



Parts Manual
X17 ECO CFS EXTRACTOR

PREFACE

Thank you for your purchase of the new industry standard for extractors. Minuteman International takes great pride in offering the most dependable, reliable and best value in industrial power extractors. We set the standard.

Our Customer Service Department would like to hear from you. If you see any errors, omissions or something that needs clarification in this Parts Catalog please let us know. We are working hard towards continually improving our processes to bring you the best you deserve. Please copy the form below, fill out and comment on how you found our catalog.

Thank you!

The Minuteman International Team

Name: _____

Title: _____

Company Name: _____

Address: _____

Country: _____

Type of equipment or model number: _____

Comments: _____

Please return to:

Customer Service Manager
Minuteman International, Inc.
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Pingree Grove, Illinois 60140 USA

Phone: (800) 323-9420

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Technical Specifications

Model: X17 ECO CFS

Models: X17115Z, X17115HPZ,
X17230Z, X171230HPZ, X17230ZAU, X17230HPZAU

Models	X17 CFS / X17 CFS HP
Cleaning Path Width	17" (43 cm)
Solution Tank	9 gallon (34 lt.)
Recovery Tank	7.5 gallon (28.4lt.)
Vacuum Motors	2 HP 3-stage
Solution Pressure	50 psi / 100 psi
Brush Motor	1/6 HP
Tank Construction	Polyethylene
Rated Voltage	Available in 115V and 230V
Rear Wheels	10" non-mark- ing
Waterlift	118"
Power Cord	50 ft.
Brush Speed	1800 RPM
CFM	99
Spray Jets	Dual jet
Options	Scrub wand,ET tool, 15' vachose

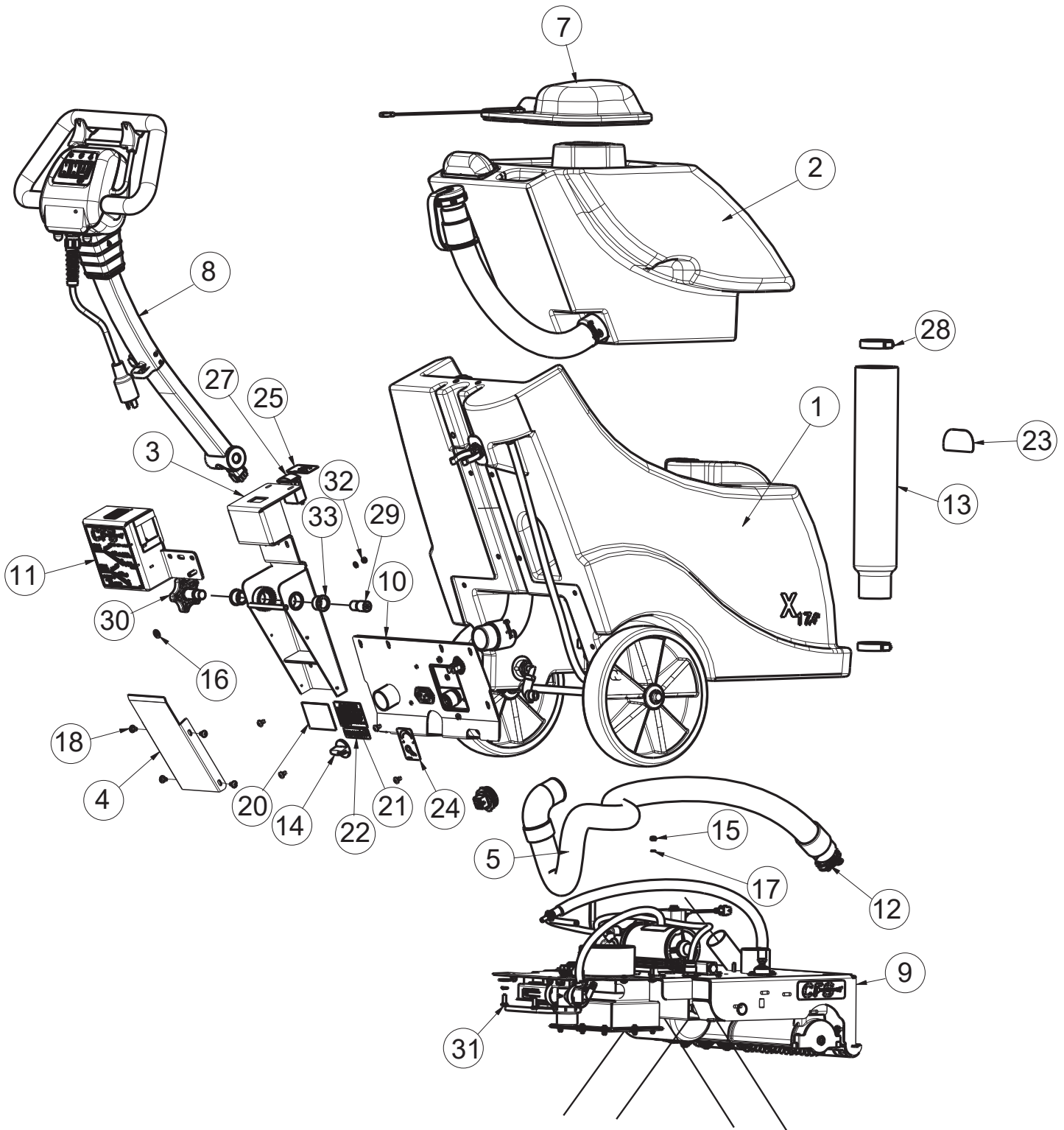
For Safety When Servicing or Maintaining Machine

- Stop on level surface.
- Disconnect the power to the machine.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- When working around machine use protective clothing and safety glasses. Remove metal jewelry.
- Do not clean machine with a pressure washer.
- Authorized personnel must perform repairs and maintenance. Use Minuteman supplied replacement parts.

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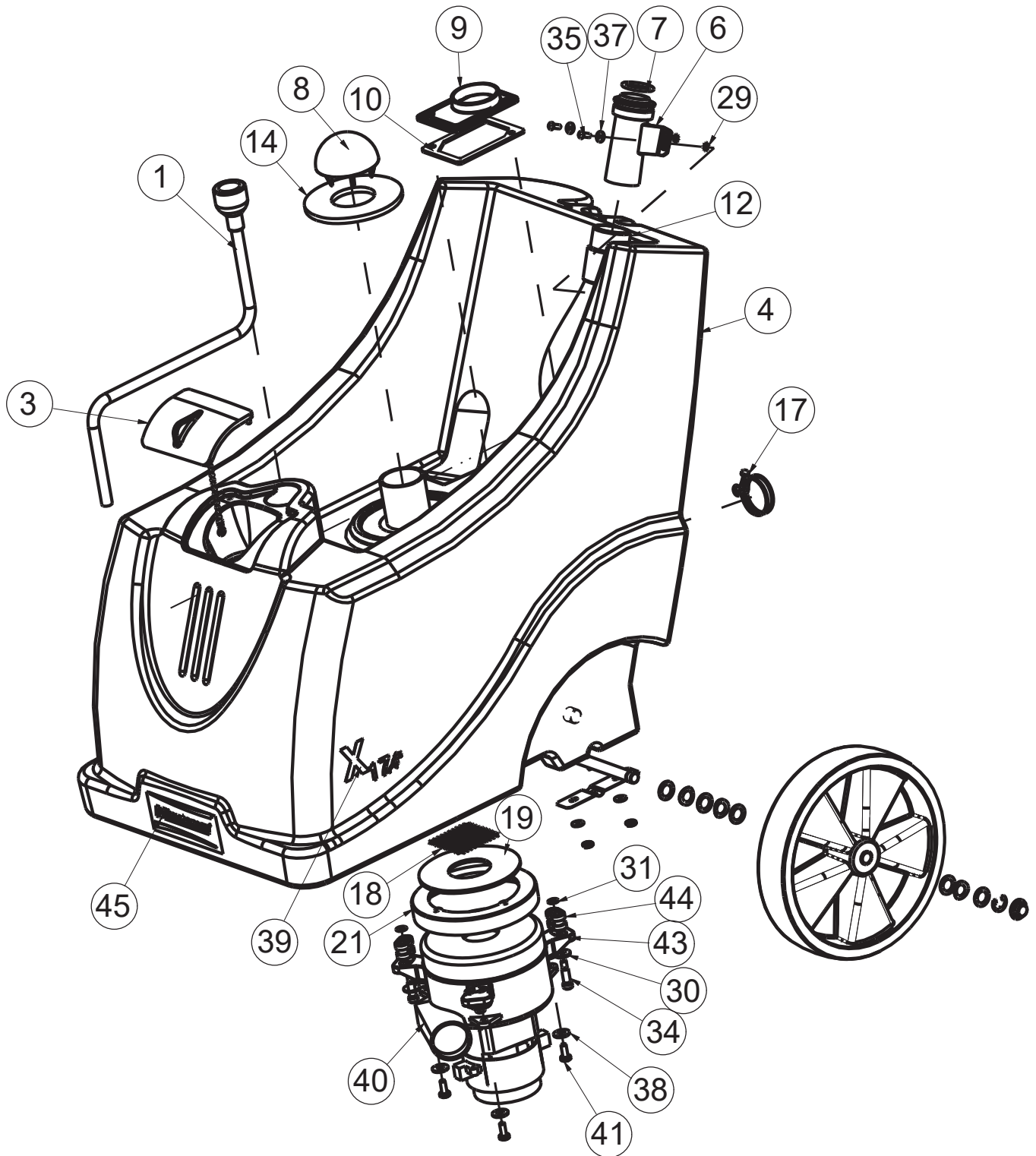
Main Assembly Rear View



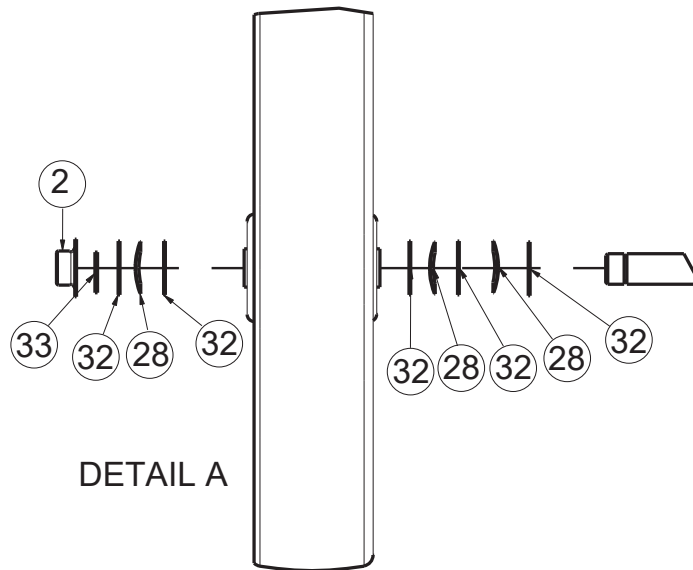
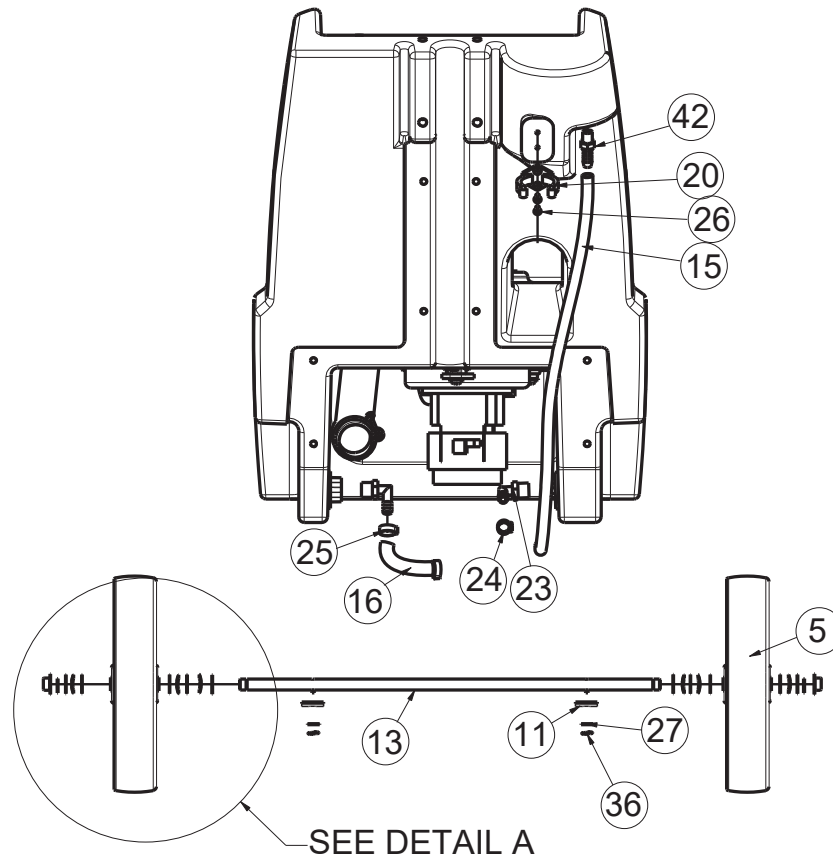
Main Assembly BOM

BILL OF MATERIAL			
ITEM	PART NO.	QTY	DESCRIPTION
1	173010	1	ASY-SOLUTION TANK 115VAC BURGUNDY
	173010-230		ASY-SOLUTION TANK 230VAC BURGUNDY
	173010-230A		ASY-SOLUTION TANK ORANGE 230VAC (230V)
2	173020	1	RECOVERY TANK ASSY, X17
3	173035-1	1	BRACKET-HANDLE, ASSY, CFS READY
4	173036	1	REAR PANEL COVER
5	173044	1	HOSE, CLEAR VAC
6	173080	2	WASHER-FLAT .266 X .875 X .07 SS
7	173195	1	DOME LID ASSY, X17
8	173200	1	HANDLE ASSEMBLY-UL, X17 (115V MODELS)
	173201		HANDLE ASSEMBLY-230V, X17 (230V MODELS)
9	173230	1	ASSY, CHASSIS, X17 ECO, 115VAC, CFS
10	173237	1	ASSY, BACK PANEL
11	173280	1	ASSY, CONTROL BOX, CFS
12	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL
13	320836	1	MUFFLER, VAC MOTOR
14	452029	1	KNOB-BLK W/1/4 BRASS INSERT
15	711350	1	NUT-NYLOC 10-32 ZP
16	711504	1	WASHER-FLAT 1/4 SS
17	711553	2	WASHER-INT TOOTH LOCK #10 ZP
18	712540	8	SCR-THMS 10-24 X .37 SS
19	712758	2	WASHER-LOCK 1/4 SPLIT SS
20	715047	1	DECAL-CLEAR LAMINATE 2X3
21	715061	1	DECAL-WARNING GENERAL
22	715340	1	DECAL-RECT.-USE W/ C46300-00 ONLY (115V MODELS)
	715340-1		DECAL-RECT.-USE W/ C46300-02 ONLY (230V MODELS)
23	715474	1	DECAL, NO-CHEMICAL NO-DETERGENT
24	715725	1	DECAL, BRUSH PRESSURE & AUX EQ, X17
25	715726	1	DECAL, AMPERMETER, X17
26	715950	1	LABEL-PATENT NUMBERS
27	748671	1	GAUGE, BRUSH PRESSURE X17 230VAC
28	760859	2	CLAMP-HOSE, 2"
29	931045	1	PIN-HEX SOC HEAD
30	931753	1	KNOB-HANDLE
31	11038072	2	SCR-HH M6-1.0 X 16 ZP CLASS 8.8
32	12040036	1	NUT-NYLOC M5 X 0.8 ZD CLASS 6
33	553130054	2	BUSH-FLG LH&RH-HANDLE, 18MM X 24MM

Solution Tank Assembly Front View



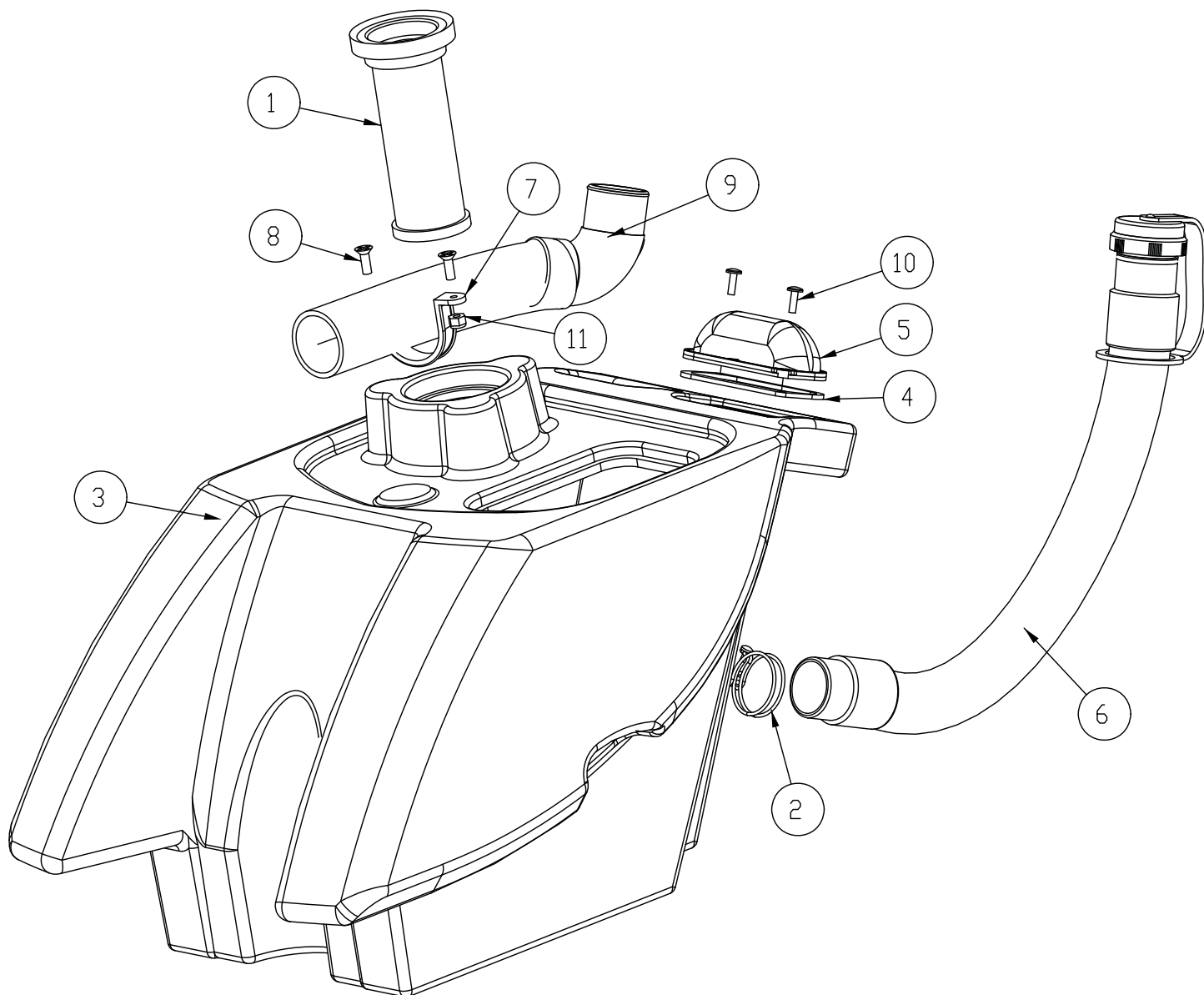
Solution Tank Assembly Rear View



Solution Tank Assembly BOM

BILL OF MATERIAL - 173010 / 173010-230 / 173010-230A							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	121082	1	FAUCET FILL HOSE ASSY	24	450092	1	CRIMP CLAMP 27/64" TO 17/32"
2	130032	2	WHEEL RETAINER CAP	25	452037	2	CLAMP-CRIMP 17 0R SS
3	172018	1	SOLUTION TANK LID ASSY	26	710530	2	SCR-MC FL HD 8-32 X .50 BRS
4	173001	1	SOLUTION TANK EX17-ECO	27	711504	4	WSR-FLAT 1/4 ID SS
	173001A		SOL. TNK EX17-ECO (ORANGE)	28	711524	6	WSR-WAVE .52 X .87 X .01
5	173005	2	WHEEL 10"	29	711534	2	WSR-EXTERNAL LOCK #10
6	173011	1	RECOVERY INLET ASSY	30	711575	3	WSR-FLT .31x.75x.06ST
7	173012	1	O-RING, 1.234 ID x 1.512 OD, SIZE 218	31	711577	3	WSR-FLAT 260 X .50 X .020T HK
8	173013	1	AIR INLET UMBRELLA	32	711594	10	WSR-FLAT .56 X .88 X .03
9	173014	1	HOSE CONDUIT	33	711713	2	RTNG RNG - E TYPE EXT .500
10	173015	1	GASKET, HOSE CONDUIT	34	712070	3	BLT-SHOULDER 5/16 X 3/4 X 1/4-
11	173019	2	AXLE BRACKET	35	712150	2	SC-BHCS, 10-24 X .50 SS
12	173046	1	HOSE, RECOVERY	36	712758	4	WSR-HELICAL 1/4 SS
13	173074	1	AXLE, WHEEL X17 ASSEMBLY	37	712764	2	WSR #10 SS
14	173106	1	GASKET	38	712772	3	WSR-FLAT .344 x .75 x .06 SS
15	173152	1	WATER GAUGE 3/8 I.D x 22 IN	39	715724	2	DECAL X17
16	173157	1	HOSE, 3/8 ID X 4 IN	40	740089-1	1	VAC MOTOR ASY, 115V (115V MODELS)
17	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL		740260-1		VAC MOTOR ASY, 230V (230V MODELS)
18	260212	1	SCREEN FILTER	41	817306	3	SCR-MC PAN HD M6x16 ZY
19	260294	1	GASKET 260	42	828952	1	FITTING PP 1/4" MPT X 3/8" HOSE BARB
20	260579	1	TOOL CLIP, 1.5" HOSE	43	553530122	3	CLAMP VAC. MOTOR ASSY
21	290017	1	VAC MOTOR GASKET	44	553530123	3	GROMMET, VACUUM MOTOR
22	361218	1	CABLE TIE, BLACK	45	715914W	1	DECAL, MINUTEMAN, WHITE
23	450040	2	FTG-90 3/8MPT X 3/8 BRB NYL				

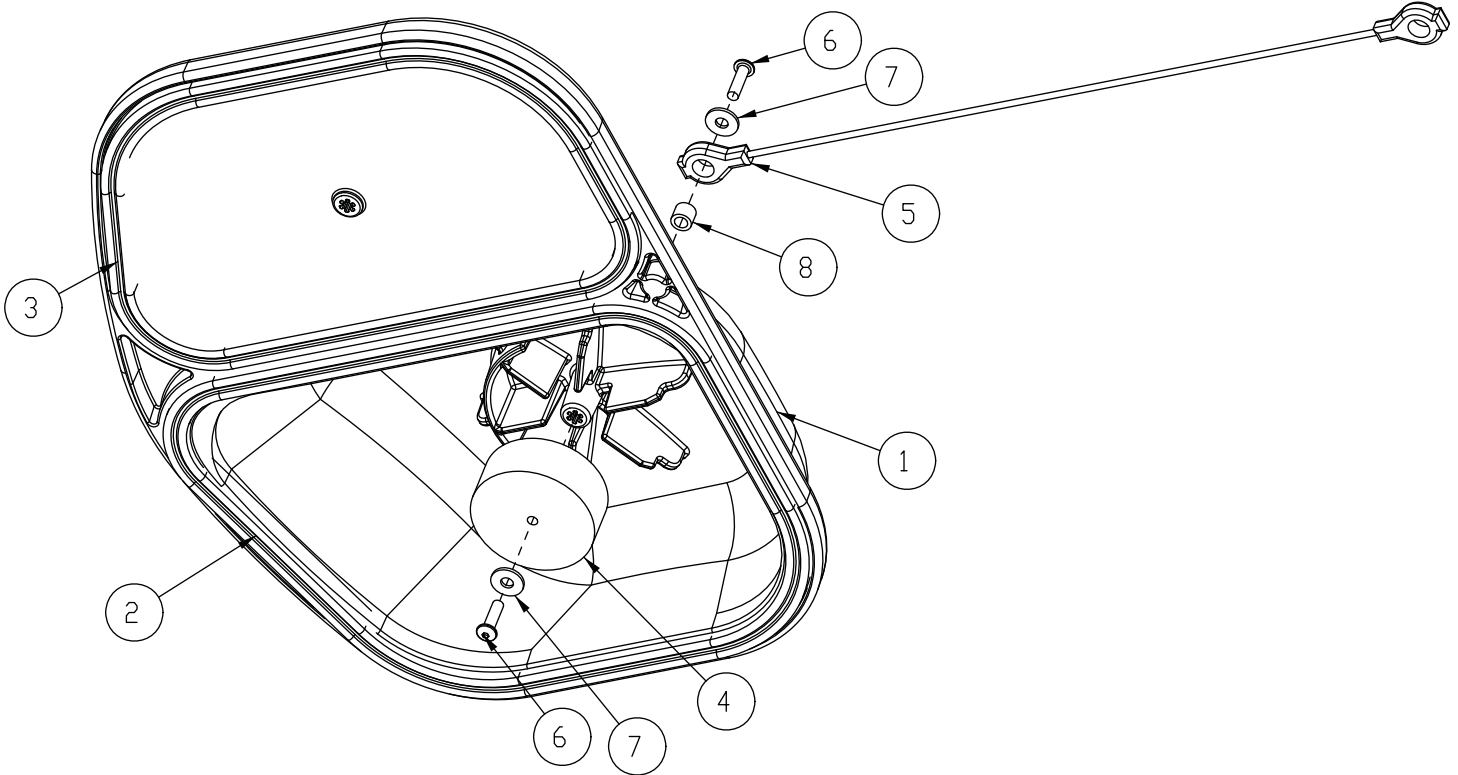
Recovery Tank Assembly



Recovery Tank Assembly BOM

BILL OF MATERIAL - 173020			
ITEM	PART NO.	QTY	DESCRIPTION
1	172132	1	SCREENED FLOAT
2	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL
3	173002	1	RECOVERY TANK EX17-ECO
4	173025	1	RECOVERY WINDOW GASKET
5	173026	1	RECOVERY WINDOW
6	173063	1	HOSE, DUMP
7	173099	1	PLASTIC TWO-HOLE STRAP
8	173100	2	SCR FL HD 1/4-20 x 3/4 SS
9	173104	1	HOSE, RECOVERY 12.5"
10	712536	2	SCR-MC 10-24 X .62 TH SS
11	712667	2	NUT, HEX 1/4-20 NYLOC SS

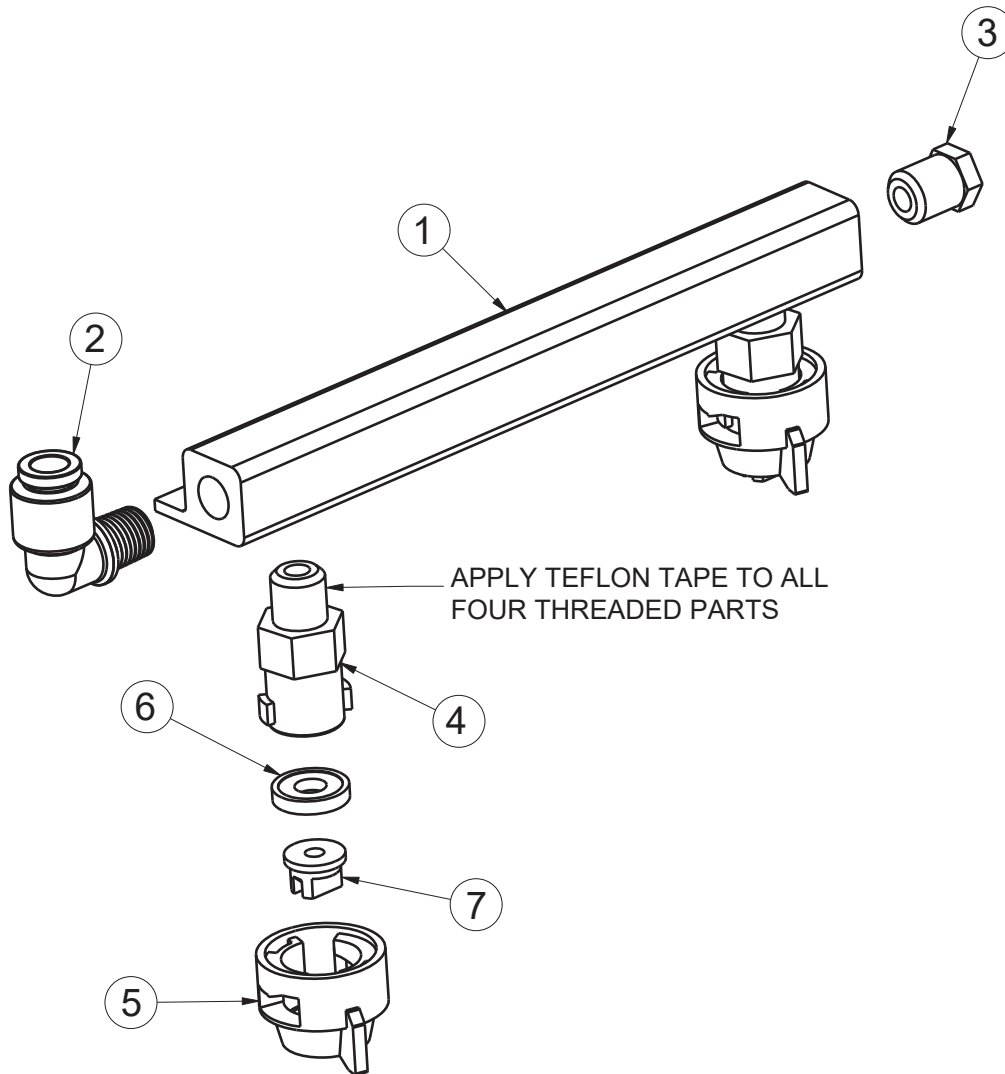
Recovery Dome Lid Assembly



BILL OF MATERIAL - 173195

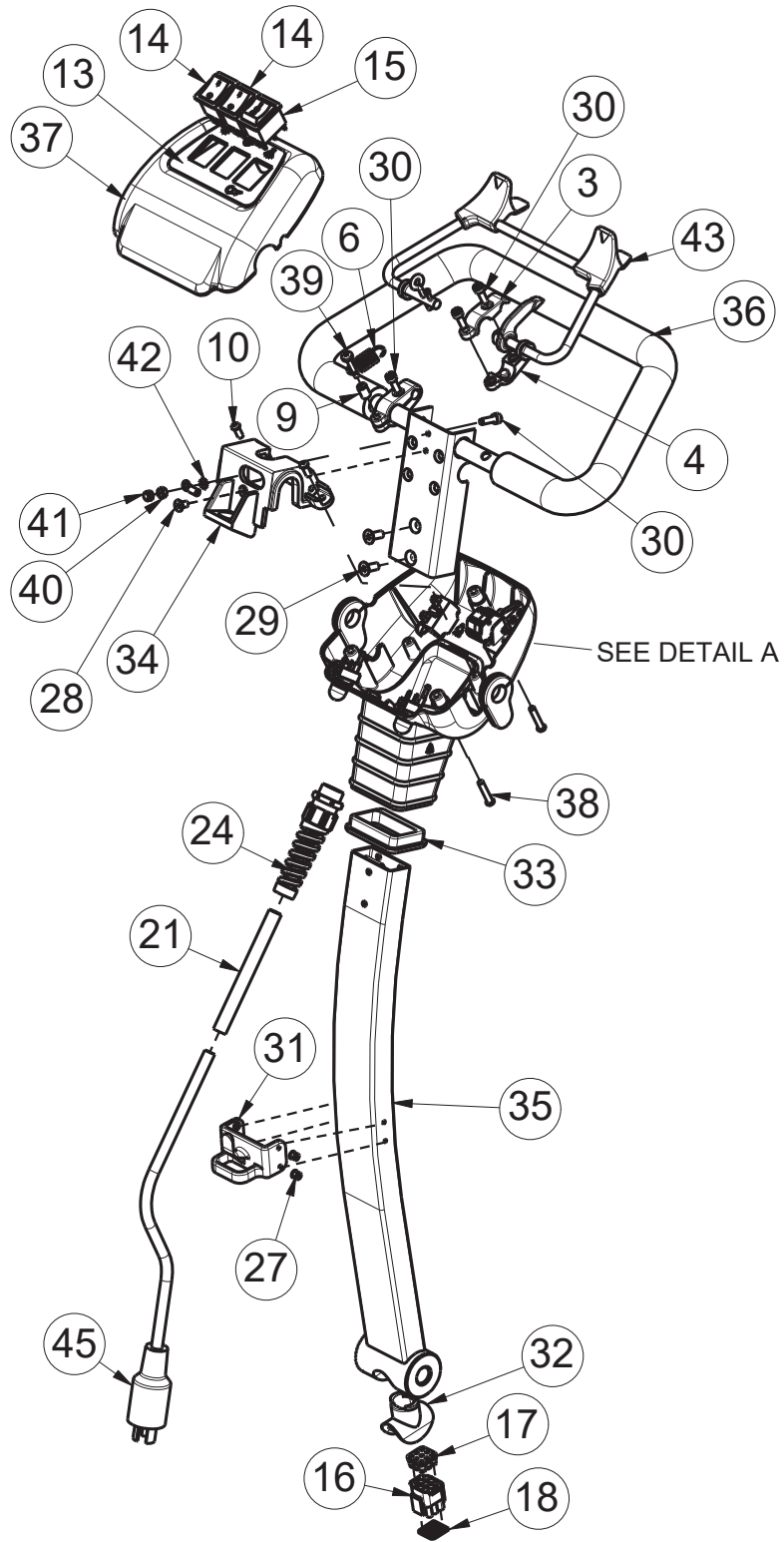
ITEM	PART NO.	QTY	DESCRIPTION
1	173175	1	RECOVERY DOME LID
2	173177	1	GASKET , X17 LID, RT
3	173178	1	GASKET , X17 LID, LFT
4	173186	1	FILTER, X17 DOME LID
5	173187	1	CABLE 12.0
6	712516	2	SCR-BHCS #8-32 x .62 SS
7	712764	2	WSR #10 SS
8	762410	1	BUSHING, .2 X .31 X .265 ALUM

Spray Bar Assembly

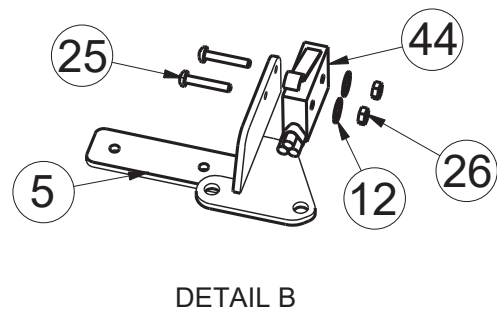
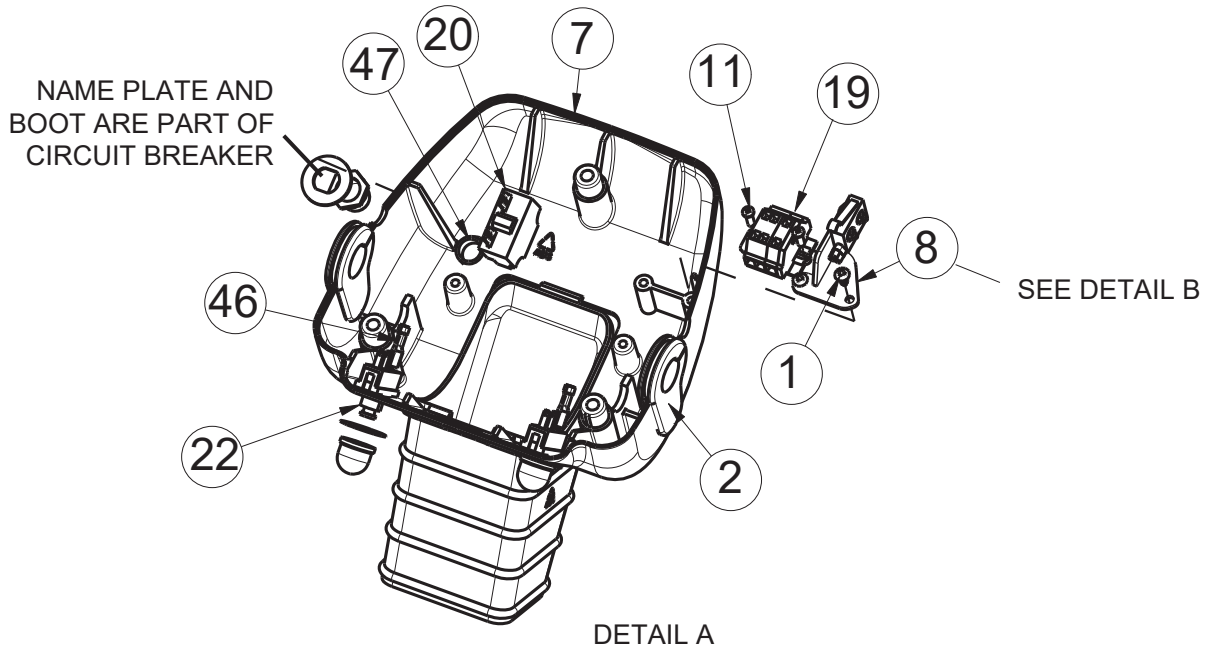


BILL OF MATERIAL - 173236 / 173236HP			
ITEM	PART NO.	QTY	DESCRIPTION
1	173041	1	SPRAY BAR
2	173295	1	FITTING, 90 EL, 1/4 MPT, 3/8 TUBE, PVDF
3	829619	1	PLUG-HEX HEAD PIPE 1/4 B
4	833140	2	CONNECTOR-BODY INLET
5	833141	2	CAP
6	833142	2	GASKET-CAP
7	833145	2	SPRAY-NOZZLE, BRASS UNIJET 9504
	833143		SPRAY-NOZZLE, BRASS UNIJET 9502(HP MODELS)

Handle Assembly (Pg 1 of 2)



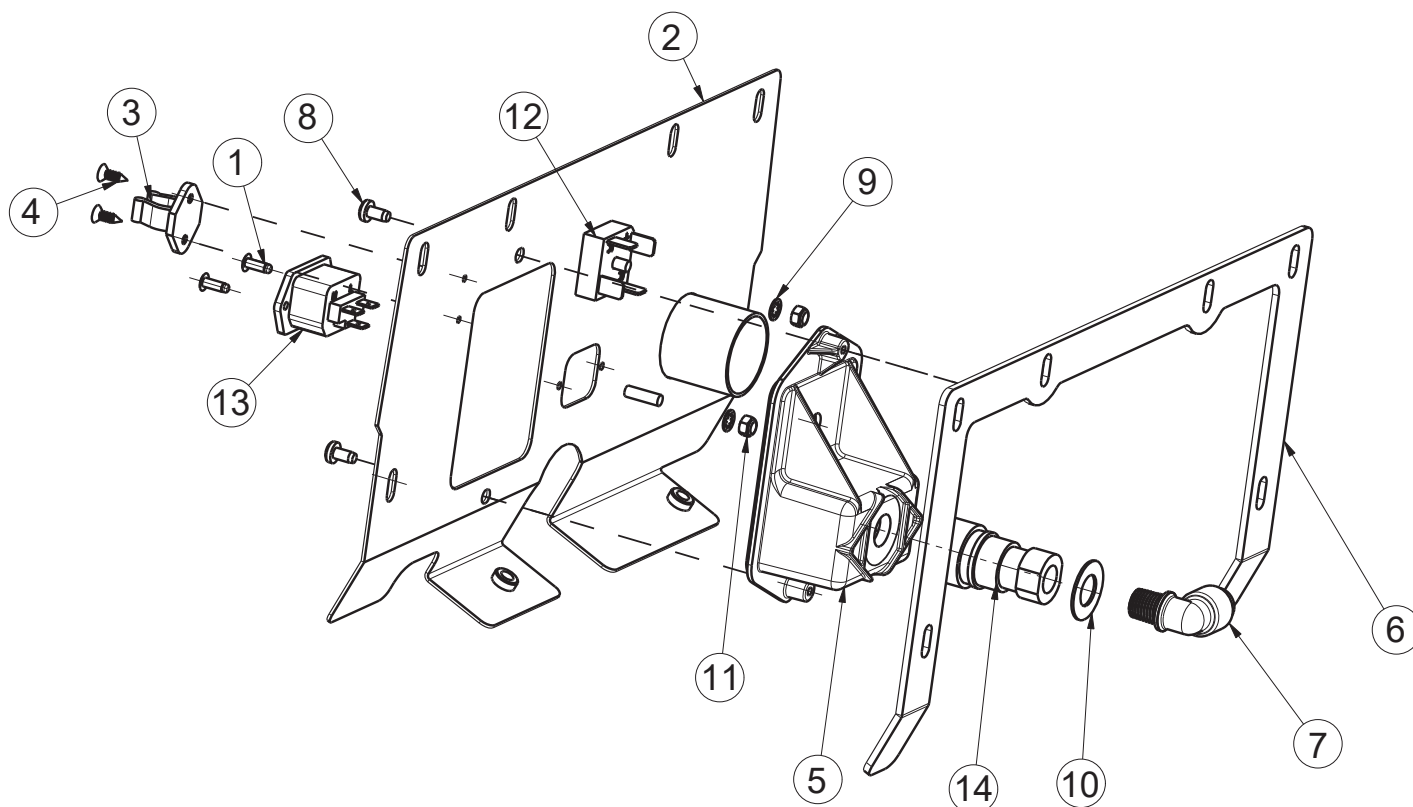
Handle Assembly (Pg 2 of 2)



Handle Assembly BOM

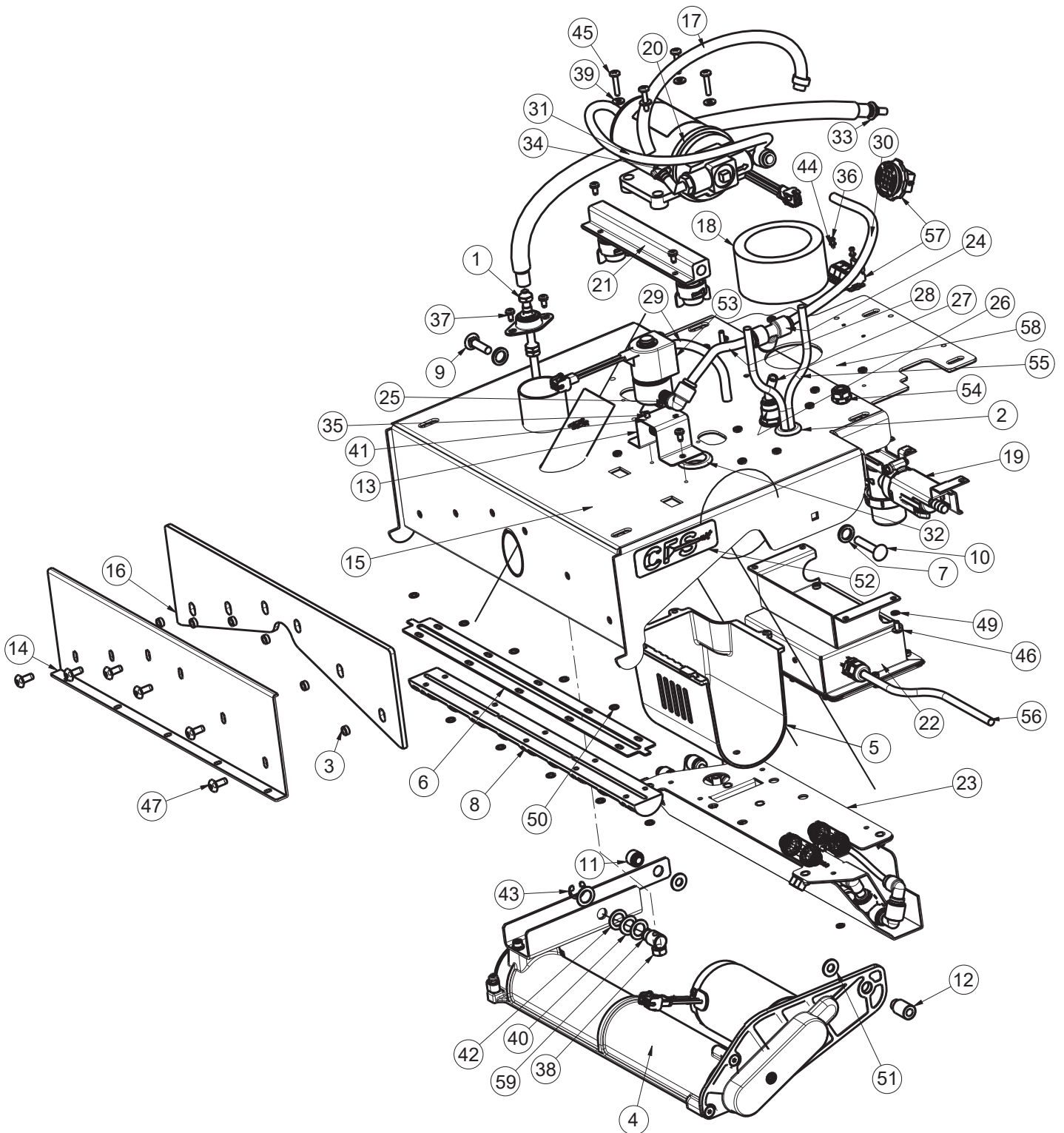
BILL OF MATERIAL - 173200 (115V) / 173201 (230V)							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	173064	2	SCR-ST PAN HD #6 x 3/8" SS	24	748701	1	CABLE GLAND
2	173161	2	GROMMET , HANDLE COVER	25	818719	2	SCR-MC PAN HD M2 X 12 ZP
3	173162	2	TOP BRKT-MOMENTARY HANDLE	26	823101	2	NUT-HEX M2X0.4 ZP
4	173163	2	BTM BRKT - MOMENTARY HNDL	27	827666	4	RIVET-POP
5	173185	1	BKT, LIMIT SWITCH MOUNT	28	829203	1	SCR-SC FH M5X10 SS
6	173203	1	SPRING-EXT 1.375 FL X .5 OD	29	829306	2	SCR-SC FH M6X16 SS
7	173210	1	COVER, HANDLE BOTTOM ASM	30	831206	4	SCR-SC M5X16 ZP
8	173214	1	LIMIT SWITCH ASSY, X17 HNDLE	31	931177	1	RETAINER, CORD
9	255045	1	SPACER, .196X.31X.47 ALUM	32	931182	1	BOOT, HANDLE LOWER
10	711163	2	SCR-HI/LO #10-16 X 1/2	33	931199	1	PLUG - HANDLE COVER
11	711686	2	SCR-MCM 3 X 10 ZP	34	3130072	1	BRACKET -CHANNEL
12	712326	2	WSR-INT LOCK #4	35	3180016	1	HANDLE ARM (WELDMENT)
13	715722	1	DECAL, DASHBOARD EX17	36	3180029	1	STEERING ASM
14	748602	2	SWITCH, DPST ON-OFF IP55	37	3180120	1	SWITCH COVER TOP - X17
15	748603	1	SWITCH, DPDT ON-OFF-ON IP55	38	3402036	3	SCR-HI/LO #10-16 X 1"
16	748605	1	CONNECTOR, 9P MALE	39	11175494	1	SCR-MC M5 X 25 SS DIN7985
17	748608	1	SEAL 9P MALE WIRE	40	12022430	1	NUT- HEX, M5, SS DIN934
18	748609	1	SEAL, 9P INTERFACE	41	12040036	1	NUT-NYLOC M5 X 0.8
19	748616	1	TERMINAL BLOCK, HANDLE ASM X17	42	12518080	1	EXTERNAL TOOTHED WASHER - M5
20	748620	1	CIRCUIT BREAKER, 12A SMALL (115V MODELS)	43	****	1	MOMENTARY HANDLE (REPLACE W/ K-HANDLESWITCH)
	748672		CIRCUIT BREAKER 7A SMALL 125-25 (230V MODELS)	44	748611-1	1	SWITCH ASY, MICROSWITCH W/QC
21	748649	1	TUBING, VINYL COATED 4.5"	45	748614-1	1	CORD, PIGTAIL ASM X17 115V (115V MODELS)
22	748695	2	CIRCUIT BREAKER, 1.5A 1410 (115V MODELS)		748614CE-1		CORD, PIGTAIL ASM X17 230V (230V MODELS)
	748696		CIRCUIT BREAKER, 1A 1410 (230V MODELS)	46	748697	2	QC-FEMALE 18-22G .110 FULL INSULATED
23	748700	1	WIRE HARN., HANDLE ASM - UL	47	830803	1	HEYCO PLUG BLACK 1/2"

Back Panel Assembly



BILL OF MATERIAL - 173237			
ITEM	PART NO.	QTY	DESCRIPTION
1	410-4419AA	2	RIVET-POP 1/8 ALUM.
2	173034	1	BACK PANEL WELDMENT
3	173048	1	CLIP, 1/2 - 3/8 IN HOSE
4	173098	2	SCR-FHMS 8 X .500 ZP
5	173107	1	AUX-CONTROL PANEL
6	173169	1	GASKET, BACK PANEL
7	173295	1	FITTING, 90 EL, 1/4 MPT, 3/8 TUBE, PVDF
8	711124	2	SCR-PHSMS 10 X .37 ZP B POINT
9	711553	2	WASHER-INT TOOTH LOCK #10 ZP
10	712760	1	WASHER-FLAT .56 X 1.06 X .04 SS
11	717017	2	NUT-NYLOC M5 X .08 ZP
12	740202	1	RECTIFIER-BRIDGE 50A 600V IMP
13	741038	1	RECEPTACLE-10A 250VAC IEC 320
14	828370	1	COUPLER-FEMALE 1/4 FPT BH2-60

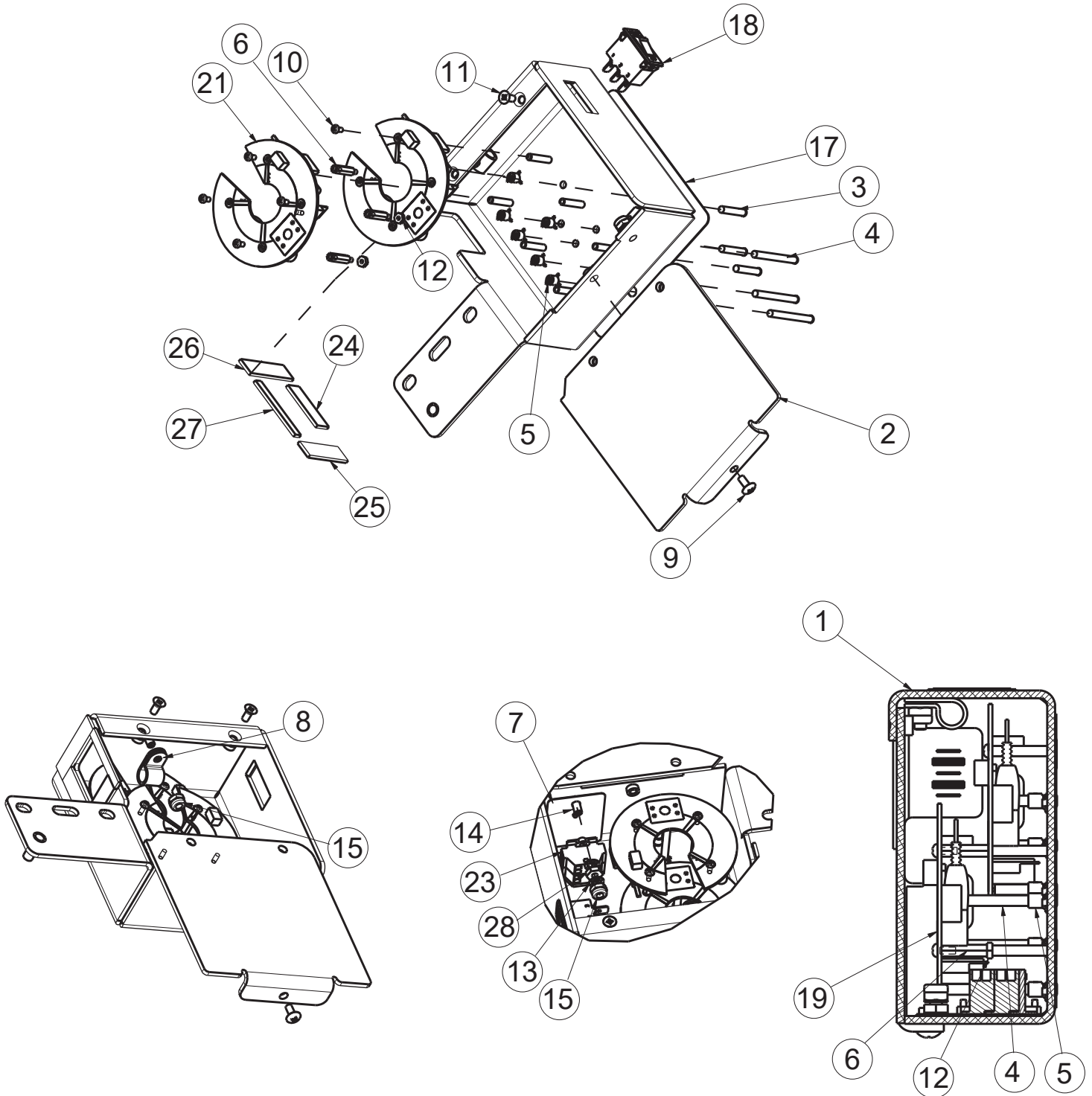
Chassis Sub-Assembly



BILL OF MATERIAL - 173230 / 173230-HP / 173230-230 / 173230-230HP			
ITEM	PART #	QTY	DESCRIPTION
1	7545-10	1	FLANGED BEARING ASY
2	130013	1	GROMMET .625X 1.25 X .09
3	173018	6	SPACER, FRONT PLATE
4	173052	1	BRUSH HEAD ASY, X17 ECO 115VAC (115V MODELS)
	173052-230		BRUSH HEAD ASY, X17 ECO 230VAC (230V MODELS)
5	173061	1	GUARD, BRUSH MOTOR
6	173070	1	GASKET, VACUUM SHOE
7	173078	2	WASHER-FLAT 1/2 x 3/4 x .09 SS
8	173086	1	VACUUM SHOE
9	173096	1	BLT-CARR 5/16-18 X 1.25 SS
10	173097	1	BLT-CARR 5/16-18 X 1.75 SS
11	173108	1	BUSH, SIDE ARM
12	173109	1	BUSH, SIDE BRACKET
13	173113	1	BRACKET, SOLENOID
14	173120	1	PLATE, FRONT SQUEEGEE
15	173122	1	MAINFRAME, X17, WELD-ASSY, CFS READY
16	173146	1	GASKET, FRONT PLATE NEOPRENE X17
17	173151	1	HOSE 3/8 x 17 WIRELOC
18	173220	1	SLEEVE / DUCT; VACUUM MOTOR COOLING
19	173222	1	ASSY, BALL-VALVE & FILTER; SHIELDED
20	173235	1	ASSY, PUMP X17 ECO, 50PSI 115VAC, CFS (115V MODEL)
	173235HP		ASSY, PUMP X17 ECO, 100PSI 115VAC, CFS (115V HP MODEL)
	173235-230		ASSY, PUMP X17 ECO, 50PSI 230VAC, CFS (230V MODEL)
	173235HP-230		ASSY, PUMP X17 ECO, 100PSI 230VAC, CFS (230V HP MODEL)
21	173236	1	ASSY, SPRAY BAR X17 ECO, CFS
	173236HP		ASSY, SPRAY BAR X17 ECO, 100PSI, CFS
22	173265	1	ASSY, POWER SUPPLY, CFS GENERATOR
23	173270	1	ASSY, OZONE GEN CELL, FLOW SWCH, PIPING
24	173292	1	FITTING, TEE, 3/8 OD TUBE, O-RING, PVDF
25	173295	2	FITTING, 90 EL, 1/4 MPT, 3/8 TUBE, PVDF
26	173301	2	FITTING, BULKHEAD 3/8 TUBE, PPL, O-RING
27	173306	1	TUBING, 3/8 OD, POLYURETHANE, 2.13" LG
28	173307	1	TUBING, 3/8 OD, POLYURETHANE, 6.00" LG
29	173307	1	TUBING, 3/8 OD, POLYURETHANE, 6.00" LG

BILL OF MATERIAL - 173230 / 173230-HP / 173230-230 / 173230-230HP			
ITEM	PART #	QTY	DESCRIPTION
30	173308	1	TUBING, 3/8 OD, POLYURETHANE, 12.13" LG
31	173309	1	TUBING, 3/8 OD, POLYURETHANE, 19.13" LG
32	220327	1	GROMMET 1.25 X 1 X .125
33	452010	1	CABLE-FLEXIBLE ASSY
34	452037	2	CLAMP-CRIMP 170R SS
35	710353	2	SCR-PHMS 10-32 X .37 ZP
36	710492	2	SCR-RHMS 4-40 X .375 ZP
37	711124	6	SCR-PHSMS 10 X .37 ZP B POINT
38	711383	1	NUT-HEX 5/16-18 ZP REVERSE LOC
39	711503	4	WASHER-FLAT #10 X .50 ZP
40	711524	1	WASHER-WAVE .52 X .87 X .01
41	711553	2	WASHER-INT TOOTH LOCK #10 ZP
42	711594	3	WASHER-FLAT .56 X .88 X .03 NICKEL
43	711713	1	RET RING-E EXT .50
44	712326	2	WASHER-INT LOCK #4 SS
45	712532	4	SCR-PHMS 10-24 X 1.00 SS
46	712540	4	SCR-THMS 10-24 X .37 SS
47	712559	6	SCR-THMS 1/4-20 X .62 SS TORX HD W/WASHE
48	712638	3	NUT-NYLOC 10-24 SS
49	712757	10	WASHER-LOCK #10 SPLIT SS
50	712770	10	WASHER-INT TOOTH LOCK #10 SS
51	712772	2	WASHER-FLAT .344 X .75 X .06 SS
52	715475	2	DECAL, CFS LABEL W/ BUBBLES
53	740502-1	1	SOLENOID VALVE, W/ CONNECTOR (115V MODELS)
	740240-1		SOLENOID ASY, WATER 240V 50HZ (230V MODELS)
54	747689	1	STRAIN RELIEF CABLE DIA. .181-.312 #3210
55	747719	2	CABLE ASY, 5 CONDUCTOR, X17 CFS
56	747721	1	WIRE ASY, CONTROL BOX
57	748651	1	WIRE HARNESS, BASE ASSY X17, 115VAC, CFS (115V MODELS)
	748651-230		WIRE HARNESS, BASE ASSY X17, 230VAC, CFS (230V MODELS)
58	832220	1	FILTER / DIFFUSER, OPEN-CELL FOAM
59	762257PLT	1	NUT ADJ RH ZINC DICROMATE

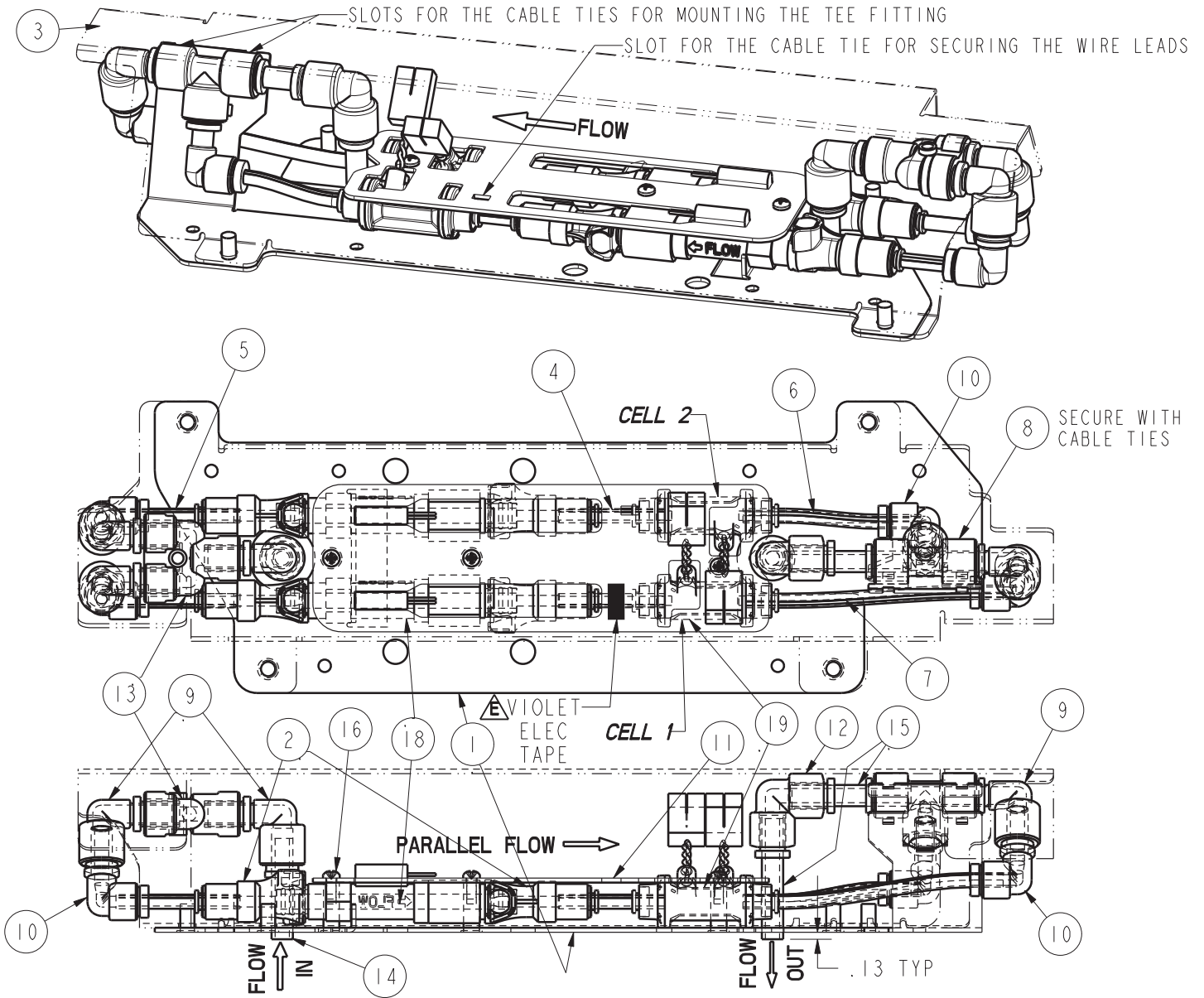
CFS Control Assembly



CFS Control Assembly BOM

BILL OF MATERIAL - 173280			
ITEM	PART NO.	QTY	DESCRIPTION
1	173259	1	BOX, ENCLOSURE, CFS CONTROL BOARD
2	173281	1	COVER, BACK, CFS CONTROL BOX
3	173283	3	LIGHTPIPE, CLIPLITE 4MM x .96" CLEAR
4	173284	3	LIGHTPIPE, CLIPLITE 4MM x 1.77" CLEAR
5	173285	6	RETAINER, CLIPLITE, RTN250
6	173286	4	STANDOFF, M/F 4-40 x .75 LG STEEL ZINC
7	173310	1	PLATE, MTG, TERMINAL BLOCK
8	381052	1	CLAMP-3/8 ID PLASTIC
9	710025	1	SCR-THMS 8-32 X 3/8 SS
10	710491	6	SCR-RHMS 4-40 X .25 ZP
11	710528	2	SCR-FHMS 8-32 X .37 BRASS
12	711428	2	NUT-HEX 4-40 ZP
13	711553	2	WASHER-INT TOOTH LOCK #10 ZP
14	827666	2	RIVET-POP 1/8 DOME HD, BLK ALUM BODY
15	712638	2	NUT-NYLOC 10-24 SS
17	715694	1	DECAL, CFS CONTROL BOARD ASSEMBLY
18	740836	1	SWITCH/CIRCUIT BRKR, ROCKER RED LIGHT
19	747722	1	WIRE ASY, RED
20	747723	1	X17 CFS OZONE SCHEMATIC
21	748421-1	2	CIRCUIT BOARD, OZONE GEN., WIRE ASY
22	748443-1	1	ASY, DC POWER CORD
23	748725	1	TERMINAL BLOCK, ASSY, TWO 4-CONNECTION
24	830557	1	DORTITE 1/2 INCH RM 1 F
25	830557	1	DORTITE 1/2 INCH RM 1 F
26	830557	1	DORTITE 1/2 INCH RM 1 F
27	830557	1	DORTITE 1/2 INCH RM 1 F
28	3400480	1	NUT-HEX 10-24 ZP

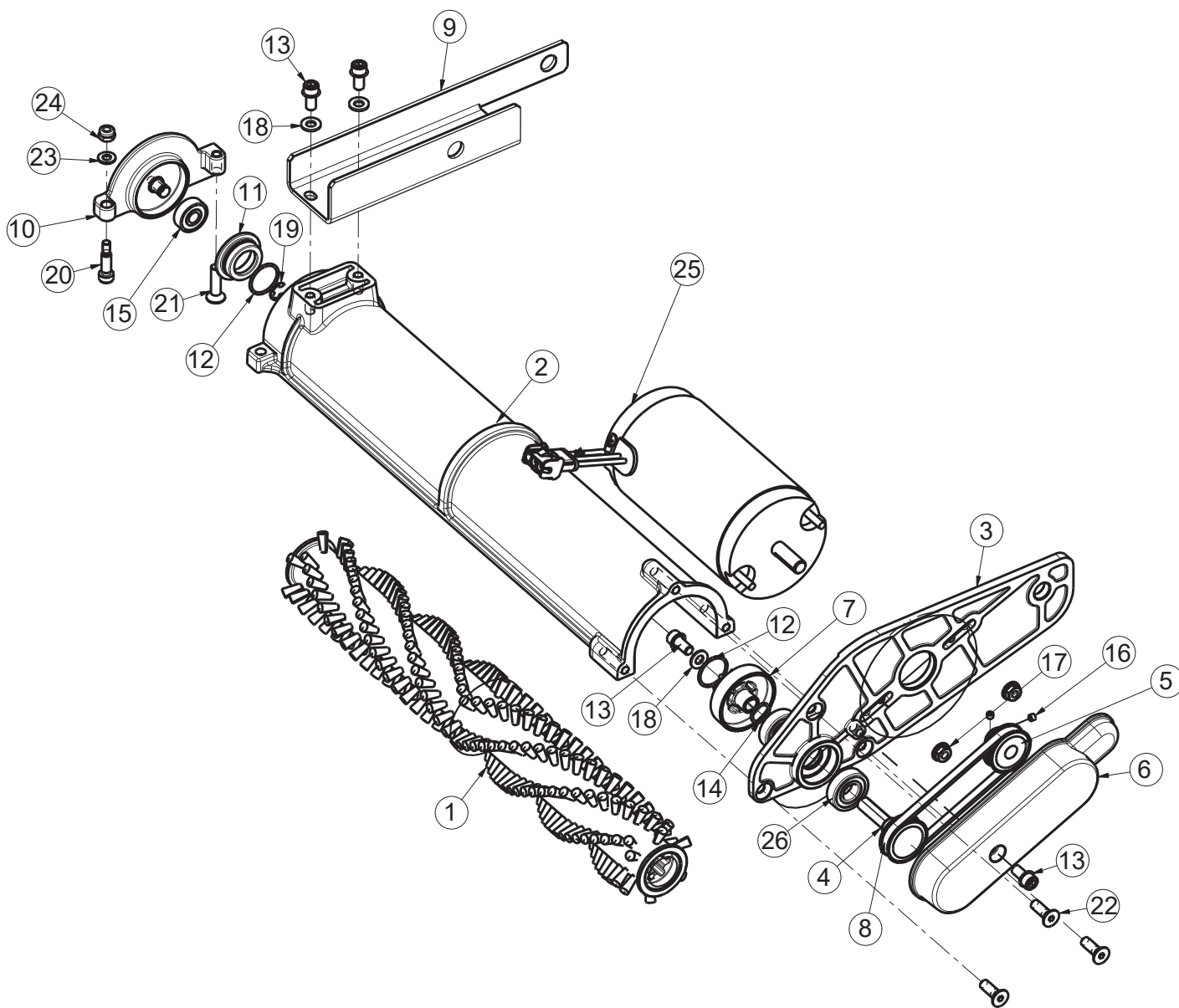
Ozone Generator Cell Assembly



Ozone Generator Cell Assembly BOM

BILL OF MATERIAL - 173270			
ITEM	PART NO.	QTY	DESCRIPTION
1	173257	1	PLATE, MTG, OZONE GEN CELL ASSY
2	173261	4	FITTING 1/4 OD TUBE THUMB LATCH PUSH-CON
3	173263	1	COVER, OZONE GEN CELL ASSY
4	173287	2	TUBING, 1/4 OD, PTFE BLUE STRIPE 1.88 LG
5	173288	2	TUBING, 1/4 OD, PTFE BLUE STRIPE 2.19 LG
6	173289	1	TUBING, 1/4 OD, PTFE BLUE STRIPE 3.16 LG
7	173290	1	TUBING, 1/4 OD, PTFE BLUE STRIPE 4.79 LG
8	173292	1	FITTING, TEE, 3/8 OD TUBE, O-RING, PVDF
9	173293-1	4	FITTING, 90 EL 3/8 STUB-STEM 3/8 T, PVDF
10	173294	4	FITTING, 90 EL, 3/8 STEM, 1/4 TUBE, PVDF
11	173296	1	PLATE, HOLD DOWN, OZONE GEN CELL ASSY
12	173298	1	FITTING, 90 EL, 3/8 TUBE, O-RING, PVDF
13	173302	1	FITTING, WYE, 3/8 TUBE, PPL, W/ O-RING
14	173305	1	TUBING, 3/8 OD, POLYURETHANE, 1.78" LG
15	173306	2	TUBING, 3/8 OD, POLYURETHANE, 2.13" LG
16	710328	3	SCR-RHMS 8-32 X .37 ZP
17	740099-B	1	CABLE TIE-SMALL (BLACK)
18	748419-1	2	SWITCH-FLOW, INLINE 0.07, WIRE ASSEMBLY
19	748420-1	2	CELL, OZONE GENERATING, WIRE ASSEMBLY

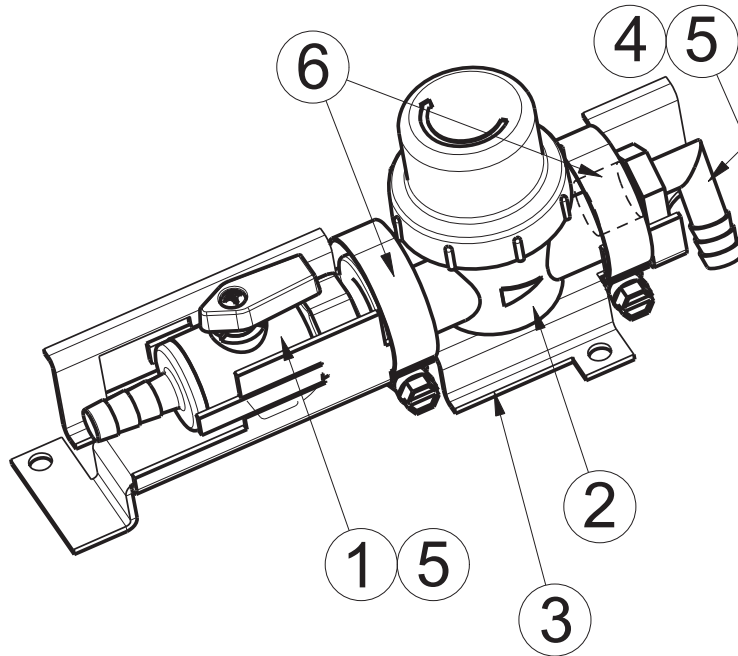
Brush Head Assembly



Brush Head Assembly BOM

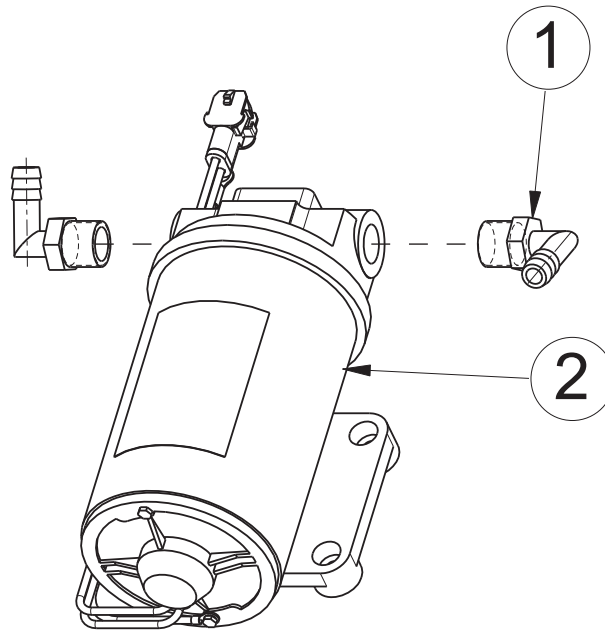
BILL OF MATERIAL - 173052 / 173052-230			
ITEM	PART #	QTY	DESCRIPTION
1	173055	1	EX17 BRUSH CORE ASSEMBLY
2	173056	1	BRUSH BASE
3	173060	1	MOTOR BRACKET
4	173062	1	SPROCKET 30
5	173065	1	DRIVE SPROCKET ASSEMBLY
6	173066	1	COVER BELT
7	173067	1	DRIVE PULLEY
8	173068	1	BELT
9	173075	1	LIFT BRACKET
10	173094	1	BRUSH SIDE COVER
11	173095	1	IDLE PULLEY
12	173115	2	O-RING 20mm x 1.5mm
13	173145	4	SC - SHCS 1/4"-20 X 0.5 SS
14	173176	1	O-RING 12mm x 1.5mm
15	173208	1	BEARING-DBL SEALED 8X22X7
16	711001	2	SK 8-32 X .12
17	711427	2	NUT-FLANGED WIZZ 10-32
18	711566	3	WSR-FLAT .259 X .500 X .065
19	711721	1	RET RING-E TYPE .312
20	712151	1	BLT SHOULDER, 10-24 x 5/8 IN
21	712153	1	SC-SHCS, 1/4-20 x 1.00 IN SS
22	712154	3	SC-SHCS, 1/4-20 x 0.75, SS
23	712320	1	WSR-NYLON .22 X .45 X .04
24	712638	1	NUT, HEX 10-24 SS NYLOC
25	831238-2	1	BRUSH DRIVE MOTOR ASSEMBLY (115V MODELS)
	832611-2		MOTOR BRUSH 230V (230V MODELS)
26	875009	2	BEARING 12mm x 28mm DOUBLE SEALED

Valve-Filter Assembly



BILL OF MATERIAL - 173222			
ITEM	PART NO.	QTY	DESCRIPTION
1	173154	1	VALVE, BALL, 3/8 BARB x 3/8 MPT
2	173158	1	IN-LINE FILTER ASSEMBLY, 3/8 FNPT
3	173219	1	BRACKET, MTG, BALL VALVE & FILTER
4	450040	1	FTG-ELBOW 90 3/8 MPT X 3/8 HB NYLON
5	829552	1	TAPE-TEFLON PIPE 1/2"
6	3302193	2	CLAMP-HOSE 1.25 NOM

Pump Assembly



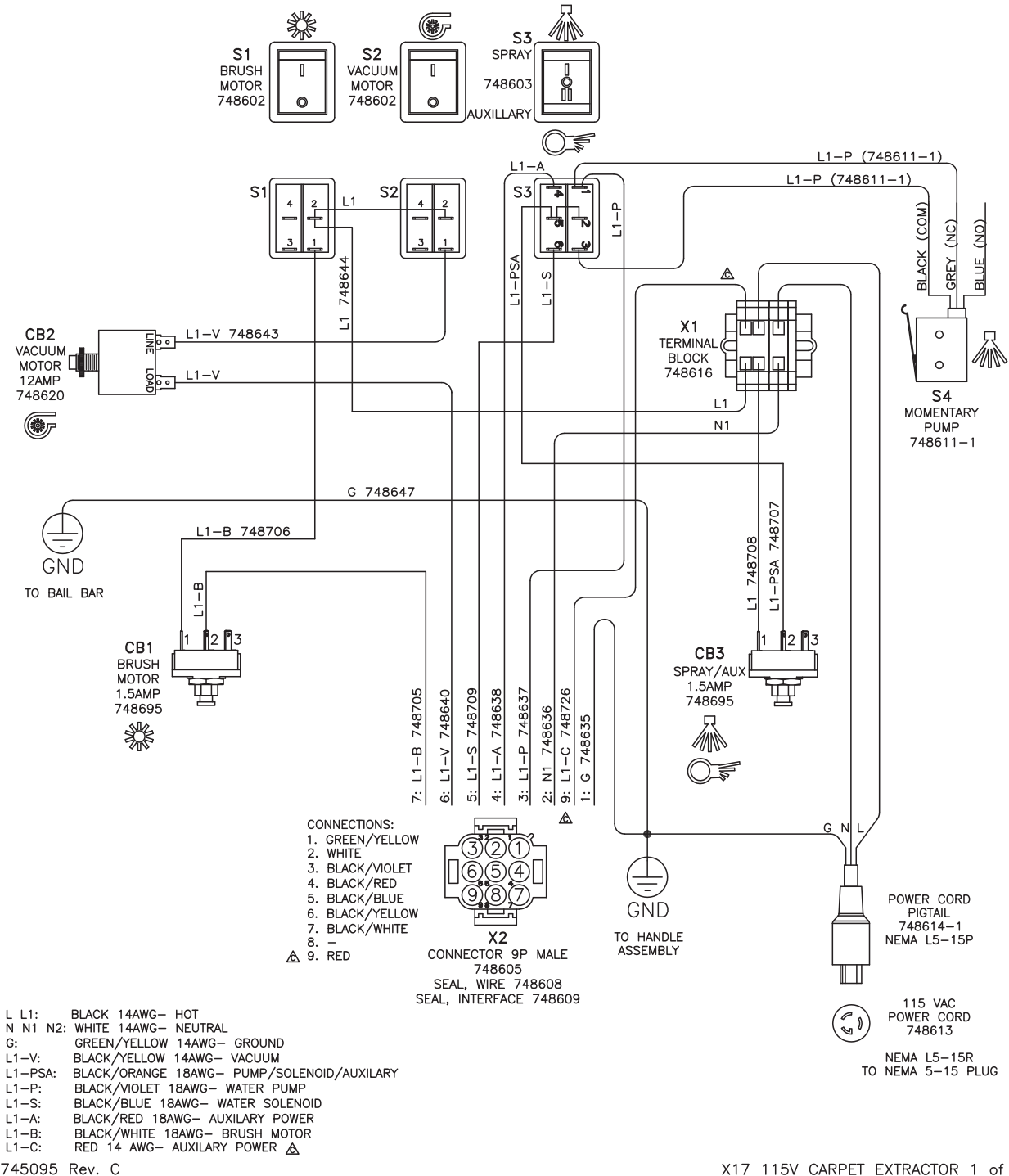
BILL OF MATERIAL - 173076

ITEM	PART NO.	QTY	DESCRIPTION	MODEL
1	450040	2	FITTING 90 3/8MPT X 3/8 BARB NYLON	
2	829757-1	1	PUMP ASY, BYPASS 115V 50PSI	X17115 MODEL ONLY
2A	742150-1	1	PUMP ASY, BYPASS 230V 50PSI	X17230 MODEL ONLY
2B	829757-1HP	1	PUMP ASY, BYPASS 115V 100PSI	X17115HP MODEL ONLY
2C	742150-1HP	1	PUMP ASY, BYPASS 230V 100PSI	X17230HP MODEL ONLY

1

X17 CARPET
EXTRACTOR
115VAC

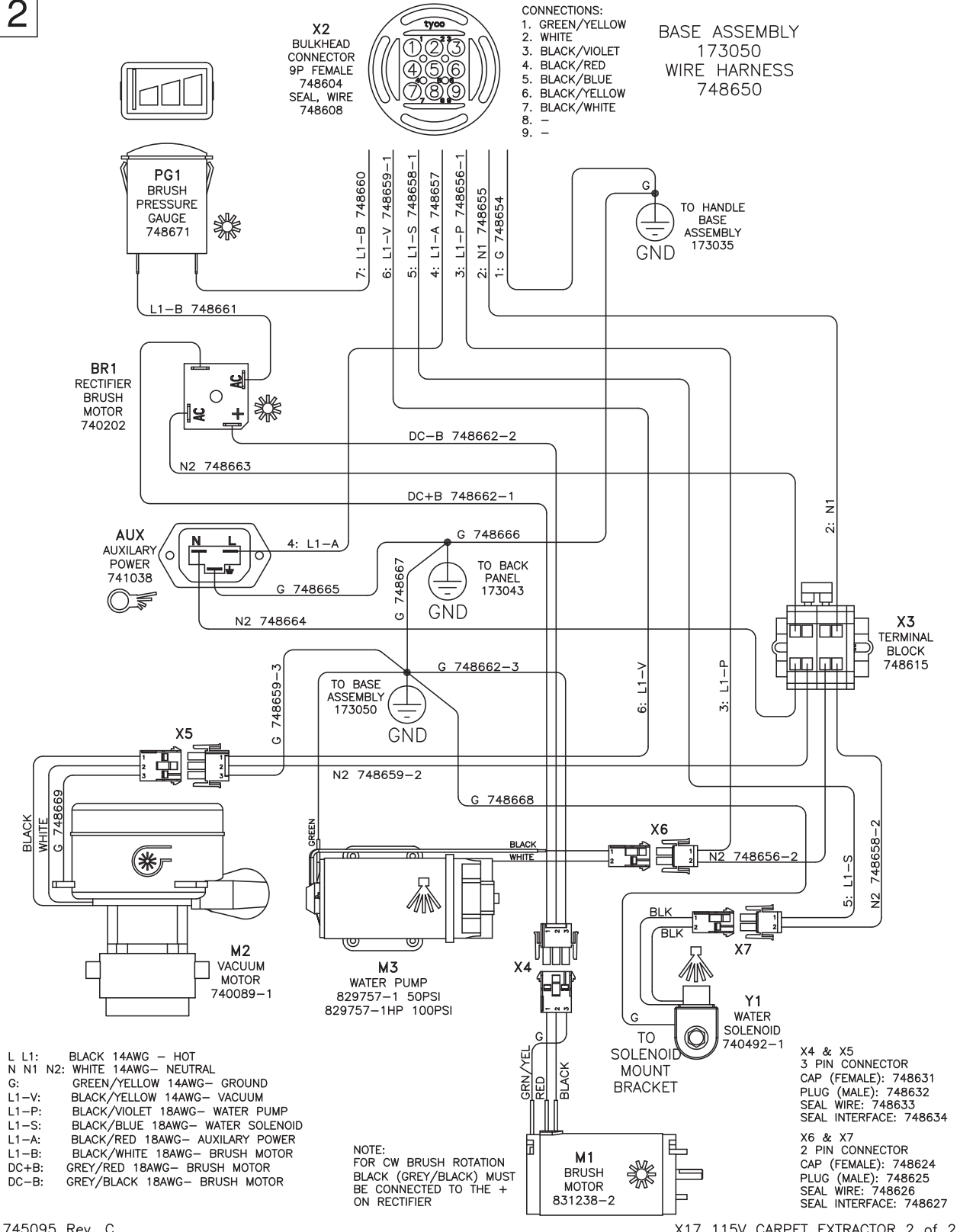
HANDLE ASSEMBLY
173200
WIRE HARNESS
748700



745095 Rev. C

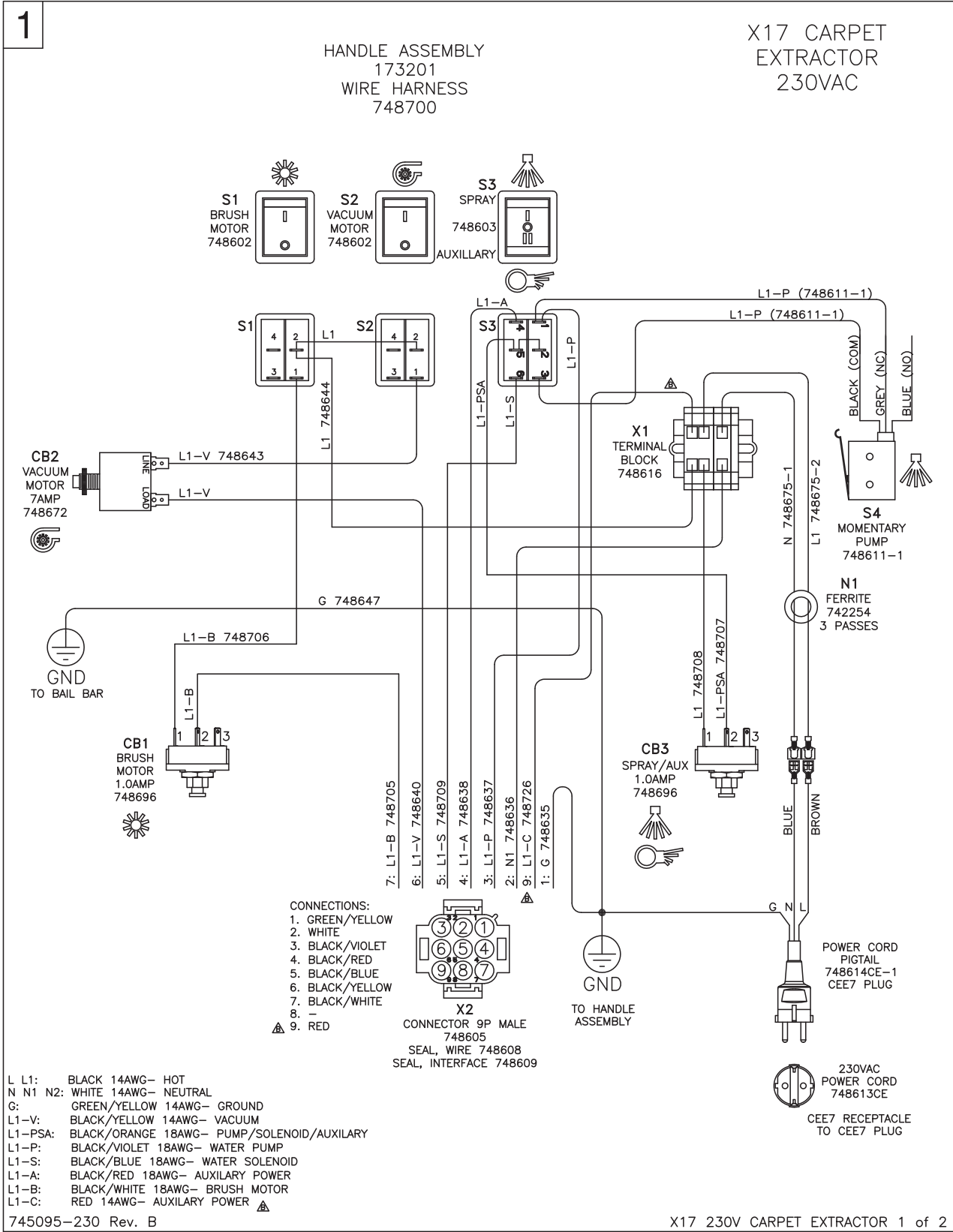
X17 115V CARPET EXTRACTOR 1 of 2

2

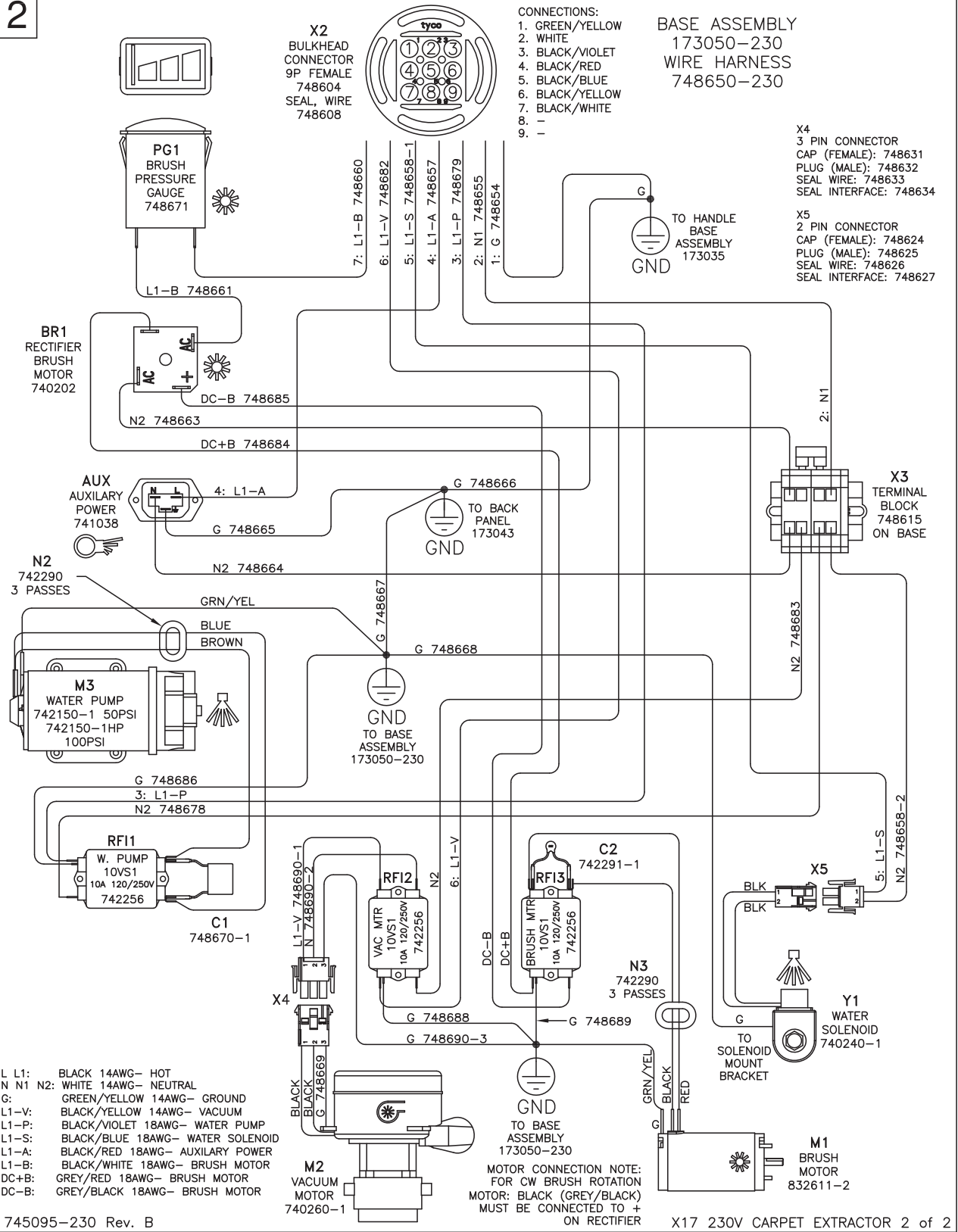


115V Electrical Schematic Reference Numbers

Reference #	Description	Part Number
S1	SWITCH, BRUSH MOTOR	748602
S2	SWITCH, VACUUM MOTOR	748602
S3	SWITCH, SPRAY & AUXILARY	748603
S4	SWITCH, MICRO MOMENTARY PUMP	748611-1
CB1	CIRCUIT BREAKER, 1.5A BRUSH MOTOR	748695
CB2	CIRCUIT BREAKER, 12A VACUUM MOTOR	748620
CB3	CIRCUIT BREAKER, 1.5A PUMP/SOLENOID & AUXILIARY	748695
M1	MOTOR, BRUSH	831238-2
M2	MOTOR, VACUUM	740089-1
M3	PUMP, WATER 50 PSI	829757-1
M3	OPTIONAL: PUMP, WATER 100 PSI	829757-1HP
Y1	SOLENOID, WATER	740492-1
PG1	GAUGE, BRUSH PRESSURE	748671
BR1	RECTIFIER, BRUSH MOTOR	740202
AUX	RECEPTACLE, AUXILARY POWER	741038
X1	TERMINAL BLOCK, HANDLE ASSEMBLY	748616
X2	CONNECTOR, 9 PIN BULKHEAD (FEMALE)	748604
part of X2	CONNECTOR, 9 PIN PLUG (MALE)	748605
part of X2	SEAL, WIRES 9 PIN	748608
part of X2	SEAL, INTERFACE 9 PIN	748609
X3	TERMINAL BLOCK, BASE ASSEMBLY	748615
X4 & X5	CONNECTOR, 3 PIN CAP (FEMALE)	748631
part of X4 & X5	CONNECTOR, 3 PIN PLUG (MALE)	748632
part of X4 & X5	SEAL, WIRES 3P	748633
part of X4 & X5	SEAL, INTERFACE 3 PIN	748634
X6 & X7	CONNECTOR, 2 PIN CAP (FEMALE)	748624
part of X6 & X7	CONNECTOR, 2 PIN PLUG (MALE)	748625
part of X6 & X7	SEAL, WIRES 2 PIN	748626
part of X6 & X7	SEAL, INTERFACE 2 PIN	748627



2



230V Electrical Schematic Reference Numbers

Reference #	Description	Part Number
S1	SWITCH, BRUSH MOTOR	748602
S2	SWITCH, VACUUM MOTOR	748602
S3	SWITCH, SPRAY & AUXILIARY	748603
S4	SWITCH, MICRO MOMENTARY PUMP	748611-1
CB1	CIRCUIT BREAKER, 1.0A BRUSH MOTOR	748696
CB2	CIRCUIT BREAKER, 7A VACUUM MOTOR	748672
CB3	CIRCUIT BREAKER, 1.0A PUMP/SOLENOID & AUXILIARY	748696
M1	MOTOR, BRUSH	832611-2
M2	MOTOR, VACUUM	740260-1
M3	PUMP, WATER 50 PSI	742150-1
M3	OPTIONAL: PUMP, WATER 100 PSI	742150-2
Y1	SOLENOID, WATER	740240-1
PG1	GAUGE, BRUSH PRESSURE 230VAC	748671
BR1	RECTIFIER, BRUSH MOTOR	740202
AUX	RECEPTACLE, AUXILIARY POWER	741038
RFI1	RFI FILTER, WATER PUMP	742256
RFI2	RFI FILTER, VACUUM MOTOR	742256
RFI3	RFI FILTER, BRUSH MOTOR	742256
C1	CAPACITOR ASM, 1uF WATER PUMP	748670-1
C2	CAPACITOR ASM, 330pF BRUSH MOTOR	742291-1
N1	FERRITE, LINE	742254
N2	FERRITE, WATER PUMP	742290
N3	FERRITE, BRUSH MOTOR	742290
X1	TERMINAL BLOCK, HANDLE ASSEMBLY	748616
X2	CONNECTOR, 9 PIN BULKHEAD (FEMALE)	748604
part of X2	CONNECTOR, 9 PIN PLUG (MALE)	748605
part of X2	SEAL, WIRES 9 PIN	748608
part of X2	SEAL, INTERFACE 9 PIN	748609
X3	TERMINAL BLOCK, BASE ASSEMBLY	748615
X4	CONNECTOR, 3 PIN CAP (FEMALE)	748631
part of X4	CONNECTOR, 3 PIN PLUG (MALE)	748632
part of X4	SEAL, WIRES 3P	748633
part of X4	SEAL, INTERFACE 3 PIN	748634
X5	CONNECTOR, 2 PIN CAP (FEMALE)	748624
part of X5	CONNECTOR, 2 PIN PLUG (MALE)	748625
part of X5	SEAL, WIRES 2 PIN	748626
part of X5	SEAL, INTERFACE 2 PIN	748627

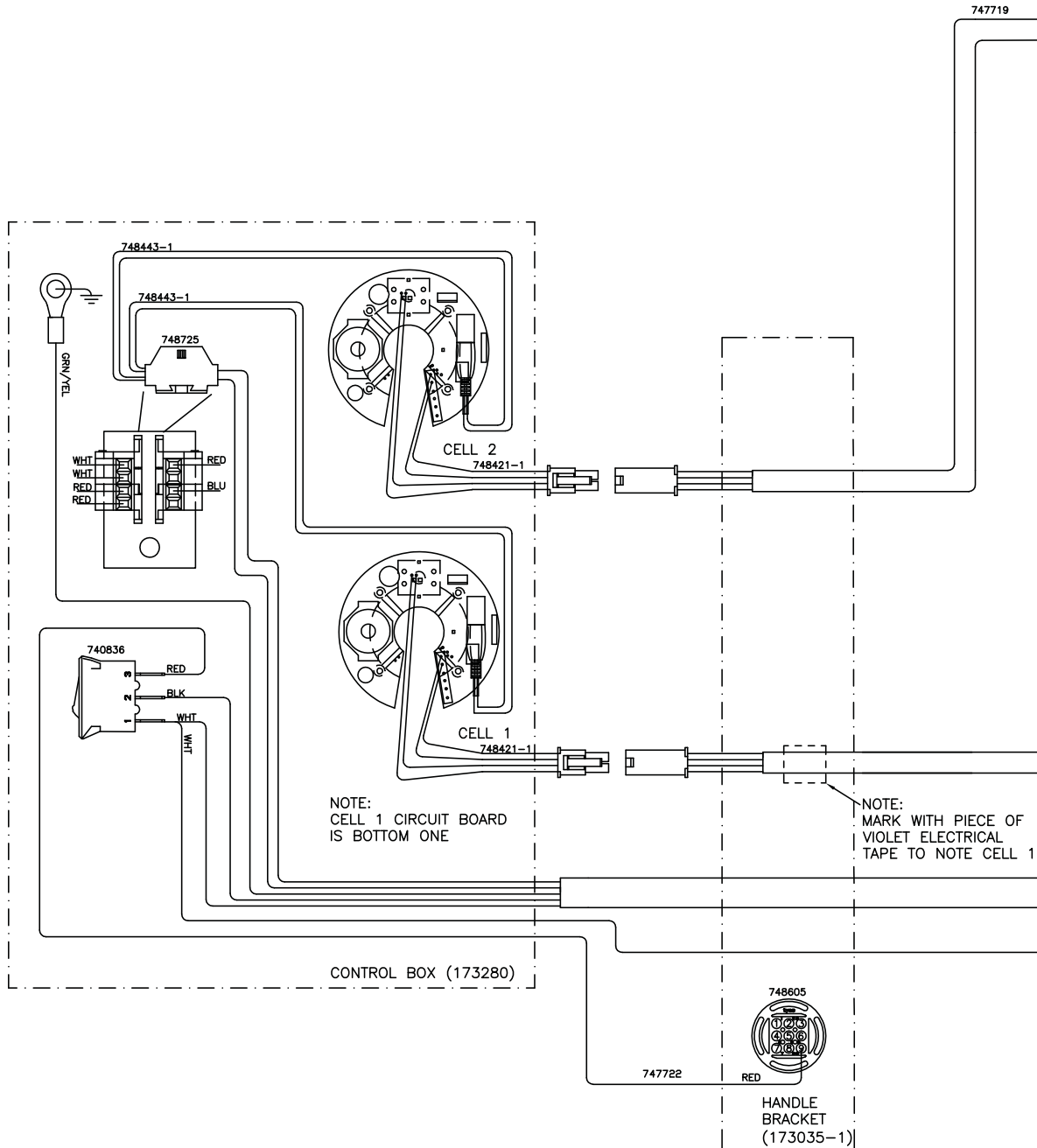
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PAGE LAYOUT

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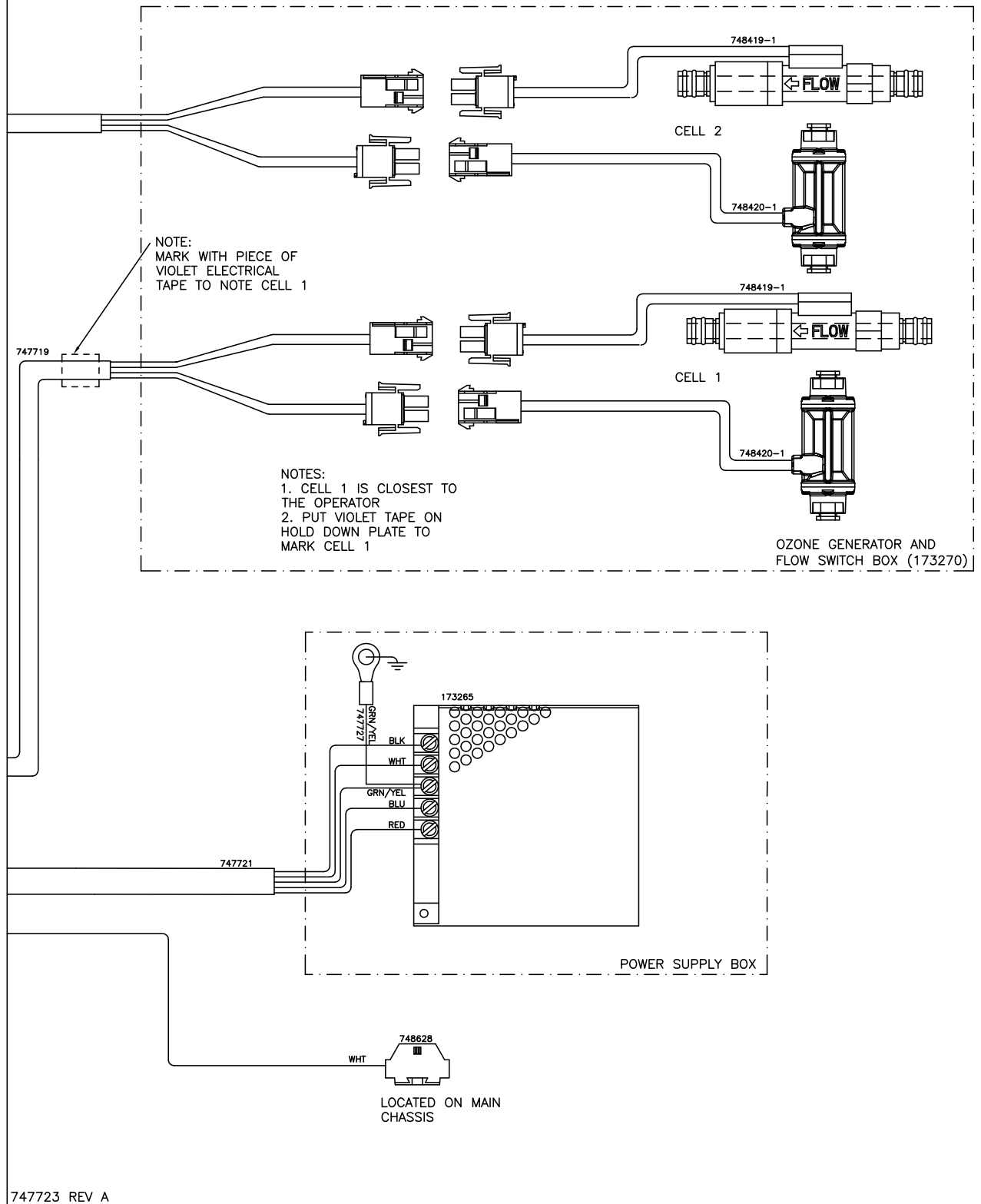
2

PAGES GO TOGETHER
AS SHOWN TO SEE THE
ENTIRE SCHEMATIC AS
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747723 REV A

2



747723 REV A



Minuteman International Made Simple Commercial Limited Warranty

REVISION O EFFECTIVE 4/1/2016

Minuteman International, Inc. warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. Minuteman will, at its option, repair or replace without charge, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals. All warranty claims must be submitted through and approved by factory authorized repair stations.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts manufactured by Minuteman are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman for procedures in warranty claims against these manufacturers.

Special warning to purchaser -- Use of replacement filters and/or pre-filters not manufactured by Minuteman or its designated licensees, will void all warranties expressed or implied. A potential health hazard exists without original equipment replacement.

All warranted items become the sole property of Minuteman or its original manufacturer, whichever the case may be.

Minuteman disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

Model	Parts	Labor	Poly	Travel**
Cord Electric Group	5yrs	3yrs	12yrs	90 days
Battery Operated Group	5yrs	3yrs	12yrs	90 days

Exceptions.....

Model	Parts	Labor	Poly	Travel**
Port A Scrub, all models	1yr	6months	12yrs	90 days
A3S Blower	1yr	1yr	0	0
Phenom Dual Motor Upright Vacuums	2yrs	2yrs	0	0
Explosion Proof Vacuum	1yr	1yr	0	0
Propane Burnisher	1yr	1yr	0	90 days
**Travel, 2 hours max				

<i>Stand-alone Battery Chargers:</i>	One year
<i>Replacement Parts:</i>	Ninety days
<i>Batteries:</i>	0-3 months full replacement, 4-12 months pro-rate
<i>Polypropylene Plastic Tanks:</i>	12yr warranty, no additional labor

“Excellence Meets Clean”

**Minuteman is a Full Line Manufacturer of Sweepers and Scrubbers,
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