

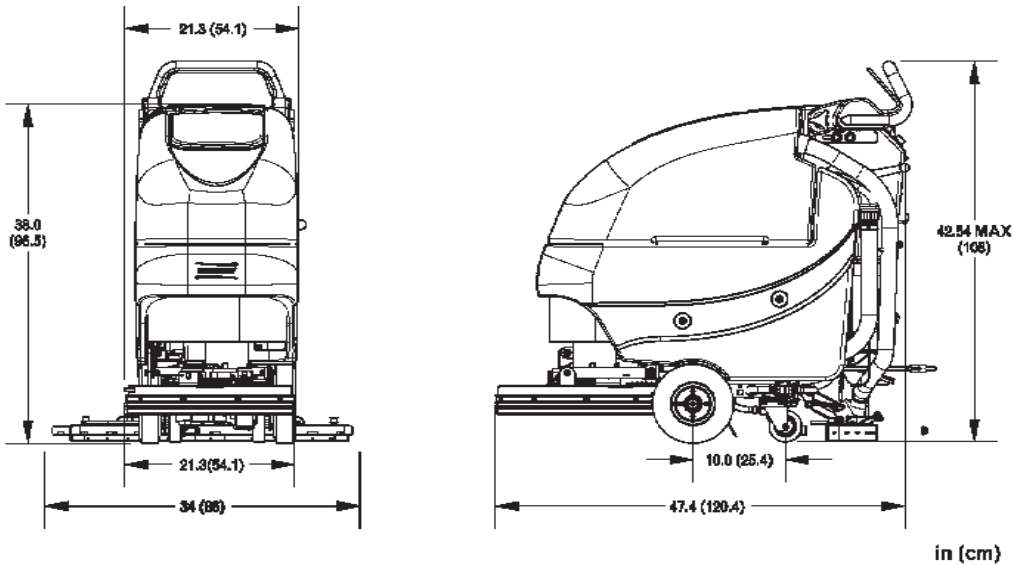
PHOENIX 20 FLOOR SCRUBBER BRUSH DRIVE



Technical Specifications

Model Phoenix 20 Floor Scrubber Brush Drive
Model No. PHX20BD / PHX20BDQP / PHX20BDQPG

Current (Max)	32 amps
Battery Capacity (Lead Acid)	105Ah @20 hr
Battery Capacity (Gel)	95Ah @20 hr
Sound Level	69 dBA
Cleaning path width	20 in (51 cm)
Squeegee width	34 in (86 cm)
Theoretical productivity (Brush Drive)	15,000 ft ² /hr (1,394 m ²)
Working speed (Brush Drive)	1.7 mph (2.7 km per hr)
Transport speed	3 mph (4.8 km per hr)
Rated voltage	24 volts
Vacuum flow	65 cfm (110 m3/hr)
Vacuum waterlift	45 inches (112mbar)
Vacuum power	.60 HP (450 W)
Brush type	Disc
Brush motor(s) power	3/4 HP (560W)
Number of brushes	1
Brush RPM	180 RPM
Aqua-Stop equipped	Coming Soon
Solution capacity	12 Gal (45 liters)
Recovery capacity	13 Gal (49 liters)
Working Grade	2%
Weight with batteries	313 lbs (142 kg)
Weight without batteries	203lbs (92 kg)
Dimensions (LxWxH)	47.4 x 21.3 x 42.3 (120.4 x 54.1 107.4 cm)

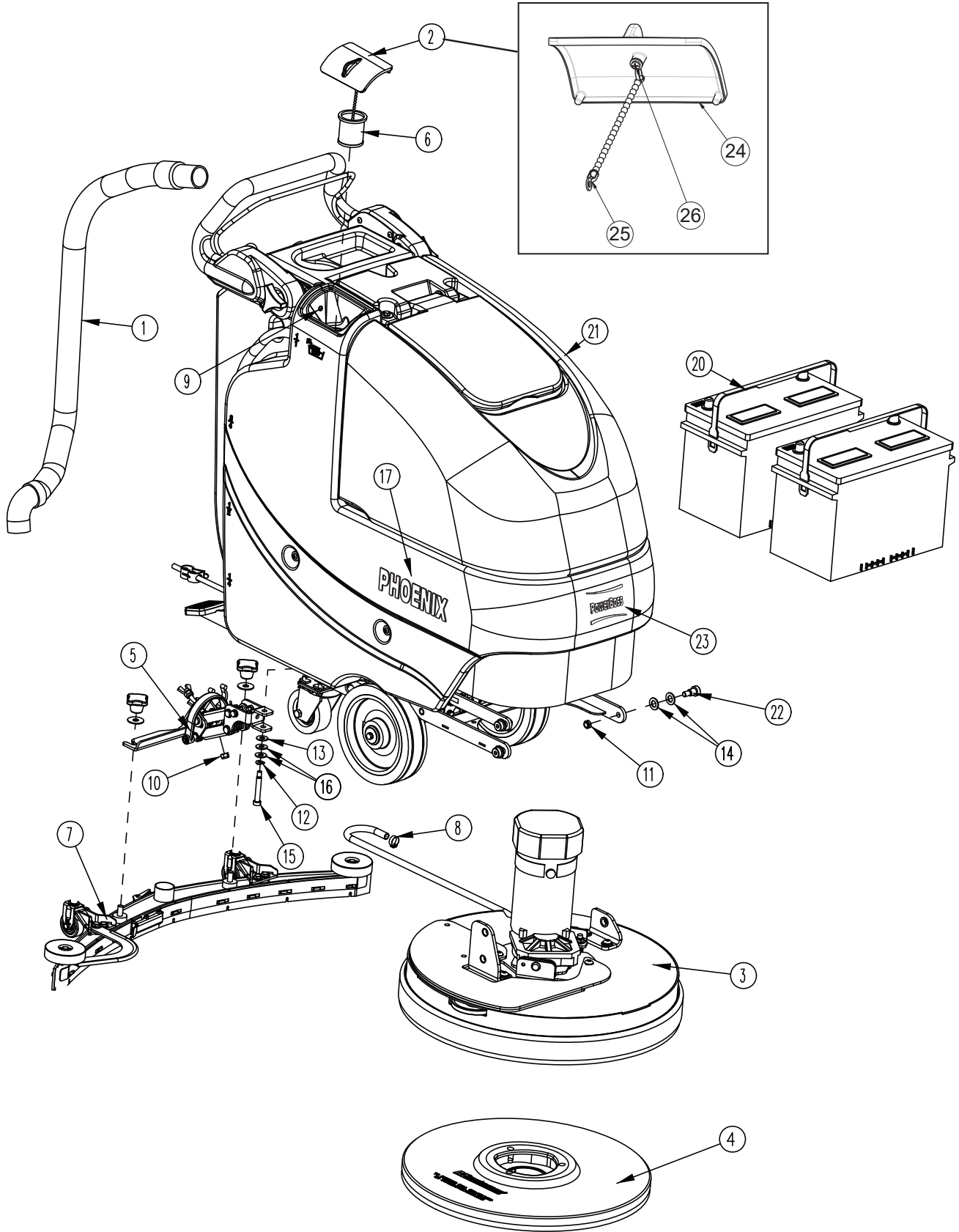


For Safety When Servicing or Maintaining Machine

- Stop on level surface.
- Disconnect the power to the machine by pulling the red Battery Connector located under the recovery tank near the batteries.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- Avoid contact with battery acid. Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.
- Do not clean machine with a pressure washer.
- Authorized personnel must perform repairs and maintenance. Use PowerBoss supplied replacement parts.

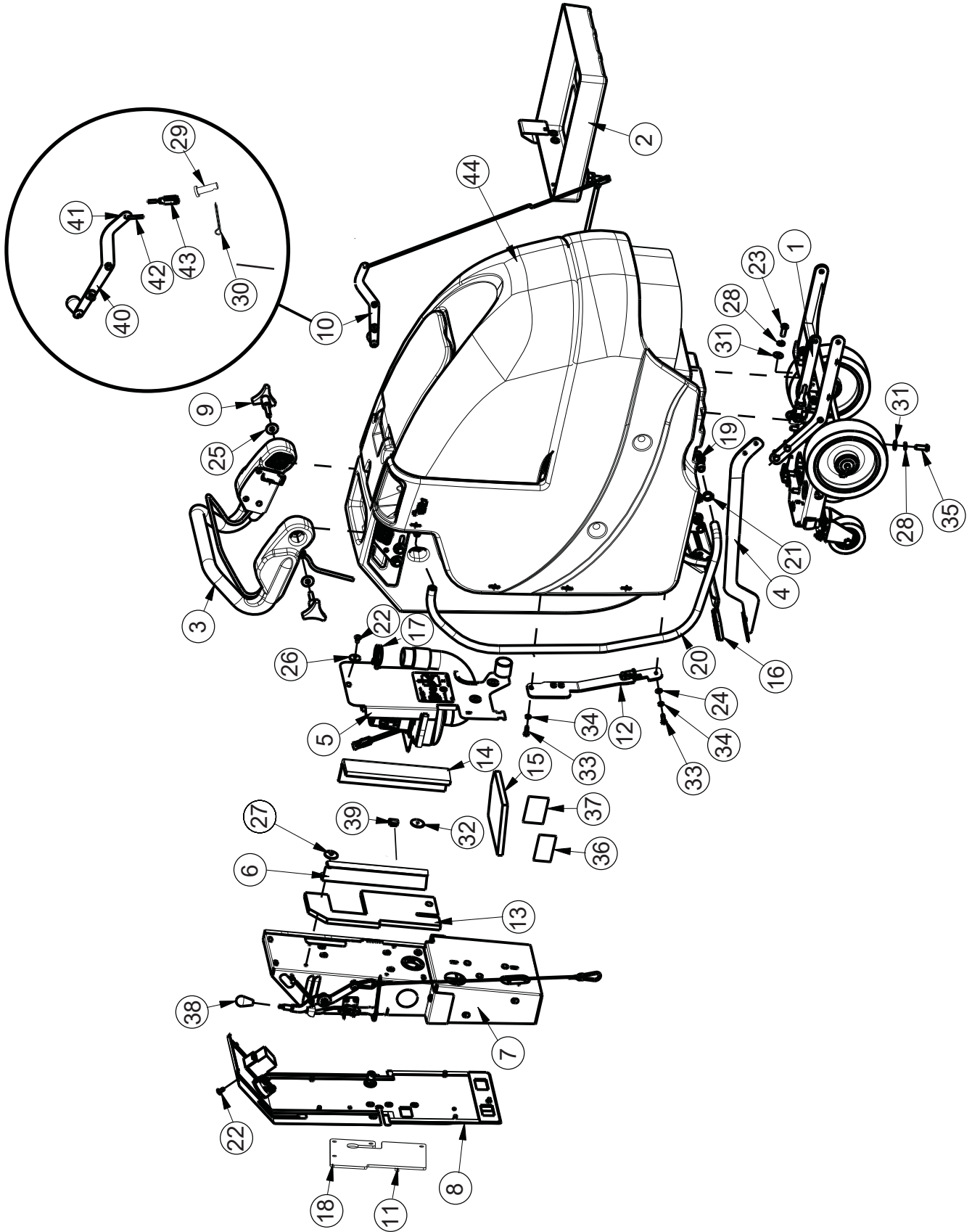
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ITEM	PART NO.	QTY	DESCRIPTION
1	172010	1	HOSE, CLEAR VAC W/ 45 CUFF
2	172018	1	SOLUT ION TANK LID ASSY
3	172100	1	BRUSH DECK ASSY 20"
4	7951-03	1	BRUSH-DISC, 20" NYLO-GRIT 80GR, GREEN
5	172150	1	SQUEEGEE LIFT MECH ASSY
6	172159	1	FILTER, FILL PORT
7	172534-1	1	SQUEEGEE, 34" (860)
8	450076	1	CLAMP-CRIMP 185R SS
9	711118	1	SCR-ST-A 10 X .75 SS
10	711374	1	NUT-NYLOC 5/16-18
11	711375	3	NUT-NYLOC 3/8-16 X 1/2 NUT
12	711523	1	WSR-WAVE .37X .68 X .08
13	711569	1	WSR-FLT .390 X .880 X .062 NYL
14	711592	6	WSR-FLAT .506 X .9 X .064 NYL
15	712143	1	BLT-SHLD 3/8 X 2.0, 5/16-18
16	712301	2	WSR-FLAT .37 X .87 X .06
17	715688	2	DECAL, PHOENIX
18	740164-1	1	JUMPER CABLE ASSY, RED 4G 12"
19	747649	1	CABLE ASSY, BAT T ERY
20	956712	2	BATTERY, 12V 115AH
20G	956100	2	GEL BATTERY 12V 100AH
21	FOR REF	1	BRUSH DRVMAIN ASSY-120VCHARGER
22	712099PLT	3	BLT- SHLDR 1/2 X 1/2 ZINC PLT
23	3334902	1	DECAL, POWERBOSS
24	172008	1	SOLUTION TANK LID
25	172123	1	CHAIN, BEADED SS W/EYELET S
26	712145	1	SCR-MC 6-32 X .37 PPH SS
25	172123	1	CHAIN, BEADED SS W/EYELETS
26	712145	1	SCR-MC 6-32 X .37 PPH SS

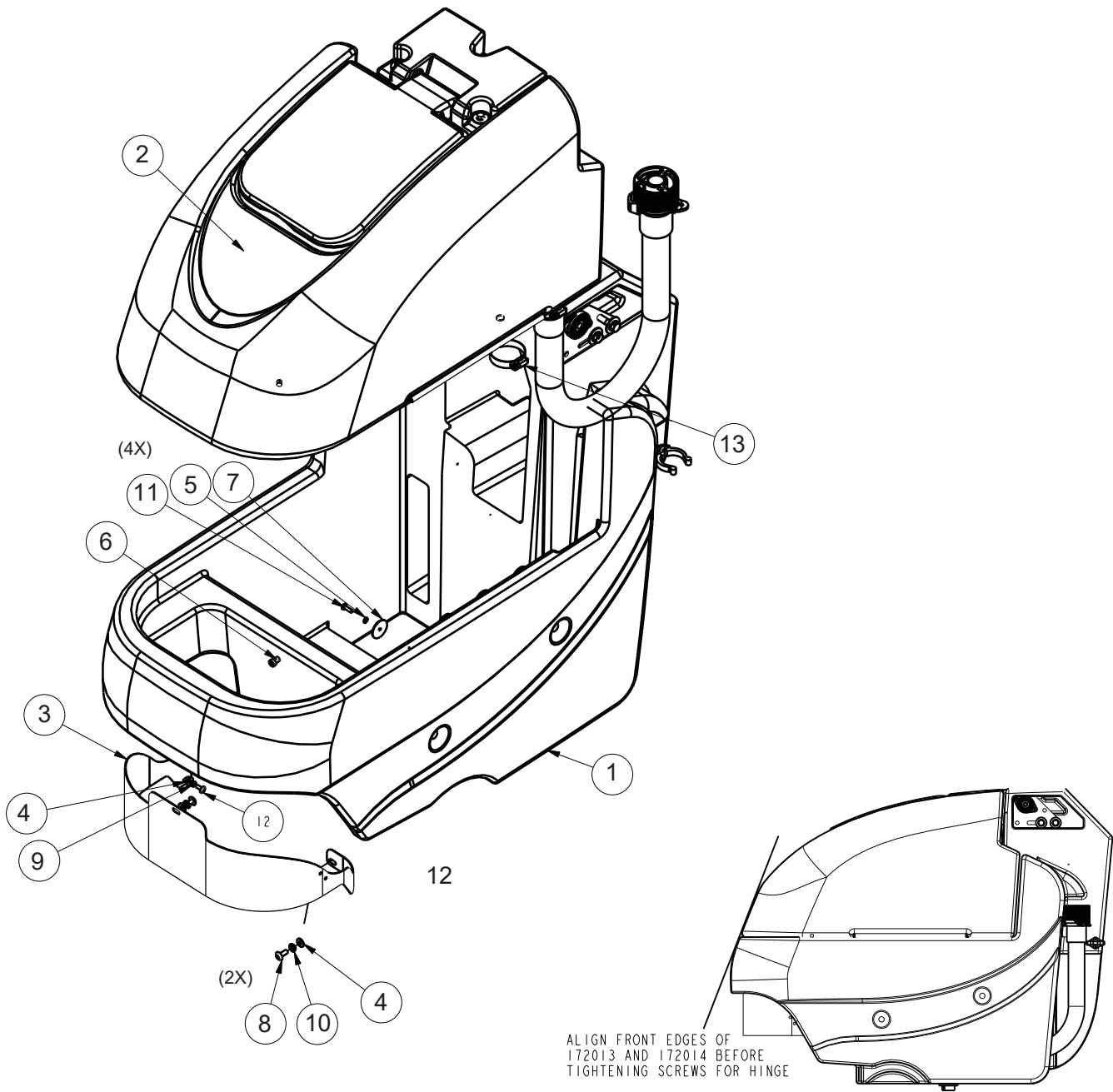
BRUSH OPTIONS			
		AQUA STOP BRUSHES	
762394	PAD RETAINER, FIXED - NOT SHOWN	7951-01	BRUSH, 20" LIGHT-MED PP.5 A/S, WHITE
762370	PAD RETAINER, REMOVEABLE - NOT SHOWN	7951-02	BRUSH, 20" LIGHT-MEDIUM A/S, K901, BLACK
172520-1	BRUSH, 20" NYLON	7951-03	BRUSH, 20" MEDIUM NYLON 600GR. A/S, GREY
172520-3	BRUSH-DISC, 20" NYLO-GRIT 80GR, GREEN	7951-04	BRUSH, 20" MEDIUM-HEAVY PP.8 A/S, WHITE
172520-6	DISC BRUSH 20", SCRUB GRIT 2, 120GR RED	7951-05	BRUSH, 20" HEAVY NYLON 180GR. A/S, GREY
		7951-06	BRUSH, 20" HEAVY-2 NYL 120GR. A/S, GREEN



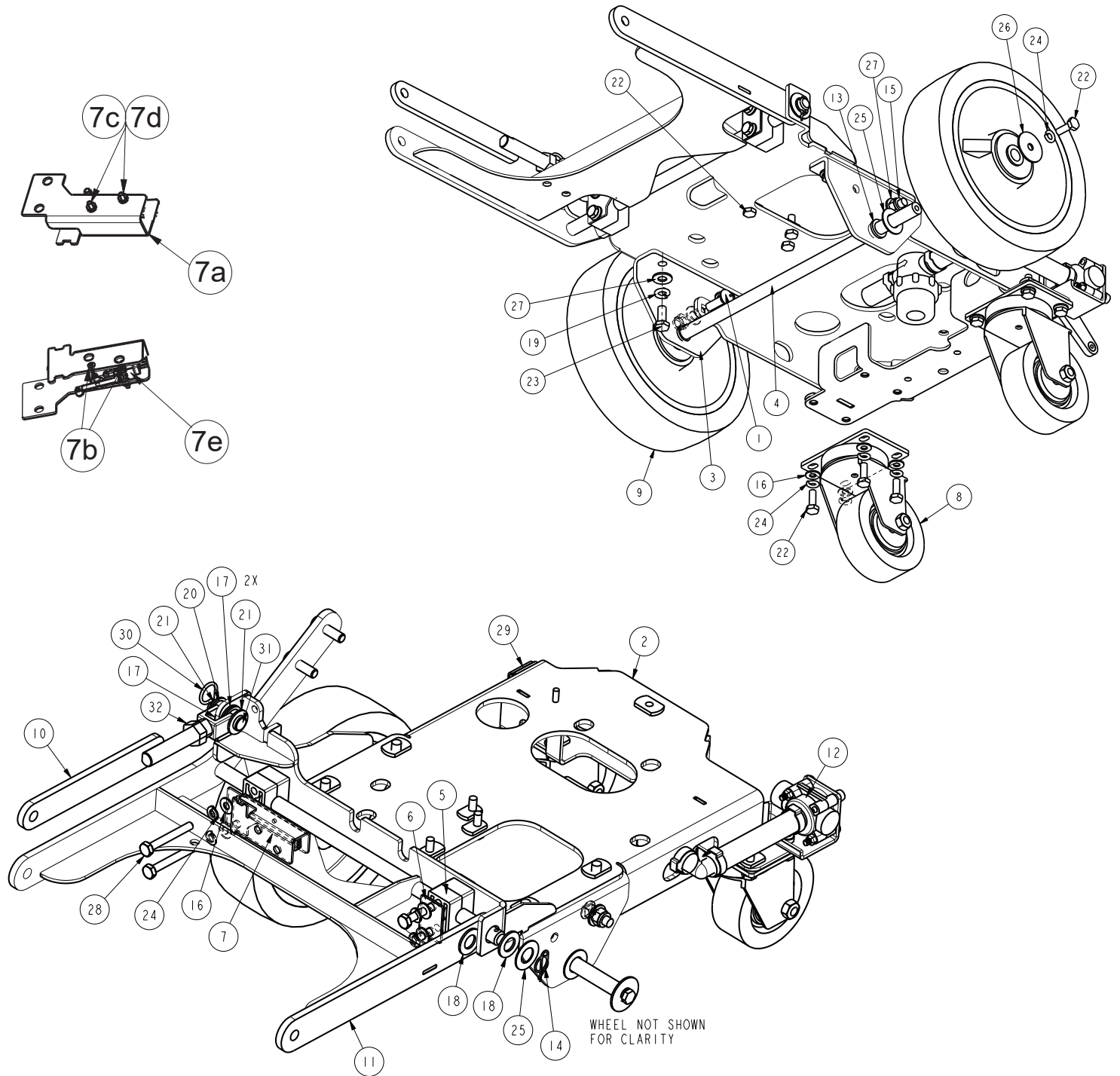
Brush Drive Base Assembly BOM



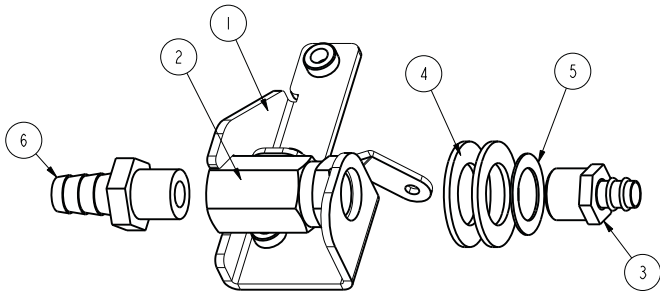
BILL OF MATERIAL - 172001BD - 120/230							
ITEM	PART NO	QTY	DESCRIPTION	ITEM	PART NO	QTY	DESCRIPTION
1	172002	1	BD CHASSIS ASSY	23	710985	2	SCR-BHSCS 3/8-16 X .625 ZP
2	172012	1	BATTERY TRAY ASSY	24	711504	1	WASHER-FLAT 1/4 SS
3	172016	1	BD HANDLE ASSY	25	711507	2	WASHER-FLAT 3/8 X 1.12 X .06
4	172032	1	LIFT PEDAL WMT	26	711519	3	WASHER-FLAT 1/4 X 1.00 X .06 ZP
5	172050	1	VAC MOTOR ASSY	27	711543	2	WASHER-LOCK #10 SPLIT ZP
6	172055	1	BKT, VAC AREA INSIDE COVER	28	711546	6	WASHER-LOCK 3/8 SPLIT ZP
7	172070-120	1	ELEC BOX BD ASSY 120V	29	711803	1	PIN-COTTER .06 X .75
8	172073	1	BD ELEC BOXCOVER ASSY	30	712117	1	PIN-CLEVIS 3/16 X .593
9	172085	2	KNOB, 3/8-16 STUD, 3LOBE	31	712301	8	WASHER-FLAT 3/8 X .87 X .06 ZP
10	172112	1	SOL CONTROL ASSY	32	712312	2	WASHER-BALANCING .187 X 1.25
11	172129	1	BKT, PWR CORD MOUNT, 5/8 HOLE	33	712562	2	SCR-HH 1/4-20 X .75, 18-8 SS
12	172157	1	LIFT PEDAL STOP ASSY	34	712758	2	WASHER-LOCK 1/4 SPLIT SS
13	172184	1	FOAM COVER W/ ADHESIVE	35	713042	4	SCR-HH 3/8-16 X 1.00 ZP GR 5
14	172185	1	FOAM COVER REAR 2, 1/2" THICK	36	715029	1	DECAL-NAME PLATE MODEL ID
15	172187	1	FOAM COVER FRONT 2, 1/2" THICK	37	715047	1	DECAL-CLEAR LAMINATE 2X3
16	210142	1	PEDAL PAD	38	760592	1	KNOB-OVAL TAPERED
17	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL	39	809443	1	CLIP-WIRE & CORD
18	293080	1	STRAIN RELIEF	40	172115	1	SOLUTION CTRL LEVER ASSY
19	342440	1	FTG-TEE 3/4 MPT X 1/2 HB NYLON	41	172122	1	NUT, PUSH-ON WSR CAP, 3/16
20	430156	1	HOSE, CLEAR 1/2 ID X 39.75"	42	172069	1	SOLUTION CONTROL ROD
21	450093	1	CLAMP-CRIMP 3/4" OD STEP-LESS	43	172062	1	YOKE, 3/16 CLEVIS X 10-32 THD
22	710178	10	SCR-THMS 1/4-20 X .50 ZP	44	172001BASE	1	BASE ASSY



BILL OF MATERIAL - 172001BASE			
ITEM	PART NO.	QTY	DESCRIPTION
1	172013	1	SOLUTION TANK ASSY
2	172014HR	1	RECOVERY TANK ASSEMBLY
3	172144	1	COVER, FRONT PANEL
4	711504	3	WASHER-FLAT 1/4 SS
5	711543	4	WASHER-LOCK #10 SPLIT ZP
6	712041	1	BLT-SHOULDER 5/16 X .375 LG X 1/4-20 BLK
7	712312	4	WASHER-BALANCING .187 X 1.25
8	712565	2	SCR-THMS 1/4-20 X .62 SS
9	712757	1	WASHER-LOCK #10 SPLIT SS
10	712758	2	WASHER-LOCK 1/4 SPLIT SS
11	712812	4	SCR-PHMS 10-24 X .62 ZP
12	712822	1	SCR-THMS 10-24 X .50 SS
13	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL



BILL OF MATERIAL - 172002			
ITEM	PART NO.	QTY	DESCRIPTION
1	70-516-16	2	BLT-CARR 5/16-18 X 1 ZP
2	172020	1	MAIN FRAME WMT
3	172024	2	BKT, WHEEL
4	172035	1	ROD, .5" AXLE
5	172038	4	BEARING BLOCK
6	172039	1	BEARING BLOCK PLATE
7	172110	1	DECK SWITCH ASSY
7a	172111	1	BEARING BLOCK/SWITCH PLATE
7b	710493	2	SCR-RHMS 4-40 X .75 ZP
7c	711428	2	NUT-HEX 4-40 ZP
7d	712326	2	WASHER-INT LOCK #4 SS
7e	747603-2	1	SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT
8	172167	2	CASTER, 3 1/2" PU WHEEL
9	172265	2	WHEEL, 8X2X.5ID, 75A W/ GROOVES
10	172368	1	UPPER LIFT ARM
11	172370	1	DISC DECK LIFT WMT
12	172571	1	ASSY-SOLUTION VALVE
13	260041	2	BUSHING-FLG .502 X .627 X .375 OILITE
14	600578	1	RING-RUE .50 ZP
15	711374	2	NUT-NYLOC 5/16-18 ZP
16	711504	12	WASHER-FLAT 1/4 SS
17	711569	3	WASHER-FLAT .390 X .880 X .062 NYL
18	711592	2	WASHER-FLAT 1/2 X .90 X .064 NYLON
19	712140	4	WASHER-LOCK 5/16 SPLIT SS
20	712265	1	CLEVIS-YOKE, 1/2-20 WITH .375 PIN
21	712301	2	WASHER-FLAT 3/8 X .87 X .06 ZP
22	712562	13	SCR-HH 1/4-20 X .75, 18-8 SS
23	712575	4	SCR-HH 5/16-18 X .75 18-8 SS
24	712758	14	WASHER-LOCK 1/4 SPLIT SS
25	712760	3	WASHER-FLAT .56 X 1.06 X .04 SS
26	712761	2	WASHER-FENDER 1/4 X 1.25 X .059 SS
27	712772	6	WASHER-FLAT .344 X .75 X .06 SS
28	713007	4	SCR-HH 1/4-20 X 2.00 ZP GR 5
29	809444	1	CLIP-CORD
30	833374	1	PIN-HAIRPIN COTTER 3/8
31	833833	1	PIN-CLEVIS 3/8 X 1.25
32	3400449	1	NUT-JAM 1/2-20 ZP



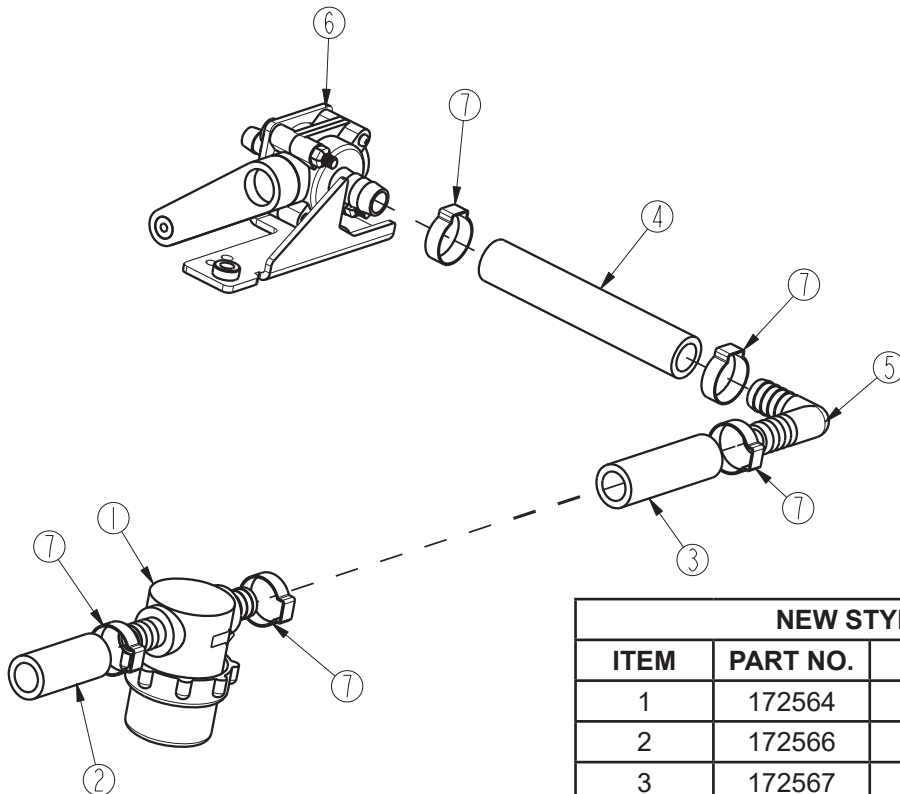
*****REPLACING OLD STYLE BRASS SOLUTION VALVE ASSEMBLY 172514 WITH 172571 PLASTIC SOLUTION VALVE ASSEMBLY**

WILL REQUIRE THE PURCHASE OF KIT K-172571

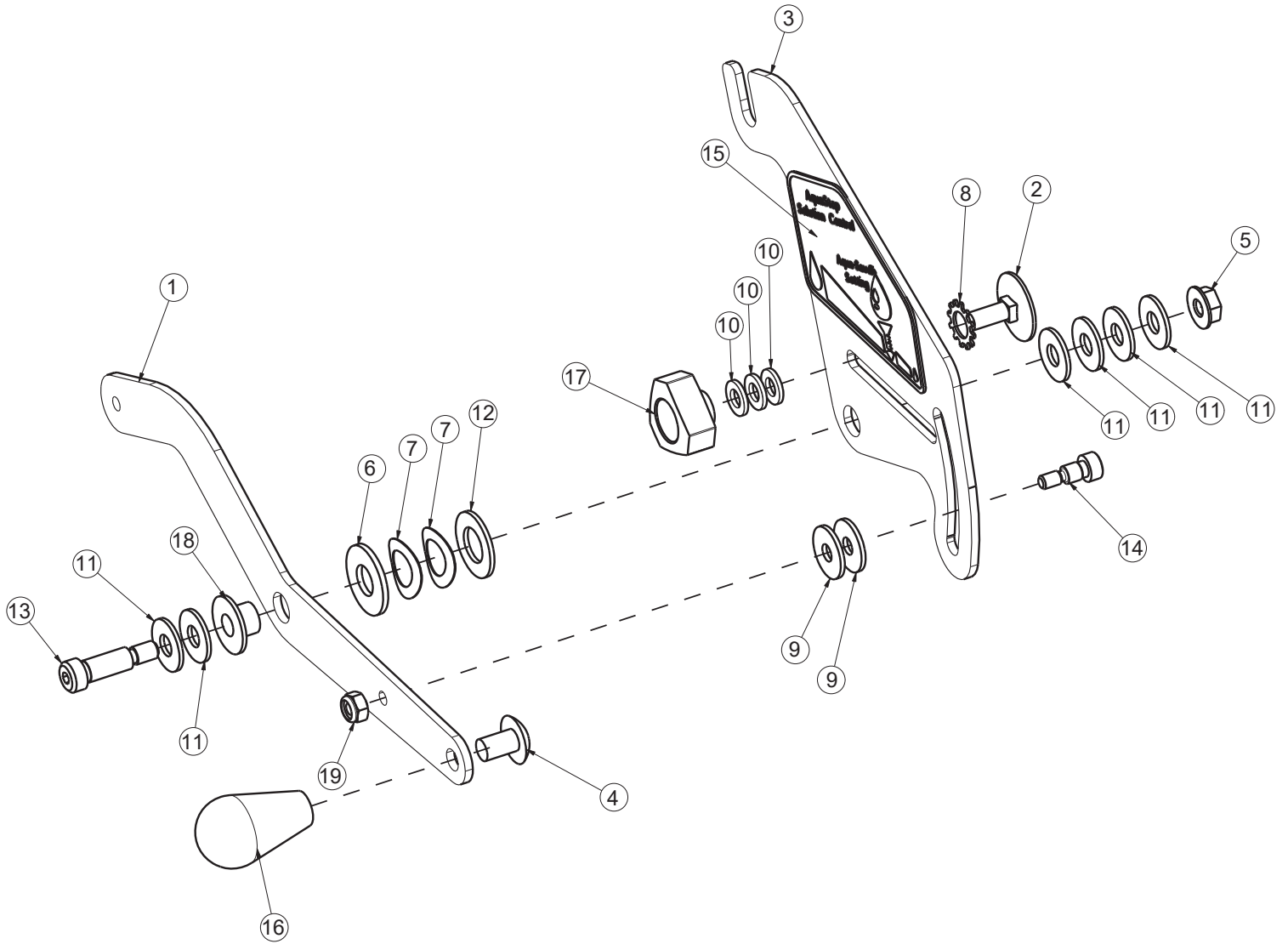
NO LONGER AVAILABLE

OLD STYLE - BILL OF MATERIAL - 172514			
ITEM	PART NO.	QTY	DESCRIPTION
1	172513	1	BRKT, SOL VALVE MOUNT
2	172515	1	BALL VALVE, BRASS, 3/8FNPT, CUST HANDLE
3	320265	1	FTG-ADAPTER 3/8 MPT X 3/8 HB BRASS
4	711512	2	WASHER-FLAT 3/4 X 1.37 X .08 ZP
5	711513	1	WASHER-FLAT .689 X 1.06 X .029 SS
6	827008	1	FTG-ADAPTER 3/8 MPT 1/2 HB BRASS

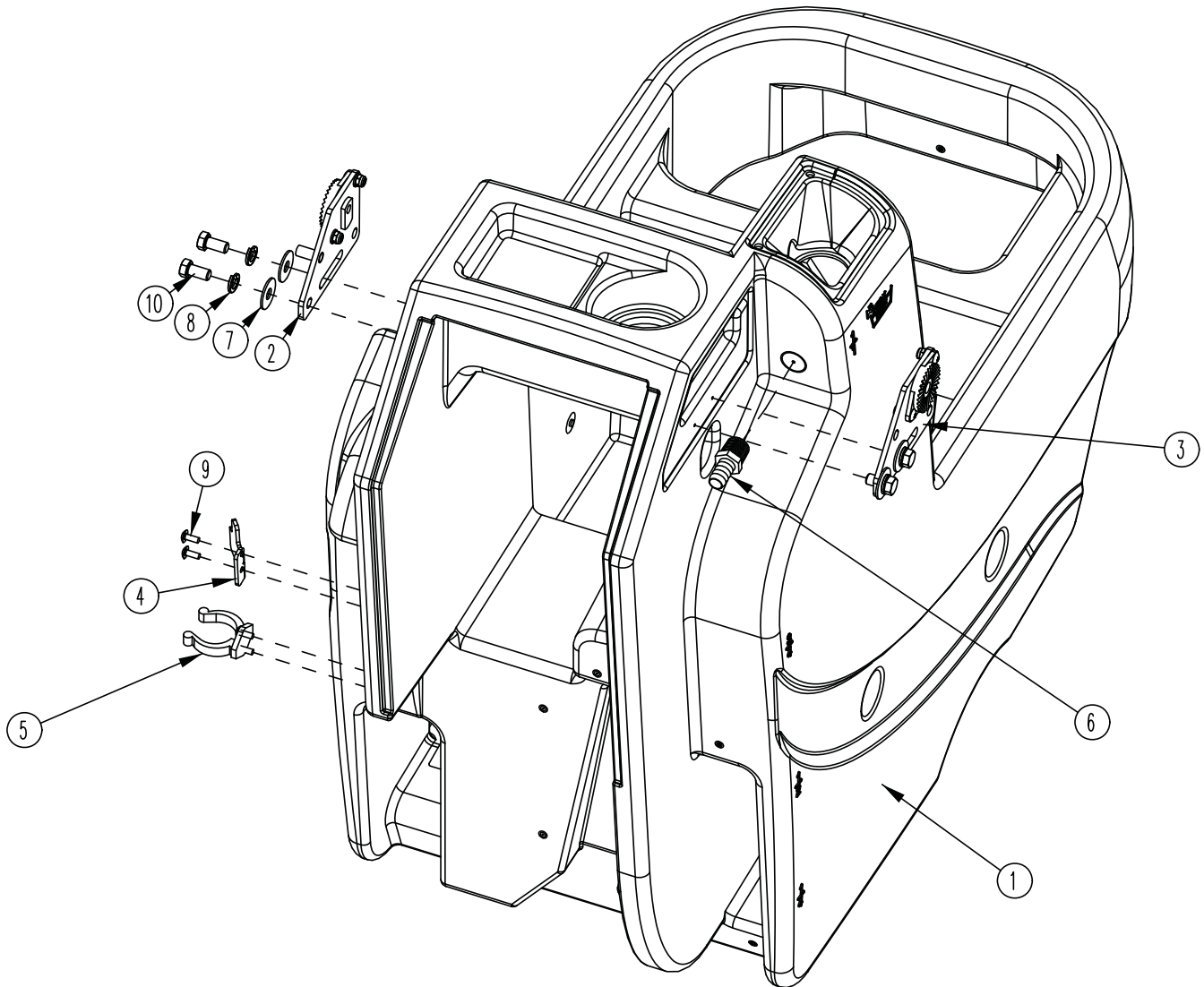
New Style - Solution Valve Assembly



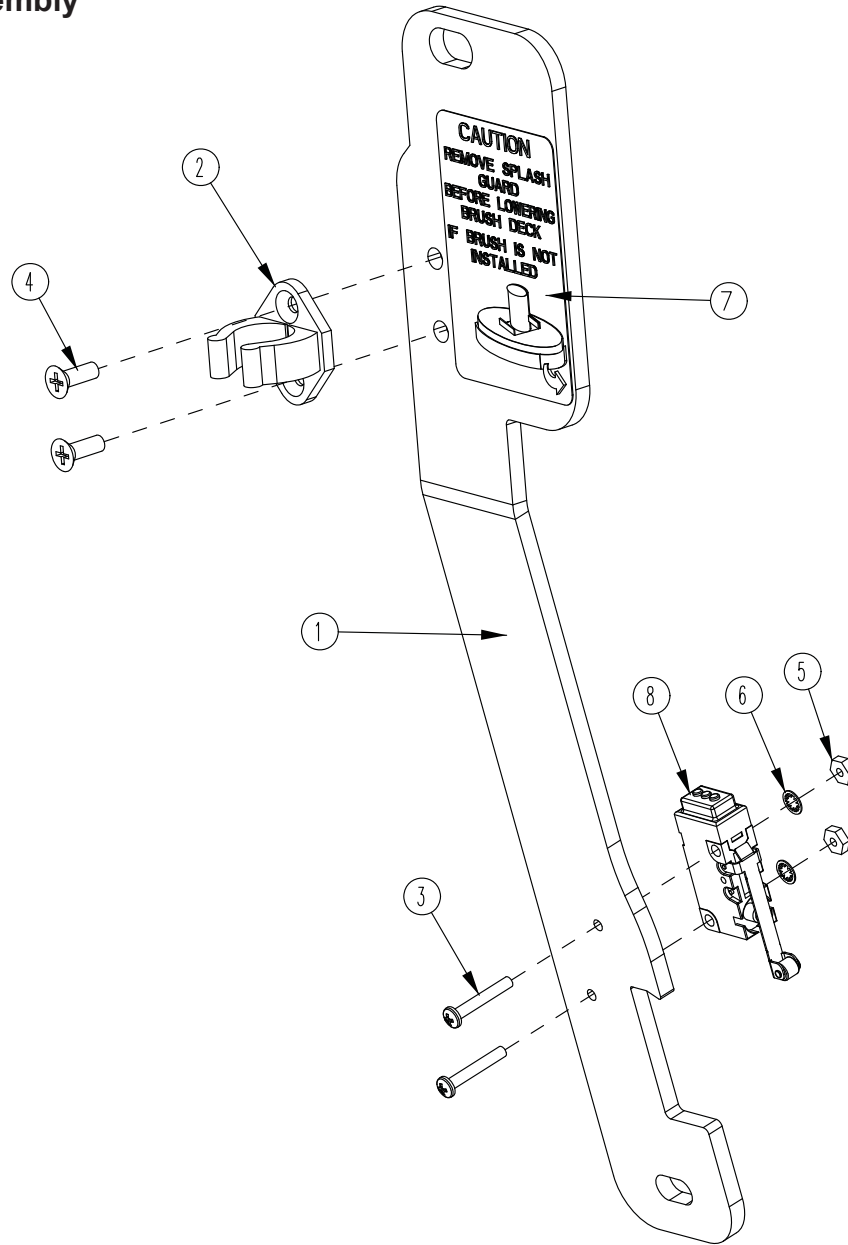
NEW STYLE - BILL OF MATERIAL - 172571			
ITEM	PART NO.	QTY	DESCRIPTION
1	172564	1	FILTER-SOLUTION E1720
2	172566	1	HOSE- 1/2ID X 1.75" NYLOBRAID
3	172567	1	HOSE-1/2"ID X 2.375" NYLOBRAID
4	172568	1	HOSE-WIRE REINF 1/2"ID X 4.25"
5	172569	1	FTG-ELBOW 90 1/2 HB X 1/2 HB NYLON
6	172579	1	SOLUTION CNTRL VALVE, WITH BRKT
7	383347	5	CLAMP-CRIMP 1/2 HOSE



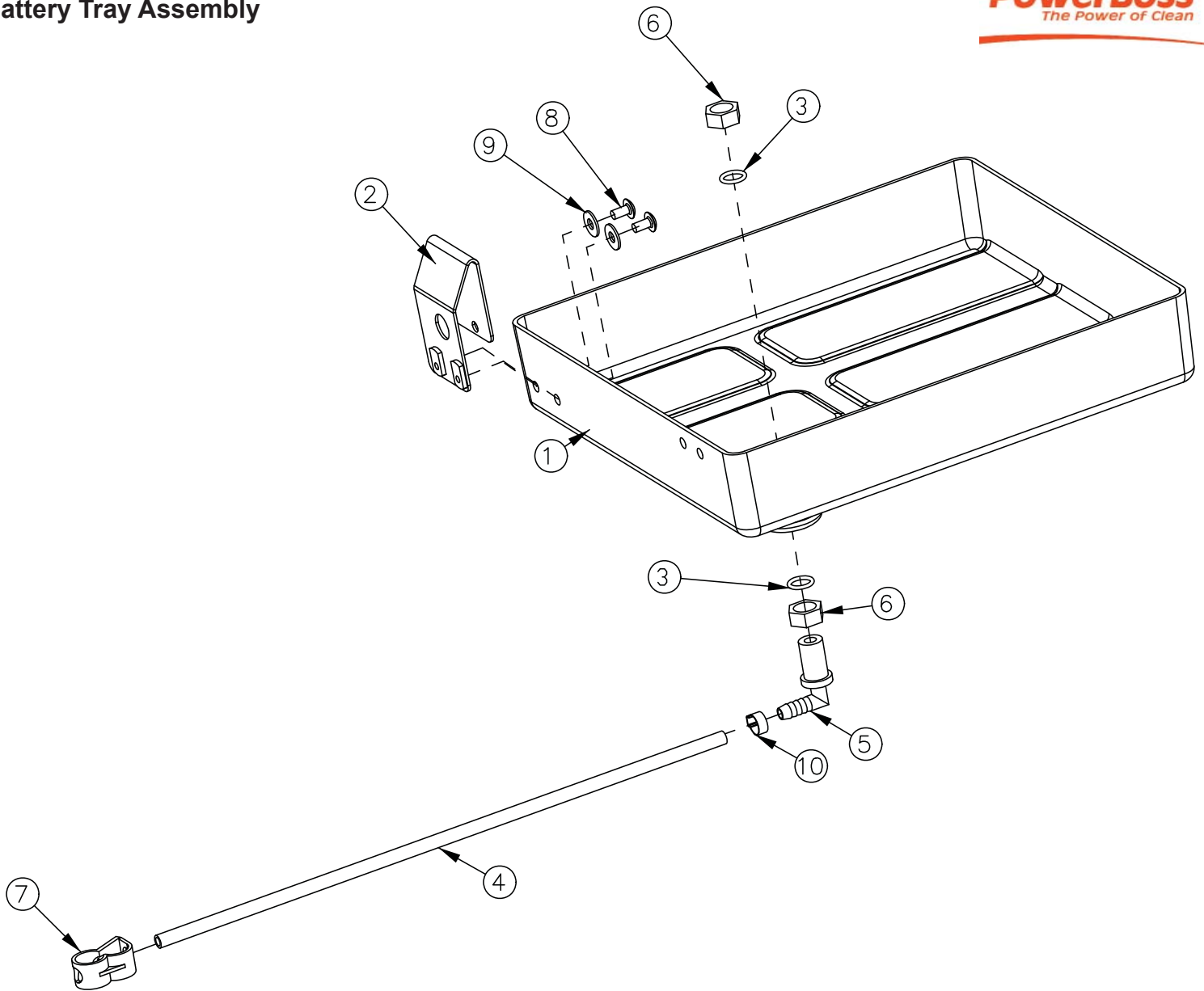
BILL OF MATERIAL - 172577			
ITEM	PART NO.	QTY	DESCRIPTION
1	172061	1	LEVER, SOLUTION CONTROL BRK'T
2	172424	1	BLT-ELEVATOR 1/4-20 x .75 ZINC
3	172575	1	BRKT, AQUASTOP SOL CNTRL
4	710195	1	SCR-PHMS 5/16-18 X .50 ZP
5	711425	1	NUT-FLANGED WIZZ 1/4-20 ZP
6	711508	1	WASHER-FLAT 3/8 X 1.00 X .08 ZP
7	711524	2	WASHER-FLAT 3/8 X 1.00 X .08 ZP
8	711539	1	WASHER-EXT LOCK 3/8 ZP
9	711550	2	WASHER-FLAT 1/4 X .75 NYLON
10	711566	3	WASHER-FLAT #12 X .50 X .065 ZP
11	711575	6	WASHER-FLAT 1/4 X .75 X .06 ZP
12	711592	1	WASHER-FLAT 1/2 X .90 X .064 NYLON
13	712070	1	BLT-SHOULDER 5/16 X .75 LG X 1/4-20 BLK
14	713598	1	BLT-SHOULDER 1/4 X .313 LG X 10-24 SS
15	715690	1	DECAL, AQUASTOP SOLUTION CONTROL
16	760592	1	KNOB-OVAL TAPERED
17	833214	1	KNOB-3 SIDED 1/4-20 INSERT
18	840202	1	BUSHING-FLG .31 X .435 X .325 NYL
19	3400399	1	NUT-NYLOC 10-24 SS



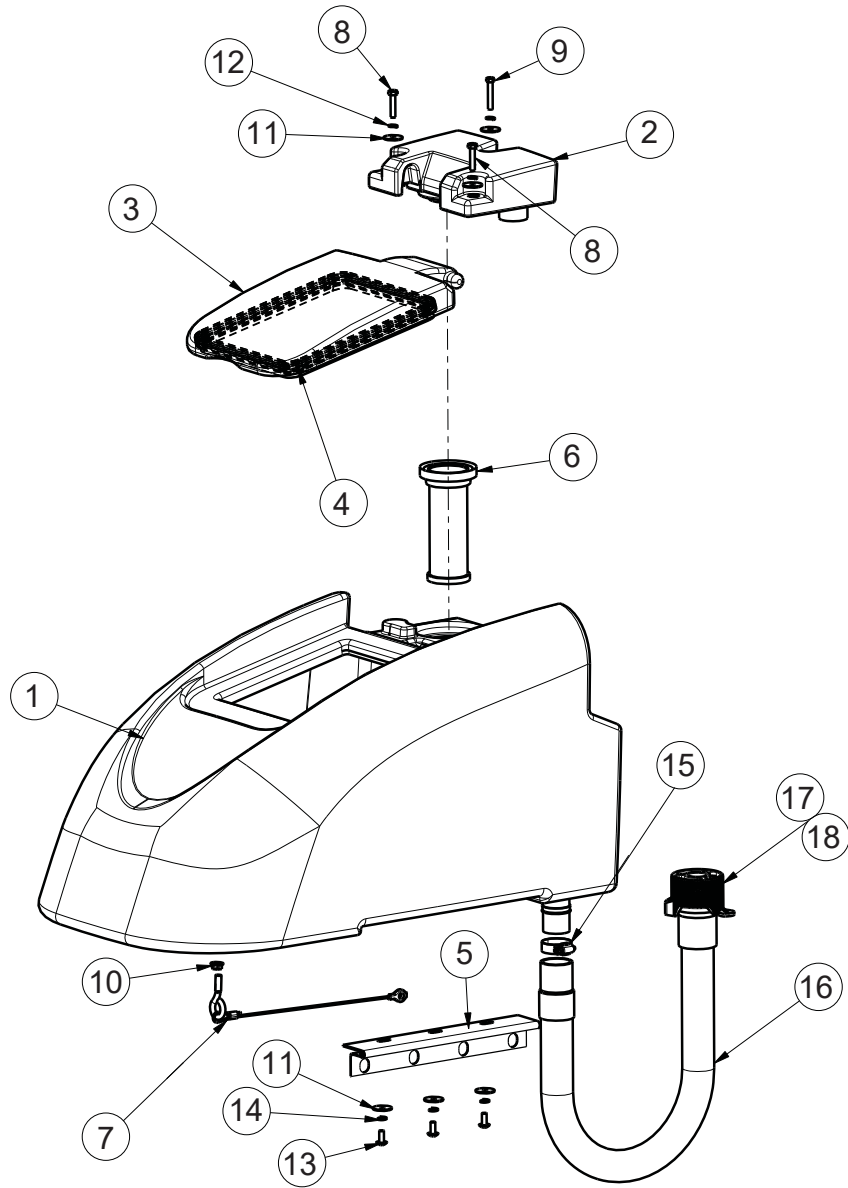
BILL OF MATERIAL - 172013			
ITEM	PART NO.	QTY	DESCRIPTION
1	172003	1	SOLUTION TANK
2	172080	1	HANDLE MOUNT ASSY, LEFT
3	172082	1	HANDLE MOUNT ASSY, RIGHT
4	172341	1	HOOK, DRAIN HOSE WITH TWIST VALVE
5	260579	1	TOOL CLIP, 1.5" HOSE
6	342438	1	FITTING, 1/2 MPT 1/2 HB BRASS
7	711507	4	WSR-FLAT .37 X 1.12 X .06
8	711546	4	WSR-HELICAL 3/8
9	712822	4	SCR-MC TR HD 10-24 X .50 SS
10	713041	4	BLT-HH 3/8-16 X 3/4 #5



BILL OF MATERIAL - 172157			
ITEM	PART NO.	QTY	DESCRIPTION
1	172036	1	BKT, PEDAL STOP
2	172065	1	CLIP, FOR 1/2" ID HOSE
3	710493	2	SCR-MC 4-40 X .75 PAN HD
4	710530	2	SCR-MC FL HD 8-32 X .50 BRS
5	711428	2	NUT-HEX 4-40
6	712326	2	WSR-INT LOCK #4
7	715685	1	DECAL, REMOVE SPLASH GUARD
8	747603-2	1	SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT

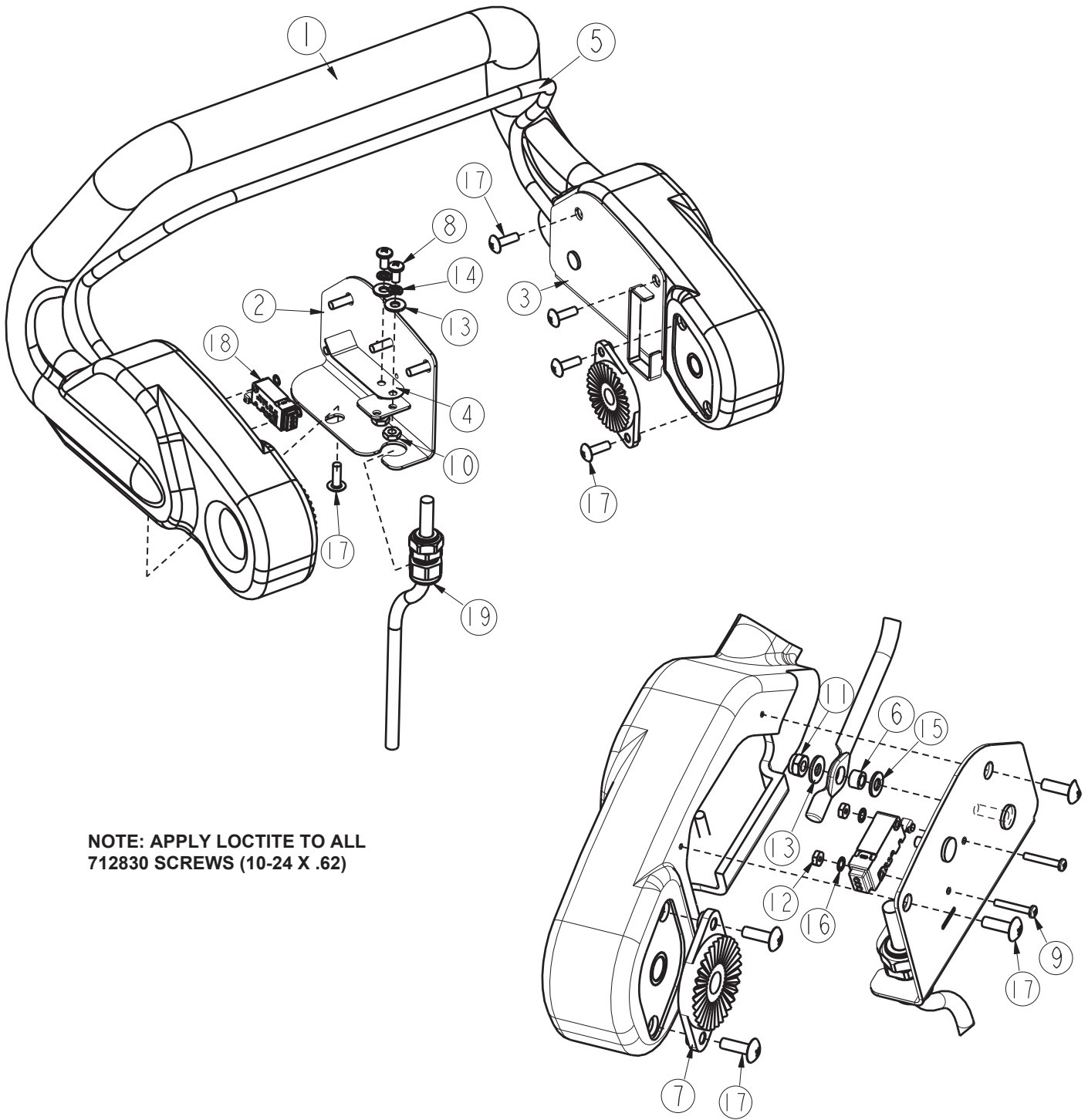


BILL OF MATERIAL - 172012			
ITEM	PART NO.	QTY	DESCRIPTION
1	172116	1	BATTERY BOX
2	172213	1	BKT, SPACER FOR BATTERIES
3	210414	2	O RING 2-113
4	260224	1	18" HOSE
5	320271	1	NOZZLE BODY-ELBOW
6	320272	2	NOZZLE BODY LOCKNUT
7	320273	1	HOSE SHUT-OFF CLAMP
8	710178	2	SCR-MC 1/4-20 X .50 TRUSS STPL
9	711575	2	WSR-FLT .31x.75x.06ST
10	828490	1	CRIMP CLAMP 140R



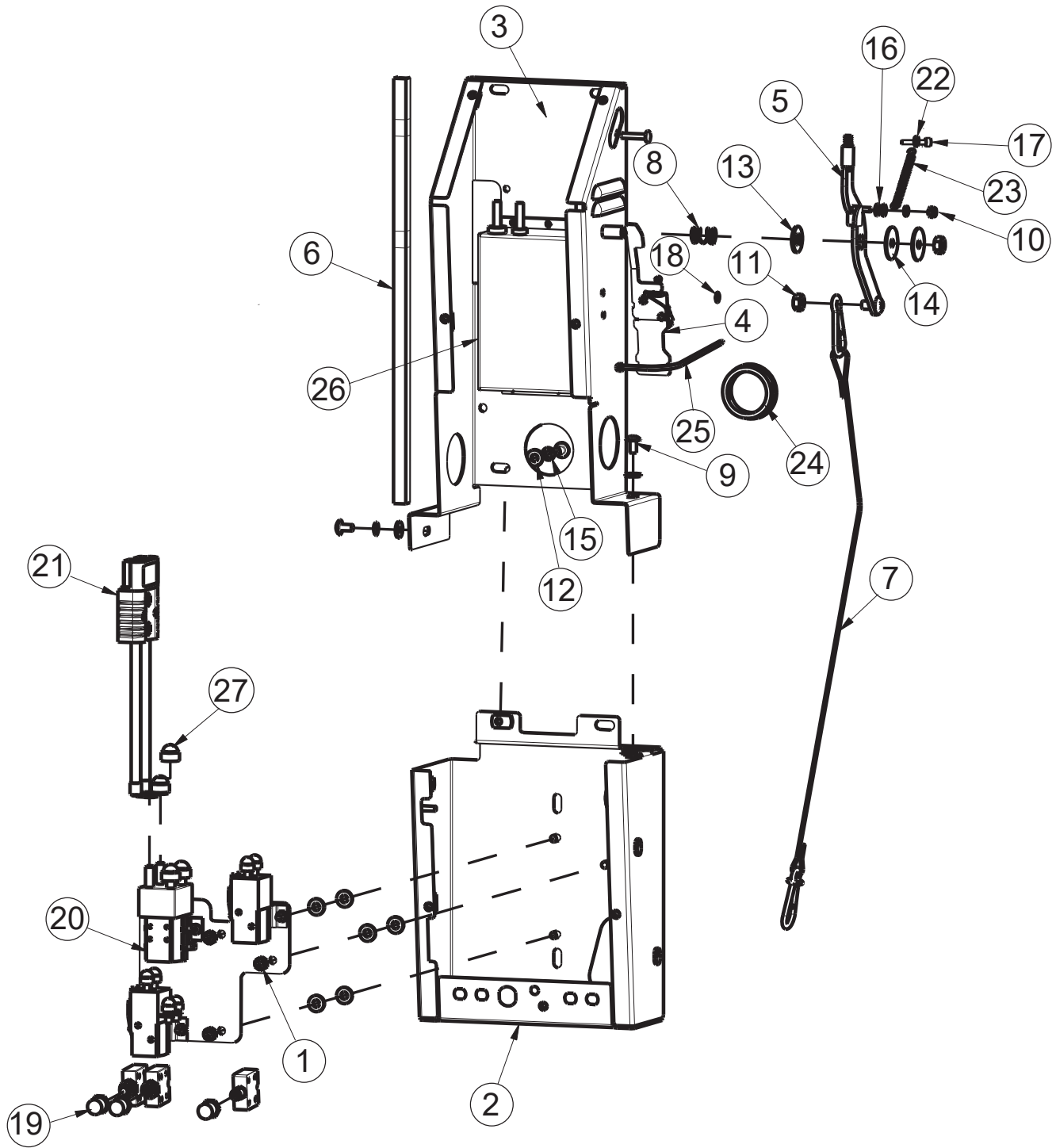
BILL OF MATERIAL - 172014

ITEM	PART NO.	QTY	DESCRIPTION
1	172004HR	1	RECOVERY TANK
2	172005HR	1	VACUUM MANIFOLD
3	172007	1	LID
4	172017	1	GASKET LID
5	172049	1	HINGE, RECOVERY TANK
6	172132	1	FLOAT, SCREENED
7	172394	1	CABLE, REC TANK 12.0
8	711210	2	SCR-HH 1/4-20 X 1.25 ZP GR 5 FULL THRD
9	711212	1	SCR-HH 1/4-20 X 1.50 ZP GR 5
10	711379	1	NUT-FLANGED WIZZ 5/16-18 ZP
11	711519	6	WASHER-FLAT 1/4 X 1.00 X .06 ZP
12	711544	3	WASHER-LOCK 1/4 SPLIT ZP
13	712565	3	SCR-THMS 1/4-20 X .62 SS
14	712758	3	WASHER-LOCK 1/4 SPLIT SS
15	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL
16	97090096	1	DRAIN HOSE ASSY, RECOVERY TANK
17	15282072	1	REPLACEMENT O-RING
18	90304528	1	CAP



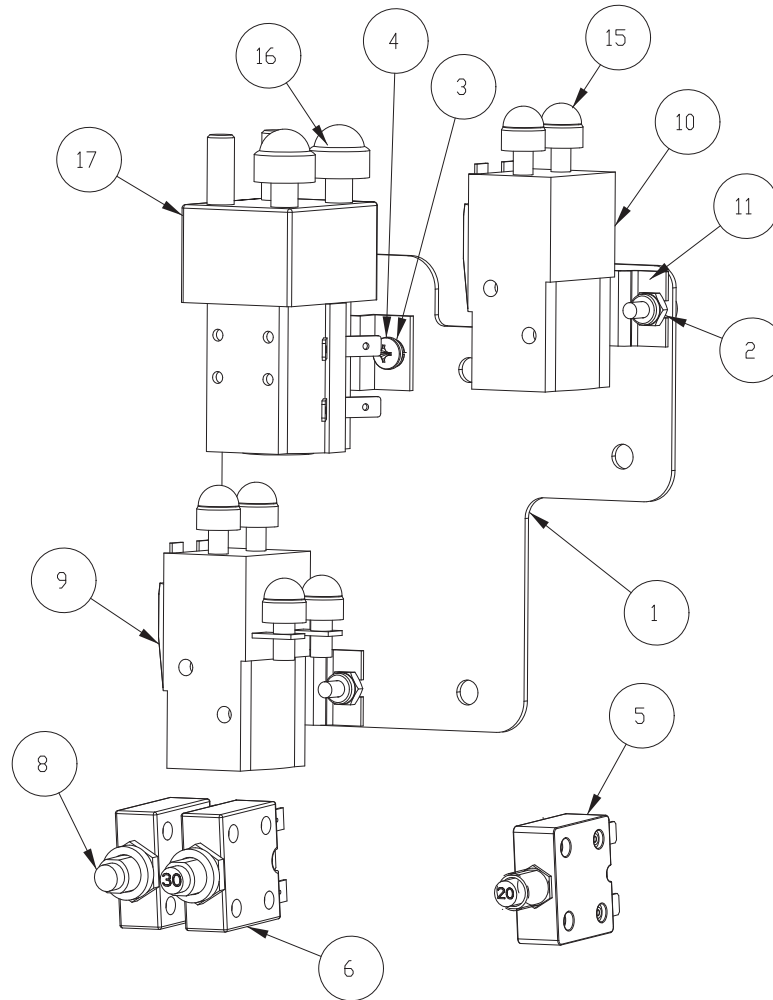
**NOTE: APPLY LOCTITE TO ALL
712830 SCREWS (10-24 X .62)**

BILL OF MATERIAL - 172016			
ITEM	PART NO.	QTY	DESCRIPTION
1	172006	1	HANDLE
2	172053	1	BAIL PLATE WMT RH
3	172054	1	BAIL PLATE WMT LH
4	172057	2	LEAF SPRING
5	172059	1	BAIL, HANDLE
6	172074	2	SPACER, 5/16OD X 17GA, ALUM
7	270143	2	HANDLE PIVOT JAW
8	710353	4	SCR-PHMS 10-32 X .37 ZP
9	710493	2	SCR-RHMS 4-40 X .75 ZP
10	711310	4	NUT-HEX 10-32 ZP
11	711350	2	NUT-NYLOC 10-32 ZP
12	711428	2	NUT-HEX 4-40 ZP
13	711503	6	WASHER-FLAT #10 X .50 ZP
14	711543	4	WASHER-LOCK #10 SPLIT ZP
15	712320	2	WASHER-FLAT 20 X .45 X .048 NYLON
16	712326	2	WASHER-INT LOCK #4 SS
17	712830	10	SCR-THMS 10-24 X .62 ZP
18	747603-3	1	SWITCH ASY, MICRO ROLLER W/PACK
19	747715	1	ABLE ASY, 5 COND 18G CONSOLE



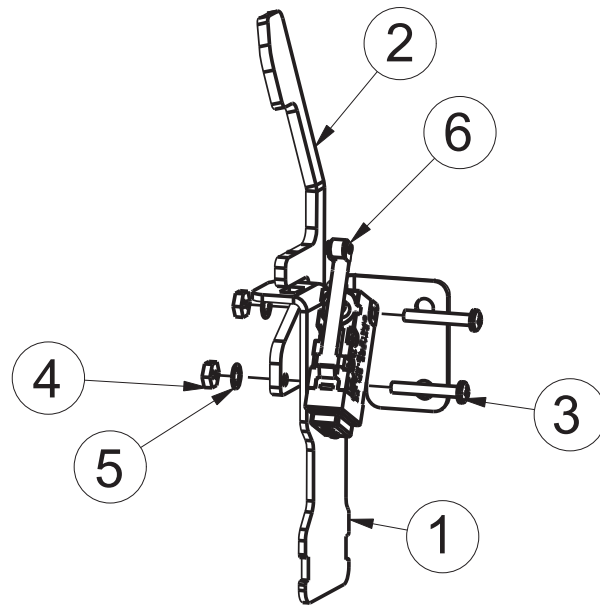
BILL OF MATERIAL - 172070 - 120/230			
ITEM	PART NO.	QTY	DESCRIPTION
1	369-416	3	NUT-HEX 1/4-20 ZP DOUBLE SERRATED
2	172077	1	ELEC BOX BOTTOM WMT
3	172088	1	ELEC BOX TOP WMT
4	172141	1	VAC SWITCH ASSY
5	172152	1	WELDMENT-VAC LEVER
6	172188	1	FOAM TAPE, 1/2" SQ X 16.5"
7	172381	1	SQUEEGEE CABLE ASSY (for curved squeegee)
8	670093	1	SPRING-COMP .502 X .6 X 1 ZINC
9	710178	3	SCR-THMS 1/4-20 X .50 ZP
10	711372	1	NUT-NYLOC 8-32 ZP
11	711383	2	NUT-HEX 5/16-18 ZP REVERSE LOC
12	711505	9	WASHER-FLAT 1/4 ZP
13	711508	1	WASHER-FLAT 3/8 X 1.00 X .08 ZP
14	711516	2	WASHER-FLAT 5/16 X 1.25 X .05 ZP
15	711544	2	WASHER-LOCK 1/4 SPLIT ZP
16	712320	2	WASHER-FLAT 20 X .45 X .048 NYLON
17	712533	1	SCR-PHMS 10-24 X 1.25 SS
18	712770	2	WASHER-INT TOOTH LOCK #10 SS
19	742748	3	CIRCUIT BREAKER-BOOT
20	747630	1	ELECTRICAL PANEL ASY
21	747637	1	WIRE ASY, MACHINE-BATTERY
22	760134	2	MOUNT RING
23	762084	1	SPRING-EXT .25OD X 2" F.L. MUSIC
24	762400	1	BUSH -HEYCO 1-5/8 X 2-1/8 X 29/64 2400 B
25	828062	1	CABLE TIE LARGE
26	957761	1	CHARGER, SIGNET HBF300-24 (120) <i>see below</i>
	957760		CHARGER, SIGNET HBF300-24 (230) <i>see below</i>
27	15592033	2	CAP, SAFETY NUT COVER M8

Charger Settings	
Setting	Battery Type
1	Wet 115 AH Group 27, Minuteman Part # 956712
1	AGM 100 AH Group 27 OEM Minuteman Part # 956100 Crown AGM Only
2	Wet 140 AH Group 31 Minuteman Part # 956140 Crown and 956753 Trojan 130 AH
2	AGM 135 AH Group 31 Minuteman Part # 956135 Crown AGM Only
3	All Group 31 GEL and Non Minuteman AGM 135 AH
4	All Group 27 GEL, Minuteman 956157 Trojan 102AH Overdrive AGM and Non Minuteman AGM 100 AH
5 to 0	No Additional Functions

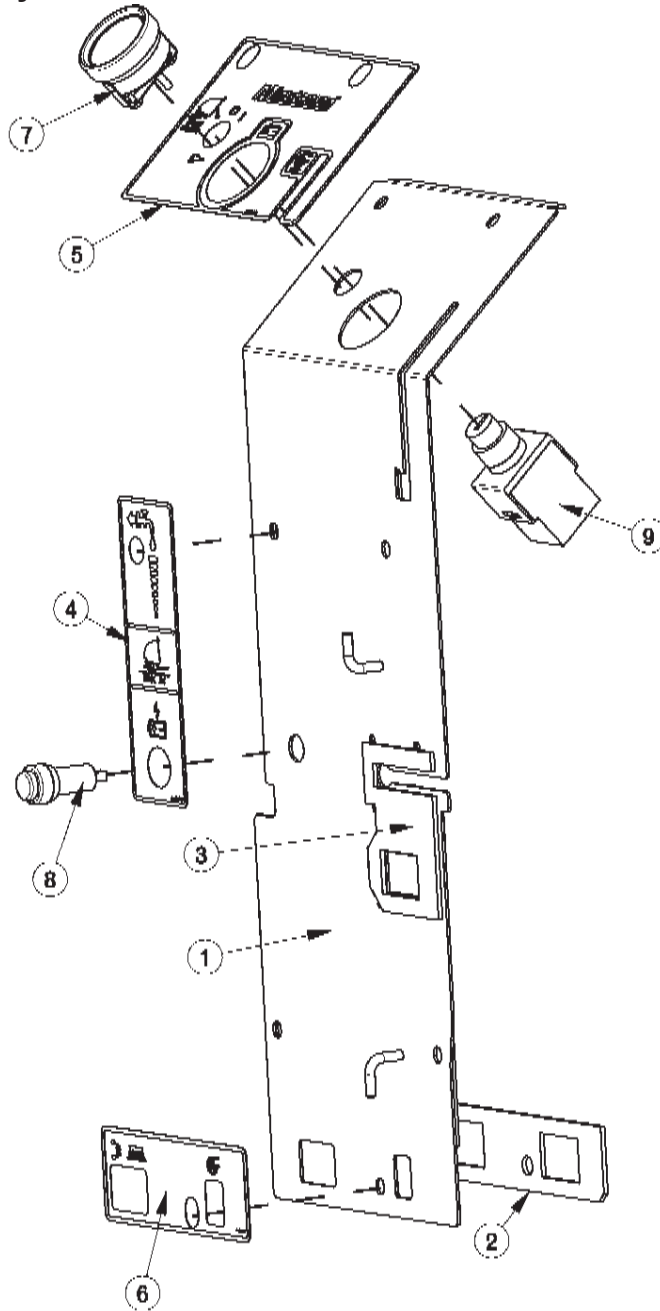


BILL OF MATERIAL - 747630

ITEM	PART NO.	REQ'D	DESCRIPTION
1	172189	1	PANEL, RELAY MOUNT
2	711350	4	NUT -NYLOC 10-32
3	711543	2	WSR-HELICAL #10
4	712800	2	SCR-MC 10-24 X .25 ST PL
5	740220	1	CIRCUIT BREAKER-20AMP 2-T ERMIN
6	740247	1	CIRCUIT BREAKER-30AMP PUSH BUT
7	740482	2	DIODE ASY, 1N4007 W/PIGGY (NOT SHOWN)
8	747609	1	CIRCUIT BREAKER-4.0AMP PUSHBUT
9	747615	1	RELAY, 2 POLE CURT IS (1720)
10	747616	1	RELAY, 1 POLE CURT IS (1720)
11	747619	2	BRACKET , RELAY 747615 & 747616
12	747640	1	WIRE ASY, 10G RED 13" (NOT SHOWN)
13	747641	1	WIRE ASY, 10G RED 7" (NOT SHOWN)
14	747653	1	WIRE HARNESS, E1720BD MAIN (NOT SHOWN)
15	15592025	6	CAP, SAFETY NUT COVER M 6
16	15592033	2	CAP, SAFETY NUT COVER M 8
17	90331026	1	RELAY, 24VDC 2 POLE 100A (HAKO)

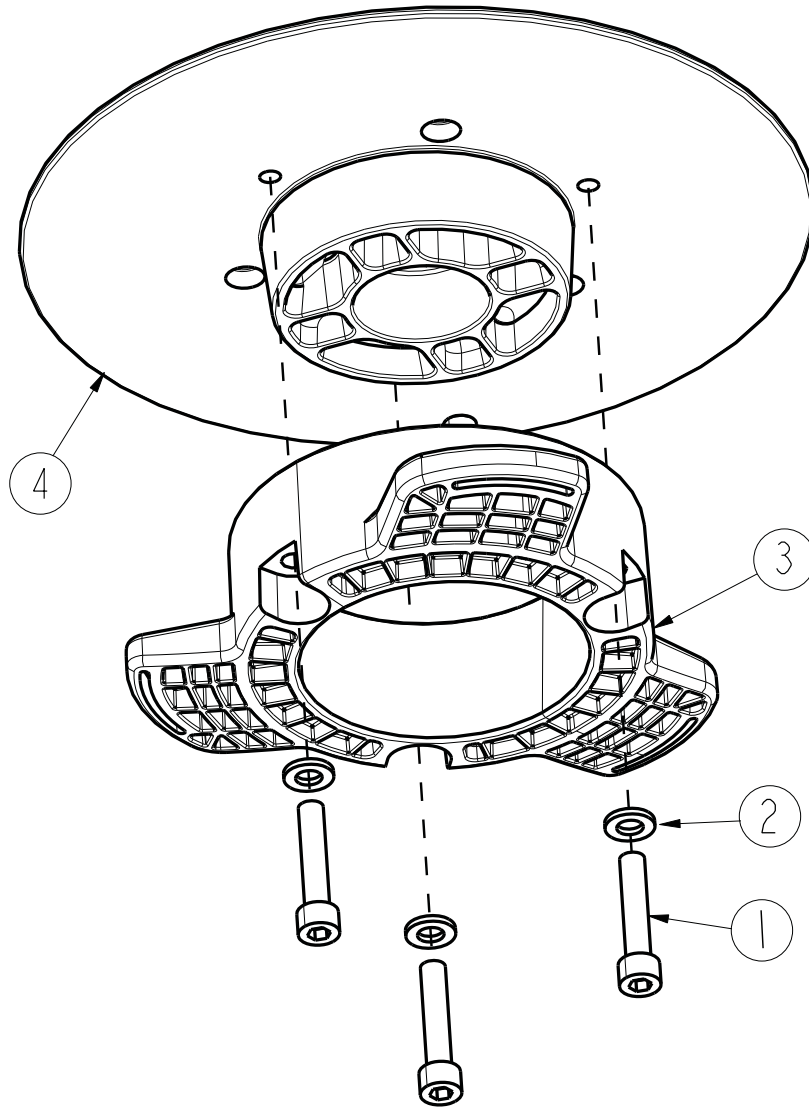


BILL OF MATERIAL - 172141			
ITEM	PART NO.	QTY	DESCRIPTION
1	172140	1	BKT, VAC SWITCH MOUNT
2	172337	1	VAC SWITCH COVER
3	710493	2	SCR-RHMS 4-40 X .75 ZP
4	711428	2	NUT-HEX 4-40 ZP
5	712326	2	WASHER-INT LOCK #4 SS
6	747603-2	1	SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT

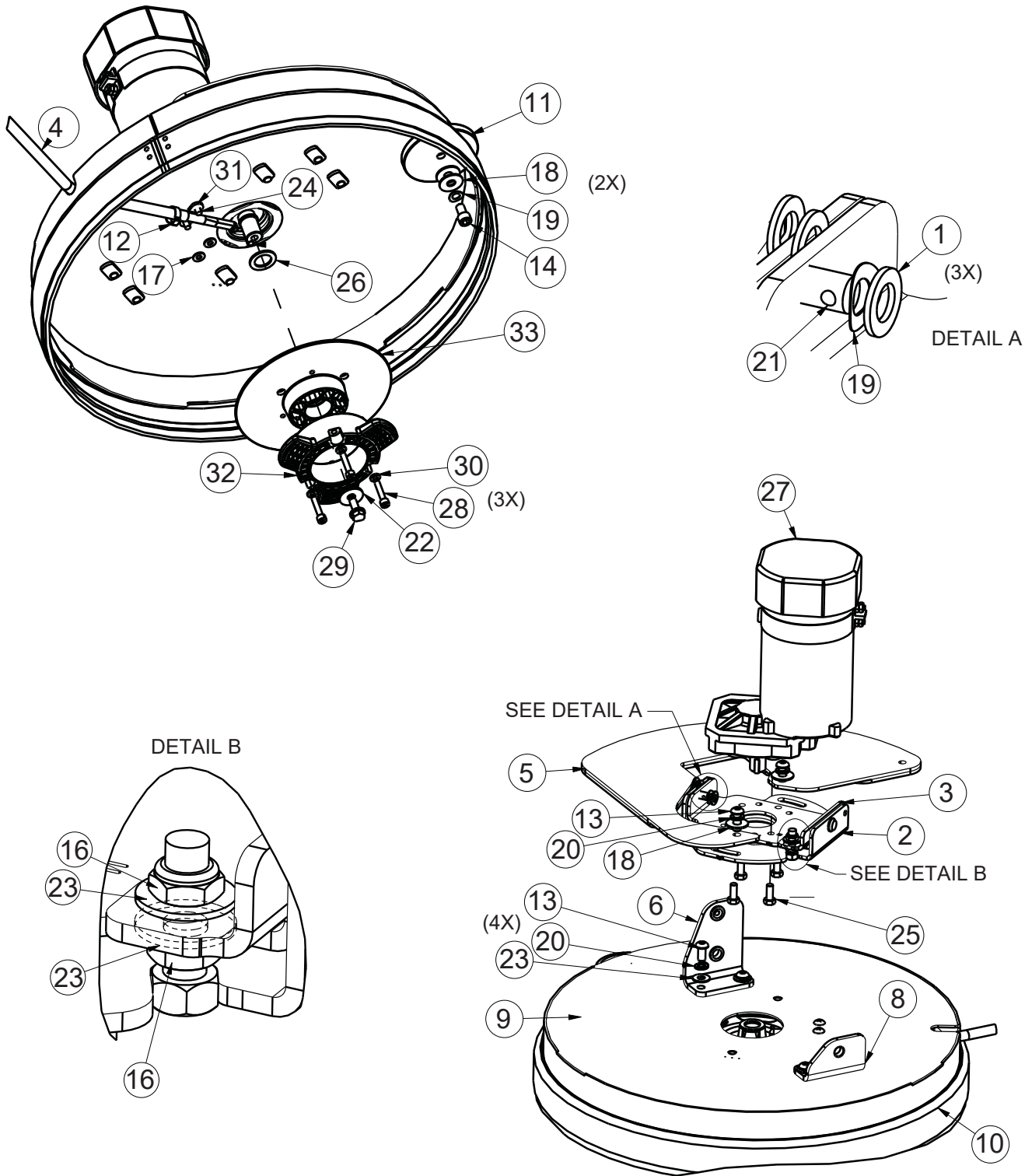


BILL OF MATERIAL - 172073PB

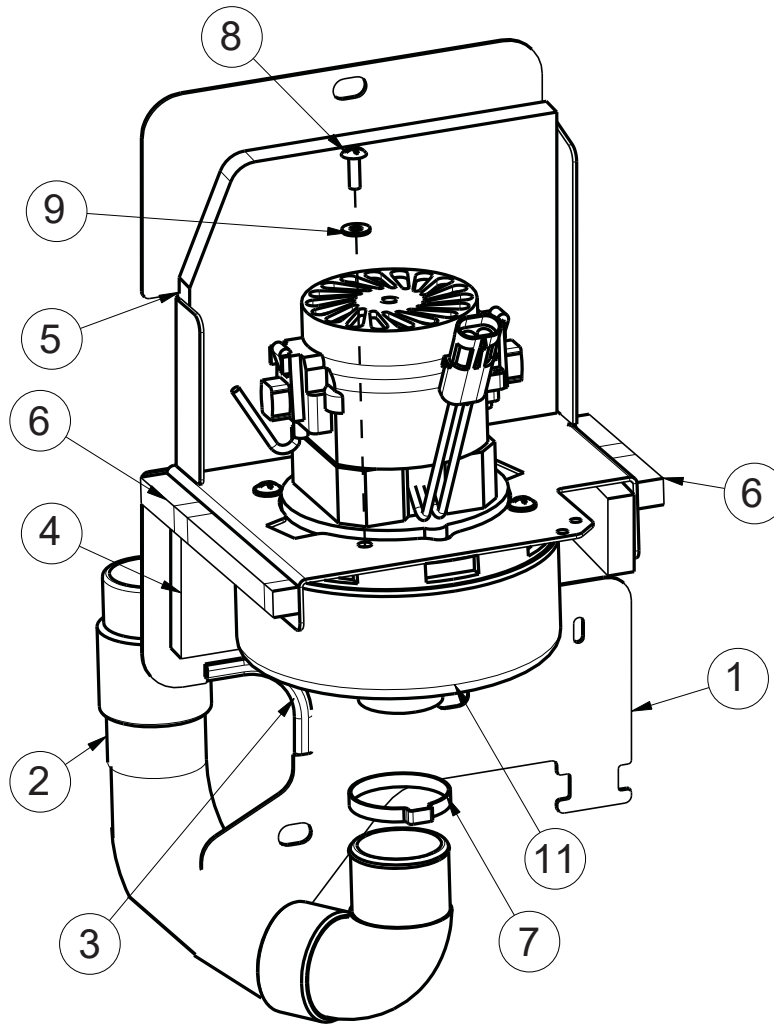
ITEM	PART NO.	QTY	DESCRIPTION
1	172181	1	ELEC BOX, COVER, WMT
2	172193	1	GASKET, CB OUTLINE
3	172194	1	GASKET, CHARGER CORD PLATE
4	715672	1	DECAL, ELEC BOX
5	715681	1	DECAL, DASHBOARD PHOENIX 20 BD
6	715675	1	DECAL, CIRC BKRS
7	740216	1	VOLT METER
8	747614	1	CHARGE STATUS INDICATOR
9	747617-1	1	KEYSWITCH ASY, KEYSWITCH + WIR



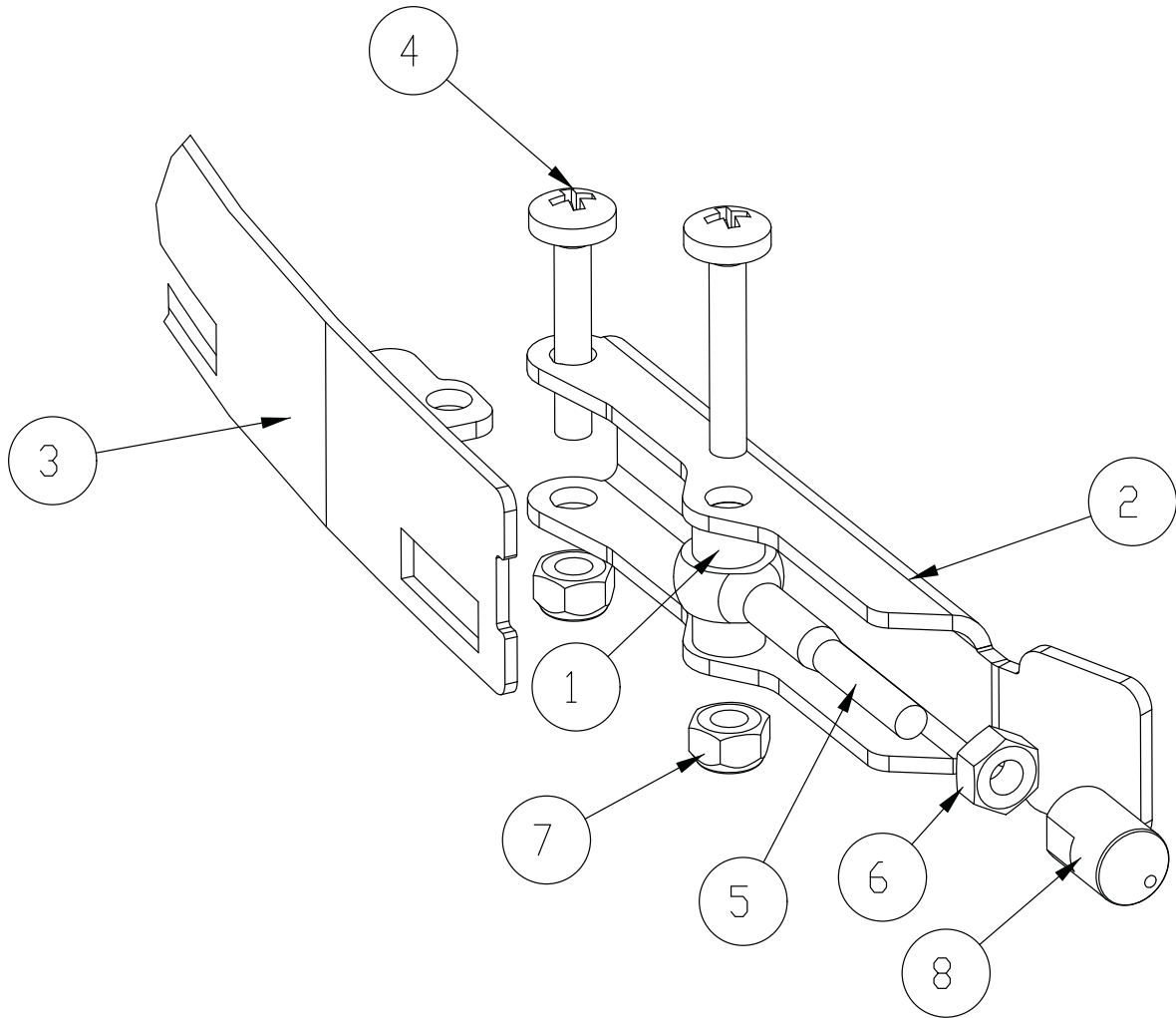
BILL OF MATERIAL - 172510			
ITEM	PART NO.	QTY	DESCRIPTION
1	11127000	3	SCR-SHCS M6X30 SS, ISO4762
2	12310256	3	WSR-FLT 6.4X12X1.6, SS DIN125
3	90541814	1	DRIVE HUB, PLASTIC 3 LOBE
4	172096MCH	1	BASE, DRIVE HUB WITH KEYWAY



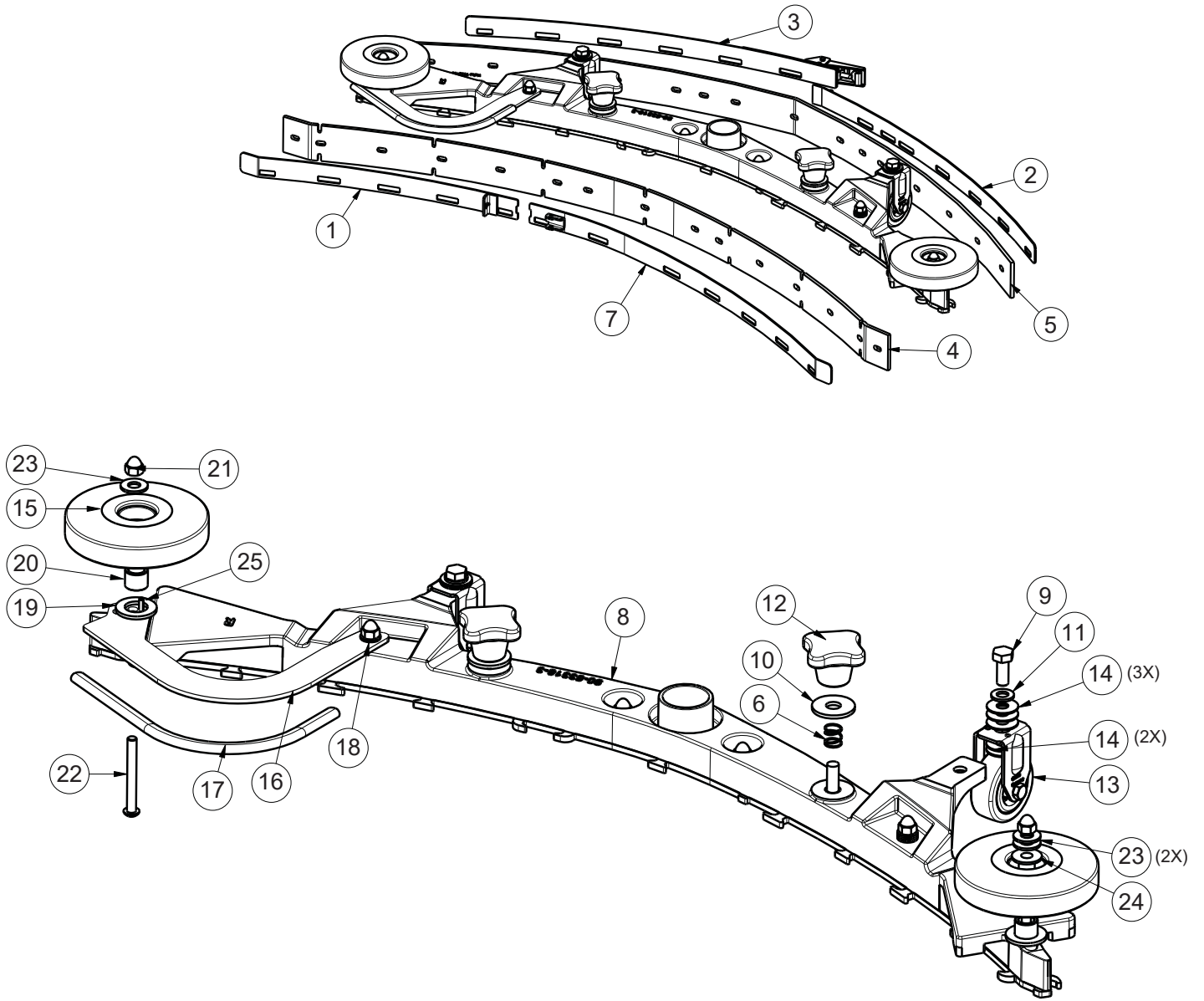
BILL OF MATERIAL - 172100			
ITEM	PART NO.	QTY	DESCRIPTION
1	81-166-A	6	WASHER-FLAT .390 X .687 ZP
2	172040	1	WELDMENT-DECK ANGLE ADJUST
3	172044	1	PLATE MOTOR MOUNT
4	241097	1	HOSE-WIRE REINF 3/8 X 31"
5	172208	1	BRUSH DECK PLATE
6	172296	1	BKT, DECK MOUNT RT
8	172297	1	BKT, DECK MOUNT LEFT
9	172375	1	DECK COVER WMT, 20"
10	172384	1	FLOATING BRUSH DECK SKIRT
11	210153	1	ROLLER WHEEL
12	450076	1	CLAMP-HOSE 5/8 (.590-.791) SS
13	710990	6	SCR-BHSCS 3/8-24 X .75 ZP
14	710991	1	SCR-HH 3/8-24 X .62 ZP GR 5
16	711375	2	NUT-NYLOC 3/8-16 ZP
17	711504	2	WASHER-FLAT 1/4 SS
18	711507	4	WASHER-FLAT 3/8 X 1.12 X .06
19	711523	3	WASHER-WAVE .37 X .68 X .08
20	711546	6	WASHER-LOCK 3/8 SPLIT ZP
21	711679	2	PIN-CLEVIS 3/8 X .750 ZP
22	711855	1	WASHER-FENDER 3/8 X 1.12 X .10 ZP HARD
23	712301	6	WASHER-FLAT 3/8 X .87 X .06 ZP
24	712565	2	SCR-THMS 1/4-20 X .62 SS
25	717024	4	SCR-HH M8-1.25 X 20 ZP GRADE 8.8
26	717025	1	WASHER-FLAT 13/16 X 1.25 X .08 ZP
27	747600	1	MOTOR, 24VDC PM 600W
28	11127000	3	SCR-SHCS M6X30 SS, ISO4762
29	11717203	1	BLT-HH FLG M8X1.25X20 PRECOTE, ZD 10.9
30	12310256	3	WSR-FLT 6.4X12X1.6, SS DIN125
31	90311663	1	FITTING, WATER NOZZLE W/ MOUNT HOLES
32	90541814	1	DRIVE HUB, PLASTIC, 3-LOBE
33	172096MCH	1	HUB BASE MACHINED



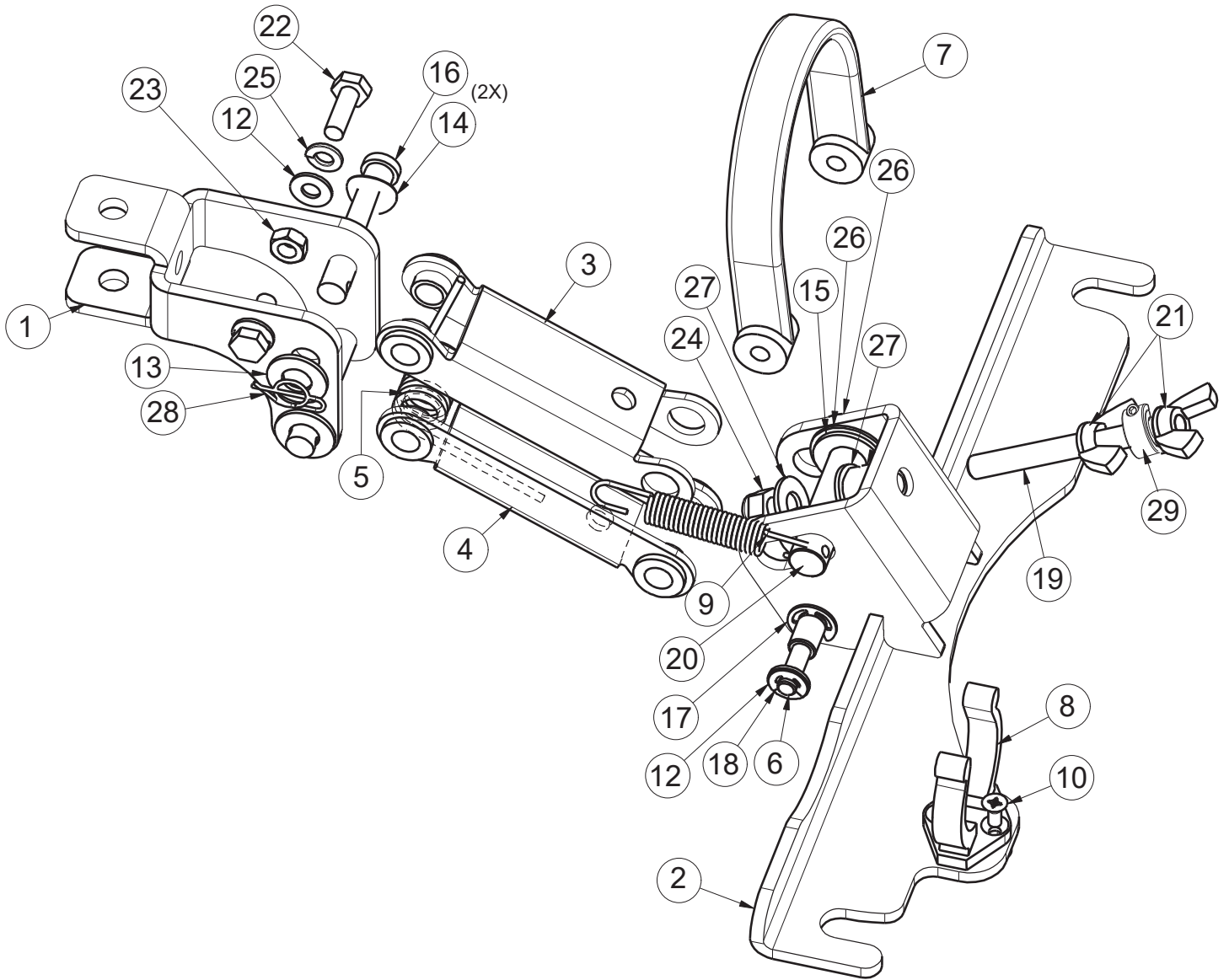
BILL OF MATERIAL - 172050			
ITEM	PART NO.	QTY	DESCRIPTION
1	172045	1	VAC MOUNT WMT
2	172048	1	HOSE, STRETCH 13", 90 CUFF
3	172124	1	EDGE TRIM, .063 X 3.0, BLACK
4	172186	1	FOAM COVER FRONT 1, 1/2 THICK
5	172187	1	FOAM COVER FRONT 2, 1/2" THICK
6	172188	.5	FOAM TAPE, 1/2" SQ X 16.5"
7	450095	1	CLAMP-CRIMP 1.75" OD
8	711160	4	SCR-HI/LO 10 X .625 BLACK ZINC
9	711503	4	WASHER-FLAT #10 X .50 ZP
10	715967	1	DECAL - WARNING, DO NOT PICK UP (NOT SHOWN)
11	747607-1	1	VAC MOTOR ASY, 24V PERIF BYPASS



BILL OF MATERIAL - 172440			
ITEM	PART NO.	QTY	DESCRIPTION
1	172074	2	SPACER, 5/16OD X 17GA, ALUM
2	172234	1	LEVER, 90535758
3	172240	1	STRAP WMT, FRONT LEFT
4	11175494	2	SCR-MC M5 X 25 SS DIN7985
5	11518313	1	BLT-EYE M5 X 40 SS
6	12022430	1	NUT- HEX, M5, SS DIN934
7	12040283	2	NUT- HEX, M5 NYLON LOCK, SS DIN985
8	90513631	1	PIN, THD 90513631



BILL OF MATERIAL - 172534-1			
ITEM	PART NO.	QTY	DESCRIPTION
1	172241	1	STRAP WMT, FRONT RT - 34" (860) SQG
2	172245	1	STRAP WMT, REAR LEFT - 34" (860) SQG
3	172246	1	WELD-STRAP REAR RT - 34" (860) SQG
4	172272	1	SQUEEGEE-FRONT BLADE 34", 1/8 PU
5	172273	1	SQUEEGEE-REAR BLADE 34", 1/8 PU
6	172429	2	SPRING, COMP .4 ID X .5FL SS
7	172440	1	STRAP W/ LATCH, FRONT LEFT, 34" SQG
8	90533183	1	CASTING, SQG BODY 34" (860MM)
9	717030	2	SCR-HH M8-1.25 X 20 SS
10	717040	2	WASHER-FLAT M10.5 X 30 X 2.5 SS
11	12310264	2	WSR-FLT M8.4 X 16 X 1.6 A2 SS 140HV DIN
12	17133026	2	STAR HANDLE, M10, BLACK
13	90513094	2	FIXED CASTER
14	90531112	10	WASHER-FLAT 8.3 x 22 x 1.00mm STAINLESS
15	90548397	2	ROLLER - PLASTIC, 100mm DIA. (4")
16	172271	1	BUMPER, 34" SQG
17	172274	1	EDGE TRIM, 5/16 X 10" BLACK
18	711504	5	WASHER-FLAT 1/4 SS
19	711527	2	WASHER-FLAT .63 X 1.12 X .09
20	430322	2	USHING-.435 X .625 X .50 ZINC
21	712591	6	NUT-ACORN 1/4-20 SS
22	712592	2	SCR-BHSCS 1/4-20 X 2.25 SS
23	712772	3	WASHER-FLAT .344 X .75 X .06 SS
24	840202	1	BUSHING-FLG .31 X .435 X .325 NYL
25	3400727	1	PIN-ROLL 1/8 X .50 ZINC

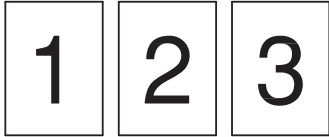


Squeegee Mechanism Assembly BOM

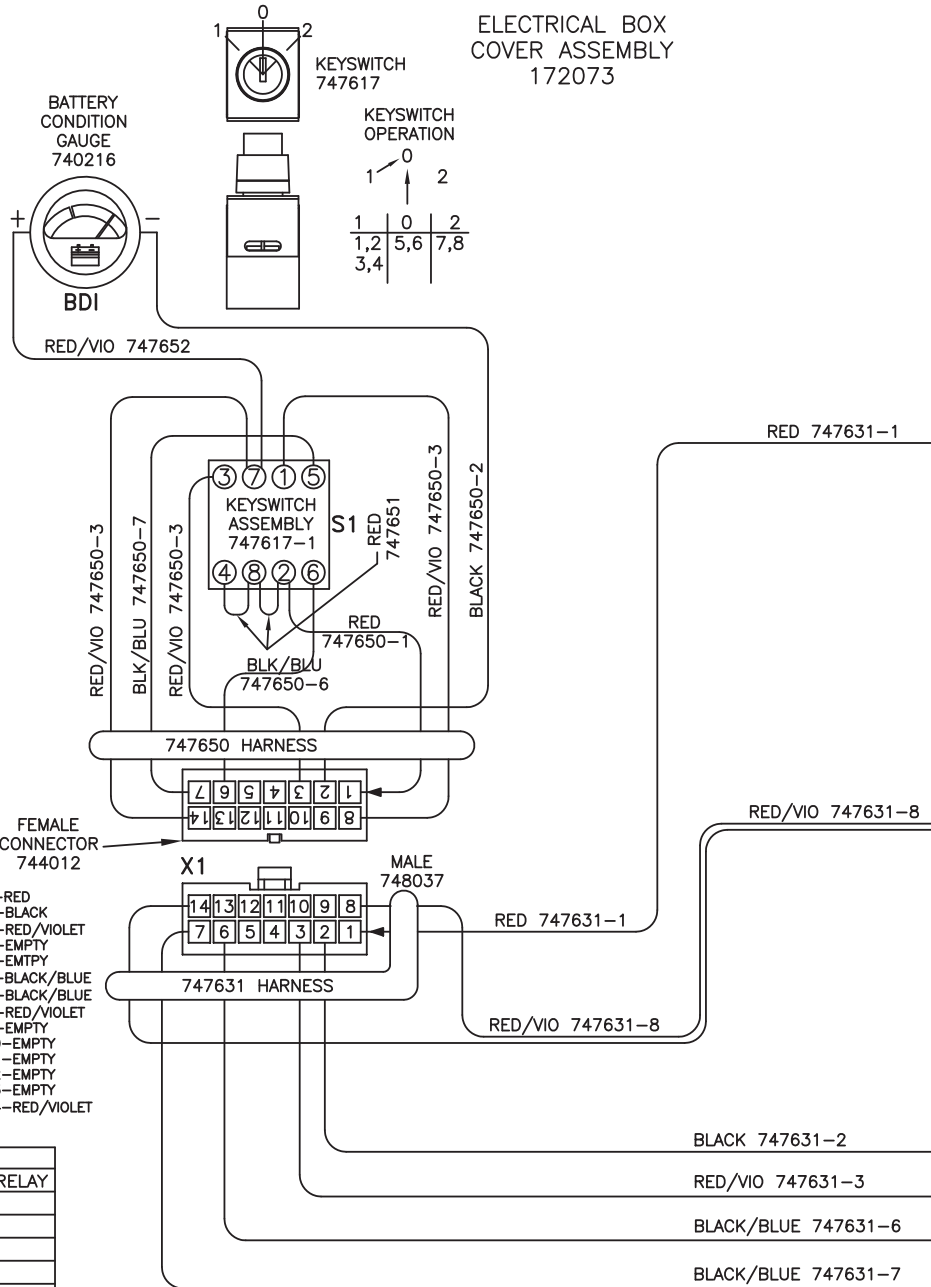
BILL OF MATERIAL - 172150			
ITEM	PART NO.	QTY	DESCRIPTION
1	172134	1	BKT, SQG HINGE
2	172155	1	SQUEEGEE MOUNT WMT
3	172196	1	UPPER SQG LINK
4	172197	1	LOWER SQG LINK
5	172261	1	SPRING, TORSION 1720 SQG
6	172352	1	PIN, 3/8 X 3.0, SQG STRAP
7	172357	1	STRAP, 9" PU, BLACK
8	260579	1	CLIP-TOOL 1.5 INCH HOSE
9	430051	1	SPRING-RETURN .313 X .438 X 2.93 SS
10	710528	2	SCR-FHMS 8-32 X .37 BRASS
11	711420	1	NUT-JAM 5/16-18 ZP
12	711504	4	WASHER-FLAT 1/4 SS
13	712767	2	WASHER-FLAT .406 X .75 X .035 SS
14	711523	2	WASHER-WAVE .37 X .68 X .08
15	711592	2	WASHER-FLAT 1/2 X .90 X .064 NYLON
16	711678	2	PIN-CLEVIS 3/8 X 2 1/4 ZP
17	711717	2	RET RING-E EXT .37
18	711720	2	RET RING-E EXT .25
19	712147	1	ROD-THD 5/16-18 X 3.25 SS
20	712148	1	PIN-CLEVIS 1/2 X 2.25 WITH HOLE
21	712157	2	NUT-WING 5/16-18 SS
22	712562	2	SCR-HH 1/4-20 X .75, 18-8 SS
23	712665	2	NUT-HEX 1/4-20 SS
24	712683	1	NUT-NYLOC 5/16-18 SS
25	712758	2	WASHER-LOCK 1/4 SPLIT SS
26	712760	3	WASHER-FLAT .56 X 1.06 X .04 SS
27	712772	2	WASHER-FLAT .344 X .75 X .06 SS
28	3400125	1	RING-RUE 3/8
29	713528	1	COLLAR-THREADED CLAMP 5/16-18X5/16-BK OX

1 Wiring Diagrams

PAGE LAYOUT



PAGES GO TOGETHER AS SHOWN TO SEE THE ENTIRE SCHEMATIC AS ONE.



X1:MAIN KEYSWITCH ASSEMBLY: 747617-1

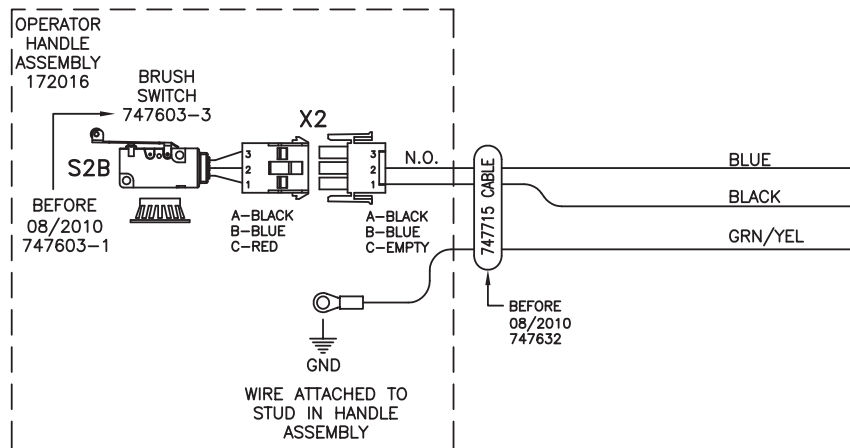
PIN #	COLOR	WHERE TO/FROM
1	RED	X13: BATTERY CHARGER INTERNAL RELAY
2	BLACK	RELAY COILS: 0V
3	RED/VIOLET	BRUSH MOTOR RELAY COIL: 24VDC
4	-	-
5	-	-
6	BLACK/BLUE	BRUSH RELAY NORMALLY CLOSED
7	BLACK/BLUE	BRUSH UNLOAD SWITCH P:B
8	RED/VIOLET	X12: MAIN RELAY COIL: 24VDC
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	RED/VIOLET	X12: MAIN RELAY COIL: 24VDC

BATTERY CHARGER: 957761 or 957760

	COLOR	WHERE TO/FROM
X13	RED	X13: KEYSWITCH P:1
X14	BLACK	X14: CONTROL CB 4.0A
14GA	RED	MAIN RELAY + (REAR LEFT POST)
14GA	BLACK	MAIN RELAY - (FRONT LEFT POST)

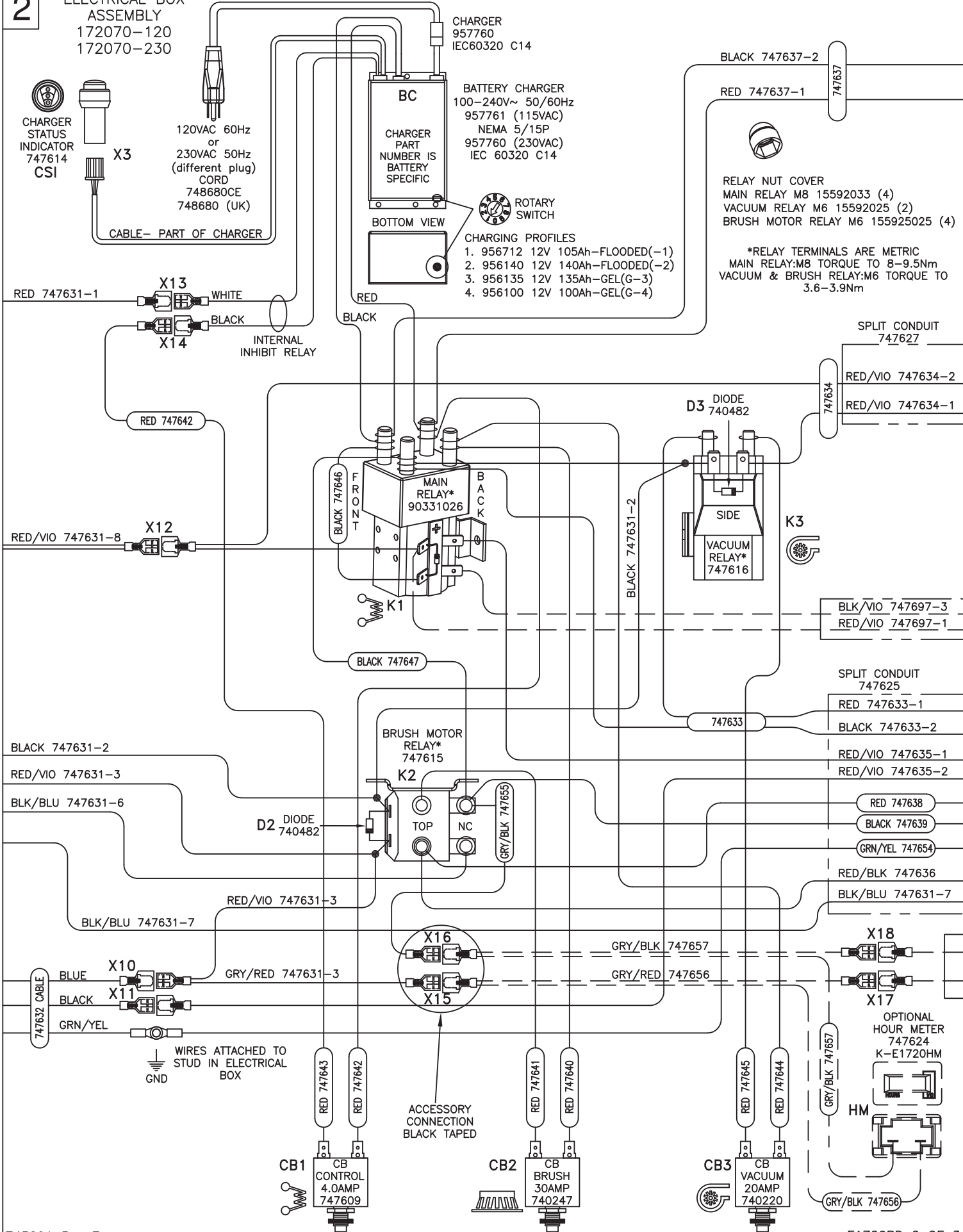
OTHER WIRE COLORS

-	RED	BATTERY 24VDC: +
-	BLACK	BATTERY 0VDC: -
-	GREEN/YELLOW	GROUND
-	BLACK/BLUE	BRUSH UNLOAD CIRCUIT
-	RED/BLACK	BRUSH UNLOAD CIRCUIT:MICRO SWITCH
-	RED/VIOLET	24VDC AFTER MAIN KEYSWITCH
X15	GREY/RED	OPTIONAL POWER 24VDC: 3A MAX
X16	GREY/BLACK	OPTIONAL POWER 0VDC: 3A MAX



2

ELECTRICAL BOX ASSEMBLY
172070-120
172070-230



BLACK 747637-2
RED 747637-1

RELAY NUT COVER
MAIN RELAY M8 15592033 (4)
VACUUM RELAY M6 15592025 (2)
BRUSH MOTOR RELAY M6 155925025 (4)

*RELAY TERMINALS ARE METRIC
MAIN RELAY:M8 TORQUE TO 8-9.5Nm
VACUUM & BRUSH RELAY:M6 TORQUE TO 3.6-3.9Nm

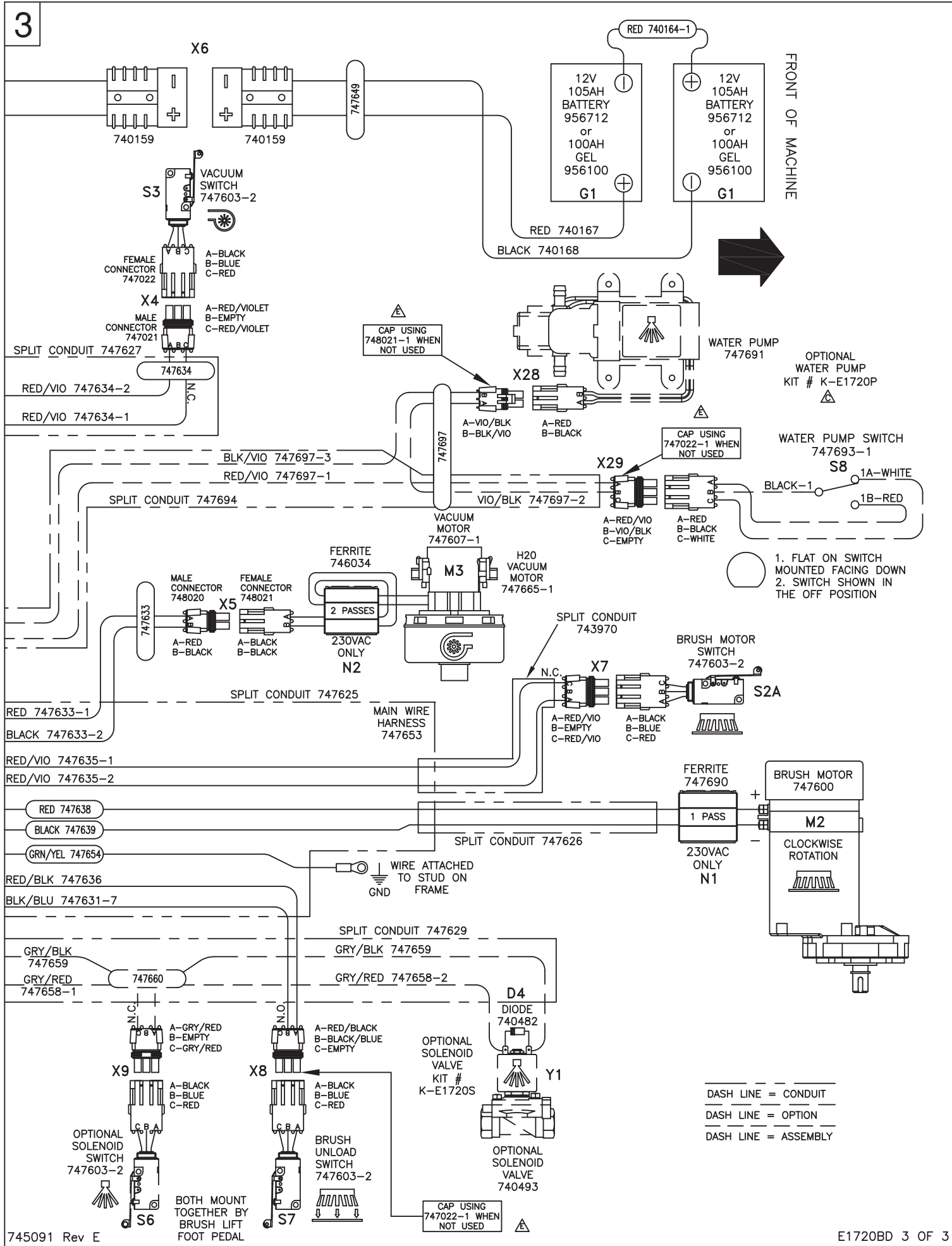
SPLIT CONDUIT 747627
RED/VIO 747634-2
RED/VIO 747634-1

BLK/VIO 747697-3
RED/VIO 747697-1

SPLIT CONDUIT 747625
RED 747633-1
BLACK 747633-2
RED/VIO 747635-1
RED/VIO 747635-2

RED 747638
BLACK 747639
GRN/YEL 747654
RED/BLK 747636
BLK/BLU 747631-7

X18
X17
OPTIONAL HOUR METER 747624
K-E1720HM
HM
GRY/BLK 747657
GRY/BLK 747656



E1720BD PART REFERENCE LIST
Schematic 745091

REFERENCE #	COMPONENT NAME	PART NUMBER
M1 (optional)	PUMP, WATER (KIT K-E1720P)	748691
M2	MOTOR, BRUSH	748692
M3	MOTOR, VACUUM ASSEMBLY	747607-1
M3 (model specific)	MOTOR, VACUUM ASSEMBLY (H20 only)	747665-1
Y1 (optional)	SOLENOID VALVE, WATER (KIT K-E1720S)	740493
K1	RELAY, MAIN	90331026
K2	RELAY, BRUSH MOTOR	747615
K3	RELAY, VACUUM	747616
CB1	CIRCUIT BREAKER 4.0A, CONTROL	747609
CB2	CIRCUIT BREAKER 30A, BRUSH MOTOR	740247
CB3	CIRCUIT BREAKER 20A, VACUUM MOTOR	740220
S1	KEYSWITCH	747617
S2A	SWITCH, BRUSH MOTOR (at motor)	747603-2
S2B	SWITCH, BRUSH MOTOR (handle)	748603-1
S3	SWITCH, VACUUM MOTOR	748603-2
S6	SWITCH, BRUSH UNLOAD	748603-2
S7 (optional)	SWITCH, SOLENOID (KIT K-1720S)	747603-2
S8 (optional)	SWITCH, PUMP- OFF AISLE WAND (KIT K-1720P)	747693-1
CSI	CHARGER STATUS INDICATOR	747614
HM (optional)	HOUR METER (KIT K-E1720HM)	747624
BC (model specific)	BATTERY CHARGER 115VAC (battery type specific)	957761 (-1 or G-4)
BC (model specific)	BATTERY CHARGER 230VAC (battery type specific)	957760 (-1 or G-4)
G1	BATTERY, 12V 105AH (2 REQUIRED)	956712
G1 (optional)	BATTERY, GEL 12V 100AH (2 REQUIRED)	956100
N1	FERRITE, BRUSH MOTOR	747690
N2	FERRITE, VACUUM MOTOR	746034
D1	DIODE, MAIN RELAY	Part of K1
D2	DIODE ASM, BRUSH MOTOR RELAY	740482
D3	DIODE ASM, VACUUM MOTOR RELAY	740482
D4 (optional)	DIODE ASM, SOLENOID VALVE (KIT K-E1720S)	740482

REFERENCE #	CONNECTOR FUNCTION	PART # -female	PART # -male
X1	KEYSWITCH (S1)	744012	748037
X2	SWITCH, BRUSH MOTOR (S2B)	747022	747021
X3	CHARGER STATUS INDICATOR (CSI)	Part of CSI	Part of BC
X4	SWITCH, VACUUM (S3)	747022	747021
X5	MOTOR, VACUUM (M3)	748021	748020
X6	BATTERY CONNECTOR	740159	740159
X7	SWITCH, BRUSH MOTOR (S2A)	747022	747021
X8	SWITCH, BRUSH UNLOAD (S4)	747022	747021
X9	SOLENOID VALVE, WATER (Y1)	747022	747021
X10	OPERATOR HANDLE CABLE	741093	740697
X11	OPERATOR HANDLE CABLE	740366	740697
X12	KEYSWITCH (S1)- MAIN RELAY COIL (K1)	741093	741165
X13	BATTERY CHARGER (BC)- INTERNAL RELAY	740366	740697
X14	BATTERY CHARGER (BC)-INTERNAL RELAY	740366	740697
X15	SOLENOID (Y1) /HOUR METER CONNECTION (HM)	740366	741165
X16	SOLENOID (Y1) /HOUR METER CONNECTION (HM)	740366	741165
X17	OPTIONAL HOUR METER (HM) WIRE-747656	740366	741165
X18	OPTIONAL HOUR METER (HM) WIRE-747657	740366	741165
X28 (optional)	SWITCH, TOGGLE WATER PUMP (S8)	747022	747021
X29 (optional)	PUMP, OFF AISLE WAND (M1)	748021	748020

Revision J
Effective January 2014
PowerBoss Made Simple Industrial Limited Warranty

Minuteman International owner of PowerBoss warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. PowerBoss 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. Parts not manufactured by PowerBoss are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International for procedures in warranty claims against these manufacturers.

Special warning to purchaser -- Use of replacement parts not manufactured by PowerBoss 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 International or PowerBoss or its original manufacturer, whichever the case may be.

PowerBoss disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. PowerBoss 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. PowerBoss is not responsible for costs or repairs performed by persons other than those specifically authorized by PowerBoss. 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.

	Travel *	Labor	Parts	Engine	Extended Warranty	Costs
Walk Behind						****
Battery Sweepers	90 Days	12 months	12 months	N/A	N/A	-
IC Sweepers	90 Days	12 months	12 months	Through Eng. Mfg.	N/A	-
Battery Scrubbers	90 Days	24 months	36 months	N/A	N/A	-
Riders						
Battery Scrubbers	90 Days	24 months	36 months or 2000 hr.	N/A	36 months parts + 24 labor (or 3000 Hours)	5%
IC Sweeper/Scrubbers 82 & 90	90 Days	6 months	24 months or 2000 hr.	24 months or 3000 hrs**	36 months parts + 24 months labor (or 3000 Hours) + 180 days travel	5%
I.C. Sweepers 9X, 10X	90 days	6 months	48 months or 3000 hrs.	60 months or 3000 hrs**	48 months parts + 24 months labor (or 3000 Hours) + 180 days travel	5%
NAUTILUS Scrubber	180 Days	24 months	36 months or 2000 hr.	36 months or 2000 hrs**	48 months parts + 24 months labor (or 3000 Hours) + 180 days travel	3%
All Rider, I.C. (excluding APEX series)					Bumper to Bumper 5000 hr max. 48 months parts, 48 months labor, 180 days travel	8%
Exceptions						
Apex Series Sweeper	90 Days	12 months	12 months or 1000 hr.	12 months or 1000 hrs**	24 months parts + 24 months labor (or 2000 Hours)	5%
6X Sweeper	90 Days	6 months	24 months or 2000 hr.	24 months or 2000 hours**	36 months parts + 24 months labor (or 3000 Hours) + 180 day travel	5%

Tank Bladders Eight years/ no additional labor
Polyethylene plastic tanks Ten years/ no additional labor
Batteries 0-3 months full replacement, 4-12 prorated credit
Chargers One-year replacement
Aftermarket Replacement parts Ninety days from date of purchase

*Two-Hour Cap Per Service Call

**Through Engine Manufacturer. See Section 3 of Warranty Manual for Engine Warranty Exceptions

*** Based Upon Dealer's Certification Status:

Extended Warranty MUST Be Signed Up Within 30 Days of Delivery to End User
 (Dealer Has 1Year From Receiving Machine To Sign Up For Extended Warranty)

***All above labor and travel reimbursed at 65% or 75% of the published shop rate.



“The Power of Clean”

**PowerBoss® is a Full Line Manufacturer of Sweepers and Scrubbers,
for Industrial Facilities.**

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Phone: 800-323-9420 www.PowerBoss.com Email: tech@powerboss.com
A Member of the Hako Group

**988720PB
Rev E 08/16**