



# CX Series

## CX 8-Channel Power Amplifiers

### TECHNICAL SERVICE MANUAL



- ▼ CX 168
- ▼ CX 108V

Technical Service Manual  
Rev. A



# CX Series 8-Channel Power Amplifiers SERVICE MANUAL

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CX 168



CX 108V

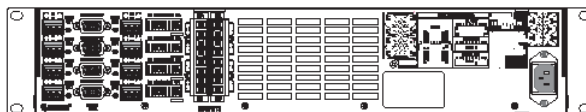


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## CX 168 / CX 108V SPECIFICATIONS

SPECIFICATIONS	CX168	CX108V
<b>Stereo Mode (all channels driven)</b>	<b>Continuous Average Output Power Per Channel</b>	
8 ohms 0.05% THD 20 Hz-20 kHz	90 Watts	—
4 ohms 0.1% THD 20 Hz-20 kHz	130 Watts	—
<b>Midband Ratings</b>	<b>All Channels Driven</b>	<b>Single Channel</b>
8 ohms 0.1% THD 1 kHz	100 Watts	120 Watts
4 ohms 0.1% THD 1 kHz	140 Watts	180 Watts
70V 0.2% THD 20 Hz-20 kHz	—	100 Watts
<b>Bridge Mono Mode</b>	<b>Bridge-Mono Mode Operation</b>	
16 ohms 0.1% THD 20 Hz-20 kHz	180 Watts	—
8 ohms 0.1% THD 20 Hz-20 kHz	260 Watts	—
140V 0.2% THD 20 Hz-20 kHz	—	200 Watts
<b>Noise (20 Hz-20 kHz)</b>	-107 dB	-100 dB
<b>Input Sensitivity (for full-rated output power)</b>	1.35 Vrms @ 8 ohms	1.26 Vrms @ 70V
<b>Voltage Gain</b>	20x (26 dB)	56x (35 dB)
<b>Input Clipping</b>	6 Vrms (+18 dBu)	6 Vrms (+18 dBu)
<b>Output Circuitry</b>	Class AB+B	Class AB+B
<b>Frequency Response</b>	20 Hz-20 kHz, ± 0.2 dB 8 Hz-50 kHz, +0/-3 dB	20 Hz-20 kHz, ± 0.4 dB 8 Hz-70 kHz, +0/-3 dB
<b>Damping Factor</b>	Greater than 200 (5 kHz and below)	Greater than 500 (5 kHz and below)
<b>Input Impedance</b>	6 kΩ unbalanced, 22 kΩ balanced	6 kΩ unbalanced, 22 kΩ balanced
<b>All models</b>	<b>All models</b>	
<b>Distortion (SMPTE-IM)</b>	Less than 0.02%	
<b>Distortion (typical)</b> 20 Hz-20 kHz: 10 dB below rated power 1.0 kHz and below: full rated power	Less than 0.1% THD Less than 0.03% THD	
<b>Connectors</b>	Input: 3-pin Euro-style detachable terminal blocks, (one per channel) DataPort: HD-15 Connector, (Ch 1+2, 3+4, 5+6, 7+8) Output: Two 8-pin Euro-style detachable terminal blocks	
<b>Cooling</b>	Variable speed fan, rear-to-front airflow through tunnel heat sink	
<b>Controls</b>	Front: AC switch, Ch 1, 2, 3, 4, 5, 6, 7 & 8 gain knobs Rear: DIP switches for Ch.1-Ch.8, clip limiter on/off, LF filter on/off, LF filter freq select 33 or 70 Hz for CX168, LF filter freq select 50 or 75 Hz for CX108V, inputs parallel or stereo; bridge mode	
<b>Indicators</b>	PWR-ON: Green LED SIGNAL-35dB: Green LED (1 per channel) CLIP: Red LED (1 per channel) PARALLEL INPUTS: Orange LED (1 per ch. pair) BRIDGED: Yellow LED (1 per ch. pair)	
<b>Amplifier Protection</b>	Full short circuit, open circuit, thermal, ultrasonic, and RF protection; Stable into reactive or mismatched loads	
<b>Load Protection</b>	On/off muting; Individual channel DC fault blocking	
<b>Dimensions</b>	19" (48.3 cm) rack mounting, 3.5" (8.9 cm) tall (2 rack spaces), 14" (35.6 cm) deep (from front mounting rails)	
<b>Weight</b>	21 lb (9.5 kg) net, 27 lb (12.3 kg) shipping	
<b>Power Requirements</b>	100, 120, 230 VAC, 50-60 Hz (configured at factory)	
<b>120V CURRENT CONSUMPTION</b>	<b>CX168</b>	<b>CX108V</b>
Multiply currents by 0.5 for 230V units.	Idle 0.6 A	0.6 A
<b>1/8 Average Power*</b> (typical of program material at maximum unclipped power) *Pink noise	8 ohms 6.2 A	—
	4 ohms 9.2 A	—
	70V —	6.3 A
<b>1/3 Average Power*</b> (typical of program material with severe clipping) *Pink noise	8 ohms 9.2 A	—
	4 ohms 14.2 A	—
	70V —	9.4 A



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## Replacement Parts

### CX168 PACKOUT ASSEMBLY

Part Number	Description	Reference
CH-000122-00	COVER, BOTTOM, DCA3022	
LB-000209-00 <sup>1</sup>	AGENCY, CERTIFICATION, CLASS B, FCC	
LB-000437-00	LABEL, WARNING, RAIN & MOISTURE, BASIS 922AZ	
PL-000003-CP	AC CORD PROTECTOR, 0.625 OD, POLYETHYLENE, NATURAL	
PM-000029-00	INSERT, SHIPPING, PLC 2RU, 17.5" X 23.5"	
PM-001101-00	CARTON, SHIPPING, MX700, 17.5" X 23.5" X 4.65"	
PM-001401-00	BAG, SHIPPING, POLYPROPYLENE, SERIES 1, 20.5" X 12.5" X 24"	
SC-082051-PL	PHILLIPS, PANHEAD, SERATED BASE, #8, 0.313", L, BLACK	
TD-000095-00	OWNERS MANUAL, CX168	
WC-000139-00 <sup>2</sup>	AC CORD, IEC, 14 AWG, 3 CONDUCTOR, PLC, 72", L MINIMUM, 125 VAC	
WP-000001-00 <sup>1</sup>	ASSEMBLY, CATALOG KIT	
WP-000087-00	SHIP KIT, CX 8CH	
WP-000168-00 <sup>3</sup>	CHASSIS ASSY, CX168, 120V	
WP-000169-00 <sup>4</sup>	PCB ASSY, CX168, 120V	

### CATALOG KIT ASSEMBLY

Part Number	Description	Reference
PM-300998-PB <sup>1</sup>	BAG, PLASTIC, 9" X 12"	
TD-000001-00 <sup>1</sup>	EXTENDED SERVICE, COVERAGE INSERT	

### CATALOG KIT ASSEMBLY

Part Number	Description	Reference
TD-000002-00 <sup>1</sup>	EXTENDED SERVICE, REGISTRATION	
TD-000134-00 <sup>1</sup>	ACCESSORY OFFER SHEET NEW LOGO	
TD-000135-00 <sup>1</sup>	AUDIOWEAR CATALOG	
TD-000900-AX <sup>1</sup>	WARRANTY CARD, GENERIC	

### CX168 SHIP KIT ASSEMBLY

Part Number	Description	Reference
CO-000198-00	PLUG, EURO, 3 POS, MALE GREEN STRAIN RELIEF	
CO-000200-00	PLUG, EURO POWER, 8 POS, MALE, GREEN	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812" POLYURETHANE, BLACK	
PM-100998-PB	BAG, PLASTIC, 3" X 6"	
PM-300996-PB	BAG, PLASTIC, 6" X 8" 2 MIL THICK	
WP-000072-00	LOCKOUT PLATE ASSY, CX168	

### LOCKOUT PLATE ASSEMBLY

Part Number	Description	Reference
CH-000160-00	PLATE, LOCKOUT, GAIN, CX168,	
LB-000352-00	PRODUCT, LOCKOUT COVER, CX 8CH	

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## Replacement Parts

### CX168 CHASSIS ASSEMBLY

Part Number	Description	Reference
CH-000112-00	SHIELD, LINE FILTER, PLX3002	
CH-000118-00	RACK EAR, FRONT, CX902	
CH-000159-00	CHASSIS, MAIN, , CX168	
CH-000188-00	BRACKET, OUTPUT, CX168	
CO-000169-00	JACK, IEC, 3 POS, FEMALE	
CO-000199-00	JACK, EURO POWER, 8 POS, FEMALE, GREEN	
HW-040001-00	BRACKET, ANGLE, #4-40, 0.375" L, ZINC PLATED STEEL	
HW-060090-SO	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	
LB-000053-00	FUSE, REPLACEMENT, FRENCH	
LB-000077-00	WARNING, HIGH ENERGY, PL 3RU	
LB-000350-00	PRODUCT, FACEPLATE, CX168	
LB-000351-00	PRODUCT, MODE SWITCH REAR, CX168	
LB-000409-00 <sup>5</sup>	AGENCY, 68FA LISTING, HORIZONTAL, UL/CUL	
LB-000440-00	LABEL, WIRE CLASS 2	
LB-160226-05 <sup>6</sup>	FUSE, 25A, 125V, UL	
PL-000066-00	CLIP, CHRISTMAS TREE, NYLON, BLACK	
PL-000095-00	FAN INTERFACE, PLX 2RU, POLYPROPYLENE, BLACK	
PL-000136-00	KNOB, PLC, PLASTIC, BLACK	
PL-000144-00	INSULATOR, FAN DUCT, PL2/2A, FISH PAPER	
PL-000175-00	ISOLATOR, INPUT, CX168, FISH PAPER	
SC-040041-PP	PHILLIPS, PANHEAD, #4-40, 0.25" L, BLACK	
SC-040061-PT	PHILLIPS, TRUSS, #4-40, 0.375" L, BLACK	

### CX168 CHASSIS ASSEMBLY

Part Number	Description	Reference
SC-060042-PP	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC	
SC-061081-PP	PHILLIPS, PANHEAD, #6, 0.375" L, ZINC, TYPE B	
SC-080122-HC	HEX, CAP, #8-32, 0.75" L, BLACK	
SC-082051-PL	PHILLIPS PANHEAD SERATED BASE, #8, 0.313" L, BLACK	
SW-000037-00	AC SW, DPST, 20A, 125VAC,	
WC-000138-00	CABLE ASSY, AC, 16 AWG, 3 CONDUCTOR, DCA/CX, 5" L	
WC-000164-00	CABLE ASSY, OUTPUT 18 AWG, 8 CONDUCTOR, CX168, 10" L	
WC-000238-00	RIBBON CABLE ASSY, 28 AWG, 26 CONDUCTOR, 7" L, AMP CORP ONLY	J103, J104, J13, J14
WC-000239-00	RIBBON CABLE ASSY, 28 AWG, 26 CONDUCTOR, 12" L, AMP CORP ONLY	J504, J704
WP-000057-00	FAN ASSY, PLC	
XF-000202-00	CABLE SUPPRESSION, 100MHZ, 250, CLAMP-ON	

### FAN ASSEMBLY

Part Number	Description	Reference
CO-000108-00	PLUG, 0.1" CENTERS, 2 POS (1X2), FEMALE, RAMP LOCK 26 AWG	
MS-000085-00	FAN, 24VDC, 3.15"	

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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
CA-010002-30	10PF, 5 PCNT, 50V CERAMIC NPO, 0805	C123, C131, C523, C531, C723, C731, C331, C323
CA-047002-30	47PF, 5 PCNT, 50V, CERAMIC NPO, 0805	C124, C130, C141, C148, C324, C330, C341, C348, C541, C62, C724, C730, C741, C748, C524, C530, C548
CA-110002-30	100PF, 5 PCNT, 50V, CERAMIC NPO, 0805	C108, C109, C110, C111, C308, C309, C311, C508, C509, C510, C511, C708, C709, C710, C711, C310
CA-122003-30	220PF, 5 PCNT, 50V, CERAMIC NPO, 1206	C102, C103, C105, C301, C303, C305, C501, C502, C503, C505, C701, C703, C705, C101, C702, C302
CA-133001-10	330PF, 5 PCNT, 500V, MICA	C40, C41
CA-147003-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 1206	C20, C50, C64, C59
CA-168001-10	680PF, 10 PCNT, 100V, CERAMIC Z5U, DISC	C359
CA-210005-30	0.001UF, 5 PCNT, 50V, CERAMIC NPO, 1206	C127, C128, C129, C133, C134, C327,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		C328, C329, C332, C333, C334, C527, C528, C529, C533, C534, C6, C727, C728, C729, C732, C733, C734, C132, C532, C4
CA-222001-00	0.0022UF, 20 PCNT, 125VAC, CERAMIC Y5U, DISC, YCAP	C28, C25
CA-227001-30	0.0027UF, 10 PCNT, 100V, CERAMIC X7R, 0805	C11, C17, C14
CA-233002-00	0.0033UF, 20 PCNT, 125VAC, CERAMIC, DISC, YCAP	C13, C16
CA-410001-00	0.1UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	C22
CA-410002-10	0.1UF, 5 PCNT, 100V, FILM	C121, C122, C321, C322, C521, C522, C721, C722
CA-410003-10	0.1UF, 10 PCNT, 250V, FILM	C140, C145, C146, C339, C340, C345, C346, C539, C540, C545, C546, C739, C745, C139, C740, C746
CA-410006-30	0.1UF, 10 PCNT, 50V, CERAMIC X7R, 1206	C157, C158, C23, C29, C3, C357, C358, C51, C54, C557, C558, C56, C57, C60,



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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		C63, C7, C757, C758, C55, C58
CA-410007-30	0.1UF, 20 PCNT, 50V, CERAMIC Z5U, 1206	C104, C106, C112, C155, C156, C304, C306, C312, C355, C356, C504, C506, C507, C555, C556, C704, C706, C707, C712, C755, C756, C107, C512, C307
CA-410011-00	0.1UF, 10 PCNT, 400V, FILM	C10, C37
CA-415002-10	0.15UF, 5 PCNT, 50V, FILM	C117, C120, C317, C320, C517, C520, C717, C720
CA-422001-10	0.22UF, 5 PCNT, 50V, FILM, DIPPED, LOW PROFILE	C118, C119, C318, C319, C518, C519, C718, C719
CA-422004-30	0.22UF, 10 PCNT, 50V, CERAMIC X7R, 1206	C21
CA-447001-00	0.47UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	C18
CA-510006-00	1.0UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	C12, C15
CA-510008-00	1.0UF, 10 PCNT, 250V, FILM, DIPPED, PULSE	C36, C39
CA-518001-00	1.8UF, 10 PCNT, 160V, FILM, DIPPED, PULSE	C153, C154, C353, C354, C553, C554, C753, C754
CA-610002-10	10UF, 20 PCNT, 35V,	C125, C126,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
	ELECTROLYTIC	C147, C151, C19, C24, C326, C347, C351, C525, C547, C551, C725, C726, C747, C751, C526, C325
CA-647001-10	47UF, 10 PCNT, 10V, ELECTROLYTIC, NON-POLAR	C114, C115, C149, C150, C152, C315, C342, C349, C350, C352, C514, C515, C542, C549, C550, C714, C742, C749, C750, C752, C314, C715, C142, C552
CA-647002-10	47UF, 20 PCNT, 50V, ELECTROLYTIC LOW PROFILE	C9
CA-710002-10	100UF, 20 PCNT, 25V, ELECTROLYTIC	C113, C116, C137, C138, C313, C316, C33, C34, C35, C513, C516, C537, C538, C61, C713, C716, C737, C337, C738, C338
CA-710004-10	100UF, 20 PCNT, 25V, ELECTROLYTIC, LOW ESR	C32, C52, C53
CA-822200-AE	2200UF, 20 PCNT, 200V, ELECTROLYTIC	C27, C26
CA-833080-BE	3300UF, 20 PCNT, 80V,	C135, C136,

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### CX168 PCB ASSEMBLY

Part Number	Description	Reference
	ELECTROLYTIC	C143, C144, C335, C336, C343, C535, C536, C543, C544, C736, C743, C744, C344, C735
CH-000103-00	CLAMP, TO-3PL, 22 GA, PLX3002	
CH-000104-00	HEAT SINK, PS,PLX3002	
CH-000114-00	CLAMP, DIODE, 2 FINGER, PLX3002	
CH-000182-00	HEAT SINK, AUDIO,CX168	
CO-000009-ZT	ZTAB, 0.025" TAB, 1 POS, MALE, AUTO INSERTABLE	J21, J5, J6
CO-000043-CO	HEADER, 0.1" CENTERS, 26 POS (2X13), MALE, BOX	J104B,J504B, J704B,J304B
CO-000098-00	HEADER, 0.1" CENTERS, 26 POS (2X13), MALE, LATCHING BOX SHORT	J104A, J13A, J13B, J14A, J304A,J504A, J704A, J14B
CO-000106-00	JACK, HD15, 15 POS, FEMALE RIGHT ANGLE SWAGED JACK SCREW	J102, J302, J702, J502
CO-000155-00	HEADER, 0.1" CENTERS, 2 POS (1X2), MALE, RAMP LOCK	J4
CO-000161-00	JACK, EURO, 3 POS, FEMALE, BLACK	J101, J103, J301, J303, J503, J701, J703, J501
CO-000196-00	HEADER, 0.1" CENTERS, 3 POS (1X3), MALE, RAMP LOCK	J17
CO-641119-AH	HEADER, 0.156" CENTERS, 8 POS (1X8), MALE, RAMP LOCK GOLD	J18, J19

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
HW-000001-FC	FUSE CLIP, PC MOUNT,TIN PLATED BRASS, 3AG	
IC-000024-00	CONTROLLER, PWM, SG3525AN	U7
IC-000046-30	OPAMP, DUAL, TLO72, SMT	U105, U106, U305, U306, U505, U705, U706, U506
IC-000048-30	OPAMP, DUAL, MC33078	U101, U102, U301, U302, U501, U701, U702, U502
IC-000051-00	OPTO ISOLATOR, , MOC8101	U2, U3
IC-000054-30	COMPARATOR, QUAD, LM339AM, SMT	U1
IC-000073-30	TRANSCONDUCTANCE OPAMP, DUAL, LM13600M	U103, U303, U503, U703
IC-000133-30	COMPARATOR, SINGLE, LM311, SMT	U6
IC-000134-00	DRIVER, MOSFET, IR2110	U5
IC-000135-00	TOP SWITCH, , TOP210	U4
IC-000143-30	ANALOG SWITCH, QUAD, DG201	U104, U304, U704, U504
MS-000048-HS	HEAT SINK, TO-220, 1.375" X 0.86" X 0.395", LONG TAB, PLUG-IN	
MS-000112-00 <sup>7</sup>	FUSE, 25A, 125V, 0.25" X 1.25", NORMAL-BLO	F1
MS-000115-30	FUSE, 1.0A, 24V, 1206, SLO	F101, F301, F501, F701
MS-000128-30	FUSE, 5A, 24V, 1206	F102, F103, F302, F303, F502, F503, F702, F703
PA-000054-00	LED ASSY, RED-GREEN-ORANGE, RIGHT ANGLE SPACER	LD502,LD702, LD102,LD302

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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
PA-000055-00	LED ASSY, RED-GREEN-YELLOW, RIGHT ANGLE SPACER	LD101,LD301, LD501,LD701
PA-000056-00	LED ASSY, GREEN, RIGHT ANGLE SPACER	LD1
PC-000169-00	MAIN, CX168	
PL-000000-AF	BUMPER, ADHESIVE BACKED 0.812" X 0.812" POLYURETHANE, BLACK	
PL-000098-00	INSULATOR, TRANSISTOR, 0.85" X 1.09", THERMALLY CONDUCTIVE, TO-220	
PL-000114-00	INSULATOR, IGBT/RECTIFIER, 1.25" X 3.20", THERMALLY CONDUCTIVE	
PL-000126-00	SPRING SEAT, TRANSISTOR, PLX, NYLON	
PL-000135-00	INSULATOR, TRANSISTOR, 1.25" X 1.75", MICA	
PL-903125-SP	SPACER, ROUND, 0.047"ID X 0.156"OD X 0.125"L, NYLON	
PT-125000-AT	TRIM, 250, 20 PCNT, 0.15W	VR103,VR104, VR303,VR304, VR504,VR703, VR503,VR704
PT-250001-00	GAIN, 5K, 20 PCNT, 0.2W, 21 DETENT, RIGHT ANGLE 11MM L SHAFT	VR101,VR102, VR301,VR302, VR501,VR502, VR701,VR702
QD-000014-QD	DIODE RECTIFIER ULTRAFast, 200V, 15A, MUR1520, TO-220, 35NS	D142, D144, D145, D146, D147, D149, D342, D343, D344, D345, D346, D347, D349, D542, D543, D544,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		D545, D546, D548, D549, D742, D743, D744, D746, D747, D748, D749, D143, D348, D745, D148, D547
QD-000042-00	DIODE RECTIFIER ULTRAFast, 400V, 3A, MUR440, DO-201AD, 50NS	D17, D18
QD-000102-30	DIODE, 75V, 0.075A, IMBD4148, SOT-23, 4NS	D101, D102, D104, D11, D114, D116, D117, D118, D119, D12, D120, D121, D122, D123, D124, D125, D301, D304, D305, D314, D315, D316, D317, D318, D320, D321, D322, D323, D324, D325, D501, D502, D504, D505, D514, D516, D517, D518, D519, D520, D521, D522, D523, D525, D550, D58, D701, D702, D704, D705, D714, D715,

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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		D716, D717, D718, D719, D722, D723, D724, D725, D750, D8, D115, D15, D319, D515, D6, D721, D105, D13, D302, D350, D524, D720
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23	Q105, Q106, Q108, Q110, Q112, Q113, Q121, Q128, Q129, Q13, Q130, Q131, Q133, Q134, Q135, Q136, Q140, Q143, Q15, Q16, Q306, Q308, Q310, Q312, Q313, Q317, Q321, Q325, Q329, Q330, Q331, Q333, Q334, Q336, Q340, Q341, Q343, Q5, Q505, Q508, Q510, Q512, Q513, Q517, Q521, Q525, Q529, Q530, Q531, Q533, Q535, Q536,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		Q540, Q541, Q543, Q6, Q705, Q706, Q708, Q712, Q713, Q721, Q725, Q728, Q729, Q730, Q731, Q733, Q734, Q735, Q736, Q740, Q743, Q117, Q141, Q328, Q506, Q534, Q717, Q125, Q305, Q335, Q528, Q710, Q741
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23	Q104, Q107, Q109, Q111, Q114, Q12, Q122, Q132, Q137, Q138, Q139, Q14, Q142, Q19, Q303, Q304, Q307, Q311, Q314, Q320, Q322, Q332, Q337, Q338, Q339, Q342, Q4, Q503, Q507, Q509, Q511, Q514, Q520, Q522, Q532, Q537, Q538, Q539, Q542, Q704,

# CX 168 / CX 108V

## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		Q707, Q709, Q711, Q714, Q720, Q722, Q732, Q737, Q738, Q739, Q742, Q120, Q309, Q504, Q703, Q744, Q103, Q144, Q344, Q544
QD-000108-30	DIODE, 200V, 0.2A, BAS21, SOT-23, 50NS	D16, D20, D19
QD-000110-30	DIODE ZENER, 6.2V, 0.3W, BZX84C6V2, SOT-23,	D103, D303, D503, D703
QD-000113-30	DIODE ZENER, 10V, 0.3W, BZX84C10, SOT-23,	D14
QD-000115-30	DIODE RECTIFIER ULTRAFAST, 600V, 1A, MURS160T3, SMB, 75NS	D57, D7, D9
QD-000116-30	DIODE RECTIFIER ULTRAFAST, 200V, 1A, MURS120, SMB, 35NS	D10, D107, D110, D306, D307, D310, D311, D506, D507, D510, D511, D706, D710, D711, D106, D707, D111
QD-000154-00	TRANSISTOR NPN, 230V, 1A, 20W, 2SC4793, TO-220,	Q115, Q123, Q323, Q515, Q523, Q715, Q723, Q315
QD-000155-00	TRANSISTOR PNP, 230V, 1A, 20W, 2SA1837, TO-220	Q116, Q124, Q324, Q516, Q524, Q716, Q724, Q316
QD-000156-00	TRANSISTOR PNP, 100V, 3A,	Q7

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
	40W, TIP32C, TO-220	
QD-000157-10	DIODE, 1000V, 1.5A, 1N5399, DO-15	D109, D112, D113, D308, D309, D313, D508, D509, D512, D513, D708, D709, D712, D312, D108, D713
QD-000169-00	IGBT, 600V, 55A, 200W, IRG4PC50U, TO-247	Q17, Q18
QD-000170-00	BRIDGE RECTIFIER, 600V, 50A, IN-LINE	BR1
QD-000226-30	DIODE, 2A, 50V, ES2A, SMB	D22, D23, D24, D21
QD-001943-PN	TRANSISTOR PNP, 230V, 15A, 150W, 2SA1943-R, TO-264	Q118, Q126, Q318, Q326, Q526, Q718, Q726, Q518
QD-005200-NP	TRANSISTOR NPN, 230V, 15A, 150W, 2SC5200, TO-264	Q319, Q327, Q519, Q527, Q727, Q719, Q119, Q127
RE-.00102-00	0.01, 1 PCNT, 5W, WIRE, 4 TERMINAL	R220, R237, R420, R437, R620, R637, R820, R837
RE-.04703-10	0.47, 5 PCNT, 2W, METAL OXIDE FP, MINI	R197, R200, R225, R226, R229, R230, R394, R397, R400, R401, R425, R426, R429, R597, R600, R601, R625, R626, R629, R630,

# CX 168 / CX 108V

## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R794, R797, R800, R801, R825, R829, R201, R594, R826, R194, R430, R830
RE-.27001-10	2.7,5 PCNT, 2W, METAL OXIDE FP, MINI	R206, R235, R406, R435, R606, R635, R806, R835
RE-.56002-10	5.6, 5 PCNT, 2W, METAL OXIDE FP, MINI	R207, R236, R436, R607, R636, R66, R67, R807, R836, R407, R65
RE-000210-NR	NTC, 10 OHMS, 15 AMPS, INRUSH LIMIT	R51
RE-000230-NR	NTC, 10K, 15 PCNT, -4.4 PCNT PER C	R259, R459, R659, R859
RE-001003-30	10, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R282, R283, R465, R466, R665, R666, R865, R866, R163, R187, R189, R190, R192, R195, R196, R212, R214, R215, R217, R224, R363, R387, R389, R390, R392, R393, R396, R412, R414, R415, R423, R424, R563, R587,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R589, R590, R592, R593, R595, R612, R614, R617, R623, R624, R63, R64, R69, R70, R763, R787, R789, R790, R793, R796, R812, R814, R815, R817, R823, R824, R223, R417, R615, R795, R193, R395, R596, R792
RE-003320-30	33.2, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R188, R191, R213, R216 R388, R391, R416, R588, R591, R613, R616, R788, R791, R813, R816, R413
RE-003921-30	39.2, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R218, R219, R419, R619, R62, R68, R818, R819, R618, R418
RE-004752-30	47.5, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R108, R232, R277, R280, R281, R284, R285, R308, R432, R477, R480, R481, R484, R485,

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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R486, R487, R508, R632, R680, R681, R684, R686, R687, R708, R832, R877, R880, R881, R884, R886, R887, R286, R677, R885, R287, R685
RE-010002-30	100, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R126, R128, R131, R254, R326, R328, R331, R333, R454, R526, R531, R533, R654, R726, R728, R731, R74, R854, R528, R133, R733
RE-027401-30	274, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R136, R139, R336, R536, R539, R736, R739, R339
RE-036501-30	365, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R261, R461, R661, R861
RE-047502-30	475, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R186, R360, R386, R586, R760, R786, R560, R160
RE-049901-30	499, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R79
RE-053602-30	536, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R111, R269, R311, R469, R511, R669,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R869, R711
RE-063402-30	634, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R154, R159, R162, R353, R354, R359, R362, R553, R554, R559, R562, R753, R754, R153, R759, R762
RE-063403-30	634, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R147, R347, R547, R747
RE-076801-30	768, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R10
RE-093101-30	931, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R172, R202, R203, R373, R402, R403, R572, R573, R602, R603, R772, R773, R802, R803, R372, R173
RE-110006-30	1.00K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R227, R228, R238, R239, R25, R316, R317, R427, R428, R438, R439, R516, R55, R627, R638, R639, R7, R716, R717, R827, R828, R838, R839, R117, R517, R116, R628
RE-111301-30*	1.13K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R134, R260, R334, R338,

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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R534, R538, R660, R734, R738, R860, R138, R460, R150, R176, R350, R376, R550, R576, R750, R776
RE-114002-30	1.40K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R307, R507, R707
RE-117401-30	1.74K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R21, R231, R273, R431, R473, R673, R831, R873, R631
RE-120002-30	2.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R16, R243, R250, R450, R643, R650, R843, R850, R443
RE-122103-30	2.21K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R13, R135, R137, R18, R276, R278, R337, R476, R478, R535, R537, R59, R676, R678, R735, R737, R876, R878, R335, R14
RE-124902-30	2.49K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R221, R251, R421, R422, R451, R453, R621, R622, R651, R653, R821, R822, R853, R222,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R851, R253
RE-126700-30	2.67K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R275, R475, R875, R675
RE-130102-30	3.01K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R157, R185, R357, R385, R54, R557, R585, R757, R76, R785, R75
RE-134802-30	3.48K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R77
RE-136502-30	3.65K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R105, R505, R705, R305
RE-145302-30	4.53K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R73
RE-152301-30	5.23K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R158, R558, R758, R358
RE-156200-30	5.62K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R348, R40, R548, R748, R148
RE-156202-30*	5.62K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	R112, R113, R114, R115, R312, R313, R314, R315, R512, R513, R514, R515, R712, R713, R714, R715
RE-159002-30	5.90K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R166, R169, R366, R369, R566, R569, R766, R769
RE-163402-30	6.34K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R107
RE-175002-30	7.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R104, R130, R132, R152, R267, R279,



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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R304, R330, R332, R352, R467, R479, R530, R552, R667, R679, R704, R730, R732, R752, R867, R879, R504, R532
RE-184501-30	8.45K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R268, R274, R468, R472, R474, R672, R674, R868, R872, R874, R272, R668
RE-190902-30	9.09K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R71, R72
RE-210003-30	10.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R102, R122, R124, R180, R181, R208, R271, R302, R32, R322, R324, R380, R39, R408, R409, R43, R44, R471, R482, R522, R524, R580, R581, R609, R671, R682, R702, R722, R724, R780, R781, R80, R809, R871, R12, R381, R608, R882, R209, R502,

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R808
RE-210009-30	10.0K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	R118, R119, R120, R121, R320, R321, R518, R519, R520, R521, R719, R720, R721, R318, R319, R718
RE-211303-30*	11.3K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R703, R167, R168, R198,  R199, R249, R367, R368, R398, R449, R568, R598, R599, R649, R767, R768, R798, R799, R849, R567, R399, R506, R509, R510, R706, R709, R710, R103, R106, R109, R110, R303, R306, R309, R310, R503
RE-212702-30	12.7K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R258, R262, R458, R658, R662, R858, R862, R52, R462
RE-214300-30	14.3K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R156, R184, R356, R384,

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## Replacement Parts

### CX168 PCB ASSEMBLY

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		R57, R575,
		R577, R579,
		R58, R604,
		R605, R775,
		R777, R779,
		R8, R804,
		R805, R174,
		R574, R205,
		R774
RE-315002-30	150K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R183, R245,
		R256, R129,
		R151, R155,
		R182, R329,
		R351, R355,
		R382, R445,
		R456, R523,
		R529, R551,
		R555, R582,
		R583, R645,
		R723, R729,
		R755, R782,
		R783, R845,
		R856, R123,
		R383, R751,
		R323, R656,
		R142, R143,
		R342, R343,
		R542, R543,
		R742, R743
RE-339201-30	392K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R263, R264,
		R442, R46,
		R463, R464,
		R53, R642,
		R663, R664,
		R842, R863,
		R864, R242
RE-348702-30	487K, 1 PCNT, 1/8W,	R36, R42,

Part Number	Description	Reference
	THICK FILM, 1206, 200V	R45, R37
RE-375005-BM	750K, 5 PCNT, 1/2W, METAL FILM,	R47, R49
SC-063100-PP	PHILLIPS, PANHEAD, #6, 0.625" L, ZINC, TYPE AB	
SC-081101-SP	PHILLIPS PANHEAD SERATED BASE, #8, 0.625" L, BLACK WAXED, TYPE AB	
SW-000050-00	SWITCH, SPST X 10, 20 PIN DIP, PCB MOUNT	SW101, SW301,
	RIGHT ANGLE	SW501, SW701
SW-000104-00	RELAY, SPDT, 24VDC COIL, 20A, 125VAC, T90 STYLE (FOR PLC MODELS)	K1
WC-0.5018-JW	JUMPER TEFLON INSULATION W2 18 AWG SOLID, 1 CONDUCTOR, 0.5" L	
WC-000115-00	WIRE ASSY, AC SWITCH, 16 AWG, 1 CONDUCTOR, PLC, 14" L, BLACK	
WC-000115-02	WIRE ASSY, AC SWITCH, 16 AWG, 1 CONDUCTOR, CX168, 14" L, RED	
WC-000117-03	WIRE ASSY, SPEAKER, 16 AWG, 1 CONDUCTOR, PLC, 7.5" L, BLACK	
WC-000118-01 <sup>1</sup>	WIRE ASSY, 16 AWG, 1 CONDUCTOR, PLC,	
XF-000023-00	INDUCTOR, COMMON MODE 2MH	L1, L2
XF-000064-00	TRANSFORMER, HOUSEKEEPING, PLC	T1
XF-000106-00	TRANSFORMER, SWITCHING, 115KHZ, E55, 1500W, CX168, 120V/230V,	T2
XF-000108-30	BEAD, 100MHZ, 50 OHM, SMT	L103, L104,

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## Replacement Parts

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
		L105, L106, L303, L304, L306, L503, L504, L505, L506, L703, L704, L706,
XF-200016-CR	INDUCTOR, ZOBEL 18 AWG 2UH	L101, L102, L301, L501, L502, L701, L702, L302
* Notes	UNITS MANUFACTURED PRIOR TO JANUARY 2002	
RE-063403-30	RES SMT 634 OHM 1% 1/10W 0805	R150,R176 R350,R376 R550,R576 R750,R776
RE-210009-30	RES 10.0K 1/10W .1% 0805	R112,R113 R114,R115 R312,R313 R314,R315 R512,R513 R514,R515 R712,R713 R714,R715
RE-220002-30	RES SMT 20.0K 1% 1/10W 100V	R103,R106 R109,R110 R303,R306 R309,R310 R503,R506 R509,R510 R703,R706 R709,R710
FootNotes	FOR 230 VOLT UNITS	
<sup>1</sup>	NOT AVAILABLE	
<sup>2</sup> WC-000054-00	AC CORD, 3 CONDUCTOR	

### CX168 PCB ASSEMBLY

Part Number	Description	Reference
	PLC, 2.5 METERS, 250VAC	
<sup>3</sup> WP-000168-02	CHASSIS ASSY, CX168, 230V	
<sup>4</sup> WP-000169-02	PCB ASSY, CX168, 230V	
<sup>5</sup> LB-000099-01	AGENCY, LISTING, CE	
<sup>6</sup> LB-160226-01	FUSE, 15A, 250V, UL	
<sup>7</sup> MS-150250-FU	FUSE, 15A, 250V, 0.25" X 1.25" FAST	

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## Replacement Parts

### CX108V PACKOUT ASSEMBLY

Part Number	Description	Reference
CH-000122-00	COVER, BOTTOM, DCA3022	
LB-000209-00 <sup>1</sup>	AGENCY, CERTIFICATION, CLASS B, FCC	
LB-000437-00	LABEL, WARNING, RAIN & MOISTURE, BASIS 922AZ	
PL-000003-CP	AC CORD PROTECTOR, 0.625 OD, POLYETHYLENE, NATURAL	
PM-000029-00	INSERT, SHIPPING, PLC 2RU, 17.5" X 23.5"	
PM-001101-00	CARTON, SHIPPING, MX700, 17.5" X 23.5" X 4.65"	
PM-001401-00	BAG, SHIPPING, POLYPROPYLENE, SERIES 1, 20.5" X 12.5" X 24"	
SC-082051-PL	PHILLIPS, PANHEAD, SERATED BASE, #8, 0.313", L, BLACK	
TD-000129-00	OWNERS MANUAL, CX108V	
WC-000139-00 <sup>2</sup>	AC CORD, IEC, 14 AWG, 3 CONDUCTOR, PLC, 72", L MINIMUM, 125 VAC	
WP-000001-00 <sup>1</sup>	ASSEMBLY, CATALOG KIT	
WP-000087-00	SHIP KIT, CX 8CH	
WP-000368-00 <sup>3</sup>	CHASSIS ASSY, CX108V, 120V	
WP-000369-00 <sup>4</sup>	PCB ASSY, CX108V, 120V	

### CATALOG KIT ASSEMBLY

Part Number	Description	Reference
PM-300998-PB <sup>1</sup>	BAG, PLASTIC, 9" X 12"	
TD-000001-00 <sup>1</sup>	EXTENDED SERVICE, COVERAGE INSERT	
TD-000002-00 <sup>1</sup>	EXTENDED SERVICE, REGISTRATION	

### CATALOG KIT ASSEMBLY

Part Number	Description	Reference
TD-000134-00 <sup>1</sup>	ACCESSORY OFFER SHEET NEW LOGO	
TD-000135-00 <sup>1</sup>	AUDIOWEAR CATALOG	
TD-000900-AX <sup>1</sup>	WARRANTY CARD, GENERIC	

### CX108V SHIP KIT ASSEMBLY

Part Number	Description	Reference
CO-000198-00	PLUG, EURO, 3 POS, MALE, GREEN STRAIN RELIEF	
CO-000200-00	PLUG, EURO POWER, 8 POS, MALE, GREEN	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812" POLYURETHANE, BLACK	
PM-100998-PB	BAG, PLASTIC, 3" X 6"	
PM-300996-PB	BAG, PLASTIC, 6" X 8" 2 MIL THICK	
WP-000072-00	LOCKOUT PLATE ASSY, CX168	

### LOCKOUT PLATE ASSEMBLY

Part Number	Description	Reference
CH-000160-00	PLATE, LOCKOUT, GAIN, CX168,	
LB-000352-00	PRODUCT, LOCKOUT COVER, CX 8CH	

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## Replacement Parts

### CX108V CHASSIS ASSEMBLY

Part Number	Description	Reference
CH-000112-00	SHIELD, LINE FILTER, PLX3002	
CH-000118-00	RACK EAR, FRONT, CX902	
CH-000159-00	CHASSIS, MAIN, CX168	
CH-000188-00	BRACKET, OUTPUT, CX168	
CO-000169-00	JACK, IEC, 3 POS, FEMALE	
CH-000112-00	SHIELD, LINE FILTER, PLX3002	
CH-000118-00	RACK EAR, FRONT, CX902	
CH-000159-00	CHASSIS, MAIN, CX168	
CH-000188-00	BRACKET, OUTPUT, CX168	
CO-000169-00	JACK, IEC, 3 POS, FEMALE	
CO-000199-00	JACK, EURO POWER, 8 POS, FEMALE, GREEN	
HW-040001-00	BRACKET, ANGLE, #4-40, 0.375" L, ZINC PLATED STEEL	
HW-060090-SO	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	
LB-000053-00	FUSE, REPLACEMENT, FRENCH	
LB-000077-00	WARNING, HIGH ENERGY, PL 3RU	
LB-000409-00 <sup>5</sup>	AGENCY, 68FA LISTING, HORIZONTAL, UL/CUL	
LB-000418-00	PRODUCT, FACEPLATE, CX108V	
LB-000419-00	PRODUCT, MODE SWITCH, REAR, CX108V	
LB-160226-05 <sup>6</sup>	FUSE, 25A, 125V, UL	
PL-000066-00	CLIP, CHRISTMAS TREE, NYLON, BLACK	
PL-000095-00	FAN INTERFACE, PLX 2RU, POLYPROPYLENE, BLACK	
PL-000136-00	KNOB, PLC, PLASTIC, BLACK	
PL-000144-00	INSULATOR, FAN DUCT, PL2/2A, FISH PAPER	
PL-000175-00	ISOLATOR, INPUT, CX168, FISH PAPER	

### CX108V CHASSIS ASSEMBLY

Part Number	Description	Reference
SC-040041-PP	PHILLIPS, PANHEAD, #4-40, 0.25" L, BLACK	
SC-040061-PT	PHILLIPS, TRUSS, #4-40, 0.375" L, BLACK	
SC-060042-PP	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC	
SC-061081-PP	PHILLIPS, PANHEAD, #6, 0.375" L, ZINC, TYPE B	
SC-080122-HC	HEX, CAP, #8-32, 0.75" L, BLACK	
SC-082051-PL	PHILLIPS PANHEAD SERATED BASE, #8, 0.313" L, BLACK	
SW-000037-00	AC SW, DPST, 20A, 125VAC,	
WC-000138-00	CABLE ASSY, AC, 16 AWG, 3 CONDUCTOR, DCA/CX, 5" L	
WC-000164-00	CABLE ASSY, OUTPUT 18 AWG, 8 CONDUCTOR, CX168, 10" L	
WC-000238-00	RIBBON CABLE ASSY, 28 AWG, 26 CONDUCTOR, 7" L, AMP CORP ONLY	J103, J104, J13, J14
WC-000239-00	RIBBON CABLE ASSY, 28 AWG, 26 CONDUCTOR, 12" L, AMP CORP ONLY	J504, J704
WP-000057-00	FAN ASSY, PLC	
XF-000202-00	CABLE SUPPRESSION, 100MHZ, 250, CLAMP-ON	

### FAN ASSEMBLY

Part Number	Description	Reference
CO-000108-00	PLUG, 0.1" CENTERS,	

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## Replacement Parts

### FAN ASSEMBLY

Part Number	Description	Reference
MS-000085-00	2 POS (1X2), FEMALE, RAMP LOCK 26 AWG FAN, 24VDC, 3.15"	

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
CA-022004-30	22PF, 5 PCNT, 200V, CERAMIC NPO, 0805	C124, C130, C324, C330, C524, C530, C724, C730
CA-047002-30	47PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	C141, C148, C341, C348, C541, C548, C62, C741, C748, C123, C131, C323, C331, C523, C531, C723, C731
CA-122002-30	220PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	C108, C109, C110, C111, C308, C309, C310, C311, C508, C509, C510, C511, C708, C709, C710, C711
CA-122003-30	220PF, 5 PCNT, 50V, CERAMIC NPO, 1206,	C101, C102, C103, C105, C301, C302, C303, C305, C501, C502, C503, C505, C701, C702, C703, C705

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
CA-133001-10	330PF, 5 PCNT, 500V, MICA, DIPPED,	C40, C41
CA-147003-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 1206,	C129, C134, C329, C334, C529, C534, C729, C734, C20, C50, C64, C59
CA-147007-30	470PF, 5 PCNT, 200V, CERAMIC NPO, 1206,	C128, C133, C328, C333, C528, C533, C728, C733
CA-210005-30	0.001UF, 5 PCNT, 50V, CERAMIC NPO, 1206,	C332, C527, C532, C727, C732, C127, C132, C327, C4, C6
CA-222001-00	0.0022UF, 20 PCNT, 125VAC, CERAMIC Y5U, DISC, YCAP	C28, C25
CA-227001-30	0.0027UF, 10 PCNT, 100V, CERAMIC X7R, 0805,	C11, C17, C14
CA-233002-00	0.0033UF, 20 PCNT, 125VAC, CERAMIC, DISC, YCAP	C13, C16
CA-322009-10	0.022UF, 10 PCNT, 250V, FILM, DIPPED,	C140, C146, C340, C346, C540, C546, C740, C746
CA-410001-00	0.1UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	C22
CA-410002-10	0.1UF, 5 PCNT, 100V, FILM, DIPPED	C121, C122, C321, C322, C521, C522, C721, C722
CA-410006-30	0.1UF, 10 PCNT, 50V,	C157, C158,

# CX 168 / CX 108V

## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	CERAMIC X7R, 1206,	C23, C29, C3, C357, C358, C51, C54, C557, C558, C56, C57, C60, C63, C7, C757, C758, C55, C58
CA-410007-30	0.1UF, 20 PCNT, 50V, CERAMIC Z5U, 1206,	C104, C106, C112, C155, C156, C304, C306, C312, C355, C356, C504, C506, C507, C555, C556, C704, C706, C707, C712, C755, C756, C107, C512, C307
CA-410011-00	0.1UF, 10 PCNT, 400V, FILM, DIPPED,	C10, C37
CA-410020-10	0.1UF, 5 PCNT, 50V, MYLAR, RADIAL	C118, C119, C318, C319, C518, C519, C718, C719
CA-415002-10	0.15UF, 5 PCNT, 50V, FILM, DIPPED	C117, C120, C317, C320, C517, C520, C717, C720
CA-422004-30	0.22UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	C21, R195, R196, R223, R224, R395, R396, R423, R424, R595, R596, R623,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
		R624, R795, R796, R823, R824
CA-433002-00	0.33UF, 10 PCNT, 400V, FILM, DIPPED, PULSE	C153, C154, C353, C354, C553, C554, C753, C754
CA-447001-00	0.47UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	C18
CA-510006-00	1.0UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	C12, C15
CA-512003-00	1.2UF, 10 PCNT, 250V, FILM, DIPPED, PULSE	C36, C39
CA-610002-10	10UF, 20 PCNT, 35V, ELECTROLYTIC,	C125, C126, C147, C151, C19, C24, C326, C347, C351, C525, C547, C551, C725, C726, C747, C751, C526, C325
CA-647001-10	47UF, 10 PCNT, 10V, ELECTROLYTIC, NON-POLAR	C114, C115, C149, C150, C152, C315, C342, C349, C350, C352, C514, C515, C542, C549, C550, C714, C742, C749, C750, C752, C314, C715, C142, C552
CA-647002-10	47UF, 20 PCNT, 50V, ELECTROLYTIC, LOW PROFILE	C9

# CX 168 / CX 108V

## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	LM311, SMT,	
IC-000134-00	DRIVER, MOSFET, IR2110	U5
IC-000135-00	TOP SWITCH, TOP210,	U4
IC-000143-30	ANALOG SWITCH, QUAD, DG201,	U104, U304, U704, U504
MS-000048-HS	HEAT SINK, TO-220, 1.375" X 0.86" X 0.395", LONG TAB, PLUG-IN	
MS-000112-00 <sup>7</sup>	FUSE, 25A, 125V, 0.25" X 1.25", NORMAL-BLO	F1
MS-000115-30	FUSE, 1.0A, 24V, 1206, SLO	F101, F301, F501, F701
MS-000128-30	FUSE, 5A, 24V, 1206	F102, F103, F302, F303, F502, F503, F702, F703
PA-000054-00	LED ASSY, RED-GREEN-ORANGE, RIGHT ANGLE SPACER,	LD502,LD702 LD102,LD302
PA-000055-00	LED ASSY, RED-GREEN-YELLOW, RIGHT ANGLE SPACER,	LD101,LD301 LD501,LD701
PA-000056-00	LED ASSY, GREEN RIGHT ANGLE SPACER,	LD1
PC-000169-00	MAIN, CX168,	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812", POLYURETHANE, BLACK,	
PL-000098-00	INSULATOR, TRANSISTOR, 0.85" X 1.09", THERMALLY CONDUCTIVE, TO-220,	
PL-000114-00	INSULATOR, IGBT/RECTIFIER, 1.25" X 3.20", THERMALLY CONDUCTIVE,	

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
PL-000126-00	SPRING SEAT, TRANSISTOR, PLX, NYLON,	
PL-000135-00	INSULATOR, TRANSISTOR, 1.25" X 1.75", MICA,	
PL-903125-SP	SPACER, ROUND, 0.047"ID X 0.156"OD X 0.125"L, NYLON,	
PT-110000-AT	TRIM, 100, 20 PCNT, 0.15W,	VR104,VR303 VR304,VR504
		VR703,VR503 VR704,VR103
PT-250001-00	GAIN, 5K, 20 PCNT, 0.2W, 21 DETENT, RIGHT ANGLE 11MM L SHAFT	VR101,VR102 VR301,VR302 VR501,VR502 VR701,VR702
QD-000003-00	TRANSISTOR NPN, 250V, 15A, 200W, MJL21194, TO-264,	Q319, Q327, Q519, Q527, Q727, Q719, Q119, Q127
QD-000004-00	TRANSISTOR PNP, 250V, 15A, 200W, MJL21193, TO-264,	Q118, Q126, Q318, Q326, Q526, Q718, Q726, Q518
QD-000042-00	DIODE RECTIFIER ULTRAFEST, 400V, 3A, MUR440, DO-201AD, 50NS	D17, D18
QD-000079-00	DIODE RECTIFIER ULTRAFEST, 400V, 8A, MUR840, TO-220, 60NS	D142, D143, D144, D145, D146, D147, D148, D149, D342, D343, D344, D345, D346, D347, D348, D349, D542, D543, D544, D545, D546, D547,



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## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
		D548, D549, D742, D743, D744, D745, D746, D747, D748, D749
QD-000102-30	DIODE, 75V, 0.075A, IMBD4148, SOT-23, 4NS	D101, D102, D104, D11, D114, D116, D117, D118, D119, D12, D120, D121, D122, D123, D124, D125, D301, D304, D305, D314, D315, D316, D317, D318, D320, D321, D322, D323, D324, D325, D501, D502, D504, D505,, D514, D516, D517, D518, D519, D520, D521, D522, D523
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23	Q728, Q729, Q730, Q731, Q733, Q734, Q735, Q736, Q740, Q743, Q117, Q141, Q328, Q506, Q534, Q717, Q125, Q305, Q335, Q528,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
		Q710, Q741, Q105, Q106, Q108, Q110, Q112, Q113, Q121, Q128, Q129, Q13, Q130, Q131, Q133, Q134, Q135, Q136, Q140, Q143, Q15, Q16, Q306,
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23	Q104, Q107, Q109, Q111, Q114, Q12, Q122, Q132, Q137, Q138, Q139, Q14, Q142, Q19, Q303, Q304, Q307, Q311, Q314, Q320, Q322, Q332, Q337, Q338, Q339, Q342, Q4, Q503, Q507, Q509, Q511, Q514, Q520, Q522, Q532, Q537, Q538, Q539, Q542, Q704, Q707, Q709, Q711, Q7
QD-000108-30	DIODE, 200V, 0.2A, BAS21, SOT-23, 50NS	D16, D20, D19
QD-000110-30	DIODE ZENER, 6.2V,	D103, D303,

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## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	0.3W, BZX84C6V2, SOT-23,	D503, D703
QD-000113-30	DIODE ZENER, 10V,	D14
	0.3W, BZX84C10, SOT-23,	
QD-000115-30	DIODE RECTIFIER	D57, D7, D9
	ULTRAFAST, 600V, 1A,	
	MURS160T3, SMB, 75NS	
QD-000116-30	DIODE RECTIFIER	D10, D107,
	ULTRAFAST, 200V, 1A,	D110, D306,
	MURS120, SMB, 35NS	D307, D310,
		D311, D506,
		D507, D510,
		D511, D706,
		D710, D711,
		D106, D707,
		D111
QD-000154-00	TRANSISTOR NPN,	Q115, Q123,
	230V, 1A, 20W,	Q323, Q515,
	2SC4793, TO-220,	Q523, Q715,
		Q723, Q315
QD-000155-00	TRANSISTOR PNP,	Q116, Q124,
	230V, 1A, 20W, 2SA1837,	Q324, Q516,
	TO-220,	Q524, Q716,
		Q724, Q316
QD-000156-00	TRANSISTOR PNP, 100V,	Q7
	3A, 40W, TIP32C, TO-220,	
QD-000157-10	DIODE, 1000V, 1.5A,	D109, D112,
	1N5399, DO-15,	D113, D308,
		D309, D313,
		D508, D509,
		D512, D513,
		D708, D709,
		D712, D312,
		D108, D713
QD-000169-00	IGBT, 600V, 55A, 200W,	Q17, Q18
	IRG4PC50U, TO-247,	
QD-000170-00	BRIDGE RECTIFIER,	BR1
	600V, 50A, IN-LINE	

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
QD-000226-30	DIODE, 2A, 50V,	D22, D23,
	ES2A, SMB,	D24, D21
RE-.00660-00	0.066, 1 PCNT, 5W,	R220, R237,
	WIRE, 4 TERMINAL	R420, R437,
		R620, R637,
		R820, R837
RE-.15002-10	1.5, 5 PCNT, 2W, METAL	R194, R197,
	OXIDE FP, MINI,	R200, R201,
		R225, R226,
		R229, R230,
		R394, R397,
		R400, R401,
		R425, R426,
		R429, R430,
		R594, R597,
		R600, R601,
		R625, R626,
		R629, R630,
		R794, R797,
		R800, R801,
		R825, R826,
		R829, R830
RE-.56002-10	5.6, 5 PCNT, 2W,	R207, R236,
	METAL OXIDE FP, MINI,	R407, R436,
		R607, R636,
		R65, R66,
		R67, R807,
		R836
RE-000210-NR	NTC, 10 OHMS,	R51
	15 AMPS, INRUSH LIMIT	
RE-000230-NR	NTC, 10K, 15 PCNT,	R259, R459,
	4.4 PCNT PER C	R659, R859
RE-001003-30	10, 1 PCNT, 1/8W,	R163, R193,
	THICK FILM, 1206, 200V	R363, R393,
		R563, R593,
		R63, R64,
		R69, R70,

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## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
RE-001650-30	16.5, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R763, R793 R190, R215, R390, R415, R590, R615, R790, R815
RE-001960-30	19.6, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R189, R214, R389, R414, R589, R614 R789, R814
RE-003921-30	39.2, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R419, R618, R619, R62, R68, R818, R218, R219, R418, R819
RE-004752-30	47.5, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R508, R632, R677, R680, R681, R708, R832, R877, R308, R432, R477, R480, R481, R880, R881, R108, R232, R277, R280, R281
RE-004754-30	47.5, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R187, R192, R212, R217, R387, R392, R412, R417, R587, R592, R612, R617, R787, R792, R812, R817
RE-010001-30	100, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R188, R191, R213, R216, R388, R391, R413, R416, R588, R591,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
RE-010002-30	100, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R613, R616, R788, R791, R813, R816 R126, R128, R131, R133, R254, R326, R328, R331, R333, R454, R526, R528, R531, R533, R654, R726, R728, R731, R733, R74, R854, R284, R285, R286, R287, R484, R485, R486, R487, R684, R685, R686, R687, R884, R885, R886 R887
RE-027401-30	274, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R136, R139, R336, R536, R539, R736, R739, R339
RE-036501-30	365, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R261, R461, R661, R861
RE-047502-30	475, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R186, R360, R386, R586, R760, R786, R560, R160
RE-049901-30	499, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R79
RE-053602-30	536, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R111, R269, R311, R469, R511, R669,

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## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
		R869, R711
RE-063402-30	634, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R154, R159, R162, R353, R354, R359, R362, R553, R554, R559, R562, R753, R754, R153, R759, R762
RE-063403-30	634, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R147, R347, R547, R747
RE-076801-30	768, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R150, R176, R350, R376, R550, R576, R750, R776, R10
RE-093101-30	931, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R172, R173, R202, R203, R372, R373, R402, R403, R572, R573, R602, R603, R772, R773, R802, R803
RE-110006-30	1.00K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R227, R228, R238, R239, R25, R316, R317, R427, R428, R438, R439, R516, R55, R627, R638, R639, R7, R716, R717, R827, R828, R838, R839, R117, R517, R116,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
		R628
RE-111301-30	1.13K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R134, R138, R334, R338, R534, R538, R734, R738
RE-114002-30	1.40K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R307, R507 R707, R260, R460, R660, R860
RE-117401-30	1.74K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R21, R231, R273, R431, R473, R673, R831, R873, R631
RE-120002-30	2.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R16, R243, R250, R450, R643, R650, R843, R850, R443
RE-122103-30	2.21K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R13, R135, R137, R18, R276, R278, R337, R476, R478, R535, R537, R59, R676, R678, R735, R737, R876, R878, R335, R14
RE-126700-30	2.67K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R275, R475, R875, R675
RE-130102-30	3.01K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R157, R185, R357, R385, R54, R557, R585, R75, R757, R76, R785

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## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
RE-134802-30	3.48K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R77
RE-136502-30	3.65K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R258, R262, R458, R462, R658, R662, R858, R862, R105, R305, R505, R705
RE-145302-30	4.53K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R244, R246, R255, R257, R444, R446, R455, R457, R644, R646, R655, R657, R844, R846, R855, R857, R453, R621, R73, R221, R222, R251, R253, R421, R422, R451, R622, R651, R653, R821, R822, R851, R853
RE-156200-30	5.62K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R148, R348, R40, R548, R748, R107
RE-156202-30	5.62K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	R112, R113, R114, R115, R312, R313, R314, R315, R512, R513, R514, R515, R712, R713, R714, R715
RE-159002-30	5.90K, 1 PCNT, 1/10W,	R166, R169,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	THICK FILM, 0805, 100V	R366, R369, R566, R569, R766, R769
RE-175002-30	7.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R104, R130, R132, R267, R279, R304, R330, R332, R467, R479, R504, R530, R532, R667, R679, R704, R730, R732, R867, R879
RE-184501-30	8.45K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R268, R274, R468, R472, R474, R672, R674, R868, R872, R874, R272, R668
RE-190902-30	9.09K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R103, R106, R109, R110, R303, R306, R309, R310, R503, R506, R509, R510, R703, R706, R709, R710, R71, R72
RE-210003-30	10.0K, 1 PCNT, 1/10W,  THICK FILM, 0805, 100V	R758, R158, R358, R558, R271, R302, R32, R322, R324, R39, R43, R44, R471, R482, R502, R522, R524, R671,

# CX 168 / CX 108V

## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
		R682, R702, R722, R724, R80, R871, R882, R102, R12, R122, R124
RE-211301-30	11.3K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R161, R178, R361, R378, R561, R578, R761, R778
RE-211302-30	11.3K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	R118, R119, R120, R121, R318, R319, R320, R321, R518, R519, R520, R521, R718, R719, R720, R721
RE-211303-30	11.3K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R167, R168, R198, R199, R249, R367, R368, R398, R399, R449, R567, R568, R598, R599, R649, R767, R768, R798, R799, R849, R152, R352, R552, R752
RE-212702-30	12.7K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R52
RE-214300-30	14.3K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R356, R384, R556, R584, R756, R784, R156, R184
RE-215002-30	15.0K, 1 PCNT, 1/10W,	R146, R346,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	THICK FILM, 0805, 100V	R546, R746, R78, R180, R181, R208, R209, R380, R381, R408, R409, R580, R581, R608, R609, R780, R781, R808, R809, R140, R141, R340, R341, R540, R541, R740, R74
RE-215401-30	15.4K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R282, R283, R465, R466, R665, R666, R865, R866
RE-220002-30	20.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R101, R20, R265, R266, R301, R33, R483, R50, R501, R56, R683, R701, R883, R9
RE-224901-30	24.9K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R41, R144, R145, R344, R345, R544, R545, R744, R745
RE-229402-30	29.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R233, R234, R247, R248, R433, R434, R447, R448, R633, R634, R647, R648, R833, R834,

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## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
		R847, R848
RE-230002-10	30K, 5 PCNT, 2W, METAL OXIDE FP, MINI,	R60, R61
RE-239202-30	39.2K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R125, R127, R149, R325, R327, R349, R38, R48, R525, R527, R549, R725, R727, R749
RE-269801-30	69.8K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R164, R165, R364, R365, R564, R565, R764, R765
RE-310002-30	100K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R252, R270, R452, R470, R652, R670, R852, R870
RE-310003-30	100K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R170, R171, R210, R211, R240, R241, R245, R256, R370, R371, R410, R411, R440, R441, R445, R456, R57, R570, R571, R58, R610, R611, R640, R641, R645, R656, R770, R771, R8, R810, R811, R840, R841, R845, R856
RE-315002-30	150K, 1 PCNT, 1/8W,	R123, R129,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	THICK FILM, 1206, 200V	R323, R329, R523, R529, R723, R729
RE-324302-30	243K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R774, R775, R174, R175, R374, R375, R574, R575, R151, R155, R182, R183, R351, R355, R382, R383, R551, R555, R582, R583, R751, R755, R782, R783
RE-339201-30	392K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	R263, R264, R442, R46, R463, R464, R53, R642, R663, R664, R842, R863, R864, R242
RE-339202-30	392K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R177, R179, R204, R205, R377, R379, R404, R405, R577, R579, R604, R605, R777, R779, R804, R805, R142, R143, R342, R343, R542, R543, R742, R743
RE-348702-30	487K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	R36, R42, R45, R37
RE-375005-BM	750K, 5 PCNT, 1/2W,	R47, R49

# CX 168 / CX 108V

## Replacement Parts

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	METAL FILM, ,	
SC-063100-PP	PHILLIPS, PANHEAD, #6, 0.625" L, ZINC, TYPE AB	
SC-081101-SP	PHILLIPS, PANHEAD SERATED BASE, #8, 0.625" L, BLACK WAXED, TYPE AB	
SW-000050-00	SWITCH, SPST X 10, 20 PIN DIP, PCB MOUNT RIGHT ANGLE	SW101, SW301, SW501, SW701
SW-000104-00	RELAY, SPDT, 24VDC COIL, 20A, 125VAC, T90 STYLE (FOR PLC MODELS)	K1
WC-0.5018-JW	JUMPER, TEFLON INSULATION, 18 AWG SOLID, 1 CONDUCTOR, 0.5" L,	W2
WC-000115-00	WIRE ASSY, AC SWITCH, 16 AWG, 1 CONDUCTOR, PLC, 14" L, BLACK	
WC-000115-02	WIRE ASSY, AC SWITCH, 16 AWG, 1 CONDUCTOR, CX168, 14" L, RED	
WC-000117-03	WIRE ASSY, SPEAKER, 16 AWG, 1 CONDUCTOR, PLC, 7.5" L, BLACK	
WC-000118-01 <sup>1</sup>	WIRE ASSY, 16 AWG, 1 CONDUCTOR, PLC, 10.5" L, RED	
XF-000023-00	INDUCTOR, COMMON MODE, 2MH,	L1, L2
XF-000064-00	TRANSFORMER, HOUSEKEEPING, PLC,	T1
XF-000108-30	BEAD, 100MHZ,	L103, L104,

### CX108V PCB ASSEMBLY

Part Number	Description	Reference
	50 OHM, SMT	L105, L106, L303, L304, L306, L503, L504, L505, L506, L703, L704, L706, L305, L705
XF-000213-00	TRANSFORMER, SWITCHING, 115KHZ, E55, 1500W, CX108V, 120V/230V,	T2
XF-200016-CR	INDUCTOR, ZOBEL 18 AWG, 2UH,	L101, L102, L301, L501, L502, L701, L702, L302
FootNotes	FOR 230 VOLT UNITS	
<sup>1</sup>	NOT AVAILABLE	
<sup>2</sup>	WC-000054-00 AC CORD, 3 CONDUCTOR PLC, 2.5 METERS, 250VAC	
<sup>3</sup>	WP-000368-02 CHASSIS ASSY, CX168, 230V	
<sup>4</sup>	WP-000369-02 PCB ASSY, CX168, 230V	
<sup>5</sup>	LB-000099-01 AGENCY, LISTING, CE	
<sup>6</sup>	LB-160226-01 FUSE, 15A, 250V, UL	
<sup>7</sup>	MS-150250-FU FUSE, 15A, 250V, 0.25" X 1.25" FAST	

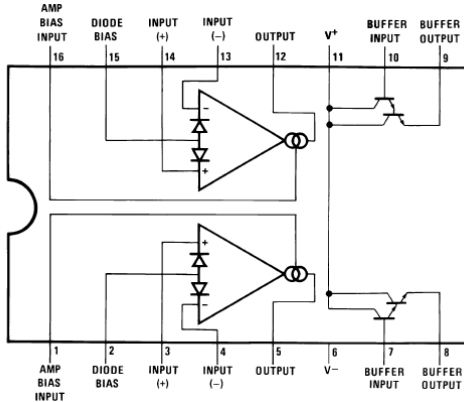


# CX 168 / CX 108V

## Semiconductor Identification

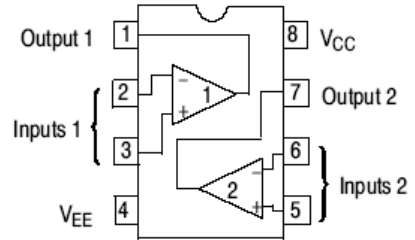
### OP-AMP LM13600

Dual Operational Transconductance Amplifier



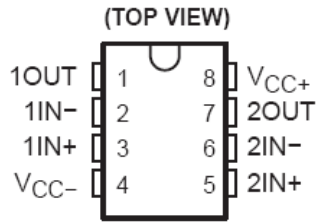
### OP-AMP MC33078

Low Noise Dual Operational Amplifier



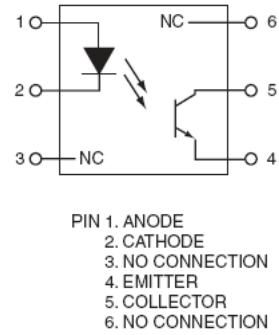
### OP-AMP TL072A

Low Noise JFET-Input Operational Amplifier



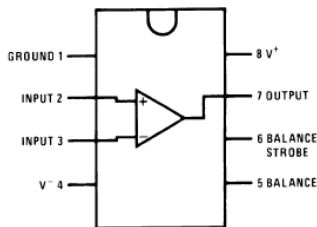
### OPTOCOUPLER MOC8101

Low Noise Dual Operational Amplifier



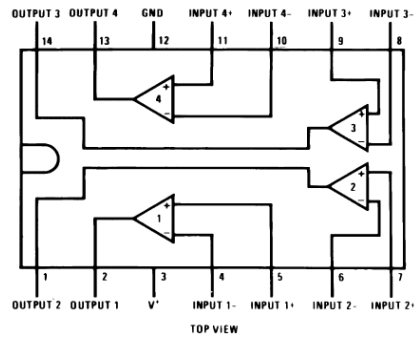
### COMPARATOR LM311

Voltage Comparator



### COMPARATOR LM339

Low Power Low Offset Voltage Quad Comparator

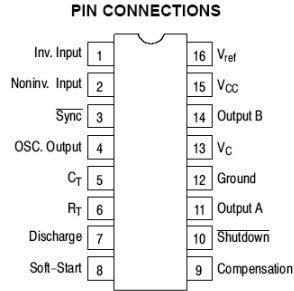


# CX 168 / CX 108V

## Semiconductor Identification

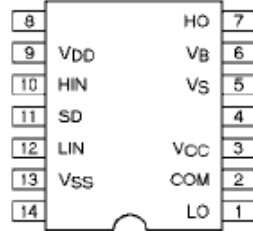
### PWM SG3525AN

**Pulse Width Modulator Control Circuit**



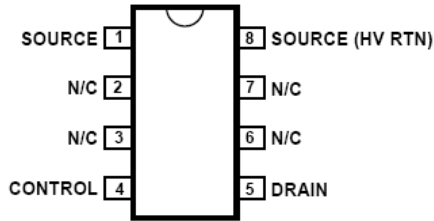
### DRIVER IR2110

**High and Low Side Driver**



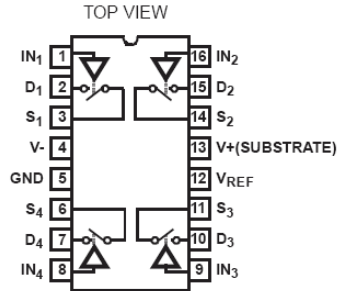
### SWITCH TOP210

**Three-Terminal Off-Line PWM Switch**



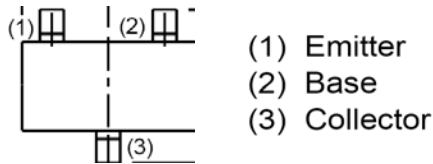
### SWITCH DG201

**CMOS Quad SPST Analog Switch**



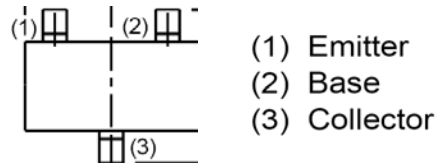
### TRANSISTOR MMST3906

**PNP General Purpose Transistor**



### TRANSISTOR MMST3904

**NPN General Purpose Transistor**



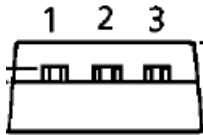
# CX 168 / CX 108V

## Semiconductor Identification

### TRANSISTOR

NPN Silicon Transistor

2SC4793

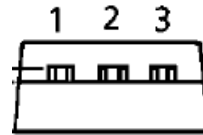


1. BASE
2. COLLECTOR
3. EMITTER

### TRANSISTOR

PNP Silicon Transistor

2SA1837

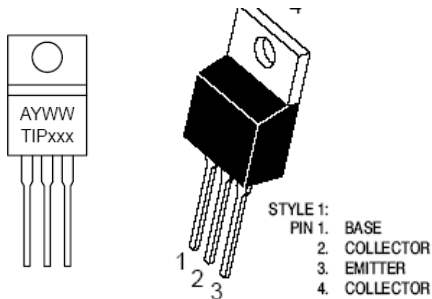


1. BASE
2. COLLECTOR
3. EMITTER

### TRANSISTOR

Complementary Silicon Plastic Power Transistors

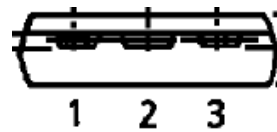
TIP32C



### TRANSISTOR

PNP Silicon Transistor

2SA1943

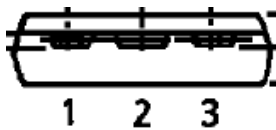


1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

### TRANSISTOR

NPN Silicon Transistor

2SC5200

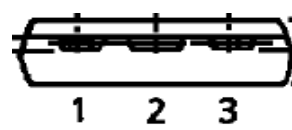


1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

### TRANSISTOR

Insulated Gate Bipolar Transistor

IRG4PC50U

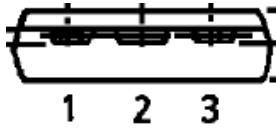


- 1 - GATE
- 2 - COLLECTOR
- 3 - EMITTER

# CX 168 / CX 108V

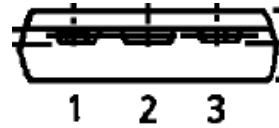
## Semiconductor Identification

**TRANSISTOR** MJL21194  
NPN Silicon Power Transistor



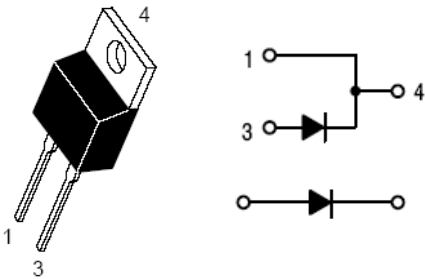
- 1. BASE
- 2. COLLECTOR (HEAT SINK)
- 3. EMITTER

**TRANSISTOR** MJL21193  
PNP Silicon Power Transistor

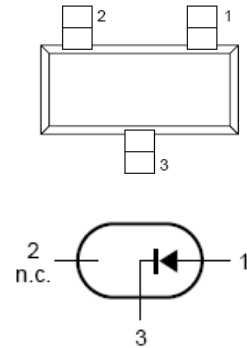


- 1. BASE
- 2. COLLECTOR (HEAT SINK)
- 3. EMITTER

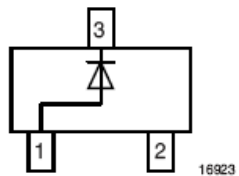
**DIODE** MUR1520  
Power Rectifier



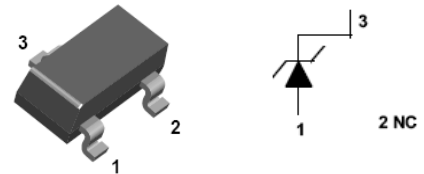
**DIODE** BAS21  
General Purpose Diode



**DIODE** IMBD4148  
Small Signal Diode



**DIODE** BZX84C6V2  
Zener



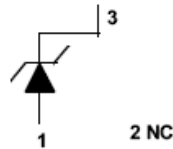
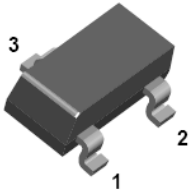
# CX 168 / CX 108V

## Semiconductor Identification

### DIODE

Zener

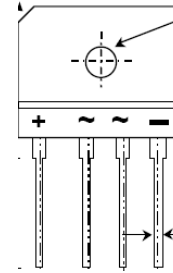
BZX84C10



### DIODE

Silicon Bridge Rectifier

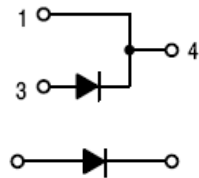
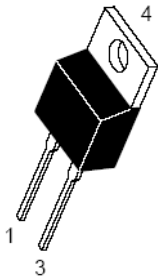
RBV5006



### DIODE

Power Rectifier

MUR840



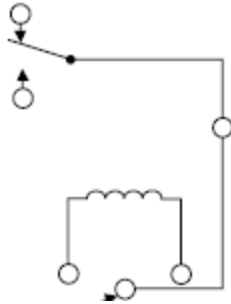
# CX 168 / CX 108V

## Relay and Transformer Identification

### RELAY

30 Amp PCB Mounted Relay

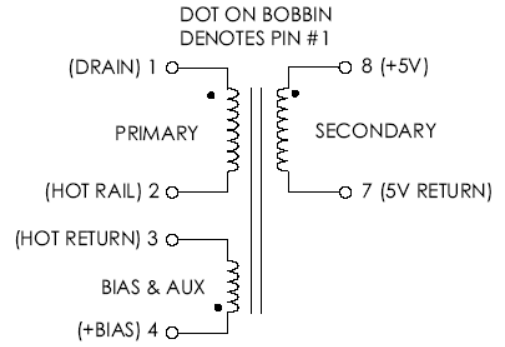
T90S5D12-24



### TRANSFORMER

Flyback Transformer

TSD-1135



# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

(FOR CX 168)

(FOR CX 108V)

MODEL ASSY TABLE			
MODEL NO.	CHASSY ASSY NO.	FACEPLATE LABEL PART NO.	REAR LABEL PART NO.
CX 168	WP-000168-00	LB-000350-00	LB-000351-00
CX 108V	WP-000368-00	LB-000418-00	LB-000419-00

SEQ	PART NO.	DESCRIPTION	QTY
7	LB-160226-05	LABEL, FUSE, 25A 125V	1
6	LB-000053-00	LABEL, FUSE REPLACEMENT	1
5	CH-000112-00	AC SHIELD	1
4	LB-000409-00	LABEL, UL/cUL LISTING	1
3	SEE TABLE	LABEL, REAR	1
2	SEE TABLE	LABEL, FACEPLATE	1
1	CH-000159-00	CHASSIS, PLC	1

<b>QSC</b> AUDIO PRODUCTS INC. COSTA MESA, CALIFORNIA		MODEL NO. <b>CX/CXV 8CH</b>		CHASSIS ASSY 120 VOLT	
SIZE	DRAWN MILA	DATE	6-6-03		
A	APPROVED KANE N.	DATE	OPERATION LABELS ASSY		
ASSY: SEE TABLE		FILE: CX8-01A.DWG	PAGE 1 OF 17		

# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECD NO.	EFF. DATE
	6041	1-30-04

MODEL ASSY TABLE			
MODEL NO.	CHASSY ASSY NO.	FACEPLATE LABEL PART NO.	REAR LABEL PART NO.
CX 168	WP-000168-00	LB-000350-00	LB-000351-00
CX 108V	WP-000368-00	LB-000418-00	LB-000419-00

SEQ	PART NO.	DESCRIPTION	QTY
8	LB-000440-00	LABEL, WIRE CLASS 2	1
7	LB-160226-05	LABEL, FUSE, 25A 125V	1
6	LB-000053-00	LABEL, FUSE REPLACEMENT	1
5	CH-000112-00	AC SHIELD	1
4	LB-000409-00	LABEL, UL/cUL LISTING	1
3	SEE TABLE	LABEL, REAR	1
2	SEE TABLE	LABEL, FACEPLATE	1
1	CH-000159-00	CHASSIS, PLC	1

CX 108V

**QSC** AUDIO PRODUCTS INC  
COSTA MESA, CALIFORNIA

MODEL NO. CX/CXV 8CH CHASSIS ASSY 120 VOLT

SIZE	DRAWN MILA	DATE	6-6-03	OPERATION
A	APPROVED KANE N.	DATE		LABELS ASSY
ASSY : SEE TABLE		FILE : CX8-01B.DWG	PAGE 1 OF 17	



# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECD NO.	EFF. DATE
	X	X

MODEL ASSY TABLE			
MODEL NO.	CHASSY ASSY NO.	FACEPLATE LABEL PART NO.	REAR LABEL PART NO.
CX 168	WP-000168-01	LB-000350-00	LB-000351-00
CX 108V	WP-000368-01	LB-000418-00	LB-000419-00

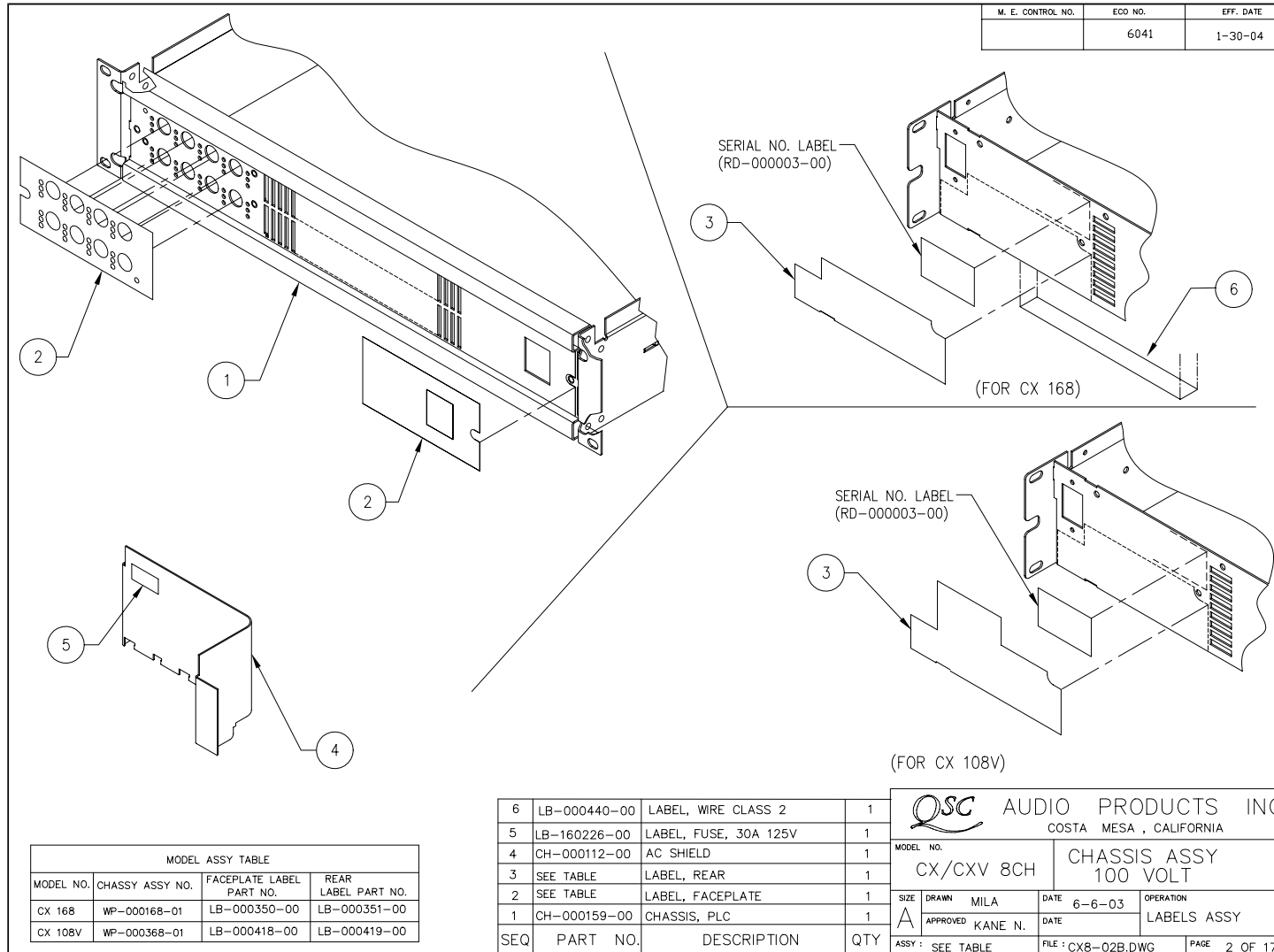
SEQ	PART NO.	DESCRIPTION	QTY
5	LB-160226-00	LABEL, FUSE, 30A 125V	1
4	CH-000112-00	AC SHIELD	1
3	SEE TABLE	LABEL, REAR	1
2	SEE TABLE	LABEL, FACEPLATE	1
1	CH-000159-00	CHASSIS, PLC	1

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.		CHASSIS ASSY 100 VOLT	
CX/CXV 8CH			
SIZE	DRAWN MILA	DATE	OPERATION
A	KANE N.	6-6-03	LABELS ASSY
ASSY : SEE TABLE		FILE : CX8-02A.DWG	PAGE 2 OF 17

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECD NO.	EFF. DATE
	6041	1-30-04

MODEL ASSY TABLE			
MODEL NO.	CHASSY ASSY NO.	FACEPLATE LABEL PART NO.	REAR LABEL PART NO.
CX 168	WP-000168-01	LB-000350-00	LB-000351-00
CX 108V	WP-000368-01	LB-000418-00	LB-000419-00

6	LB-000440-00	LABEL, WIRE CLASS 2	1
5	LB-160226-00	LABEL, FUSE, 30A 125V	1
4	CH-000112-00	AC SHIELD	1
3	SEE TABLE	LABEL, REAR	1
2	SEE TABLE	LABEL, FACEPLATE	1
1	CH-000159-00	CHASSIS, PLC	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.	CX/CXV 8CH		CHASSIS ASSY 100 VOLT
SIZE	DRAWN MILA	DATE 6-6-03	OPERATION
A	APPROVED KANE N.	DATE	LABELS ASSY
ASSY : SEE TABLE	FILE : CX8-02B.DWG	PAGE 2 OF 17	

# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

MODEL ASSY TABLE			
MODEL NO.	CHASSY ASSY NO.	FACEPLATE LABEL PART NO.	REAR LABEL PART NO.
CX 168	WP-000168-02	LB-000350-00	LB-000351-00
CX 108V	WP-000368-02	LB-000418-00	LB-000419-00

7	LB-160226-01	LABEL, FUSE, 15A 250V	1
6	LB-000053-00	LABEL, FUSE REPLACEMENT	1
5	CH-000112-00	AC SHIELD	1
4	LB-000099-00	LABEL, CE LISTING	1
3	SEE TABLE	LABEL, REAR	1
2	SEE TABLE	LABEL, FACEPLATE	1
1	CH-000159-00	CHASSIS, FAB	1

(FOR CX 168)

(FOR CX 108V)

<b>QSC</b>		AUDIO PRODUCTS INC.	
COSTA MESA, CALIFORNIA			
MODEL NO.		CHASSIS ASSY	
CX/CXV 8CH		230 VOLT	
SIZE	DRAWN MILA	DATE	OPERATION
A	APPROVED KANE N.	6-6-03	LABELS ASSY
ASSY : SEE TABLE		FILE : CX8-03A.DWG	PAGE 3 OF 17

# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECO NO.	EFF. DATE
	6041	1-30-04

MODEL ASSY TABLE			
MODEL NO.	CHASSY ASSY NO.	FACEPLATE LABEL PART NO.	REAR LABEL PART NO.
CX 168	WP-000168-02	LB-000350-00	LB-000351-00
CX 108V	WP-000368-02	LB-000418-00	LB-000419-00

8	LB-000440-00	LABEL, WIRE CLASS 2	1
7	LB-160226-01	LABEL, FUSE, 15A 250V	1
6	LB-000053-00	LABEL, FUSE REPLACEMENT	1
5	CH-000112-00	AC SHIELD	1
4	LB-000099-00	LABEL, CE LISTING	1
3	SEE TABLE	LABEL, REAR	1
2	SEE TABLE	LABEL, FACEPLATE	1
1	CH-000159-00	CHASSIS, FAB	1

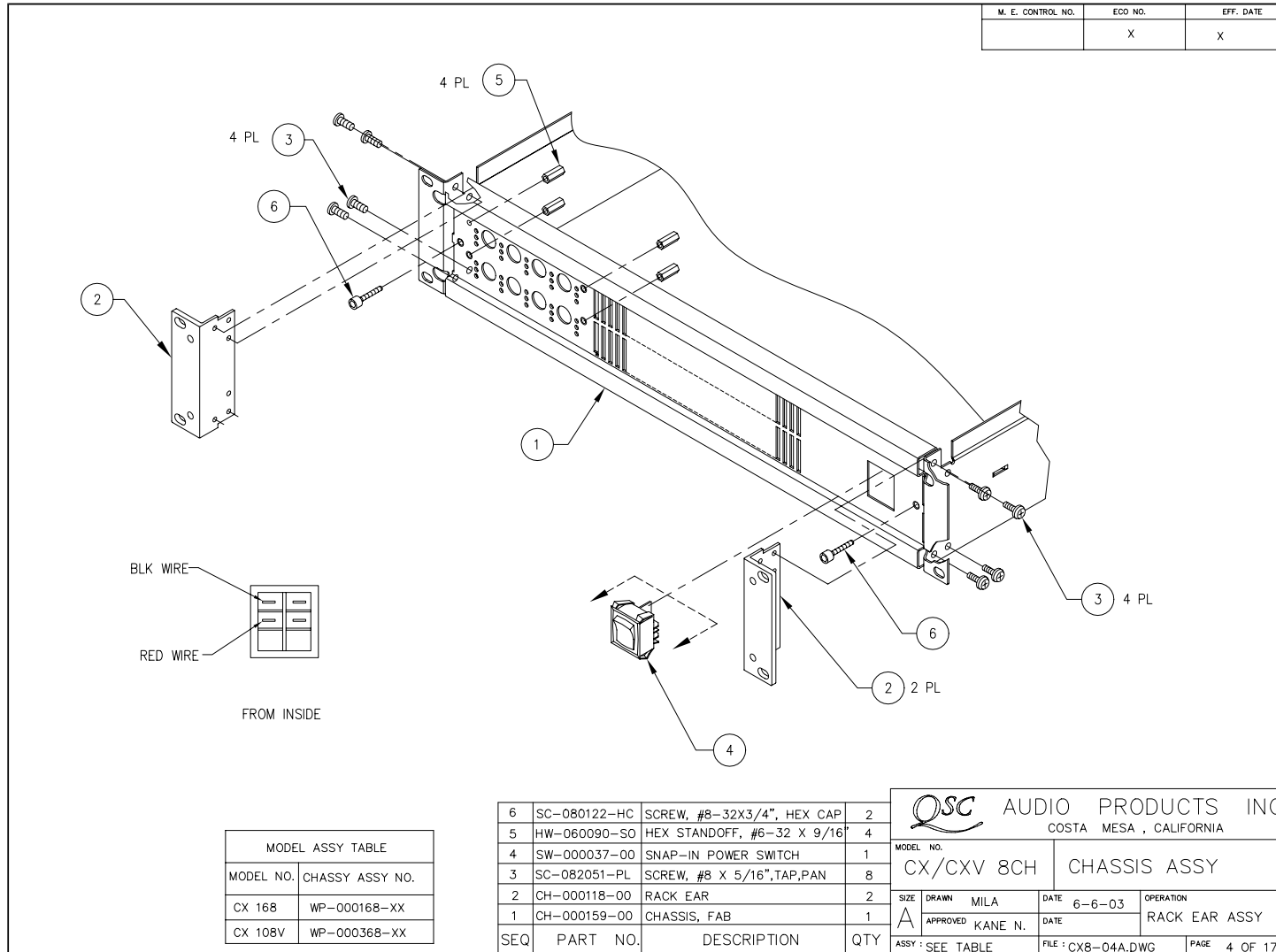
(FOR CX 108V)

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.	CHASSIS ASSY 230 VOLT
CX/CXV 8CH	
SIZE	DRAWN MILA
DATE	6-6-03
APPROVED KANE N.	OPERATION LABELS ASSY
DATE	
ASSY : SEE TABLE	FILE : CX8-03B.DWG
	PAGE 3 OF 17

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

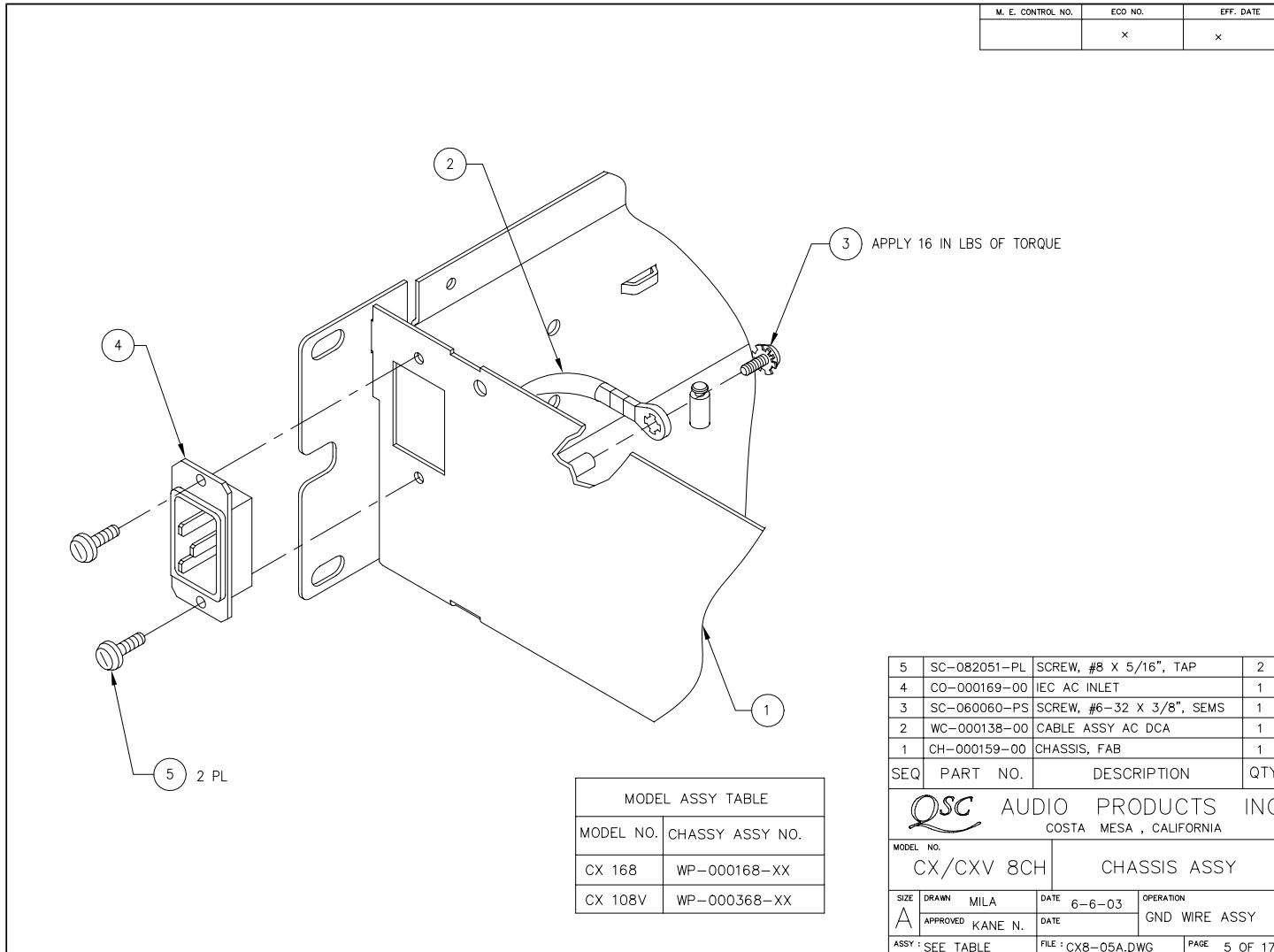
MODEL ASSY TABLE	
MODEL NO.	CHASSY ASSY NO.
CX 168	WP-000168-XX
CX 108V	WP-000368-XX

6	SC-080122-HC	SCREW, #8-32X3/4", HEX CAP	2
5	HW-060090-SO	HEX STANDOFF, #6-32 X 9/16"	4
4	SW-000037-00	SNAP-IN POWER SWITCH	1
3	SC-082051-PL	SCREW, #8 X 5/16", TAP, PAN	8
2	CH-000118-00	RACK EAR	2
1	CH-000159-00	CHASSIS, FAB	1
SEQ	PART NO.	DESCRIPTION	QTY

<b>QSC</b> AUDIO PRODUCTS INC. COSTA MESA, CALIFORNIA			
MODEL NO.		CX/CXV 8CH CHASSIS ASSY	
SIZE	DRAWN MILA	DATE 6-6-03	OPERATION
A	APPROVED KANE N.	DATE	RACK EAR ASSY
ASSY : SEE TABLE		FILE : CX8-04A.DWG	PAGE 4 OF 17

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECO NO.	EFF. DATE
	x	x

5	SC-082051-PL	SCREW, #8 X 5/16", TAP	2
4	CO-000169-00	IEC AC INLET	1
3	SC-060060-PS	SCREW, #6-32 X 3/8", SEMS	1
2	WC-000138-00	CABLE ASSY AC DCA	1
1	CH-000159-00	CHASSIS, FAB	1
SEQ	PART NO.	DESCRIPTION	QTY

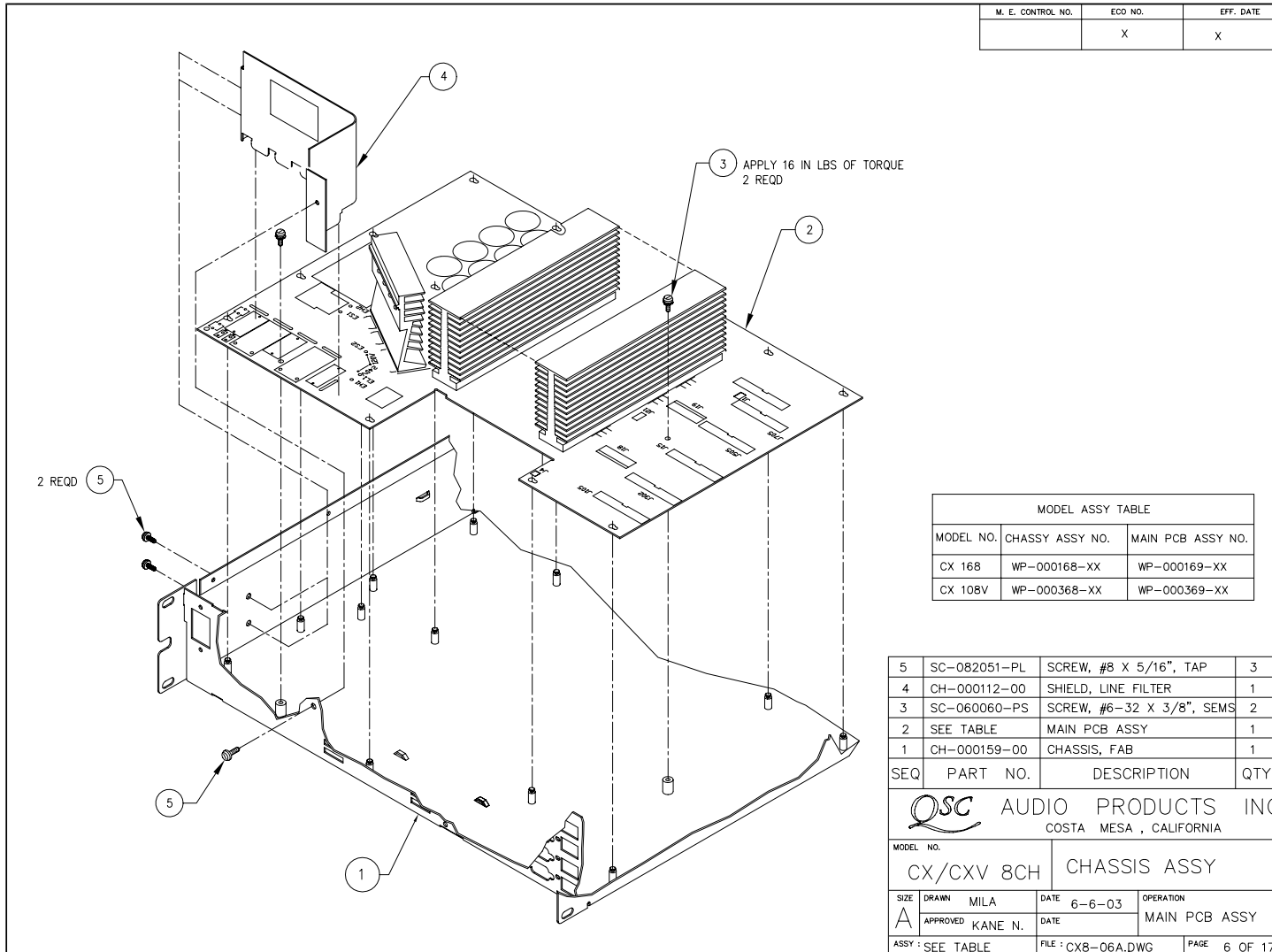
MODEL ASSY TABLE	
MODEL NO.	CHASSY ASSY NO.
CX 168	WP-000168-XX
CX 108V	WP-000368-XX

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.		CX/CXV 8CH		CHASSIS ASSY	
SIZE	DRAWN MILA	DATE	6-6-03	OPERATION	
A	APPROVED KANE N.	DATE		GND WIRE ASSY	
ASSY : SEE TABLE			FILE : CX8-05A.DWG	PAGE 5 OF 17	

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECD NO.	EFF. DATE
	X	X

MODEL ASSY TABLE		
MODEL NO.	CHASSY ASSY NO.	MAIN PCB ASSY NO.
CX 168	WP-000168-XX	WP-000169-XX
CX 108V	WP-000368-XX	WP-000369-XX

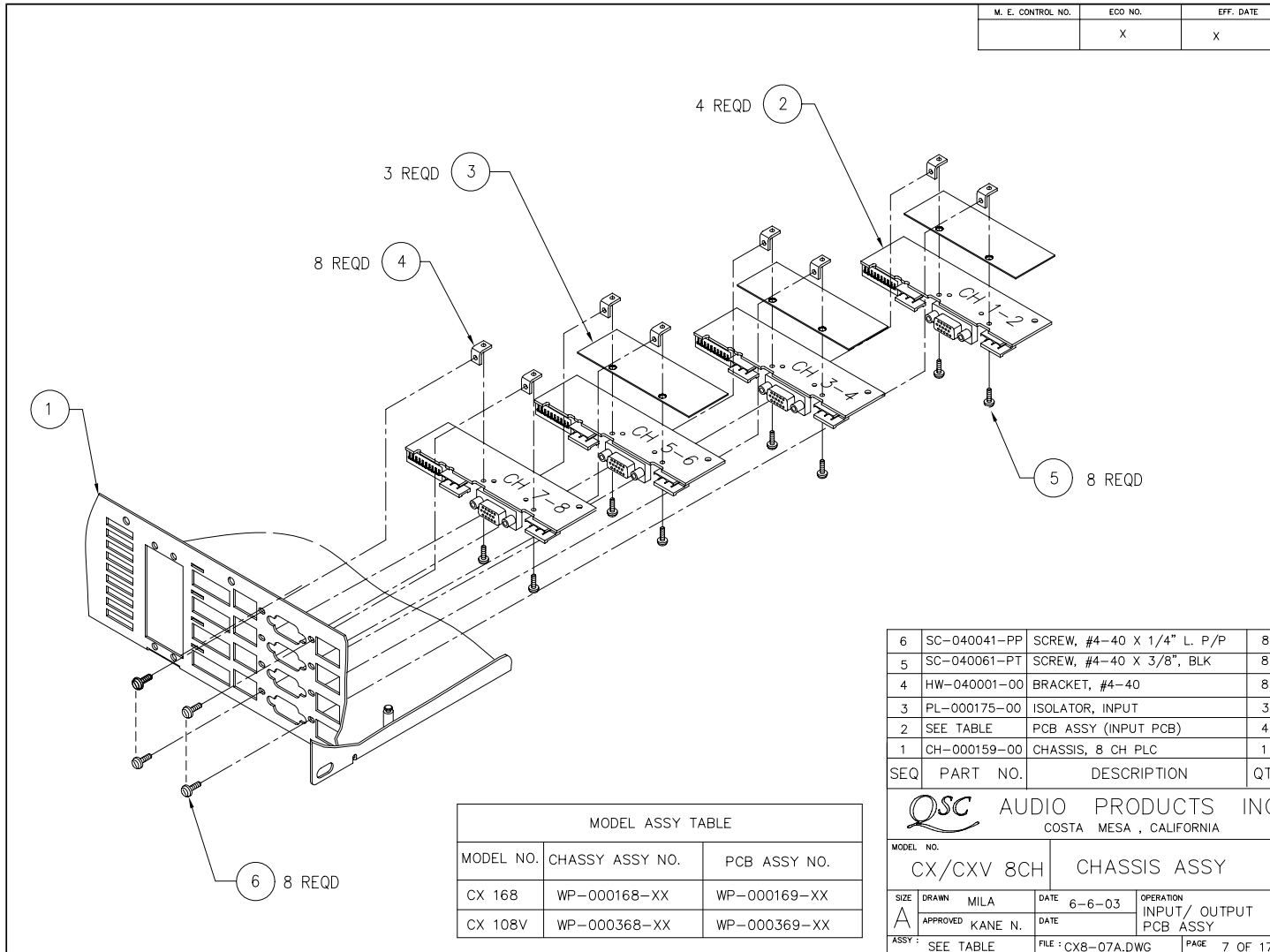
5	SC-082051-PL	SCREW, #8 X 5/16", TAP	3
4	CH-000112-00	SHIELD, LINE FILTER	1
3	SC-060060-PS	SCREW, #6-32 X 3/8", SEMS	2
2	SEE TABLE	MAIN PCB ASSY	1
1	CH-000159-00	CHASSIS, FAB	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.		CX/CXV 8CH		CHASSIS ASSY	
SIZE	DRAWN MILA	DATE	6-6-03	OPERATION	
A	APPROVED KANE N.	DATE		MAIN PCB ASSY	
ASSY : SEE TABLE			FILE : CX8-06A.DWG	PAGE 6 OF 17	

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECD NO.	EFF. DATE
	X	X

6	SC-040041-PP	SCREW, #4-40 X 1/4" L. P/P	8
5	SC-040061-PT	SCREW, #4-40 X 3/8", BLK	8
4	HW-040001-00	BRACKET, #4-40	8
3	PL-000175-00	ISOLATOR, INPUT	3
2	SEE TABLE	PCB ASSY (INPUT PCB)	4
1	CH-000159-00	CHASSIS, 8 CH PLC	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

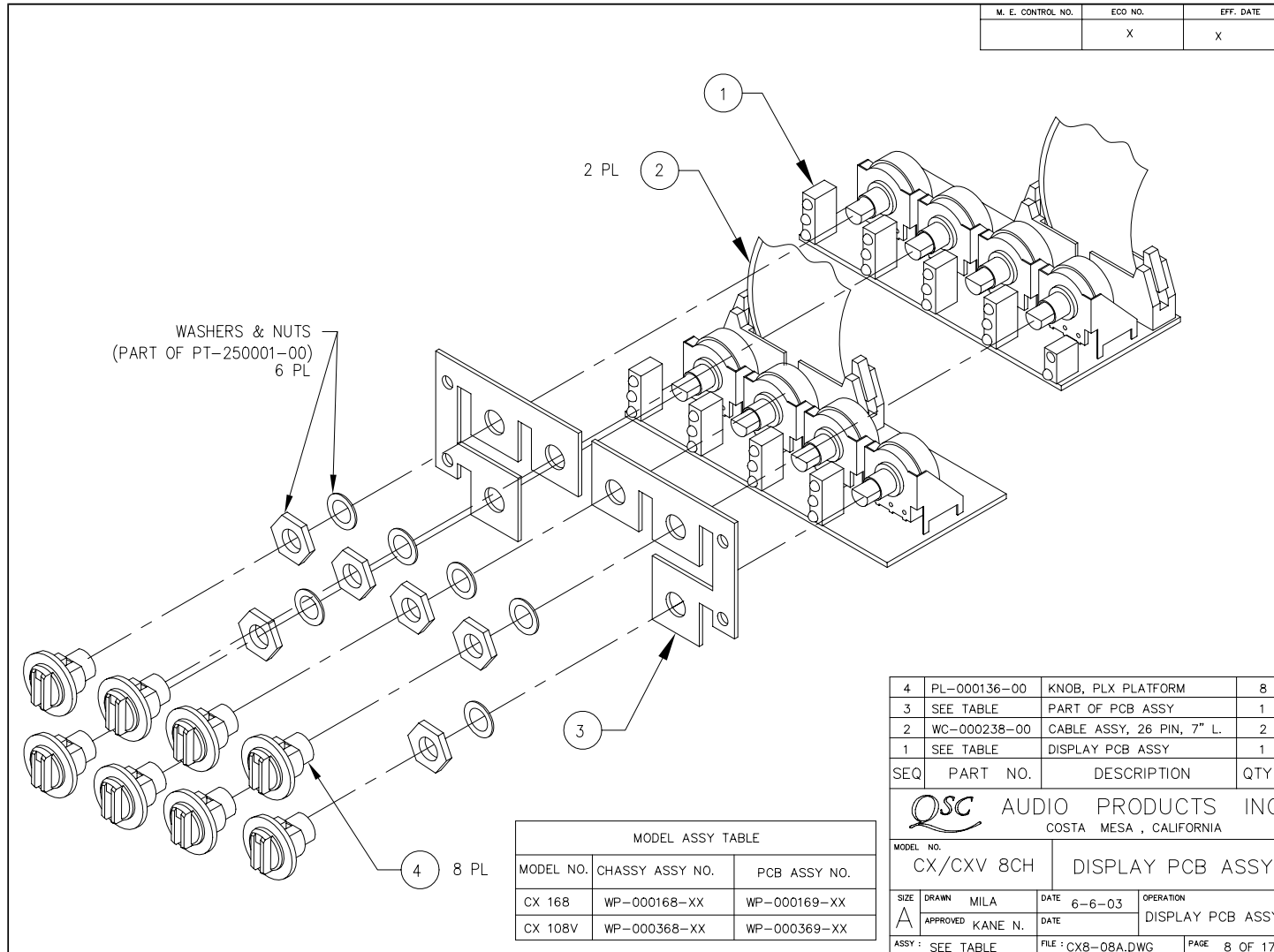
MODEL NO.		CX/CXV 8CH		CHASSIS ASSY	
SIZE	DRAWN	DATE	OPERATION		
A	MILA	6-6-03	INPUT/OUTPUT		
	APPROVED	DATE	PCB ASSY		
	KANE N.				
ASSY:	SEE TABLE	FILE: CX8-07A.DWG	PAGE	7 OF 17	

MODEL ASSY TABLE		
MODEL NO.	CHASSY ASSY NO.	PCB ASSY NO.
CX 168	WP-000168-XX	WP-000169-XX
CX 108V	WP-000368-XX	WP-000369-XX



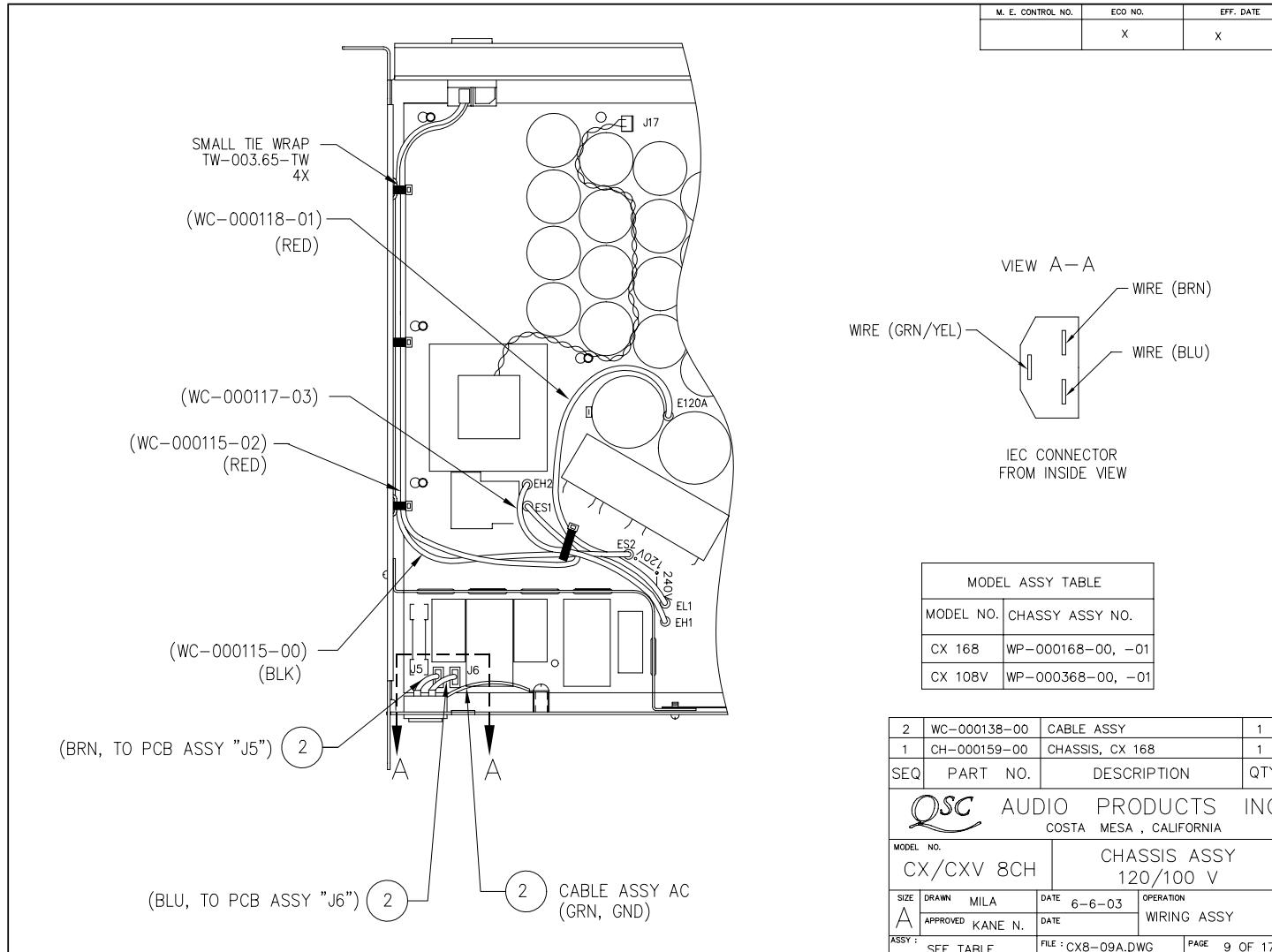
# CX 168 / CX 108V

## Chassis Drawings



# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

MODEL ASSY TABLE	
MODEL NO.	CHASSY ASSY NO.
CX 168	WP-000168-00, -01
CX 108V	WP-000368-00, -01

2	WC-000138-00	CABLE ASSY	1
1	CH-000159-00	CHASSIS, CX 168	1
SEQ	PART NO.	DESCRIPTION	QTY

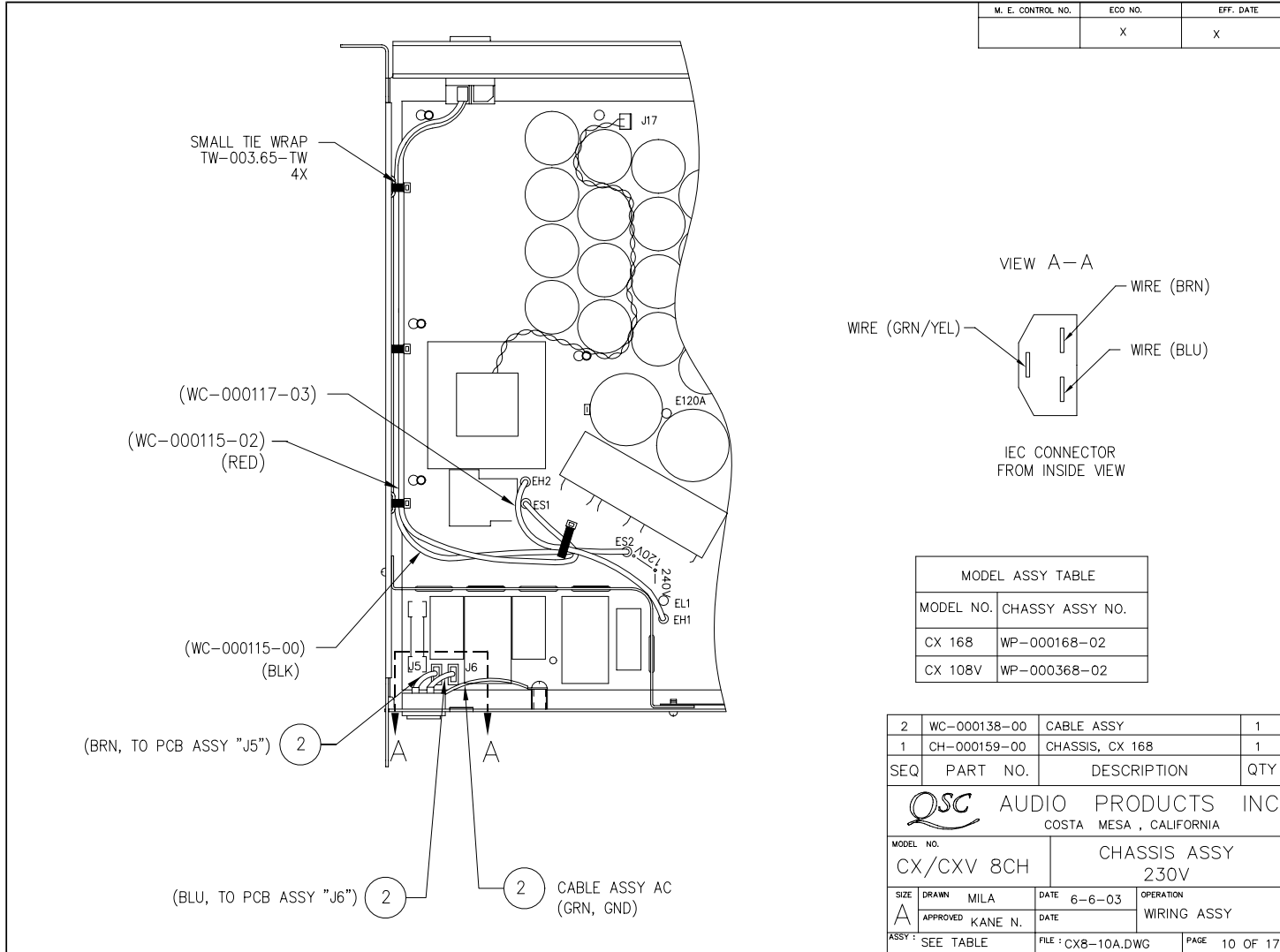
**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.	CHASSIS ASSY
CX/CXV 8CH	120/100 V

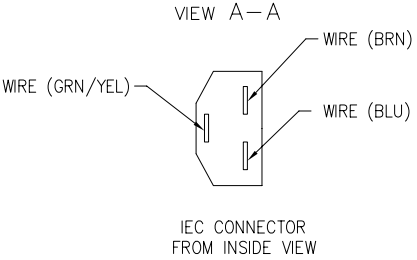
SIZE	DRAWN MILA	DATE 6-6-03	OPERATION
A	APPROVED KANE N.	DATE	WIRING ASSY
ASSY:	SEE TABLE	FILE: CX8-09A.DWG	PAGE 9 OF 17

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECCO NO.	EFF. DATE
	X	X



MODEL ASSY TABLE	
MODEL NO.	CHASSIS ASSY NO.
CX 168	WP-000168-02
CX 108V	WP-000368-02

2	WC-000138-00	CABLE ASSY	1
1	CH-000159-00	CHASSIS, CX 168	1
SEQ	PART NO.	DESCRIPTION	QTY

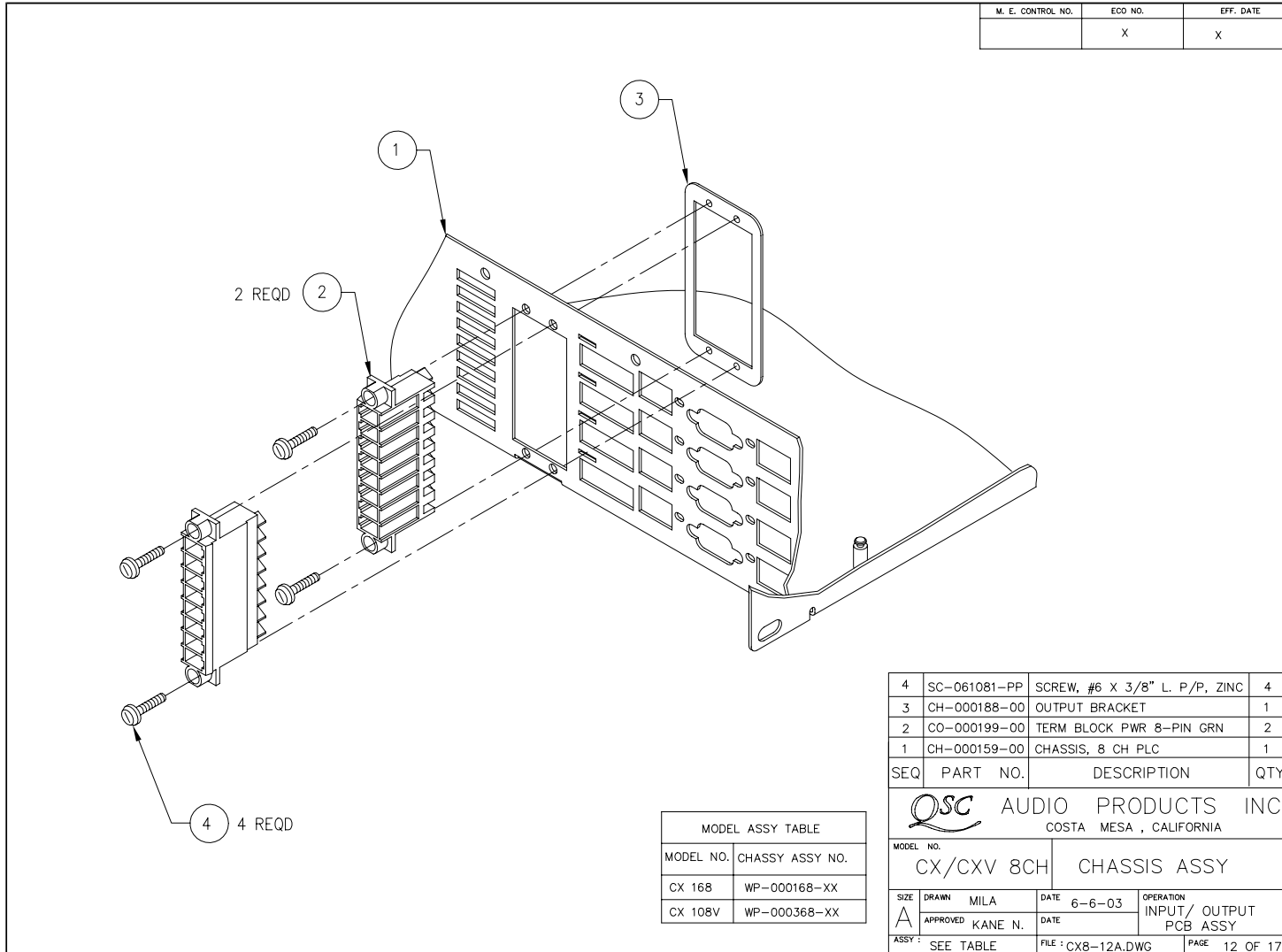
**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.	CHASSIS ASSY
CX/CXV 8CH	230V

SIZE	DRAWN	MILA	DATE	6-6-03	OPERATION
A	APPROVED	KANE N.	DATE		WIRING ASSY
ASSY	SEE TABLE			FILE : CX8-10A.DWG	PAGE 10 OF 17

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

4	SC-061081-PP	SCREW, #6 X 3/8" L. P/P, ZINC	4
3	CH-000188-00	OUTPUT BRACKET	1
2	CO-000199-00	TERM BLOCK PWR 8-PIN GRN	2
1	CH-000159-00	CHASSIS, 8 CH PLC	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.	CX/CXV 8CH	CHASSIS ASSY
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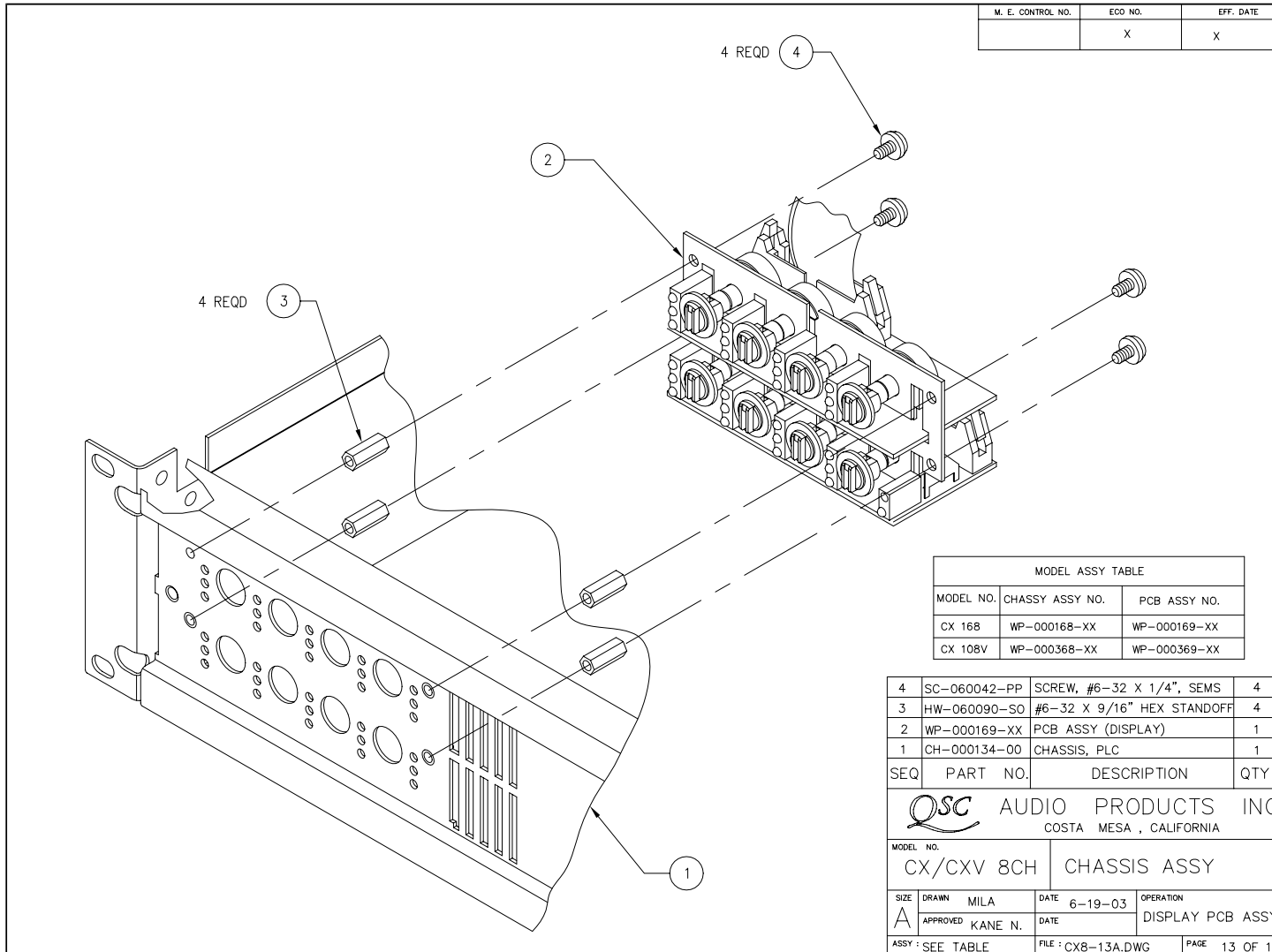
SIZE	DRAWN MILA	DATE 6-6-03	OPERATION
A	APPROVED KANE N.	DATE	INPUT/ OUTPUT PCB ASSY

ASSY:	SEE TABLE	FILE: CX8-12A.DWG	PAGE 12 OF 17
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MODEL ASSY TABLE	
MODEL NO.	CHASSY ASSY NO.
CX 168	WP-000168-XX
CX 108V	WP-000368-XX

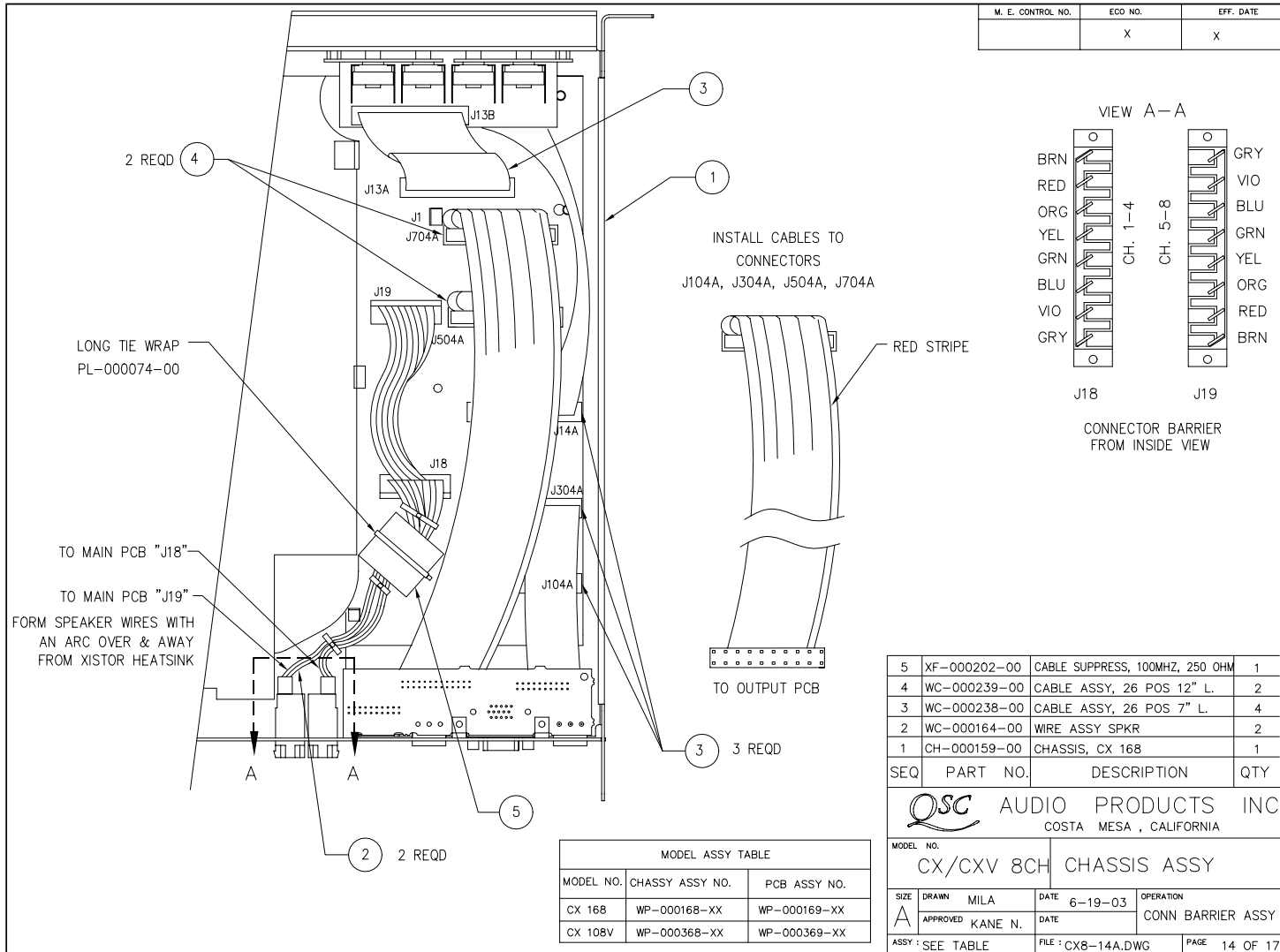
# CX 168 / CX 108V

## Chassis Drawings



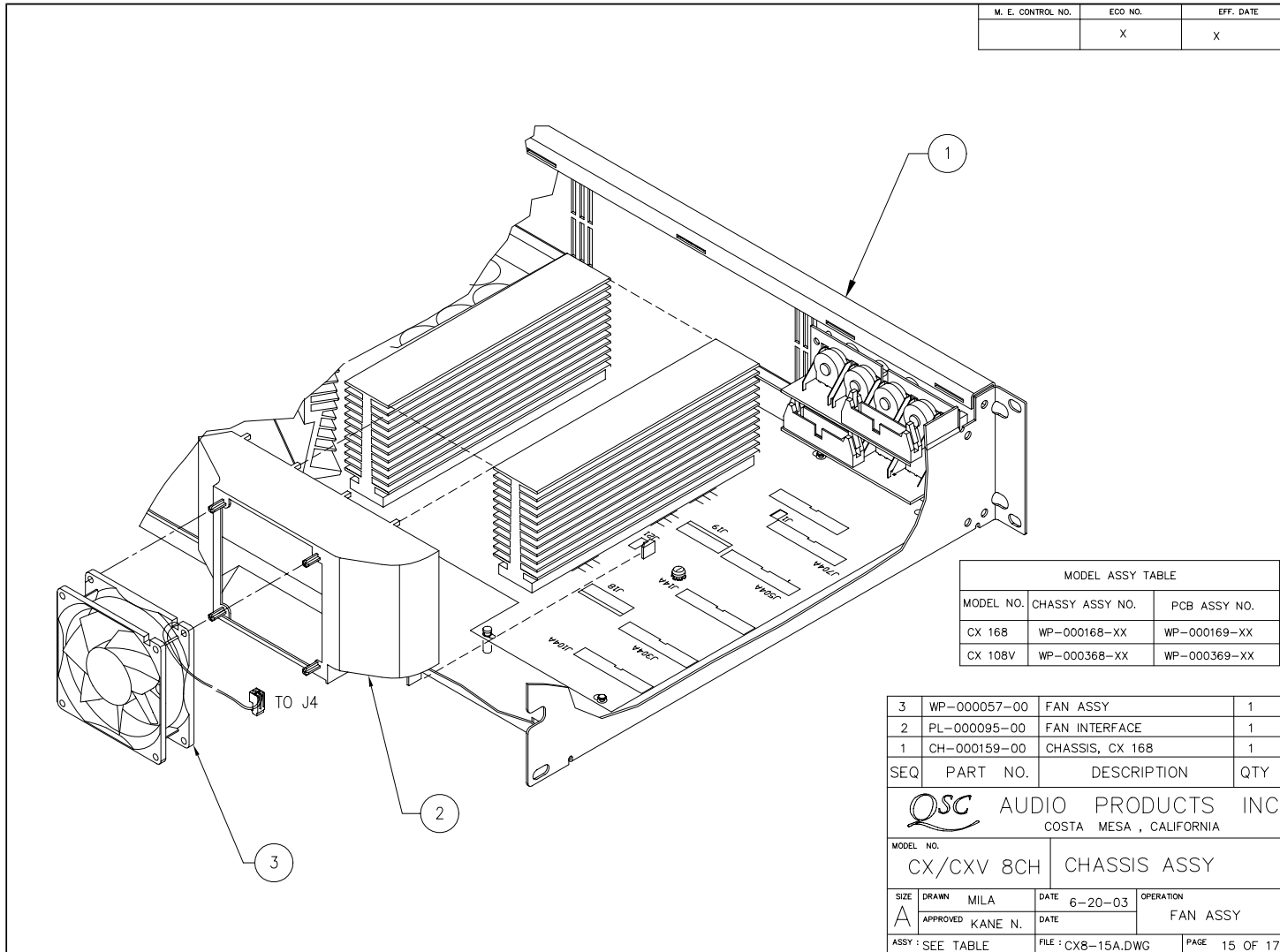
# CX 168 / CX 108V

## Chassis Drawings



# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECD NO.	EFF. DATE
	X	X

MODEL ASSY TABLE		
MODEL NO.	CHASSY ASSY NO.	PCB ASSY NO.
CX 168	WP-000168-XX	WP-000169-XX
CX 108V	WP-000368-XX	WP-000369-XX

3	WP-000057-00	FAN ASSY	1
2	PL-000095-00	FAN INTERFACE	1
1	CH-000159-00	CHASSIS, CX 168	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

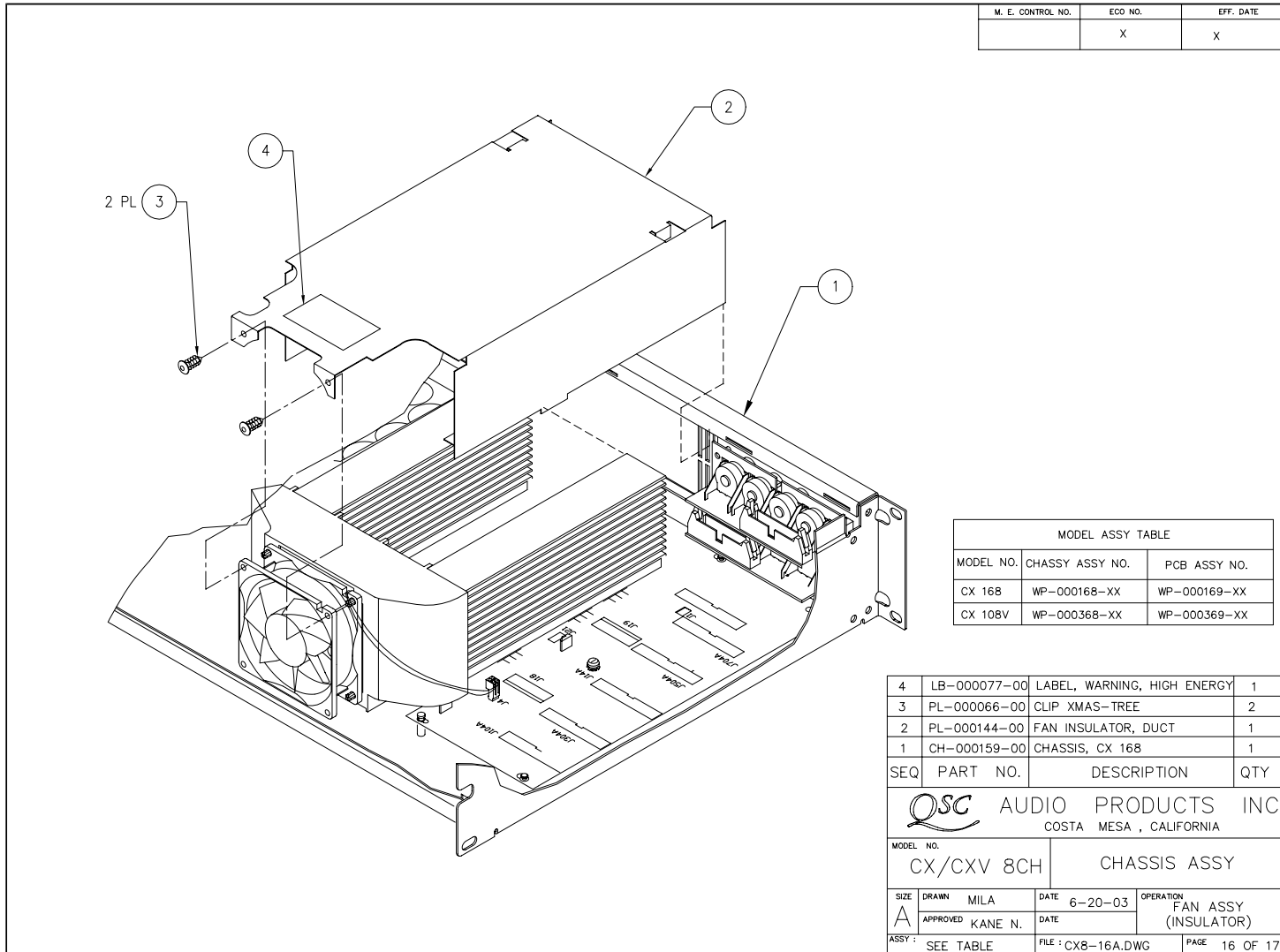
MODEL NO.	CX/CXV 8CH	CHASSIS ASSY
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SIZE	DRAWN	MILA	DATE	6-20-03	OPERATION
A	APPROVED	KANE N.	DATE		FAN ASSY

ASSY : SEE TABLE	FILE : CX8-15A.DWG	PAGE 15 OF 17
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# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECCO NO.	EFF. DATE
	X	X

MODEL ASSY TABLE		
MODEL NO.	CHASSY ASSY NO.	PCB ASSY NO.
CX 168	WP-000168-XX	WP-000169-XX
CX 108V	WP-000368-XX	WP-000369-XX

4	LB-000077-00	LABEL, WARNING, HIGH ENERGY	1
3	PL-000066-00	CLIP XMAS-TREE	2
2	PL-000144-00	FAN INSULATOR, DUCT	1
1	CH-000159-00	CHASSIS, CX 168	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO. CX/CXV 8CH		CHASSIS ASSY	
SIZE A	DRAWN MILA	DATE 6-20-03	OPERATION FAN ASSY (INSULATOR)
APPROVED KANE N.		DATE	
ASSY : SEE TABLE		FILE : CX8-16A.DWG	PAGE 16 OF 17



# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

MODEL ASSY TABLE		
MODEL NO.	CHASSY ASSY NO.	PCB ASSY NO.
CX 168	WP-000168-XX	WP-000169-XX
CX 108V	WP-000368-XX	WP-000369-XX

2	PL-000096-00	INSULATOR, FAN DUCT, PLX	1
1	CH-000159-00	CHASSIS, CX 168	1
SEQ	PART NO.	DESCRIPTION	QTY
<b>QSC</b> AUDIO PRODUCTS INC. COSTA MESA , CALIFORNIA			
MODEL NO.		CHASSIS ASSY	
CX/CXV 8CH			
SIZE	DRAWN	MILA	DATE
	A		6-20-03
APPROVED		KANE N.	DATE
			OPERATION
			FAN ASSY (DUCT)
ASSY : SEE TABLE		FILE : CX8-17A.DWG	PAGE 17 OF 17

# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

10 REQD (3)

(2)

(1)

(4)

(5)

5	LB-000209-00	FCC LABEL, CLASS B	1
4	LB-000437-00	WARNING LABEL, RAIN & MOISTURE	1
3	SC-082051-PL	SCREW, #8 X 5/15" L., PH	10
2	CH-000122-00	COVER, BOTTOM	1
1	WP-000368-00	CHASSIS ASSY, (120V)	1
SEQ	PART NO.	DESCRIPTION	QTY

QSC AUDIO PRODUCTS INC

COSTA MESA , CALIFORNIA

MODEL NO. CX 108V	FINAL ASSY (120V)
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SIZE	DRAWN	MILA	DATE	6-27-03	OPERATION
A	APPROVED	KANE N.	DATE		TOP COVER ASSY
ASSY : FG-000368-00		FILE : FG-108-1A.DWG		PAGE 1 OF 4	

# CX 168 / CX 108V

## Chassis Drawings

M. E. CONTROL NO.	ECO NO.	EFF. DATE
	X	X

4	LB-000437-00	WARNING LABEL, RAIN & MOISTURE	1
3	SC-082051-PL	SCREW, #8 X 5/15" L., PH	10
2	CH-000122-00	COVER, BOTTOM	1
1	WP-000368-01	CHASSIS ASSY, (100V)	1
1	WP-000368-02	CHASSIS ASSY, (230V)	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

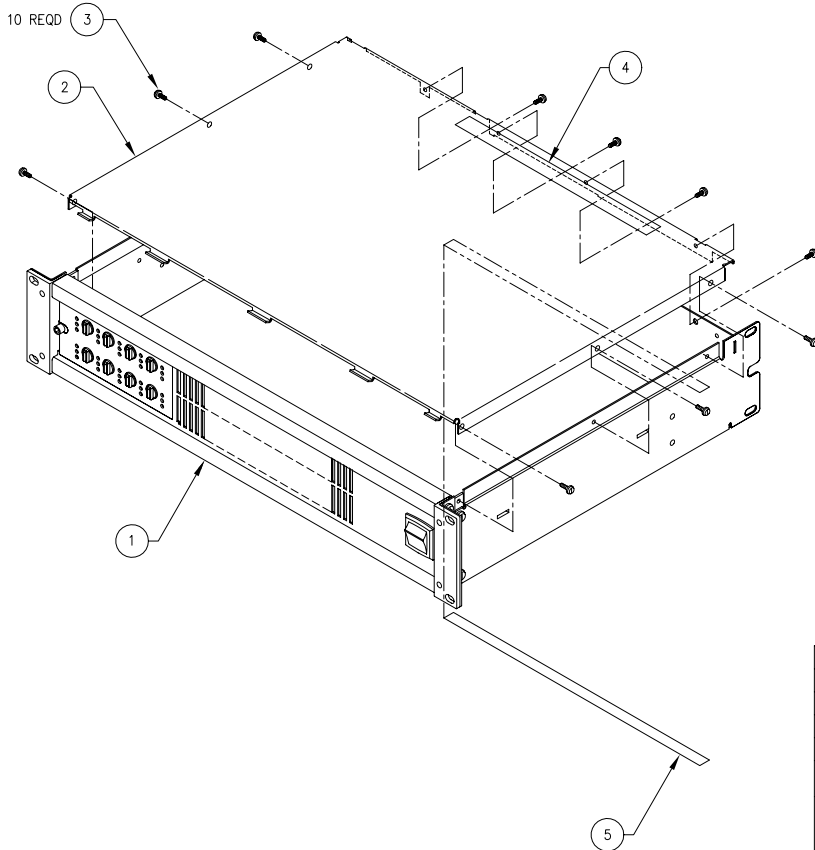
MODEL NO. CX 108V	FINAL ASSY (100/230V)
SIZE: DRAWN MILA	DATE: 6-27-03
APPROVED: KANE N.	OPERATION: TOP COVER ASSY
ASSY: FG-000368-01, -02	FILE: FG-108-2A.DWG

PAGE 2 OF 4

# CX 168 / CX 108V

## Chassis Drawings

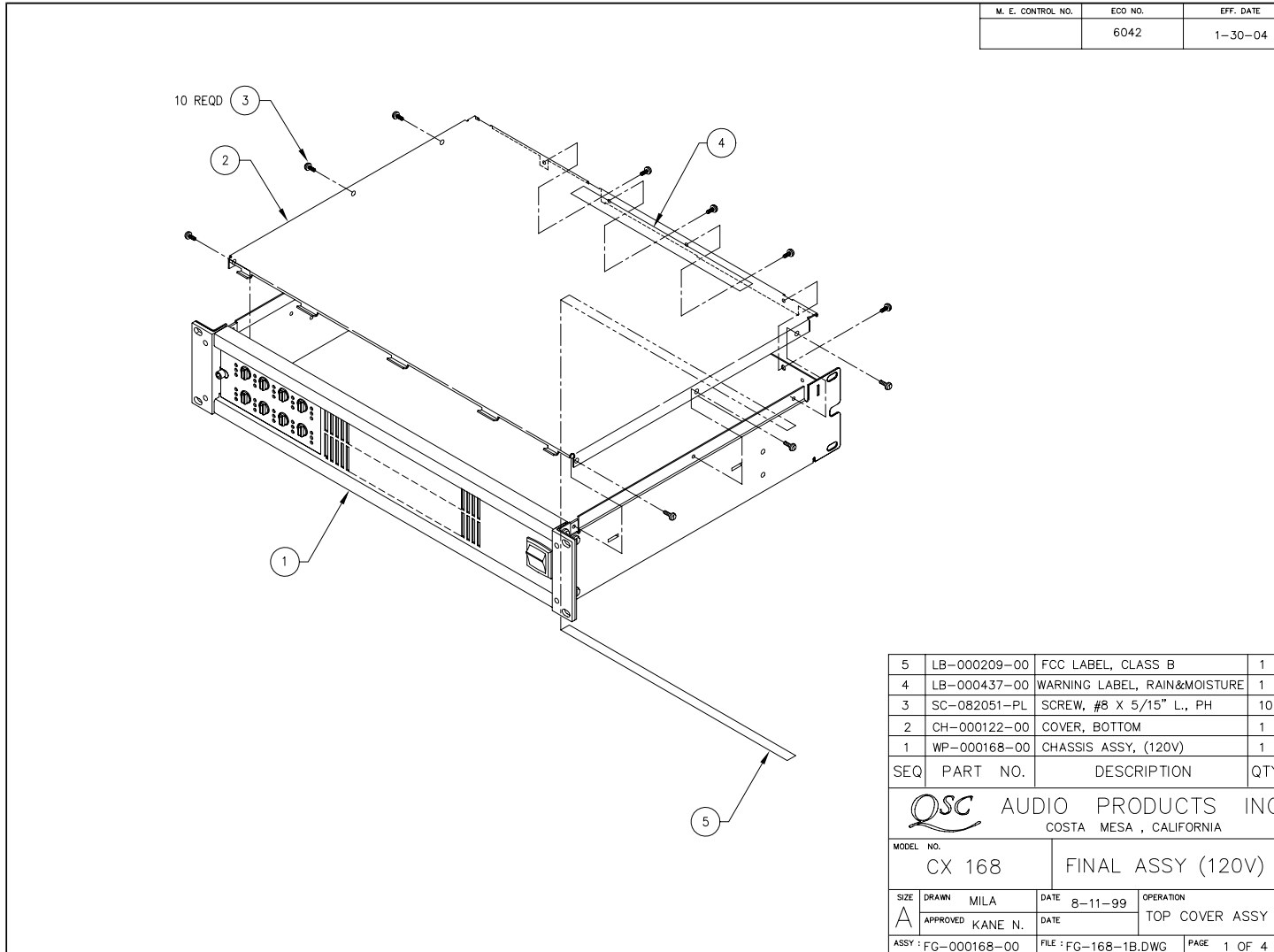
M. E. CONTROL NO.	ECO NO.	EFF. DATE
	6042	1-30-04



5	LB-000209-00	FCC LABEL, CLASS B	1
4	LB-000437-00	WARNING LABEL, RAIN&MOISTURE	1
3	SC-082051-PL	SCREW, #8 X 5/15" L., PH	10
2	CH-000122-00	COVER, BOTTOM	1
1	WP-000168-00	CHASSIS ASSY, (120V)	1
SEQ	PART NO.	DESCRIPTION	QTY
<b>AUDIO PRODUCTS INC.</b> COSTA MESA , CALIFORNIA			
MODEL NO.		FINAL ASSY (120V)	
CX 168			
SIZE	DRAWN	DATE	OPERATION
A	MILA	8-11-99	TOP COVER ASSY
	APPROVED	DATE	
	KANE N.		
ASSY : FG-000168-00		FILE : FG-168-1B.DWG	PAGE 1 OF 4

# CX 168 / CX 108V

## Chassis Drawings



M. E. CONTROL NO.	ECO NO.	EFF. DATE
	6042	1-30-04

5	LB-000209-00	FCC LABEL, CLASS B	1
4	LB-000437-00	WARNING LABEL, RAIN&MOISTURE	1
3	SC-082051-PL	SCREW, #8 X 5/15" L., PH	10
2	CH-000122-00	COVER, BOTTOM	1
1	WP-000168-00	CHASSIS ASSY, (120V)	1
SEQ	PART NO.	DESCRIPTION	QTY

**QSC** AUDIO PRODUCTS INC.  
COSTA MESA, CALIFORNIA

MODEL NO.		CX 168		FINAL ASSY (120V)	
SIZE	DRAWN	DATE	OPERATION		
A	MILA	8-11-99	TOP COVER ASSY		
APPROVED		DATE			
KANE N.					
ASSY : FG-000168-00		FILE : FG-168-1B.DWG	PAGE	1 OF 4	

# CX 168 SCHEMATICS

8	7	6	5	4	3	2	1
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THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION WHICH IS THE PROPERTY OF QSC AUDIO PRODUCTS, THAT MAY NOT BE DISCLOSED, REPRODUCED OR USED WITHOUT EXPRESS WRITTEN CONSENT FROM QSC AUDIO PRODUCTS.

REVISION				
REV	DESCRIPTION	EFF. DATE	CHK	APPROVED / DATE
A	PRODUCTION RELEASE PER ECO 4753 AA	11-09-01		DD
B	PRODUCTION RELEASE 100V PER ECO 5211 AA	04-26-02		DD
C	REVISED PER ECO 5327 MP	6-14-02		DD
D	CANCEL			
E	REVISED PER ECO 5655 AA	4-04-03		

8. ZENER TOLERANCE IS 5%

7. SMT CAPACITOR VOLTAGE IS 50V

6. SMT RESISTOR WATTAGE RATING IS 0.1W

5. RESISTOR WATTAGE RATING IS 1/4W  
FOR RESISTOR WATTAGE RATINGS GREATER THAN 1W, TOLERANCE IS 5%  
FOR RESISTOR WATTAGE RATINGS LESS THAN 1/2W, TOLERANCE IS 1%

4. THROUGH-HOLE FILM AND CERAMIC CAPACITOR TOLERANCE IS 10%, VOLTAGE IS 100V

3. ELECTROLYTIC CAPACITOR TOLERANCE IS 20%

2. COMPONENTS WITH VALUE PREFIXED WITH A "\*" REPRESENT SMT COMPONENTS.

1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-000169-XX AND PC-000169-00.

NOTES: UNLESS OTHERWISE SPECIFIED

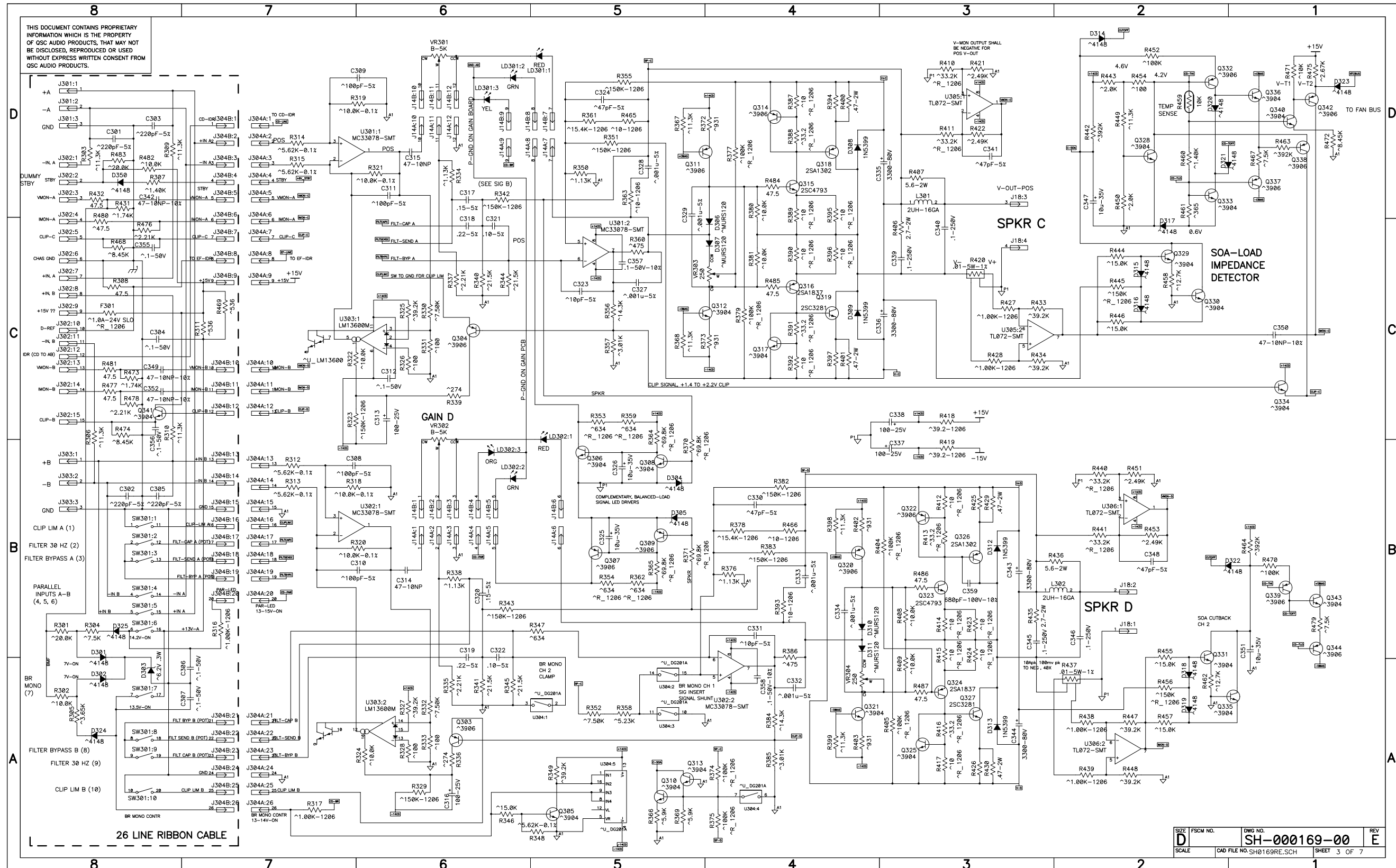
TABULATION BLOCK			
DASH NO.	F1	R36, 37,42,45	
-00 (120V)	25A, 125V	487K	
-01 (100V)	30A, 125V	392K	
-02 (230V)	15A, 250V	487K	

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.		
DRAWN: PAT QUILTER		APPROVALS: DATE: 9-29-99		
CHECKED:		QSC AUDIO PRODUCTS, INC. COSTA MESA, CALIFORNIA		
ISSUED:		SCHEMATIC, CX168 PLC-8CH		
FINISH:		SIZE: D	FSCM NO.	DWG NO. SH-000169-00
DO NOT SCALE DRAWING		CAD SEED FILE NO.	PLOT DATE: Mon Jan 26, 2004	SCALE: NONE
		CAD FILE NO.	SH0169RE.SCH	SHEET 1 OF 7

E<sub>REV</sub> 1 SH-000169-00 DWG NO.

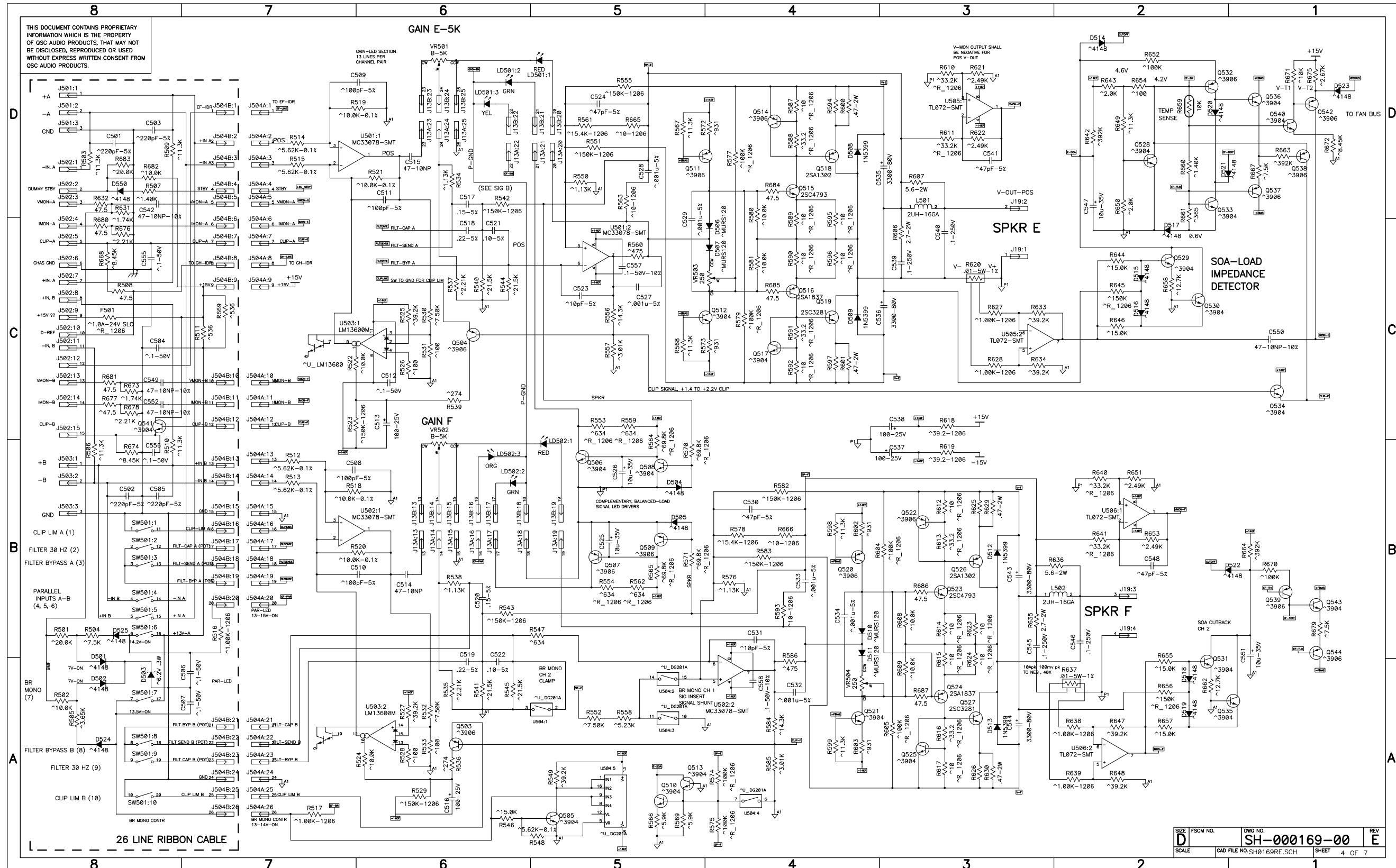


# CX 168 SCHEMATICS





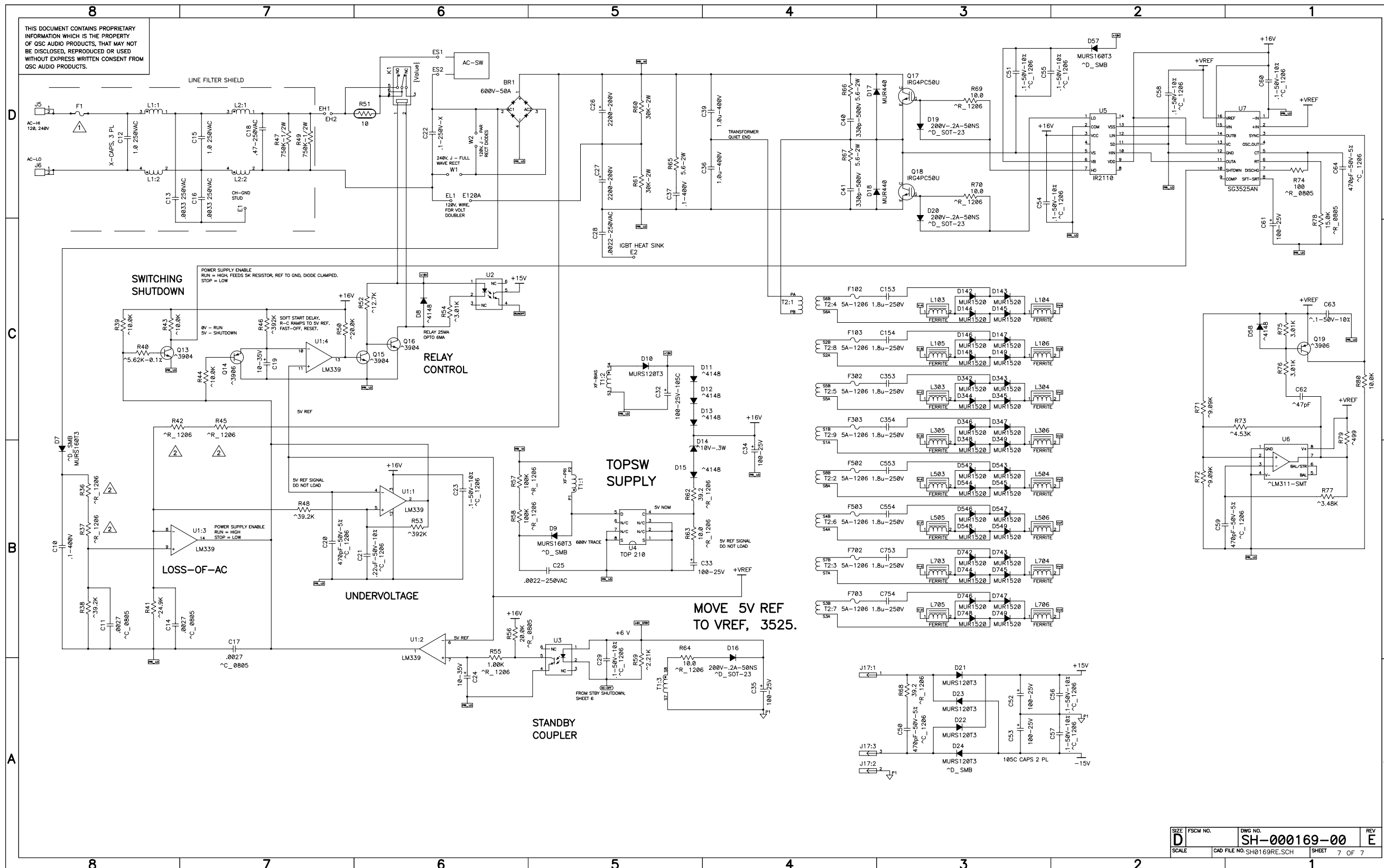
# CX 168 SCHEMATICS







# CX 168 Schematics



SIZE D	FSCM NO.	DWG NO. SH-000169-00	REV E
SCALE	CAD FILE NO. SH0169RE.SCH	SHEET 7 OF 7	

E 7 SH-000169-00 DWG NO.

# CX 108V SCHEMATICS

8	7	6	5	4	3	2	1
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REVISION				
REV	DESCRIPTION	EFF. DATE	CHK	APPROVED / DATE
A	PRODUCTION RELEASE PER ECO 5784 AA	06-27-03	RB	DD
B	REVISED PER ECO 5888 AA	09-12-03		

**11** R195, 196, 233, 244, 395, 396, 423, 424, 595, 596, 623, 624, 795, 796, 823, 824:  
SMT 1206 SIZE CAPACITORS ARE USED AT THESE LOCATIONS

**10** R36, 37, 42, 45: VALUE DEPENDS ON MODEL AC VOLTAGE RATING. SEE TABULATION BLOCK

**9** F1: VALUE DEPENDS ON MODEL AC VOLTAGE RATING. SEE TABULATION BLOCK

8. ZENER TOLERANCE IS 5%

7. SMT CAPACITOR VOLTAGE IS 50V

6. SMT RESISTOR WATTAGE RATING IS 0.1W

5. RESISTOR WATTAGE RATING IS 1/4W  
FOR RESISTOR WATTAGE RATINGS GREATER THAN 1W, TOLERANCE IS 5%  
FOR RESISTOR WATTAGE RATINGS LESS THAN 1/2W, TOLERANCE IS 1%

4. THROUGH-HOLE FILM AND CERAMIC CAPACITOR TOLERANCE IS 10%, VOLTAGE IS 100V

3. ELECTROLYTIC CAPACITOR TOLERANCE IS 20%

2. COMPONENTS WITH VALUE PREFIXED WITH A "\*" REPRESENT SMT COMPONENTS.

1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-000369-XX AND PC-000169-00.

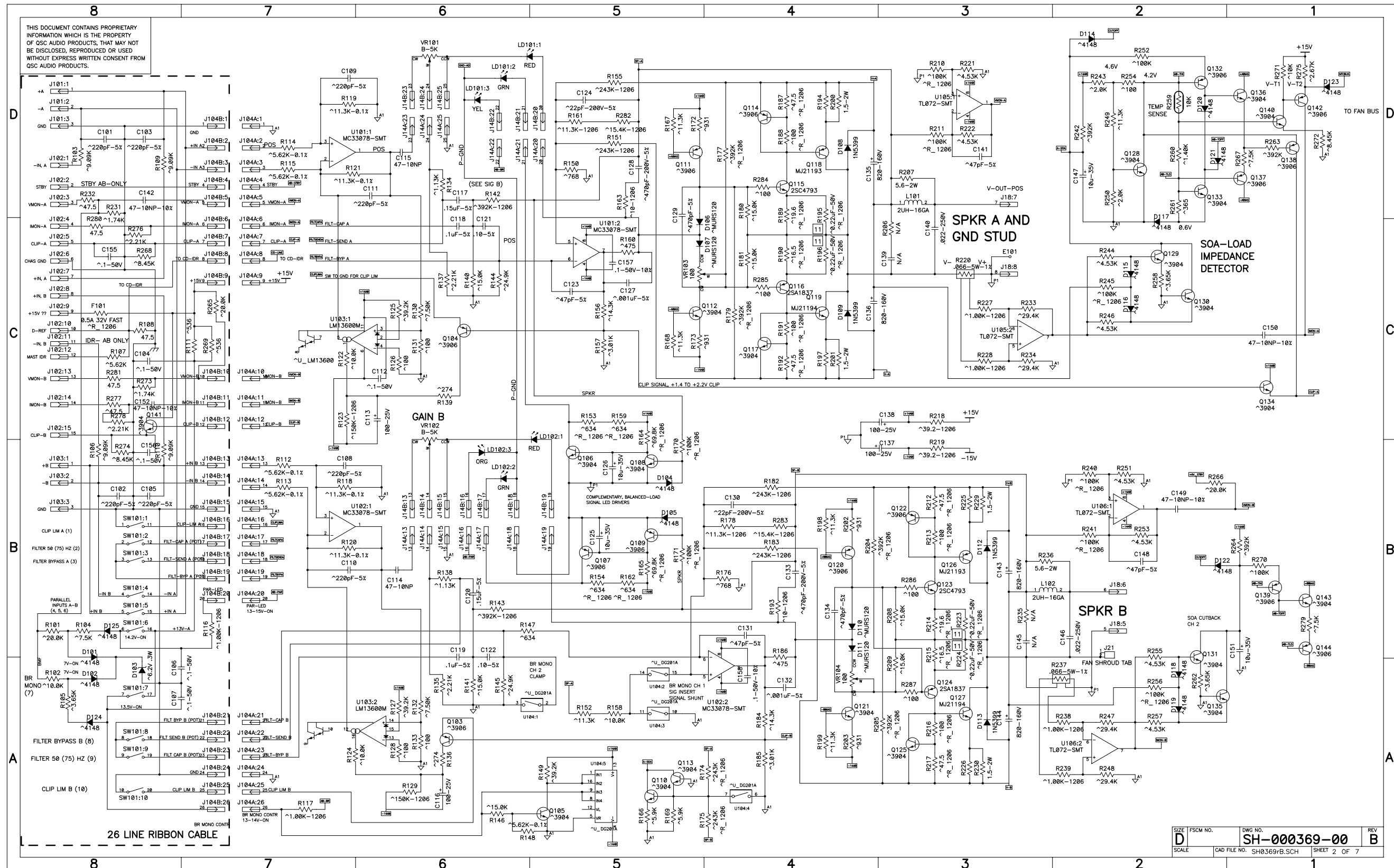
NOTES: UNLESS OTHERWISE SPECIFIED

TABULATION BLOCK			
DASH NO.	F1	R36, 37, 42, 45	
-00 (120V)		25A, 125V	487K
-01 (100V)		30A, 125V	392K
-02 (230V)		15A, 250V	487K

QTY	ITEM NO.	PART NO.	DESCRIPTION	VENDOR
<b>PARTS LIST</b>				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSIONS PER ANSI Y14.5-1982 TOLERANCES ARE: DECIMALS    DECIMALS    ANGLES XX ±        .XXX ±        °		CONTRACT NO.		<p style="margin: 0;"><b>SCHEMATIC DIAGRAM</b></p> <p style="margin: 0;"><b>CX108V</b></p>
DRAWN: PAT QUILTER		APPROVALS	DATE	
CHECKED: L. Truong		9-29-99		
ISSUED:		6-26-03		
FINISH		CAD SEED FILE NO.		SIZE: D
DO NOT SCALE DRAWING		PLOT DATE: Wed Sep 10, 2003		FSCM NO. DWG NO. SH-000369-00 REV B
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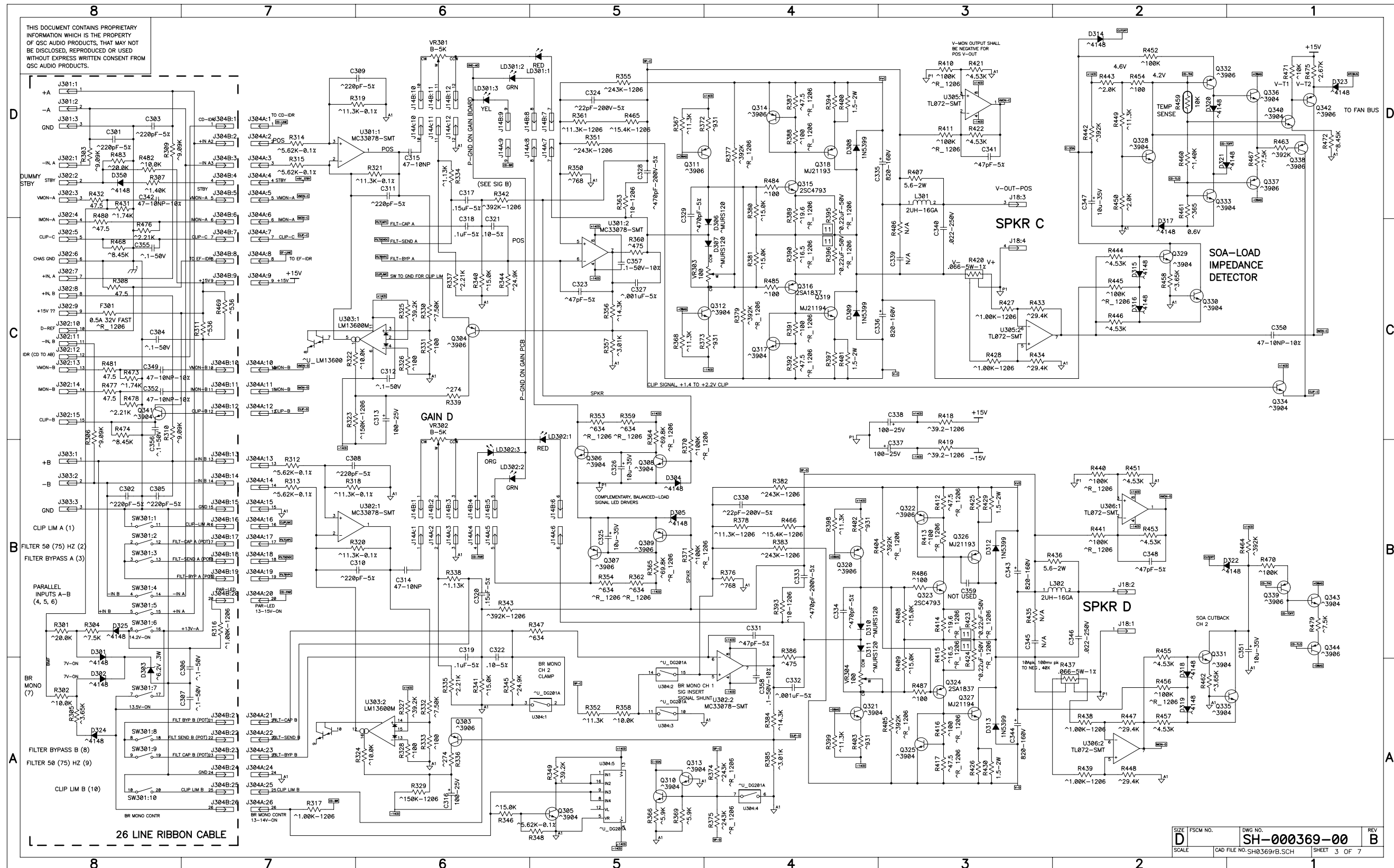
B 1 SH-000369-00 DWG. NO.

# CX 108V SCHEMATICS

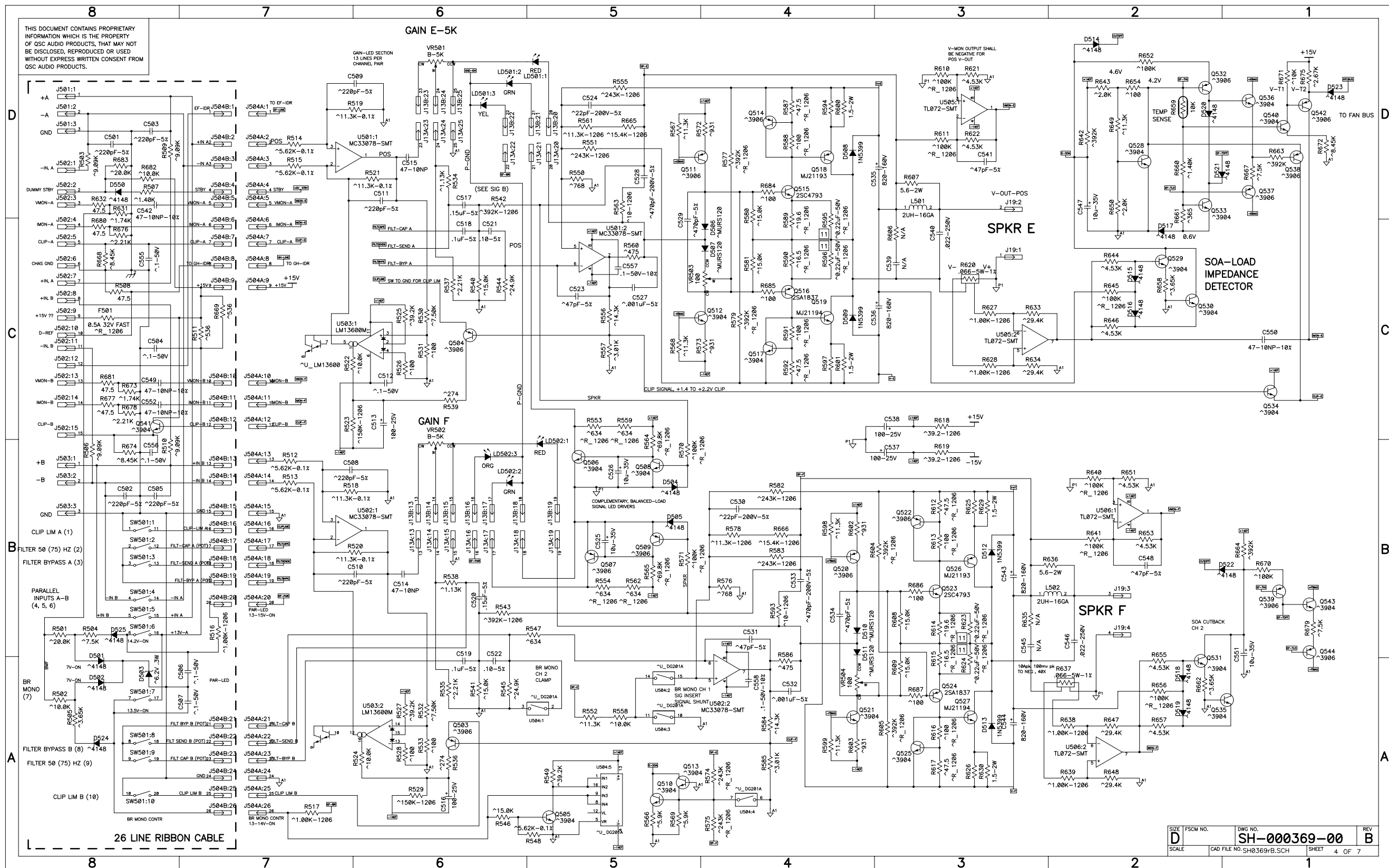


B 2 SH-000369-00 DWG NO.

# CX 108V SCHEMATICS

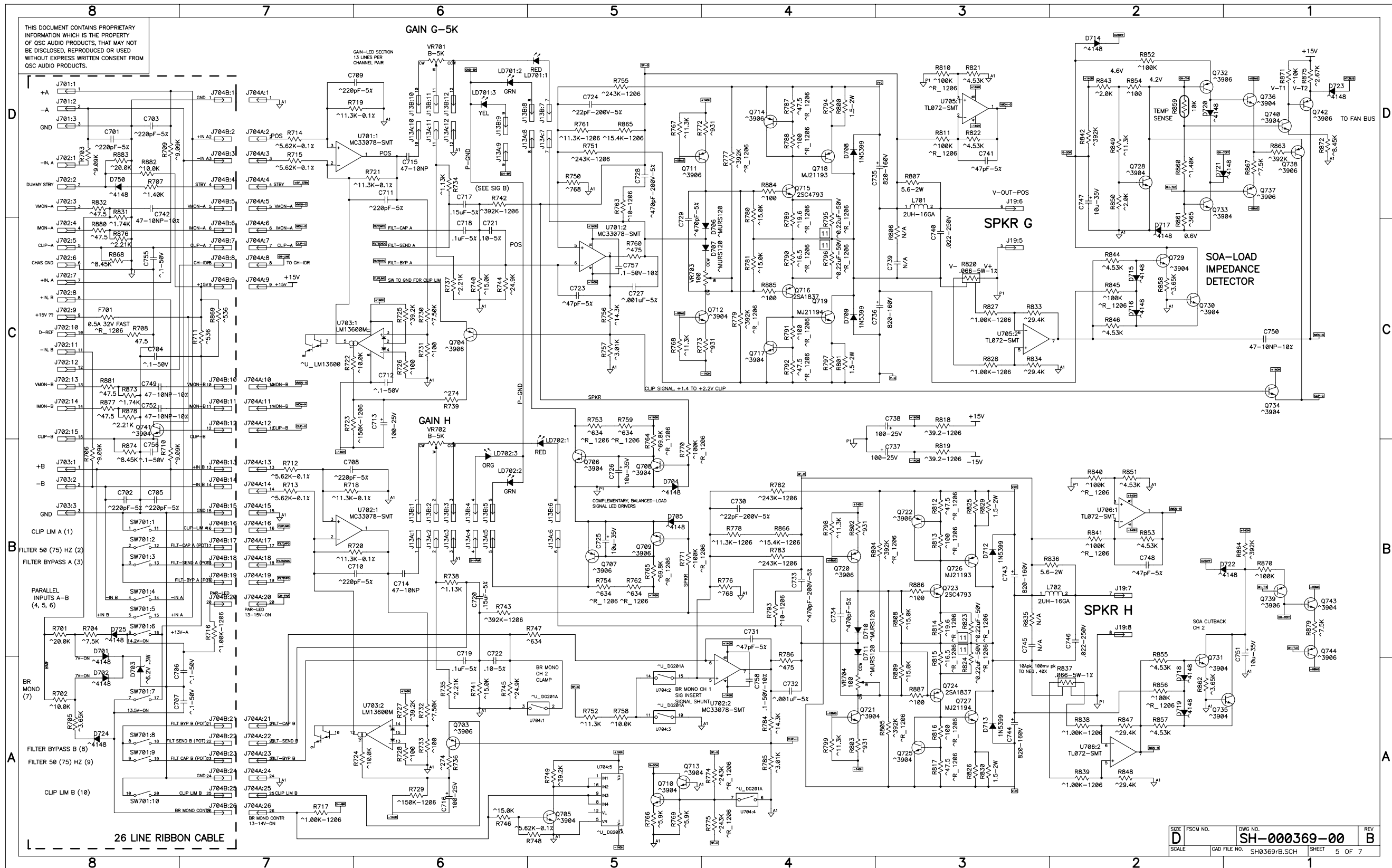


# CX 108V SCHEMATICS



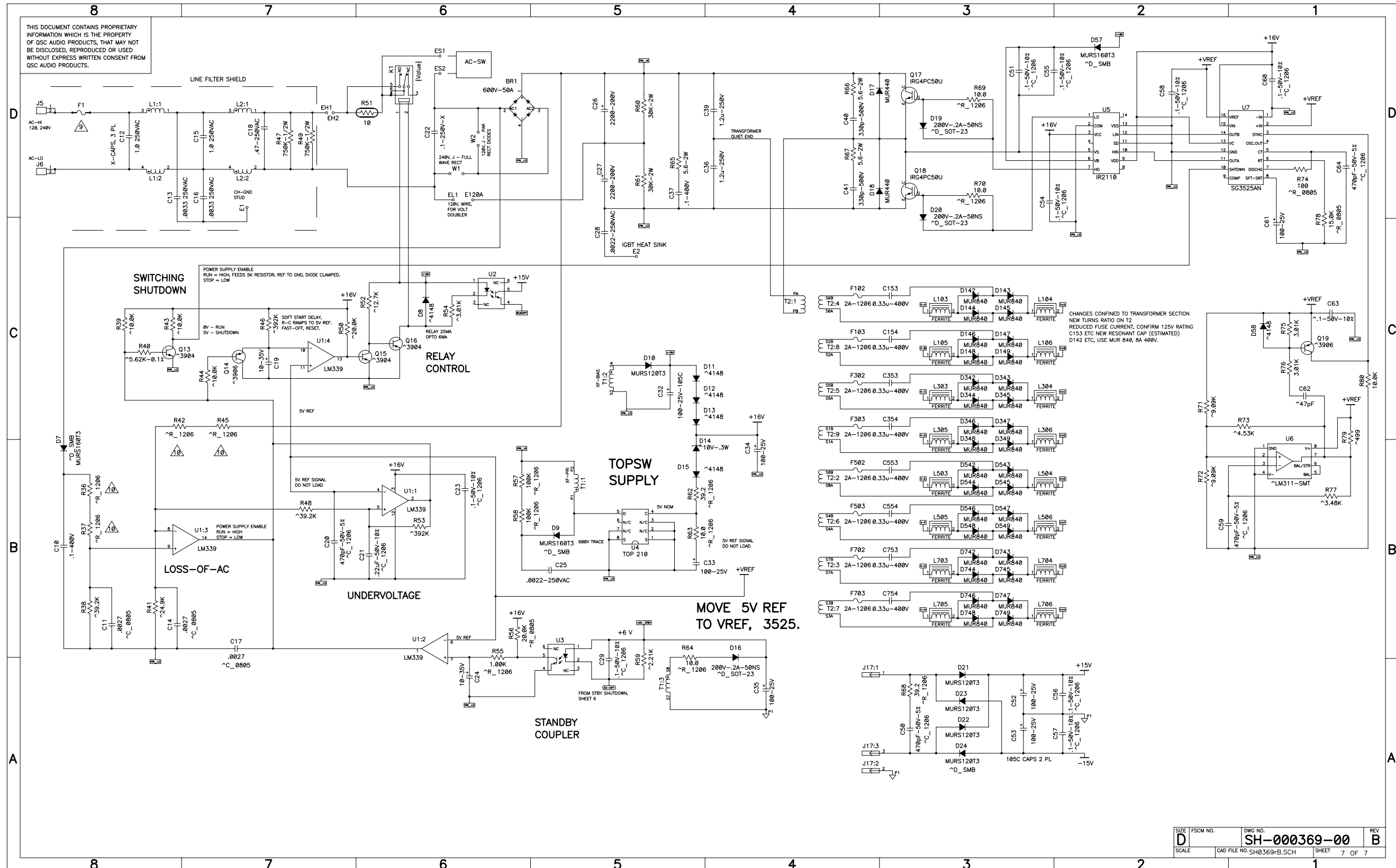


# CX 108V SCHEMATICS





# CX 108V SCHEMATICS









QSC Audio Products, Inc. 1675 Mac Arthur Blvd Costa Mesa CA 92626  
Tel 714-754-6175 Fax 714-754-6173