PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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
D228	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	E 7*
D229	C 9283-0	DIODE, 1N914/1N4148 SOT-23 SMT	F 6*
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

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 9 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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 1
HW26	102579-1	STAND, 1/4 RD SWAGE AL	A 2
HW27	103415-70608	SCREW, 6-32 X.5 TORX PNHD SEM	A 4
HW28	103415-70608	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	N 10
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

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 10 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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
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		INSTALLED ON THE PREVIOUS ASSEMBLY	N 7
Q114		INSTALLED ON THE PREVIOUS ASSEMBLY	J 6
Q115		INSTALLED ON THE PREVIOUS ASSEMBLY	K 5
Q116		INSTALLED ON THE PREVIOUS ASSEMBLY	L 6
Q117		INSTALLED ON THE PREVIOUS ASSEMBLY	L 5
Q118		INSTALLED ON THE PREVIOUS ASSEMBLY	M 6
Q119		INSTALLED ON THE PREVIOUS ASSEMBLY	N 5
Q120	103193-1	PNP 300V 500MA 50MHZ SOT-223	I 7*
Q121		INSTALLED ON THE PREVIOUS ASSEMBLY	I 7
Q123		INSTALLED ON THE PREVIOUS ASSEMBLY	E 6
Q124		INSTALLED ON THE PREVIOUS ASSEMBLY	E 5
Q125		INSTALLED ON THE PREVIOUS ASSEMBLY	F 6
Q126		INSTALLED ON THE PREVIOUS ASSEMBLY	G 5
Q127		INSTALLED ON THE PREVIOUS ASSEMBLY	H 6
Q128		INSTALLED ON THE PREVIOUS ASSEMBLY	H 5
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*
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*

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 11 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
Q211	C 9931-4	MMBT5087LT1 PNP XSISTOR SOT-23	J 2*
Q212		INSTALLED ON THE PREVIOUS ASSEMBLY	J 2
Q214		INSTALLED ON THE PREVIOUS ASSEMBLY	J 3
Q215		INSTALLED ON THE PREVIOUS ASSEMBLY	K 3
Q216		INSTALLED ON THE PREVIOUS ASSEMBLY	L 3
Q217		INSTALLED ON THE PREVIOUS ASSEMBLY	L 3
Q218		INSTALLED ON THE PREVIOUS ASSEMBLY	M 3
Q219		INSTALLED ON THE PREVIOUS ASSEMBLY	N 3
Q220	103193-1	PNP 300V 500MA 50MHZ SOT-223	D 2*
Q221		INSTALLED ON THE PREVIOUS ASSEMBLY	D 2
Q223		INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
Q224		INSTALLED ON THE PREVIOUS ASSEMBLY	E 3
Q225		INSTALLED ON THE PREVIOUS ASSEMBLY	F 3
Q226		INSTALLED ON THE PREVIOUS ASSEMBLY	G 3
Q227		INSTALLED ON THE PREVIOUS ASSEMBLY	H 3
Q228		INSTALLED ON THE PREVIOUS ASSEMBLY	H 3
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	A11371-2225	2.2K 1W 5% CHIP 2512	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	A11368-76811	7.68KOHM 0.10W 1% SMT 0805	D 8*
R6	A11368-93111	9.31K 0.1W 1% CHIP 0805	D 8*
R7	A11371-2225	2.2K 1W 5% CHIP 2512	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 0.1W 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	A11368-10021	10K 1/10W 1% CHIP 0805	L 9*

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 12 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R28	A11371-7511	750 OHM 0.10W 5% CHIP	L 9*
R29		OPEN	
R30	A11368-10031	100K 0.1W 1% CHIP 0805	I 8*
R31	A11368-10031	100K 0.1W 1% CHIP 0805	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	A11368-39231	392K 0.10W 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	A11368-49901	499 OHM 0.10W 1% CHIP 0805	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*

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 13 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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	A11371-4751	4.7M 0.10W 5% CHIP 0805	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	A11371-4751	4.7M 0.10W 5% CHIP 0805	L 9*
R193	A11368-10021	10K 1/10W 1% CHIP 0805	N 9*
R194	A11371-8201	82 OHM 0.10W 5% CHIP	M 7*

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 14 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
R195	A11371-8211	820 OHM 0.10W 5% CHIP	M 7*
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	A11368-39231	392K 0.10W 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	A11368-49901	499 OHM 0.10W 1% CHIP 0805	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*

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 15 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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	A11371-4751	4.7M 0.10W 5% CHIP 0805	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	A11371-4751	4.7M 0.10W 5% CHIP 0805	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*
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*

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 16 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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

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

DRAWN	JFL	9-24-98	DWG. NO.	SHEET 17 OF 20	REV
PROJ.	MD390D0		102140-8		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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	126325-1	DPDT MINI SLIDE NON-SHORT PC	L 10
S100	102488-1	SPDT VERT SLIDE 12MM SHAFT	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
U2	C 5096-0	NEG. 15 VOLT REG.	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

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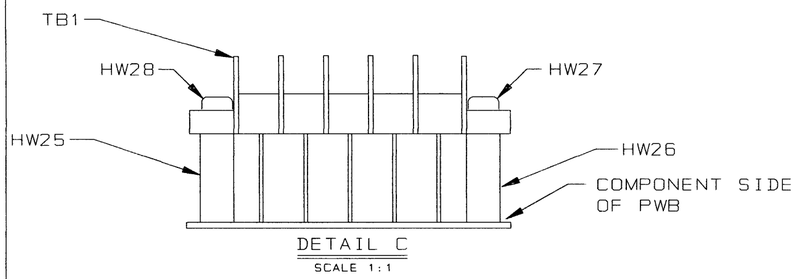
DRAWN	JFL	9-24-98	DWG. NO.	SHEET 18 OF 20	REV
PROJ.	MD390D0		102140-8		B

Component Map

for use with

Main PWA #102140-8

COMPONENT MAP
(COMPONENT SIDE VIEW)



DETAIL C
SCALE 1:1

SEE NOTE 8

SEE NOTE 7

J3 CONNECTOR ORIENTATION

SEE NOTE 7

CHASSIS GROUND

SEE NOTE 9

SEE NOTE 9

SEE NOTE 14

SEE DETAIL C

APPLY RTV (4) AS NEEDED

HS3

HS1

HS4

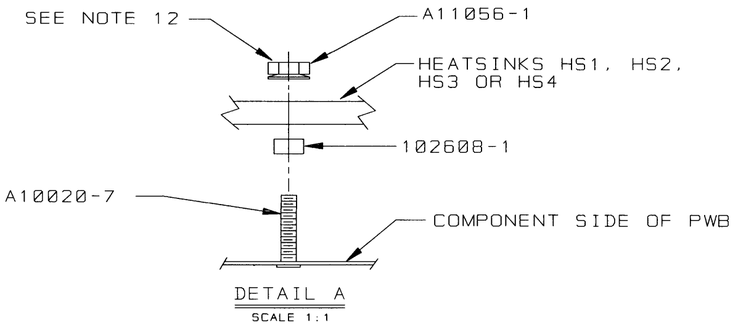
HS2

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

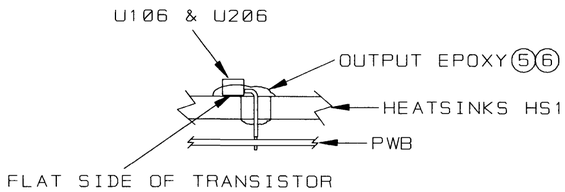
SEE DETAIL B AND NOTE 11

SEE NOTE 7

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



DETAIL A
SCALE 1:1



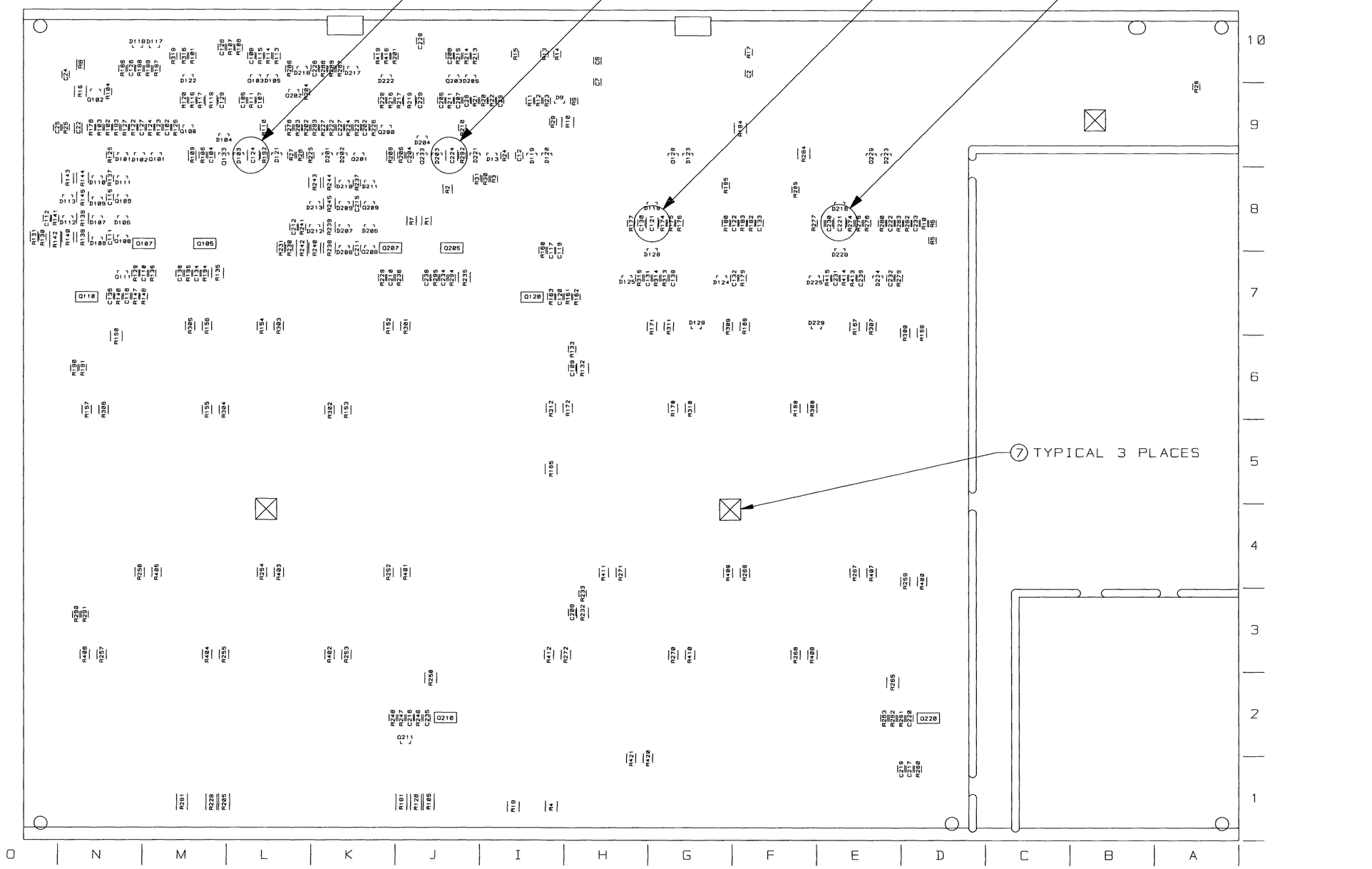
DETAIL B
SCALE 1:1

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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	102140-8		(B)



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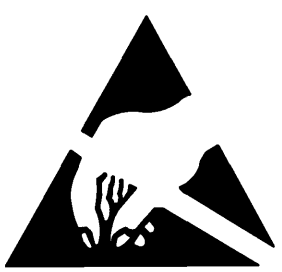
CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO. 102140-8	SHEET 20 OF 20	REV (B)
PROJ. #	MD390D0			

E.C.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	ME	EE	PE
		A	INITIAL RELEASE TO PRODUCTION(LEVEL I)	11-04-98	JAW	TLM			TS
98E0796		B	C606,C607,C608 WERE 0.1MF. R1,R7,R32,R34 WERE 270. R6 WAS 8.87K. R18 WAS 7.68K. R27 WAS 10K. R29 WAS 4.7M. U100,U200 WERE 102723-1.	12/14/98	JAW				

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



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	JAW	11-04-98	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	TLM	11-10-98	ME		SUPERSEDES
SCALE	NONE		EE		E.C.
PROJ #	MD390D0		PE	TS 11-10-98	DWG. NO. 102140-9 SHEET 1 OF 20 REV B
FILENAME: 102140-9_B.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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DRAWN	JAW	11/4/98	DWG. NO.	SHEET 2 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	2	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
A11371-2R71	2.7 OHM .1W 5% 0805 T/R	3	C606,C607,C608
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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DRAWN	JAW	11/4/98	DWG. NO.	SHEET 3 OF 21	REV
PROJ.	MD390D0		102140-9		B

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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DRAWN	JAW	11/4/98	DWG. NO.	SHEET 4 OF 21	REV
PROJ.	MD390D0		102140-9		B

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
103415-70608	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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DRAWN	JAW	11/4/98	DWG. NO.	SHEET 5 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	JAW	11/4/98	DWG. NO.	SHEET 6 OF 21	REV
PROJ.	MD390D0		102140-9		B

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

DRAWN	JAW	11/4/98	DWG. NO.	SHEET 7 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	A11371-2R71	2.7 OHM .1W 5% 0805 T/R	C 3
C607	A11371-2R71	2.7 OHM .1W 5% 0805 T/R	C 3
C608	A11371-2R71	2.7 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.
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DRAWN	JAW	11/4/98	DWG. NO.	SHEET 8 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	JAW	11/4/98	DWG. NO.	SHEET 9 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	103415-70608	SCREW,6-32 X.5 TORX PNHD SEM	A 4
HW28	103415-70608	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	JAW	11/4/98	DWG. NO.	SHEET 10 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	JAW	11/4/98	DWG. NO.	SHEET 11 OF 21	REV
PROJ.	MD390D0		102140-9		B

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

DRAWN	JAW	11/4/98	DWG. NO.	SHEET 12 OF 21	REV
PROJ.	MD390D0		102140-9		B

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

DRAWN	JAW	11/4/98	DWG. NO.	SHEET 13 OF 21	REV
PROJ.	MD390D0		102140-9		B

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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DRAWN	JAW	11/4/98	DWG. NO.	SHEET 14 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	JAW	11/4/98	DWG. NO.	SHEET 15 OF 21	REV
PROJ.	MD390D0		102140-9		B

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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DRAWN	JAW	11/4/98	DWG. NO.	SHEET 16 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	JAW	11/4/98	DWG. NO.	SHEET 17 OF 21	REV
PROJ.	MD390D0		102140-9		B

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	JAW	11/4/98	DWG. NO.	SHEET 18 OF 21	REV
PROJ.	MD390D0		102140-9		B

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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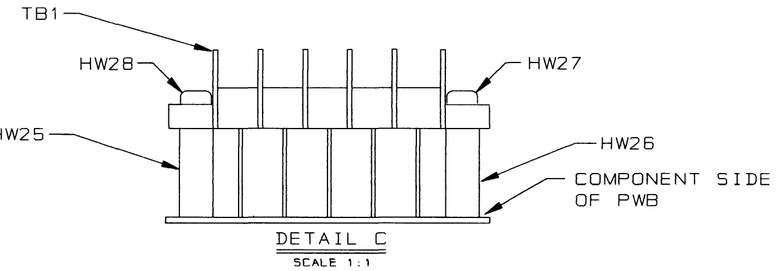
DRAWN	JAW	11/4/98	DWG. NO.	SHEET 19 OF 21	REV
PROJ.	MD390D0		102140-9		B

Component Map

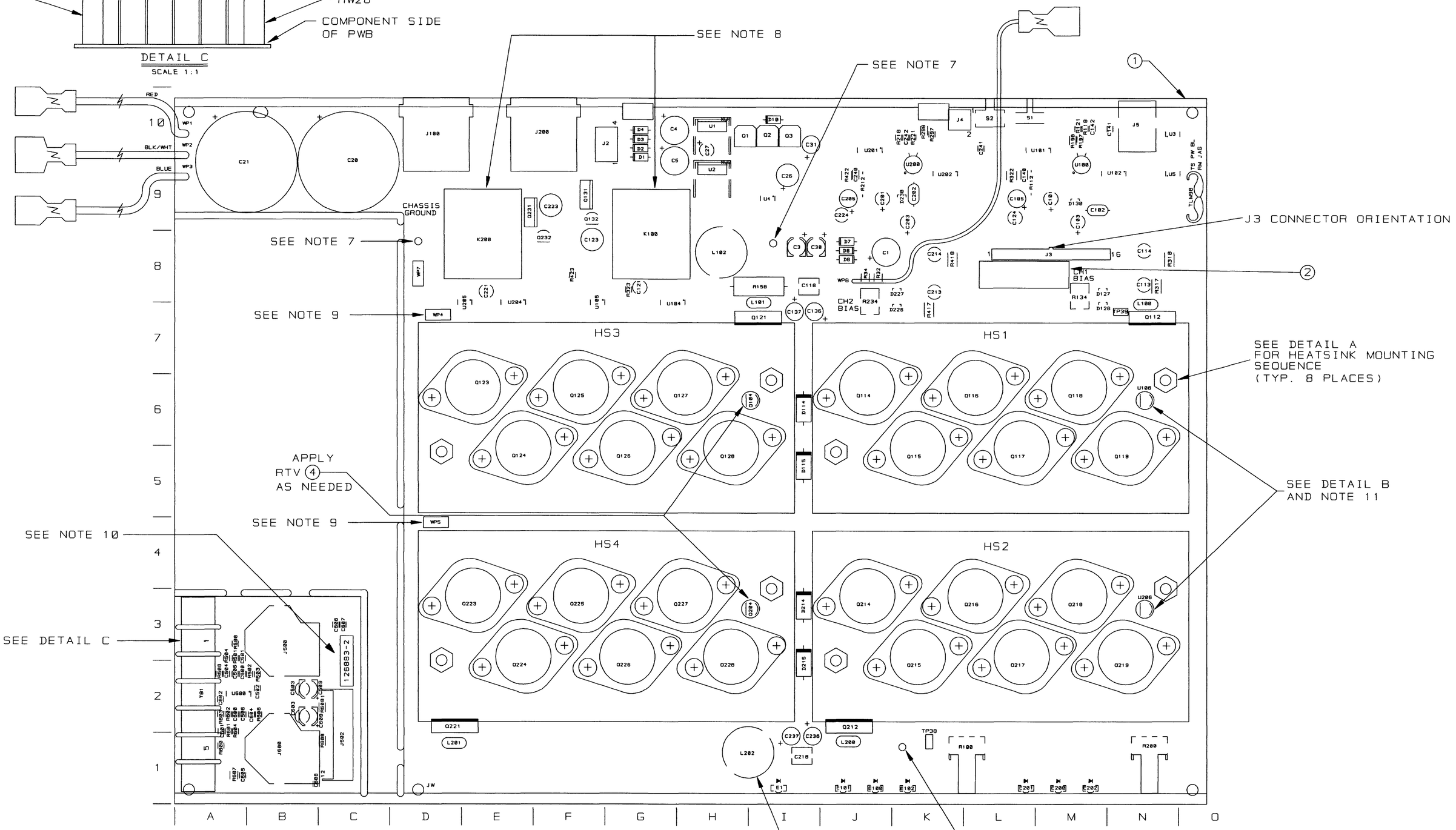
for use with

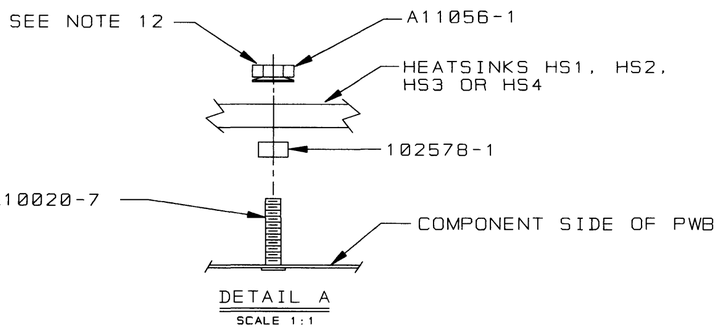
Main PWA 102140-9 rev B

COMPONENT MAP
(COMPONENT SIDE VIEW)

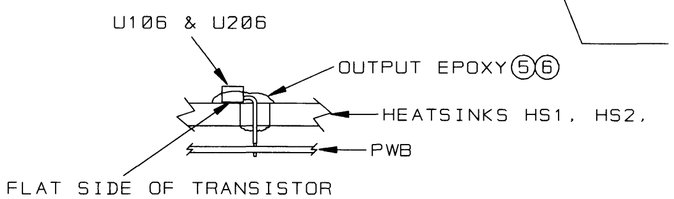


DETAIL C
SCALE 1:1





DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

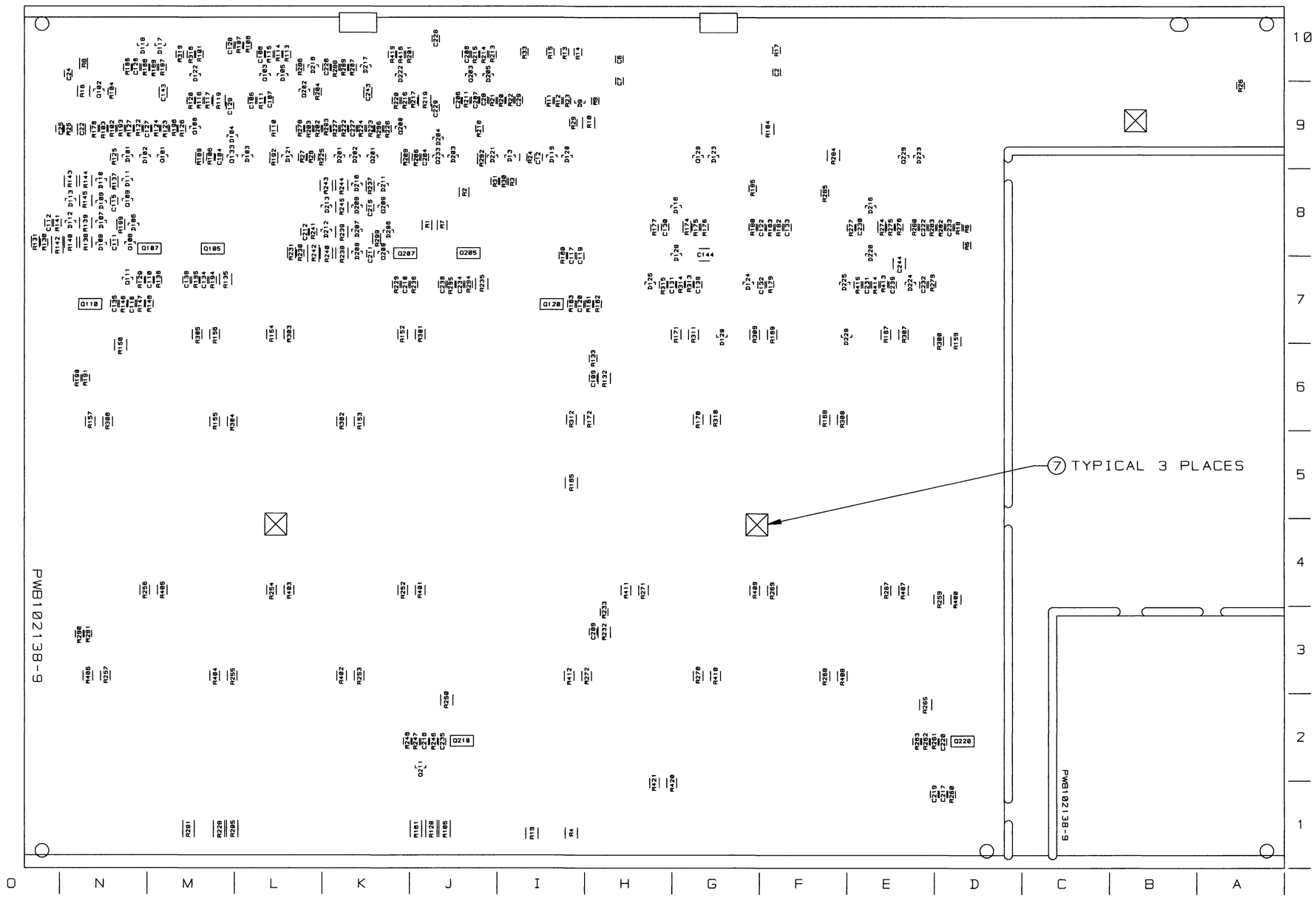
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 21	REV
PROJ. #	MD390D0	102140-9		B

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	102140-9		B

E.C.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
		A	INITIAL RELEASE TO PRODUCTION(LEVEL I)	11-04-98	JAW	TLM			TS
98E0796		B	C606,C607,C608 WERE 0.1MF. R1,R7,R32,R34 WERE 270. R6 WAS 8.87K. R18 WAS 7.68K. R27 WAS 10K. R29 WAS 4.7M. U100,U200 WERE 102723-1.	12/14/98	JAW	JL			TS
99E0042		C	C606,C607,C608 WERE 2.7 OHM. HW27,HW28 WERE 103415-70608.	01-29-99	JAW	KW	CB		TS

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



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	JAW	11-04-98	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	TLM	11-10-98	ME		SUPERSEDES
SCALE	NONE		EE		E.C.
PROJ #	MD390D0		PE	TS 11-10-98	DWG. NO. 102140-9 SHEET 1 OF 21 REV C
FILENAME:102140-9_C.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	JAW	11/4/98	DWG. NO.	SHEET 2 OF 21	REV
PROJ.	MD390D0		102140-9		C

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

DRAWN	JAW	11/4/98	DWG. NO.	SHEET 3 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 4 OF 21	REV
PROJ.	MD390D0		102140-9		C

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

DRAWN	JAW	11/4/98	DWG. NO.	SHEET 5 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 6 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 7 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 8 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 9 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 10 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 11 OF 21	REV
PROJ.	MD390D0		102140-9		C

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

DRAWN	JAW	11/4/98	DWG. NO.	SHEET 12 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 13 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 14 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 15 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 16 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 17 OF 21	REV
PROJ.	MD390D0		102140-9		C

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	JAW	11/4/98	DWG. NO.	SHEET 18 OF 21	REV
PROJ.	MD390D0		102140-9		C

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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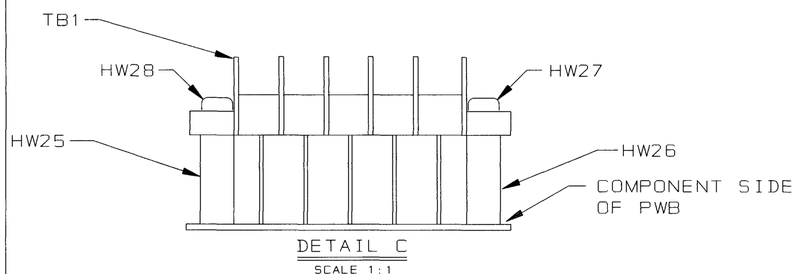
DRAWN	JAW	11/4/98	DWG. NO.	SHEET 19 OF 21	REV
PROJ.	MD390D0		102140-9		C

Component Map

for use with

Main PWA 102140-9

COMPONENT MAP
(COMPONENT SIDE VIEW)



DETAIL C
SCALE 1:1

SEE NOTE 8

SEE NOTE 7

J3 CONNECTOR ORIENTATION

SEE NOTE 7

SEE NOTE 9

SEE NOTE 9

SEE NOTE 10

SEE DETAIL C

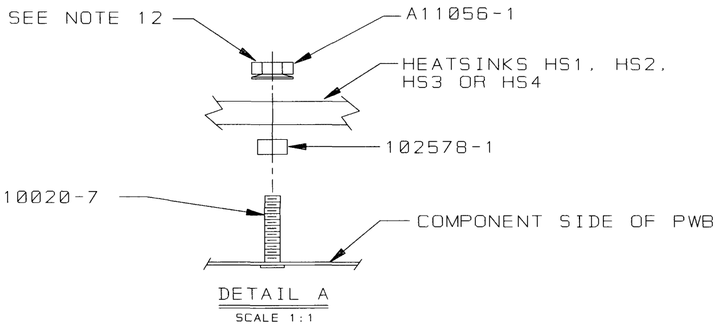
SEE DETAIL A FOR HEATSINK MOUNTING SEQUENCE (TYP. 8 PLACES)

SEE DETAIL B AND NOTE 11

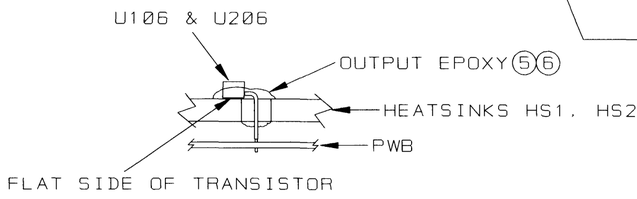
APPLY RTV (4) AS NEEDED

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

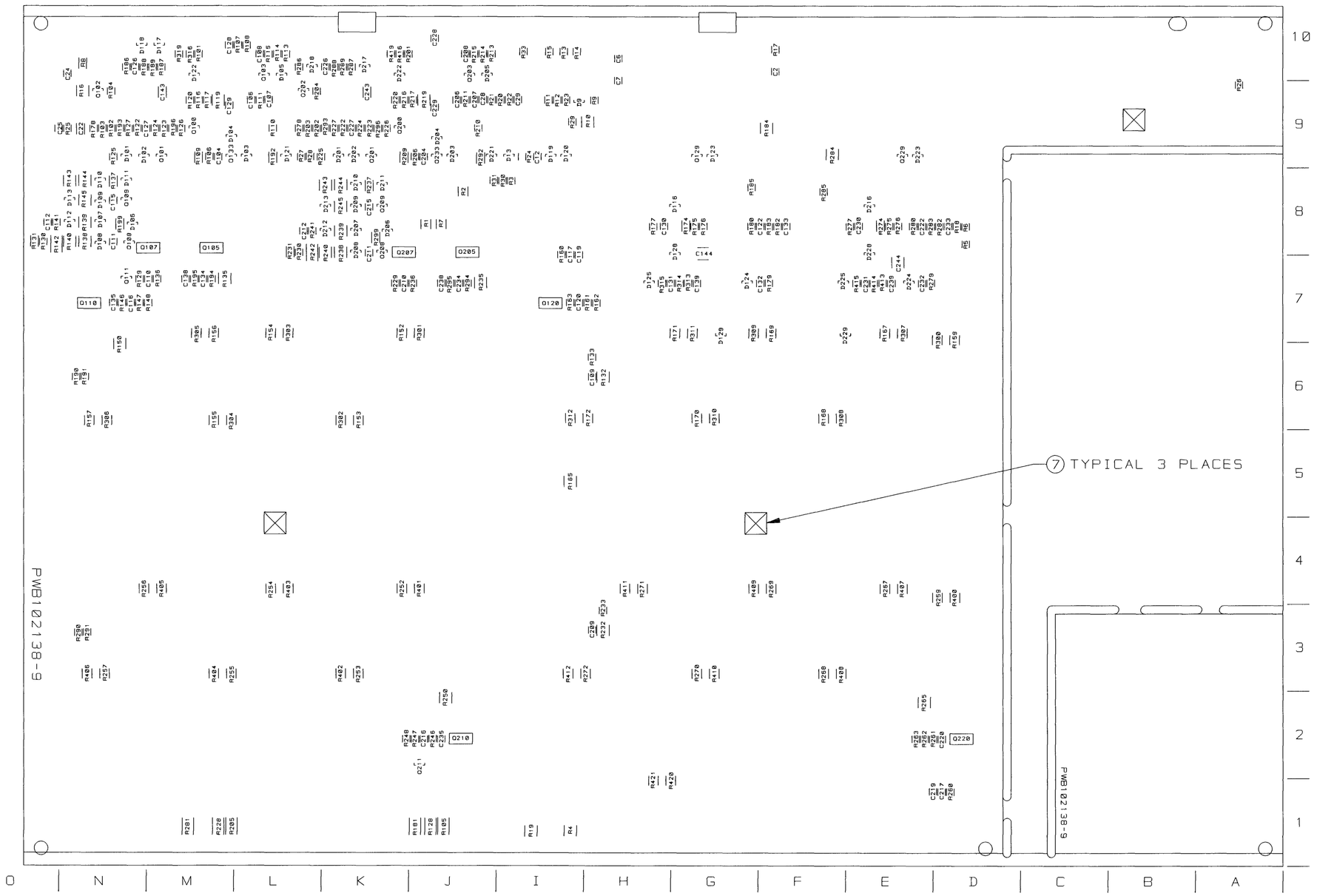
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 21	REV
PROJ. #	MD390D0	102140-9		C

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	102140-9		C

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

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



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 CJW 3-30-99	SUPERSEDES
SCALE	NONE		EE N/A N/A	E.C.
PROJ #	MD390D0		PE 3-30-99	DWG. NO. 102140-11 SHEET 1 OF 21 REV A
FILENAME: 102140-11_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		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	03-26-99	DWG. NO.	SHEET 12 OF 21	REV
PROJ.	MD390D0		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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		102140-11		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

INACTIVE

For Reference Use Only

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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		102140-11		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 30Z 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

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

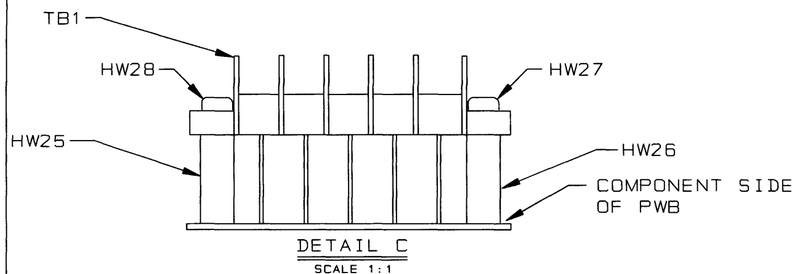
DRAWN	KLW	03-29-99	DWG. NO.	SHEET 19 OF 21	REV
PROJ.	MD390D0		102140-11		A

Component Map

for use with

Main PWA 102140-11

COMPONENT MAP
(COMPONENT SIDE VIEW)



DETAIL C
SCALE 1:1

SEE NOTE 8

SEE NOTE 7

J3 CONNECTOR ORIENTATION

SEE NOTE 7

SEE NOTE 9

SEE NOTE 9

SEE NOTE 10

SEE DETAIL C

APPLY RTV (4) AS NEEDED

HS3

HS1

HS4

HS2

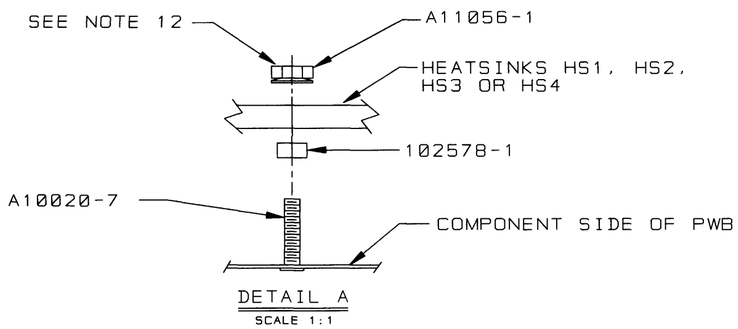
SEE DETAIL A FOR HEATSINK MOUNTING SEQUENCE (TYP. 8 PLACES)

SEE DETAIL B AND NOTE 11

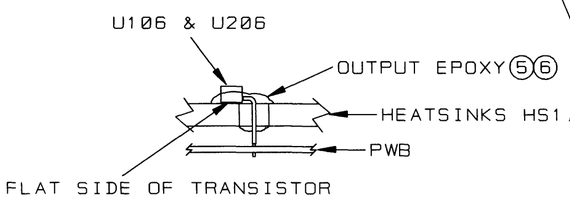
SEE NOTE 7

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

SEE NOTE 12



DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

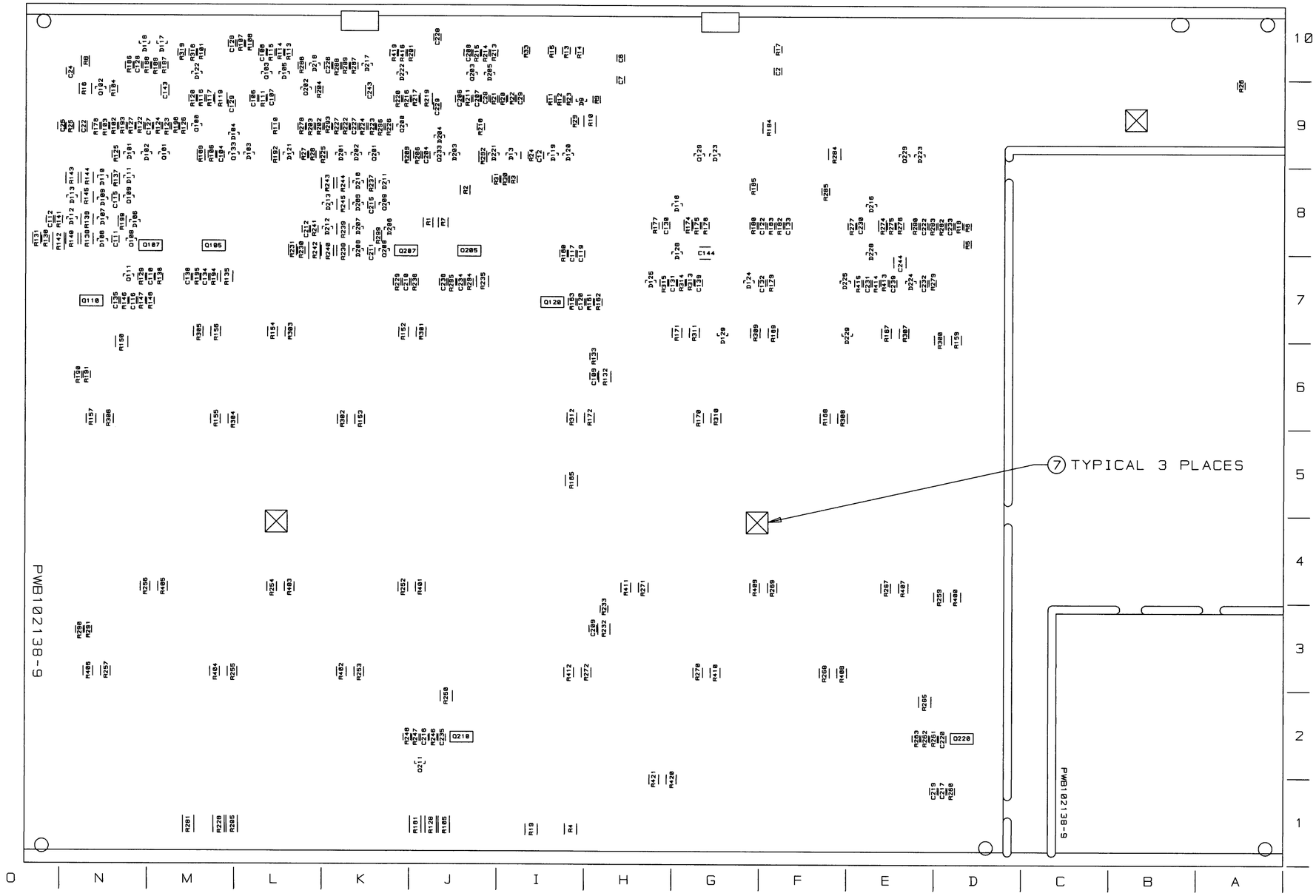
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 21	REV
PROJ. #	MD390D0	102140-11		(A)

COMPONENT MAP
(SOLDER SIDE VIEW)



INACTIVE
For Reference Use Only

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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	102140-11		A

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	ME	EE	PE
		A	INITIAL RELEASE	09/03/97	DWW	TLM		PW	TS
		B	RENAMED HW25 & HW26 TO HW1 & HW2. REMOVED R507 & C507. C503 & C603 WERE C 6076-1. NOTE 2 WAS 102688-1. NOTE 3 WAS 102689-1.	10/20/97	TLM	KW			TS
		C	NOTE 2 WAS 102688-2. NOTE 3 WAS 102689-2. J501 WAS 102471-1.	10/20/97	TLM	KW			TS
		D	NOTE 2 WAS 102688-3. NOTE 3 WAS 102689-3. A11371-8205 WAS A11371-8201. 125365-1 WAS 102474-1. 102438-560K2 WAS 102483-560K2. 102688-4 WAS 102688-3. 102471-2 WAS 125426-1. ADDED 102882-1.	11-18-97	KLW	TLM			TS
98E0083		E	NOTE 3 WAS 102689-4.	02-13-98	PC	KW			TS

UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET:
IPC-A-610_ CLASS 2

NOTES:

1. SCHEMATIC DRAWING NUMBER 102567.
2. PWB PART NUMBER 102688-4.
3. PWA PART NUMBER 102689-5.
4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
6. THE CROWN PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE PRINTED CIRCUIT BOARD AND SHALL BE PERMANENT.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

CROWN INTERNATIONAL INC.

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

PRINTS: K

PWA, INPUT CE1000

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

DRAWN	DWW	09/03/97	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	TLM	09/09/97	ME		SUPERSEDES
SCALE	NONE		EE	PW 09/09/97	E.C.N.
PROJ #	MD390D0		PE	TS 09/09/97	DWG. NO. 102689 SHEET 1 OF 4 REV E
NEXT ASSEMBLY					

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11368-10021	10. KOHM .1W 1% CHIP 0805	8	R500,R501,R502,R503,
			R600,R601,R602,R603
A11368-12121	12.1 KOHM .1W 1% CHIP 0805	2	R504,R604
A11368-20021	20. KOHM .1W 1% CHIP 0805	2	R506,R606
A11368-30921	30.9 KOHM .1W 1% CHIP 0805	2	R505,R605
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11371-8205	82 OHM 1W 5% SMD 2512	1	R607
A11427-104K2	0.1UF 50V 1% CHIP 0805	6	C505,C506,C605,C606,C607,C608
C 9012-3	OP AMP, QUAD MC33079D	1	U500
102438-560K2	56PF 50V 10% NPO 0805	2	C504,C604
102467-1	22UF 25V 20% RADIAL T/R	2	C503,C603
102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J501
102475-1	BLOCK, 5POS., TERMINAL	1	TB1
102487-1	DPDT VERT. SLIDE 12MM SHAFT	1	S500
102579-1	STAND, BROACHED 6-32 X .75	2	HW1,HW2
102688-4	PWB, INPUT CE1000/CE2000	1	1
102882-1	6-32X0.5 SEM PAN HD TORX BZ	2	HW3,HW4
125365-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600

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

DRAWN	DWW	09/03/97	DWG. NO.	SHEET 2 OF 4	REV
PROJ.	MD390D0		102689		E

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
1	102688-4	PWB, INPUT CE1000/CE2000	
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22UF 25V 20% RADIAL T/R	B 1
C504	102438-560K2	56PF 50V 10% NPO 0805	B 2
C505	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C506	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C603	102467-1	22UF 25V 20% RADIAL T/R	B 1
C604	102438-560K2	56PF 50V 10% NPO 0805	B 2
C605	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 2
C606	A11427-104K2	0.1UF 50V 1% CHIP 0805	C 1
C607	A11427-104K2	0.1UF 50V 1% CHIP 0805	C 1
C608	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 1
HW1	102579-1	STAND, BROACHED 6-32 X .75	A 3
HW2	102579-1	STAND, BROACHED 6-32 X .75	C 3
HW3	102882-1	6-32X0.5 SEM PAN HD TORX BZ	A 3
HW4	102882-1	6-32X0.5 SEM PAN HD TORX BZ	C 3
J500	125365-1	CONN., 1/4" XLR, PCB VERT.	B 2
J501	102471-2	HDR, 12POS. 2.5MM RT ANG KEYED	A 1
J600	125365-1	CONN., 1/4" XLR, PCB VERT.	A 2
R500	A11368-10021	10. KOHM .1W 1% CHIP 0805	C 2
R501	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R503	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R504	A11368-12121	12.1 KOHM .1W 1% CHIP 0805	B 2
R505	A11368-30921	30.9 KOHM .1W 1% CHIP 0805	B 2
R506	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R601	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R602	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R603	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R604	A11368-12121	12.1 KOHM .1W 1% CHIP 0805	A 2
R605	A11368-30921	30.9 KOHM .1W 1% CHIP 0805	A 2
R606	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% SMD 2512	A 2
S500	102487-1	DPDT VERT. SLIDE 12MM SHAFT	B 1
TB1	102475-1	BLOCK, 5POS., TERMINAL	A 3
U500	C 9012-3	OP AMP, QUAD MC33079D	B 2

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

DRAWN	DWW	09/03/97	DWG. NO.	SHEET 3 OF 4	REV
PROJ.	MD390D0		102689		E

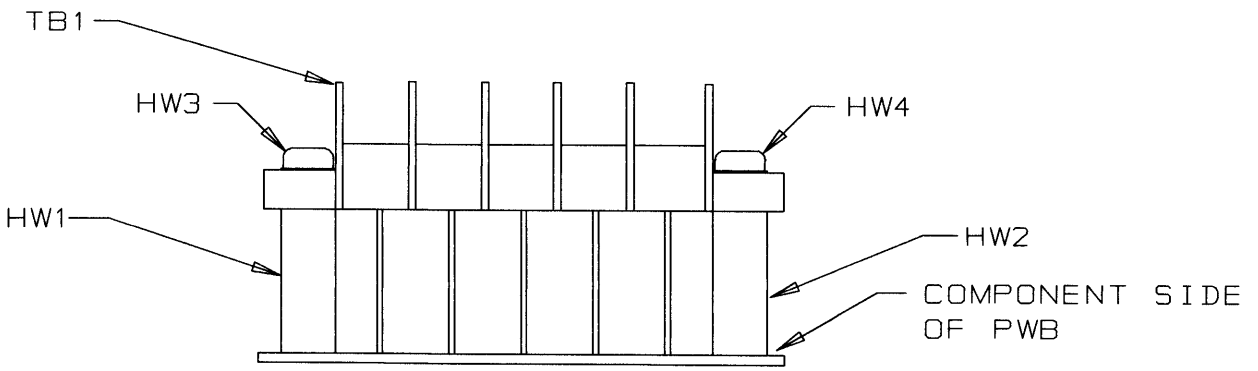
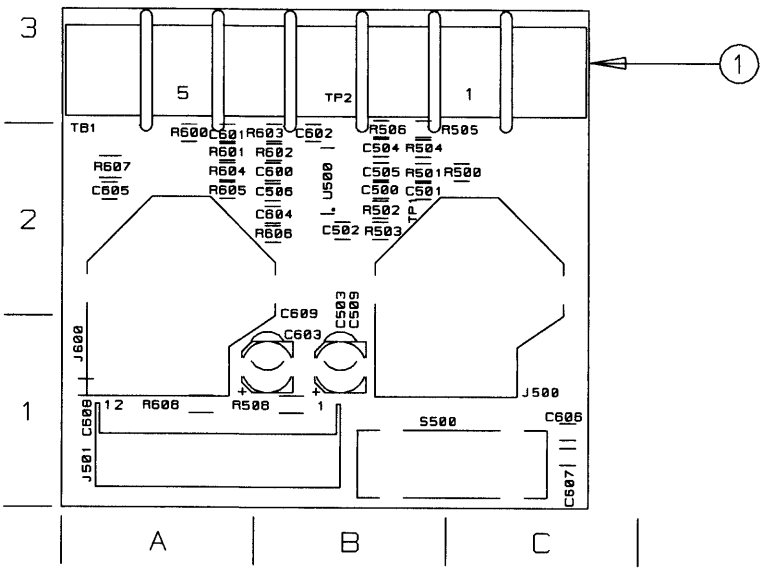


FIGURE 1
SCALE 1:1

COMPONENT MAP
(COMPONENT SIDE VIEW)



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

DRAWN	DWW	09/03/97	DWG. NO.	SHEET 4 OF 4	REV
PROJ.	MD390D0		102689		E

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS			
						CHK	ME	EE	PE
		A	INITIAL RELEASE	09/03/97	DWW	TLM		PW	TS
		B	RENAMED HW25 & HW26 TO HW1 & HW2. REMOVED R507 & C507. C503 & C603 WERE C 6076-1. NOTE 2 WAS 102688-1. NOTE 3 WAS 102689-1.	10/20/97	TLM	KW			TS
		C	NOTE 2 WAS 102688-2. NOTE 3 WAS 102690-2. J501 WAS 102471-1.	10/20/97	TLM	KW			TS
		D	NOTE 2 WAS 102688-3. NOTE 3 WAS 102690-3. A11371-8205 WAS A11371-8201. 125365-1 WAS 102474-1. 102438-560K2 WAS 102483-560K2. 102688-4 WAS 102688-3. 102471-2 WAS 125426-1. ADDED 102882-1.	11-18-97	KLW	TLM			TS
98E0084		E	NOTE 3 WAS 102690-4.	02-13-98	PC	KW			TS

UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET:
IPC-A-610_ CLASS 2

NOTES:

1. SCHEMATIC DRAWING NUMBER 102568.
2. PWB PART NUMBER 102688-4.
3. PWA PART NUMBER 102690-5.
4. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
5. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
6. THE CROWN PART NUMBER FOR THIS MODULE SHALL BE MARKED ON THE PRINTED CIRCUIT BOARD AND SHALL BE PERMANENT.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

CROWN INTERNATIONAL INC.

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

PRINTS: K

PWA, INPUT CE2000

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

DRAWN	DWW	09/03/97	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	TLM	09/09/97	ME		SUPERSEDES
SCALE	NONE		EE	PW 09/09/97	E.C.N.
PROJ #	MD390D0		PE	TS 09/09/97	DWG. NO. SHEET 1 OF 4
NEXT ASSEMBLY					102690

REV (E)

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11368-10021	10. KOHM .1W 1% CHIP 0805	10	R500, R501, R502, R503, R504,
			R600, R601, R602, R603, R604
A11368-20021	20. KOHM .1W 1% CHIP 0805	4	R505, R506, R605, R606
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500, C501, C502, C600, C601, C602
A11371-8205	82 OHM 1W 5% SMD 2512	1	R607
A11427-104K2	0.1UF 50V 1% CHIP 0805	6	C505, C506, C605, C606, C607, C608
C 9012-3	OP AMP, QUAD MC33079D	1	U500
102438-560K2	56PF 50V 10% NPO 0805	2	C504, C604
102467-1	22UF 25V 20% RADIAL T/R	2	C503, C603
102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J501
102475-1	BLOCK, 5POS., TERMINAL	1	TB1
102487-1	DPDT VERT. SLIDE 12MM SHAFT	1	S500
102579-1	STAND, BROACHED 6-32 X .75	2	HW1, HW2
102688-4	PWB, INPUT CE1000/CE2000	1	1
102882-1	6-32X0.5 SEM PAN HD TORX BZ	2	HW3, HW4
125365-1	CONN., 1/4" XLR, PCB VERT	2	J500, J600

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

DRAWN	DWW	09/03/97	DWG. NO. 102690	SHEET 2 OF 4	REV E
PROJ.	MD390D0				

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
1	102688-4	PWB, INPUT CE1000/CE2000	
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22UF 25V 20% RADIAL T/R	B 1
C504	102438-560K2	56PF 50V 10% NPO 0805	B 2
C505	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C506	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C603	102467-1	22UF 25V 20% RADIAL T/R	B 1
C604	102438-560K2	56PF 50V 10% NPO 0805	B 2
C605	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 2
C606	A11427-104K2	0.1UF 50V 1% CHIP 0805	C 1
C607	A11427-104K2	0.1UF 50V 1% CHIP 0805	C 1
C608	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 1
HW1	102579-1	STAND, BROACHED 6-32 X .75	A 3
HW2	102579-1	STAND, BROACHED 6-32 X .75	C 3
HW3	102882-1	6-32X0.5 SEM PAN HD TORX BZ	A 3
HW4	102882-1	6-32X0.5 SEM PAN HD TORX BZ	C 3
J500	125365-1	1/4" TRS/XLR COMBO PCB VERT	B 2
J501	102471-2	HDR, 12POS. 2.5MM RT ANG KEYED	A 1
J600	125365-1	1/4" TRS/XLR COMBO PCB VERT	A 2
R500	A11368-10021	10. KOHM .1W 1% CHIP 0805	C 2
R501	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R503	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R504	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R505	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R506	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R601	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R602	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R603	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R604	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R605	A11368-20021	20. KOHM .1W 1% CHIP 0805	A 2
R606	A11368-20021	20. KOHM .1W 1% CHIP 0805	B 2
R607	A11371-8205	82 OHM 1W 5% SMD 2512	A 2
S500	102487-1	DPDT VERT. SLIDE 12MM SHAFT	B 1
TB1	102475-1	BLOCK, 5POS., TERMINAL	A 3
U500	C 9012-3	OP AMP, QUAD MC33079D	B 2

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DRAWN	DWW	09/03/97	DWG. NO.	SHEET 3 OF 4	REV
PROJ.	MD390D0		102690		E

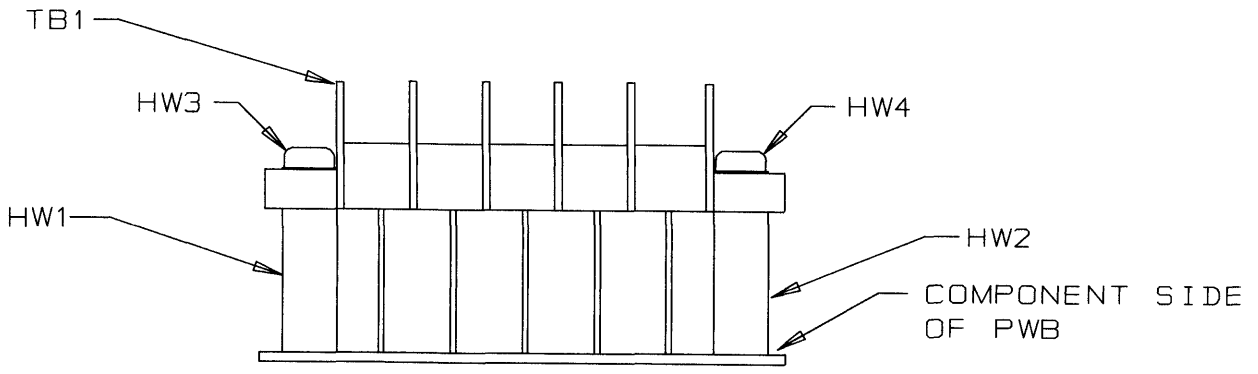
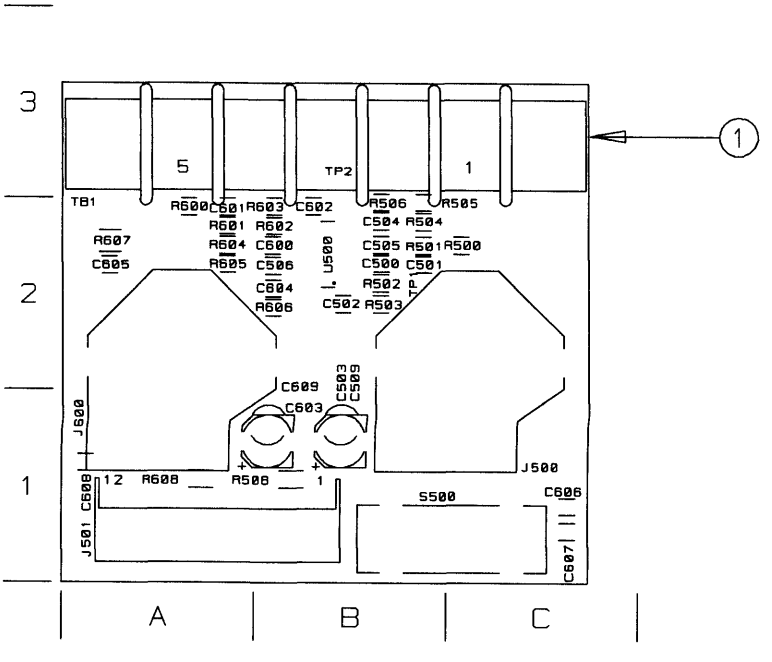


FIGURE 1
SCALE 1:1

COMPONENT MAP
(COMPONENT SIDE VIEW)



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DRAWN	DWW	09/03/97	DWG. NO.	SHEET 4 OF 4	REV
PROJ.	MD390D0		102690		E

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	ME	EE	PE
		A	INITIAL RELEASE FOR PRODUCTION (LEVEL I)	12/02/98	JAW	TLM			TS
98E0826		B	C608 WAS A11427-104K2. R605,R609 WERE A11371-1501. HW3,HW4 WERE 102882-1. ADDED NOTE 5.	12/02/98	JAW	JM			

UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET:
IPC-A-610_ CLASS 2

NOTES:

1. SCHEMATIC DRAWING NUMBER 127014.
2. PWB PART NUMBER 127004-1.
3. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
4. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
5. SWAGE FIT HW1 & HW2 INTO PCB.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

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PRINTS: K

PWA, CE STANDARD INPUT

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

DRAWN	JAW	12/02/98	APPROVED BY:			DO NOT SCALE PRINT
CHECKED	TLM	12/04/98	ME			SUPERSEDES
SCALE	NONE		EE			E.C.N.
PROJ #	MD390D0		PE	TS	12/04/98	DWG. NO. SHEET 1 OF 4
NEXT ASSEMBLY						126883-2

REV: B

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PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11368-10021	10. KOHM .1W 1% CHIP 0805	12	R500,R501,R502,R503,R504,
			R506,R600,R601,R602,R603,
			R604,R606
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11371-2R71	2.7 OHM 0.10W 5% CHIP	3	C608,R605,R609
A11371-8205	82 OHM 1W 5% SMD 2512	1	R607
A11427-104K2	0.1UF 50V 1% CHIP 0805	3	C505,C506,C605
C 9012-3	OP AMP, QUAD MC33079D	1	U500
102438-560K2	56PF 50V 10% NPO 0805	2	C504,C604
102467-1	22UF 25V 20% RADIAL T/R	2	C503,C603
102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J502
102475-1	BLOCK, 5POS., TERMINAL	1	TB1
102579-1	STAND, BROACHED 6-32 X .75	2	HW1,HW2
103415-70608	SCREW, 6-32X.5 TORX PNHD SEM	2	HW3,HW4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127004-1	PWB, CE INPUT	1	1

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DRAWN	JAW	12/02/98	DWG. NO.	SHEET 2 OF 4	REV
PROJ.	MD390D0		126883-2		B

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
	127004-1	PWB, CE INPUT	
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22UF 25V 20% RADIAL T/R	B 1
C504	102438-560K2	56PF 50V 10% NPO 0805	B 2
C505	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C506	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C509		OPEN	
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C603	102467-1	22UF 25V 20% RADIAL T/R	B 1
C604	102438-560K2	56PF 50V 10% NPO 0805	B 2
C605	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 2
C608	A11371-2R71	2.7 OHM 0.10W 5% CHIP	A 1
C609		OPEN	
HW1	102579-1	STAND, BROACHED 6-32 X .75	A 3
HW2	102579-1	STAND, BROACHED 6-32 X .75	C 3
HW3	103415-70608	SCREW, 6-32X.5 TORX PNHD SEM	A 3
HW4	103415-70608	SCREW, 6-32X.5 TORX PNHD SEM	C 3
J500	126929-1	CONN., 1/4" XLR, PCB VERT.	B 2
J502	102471-2	HDR, 12POS. 2.5MM RT ANG KEYED	A 1
J600	126929-1	CONN., 1/4" XLR, PCB VERT.	A 2
R500	A11368-10021	10. KOHM .1W 1% CHIP 0805	C 2
R501	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R503	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R504	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R506	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R508		OPEN	
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R601	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R602	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R603	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R604	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R605	A11371-2R71	2.7 OHM 0.10W 5% CHIP	C 1
R606	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R607	A11371-8205	82 OHM 1W 5% SMD 2512	A 2
R608		OPEN	
R609	A11371-2R71	2.7 OHM 0.10W 5% CHIP	C 1
TB1	102475-1	BLOCK, 5POS., TERMINAL	A 3
U500	C 9012-3	OP AMP, QUAD MC33079D	B 2

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DRAWN	JAW	12/02/98	DWG. NO.	SHEET 3 OF 4	REV
PROJ.	MD390D0		126883-2		B

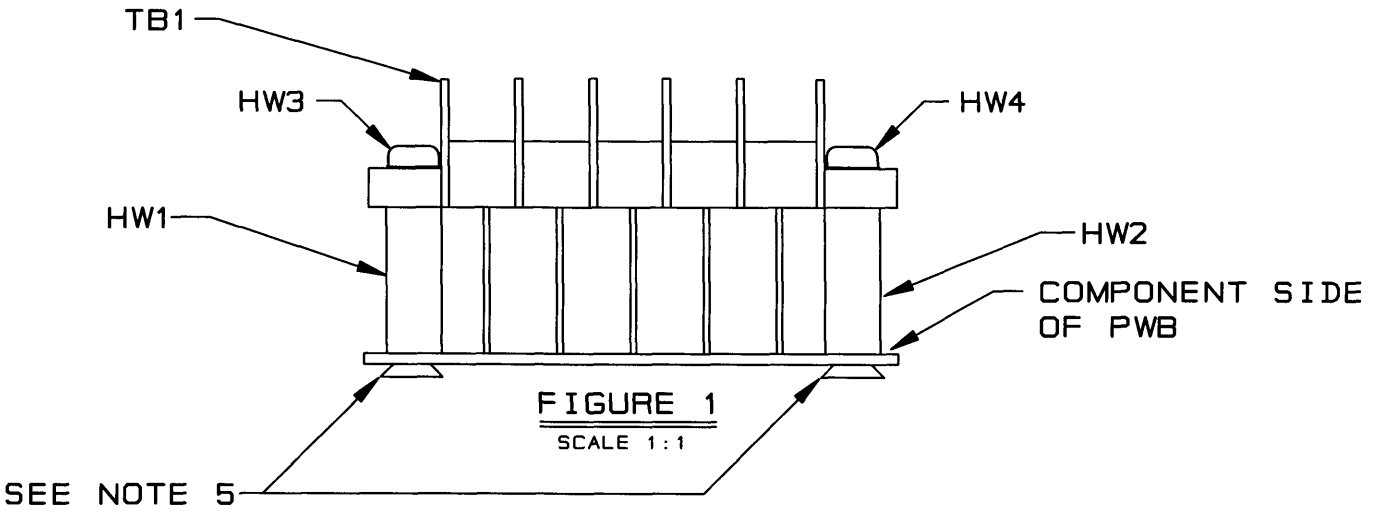
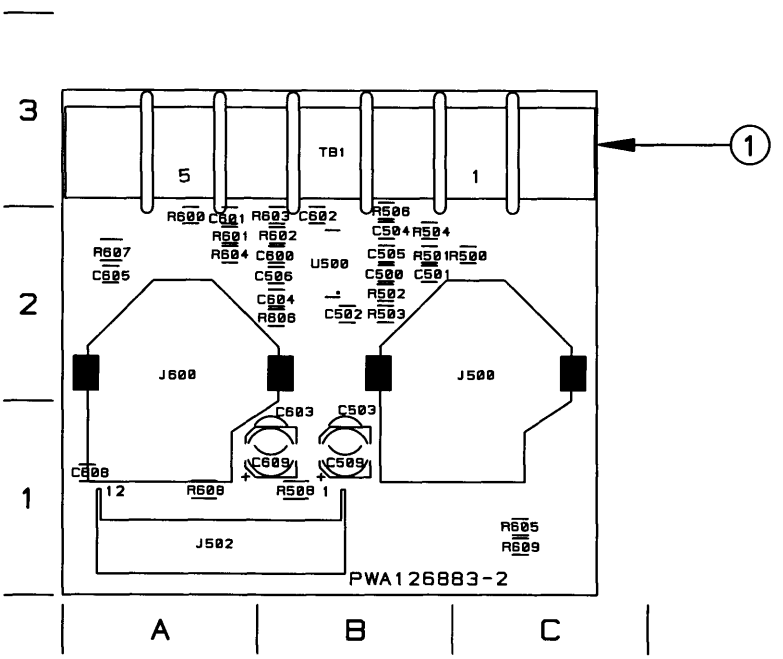


FIGURE 1
SCALE 1:1

COMPONENT MAP
(COMPONENT SIDE VIEW)



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DRAWN	JAW	12/02/98	DWG. NO.	SHEET 4 OF 4	REV
PROJ.	MD390D0		126883-2		B

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
		A	INITIAL RELEASE FOR PRODUCTION (LEVEL I)	12/02/98	JAW	TLM			TS
98E0826		B	C608 WAS A11427-104K2. R605,R609 WERE A11371-1501. HW3,HW4 WERE 102882-1. ADDED NOTE 5.	12/02/98	JAW	TLM			TS
99E0042		C	C608,R605,R609 WERE A11371-2R71. HW3,HW4 WERE 103415-70608.	02/01/99	JAW	KW	CB		98

UNLESS OTHERWISE SPECIFIED, THE FINISHED PWA SHALL MEET:
IPC-A-610_ CLASS 2

NOTES:

1. SCHEMATIC DRAWING NUMBER 127014.
2. PWB PART NUMBER 127004-1.
3. ALL LEADS SHALL BE TRIMMED TO 0.093" OR LESS.
4. POSITION COMPONENTS AS SHOWN ON COMPONENT MAP.
5. SWAGE FIT HW1 & HW2 INTO PCB.



CAUTION

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PRINTS: K

PWA, CE STANDARD INPUT

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

DRAWN	JAW	12/02/98	APPROVED BY:			DO NOT SCALE PRINT
CHECKED	TLM	12/04/98	ME			SUPERSEDES
SCALE	NONE		EE			E.C.N.
PROJ #	MD390D0		PE	TS	12/04/98	DWG. NO. SHEET 1 OF 4
NEXT ASSEMBLY						126883-2

REV: C

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
A11368-10021	10. KOHM .1W 1% CHIP 0805	12	R500,R501,R502,R503,R504,
			R506,R600,R601,R602,R603,
			R604,R606
A11369-120K2	12PF 50V 10% NPO 0805 T/R	6	C500,C501,C502,C600,C601,C602
A11371-1501	15 OHM 0.10W 5% CHIP	3	C608,R605,R609
A11371-8205	82 OHM 1W 5% SMD 2512	1	R607
A11427-104K2	0.1UF 50V 1% CHIP 0805	3	C505,C506,C605
C 9012-3	OP AMP, QUAD MC33079D	1	U500
102438-560K2	56PF 50V 10% NPO 0805	2	C504,C604
102467-1	22UF 25V 20% RADIAL T/R	2	C503,C603
102471-2	HDR, 12POS. 2.5MM RT ANG KEY	1	J502
102475-1	BLOCK, 5POS., TERMINAL	1	TB1
102579-1	STAND, BROACHED 6-32 X .75	2	HW1,HW2
103435-70608	SCREW, 6-32X.5 TORX PNHD SEM	2	HW3,HW4
126929-1	1/4" TRS/XLR COMBO PCB VERT	2	J500,J600
127004-1	PWB, CE INPUT	1	1

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DRAWN	JAW	12/02/98	DWG. NO.	SHEET 2 OF 4	REV
PROJ.	MD390D0		126883-2		©

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
1	127004-1	PWB, CE INPUT	
C500	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C501	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C502	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C503	102467-1	22UF 25V 20% RADIAL T/R	B 1
C504	102438-560K2	56PF 50V 10% NPO 0805	B 2
C505	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C506	A11427-104K2	0.1UF 50V 1% CHIP 0805	B 2
C509		OPEN	
C600	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C601	A11369-120K2	12PF 50V 10% NPO 0805 T/R	A 2
C602	A11369-120K2	12PF 50V 10% NPO 0805 T/R	B 2
C603	102467-1	22UF 25V 20% RADIAL T/R	B 1
C604	102438-560K2	56PF 50V 10% NPO 0805	B 2
C605	A11427-104K2	0.1UF 50V 1% CHIP 0805	A 2
C608	A11371-1501	15 OHM 0.10W 5% CHIP	A 1
C609		OPEN	
HW1	102579-1	STAND, BROACHED 6-32 X .75	A 3
HW2	102579-1	STAND, BROACHED 6-32 X .75	C 3
HW3	103435-70608	SCREW, 6-32X.5 TORX PNHD SEM	A 3
HW4	103435-70608	SCREW, 6-32X.5 TORX PNHD SEM	C 3
J500	126929-1	CONN., 1/4" XLR, PCB VERT.	B 2
J502	102471-2	HDR, 12POS. 2.5MM RT ANG KEYED	A 1
J600	126929-1	CONN., 1/4" XLR, PCB VERT.	A 2
R500	A11368-10021	10. KOHM .1W 1% CHIP 0805	C 2
R501	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R502	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R503	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R504	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R506	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R508		OPEN	
R600	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R601	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R602	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R603	A11368-10021	10. KOHM .1W 1% CHIP 0805	B 2
R604	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R605	A11371-1501	15 OHM 0.10W 5% CHIP	C 1
R606	A11368-10021	10. KOHM .1W 1% CHIP 0805	A 2
R607	A11371-8205	82 OHM 1W 5% SMD 2512	A 2
R608		OPEN	
R609	A11371-1501	15 OHM 0.10W 5% CHIP	C 1
TB1	102475-1	BLOCK, 5POS., TERMINAL	A 3
U500	C 9012-3	OP AMP, QUAD MC33079D	B 2

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DRAWN	JAW	12/02/98	DWG. NO.	SHEET 3 OF 4	REV
PROJ.	MD390D0		126883-2		©

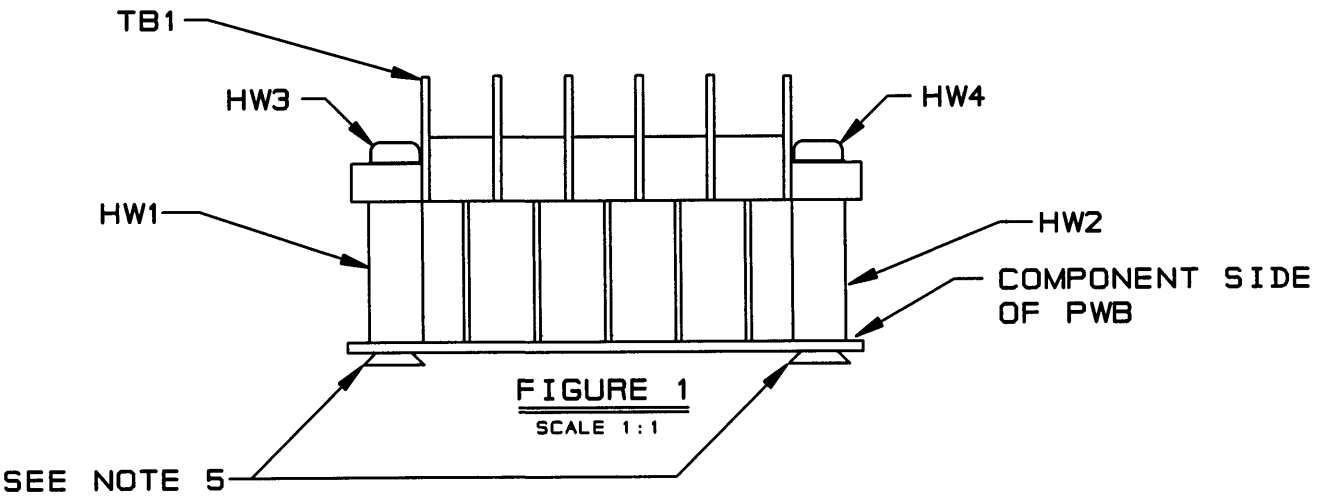
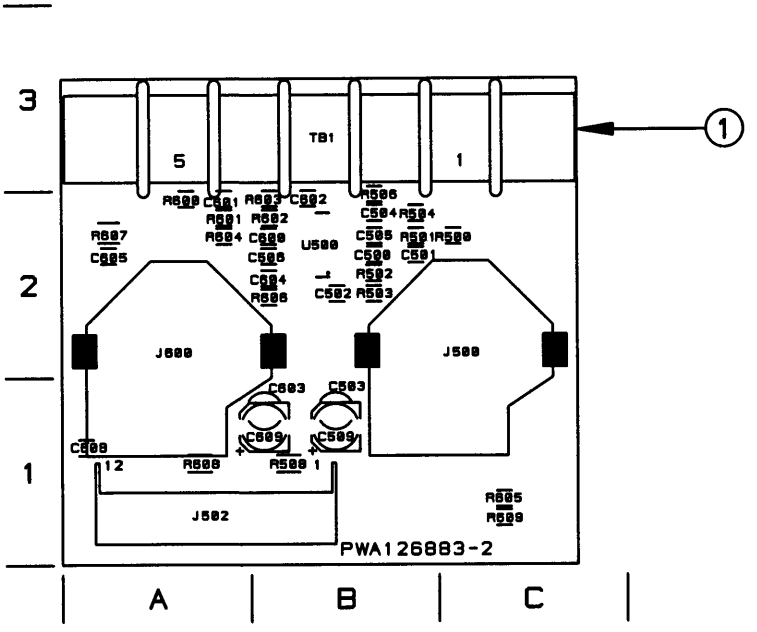


FIGURE 1
SCALE 1:1

COMPONENT MAP
(COMPONENT SIDE VIEW)



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DRAWN	JAW	12/02/98	DWG. NO. 126883-2	SHEET 4 OF 4
PROJ.	MD390D0			REV ©

E.C.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
		A	INITIAL RELEASE TO PRODUCTION(LEVEL I)	02-23-99	JAW	JVM	3-9		RR

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 P.C. BOARD AND SHALL BE PERMANENT. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
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 R32X AS FOLLOWS:
    BEND THE RESISTOR LEADS AT 90 DEGREES TO THE BODY.
    PLACE R32X WITH THE ELEMENT AWAY FROM C1.
    SOLDER R32X LEADS TO R32 AND R34 PADS SMD STYLE.
    SEE DETAIL C FOR CLARITY.
15. INSTALL S2 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 19 COMPONENT MAP FOR CLARITY.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PRINTS TO: K

SERF PWA, CE1K 102139-6 & -8 MAIN

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

DRAWN	JAW	02-23-99	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	JVM	3-4-99	ME	03-04-99	SUPERSEDES
SCALE	NONE		EE		E.C.
PROJ #	MD390D0		PE	3-9-99	DWG. NO. 127321-1 SHEET 1 OF 20 REV A
FILENAME: 127321-1_A.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	23	R9, R104, R107, R108, R111, R121,
			R176, R177, R182, R185, R193,
			R196, R204, R211, R221, R276,
			R277, R282, R285, R293, R296,
			R313, R413
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
A11369-270K2	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	JAW	02/23/99	DWG. NO.	SHEET 2 OF 20	REV
PROJ.	MD390D0		127321-1		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	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	2	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
A11371-5R63	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
A11371-8211	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	30	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
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	JAW	02/23/99	DWG. NO.	SHEET 3 OF 20	REV
PROJ.	MD390D0		127321-1		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	2	U101,U201
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	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	2	C103,C203
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
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	JAW	02/23/99	DWG. NO.	SHEET 4 OF 20	REV
PROJ.	MD390D0		127321-1		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
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
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
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
127229-1	RES, 1100 OHM 5W 5% THICK F	1	R32X

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

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 5 OF 20	REV
PROJ.	MD390D0		127321-1		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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 6 OF 20	REV
PROJ.	MD390D0		127321-1		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	JAW	02/23/99	DWG. NO.	SHEET 7 OF 20	REV
PROJ.	MD390D0		127321-1		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*
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	JAW	02/23/99	DWG. NO.	SHEET 8 OF 20	REV
PROJ.	MD390D0		127321-1		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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 9 OF 20	REV
PROJ.	MD390D0		127321-1		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
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
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	JAW	02/23/99	DWG. NO.	SHEET 10 OF 20	REV
PROJ.	MD390D0		127321-1		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
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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DRAWN	JAW	02/23/99	DWG. NO.	SHEET 11 OF 20	REV
PROJ.	MD390D0		127321-1		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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DRAWN	JAW	02/23/99	DWG. NO.	SHEET 12 OF 20	REV
PROJ.	MD390D0		127321-1		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		DO NOT INSTALL	J 8
R32X	127229-1	RES, 1100 OHM 5W 5% THICK FILM	J 8
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34		DO NOT INSTALL	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	JAW	02/23/99	DWG. NO.	SHEET 13 OF 20	REV
PROJ.	MD390D0		127321-1		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	JAW	02/23/99	DWG. NO.	SHEET 14 OF 20	REV
PROJ.	MD390D0		127321-1		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	JAW	02/23/99	DWG. NO.	SHEET 15 OF 20	REV
PROJ.	MD390D0		127321-1		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	JAW	02/23/99	DWG. NO.	SHEET 16 OF 20	REV
PROJ.	MD390D0		127321-1		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

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

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 17 OF 20	REV
PROJ.	MD390D0		127321-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
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
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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 18 OF 20	REV
PROJ.	MD390D0		127321-1		A

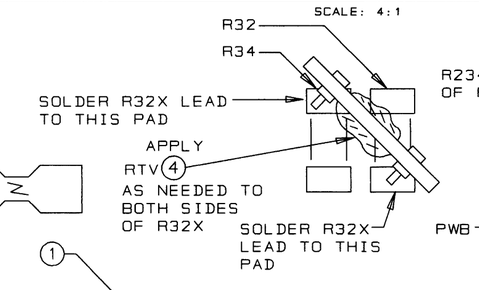
Component Map

for use with

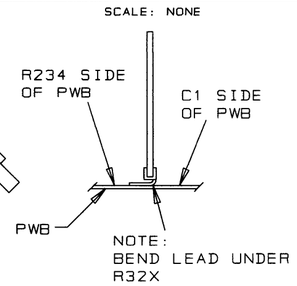
Main PWA 127321-1

COMPONENT MAP
(COMPONENT SIDE VIEW)

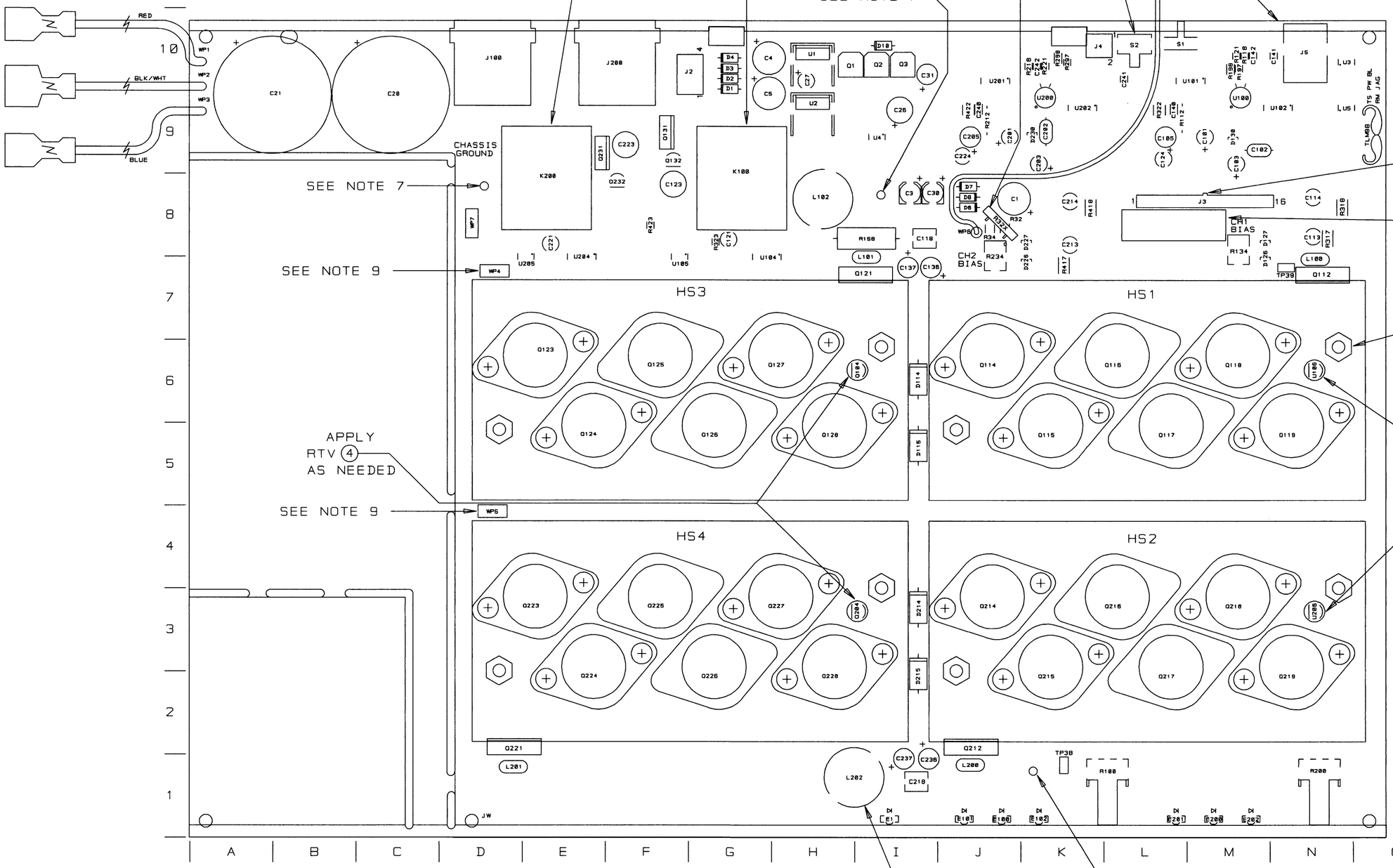
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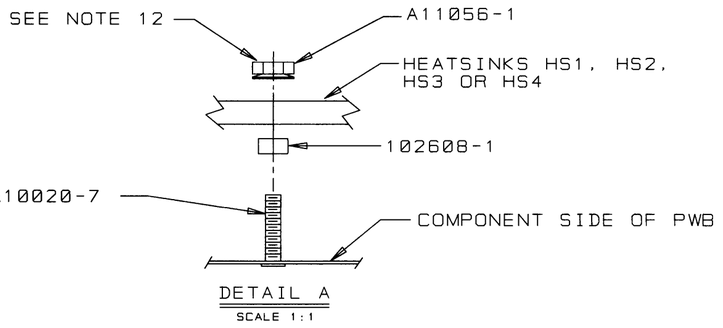


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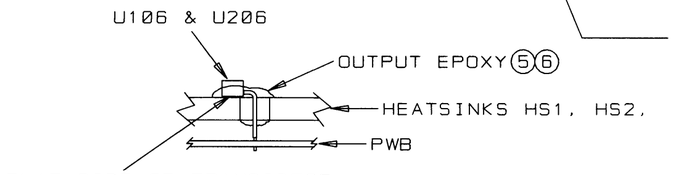


DETAIL C





DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

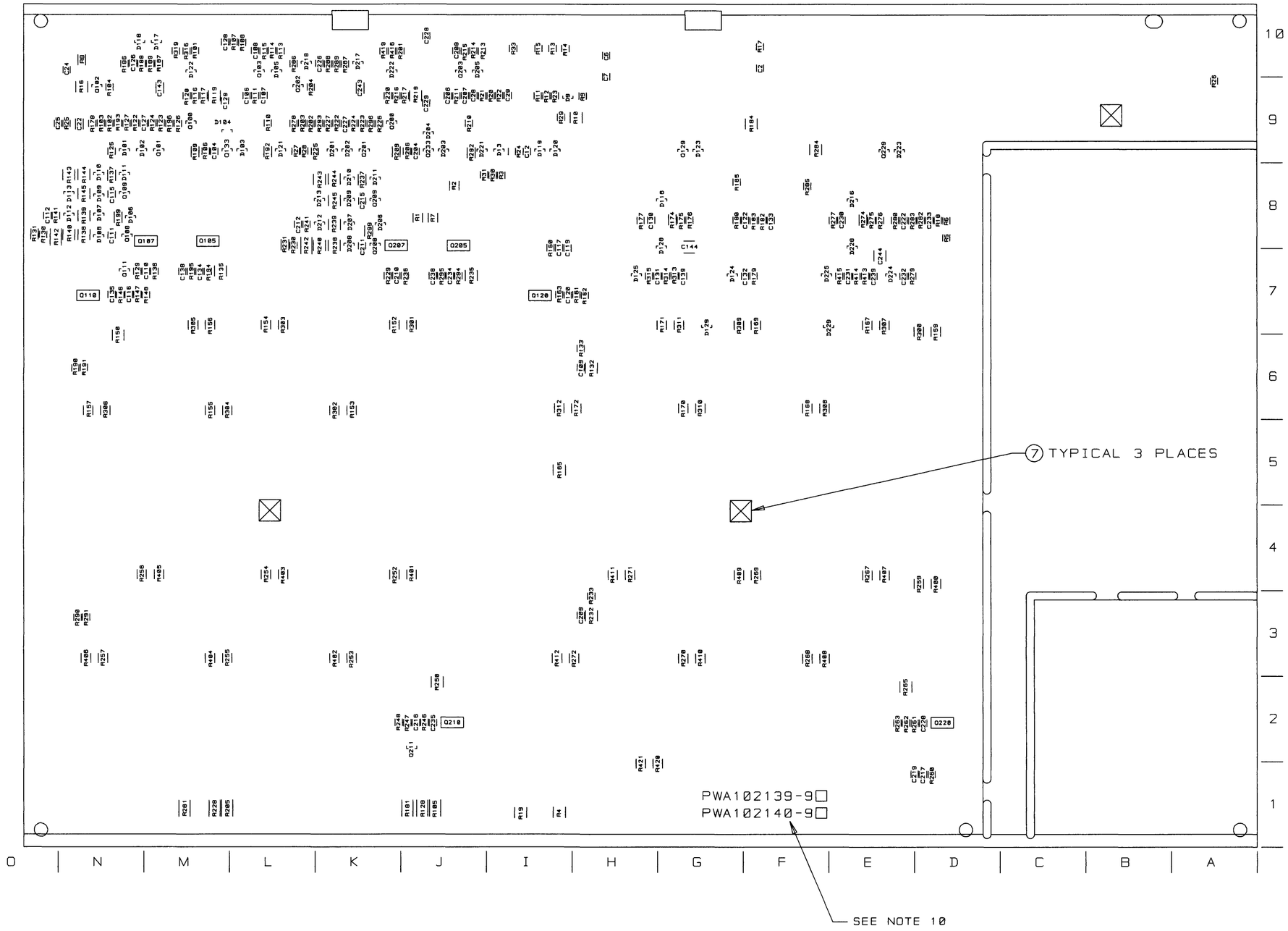
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 19 OF 20	REV
PROJ. #	MD390D0	127321-1		(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 20 OF 20	REV
PROJ. #	MD390D0	127321-1		A

E.C.N.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
T991752		A	INITIAL RELEASE TO PRODUCTION.	09-10-99	KLW	JAW		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 P.C. BOARD AND SHALL BE PERMANENT. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
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 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 19 COMPONENT MAP FOR CLARITY.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PRINTS TO								
K		SERF PWA, CE1K 102139-6 & -8 MAIN					TOL.UNLESS SPECIFIED X.XX = ± 0.020 X.XXX = ± 0.010 DRILLS = ± 0.003	
		DRAWN	KLW	09-10-99	APPROVED BY:		DO NOT SCALE PRINT	
		CHECKED	JAW	09-10-99	ME	N/A	SUPERSEDES	
		SCALE	NONE		EE	N/A	E.C.	
		PROJ #	MD390D0		PE	9/10/99	DWG. NO. 127321-2 SHEET 1 OF 19	REV A
		FILENAME: 127321-2_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	23	R9, R104, R107, R108, R111, R121,
			R176, R177, R182, R185, R193,
			R196, R204, R211, R221, R276,
			R277, R282, R285, R293, R296,
			R313, R413
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 .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	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
A11369-270K2	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
A11371-0R02	0.0 OHM JUMPER CHIP 1206	4	R199, R299, R323, R423
A11371-R221	.220HM .1W 5% 0805 SMT	3	R14, R15, R33
A11371-1011	100 OHM 0.10W 5% CHIP 0805	3	R13, R147, R247

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DRAWN	KLW	09/10/99	DWG. NO.	SHEET 2 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
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	2	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
A11371-8211	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	0.01UF 50V 10% X7R SMD 1206	2	C143,C243
A11427-104K2	0.1 MF 50V 10% 0805	27	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
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
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

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DRAWN	KLW	09/10/99	DWG. NO.	SHEET 3 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
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	2	U101,U201
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
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	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	2	C103,C203
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
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

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DRAWN	KLW	09/10/99	DWG. NO.	SHEET 4 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
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
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	.01MF 100V 10% X7R 0805 SMD	1	C2
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
127442-1	PREP, CE HI-V WIRE	1	WP6
127683-1	SENSOR, CE THERMAL	2	U106,U206

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DRAWN	KLW	09/10/99	DWG. NO.	SHEET 5 OF 19	REV
PROJ.	MD390D0		127321-2		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	.01MF 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	.01 UF 50V 10% X7R MLC 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	09/10/99	DWG. NO.	SHEET 6 OF 19	REV
PROJ.	MD390D0		127321-2		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	A11427-103K2	.01 UF 50V 10% X7R MLC 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	09/10/99	DWG. NO.	SHEET 7 OF 19	REV
PROJ.	MD390D0		127321-2		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*
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*
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

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 8 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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
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

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 9 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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
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
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*

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 10 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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	.220HM .1W 5% 0805 SMT	I 10*
R15	A11371-R221	.220HM .1W 5% 0805 SMT	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*

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 11 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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	.22OHM .1W 5% 0805 SMT	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

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 12 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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 .125W 1% 1206 T/R	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*
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*

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 13 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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
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 .125W 1% 1206 T/R	K 8*
R238	A11371-1213	120 OHM 0.25W 5% CHIP	K 7*
R239	A11368-13703	137 OHM 0.25W 1% CHIP	K 8*

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 14 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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*

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 15 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
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

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

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 16 OF 19	REV
PROJ.	MD390D0		127321-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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
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 30Z 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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	KLW	09/10/99	DWG. NO.	SHEET 17 OF 19	REV
PROJ.	MD390D0		127321-2		A

Component Map

for use with

Main PWA 127321-2

COMPONENT MAP
(COMPONENT SIDE VIEW)

SEE NOTE 14

SEE NOTE 8

SEE NOTE 7

RED

BLK/WHT

BLUE

WP1

WP2

WP3

CHASSIS GROUND

SEE NOTE 7

SEE NOTE 9

WP4

WP5

WP6

WP7

J3 CONNECTOR ORIENTATION

CH1 BIAS

CH2 BIAS

HS3

HS1

HS4

HS2

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

SEE DETAIL B AND NOTE 11

APPLY RTV (4) AS NEEDED

SEE NOTE 7

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

SEE NOTE 12

A11056-1

HEATSINKS HS1, HS2, HS3 OR HS4

102608-1

A10020-7

COMPONENT SIDE OF PWB

DETAIL A
SCALE 1:1

U106 & U206

OUTPUT EPOXY (5)(6)

HEATSINKS HS1, HS2,

PWB

FLAT SIDE OF TRANSISTOR

DETAIL B
SCALE 1:1

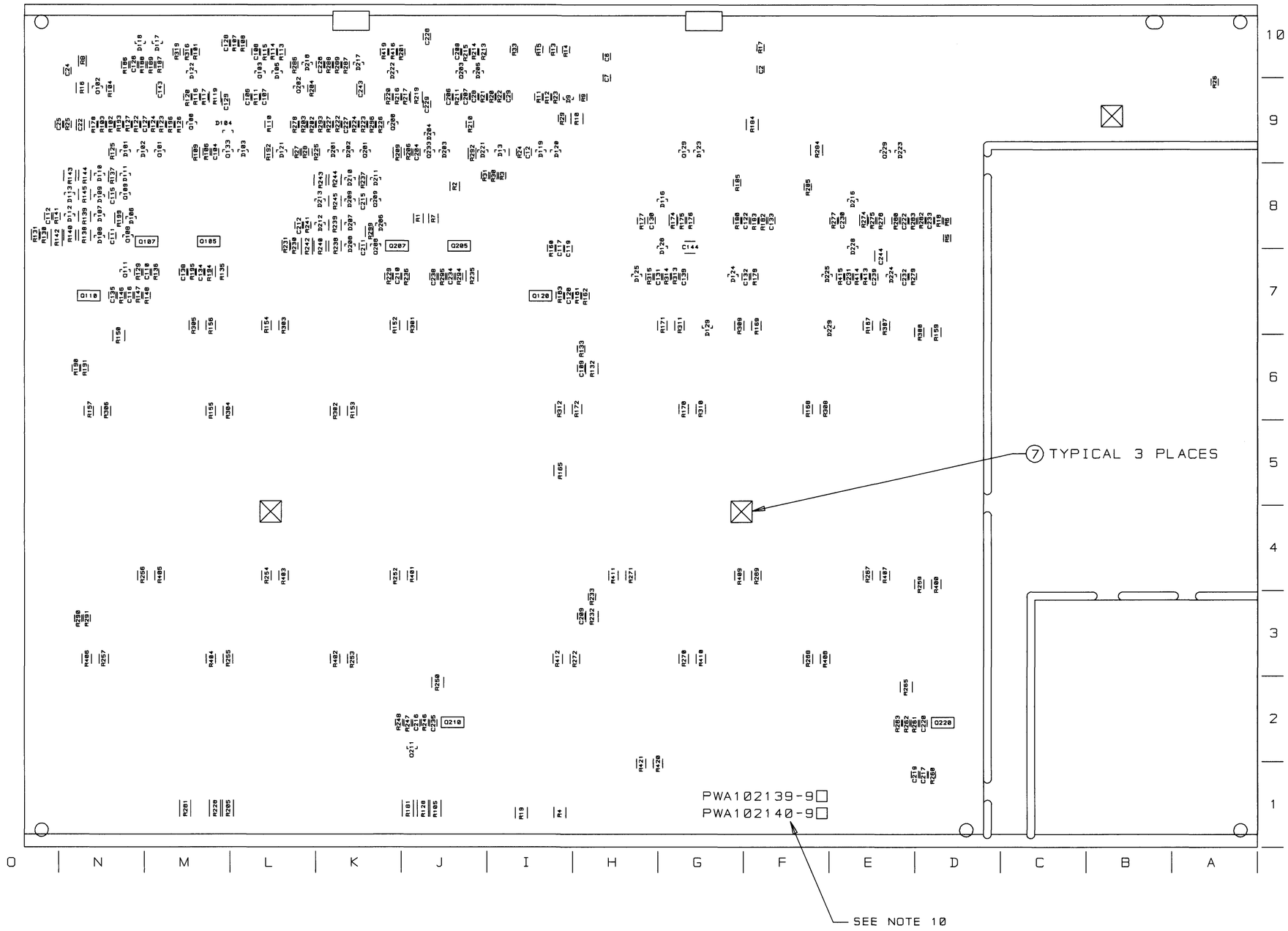
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 18 OF 19	REV
PROJ. #	MD390D0	127321-2		(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 19 OF 19	REV
PROJ. #	MD390D0	127321-2		A

E.C.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
		A	INITIAL RELEASE TO PRODUCTION(LEVEL I)	02-23-99	JAW	JLM			

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. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
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 R32X AS FOLLOWS:
    BEND THE RESISTOR LEADS AT 90 DEGREES TO THE BODY.
    PLACE R32X WITH THE ELEMENT AWAY FROM C1.
    SOLDER R32X LEADS TO R32 AND R34 PADS SMD STYLE.
    SEE DETAIL C FOR CLARITY.
15. INSTALL S2 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 20 COMPONENT MAP FOR CLARITY.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PRINTS TO							
K		SERF PWA, CE2K 102140-6 & -8 MAIN				TOL. UNLESS SPECIFIED X.XX - ± 0.020 X.XXX - ± 0.010 DRILLS - ± 0.003	
		DRAWN	JAW	02-23-99	APPROVED BY:	DO NOT SCALE PRINT	
		CHECKED	JLM	3-4-99	ME KAL 03-09-99	SUPERSEDES	
		SCALE	NONE		EE	E.C.	
		PROJ #	MD390D0		PE 3-9-99	DWG. NO. 127323-1 SHEET 1 OF 21	REV A
		FILENAME: 127323-1_A.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	23	R9, R104, R107, R108, R111,
			R121, R176, R177, R182, R185,
			R193, R196, R204, R211, R221,
			R276, R277, R282, R285, R293,
			R296, R313, R413
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
A11369-270K2	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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 2 OF 21	REV
PROJ.	MD390D0		127323-1		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	2	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
A11371-5R63	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
A11371-8211	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	30	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
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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 3 OF 21	REV
PROJ.	MD390D0		127323-1		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	2	U101,U201
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	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	2	C103,C203
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3

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DRAWN	JAW	02/23/99	DWG. NO.	SHEET 4 OF 21	REV
PROJ.	MD390D0		127323-1		A

PARTS LIST			
C.P.N.	DESCRIPTION	QTY	REFERENCE DESIGNATION
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
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
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
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
127229-1	RES, 1100 OHM 5W 5% THICK F	1	R32X

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DRAWN	JAW	02/23/99	DWG. NO.	SHEET 5 OF 21	REV
PROJ.	MD390D0		127323-1		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	JAW	02/23/99	DWG. NO.	SHEET 6 OF 21	REV
PROJ.	MD390D0		127323-1		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	JAW	02/23/99	DWG. NO.	SHEET 7 OF 21	REV
PROJ.	MD390D0		127323-1		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*
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	JAW	02/23/99	DWG. NO.	SHEET 8 OF 21	REV
PROJ.	MD390D0		127323-1		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	JAW	02/23/99	DWG. NO.	SHEET 9 OF 21	REV
PROJ.	MD390D0		127323-1		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
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	JAW	02/23/99	DWG. NO.	SHEET 10 OF 21	REV
PROJ.	MD390D0		127323-1		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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	JAW	02/23/99	DWG. NO.	SHEET 11 OF 21	REV
PROJ.	MD390D0		127323-1		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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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 12 OF 21	REV
PROJ.	MD390D0		127323-1		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		DO NOT INSTALL	J 8
R32X	127229-1	RES, 1100 OHM 5W 5% THICK FILM	J 8
R33	A11371-0R21	0.2 OHM 0.10W 5% CHIP 0805	I 10*
R34		DO NOT INSTALL	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	JAW	02/23/99	DWG. NO.	SHEET 13 OF 21	REV
PROJ.	MD390D0		127323-1		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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 14 OF 21	REV
PROJ.	MD390D0		127323-1		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	JAW	02/23/99	DWG. NO.	SHEET 15 OF 21	REV
PROJ.	MD390D0		127323-1		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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 16 OF 21	REV
PROJ.	MD390D0		127323-1		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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1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	JAW	02/23/99	DWG. NO.	SHEET 17 OF 21	REV
PROJ.	MD390D0		127323-1		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
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
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	JAW	02/23/99	DWG. NO.	SHEET 18 OF 21	REV
PROJ.	MD390D0		127323-1		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
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 30Z 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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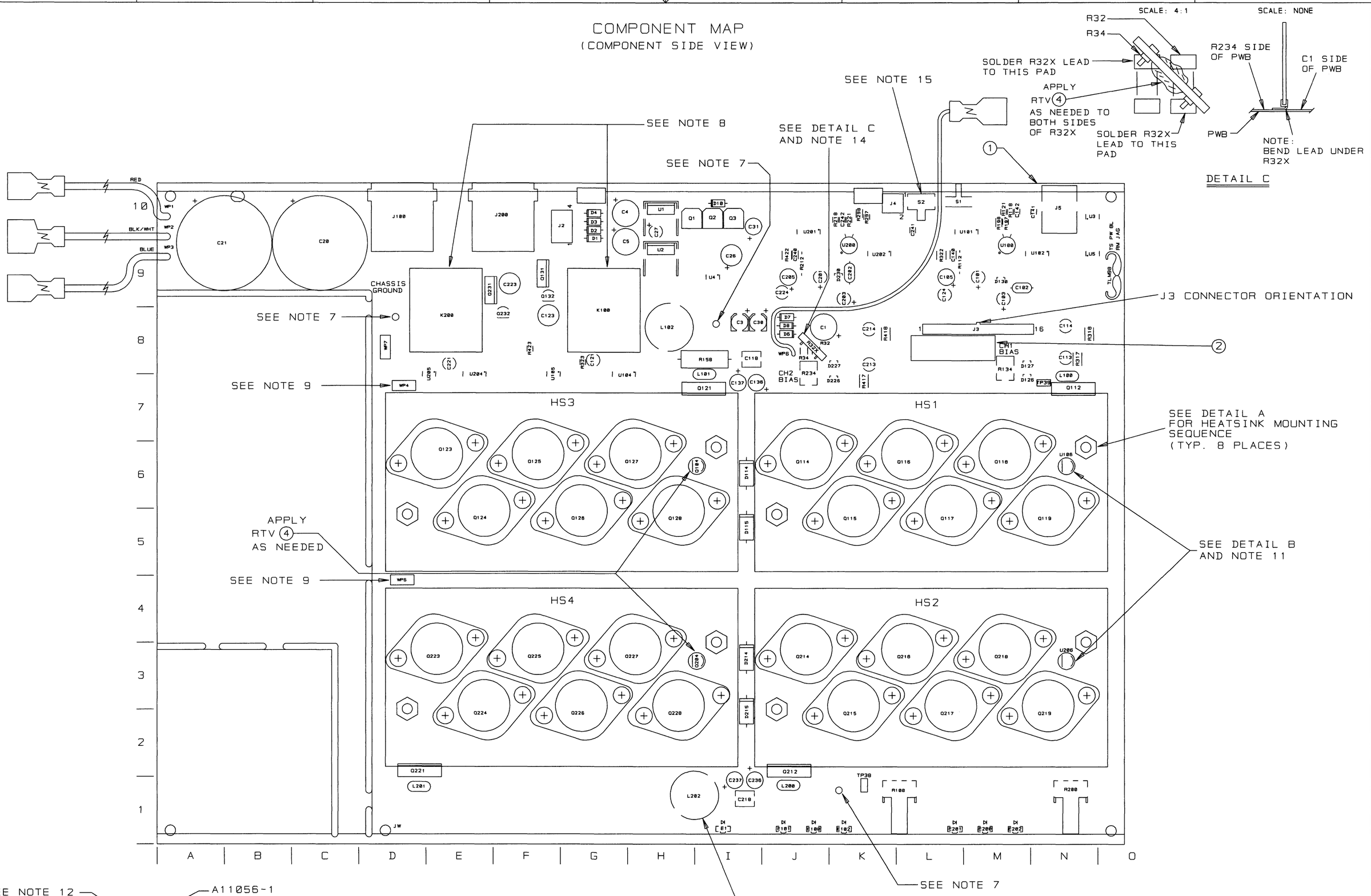
DRAWN	JAW	02/23/99	DWG. NO.	SHEET 19 OF 21	REV
PROJ.	MD390D0		127323-1		A

Component Map

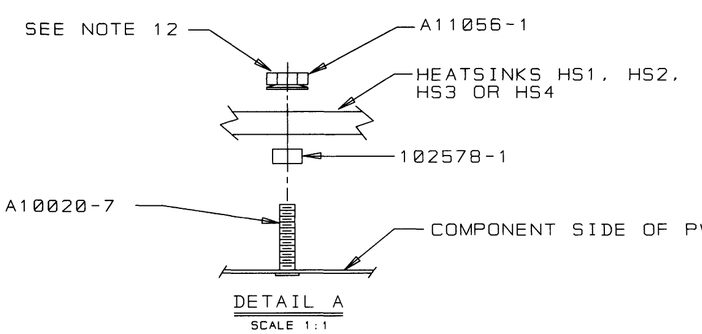
for use with

Main PWA 127323-1

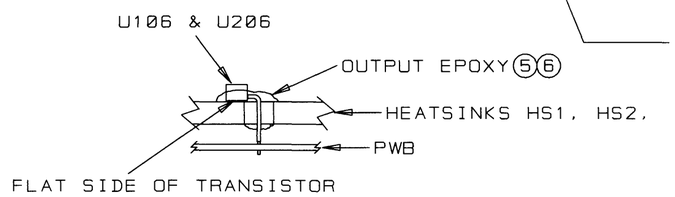
COMPONENT MAP
(COMPONENT SIDE VIEW)



DETAIL C



DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

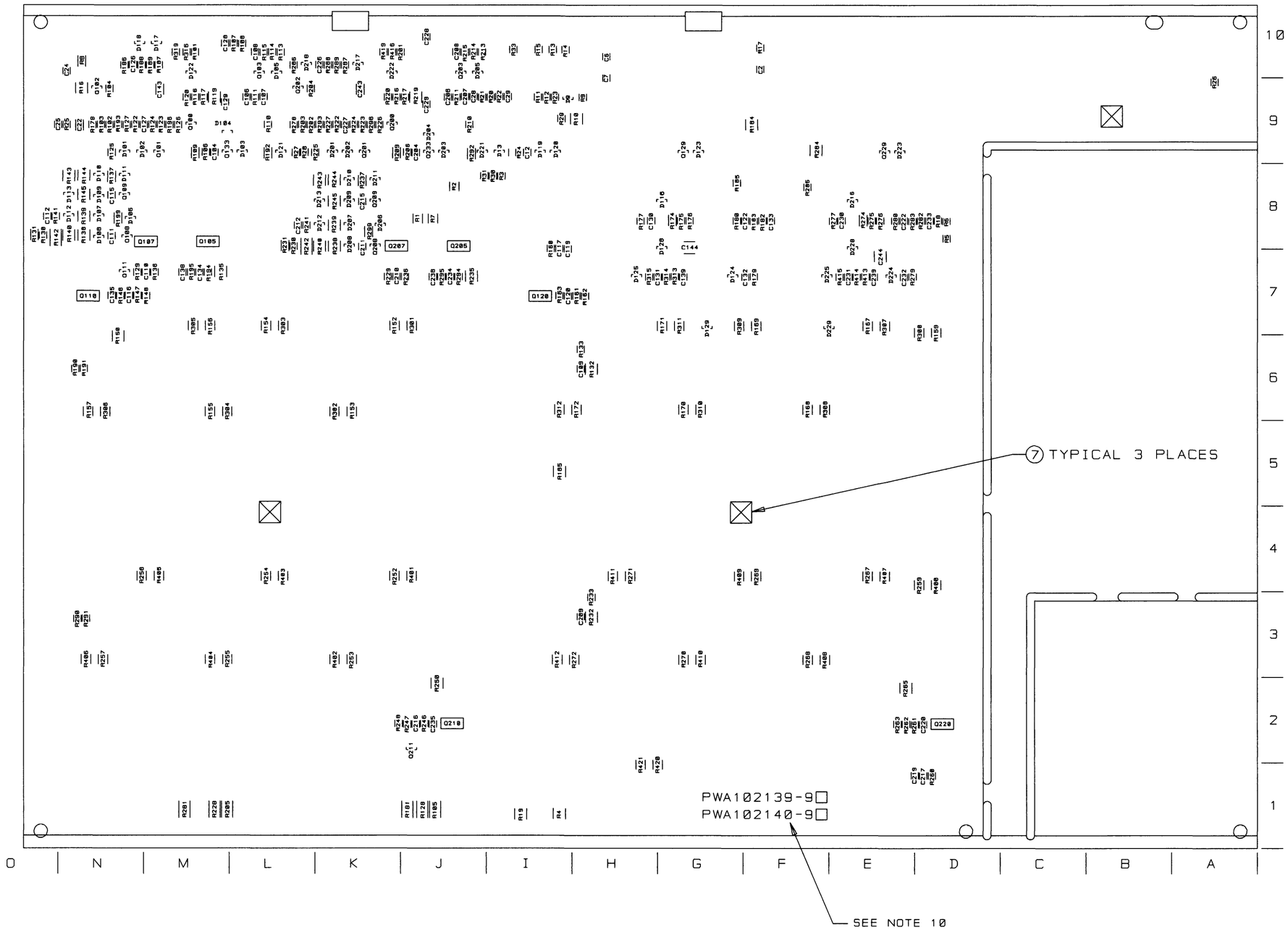
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1718 W. MISHAWAKA RD. ELKHART IN, 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 20 OF 21	REV
PROJ. #	MD390D0	127323-1		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	127323-1		A

E.C.	ZONE	REV.	DESCRIPTION	DATE	BY	APPROVALS CHK	CM	EE	PE
T991752		A	INITIAL RELEASE TO PRODUCTION.	09-11-99	DK				

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. USE A LABEL TO COVER UP THE OLD PWA NUMBERS AND AFFIX THE NEW PWA NUMBER.
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 WITH THE SWITCH BAT FACING AWAY FROM REAR EDGE OF THE BOARD. SEE SHEET 20 COMPONENT MAP FOR CLARITY.



CAUTION

STATIC CAN DAMAGE COMPONENTS!

DO NOT HANDLE

UNLESS WRIST STRAP IS WORN

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PRINTS TO	
K	

SERF PWA, CE2K 102140-6 & -8 MAIN

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

DRAWN	DK	09-11-99	APPROVED BY:		DO NOT SCALE PRINT
CHECKED	[illegible]	9-13-99	ME	N/A	SUPERSEDES
SCALE	NONE		EE	W/A	E.C.
PROJ #	MD390D0		PE	[illegible] 9/13/99	DWG. NO. 127323-2 SHEET 1 OF 19 REV A
FILENAME: 127323-2_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	23	R9, R104, R107, R108, R111,
			R121, R176, R177, R182, R185,
			R193, R196, R204, R211, R221,
			R276, R277, R282, R285, R293,
			R296, R313, R413
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
A11369-270K2	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-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

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 2 OF 19	REV
PROJ.	MD390D0		127323-2		A

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	2	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
A11371-8211	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	27	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
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
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

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 3 OF 19	REV
PROJ.	MD390D0		127323-2		A

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.	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	2	U101,U201
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
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	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	2	C103,C203
102468-1	47UF 10V 20% NP RAD T/R	4	C113,C114,C213,C214
102470-1	INDUCTOR, 2.75UH 11A RADIAL	2	L102,L202
102472-3	HDR, 16POS .100 CTR SGL ROW	1	J3
102473-1	SPEAKON, 4 POLE PCB HORZ	2	J100,J200
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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CROWN INTERNATIONAL INC.
1718 WEST MISHAWAKA ROAD ELKHART, INDIANA 46517 PHONE (219) 294-8000

DRAWN	DK	09/11/99	DWG. NO.	SHEET 4 OF 19	REV
PROJ.	MD390D0		127323-2		A

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
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
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
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
127442-1	PREP, CE HI-V WIRE	1	WP6
127683-1	SENSOR, CE THERMAL	2	U106,U206

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 5 OF 19	REV
PROJ.	MD390D0		127323-2		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*
C130	A11427-104K2	0.1 MF 50V 10% 0805	H 8*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 6 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
C234	A11369-102J2	0.001UF 50V 5% NPO MLC 0805 T/	J 7*
C235	102438-101K2	100PF 200V 10% NPO 0805	J 2*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 7 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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*
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*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 8 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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
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

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 9 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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
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
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*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 10 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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*
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*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 11 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 12 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 13 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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*

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 14 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 15 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
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*
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

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

DRAWN	DK	09/11/99	DWG. NO.	SHEET 16 OF 19	REV
PROJ.	MD390D0		127323-2		A

PARTS LIST			
REF DES	C.P.N.	DESCRIPTION	MAP LOC.
S1	102488-1	SPDT HORIZ SLIDE	L 10
S2	C 7325-1	2P 2 POS. PC SLIDE SW.	L 10
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
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 30Z 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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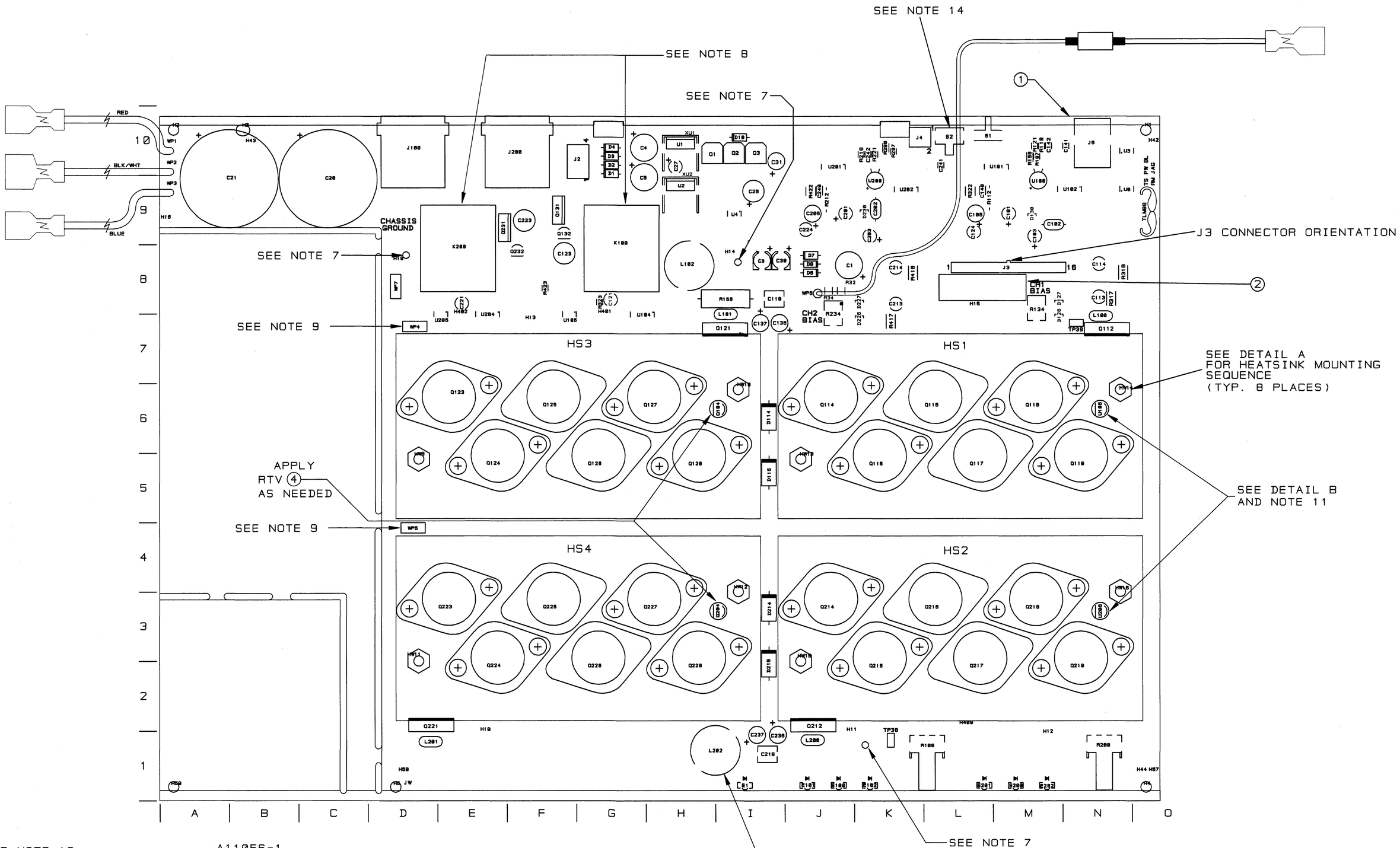
DRAWN	DK	09/11/99	DWG. NO.	SHEET 17 OF 19	REV
PROJ.	MD390D0		127323-2		A

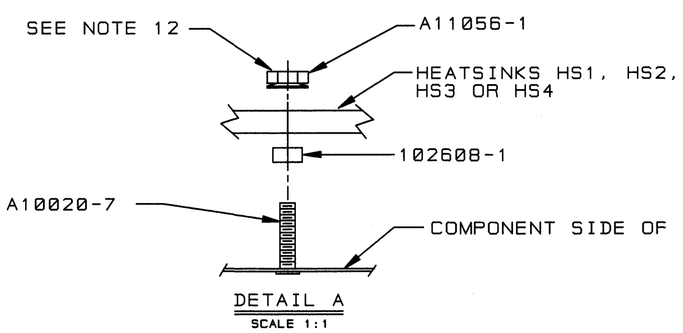
Component Map

for use with

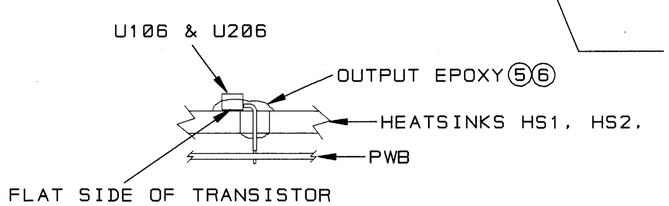
Main PWA 127323-2

COMPONENT MAP
(COMPONENT SIDE VIEW)





DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

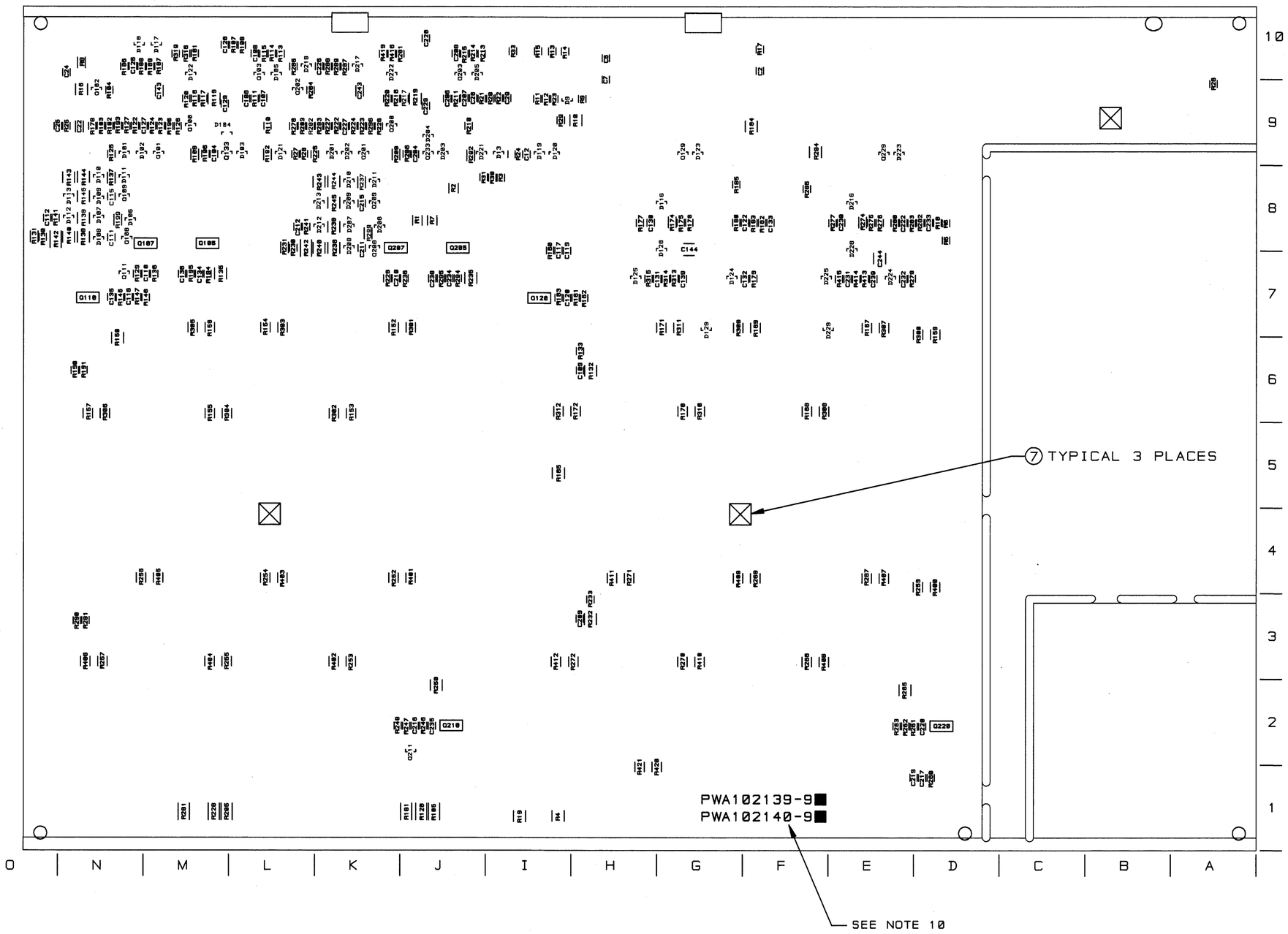
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CROWN INTERNATIONAL, INC.
1718 W. MISHAWAKA RD. ELKHART IN. 46517 PHONE (219) 294-8000

SCALE	NONE	DWG. NO.	SHEET 18 OF 19	REV
PROJ. #	MD390D0	127323-2		(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 19 OF 19	REV
PROJ. #	MD390D0	127323-2		A

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

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 P.C. BOARD AND SHALL BE PERMANENT.
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

CROWN INTERNATIONAL INC.

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

PWA, MAIN/INPUT CE1000

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	JAW	03/03/99	ME	CD 3-3-99	SUPERSEDES
SCALE	NONE		EE		E.C.
PROJ #	MD390D0		PE	DB 3-3-99	DWG. NO. 127353-1 SHEET 1 OF 20 REV A
FILENAME: 127353-1_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	03-03-99	DWG. NO.	SHEET 2 OF 20	REV
PROJ.	MD390D0		127353-1		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	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
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 20	REV
PROJ.	MD390D0		127353-1		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 20	REV
PROJ.	MD390D0		127353-1		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
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

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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 5 OF 20	REV
PROJ.	MD390D0		127353-1		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 20	REV
PROJ.	MD390D0		127353-1		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 20	REV
PROJ.	MD390D0		127353-1		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 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	03-03-99	DWG. NO.	SHEET 8 OF 20	REV
PROJ.	MD390D0		127353-1		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 20	REV
PROJ.	MD390D0		127353-1		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
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	03-03-99	DWG. NO.	SHEET 10 OF 20	REV
PROJ.	MD390D0		127353-1		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	03-03-99	DWG. NO.	SHEET 11 OF 20	REV
PROJ.	MD390D0		127353-1		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	03-03-99	DWG. NO.	SHEET 12 OF 20	REV
PROJ.	MD390D0		127353-1		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	03-03-99	DWG. NO.	SHEET 13 OF 20	REV
PROJ.	MD390D0		127353-1		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	03-03-99	DWG. NO.	SHEET 14 OF 20	REV
PROJ.	MD390D0		127353-1		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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DRAWN	KLW	03-03-99	DWG. NO.	SHEET 15 OF 20	REV
PROJ.	MD390D0		127353-1		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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PROJ.	MD390D0		127353-1		A