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- 5. J104, J204 ARE CONNECTED PIN TO PIN BY 13-LINE RIBBON CABLE.
- 4. PART NUMBERING SCHEME
PARTS IN COMMON TO BOTH CH: 1-99. CH 1 PARTS 101-199, CH 2 PARTS 201-299.
- 3. COMPONENTS MARKED WITH Δ ARE SAFETY CRITICAL PARTS.
- 2. COMPONENTS WITH VALUE PREFIXED WITH A "*" REPRESENT SMT COMPONENTS.
- 1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-002451-00

NOTES: UNLESS OTHERWISE SPECIFIED

QTY	ITEM NO.	PART NO.	DESCRIPTION	VENDOR
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSIONS PER ANSI Y14.5-1982 TOLERANCES ARE: DECIMALS DECIMALS ANGLES .xx ± .xxx ± °			CONTRACT NO.	
DEBURR EDGES .XXX R MAX MATERIAL			APPROVALS	DATE
FINISH			DRAWN PAT QUILTER	2-25-00
NEXT ASSY USED ON			CHECKED	
APPLICATION			ISSUED	
DO NOT SCALE DRAWING			CAD SEED FILE NO.	PLOT DATE: Fri May 05, 2000
			SCALE NONE	CAD FILE NO. Sh2451R4.sch
			SHEET 1 OF 4	

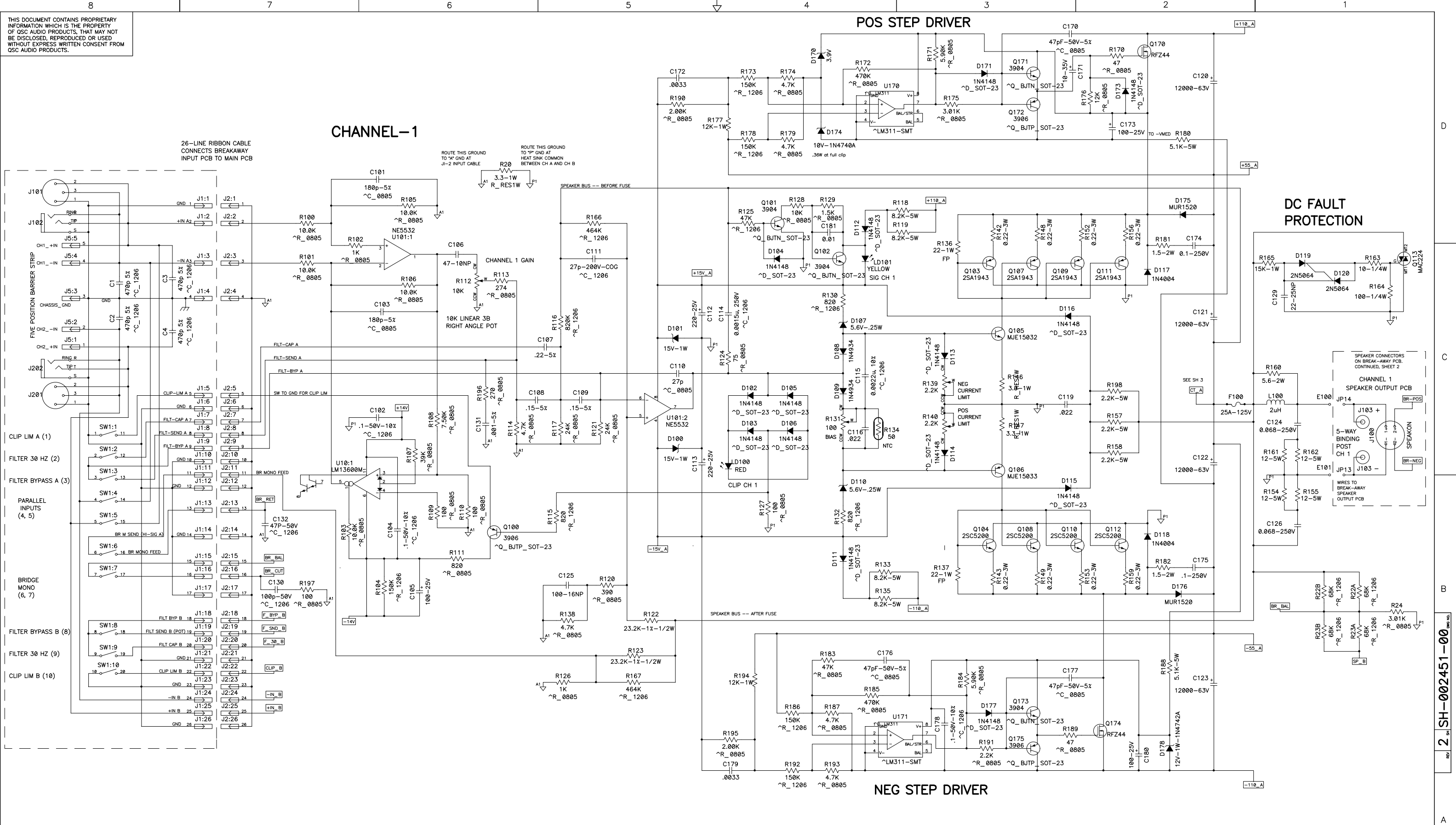
QSC AUDIO PRODUCTS, INC.
COSTA MESA, CALIFORNIA

SCHEMATIC DIAGRAM
RMX 2450

SIZE D FSCM NO. DWG NO. SH-002451-00 REV

2 SH-002451-00

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SIZE	FSCM NO.	DWG NO.	REV
D		SH-002451-00	
SCALE	NONE	CAD FILE NO.	SHEET 2 OF 4
P:\NGPE PRODUCTS\RMX-SERIES\QSC\2450		PLOT DATE: Fri May 05, 2000	

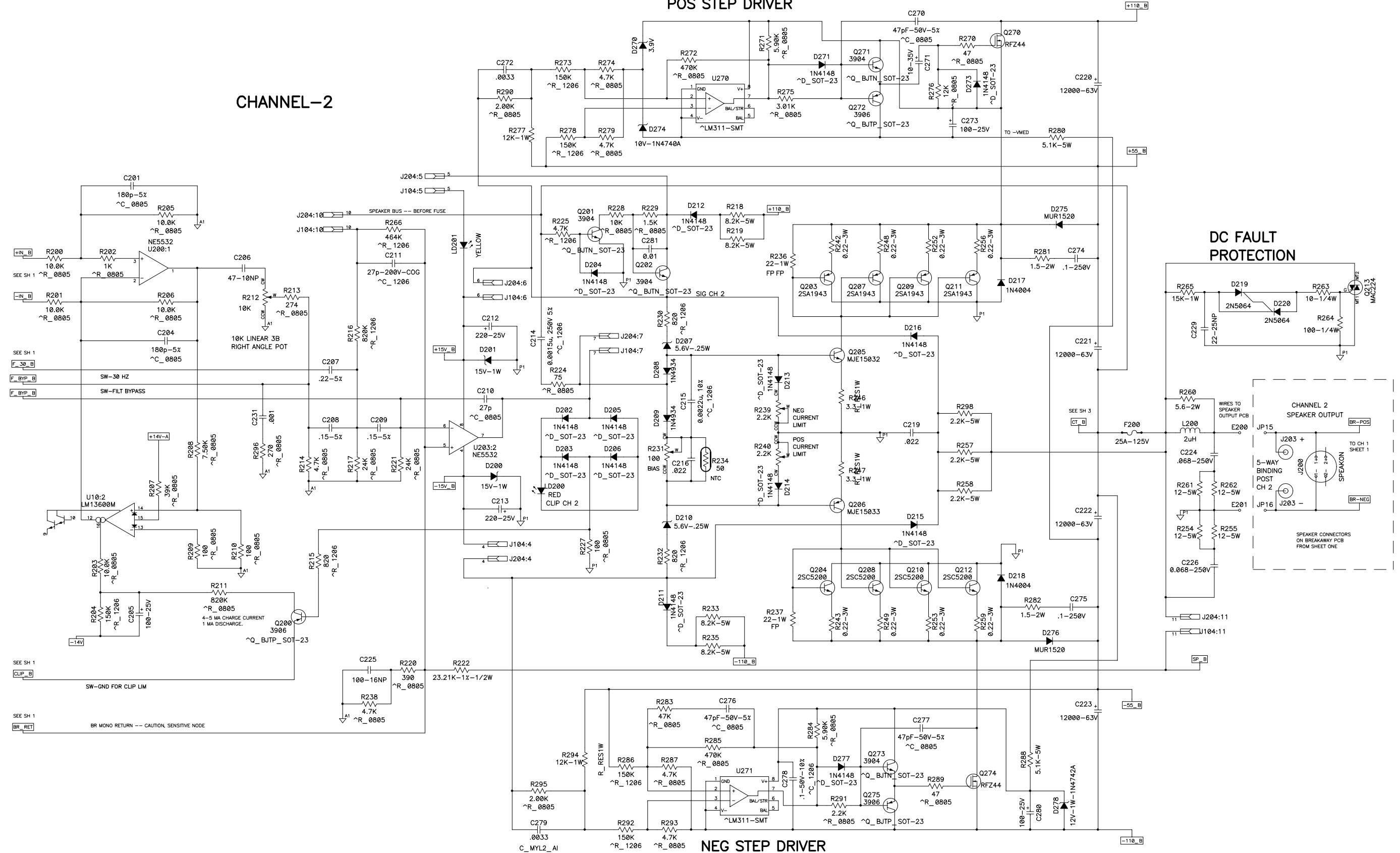
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POS STEP DRIVER

CHANNEL-2

NEG STEP DRIVER

DC FAULT PROTECTION



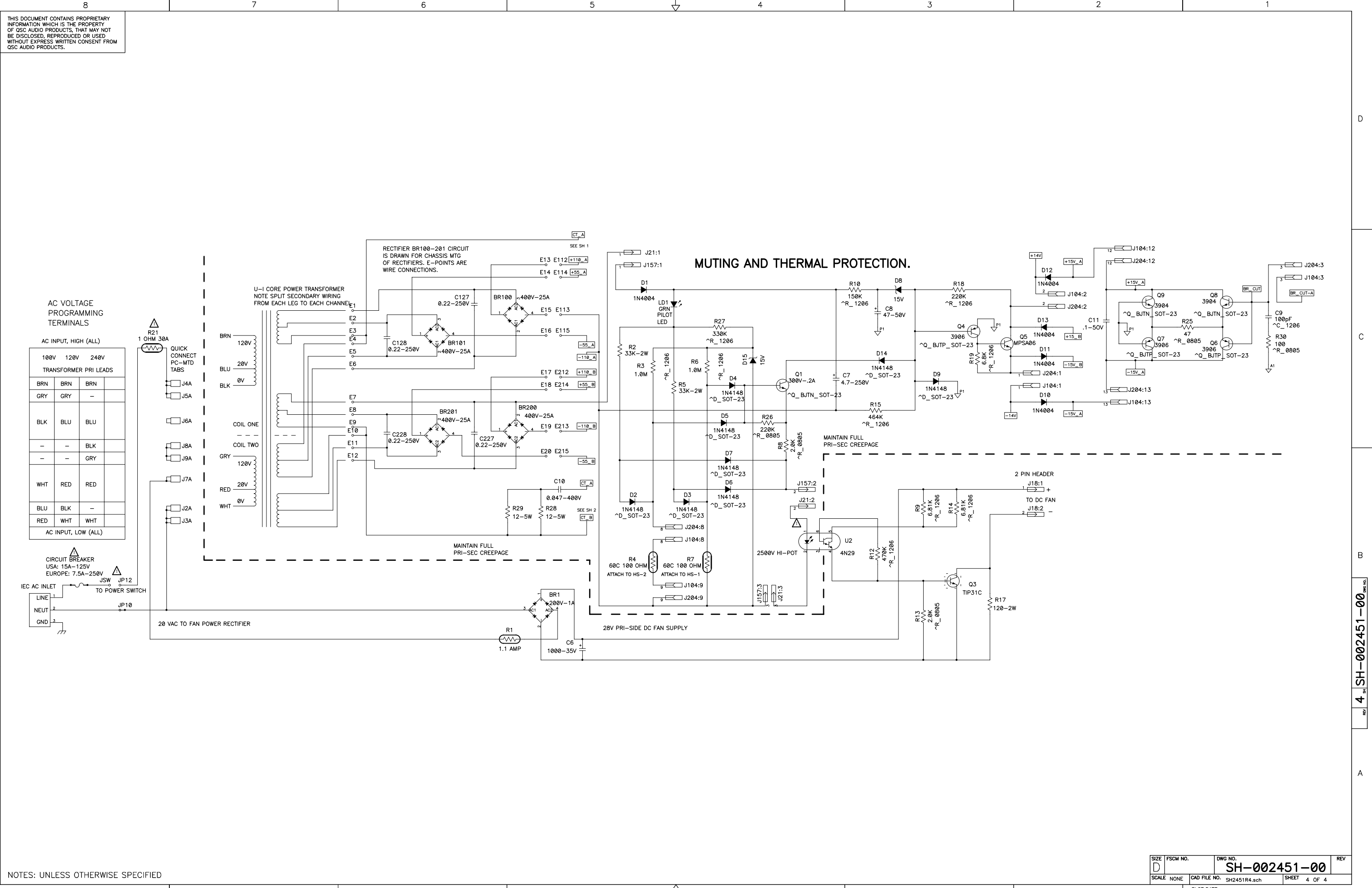
NOTES: UNLESS OTHERWISE SPECIFIED

SIZE	FSCM NO.	DWG NO.	REV
D		SH-002451-00	
SCALE	NONE	CAD FILE NO. SH2451R4.sch	SHEET 3 OF 4

PLOT DATE: Fri May 05, 2000

3 SH-002451-00

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SIZE	FSCM NO.	DWG NO.	REV
D		SH-002451-00	
SCALE	NONE	CAD FILE NO. SH2451R4.sch	SHEET 4 OF 4
PLOT DATE: Fri May 05, 2000		1	

4 SH-002451-00



A U D I O

RMX 2450 Replacement Parts

QSC part #	Description	Qty.	Notes or Component Reference
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Misc.

1806-2507-0	POWER TRANSFORMER, 1800	1	
2113-1144-0	AC INLET	1	
4134-9101-0	METAL WIND GUIDE	1	
4154-0361-0	FAN GUIDE	1	
5200-4717-0	ROCKER POWER SWITCH	1	
5200-3531-0	CIRCUIT BREAKER 15A	1	For 120V models
5200-4731-0	CIRCUIT BREAKER 8A	1	For 230V models
7010-9640-0	AC CORD SET 15A	1	For 120V models
7009-8620-0	POWER CORD SET CE	1	For 230V models
8900-9050-1	DC FAN 24V 80X80 (+5V)	1	

AC Board

4701-202J-C	RCF 1/8W 2K 5% ATS	1	R13
4701-474J-C	RCF 1/8W 470K 5% ATS	1	R12
4701-682J-C	RCF 1/8W 6.8K 5% ATS	2	R9, R14
153R-224K-5-Y1	CM 250V 0.22uF 10% RL	4	C127, C128, C227, C228
153T-473K-5-WS	CM 400V 0.047UF 10% RL	1	C10
157Q-108M-5-X9E	CE 35V 1000UF 20% RL	1	C6
3130-9270-0	IC 4N29	1	U2
4719-121J-1-X	RMF 2W 120R 5% AL METAL	1	R17
471B-120J-1-X	RMF 5W 12R 5% AL METAL	2	R28, R29
4840-1760-0	DIODE RECT 1A 200V DB103	1	BR1
4840-2150-0	BRIDGE RECTIFIER 400V	4	BR100, BR101, BR200, BR201
4860-2620-5	TR TIP31C SAMSUNG	1	Q3
5400-0831-0	HEATSINK	1	REF: Q3
5400-1831-1	HEATSINK FOR RECTIFIER	4	REF: BR100, BR101, BR200, BR201
8910-0273-0	POLYSWITCH 0.15 ohm 1.1A	1	R1
8910-0275-0	THERMAL NTC 30A 1 ohm	1	R21

Channel 1 module

153F-154J-5-NLM	CM 50V 0.15UF 5% RL	4	C108, C109, C208, C209
153F-223J-5-LQ	CM 50V 0.022UF 5% RL	2	C116, C119
153F-224J-5-NLM	CM 50V 0.22UF 5% RL	2	C107, C207
153F-332J-5-KW	CM 50V 3300pF 5% RL 6x12	2	C172, C179
153H-102J-5-IQ	CM 100V 0.001U 5% RL 5X	2	C131, C231
153R-104J-5-YRM	CM 250V 0.1u 5% RL	2	C174, C175
153R-152J-5-XQ	CM 250V 0.0015UF 5% RL	1	C114
153R-683J-5-WWM	CM 250V 0.068u 5% RL	2	C124, C126
157D-107M-5-OUN	CE 16V 100UF 20% RL 8X11	2	C125, C225

QSC part #	Description	Qty.	Notes or Component Reference
157D-476M-5-LUN	CE 16V 47u 20% RL 6.5X11	2	C106, C206
157E-107M-5-KW	CE 25V 100uF 20% RL 6x12	4	C105, C173, C180, C205
157E-226M-5-IUN	CE 25V 22uF 20% RL 5X11	1	C129
157E-227M-5-PU	CE 25V 220uF 20% RL	4	C112, C113, C212, C213
157Q-106M-5-IU	CE 35V 10uF 20% RL 5x11	1	C171
1804-1040-0	SPRING COIL 2uH (14gaWIRE)	1	L100
2101-1991-0	8 PIN IC SOCKET DIP	2	REF: U101, U201
2101-2081-0	26 PIN DUAL ROW IEC	1	J103
2102-130S-003	13 PIN WAFER P2.0 ST.	1	J104
3130-2430-0	IC-NE5532 OPER. AMP PHIL	2	U101, U201
3700-4529-R	LED 04mm RED W/STAND	2	LD100, LD200
3700-4530-Y	LED 04mm YELLOW W/STAND	2	LD101, LD201
4134-8851-0	FUSE HOLDER (DIA.6.3MM	2	F100
4715-100J-2	RMF 1/4W 10R 5% AT	1	R163
4715-101J-2	RMF 1/4W 100R 5% AT	1	R164
4717-2322-2	RMF 1/2W 23.2K 1% AT	3	R122, R123, R222
4718-123J-2-X	RMF 1W 12K 5% AT METAL	2	R177, R194
4718-153J-2-X	RMF 1W 15K 5% AT METAL	1	R165
4718-220J-2-P	RMF 1W 22R 5% AT FP	2	R136, R137
4718-3R3J-1-X	RMF 1W 3.3R 5% AL	3	R146, R147, R20
4719-1R5J-1-X	RMF 2W 1R5 5% AL METAL	2	R181, R182
4719-5R6J-1-X	RMF 2W 5.6R 5% AL METAL	1	R160
471A-022K-5-N	RMF 3W 0.22R 10% RL RGC3	8	R142, R143, R148, R149, R152, R153, R156, R159
471B-120J-1-X	RMF 5W 12R 5% AL METAL	4	R154, R155, R161, R162
471B-222J-1-X	RMF 5W 2.2K 5% AL METAL	3	R157, R158, R198
471B-512J-1-X	RMF 5W 5.1K 5% AL METAL	2	R180, R188
471B-822J-1-X	RMF 5W 8.2K 5% AL METAL	4	R118, R119, R133, R135
4750-6200-0	VR V012CPH, D-SHAFT 10K	2	R112, R212
4756-1016-3-06	SVR H6 100R RH0615C	1	R131
4756-2226-3-06	SVR 2.2K H3 7X7.6 R0615C	2	R139, R140
4804-0040-1	DIODE IN4004 AL	4	D10, D12, D117, D118
4804-9340-2	DIODE IN4934 AT	2	D108, D109
4837-3B20-2	DZ 1/2W 3.8-4.0V AT	1	D170
4837-5B10-2	DZ 1/2W 5.5-5.8V AT	2	D107, D110
4838-10V6-2	DZ 1.3W 10V AT TEMIC	1	D174
4838-12V6-2	DZ 1W 12V AT TEMIC	1	D178
4838-15V6-2	DZ 1W 15V AT TEMIC	4	D100, D101, D200, D201
4840-2190-0	DIODE MUR1520 15A 200V	2	D175, D176
4860-5020-5	TR MJE15032	1	Q105
4860-5030-5	TR MJE15033	1	Q106
4860-5050-5	TR 2SC5200 T0-3P (L)	4	Q104, Q108, Q110, Q112
4860-5060-5	TR 2SA1943 T0-3P (L)	4	Q103, Q107, Q109, Q111
4860-5250-5	TR 2N5064 TRIODE	2	D119, D120
490F-Z440-5	FET IRFZ44 T0-220 60V	2	Q170, Q174
5120-0501-0	FUSE T25A/125V 6.4X32MM	1	F100
8910-0274-0	THERMAL PTC 60C 100 ohm	1	R4
8910-0482-0	TRIAC 600V 40A MAC224A8	1	Q113
8910-0488-0	ROD THERMISTOR NTC 50ohm	1	R134
8910-0494-0	CE 63V 12000uF 20% RL	4	C120-C123

SMT parts

150F-101J-J-BD	CC 50V 100pF 5% 0805 1.2	1	C130
150F-101K-J-BD	CC 50V 100P 10% 0805	1	C132
150F-103M-J-BD	CC 50V 0.01uF 20% 0805 1	1	C181
150F-104M-6-CF	CC 50V 0.1uF 20% 1206 1.	2	C104, C178
150F-181K-J-BD	CC 50V 180P 10% 0805	4	C101, C103, C201, C203

QSC part #	Description	Qty.	Notes or Component Reference
150F-222K-6-CF	CC 50V 2200pF 10% 1206 1	1	C115
150F-470J-J-BD	CC 50V 47pF 5% 0805 1.2x	5	C110, C170, C176, C177, C210
15CG-270J-6-CF	CTC 0/30 27P 5% 1206	2	C111, C211
3130-9240-0	IC LM311M VOLTAGE	2	U170, U171
3131-9730-0	IC NE5517D	1	U10
4720-101J-J	RMG 1/10W 100R 5% 0805	6	R109, R110, R127, R209, R210, R227
4720-102J-J	RMG 1/10W 1K 5% 0805	3	R102, R126, R202
4720-103A-J	RMG 1/10W 10K 1% 0805	8	R100, R101, R105, R106, R200, R201, R205, R206
4720-103J-J	RMG 1/10W 10K 5% 0805	3	R103, R128, R203
4720-123J-J	RMG 1/10W 12K 5% 0805	1	R176
4720-152J-J	RMG 1/10W 1.5K 5% 0805	1	R129
4720-202J-J	RMG 1/10W 2K 5% 0805	2	R190, R195
4720-222J-J	RMG 1/10W 2.2K 5% 0805	1	R191
4720-243J-J	RMG 1/10W 24K 5% 0805	4	R117, R121, R217, R221
4720-271J-J	RMG 1/10W 270R 5% 0805	4	R113, R196, R213, R296
4720-3011-J	RMG 1/10W 3.01K 1% 0805	2	R24, R175
4720-391J-J	RMG 1/10W 390R 5% 0805	2	R120, R220
4720-393J-J	RMG 1/10W 39K 5% 0805	2	R107, R207
4720-470J-J	RMG 1/10W 47R 5% 0805	2	R170, R189
4720-472J-J	RMG 1/10W 4.7K 5% 0805	8	R114, R138, R174, R179, R187, R193, R214, R238
4720-473J-J	RMG 1/10W 47K 5% 0805	1	R183
4720-474J-J	RMG 1/10W 470K 5% 0805	2	R172, R185
4720-592A-J	RMG 1/10W 5.9K 1% 0805	2	R171, R184
4720-750J-J	RMG 1/10W 75R 5% 0805	1	R124
4720-752J-J	RMG 1/10W 7.5K 5% 0805	2	R108, R208
4720-821J-J	RMG 1/10W 820R 5% 0805	2	R111, R211
4721-101J-6	RMG 1/8W 100R 5% 1206	1	R197
4721-154J-6	RMG 1/8W 150K 5% 1206	6	R104, R173, R178, R186, R192, R204
4721-4643-6	RMG 1/8W 464K 1% 1206	3	R166, R167, R266
4721-473J-6	RMG 1/8W 47K 5% 1206	1	R125
4721-683A-6	RMG 1/8W 68K 1% 1206	4	R22A, R22B, R23A, R23B
4721-821J-6	RMG 1/8W 820R 5% 1206	4	R115, R130, R132, R215
4721-824J-6	RMG 1/8W 820K 5% 1206	2	R116, R216
4804-1480-3	DIODE LL4148 SM	18	D102–D106, D111–D116, D171, D173, D177, D202, D203, D205, D206
4853-9060-3	TR 3906 PNP SM	4	Q100, Q172, Q175, Q200
4860-0640-3	TR 3904 HFE 100-300 SM	4	Q101, Q102, Q171, Q173

Channel 2 module

153F-223J-5-LQ	CM 50V 0.022UF 5% RL	2	C216, C219
153F-332J-5-KW	CM 50V 3300pF 5% RL 6x12	2	C272, C279
153R-104J-5-YRM	CM 250V 0.1u 5% RL	2	C274, C275
153R-152J-5-XQ	CM 250V 0.0015UF 5% RL	1	C214
153R-683J-5-WWM	CM 250V 0.068u 5% RL	2	C224, C226
157E-107M-5-KW	CE 25V 100uF 20% RL 6x12	2	C273, C280
157E-226M-5-IUN	CE 25V 22uF 20% RL 5X11	1	C229
157F-476M-5-LU	CE 50V 47uF 20% RL	1	C8
157Q-106M-5-IU	CE 35V 10uF 20% RL 5x11	1	C271
157R-475M-5-OV	CE 250V 4.7u 20% RL	1	C7
1804-1040-0	SPRNG COIL 2uH(14gaWIRE)	1	L200
2102-031S-004	3 PIN ST. WAFER	1	J257
2102-130S-003	13 PIN WAFER P2.0 ST.	1	J204
3700-4531-G	LED 04mm GREEN W/STAND	1	LD1
4134-8851-0	FUSE HOLDER (DIA.6.3MM)	2	REF: F200
4715-100J-2	RMF 1/4W 10R 5% AT	1	R263

QSC part #	Description	Qty.	Notes or Component Reference
4715-101J-2	RMF 1/4W 100R 5% AT	1	R264
4718-123J-2-X	RMF 1W 12K 5% AT METAL	2	R277, R294
4718-153J-2-X	RMF 1W 15K 5% AT METAL	1	R265
4718-220J-2-P	RMF 1W 22R 5% AT FP	2	R236, R237
4718-3R3J-1-X	RMF 1W 3.3R 5% AL	2	R246, R247
4719-1R5J-1-X	RMF 2W 1R5 5% AL METAL	2	R281, R282
4719-333J-2-X	RMF 2W 33K 5% AT METAL	2	R2, R5
4719-5R6J-1-X	RMF 2W 5.6R 5% AL METAL	1	R260
471A-022K-5-N	RMF 3W 0.22R 10% RL RGC3	8	R242, R243, R248, R249, R252, R253, R256, R259
471B-120J-1-X	RMF 5W 12R 5% AL METAL	4	R254, R255, R261, R262
471B-222J-1-X	RMF 5W 2.2K 5% AL METAL	3	R257, R258, R298
471B-512J-1-X	RMF 5W 5.1K 5% AL METAL	2	R280, R288
471B-822J-1-X	RMF 5W 8.2K 5% AL METAL	4	R218, R219, R233, R235
4756-1016-3-06	SVR H6 100R RH0615C	1	R231
4756-2226-3-06	SVR 2.2K H3 7X7.6 R0615C	2	R239, R240
4804-0040-1	DIODE IN4004 AL	5	D1, D11, D13, D217, D218
4804-9340-2	DIODE IN4934 AT	2	D208, D209
4837-3B20-2	DZ 1/2W 3.8-4.0V AT	1	D270
4837-5B10-2	DZ 1/2W 5.5-5.8V AT	2	D207, D210
4838-10V6-2	DZ 1.3W 10V AT TEMIC	1	D274
4838-12V6-2	DZ 1W 12V AT TEMIC	1	D278
4838-15V6-2	DZ 1W 15V AT TEMIC	2	D8, D15
4840-2190-0	DIODE MUR1520 15A 200V	2	D275, D276
4860-5020-5	TR MJE15032	1	Q205
4860-5030-5	TR MJE15033	1	Q206
4860-5050-5	TR 2SC5200 T0-3P (L)	4	Q204, Q208, Q210, Q212
4860-5060-5	TR 2SA1943 T0-3P (L)	4	Q203, Q207, Q209, Q211
4860-5250-5	TR 2N5064 TRIODE	2	D219, D220
4860-8890-0	TR MPS A06 VCE 80V NS	1	Q5
490F-Z440-5	FET IRFZ44 T0-220 60V	2	Q270, Q274
5120-0501-0	FUSE T25A/125V 6.4X32MM	1	F200
8910-0274-0	THERMAL PTC 60C 100 ohm	1	R7
8910-0482-0	TRIAC 600V 40A MAC224A8	1	Q213
8910-0488-0	ROD THERMISTOR NTC 50ohm	1	R234
8910-0494-0	CE 63V 12000uF 20% RL	4	C220-C223

SMT Parts

150F-101K-J-BD	CC 50V 100P 10% 0805	1	C9
150F-103M-J-BD	CC 50V 0.01uF 20% 0805 1	1	C281
150F-104M-6-CF	CC 50V 0.1uF 20% 1206 1.	1	C278
150F-104M-J-BD	CC 50V 0.1uF 20% 0805 1.	1	C11
150F-222K-6-CF	CC 50V 2200pF 10% 1206 1	1	C215
150F-470J-J-BD	CC 50V 47pF 5% 0805 1.2x	3	C270, C276, C277
3130-9240-0	IC LM311M VOLTAGE	2	U270, U271
4720-103J-J	RMG 1/10W 10K 5% 0805	1	R228
4720-123J-J	RMG 1/10W 12K 5% 0805	1	R276
4720-152J-J	RMG 1/10W 1.5K 5% 0805	1	R229
4720-202J-J	RMG 1/10W 2K 5% 0805	3	R8, R290, R295
4720-222J-J	RMG 1/10W 2.2K 5% 0805	1	R291
4720-3011-J	RMG 1/10W 3.01K 1% 0805	1	R275
4720-470J-J	RMG 1/10W 47R 5% 0805	3	R25, R270, R289
4720-472J-J	RMG 1/10W 4.7K 5% 0805	4	R274, R279, R287, R293
4720-473J-J	RMG 1/10W 47K 5% 0805	1	R283
4720-474J-J	RMG 1/10W 470K 5% 0805	2	R272, R285
4720-592A-J	RMG 1/10W 5.9K 1% 0805	2	R271, R284

QSC part #	Description	Qty.	Notes or Component Reference
4720-750J-J	RMG 1/10W 75R 5% 0805	1	R224
4721-101J-6	RMG 1/8W 100R 5% 1206	1	R30
4721-105J-6	RMG 1/8W 1M 5% 1206	2	R3, R6
4721-154J-6	RMG 1/8W 150K 5% 1206	5	R10, R273, R278, R286, R292
4721-224J-6	RMG 1/8W 220K 5% 1206	2	R18, R26
4721-334J-6	RMG 1/8W 330K 5% 1206	1	R27
4721-4643-6	RMG 1/8W 464K 1% 1206	1	R15
4721-473J-6	RMG 1/8W 47K 5% 1206	1	R225
4721-682J-6	RMG 1/8W 6.8K 5% 1206	1	R19
4721-821J-6	RMG 1/8W 820R 5% 1206	2	R230, R232
4804-1480-3	DIODE LL4148 SM	18	D2–D7, D9, D14, D204, D211–D216, D271, D273, D277
4853-9060-3	TR 3906 PNP SM	5	Q4, Q6, Q7, Q272, Q275
4860-0640-3	TR 3904 HFE 100-300 SM	6	Q8, Q9, Q201, Q202, Q271, Q273
4860-5110-3	TR KST42	1	Q1

Input Board

150F-471J-5-OF	CC 50V 470pF 5% RL 8x3.5	4	C1, C2, C3, C4
2113-1337-1	XLR FEMALE CONN.	2	J101, J201
2113-1652-0	PHONE JACK 1/4" 6.4 mm	2	J102, J202
5200-4713-0	10 POLE DIP SWITCH	1	SW1
7010-9860-0	26 PIN IEC RIBBON CABLE	1	J1

Output Board

2113-1336-1	SPEAKON NEUTRIK 4 WIRE	2	J100, J200
2113-1338-0	4-POLE SPEAKER TERMINAL	1	J103
4154-2111-0	OUTPUT POST PLUG FOR CE	2	For European models only
4154-2121-0	OUTPUT POST PLUG FOR CE	2	For European models only

