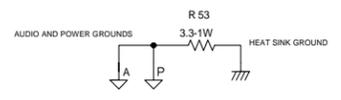
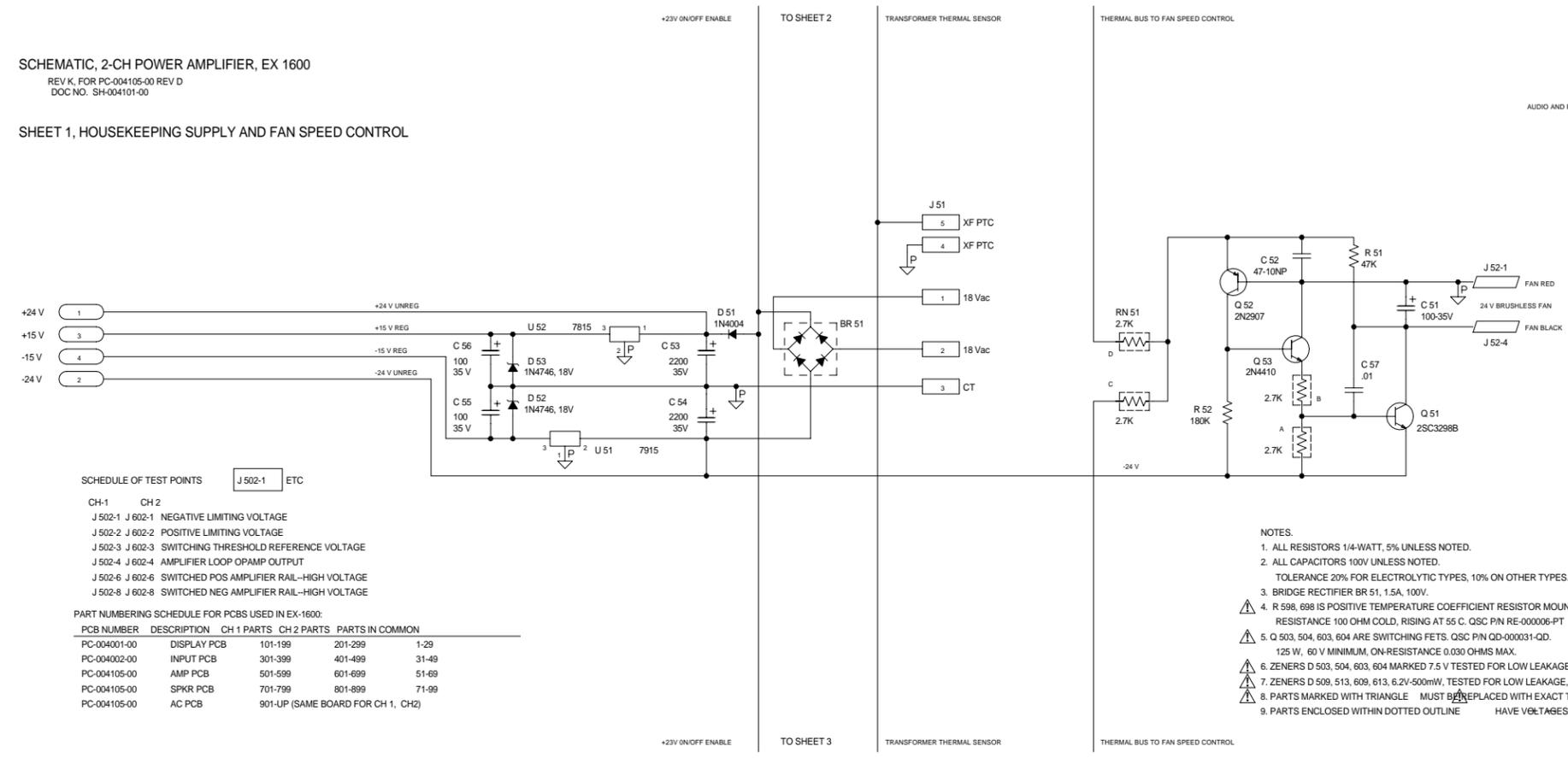


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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	J	REVISED PER ECO 2371 IMP (EFF. 7-28-94)	7-20-94	SGM
	K	REVISED PER ECO 2580 WR (EFF. 3-5-95)		

SCHEMATIC, 2-CH POWER AMPLIFIER, EX 1600
 REV K, FOR PC-004105-00 REV D
 DOC NO. SH-004101-00

SHEET 1, HOUSEKEEPING SUPPLY AND FAN SPEED CONTROL



- SCHEDULE OF TEST POINTS J 502-1 ETC
- CH-1 CH 2
 - J 502-1 J 602-1 NEGATIVE LIMITING VOLTAGE
 - J 502-2 J 602-2 POSITIVE LIMITING VOLTAGE
 - J 502-3 J 602-3 SWITCHING THRESHOLD REFERENCE VOLTAGE
 - J 502-4 J 602-4 AMPLIFIER LOOP OPAMP OUTPUT
 - J 502-6 J 602-6 SWITCHED POS AMPLIFIER RAIL-HIGH VOLTAGE
 - J 502-8 J 602-8 SWITCHED NEG AMPLIFIER RAIL-HIGH VOLTAGE

PART NUMBERING SCHEDULE FOR PCBs USED IN EX-1600:

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-004105-00	AMP PCB	501-599	601-699	51-69
PC-004105-00	SPKR PCB	701-799	801-899	71-99
PC-004105-00	AC PCB	901-UP (SAME BOARD FOR CH 1, CH2)		

- LAST USED REF. DESIGN.
- BR 51, BR 502, 602
 - C51 - 57, C534, 634
 - D51 - 53, D513, 613
 - F504, 604
 - J51, 52, J503, 603
 - K501, 601
 - L501, 601
 - Q51 - 53, Q510, 610
 - R51 - 53, R544, 644, R598, 698, R599, 699
 - RN51, RN502, 602
 - U51, 52, U506, 606
 - VR503, 603

- 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 BR 51, 1.5A, 100V.
 - R 598, 698 IS POSITIVE TEMPERATURE COEFFICIENT RESISTOR MOUNTED TO HEAT SINK. RESISTANCE 100 OHM COLD, RISING AT 55 C. QSC P/N RE-000006-PT
 - Q 503, 504, 603, 604 ARE SWITCHING FETS. QSC P/N QD-000031-QD. 125 W, 60 V MINIMUM, ON-RESISTANCE 0.030 OHMS MAX.
 - ZENERS D 503, 504, 603, 604 MARKED 7.5 V TESTED FOR LOW LEAKAGE, QSC P/N QD-0007.5-ZT.
 - ZENERS D 509, 513, 609, 613, 6.2V-500mW, TESTED FOR LOW LEAKAGE, QSC P/N QD-000024-QD.
 - PARTS MARKED WITH TRIANGLE MUST BE REPLACED WITH EXACT TYPE ONLY.
 - PARTS ENCLOSED WITHIN DOTTED OUTLINE HAVE VOLTAGES GREATER THAN 42V.

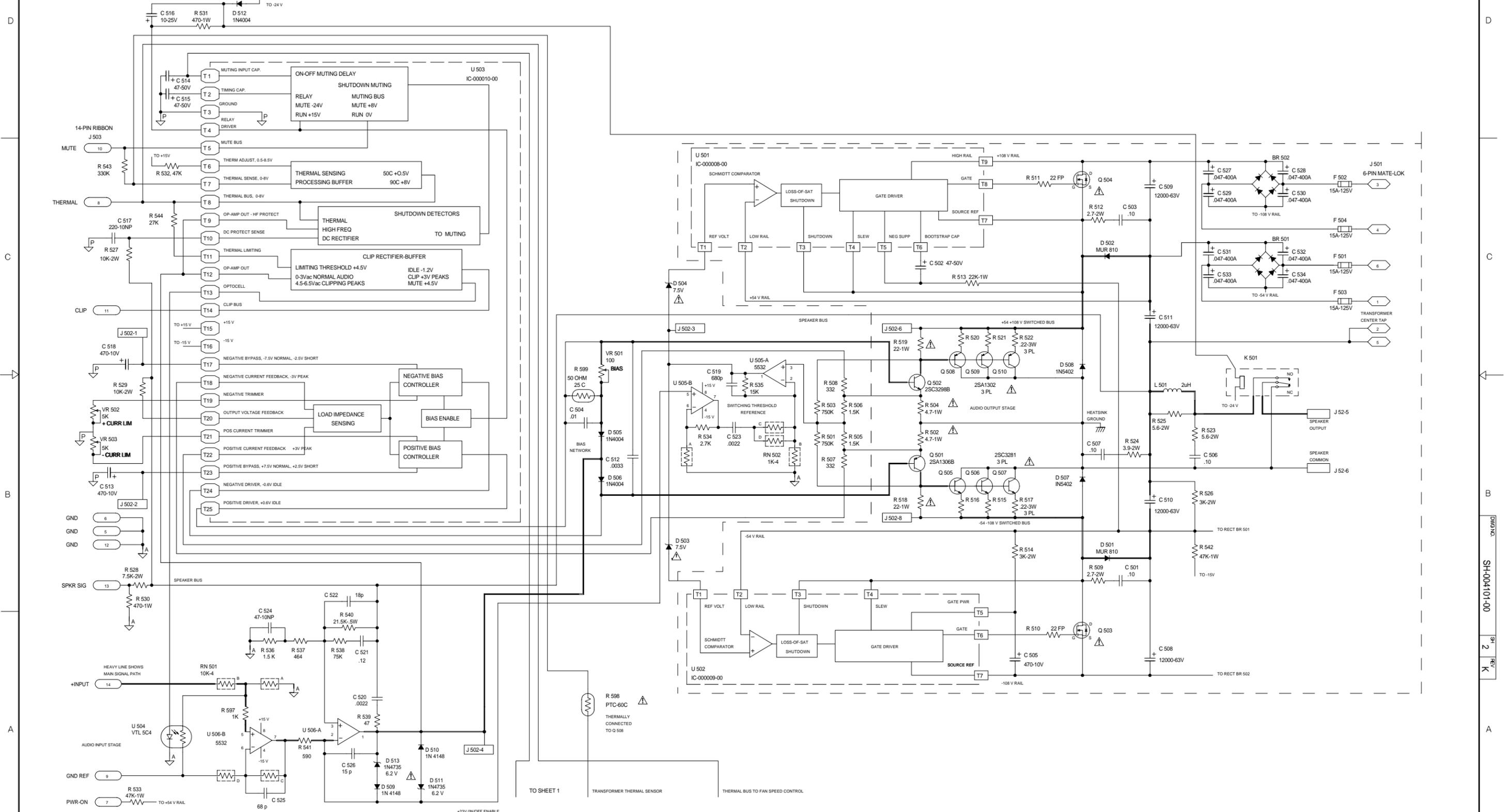
NOTES: UNLESS OTHERWISE SPECIFIED

APPLICATION		PARTS LIST		CONTRACT NO.		QSC AUDIO PRODUCTS, INC. COSTA MESA, CALIFORNIA	
WP-004101-00	EX 1600	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSIONS PER ANSI Y14.5-1982. TOLERANCES ARE: DECIMALS DECIMALS ANGLES XX + .XXX # DEBURR EDGES .XXX R MAX	MATERIAL	APPROVALS	DATE	SCHEMATIC DIAGRAM EX 1600	
NEXT ASSY	USED ON	FINISH	DO NOT SCALE DRAWING	PHQ	5-15-91	DRAWN	
				SGM	5-29-91	CHECKED	
						ISSUED	
						SIZE FROM NO.	DWG NO.
						D	SH-004101-00
						SCALE NONE	CAD FILE NO. SH4101K1.FCD
						SHEET	1 OF 3

DRAWING NO. SH-004101-00 SHEET 1 REV K

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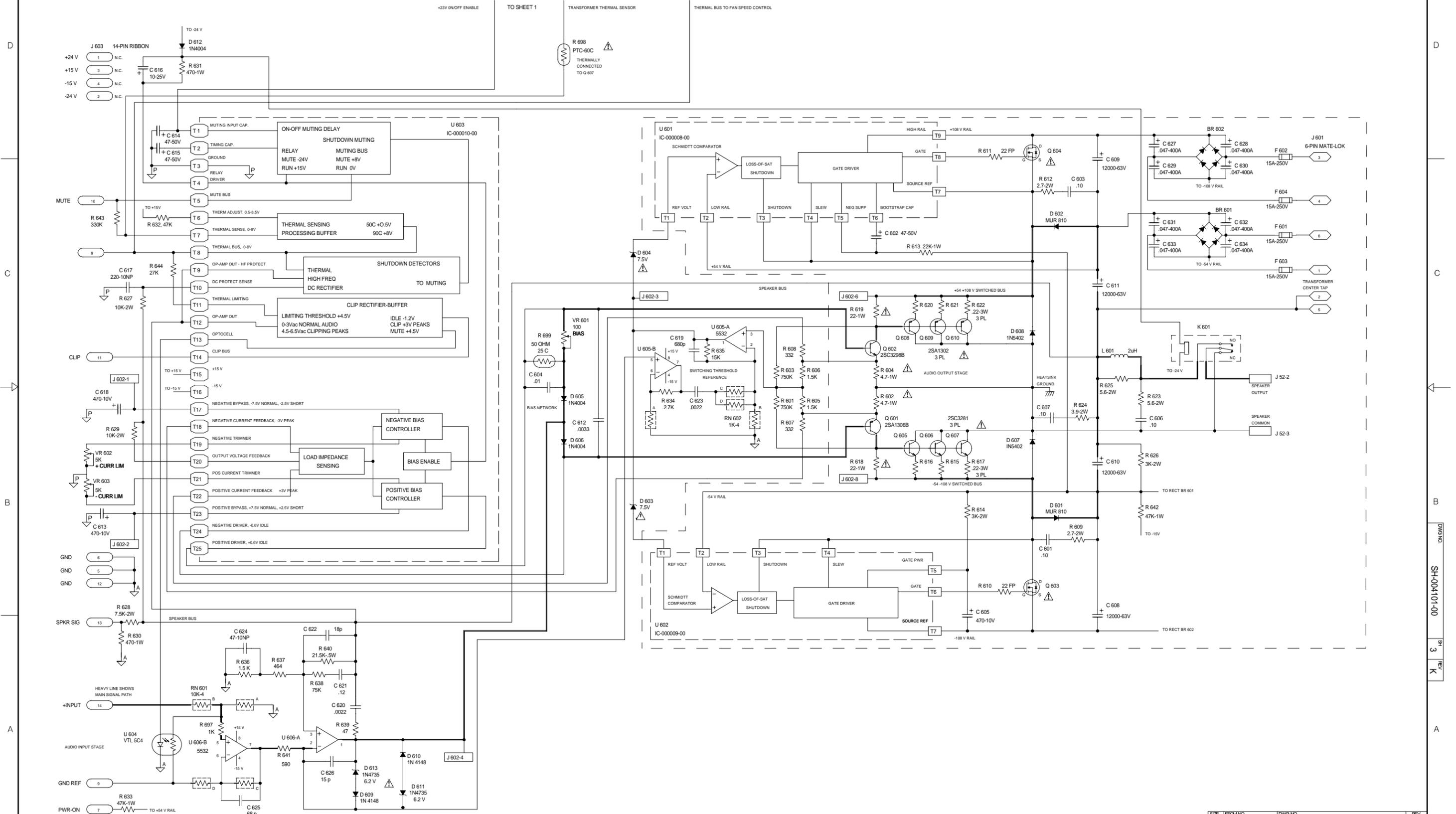
SCHEMATIC, EX-1600, SHEET 2, AMPLIFIER CHANNEL A



SIZE	FORM NO.	DWG NO.	REV
D		SH-004101-00	K
SCALE	CAD FILE NO.	SHEET	2 OF 3
	SH4101K2.FCD		

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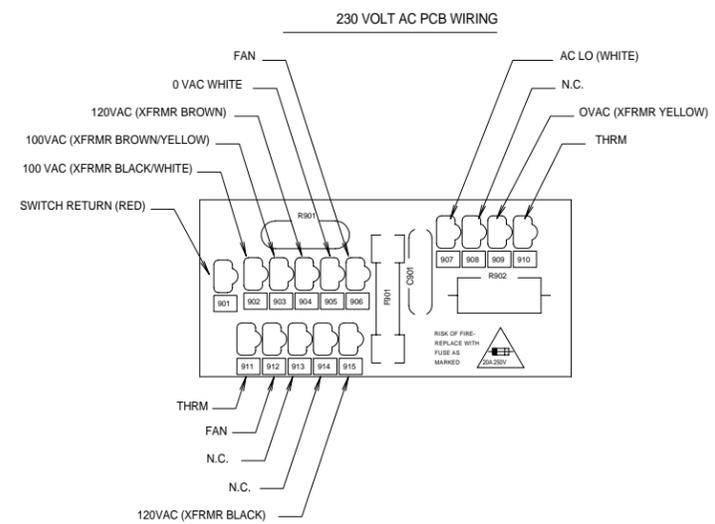
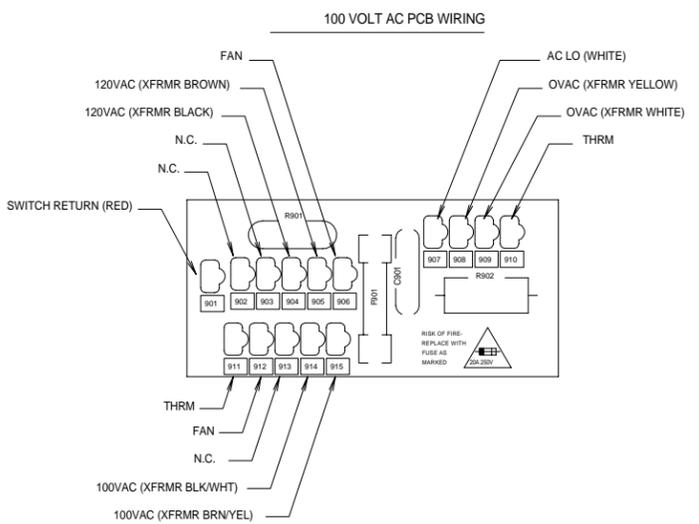
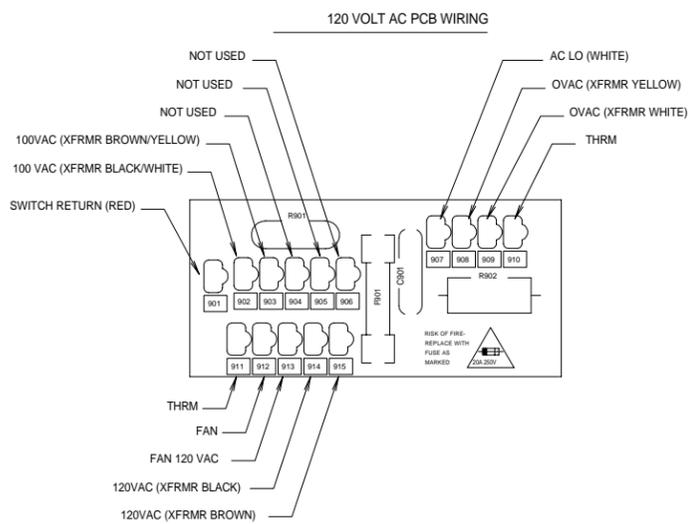
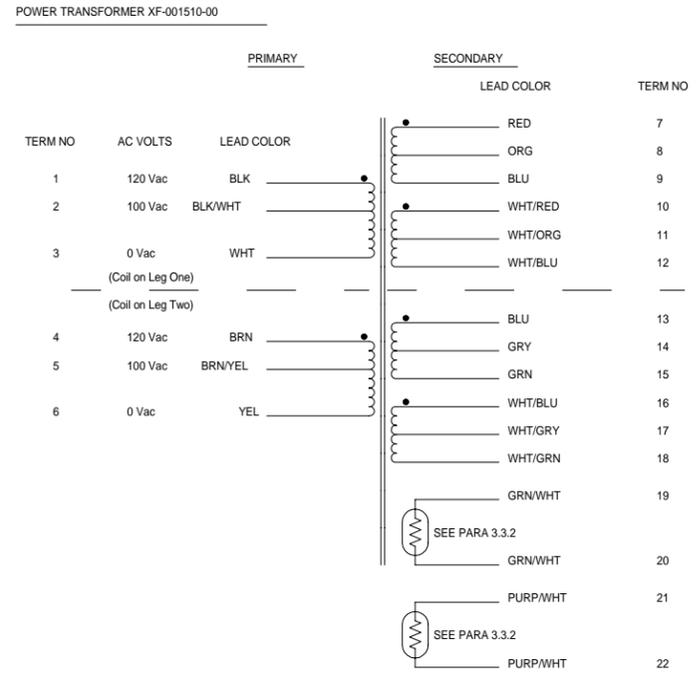
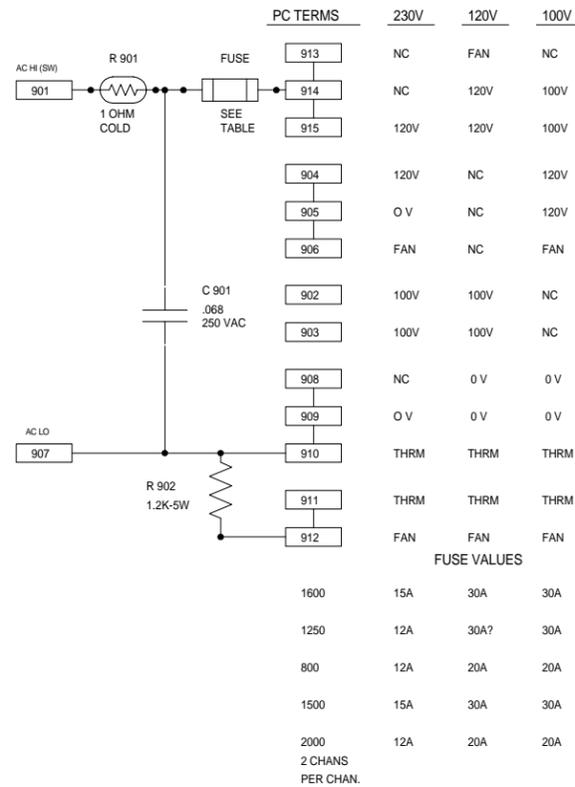
SCHEMATIC, EX-1600, SHEET 3, AMPLIFIER CHANNEL B



SIZE	FROM NO.	DWG NO.	REV
D		SH-004101-00	K
SCALE	CAD FILE NO.	SHEET	3 OF 3
	SH4101K3.FCD		

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DWG NO.	XXXXXXXXXX	SH	X	REV	X
REVISIONS					
ZONE	REV	DESCRIPTION	DATE	APPROVED	
	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX			



FUSE VALUES

1600	15A	30A	30A
1250	12A	30A?	30A
800	12A	20A	20A
1500	15A	30A	30A
2000	12A	20A	20A

2 CHANS PER CHAN.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.		 COSTA MESA, CALIFORNIA	
FRACTIONS	DECIMALS	ANGLES	APPROVALS		
+/-	XX +/- .02 +/-	O	NDP	4/29/91	
	XXX +/- .010				
MATERIAL			CHECKED	XXXX	XXXXXXXXXX
FINISH			ISSUED	XXXXXX	XXXXXXXXXX
DO NOT SCALE DRAWING		SCALE		NONE	

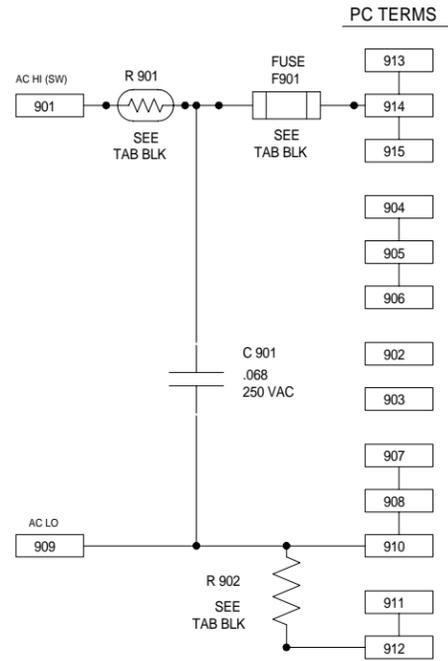
SCHEMATIC/WIRING DIAGRAM
EX/MX 2 SPACE AMPS

SIZE: D FSCM NO.: SH-04103-00 DWG NO.: SH-04103-00 REV: 1

SHEET 1 OF 1

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
	C	PROD RELEASE PER ECO 1846	6.	



TABULATION BLOCK			
MODEL (V)	FUSE F901	R 902	R 901
EX 800 (100V)	20A 250V	/	1.0 OHM 30 A
EX 800 (120V)	20A 250V	/	1.0 OHM 30 A
EX 800 (230V)	12A 250V	/	2.5 OHM 15 A
EX 1250 (100V)	20A 250V	/	1.0 OHM 30 A
EX 1250 (120V)	20A 250V	/	1.0 OHM 30 A
EX 1250 (230V)	12A 250V	/	2.5 OHM 15 A
EX 1600 (100V)	30A 125V	/	1.0 OHM 30 A
EX 1600 (120V)	30A 125V	/	1.0 OHM 30 A
EX 1600 (230V)	15A 250V	/	2.5 OHM 15 A
MX 1000a (100V)	20A 250V	1.2K 5W	1.0 OHM 30 A
MX 1000a (120V)	20A 250V	1.2K 5W	1.0 OHM 30 A
MX 1000a (230V)	12A 250V	1.2K 5W	2.5 OHM 15 A
MX 1500a (100V)	30A 125V	1.2K 5W	1.0 OHM 30 A
MX 1500a (120V)	30A 125V	1.2K 5W	1.0 OHM 30 A
MX 1500a (230V)	15A 250V	1.2K 5W	2.5 OHM 15 A

1. THIS DRAWING USED IN CONJUNCTION WITH SCHEMATIC DIAGRAMS SH-004100-00, SH-004100-01, SH-004101-00, SH-004101-01, SH-004101-02, SH-001010-00, SH-001011-00, SH-001510-00, AND SH-001511-00

NOTES: UNLESS OTHERWISE SPECIFIED

APPLICATION	DO NOT SCALE DRAWING
PC-004103-00	EX/MXa 2 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 .XX ± DECIMALS .XXX ± ANGLES ° ±	APPROVALS
DEBURR EDGES .XXX R MAX	DATE
MATERIAL	DRAWN LEORA
FINISH	CHECKED
	ISSUED
	CAD SEED FILE NO.

QSC AUDIO PRODUCTS, INC.
COSTA MESA, CALIFORNIA

**SCHEMATIC,
AC PCB EX/MXa 2 SP.**

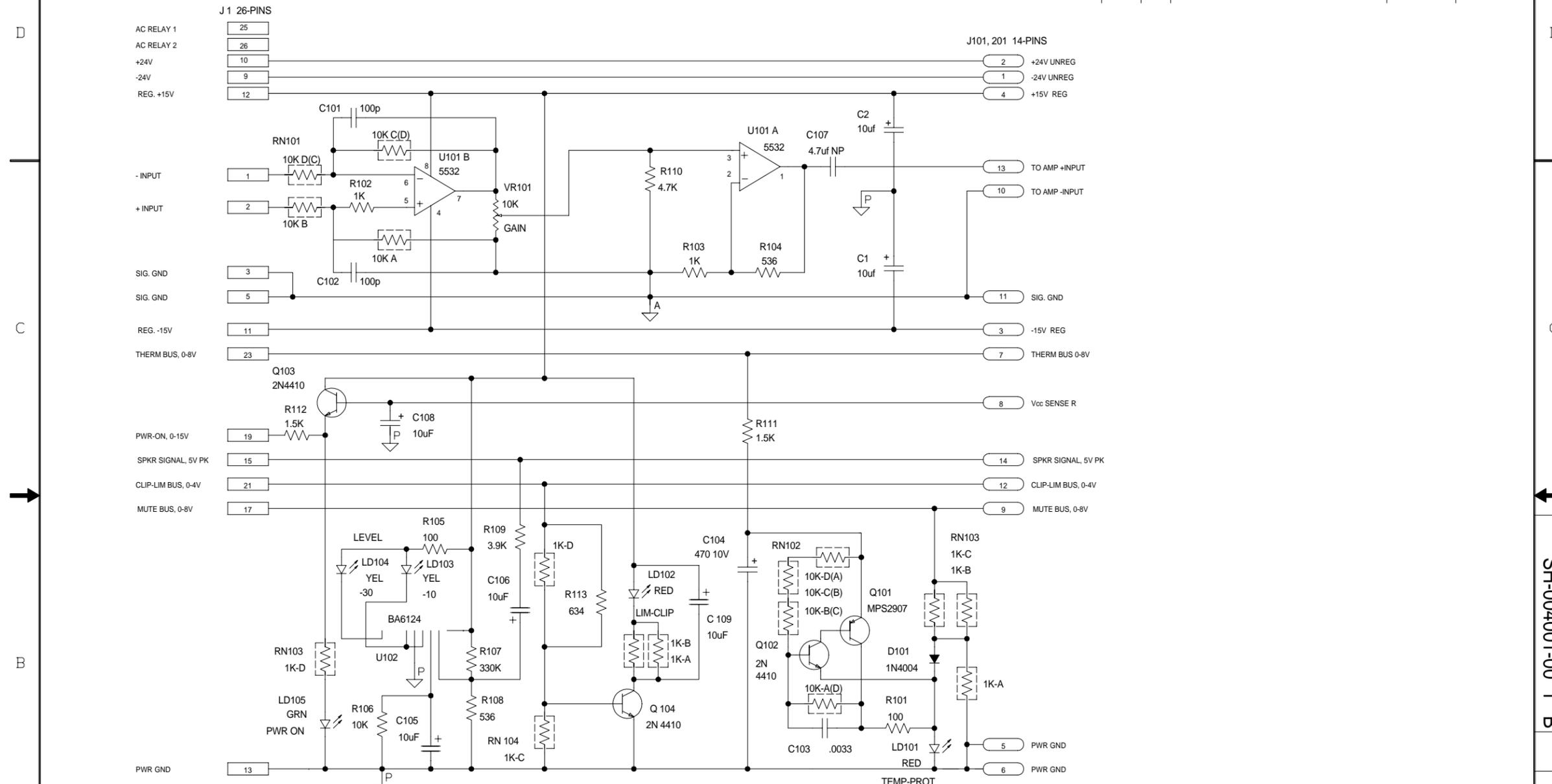
SIZE C	FSOM NO.	DWG NO. SH-004103-00	REV C
SCALE NONE	CAD FILE NO. SH4103C1.FCD	SHEET 1 OF 1	

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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.

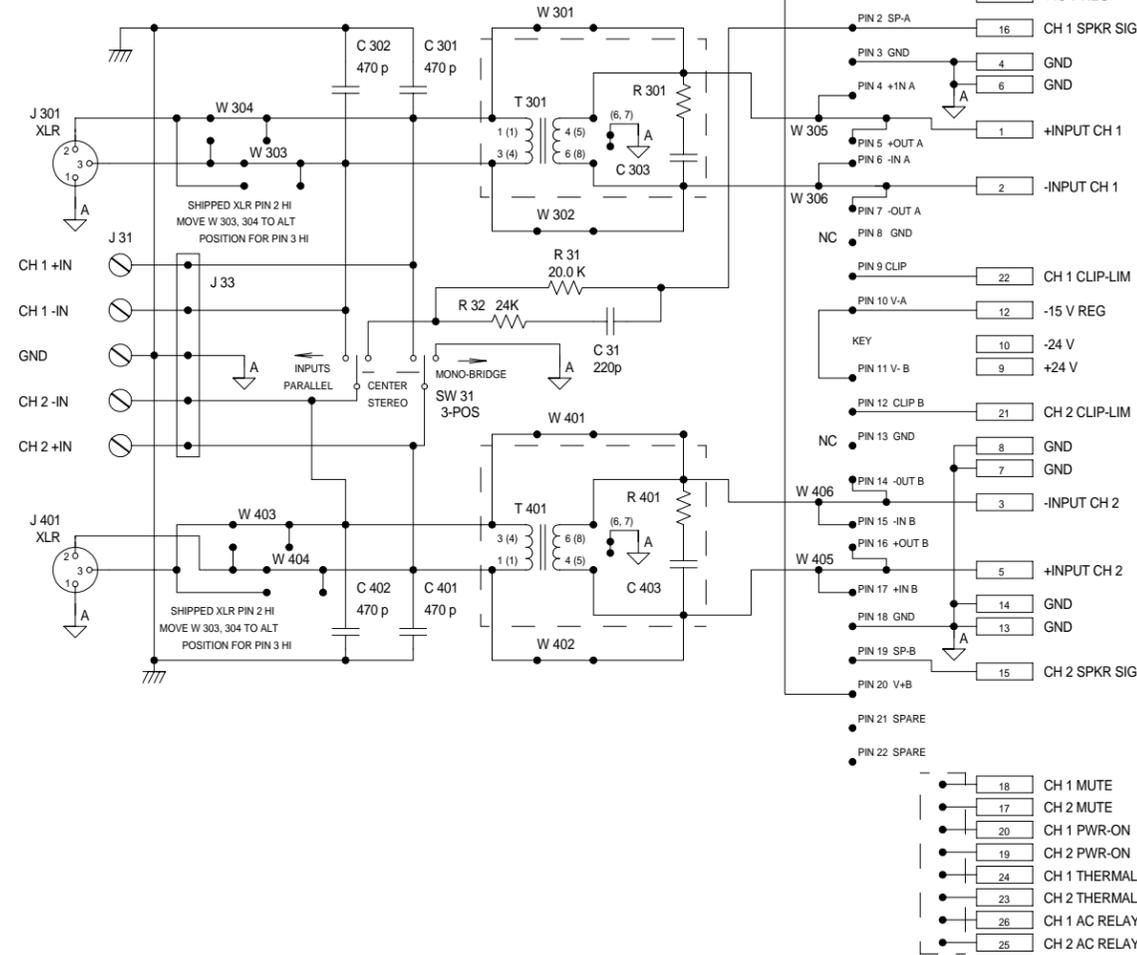
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.		QSC AUDIO PRODUCTS COSTA MESA, CALIFORNIA	
FRACTIONS	DECIMALS	ANGLES	APPROVALS	DATE	SCHEMATIC DIAGRAM EX-SERIES DISPLAY BOARD
+/-	.XX +/-	+/- 0	DRAWN	PAT QUILTER 6-19-90	
	.XXX +/-		CHECKED		
MATERIAL			ISSUED		
FINISH			FCAD: 004001SH	SIZE	FSC# NO. C
DO NOT SCALE DRAWING				DWG NO.	SH-004001-00 B
				SCALE	SH4001B1.FDC
				SHEET	1 OF 1

Dwg No. SH-004001-00 1 B
 SH
 REV

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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	CONTRACT NO.	<p>SCHEMATIC DIAGRAM EX SERIES STANDARD, INPUT BOARD</p> <p>SIZE: C FSCM NO. SH-004002-00 DWG NO. SH-004002-00 REV: D</p> <p>SCALE: NONE CAD FILE NO. SH4002D1.FCD SHEET 1 OF 1</p>		
NEXT ASSY	USED ON	TOLERANCES ARE: DECIMALS .XX ± DECIMALS .XXX ± ANGLES °	APPROVALS			DATE
		DEBURR EDGES .XXX R MAX	DRAWN			6-18-90
		FINISH	CHECKED			
			ISSUED			
			CAD SEED FILE NO.			