



Parts Manual
Max Ride 20 Floor Scrubber
Disc Brush Drive Generation 1

PREFACE

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

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

Thank you!

The Minuteman International Team

Name: _____

Title: _____

Company Name: _____

Address: _____

Country: _____

Type of equipment or model number: _____

Comments: _____

Please return to:

Customer Service Manager
Minuteman International, Inc.
14N845 U.S. Route 20
Pingree Grove, Illinois 60140 USA

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Technical Specifications

Model **Max Ride 20**
Models: MR20DQP, MR20DQPG, MR20DQPINT, MR20DQPT,
 MR20DSQP, MR20DSQPG, MR20DSQPINT, MR20DSQPT

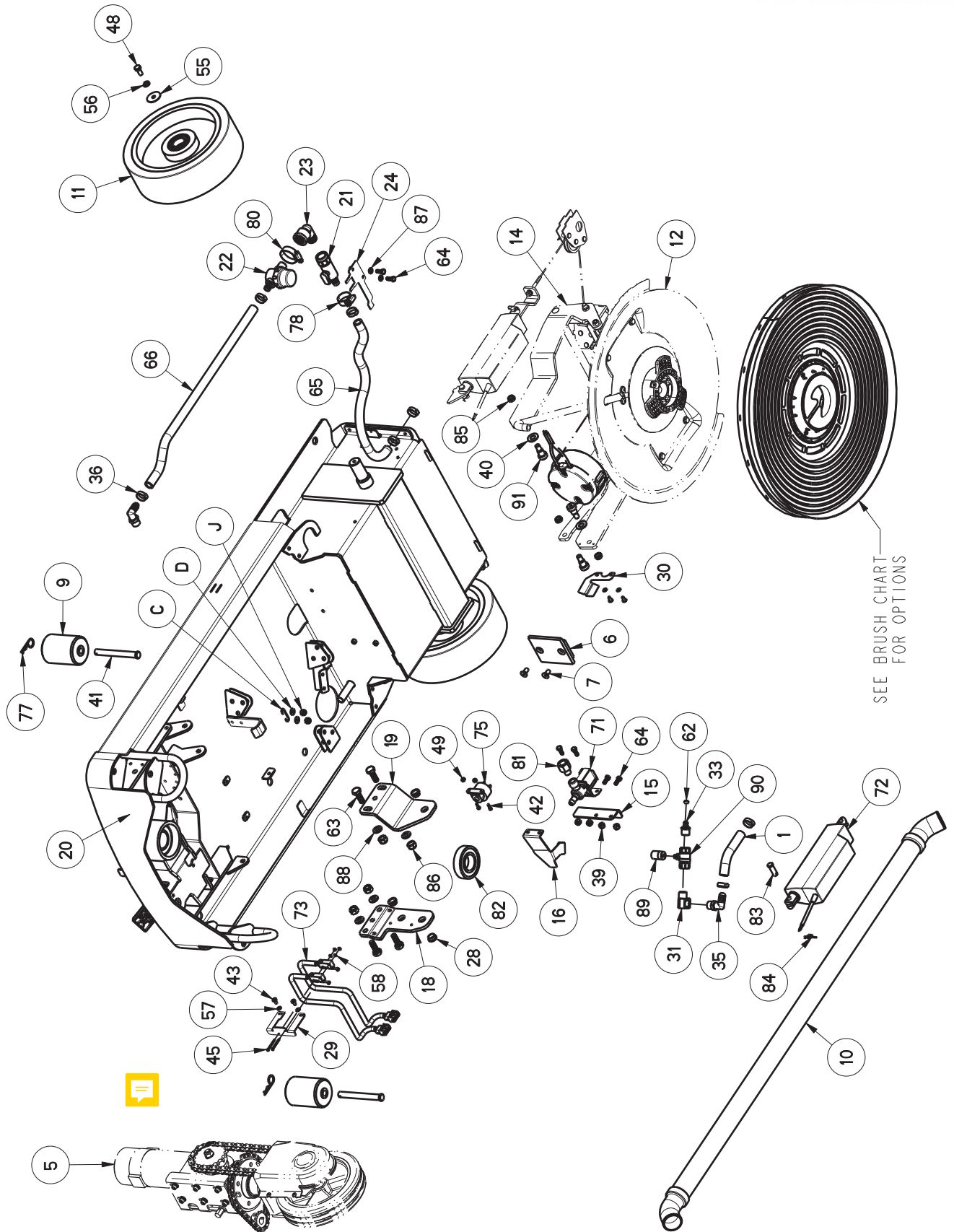
Model	MAX Ride 20
Scrub Head Type	Disc
Scrub Path	20 in (51 cm)
Solution Capacity	18 gal (68L)
Recovery Capacity	18 gal (68L)
Max Speed	3.1 mph (5 kh)
Max Productivity	27,200 sq. ft/hr (2527 sq. m/hr)
Actual Productivity	22,015 sq. ft/hr (2045 sq. m/hr)
Brush Pressure	Floating- Locked- 46 lbs/70 Nm
Brush Speed	175-400 RPM
Brush Motor	400/600 watts
Vacuum Motor	550 watts
Vacuum Airflow	69 cfm (32.4L /sec)
Vacuum Waterlift	68" H2O (172 cm H2O)
Sound Pressure	68 dba
Water Flow	.45 gpm (1.7L / min)
Min. Turn-Around Aisle Width	50.5" (128 cm)
Maximum Ramp Climbing	2%
Squeegee Width	25" (64 cm)
Machine Voltage	24 VDC
Power Source	Battery (2) 12V 140 AH
Battery Charger	On Board
Maximum Run Time	3-3.5 hrs.
Dimensions W/ Squeegee	47.5"L x 25.5"W x 45"H (121 cm x 65 cm x 114 cm)
Weight Without Batteries	342 lbs (155 kg) No Solution
Weight With Batteries	691 lbs (313 kg) Full Solution and 140 AH battery pack
Approvals	None
IP Protection Class	IPX4

For Safety When Servicing or Maintaining Machine

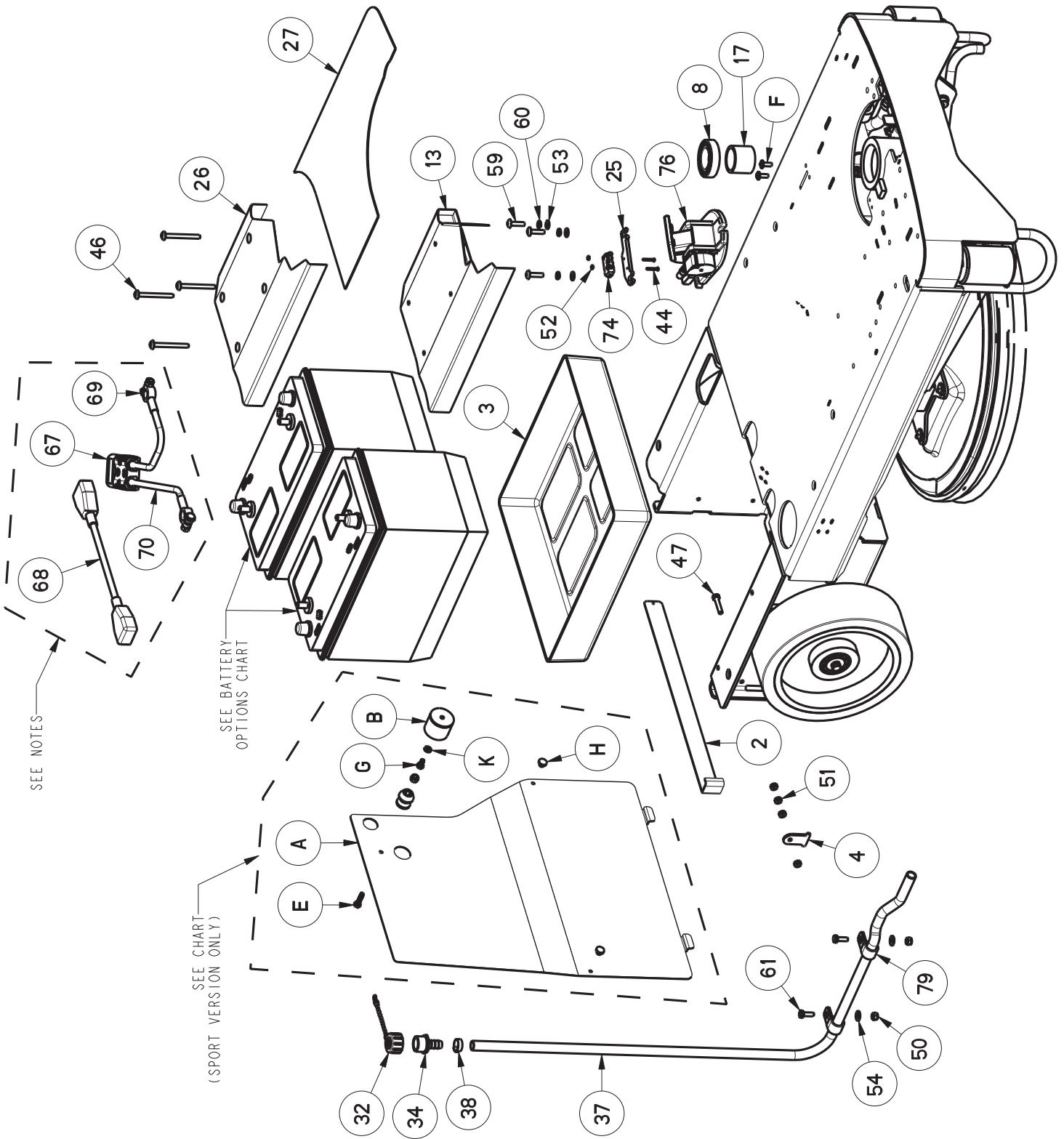
- Stop on level surface.
- Disconnect the power to the machine by pulling the red Battery Connector located under the recovery tank near the batteries.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- Avoid contact with battery acid. Battery acid can cause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



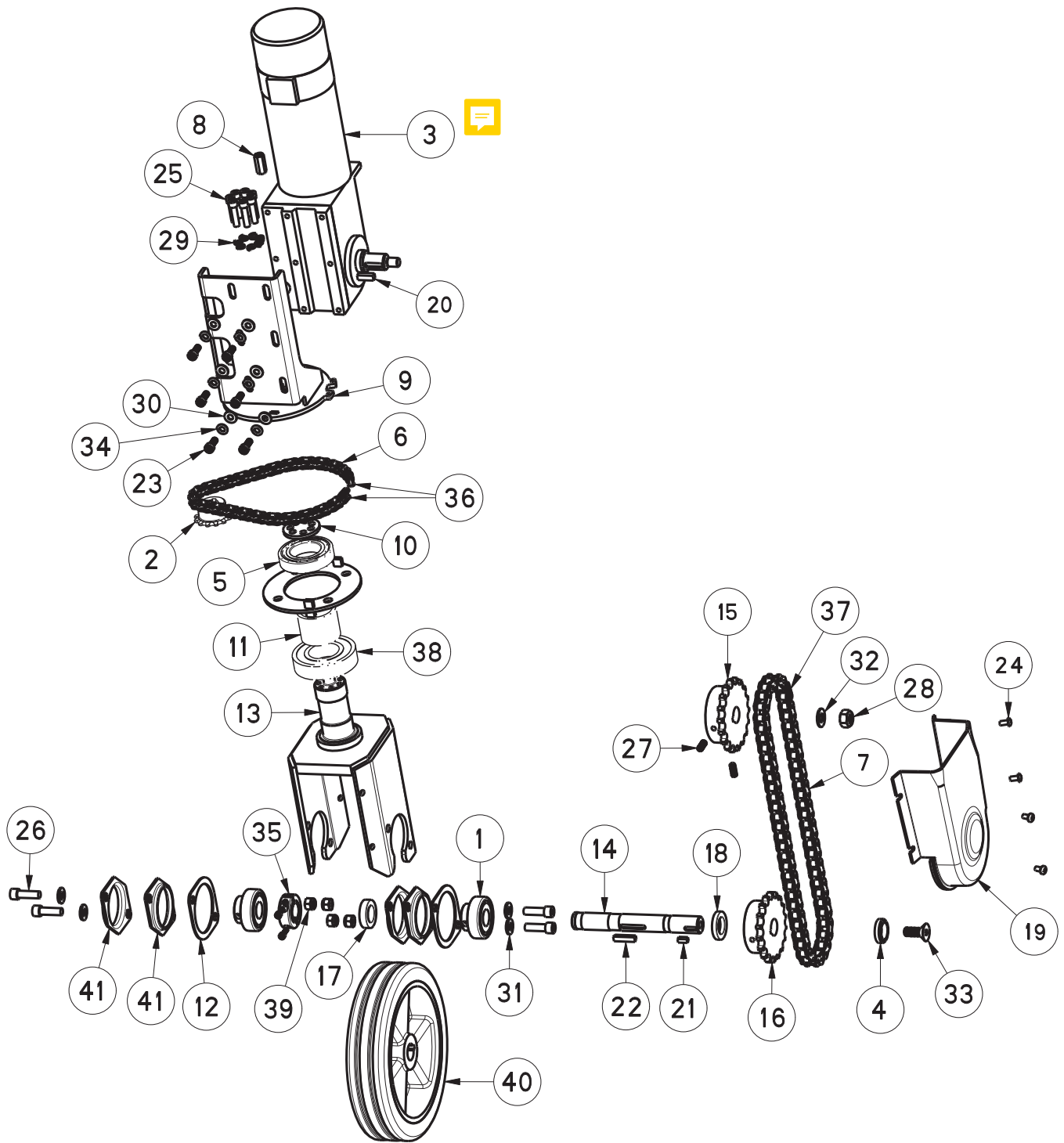
BILL OF MATERIAL - 245496							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	172469	1	HOSE, NYLON 1/2 X 4.5 IN	38	450076	1	CLAMP-HOSE 5/8 (.590-.791) SS
2	245204	1	BATTERY BAR	39	600933	6	NUT-NYLOC M6-1.00 SS
3	245210	1	BOX-BATTERY-MAX 20	40	600950	2	WASHER-FLAT M12 ZP
4	245213	1	RETAINER-BATTERY BAR	41	620027	2	PIN-CLEVIS 1/2 X 4.50 ZP
5	245220	1	WHEEL DRIVE GROUP 20" & 26"	42	710204	2	SCR-PHMS 6-32 X .50 ZP
6	245304	1	BLOCK, SLIDE	43	710353	4	SCR-PHMS 10-32 X .37 ZP
7	245338	2	SCR-FHSCS 5/16-18 X 5/8 SS	44	710493	2	SCR-RHMS 4-40 X .75 ZP
8	245416	1	BALL BEARING 35MM X 62MM OD	45	710495	2	SCR-PHMS 4-40 X 1.25 ZP
9	245419	2	ROLLER, BUMPER, 2.5 DIA.	46	710998	4	SCR-THMS 1/4-20 X 2.50 SS
10	245450	1	HOSE-VAC, CLEAR 1.50"ID X 43 LNG	47	711210	1	SCR-HH 1/4-20 X 1.25 ZP GR 5
11	245461	2	WHEEL - ASSY, IDLER, 254 x 80	48	711227	2	SCR-HH 5/16-18 X .62 ZP GR 5
12	245470	1	SCRUB HEAD GROUP 20	49	711371	2	NUT-NYLOC 6-32 ZP
13	245475	1	WLDMNT,FLOOR PLATE RISER 20"	50	711373	2	NUT-NYLOC 1/4-20 ZP
14	245488	1	SCRUB HEAD LIFT GROUP 20	51	711387	4	NUT-JAM 1/4-20 ZP NYLOC
15	245589	1	MOUNT, SOLUTION VALVE	52	711428	4	NUT-HEX 4-40 ZP
16	245590	1	MOUNT, HAND VALVE	53	711504	5	WASHER-FLAT 1/4 SS
17	245592	1	SPACER, BEARING	54	711505	2	WASHER-FLAT 1/4 ZP
18	245667	1	MOUNT, SCRUB HEAD RH 20"	55	711516	2	WASHER-FLAT 5/16 X 1.25 X .05 ZP
19	245668	1	MOUNT, SCRUB HEAD LH 20"	56	711545	2	WASHER-LOCK 5/16 SPLIT ZP
20	245670	1	WELDMENT, FRAME, 20"	57	711553	4	WASHER-INT TOOTH LOCK #10 ZP
21	245780	1	VALVE- BALL 1/2 FPT X 1/2 HB	58	712326	2	WASHER-INT LOCK #4 SS
22	245781	1	FILTER - 1/2 MPT X 1/2 HB	59	712541	3	SCR-THMS 1/4-20 X 1.00 SS
23	245783	1	FTG-ELBOW STREET 90 1/2	60	712758	3	WASHER-LOCK 1/4 SPLIT SS
24	245784	1	PLATE - MTG - BALL VALVE/FILTER	61	713002	2	SCR-HH 1/4-20 X .75 ZP 5
25	245793	1	PLATE, LIMIT SW MNT, @ PEDAL	62	730784	1	SPACER, .203 B .375 OD .210 T
26	245796	1	TREAD, ANTI-SKID, RISER 20"	63	730878	4	SCR-HH M10-1.50 X 30 SS
27	245797	1	TREAD, ANTI-SKID, FRAME 20"	64	730934	8	SCR-HH M6-1.00 X 16 SS
28	245806	3	BUSHING-FLG, .50 x .62 x .31 LG	65	730971	1	TUBING, .50 ID X .13 WAL
29	245809	1	BRKT - MTG, LMT SWTCH, SCRBDK	66	731544	1	TUBING, .50 ID X .13 WAL
30	245810	1	CAM - PLT, LMT SWTCH, SCRBDK	67	740159	1	CONNECTOR-SB175 RED HOUSING
31	281088	1	FTG-ELBOW 90 ST 3/8 MPT x 3/8	68	740164-1	1	CBL ASSY- BTRY JMPR, 4G RED 12"
32	283690	1	ASSY, BREATHER CAP W LANYARD		748482		BTRY CBL - JMPR (FOR AGM BTRY)
33	320265	1	FTG-ADPTR 3/8 MPT X 3/8 HB BRS	69	740167	1	BTRY CABLE, RED 4AWG SB175
34	342445	1	FTG-GARDEN ST 1/2 HB PP		748480		BTRY CBL - POS (FOR AGM BTRY)
35	383337	2	FTG-ELBOW 90 3/8 MPT X 1/2 HB PP	70	740168	1	BTRY CBL, BLACK 4AWG SB175
36	383347	7	CLAMP-CRIMP 1/2 HOSE		748481		BTRY CBL - NEG (FOR AGM BTRY)
37	430231	1	HOSE, 1/2 ID X 45", CLEAR	71	740493	1	VALVE-WATER 24VDC

BILL OF MATERIAL - 245496							
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
72	740827-1	1	ACTUATOR - 40MM STROKE- 750 N	82	3305667	1	BEARING-MAIN BROOM
73	747603-2	2	SWITCH ASY, MICRO ROLLER	83	3400117	1	PIN-CLEVIS 3/8 x 1.125 ZP
74	747604	1	SWITCH, MICRO .96" ROLLER ARM	84	3400125	1	RING-RUE 3/8
75	748200	1	HORN / BACK UP ALARM, 9-48VDC	85	3401028	3	NUT-JAM 3/8-16 ZP NYLOC
76	748507	1	PEDAL ASSY, THROTTLE	86	12040069	4	NUT-NYLOC M10 X 1.5 ZD CLASS 6
77	833374	2	PIN-HAIRPIN COTTER 3/8	87	12310033	3	WASHER-FLAT M6.4 X 12 X 1.6 ZP
78	3300535	1	CLAMP-HOSE 1.00 NOM	88	12310058	4	WASHER-FLAT M10.5 X 20 X 2 ZP
79	3301158	2	CLAMP-CABLE 11/16" DIA	89	90502428	1	SHAFT CONNECTOR
80	3302193	1	CLAMP-HOSE 1.25 NOM	90	90521576	1	BALL VALVE
81	3303302	1	FTG-REDUCER 3/8 FPT X 1/4 MPT	91	712099PLT	3	BLT-SHLDER 1/2 X 1/2 LG X 3/8-16

BATTERY AND CHARGER OPTIONS			
MODEL	BATTERY PART NO.	CHARGER PART NO.	DESCRIPTION
MR20DQPG, MR20DSQPG	956158	957761-3	BATTERY 12V 140AH OVERDRIVE 12AGM
MR20DQPT, MR20DSQPT	956753	957761-2	BATTERY WET 12V 130AH TROJAN
MR20DQP	956712	957761-2	BATTERY, 12V 115 AH WET
MR20DQPINT	956712	957760-2	BATTERY, 12V 115 AH WET
MR20DSQP	956140	957761-2	BATTERY, 12V 140AH WET
MR20DSQPINT	956140	957760-2	BATTERY, 12V 140AH WET

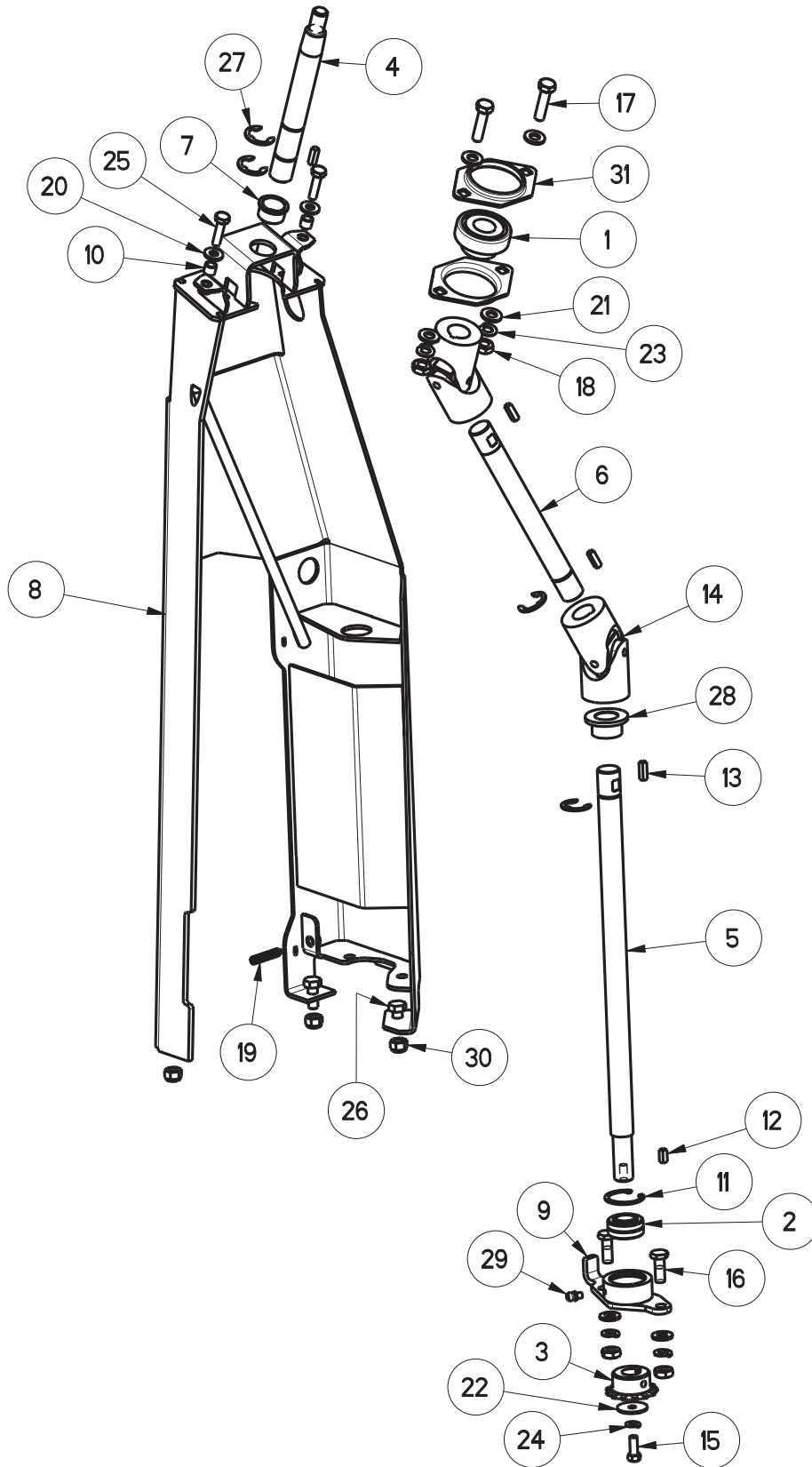
SPORT VERSIONS ONLY							
ITEM	PART NO.	QTY	DESCRIPTION	ITEM	PART NO.	QTY	DESCRIPTION
A	245212	1	COVER, REAR 20"	F	3300526	2	BUMPER-RUBBER 1/4 ID X 1/8 THK
B	245222	1	LATCH-RUBBER	G	11038064	1	BLT-HH M6 X 1.0 X 12 STL ZD 8.8
C	600125	1	CATCH, PARKING BRAKE	H	11177060	2	SC-BHCS M6 X 1.0 X 16 304SS
D	711504	2	WASHER-FLAT 1/4 SS	J	12040044	3	NUT-NYLOC M6 X 1.0 ZP CLASS 6
E	731006	1	SCR-HH M6-1.00 X 25 ZP CLASS 8.8	K	12310033	1	WASHER-FLAT M6.4 X 12 X 1.6 ZP

BRUSH OPTIONS			
		AQUASTOP BRUSHES	
PART #	DESCRIPTION	PART #	DESCRIPTION
172520-1	BRUSH-DISC, 20" NYLON, BLACK	7951-01	BRUSH, 20" LIGHT-MED PP.5 A/S, WHITE
172520-3	BRUSH-DISC, 20" NYLO-GRIT 80GR, BLACK	7951-02	BRUSH, 20" LIGHT-MEDIUM A/S, K901, BLACK
172520-6	BRUSH-DISC, 20" SCRUB GRIT 2, 120GR RED	7951-03	BRUSH, 20" MEDIUM NYLON 600GR. A/S, GREY
172588	PAD DRIVER, ASSY, AQUASTOP, 20" (STANDARD)	7951-04	BRUSH, 20" MEDIUM-HEAVY PP.8 A/S, WHITE
762370	PAD RETAINER-REMOVABLE-NOT SHOWN	7951-05	BRUSH, 20" HEAVY NYLON 180GR. A/S, GREY
762394	PAD RETAINER-FIXED-NOT SHOWN	7951-06	BRUSH, 20" HEAVY-2 NYL 120GR. A/S, GREEN



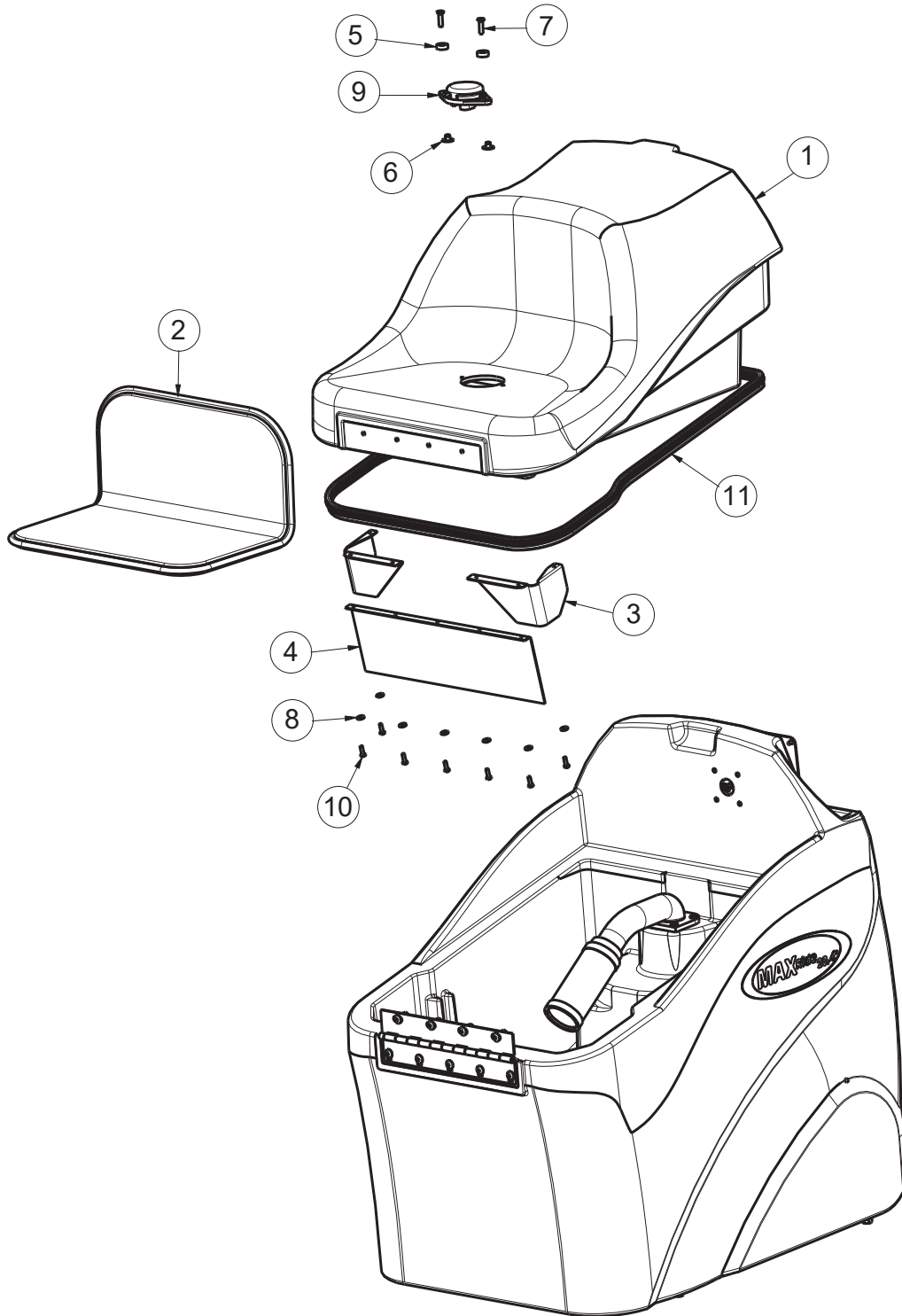
Rev B

BILL OF MATERIAL - 245220			
ITEM	PART NO.	QTY	DESCRIPTION
1	66-138-A	2	BEARING
2	245087	1	SPROCKET, ROLLER CHAIN 35FB13 - 5/8"BORE
3	245184	1	GEAR-MOTOR, TRACTION, 24VDC 700W, ASI
4	245273	1	WASHER, END-OF-SHAFT, 3/8 FL HD
5	245416	1	BALL BEARING 35MM X 62MM OD X 14MM W
6	245445-1	1	CHAIN - ROLLER #35 - 23 LINKS
7	245446-1	1	CHAIN - ROLLER #40 - 31 LINKS
8	245562	1	NUT, COUPLING, 1/4-20 X 7/8 ZINC
9	245564	1	WELDMENT, STEERING RING
10	245579	1	DISC, STEERING PLT
11	245592	1	SPACER, BEARING
12	245594	2	SPACER, BEARING
13	245595	1	WELDMENT, FORK
14	245760	1	SHAFT, TRACTION WHEEL
15	245785	1	SPROCKET - CHAIN, 40B19 MINIMUM BORE
16	245786	1	SPROCKET - CHAIN, 40B18 3/4" BORE
17	245787	1	SLEEVE, SPACER, .755 ID 1.25 OD .321 LG
18	245788	1	SLEEVE, SPACER, .755 ID 1.25 OD .216 LG
19	245790	1	COVER - CHAIN, TRACTION
20	245811	1	KEY-6mm X 6mm X .75
21	245813	1	KEY-3/16 X 3/16 X 7/16
22	245815	1	KEY-STEPPED, 3/16 X 6MM X 1.0"
23	600912	6	SCR-SHCS M6-1.00 X 16 ZP
24	710353	4	SCR-PHMS 10-32 X .37 ZP
25	710826	7	SCR-SHCS 1/4-20 X 1.00 SS
26	710857	4	SCR-SHCS 5/16-24 X 1.00 BLL OX
27	711006	2	SCR-SET 1/4-20 X .62 BLK OX CP
28	711417	1	NUT-NYLOC M10 x 1.25 ZP
29	711421	7	WASHER-LOCK 1/4 SPLIT, HIGH-COLLAR, SS
30	711504	6	WASHER-FLAT 1/4 SS
31	711506	4	WASHER-FLAT 5/16 X .688 ZP
32	711515	1	WASHER-FLAT 3/8 X .812 X .0625 ZP
33	712519	1	SCR-FHSCS 3/8-24 X 1.00 ZP
34	712758	6	WASHER-LOCK 1/4 SPLIT SS
35	713532	1	COLLAR, CLAMP 2-PIECE, 11/16 B x 1/2" W
36	833292	2	CHAIN MASTER LINK #35
37	833629	1	CHAIN MASTER LINK #40
38	3305667	1	BEARING-MAIN BROOM
39	3400420	4	NUT-NYLOC 5/16-24 ZP
40	90538117	1	WHEEL, 200 X 45 X 19 ID, URETHANE
41	340742MCH	4	FLANGE MACHINED



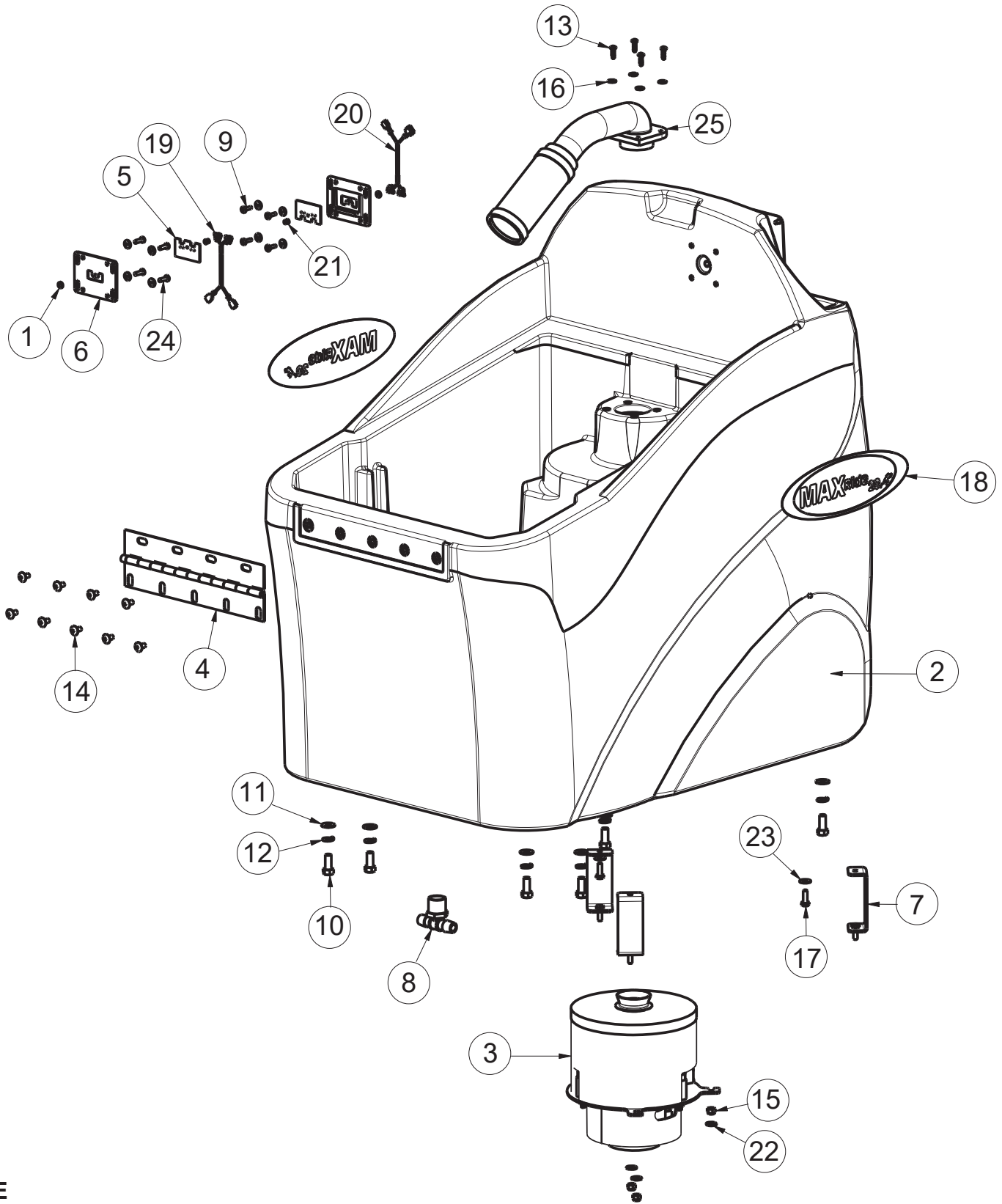
Rev A

BILL OF MATERIAL - 245502			
ITEM	PART NO.	QTY	DESCRIPTION
1	66-138-A	1	BEARING
2	245085	1	BEARING, SPHERICAL 5/8"ID X 1.187"OD
3	245087	1	SPROCKET, ROLLER CHAIN 35FB13 - 5/8"BORE
4	245099	1	SHAFT, STEERING WHEEL MTG
5	245101	1	SHAFT, STEERING LOWER, PINION SPROCKET
6	245102	1	SHAFT, STEERING, MID - FLOATING
7	245199	1	BUSHING-FLG, .75 x .88, x .50 LG OILITE
8	245550	1	WELDMENT, TOWER
9	245580	1	WELDMENT, TENSIONER
10	245583	2	SPACER, .266 B, .313 OD, .313 T
11	245584	1	RETAINING RING, INT, 1.188 ZP
12	245813	1	KEY-3/16 X 3/16 X 7/16
13	245814	4	KEY-3/16 X 3/16 X 5/8
14	383098	2	JOINT-UNIVERSAL 3/4"
15	711203	1	SCR-HH 1/4-20 X .62 ZP TAP
16	711229	2	SCR-HH 5/16-18 X .87 ZP GR 5
17	711231	2	SCR-HH 5/16-18 X 1.25 ZP GR 5 FULL THREA
18	711319	4	NUT-HEX 5/16-18 ZP
19	711489	1	SCR-SET 1/4-20 x 1.25 DOG POINT BLACK
20	711505	2	WASHER-FLAT 1/4 ZP
21	711506	6	WASHER-FLAT 5/16 X .688 ZP
22	711519	1	WASHER-FLAT 1/4 X 1.00 X .06 ZP
23	711545	4	WASHER-LOCK 5/16 SPLIT ZP
24	712758	1	WASHER-LOCK 1/4 SPLIT SS
25	713003	2	SCR-HH 1/4-20 X 1.00 ZP GR 5
26	717024	3	SCR-HH M8-1.25 X 20 ZP GRADE 8.8
27	809148	4	RET RING-E TYPE .75
28	832554	1	BUSHING-FLG .7505 X 1.437 X .625 BRNZ
29	3400012	1	FTG-GREASE 3/16
30	12040051	3	NUT-NYLOC M8 X 1.25 ZP CLASS 8
31	340742MCH	2	FLANGE MACHINED



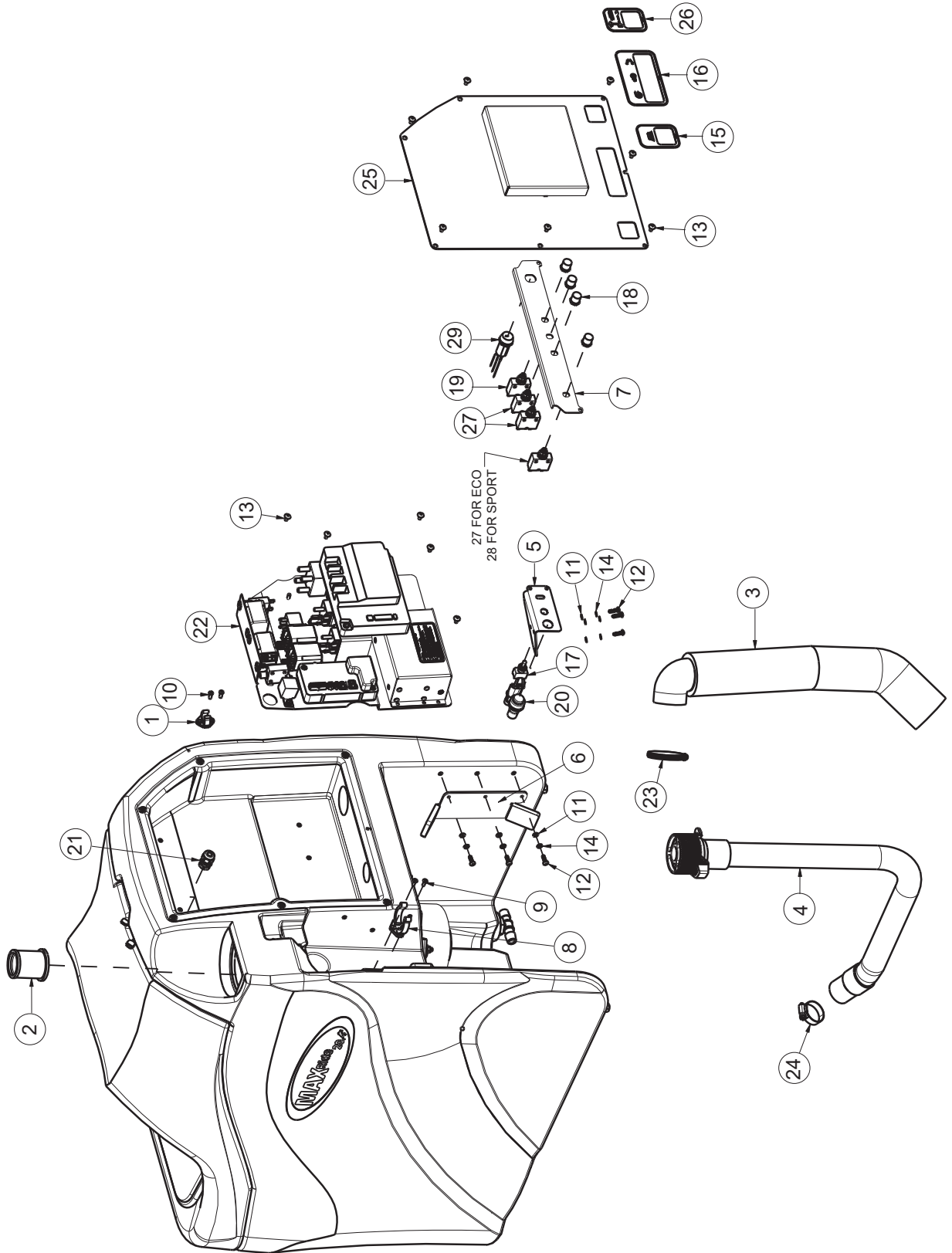
Rev E

BILL OF MATERIAL - 245487			
ITEM	PART NO.	QTY	DESCRIPTION
1	245002	1	LID W/ SEAT, TANK, ER20-V
2	245444	1	SEAT-CUSHIONED, SEWN SEAT & BACK
3	245766	2	SKIRT-DRIP, LID, END PIECE
4	245767	1	SKIRT-DRIP, LID,CENTER 20"
5	245817	2	SPACER, .39 ID X .75 OD X .25 T, PVC
6	711491	2	NUT-TEE, PROPELL INSERT 1/4-20 X 5/16 ZP
7	712153	2	SCR-FHSCS 1/4-20 X 1.00 SS
8	712764	19	WASHER-FLAT #10 SS
9	740601	1	SWITCH, SEAT, BOLT MOUNT
10	3401449	11	SCR-HI/LO 10 X .75 SS PAN HD
11	25510512	1	GASKET, RUBBER BLADE, PRESS IN



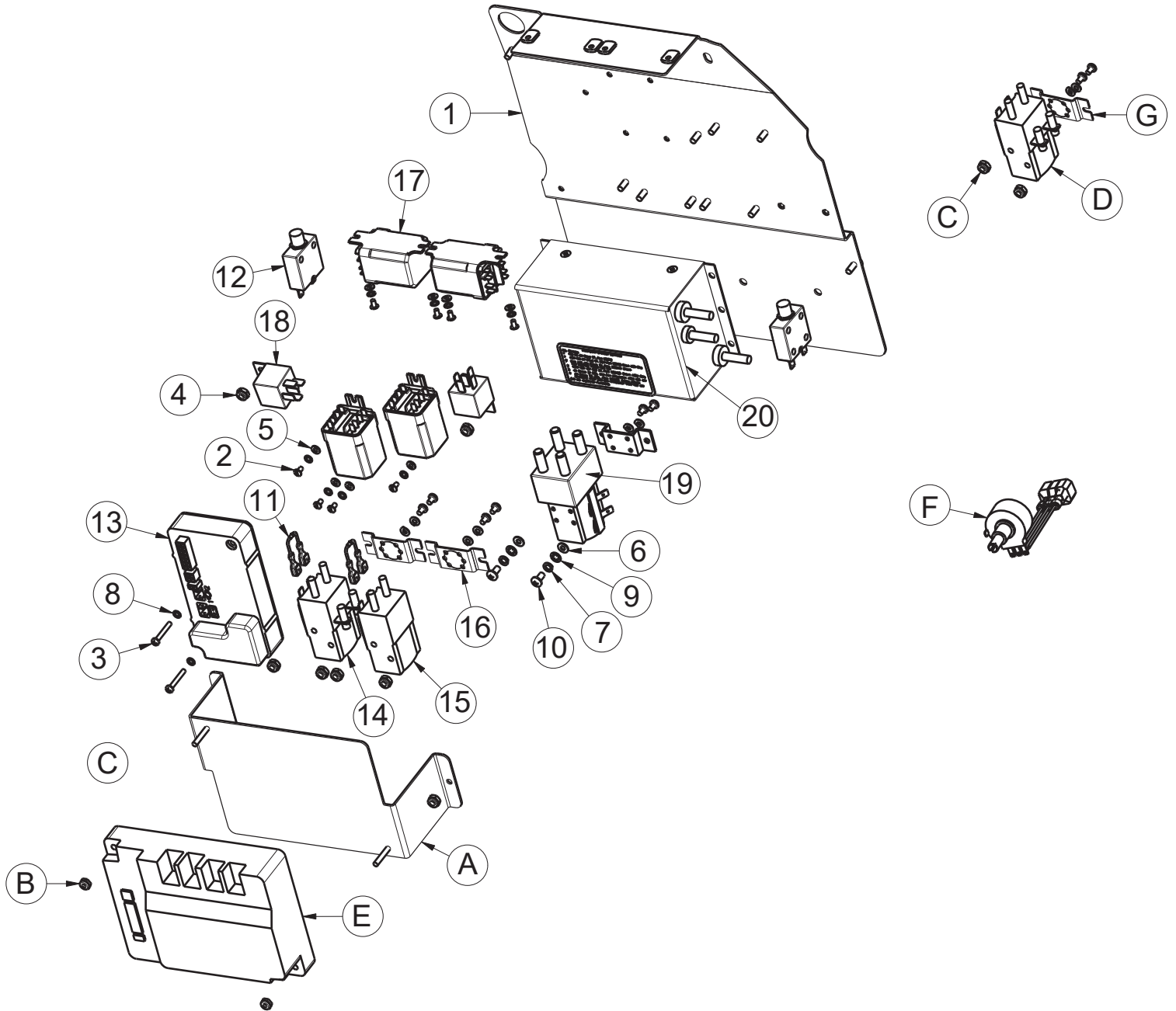
Rev E

BILL OF MATERIAL - 245487			
ITEM	PART NO.	QTY	DESCRIPTION
1	950-4-S	2	BACK UP PLATE 1/8" STEEL
2	245001	1	TANK, SOLUTION & RECOVERY ER20-V
3	245234	1	ASSY, VACUUM & HOUSING
4	245422	1	HINGE, STEEL, 11.38" LONG PAINTED
5	245453	2	PLATE - INSERT, INTERCONNECT
6	245456	2	PLATE - BASE, INTERCONNECT
7	245663	3	WELDMENT, VAC MOTOR PILLAR
8	342440	1	FTG-TEE 3/4 MPT X 1/2 HB NYLON
9	710130	4	SCR-THMS 8-32 X .62 SS
10	711246	6	SCR-HH 3/8-16 X .87 ZP GR 5
11	711515	6	WASHER-FLAT 3/8 X .812 X .0625 ZP
12	711546	6	WASHER-LOCK 3/8 SPLIT ZP
13	712536	10	SCR-THMS 10-24 X .62 SS
14	712560	9	SCR-THMS 1/4-20 X .50 SS W/NYLON PATCH
15	712667	3	NUT-NYLOC 1/4-20 SS
16	712764	19	WASHER-FLAT #10 SS
17	713002	3	SCR-HH 1/4-20 X .75 ZP 5
18	715977	2	DECAL, MAIN OVAL MAX-RIDE 20, ER V-20
19	747349	1	WIRE ASSY, SEAT SWITCH
20	747350	1	WIRE ASSY, SEAT SW CONN
21	827666	2	RIVET-POP 1/8 DOME HD, BLK ALUM BODY
22	3400089	3	WASHER-FLAT 1/4 ZP
23	3400383	3	WASHER-CONICAL SPRING 1/4
24	3401449	11	SCR-HI/LO 10 X .75 SS PAN HD
25	97118731	1	FILTER UNIT, SCREENED FLOAT



Rev E

BILL OF MATERIAL - 245487			
ITEM	PART NO.	QTY	DESCRIPTION
1	172065	1	CLIP, FOR 1/2" ID HOSE
2	172159	1	FILTER, FILL PORT, ES1720
3	241049	1	MUFFLER-VAC MOTOR, SCV 24/26
4	245452	1	HOSE-DRAIN W/CAP 1.50"ID, 30.5"L
5	245660	1	BRACKET - MTG, REAR COVER LATCH & ELEC
6	245794	1	HOLDER - CORD, W/ SOFT CAPS, BATT CHARGR
7	245902	1	BRACKET, BREAKER MOUNT 20"
8	260579	1	CLIP-TOOL 1.5 INCH HOSE
9	710528	2	SCR-FHMS 8-32 X .37 BRASS
10	711163	2	SCR-HI/LO 10 X .50 BLACK ZINC PAN HD
11	711502	6	WASHER-FLAT #8 ZP
12	340742MCH	2	FLANGE MACHINED
13	712540	12	SCR-THMS 10-24 X .37 SS
14	712770	6	WASHER-INT TOOTH LOCK #10 SS
15	715534	1	DECAL, BRUSH MOTOR, MAX RIDE 20
16	715535	1	DECAL, VACUUM-DRIVE MOTOR-POWER
17	740188-3	1	SWITCH, TOGGLE W/FEM PACK
18	742748	4	CIRCUIT BREAKER-BOOT
19	747609	1	CIRCUIT BREAKER-4.0AMP PUSH BUTTON
20	747614	1	INDICATOR, BATTERY CHARGE STATUS (E1720)
21	747689	1	STRAIN RELIEF CABLE DIA. .181-.312 #3210
22	748515	1	ASSY, ELECTRICAL PANEL, 20/26
23	3044112	1	CLAMP-HOSE, SS, 2.50 MAX WORM
24	3303255	1	CLAMP-HOSE 1.75 DIA NOMINAL
25	245906	1	COVER, ELEC BOX, ECO 20"
	245905		COVER, ELEC BOX, SPORT 20"
26	715533	1	DECAL, 2 POSITION SWITCH, BRUSH MOTOR (<i>SPORT ONLY</i>)
27	740247	3	CIRCUIT BREAKER-30AMP PUSH BUTTON
28	740549	1	CIRCUIT BREAKER-50AMP PUSH BUTTON (<i>SPORT ONLY</i>)
29	747717	1	KEYSWITCH ASSY, 2 POS, ON/OFF (<i>SPORT ONLY</i>)

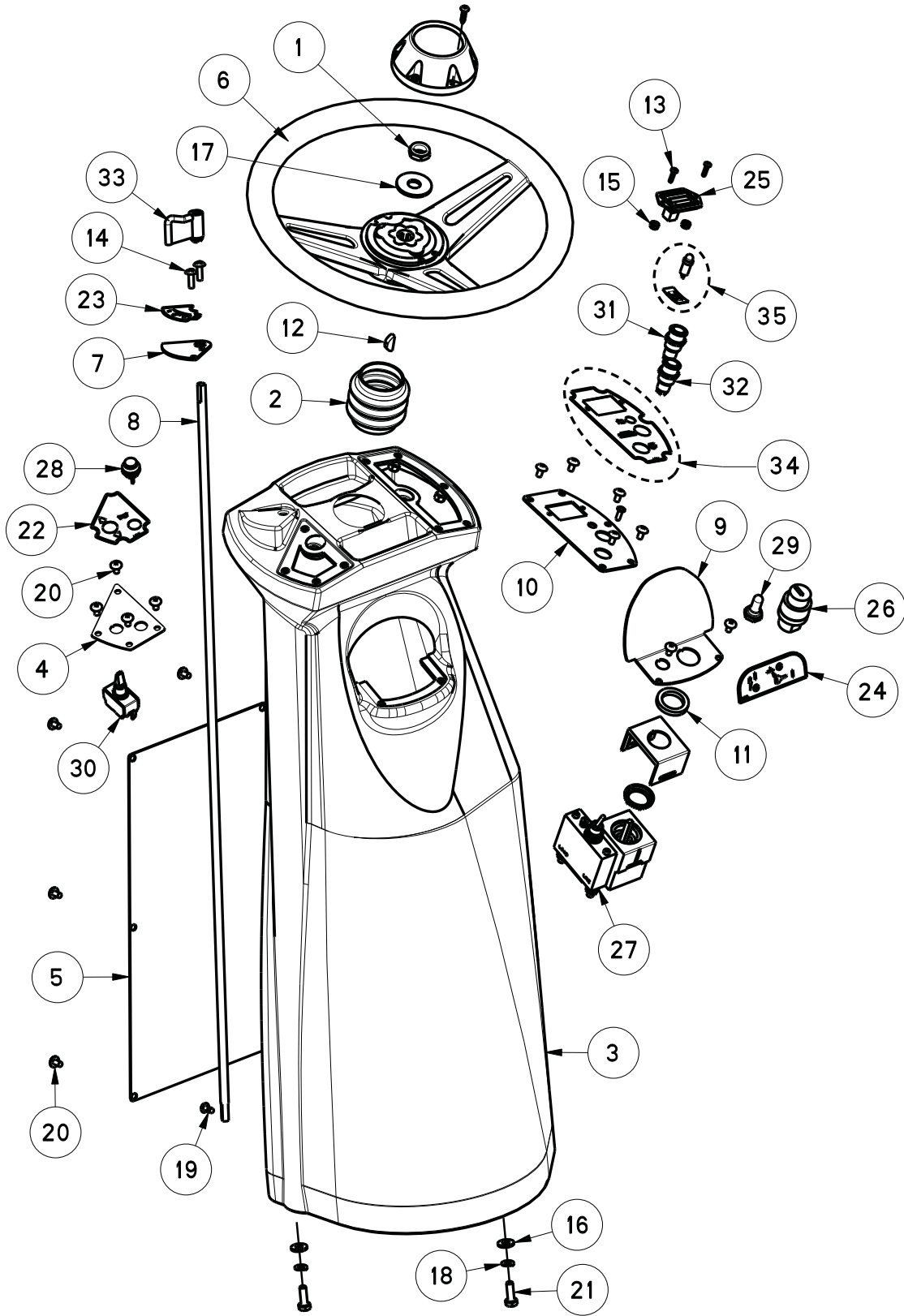


Rev C

BILL OF MATERIAL - 748515			
ITEM	PART NO.	QTY	DESCRIPTION
1	245900	1	PANEL, ELEC CHASSIS 20/26
2	710202	8	SCR-PHMS 6-32 X .25 ZP
3	710307	2	SCR-PHMS 6-32 X 1.00 ZP
4	711350	7	NUT-NYLOC 10-32 ZP
5	711501	8	WASHER-FLAT #6 X .375 ZP
6	711502	2	WASHER-FLAT #8 ZP
7	711543	2	WASHER-LOCK #10 SPLIT ZP
8	711551	10	WASHER-INT LOCK #6
9	711553	2	WASHER-INT TOOTH LOCK #10 ZP
10	712810	2	SCR-RHMS 10-24 X .37 ZP
11	740482	2	DIODE ASY, 1N4007 W/PIGGY
12	740703	2	CIRCUIT BREAKER, 1 AMP
13	747389	1	I-DRIVE, 70 AMP
14	747615	1	RELAY, 24VDC 2 POLE NO/NC 80A
15	747616	1	RELAY, 24VDC 1 POLE NO 80A
16	747619	2	BRACKET, RELAY 747615 & 747616
17	748509	4	RELAY, DPDT, MAX RIDE
18	748511	2	RELAY, SPDT, MAX RIDE
19	90331026	1	RELAY, 24VDC 2 POLE NO 125A
20	957761	1	CHARGER, SIGNET HBF300-24 NEMA 5-15 PLUG
	957760		CHARGER, SIGNET HBF300-24 IEC 60320 C14 (INTERNATIONAL MODELS ONLY)

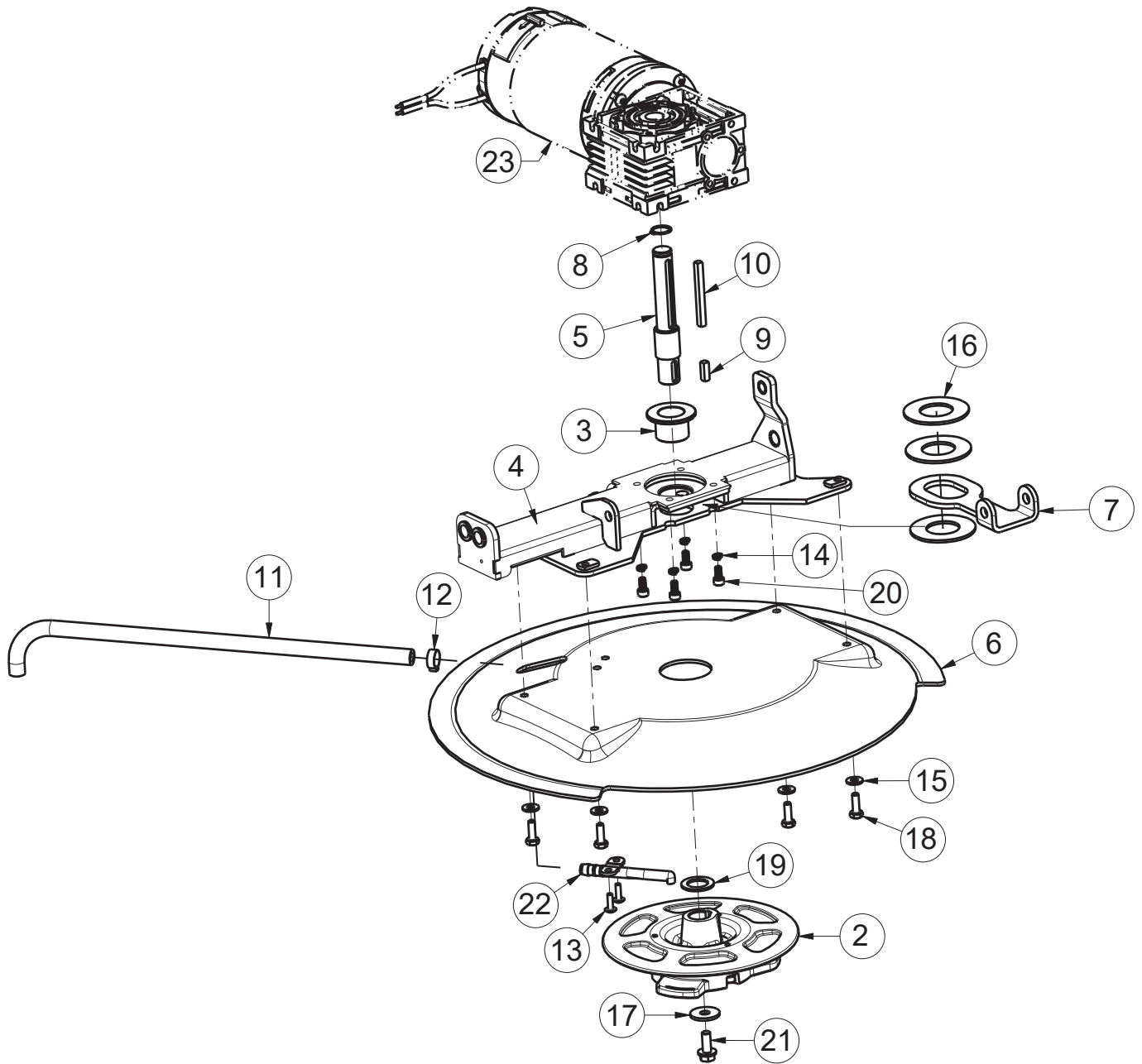
ADDITIONAL SPORT MODEL PARTS			
ITEM	PART NO.	QTY	DESCRIPTION
A	245901	1	BRACKET - MTG, I-DRIVE SPORT
B	711026	2	NUT-NYLOC 8-32 SS
C	711350	2	NUT-NYLOC 10-32 ZP
E	747359	1	I-DRIVE, 180 AMP
F	747388	1	POTENTIOMETER WIRE ASSY

ADDITIONAL ECO MODEL PARTS			
ITEM	PART NO.	QTY	DESCRIPTION
C	711350	2	NUT-NYLOC 10-32 ZP
D	747615	1	RELAY, 24VDC 2 POLE NO/NC 80A
G	747619	1	BRACKET, RELAY 747615 & 747616



Rev C

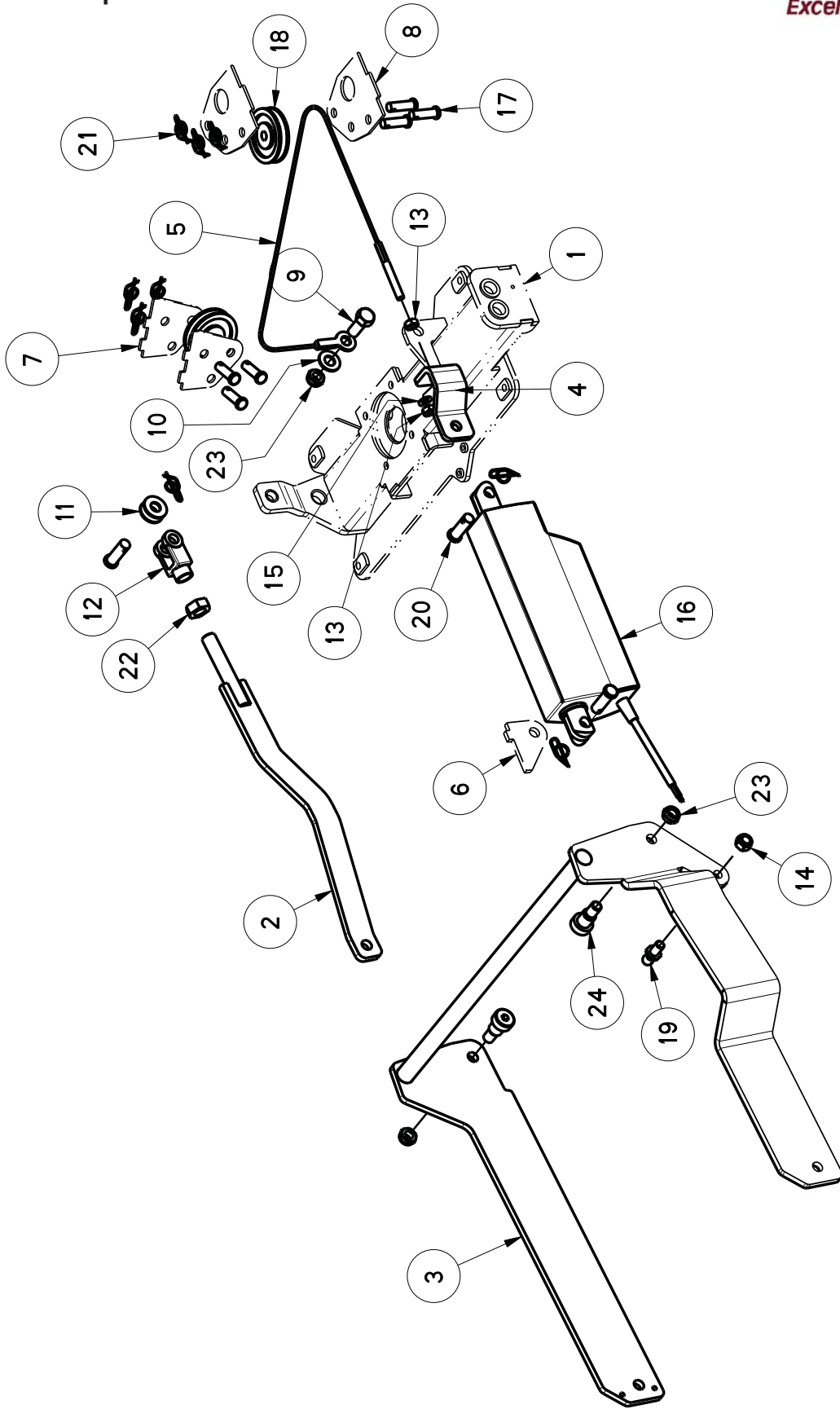
BILL OF MATERIAL - 245472			
ITEM	PART NO.	QTY	DESCRIPTION
1	368-816	1	NUT-NYLOC HALF 1/2-20 ZP
2	241224	1	BOOT - STEERING SHAFT, SCV 2426
3	245003	1	CONSOLE, STEERING ER2026-V
4	245028	1	PANEL-CONTROL, LH FWD-REV SLCTR ASSY
5	245156	1	PANEL-FRONT, STEERING CONSOLE, ER20/26-V
6	245345	1	STEERING WHEEL- 12.75"
7	245447	1	PLATE, WATER FLOW LEVER
8	245448-1	1	ROD, WATER FLOW LEVER, FINISHED
9	245688	1	PANEL, CENTER, KEY SWITCH & C.B.
10	245801	1	PANEL-CONTROL RH, FUNCTION SELECT, SPORT
11	245802	1	SPACER, PVC, KEY SWITCH, .188 THK
12	383277	1	KEY-WOODRUFF 3/16 X .750
13	710203	2	SCR-PHMS 6-32 X .37 ZP
14	711160	2	SCR-HI/LO 10 X .625 BLACK ZINC
15	711371	2	NUT-NYLOC 6-32 ZP
16	711505	2	WASHER-FLAT 1/4 ZP
17	711510	1	WASHER-FLAT 1/2 X 1.37 X .10 ZP
18	711544	2	WASHER-LOCK 1/4 SPLIT ZP
19	711923	2	RIVET-POP 3/16
20	712540	17	SCR-THMS 10-24 X .37 SS
21	713002	2	SCR-HH 1/4-20 X .75 ZP 5
22	715762	1	DECAL-FWD-REV SELECTOR MAX RIDE
23	715764	1	DECAL-WATER FLOW
24	715777	1	DECAL, CENTER PANEL, KEY SWITCH-C.B.
25	747011	1	GAUGE-BATTERY TRUCHARGE PGDT 36VDC
26	747387	1	KEYSWITCH ASSY, SWITCH+WIRES MR
27	748012	1	CIRCUIT BREAKER- 100A
28	748047	1	SWITCH, PUSH BUTTON (HORN SCV 36V)
29	748508	1	TOGGLE BOOT, FULL, OPEN THROAT, RED
30	748800	1	SWITCH-TOGGLE G SERIES NYL SPDT ON/ON
31	748803	1	SWITCH, PUSH BUTTON, BLUE LED
32	748804	1	SWITCH, PUSH BUTTON, ORANGE LED
33	90502436	1	LEVER, SOLUTION CONTROL
34	715775	1	DECAL-FUNCTION SELECTOR MAX RIDE (ECO)
	715776		DECAL, FUNCTION SELECTOR, (SPORT)
35	747718	1	LAMP ASSY, LED AMBER, 24V (SPORT ONLY)
	747718-2		CLIP, TINNEMAN (SPORT ONLY)



Rev C

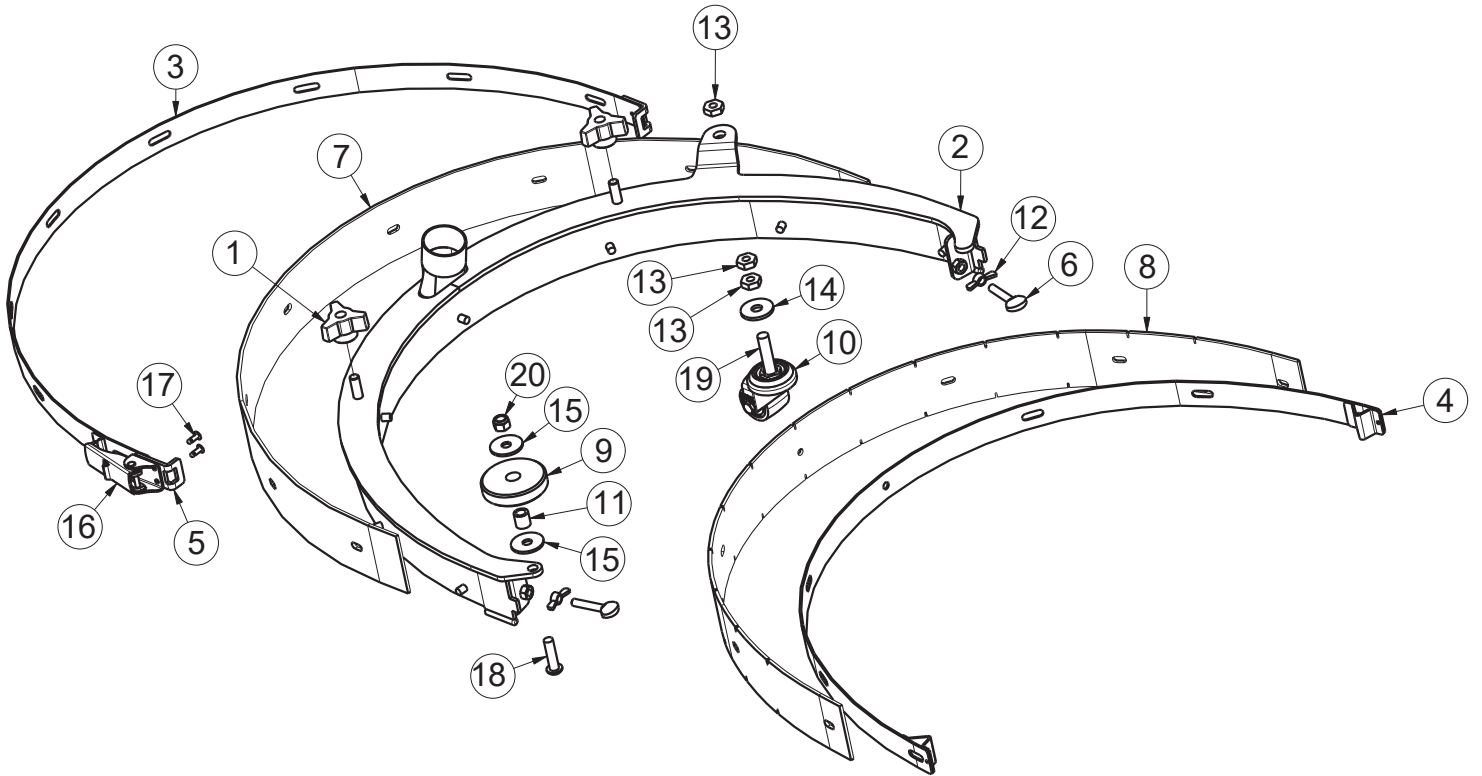
BILL OF MATERIAL - 245470			
ITEM	PART NO.	QTY	DESCRIPTION
1	000712	1	LOCTITE-243 50ML BLUE
2	172510	1	HUB ASSEMBLY, DISC DECK
3	245042	1	BUSHING-FLG, 1.0 x 1.25 x 1.0"LG OILITE
4	245105	1	WELDMENT,SCRUBDECK, 20"
5	245107	1	SHAFT - STUB, RT-ANGLE DRIVE, DISC BRUSH
6	245300	1	COVER, SCRUB HEAD 20"
7	245312	1	RING, PIVOT
8	245468	1	RET RING-EXT .687 BLK OXIDE
9	245811	1	KEY-6mm X 6mm X .75
10	245812	1	KEY-6mm X 6mm X 2.625
11	283153	1	HOSE 3/8" ID X 16.5"
12	452037	1	CLAMP-CRIMP 170R SS
13	710154	2	SCR-THMS 10-32 X .625 SS
14	711421	4	WASHER-LOCK 1/4 SPLIT, HIGH-COLLAR, SS
15	711505	4	WASHER-FLAT 1/4 ZP
16	711687	3	WASHER-FLAT, 2.50 OD X 1.28 ID X .095 ZP
17	711855	1	WASHER-FENDER 3/8 X 1.12 X .10 ZP HARD
18	713002	4	SCR-HH 1/4-20 X .75 ZP 5
19	717025	1	WASHER-FLAT 13/16 X 1.25 X .08 ZP
20	3402054	4	SCR-SHCS M6-1.0 X 12 ZP
21	11717203	1	BLT-HH FLG M8X1.25X20 PRECOTE, ZD 10.9
22	90311663	1	FITTING, WATER NOZZLE W/ MOUNT HOLES
23	245808	1	GEAR - MOTOR, BRUSH, 24VDC 400W, AMER (<i>ECO</i>)
	245231		GEAR-MOTOR, BRUSH, 24VDC 600W, AMER (<i>SPORT</i>)

Scrub Head Lift Group



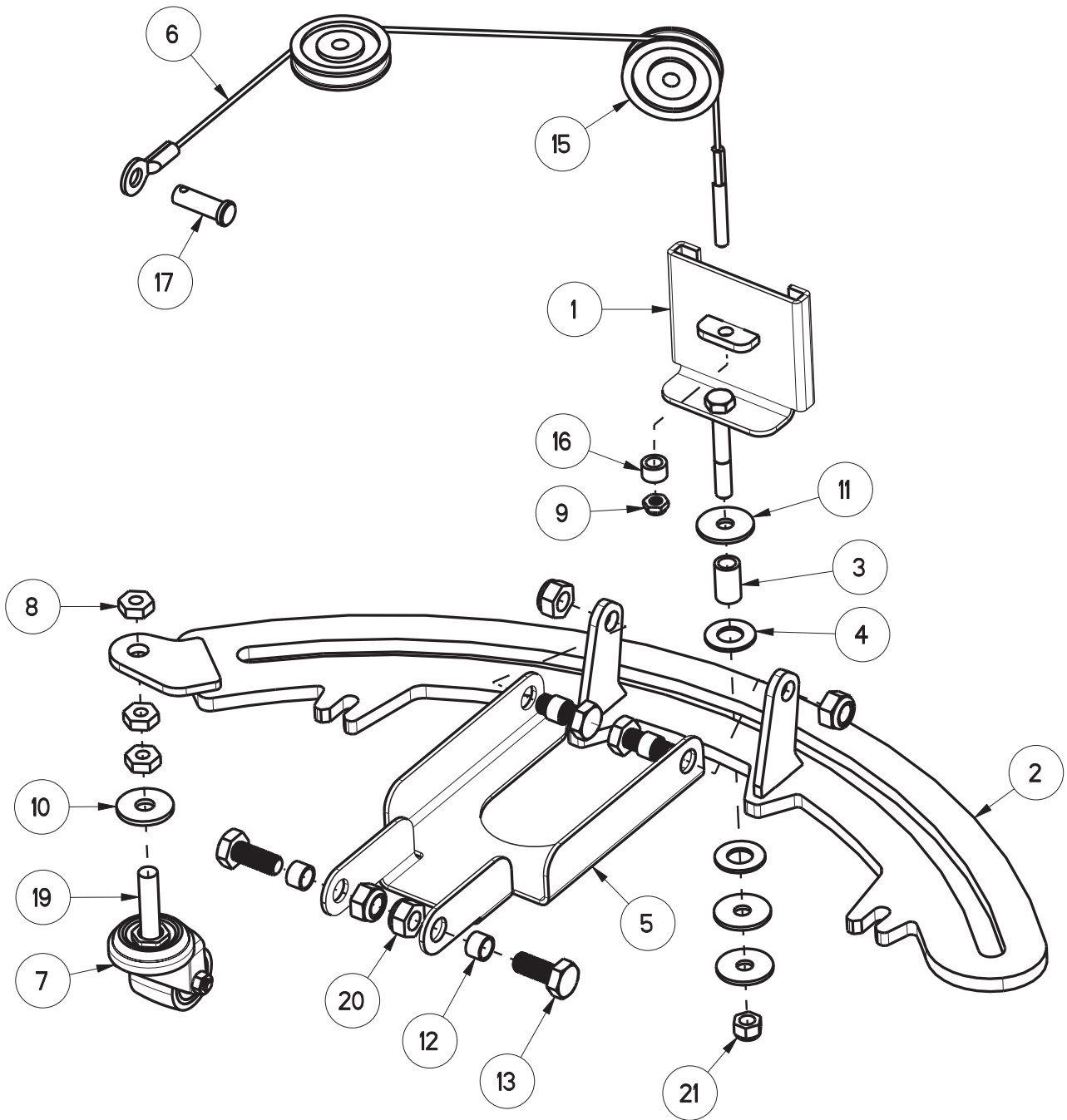
Rev A

BILL OF MATERIAL - 245488			
ITEM	PART NO.	QTY	DESCRIPTION
1	245105	1	WELDMENT,SCRUBDECK, 20"
2	245138	1	WELDMENT, DECK ADJ LINK 20"
3	245281	1	WELDMENT, SCRUBHEAD ARM 20
4	245298	1	LINK, CABLE
5	245314	1	CABLE- SCRUB DECK MR20
6	245538	1	W/D, FRAME, ACT MNT
7	245540	2	W/D, FRAME, PULLEY MNT 2
8	245679	2	W/D, FRAME, PULLEY MNT 5
9	711246	1	SCR-HH 3/8-16 X .87 ZP GR 5
10	711515	1	WASHER-FLAT 3/8 X .812 X .0625 ZP
11	711569	2	WASHER-FLAT .390 X .880 X .062 NYL
12	712265	1	CLEVIS-YOKE, 1/2-20 WITH .375 PIN
13	712665	2	NUT-HEX 1/4-20 SS
14	712683	1	NUT-NYLOC 5/16-18 SS
15	712758	1	WASHER-LOCK 1/4 SPLIT SS
16	740822-1	1	ACTUATOR ASSYW/ PK-100MM STROKE 750N CE
17	881002	6	PIN-CLEVIS 5/16 X 1.00 ZINC
18	3300368	2	PULLEY-PLASTIC 2" x .25" GROOVE
19	3300376	1	STUD-BALL GAS SPR 5/16-18 THRD .391DIA.
20	3400117	3	PIN-CLEVIS 3/8 x 1.125 ZP
21	3400125	9	RING-RUE 3/8
22	3400449	1	NUT-JAM 1/2-20 ZP
23	3401028	3	NUT-JAM 3/8-16 ZP NYLOC
24	712099PLT	2	BLT-SHOULDER 1/2 X 1/2 LG X 3/8-16



Rev B

BILL OF MATERIAL - 245490			
ITEM	PART NO.	QTY	DESCRIPTION
1	210118	2	KNOB-3 SIDED 5/16 NYLOC
2	245315	1	WELDMENT, SQUEEGEE 20"
3	245324	1	WELDMENT, OUTER BAND 20
4	245328	1	WELDMENT, INNER STRAP 20
5	245331	1	MOUNT, LATCH
6	245332	2	SCR-THUMB 1/4-20 x 1.25 SS
7	245333-1	1	SQUEEGEE BLADE, 20" OUTER, PRIMOTHANE
8	245334-1	1	SQUEEGEE BLADE, 20" INNER, PRIMOTHANE
9	245339	1	ROLLER- SQUEEGEE
10	245563	1	CASTER
11	600114	1	SPACER, .328 B .498 OD .500 ,SS
12	711389	2	NUT-WING 1/4-20 ZP
13	711391	3	NUT-JAM 3/8-16 ZP
14	711855	1	WASHER-FENDER 3/8 X 1.12 X .10 ZP HARD
15	730526	2	WASHER-FENDER M8 X 24 SS
16	730652	1	LATCH, UNDER CENTER
17	731293	2	RIVET-BLIND 5/32 .187 GRIP SS
18	770536	1	SCR-BHSCS M8-1.25 X 30 SS
19	3401572	1	SCR-BHSCS 3/8-16 X 1.75 ZP
20	12040259	1	NUT-NYLOC M8 X 1.25 SS



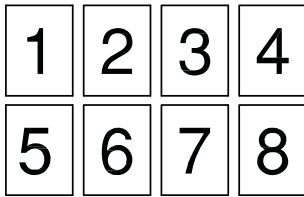
Rev E

BILL OF MATERIAL - 245489			
ITEM	PART NO.	QTY	DESCRIPTION
1	245301	1	WELDMENT, SLIDER
2	245305	1	WELDMENT, SQUEEGEE MOUNT 20"
3	245309	1	SPACER, NYLON, .344 B .500 OD .813 T
4	245310	2	WASHER, NYLON, .510 B 1.00 OD .062 T
5	245311	1	LINK, SQUEEGEE PIVOT 20"
6	245313	1	CABLE-SQUEEGEE MR20"
7	245563	1	CASTER
8	711391	3	NUT-JAM 3/8-16 ZP
9	711688	1	NUT-JAM 1/4-20 NYLOC SS
10	711855	1	WASHER-FENDER 3/8 X 1.12 X .10 ZP HARD
11	730526	3	WASHER-FENDER M8 X 24 SS
12	730873	4	SPACER, .406 B .498 OD .325 T
13	730958	4	SCR-HH M10-1.50 X 25 SS FULL THREAD
14	881002	6	PIN-CLEVIS 5/16 X 1.00 ZINC (NOT SHOWN)
15	3300368	2	PULLEY-PLASTIC 2" x .25" GROOVE
16	3335273	1	SPACER-.32 OD X .499 OD X .31 LG
17	3400117	1	PIN-CLEVIS 3/8 x 1.125 ZP
18	3400125	7	RING-RUE 3/8 (NOT SHOWN)
19	3401572	1	SCR-BHSCS 3/8-16 X 1.75 ZP
20	12040069	4	NUT-NYLOC M10 X 1.5 ZD CLASS 6
21	12040259	1	NUT-NYLOC M8 X 1.25 SS

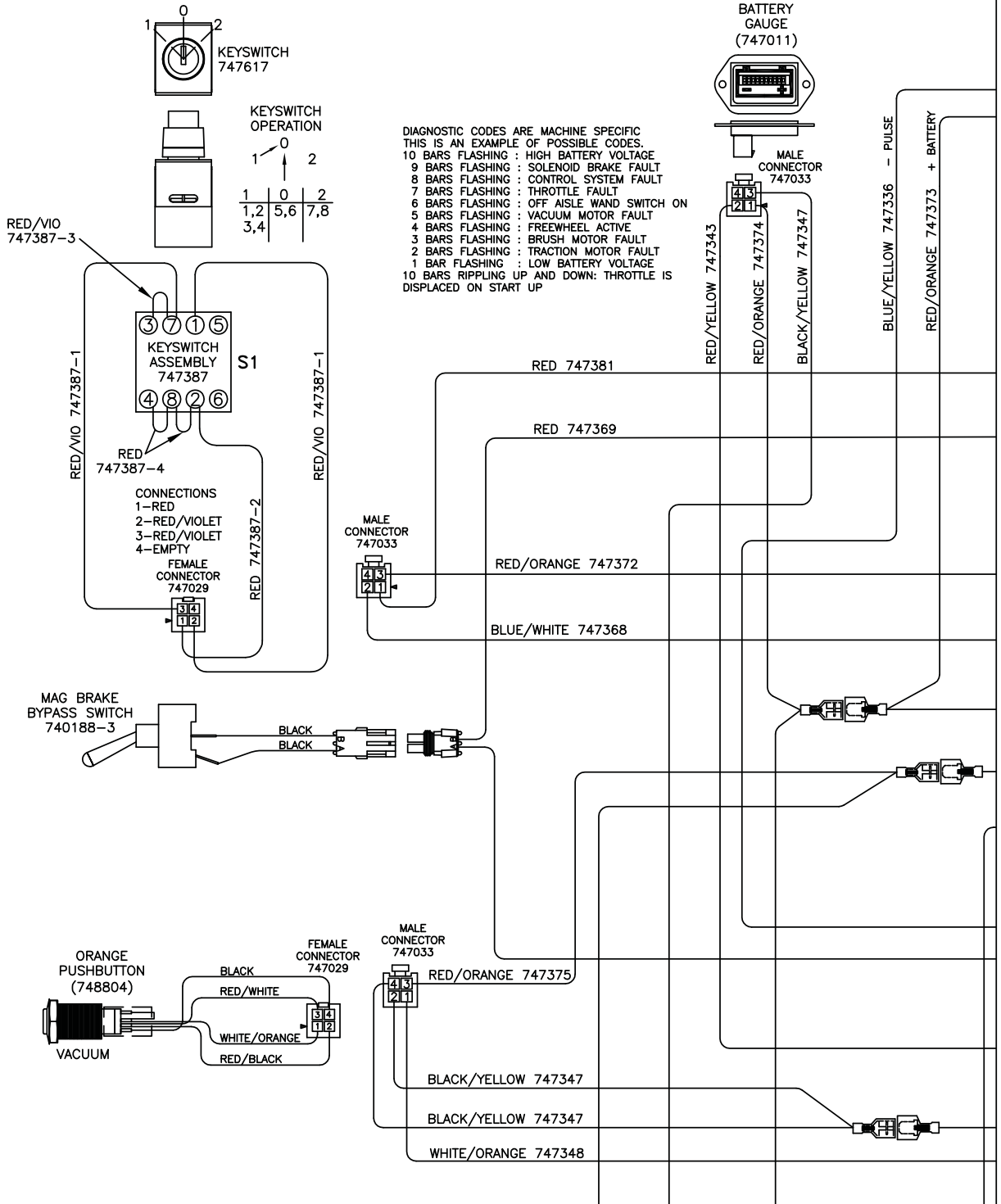
Wiring Diagrams - ECO Models

1

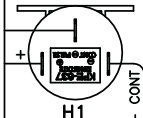
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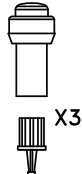


HORN/BACK UP ALARM 748200

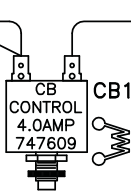


BROWN/WHITE 747335 - CONT

CHARGER STATUS INDICATOR 747614 CSI



120VAC 60Hz or 230VAC 50Hz (different plug) CORD 748680CE 748680 (UK)



OPTION POWER

BROWN/WHITE 747335

RED/ORANGE 747372

BLUE/YELLOW 747336

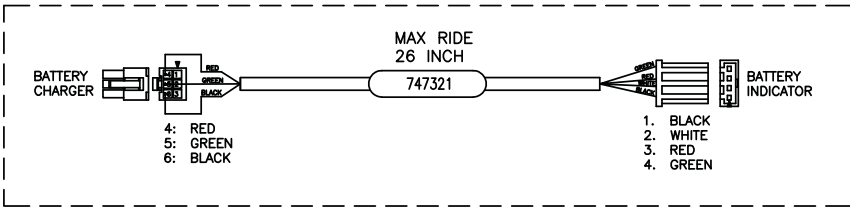
RED 747370

RED/YELLOW 747343

BLACK/YELLOW 747363

WHITE/ORANGE 747348

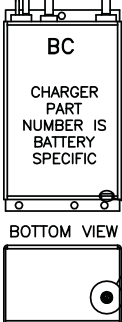
745110 REV B



MAX RIDE 26 BATTERY CHARGER 100-240V~ 50/60Hz 957764 (115VAC) NEMA 5/15P 957760 (230VAC) IEC 60320 C14

- CHARGING PROFILES
1. 956712 12V 105Ah-FLOODED(-1)
2. 956140 12V 140Ah-FLOODED(-2)
3. 956135 12V 135Ah-GEL(G-3)
4. 956100 12V 100Ah-GEL(G-4)

CHARGER 957760 IEC60320 C14



BATTERY CHARGER 100-240V~ 50/60Hz 957761 (115VAC) NEMA 5/15P 957760 (230VAC) IEC 60320 C14

ROTARY SWITCH

BLACK 747313

BLACK 747313

BLACK 747637-2

RED 747333

RED 747330

RED 747328

RED 747305

MAIN RELAY 90331026

GREY/BLACK 747356

BLACK 747351

BROWN/WHITE 747335

BLACK 747315-2

BLACK 747322

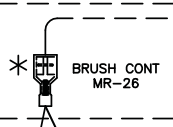
P/O BLACK 747351

RED 747305

BLACK 747378

RED/ORANGE 747372

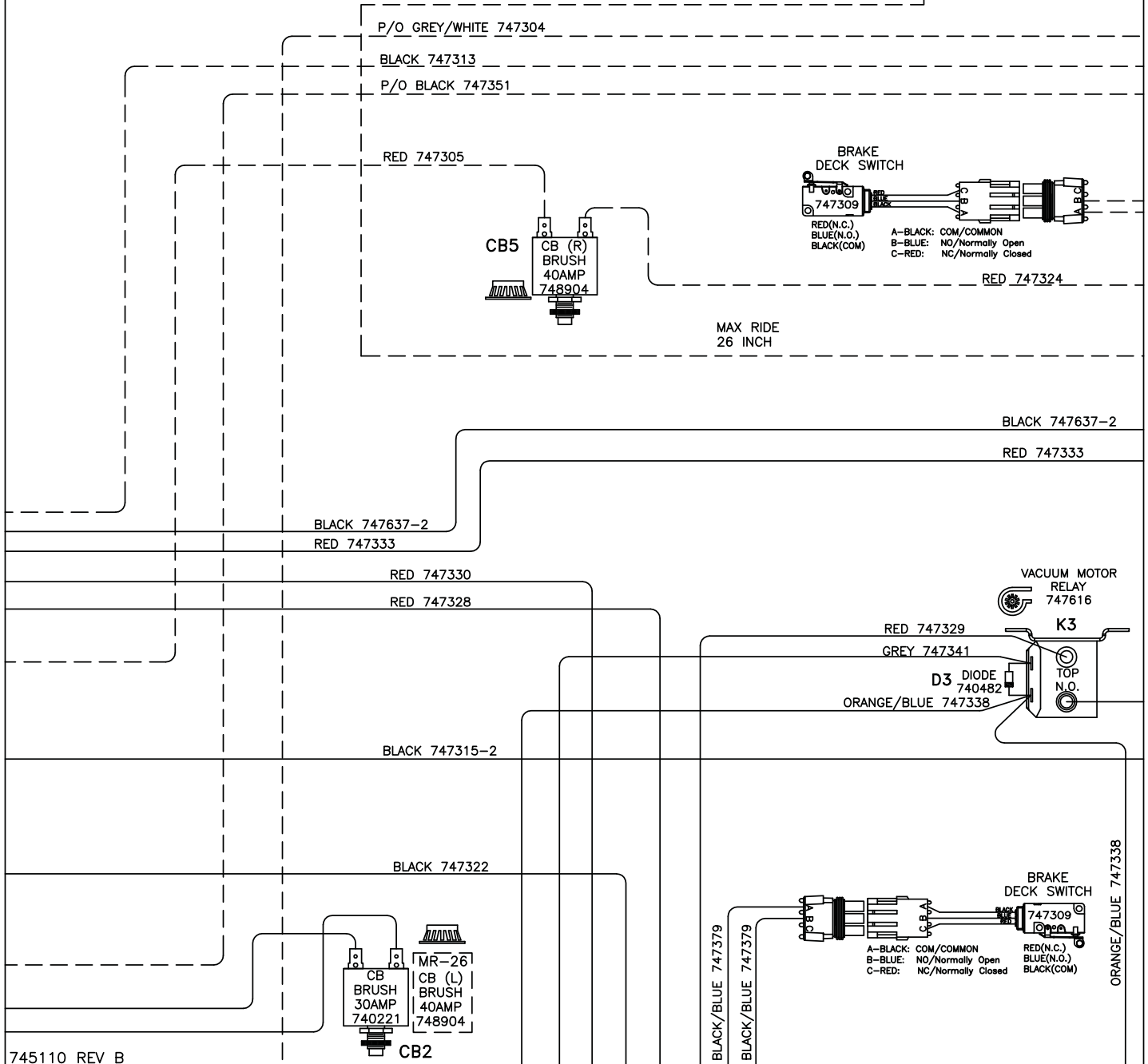
BLACK 747313

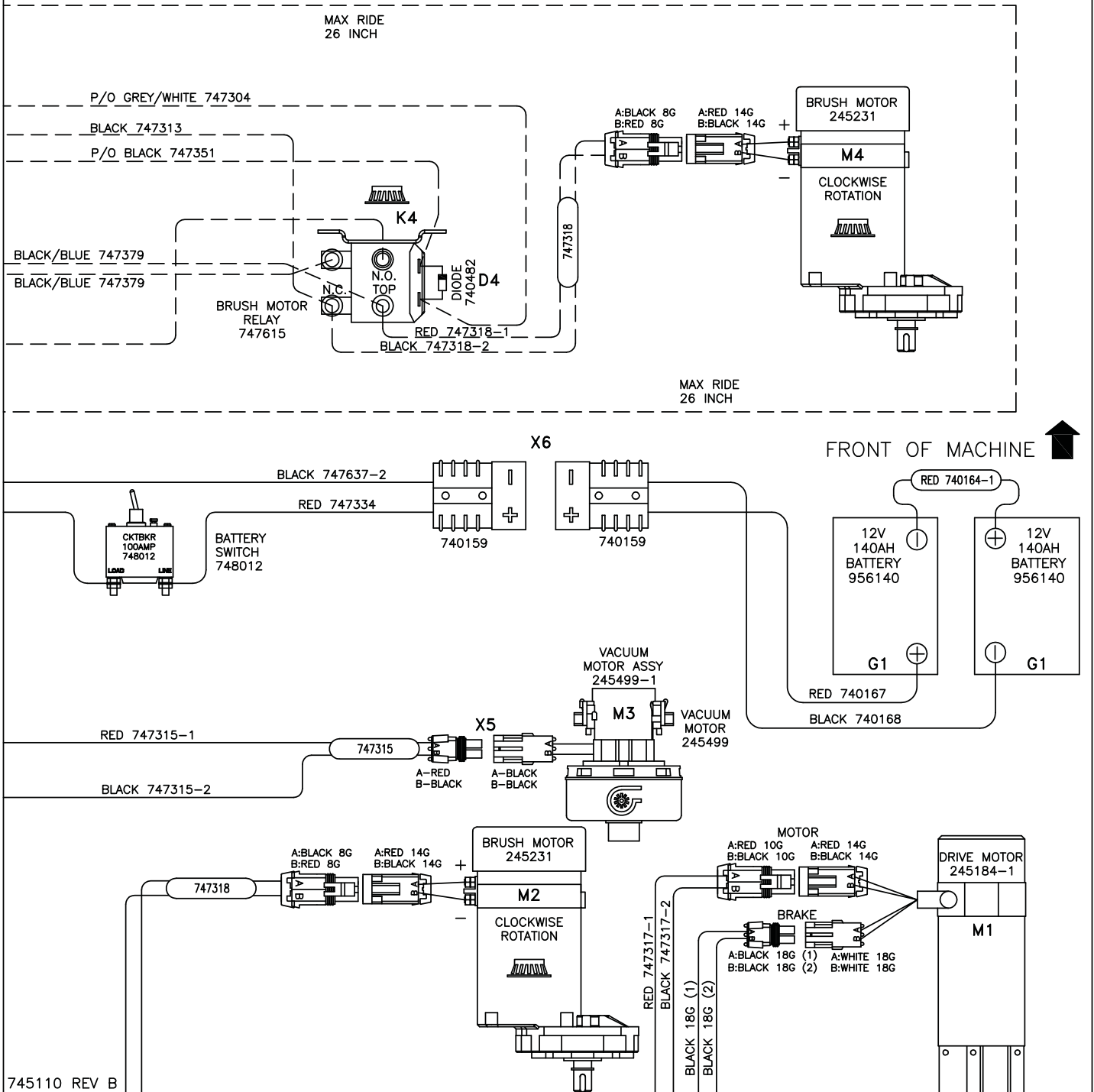




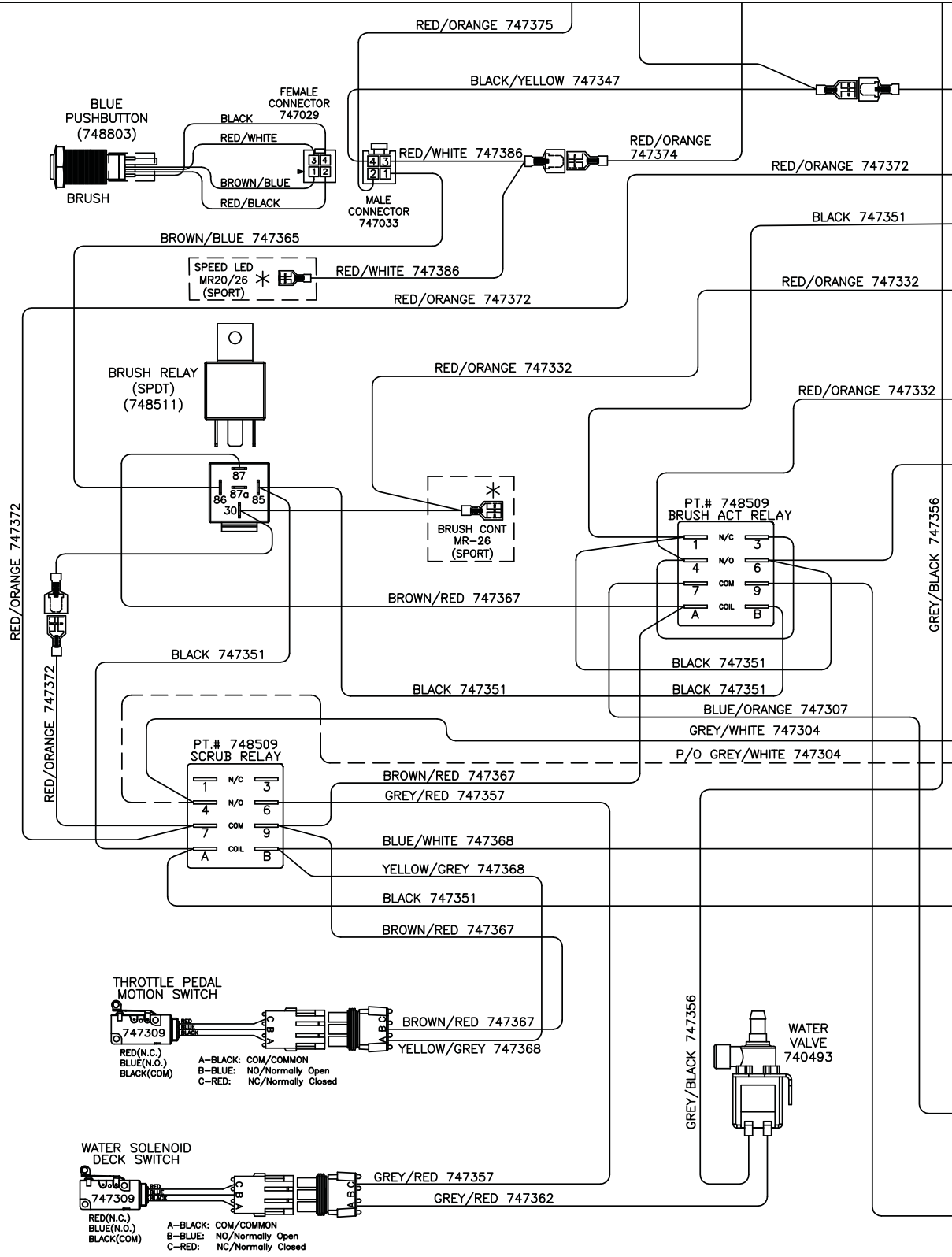
RELAY NUT COVER
 MAIN RELAY M8 15592033 (4)
 VACUUM RELY M6 15592025 (2)
 BRUSH MOTOR RELAY M6 15592025 (4)

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





745110 REV B



THROTTLE PEDAL MOTION SWITCH
747309

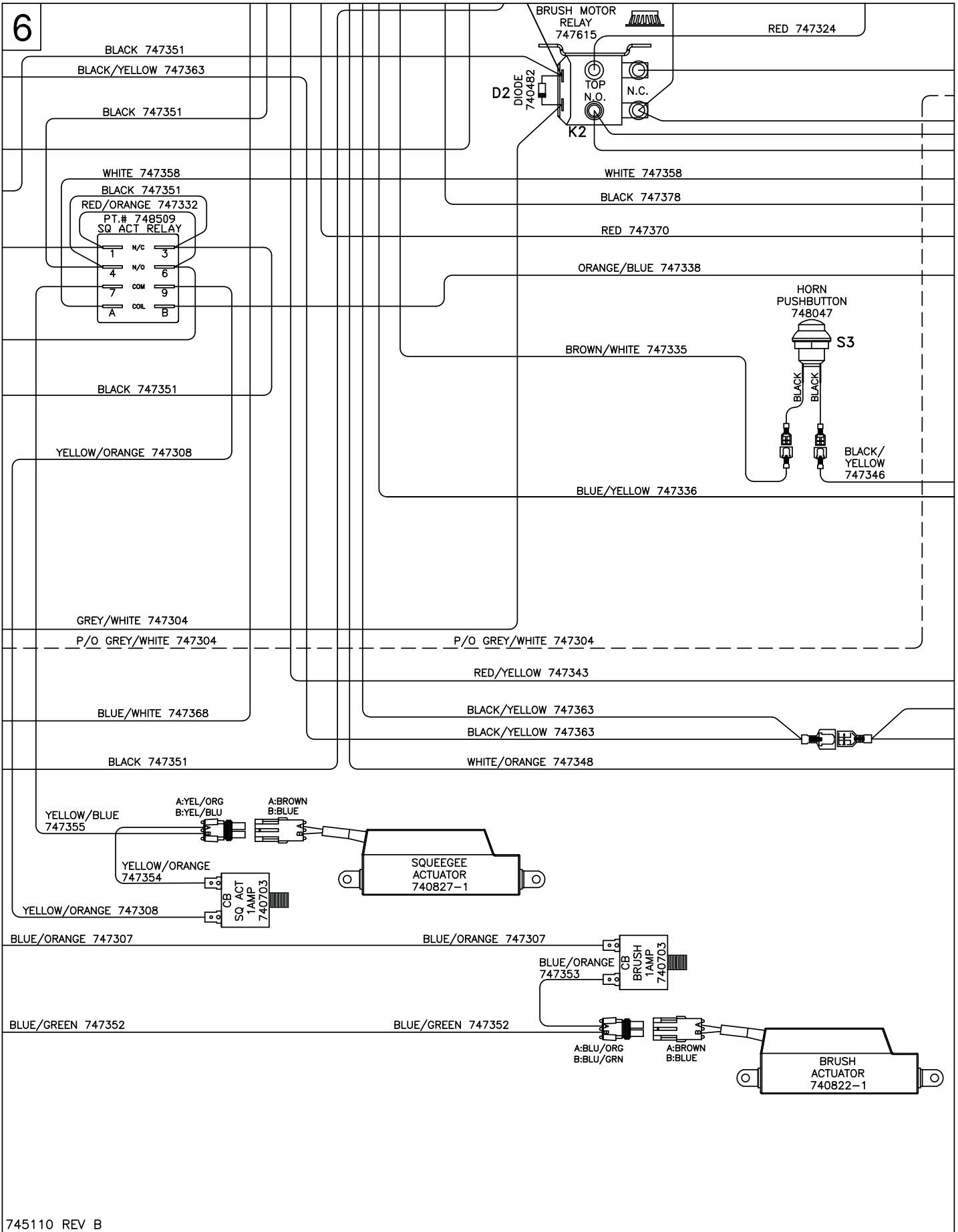
RED(N.C.)
BLUE(N.O.)
BLACK(COM)

A-BLACK: COM/Common
B-BLUE: NO/Normally Open
C-RED: NC/Normally Closed

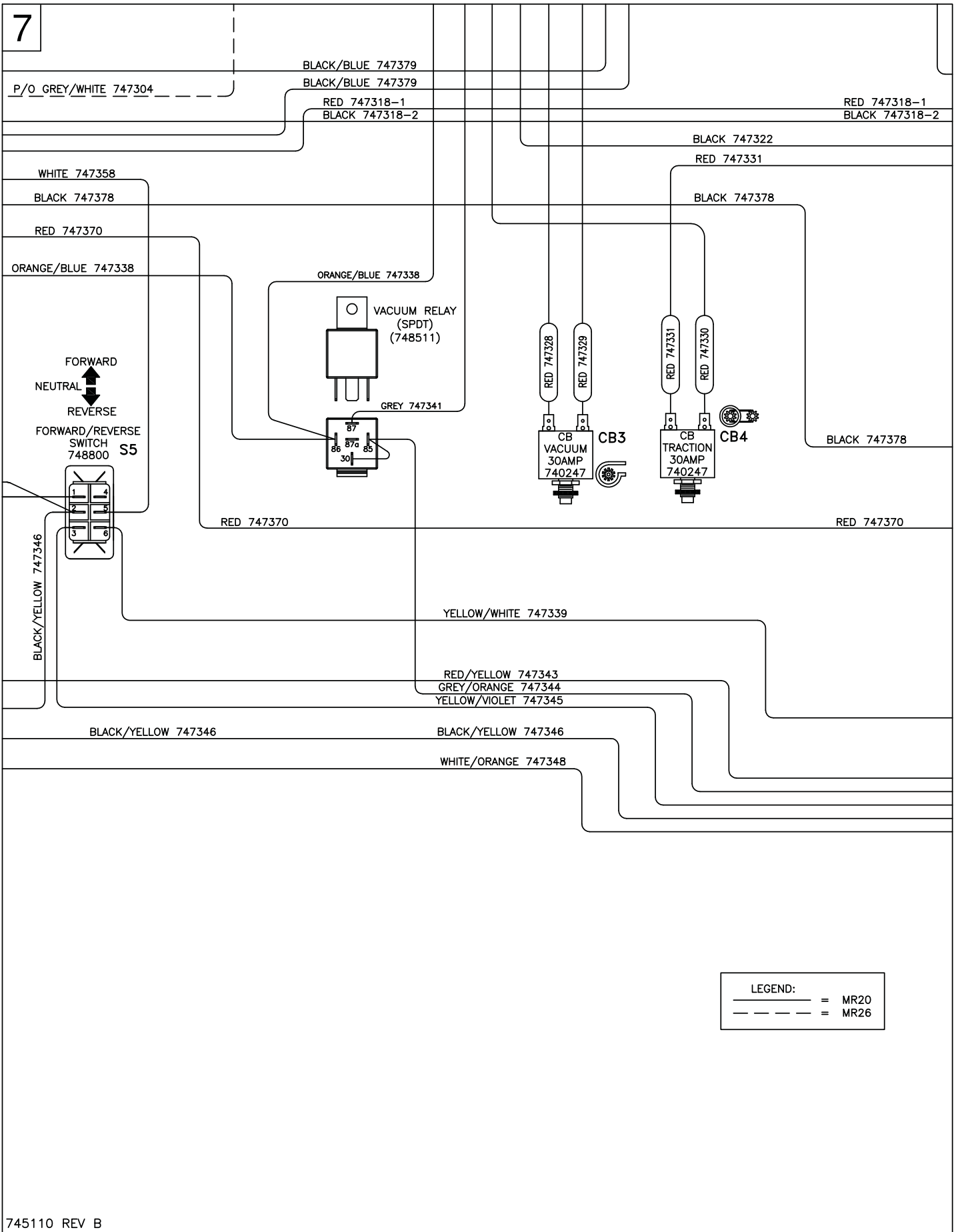
WATER SOLENOID DECK SWITCH
747309

RED(N.C.)
BLUE(N.O.)
BLACK(COM)

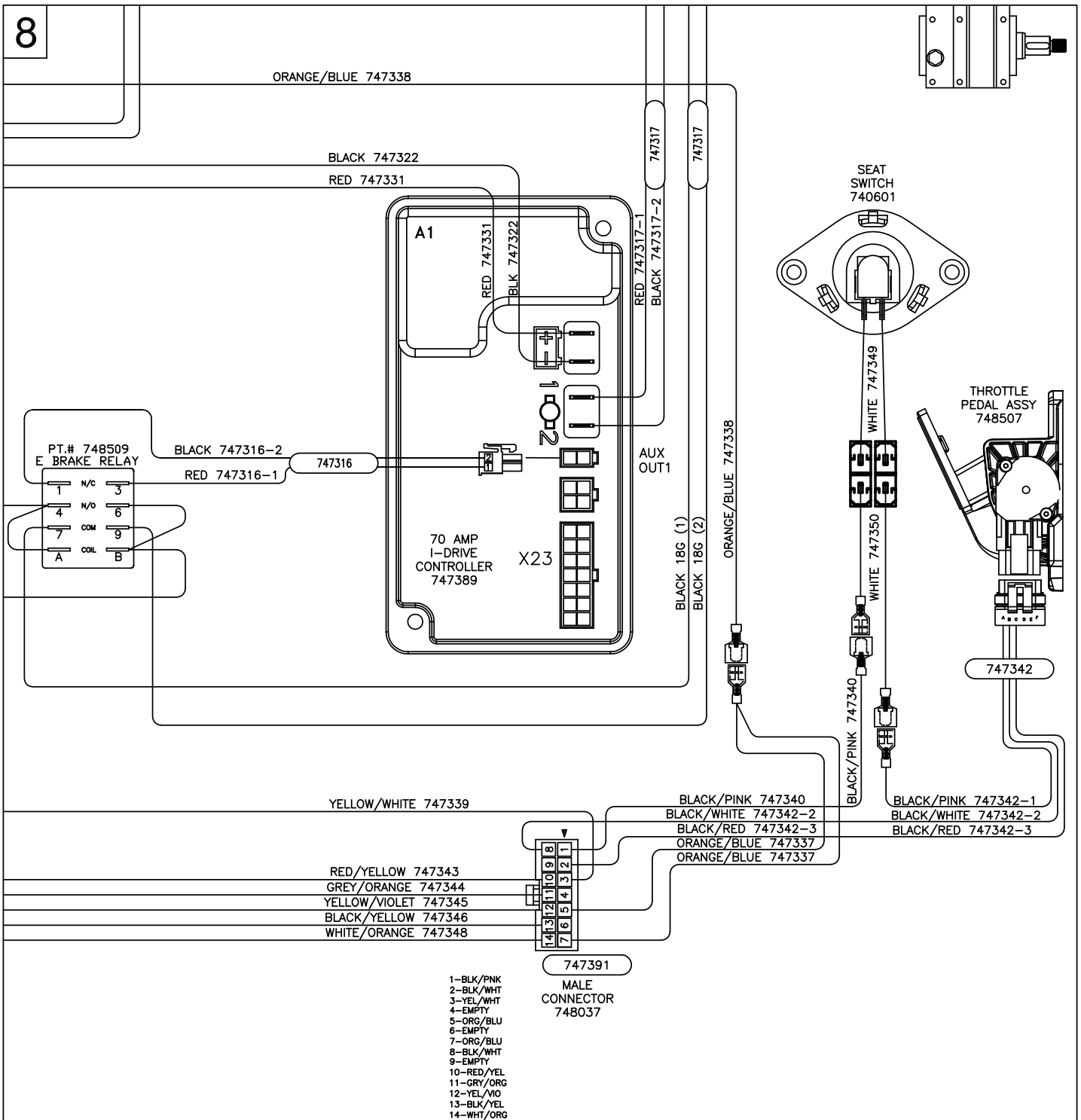
A-BLACK: COM/Common
B-BLUE: NO/Normally Open
C-RED: NC/Normally Closed



7



8



YELLOW/WHITE 747339

RED/YELLOW 747343
 GREY/ORANGE 747344
 YELLOW/VIOLET 747345
 BLACK/YELLOW 747346
 WHITE/ORANGE 747348

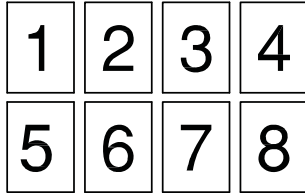
747391
 MALE
 CONNECTOR
 748037

- 1-BLK/PNK
- 2-BLK/WHT
- 3-YEL/WHT
- 4-EMPTY
- 5-ORG/BLU
- 6-EMPTY
- 7-ORG/BLU
- 8-BLK/WHT
- 9-EMPTY
- 10-RED/YEL
- 11-GRY/ORG
- 12-YEL/WIO
- 13-BLK/YEL
- 14-WHT/ORG

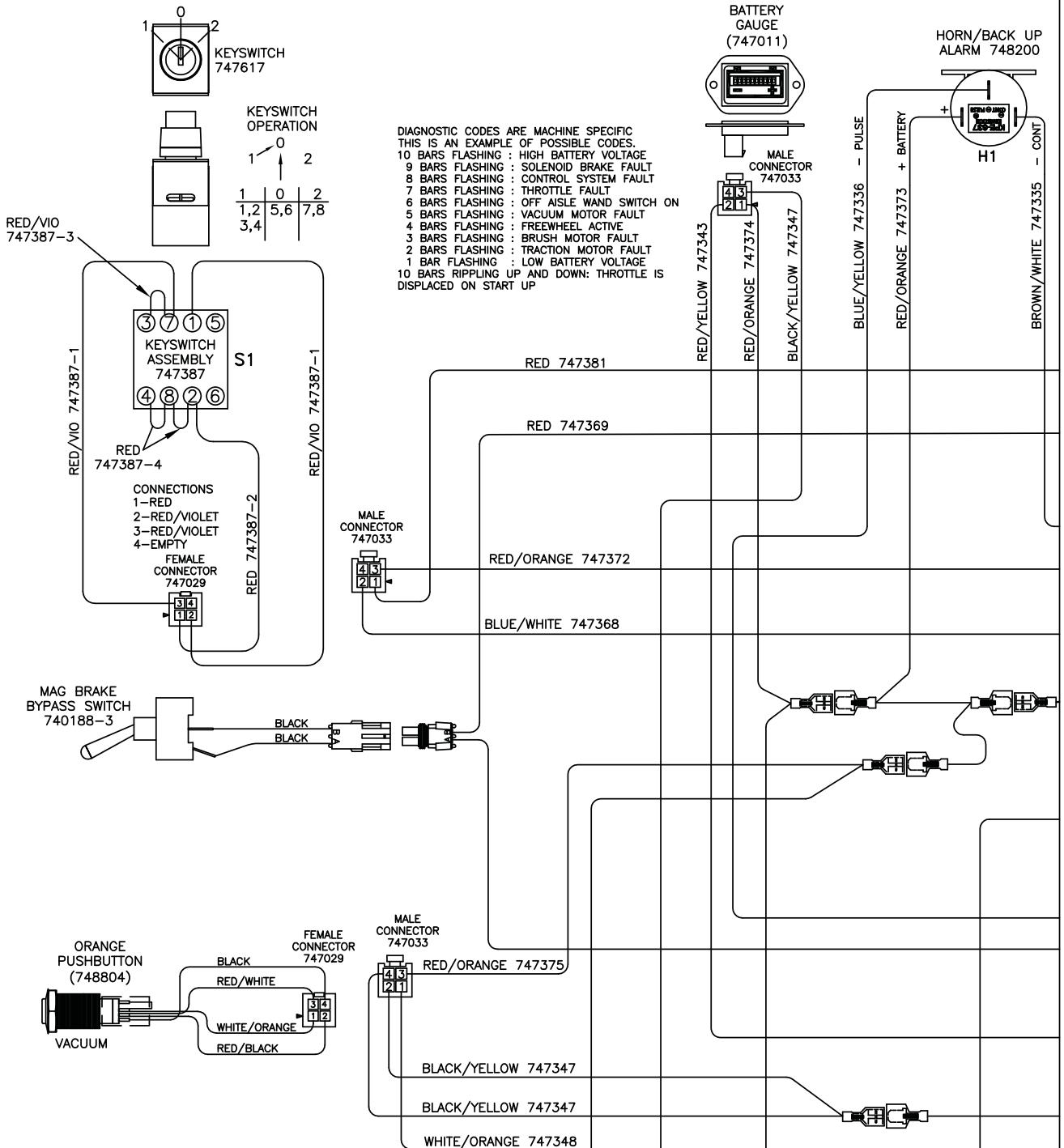
Wiring Diagrams - Sport Models

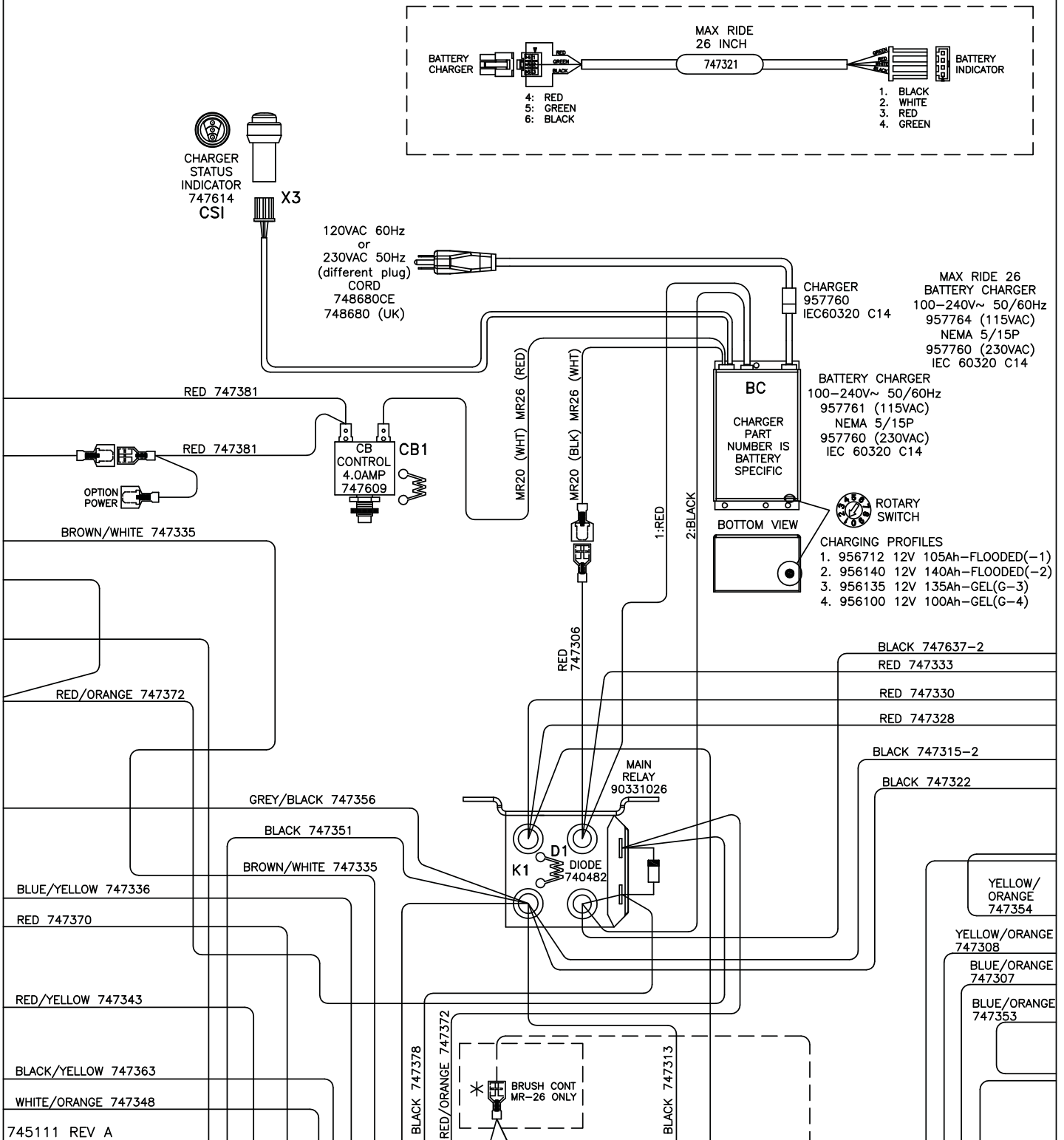
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PAGE LAYOUT



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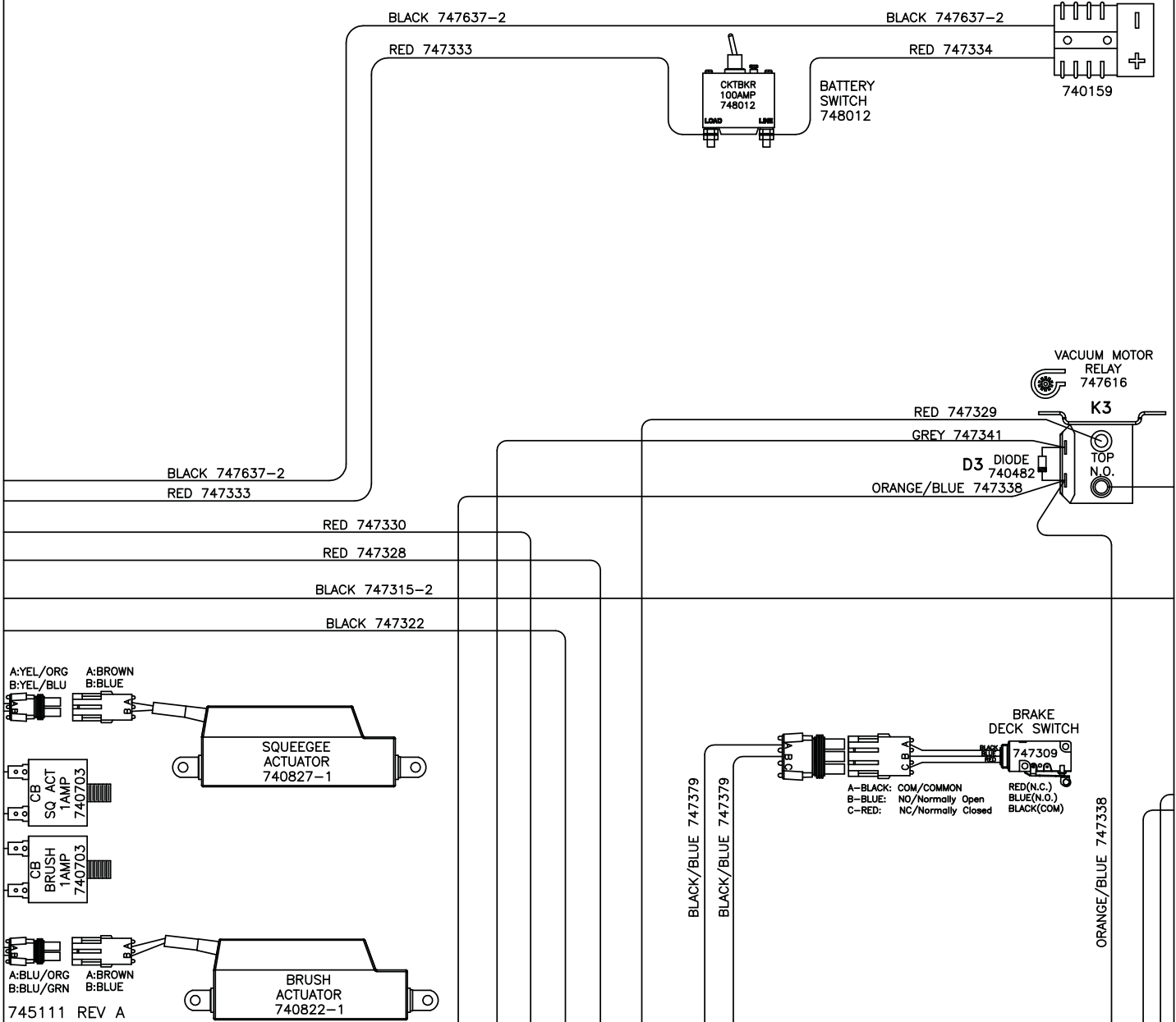


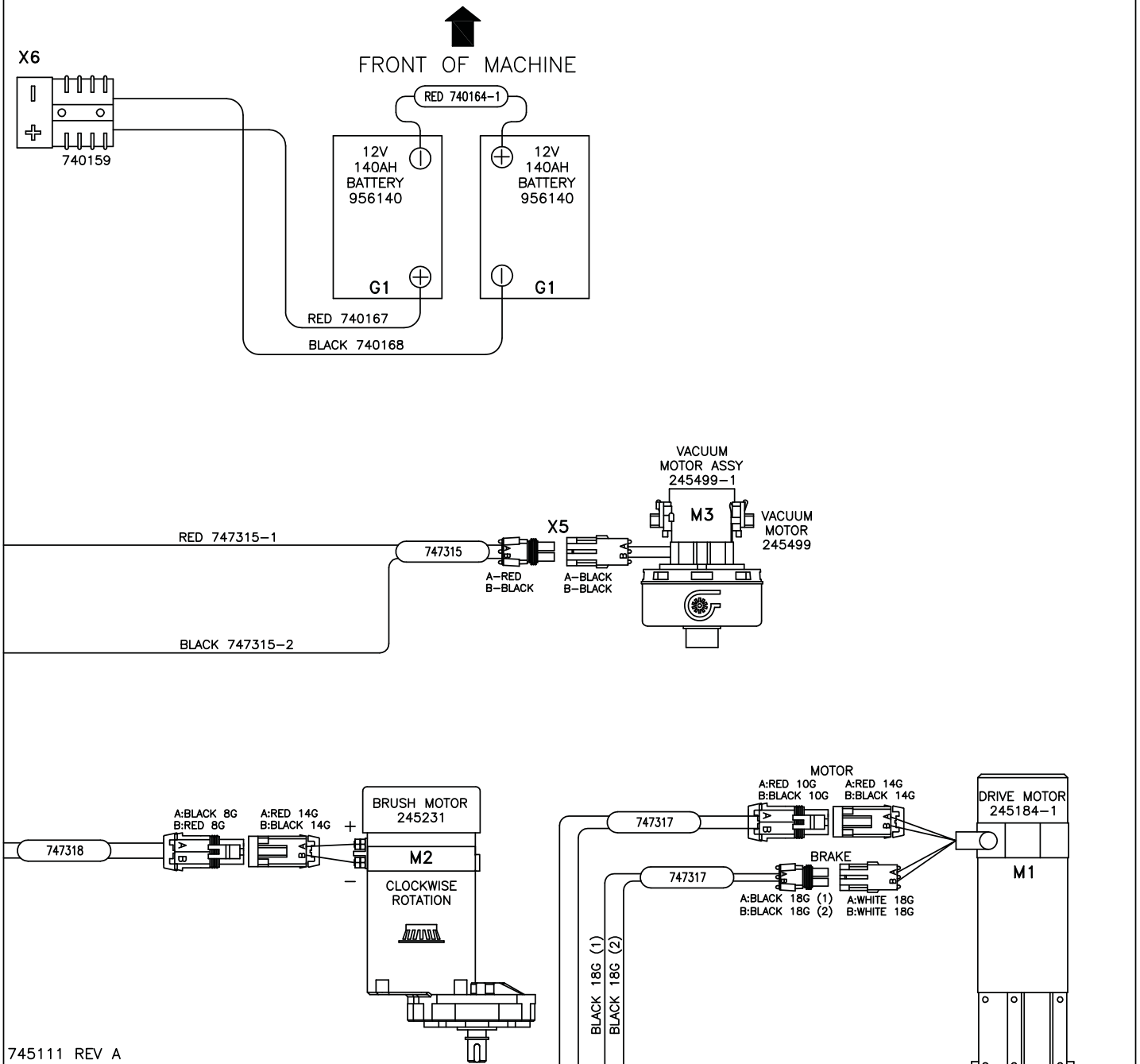


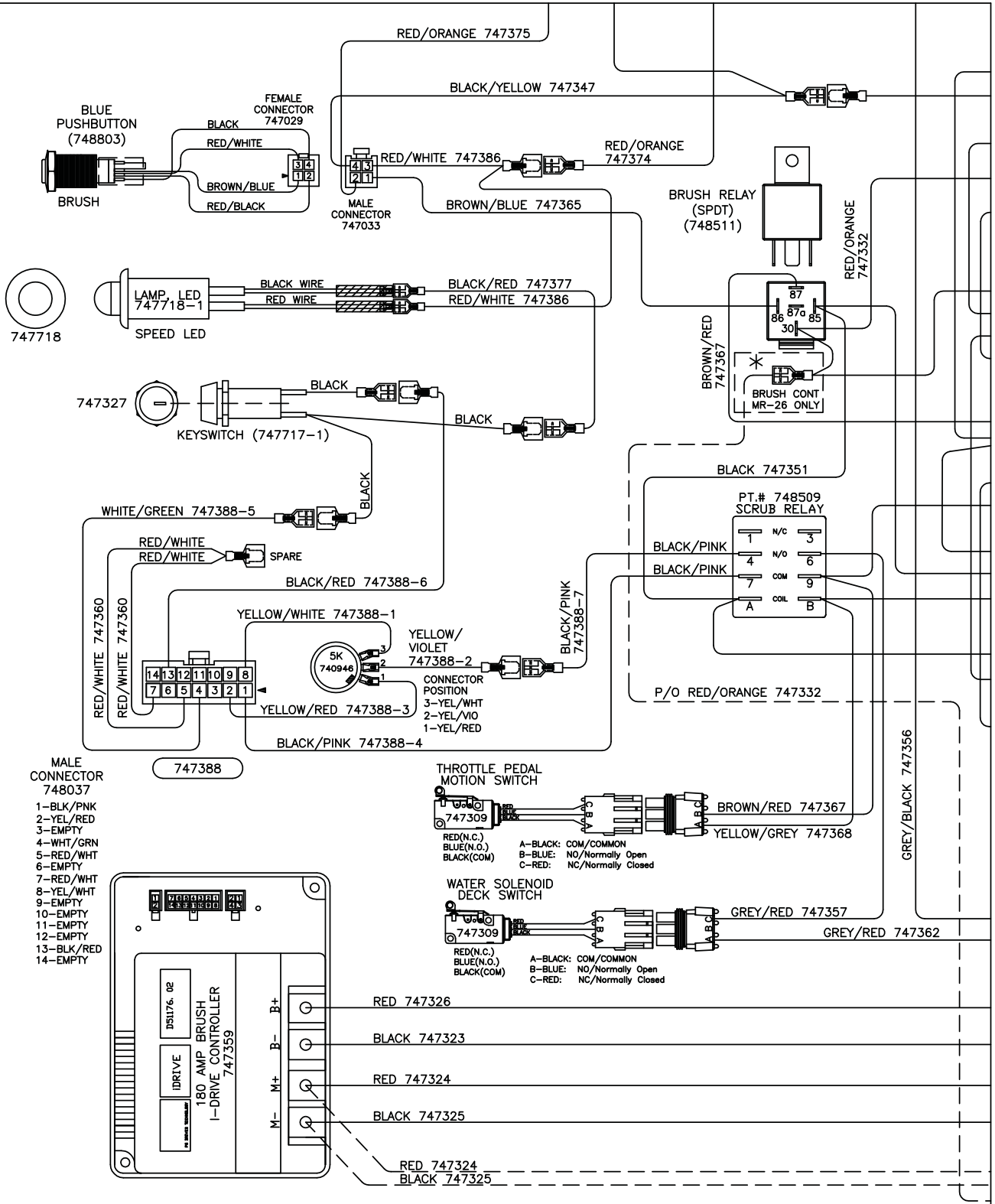


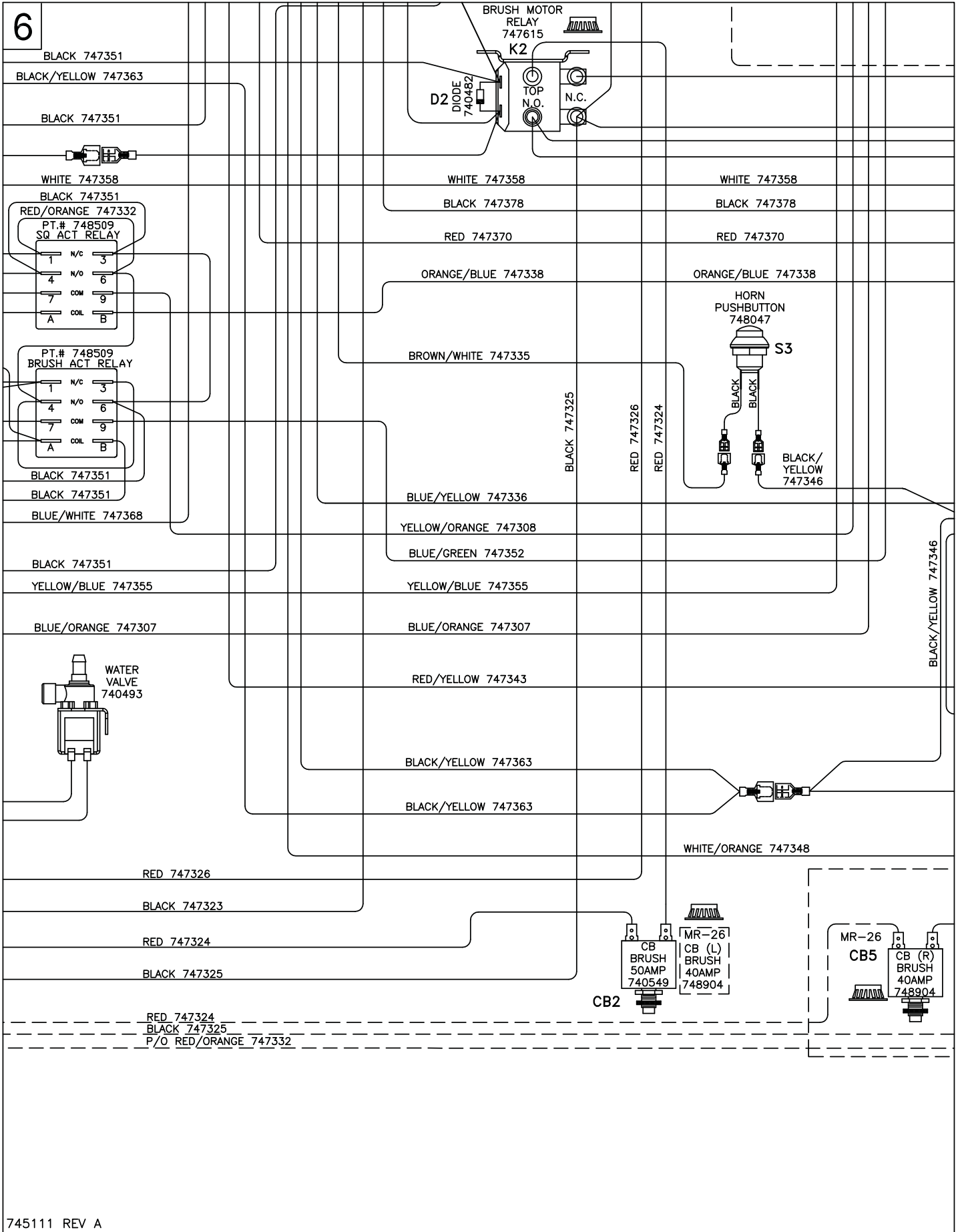
RELAY NUT COVER
 MAIN RELAY M8 15592033 (4)
 VACUUM RELY M6 15592025 (2)
 BRUSH MOTOR RELAY M6 15592025 (4)

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

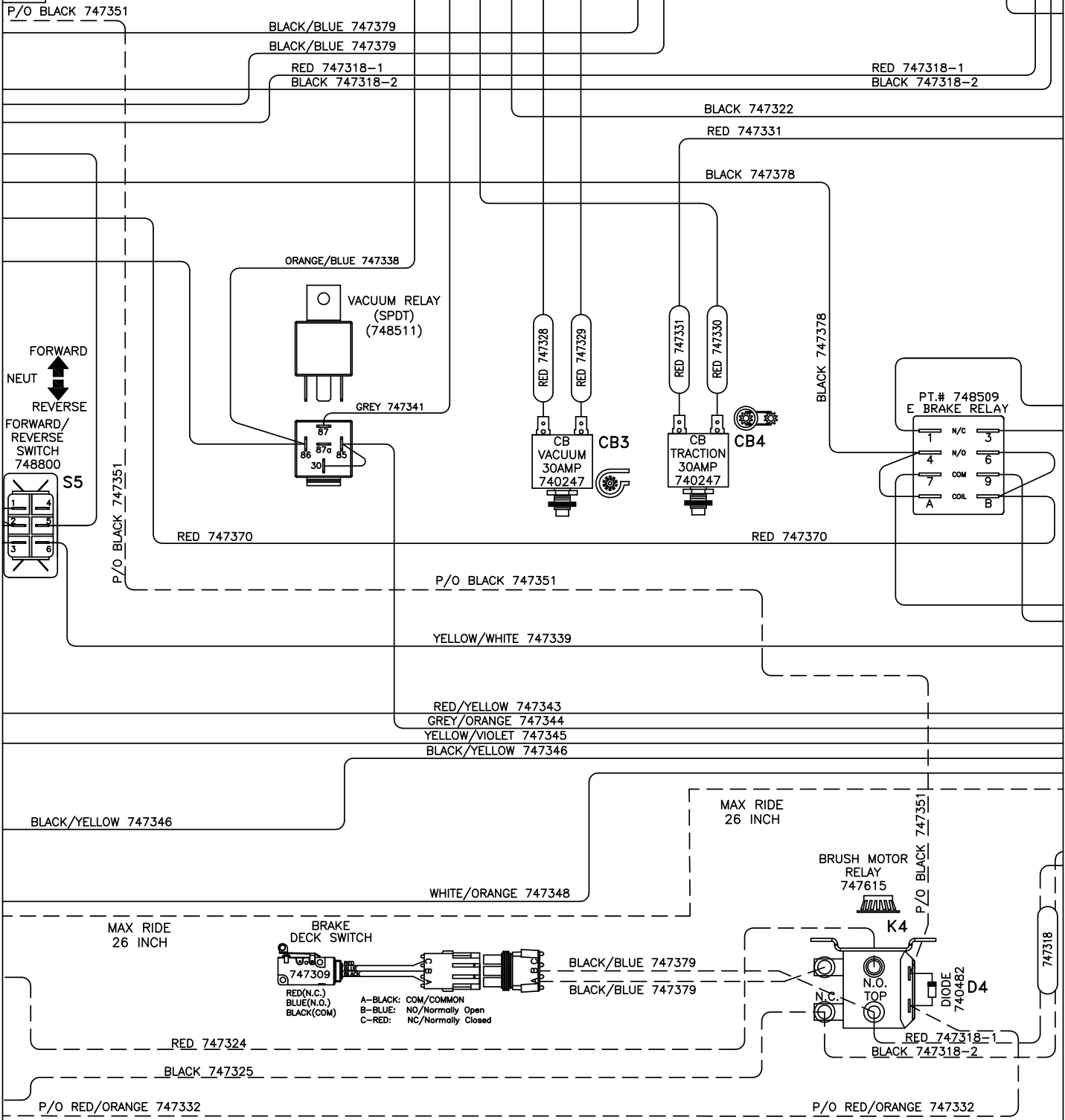


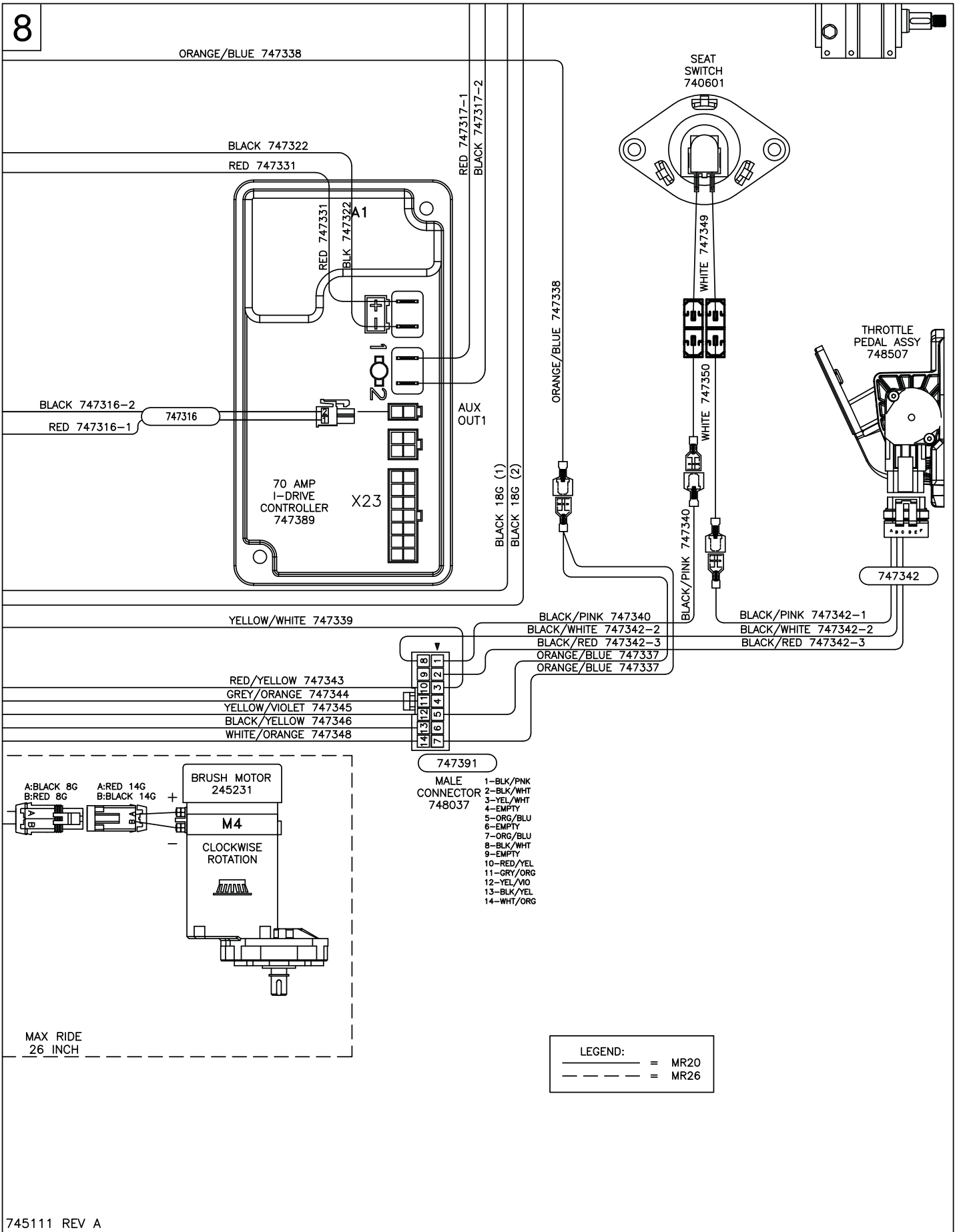






7





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.**



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Phone (800) 323-9420 - www.minutemanintl.com
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