PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 17 OF 20	REV
PROJ.	MD390D0		127353-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	H42902-9	ASM, THERMAL SENSE	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	H42902-9	ASM, THERMAL SENSE	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP

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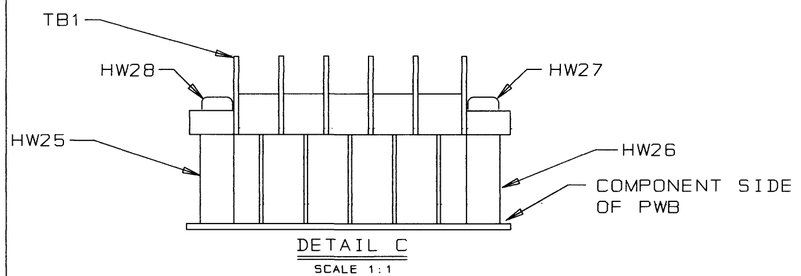
DRAWN	KLW	03-03-99	DWG. NO.	SHEET 18 OF 20	REV
PROJ.	MD390D0		127353-1		A

Component Map

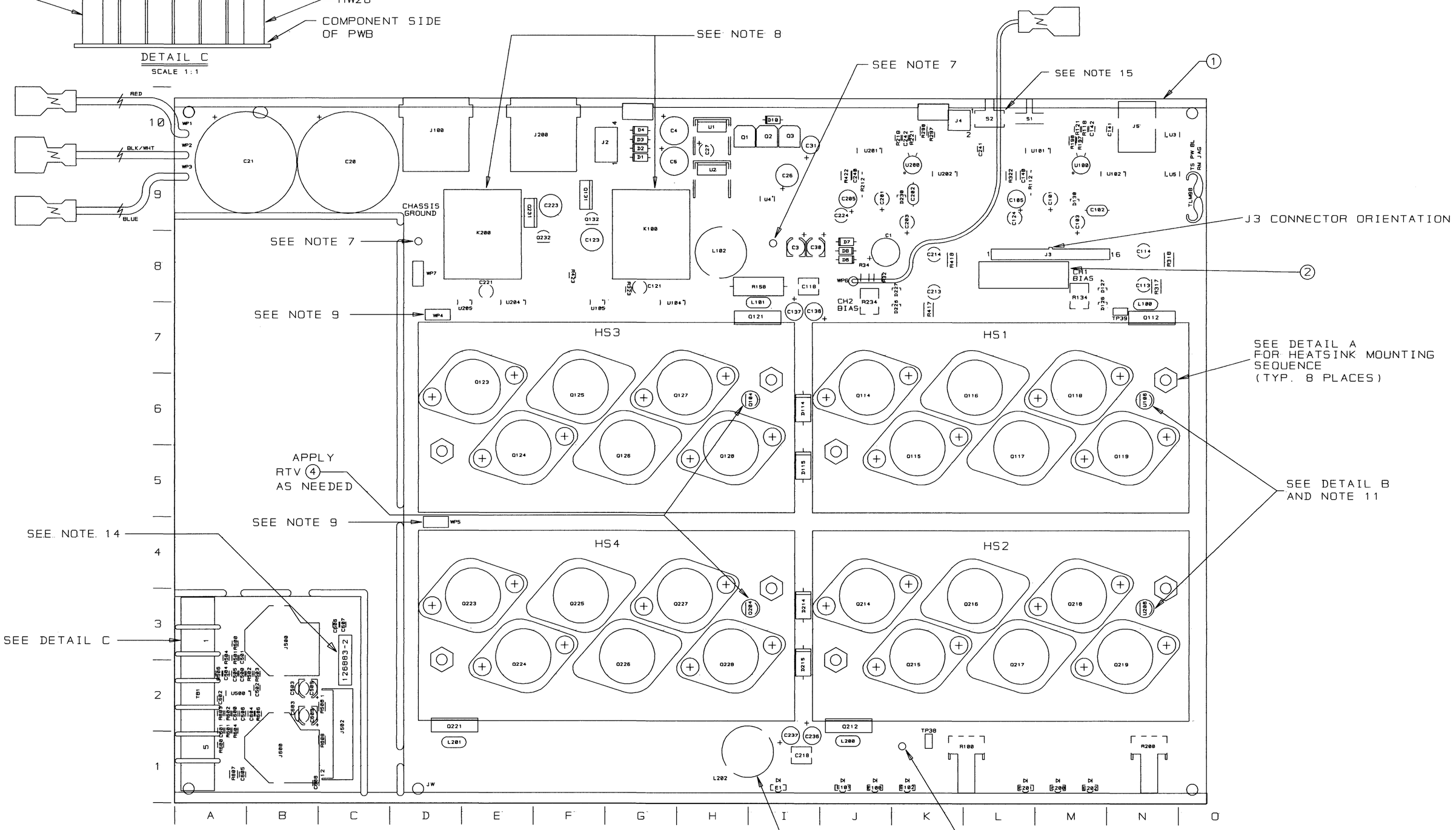
for use with

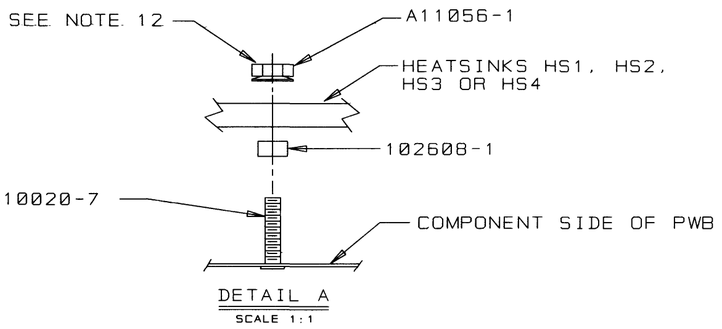
Main PWA 127353-1

COMPONENT MAP
(COMPONENT SIDE VIEW)

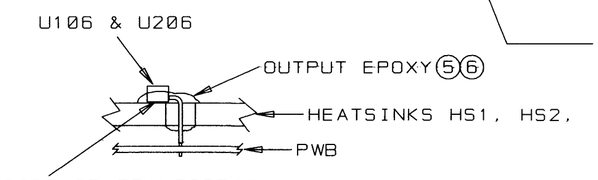


DETAIL C
SCALE 1:1





DETAIL A
SCALE 1:1



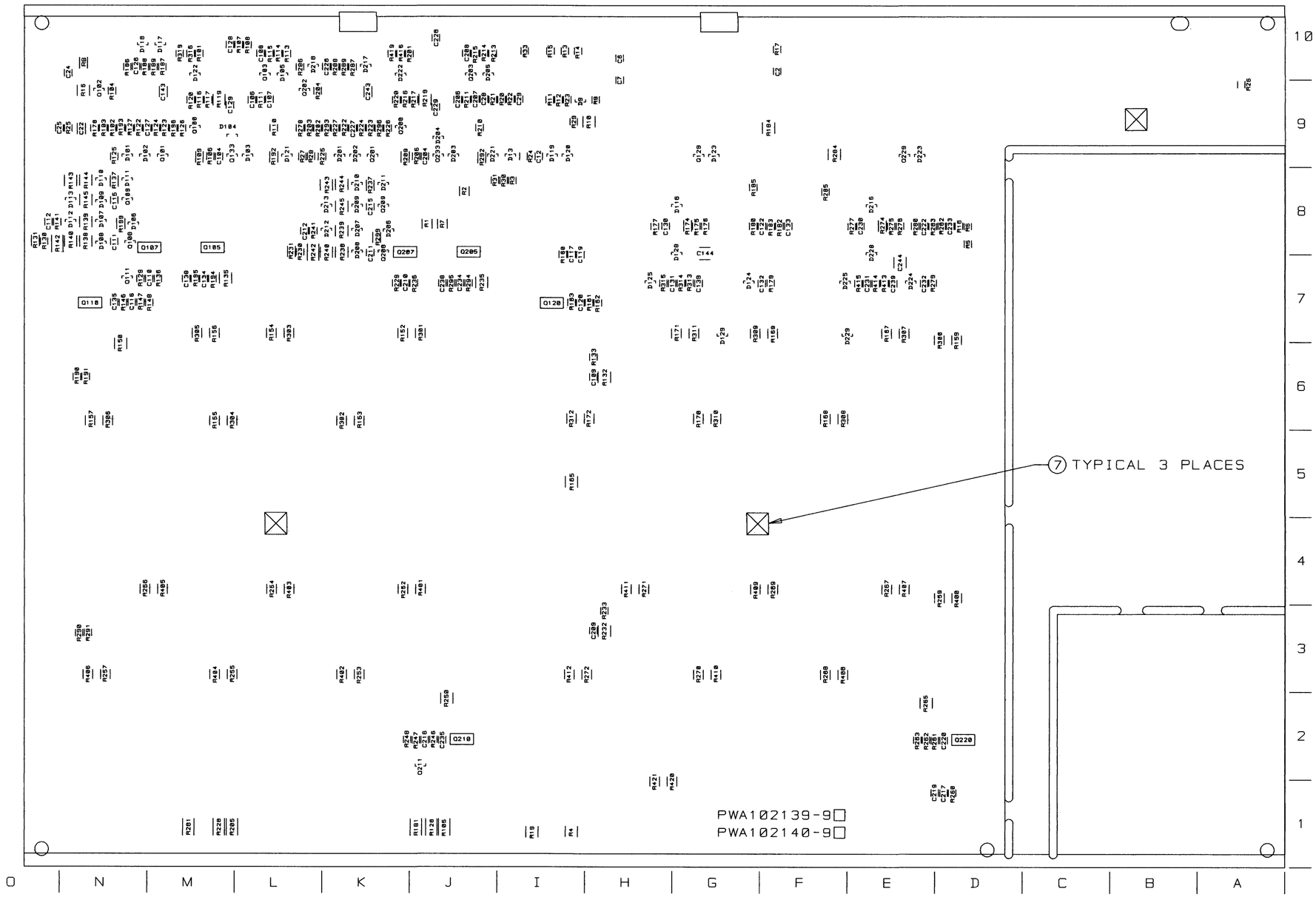
DETAIL B
SCALE 1:1

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1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 19 OF 20	REV
PROJ. #	MD390D0	127353-1		A



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1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 20	REV
PROJ. #	MD390D0	127353-1		A

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
		A	INITIAL RELEASE FOR PRODUCTION.	03-29-99	KLW	LAW		CDH	

NOTES:

1. SCHEMATIC DRAWING NUMBER 102141.
2. PWB PART NUMBER 102138-9.
3. THE PWA SHALL MEET THE IPC-A-610_ CLASS 2 STANDARDS.
4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
6. COMPONENTS THAT HAVE (*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
7. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
8. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
9. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM.
11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
    - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
    - 11B. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
    - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
    - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
    - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
    - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
    - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
14. LABEL INPUT PWA WITH CPN 126883-2 ON COMPONENT SIDE.
15. INSTALL S2 REVERSED FROM SILK SCREENING.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PRINTS TO: K

PWA, MAIN/INPUT CE1000

TOL. UNLESS SPECIFIED
X.XX = ± 0.020
X.XXX = ± 0.010
DRILLS = ± 0.003

DRAWN	KLW	03-29-99	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	LAW	03-29-99	ME	CDH 3-30-99	SUPERSEDES
SCALE	NONE		EE	N/A N/A	E.C.
PROJ #	MD390D0		PE	3-30-99	DWG. NO. 127353-2 SHEET 1 OF 20 REV A
FILENAME: 127353-2_A_01.PCB			NEXT ASM:		

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15, HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112, R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101, R106, R110, R201, R206,
			R210, R316, R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9, R104, R107, R108, R111, R121,
			R176, R177, R182, R185, R193,
			R196, R204, R211, R221, R276,
			R277, R282, R285, R293, R296,
			R313, R413, R500, R501, R502,
			R503, R504, R506, R600, R601,
			R602, R603, R604, R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,
			R183, R186, R189, R223, R225,
			R279, R283, R286, R289
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-13703	137 OHM 0.25W 1% CHIP	2	R139, R239
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137, R237
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122, R124, R187, R188, R222,
			R224, R287, R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209
A11368-20021	20K 0.10W 1% CHIP 0805	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22, R23, R102, R180, R202, R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103, R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	8	R113, R175, R197, R213, R275,
			R297, R315, R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174, R192, R274, R292
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118, R218
A11368-68121	68.1K 0.10W 1% CHIP	3	R12, R115, R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17, R114, R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 2 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199,R299,R323,R423
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322,R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	6	R138,R144,R145,R238,R244,R245
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R246,R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606,C607,C608,R160,R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28,R133,R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109,C111,C209,C211
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	33	C2,C6,C7,C12,C24,C25,C28,C29,
			C115,C122,C126,C127,C128,
			C129,C130,C131,C132,C133,
			C139,C215,C222,C226,C227,
			C228,C229,C230,C231,C232,
			C233,C239,C505,C506,C605
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219
C 2851-1	1N4004 SILICON RECT.	7	D1,D2,D3,D4,D6,D7,D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4,C5

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 3 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123,C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9,D13,D101,D102,D103,D104,
			D105,D106,D107,D108,D109,
			D110,D111,D112,D113,D116,
			D117,D118,D119,D120,D121,
			D122,D123,D124,D125,D126,
			D127,D128,D129,D130,D201,
			D202,D203,D204,D205,D206,
			D207,D208,D209,D210,D211,
			D212,D213,D216,D217,D218,
			D221,D222,D223,D224,D225,
			D226,D227,D228,D229,D230
C 9896-9	TEST POINT LOOP	2	TP38,TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114,D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
H42902-9	ASM, THERMAL SENSE	2	U106,U206
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106,C206,C504,C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 4 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102488-1	SPDT HORIZ SLIDE	1	S1
102569-3	HS ASM, T1 ISOLATED CH1, , ,	1	HS3
102570-3	HS ASM, T1 ISOLATED CH2, , ,	1	HS4
102571-3	HS ASM, T1 NON-ISOLATED CH1,	1	HS1
102572-3	HS ASM, T1 NON-ISOLATED CH2,	1	HS2
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25,HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1,HW2,HW3,HW4,HW5,HW6,HW7,
			HW8
102723-2	OPTO CELL ON=500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	0.4 OHM 1W 5% 2512 T/R	38	R1,R7,R152,R153,R156,R157,
			R159,R167,R168,R171,R172,
			R252,R253,R256,R257,R259,
			R267,R268,R271,R272,R300,
			R301,R302,R305,R306,R307,
			R308,R311,R312,R400,R401,
			R402,R405,R406,R407,R408,
			R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125478-1	3.83KOHM 0.50W 1% 2010 T/R	2	R142,R242
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 3OZ SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127442-1	PREP, CE HI-V WIRE	1	WP6

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 5 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	O 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	M 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	O 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115	A11427-104K2	0.1 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	M 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 6 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 3*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427-104K2	0.1 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 7 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM 0.1W 5% CHIP 0805	C 3
C607	A11371-1501	15 OHM 0.1W 5% CHIP 0805	C 3
C608	A11371-1501	15 OHM 0.1W 5% CHIP 0805	B 1
C609		OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 8 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 9 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
H11		OPEN	K 1
H14		OPEN	I 8
H18		OPEN	D 8
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1,	
HS2	102572-3	HS ASM, T1 NON-ISOLATED CH2,	
HS3	102569-3	HS ASM, T1 ISOLATED CH1, , ,	
HS4	102570-3	HS ASM, T1 ISOLATED CH2, , ,	
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW3	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW8	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW11	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW14	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	M 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 10 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
Q203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 11 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 12 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A10265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	M 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	O 8*
R131		OPEN	O 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-13703	137 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 13 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	M 10

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 14 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-13703	137 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 15 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10
R298		OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 16 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 17 OF 20	REV
PROJ.	MD390D0		127353-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	H42902-9	ASM, THERMAL SENSE	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	H42902-9	ASM, THERMAL SENSE	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	127442-1	PREP, CE HI-V WIRE	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP

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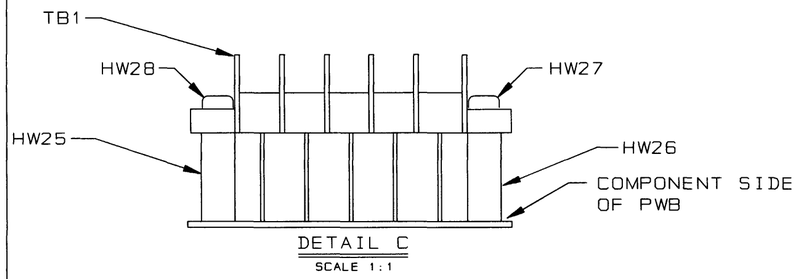
DRAWN	KLW	03-29-99	DWG. NO.	SHEET 18 OF 20	REV
PROJ.	MD390D0		127353-2		A

Component Map

for use with

Main PWA 127353-2

COMPONENT MAP
(COMPONENT SIDE VIEW)



DETAIL C
SCALE 1:1

SEE NOTE 8

SEE NOTE 7

SEE NOTE 15

J3 CONNECTOR ORIENTATION

SEE NOTE 7

SEE NOTE 9

SEE NOTE 9

SEE NOTE 14

SEE DETAIL C

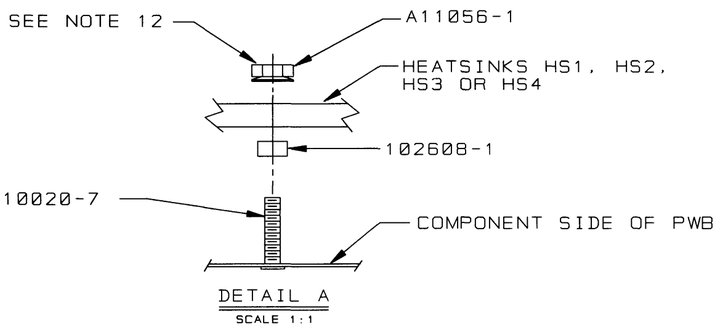
APPLY RTV (4) AS NEEDED

SEE DETAIL A FOR HEATSINK MOUNTING SEQUENCE (TYP. 8 PLACES)

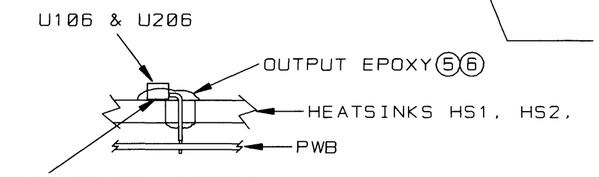
SEE DETAIL B AND NOTE 11

SEE NOTE 7

APPLY RTV (4) TO THE INSIDE OF BLACK VINYL CAP (3) THEN PLACE CAP OVER L202.



DETAIL A
SCALE 1:1



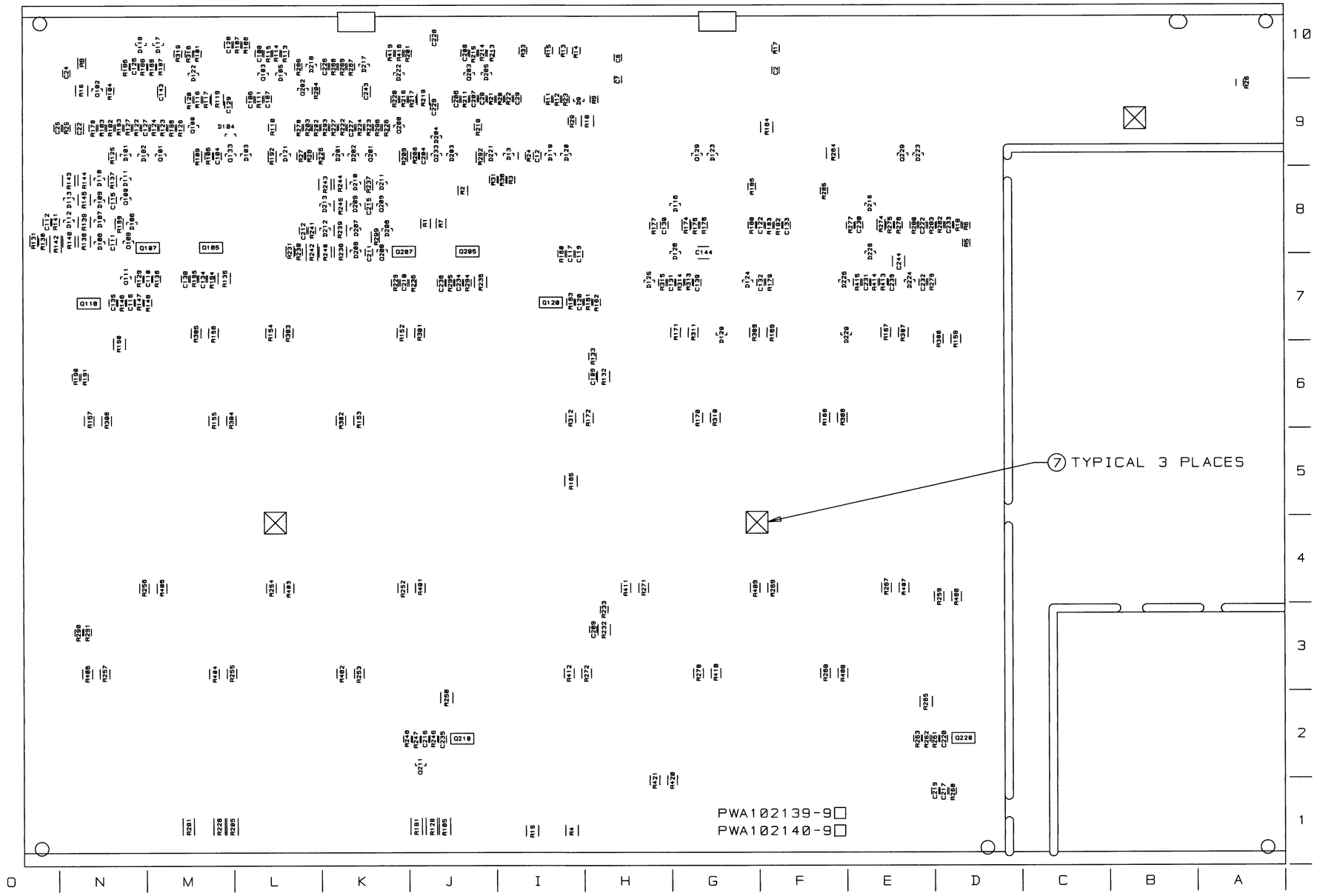
DETAIL B
SCALE 1:1

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1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 19 OF 20	REV
PROJ. #	MD390D0	127353-2		(A)



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1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 20	REV
PROJ. #	MD390D0	127353-2		A

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
T991752		A	INITIAL RELEASE FOR PRODUCTION.	09/10/99	DK	JLM	KZ	N/A	

NOTES:

1. SCHEMATIC DRAWING NUMBER 102141.
2. PWB PART NUMBER 102138-9.
3. THE PWA SHALL MEET THE IPC-A-610_ CLASS 2 STANDARDS.
4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
6. COMPONENTS THAT HAVE (*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
7. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
8. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
9. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM.
11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
    - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR 127683-1
    - 11B. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
    - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
    - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
    - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
    - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
    - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
14. LABEL INPUT PWA WITH CPN 126883-4 ON COMPONENT SIDE.
15. INSTALL S2 REVERSED FROM SILK SCREENING.
16. HAND SOLDER C610 (C 6806-1), AND C611 (C 6806-1) ACROSS BACK OF INPUT MODULE AS SHOWN, USE 1/2" KAPTON TAPE (S 6285-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PRINTS TO: K

PWA, MAIN/INPUT CE1000

TOL. UNLESS SPECIFIED
X.XX = ± 0.020
X.XXX = ± 0.010
DRILLS = ± 0.003

DRAWN	DK	09/10/99	APPROVED BY:	DO NOT SCALE PRINT
CHECKED	JLM	9/10/99	ME N/A	SUPERSEDES
SCALE	NONE		EE N/A	E.C.
PROJ #	MD390D0		PE	DWG. NO. 127353-3 SHEET 1 OF 20 REV A
FILENAME: 127353-3_A_01.PCB			NEXT ASM:	9/10/99

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9,HW10,HW11,HW12,HW13,HW14,
			HW15,HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17,HW18,HW19,HW20,HW21,
			HW22,HW23,HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
			R210,R316,R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9,R104,R107,R108,R111,R121,
			R176,R177,R182,R185,R193,
			R196,R204,R211,R221,R276,
			R277,R282,R285,R293,R296,
			R313,R413,R500,R501,R502,
			R503,R504,R506,R600,R601,
			R602,R603,R604,R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25,R30,R31,R123,R125,R179,
			R183,R186,R189,R223,R225,
			R279,R283,R286,R289
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-13703	137 OHM 0.25W 1% CHIP	2	R139,R239
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,
			R224,R287,R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209
A11368-20021	20K 0.10W 1% CHIP 0805	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10,R184,R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22,R23,R102,R180,R202,R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49902	499 OHM 0.125W 1% CHIP	2	R137,R237
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126,R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	8	R113,R175,R197,R213,R275,
			R297,R315,R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20,R24,R190,R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118,R218
A11368-68121	68.1K 0.10W 1% CHIP	3	R12,R115,R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134,C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142,C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110,C141,C210,C241

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 2 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199,R299,R323,R423
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322,R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	6	R138,R144,R145,R238,R244,R245
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R246,R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606,C607,C608,R160,R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28,R133,R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109,C111,C115,C209,C211,C215
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	30	C6,C7,C12,C24,C25,C28,C29,
			C122,C126,C127,C128,C129,
			C130,C131,C132,C133,C139,
			C222,C226,C227,C228,C229,
			C230,C231,C232,C233,C239,
			C505,C506,C605
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219
C 2851-1	1N4004 SILICON RECT.	7	D1,D2,D3,D4,D6,D7,D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4,C5

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 3 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 6806-1	0.01 UF 100V AXIAL CER T/R	2	C610,C611
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123,C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9,D13,D101,D102,D103,D104,
			D105,D106,D107,D108,D109,
			D110,D111,D112,D113,D116,
			D117,D118,D119,D120,D121,
			D122,D123,D124,D125,D126,
			D127,D128,D129,D130,D201,
			D202,D203,D204,D205,D206,
			D207,D208,D209,D210,D211,
			D212,D213,D216,D217,D218,
			D221,D222,D223,D224,D225,
			D226,D227,D228,D229,D230
C 9896-9	TEST POINT LOOP	2	TP38,TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114,D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
S 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106,C206,C504,C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 4 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102488-1	SPDT HORIZ SLIDE	1	S1
102569-3	HS ASM, T1 ISOLATED CH1, , ,	1	HS3
102570-3	HS ASM, T1 ISOLATED CH2, , ,	1	HS4
102571-3	HS ASM, T1 NON-ISOLATED CH1,	1	HS1
102572-3	HS ASM, T1 NON-ISOLATED CH2,	1	HS2
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25,HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1,HW2,HW3,HW4,HW5,HW6,HW7,
			HW8
102723-2	OPTO CELL ON=500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	0.4 OHM 1W 5% 2512 T/R	38	R1,R7,R152,R153,R156,R157,
			R159,R167,R168,R171,R172,
			R252,R253,R256,R257,R259,
			R267,R268,R271,R272,R300,
			R301,R302,R305,R306,R307,
			R308,R311,R312,R400,R401,
			R402,R405,R406,R407,R408,
			R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	.01 MF 100V 10% X7R 0805 SMD	1	C2
103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125478-1	3.83KOHM 0.50W 1% 2010 T/R	2	R142,R242
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 3OZ SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127442-1	PREP, CE HI-V WIRE	1	WP6
127683-1	SENSOR, CE THERMAL	2	U106,U206

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 5 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	103418-103K2	0.01 MF 100V 10% X7R 0805 SMD	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	O 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	M 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	O 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115	A11427-103K2	0.01 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	M 9*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 6 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 3*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427-103K2	0.01 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 7 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM 0.1W 5% CHIP 0805	C 3
C607	A11371-1501	15 OHM 0.1W 5% CHIP 0805	C 3
C608	A11371-1501	15 OHM 0.1W 5% CHIP 0805	B 1
C609		OPEN	B 2
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 3
C611	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 1
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 8 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 9 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
H11		OPEN	K 1
H14		OPEN	I 8
H18		OPEN	D 8
HS1	102571-3	HS ASM, T1 NON-ISOLATED CH1,	
HS2	102572-3	HS ASM, T1 NON-ISOLATED CH2,	
HS3	102569-3	HS ASM, T1 ISOLATED CH1, , ,	
HS4	102570-3	HS ASM, T1 ISOLATED CH2, , ,	
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW3	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW8	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW11	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW14	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	M 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 10 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
Q203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 11 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 12 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A10265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	M 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	O 8*
R131		OPEN	O 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49902	499 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-13703	137 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 13 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	M 10

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 14 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-49902	499 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-13703	137 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 15 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10
R298		OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 16 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 17 OF 20	REV
PROJ.	MD390D0		127353-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	127683-1	SENSOR, CE THERMAL	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	127683-1	SENSOR, CE THERMAL	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	127442-1	PREP, CE HI-V WIRE	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
TAPE	S 6285-1	TAPE, KAPTON (POLYIMIDE) 1/2"	SEE COMP MAP

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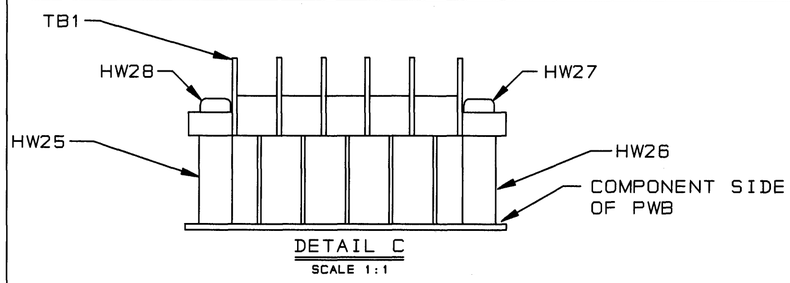
DRAWN	DK	09/10/99	DWG. NO.	SHEET 18 OF 20	REV
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Component Map

for use with

Main PWA 127353-3

COMPONENT MAP
(COMPONENT SIDE VIEW)



DETAIL C
SCALE 1:1

SEE NOTE 8
SEE NOTE 7
SEE NOTE 15
J3 CONNECTOR ORIENTATION
SEE NOTE 7
SEE NOTE 9
SEE NOTE 9
SEE NOTE 14
SEE DETAIL C
APPLY RTV (4) AS NEEDED
SEE DETAIL A FOR HEATSINK MOUNTING SEQUENCE (TYP. 8 PLACES)
SEE DETAIL B AND NOTE 11
SEE NOTE 7
APPLY RTV (4) TO THE INSIDE OF BLACK VINYL CAP (3) THEN PLACE CAP OVER L202.

HS3 HS1 HS4 HS2

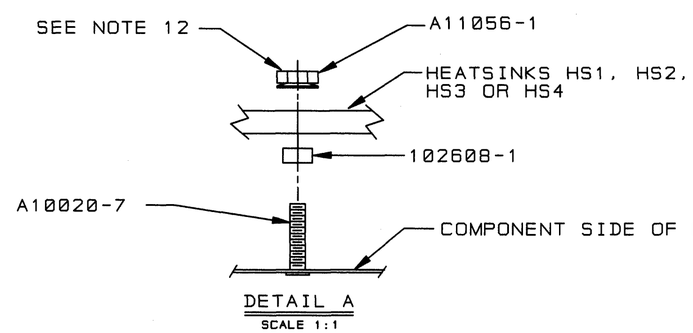
RED BLK/WHT BLUE

CHASSIS GROUND

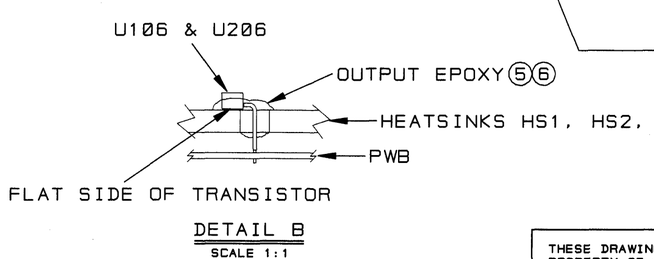
CH1 BIAS CH2 BIAS

TLM89 TS PW BL RW JAG

126883-2



DETAIL A
SCALE 1:1



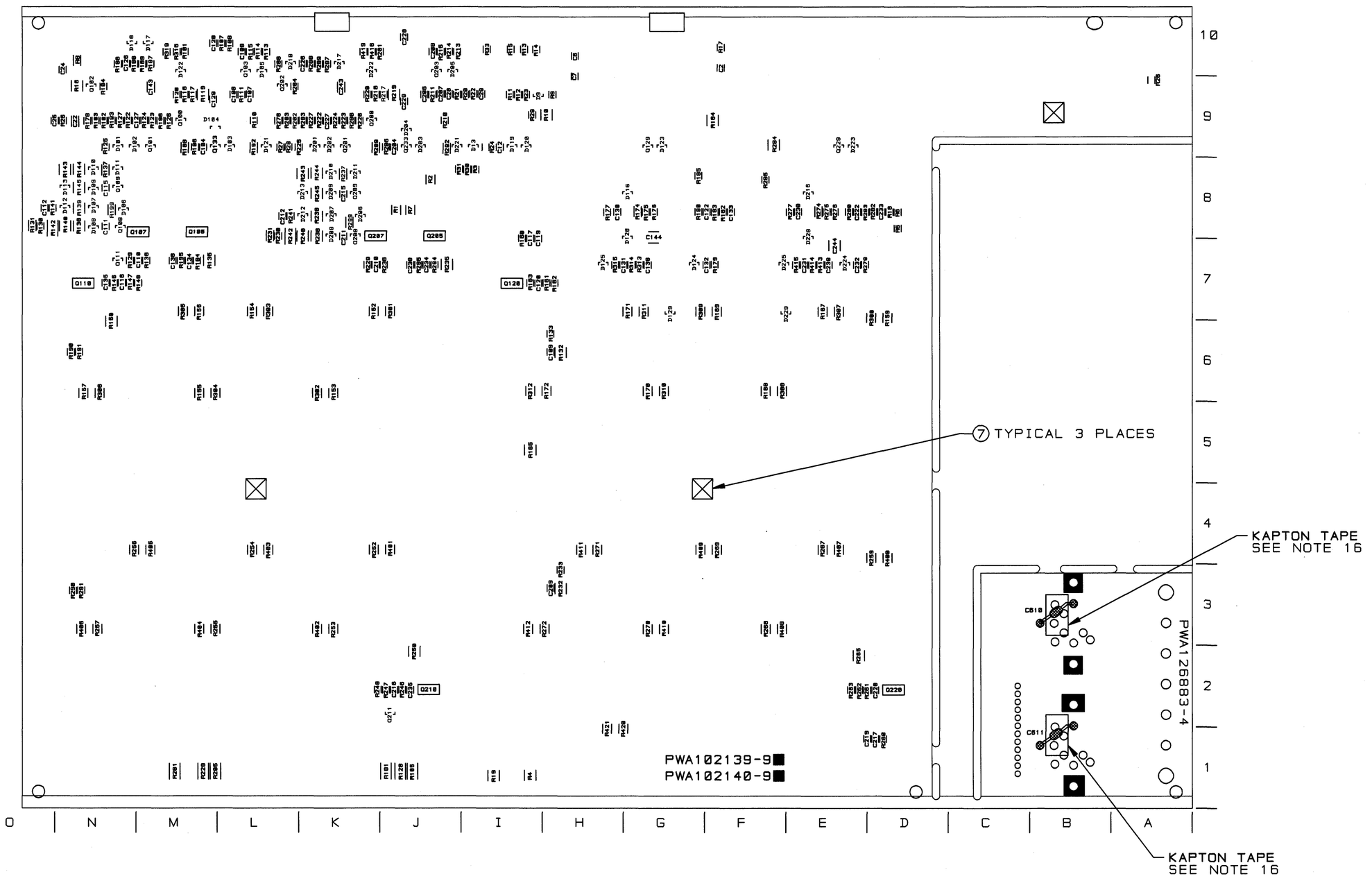
DETAIL B
SCALE 1:1

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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 19 OF 20	REV
PROJ. #	MD390D0	127353-3		A



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 20	REV
PROJ. #	MD390D0	127353-3		A

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
		A	INITIAL RELEASE FOR PRODUCTION.	03-03-99	KLW	JGW	CB		

NOTES:

1. SCHEMATIC DRAWING NUMBER 102142.
2. PWB PART NUMBER 102138-9.
3. THE PWA SHALL MEET THE IPC-A-610_ CLASS 2 STANDARDS.
4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
6. COMPONENTS THAT HAVE (*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
7. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
8. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
9. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE P.C. BOARD AND SHALL BE PERMANENT. THE PWA NUMBER, 126883-2, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
    - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
    - 11B. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
    - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
    - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
    - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
    - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
    - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
14. INSTALL S2 REVERSED FROM SILK SCREENING.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

PRINTS TO: K

PWA, MAIN/INPUT CE2000

TOL. UNLESS SPECIFIED
X.XX = ± 0.020
X.XXX = ± 0.010
DRILLS = ± 0.003

DRAWN	KLW	03-03-99	APPROVED BY:	DO NOT SCALE PRINT
CHECKED	JGW	03/03/99	ME CBW 3-3-99	SUPERSEDES
SCALE	NONE		EE	E.C.
PROJ #	MD390D0		PE 3-3-99	DWG. NO. 127354-1 SHEET 1 OF 21
FILENAME: 127354-1_A_01.PCB			NEXT ASM:	REV A

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9,HW10,HW11,HW12,HW13,HW14,
			HW15,HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17,HW18,HW19,HW20,HW21,
			HW22,HW23,HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
			R210,R316,R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9,R104,R107,R108,R111,
			R121,R176,R177,R182,R185,
			R193,R196,R204,R211,R221,
			R276,R277,R282,R285,R293,
			R296,R313,R413,R500,R501,
			R502,R503,R504,R506,R600,
			R601,R602,R603,R604,R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25,R30,R31,R123,R125,R179,
			R183,R186,R189,R223,R225,
			R279,R283,R286,R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118,R218
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139,R239
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137,R237
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,
			R224,R287,R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10,R184,R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22,R23,R102,R180,R202,R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126,R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113,R175,R213,R275,R315,R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20,R24,R190,R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174,R192,R274,R292
A11368-61911	6.19K 0.10W 1% CHIP 0805	2	R197,R297
A11368-68121	68.1K 0.10W 1% CHIP	3	R12,R115,R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145,R245
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134,C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142,C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110,C141,C210,C241

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 2 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199,R299,R323,R423
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322,R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138,R144,R238,R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R246,R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606,C607,C608,R160,R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142,R242
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28,R133,R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109,C111,C209,C211
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	33	C2,C6,C7,C12,C24,C25,C28,C29,
			C115,C122,C126,C127,C128,
			C129,C130,C131,C132,C133,
			C139,C215,C222,C226,C227,
			C228,C229,C230,C231,C232,
			C233,C239,C505,C506,C605,
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1,D2,D3,D4,D6,D7,D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4,C5

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 3 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123,C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9,D13,D101,D102,D103,D104,
			D105,D106,D107,D108,D109,
			D110,D111,D112,D113,D116,
			D117,D118,D119,D120,D121,
			D122,D123,D124,D125,D126,
			D127,D128,D129,D130,D201,
			D202,D203,D204,D205,D206,
			D207,D208,D209,D210,D211,
			D212,D213,D216,D217,D218,
			D221,D222,D223,D224,D225,
			D226,D227,D228,D229,D230
C 9896-9	TEST POINT LOOP	2	TP38,TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114,D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
H42902-9	ASM, THERMAL SENSE	2	U106,U206
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106,C206,C504,C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 4 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102488-1	SPDT HORIZ SLIDE	1	S1
102573-3	HS ASM, T2 ISOLATED CH1, , ,	1	HS3
102574-3	HS ASM, T2 ISOLATED CH2, , ,	1	HS4
102575-3	HS ASM, T2 NON-ISOLATED CH1,	1	HS1
102576-3	HS ASM, T2 NON-ISOLATED CH2,	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1,HW2,HW3,HW4,HW5,HW6,HW7,
			HW8
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25,HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200
102723-2	OPTO CELL ON=500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	0.4 OHM 1W 5% 2512 T/R	54	R1,R7,R152,R153,R154,R155,
			R156,R157,R159,R167,R168,
			R169,R170,R171,R172,R252,
			R253,R254,R255,R256,R257,
			R259,R267,R268,R269,R270,
			R271,R272,R300,R301,R302,
			R303,R304,R305,R306,R307,
			R308,R309,R310,R311,R312,
			R400,R401,R402,R403,R404,
			R405,R406,R407,R408,R409,
			R410,R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 3OZ SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 5 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	O 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	M 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	O 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115	A11427-104K2	0.1 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	M 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 6 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 3*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427-104K2	0.1 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 7 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C607	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C608	A11371-1501	15 OHM .1W 5% 0805 T/R	B 1
C609		OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 8 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 9 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1,	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
HS3	102573-3	HS ASM, T2 ISOLATED CH1, , ,	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2, , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW11	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW14	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	M 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 10 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 2SC5242	I 7
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 11 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 12 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A10265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	M 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	O 8*
R131		OPEN	O 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 13 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 14 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 15 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 16 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61911	6.19K 0.10W 1% CHIP 0805	K 10
R298		OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 17 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	H42902-9	ASM, THERMAL SENSE	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-03-99	DWG. NO.	SHEET 18 OF 21	REV
PROJ.	MD390D0		127354-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	H42902-9	ASM, THERMAL SENSE	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP

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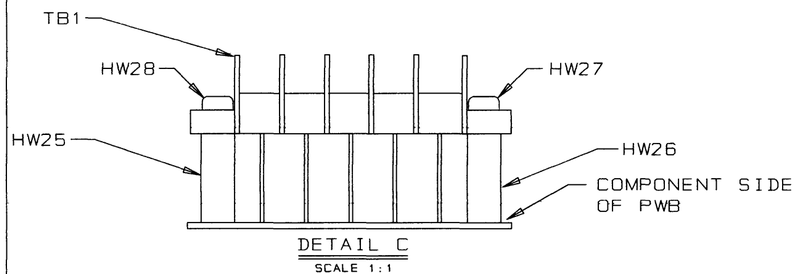
DRAWN	KLW	03-03-99	DWG. NO.	SHEET 19 OF 21	REV
PROJ.	MD390D0		127354-1		A

Component Map

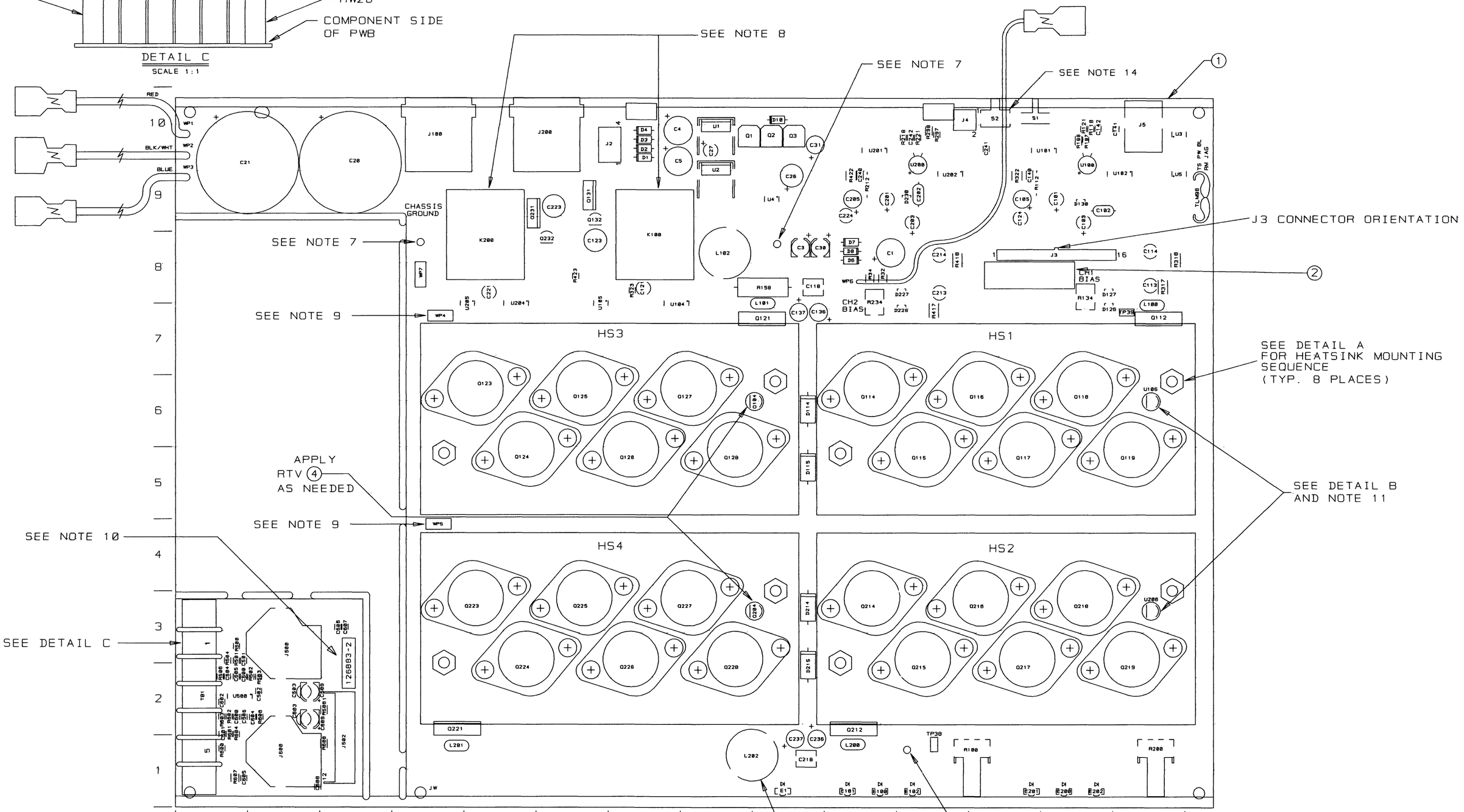
for use with

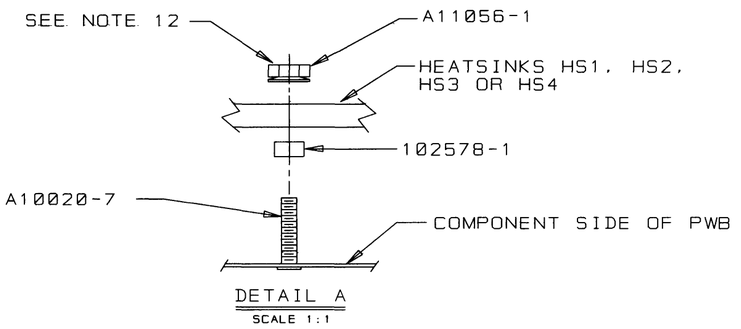
Main PWA 127354-1

COMPONENT MAP
(COMPONENT SIDE VIEW)

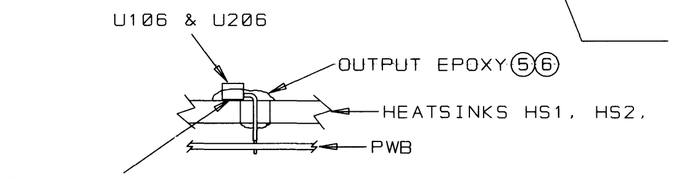


DETAIL C
SCALE 1:1





DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

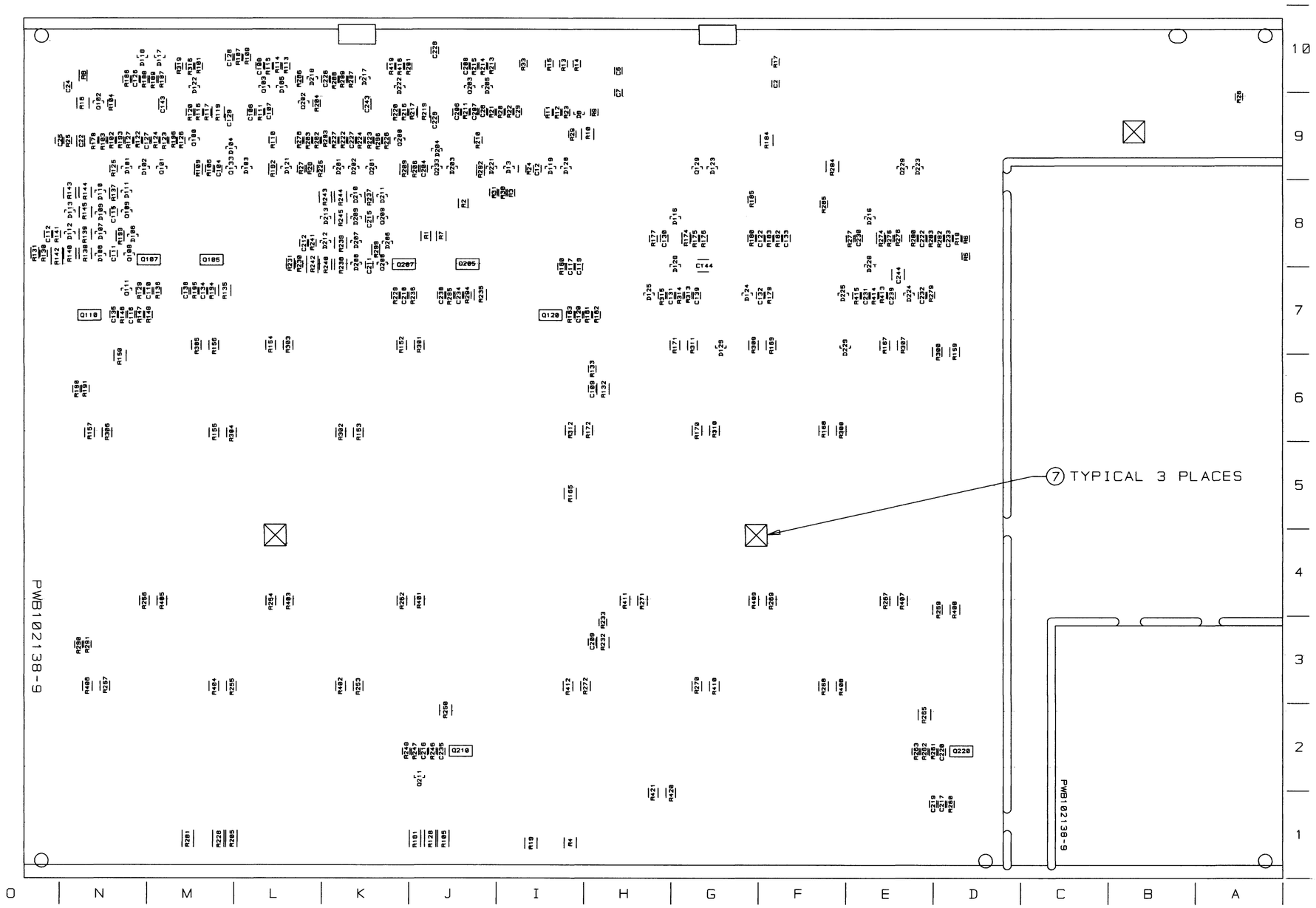
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 21	REV
PROJ. #	MD390D0	127354-1		(A)

COMPONENT MAP
(SOLDER SIDE VIEW)



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 21 OF 21	REV
PROJ. #	MD390D0	127354-1		A

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
		A	INITIAL RELEASE FOR PRODUCTION.	03-29-99	KLW	JAW		CDH	

NOTES:

1. SCHEMATIC DRAWING NUMBER 102142.
2. PWB PART NUMBER 102138-9.
3. THE PWA SHALL MEET THE IPC-A-610_ CLASS 2 STANDARDS.
4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
6. COMPONENTS THAT HAVE (*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
7. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
8. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
9. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM. THE PWA NUMBER, 126883-2, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
    - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR H42902-9
    - 11B. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
    - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
    - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
    - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
    - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
    - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
14. INSTALL S2 REVERSED FROM SILK SCREENING.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

PRINTS TO: K

PWA, MAIN/INPUT CE2000

TOL. UNLESS SPECIFIED
X.XX - ± 0.020
X.XXX - ± 0.010
DRILLS - ± 0.003

DRAWN	KLW	03-29-99	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	JAW	03-29-99	ME	3-30-99	SUPERSEDES
SCALE	NONE		EE	N/A N/A	E.C.
PROJ #	MD390D0		PE	3-30-99	DWG. NO. 127354-2 SHEET 1 OF 21 REV A
FILENAME: 127354-2_A_01.PCB			NEXT ASM:		

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15, HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112, R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101, R106, R110, R201, R206,
			R210, R316, R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9, R104, R107, R108, R111,
			R121, R176, R177, R182, R185,
			R193, R196, R204, R211, R221,
			R276, R277, R282, R285, R293,
			R296, R313, R413, R500, R501,
			R502, R503, R504, R506, R600,
			R601, R602, R603, R604, R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,
			R183, R186, R189, R223, R225,
			R279, R283, R286, R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118, R218
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139, R239
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-15002	150 OHM 0.125W 1% CHIP	2	R137, R237
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122, R124, R187, R188, R222,
			R224, R287, R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22, R23, R102, R180, R202, R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103, R203
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113, R175, R213, R275, R315, R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174, R192, R274, R292
A11368-61911	6.19K 0.10W 1% CHIP 0805	2	R197, R297
A11368-68121	68.1K 0.10W 1% CHIP	3	R12, R115, R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145, R245
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17, R114, R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 2 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199,R299,R323,R423
A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322,R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138,R144,R238,R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R246,R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606,C607,C608,R160,R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142,R242
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32,R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28,R133,R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	4	C109,C111,C209,C211
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	33	C2,C6,C7,C12,C24,C25,C28,C29,
			C115,C122,C126,C127,C128,
			C129,C130,C131,C132,C133,
			C139,C215,C222,C226,C227,
			C228,C229,C230,C231,C232,
			C233,C239,C505,C506,C605,
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219
C 2851-1	1N4004 SILICON RECT.	7	D1,D2,D3,D4,D6,D7,D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4,C5

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 3 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123,C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9,D13,D101,D102,D103,D104,
			D105,D106,D107,D108,D109,
			D110,D111,D112,D113,D116,
			D117,D118,D119,D120,D121,
			D122,D123,D124,D125,D126,
			D127,D128,D129,D130,D201,
			D202,D203,D204,D205,D206,
			D207,D208,D209,D210,D211,
			D212,D213,D216,D217,D218,
			D221,D222,D223,D224,D225,
			D226,D227,D228,D229,D230
C 9896-9	TEST POINT LOOP	2	TP38,TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114,D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
H42902-9	ASM, THERMAL SENSE	2	U106,U206
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106,C206,C504,C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 4 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102488-1	SPDT HORIZ SLIDE	1	S1
102573-3	HS ASM, T2 ISOLATED CH1, , ,	1	HS3
102574-3	HS ASM, T2 ISOLATED CH2, , ,	1	HS4
102575-3	HS ASM, T2 NON-ISOLATED CH1,	1	HS1
102576-3	HS ASM, T2 NON-ISOLATED CH2,	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1,HW2,HW3,HW4,HW5,HW6,HW7,
			HW8
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25,HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200
102723-2	OPTO CELL ON=500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	0.4 OHM 1W 5% 2512 T/R	54	R1,R7,R152,R153,R154,R155,
			R156,R157,R159,R167,R168,
			R169,R170,R171,R172,R252,
			R253,R254,R255,R256,R257,
			R259,R267,R268,R269,R270,
			R271,R272,R300,R301,R302,
			R303,R304,R305,R306,R307,
			R308,R309,R310,R311,R312,
			R400,R401,R402,R403,R404,
			R405,R406,R407,R408,R409,
			R410,R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 3OZ SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127442-1	PREP, CE HI-V WIRE	1	WP6

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 5 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	A11427-104K2	0.1 MF 50V 10% 0805	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	O 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	M 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	O 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115	A11427-104K2	0.1 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	M 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 6 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 3*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427-104K2	0.1 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 7 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C607	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C608	A11371-1501	15 OHM .1W 5% 0805 T/R	B 1
C609		OPEN	B 2
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 8 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 9 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1,	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
HS3	102573-3	HS ASM, T2 ISOLATED CH1, , ,	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2, , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW11	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW14	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	M 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 10 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 2SC5242	I 7
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 11 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 12 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A10265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	M 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	O 8*
R131		OPEN	O 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 13 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-15002	150 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 14 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 15 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-15002	150 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 16 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61911	6.19K 0.10W 1% CHIP 0805	K 10
R298		OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 17 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	H42902-9	ASM, THERMAL SENSE	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-29-99	DWG. NO.	SHEET 18 OF 21	REV
PROJ.	MD390D0		127354-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	H42902-9	ASM, THERMAL SENSE	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	127442-1	PREP, CE HI-V WIRE	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP

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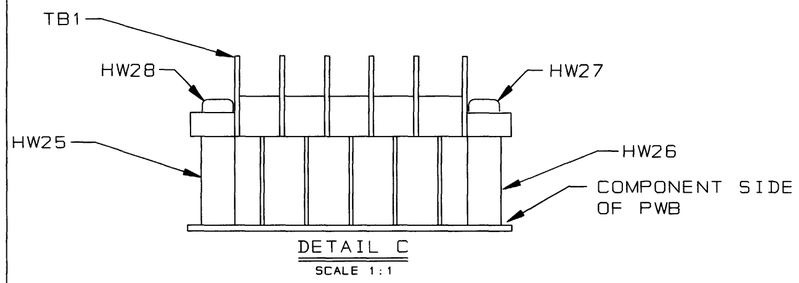
DRAWN	KLW	03-29-99	DWG. NO.	SHEET 19 OF 21	REV
PROJ.	MD390D0		127354-2		A

Component Map

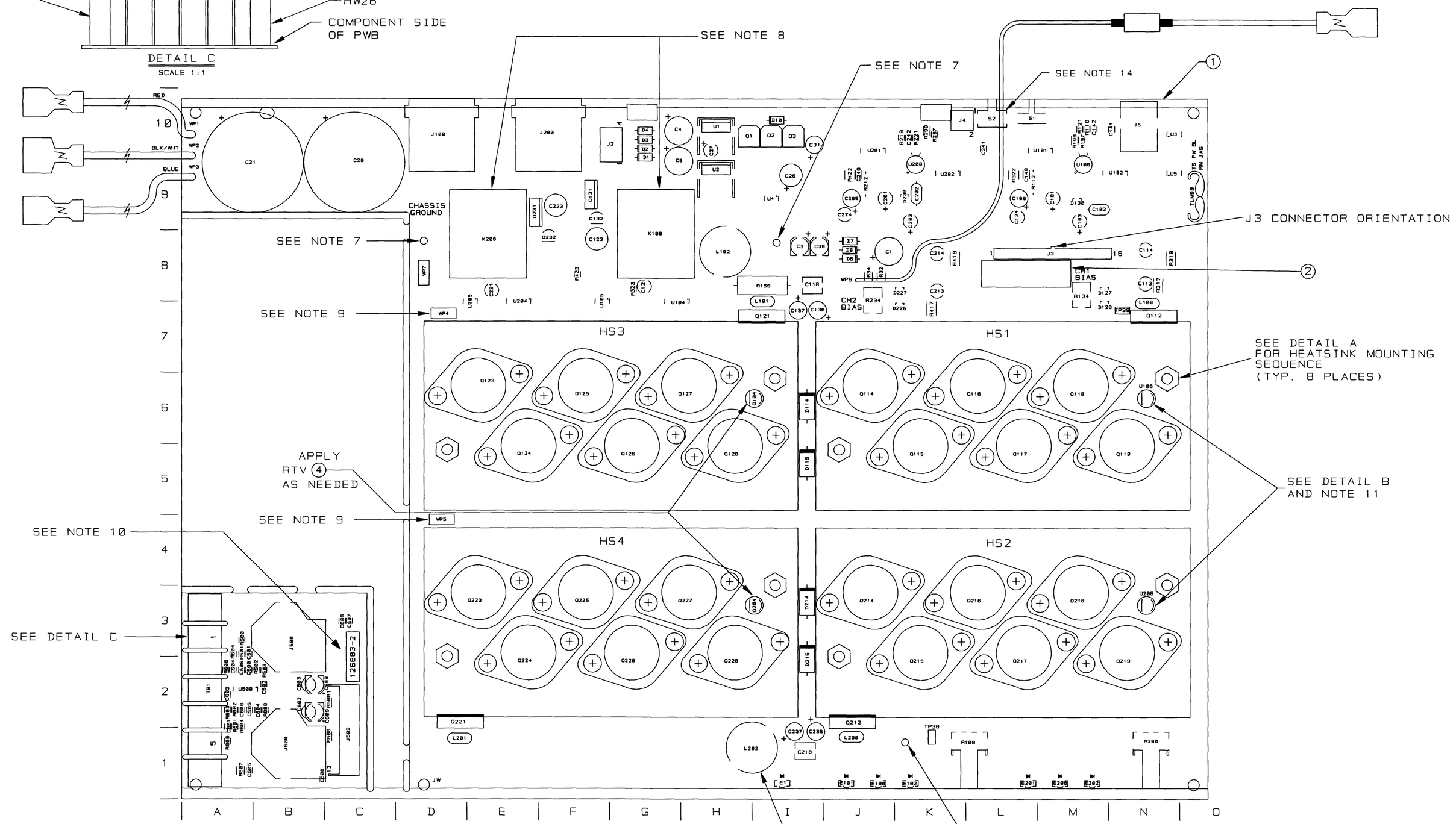
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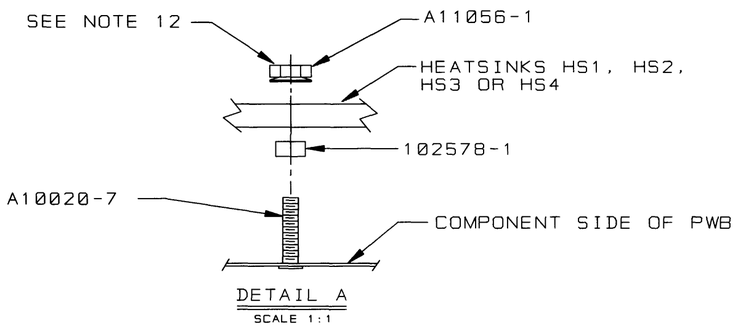
Main PWA 127354-2

COMPONENT MAP
(COMPONENT SIDE VIEW)

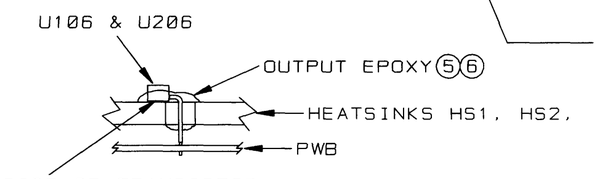


DETAIL C
SCALE 1:1





DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

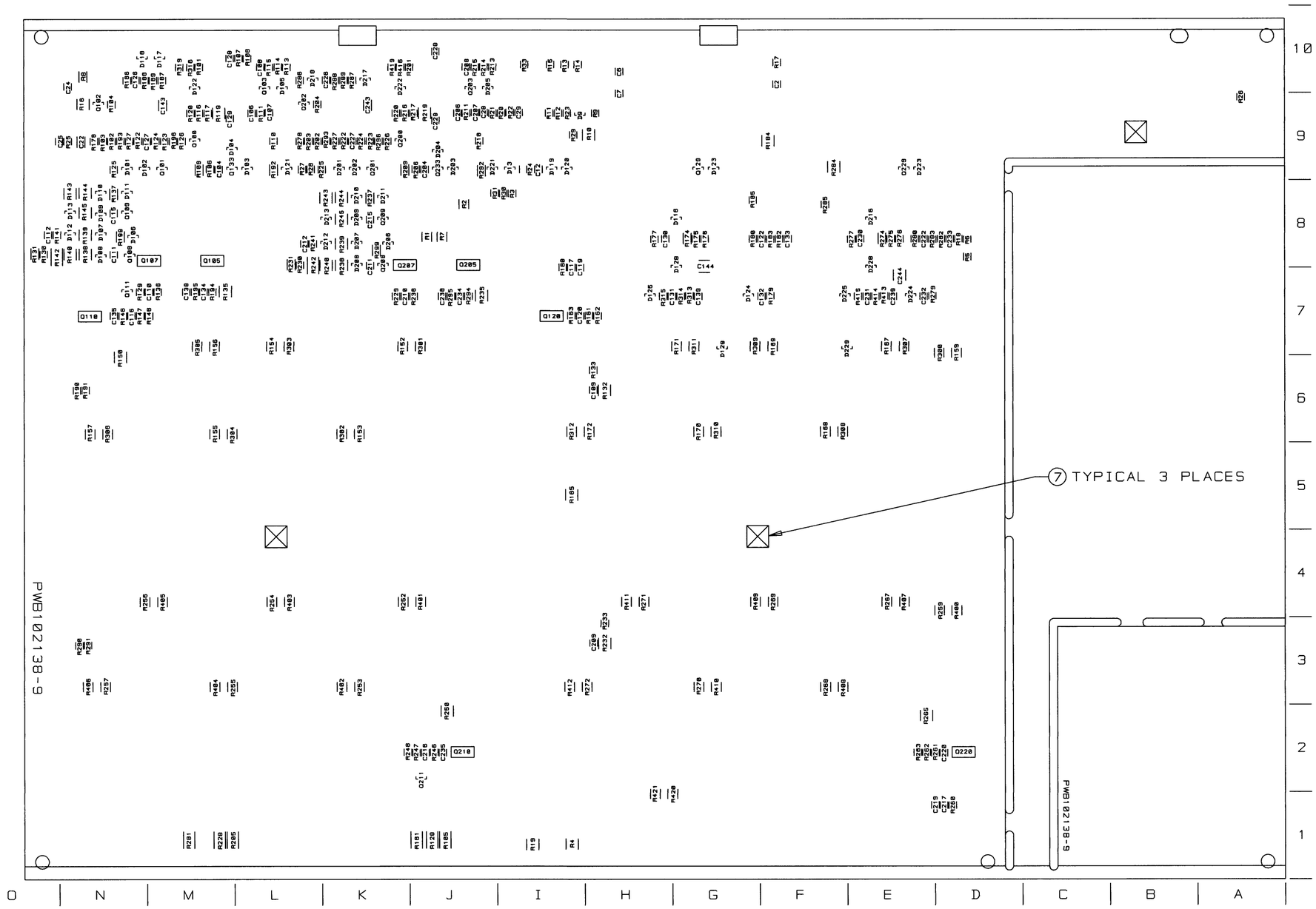
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 21	REV
PROJ. #	MD390D0	127354-2		(A)

COMPONENT MAP
(SOLDER SIDE VIEW)



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 21 OF 21	REV
PROJ. #	MD390D0	127354-2		A

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
T991752		A	INITIAL RELEASE FOR PRODUCTION.	09/10/99	DK	JLM	KL	N/A	[illegible]

NOTES:

1. SCHEMATIC DRAWING NUMBER 102142.
2. PWB PART NUMBER 102138-9.
3. THE PWA SHALL MEET THE IPC-A-610_ CLASS 2 STANDARDS.
4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
6. COMPONENTS THAT HAVE (*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
7. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
8. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
9. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
10. THE PWA PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE TOP SIDE OF THE P.C. BOARD AND SHALL BE PERMANENT. USE A MARKER AND MARK OUT THE OLD PWA NUMBERS ON THE BOTTOM. THE PWA NUMBER, 126883-4, SHALL BE PRINTED ON A LABEL AND THIS LABEL SHALL BE PLACED ON THE COMPONENT SIDE OF THE FINISHED INPUT MODULE.
11. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
    - 11A. REMOVE MIDDLE SLEEVE FROM TRANSISTOR 127683-1
    - 11B. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
    - 11C. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
    - 11D. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
    - 11E. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
12. TORQUE 6-32 HEX NUTS (CPN A11056-1) AS FOLLOWS:
    - 12A. PRE-WAVE TORQUE OF 4-6 INCH LBS.
    - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 13-15 INCH LBS.
13. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
14. INSTALL S2 REVERSED FROM SILK SCREENING.
15. HAND SOLDER C610 (C 6806-1), AND C611 (C 6806-1) ACROSS BACK OF INPUT MODULE AS SHOWN, USE 1/2" KAPTON TAPE (S 6285-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PRINTS TO: K

PWA, MAIN/INPUT CE2000

TOL. UNLESS SPECIFIED
X.XX = ± 0.020
X.XXX = ± 0.010
DRILLS = ± 0.003

DRAWN	DK	09/10/99	APPROVED BY:	DO NOT SCALE PRINT
CHECKED	JLM	9-10-99	ME N/A	SUPERSEDES
SCALE	NONE		EE N/A	E.C.
PROJ #	MD390D0		PE [illegible] 9/13/99	DWG. NO. 127354-3 SHEET 1 OF 21 REV A
FILENAME: 127354-3_A_01.PCB			NEXT ASM:	

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9, HW10, HW11, HW12, HW13, HW14,
			HW15, HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112, R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118, C218
A11056-1	6-32 HEX NUT W/BELLEVILLE	8	HW17, HW18, HW19, HW20, HW21,
			HW22, HW23, HW24
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101, R106, R110, R201, R206,
			R210, R316, R416
A11368-10021	10K 1/10W 1% CHIP 0805	35	R9, R104, R107, R108, R111,
			R121, R176, R177, R182, R185,
			R193, R196, R204, R211, R221,
			R276, R277, R282, R285, R293,
			R296, R313, R413, R500, R501,
			R502, R503, R504, R506, R600,
			R601, R602, R603, R604, R606
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25, R30, R31, R123, R125, R179,
			R183, R186, R189, R223, R225,
			R279, R283, R286, R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118, R218
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139, R239
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122, R124, R187, R188, R222,
			R224, R287, R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109, R209
A11368-20021	20K 0.1W 1% 0805 T/R	1	R27
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10, R184, R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116, R191, R216, R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22, R23, R102, R180, R202, R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103, R203
A11368-49902	499 OHM 0.125W 1% CHIP	2	R137, R237
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126, R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113, R175, R213, R275, R315, R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20, R24, R190, R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	4	R174, R192, R274, R292
A11368-61911	6.19K 0.10W 1% CHIP 0805	2	R197, R297
A11368-68121	68.1K 0.10W 1% CHIP	3	R12, R115, R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145, R245
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17, R114, R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120, R178, R220, R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134, C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107, C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142, C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110, C141, C210, C241

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 2 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	3	R14, R15, R33
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322, R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138, R144, R238, R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146, R161, R246, R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	C606, C607, C608, R160, R260
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148, R163, R248, R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132, R232
A11371-2225	2.2K 1W 5% CHIP 2512	1	R2
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4, R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119, R140, R143, R219, R240, R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3, R11, R26, R117, R217, R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16, R135, R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317, R318, R417, R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162, R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142, R242
A11371-5615	560 OHM 1W 5% 2512 T/R	2	R32, R34
A11371-5R63	5.6 0.25W 5% CHIP	4	R150, R165, R250, R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420, R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105, R128, R181, R205, R228, R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127, R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28, R133, R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136, R194, R236, R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129, R141, R195, R229, R241, R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109, C111, C215, C209, C211, C215
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143, C243
A11427-104K2	0.1 MF 50V 10% 0805	30	C6, C7, C12, C24, C25, C28, C29,
			C122, C126, C127, C128, C129,
			C130, C131, C132, C133, C139,
			C222, C226, C227, C228, C229,
			C230, C231, C232, C233, C239,
			C505, C506, C605,
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112, C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117, C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116, C119, C216, C219
C 2851-1	1N4004 SILICON RECT.	7	D1, D2, D3, D4, D6, D7, D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100, L101, L200, L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4, C5

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 3 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 6806-1	.01 UF 100V AXIAL CER T/R	2	C610,C611
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	1	S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123,C223
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9,D13,D101,D102,D103,D104,
			D105,D106,D107,D108,D109,
			D110,D111,D112,D113,D116,
			D117,D118,D119,D120,D121,
			D122,D123,D124,D125,D126,
			D127,D128,D129,D130,D201,
			D202,D203,D204,D205,D206,
			D207,D208,D209,D210,D211,
			D212,D213,D216,D217,D218,
			D221,D222,D223,D224,D225,
			D226,D227,D228,D229,D230
C 9896-9	TEST POINT LOOP	2	TP38,TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114,D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
S 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102138-9	PWB, CE1000/CE2000 MAIN/INPU	1	1
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438-560K2	56PF 200V 10% NPO 0805	4	C106,C206,C504,C604
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS 2.5MM RT ANG KEYE	1	J502
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 4 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102488-1	SPDT HORIZ SLIDE	1	S1
102573-3	HS ASM, T2 ISOLATED CH1, , ,	1	HS3
102574-3	HS ASM, T2 ISOLATED CH2, , ,	1	HS4
102575-3	HS ASM, T2 NON-ISOLATED CH1,	1	HS1
102576-3	HS ASM, T2 NON-ISOLATED CH2,	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1,HW2,HW3,HW4,HW5,HW6,HW7,
			HW8
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25,HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200
102723-2	OPTO CELL ON=500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	2	C144,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	0.4 OHM 1W 5% 2512 T/R	54	R1,R7,R152,R153,R154,R155,
			R156,R157,R159,R167,R168,
			R169,R170,R171,R172,R252,
			R253,R254,R255,R256,R257,
			R259,R267,R268,R269,R270,
			R271,R272,R300,R301,R302,
			R303,R304,R305,R306,R307,
			R308,R309,R310,R311,R312,
			R400,R401,R402,R403,R404,
			R405,R406,R407,R408,R409,
			R410,R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	.01 MF 100V 10% X7R 0805 SMD	1	C2
103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 3OZ SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127442-1	PREP, CE HI-V WIRE	1	WP6
127683-1	SENSOR, CE THERMAL	2	U106,U206

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 5 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	103418-103K2	0.01 MF 100V 10% X7R 0805 SMD	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	O 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	M 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	O 8*
C113	102468-1	47UF 10V 20% NP RAD T/R	N 8
C114	102468-1	47UF 10V 20% NP RAD T/R	N 8
C115	A11427-103K2	0.01 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	M 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 6 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 3*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427-103K2	0.01 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 7 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-560K2	56PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-560K2	56PF 200V 10% NPO 0805	B 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C606	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C607	A11371-1501	15 OHM .1W 5% 0805 T/R	C 3
C608	A11371-1501	15 OHM .1W 5% 0805 T/R	B 1
C609		OPEN	B 2
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 3
C611	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 1
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 8 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 9 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	102575-3	HS ASM, T2 NON-ISOLATED CH1,	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
HS3	102573-3	HS ASM, T2 ISOLATED CH1, , ,	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2, , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW11	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW14	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW18	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW19	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW20	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW21	A11056-1	6-32 HEX NUT W/BELLEVILLE	A 4
HW22	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW23	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW24	A11056-1	6-32 HEX NUT W/BELLEVILLE	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	HDR, 16POS .100 CTR SGL ROW	M 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 10 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS 2.5MM RT ANG KEYED	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 2SC5242	I 7
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 11 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R2	A11371-2225	2.2K 1W 5% CHIP 2512	J 8*
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	103199-1	0.4 OHM 1W 5% 2512 T/R	J 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 12 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R32	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R33	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R34	A11371-5615	560 OHM 1W 5% 2512 T/R	J 8
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A10265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	M 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	O 8*
R131		OPEN	O 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*

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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 13 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49902	499 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 14 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R198		OPEN	M 10
R199	A11371-0R02	0.0 OHM JUMPER CHIP 1206	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 15 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-49902	499 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 16 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61911	6.19K 0.10W 1% CHIP 0805	K 10
R298		OPEN	K 10
R299	A11371-0R02	0.0 OHM JUMPER CHIP 1206	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R02	0.0 OHM JUMPER CHIP 1206	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*

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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/10/99	DWG. NO.	SHEET 17 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R02	0.0 OHM JUMPER CHIP 1206	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R506	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R606	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	127683-1	SENSOR, CE THERMAL	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7

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DRAWN	DK	09/10/99	DWG. NO.	SHEET 18 OF 21	REV
PROJ.	MD390D0		127354-3		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	127683-1	SENSOR, CE THERMAL	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	127442-1	PREP, CE HI-V WIRE	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
1	102138-9	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
TAPE	S 6285-1	TAPE, KAPTON (POLYIMIDE) 1/2"	SEE COMP MAP

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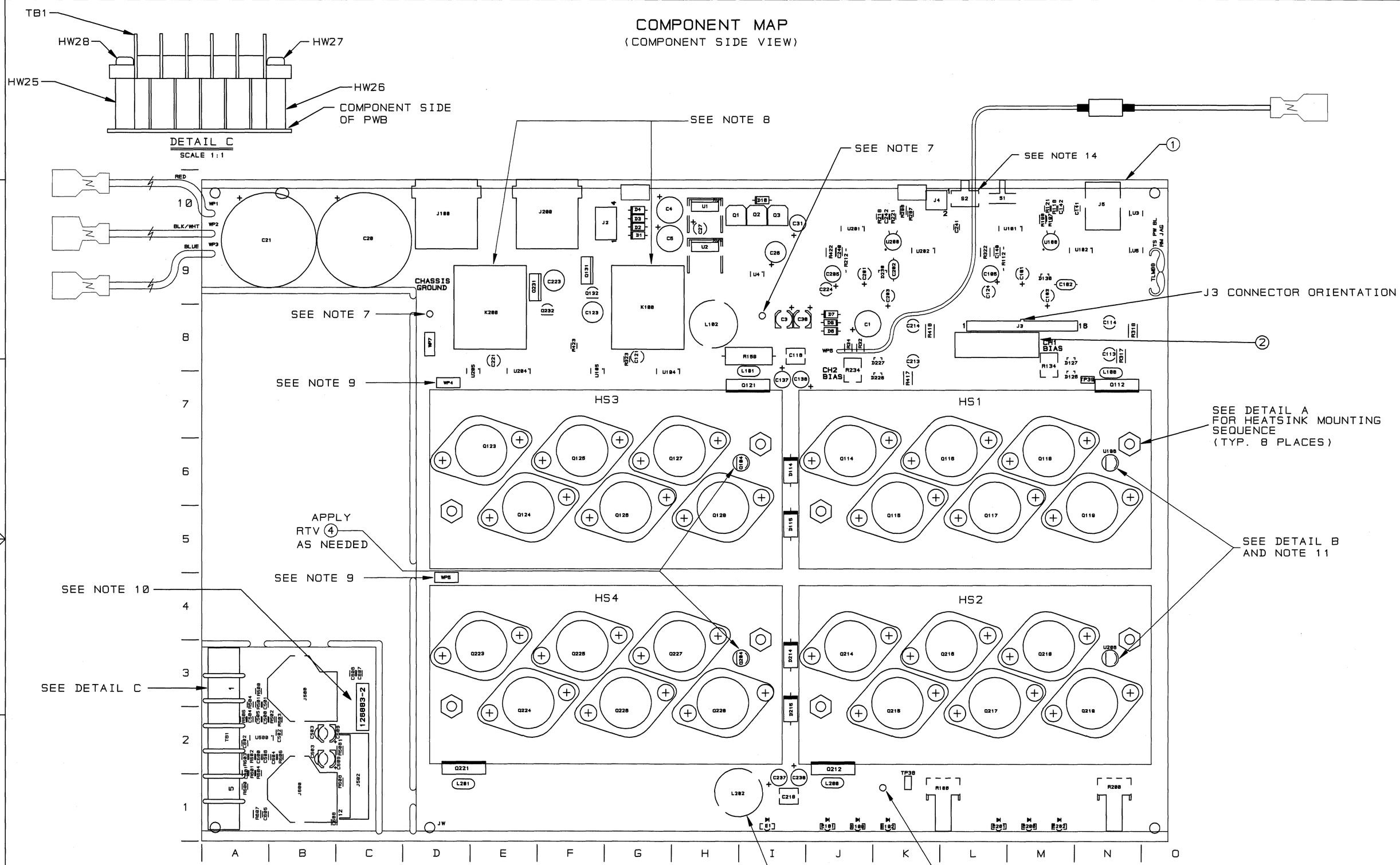
DRAWN	DK	09/10/99	DWG. NO.	SHEET 19 OF 21	REV
PROJ.	MD390D0		127354-3		A

Component Map

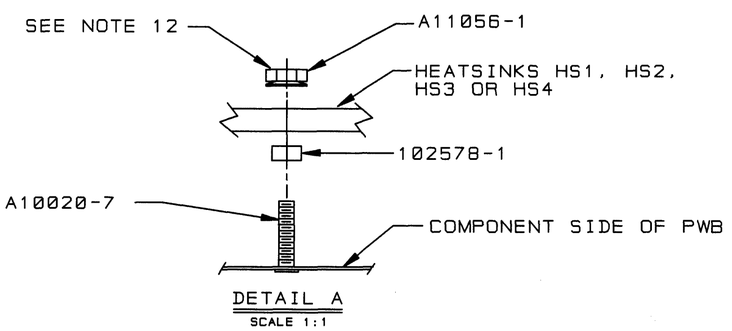
for use with

Main PWA 127354-3

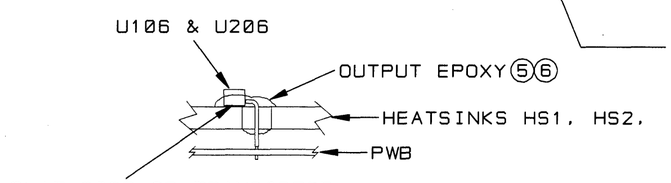
COMPONENT MAP
(COMPONENT SIDE VIEW)



DETAIL C
SCALE 1:1



DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

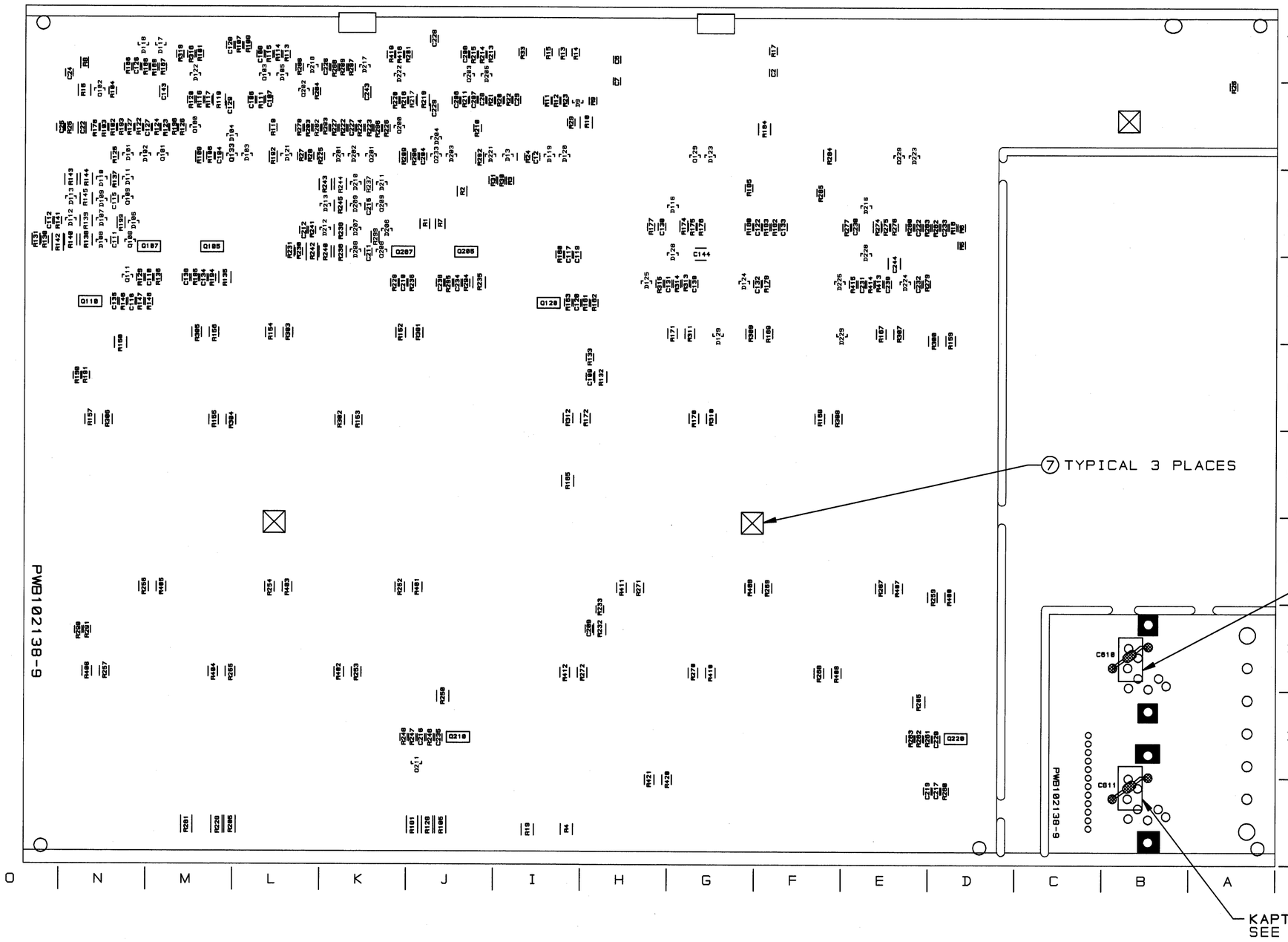
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SCALE	NONE	DWG. NO.	SHEET 20 OF 21	REV
PROJ. #	MD390D0	127354-3		(A)

COMPONENT MAP
(SOLDER SIDE VIEW)



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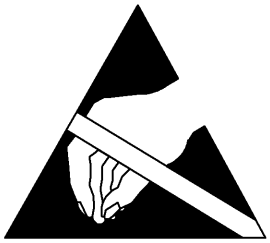
SCALE	NONE	DWG. NO.	SHEET 21 OF 21	REV
PROJ. #	MD390D0	127354-2		A

REVISION HISTORY

E.C.N.	REV	DESCRIPTION	DATE	APPROVED		
				DWN	CM	PE
	A	INITIAL RELEASE DERIVED FROM 127451-2 REV C NUMEROUS CHANGES	01-03-02	PJ	MG	PJ

NOTES:

1. PRINTED WIRING BOARD PART NUMBER 127450-1.
2. THE PWA SHALL MEET THE IPC-A-610_ CLASS 2 STANDARDS.
3. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
4. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
5. COMPONENTS THAT HAVE (*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
6. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
7. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
8. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
9. THE PWA PART NUMBER FOR THE MAIN MODULE SHALL BE MARKED ON THE TOP SIDE OF THE PRINTED WIRING BOARD AND SHALL BE PERMANENT. THE PWA NUMBER, 126883-4, SHALL BE MARKED ON THE BOTTOM SIDE OF THE PRINTED WIRING BOARD FOR THE INPUT MODULE. SEE COMPONENT MAP FOR LOCATIONS.
10. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
    - 11A. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
    - 11B. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
    - 11C. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
    - 11D. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
11. TORQUE 6-32 HEX NUTS (CPN 132491-1) AS FOLLOWS:
    - 12A. PRE-WAVE TORQUE OF 11-13 INCH LBS.
    - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 11-13 INCH LBS.
12. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
13. NO LABELS OR MARKINGS ALLOWED IN AREA INDICATED.
14. INSTALL SHUNT OVER ONE PIN ONLY OF Z100 AND Z200.
15. HAND SOLDER C610 (C 6806-1), AND C611 (C 6806-1) ACROSS BACK OF INPUT MODULE AS SHOWN, USE 1/2" KAPTON TAPE (S 6285-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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DISTRIBUTION			DWN	PJ	01/03/02
K			CM	MMG	1/23/02
FILENAME			PE	PJ	01/03/02
127451-4_A_01.PCB					
TOLERANCE UNLESS OTHERWISE SPECIFIED					
.00 = ±.02"					
.000 = ±.010"					
DRILLS = ±.003"					
DO NOT SCALE DRAWING					

crown INTERNATIONAL, INC.
1718 W. MISHAWAKA RD.
ELKHART IN, 46517
PHONE(219)294-8000
WWW.CROWNINTL.COM

TITLE

PWA, MAIN/INPUT CE1000

SIZE	DWG NO.	REV
A	127451-4	A

SCALE NONE	PROJ NO. MD390D0	SHEET 1 OF 23

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9,HW10,HW11,HW12,HW13,HW14,
			HW15,HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
			R210,R316,R416
A11368-10021	10K 1/10W 1% CHIP 0805	31	R9,R104,R107,R108,R111,R121,
			R176,R177,R182,R185,R193,
			R196,R204,R211,R221,R276,
			R277,R282,R285,R293,R296,
			R313,R413,R500,R501,R502,
			R503,R600,R601,R602,R603,
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25,R30,R31,R123,R125,R179,
			R183,R186,R189,R223,R225,
			R279,R283,R286,R289
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-13703	137 OHM 0.25W 1% CHIP	2	R139,R239
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,
			R224,R287,R288
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209
A11368-20011	2K 0.10W 1% CHIP 0805	4	R504,R506,R604,R606
A11368-20021	20K 0.10W 1% CHIP 0805	3	R27,R151,R251
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10,R184,R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22,R23,R102,R180,R202,R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49902	499 OHM 0.125W 1% 1206 T/R	2	R137,R237
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126,R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	8	R113,R175,R197,R213,R275,
			R297,R315,R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20,R24,R190,R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	6	R149,R174,R192,R249,R274,
			R292
A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	2	R118,R218
A11368-68121	68.1K 0.10W 1% CHIP	3	R12,R115,R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-71511	7.15K 1/10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134,C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142,C242
A11369-471K2	470PF 50V 10% NPO 0805 T/R	4	C110,C141,C210,C241
A11371-0R01	0 OHM 0.1W CHIP 0805	4	R199,R299,R323,R423

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322,R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	6	R138,R144,R145,R238,R244,R245
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R246,R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	R160,R260,R605,R609,R610
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262
A11371-5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28,R133,R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109,C111,C115,C209,C211,C215
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	30	C6,C7,C12,C24,C25,C28,C29,
			C122,C126,C127,C128,C129,
			C130,C131,C132,C133,C139,
			C222,C226,C227,C228,C229,
			C230,C231,C232,C233,C239,
			C505,C506,C605
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1,D2,D3,D4,D6,D7,D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4,C5
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6419-3	SHUNT, .025" SQ POST 2 POS	2	Z100X,Z200X SEE NOTE 15
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 6806-1	0.01 MF 100V AXIAL CER T/R	2	C610,C611

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	2	S1,S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123,C223
C 9202-0	2 PIN SGL ROW VERT GOLD HDR	2	Z100,Z200
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9,D13,D101,D102,D103,D104,
			D105,D106,D107,D108,D109,
			D110,D111,D112,D113,D116,
			D117,D118,D119,D120,D121,
			D122,D123,D124,D125,D126,
			D127,D128,D129,D130,D201,
			D202,D203,D204,D205,D206,
			D207,D208,D209,D210,D211,
			D212,D213,D216,D217,D218,
			D221,D222,D223,D224,D225,
			D226,D227,D228,D229,D230
C 9896-9	TEST POINT LOOP	2	TP38,TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114,D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
S 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438-221K2	220PF 200V 10% NPO 0805	2	C504,C604
102438-560K2	56PF 200V 10% NPO 0805	2	C106,C206
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS .1 CTR SGL ROW	1	J502
102472-3	CONN, 12POS .1 CTR SGL ROW	1	J3
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102570-3	HS ASM, T1 ISOLATED CH2, , ,	1	HS4
102572-3	HS ASM, T1 NON-ISOLATED CH2,	1	HS2
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25,HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200
102608-1	SPACER, 6X.187 LONG ALUMINUM	8	HW1,HW2,HW3,HW4,HW5,HW6,HW7,
			HW8
102723-2	OPTO CELL ON=500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	4	C100,C144,C200,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	0.4 OHM 1W 5% 2512 T/R	36	R152,R153,R156,R157,
			R159,R167,R168,R171,R172,
			R252,R253,R256,R257,R259,
			R267,R268,R271,R272,R300,
			R301,R302,R305,R306,R307,
			R308,R311,R312,R400,R401,
			R402,R405,R406,R407,R408,
			R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	.01 MF 100V 10% X7R 0805 SMD	1	C2
103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125478-1	3.83KOHM 0.50W 1% 2010 T/R	2	R142,R242
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 3OZ SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127229-1	RES, 1100 OHM 5W 5% THICK FI	1	R1
127230-1	RES, 2200 OHM 3W 5% THICK FI	1	R2
127299-1	47UF 6.3V 20% NP ALUM ELECT	4	C113,C114,C213,C214
127450-1	PWB, CE1000/CE2000 MAIN/INPU	1	1
127683-1	SENSER, CE THERMAL	2	U106,U206
132491-1	NUT, 6-32 HEX NYLON LOCK	8	HW17,HW18,HW19,HW20,HW21,
			HW22,HW23,HW24
133695-1	HS ASM, CE1000 ISOLATED CH1	1	HS3
133696-1	HS ASM, CE1000 NON-ISOLATED	1	HS1

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	103418-103K2	0.01 MF 100V 10% X7R 0805 SMD	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	O 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C100	103191-1	0.47UF Z5U 1210 20% 50V	N 9*
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	M 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	O 8*
C113	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N 8
C114	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N 8
C115	A11427-103K2	0.01 MF 50V 10% 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	M 9*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C200	103191-1	0.47UF Z5U 1210 20% 50V	K 9*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 3*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	K 8
C214	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	K 8
C215	A11427-103K2	0.01 MF 50V 10% 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-221K2	220PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-221K2	220PF 200V 10% NPO 0805	B 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C609		OPEN	B 2
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 3
C611	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 1
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
H11		OPEN	K 1
H14		OPEN	I 8
H18		OPEN	D 8
HS1	133696-1	HS ASM, CE1000 NON-ISOLATED CH1	
HS2	102572-3	HS ASM, T1 NON-ISOLATED CH2,	
HS3	133695-1	HS ASM,CE1000 ISOLATED CH1	
HS4	102570-3	HS ASM, T1 ISOLATED CH2, , ,	
HW1	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW2	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW3	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW4	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW5	102608-1	SPACER, 6X.187 LONG ALUMINUM	A 4
HW6	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW7	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW8	102608-1	SPACER, 6X.187 LONG ALUMINUM	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW11	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW14	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW18	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW19	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW20	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW21	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW22	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW23	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW24	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	CONN, 12POS .1 CTR SGL ROW	M 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS .1 CTR SGL ROW	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*
Q203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	127229-1	RES, 1100 OHM 5W 5% THICK FILM	J 8
R2	127230-1	RES, 2200 OHM 3W 5% THICK FILM	J 8
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K 1/10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 0.10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R33	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A10265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	M 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	O 8*
R131		OPEN	O 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49902	499 OHM 0.125W 1% CHIP	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-13703	137 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R142	125478-1	3.83KOHM 0.50W 1% 2010 T/R	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R149	A11368-60432	604K OHM 0.125W 1% CHIP 1206	N 9*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R151	A11368-20021	20K OHM 0.10W 1% CHIP 0805	N 9*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	M 10

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R199	A11371-0R01	0 OHM 0.1W CHIP 0805	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-68111	6.81K OHM 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-49902	499 OHM 0.125W 1% CHIP	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-13703	137 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	125478-1	3.83KOHM 0.50W 1% 2010 T/R	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R249	A11368-60432	604K OHM 0.125W 1% CHIP 1206	K 9*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R251	A11368-20021	20K OHM 0.10W 1% CHIP 0805	K 9*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	K 10
R299	A11371-0R01	0 OHM 0.1W CHIP 0805	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R01	0 OHM 0.1W CHIP 0805	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R01	0 OHM 0.1W CHIP 0805	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-20011	2K 1/10W 1% CHIP 0805	A 2
R506	A11368-20011	2K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-20011	2K 1/10W 1% CHIP 0805	A 1
R605	A11371-1501	15 OHM 0.10W 5% CHIP	C 3
R606	A11368-20011	2K 1/10W 1% CHIP 0805	B 2

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
R609	A11371-1501	15 OHM 0.10W 5% CHIP	C 3
R610	A11371-1501	15 OHM 0.10W 5% CHIP	B 1
S1	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	127683-1	ASM, CE THERMAL SENSOR	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	127683-1	ASM, CE THERMAL SENSOR	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
Z100	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	M 10
Z100X	C 6419-3	SHUNT, .025" SQ POST 2 POS	M 10
Z200	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	K 10
Z200X	C 6419-3	SHUNT, .025" SQ POST 2 POS	K 10
1	127450-1	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
TAPE	S 6285-1	TAPE, KAPTON (POLYIMIDE) 1/2"	SEE COMP MAP

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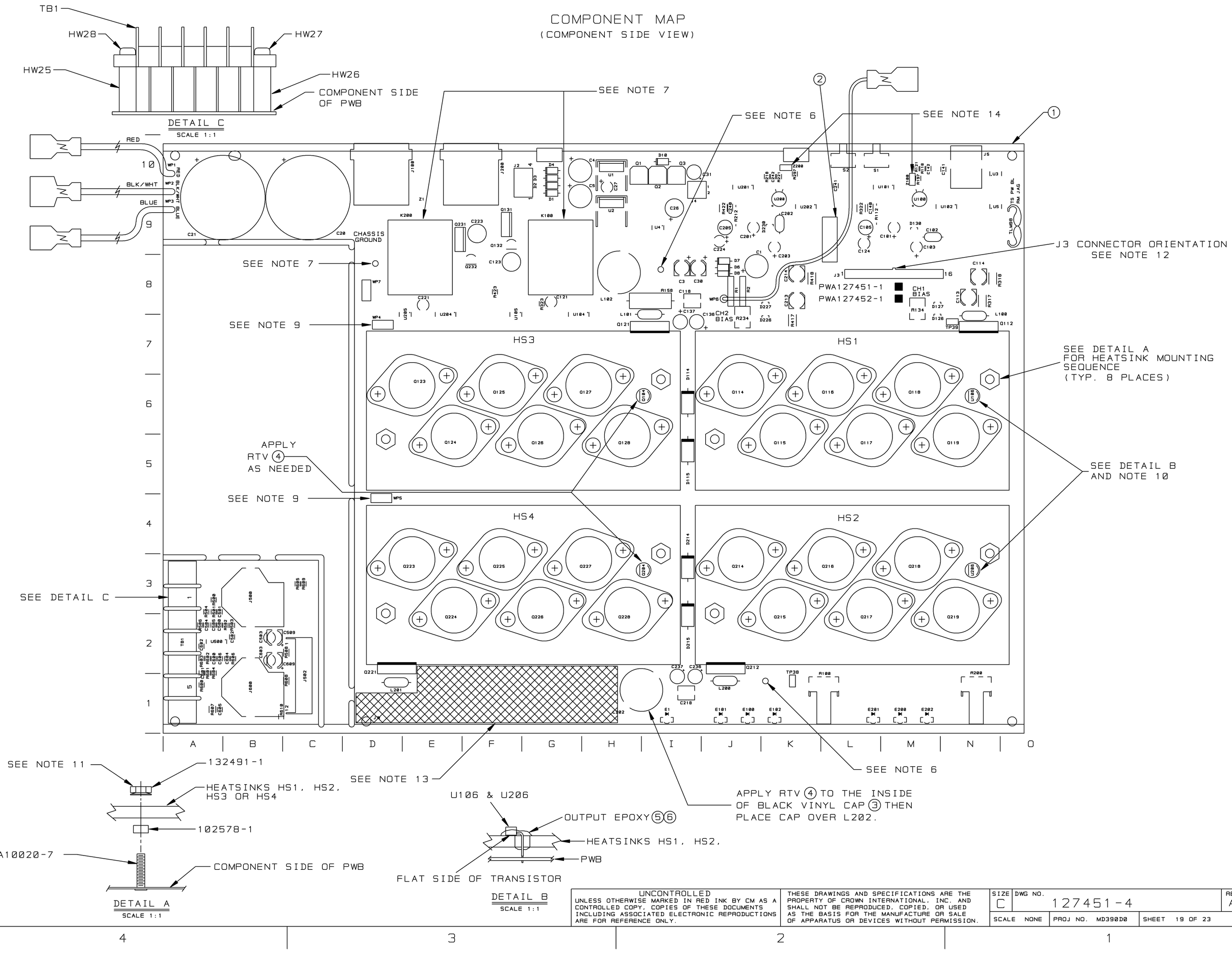
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Component Map

for use with

Main/Input PWA 127451-4

COMPONENT MAP
(COMPONENT SIDE VIEW)

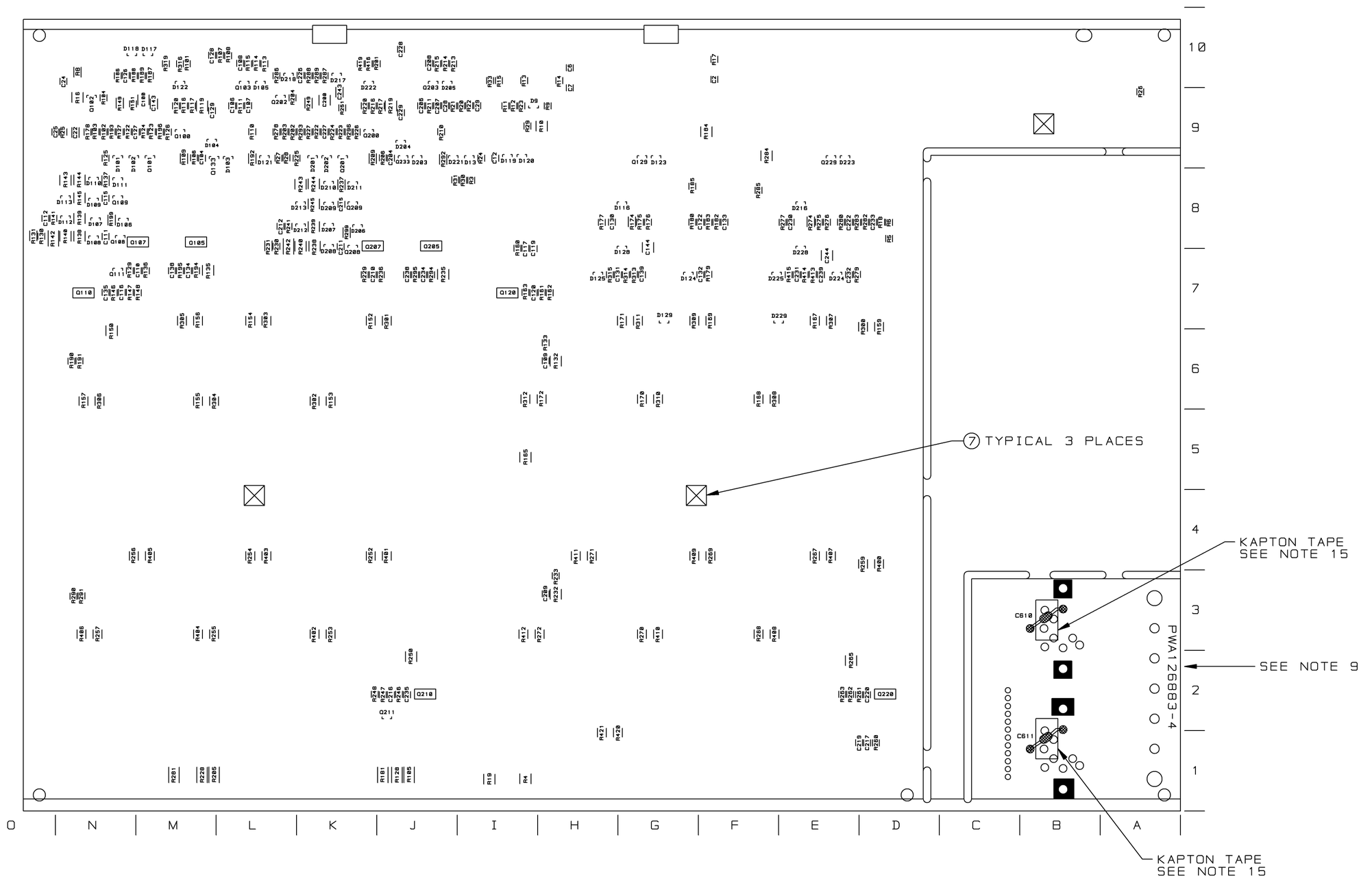


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SIZE	DWG NO.	REV
C	127451-4	A
SCALE NONE	PROJ NO. MD390D0	SHEET 19 OF 23

COMPONENT MAP
(SOLDER SIDE VIEW)



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SIZE	DWG NO.	REV
C	127451-4	A
SCALE NONE	PROJ NO. MD390D0	SHEET 20 OF 23

REVISION HISTORY

E.C.N.	REV	DESCRIPTION	DATE	APPROVED		
				DWN	CM	PE
	A	INITIAL RELEASE DERIVED FROM 127452-2 REV B NUMEROUS CHANGES	12/18/01	PJ	MMG	PJ

NOTES:

1. PRINTED WIRING BOARD PART NUMBER 127450-1.
2. THE PWA SHALL MEET THE IPC-A-610_ CLASS 2 STANDARDS.
3. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
4. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
5. COMPONENTS THAT HAVE (*) AFTER THEIR MAP LOCATION ARE MOUNTED ON THE BOTTOM SIDE OF THE PRINTED CIRCUIT BOARD.
6. REMOVE SOLDER OR PREVENT SOLDER FROM ACCUMULATING IN HOLES.
7. THE VENT HOLE ON TOP OF THE RELAYS K100 AND K200 MUST BE OPENED AFTER THE CLEANING PROCESS, BY EITHER REMOVING THE SEALING TAPE OR CUTTING OFF THE CIRCULAR TAB WITH AN "EXACTO" KNIFE OR SIMULAR CUTTING TOOL. WARNING, THIS STEP MUST BE DONE AFTER THE CLEANING PROCESS NOT BEFORE!!! WATER OR CLEANING SOLVENTS ENTERING THE RELAY VENT HOLE WILL DAMAGE THE RELAY.
8. CONNECT THE WIRES THAT COME FROM Q123 AND Q223 TO WP4 AND WP5 RESPECTIVELY.
9. THE PWA PART NUMBER FOR THE MAIN MODULE SHALL BE MARKED ON THE TOP SIDE OF THE PRINTED WIRING BOARD AND SHALL BE PERMANENT. THE PWA NUMBER, 126883-4, SHALL BE MARKED ON THE BOTTOM SIDE OF THE PRINTED WIRING BOARD FOR THE INPUT MODULE. SEE COMPONENT MAP FOR LOCATIONS.
10. INSTALLATION OF U106 AND U206 IS AS FOLLOWS:
    - 11A. BEND TRANSISTOR AT 90 DEG. FLAT SIDE DOWN
    - 11B. PLACE TRANSISTOR INTO THE PWB AS SHOWN ON THE COMPONENT MAP DETAIL B.
    - 11C. MIX OUTPUT EPOXY AND ACCELERATOR TOGETHER. APPLY THE MIXTURE TO THE TRANSISTOR AND HEATSINK. THE MIXTURE MUST FILL THE HEATSINK HOLE AND THE LEADS OF THE DEVICE, ESPECIALLY THE CENTER LEAD. (NOTE: NO VISIBLE AIR GAPS AROUND THE TRANSISTOR AND THE TRANSISTOR LEADS CANNOT TOUCH THE HEATSINK)
    - 11D. HOLD THE TRANSISTOR AGAINST THE HEATSINK UNTIL EPOXY SETS-UP
11. TORQUE 6-32 HEX NUTS (CPN 132491-1) AS FOLLOWS:
    - 12A. PRE-WAVE TORQUE OF 11-13 INCH LBS.
    - 12B. POST-WAVE AND WHEN ASSEMBLY HAS COOLED DOWN TO HANDLING TEMPERATURE TORQUE OF 11-13 INCH LBS.
12. INSTALL J3 CONNECTOR AS SHOWN ON COMPONENT MAP
13. NO LABELS OR MARKINGS ALLOWED IN AREA INDICATED.
14. INSTALL SHUNT OVER ONE PIN ONLY OF Z100 AND Z200.
15. HAND SOLDER C610 (C 6806-1), AND C611 (C 6806-1) ACROSS BACK OF INPUT MODULE AS SHOWN, USE 1/2" KAPTON TAPE (S 6285-1) AS INSULATION BETWEEN EACH CAPACITOR AND THE BOARD.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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DISTRIBUTION			DWN	PJ	12/18/01
K			CM	MMG	1-23-02
FILENAME			PE	PJ	12/18/01
127452-4_A_01.PCB					
TOLERANCE UNLESS OTHERWISE SPECIFIED					
.00 = ±.02"					
.000 = ±.010"					
DRILLS = ±.003"					
DO NOT SCALE DRAWING					

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ELKHART IN, 46517
PHONE(219)294-8000
WWW.CROWNINTL.COM

TITLE

PWA, MAIN/INPUT CE2000

SIZE	DWG NO.	REV
A	127452-4	A

SCALE NONE	PROJ NO. MD390D0	SHEET 1 OF 24

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A10020-7	6-32 X .625 PCB CAPTIVE STUD	8	HW9,HW10,HW11,HW12,HW13,HW14,
			HW15,HW16
A10265-19121	19.1K 0.25W 1% MF	2	R112,R212
A10266-2R74	2.7 OHM 2W 5% CF	1	R158
A10434-104JD	0.1 MF 250V 5% MTL POLY	2	C118,C218
A11368-10011	1K 0.10W 1% CHIP 0805	8	R101,R106,R110,R201,R206,
			R210,R316,R416
A11368-10021	10K 1/10W 1% CHIP 0805	31	R9,R104,R107,R108,R111,
			R121,R176,R177,R182,R185,
			R193,R196,R204,R211,R221,
			R276,R277,R282,R285,R293,
			R296,R313,R413,R500,R501,
			R502,R503,R600,R601,R602,
			R603
A11368-10031	100K 0.1W 1% CHIP 0805	15	R25,R30,R31,R123,R125,R179,
			R183,R186,R189,R223,R225,
			R279,R283,R286,R289
A11368-10221	10.2K 0.10W 1% CHIP 0805	2	R118,R218
A11368-10703	107 OHM 0.25W 1% CHIP	2	R139,R239
A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	1	R21
A11368-15831	158K 0.10W 1% CHIP 0805	8	R122,R124,R187,R188,R222,
A11368-19122	19.1K 0.125W 1% CHIP 1206	2	R109,R209
			R224,R287,R288
A11368-20011	2K 0.1W 1% 0805 T/R	4	R504,R506,R604,R606
A11368-20021	20K 0.1W 1% 0805 T/R	3	R27,R151,R251
A11368-20023	20K 0.25W 1% CHIP 1210	3	R10,R184,R284
A11368-22601	226 OHM 0.10W 1% CHIP 0805	4	R116,R191,R216,R291
A11368-39231	392K 0.10W 1% CHIP 0805	6	R22,R23,R102,R180,R202,R280
A11368-49901	499 OHM 0.10W 1% CHIP 0805	2	R103,R203
A11368-49902	499 OHM 0.125W 1% 1206 T/R	2	R137,R237
A11368-49921	49.9K 0.1W 1% CHIP 0805	2	R126,R226
A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	6	R113,R175,R213,R275,R315,R415
A11368-57621	57.6K 0.10W 1% CHIP 0805	4	R20,R24,R190,R290
A11368-60432	604K OHM 0.125W 1% CHIP 1206	6	R149,R174,R192,R249,R274,
			R292
A11368-61911	6.19K 0.10W 1% CHIP 0805	2	R197,R297
A11368-68121	68.1K 0.10W 1% CHIP	3	R12,R115,R215
A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	1	R5
A11368-75R03	75 OHM 0.25W 1% CHIP 1210	2	R145,R245
A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	1	R18
A11368-82511	8.25K 0.1W 1% CHIP 0805	3	R17,R114,R214
A11368-90921	90.9K 0.10W 1% CHIP 0805	4	R120,R178,R220,R278
A11368-93111	9.31K 0.1W 1% CHIP 0805	1	R6
A11369-102J2	0.001UF 50V 5% NPO MLC 0805	2	C134,C234
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11369-270K2	27PF 50V 10% NPO 0805 T/R	2	C107,C207
A11369-330J2	33PF 50V 5% NPO MLC 0805	2	C142,C242
A11369-471K2	470PF 50V 10% 0805 T/R	4	C110,C141,C210,C241
A11371-0R01	0.0 OHM JUMPER CHIP 0805	4	R199,R299,R323,R423
A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	3	R14,R15,R33

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13,R147,R247
A11371-1013	100 OHM .25W 5% 1210 SMT T/R	2	R322,R422
A11371-1022	1K 0.125W 5% CHIP 1206	1	R8
A11371-1213	120 OHM 0.25W 5% CHIP	4	R138,R144,R238,R244
A11371-1331	13K OHM 0.10W 5% CHIP 0805	4	R146,R161,R246,R261
A11371-1501	15 OHM 0.10W 5% CHIP	5	R160,R260,R605,R609,R610
A11371-1811	180 OHM 0.10W 5% CHIP	4	R148,R163,R248,R263
A11371-2223	2.2K 0.25W 5% CHIP 1210	2	R132,R232
A11371-3313	330 OHM 0.25W 5% CHIP	2	R4,R19
A11371-3333	33K 0.25W 5% CHIP 1210	6	R119,R140,R143,R219,R240,R243
A11371-3341	330K 0.10W 5% CHIP 0805	7	R3,R11,R26,R117,R217,R314,
			R414
A11371-3923	3.9K 0.25W 5% CHIP	3	R16,R135,R235
A11371-3934	39K OHM 0.50W 5% CHIP 1210	4	R317,R318,R417,R418
A11371-4701	47 OHM 0.10W 5% CHIP	2	R162,R262
A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	2	R142,R242
A11371-5R63	5.6 0.25W 5% CHIP	4	R150,R165,R250,R265
A11371-5R65	5.6 OHM 1W 5% CHIP 2512	2	R420,R421
A11371-6814	680 OHM 0.50W 5% CHIP	6	R105,R128,R181,R205,R228,R281
A11371-6821	6.8K 0.10W 5% CHIP 0805	2	R127,R227
A11371-7511	750 OHM 0.10W 5% CHIP	3	R28,R133,R233
A11371-8201	82 OHM 0.10W 5% CHIP	4	R136,R194,R236,R294
A11371-8205	82 OHM 1W 5% CHIP 2512	1	R607
A11371-8211	820 OHM 0.10W 5% CHIP	6	R129,R141,R195,R229,R241,R295
A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	1	WP1
A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	1	WP3
A11427-103K2	0.01MF 50V 10% CHIP 0805	6	C109,C111,C115,C209,C211,C215
A11427-103K5	0.01MF 50V 5% X7R 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	30	C6,C7,C12,C24,C25,C28,C29,
			C122,C126,C127,C128,C129,
			C130,C131,C132,C133,C139,
			C222,C226,C227,C228,C229,
			C230,C231,C232,C233,C239,
			C505,C506,C605
A11427-123K2	0.012 MF 50V 10% CHIP	2	C112,C212
A11427-272K2	2700PF 50V 10% CHIP 0805	2	C117,C217
A11427-472K2	4700PF 50V 10% X7R 0805	4	C116,C119,C216,C219
A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	1	WP6
C 2851-1	1N4004 SILICON RECT.	7	D1,D2,D3,D4,D6,D7,D10
C 3510-2	CHOKE, 470UH 10% AXIAL	4	L100,L101,L200,L201
C 3549-0	DIODE ZENER, 10V, 1N5240B	1	D8
C 3679-5	33UF 50V 20% VERT ELECT	1	C31
C 4477-3	470 MF 35V VERT	2	C4,C5
C 5095-2	POS. 15 VOLT REG.	1	U1
C 5096-0	NEG. 15 VOLT REG.	1	U2
C 5362-6	2.2 MF 50V VERT	1	C27
C 6419-3	SHUNT, .025" SQ POST 2 POS	2	Z100X,Z200X SEE NOTE 15
C 6802-0	.47 MF 50V AX CERM	2	C102,C202
C 6806-1	0.01 UF 50V AXIAL CER T/R	2	C610,C611

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
C 7091-9	0.33 MF 50V CHIP 1206	3	C22,C140,C240
C 7325-1	2P 2 POS. PC SLIDE SW.	2	S1,S2
C 7448-1	MMBT3904 CHIP NPN	6	Q100,Q101,Q129,Q200,Q201,Q229
C 8262-5	MC33078D DUAL LO NOISE OP AM	4	U4,U5,U105,U205
C 8576-8	100 MF 35V 10% ELEC	1	C26
C 9012-3	MC33079D QUAD LO NOISE OP AM	3	U101,U201,U500
C 9038-8	COMPARATOR, QUAD LM339D SO-1	4	U102,U104,U202,U204
C 9157-6	100UF 16V 20% NP ELEC RAD T/	2	C123,C223
C 9202-0	2 PIN SGL ROW VERT GOLD HDR	2	Z100,Z200
C 9252-5	2N3904 40V NPN TRANSISTOR	2	Q104,Q204
C 9283-0	DIODE, 1N914/1N4148 SOT-23 S	56	D9,D13,D101,D102,D103,D104,
			D105,D106,D107,D108,D109,
			D110,D111,D112,D113,D116,
			D117,D118,D119,D120,D121,
			D122,D123,D124,D125,D126,
			D127,D128,D129,D130,D201,
			D202,D203,D204,D205,D206,
			D207,D208,D209,D210,D211,
			D212,D213,D216,D217,D218,
			D221,D222,D223,D224,D225,
			D226,D227,D228,D229,D230
C 9896-9	TEST POINT LOOP	2	TP38,TP39
C 9918-1	TO220 VERT CLIP-ON HEATSINK	2	U1X,U2X
C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-	6	Q102,Q109,Q111,Q202,Q209,Q211
C10196-1	2.2MF 50V 20% RAD T/R	4	C121,C124,C221,C224
C10208-4	100 MF 25V 20% VERT ELEC	2	C105,C205
C10422-1	DIODE, 3A 400V 1N5404 AXIAL	4	D114,D115,D214,D215
C10613-5	1K TOP ADJUST TRIMMER T/R	2	R134,R234
D 8917-3	8200UF 110VDC ELECTROLYTIC	2	C20,C21
S 6285-1	TAPE, KAPTON(POLYIMIDE) 1/2"	0	TAPE
101016-1	LBL, BARCODE, , ,	1	2
101031-1	.250 FASTON, AUTO INSERTABLE	3	WP4,WP5,WP7
101571-1	HDR 2 POS .1 CTR MTA SHRD	1	J4
101573-1	HDR 4 POS .1 CTR MTA SHRD	1	J2
101993-1	JACK, 6P4 COND MODULAR R/A	1	J5
102438-101K2	100PF 200V 10% NPO 0805	6	C104,C120,C135,C204,C220,C235
102438-221K2	220PF 200V 10% NPO 0805	2	C504,C604
102438-560K2	56PF 200V 10% NPO 0805	2	C106,C206
102438-820K2	82PF 200V 10% NPO 0805	4	C108,C138,C208,C238
102465-1	.47UF 50V 20% RADIAL T/R	2	C101,C201
102466-1	10UF 250V 20% RADIAL T/R	1	C1
102467-1	22MF 25V 20% RAD T/R	4	C103,C203,C503,C603
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102471-2	HDR, 12POS .1 CTR SGL ROW	1	J502
102472-3	CONN, 12POS .1 CTR SGL ROW	1	J3
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
102475-1	BLOCK, 5 POS TERMINAL	1	TB1
102476-1	LED, SMT R/A GREEN	3	E1,E101,E201
102477-1	LED, SMT R/A RED	4	E100,E102,E200,E202

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102478-1	TRIAC DRIVER SBS 8V THRESH	2	Q132,Q232
102479-1	PWR MJD112 NPN DARLINGTON 10	3	Q1,Q2,Q3
102480-1	FET, N-CH 25V 50MA SOT-23	2	Q133,Q233
102481-1	NPN 25V LOW NOISE SOT-23	2	Q108,Q208
102483-1	PNP 300V 500MA SOT-23	2	Q103,Q203
102486-1	OPTO BJT NPN SOIC-8 CTR =100	1	U3
102574-3	HS ASM, T2 ISOLATED CH2, , ,	1	HS4
102576-3	HS ASM, T2 NON-ISOLATED CH2,	1	HS2
102578-1	SPACER, 6X.125 AL BLK ANODIZ	8	HW1,HW2,HW3,HW4,HW5,HW6,HW7,
102579-1	STAND, 1/4 RD SWAGE AL	2	HW25,HW26
102595-3	POT, 5K LIN 21 DNT 12MM HORI	2	R100,R200
102723-2	OPTO CELL ON=500 OHM	2	U100,U200
103180-1	BUMPER, 0.4" TALL BLK W/ADH	3	7
103191-1	0.47UF Z5U 1210 20% 50V	4	C100,C144,C200,C244
103192-1	NPN 300V 500MA 50MHZ SOT-223	4	Q107,Q110,Q207,Q210
103193-1	PNP 300V 500MA 50MHZ SOT-223	4	Q105,Q120,Q205,Q220
103199-1	0.4 OHM 1W 5% 2512 T/R	52	R152,R153,R154,R155,
			R156,R157,R159,R167,R168,
			R169,R170,R171,R172,R252,
			R253,R254,R255,R256,R257,
			R259,R267,R268,R269,R270,
			R271,R272,R300,R301,R302,
			R303,R304,R305,R306,R307,
			R308,R309,R310,R311,R312,
			R400,R401,R402,R403,R404,
			R405,R406,R407,R408,R409,
			R410,R411,R412
103210-1	2.2UF 160V RADIAL T/R	4	C136,C137,C236,C237
103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	1	WP2
103418-103K2	0.1 MF 100V 10% X7R 0805 SMD	1	C2
103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	2	HW27,HW28
125106-1	MAC9D 8 AMP 400V TRIAC	2	Q131,Q231
125242-1	CAP, .625ID X 1" VINYL	1	3
125482-1	ADHESIVE LOCTITE 384 OUTPUT	0	5
125483-1	ACTIVATOR LOCTITE "OUTPUT"	0	6
125508-1	10UF 50VDC ELECTROLYTIC SMD	2	C3,C30
126317-1	REL, 30A 24V SPST PCB W/FAST	2	K100,K200
126825-1	SILICONE, CLEAR 3OZ SYRINGE	0	4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127229-1	RES, 1100 OHM 5W 5% THICK FI	1	R1
127230-1	RES, 2200 OHM 3W 5% THICK FI	1	R2
127299-1	47UF 6.3V 20% NP ALUM ELECT	4	C113,C114,C213,C214
127450-1	PWB, CE1000/CE2000 MAIN/INPU	1	1
127683-1	SENSOR, CE THERMAL	2	U106,U206
132491-1	NUT, 6-32 HEX NYLON LOCK	8	HW17,HW18,HW19,HW20,HW21
			HW22,HW23,HW24
133697-1	HS ASM, CE2000 ISOLATED CH1	1	HS3
133698-1	HS ASM,CE2000 NON-ISOLATEDCH1	1	HS1

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C1	102466-1	10UF 250V 20% RADIAL T/R	J 8
C2	103418-103K2	0.01 MF 100V 10% X7R 0805 SMD	F 9*
C3	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C4	C 4477-3	470 MF 35V VERT	G 10
C5	C 4477-3	470 MF 35V VERT	G 9
C6	A11427-104K2	0.1 MF 50V 10% 0805	H 10*
C7	A11427-104K2	0.1 MF 50V 10% 0805	H 9*
C12	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C20	D 8917-3	8200UF 110VDC ELECTROLYTIC	C 9
C21	D 8917-3	8200UF 110VDC ELECTROLYTIC	B 9
C22	C 7091-9	0.33 MF 50V CHIP 1206	N 9*
C24	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C25	A11427-104K2	0.1 MF 50V 10% 0805	O 9*
C26	C 8576-8	100 MF 35V 10% ELEC	I 9
C27	C 5362-6	2.2 MF 50V VERT	H 10
C28	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C29	A11427-104K2	0.1 MF 50V 10% 0805	I 9*
C30	125508-1	10UF 50VDC ELECTROLYTIC SMD	I 8
C31	C 3679-5	33UF 50V 20% VERT ELECT	I 10
C100	103191-1	0.47UF Z5U 1210 20% 50V	N 9*
C101	102465-1	.47UF 50V 20% RADIAL T/R	M 9
C102	C 6802-0	.47 MF 50V AX CERM	M 9
C103	102467-1	22MF 25V 20% RAD T/R	M 9
C104	102438-101K2	100PF 200V 10% NPO 0805	M 9*
C105	C10208-4	100 MF 25V 20% VERT ELEC	L 9
C106	102438-560K2	56PF 200V 10% NPO 0805	L 9*
C107	A11369-270K2	27PF 50V 10% NPO 0805 T/R	L 9*
C108	102438-820K2	82PF 200V 10% NPO 0805	L 10*
C109	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 6*
C110	A11369-471K2	470PF 50V 10% NPO 0805 T/R	M 7*
C111	A11427-103K2	0.01MF 50V 10% CHIP 0805	N 8*
C112	A11427-123K2	0.012 MF 50V 10% CHIP	O 8*
C113	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N 8
C114	127299-1	47UF 6.3V 20% NP ALUM ELECT SMT T/R	N 8
C115	A11427-103K2	0.01 MF 50V 10% CHIP 0805	N 8*
C116	A11427-472K2	4700PF 50V 10% X7R 0805	N 7*
C117	A11427-272K2	2700PF 50V 10% CHIP 0805	I 7*
C118	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 8
C119	A11427-472K2	4700PF 50V 10% X7R 0805	I 7*
C120	102438-101K2	100PF 200V 10% NPO 0805	I 7*
C121	C10196-1	2.2MF 50V 20% RAD T/R	G 8
C122	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C123	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 8
C124	C10196-1	2.2MF 50V 20% RAD T/R	L 9
C126	A11427-104K2	0.1 MF 50V 10% 0805	N 10*
C127	A11427-104K2	0.1 MF 50V 10% 0805	N 9*
C128	A11427-104K2	0.1 MF 50V 10% 0805	M 10*
C129	A11427-104K2	0.1 MF 50V 10% 0805	M 9*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*
C131	A11427-104K2	0.1 MF 50V 10% 0805	H 7*
C132	A11427-104K2	0.1 MF 50V 10% 0805	F 7*
C133	A11427-104K2	0.1 MF 50V 10% 0805	F 8*
C134	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	M 7*
C135	102438-101K2	100PF 200V 10% NPO 0805	N 7*
C136	103210-1	2.2UF 160V RADIAL T/R	I 7
C137	103210-1	2.2UF 160V RADIAL T/R	I 7
C138	102438-820K2	82PF 200V 10% NPO 0805	M 7*
C139	A11427-104K2	0.1 MF 50V 10% 0805	G 7*
C140	C 7091-9	0.33 MF 50V CHIP 1206	L 9
C141	A11369-471K2	470PF 50V 10% NPO 0805 T/R	N 10
C142	A11369-330J2	33PF 50V 5% NPO MLC 0805	M 10
C143	A11427-103K5	0.01MF 50V 5% X7R 1206	M 9*
C144	103191-1	0.47UF Z5U 1210 20% 50V	G 7*
C200	103191-1	0.47UF Z5U 1210 20% 50V	K 9*
C201	102465-1	.47UF 50V 20% RADIAL T/R	J 9
C202	C 6802-0	.47 MF 50V AX CERM	K 9
C203	102467-1	22MF 25V 20% RAD T/R	K 9
C204	102438-101K2	100PF 200V 10% NPO 0805	J 9*
C205	C10208-4	100 MF 25V 20% VERT ELEC	J 9
C206	102438-560K2	56PF 200V 10% NPO 0805	J 9*
C207	A11369-270K2	27PF 50V 10% NPO 0805 T/R	J 9*
C208	102438-820K2	82PF 200V 10% NPO 0805	J 10*
C209	A11427-103K2	0.01MF 50V 10% CHIP 0805	H 3*
C210	A11369-471K2	470PF 50V 10% NPO 0805 T/R	K 7*
C211	A11427-103K2	0.01MF 50V 10% CHIP 0805	K 7*
C212	A11427-123K2	0.012 MF 50V 10% CHIP	L 8*
C213	102468-1	47UF 10V 20% NP RAD T/R	K 8
C214	102468-1	47UF 10V 20% NP RAD T/R	K 8
C215	A11427-103K2	0.01 MF 50V 10% CHIP 0805	K 8*
C216	A11427-472K2	4700PF 50V 10% X7R 0805	J 2*
C217	A11427-272K2	2700PF 50V 10% CHIP 0805	D 1*
C218	A10434-104JD	0.1 MF 250V 5% MTL POLY	I 1
C219	A11427-472K2	4700PF 50V 10% X7R 0805	E 1*
C220	102438-101K2	100PF 200V 10% NPO 0805	D 2*
C221	C10196-1	2.2MF 50V 20% RAD T/R	E 8
C222	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C223	C 9157-6	100UF 16V 20% NP ELEC RAD T/R	F 9
C224	C10196-1	2.2MF 50V 20% RAD T/R	J 9
C226	A11427-104K2	0.1 MF 50V 10% 0805	K 10*
C227	A11427-104K2	0.1 MF 50V 10% 0805	K 9*
C228	A11427-104K2	0.1 MF 50V 10% 0805	J 10*
C229	A11427-104K2	0.1 MF 50V 10% 0805	J 9*
C230	A11427-104K2	0.1 MF 50V 10% 0805	E 8*
C231	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C232	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C233	A11427-104K2	0.1 MF 50V 10% 0805	D 8*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*
C236	103210-1	2.2UF 160V RADIAL T/R	I 1
C237	103210-1	2.2UF 160V RADIAL T/R	I 1
C238	102438-820K2	82PF 200V 10% NPO 0805	J 7*
C239	A11427-104K2	0.1 MF 50V 10% 0805	E 7*
C240	C 7091-9	0.33 MF 50V CHIP 1206	J 9
C241	A11369-471K2	470PF 50V 10% NPO 0805 T/R	L 10
C242	A11369-330J2	33PF 50V 5% NPO MLC 0805	K 10
C243	A11427-103K5	0.01MF 50V 5% X7R 1206	K 9*
C244	103191-1	0.47UF Z5U 1210 20% 50V	E 7*
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22MF 25V 20% RAD T/R	B 2
C504	102438-221K2	220PF 200V 10% NPO 0805	A 2
C505	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C506	A11427-104K2	0.1 MF 50V 10% 0805	A 2
C509		OPEN	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 1
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C603	102467-1	22MF 25V 20% RAD T/R	B 2
C604	102438-221K2	220PF 200V 10% NPO 0805	B 2
C605	A11427-104K2	0.1 MF 50V 10% 0805	A 1
C609		OPEN	B 2
C610	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 1
C611	C 6806-1	0.01 UF 100V AXIAL CER T/R	B 3
D1	C 2851-1	1N4004 SILICON RECT.	G 9
D2	C 2851-1	1N4004 SILICON RECT.	G 10
D3	C 2851-1	1N4004 SILICON RECT.	G 10
D4	C 2851-1	1N4004 SILICON RECT.	G 10
D6	C 2851-1	1N4004 SILICON RECT.	J 8
D7	C 2851-1	1N4004 SILICON RECT.	J 8
D8	C 3549-0	DIODE ZENER, 10V, 1N5240B	J 8
D9	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D10	C 2851-1	1N4004 SILICON RECT.	I 10
D13	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D101	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D102	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 9*
D103	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D104	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D105	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D106	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D107	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D108	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D109	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D110	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D111	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D112	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D113	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 8*
D114	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 6
D115	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 5
D116	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 8*
D117	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 10*
D118	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	N 10*
D119	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D120	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	I 9*
D121	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 9*
D122	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9*
D123	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 9*
D124	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D125	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	H 7*
D126	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 7
D127	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 8
D128	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 7*
D129	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	G 6*
D130	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	M 9
D201	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D202	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D203	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D204	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D205	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D206	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D207	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D208	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7*
D209	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D210	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D211	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D212	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D213	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8*
D214	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 3
D215	C10422-1	DIODE, 3A 400V 1N5404 AXIAL	I 2
D216	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 8*
D217	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 10*
D218	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	L 10*
D221	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	J 9*
D222	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9*
D223	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 9*
D224	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D225	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 7*
D226	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 7
D227	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 8

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
D230	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	K 9
E1	102476-1	LED, SMT R/A GREEN	I 1
E100	102477-1	LED, SMT R/A RED	J 1
E101	102476-1	LED, SMT R/A GREEN	J 1
E102	102477-1	LED, SMT R/A RED	K 1
E200	102477-1	LED, SMT R/A RED	M 1
E201	102476-1	LED, SMT R/A GREEN	L 1
E202	102477-1	LED, SMT R/A RED	M 1
HS1	133698-1	HS ASM, CE2000 NON-ISOLATED CH1	L 6
HS2	102576-3	HS ASM, T2 NON-ISOLATED CH2,	L 3
HS3	133697-1	HS ASM, CE2000 ISOLATED CH1	G 6
HS4	102574-3	HS ASM, T2 ISOLATED CH2, , ,	G 3
HW1	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW2	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW3	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW4	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW5	102578-1	SPACER, 6X.125 AL BLK ANODIZED	A 4
HW6	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW7	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW8	102578-1	SPACER, 6X.125 AL BLK ANODIZED	B 4
HW9	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 5
HW10	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 6
HW11	A10020-7	6-32 X .625 PCB CAPTIVE STUD	D 2
HW12	A10020-7	6-32 X .625 PCB CAPTIVE STUD	I 3
HW13	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 5
HW14	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 6
HW15	A10020-7	6-32 X .625 PCB CAPTIVE STUD	J 2
HW16	A10020-7	6-32 X .625 PCB CAPTIVE STUD	N 3
HW17	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW18	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW19	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW20	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW21	132491-1	NUT, 6-32 HEX NYLON LOCK	A 4
HW22	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW23	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW24	132491-1	NUT, 6-32 HEX NYLON LOCK	B 4
HW25	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 4
HW27	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
HW28	103435-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
J2	101573-1	HDR 4 POS .1 CTR MTA SHRD	G 10
J3	102472-3	CONN, 12POS .1 CTR SGL ROW	M 8
J4	101571-1	HDR 2 POS .1 CTR MTA SHRD	L 10
J5	101993-1	JACK, 6P4 COND MODULAR R/A	
J100	102473-1	SPEAKON, 4 POLE PCB HORZ	D 10
J200	102473-1	SPEAKON, 4 POLE PCB HORZ	F 10

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
J500	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 3
J502	102471-2	HDR, 12POS .1 CTR SGL ROW	C 1
J600	126929-1	1/4" TRS/XLR COMBO PCB VERT	B 1
K100	126317-1	REL, 30A 24V SPST PCB W/FASTON	G 9
K200	126317-1	REL, 30A 24V SPST PCB W/FASTON	E 9
L100	C 3510-2	CHOKE, 470UH 10% AXIAL	N 7
L101	C 3510-2	CHOKE, 470UH 10% AXIAL	I 7
L102	102470-1	INDUCTOR, 2.75UH 11A RADIAL	H 8
L200	C 3510-2	CHOKE, 470UH 10% AXIAL	J 1
L201	C 3510-2	CHOKE, 470UH 10% AXIAL	D 1
L202	102470-1	INDUCTOR, 2.75UH 11A RADIAL	I 1
Q1	102479-1	PWR MJD112 NPN DARLINGTON 100V	H 10
Q2	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q3	102479-1	PWR MJD112 NPN DARLINGTON 100V	I 10
Q100	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q101	C 7448-1	MMBT3904 CHIP NPN	M 9*
Q102	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 9*
Q103	102483-1	PNP 300V 500MA SOT-23	L 9*
Q104	C 9252-5	2N3904 40V NPN TRANSISTOR	I 6
Q105	103193-1	PNP 300V 500MA 50MHZ SOT-223	M 7*
Q107	103192-1	NPN 300V 500MA 50MHZ SOT-223	M 7*
Q108	102481-1	NPN 25V LOW NOISE SOT-23	N 8*
Q109	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 8*
Q110	103192-1	NPN 300V 500MA 50MHZ SOT-223	N 7*
Q111	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	N 7*
Q112	103200-1	NPN 230V 15A 30MHZ 2SC5242	N 7
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121	103200-1	NPN 230V 15A 30MHZ 2SC5242	I 7
Q129	C 7448-1	MMBT3904 CHIP NPN	G 9*
Q131	125106-1	MAC9D 8 AMP 400V TRIAC	F 9
Q132	102478-1	TRIAC DRIVER SBS 8V THRESH	F 9
Q133	102480-1	FET, N-CH 25V 50MA SOT-23	M 9*
Q200	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q201	C 7448-1	MMBT3904 CHIP NPN	K 9*
Q202	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	L 9*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q203	102483-1	PNP 300V 500MA SOT-23	J 9*
Q204	C 9252-5	2N3904 40V NPN TRANSISTOR	I 3
Q205	103193-1	PNP 300V 500MA 50MHZ SOT-223	J 7*
Q207	103192-1	NPN 300V 500MA 50MHZ SOT-223	K 7*
Q208	102481-1	NPN 25V LOW NOISE SOT-23	K 7*
Q209	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	K 8*
Q210	103192-1	NPN 300V 500MA 50MHZ SOT-223	J 2*
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212	103200-1	NPN 230V 15A 30MHZ 2SC5242	J 1
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221	103200-1	NPN 230V 15A 30MHZ 2SC5242	D 1
Q229	C 7448-1	MMBT3904 CHIP NPN	E 9*
Q231	125106-1	MAC9D 8 AMP 400V TRIAC	E 9
Q232	102478-1	TRIAC DRIVER SBS 8V THRESH	F 8
Q233	102480-1	FET, N-CH 25V 50MA SOT-23	J 9*
R1	127229-1	RES, 1100 OHM 5W 5% THICK FILM	J 8
R2	127230-1	RES, 2200 OHM 3W 5% THICK FILM	J 8
R3	A11371-3341	330K 0.10W 5% CHIP 0805	I 8*
R4	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R5	A11368-69811	6.98K OHM 0.10W 1% CHIP 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R8	A11371-1022	1K 0.125W 5% CHIP 1206	N 10*
R9	A11368-10021	10K 1/10W 1% CHIP 0805	H 9*
R10	A11368-20023	20K 0.25W 1% CHIP 1210	H 9*
R11	A11371-3341	330K 0.10W 5% CHIP 0805	I 9*
R12	A11368-68121	68.1K 0.10W 1% CHIP	I 9*
R13	A11371-1011	100 OHM 0.10W 5% CHIP 0805	I 10*
R14	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R15	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R16	A11371-3923	3.9K 0.25W 5% CHIP	N 9*
R17	A11368-82511	8.25K 0.1W 1% CHIP 0805	F 10*
R18	A11368-71511	7.15K OHM 0.10W 1% CHIP 0805	D 8*
R19	A11371-3313	330 OHM 0.25W 5% CHIP	I 1*
R20	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R21	A11368-12121	12.1K OHM 0.10W 1% CHIP 0805	J 9*
R22	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R23	A11368-39231	392K 0.10W 1% CHIP 0805	I 9*
R24	A11368-57621	57.6K 0.10W 1% CHIP 0805	I 9*
R25	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R26	A11371-3341	330K 0.10W 5% CHIP 0805	A 9*
R27	A11368-20021	20K 1/10W 1% CHIP 0805	L 9*
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	B 2
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	J 8*
R33	A11371-R221	0.22 OHM 0.10W 5% CHIP 0805	I 10*
R100	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	L 1
R101	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R102	A11368-39231	392K 0.10W 1% CHIP 0805	N 9*
R103	A11368-49901	499 OHM 0.10W 1% CHIP 0805	N 9*
R104	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R105	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R106	A11368-10011	1K 0.10W 1% CHIP 0805	M 9*
R107	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R108	A11368-10021	10K 1/10W 1% CHIP 0805	L 10*
R109	A11368-19122	19.1K 0.125W 1% CHIP 1206	M 9*
R110	A11368-10011	1K 0.10W 1% CHIP 0805	L 9*
R111	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R112	A10265-19121	19.1K 0.25W 1% MF	L 9
R113	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	L 10*
R114	A11368-82511	8.25K 0.1W 1% CHIP 0805	L 10*
R115	A11368-68121	68.1K 0.10W 1% CHIP	L 10*
R116	A11368-22601	226 OHM 0.10W 1% CHIP 0805	M 9*
R117	A11371-3341	330K 0.10W 5% CHIP 0805	M 9*
R118	A11368-10221	10.2K 0.10W 1% CHIP 0805	M 10
R119	A11371-3333	33K 0.25W 5% CHIP 1210	M 9*
R120	A11368-90921	90.9K 0.10W 1% CHIP 0805	M 9*
R121	A11368-10021	10K 1/10W 1% CHIP 0805	M 10
R122	A11368-15831	158K 0.10W 1% CHIP 0805	N 9*
R123	A11368-10031	100K 0.1W 1% CHIP 0805	M 9*
R124	A11368-15831	158K 0.10W 1% CHIP 0805	M 9*
R125	A11368-10031	100K 0.1W 1% CHIP 0805	N 9*
R126	A11368-49921	49.9K 0.1W 1% CHIP 0805	M 9*
R127	A11371-6821	6.8K 0.10W 5% CHIP 0805	N 9*
R128	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R129	A11371-8211	820 OHM 0.10W 5% CHIP	N 7*
R130		OPEN	O 8*
R131		OPEN	O 8*
R132	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 6*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R133	A11371-7511	750 OHM 0.10W 5% CHIP	H 6*
R134	C10613-5	1K TOP ADJUST TRIMMER T/R	M 7
R135	A11371-3923	3.9K 0.25W 5% CHIP	M 7*
R136	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R137	A11368-49902	499 OHM 0.125W 1% 1206 T/R	N 8*
R138	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R139	A11368-10703	107 OHM 0.25W 1% CHIP	N 8*
R140	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R141	A11371-8211	820 OHM 0.10W 5% CHIP	O 8*
R142	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	O 8*
R143	A11371-3333	33K 0.25W 5% CHIP 1210	N 8*
R144	A11371-1213	120 OHM 0.25W 5% CHIP	N 8*
R145	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	N 8*
R146	A11371-1331	13K OHM 0.10W 5% CHIP 0805	N 7*
R147	A11371-1011	100 OHM 0.10W 5% CHIP 0805	N 7*
R148	A11371-1811	180 OHM 0.10W 5% CHIP	M 7*
R149	A11368-60432	604K OHM 0.125W 1% CHIP 1206	N 9*
R150	A11371-5R63	5.6 0.25W 5% CHIP	N 6*
R151	A11368-20021	20K 1/10W 1% CHIP 0805	N 9*
R152	103199-1	0.4 OHM 1W 5% 2512 T/R	K 6*
R153	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R154	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R155	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R156	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R157	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R158	A10266-2R74	2.7 OHM 2W 5% CF	I 8
R159	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R160	A11371-1501	15 OHM 0.10W 5% CHIP	I 7*
R161	A11371-1331	13K OHM 0.10W 5% CHIP 0805	H 7*
R162	A11371-4701	47 OHM 0.10W 5% CHIP	H 7*
R163	A11371-1811	180 OHM 0.10W 5% CHIP	I 7*
R165	A11371-5R63	5.6 0.25W 5% CHIP	I 5*
R167	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R168	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R169	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R170	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R171	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R172	103199-1	0.4 OHM 1W 5% 2512 T/R	H 6*
R174	A11368-60432	604K OHM 0.125W 1% CHIP 1206	G 8*
R175	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	G 8*
R176	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R177	A11368-10021	10K 1/10W 1% CHIP 0805	H 8*
R178	A11368-90921	90.9K 0.10W 1% CHIP 0805	N 9*
R179	A11368-10031	100K 0.1W 1% CHIP 0805	F 7*
R180	A11368-39231	392K 0.10W 1% CHIP 0805	G 8*
R181	A11371-6814	680 OHM 0.50W 5% CHIP	J 1*
R182	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R183	A11368-10031	100K 0.1W 1% CHIP 0805	F 8*
R184	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R185	A11368-10021	10K 1/10W 1% CHIP 0805	G 8*
R186	A11368-10031	100K 0.1W 1% CHIP 0805	N 10*
R187	A11368-15831	158K 0.10W 1% CHIP 0805	M 10*
R188	A11368-15831	158K 0.10W 1% CHIP 0805	N 10*
R189	A11368-10031	100K 0.1W 1% CHIP 0805	M 10*
R190	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 6*
R191	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 6*
R192	A11368-60432	604K OHM 0.125W 1% CHIP 1206	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
R196	A11368-10021	10K 1/10W 1% CHIP 0805	M 9*
R197	A11368-61911	6.19K 0.10W 1% CHIP 0805	M 10
R199	A11371-0R01	0.0 OHM 0.1W CHIP 0805	N 8*
R200	102595-3	POT, 5K LIN 21 DNT 12MM HORIZ	N 1
R201	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R202	A11368-39231	392K 0.10W 1% CHIP 0805	L 9*
R203	A11368-49901	499 OHM 0.10W 1% CHIP 0805	L 9*
R204	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*
R205	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R206	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R209	A11368-19122	19.1K 0.125W 1% CHIP 1206	K 9*
R210	A11368-10011	1K 0.10W 1% CHIP 0805	J 9*
R211	A11368-10021	10K 1/10W 1% CHIP 0805	J 9*
R212	A10265-19121	19.1K 0.25W 1% MF	J 9
R213	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	J 10*
R214	A11368-82511	8.25K 0.1W 1% CHIP 0805	J 10*
R215	A11368-68121	68.1K 0.10W 1% CHIP	J 10*
R216	A11368-22601	226 OHM 0.10W 1% CHIP 0805	K 9*
R217	A11371-3341	330K 0.10W 5% CHIP 0805	J 9*
R218	A11368-10221	10.2K 0.10W 1% CHIP 0805	K 10
R219	A11371-3333	33K 0.25W 5% CHIP 1210	J 9*
R220	A11368-90921	90.9K 0.10W 1% CHIP 0805	K 9*
R221	A11368-10021	10K 1/10W 1% CHIP 0805	K 10
R222	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R223	A11368-10031	100K 0.1W 1% CHIP 0805	K 9*
R224	A11368-15831	158K 0.10W 1% CHIP 0805	K 9*
R225	A11368-10031	100K 0.1W 1% CHIP 0805	L 9*
R226	A11368-49921	49.9K 0.1W 1% CHIP 0805	K 9*
R227	A11371-6821	6.8K 0.10W 5% CHIP 0805	K 9*
R228	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R229	A11371-8211	820 OHM 0.10W 5% CHIP	K 7*
R230		OPEN	L 7*
R231		OPEN	L 7*
R232	A11371-2223	2.2K 0.25W 5% CHIP 1210	H 3*
R233	A11371-7511	750 OHM 0.10W 5% CHIP	H 3*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R234	C10613-5	1K TOP ADJUST TRIMMER T/R	J 7
R235	A11371-3923	3.9K 0.25W 5% CHIP	J 7*
R236	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R237	A11368-49902	499 OHM 0.125W 1% 1206 T/R	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-10703	107 OHM 0.25W 1% CHIP	K 8*
R240	A11371-3333	33K 0.25W 5% CHIP 1210	K 7*
R241	A11371-8211	820 OHM 0.10W 5% CHIP	L 8*
R242	A11371-4724	4.7K OHM 0.50W 5% CHIP 2010	L 7*
R243	A11371-3333	33K 0.25W 5% CHIP 1210	K 8*
R244	A11371-1213	120 OHM 0.25W 5% CHIP	K 8*
R245	A11368-75R03	75 OHM 0.25W 1% CHIP 1210	K 8*
R246	A11371-1331	13K OHM 0.10W 5% CHIP 0805	J 2*
R247	A11371-1011	100 OHM 0.10W 5% CHIP 0805	J 2*
R248	A11371-1811	180 OHM 0.10W 5% CHIP	K 2*
R249	A11368-60432	604K OHM 0.125W 1% CHIP 1206	K 9*
R250	A11371-5R63	5.6 0.25W 5% CHIP	J 2*
R251	A11368-20021	20K 1/10W 1% CHIP 0805	K 9*
R252	103199-1	0.4 OHM 1W 5% 2512 T/R	K 4*
R253	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R254	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R255	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R256	103199-1	0.4 OHM 1W 5% 2512 T/R	N 4*
R257	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R259	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R260	A11371-1501	15 OHM 0.10W 5% CHIP	D 1*
R261	A11371-1331	13K OHM 0.10W 5% CHIP 0805	E 2*
R262	A11371-4701	47 OHM 0.10W 5% CHIP	E 2*
R263	A11371-1811	180 OHM 0.10W 5% CHIP	E 2*
R265	A11371-5R63	5.6 0.25W 5% CHIP	E 2*
R267	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R268	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R269	103199-1	0.4 OHM 1W 5% 2512 T/R	F 4*
R270	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R271	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R272	103199-1	0.4 OHM 1W 5% 2512 T/R	H 3*
R274	A11368-60432	604K OHM 0.125W 1% CHIP 1206	E 8*
R275	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 8*
R276	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R277	A11368-10021	10K 1/10W 1% CHIP 0805	E 8*
R278	A11368-90921	90.9K 0.10W 1% CHIP 0805	L 9*
R279	A11368-10031	100K 0.1W 1% CHIP 0805	E 7*
R280	A11368-39231	392K 0.10W 1% CHIP 0805	E 8*
R281	A11371-6814	680 OHM 0.50W 5% CHIP	M 1*
R282	A11368-10021	10K 1/10W 1% CHIP 0805	D 8*
R283	A11368-10031	100K 0.1W 1% CHIP 0805	E 8*
R284	A11368-20023	20K 0.25W 1% CHIP 1210	F 9*
R285	A11368-10021	10K 1/10W 1% CHIP 0805	F 8*
R286	A11368-10031	100K 0.1W 1% CHIP 0805	L 10*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R287	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R288	A11368-15831	158K 0.10W 1% CHIP 0805	K 10*
R289	A11368-10031	100K 0.1W 1% CHIP 0805	K 10*
R290	A11368-57621	57.6K 0.10W 1% CHIP 0805	N 3*
R291	A11368-22601	226 OHM 0.10W 1% CHIP 0805	N 3*
R292	A11368-60432	604K OHM 0.125W 1% CHIP 1206	J 9*
R293	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R294	A11371-8201	82 OHM 0.10W 5% CHIP	J 7*
R295	A11371-8211	820 OHM 0.10W 5% CHIP	J 7*
R296	A11368-10021	10K 1/10W 1% CHIP 0805	K 9*
R297	A11368-61911	6.19K 0.10W 1% CHIP 0805	K 10
R299	A11371-0R01	0.0 OHM 0.1W CHIP 0805	K 8*
R300	103199-1	0.4 OHM 1W 5% 2512 T/R	D 6*
R301	103199-1	0.4 OHM 1W 5% 2512 T/R	J 6*
R302	103199-1	0.4 OHM 1W 5% 2512 T/R	K 5*
R303	103199-1	0.4 OHM 1W 5% 2512 T/R	L 6*
R304	103199-1	0.4 OHM 1W 5% 2512 T/R	M 5*
R305	103199-1	0.4 OHM 1W 5% 2512 T/R	M 6*
R306	103199-1	0.4 OHM 1W 5% 2512 T/R	N 5*
R307	103199-1	0.4 OHM 1W 5% 2512 T/R	E 6*
R308	103199-1	0.4 OHM 1W 5% 2512 T/R	F 6*
R309	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R310	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R311	103199-1	0.4 OHM 1W 5% 2512 T/R	G 6*
R312	103199-1	0.4 OHM 1W 5% 2512 T/R	I 6*
R313	A11368-10021	10K 1/10W 1% CHIP 0805	G 7*
R314	A11371-3341	330K 0.10W 5% CHIP 0805	G 7*
R315	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	H 7*
R316	A11368-10011	1K 0.10W 1% CHIP 0805	M 10*
R317	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R318	A11371-3934	39K OHM 0.50W 5% CHIP 1210	N 8
R319		OPEN	M 10*
R322	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	L 9
R323	A11371-0R01	0.0 OHM 0.1W CHIP 0805	G 8
R400	103199-1	0.4 OHM 1W 5% 2512 T/R	D 3*
R401	103199-1	0.4 OHM 1W 5% 2512 T/R	J 4*
R402	103199-1	0.4 OHM 1W 5% 2512 T/R	K 3*
R403	103199-1	0.4 OHM 1W 5% 2512 T/R	L 4*
R404	103199-1	0.4 OHM 1W 5% 2512 T/R	M 3*
R405	103199-1	0.4 OHM 1W 5% 2512 T/R	M 4*
R406	103199-1	0.4 OHM 1W 5% 2512 T/R	N 3*
R407	103199-1	0.4 OHM 1W 5% 2512 T/R	E 4*
R408	103199-1	0.4 OHM 1W 5% 2512 T/R	F 3*
R409	103199-1	0.4 OHM 1W 5% 2512 T/R	G 4*
R410	103199-1	0.4 OHM 1W 5% 2512 T/R	G 3*
R411	103199-1	0.4 OHM 1W 5% 2512 T/R	H 4*
R412	103199-1	0.4 OHM 1W 5% 2512 T/R	I 3*
R413	A11368-10021	10K 1/10W 1% CHIP 0805	E 7*

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R414	A11371-3341	330K 0.10W 5% CHIP 0805	E 7*
R415	A11368-51111	5.11K OHM 0.10W 1% CHIP 0805	E 7*
R416	A11368-10011	1K 0.10W 1% CHIP 0805	K 10*
R417	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 7
R418	A11371-3934	39K OHM 0.50W 5% CHIP 1210	K 8
R419		OPEN	K 10*
R420	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R421	A11371-5R65	5.6 OHM 1W 5% CHIP 2512	H 1*
R422	A11371-1013	100 OHM .25W 5% 1210 SMT T/R	J 9
R423	A11371-0R01	0.0 OHM 0.1W CHIP 0805	F 8
R500	A11368-10021	10K 1/10W 1% CHIP 0805	A 3
R501	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R502	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R503	A11368-10021	10K 1/10W 1% CHIP 0805	B 2
R504	A11368-20011	2K 1/10W 1% CHIP 0805	A 2
R506	A11368-20011	2K 1/10W 1% CHIP 0805	A 2
R508		OPEN	C 2
R600	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R601	A11368-10021	10K 1/10W 1% CHIP 0805	A 1
R602	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R603	A11368-10021	10K 1/10W 1% CHIP 0805	A 2
R604	A11368-20011	2K 1/10W 1% CHIP 0805	A 1
R605	A11371-1501	15 OHM 0.10W 5% CHIP	C 3
R606	A11368-20011	2K 1/10W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% CHIP 2512	A 1
R608		OPEN	C 1
R609	A11371-1501	15 OHM 0.10W 5% CHIP	C 3
R610	A11371-1501	15 OHM 0.10W 5% CHIP	B 1
S1	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
TB1	102475-1	BLOCK, 5 POS TERMINAL	A 2
TP38	C 9896-9	TEST POINT LOOP	K 1
TP39	C 9896-9	TEST POINT LOOP	N 7
U1	C 5095-2	POS. 15 VOLT REG.	H 10
U1X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 10
U2	C 5096-0	NEG. 15 VOLT REG.	H 9
U2X	C 9918-1	TO220 VERT CLIP-ON HEATSINK	H 9
U3	102486-1	OPTO BJT NPN SOIC-8 CTR =100%	N 10
U4	C 8262-5	MC33078D DUAL LO NOISE OP AMP	I 9
U5	C 8262-5	MC33078D DUAL LO NOISE OP AMP	N 9
U100	102723-2	OPTO CELL ON=500 OHM	M 9
U101	C 9012-3	MC33079D QUAD LO NOISE OP AMP	M 10
U102	C 9038-8	COMPARATOR, QUAD LM339D SO-14	N 9
U104	C 9038-8	COMPARATOR, QUAD LM339D SO-14	G 7
U105	C 8262-5	MC33078D DUAL LO NOISE OP AMP	F 7
U106	127683-1	ASM, CE THERMAL SENSOR	N 6
U200	102723-2	OPTO CELL ON=500 OHM	K 9
U201	C 9012-3	MC33079D QUAD LO NOISE OP AMP	J 10
U202	C 9038-8	COMPARATOR, QUAD LM339D SO-14	K 9
U204	C 9038-8	COMPARATOR, QUAD LM339D SO-14	E 7

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PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
U205	C 8262-5	MC33078D DUAL LO NOISE OP AMP	E 7
U206	127683-1	ASM, CE THERMAL SENSOR	N 3
U500	C 9012-3	MC33079D QUAD LO NOISE OP AMP	A 2
WP1	A11378-A050U	WIRE, 16 RED FAST X 5 X TERM	A 10
WP2	103331-N050R	WIRE, 16 BLK/WHT TAB X 5 X T	A 9
WP3	A11379-C050U	WIRE, 16 BLU FAST X 5 X TERM	A 9
WP4	101031-1	.250 FASTON, AUTO INSERTABLE	D 7
WP5	101031-1	.250 FASTON, AUTO INSERTABLE	D 4
WP6	A12125-3140K	WIRE, 22 WHT 3/16X14 X FAST	J 8
WP7	101031-1	.250 FASTON, AUTO INSERTABLE	D 8
Z1		OPEN	E 9
Z100	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	M 10
Z100X	C 6419-3	SHUNT, .025" SQ POST 2 POS	M 10
Z200	C 9202-0	2 PIN SGL ROW VERT GOLD HDR	K 10
Z200X	C 6419-3	SHUNT, .025" SQ POST 2 POS	K 10
1	127450-1	PWB, CE1000/CE2000 MAIN/INPU	SEE COMP MAP
2	101016-1	LBL, BARCODE, , ,	SEE COMP MAP
3	125242-1	CAP, .625ID X 1" VINYL	SEE COMP MAP
4	126825-1	SILICONE, CLEAR 3OZ SYRINGE	SEE COMP MAP
5	125482-1	ADHESIVE LOCTITE 384 OUTPUT	SEE COMP MAP
6	125483-1	ACTIVATOR LOCTITE "OUTPUT"	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
7	103180-1	BUMPER, 0.4" TALL BLK W/ADH	SEE COMP MAP
TAPE	S 6285-1	TAPE, KAPTON (POLYIMIDE) 1/2"	SEE COMP MAP

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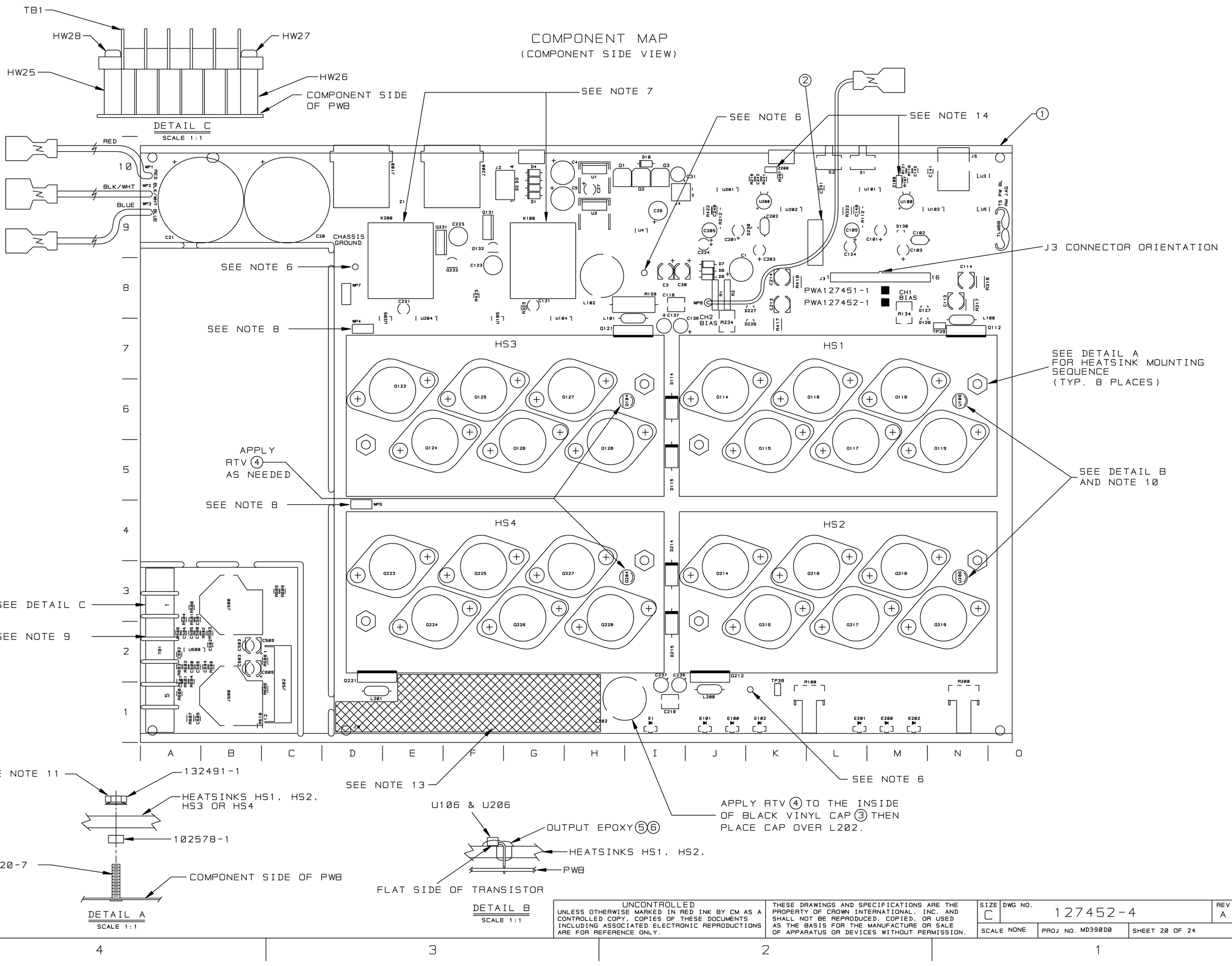
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Component Map

for use with

Main PWA 127452-4

COMPONENT MAP
(COMPONENT SIDE VIEW)

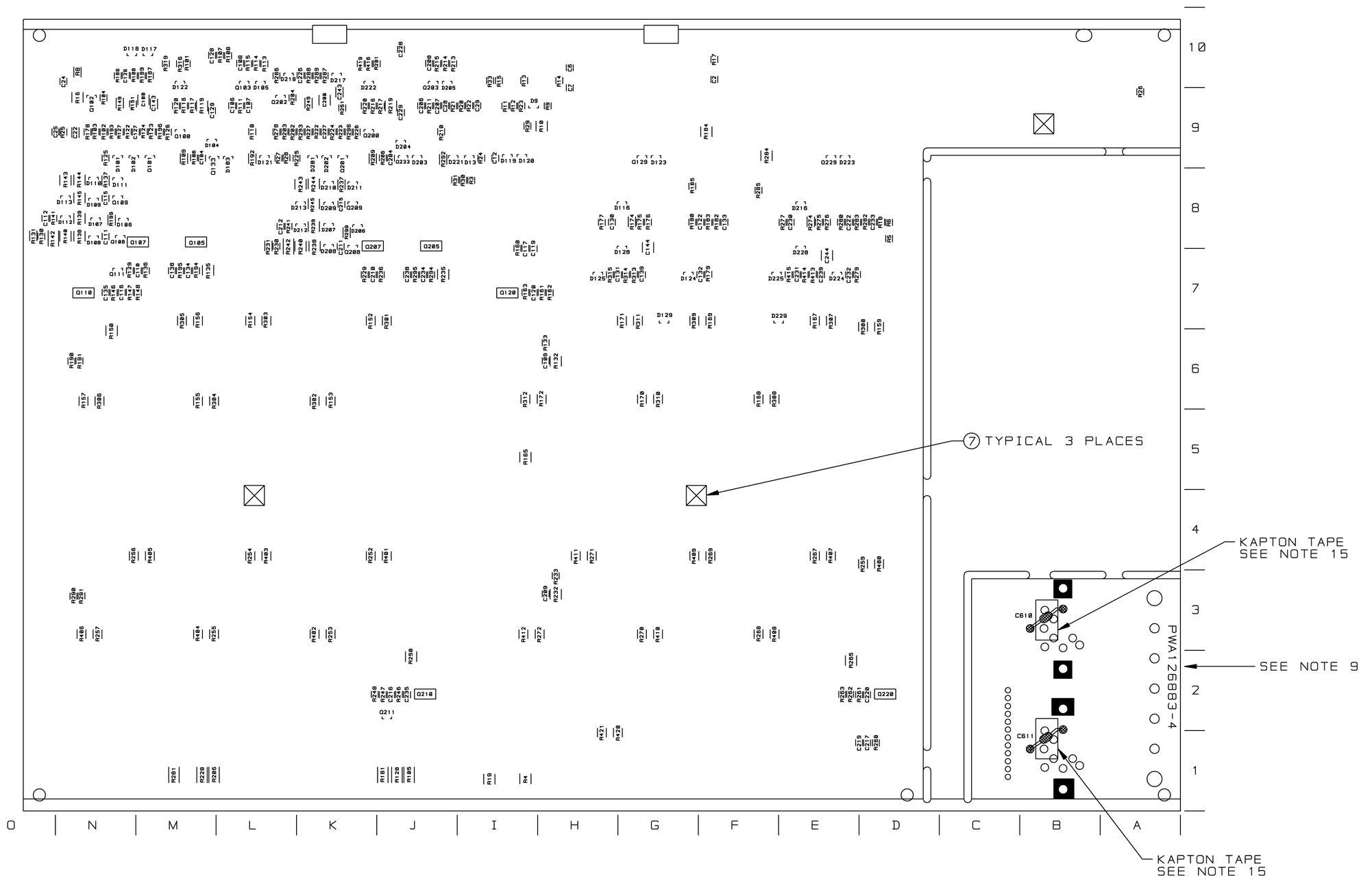


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SIZE	DWG NO.	REV
C	127452-4	A
SCALE NONE	PROJ NO. MD390D0	SHEET 20 OF 24

COMPONENT MAP
(SOLDER SIDE VIEW)



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SIZE	DWG NO.	REV
C	127452-4	A
SCALE NONE	PROJ NO. MD390D0	SHEET 21 OF 24

9 Field Modifications

This section details field modifications authorized and recommended by Crown which should be performed on affected units. **Only the specific models identified in each case should be modified.** If you are in doubt whether the amplifier you are servicing needs any of the modifications described in this section, contact the Crown Technical Support Group.

PLEASE HEED ALL CAUTIONS AND WARNINGS.

Crown Authorized Warranty Centers should refer to their "*Tech Notes*" library for up-to-date field modification instructions.

NOTE: THE INFORMATION IN THIS MANUAL IS INTENDED FOR USE BY AN EXPERIENCED TECHNICIAN ONLY!

9.1 Fan Circuit Ballast Resistors

Applicability: CE1000, CE2000 Models, with –6 modules, built in January 1998.

When servicing a CE1000 or CE2000 amplifier, the resistors R14 and R15 should be checked for the correct value part. These resistors should be a 0.2 ohm (A11371-0R21), but it is possible they may be a zero ohm jumper due to a manufacturing error. These resistors are part of the fan circuitry. They are the ballast resistors for the darlington transistors Q1 and Q2.

The amplifier will not exhibit any abnormal performance due to this change in resistors. However, if you have a CE amplifier on the bench, verify that R14 and R15 have the proper value resistor. If it has the zero ohm jumper, replace it with the above specified 0.2 ohm resistor.

9.2 Timing/Mute Capacitors

Applicability: CE-1000 and UT-1010 with #102138-8 modules, and CE-2000 and UT-2020 with #102140-8 modules.

Some early model CE amplifiers may not come out of standby upon start up. When this happens, the fault light will simply continue to flash on and off indicating that there is some fault condition on the amplifier. It is likely that the problem may be the formation of condensation under the timing capacitors & resistors, C121/221 & R174/274 and/or the muting capacitors & resistors C124/224 & R192/292. Additionally, resistors R6 and R18 need to be upgraded to a new value, and resistor R29 should be removed.

This problem has only occured on 102138-8(CE1000) and 102140-8(CE2000) boards and earlier, (before November 1998). Newer revision main modules (i.e. 102138-9(CE1000) / 102140-9(CE2000) and later) will not have this problem because the timing circuit was changed to be lower impedance and utilize an electrolytic capacitor for timing.

Procedure:

1. Upgrade R6 to 9.31 kohm 1% (CPN A11368-93111) and R18 to 7.15 kohm 1% (CPN A11368-71511).

2. De-solder and remove R29. This circuit location will remain open.

3. De-solder and remove the muting capacitors and resistors.

4. Thoroughly remove all residual adhesive from under the removed components. **Caution: Any remaining adhesive may act to absorb moisture and repeat the above-described symptoms.**

5. Clean the affected area. This should be done using only a soft bristle brush and a high grade IPA isopropyl alcohol. Using anything else can result in damage to the circuit board and components. After the module is clean, it must be allowed sufficient time to dry out. If necessary, a hair dryer (on low heat) or air gun (low psi) may be used to assist in the drying process.

6. Replace removed muting capacitors and resistors with new components: C121/221 and C124/224, CPN C 6802-0; R174/274 and R192/292 CPN A11371-4751.

If there are further questions, please contact the Technical Support Group at 1-800-342-6939

CAUTION!

The main module MUST be cleaned! To clean the board, use only a soft bristle brush and high grade IPA isopropyl alcohol. Using anything else can damage the components.

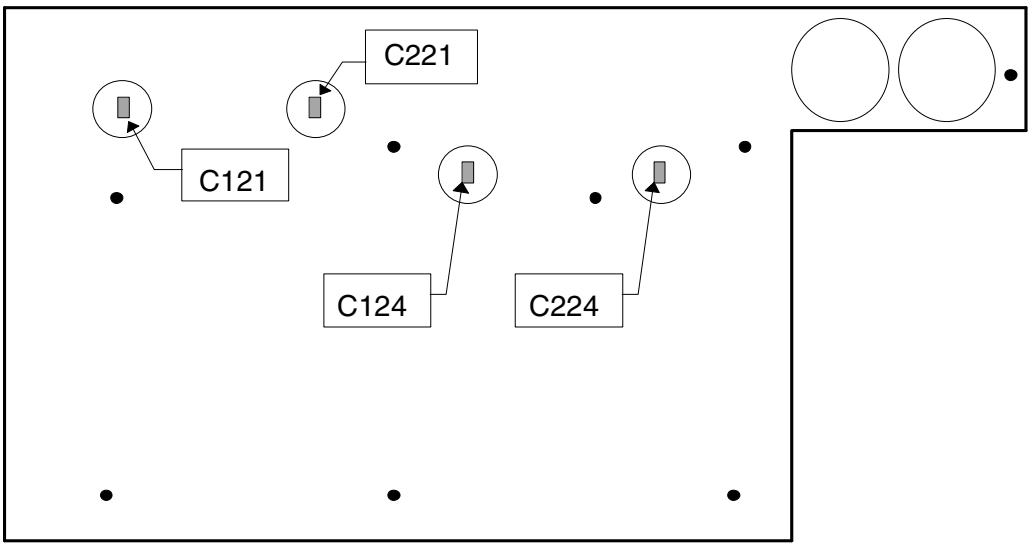


Figure 9.1. Bottom Side of Main Module

9.3 Modification to correct oscillation/ noise problem

Applicability: CE-1000 and UT-1010 with #102138-8 module, and CE-2000 and UT-2020 with #102140-8 module.

A change was made on main boards 102138-8 (CE1000) and 102140-8 (CE2000) which has been found to cause the amplifier to exibit an oscillation or noise in the output under certain specific operating conditions. This problem applies only to new amplifiers with -8 main boards, or older amplifiers into which a new -8 main board is being installed.

A modification has been designed to provide better ground isolation on the input module, preventing the problem from occuring. All SST input modules (including the standard input module) used in the affected amplifiers should be modified to prevent oscillations or noise from occuring. Perform the modification as follows:

Procedure:

1. Dis-attach AC, input and output connections from the amplifier.

2. Loosen and remove the screws holding the SST input module in place, and remove the module.

3. Remove the screws holding the front plate of the module in place, and remove the front the front plate.

4. De-solder capacitors C606 and C607 on standard SST input module, or capacitors C31 and C32 on SST-SBSC module. These are 0.1uF surface-mount capacitors located in the bottom right corner of the circuit board with the component side of the board facing you on the standard SST module (see Figure 9.2,) and directly above J2 on the rear side of the circuit board on the SST-SBSC module (see Figure 9.3.)

5. Replace the capacitiors with 15 ohm, 0.1W surface mount resistors, Crown part number A11371-1501.

6. Reassemble the module and re-install in the amplifier.

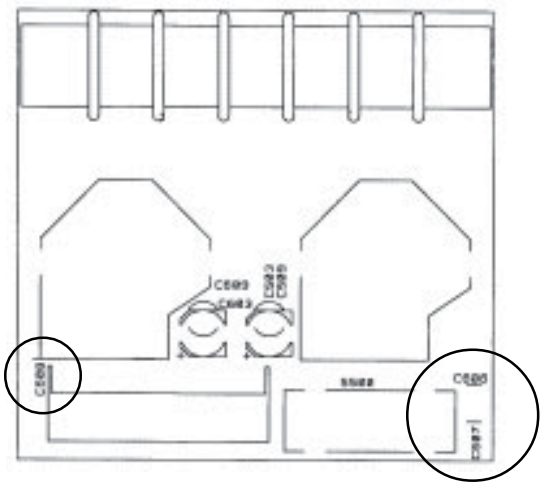


Figure 9.2. Standard SST module, component side

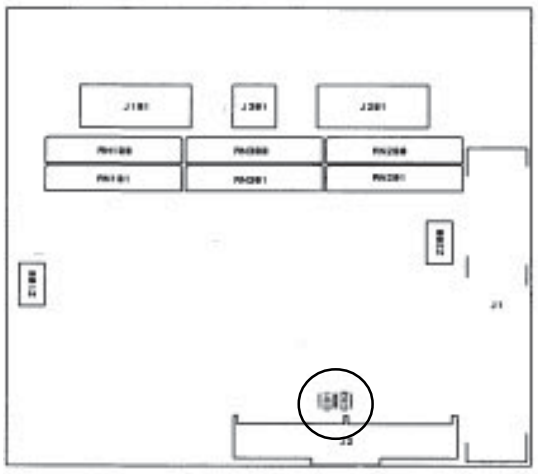


Figure 9.3. SBSC module, rear view

9.4 Bootstrap Resistor Modification

Applicability: CE-1000, CE-2000, UT-1010, UT-2020, S3 and M-240 amplifiers containing the following main modules: CPN 102139-5, CPN 102140-5, CPN 102140-6, CPN 102140-8, CPN 102140-9 and CPN 127354-1. **This modification is not necessary on 127451-4 and 127452-4 PWAs.**

Diagnosis: Perform this modification on all listed boards for any amplifiers retained for servicing. This modification is required to create a voltage-divider network to divert excess wattage from key main board components. Check first to verify if a previous modification has already been performed by a Crown authorized servicer. Previously installed bootstrap resistor may be located on main board top next to C1 capacitor (original 0156 procedure), or may be spliced into the bootstrap supply wire (*Tech Note* 0156 REV A procedure).

Part Description: 1000-Ohm, 5-Watt resistor (CPN 127438-1), Clip (CPN 127439-1)

Procedure:

1. Locate the bootstrap supply wire. This white wire runs from the bridge rectifier to WP6 on the main board.

2. Cut bootstrap supply wire approximately 6 inches (15 cm) from the end connected to the bridge rectifier. This will be approximately 8 inches (20 cm) from the end connected to the main board at WP6.

3. Prep resistor. Hook both leads as shown in Figure 1.

4. Strip and prep both cut ends of the bootstrap supply wire. Slip a 1-inch length of 4-mm shrink tubing over the cut end of each wire. Slide back to expose cut end. Hook each wire in preparation for soldering. See Figure 9.4.

5. Solder each prepared end of the white bootstrap supply wire to the resistor.

6. Slide shrink tubing over solder joints and set in place using a heat gun. See Figure 9.5.

7. Slide supplied clip over resistor and mount in amplifier on the corner of transformer closest to the power supply capacitors using existing bolt. See Figure 9.6.

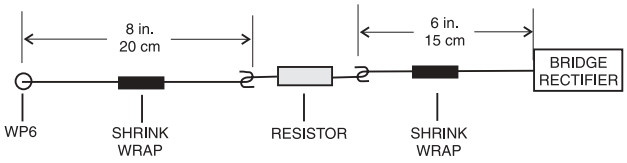


Figure 9.4 Boostrap Resistor Assembly

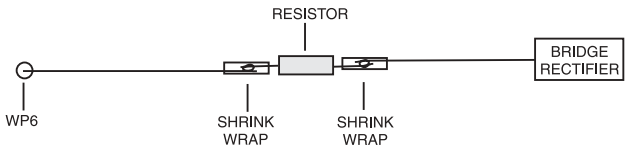


Figure 9.5 Bootstrap Resistor Installation

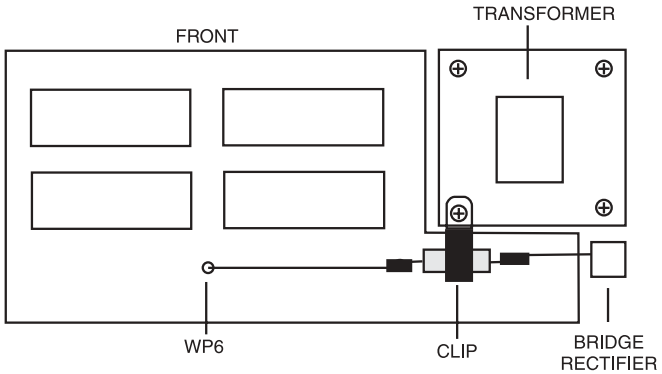


Figure 9.6 Bootstrap Resistor Installed

9.5 Channel 1 Output to Channel 2 Speakon Modification

Applicability: CE-1000, CE-2000, UT-1010, UT-2020, S2, S3, M-120 and M-240 amplifiers.

Purpose of Modification: By default, the Channel 1 Speakon connector has Channel 1 signal present on Pins 1+ and 1-, and Channel 2 signal present on Pins 2+ and 2–. The Channel 2 Speakon connector has Channel 2 signal present on Pins 1+ and 1–. Perform this modification to allow Channel 1 output signal to be present on Pins 2+ and 2– on the Channel 2 Speakon connector. Amplifiers come from the factory without this jumper installed, so normally Channel 1 output is not available from the Channel 2 Speakon.

Procedure:

1. Solder a 14 AWG wire across the two solder pads indicated in Figure 9.7 below. This will route the Channel 1 output signal to the Channel 2 Speakon.

Caution: Before performing this modification, be sure that:

- Amplifier power is turned off and AC cord unplugged.
- All input and output connectors have been removed.
- Supply capacitors have been discharged as per the procedure detailed in Section 2.2 Cautions and Warnings, page 2-1.
- Because this amplifier contains surface mount components, all ESD safety precautions should be followed.

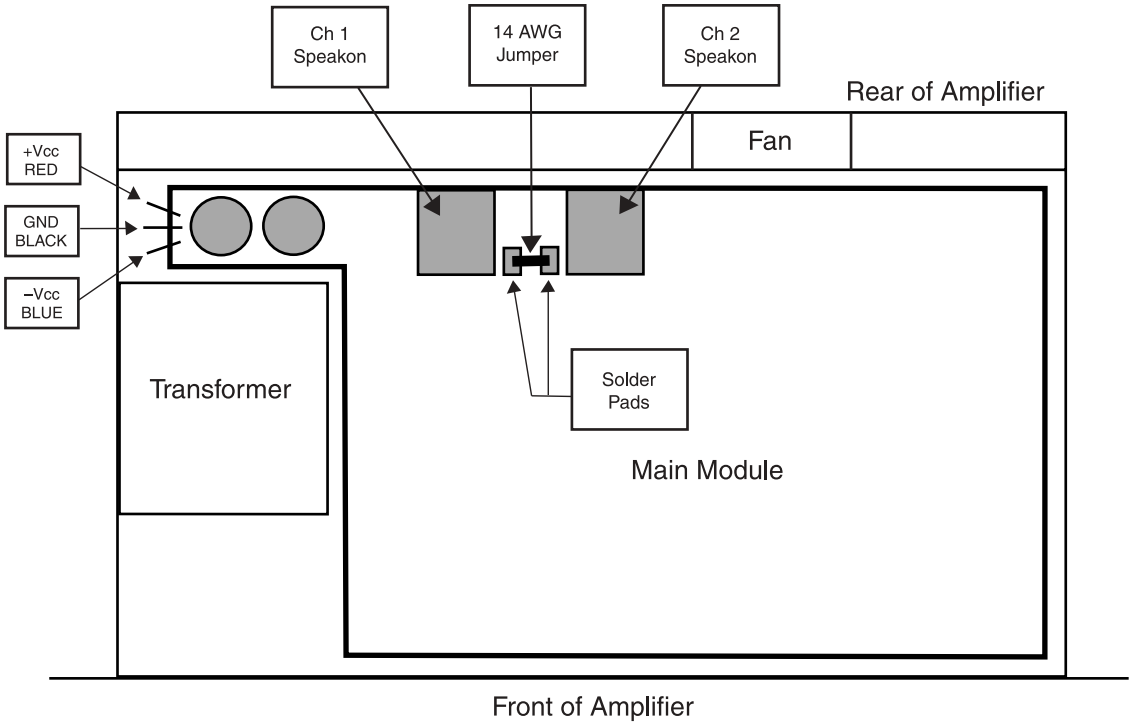


Figure 9.7 Channel 2 Speakon Jumper

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10 Schematics

10.1 General Information

The schematics provided are representative only. There may be slight variations between amplifier to amplifier. These schematics are intended to be used for troubleshooting purposes only. Please refer to Section 7, Module and Schematic Information, for assistance in selecting the correct schematic to reference for your amplifier.

E.C.N. D.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL CK	ME	EE	PE
98E0373		G	ADDED INPUT BOARD CIRCUITRY SHEET 3. ADDED C30, C31, C141, C241, R30, AND R31. U100 AND U200 WERE C 7016-9. R112 AND R212 WERE A11308-19122. R101, R201, R316, AND R416 WERE A11368-10021. DELETED R250. SCHEMATIC WAS REDRAWN IN CADSTAR. REMOVED S500 FROM INPUT ADDED TO MAIN (S1). DELETED R505 AND R605. ADDED WP7, R118, R218, R121, R221, C142 AND C242. K100 & K200 WERE C10335-5.	05-18-98	TLM	JAW			TS
98E0562		H	R5 WAS 8.25K, R322 & R422 WERE 270 OHM	9-2-98	JFL				

FROM INPUT CARD

J3

CH1 C-0
CH1 B-0
CH1 A-0
CH2 C
CH2 B
CH2 A
VOUT1
TEMP1
VOUT2
TEMP2

GAIN

S1 E62207

S100 A
CH2 COM

S100 B
S100 A

S100

SIGNAL PRESENCE

CLIP

MUTE1

FAULT

OUTPUT

RELAY-4 CH2
WP7
OUTPUT SIGNAL GROUND
RELAY-4 CH1

PEM STUD CH1

VOUT1

THERMAL2

SHORT

OUTPUT CONNECTOR FOR FAULT

BYPASS CAPACITORS

UNUSED ELEMENTS

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   ALL RESISTORS ARE IN OHMS,
   1/10W, 5%
2. UNLESS OTHERWISE SPECIFIED:
   ALL CAPACITORS ARE IN MICROFARADS.

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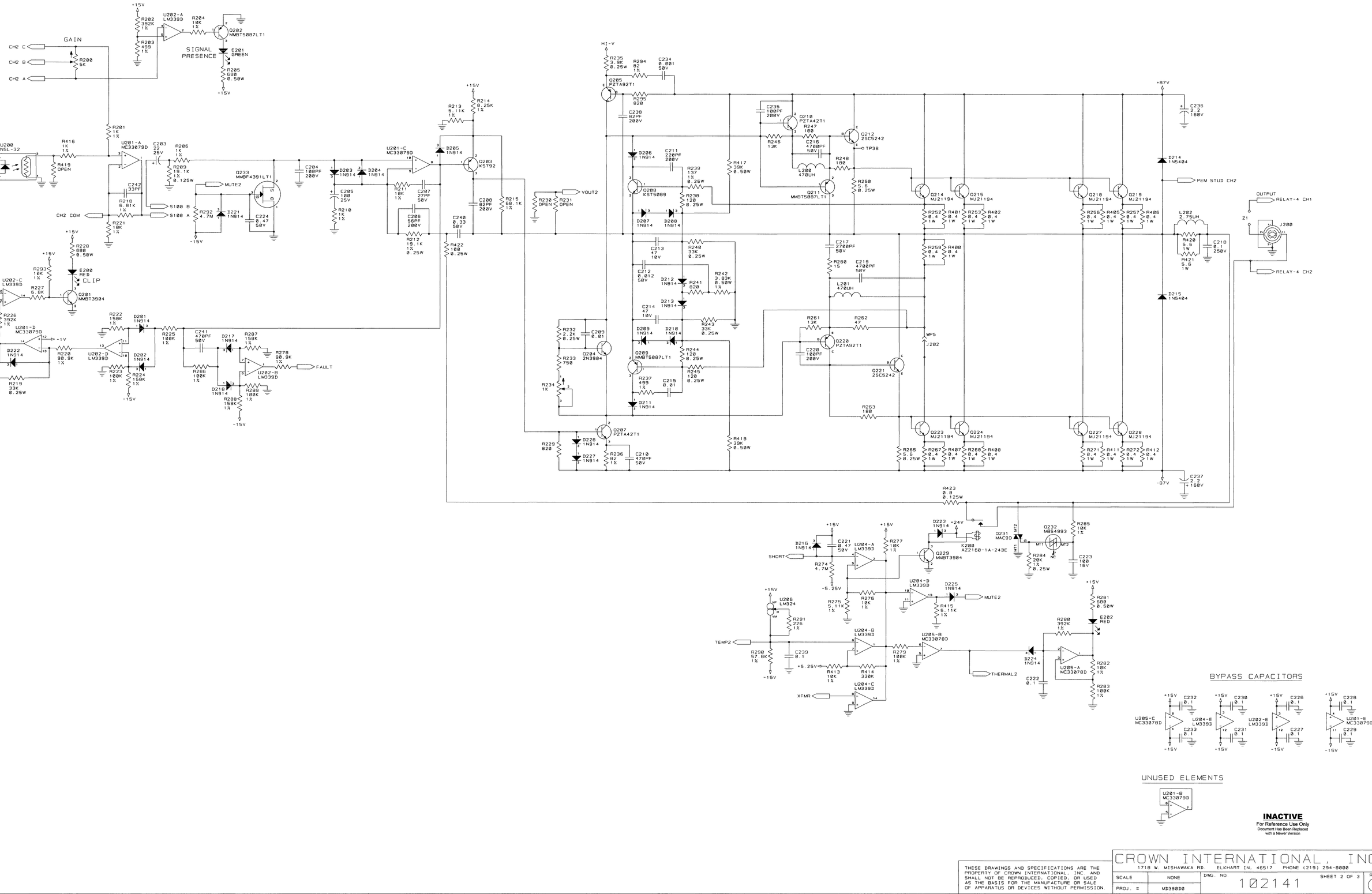
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SCHEM, MAIN/INPUT CE1000

TOL. UNLESS SPECIFIED
X.XX = ±0.02"
X.XXX = ±0.010"
DRILLS = ±0.003"

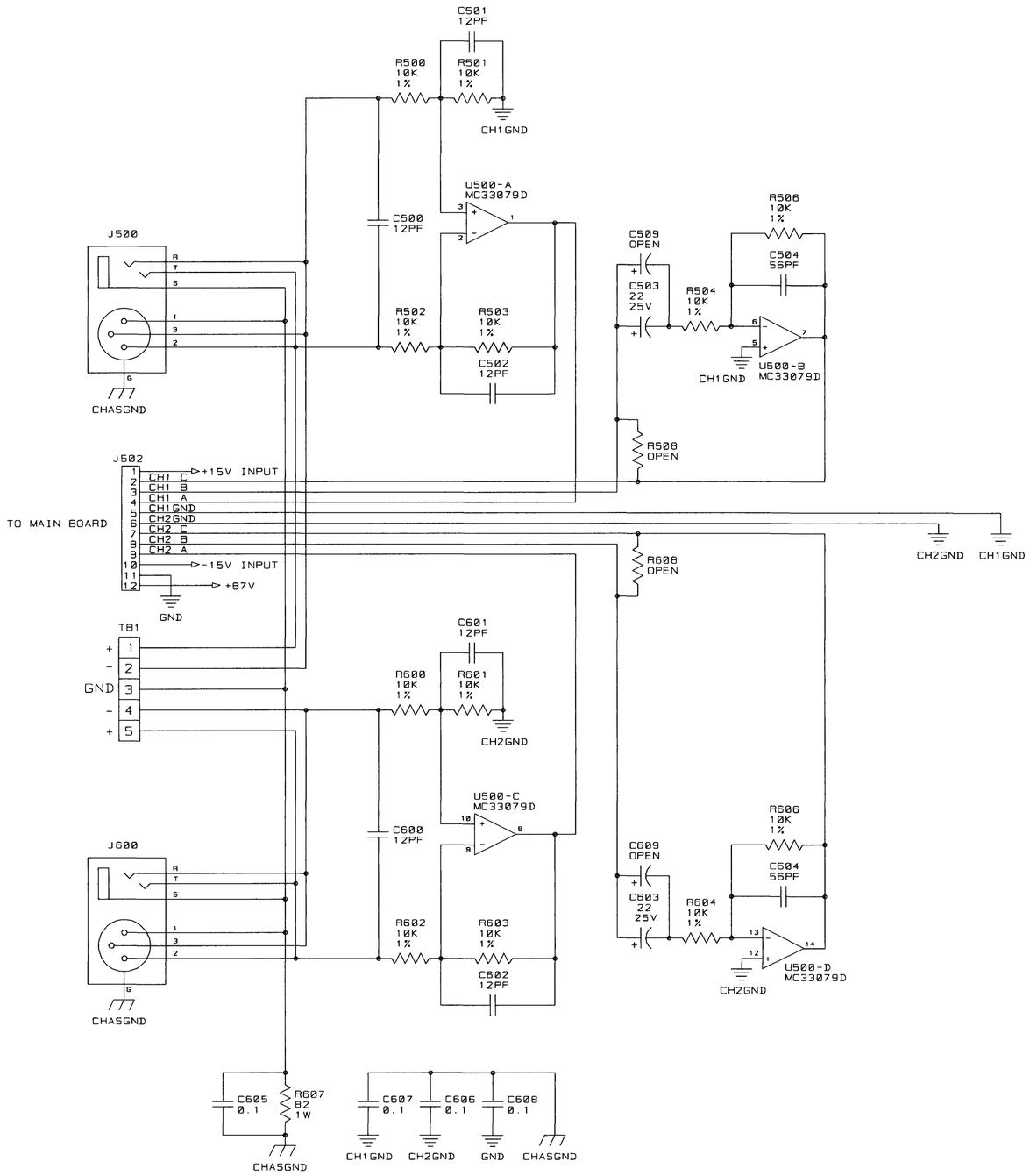
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	SCALE	NONE		EE	PW	09-09-97	E.C.
	PROJ. #	MD3908D		PE	TS	09-09-97	DWG. NO. 102141 SHEET 1 OF 3 REV H
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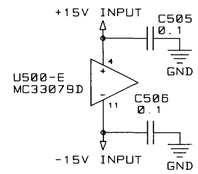
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SCALE	NONE	DWG. NO	REV
PROJ. #	MD3000	102141 SHEET 2 OF 3	H



LAST USED	OBSOLETED
C31,C142,C242	C8,9,10,11,13-19,23,100,125,200,225
D13,D129,D229	D5,11-12,100,200
E1,E102,E202	
K100,K200	
L102,L202	
Q2,Q133,Q233	Q116,117,122,125,126,130,186,216,217,222,225,226,230,286
R31,R185,R295	R121,149,151,154,155,164,166,169,170,173,221,249,251,255,264,266,269,270,273,303,384,
R323,R423	R389,310,403,404,485,418
S1,S100	
U5,U106,U205	U103,203

BYPASS CAPACITORS



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SCALE	NONE	DWG. NO.	SHEET 3 OF 3	REV
PROJ. #	MD390D0	102141		H

E.C.N. D.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL CK	ME	EE	PE
98E0373		G	ADDED INPUT BOARD CIRCUITRY SHEET 3. ADDED C30, C31, C141, C241, R30, AND R31. U100 AND U200 WERE C 7815-9. R112 AND R212 WERE A11368-10122. R101, R201, R316, AND R416 WERE A11368-10021. DELETED R259. SCHEMATIC WAS REDRAWN IN CADSTAR. REMOVED S500 FROM INPUT ADDED TO MAIN (S1). DELETED R505 AND R605. ADDED WP7, R118, R218, R121, R221, C142 AND C242. K100 & K200 WERE C10335-5.	05-18-98	TLM	JAW			TS
98E0562		H	R5 WAS 8.25K, R322 & R422 WERE 270 OHM	9-2-98	JFL	TLM			TS
98E0780		J	+5.46V WAS +5.25V, -6.11V WAS -5.25V. C606,C607 WERE 0.1MF. R6 WAS 8.07K. R18 WAS 8.25K. U100,U200 WERE N5L32. U105,U206 WERE LM324. ADDED NOTE 3.	12/16/98	JAW				

FROM INPUT CARD

J3

CH1 C_0
CH1 B_0
CH1 A_0
CH2 C
CH2 B
CH2 A
VOUT1
TEMP1
VOUT2
TEMP2

GAIN

S1 EG2207

26DB GAIN 1.4V 0.4V

S100 A
CH2 COM

S100 B
S100 A

S100

SIGNAL PRESENCE

CLIP

MUTE1

VOUT1

HI-V

FAULT

ENABLE

SHORT

TEMP1
TEMP2

XFMR

THERMAL2

OUTPUT

RELAY-4 CH2
OUTPUT SIGNAL GROUND
RELAY-4 CH1

PEM STUD CH1

OUTPUT CONNECTOR FOR FAULT

BYPASS CAPACITORS

UNUSED ELEMENTS

NOTES:

1. UNLESS OTHERWISE SPECIFIED: ALL RESISTORS ARE IN OHMS, 1/10W, 5%.
2. UNLESS OTHERWISE SPECIFIED: ALL CAPACITORS ARE IN MICROFARADS.
3. THIS SCHEMATIC APPLIES TO PWA 102139-B.

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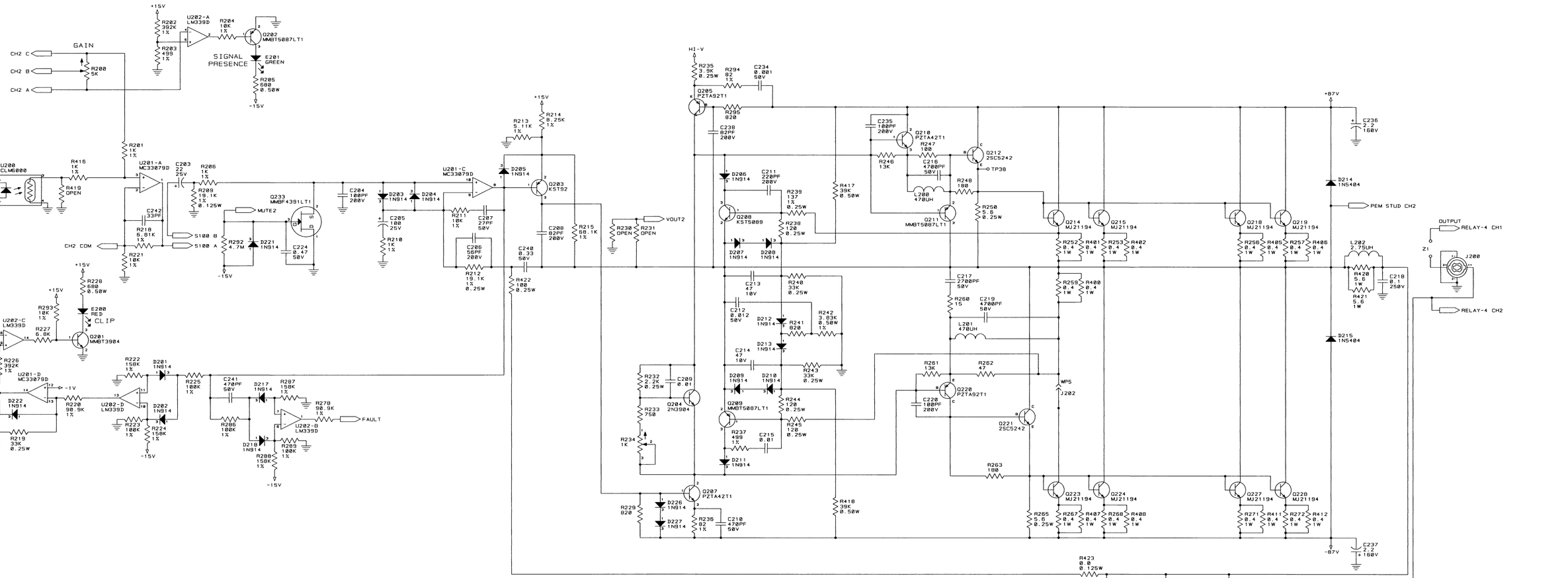
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SCHEM, MAIN/INPUT CE1000

TOL. UNLESS SPECIFIED
X.XX = ±0.02"
X.XXX = ±0.010"
DRILLS = ±0.003"

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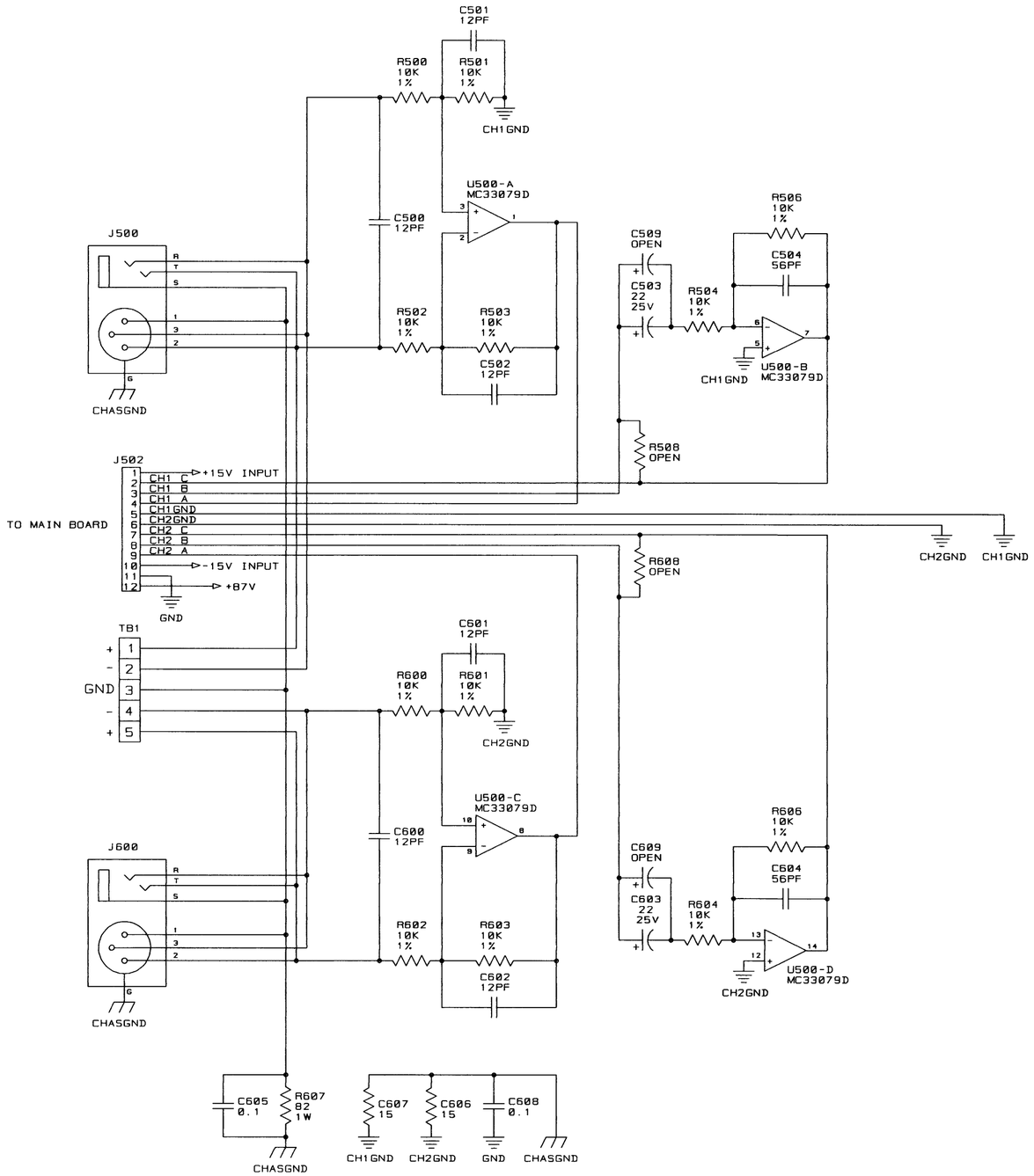
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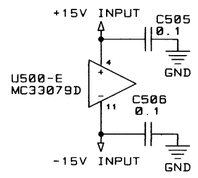
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SCALE	NONE	DWG. NO. 102141	SHEET 2 OF 3	REV J
PROJ. #	MD3000			



LAST USED	OBSOLETED
C31,C142,C242	C8,9,10,11,13-19,23,100,125,200,225
D13,D129,D229	D5,11-12,100,200
E1,E102,E202	
K100,K200	
L102,L202	
Q2,Q133,Q233	Q116,117,122,125,126,130,186,216,217,222,225,226,230,286
R31,R195,R295	R20,121,140,151,154,155,164,166,169,170,173,221,249,251,255,264,266,269,270,273,303,304,R305,310,403,404,405,410
R323,R423	
S1,S100	
U5,U106,U206	U103,203

BYPASS CAPACITORS



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SCALE	NONE	DWG. NO. 102141	SHEET 3 OF 3	REV J
PROJ. #	MD390D0			

E.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL			
						CK	CM	EE	PE
98E0815		K	C606,C607 WERE 15. C608 WAS .1MF. C111,C211 WERE 220PF. C102,C115,C202,C215 WERE .01. C121,C124,C221,C224 WERE .47. R1,R7 WERE 2.2K. R5 WAS 7.68K. R27 WAS 10K. R126,R226 WERE 392K. R137,R237 WERE 499. R174,R192. R274,R292 WERE 4.7M. ADDED C143,C144,C243,C244,D130, D230,Q3,R32,R33,R34,R196,R197,R198,R199,R296,R297, R298,R299. S1 WAS S100. S2 WAS S1. S2 WAS EG2207. +6.0V WAS +5.45V. -5.85V WAS -6.11V. -.54 WAS -1. REVISED NOTE 3.	12-21-98	JAW	TLM			TS
99E0042		L	C605,C607,C608 WERE 2.7 OHM. HW27,HW28 WERE 103415-70600.	01-28-99	JAW				

FROM INPUT CARD

GAIN

SIGNAL PRESENCE

GAIN 1.4V 26DB

S1 A CH2 COM

CLIP

MUTE1

HI-V

VOUT1

OUTPUT

RELAY-4 CH2

RELAY-4 CH1

WP7

OUTPUT SIGNAL GROUND

PEM STUD CH1

FAULT

ENABLE

SHORT

OUTPUT CONNECTOR FOR FAULT

BYPASS CAPACITORS

UNUSED ELEMENTS

NOTES:

1. UNLESS OTHERWISE SPECIFIED: ALL RESISTORS ARE IN OHMS, 1/10W. 5%
2. UNLESS OTHERWISE SPECIFIED: ALL CAPACITORS ARE IN MICROFARADS.
3. THIS SCHEMATIC APPLIES TO PWA 102139-9.

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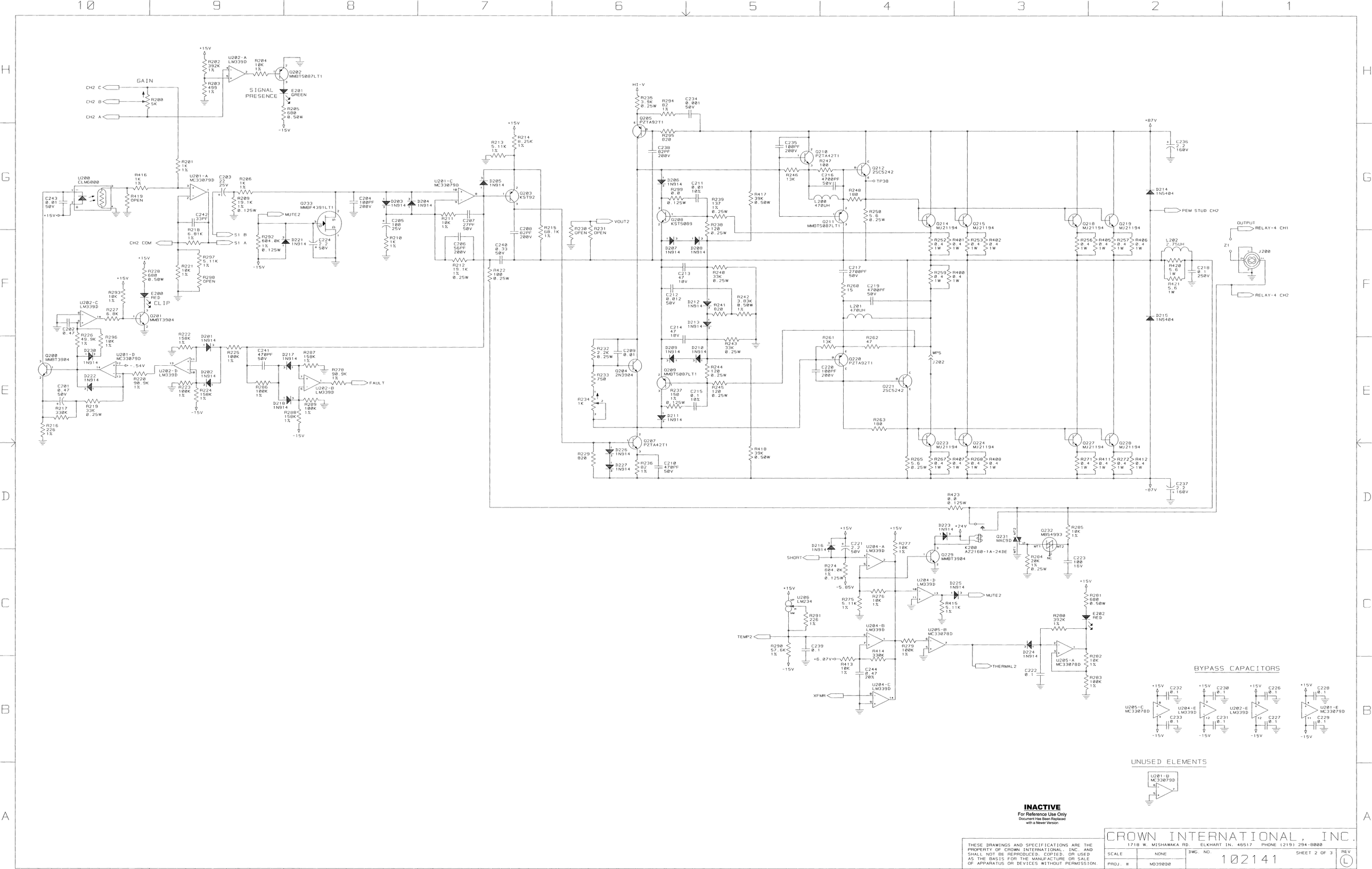
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SCHEM, MAIN/INPUT CE1000

TOL. UNLESS SPECIFIED
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X.XXX = ±0.010"
DRILLS = ±0.003"

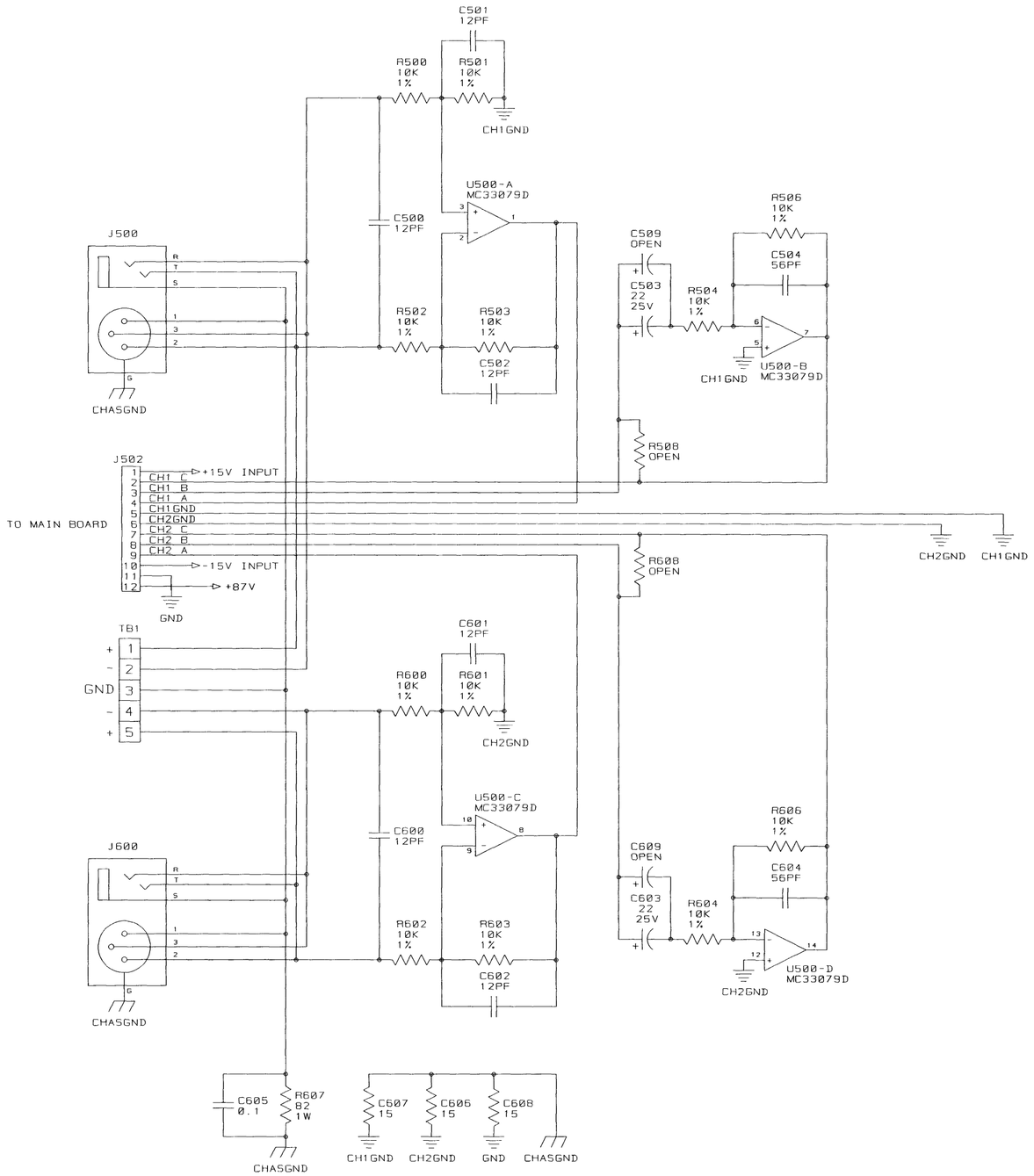
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		SCALE	NONE		EE	PW	09-09-97	E.C.
		PROJ. #	MD3980D		PE	TS	09-09-97	DWG. NO. 102141 SHEET 1 OF 3 REV L
		FILENAME: 102141-L.SCM			NEXT ASSEMBLY:			



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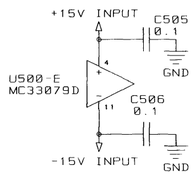
CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102141	SHEET 2 OF 3	REV L
PROJ. #	MD3000			



LAST USED	OBSOLETED
C31.C144.C244	C8.9.10.11.13-19.23.100.125.200.225
D13.D130.D230	D5.11-12.100.200
E1.E102.E202	
K100.K200	
L102.L202	
Q3.Q133.Q233	Q116.117.122.125.126.130.186.216.217.222.225.226.230.286
R34.R199.R299	R29.121.149.151.154.155.164.186.169.170.173.221.249.251.255.264.266.269.278.273.303.304.
R323.R423	R309.310.403.404.409.410
S2	S100
U5.U186.U286	U103.203

BYPASS CAPACITORS



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102141	SHEET 3 OF 3	REV L
PROJ. #	MD350D0			

E.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL			
						CK	CM	EE	PE
98E0815		K	C606,C607 WERE 15. C608 WAS .1MF. C111,C211 WERE 220PF C102,C115,C202,C215 WERE .01. C121,C124,C221,C224 WERE .47. R1,R7 WERE 2.2K. R5 WAS 7.68K. R27 WAS 10K. R126,R226 WERE 392K. R137,R237 WERE 499. R174,R192. R274,R292 WERE 4.7M. ADDED C143,C144,C243,C244,D130. D230,D3,R32,R33,R34,R195,R197,R198,R199,R296,R297. R298,R299. S1 WAS S100. S2 WAS S1. S2 WAS EG2207. +6.07V WAS +5.46V. -5.05V WAS -6.11V. -.54 WAS -1. REVISED NOTE 3.	12-21-98	JAW	TLM			TS
99E0842		L	C606,C607,C608 WERE 2.7 OHM. HW27,HW28 WERE 103415-78608.	01-28-99	JAW	KW	CB		TS
99E0849	H9 F9 D10 C5,E5 C5,E5 B6 VARIES B1	M	ADDED C100, C200, R149, R151, R249, AND R251. Z100 WAS R190, Z200 WAS R290, S1 WAS 102488-1. DELETED R7,R32,R34. R1 WAS 103199-1,R2 WAS A11371-2225. R504, R505, R604, R605 WERE A11368-10021. C504 AND C604 WERE 102438-560K2. R605, R609, R610 WERE RENAMED FROM C606, C607, C608. +85VCC & -85VCC WERE RENAMED FROM +87V & -87V. REVISED NOTE 3. UPDATED LAST USED / NOT USED CHART.	02-12-99	KLW	JAW	CB		

FROM INPUT CARD

GAIN

SIGNAL PRESENCE

FAULT

HI-V

MUTE1

CLIP

ENABLE

SHORT

THERMAL2

OUTPUT

OUTPUT SIGNAL GROUND

PEM STUD CH1

RELAY-4 CH1

RELAY-4 CH2

OUTPUT CONNECTOR FOR FAULT

VOUT1

XFMR

TEMP1

TEMP2

BYPASS CAPACITORS

UNUSED ELEMENTS

NOTES:

1. UNLESS OTHERWISE SPECIFIED: ALL RESISTORS ARE IN OHMS, 1/10W, 5%
2. UNLESS OTHERWISE SPECIFIED: ALL CAPACITORS ARE IN MICROFARADS.
3. THIS SCHEMATIC APPLIES TO PRINTED WIRING ASSEMBLY 102139-10.

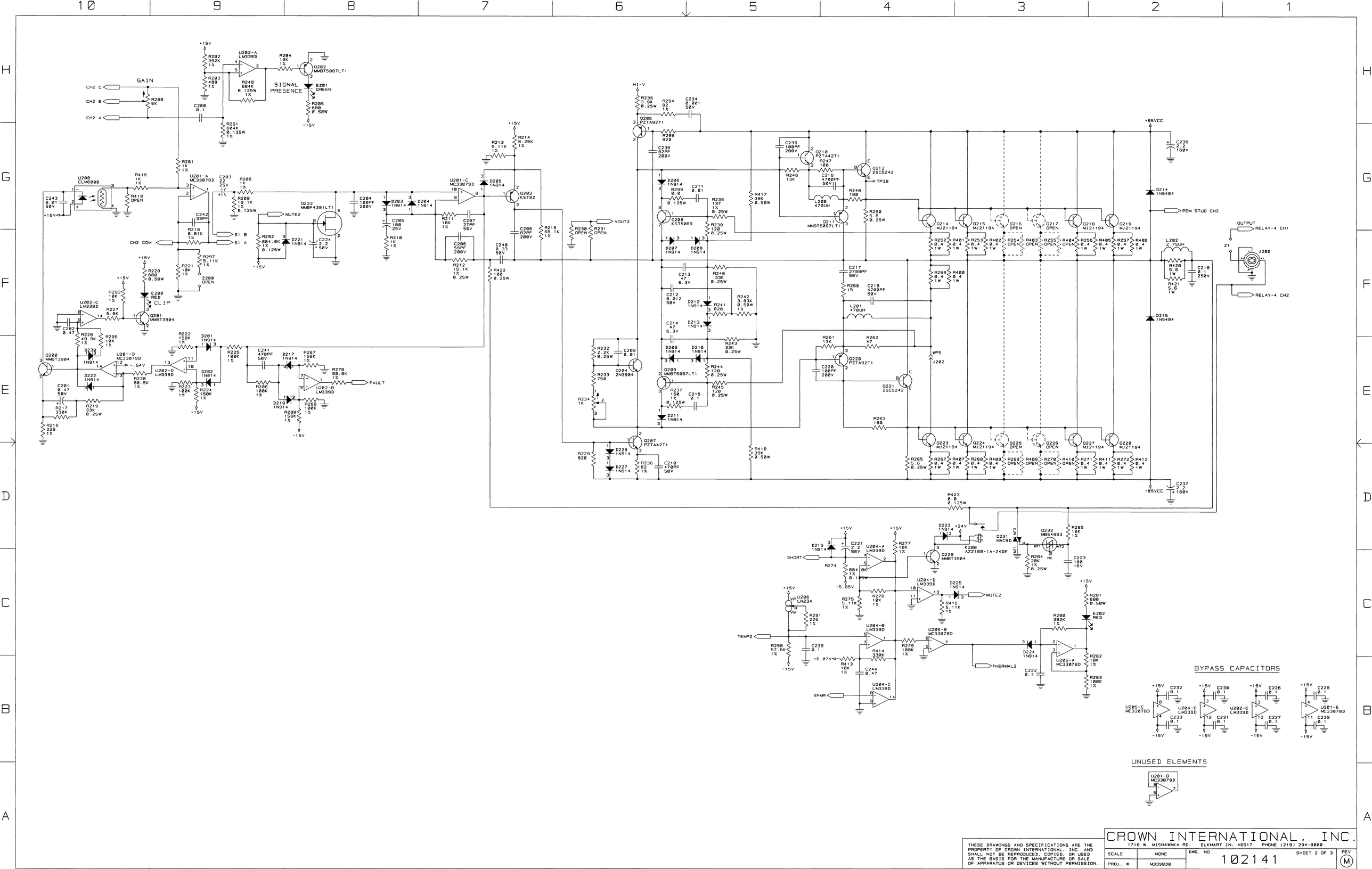
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCHEM. MAIN/INPUT CE1000

TOL. UNLESS SPECIFIED X.XX = ±0.02" X.XXX = ±0.010" DRILLS = ±0.003"

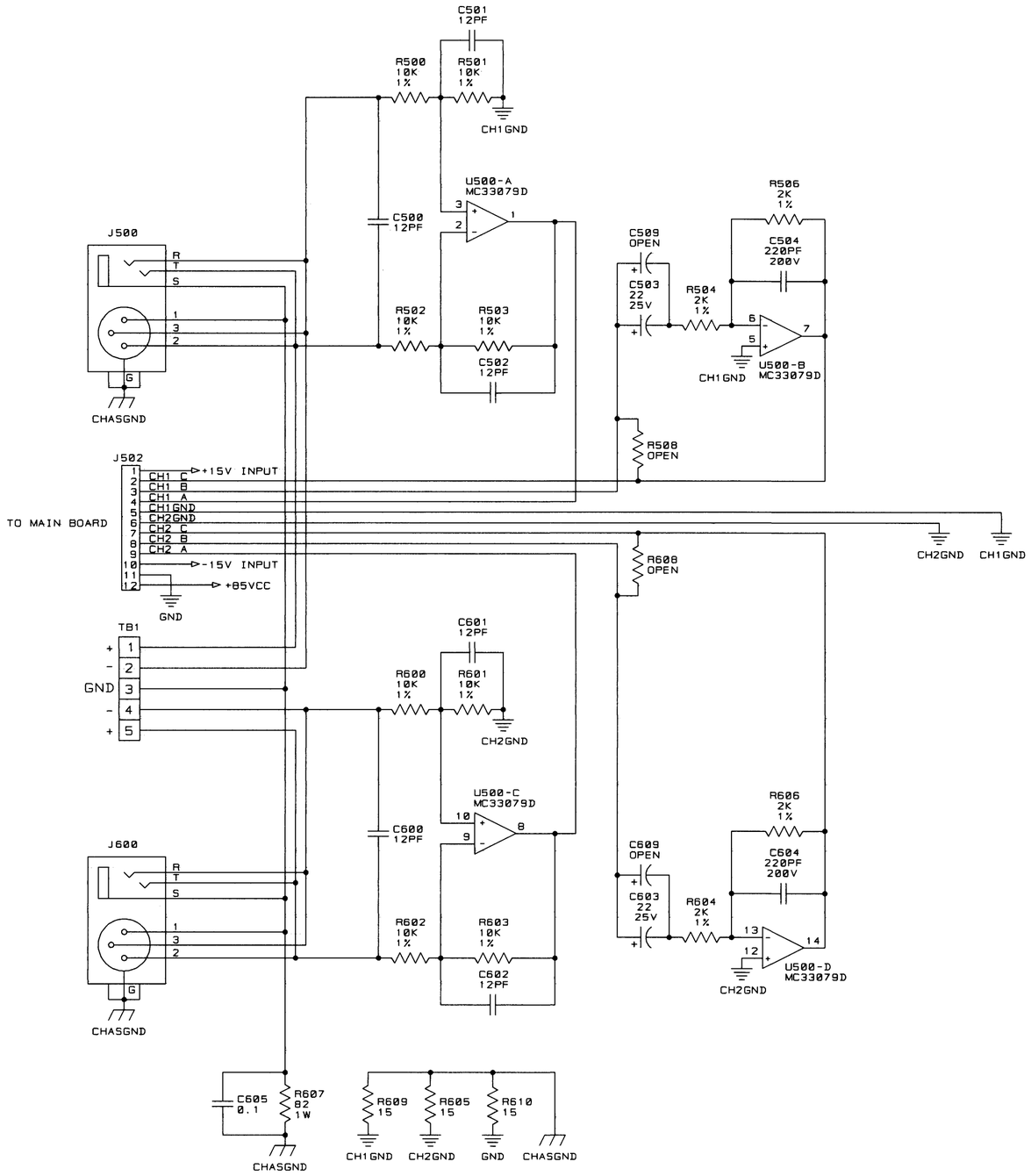
PRINTS TO	DRAWN BY	TLM	04-04-97	APPROVED BY:			DO NOT SCALE PRINT
G	CHECKED	KW	09-09-97	ME			SUPERSEDES
	SCALE	NONE		EE	PW	09-09-97	E.C.
	PROJ. #	MD3900		PE	TS	09-09-97	DWG. NO. 102141 SHEET 1 OF 3 REV M
	FILENAME: 102141_M.SCM			NEXT ASSEMBLY:			



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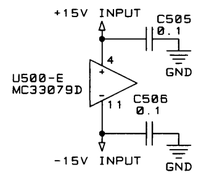
CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102141	SHEET 2 OF 3	REV M
PROJ. #	MD350D0			



LAST USED	NOT USED
C609	8-11,13-19,23,32-99,125,145-199,225,244-499,507,508,510-599,606-608
D230	5,11-12,14-100,131-200,219,220
E202	2-99,103-199
J600	1,6-99,101-199,201-499,501,503-599
K200	1-99,101-199
L202	1-99,103-199
Q233	4-99,106,113,122,130,134-199,206,213,222,230
R610	7,32,34-99,164,166,173,198,207,208,258,264,266,273,298,320,321,324-399,424-499,505,507,509-599
S2	
TB1	
U500	6-99,103,107-199,203,207-499
WP7	
Z200	2-99,101-199

BYPASS CAPACITORS



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102141	SHEET 3 OF 3	REV (M)
PROJ. #	MD390D0			

E.C.N. D.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL CK	ME	EE	PE
98E0373		G	ADDED INPUT BOARD CIRCUITRY SHEET 3. ADDED C30. C31. C141. C241. R30. AND R31. U100 AND U200 WERE C 78L6-9. R112 AND R212 WERE A11368-19122. R101. R201. R316. AND R416 WERE A11368-10021. DELETED R250. SCHEMATIC WAS REDRAWN IN CADSTAR. REMOVED 5500 FROM INPUT ADDED TO MAIN (S1). DELETED R585 AND R605. ADDED WP7. R118. R218. R121. R221. C142 AND C242. K100 & K200 WERE C10335-5.	05-18-98	TLM	JAW			TS
98E0562		H	R5 WAS 8.25K. R322 & R422 WERE 270 OHM	9-2-98	JFL	TLM			TS
98E0781		J	+5.46V WAS +5.25V. -6.11V WAS -5.25V. C686.C687 WERE 0.1MF. R6 WAS 8.87K. R18 WAS 8.25K. U100.U200 WERE NSL 32. U186.U286 WERE LM324. ADDED NOTE 3. DELETED R29.	12/16/98	JAW				

FROM INPUT CARD

J3

GAIN

SIGNAL PRESENCE

S1 EG2207

26DB GAIN

MUTE1

CLIP

FAULT

SHORT

THERMAL2

MUTE1

VOUT1

HI-V

PEM STUD CH1

OUTPUT

RELAY-4 CH2

RELAY-4 CH1

WP7

OUTPUT SIGNAL GROUND

OUTPUT CONNECTOR FOR FAULT

BYPASS CAPACITORS

UNUSED ELEMENTS

NOTES:

1. UNLESS OTHERWISE SPECIFIED: ALL RESISTORS ARE IN OHMS. 1/10W. 5%
2. UNLESS OTHERWISE SPECIFIED: ALL CAPACITORS ARE IN MICROFARADS.
3. THIS SCHEMATIC APPLIES TO PWA 102140-8.

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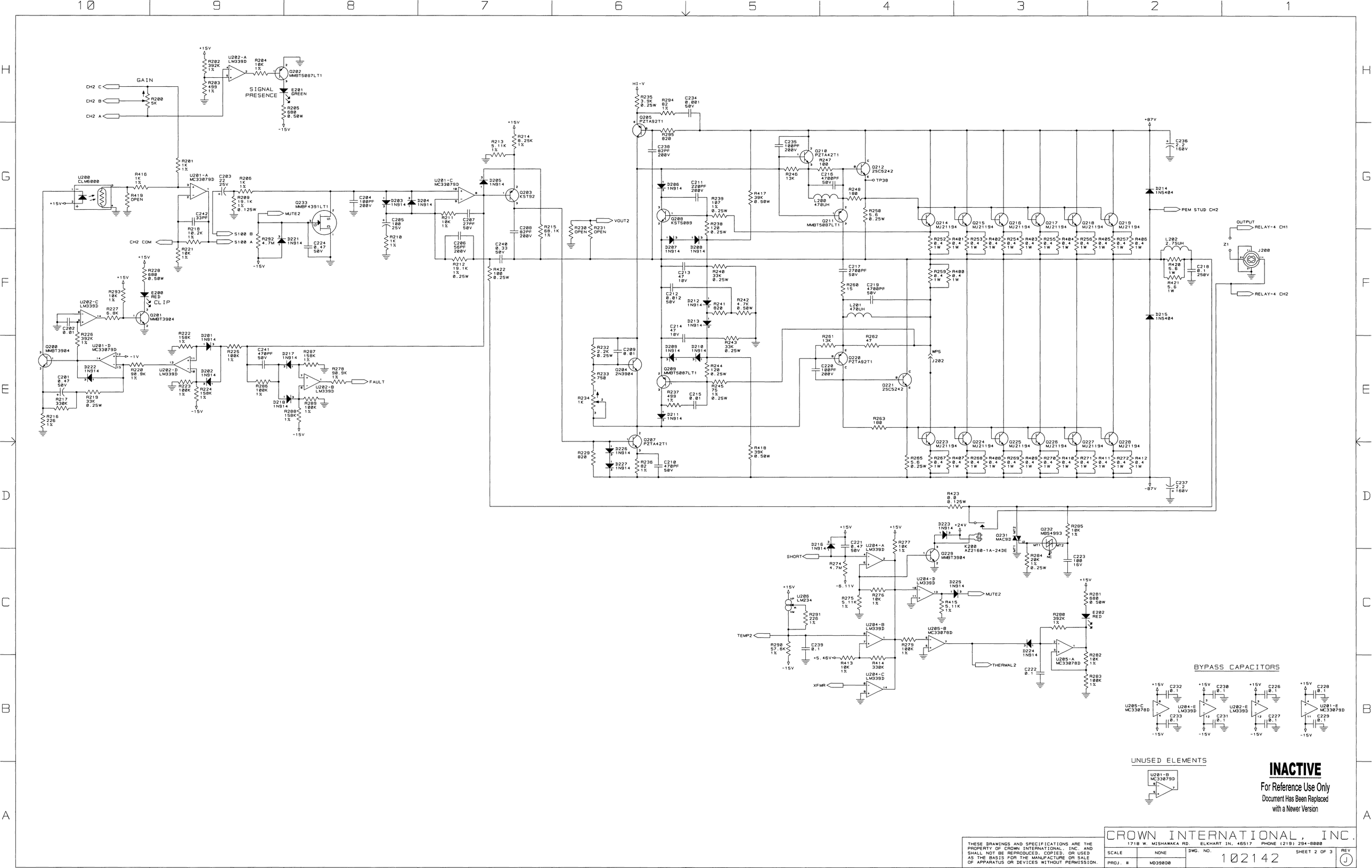
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCHEM, MAIN/INPUT CE2000

TOL. UNLESS SPECIFIED X.XX = ±0.02" X.XXX = ±0.010" DRILLS = ±0.003"

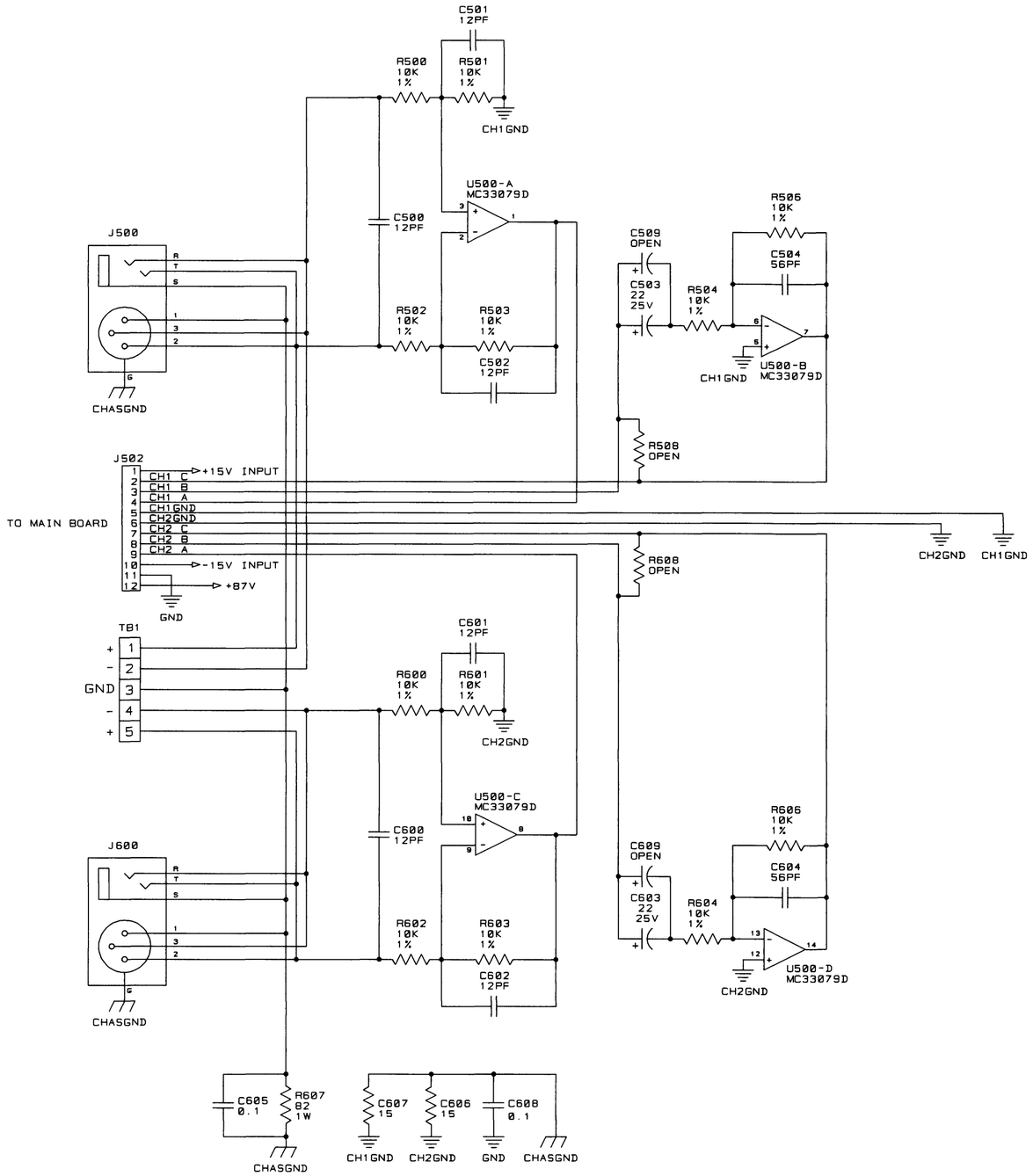
PRINTS TO		DRAWN BY	TLM	04-04-97	APPROVED BY:			DO NOT SCALE PRINT
G		CHECKED	KW	09-09-97	ME			SUPERSEDES 102142 REV.H
		SCALE	NONE		EE	PW	09-09-97	E.C.
		PROJ. #	MD398D8		PE	TS	09-09-97	DWG. NO. 102142 SHEET 1 OF 3 REV J
		FILENAME: 102142K.SCM			NEXT ASSEMBLY:			



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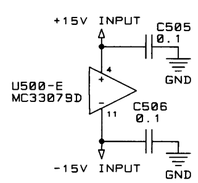
CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 2 OF 3	REV
PROJ. #	MD350D0	102142		J



LAST USED	OBSOLETED
C31,C142,C242	C8,9,10,11,13-19,23,100,125,200,225
D13,D128,D229	D5,11-12,100,208
E1,E102,E202	
K100,K200	
L102,L202	
Q2,Q133,Q233	Q122,130,222,230,108,208
R31,R195,R295	R29,149,151,184,186,173,249,251,264,266
R323,R423	
S1,S100	
U5,U106,U206	U103,203

BYPASS CAPACITORS



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102142	SHEET 3 OF 3	REV J
PROJ. #	MD390D0			

E.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL			
						CK	CM	EE	PE
98E0796		K	C606,C607 WERE 15. C608 WAS 0.1MF. C102,C202 WERE A11427-103K2. C111,C211 WERE 220PF. C115,C215 WERE .01. C121,C124,C221,C224 WERE 103191-1. R1,R7 WERE A11371-2225. R5 WAS 7.68K. R126,R226 WERE 392K. R137,R237 WERE 499. R174,R192,R274,R292 WERE 4.7M. ADDED C143,C144,C243,C244,D130,D230,Q3,R32,R33,R34, R196,R197,R198,R199,R296,R297,R298,R299. S1 WAS S100. S2 WAS S1: +6.07V WAS +5.46V. -5.17V WAS -6.11V. -.54 WAS -1. REVISED NOTE 3.	12-10-98	JAW	JW			TS
99E0042		L	C606,C607,C608 WERE 2.7 OHM. HW27,HW28 WERE 103415-70600.	01-28-99	JAW	KW			

FROM INPUT CARD

GAIN

SIGNAL PRESENCE

HI-V

VOUT1

MUTE1

THERMAL2

FAULT

CLIP

OUTPUT

OUTPUT SIGNAL GROUND

PEM STUD CH1

RELAY-4 CH2

RELAY-4 CH1

OUTPUT CONNECTOR FOR FAULT

INACTIVE
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BYPASS CAPACITORS

UNUSED ELEMENTS

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   ALL RESISTORS ARE IN OHMS,
   1/10W, 5%
2. UNLESS OTHERWISE SPECIFIED:
   ALL CAPACITORS ARE IN MICROFARADS.
3. THIS SCHEMATIC ONLY APPLIES TO:
   PRINTED WIRING ASSEMBLIES - 102140-9 & 126796-2

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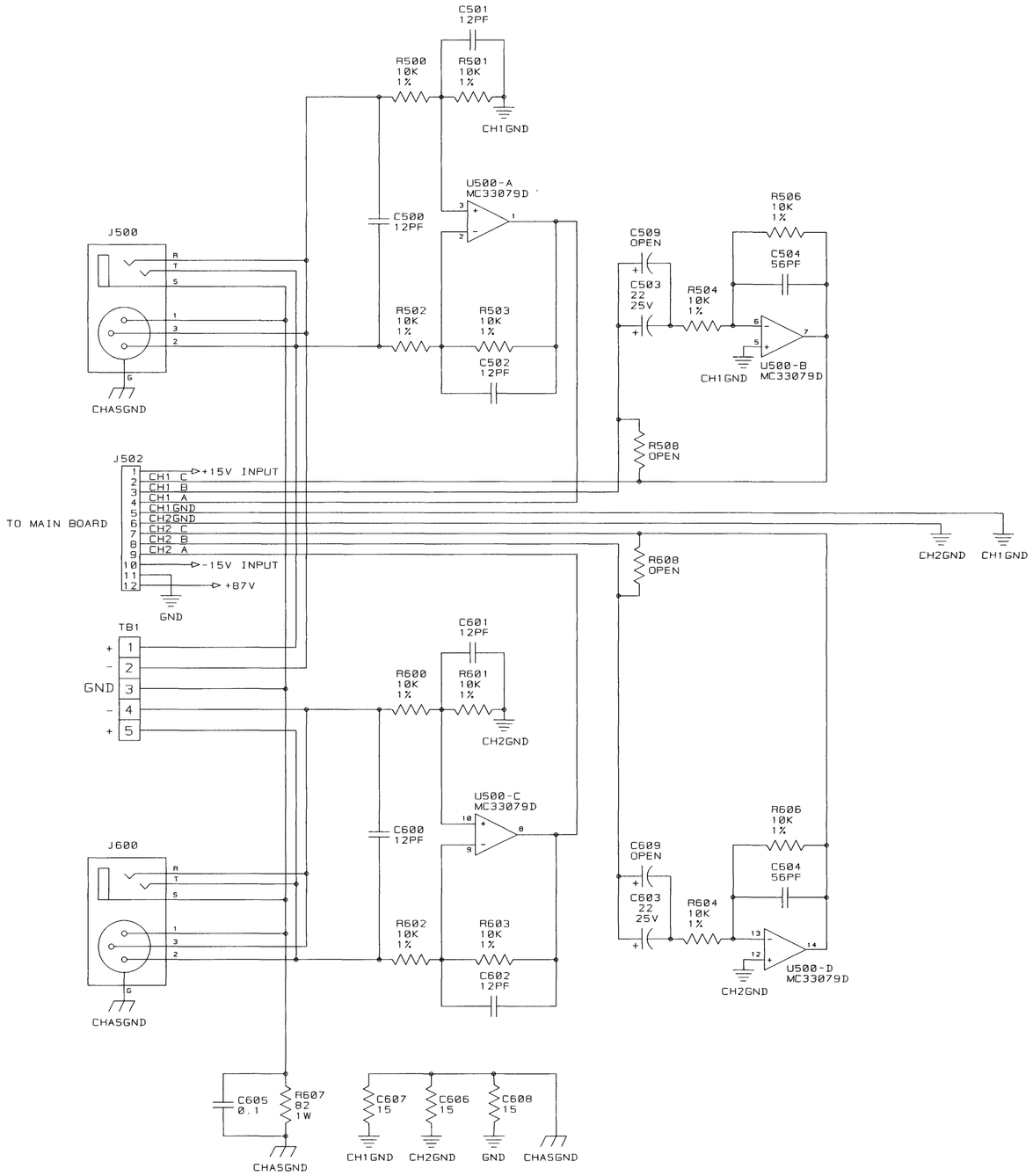
CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCHEM, MAIN/INPUT CE2000

TOL. UNLESS SPECIFIED
X.XX = ±0.02"
X.XXX = ±0.010"
DRILL5 = ±0.003"

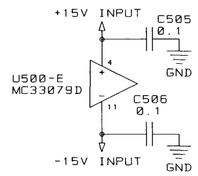
PRINTS TO		DRAWN BY	TLM	04-04-97	APPROVED BY:			DO NOT SCALE PRINT
G		CHECKED	KW	09-09-97	ME			SUPERSEDES
		SCALE	NONE		EE	PW	09-09-97	E.C.
		PROJ. #	MD3900D0		PE	TS	09-09-97	DWG. NO. 102142 SHEET 1 OF 3 REV L
		FILENAME: 102142_L SCM			NEXT ASSEMBLY:			

GAIN
CH2 C
CH2 B
CH2 A
R200 5K
R201 1K 1%
R202 392K 1%
R203 499 1%
U202-A LM339D
R204 10K 1%
Q202 MMBT5087LT1
SIGNAL PRESENCE
E201 GREEN
R205 680 0.50W
+15V
-15V
U200 CLM6000
R416 1K 1%
R419 OPEN
C243 0.01 50V
U201-A MC33079D
C203 22 25V
R209 19.1K 1% 0.125W
C242 33PF
R218 10.2K 1%
R221 10K 1%
R297 6.19K 1%
R298 OPEN
CH2 COM
S1 B
S1 A
R206 1K 1%
C204 100PF 200V
MUTE2
Q233 MMBF4391LT1
R292 604.8K 1% 0.125W
D221 1N914
C224 2.2 +50V
D203 1N914
D204 1N914
C205 100 25V
R210 1K 1%
U201-C MC33079D
R213 5.11K 1%
R214 6.25K 1%
D205 1N914
Q203 K5T92
C208 82PF 200V
R215 68.1K 1%
C207 27PF 50V
R211 10K 1%
C206 55PF 200V
R212 19.1K 1% 0.25W
C240 0.33 50V
R422 100 0.25W
R230 OPEN
R231 OPEN
VOUT2
HI-V
R235 3.9K 0.25W
R294 82 1%
C234 0.001 50V
Q205 PZTA92T1
R295 820
C238 62PF 200V
D206 1N914
C211 0.01 10%
R299 0.0 0.125W
R239 107 1% 0.25W
Q208 K5T5089
R238 120 0.25W
D207 1N914
D208 1N914
R417 39K 0.50W
C235 100PF 200V
Q210 PZTA42T1
R247 100
Q212 2SC5242
R246 13K
C218 4700PF 50V
L200 470UH
TP3B
R248 100
Q211 MMBT5087LT1
R250 5.6 0.25W
+87V
C236 2.2 160V
D214 1N5404
PEM STUD CH2
Q214 MJ21194
Q215 MJ21194
Q216 MJ21194
Q217 MJ21194
Q218 MJ21194
Q219 MJ21194
R252 0.4 1W
R401 0.4 1W
R253 0.4 1W
R402 0.4 1W
R254 0.4 1W
R403 0.4 1W
R255 0.4 1W
R404 0.4 1W
R256 0.4 1W
R405 0.4 1W
R257 0.4 1W
R406 0.4 1W
L202 2.75UH
R420 5.6 1W
R421 5.6 1W
C218 0.1 250V
OUTPUT
RELAY-4 CH1
Z1
J200
RELAY-4 CH2
C213 47 10V
R240 33K 0.25W
C212 0.012 50V
D212 1N914
R241 820
R242 4.7K 0.50W
D213 1N914
C214 47 10V
R243 33K 0.25W
D209 1N914
D210 1N914
R244 120 0.25W
Q209 MMBT5087LT1
R237 150 1% 0.125W
C215 0.1 10%
R245 75 1% 0.25W
D211 1N914
C217 2700PF 50V
R260 15
C219 4700PF 50V
L201 470UH
R259 0.4 1W
R400 0.4 1W
R261 13K
R262 47
Q220 PZTA92T1
C220 100PF 200V
Q221 2SC5242
WP5
J202
R263 100
R232 2.2K 0.25W
C209 0.01
Q204 2N3904
R233 750
R234 1K
Q207 PZTA42T1
D226 1N914
D227 1N914
R229 820
R236 82 1%
C210 470PF 50V
R410 39K 0.50W
Q223 MJ21194
Q224 MJ21194
Q225 MJ21194
Q226 MJ21194
Q227 MJ21194
Q228 MJ21194
R265 5.6 0.25W
R267 0.4 1W
R407 0.4 1W
R268 0.4 1W
R408 0.4 1W
R269 0.4 1W
R409 0.4 1W
R270 0.4 1W
R410 0.4 1W
R271 0.4 1W
R411 0.4 1W
R272 0.4 1W
R412 0.4 1W
-87V
C237 2.2 160V
R423 0.0 0.125W
D223 1N914
+24V
K200 AZ2160-1A-24DE
Q231 MAC9D
MT2
MT1
G
Q232 MBS4993
R285 10K 1%
R284 20K 1% 0.25W
C223 100 16V
SHORT
C221 2.2 50V
D216 1N914
U204-A LM339D
R277 10K 1%
R274 604.0K 1% 0.125W
-5.17V
R275 5.11K 1%
R276 10K 1%
U204-D LM339D
D225 1N914
MUTE2
R415 5.11K 1%
R281 680 0.50W
E202 RED
R280 392K 1%
U205-B MC33079D
D224 1N914
U205-A MC33079D
R282 10K 1%
R283 100K 1%
C222 0.1
TEMP2
R291 226 1%
U206 LM234
R290 57.6K 1%
C239 0.1
U204-B LM339D
R414 330K
+6.07V
R413 10K 1%
C244 0.47 20%
U204-C LM339D
R279 100K 1%
THERMAL2
XFMR
+15V
R228 680 0.50W
E200 RED
CLIP
R293 10K 1%
U202-C LM339D
R227 6.8K
Q201 MMBT3904
C202 0.47
Q200 MMBT3904
R226 49.9K 1%
R296 10K 1%
D230 1N914
U201-D MC33079D
-.54V
R220 90.9K 1%
D222 1N914
C201 0.47 50V
R217 330K
R219 3K 0.25W
R216 226 1%
R222 158K 1%
D201 1N914
R225 100K 1%
U202-D LM339D
R223 100K 1%
R224 158K 1%
D202 1N914
C241 470PF 50V
D217 1N914
R287 158K 1%
R270 90.9K 1%
FAULT
U202-B LM339D
R286 100K 1%
D218 1N914
R288 158K 1%
R289 100K 1%
BYPASS CAPACITORS
U205-C MC33079D
C232 0.1
U204-E LM339D
C233 0.1
C230 0.1
C231 0.1
U202-E LM339D
C226 0.1
C227 0.1
U201-E MC33079D
C228 0.1
C229 0.1
UNUSED ELEMENTS
U201-B MC33079D
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000
SCALE NONE
PROJ. # MD3900D0
DWG. NO. 102142
SHEET 2 OF 3
REV L



LAST USED	OBSOLETED
C31.C144.C244	C8.9.10.11.13-19.23.100.125.200.225.507.
C509.C609	C508
D13.D130.D230	D5.11-12.100.200
E1.E102.E202	
J502.J600	J501
K100.K200	
L102.L202	
Q2.Q133.Q233	Q106.122.130.206.222.230
R34.R199.R299	R149.151.164.166.173.249.251.264.266
R323.R423	
R508.R608	
S2	S100.S500
TB1	
U5.U106.U206	U103.203
U500	

BYPASS CAPACITORS



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102142	SHEET 3 OF 3	REV L
PROJ. #	MD390D0			

E.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL CK	CM	EE	PE
98E0796		K	C606,C607 WERE 15. C608 WAS 0.1MF. C102,C202 WERE A11427-103K2. C111,C211 WERE 220PF. C115,C215 WERE .01. C121,C124,C221,C224 WERE 103191-1. R1,R7 WERE A11371-2225. R5 WAS 7.68K. R126,R226 WERE 392K. R137,R237 WERE 499. R174,R192,R274,R292 WERE 4.7M. ADDED C143,C144,C243,C244,D130,D230,D3,R32,R33,R34, R196,R197,R198,R199,R286,R287,R288,R289. S1 WAS S180. S2 WAS S1. +6.07V WAS +5.45V. -5.17V WAS -6.11V. -.54 WAS -1. REVISED NOTE 3.	12-18-98	JAW	JW			TS
99E0042		L	C606,C607,C608 WERE 2.7 OHM. HW27,HW28 WERE 103415-70680.	01-28-99	JAW	KW	CB		TS
99E0049	H9 F9 D10 C5,E5 C5,E5 B6 VARIES B1	M	ADDED C100, C200. R149, R151, R249, AND R251. Z100 WAS R198. Z200 WAS R298. S1 WAS 102488-1. DELETED R7,R32,R34. R1 WAS 103199-1,R2 WAS A11371-2225. R504, R506, R604, R606 WERE A1136B-10021. C504 AND C604 WERE 102438-568K2. R605, R609, R610 WERE RENAMED FROM C606, C607, C608. +98VCC & -98VCC WERE RENAMED FROM +87V & -87V. REVISED NOTE 3. UPDATED LAST USED / NOT USED CHART.	02-09-99	KLW				

FROM INPUT CARD

GAIN

SIGNAL PRESENCE

MUTE1

FAULT

THERMAL2

OUTPUT SIGNAL GROUND

OUTPUT CONNECTOR FOR FAULT

PEM STUD CH1

RELAY-4 CH2

RELAY-4 CH1

BYPASS CAPACITORS

UNUSED ELEMENTS

NOTES:

1. UNLESS OTHERWISE SPECIFIED: ALL RESISTORS ARE IN OHMS, 1/10W, 5%
2. UNLESS OTHERWISE SPECIFIED: ALL CAPACITORS ARE IN MICROFARADS.
3. THIS SCHEMATIC ONLY APPLIES TO: PRINTED WIRING ASSEMBLY 102140-10

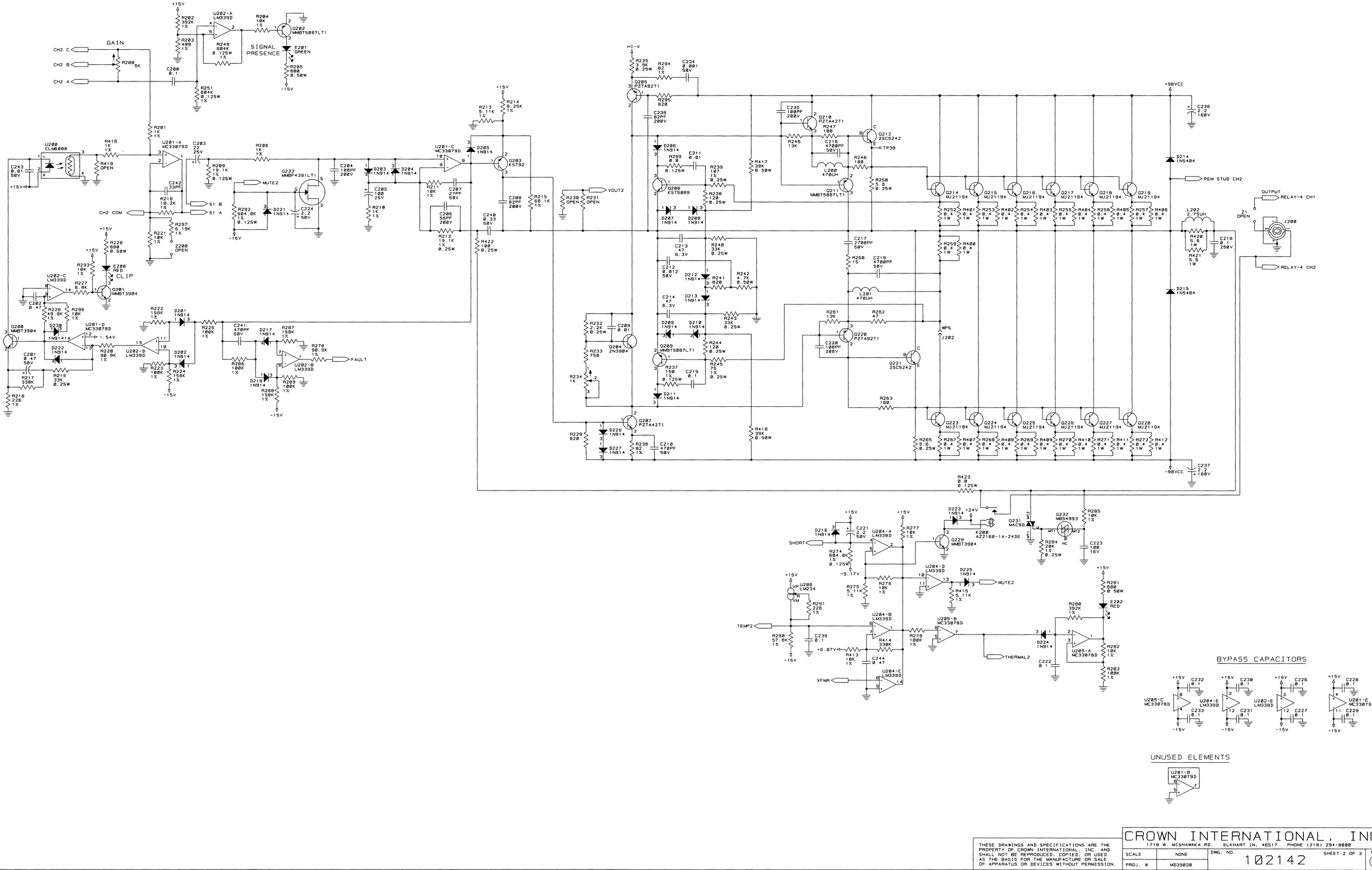
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1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCHEM, MAIN/INPUT CE2000

TOL. UNLESS SPECIFIED X.XX = ±0.02" X.XXX = ±0.010" DRILLS = ±0.003"

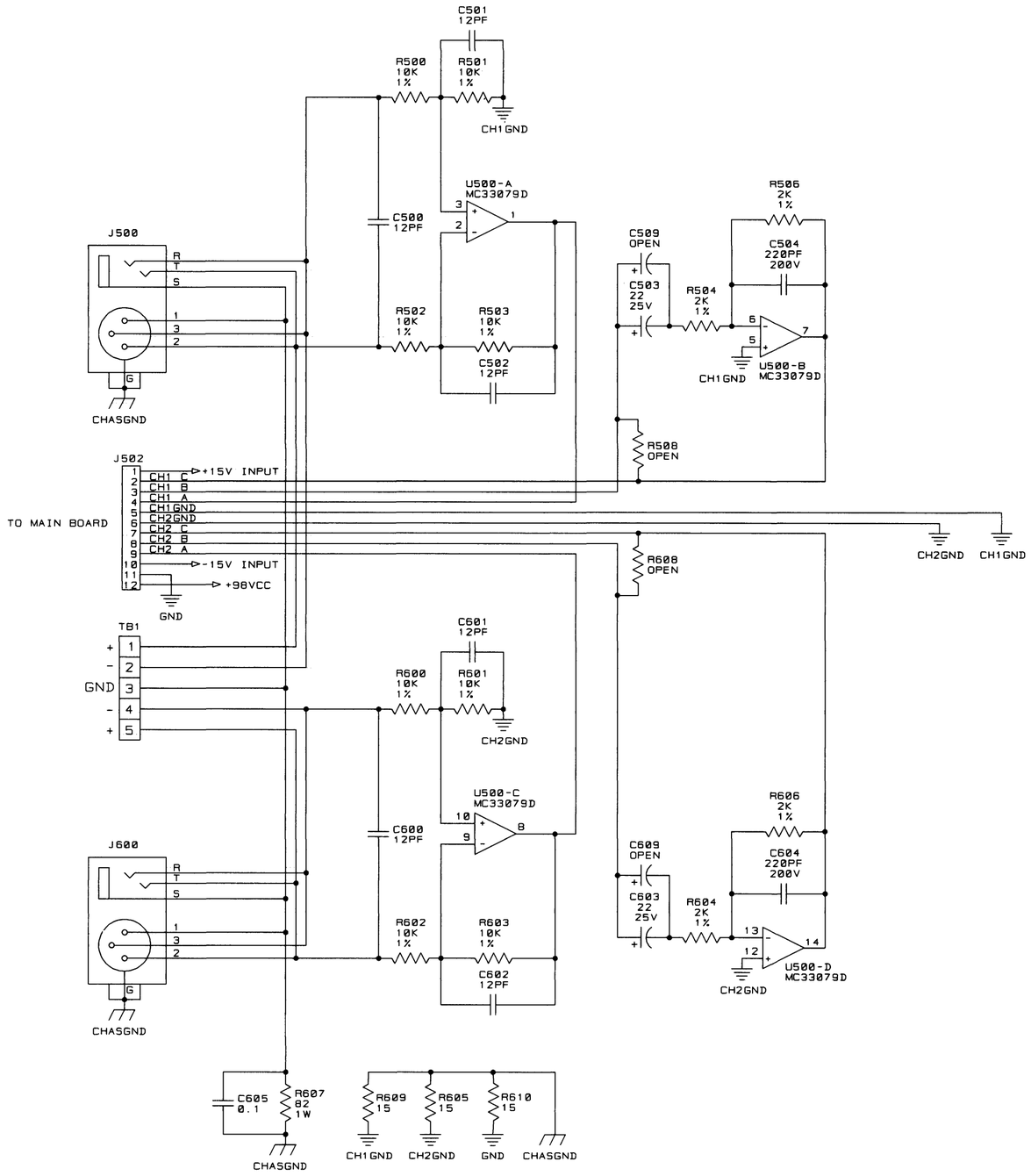
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G	CHECKED	KW	09-09-97	ME			SUPERSEDES
	SCALE	NONE		EE	PW	09-09-97	E.C.
	PROJ. #	MD398D0		PE	TS	09-09-97	DWG. NO. 102142 SHEET 1 OF 3 REV (M)
	FILENAME: 102142_M.SCM		NEXT ASSEMBLY:				



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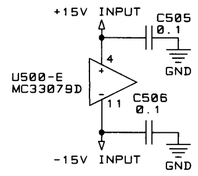
CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 2 OF 3	REV
PROJ. #	MD390D0	102142		M



LAST USED	NOT USED
C609	8-11,13-19,23,32-99,125,145-199,225,244-499,507,508,510-599,606-608
D230	5,11-12,14-100,131-200,219,220
E202	2-99,103-199
J600	1,6-99,101-199,201-499,501,503-599
K200	1-99,101-199
L202	1-99,103-199
Q233	4-99,106,113,122,130,134-199,206,213,222,230
R610	7,32,34-99,164,165,173,198,207,208,258,264,266,273,298,320,321,324-399,424-499,505,507,509-599
S2	
TB1	
U500	6-99,103,107-199,203,207-499
WP7	
Z200	2-99,101-199

BYPASS CAPACITORS

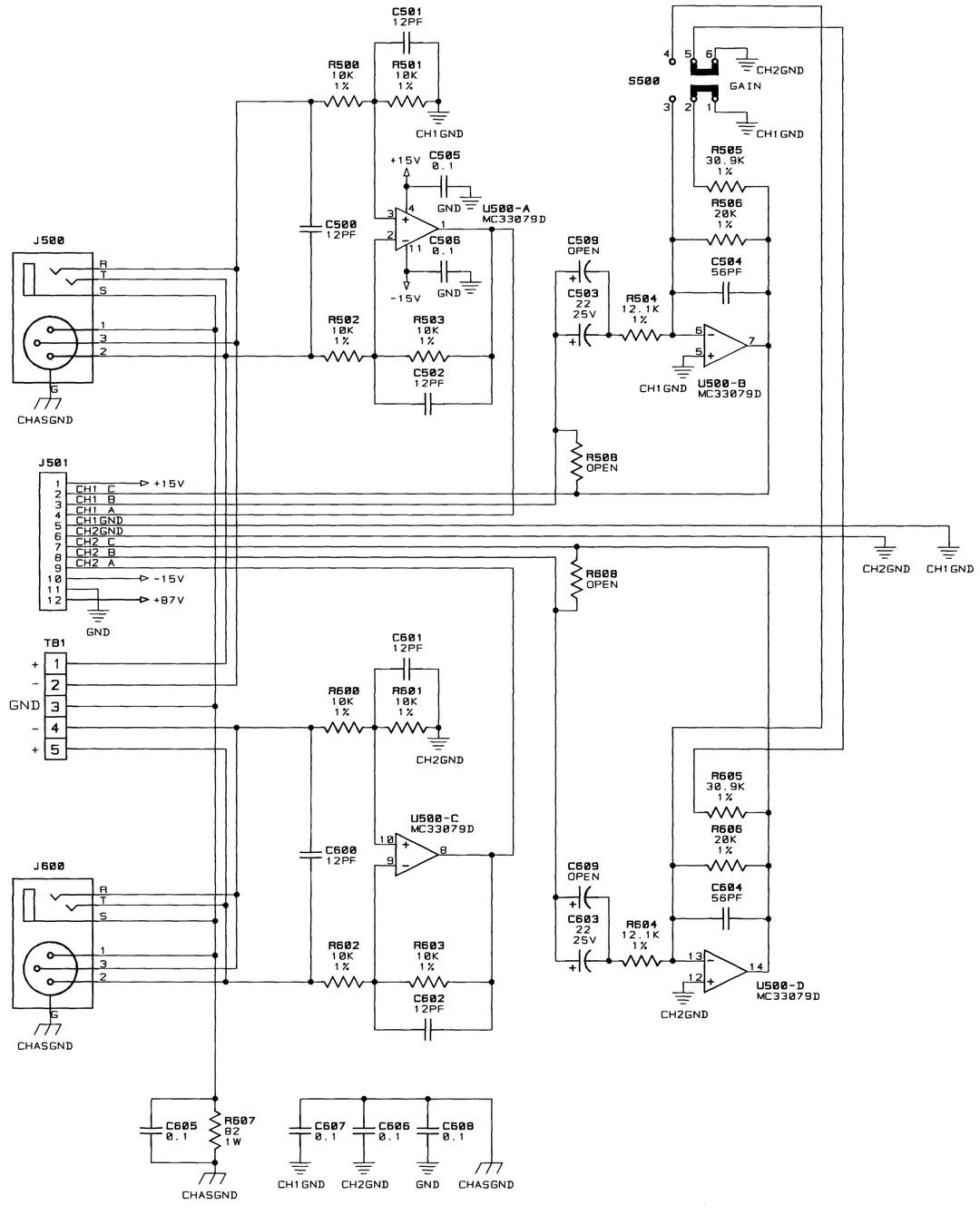


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1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102142	SHEET 3 OF 3	REV M
PROJ. #	MD390D0			

E.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL CK	ME	EE	PE
		A	INITIAL RELEASE.	09/05/97	DWW	TLM		PW	TS
		B	REMOVED R507 & C507. REMOVED CHASSIS GND FROM TB1. ADDED CHASSIS GND SYMBOL TO J500 & J600. RECONNECTED TB1 PIN 3 TO J500 & J600. C503 AND C603 WERE 4.7MF 25V.	10-21-97	TLM	KW			TS
		C	J501 WAS 102471-1.	10-24-97	TLM	KW			TS
		D	ADDED C509,C609,R508,R608. R607 WAS A11371-8201. SWAPPED PINS 1 & 3, 4 & 6 ON S500.	11-17-97	TLM	TLM			TS



LAST USED	OBSOLETED
C509,C609	507,508
J501,J600	
R508,R608	507
S500	
TB1	
U500	

NOTES:

1. ALL RESISTORS ARE IN OHMS, 1/10W, 5%. UNLESS OTHERWISE SPECIFIED.
2. ALL CAPACITORS ARE IN MICROFARADS. UNLESS OTHERWISE SPECIFIED.

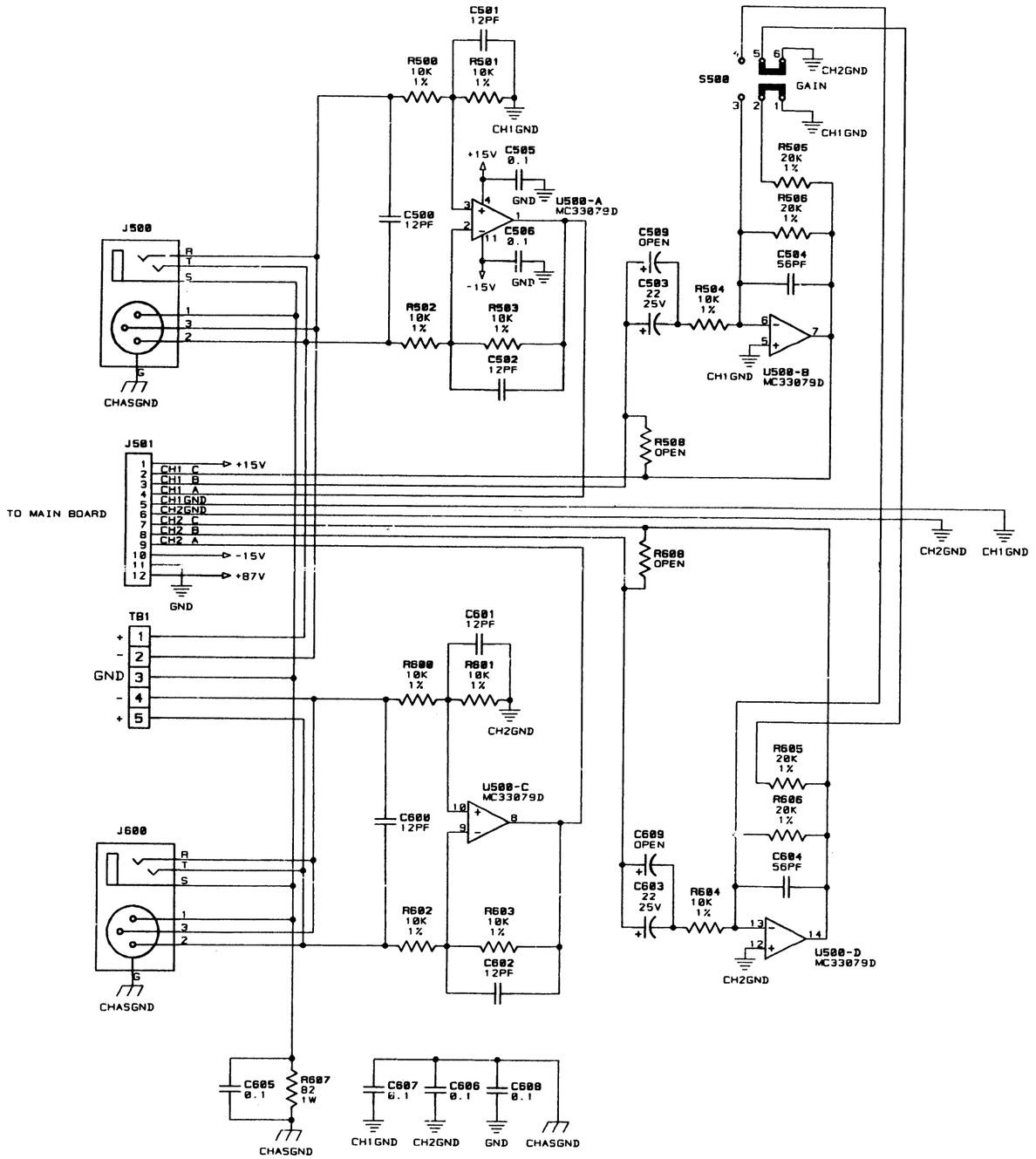
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCH, INPUT CE1000

PRINTS TO						APPROVED BY:			DO NOT SCALE PRINT
G		DRAWN BY	TLM	05-15-97					
		CHECKED	TLM	09-05-97	ME				SUPERSEDES
		SCALE	NONE		EE	PW	09-05-97		E.C.
		PROJ. #	MD390D0		PE	TS	09-08-97		DWG. NO. 102567 REV D
		FILENAME: 102567D.SCM			NEXT ASSEMBLY:				

E.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL			
						CK	ME	EE	PE
		A	INITIAL RELEASE.	09/05/97	DWW	TLM		PW	TS
		B	REMOVED R507 & C507. REMOVED CHASSIS GND FROM TB1. ADDED CHASSIS GND SYMBOL TO J500 & J600. RECONNECTED TB1 PIN 3 TO J500 & J600. C503 AND C603 WERE 4.7MF 25V [illegible]	10-21-97	TLM	KW			TS
		C	J501 WAS 102471-1.	10-24-97	TLM	KW			TS
		D	ADDED C509,C609,R508,R608. R607 WAS [illegible] SWAPPED PINS 1 & 3, 4 & 5 ON S500.	11-17-97	TLM	[illegible]			[illegible]



LAST USED	OBSOLETED
C509,C609	507,508
J501,J600	
R508,R608	507
S500	
TB1	
U500	

NOTES:

1. ALL RESISTORS ARE IN OHMS, 1/10W, 5%. UNLESS OTHERWISE SPECIFIED.
2. ALL CAPACITORS ARE IN MICROFARADS. UNLESS OTHERWISE SPECIFIED.

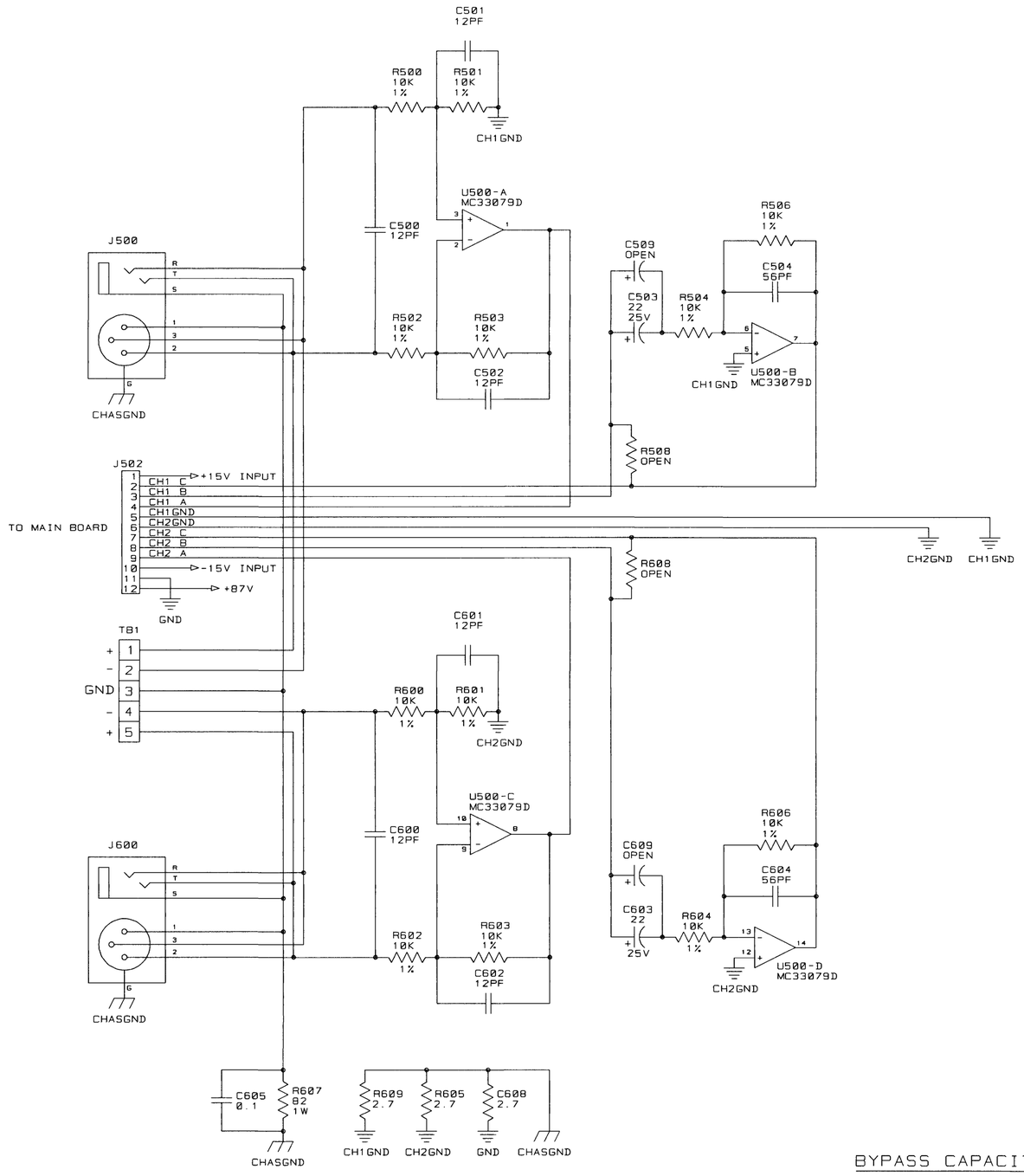
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCH, INPUT CE2000

PRINTS TO								
G		DRAWN BY	TLM	05-15-97	APPROVED BY:			DO NOT SCALE PRINT
		CHECKED	TLM	09-05-97	ME			SUPERSEDES
		SCALE	NONE		EE	PW	09-05-97	E.C.
		PROJ. #	MD390D0		PE	TS	09-08-97	DWG NO. 102568 REV D
		FILENAME: 102568D.SCM			NEXT ASSEMBLY:			

E.C.N. D.C.N.	ZONE	REV	DESCRIPTION	DATE	BY	APPROVAL CK	ME	EE	PE
		A	INITIAL RELEASE FOR PRODUCTION (LEVEL 1)	12/04/98	JAW	JLM			

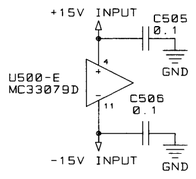


LAST USED	OBSOLETED
C509	C507, C508
C609	C606, C607
J502	J501
J600	
R508	R505, R507
R609	
TB1	
U500	

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
   ALL RESISTORS ARE IN OHMS,
   1/10W, 5%
2. UNLESS OTHERWISE SPECIFIED:
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BYPASS CAPACITORS



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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SERF SCH, CE STANDARD INPUT

TOL. UNLESS SPECIFIED
X.XX = ±0.02"
X.XXX = ±0.010"
DRILLS = ±0.003"

PRINTS TO		DRAWN BY	JAW	12/04/98	APPROVED BY:			DO NOT SCALE PRINT
ND		CHECKED	JLM	12/3/98	ME			SUPERSEDES
		SCALE	NONE		EE			E.C.
		PROJ. #	MD390D0		PE		12-30-98	DWG. NO. 127014 SHEET 1 OF 1 REV A
		FILENAME: 127014_A.SCM			NEXT ASSEMBLY:			

FROM INPUT CARD
GAIN
SIGNAL PRESENCE
MUTE1
FAULT
CLIP
ENABLE
HI-V
VOUT1
PEM STUD CH1
OUTPUT
RELAY-4 CH2
RELAY-4 CH1
OUTPUT SIGNAL GROUND
THERMAL2
OUTPUT CONNECTOR FOR FAULT
SHORT
BYPASS CAPACITORS
UNUSED ELEMENTS

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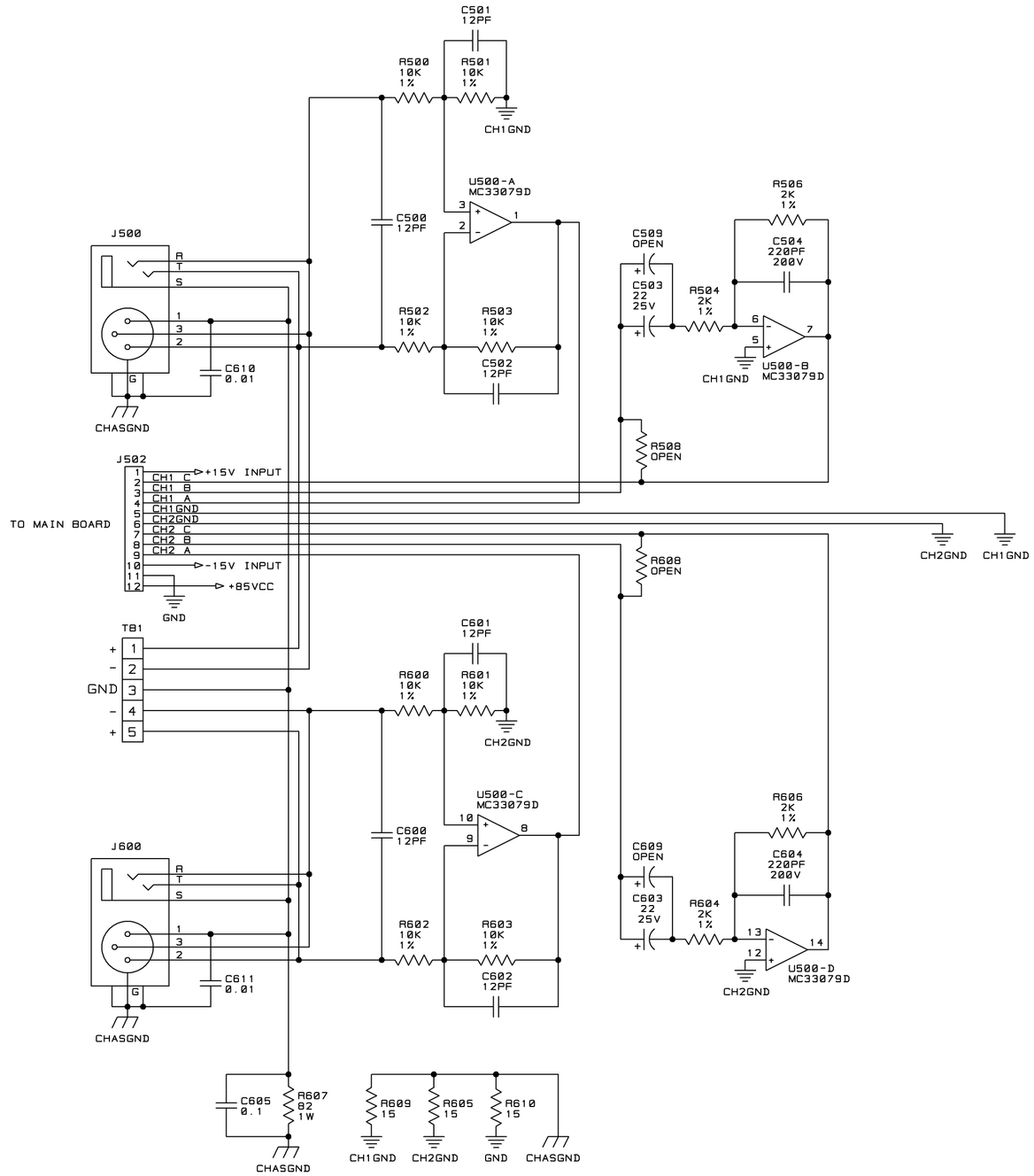
SIZE	DWG NO.	REV
D	127451-4	A
SCALE NONE	PROJ NO. MD390	SHEET SHEET 21 OF 23

GAIN
CH2 C
CH2 B
CH2 A
R200 5K
C200 0.47
R251 20K 0.125W 1%
+15V
R202 352K 1%
R203 499 1%
U202-A LM339D
R249 604K 0.125W 1%
R204 10K 1%
Q202 MMBT5087LT1
SIGNAL PRESENCE
E201 GREEN
R205 680 0.50W
-15V
U200 CLM6000
R416 1K 1%
R419 OPEN
C243 0.01 50V
R201 1K 1%
U201-A MC33079D
C203 22 25V
R206 1K 1%
R209 19.1K 1% 0.125W
C242 33PF
R218 6.81K 1%
CH2 COM
S1 B
S1 A
R221 10K 1%
R297 5.11K 1%
Z200 OPEN
MUTE2
Q233 MMBF4391LT1
R292 604.0K 1% 0.125W
D221 1N914
C224 2.2 +50V
C204 100PF 200V
D203 1N914
D204 1N914
C205 100 25V
R210 1K 1%
U201-C MC33079D
D205 1N914
Q203 KSTA92
R213 5.11K 1%
R214 9.25K 1%
C206 56PF 200V
R212 19.1K 1% 0.25W
C240 0.33 50V
R422 100 0.25W
R215 68.1K 1%
R230 OPEN
R231 OPEN
VOUT2
+15V
R228 680 0.50W
E200 RED
CLIP
Q201 MMBT3904
R293 10K 1%
R227 6.8K
U202-C LM339D
C202 0.47
R226 49.9K 1%
R296 10K 1%
Q200 MMBT3904
D230 1N914
U201-D MC33079D
-.54V
R220 90.9K 1%
D222 1N914
C201 0.47 50V
R217 330K
R219 33K 0.25W
R216 226 1%
R222 158K 1%
D201 1N914
U202-D LM339D
R225 100K 1%
R223 100K 1%
R224 158K 1%
D202 1N914
-15V
C241 470PF 50V
D217 1N914
R207 158K 1%
R278 90.9K 1%
FAULT
R286 100K 1%
D218 1N914
U202-B LM339D
R288 158K 1%
R289 100K 1%
-15V
HI-V
R235 3.9K 0.25W
R294 82 1%
C234 0.001 50V
Q205 PZTA92T1
R295 820
C238 82PF 200V
C235 100PF 200V
Q210 PZTA42T1
R247 100
Q212 2SC5242
C216 4700PF 50V
R246 13K
L200 470UH
R248 180
R250 5.6 0.25W
Q211 MMBT5087LT1
D206 1N914
R299 0.0 0.125W
C211 0.01
Q208 KST5089
R239 137 1% 0.25W
R238 120 0.25W
D207 1N914
D208 1N914
R417 39K 0.50W
C213 47 6.3V
R240 33K 0.25W
C212 0.012 50V
D212 1N914
R241 820
R242 3.83K 0.50W 1%
D213 1N914
C214 47 6.3V
D209 1N914
D210 1N914
R243 33K 0.25W
Q209 MMBT5087LT1
R244 120 0.25W
R245 20 0.25W
R237 499 1% 0.125W
C215 0.01
C613 0.1
D211 1N914
R232 2.2K 0.25W
C208 0.01
Q204 2N3904
R233 750
R234 1K
R229 820
D226 1N914
D227 1N914
R236 82 1%
C210 470PF 50V
Q207 PZTA42T1
R418 39K 0.50W
R261 13K
R262 47
Q220 PZTA92T1
C220 100PF 200V
Q221 2SC5242
R263 100
WP5
J202
C217 2700PF 50V
C219 4700PF 50V
R260 15
L201 470UH
R259 0.4 1W
R400 0.4 1W
+85VCC
C236 2.2 160V
D214 1N5404
PEM STUD CH2
L202 2.75UH
R420 5.6 1W
R421 5.6 1W
C218 0.1 250V
D215 1N5404
OUTPUT
RELAY-4 CH1
Z1
J200
RELAY-4 CH2
Q214 MJ21194
Q215 MJ21194
Q216 OPEN
Q217 OPEN
Q218 MJ21194
Q219 MJ21194
R252 0.4 1W
R401 0.4 1W
R253 0.4 1W
R402 0.4 1W
R254 OPEN
R403 OPEN
R255 OPEN
R404 OPEN
R256 0.4 1W
R405 0.4 1W
R257 0.4 1W
R406 0.4 1W
Q223 MJ21194
Q224 MJ21194
Q225 OPEN
Q226 OPEN
Q227 MJ21194
Q228 MJ21194
R265 5.6 0.25W
R267 0.4 1W
R407 0.4 1W
R268 0.4 1W
R408 0.4 1W
R269 OPEN
R409 OPEN
R270 OPEN
R410 OPEN
R271 0.4 1W
R411 0.4 1W
R272 0.4 1W
R412 0.4 1W
-85VCC
C237 2.2 160V
R423 0.0 0.125W
D223 1N914 +24V
K200 AZ2160-1A-24DE
Q229 MMBT3904
Q231 MAC9D
Q232 MOS4993
R285 10K 1%
R284 20K 1% 0.25W
C223 100 16V
SHORT
D218 1N914
C221 2.2 50V
U204-A LM339D
R277 10K 1%
R274 604.0K 1% 0.125W
-5.85V
U204-D LM339D
D225 1N914
MUTE2
R275 5.11K 1%
R276 10K 1%
R415 5.11K 1%
U206 LM324
VP
VM
R291 226 1%
TEMP2
U204-B LM339D
R290 57.6K 1%
C239 0.1
R414 330K
R279 100K 1%
U205-B MC33078D
+6.07V
R413 10K 1%
C244 0.47
THERMAL2
U204-C LM339D
XFMR
R280 392K 1%
R201 680 0.50W
E202 RED
D224 1N914
U205-A MC33078D
R282 10K 1%
R283 100K 1%
C222 0.1
BYPASS CAPACITORS
U205-C MC33078D
C232 0.1
C233 0.1
U204-E LM339D
C230 0.1
C231 0.1
U202-E LM339D
C226 0.1
C227 0.1
U201-E MC33079D
C228 0.1
C229 0.1
UNUSED ELEMENTS
U201-B MC33079D

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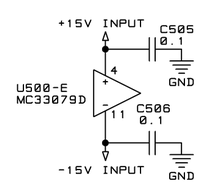
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SIZE	DWG NO.	REV
D	127451-4	A
SCALE NONE	PROJ NO. MD390D0	SHEET SHEET 22 OF 23



LAST USED	NOT USED
C613	8-11,13-19,23,32-99,125,145-199,225,244-499,507,508,510-599,606-608
D230	5,11-12,14-100,131-200,219,220
E202	2-99,103-199
J600	1,6-99,101-199,201-499,501,503-599
K200	1-99,101-199
L202	1-99,103-199
Q233	4-99,106,113,122,130,134-199,206,213,222,230
R610	7,32,34-99,164,166,173,198,207,208,258,264,266,273,298,320,321,324-399,424-499,505,507,509-599
S2	
TB1	
U500	6-99,103,107-199,203,207-499
WP7	
Z200	2-99,101-199

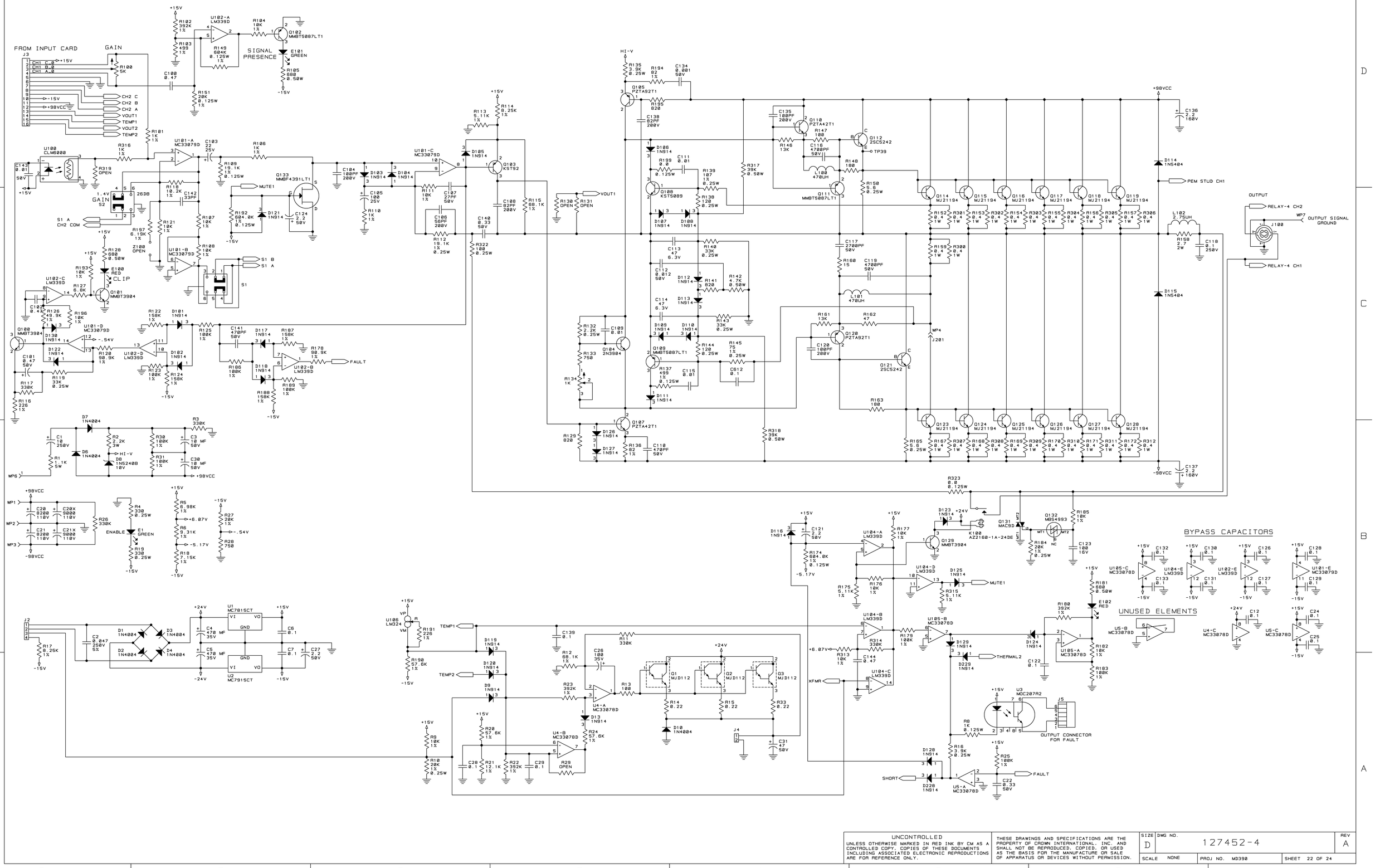
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SIZE	DWG NO.	REV
C	127451-4	A
SCALE NONE	PROJ NO. MD390D0	SHEET 23 OF 23

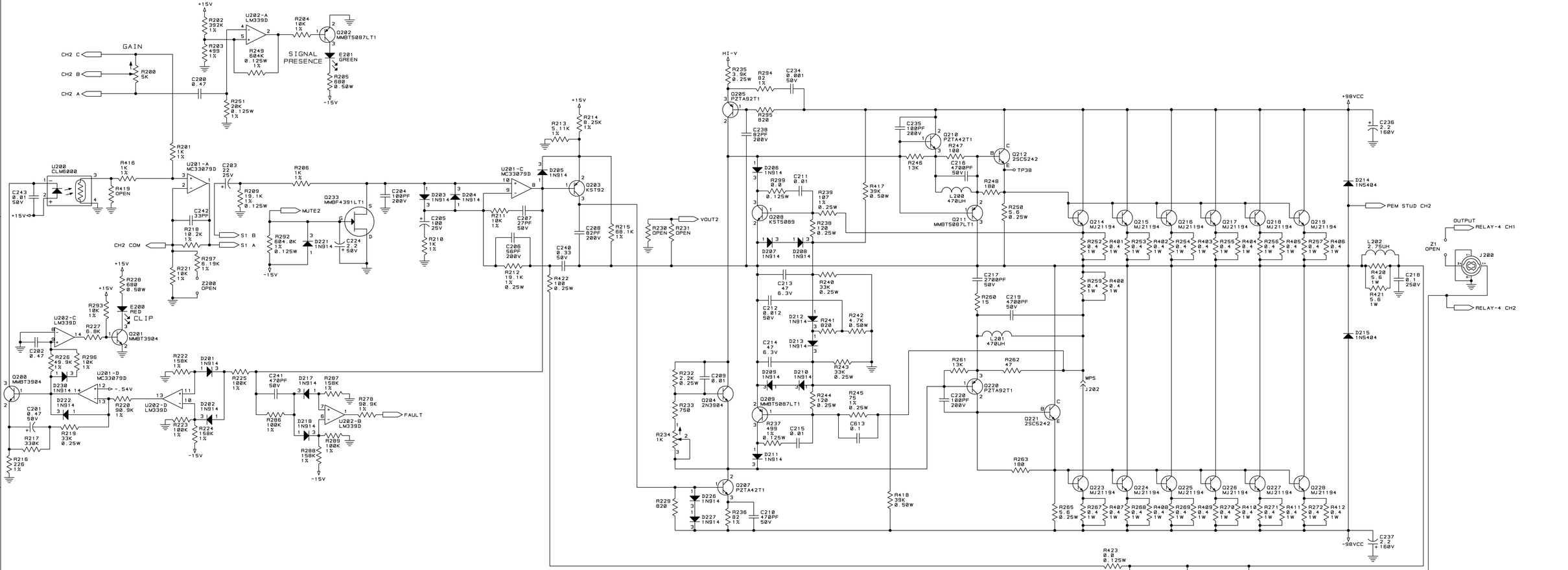


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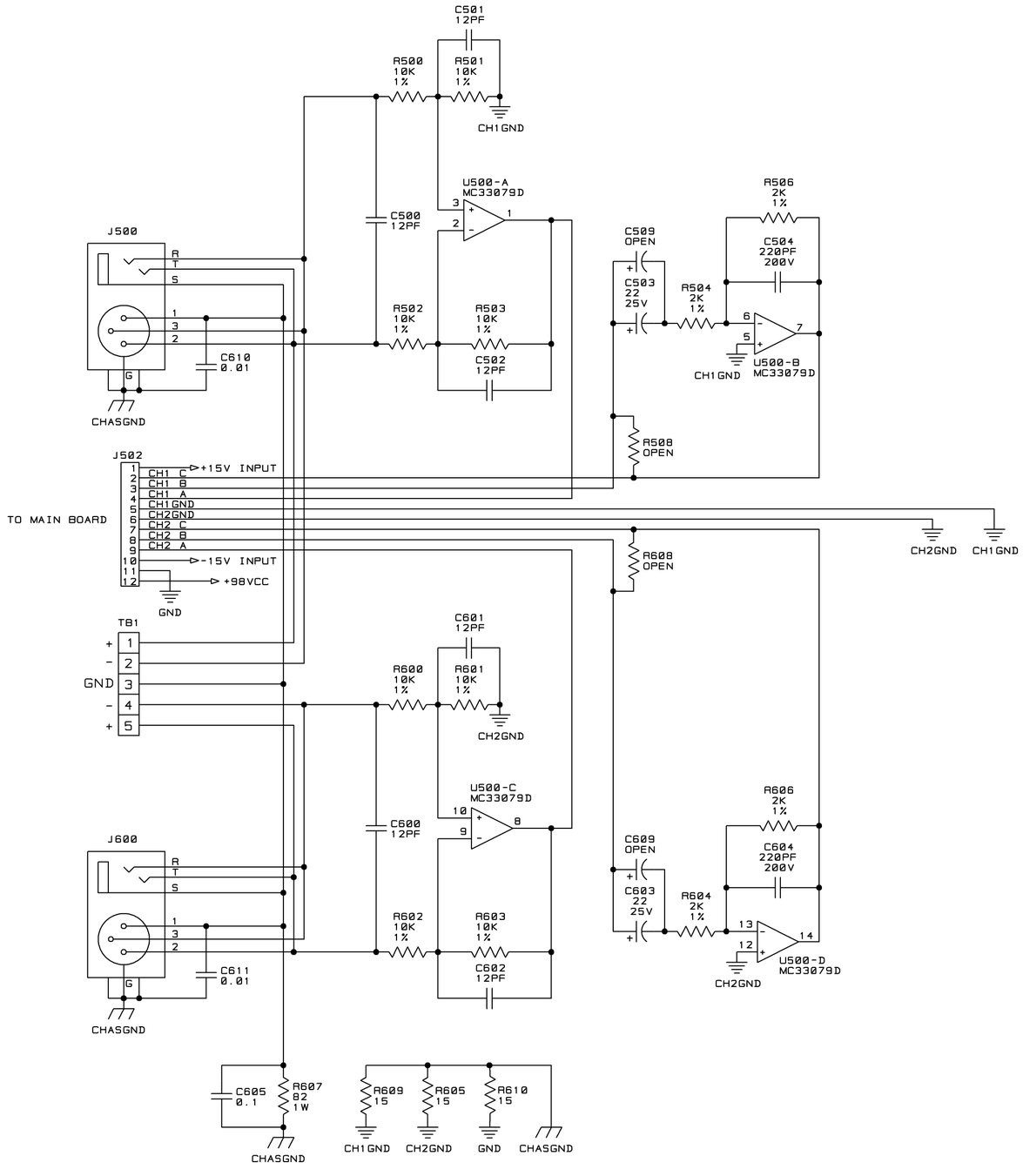
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SIZE	DWG NO.	REV
D	127452-4	A
SCALE NONE	PROJ NO. MD390	SHEET 22 OF 24

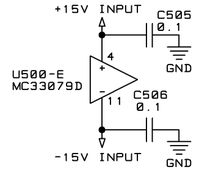


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		SCALE NONE / PROJ NO. MD390	SHEET 23 OF 24



LAST USED	NOT USED
C613	8-11,13-19,23,32-99,125,145-199,225,244-499,507,508,510-599,606-608
D230	5,11-12,14-100,131-200,219,220
E202	2-99,103-199
J600	1,6-99,101-199,201-499,501,503-599
K200	1-99,101-199
L202	1-99,103-199
Q233	4-99,106,113,122,130,134-199,206,213,222,230
R610	7,32,34-99,164,166,173,198,207,208,258,264,266,273,298,320,321,324-399,424-499,505,507,509-599
S2	
TB1	
U500	6-99,103,107-199,203,207-499
WP7	
Z200	2-99,101-199

BYPASS CAPACITORS



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SIZE	DWG NO.	REV
C	127452-4	A
SCALE NONE	PROJ NO. MD390	SHEET 24 OF 24