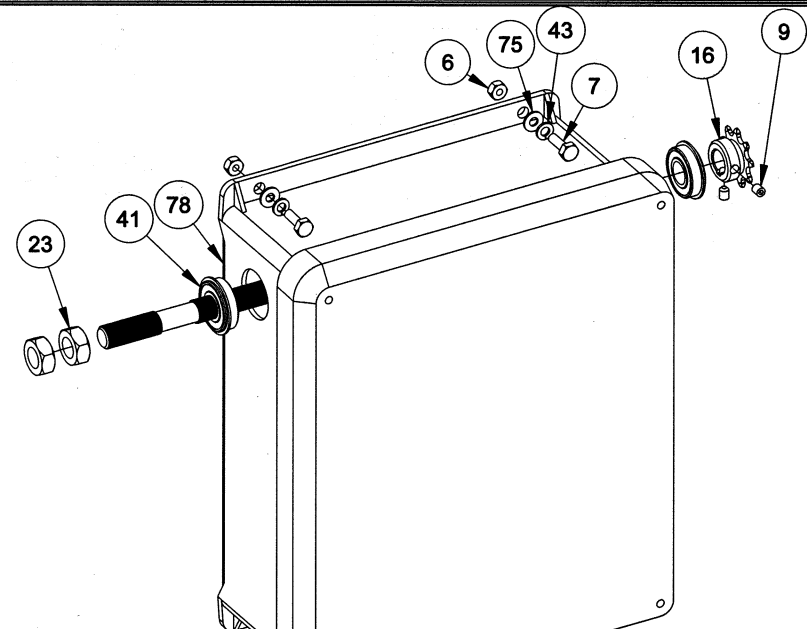


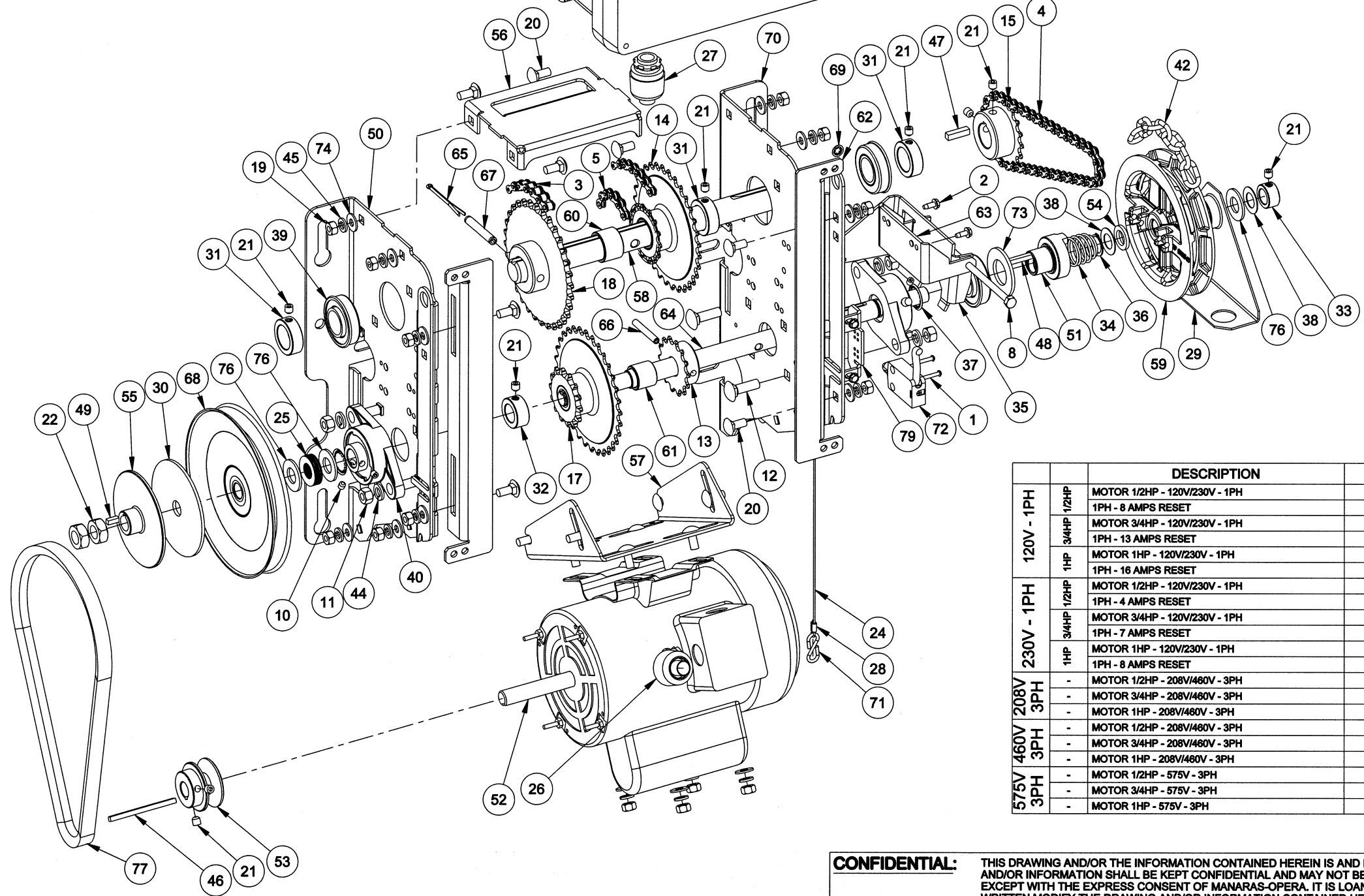
NEMA 4X - CORROSIONPROOF

	DESCRIPTION	# MANARAS
120V - 1PH	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR377
	1PH - 10 AMPS RESET	RESET007
	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR148
230V - 1PH	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR377
	1PH - 6 AMPS RESET	RESET003
	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR148
208V 3PH	MOTOR 1HP - 120V/230V - 1PH	MOTOR172
	1PH - 15 AMPS RESET	RESET012
	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR377
460V 3PH	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR148
	1PH - 7 AMPS RESET	RESET004
	MOTOR 1HP - 120V/230V - 1PH	MOTOR172
575V 3PH	MOTOR 1/2HP - 208V/460V - 3PH	MOTOR320
	MOTOR 3/4HP - 208V/460V - 3PH	MOTOR322
	MOTOR 1HP - 208V/460V - 3PH	MOTOR323



No	Qty	DESCRIPTION	# MANARAS	REV
71	1	S HOOK	HOOK001	
72	1	TELEMEC LIMIT SWITCH	UTIL025	
73	1	TYPE A PLAIN WASHER 1 N ZP	WASHER016	
74	16	TYPE A PLAIN WASHER 1/4 W ZP	WASHER007	
75	4	TYPE A PLAIN WASHER 3/16 ZP	WASHER003	
76	3	TYPE A PLAIN WASHER 5/8 N ZP	WASHER014	
77	1	TYPE B, INSIDE LENGTH 29	VBELTB29	
78	1	VINCKIER N4X-N4/12 12 X 10 X 5	PANEL078	0
79	1	WP/CP CUT-OFF SWITCH SUPPORT	BRACKET206	

No	Qty	DESCRIPTION	# MANARAS	REV
1	2	6-32 X 7/8 TYPE F S-TAP. SCREW	SCREW096	
2	4	10-24 X 1/2 TYPE F S-TAP. SCREW	SCREW067	
3	1	#41-1R48P(INCL.1CL)	CHAIN059	
4	1	#410-1R42P(INCL.1CL)	CHAIN050	
5	2	#410-1R48P(INCL.1CL)	CHAIN058	
6	4	1/4-20 HEX NUT ZP	NUT006	
7	4	1/4-20 X 3/4 HEX BOLT	BOLT002	
8	1	1/4-20 X 4-1/2 HEX BOLT	BOLT109	
9	2	1/4-20 X 5/16 SET SCREW	SCREW001	
10	4	1/4-28 X 1/4 SET SCREW	SCREW002	
11	4	3/8-16 HEX NUT ZP	NUT010	
12	4	3/8-16 X 1-1/4 RND HD SQ NECK BOLT	BOLT059	
13	1	410B14 X 3/4 K0 0S PH1/4	SPR410B14X3/4	3
14	1	410B14A32 X 1 K0 0S	SPR410B14A32X1	
15	1	410B18 X 1 K1/4 2S5/16-18	SPR410B18X1	1
16	1	410B9 X 5/8 K3/16 2S1/4-20 CR	SPR410B9X5/8	1
17	1	41B14_410A32 X 3/4 K0 0S	SPR41B14_410A32X3/4	
18	1	41B32 X 1 K0 0S PH5/16	SPR41B32X1P5/16	
19	16	5/16-18 HEX NUT ZP	NUT007	
20	16	5/16-18 X 3/4 RND HD SQ NECK BOLT	BOLT093	
21	9	5/16-18 X 5/16 SET SCREW	SCREW003	
22	2	5/8-18 HEX JAM NUT ZP	NUT013	
23	2	5/8-24 HEX JAM NUT ZP	NUT015	
24	1	7X7 1/16" X 16"	CABLE012	
25	8	BELLEVILLE WASHER (31.5X16.3X0.8)	WASHER035	
26	1	BX CONNECTOR WATERTIGHT 90 DEG	ADAPTER007	
27	1	BX CONNECTOR WATERTIGHT 4950P	ADAPTER006	
28	1	CABLE SLEEVE 1/16	SLEEVE001	
29	1	CHAIN GUIDE OPERA	GUIDE014	1
30	1	CL.PAD 5/8x4x0.125"	CLUTCHPAD005	3
31	3	COLLAR 1"	COLLAR007	
32	1	COLLAR 3/4"	COLLAR005	
33	1	COLLAR 5/8"	COLLAR004	
34	1	COMP. SPRING DISC. OSH	SPRING043	
35	1	DISCONNECT FORK RH	FORK001	6
36	1	EXT. RETAINING RING	CLIP017	
37	2	EXTERNAL 3/4 RETAINING RING	CLIP006	
38	2	FDGHE FW 5/8ID X 11/8 TRA1018	BEARING024	
39	3	FLANGE BEARING 1" C16-3F5	BEARING007	
40	2	FLANGE PILLOW BLOCK 0,75	BEARING044	
41	2	FLANGED BEARING 5/8	BEARING006	
42	1	HAND CHAIN 31.4-19.5-1000	CHAIN002	
43	4	HELICAL SPRING LOCK WASHER 1/4 ZP	WASHER026	
44	4	HELICAL SPRING LOCK WASHER 3/8 ZP	WASHER030	
45	16	HELICAL SPRING LOCK WASHER 5/16 ZP	WASHER028	
46	1	KEY 0.188 X 3.04 (INCL. W/ MOTOR)	KEY	
47	1	KEY 1/4 X 1	KW021	5
48	1	KEY 3/16 X 1-1/2 ROUNDED ENDS	KW013	5
49	1	KEY 3/16 X 9/16	KW031	5
50	1	LEFT HAND SIDE FOR OPERA	FRAME038	21
51	1	MANUAL HOIST COUPLING	COUPLING019	1
52	1	MOTOR	MOTOR	
53	1	MOTOR PULLEY 2.0 x 5/8 5L STL	PULLEY014	1
54	1	OILLITE WASHER (.625X1.00X.125)	WASHER057	
55	1	OPERA CLUTCHPLATE	CLUTCHPLATE006	3
56	1	OPERA HANDLE	HANDLE005	8
57	1	OPERA MOTOR PLATE	PLATE078	9
58	1	OPERA OUTPUT SHAFT	SHAFT102	5
59	1	OPERA POCKETWHEEL	POCKETWHEEL005	1
60	1	OPERA SPACER 1"	SPACER009	1
61	1	OPERA SPACER 3/4"	SPACER008	1
62	2	OPERA WP/CP CBOX SUPPORT	BRACKET205	
63	1	OSHW FORK PIVOT BRACKET	BRACKET204	1
64	1	OSHW INPUT SHAFT	SHAFT120	1
65	1	PIN COTTER 3/16 X 2-1/2	PIN025	
66	1	PIN SLOTTED SPRING 1/4 X 1-3/4	PIN020	
67	1	PIN SLOTTED SPRING 5/16 X 2	PIN021	
68	1	PULLEY 7" x 5/8" 5L/B	PULLEY020	5
69	1	PUSH NUT 1/4"	CLIP029	
70	1	RIGHT HAND SIDE FOR OPERA	FRAME037	21



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

PART DESCRIPTION

OPERA-H NEMA 4/12 / NEMA 4X

PART NUMBER: OPHW/C-XXXX-XXXX

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

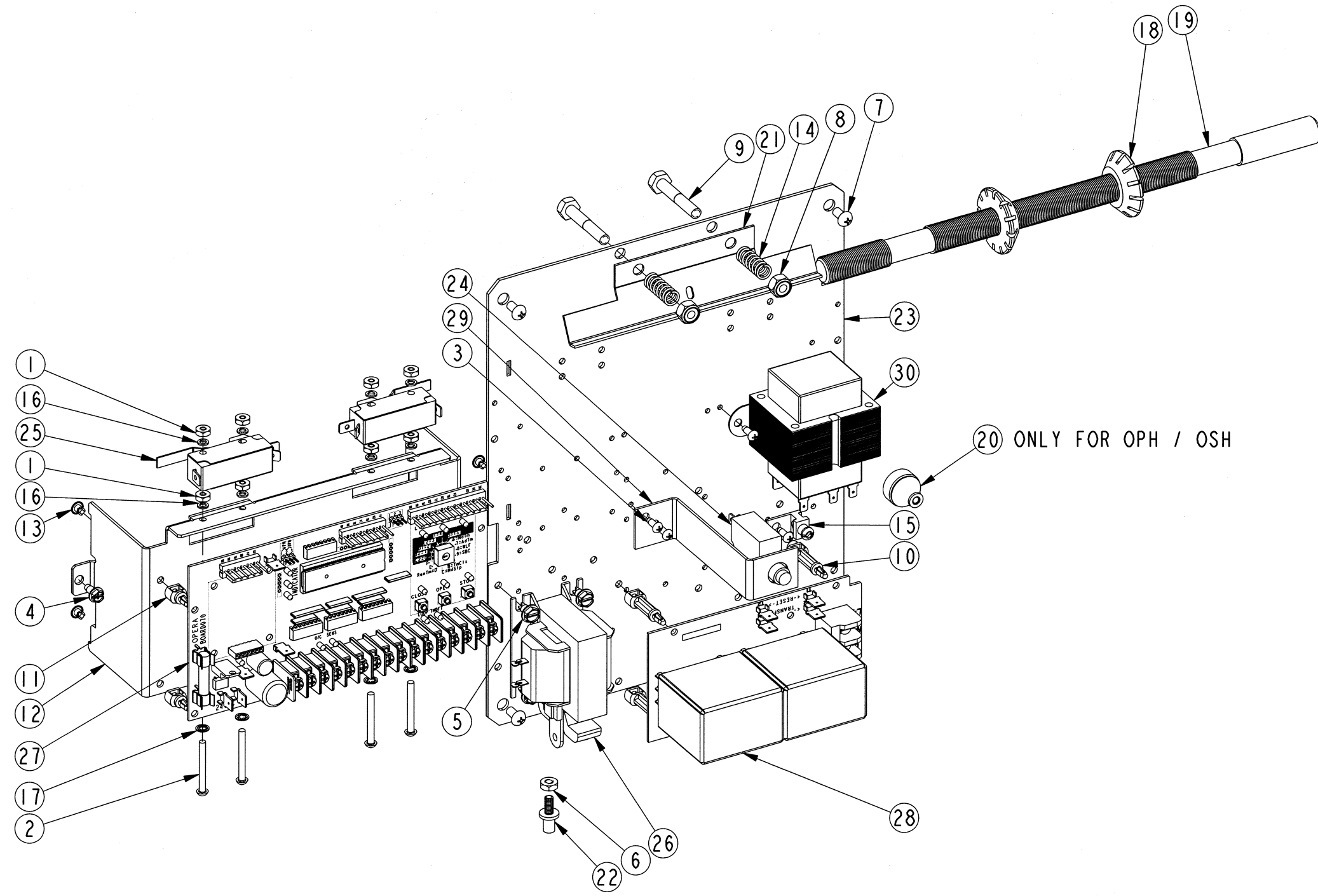
DRAWN BY: J. PROULX
DATE: 2011-08-01
UPDATED BY: —
DATE: —

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	

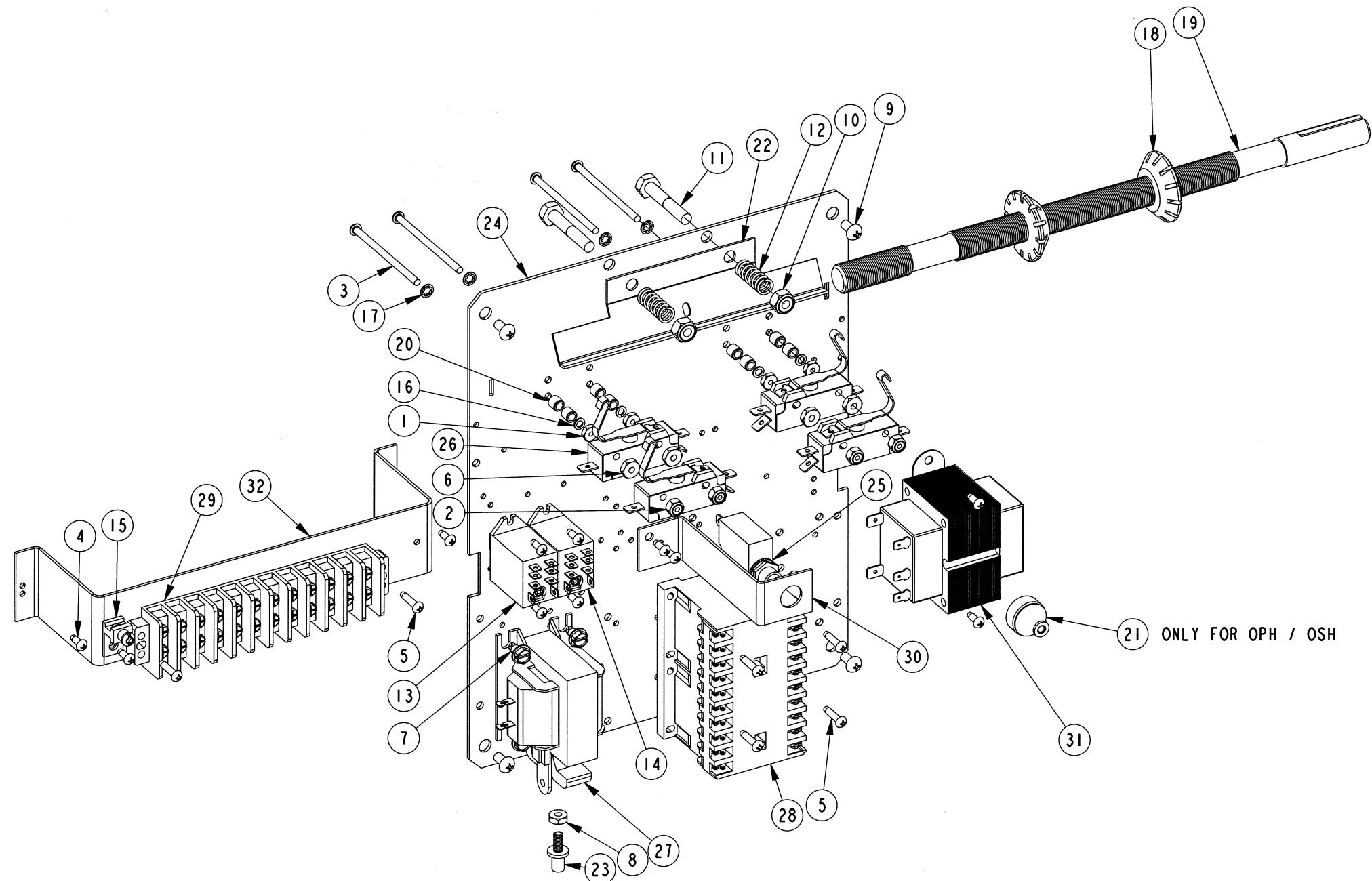


ONLY FOR OSH / OTBH
USE BRACKET184 FOR OTBH

PART DESCRIPTION	
PANEL078 ECB OPERA	
PART NUMBER PANEL078-ECB-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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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	MANARAS-OPERA
PANEL078-HW-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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