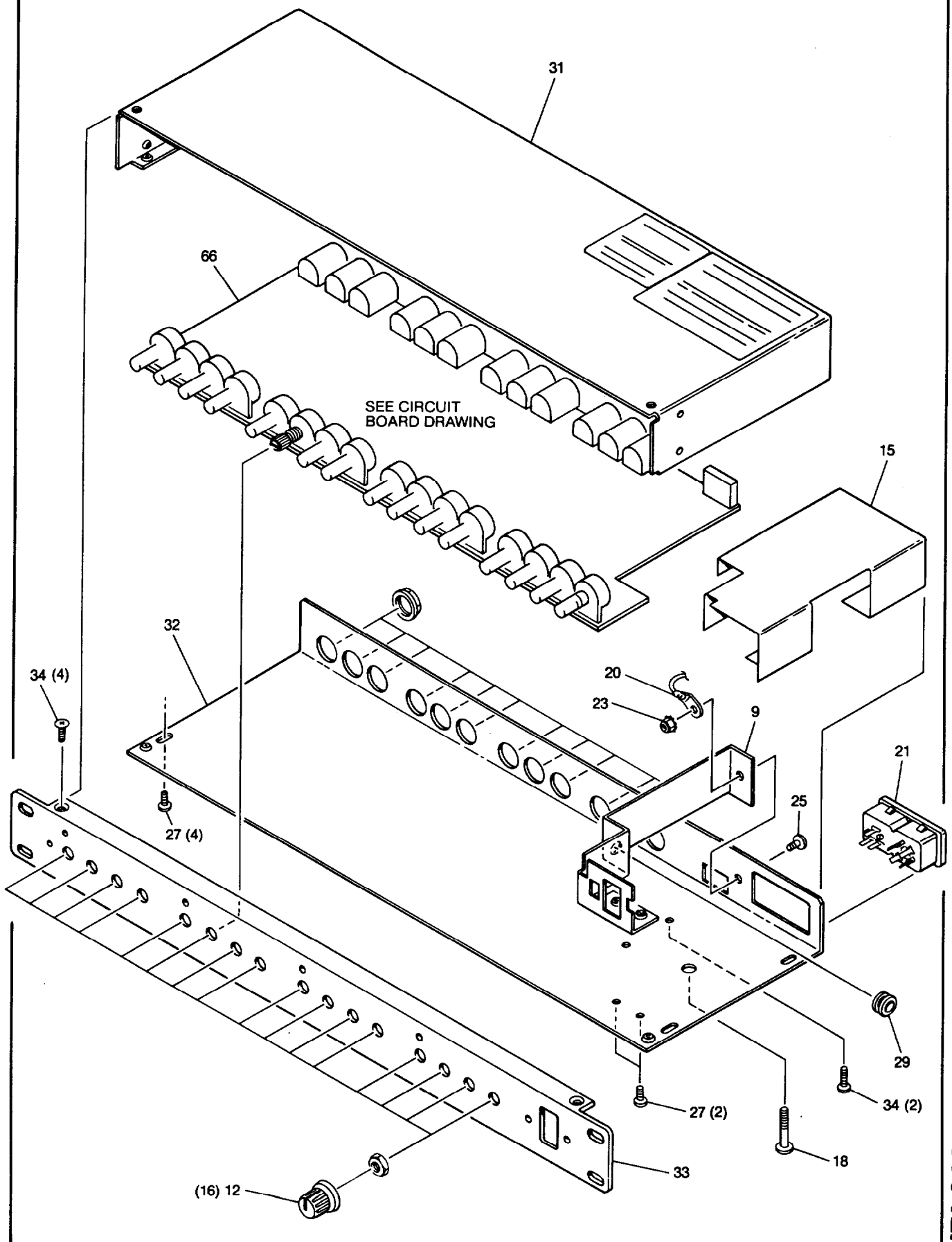
ITEM	PART NO.	QTY	DESCRIPTION
7	—	2	INSERT, FOAM
8	32-2082	4	.250" FASTON CONNECTOR
9	24-0209	1	JBL OEM POWER SUPPLY SHIELD
10	32-1090	1	M SERIES POWER LED HARNESS
11	70-2061	1	LED SMALL RED DIFFUSED T1
12	34-0080	16	M SERIES KNOB REAN (LW)
13	32-0002	2	FUSE 200MA 5x20MM (200-250V)
14	32-2105	1	2 POS JUMPER FOR 32-0300 BARRIER
15	24-0206-A	1	PCB INSULATOR LEXAN (A/L)
16	24-0035	1	TOROID RETAINER
17	24-0201-A	1	TOROID CUSHION
18	28-0076	1	10-32x1-1/4 PHIL PAN SCREW STEEL BLK
19	26-0048	1	4 TAP TOROID TRANSFORMER
20	32-2103	1	NO. 6 SOLDER LUG LOCKING TERMINAL
21	32-0056	1	AC RECEPTACLE MULTI VOLTAGE (CERT)
22	28-0291	3	4-40x1/4 PHIL PAN SCREW .250
23	28-0065	1	6-32 KEPS HEX NUT
24	28-0204	1	NO. 6 INTERNAL TOOTH LOCKWASHER BLK
25	28-0055	1	6-32x1/4 SMOOTH TRUSS HD SCREW BLK
26	28-0060	4	6-32x1/2 POZI FLAT TR3 BLK
27	28-0059	8	6-32x1/4 POZI PAN TR3 BLK .250
28	44-0010	1	M SERIES POWER SWITCH
29	24-0043	1	RUBBER GROMMET
30	10-2050	1	AL GENERIC TOP BLK
31	10-1361	1	M644 CHASSIS PAINTED
32	10-1360	1	M644 FRONT PAINTED
33	28-0058	4	6-32x3/8 POZI PAN TR3 BLK .375
34	70-4209	1	INSULATOR FOR HS-2 HEATSINK - REV A
35	70-4200-A	1	HEATSINK SPACER ALUM
36	70-4204	1	HS-1 3REQ HEATSINK TOP - REV A
37	70-4203	1	HS-2 3REQ HEATSINK BASE - REV A
38	70-4124	1	7915 -15V REGULATOR T0-220 1500MA
39	70-4123	1	7815 +15V REGULATOR T0-220 1500MA
40	72-4250	2	SSM2120 PRECISION LINEAR
41	72-4023	8	5532 DUAL LOW NOISE OP AMP
42	40-2017	4	RACK 5K SMOOTH A-TAPER
43	40-2014	4	RACK 1 MEG POT SMOOTH W-TAPER
44	40-2021	8	RACK 10K POT B TAPER
45	42-0211	8	TRIM POT 10K OHM HORIZONTAL 10MM
46	32-0300	1	2 POS PCB BARRIER STRIP A/L
47	32-0091	1	BIG JACK PCB 1/4 M203-92
48	72-4051	4	2150A DBX VCA

ITEM	PART NO.	QTY	DESCRIPTION
49	70-1008	4	2N4125 PNP TRANSISTOR
50	70-1009	4	2N4124 NPN TRANSISTOR
51	32-1071	1	5 PIN LOCKING HEADER
52	32-1069	2	5 PIN HEADER STRAIGHT PIN
53	60-0063	2	1000 UF 35V 13x28 BODY
54	60-0049-01	1	10 UF 16V DOG LEG 5x7 BODY
55	60-0050-01	4	10 UF 25V DOG LEG 5x7 BODY
56	60-0048-01	4	4.7 UF 16V DOG LEG 5x7 BODY
57	60-0055	8	100 UF 25V 8x11 BODY
58	60-0045-01	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	28-1012	4	1 POSITION LED SPACER
67	38-0103	1	"AD" HARNESS 5 PIN 5 INCH
68	70-2061	4	LED SMALL RED DIFFUSED T1
69	80-4005-C	1	AL440/SR644 FRONT PCB
70			
71			
72			
73			
74			
75			
76			
77			
78			
79			
80			
81			
82			
83			
84			
85			
86			
87			
88			
89			
90			

JBL M644

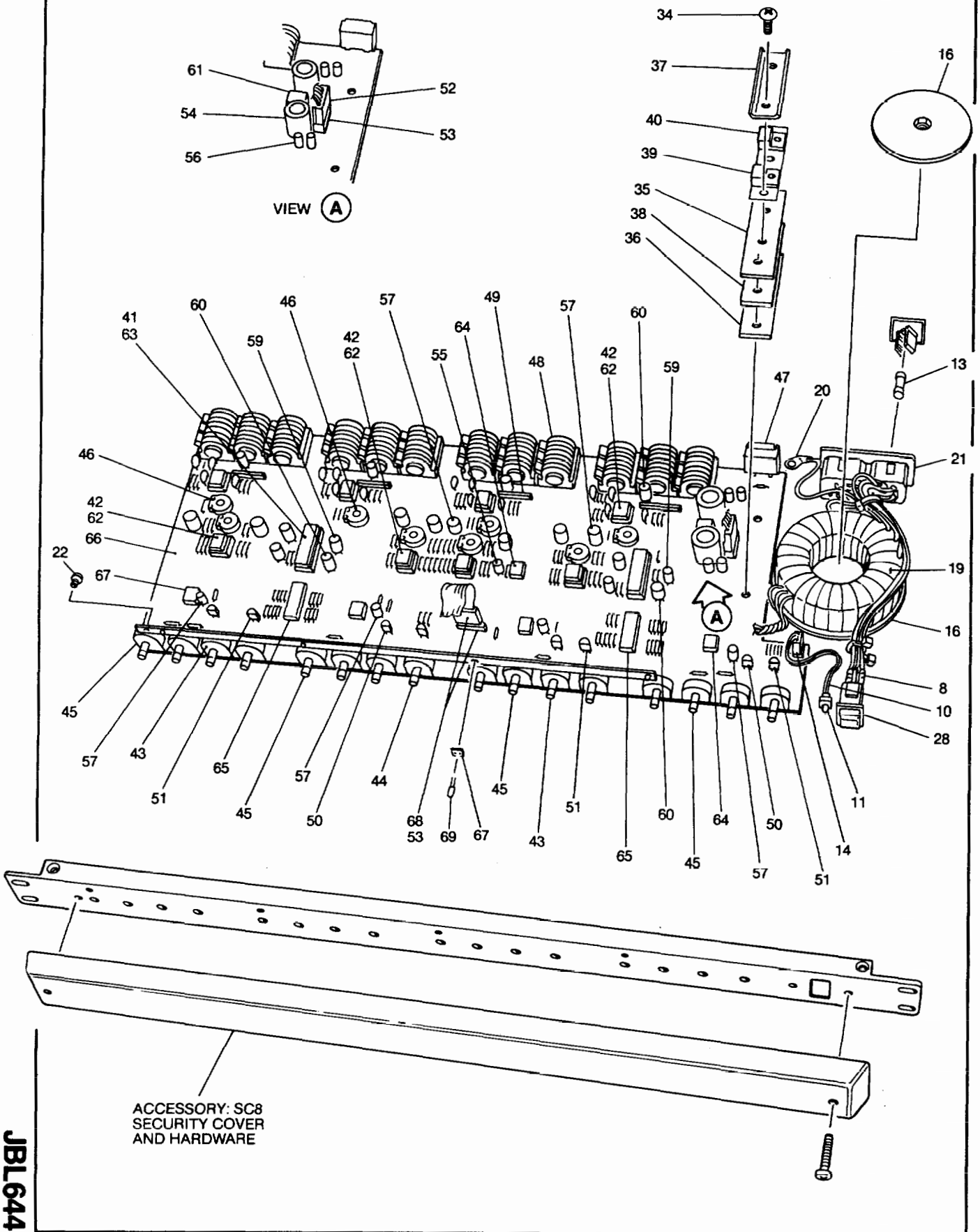
JBL M644

COMPONENT EXPLODED VIEW



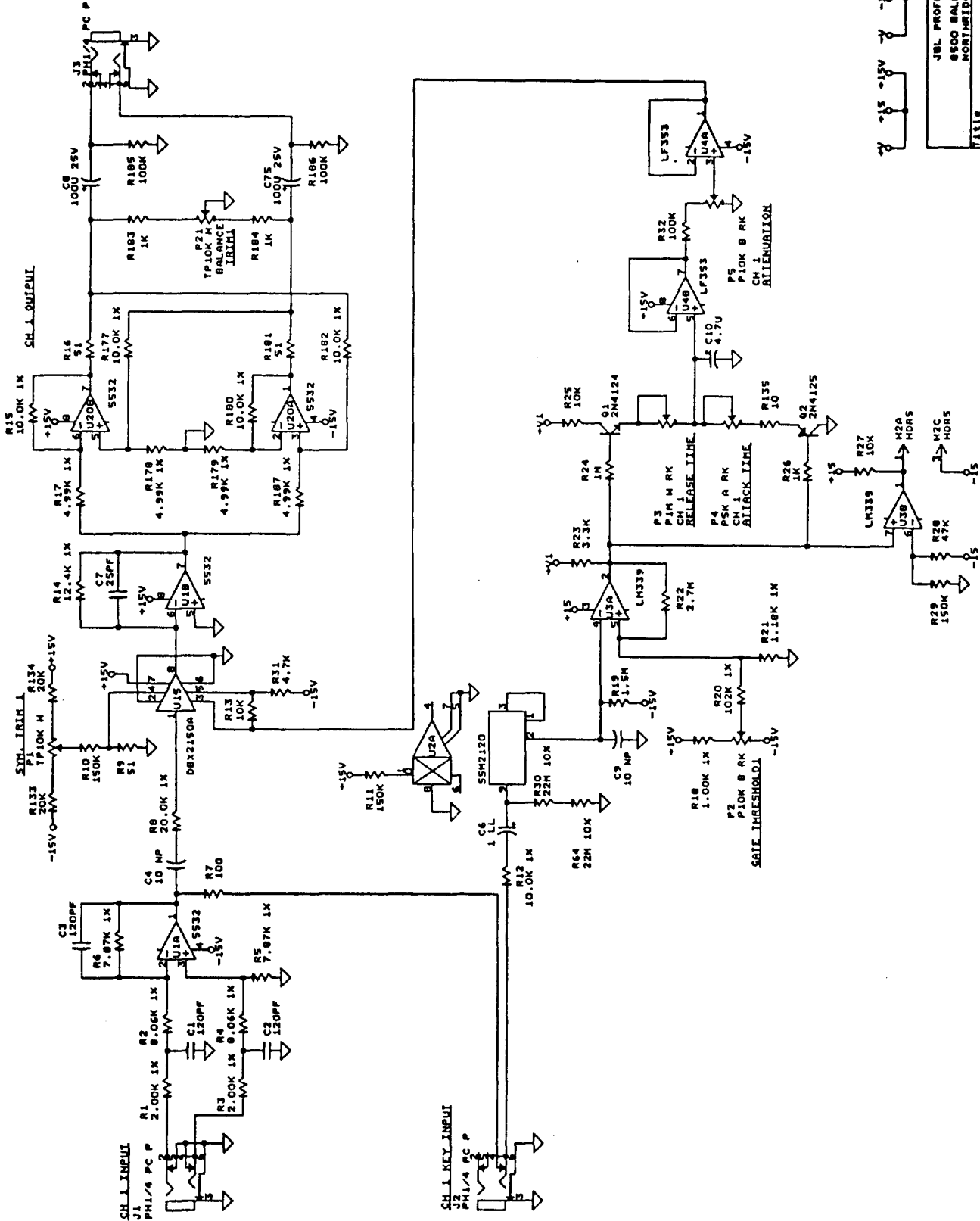
JBL M644

CIRCUIT BOARD



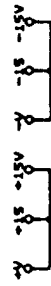
JBL644

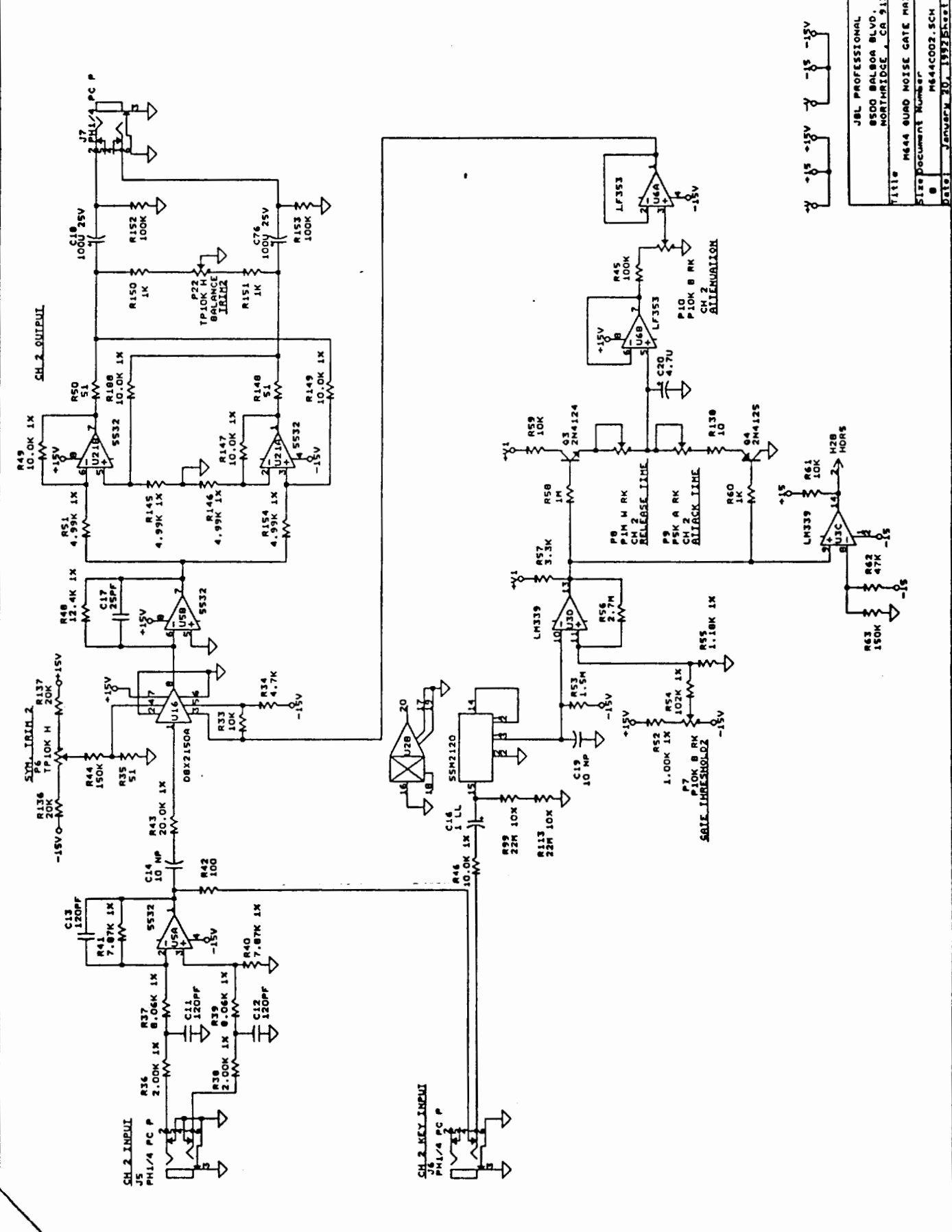
JBL M644



JBL PROFESSIONAL
 8500 BALBOA BLVD.
 NORTHridge, CA 91329

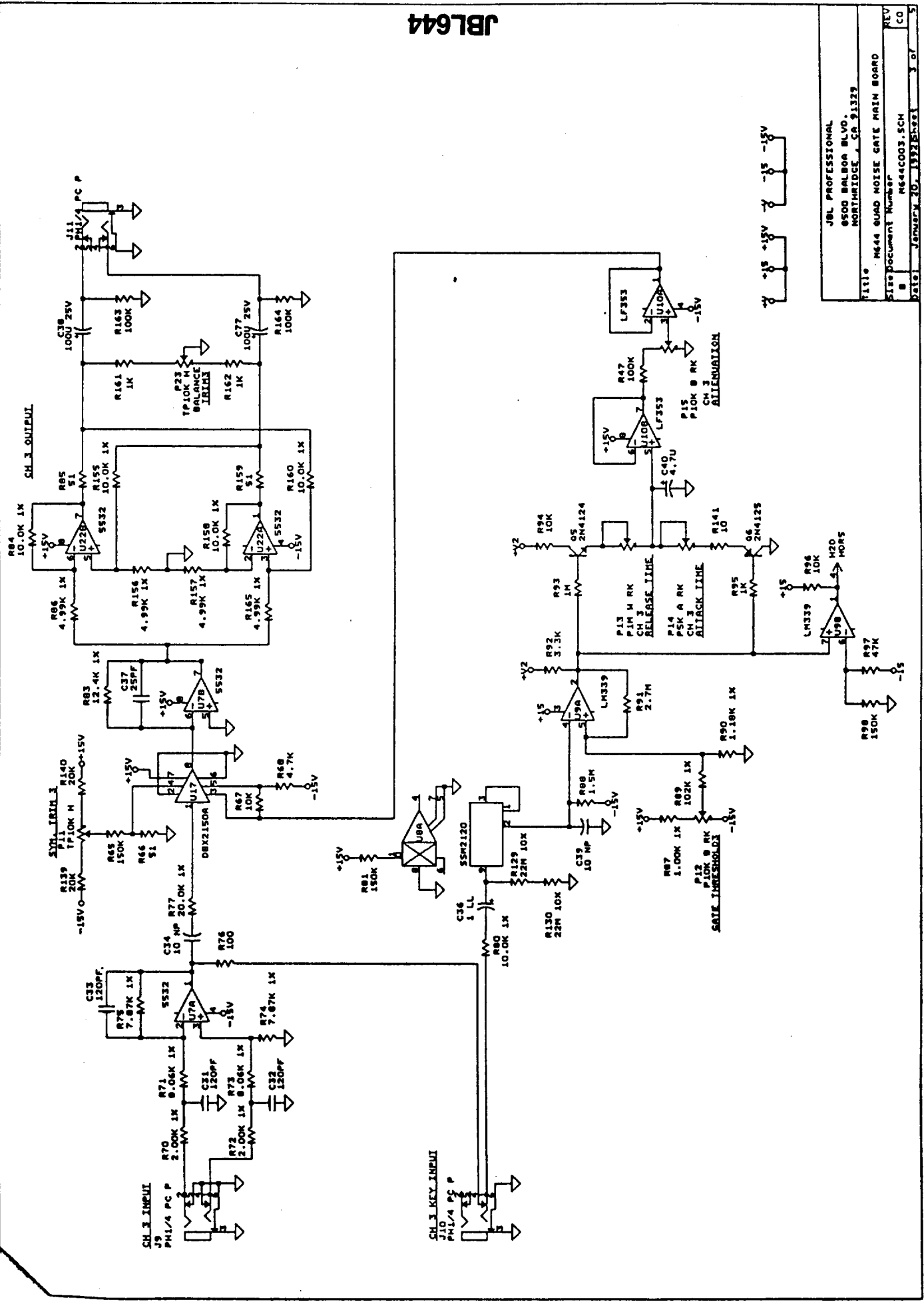
Title M644 QUAD NOISE GATE MAIN BOARD
 Size document Number M644COO1.SCH
 Date JANUARY 20, 1992 15:01





JBL PROFESSIONAL
 8500 BALBOA BLVD.
 NORTHRIDGE, CA 91329

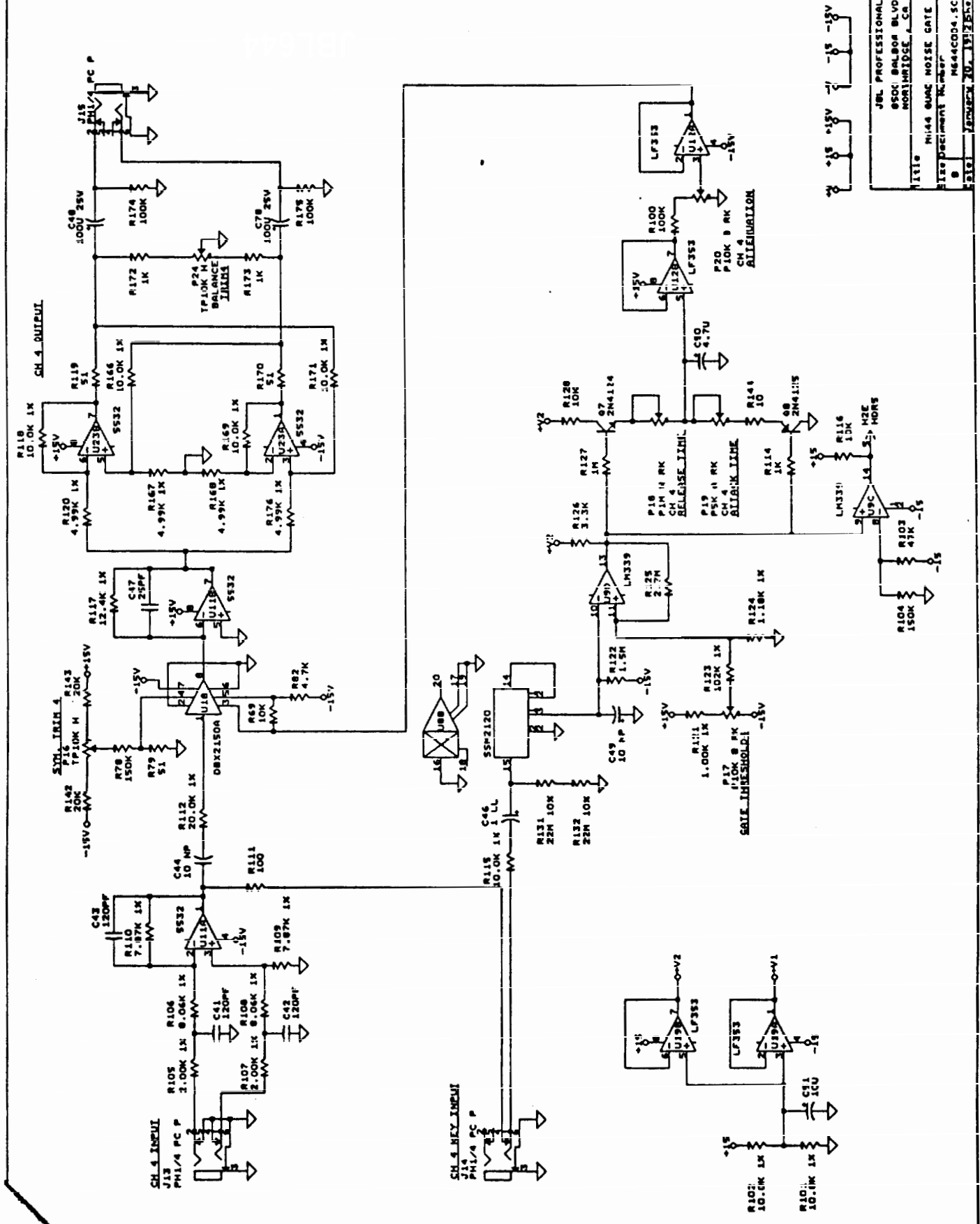
Title M644 GUARD NOISE GATE MAIN BOARD
 Site Document Number M644C002.SCH
 REV CO
 Date January 20, 1992 Sheet 2 of 3



JBL644

REV	CO
B	1644003.SCH
Title: M644 QUAD NOISE GATE MAIN BOARD	
Date: JANUARY 20, 1977/5001	

JBL PROFESSIONAL
 9500 BALBOA BLVD.
 NORTHBRIDGE, CA 91329



JBL PROFESSIONAL
 9500 BALBOA BLVD.
 NORRIDGE, CA 91329

TITLE: M144 NOISE GATE MAIN BOARD

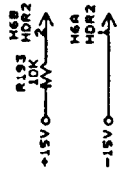
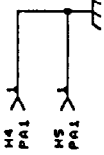
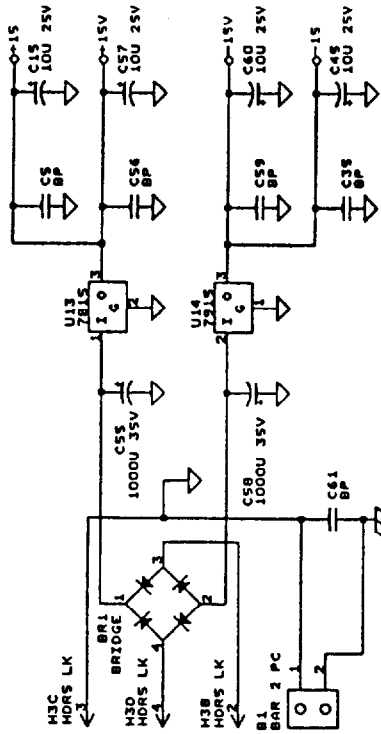
REVISION: 1

DESIGNER: M144

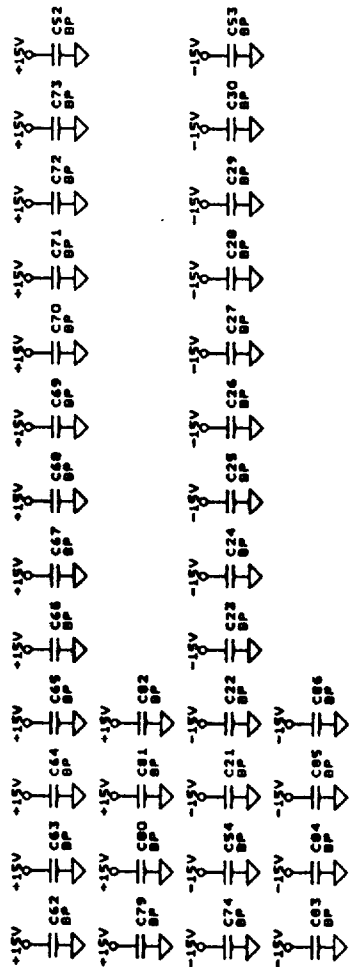
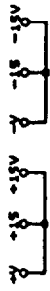
DATE: JANUARY 20, 1975

REV	1
CO	1
DATE	JANUARY 20, 1975

JBL644



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



NOT USED
 M1
 J4, 8, 12

LAST REF.
 B1
 C81
 M6
 J-5
 Q-24
 R133
 U23

JBL PROFESSIONAL 8500 BALBOA BLVD. NORWICH, CA 91329	
Title	M644 QUAD NOISE GATE MAIN BOARD
Site Document Number	M644005.SCH
REV	B
CO	REV
DATE	January 20, 1977
Sheet	5 of 5