



Parts Manual

E Ride 28/32 Scrubber

This machine was designed to give you excellent performance and efficiency. For best results and minimal cost, please follow the general guidelines below:

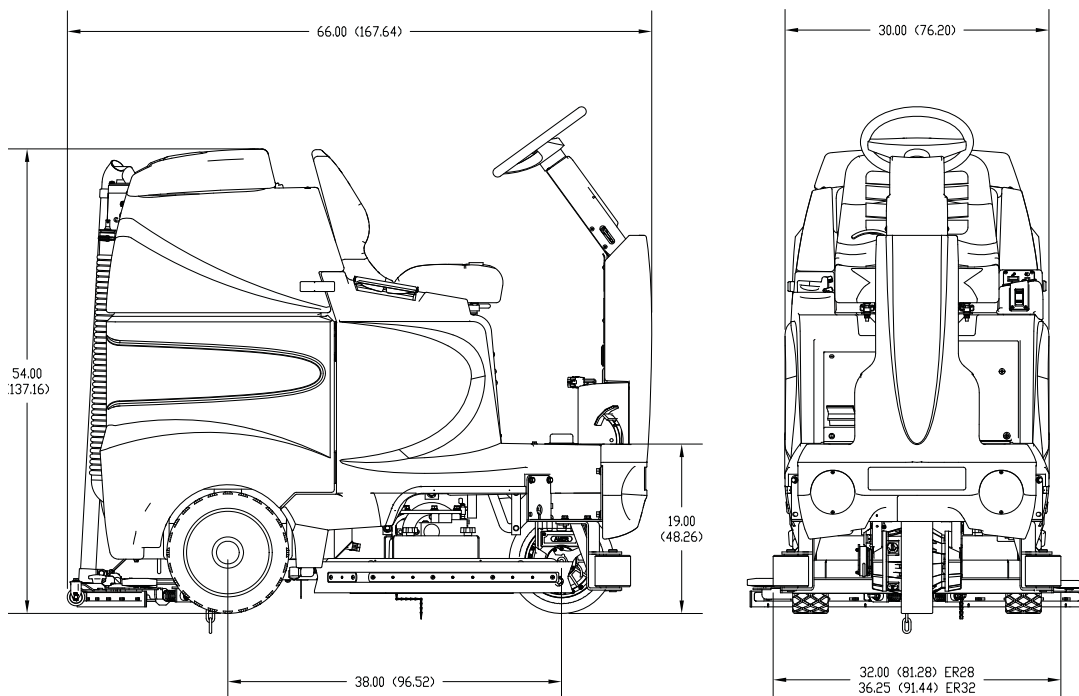
- Operate the machine with reasonable care.
- Follow the manufacturers suggested maintenance instructions as provided in the user manual.
- Use original Minuteman supplied parts.

Technical Specifications

Model E RIDE 2832

Model No. ER28C, ER28CPLUS, ER28CQP, ER28CQPG, ER28CQPT, ER28D, ER28DPLUS, ER28DQP, ER28DQPG, ER28DQPT, ER32C, ER32CPLUS, ER32CQP, ER32CQPG, ER32CQPT, ER32D, ER32DPLUS, ER32DQP, ER32DQPG, ER32DQPT, ER32DPLUSIW, ER32DQPIW

Current	60 Amps
Voltage, Batteries	36 volts, 6-6volt
Battery Capacity	275 Ah (Optional 395 Ah batteries available)
Sound Level	75 dB
Dimensions (LxWxH)	66" x 31" x 54" (167.64cm x 78.74cm x 137cm)
Gross Weight	1,243 lbs (564 kg) with batteries 847 lbs (384 kg) without batteries
Working Grade Transport	10% (7°)
Wheel to Floor Pressure	64 PSI Front, 69 PSI Rear

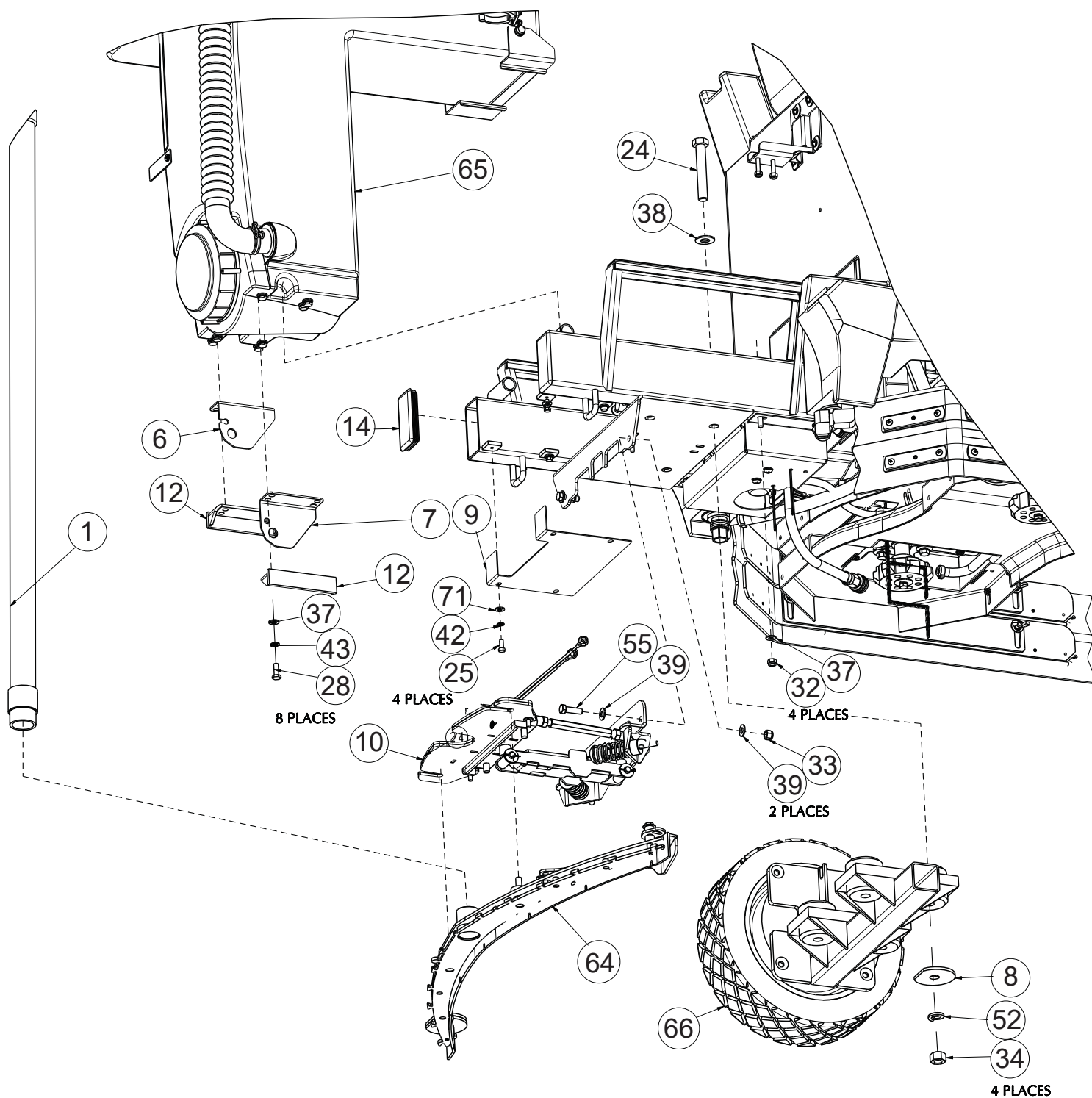


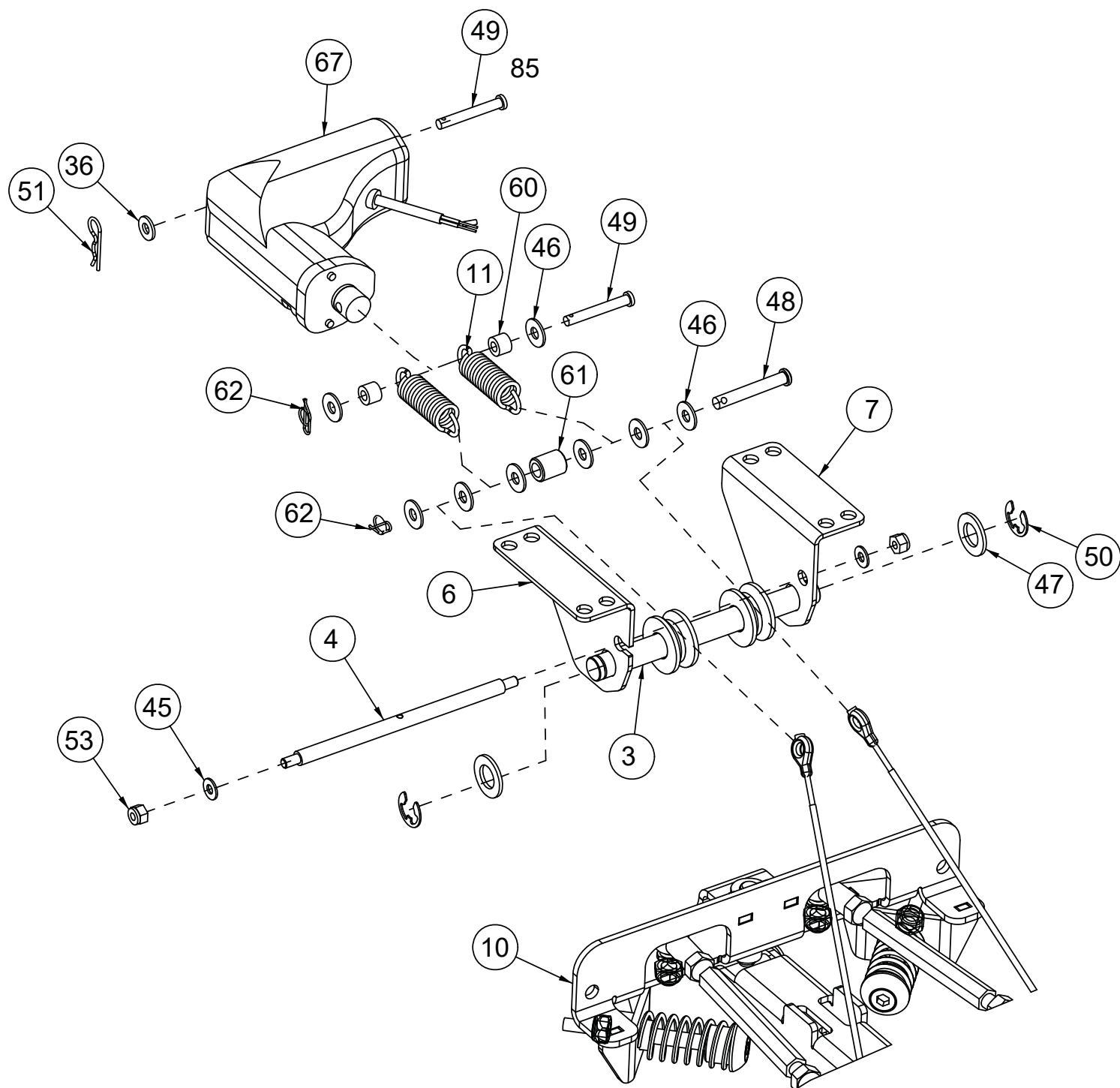
For Safety When Servicing or Maintaining Machine

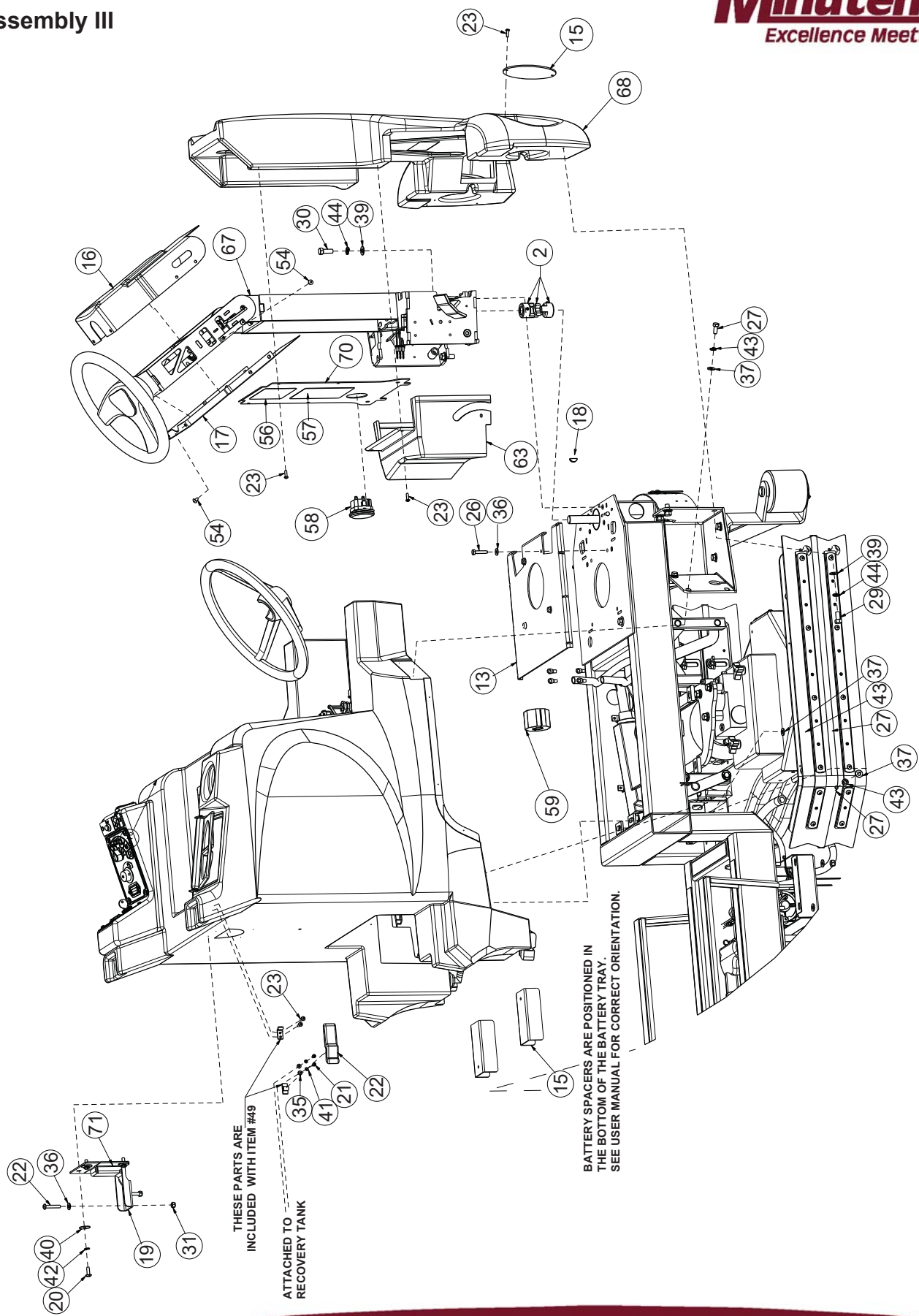
- Stop on level surface.
- Disconnect the power to the machine by pulling the red Battery Connector located under the recovery tank near the batteries.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- Avoid contact with battery acid. Battery acid can cause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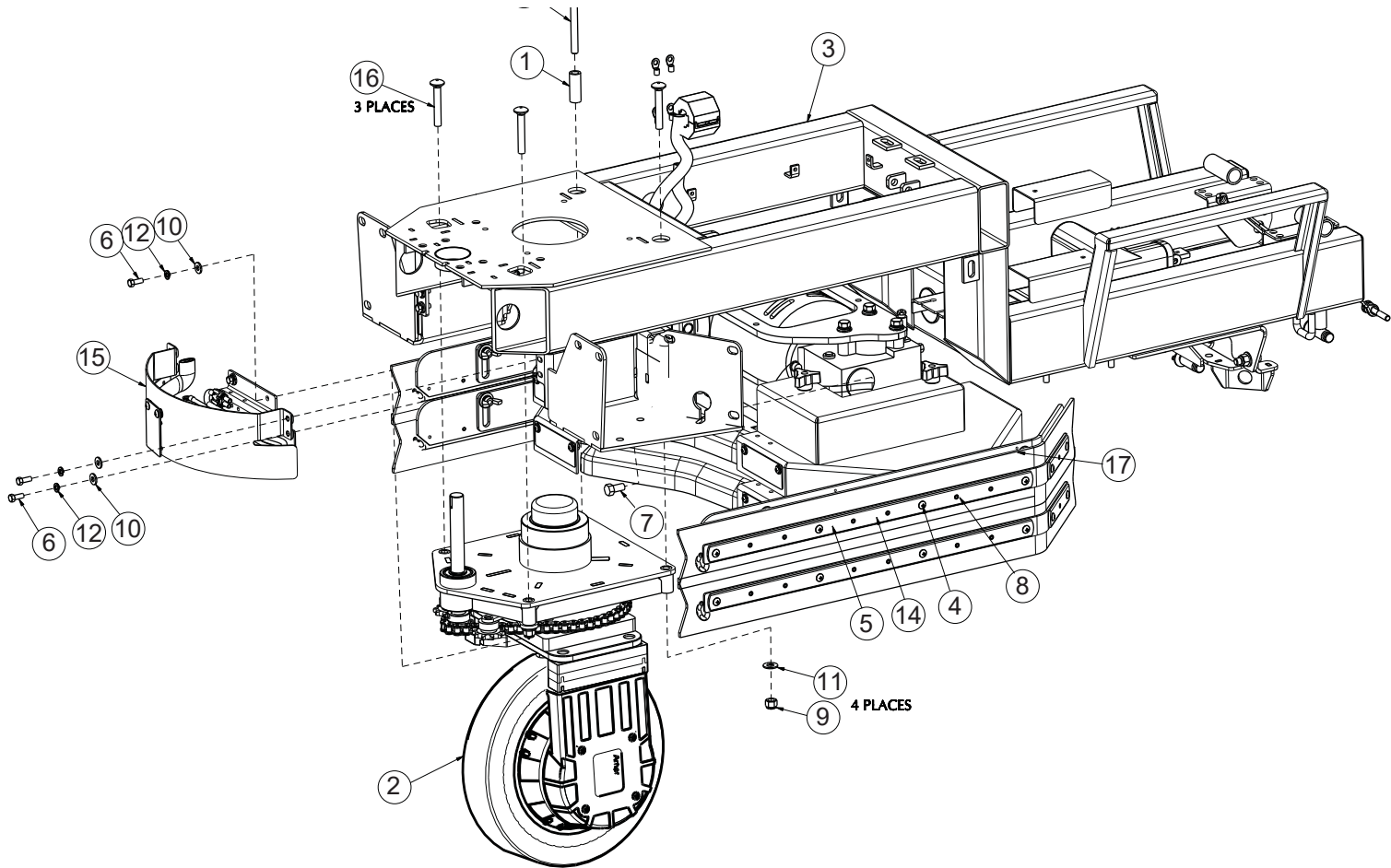
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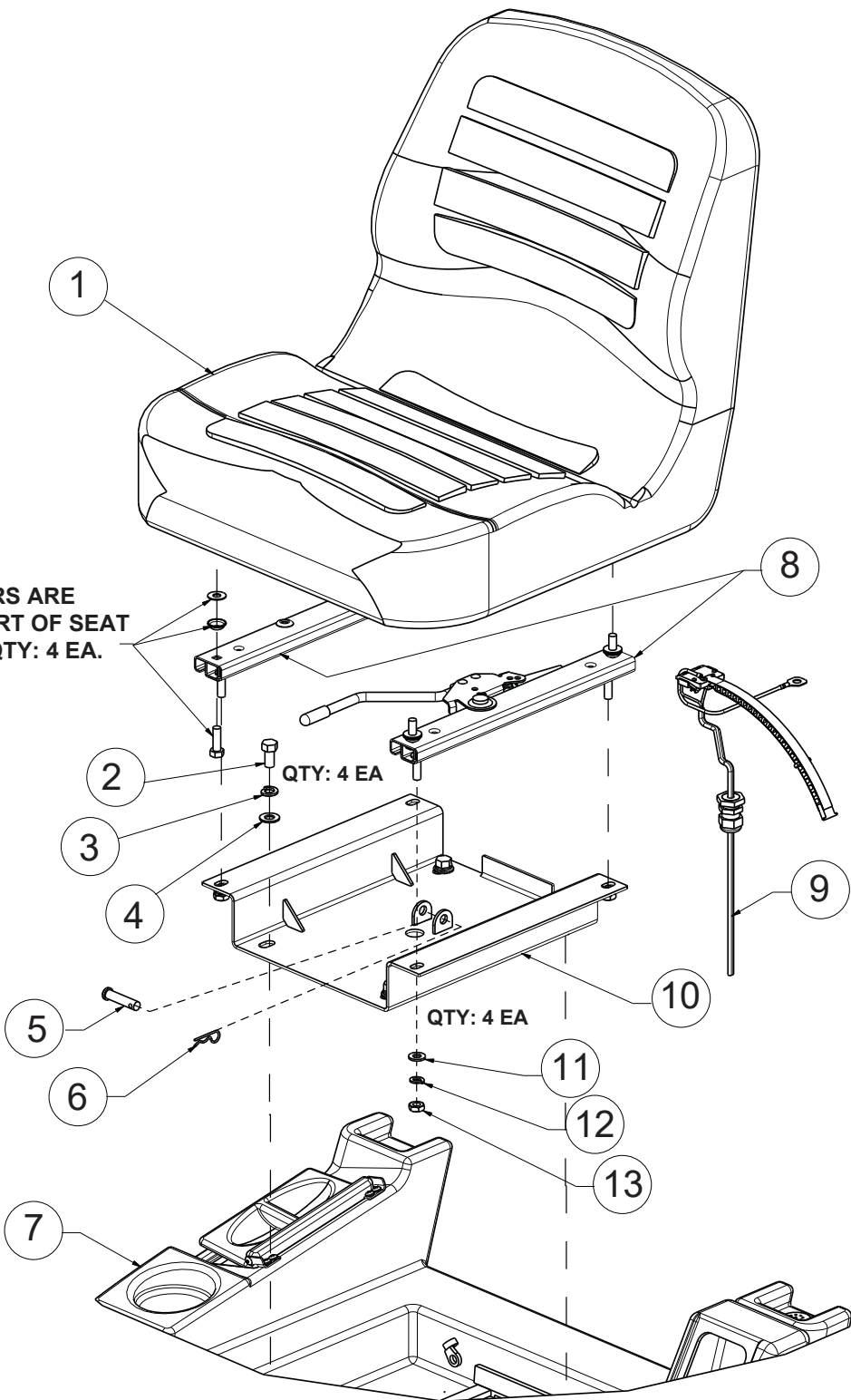


BILL OF MATERIAL - MAIN ASSEMBLY							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	241356	1	VAC. HOSE - 48" FLEX. W/PVC CUFFS	36	711505	13	WASHER-FLAT 1/4 ZP
2	281051	1	SPIDER COUPLING, 3/4"	37	711506	20	WSR-FLT .344 X .690 X .062, STEEL
3	281171	2	ACTUATOR LIFT LINK ASSEMBLY	38	711511	4	WSR-FLAT .62 X 1.31 X .09
4	281174	1	LINK ATTACHMENT SHAFT	39	711515	27	WSR-FLAT .406 X .812 X .0625
5	281176	1	LOWER LINK ASS'Y, RIGHT	40	711519	4	WSR- FLAT .25 X 1.01 X .06
6	281193	1	BRACKET - LIFT, LH	41	711542	4	WSR-HELICAL #8
7	281194	1	BRACKET - LIFT, RH	42	711544	14	WSR-HELICAL 1/4
8	281211	4	SNUBBING WSR	43	711545	16	WSR-HELICAL 5/16
9	281228	1	REAR COVER	44	711546	16	WSR-HELICAL 3/8
10	281230	1	REAR SQUEEGEE MECHANISM	45	711562	2	WSR-EXTERNAL LOCK #8
11	281292	1	DISK SCRUBDECK ASY 28" ER2832-NO BRUSHES	46	711575	5	WSR-FLT .31x.75x.06ST
	281293		DISK SCRUBDECK ASY 32" ER2832-NO BRUSHES	47	711583	4	WSR-WAVE .78 X 1.00 X .02
12	281360	2	FIXED SLIDER WELDT	48	711588	7	WSHR - FLAT, .76 ID X 1.00 OD X .020
13	281352	1	FLOOR PANEL	49	711675	1	CLEVIS PIN 1/4 X 1-7/8
14	281446	2	ENDCAP, TUBING 2" X 4"	50	711713	10	RETAINING RING - "E" TYPE EXT .500
15	281671	2	BRACKET, U CHANNEL SPACER	51	711808	2	COTTER PIN-HAIR #13
16	281991	1	STEERING COVER, TOP, SCV2832	52	712315	4	WSR-HELI .64 X 1.26 X .06 PL
17	281992	2	STEERING COVER, BTM, SCV2832	53	712767	1	FLAT WASHER .406 ID X .75 OD X .
18	383277	2	KEY WOODRUFF 3/16 X 3/4	54	712816	6	SCR-MC 10-24 X .37 STPL
19	281998	2	BKT, BATT CABLE MOUNT, SCV2832	55	713043	2	BLT-HH 3/8-16 X 1 1/4 #5
20	710180	4	SCR-THMS 1/4-20 X .75 ZP	56	715901	1	WARNING DECAL, TANK LATCH
21	710328	4	SCR-MC RD HD 8-32X.37 STL	57	715908	1	DECAL, DIAGNOSTIC CODES SCVS
22	450207	2	LATCH-SOFT	58	740539	1	HOUR METER 10 - 80 VDC
23	711161	10	SCR-HI/LO 10 X 3/4 STL BLK ZINC	59	744017	1	FERRITE- BEAD CLAMP ON
24	711173	4	BLT-HH 5/8-11 X 4 (GR 5)	60	809148	6	RET RING-E TYPE .75
25	711203	10	SCR-HH 1/4-20 X .62 ZP TAP	61	833374	1	PIN, HAIRPIN COTTER 3/8
26	711210	4	BLT-HH 1/4-20 X 1.25 STPL	62	3400661	2	PIN-COTTER 5/8 RUE-RING
27	711228	12	BLT-HH 5/16-18 X .75 ST PL	63	281024E	1	STEERING COLUMN COVER - BTM
28	711229	8	SCR-HH 5/16-18 X .87 ZP GR 5	64	281230	1	REAR SQUEEGEE ASSY. - 950mm
29	711241	7	SCR-HEX 3/8 -16X .75" ZP	65	281010M	2	RECVEY TNK ASY.-E RIDE 2832
30	711242	6	BLT-HH 3/8 -16 X 1.00	66	281201E	1	REAR AXLE ASSY
31	711373	2	NUT-NYLOC 1/4-20	67	282301E	1	STEERING COLUMN ASSY, SCV2832
32	711374	4	NUT-NYLOC 5/16-18	68	281001HG	1	FRONT BUMPER - E RIDE 2832
33	711380	7	NUT-NYLOC 3/8-16 NUT	69	281139	1	COVER, HEADLIGHT BLANK 5", SCV2832
34	711445	4	NUT HEX 5/8 X 11 PLATED	70	281429E	1	COVER REAR W/ HOLEHOUR METER ST. COLUMN
35	711502	4	WASHER-FLAT #8 ZP	71	281997	1	COVER, BATTERY CABLE MOUNT, SCV2832

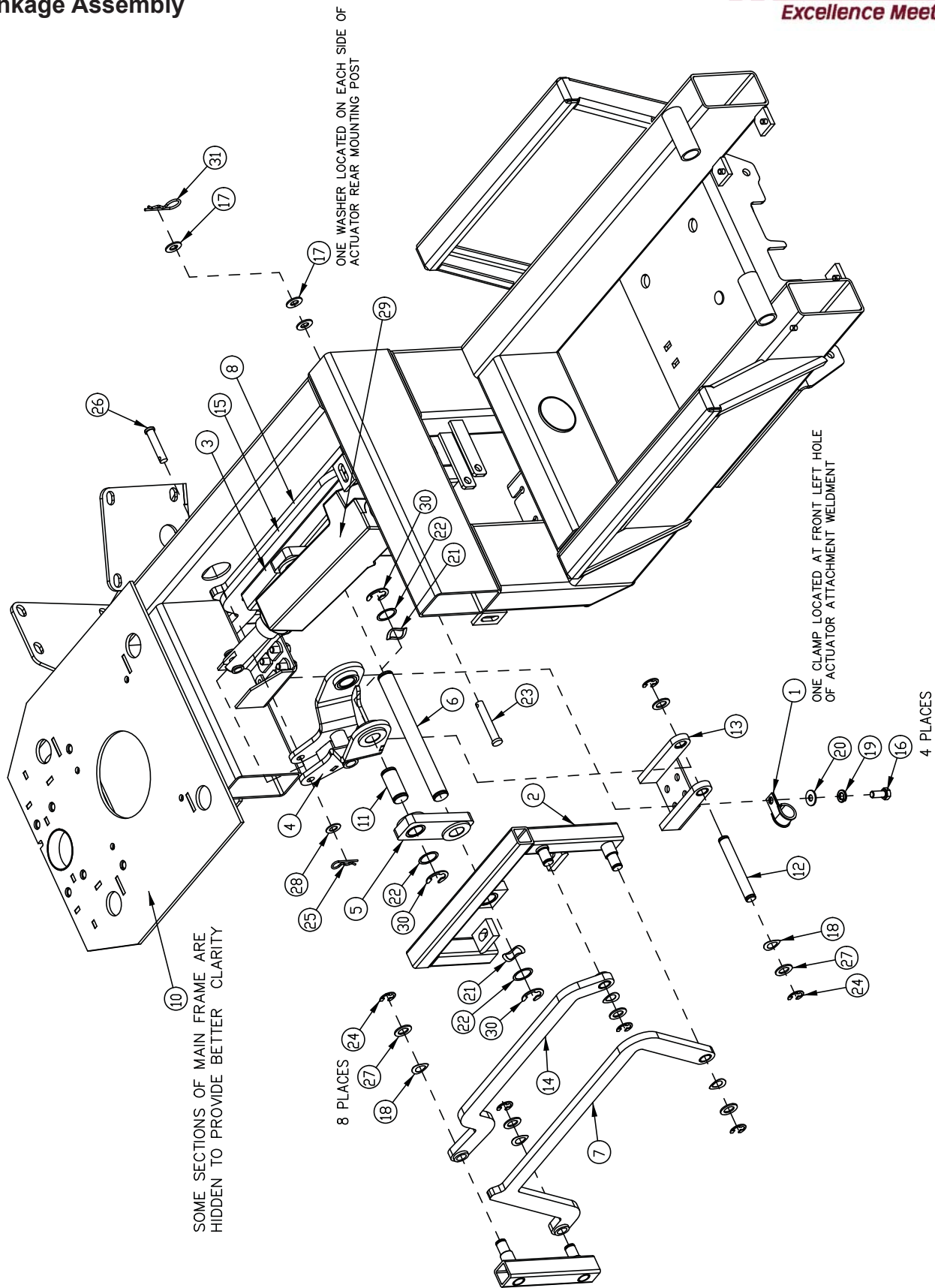


BILL OF MATERIAL - MAIN ASSEMBLY IV			
ITEM	PART NO.	QTY	DESCRIPTION
1	840118	1	BUSHING-.375 X .625 X .750 ZINC
2	281189	1	FRONT DRIVE ASSY - E RIDE 2832
3	281300	1	MAIN FRAME - E RIDE 2832
4	281996	1	BKT, MOUNT FOR HORN, SCV2832
5	710204	2	SCR-PHMS 6-32 X .50 ZP
6	711203	6	SCR-HH 1/4-20 X .62 ZP TAP
7	711241	1	SCR-HH 3/8-16 X .75 ZP GR 5
8	711371	2	NUT-NYLOC 6-32 ZP
9	711380	7	NUT-NYLOC 3/8-16 ZP
10	711505	7	WASHER-FLAT 1/4 ZP
11	711515	8	WASHER-FLAT 3/8 X .812 X .0625 ZP
12	711544	6	WASHER-LOCK 1/4 SPLIT ZP
13	713051	1	SCR-HH 3/8-16 X 3.75 ZP GR 5
14	748200	1	HORN / BACK UP ALARM, 9-48VDC
15	748360	1	FRONT MOTOR CABLE ASSY- ER2832
16	711254-1	3	BLT-CARR 3/8-16 X 2.50 ZP GR 5
17	281851	1	SIDE SQUEEGEE WIPE ASSY LH, SCV 28/32 (CYLINDRICAL MACHINES)
	281875		SIDE SQUEEGEE WIPE ASSY RH, SCV2832 (DISK MACHINES)

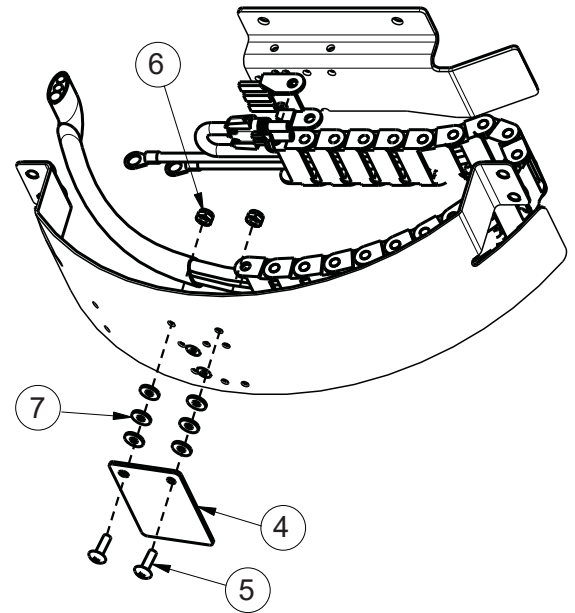
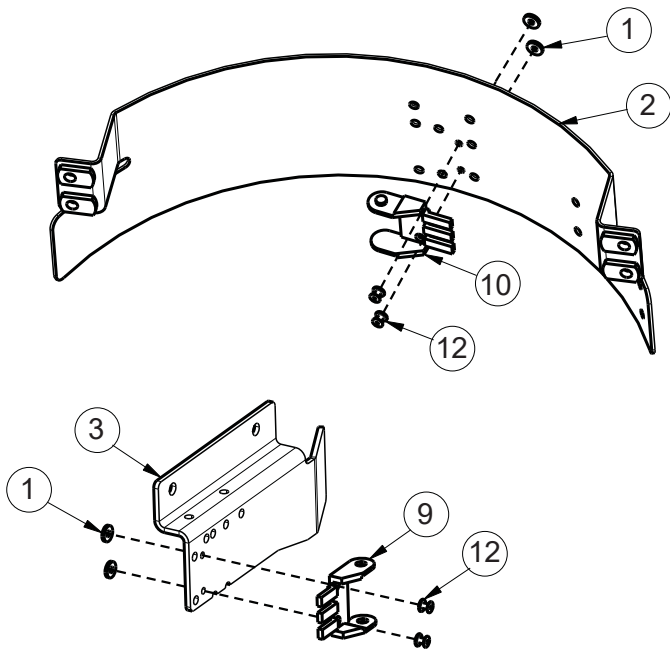
THESE FASTENERS ARE
INCLUDED AS PART OF SEAT
SLIDE ASSY KIT QTY: 4 EA.



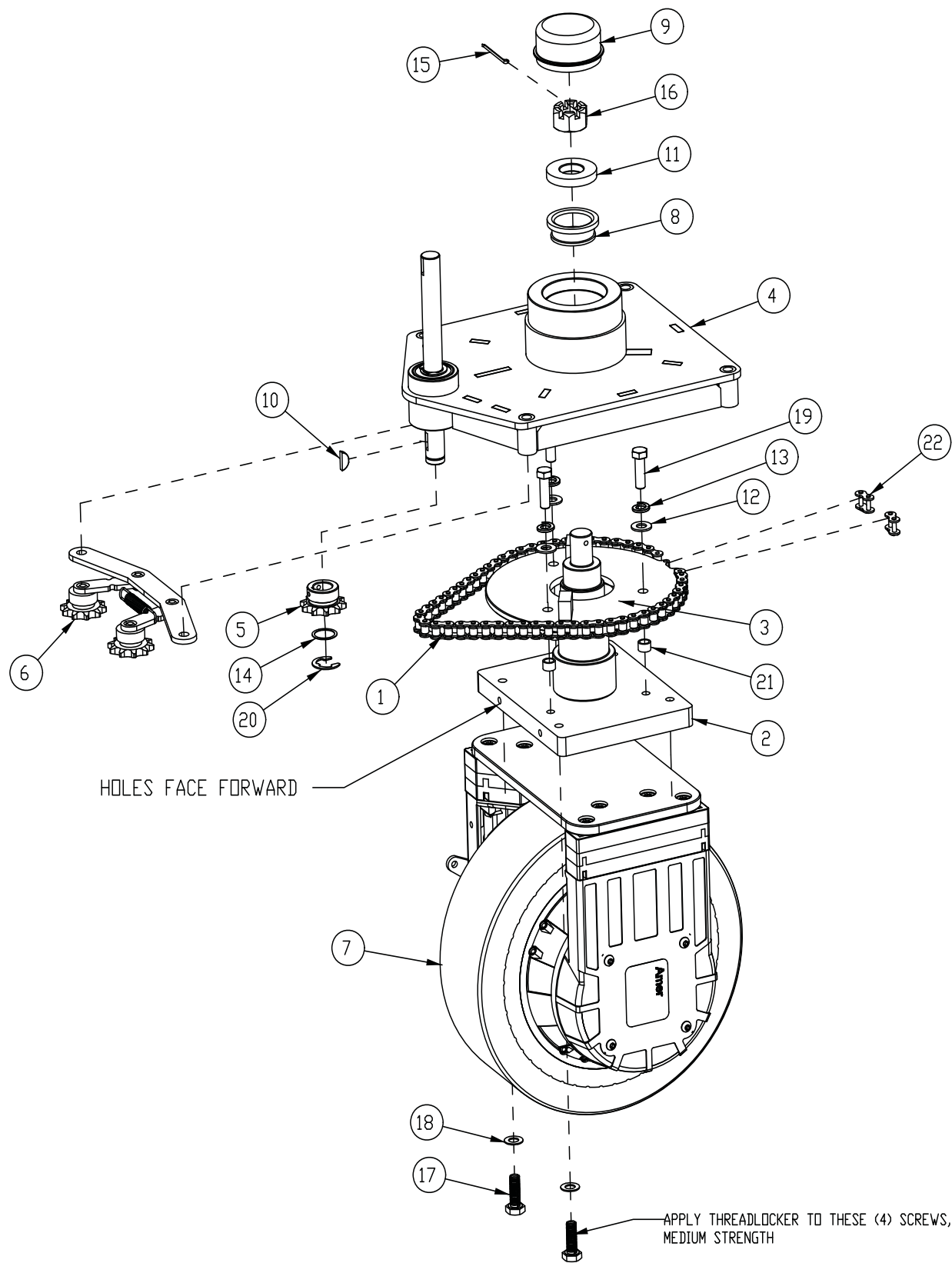
BILL OF MATERIAL - SEAT ASSEMBLY			
ITEM	PART NO.	QTY	DESCRIPTION
1	281085	1	ASS'Y SEAT, SUPER SUBURBAN
2	711241	4	SCR-HH 3/8-16 X .75 ZP GR 5
3	711546	4	WASHER-LOCK 3/8 SPLIT ZP
4	711515	4	WASHER-FLAT 3/8 X .812 X .0625 ZP
5	831965	1	PIN-CLEVIS 3/8 X 1.63
6	711808	1	PIN-HAIRPIN COTTER #13
7	281012M	12	SOLUTION TANK ASSY. - E RIDE 2832
8	281086	1	SLIDE ASS'Y KIT
9	281087-1	1	SEAT SWITCH ASSY, SCV2832
10	281376	1	28 SEAT BRACKET WMT
11	711506	4	WASHER-FLAT 5/16 X .688 ZP
12	711545	4	WASHER-LOCK 5/16 SPLIT ZP
13	711319	4	NUT-HEX 5/16-18 ZP



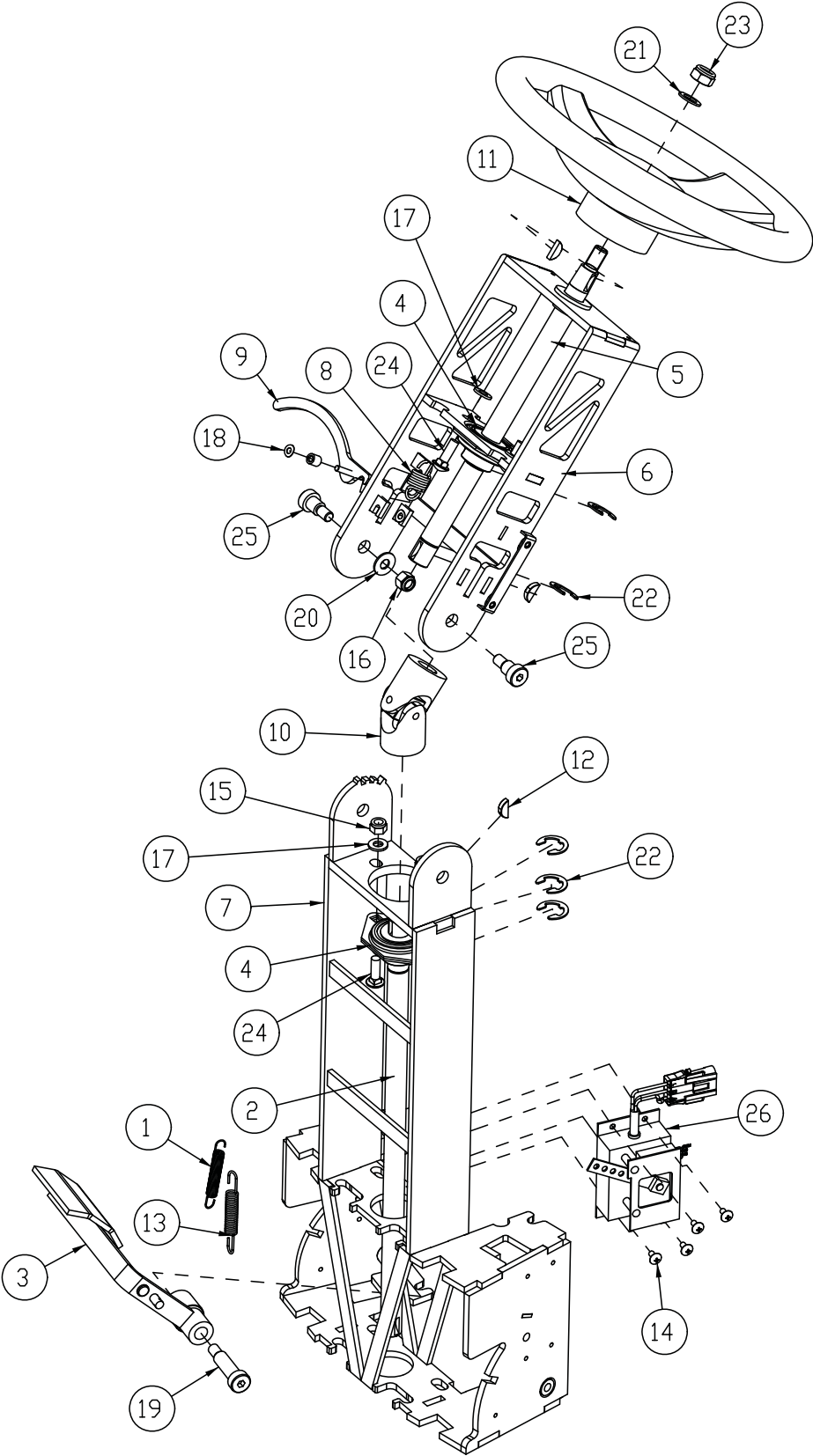
BILL OF MATERIAL - DECK LINK ASSEMBLY			
ITEM	PART NO.	QTY	DESCRIPTION
1	82-54-A	1	CLAMP-P .75 I.D. 5/16 DIA.
2	241468	1	WELD-LIFT W/BUSHING LEFT SCV 24/26
3	241470	1	WELD-LIFT W/BUSHING RIGHT SCV 24/26
4	281161	1	ACTUATOR CRANK ASSEMBLY
5	281171	2	ACTUATOR LIFT LINK ASSY
6	281174	1	SHAFT - LINK ATTACHMENT
7	281175	1	LOWER LINK ASSY., LEFT
8	281176	1	LOWER LINK ASSY., RIGHT
9	281211	2	WSR-SNUBBING
10	281300	1	MAIN FRAME - E RIDE 2832
11	281458	2	LINK ATTACHMENT SHAFT
12	281459	1	CRANK PIVOT SHAFT
13	281471	1	ACTUATOR ATM'T WMT W/ BUSHING ASS'Y
14	281477	1	UPPER LINK ASS'Y, LEFT
15	281478	1	UPPER LINK ASS'Y, RIGHT
16	711228	4	SCR-HH 5/16-18 X .75 ZP GR 5
17	711515	3	WASHER-FLAT 3/8 X .812 X .0625 ZP
18	711524	9	WASHER-WAVE .52 X .87 X .01
19	711545	4	WASHER-LOCK 5/16 SPLIT ZP
20	711575	4	WASHER-FLAT 1/4 X .75 X .06 ZP
21	711583	4	WASHER-WAVE .78 X 1.00 X .02
22	711588	7	WASHER-FLAT 3/4 X 1.00 X .025 ZP
23	711678	1	PIN-CLEVIS 3/8 X 2 1/4 ZP
24	711713	10	RET RING-E EXT .50
25	711808	1	PIN-HAIRPIN COTTER #13
26	712124	1	PIN-CLEVIS 3/8 X 1 3/4
27	712310	10	WASHER-FLAT .52 X .87 X .06 ZP
28	712767	1	WASHER-FLAT .406 X .75 X .035 SS
29	740819-2	1	ACTUATOR ASY 50mm 4000N 24/36VDC
30	809148	6	RET RING-E TYPE .75
31	833374	1	PIN-HAIRPIN COTTER 3/8



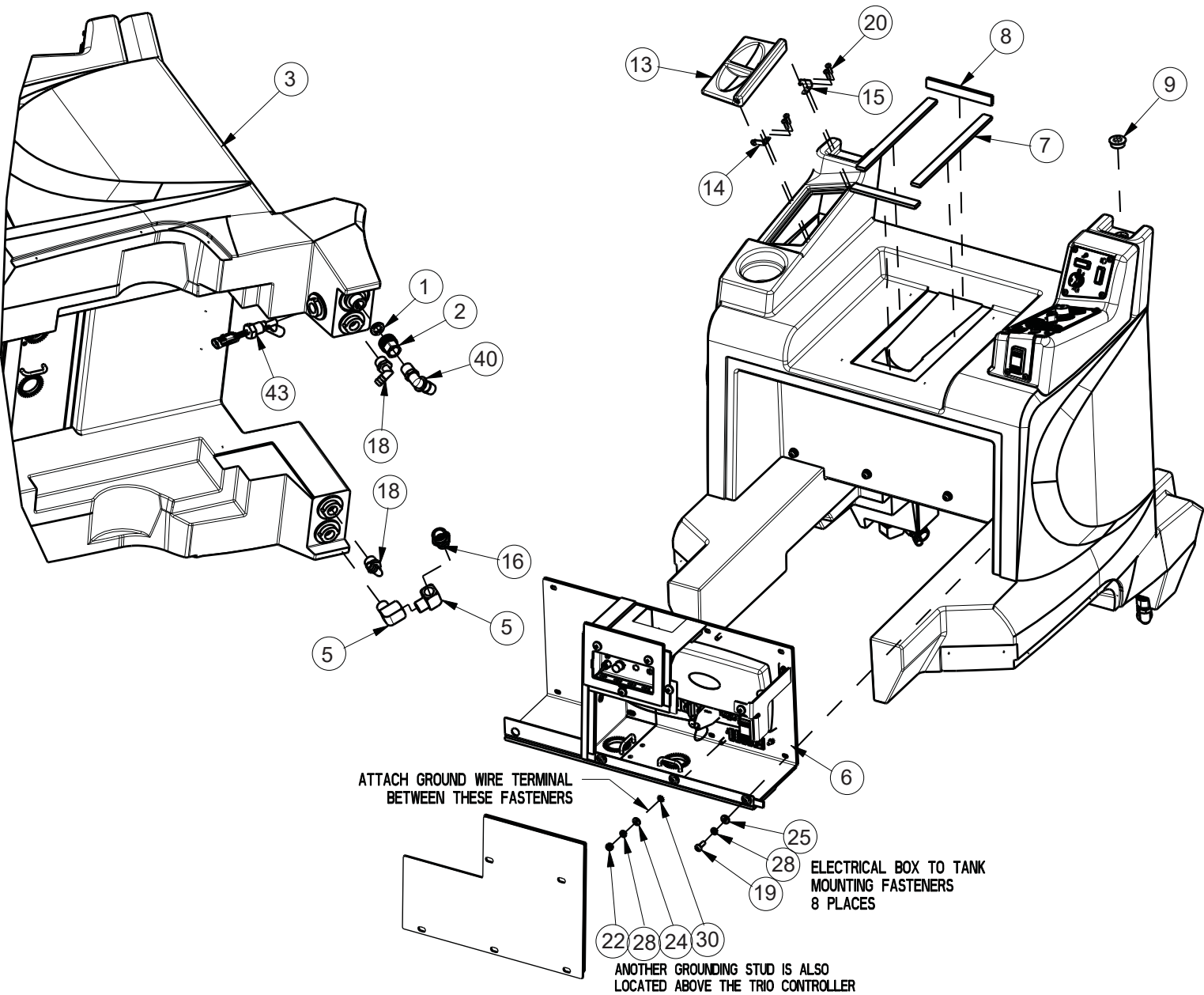
BILLO OF MATERIAL - 748360			
ITEM	PART NO.	QTY	DESCRIPTION
1	950-4-S	4	BACK UP PLATE 1/8" STEEL
2	281188	1	FRONT BRACKET - CABLE GUIDE, E RIDE 2832
3	281192	1	BRACKET = DRIVE MOTOR
4	281237	1	FRONT PLATE
5	710154	2	SCR-THMS 10-32 X .625 SS
6	711350	2	NUT-NYLOC 10-32 ZP
7	712764	6	WASHER-FLAT #10 SS
8	748020	1	CONNECTOR-PACKARD 2 PIN MALE
9	748219-2	1	CABLE GUIDE, MOUNT BRACKET- BORE
10	748219-3	1	CABLE GUIDE, MOUNT BRACKET- PIN
11	748344	1	WIRE HARNESS - DRIVE MOTOR, ER2832
12	827666	4	RIVET-POP 1/8 DOME HD, BLK ALUM BODY

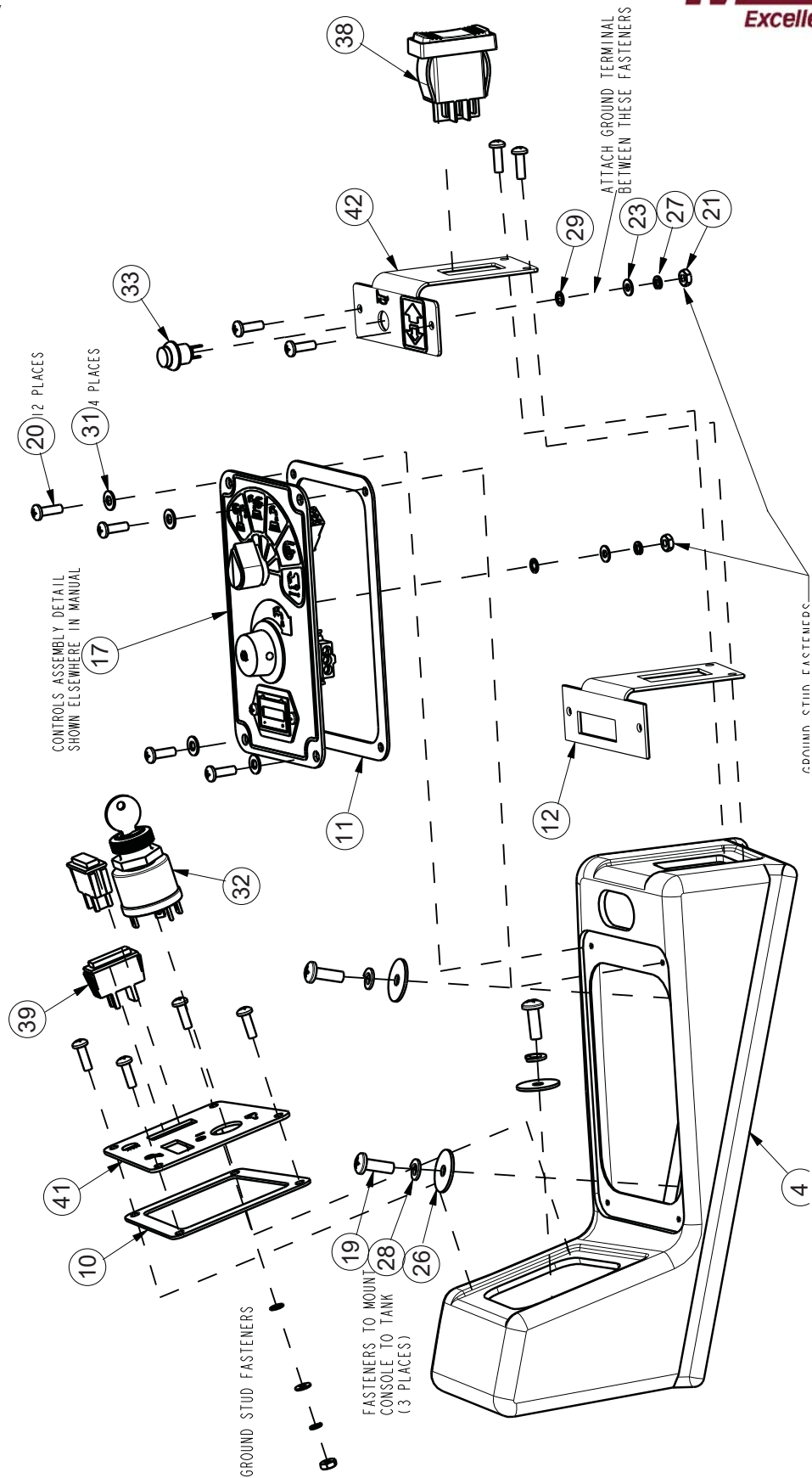


BILL OF MATERIAL - 281189			
ITEM	PART NO.	QTY	DESCRIPTION
1	281054	1	CHAIN, STEERING No. 40, 27.5"
2	281190	1	SPINDLE WELDMENT
3	281254	1	STEERING DISC WMT
4	281257	1	FRONT DRIVE W/ BEARING ASSY
5	281268	1	SPROCKET-RC #40, 10 TEETH, 3/4" BORE
6	281285	1	IDLER ASSY, FRONT DRIVE
7	281400	1	DRIVE MOTOR - AMER
8	383077	1	BEARING CONE (LM104949)
9	383250	1	GREASE CAP
10	383277	1	KEYWOODRUFF 3/16 X 3/4
11	383364	1	THRUST WASHER
12	711515	3	WSR-FLAT .406 X .812 X .0625
13	711546	3	WSR-HELICAL 3/8
14	711588	1	WASHER - FLAT , .76 ID X 1.00 OD X .020
15	711807	1	COTTER PIN .12 X 1.75
16	712113	1	CASTLE NUT
17	712330	4	METRIC HEX CAP SCREW M10x1.5x30
18	712767	4	FLAT WASHER .406 ID X .75 OD X .
19	713043	3	BLT-HH 3/8-16 X 1 1/4 #5
20	809148	1	RETAINING RING - "E" TYPE EXT .75
21	809247	3	STEERING PLATE SPACER
22	833629	2	MASTER LINK ASSY

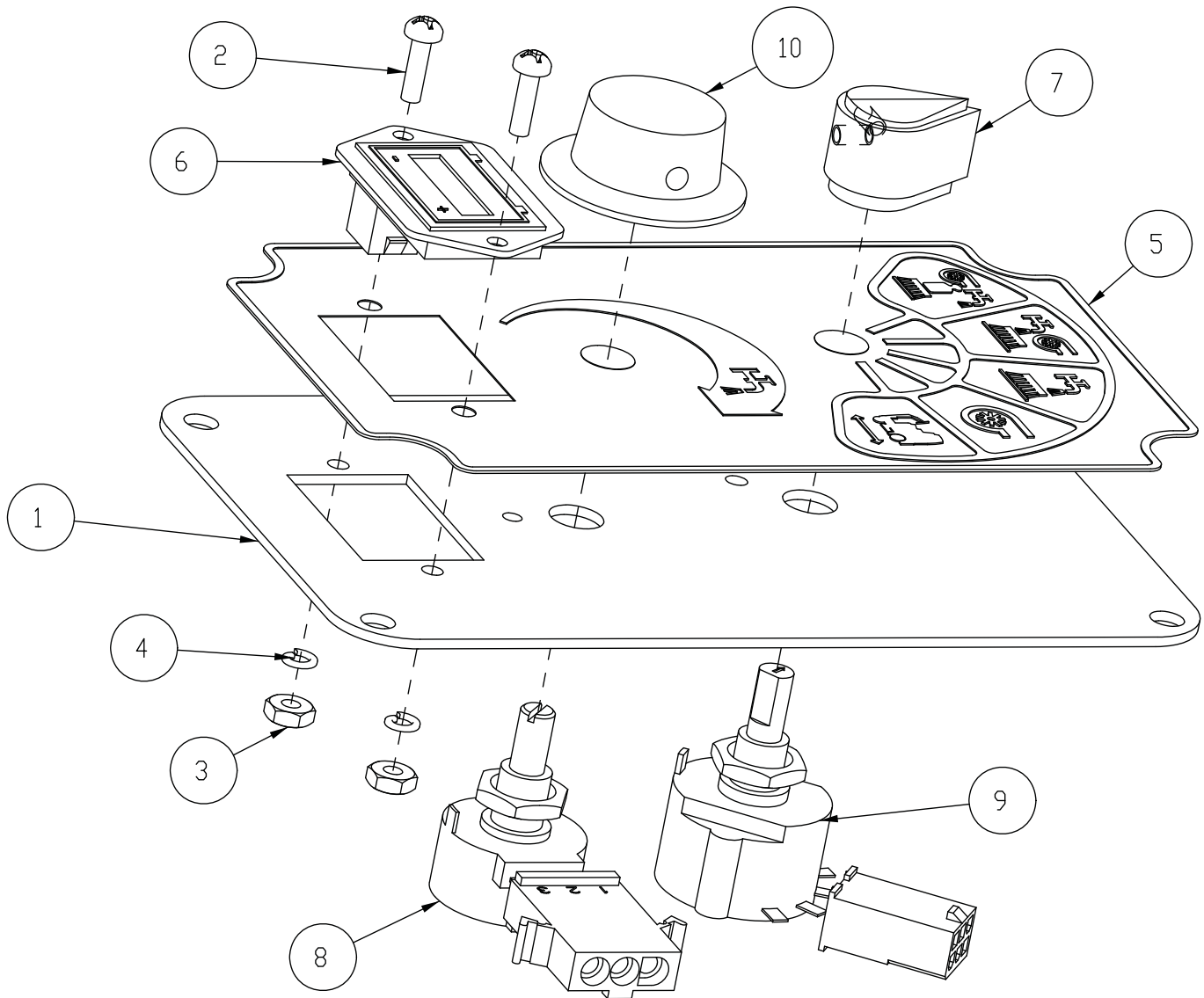


BILL OF MATERIAL - 282301			
ITEM	PART NO.	QTY	DESCRIPTION
1	281047	1	SPRING, EXTENSION - 2.75"
2	281328	1	SHAFT, LOWER STEERING
3	281331	1	ACCEL PEDAL WMT
4	281392	2	BEARING FLANGE ASSEMBLY 3/4 (MCH)
5	281484	1	SHAFT, UPPER STEERING
6	281989	1	STEERING ASSY, TOP
7	282302	1	STEERING WELDMENT, LOWER
8	282303	1	SPRING - EXTENSION 1.375" F.L.
9	282309	1	ADJUSTMENT LEVER AND PIVOT PIN ASSY
10	383098	1	UNIVERSAL JOINT
11	383152	1	STEERING WHEEL
12	383277	3	KEYWOODRUFF 3/16 X 3/4
13	430051	1	RETURN SPRING-3.00"
14	710153	4	SCR-MC 10-32X.37
15	711374	2	NUT-NYLOC 5/16-18
16	711380	2	NUT-NYLOC 3/8-16 NUT
17	711506	4	WSR-FLT .344 X .690 X .062, STEEL
18	711521	2	WSR-WAVE .21 X .44 X .02
19	712102	1	BLT- SHLDR 1/2 X 1-1/2
20	712301	2	WSR-FLAT .37 X .87 X .06
21	712310	1	WSR- FLAT .52 X .87 X .06 PL
22	809148	5	RETAINING RING - "E" TYPE EXT .75
23	363-816	1	NUT NYLOC 1/2-20
24	70-516-16	4	BLT-CAR 5/16-18 X 1.00 ZP
25	712099PLT	2	BLT- SHLDR 1/2 X 1/2 ZINC PLT
26	748013-2	1	POTENTIOMETER BOX ASSEMBLY



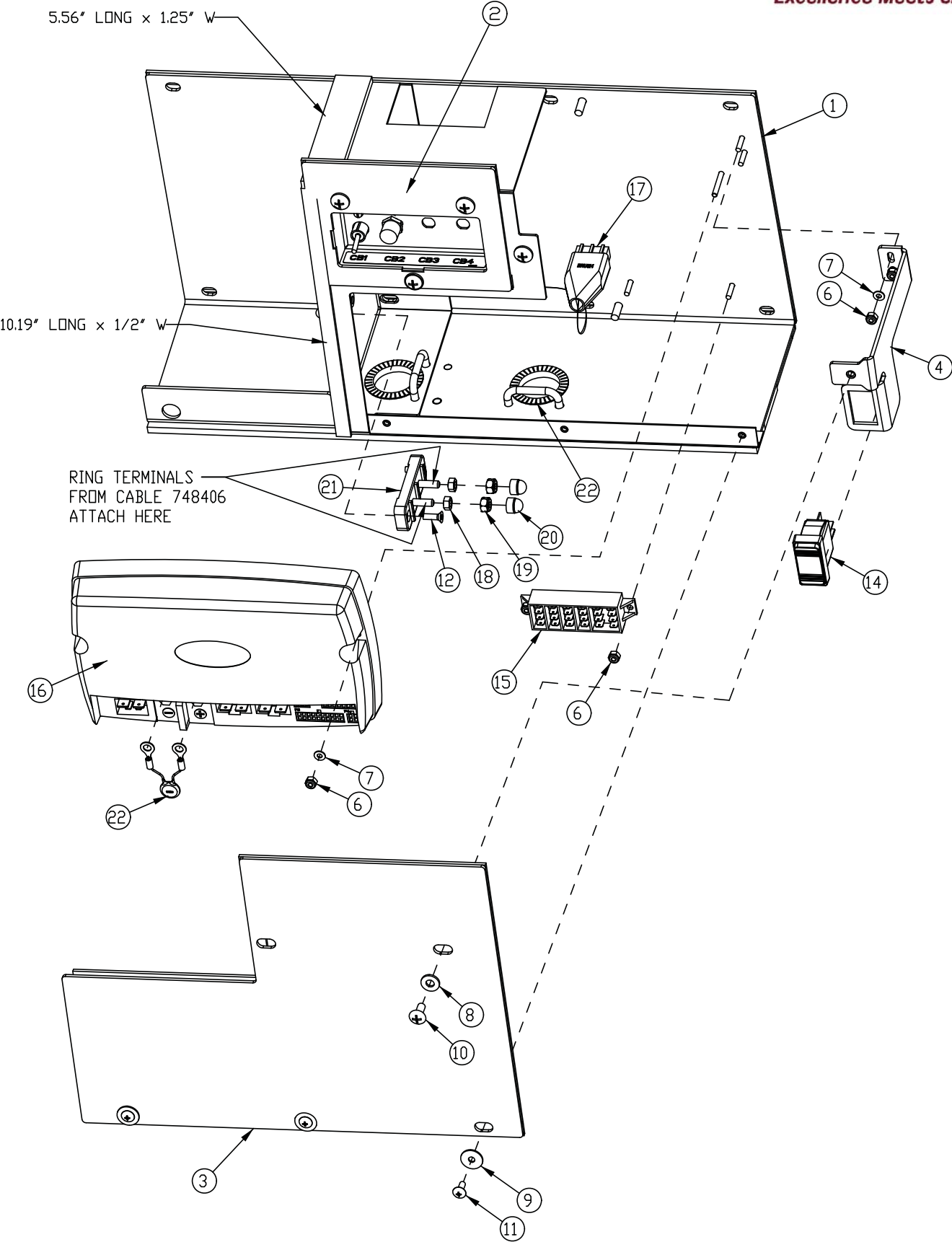


BILL OF MATERIAL - 281012PB							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	200024	1	WSR-GH, BLACK PVC	23	711502	3	WSR-FLAT #8 ZP
2	241825	1	SWIVEL ADAPTOR - BR, 3/4 FGHT X 1/2 FPT	24	711504	2	WSR-FLAT 1/4 SS
3	281002	1	SOLUTION TANK - 2800	25	711505	8	WSR-FLAT 1/4 ZP
4	281005	1	2800 CONSOLE	26	711519	3	WSR-FLAT 1/4 X 1.00 X .06 ZP
5	281093	2	FTG-ELBOW 90 ST 1/2 MPT X 1/2 FPT BRASS	27	711542	3	WSR-LOCK #8 SPLIT ZP
6	281220	1	ELECT. BOX ASSY - E RIDE 2832	28	711544	13	WSR-LOCK 1/4 SPLIT ZP
7	281363	2	SEAT GASKET - LONG	29	711552	3	WSR-INT LOCK #8
8	281364	2	SEAT GASKET - SHORT	30	711564	2	WSR-EXT LOCK 1/4 ZP
9	281371	1	PLUG-VENT	31	712320	4	WSR-FLAT 20 X .45 X .048 NYLON
10	281372	1	GASKET - IGNITION SWITCH PANEL	32	742927	1	SWITCH, KEY 2 POLE
11	281373	1	GASKET - MEMBRANE SWITCH	33	748047	1	SWITCH, PUSH BUTTON (HORN SCV 36V)
12	281375	1	GASKET - DIRECTION SWITCH	34	748087	1	CABLE ASY, BATTERY CONNECT SCV
13	281380	1	COVER-SOLUTION TANK PLASTIC	35	748088	1	18G RED 6.00" B=26
14	281381	1	SOLN TANK HINGE SUB-ASSY - RIGHT	36	748090	1	1G RED 20.00"
15	281382	1	SOLN TANK HINGE SUB-ASSY -LEFT	37	748126	1	GROUND STRAP, SCV CABINET TO FRAME
16	281426	1	COUPLING-3/4" HOSE X 1/2" MPT	38	748151	1	SWITCH, ON-ON DPDT (FWD/ REV)
17	281498	1	SELECTOR SWITCH ASSEMBLY, SCV2832	39	748154	2	SWITCH-BLANK .43x1.2 (742716)
18	383449	2	FTG-ELBOW 90 1/2 MPT X 1/2 HB BRASS	40	3315536	1	FTG-ELBOW 90 1/2 MPT X 3/4 HB PP
19	710380	11	SCR-RHMS 1/4-20 X .75 ZP	41	281378SP	1	NLA--KEY SWITCH PLATE SCREEN PRINTED
20	711161	16	SCR-HI/LO 10 X .75 BLACK ZINC PAN HD	42	281497SP	1	DIRECTION CONTROL PANEL SCR N PRNTSCV2832
21	711304	3	NUT-HEX 8-32 ZP	43	742708-4	1	FLOAT SWITCH, W/WEATHER-PACK
22	711316	2	NUT-HEX 1/4-20 ZP	44	748138E	1	WIRE HARNESS, SCV2832E FRONT

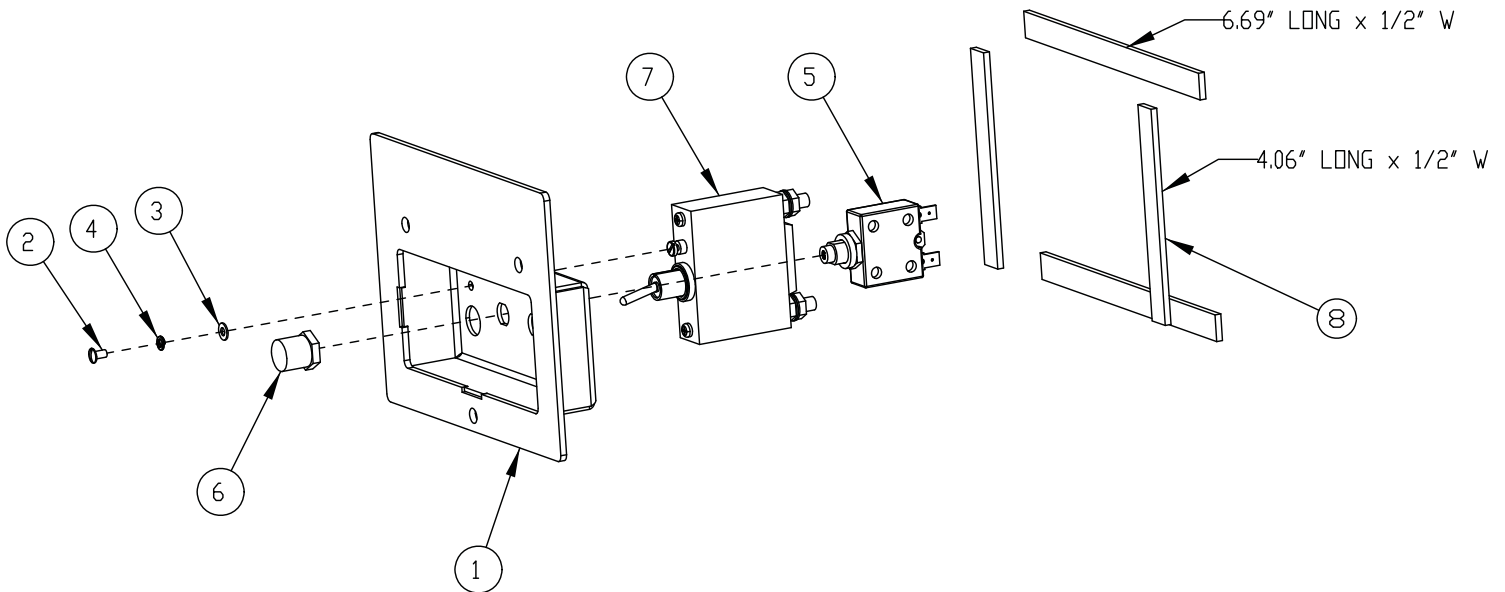


BILL OF MATERIAL - 281498			
ITEM	PART NO.	QTY	DESCRIPTION
1	281499	1	BKT , CONTROLS
2	710204	2	SCR-M C 6-32 X .50 ST PL PAN HD
3	711301	2	NUT -HEX 6-32 ST PL
4	711541	2	WSR-HELICAL #6 ST PL
5	715455	1	DECAL, CONT ROLS
6	747011	1	BATTERY GAUGE, TRUCHARGE
7	747020	1	KNOB-M ODE SELECT OR
8	747025	1	POTENTIOMETER ASSY WATERFLOW
9	747027	1	SWITCH ASSY, MODE SELECTOR
10	809874	1	KNOB, SPEED CONTROL

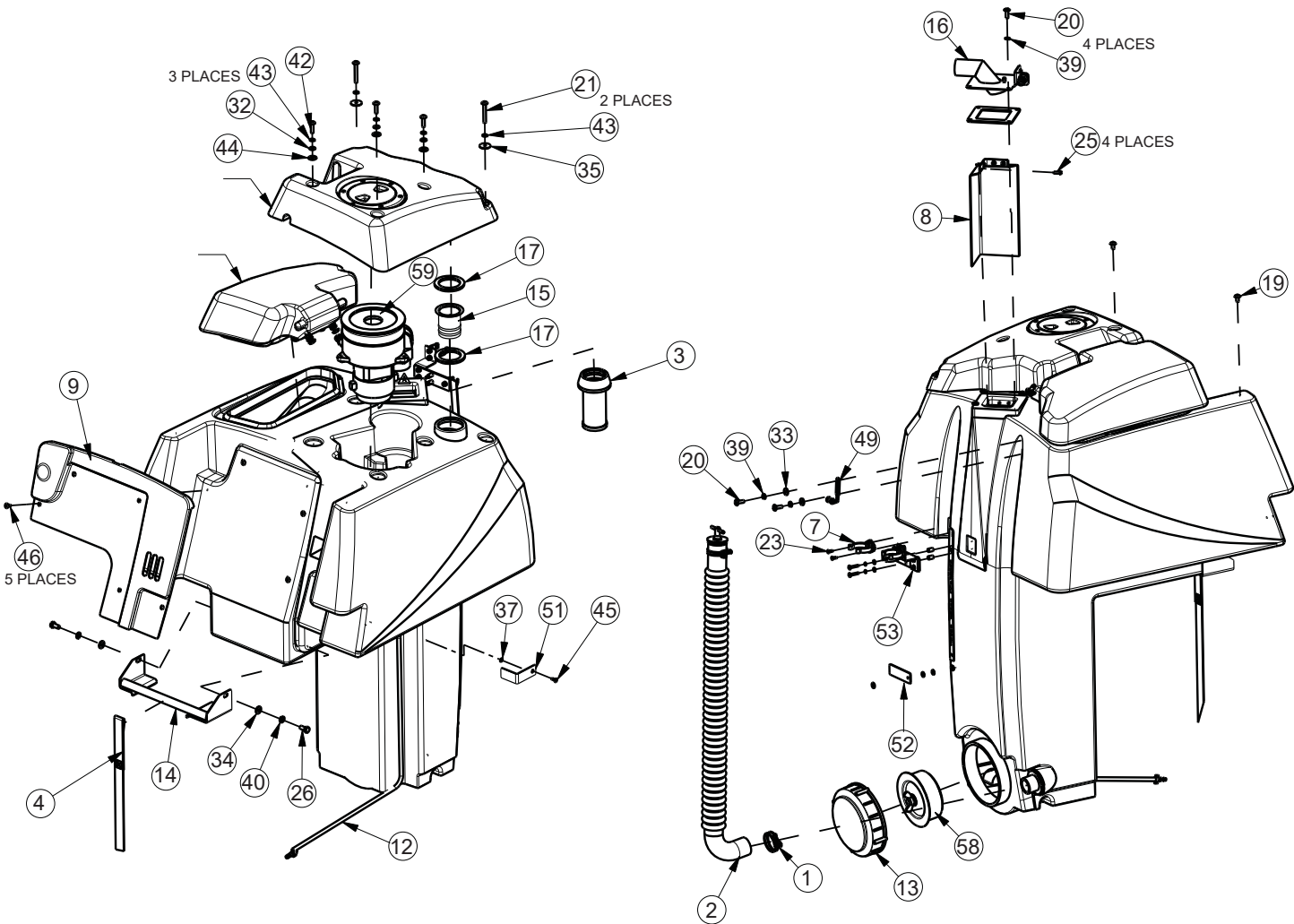
Electrical Panel Assembly

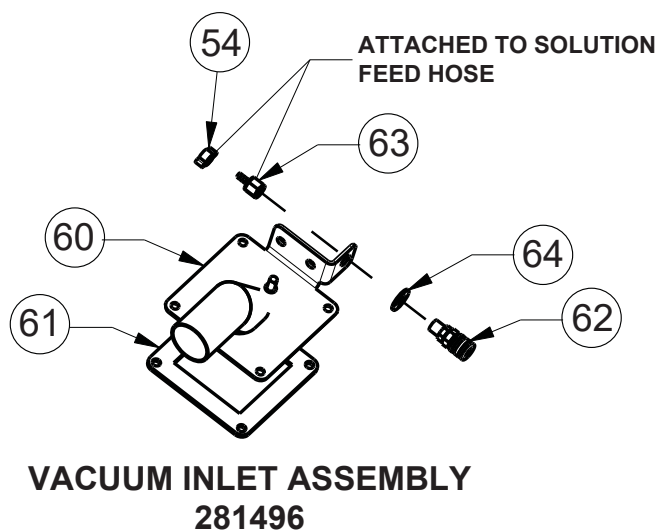
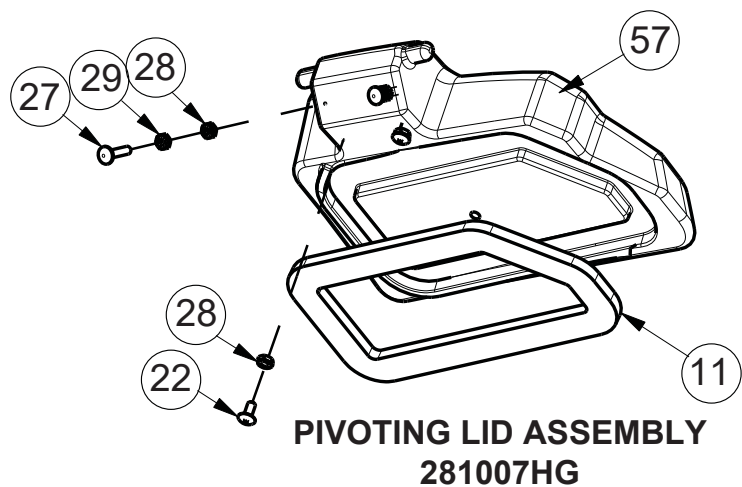
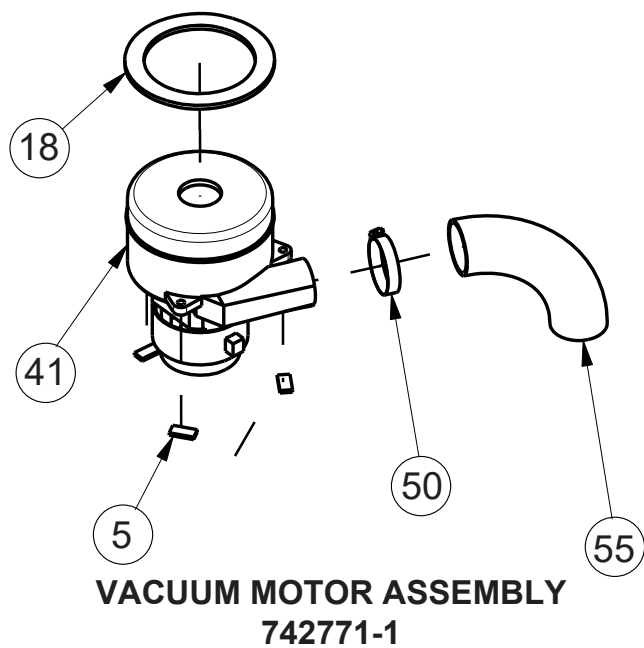


BILL OF MATERIAL - 281220			
ITEM	PART NO.	QTY	DESCRIPTION
1	281229	1	ELECTRICAL BOX WELDMENT - E RIDE 2832
2	281240	1	CIRCUIT BREAKER ASSY. - E RIDE 2832
3	281412	1	ELECTRICAL COVER PANEL
4	281982	1	BKT, ELEC BOX, SCV2832
5	711351	2	NUT-ACORN 10-32 NICKEL
6	711372	6	NUT-NYLOC 8-32 ZP
7	711502	4	WASHER-FLAT #8 ZP
8	711505	5	WASHER-FLAT 1/4 ZP
9	711748	3	WASHER-FLAT #10 X .75 SS
10	712565	5	SCR-THMS 1/4-20 X .62 SS
11	712822	3	SCR-THMS 10-24 X .50 SS
12	712826	2	SCR-FHMS 10-32 X .625 ZP
13	715641	1	DECAL - CIRCUIT BREAKERS, E-RIDE E-BOX
14	748152	1	SW DPDT MOMENTARY ON-OFF-ON SCV2832E DE
15	748153	1	TERMINAL BLOCK-C=4 P=4/C=1 P=8
16	748400	1	CONTROLLER, TRIO PLUS ER2832 36VDC 100A
17	748406	1	WIRE ASY, BRUSH MOTOR ER2832
18	12022042	2	NUT-HEX M6 X 1.0 STL ZD CL8 DIN 934
19	12040044	2	NUT-NYLOC M6 X 1.0 ZP CLASS 6
20	15592025	2	CAP, SAFETY NUT COVER M6
21	90286238	1	TERMINAL BLOCK, 2 STUD M6 63A
22	748269-1	1	VARISTOR ASY, RING TERMINALS 1/4"
22	281449	0.74	SERRATED GROMMET STRIP - .187IN
23	806006	0.43	GASKET, .25 X 1.25 X .74
23	830557	11.09	DORTITE 1/2 INCH RM 1 F

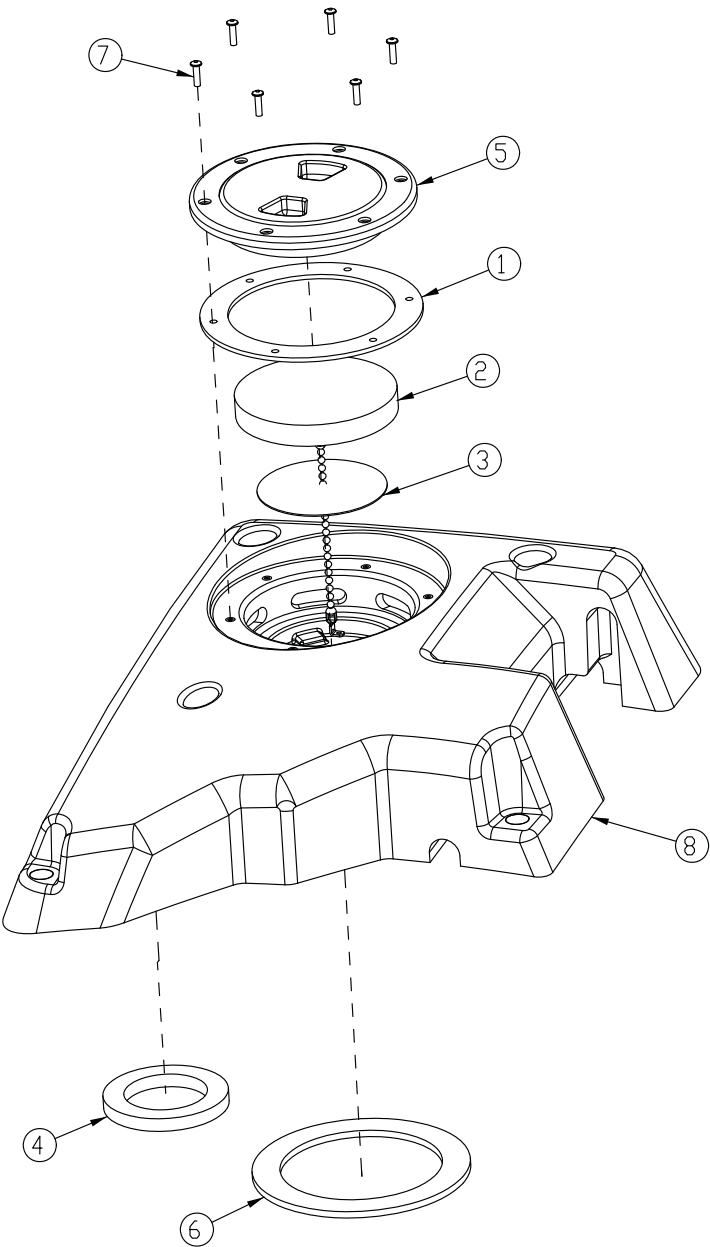


BILL OF MATERIAL - 281240			
ITEM	PART NO.	QTY	DESCRIPTION
1	281233	1	CIRCUIT BREAKER WELDMENT
2	710202	1	SCR-PHMS 6-32 X .25 ZP
3	711501	1	WASHER-FLAT #6 X .375 ZP
4	711541	1	WASHER-LOCK #6 SPLIT ZP
5	742350	1	CIRCUIT BREAKER- 6.0AMP PUSH BUTTON
6	742748	1	CIRCUIT BREAKER-BOOT
7	748012	1	CIRCUIT BREAKER- 100A
8	830557	1.67	DORTITE 1/2 INCH RM 1 F

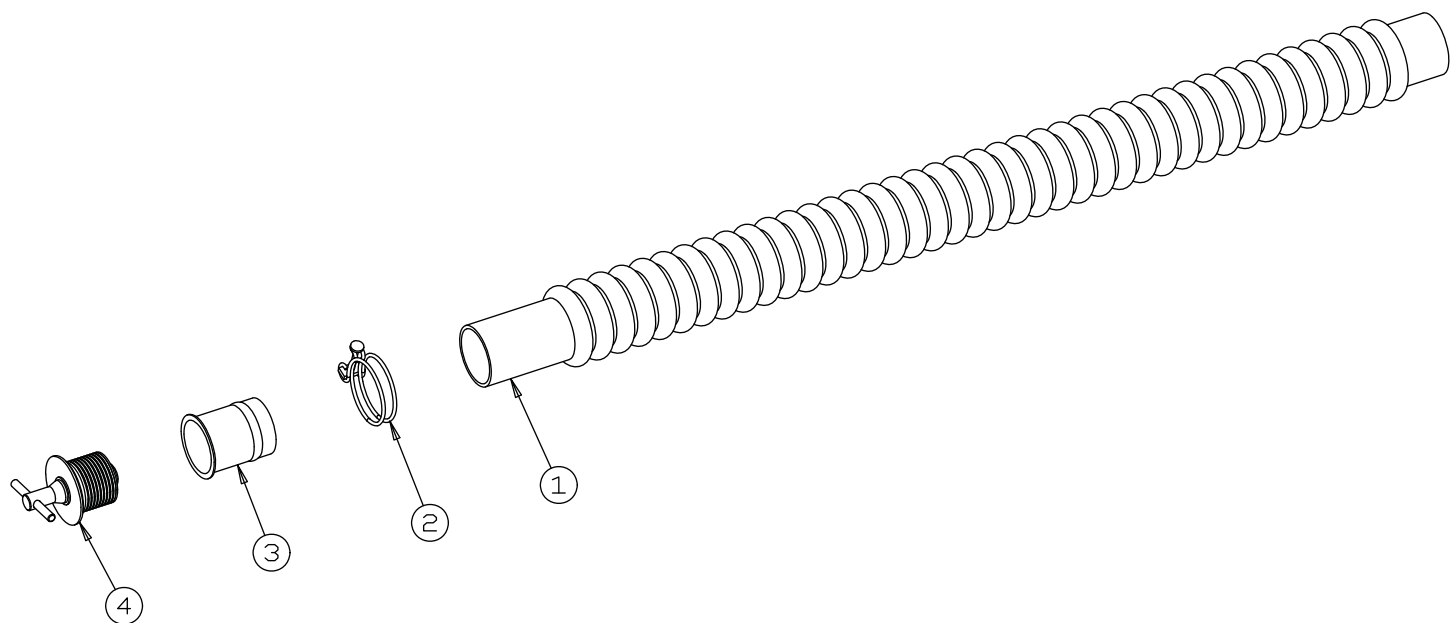




BILL OF MATERIAL - 281010M							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL	34	711506	2	WASHER-FLAT 5/16 X .688 ZP
2	200289	1	DUMP HOSE ASM	35	711519	2	WASHER-FLAT 1/4 X 1.00 X .06 ZP
3	241060	1	FLOAT, SCREENED W/ BALL	37	711534	3	WASHER-EXT LOCK #10 ZP
4	241433	1	STRAP-SAFETY, REC TANK	39	711544	6	WASHER-LOCK 1/4 SPLIT ZP
5	241748	3	ISOLATOR PADS - 1" LENGTH	40	711545	2	WASHER-LOCK 5/16 SPLIT ZP
7	260579	1	CLIP-TOOL 1.5 INCH HOSE	42	712541	3	SCR-THMS 1/4-20 X 1.00 SS
8	281019	1	DEFLECTOR	43	712758	5	WASHER-LOCK 1/4 SPLIT SS
9	281099	1	WIRE COVER	44	712767	3	WASHER-FLAT .406 X .75 X .035 SS
10	281219	1	FIXED LID SUB ASSY. - E RIDE 2832	45	712820	3	SCR-MC FL HD 10-24 X .50 BLK-OX
11	281358	1	GASKET, MOVABLE LID - SCV	46	712822	5	SCR-THMS 10-24 X .50 SS
12	281391	1	SOL. FEED HOSE OFF AISLE SUB-ASSY	47	715717	1	DECAL-OVERFILL SIGHT GAUGE (NOT SHOWN)
13	281432	1	CAP, 6 INCH CLEAN OUT SCV	48	748199	1	WIRE ASSY, RECOVERY TANK-VAC (NOT SHOWN)
14	281437	1	STRAP HOLDER WMT	49	760286	1	WIRE FORMED HOOK
15	281439	1	TUBE-SHUTOFF FLANGE	50	760859	1	CLAMP-HOSE, 2"
16	281496	1	VAC INLET ASSEMBLY, SCV2832	51	811022	3	BRACKET, TANK SC2832
17	281950	2	GASKET-FLOAT CAGE	52	811024	1	BRACKET, HOSE SC2832
18	380035	1	GASKET, 4.31 X 5.81 X.19	53	811026	1	ASM, TOOL MOUNT SC2832
19	710178	2	SCR-THMS 1/4-20 X .50 ZP	54	830082	1	CLAMP-HOSE 3/8
20	710180	6	SCR-THMS 1/4-20 X .75 ZP	55	833191	1	HOSE RUBBER FLEX 2X9
21	710190	2	SCR-THMS 1/4-20 X 2 SS	56	281003E	1	RECOVERY TANK - SCV2832
22	710197	2	SCR-THMS 5/16-18 X .75 ZP	57	281007HG	1	LID - PIVOTING, E RIDE 2832
23	710530	2	SCR-FHMS 8-32 X .50 BRASS	58	281444-1	1	STOPPER PLUG ASSEMBLY
25	711161	4	SCR-HI/LO 10 X .75 BLACK ZINC PAN HD	59	742771-1	1	VACUUM MOTOR ASY, ER2832 NON-CE
26	711227	2	SCR-HH 5/16-18 X .62 ZP GR 5	60	281490	1	VAC INLET WMT, SCV2832
27	711256	2	BLT-CARR 5/16-18 X 1.50 SS	61	281951	1	DIVERTER BOTTOM GASKET
28	711319	4	NUT-HEX 5/16-18 ZP	62	450221	1	COUPLER-QUICK CONNECT, 1/8MPT
29	711420	2	NUT-JAM 5/16-18 ZP	63	450223	1	FTG-ADAPTER 1/8 FPT X 1/8 HB BRASS
32	711504	3	WASHER-FLAT 1/4 SS	64	711515	1	WASHER-FLAT 3/8 X .812 X .0625 ZP
33	711505	2	WASHER-FLAT 1/4 ZP				

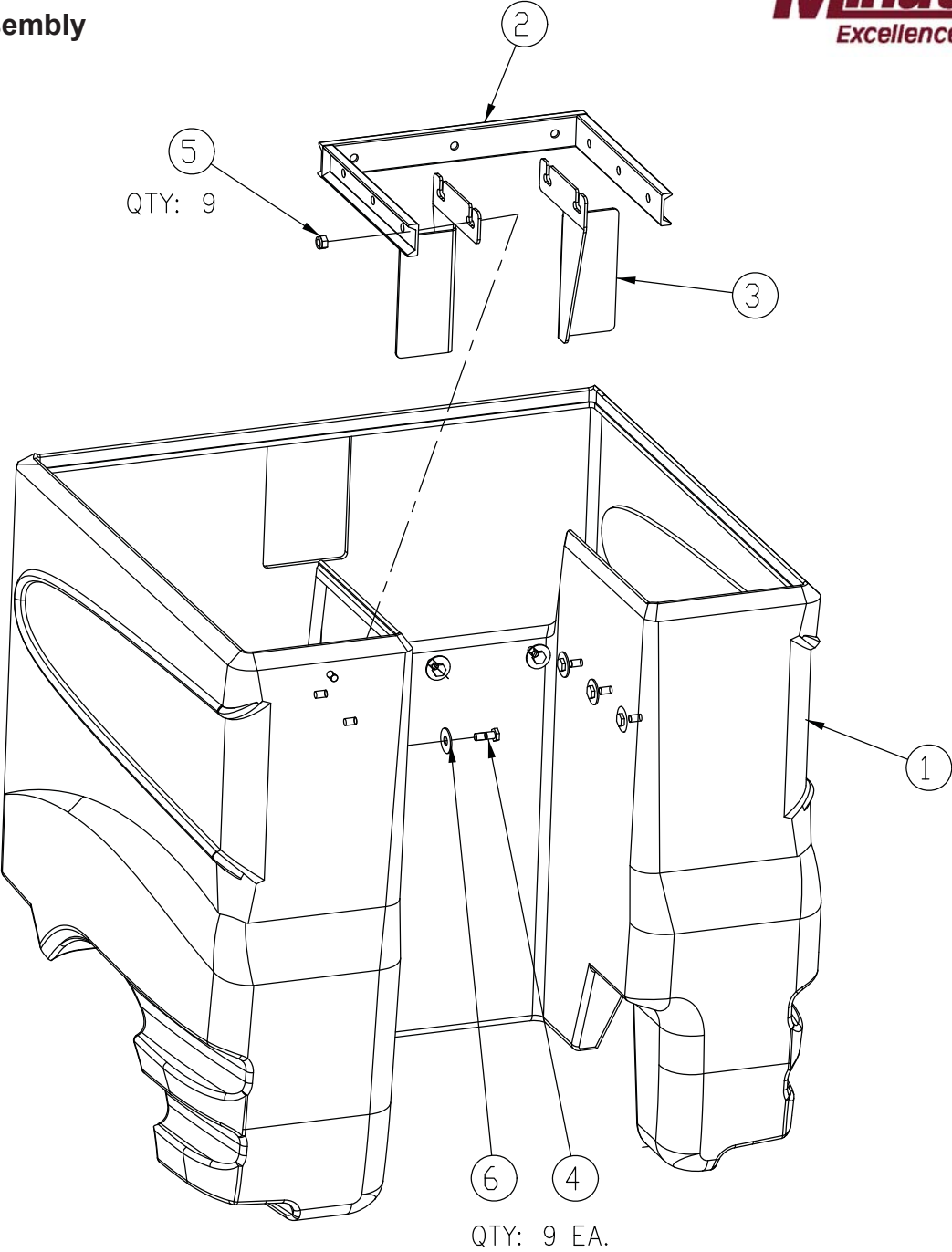


BILL OF MATERIAL - 281219			
ITEM	PART NO.	QTY	DESCRIPTION
1	281018	1	GASKET , NEO 6.00 X 4.50 X .125
2	281055	1	VAC MOTOR FILTER
3	281056	1	VAC MOTOR INLET SCREEN
4	281073	1	INLET GASKET
5	281423	1	FILL CAP W/CHAIN ASSY 4.00
6	380035	1	MOTOR GASKET
7	712516	6	SCR-BHCS #8-32 x .62 SS
8	281006HG	1	LID - FIXED

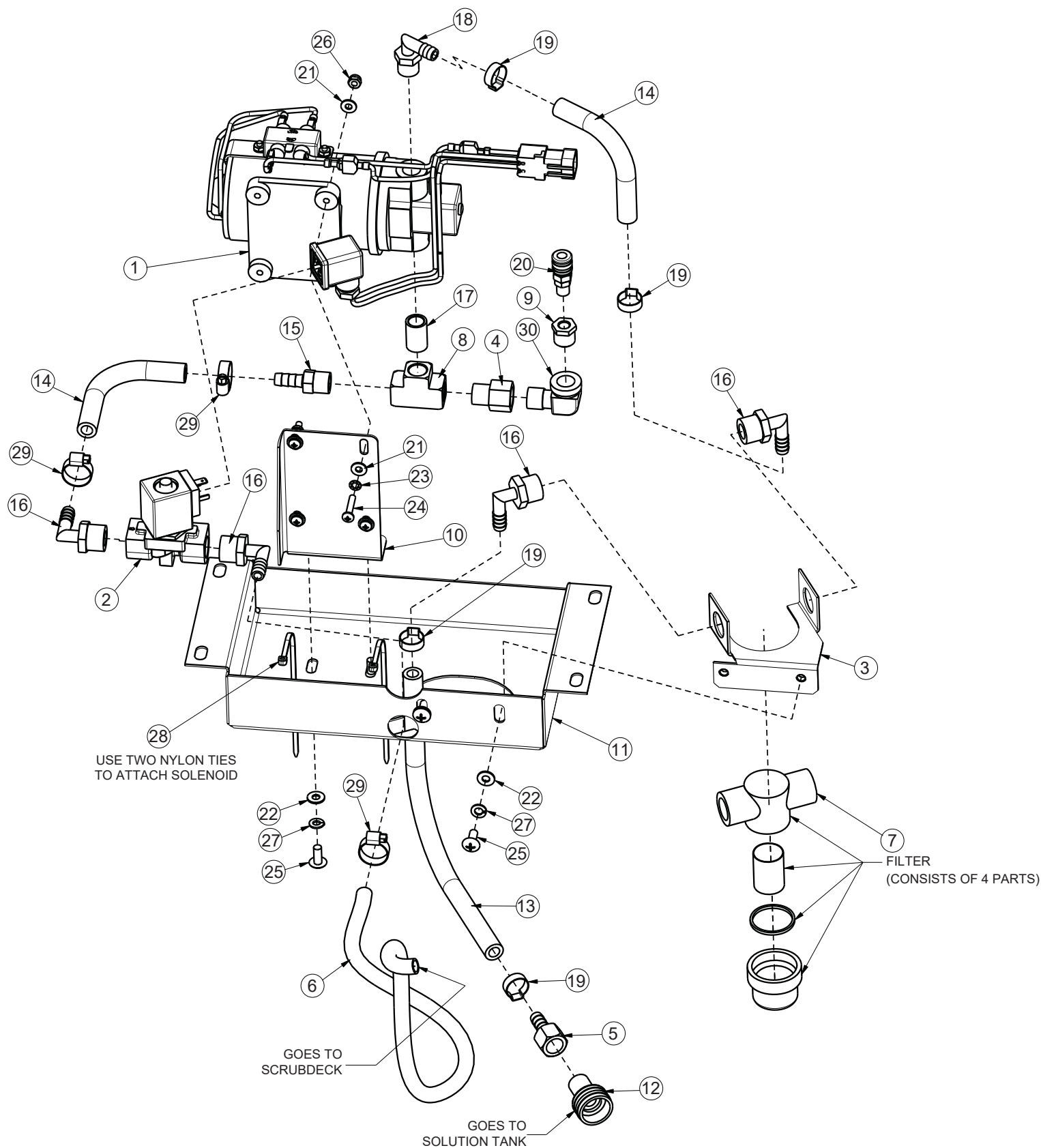


BILL OF MATERIAL - 200289			
ITEM	PART NO.	QTY	DESCRIPTION
1	200198	1	DUMP HOSE
2	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL
3	760343	1	TUBE, HOSE - 24/32B
4	833316	1	DRAIN PLUG

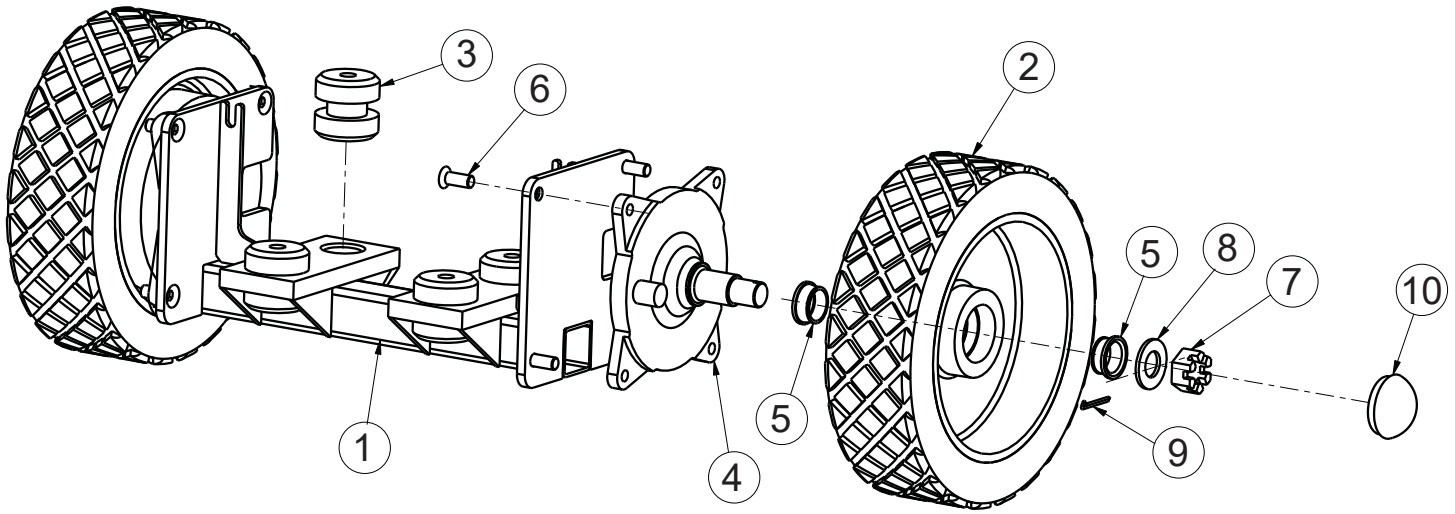
Battery Box Assembly



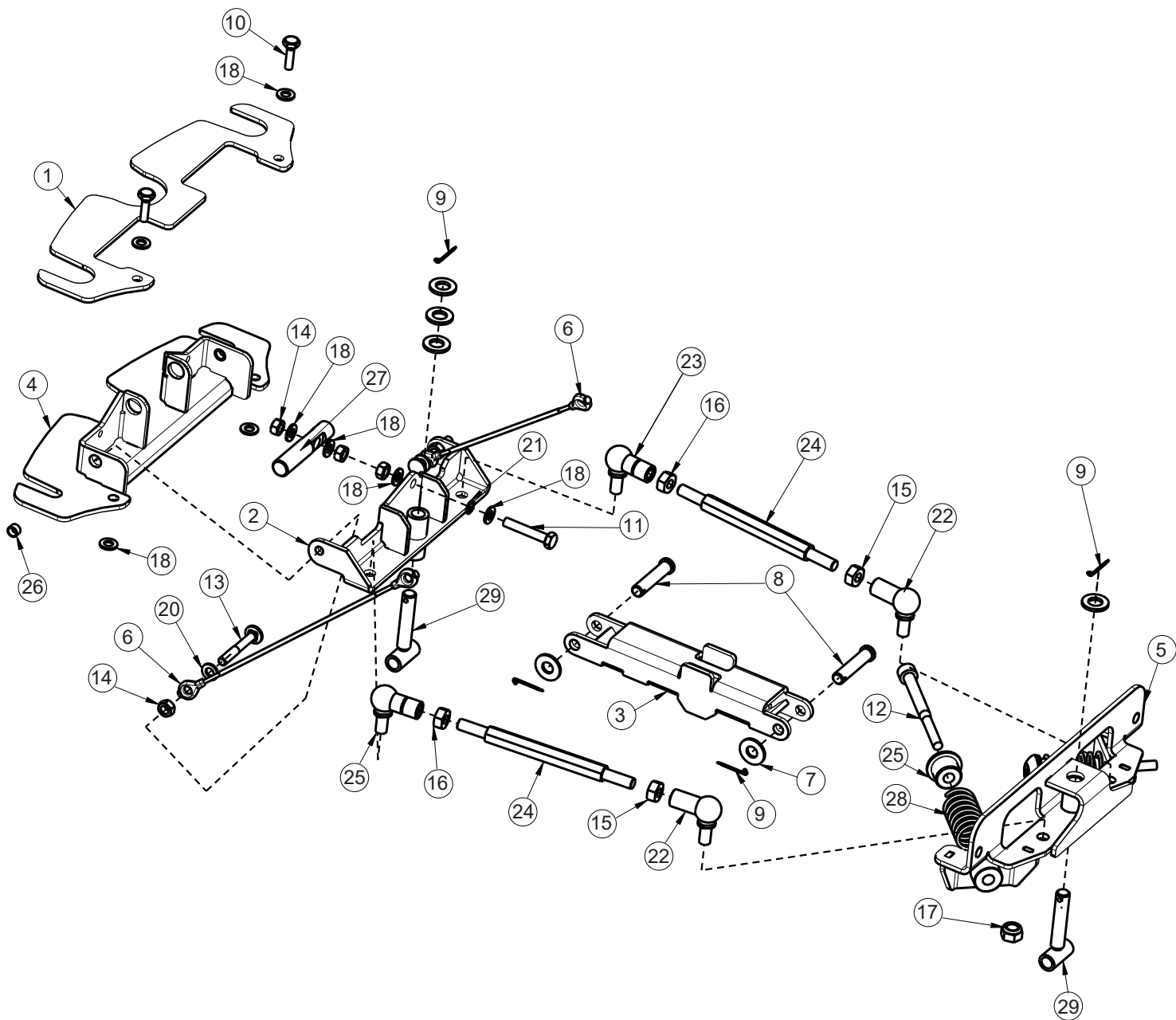
BILL OF MATERIAL - 281014			
ITEM	PART NO.	QTY	DESCRIPTION
1	281004	1	BATTERY TRAY- 2800
2	281059	1	BATTERY BOX STIFFENER WM'T
3	281672	2	BKT, BATTERYSTOP
4	711229	9	BLT-HH 5/16-18 x .875
5	711374	9	NUT-NYLOC 5/16-18
6	711507	9	WSR-FLAT .37 X 1.12 X .06



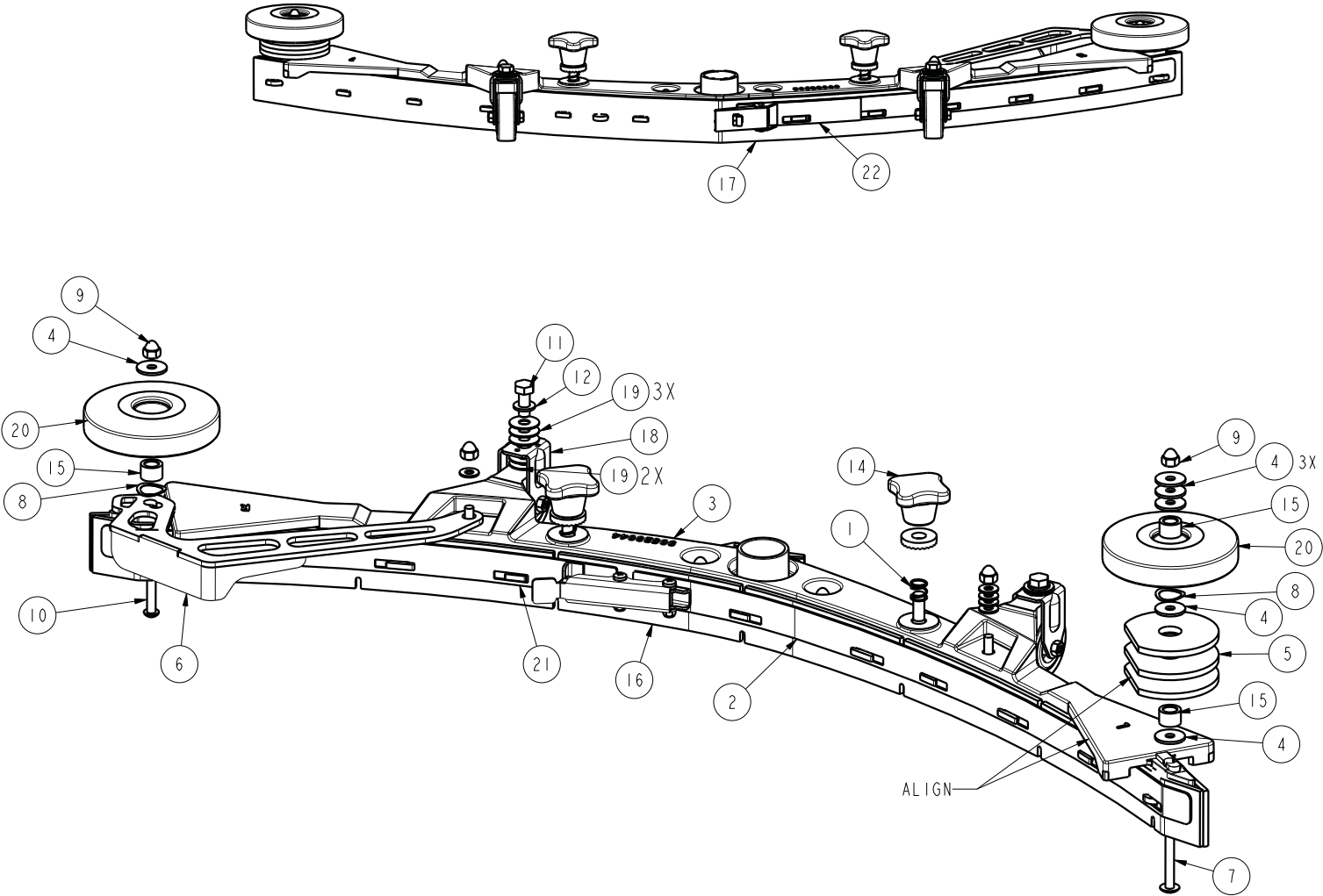
BILL OF MATERIAL - 281214			
ITEM	PART NO.	QTY	DESCRIPTION
1	742709-6	1	PUMP ASY- ER2832 NO CE COMPONENTS
2	748390	1	SOLENOID, 36VDC VITON DIN43650
3	281388	1	FILTER MTG PLATE
4	210409	1	FTG-ADAPTER 3/8 MPT X 3/8 FPT BRASS
5	210410	1	FTG-ADAPTER 3/8 FPT X 3/8 HB BRASS
6	241097	1	HOSE-WIRE REINF 3/8 X 31"
7	281089	1	FILTER-INLINE
8	281090	1	FTG-TEE 3/8 FPT X 3/8 FPT X 3/8 FPT BRAS
9	281091	1	FTG-REDUCER 3/8 MPT X 1/8 FPT BRASS
10	281368	1	PUMP MOUNT PLATE
11	281369	1	PUMP SUPPORT PLATE
12	281425	1	SW-SWIVEL CONNECTOR-3/4 GHT X 3/8 MPT
13	320251	1	HOSE-WIRE REINF 3/8 X 12"
14	320254	2	HOSE-WIRE REINF 3/8 X 9"
15	342430	1	FTG-ADAPTER 3/8 MPT X 3/8 HB BRASS
16	383327	4	FTG-ELBOW 90 1/2 MPT X 3/8 HB PP
17	383332	1	FTG-NIPPLE 3/8 MPT BRASS
18	450040	1	FTG-ELBOW 90 3/8 MPT X 3/8 HB NYLON
19	450076	4	CLAMP-HOSE 5/8 (.590-.791) SS
20	450221	1	COUPLER-QUICK CONNECT, 1/8MPT
21	711503	8	WASHER-FLAT #10 X .50 ZP
22	711504	4	WASHER-FLAT 1/4 SS
23	711553	4	WASHER-INT TOOTH LOCK #10 ZP
24	712531	4	SCR-FHMS 10-24 X 1.00 SS
25	712565	4	SCR-THMS 1/4-20 X .62 SS
26	712638	4	NUT-NYLOC 10-24 SS
27	712758	4	WASHER-LOCK 1/4 SPLIT SS
28	828062	2	CABLE TIE LARGE
29	829129	3	CLAMP-HOSE WORM-DRV8-22MM HOSE DIA. 5/16
30	830062	1	FTG-ELBOW 90 3/8 MPT X 3/8 FPT BRASS
31	829552	0.04	TAPE-TEFLON PIPE 1/2"
32	000730	0.005	SEAL-THREAD HL150 (50ML)



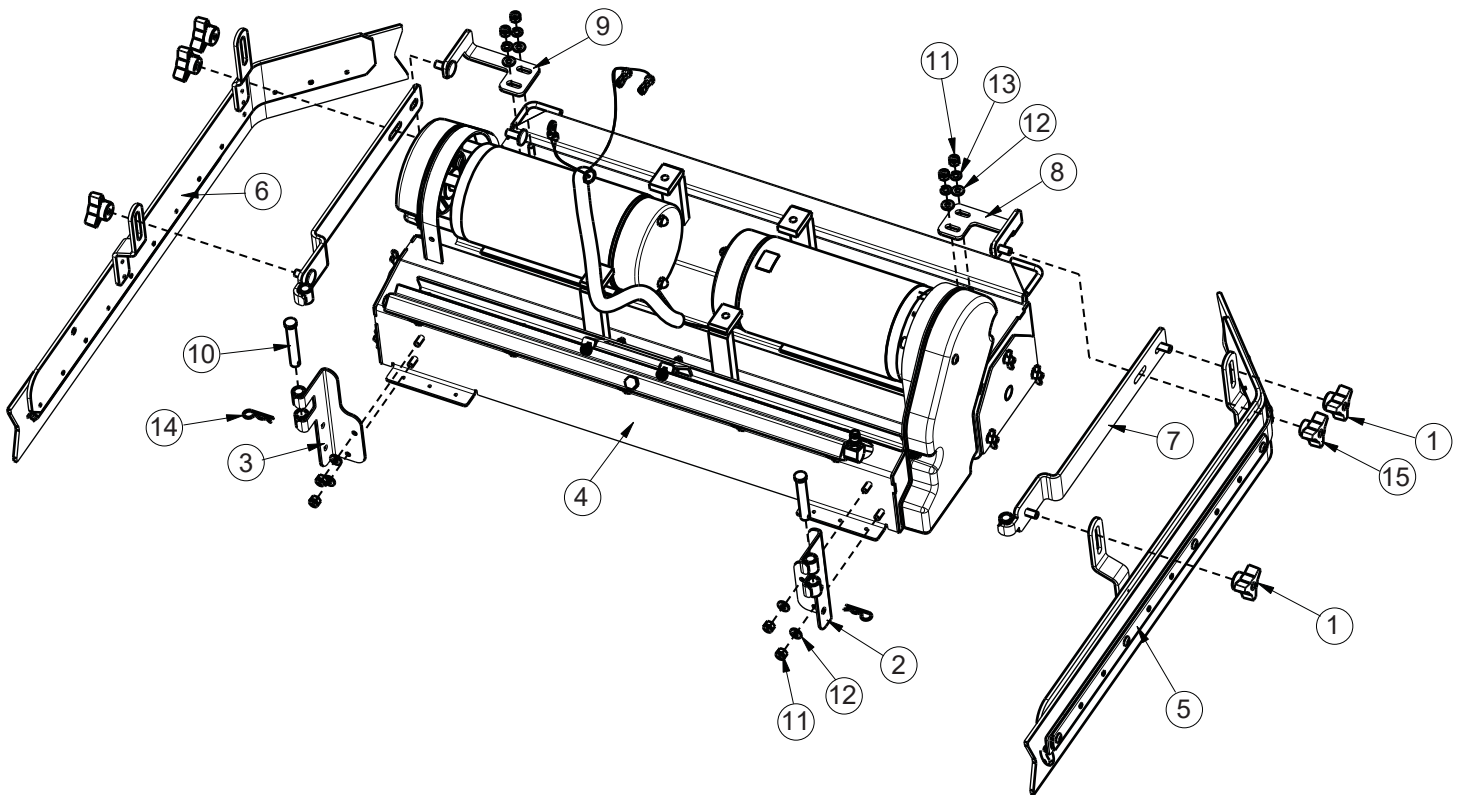
BILL OF MATERIAL - 281201E			
ITEM	PART NO.	QTY	DESCRIPTION
1	281202	1	REAR AXLE WMT
2	281210	2	REAR WHEEL ASSY
3	281213	4	RING & BUSHING ISOLATOR
4	281460	2	AXLE CASTING, REAR - SCV 28/32E
5	3300471	4	BEARING-TAPERED ROLCONE W/SEAL
6	711169	8	SCR-1/2-20 X 1.25 SOCKET FH W/ PATCH
7	711450	2	NUT-SLOTTED, 1-14 UNS
8	711514	2	WSR-FT 1.0 ID X 2.0 OD
9	380-632-20	2	3/16 COTTER PIN
10	383241PTD	2	GREASE CAP WHEEL-PAINTED



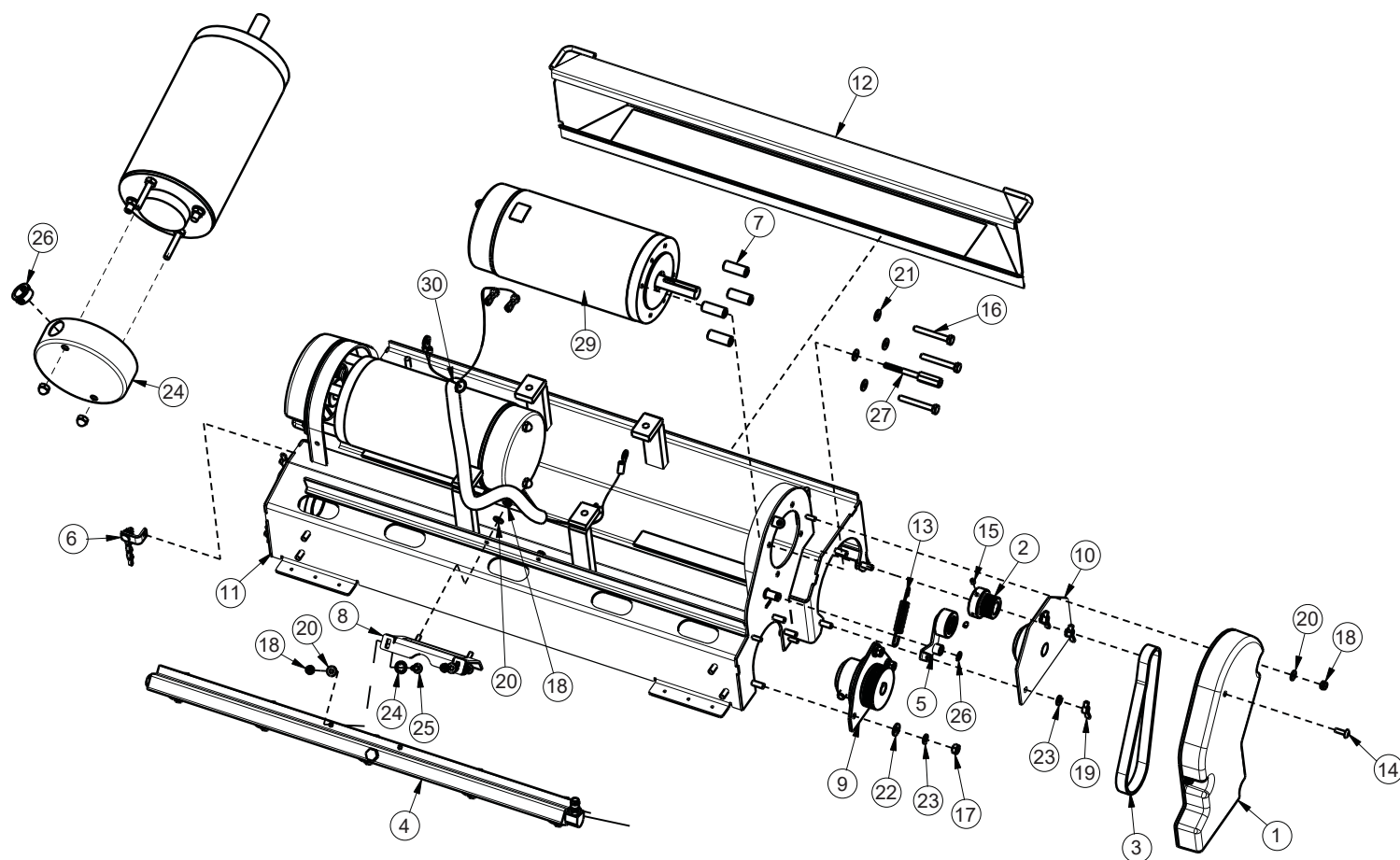
BILL OF MATERIAL - 281230			
ITEM	PART NO.	QTY	DESCRIPTION
1	241283	1	SQUEEGEE MOUNT PLATE - LOWER, SCV 2426
2	241284	1	SQUEEGEE MECH. REAR WELDMENT - SCV 2426
3	241291	1	WD-SQUEEGEE PIVOT ARM - SCV 2426 ZINC
4	241294	1	SQUEEGEE MOUNT WELDMENT-UPPER, SCV 2426
5	241757	1	SQUEEGEE WELDMENT - REAR, E RIDE 2832
6	281241	2	LIFT CABLE - REAR SQUEEGEE
7	711508	2	WASHER-FLAT 3/8 X 1.00 X .08 ZP
8	711727	2	PIN-CLEVIS 7/16 X 2.00 ZINC 1.84" UNDER
9	809311	4	PIN-COTTER 7/64 X 1
10	11038247	2	SCR-HH M8-1.25 X 25 ZP CLASS 8.8
11	11038299	1	SCR-HH M8-1.25 X 45 ZP CLASS 8.8
12	11126653	2	SCREW-SOCKET HEAD CAP ISO 4762-M10x110-1
13	11620564	2	BLT-CARM8 X 1.25 X 55 STL ZD 8.8 DIN 603
14	12022059	5	NUT-HEX M8 X 1.25 STL ZD CL8 DIN 934
15	12022067	2	NUT-HEX M10 X 1.5 ZD CLASS 8
16	12022224	2	NUT-HEX METRIC M10 X 1.5 STL ZD
17	12040069	1	NUT-NYLOC M10 X 1.5 ZD CLASS 6
18	12310041	8	WASHER-FLAT M8.4 X 16 X 1.6 ZP
19	12310066	4	WSR-FLT M13 X 24 X 2.5 STL 140HV ZD DIN
20	730609	2	WASHER-FLAT M8 SS
21	12520053	1	WASHER - SERRATED, LOCKING, M8,
22	16046039	2	BALL JOINT - RH, M10 FEMALE THREADS
23	16046088	2	BALL JOINT - LH, M10 FEMALE THREADS
24	90414806	2	TURNBUCKLE - M10 THREADS, STEEL HEX BODY
25	90443979	2	BUSHING - STEEL, SPRING CAP
26	90473158	2	BUSHING
27	90537697	1	PIVOT BAR - MACHINED, STEEL
28	90538307	2	SPRING - COMPRESSION, 1.22 OD,
29	96098330-2	2	T BAR WELDMENT - STEEL, ZINC PL



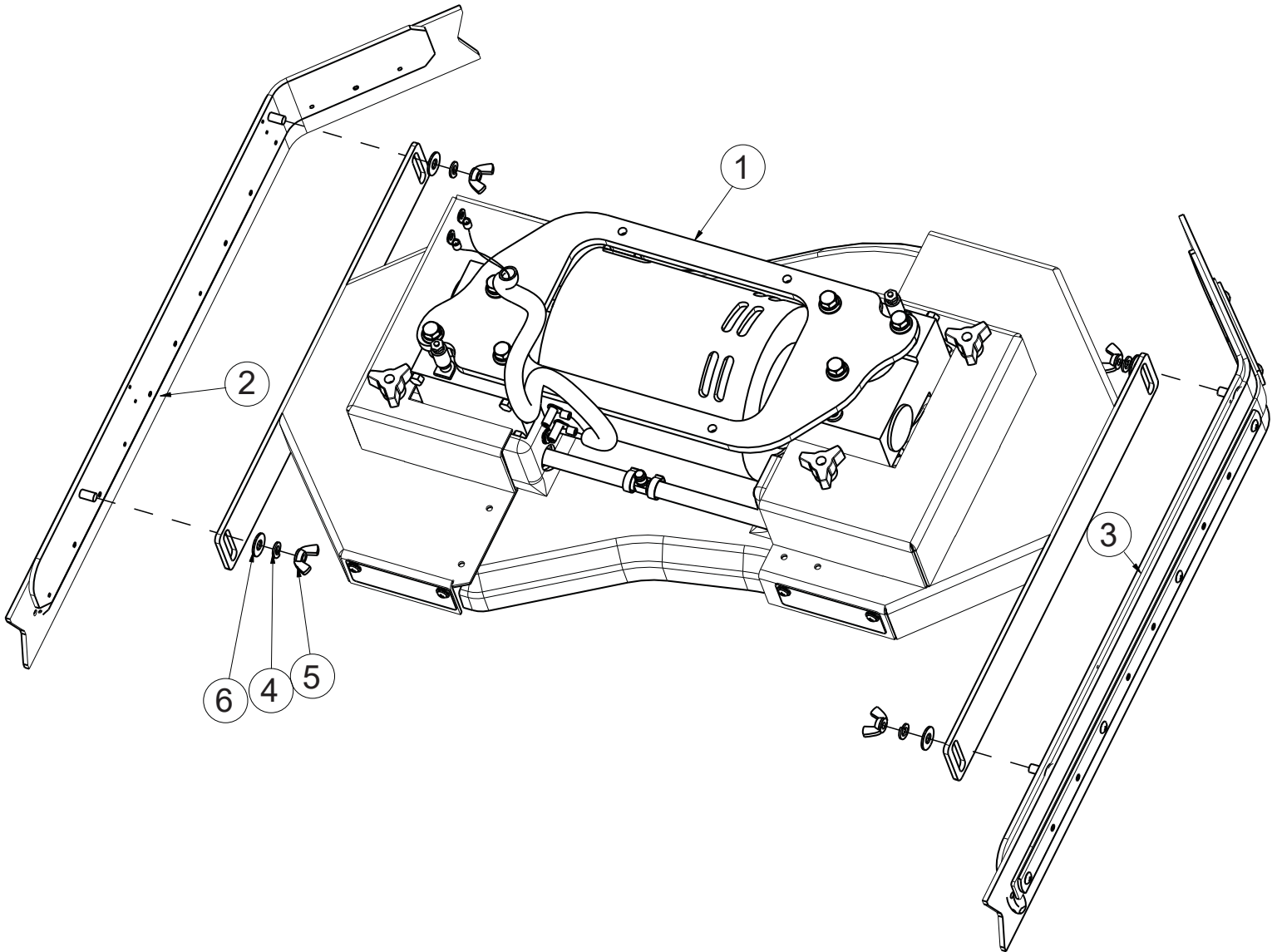
BILL OF MATERIAL - 281338			
ITEM	PART NO.	QTY	DESCRIPTION
1	172429	2	SPRING, COMP .4 ID X .5FL SS
2	172448	1	STRAP W/ LATCH, FRONT LEFT, 38" SQG
3	172539	1	NLA- SEE NOTES - 38" SQG BASE ASSY, C.S.
4	173080	6	WASHER-FLAT .266 X .875 X .07 SS
5	281211	3	WSR-SNUBBING
6	281242	1	DEFLECTOR BRACKET - REAR SQUEEGEE
7	710592	1	SCR-THMS 1/4-20 X 3.00 SS
8	711525	2	WASHER-WAVE .65 X .86 X .01
9	712591	2	NUT-ACORN 1/4-20 SS
10	712592	1	SCR-BHSCS 1/4-20 X 2.25 SS
11	717030	2	SCR-HH M8-1.25 X 20 SS
12	730609	2	WASHER-FLAT M8 SS
13	12515094	2	WSR-CONICAL SERRATED TOOTH M10.6 X 26 X
14	17133026	2	STAR HANDLE, M10, BLACK
15	90199019	3	BUSHING, 10 X 16 X 10.8MM ZINC
16	90493560	1	SQUEEGEE BLADE, FRONT
17	90494139	1	SQUEEGEE BLADE, REAR
18	90513094	2	FIXED CASTER
19	90531112	10	WASHER-FLAT 8.3 x 22 x 1.00mm STAINLESS
20	90548397	2	ROLLER - PLASTIC, 100mm DIA. (4")
21	96125828	1	FRONT RIGHT TENSION BAND
22	96125851	1	REAR RIGHT TENSION BAND W/ LATCH



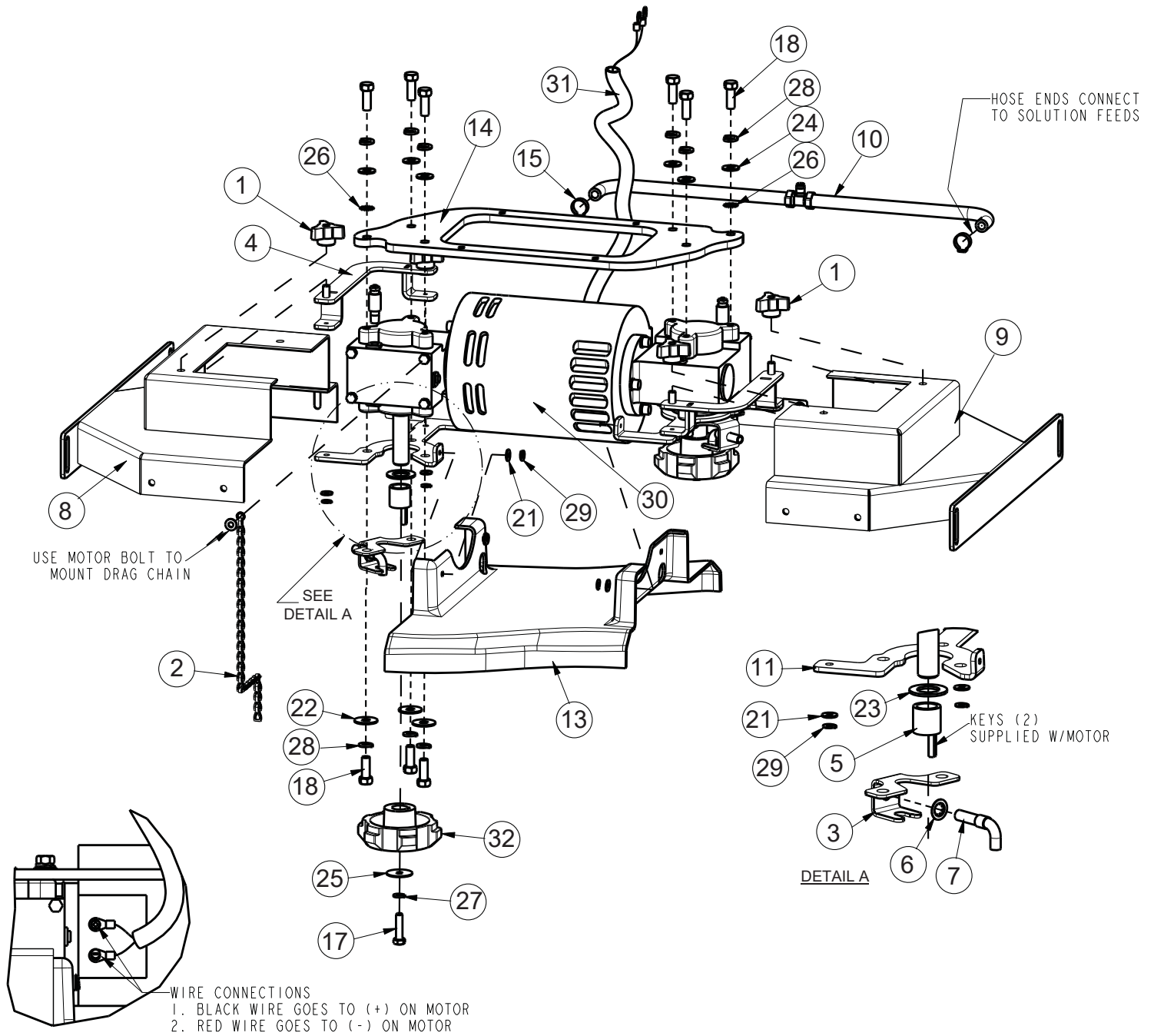
BILL OF MATERIAL - 281290 (28") or 281291 (32")			
ITEM	PART NO.	QTY	DESCRIPTION
1	210118	4	KNOB-3 SIDED 5/16 NYLOC
2	241544	1	HINGE BRK'T WLDMNT RH, SCV 24/26
3	241546	1	HINGE BRK'T WLDMNT LH, SCV 24/26
4	281290-1	1	CYL SCRUBDECK BASIC ASY 28"
	281291-1		CYL SCRUBDECK BASIC ASY 32"
5	281851	1	SIDE SQUEEGEE WIPE ASSY LH, SCV 28/32
6	281857	1	SIDE SQUEEGEE WIPE ASSY RH, SCV 28/32
7	281866	2	UPPER SQUEE BRK'T WMT, SCV 28/32
8	281868	1	CYL DECK SIDE SQUEE SUPPORT LH
9	281869	1	CYL DECK SIDE SQUEE SUPPORT RH
10	711119	2	PIN-CLEVIS 7/16 X 2.625 ZP
11	711373	8	NUT-NYLOC 1/4-20 ZP
12	711504	8	WASHER-FLAT 1/4 SS
13	711544	4	WASHER-LOCK 1/4 SPLIT ZP
14	711808	2	PIN-HAIRPIN COTTER #13
15	210118Y	2	KNOB 5/16" THREAD, YELLOW



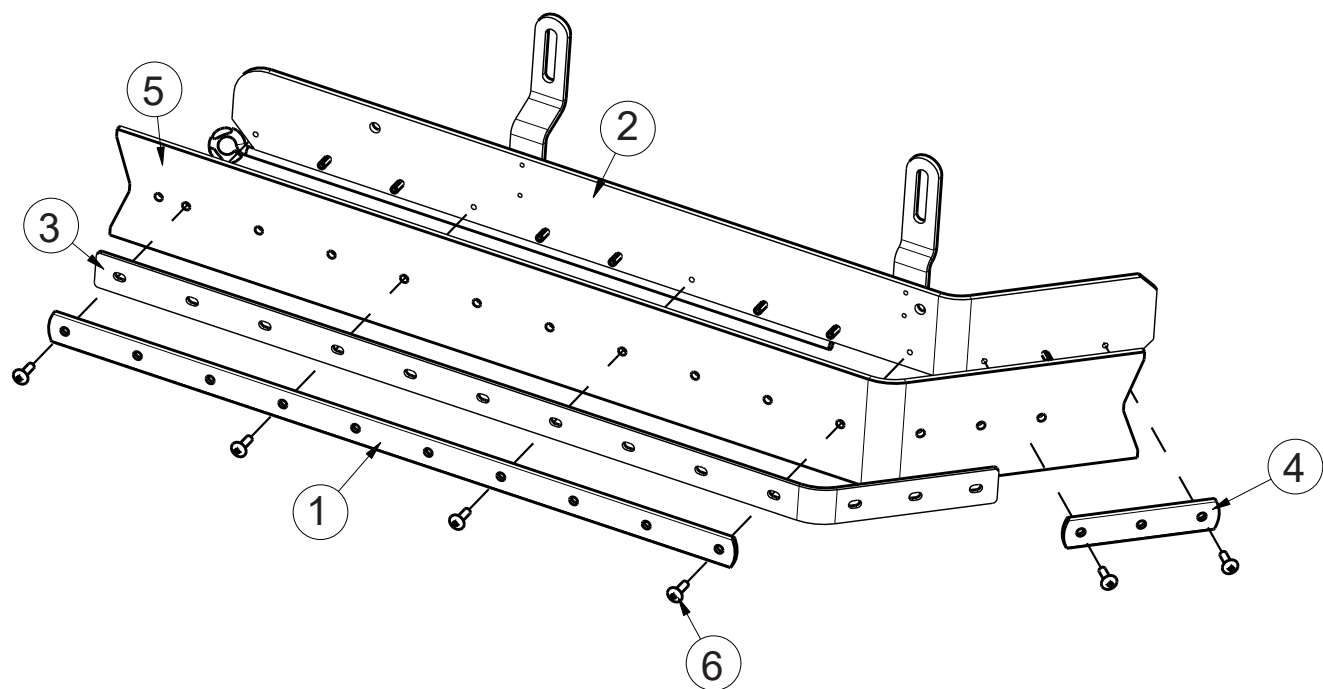
BILL OF MATERIAL - 281290-1 (28") or 281291-1 (32")			
ITEM	PART NO.	QTY	DESCRIPTION
1	281023	2	BELT COVER CYLINDRICAL SCRUBDECK
2	281036	2	OFFSET PULLEY POLY V
3	281053	2	J BELT (POLY V) 18IN
4	281177	1	SPRAY BAR ASSY. - SCV 2832
5	281543	2	IDLER ASSY
6	281559	1	DRAG CHAIN ASSY, CYL. SCRUBDECK
7	281598	8	MOTOR STANDOFF - CYL SCRUB DECK
8	281606	1	SPRAY HEAD MTG BRKT, CYL SCRUBDECK
9	281670	2	DRIVE SIDE HUB ASSY, CYL SCRUBDECK
10	281680	2	IDLE SIDE HUB ASSY, CYL SCRUBDECK
11	281832	1	28" CYLINDRICAL SCRUBDECK WELDMENT
	281892		32" CYLINDRICAL SCRUBDECK WELDMENT
12	281901	1	DEBRIS BOX WMT, 28" CYL SCRUBDECK
	281906		DEBRIS BOX WMT, 32" CYL SCRUBDECK
13	430051	2	SPRING-RETURN .313 X .438 X 2.93 SS
14	710154	2	SCR-THMS 10-32 X .625 SS
15	711003	4	SCR-SET 10-32 X .25 BLK OX CP
16	711214	6	SCR-HH 1/4-20 X 2.00 ZP GR 5
17	711316	6	NUT-HEX 1/4-20 ZP
18	711350	10	NUT-NYLOC 10-32 ZP
19	711389	6	NUT-WING 1/4-20 ZP
20	711503	10	WASHER-FLAT #10 X .50 ZP
21	711504	8	WASHER-FLAT 1/4 SS
22	711505	6	WASHER-FLAT 1/4 ZP
23	711544	12	WASHER-LOCK 1/4 SPLIT ZP
24	711558	2	WASHER-INT LOCK 5/16
25	711606	2	BLT-CARR 10-32 X .625 SS
26	711724	2	RET RING-EXT 3/8
27	712346	2	MCHD STANDOFF-THREADED 1/4-20 ZINC PL
28	742759	0.001	TAPE-ELECTRICAL BLUE
29	748048	2	MOTOR OUTLINE 1HP
30	748122	2	BUSHING-SNAP .625 id
31	748409	1	WIRE ASY, CYLINDRICAL DECK ER2832



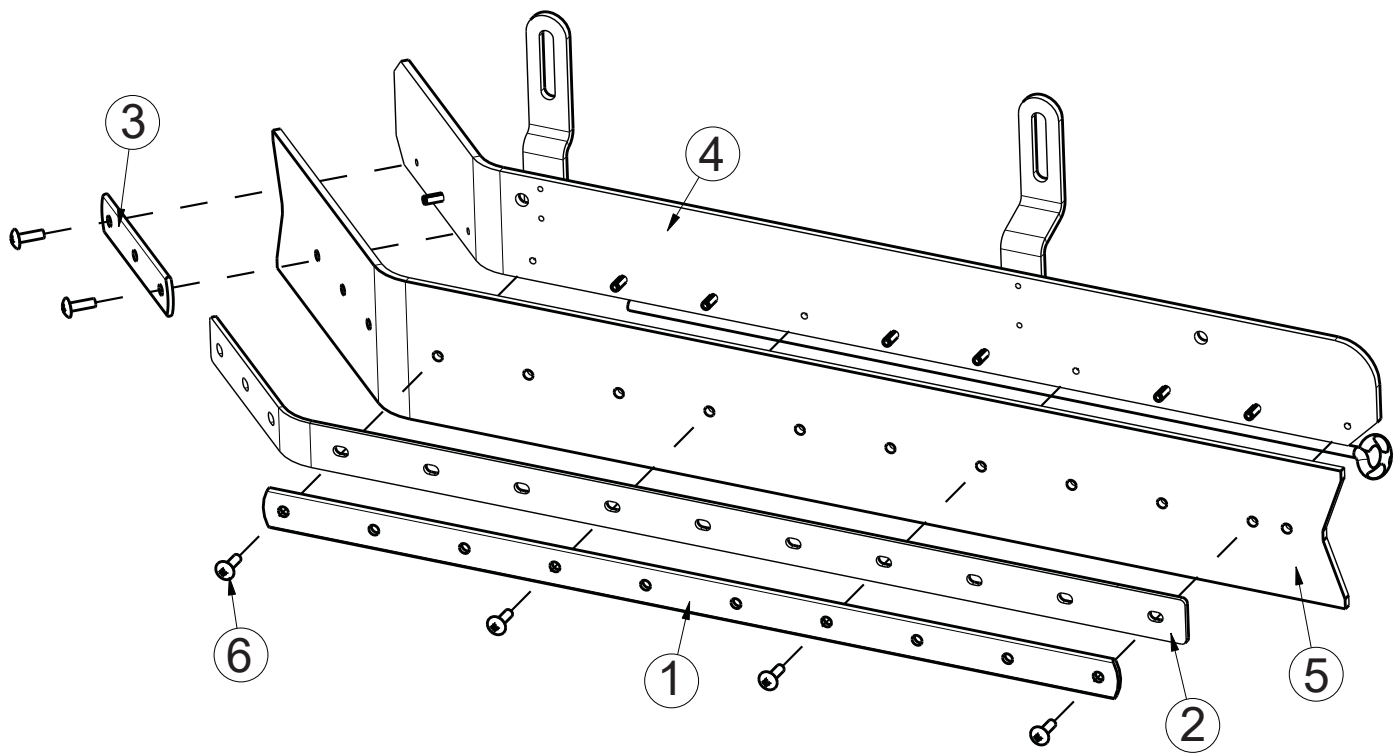
BILL OF MATERIAL - 281292 (28") OR 281293 (32")			
ITEM	PART NO.	QTY	DESCRIPTION
1	281292-2	1	ASSY, DISC SCRUBDECK 28"
	281293-2		ASSY, DISC SCRUBDECK 32"
2	281875	1	SIDE SQUEEGEE WIPE ASSY RH, SCV2832
3	281878	1	SIDE SQUEEGEE WIPE ASSY LH, SCV2832
4	712140	4	WASHER-LOCK 5/16 SPLIT SS
5	712157	4	NUT-WING 5/16-18 SS
6	712301	4	WASHER-FLAT 3/8 X .87 X .06 ZP



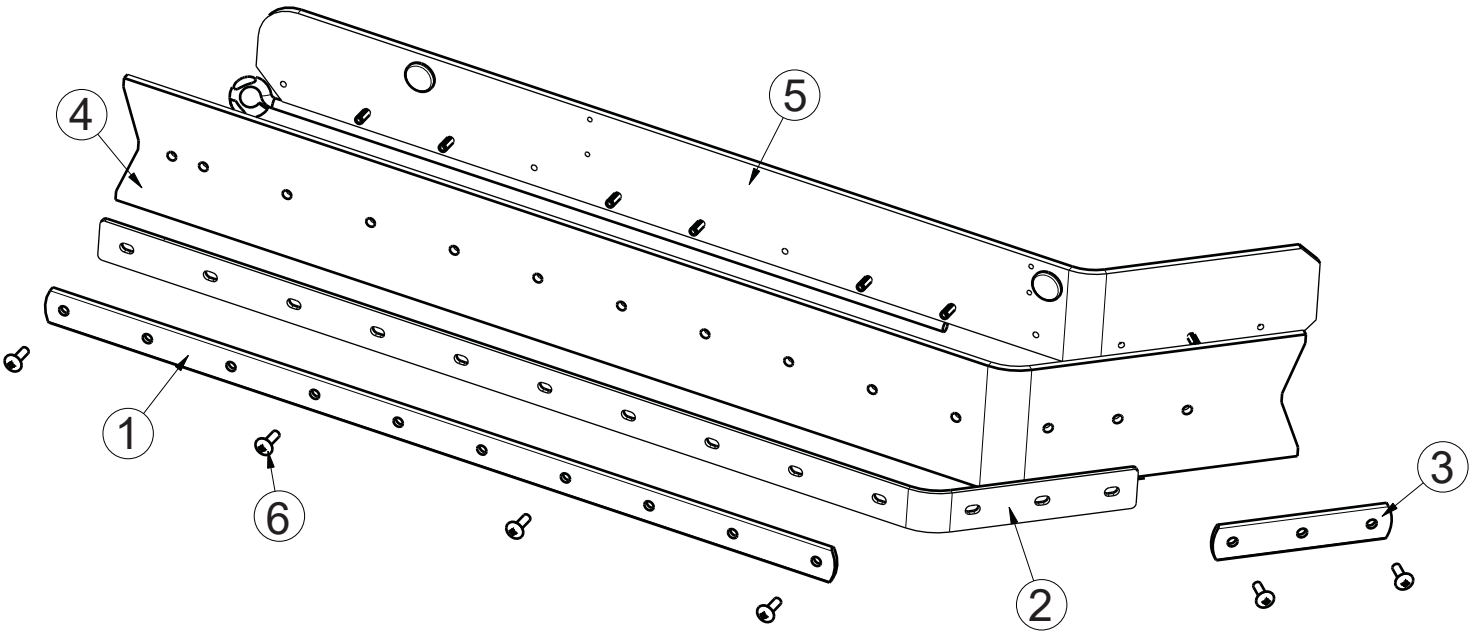
BILL OF MATERIAL - 281292-2 (28") or 281293-2 (32")			
ITEM	PART NO.	QTY	DESCRIPTION
1	210118	4	KNOB-3 SIDED 5/16 NYLOC
2	241628	1	DRAG CHAIN ASSY DISK SCRUBDECK SCV 24/26
3	241653	2	BRACKET-WATER FEED, DISC, SCV 24/26
4	241662	2	BRACKET ASSY-COVER MOUNTING SCV 24/26
5	281611	2	HUB - SCRUB SPACER TUBE
6	281633	2	NUT-PUSH RETAINER 3/8
7	281634	2	DISK SOLUTION FEED ASSY
8	281871-1	1	COVER, DISC DECK WELD, LH-28" SKIRT
	281885-1		COVER, DISC DECK WELD, LH-32" SKIRT
9	281874-1	1	COVER, DISC DECK WELD, RH-28" SKIRT
	281887-1		COVER, DISC DECK WELD, RH-32" SKIRT
10	281881	1	SOL. FEED HOSE SUB-ASSY, DISK
11	281883	2	MOUNTING BRACKET, MOTOR COVER
12	282339	2	PLATE, BLANK COVER, SKIRT MTG SLOTS
13	320928	1	DECK MOTOR COVER, 28" DISK
	320857		DECK MOTOR COVER, 32" DISK
14	320929	1	DISK SCRUBDECK MOUNTING PLATE, 28"
	320859		DISK SCRUBDECK MOUNTING PLATE, 32"
15	450076	2	CLAMP-HOSE 5/8 (.590-.791) SS
16	710355	4	SCR-RHMS 10-32 X .50 ZP
17	711231	2	SCR-HH 5/16-18 X 1.25 ZP GR 5 FULL THREA
18	711242	12	SCR-HH 3/8-16 X 1.00 ZP TAP
19	711427	4	NUT-FLANGED WIZZ 10-32 ZP
20	711503	4	WASHER-FLAT #10 X .50 ZP
21	711504	9	WASHER-FLAT 1/4 SS
22	711507	6	WASHER-FLAT 3/8 X 1.12 X .06
23	711512	2	WASHER-FLAT 3/4 X 1.37 X .08 ZP
24	711515	6	WASHER-FLAT 3/8 X .812 X .0625 ZP
25	711516	2	WASHER-FLAT 5/16 X 1.25 X .05 ZP
26	711539	2	WASHER-EXT LOCK 3/8 ZP
27	711545	2	WASHER-LOCK 5/16 SPLIT ZP
28	711546	12	WASHER-LOCK 3/8 SPLIT ZP
29	712758	8	WASHER-LOCK 1/4 SPLIT SS
30	748003	1	MOTOR-28" DUAL RIGHT ANGLE SCV
31	748410	1	WIRE ASY, DISK DECK ER2832
32	3312402	2	HUB-SCRUB BRUSH DRIVE



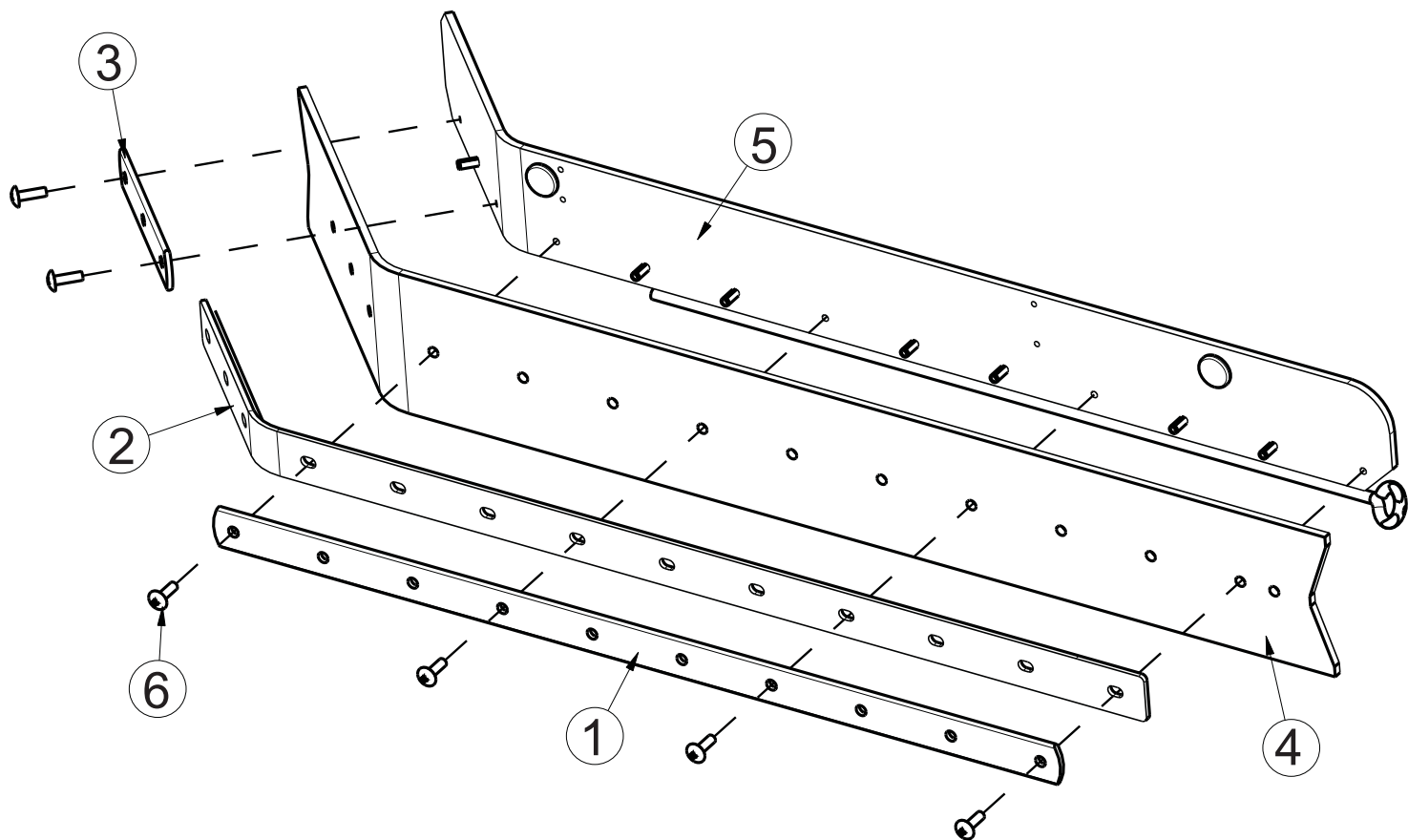
BILL OF MATERIAL - 281851			
ITEM	PART NO.	QTY	DESCRIPTION
1	241679	1	RETAINER-LONG SIDE SQ SCV 24/26
2	281853	1	DISK SQUEEGEE SUB ASSY LH, SCV 28/32
3	281855	1	BACKER BLADE, LONG SCV 2832
4	281856	1	SHORT RETAINER, SIDE SQ SCV 24/26
5	281859	1	SQUEEGEE- SIDE BLADE LINATEX SCV2832
6	710154	6	SCR-THMS 10-32 X .625 SS



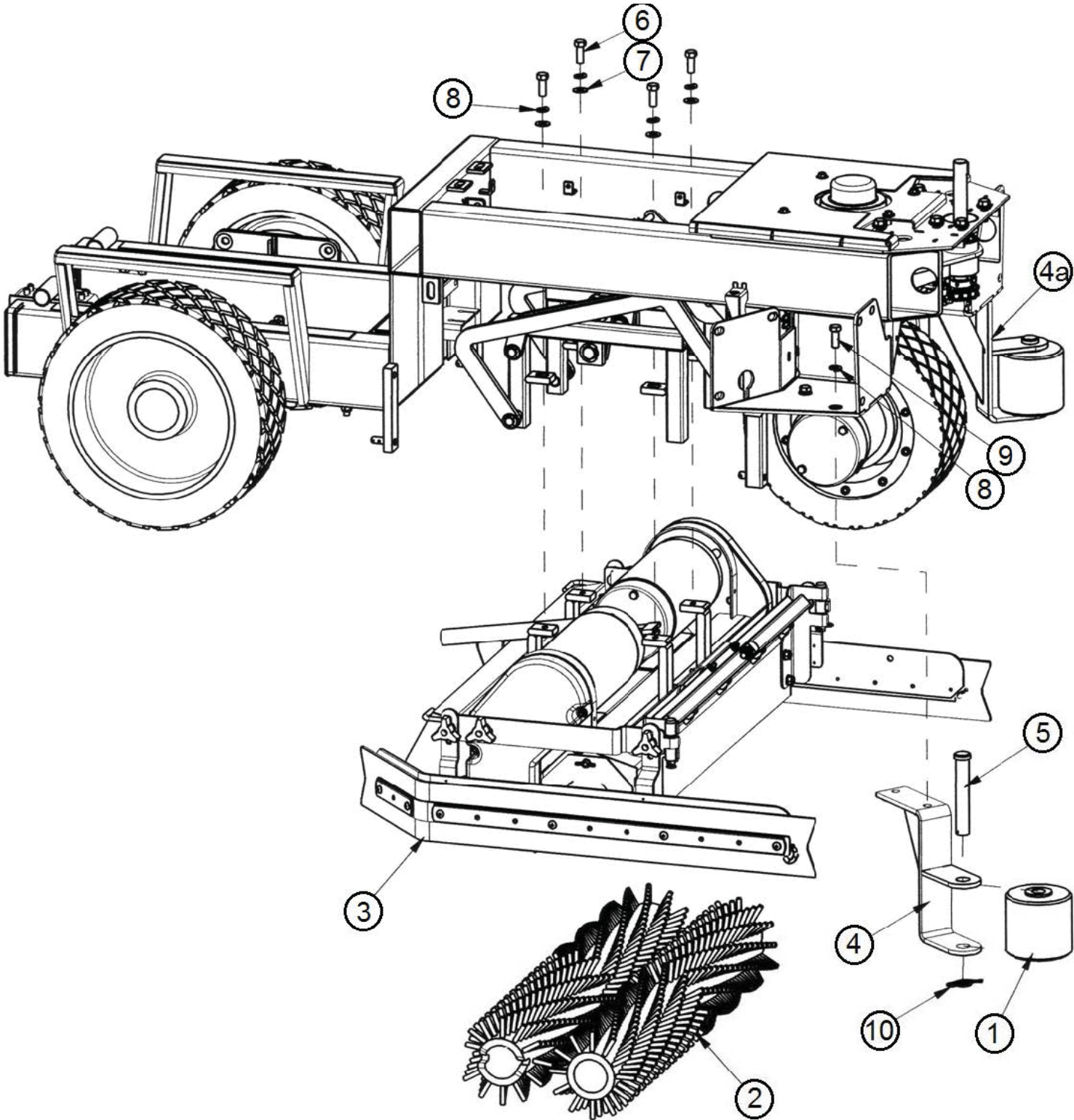
BILL OF MATERIAL - 281857			
ITEM	PART NO.	QTY	DESCRIPTION
1	241679	1	RETAINER-LONG SIDE SQ SCV 24/26
2	281855	1	BACKER BLADE, LONG SCV 2832
3	281856	1	SHORT RETAINER, SIDE SQ SCV 24/26
4	281858	1	DISK SQUEEGEE SUB ASSY RH, SCV 28/32
5	281859	1	SQUEEGEE- SIDE BLADE LINATEX SCV2832
6	710154	6	SCR-THMS 10-32 X .625 SS



BILL OF MATERIAL - 281878			
ITEM	PART NO.	QTY	DESCRIPTION
1	241679	1	RETAINER-LONG SIDE SQ SCV 24/26
2	281855	1	BACKER BLADE, LONG SCV 2832
3	281856	1	SHORT RETAINER, SIDE SQ SCV 24/26
4	281859	1	SQUEEGEE- SIDE BLADE LINATEX SCV2832
5	281879	1	DISK SQUEEGEE SUB-ASSY LH, SCV 24/26
6	710154	6	SCR-THMS 10-32 X .625 SS

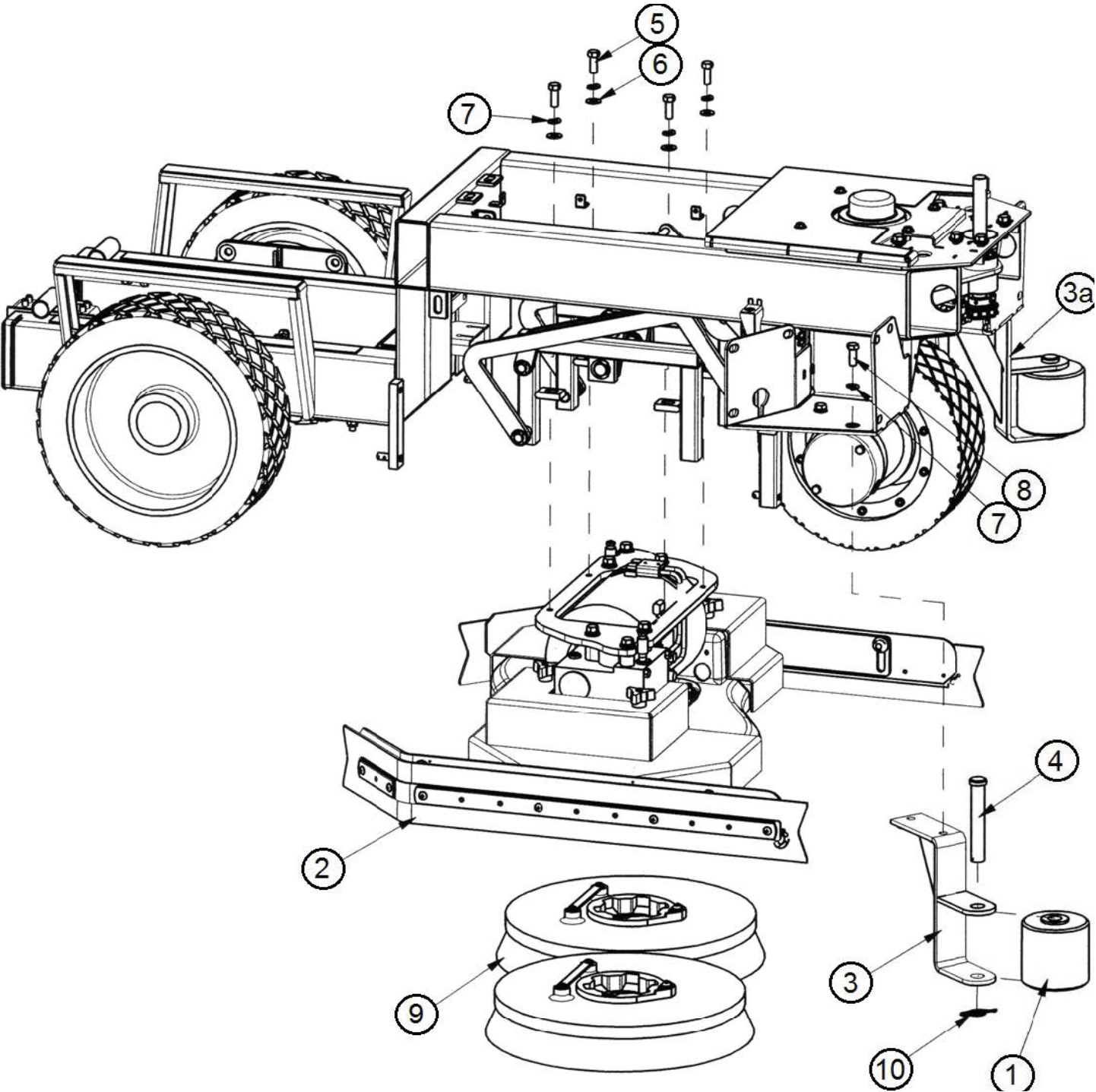


BILL OF MATERIAL - 281875			
ITEM	PART NO.	QTY	DESCRIPTION
1	241679	1	RETAINER-LONG SIDE SQ SCV 24/26
2	281855	1	BACKER BLADE, LONG SCV 2832
3	281856	1	SHORT RETAINER, SIDE SQ SCV 24/26
4	281859	1	SQUEEGEE- SIDE BLADE LINATEX SCV2832
5	281876	1	DISK SQUEEGEE SUB ASSY RH, SCV 24/26
6	710154	6	SCR-THMS 10-32 X .625 SS



BILL OF MATERIAL - 28" CYLINDRICAL			
ITEM	PART NO.	QTY	DESCRIPTION
1	66-436-A	2	ROLLER
2	281525	2	BRUSH-CYL 28" SCRUBGRIT II 120GR BROWN
2A	281522	2	BRUSH-CYL 28" .026 PP BLACK
2B	281520	2	BRUSH-CYL 28" .022 NYL WHITE (COMES STANDARD)
2C	281526	2	BRUSH-CYL 28" NYLO GRIT 80GR GREEN
3	281290	1	CYL SCRUBDECK ASY, 28" ER2832-NO BRUSHES
4	281955	2	FRONT ROLLER MOUNT BRKT WMT
5	360017	2	PIN-CLEVIS 3/4 X 4.5 ZINC
6	711242	10	SCR-HH 3/8-16 X 1.00 ZP TAP
7	711515	13	WASHER-FLAT 3/8 X .812 X .0625 ZP
8	711546	14	WASHER-LOCK 3/8 SPLIT ZP
9	713042	4	SCR-HH 3/8-16 X 1.00 ZP GR 5
10	3400661	2	PIN-COTTER 3/4 RUE-RING

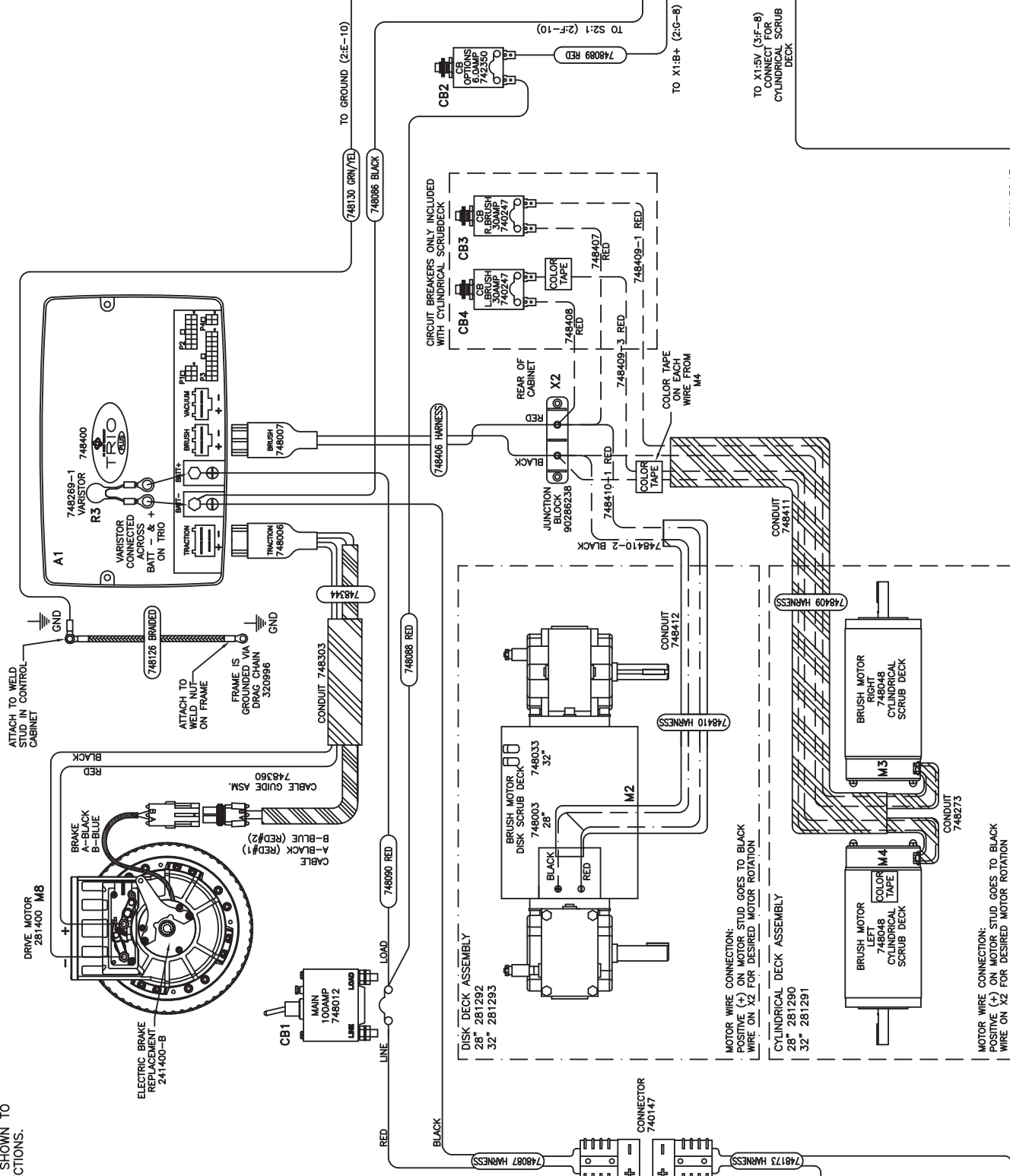
BILL OF MATERIAL - 32" CYLINDRICAL			
ITEM	PART NO.	QTY	DESCRIPTION
1	66-436-A	2	ROLLER
2	281535	2	BRUSH-CYL 32" SCRUBGRIT II 120GR BROWN
2A	281530	2	BRUSH-CYL 32" .022 NYL WHITE (COMES STANDARD)
2B	281532	2	BRUSH-CYL 32" .026 PP BLACK
2C	281536	2	BRUSH-CYL 32" NYLO GRIT 80GR GREEN
3	281291	1	CYL SCRUBDECK ASY, 32" ER2832-NO BRUSHES
4	281976	1	FRONT ROLLER MNT BRKT WMT, RH 32"
4A	281971	1	FRONT ROLLER MNT BRKT WMT, LH 32"
5	360017	2	PIN-CLEVIS 3/4 X 4.5 ZINC
6	711242	10	SCR-HH 3/8-16 X 1.00 ZP TAP
7	711515	13	WASHER-FLAT 3/8 X .812 X .0625 ZP
8	711546	14	WASHER-LOCK 3/8 SPLIT ZP
9	713042	4	SCR-HH 3/8-16 X 1.00 ZP GR 5
10	3400661	2	PIN-COTTER 3/4 RUE-RING



BILL OF MATERIAL - 28" DISC			
ITEM	PART NO.	QTY	DESCRIPTION
1	66-436-A	2	ROLLER
2	281292	1	DISK SCRUBDECK ASY 28" ER2832-NO BRUSH-ES
3	281955	1	FRONT ROLLER MOUNT BRKT WMT
4	360017	2	PIN-CLEVIS 3/4 X 4.5 ZINC
5	711242	10	SCR-HH 3/8-16 X 1.00 ZP TAP
6	711515	13	WASHER-FLAT 3/8 X .812 X .0625 ZP
7	711546	14	WASHER-LOCK 3/8 SPLIT ZP
8	713042	4	SCR-HH 3/8-16 X 1.00 ZP GR 5
9	3332544	2	BRUSH-14" MID GRIT LIGHT GRAY (COMES STANDARD)
9A	3313135	2	BRUSH-SCRUB 14" PLASTIC NYLON BLACK
9B	3313125	2	POWER DRIVE-14"POWERGRIT 80S/S BLACK
9C	3313127	2	POWER DRVE-14" POWERGRIT 46 HDS DK BLUE
9D	3315494	2	BRUSH-14" PWR DRIVE W/PAD HLDR
9E	3315386	2	POWER DRIVE-14"POWERGRIT120AGS BROWN
10	3400661	2	PIN-COTTER 3/4 RUE-RING

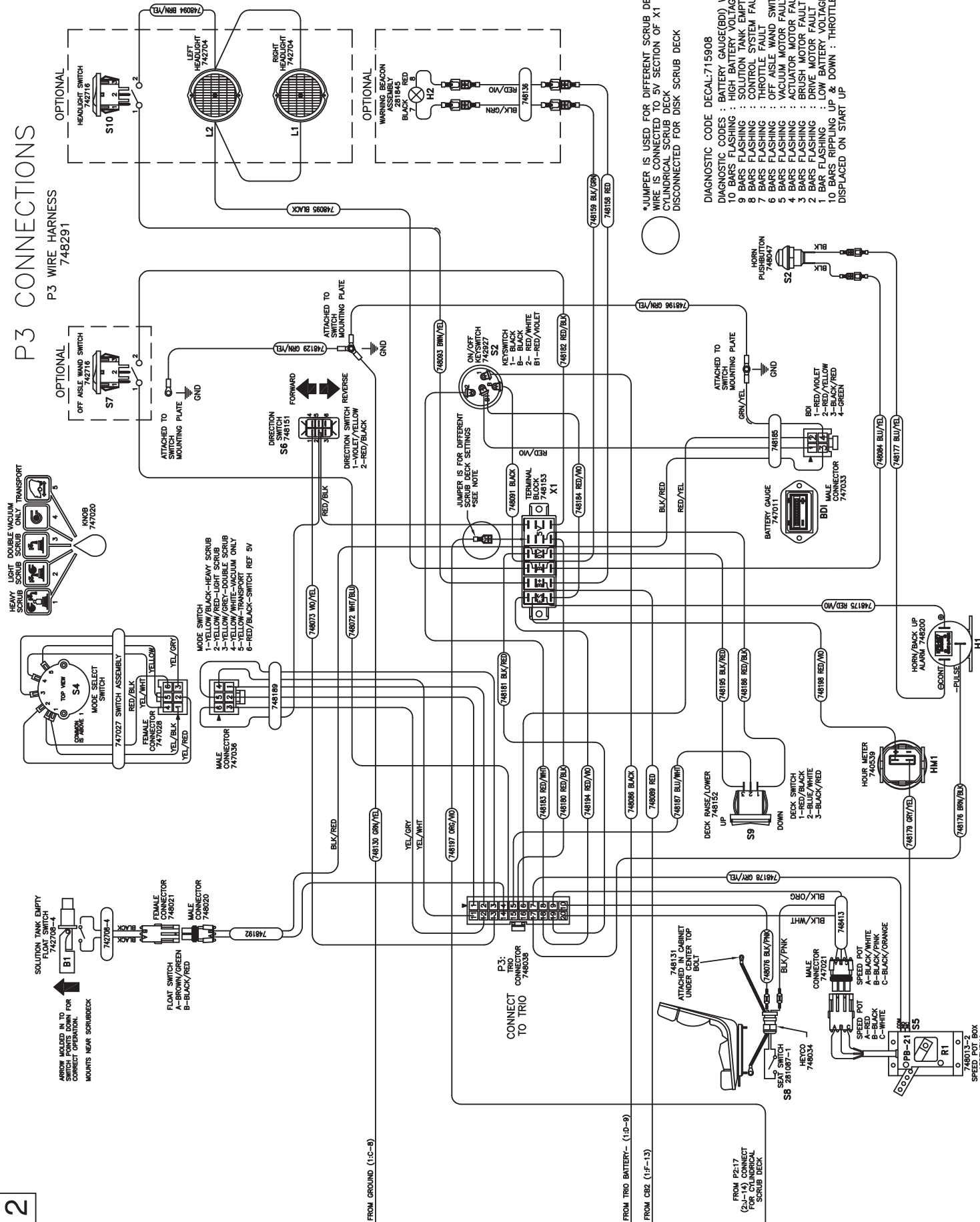
BILL OF MATERIAL - 32" DISC			
ITEM	PART NO.	QTY	DESCRIPTION
1	66-436-A	2	ROLLER
2	281293	1	DISK SCRUBDECK ASY 32" ER2832-NO BRUSH-ES
3	281976	1	FRONT ROLLER MNT BRKT WMT, RH 32"
3A	281971	1	FRONT ROLLER MNT BRKT WMT, LH 32"
4	360017	2	PIN-CLEVIS 3/4 X 4.5 ZINC
5	711242	10	SCR-HH 3/8-16 X 1.00 ZP TAP
6	711515	13	WASHER-FLAT 3/8 X .812 X .0625 ZP
7	711546	14	WASHER-LOCK 3/8 SPLIT ZP
8	713042	4	SCR-HH 3/8-16 X 1.00 ZP GR 5
9	3332545	2	BRUSH-16" MID GRIT LIGHT GRAY
9A	3313136	2	BRUSH-SCRUB 16" PLASTIC NYLON BLACK
9B	3313126	2	POWER DRIVE-16"POWERGRIT 80S/S GREEN
9C	3313128	2	16" POWERGRIT 46H DARK BLUE
9D	3313134	2	BRUSH-SCRUB 16" PLAS BUTCHWIRE
9E	3315385	2	POWER DRIVE-16"POWERGRIT120AGS BROWN
10	3400661	2	PIN-COTTER 3/4 RUE-RING

TRIO & POWER CONNECTIONS



P3 CONNECTIONS

P3 WIRE HARNESS
748291

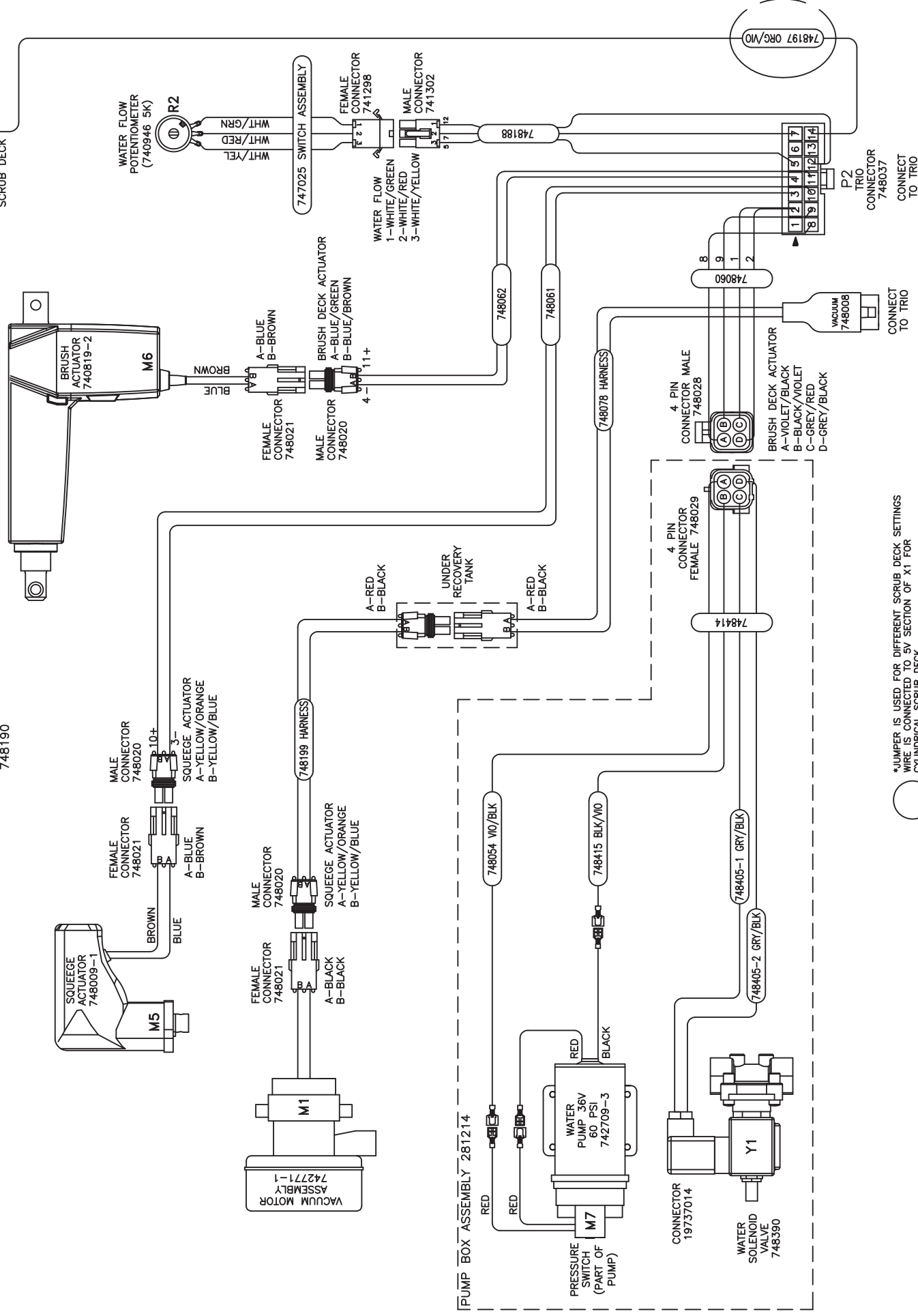


*JUMPER IS USED FOR DIFFERENT SCRUB DECK SETTINGS
WIRE IS CONNECTED TO 5V SECTION OF X1 FOR
CYLINDRICAL SCRUB DECK
DISCONNECTED FOR DISK SCRUB DECK

DIAGNOSTIC CODE DECAL:715908

- DIAGNOSTIC CODES:
- | | | | |
|------|-----|----------|------------------------------|
| 10 | BAR | FLASH | BATTERY GAUGE(00) WILL FLASH |
| 20 | BAR | FLASHING | HIGH BATTERY VOLTAGE |
| 30 | BAR | FLASHING | SOLUTION TANK EMPTY |
| 40 | BAR | FLASHING | CONTROL SYSTEM FAULT |
| 50 | BAR | FLASHING | THROTTLE FAULT |
| 60 | BAR | FLASHING | OFF AISLE WAND SWITCH ON |
| 70 | BAR | FLASHING | VACUUM MOTOR FAULT |
| 80 | BAR | FLASHING | ACTUATOR MOTOR FAULT |
| 90 | BAR | FLASHING | BRUSH MOTOR FAULT |
| 100 | BAR | FLASHING | LOW BATTERY VOLTAGE |
| 110 | BAR | FLASHING | LOW MOTOR SPEED |
| 120 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 130 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 140 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 150 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 160 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 170 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 180 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 190 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 200 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 210 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 220 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 230 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 240 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 250 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 260 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 270 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 280 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 290 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 300 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 310 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 320 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 330 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 340 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 350 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 360 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 370 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 380 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 390 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 400 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 410 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 420 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 430 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 440 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 450 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 460 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 470 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 480 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 490 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 500 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 510 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 520 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 530 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 540 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 550 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 560 | BAR | FLASHING | LOW MOTOR FLUSHING |
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| 600 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 610 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 620 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 630 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 640 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 650 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 660 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 670 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 680 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 690 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 700 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 710 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 720 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 730 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 740 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 750 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 760 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 770 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 780 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 790 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 800 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 810 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 820 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 830 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 840 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 850 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 860 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 870 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 880 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 890 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 900 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 910 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 920 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 930 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 940 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 950 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 960 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 970 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 980 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 990 | BAR | FLASHING | LOW MOTOR FLUSHING |
| 1000 | BAR | FLASHING | LOW MOTOR FLUSHING |

P2 CONNECTIONS

P2 WIRE HARNESS
748190

*JUMPER IS USED FOR DIFFERENT SCRUB DECK SETTINGS
WIRE IS CONNECTED TO 5V SECTION OF X1 FOR
CYLINDRICAL SCRUB DECK
DISCONNECTED FOR DISK SCRUB DECK

WIRE COLORS & FUNCTIONS

P2: TRIO CONNECTOR

PIN #	COLOR	FUNCTION
1	GREY/RED	WATER SOLENOID VALVE
2	GREY/BLACK	WATER SOLENOID VALVE
3	YELLOW/ORANGE	SQUEEGE ACTUATOR
4	BLUE/GREEN	BRUSH ACTUATOR
5	WHITE/YELLOW	WATER FLOW POTENTIOMETER (SLOW)
6	—	—
7	WHITE/RED	WATER FLOW POTENTIOMETER (WIPER)
8	VIOLET/BLACK	WATER PUMP
9	BLACK/VIOLET	WATER PUMP
10	YELLOW/BLUE	SQUEEGE ACTUATOR
11	BLUE/ORANGE	BRUSH ACTUATOR
12	WHITE/GREEN	WATER FLOW POTENTIOMETER (FAST)
13	—	—
14	ORANGE/VIOLET	BRUSH DECK PRESSURE SETTING

P3: TRIO CONNECTOR

PIN #	COLOR	FUNCTION
1	YELLOW/RED	MODE SWITCH: LIGHT SCRUB
2	YELLOW/BLACK	MODE SWITCH: HEAVY SCRUB
3	YELLOW	MODE SWITCH: TRANSPORT
4	—	—
5	BLUE/WHITE	DECK RAISE/LOWER SWITCH
6	RED/YELLOW	BATTERY GAUGE SIGNAL
7	GREY/YELLOW	HOURLY METER
8	RED/WHITE	ON/OFF RED (B+): TERMINAL BLOCK
9	BLACK/ORANGE	SPEED POTENTIOMETER (SLOW)
10	BLACK/PINK	SPEED POT/SEAT SAFETY SWITCH
11	YELLOW/WHITE	MODE SWITCH: VACUUM ONLY
12	YELLOW/GREY	MODE SWITCH: DOUBLE SCRUB
13	VIOLET/YELLOW	REVERSE SWITCH
14	BROWN/GREEN	FLOAT SWITCH: SOLUTION TANK EMPTY
15	WHITE/BLUE	OFF AISLE WAND
16	RED/BLACK	HIGH SWITCH REF: 5VDC
17	BROWN/BLACK	BACK UP ALARM
18	RED/VIOLET	ON/OFF INPUT: KEY SWITCH-KSI
19	BLACK/RED	LOW SWITCH REF: 0VDC
20	BLACK/WHITE	SPEED POTENTIOMETER (FAST)

MISCELLANEOUS

COLOR	FUNCTION
RED	BATTERY 36VDC
BLACK	BATTERY 0VDC
RED/BLACK	HIGH SWITCH REF: 5VDC
BLACK/RED	LOW SWITCH REF: 0VDC
RED/VIOLET	KEY SWITCH INPUT- KSI
BLUE/YELLOW	HORN: 0VDC
ORANGE/VIOLET	DECK TYPE SELECT:CONNECT FOR CYLINDRICAL

KEY SWITCH: S2

PIN #	HARNESS COLOR	FUNCTION
1	BLACK	BATTERY OV: TRIO
B	BLACK	TERMINAL BLOCK FEED: OV
2	RED/WHITE	P3:8 +V FROM TRIO
B1	RED/VIOLET	TERMINAL BLOCK FEED P3:18 KSI

BATTERY GAUGE: BDI

PIN #	COLOR	FUNCTION
1	RED/VIOLET	P3:18 SWITCHED 36VDC
2	RED/YELLOW	P3:6 SIGNAL
3	BLACK/RED	TERMINAL BLOCK SIGNAL REF OV
4	GREEN/YELLOW	ESD DISCHARGE

MODE SELECT SWITCH: S4

SWT #	PIN #	COLOR	FUNCTION
1	1	YELLOW/BLACK	P3:2 HEAVY SCRUB
2	2	YELLOW/RED	P3:1 LIGHT SCRUB
3	3	YELLOW/GREY	P3:12 DOUBLE SCRUB
4	4	YELLOW/WHITE	P3:11 VACUUM ONLY
5	5	YELLOW	P3:3 TRANSPORT
C	6	RED/BLACK	TERMINAL BLOCK: HIGH REF 5V

DIRECTION SWITCH: S6

PIN #	COLOR	FUNCTION
1	VIOLET/YELLOW	P3:13 REVERSE
2	RED/BLACK	TERMINAL BLOCK: HIGH REF 5VDC
3	EMPTY	—
4	EMPTY	—
5	EMPTY	—
6	EMPTY	—

DECK RAISE/LOWER SWITCH: S9

PIN #	COLOR	FUNCTION
1	RED/BLACK	TERMINAL BLOCK: HIGH REF 5VDC
2	BLUE/WHITE	P3:5 DECK RAISE/LOWER INPUT
3	BLACK/RED	TERMINAL BLOCK: LOW REF 0VDC
4	EMPTY	—
5	EMPTY	—
6	EMPTY	—

OFF AISLE WAND SWITCH: S7- OPTIONAL

PIN #	COLOR	FUNCTION
1	WHITE/BLUE	P3:15 OFF AISLE WAND
2	RED/BLACK	TERMINAL BLOCK: HIGH REF 5VDC

HEAD LIGHT SWITCH: S10- OPTIONAL

PIN #	COLOR	FUNCTION
1	BROWN/YELLOW	TERMINAL BLOCK: 36VDC
2	BROWN/YELLOW	HEAD LIGHT: L2

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,
for Industrial Facilities.**

Minuteman International, Inc. 14N845 U.S. Route 20 Pingree Grove, Illinois 60140
Phone: 800-323-9420 www.Minutemanintl.com Email: tech@minutemanintl.com
A Member of the Hako Group