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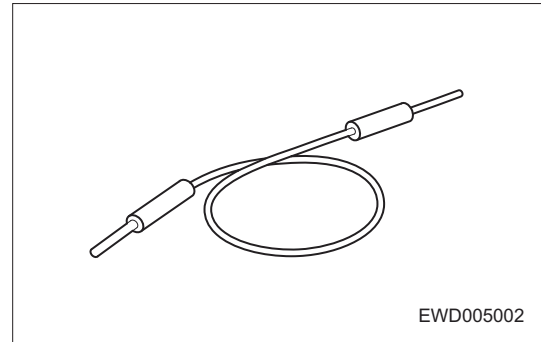
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Troubleshooting

Electrical trouble troubleshooting tool

1. Jumper wire

Jumper wire is used to build temporary circuit. Connect jumper wire to terminals of circuit to bypass switch.



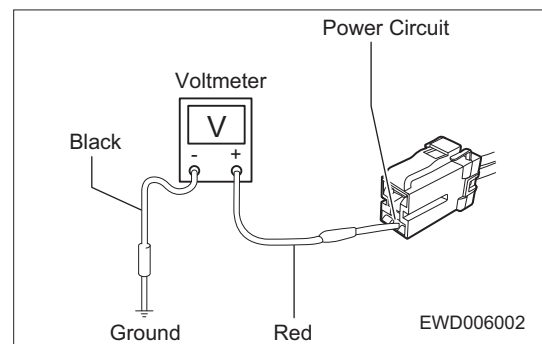
03

WARNING

- Do not connect jumper wire between power source and body grounding otherwise, wire harness or electrical component is damaged.

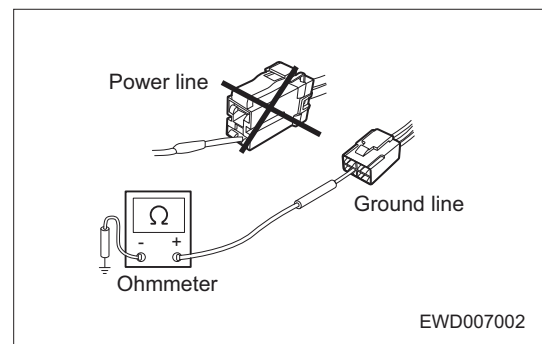
2. Voltmeter

Voltmeter is used to measure circuit voltages. Measurement range should exceed 15 V. Measure voltage by connecting voltmeter positive probe (red) to positive lead of part to be tested, and connecting negative probe (black) to the negative lead or vehicle body ground.



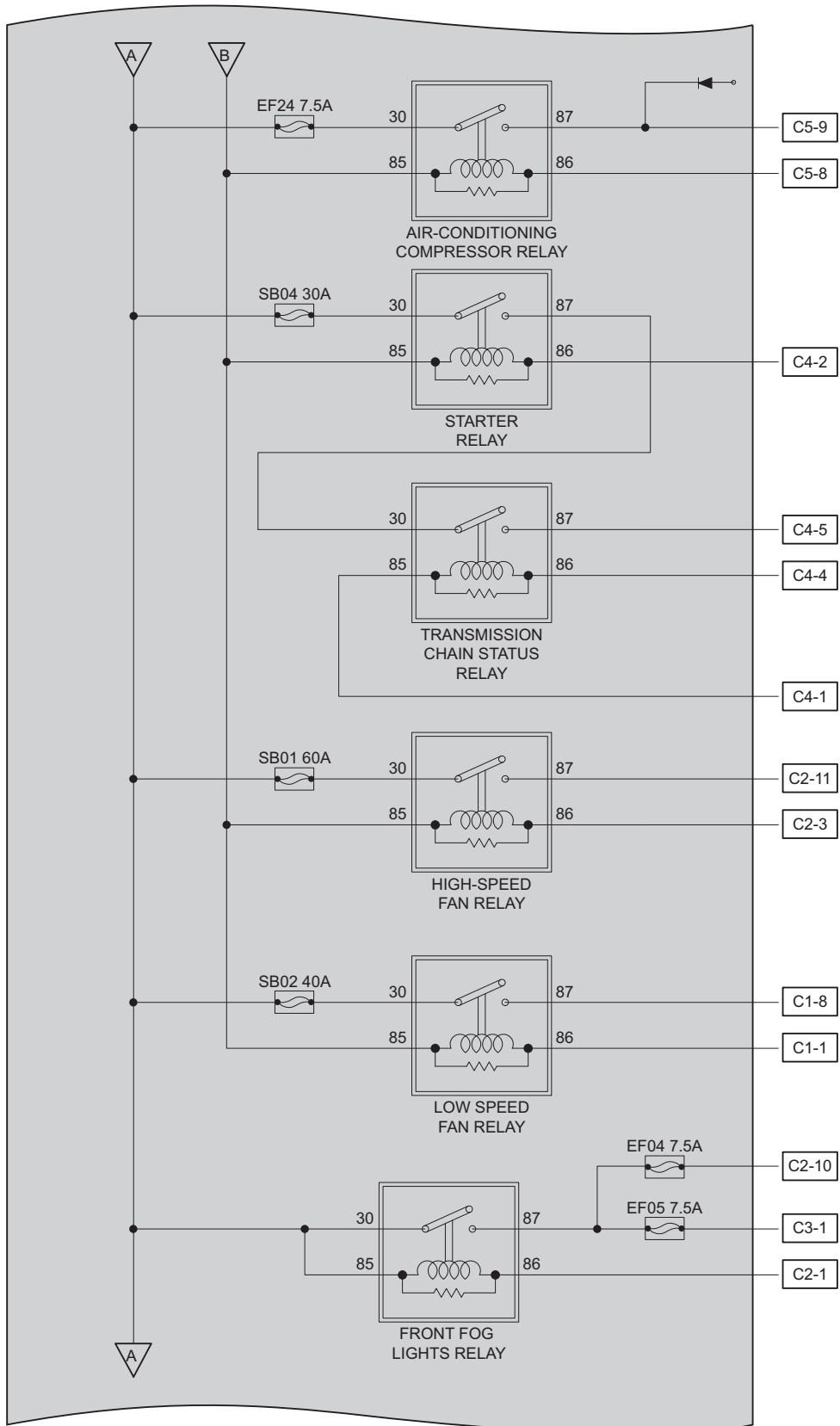
3. Ohmmeter

Ohmmeter is used to measure resistance between two points in a circuit or to check for circuit break or short circuit.


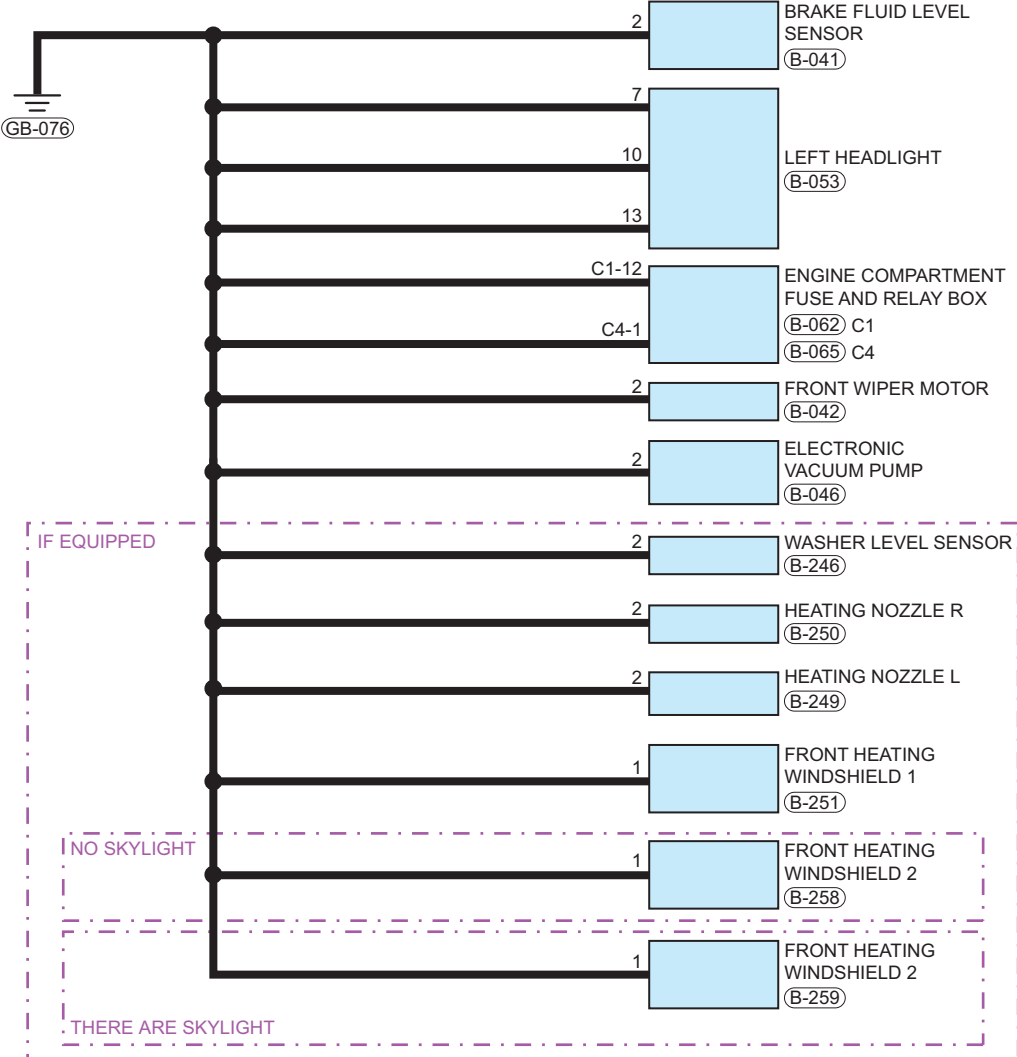


WARNING

- Do not connect an ohmmeter to circuit when applying voltage to the circuit, otherwise, the measurement data may be inaccurate or even the ohmmeter may be damaged.



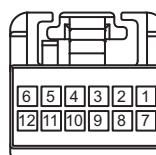
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GROUNDING POSITION	REAL OBJECT GRAPHICS																																										
FRONT LEFT SIDE RAIL																																											
 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Wire Count</th> <th>Component Name</th> <th>Part Number</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>BRAKE FLUID LEVEL SENSOR</td> <td>(B-041)</td> </tr> <tr> <td>7</td> <td rowspan="3">LEFT HEADLIGHT</td> <td>(B-053)</td> </tr> <tr> <td>10</td> <td></td> </tr> <tr> <td>13</td> <td></td> </tr> <tr> <td>C1-12</td> <td rowspan="2">ENGINE COMPARTMENT FUSE AND RELAY BOX</td> <td>(B-062) C1</td> </tr> <tr> <td>C4-1</td> <td>(B-065) C4</td> </tr> <tr> <td>2</td> <td>FRONT WIPER MOTOR</td> <td>(B-042)</td> </tr> <tr> <td>2</td> <td>ELECTRONIC VACUUM PUMP</td> <td>(B-046)</td> </tr> <tr> <td>2</td> <td>WASHER LEVEL SENSOR</td> <td>(B-246)</td> </tr> <tr> <td>2</td> <td>HEATING NOZZLE R</td> <td>(B-250)</td> </tr> <tr> <td>2</td> <td>HEATING NOZZLE L</td> <td>(B-249)</td> </tr> <tr> <td>1</td> <td>FRONT HEATING WINDSHIELD 1</td> <td>(B-251)</td> </tr> <tr> <td>1</td> <td>FRONT HEATING WINDSHIELD 2</td> <td>(B-258)</td> </tr> <tr> <td>1</td> <td>FRONT HEATING WINDSHIELD 2</td> <td>(B-259)</td> </tr> </tbody> </table> <p>IF EQUIPPED</p> <p>NO SKYLIGHT</p> <p>THERE ARE SKYLIGHT</p>		Wire Count	Component Name	Part Number	2	BRAKE FLUID LEVEL SENSOR	(B-041)	7	LEFT HEADLIGHT	(B-053)	10		13		C1-12	ENGINE COMPARTMENT FUSE AND RELAY BOX	(B-062) C1	C4-1	(B-065) C4	2	FRONT WIPER MOTOR	(B-042)	2	ELECTRONIC VACUUM PUMP	(B-046)	2	WASHER LEVEL SENSOR	(B-246)	2	HEATING NOZZLE R	(B-250)	2	HEATING NOZZLE L	(B-249)	1	FRONT HEATING WINDSHIELD 1	(B-251)	1	FRONT HEATING WINDSHIELD 2	(B-258)	1	FRONT HEATING WINDSHIELD 2	(B-259)
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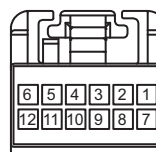
Pin	Definition	Pin	Definition
K20	–	K67	–
K21	Sensor Ground	K68	–
K22	–	K69	Main Relay
K23	–	K70	Starter State Feedback
K24	Brake Switch	K71	Sensor Ground
K25	–	K72	–
K26	Brake Vacuum Pump Relay	K73	Crankshaft Ventilation Heater Relay
K27	–	K74	Canister Desorption Pressure Sensor
K28	–	K75	–
K29	Downstream Oxygen Sensor Heater	K76	Upstream Oxygen Virtual Ground Voltage
K30	Continuous Power Supply	K77	Upstream Oxygen Feedback Voltage
K31	Starter Motor Relay	K78	Upstream Oxygen Correction Resistor
K32	GPF Sensor Ground	K79	Upstream Oxygen Control Signal
K33	–	K80	Pedal 1 Ground
K34	Oxygen Sensor Ground	K81	Pedal 5V Power Supply 2
K35	–	K82	Pedal 5 V Power Supply 1
K36	GPF Front Temperature Sensor	K83	Accelerator Pedal Position Sensor 1
K37	Tank Pressure Sensor	K84	–
K38	–	K85	–
K39	Fan Relay 1 (Low Speed)	K86	–
K40	Fuel Level Sensor	K87	Ignition Switch
K41	–	K88	–
K42	Fan Relay 2 (High Speed)	K89	–
K43	–	K90	–
K44	CAN Low for Refreshing and Body	K91	–
K45	CAN High for Refreshing and Body	K92	–
K46	–	K93	–
K47	–	K94	–

Domain Controller (Audio Unit C) Terminal Definition



Pin	Definition	Pin	Definition
1	Entertainment Information CAN H	7	Entertainment Information CAN L
2	Ignition Signal	8	-
3	Left MIC- Signal	9	Left MIC+ Signal
4	Right MIC+ Signal	10	Right MIC- Signal
5	-	11	-
6	-	12	-

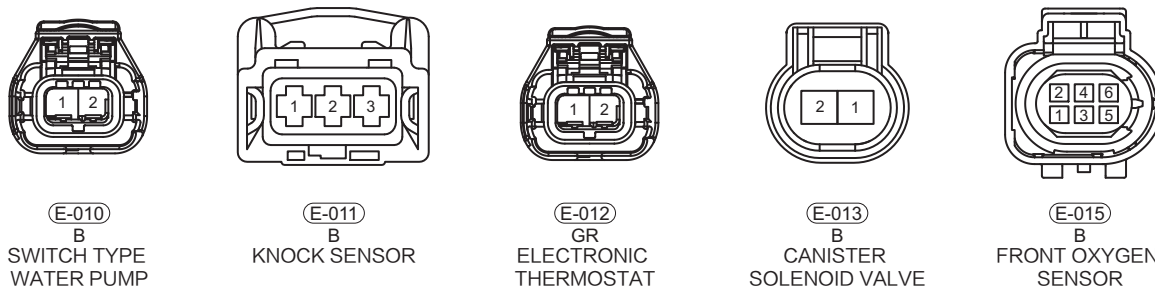
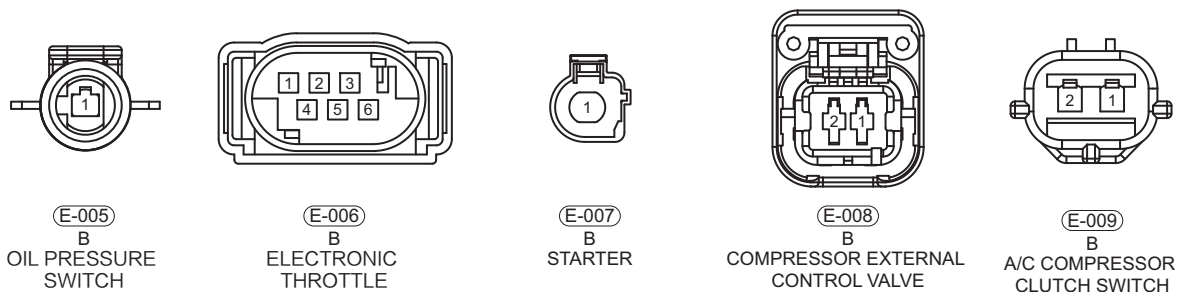
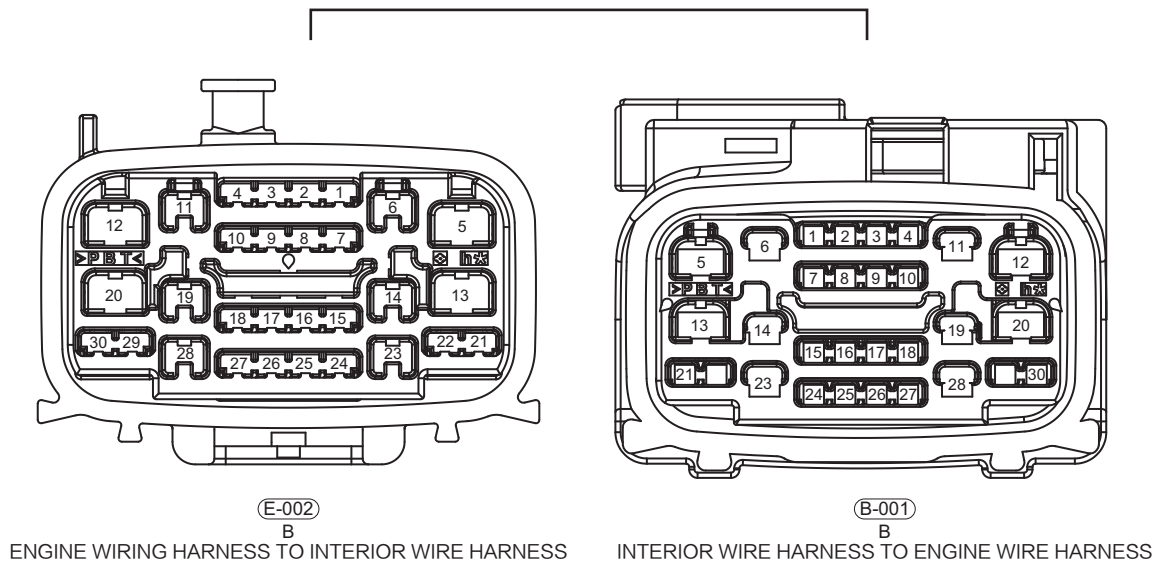
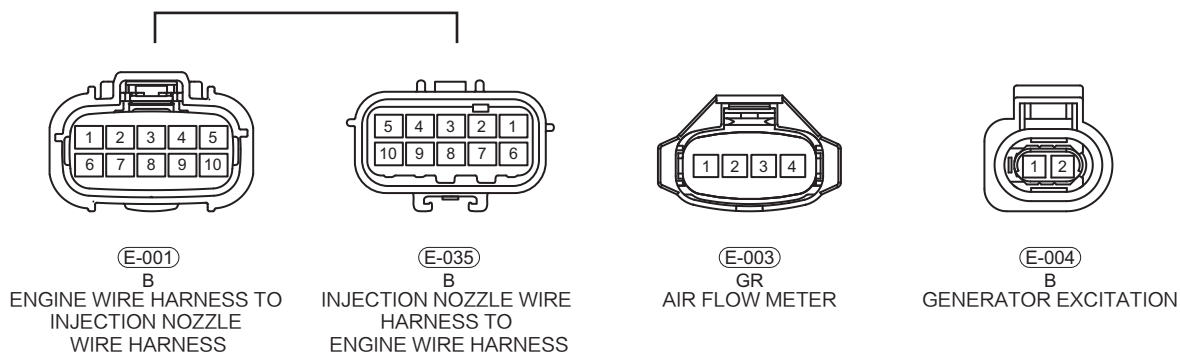
Domain Controller (Audio Unit D) Terminal Definition



09

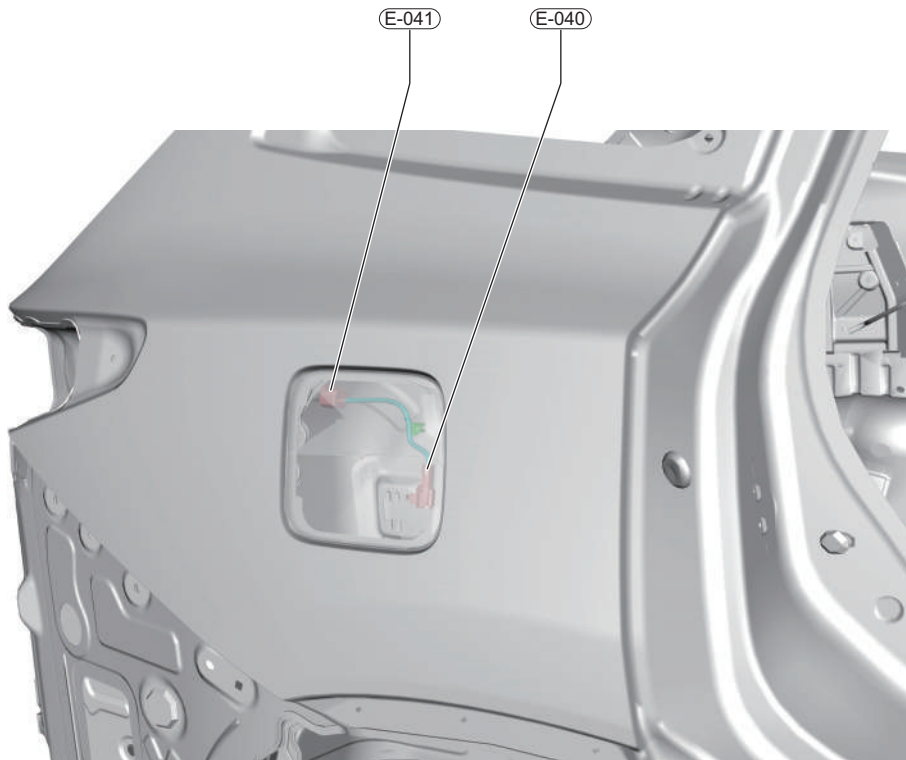
Pin	Definition	Pin	Definition
1	T-BOX Audio Right Channel	7	T-BOX Audio Left Channel
2	T-BOX Audio Common End Ground	8	-
3	T-BOX Mute Cable Input	9	-
4	-	10	-
5	-	11	-
6	-	12	-

Engine wire harness connector list



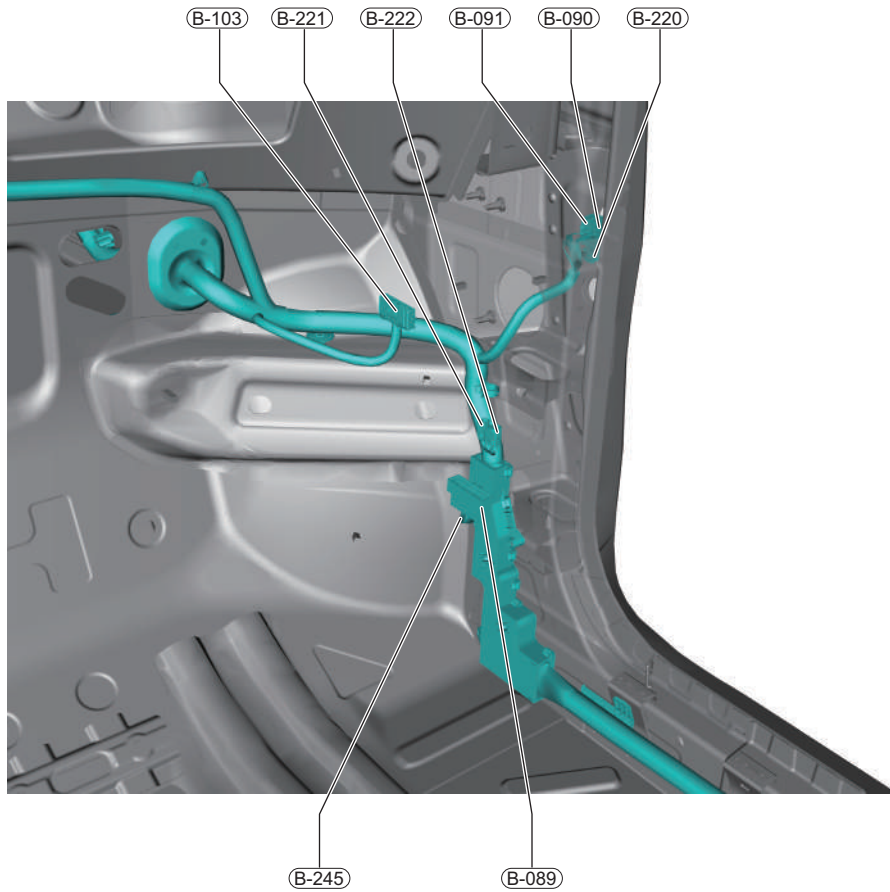
EPU001001

Charcoal canister wire harness



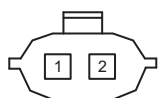
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Connector No.	Connector Color/Pin	Connector Name
E-040	B/2	Charcoal Canister Wire Harness to Interior Wire Harness
E-041	B/2	Canister vent valve

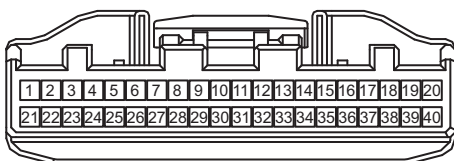


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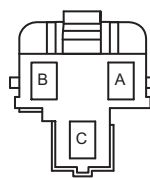
Connector No.	Connector Color/Pin	Connector Name
B-089	W/26	Interior Wire Harness to Instrument Panel Wire Harness
B-090	W/20	Interior Wire Harness to Front Right Door Wire Harness 1
B-091	W/26	Interior Wire Harness to Front Right Door Wire Harness 2
B-103	W/40	Keyless Entry Start Module
B-220	/1	Interior Wire Harness to Front Right Door Wire Harness (Panoramic Camera)
B-221	/1	Interior Wire Harness to Instrument Panel Wire Harness (Radio Antenna)
B-222	/1	Interior Wire Harness to Instrument Panel Wire Harness (Panoramic Controller)
B-245	B/40	Interior Wire Harness to Instrument Panel Wire Harness



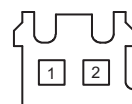
(B-235)
B
LOW FREQUENCY ANTENNA -1



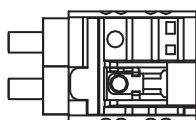
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W
REMOTE COMMUNICATION GATEWAY-A



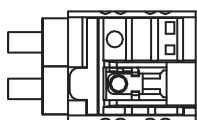
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CIGARETTE LIGHTER



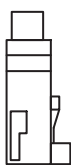
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USB CHARGING MODULE



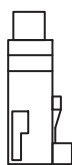
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RADIO ANTENNA/ GPS ANTENNA



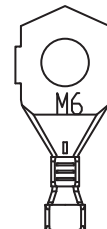
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4G ANTENNA



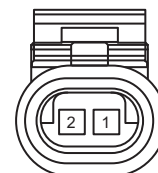
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INTERIOR WIRE HARNESS TO BACK DOOR WIRE HARNESS (PANORAMIC CAMERA)



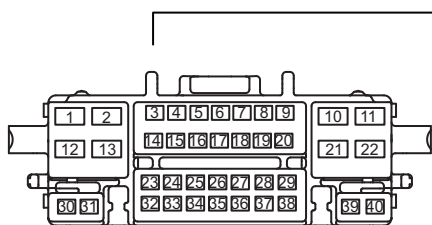
(B-244)
INTERIOR WIRE HARNESS TO FRONT BUMPER WIRE HARNESS (PANORAMIC CAMERA)



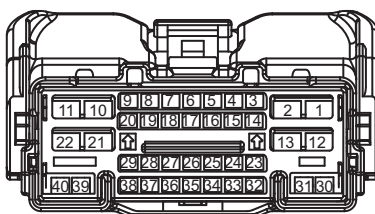
(GB-243)
GROUND POINT G2.16



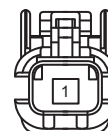
(B-246)
B
WASHER LEVEL SENSOR



(B-245)
B
INTERIOR WIRE HARNESS TO INSTRUMENT PANEL WIRE HARNESS



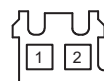
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B
INSTRUMENT PANEL WIRE HARNESS TO INTERIOR WIRE HARNESS



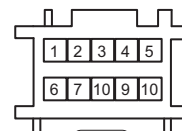
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B
FRONT HEATING WINDSHIELD 1



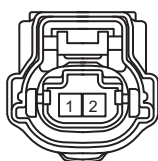
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B
FRONT HEATING WINDSHIELD 2



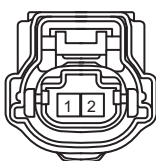
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B
MICROPHONE LH



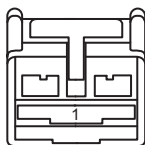
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W
ROOF CONSOLE UNIT



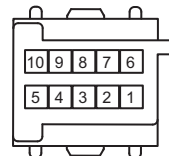
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B
HEATING NOZZLE L



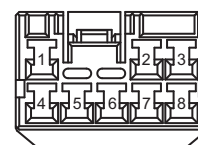
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B
HEATING NOZZLE R



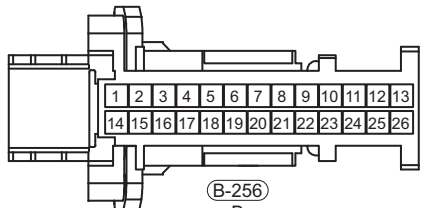
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B
FRONT HEATING WINDSHIELD 1 GND



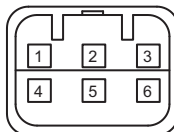
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B
REAR SEAT HEATING SWITCH



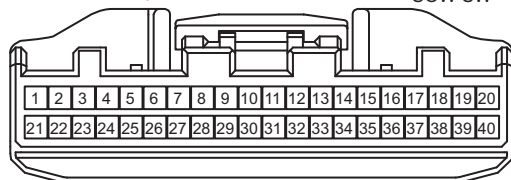
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B
REAR SEAT HEATING INTERFACE



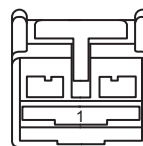
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B
PDC



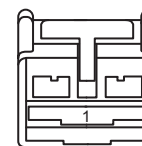
(B-257)
W
SOW SW



(B-260)
W
GLONASS



(B-258)
B
FRONT HEATING WINDSHIELD 2 GND



(B-259)
B
FRONT HEATING WINDSHIELD 2 GND

10

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Passive Entry Passive Start System (PEPS)

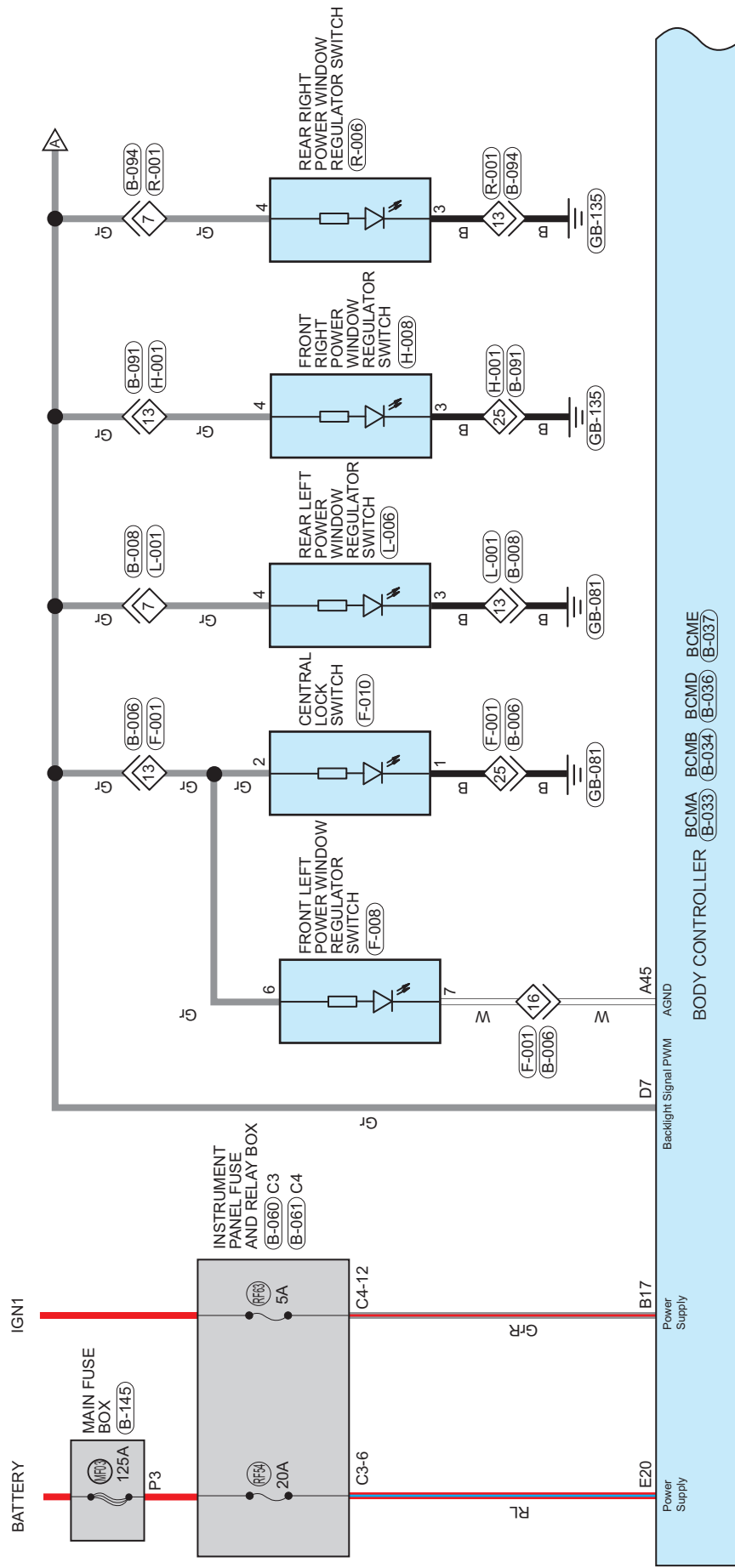
Wire Harness Connector	Appellation	Page Number
B-001	Interior Wire Harness to Engine Wire Harness	10-37
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B-006	Interior Wire Harness to Front Left Door Wire Harness 2	10-37
B-009	Interior Wire Harness to Back Door Wire Harness 1	10-38
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B-040	ESC	10-40
B-058	Instrument Panel Fuse Box - 1	10-41
B-061	Instrument Panel Fuse Box - 4	10-41
B-064	Engine Compartment Fuse Box - 3	10-41

Wire Harness Connector	Appellation	Page Number
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B-066	Engine Compartment Fuse Box - 5	10-41
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B-090	Interior Wire Harness to Front Right Door Wire Harness 1	10-42
B-091	Interior Wire Harness to Front Right Door Wire Harness 2	10-42
B-095	Interior Wire Harness to Rear Bumper Wire Harness	10-43
B-096	ECU-K	10-43
B-103	PEPS Module	10-43
B-109	Low Frequency Antenna - 2	10-44
B-118	Brake Switch	10-44
B-143	Interior Wire Harness to Back Door Wire Harness 2	10-45

Electric Power Steering System (EPS)

Wire Harness Connector	Appellation	Page Number
B-013	EPS-B	10-38
B-014	EPS-A	10-38
B-061	Instrument Panel Fuse Box - 4	10-41
GB-079	Ground	10-41

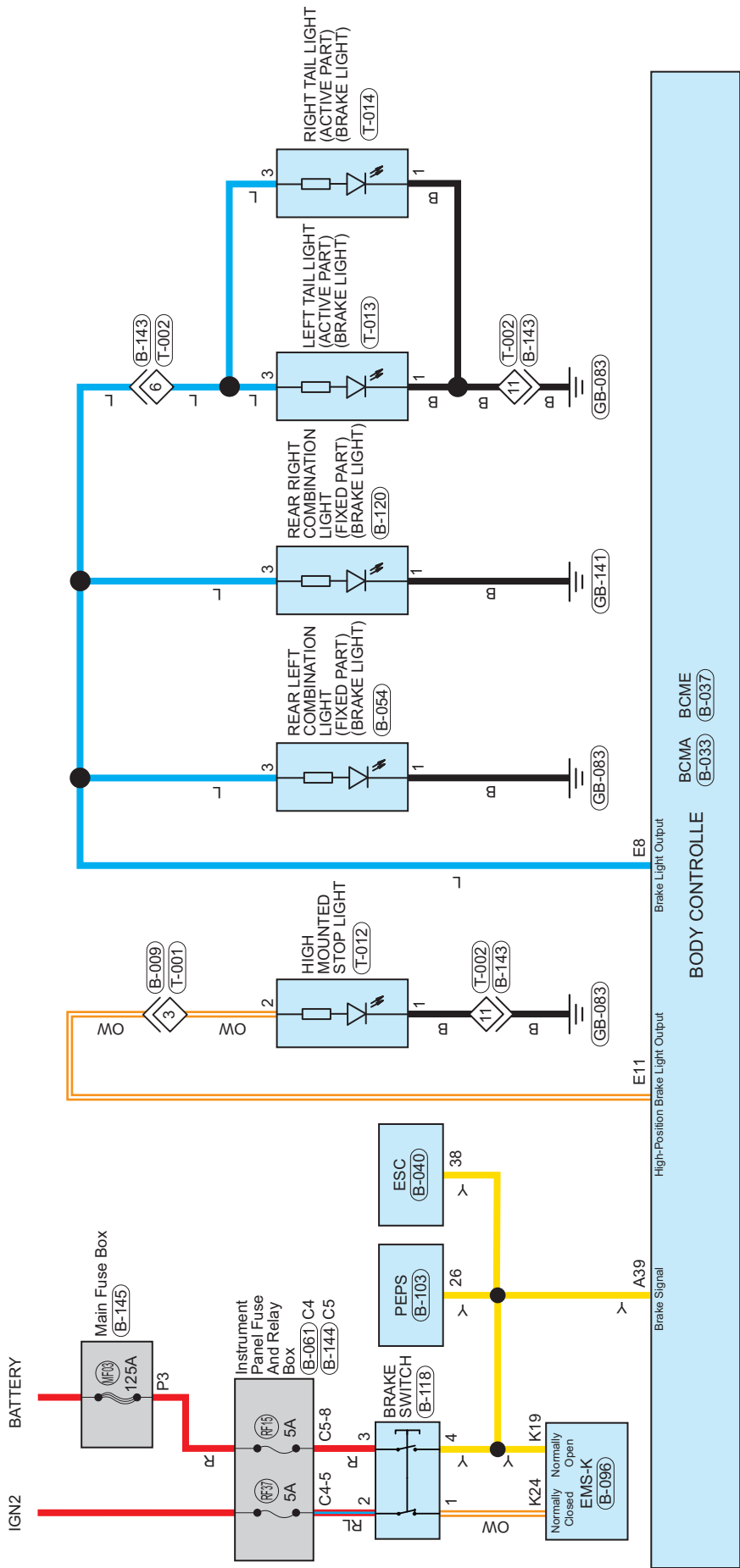
Backlight



EWD031001



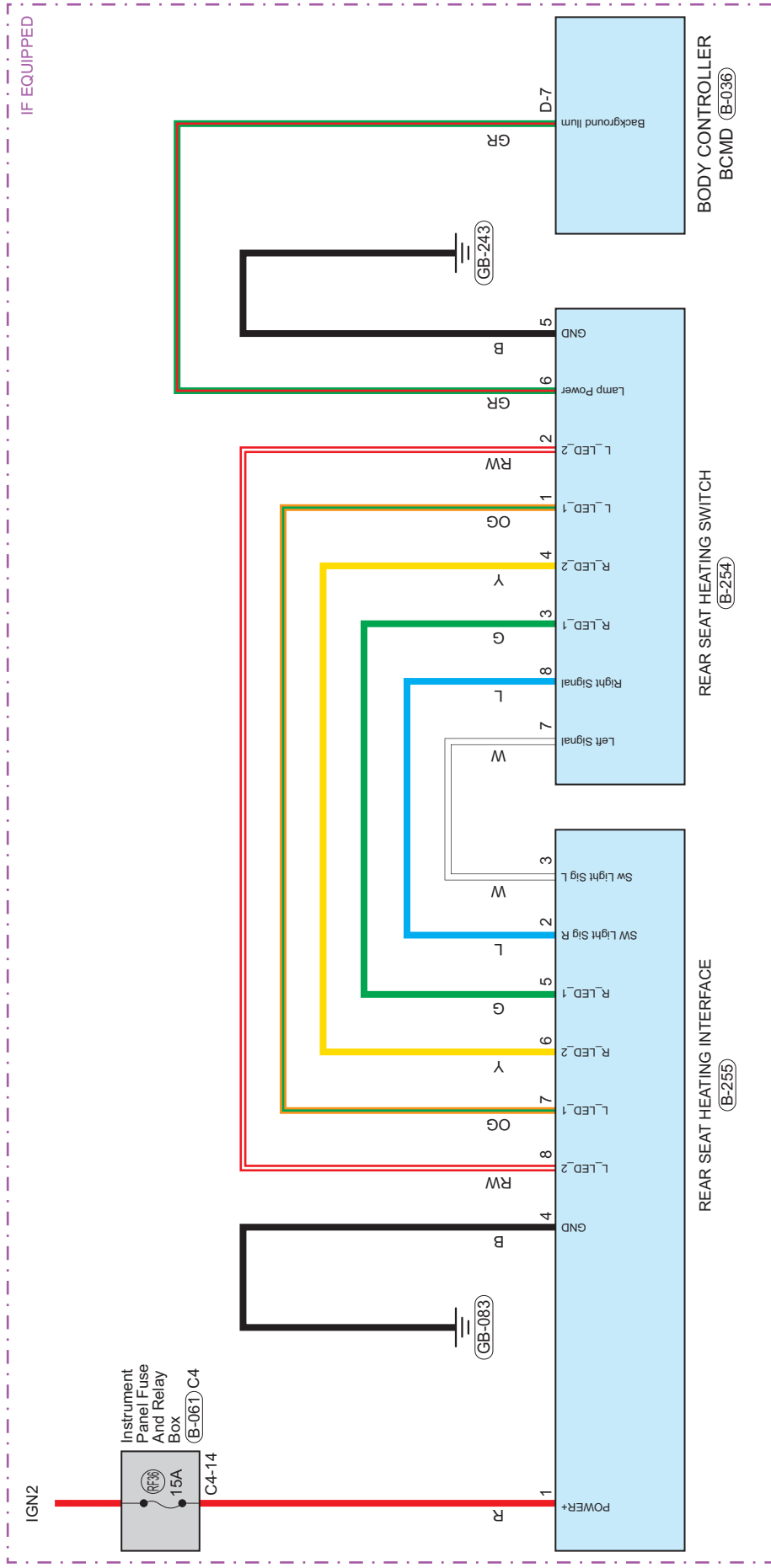
Brake Light



EWD037001



Rear Seat Heating



EWD079002

