



Electronic Service Manuals

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You may contact Michco through the following methods:

Phone (517) 484-9312 or (800) 331-3339

2011 N. High St. -- Lansing, Michigan -- 48906

Fax: (517) 484-9836

Email: CustServe@Michco.com

Web site: www.Michco.Com

Parts Web site: www.FloorMachineParts.Com

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Parts Manual
E26 ECO Floor Scrubber
Traction Drive Disc

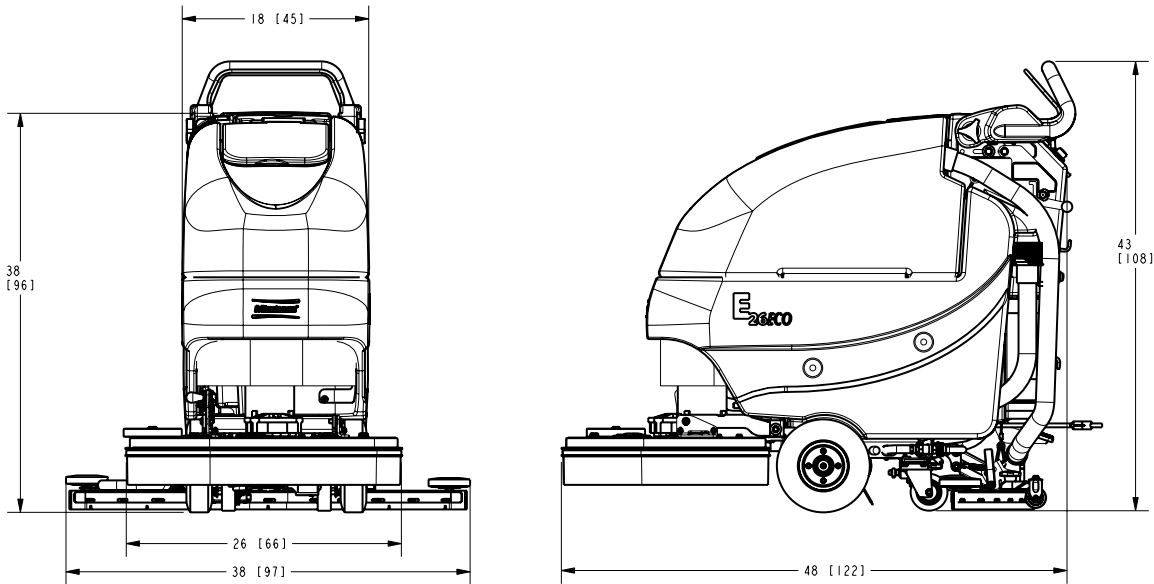
Technical Specifications



Model **E26 ECO Traction Drive Disc**

Model No. E26ECOQP

Current (Max)	40 amps
Battery Capacity (Lead Acid)	140Ah @20 hr
Battery Capacity (Gel)	95Ah @20 hr
Sound Level	69 dBA
Cleaning path width	26 in (65 cm)
Squeegee width	38 in (95 cm)
Productivity	TBD ft ² /hr (TBD m ²)
Working Speed	TBD mph (TBD km per hr)
Transport Speed	TBD mph (TBD km per hr)
Rated voltage	24 volts
Vacuum flow	65 cfm (110 m ³ /hr)
Vacuum waterlift	45 inches (112mbar)
Vacuum power	.60 HP (450 W)
Brush type	Disc
Brush motor(s) power	3/4 HP (550W)
Number of brushes	2
Brush RPM	180 RPM
Solution capacity	12Gal (45 liters)
Recovery capacity	13 Gal (49 liters)
Working Grade	2%
Weight with batteries	370lbs (168 kg)
Weight without batteries	235 lbs (107 kg)
Dimensions (LxWxH)	48 x 26.0 x 38.0 (112.8 x 47.8 x 107.4 cm)
Drive Motor Power	1/5 HP (150W)

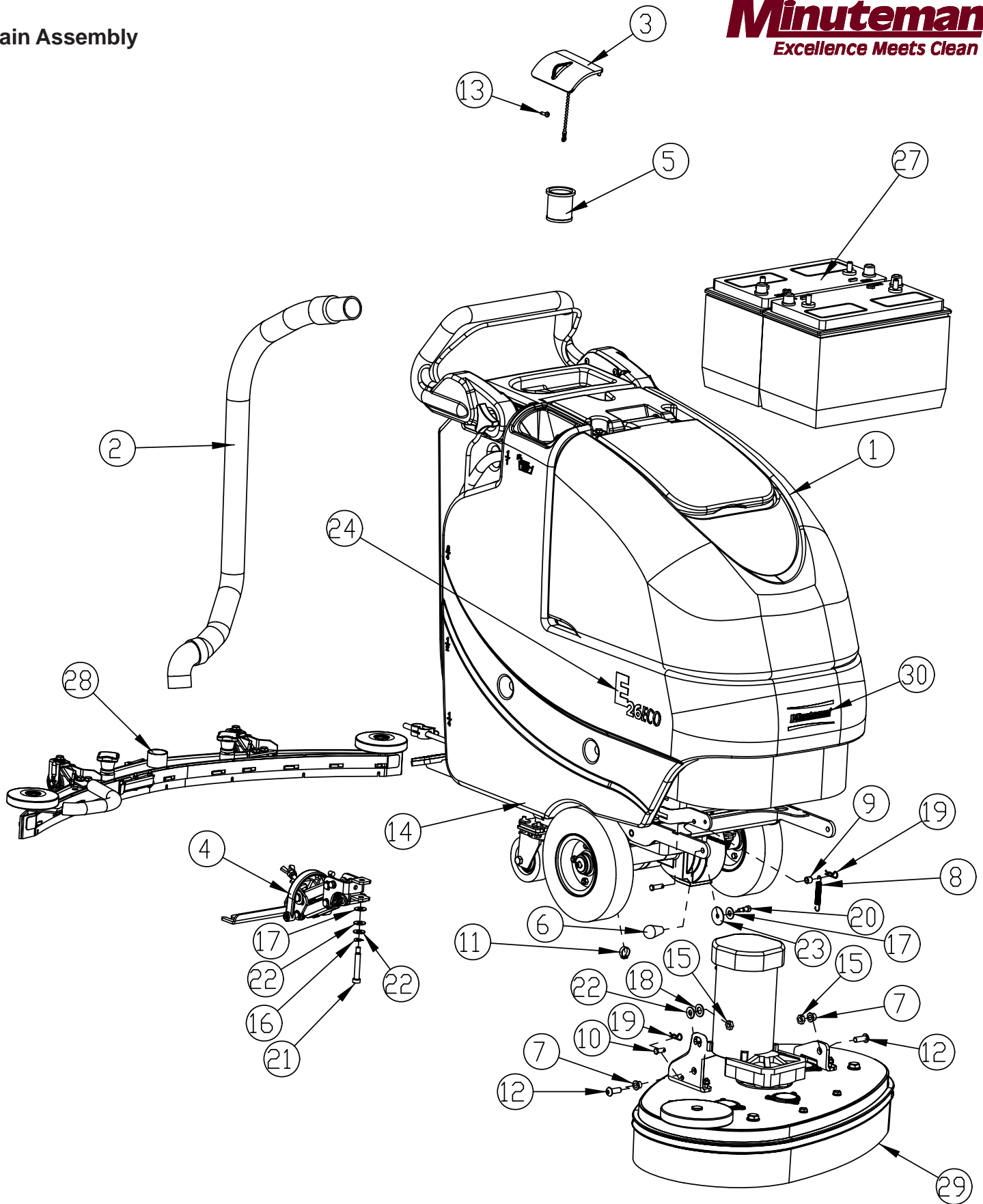


For Safety When Servicing or Maintaining Machine

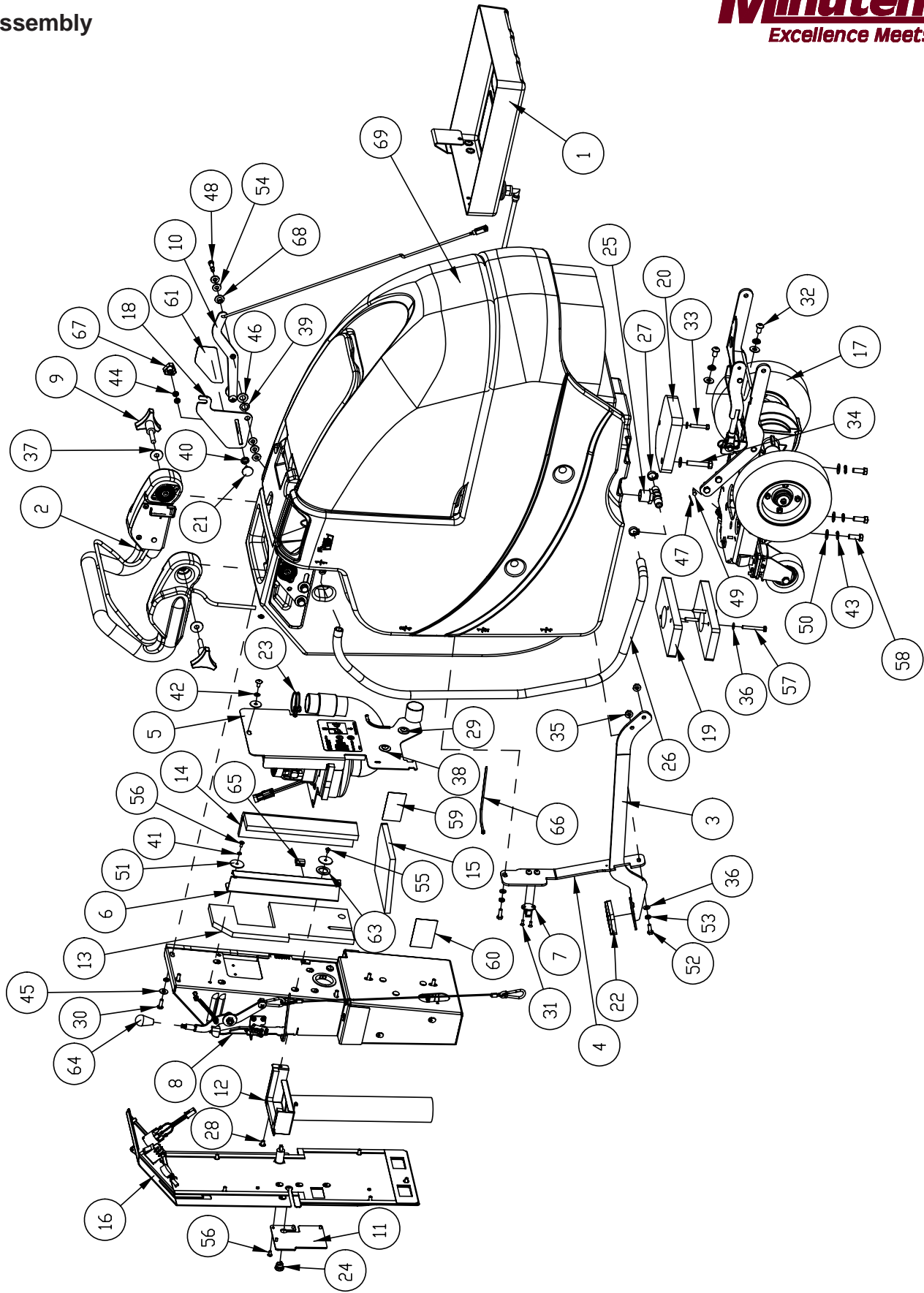
- Stop on level surface.
- Disconnect the power to the machine by pulling the red Battery Connector located under the recovery tank near the batteries.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- Avoid contact with battery acid. Battery acid can cause 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 Minuteman supplied replacement parts.

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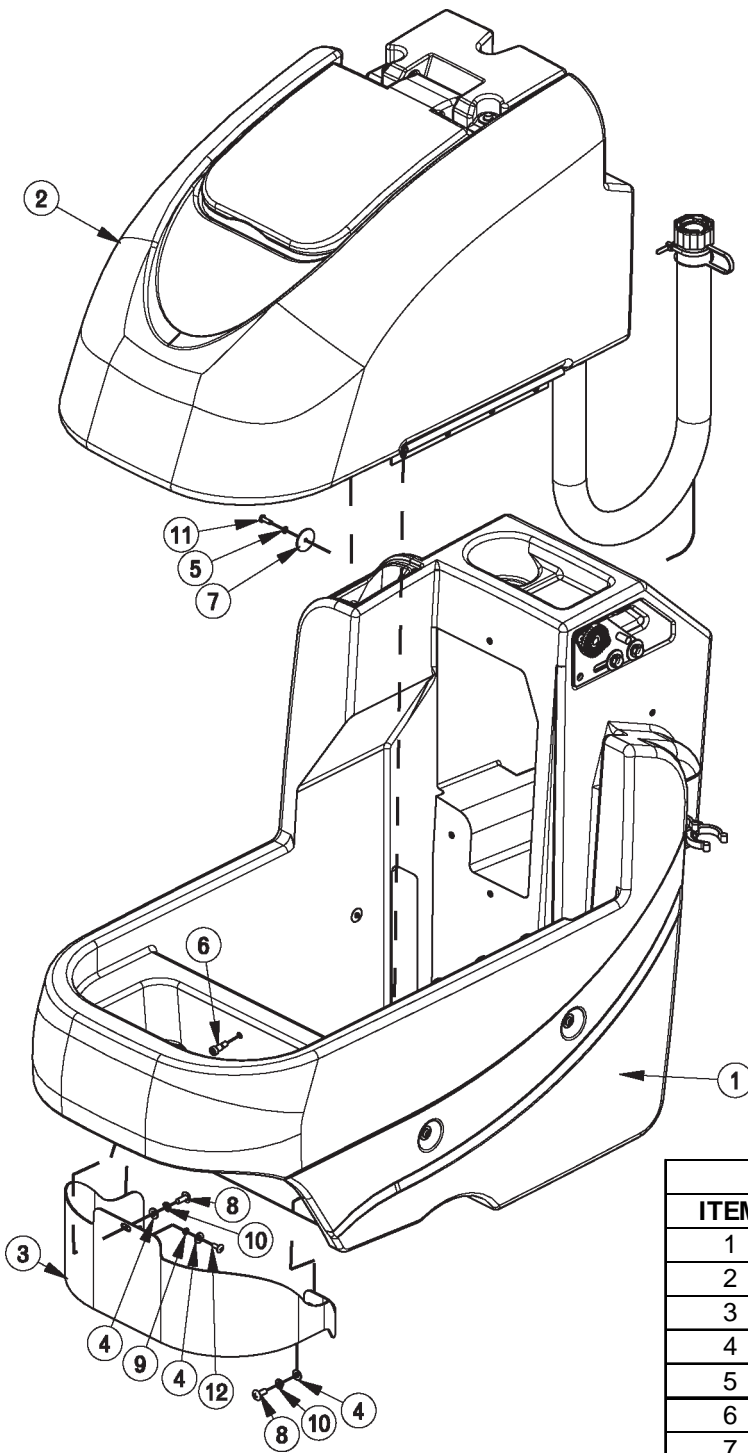
BILL OF MATERIAL - E26ECOQP				
ITEM	PART NO.	REQ'D	DESCRIPTION	NOTES
1	172001-26	1	TRAC DRV BASE ASSY-120V CHARGER	
2	172010	1	HOSE, CLEAR VAC W/ 45 CUFF	
3	172018	1	SOLUTION TANK LID ASSY	
4	172150	1	SQUEEGEE LIFT MECH ASSY	
5	172159	1	FILTER, FILL PORT, ES1720	
6	172423	1	KNOB, TAPERED 1/4-20	
7	260066	2	OILITE BUSHING	
8	281047	1	SPRING, EXTENSION - 2.75"	
9	370058	1	BUSHING, .31 X .48X.385 SS	
10	450034	1	CLEVIS PIN, 5/16 X .75 LG	
11	450076	1	CLAMP-CRIMP 185R SS	
12	710995	2	SCR-SC 3/8-24 X 1.0 BHEAD ST PL	
13	711118	1	SCR-ST-A 10 X .75 SS	
14	711374	1	NUT-NYLOC 5/16-18	
15	711384	2	NUT-HEX JAM TOP LOC 3/8-24 ZINC	
16	711523	1	WSR-WAVE .37X .68 X .08	
17	711569	2	WSR-FLT .390 X .880 X .062 NYL	
18	711592	1	WSR-FLAT .506 X .9 X .064 NYL	
19	711808	2	COTTER PIN-HAIR #13	
20	712041	1	BLT- SHLDR .31 X .375 X 1/4-20	
21	712143	1	BLT-SHLD 3/8 X 2.0, 5/16-18	
22	712301	3	WSR-FLAT .37 X .87 X .06	
23	712759	1	WSR- FLT .31 X 1.37 X .06 SS	
24	715921	2	DECAL, E26ECO	
25	740164-1	1	JUMPER CABLE ASSY, RED 4G 12"	NOT SHOWN
26	747649	1	CABLE ASSY, BATTERY E17	NOT SHOWN
27	956140	2	BATTERY, 12V 140AH	
28	97094502	1	950MM SQUEEGEE ASSEMBLY	
29	97110795	1	26" ECO DISC BRUSH DECK	
30	715914W	1	DECAL, MINUTEMAN W/SWOOSHES, WHITE	
31	172008	1	SOLUTION TANK LID	
32	172123	1	CHAIN, BEADED SS W/EYELETS	
33	712145	1	SCR-MC 6-32 X .37 PPH SS	



Base Assembly BOM

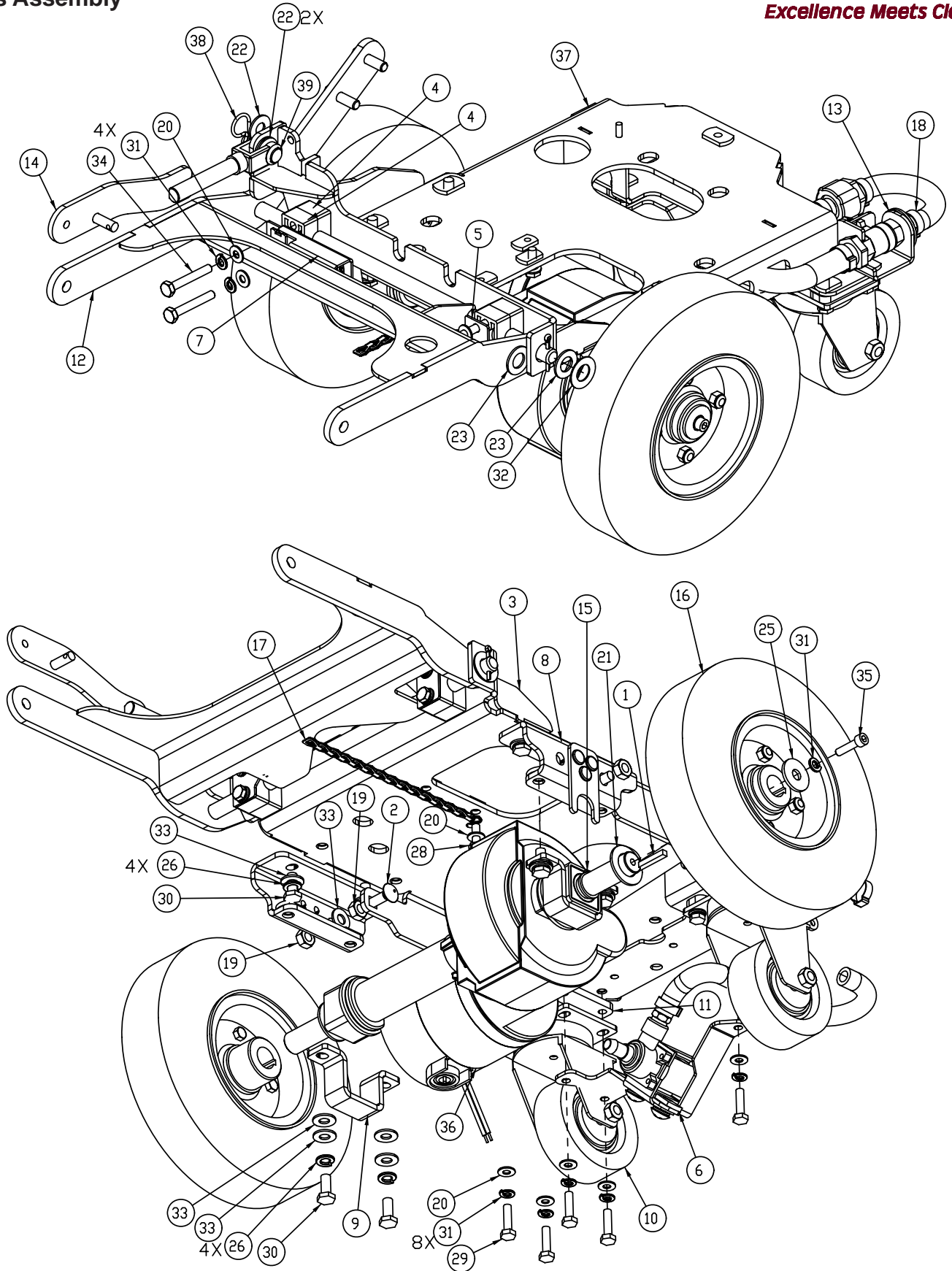
BILL OF MATERIAL - 172001-26

ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172012	1	BATTERY TRAY ASSY	36	711504	6	WSR-FLAT 1/4 ID SS
2	172015-26	1	E26ECO HANDLE ASM.	37	711507	3	WSR-FLAT .37 X 1.12 X .06
3	172032	1	LIFT PEDAL WMT	38	711519	3	WSR- FLAT .25 X 1.01 X .06
4	172036	1	BKT, PEDAL STOP	39	711524	1	WSR-WAVE .52 X .87 X .01
5	172050	1	VAC MOTOR ASSY	40	711539	1	WSR-EXTERNAL LOCK 3/8
6	172055	1	BKT, VAC AREA INSIDE COVER	41	711543	1	WSR-HELICAL #10
7	172065	1	CLIP, FOR 1/2" ID HOSE	42	711544	9	WSR-HELICAL 1/4
8	172075-120	1	ELEC BOX TD ASSY 120V	43	711546	5	WSR-HELICAL 3/8
9	172085	2	KNOB, 3/8-16 STUD, 3 LOBE	44	711566	2	WSR-FLAT .259 X .500 X .065
10	172112	1	SOL CONTROL ASSY	45	711575	5	WSR-FLT .31x.75x..06ST
11	172129	1	BKT, PWR CORD MOUNT	46	711592	1	WSR-FLAT .506 X .9 X .064 NYL
12	172179	1	CHARGER INLET ASSEMBLY	47	711803	1	COTTER PIN
13	172184	1	FOAM COVER, REAR 1	48	712070	1	BLT-SHOULDER 5/16 X 3/4 X 1/4-
14	172185	1	FOAM COVER, REAR 2	49	712117	1	CLEVIS PIN 3/16
15	172187	1	FOAM COVER, FRONT 2	50	712301	6	WSR-FLAT .37 X .87 X .06
16	172330-26	1	DASH PANEL ASY-E26ECO	51	712312	2	WSR-FLAT .187 X 1.25
17	172409	1	CHASSIS ASM, E26ECO	52	712562	2	BOLT-HH 1/4-20X3/4 SS
18	172416	1	BKT, AQUASTOP SOL CTRL	53	712758	2	WSR-HELICAL 1/4 SS
19	172421	2	WEIGHT, E26ECO	54	712772	5	WSR-FLAT .344 x .75 x .06 SS
20	172422	1	FRONT WEIGHT	55	712800	1	SCR-MC 10-24 X .25 ST PL
21	172424	1	BLT-ELEVATOR, 1/4-20 X .75 ZINC	56	712810	5	SCR-MC 10-24 X .37 ST PL
22	210142	1	PEDAL PAD	57	713007	3	BLT-HH 1/4-20 X 2 #5
23	260203	1	WIRE GRIP HOSE CLAMP	58	713042	3	BLT-HH 3/8-16 X 1 #5
24	293080	1	STRAIN RELIEF-HEYCO 1207	59	715029	1	DECAL-NAME PLATE SERIAL
25	342440	1	FITTING, TEE 3/4MPT 1/2BARB	60	715047	1	DECAL-CLEAR LAMINATE 2X3
26	430156	1	HOSE, 1/2 X 42 CLEAR	61	715690	1	DECAL, AQUASTOP SOL CTRL
27	450093	2	CRIMP CLAMP 3/4" STEPLESS	62	715950	1	LABEL, PATENT NUMBERS
28	710177	1	SCR-MC 1/4-20 X .37 ST PL	63	717025	1	WSR-FLAT 13/16ID X 1.25 X .08
29	710178	10	SCR-MC 1/4-20 X .50 TRUSS STPL	64	760592	1	KNOB, OVAL TAPERED
30	710380	5	SCR-MC RD HD 1/4-20 X .75 STL PL	65	809443	1	CLIP-WIRE & CORD
31	710530	2	SCR-MC FL HD 8-32 X .50 BRS	66	828062	1	CABLE TIE LARGE
32	710985	2	SCR-SC 3/8-16 X .62 ST PL	67	833214	1	KNOB-3 SIDED 1/4-20
33	711212	1	BLT-HH 1/4-20 X 1.50 STPL	68	840202	1	BUSHING-FLG .31 X .437 X .325 NYL
34	711247	1	BLT-HH 3/8-16 X 2.00 ST PL	69	172001BASE	1	E1720 BASE ASSY
35	711379	2	NUT, FLANGED WIZZ 5/16-18				

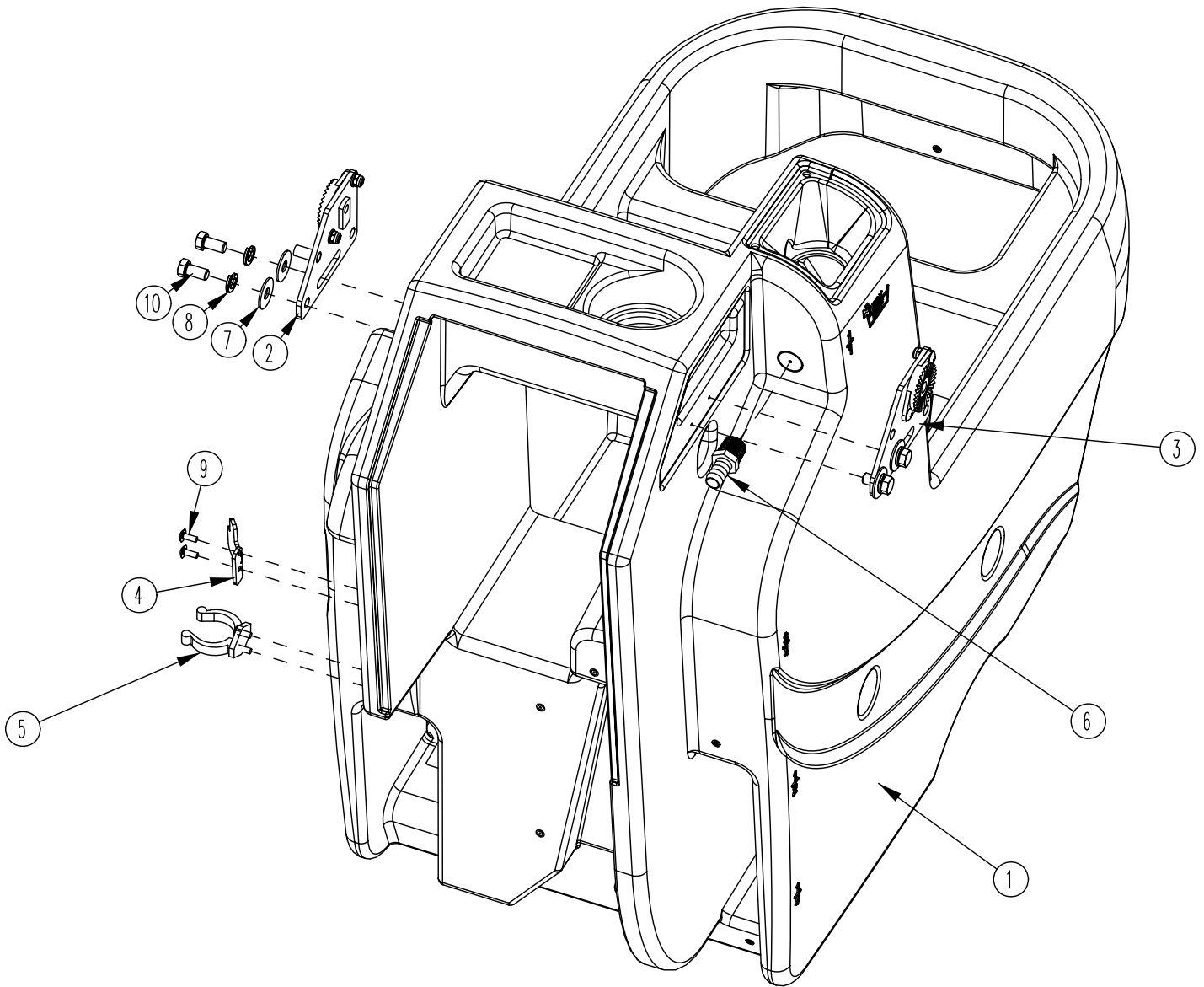


BILL OF MATERIAL - 172001BASE

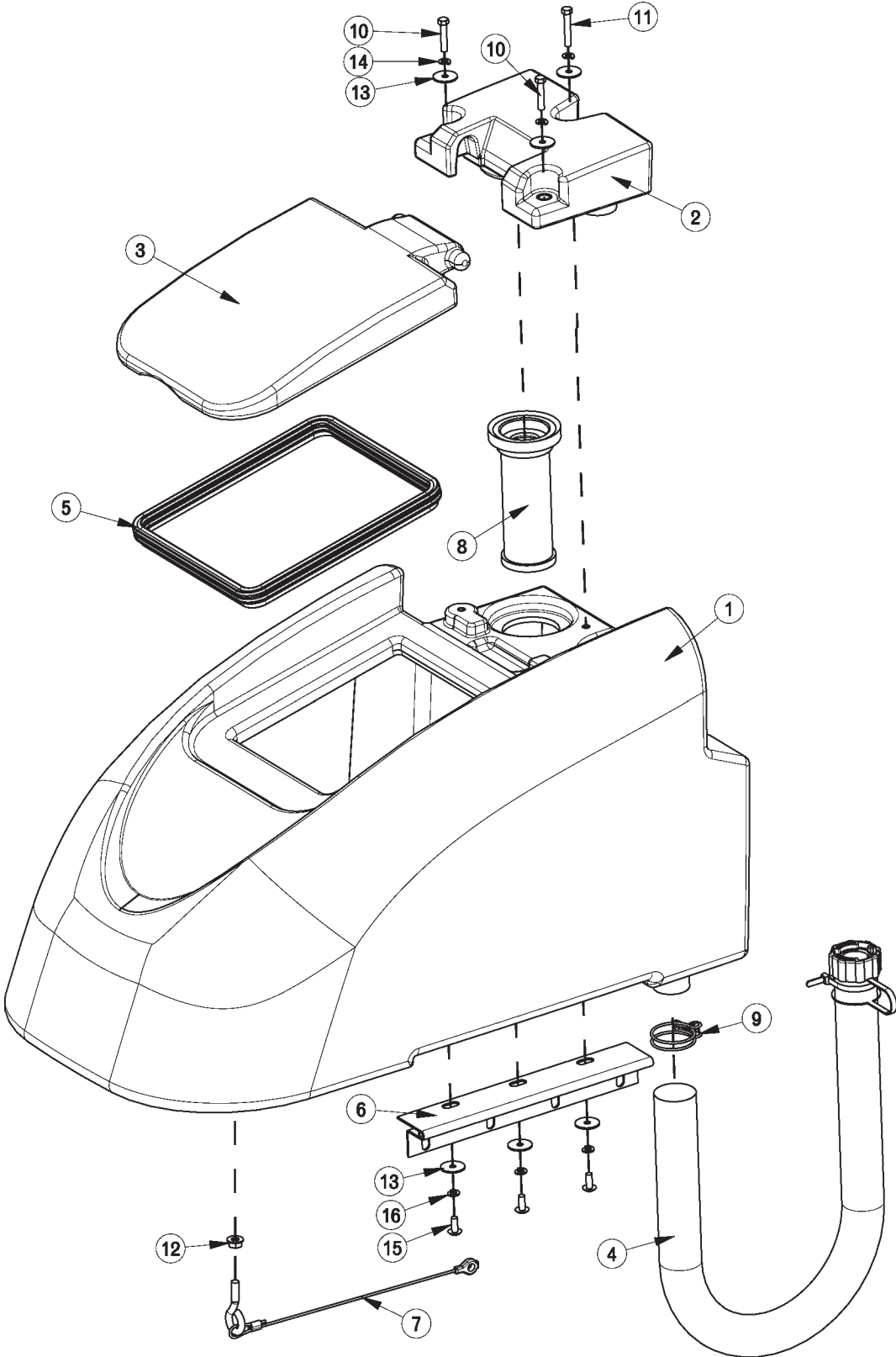
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172013	1	SOL TANK ASSY, E1720
2	172014	1	REC TANK ASSY
3	172144	1	PANEL, FRONT 1720
4	711504	3	WSR-FLAT 1/4 ID SS
5	711543	4	WSR-HELICAL #10
6	712041	1	BLT- SHLDR 1/4-20 X .44 X .37
7	712312	4	WSR-FLAT .187 X 1.25
8	712565	2	SCR-MC 1/4-20X.63 SS TR HD
9	712757	1	WSR - HELICAL #10 SS
10	712758	2	WSR-HELICAL 1/4 SS
11	712812	4	SCR-MC 10-24 X .62 PPH ST PL
12	712822	1	SCR-MC TR HD 10-24 X .50 SS



BILL OF MATERIAL - 172409			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	61-65-A	2	KEY, 3/16 X 1-3/4"
2	70-516-16	2	BLT-CAR 5/16-18 X 1.00 ZP
3	172020	1	MAIN FRAME WMT, E1720
4	172038	4	BEARING BLOCK
5	172039	1	BEARING BLOCK PLATE
6	172104	1	TD SOLENOID ASSY
7	172110	1	DECK SWITCH ASSY
8	172113	2	BKT, TRANSAXLE MOUNT BASE
9	172114	2	BKT, TRANSAXLE MOUNT
10	172167	2	CASTER, 3-1/2 POLYURETHANE
11	172192	2	PLATE, 1/4" SPACER
12	172205	1	DECK LIFT WMT
13	172264	1	SOLUTION VALVE ASSY
14	172412	1	UPPER LIFT ARM WMT, E26ECO
15	172425	2	RING-RET EXT .75 HD
16	200172-2	2	WHEEL, 8.5" FOAM FILL
17	281200	1	DRAG CHAIN ASSY, FRAME
18	450076	1	CLAMP-CRIMP 185R SS
19	711383	4	NUT-HEX CLR LOC 5/16-18
20	711504	13	WSR-FLAT 1/4 ID SS
21	711512	2	WSR-FLAT .75X1.37X.08
22	711569	3	WSR-FLT .390 X .880 X .062 NYL
23	711592	2	WSR-FLAT .506 X .9 X .064 NYL
24	711809	1	COTTER PIN, 1/8 X 1.0
25	711855	2	WSR-FLT .37X1.12X.10 STL Z HARD
26	712140	8	WSR-HELICAL 5/16 SS
27	712265	1	CLEVIS-YOKE, 1/2-20 W/ .375 PIN
28	712562	1	BOLT-HH 1/4-20X3/4 SS
29	712564	8	BOLT-HH 1/4-20X1.00 SS
30	712575	8	BLT-HH 5/16-18 X .75 SS
31	712758	14	WSR-HELICAL 1/4 SS
32	712760	1	WSR-FLAT .56X1.06X.04 SS
33	712772	14	WSR-FLAT .344 x .75 x .06 SS
34	713006	4	BLT-HH 1/4-20 X 1 3/4 #5
35	717026	2	SCR-SC SHCS M6X1.0 X 25 STL Z
36	747606	1	TRANSAXLE, ES1720 24V
37	809444	1	CLIP-CORD
38	833374	1	PIN, HAIRPIN COTTER 3/8
39	833833	1	PIN-CLEVIS 3/8 X 1.25

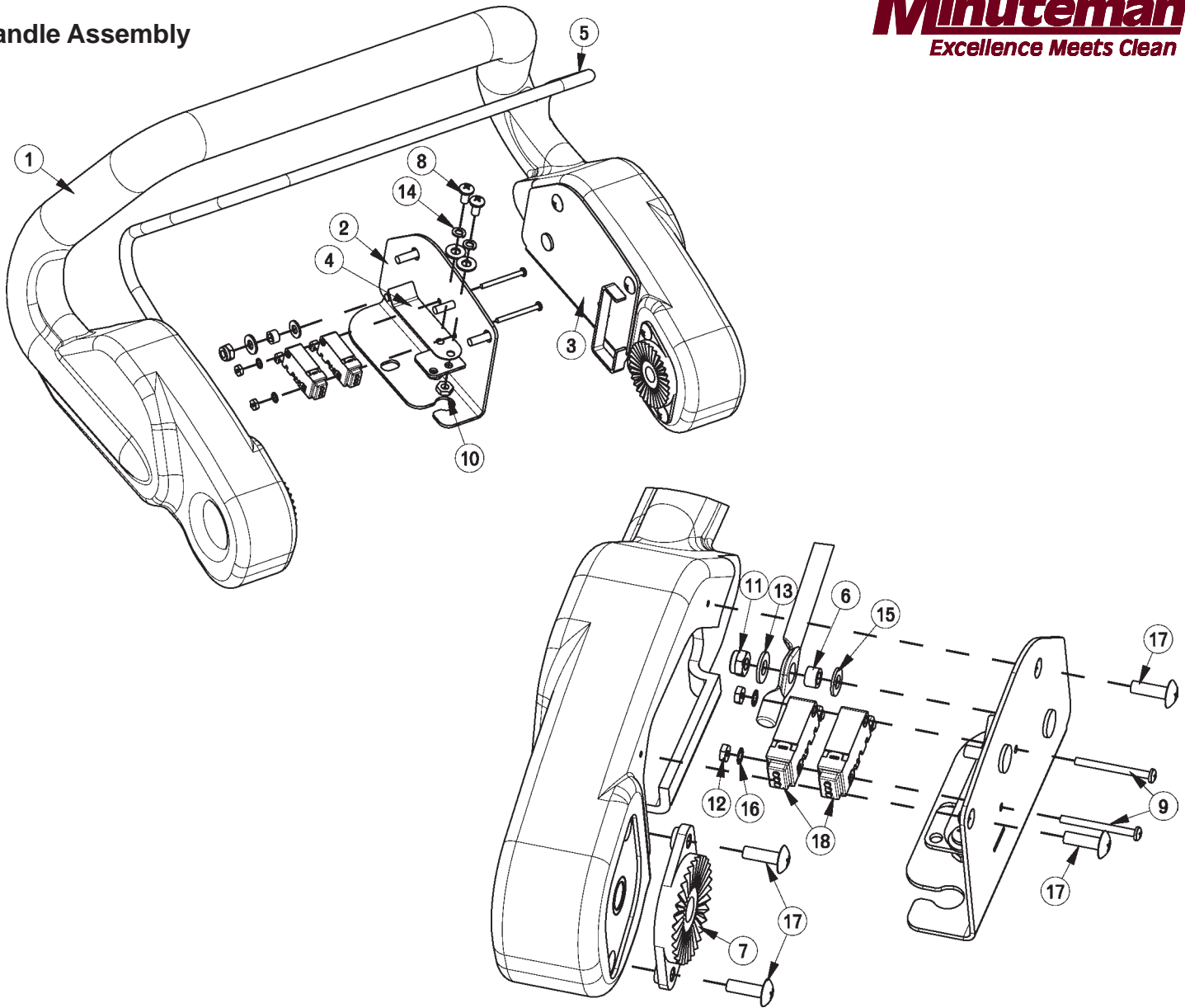


BILL OF MATERIAL - 172013			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172003	1	SOLUTION TANK, E1720
2	172080	1	HANDLE MOUNT ASSY, LEFT
3	172082	1	HANDLE MOUNT ASSY, RIGHT
4	172341	1	HOOK, DRAIN HOSE WITH TWIST VALVE
5	260579	1	TOOL CLIP, 1.5" HOSE
6	342438	1	FITTING, 1/2 MPT 1/2 HB BRASS
7	711507	4	WSR-FLAT .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 - 172014			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172004	1	ES1720 RECOVERY TANK
2	172005	1	ES1720 VACUUM MANIFOLD
3	172007	1	ES1720 LID
4	97090096	1	DRAIN HOSE ASSY, RECOVERY TANK
5	172017	1	GASKET, LID
6	172049	1	HINGE, RECOVERY TANK
7	172067	1	REC TANK CABLE ASSY 11.625
8	172132	1	SCREENED FLOAT
9	172329	1	CLAMP-HOSE 1.56" 102122 MURRAY
10	711210	2	BLT-HH 1/4-20 X 1.25 STPL
11	711212	1	BLT-HH 1/4-20 X 1.50 STPL
12	711379	1	NUT, FLANGED WIZZ 5/16-18
13	711519	6	WSR- FLAT .25 X 1.01 X .06
14	711544	3	WSR-HELICAL 1/4
15	712565	3	SCR-MC 1/4-20X.63 SS TR HD
16	712758	3	WSR-HELICAL 1/4 SS
17	15282072	1	REPLACEMENT O-RING (NOT SHOWN)
18	90304528	1	REPLACEMENT CAP

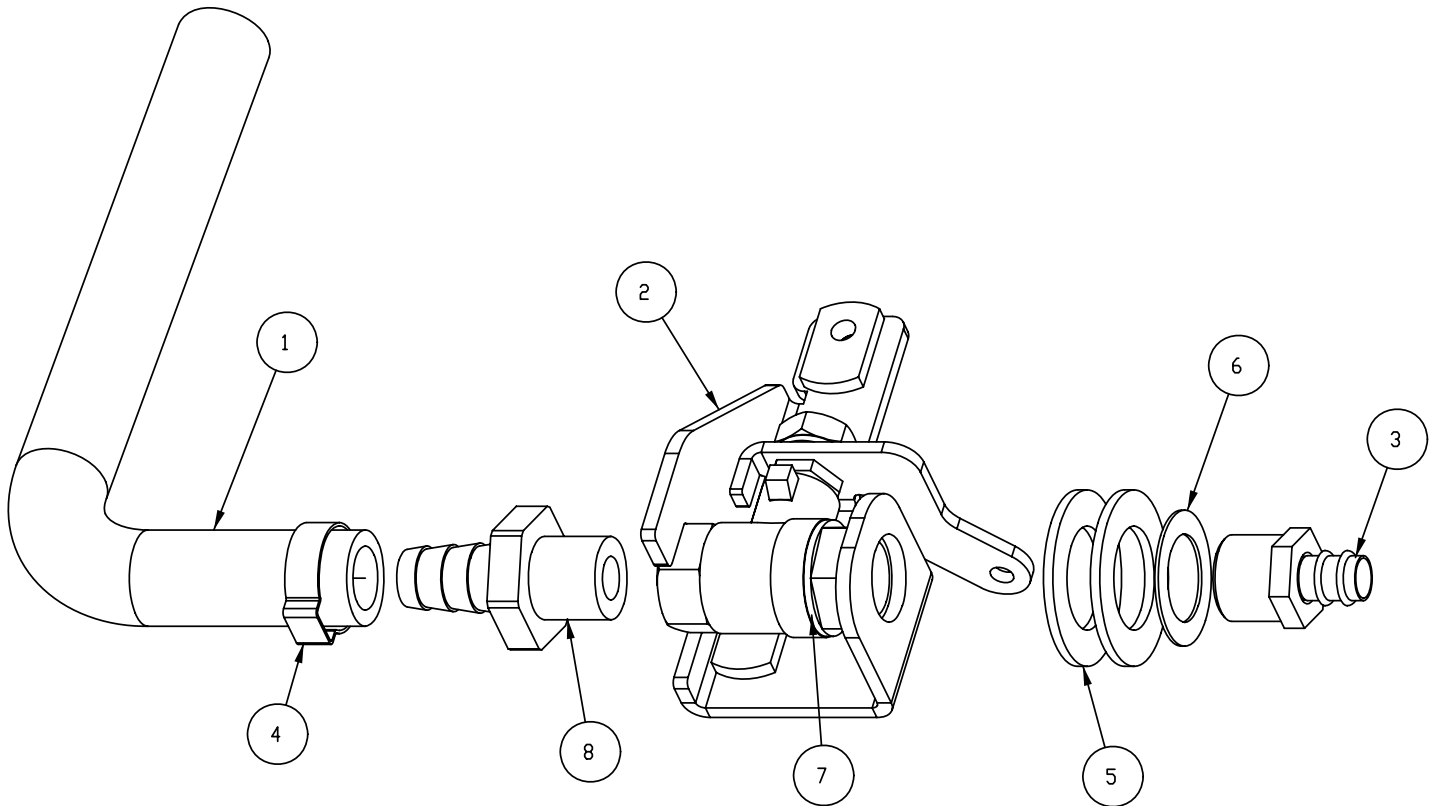
Handle Assembly



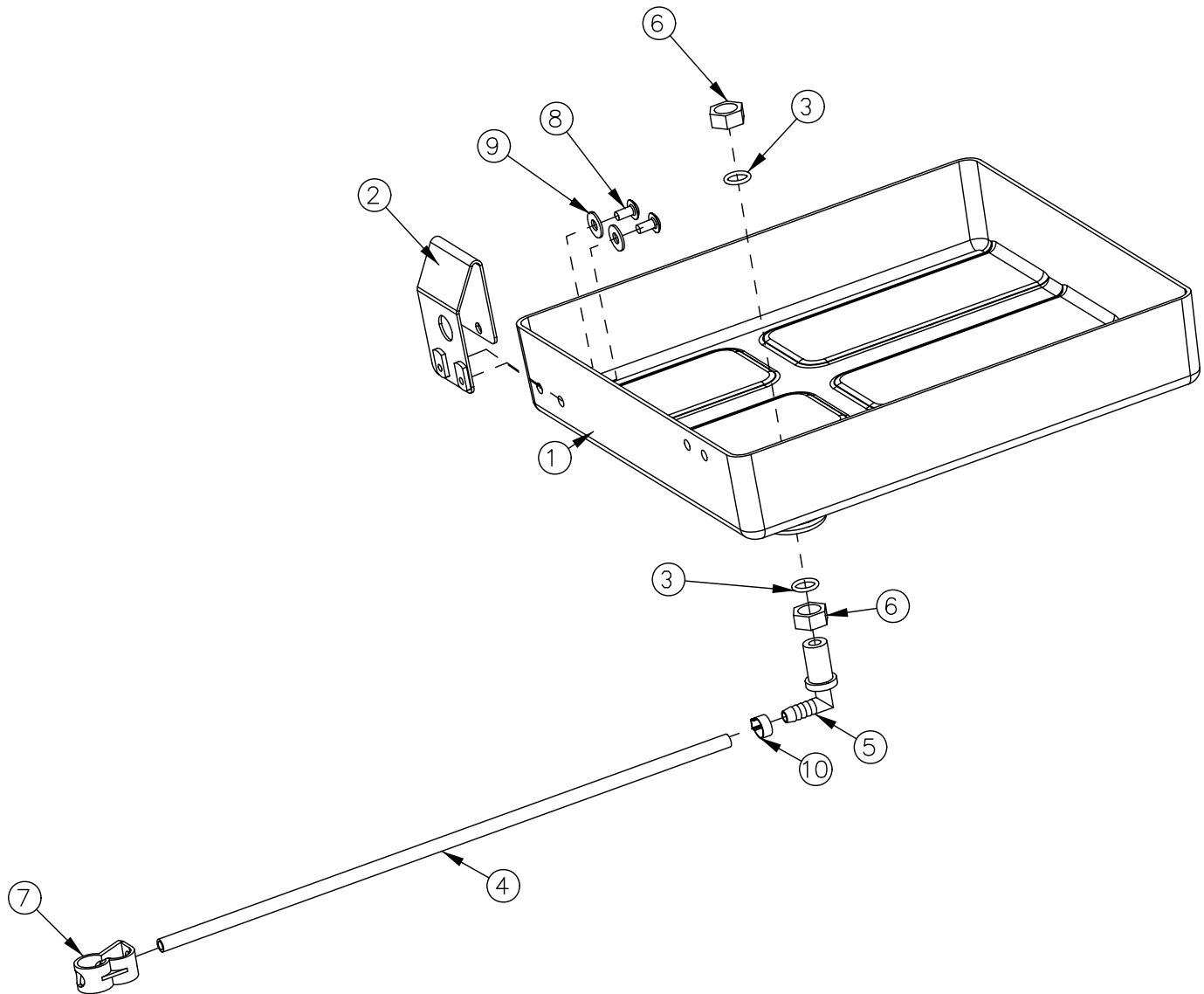
BILL OF MATERIAL - 172015

ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172006	1	HANDLE	11	711350	2	NUT-NYLOC 10-32
2	172053	1	BAIL PLATE WMT RH	12	711428	2	NUT-HEX 4-40
3	172054	1	BAIL PLATE WMT LH	13	711503	6	WSR, FLAT #10
4	172057	2	LEAF SPRING	14	711543	4	WSR-HELICAL #10
5	172059	1	BAIL, HANDLE	15	712320	2	WSR-NYLON .22 X .45 X .04
6	172074	2	SPACER, 5/16OD X 17GA, ALUM	16	712326	2	WSR-INT LOCK #4
7	270143	2	HANDLE PIVOT JAW	17	712830	10	SCR-MC 10-24 X .62 STLZ TR HD
8	710353	4	SCR-MC RD HD 10-32 X .37 STL	18	747603-1	2	SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT
9	710495	2	SCR-MC 4-40 X 1.25 STL Z	19	747632-1	1	CABLE ASY, 5 COND 18G TD
10	711310	4	NUT, HEX 10-32 ST PL				

Solution Valve Assembly

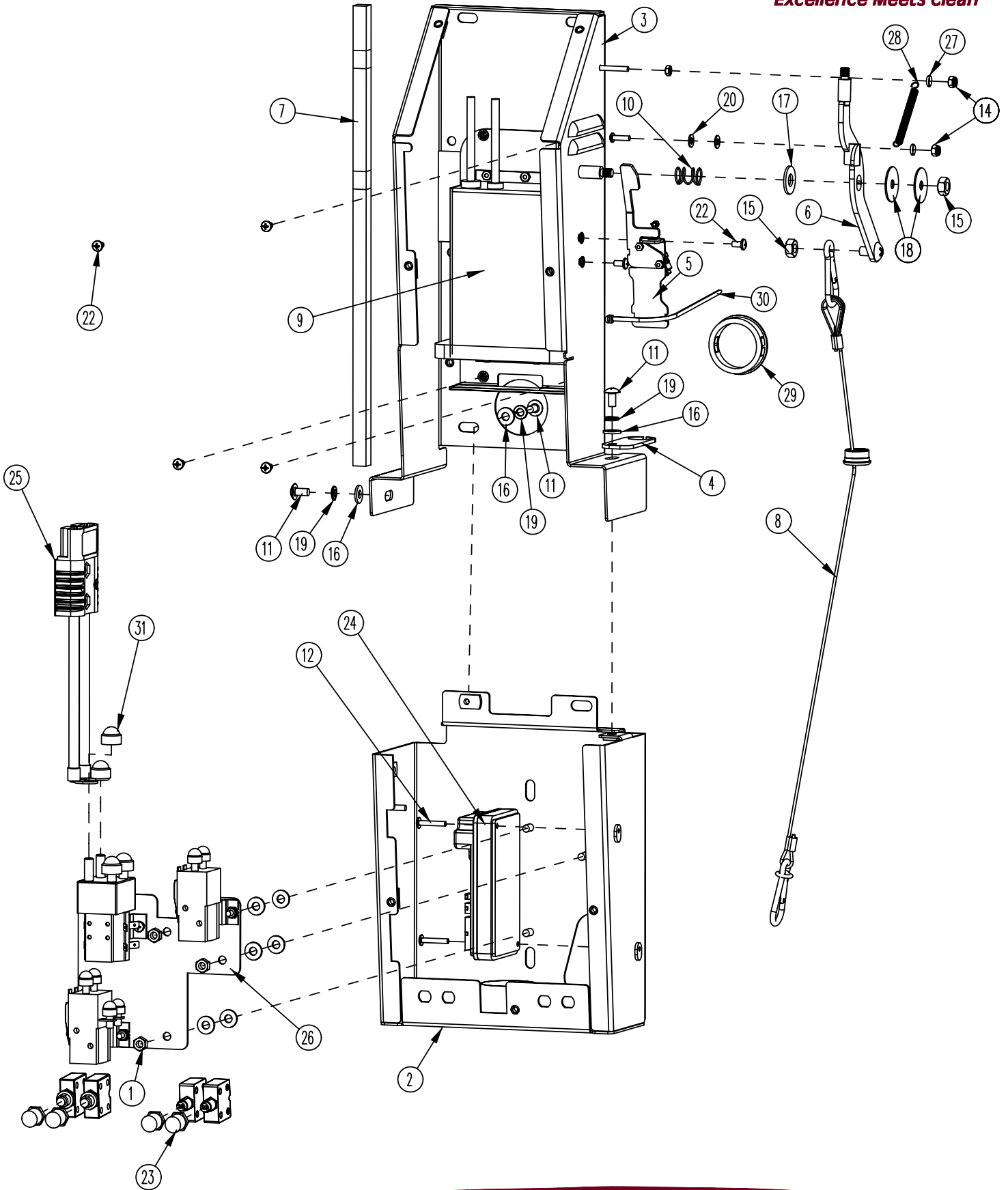


BILL OF MATERIAL - 172264			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172158	1	HOSE, 1/2"ID X 7.5" NYLOBRAID
2	172263	1	BKT, SOL VALVE MOUNT
3	320265	1	FITTING DUBL 3/8HBx3/8MPT
4	383347	1	CRIMP CLAMP 1/2 HOSE SS 185R
5	711512	2	WSR-FLAT .75X1.37X.08
6	711513	1	WSR-FLAT .69 X 1.06 X .03 SS
7	809415	1	VALVE, 3/8 FPT, 45 OPEN/CLOSE
8	827008	1	FITTING, 3/8 MPT 1/2 HOSE

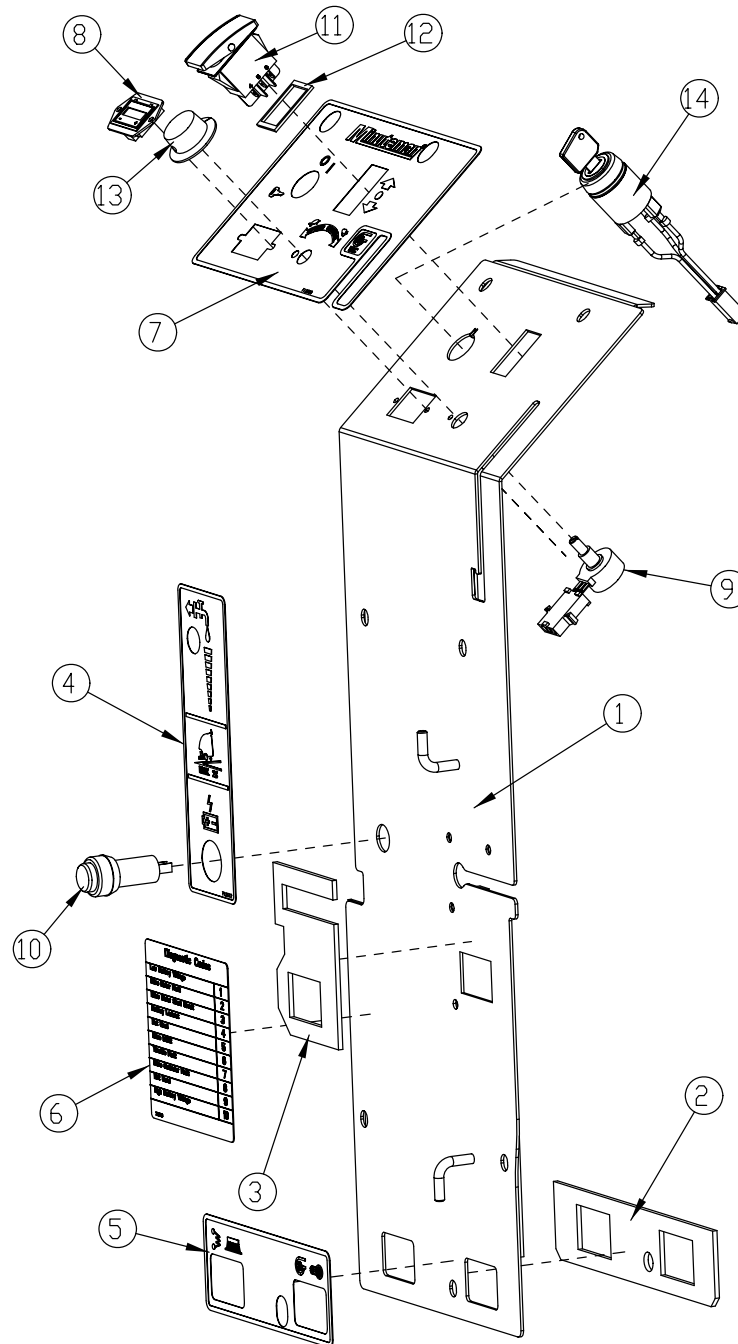


BILL OF MATERIAL - 172012			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172116	1	BATTERY BOX
2	172213	1	BKT, SPACER FOR BATTERIES
3	210414	2	O RING 2-113
4	260224	1	18" HOSE
5	320271	1	NOZZLE BODY-ELBOW
6	320272	2	NOZZLE BODY LOCKNUT
7	320273	1	HOSE SHUT-OFF CLAMP
8	710178	2	SCR-MC 1/4-20 X .50 TRUSS STPL
9	711575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

Electrical Box Assembly

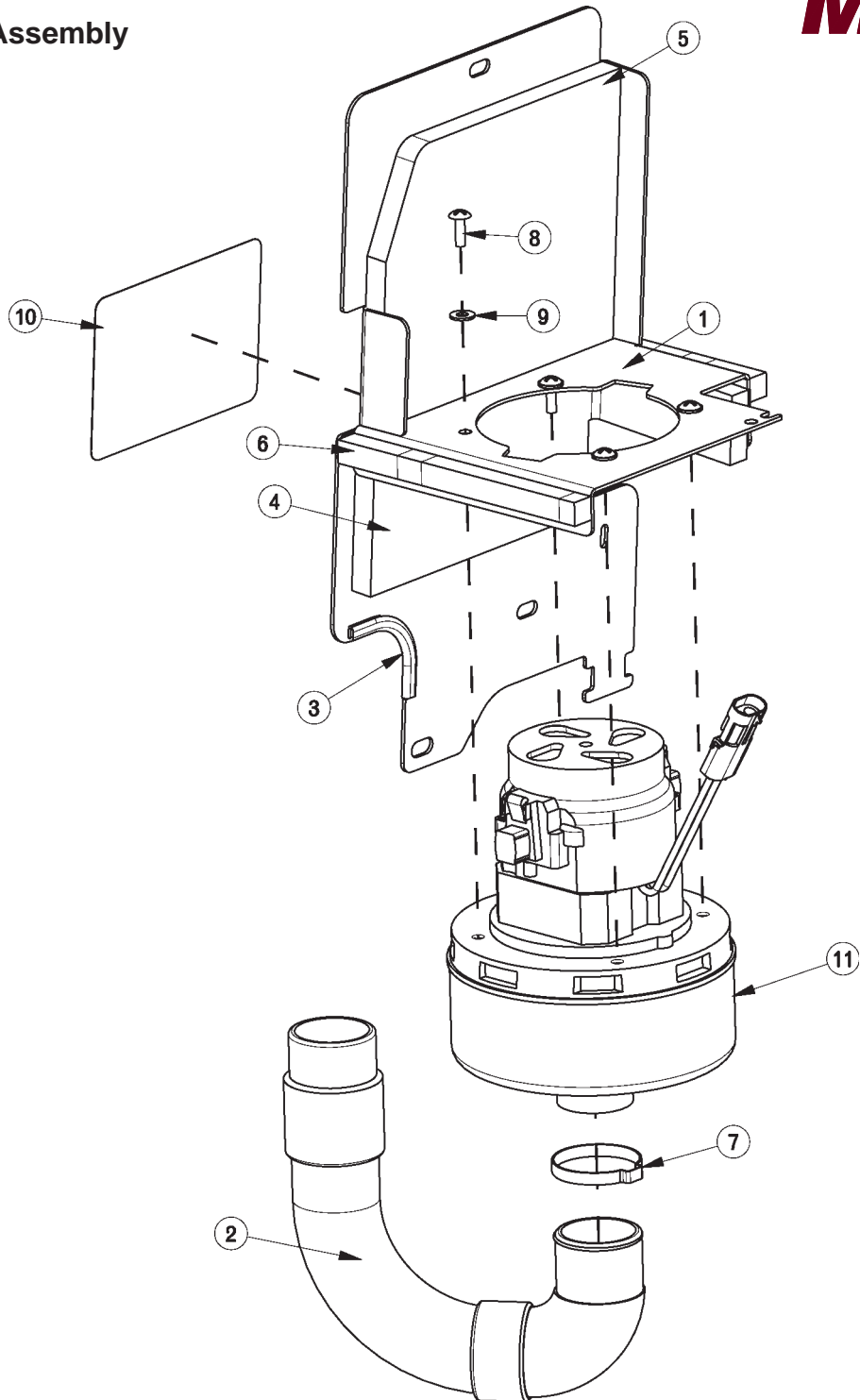


BILL OF MATERIAL - 172075-120			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	369-416	3	NUT-HEX 1/4-20 NYLOC SERATED
2	172077	1	ELEC BOX-BOT HALF WMT
3	172088	1	ELEC BOX-TOP HALF WMT
4	172107	1	BKT, UPPER BUSHING MOUNT
5	172141	1	VAC SWITCH ASSY
6	172152	1	VAC LEVER WMT
7	172188_	1	FOAM TAPE, 1/2" SQ X 16.5"
8	172381	1	CABLE ASSY, SQUEEGEE LIFT
9	172385	1	E1720 120V CHARGER ASSEMBLY
10	670093	1	SPRING, COMPRESSION
11	710178	3	SCR-MC 1/4-20 X .50 TRUSS STPL
12	710534	2	SCR-MC TR HD 8-32 X 1.00 SS
13	711305	1	NUT, HEX 8-32 BR
14	711372	2	NUT-NYLOC 8-32 STL ZINC
15	711383	2	NUT-HEX CLR LOC 5/16-18
16	711505	9	1/4 FLAT WASHER, STEEL
17	711508	1	WSR-FLAT .44X 1.0X.08
18	711516	2	WSR- FLAT .31 X 1.25 X .05
19	711544	3	WSR-HELICAL 1/4
20	712320	2	WSR-NYLON .22 X .45 X .04
21	712770	6	WSR INT LOCK #10A SS
22	712810	6	SCR-MC 10-24 X .37 ST PL
23	742748	4	CIRCUIT BREAKER BOOT
24	747710	1	I-DRIVE, 24V 70A PM MOTOR CONTROL
25	747637	1	WIRE ASY, MACHINE-BATTERY E1720
26	747670-26	1	ELEC PANEL ASSY, E1720TD
27	760134	2	MOUNT RING
28	762084	1	SPRING-EXT .25OD X 2" F.L. MUSIC
29	762400	1	HEYCO BUSHING 2.00"
30	828062	1	CABLE TIE LARGE
31	15592033_CAP	2	CAP, SAFETY NUT COVER M8



BILL OF MATERIAL - 172330-26

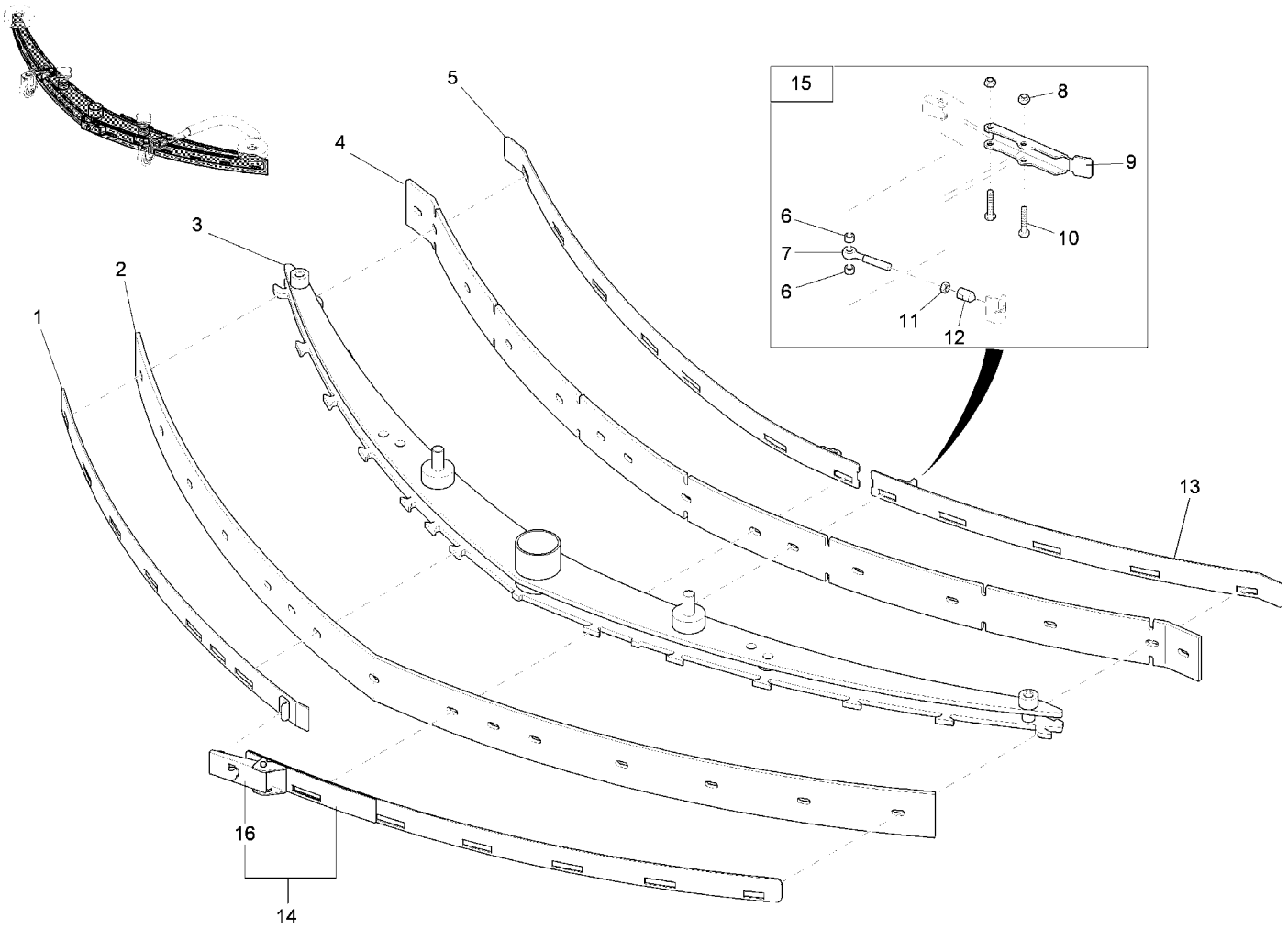
ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172182	1	TD COVER WMT	8	747011	1	BATTERY GAUGE, TRUCHARGE
2	172193	1	GASKET, CB OUTLINE	9	747026	1	POTENTIOMETER ASSY SPEED CONTROL
3	172194	1	GASKET, CHARGER CORD PLATE	10	747614	1	CHARGE STATUS INDICATOR
4	715672	1	DECAL, CHARGE STATUS, SOLUTION CTRL	11	748201	1	SWITCH, DPDT ON/OFF/ON
5	715674	1	DECAL, TD CIRCUIT BREAKER	12	748209	1	GASKET-FOR 2 POLE ROCKER SWITCHES
6	715678	1	DECAL. DIAGNOSTIC CODES E1720TD	13	809874	1	KNOB, SPEED CONTROL
7	715680	1	DECAL, E20 CYL DASHBOARD	14	90323437-1	1	KEYSWITCH ASY, SWITCH PLUS WIRES



BILL OF MATERIAL - 172050

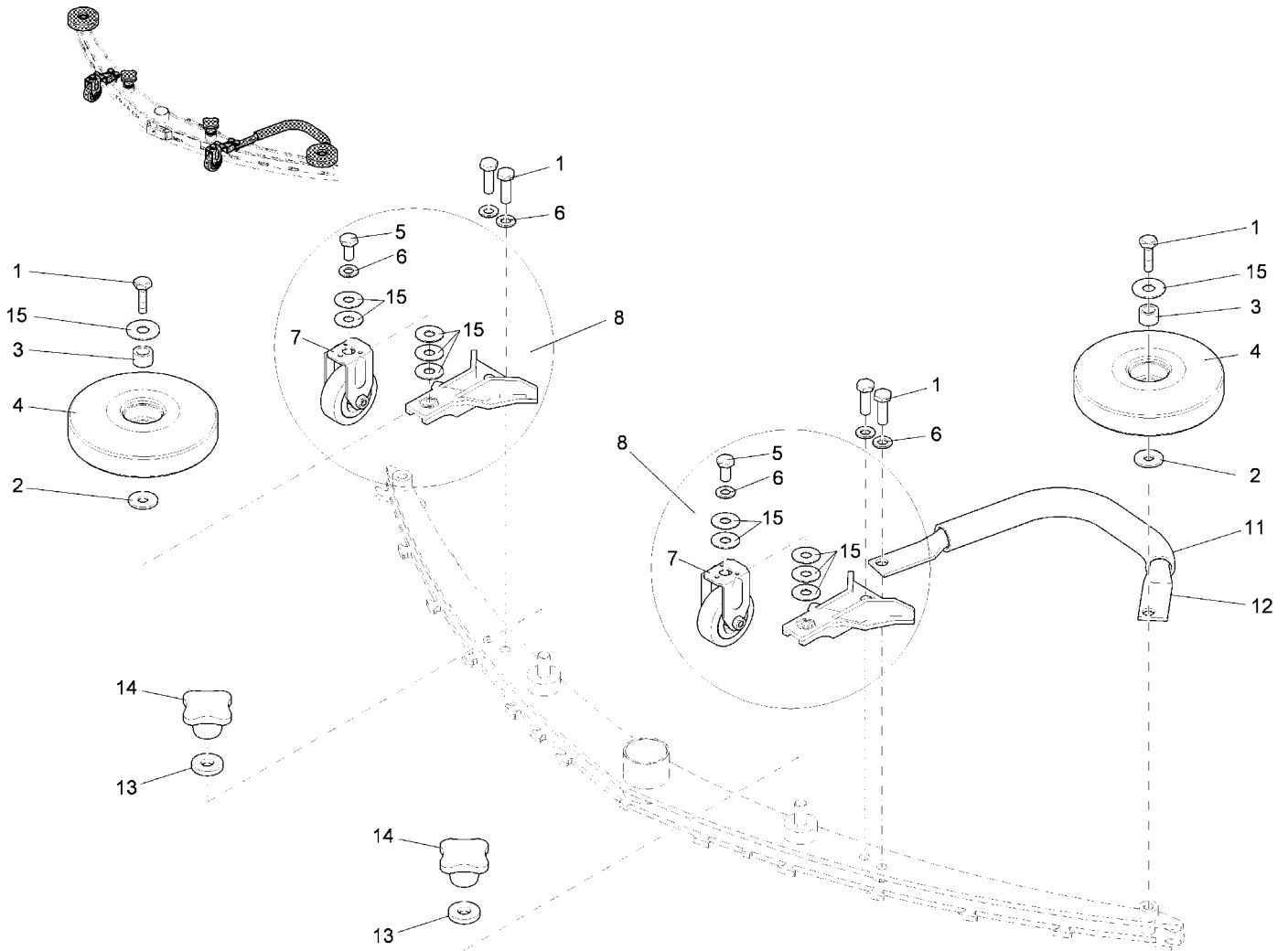
ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172045	1	VAC MOUNT WMT, ES1720	7	450095	1	CRIMP CLAMP, 1.75"
2	172048	1	HOSE, STRETCH 13"	8	711160	4	#10 X 5/8 HI-LO
3	172124	1	EDGE TRIM, .063 X 3.0, BLACK	9	711503	4	WSR, FLAT#10
4	172186	1	FOAM COVER, FRONT 1	10	715676	1	DECAL, BATT CABLE ROUTE, E1720
5	172187	1	FOAM COVER, FRONT 2	11	747607-1	1	VAC MOTOR ASY, E1720
6	172188	2	FOAM TAPE, 1/2" SQ X 16.5"				

Rear Squeegee Assembly - View 1



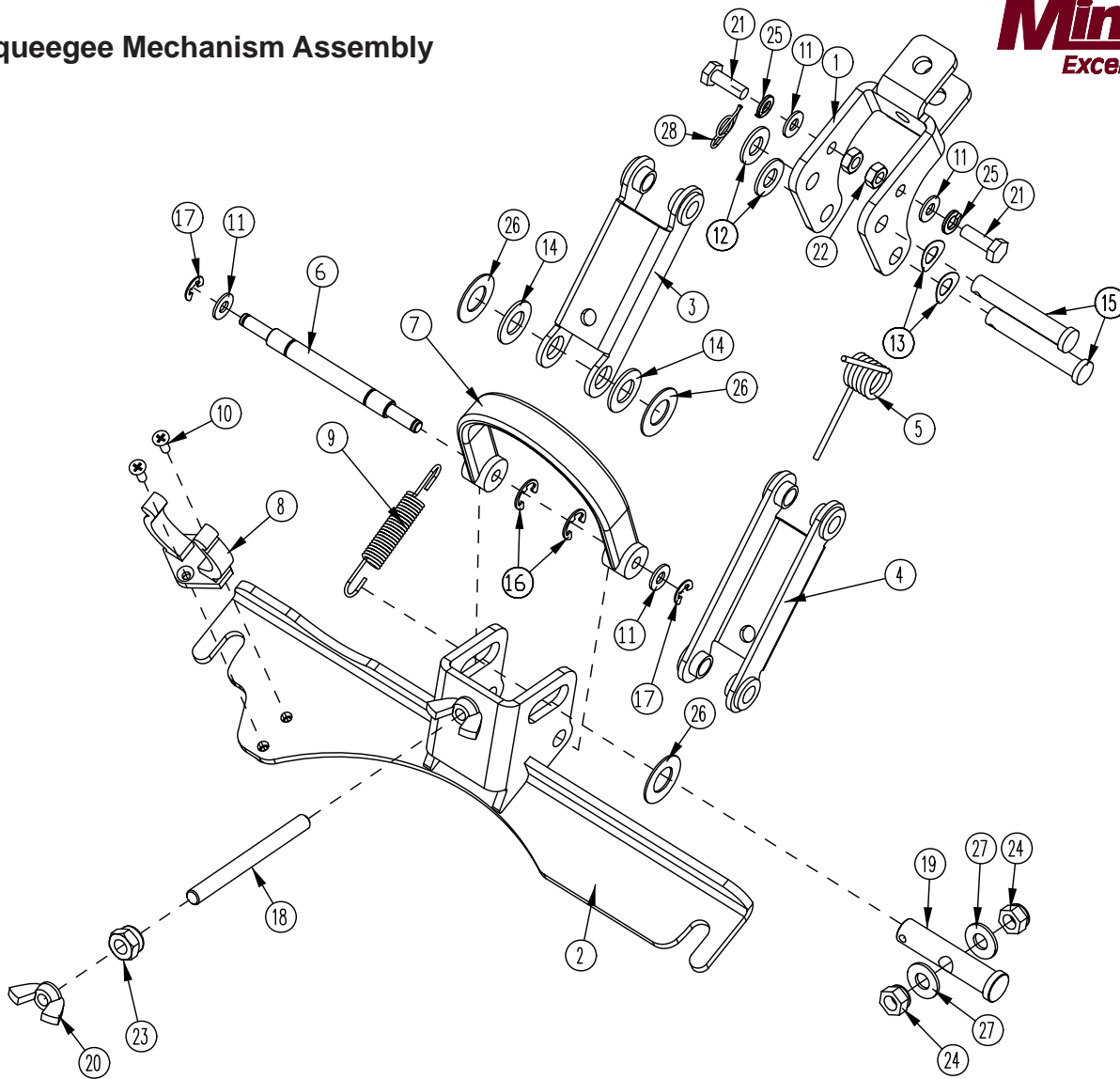
BILL OF MATERIAL - 97094502 VIEW 1				
ITEM	PART NO.	REQ'D	DESCRIPTION	NOTES
1	96125844	1	Rear Retainer Strap L/H	
2	90494139	1	Rear Squeegee Blade	
3	96113279	1	Squeegee Tool	
4	90493560	1	Front Squeegee Blade	
5	96125836	1	Front Retainer Strap L/H	
6	90514506	2	Bushing	Part of ITEM 15
7	11518313	1	Eye bolt	Part of ITEM 15
8	12040283	2	Hex. Nut	Part of ITEM 15
9	90535758	1	Lever	Part of ITEM 15
10	11039765	2	Hexagon Screw	Part of ITEM 15
11	12022430	1	Hex. Nut	Part of ITEM 15
12	90513631	1	Pressure piece	Part of ITEM 15
13	96113303	1	Front Retainer Strap R/H	
14	96113428	1	Rear Retainer Strap R/H	
15	97057459	1	Latch Assembly	
16	17383209	1	Lock	

Rear Squeegee Assembly - View 2



BILL OF MATERIAL - 97094502 VIEW 2				
ITEM	PART NO.	REQ'D	DESCRIPTION	NOTES
1	11039567	6	Hexagon Screw	
2	12332136	2	Washer	
3	90199019	2	Pipe	
4	90548397	2	Deflector Roller	
5	11039609	2	Hex. Bolt	
6	12310264	4	Washer	
7	90513094	2	Fixed Caster Wheel	
8	97098842	2	Fixed Caster Wheel	
9	1077610	2	Distance Piece	
10	90514936	1	Distance Piece	
11	90515479	250mm	Hose	
12	90548413	1	Bracket	
13	12515094	2	Disk Wheel	
14	17133026	2	Star Handle	
15	90531112	10	Spacer	

Squeegee Mechanism Assembly



BILL OF MATERIAL - 172150

ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172134	1	BKT, MAIN SQUEEGEE HINGE	15	711678	2	CLEVIS PIN 3/8 X 2-1/4
2	172155	1	SQUEEGEE MOUNT WMT	16	711717	2	RETAINING RING- E TYPE .37
3	172196	1	SQ TOP LINK W/ BUSHING	17	711720	2	.250 DIA RETAINING RING- E TYPE
4	172197	1	SQ BOT LINK W/ BUSH	18	712147	1	ROD-THD 5/16-18 X 3.5 SS
5	172261	1	TORSION SPRING	19	712148	1	CLEVIS PIN, 1/2 x 2.25 W/ HOLE
6	172352	1	PIN, 3/8 X 3.0, SQG STRAP	20	712157	2	NUT- WING 5/16-18 SS
7	172357	1	STRAP, 9" PU, BLACK	21	712562	2	BOLT-HH 1/4-20X3/4 SS
8	260579	1	TOOL CLIP, 1.5" HOSE	22	712665	2	NUT-HEX 1/4-20 SS
9	430051	1	RETURN SPRING-3.00"	23	712680	1	NUT-HEX 5/16-18 SS
10	710530	2	SCR-MC FL HD 8-32 X .50 BRS	24	712683	2	NUT, HEX 5/16-18 NYLOC SS
11	711504	4	WSR-FLAT 1/4 ID SS	25	712758	2	WSR-HELICAL 1/4 SS
12	711515	2	WSR-FLAT .406 X .812 X .0625	26	712760	3	WSR-FLAT .56X1.06X.04 SS
13	711523	2	WSR-WAVE .37X .68 X .08	27	712772	2	WSR-FLAT .344 x .75 x .06 SS
14	711592	2	WSR-FLAT .506 X .9 X .064 NYL	28	3400125	1	PIN-COTTER 3/8 RUE RING

1 Wiring Diagrams

PAGE LAYOUT

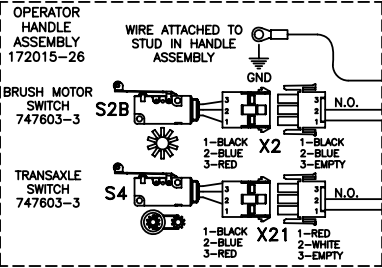
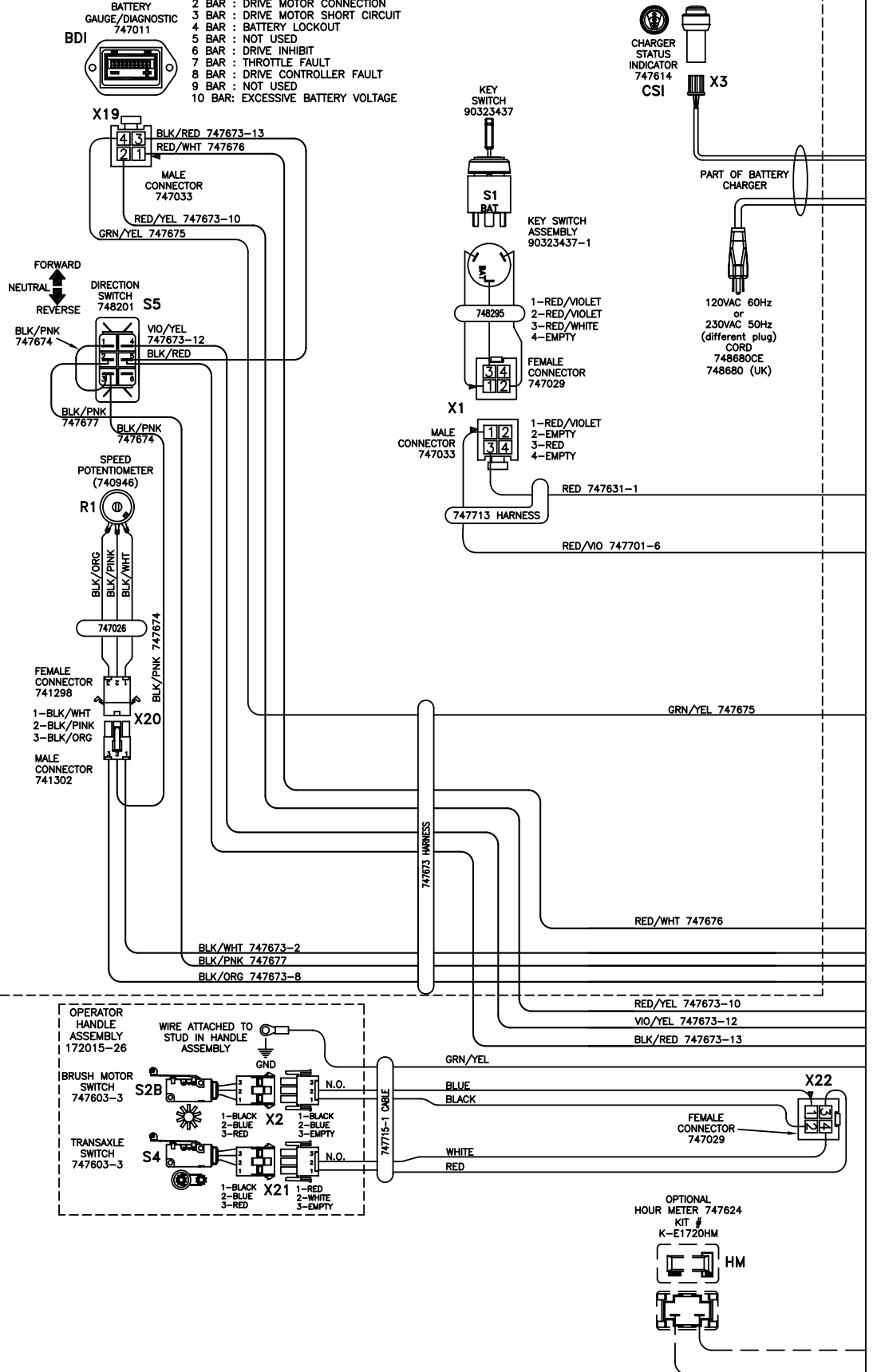


PAGES GO TOGETHER AS SHOWN TO SEE THE ENTIRE SCHEMATIC AS ONE.

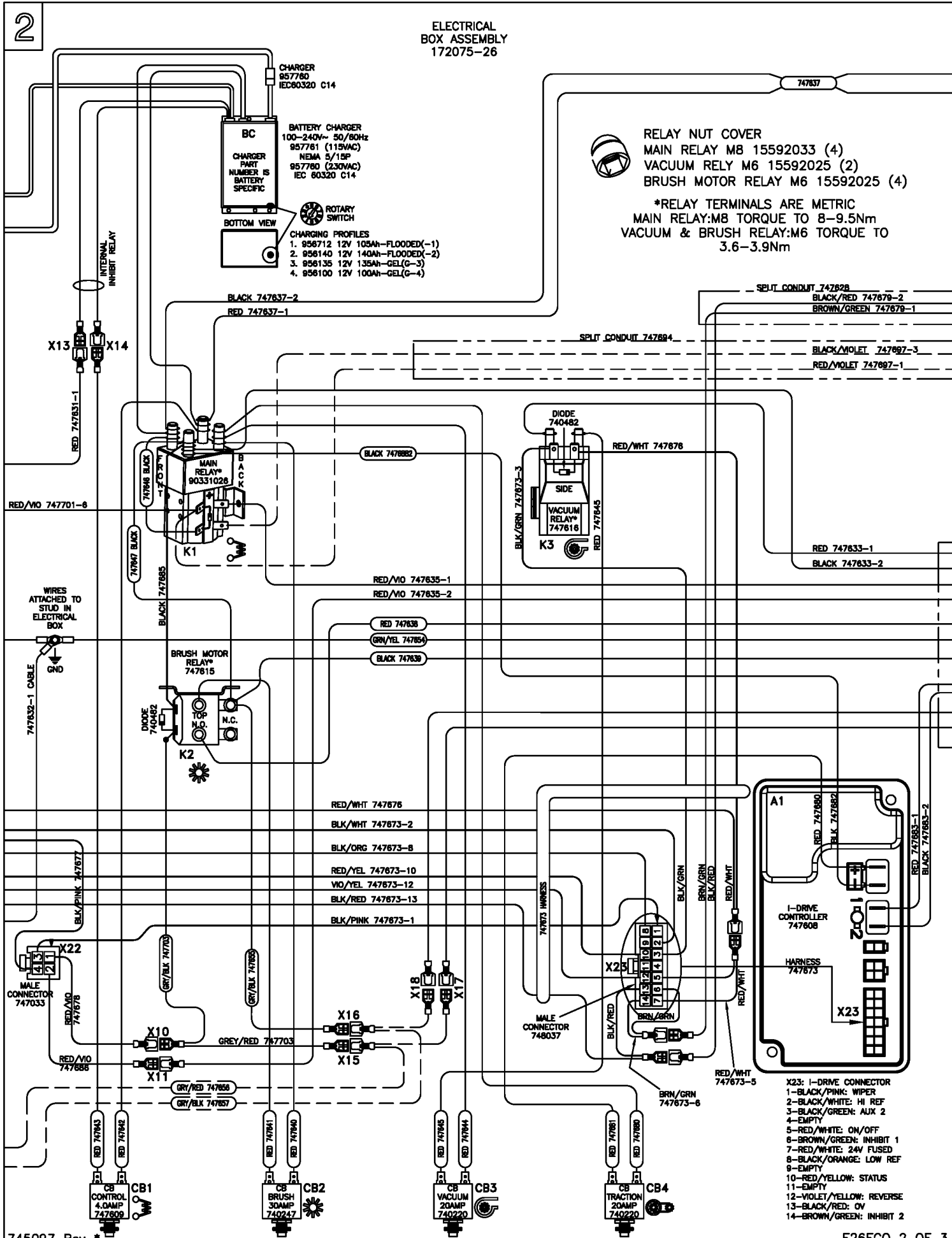
ELECTRICAL BOX COVER ASSEMBLY 172330-26

715678: DIAGNOSTIC CODE DECAL

- DIAGNOSTIC CODES: BATTERY GAUGE: 747011
- 1 BAR : CHARGE BATTERIES
 - 2 BAR : DRIVE MOTOR CONNECTION
 - 3 BAR : DRIVE MOTOR SHORT CIRCUIT
 - 4 BAR : BATTERY LOCKOUT
 - 5 BAR : NOT USED
 - 6 BAR : DRIVE INHIBIT
 - 7 BAR : THROTTLE FAULT
 - 8 BAR : DRIVE CONTROLLER FAULT
 - 9 BAR : NOT USED
 - 10 BAR : EXCESSIVE BATTERY VOLTAGE



ELECTRICAL
BOX ASSEMBLY
172075-26



BC
BATTERY CHARGER
100-240V~ 50/60Hz
957781 (115VAC)
NEMA 5/15P
957780 (230VAC)
IEC 60320 C14

CHARGER PART NUMBER IS BATTERY SPECIFIC

CHARGER 957780 IED60320 C14

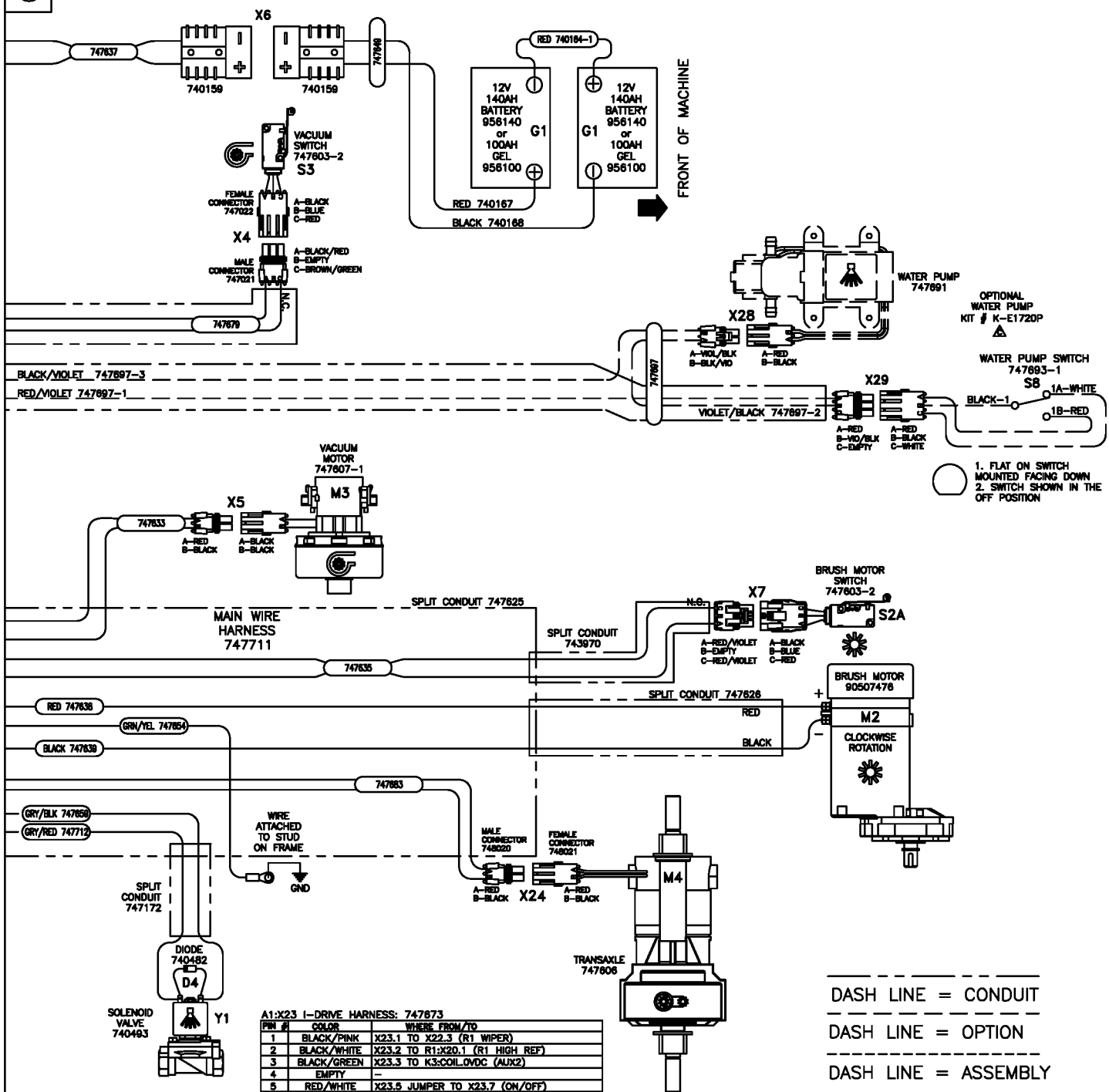
ROTARY SWITCH
BOTTOM VIEW

CHARGING PROFILES
1. 958712 12V 105Ah-FLOODED(-1)
2. 958140 12V 140Ah-FLOODED(-2)
3. 958135 12V 135Ah-GEL(C-3)
4. 958100 12V 100Ah-GEL(C-4)

- RELAY NUT COVER
MAIN RELAY M8 15592033 (4)
VACUUM RELY M6 15592025 (2)
BRUSH MOTOR RELAY M6 15592025 (4)
- *RELAY TERMINALS ARE METRIC
MAIN RELAY:M8 TORQUE TO 8-9.5Nm
VACUUM & BRUSH RELAY:M6 TORQUE TO 3.6-3.9Nm

- RED/WHT 747676
- BLK/WHT 747673-2
- BLK/ORG 747673-8
- RED/YEL 747673-10
- VIO/YEL 747673-12
- BLK/RED 747673-13
- BLK/PINK 747673-1

- X23: I-DRIVE CONNECTOR
- 1-BLACK/PINK: WIPER
 - 2-BLACK/WHITE: HI REF
 - 3-BLACK/GREEN: AUX 2
 - 4-EMPTY
 - 5-RED/WHITE: ON/OFF
 - 6-BROWN/GREEN: INHIBIT 1
 - 7-RED/WHITE: 24V FUSED
 - 8-BLACK/ORANGE: LOW REF
 - 9-EMPTY
 - 10-RED/YELLOW: STATUS
 - 11-EMPTY
 - 12-VIOLET/YELLOW: REVERSE
 - 13-BLACK/RED: OV
 - 14-BROWN/GREEN: INHIBIT 2



A1:X23 I-DRIVE HARNESS: 747673

PIN #	COLOR	WHERE FROM/TO
1	BLACK/PINK	X23.1 TO X22.3 (R1 WIPER)
2	BLACK/WHITE	X23.2 TO R1:X20.1 (R1 HIGH REF)
3	BLACK/GREEN	X23.3 TO K3:COIL.OVDC (AUX2)
4	EMPTY	-
5	RED/WHITE	X23.5 JUMPER TO X23.7 (ON/OFF)
6	BROWN/GREEN	X23.6 JUMPER TO X23.14 (INHIBIT 1)
7	RED/WHITE	X23.7 JUMPER TO X23.5 (24VDC FUSED)
8	BLACK/ORANGE	X23.8 TO R1:X20.3 (R1 LOW-REF)
9	EMPTY	-
10	RED/YELLOW	X23.10 TO BDI:X19.2 (STATUS)
11	EMPTY	-
12	VIOLET/YELLOW	X23.12 TO S5.4 (REVERSE)
13	BLACK/RED	X23.13 JUMPER S5.5 JUMPER BDI:X19.3 (OV)
14	BROWN/GREEN	X23.14 JUMPER TO X23.6 (INHIBIT 2)

R1:X20 SPEED POTENTIOMETER: 747026

COLOR	WHERE FROM/TO
1	BLACK/WHITE X20.1 TO A1:X23.2
2	BLACK/PINK X20.2 TO S5.3 JUMPER S5.1
3	BLACK/ORANGE X20.3 TO A1:X23.6

X22: OPERATOR HANDLE CABLE: 747715-1

COLOR	WHERE FROM/TO
1	BLUE X22.1 TO S2B:X2.B
2	BLACK X22.2
3	RED X22.3 TO S4:X21.A
4	WHITE X22.4 TO S4:X21.B

X22: CONNECTOR TO OPERATOR HANDLE CABLE: 747715-1

COLOR	WHERE FROM/TO
1	RED/VIOLET X22.1 TO X10 JUMPER K2:COIL.24VDC JUMPER X15
2	RED/VIOLET X22.2 TO X11 TO S2A:X7.A
3	BLACK/PINK X22.3 TO A1:X23.1
4	BLACK/PINK X22.4 TO S5.2

S1:X1 MAIN KEYSWITCH ASSEMBLY: 90323437-1

PIN #	COLOR	WHERE FROM/TO
1	RED/VIOLET	X1.1 TO K1:COIL.24VDC
2	EMPTY	-
3	RED or RED/WHI	X1.3 TO X13 BC INTERNAL RELAY
4	EMPTY	-

BATTERY CHARGER: 957761 or 957760

COLOR	WHERE FROM/TO
X13	RED X13 TO S1:X1.1
X14	BLACK X14: CB1 CONTROL 4.0A
14GA	RED K1:CONTACT + (REAR LEFT POST)
14GA	BLACK K1:CONTACT - (FRONT LEFT POST)

OTHER WIRE COLORS

COLOR	WHERE FROM/TO
RED	BATTERY 24VDC: +
BLACK	BATTERY OVDC: -
GREEN/YELLOW	GROUND
RED/VIOLET	24VDC AFTER MAIN KEYSWITCH
GREY/RED	OPTIONAL POWER 24VDC: 4A MAX
X16	GREY/BLACK OPTIONAL POWER OVDC: 4A MAX
X8:A	VIOLET/BLACK WATER PUMP: 24VDC
X8:B	BLACK/VIOLET WATER PUMP: OVDC
X9:A	VIOLET/BLACK WATER SOLENOID VALVE: 24VDC
X9:B	BLACK/VIOLET WATER SOLENOID VALVE: OVDC

E26ECO PART REFERENCE LIST
Schematic 745097

REFERENCE #	COMPONENT NAME	PART NUMBER
M1 (optional)	not used	-
M2	MOTOR, BRUSH	90507476
M3	MOTOR, VACUUM ASSEMBLY	747607-1
M4	TRANSAXLE	747606
Y1	SOLENOID VALVE, WATER	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
CB4	CIRCUIT BREAKER 20A, TRANSAXLE	740220
S1	KEYSWITCH	747617
S2A	SWITCH, BRUSH MOTOR (at motor)	747603-2
S2B	SWITCH, BRUSH MOTOR (handle)	747603-3
S3	SWITCH, VACUUM MOTOR	747603-2
S4	SWITCH, TRANSAXLE (handle)	747603-3
S5	SWITCH, DIRECTION	748201
S8 (optional)	not used	-
A1	CONTROLLER, I-DRIVE	747710
R1	SPEED POTENTIOMETER ASSEMBLY	747026
BDI	BATTERY DISCHARGE INDICATOR	747011
CSI	CHARGER STATUS INDICATOR	747614
HM (optional)	HOUR METER (KIT K-E1720HM)	747624
BC (model specific)	BATTERY CHARGER 115VAC (battery type specific)	957761 (-2 or G-4)
BC (model specific)	BATTERY CHARGER 230VAC (battery type specific)	957760 (-2 or G-4)
G1	BATTERY, 12V 140AH (2 REQUIRED)	956140
G1 (optional)	BATTERY, GEL 12V 100AH (2 REQUIRED)	956100
D1	DIODE, MAIN RELAY	Part of K1
D2	DIODE ASM, BRUSH MOTOR RELAY	740482
D3	DIODE ASM, VACUUM MOTOR RELAY	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 (optional)	not used	-	-
X9	not used	-	-
X10	OPERATOR HANDLE CABLE	741093	740697
X11	OPERATOR HANDLE CABLE	740366	740697
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)	OPTIONAL HOUR METER (HM) WIRE-747656	740366	741165
X18 (optional)	OPTIONAL HOUR METER (HM) WIRE-747657	740366	741165
X19	BATTERY GAUGE (BDI)	Part of BDI	747033
X20	SPEED POT ASSEMBLY (R1)	741298	741302
X21	SWITCH, TRANSAXLE (S4)	747022	747021
X22	OPERATOR HANDLE CABLE: 747632-1	747029	747033
X23	I-DRIVE HARNESS: 747673	Part of A1	748037
X24	TRANSAXLE (M4)	748021	748020
X25	I-DRIVE (A1) TO VACUUM SWITCH (S3)	740366-1	741165
X26	I-DRIVE (A1) TO VACUUM SWITCH (S3)	741093	740698
X27	I-DRIVE (A1) TO VACUUM RELAY-CONTACT	741093	741165
X28 (optional)	not used	-	-
X29 (optional)	not used	-	-

Minuteman International Made Simple Commercial Limited Warranty



REVISION F
EFFECTIVE 6/1/2009

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 prefilters 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.

Cord Electric Group: Three years parts, two years labor, ninety days travel (Not to exceed two hours)

Exceptions.....

Model	Parts	Labor	Poly	Travel
Port A Scrub	1yr	6months	10yrs	0
MPV 13	1yr	0	0	0
MPV 14 & 18	2yrs	1yr	0	0
V Series Upright Vacuums	1yr	1yr	0	0
Rapid Air Blower	1yr	1yr	10yrs	0
Explosion Proof Vacuum	1yr	1yr	0	0
X12, X12H & TRS 14	1yr	1yr	10yrs	0
E17 & E20 Electric Scrubbers	1yr	6month	10yrs	0
Pneumatic Vacuums	3yr	1yr	0	0

Description	Parts	Labor	Poly	Travel
Battery Operated Group	3yrs	2yrs	10	90 days
Sweepers	1yr	1yr	10	90 days
Internal Combustion Group	1yr	1yr	10	90 days

Not to exceed two hours

Exception: PAS 14B **1yr** **1yr** **10yr** **0**

Battery Chargers: **One year replacement**
Replacement Parts: Ninety days
Batteries: 0-3 months replacement, 4-12 months pro-rate
Polyethylene Plastic Tanks: Tanks have 10yr warranty, no additional labor