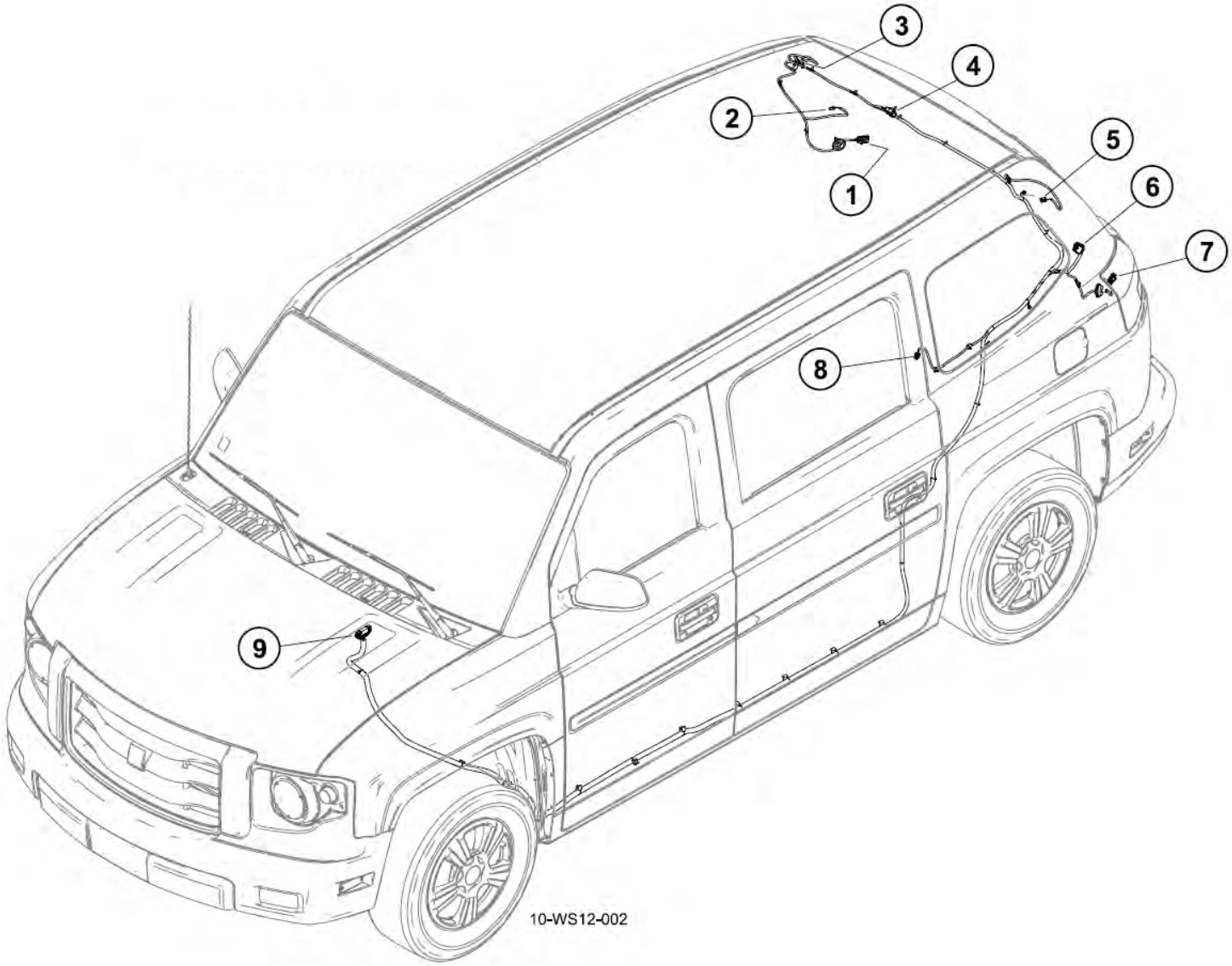
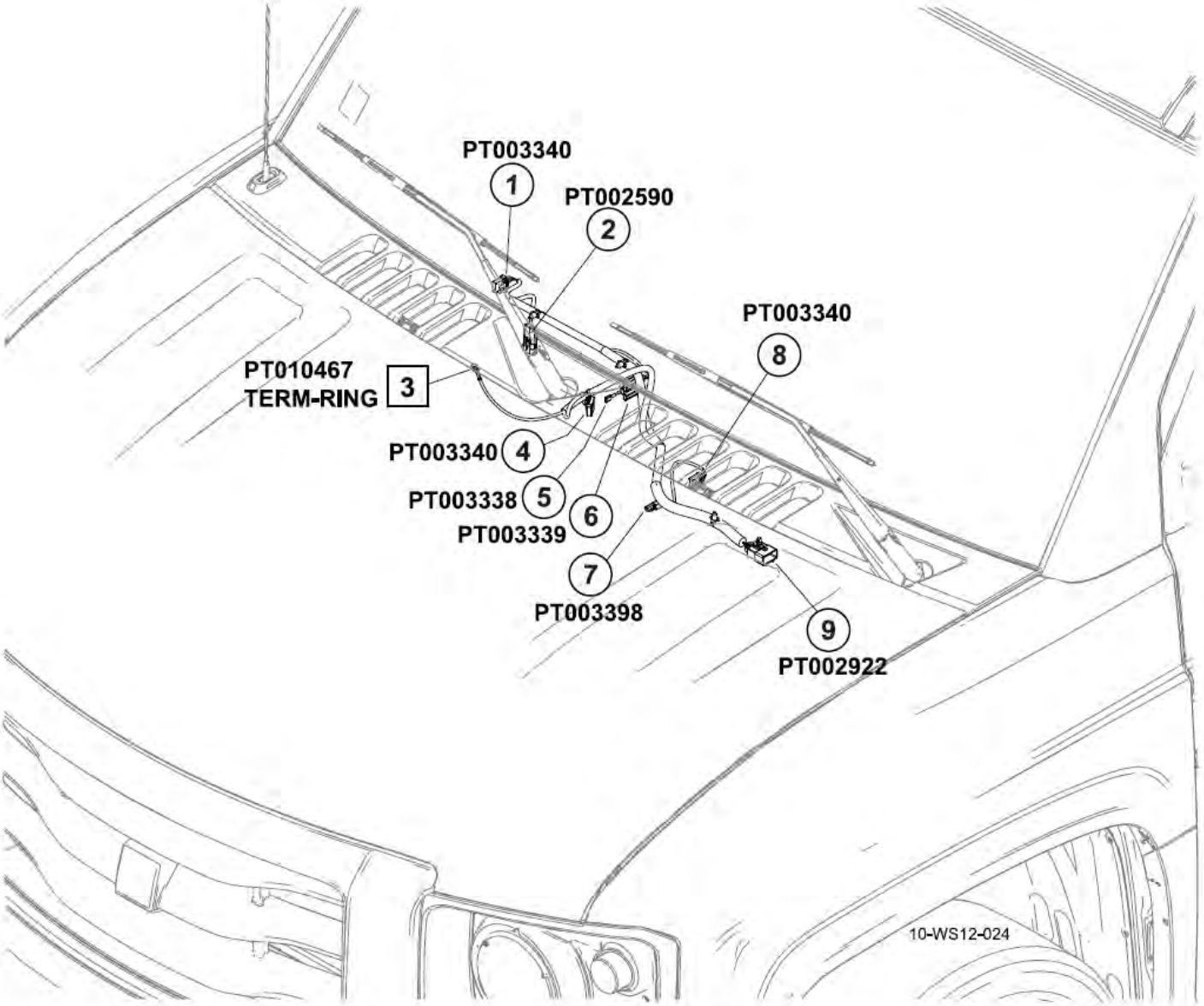
7. ELECTRICAL – POWER AND DISTRIBUTION
   7.1. Wiring Harness Routing and Location
      7.1.1. Body Harness – PT010242



Body Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Tail Lamp, RR	CONN - GT 150 4W M BLK	n/a	Delphi	15326820
2	Jumper to RR APO	CONN – 2 F M/P 150 BLK	n/a	Delphi	12047662
3	Speaker, RR	CONN – 2 F M/P 150 BLK	n/a	Delphi	12052832
4	Inline	CONN – 12M GT 150 280	n/a	Delphi	15336209
5	Speaker, LR	CONN – 2 F M/P 150 BLK	n/a	Delphi	12052832
6	Splice Saver #149	SPLICE – PACK	n/a	Delphi	15305294
7	Tail Lamp, LR	CONN – GT 150 4W M BLK	n/a	Delphi	15326820
8	APO – LR	CONN – M/P 280 3W F FLX LK	n/a	Delphi	12176446
9	Inline	CONN – 30F GT 150 280	n/a	Delphi	15304908

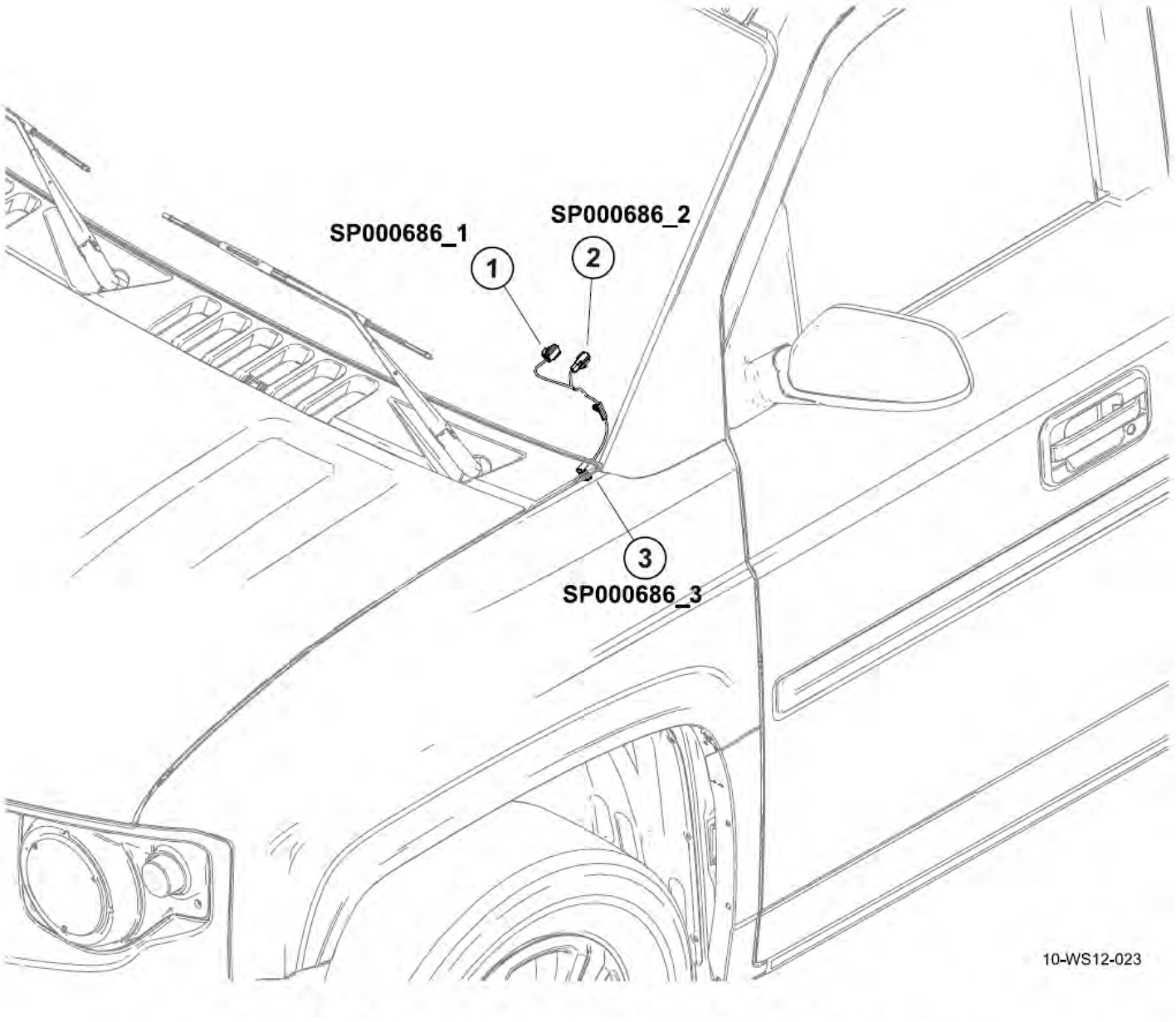
7.1.2. HVAC Harness – PT010244



HVAC Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Door Motor	CONN – MICR/P100 – 6W – F	PT003340	Delphi	12040953
2	Temp Sensor	CONN – MP-SLD-3W-M	PT002590	Delphi	12129615
3	Ground Terminal	TERM RING	PT010467	Delphi	12052832
4	Door Motor	CONN – MICR/P100 – 6W – F	PT003340	Delphi	12040953
5	Resistor	TRML – 6.35 QK CONN F Blue	PT003338	Terminal Supply	B850
6	Resistor	CONN – 56SER – UNSLD-4W-F	PT003339	Delphi	29
7	Blower Resistor	CONN– UNIVERSAL-UNSLD 2W	PT003398	Terminal Supply	PH-2
8	Door Motor	CONN – MICR/P100 – 6W – F	PT003340	Delphi	12040953
9	Inline	CONN – 12 GT 150,280	PT002922	Delphi	1533609

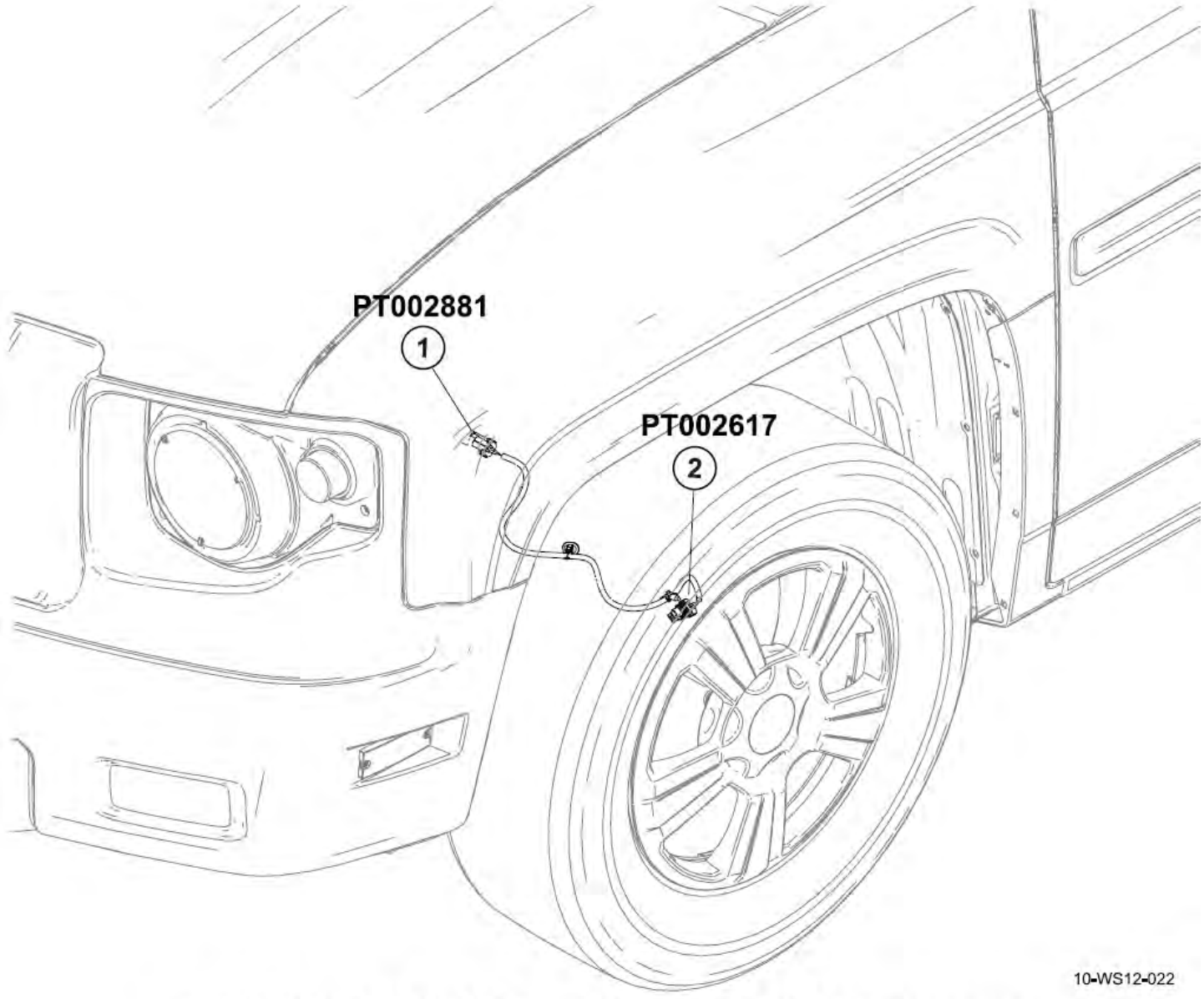
7.1.3. Steering Column Harness – PT009080 (Service Part SP000686)



Steering Column Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Brake Shift Interlock	BTSI Jumper Harness	SP000686_1		
2	Overdrive Off Switch		SP000686_2		
3	Inline		SP000686_3		

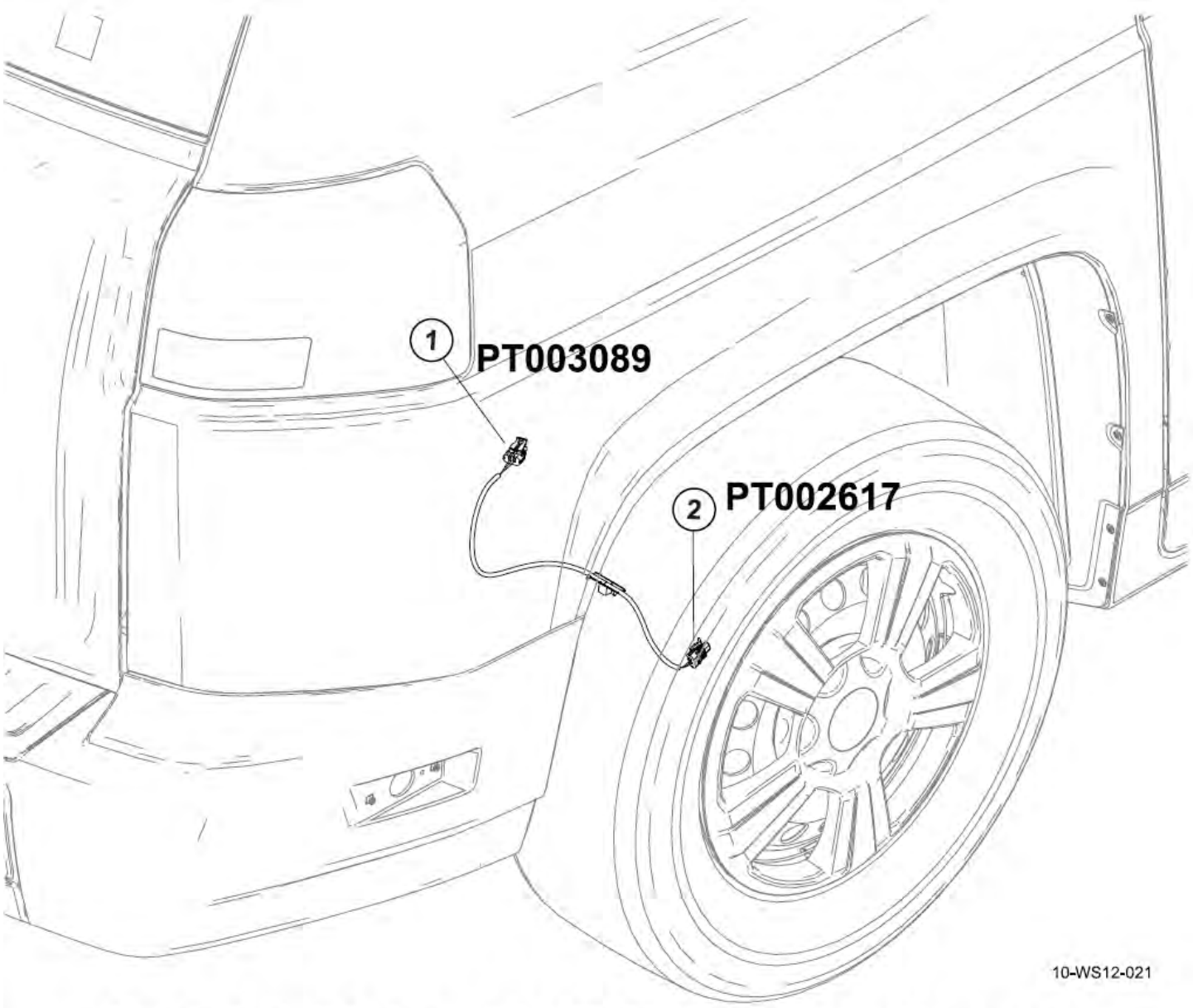
7.1.4. Wheel Speed Sensor Harness Front Jumper – PT008530



Wheel Speed Sensor Harness – Front

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Front Wheel Speed Sensor Jumper	CONN – 150 MP – 2W-M	PT002881	Delphi	12162343
2	Front Wheel Speed Sensor Jumper	CONN – MP150 – SLD-2W-F	PT002617	Delphi	12052644

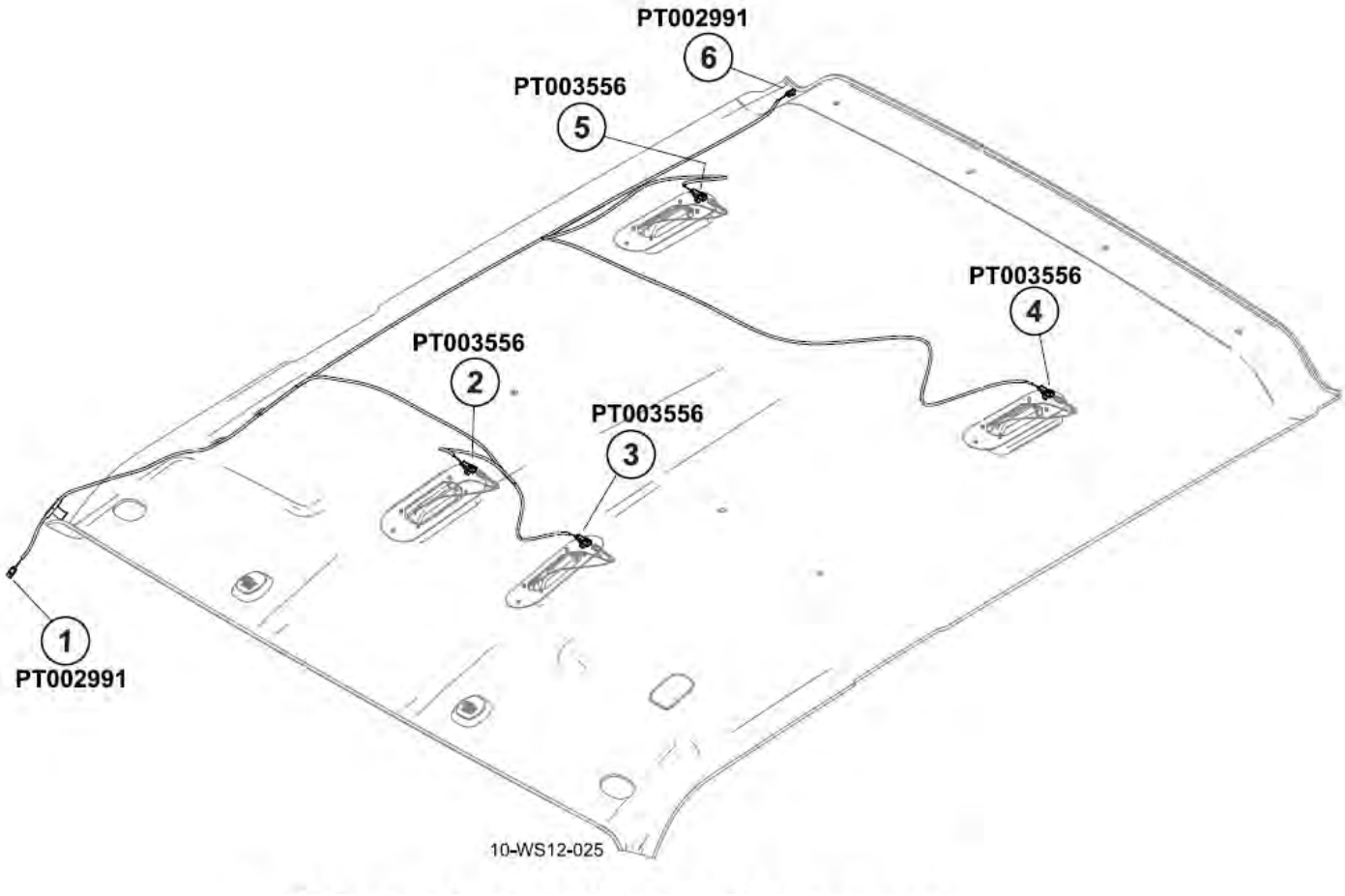
7.1.5. Wheel Speed Sensor Harness Rear Jumper – PT008413



Wheel Speed Sensor Harness – Rear

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Rear Wheel Speed Sensor Jumper	CONN – 150 MP – 2W-M	PT003089	Delphi	12162343
2	Rear Wheel Speed Sensor Jumper	CONN – MP150 – SLD-2W-F	PT002617	Delphi	12052644

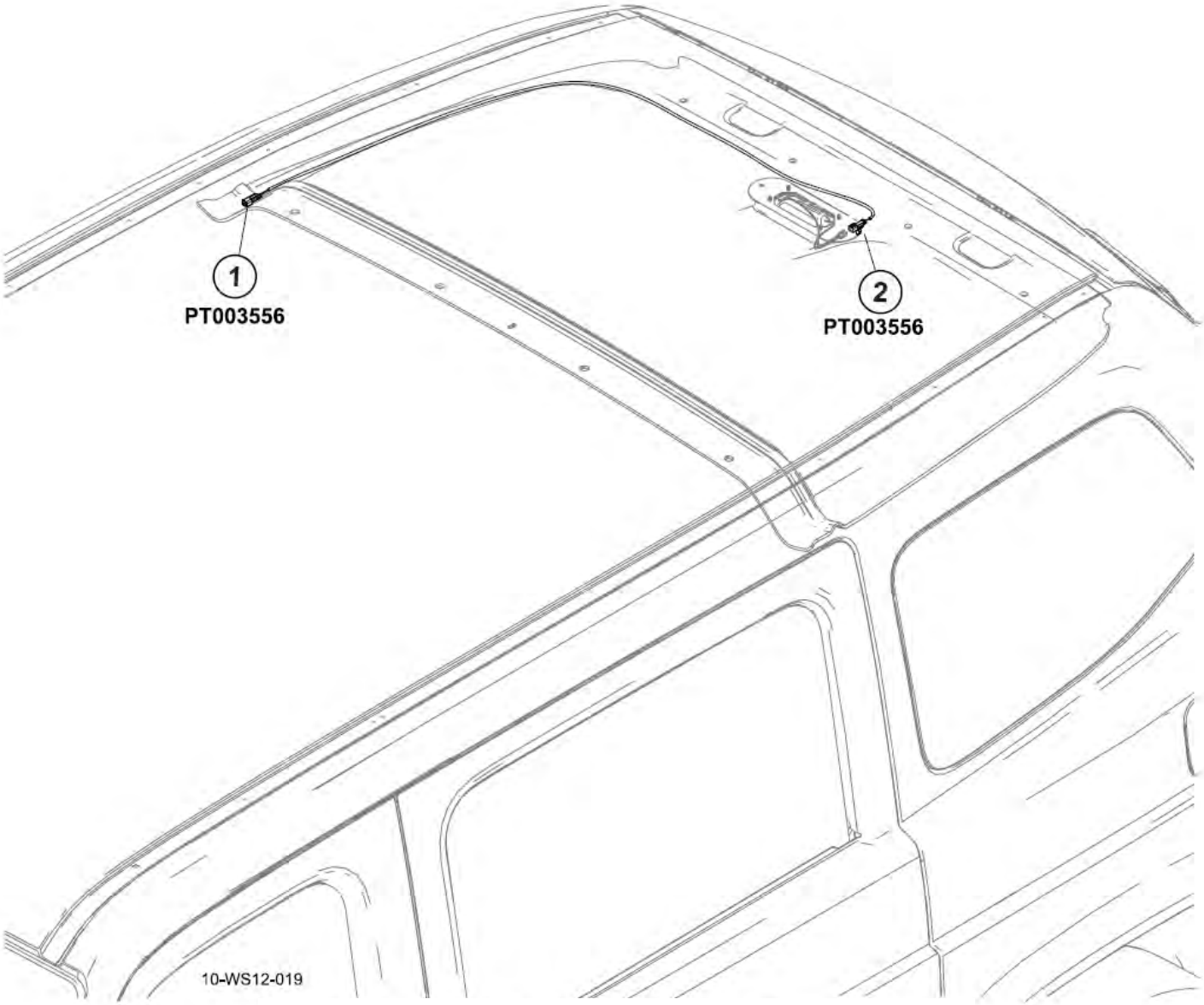
7.1.6. Headliner Harness – PT010147



Headliner Harness – Front

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline		PT002991		
2	RF Interior Lamp		PT003556		
3	LF Interior Lamp		PT003556		
4	LR Interior Lamp		PT003556		
5	RR Interior Lamp		PT003556		
6	Inline		PT002991		

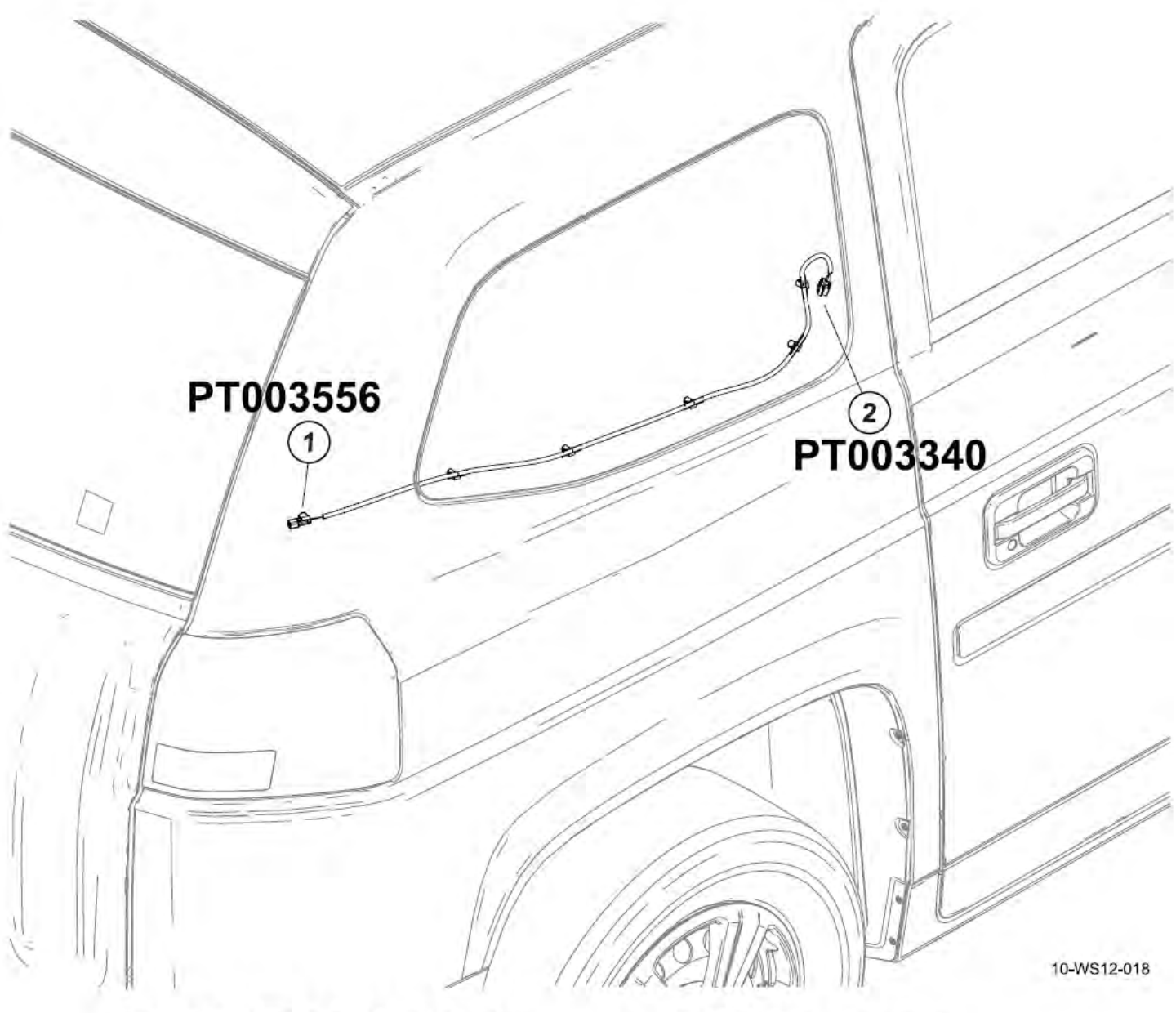
7.1.7. Rear Headliner Harness – PT010148



Headliner Harness – Rear

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline		PT003556		
2	Cargo Interior Lamp		PT003556		

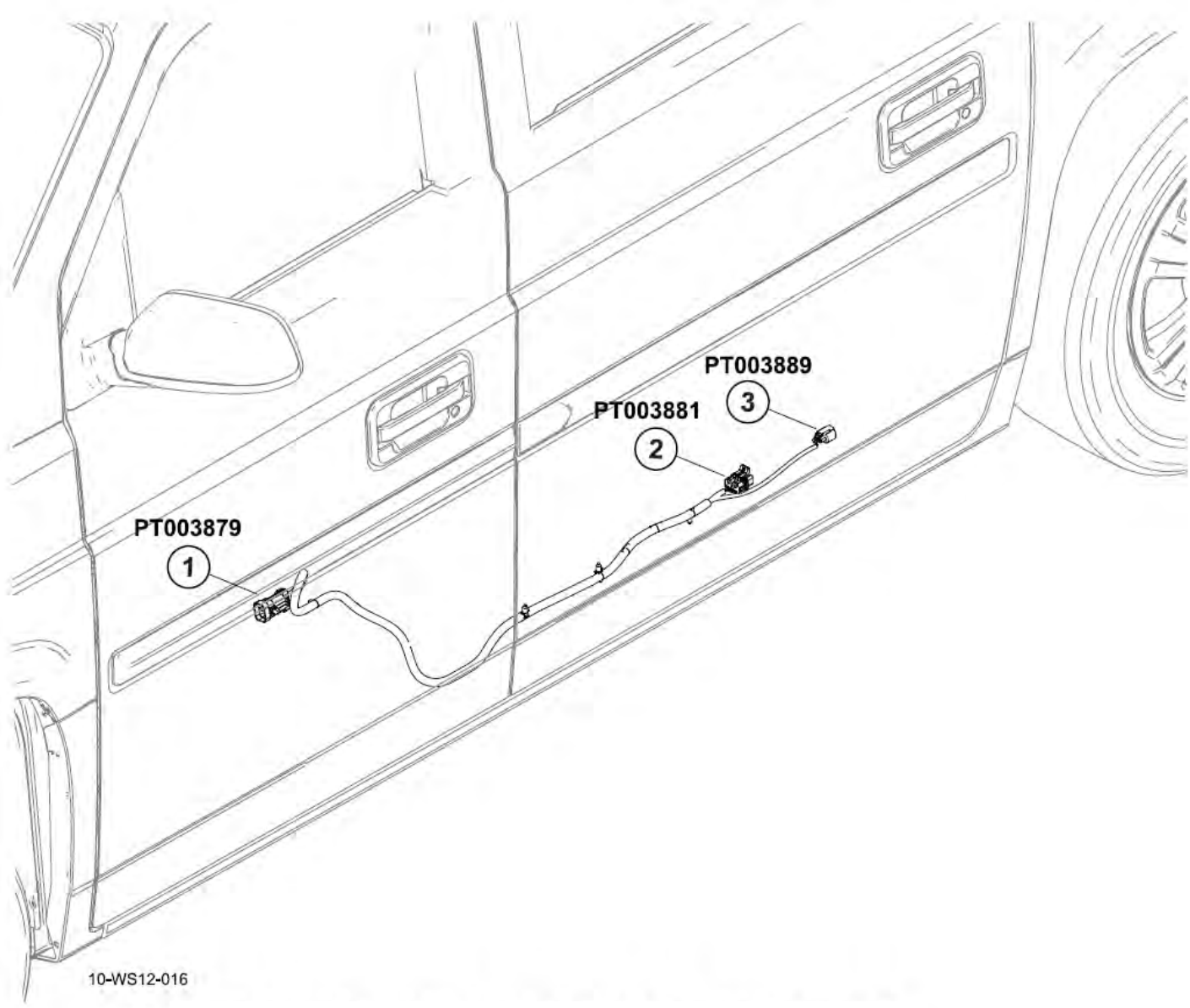
7.1.8. Auxiliary Power Outlet Harness – RH – PT004868



APO Jumper Harness – Right

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline		PT003556		
2	APO RR		PT003340		

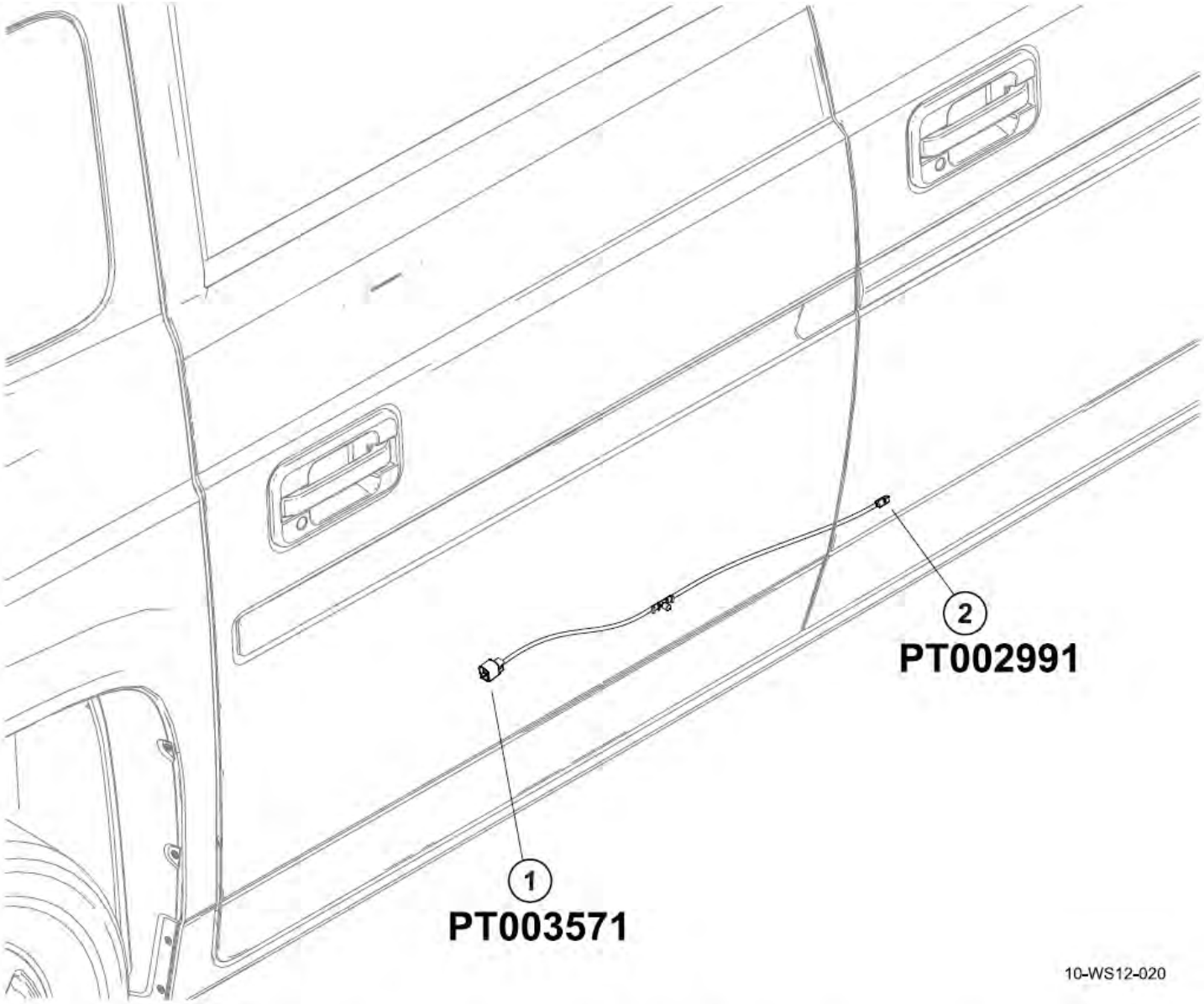
7.1.9. Ramp Control Harness – PT009099



Ramp Actuator Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline		PT003879		
2	Ramp Motor		PT003881		
3	Ramp Position Switch		PT003889		

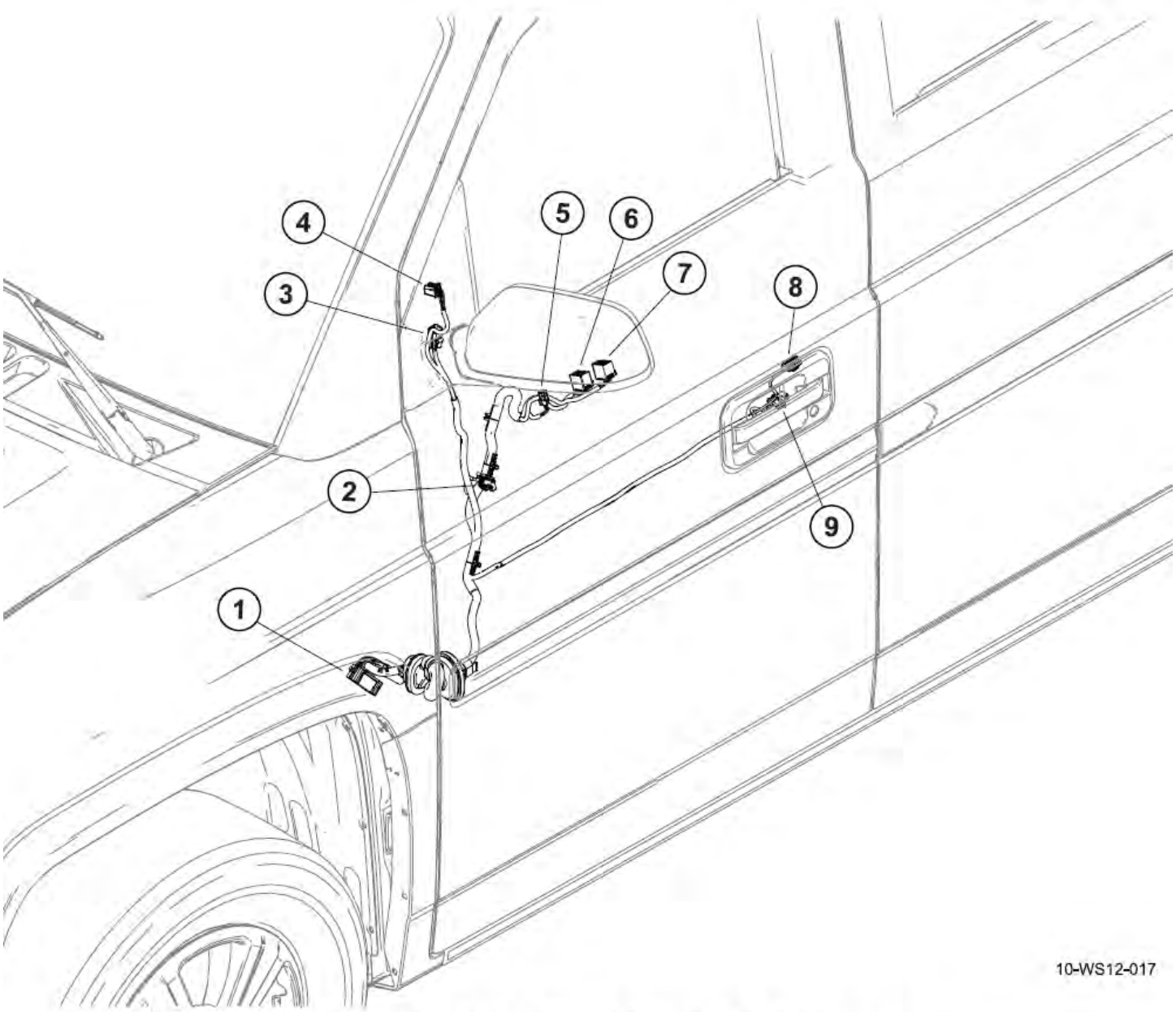
7.1.10. Ramp Actuator B Harness – PT003557



Ramp Actuator Harness

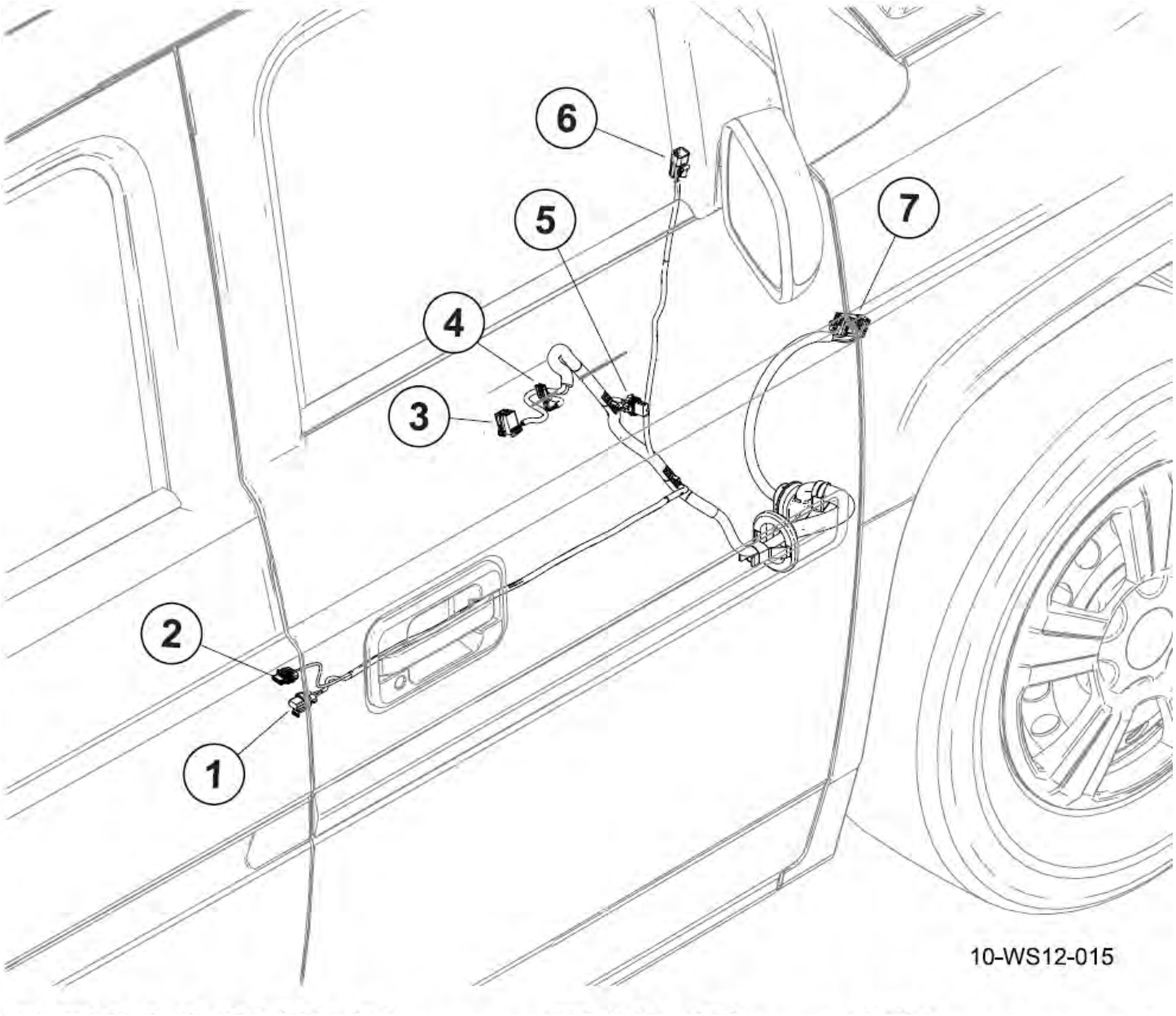
ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline		PT003571		
2	Ramp Actuator		PT002991		

7.1.11. Left Front Door Harness – PT009454



Left Front Door Harness

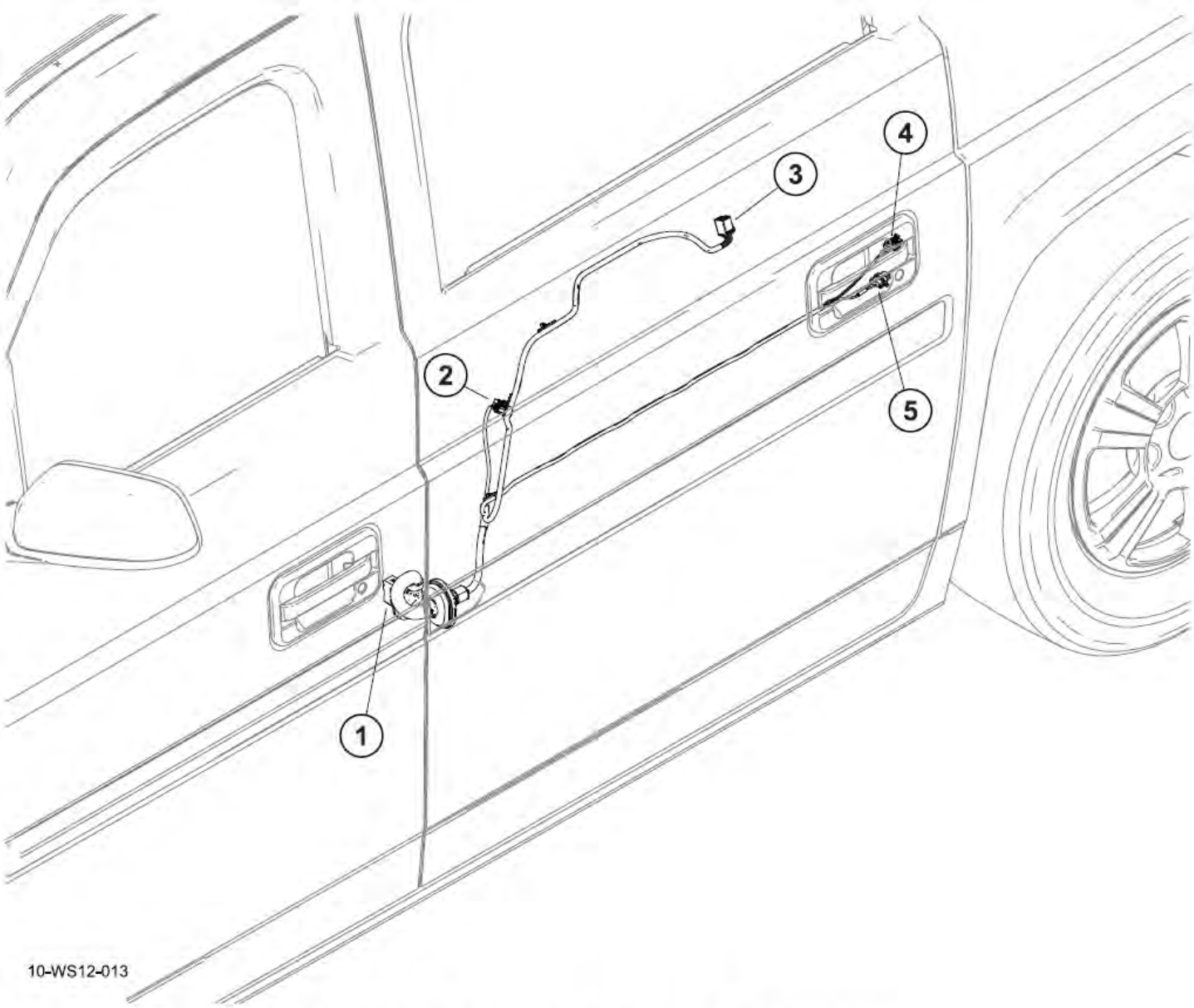
ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline			Delphi	15317325
2	Window Motor			Delphi	12129487
3	OSRV Mirror			Delphi	12045688
4	OSRV Mirror Switch			Molex	30700-1080
5	Lock Switch			Delphi	15422579
6	Window Switch			Delphi	13628691
7	Window Switch			Delphi	13628692
8	Ajar Switch			Delphi	15366025
9	Lock Actuator Motor			Delphi	15300027



Right Front Door Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline			Delphi	15304690
2	OSRV Mirror			Delphi	12045688
3	Window Motor			Delphi	12129487
4	Lock Switch			Delphi	15422579
5	Window Switch			Delphi	13628697
6	Ajar Switch			Delphi	15366027
7	Lock Actuator Motor			Delphi	15300027

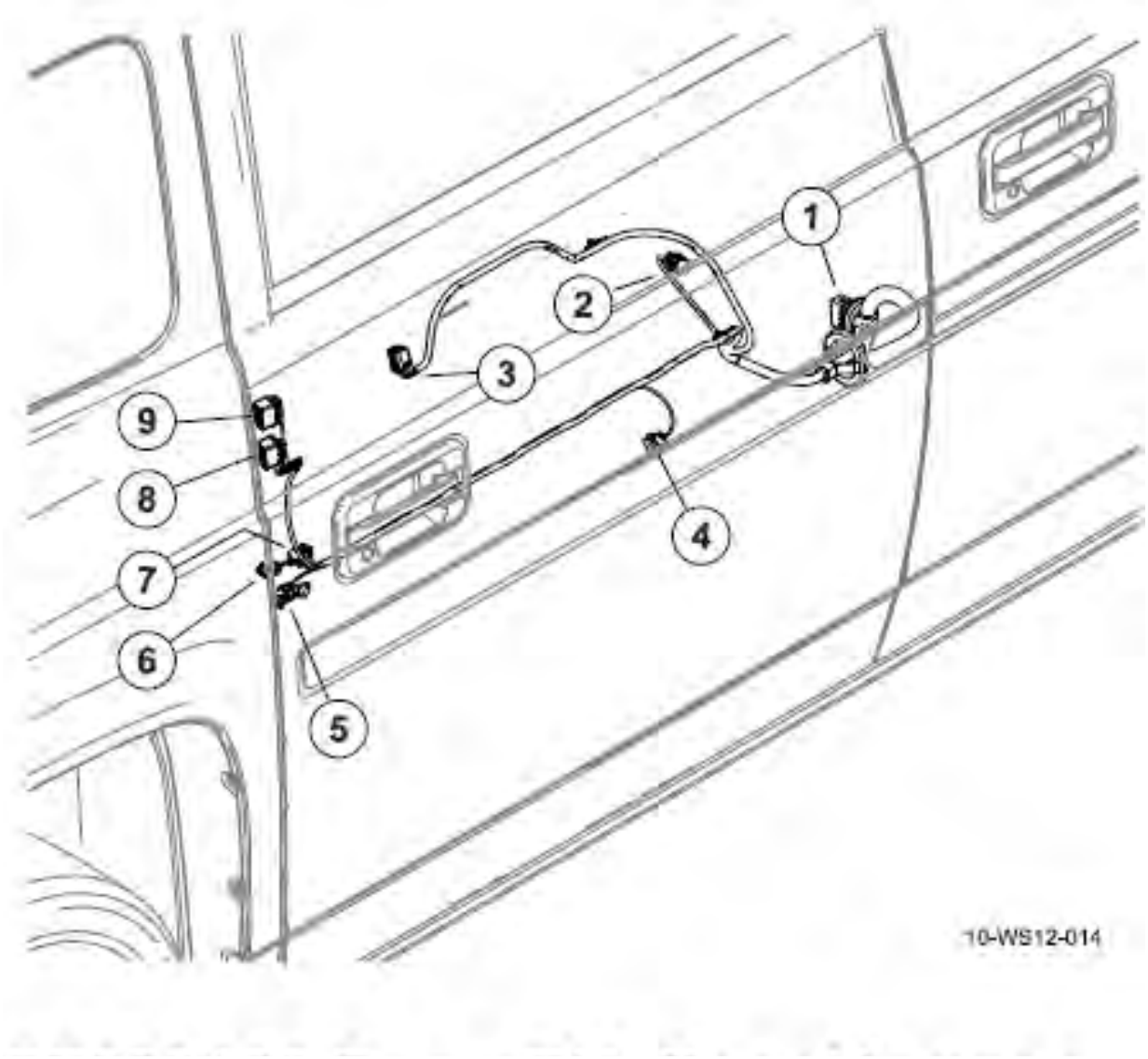
7.1.13. Left Rear Door Harness – PT009460



Left Rear Door Harness

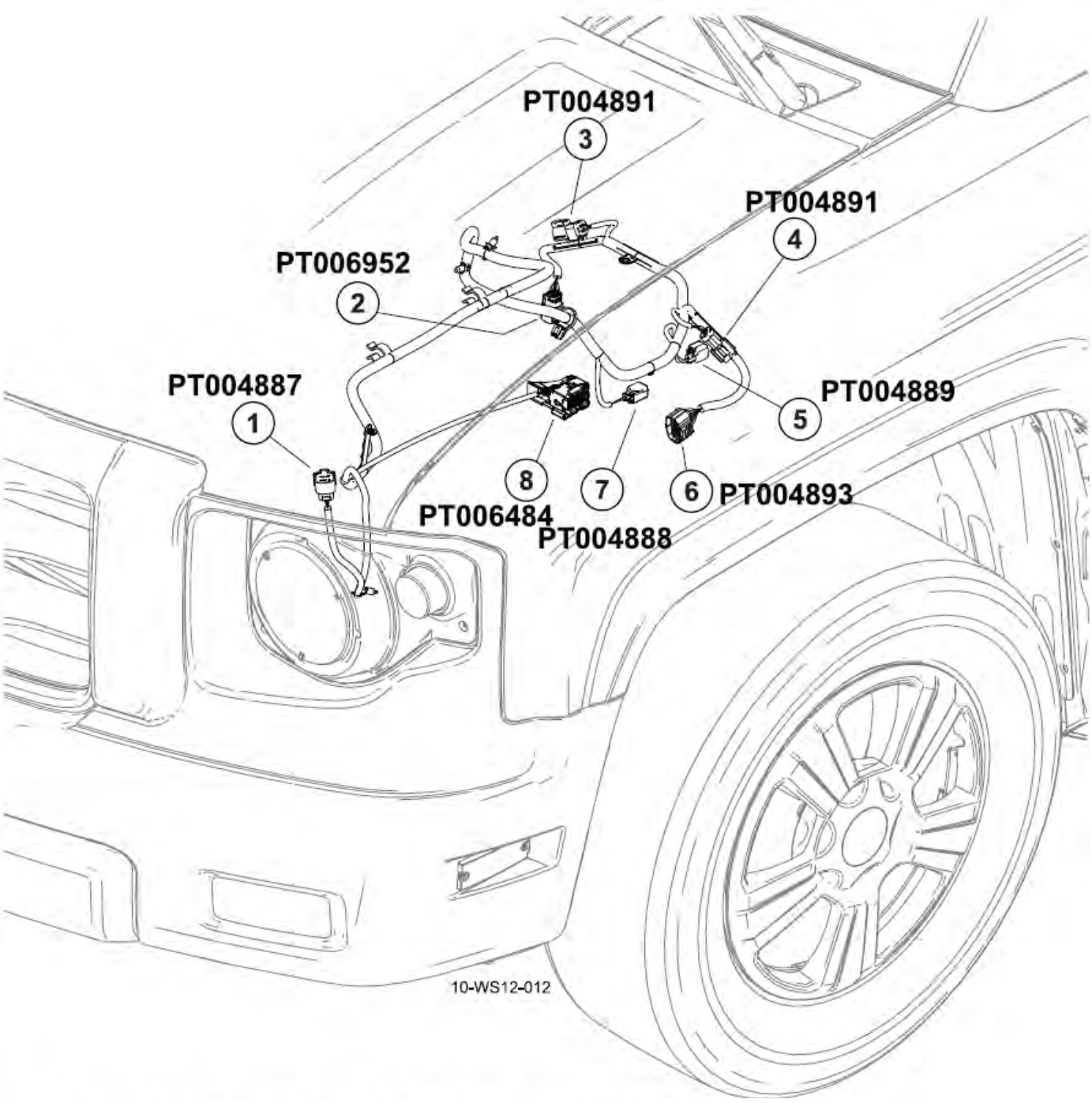
ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline			Delphi	12177258
2	Window Motor			Delphi	12129487
3	Window Switch			Delphi	13628697
4	Ajar Switch			Delphi	15366025
5	Lock Actuator Motor			Delphi	15300027

7.1.14. Right Rear Door Harness – PT009456



Right Rear Door Harness

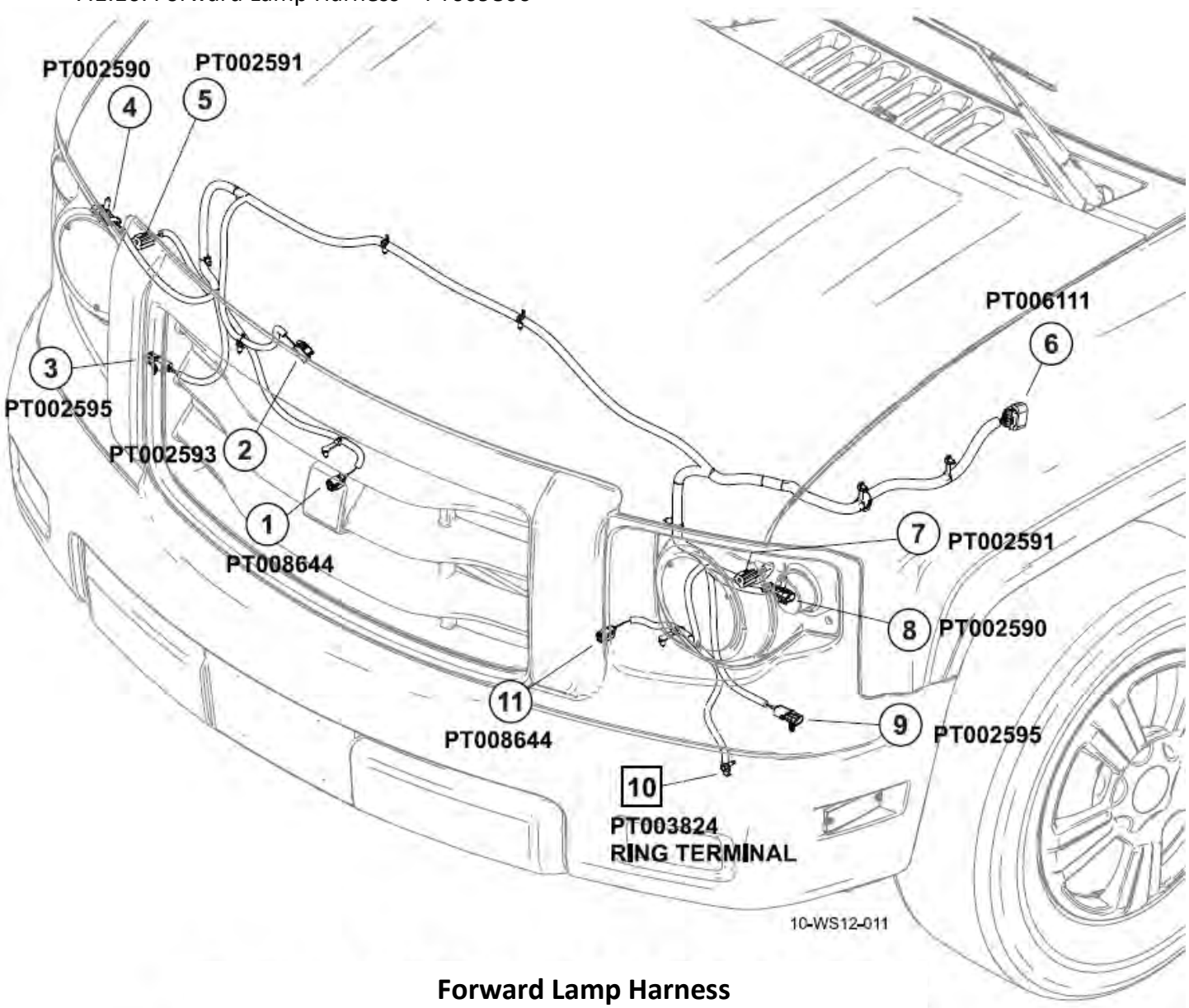
ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline			Delphi	15336224
2	Window Motor			Delphi	12129487
3	Window Switch			Delphi	13628697
4	Ramp Lamp				CST-89012
5	Lock Actuator Motor			Delphi	15300027
6	Ajar Switch			Delphi	15336846
7	Ramp Lamp				CST-89012
8	Ramp Mode (Long/Short) Select				VC4
9	Ramp Deploy Control				VC1



Transmission Control & NSBU Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline		PT004887		
2	Transmission Control		PT006952		
3 & 4	O2 Sensor		PT004891		
5	OSS		PT004889		
6	Range Sensor		PT004893		
7	TSS		PT004888		
8	PCM		PT006484		

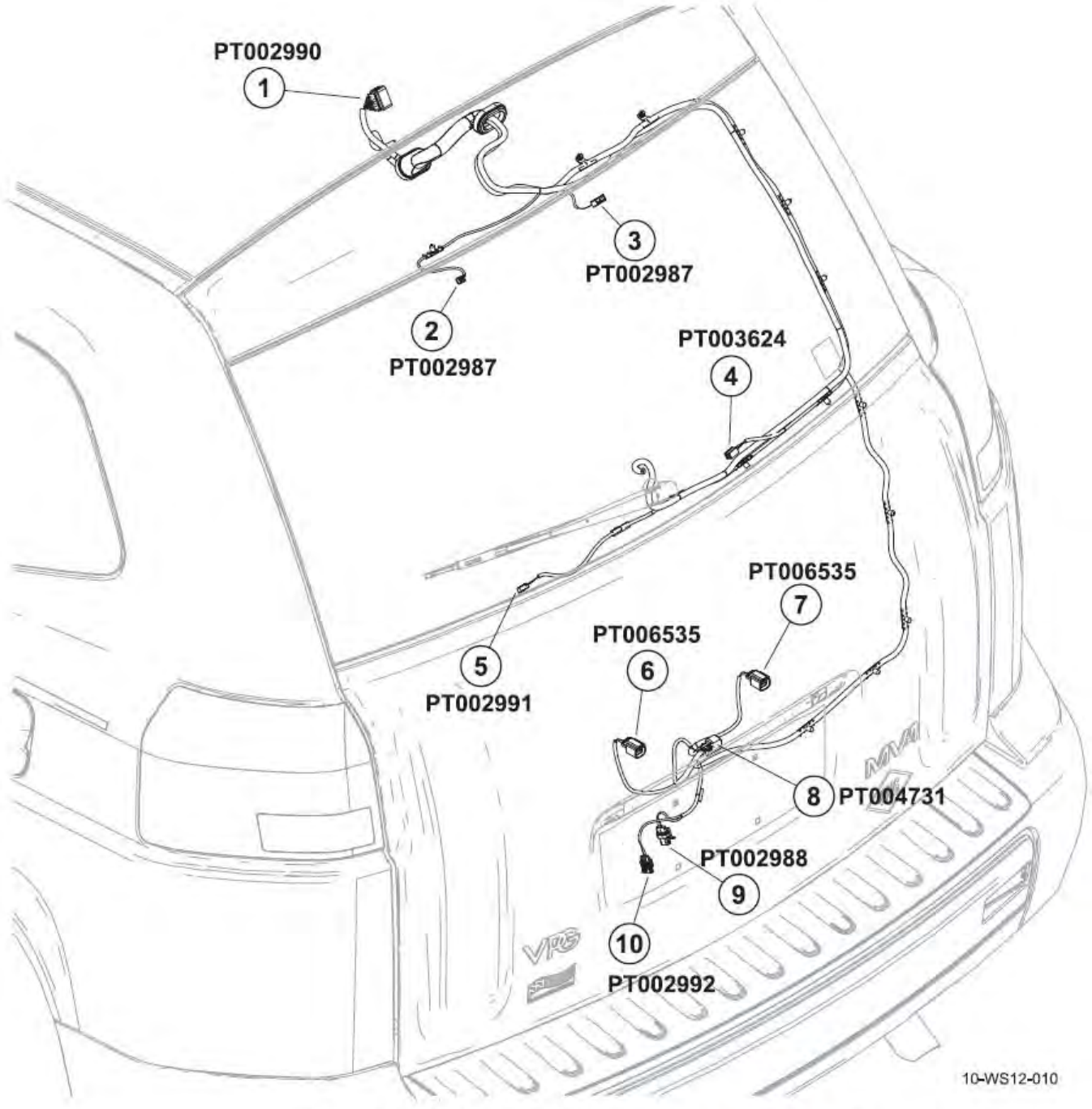
7.1.16. Forward Lamp Harness – PT009866



Forward Lamp Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Impact Sensor	CONN- 064-S002-1-D02	PT008644	FCI	F627000
2	Horn	CONN-GT150-SLD-2W-F	PT002593	Delphi	15429715
3	RT Side Marker	CONN-WPACK-SLD-2W-M	PT002595	Delphi	12010973
4	RT Side Turn Lamp	CONN-MP-SLD-3W-M	PT002590	Delphi	12129615
5	RT Headlamp	CONN-59-UNSLD-3W-F	PT002591	Delphi	8905394
6	Inline	CONN-SLD-12W-F	PT006111	Delphi	15326849
7	LT Headlamp	CONN-59-UNSLD-3W-F	PT002591	Delphi	8905394
8	RT Side Turn Lamp	CONN-MP-SLD-3W-M	PT002590	Delphi	12129615
9	RT Side Marker	CONN-WPACK-SLD-2W-M	PT002595	Delphi	12010973
10	Ground Eyelet	Ring Terminal	PT003824		
11	Impact Sensor	CONN- 064-S002-1-D02	PT008644	FCI	F627000

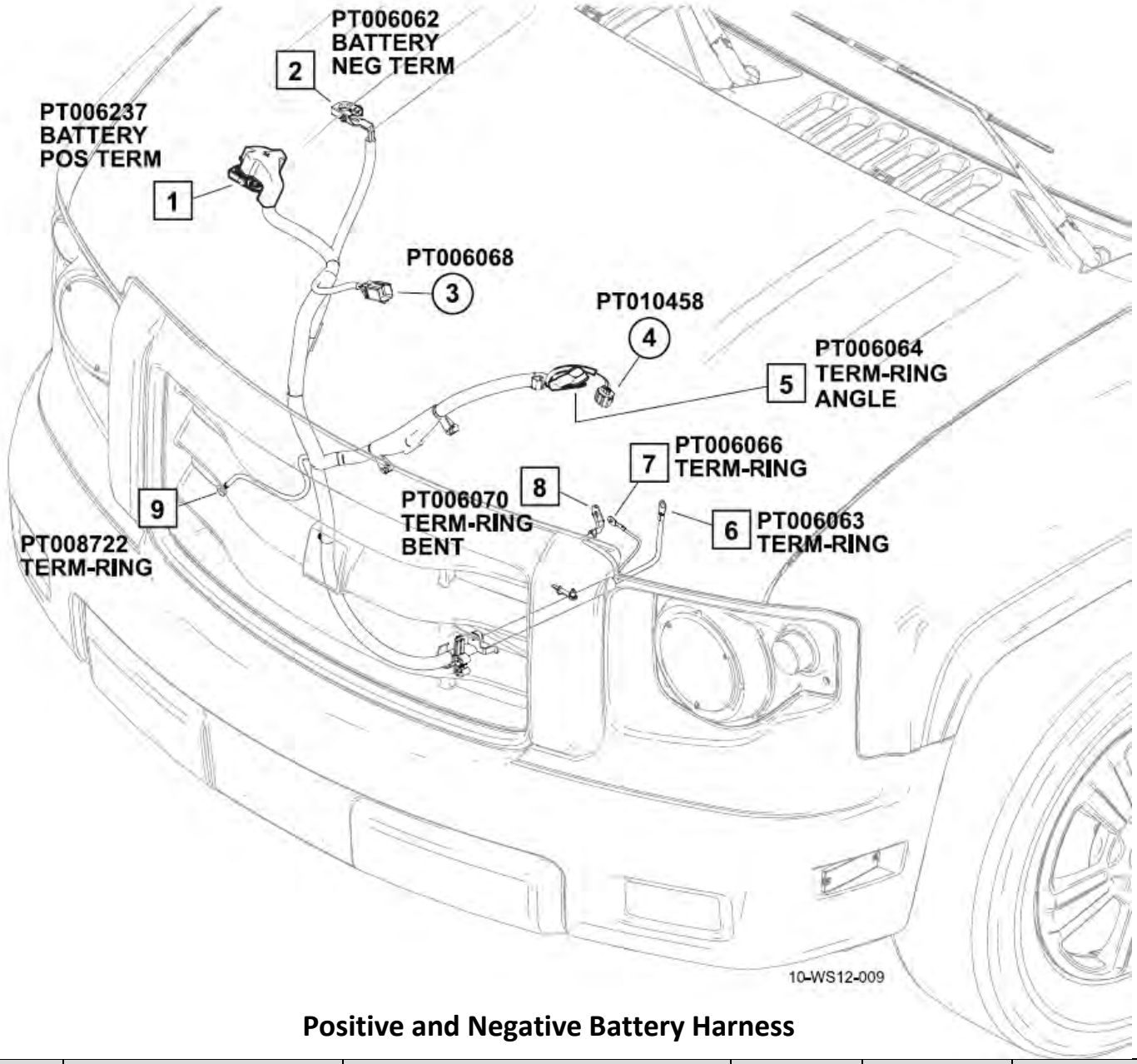
7.1.17. Liftgate Harness – PT010722



Liftgate Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline	CONN-ASM-12F GT 150 280	PT002990	Delphi	15336205
2 & 3	Heated Back Glass	CONN-1 F M/P 630 BLK x2	PT002987	Delphi	12092133
4	Rear Wiper Motor	CONN- 2.8mm-UNSLD-4W-F	PT003624	TYCO	170801-3
5	CHMSL	CONN 2 F M/P 150BLK	PT002991	Delphi	15336205
6 & 7	License Plate Lamps	CONN ASM – 2W- F x2	PT006535	ALCOA-EPC	E-5085-001
8	Liftgate Release Switch	CONN-1.5mm-SLD-2W-F-BK	PT004731	ALCOA-EPC	E-3550
9	Liftgate Latch Actuator	CONN ASM-2W F M/P 280 BLK SLD	PT002988	Delphi	15300027
10	Liftgate Latch Ajar	CONN ASM – 2F GT 150 SLD DB	PT002992	Delphi	15366027

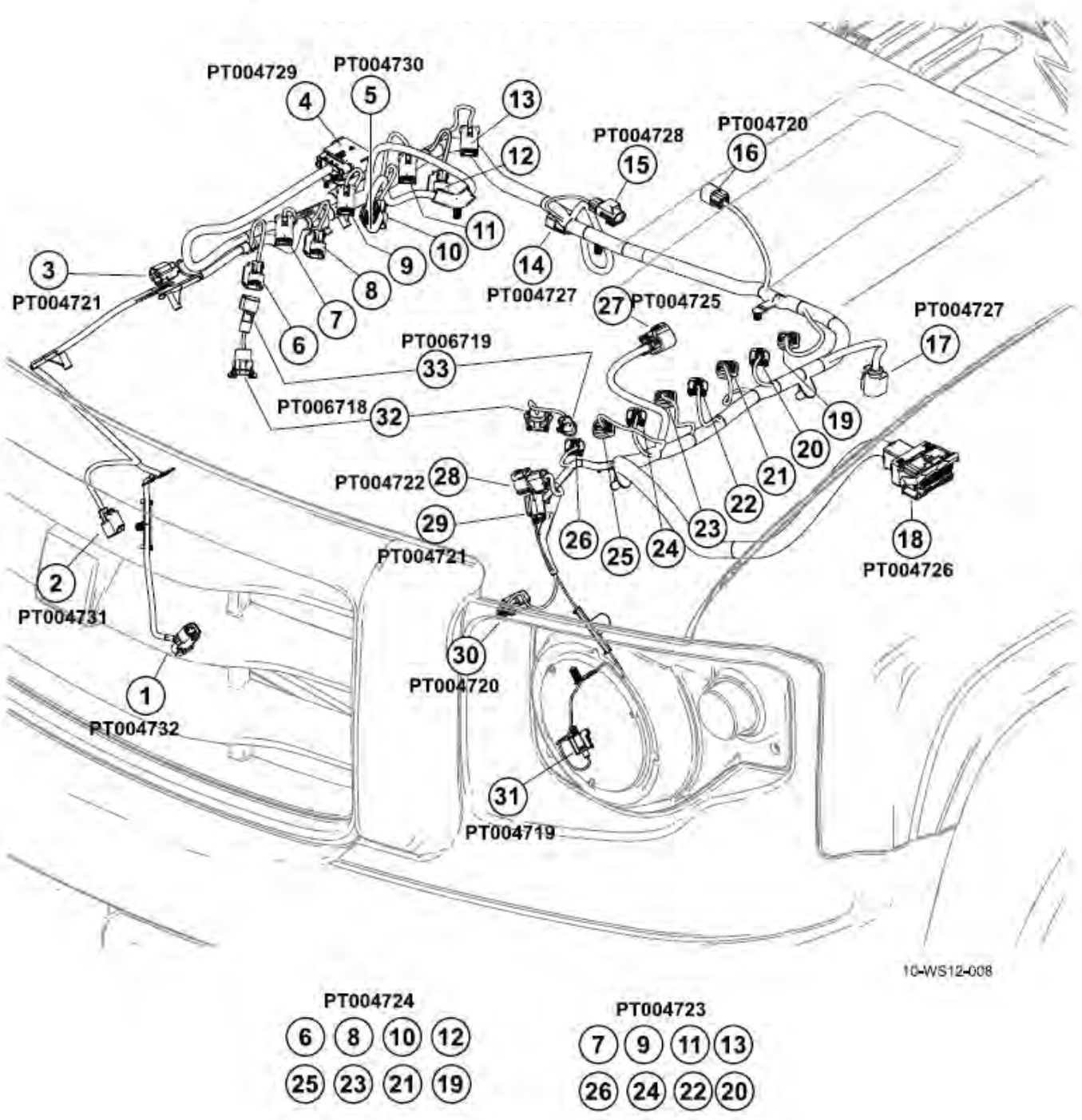
7.1.18. Positive & Negative Battery Harness – PT010248/A



Positive and Negative Battery Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Positive Batt Terminal		PT006237		
2	Negative Batt Terminal		PT006062		
3	Inline	CONN- 6.3mm-SLD-4W-M	PT006068	YAZAKI	7282-5595-10
4	Alternator/Generator	CONN – 1.8mm-SLD-3W-F	PT010458	TYCO	174357-2
5	Alternator Batt Positive	Angled Terminal Ring	PT006064		
6	Starter Ground	Terminal Ring	PT006063		
7	Starter Solenoid	Terminal Ring	PT006066		
8	Starter B+	Terminal Ring – Bent	PT006070		
9	Chassis Ground	Terminal Ring	PT008722		

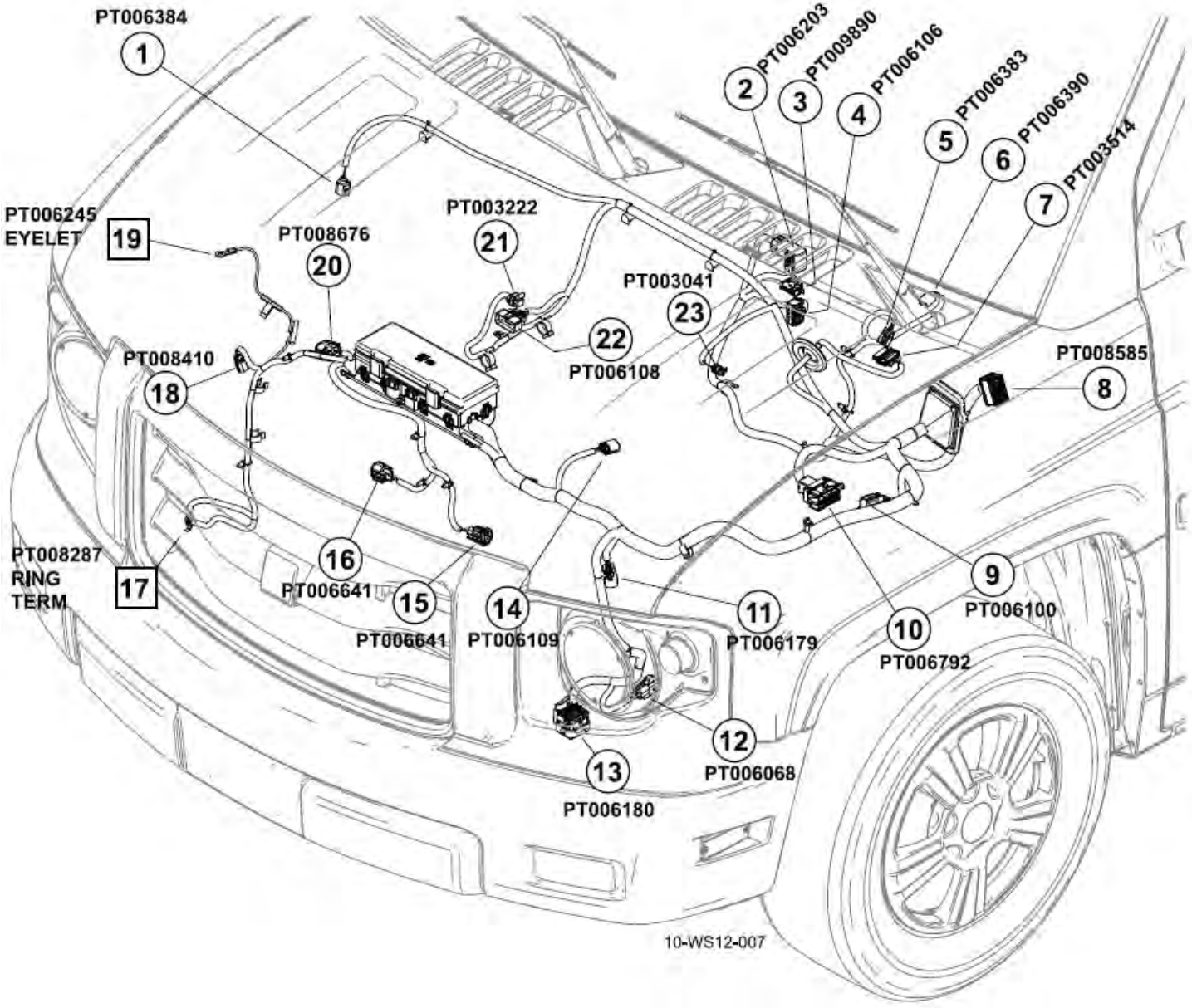
7.1.19. Engine Harness – PT008093



Engine Harness

ITEM#	Connector Use	VPG P/N
1	CPS	PT004732
2	A/C Compressor Coil	PT004731
3 & 29	Radio Interference Capacitors 1&2	PT004721
4	Inline	PT004729
5	ETC	PT004730
6,8,10,12,19,21,23,25	Fuel Injectors	PT004724
7,9,11,13,20,22,24,26	COP	PT004723
14	Passenger Side UHO2 Sensor	PT004727
15	Knock Sensor	PT004728
16 & 30	Evap Canister Purge Canister, CMPS	PT004720
17	Driver Side UHO2 Sensor	PT004727
18	PCM (J2)	PT004726
27	EGR	PT004725
28	CHTS Jumper	PT004722
31	Oil Pressure Switch	PT004719
32	CNG Fuel Injector Jumper Harness	PT006718
33	CNG Fuel Injector Jumper Harness	PT006719
	AVAILABLE SERVICE PART PIGTAILS	
1	Crankshaft Position Sensor	1F1T-14A464-AB (FMC)
6,8,10,12,19,21,23,25	Fuel Injector	98AG-14A464-SBA (FMC)
14 & 17	Heated Oxygen Sensor	F4SB-14A464-XD (FMC)
15	Knock Sensor	97BG-14A464-YBB (FMC)
28	Cylinder Head Temp Sensor	F57B-14A464-APB (FMC)
30	Camshaft Position Sensor	2F1T-14A464-CA (FMC)

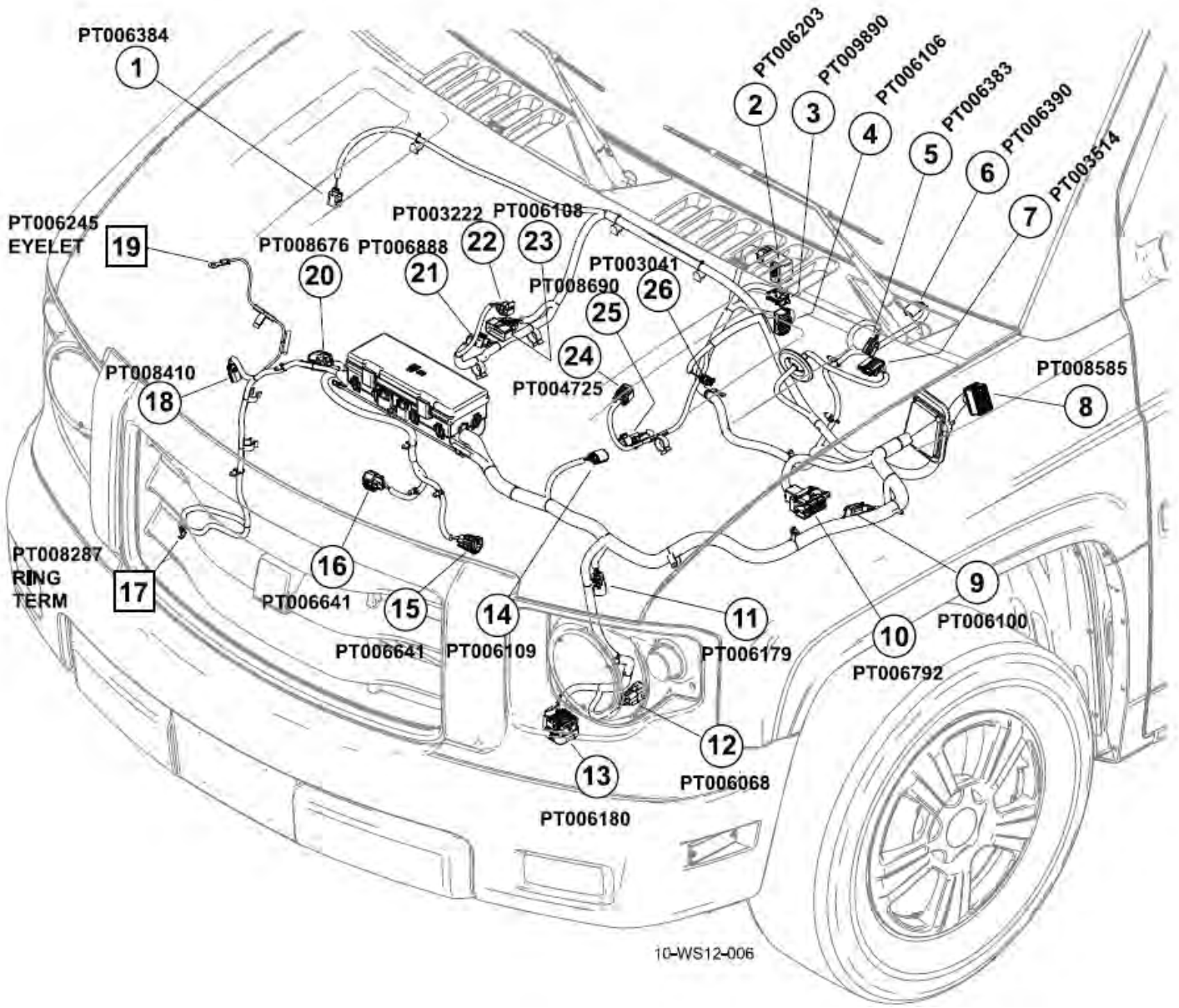
7.1.20. Underhood Harness –Gasoline – PT010246



Underhood Harness - Gasoline

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Washer Pump	CONN-MCP 2.8-SLD-2W-F	PT006384	TYCO	1-1355200-1
2	Smart Junction Box (J7)	CONN-8.0-UNSLD-1W-PWR	PT006203	ALCOA-EPC	7C3T-14A464-JA-564
3	Smart Junction Box (J6)	CONN-0.64 – UNSLD-26W-F	PT009890	TYCO	1326136-1
4	Smart Junction Box (J5)	CONN-2.8/6.3-UNSLD-13W-F	PT006106	YAZAKI	7283-6569-40
5	APP Sensor	CONN-0.64mm-UNSLD-6W-F	PT006383	MOLEX	31402-6100
6	BOO Switch (Brake SW)	CONN-110-UNSLD-4W-F	PT006390	YAZAKI	7183-4347
7	Front Wiper Motor	CONN-MP280-SLD-5W-F	PT003514	Delphi	12052848
8	Inline	CONN-0.64/2.8/6.3 Hybrid – UNSLD-59W – F	PT008585	Sumitomo	6089-6134
9	Inline	CONN-GT150-SLD-12W-M	PT006100	Delphi	15326854
10	PCM (J1)	CONN ASM-SLD-70W-BASE	PT006792	TYCO	1438130-4
11	Inline	CONN-8M SEALED	PT006179	MOLEX	33482-0806
12	Inline	CONN-6.3mm-SLD-12W-M	PT006068	YAZAKI	7282-5595-10
13	Inline	CONN-42W M SLD	PT006180	ALCOA-EPC	7C3T-14A464-JA-564
14	MAF	CONN-0.64mm-SLD-6W-F	PT006109	TYCO	1326942-1
15 & 16	Cooling Fan Motor 1&2	CONN-6.3mm-SLD-2W-F x2	PT006641	YAZAKI	7283-5596-10
17	Chassis Ground	Ring Terminal	PT008287		
18	A/C Pressure Sensor	CONN –MX64-SLD-4W-F	PT008410	MOLEX	31402-3100
19	Batt POS+ to Fuse Links	Eyelet	PT006245		
20	Inline	CONN-6.3mm-SLD-4W-F	PT008676	YAZAKI	7283-5595-10
21	Water Temp Valve	CONN –MP150-SLD-6W-F	PT003222	Delphi	12052848
22	Inline	CONN-SLD-16(07)W-F	PT006108	MOLEX	33476-2034
23	Brake Fluid Level Switch	CONN-GT150 2W F BLK SLD	PT003041	Delphi	15449028

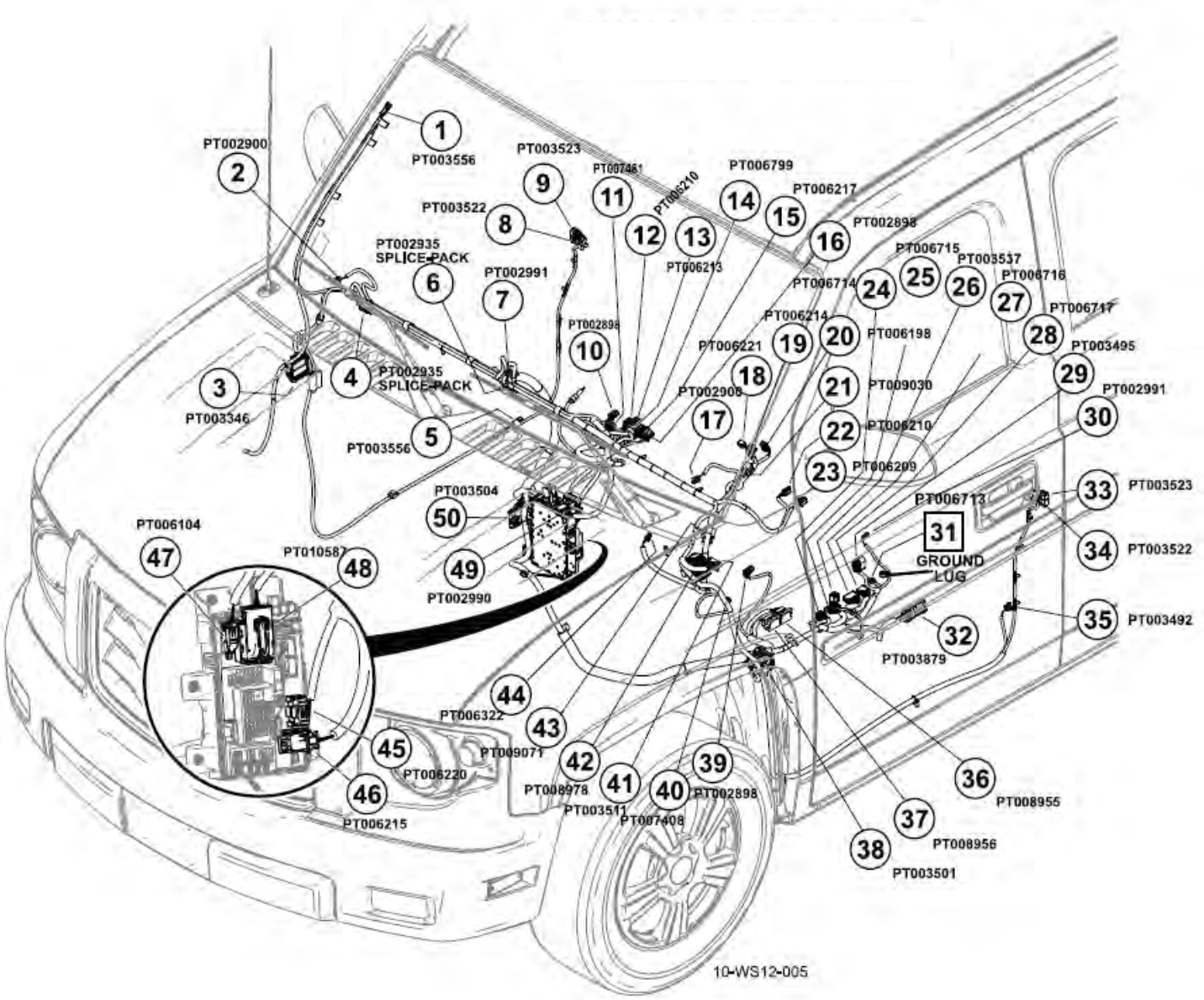
7.1.21. Underhood Harness – CNG – PT010247



Underhood Harness - CNG

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Washer Pump	CONN-MCP 2.8-SLD-2W-F	PT006384	TYCO	1-1355200-1
2	Smart Junction Box (J7)	CONN-8.0-UNSLD-1W-PWR	PT006203	ALCOA-EPC	7C3T-14A464-JA-564
3	Smart Junction Box (J6)	CONN-0.64 – UNSLD-26W-F	PT009890	TYCO	1326136-1
4	Smart Junction Box (J5)	CONN-2.8/6.3-UNSLD-13W-F	PT006106	YAZAKI	7283-6569-40
5	APP Sensor	CONN-0.64mm-UNSLD-6W-F	PT006383	MOLEX	31402-6100
6	BOO Switch (Brake SW)	CONN-110-UNSLD-4W-F	PT006390	YAZAKI	7183-4347
7	Front Wiper Motor	CONN-MP280-SLD-5W-F	PT003514	Delphi	12052848
8	Inline	CONN-0.64/2.8/6.3 Hybrid – UNSLD-59W – F	PT008585	Sumitomo	6089-6134
9	Inline	CONN-GT150-SLD-12W-M	PT006100	Delphi	15326854
10	PCM (J1)	CONN ASM-SLD-70W-BASE	PT006792	TYCO	1438130-4
11	Inline	CONN-8M SEALED	PT006179	MOLEX	33482-0806
12	Inline	CONN-6.3mm-SLD-12W-M	PT006068	YAZAKI	7282-5595-10
13	Inline	CONN-42W M SLD	PT006180	ALCOA-EPC	7C3T-14A464-JA-564
14	MAF	CONN-0.64mm-SLD-6W-F	PT006109	TYCO	1326942-1
15 & 16	Cooling Fan Motor 1&2	CONN-6.3mm-SLD-2W-F x2	PT006641	YAZAKI	7283-5596-10
17	Chassis Ground	Ring Terminal	PT008287		
18	A/C Pressure Sensor	CONN –MX64-SLD-4W-F	PT008410	MOLEX	31402-3100
19	Batt POS+ to Fuse Links	Eyelet	PT006245		
20	Inline	CONN-6.3mm-SLD-4W-F	PT008676	YAZAKI	7283-5595-10
21	CNG IPT Sensor	CONN-2.8mm-SLD-4W-F	PT006888	BOSCH	1 928 403 736
22	Water Temp Valve	CONN-MP150-SLD-6W-F	PT003222	Delphi	12052848
23	Inline	CONN-SLD-16(07)W-F	PT006108	MOLEX	33476-2034
24	EGR Valve (CNG)	CONN-1.5mm-SLD-6W-F	PT004725	ALCOA-EPC	E-5651-1
25	Inline to EGR Connector (CNG)	CONN-1.5mm –SLD- 6W-F	PT008690	ALCOA-EPC	E-5655-2
26	Brake Fluid Level Switch	CONN-GT150 2W-BLK-SLD	PT003041	Delphi	15449028

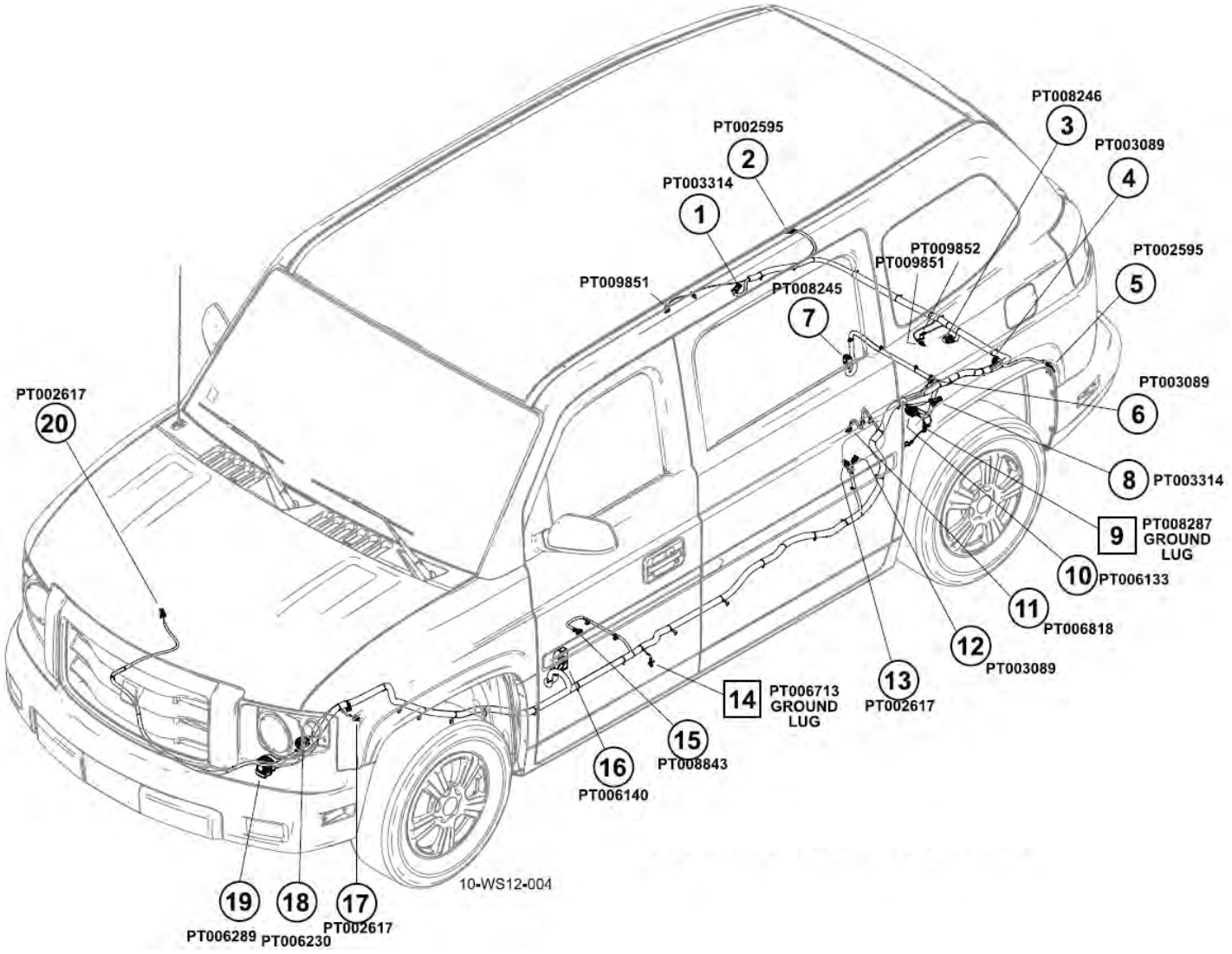
7.1.22. Instrument Panel (IP) Harness – PT010236



Instrument Panel (IP) Harness

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Inline	CONN-MP150-UNSLD-2W-M	PT003556	Delphi	12047663
2	RF Speaker	CONN – 2-M/P 150 BLK	PT002900	Delphi	12052832
3	Inline	CONN-GT150/280-UNSLD-2W-F	PT003346	Delphi	15336467
4	Splice Saver	SPLICE PACK	PT002935	Delphi	15305294
5	Inline	CONN-MP150-UNSLD-2W-M	PT003556	Delphi	12047663
6	Splice Saver	SPLICE PACK	PT002935	Delphi	15305294
7	Ambient Light Sensor	CONN -2 F M/P 150 BLK	PT002991	Delphi	12047662
8	Inline	CONN- GT150-UNSLD-10W-F	PT003522	Delphi	12177259
9	Inline	CONN-GT150/MP280-UNSLD-7W-F	PT003523	Delphi	12177260
10	APO, RT Dash	CONN-M/P 280 3W F FLX LK	PT002898	Delphi	12176446
11	Radio	CONN-CVJ-UNSLD-16W-F	PT007481	J.A.M.	CV125-16HG
12	Rear Wiper, Rear Washer, Power Ramp	CONN-064-UNSLD-6W-F	PT006210	MOLEX	31073-1010
13	Traction Control Off, Ramp, Hazard Switch	CONN-064-UNSLD-6W-F	PT006213	MOLEX	31073-1011
14	HVAC Control	CONN- GT 150 280-16W-BLK-UNSLD-F	PT006799	Delphi	15336219
15	IPC	CONN-064-UNSLD-26W-F	PT006217	YAZAKI	7287-2043-30
16	APO, LFT Dash	CONN-M/P 280 3W F FLX LK	PT002898	Delphi	12176446
17	LF Speaker	CONN-2 F M/P 150BLK	PT02900	Delphi	12052832
18	Passive Anti-Theft System (PATS)	CONN-064-UNSLD-4W-F	PT006221	TYCO	3-1419158-2
19	Multi-Function Switch	CONN-064-UNSLD-16W-F	PT006214	TYCO	9-1419170-1
20	SRS Clock Spring	CONN-064-UNSLD-16W-F	PT006198	TYCO	1488573-1
21	Ignition Switch		PT009030	YAZAKI	7283-6457-40
22	Dash Dimmer Switch	CONN-064-UNSLD-6W-F	PT006210	MOLEX	31073-1010
23	Headlamp Switch	CONN-064-UNSLD-10W-F	PT006209	MOLEX	30700-1100
24	ABC (J1)	CONN-025-UNSLD-24W-F	PT006714	TYCO	1318917-1
25	ABC (J2)	CONN-025-UNSLD-32W-F	PT006715	TYCO	1318747-1
26	Power Seat Switch	CONN-GT280-UNSLD-2W-F	PT003537	Delphi	15326870
27	ABC (J3)	CONN-JPT-UNSLD-14W-F	PT006716	TYCO	929504-5
28	ABC (J4)	CONN-JPT-UNSLD-8W-F	PT006717	TYCO	929504-3
29	YAW LAT Sensor	CONN-GT150-SLD-5W-F	PT003495	Delphi	15326822
30	LF Seat Belt Switch	CONN-2 F M/P 150 BLK	PT002991	Delphi	12047662
31	Body Ground Under Driver's Seat	GROUND LUG	PT006713		
32	Inline to Ramp Motor Harness		PT003879		
33	Inline	CONN-GT150/MP280-UNSLD-7W-F	PT003523	Delphi	12177260
34	Inline	CONN- GT150-UNSLD-10W-F	PT003522	Delphi	12177259
35	Driver Seat Belt Pre-Tensioner	CONN-MP150-UNSLD-2W-F	PT003492	Delphi	12110505
36	Restraint Control Module (RCM)	CONN-40W-SLD-F-GREEN	PT008955	JST	40WIC-B-1A-13
37	Restraint Control Module (RCM)	CONN-36W-SLD-F-GREEB	PT008956	JST	36WIC-B-1A-13
38	Inline	CONN-GT150/280-UNSLD-22W-M	PT003501	Delphi	15317322
39	APO – Center/Floor Console	CONN-M/P 280 3W F FLX LK	PT002898	Delphi	12176446
40	Park Brake Switch	CONN-2W	PT007408	YAZAKI	7123-1625-30
41	Data Link Connector (DLC)	CONN-MP150-UNSLD-16W-ALDL	PT003511	Delphi	12110250
42	Inline	CONN-0.64/2.8/6.3 Hybrid-UNSLD-59W-M	PT008978	Sumitomo	6098-6045
43	Inline	CONN-1.5mm-UNSLD-10W-M CAT2	PT009071	YAZAKI	7282-6455-40
44	Steering Angle Sensor	CONN-MQS-UNSLD-4W-F	PT006322	TYCO	1-936119-2
45	Smart Junction Box (J1)	CONN-1.5/2.8 UNSLD-14-F	PT006220	YAZAKI	7283-8447-40
46	Smart Junction Box (J2)	CONN-064-UNSLD-52W-F	PT006215	TYCO	1-924346-1
47	Smart Junction Box (J3)		PT006104		
48	Smart junction Box (J4)		PT010587		
49	Inline		PT002990	Delphi	15336205
50	Inline	CONN-GT150/280-UNSLD-30W-M	PT003504	Delphi	15326762

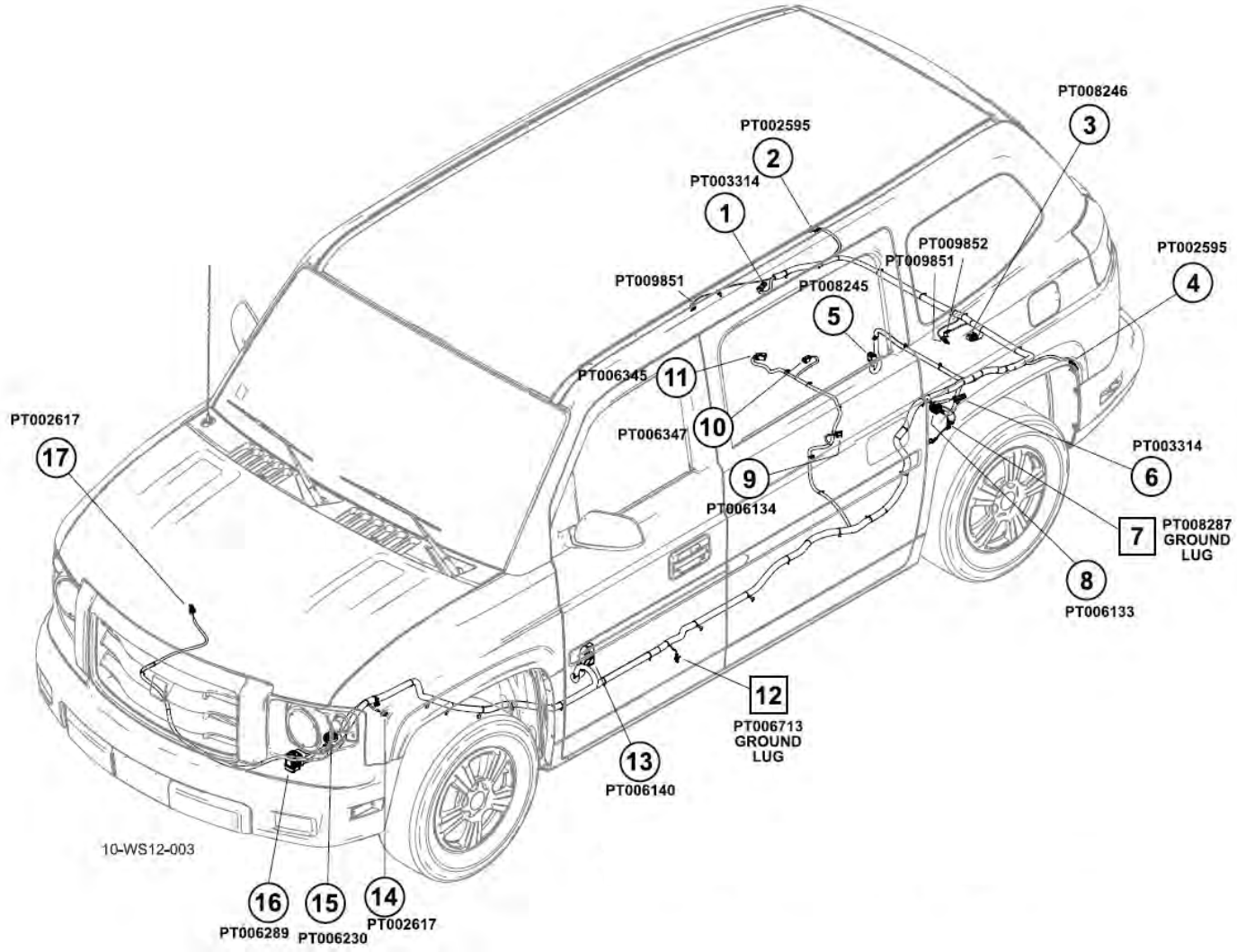
7.1.23. Chassis Harness – CNG – PT008414



Chassis Harness - CNG

ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Right Rear Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-M	PT003314	Delphi	12052641
2	Right Rear Side Marker Lamp	CONN-W/PACK-SLD-2W-M	PT002595	Delphi	12010973
3	ALC Compressor	CONN-GT280-SLD-10W-F	PT008246	Delphi	13538370
4	Shutoff Valve, CNG Tank 3 (Rear)	CONN-MP150-SLD-2W-M	PT003089	Delphi	12052641
5	Left Rear Side Marker Lamp	CONN-W/PACK-SLD-2W-M	PT002595	Delphi	12010973
6	Shutoff Valve, CNG Tank 2 (Middle)	CONN-MP150-SLD-2W-M	PT003089	Delphi	12052641
7	ALC Module	CONN-GT150-SLD-10W-F	PT008245	Delphi	13545282
8	Left Rear Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-M	PT003089	Delphi	12052641
9	Chassis Ground	GROUND LUG	PT008287		
10	Fuel Pump Driver Module	CONN-2.8mm-SLD-8W-F-DG	PT006133	Delphi	15401338
11	Pressure Sensor Tank 1	CONN-MP150-SLD-3W-F	PT006818	Delphi	13602480
12	Shutoff Valve, CNG Tank 1 (Front)	CONN-MP150-SLD-2W-M	PT003089	Delphi	12052641
13	Temp Sensor Tank 1	CONN-MP150-SLD-2W-F	PT002617	Delphi	12052644
14	ABS to Chassis Ground	GROUND LUG	PT006713		
15	Pressure Regulator	CONN-AMP-SLD-2W-F	PT008843	TYCO	0282762-01-B1
16	ABS Module	CONN-1.5/2.8/4.8(VENUS)-SLD-46W-F	PT006140	FCI	54210045A
17	Left Front Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-F	PT002617	Delphi	12052644
18	Inline	CONN-6.3mm-SLD-4W-F	PT006230	YAZAKI	7283-5595-10
19	Inline	CONN ASM-HYBRID 1.5/2.8-SLD-46W-F	PT006289	ALCOA-EPC	7C3T-14A624-DA-019
20	Right Front Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-F	PT002617	Delphi	12052644

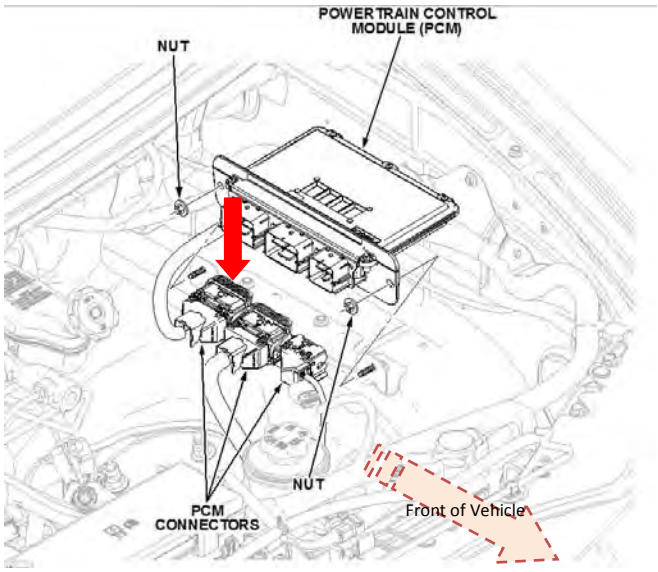
7.1.24. Chassis Harness – Gasoline – PT008412



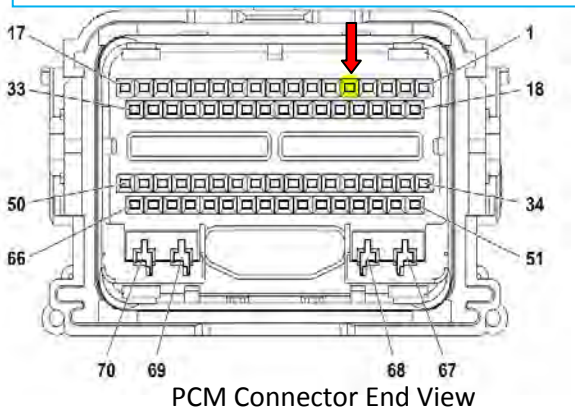
ITEM#	Connector Use	Connector Description	VPG P/N	Vendor	Vendor P/N
1	Right Rear Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-M	PT003314	Delphi	12052641
2	Right Rear Side Marker Lamp	CONN-W/PACK-SLD-2W-M	PT002595	Delphi	12010973
3	ALC Compressor	CONN-GT280-SLD-10W-F	PT008246	Delphi	13538370
4	Left Rear Side Marker Lamp	CONN-W/PACK-SLD-2W-M	PT002595	Delphi	12010973
5	ALC Module	CONN-GT150-SLD-10W-F	PT008245	Delphi	13545282
6	Left Rear Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-M	PT003314	Delphi	12052641
7	Chassis Ground	GROUND LUG	PT008287		
8	Fuel Pump Driver Module	CONN -2.8mm-SLD-8W-F-DG	PT006133	Delphi	15401338
9	Evap Vent Valve	CONN-070-SLD-2W-F	PT006134	TYCO	184004-1
10	Fuel Tank Pressure Sensor	CONN-1.5mm-SLD-4W-F	PT006347	ACLOA-EPC	E-5756
11	Fuel Pump	CONN-2.8mmAPEX-SLD-4W-F	PT006345	FCI	54200410
12	ABS To Chassis Ground	GROUND LUG	PT006713		
13	ABS Module	CONN-1.5/2.8/4.8(VENUS)-SLD-46W-F	PT006140	FCI	54210064A
14	Left Front Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-F	PT002617	Delphi	12052644
15	Inline	CONN-6.3mm-SLD-4W-F	PT006230	YAZAKI	7283-5595-10
16	Inline	CONN ASM-HYBRID 1.5/2.8-SLD-46W-F	PT006289	ALCOA-EPC	7C3T-14A624-DA-019
17	Right Front Wheel Speed Sensor Jumper	CONN-MP150-SLD-2W-F	PT002617	Delphi	12052644

7.1.25. Vehicle Speed Sensor (VSS) Signal Access

To obtain Vehicle Speed Sensor reference signal for the installation of additional equipment (e.g. Fare Meter), this can be received using pin #5 from the PCM connector as shown below. 2011 MV-1s and early 2012 will have a blank cavity in the PCM connector to allow for pin installation to obtain this signal. Vehicles built in later 2012 (targeted for April 2012) will have a pin in this connector with 200mm of wire to allow for easier access.



A technician can install a pin into the PCM connector as shown below into pin 5 (highlighted) to run necessary component wiring to installed device

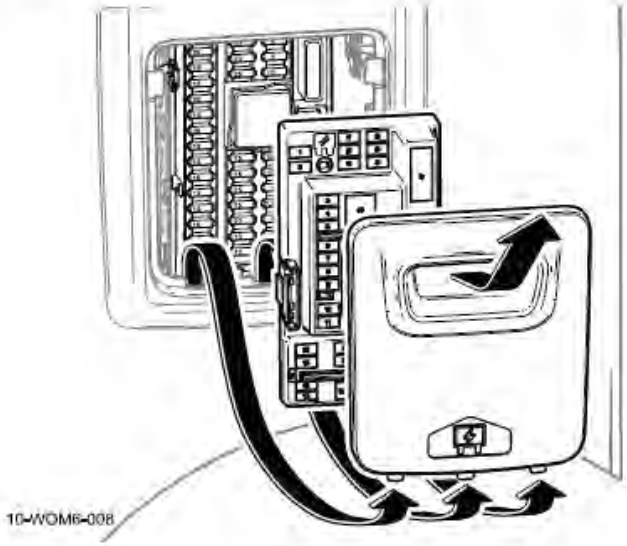


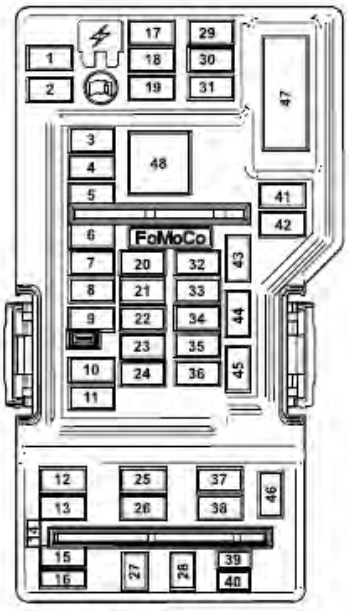
PCM Connector End View

7.1.26. Smart Junction Box (SJB) Information

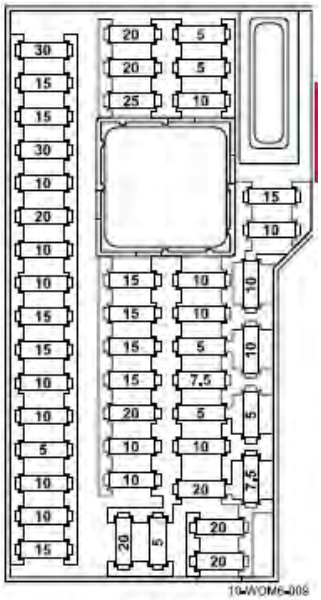
Smart Junction Box

The Smart Junction Box is located inside the vehicle beneath the center console.





Inside Cover



Fuses

SMART JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
1	30A	Not Used
2	15A	Not Used
3	15A	Not Used
4	30A	Not Used
5	10A	SPDJB micro, Brakeshift Interlock
6	20A	Turn Signals/Hazards/Stop Ips
7	10A	Left Low Beam
8	10A	Right Low Beam
9	15A	Courtesy Lights
10	15A	Cluster/Panel Illumination
11	10A	Not Used
12	10A	Not Used
13	5A	Exterior Power Mirrors
14	10A	Not Used
15	10A	Not Used
16	15A	Not Used
17	20A	Power Door Locks

SMART JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
18	20A	ABC VBAT 2 Rear Wiper, Rear Washer, Liftgate Latch
19	25A	Not Used
20	15A	Diagnostic Conn Power
21	15A	Not Used
22	15A	Parking/License Lights
23	15A	High Beams
24	20A	Horn
25	10A	Not Used
26	10A	Cluster (Battery)
27	20A	Ignition Switch Feed (Battery)
28	5A	Not Used
29	5A	Cluster (R/S)
30	5A	Not Used
31	10A	Not Used
32	10A	Restraints Module (R/S)
33	10A	Not Used
34	5A	ABC Module (R/S)

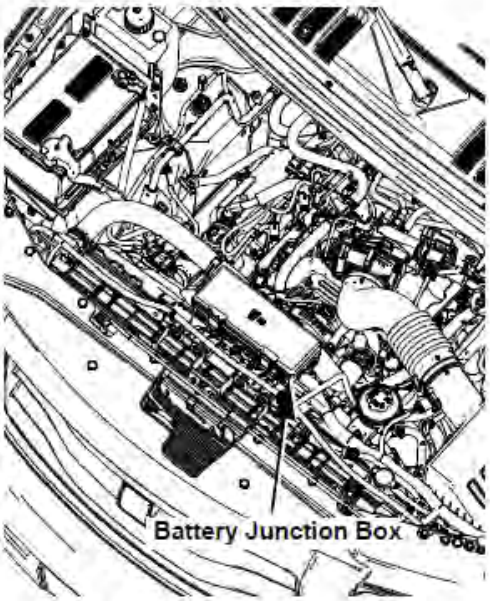
SMART JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
35	7.5A	Not Used
36	5A	PATS (R/S)
37	10A	Climate Control Head, Door Actuators, Coolant Control Valve (R/S)
38	20A	Not Used
39	20A	Radio Power
40	20A	Not Used
41	15A	Radio On/Off Sw Illum (Del/Accy)
42	10A	Not Used
43	10A	Rear Defrost Relay Coil, Front Wiper Motor, Relay Coils, Blower Relay Coil (R/A)
44	10A	Not Used
45	5A	Not Used
46	7.5A	Not Used
47	30A Circuit Breaker	Power Windows (Del/Accy)

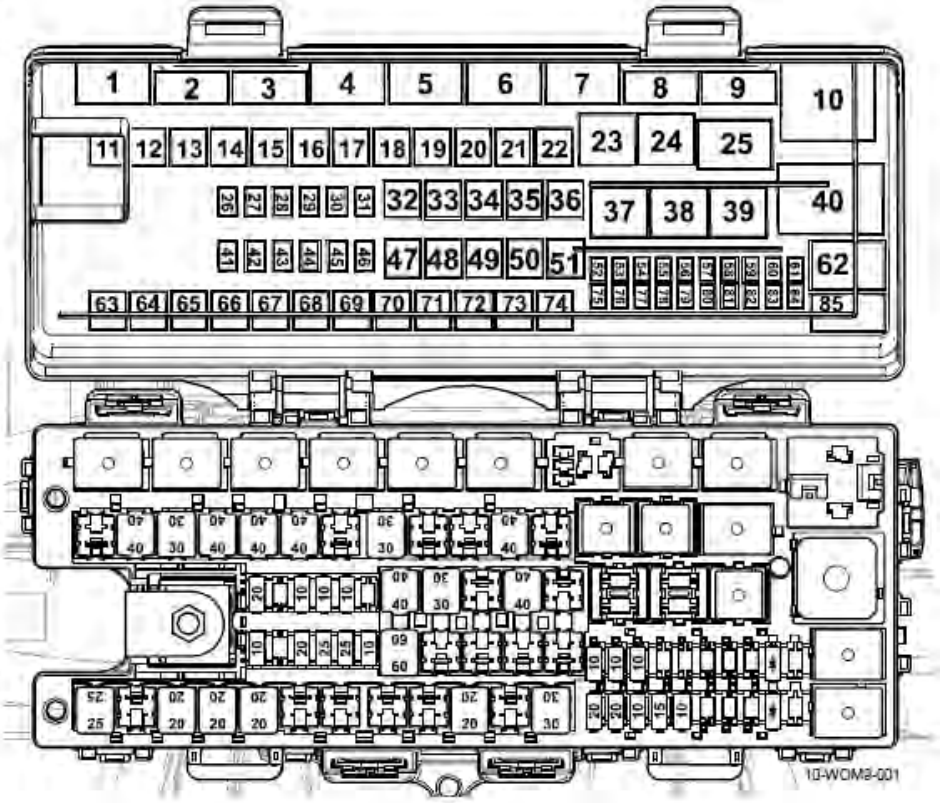
SMART JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
48	-	Delayed Accy

7.1.27. Battery Junction Box Information

Battery Junction Box

The Battery Junction Box is located in the engine compartment. It contains high-current fuses that protect your vehicle's main electrical systems from overloads.





BATTERY JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
1	HC Micro Relay	PCM
2	HC Micro Relay	Starter Solenoid
3	HC Micro Relay	Rear Defrost
4	HC Micro Relay	HVAC Blower Motor
5	HC Micro Relay	Fuel Pump
6	HC Micro Relay	Washer Pump
7	–	Not Used
8	HC Micro Relay	Front Wiper High
9	HC Micro Relay	Front Wiper Low
10	–	Not Used
11	–	Not Used
12	40A**	Engine Cooling Fan #1
13	30A**	Starter Solenoid Relay
14	40A**	Run Start Relay
15	40A**	Engine Cooling Fan #2
16	40A**	Auto Level Compressor Motor
17	–	Not Used

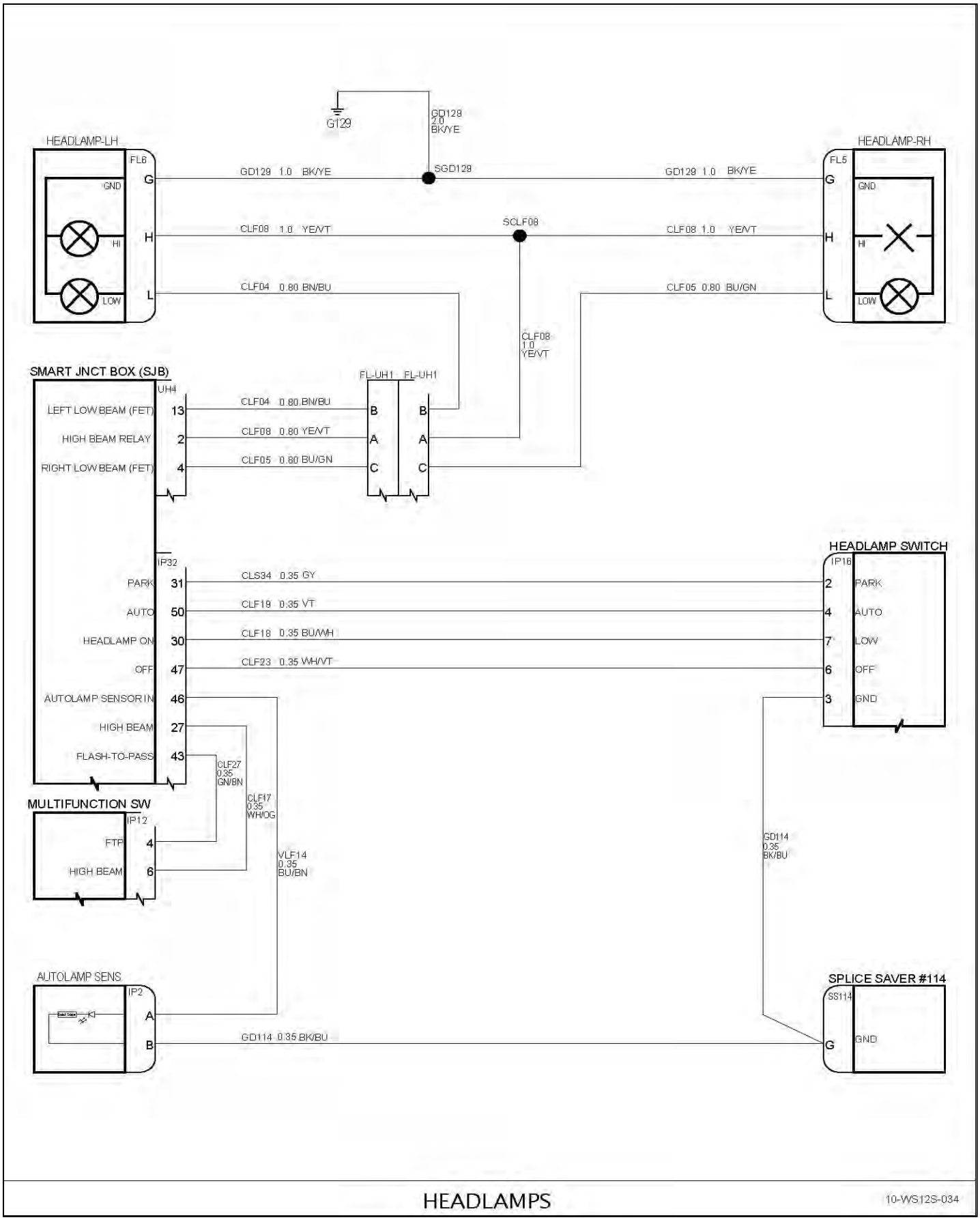
BATTERY JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
18	30A**	Auto Level Exhaust Valve
19	–	Not Used
20	–	Not Used
21	40A**	ABC VBAT 1 Module (Power Ramp Motor)
22	–	Not Used
23	G8VA relay	A/C Clutch
24	G8VA relay	Front Wiper Low
25	HC Micro relay	Run/Start
26	20A*	Washer Pump
27	–	Not Used
28	20A*	Back Up Lamp
29	10A*	A/C Clutch
30	10A*	Stoplamp Sw
31	–	Not Used
32	40A**	Blower Motor
33	30A**	Rear Defrost

BATTERY JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
34	–	Not Used
35	40A**	PCM VPWR (Main)
36	–	Not Used
37	–	Not Used
38	–	Not Used
39	G8VA relay	Back Up LP
40	ISO relay	Engine Cooling Fan Hi/Low
41	10A*	Auto Level Control Module
42	–	Not Used
43	20A*	Fuel Pump (Gas), Tank Valves (CNG)
44	25A*	High Wiper
45	25A*	Low Wiper
46	10A*	PCM KA Power/Can Vent/PCM Relay Coil
47	60A**	ABS Pump Motor
48	–	Not Used

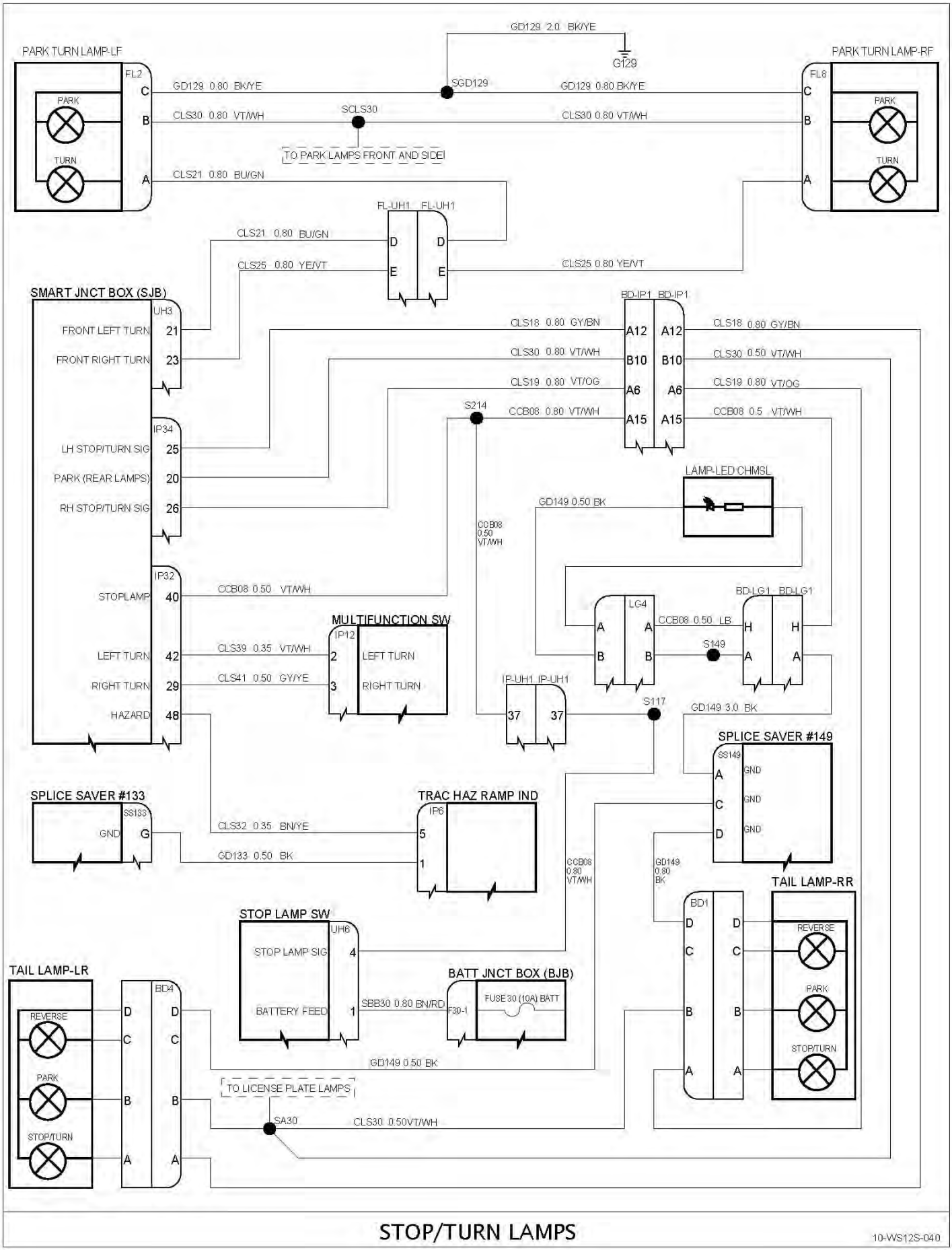
BATTERY JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
49	–	Not Used
50	–	Not Used
51	–	Not Used
52	10A*	Auto Level Control R/S
53	10A*	ABS Module R/S Feed
54	10A*	Fuel Pump Relay Coil (Gas), Tank Valve Relay Coil (CNG), PCM R/S
55	–	Not Used
56	–	Not Used
57	–	Not Used
58	–	Not Used
59	–	Not Used
60	Mini Diode	Start
61	–	Not Used
62	HC Micro relay	Engine Cooling Fan #2 (High)

BATTERY JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
63	25A**	Engine Cooling Fan #1 & #2 (Low)
64	–	Not Used
65	20A**	Power Point 2 (IP)
66	20A**	Power Point 3
67	20A**	Power Point 1 (IP)
68	–	Not Used
69	–	Not Used
70	–	Not Used
71	–	Not Used
72	20A**	Cigar Ltr
73	–	Not Used
74	30A**	Power Seat
75	20A*	VPWR 1 PCM PWR (Secondary)
76	20A*	VPWR 2 PC Mil
77	10A*	VPWR 3 PCM non ML

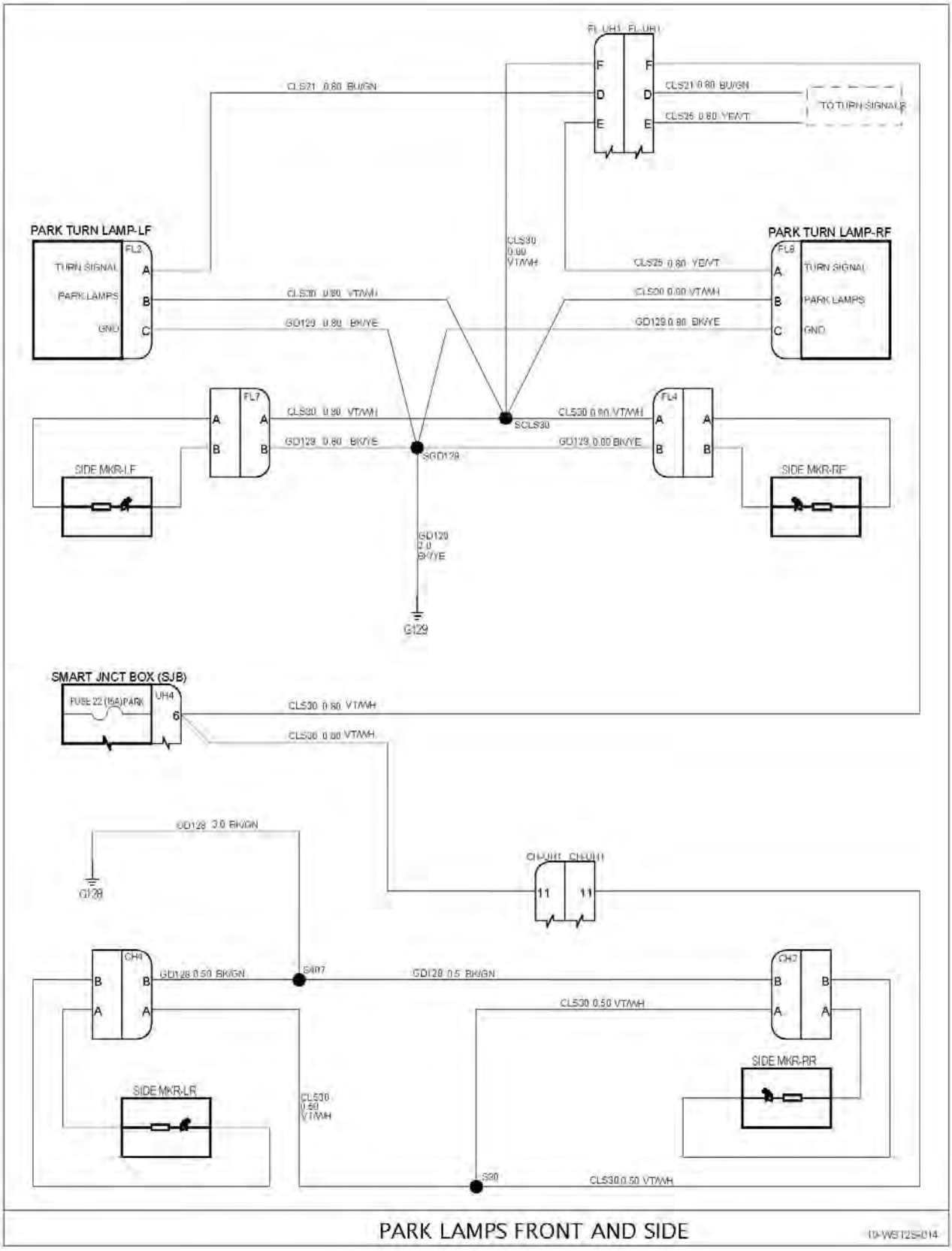
BATTERY JUNCTION BOX		
FUSE/RELAY LOCATION	FUSE AMP RATING	PROTECTED CIRCUITS
78	15A*	VPWR 4 GAS Ign Coils
79	10A*	VPWR 5 Trans
80	–	Not Used
81	–	Not Used
82	–	Not Used
83	Mini Diode	Fuel Pump (Gas), Tank Valves (CNG)
84	–	Not Used
85	HC Micro relay	Engine Cooling Fan #1 (High)
*Mini fuses **A1S fuses		


G129
GD129 2.0 BK/YE
HEADLAMP-LH
FL6
GND
HI
LOW
G
H
L
GD129 1.0 BK/YE
SGD129
CLF08 1.0 YE/VT
SCLF08
CLF04 0.80 BN/BU
HEADLAMP-RH
FL5
GD129 1.0 BK/YE
CLF08 1.0 YE/VT
CLF05 0.80 BU/GN
CLF08 1.0 YE/VT
SMART JNCT BOX (SJB)
UH4
LEFT LOW BEAM (FET)
HIGH BEAM RELAY
RIGHT LOW BEAM (FET)
13
2
4
CLF04 0.80 BN/BU
CLF08 0.80 YE/VT
CLF05 0.80 BU/GN
FL-UH1
FL-UH1
B
A
C
IP32
PARK
AUTO
HEADLAMP ON
OFF
AUTOLAMP SENSOR IN
HIGH BEAM
FLASH-TO-PASS
31
50
30
47
46
27
43
CLS34 0.35 GY
CLF19 0.35 VT
CLF18 0.35 BU/WH
CLF23 0.35 WH/VT
HEADLAMP SWITCH
IP16
2
4
7
6
3
PARK
AUTO
LOW
OFF
GND
CLF27 0.35 GN/BN
CLF17 0.35 WH/OG
VLF14 0.35 BU/BN
MULTIFUNCTION SW
IP12
FTP
HIGH BEAM
4
6
GD114 0.35 BK/BU
AUTOLAMP SENS
IP2
A
B
GD114 0.35 BK/BU
SPLICE SAVER #114
SS114
G
GND
HEADLAMPS
10-WS12S-034

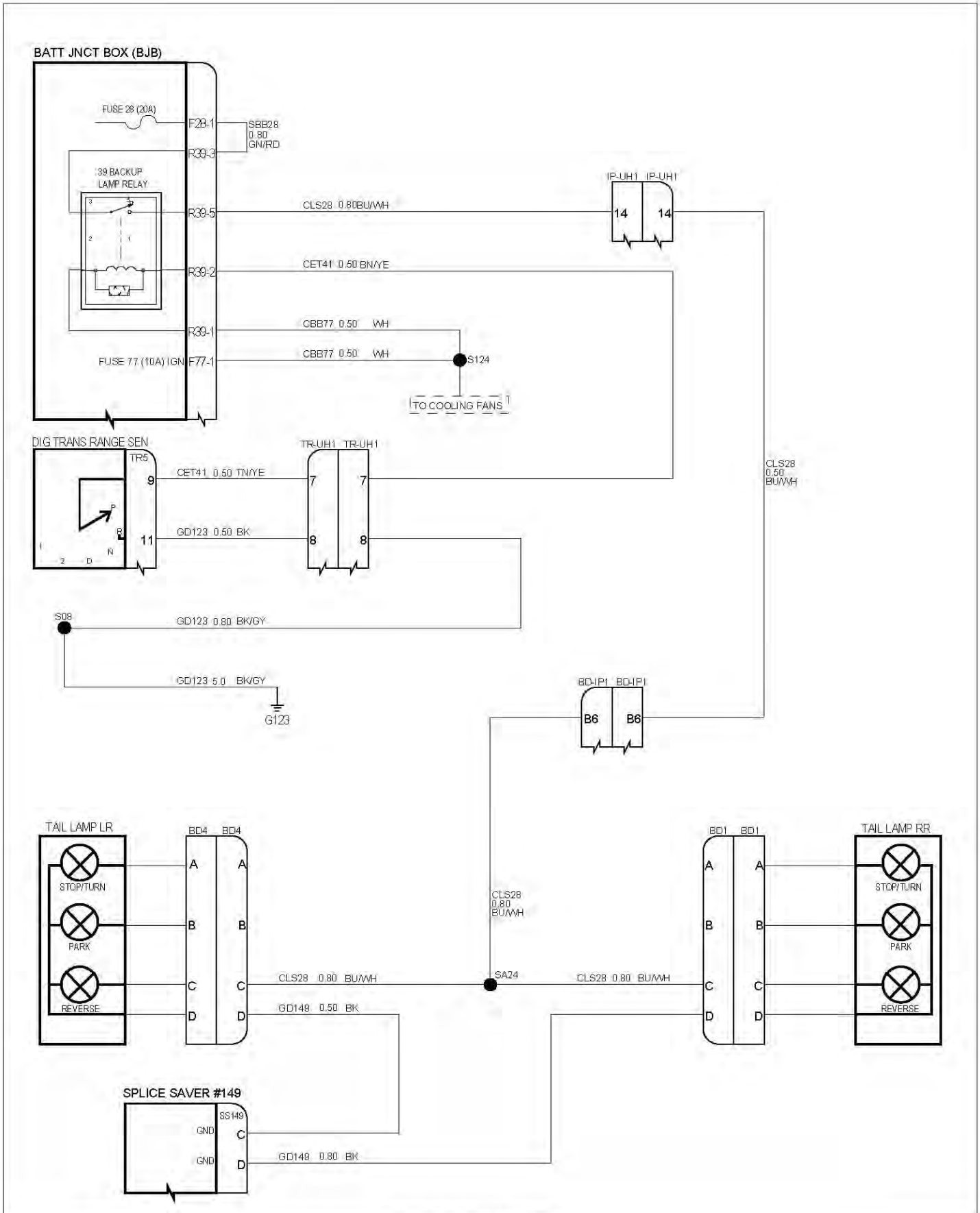
7.2.1.2. Turn & Stop Lamps



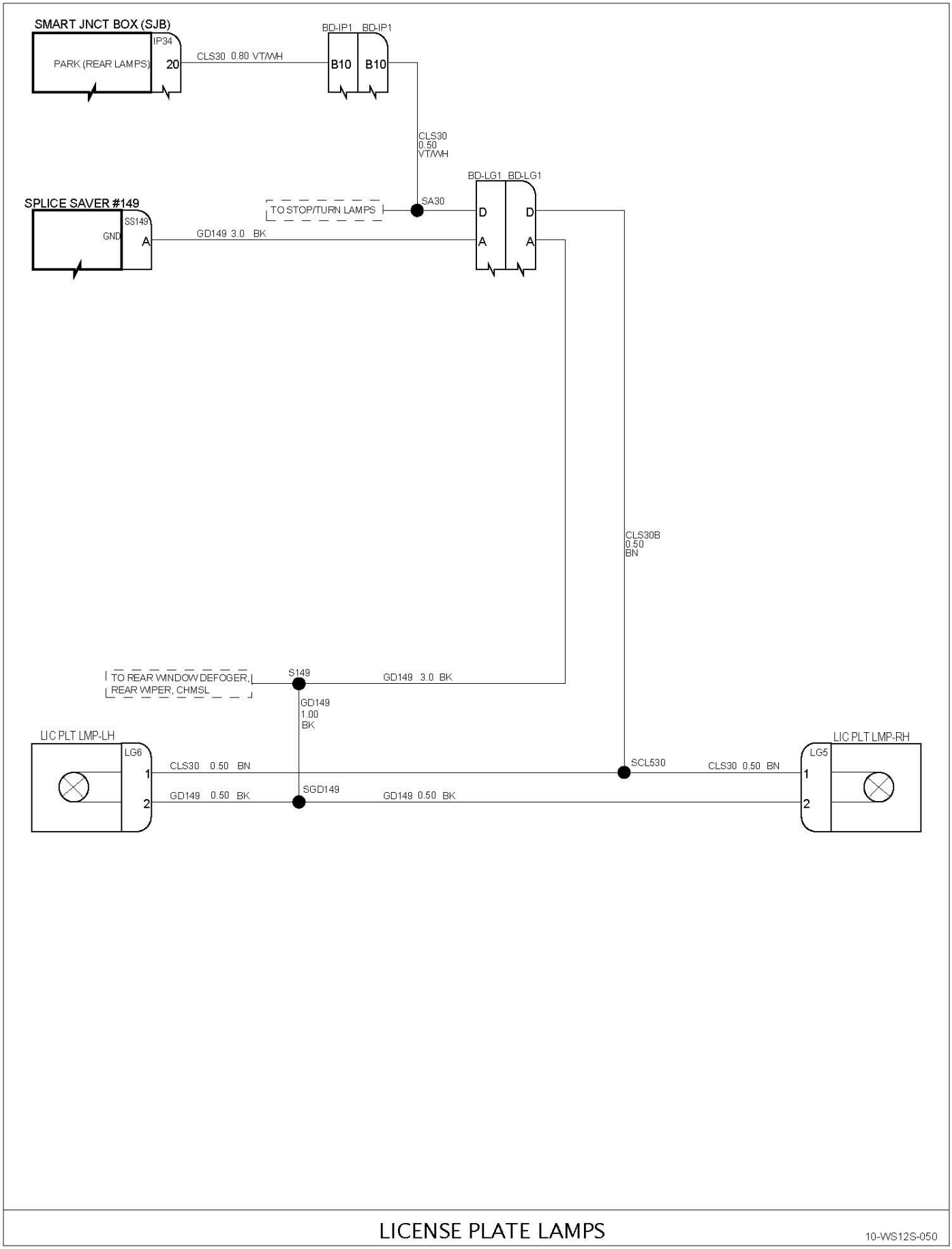
7.2.1.3. Parking & Marker Lamps (Front and Side)



7.2.1.4. Backup Lamps



7.2.1.5. License Plate Lamps

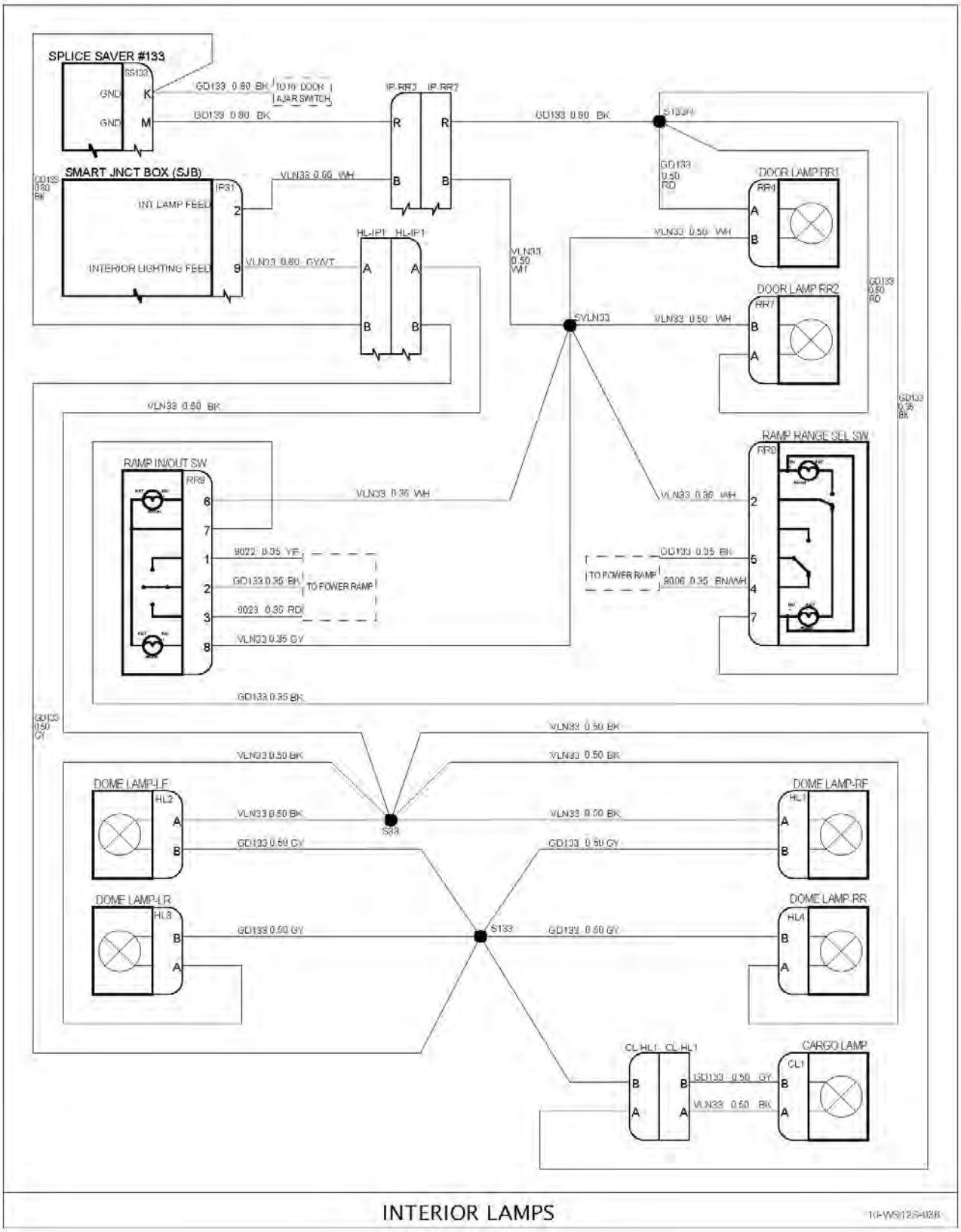


LICENSE PLATE LAMPS

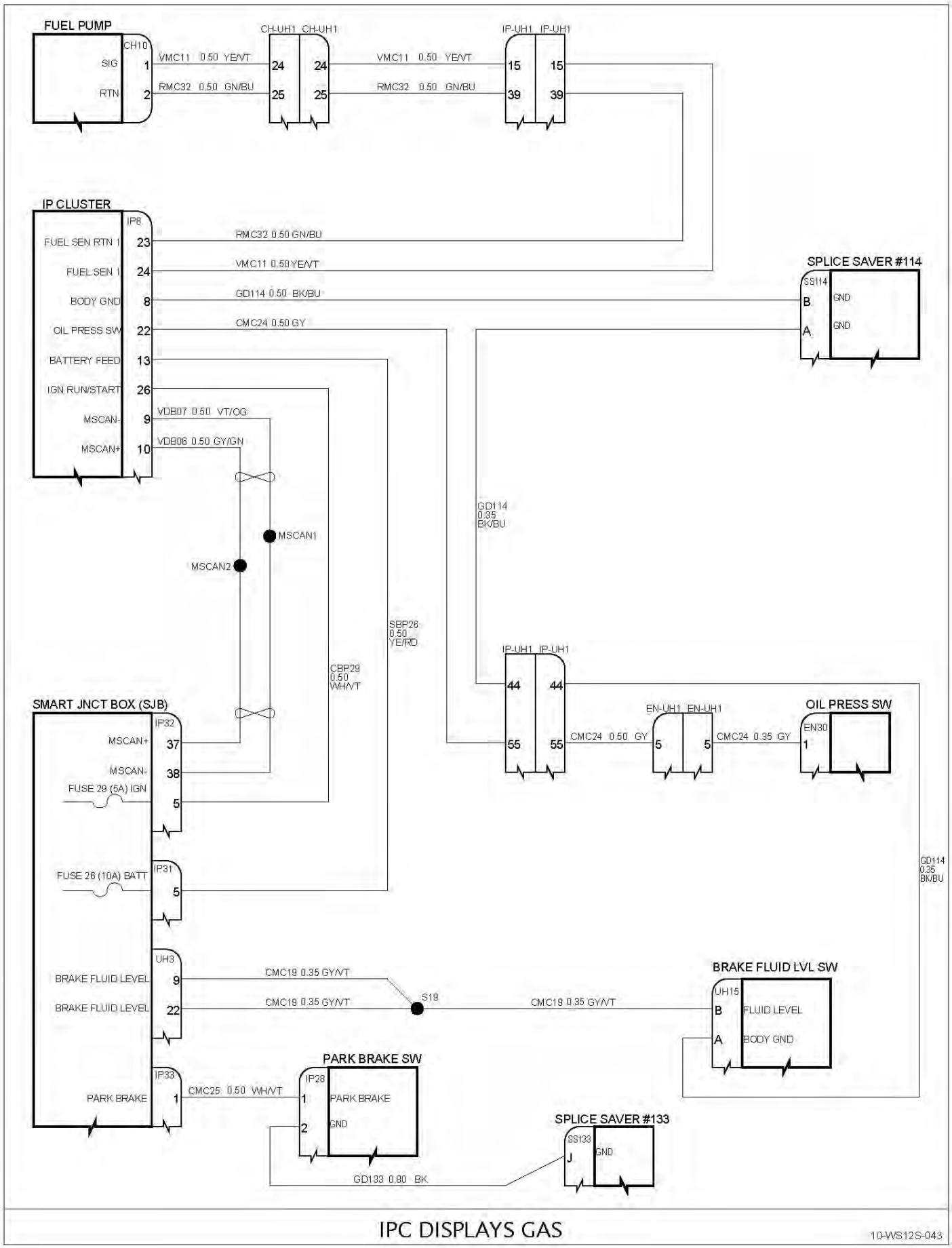
10-WS12S-050

7.2.2. Interior Lighting

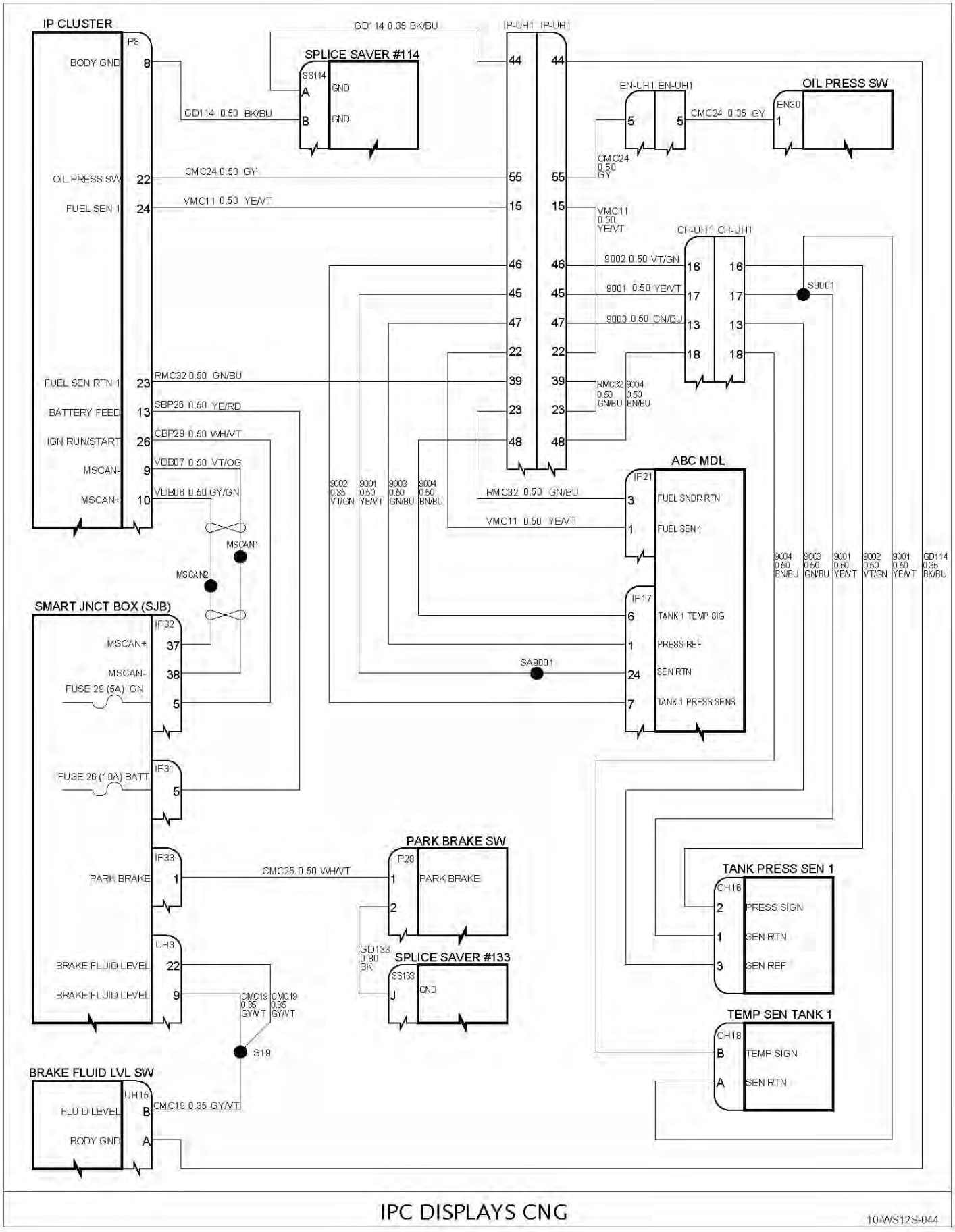
7.2.2.1. Interior Lamps



7.2.2.2. IPC Displays – Gasoline Vehicle



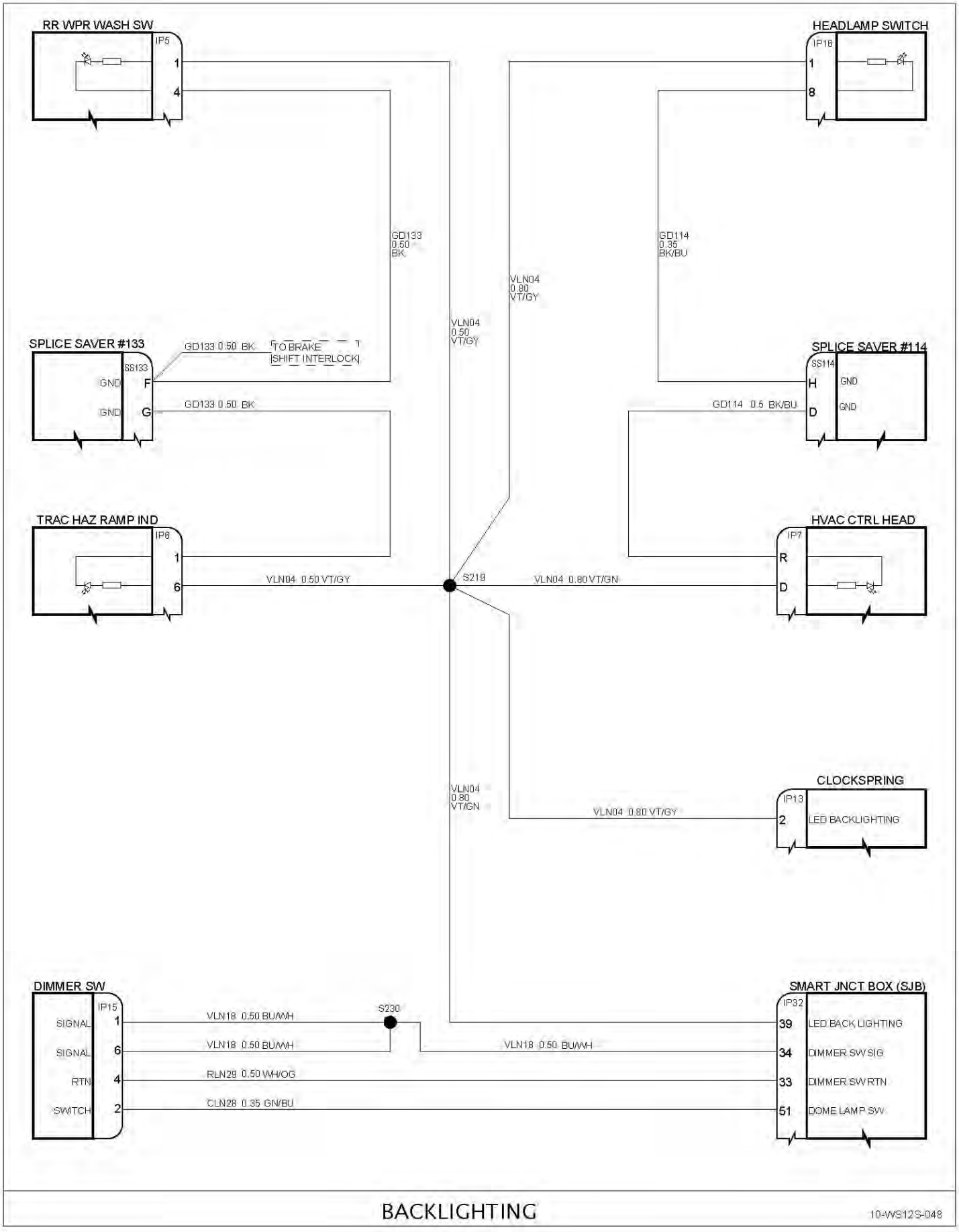
7.2.2.3. IPC Displays – CNG Vehicle



IPC DISPLAYS CNG

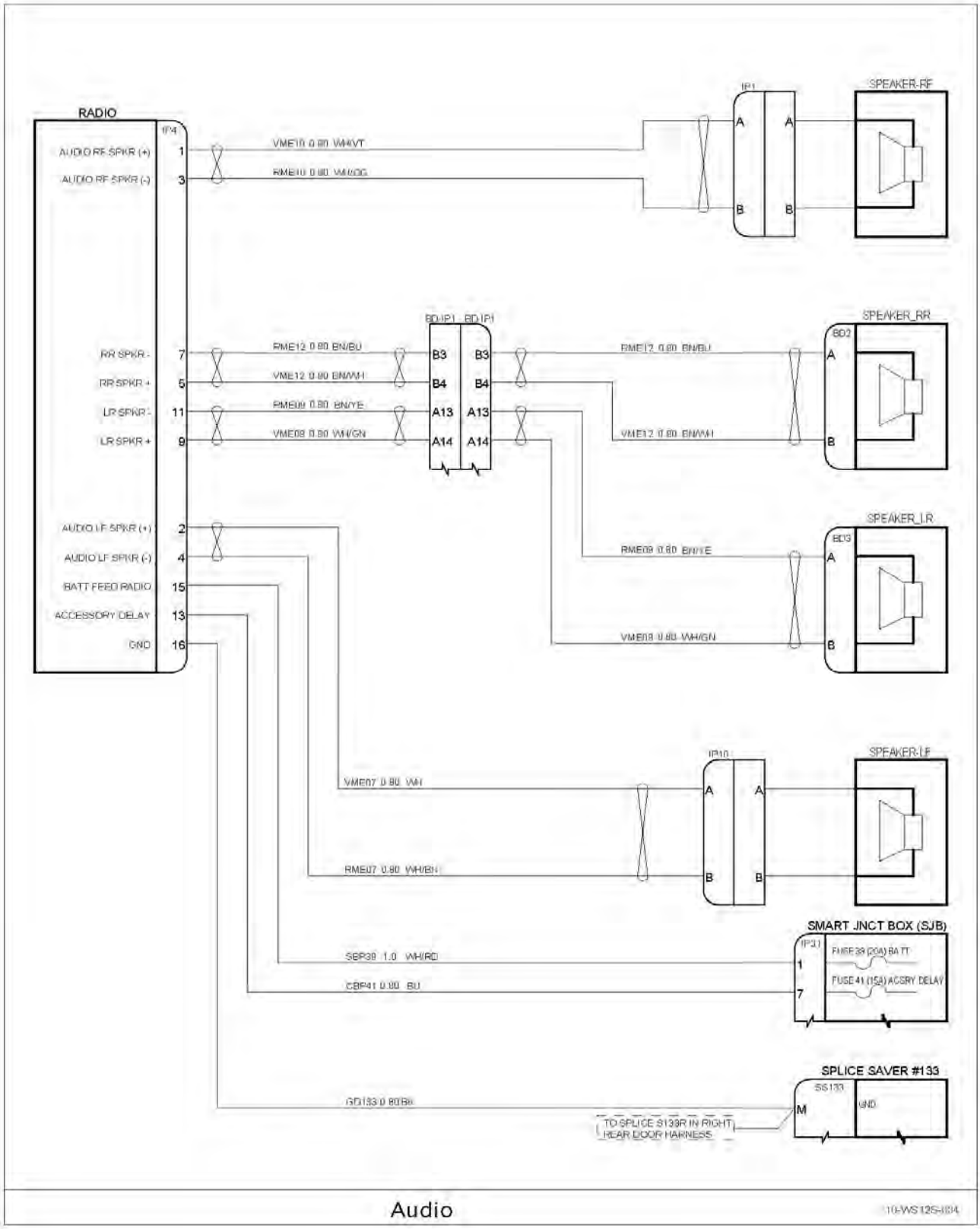
10-WS12S-044

7.2.2.4. Interior Backlighting



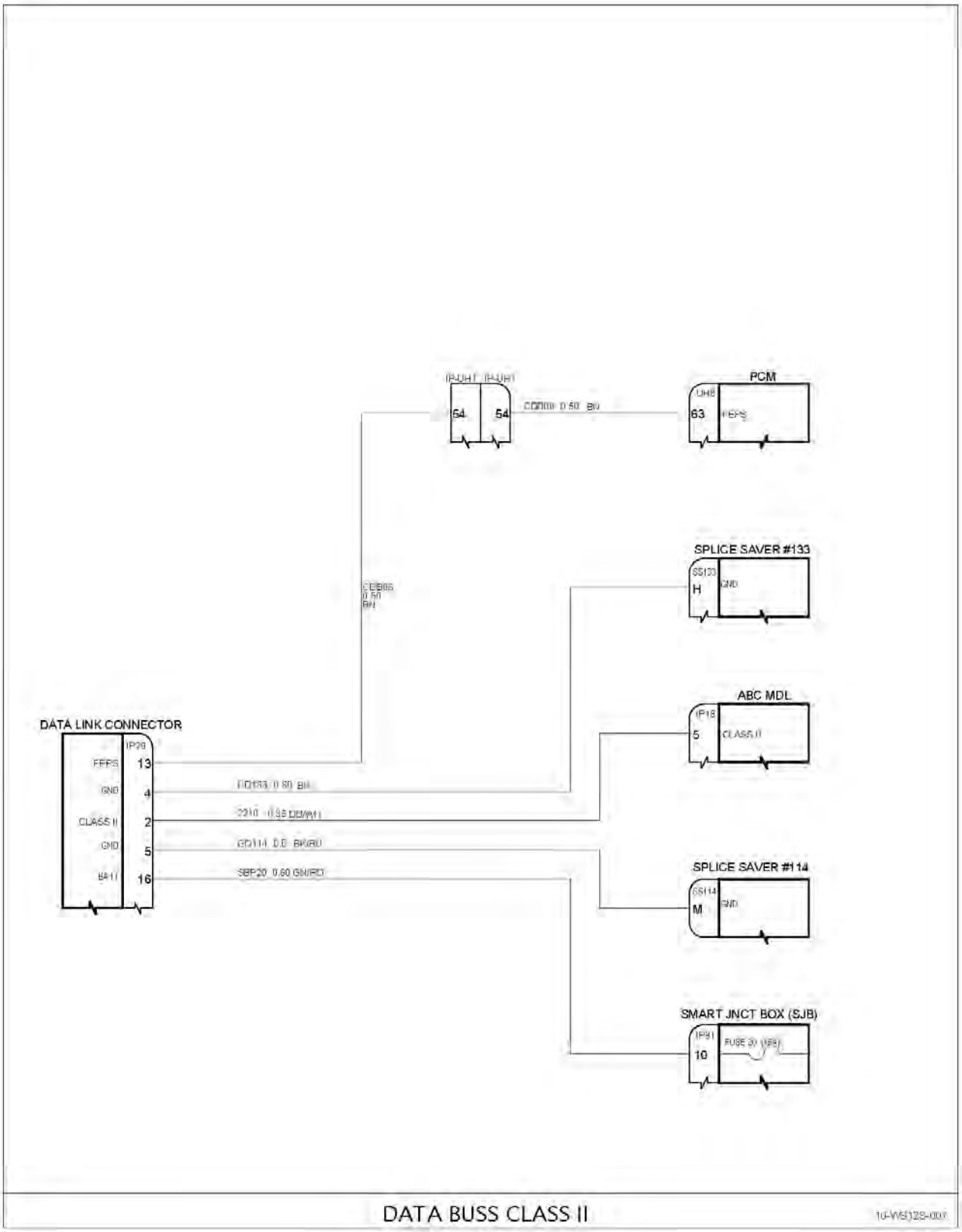
7.2.3. Audio System

7.2.3.1. Audio System

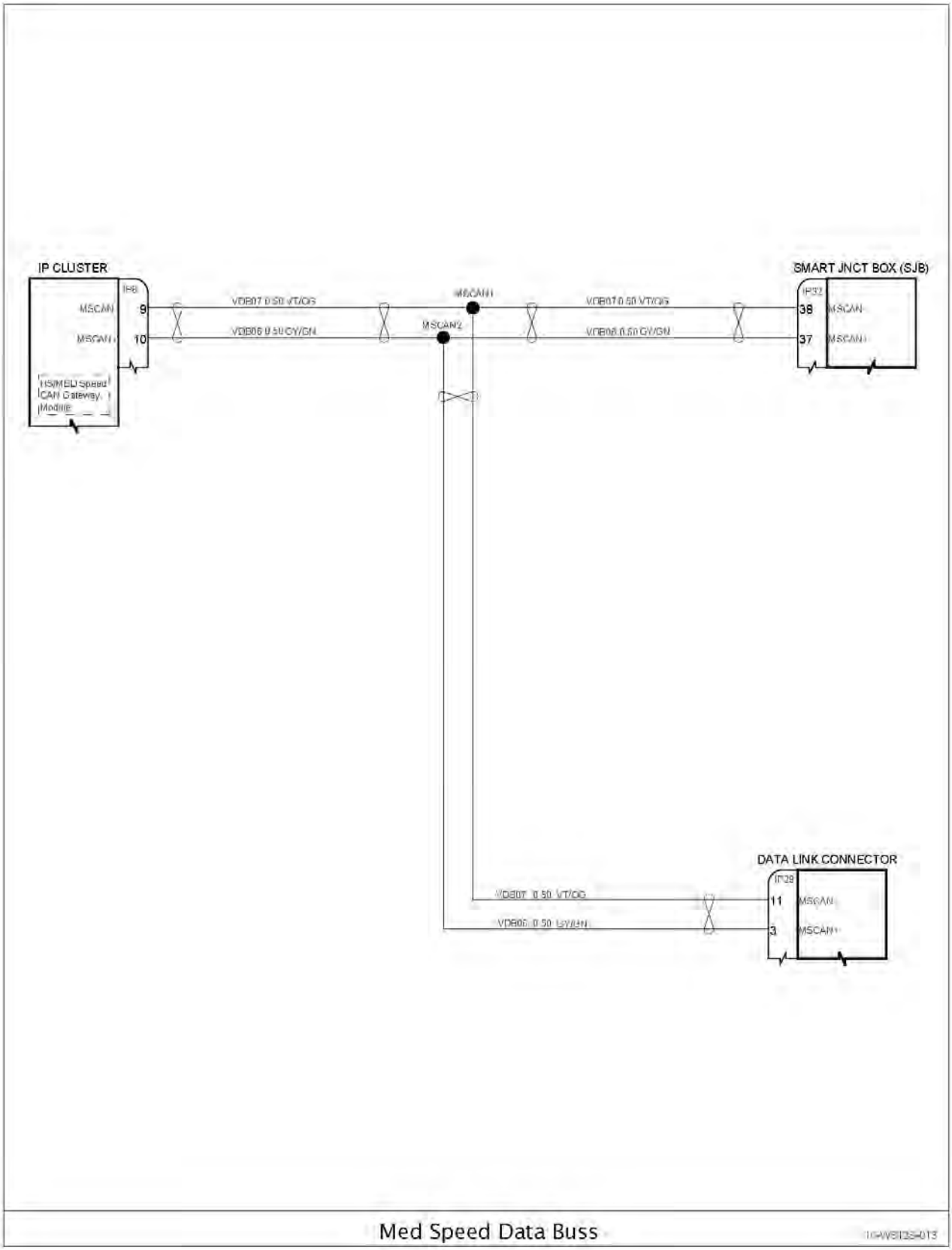


7.2.4. Body & Interior Electrical

7.2.4.1. Data Buss – Class II

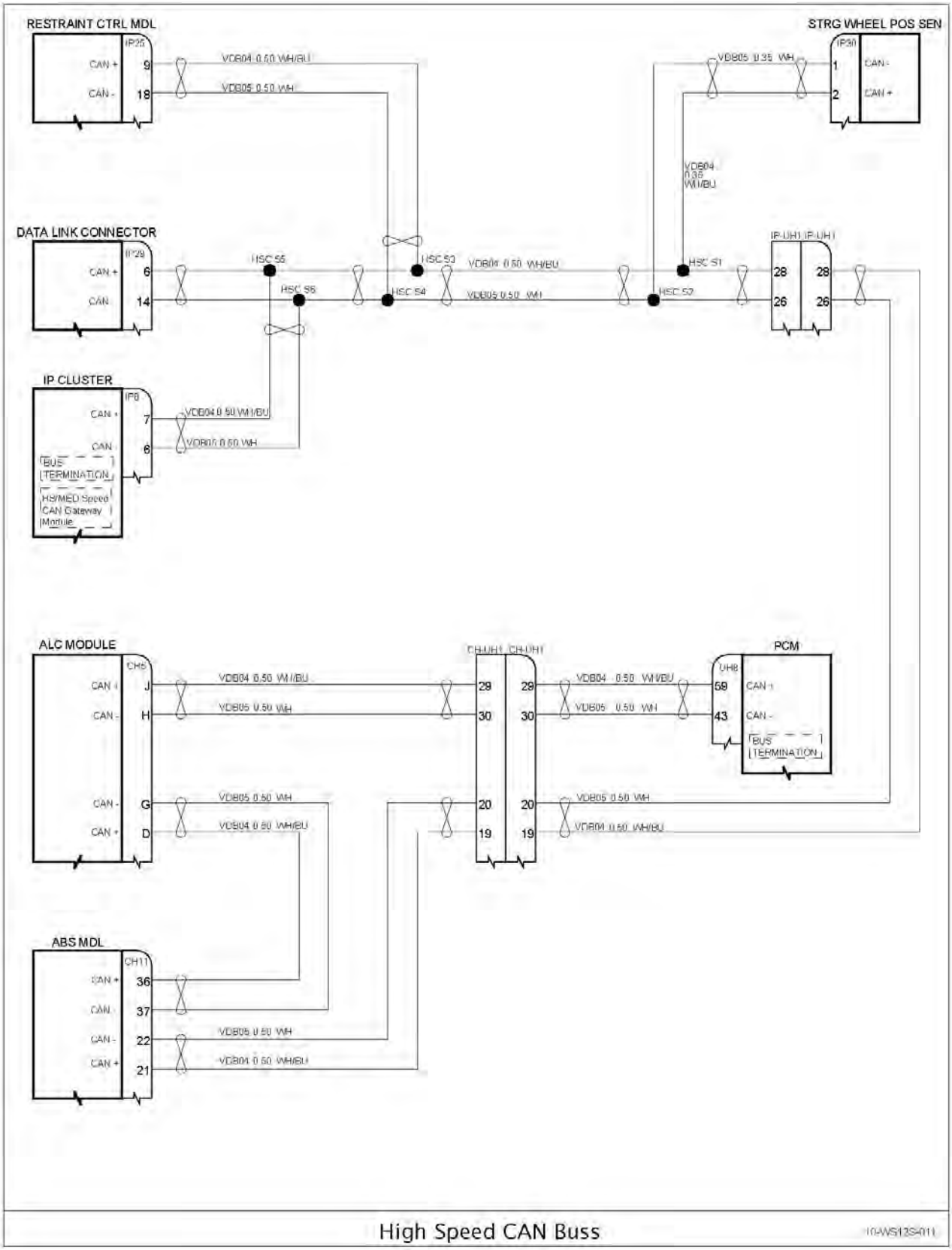


7.2.4.2. Medium Speed Data Buss



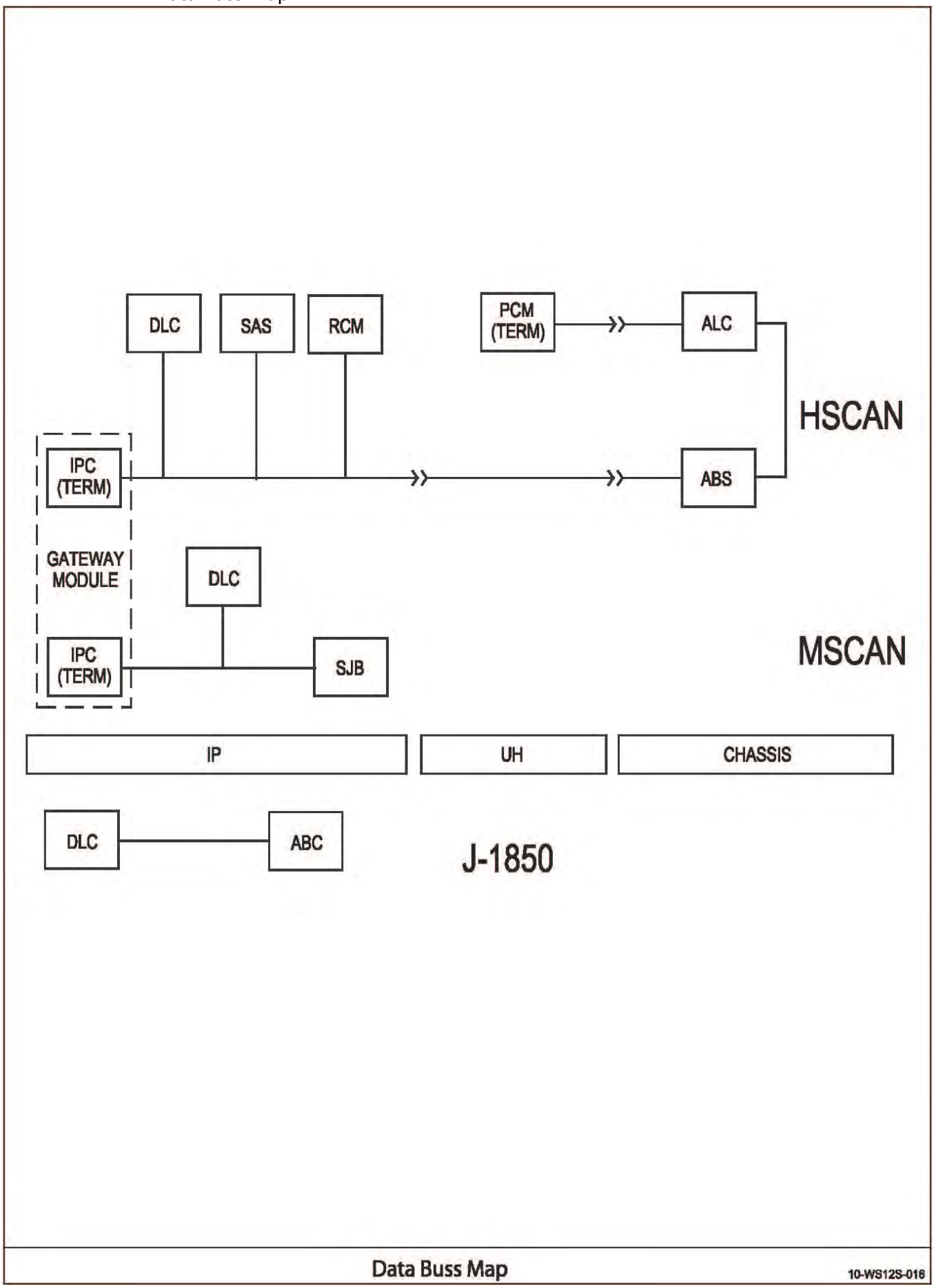
Med Speed Data Buss

7.2.4.3. High Speed CAN Buss

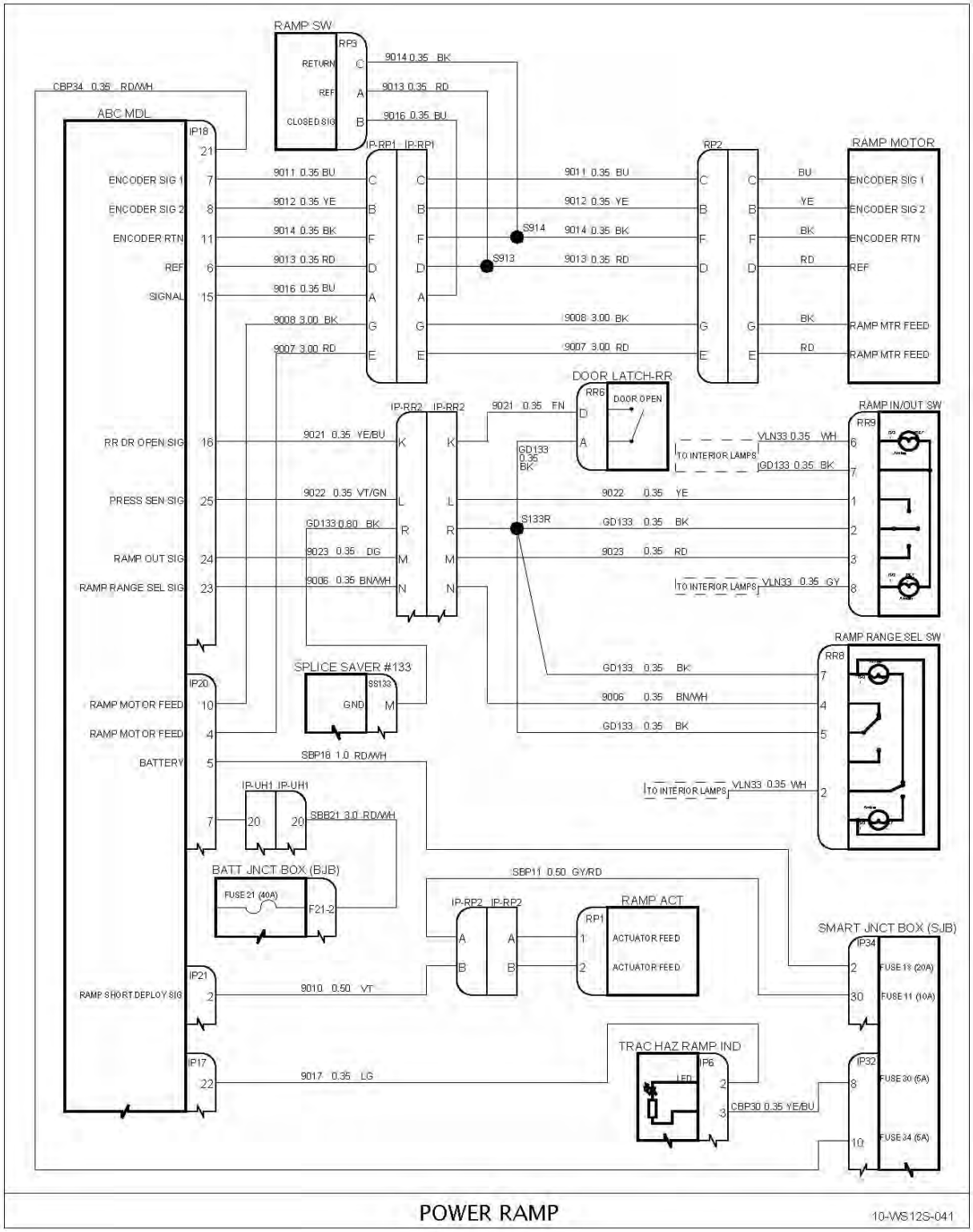


High Speed CAN Buss

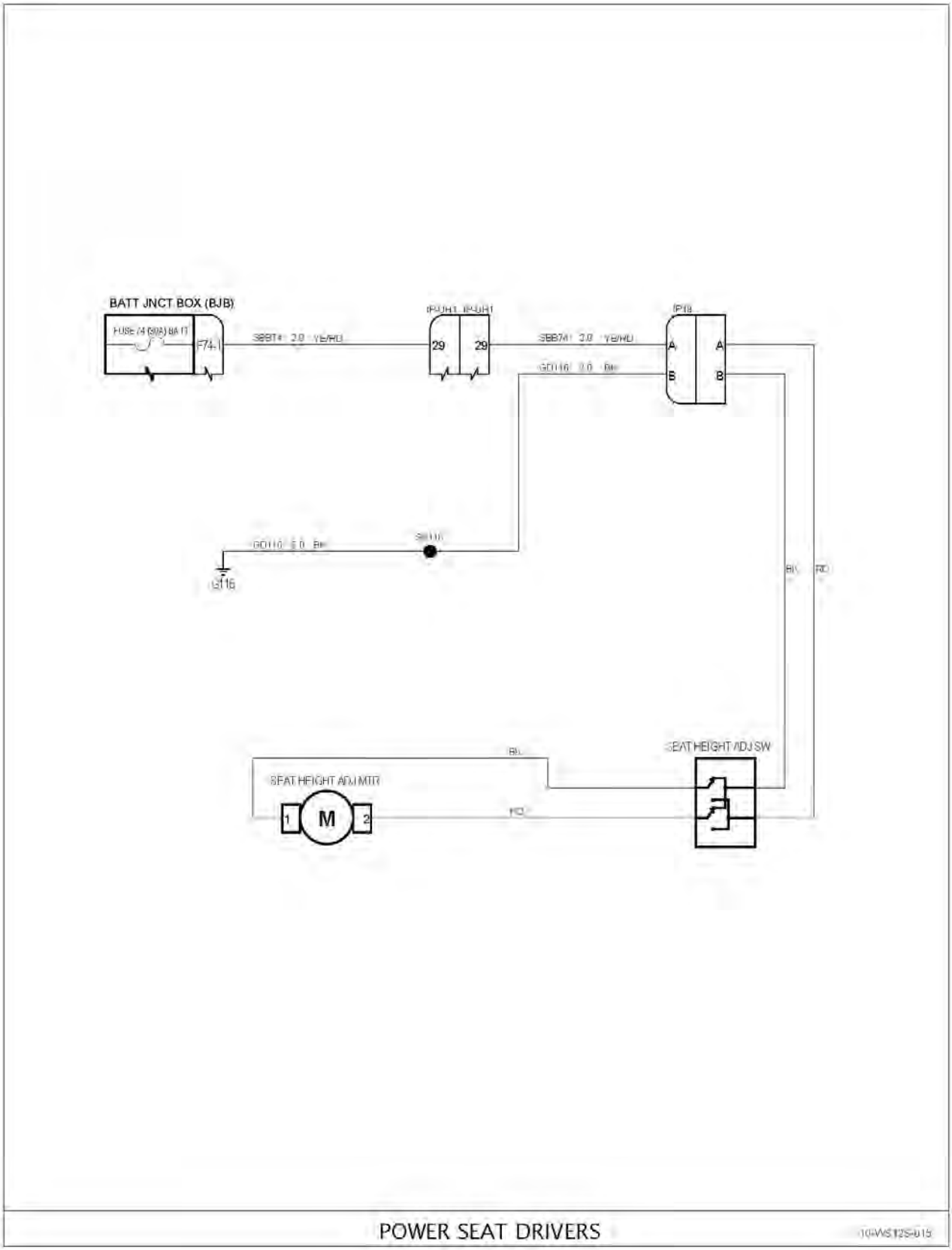
7.2.4.4. Data Buss Map



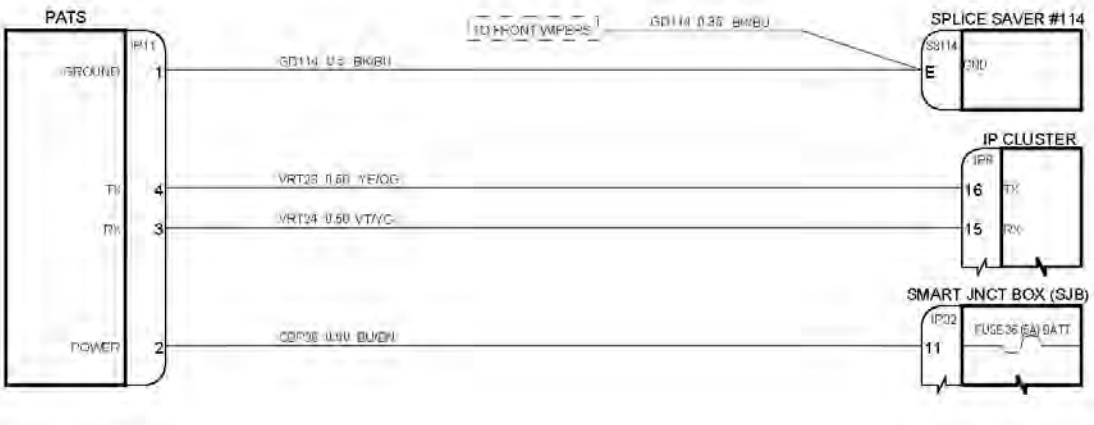
7.2.4.5. Power Ramp System



7.2.4.6. Driver's Power Seat

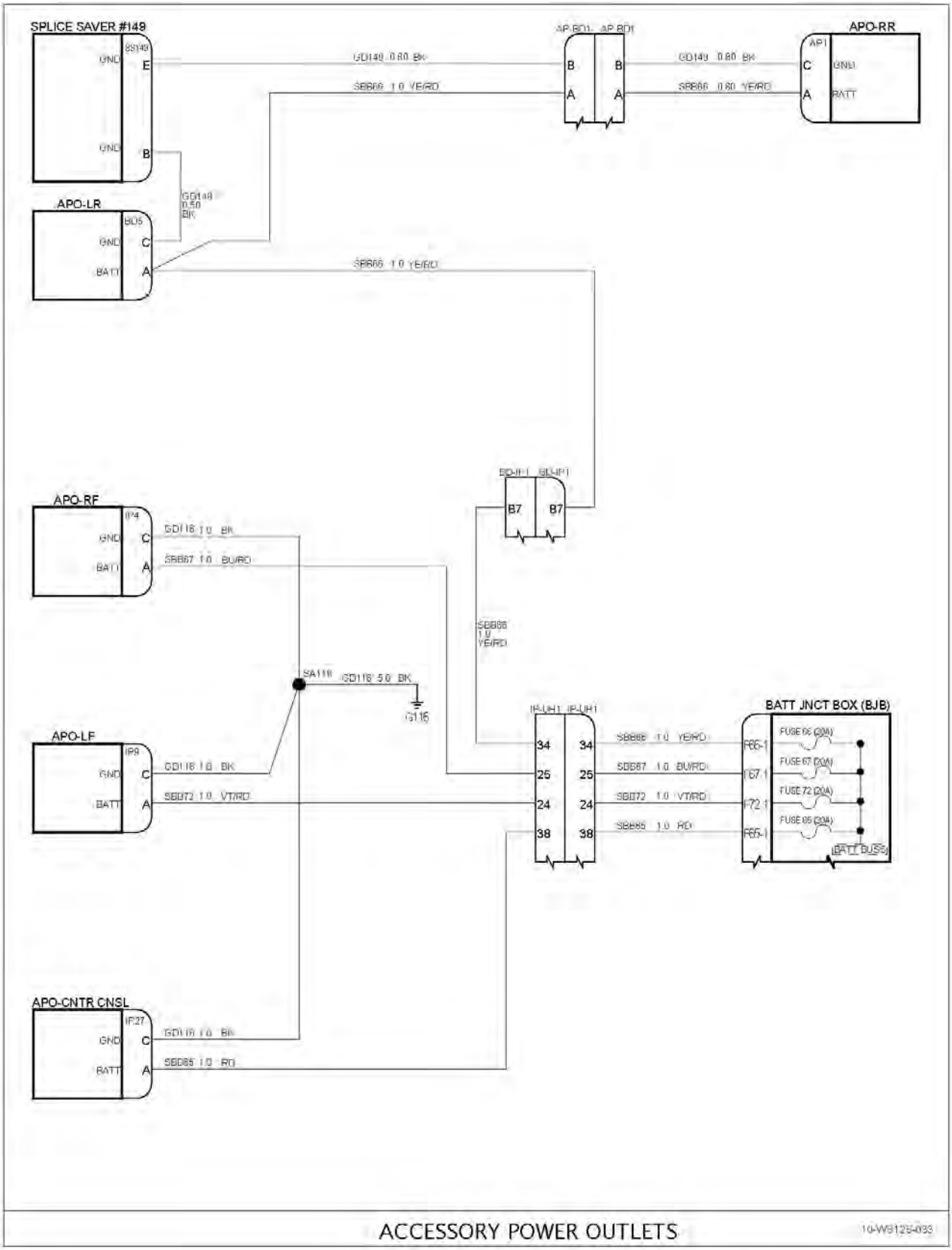


7.2.4.7. Passive Anti-Theft System (PATS)

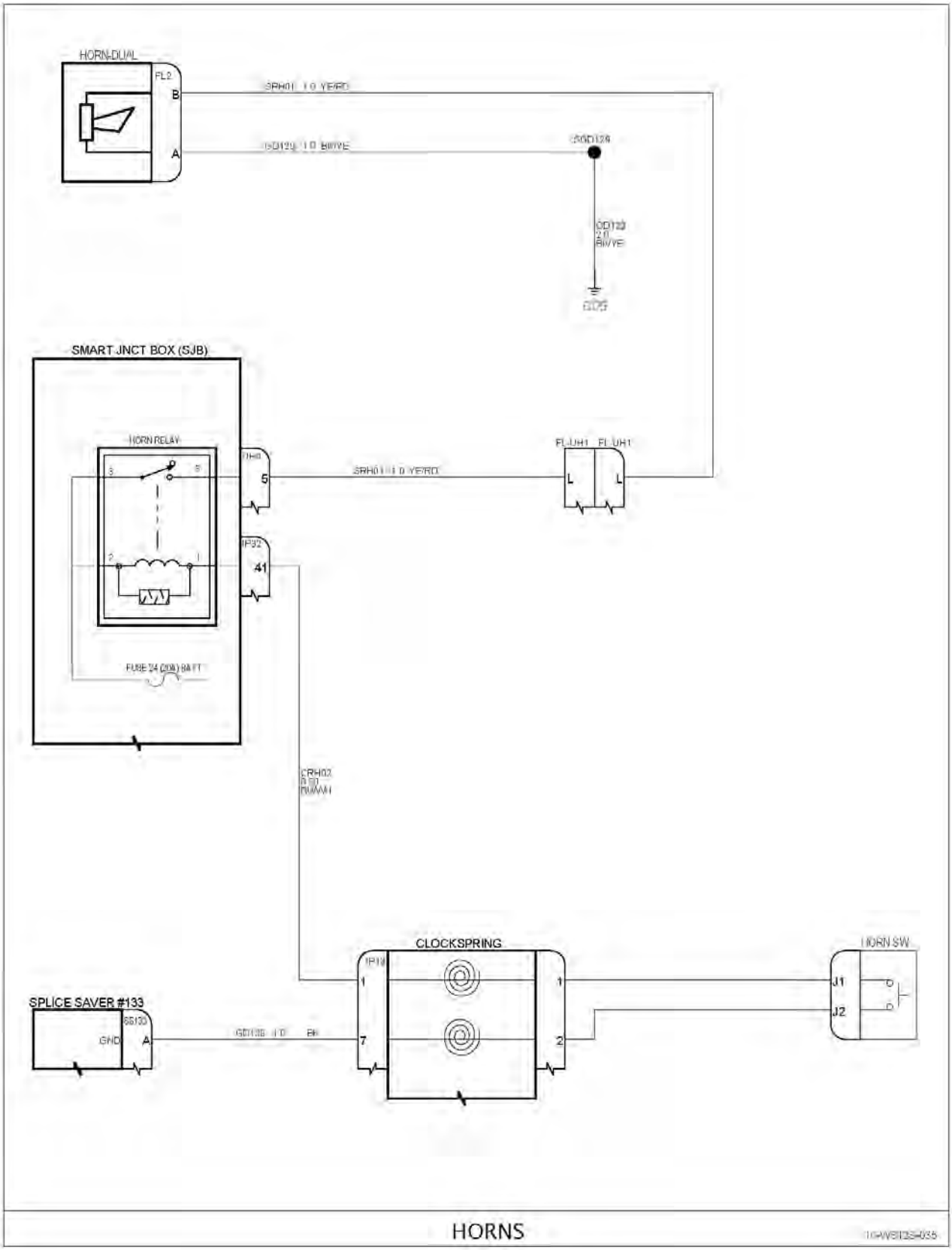


VASS PATS

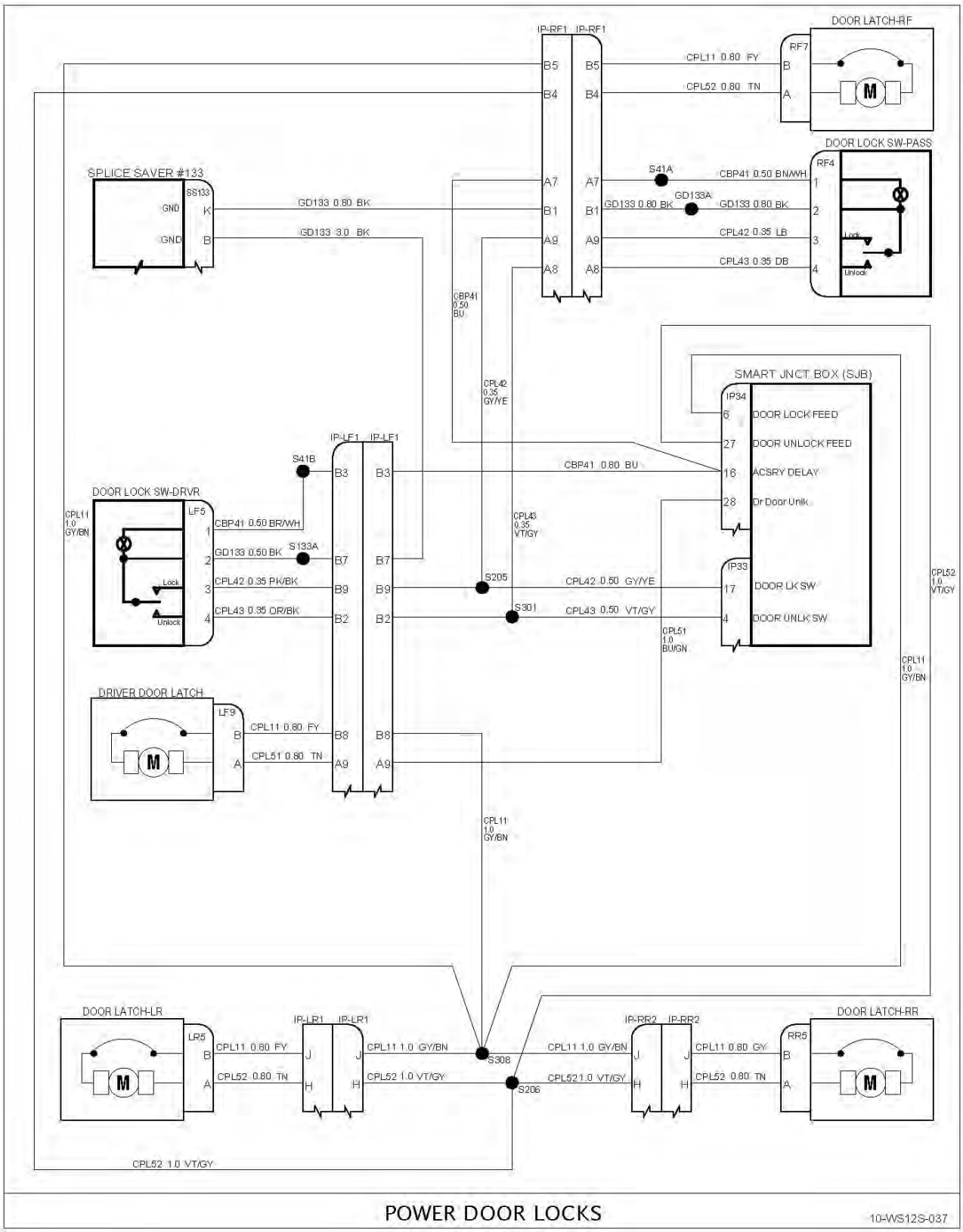
7.2.4.8. Auxiliary Power Outlets (APO)



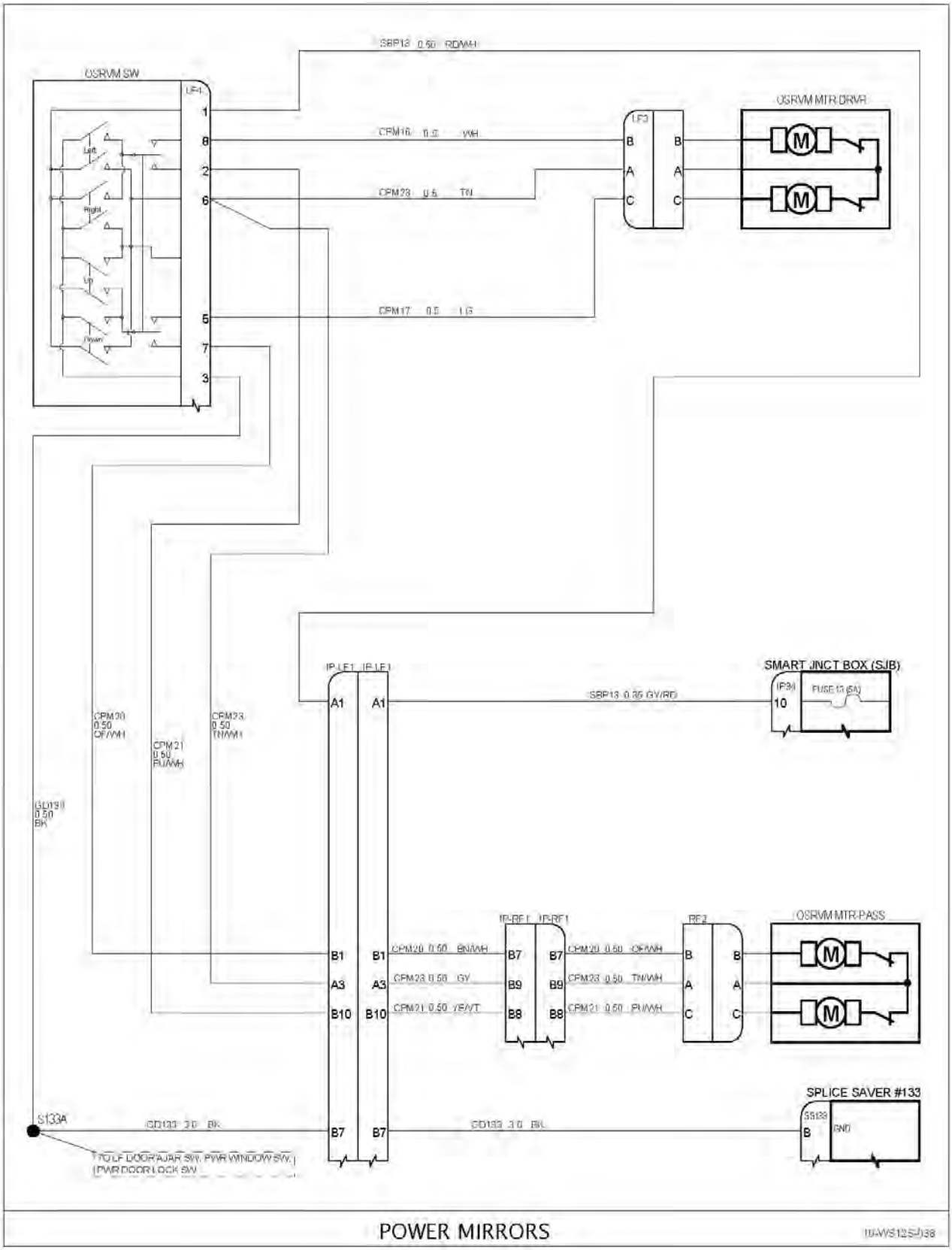
7.2.4.9. Horns


HORN-DUAL
FL2
B
A
SRH01 1.0 YE/RD
GD129 1.0 BK/YE
GD129
GD129
2.0
BK/YE
G105
SMART JNCT BOX (SJB)
HORN RELAY
5
SRH01 1.0 YE/RD
FL-UH1
FL-UH1
L
L
IP32
41
FUSE 24 (20A) BATT
CRH02
CLOCKSPRING
IP19
1
7
1
2
HORN SW
J1
J2
SPLICE SAVER #133
GND
A
HORNS

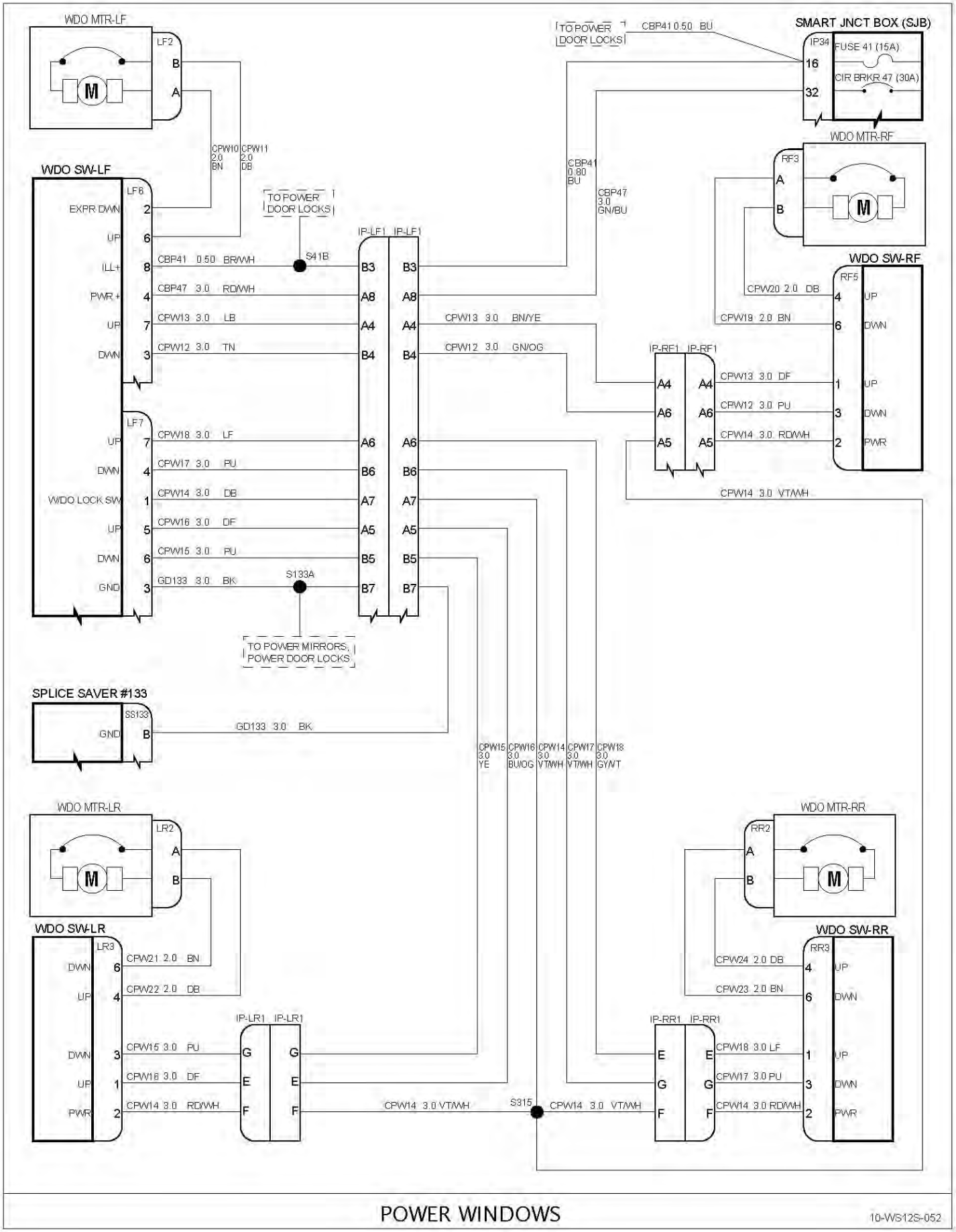
7.2.4.10. Power Door Locks



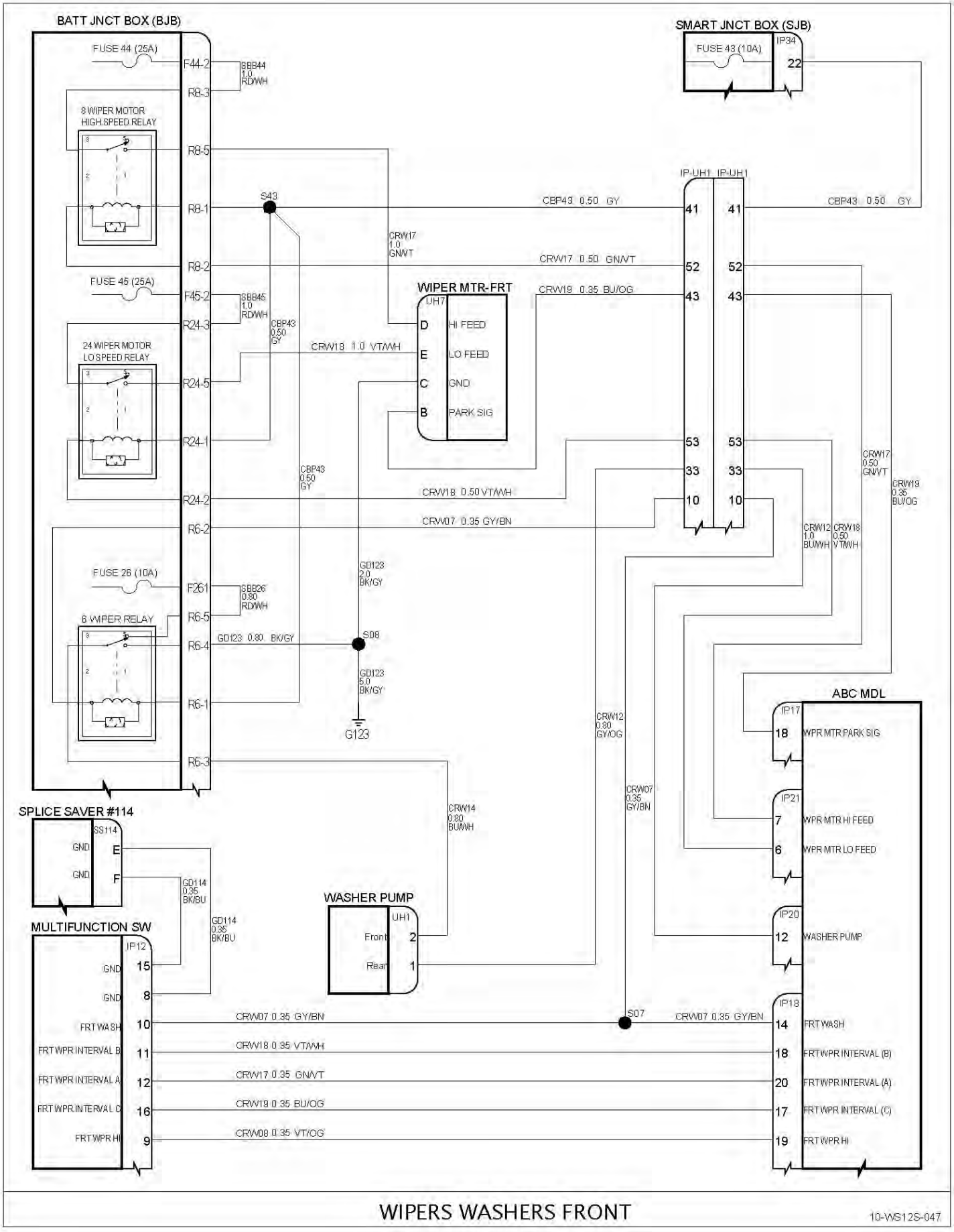
7.2.4.11. Power Mirrors



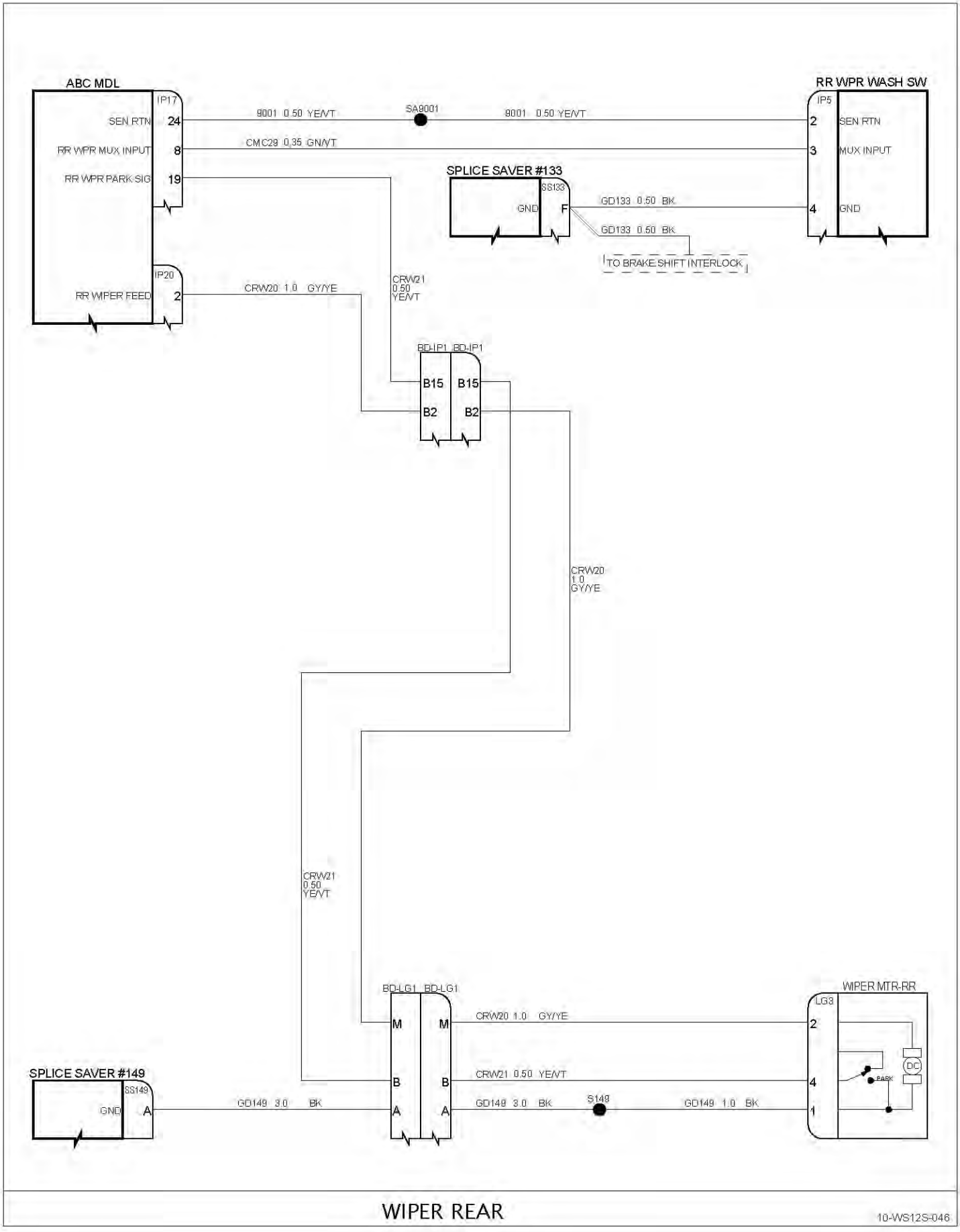
7.2.4.12. Power Windows



7.2.4.13. Front Windshield Wipers/Washers



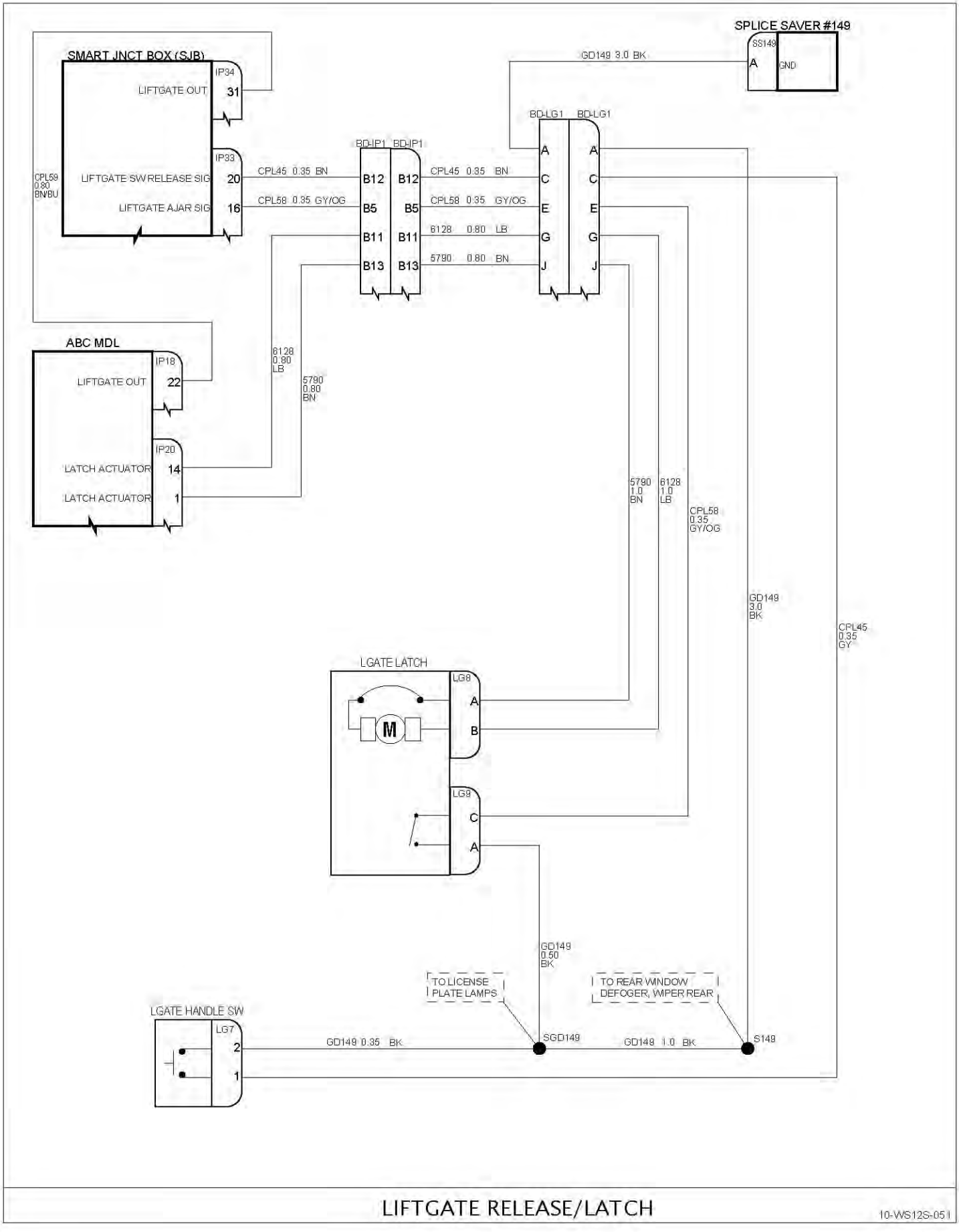
7.2.4.14. Rear Window Wiper



WIPER REAR

10-WS12S-046

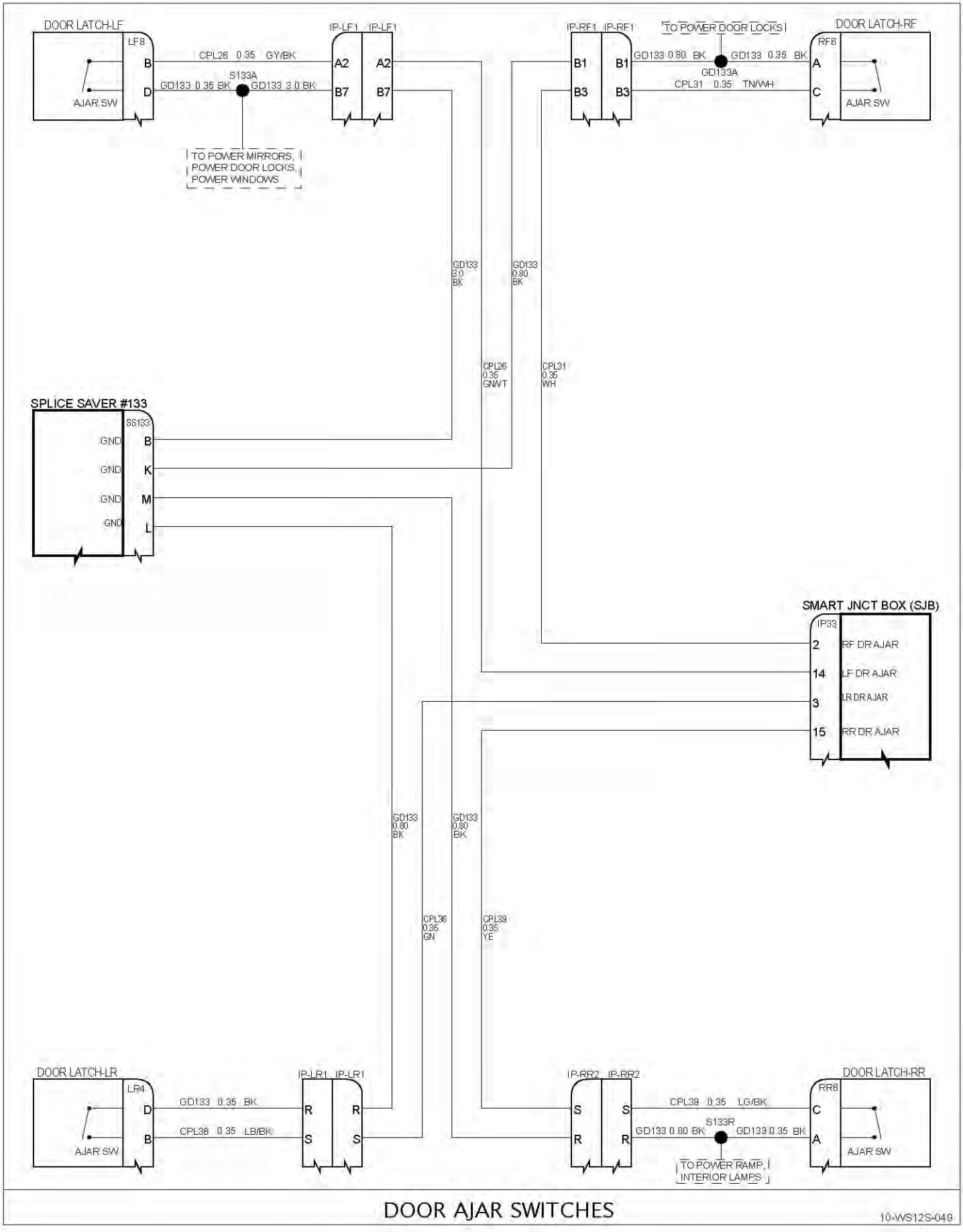
7.2.4.15. Liftgate Release Latch



LIFTGATE RELEASE/LATCH

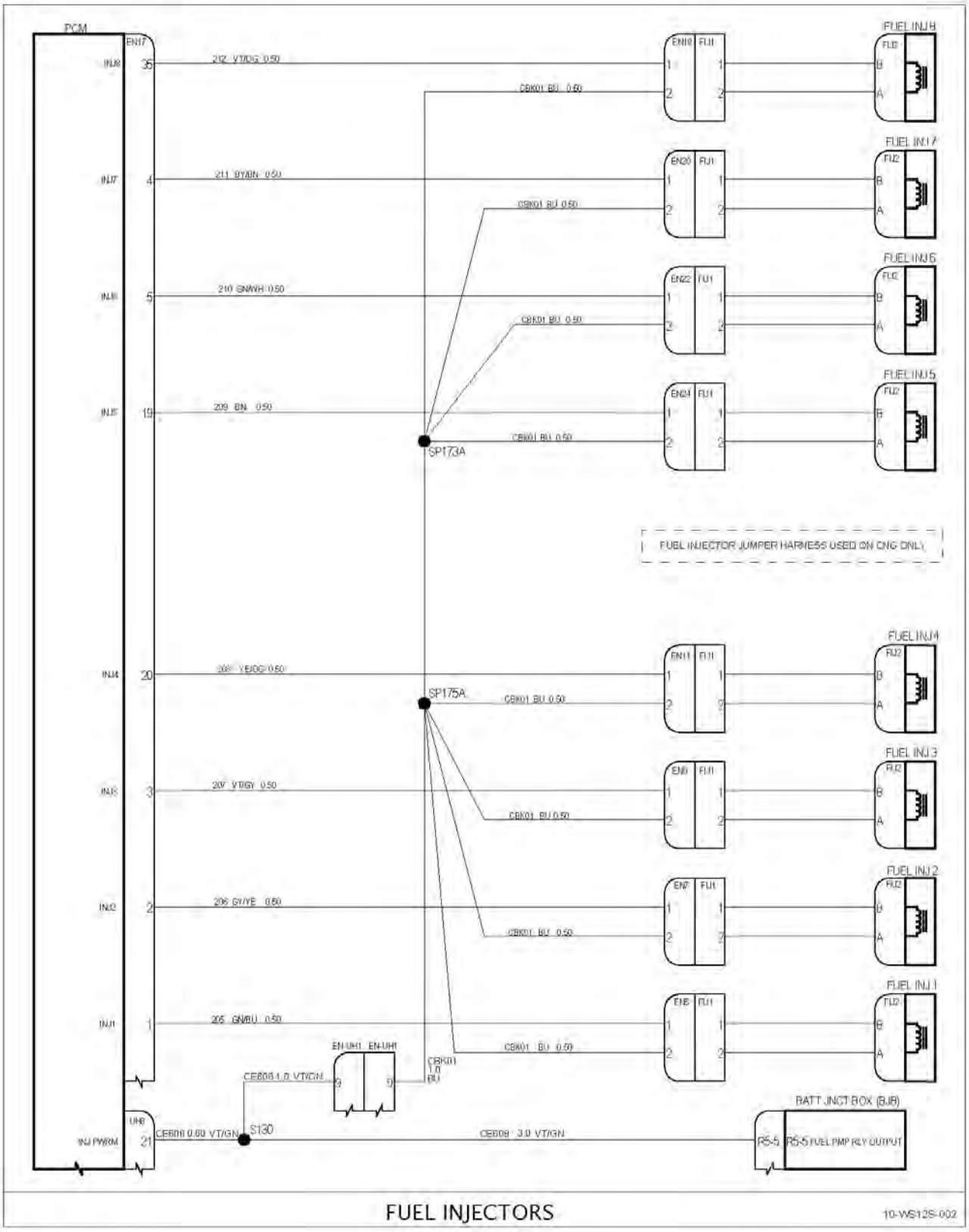
10-WS12S-051

7.2.4.16. Door Ajar Switches

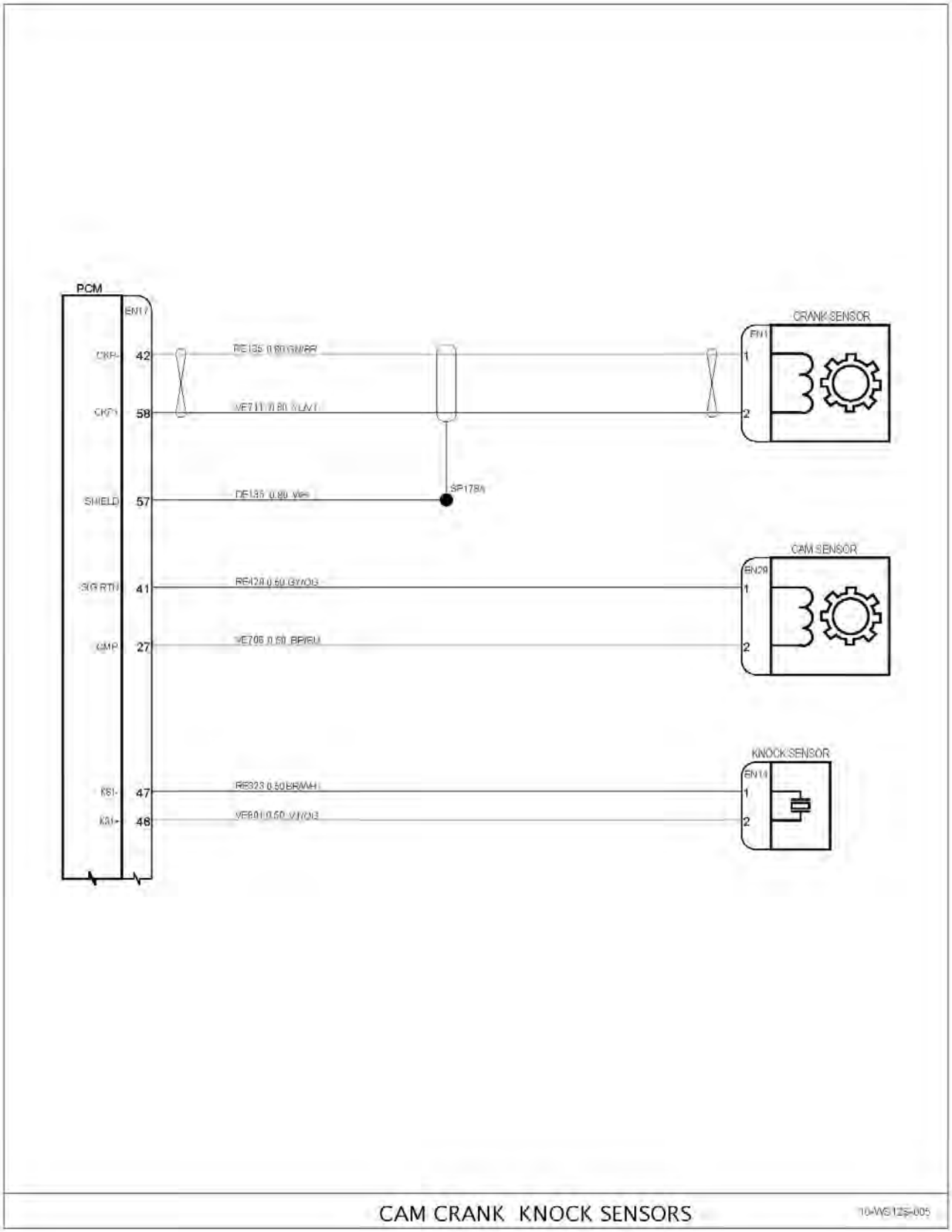


7.2.5. Engine & Fuel System

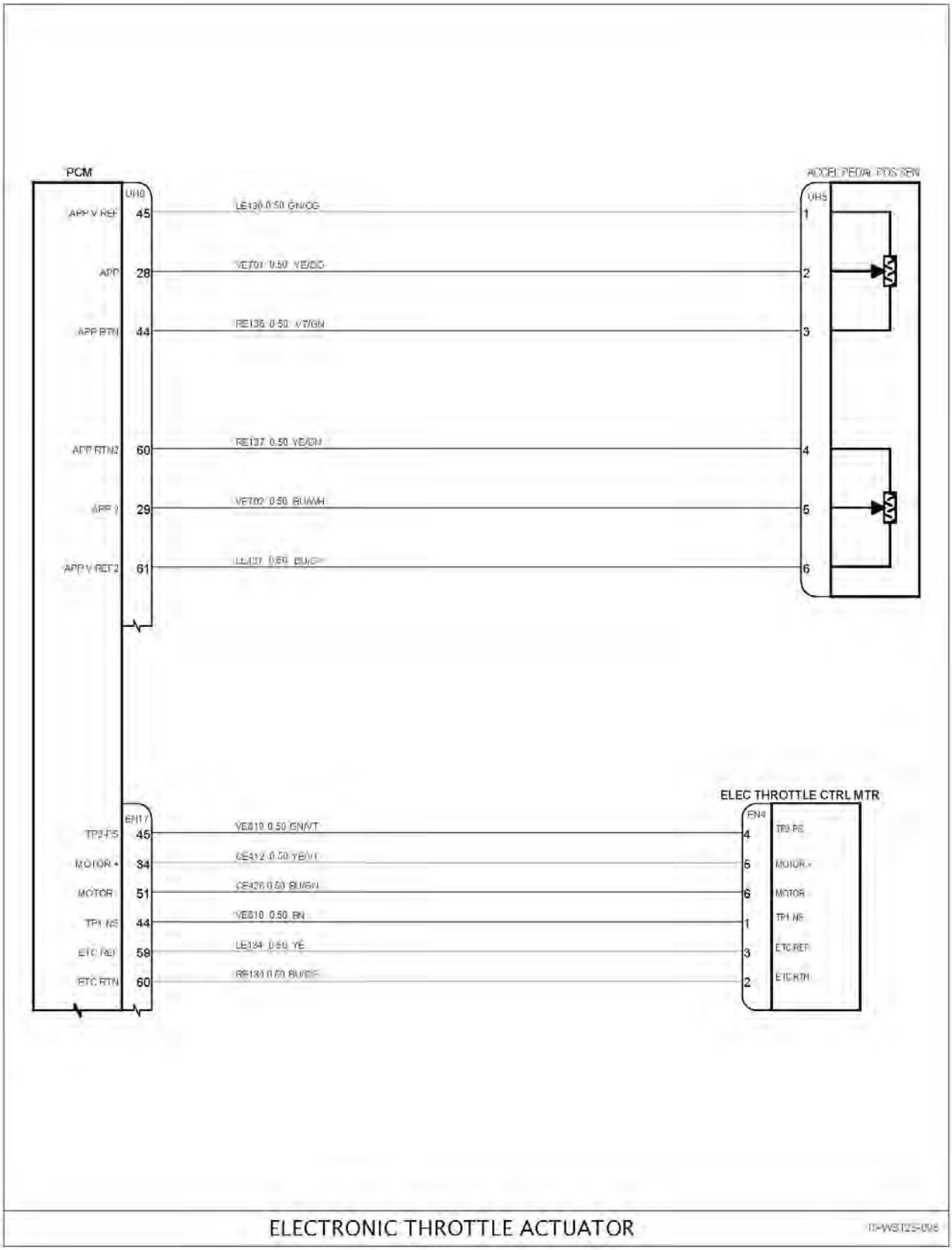
7.2.5.1. Fuel Injectors



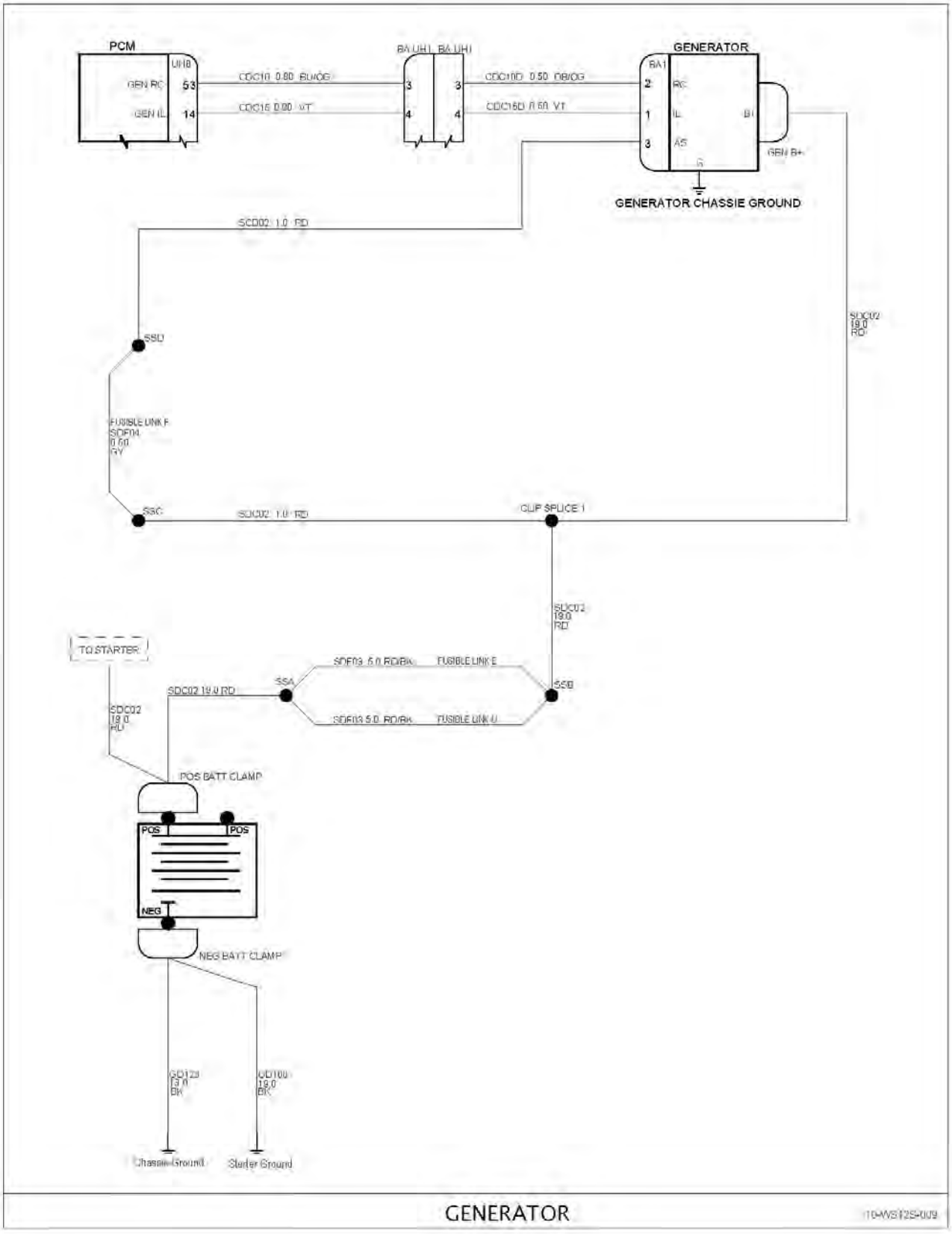
7.2.5.2. Camshaft, Crankshaft and Knock Sensors



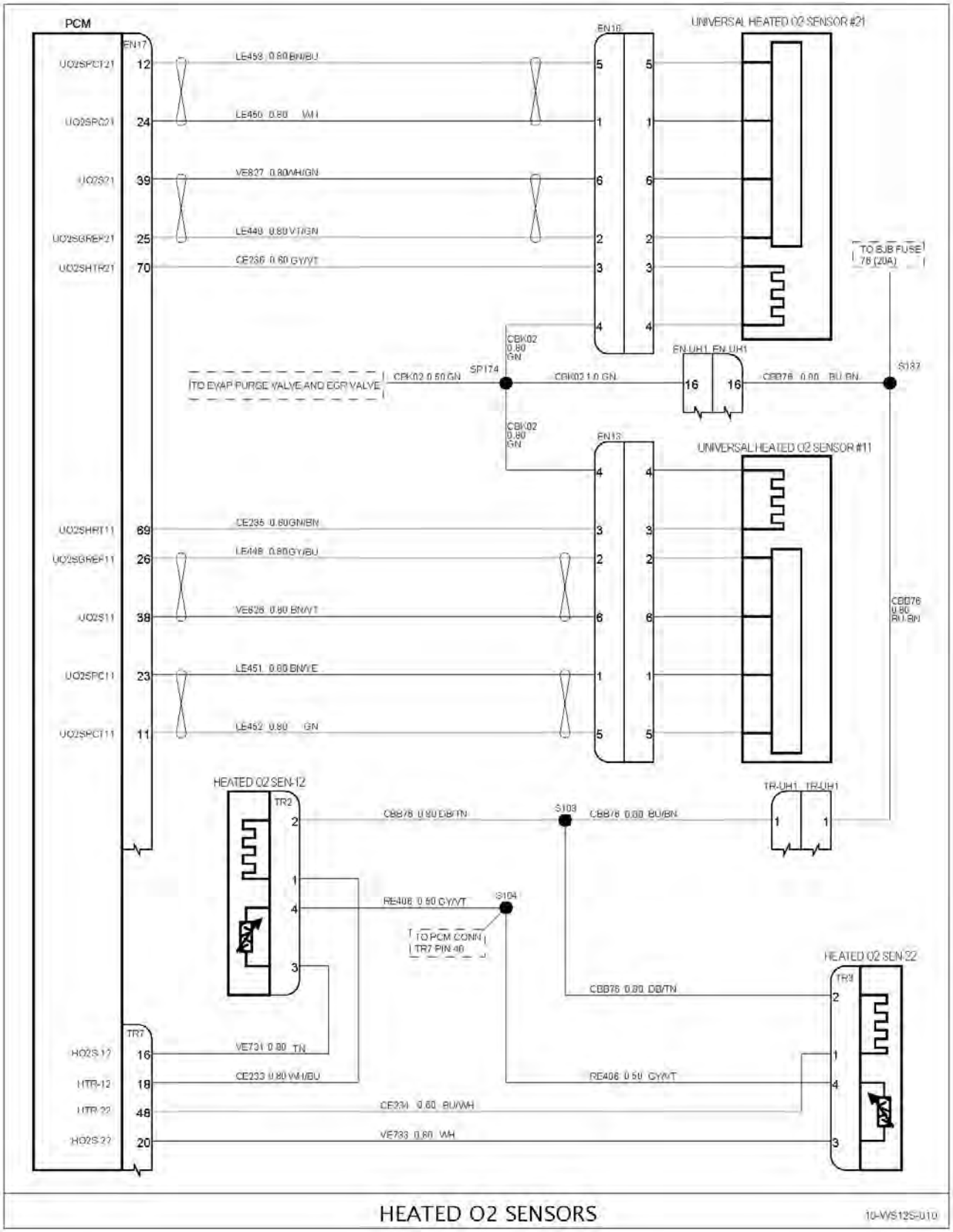
7.2.5.3. Electronic Throttle Actuator



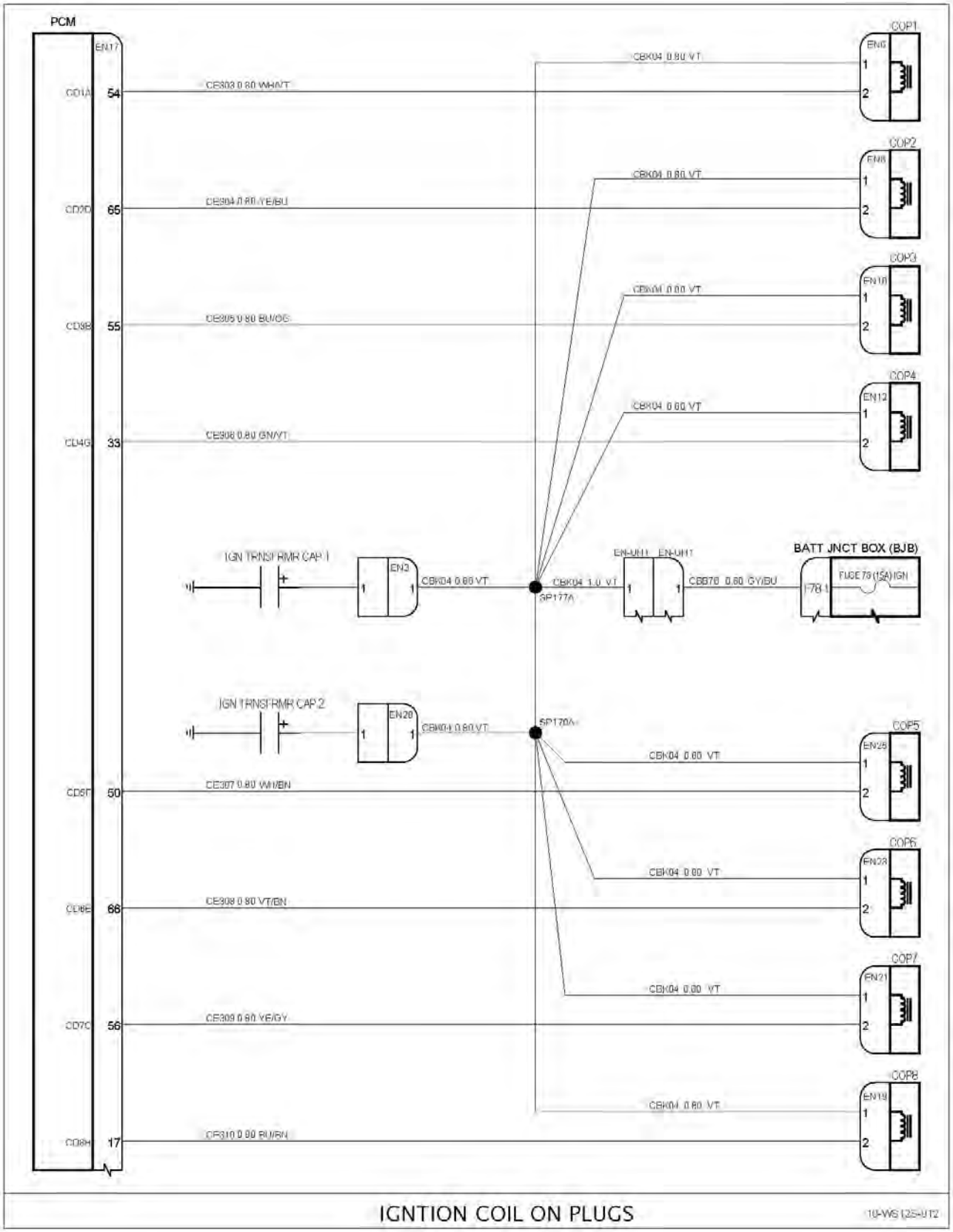
7.2.5.4. Alternator/Generator



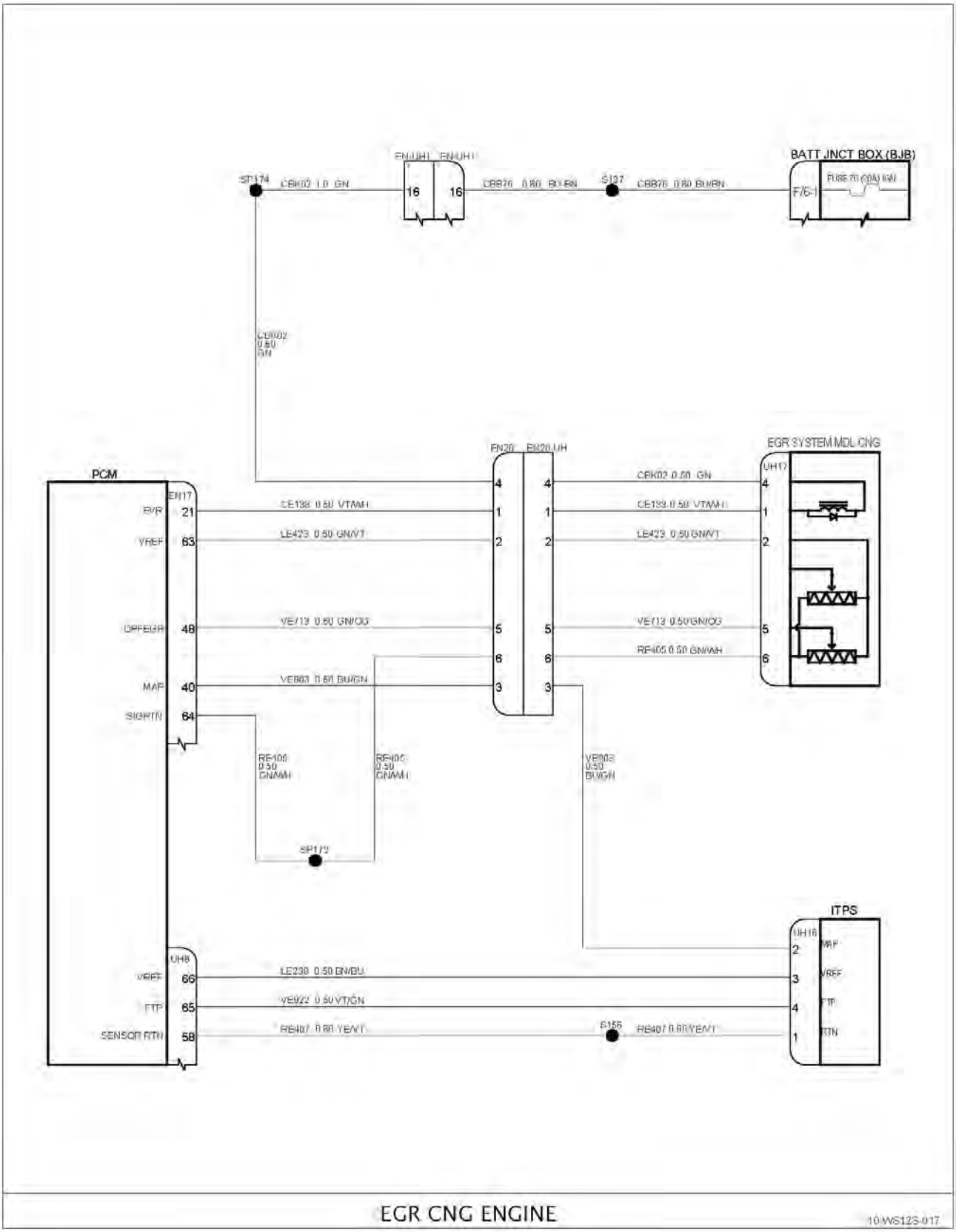
7.2.5.5. Heated O2 Sensors



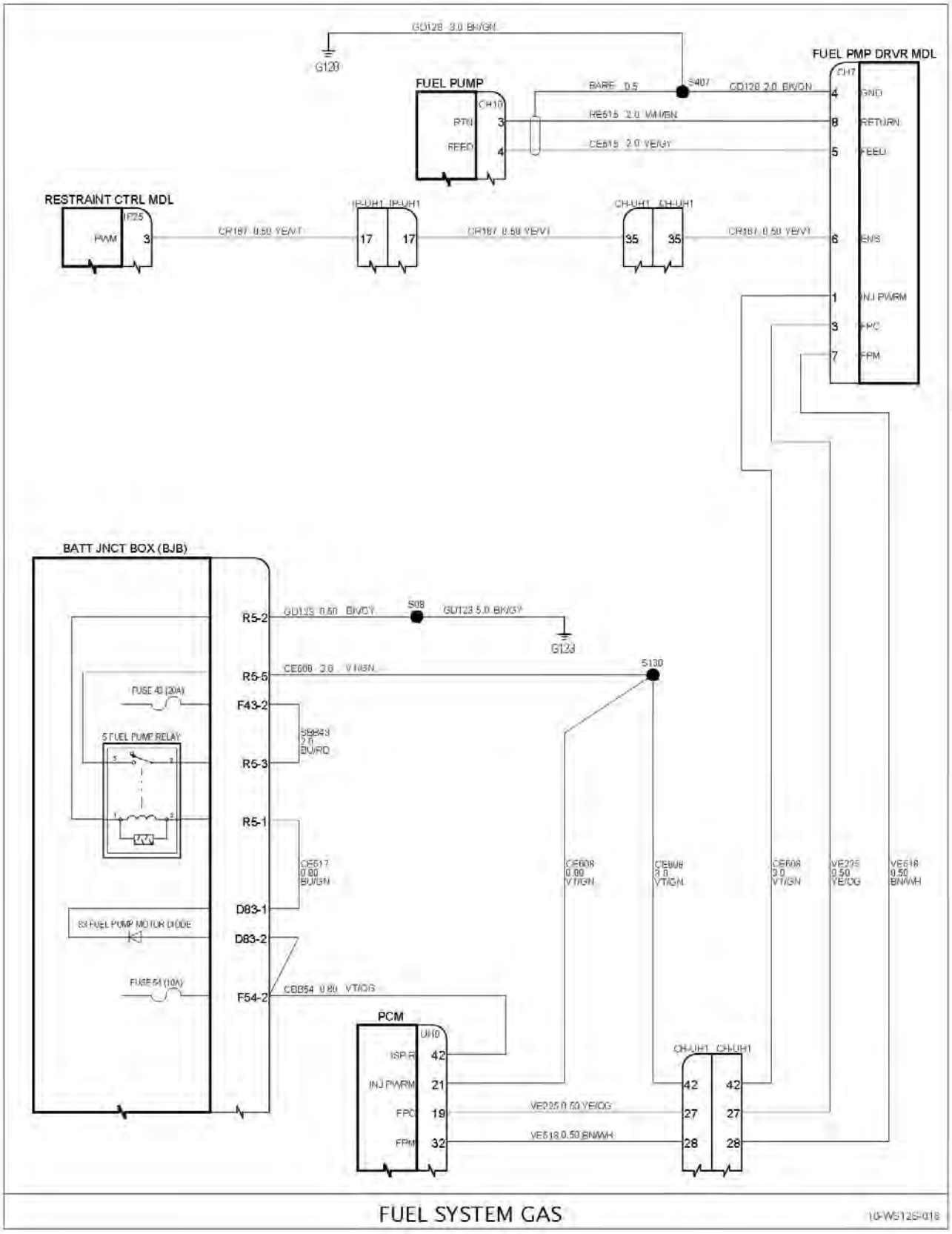
7.2.5.6. Ignition Coil



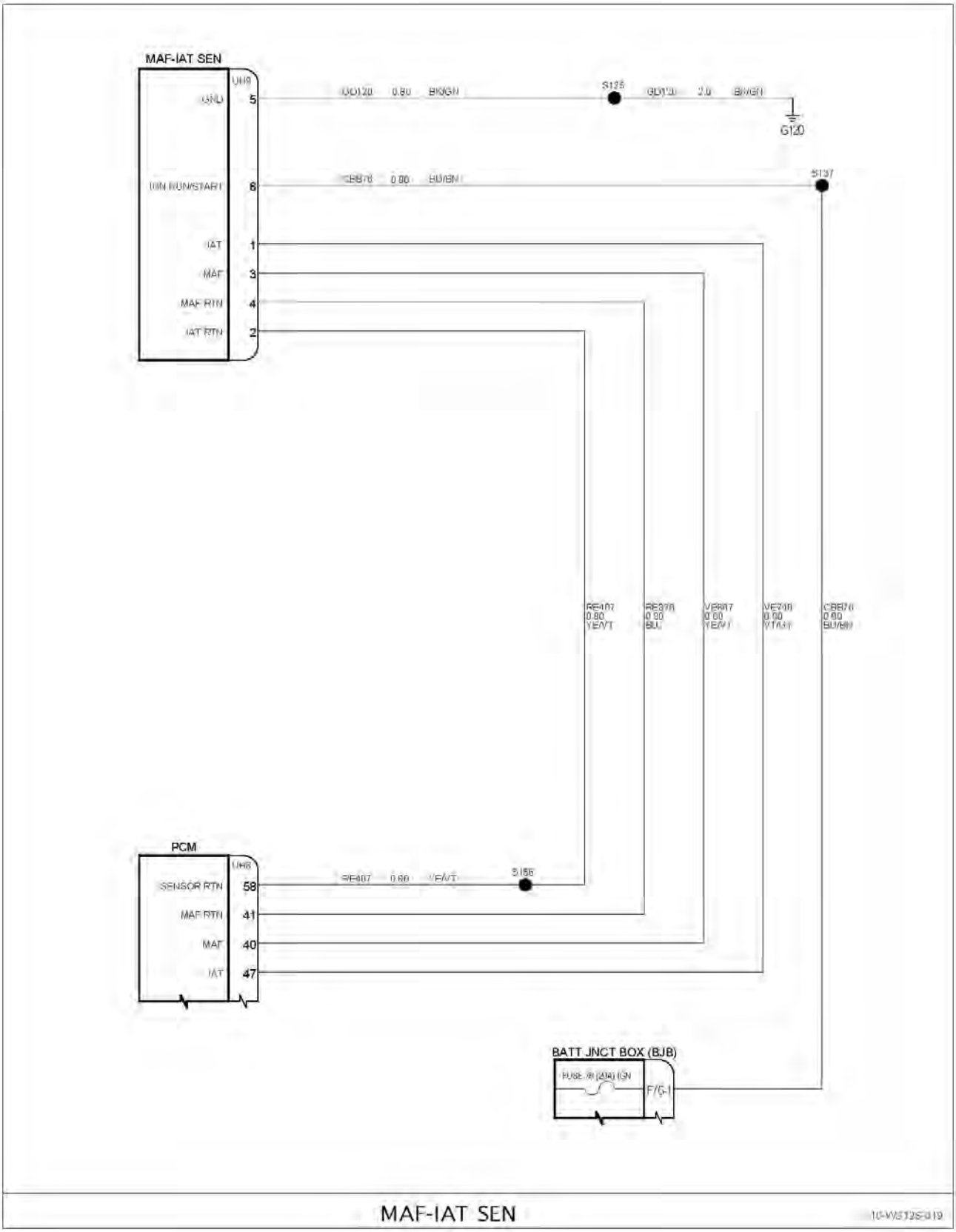
7.2.5.7. EGR – Gasoline Engine



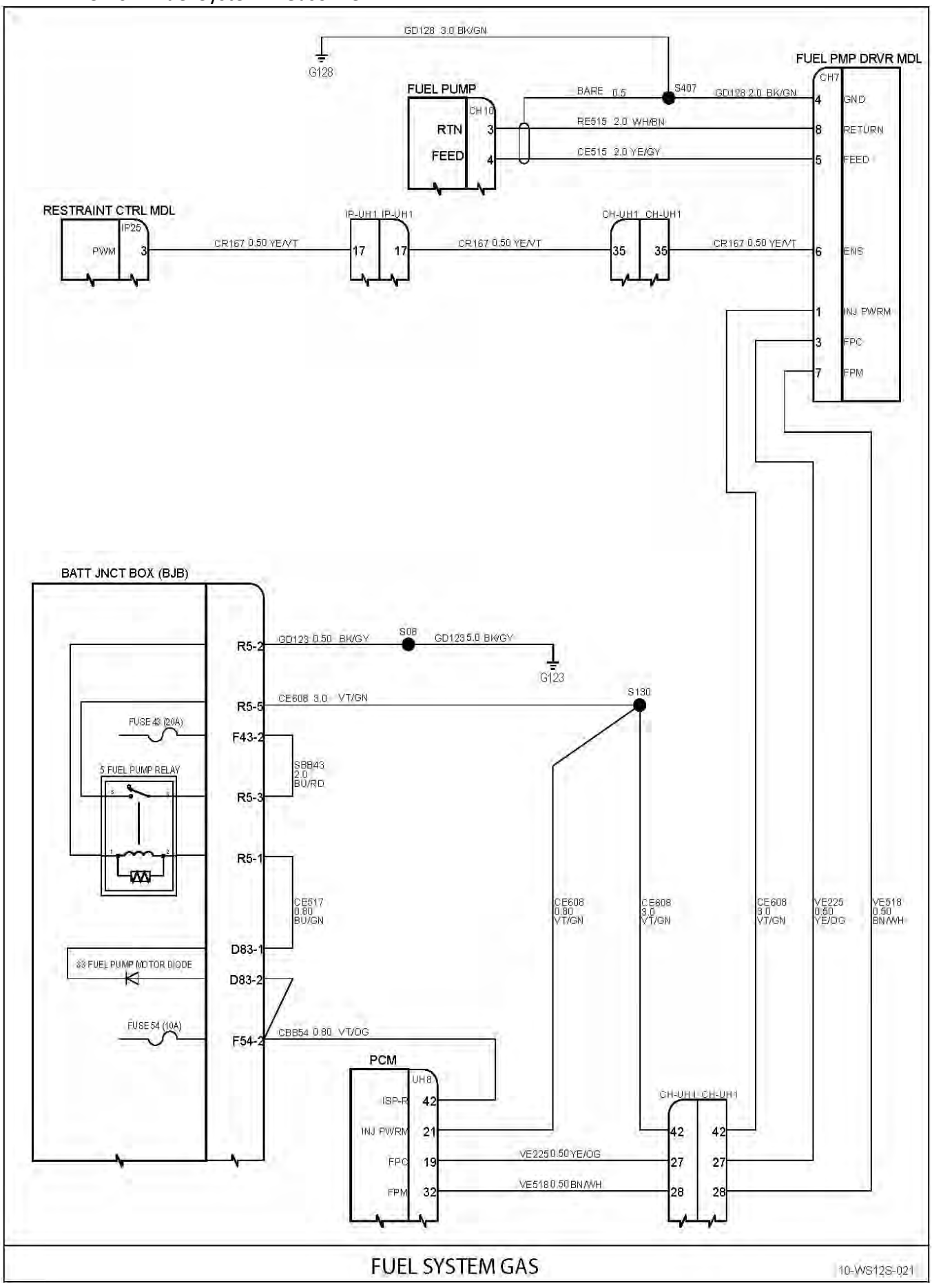
7.2.5.8. EGR – CNG Engine



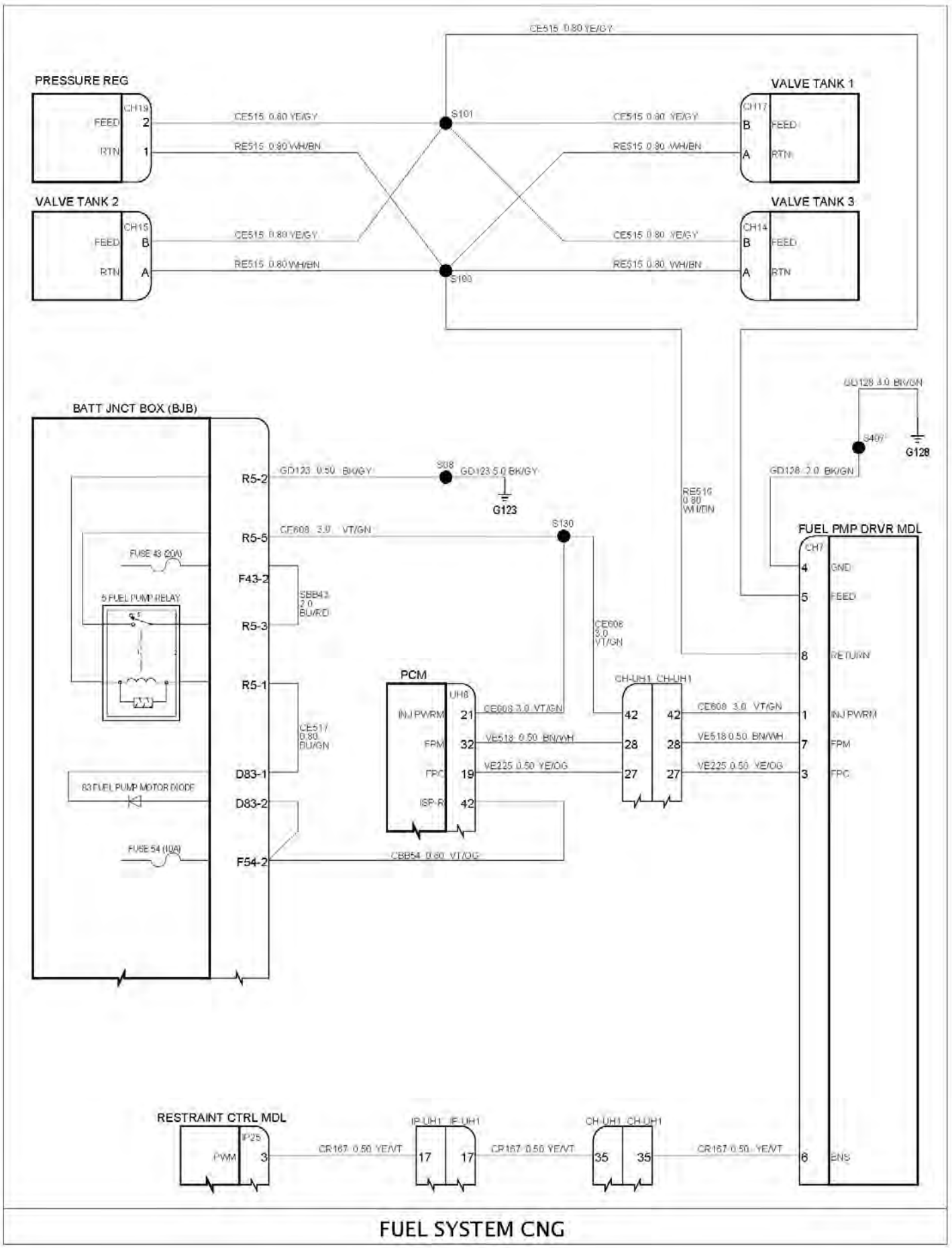
7.2.5.9. Mass Air Flow (MAF) & Intake Air Temp (IAT)



7.2.5.10. Fuel System – Gasoline

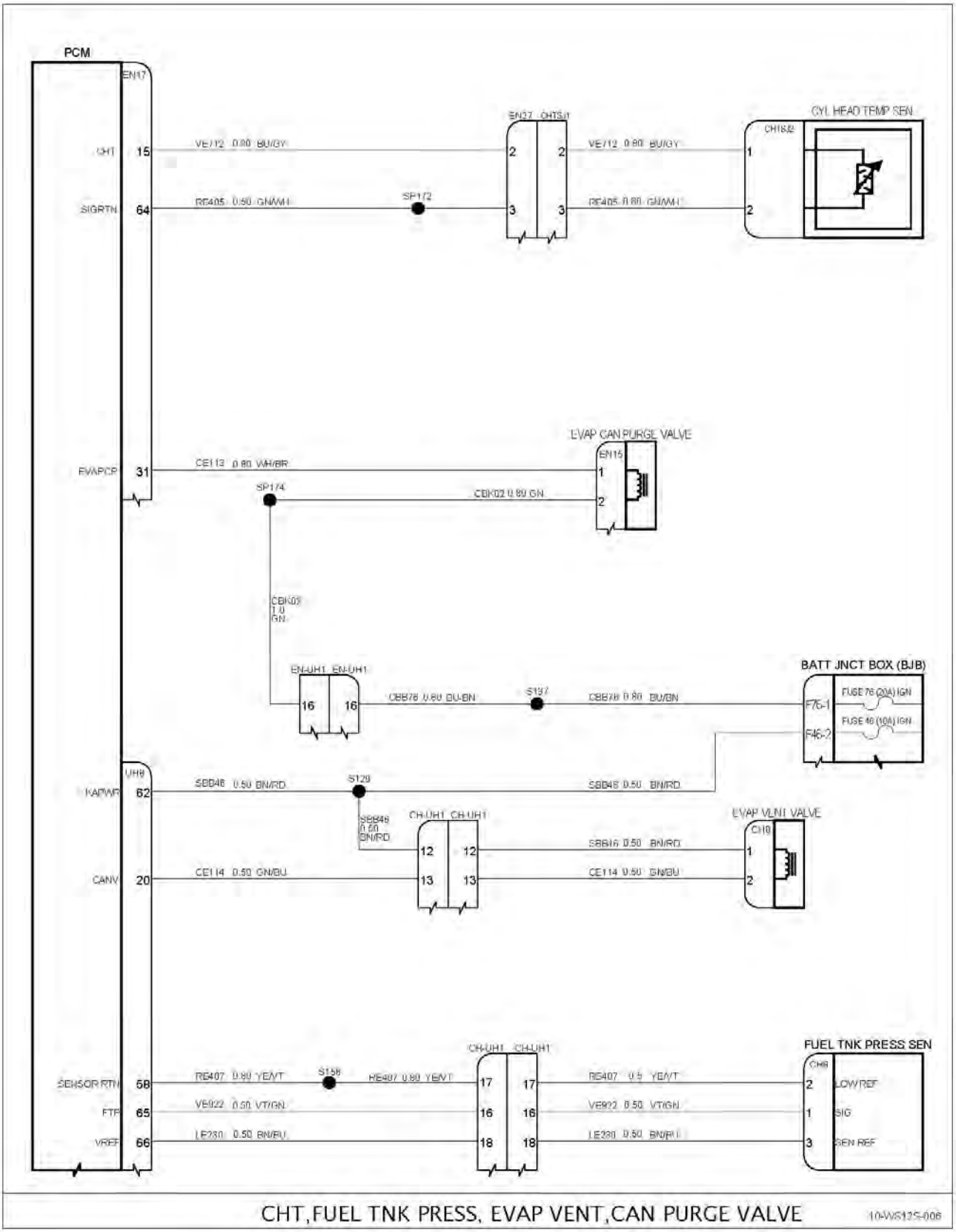


7.2.5.11. Fuel System – CNG

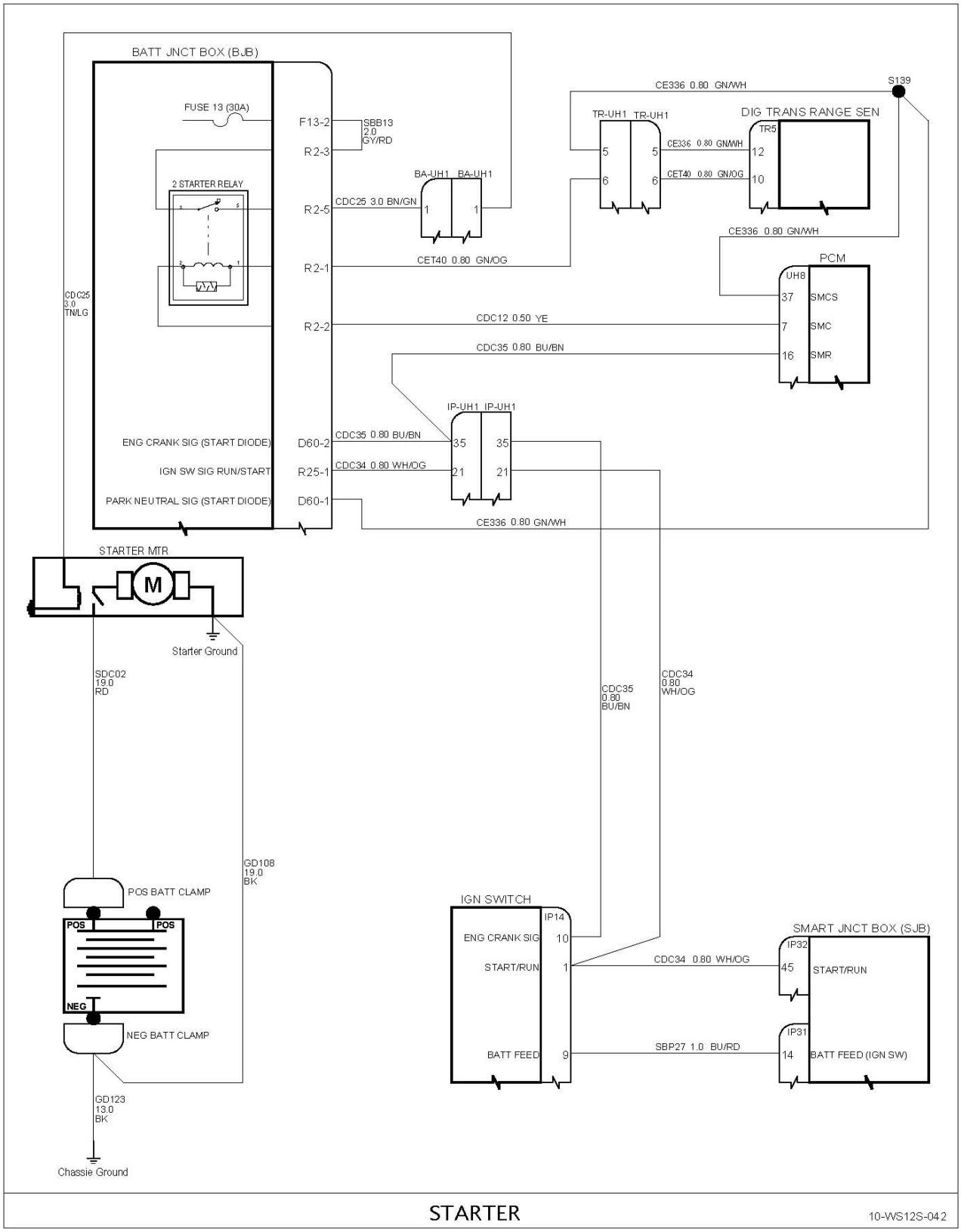


FUEL SYSTEM CNG

7.2.5.12. Evap System



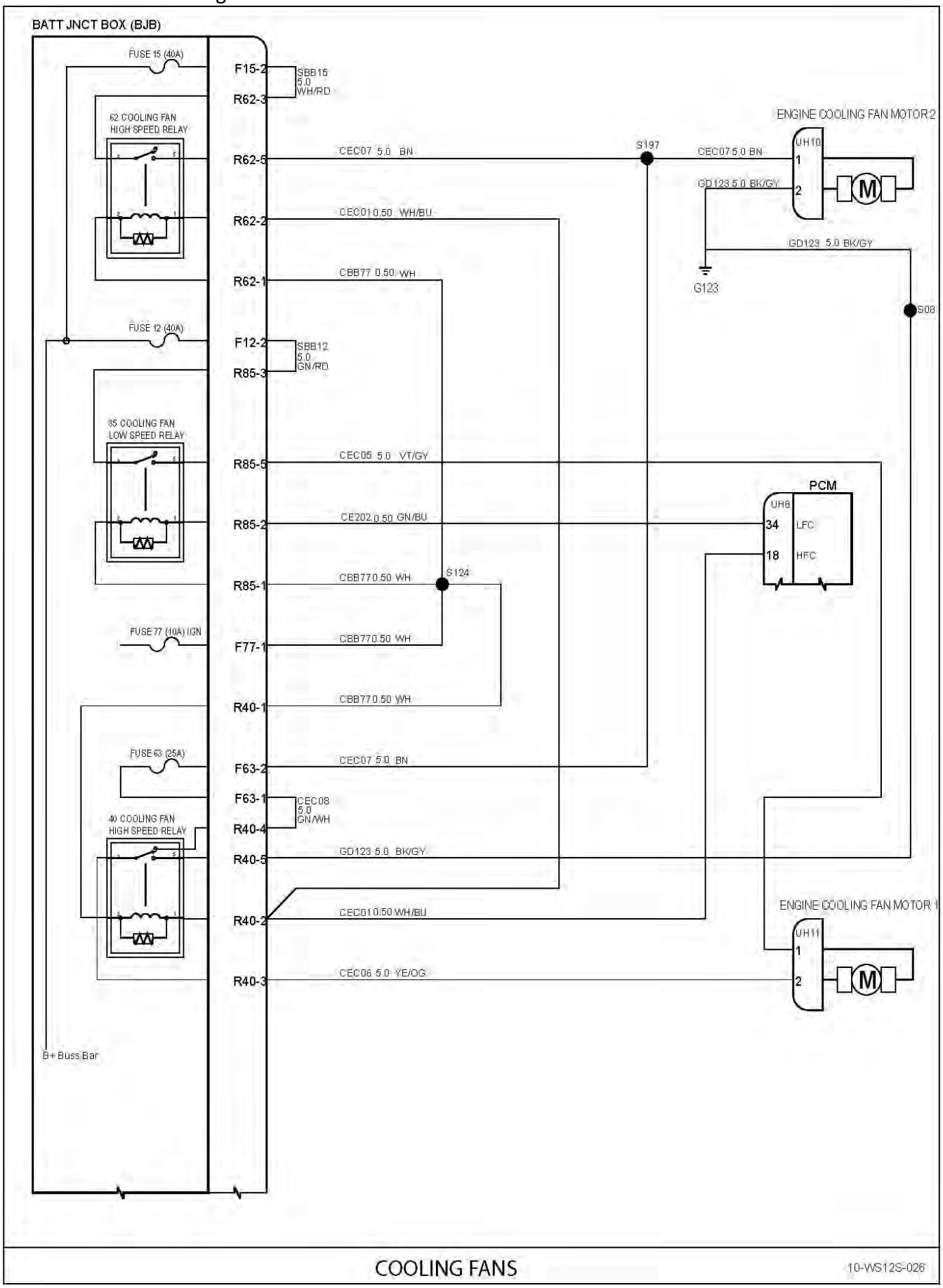
7.2.5.13. Starter



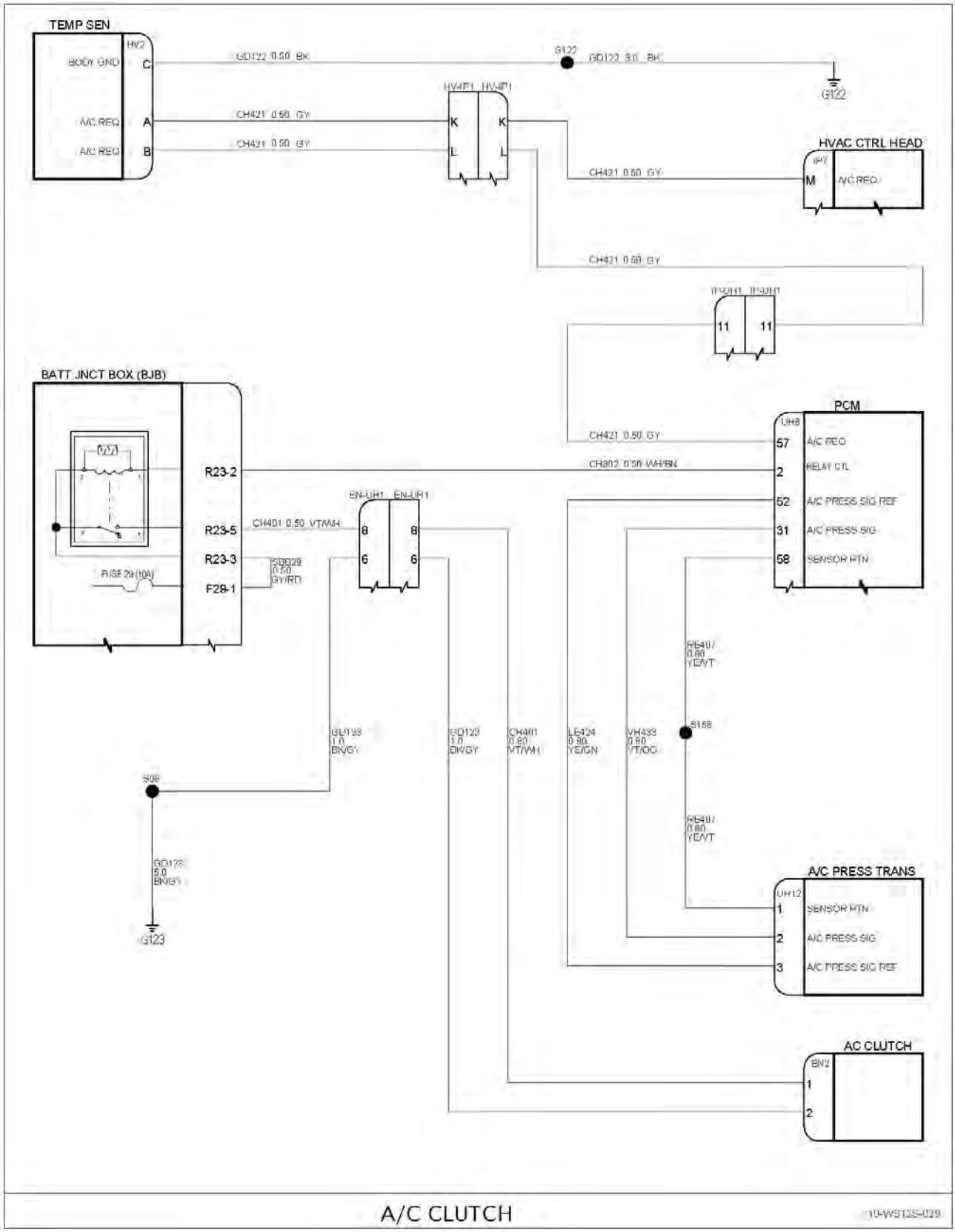
STARTER 10-WS12S-042

7.2.6. HVAC & Engine Cooling

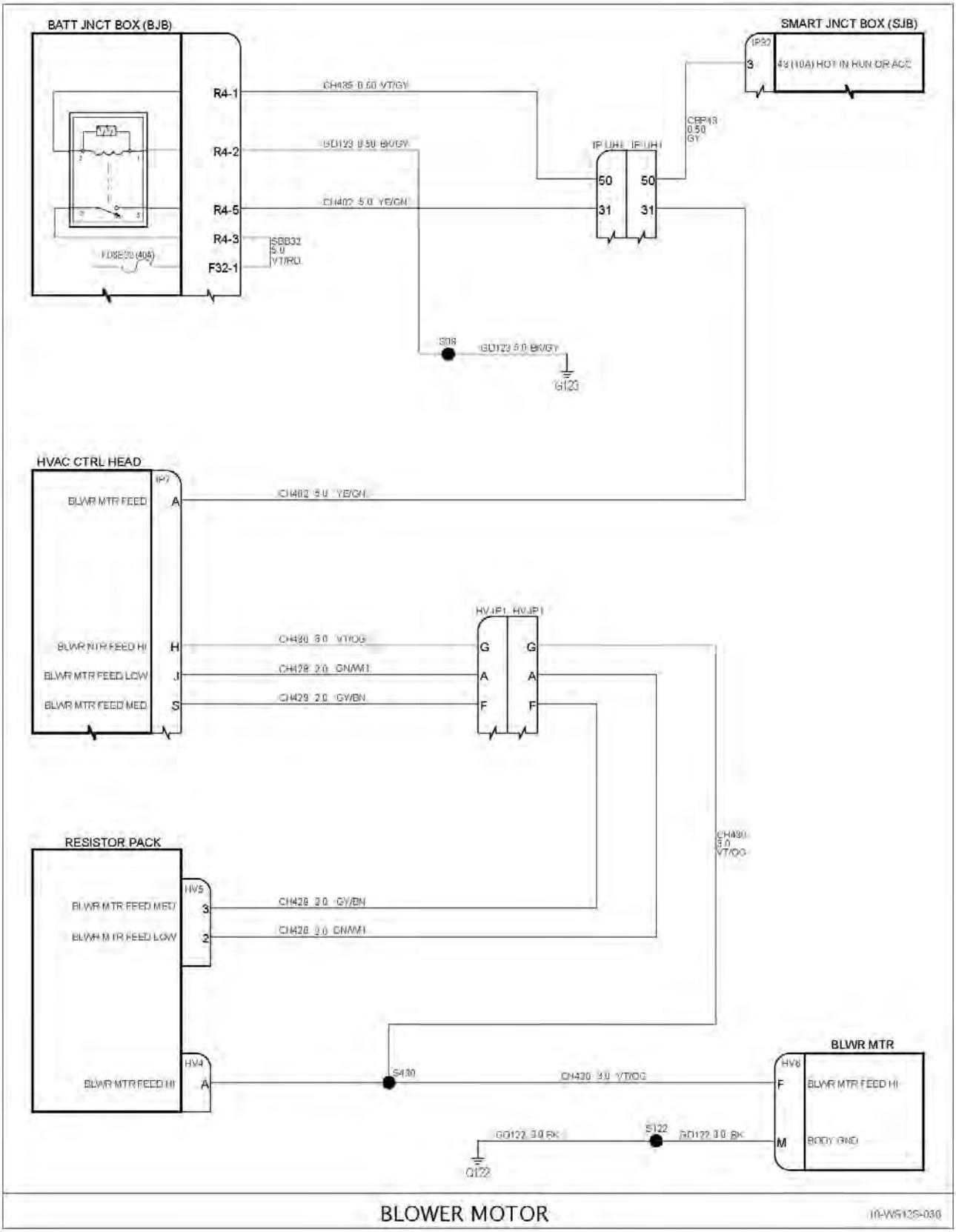
7.2.6.1. Cooling Fans



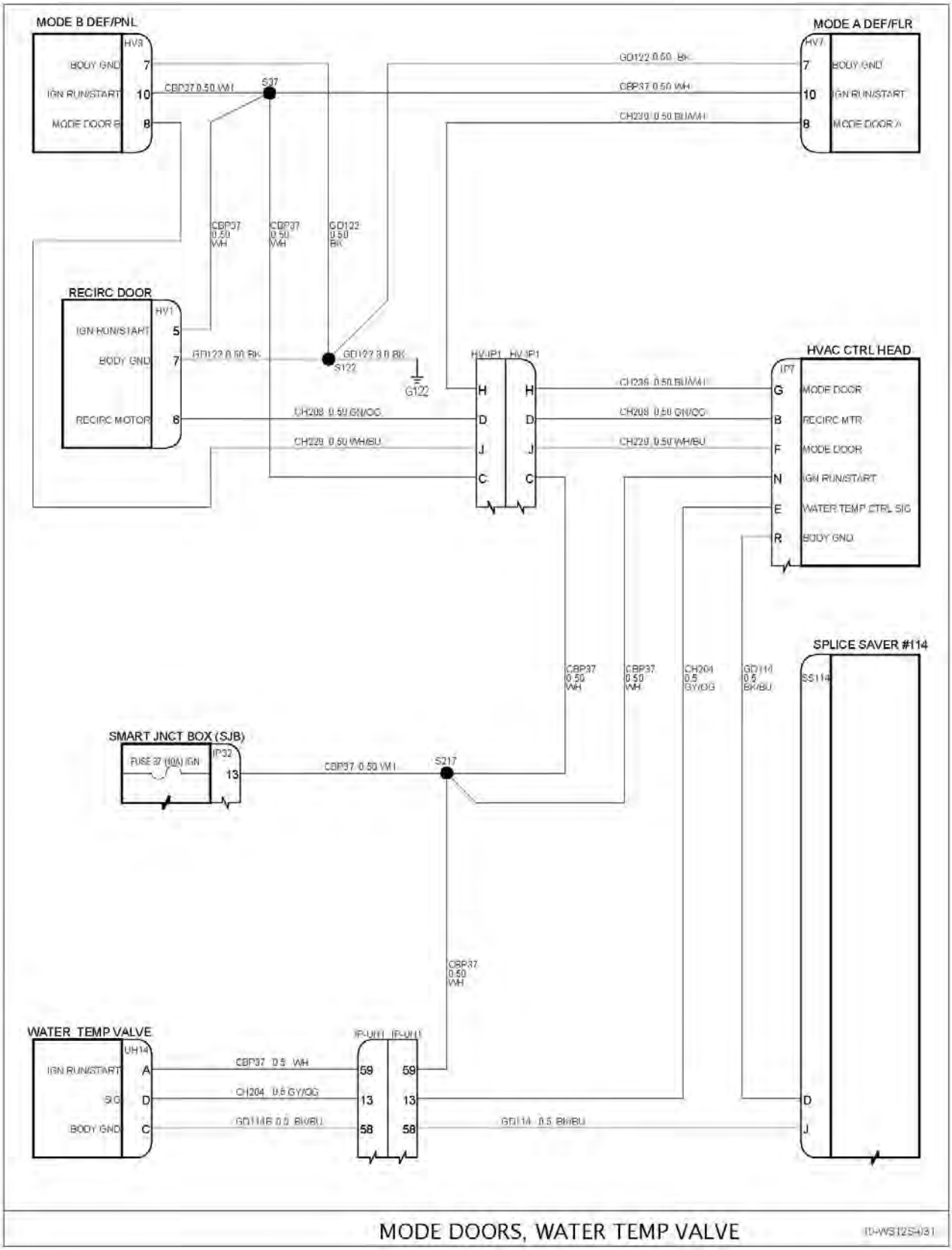
7.2.6.2. A/C Clutch



7.2.6.3. Blower Motor

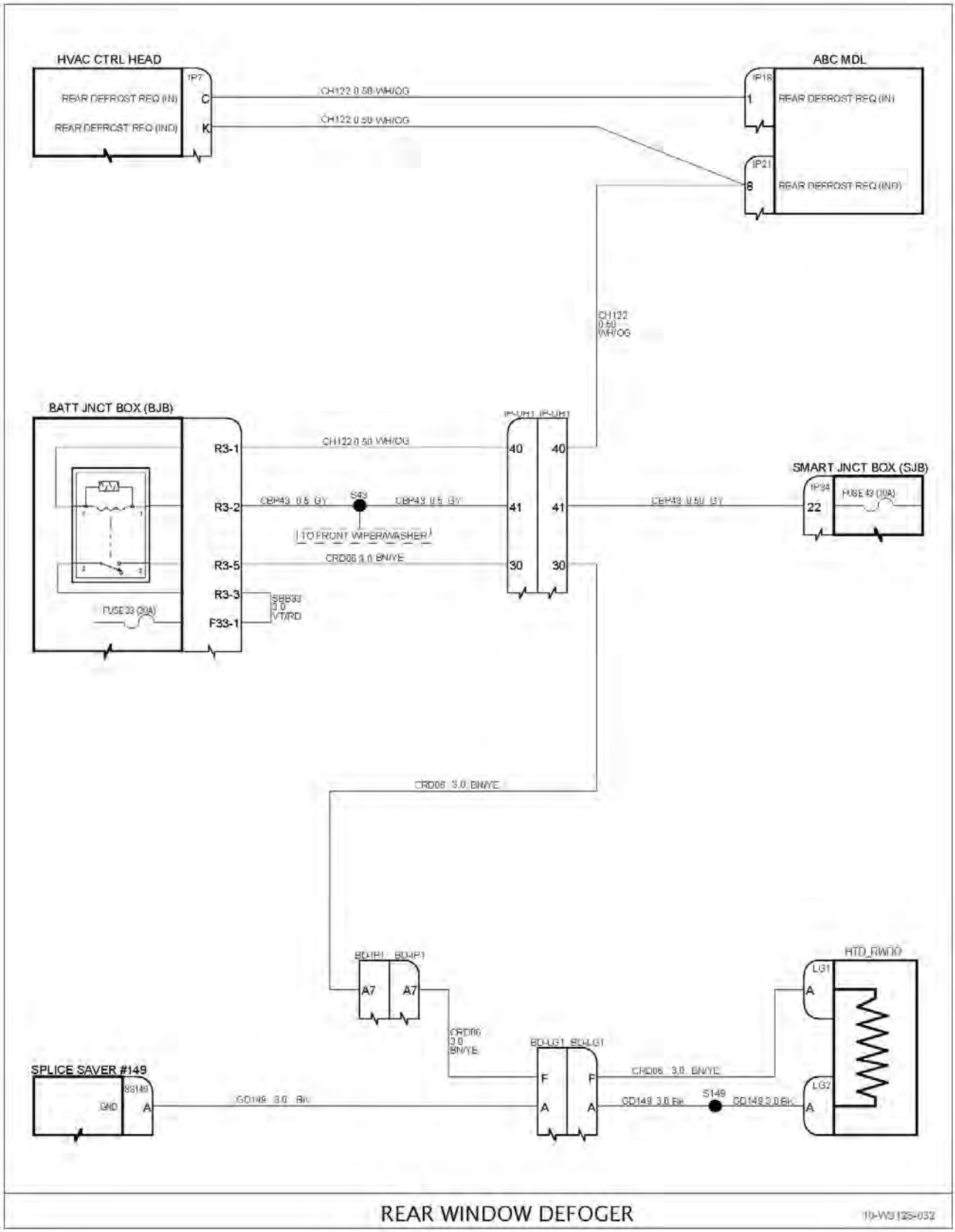


7.2.6.4. Mode Doors & Water Temp Valve



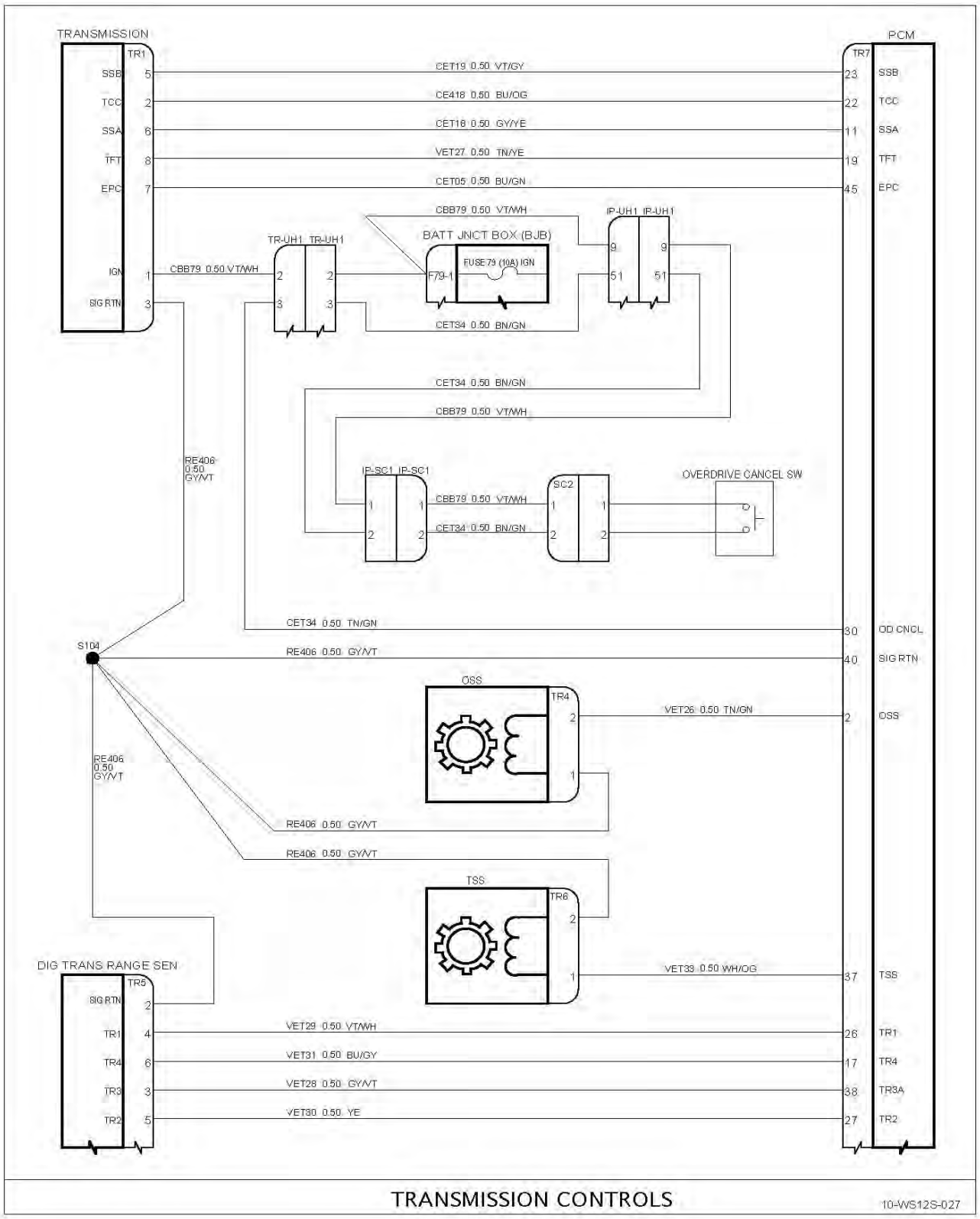
MODE DOORS, WATER TEMP VALVE

7.2.6.5. Rear Window Defogger

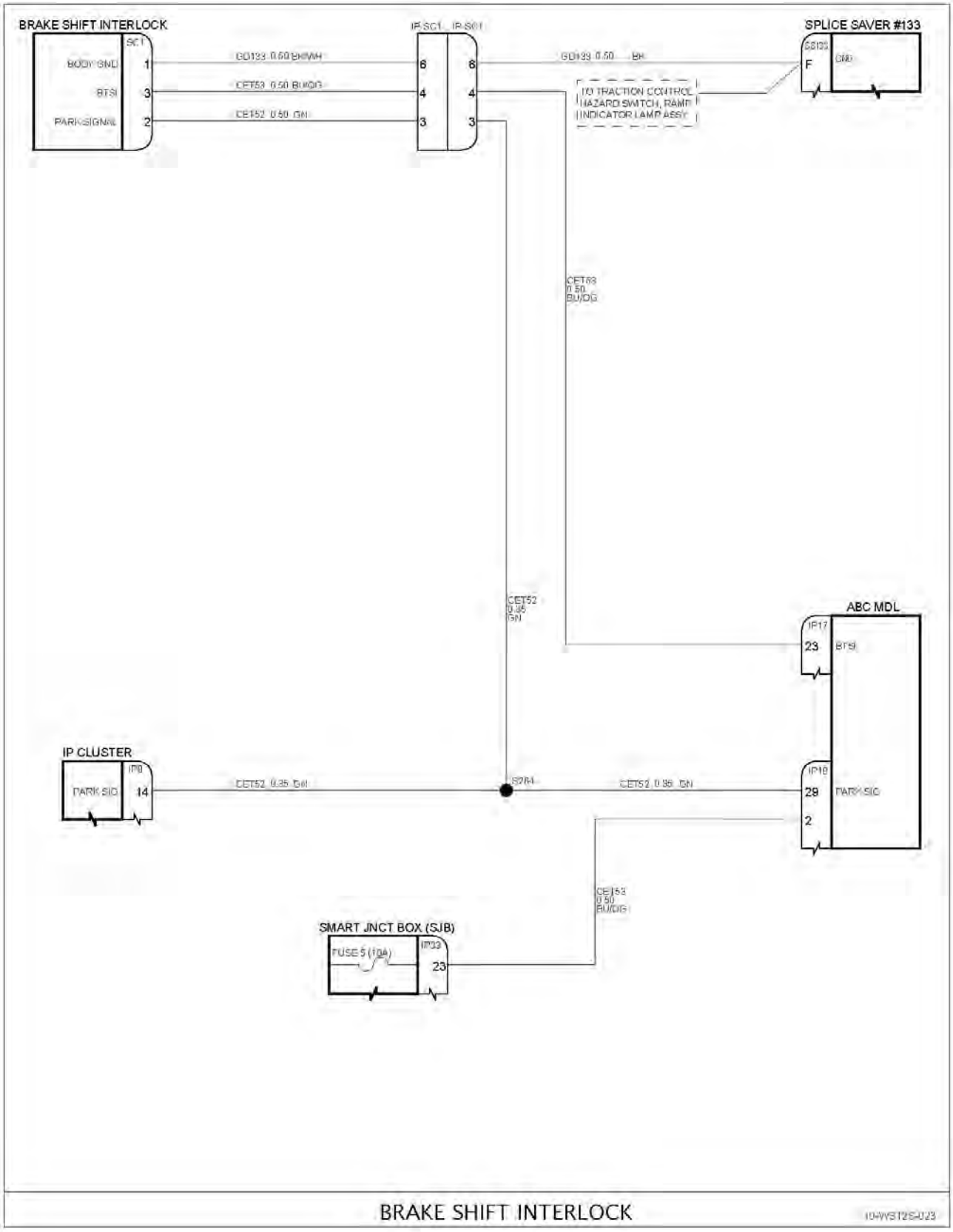


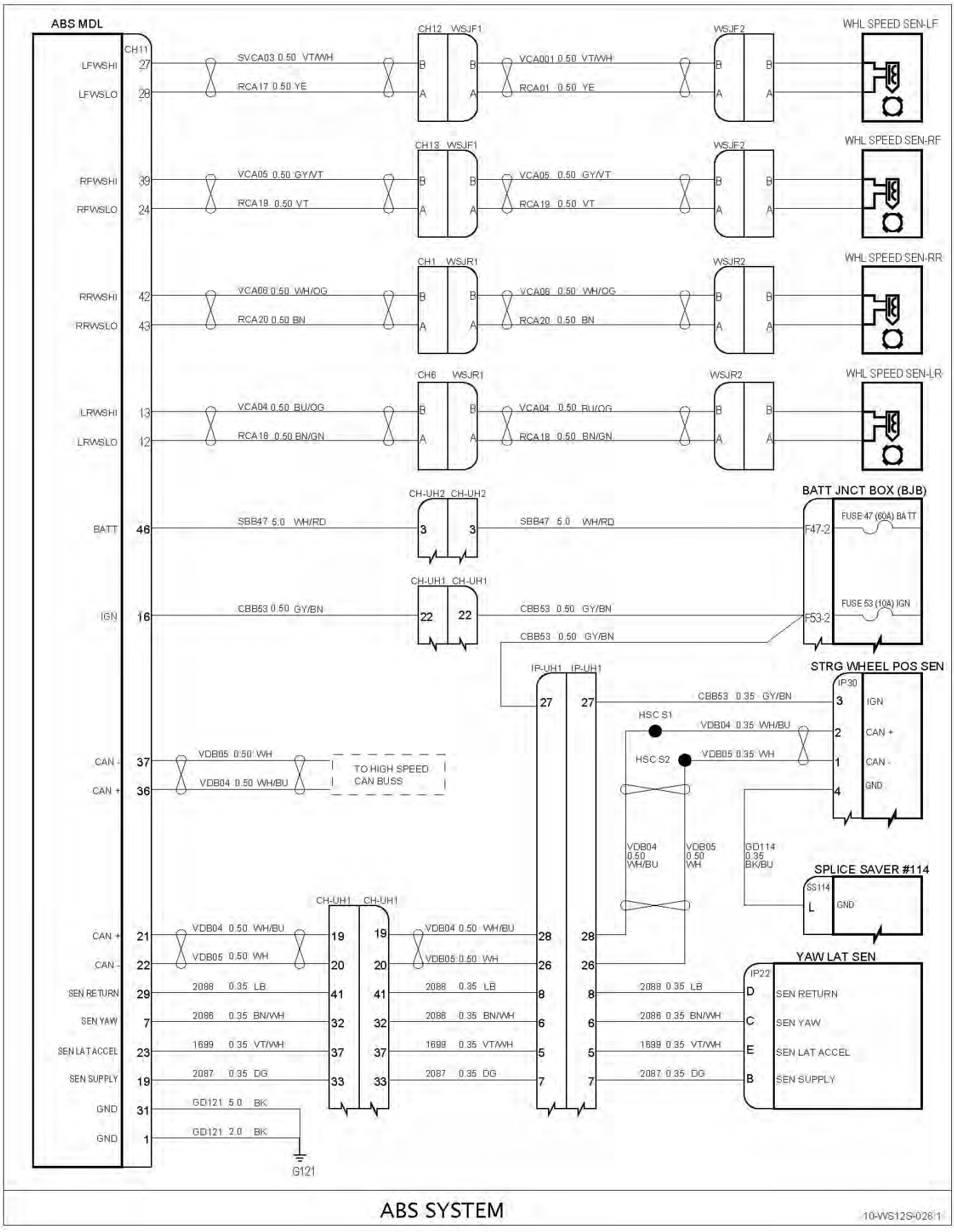
7.2.7. Transmission Controls

7.2.7.1. Transmission Controls

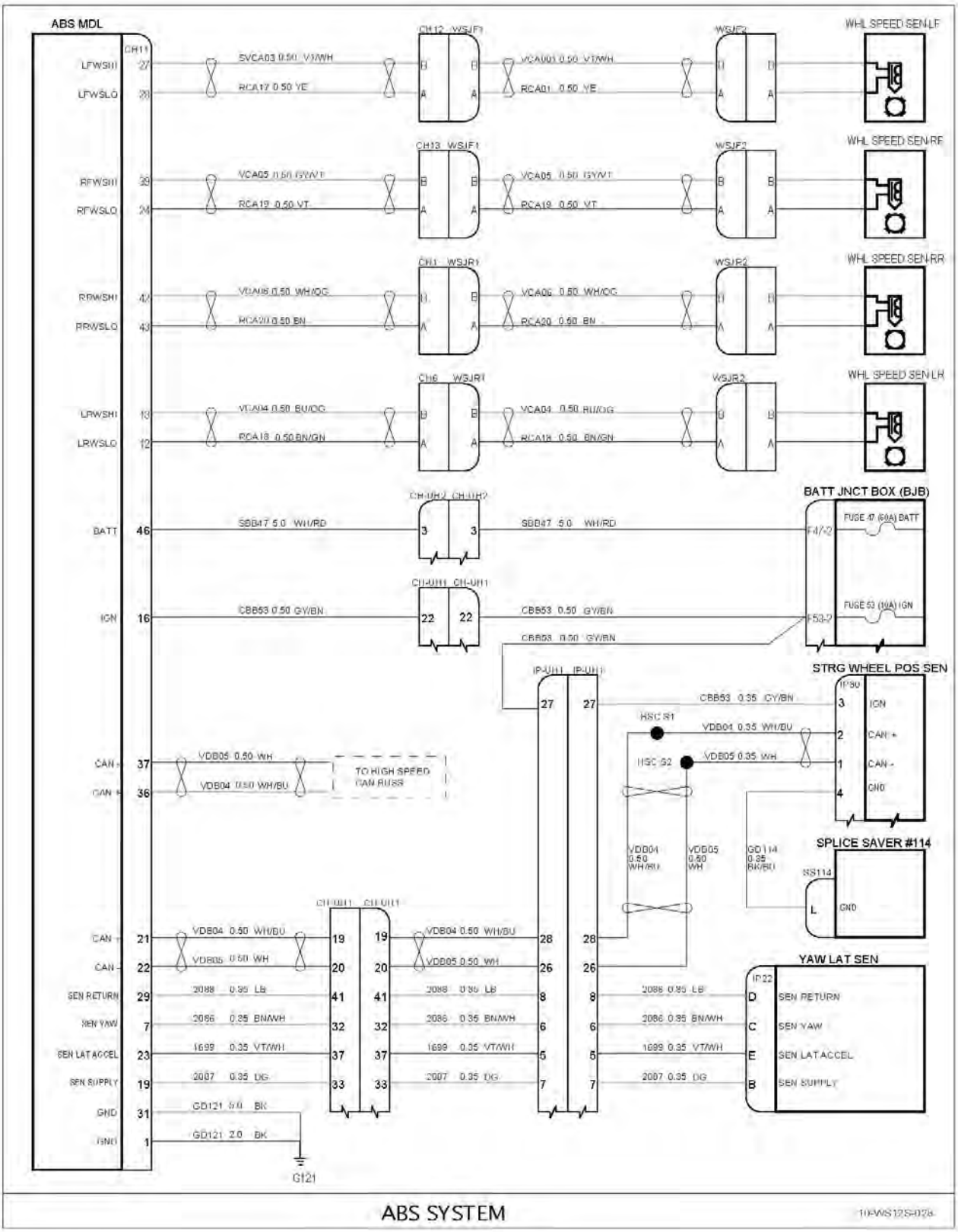


7.2.7.2. Brake Transmission Shift Interlock (BTSI)

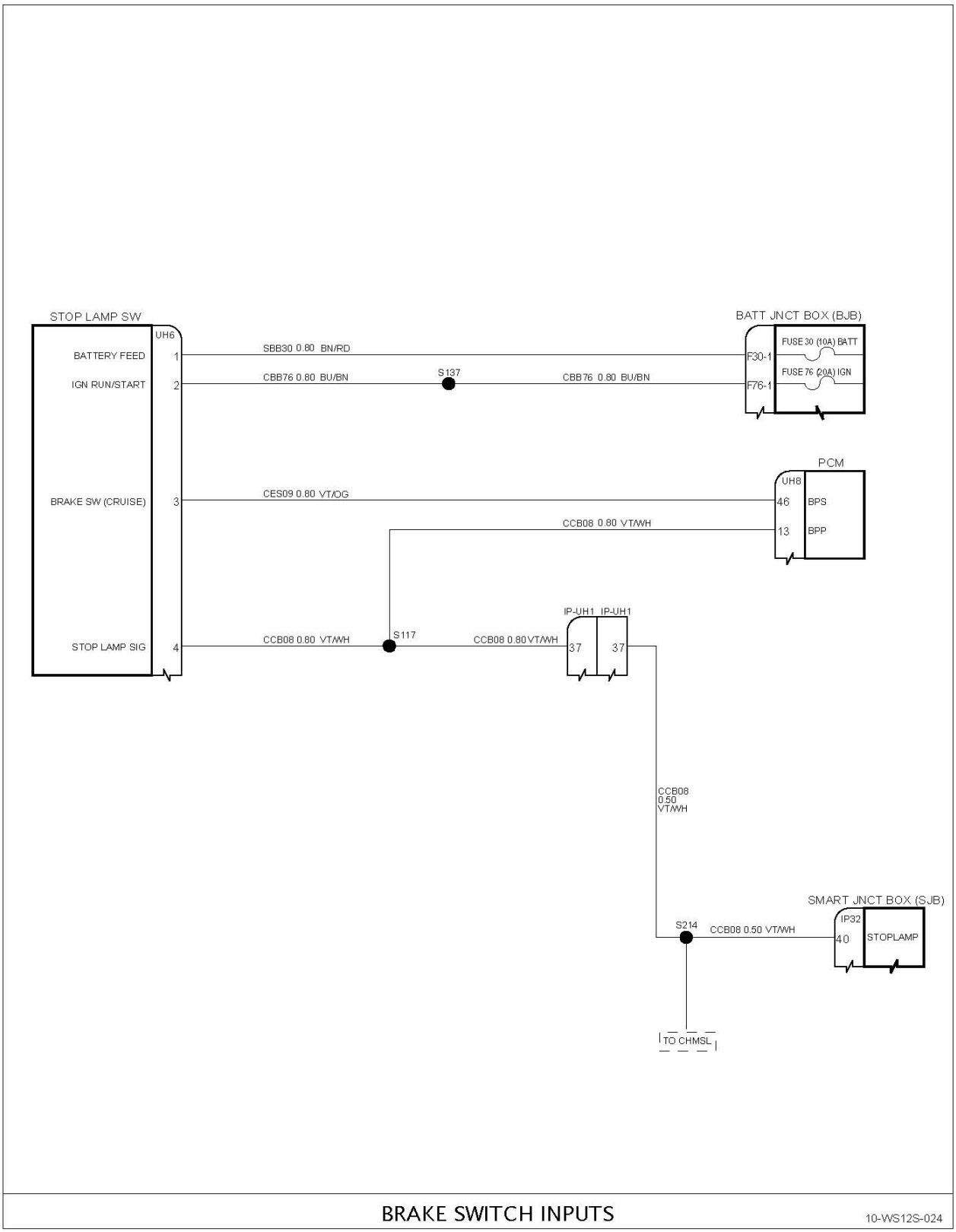



ABS MDL
CH11
LFWSHI 27
LFWSLO 28
RFWSHI 39
RFWSLO 24
RRWSHI 42
RRWSLO 43
LRWSHI 13
LRWSLO 12
BATT 46
IGN 16
CAN - 37
CAN + 36
CAN + 21
CAN - 22
SEN RETURN 29
SEN YAW 7
SEN LAT ACCEL 23
SEN SUPPLY 19
GND 31
GND 1
SVCA03 0.50 VT/WH
RCA17 0.50 YE
VCA001 0.50 VT/WH
RCA01 0.50 YE
CH12 WSJF1
WSJF2
WHL SPEED SEN-LF
VCA05 0.50 GY/VT
RCA19 0.50 VT
CH13 WSJF1
WHL SPEED SEN-RF
VCA06 0.50 WH/OG
RCA20 0.50 BN
CH1 WSJR1
WSJR2
WHL SPEED SEN-RR
VCA04 0.50 BU/OG
RCA18 0.50 BN/GN
CH6 WSJR1
WHL SPEED SEN-LR
SBB47 5.0 WH/RD
CH-UH2 CH-UH2
BATT JNCT BOX (BJB)
F47-2
FUSE 47 (60A) BATT
CBB53 0.50 GY/BN
CH-UH1 CH-UH1
F53-2
FUSE 53 (10A) IGN
IP-UH1 IP-UH1
STRG WHEEL POS SEN
IP30
IGN
CAN +
CAN -
GND
CBB53 0.35 GY/BN
HSC S1
HSC S2
VDB04 0.35 WH/BU
VDB05 0.35 WH
VDB05 0.50 WH
VDB04 0.50 WH/BU
TO HIGH SPEED CAN BUSS
VDB04 0.50 WH/BU
VDB05 0.50 WH
GD114 0.35 BK/BU
SPLICE SAVER #114
SS114
L
GND
YAW LAT SEN
IP22
D SEN RETURN
C SEN YAW
E SEN LAT ACCEL
B SEN SUPPLY
2088 0.35 LB
2086 0.35 BN/WH
1699 0.35 VT/WH
2087 0.35 DG
GD121 5.0 BK
GD121 2.0 BK
G121
ABS SYSTEM
10-WS12S-028-1

7.2.8.2. ABS System (Part 2)

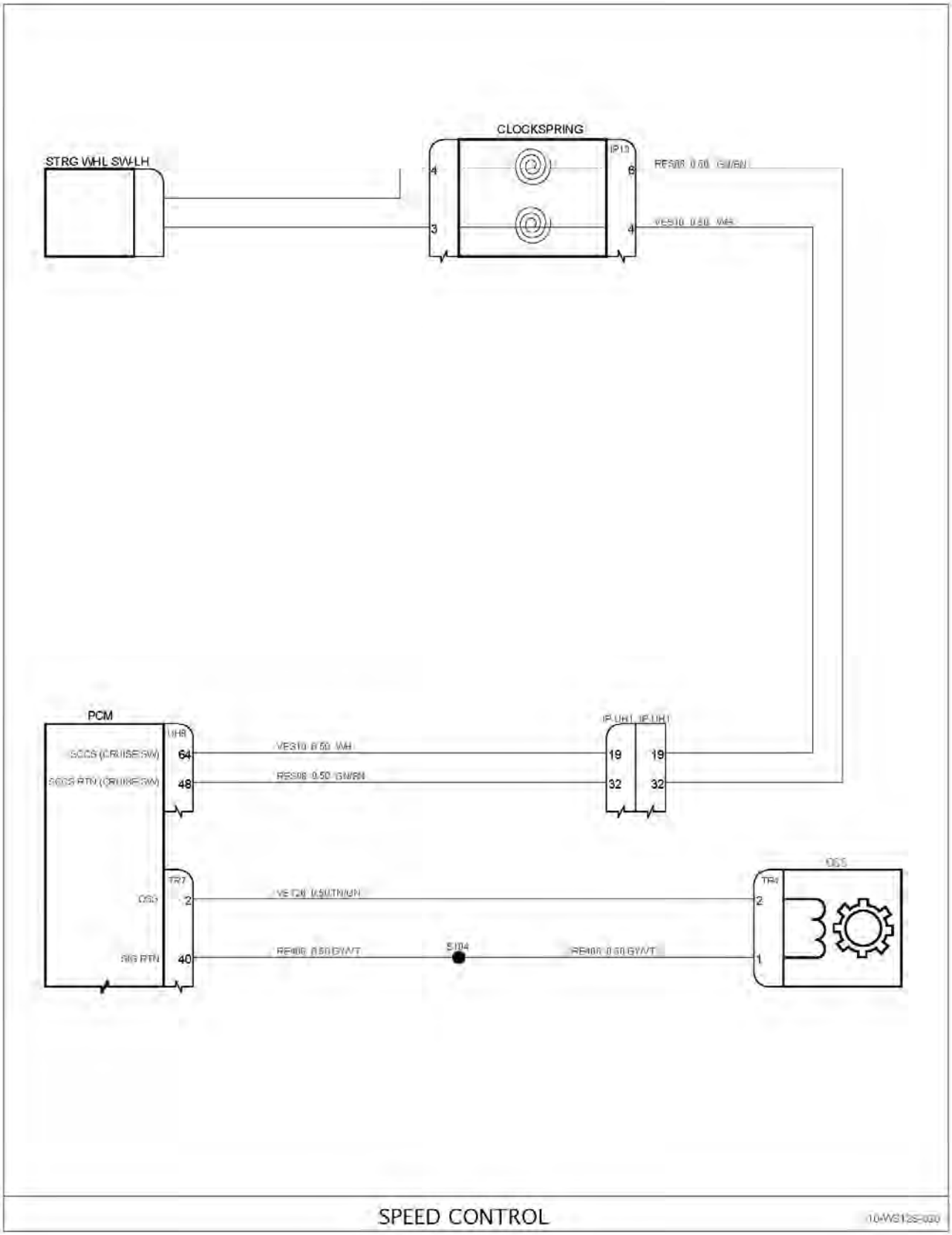


7.2.8.3. Brake Switch Inputs

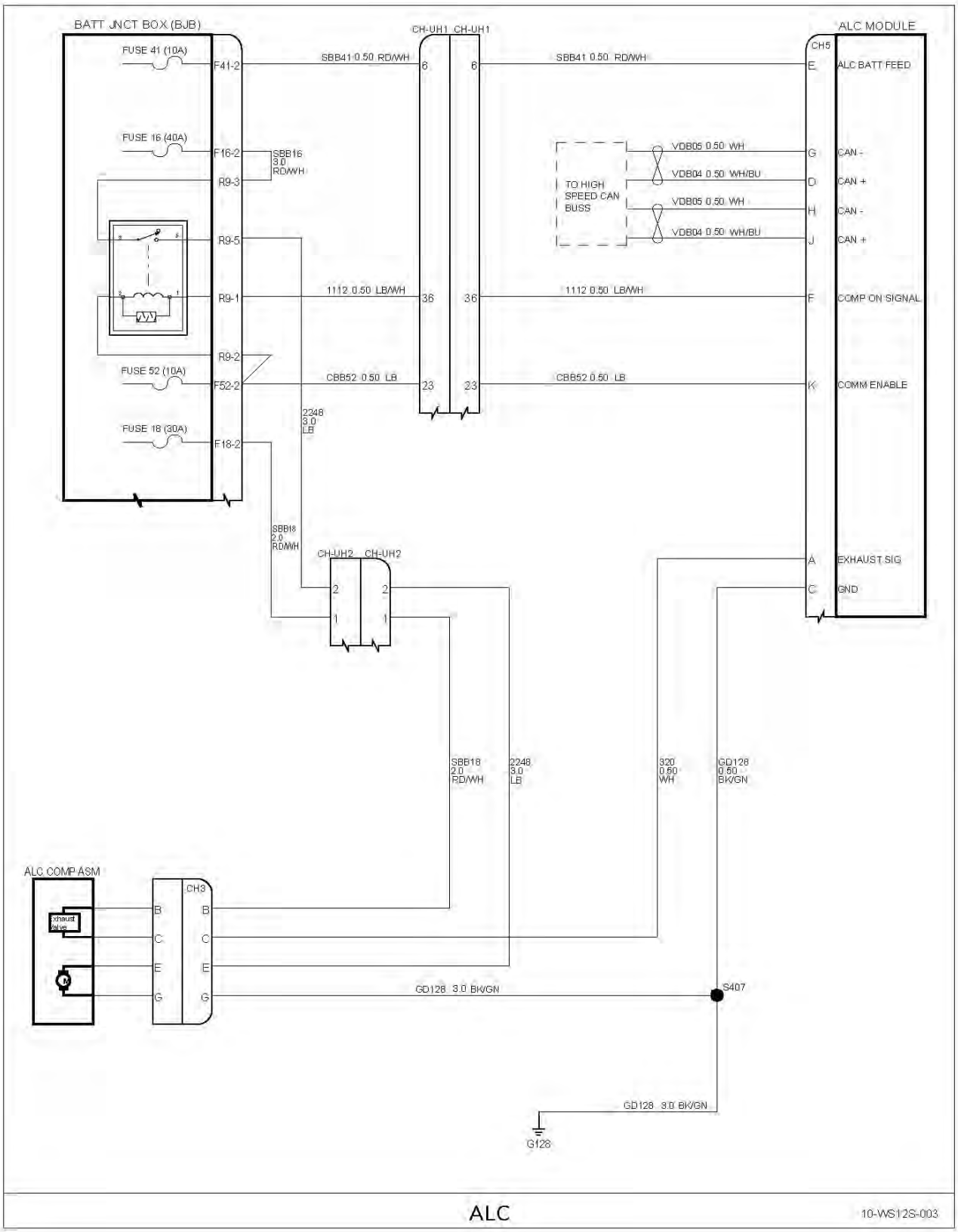


BRAKE SWITCH INPUTS 10-WS12S-024

7.2.8.4. Speed/Cruise Control



7.2.8.5. Automatic Level Control (ALC)



7.2.9. Air Bag System

7.2.9.1. SIR System

