

NEMA 4X - CORROSIONPROOF		
	DESCRIPTION	# MANARAS
120V - 1PH	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR377
	1PH - 10 AMPS RESET	RESET007
	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR148
	1PH - 13 AMPS RESET	RESET010
230V - 1PH	MOTOR 1HP - 120V/230V - 1PH	MOTOR172
	1PH - 15 AMPS RESET	RESET012
	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR377
	1PH - 6 AMPS RESET	RESET003
208V 3PH	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR148
	1PH - 7 AMPS RESET	RESET004
	MOTOR 1HP - 120V/230V - 1PH	MOTOR172
	1PH - 8 AMPS RESET	RESET005
460V 3PH	MOTOR 1/2HP - 208V/460V - 3PH	MOTOR320
	MOTOR 3/4HP - 208V/460V - 3PH	MOTOR322
	MOTOR 1HP - 208V/460V - 3PH	MOTOR323
	MOTOR 1/2HP - 208V/460V - 3PH	MOTOR320
575V 3PH	MOTOR 3/4HP - 208V/460V - 3PH	MOTOR322
	MOTOR 1HP - 208V/460V - 3PH	MOTOR323
	MOTOR 1/2HP - 575V - 3PH	MOTOR330
	MOTOR 3/4HP - 575V - 3PH	MOTOR331
	MOTOR 1HP - 575V - 3PH	MOTOR332

No	Qty	DESCRIPTION	# MANARAS	REV
1	2	10-24 X 3/8 TYPE T S-TAP. SCREW	SCREW022	
2	1	#41-1R48P(INCL.1C/L)	CHAIN059	
3	1	#410-1R42P(INCL.1C/L)	CHAIN050	
4	2	#410-1R48P(INCL.1C/L)	CHAIN058	
5	4	1/4-20 HEX NUT ZP	NUT006	
6	4	1/4-20 X 3/4 HEX BOLT	BOLT002	
7	1	1/4-20 X 4 HEX BOLT	BOLT016	
8	2	1/4-20 X 5/16 SET SCREW	SCREW001	
9	1	410B14A28 X 3/4 K0 0S	SPR410B14A28X3/4	
10	1	410B14A32 X 1 K0 0S	SPR410B14A32X1	
11	1	410B18 X 1 K1/4 2S5/16-18	SPR410B18X1	1
12	1	410B9 X 5/8 K3/16 2S1/4-20 CR	SPR410B9X5/8	1
13	1	41B14_410A32 X 3/4 K0 0S	SPR41B14_410A32X3/4	
14	1	41B32 X 1 K0 0S PHS/16	SPR41B32X1PS/16	
15	16	5/16-18 HEX NUT ZP	NUT007	
16	16	5/16-18 X 3/4 RND HD SQ NECK BOLT	BOLT093	
17	10	5/16-18 X 5/16 SET SCREW	SCREW003	
18	2	5/8-18 HEX JAM NUT ZP	NUT013	
19	2	5/8-24 HEX JAM NUT ZP	NUT015	
20	1	7X7 1/16" X 16"	CABLE012	
21	9	BELLEVILLE WASHER (31.5X16.3X0.8)	WASHER035	
22	1	CABLE SLEEVE 1/16	SLEEVE001	
23	1	CL.PAD 5/8x4x0.125"	CLUTCHPAD005	3
24	3	COLLAR 1"	COLLAR007	
25	1	COLLAR 3/4"	COLLAR005	
26	2	COLLAR 5/8"	COLLAR004	
27	1	COMP. SPRING 1"ID 2"L	SPRING041	
28	1	COUPLING 3/4 2 PINS 1/4	COUPLING014	3
29	1	DISCONNECT FORK RH	FORK001	6
30	1	EXT. SPRING 3/8 OD	SPRING042	
31	2	FLANGE BEARING 1" C16-3F5	BEARING007	
32	4	FLANGED BEARING 5/8	BEARING006	
33	1	FORK / SWITCH SUPPORT	BRACKET192	1
34	4	HELICAL SPRING LOCK WASHER 1/4 ZP	WASHER028	
35	16	HELICAL SPRING LOCK WASHER 5/16 ZP	WASHER028	
36	1	INPUT SHAFT OPJ	SHAFT107	2
37	1	KEY 0.188 X 3.04 (INCL. W/ MOTOR)	KEY	
38	1	KEY 1/4 X 1	KW021	5
39	1	KEY 3/16 X 1-1/2 ROUNDED ENDS	KW013	5
40	1	KEY 3/16 X 9/16	KW031	5
41	1	LEFT HAND SIDE FOR OPERA	FRAME038	21
42	2	LIMIT CAM 5/8-24UNEF	CAM004	
43	1	LIMIT SHAFT 5/8-24 X12.5	SHAFT064	1
44	1	MOTOR	MOTOR	
45	1	MOTOR PULLEY 2.0 x 5/8 5L STL	PULLEY014	1
46	1	OPERA CLUTCHPLATE	CLUTCHPLATE006	3
47	1	OPERA HANDLE	HANDLE005	8
48	1	OPERA MOTOR PLATE	PLATE078	9
49	1	OPERA OUTPUT SHAFT	SHAFT102	5
50	1	OPERA SPACER 3/4"	SPACER008	1
51	2	OPERA WP/CP CBOX SUPPORT	BRACKET205	
52	1	PIN COTTER 3/16 X 2-1/2	PIN025	
53	1	PIN SLOTTED SPRING 5/16 X 2	PIN021	
54	1	PULLEY 7" x 5/8" 5L/B	PULLEY020	5
55	1	PUSH NUT 1/4"	CLIP029	
56	1	RIGHT HAND SIDE FOR OPERA	FRAME037	21
57	1	S HOOK	HOOK001	
58	1	SHIM WASHER (.750X1.125X.031) ZP	WASHER058	
59	16	TYPE A PLAIN WASHER 1/4 W ZP	WASHER007	
60	4	TYPE A PLAIN WASHER 3/16 ZP	WASHER003	
61	2	TYPE A PLAIN WASHER 5/8 N ZP	WASHER014	
62	1	TYPE B, INSIDE LENGTH 29	VBELTB29	
63	1	VINCKIER N4X-N4/12 12 X 10 X 5	PANEL078	0

	DESCRIPTION	# MANARAS
120V - 1PH	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR257
	1PH - 8 AMPS RESET	RESET005
	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR258
	1PH - 13 AMPS RESET	RESET010
230V - 1PH	MOTOR 1HP - 120V/230V - 1PH	MOTOR259
	1PH - 16 AMPS RESET	RESET013
	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR257
	1PH - 4 AMPS RESET	RESET001
208V 3PH	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR258
	1PH - 7 AMPS RESET	RESET004
	MOTOR 1HP - 120V/230V - 1PH	MOTOR259
	1PH - 8 AMPS RESET	RESET005
460V 3PH	MOTOR 1/2HP - 208V/460V - 3PH	MOTOR277
	MOTOR 3/4HP - 208V/460V - 3PH	MOTOR279
	MOTOR 1HP - 208V/460V - 3PH	MOTOR281
	MOTOR 1/2HP - 208V/460V - 3PH	MOTOR277
575V 3PH	MOTOR 3/4HP - 208V/460V - 3PH	MOTOR279
	MOTOR 1HP - 208V/460V - 3PH	MOTOR281
	MOTOR 1/2HP - 575V - 3PH	MOTOR278
	MOTOR 3/4HP - 575V - 3PH	MOTOR280
	MOTOR 1HP - 575V - 3PH	MOTOR282

PART DESCRIPTION
OPERA-J NEMA 4/12 / NEMA 4X

PART NUMBER
OPJW-6XXX-XXXX

MANARAS-OPERA
 136 ONEIDA DRIVE
 POINTE-CLAIRE, QC, H9R 1A8
 TEL: 1-800-361-2260
 FAX: 1-888-626-0606

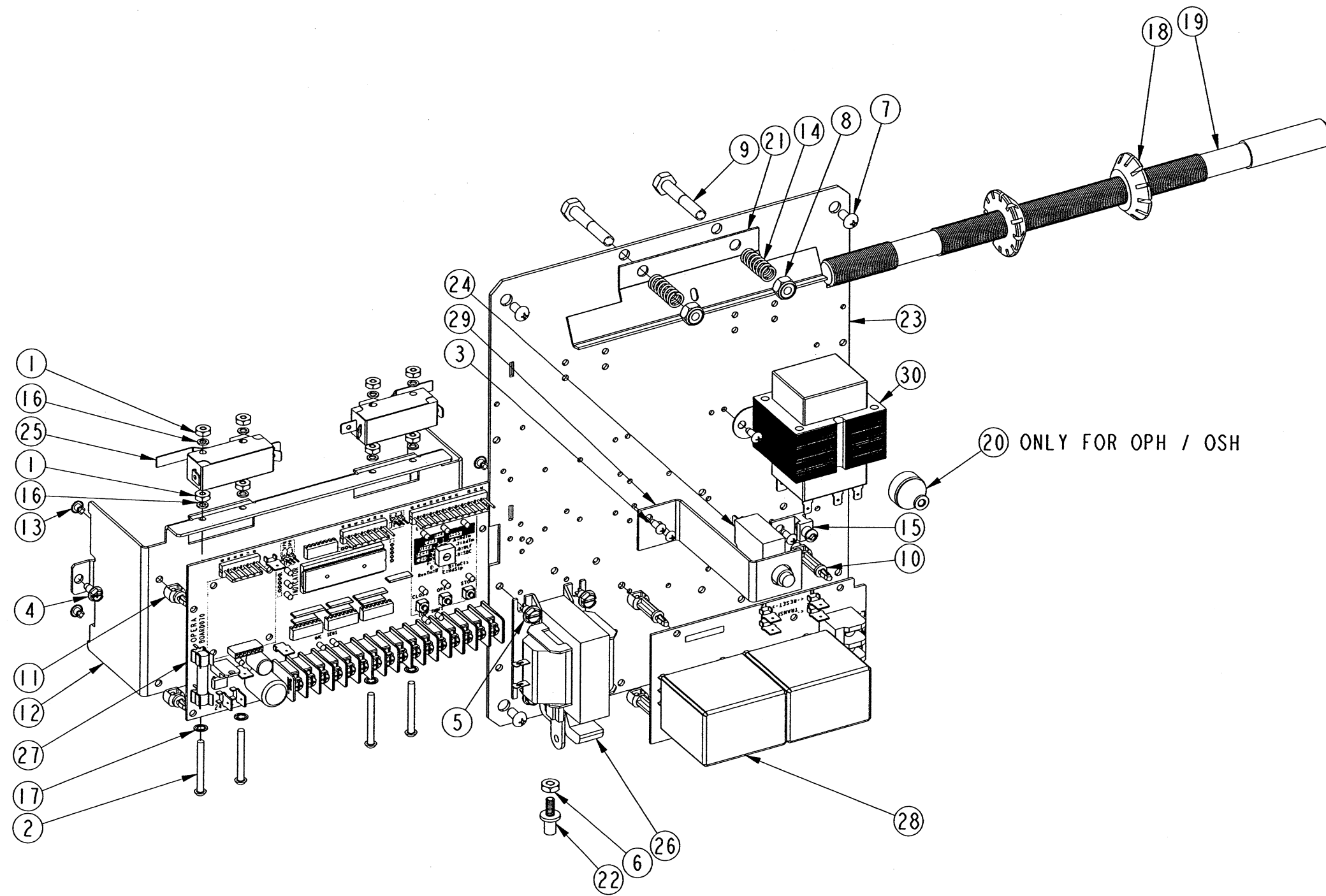
DRAWN BY: J. PROULX
 DATE: 2011-08-04
 UPDATED BY: —
 DATE: —

Manaras
Opera

SHEET: 1 of 1

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No	Qty	DESCRIPTION	# MANARAS	REV
1	8	6-32 HEX NUT ZP	NUT002	
2	4	6-32 X 1.25 MACHINE SCREW	SCREW109	
3	5	6-32 X 3/8 TYPE F S-TAP. SCREW	SCREW094	
4	2	8-32 X 3/8 TYPE F S-TAP. SCREW	SCREW021	
5	4	10-24 X 3/8 TYPE T S-TAP. SCREW	SCREW022	
6	1	10-32 HEX NUT ZP	NUT005	
7	4	10-32 X 3/8 MACHINE SCREW	SCREW053	
8	2	1/4-20 HEX NYLON LOCK NUT ZP	NUT020	
9	2	1/4-20 X 1-1/2 HEX BOLT	BOLT008	
10	4	BOARD SUPPORT 1 IN.	SUPPORT008	
11	6	BOARD SUPPORT 3/8 IN.	SUPPORT011	
12	1	BOARD SUPPORT PLATE FOR W/C PROOF	BRACKET235	1
13	8	BOARD SUPPORT RIVET	SUPPORT002	
14	2	CAM GUIDE PLATE SPRING C260047	SPRING001	
15	1	GROUND LUG TA61G-UL	CONNECTOR039	
16	8	HELICAL SPRING LOCK WASHER NO 6 ZP	WASHER023	
17	4	INTERNAL TOOTH LOCKWASHER NO6 ZP	WASHER062	
18	2	LIMIT CAM 5/8-24UNEF	CAM004	
19	1	LIMIT SHAFT 5/8-24 X12.5	SHAFT064	1
20	1	LIQUID TIGHT BUSHING	BUSHING062	
21	1	MTH/MTBH CAMPLATE N-1	CAMPLATE012	4
22	1	PASSE CABLE CBOX WATERPROOF HD	GUIDE013	
23	1	PLATE IN CBOX WP/CP	PLATE079	10
24	1	RESET	SEE MOTOR TABLE	
25	2	SINGLE LIMIT SWITCH - LEVER 46 DEG	LIMIT023	4
26	1	SOLENOID	SEE TABLE	
27	1	STD ELECT. CONTR. BOARD	BOARD070	
28	1	STD ELECT. POWER BOARD 2 RELAYS	BOARD066	
29	1	TOGGLE SWITCH AND RESET SUPPORT BRACKET	BRACKET097	2
30	1	TRANSFO TO 24V	SEE TABLE	



ONLY FOR OSH / OTBH
USE BRACKET184 FOR OTBH

20 ONLY FOR OPH / OSH

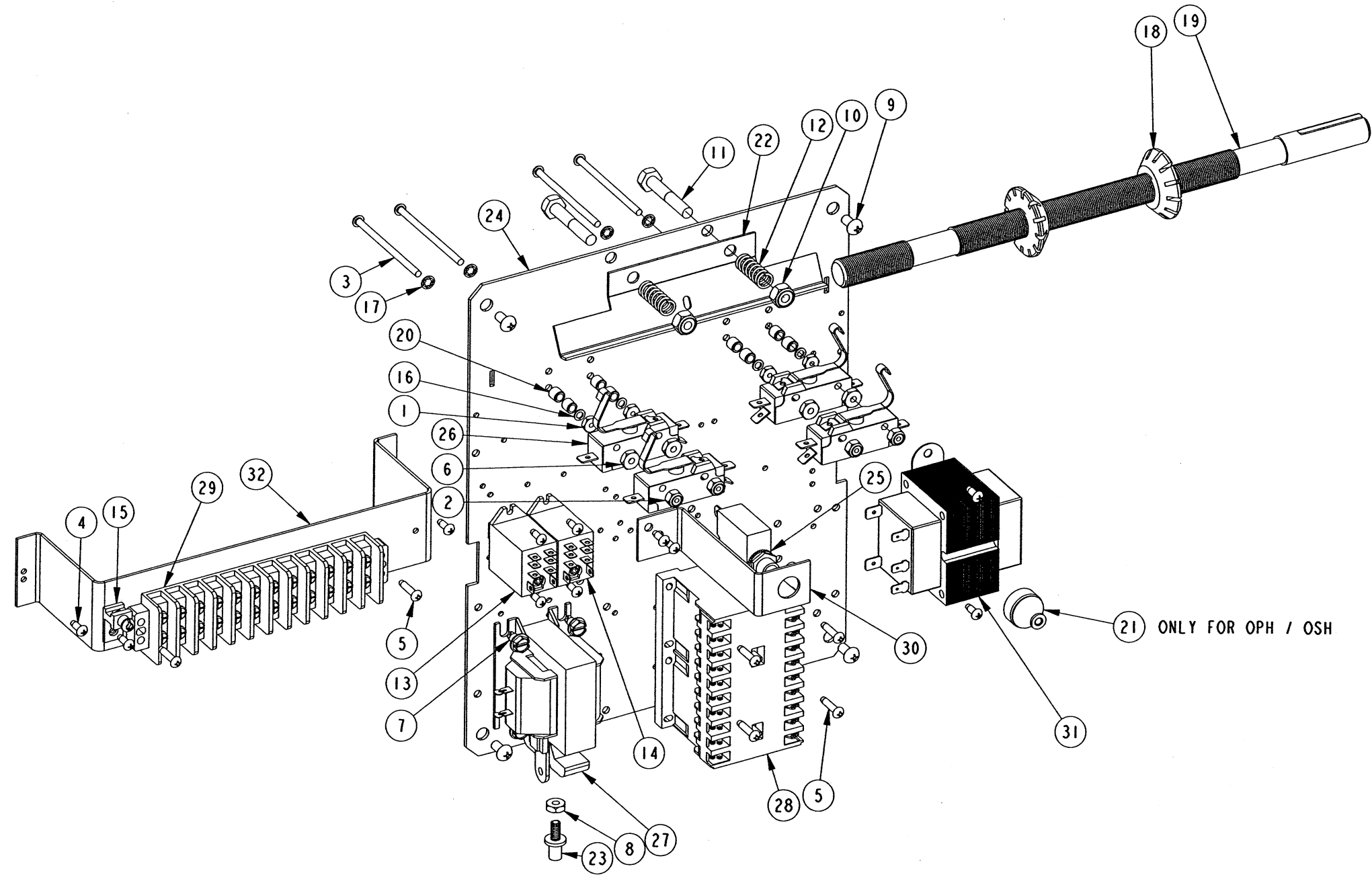
PART DESCRIPTION	
PANEL078 ECB OPERA	
PART NUMBER	MANARAS-OPERA
PANEL078-ECB-O	136 ONEIDA DRIVE
DRAWN BY: J. PROULX	POINTE-CLAIRE, QC, H9R 1A8
DATE: 2011-08-01	TEL: 1-800-361-2260
UPDATED BY: —	FAX: 1-888-626-0606
DATE: —	



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No	Qty	DESCRIPTION	# MANARAS	REV
1	4	6-32 HEX NUT ZP	NUT002	
2	4	6-32 HEX NYLON LOCK NUT ZP	NUT018	
3	4	6-32 X 2-1/2 MACHINE SCREW	SCREW046	
4	11	6-32 X 3/8 TYPE F S-TAP. SCREW	SCREW094	
5	6	6-32 X 5/8 TYPE F S-TAP. SCREW	SCREW095	
6	4	10-24 HEX NUT ZP	NUT004	
7	4	10-24 X 3/8 TYPE T S-TAP. SCREW	SCREW022	
8	1	10-32 HEX NUT ZP	NUT005	
9	4	10-32 X 3/8 MACHINE SCREW	SCREW053	
10	2	1/4-20 HEX NYLON LOCK NUT ZP	NUT020	
11	2	1/4-20 X 1-1/2 HEX BOLT	BOLT008	
12	2	CAM GUIDE PLATE SPRING C260047	SPRING001	
13	1	DPDT 24V RELAY	RELAY024	
14	1	DPDT RELAY	SEE TABLE	
15	1	GROUND LUG TA61G-UL	CONNECTOR039	
16	4	HELICAL SPRING LOCK WASHER NO 6 ZP	WASHER023	
17	4	INTERNAL TOOTH LOCKWASHER NO6 ZP	WASHER062	
18	2	LIMIT CAM 5/8-24UNEF	CAM004	
19	1	LIMIT SHAFT 5/8-24 X12.5	SHAFT064	1
20	8	LIMIT SWITCH SPACER 1/4 X 1/4 ALU.	SPACER017	
21	1	LIQUID TIGHT BUSHING	BUSHING062	
22	1	MTH/MTBH CAMPLATE N-1	CAMPLATE012	4
23	1	PASSE CABLE CBOX WATERPROOF HD	GUIDE013	
24	1	PLATE IN CBOX WP/CP	PLATE079	10
25	1	RESET	SEE MOTOR TABLE	
26	4	SNAP-ACT. SPDT-LEVER "S"	LIMIT025A	0
27	1	SOLENOID	SEE TABLE	
28	1	TELEM. REVERS. CONT. 24V	CONTACTORXXX	
29	1	TERMINAL STRIP 12 POSITIONS	TSTRIP001	
30	1	TOGGLE SWITCH AND RESET SUPPORT BRACKET	BRACKET097	2
31	1	TRANSFO TO 24V	SEE TABLE	
32	1	WATERPROOF CBOX TSTRIP SUPPORT	BRACKET178	2



ONLY FOR OSH / OTBH
USE BRACKET184 FOR OTBH

PART DESCRIPTION		PANEL078 HW OPERA	
PART NUMBER			
PANEL078-HW-O		MANARAS-OPERA 136 ONEIDA DRIVE POINTE-CLAIRE, QC, H9R 1A8 TEL: 1-800-361-2260 FAX: 1-888-626-0606	
DRAWN BY: J. PROULX			
DATE: 2011-08-01			
UPDATED BY: —			
DATE: —			

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