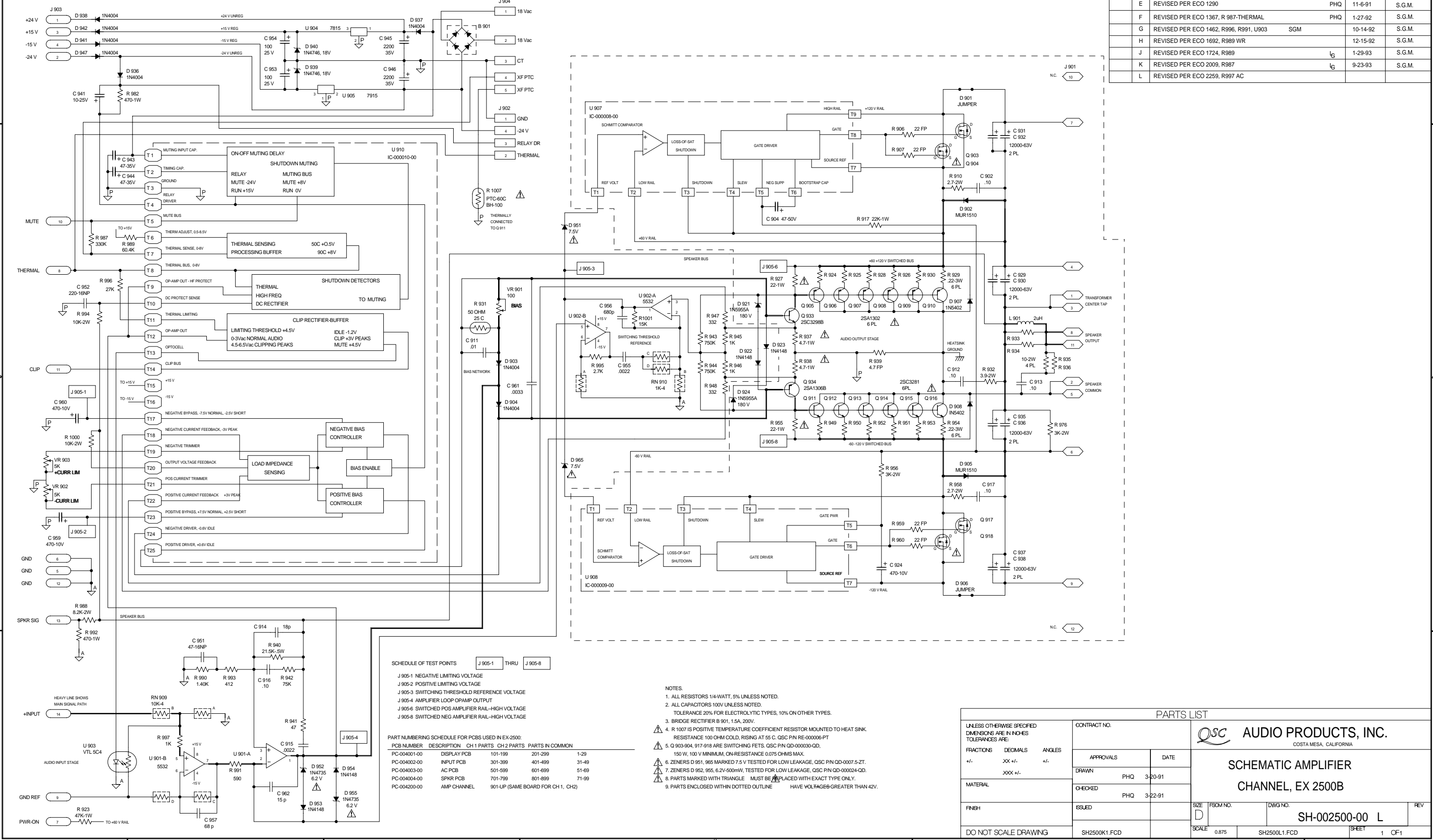


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SCHEMATIC, AMPLIFIER CHANNEL, EX 2500
REV G, 10-14-92, FOR PC-004200-00 REV E

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A	PROD RELEASE PER ECO 1040 GLF		3-25-91	G.F.
B	PER ECO 1095 GLF		6-10-91	S.G.M.
C	REVISED PER ECO 1219	LG	9-13-91	S.G.M.
D	REVISED PER ECO 1194	RDS	9-13-91	S.G.M.
D	REVISED PER ECO 1262	LG	10-9-91	S.G.M.
E	REVISED PER ECO 1290	PHQ	11-6-91	S.G.M.
F	REVISED PER ECO 1367, R 987-THERMAL	PHQ	1-27-92	S.G.M.
G	REVISED PER ECO 1462, R996, R991, U903	SGM	10-14-92	S.G.M.
H	REVISED PER ECO 1692, R989 WR		12-15-92	S.G.M.
J	REVISED PER ECO 1724, R989	LG	1-29-93	S.G.M.
K	REVISED PER ECO 2009, R987	LG	9-23-93	S.G.M.
L	REVISED PER ECO 2259, R997 AC			



SCHEDULE OF TEST POINTS J 905-1 THRU J 905-8

- J 905-1 NEGATIVE LIMITING VOLTAGE
- J 905-2 POSITIVE LIMITING VOLTAGE
- J 905-3 SWITCHING THRESHOLD REFERENCE VOLTAGE
- J 905-4 AMPLIFIER LOOP OP-AMP OUTPUT
- J 905-5 SWITCHED POS AMPLIFIER RAIL-HIGH VOLTAGE
- J 905-8 SWITCHED NEG AMPLIFIER RAIL-HIGH VOLTAGE

PART NUMBERING SCHEDULE FOR PCBs USED IN EX-2500:

PCB NUMBER	DESCRIPTION	CH 1 PARTS	CH 2 PARTS	PARTS IN COMMON
PC-004001-00	DISPLAY PCB	101-199	201-299	1-29
PC-004002-00	INPUT PCB	301-399	401-499	31-49
PC-004003-00	AC PCB	501-599	601-699	51-69
PC-004004-00	SPKR PCB	701-799	801-899	71-99
PC-004200-00	AMP CHANNEL	901-UP (SAME BOARD FOR CH 1, CH2)		

- NOTES:**
- ALL RESISTORS 1/4-WATT, 5% UNLESS NOTED.
 - ALL CAPACITORS 100V UNLESS NOTED.
 - TOLERANCE 20% FOR ELECTROLYTIC TYPES, 10% ON OTHER TYPES.
 - BRIDGE RECTIFIER B 901, 1.5A, 200V.
 - R 1007 IS POSITIVE TEMPERATURE COEFFICIENT RESISTOR MOUNTED TO HEAT SINK. RESISTANCE 100 OHM COLD, RISING AT 55 C. QSC PIN RE-000006-PT
 - Q 903-Q904, Q917-Q918 ARE SWITCHING FETS. QSC PIN QD-000030-QD, 150 W, 100 V MINIMUM, ON-RESISTANCE 0.075 OHMS MAX.
 - ZENERS D 951, 955 MARKED 7.5 V TESTED FOR LOW LEAKAGE. QSC PIN QD-0007.5-ZT.
 - ZENERS D 952, 955, 6.2V-500mW, TESTED FOR LOW LEAKAGE. QSC PIN QD-000024-QD.
 - PARTS MARKED WITH TRIANGLE MUST BE REPLACED WITH EXACT TYPE ONLY.
 - PARTS ENCLOSED WITHIN DOTTED OUTLINE HAVE VOLTAGES GREATER THAN 42V.

PARTS LIST

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

FRACTIONS	DECIMALS	ANGLES
±	XX ±	±
	XXX ±	

CONTRACT NO.		APPROVALS		DATE
		PHQ	PHQ	3-20-91
		CHECKED	PHQ	3-22-91
ISSUED				

QSC AUDIO PRODUCTS, INC.
COSTA MESA, CALIFORNIA

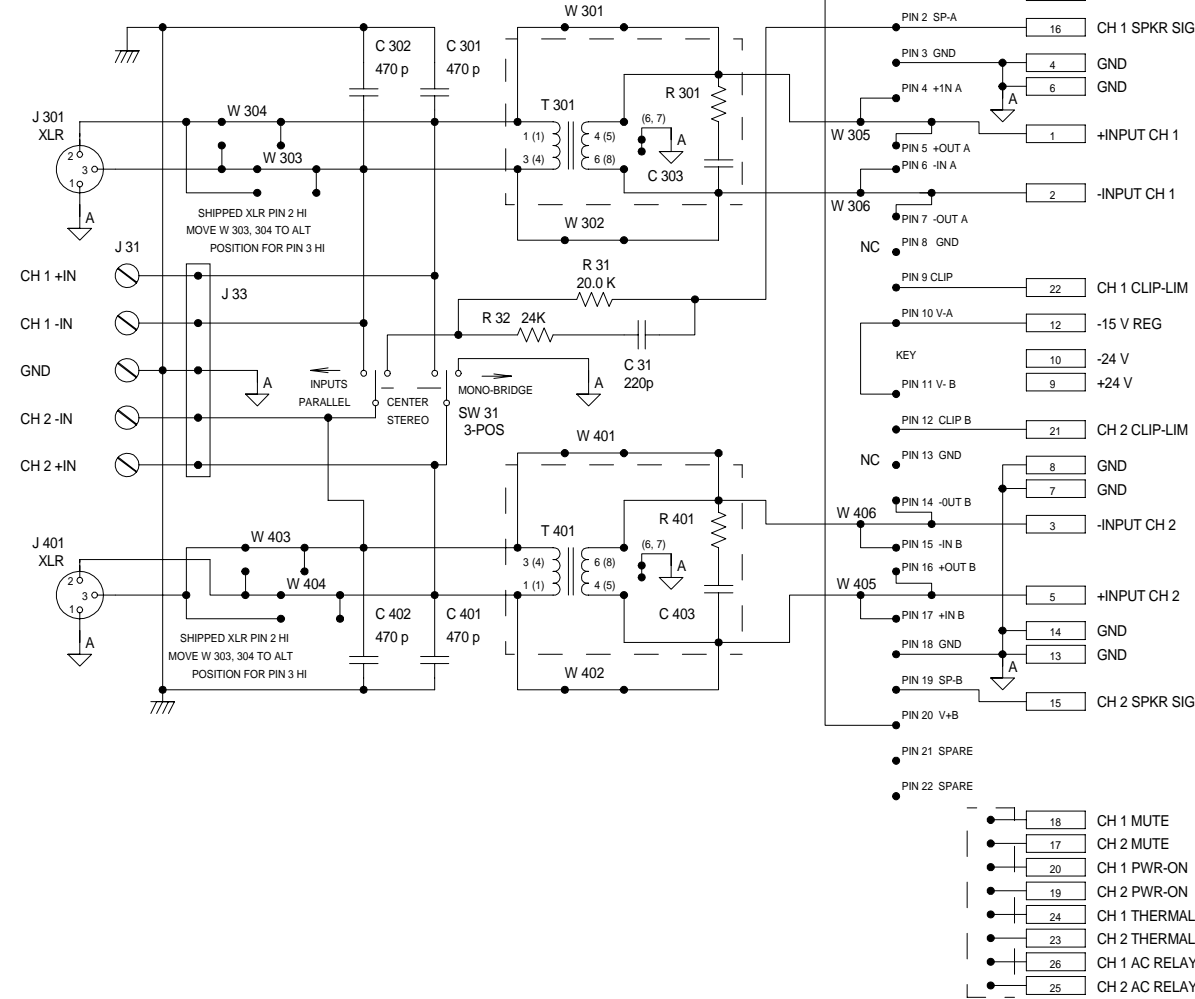
SCHEMATIC AMPLIFIER CHANNEL, EX 2500B

SIZE D	FSCM NO.	DWG NO. SH-002500-00 L	REV
SCALE 0.875	SH2500K1.FCD	SHEET 1 OF 1	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	PROD REL PER ECO 756		
	B	CHANGE VALUE R31, WAS 21 K SEE ECO 1097	6-10-91	SGM
	C	REVISED FOR MIN-SLOT, BR-SW SEE ECO 1297 BY PHQ	1-24-92	SGM
	D	REVISE PER ECO 1916	6.	

SCHEMATIC, EX-SERIES STANDARD INPUT BOARD.
FOR PC-004005-00 REV B 7-15-93



NOTES, ALL REV LEVELS

1. ALL RESISTORS 1/4W, 5%.
2. ALL CAPACITORS 100V
3. J 32, 26-PIN CONNECTOR, TO J 1 ON FRONT DISPLAY BOARD PC-004001-00.
4. PARTS FOR CH 1 NUMBERED 301-399.
5. PARTS FOR CH 2 NUMBERED 401-499.
6. PARTS IN COMMON TO BOTH CHANNELS NUMBERED 31-49.
7. BOARD SHIPPED WITH W 301-304, W 401-404 MOUNTED AS SHOWN.
8. PARTS WITHIN DOTTED OUTLINE FOR USER MODIFICATION. SEE MANUAL.

NOTES, REV LEVELS A-B

1. THE FIRST YEAR OF PRODUCTION EX AMPLIFIERS SHIPPED WITH PC-004002-00 REV A OR B
2. FOR PC-004005-00 REV A, ADDED PADS 1-20 FOR LEVEL 1-A, 2-A INPUT ACCESSORY PCB
3. ADDED J33, 5-PIN INPUT EXTENDER HEADER AND W305,306,405 & 406.
4. NO CHANGE IN PINOUT OF J32, PINS 1-26
5. SW-31 WAS REVISED ON PC-004005-00 REV A, BUT WILL NOT AFFECT FUNCTION OF UPPER SLOT PCB.

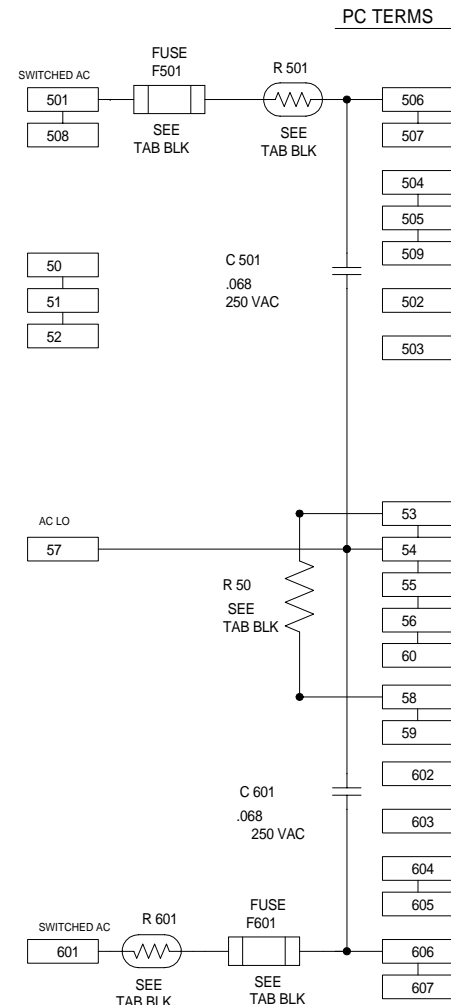
NOTES: UNLESS OTHERWISE SPECIFIED

APPLICATION		PARTS LIST		QSC AUDIO PRODUCTS, INC. COSTA MESA, CALIFORNIA	
PC-004005-00	EX/MPA SERIES	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSIONS PER ANSI Y14.5-1982 TOLERANCES ARE: DECIMALS .XX ± .XXX ± ANGLES ° DEBURR EDGES .XXX R MAX	CONTRACT NO.	APPROVALS	
NEXT ASSY	USED ON	MATERIAL	DATE	DRAWN	
		FINISH	6-18-90	PAT QUILTER	
			ISSUED	CHECKED	
			CAD SEED FILE NO.	SIZE	
			SH4002C1.FCD	C	
				FSCM NO.	
				DWG NO.	
				SH-004002-00	
				REV	
				D	
				SCALE	
				NONE	
				CAD FILE NO.	
				SH4002D1.FCD	
				SHEET	
				1 OF 1	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	PROD RELEASE PER ECO 1846	5-18-93	SGM
	B	REVISED PER ECO 2201 (EFF 8-5-94)	6-15-94	SGM
	C	REV PER ECO 2699 (EFF. 8-18-95)		

SCHEMATIC FOR PC-004003-00 REV B



TABULATION BLOCK			
MODEL (V)	FUSE	R 50	R 501 / R 601
MX 2000a (100V)	15A 250V	330 15W	1.0 OHM COLD 30A
MX 2000a (120V)	15A 250V	330 15W	1.0 OHM COLD 30A
MX 2000a (230V)	12A 250V	470 15W	2.5 OHM 15A
EX 2500 (100V)	20A 250V	/	1.0 OHM COLD 30A
EX 2500 (120V)	20A 250V	/	1.0 OHM COLD 30A
EX 2500 (230V)	12A 250V	/	2.5 OHM 15A
EX 4000 (100V)	20A 250V	/	1.0 OHM COLD 30A
EX 4000 (120V)	20A 250V	/	1.0 OHM COLD 30A

1. THIS DRAWING USED IN CONJUNCTION WITH SCHEMATIC DIAGRAMS : SH-004000-00, SH-004001-00, SH-004002-00, SH-004003-00, SH-004004-00, SH-004006-00, SH-002500-00, SH-002010-00, AND SH-002011-00

NOTES: UNLESS OTHERWISE SPECIFIED

APPLICATION	USED ON
PC-004003-00	EX 3 SP
NEXT ASSY	USED ON

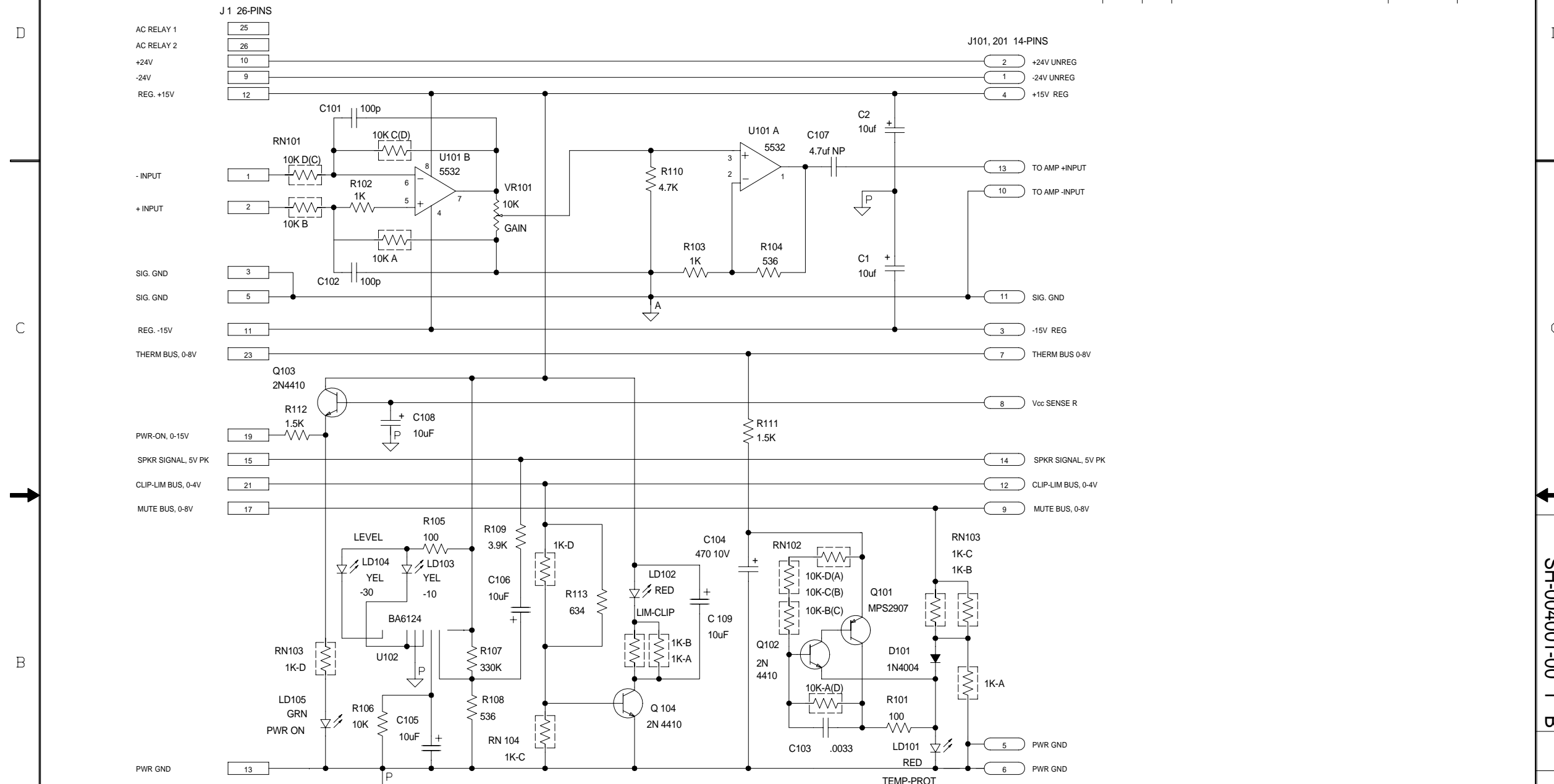
PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSIONS PER ANSI Y14.5-1982		CONTRACT NO.	
TOLERANCES ARE: DECIMALS DECIMALS ANGLES XX ± .XXX ± °		APPROVALS DATE	
DEBURR EDGES .XXX R MAX		DRAWN LEORA 5-10-93	
MATERIAL		CHECKED SGM 5-17-93	
FINISH		ISSUED SG MORALES 5-18-93	
DO NOT SCALE DRAWING		CAD FILE NO. SH4005B1.FCD	
		<p align="center">SCHEMATIC, AC PCB EX/MXa 3 SP</p>	
SIZE	F30M NO.	DWG NO.	REV
C		SH-004005-00	C
SCALE	NONE	CAD FILE NO.	SHEET
		SH4005C1.FCD	1 OF 1

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SCHEMATIC, EX-SERIES DISPLAY BOARD.

PC-004001-00, REV A.

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	A	PROD REL PER ECO 756	6-19-90	
	B	REVISED PER ECO 1603 WR	9-29-92	



CH 2 PINS

- INPUT	4
+ INPUT	6
SIG. GND	7
SIG. GND	8
THERM BUS, 0-8V	24
PWR-ON, 0-15V	19
SPKR SIGNAL, 5V PK	16
CLIP-LIM BUS, 0-4V	22
MUTE BUS, 0-8V	18
PWR GND	14

- NOTES
1. ALL RESISTORS 1/4 WATT UNLESS SPECIFIED.
 2. ALL CAPACITORS 25V UNLESS SPECIFIED.
 3. CH 2 RESISTOR NETWORK SECTIONS () WHEN DIFFERENT.
 4. CH 1 COMPONENTS NUMBERED 101-199
 5. CH 2 COMPONENTS NUMBERED 201-299.
 6. PARTS IN COMMON TO BOTH CHANNELS NUMBERED 1-99.
 7. U102, 202 ROHM BA6124 OR SAMSUNG KA2284/85
 8. LD 101, 102, HIGH-EFFICIENCY RED LED.
 9. LD 103, 104, HIGH-EFFICIENCY YELLOW LED.
 10. LD 105, HIGH-EFFICIENCY GREEN LED.

PARTS LIST			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.	
FRACTIONS	DECIMALS	ANGLES	0
+/-	.XX +/-	+/-	
	.XXX +/-		
MATERIAL	ISSUED	APPROVALS	DATE
FINISH	FCAD: 004001SH	DRAWN	PAT QUILTER 6-19-90
DO NOT SCALE DRAWING	SCALE	CHECKED	
	SIZE	ISSUED	
	FSCM NO.	FCAD: 004001SH	
	DWG NO.	FCAD: 004001SH	
	SH-004001-00 B	FCAD: 004001SH	
	SH4001B1.FDC	FCAD: 004001SH	
	SHEET 1 OF 1	FCAD: 004001SH	

QSC AUDIO PRODUCTS
COSTA MESA, CALIFORNIA

SCHEMATIC DIAGRAM EX-SERIES DISPLAY BOARD

SIZE: C
SCALE: SH4001B1.FDC
SHEET 1 OF 1

DWG NO. SH-004001-00 1 B