



Parts Manual

Multiple Vehicle Platform

MV1-S, MV1-L



Columbia / ParCar OEM Parts
evtechnicalservices.com

Preface

Welcome, and congratulations on your choice of vehicle from Columbia ParCar Corp.! Your vehicle has been designed and manufactured to conform to applicable sections of ANSI B56.8. Your safe use and operation of your vehicle is important to us. Any alteration of your Columbia vehicle that results in the vehicle being in noncompliance with applicable ANSI standards is strictly prohibited. Columbia ParCar Corp. is not responsible or liable for any damage that results from any such alteration, and all warranties for any such altered vehicles are null and void.

These vehicles are not designed for over-the-road use. They do not conform to Federal Motor Vehicle Safety Standards or EPA regulations, and are not equipped for operation on public streets, roads, or highways.

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Note:

Starting in February of 2015, Columbia started implementing the use of textured black paint instead of satin black on certain accessories. When ordering black coated parts it may be necessary to state if they have the satin finish or the textured finish.

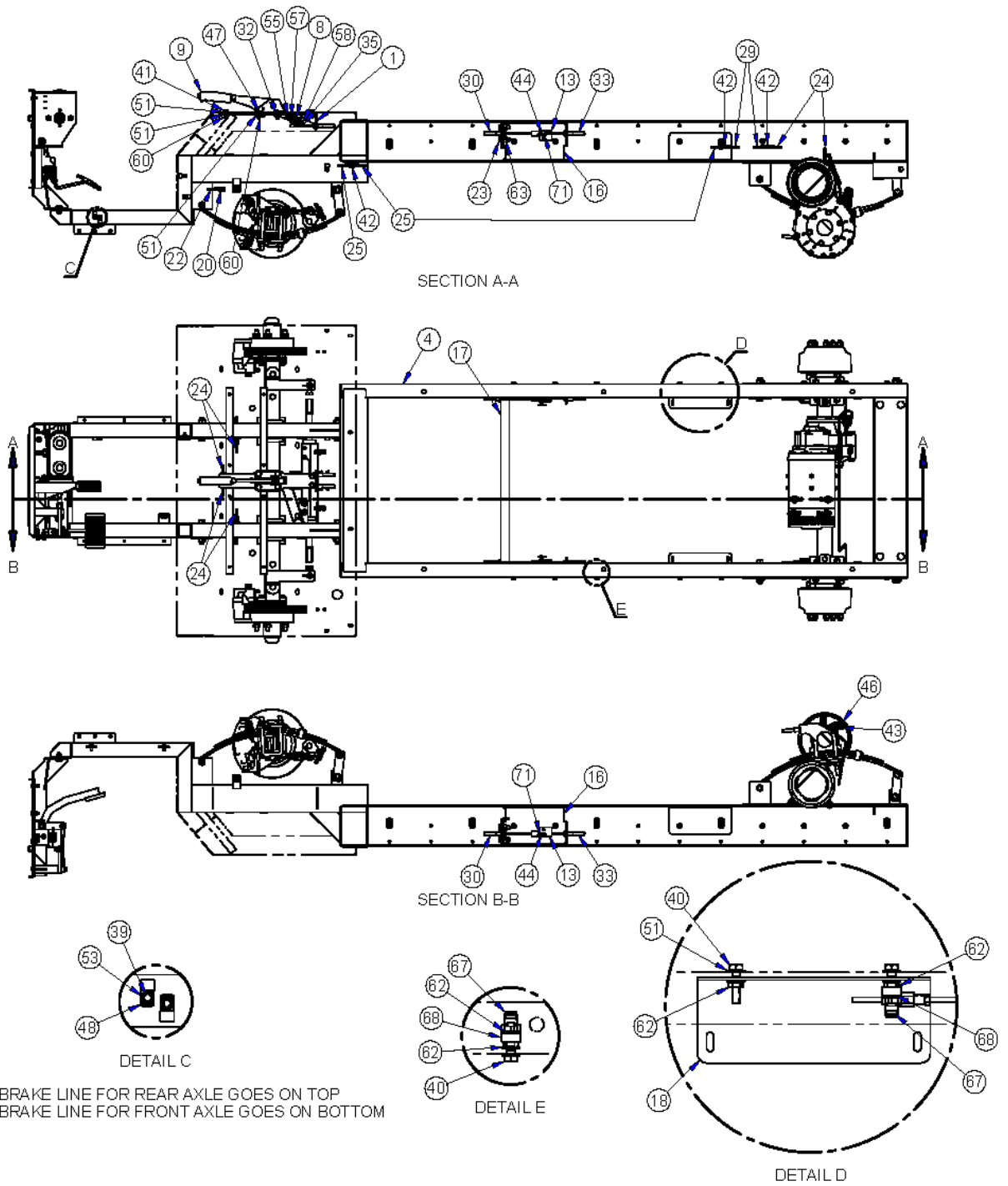
CHANGE HISTORY - MVP		
DATE	DESCRIPTION	BY
5/7/12	Issued	TS
12/12/13	Changed main and dome light harness.	TS
2/5/14	Added lights, body, DC panel and power (ECR 110039)	TS
5/6/14	Added that windows/windshields cannot ship UPS.	TS
6/26/14	Added rear bumper extended	TS
7/23/14	Deleted 1008 seats	TS
12/9/14	Added oil seal and dust cover kit to hydraulic brakes	TS
1/19/15	Added back-up light and revised Section 1 Brakes	TS
1/27/15	Changed axles, added AC components	TS
2/10/15	Updated heater and mirrors	TS
3/3/15	Added note about the black finish changing	TS
3/30/15	Corrected body	TS
4/23/15	Changed jam nut on cylinder rod	TS

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Section 1

Accelerator and Brake Linkage

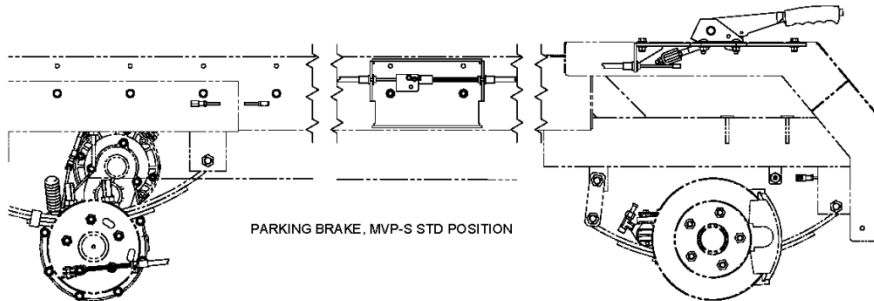
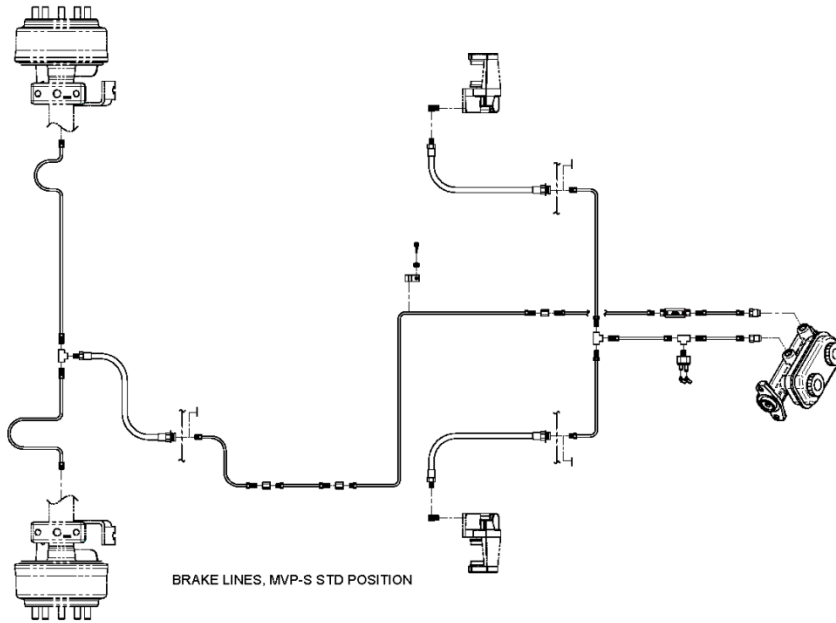
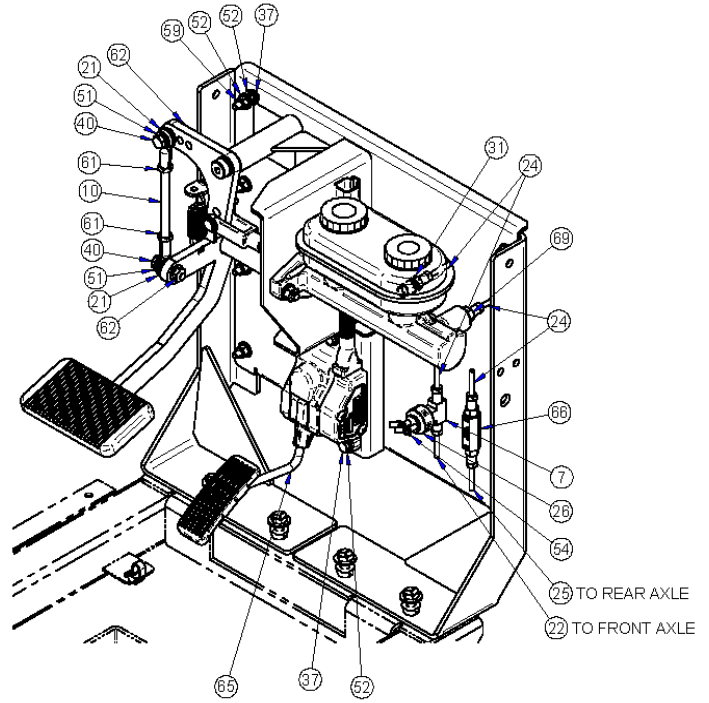
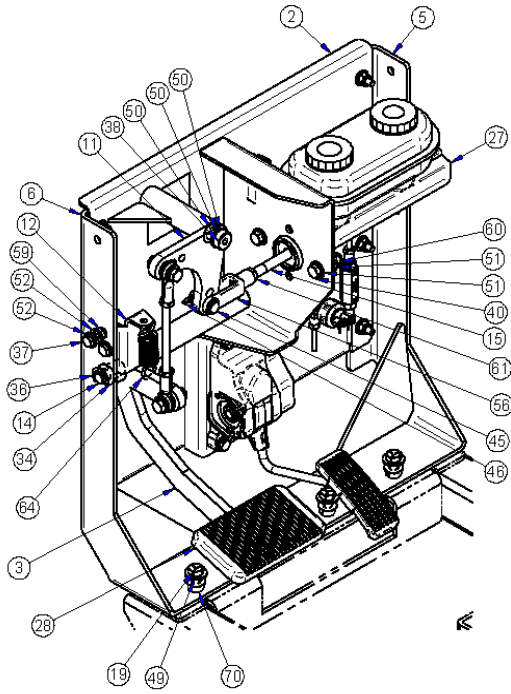
BRAKES, – MVP-S XXA HYD4



BRAKE LINE FOR REAR AXLE GOES ON TOP
 BRAKE LINE FOR FRONT AXLE GOES ON BOTTOM

TYPICAL CABLE MOUNT LOCATIONS SHOWN
 NOTE FRONT MOUNTS INSTALL ON BATTERY
 TRAY HARDWARE (NOT SHOWN)
 INSTALL ZIP TIES ON LEFT SIDE ONLY AFTER
 ALL WIRE HARNESSSES HAVE BEEN INSTALLED

BRAKES, – MVP-S XXA HYD4 Cont.



BRAKES, – MVP-S XXA HYD4 Cont.

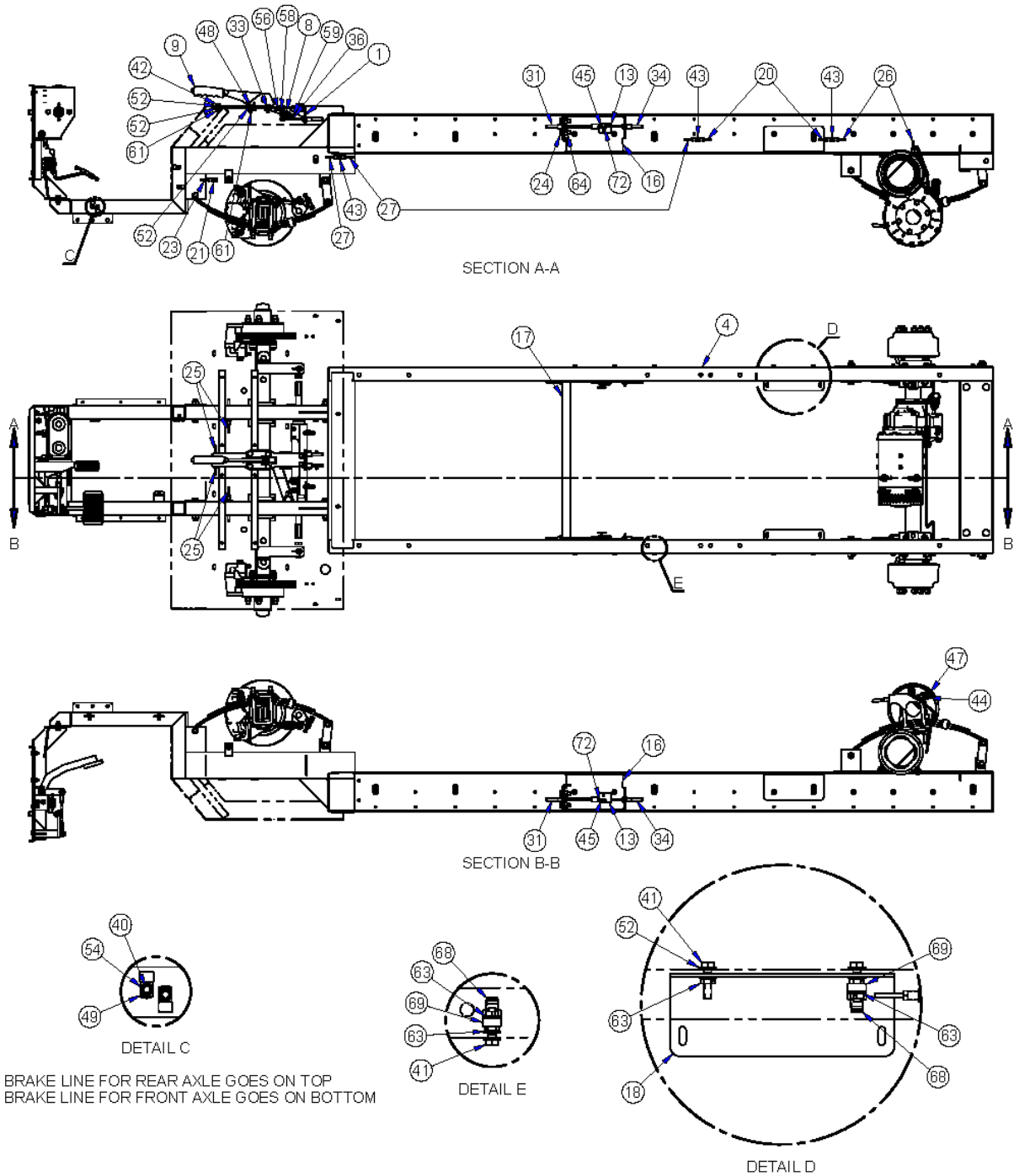
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	51520-10	STIFFENER – SEAT BASE	1	307526
2	*	CNTRL TOWER - MVP	1	309055
3	*	BRAKE PEDAL	1	309063
4	*	PAINTED, MVP CHASSIS - SHORT	1	309122B
5	*	CONTROL TOWER - RH	1	309126
6	*	CONTROL TOWER - LH	1	309127
7	69729-00	CONNECTOR, 3-WAY SWITCH	1	508959
8	42402-89	PLATED, BRAKE EQUALIZER	1	509154PL
9	41721-04	PARKNG BRAKE, MODIFIED - SEAT MNTD	1	509905
10	*	ROD, BRAKE PULL - MVP	1	512198
11	*	BELLCRANK	1	512225
12	*	STOP TAB, BRAKE PEDAL	1	512226
13	*	BRAKE EQUALIZER - SINGLE	2	512237
14	*	ROD, PEDAL PIVOT	1	512240
15	*	ROD - HYDR CYL	1	512241
16	*	MNT, BRKT - BRAKE CABLE	2	512249
17	*	STIFFENER, CHANNEL - MVP	1	512250
18	*	BRACKET, HANGER MNT	2	512270
19	2879-W	SCREW, 3/8-16 X 1 HHC, G5	4	707195
20	41842-94	UNION TEE, HYD BRAKE	1	709377
21	57019-00	ROD END - 5/16 (KPF-5-G)	2	709450
22	41269-00	BRAKE LINE, 3/16 X 51	1	709474
23	3570	SCREW, 1/2-13 X 1-1/4, HHCS, G5, ZC	4	709588
24	41223-00	BRAKE LINE, 3/16 X 8	5	709601
25	41220-00	BRAKE LINE, 3/16 X 60	2	709727
26	41212-00	SWITCH, BRAKE LIGHT	1	709749
27	41809-02	MASTER CYLINDER 1-1/6 TANDEM	1	709806
28	42438-02	PAD, BRAKE PEDAL	1	709807
29	41431-02	BRAKE LINE 3/16X6	1	709812
30	42370-02	BRAKE CABLE 42"	2	709818
31	41827-93	ADAPTER, HYD BRAKE 1/2-20 TO 3/16"	1	709828
32	625	ROLL PIN, 1/4" OD X 5/8" (L) ,	1	719121
33	41860-06	CABLE, BRAKE, 68.50"	2	719209
34	10514	BEARING, FLANGED, .50"IDX.62"ODX.75"L	2	719262
35	41512-08	ROD, 1/4 - 28 X 3.00 LG	1	719364
36	11040	E-RING, .562 REINFORCED PHOS	2	719515
37	2551-W	SCREW, 1/4-20 X 1, HHCS, G5, YWZC 150	14	719564
38	2645	SCREW, 1/2 X 1/2 LG SHLDR SOCKET	1	719580
39	2653-B	SCREW, #10 X 3/4 HWH TEK #3	5	719583
40	2871-W	SCREW, 5/16-18 X 1-1/4, HHCS, G5, YWZC	14	719592
41	3991	SCREW,5/16-18X7/8,HHCS,G5, BLK MAX	3	719643
42	41206-00	FLARE, UNION INVERTED 3/16	3	719657
43	497	CLEVIS PIN, 5/16 X 7/8 YELLOW/ZINC	2	719713
44	499	CLEVIS PIN 1/4 DIA X 1 1/2" LG	2	719715
45	516	CLEVIS PIN, 3/8X1-1/8	1	719727
46	520-W	PIN, 1/8X1 COTTER	3	719728
47	5400-BS	BOLT, 5/16-18X1 CARR G5	4	719744
48	9982	CLAMP, STEEL TUBE VINYL CUSH	5	719756
49	6000-B	WASHER 5/16 USS/STD	4	719771
50	6566	WASHER .515X.812X.031	3	719800
51	6702-B	WASHER 5/16 SAE	26	719810
52	6703-B	WASHER 1/4 SAE	24	719811
53	6716	WASHER #10 SAE	5	719812

BRAKES, – MVP-S XXA HYD4 Cont

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
54	32675-08	TERMINAL #10 STUD-TO-1/4 MALE TAB	2	719825
55	73062-86A	YOKE, CLEVIS, 1/4-28 ADJ, RH, CLR	1	719854
56	73066-02	CLEVIS #53 3/8-24 ADJ YOKE END YWZC	1	719855
57	7676	NUT 1/4-28 GR 2 HEX FULL	1	719874
58	7683	NUT 1/4-28 GR A NE NYLON INSERT LCK	1	719877
59	7686	NUT, 1/4-20, NYLOCK, GA,	10	719879
60	7739	NUT,5/16-18,L/N,NYLOK,NE,GA,	9	719892
61	7744	NUT, 5/16-24 GR 2 HEX JAM	3	719895
62	7750	NUT, 5/16-18 GF FLNG CNTR LOCK BLK	21	719897
63	7880	NUT, 1/2-13 GR 2 HEX FULL	4	719913
64	11801	SPRING, EXT, .734" X 2.63" X.105", HD, ZC	1	759838
65	40600-10	PEDAL ASSY, ACCEL	1	759903
66	40955-12	RESID PRESS VALVE -10 PSI W/ FTGS	1	759913
67	*	CABLE TIE, .30 X 8.58	11	760121
68	*	HEAVY DUTY MOUNT	9	760122
69	40954-12	ADAPTER, HYD BRAKE 9/16-20 TO 3/16	1	760143
70	7755	NUT 3/8-16 GR G FLNG CTR LOCK	4	760721
71	500	PIN, HAIR CLIP #13	2	781013
-	N/A	GROUP BRAKES MVP-S XXA HYD4 (Includes above)	1	191615A

* SPECIAL ORDER

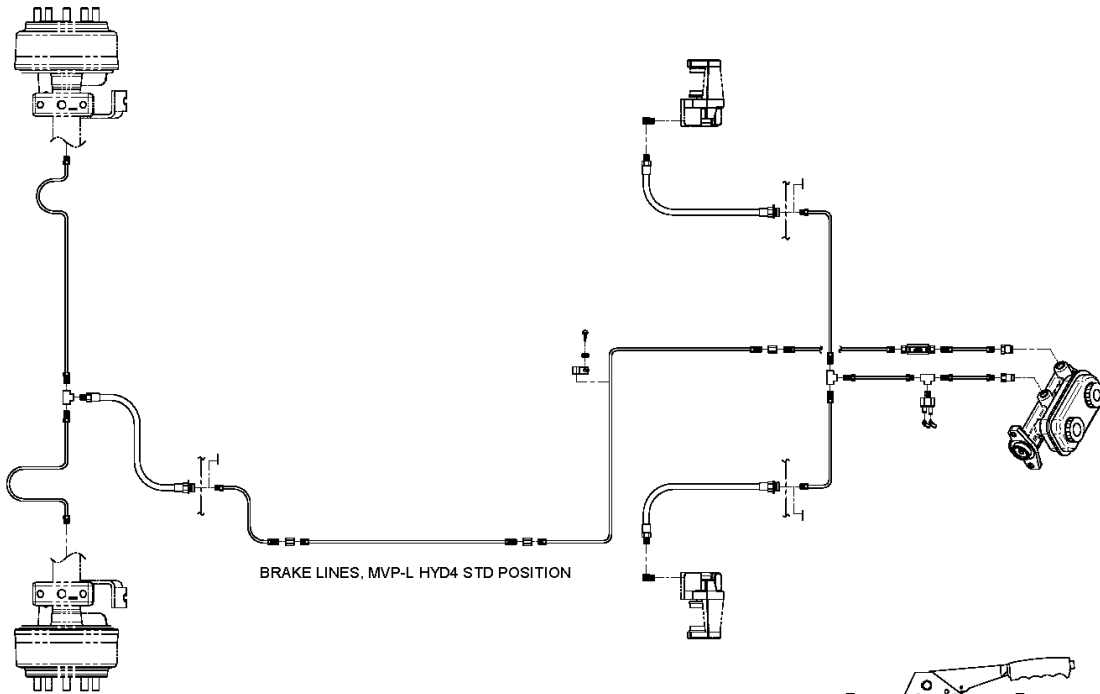
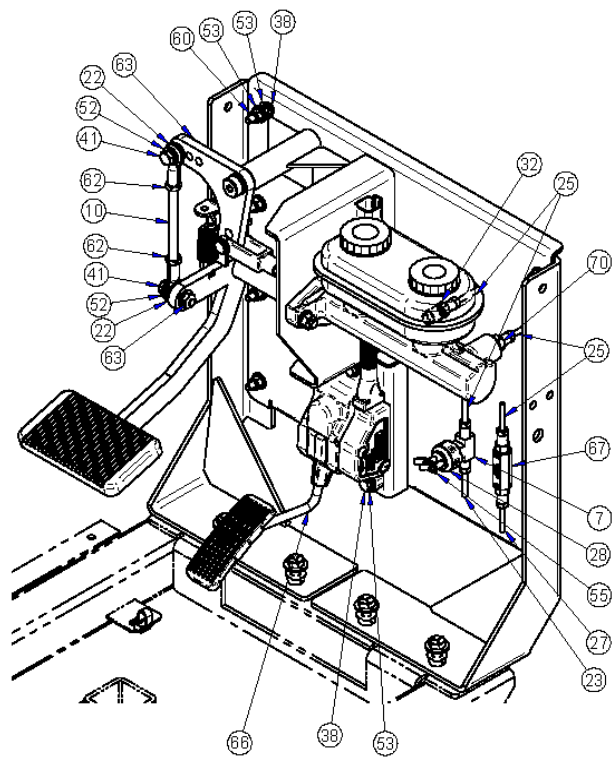
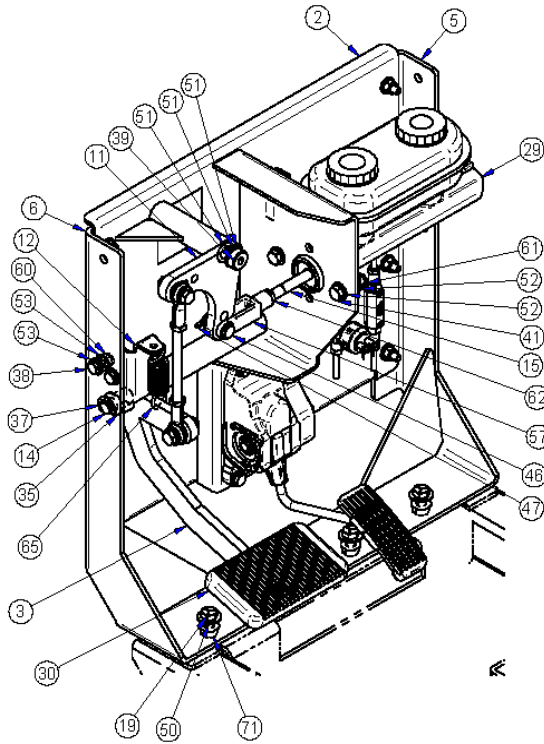
BRAKES, – MVP-L XXXA HYD4



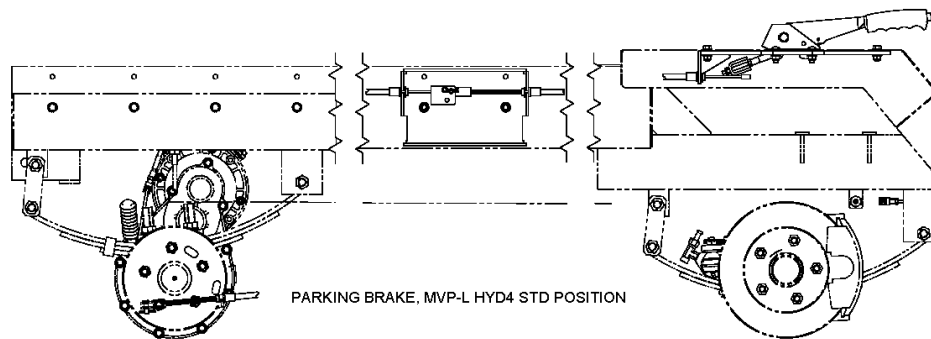
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BRAKES, – MVP-L XXXA HYD4 Cont.



BRAKE LINES, MVP-L HYD4 STD POSITION



PARKING BRAKE, MVP-L HYD4 STD POSITION

BRAKES, – MVP-L XXXA HYD4 Cont.

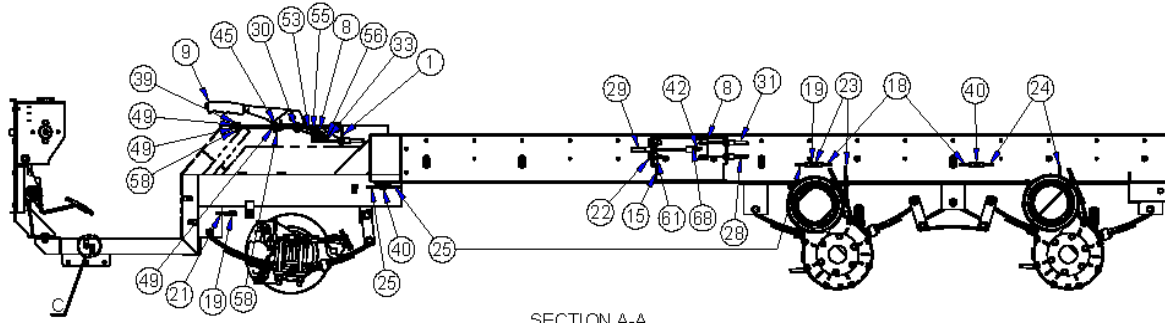
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	51520-10	STIFFENER – SEAT BASE	1	307526
2	*	CNTRL TOWER - MVP	1	309055
3	*	BRAKE PEDAL	1	309063
4	*	PAINTED, MVP CHASSIS - LONG	1	309098B
5	*	CONTROL TOWER - RH	1	309126
6	*	CONTROL TOWER - LH	1	309127
7	69729-00	CONNECTOR, 3-WAY SWITCH	1	508959
8	42402-89	PLATED, BRAKE EQUALIZER	1	509154PL
9	41721-04	PARKNG BRAKE, MODIFIED - SEAT MNTD	1	509905
10	*	ROD, BRAKE PULL - MVP	1	512198
11	*	BELLCRANK	1	512225
12	*	STOP TAB, BRAKE PEDAL	1	512226
13	*	BRAKE EQUALIZER - SINGLE	2	512237
14	*	ROD, PEDAL PIVOT	1	512240
15	*	ROD - HYDR CYL	1	512241
16	*	MNT, BRKT - BRAKE CABLE	2	512249
17	*	STIFFENER, CHANNEL - MVP	1	512250
18	*	BRACKET, HANGER MNT	2	512270
19	2879-W	SCREW, 3/8-16 X 1 HHC, G5	4	707195
20	41222-00	BRAKE LINE 3/16X20	1	709358
21	41842-94	UNION TEE, HYD BRAKE	1	709377
22	57019-00	ROD END - 5/16 (KPF-5-G)	2	709450
23	41269-00	BRAKE LINE, 3/16 X 51	1	709474
24	3570	SCREW, 1/2-13 X 1-1/4, HHCS, G5, ZC	4	709588
25	41223-00	BRAKE LINE, 3/16 X 8	4	709601
26	41219-00	BRAKE LINE 3/16X12	1	709607
27	41220-00	BRAKE LINE, 3/16 X 60	2	709727
28	41212-00	SWITCH, BRAKE LIGHT	1	709749
29	41809-02	MASTER CYLINDER 1-1/6 TANDEM	1	709806
30	42438-02	PAD, BRAKE PEDAL	1	709807
31	41431-02	BRAKE CABLE 51"	2	709819
32	41827-93	ADAPTER, HYD BRAKE 1/2-20 TO 3/16"	1	709828
33	625	ROLL PIN, 1/4" OD X 5/8" (L) ,	1	719121
34	41860-06	CABLE, BRAKE, 68.50"	2	719209
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BRAKES, – MVP-L XXXA HYD4 Cont

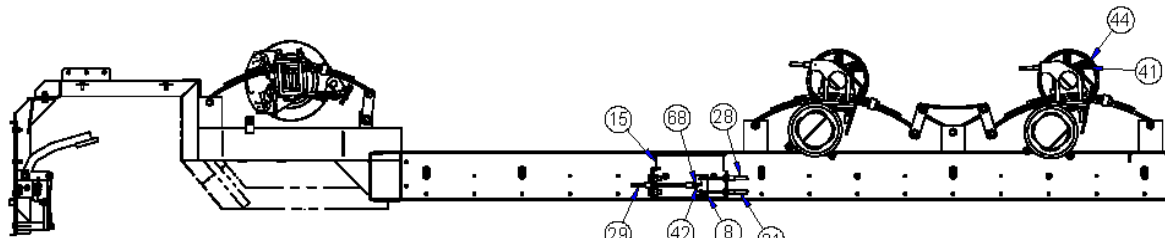
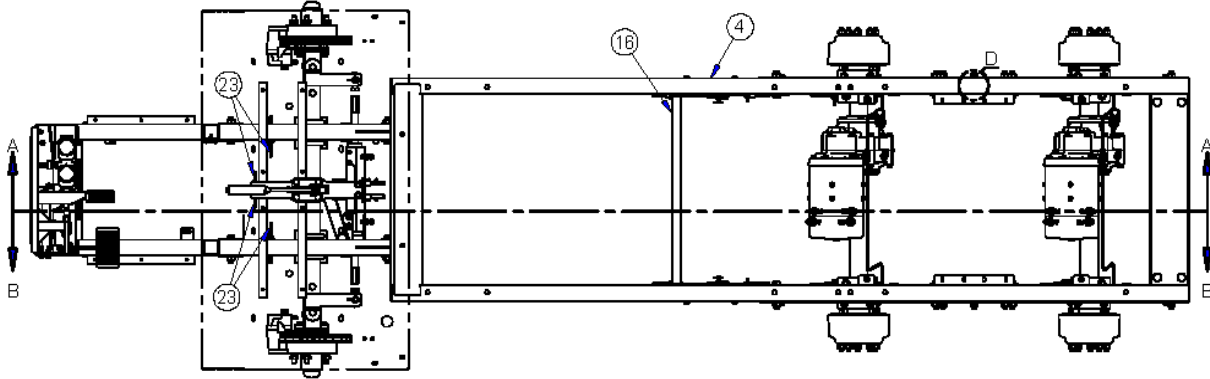
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71	7755	NUT 3/8-16 GR G FLNG CTR LOCK	4	760721
72	500	PIN, HAIR CLIP #13	2	781013
-	N/A	GROUP BRAKES MPV-L XXXA HYD4 (Includes above)	1	191613A

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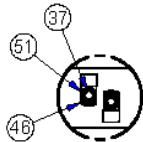
BRAKES, – MVP-L XXAA HYD6



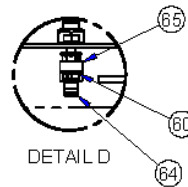
SECTION A-A



SECTION B-B



DETAIL C

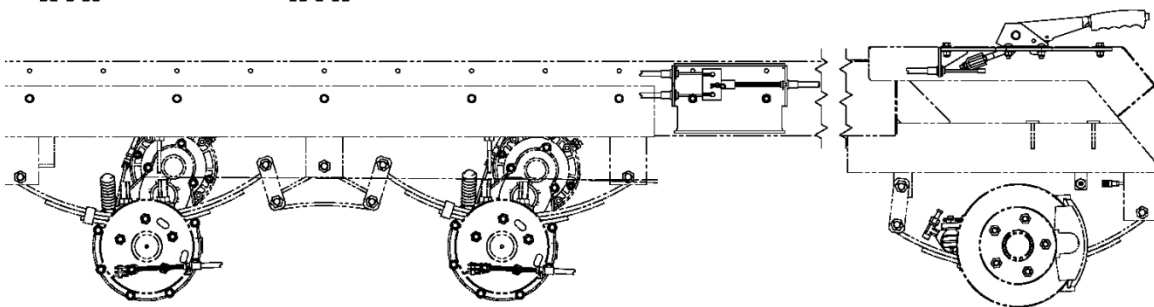
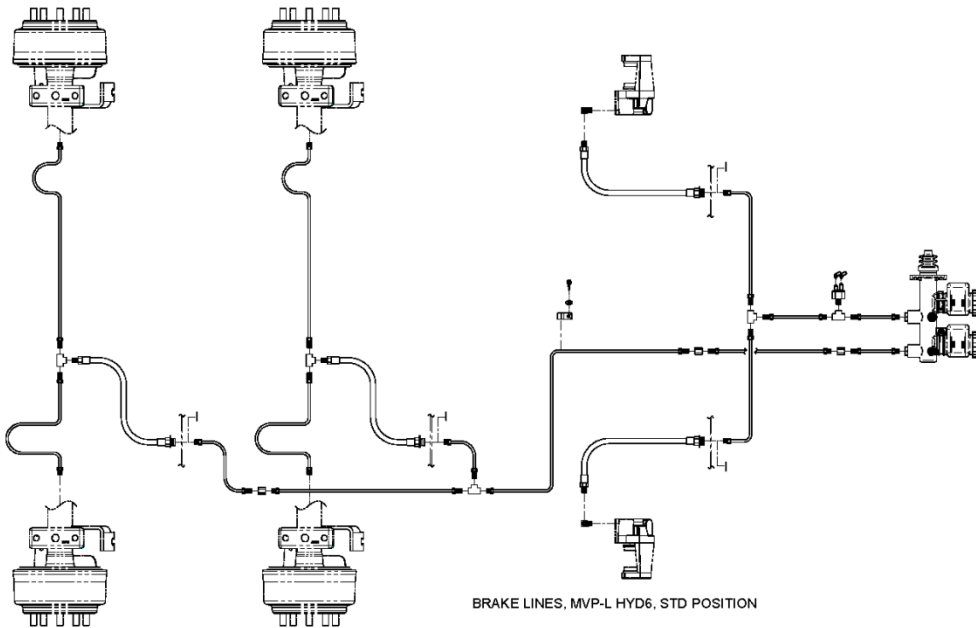
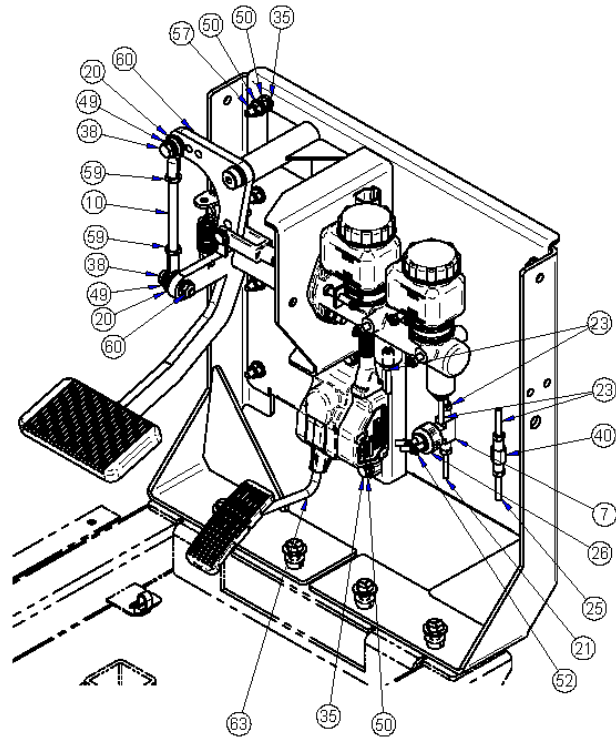
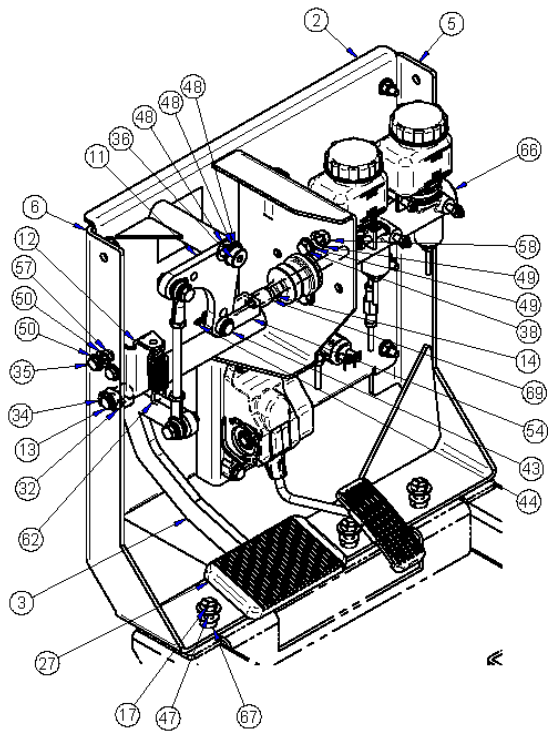


DETAIL D

BRAKE LINE FOR REAR AXLE GOES ON TOP
BRAKE LINE FOR FRONT AXLE GOES ON BOTTOM

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19	41842-94	UNION TEE, HYD BRAKE	2	709377
20	57019-00	ROD END - 5/16 (KPF-5-G)	2	709450
21	41269-00	BRAKE LINE, 3/16 X 51	1	709474
22	3570	SCREW, 1/2-13 X 1-1/4, HHCS, G5, ZC	4	709588
23	41223-00	BRAKE LINE, 3/16 X 8	5	709601
24	41219-00	BRAKE LINE 3/16X12	1	709607
25	41220-00	BRAKE LINE, 3/16 X 60	2	709727
26	41212-00	SWITCH, BRAKE LIGHT	1	709749
27	42438-02	PAD, BRAKE PEDAL	1	709807
28	42370-02	BRAKE CABLE 42"	2	709818
29	41431-02	BRAKE CABLE 51"	2	709819
30	625	ROLL PIN, 1/4" OD X 5/8" (L) ,	1	719121
31	41860-06	CABLE, BRAKE, 68.50"	2	719209
32	10514	BEARING, FLANGED, .50"IDX.62"ODX.75"L	2	719262
33	41512-08	ROD, 1/4 - 28 X 3.00 LG	1	719364
34	11040	E-RING, .562 REINFORCED PHOS	2	719515
35	2551-W	SCREW, 1/4-20 X 1, HHCS, G5, YWZC 150	14	719564
36	2645	SCREW, 1/2 X 1/2 LG SHLDR SOCKET	1	719580
37	2653-B	SCREW, #10 X 3/4 HWH TEK #3	5	719583
38	2871-W	SCREW, 5/16-18 X 1-1/4, HHCS, G5, YWZC	8	719592
39	3991	SCREW,5/16-18X7/8,HHCS,G5, BLK MAX	3	719643
40	41206-00	FLARE, UNION INVERTED 3/16	3	719657
41	497	CLEVIS PIN, 5/16 X 7/8 YELLOW/ZINC	4	719713
42	499	CLEVIS PIN 1/4 DIA X 1 1/2" LG	2	719715
43	516	CLEVIS PIN, 3/8X1-1/8	1	719727
44	520-W	PIN, 1/8X1 COTTER	5	719728
45	5400-BS	BOLT, 5/16-18X1 CARR G5	4	719744
46	9982	CLAMP, STEEL TUBE VINYL CUSH	5	719756
47	6000-B	WASHER 5/16 USS/STD	4	719771
48	6566	WASHER .515X.812X.031	3	719800
49	6702-B	WASHER 5/16 SAE	20	719810
50	6703-B	WASHER 1/4 SAE	24	719811
51	6716	WASHER #10 SAE	5	719812
52	32675-08	TERMINAL #10 STUD-TO-1/4 MALE TAB	2	719825
53	73062-86A	YOKE, CLEVIS, 1/4-28 ADJ, RH, CLR	1	719854
54	73066-02	CLEVIS #53 3/8-24 ADJ YOKE END YWZC	1	719855

BRAKES, – MVP-L XXAA HYD6 Cont

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
55	7676	NUT 1/4-28 GR 2 HEX FULL	1	719874
56	7683	NUT 1/4-28 GR A NE NYLON INSERT LCK	1	719877
57	7686	NUT, 1/4-20, NYLOCK, GA,	10	719879
58	7739	NUT,5/16-18,L/N,NYLOK,NE,GA,	9	719892
59	7744	NUT, 5/16-24 GR 2 HEX JAM	2	719895
60	7750	NUT, 5/16-18 GF FLNG CNTR LOCK BLK	15	719897
61	7880	NUT, 1/2-13 GR 2 HEX FULL	4	719913
62	11801	SPRING, EXT, .734" X 2.63" X.105", HD, ZC	1	759838
63	40600-10	PEDAL ASSY, ACCEL	1	759903
64	*	CABLE TIE, .30 X 8.58	11	760121
65	*	HEAVY DUTY MOUNT	9	760122
66	41807-08	MASTER CYLINDER ASSEMBLY	1	760142
67	7755	NUT 3/8-16 GR G FLNG CTR LOCK	4	760721
68	500	PIN, HAIR CLIP #13	2	781013
69	*	NUT, 3/8-24 HEX JAM	1	781490
-	N/A	GROUP BRAKES MPV-L XXAA HYD6 (Includes above)	1	191576A

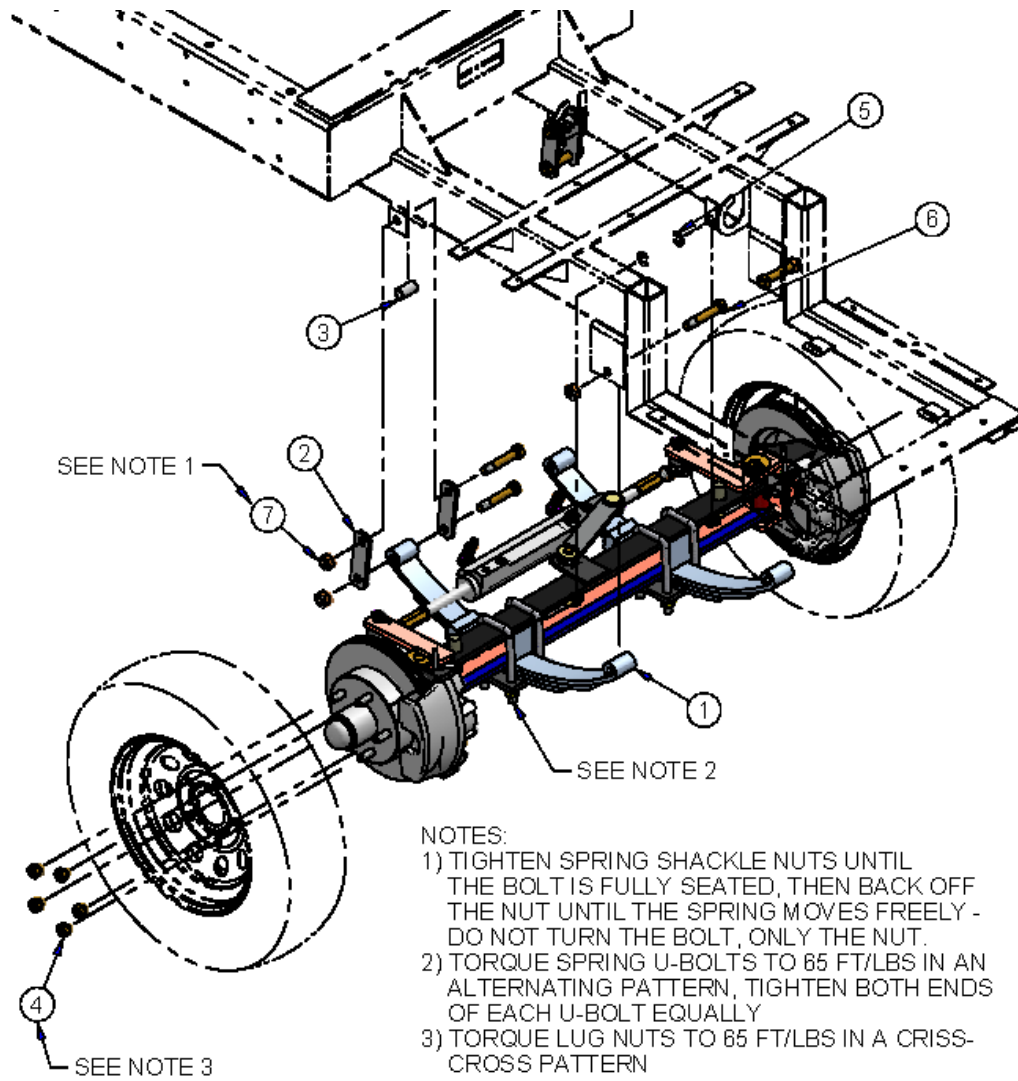
* SPECIAL ORDER

Multiple Vehicle Platform Parts Manual

Section 2

Steering, Front Suspension and Wheels

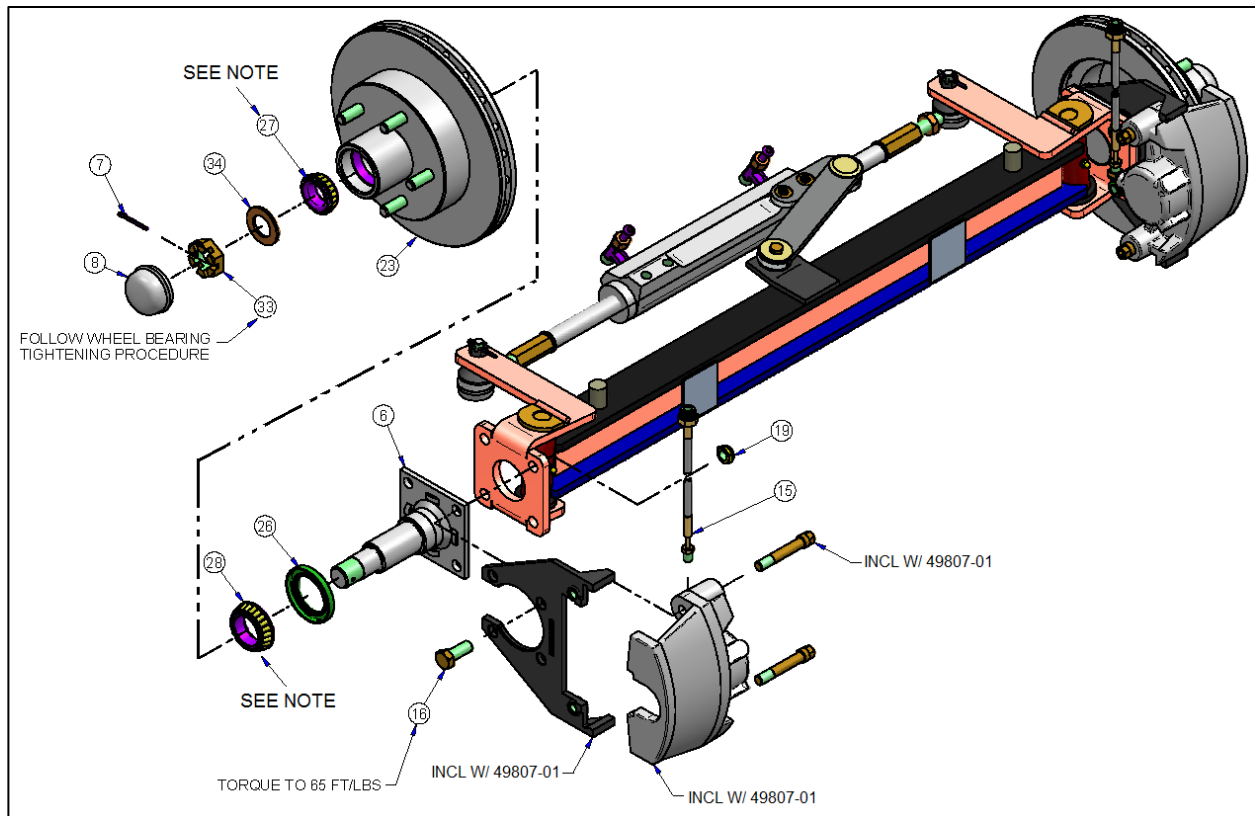
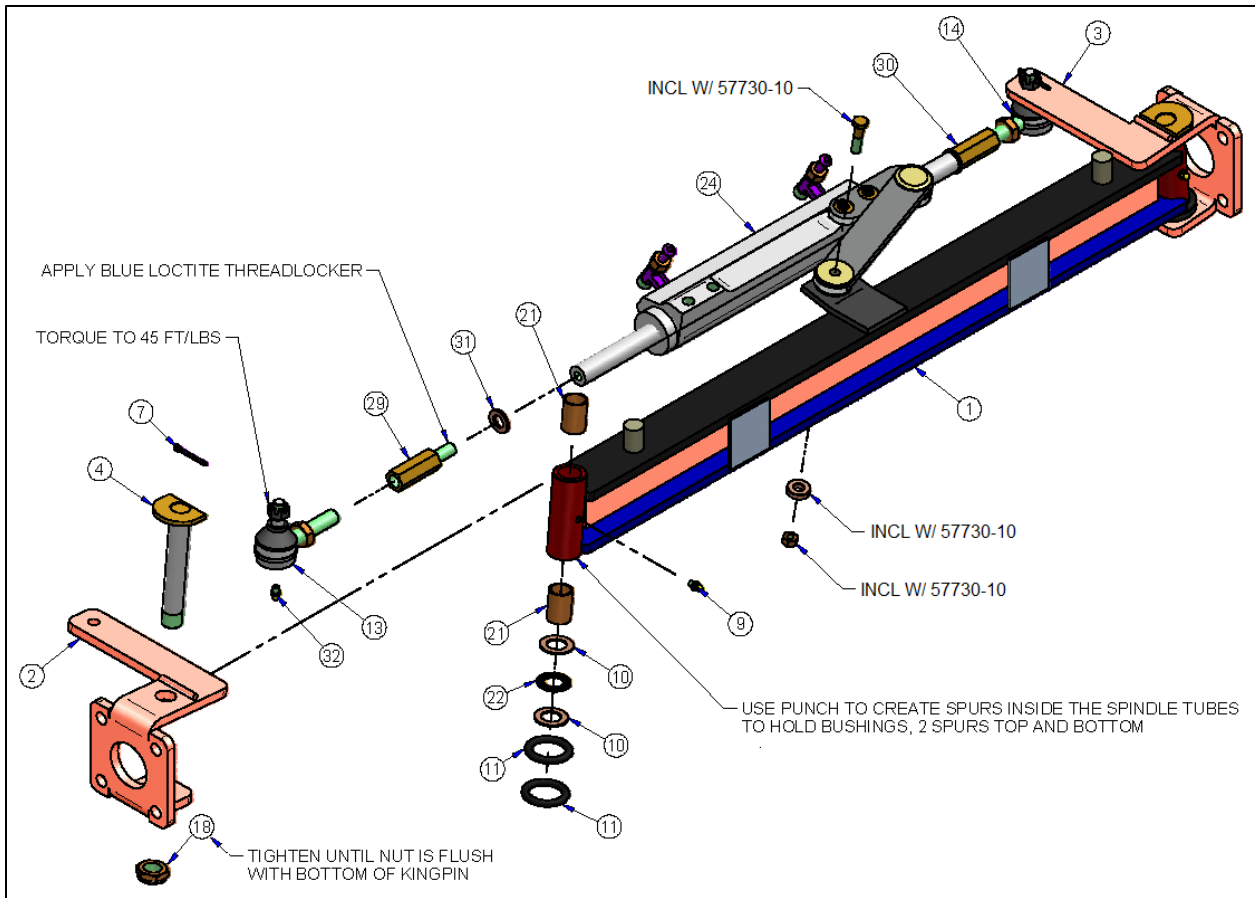
FRONT AXLE WITH BRAKES – MVP



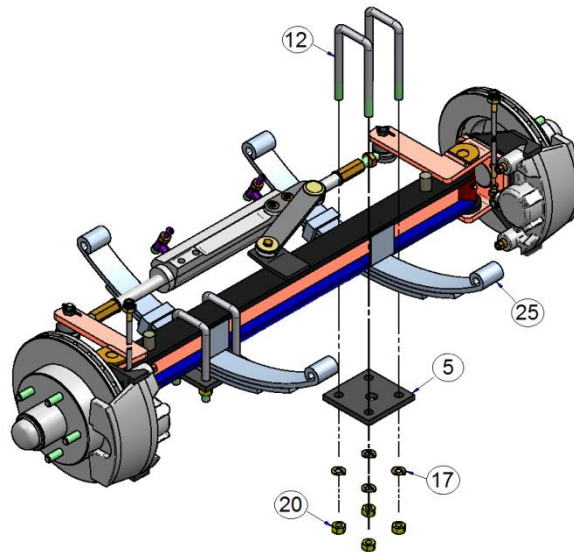
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	ASSEMBLY, MVP FRONT AXLE, W/BRAKES	1	467549
2	44805-11	SHACKLE STRAP	4	512245
3	82711-12	SLEEVE - SPRING HANGER	2	512495
4	43152-66	NUT, 1/2-20, TAPERED WHEEL	10	709002
5	11077	E-RING, .625 PHOS	2	719516
6	3800	BOLT, 9/16-18 X 3" GR 5- SHACKLE	6	759898
7	7850	HEX LOCKNUT, 9/16-18	6	759909

* SPECIAL ORDER

FRONT AXLE W/BRAKES ASSEMBLY – MVP



FRONT AXLE W/BRAKES ASSEMBLY – MVP (Cont.)



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	44801-11	FRONT AXLE ASSY	1	309032
2	44802-11	SPLINDLE - RH	1	309110
3	44803-11	SPLINDLE - LH	1	309111
4	*	PNTD, KING PIN	2	467952
5	54800-00	FRONT AXLE SPRING PLATE	2	510276
6	44806-11	SPDL, MACH'D - BRAKES (KODIAK)	2	512264
7	560	PIN, 1/8"X1-1/4",COTTER,ZNC	4	707337
8	43646-79	HUB GREASE CAP	2	709018
9	9800	GREASE FITTING, 1/4" DRIVE, STRAIGHT	2	709110
10	6042	WASHER, NEEDLE THRUST	4	709217
11	11100	O-RING, #332, 1-1/4 X 1/4	4	709218
12	5203	12 U-BOLT - FRONT SUSP, TABULATED	4	709372
13	56802-00	TIE ROD ASSY, RH	1	709415
14	56804-00	TIE ROD ASSY, LH	1	709416
15	41216-00	BRAKE HOSE, HYD, FLEX, 22"	2	709430
16	3570	SCREW, 1/2-13 X 1-1/4, HHCS, G5	8	709588
17	7068	WASHER, 1/2,ALLOY-SPLIT,L/W	8	719840
18	7513	NUT, 3/4-16 GR A NTE STYLE JAM NYLON	2	719861
19	7685	NUT 1/2-13, GR A, NYLON LOCK	8	719878
20	7880	NUT, 1/2-13 GR 2 HEX FULL YWZC	8	719913
21	9083	BUSHING, .751 X .878 X 1.25 OILITE	4	719961
22	9085	BEARING TORRINGTON NEEDLE THRUST	2	719962
23	44807-01	BRAKE KIT, HYD DISC, PAIR	1	759899
24	57730-10	HYDR CYL, MOUNT - FRONT	1	759900
25	54100-11	SPRINGS, DOUBLE EYE	2	759901
26	54101-11	SEAL, SHAFT - RADIAL	2	759905
27	54102-11	BRGS, RLR, TPR – OUTER (2	759906
28	54103-11	BRGS, RLR, TPR - INNER	2	759907
29	57247-09	COUPLER - STEERING, RH	1	759939
30	57248-09	COUPLER - STEERING, LH	1	759940
31	6004	FLAT WASHER - M12, DIN 125A, YZ	2	760670
32	*	GREASE FITTING, 1/4"-28, SELF-TAPPING	2	760967
33	7860	NUT, 1-14 UNS, GR 2 - SLOTTED	2	781349
34	6580	WASHER, 1.75 OD X 1.02 ID X .108 THK	2	781350
35	4400595	CUP 1.980 X 0.420 (See note)	2	719689

* SPECIAL ORDER

NOTE: Item 35 is placed between Items 27 & 28, and Item 23.

WHEELS – MVP

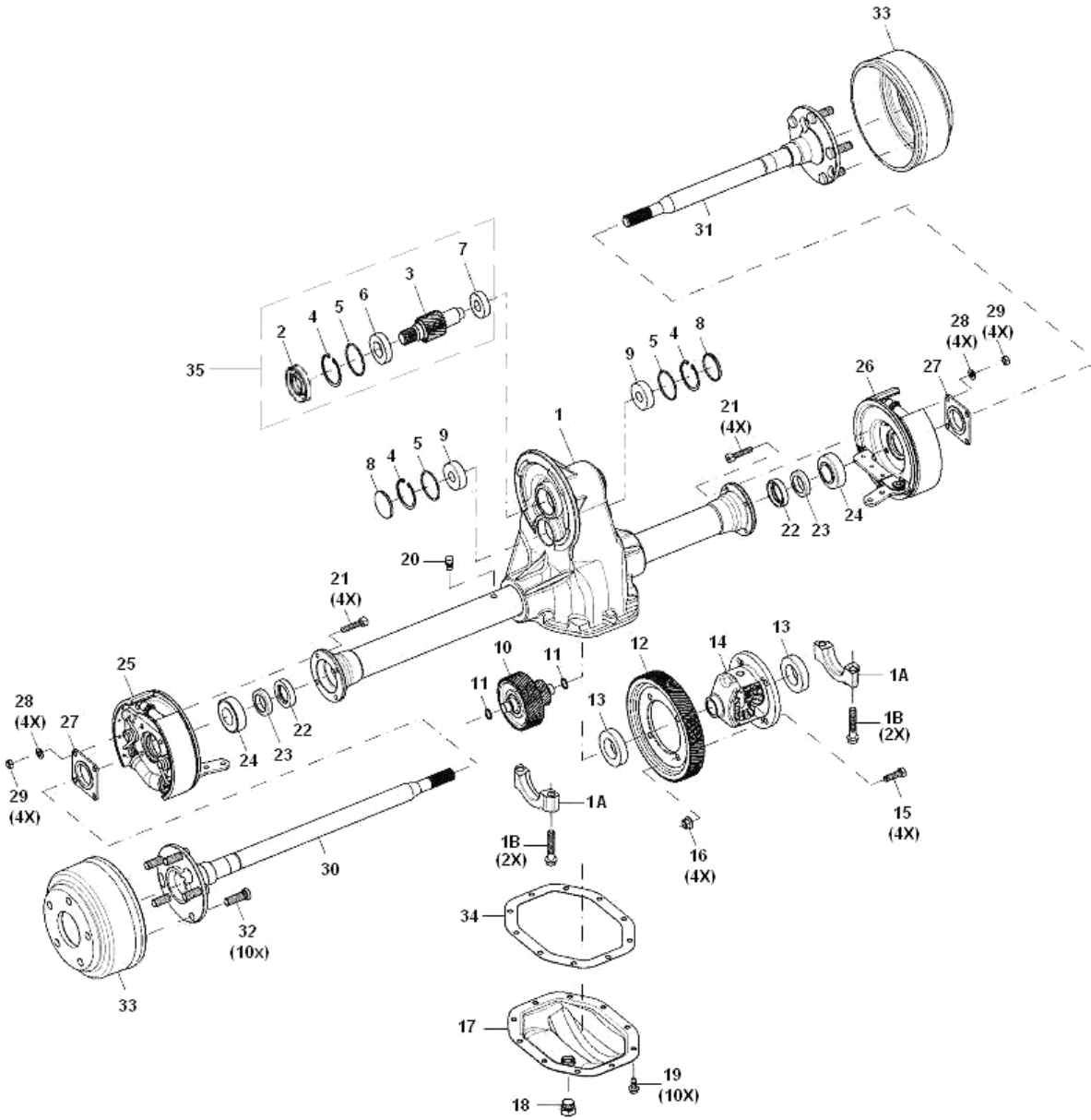
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	40973-07	TIRE/WHEEL ASSY, 145R12 HIGH SPEED 5H	4/6	759849
2	40895-12	TIRE/WHEEL ASSY, 145R12 FOAM FILLED 5H	4/6	467617
3	43152-66	NUT, 1/2-20, TAPERED WHEEL	5	709002

Multiple Vehicle Platform Parts Manual

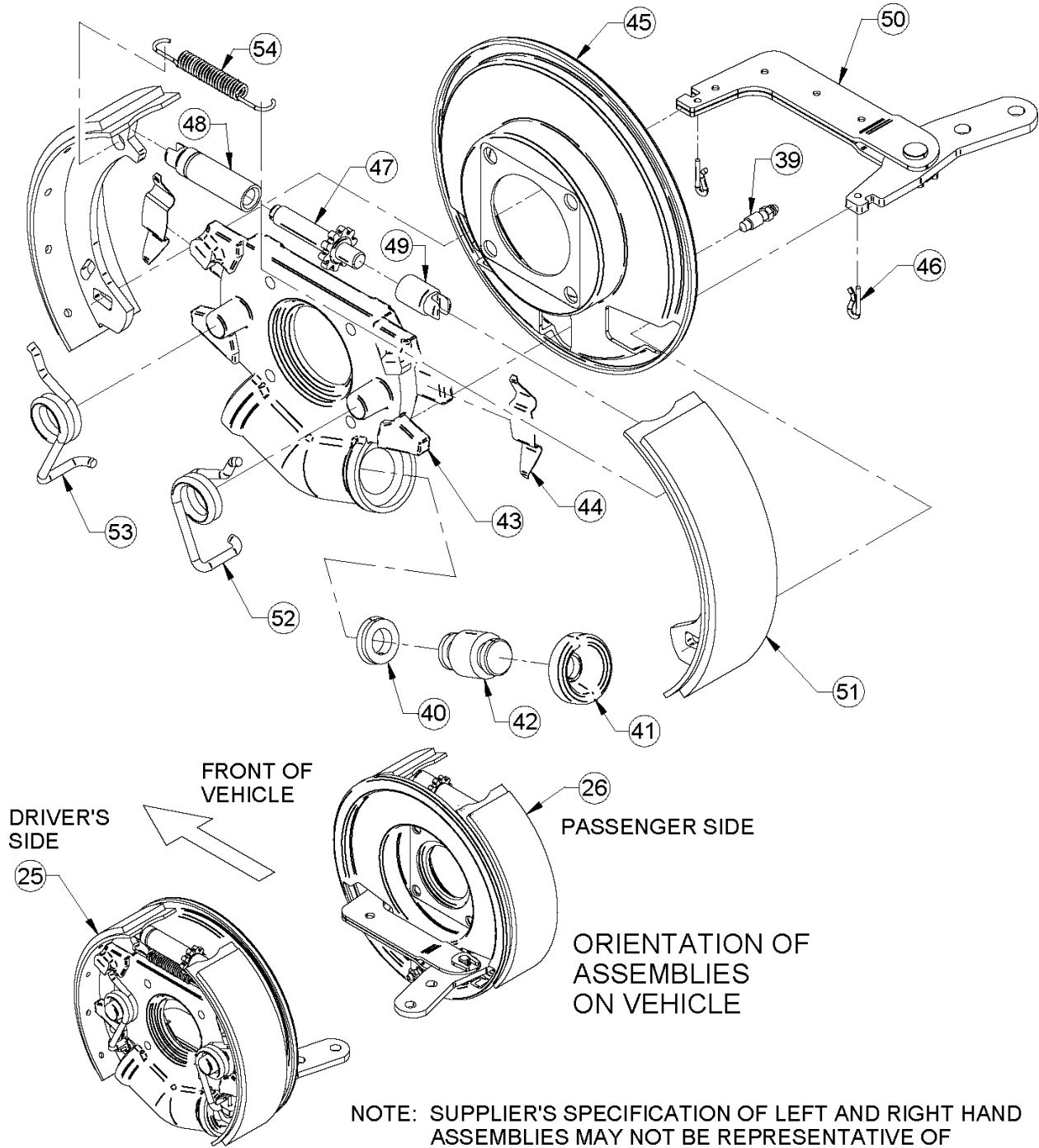
Section 3

Rear Axle, Brakes and Suspension

REAR AXLE AND BRAKES – MVP



REAR AXLE AND BRAKES – MVP (Cont.)



REAR AXLE AND BRAKES – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	N/A	HOUSING, AXLE	1	N/A
2	83165-08	SEAL, INPUT PINION	1	760371
3	*	GEAR, INPUT PINION (Available as Kit Item 35 & 37)	1	*
4	90006-90	RING, SNAP (Available as Kit Item 35 & 44)	3	749701
5	11118	O-RING (Available as Kit Item 35 & 44)	3	729030
6	90003-90	BEARING, BALL, INPUT SHAFT (Available as Kit Item 35, 38 & 44)	1	719077
7	90004-90	BEARING, BALL, INPUT GEAR (Available as Kit Item 35, 38 & 44)	1	749699
8	82808-90	PLUG, END CAP	2	749418
9	82810-90	BEARING, BALL (Available as Kit Item 38)	2	749419
10	*	SHAFT, INTERMEDIATE GEAR (Available as Kit Item 37)	1	*
11	11119	O-RING	2	719132
12	*	GEAR, FINAL DRIVE (Available as Kit Item 38)	1	*
13	90005-90	BEARING, BALL (Available as Kit Item 37)	2	749700
14	83212-00	DIFFERENTIAL ASSEMBLY	1	749575
15	N/A	SCREW, CAP	4	N/A
16	N/A	NUT, LOCK	4	N/A
17	90007-00	PLATE, COVER (Available as Kit Item 39)	1	749702
18	90008-00	PLUG, DRAIN/FILL (Available as Kit Item 39)	1	749704
19	N/A	SCREW, TAPPING	10	N/A
20	82701-90	VENT	1	759791
21	N/A	SCREW, SOCKET HEAD	8	N/A
22	83160-93	SEAL, OIL	2	749547
23	83167-93	RING, RETAINING	2	749549
24	83100-73	ASSEMBLY, BEARING, TAPERED ROLLER	2	749522
25	41814-93	ASSEMBLY, BRAKE, LH (Hydraulic)	1	729996
26	41813-93	ASSEMBLY, BRAKE, RH (Hydraulic)	1	729993
27	82811-93	SEAL, OIL	2	749421
28	83114-93	WASHER, FLAT	8	749530
29	83120-93	NUT, LOCK	8	749532
30	N/A	SHAFT, AXLE, LH LONG (Available as Kit Item 57)	1	N/A
31	82757-00	SHAFT, AXLE, RH SHORT (Available as Kit Item 58)	1	749403
32	41199	BOLT, WHEEL 1.500" (Available as Kit Item 57)	10	719655
32A	719463-05	BOLT, WHEEL 1.680" (Available as Kit Item 57)	10	719463
33	82830-93	DRUM, BRAKE	2	749427
34	82503-08	GASKET	1	759937
35*	83219-08	PINION & SEAL KIT 16.99:1 (Includes Items 2-7)	1	760374
36*	82776-08	GEARSET KIT 16.99:1 (Includes Items 4 – 13 & 35)	1	191703U
37*	82817-09	RAW AXLE W/HYDR BRAKES, 16.99	1	759922

REAR AXLE AND BRAKES – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
38	82779-08	PINION SEAL KIT (INCLUDES ITEMS 2 & 4 – 7) ONLY FOR USE WITH ITEM 35.	1	191697U
39	41888-93	BLEEDER VALVE	2	719296
40	41890-93	HYDRAULIC CUP	4	739022
41	41886-93	BOOT & RING	4	739021
42	41892-93	PISTON, WHEEL CYLINDER (Includes Items 40 & 41)	4	739023
43	41884-93	TORQUE SPIDER (INCLUDES ITEMS 39-42)	2	719076
44	41928-93	SPRING, SHOE HOLD DOWN	4	719075
45	41926-93	DUST SHIELD	2	739030
46	41920-93	PIN, RETAINER, PARKING BRAKE LEVER	4	739029
46	41918-93	SPRING, ADJUSTING SCREW	2	739028
47	41880-93	ADJUSTING SCREW	2	719294
48	41878-93	NUT, PIVOT, ADJUSTING SCREW	2	719295
49	41882-93	SOCKET, ADJUSTING SCREW	2	739020
50	41894-93	STRUT & LEVER ASSEMBLY, PARKING BRAKE	2	739024
51	41912-93	SHOE & LINING ASSEMBLY SET	2	719046
52	41914-93	SPRING, SHOE RETURN, LH (GREEN OR BLUE)	2	739026
53	41916-93	SPRING, SHOE RETURN, RH (RED OR YELLOW)	2	739027
54	41918-93	SPRING, ADJUSTING SCREW	2	739028
57	90013-08	KIT, SHAFT & BOLT LH (Includes Items 30 & 32)	1	759936
58	90012-00	KIT, SHAFT & BOLT RH (Includes Items 31 & 32)	1	719258

** NOT SHOWN

* SEE GEAR SETS PAGE 3-5

REAR AXLE AND BRAKES – MVP (Cont.)

GEAR SETS

NOTE A:
CAN BE USED FOR SERVICING 2008 & EARLIER AXLES WHEN REPLACEMENT GEARS NEEDED -
ORDER NEW PINION SHAFT DESIGN COMPLETE ASM.

NOTE B:
NEW SEAL LIP PINION &
GEAR SET KIT NOW INCLUDES:
- SEALING O-RINGS
- END CAP PLUGS
- BEARINGS

SEE
NOTE A

KIT (INCLS GEARS, PINION&SEAL KIT & COMPONENT PARTS)		
CPC PN	SI PN	GEAR RATIO
82773-08	191700U	10.35:1
82774-08	191701U	12.44:1
82775-08	191702U	14.76:1
82776-08	191703U	16.99:1

NOTE C:
CAN ALSO SERVICE EARLIER AXLES

INTERMEDIATE & RING GEAR SET		INTERMEDIATE GEARS		RING GEAR	
SI PN	GEAR RATIO	NO. OF TEETH	QTY	NO. OF TEETH	QTY
760376	10.35:1	22 & 53	1	116	1
760402	12.44:1	24 & 55	1	114	1
760401	14.76:1	22 & 56	1	116	1
760400	16.99:1	22 & 58	1	116	1

NOTE D:
PINION SEAL KIT 191697U
(CPC 82779-08)
FOR USE ONLY WITH
NEW PINION SHAFT DESIGN

SEE
NOTE C

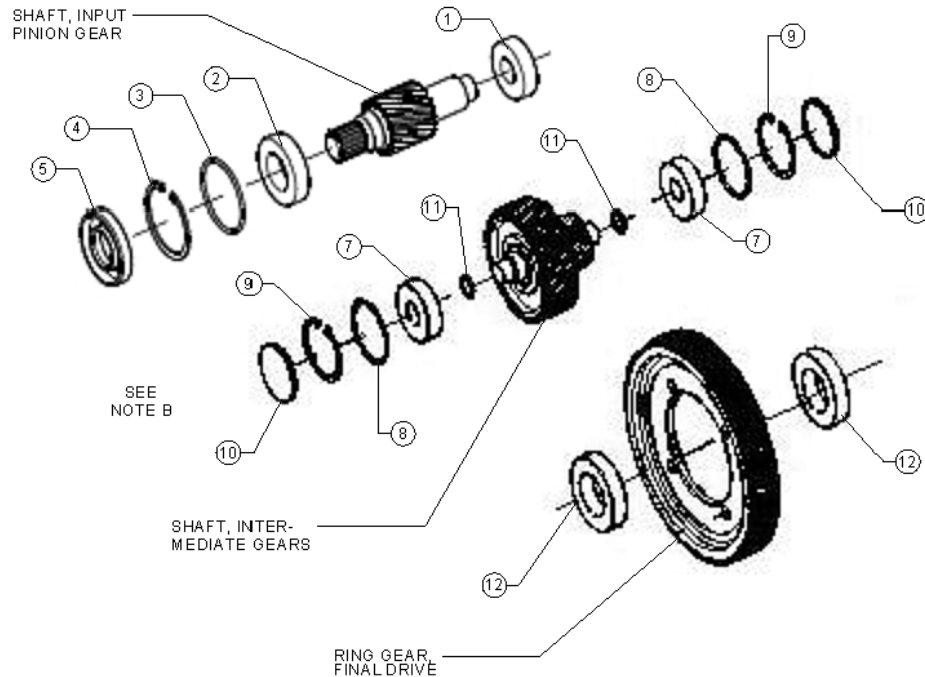
PINION & SEAL KIT (INCLUDES ITEMS IN SEAL KIT 191697U)				PINION GEAR		
CPC PN	SI PN	DESCRIPTION	QTY	GEAR RATIO	NO. OF TEETH	QTY
83218-08	760372	NEW LIP SEAL PINION KIT	1	10.35:1	27	1
83297-08	760373	NEW LIP SEAL PINION KIT	1	12.44:1	21	1
83214-08	760386	NEW LIP SEAL PINION KIT	1	14.76:1	20	1
83219-08	760374	NEW LIP SEAL PINION KIT	1	16.99:1	18	1

SEE
NOTE D

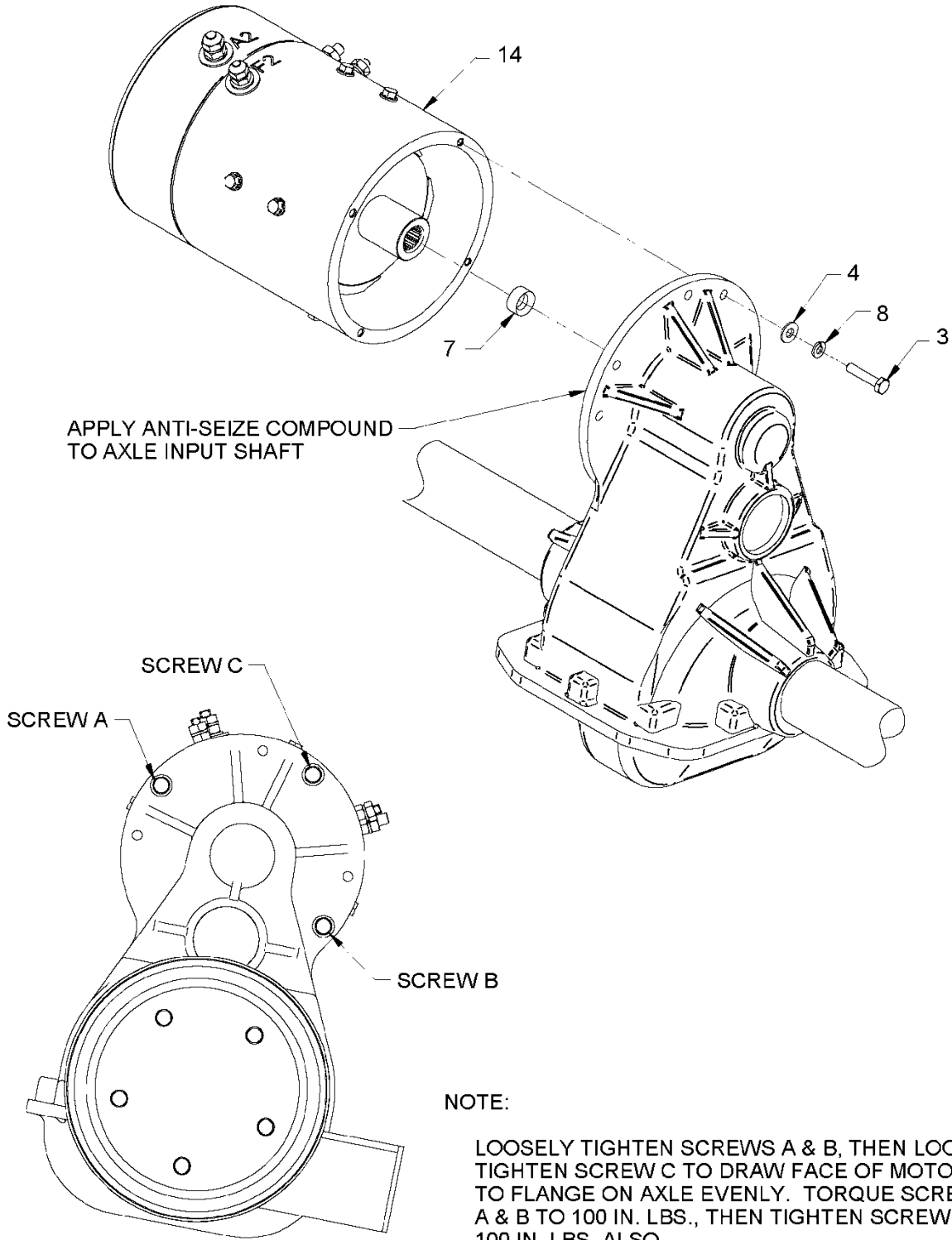
PINION SEAL KIT 191697U / (CPC # 82779-08)				
	CPC PN	SI PN	DESCRIPTION	QTY
1	90004-90	749699	BEARING BALL INNER	1
2	90014-08	760375	BEARING BALL OUTER	1
3	11118	729030	O-RING	1
4	90006-90	749701	RING SNAP	1
5	83165-08	760371	OIL SEAL - INPUT SHAFT	1
6*	N/A	N/A	INSTRUCTION SHEET	1

* ITEM NOT SHOWN

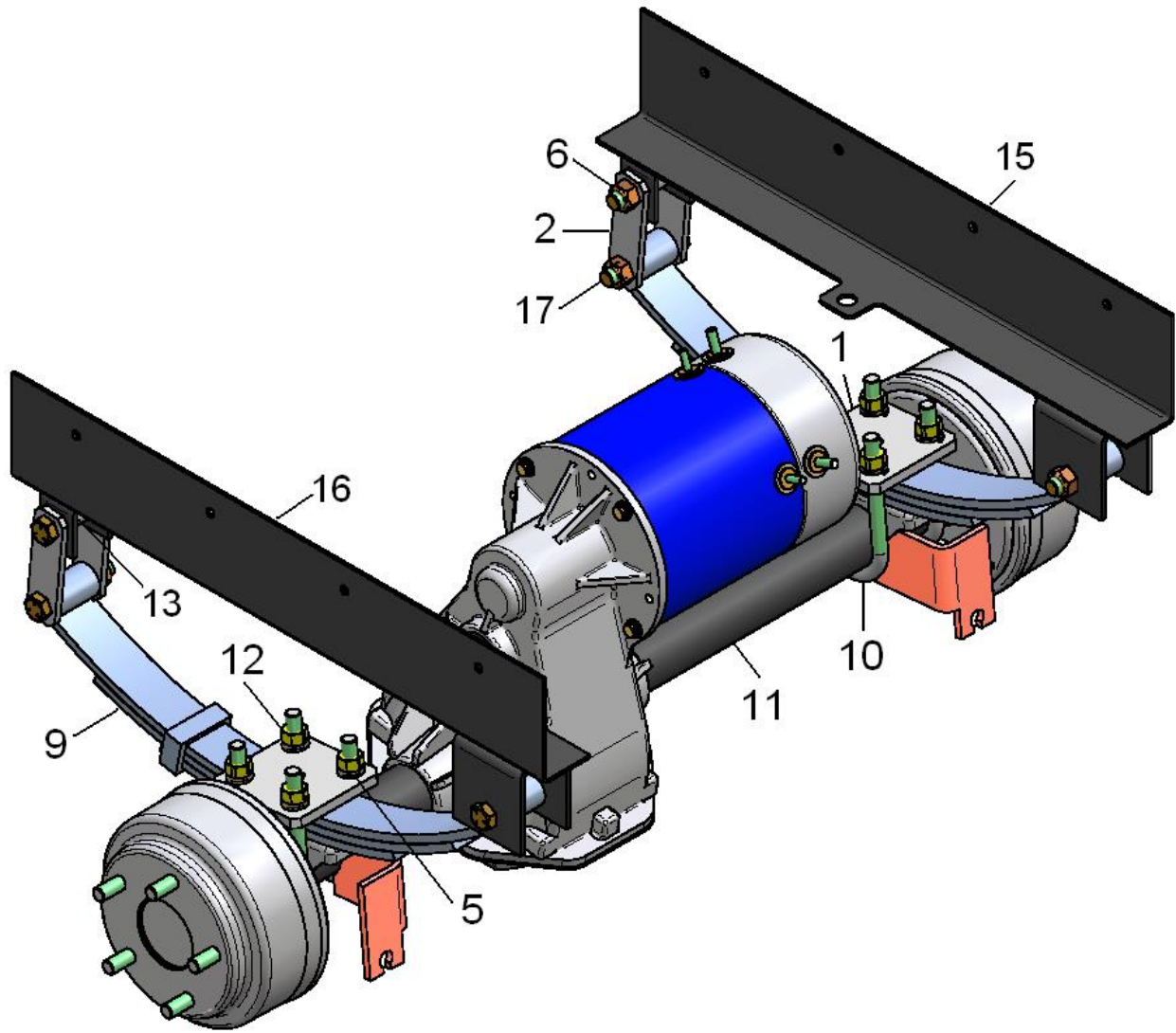
COMPONENTS FOR GEAR SET KIT (SEE KIT CHART)				
	CPC PN	SI PN	DESCRIPTION	QTY
7	82810-90	749419	BEARING BALL	2
8	11118	729030	O-RING	2
9	90006-90	749701	RING SNAP	2
10	82808-90	749418	PLUG END CAP	2
11	11119	719132	O-RING	2
12	90005-90	749700	BEARING BALL	2



REAR AXLE ASSEMBLY – MVP



SINGLE REAR AXLE ASSEMBLY – MVP (Cont.)

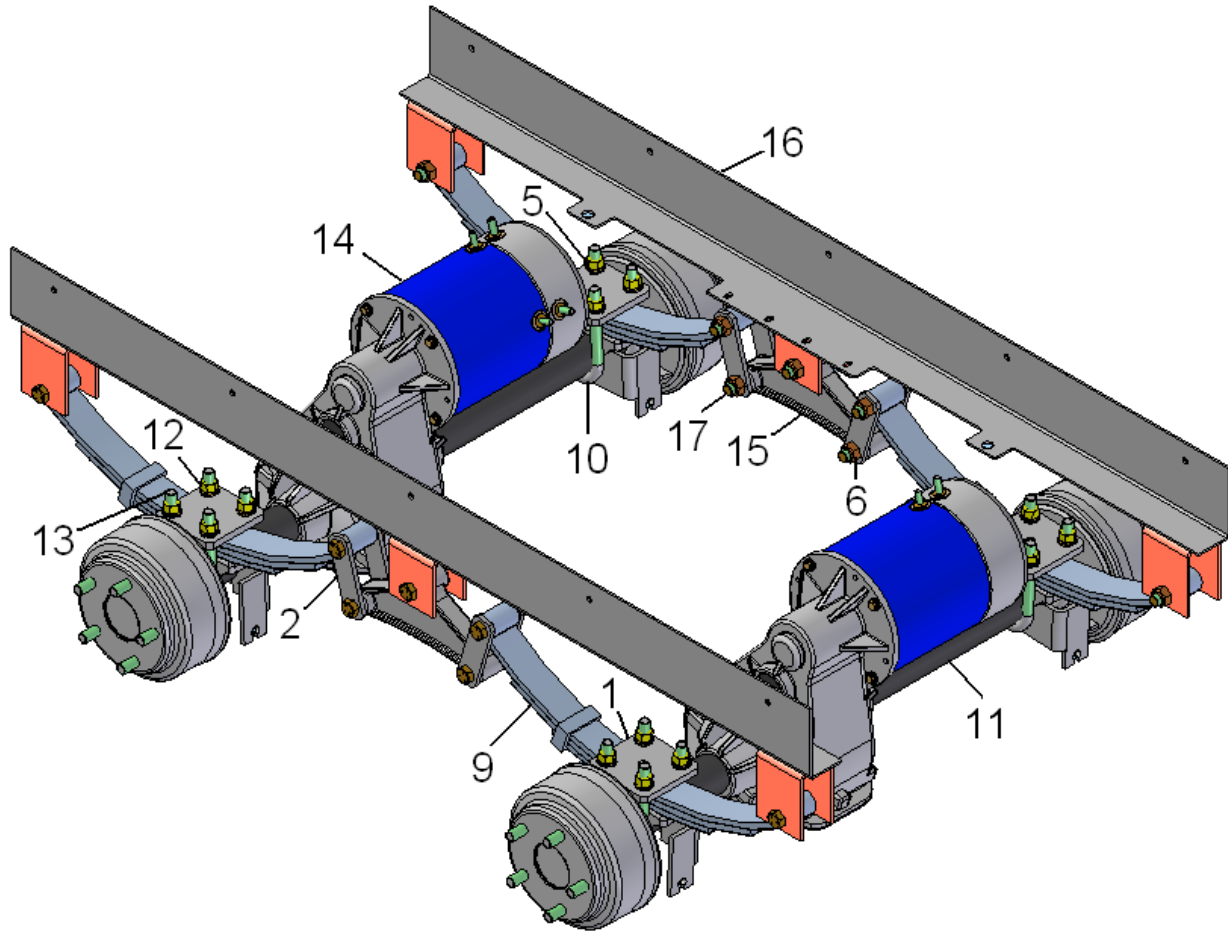


SINGLE REAR AXLE ASSEMBLY – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	82695-12	SPRING PLATE	2	513980
2	44805-11	SHACKLE STRAP	4	512245
3	708616	SCREW, 1/4-20-1 1/4 HHC (See page 3-6)	3	708616
4	6703-B	WASHER, 1/4 (See page 3-6)	3	719811
5	7068	WASHER, LOCK 1/2	8	719840
6	7850	NUT, HEX LOCK 9/16-18	6	759909
7	11423	RESILIENT BUMPER ELEC MOTOR (See page 3-6)	1	709050
8	7036-B	WASHER, LOCK 1/4 (See page 3-6)	3	719834
9	54100-11	SPRINGS, DOUBLE EYE	2	759901
10	5205	U-BOLT,	4	709425
11	83241-11	AXLE, W/BRACKETS HD 16.99	1	309096
12	7880	NUT, 1/2-13 HEX	8	719913
13	82711-12	SLEEVE, SPRING HANGER	2	512495
14	69301-04	MOTOR, ELEC., 48V HD DIRECT W/TACH (See page 3-6)	1	719339
15	82718-12	SUSPENSION HANGER LH	1	309213
16	82740-12	SUSPENSION HANGER RH	1	309166
17	3800	BOLT, 9/16-18X3 HHCS G5	6	759898
18*	2871-W	SCREW 5/16-18X1 1/4 HHCS G5	8	719592
19*	6702-B	WASHER 5/16	8	719810
20*	7750	NUT, 5/16-18 FLNG CTR LOCK	8	719897

* NOT SHOWN - ATTACH ASSEMBLY TO FRAME RAIL

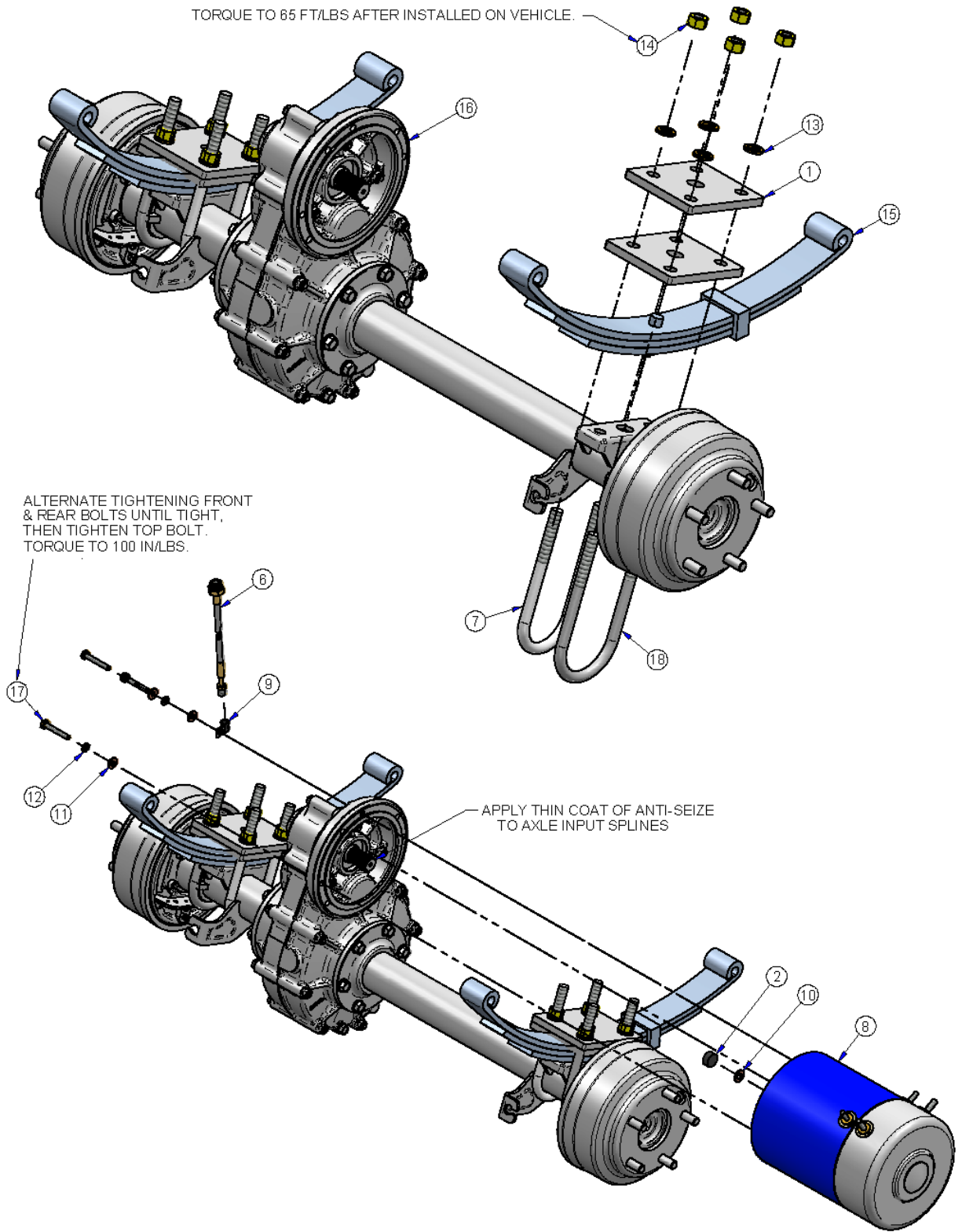
TANDEM REAR AXLE ASSEMBLY



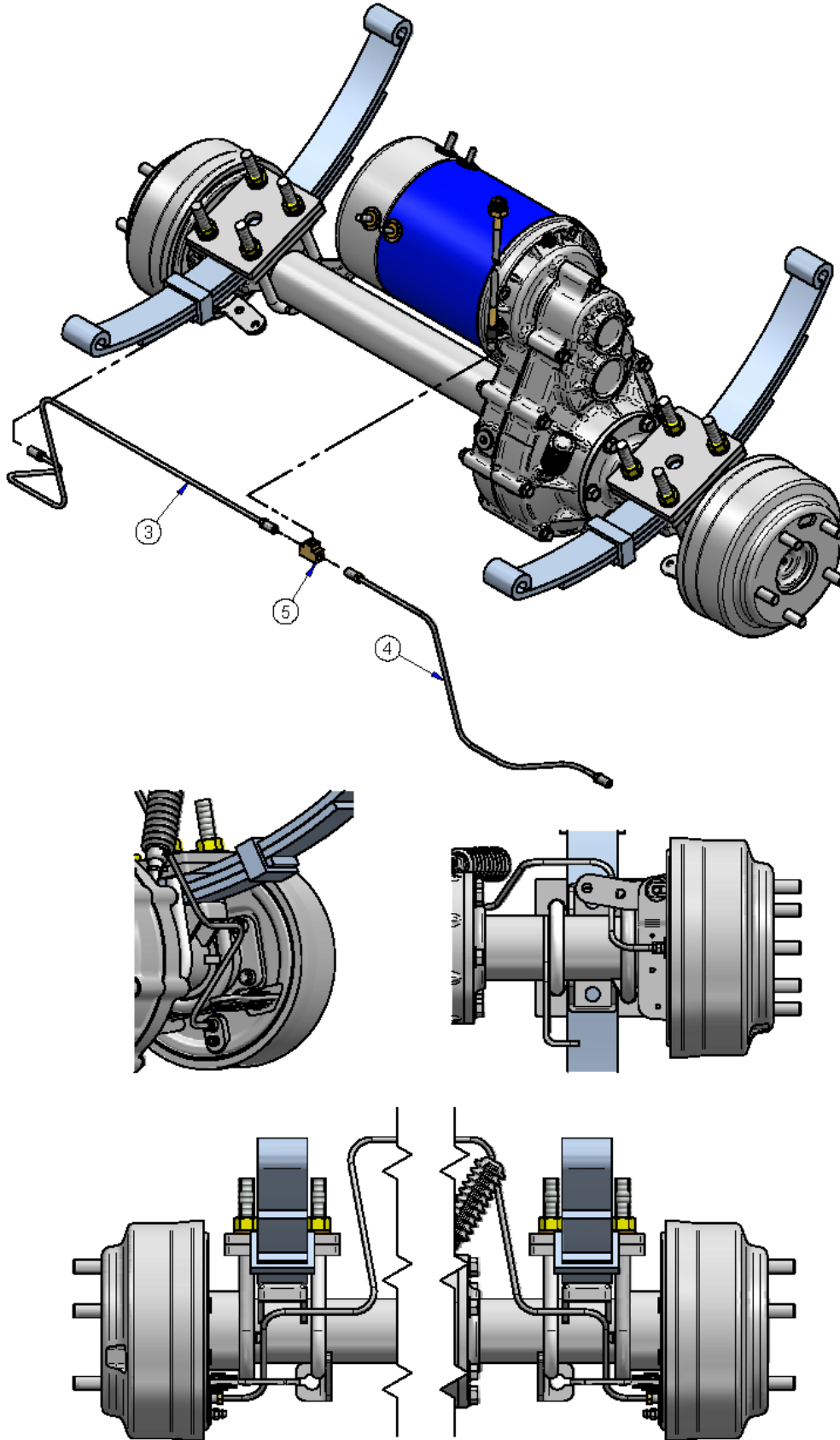
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	82695-12	SPRING PLATE	4	513980
2	44805-11	SHACKLE STRAP	8	512245
3	708616	SCREW, 1/4-20-1 1/4 HHC (See page 3-6)	6	708616
4	6703-B	WASHER, 1/4 (See page 3-6)	6	719811
5	7068	WASHER, LOCK 1/2	16	719840
6	7850	NUT, HEX LOCK 9/16-18	14	759909
7	11423	RESILIENT BUMPER ELEC MOTOR (See page 3-6)	2	709050
8	7036-B	WASHER, LOCK 1/4 (See page 3-6)	6	719834
9	54100-11	SPRINGS, DOUBLE EYE	4	759901
10	5205	U-BOLT,	8	709425
11	83241-11	AXLE, W/BRACKETS HD 16.99	2	309096
12	7880	NUT, 1/2-13 HEX	16	719913
13	3800	BOLT, 9/16-18X3 HHCS G5	6	759898
14	69300-03	MOTOR, ELEC., 48V SEP EX (See page 3-6)	2	719135
15	82742-12	EQUALIZER BAR	2	759908
16	82744-12	SUSPENSION HANGER	2	309034
17	3800	BOLT, 9/16-18X3 HHCS G5	14	759898
18*	2871-W	SCREW 5/16-18X1 1/4 HHCS G5	10	719592
19*	6702-B	WASHER 5/16	10	719810
20*	7750	NUT, 5/16-18 FLNG CTR LOCK	10	719897

* NOT SHOWN - ATTACH ASSEMBLY TO FRAME RAIL

NKL AXLE & BRAKE LINES 16.77 – MVP



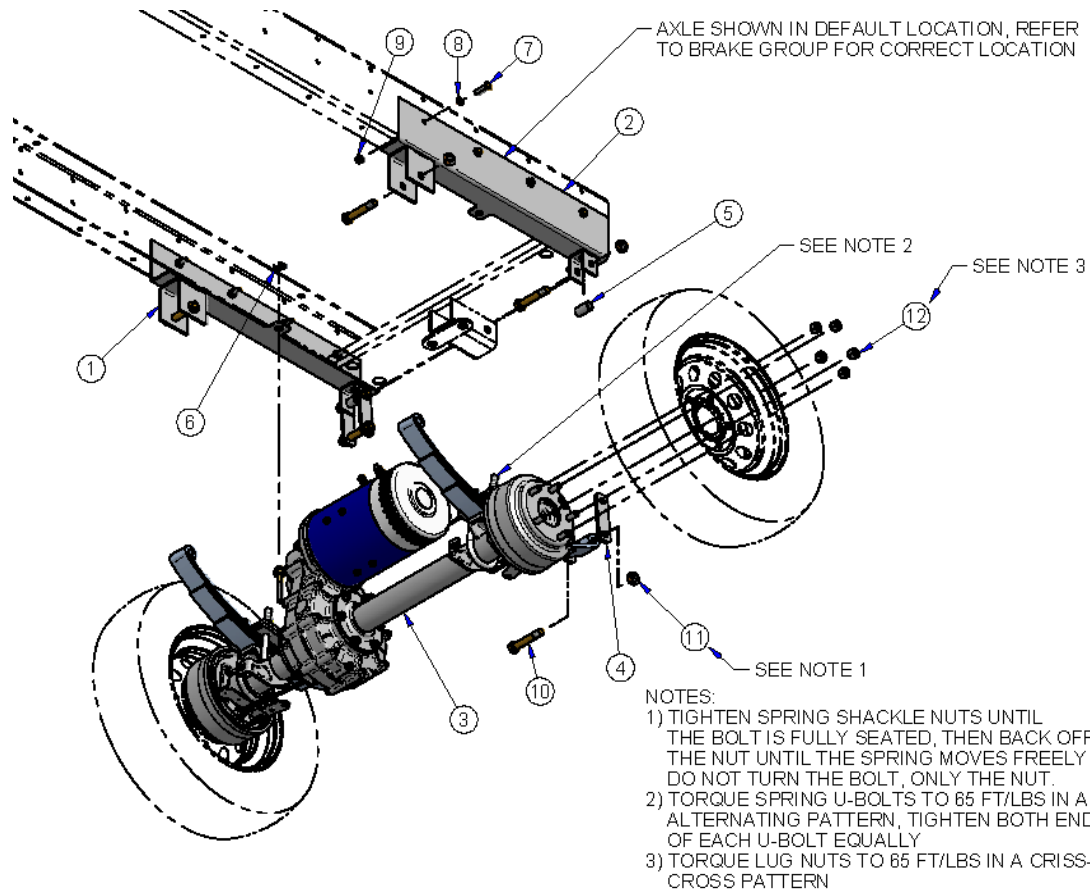
AXLE & BRAKE LINES 16.77 NKL – MVP (Cont.)



AXLE & BRAKE LINES 16.77 NKL – MVP (Cont.)

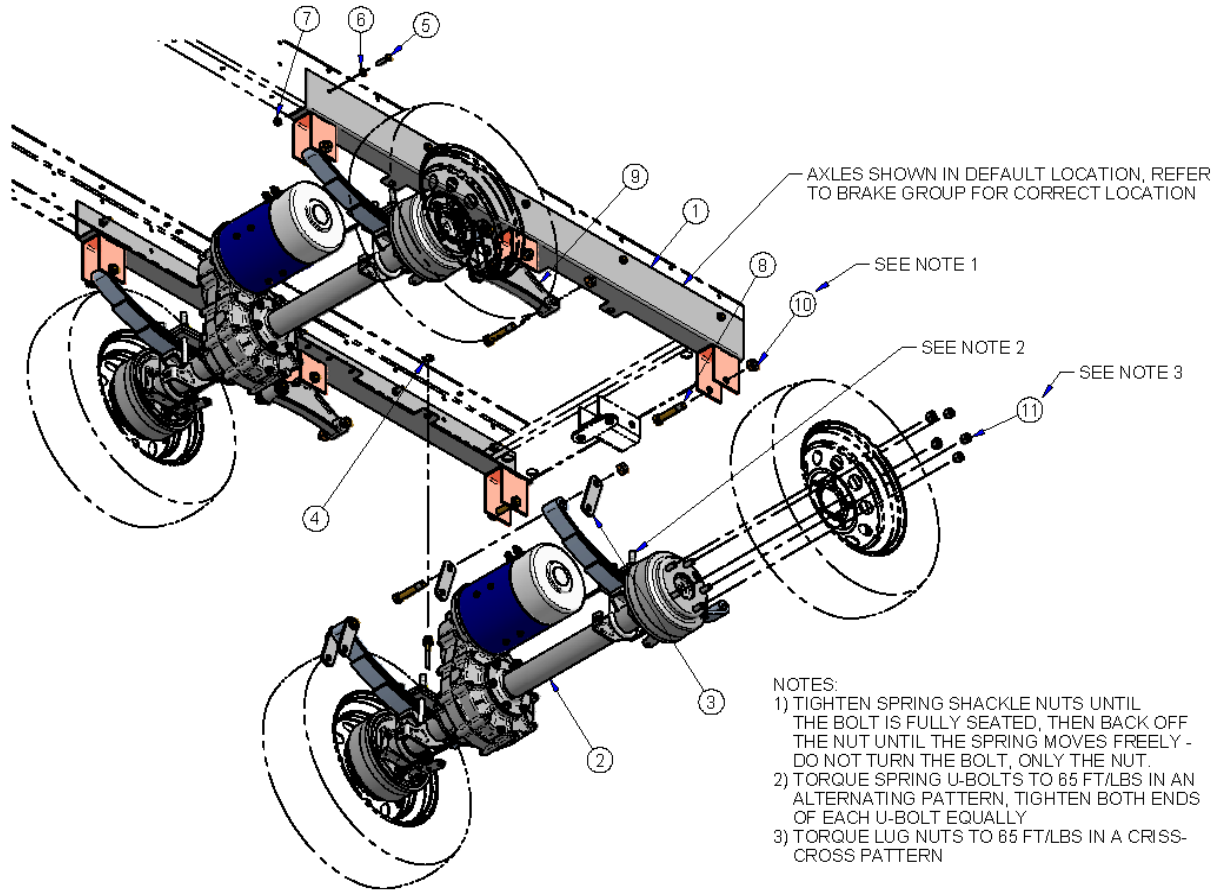
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	54804-12	REAR SPRING PLATE	4	514353
2	11423	RESILIENT BUMPER ELEC MOTOR (See page 3-6)	1	709050
3	41440-02	BRAKE LINE 3/16X30 (LH FORMED)	1	709232
4	41222-00	BRAKE LINE 3/16X20 (RH FORMED)	1	709358
5	41842-94	UNION TEE, HYD BRAKE	1	709377
6	41216-00	BRAKE HOSE, HYD, FLEX 22	1	709430
7	5214	U-BOLT, 1/2X13	2	709574
8	69300-03	MOTOR, ELEC., 48V SEP EX	1	719135
9	9982	CLAMP STEEL TUBING 1/4	1	719756
10	6702-B	WASHER, 5/16	1	719810
11	6703-B	WASHER, 1/4	3	719811
12	7036-B	WASHER, LOCK 1/4	3	719834
13	7068	WASHER, LOCK 1/2	8	719840
14	7880	NUT, 1/2-13 HEX	8	719913
15	54100-11	SPRINGS, DOUBLE EYE	2	759901
16	82669-12	AXLE, HD, HKL	1	760733
17	3440	SCREW, 1/4-20X1 3/4 HHCS, G8	3	760827
18	54811-12	U-BOLT, 1/2-13	2	782102

NKL SINGLE AXLE ASSEMBLY 16.77 – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	82740-12	SINGLE AXLE SUSPENSION HANGER RH	1	309166
2	82718-12	SINGLE AXLE SUSPENSION HANGER LH	1	309213
3	*	ASSEMBLY, AXLE, MVP 16.77 NKL HD	1	467980
4	44805-11	SHACKLE STRAP	4	512245
5	82711-12	SLEEVE, SPRING HANGER	2	512495
6	11077	E-RING, .625 PHOS	1	719516
7	2871-W	SCREW 5/16-18X1 1/4 HHCS G5	8	719592
8	6702-B	WASHER 5/16	8	719810
9	7750	NUT, 5/16-18 FLNG CTR LOCK	8	719897
10	3800	BOLT, 9/16-18X3 HHCS G5	6	759898
11	7850	NUT, HEX LOCK 9/16-18	6	759909
12	N/A	LUG NUT, (Included with NKL axle)	10	N/A

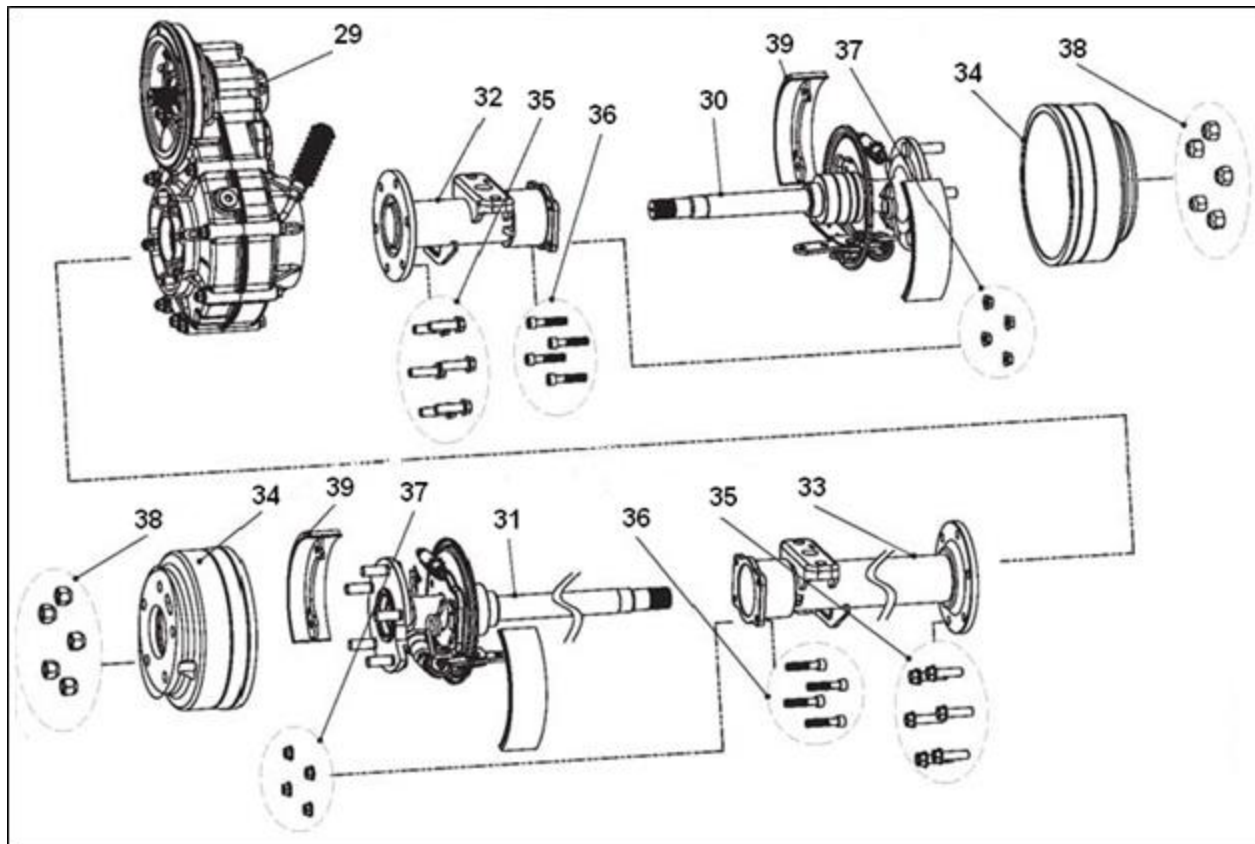
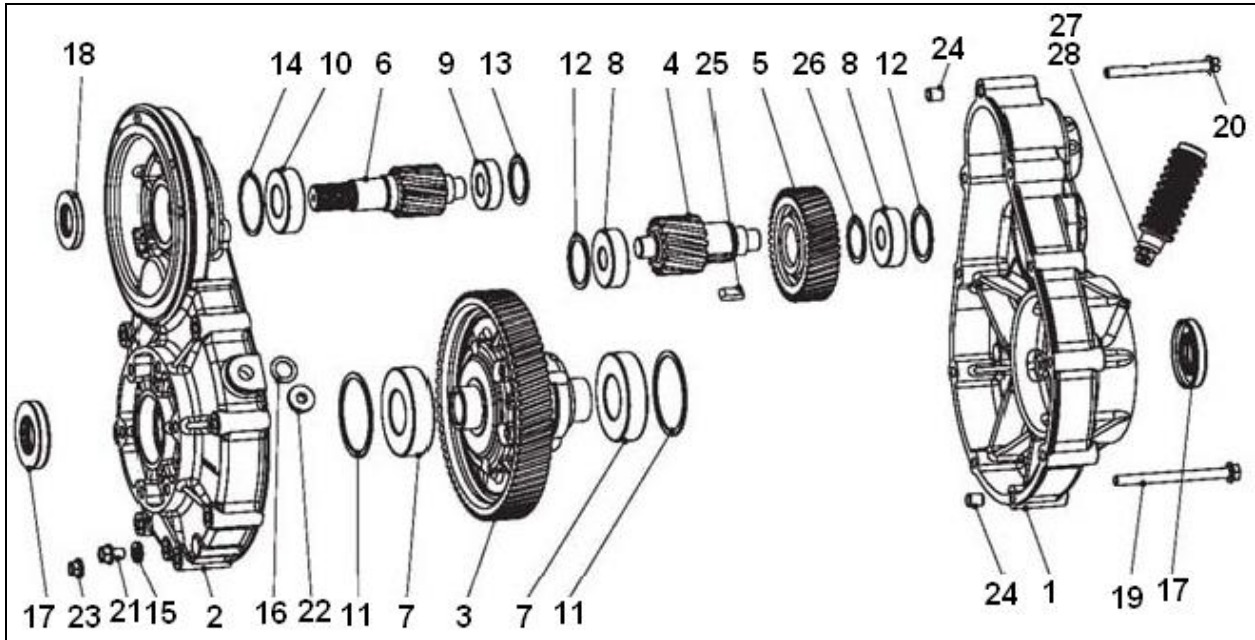
NKL DUAL AXLE ASSEMBLY 16.77 – MVP



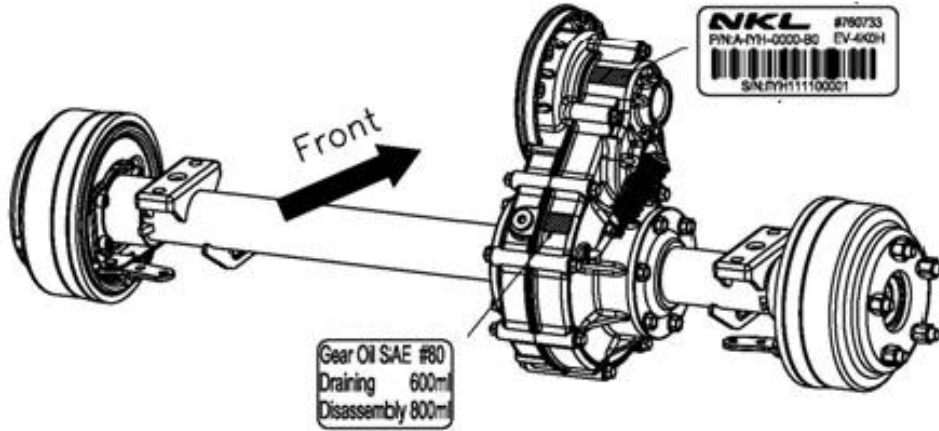
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	82744-12	SUSPENSION HANGER	2	309034
2	*	ASSEMBLY, AXLE, MVP 16.77 NKL	2	467979
3	44805-11	SHACKLE STRAP	8	512245
4		E-RING .625 PHOS	2	719516
5	2871-W	SCREW 5/16-18X1 1/4 HHCS G5	10	719592
6	6702-B	WASHER 5/16	10	719810
7	7750	NUT, 5/16-18 FLNG CTR LOCK	10	719897
8	3800	BOLT, 9/16-18X3 HHCS G5	6	759898
9	82742-12	EQUALIZER BAR	2	759908
10	7850	NUT, HEX LOCK 9/16-18	14	759909
11	N/A	LUG NUT, (Included with NKL axle)	20	N/A

* SPECIAL ORDER

NKL AXLE ASSEMBLY – MVP



NKL AXLE ASSEMBLY – MVP (Cont.)

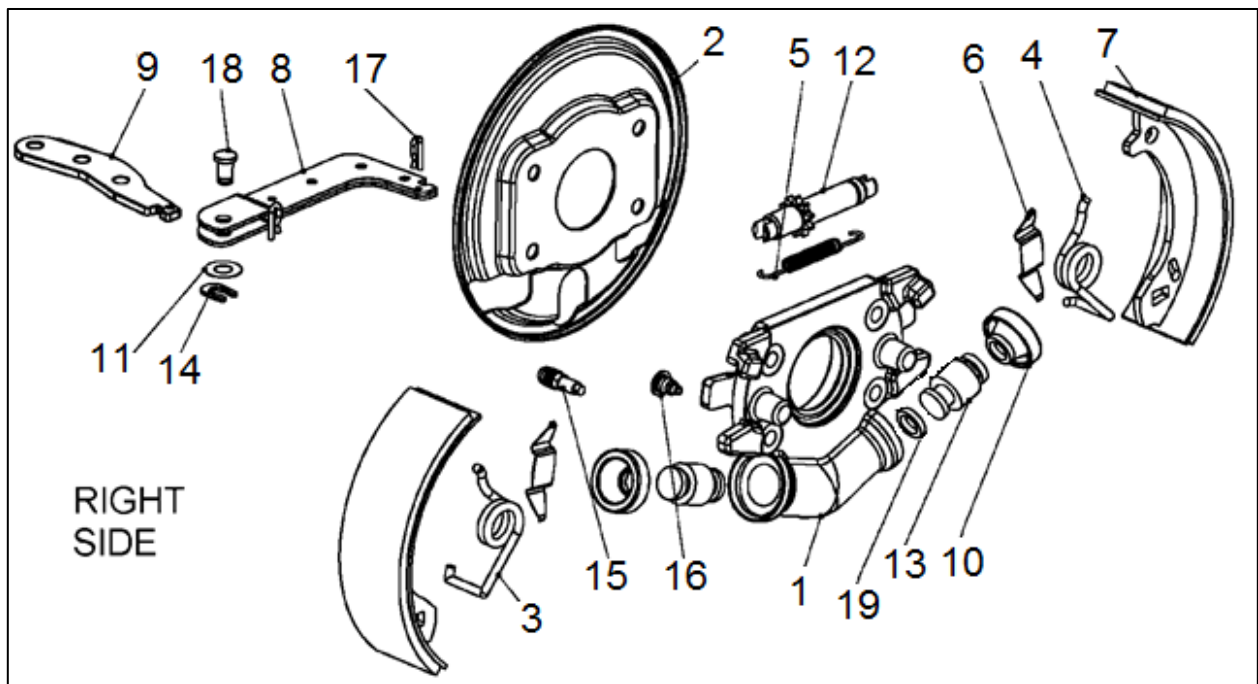
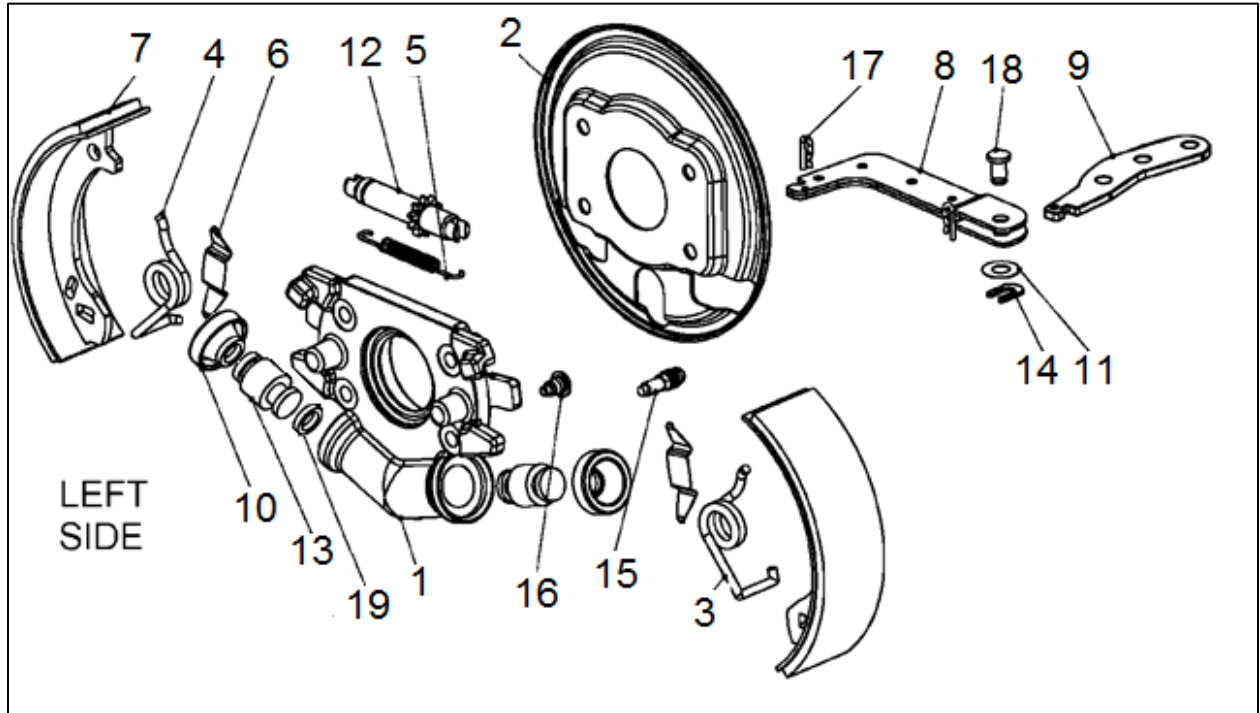


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	COVER CASE ASSEMBLY	1	
2	*	GEAR CASE	1	
3	*	CARRIER GEAR (See Item 40)	1	
4	*	GEAR 15T (See Item 41)	1	
5	*	GEAR 40T (See Item 41)	1	
6	*	GEAR 18T (See Item 42)	1	
7	82904-13	BALL BEARING 6207 (See Item 40)	2	760926
8	82873-13	BALL BEARING 6303 (See Item 41)	2	760918
9	82783-13	BALL BEARING 6203 (See Item 42)	1	760921
10	82782-13	BALL BEARING 6205 (See Item 42)	1	760922
11	82905-13	SHIM 61X69X1.5t (See Item 40)	2	760925
12	82871-13	SHIM 36X44X1.5t (See Item 41)	2	760919
13	82784-13	SHIM 32X40X1.0t (See Item 42)	1	760920
14	82781-13	SHIM 45X51X1.5t (See Item 42)	1	760923
15	*	WASHER	1	
16	*	WASHER	1	
17	82906-13	SEAL 28X55X9h	2	760924
18	82949-13	SEAL 25X47X6h	1	760993
19	*	BOLT M8XP1.25X100L	7	
20	*	BOLT M8XP1.25X90L	3	
21	*	BOLT M8XP1.25X12L	1	
22	*	BOLT M14XP1.5X9.5L	1	
23	*	NUT M8XP1.25	10	
24	*	LOCATION PIN	2	
25	*	MACHINE KEY (See Item 30)	1	
26	82785-13	CIRCLIP – SHAFT 32 (See Item 30)	1	760917
27	*	BREATHER TUBE	1	
28	*	RING	1	

NKL AXLE ASSEMBLY – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
29	*	GEAR BOX ASSY	1	
30	82994-13	SHAFT ASSY R	1	760986
31	82995-13	SHAFT ASSY L	1	760987
32	*	TUBE ASSY R	1	
33	*	TUBE ASSY L	1	
34	82927-13	DRUM	2	760927
35	*	BOLT M10X1.25X35L	12	
36	*	BOLT M8X1.25X40L	8	
37	*	NUT SHRAPNEL M8XP1.25	8	
38	*	NUT	10	
39	82909-13	BRAKE SHOE	4	760928
40	82984-13	CARRIER GEAR ASSY 16.77:1 (Includes Items 3, 7 & 11)		760935
41	82985-13	INTERM. GEAR ASSY 16.77:1 (Includes Items 4, 8, 12, 25 & 26)	1	760936
42	86986-13	INPUT GEAR ASSY 16.77:1 (Includes Items 6, 9, 10, 13 & 14)	1	760937
43	82669-12	AXLE, HD, NKL, 16.77:1, COMPLETE	1	760733

NKL AXLE HYDRAULIC BRAKES – MVP



NKL AXLE HYDRAULIC BRAKES – MVP Cont.

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	82987-13	MAIN BODY	1	760979
2	82988-13	COVER	1	760980
3	82989-13	SPRING (BLUE)	1	760981
4	82990-13	SPRING (YELLOW)	1	760982
5	*	SPRING	1	
6	*	SPRING PIECE	2	
7	82909-13	BRAKE SHOES	2	760928
8	*	L-TYPE LEVER	1	
9	*	LEVER	1	
10	40968-14	DUSTPROOF COVER KIT	1	192943U
11	*	WASHER	1	
12	*	ADJUSTMENT ASSEMBLY L	1	
12A	*	ADJUSTMENT ASSEMBLY R	1	
13	*	PISTON ASSEMBLY	2	
14	*	CIRCLIP	1	
15	*	EXHAUST VALVE ASSEMBLY	1	
16	*	BUSH ASSEMBLY	1	
17	*	COTTER PIN	2	
18	*	PIN	1	
19	*	OIL SEAL	2	
20	82992-13	LEFT BRAKE SET ASSEMBLY (Includes Items 12 – 19)	1	760984
21	82993-13	RIGHT BRAKE SET ASSEMBLY (Includes Items 12 – 19)	1	760985

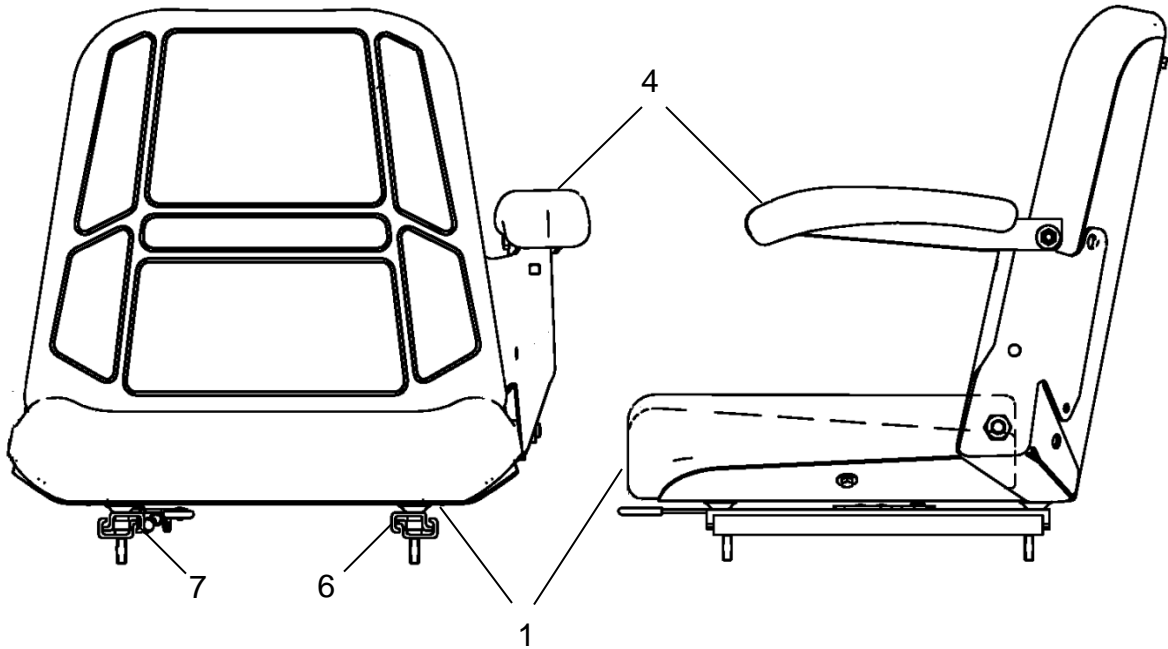
* SPECIAL ORDER

Multiple Vehicle Platform Parts Manual

Section 4

Body, Seats, Dash

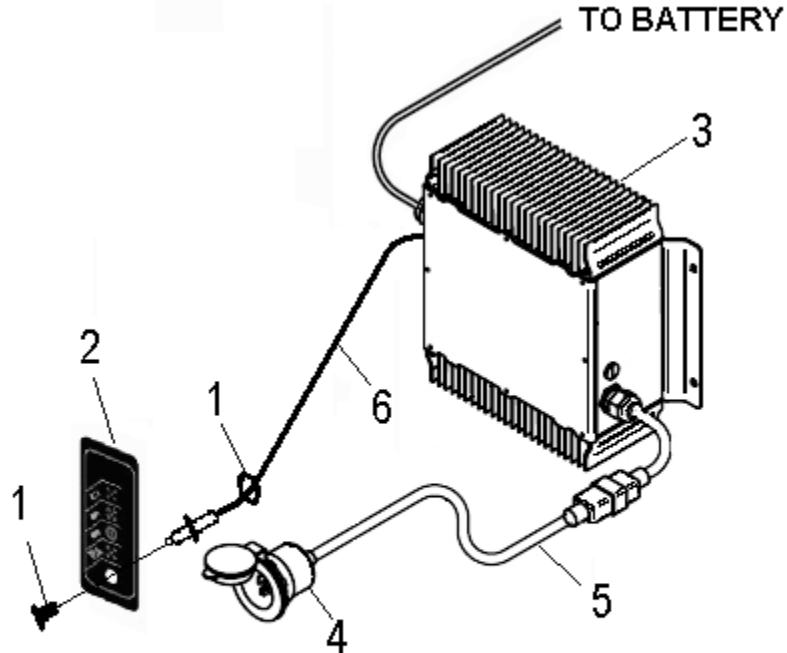
SEATS – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	51701-00	LH SEAT ASSEMBLY W/ARM – SEAT SWITCH	1	149596%LA
2*	51700-00	RH SEAT ASSEMBLY W/ARM	1	177295%RA
3*	51722-09	SEAT ASSEMBLY, NO ARMS W/ SEAT SWITCH	1	149596%
3A*	51723-09	SEAT ASSEMBLY, NO ARMS	1	177295%
4	52624-06	ARM KIT, LH (Includes mounting bracket & hardware)	1	307844BLU
5*	52625-06	ARM KIT, RH (Includes mounting bracket & hardware)	1	307844BRU
6	91401-90	TRACK, NON-LOCKING	2	707005
7	91400-02	TRACK, LOCKING	1	301150
8	69757-95	SEAT SWITCH (Left Seat)	1	708455
9*	7810	NUT, 5/16-18 GR G FLANGE LOCK	8	719906

* NOT SHOWN

DELTA Q CHARGER W/REMOTE LED SINGLE & DUAL BATTERY – MVP



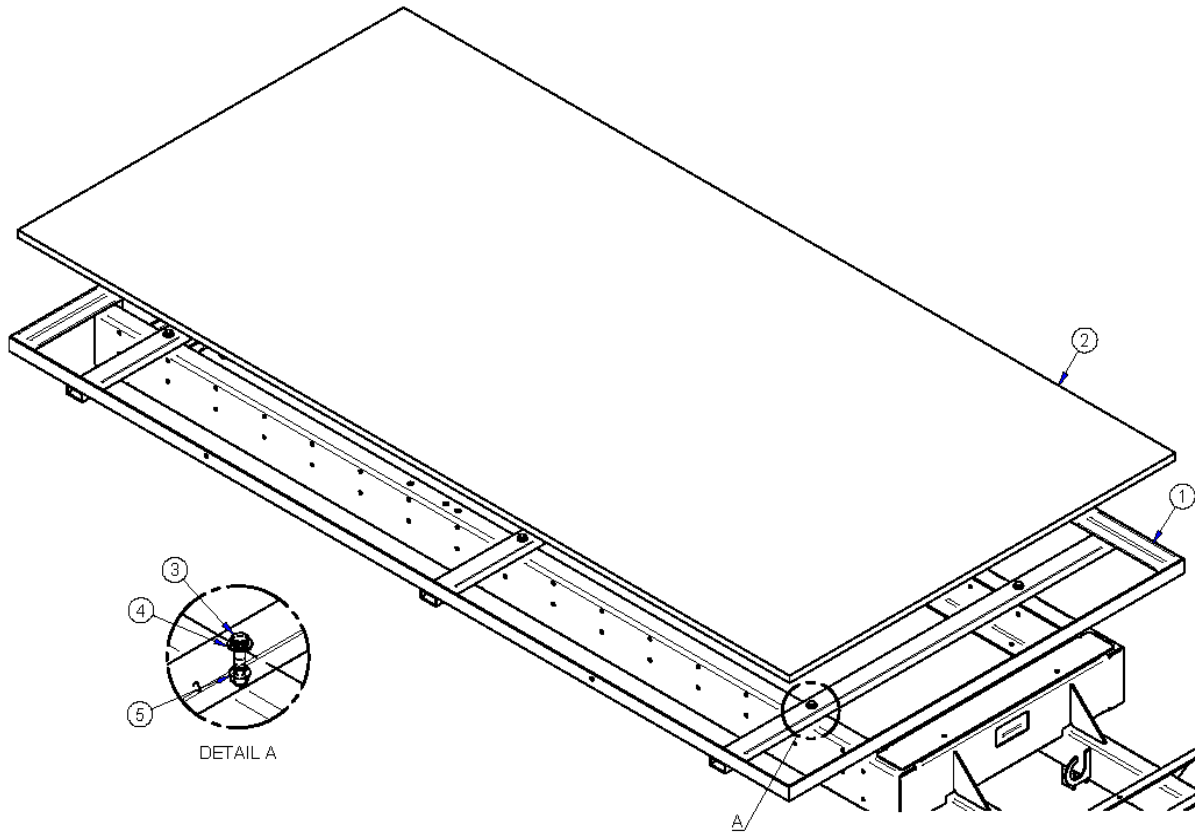
**LED & LABEL POSITION WILL BE LOCATED
ADJACENT TO THE CHARGER AC RECEPTACLE**

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	9951	CR-174 CLIP & RING	1/2	781989
2	66584-12	LED FRONT LABEL	1/2	760754
3	66583-12	CHARGER, DELTA Q 48V W/LED, STANDARD	1/2	760742
3A	66582-12	CHARGER, DELTA Q 48V W/LED, AGM	1/2	467839
4	66034-02	PLUG, POWER INLET 120V SEALED	1/2	709558
5	66493-03	CHARGER CORD 6'	1/2	719264
6	66029-12	LED 25' CABLE	1	760817
7	70036-05	ASSY, CORD W/ RECEPTACLE (Includes Item 4 & 5)	1/2	467405
8*	3787-B	SCREW 1/4-20X3/4 HHCS G5	4/8	719636
9*	6703-B	WASHER 1/4	4/8	719811
10*	7724-B	NUT, 1/4-20 L/N SER-FLG	4/8	719887

* NOT SHOWN

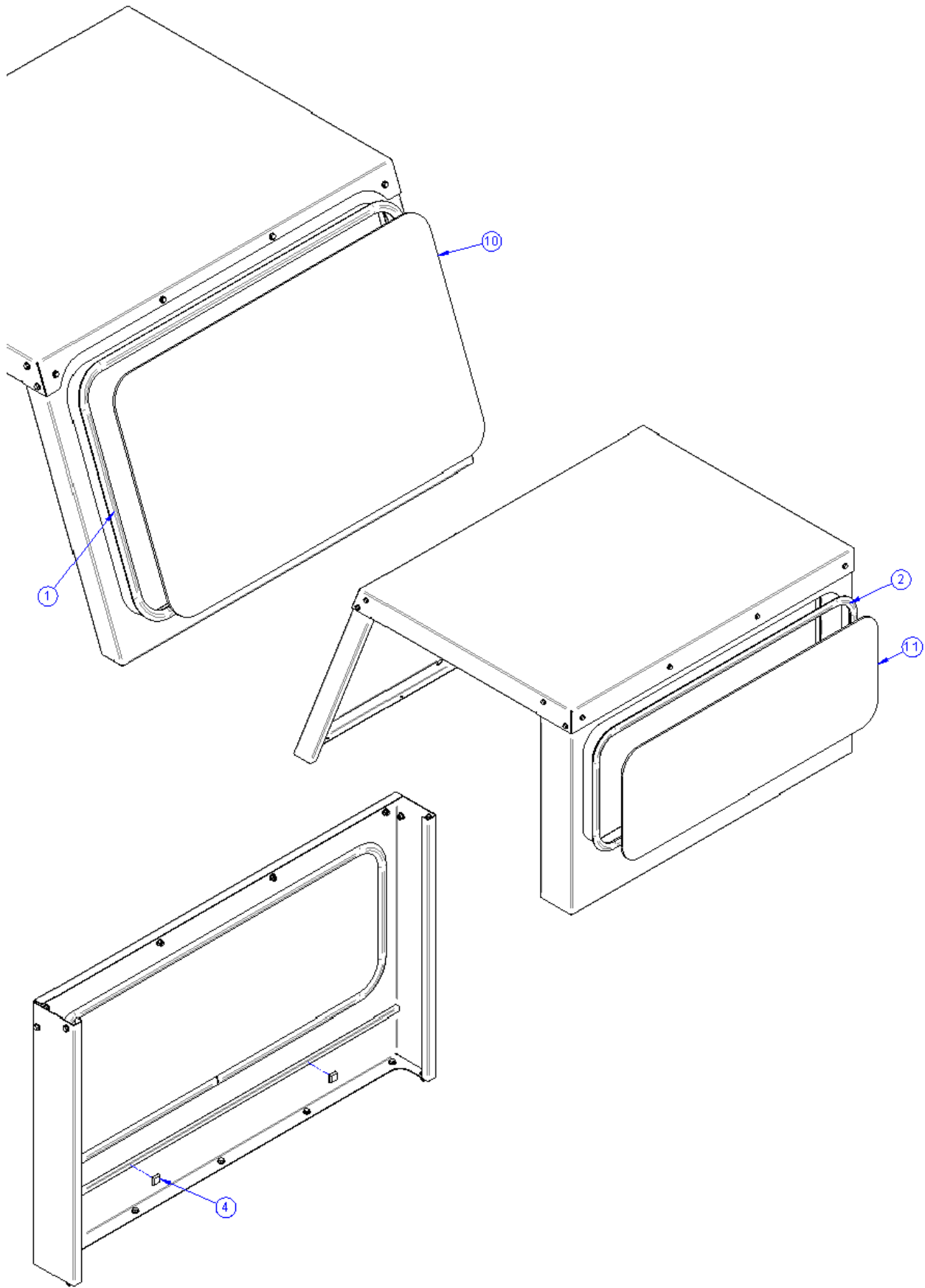
NOTE: SEE SERVICE BULLETIN SB11-004 IF REPLACING A NON-LED CHARGER.

CARGO BED – MVP

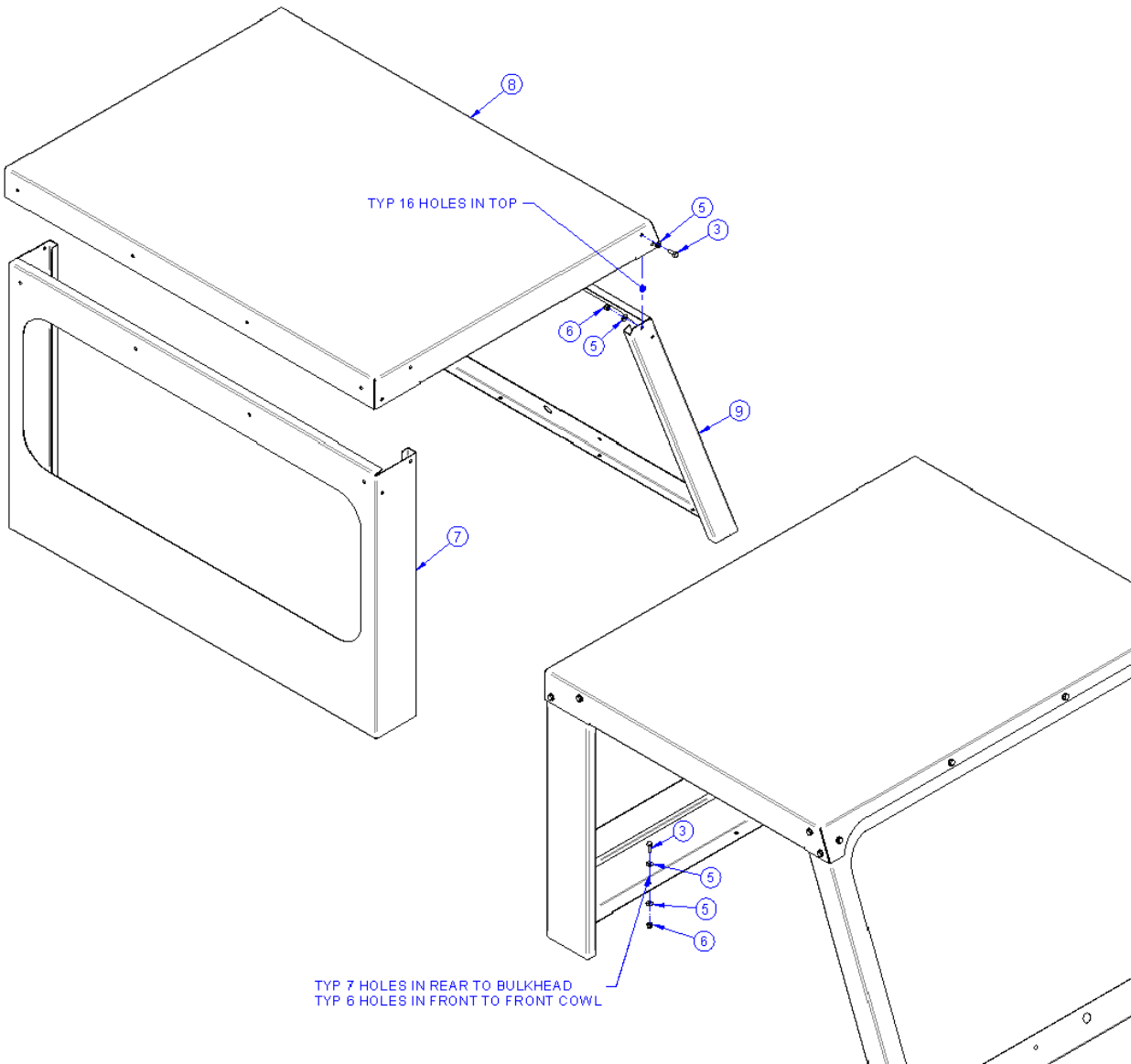


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	50049-12	CARGO BED	1	309404
2	50048-12	MEZZTREAD 3/4X4X8	1	702625
3	4720-B	SCREW, 3/8-16X1 3/4 HHCS, G5	6	719696
4	6000-B	WASHER, 5/16	6	719771
5	7755	NUT 3/8-16 L/N, FLG	6	760721

CAB – MVP



CAB – MVP (Cont.)

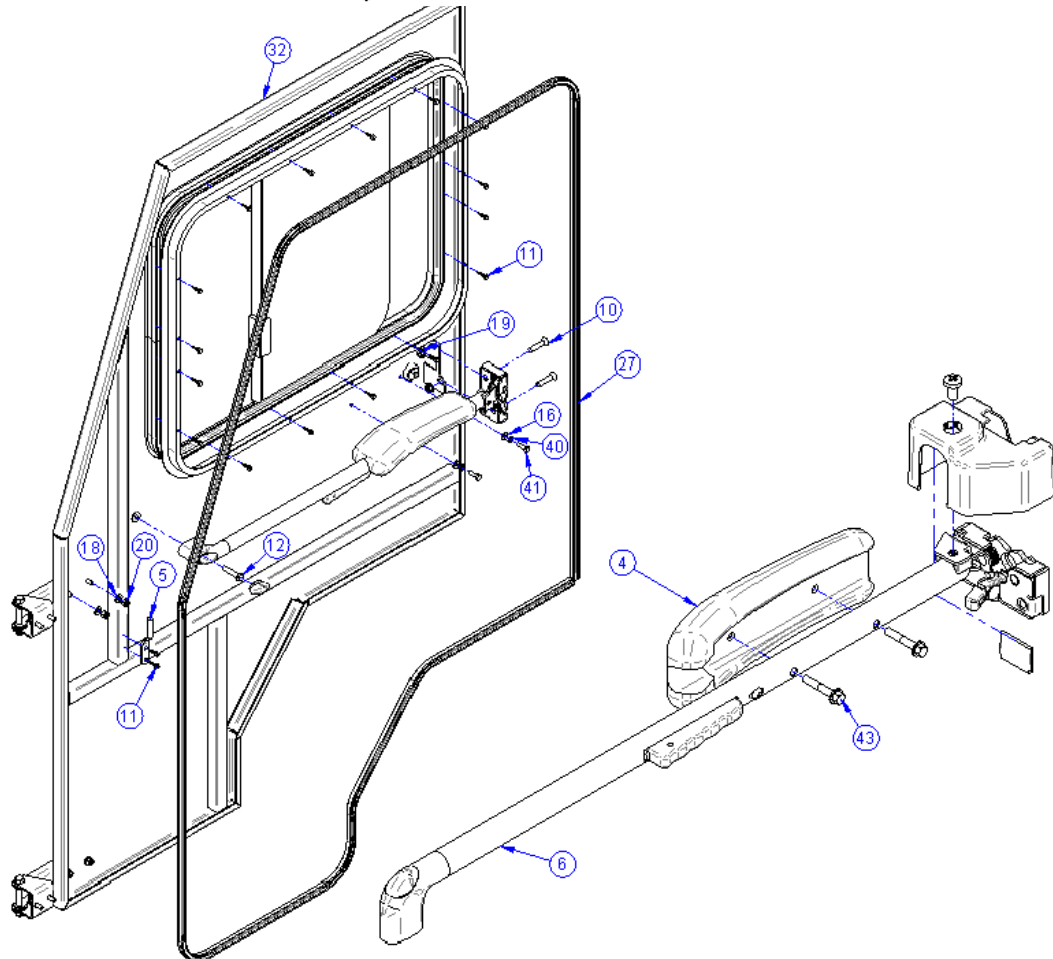
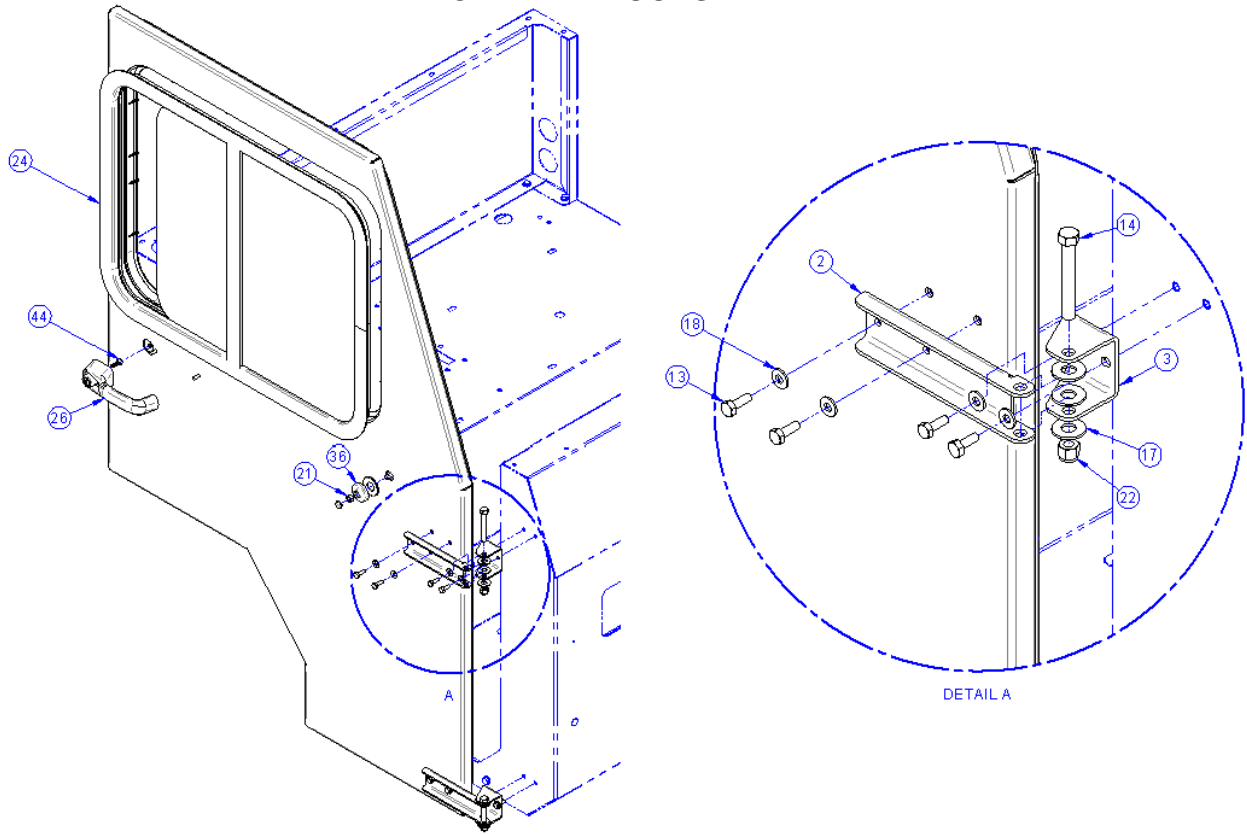


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	58901-11	WEATHER STRIPPING	10.5'	719163
2	58901-11	WEATHER STRIPPING	9.1'	719163
3	3787-B	SCREW, 1/4-20X3/4 HHCS, G5	29	719636
4	52330-86	BUMPER BLACK	2	719738
5	6703-B	WASHER, 1/4	58	719811
6	7686	NUT, 1/4-20 NYLOCK, GA	29	719879
7	50056-12	PANEL, BACK CAB (See Note 1)	1	467566
8	50057-12	PANEL TOP CAB (See Note 1)	1	467567
9	50060-12	PANEL, FRONT CAB (See Note 1)	1	467565
10	58022-12	WINDSHIELD, GLASS CAB (See Note 2)	1	760450
11	58035-12	WINDOW, REAR CAB (See Note 2)	1	760538

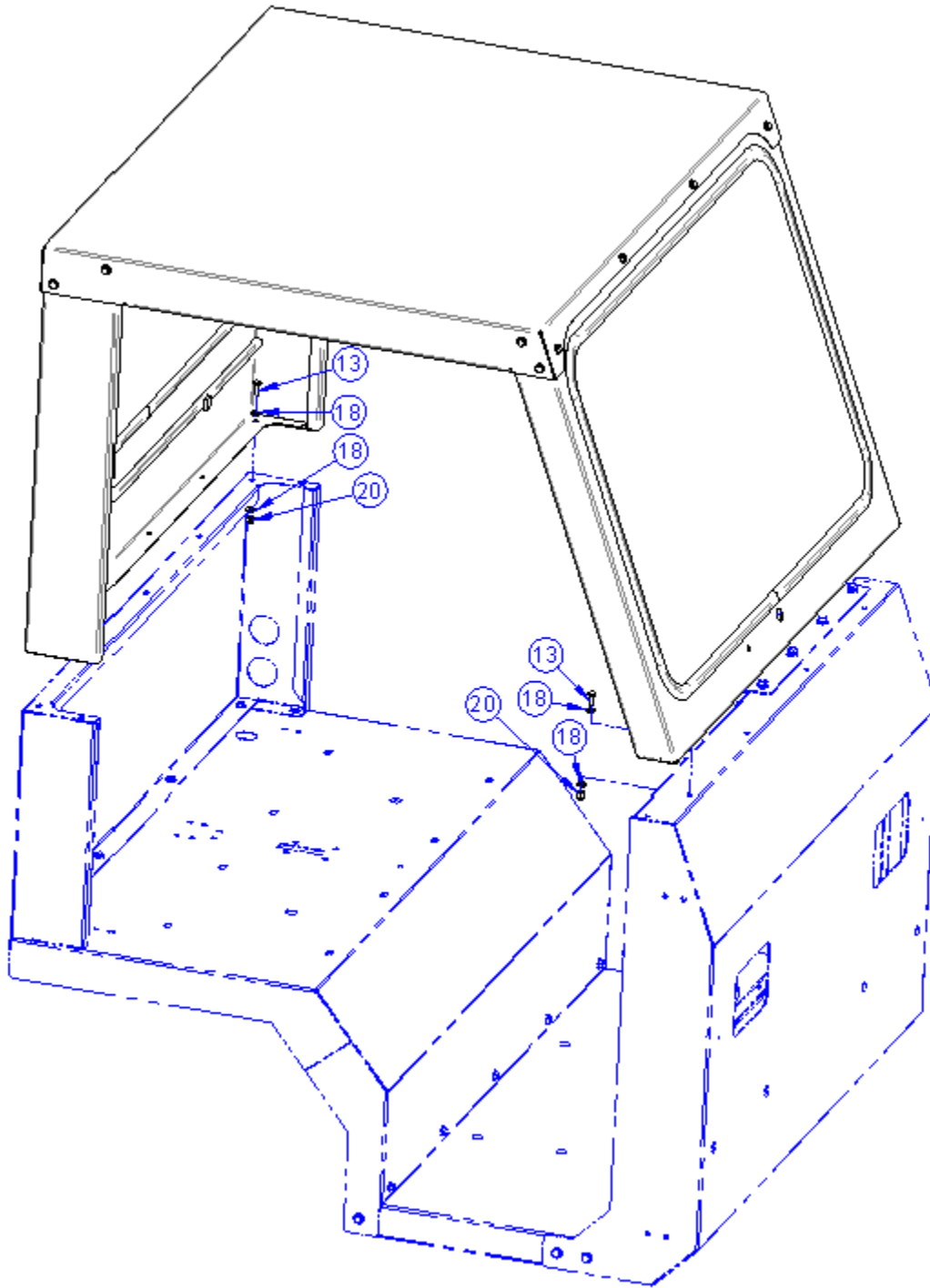
NOTE:

1. For correct color specify VIN.
2. Items cannot be shipped UPS. Ship via freight or local pickup.

CAB WITH DOORS – MVP



CAB WITH DOORS – MVP (Cont.)



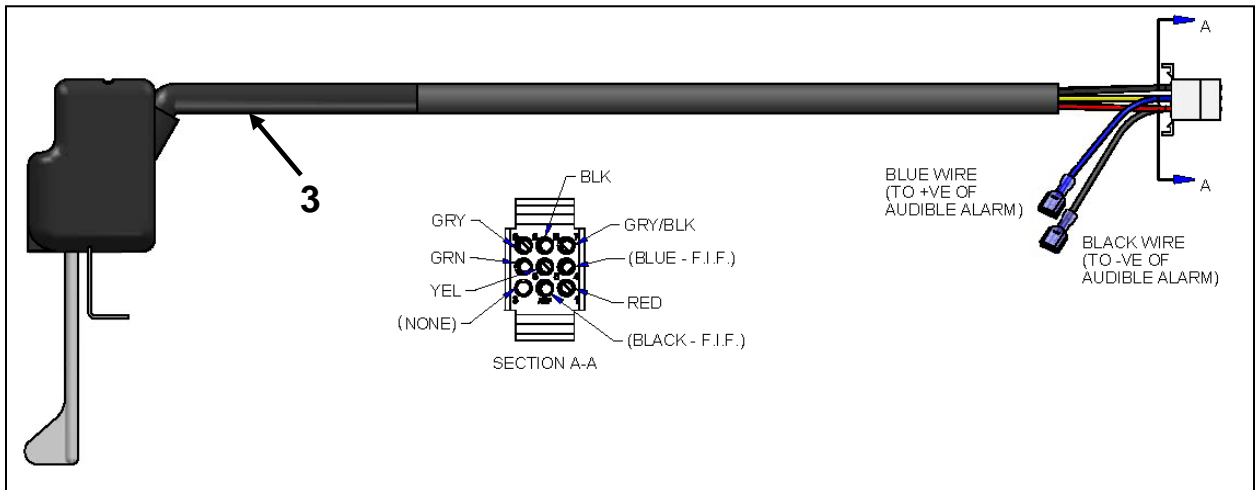
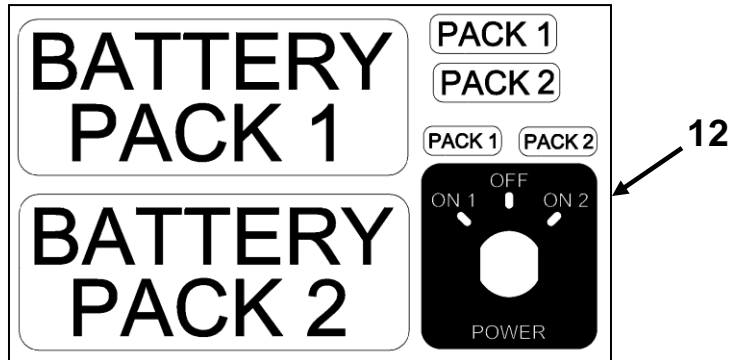
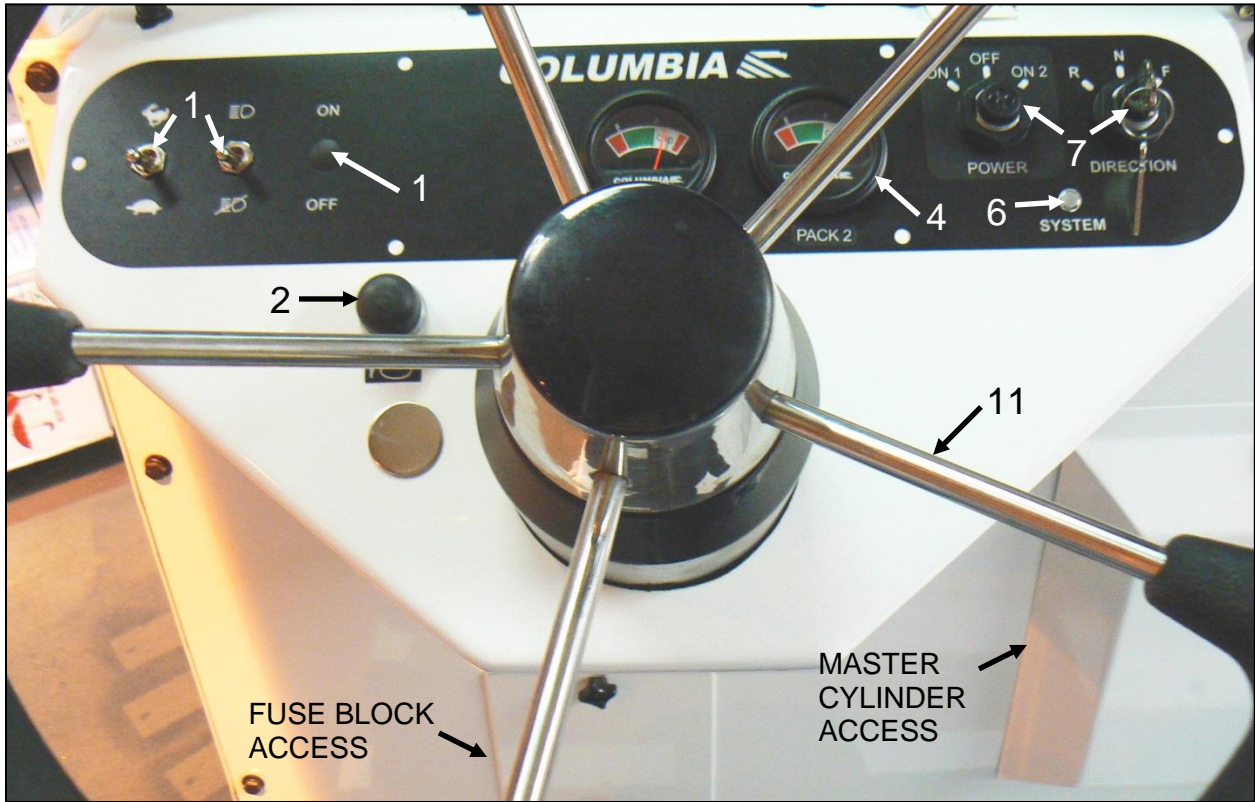
CAB WITH DOORS – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1*	51204-10	STRAP, CAB DOOR	2	309370
2	50079-12	DOOR HINGE PLATE	4	512162
3	50080-12	HINGE MOUNTING BRACKET	4	512372
4	51205-10	ARM PAD	2	512812
5	50081-12	BODY STRAP HOOK, PAINTED (See Note)	2	512813B
6	51206-10	RH LATCH/ARM ASSY	1	512814
7*	51207-10	LH LATCH/ARM ASSY	1	512815
10	2363-BS	SCREW, 5/16-18X 1 1/2 PFH	4	719555
11	2653-B	SCREW, 10-16X3/4 HWH TEK	40	719583
12	57111-11	SCREW, 5/16-18X1 1/2 HHCS, G8	2	781924
13	3787-B	SCREW, 1/4-20X3/4 HHCS, G5	45	719636
14	4719-W	SCREW, 3/8-16X2 3/4 HHCS, G5	4	719695
16	6031	WASHER, 3/16	4	719777
17	6416	WASHER, 3/8	12	719796
18	6703-B	WASHER, 1/4	82	719811
19	7525	NUT, 5/16-18 GR A SERR FLNG LOCK	4	719864
20	7686	NUT, 1/4-20 NYLOCK, GA	37	719879
21	7748-B	NUT, 5/16-18 FFHEX G5	2	719896
22	7778	NUT, 3/8-16 GA NE NYLOCK	4	719902
23*	90104-01	WINDOW, SLIDING LH	1	749709
24	84022-05	WINDOW, SLIDING RH	1	759743
25*	825	LATCH BOLT	2	759816
26	50990-10	LATCH HANDLE, OUTER	2	759817
27	50082-12	DOOR FRAME SEAL RH	15'	759818
28*	50082-12	DOOR FRAME SEAL LH	15'	759818
31*	50083-12	DOOR DRIVER SIDE, PAINTED (See Note)	1	467568
32	50084-12	DOOR PASSENGER SIDE, PAINTED (See Note)	1	467569
34*	50085-12	SEAL DOOR OPENING RH	11'	760320
35*	50085-12	SEAL DOOR OPENING LH	11'	760320
36	830	NUT RETAINER KIT	2	760321
37*	51208-10	BRACKET, DOOR STRAP	2	760404
40	46270-08	WASHER 6MM L/N	4	781405
41	5100	SCREW, M6-1.0X20MM HHCS	4	781440
42*	7530	LATCH NUT, M12X1.0, L/N HEX NULOCK	2	781495
43	5101	SCREW 1/4-20X1 1/2 HWH	4	781504
44	1502	SCREW, M5-.08X16MM PPH	4	781618

* NOT SHOWN

NOTE: For correct color specify VIN.

DASH - MVP



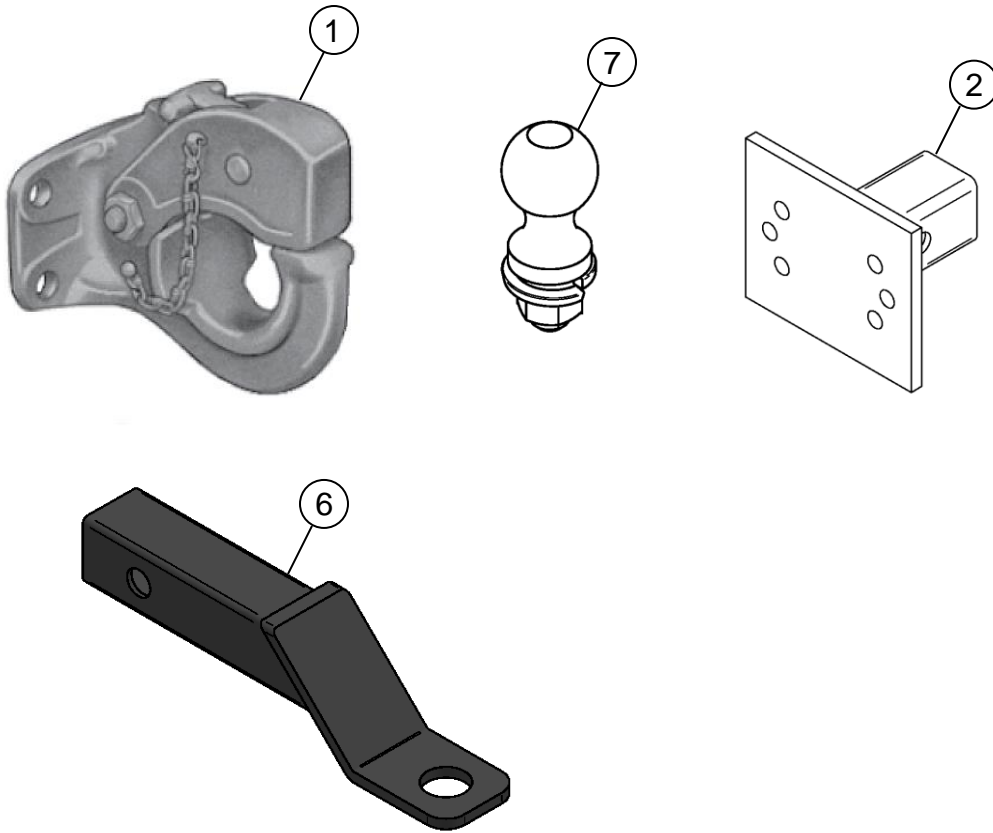
DASH – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	72000-10	SWITCH, TOGGLE OFF/ON	2	760600
2	71807-80	SWITCH, HORN	1	709385
3*	71428-04	ASSY, TURN SWITCH	1	467279
4	75061-07	BDI METER, 48V	1/2	759842
5*	71732-06	2 POSITION POWER SWITCH WITH HARDWARE FOR SINGLE BATTERY PACK (See table below for alternate keysets)	1	759706
6	67791-08	LIGHT, LED, GREEN	1	759932
7	71730-01	3 POSITION KEYSWITCH WITH HARDWARE FOR DUAL BATTERY PACK POWER & DIRECTION (See table below for alternate keysets)	1	709040
8*	71767-05	ASSY, KEY, NON-REMOVABLE, W/COVER (Used only with Keyset A)	1	719432
9*	53258-07	DECAL, WARNING/OPER. INST	1	712055
10*	653	PLUG, 1/2 HOLE BLACK	1	719798
11	56980-10	STEERING WHEEL	1	760636
12	69519-12	DECAL, DUAL BATTERY PACK LABEL SET	1	712109
13*	71731-01	KEYSET, UNIV. A 2 KEYS W/RING	1	749184

* NOT SHOWN

KEYSET	3 POSITION POWERSWITCH		2 POSITION POWERSWITCH		STANDARD KEYS	
	CPC P/N	SI P/N	CPC P/N	SI P/N	CPC P/N	SI P/N
A	71730-01	709040	71732-06	759706	71731-01	749184
B	71730-03B	719297	71732-06B	759722	71731-03B	719301
C	71730-03C	719298	71732-06C	759723	71731-03C	719302
D	71730-03D	719299	71732-06D	759724	71731-03D	719303
E	71730-03E	719300	71732-06E	759721	71731-03E	719304

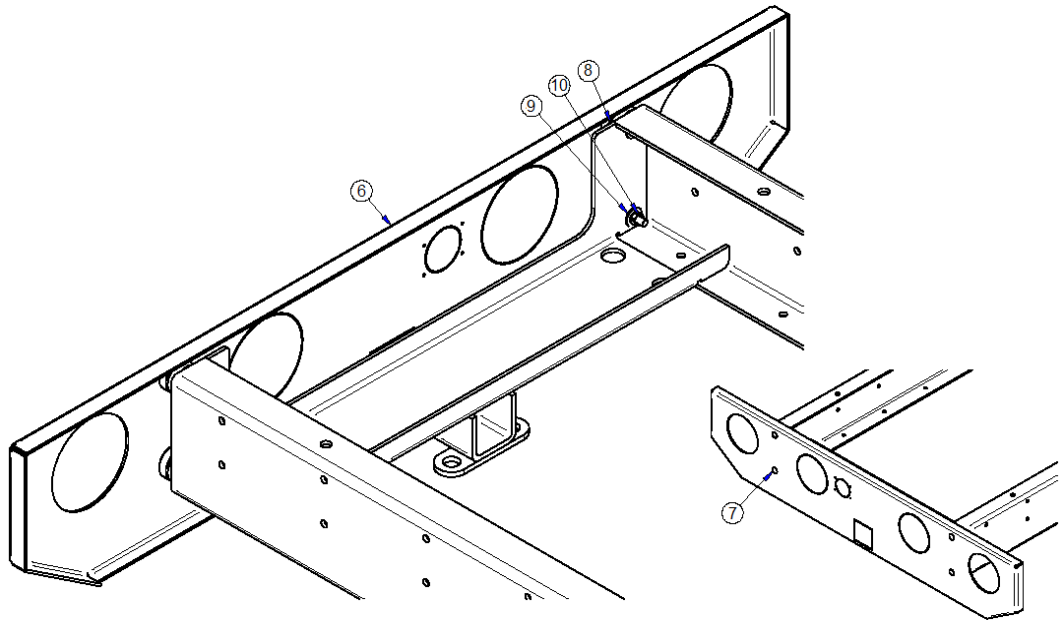
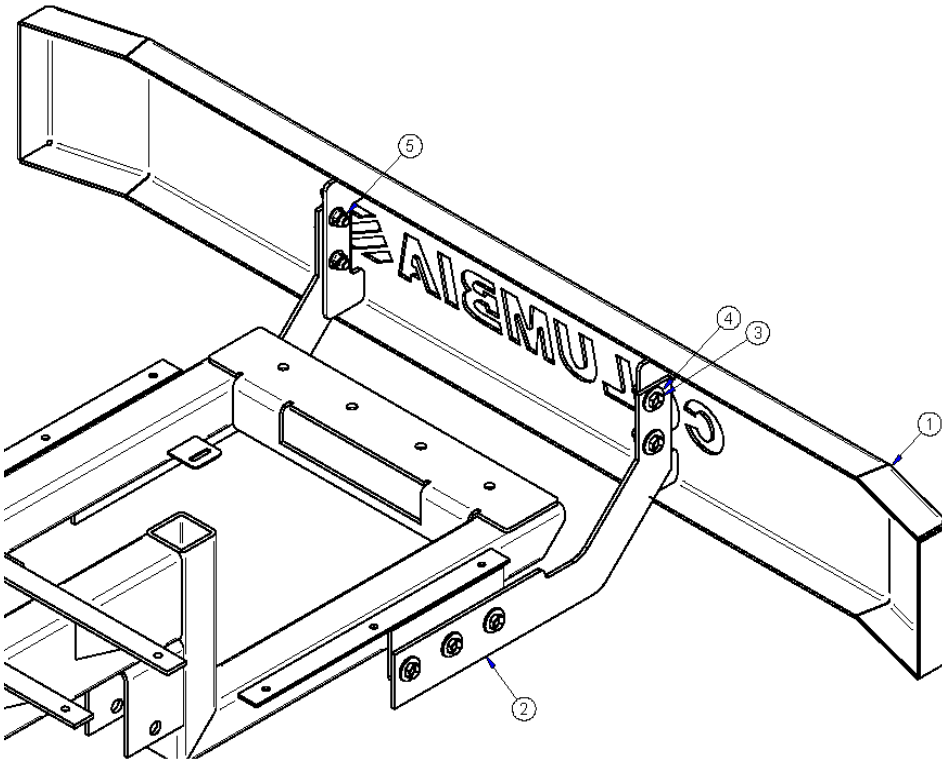
HITCHES – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	57315-96	PINDLE HOOK HITCH	1	709833
2	82011-14	HITCH PLATE	1	312577
3	82062-02	HITCH PIN 5/8 OD (used with Items 2 & 6)	1	719210
4*	7812-W	NUT, 1/2-20 NYLOK GR A (Used with Item 1)	4	719907
5*	4010	SCREW, 1/2-20x1.5 HHCS G5 (Used with Item 1)	4	729809
6	82003-12	RECEIVER HITCH 2" DROP	1	760530
7	82064-02	HITCH BALL, 2"	1	719207

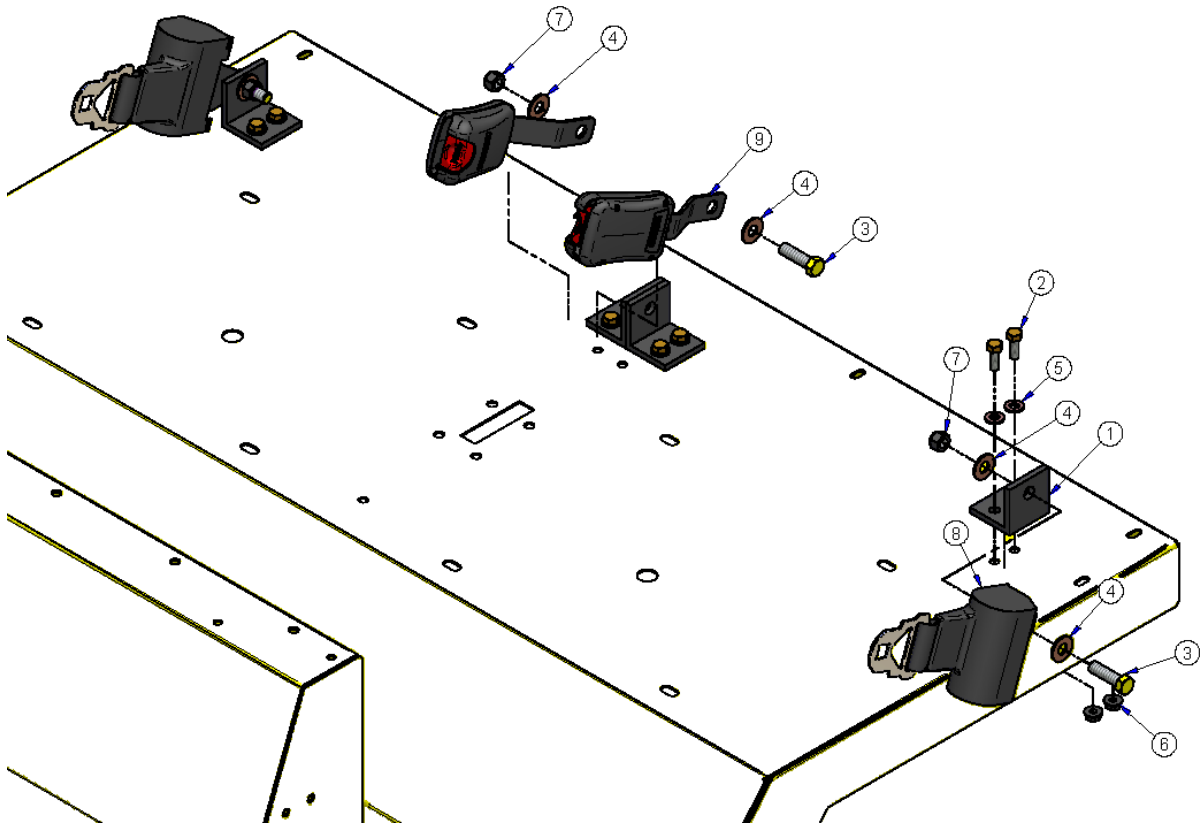
* NOT SHOWN

BUMPERS – MVP



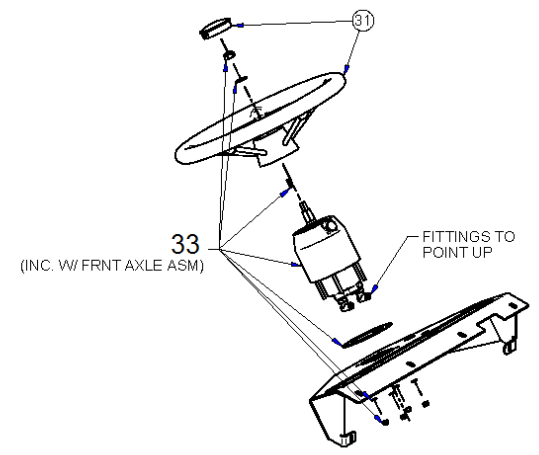
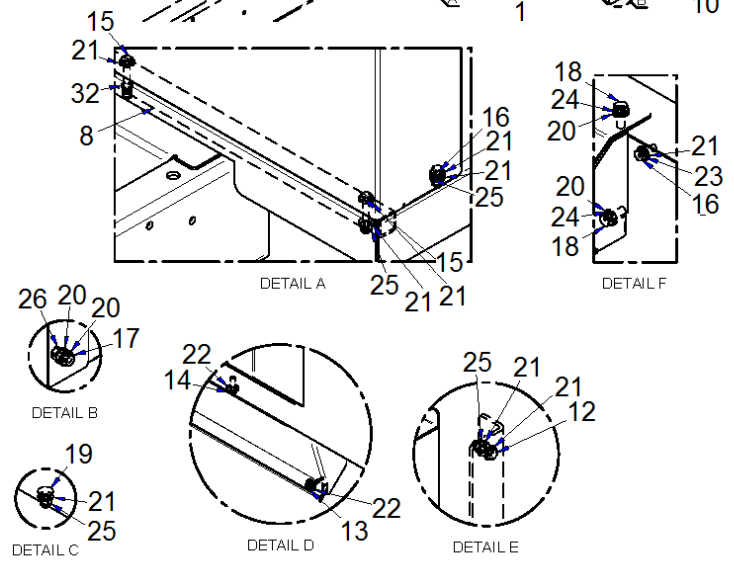
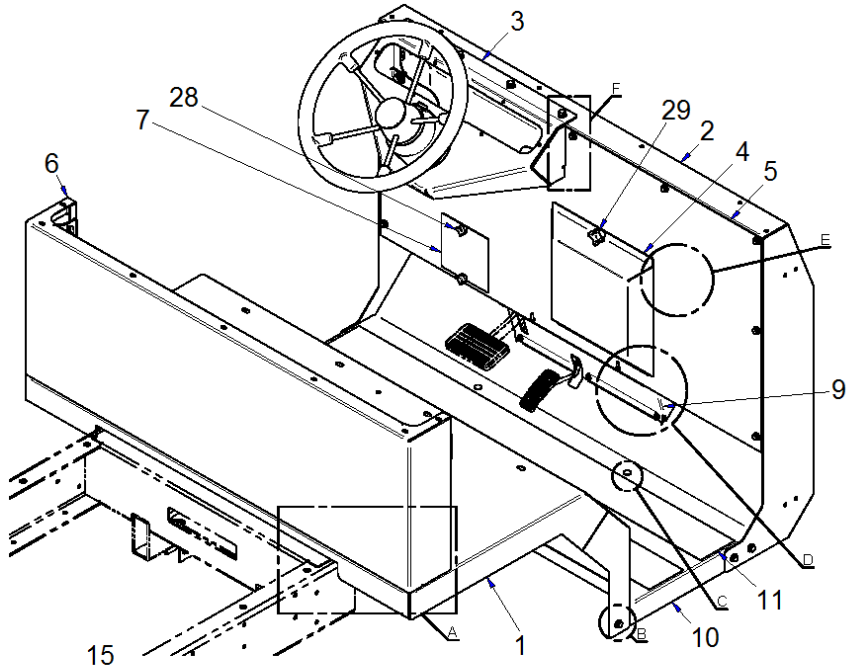
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	50066-12	FRONT BUMPER	1	309121
2	50071-12	FRONT BUMPER MOUNTING PLATE	2	512279
3	2879-W	SCREW, 3/8-16X1 HHCS G5	10	707195
4	6416	WASHER 3/8	10	719796
5	7755	NUT, 3/8-16 L/N FLG	10	760721
6	50078-12	REAR BUMPER	1	309103
7	3403-B	BOLT, 5/16- 18X2 CARR G5	4	719609
8	52329-85	WASHER, .375X1.50X.5 F/W, NYL (To attach Item 3)	4	719737
9	6000-B	WASHER, 5/16 (To attach Item 3)	4	719771
10*	7739	NUT, 5/16-18 L/N NYLOCK (To attach Item 3)	4	719892

SEAT BELTS – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	75505-08	SEATBELT BRACKET	4	511730
2	3991	SCREW, HHC, 7/16-18X7/8 G5	8	719643
3	4256	SCREW, HX HD, 7/16-20X1.5 G5	3	719665
4	6416	WASHER FLT STL 3/8 STD	6	719796
5	6702-B	WASHER FLT STL 5/16	8	719810
6	7750	LOCKNUT 5/16-18 HEX FLG	8	719897
7	7825	NUT 7/16-20 LOCK NYLON INSERT	3	719908
8	75504-09	SEAT BELT, 48"	2	741359
9	75503-09	ATS BUCKLE, W/OFFSET STRAP SEAT BELT	2	760553

BODY - MVP



NOTE:
HOSES TO RUN ALONG INSIDE LEFT
SIDE OF FRAME, MAKE SURE TO LEAVE
PLENTY OF SLACK FOR FRONT AXLE
SUSPENSION TRAVEL.

BODY – MVP (Cont.)

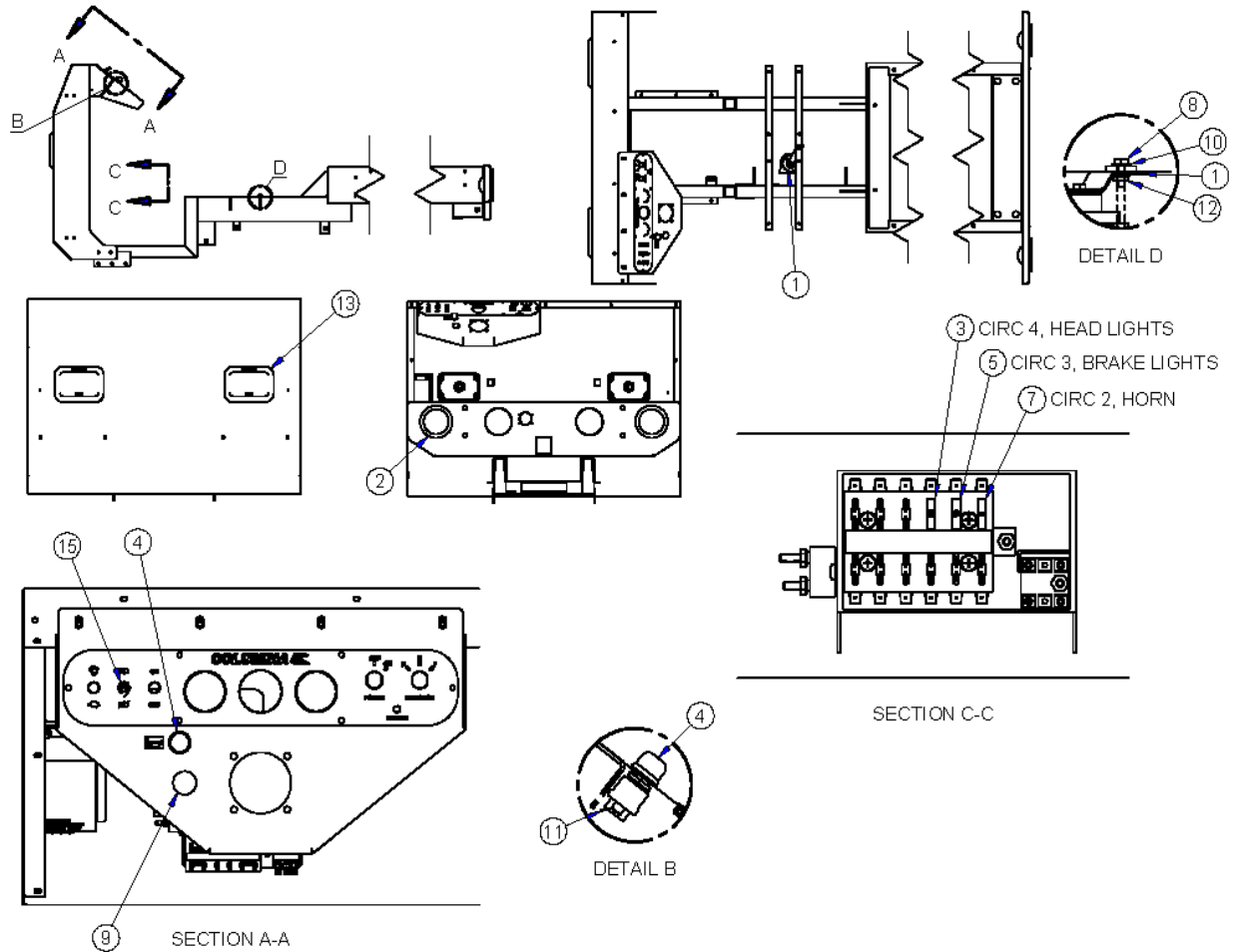
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	**	SEAT PAN, MVP (See note)	1	467543
2	**	COWL, MVP (See note)	1	467545
3	**	STEERING MNT, MVP (See note)	1	467546
4	**	ACCESS COVER, MVP (See note)	1	467544
5	**	INNER PANEL, MVP (See note)	1	467547
6	**	BULKHEAD, MVP (See note)	1	467594
7	**	FUSE COVER, MVP (See note)	1	467548
8	**	TUBE, STIFFENER - SEAT PAN	1	512286
9	**	PEDAL COVER, MVP (See note)	1	467541
10	**	FLOORBOARD, MVP (See note)	1	467542
11	**	MAT, ANTI-SLIP GRIP, 7.4 FT LG	1	709933
12	2551-W	SCREW, 1/4-20 X 1, HHCS, G5, YWZC 150	2	719564
13	2653-B	SCREW, #10 X 3/4 HWH TEK #3	3	719583
14	2685-W	SCREW, 10=24X5/8 HWH TRD	2	719586
15	3454-BS	SCREW, 1/4-20 X 1-3/4 HHCS, G5 HCBK 150	4	719623
16	3787-B	SCREW, 1/4-20X3/4,HHCS,G5, BLK150	15	719636
17	3987-BS	SCREW, 5/16-18 X 3/4 HHCS, GRADE 5	6	719642
18	3991	SCREW, 5/16-18X7/8,HHCS,G5, BLK MAX	6	719643
19	5405-B	CARRIAGE BOLT 1/4-20 X 3/4 GR 5 HC-BK	10	719747
20	6702-B	WASHER, 5/16,SAE,F/W,BLK MAX	18	719810
21	6703-B	WASHER, 1/4,SAE,F/W,BLK MAX	42	719811
22	6716	WASHER, #10,SAE,F/W,BLK MAX	5	719812
23	7036-B	WASHER LOCK 1/4 REGULAR BLK ZINC	8	719834
24	7041-B	WASHER, 5/16, REG-SPRG LOCK, BLK MAX	6	719838
25	7686	NUT, 1/4-20, NYLOCK, GA, YWZC	21	719879
26	7739	NUT, 5/16-18, L/N,NYLOK,NE,GA, BLKMAX	6	719892
27*	49090-ZZ	TAPE, FOAM 1/8X1/2X24"	1	739272
28	**	KNOB - #10-24 X 1/2 LG	2	760022
29	66855-14	KNOB - 5/16-18 X1 1/2 LG	1	760023
30*	82762-12	KIT, 8-FT HOSE W/FITTINGS	1	760120
31	56980-10	STEERING WHEEL, 15.50 "	1	760636
32	19147-13	RIVNUT, 1/4-20, ZC	2	781598
33	57730-10	KIT, FRONT MOUNT STEERING	1	759900

* NOT SHOWN

** SPECIAL ORDER

NOTE: Include VIN for the correct color.

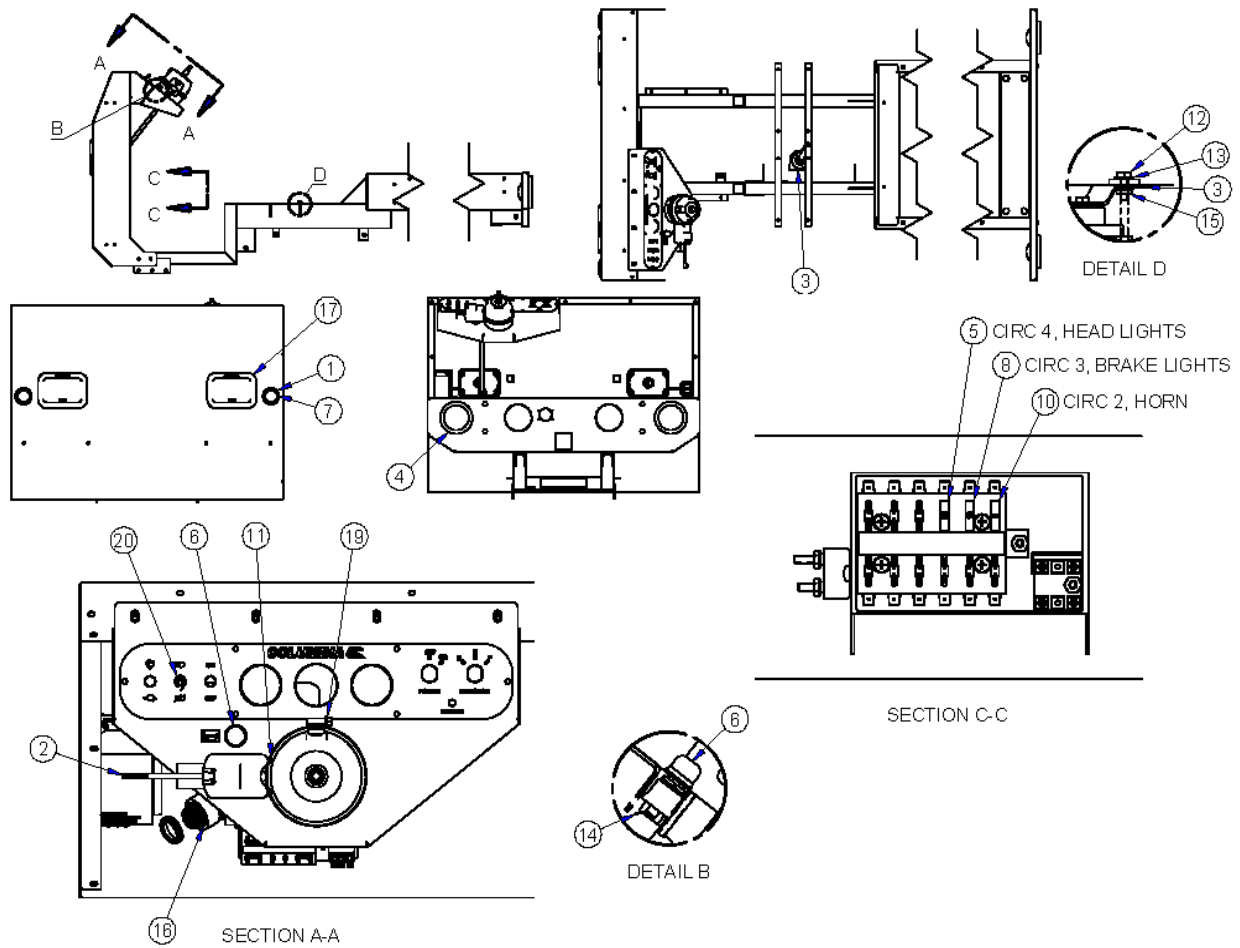
DRIVING LIGHTS & HORN – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	69001-76A	HORN, 12V (2 TERMINAL)	1	709089
2	68020-92	4" ROUND TAIL LAMP ASSY W/PLUG, SEAL	2	709109
3	74595-01	FUSE, 15A ATO/ATC	1	709255
4	71807-80	HORN SWITCH	1	709385
5	74596-02	FUSE, 10A ATO/ATC	1	709786
6*	68867-02	WIRE HARNESS, TURN SIGNL BYPASS PLUG	1	709861
7	75593-04	FUSE, 5A ATO/ATC	1	719445
8	3787-B	SCREW, 1/4-20 X 3/4 ,HHCS, G5, BLK150	1	719636
9	63912	PLUG, 1" 12 PRONG HOLE ZNC/CLEAR	1	719794
10	6703-B	WASHER, 1/4, SAE, F/W,BLK MAX	1	719811
11	32675-08	TERMINAL, #10 STUD-TO-1/4 MALE TAB	2	719825
12	7724-B	NUT 1/4-20 GR A SERRATED FLNG LOCK	1	719887
13	69515-12	HEADLIGHT, 4X6, 12V, BEZEL MOUNT	2	759915
14*	69516-12	WIRE HARNESS, 12V, ACCESSORY	1	760012
15	72000-10	SWITCH, TOGGLE, LIGHTS ON-OFF	1	760600

* NOT SHOWN

DELUXE DRIVING LIGHTS & HORN – MVP

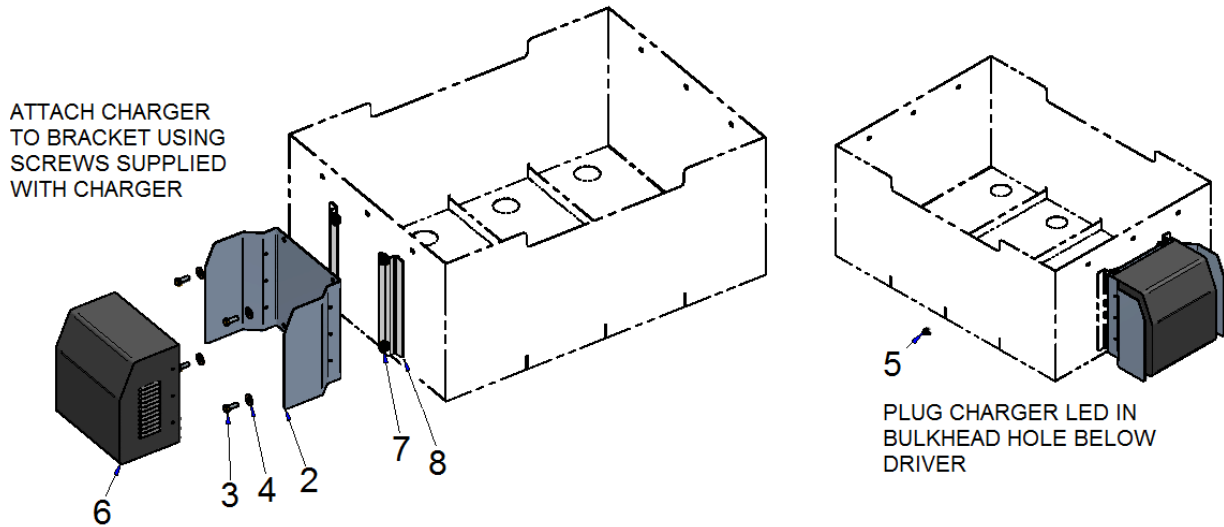


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	69836-00	ASSEMBLY, TURN LIGHT PIGTAIL W/GROMMET	2	463979
2	71426-02	ASSEMBLY, TURN SWITCH W/GROMMET	1	464193
3	69001-76A	HORN, 12V (2 TERMINAL)	1	709089
4	68020-92	4" ROUND TAIL LAMP ASSY W/PLUG, SEAL	2	709109
5	74595-01	FUSE, 15A ATO/ATC	1	709255
6	71807-80	HORN SWITCH	1	709385
7	68501-00	LIGHT, 2" AMBER	2	709488
8	74596-02	FUSE, 10A ATO/ATC	1	709786
9*	71977-04	FLASHER, LED LIGHTS	1	719366
10	75593-04	FUSE, 5A ATO/ATC	1	719445
11	2612-B	SCREW, 8-32X1/2 PHILLIPS PHM	2	719571
12	3787-B	SCREW, 1/4-20 X 3/4 ,HHCS, G5, BLK150	1	719636
13	6703-B	WASHER, 1/4, SAE, F/W,BLK MAX	1	719811
14	32675-08	TERMINAL, #10 STUD-TO-1/4 MALE TAB	2	719825
15	7724-B	NUT 1/4-20 GR A SERRATED FLNG LOCK	1	719887
16	71408-96	AUDIBLE ALARM	1	759790
17	69515-12	HEADLIGHT, 4X6, 12V, BEZEL MOUNT	2	759915
18*	69516-12	WIRE HARNESS, 12V, ACCESSORY	1	760012
19	**	HOSE CLAMP, 3" – 5" STAINLESS STEEL	1	760524
20	72000-10	SWITCH, TOGGLE, LIGHTS ON-OFF	1	760600

* NOT SHOWN

** SPECIAL ORDER

HIGH OUTPUT PROCHARGER 48V - MVP



CIRCUIT NO	DESCRIPTION	FIRST TERMINAL	SECOND TERMINAL	WIRE LENGTH *	WIRE COLOR	WIRE GAGE
1	INTERLOCK CONNECTOR / B POSITIVE	MOLEX SOCKET	RING 16/14 INS TONGUE	82.00 (1)	RED	16
2	INTERLOCK CONNECTOR / MAIN HARNESS INTERLOCK CONNECTOR	MOLEX SOCKET	14-16 GA 1/4" F.I.F.	82.00 (1)	RED	16

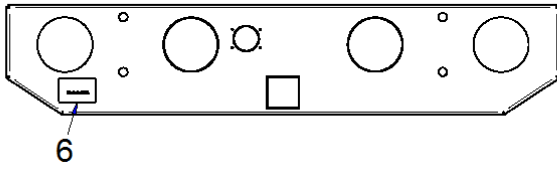
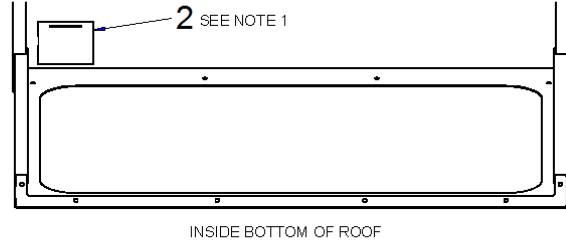
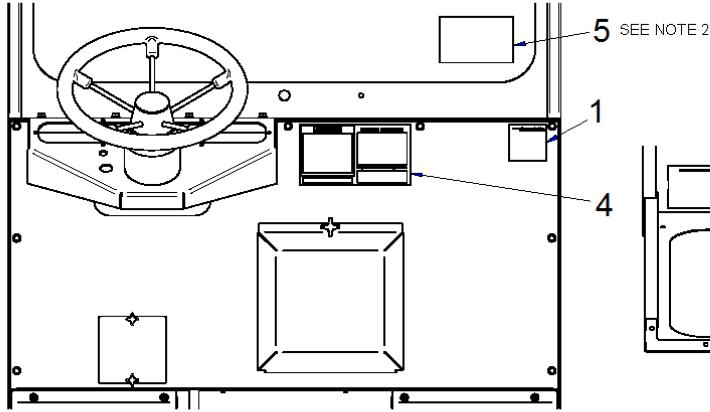
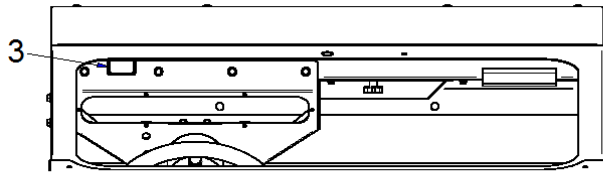
82.00

ITEM 1

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	66619-14	CHARGER INTERLOCK HARNESS	1	468836
2	66221-14	BRACKET, PROCHARGER	1	516307
3	3991	SCREW, 5/16-18X7/8, HHCS, G5,BLK MAX	4	719643
4	6000-B	WASHER, 5/16, USS/STD,F/W,BLK MAX	4	719771
5	8200	FASTENER, PUSHPNL, .25 X .6875 X 0.625	1	719926
6	*	HIGH OUTPUT 48V CHARGER, PRO	1	761066
7	7537	NUT, 5/16-18, CAGE, TRIBLK	4	782045
8	*	BRACKET, MOUNTING	2	516308
-	N/A	GROUP, PROCHARGER (Includes above)	1	192925A

* SPECIAL ORDER

LABELS – MVP



- NOTES:
 1) INSTALL NEV RESTRICTIONS LABEL ON INSIDE ROOF PANEL ON DRIVER'S SIDE ORIENTATED SO THE DRIVER CAN READ IT
 2) INSTALL ENVIRONMENTAL LABEL ON INSIDE WINDSHIELD ON LOWER PASSENGER SIDE CORNER

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	VIN LABEL	1	511346
2	46930-02	LABEL, NEV RESTRICTIONS	1	511633
3	*	LABEL, SMALL VIN	1	512059
4	43960-07	LABEL, WARNING/OPERATING INSTRUCTIONS	1	712052
5	*	ENVIRONMENTAL PERFORMANCE LABEL	1	760692
6	53091-14	MADE IN USA LABEL	1	761132
-	N/A	GROUP, VIN LABELS (Includes Items 1 – 6)	1	192926A

* SPECIAL ORDER

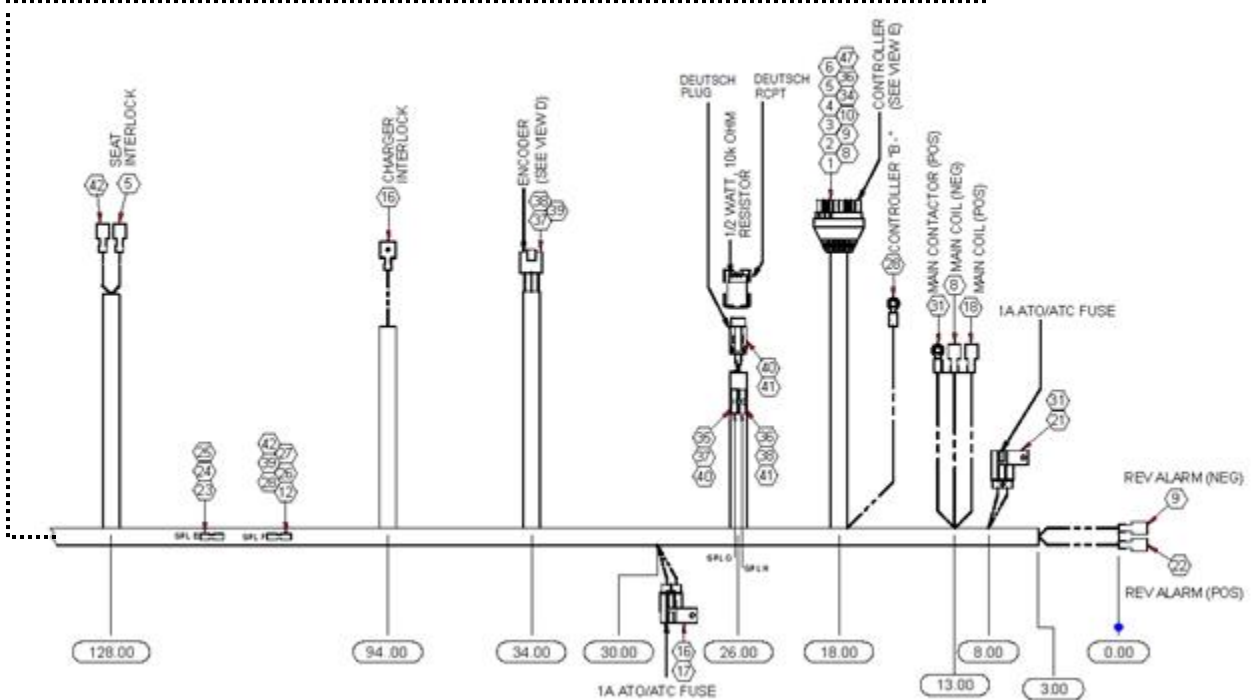
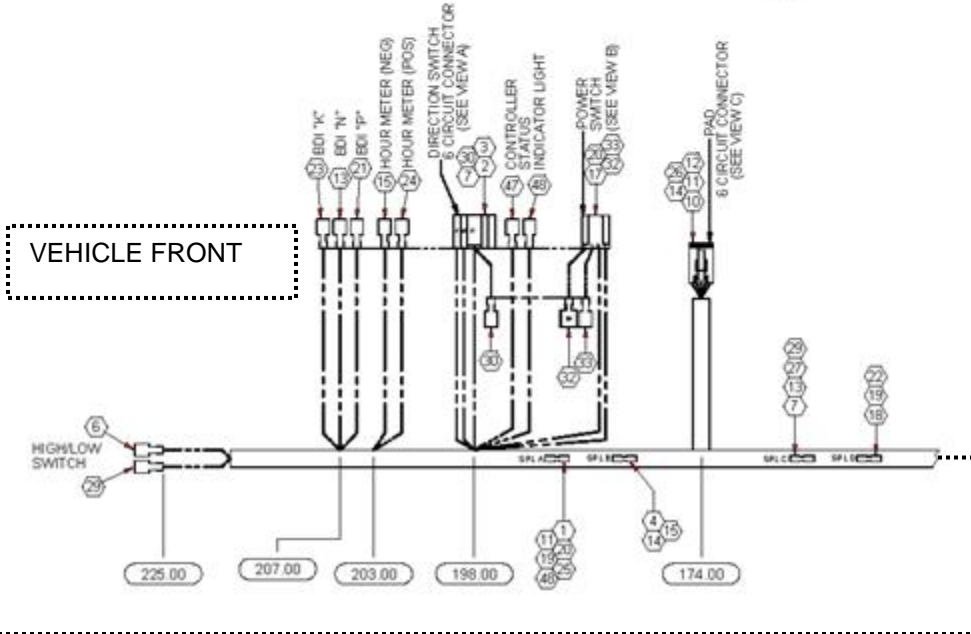
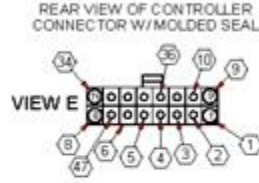
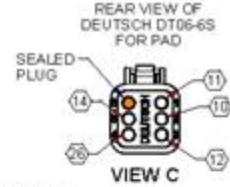
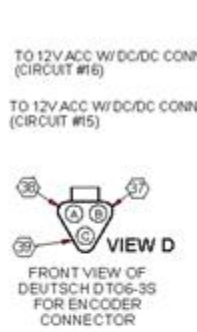
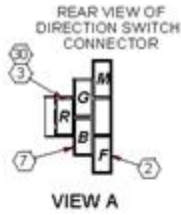
Multiple Vehicle Platform Parts Manual

Section 5

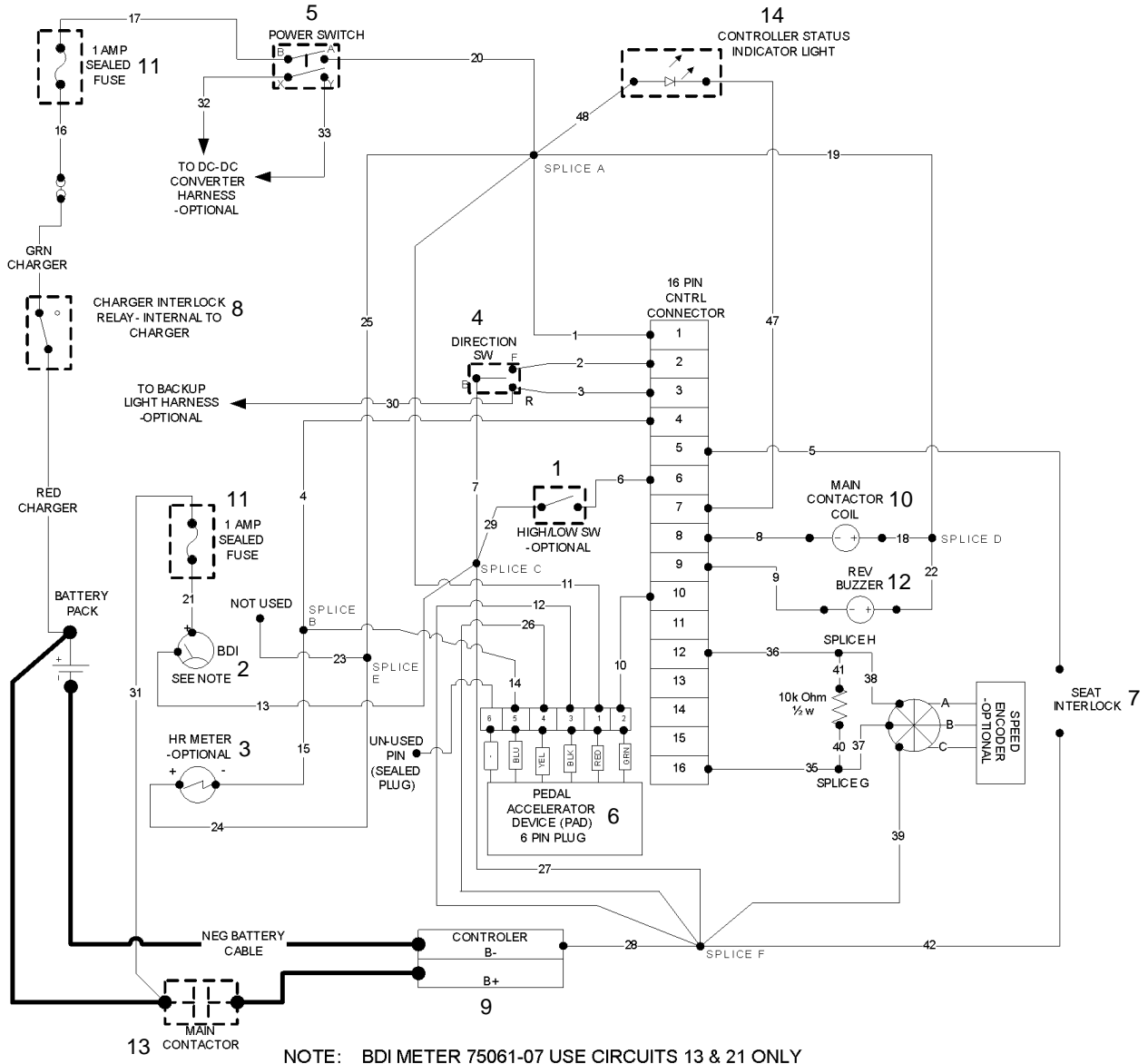
Electrical Systems

MAIN HARNESS – MVP

CIRCUIT NO.	WIRE COLOR	WIRE GAUGE	CIRCUIT NO.	WIRE COLOR	WIRE GAUGE
1	RED	18	27	RED	18
2	GRN	18	24	RED	18
3	GRN	18	25	RED	18
4	BLK	18	26	YEL	18
5	BLK	18	27	BLK	18
6	BLK	18	28	BLK	18
7	BLK	18	29	BLK	18
8	BLK	18	30	GRN	18
9	BLK	18	31	RED	18
10	GRN	18	32	RED	18
11	RED	18	33	RED	18
12	BLK	18	34	BLK	18
13	BLK	18	35	GRN	18
14	BLU	18	36	RED	18
15	BLK	18	37	GRN	18
16	RED	18	38	RED	18
17	RED	18	39	BLK	18
18	RED	18	40	GRN	18
19	RED	18	41	RED	18
20	RED	18	42	BLK	18
21	RED	18	43	BLK	18
22	YEL	18	46	RED	18



MAIN HARNESS – MVP (Cont.) SCHEMATIC



CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR
1	RED	11	RED	21	RED	31	RED	41	RED
2	GRN	12	BLK	22	YEL	32	RED	42	BLK
3	GRY	13	BLK	23	WHT	33	RED	47	BLK
4	BLK	14	BLU	24	WHT			48	RED
5	BLK	15	BLK	25	WHT	35	GRN		
6	BLK	16	BLK	26	YEL	36	RED		
7	BLK	17	RED	27	BLK	37	GRN		
8	BLK	18	RED	28	BLK	38	RED		
9	BLK	19	RED	29	BLK	39	BLK		
10	GRN	20	RED	30	GRY	40	GRN		

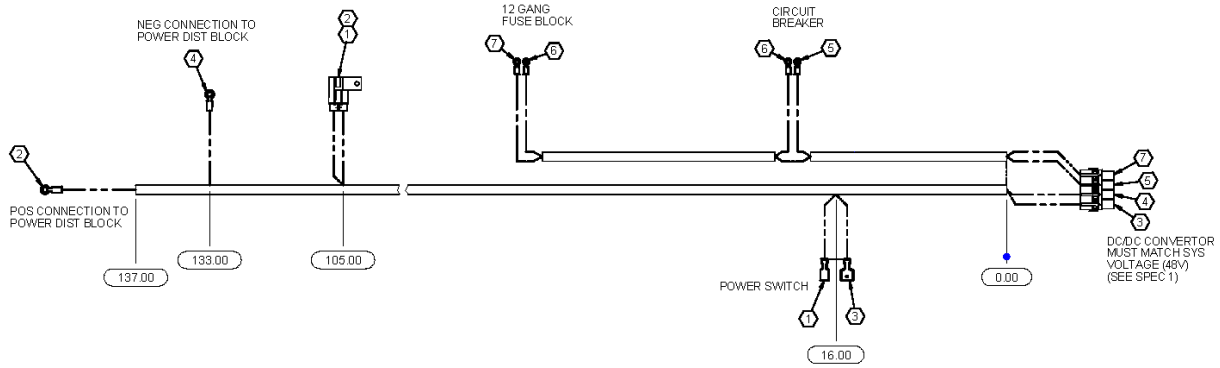
MAIN HARNESS – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	72000-10	HIGH/LOW SPEED SWITCH	1	760600
2	75061-07	BDI METER, 48V	1	759842
3	75033-91A	HOUR METER, 10-80 VDC	1	709452
4	71730-01	DIRECTION SWITCH	1	709040
5	71732-06	POWER SWITCH	1	759706
6	40610-10	PEDAL, INTEGRATED ACCEL, SUSPENDED	1	759903
7	69757-95	SEAT SWITCH	1	708455
*	70038-04	HARNESS EXTENSION (Used w/Item 7)	1	467219
8	66583-12	CHARGER, DELTA Q 48V W/LED	1	760742
8A	66582-12	CHARGER, DELTA 2 48V W/LED, AGM	1	467839
9	47895-05A	CONTROLLER, SEVCON, RGEN SEPEX 24/48 (Programmed 760576)	1	467696
10	71467-02	CONTACTOR, DOUBLE, 48V COILS	1	709825
11	75594-04	FUSE, 1 AMP ATO/ATC	1	719444
12	71408-96A	AUDIBLE ALARM, 12/48 VDC, SLOW PULSE	1	759831
13	71455-01A	CONTACTOR & MOUNTING BRACKET	1	709166
14	67791-08	INDICATOR, LED	1	759932
15	69512-12	MAIN HARNESS MVP	1	760014

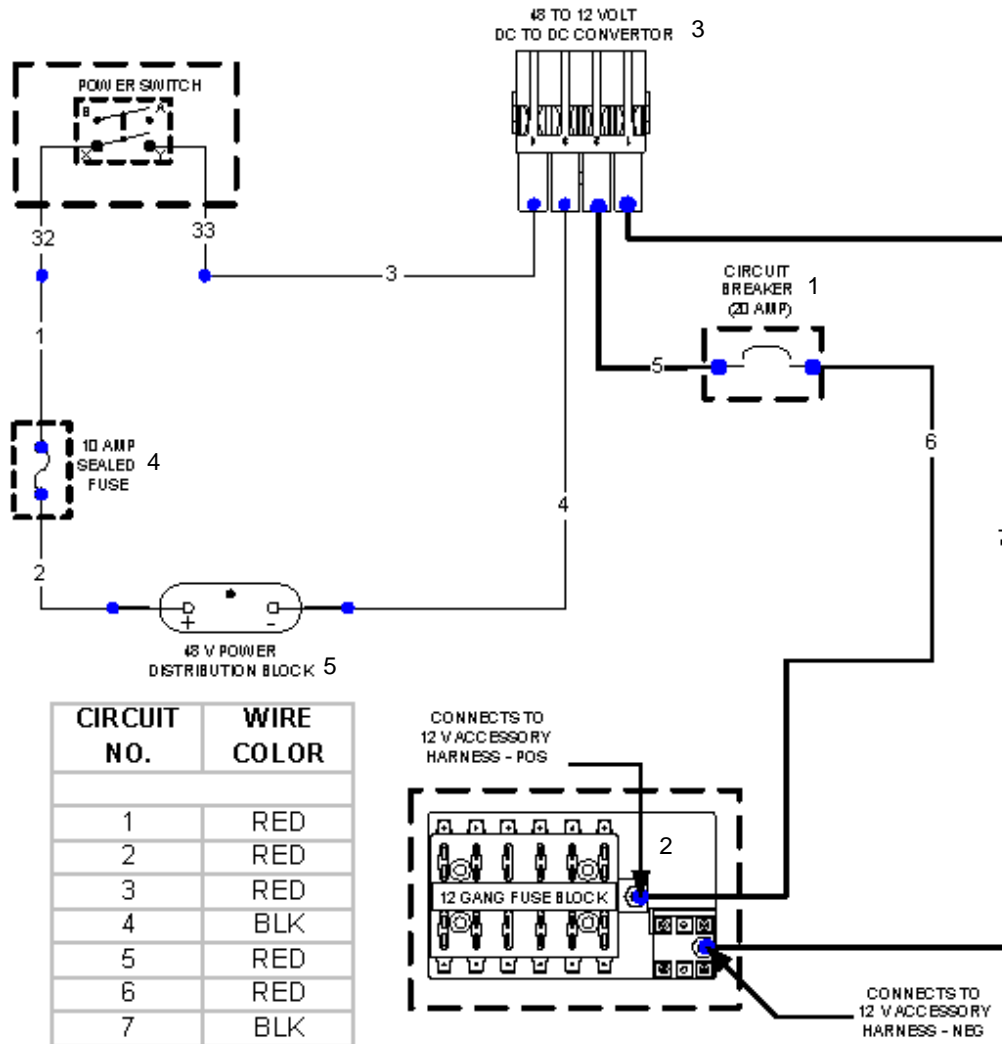
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HARNES DC CONVERTOR – MVP

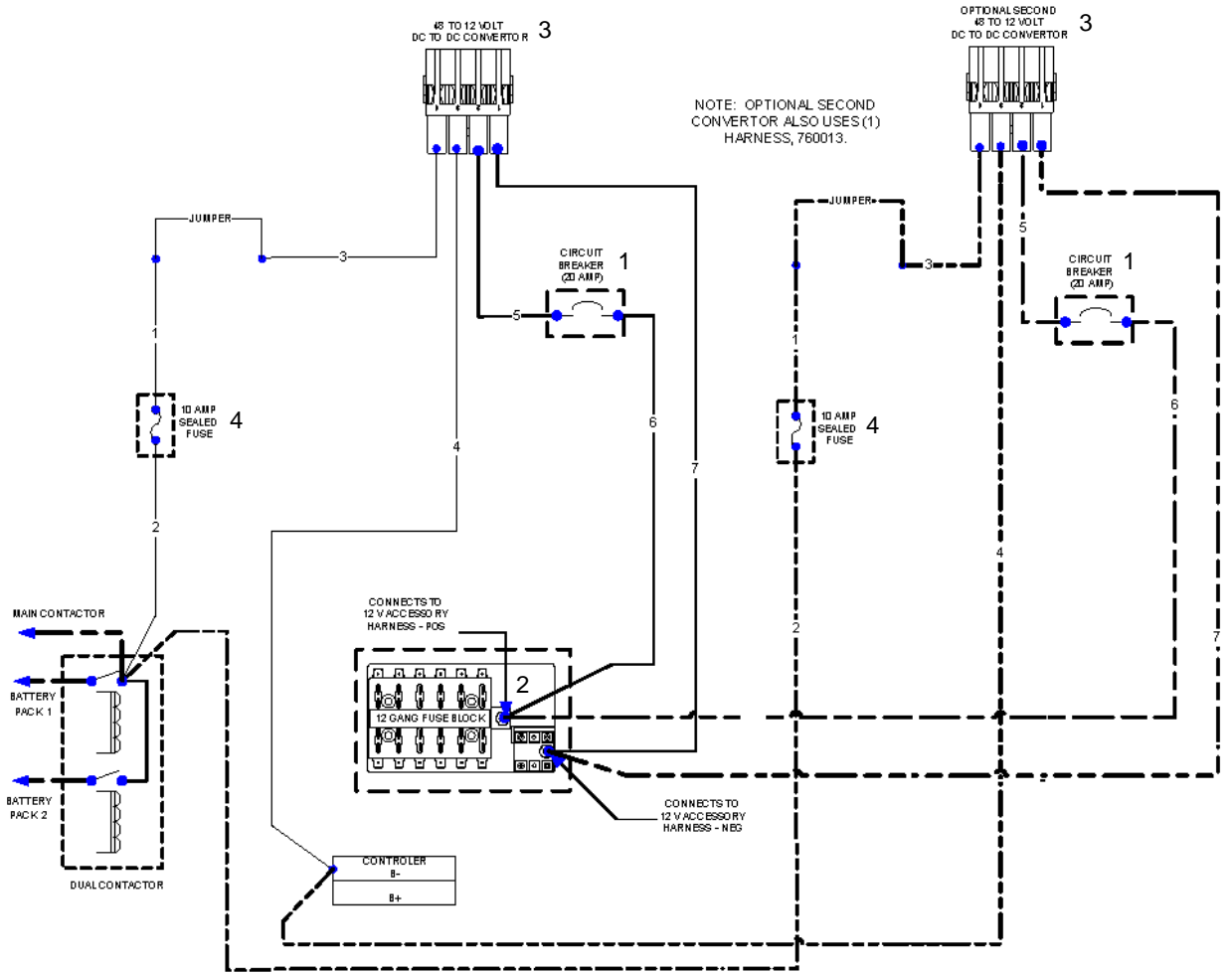
CIRCUIT NO.	DESCRIPTION	WIRE COLOR	WIRE GAGE
1	POWER SWITCH "X" TO FUSE HOLDER (10A)	RED	16
2	FUSE HOLDER (10A) TO POWER DISTRIBUTION BLOCK 48V POS	RED	16
3	POWER SWITCH "Y" TO DC/DC CONVERTOR POS INPUT (+IN)	RED	16
4	DC/DC CONVERTOR NEG INPUT (-IN) TO POWER DISTRIBUTION BLOCK 48V NEG	BLK	16
5	DC/DC CONVERTOR 12V OUT (+OUT) TO CIRCUIT BREAKER	RED	12
6	CIRCUIT BREAKER TO 12 GANG FUSE BLOCK (POS)	RED	12
7	12 GANG FUSE BLOCK (NEG) TO DC/DC CONVERTOR 12V (-OUT)	BLK	12



SCHEMATIC W/SINGLE BATTERY PACK-MVP

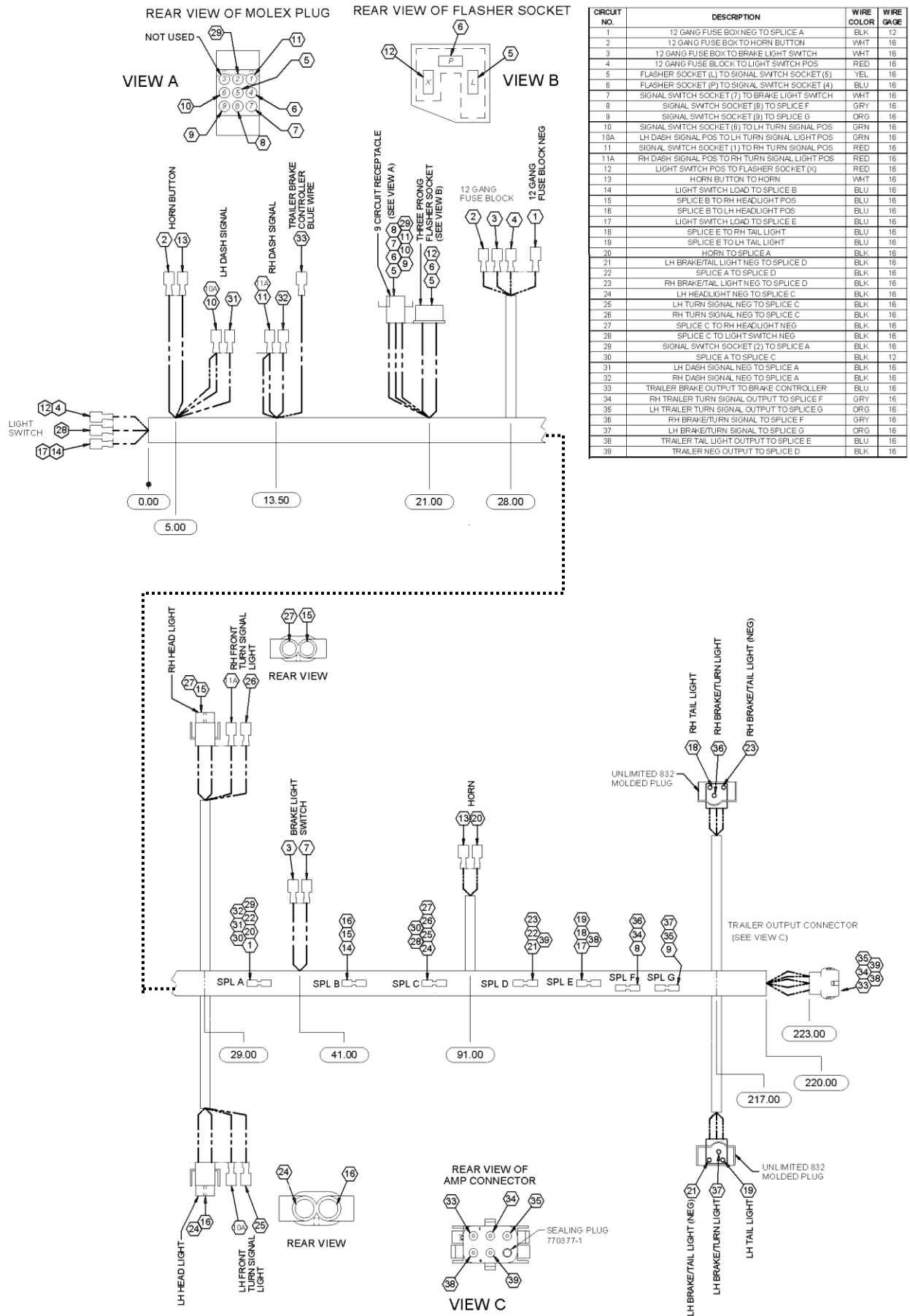


SCHEMATIC W/DUAL BATTERY PACK - MVP



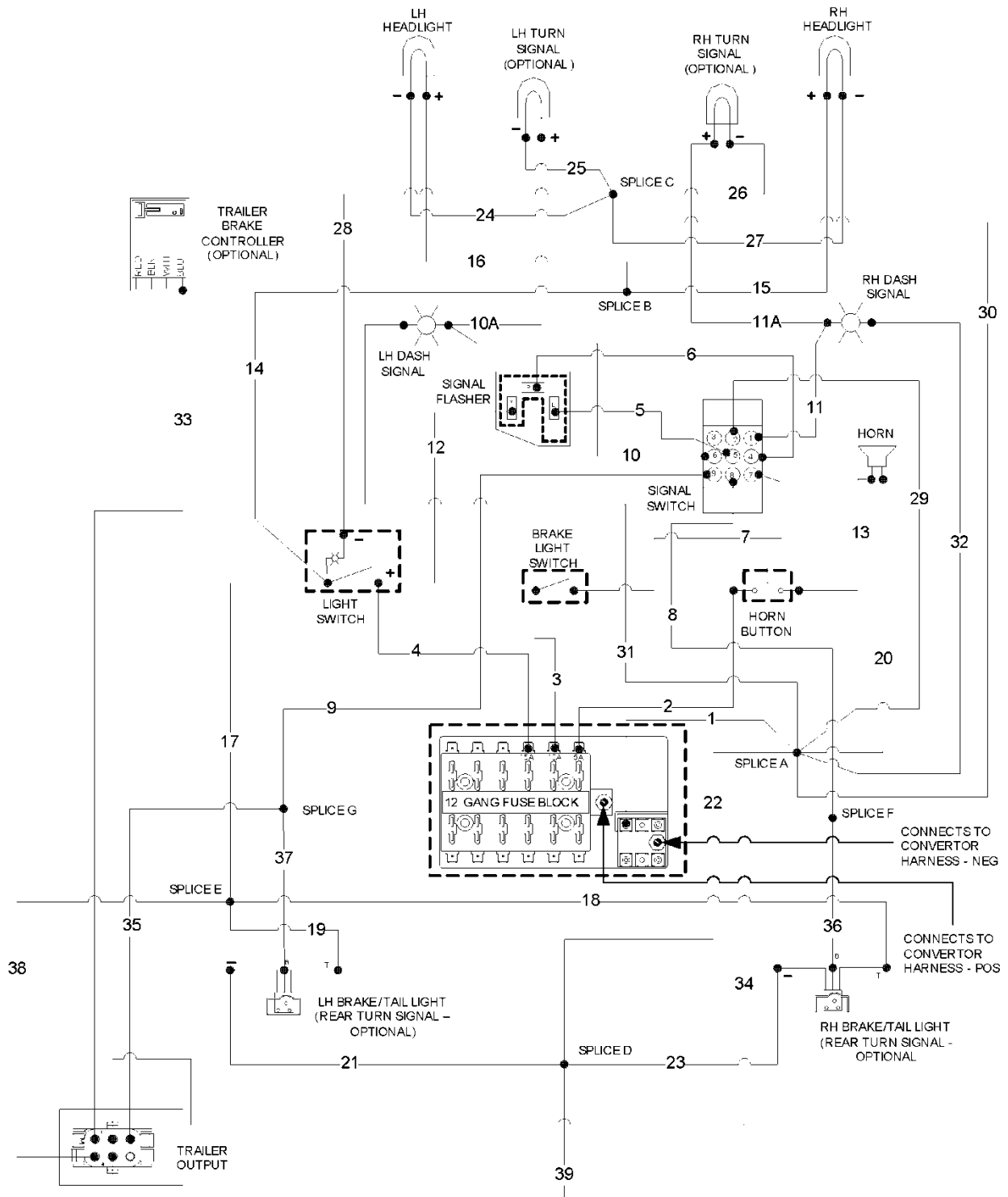
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	74591-96	CIRCUIT BREAKER, 20 AMP	1/2	709398
2	69513-12	FUSE BLOCK, 12-GANG W/GROUND TERMINAL	1	759912
3	69642-05	CONVERTOR, DC-DC 36V/48V, 13.4V, FUSED	1/2	760378
4	74596-02	FUSE 10 AMP, ATO/ATC	1/2	709786
5	71854-06	BLOCK, POWER DISTRIBUTION	1	759792
6	71732-06	POWER SWITCH	1	759706
7	69514-12	WIRE HARNESS, DC CONVERTOR	1	760013

ACCESSORY HARNESS – MVP



ACCESSORY HARNESS – MVP (Cont.)

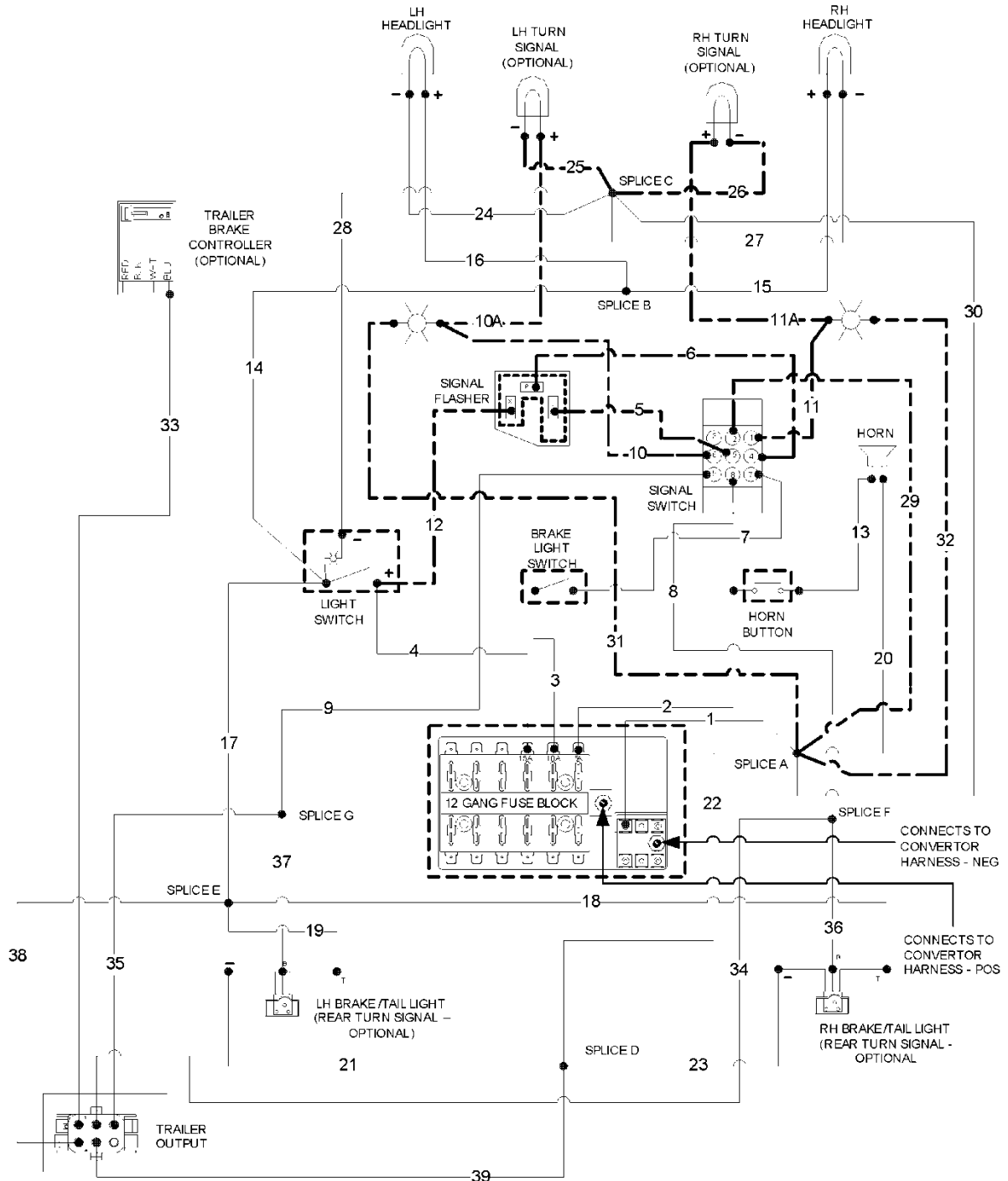
12 V ACCESSORY SCHEMATIC DIAGRAM (W/ TURN SIGNAL)



FUSE AMPERAGE FOR EACH CIRCUIT - HORN SWITCH - 5 AMPS
 BRAKE LIGHT SWITCH - 10 AMPS
 LIGHT SWITCH - 15 AMPS

ACCESSORY HARNESS – MVP (Cont.)

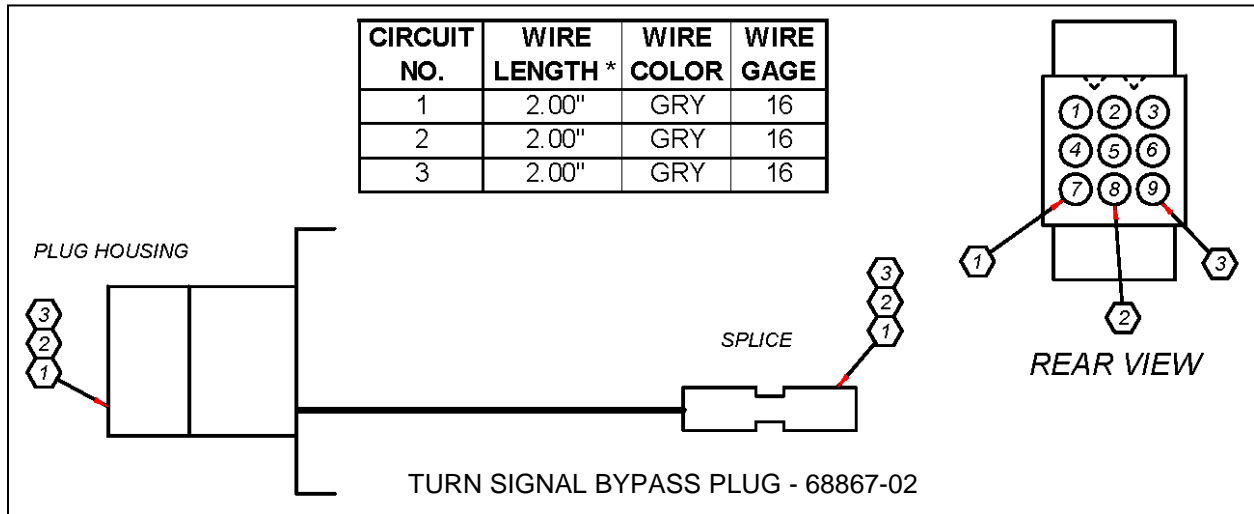
12 V ACCESSORY SCHEMATIC DIAGRAM (W/OUT TURN SIGNAL)



FUSE AMPERAGE FOR EACH CIRCUIT -

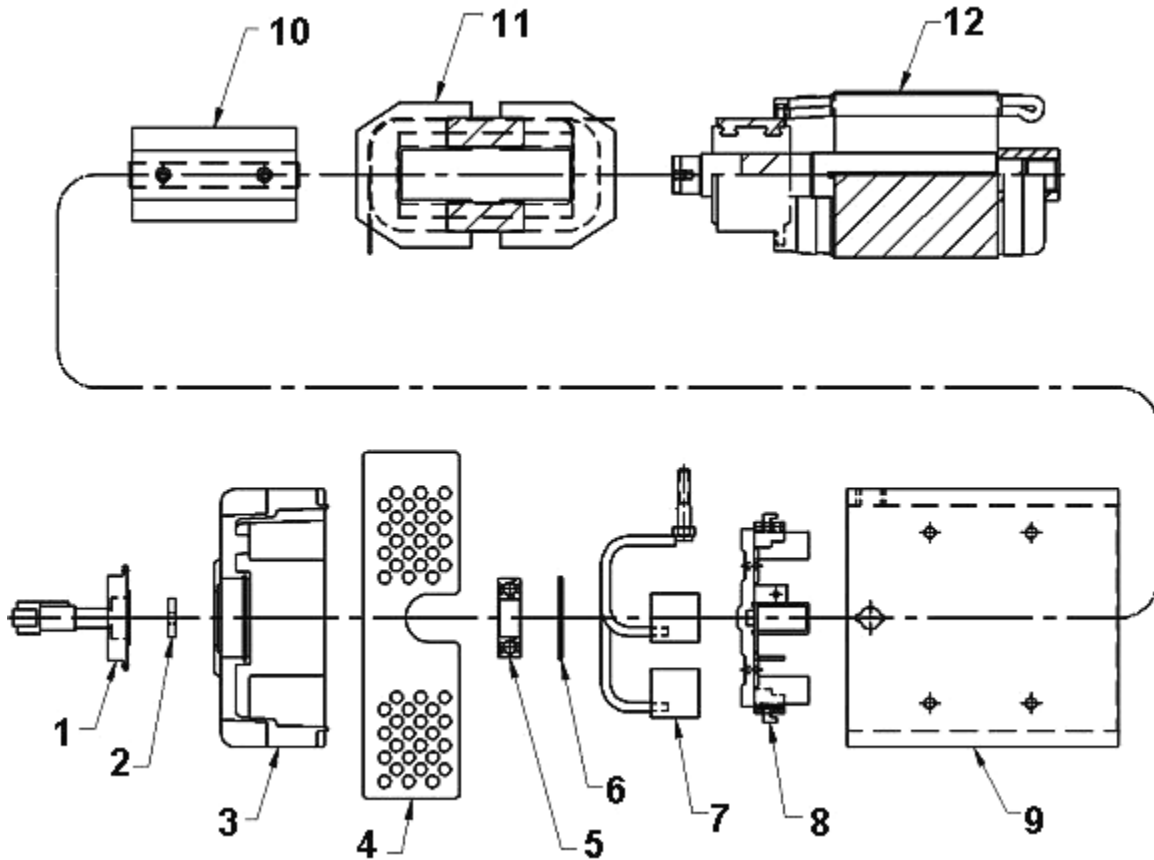
HORN SWITCH - 5 AMPS
BRAKE LIGHT SWITCH - 10 AMPS
LIGHT SWITCH - 15 AMPS
----- NOT USED

ACCESSORY HARNESS – MVP (Cont.)



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	69516-12	WIRE HARNESS, MVP, 12V, ACCESSORY	1	760012
2	69836-00	TURN LIGHT PIGTAIL W/GROMMET	2	463979
3	74596-02	FUUSE, 10 AMP ATO/ATC	1	709786
4	74595-01	FUUSE, 15 AMP ATO/ATC	1	709255
5	75593-04	FUUSE, 5 AMP ATO/ATC	1	719445
6	69001-76A	HORN, 12V (2 TERMINAL)	1	709089
7	41212-00	SWITCH, BRAKE LIGHT	1	709749
8	71807-80	SWITCH, HORN	1	709385
9	72000-10	SWITCH, TOGGLE, LIGHT	1	760600
10	71428-04	TURN SWITCH ASSY	1	467279
11	71977-04	TURN SIGNAL FLASHER UNIT	1	719366
12	69515-12	HEAD LIGHT	2	759915
13	68501-00	TURN LIGHT, AMBER, ROUND	2	709488
14	68020-92	BRAKE/TAIL LIGHT 4" ROUND	2	709109
14A	68028-04	BRAKE/TAIL LIGHT 4" ROUND LED	2	719368
15	68867-02	TURN SIGNAL BYPASS PLUG	1	709861

MOTOR SINGLE AXLE- MVP



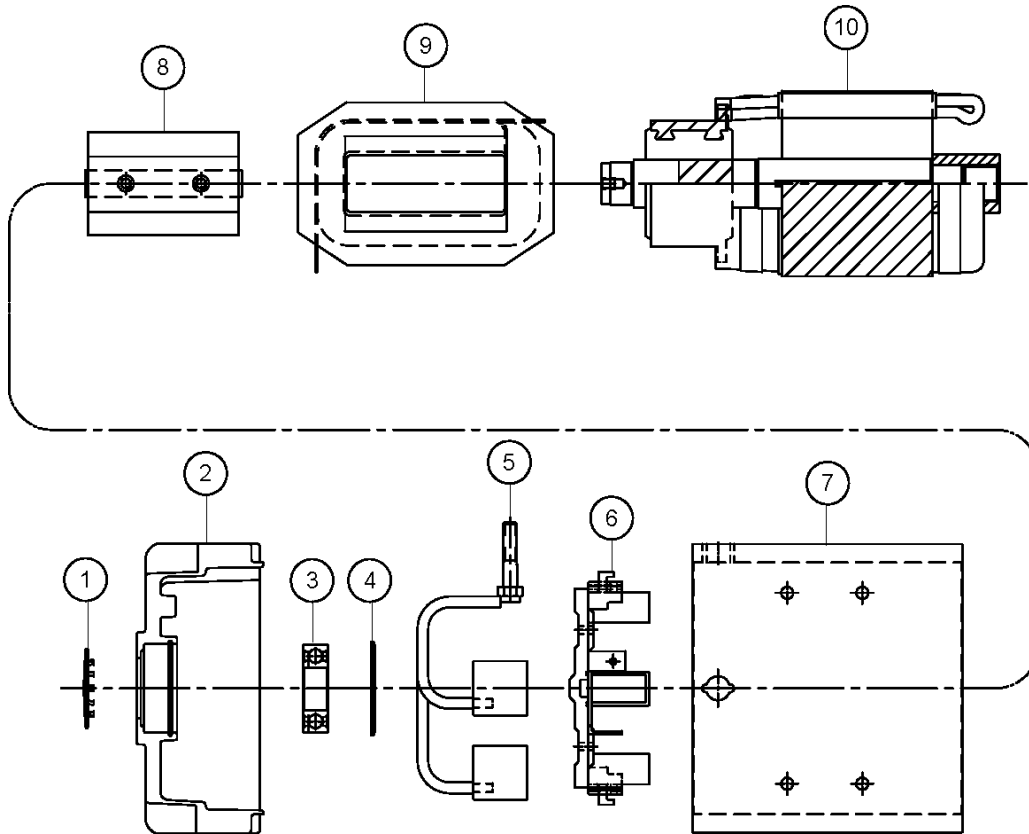
ITEM	CPC P/N	DESCRIPTION	QTY.	SEATS P/N
1	74884-04	SPEED SENSOR KIT (INCLUDES ITEM 2, SEE NOTE 2)	1	719446
2	(SEE NOTE 1)	MAGNET (SEE NOTE 2)	1	-
3	(SEE NOTE 1)	COMMUTATOR END HEAD (SEE NOTE 2)	1	-
4	(SEE NOTE 1)	HEAD BAND (SEE NOTE 2)	1	-
5	83310-07	BEARING	1	759896
6	(SEE NOTE 1)	RETAINING RING	1	-
7	30402-06	BRUSH ASSY. (SEE NOTE 2)	2	759780
8	30403-06	BRUSH BOX ASSY. (SEE NOTE 2)	1	759781
9	SEE NOTE 1)	MOTOR FRAME	1	-
10	SEE NOTE 1)	POLE SHOE ASSY. (SEE NOTE 2)	4	-
11	SEE NOTE 1)	SHUNT COIL ASSY. (SEE NOTE 2)	1	-
12	SEE NOTE 1)	ARMATURE ASSY.	1	-
13*	69301-04	MOTOR, COMPLETE (INCLUDES ITEMS 1-12)	-	719339

* ITEM NOT SHOWN

NOTES:

1. ONLY AVAILABLE AS SPECIAL ORDER
2. ITEM INCLUDES ALL NECESSARY FASTENERS

MOTOR DUAL AXLE- MVP

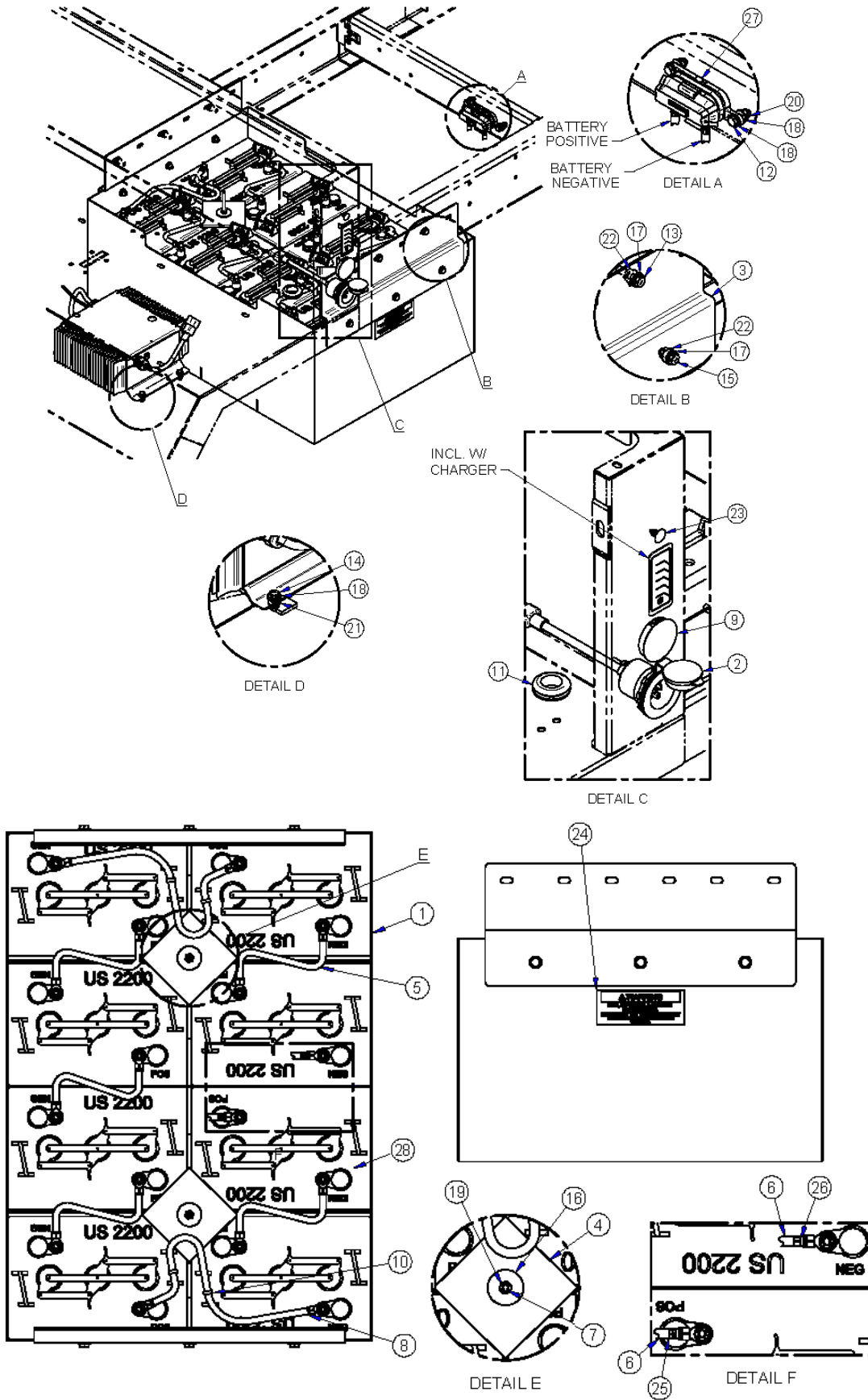


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	HOLE PLUG	1	N/A
2	*	COMMUTATOR END HEAD (Includes Fasteners)	1	N/A
3	83310-07	BEARING	1	759896
4	*	RETAINING RING	1	N/A
5	30402-06	BRUSH ASSY. (Includes Fasteners)	2	759780
6	30403-06	BRUSH BOX ASSY. (Includes Fasteners)	1	759781
7	*	MOTOR FRAME	1	N/A
8	*	POLE SHOE ASSY. (Includes Fasteners)	4	N/A
9	*	SHUNT COIL ASSY. (Includes Fasteners)	1	N/A
10	*	ARMATURE ASSY.	1	N/A
N/A	69300-03	MOTOR, COMPLETE (Includes Items 1-10)	1	719135

* SPECIAL ORDER

* NOT SHOWN

SINGLE BATTERY TRAY – MVP



SINGLE BATTERY TRAY – MVP (Cont.)

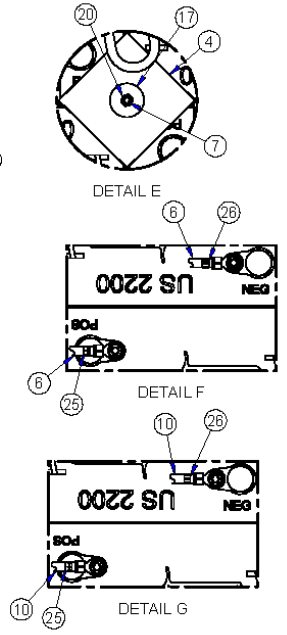
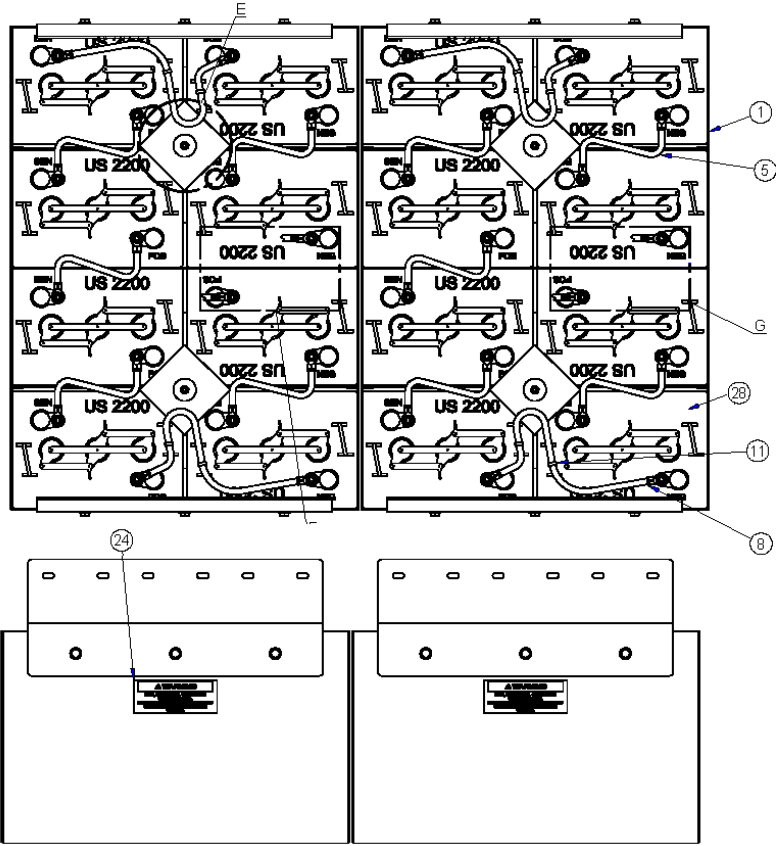
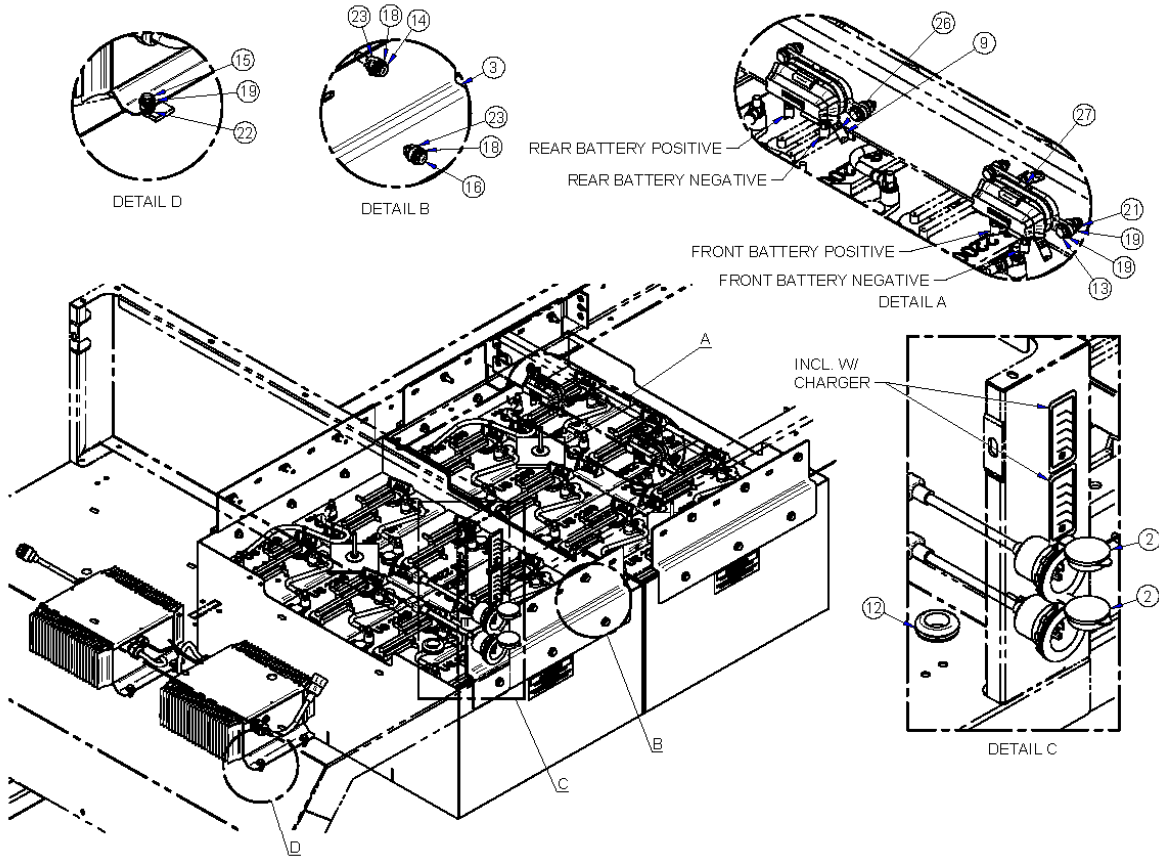
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	66218-12	TRAY BATTERY	1	309095
2	70036-05	ASSEMBLY, CHARGER CORD W/ RECEIPT	1	467405
3	66219-12	TRAY HANGER BRACKET	2	512272
4	66362-96	PLATE, HOLD DOWN	2	513002
5	70099-88	CABLE, 4GA X 8.75	5	709004
6	70105-88	CABLE, 4GA X 37	2	709019
7	66561-90A	HOLD DOWN ROD	2	709059
8	70351-88	CABLE, 4GA X 16.75	2	709600
9	**	DOME PLUG 2"	1	719214
10	10043	NYLON TIE	8	719504
11	11430	GROMMET	1	719524
12	2551-W	SCREW, 1/4-20X1 HHCS, G5	2	719564
13	2871-W	SCREW 5/16-18X 1 1/4 HHCS G5	6	719592
14	3787-B	SCREW 1/4-20X3/4 HHC G5	4	719636
15	3987-BS	SCREW 5/16-18X 3/4 HHCS G5	6	719642
16	6256	WASHER, SS .28X1.375X.06	2	719786
17	6702-B	WASHER, 5/16	12	719810
18	6703-B	WASHER, 1/4 DUAL ONLY	8	719811
19	7680	NUT, 1/4-20 SS NYLON	2	719876
20	7686	NUT, 1/4-20 NYLOCK, GA	2	719879
21	7724-B	NUT, 1/4-20 SER-FLG DUAL ONLY	4	719887
22	7750	NUT, 5/16-18 GR F FLNG CTR LOCK	12	719897
23	8200	FASTENER, PUSHPNL	1	719926
24	53283-00	DECAL, BATTERY BOX WARNING	2	739546
25	71581-84	WIRE MARKER, POSITIVE	2	749180
26	71582-84	WIRE MARKER, NEGATIVE	2	749181
27	71854-06	BLOCK, POWER DISTRIBUTION	1	759792
28	66014-03	BATTERY, 6V, DEEP CYCLE, (US 2200)	8	719229
28A*	66005-03	BATTERY, 6V DEEP CYCLE HD, (US-145)	8	719231
28B*	66200-10	BATTERY, 6V, AGM SEALED	8	760586
29*	66210-07	BATTERY WATERING SYSTEM CAPS	1	759857
30*	66211-07	BATTERY WATERING SYSTEM HAND PUMP	1	759858
-	N/A	GROUP SINGLE BATTERY (Includes Items 1 – 27)	1	191579A

* NOT SHOWN

** SPECIAL ORDER



DUAL BATTERY TRAY – MVP



DUAL BATTERY TRAY – MVP (Cont.)

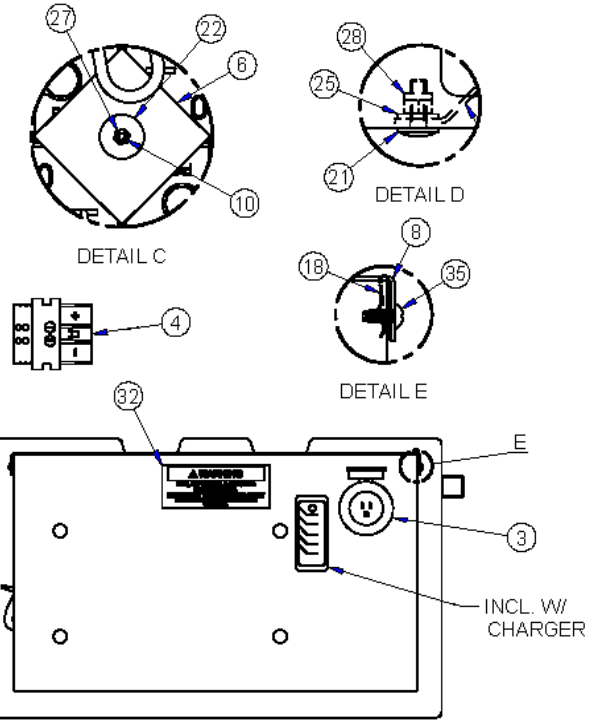
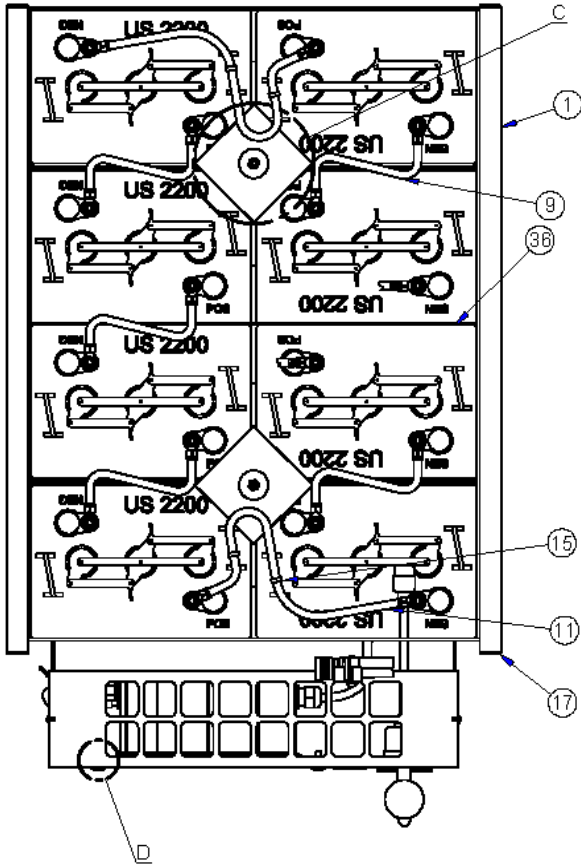
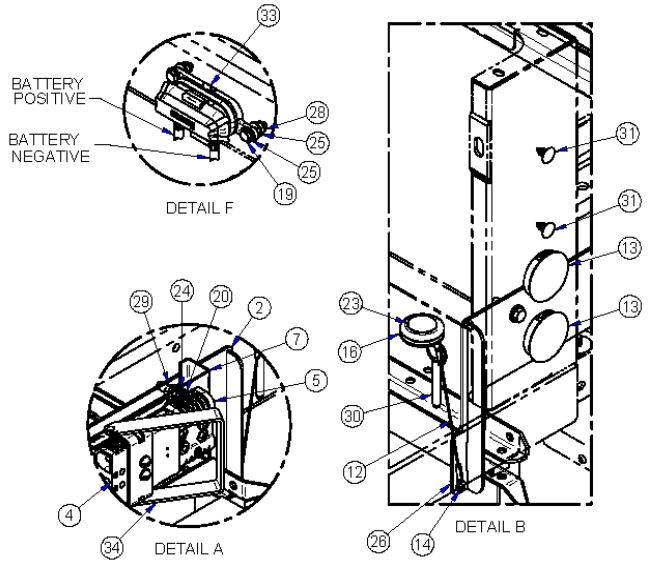
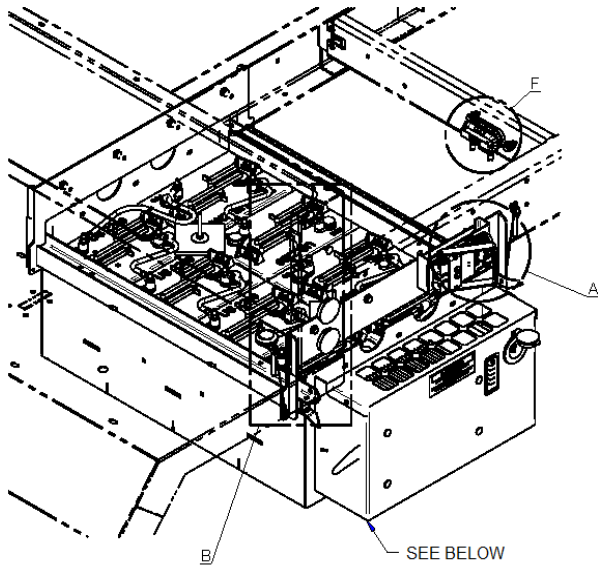
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	66218-12	TRAY BATTERY	2	309095
2	70036-05	ASSEMBLY, CHARGER CORD W/ RECEPT	2	467405
3	66219-12	TRAY HANGER BRACKET	4	512272
4	66362-96	PLATE, HOLD DOWN	4	513002
5	70099-88	CABLE, 4GA X 8.75	10	709004
6	70105-88	CABLE, 4GA X 37	2	709019
7	66561-90A	HOLD DOWN ROD	4	709059
8	70351-88	CABLE, 4GA X 16.75	4	709600
9	70351-88	CABLE, 4GA X 16.75	1	709600
10	70112-95	CABLE, 4GA X 25.5	2	709732
11	10043	NYLON TIE	16	719504
12	11430	GROMMET	1	719524
13	2551-W	SCREW, 1/4-20 X1 HHCS, G5	4	719564
14	2871-W	SCREW 5/16-18 X 1 1/4 HHCS G5	8	719592
15	3787-B	SCREW 1/4-20 X 3/4 HHC G5	8	719636
16	3987-BS	SCREW 5/16-18 X 3/4 HHCS G5	12	719642
17	6256	WASHER, SS .28 X 1.375X.06	4	719786
18	6702-B	WASHER, 5/16	20	719810
19	6703-B	WASHER, 1/4 DUAL ONLY	16	719811
20	7680	NUT, 1/4-20 SS NYLON	4	719876
21	7686	NUT, 1/4-20 NYLOCK, GA	4	719879
22	7724-B	NUT, 1/4-20 SER-FLG DUAL ONLY	8	719887
23	7750	NUT, 5/16-18 GR F FLNG CTR LOCK	20	719897
24	53283-00	DECAL, BATTERY BOX WARNING	4	739546
25	71581-84	WIRE MARKER, POSITIVE	4	749180
26	71582-84	WIRE MARKER, NEGATIVE	6	749181
27	71854-06	BLOCK, POWER DISTRIBUTION	2	759792
28	66014-03	BATTERY, 6V, DEEP CYCLE, (US 2200)	16	719229
28A*	66005-03	BATTERY, 6V DEEP CYCLE HD, (US-145)	16	719231
28B*	66200-10	BATTERY, 6V, AGM SEALED	16	760586
29*	66210-07	BATTERY WATERING SYSTEM CAPS	2	759857
30*	66211-07	BATTERY WATERING SYSTEM HAND PUMP	2	759858
-	N/A	GROUP DUAL BATTERY TRAY (Includes Items 1 – 27)	1	191581A

* NOT SHOWN

** SPECIAL ORDER



BATTERY EXCHANGE TRAY – MVP



BATTERY EXCHANGE TRAY – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	**	BATTERY TRAY, EXCHANGE	1	311791
2	**	BATTERY FRAME	1	311792
3	70036-05	CHARGER CORD W/ RECEIPT	1	467405
4	**	CONNECTOR ASSEMBLY	1	467990
5	**	CONNECTOR, ASSEMBLY DIST BLOCK	1	467991
6	66362-96	PLATE, BATTERY HOLD DOWN	2	513002
7	**	BRACKET, CONNECTOR	1	515395
8	**	COVER, CHARGER	1	515396
6	70099-88	CABLE, 4GA X 8.75", 5/16"	5	709004
10	66561-90A	ROD, BATTERY HOLD DOWN	2	709059
11	70351-88	CABLE, 4GA X 16.75", 5/16"	2	709600
12	40826-02	LANYARD, 7 3/4" LG	2	709929
13	**	DOME PLUG, BLACK, 2.00"	2	719214
14	3615	SCREW, 10-24 X 1/2 PHILLIPS, BLK	2	719467
15	10043	NYLON TIE, BLACK	8	719504
16	11430	GROMMET, 1.00" ID X 1.75" OD X .56", RUBBER	1	719524
17	11432	CAPLUG, FP-161, 1" SQ X .120 WALL	4	719525
18	11736	NUT, TINNEMAN, #10 U-TYPE	2	719538
19	2551-W	SCREW, 1/4-20 X 1, HHCS, G5	2	719564
20	2871-W	SCREW, 5/16-18 X 1-1/4, HHCS, G5	8	719592
21	5405-B	CARRIAGE BOLT 1/4-20 X 3/4 GR 5 HC-BK	4	719747
22	6256	WASHER FLT STAINLESS .28X1.375X.06	2	719786
23	63912	PLUG, 1" 12 PRONG HOLE ZNC/CLEAR	1	719794
24	6702-B	WASHER, 5/16, SAE, F/W, BLK MAX	8	719810
25	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	8	719811
26	7624	NUT 10-24 GR A NM MACH NYLON LOCK	2	719870
27	7680	NUT 1/4-20 NE 316 STAINLESS NYLON	2	719876
28	7686	NUT, 1/4-20, NYLOCK, GA	6	719879
29	7750	LOCKNUT, 5/16-18 HX FLNG 2-WAY CNTR	8	719897
30	799	PIN, 5/16 X 2, COTTERLESS HITCH,ZC	2	719918
31	8200	FASTENER, PUSHPNL, .25 X .6875 X .625	2	719926
32	53283-00	DECAL BATTERY BOX WARNING	2	739546
33	71854-06	BLOCK, POWER DISTRIBUTION	1	759792
34	**	TRUCK BRACKET, MANUAL RELEASE	1	760646
35	1503	SCREW, 10-16 X 1/2",PPH, TYPE B, BLK 96	2	760890
36	66014-03	BATTERY, 6V, DEEP CYCLE, (US 2200)	8	719229
36A*	66005-03	BATTERY, 6V DEEP CYCLE HD, (US-145)	8	719231
36B*	66200-10	BATTERY, 6V, AGM SEALED	8	760586

* NOT SHOWN

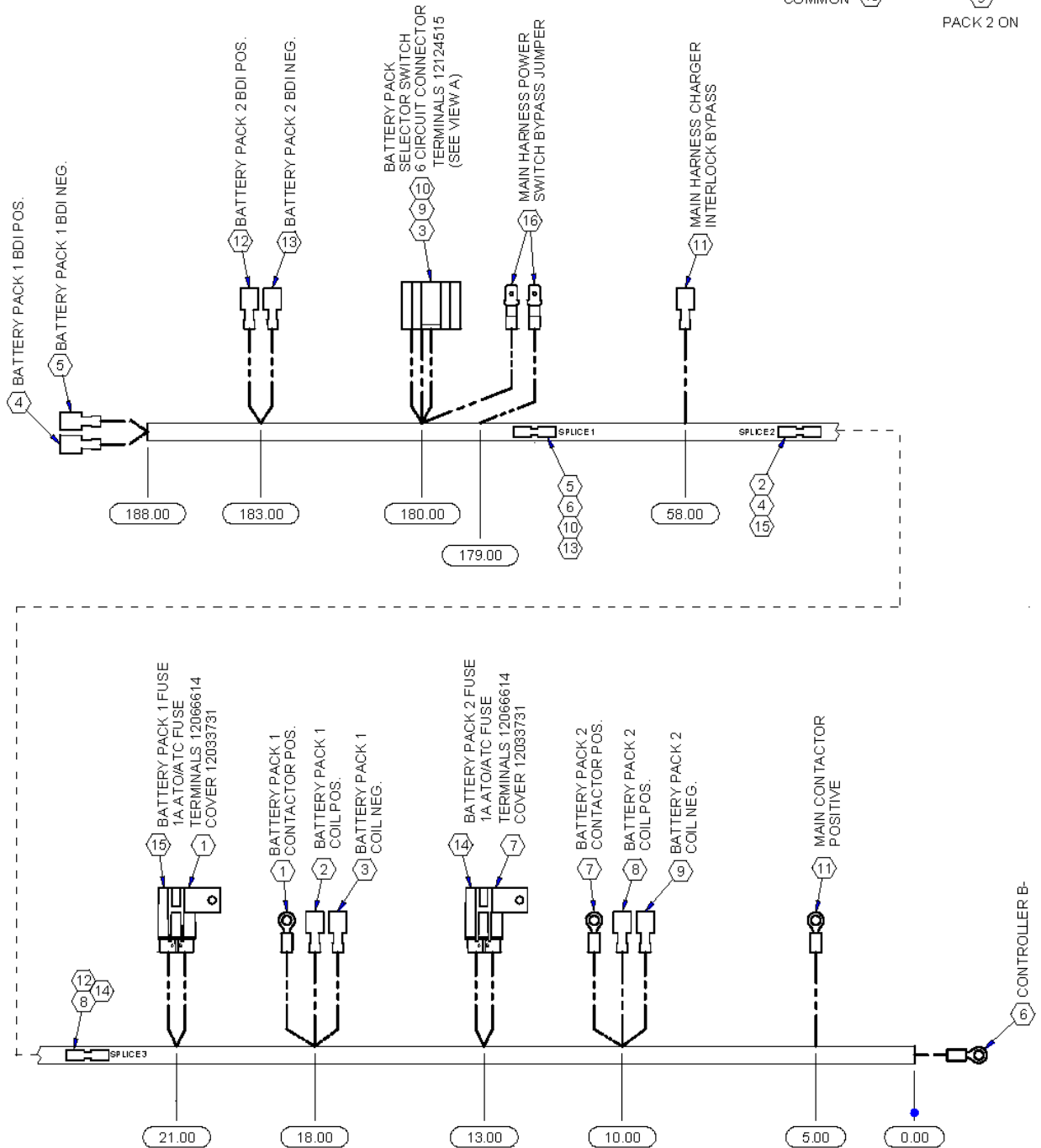
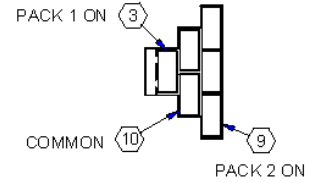
** SPECIAL ORDER

HARNESS DUAL BATTERY SELECTOR – MVP P/N 71417-12

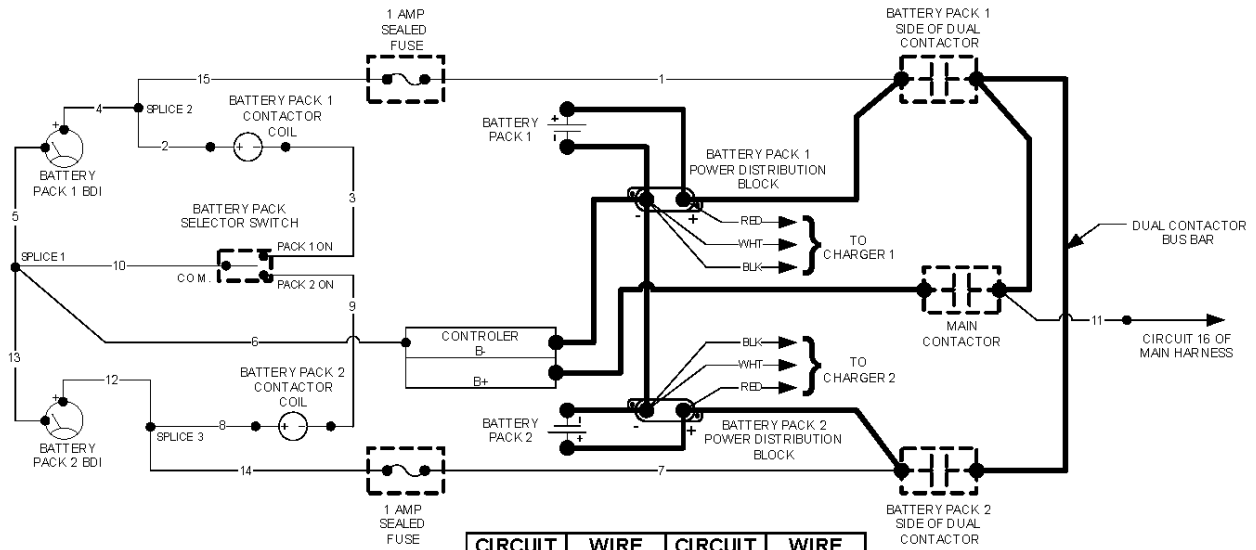
CIRCUIT NO.	DESCRIPTION	WIRE LENGTH *	WIRE COLOR	WIRE GAGE
1	PACK 1 CONTACTOR POS. TO PACK 1 (1A) FUSE	11.00	RED	16
2	SPLICE 2 TO PACK 1 COIL POS.	15.00	RED	16
3	PACK 1 COIL NEG. TO SELECTOR SWITCH "R"	170.00	BLK	16
4	SPLICE 2 TO PACK 1 BDI POS.	163.00	RED	16
5	PACK 1 BDI NEG. TO SPLICE 1	16.00	BLK	16
6	SPLICE 1 TO CONTROLLER B-	180.00	BLK	12
7	PACK 2 CONTACTOR POS TO PACK 2 (1A) FUSE	11.00	RED	16
8	SPLICE 3 TO PACK 2 COIL POS.	19.00	RED	16
9	PACK 2 COIL NEG. TO SELECTOR SWITCH "F"	178.00	BLK	16
10	SELECTOR SWITCH "B" TO SPLICE 1	8.00	BLK	16
11	MAIN HARNESS CIRCUIT 16 TO CONTACTOR SWITCHED SIDE	61.00	RED	16
12	SPLICE 3 TO PACK 2 BDI POS.	162.00	RED	16
13	PACK 2 BDI NEG. TO SPLICE 1	11.00	BLK	16
14	SPLICE 3 TO PACK 2 (1A) FUSE	16.00	RED	16
15	SPLICE 2 TO PACK 1 (1A) FUSE	12.00	RED	16
16	POWER SWITCH BYPASS	9.00	RED	16

VIEW A

REAR VIEW OF BATTERY
PACK SELECTOR
SWITCH CONNECTOR

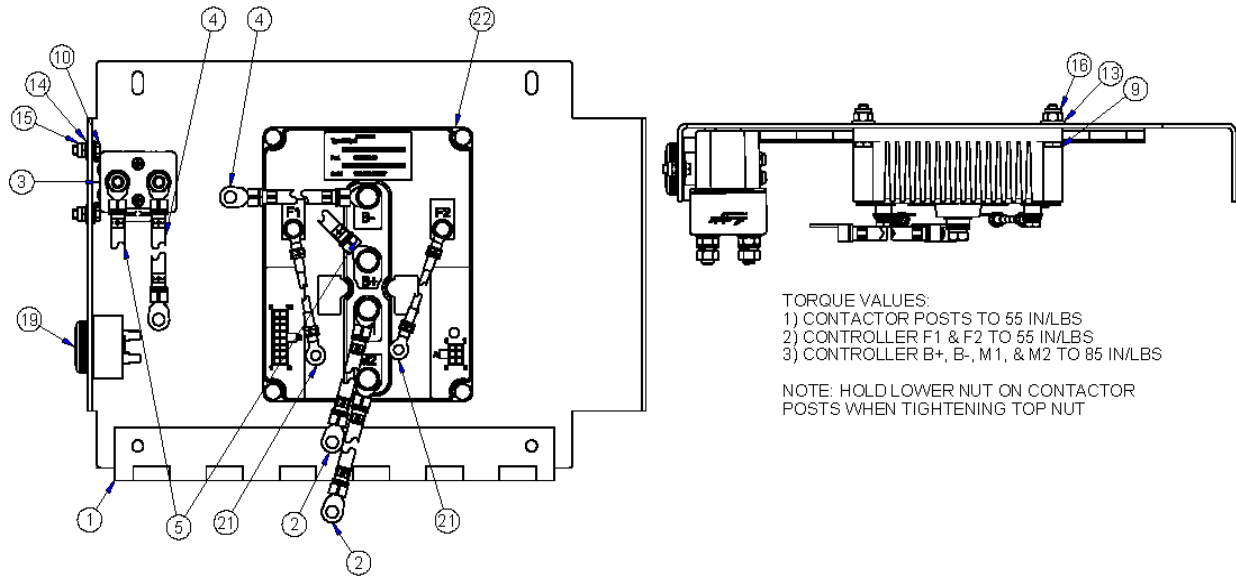


HARNESS DUAL BATTERY SELECTOR – MVP (Cont.)



CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR
1	RED	9	BLK
2	RED	10	BLK
3	BLK	11	RED
4	RED	12	RED
5	BLK	13	BLK
6	BLK	14	RED
7	RED	15	RED
8	RED		

DC ASSEMBLY PANEL, ONE AXLE & ONE BATTERY PACK – MVP

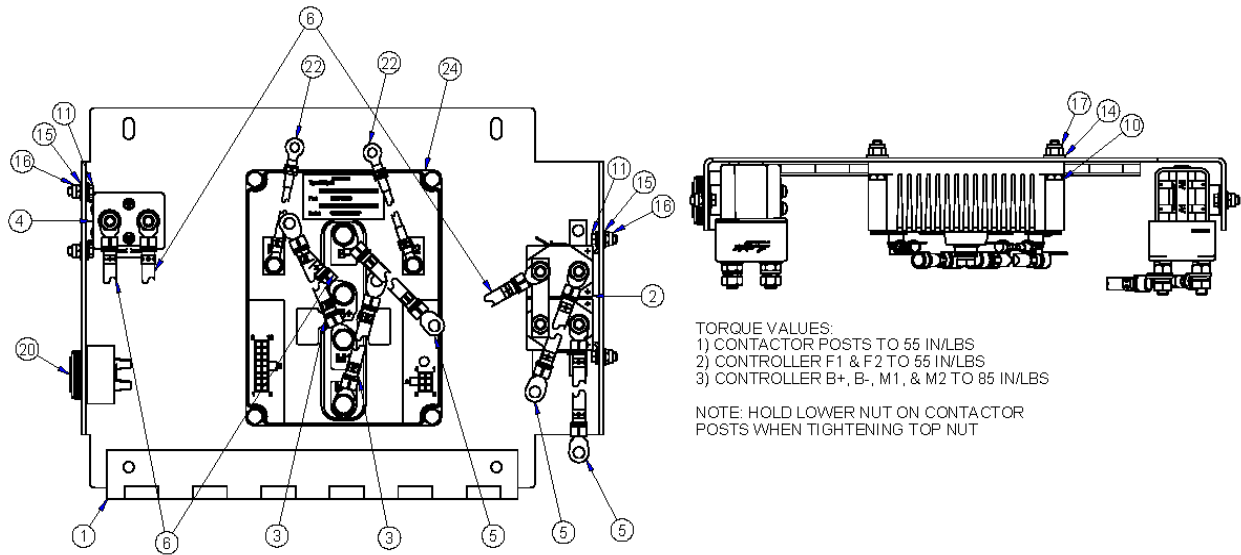


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	**	CONTROL PANEL	1	309106
2	70105-88	CABLE 4 GA X 37	2	709019
3	71455-01A	CONTACTOR & BRACKET 24 V COIL	1	709166
4	70105-89	CABLE 4 GA X 61.5	2	709411
5	70351-88	CABLE 4 GA X 16.75	1	709600
6*	32973-04	WIRE MARKER, F1 (.0278)	2	719330
7*	32972-04	WIRE MARKER, F2 (.0278)	2	719331
8*	10043	CABLE TIE, BLACK, .18 X 11 -3/4, STD, 50LB	2	719504
9	2551-W	SCREW, 1/4-20 X 1, HHCS, G5, YWZC 150	4	719564
10	2685-W	SCREW, 10-24 X 5/8 HWH TRD ROL	2	719586
11*	32970-67	WIRE MARKER, A1 (.0278)	2	719600
12*	32971-67	WIRE MARKER, A2 (.0278)	2	719601
13	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	4	719811
14	6716	WASHER, #10, SAE, F/W, BLK MAX	2	719812
15	7624	NUT 10-24 GR A NM MACH NYLON LOCK	2	719870
16	7636	NUT, 1/4-20, NYLOCK, GA, YWZC	4	719879
17*	71581-84	WIRE MARKER, POSITIVE (.0278)	4	749180
18*	71582-84	WIRE MARKER, NEGATIVE (.0278)	2	749181
19	71408-96A	AUDIBLE ALARM 12/48 VDC	1	759831
20*	69512-12	WIRE HARNESS, MAIN	1	760014
21	71418-12	CABLE ASSY 10GA X 28, 1/4	2	760222
22	47895-05A	CONTROLLER, SEVCON, RGEN-SEPEX, 24/48C (Programmed 760576)	1	467696
-	N/A	ASSEMBLY, DC 1 BAT 1 AXLE (Includes above)	1	467564

* NOT SHOWN

** SPECIAL ORDER

DC ASSEMBLY PANEL ONE AXLE & TWO BATTERY PACKS- MVP

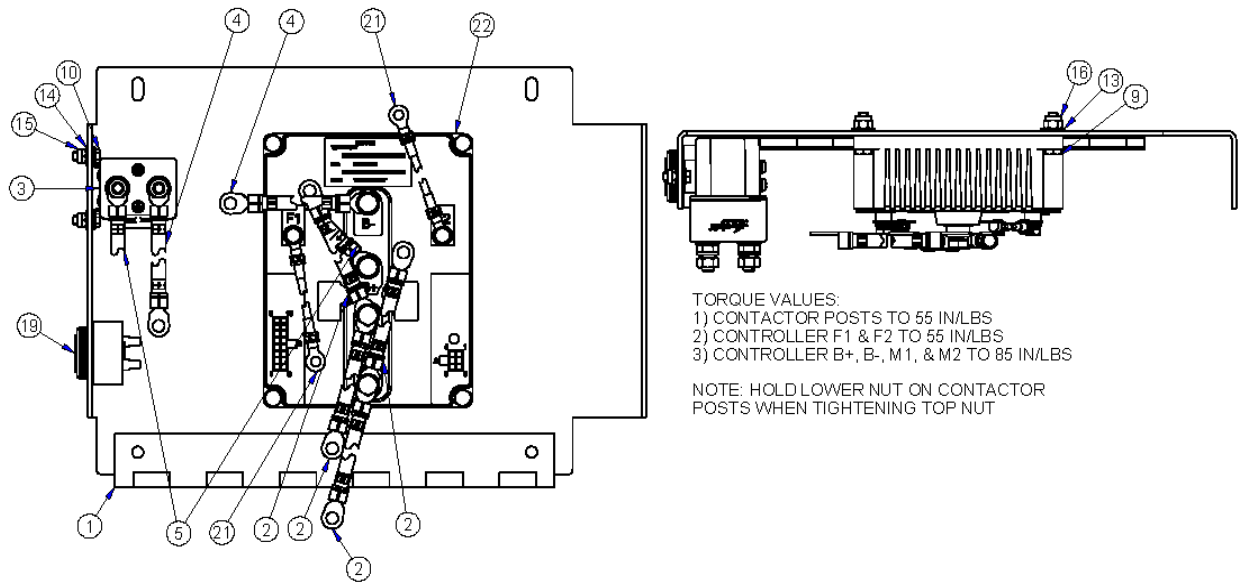


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	**	CONTROL PANEL	1	309106
2	71416-12	MOD CONTACTOR, DOUBLE – 48 COILS	1	467562
3	70105-88	CABLE 4 GA X 37	2	709019
4	71455-01A	CONTACTOR & BRACKET	1	709166
5	70105-89	CABLE 4 GA X 61.5	3	709411
6	70351-88	CABLE 4 GA X 16.75	2	709600
7*	32973-04	WIRE MARKER, F1 (.0278)	2	719330
8*	32972-04	WIRE MARKER, F2 (.0278)	2	719331
9*	10043	CABLE TIE, BLACK, .18 X 11 -3/4, STD, 50LB	2	719504
10	2551-W	SCREW, 1/4-20 X 1, HHCS, G5, YWZC 150	4	719564
11	2685-W	SCREW, 10-24 X 5/8 HWH TRD ROL	4	719586
12*	32970-67	WIRE MARKER, A1 (.0278)	2	719600
13*	32971-67	WIRE MARKER, A2 (.0278)	2	719601
14	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	4	719811
15	6716	WASHER, #10, SAE, F/W, BLK MAX	4	719812
16	7624	NUT 10-24 GR A NM MACH NYLON LOCK	4	719870
17	7636	NUT, 1/4-20, NYLOCK, GA, YWZC	4	719879
18*	71581-84	WIRE MARKER, POSITIVE (.0278)	8	749180
19*	71582-84	WIRE MARKER, NEGATIVE (.0278)	2	749181
20	71408-96A	AUDIBLE ALARM 12/48 VDC	1	759831
21*	69512-12	WIRE HARNESS, MAIN	1	760014
22	71418-12	CABLE ASSY 10GA X 28, 1/4	2	760222
23*	71417-12	WIRE HARNESS, DUAL BATTERY SELECTOR	1	760317
24	47895-05A	CONTROLLER, SEVCON, RGEN-SEPEX, 24/48C (Programmed 760576)	1	467696
-	N/A	ASSEMBLY, DC 2 BAT 1 AXLE (Includes above)	1	467634

* NOT SHOWN

** SPECIAL ORDER

DC ASSEMBLY PANEL TWO AXLES & ONE BATTERY PACK- MVP

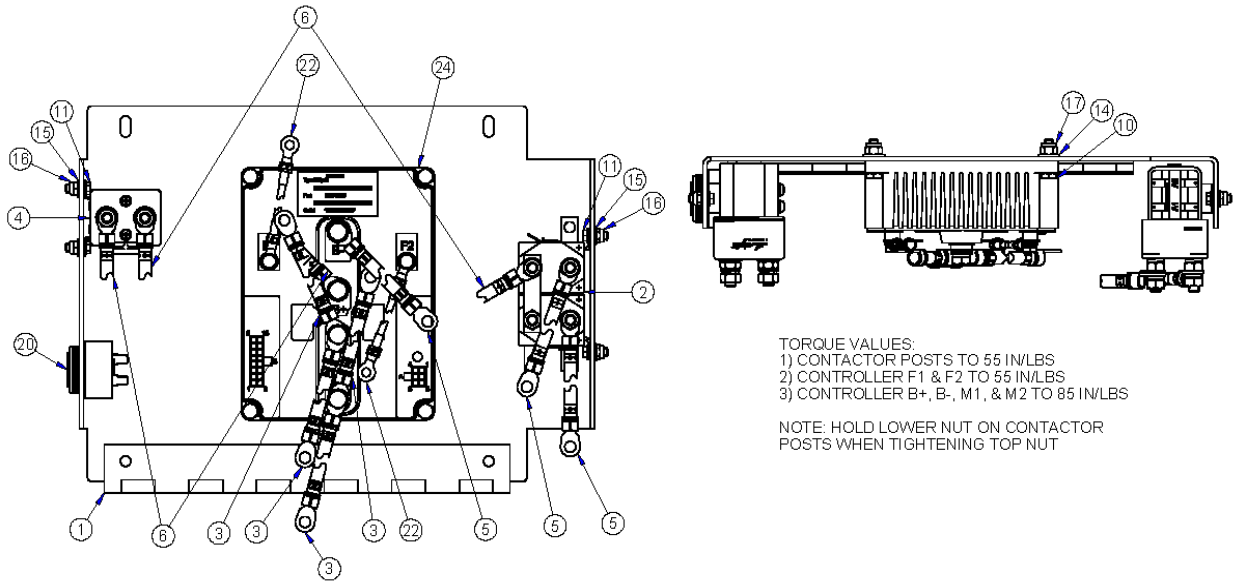


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	**	CONTROL PANEL	1	309106
2	70105-88	CABLE 4 GA X 37	4	709019
3	71455-01A	CONTACTOR & BRACKET	1	709166
4	70105-89	CABLE 4 GA X 61.5	2	709411
5	70351-88	CABLE 4 GA X 16.75	1	709600
6*	32973-04	WIRE MARKER, F1 (.0278)	2	719330
7*	32972-04	WIRE MARKER, F2 (.0278)	2	719331
8	10043	CABLE TIE, BLACK, .18 X 11 -3/4, STD, 50LB	2	719504
9	2551-W	SCREW, 1/4-20 X 1, HHCS, G5, YWZC 150	4	719564
10	2685-W	SCREW, 10-24 X 5/8 HWH TRD ROL	2	719586
11*	32970-67	WIRE MARKER, A1 (.0278)	4	719600
12*	32971-67	WIRE MARKER, A2 (.0278)	4	719601
13	6703-B	WASHER, 1/4, SAE, FW, BLK MAX	4	719811
14	6716	WASHER, #10, SAE, FW, BLK MAX	2	719812
15	7624	NUT 10-24 GR A NM MACH NYLON LOCK	2	719870
16	7636	NUT, 1/4-20, NYLOCK, GA, YWZC	4	719879
17*	71581-84	WIRE MARKER, POSITIVE (.0278)	4	749180
18*	71582-84	WIRE MARKER, NEGATIVE (.0278)	2	749181
19	71408-96A	AUDIBLE ALARM 12/48 VDC	1	759831
20*	69512-12	WIRE HARNESS, MAIN	1	760014
21	71418-12	CABLE ASSY 10GA X 28, 1/4	2	760222
22*	47895-05A	CONTROLLER, SEVCON, RGEN-SEPEX, 24/48C (Programmed 760576)	1	467696
-	N/A	ASSEMBLY, DC 1 BAT 2 AXLE	1	467596

* NOT SHOWN

** SPECIAL ORDER

DC ASSEMBLY PANEL TWO AXLES & TWO BATTERY PACK- MVP



TORQUE VALUES:
 1) CONTACTOR POSTS TO 55 IN/LBS
 2) CONTROLLER F1 & F2 TO 55 IN/LBS
 3) CONTROLLER B+, B-, M1, & M2 TO 85 IN/LBS

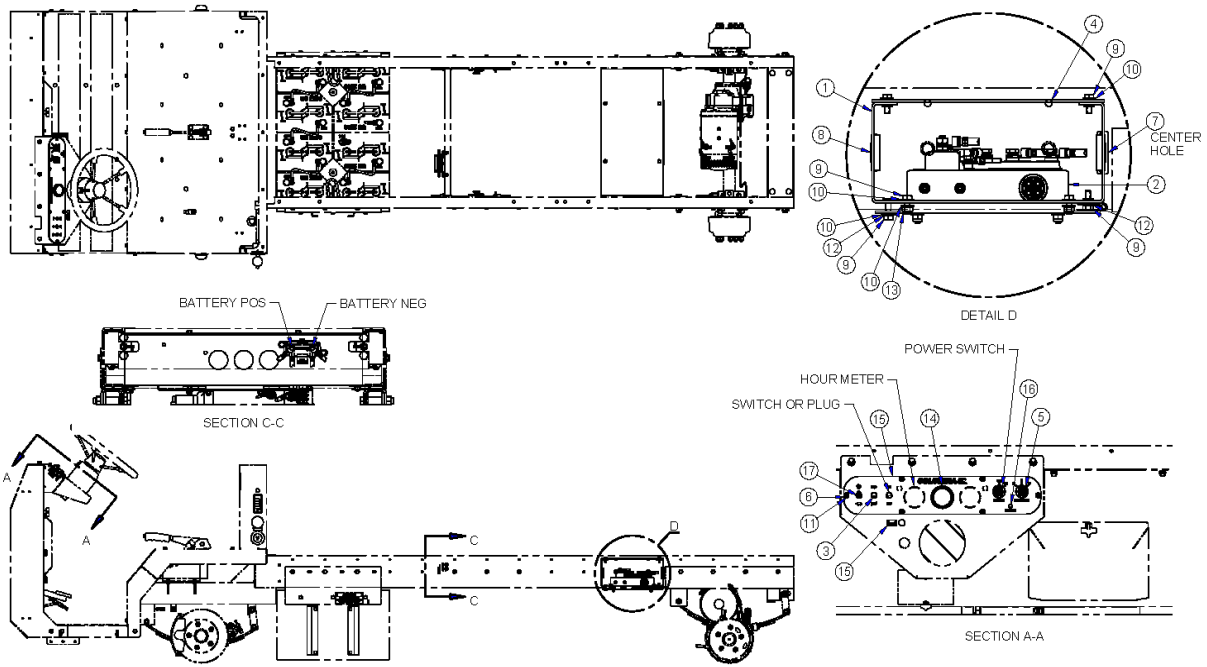
NOTE: HOLD LOWER NUT ON CONTACTOR POSTS WHEN TIGHTENING TOP NUT

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	**	CONTROL PANEL	1	309106
2	71416-12	MOD CONTACTOR, DOUBLE – 48 COILS	1	467562
3	70105-88	CABLE 4 GA X 37	4	709019
4	71455-01A	CONTACTOR & BRACKET	1	709166
5	70105-89	CABLE 4 GA X 61.5	3	709411
6	70351-88	CABLE 4 GA X 16.75	2	709600
7*	32973-04	WIRE MARKER, F1 (.0278)	2	719330
8*	32972-04	WIRE MARKER, F2 (.0278)	2	719331
9*	10043	CABLE TIE, BLACK, .18 X 11 -3/4, STD, 50LB	2	719504
10	2551-W	SCREW, 1/4-20 X 1, HHCS, G5, YWZC 150	4	719564
11	2685-W	SCREW, 10-24 X 5/8 HWH TRD ROL	4	719586
12*	32970-67	WIRE MARKER, A1 (.0278)	4	719600
13*	32971-67	WIRE MARKER, A2 (.0278)	4	719601
14	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	4	719811
15	6716	WASHER, #10, SAE, F/W, BLK MAX	4	719812
16	7624	NUT 10-24 GR A NM MACH NYLON LOCK	4	719870
17	7636	NUT, 1/4-20, NYLOCK, GA, YWZC	4	719879
18*	71581-84	WIRE MARKER, POSITIVE (.0278)	8	749180
19*	71582-84	WIRE MARKER, NEGATIVE (.0278)	2	749181
20	71408-96A	AUDIBLE ALARM 12/48 VDC	1	759831
21*	69512-12	WIRE HARNESS, MAIN	1	760014
22	71418-12	CABLE ASSY 10GA X 28, 1/4	2	760222
23*	71417-12	WIRE HARNESS, DUAL BATTERY SELECTOR	1	760317
24	47895-05A	CONTROLLER, SEVCON, RGEN-SEPEX, 24/48C (Programmed 760576)	1	467696
-	N/A	ASSEMBLY, DC 2 BAT 2 AXLE (Includes above)	1	467560

* NOT SHOWN

** SPECIAL ORDER

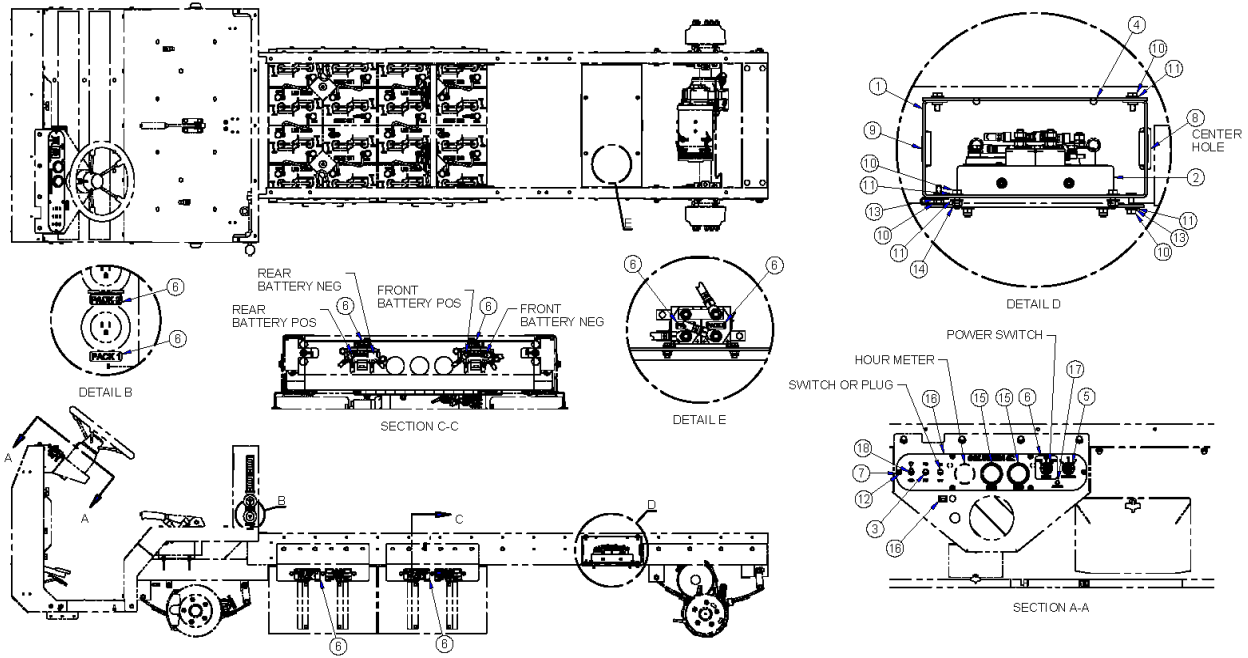
DC POWER, ONE AXLE & ONE BATTERY PACK – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	CONTROLS HANGER	1	309107
2	*	ASSEMBLY, SEVCON DC PANEL	1	467564
3	51486-14	PLATE, INNER DASH INSERT	1	512263
4	*	COVER, CONTROL PANEL	1	512548
5	71730-01	KEYSWITCH, UNIVERSAL "A" W/HARDWARE	1	709040
6	3615	SCREW, 10-24X1/2PHILLIPS,BLK ZNC	6	719467
7	11418-A	GROMMET, 2775 EPDM 3/16 GROOVE	1	719523
8	11448	PLUG, 1.75" BLACK PLASTIC	5	719530
9	3787-B	SCREW, 1/4-20 X 3/4, HHCS, G5, BLK 150	12	719636
10	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	14	719811
11	6716	WASHER,#10,SAE,F/W,BLK MAX	6	719812
12	7036-B	WASHER LOCK 1/4 REGULAR BLK ZINC	4	719834
13	7686	NUT, 1/4-20, NYLOCK, GA	4	719879
14	75061-07	BDI, 48V - VOLTMETER STYLE	2	759842
15	*	DASH OVERLAY	1	759910
16	67791-08	INDICATOR, LED, SERIES 22	1	759932
17	72000-10	SWITCH, TOGGLE, LIGHTS ON-OFF	1	760600
-	N/A	GROUP, DC, 1 BAT 1 AXLE (Includes above)	1	191617A

* SPECIAL ORDER

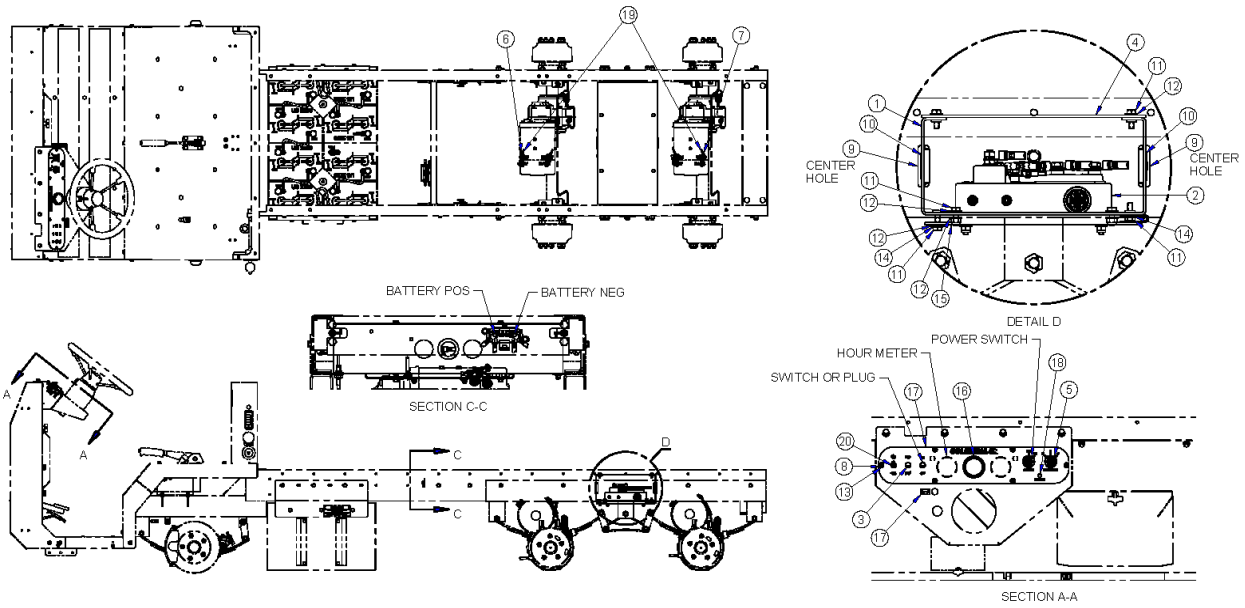
DC POWER, ONE AXLE & TWO BATTERY PACKS – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	CONTROLS HANGER	1	309107
2	*	ASSEMBLY, SEVCON DC PANEL	1	467634
3	51486-14	PLATE, INNER DASH INSERT	1	512263
4	*	COVER, CONTROL PANEL	1	512548
5	71730-01	KEYSWITCH, UNIVERSAL "A" W/HARDWARE	1	709040
6	69519-12	DECAL, BATTERY PACK LABEL SET	1	712109
7	3615	SCREW, 10-24X1/2PHILLIPS,BLK ZNC	6	719467
8	11418-A	GROMMET, 2775 EPDM 3/16 GROOVE	1	719523
9	11448	PLUG, 1.75" BLACK PLASTIC	5	719530
10	3787-B	SCREW, 1/4-20 X 3/4, HHCS, G5, BLK 150	12	719636
11	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	14	719811
12	6716	WASHER,#10,SAE,F/W,BLK MAX	6	719812
13	7036-B	WASHER LOCK 1/4 REGULAR BLK ZINC	4	719834
14	7686	NUT, 1/4-20, NYLOCK, GA	4	719879
15	75061-07	BDI, 48V - VOLTMETER STYLE	2	759842
16	*	DASH OVERLAY	1	759910
17	67791-08	INDICATOR, LED, SERIES 22	1	759932
18	72000-10	SWITCH, TOGGLE, LIGHTS ON-OFF	1	760600
-	N/A	GROUP, DC, 2 BAT 1 AXLE (Includes above)	1	191695A

* SPECIAL ORDER

DC POWER, TWO AXLES & ONE BATTERY PACK – MVP

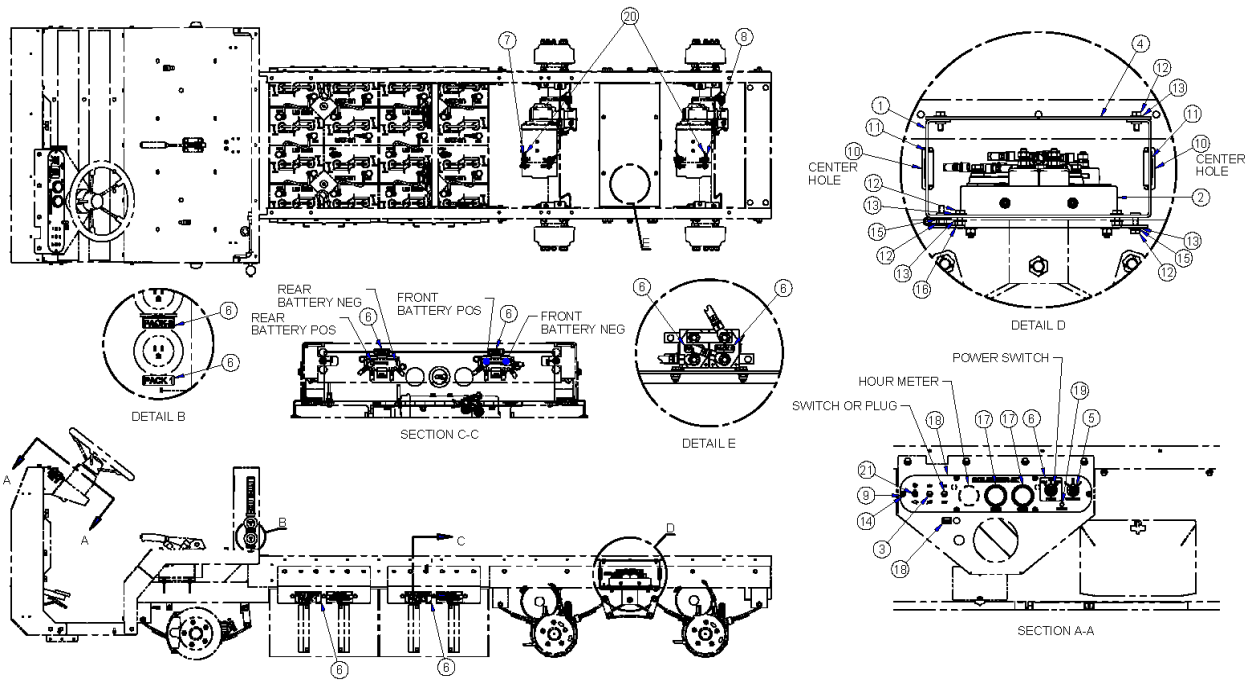


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	CONTROLS HANGER	1	309107
2	*	ASSEMBLY, SEVCON DC PANEL	1	467596
3	51486-14	PLATE, INNER DASH INSERT	1	512263
4	*	COVER, CONTROL PANEL	1	512548
5	71730-01	KEYSWITCH, UNIVERSAL "A" W/HARDWARE	1	709040
6	32973-04	WIRE MARKER F1	1	719330
7	32972-04	WIRE MARKER F2	1	719331
8	3615	SCREW, 10-24X1/2PHILLIPS,BLK ZNC	6	719467
9	11418-A	GROMMET, 2775 EPDM 3/16 GROOVE	2	719523
10	11448	PLUG, 1.75" BLACK PLASTIC	4	719530
11	3787-B	SCREW, 1/4-20 X 3/4, HHCS, G5, BLK 150	12	719636
12	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	14	719811
13	6716	WASHER,#10,SAE,F/W,BLK MAX	6	719812
14	7036-B	WASHER LOCK 1/4 REGULAR BLK ZINC	4	719834
15	7686	NUT, 1/4-20, NYLOCK, GA	4	719879
16	75061-07	BDI, 48V - VOLTMETER STYLE	1	759842
17	*	DASH OVERLAY	1	759910
18	67791-08	INDICATOR, LED, SERIES 22	1	759932
19	71420-12	CABLE ASSEMBLY, 10 GA X 51"	1	760221
20	72000-10	SWITCH, TOGGLE, LIGHTS ON-OFF	1	760600
-	N/A	GROUP, DC, 1 BAT, 2 AXLE (Includes above)	1	191696A

* SPECIAL ORDER



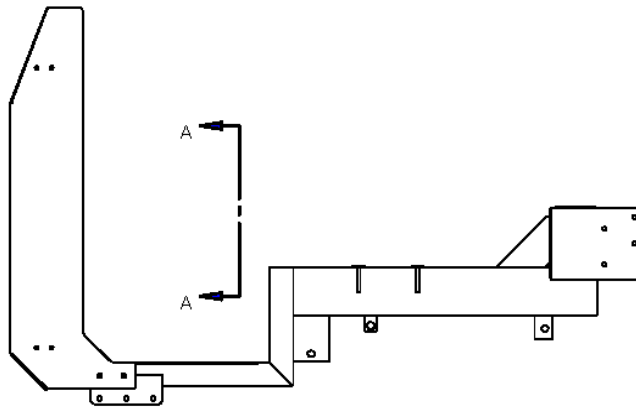
DC POWER, TWO AXLES & TWO BATTERY PACKS – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	CONTROLS HANGER	1	309107
2	*	ASM, MVP SEVCON DC, 2 BAT 2 AXL	1	467560
3	51486-14	PLATE, INNER DASH INSERT	1	512263
4	*	COVER, CONTROL PANEL - MVP	1	512548
5	71730-01	KEYSWITCH, UNIVERSAL "A" W/HRDWR	1	709040
6	69519-12	DECAL, BATTERY PACK LABEL SET	1	712109
7	32973-04	WIRE MARKER, F1 (.0278)	1	719330
8	32972-04	WIRE MARKER, F2 (.0278)	1	719331
9	3615	SCREW, 10-24X1/2PHILLIPS,BLK ZNC	6	719467
10	11418-A	GROMMET, 2775 EPDM 3/16 GROOVE	2	719523
11	11448	PLUG, 1.75" BLACK PLASTIC	4	719530
12	3787-B	SCREW,1/4-20X3/4,HHCS,G5, BLK150	12	719636
13	6703-B	WASHER,1/4,SAE,F/W,BLK MAX	14	719811
14	6716	WASHER,#10,SAE,F/W,BLK MAX	6	719812
15	7036-B	WASHER LOCK 1/4 REGULAR BLK ZINC	4	719834
16	7686	NUT, 1/4-20, NYLOCK, GA, YWZC	4	719879
17	75061-07	BDI, 48V - VOLTMETER STYLE	2	759842
18	*	DASH OVERLAY - MVP	1	759910
19	67791-08	INDICATOR, LED, SERIES 22	1	759932
20	71420-12	CABLE ASSY, 10GA X 51.00", 1/4" TERM	1	760221
21	72000-10	SWITCH, TOGGLE, LIGHTS ON-OFF	1	760600
-	N/A	GROUP, DC, 2 BAT, 2 AXLE (Includes above)	1	191577A

* SPECIAL ORDER

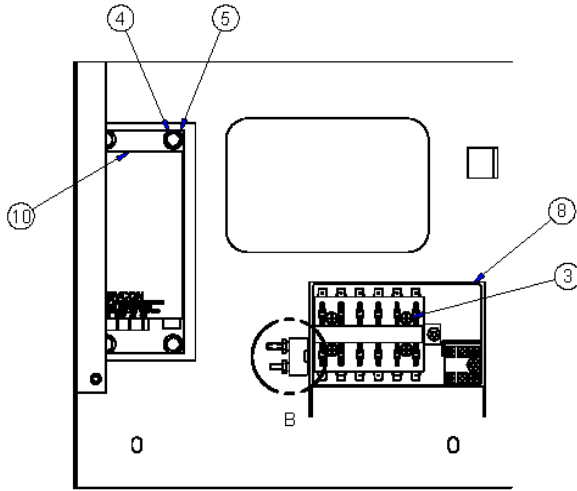
DC CONVERTER GROUP – MVP



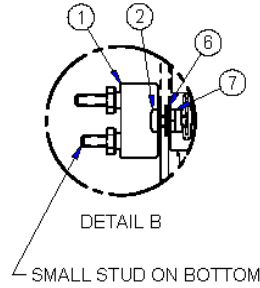
NOTES:

IF VEHICLE HAS SINGLE BATTERY PACK, THEN
 1) CONNECT BATTERY POS & NEG TERMINALS TO DISTRIBUTION BLOCK
 2) CONNECT KEYSWITCH TERMINALS TO POWER SWITCH

IF VEHICLE HAS DUAL BATTERY PACK, THEN
 1) CONNECT BATTERY POS TERMINAL TO DOUBLE CONTACTOR (SWITCHED SIDE) AND NEG TERMINAL TO CONTROLLER B-
 2) CONNECT KEYSWITCH TERMINALS TO EACH OTHER (NOT TO POWER SWITCH)



SECTION A-A



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	74591-96	CIRCUIT BREAKER 20 AMP	1	709398
2	2592	SCREW, 10-24 X 1/2 PHILLIPS PHM	2	719566
3	2595	SCREW, 10-24 X 1 PPH	4	719567
4	3787-B	SCREW, 1/4-20X3/4, HHCS, G5, BLK150	4	719636
5	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	4	719811
6	6716	WASHER, #10, SAE, F/W, BLK MAX	2	719812
7	7624	NUT 10-24 GR A NM MACH NYLON LOCK	2	719870
8	69513-12	FUSE BLOCK 12 GANG W/ GND TERM	1	759912
9	69514-12	WIRE HARNESS, DC CONVERTER, MVP	1	760013
10	69642-05	DC/DC CONVERTER - 12V OUT/INP 36/48V	1	760378

* NOT SHOWN

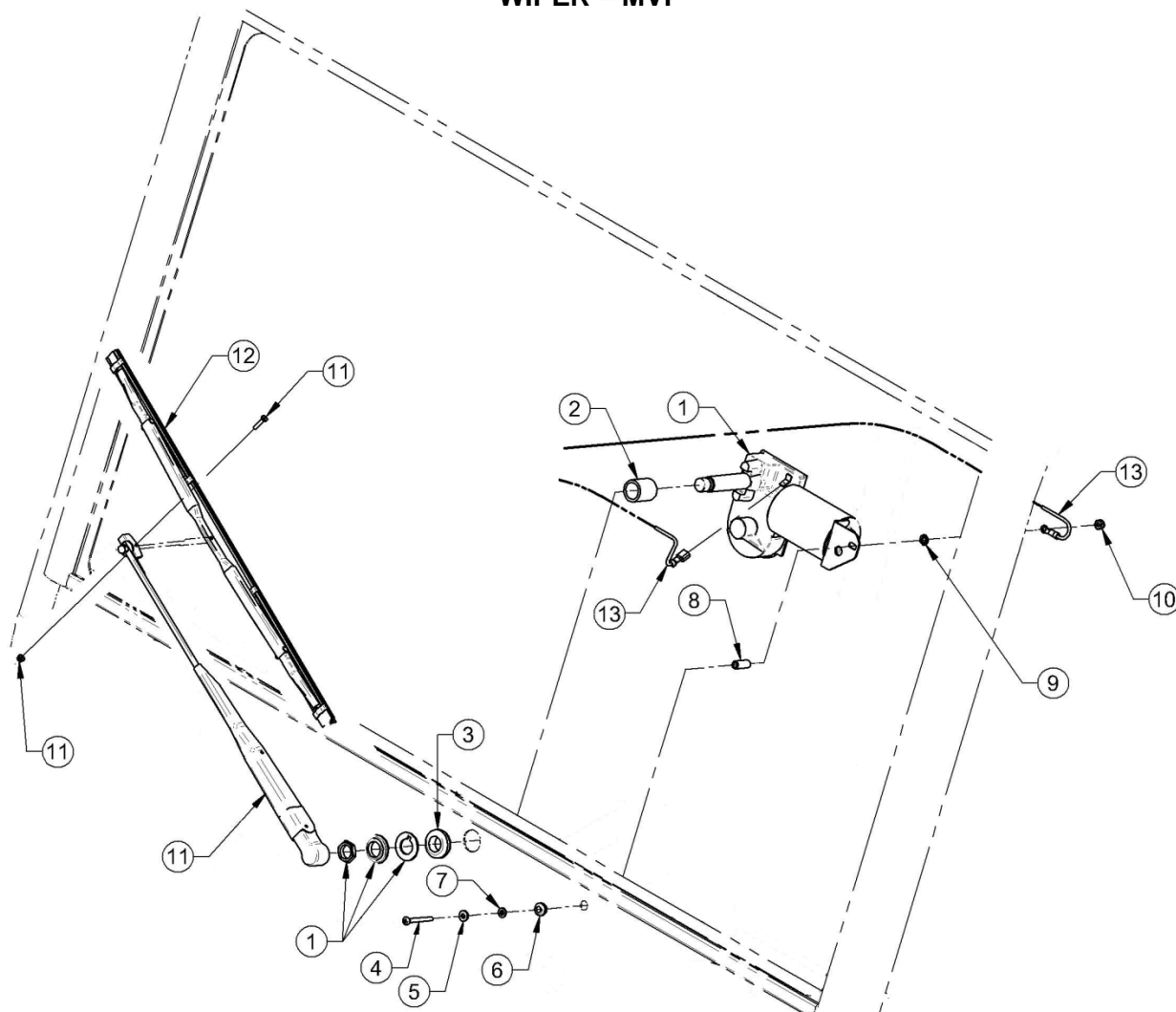
** SPECIAL ORDER

Multiple Vehicle Platform Parts Manual

Section 6

Accessories

WIPER – MVP



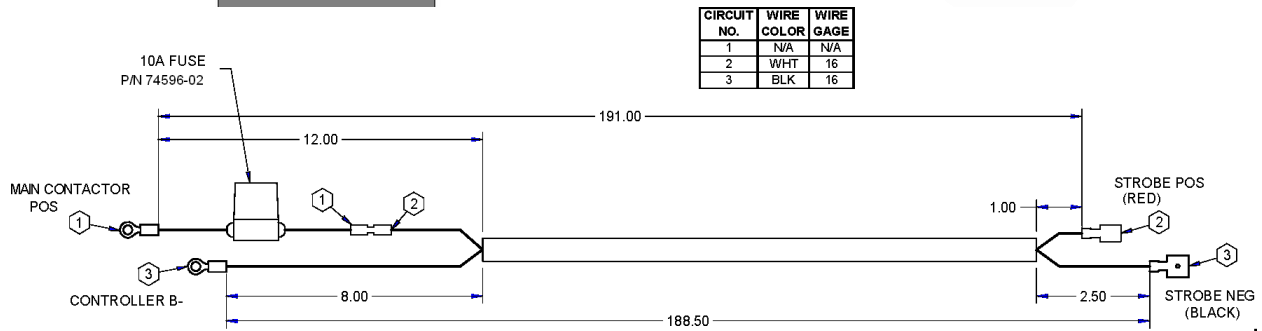
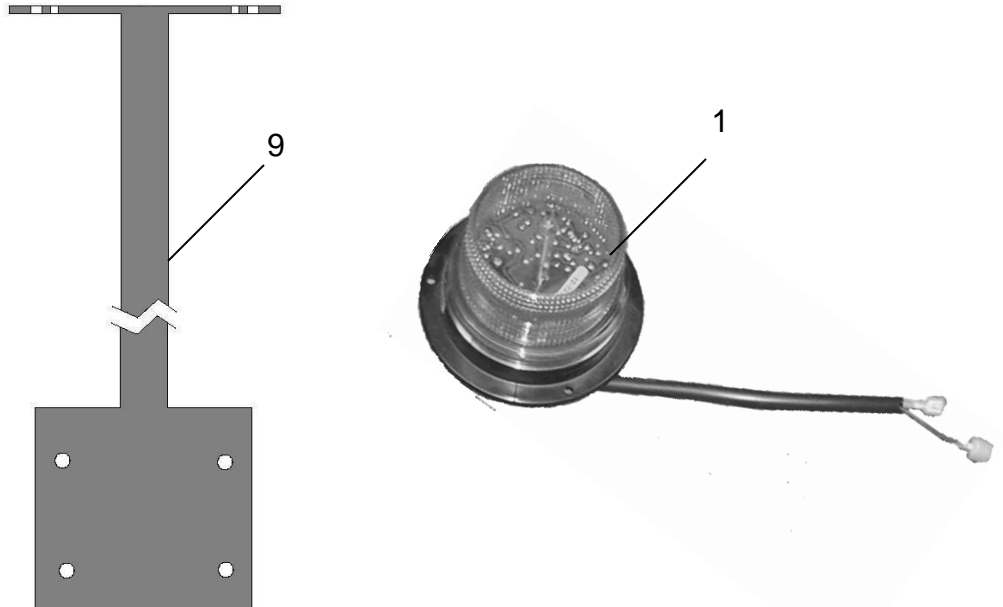
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1*	84111-92	MOTOR, WINDSHIELD WIPER (INCLUDES SHAFT NUT,	1	709592
2	5712	SPACER, WIPER MOTOR	1	508993
3	11446	GROMMET, 5/8 X 1-1/8 X 3/8 1/8 GROOVE	1	719529
4	2613-B	SCREW, 8-32 X 1 1/2, PHILLIPS PHM	1	719572
5	6912-B	WASHER, #8 TYPE A PLAIN	1	719817
6	11409	GROMMET, .25 ID, DELTA FLEX 2902	1	719520
7	10510	NYLON BEARING	8	709362
8	759824	NYLON SPACER, .313 OD X .194 ID X .75 LG	1	759824
9	7220	WASHER, #10, EXTERNAL TOOTH LOCK	1	719851
10	7609-W	NUT, #8-32, NM NYLOC, MACH, GR A	1	719868
11	84164-03	WIPER ARM, 14-19" ADJUSTABLE, BLACK	1	719321
12	84165-03	WIPER BLADE, 18" BLACK FLEXIBLE	1	719322
13	69517-12	HARNESS, WIPER MOTOR	1	467780
14**	74596-02	FUSE, 10A	1	709786
15	84115-09	WIPER KIT (Includes above)	1	191686U

* MOTOR POSITION MAY NOT BE AS SHOWN

** NOT SHOWN



STROBE LIGHTS – MVP



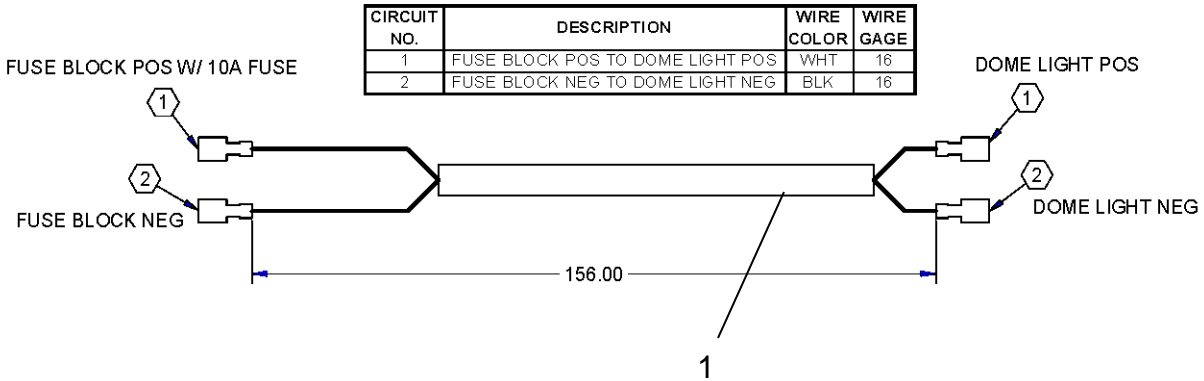
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	68029-06	STROBE LIGHT ASSY	1	467408
2	**	HARNESS, CAB (Used with cab & pole mount)	1	467585
3	10008*	CABLE TIE 5 3/4" (Used with cab & pole mount)	2/9	719501
4	10020*	CABLE TIE MOUNTING BRACKET (Used with cab & pole mount)	2/9	719503
5	11418-A	GROMMET, 2775 EPDM 3/16 GROOVE (Used with cab mount)	1	719523
6	2339*	SCREW, #10-24X3/4, HH (Used with cab mount)	3	719551
7	6716	WASHER, #10 (Used with cab mount)	3	719812
8	7624	NUT, 10-24 NYLOCK (Used with cab & pole mount)	3	719870
9	68504-02	LIGHT MAST(Mounts to body with Items 10 – 12)	1	306164
10	3787-B*	SCREW 1/4-20X3/4 HHC	4	719636
11	6703-B*	WASHER 1/4	8	719811
12	7692*	NUT, 1/4-20 NYLOCK	4	719882
13	11416*	GROMMET 3/8X7/8	1	719522

* NOT SHOWN

** SPECIAL ORDER



CAB DOME LIGHT – MVP

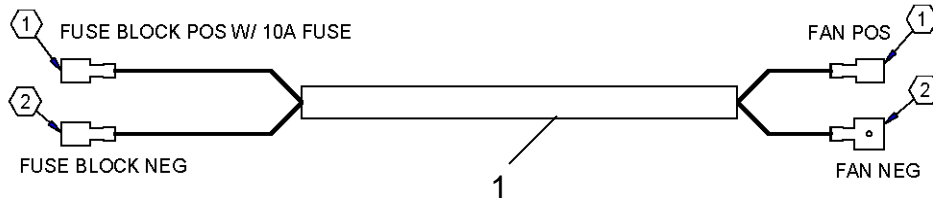
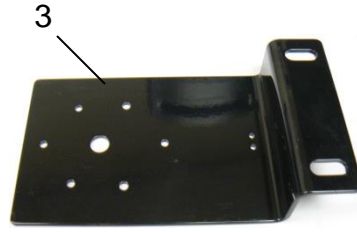


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	**	HARNESS, DOME LIGHT	1	468817
2	51150-11	MOUNTING PLATE	1	510315
3	84147-92	DOME LIGHT ASSY	1	709920
4	10008*	CABLE TIE 5 3/4"	4	719501
5	10020*	CABLE TIE MOUNTING BRACKET	4	719503
6	10043*	CABLE TIE 18X11 3/4", 50 LB	2	719504
7	11409*	GROMMET .25, RUBBER	1	719520
8	2616*	SCREW, #8-32X1 PFH	4	719574
9	2685-W*	SCREW, 10-24X5/8 HWH	2	719586
10	7609-W*	NUT, 8-32 NYLOCK LOCK	4	719868
11	9906*	TERMINAL, 16/14 INS, 1/4 MALE TAB	2	719973
12	6716*	WASHER #10	2	719812
13	7624*	NUT, 10-24 NYLOCK	2	719870

* NOT SHOWN

** SPECIAL ORDER

CAB FAN – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	75626-10	HARNES, CAB FAN	1	468036
2	75625-10	FAN	1	467433
3	75322-00	BRACKET	1	516067
4*	74596-02	FUSE, 10A	1	709786
5*	10043	CABLE TIE	3	719504
6*	2646	SCREW, 6-32X5/8 PHM	4	719581
7*	2653-B	SCREW, 10-16X3/4 HWH, TEK	3	719583
8*	6912-B	WASHER #8	3	719817
9*	7592	NUT, 6-32 NYLOCK	4	719866

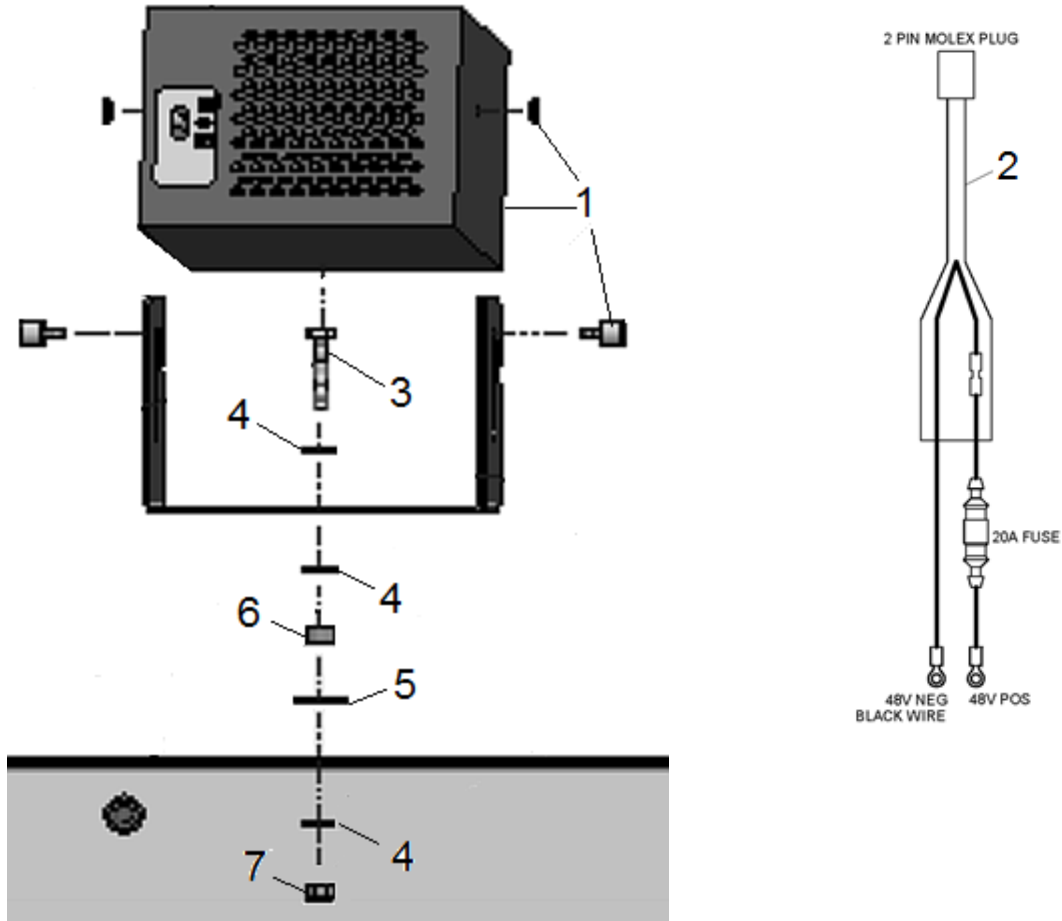
* NOT SHOWN

HEATER – MVP

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	65199-11	HEATER 48V	1	467801
2	69936-15	HEATER HARNESS ASSEMBLY 48V	1	467803
3	3993	SCREW, 1/4-20X1 1/4 HHC	1	719644
4	6703-B	WASHER, 1/4 STL	3	719811
5	6830	WASHER, 5/16X1X.036, NYLON	1	719816
6	84105-92	SPACER .382X.50X.312 BRASS	1	719940
7	7686	NUT, 1/4-20 NYLOCK	1	719879

NOTE:

1. If the toggle switch is in the Fan/Heat position and no heat is occurring, a circuit reset may be needed. On a heater side panel is a 3/8" hole. Inside is a circuit reset tab. Using a non-conductive device push the tab to reset the circuit.
2. This heater/harness is not interchangeable with heater/harness installed on vehicles prior to 8/10/2010. Connect black wire to 48V negative and red wire to 48V positive.
3. If previous heater had a three (3) wire harness, a new two (2) wire harness (Item 2) is required.

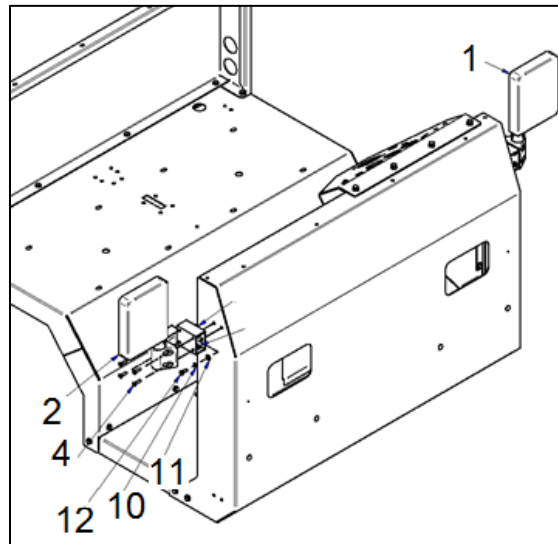
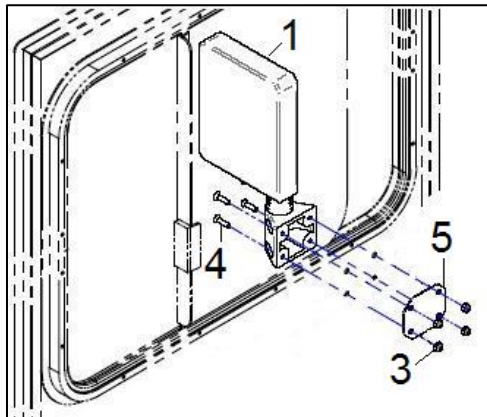
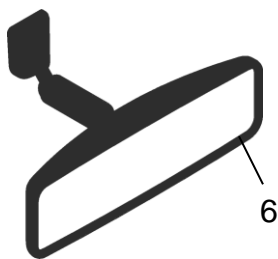


MIRRORS – MVP

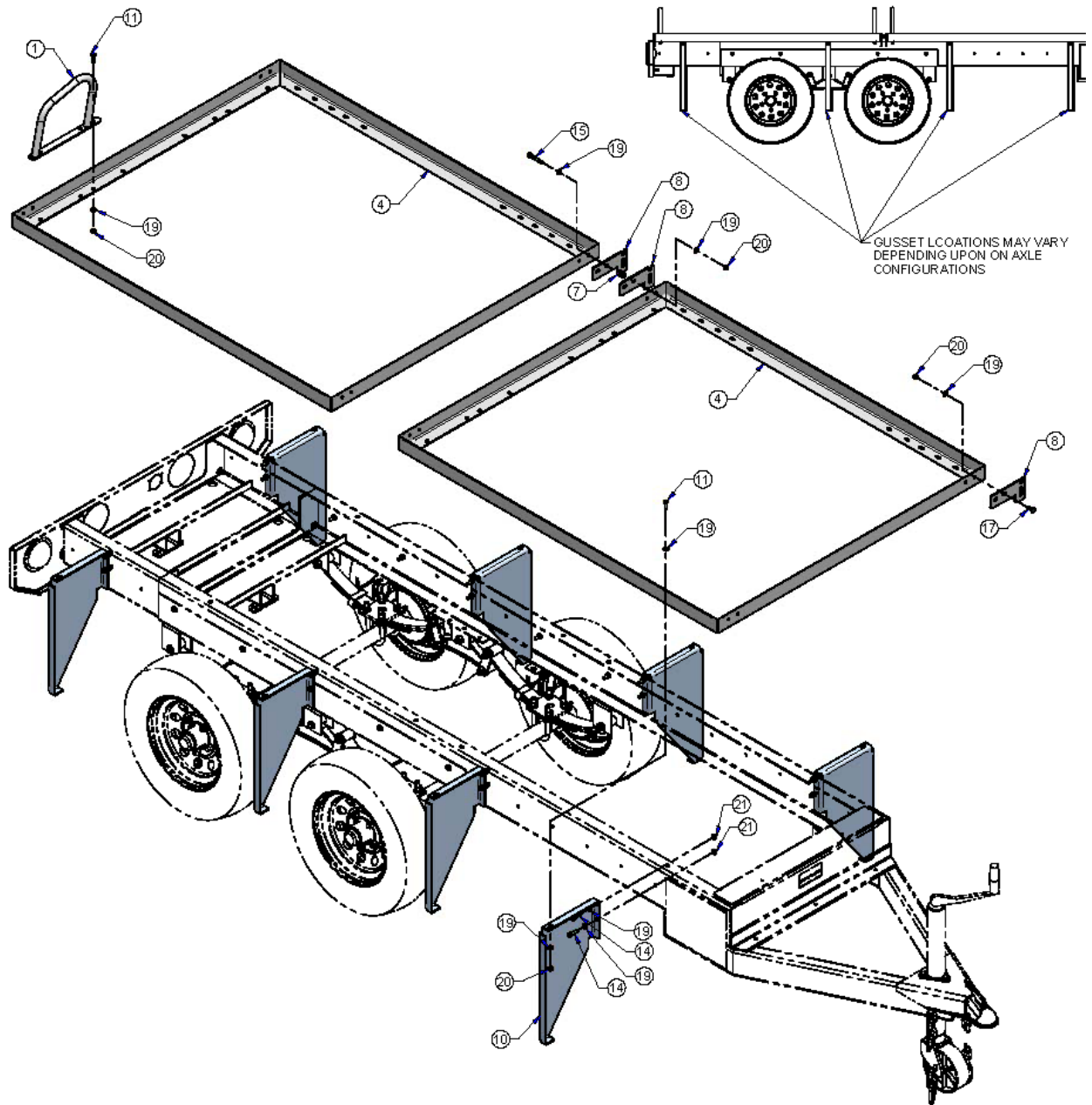
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	72667-08	SIDE MIRROR, LH	1	760201
2*	72668-08	SIDE MIRROR, RH	1	760202
3	7680	NUT, 1/4-20 NYLOCK	8	719876
4	1400	SCREW, 1/4-20X1	8	781601
5	51000-10	BACKING PLATE)	2	513203
6	84120-92	REAR VIEW MIRROR W/HARDWEAR	1	709837
7	84270-98	5 PANEL REAR VIEW MIRROR	1	709408
8*	2665	SCREW, 10-24X5/8 PPH (Use with 7)	4	719584
9*	6261	WASHER, FLT RUBBER 1/4X5/8X.093 (Use with 7)	4	719788
10	7036-B	WASHER, LOCK 1/4	4	719834
11	6703-B	WASHER, 1/4	4	719811
12	3787-B	SCREW, 1/4-20X3/4, HHC, G5	4	719636
13	**	BRACKET	2	515728
14*	6716	WASHER #10 SAE (Use with 7)	4	719812
15*	7624	NUT, 10-24 GR A, NYLOK (Use with 7)	4	719870
-	91872-09	KIT. SIDE VIEW MIRRORS, MVP CAB (Includes Items 1-4 only)	1	191688U

* NOT SHOWN

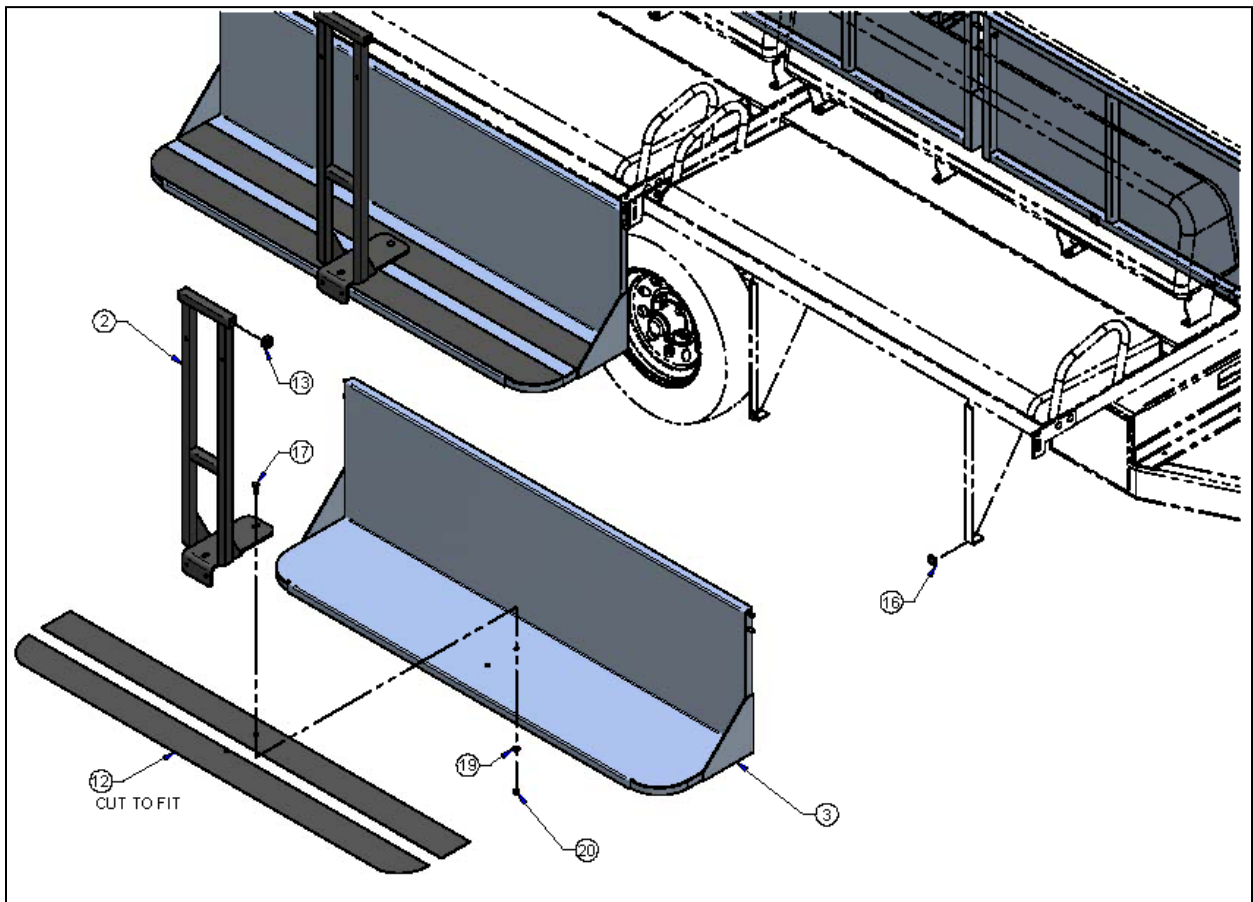
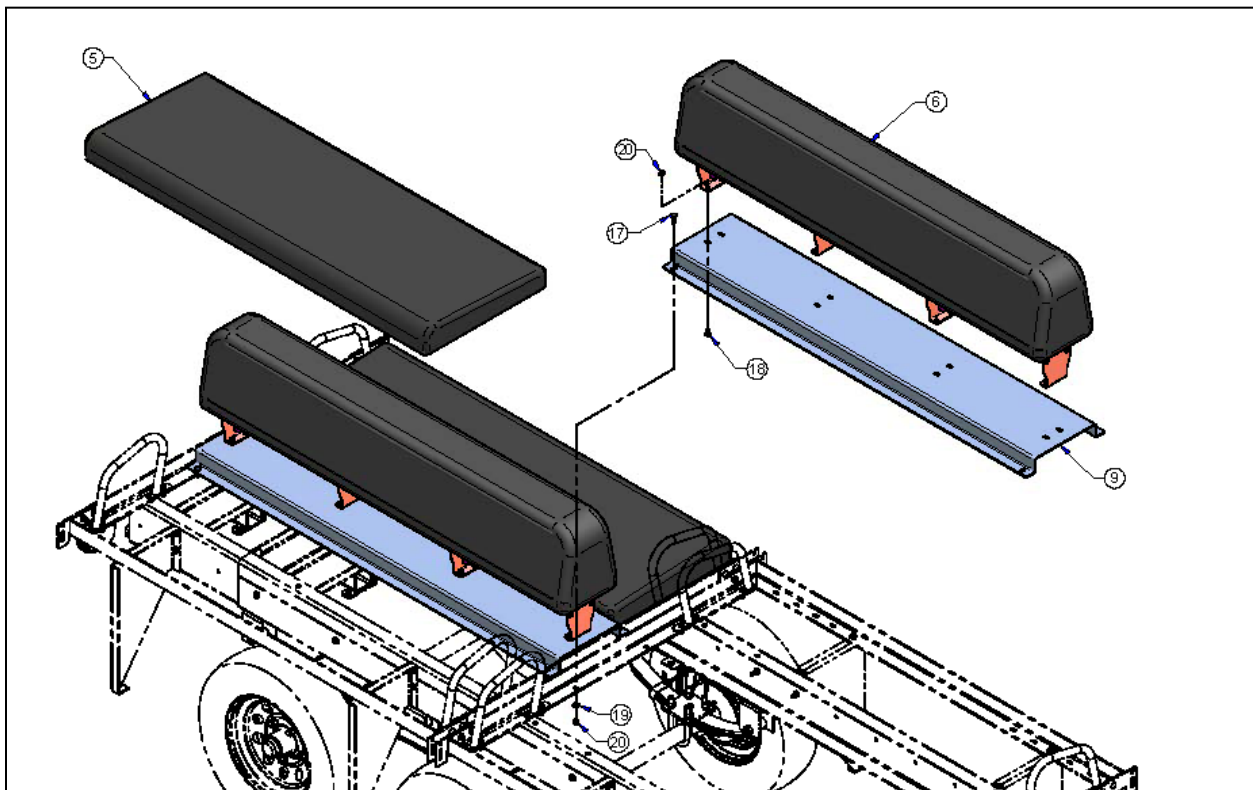
** SPECIAL ORDER



TRANSPORT EXPRESS TRAILER – MVP



TRANSPORT EXPRESS TRAILER – MVP (Cont.)

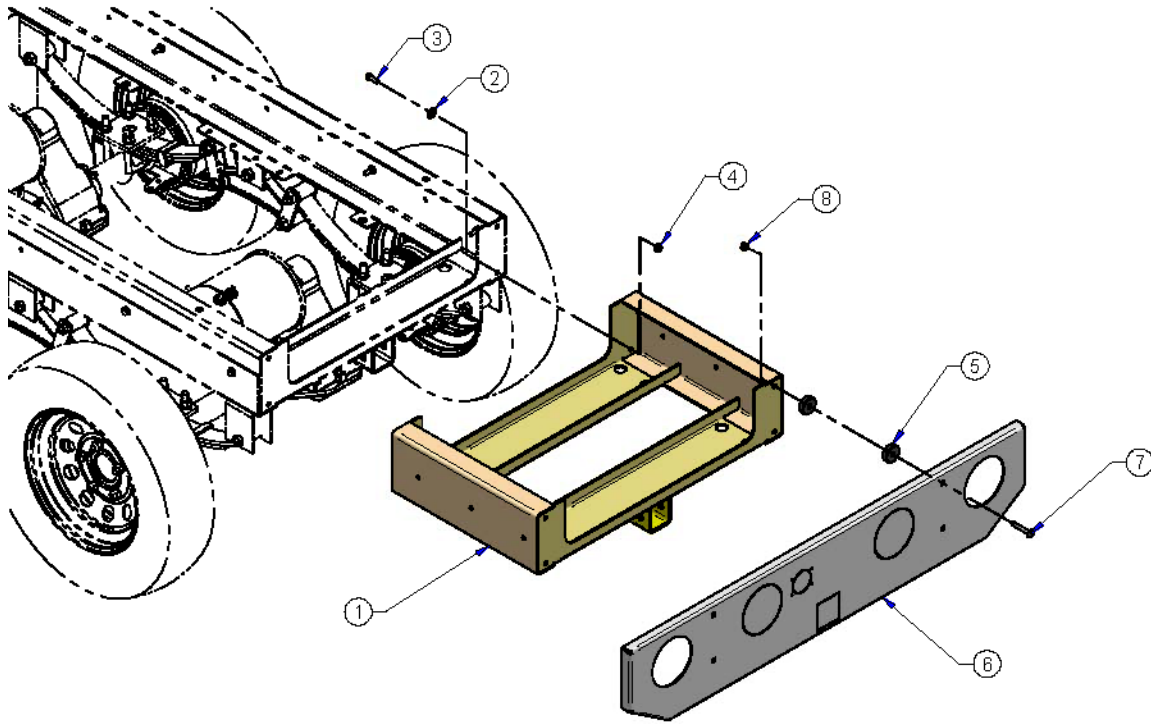


TRANSPORT EXPRESS TRAILER – MVP (Cont.)

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	50027-92	HANDRAIL	8	303393
2	84926-07	HANDRAIL - REAR	4	308292EP
3	*	FOOTREST	4	309529
4	*	FRAME, SEAT	2	309628
5	*	CUSHION, BOTTOM (See Note)	4	309647%
6	*	ASSY, CUSHION BACK (See Note)	2	309667%
7	52329-85	WASHER, .375X1.50X.5, NYLON	8	719737
8	47781-08	PLATE, MTG - RAIL	8	512696
9	*	FRAME, SUPPORT - BOTTOM CUSHION	2	512864
10	*	GUSSET, RUNNING BOARD	8	512952
11	4017	SCREW, 5/16-18 X 1 HH CAP, GRD-8	32	708085
12	*	MAT, NON-SKID	8	709933
13	11433	CAPLUG, FP-165	8	719526
14	2871-W	SCREW, 5/16-18 X 1-1/4 GRD 5 HHC	14	719592
15	3419	SCREW, 5/16-18 X 2-1/4 HHCS, GRADE 5	4	719616
16	52330-86	BUMPER BLACK 3M#SJ5023	8	719738
17	5400-BS	BOLT, 5/16-18 X 1, CARRIAGE, GRADE 5	24	719744
18	5452-BS	BOLT, 5/16-18 X 5/8, CARRIAGE, GRADE 5	16	719751
19	6702-B	WASHER FLT STL 5/16 BLK MAXCOAT	86	719810
20	7739	NUT, 5/16-18, NE, NYLON INSERT, GA	76	719892
21	7750	LOCKNUT, 5/16-18 HX FLNG 2-WAY CNTR	14	719897

* SPECIAL ORDER

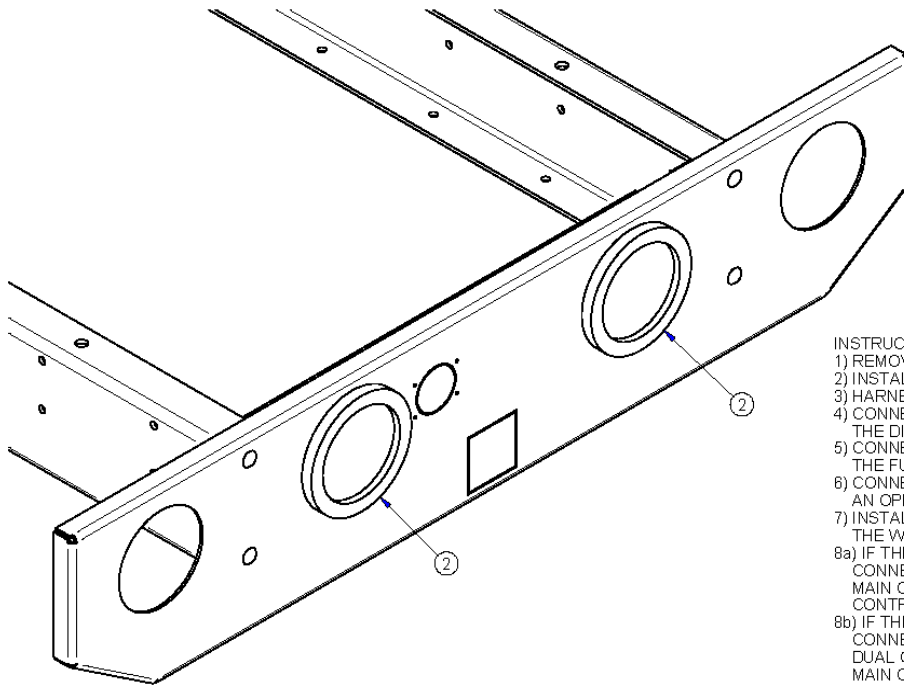
REAR BUMPER EXTENDED – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	FRAME - 16.50" EXTENDED	1	309520
2	6000-B	WASHER, 5/16 STD	8	719771
3	3991	SCREW, HEX HEAD CAP 5/16-18 X 7/8 G5	4	719643
4	7750	LOCKNUT, 5/16-18 HX FLNG 2-WAY CNTR	4	719897
5	52329-85	WASHER FLAT BLK DELRIN .375X1.5X.5	8	719737
6	50078-12	PLATE, BUMPER - REAR	1	309103
7	3403-B	BOLT, 5/16-18 X 2, CARRIAGE, GRADE 5	4	719609
8	7739	NUT, 5/16-18, NE, NYLON INSERT, GA, YWZC	4	719892

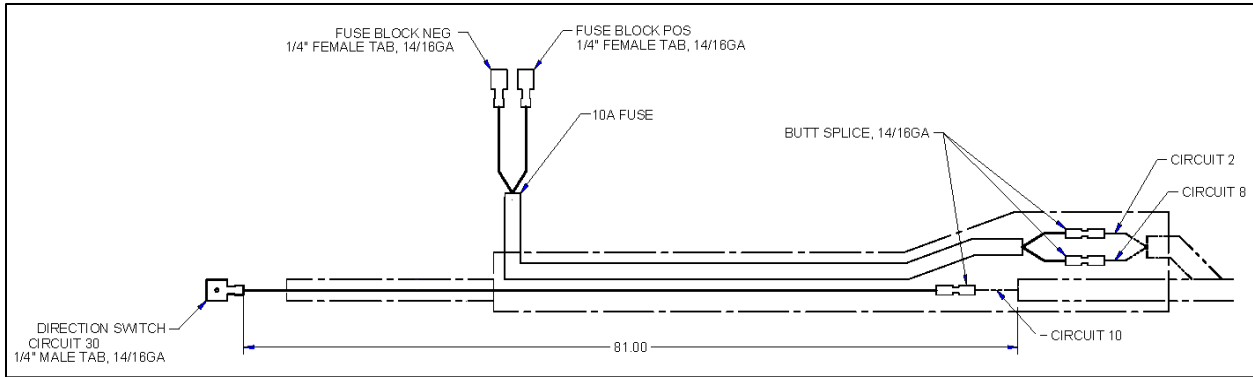
* SPECIAL ORDER

BACK-UP LIGHTS AND HARNESS- MVP



INSTRUCTIONS

- 1) REMOVE KNOCK-OUTS IN REAR BUMPER
- 2) INSTALL BACK-UP LIGHTS IN REAR BUMPER
- 3) HARNESS RUNS TO FRONT OF VEHICLE
- 4) CONNECT THE GRAY MALE TAB TERMINAL TO THE DIRECTION SWTCH CIRCUIT 30
- 5) CONNECT THE BLACK FEMALE TERMINAL TO THE FUSE BLOCK NEGATIVE TERMINAL
- 6) CONNECT THE WHITE FEMALE TERMINAL TO AN OPEN LOCATION ON THE FUSE BLOCK
- 7) INSTALL THE 10A FUSE INCLUDED WITH THE WIRE HARNESS IN THE FUSE BLOCK
- 8a) IF THE VEHICLE HAS A SINGLE BATTERY TRAY CONNECT THE YELLOW RING TERM TO THE MAIN CONTACTOR POST GOING TO THE CONTROLLER
- 8b) IF THE VEHICLE HAS DUAL BATTERY TRAYS CONNECT THE YELLOW RING TERM TO THE DUAL CONTACTOR POST GOING TO THE MAIN CONTACTOR



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	69933-14	BACK-UP LIGHT HARNESS	1	468053
2	68506-04	4' ROUND BACK-UP LAMP ASSEMBLY W/PLUG, SEAL	2	719305
-	N/A	BACK-UP LIGHT GROUP (Includes above)	1	192932A





Columbia ParCar Corp.

1115 Commercial Avenue • Reedsburg, WI 53959

Phone: (608) 524-8888 • Fax: (608) 524-8380

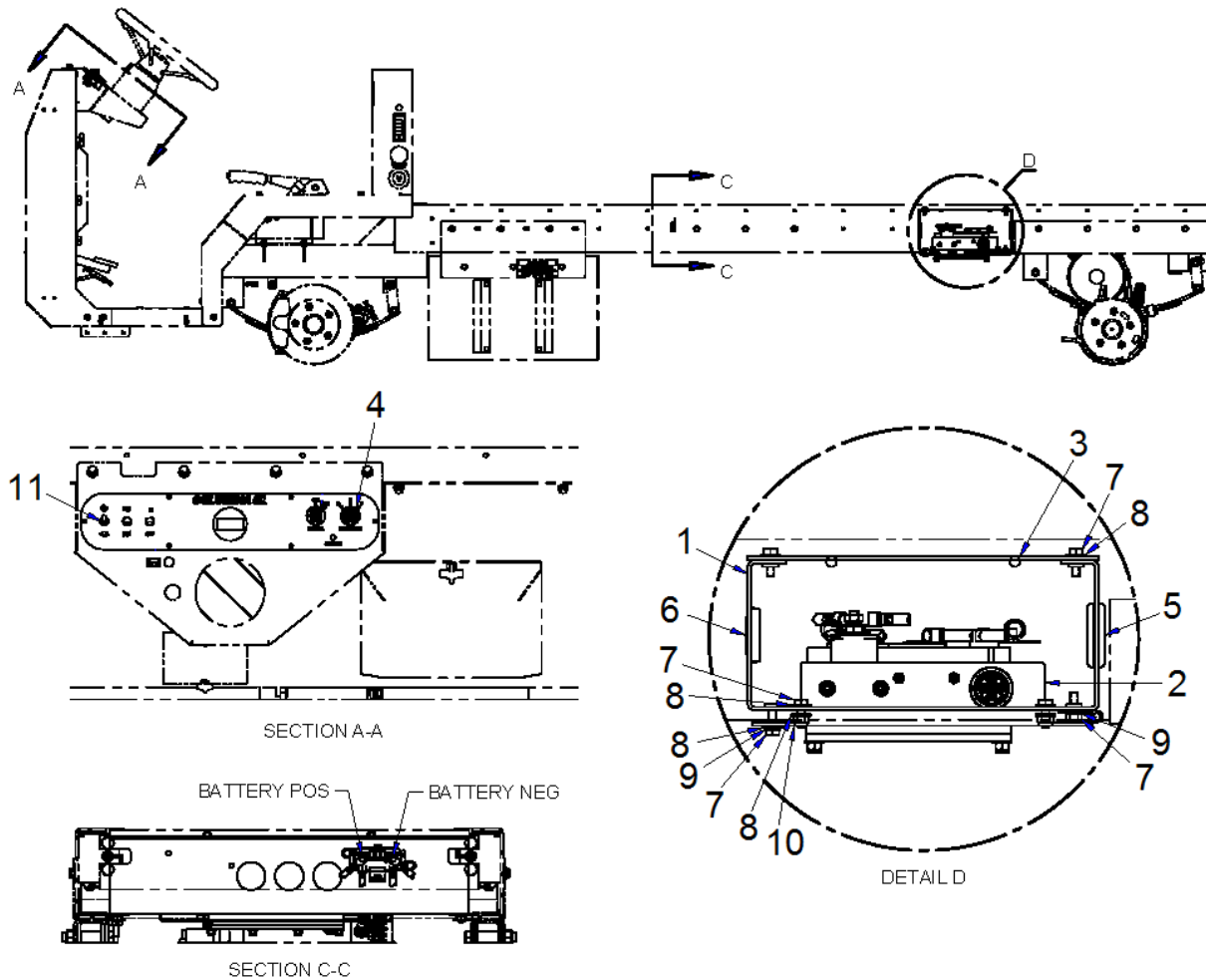
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Multiple Vehicle Platform Parts Manual

Section 7

AC Drive Components

AC DRIVE, 1 BATTERY, 1 AXLE- MVP

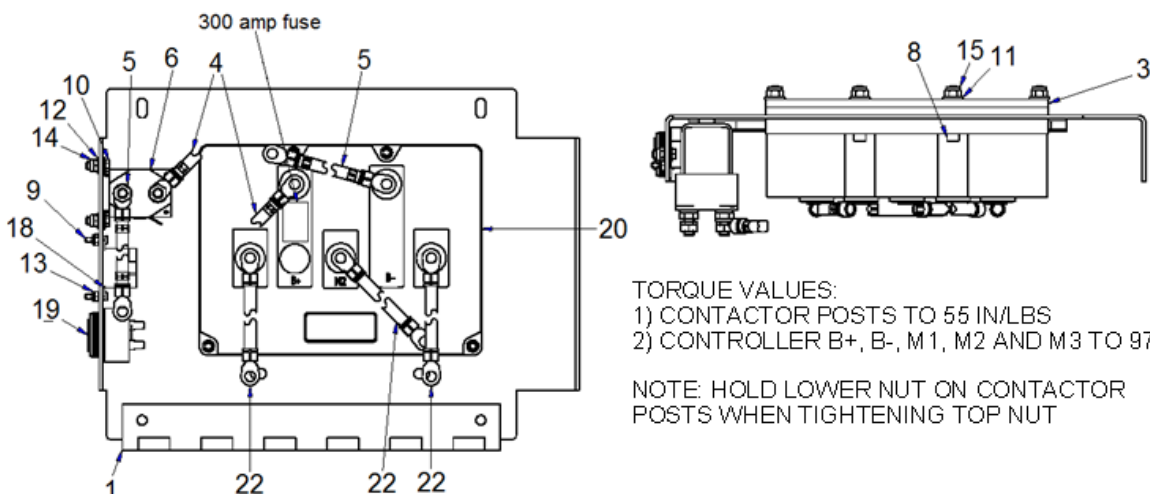


ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	CONTROLS HANGER	1	309107
2	*	ASSEMBLY, CONTROL, SEVCON 450A AC,	1	468043
3	*	COVER, CONTROL PANEL	1	512548
4	71763-07	KEYSWITCH, UNIVERSAL "A" W/HARDWARE (Replacement Kit)	1	709040
5	11418-A	GROMMET, 2775 EPDM 3/16 GROOVE	3	719523
6	11448	PLUG, 1.75" BLACK PLASTIC	3	719530
7	3787-B	SCREW, 1/4-20X3/4, HHCS, G5,	12	719636
8	6703-B	WASHER, 1/4,SAE,F/W,BLK MAX	14	719811
9	7036-B	WASHER LOCK 1/4 REGULAR BLK ZINC	4	719834
10	7686	NUT, 1/4-20, NYLOCK, GA, YWZC	4	719879
11	72000-10	SWITCH, TOGGLE, LIGHTS ON-OFF	1	760600
-	N/A	GROUP 450A AC 1 BAT, 1 AXLE (Includes above)	1	192917A

* SPECIAL ORDER



CONTROLLER ASSEMBLY 450A AC - MVP



TORQUE VALUES:
 1) CONTACTOR POSTS TO 55 IN/LBS
 2) CONTROLLER B+, B-, M1, M2 AND M3 TO 97 IN/LBS

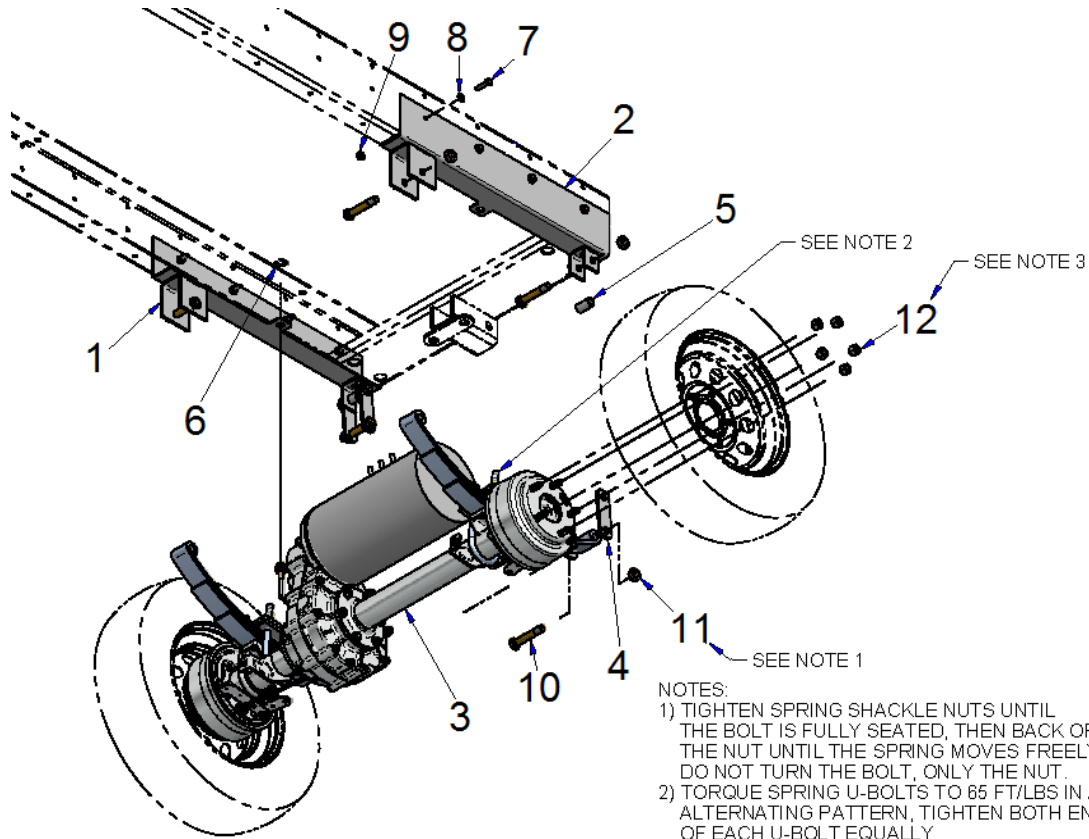
NOTE: HOLD LOWER NUT ON CONTACTOR POSTS WHEN TIGHTENING TOP NUT

ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	*	CONTROLS PANEL	1	309106
2**	69932-14	HARNESS, CHARGER INTERLOCK EXT	1	468050
3	69538-14	PLATE, HEAT SINK	2	515379
4	70099-88	CABLE, 4GA X 8.75", 5/16" TERM	1	709004
5	70105-89	CABLE, 4GA X 61.50", 5/16" TERM	2	709411
6	71466-02	CONTACTOR, SINGLE - 48V COIL, SW80	1	709590
7**	10043	CABLE TIE, BLACK, .18 X 11 - 3/4, STD, 50LB	2	719504
8	2010-B	SCREW, 1/4-20X1-1/2, SHCS, BLK MAX	4	719545
9	2646	SCREW, #6-32X5/8, PPH, M/S, YWZC	2	719581
10	2685-W	SCREW, 10-24 X 5/8 HWH TRD ROL	2	719586
11	6703-B	WASHER, 1/4, SAE, F/W, BLK MAX	4	719811
12	6716	WASHER, #10, SAE, F/W, BLK MAX	2	719812
13	7592	NUT 6-32 GR A NM MACH NYLON YWZC	2	719866
14	7624	NUT 10-24 GR A NM MACH NYLON LOCK	2	719870
15	7686	NUT, 1/4-20, NYLOCK, GA, YWZC	4	719879
16**	71581-84	WIRE MARKER, POSITIVE (.0278)	4	749180
17**	71582-84	WIRE MARKER, NEGATIVE (.0278)	2	749181
18	66555-00	RELAY, 48VDC, SPSTNO, 20	1	759829
19	71408-96A	AUDIBLE ALARM - 12/48 VDC	1	759831
20	69533-13	GEN4 CONTROLLER - SEVCON 450A	1	760956
21	69915-14	HARNESS - SEVCON AC, BC	1	761057
22	69916-14	CABLE, MOTOR, SEVCON AC, 25.5"	3	761063
-	N/A	CONTROLLER ASSEMBLY (Includes above)	1	468043

* SPECIAL ORDER

** NOT SHOWN

10.37 & 16.77 NKL AXLE 8KW AC – MVP

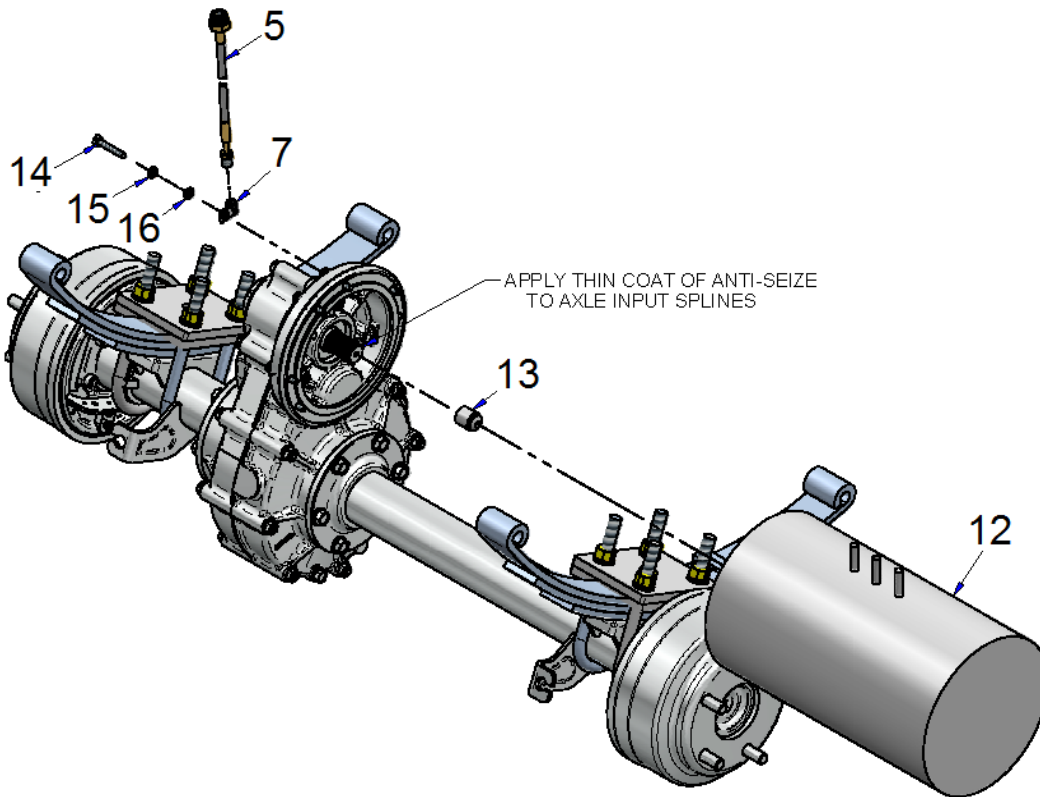
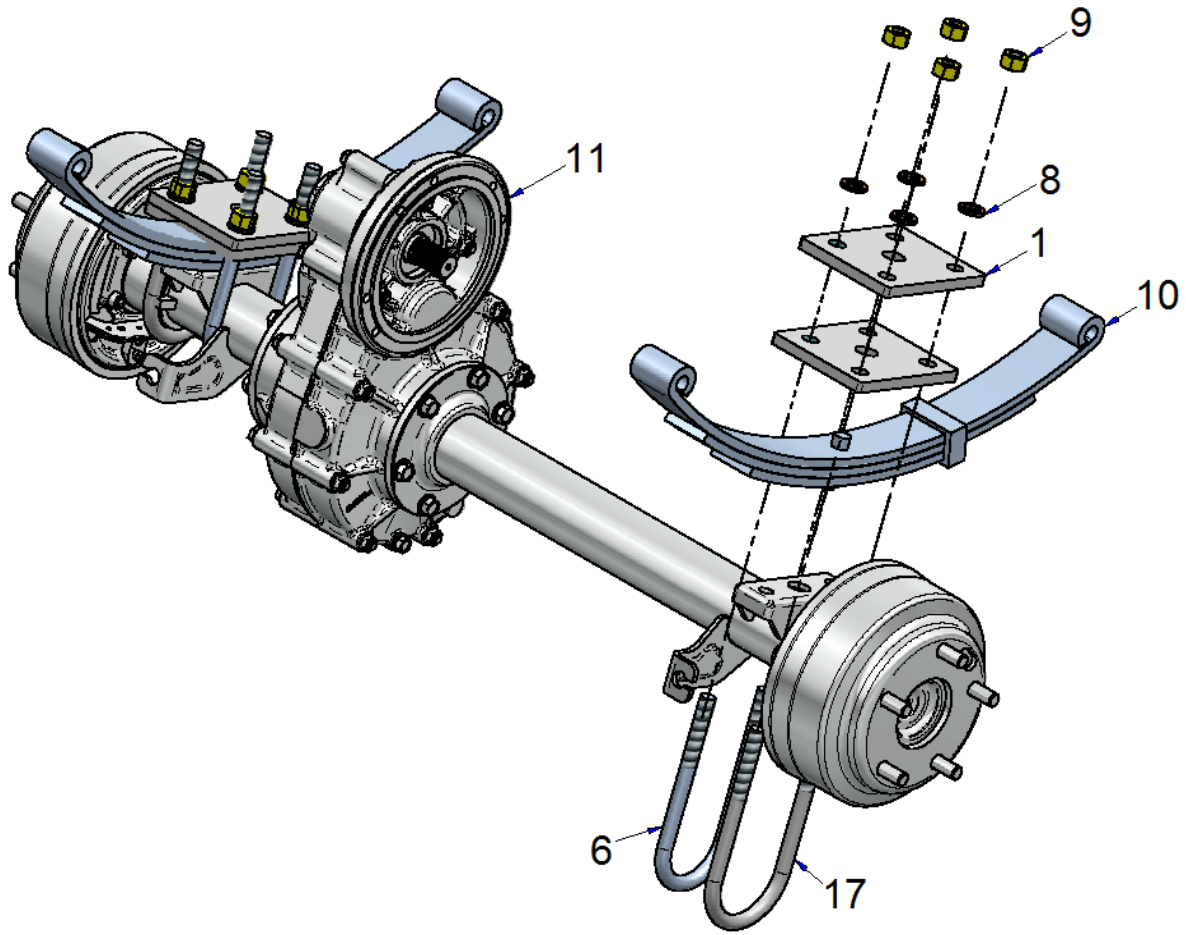


- NOTES:
 1) TIGHTEN SPRING SHACKLE NUTS UNTIL THE BOLT IS FULLY SEATED, THEN BACK OFF THE NUT UNTIL THE SPRING MOVES FREELY - DO NOT TURN THE BOLT, ONLY THE NUT.
 2) TORQUE SPRING U-BOLTS TO 65 FT/LBS IN AN ALTERNATING PATTERN, TIGHTEN BOTH ENDS OF EACH U-BOLT EQUALLY
 3) TORQUE LUG NUTS TO 65 FT/LBS IN A CRISS-CROSS PATTERN

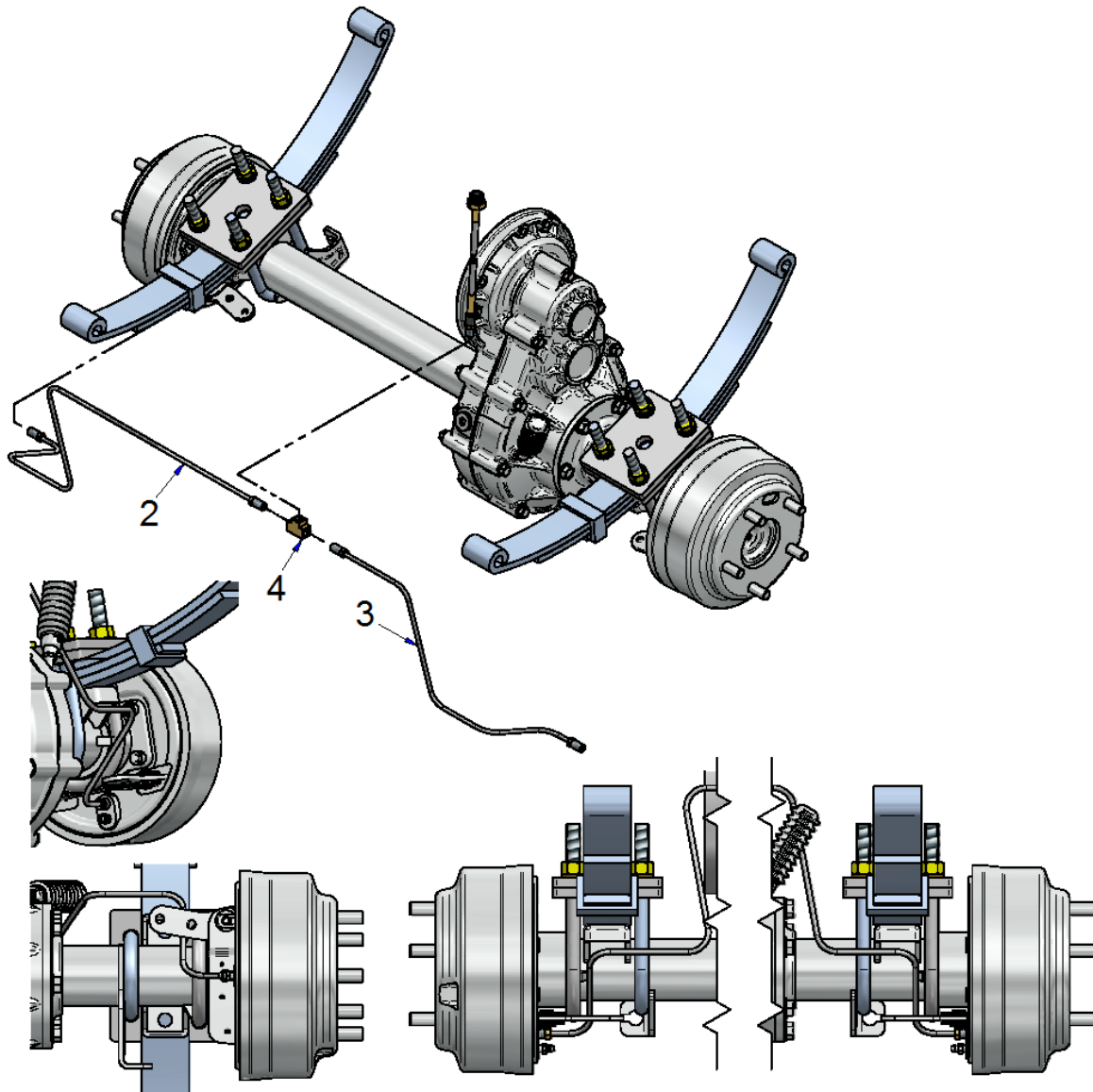
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	82740-12	SGL AXLE SUSPENSION HANGER - RH	1	309166
2	82718-12	SGL AXLE SUSPENSION HANGER - LH	1	309213
3	*	ASSEMBLY, AXLE, MVP 10.37 NKL 8KW AC	1	468045
3A	*	ASSEMBLY, AXLE, MVP 10.37 NKL 8KW AC	1	468049
4	44805-11	SHACKLE STRAP	4	512245
5	82711-12	SLEEVE - SPRING HANGER	2	512495
6	11077	E-RING, .625 PHOS	1	719516
7	2871-W	SCREW, 5/16-18 X 1-1/4, HHCS, G5, YWZC	8	719592
8	6702-B	WASHER, 5/16,SAE,F/W,BLK MAX	8	719810
9	7750	NUT, 5/16-18 GF FLNG CNTR LOCK BLK	8	719897
10	3800	BOLT, 9/16-18 X 3" GR 5- SHACKLE	6	759898
11	7850	HEX LOCKNUT, 9/16-18	6	759909
12	N/A	LUG NUT, INCLUDED W/ NKL AXLE	10	N/A
-	N/A	GROUP 10.37 NKL AXLE (Includes above w/o 3A)	1	192919A
-	N/A	GROUP 16.77 NKL AXLE (Includes above w/3A)	1	192927A

* SPECIAL ORDER

10.37 & 16.77 NKL AXLE ASSEMBLY 8KW AC – MVP



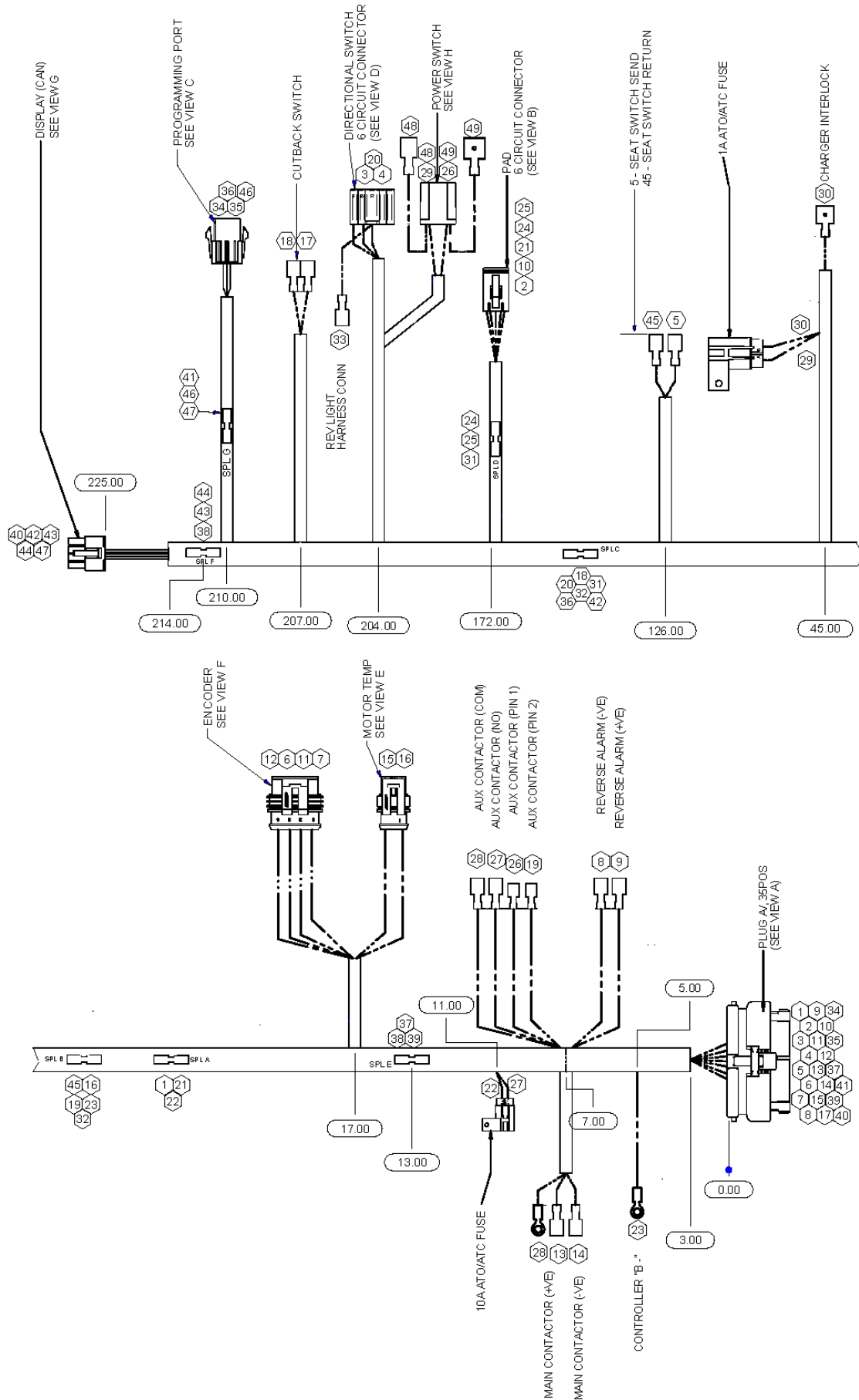
10.37 & 16.77 NKL AXLE ASSEMBLY 8KW AC – MVP Cont.



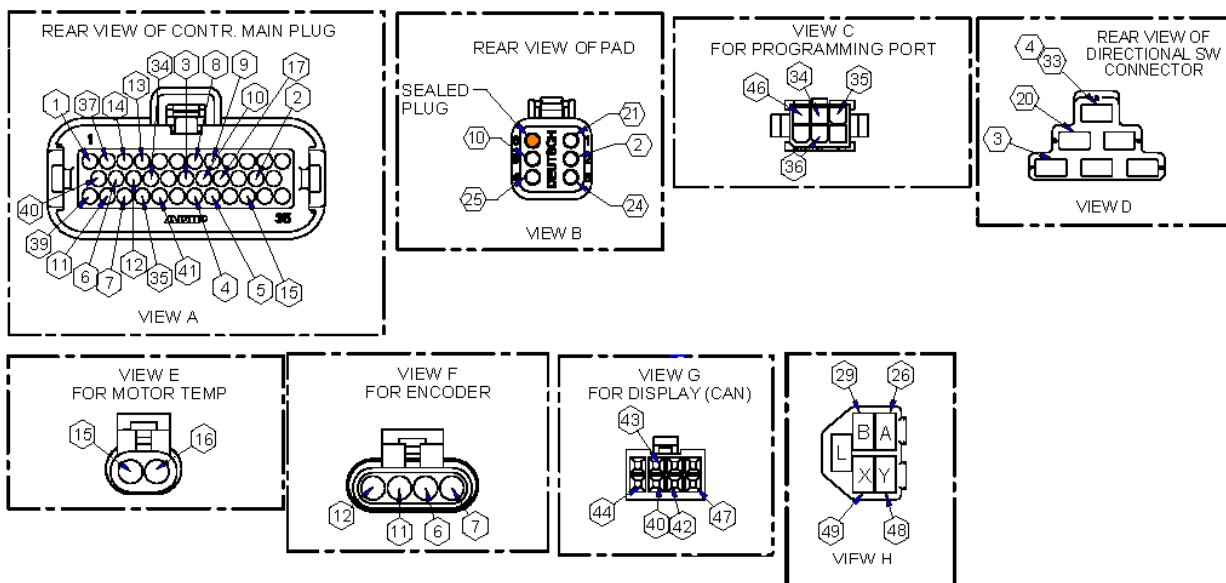
ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	54804-12	REAR SPRING PLATE, BC NKL	4	514353
2	41440-02	BRAKE LINE, 3/16 X 30 (LH FORMED)	1	709232
3	41222-00	BRAKE LINE, 3/16 X 20 (RH FORMED)	1	709358
4	41842-94	UNION TEE, HYD BRAKE	1	709377
5	41216-00	BRAKE HOSE, HYD, FLEX, 22"	1	709430
6	5214	U-BOLT, 1/2-13, 2.31 X 6.50, UNPLTD	2	709574
7	9982	CLAMP, STEEL TUBE, 1/4" VINYL CUSH	1	719756
8	7068	WASHER, 1/2,ALLOY-SPLIT,LW,YWZC	8	719840
9	7880	NUT, 1/2-13 GR 2 HEX FULL YWZC	8	719913
10	54100-11	SPRINGS, DOUBLE EYE	2	759901
11	82670-12	AXLE, HD NKL, 10.37:1	1	760734
11A		AXLE, HD NKL 16.77:1	1	760733
12	69531-13	MOTOR, AC, 8KW, SCHABMUELLER	1	760957
13	69532-13	BUMPER, MOTOR, SCHABMUELLER AC	1	760991
14	46270-08	WASHER, 6MM, LW, ZC	6	781405
15	46265-08	WASHER,6MM,F/W,ZC	6	781406
16	72464-12	SCREW, M6-1.0 X 35MM HHCS	6	781478
17	54900-12	U-BOLT, 1/2-13, 2.81 X 6.75	2	782102
-	N/A	AXLE ASSY 10.37 NKL 8KW AC (Includes above w/o 11A)	1	468045
-	N/A	AXLE ASSY 16.77 NKL 8KW AC (Includes above w/11A)	1	468049



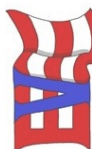
HARNESS, AC CONTROLLER – MVP P/N 69915-14



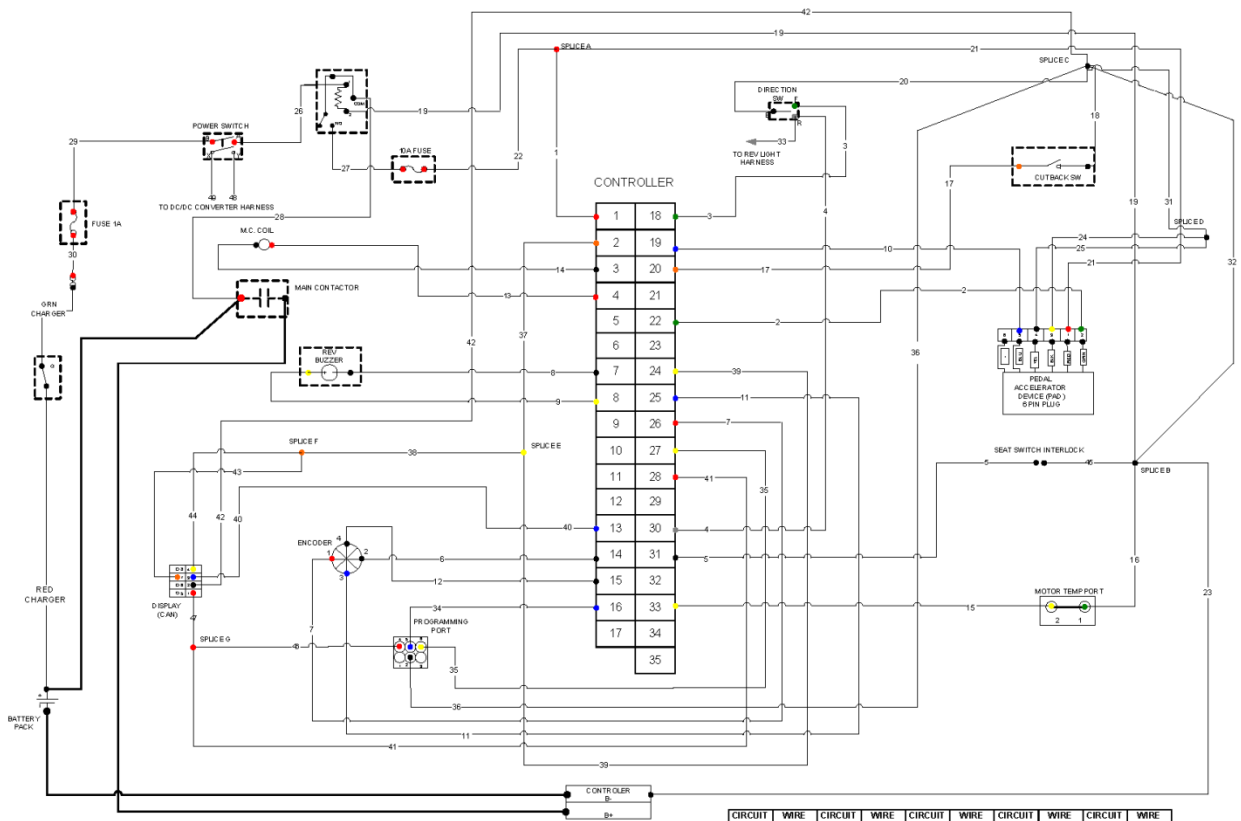
HARNESS, AC CONTROLLER – MVP (Cont.)



ITEM	DESCRIPTION	CIRCUIT NO.	WIRE LENGTH *	WIRE COLOR	WIRE GAGE
1	CONTROL PIN 1 (POWER INPUT) TO SPLICE A	1	25	RED	18
2	CONTROL PIN 22 (PEDAL SIGNAL) TO PAD PLUG PIN 2	2	180	GRN	18
3	CONTROL PIN 18 (FWD) TO DIRECTIONAL SW TCH "F"	3	214	GRN	18
4	CONTROL PIN 30 (REV) TO DIR SW "R"	4	214	GRAY	18
5	CONTROL PIN 31 (SEAT SW SEND) TO VEHICLE	5	134	BLK	18
6	CONTROL PIN 14 (ENC PHASE A) TO ENCODER PLUG (PIN 2)	6	26	WHT	18
7	CONTROL PIN 26 (ENC +VE SUPPLY) TO ENCODER PLUG (PIN 1)	7	26	RED	18
8	CONTROL PIN 7 TO REV ALARM (-)	8	18	BLK	18
9	CONTROL PIN 8 TO REV ALARM (+)	9	18	YLW	18
10	CONTROL PIN 19 (PEDAL SW +VE) TO PAD PLUG PIN 5	10	180	BLU	18
11	CONTROL PIN 25 (ENC PHASE B) TO ENCODER PLUG (PIN 3)	11	26	BLU	18
12	CONTROL PIN 15 (ENC -VE SUPPLY) TO ENCODER PLUG (PIN 4)	12	26	BLK	18
13	CONTROL PIN 4 TO MAIN CONT COIL (POS)	13	13	RED	18
14	CONTROL PIN 3 TO MAIN CONT COIL (NEG)	14	13	BLK	18
15	CONTROL PIN 33 (MOTOR TEMP +) TO MOTOR TEMP PLUG (PIN 2)	15	26	YLW	18
16	MOTOR TEMP PLUG (PIN 1 (-)) TO SPLICE B	16	19	GRN	18
17	CONTROL PIN 20 (CUTBACK) TO CUTBACK SW TCH	17	215	ORG	18
18	CUTBACK SW TCH TO SPLICE C	18	47	BLK	18
19	SPLICE B TO AUX CONTACTOR COIL (PIN 2)	19	31	BLK	18
20	DIRECTIONAL SW TCH "B" TO SPLICE C	20	46	BLK	18
21	SPLICE A TO PAD PLUG PIN 1	21	155	RED	18
22	SPLICE A TO FUSE 10A	22	16	RED	18
23	SPLICE B TO CONTROL "B"	23	31	BLK	16
24	SPLICE D TO PAD PLUG PIN 3	24	4	YLW	18
25	SPLICE D TO PAD PLUG PIN 4	25	4	BLK	18
26	AUX CONTACTOR COIL (PIN 1) TO POWER SW TCH "A"	26	221	RED	18
27	FUSE 10A TO AUX CONTACTOR (NO)	27	17	RED	18
28	AUX CONTACTOR (COM) TO MAIN CONTACTOR (POS)	28	17	RED	18
29	POWER SW TCH "B" TO FUSE 1A	29	193	RED	18
30	FUSE 1A TO CHARGER INTERLOCK (CONTROL +)	30	6	RED	18
31	SPLICE D TO SPLICE C	31	8	BLK	18
32	SPLICE C TO SPLICE B	32	141	BLK	18
33	DIR SW "R" TO REV LIGHT HARNESS CONN	33	6	GRAY	18
34	CONTROL PIN 16 (CAN HIGH) TO PROGRAMMING PORT PIN 5	34	220	BLU	18
35	CONTROL PIN 27 (CAN LOW) TO PROGRAMMING PORT PIN 6	35	220	YLW	18
36	SPLICE C TO PROGRAMMING PORT PIN 2	36	52	BLK	18
37	CONTROL PIN 2 (CAN TERM) TO SPLICE E	37	13	ORG	18
38	SPLICE E TO SPLICE F	38	201	YLW	18
39	CONTROL PIN 24 TO SPLICE E	39	13	YLW	18
40	CONTROL PIN 13 (CAN HIGH) TO DISPLAY PIN 3	40	225	BLU	18
41	CONTROL PIN 28 (CAN + SPL Y) TO SPLICE G	41	214	RED	18
42	DISPLAY PIN 2 TO SPLICE C	42	57	BLK	18
43	DISPLAY PIN 7 TO SPLICE F	43	11	ORG	18
44	DISPLAY PIN 4 (CAN LOW) TO SPLICE F	44	11	YLW	18
45	SEAT SW RETURN TO SPLICE B	45	107	BLK	18
46	SPLICE G TO PROGRAMMING PORT PIN 4	46	6	RED	18
47	SPLICE G TO DISPLAY PIN 1	47	18	RED	18
48	POWER SW TCH "Y" TO DC CONVERTER	48	5	RED	16
49	POWER SW TCH "X" TO DC CONVERTER	49	5	RED	16



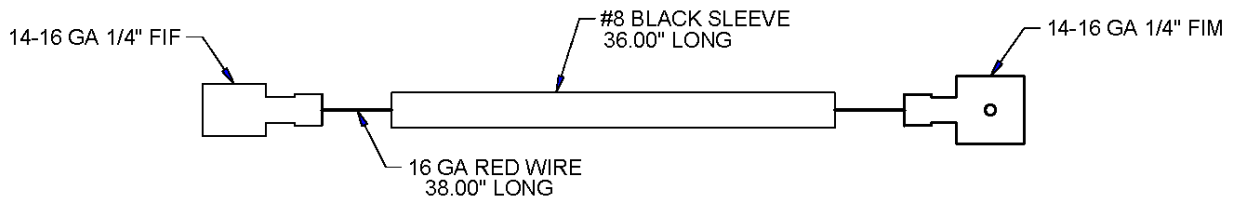
HARNESS, AC CONTROLLER – MVP (Cont.)



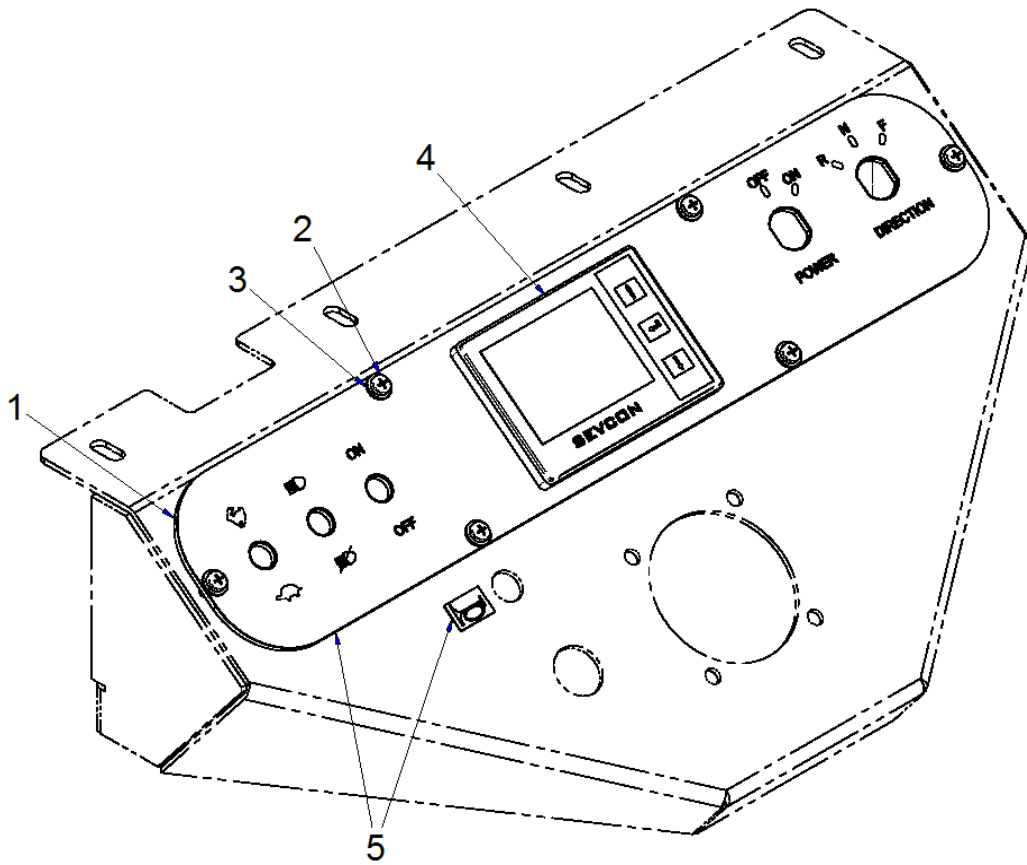
Pin	Description
1	REV SWITCH (N/A)
2	CAN BUS TERMINATION
3	MAIN CONTACTOR (-) SUPPLY
4	MAIN CONTACTOR (+) SUPPLY
5	NOT USED
6	NOT USED
7	REVERSE ALARM (-) SUPPLY
8	REVERSE ALARM (+) SUPPLY
9	NOT USED
10	NOT USED
11	NOT USED
12	NOT USED
13	CAN HIGH (DEFLAY)
14	ENCODER PHASE A
15	ENCODER (-) SUPPLY
16	CAN HIGH (PROGRAMMING)
17	NOT USED
18	FORWARD
19	F31 (-) SUPPLY
20	CUTBACK SWITCH
21	NOT USED
22	PEDAL SIGNAL
23	NOT USED
24	CAN LOW (DEFLAY)
25	ENCODER PHASE B
26	ENCODER (+) SUPPLY
27	CAN LOW (PROGRAMMING)
28	DISPLAY (-) SUPPLY
29	NOT USED
30	REVERSE
31	SAFETY OUT
32	NOT USED
33	MOTOR TEMP (-) SUPPLY
34	NOT USED
35	NOT USED

CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR	CIRCUIT NO.	WIRE COLOR
1	RED	11	BLU	21	RED	31	BLK	41	RED
2	GRN	12	BLK	22	RED	32	BLK	42	BLK
3	ORN	13	RED	23	BLK	33	GRAY	43	ORN
4	GRAY	14	BLK	24	YLW	34	BLU	44	YLW
5	BLK	15	YLW	25	BLK	35	YLW	45	BLK
6	WHT	16	ORN	26	RED	36	BLK	46	RED
7	RED	17	ORN	27	RED	37	ORN	47	RED
8	YLW	18	BLK	28	RED	38	YLW	48	RED
9	BLK	19	BLK	29	RED	39	YLW	49	RED
10	BLU	20	BLK	30	RED	40	BLU		

HARNESS, CHARGER INTERLOCK EXT P/N 69932-14

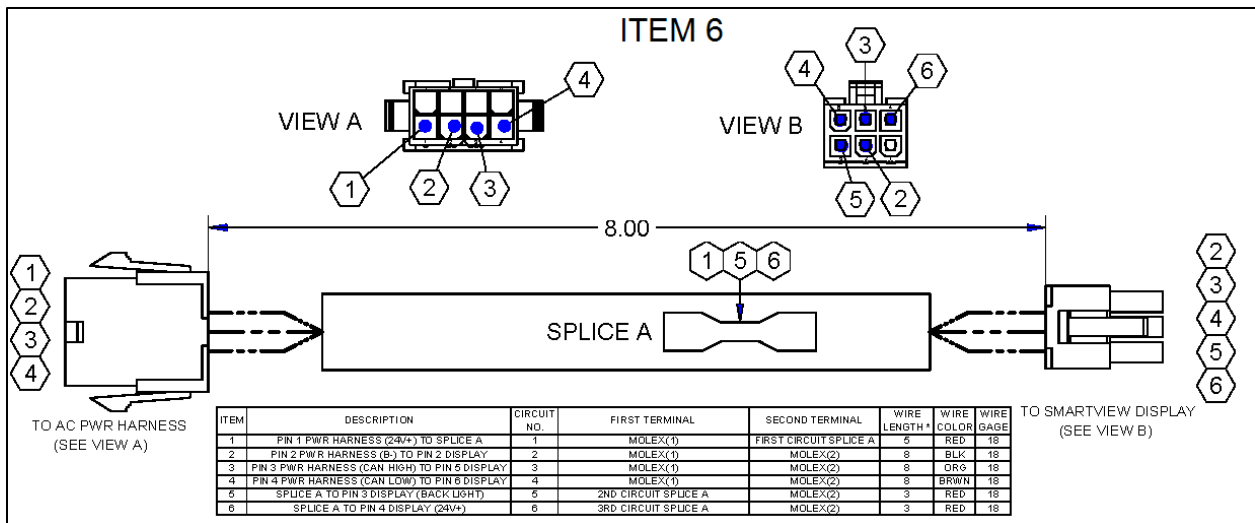
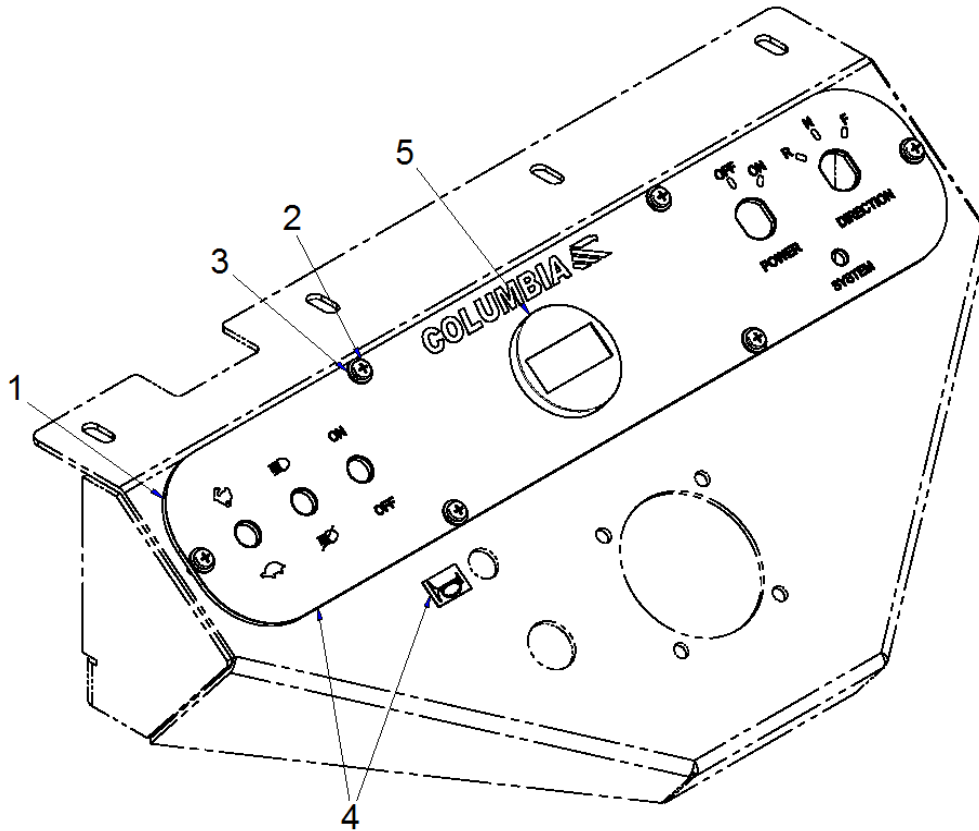


CLEARVIEW DASH- MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	51487-14	PANEL, DASH, CLEARVIEW, MVP	1	516300
2	3615	SCREW, 10-24X1/2PHILLIPS,BLK ZNC	6	719467
3	6716	WASHER,#10,SAE,F/W,BLK MAX	6	719812
4	69534-13	DISPLAY, CLEARVIEW, SEVCON	1	760958
5	51488-14	DASH OVERLAY - MVP AC DRIVE	1	761171
-	N/A	CLEARVIEW DASH (Includes above)	1	192920A

SMARTVIEW DASH – MVP



ITEM	CPC P/N	DESCRIPTION	QTY	SEATS P/N
1	51486-14	PLATE, INNER DASH INSERT	1	512263
2	3615	SCREW, 10-24X1/2PHILLIPS,BLK ZNC	6	719467
3	6716	WASHER,#10,SAE,F/W,BLK MAX	6	719812
4	*	DASH OVERLAY DECAL	1	759910
5	*	DISPLAY,SMARTVIEW	1	761154
6	*	HARNESS, DISPLAY ADAPTER, AC DR	1	761157
-	N/A	SMARTVIEW GROUP (Includes above)	1	192928A