WIRING DIAGRAMS

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8W-01 GENERAL INFORMATION

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DESCRIPTION AND OPERATION

HOW TO USE THIS GROUP

The purpose of this group is to show the electrical circuits in a clear, simple fashion and to make troubleshooting easier. Components that work together are shown together. All electrical components used in a specific system are shown on one diagram. The feed for a system is shown at the top of the page. All wires, connectors, splices, and components are shown in the flow of current to the bottom of the page. Wiring which is not part of the circuit represented is referenced to another page/section, where the complete circuit is shown. In addition, all switches, components, and modules are shown in the **at rest position with the doors closed and the key removed from the ignition.**

If a component is part of several different circuits, it is shown in the diagram for each. For example, the headlamp switch is the main part of the exterior lighting, but it also affects the interior lighting and the chime warning system. **It is important to realize that no attempt is made on the diagrams to represent components and wiring as they appear on the vehicle. For example, a short piece of wire is treated the same as a long one. In addition, switches and other components are shown as simply as possible, with regard to function only.**

SECTION IDENTIFICATION

Sections in Group 8W are organized by sub-systems. The sections contain circuit operation descriptions, helpful information, and system diagrams. The intention is to organize information by system, consistently from year to year.

CONNECTOR/GROUND LOCATIONS

Section 8W-90 contains connector/ground location illustrations. The illustrations contain the connector name (or number)/ground number and component identification. Connector/ground location charts in Section 8W-90 reference the illustration number for components and connectors.

Section 8W-80 shows each connector and the circuits involved with that connector. The connectors are identified using the name/number on the Diagram pages.

SPLICE LOCATIONS

Splice Location charts in Section 8W-70 show the entire splice, and provide references to other sections the splice serves.

Section 8W-95 contains illustrations that show the general location of the splices in each harness. The illustrations show the splice by number, and provide a written location.

DESCRIPTION AND OPERATION (Continued)

NOTES, CAUTIONS, and WARNINGS

Throughout this group additional important information is presented in three ways; Notes, Cautions, and Warnings.

NOTES are used to help describe how switches or components operate to complete a particular circuit. They are also used to indicate different conditions that may appear on the vehicle. For example, an up-to and after condition.

CAUTIONS are used to indicate information that could prevent making an error that may damage the vehicle.

WARNINGS provide information to prevent personal injury and vehicle damage. Below is a list of general warnings that should be followed any time a vehicle is being serviced.

WARNING: ALWAYS WEAR SAFETY GLASSES FOR EYE PROTECTION.

WARNING: USE SAFETY STANDS ANYTIME A PROCEDURE REQUIRES BEING UNDER A VEHICLE.

WARNING: BE SURE THAT THE IGNITION SWITCH ALWAYS IS IN THE OFF POSITION, UNLESS THE PROCEDURE REQUIRES IT TO BE ON.

WARNING: SET THE PARKING BRAKE WHEN WORKING ON ANY VEHICLE. AN AUTOMATIC TRANSMISSION SHOULD BE IN PARK. A MANUAL TRANSMISSION SHOULD BE IN NEUTRAL.

WARNING: OPERATE THE ENGINE ONLY IN A WELL-VENTILATED AREA.

WARNING: KEEP AWAY FROM MOVING PARTS WHEN THE ENGINE IS RUNNING, ESPECIALLY THE FAN AND BELTS.

WARNING: TO PREVENT SERIOUS BURNS, AVOID CONTACT WITH HOT PARTS SUCH AS THE RADIATOR, EXHAUST MANIFOLD(S), TAIL PIPE, CATALYTIC CONVERTER, AND MUFFLER.

WARNING: DO NOT ALLOW FLAME OR SPARKS NEAR THE BATTERY. GASES ARE ALWAYS PRESENT IN AND AROUND THE BATTERY.

WARNING: ALWAYS REMOVE RINGS, WATCHES, LOOSE HANGING JEWELRY, AND LOOSE CLOTHING.

WIRE CODE IDENTIFICATION

Each wire shown in the diagrams contains a code (Fig. 1) which identifies the main circuit, part of the main circuit, gauge of wire, and color. The color is shown as a two letter code which can be identified by referring to the Wire Color Code Chart (Fig. 2)

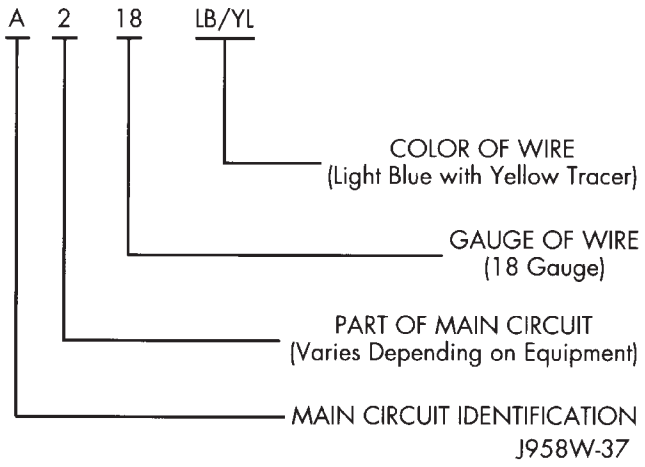


Fig. 1 Wire Code Identification

COLOR CODE	COLOR	STANDARD TRACER COLOR	COLOR CODE	COLOR	STANDARD TRACER CODE
BL	BLUE	WT	OR	ORANGE	BK
BK	BLACK	WT	PK	PINK	BK OR WT
BR	BROWN	WT	RD	RED	WT
DB	DARK BLUE	WT	TN	TAN	WT
DG	DARK GREEN	WT	VT	VIOLET	WT
GY	GRAY	BK	WT	WHITE	BK
LB	LIGHT BLUE	BK	YL	YELLOW	BK
LG	LIGHT GREEN	BK	*	WITH TRACER	

918W-136

Fig. 2 Wire Color Code Chart

DESCRIPTION AND OPERATION (Continued)

CIRCUIT IDENTIFICATION

All circuits in the diagrams use an alpha/numeric code to identify the wire and its function (Fig. 3). To identify which circuit code applies to a system, refer to the Circuit Identification Code Chart. This chart shows the main circuits only and does not show the secondary codes that may apply to some models.

CIRCUIT	FUNCTION
A	Battery Feed
B	Brake Controls
C	Climate Controls
D	Diagnostic Circuits
E	Dimming Illumination Circuits
F	Fused Circuits (Secondary Feed)
G	Monitoring Circuits (Gauges)
H	Open
I	Not Used
J	Open
K	Powertrain Control Module
L	Exterior Lighting
M	Interior Lighting
N	ESA Module
O	Not Used
P	Power Option (Battery Feed)
Q	Power Options (Battery Feed)
R	Passive Restraint
S	Suspension/Steering
T	Transmission/Transaxle/Transfer Case
U	Open
V	Speed Control, Washer/Wiper
W	Open
X	Audio Systems
Y	Open
Z	Grounds

948W-190

Fig. 3 Circuit Identification

CONNECTORS

Connectors shown in the diagrams are identified using the international standard arrows for male and female terminals (Fig. 4). A connector identifier is placed next to the arrows to indicate the connector number (Fig. 4).

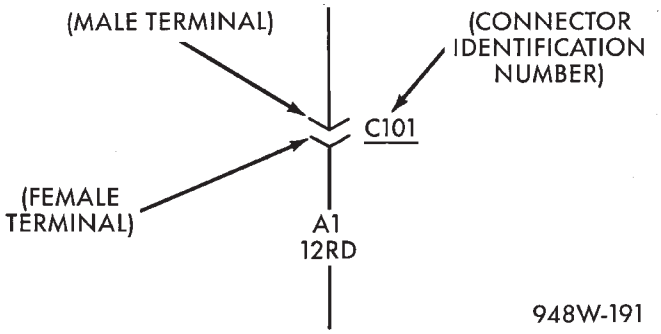


Fig. 4 Connector Identification

For viewing connector pin outs, with two terminals or greater, refer to section 8W-80. This section identifies in-line connectors by number, and component connectors by name. If a component has two or more connectors they will be identified as C1, C2, C3...etc. This sections also provides terminal numbering, circuit identification, wire colors, and functions.

All connectors are viewed from the terminal end unless otherwise specified. To find the connector location in the vehicle refer to section 8W-90. This section uses the connector identification number from the wiring diagrams to provide a figure number reference.

TAKE OUTS

The abbreviation T/O is used in the component location section to indicate a point in which the wiring harness branches out to a component.

SYMBOLS

Various symbols are used throughout the Wiring Diagrams. These symbols can be identified by referring to the symbol identification chart (Fig. 5).

DESCRIPTION AND OPERATION (Continued)

LEGEND OF SYMBOLS USED ON WIRING DIAGRAMS			
+	POSITIVE		BY-DIRECTIONAL ZENER DIODE
–	NEGATIVE		MOTOR
	GROUND		ARMATURE AND BRUSHES
	FUSE	C100	CONNECTOR IDENTIFICATION
	GANG FUSES WITH BUSS BAR		MALE CONNECTOR
	CIRCUIT BREAKER		FEMALE CONNECTOR
	CAPACITOR		DENOTES WIRE CONTINUES ELSEWHERE
Ω	OHMS		DENOTES WIRE GOES TO ONE OF TWO CIRCUITS
	RESISTOR		SPLICE
	VARIABLE RESISTOR	S100	SPLICE IDENTIFICATION
	SERIES RESISTOR		THERMAL ELEMENT
	COIL	TIMER	TIMER
	STEP UP COIL		MULTIPLE CONNECTOR
	OPEN CONTACT		OPTIONAL WIRING WITH / WIRING WITHOUT
	CLOSED CONTACT		"Y" WINDINGS
	CLOSED SWITCH	88:88	DIGITAL READOUT
	OPEN SWITCH		SINGLE FILAMENT LAMP
	CLOSED GANGED SWITCH		DUAL FILAMENT LAMP
	OPEN GANGED SWITCH		L.E.D. — LIGHT EMITTING DIODE
	TWO POLE SINGLE THROW SWITCH		THERMISTOR
	PRESSURE SWITCH		GAUGE
	SOLENOID SWITCH		SENSOR
	MERCURY SWITCH		FUEL INJECTOR
	DIODE OR RECTIFIER		948W-192

Fig. 5 Symbol Identification

DESCRIPTION AND OPERATION (Continued)

ELECTROSTATIC DISCHARGE (ESD) SENSITIVE DEVICES

All ESD sensitive components are solid state and a symbol (Fig. 6) is used to indicate this. When handling any component with this symbol comply with the following procedures to reduce the possibility of electrostatic charge build up on the body and inadvertent discharge into the component. If it is not known whether the part is ESD sensitive, assume that it is.

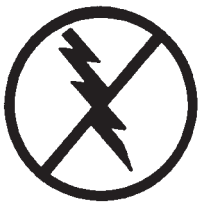
(1) Always touch a known good ground before handling the part. This should be repeated while handling the part and more frequently after sliding across a seat, sitting down from a standing position, or walking a distance.

(2) Avoid touching electrical terminals of the part, unless instructed to do so by a written procedure.

(3) When using a voltmeter, be sure to connect the ground lead first.

(4) Do not remove the part from its protective packing until it is time to install the part.

(5) Before removing the part from its package, ground the package to a known good ground on the vehicle.



948W-193

Fig. 6 Electrostatic Discharge Symbol

FASTENERS

CAUTION: At no time when servicing a vehicle, can a sheet metal screw, bolt, or other metal fastener be installed in the strut tower to take the place of an original plastic clip. Also, NO holes can be drilled into the front strut tower in the area shown in (Fig. 7) for the installation of any metal fasteners into the strut tower. Because of the minimum clearance in this area (Fig. 7) installation of metal fasteners could damage the coil spring coating and lead to a corrosion failure of the spring. If a plastic clip is missing, or is lost or broken during servicing a vehicle, replace only with the equivalent part listed in the parts catalog.

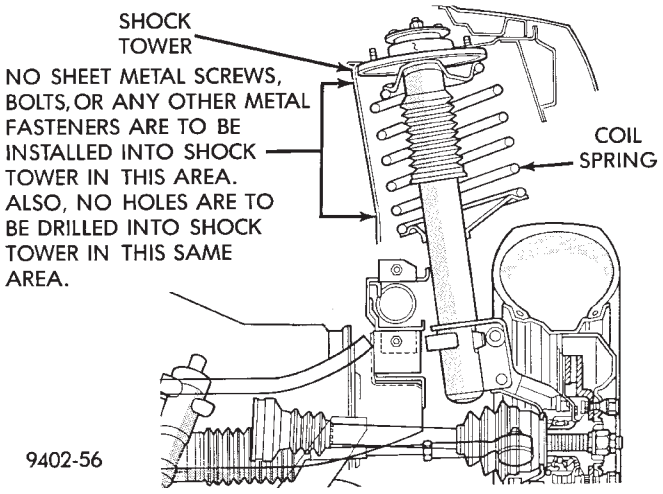
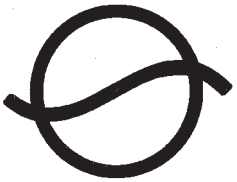


Fig. 7 Shock Tower to Spring Minimum Clearance Area

POSITIVE TEMPERATURE COEFFICIENT

Positive Temperature Coefficient (PTC) devices are being used for circuit protection. These PTC's act like a solid state fuse. They are located in the junction block, and are used to protect such items as: power door lock motors, power windows, and various engine solenoids.

A special symbol is used to identify these in the wiring diagrams (Fig. 8).



958W-30

Fig. 8 Positive Temperature Coefficient Symbol

DIAGNOSIS AND TESTING

TROUBLESHOOTING TOOLS

When diagnosing a problem in an electrical circuit there are several common tools necessary. These tools are listed and explained below.

- Jumper Wire - This is a test wire used to connect two points of a circuit. It can be used to bypass an open in a circuit.

WARNING: NEVER USE A JUMPER WIRE ACROSS A LOAD, SUCH AS A MOTOR, CONNECTED BETWEEN A BATTERY FEED AND GROUND.

DIAGNOSIS AND TESTING (Continued)

• Voltmeter - Used to check for voltage on a circuit. Always connect the black lead to a known good ground and the red lead to the positive side of the circuit.

CAUTION: Most of the electrical components used in today's vehicle are solid state. When checking voltages in these circuits use a meter with a 10-megohm or greater impedance.

• Ohmmeter - Used to check the resistance between two points of a circuit. Low or no resistance in a circuit means good continuity.

CAUTION: - Most of the electrical components used in today's vehicle are Solid State. When checking resistance in these circuits use a meter with a 10-megohm or greater impedance. In addition, make sure the power is disconnected from the circuit. Circuits that are powered up by the vehicle electrical system can cause damage to the equipment and provide false readings.

• Probing Tools - These tools are used for probing terminals in connectors (Fig. 9). Select the proper size tool from Special Tool Package 6807, and insert it into the terminal being tested. Use the other end of the tool to insert the meter probe.

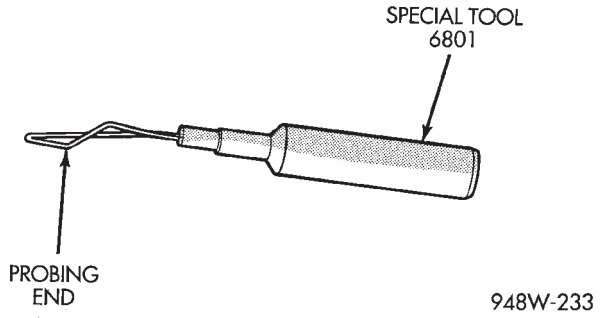


Fig. 9 Probing Tool

INTERMITTENT AND POOR CONNECTIONS

Most intermittent electrical problems are caused by faulty electrical connections or wiring. It is also possible for a sticking component or relay to cause a problem. Before condemning a component or wiring assembly check the following items.

- Connectors are fully seated
- Spread terminals, or terminal push out
- Terminals in the wiring assembly are fully seated into the connector/component and locked in position
- Dirt or corrosion on the terminals. Any amount of corrosion or dirt could cause an intermittent problem
- Damaged connector/component casing exposing the item to dirt and moisture
- Wire insulation that has rubbed through causing a short to ground
- Wiring broke inside of the insulation

CHECKING FOR TERMINAL SPREADING

When an intermittent or open circuit is suspected it is important to check for a spread terminal. To accomplish this remove the suspect female terminal from its connector.

Check the female terminal for drag when mated with the appropriate male terminal. If the terminal is spread (no or little drag felt) replace the terminal using the procedures covered in this section of the wiring diagrams.

TROUBLESHOOTING TESTS

Before beginning any tests on a vehicles electrical system use the Wiring Diagrams and study the circuit. Also refer to the Troubleshooting Wiring Problems section in this section.

TESTING FOR VOLTAGE

(1) Connect the ground lead of a voltmeter to a known good ground (Fig. 10).

(2) Connect the other lead of the voltmeter to the selected test point. The vehicle ignition may need to be turned ON to check voltage. Refer to the appropriate test procedure.

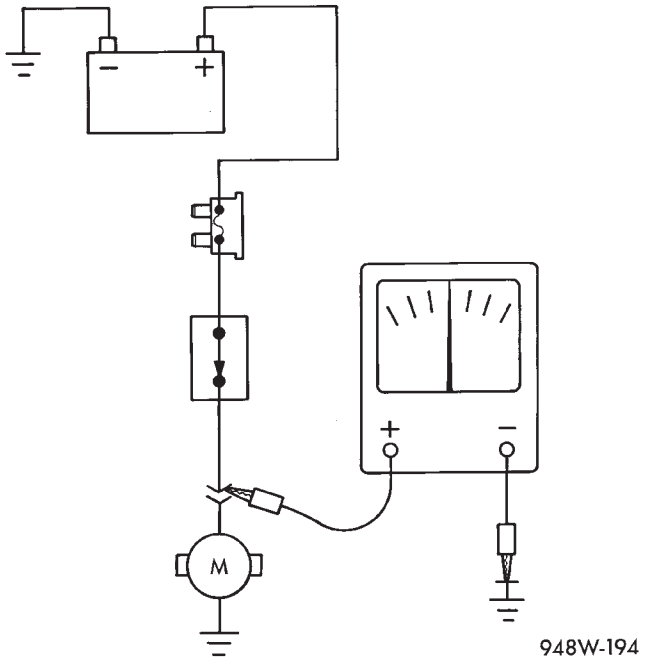


Fig. 10 Testing for Voltage

TESTING FOR CONTINUITY

(1) Remove the fuse for the circuit being checked or, disconnect the battery.

(2) Connect one lead of the ohmmeter to one side of the circuit being tested (Fig. 11).

DIAGNOSIS AND TESTING (Continued)

(3) Connect the other lead to the other end of the circuit being tested. Low or no resistance means good continuity.

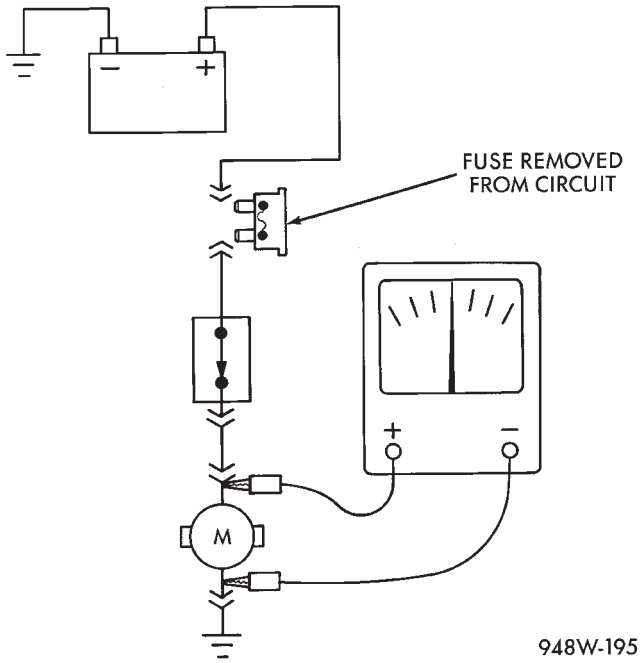


Fig. 11 Testing for Continuity

TESTING FOR A SHORT TO GROUND

(1) Remove the fuse and disconnect all items involved with the fuse.

(2) Connect a test light or a voltmeter across the terminals of the fuse.

(3) Starting at the fuse block, wiggle the wiring harness about six to eight inches apart and watch the voltmeter/test lamp.

(4) If the voltmeter registers voltage or the test lamp glows, there is a short to ground in that general area of the wiring harness.

TESTING FOR A SHORT TO GROUND ON FUSES POWERING SEVERAL LOADS

(1) Refer to the wiring diagrams and disconnect or isolate all items on the fused circuit.

(2) Replace the blown fuse.

(3) Supply power to the fuse by turning ON the ignition switch or re-connecting the battery.

(4) Start connecting the items in the fuse circuit one at a time. When the fuse blows the circuit with the short to ground has been isolated.

TESTING FOR A VOLTAGE DROP

(1) Connect the positive lead of the voltmeter to the side of the circuit closest to the battery (Fig. 12).

(2) Connect the other lead of the voltmeter to the other side of the switch or component.

(3) Operate the item.

(4) The voltmeter will show the difference in voltage between the two points.

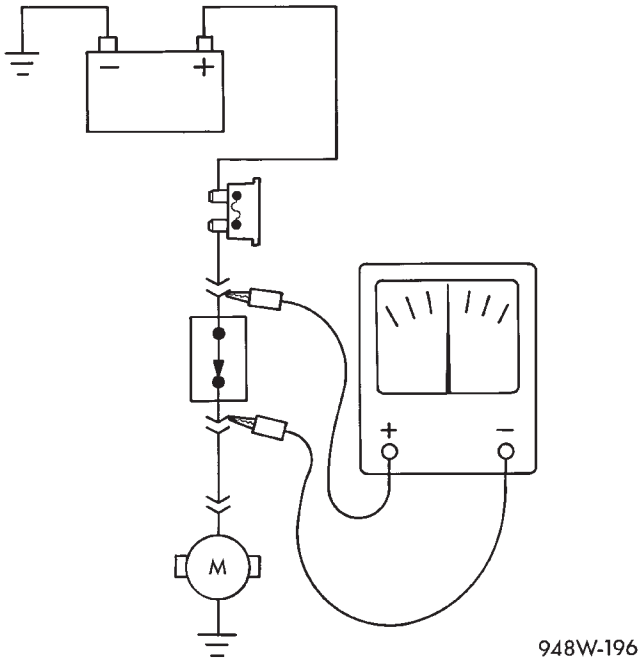


Fig. 12 Testing for Voltage Drop

TROUBLESHOOTING WIRING PROBLEMS

When troubleshooting wiring problems there are six steps which can aid in the procedure. The steps are listed and explained below. Always check for non-factory items added to the vehicle before doing any diagnosis. If the vehicle is equipped with these items, disconnect them to verify these add-on items are not the cause of the problem.

(1) Verify the problem.

(2) Verify any related symptoms. Do this by performing operational checks on components that are in the same circuit. Refer to the wiring diagrams.

(3) Analyze the symptoms. Use the wiring diagrams to determine what the circuit is doing, where the problem most likely is occurring and where the diagnosis will continue.

(4) Isolate the problem area.

(5) Repair the problem.

(6) Verify proper operation. For this step check for proper operation of all items on the repaired circuit. Refer to the wiring diagrams.

SERVICE PROCEDURES

WIRING REPAIR

When replacing or repairing a wire, it is important that the correct gauge be used as shown in the wiring diagrams. The wires must also be held securely in place to prevent damage to the insulation.

(1) Disconnect battery negative cable

SERVICE PROCEDURES (Continued)

(2) Remove 1 inch of insulation from each end of the wire.

(3) Place a piece of heat shrink tubing over one side of the wire. Make sure the tubing will be long enough to cover and seal the entire repair area.

(4) Spread the strands of the wire apart on each part of the exposed wire (example 1). (Fig. 13)

(5) Push the two ends of wire together until the strands of wire are close to the insulation (example 2) (Fig. 13)

(6) Twist the wires together (example 3) (Fig. 13)

(7) Solder the connection together using rosin core type solder only. **Do not use acid core solder.**

(8) Center the heat shrink tubing over the joint, and heat using a heat gun. Heat the joint until the tubing is tightly sealed and sealant comes out of both ends of the tubing.

(9) Secure the wire to the existing ones to prevent chafing or damage to the insulation

(10) Connect battery and test all affected systems.

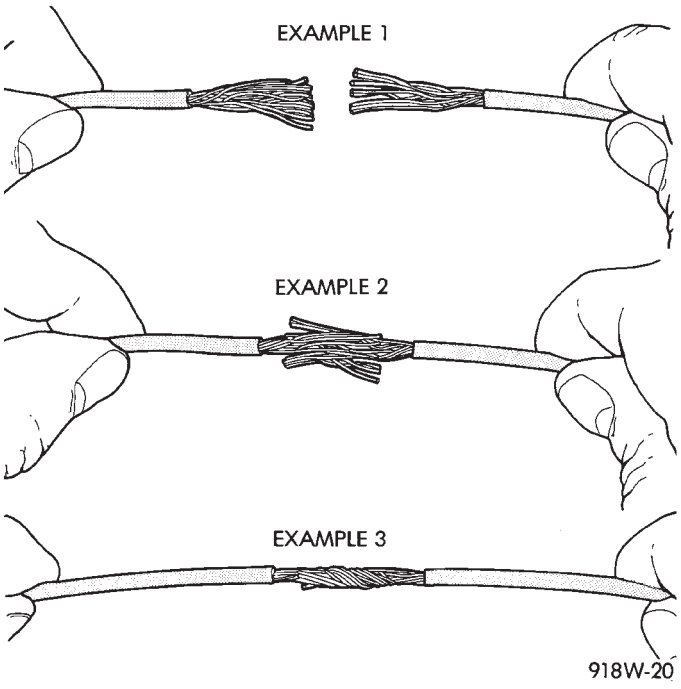


Fig. 13 Wire Repair

FUSIBLE LINK REPLACEMENT

On PL vehicles there is a fusible link placed between the output terminal of the generator and the engine starter motor terminal. A service part is available if this fusible link requires replacement.

This service part has the eyelet that attaches to the starter motor. If the fusible link requires replacement this indicates a problem in the charging/starting system that needs to be corrected.

Replacement of the fusible link is the same as repairing a wire. Refer to the wiring repair information in this section for soldering information.

TERMINAL/CONNECTOR REPAIR-MOLEX CONNECTORS

(1) Disconnect battery.

(2) Disconnect the connector from its mating half/component.

(3) Insert the terminal releasing special tool 6742 into the terminal end of the connector (Fig. 14).

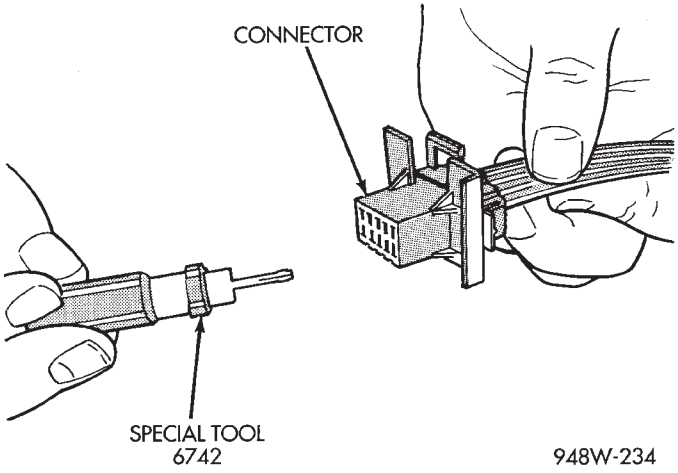


Fig. 14 Molex Connector Repair

(4) Using special tool 6742 release the locking fingers on the terminal (Fig. 15).

(5) Pull on the wire to remove it from the connector.

(6) Repair or replace the connector or terminal, as necessary.

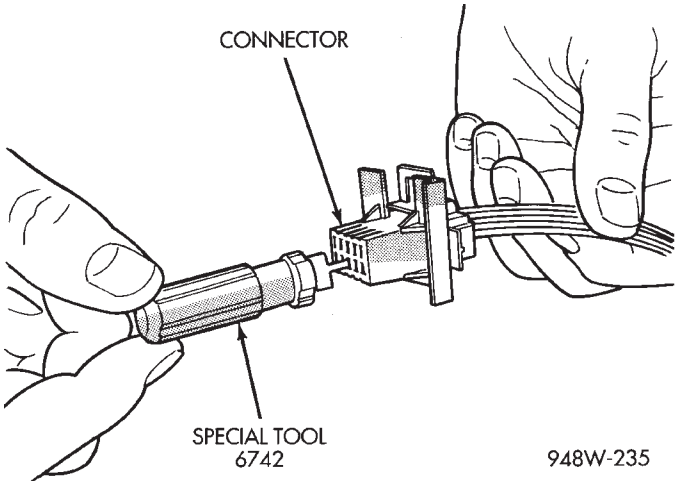


Fig. 15 Using Special Tool 6742

SERVICE PROCEDURES (Continued)

CONNECTOR REPLACEMENT

(1) Disconnect battery.

(2) Disconnect the connector that is to be repaired from its mating half/component

(3) Remove the connector locking wedge, if required (Fig. 16)

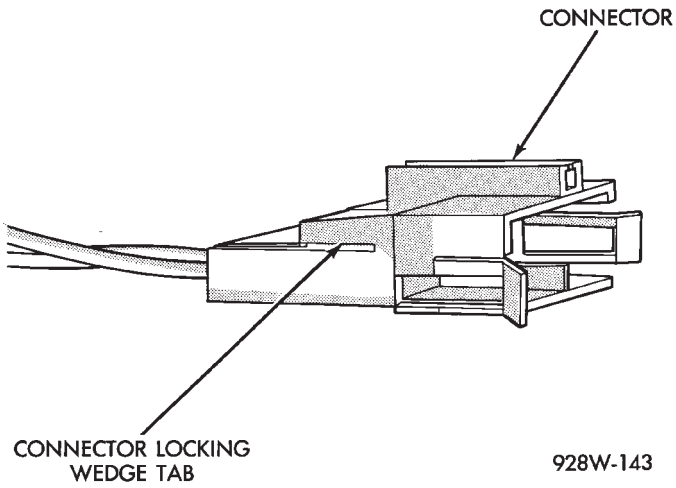


Fig. 16 Connector Locking Wedge

(4) Position the connector locking finger away from the terminal using the proper pick from special tool kit 6680. Pull on the wire to remove the terminal from the connector (Fig. 17) (Fig. 18).

(5) Reset the terminal locking tang, if it has one.

(6) Insert the removed wire in the same cavity on the repair connector.

(7) Repeat steps four through six for each wire in the connector, being sure that all wires are inserted into the proper cavities. For additional connector pin-out identification, refer to the wiring diagrams.

(8) Insert the connector locking wedge into the repaired connector, if required.

(9) Connect connector to its mating half/component.

(10) Connect battery and test all affected systems.

CONNECTOR AND TERMINAL REPLACEMENT

(1) Disconnect battery.

(2) Disconnect the connector (that is to be repaired) from its mating half/component.

(3) Cut off the existing wire connector directly behind the insulator. Remove six inches of tape from the harness.

(4) Stagger cut all wires on the harness side at 1/2 inch intervals (Fig. 19).

(5) Remove 1 inch of insulation from each wire on the harness side.

(6) Stagger cut the matching wires on the repair connector assembly in the opposite order as was done on the harness side of the repair. Allow extra length

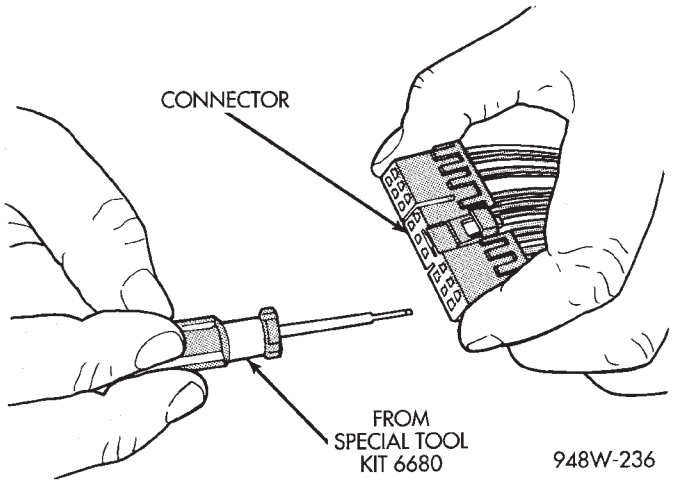


Fig. 17 Terminal Removal

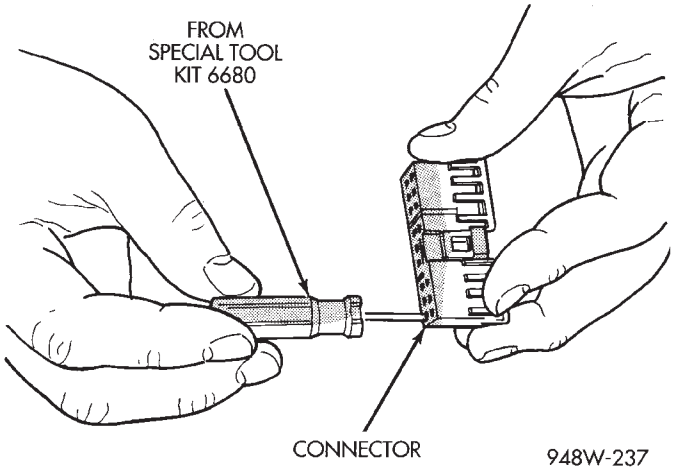


Fig. 18 Terminal Removal Using Special Tool

for soldered connections. Check that the overall length is the same as the original (Fig. 19).

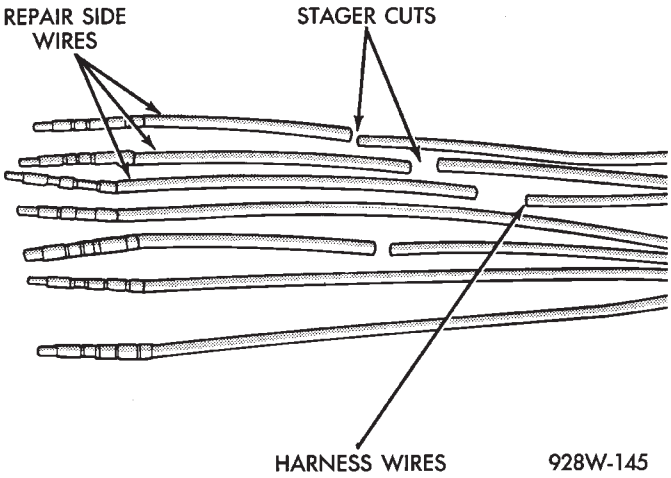


Fig. 19 Stagger Cutting Wires

(7) Remove 1 inch of insulation from each wire.

SERVICE PROCEDURES (Continued)

(8) Place a piece of heat shrink tubing over one side of the wire. Be sure the tubing will be long enough to cover and seal the entire repair area.

(9) Spread the strands of the wire apart on each part of the exposed wires.

(10) Push the two ends of wire together until the strands of wire are close to the insulation.

(11) Twist the wires together.

(12) Solder the connection together using rosin core type solder only. **Do not use acid core solder.**

(13) Center the heat shrink tubing over the joint and heat using a heat gun. Heat the joint until the tubing is tightly sealed and sealant comes out of both ends of the tubing

(14) Repeat steps 8 through 13 for each wire.

(15) Re-tape the wire harness starting 1-1/2 inches behind the connector and 2 inches past the repair.

(16) Re-connect the repaired connector.

(17) Connect the battery, and test all affected systems.

TERMINAL REPLACEMENT

(1) Disconnect battery.

(2) Disconnect the connector being repaired from its mating half. Remove connector locking wedge, if required (Fig. 20).

(3) Remove connector locking wedge, if required (Fig. 20).

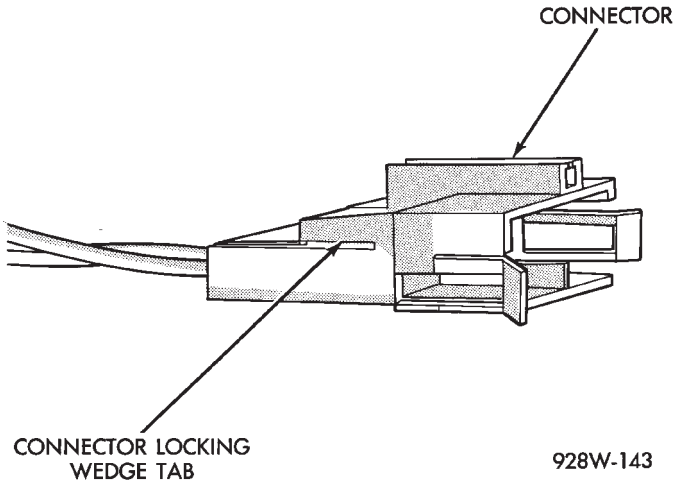


Fig. 20 Connector Locking Wedge Tab (Typical)

(4) Position the connector locking finger away from the terminal using the proper pick from special tool kit 6680. Pull on the wire to remove the terminal from the connector (Fig. 21) (Fig. 22).

(5) Cut the wire 6 inches from the back of the connector.

(6) Remove 1 inch of insulation from the wire on the harness side.

(7) Select a wire from the terminal repair assembly that best matches the color wire being repaired.

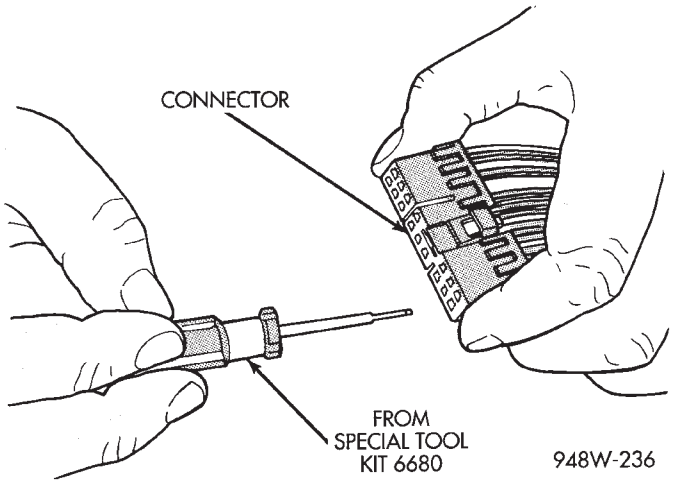


Fig. 21 Terminal Removal

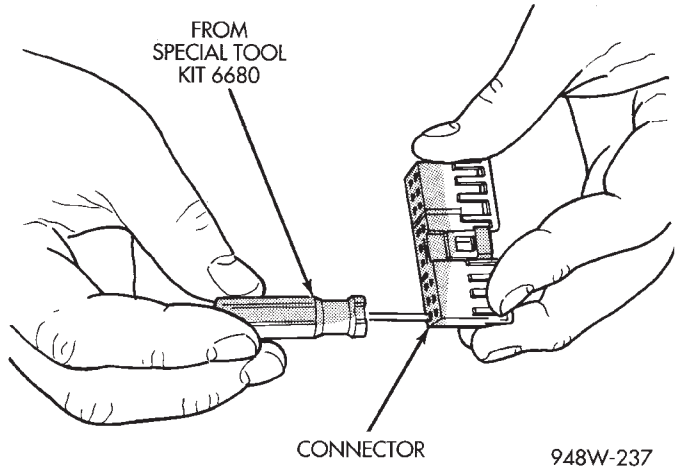


Fig. 22 Terminal Removal Using Special Tool

(8) Cut the repair wire to the proper length and remove 1 inch of insulation.

(9) Place a piece of heat shrink tubing over one side of the wire. Make sure the tubing will be long enough to cover and seal the entire repair area.

(10) Spread the strands of the wire apart on each part of the exposed wires.

(11) Push the two ends of wire together until the strands of wire are close to the insulation.

(12) Twist the wires together.

(13) Solder the connection together using rosin core type solder only. **Do not use acid core solder.**

(14) Center the heat shrink tubing over the joint and heat using a heat gun. Heat the joint until the tubing is tightly sealed and sealant comes out of both ends of the tubing.

(15) Insert the repaired wire into the connector.

(16) Install the connector locking wedge, if required, and reconnect the connector to its mating half/component.

(17) Re-tape the wire harness starting 1-1/2 inches behind the connector and 2 inches past the repair.

(18) Connect battery, and test all affected systems.

SERVICE PROCEDURES (Continued)

DIODE REPLACEMENT

(1) Disconnect the battery.
(2) Locate the diode in the harness, and remove the protective covering.
(3) Remove the diode from the harness, pay attention to the current flow direction (Fig. 23).

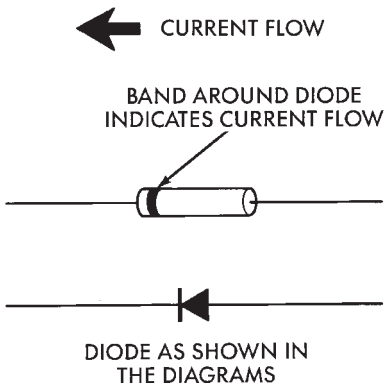
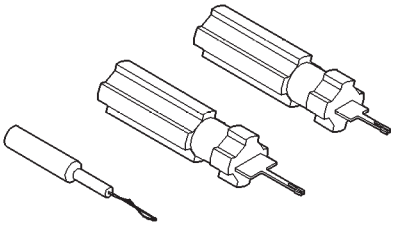


Fig. 23 Diode Identification

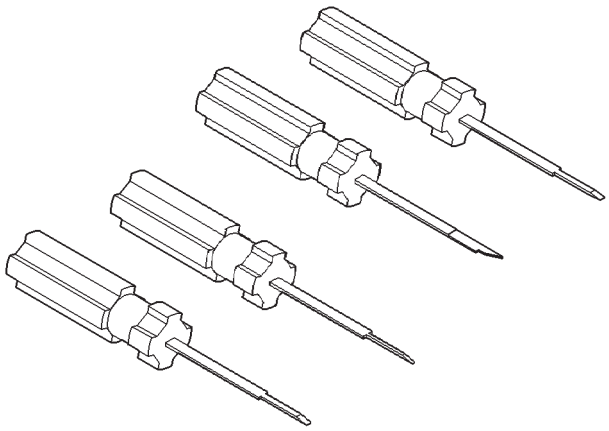
(4) Remove the insulation from the wires in the harness. Only remove enough insulation to solder in the new diode.
(5) Install the new diode in the harness, making sure current flow is correct. If necessary refer to the appropriate wiring diagram for current flow.
(6) Solder the connection together using rosin core type solder only. **Do not use acid core solder.**
(7) Tape the diode to the harness using electrical tape making, sure the diode is completely sealed from the elements.
(8) Re-connect the battery, and test affected systems.

SPECIAL TOOLS

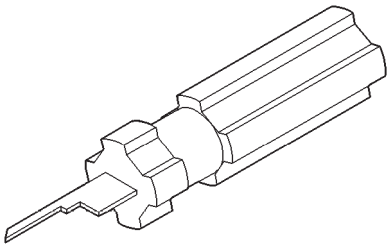
WIRING/TERMINAL



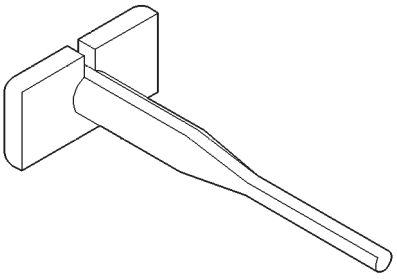
Probing Tool Package 6807



Terminal Pick 6680



Terminal Removing Tool 6932



Terminal Removing Tool 6934

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GENERAL INFORMATION

INTRODUCTION

This section provides an alphabetical listing of all the components covered in group 8W. For information on system operation, refer to the appropriate section of the wiring diagrams.

8W-10 POWER DISTRIBUTION

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S122	8W-10-10
S131	8W-10-9
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S202	8W-10-5
S203	8W-10-8
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S213	8W-10-6
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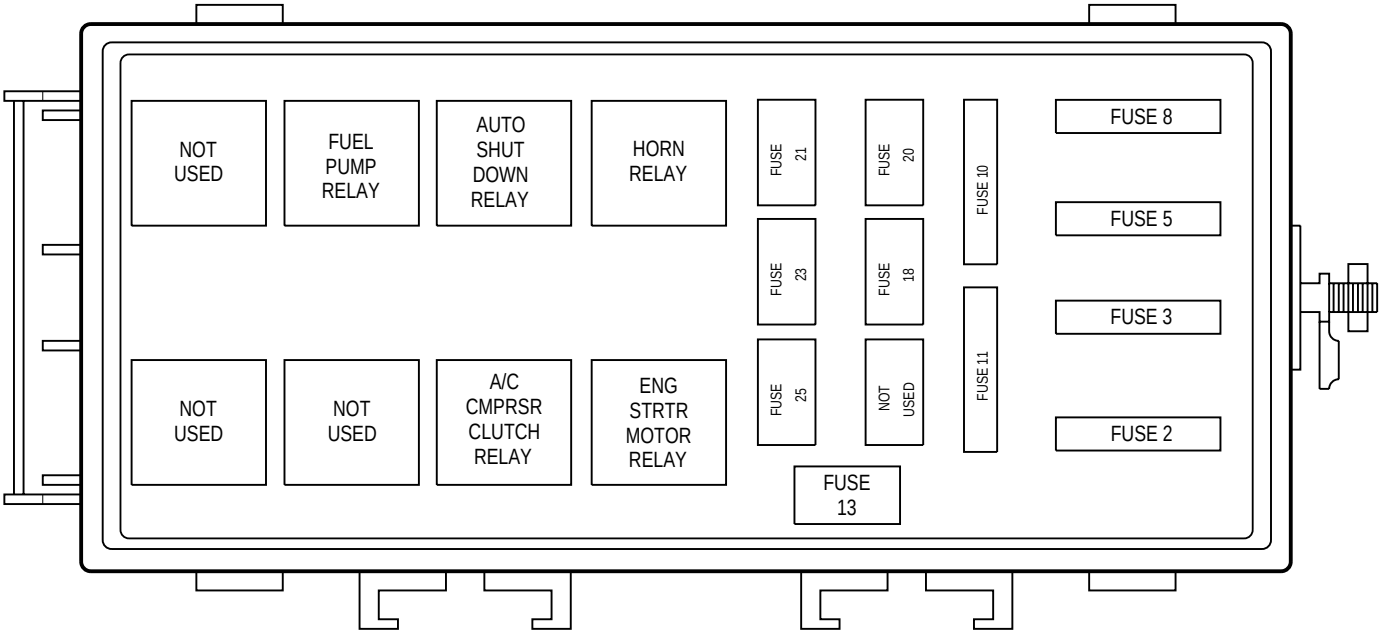
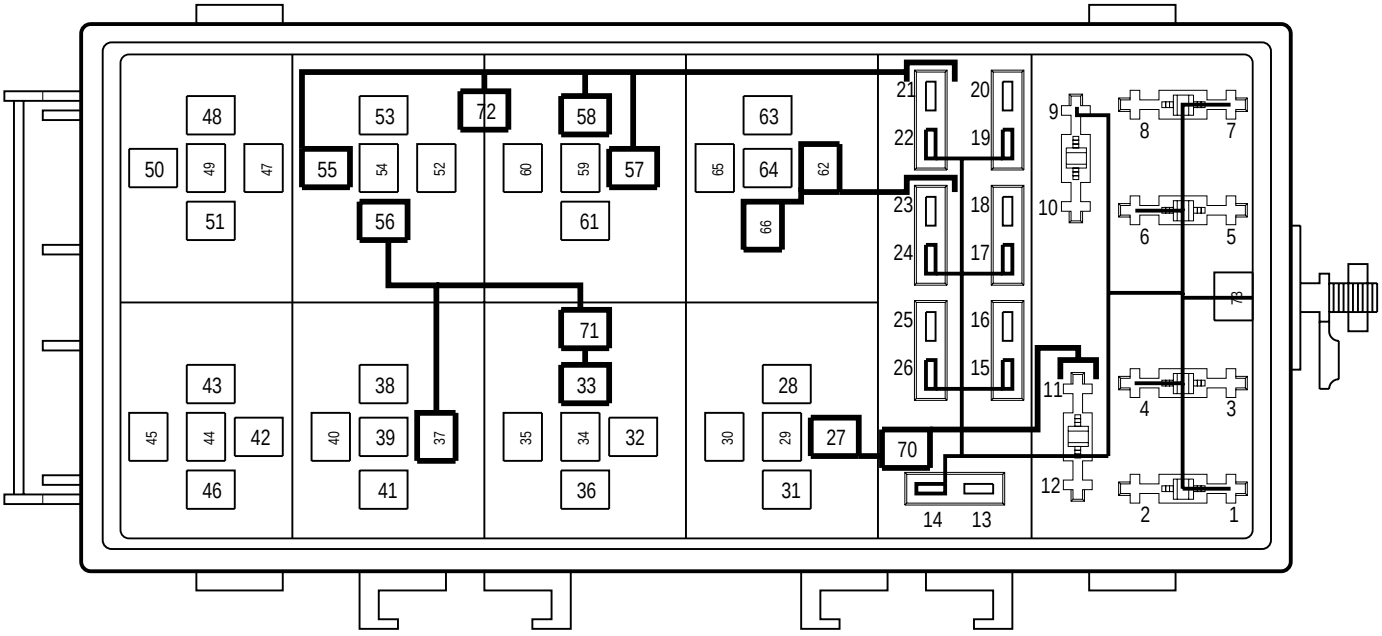
TOP OF
POWER DISTRIBUTION CENTER



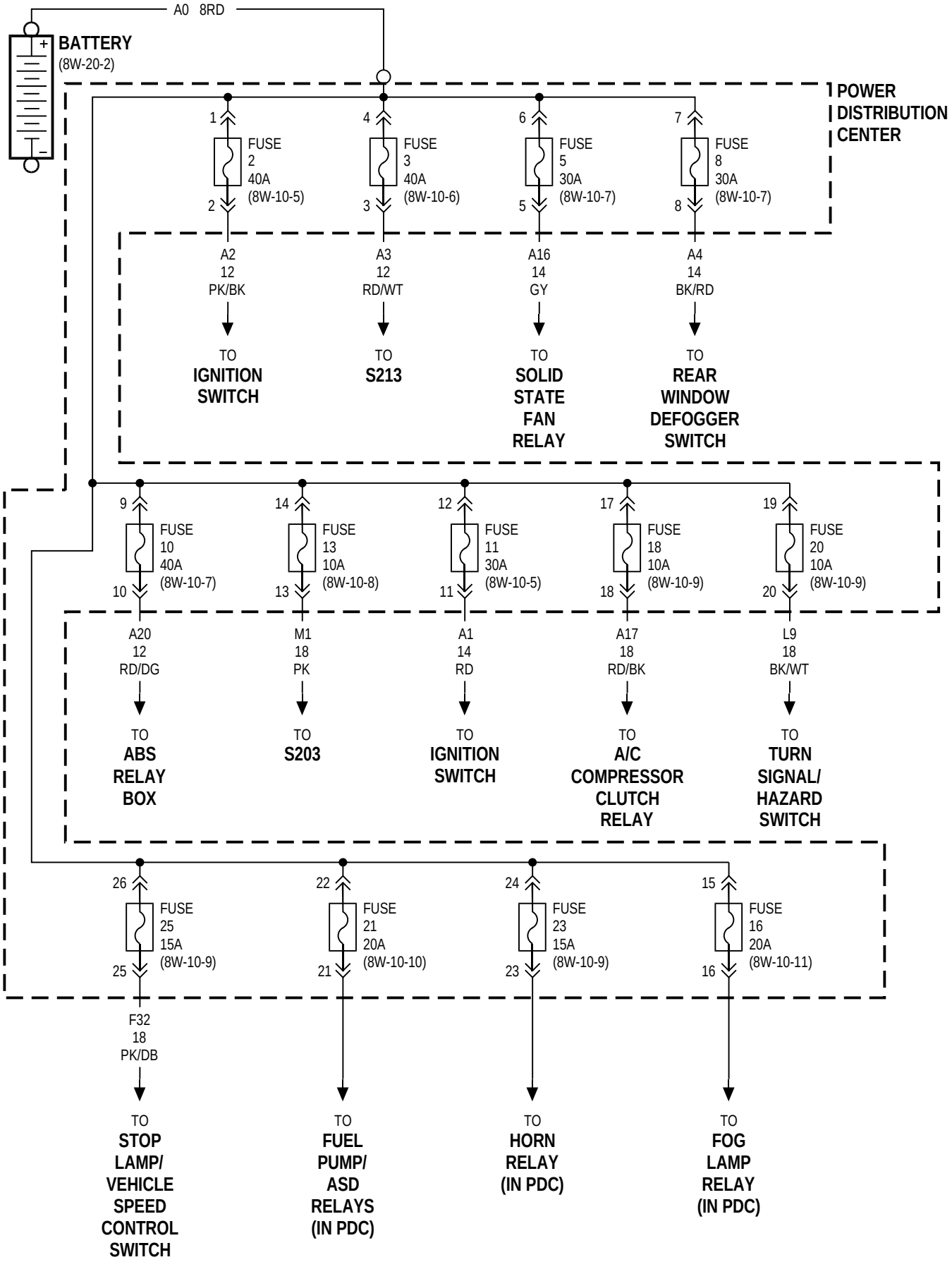
PDC FUSE APPLICATION CHART

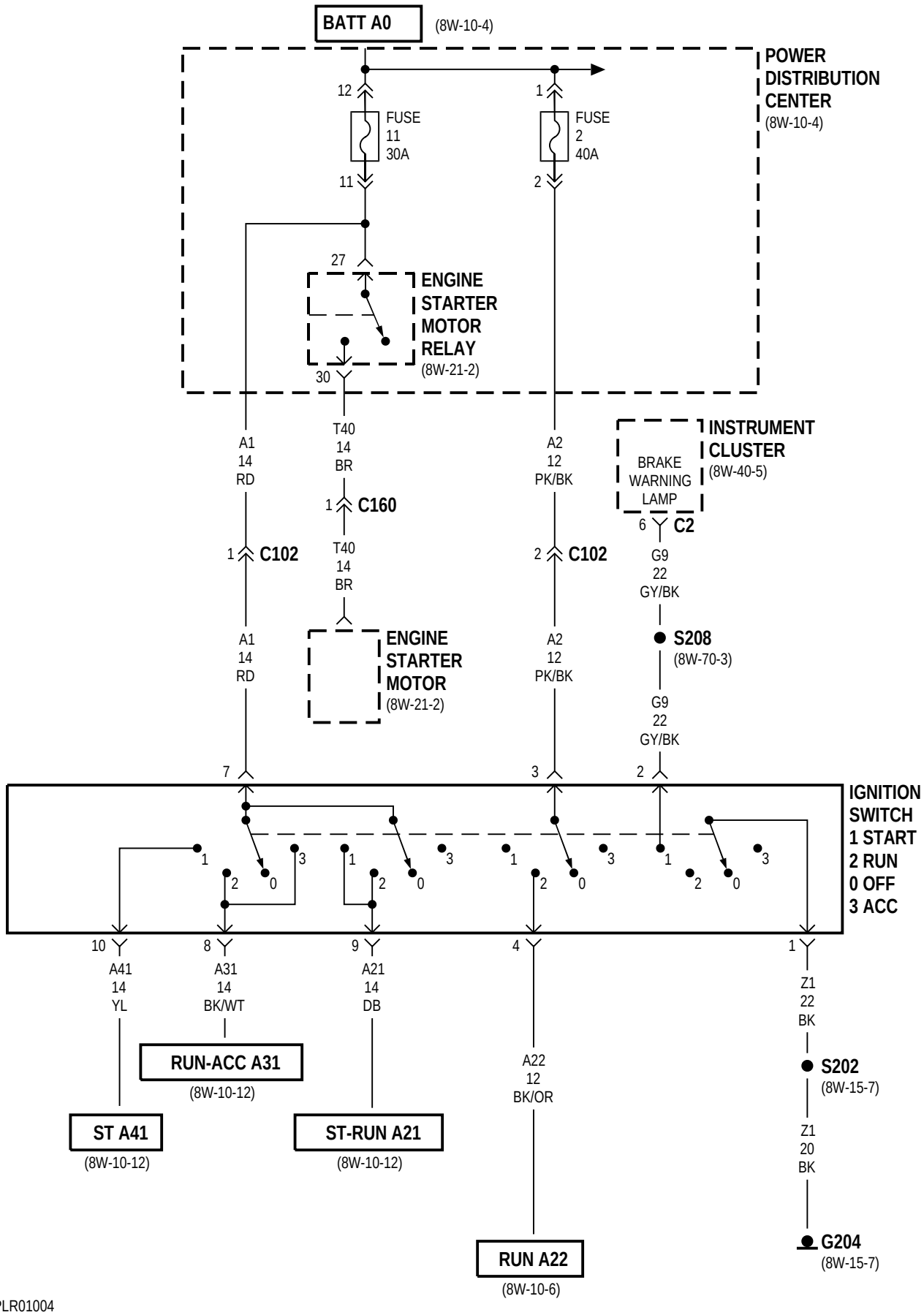
FUSE NO.	AMPS	CIRCUIT	FUNCTION
2	40A	A2 12PK/BK	FUSED B+
3	40A	A3 12RD/WT	FUSED B+
5	30A	A16 14GY	FUSED B+
8	30A	A4 14BK/RD	FUSED B+
10	40A	A20 12RD/DG	FUSED B+
11	30A	A1 14RD	FUSED B+
13	10A	M1 18PK	FUSED B+
		M1 18PK	FUSED B+
16	20A	F61 18WT/OR	FUSED B+
		F61 18WT/OR	FUSED B+
18	10A	A17 18RD/BK	FUSED B+
20	10A	L9 18BK/WT	FUSED B+
21	20A	A14 16RD/WT	FUSED B+
23	15A	F32 18PK/DB	FUSED B+
25	15A	F32 18PK/DB	FUSED B+

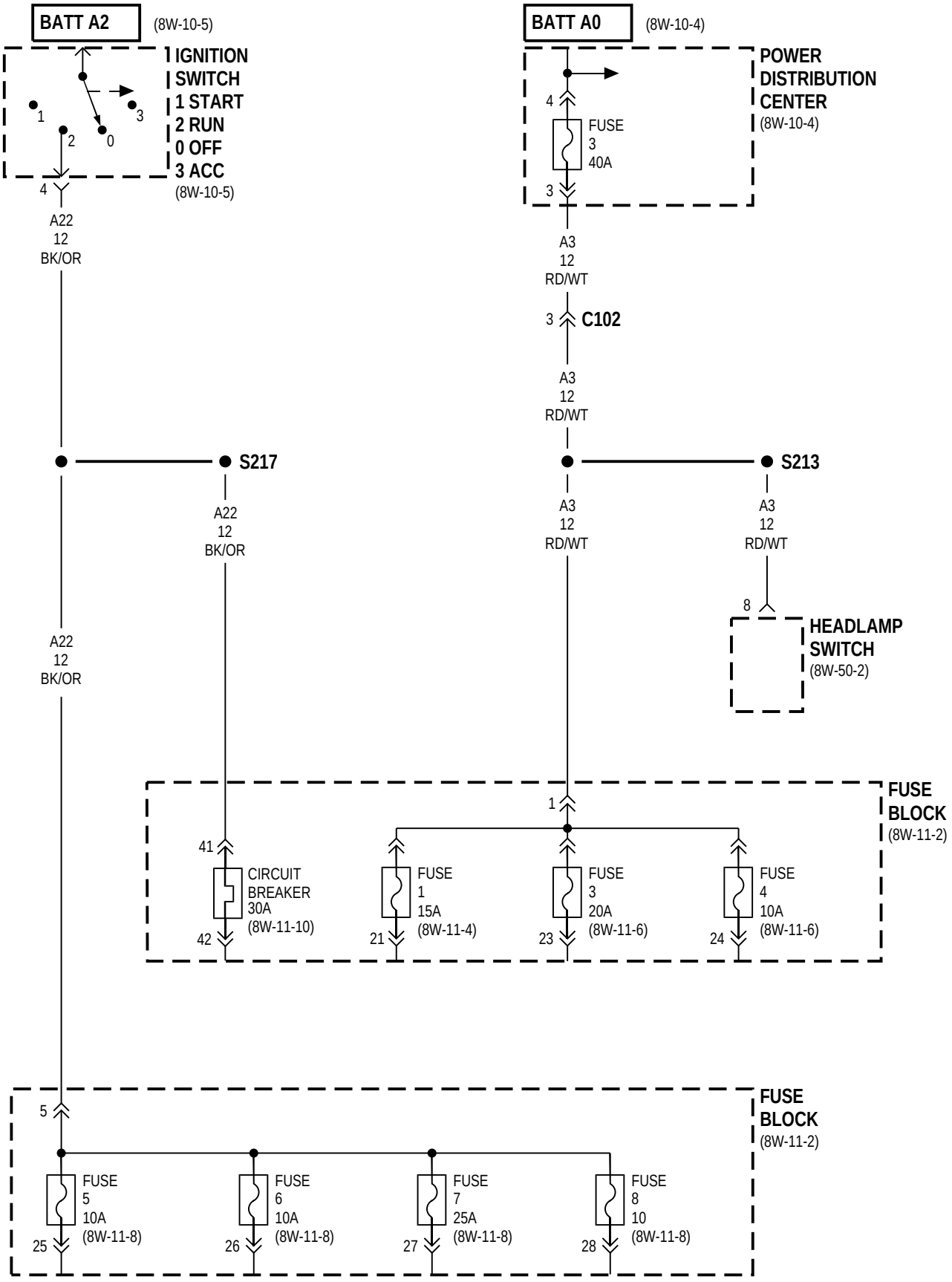
BOTTOM OF
POWER DISTRIBUTION CENTER

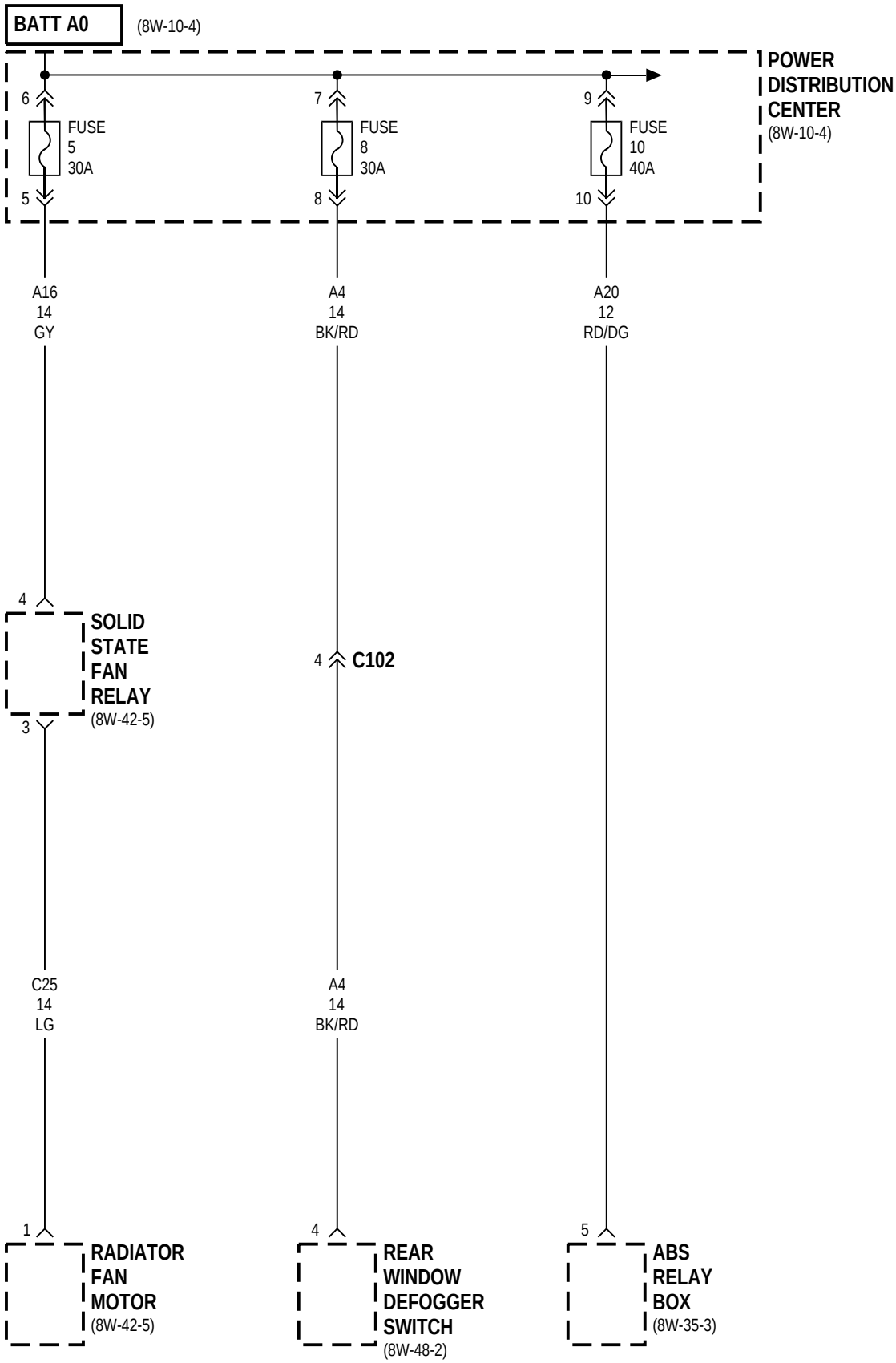


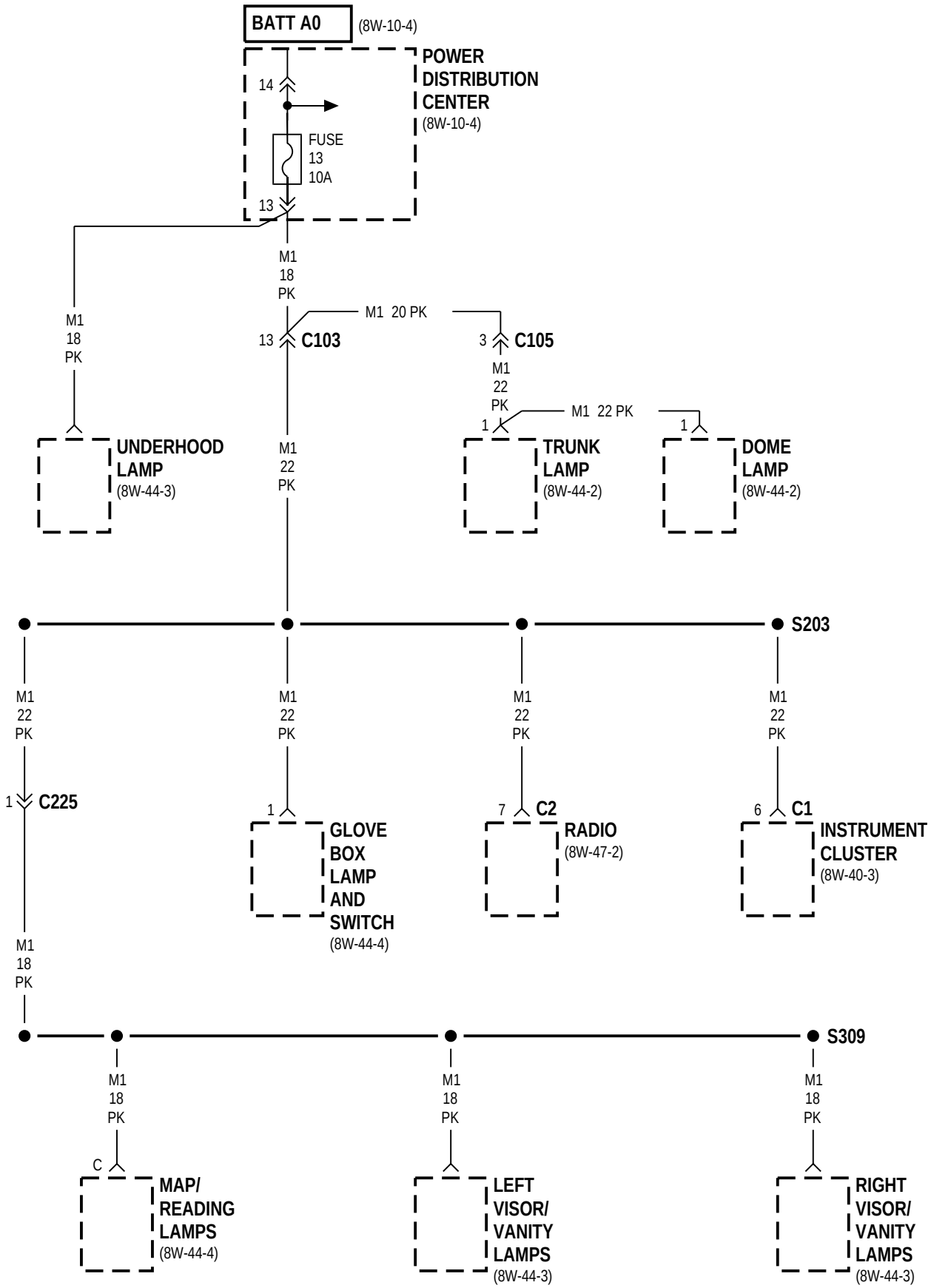
CAV	CIRCUIT	FUNCTION
2	A2 12PK/BK	FUSED B+
3	A3 12RD/WT	FUSED B+
5	A16 14GY	FUSED B+
8	A4 14BK/RD	FUSED B+
10	A20 12RD/DG	FUSED B+
13	M1 18PK	FUSED B+
	M1 18PK	FUSED B+
18	A17 18RD/BK	FUSED B+
20	L9 18BK/WT	FUSED B+
25	F32 18PK/DB	FUSED B+
28 A/T	A41 14YL	FUSED IGNITION (START)
28 M/T	T141 14YL/RD	FUSED IGNITION (START)
30	T40 14BR	ENGINE STARTER MOTOR RELAY OUTPUT
31 A/T	T41 18BR/YL	PARK/NEUTRAL POSITION SWITCH SENSE
31 M/T	Z1 18BK	GROUND
32	A17 18RD/BK	FUSED B+
35	C3 18DB/BK	A/C COMPRESSOR CLUTCH RELAY OUTPUT
36	C28 18DB/OR	A/C COMPRESSOR CLUTCH RELAY CONTROL
38	C25 14LG	FAN CONTROL RELAY OUTPUT
40	C27 18DB/PK	FAN CONTROL RELAY CONTROL
41	A16 14GY	FUSED B+
52	A141 16DG/WT	FUEL PUMP RELAY OUTPUT
53	K31 18BR	FUEL PUMP RELAY CONTROL
60	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
61	K51 18DB/YL	AUTOMATIC SHUT DOWN RELAY CONTROL
63	X2 18DG/RD	HORN RELAY OUTPUT
65	X3 18BK/RD	HORN RELAY CONTROL
70	A1 14RD	FUSED B+
71	F12 18LG/BK	FUSED IGNITION (START-RUN)
72	A14 16RD/WT	FUSED B+
73	A0 8RD	B+

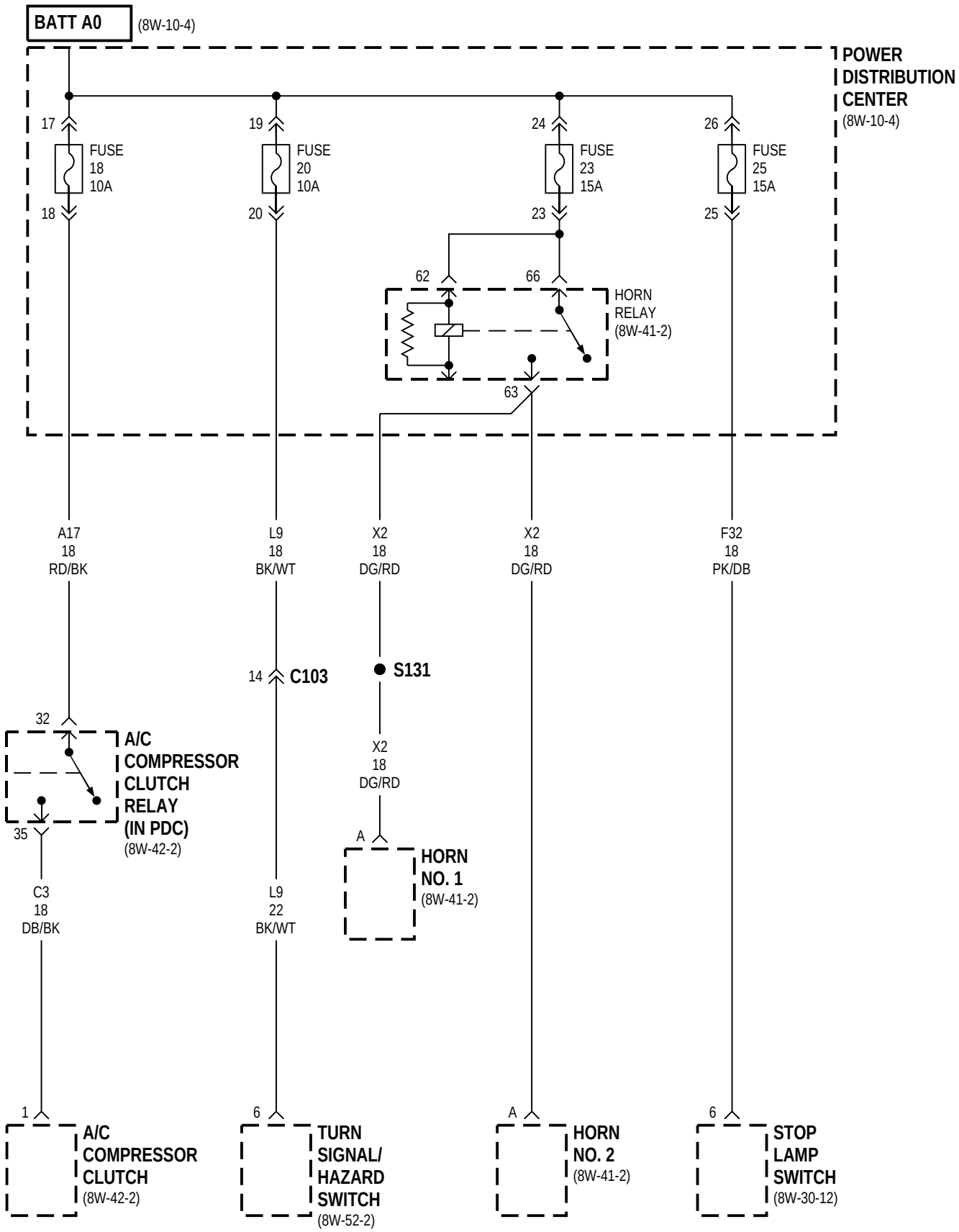

A0 8RD
BATTERY
(8W-20-2)
POWER DISTRIBUTION CENTER
1
FUSE 2 40A (8W-10-5)
2
4
FUSE 3 40A (8W-10-6)
3
6
FUSE 5 30A (8W-10-7)
5
7
FUSE 8 30A (8W-10-7)
8
A2 12 PK/BK
A3 12 RD/WT
A16 14 GY
A4 14 BK/RD
TO IGNITION SWITCH
TO S213
TO SOLID STATE FAN RELAY
TO REAR WINDOW DEFOGGER SWITCH
9
FUSE 10 40A (8W-10-7)
10
14
FUSE 13 10A (8W-10-8)
13
12
FUSE 11 30A (8W-10-5)
11
17
FUSE 18 10A (8W-10-9)
18
19
FUSE 20 10A (8W-10-9)
20
A20 12 RD/DG
M1 18 PK
A1 14 RD
A17 18 RD/BK
L9 18 BK/WT
TO ABS RELAY BOX
TO S203
TO IGNITION SWITCH
TO A/C COMPRESSOR CLUTCH RELAY
TO TURN SIGNAL/ HAZARD SWITCH
26
FUSE 25 15A (8W-10-9)
25
22
FUSE 21 20A (8W-10-10)
21
24
FUSE 23 15A (8W-10-9)
23
15
FUSE 16 20A (8W-10-11)
16
F32 18 PK/DB
TO STOP LAMP/ VEHICLE SPEED CONTROL SWITCH
TO FUEL PUMP/ ASD RELAYS (IN PDC)
TO HORN RELAY (IN PDC)
TO FOG LAMP RELAY (IN PDC)

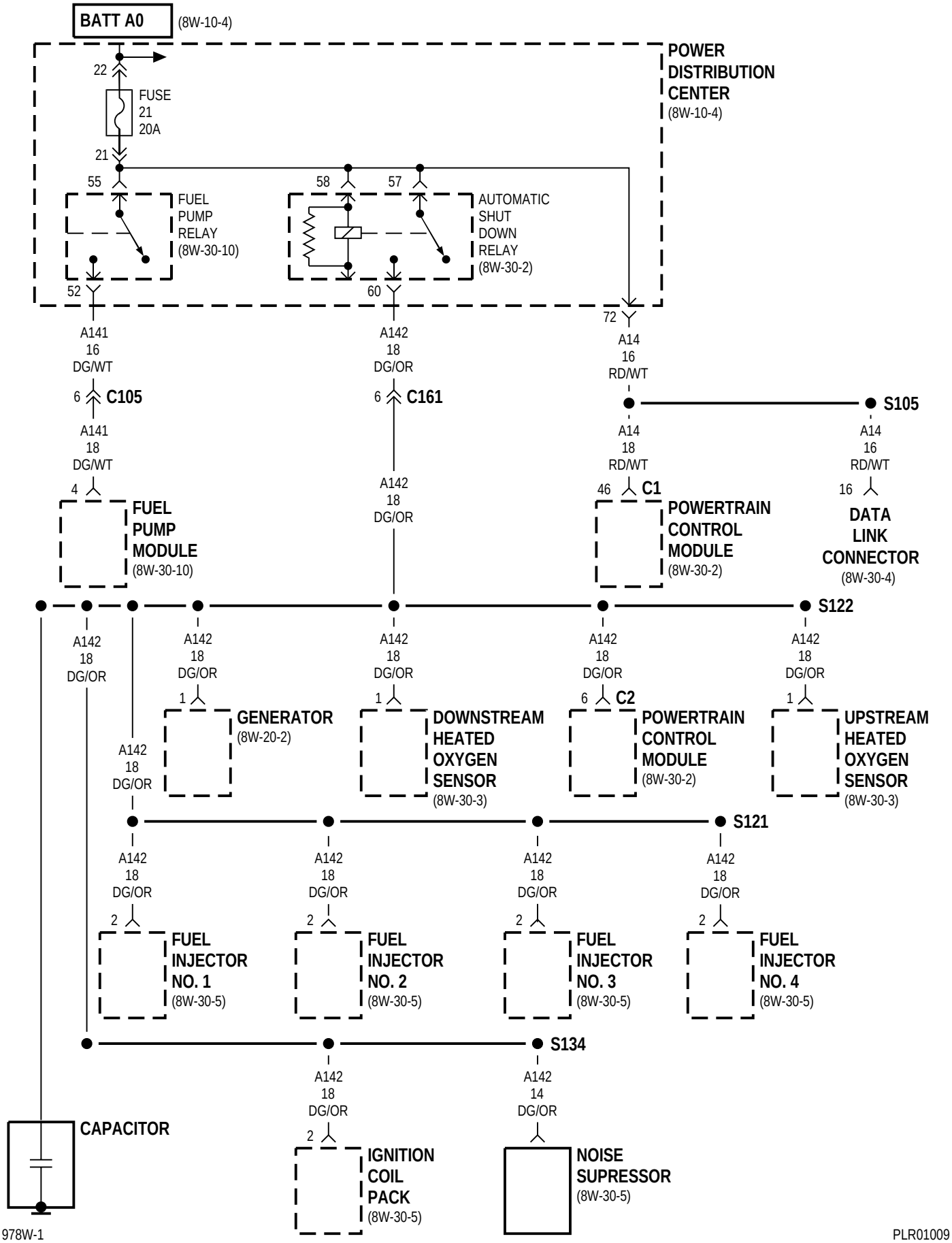

BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
12
FUSE 11 30A
11
1
FUSE 2 40A
2
27
ENGINE STARTER MOTOR RELAY
(8W-21-2)
30
A1 14 RD
T40 14 BR
1 C160
1 C102
T40 14 BR
ENGINE STARTER MOTOR
(8W-21-2)
A2 12 PK/BK
2 C102
INSTRUMENT CLUSTER
(8W-40-5)
BRAKE WARNING LAMP
6 C2
G9 22 GY/BK
S208
(8W-70-3)
G9 22 GY/BK
A1 14 RD
A2 12 PK/BK
7
3
2
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 ACC
10
8
9
4
1
A41 14 YL
A31 14 BK/WT
A21 14 DB
Z1 22 BK
RUN-ACC A31
(8W-10-12)
A22 12 BK/OR
S202
(8W-15-7)
Z1 20 BK
ST A41
(8W-10-12)
ST-RUN A21
(8W-10-12)
G204
(8W-15-7)
RUN A22
(8W-10-6)

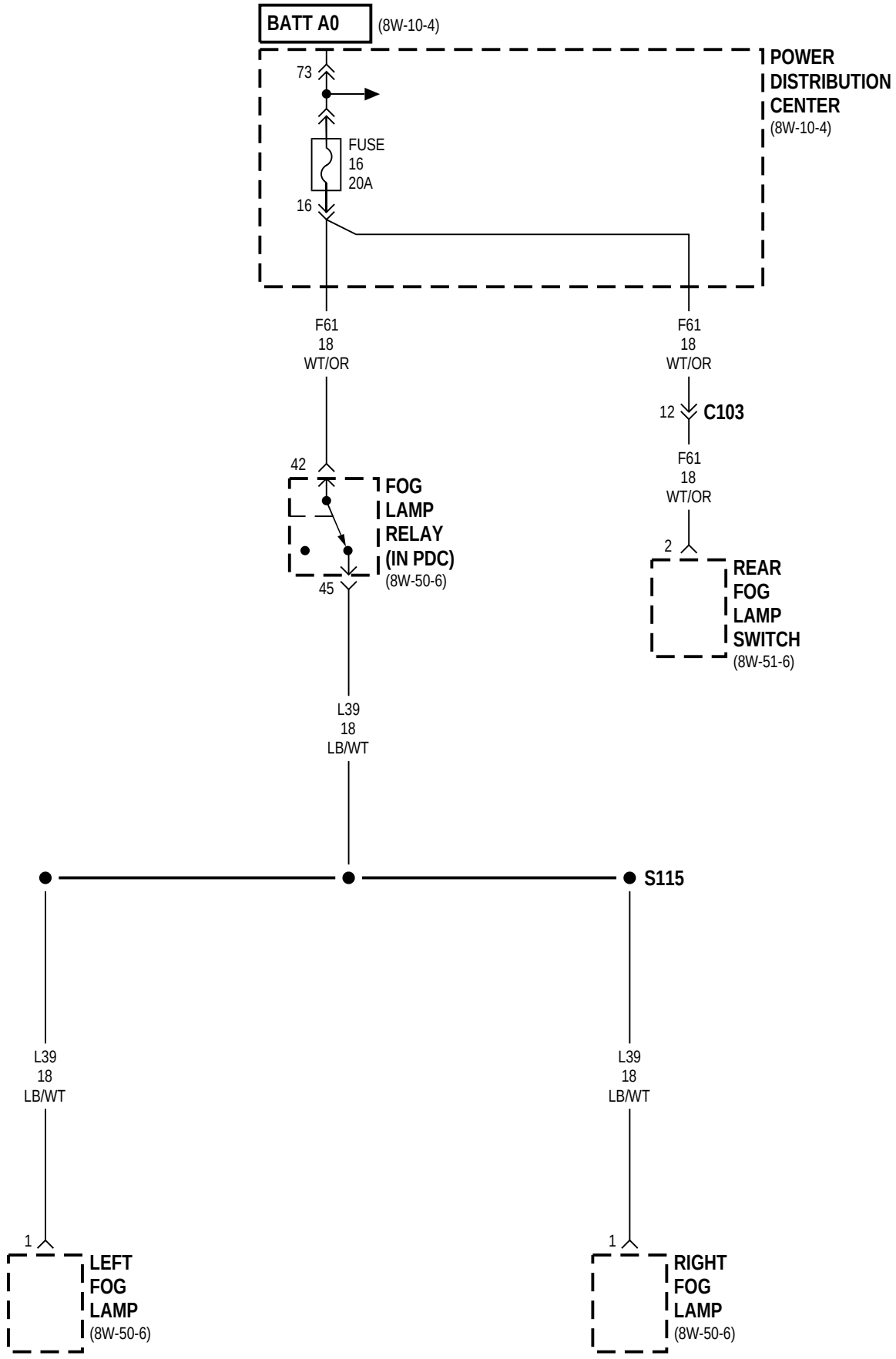

BATT A2
(8W-10-5)
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 ACC
(8W-10-5)
1
2
0
3
4
A22
12
BK/OR
BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
4
FUSE
3
40A
3
A3
12
RD/WT
3
C102
A3
12
RD/WT
S217
S213
A22
12
BK/OR
A3
12
RD/WT
A3
12
RD/WT
8
HEADLAMP SWITCH
(8W-50-2)
A22
12
BK/OR
FUSE BLOCK
(8W-11-2)
1
41
CIRCUIT BREAKER
30A
(8W-11-10)
42
FUSE
1
15A
(8W-11-4)
21
FUSE
3
20A
(8W-11-6)
23
FUSE
4
10A
(8W-11-6)
24
FUSE BLOCK
(8W-11-2)
5
FUSE
5
10A
(8W-11-8)
25
FUSE
6
10A
(8W-11-8)
26
FUSE
7
25A
(8W-11-8)
27
FUSE
8
10
(8W-11-8)
28

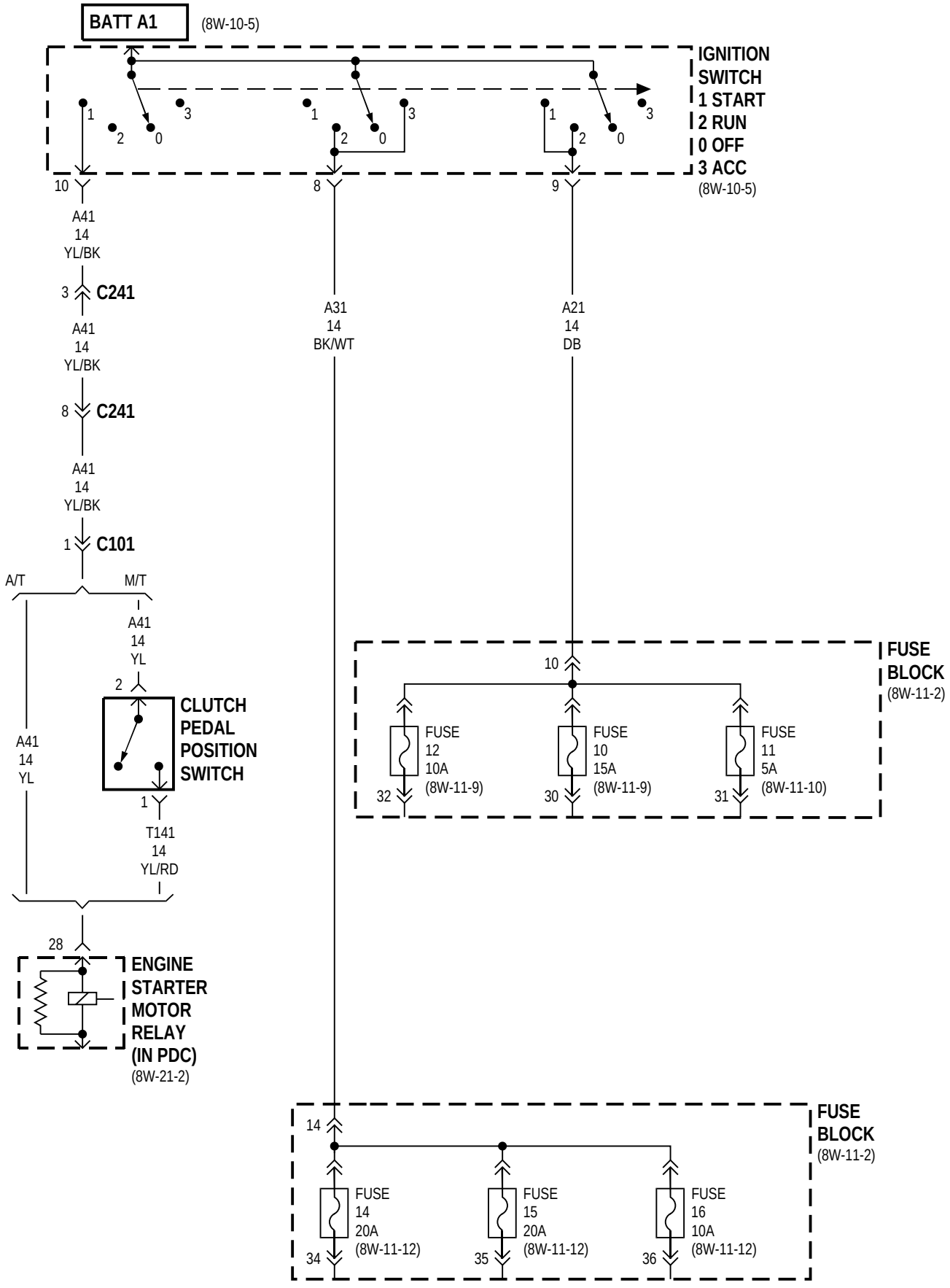

BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
6
FUSE 5 30A
5
7
FUSE 8 30A
8
9
FUSE 10 40A
10
A16 14 GY
A4 14 BK/RD
A20 12 RD/DG
4
SOLID STATE FAN RELAY
(8W-42-5)
3
4
C102
C25 14 LG
A4 14 BK/RD
1
RADIATOR FAN MOTOR
(8W-42-5)
4
REAR WINDOW DEFOGGER SWITCH
(8W-48-2)
5
ABS RELAY BOX
(8W-35-3)


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
14
FUSE 13 10A
13
M1 18 PK
M1 18 PK
M1 20 PK
13 C103
3 C105
M1 22 PK
M1 22 PK
1
1
UNDERHOOD LAMP
(8W-44-3)
M1 22 PK
TRUNK LAMP
(8W-44-2)
DOME LAMP
(8W-44-2)
S203
M1 22 PK
M1 22 PK
M1 22 PK
M1 22 PK
1 C225
1
7 C2
6 C1
GLOVE BOX LAMP AND SWITCH
(8W-44-4)
RADIO
(8W-47-2)
INSTRUMENT CLUSTER
(8W-40-3)
M1 18 PK
S309
M1 18 PK
M1 18 PK
M1 18 PK
C
MAP/ READING LAMPS
(8W-44-4)
LEFT VISOR/ VANITY LAMPS
(8W-44-3)
RIGHT VISOR/ VANITY LAMPS
(8W-44-3)


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
17
FUSE 18 10A
18
19
FUSE 20 10A
20
24
FUSE 23 15A
23
26
FUSE 25 15A
25
62
66
HORN RELAY
(8W-41-2)
63
A17 18 RD/BK
L9 18 BK/WT
X2 18 DG/RD
X2 18 DG/RD
F32 18 PK/DB
14 C103
S131
32
A/C COMPRESSOR CLUTCH RELAY (IN PDC)
(8W-42-2)
35
X2 18 DG/RD
A
HORN NO. 1
(8W-41-2)
C3 18 DB/BK
L9 22 BK/WT
1
A/C COMPRESSOR CLUTCH
(8W-42-2)
6
TURN SIGNAL/ HAZARD SWITCH
(8W-52-2)
A
HORN NO. 2
(8W-41-2)
6
STOP LAMP SWITCH
(8W-30-12)


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
22
FUSE 21 20A
21
55
FUEL PUMP RELAY
(8W-30-10)
58
57
AUTOMATIC SHUT DOWN RELAY
(8W-30-2)
52
60
72
A141 16 DG/WT
A142 18 DG/OR
A14 16 RD/WT
6 C105
6 C161
A141 18 DG/WT
A14 18 RD/WT
S105
A14 16 RD/WT
4
A142 18 DG/OR
46 C1
16
FUEL PUMP MODULE
(8W-30-10)
POWERTRAIN CONTROL MODULE
(8W-30-2)
DATA LINK CONNECTOR
(8W-30-4)
S122
A142 18 DG/OR
1
GENERATOR
(8W-20-2)
DOWNSTREAM HEATED OXYGEN SENSOR
(8W-30-3)
6 C2
POWERTRAIN CONTROL MODULE
(8W-30-2)
UPSTREAM HEATED OXYGEN SENSOR
(8W-30-3)
S121
2
FUEL INJECTOR NO. 1
(8W-30-5)
FUEL INJECTOR NO. 2
(8W-30-5)
FUEL INJECTOR NO. 3
(8W-30-5)
FUEL INJECTOR NO. 4
(8W-30-5)
S134
A142 14 DG/OR
CAPACITOR
IGNITION COIL PACK
(8W-30-5)
NOISE SUPRESSOR
(8W-30-5)


BATT A0
(8W-10-4)
POWER
DISTRIBUTION
CENTER
(8W-10-4)
73
FUSE
16
20A
16
F61
18
WT/OR
F61
18
WT/OR
12
C103
F61
18
WT/OR
42
FOG
LAMP
RELAY
(IN PDC)
(8W-50-6)
45
2
REAR
FOG
LAMP
SWITCH
(8W-51-6)
L39
18
LB/WT
S115
L39
18
LB/WT
L39
18
LB/WT
1
LEFT
FOG
LAMP
(8W-50-6)
1
RIGHT
FOG
LAMP
(8W-50-6)


BATT A1
(8W-10-5)
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 ACC
(8W-10-5)
10
8
9
A41
14
YL/BK
3
C241
A41
14
YL/BK
8
C241
A41
14
YL/BK
1
C101
A/T
M/T
A41
14
YL
2
CLUTCH PEDAL POSITION SWITCH
1
T141
14
YL/RD
A41
14
YL
28
ENGINE STARTER MOTOR RELAY (IN PDC)
(8W-21-2)
A31
14
BK/WT
A21
14
DB
FUSE BLOCK
(8W-11-2)
10
FUSE 12 10A (8W-11-9)
32
FUSE 10 15A (8W-11-9)
30
FUSE 11 5A (8W-11-10)
31
FUSE BLOCK
(8W-11-2)
14
FUSE 14 20A (8W-11-12)
34
FUSE 15 20A (8W-11-12)
35
FUSE 16 10A (8W-11-12)
36

8W-10 POWER DISTRIBUTION

DESCRIPTION AND OPERATION

This section covers the power distribution center and all circuits involved with it. For additional information on system operation, refer to the appropriate wiring diagrams.

8W-11 FUSE/FUSE BLOCK

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Fuse 11 (FB)	8W-11-10
Fuse 12 (FB)	8W-11-9
Fuse 14 (FB)	8W-11-12
Fuse 15 (FB)	8W-11-12
Fuse 16 (FB)	8W-11-12
Fuse 17 (FB)	8W-11-13
Fuse 18 (FB)	8W-11-13
Fuse 2 (FB)	8W-11-4
Fuse 3 (FB)	8W-11-6
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Left Door Lock Switch	8W-11-6

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Left Tail/Stop Lamp	8W-11-4
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Right Headlamp Leveling Motor	8W-11-13
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Right Park/Turn Signal Lamp	8W-11-5
Right Tail/Stop Lamp	8W-11-4
S109	8W-11-9
S113	8W-11-5
S126	8W-11-9
S133	8W-11-13
S138	8W-11-10
S206	8W-11-12
S210	8W-11-11
S211	8W-11-8
S214	8W-11-6
S217	8W-11-7
S221	8W-11-13
S306	8W-11-4
S313	8W-11-12
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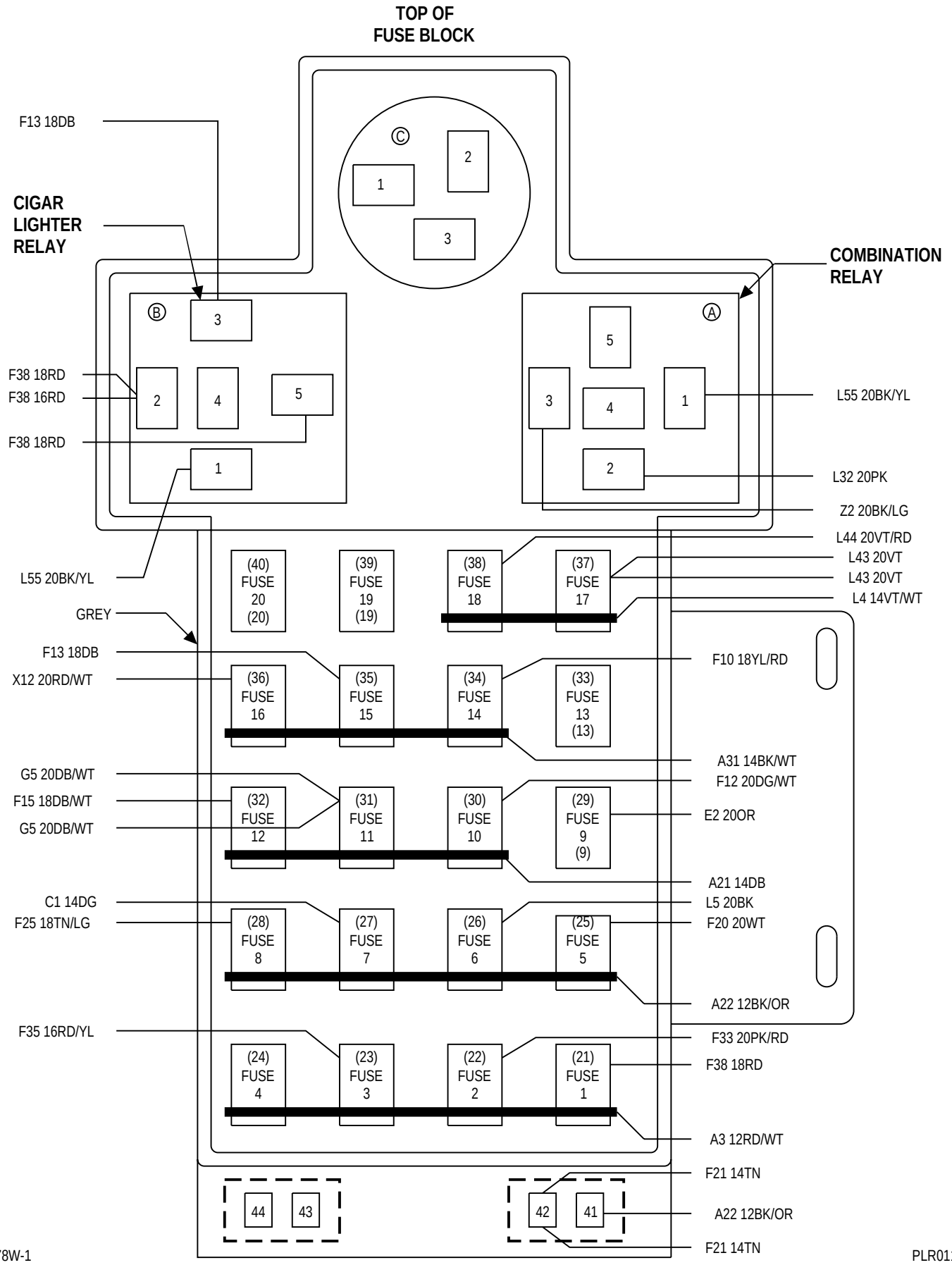
Turn Signal/Hazard Switch	8W-11-8
Vapor Canister Leak Detector	8W-11-9
Wipe/Wash Switch	8W-11-12
Wiper Motor	8W-11-12


TOP OF
FUSE BLOCK
F13 18DB
CIGAR
LIGHTER
RELAY
COMBINATION
RELAY
F38 18RD
F38 16RD
F38 18RD
L55 20BK/YL
L32 20PK
Z2 20BK/LG
L44 20VT/RD
L43 20VT
L43 20VT
L4 14VT/WT
L55 20BK/YL
GREY
F13 18DB
X12 20RD/WT
F10 18YL/RD
A31 14BK/WT
F12 20DG/WT
G5 20DB/WT
F15 18DB/WT
G5 20DB/WT
E2 20OR
A21 14DB
C1 14DG
F25 18TN/LG
L5 20BK
F20 20WT
A22 12BK/OR
F35 16RD/YL
F33 20PK/RD
F38 18RD
A3 12RD/WT
F21 14TN
A22 12BK/OR
F21 14TN
(40) FUSE 20 (20)
(39) FUSE 19 (19)
(38) FUSE 18
(37) FUSE 17
(36) FUSE 16
(35) FUSE 15
(34) FUSE 14
(33) FUSE 13 (13)
(32) FUSE 12
(31) FUSE 11
(30) FUSE 10
(29) FUSE 9 (9)
(28) FUSE 8
(27) FUSE 7
(26) FUSE 6
(25) FUSE 5
(24) FUSE 4
(23) FUSE 3
(22) FUSE 2
(21) FUSE 1
44
43
42
41

FUSES

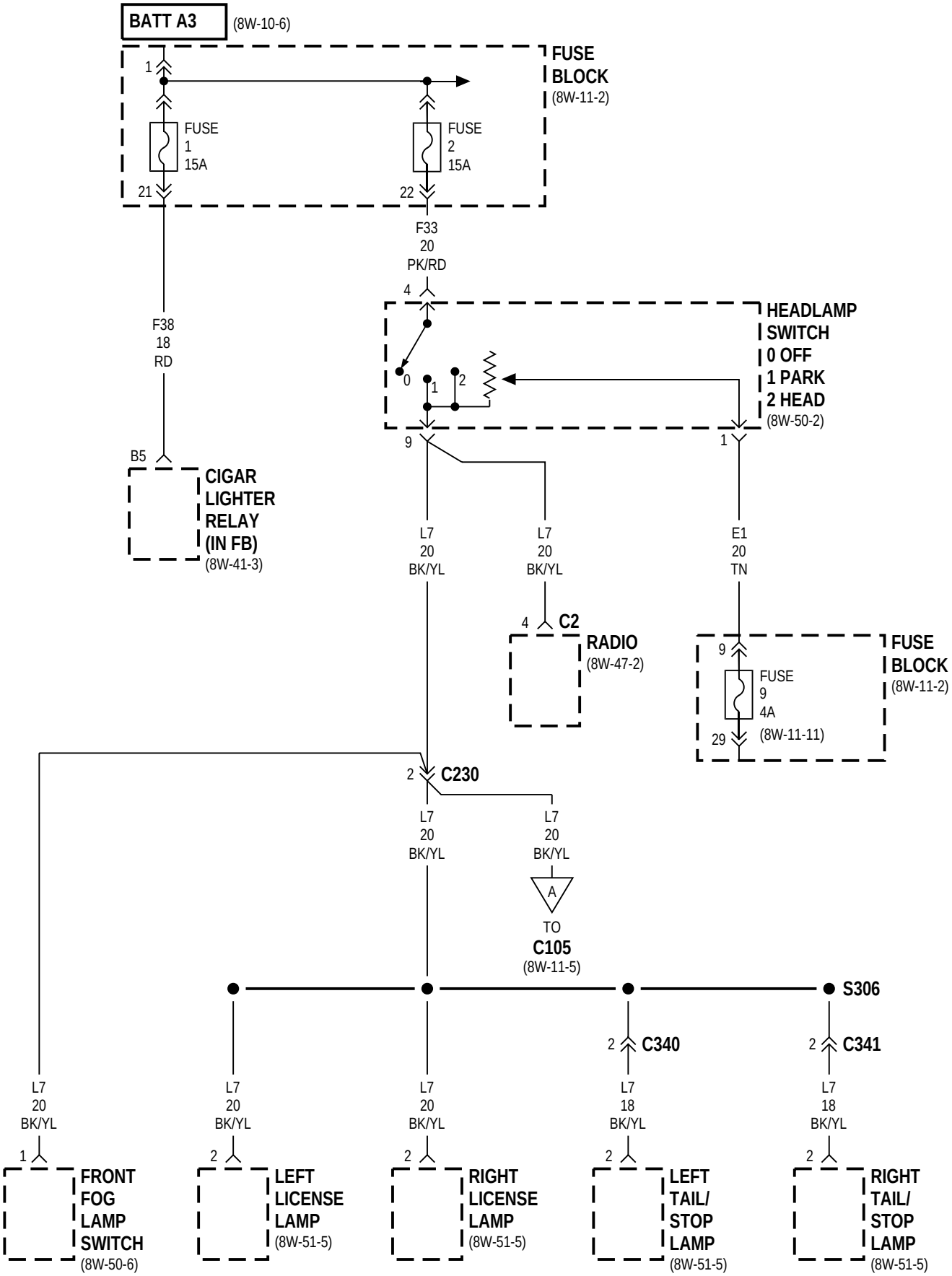
FUSE NO.	AMPS	FEED CIRCUIT	FUSED CIRCUIT
1	15A	A3 12RD/WT	F38 16RD
2	15A	A3 12RD/WT	F33 20PK/RD
3	20A	A3 12RD/WT	F35 16RD/YL
5	10A	A22 12BK/OR	F20 20WT
6	10A	A22 12BK/OR	L5 20BK
7	25A	A22 12BK/OR	C1 14DG
8	10A	A22 12BK/OR	F20 20WT
9	4A	E1 20TN	E2 20OR
10	15A	A21 14DB	F15 18DB/WT
11	5A	A21 14DB	G5 20DB/WT
			G5 20DB/WT
12	10A	A21 14DB	E2 20OR
13	-		-
14	20A	A31 14BK/WT	F10 18YL/RD
15	20A	A31 14BK/WT	F13 18DB
16	10A	A31 14BK/WT	X12 20RD/WT
17	10A	L4 14VT/WT	L43 20VT
18	10A	L4 14VT/WT	L44 20VT/RD
19	-		-
20	-		-

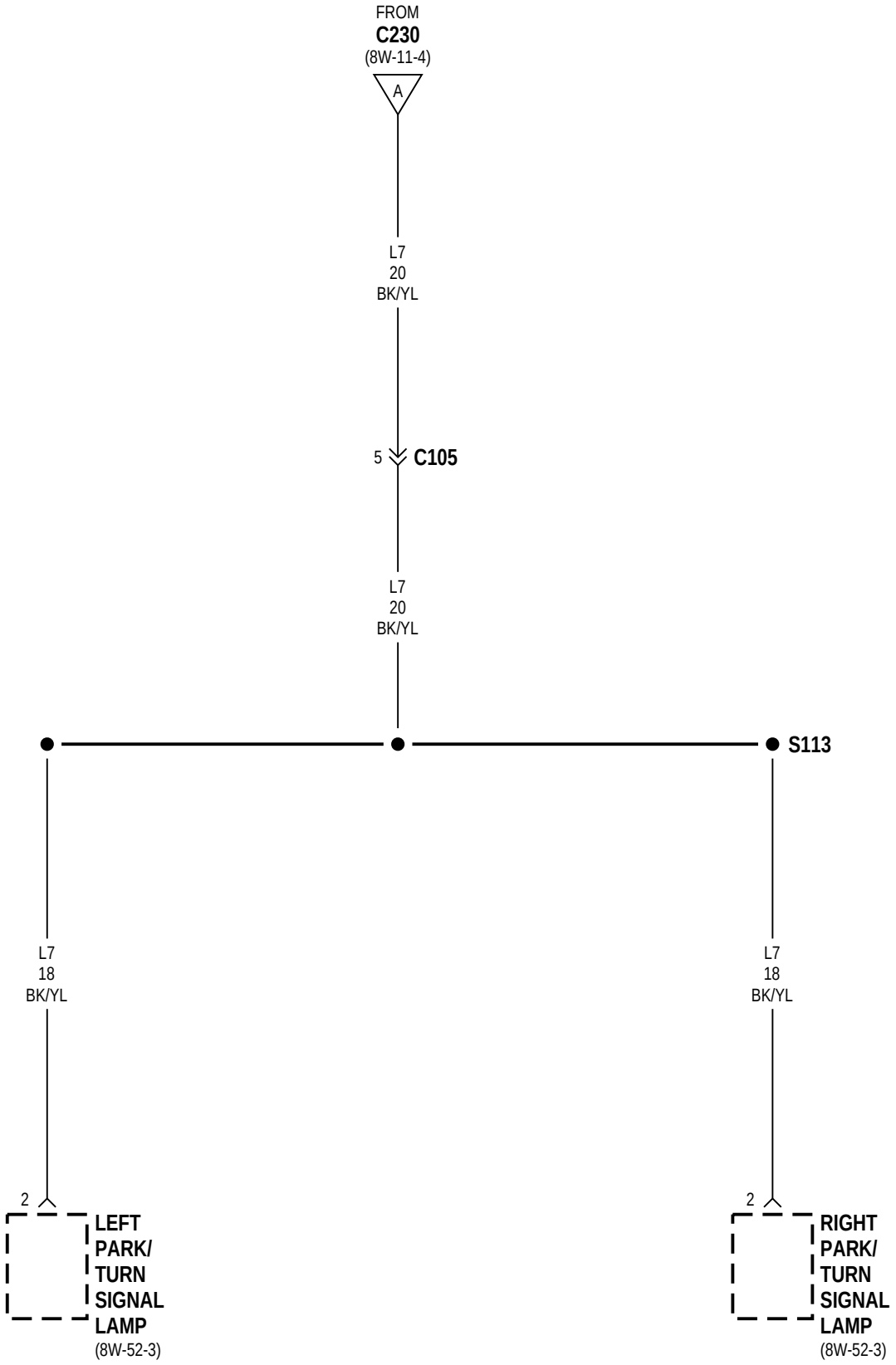
COMBINATION FLASHER (A)

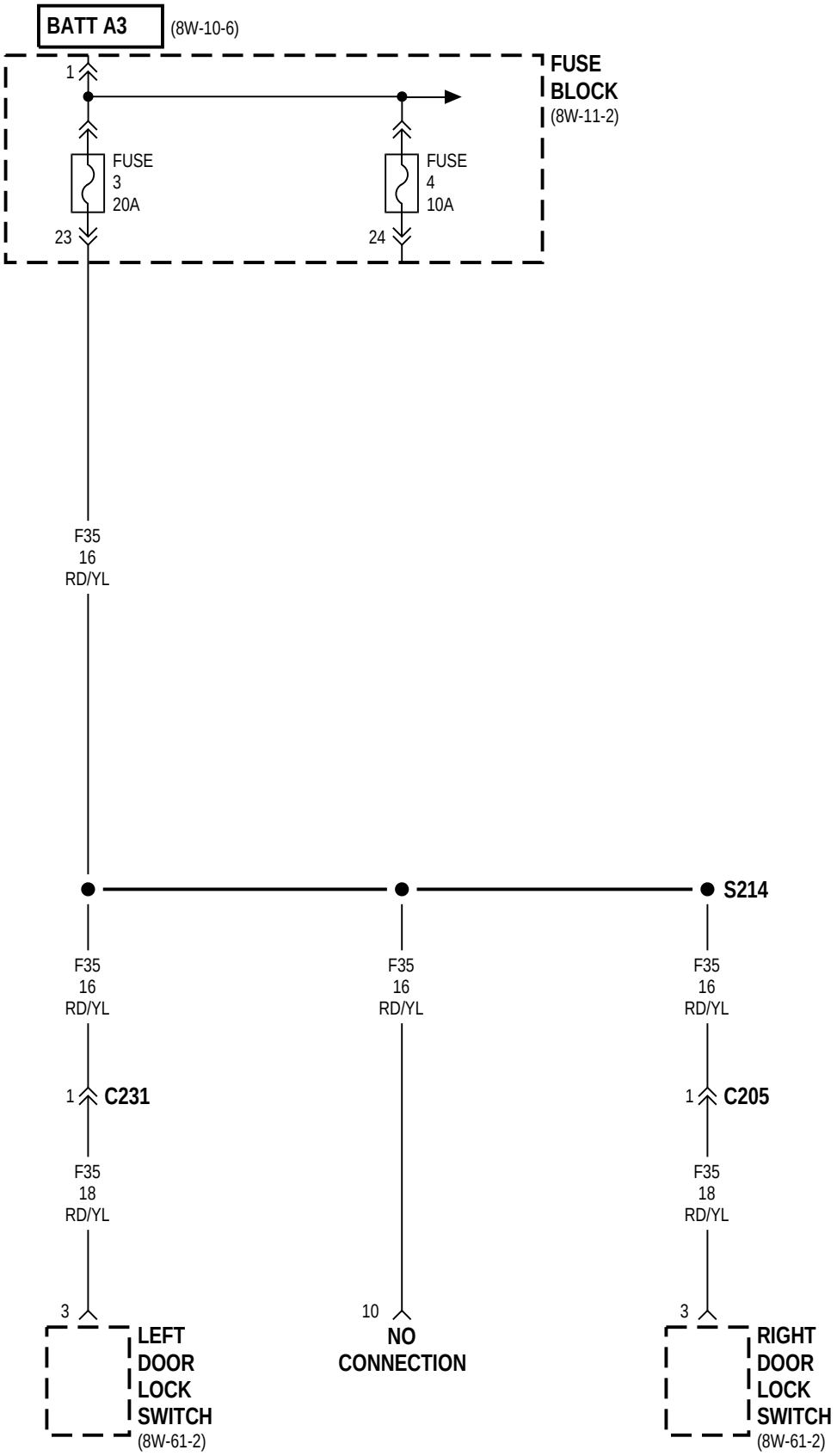
CAVITY	CIRCUIT	FUNCTION
A1	L55 20BK/YL	COMBINATION FLASHER INPUT
A2	L32 20PK	COMBINATION FLASHER OUTPUT
A3	Z2 20BK/LG	GROUND

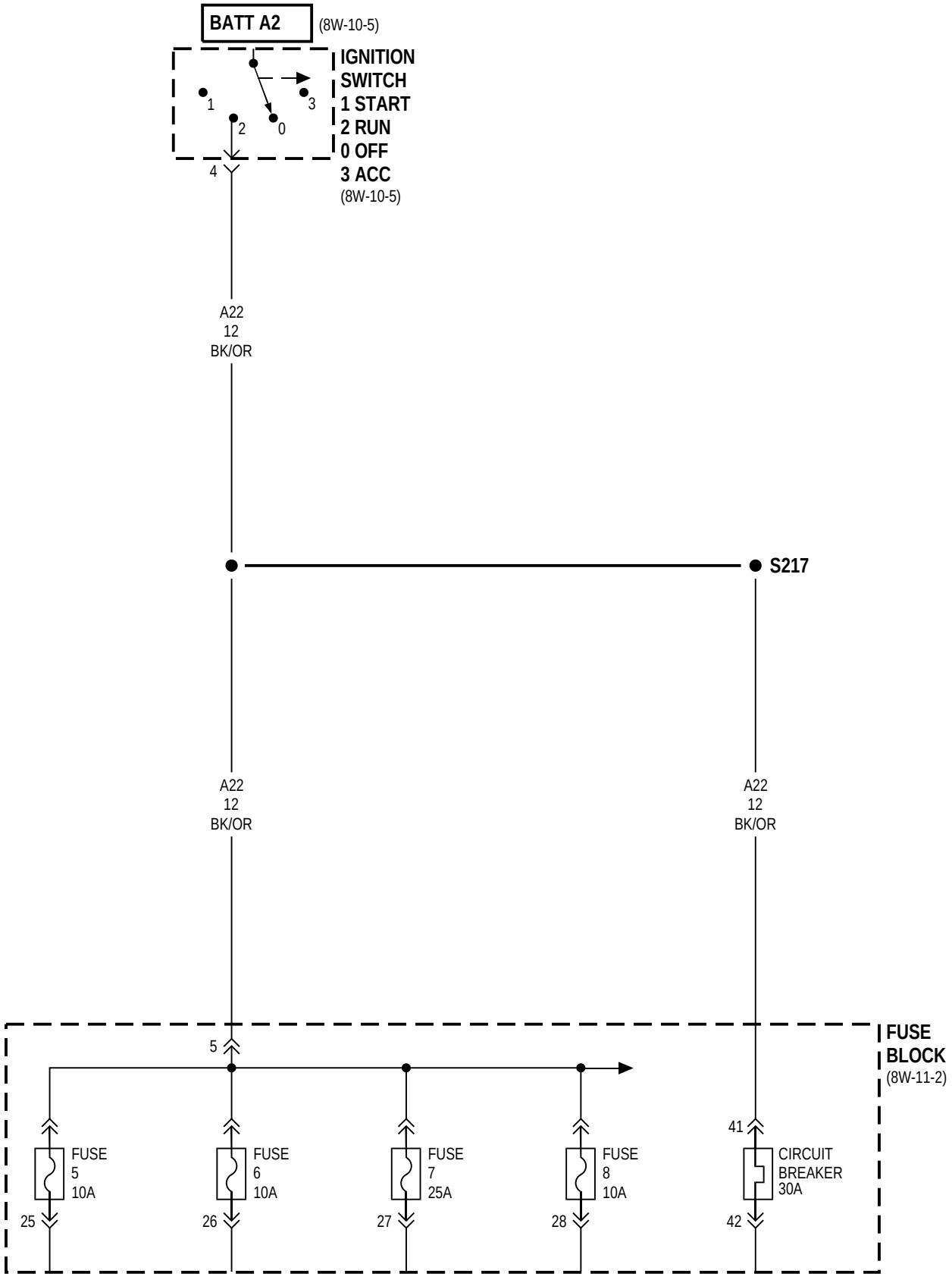
CIGAR LIGHTER RELAY (B)

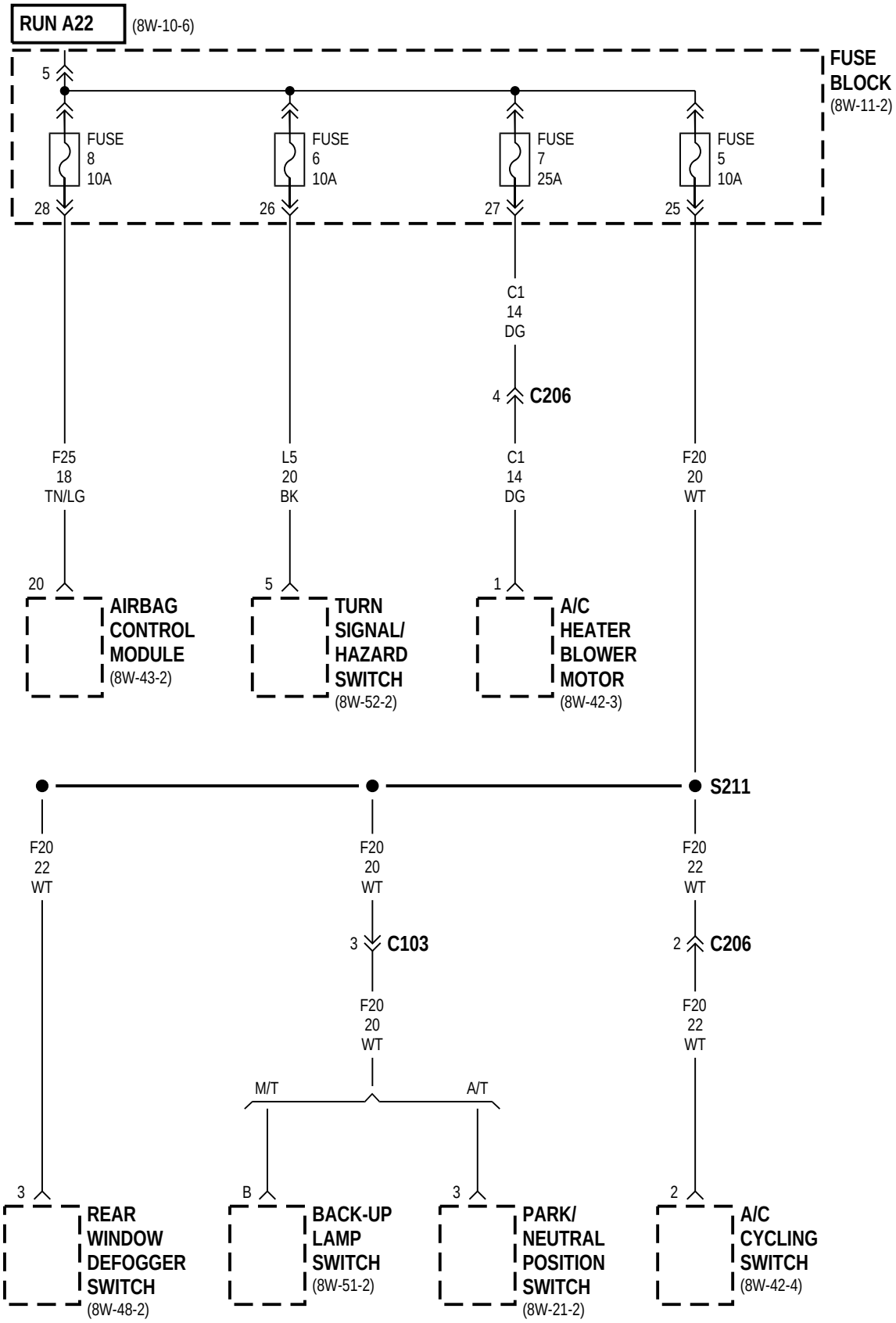
CAVITY	CIRCUIT	FUNCTION
B1	Z1 20BK	GROUND
B2	F38 16RD	CIGAR LIGHTER FEED
B2	F38 18RD	CATALYST TEMP SENSOR FEED
B3	F13 18DB	FEED TO CIGAR LIGHTER RELAY
B5	F38 18RD	CIGAR LIGHTER FEED FUSE BLOCK

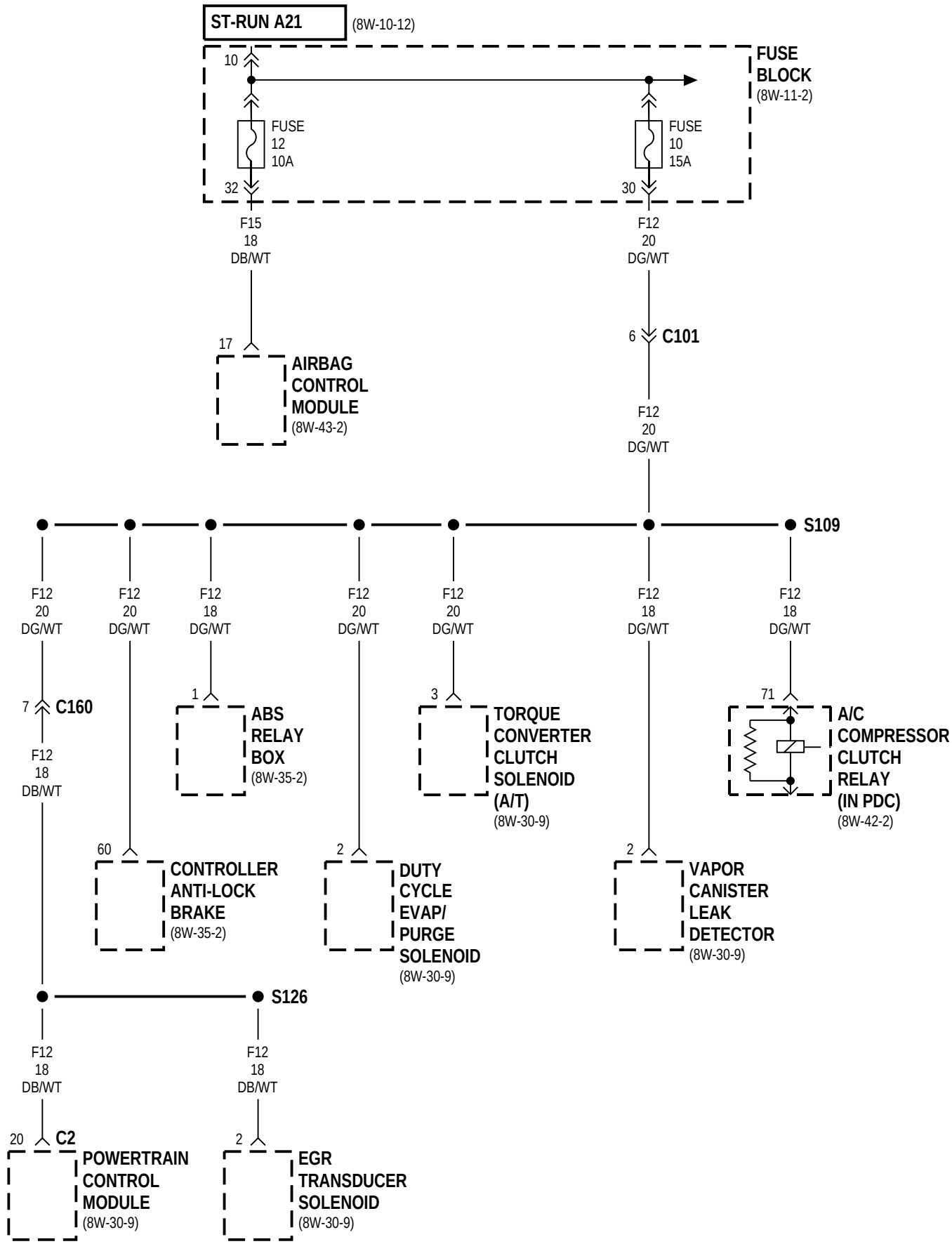

BATT A3
(8W-10-6)
FUSE BLOCK
(8W-11-2)
1
FUSE 1 15A
FUSE 2 15A
21
22
F33
20
PK/RD
4
F38
18
RD
HEADLAMP SWITCH
0 OFF
1 PARK
2 HEAD
(8W-50-2)
0
1
2
9
1
B5
CIGAR LIGHTER RELAY (IN FB)
(8W-41-3)
L7
20
BK/YL
L7
20
BK/YL
E1
20
TN
4
C2
RADIO
(8W-47-2)
9
FUSE 9 4A
29
(8W-11-11)
FUSE BLOCK
(8W-11-2)
2
C230
L7
20
BK/YL
L7
20
BK/YL
A
TO
C105
(8W-11-5)
S306
2
C340
2
C341
L7
20
BK/YL
L7
20
BK/YL
L7
20
BK/YL
L7
18
BK/YL
L7
18
BK/YL
1
2
2
2
2
FRONT FOG LAMP SWITCH
(8W-50-6)
LEFT LICENSE LAMP
(8W-51-5)
RIGHT LICENSE LAMP
(8W-51-5)
LEFT TAIL/ STOP LAMP
(8W-51-5)
RIGHT TAIL/ STOP LAMP
(8W-51-5)

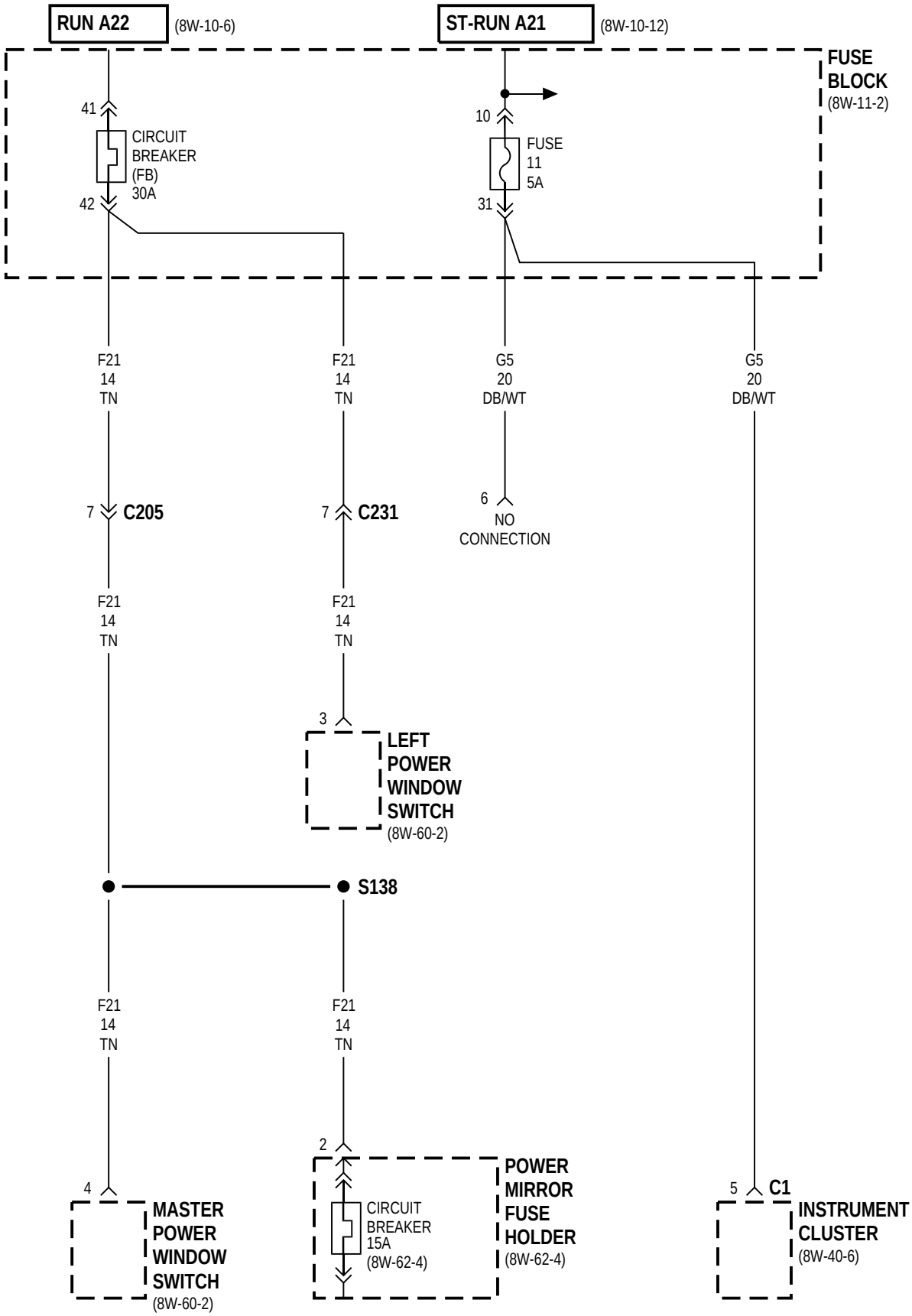

FROM
C230
(8W-11-4)
A
L7
20
BK/YL
5
C105
L7
20
BK/YL
S113
L7
18
BK/YL
L7
18
BK/YL
2
LEFT
PARK/
TURN
SIGNAL
LAMP
(8W-52-3)
2
RIGHT
PARK/
TURN
SIGNAL
LAMP
(8W-52-3)

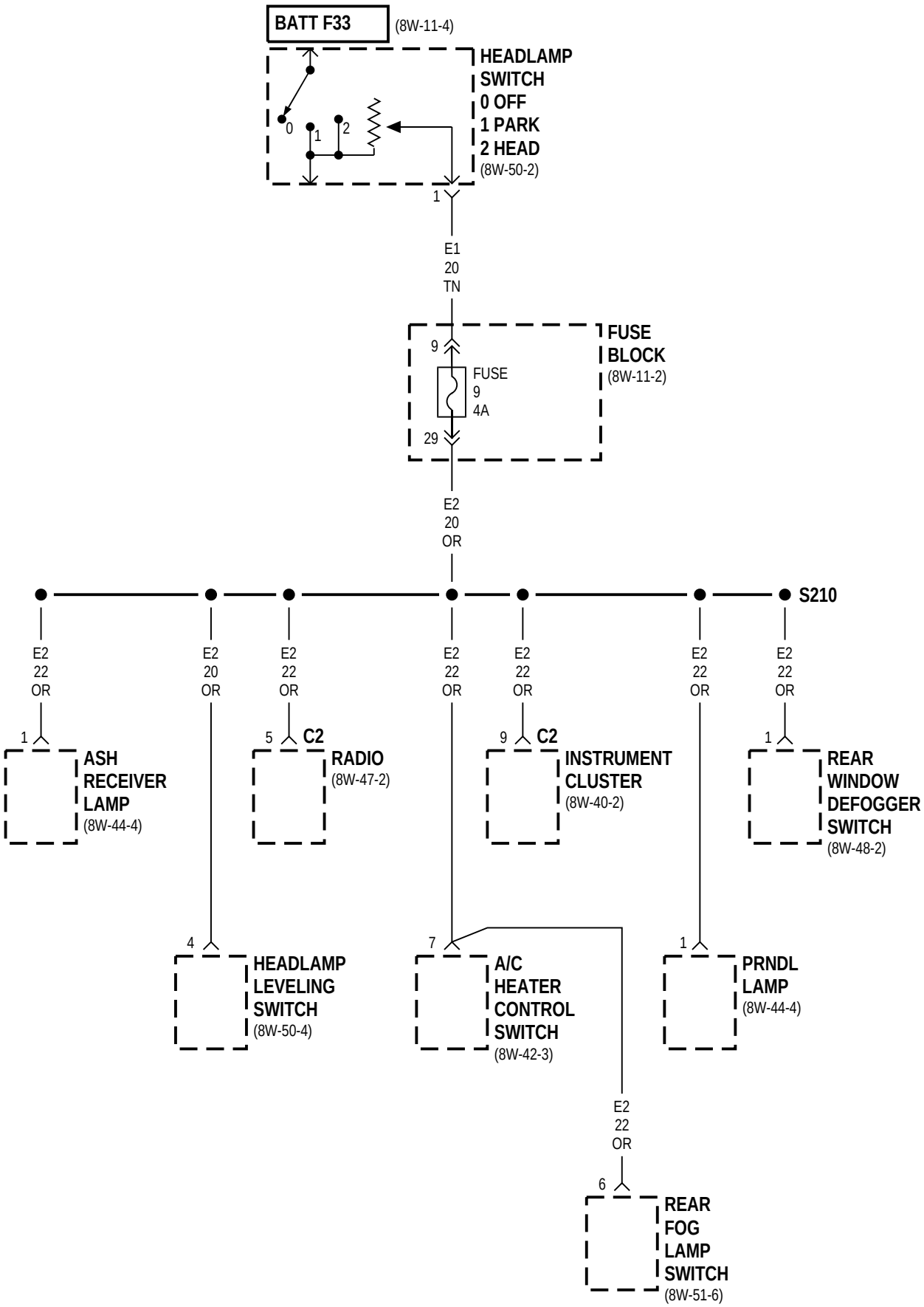

BATT A3
(8W-10-6)
1
FUSE
BLOCK
(8W-11-2)
FUSE
3
20A
FUSE
4
10A
23
24
F35
16
RD/YL
S214
F35
16
RD/YL
F35
16
RD/YL
F35
16
RD/YL
1
C231
1
C205
F35
18
RD/YL
F35
18
RD/YL
3
10
3
LEFT
DOOR
LOCK
SWITCH
(8W-61-2)
NO
CONNECTION
RIGHT
DOOR
LOCK
SWITCH
(8W-61-2)

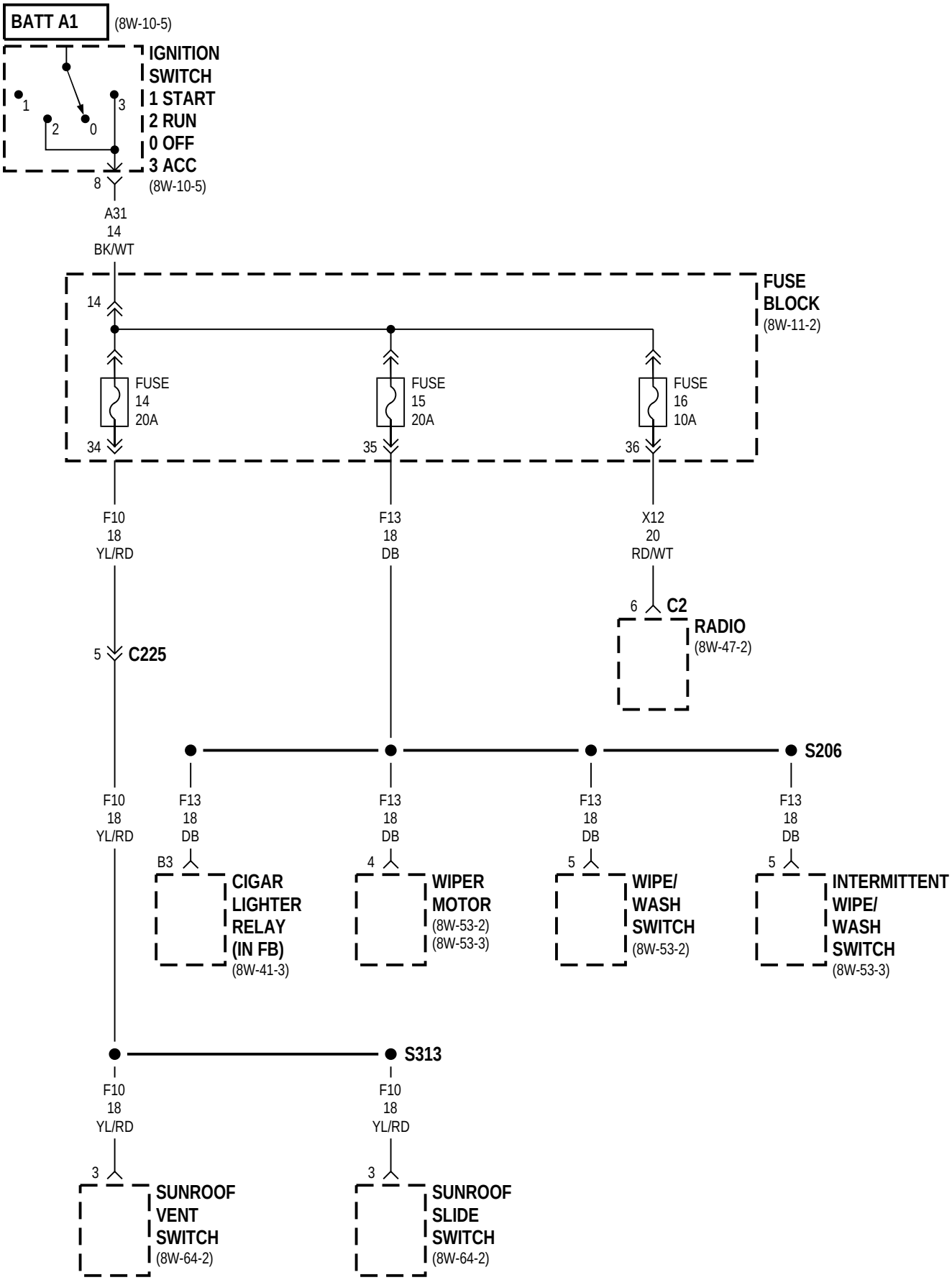

BATT A2
(8W-10-5)
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 ACC
(8W-10-5)
1
2
0
3
4
A22
12
BK/OR
S217
A22
12
BK/OR
A22
12
BK/OR
FUSE BLOCK
(8W-11-2)
5
FUSE 5 10A
FUSE 6 10A
FUSE 7 25A
FUSE 8 10A
41
CIRCUIT BREAKER 30A
25
26
27
28
42

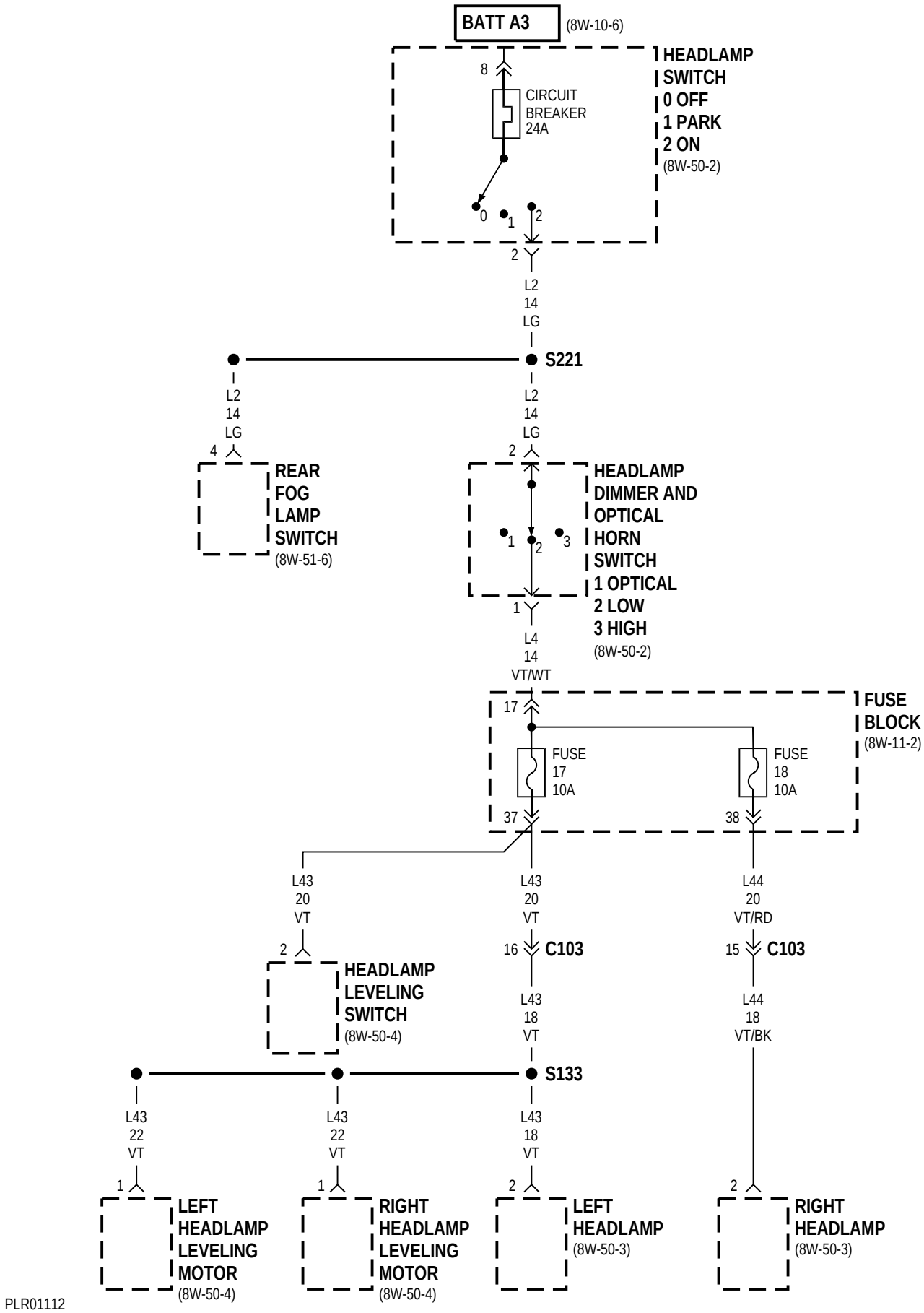

RUN A22
(8W-10-6)
5
FUSE
8
10A
28
FUSE
6
10A
26
FUSE
7
25A
27
FUSE
5
10A
25
FUSE BLOCK
(8W-11-2)
C1
14
DG
4
C206
F25
18
TN/LG
L5
20
BK
C1
14
DG
F20
20
WT
20
AIRBAG CONTROL MODULE
(8W-43-2)
5
TURN SIGNAL/ HAZARD SWITCH
(8W-52-2)
1
A/C HEATER BLOWER MOTOR
(8W-42-3)
S211
F20
22
WT
F20
20
WT
F20
22
WT
3
C103
2
C206
F20
20
WT
F20
22
WT
M/T
A/T
3
REAR WINDOW DEFOGGER SWITCH
(8W-48-2)
B
BACK-UP LAMP SWITCH
(8W-51-2)
3
PARK/ NEUTRAL POSITION SWITCH
(8W-21-2)
2
A/C CYCLING SWITCH
(8W-42-4)


ST-RUN A21
(8W-10-12)
10
FUSE BLOCK
(8W-11-2)
FUSE 12 10A
FUSE 10 15A
32
30
F15 18 DB/WT
F12 20 DG/WT
17
AIRBAG CONTROL MODULE
(8W-43-2)
6
C101
F12 20 DG/WT
S109
F12 20 DG/WT
F12 20 DG/WT
F12 18 DG/WT
F12 20 DG/WT
F12 20 DG/WT
F12 18 DG/WT
F12 18 DG/WT
7
C160
F12 18 DB/WT
1
ABS RELAY BOX
(8W-35-2)
3
TORQUE CONVERTER CLUTCH SOLENOID (A/T)
(8W-30-9)
71
A/C COMPRESSOR CLUTCH RELAY (IN PDC)
(8W-42-2)
60
CONTROLLER ANTI-LOCK BRAKE
(8W-35-2)
2
DUTY CYCLE EVAP/ PURGE SOLENOID
(8W-30-9)
2
VAPOR CANISTER LEAK DETECTOR
(8W-30-9)
S126
F12 18 DB/WT
F12 18 DB/WT
20
C2
POWERTRAIN CONTROL MODULE
(8W-30-9)
2
EGR TRANSDUCER SOLENOID
(8W-30-9)


RUN A22
(8W-10-6)
ST-RUN A21
(8W-10-12)
FUSE BLOCK
(8W-11-2)
41
CIRCUIT BREAKER (FB) 30A
42
10
FUSE 11 5A
31
F21 14 TN
F21 14 TN
G5 20 DB/WT
G5 20 DB/WT
7 C205
7 C231
6 NO CONNECTION
F21 14 TN
F21 14 TN
3
LEFT POWER WINDOW SWITCH
(8W-60-2)
S138
F21 14 TN
F21 14 TN
2
CIRCUIT BREAKER 15A
(8W-62-4)
POWER MIRROR FUSE HOLDER
(8W-62-4)
4
MASTER POWER WINDOW SWITCH
(8W-60-2)
5 C1
INSTRUMENT CLUSTER
(8W-40-6)


BATT F33
(8W-11-4)
HEADLAMP SWITCH
0 OFF
1 PARK
2 HEAD
(8W-50-2)
0
1
2
1
E1
20
TN
9
FUSE
9
4A
29
FUSE BLOCK
(8W-11-2)
E2
20
OR
S210
E2
22
OR
1
ASH RECEIVER LAMP
(8W-44-4)
E2
20
OR
4
HEADLAMP LEVELING SWITCH
(8W-50-4)
E2
22
OR
5
C2
RADIO
(8W-47-2)
E2
22
OR
7
A/C HEATER CONTROL SWITCH
(8W-42-3)
E2
22
OR
6
REAR FOG LAMP SWITCH
(8W-51-6)
E2
22
OR
9
C2
INSTRUMENT CLUSTER
(8W-40-2)
E2
22
OR
1
PRNDL LAMP
(8W-44-4)
E2
22
OR
1
REAR WINDOW DEFOGGER SWITCH
(8W-48-2)


BATT A1
(8W-10-5)
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 ACC
(8W-10-5)
1
2
0
3
8
A31
14
BK/WT
FUSE BLOCK
(8W-11-2)
14
FUSE 14 20A
FUSE 15 20A
FUSE 16 10A
34
35
36
F10
18
YL/RD
F13
18
DB
X12
20
RD/WT
6
C2
RADIO
(8W-47-2)
5
C225
S206
F10
18
YL/RD
F13
18
DB
B3
CIGAR LIGHTER RELAY (IN FB)
(8W-41-3)
F13
18
DB
4
WIPER MOTOR
(8W-53-2)
(8W-53-3)
F13
18
DB
5
WIPE/ WASH SWITCH
(8W-53-2)
F13
18
DB
5
INTERMITTENT WIPE/ WASH SWITCH
(8W-53-3)
S313
F10
18
YL/RD
3
SUNROOF VENT SWITCH
(8W-64-2)
F10
18
YL/RD
3
SUNROOF SLIDE SWITCH
(8W-64-2)


BATT A3
(8W-10-6)
8
CIRCUIT BREAKER 24A
HEADLAMP SWITCH
0 OFF
1 PARK
2 ON
(8W-50-2)
0
1
2
2
L2 14 LG
S221
L2 14 LG
4
REAR FOG LAMP SWITCH
(8W-51-6)
L2 14 LG
2
HEADLAMP DIMMER AND OPTICAL HORN SWITCH
1 OPTICAL
2 LOW
3 HIGH
(8W-50-2)
1
2
3
1
L4 14 VT/WT
FUSE BLOCK
(8W-11-2)
17
FUSE 17 10A
FUSE 18 10A
37
38
L43 20 VT
L43 20 VT
L44 20 VT/RD
2
HEADLAMP LEVELING SWITCH
(8W-50-4)
16
C103
15
C103
L43 18 VT
L44 18 VT/BK
S133
L43 22 VT
L43 22 VT
L43 18 VT
1
1
2
2
LEFT HEADLAMP LEVELING MOTOR
(8W-50-4)
RIGHT HEADLAMP LEVELING MOTOR
(8W-50-4)
LEFT HEADLAMP
(8W-50-3)
RIGHT HEADLAMP
(8W-50-3)

8W-11 FUSE/FUSE BLOCK

DESCRIPTION AND OPERATION

This section covers the fuse block and all circuits involved with it. For additional information on system operation, please refer to the appropriate section of the wiring diagrams.

8W-15 GROUND DISTRIBUTION

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Right Turn Signal Lamp	8W-15-9
S104	8W-15-3
S107	8W-15-2
S108	8W-15-2
S111	8W-15-2
S117	8W-15-4
S119	8W-15-2
S127	8W-15-2
S201	8W-15-7
S202	8W-15-7
S205	8W-15-5
S307	8W-15-9
S308	8W-15-8
S310	8W-15-6
S314	8W-15-6
S315	8W-15-8
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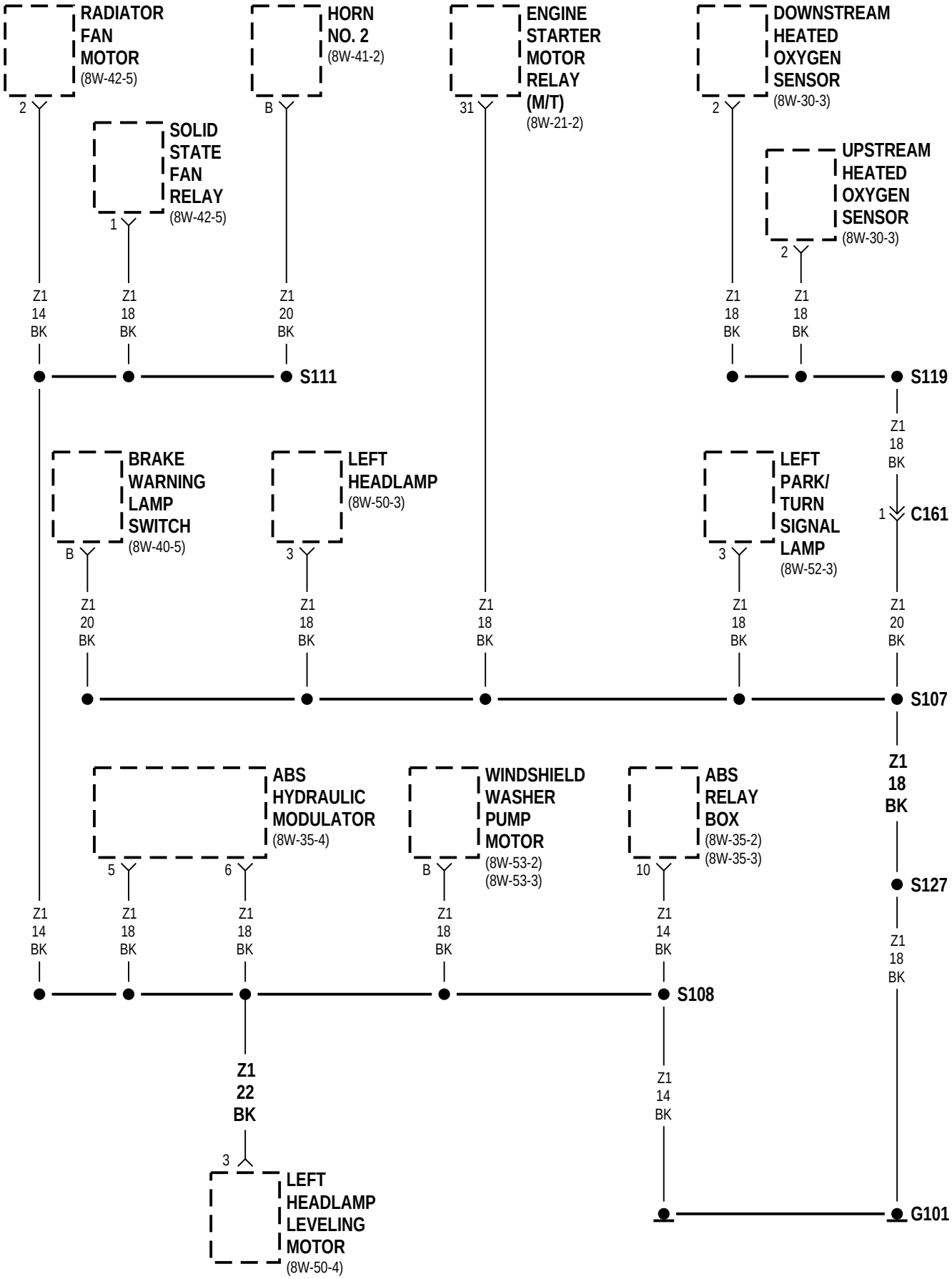
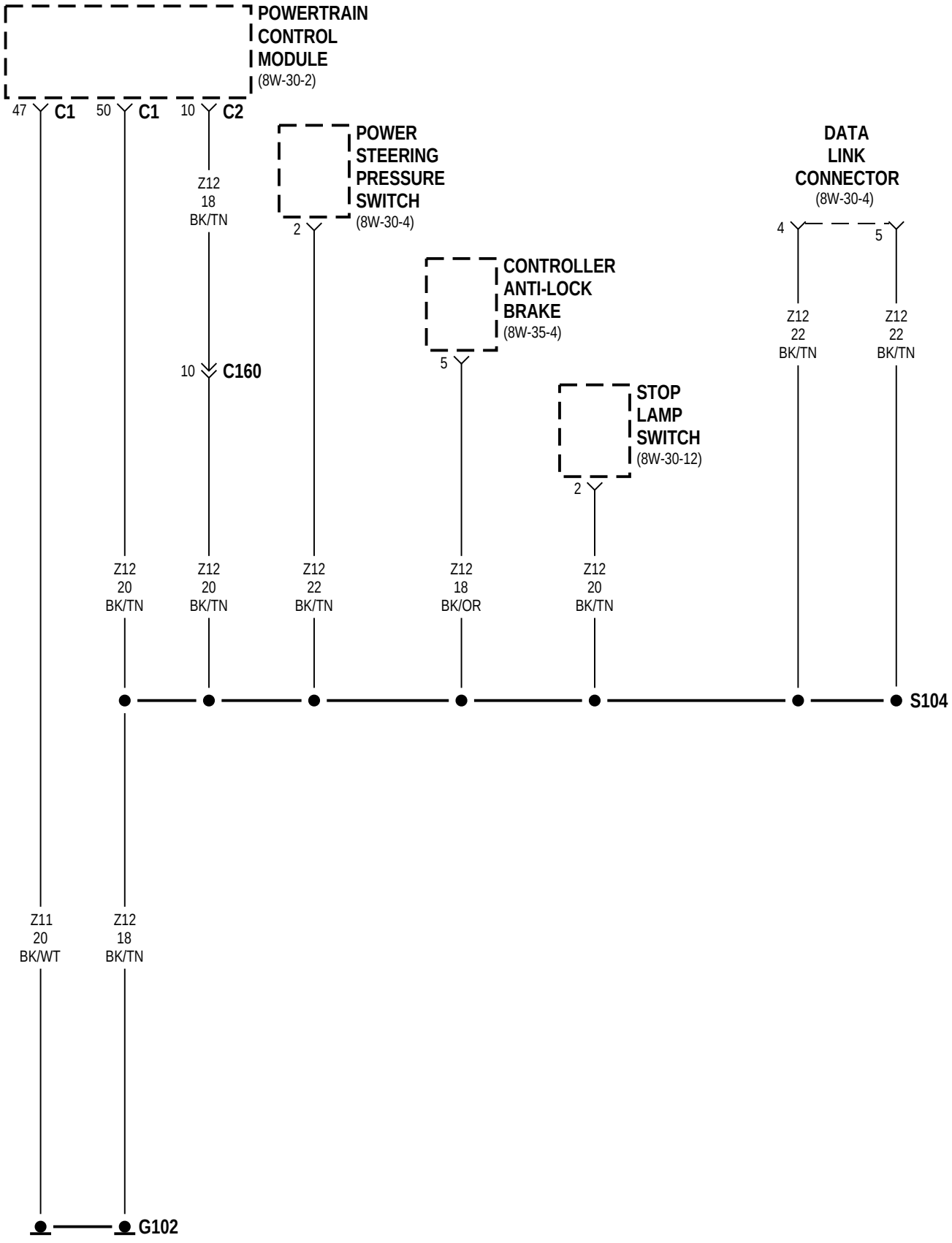
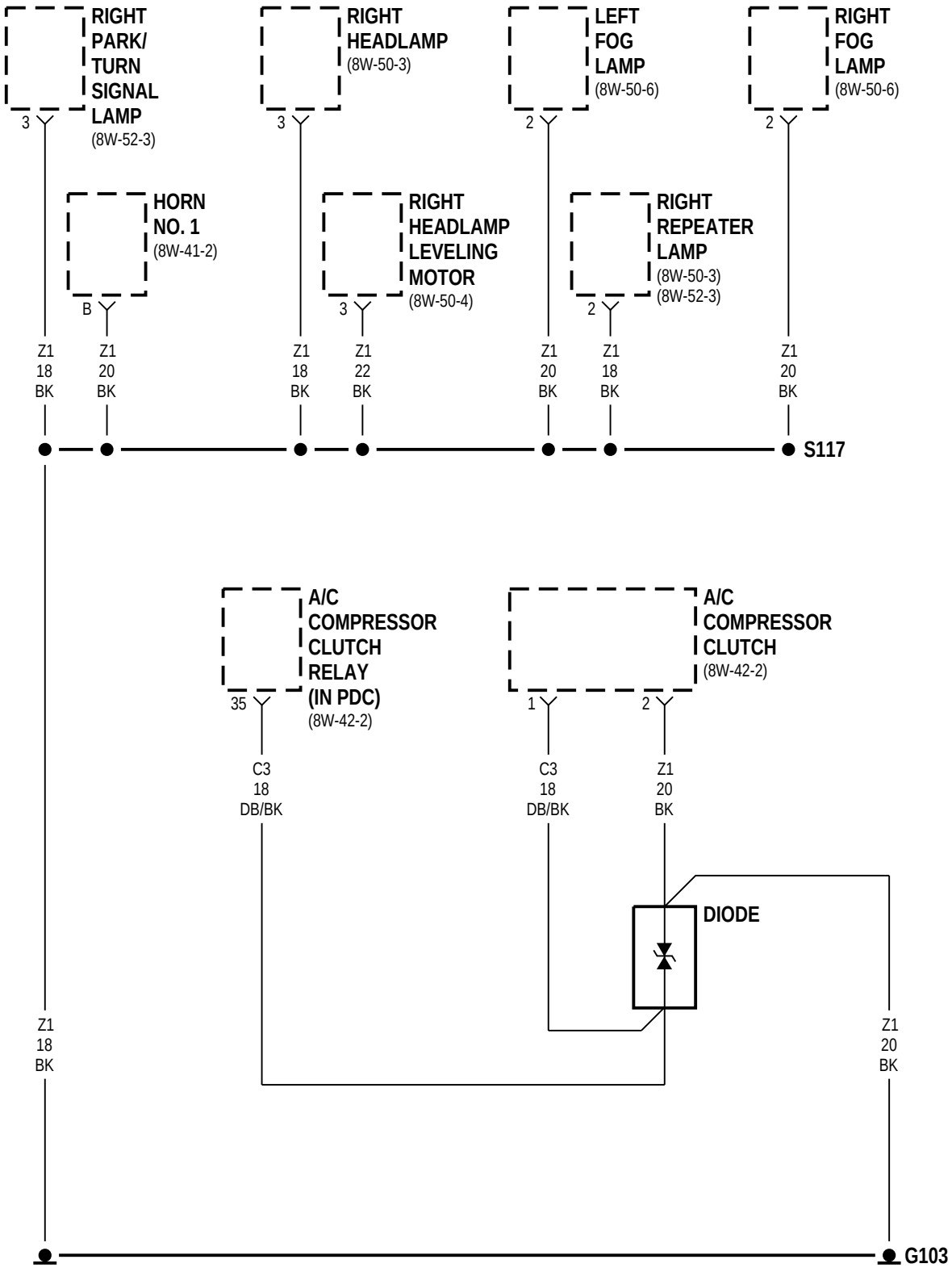
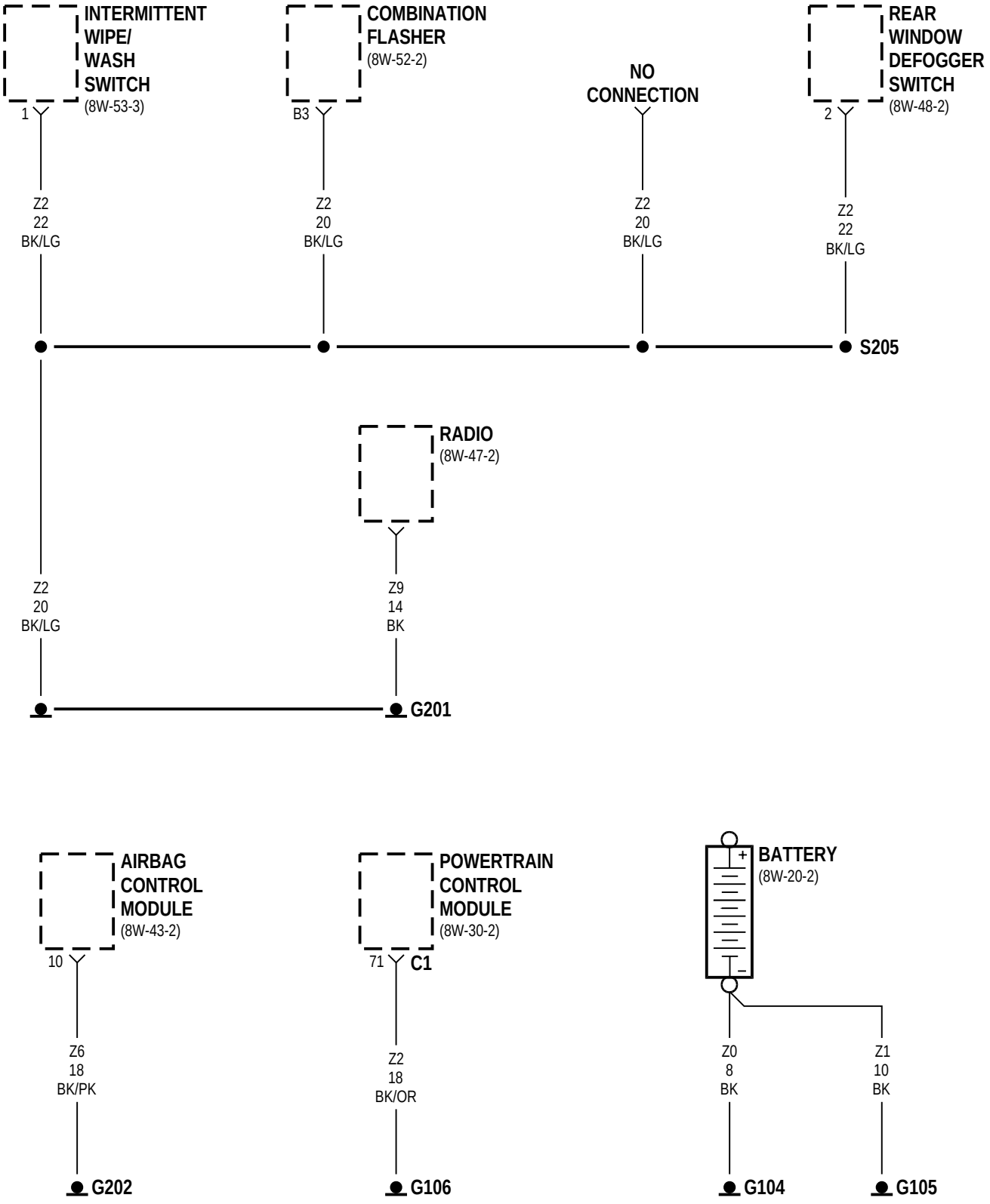
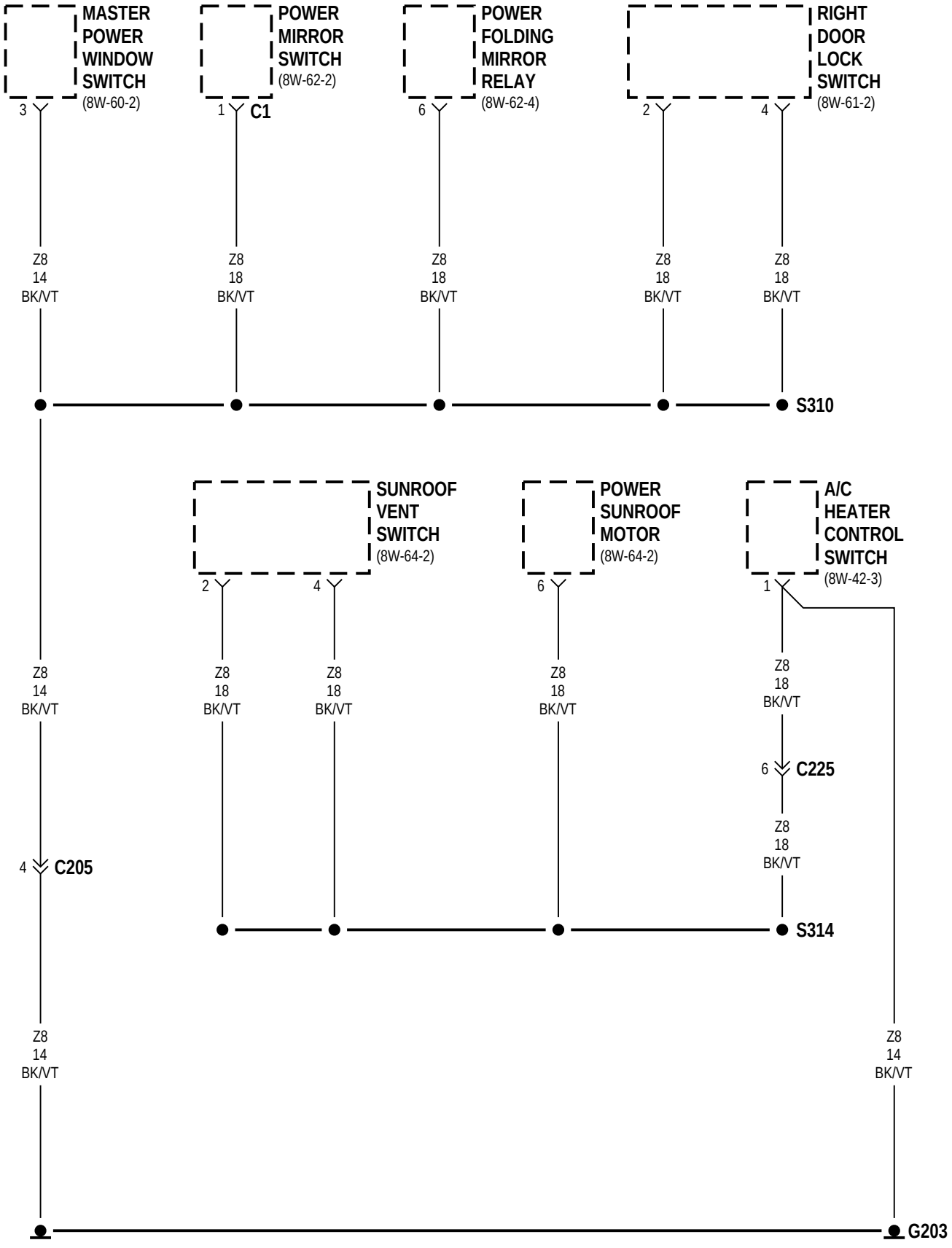
Sunroof Vent Switch	8W-15-6
Upstream Heated Oxygen Sensor	8W-15-2
Windshield Washer Pump Motor	8W-15-2

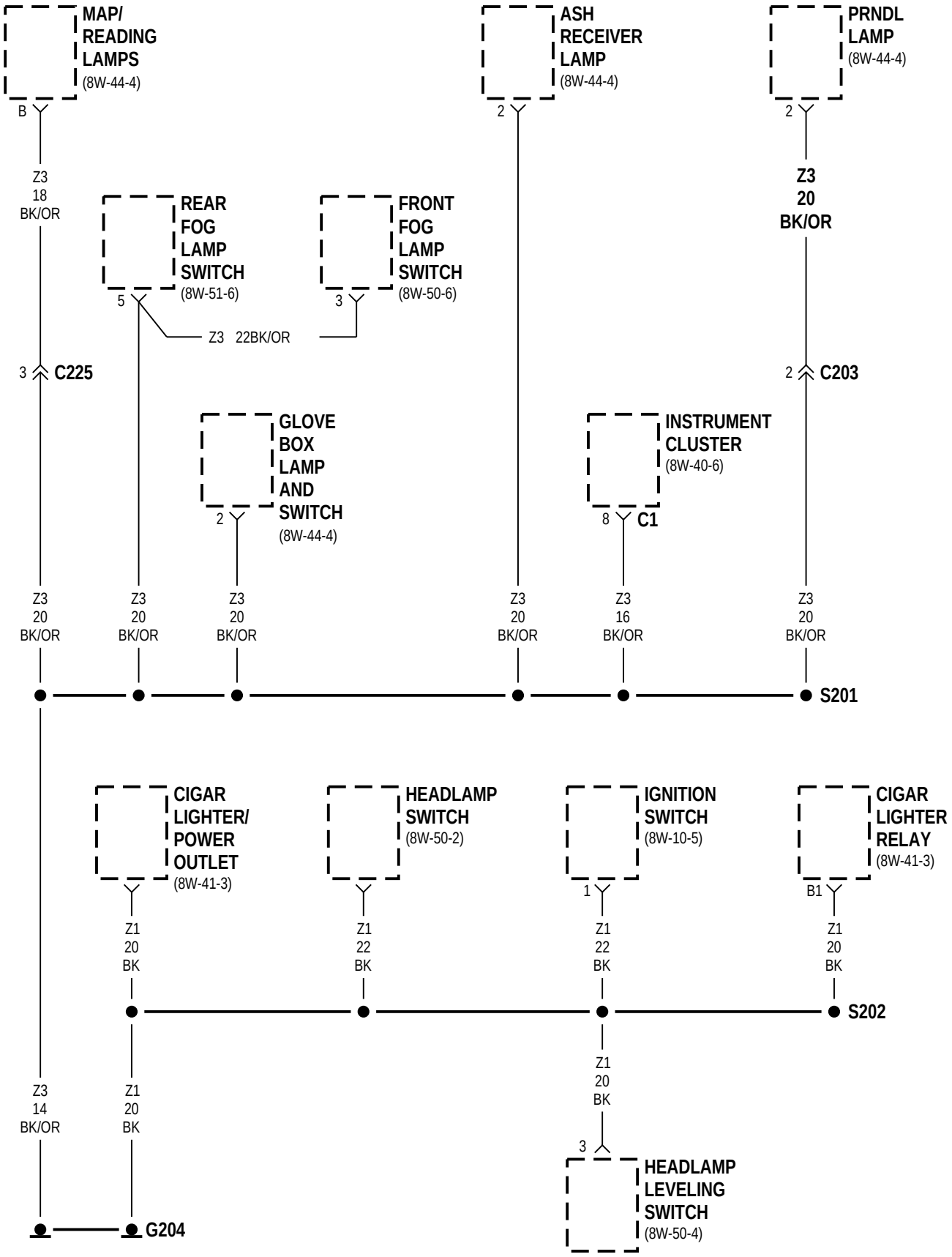

RADIATOR FAN MOTOR (8W-42-5)
2
SOLID STATE FAN RELAY (8W-42-5)
1
HORN NO. 2 (8W-41-2)
B
ENGINE STARTER MOTOR RELAY (M/T) (8W-21-2)
31
DOWNSTREAM HEATED OXYGEN SENSOR (8W-30-3)
2
UPSTREAM HEATED OXYGEN SENSOR (8W-30-3)
2
Z1 14 BK
Z1 18 BK
Z1 20 BK
Z1 18 BK
Z1 18 BK
S111
S119
Z1 18 BK
1
C161
BRAKE WARNING LAMP SWITCH (8W-40-5)
B
LEFT HEADLAMP (8W-50-3)
3
LEFT PARK/ TURN SIGNAL LAMP (8W-52-3)
3
Z1 20 BK
Z1 18 BK
Z1 18 BK
Z1 18 BK
Z1 20 BK
S107
Z1 18 BK
ABS HYDRAULIC MODULATOR (8W-35-4)
5
6
WINDSHIELD WASHER PUMP MOTOR (8W-53-2) (8W-53-3)
B
ABS RELAY BOX (8W-35-2) (8W-35-3)
10
Z1 14 BK
Z1 18 BK
Z1 18 BK
Z1 18 BK
Z1 14 BK
S108
S127
Z1 18 BK
Z1 22 BK
3
Z1 14 BK
LEFT HEADLAMP LEVELING MOTOR (8W-50-4)
G101

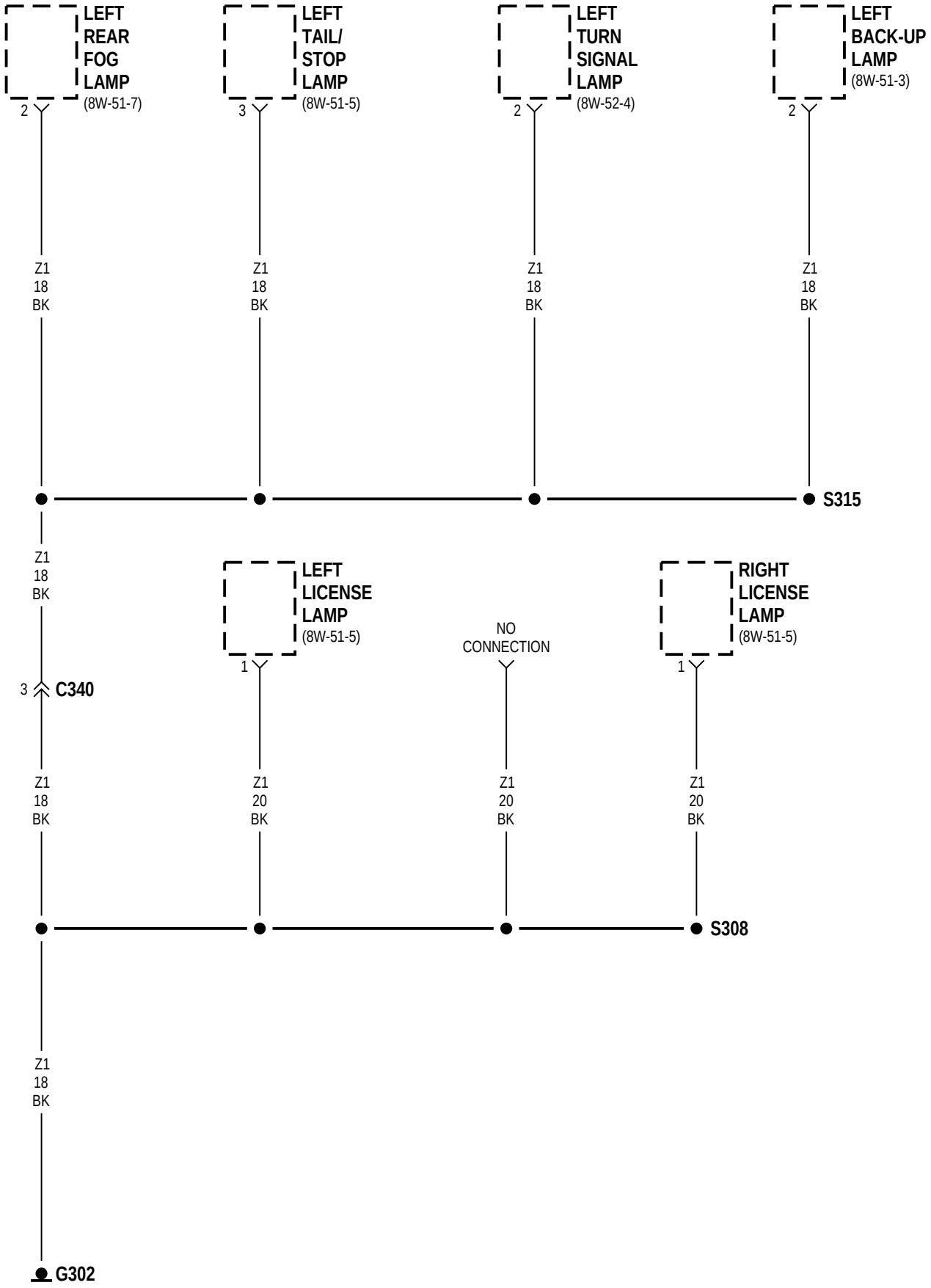

POWERTRAIN CONTROL MODULE
(8W-30-2)
47 C1
50 C1
10 C2
Z12 18 BK/TN
10 C160
POWER STEERING PRESSURE SWITCH
(8W-30-4)
2
CONTROLLER ANTI-LOCK BRAKE
(8W-35-4)
5
STOP LAMP SWITCH
(8W-30-12)
2
DATA LINK CONNECTOR
(8W-30-4)
4
5
Z12 22 BK/TN
Z12 22 BK/TN
Z12 20 BK/TN
Z12 20 BK/TN
Z12 22 BK/TN
Z12 18 BK/OR
Z12 20 BK/TN
S104
Z11 20 BK/WT
Z12 18 BK/TN
G102

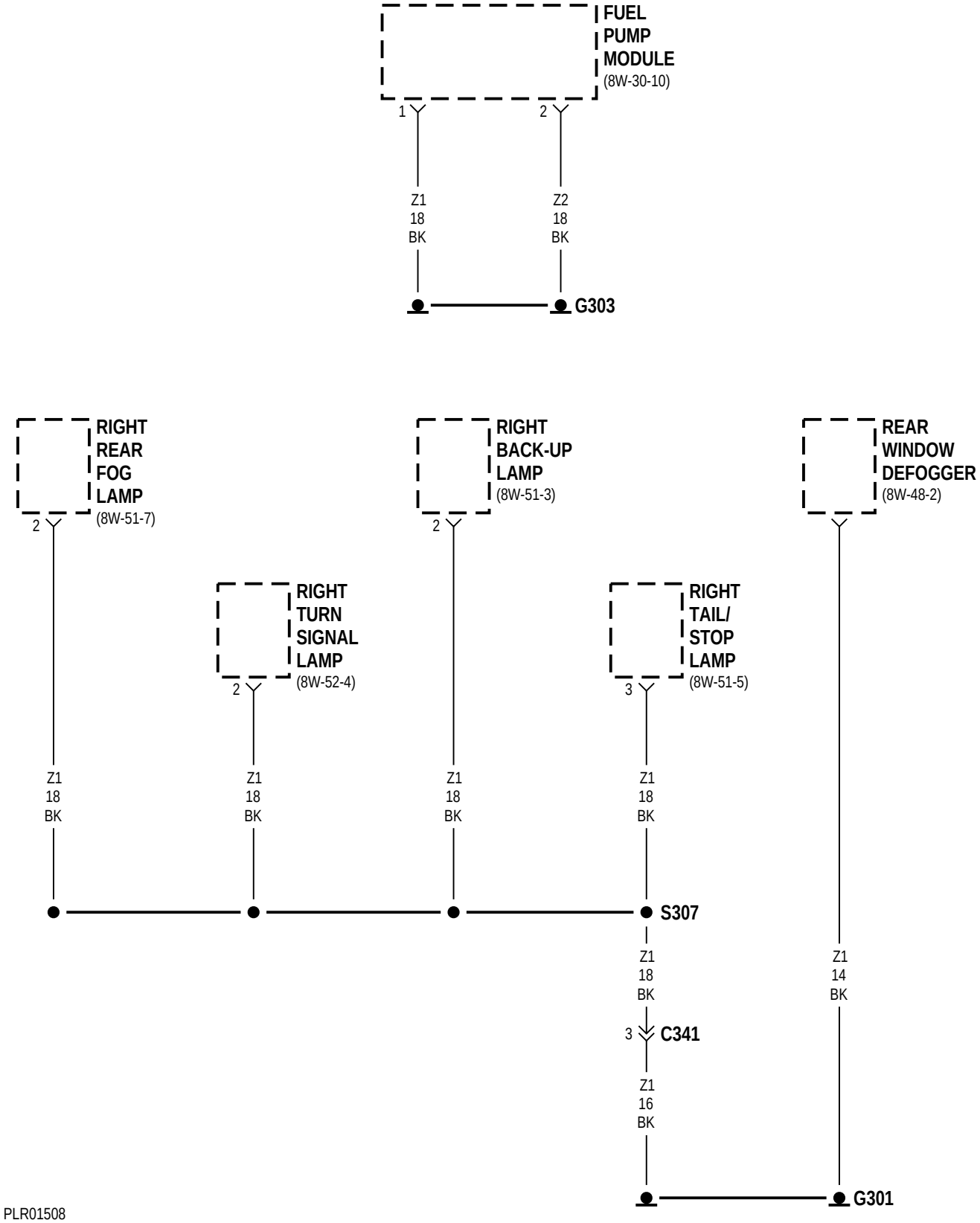

RIGHT PARK/ TURN SIGNAL LAMP (8W-52-3)
3
Z1 18 BK
RIGHT HEADLAMP (8W-50-3)
3
Z1 18 BK
LEFT FOG LAMP (8W-50-6)
2
Z1 20 BK
RIGHT FOG LAMP (8W-50-6)
2
Z1 20 BK
HORN NO. 1 (8W-41-2)
B
Z1 20 BK
RIGHT HEADLAMP LEVELING MOTOR (8W-50-4)
3
Z1 22 BK
RIGHT REPEATER LAMP (8W-50-3) (8W-52-3)
2
Z1 18 BK
S117
A/C COMPRESSOR CLUTCH RELAY (IN PDC) (8W-42-2)
35
C3 18 DB/BK
A/C COMPRESSOR CLUTCH (8W-42-2)
1
C3 18 DB/BK
2
Z1 20 BK
DIODE
Z1 18 BK
Z1 20 BK
G103


INTERMITTENT WIPE/ WASH SWITCH
(8W-53-3)
1
COMBINATION FLASHER
(8W-52-2)
B3
NO CONNECTION
REAR WINDOW DEFOGGER SWITCH
(8W-48-2)
2
Z2 22 BK/LG
Z2 20 BK/LG
Z2 20 BK/LG
Z2 22 BK/LG
S205
RADIO
(8W-47-2)
Z2 20 BK/LG
Z9 14 BK
G201
AIRBAG CONTROL MODULE
(8W-43-2)
10
POWERTRAIN CONTROL MODULE
(8W-30-2)
71
C1
BATTERY
(8W-20-2)
+
–
Z6 18 BK/PK
Z2 18 BK/OR
Z0 8 BK
Z1 10 BK
G202
G106
G104
G105


MASTER POWER WINDOW SWITCH
(8W-60-2)
3
POWER MIRROR SWITCH
(8W-62-2)
1
C1
POWER FOLDING MIRROR RELAY
(8W-62-4)
6
RIGHT DOOR LOCK SWITCH
(8W-61-2)
2
4
Z8 14 BK/VT
Z8 18 BK/VT
Z8 18 BK/VT
Z8 18 BK/VT
Z8 18 BK/VT
S310
SUNROOF VENT SWITCH
(8W-64-2)
2
4
POWER SUNROOF MOTOR
(8W-64-2)
6
A/C HEATER CONTROL SWITCH
(8W-42-3)
1
Z8 14 BK/VT
Z8 18 BK/VT
Z8 18 BK/VT
Z8 18 BK/VT
Z8 18 BK/VT
6
C225
Z8 18 BK/VT
4
C205
S314
Z8 14 BK/VT
Z8 14 BK/VT
G203


MAP/ READING LAMPS (8W-44-4)
B
Z3 18 BK/OR
3 C225
REAR FOG LAMP SWITCH (8W-51-6)
5
Z3 22BK/OR
FRONT FOG LAMP SWITCH (8W-50-6)
3
GLOVE BOX LAMP AND SWITCH (8W-44-4)
2
ASH RECEIVER LAMP (8W-44-4)
2
INSTRUMENT CLUSTER (8W-40-6)
8 C1
PRNDL LAMP (8W-44-4)
2
Z3 20 BK/OR
2 C203
Z3 20 BK/OR
Z3 20 BK/OR
Z3 20 BK/OR
Z3 20 BK/OR
Z3 16 BK/OR
Z3 20 BK/OR
S201
CIGAR LIGHTER/ POWER OUTLET (8W-41-3)
Z1 20 BK
HEADLAMP SWITCH (8W-50-2)
Z1 22 BK
IGNITION SWITCH (8W-10-5)
1
Z1 22 BK
CIGAR LIGHTER RELAY (8W-41-3)
B1
Z1 20 BK
S202
Z3 14 BK/OR
Z1 20 BK
G204
Z1 20 BK
3
HEADLAMP LEVELING SWITCH (8W-50-4)


LEFT REAR FOG LAMP
(8W-51-7)
2
LEFT TAIL/ STOP LAMP
(8W-51-5)
3
LEFT TURN SIGNAL LAMP
(8W-52-4)
2
LEFT BACK-UP LAMP
(8W-51-3)
2
Z1 18 BK
Z1 18 BK
Z1 18 BK
Z1 18 BK
S315
Z1 18 BK
3
C340
LEFT LICENSE LAMP
(8W-51-5)
1
NO CONNECTION
RIGHT LICENSE LAMP
(8W-51-5)
1
Z1 18 BK
Z1 20 BK
Z1 20 BK
Z1 20 BK
S308
Z1 18 BK
G302


FUEL
PUMP
MODULE
(8W-30-10)
1
2
Z1
18
BK
Z2
18
BK
G303
RIGHT
REAR
FOG
LAMP
(8W-51-7)
RIGHT
BACK-UP
LAMP
(8W-51-3)
REAR
WINDOW
DEFOGGER
(8W-48-2)
RIGHT
TURN
SIGNAL
LAMP
(8W-52-4)
RIGHT
TAIL/
STOP
LAMP
(8W-51-5)
2
3
Z1
18
BK
S307
Z1
14
BK
C341
Z1
16
BK
G301

8W-15 GROUND DISTRIBUTION

GENERAL INFORMATION

This section identifies the grounds, splices that connect to those grounds, and the components that connect those grounds. For additional information on system operation, refer to the appropriate section of the wiring diagrams. For an illustration of the physical location of each ground, refer to group 8W-90.

8W-20 CHARGING SYSTEM

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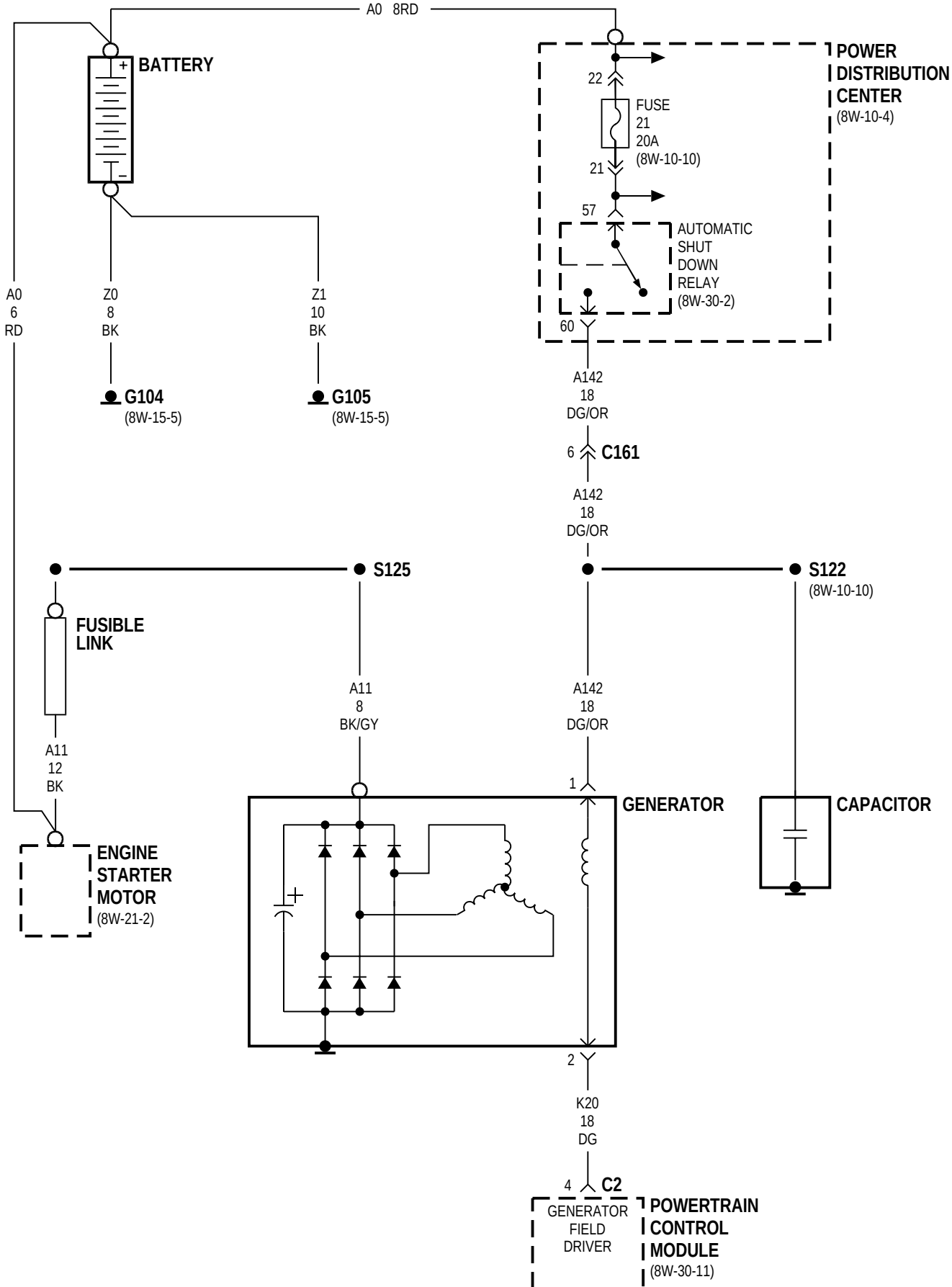
GENERAL INFORMATION (Continued)



8W-20 CHARGING SYSTEM

DESCRIPTION AND OPERATION

CHARGING SYSTEM

The charging system is an integral part of the battery and starter systems. Since all of these systems work together, any diagnosis and testing should be done in conjunction.

The charging system is protected by a 12 gauge fusible link located in the A11 circuit. This fusible link is between the generator and the starter.

The generator ground is provided through a case ground in the generator to its attaching bracket. This generator uses a voltage regulator internal to the Powertrain Control Module (PCM).

When the vehicle is running, battery voltage is applied to the generator field terminal through the A142 circuit. This circuit is the output from the contact side of the Automatic Shut Down (ASD) relay. The ground, or voltage regulated side, of the generator field is controlled by the K20 circuit which connects to cavity 4 of the PCM connector.

When there is current present in the field, and the rotor is turning, the stator in the generator produces a B+ voltage that is supplied to the battery through the A11 and A0 circuits. The A11 circuit is connected to the output terminal of the generator and connects to the engine starter motor battery feed terminal. The A0 circuit is a direct feed line from the battery and connects to the engine starter motor.

Grounding for the system is accomplished at the battery negative terminal. These grounds connect to the engine and body.

HELPFUL INFORMATION

- Inspect for a blown fusible link in the A11 circuit between the generator and the starter motor.
- For additional information on charging system diagnosis, refer to the appropriate section of the service manual.

8W-21 STARTING SYSTEM

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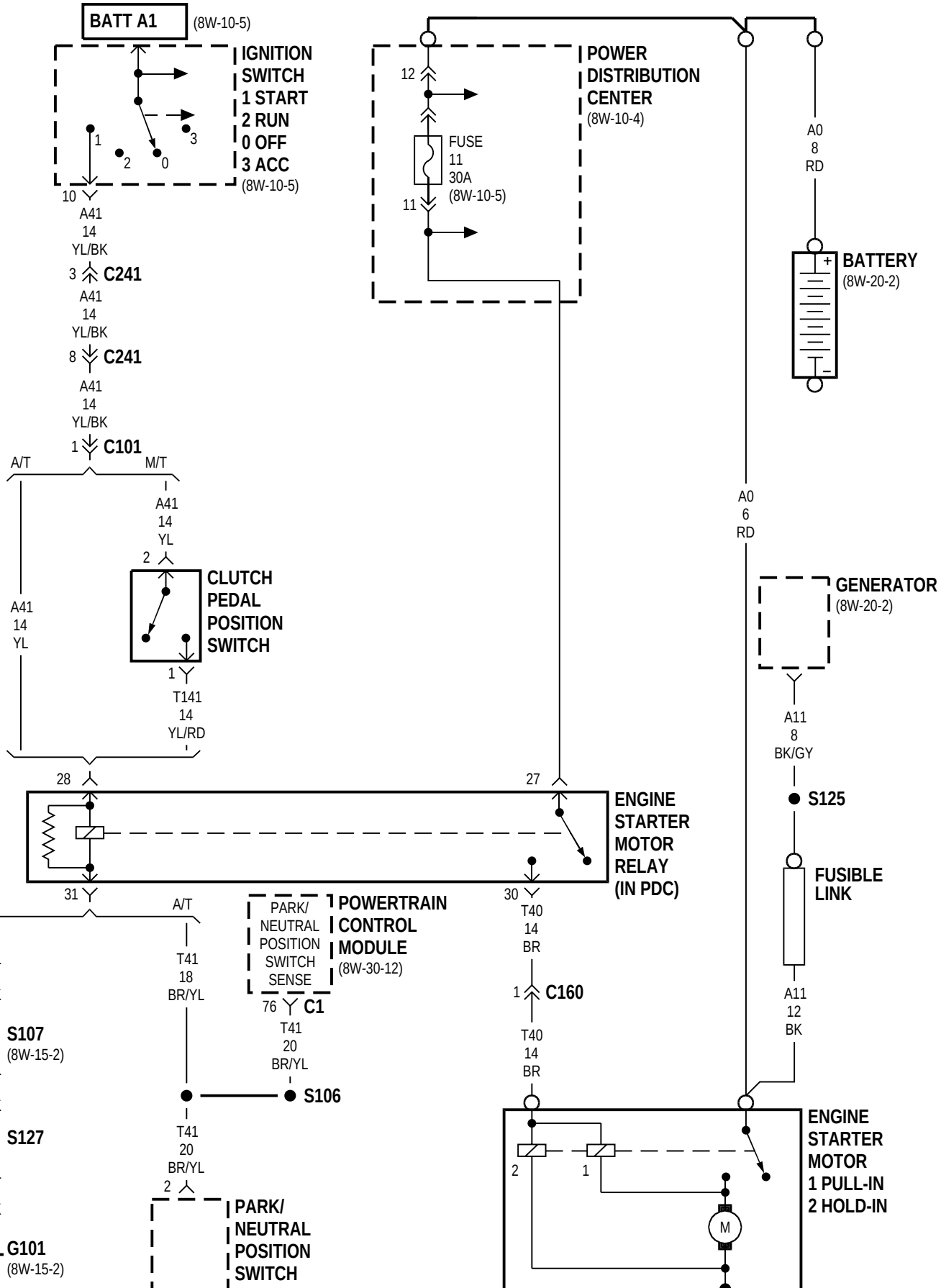
S127	8W-21-2

DESCRIPTION AND OPERATION (Continued)



8W-21 STARTING SYSTEM

DESCRIPTION AND OPERATION

STARTING SYSTEM- MANUAL TRANSMISSION

The Power Distribution Center (PDC) supplies battery voltage to the engine starter motor solenoid through circuit T40 when the coil side of the engine starter motor relay energizes. Circut A1 supplies the battery voltage for the contact side of the relay. Circuit A1 and circuit T40 are protected by a 30 amp fuse and feeds the contact side of the engine starter motor relay. Both the 30 amp fuse and the engine starter motor relay are located in the PDC.

The ignition switch supplies battery voltage to the coil side of the engine starter motor relay on circuit A41 when the key is moved to the START position and the operator has pressed the clutch pedal to CLOSE the clutch pedal position switch. Circuit Z1 supplies the ground for the coil side of the engine starter motor relay. When the coil side of the relay energizes, the contacts CLOSE, supplying battery voltage to the engine starter motor solenoid.

Circuit A0 (battery positive cable) supplies battery voltage to the motor of the starter when the solenoid energizes.

HELPFUL INFORMATION

- Check for blown engine starter motor fuse in the PDC.
- Move ignition key to the START position and with the clutch pedal pressed, listen for starter motor relay to click. The engine starter motor relay is located in the PDC.
- Check for a good ground at starter motor.
- The left headlamp ground is the end point for the starter relay coil ground circuit and is located at the left side of the radiator closure panel.

STARTING SYSTEM (AUTOMATIC TRANSMISSION)

The Power Distribution Center (PDC) supplies battery voltage to the engine starter motor solenoid through circuit T40 when the coil side of the engine starter motor relay energizes. Circuit A1 supplies battery voltage to the contact side of the relay. Circuit A1 and circuit T40 are protected by a 30 amp fuse and feeds the contact side of the engine starter motor relay. Both the 30 amp fuse and the engine starter motor relay are located in the PDC.

The ignition switch supplies battery voltage to the coil side of the engine starter motor relay on circuit A41 when the key is moved to the START position and the park/neutral portion of the park/neutral position switch (3 speed transmission) is CLOSED. Ground for the coil side of the engine starter motor relay is supplied by circuit T41.

Circuit A0 (battery positive cable) supplies battery voltage to the motor of the engine starter when the solenoid energizes.

HELPFUL INFORMATION

- Check for blown engine starter motor fuse in the PDC.
- With the gear selector in the Park or Neutral position, move ignition key to the START position and listen for engine starter motor relay to click. The engine starter motor relay is located in the PDC.
- Check for a good ground at engine starter motor.

8W-30 FUEL/IGNITION SYSTEMS

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S106	8W-30-12
S107	8W-30-3
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S126	8W-30-9
S127	8W-30-3
S129	8W-30-13
S134	8W-30-5
S211	8W-30-12
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Stop Lamp Switch	8W-30-12
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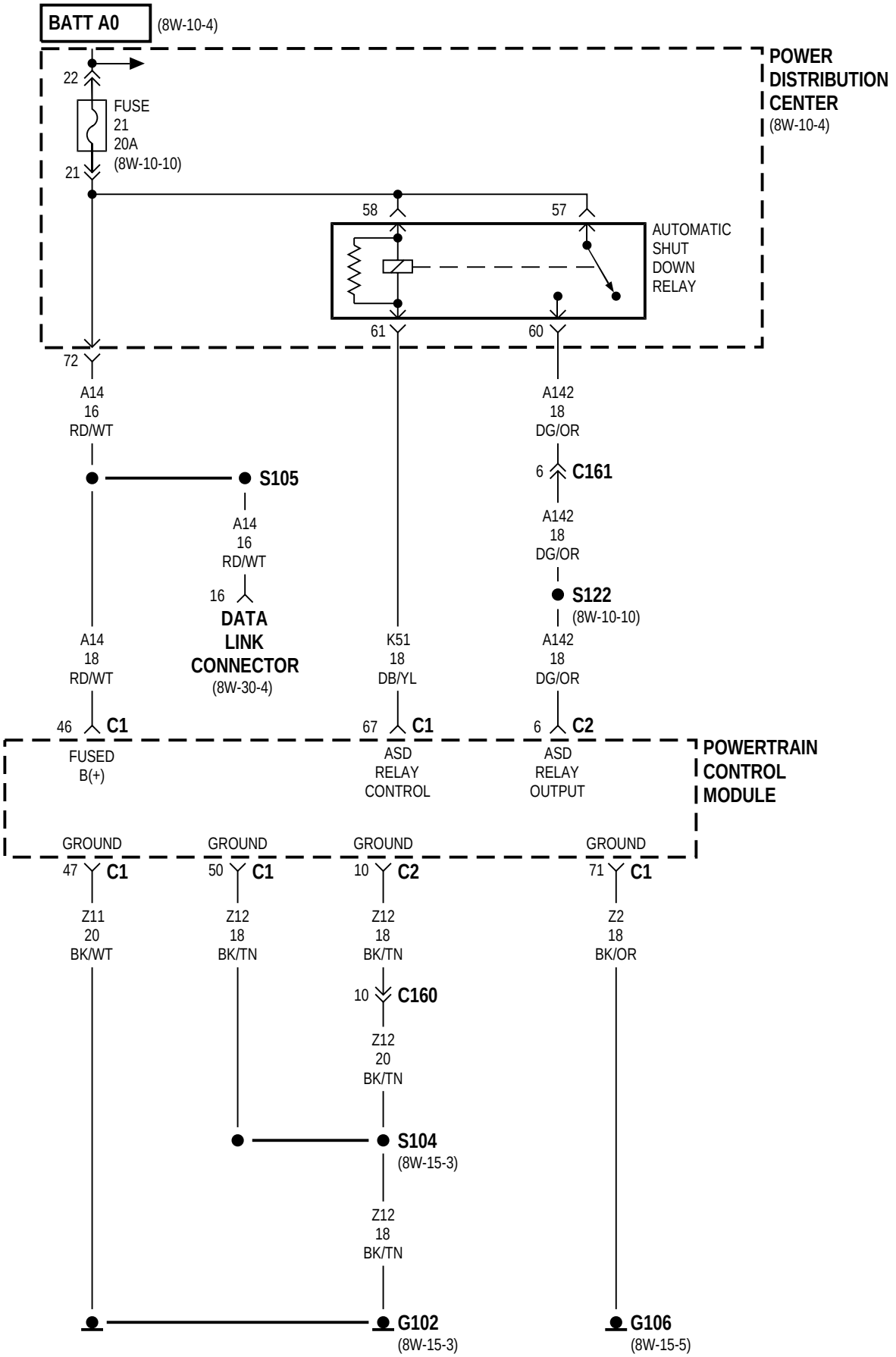
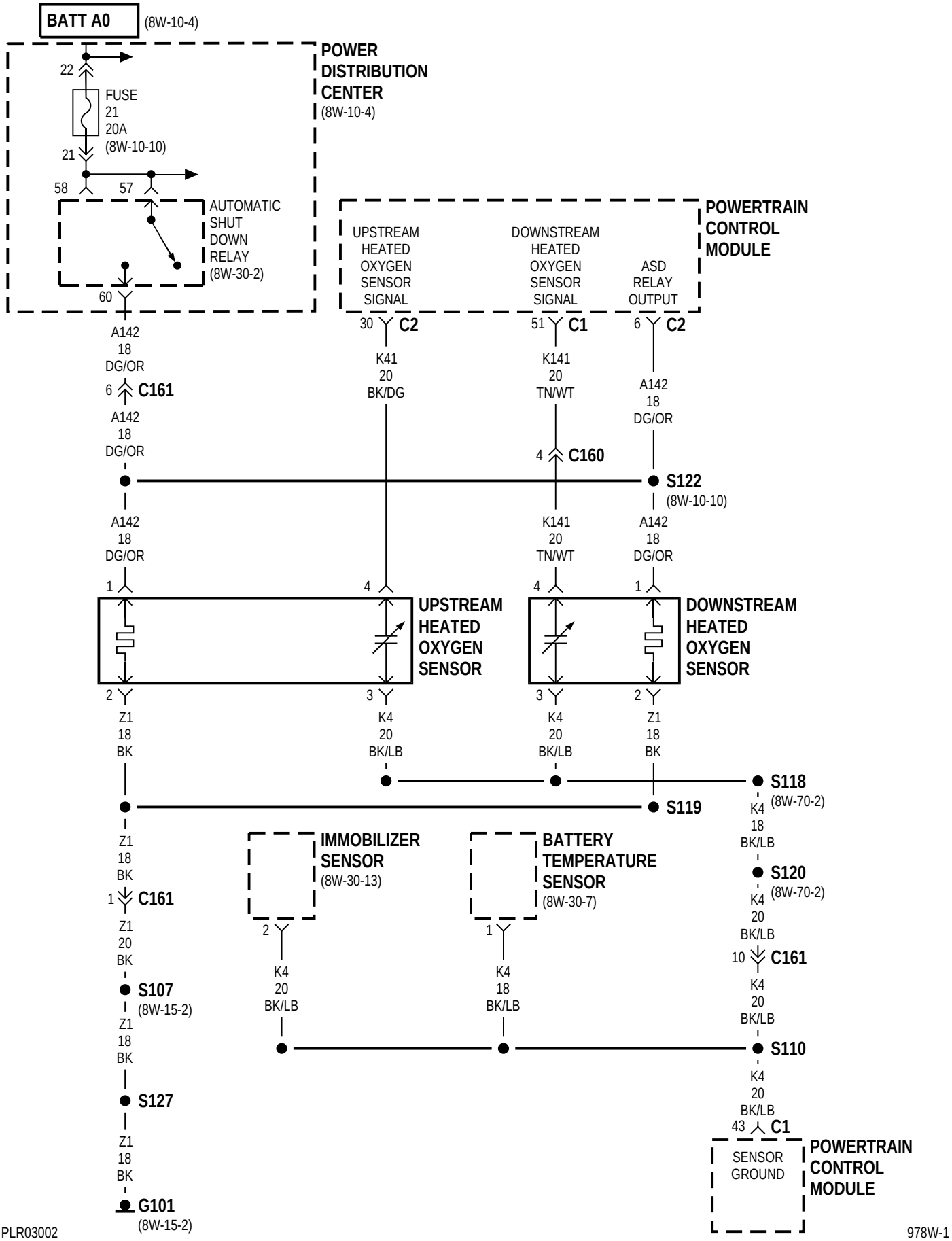
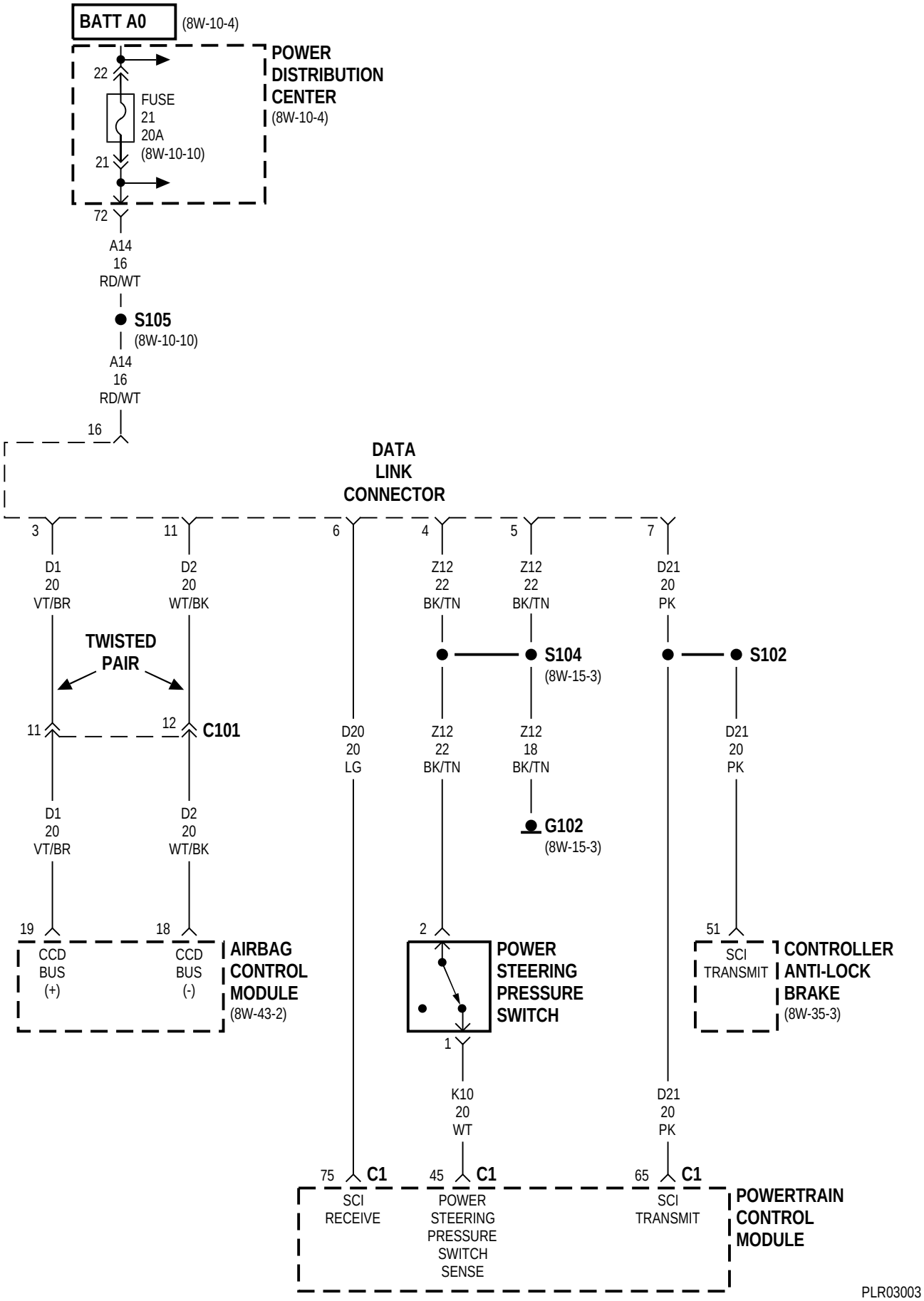
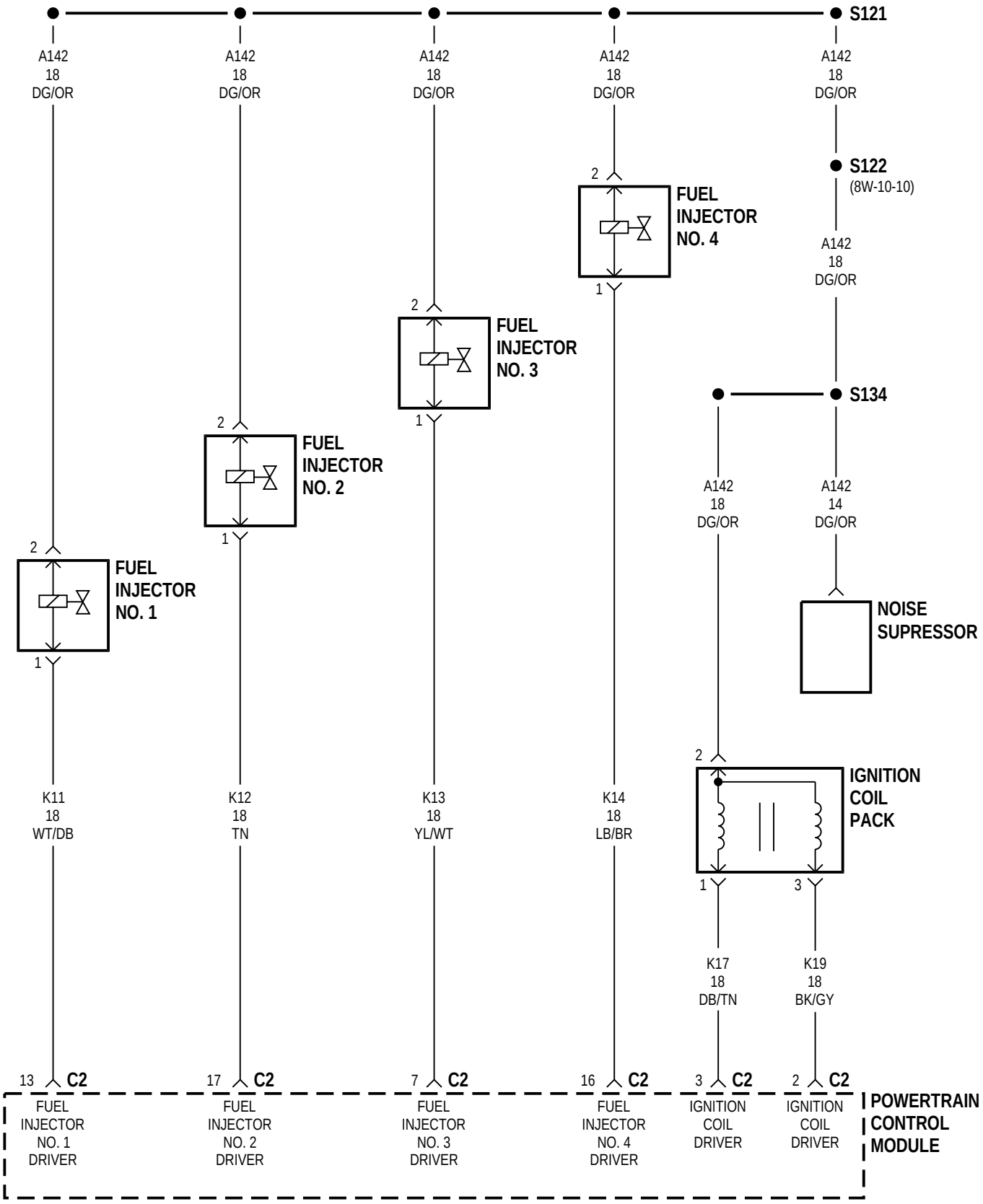
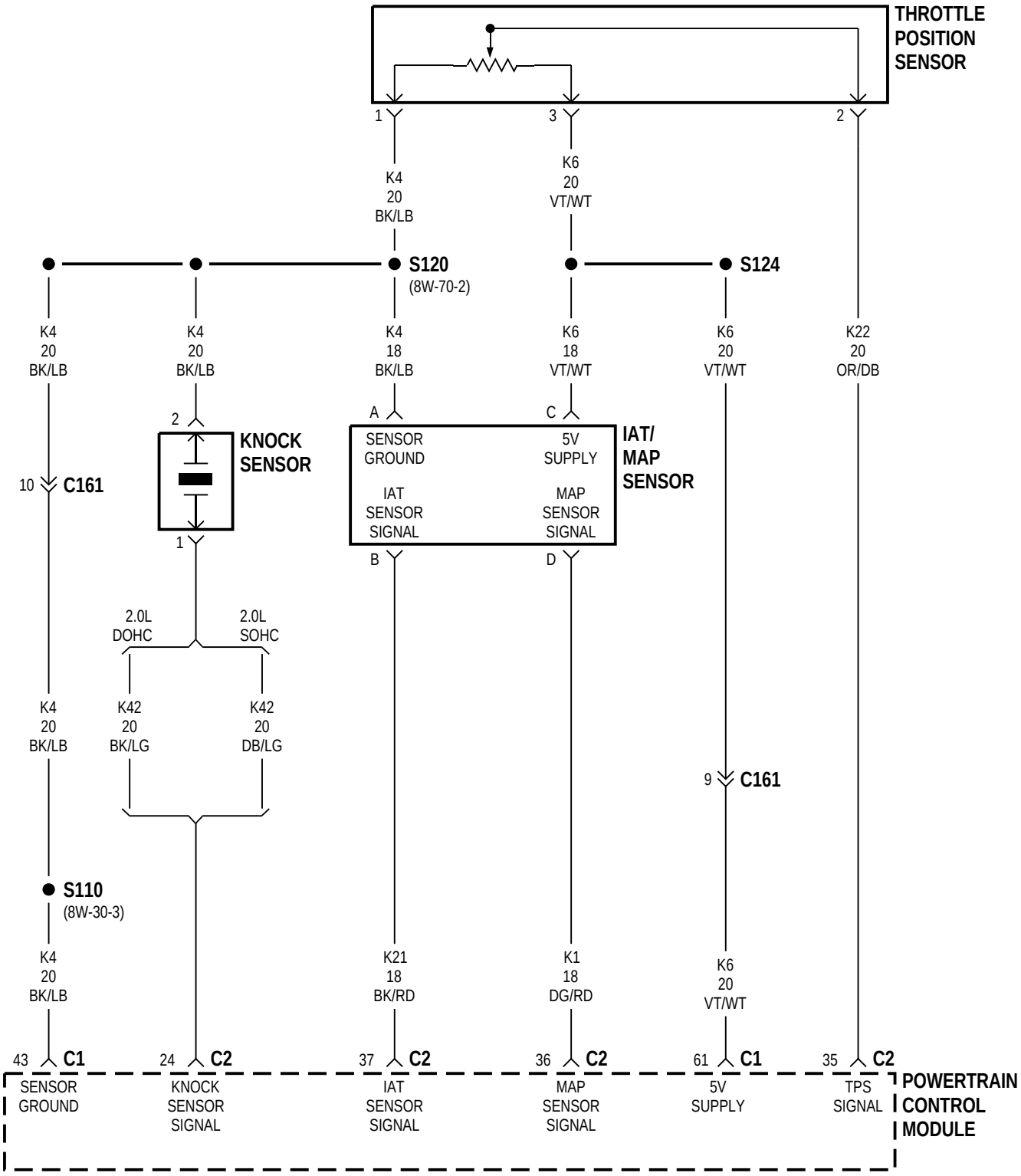
Torque Converter Clutch Solenoid	8W-30-9
Upstream Heated Oxygen Sensor	8W-30-3
Vapor Canister Leak Detector	8W-30-9
Vehicle Speed Sensor	8W-30-8, 13

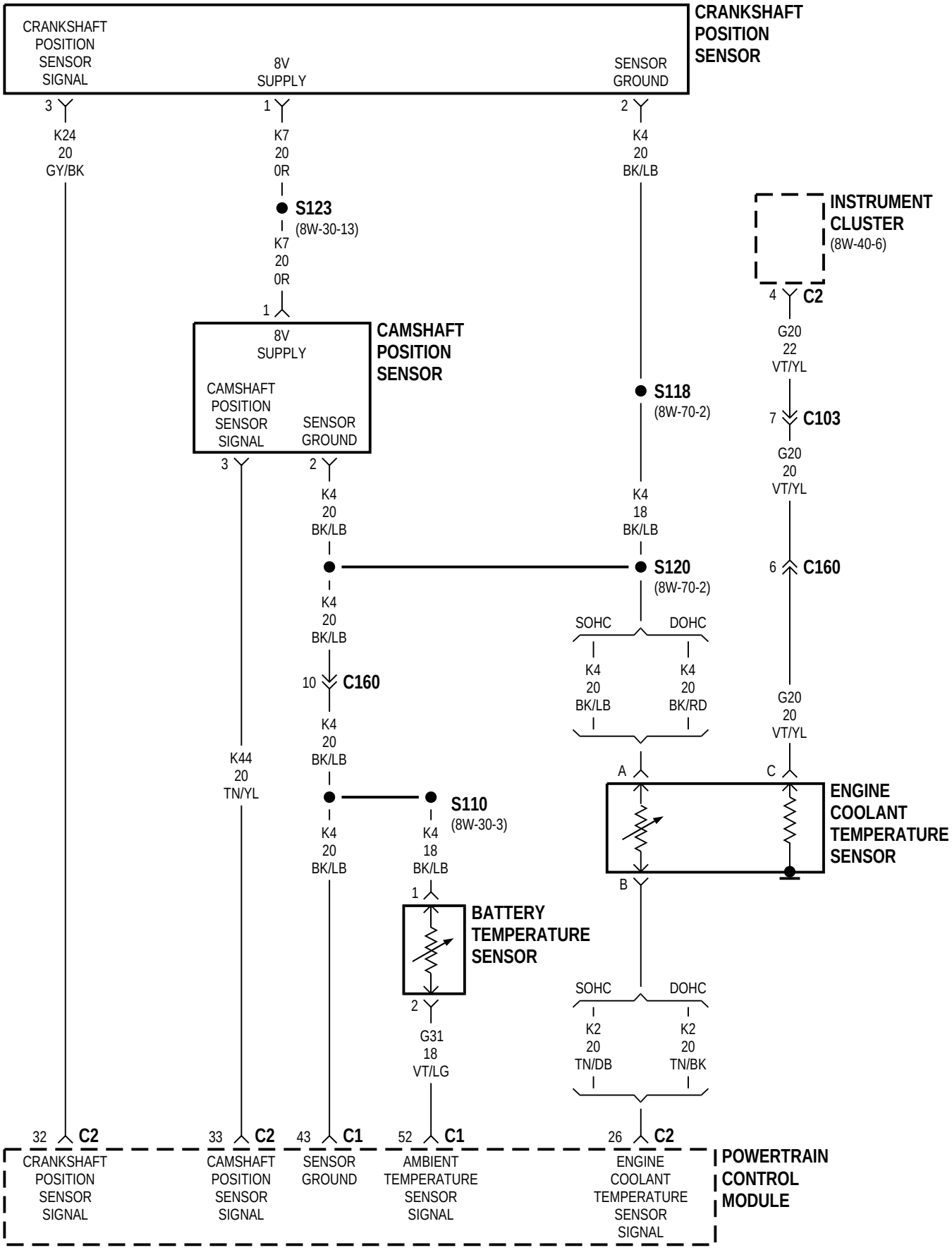

BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
22
FUSE
21
20A
(8W-10-10)
21
58
57
AUTOMATIC SHUT DOWN RELAY
61
60
72
A14
16
RD/WT
S105
A14
16
RD/WT
16
DATA LINK CONNECTOR
(8W-30-4)
A142
18
DG/OR
6
C161
A142
18
DG/OR
S122
(8W-10-10)
A14
18
RD/WT
K51
18
DB/YL
A142
18
DG/OR
46
C1
67
C1
6
C2
FUSED B(+)
ASD RELAY CONTROL
ASD RELAY OUTPUT
POWERTRAIN CONTROL MODULE
GROUND
GROUND
GROUND
GROUND
47
C1
50
C1
10
C2
71
C1
Z11
20
BK/WT
Z12
18
BK/TN
Z12
18
BK/TN
Z2
18
BK/OR
10
C160
Z12
20
BK/TN
S104
(8W-15-3)
Z12
18
BK/TN
G102
(8W-15-3)
G106
(8W-15-5)

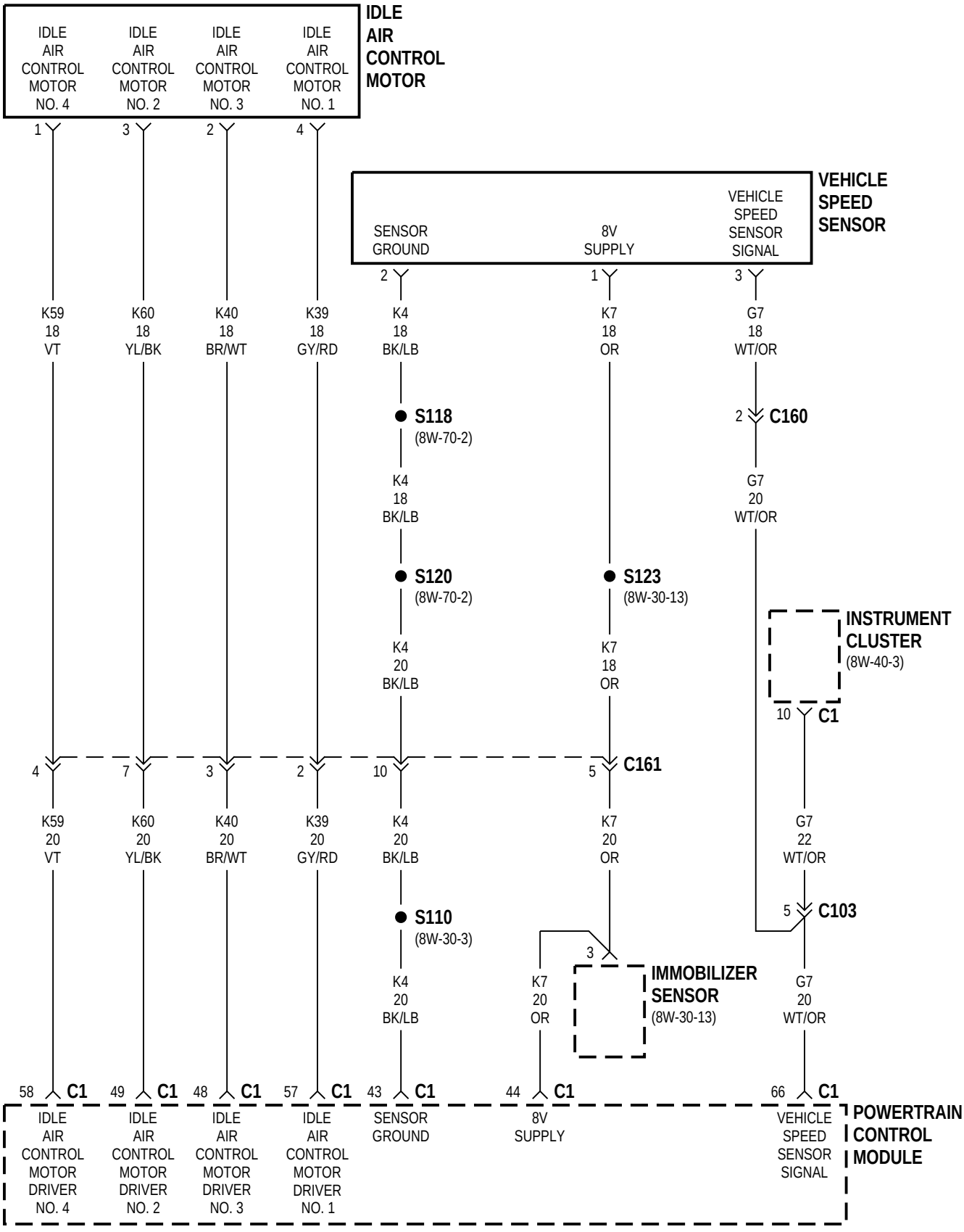

BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
22
FUSE 21 20A
(8W-10-10)
21
58
57
AUTOMATIC SHUT DOWN RELAY
(8W-30-2)
60
POWERTRAIN CONTROL MODULE
UPSTREAM HEATED OXYGEN SENSOR SIGNAL
DOWNSTREAM HEATED OXYGEN SENSOR SIGNAL
ASD RELAY OUTPUT
30 C2
51 C1
6 C2
A142 18 DG/OR
6 C161
K41 20 BK/DG
K141 20 TN/WT
A142 18 DG/OR
4 C160
S122
(8W-10-10)
A142 18 DG/OR
K141 20 TN/WT
A142 18 DG/OR
1
4
4
1
UPSTREAM HEATED OXYGEN SENSOR
DOWNSTREAM HEATED OXYGEN SENSOR
2
3
3
2
Z1 18 BK
K4 20 BK/LB
K4 20 BK/LB
Z1 18 BK
S118
(8W-70-2)
S119
K4 18 BK/LB
S120
(8W-70-2)
K4 20 BK/LB
10 C161
K4 20 BK/LB
S110
K4 20 BK/LB
43 C1
IMMOBILIZER SENSOR
(8W-30-13)
BATTERY TEMPERATURE SENSOR
(8W-30-7)
2
1
K4 20 BK/LB
K4 18 BK/LB
Z1 18 BK
1 C161
Z1 20 BK
S107
(8W-15-2)
Z1 18 BK
S127
Z1 18 BK
G101
(8W-15-2)
SENSOR GROUND
POWERTRAIN CONTROL MODULE

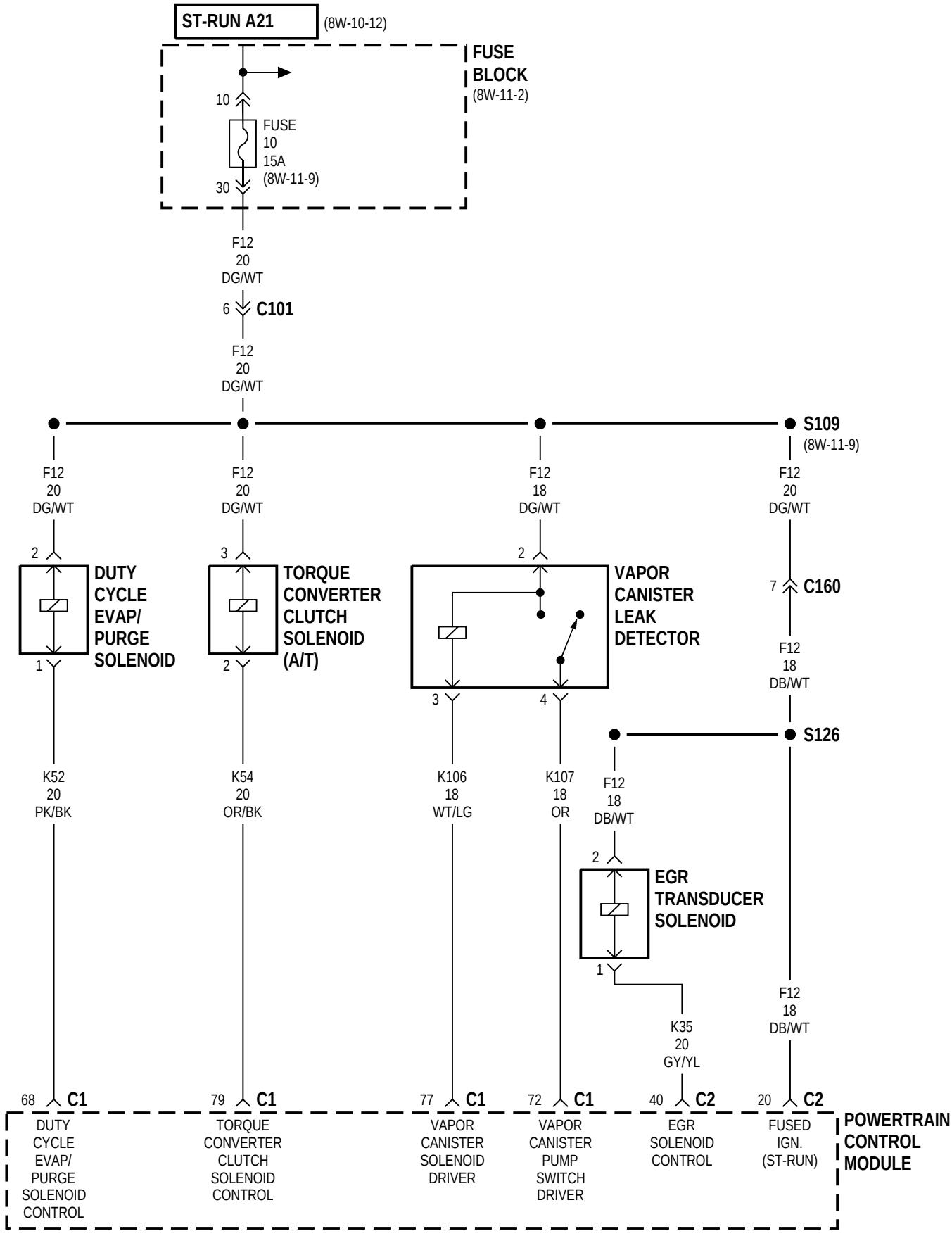

BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
22
FUSE 21 20A
(8W-10-10)
21
72
A14 16 RD/WT
S105
(8W-10-10)
A14 16 RD/WT
16
DATA LINK CONNECTOR
3
11
6
4
5
7
D1 20 VT/BR
D2 20 WT/BK
Z12 22 BK/TN
Z12 22 BK/TN
D21 20 PK
TWISTED PAIR
S104
(8W-15-3)
S102
11
12
C101
D20 20 LG
Z12 22 BK/TN
Z12 18 BK/TN
D21 20 PK
G102
(8W-15-3)
D1 20 VT/BR
D2 20 WT/BK
19
18
2
51
CCD BUS (+)
CCD BUS (-)
AIRBAG CONTROL MODULE
(8W-43-2)
POWER STEERING PRESSURE SWITCH
SCI TRANSMIT
CONTROLLER ANTI-LOCK BRAKE
(8W-35-3)
1
K10 20 WT
D21 20 PK
75
C1
45
C1
65
C1
SCI RECEIVE
POWER STEERING PRESSURE SWITCH SENSE
SCI TRANSMIT
POWERTRAIN CONTROL MODULE

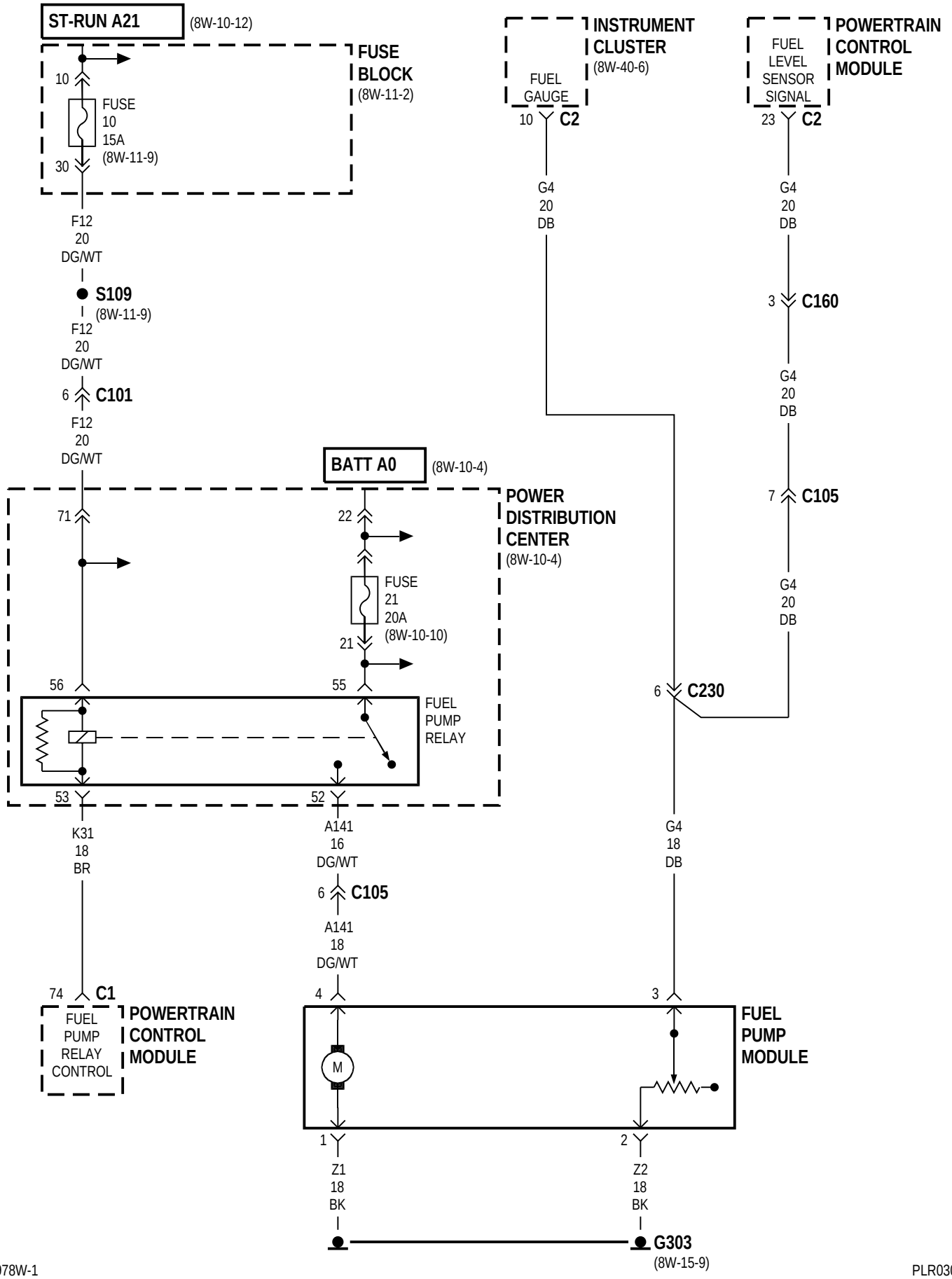

S121
A142 18 DG/OR
A142 18 DG/OR
A142 18 DG/OR
A142 18 DG/OR
A142 18 DG/OR
S122
(8W-10-10)
A142 18 DG/OR
S134
2
FUEL INJECTOR NO. 4
1
2
FUEL INJECTOR NO. 3
1
2
FUEL INJECTOR NO. 2
1
2
FUEL INJECTOR NO. 1
1
A142 18 DG/OR
A142 14 DG/OR
NOISE SUPRESSOR
2
IGNITION COIL PACK
1
3
K11 18 WT/DB
K12 18 TN
K13 18 YL/WT
K14 18 LB/BR
K17 18 DB/TN
K19 18 BK/GY
13 C2
17 C2
7 C2
16 C2
3 C2
2 C2
FUEL INJECTOR NO. 1 DRIVER
FUEL INJECTOR NO. 2 DRIVER
FUEL INJECTOR NO. 3 DRIVER
FUEL INJECTOR NO. 4 DRIVER
IGNITION COIL DRIVER
IGNITION COIL DRIVER
POWERTRAIN CONTROL MODULE

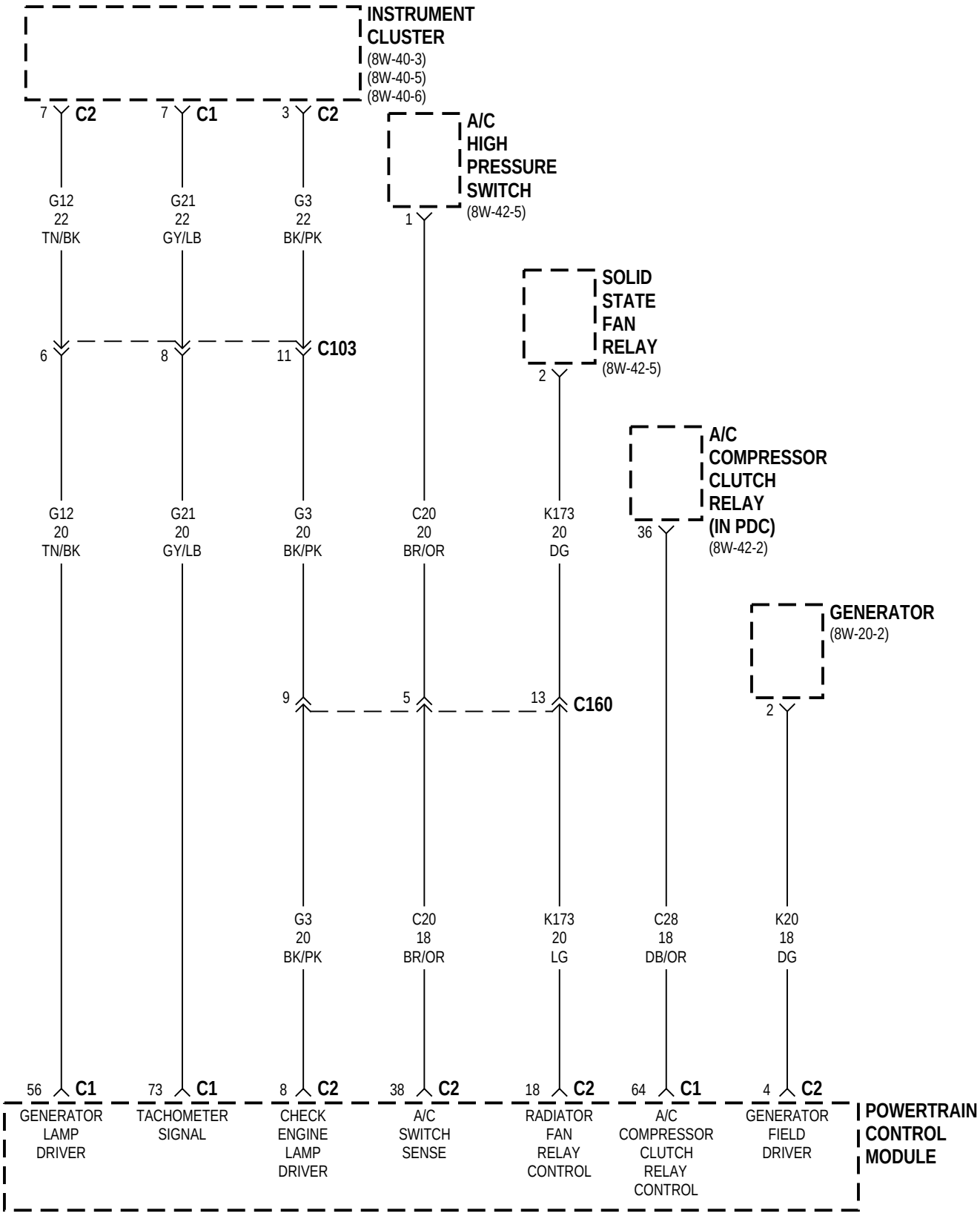

THROTTLE POSITION SENSOR
1
3
2
K4 20 BK/LB
K6 20 VT/WT
S120
(8W-70-2)
S124
K4 20 BK/LB
K4 20 BK/LB
K4 18 BK/LB
K6 18 VT/WT
K6 20 VT/WT
K22 20 OR/DB
2
A
C
KNOCK SENSOR
IAT/ MAP SENSOR
SENSOR GROUND
5V SUPPLY
IAT SENSOR SIGNAL
MAP SENSOR SIGNAL
10 C161
1
B
D
2.0L DOHC
2.0L SOHC
K4 20 BK/LB
K42 20 BK/LG
K42 20 DB/LG
9 C161
S110
(8W-30-3)
K4 20 BK/LB
K21 18 BK/RD
K1 18 DG/RD
K6 20 VT/WT
43 C1
24 C2
37 C2
36 C2
61 C1
35 C2
SENSOR GROUND
KNOCK SENSOR SIGNAL
IAT SENSOR SIGNAL
MAP SENSOR SIGNAL
5V SUPPLY
TPS SIGNAL
POWERTRAIN CONTROL MODULE

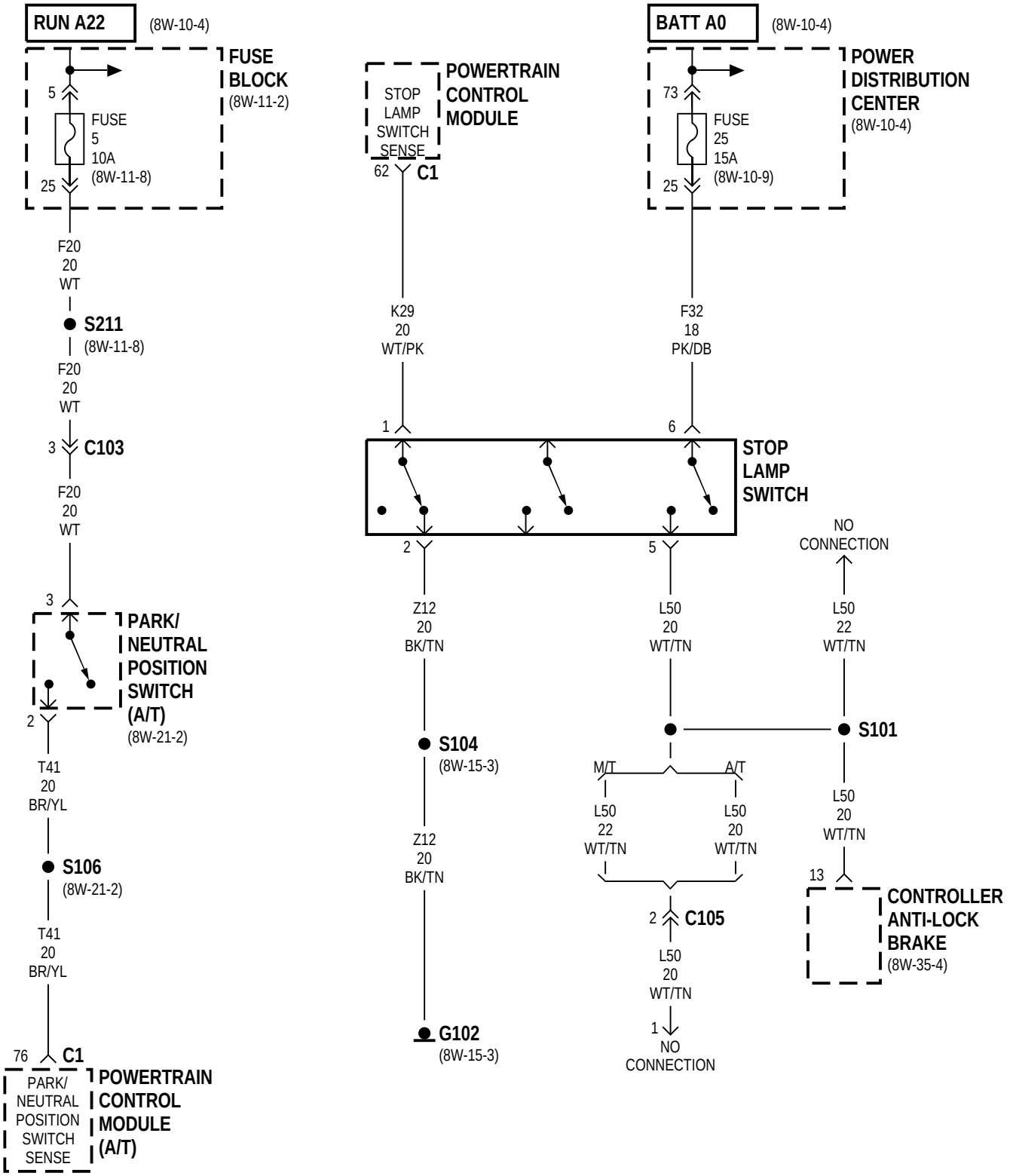

CRANKSHAFT POSITION SENSOR
CRANKSHAFT POSITION SENSOR SIGNAL
8V SUPPLY
SENSOR GROUND
3
1
2
K24 20 GY/BK
K7 20 0R
K4 20 BK/LB
S123
(8W-30-13)
K7 20 0R
1
CAMSHAFT POSITION SENSOR
8V SUPPLY
CAMSHAFT POSITION SENSOR SIGNAL
SENSOR GROUND
3
2
K4 20 BK/LB
K4 18 BK/LB
S118
(8W-70-2)
S120
(8W-70-2)
INSTRUMENT CLUSTER
(8W-40-6)
4
C2
G20 22 VT/YL
7
C103
G20 20 VT/YL
6
C160
SOHC
DOHC
K4 20 BK/LB
K4 20 BK/RD
10
C160
K4 20 BK/LB
G20 20 VT/YL
K44 20 TN/YL
A
C
ENGINE COOLANT TEMPERATURE SENSOR
S110
(8W-30-3)
K4 20 BK/LB
K4 18 BK/LB
B
1
BATTERY TEMPERATURE SENSOR
2
G31 18 VT/LG
SOHC
DOHC
K2 20 TN/DB
K2 20 TN/BK
32
C2
33
C2
43
C1
52
C1
26
C2
CRANKSHAFT POSITION SENSOR SIGNAL
CAMSHAFT POSITION SENSOR SIGNAL
SENSOR GROUND
AMBIENT TEMPERATURE SENSOR SIGNAL
ENGINE COOLANT TEMPERATURE SENSOR SIGNAL
POWERTRAIN CONTROL MODULE

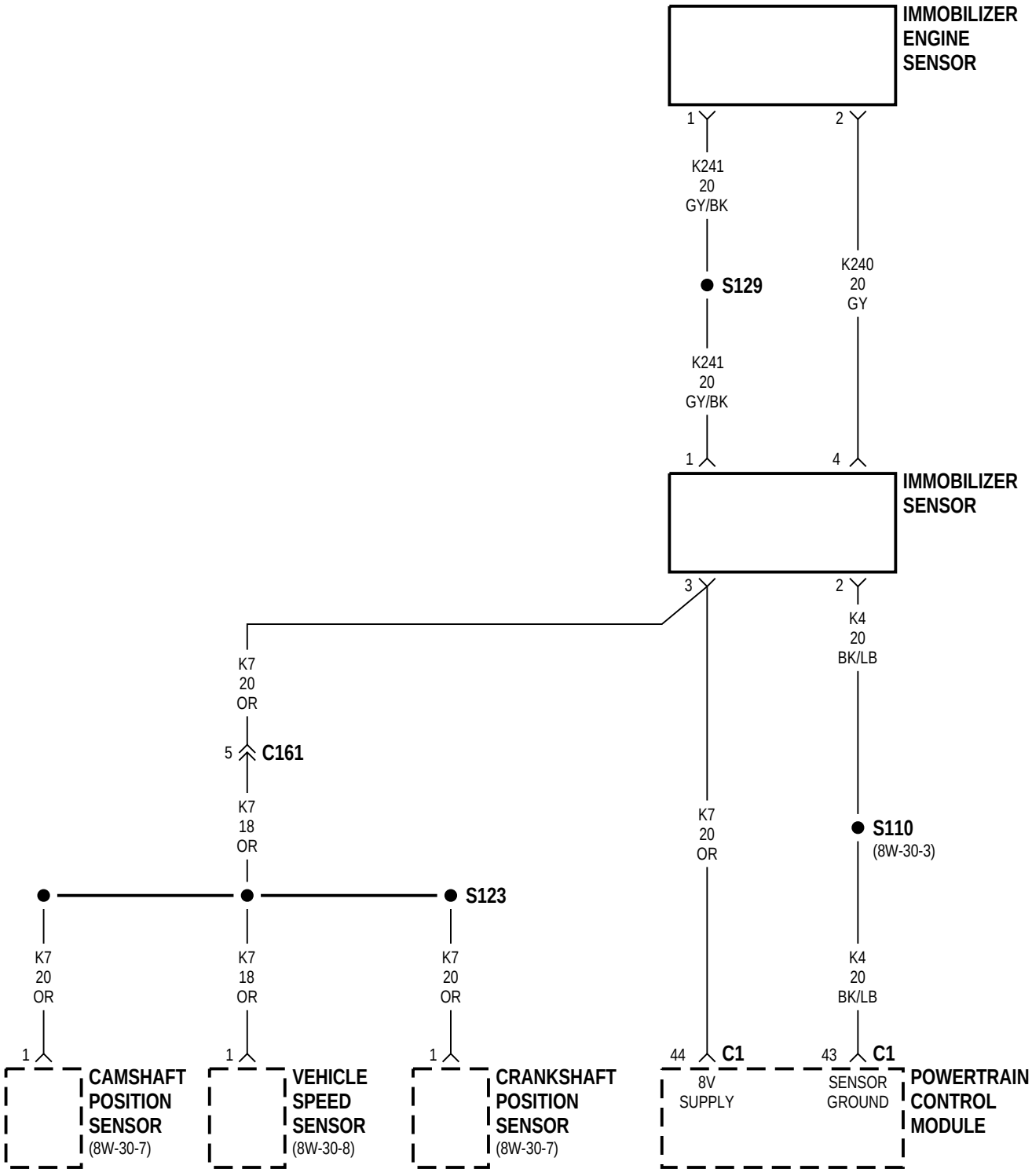

IDLE AIR CONTROL MOTOR
IDLE AIR CONTROL MOTOR NO. 4
IDLE AIR CONTROL MOTOR NO. 2
IDLE AIR CONTROL MOTOR NO. 3
IDLE AIR CONTROL MOTOR NO. 1
VEHICLE SPEED SENSOR
SENSOR GROUND
8V SUPPLY
VEHICLE SPEED SENSOR SIGNAL
K59 18 VT
K60 18 YL/BK
K40 18 BR/WT
K39 18 GY/RD
K4 18 BK/LB
K7 18 OR
G7 18 WT/OR
S118 (8W-70-2)
C160
G7 20 WT/OR
K4 18 BK/LB
S120 (8W-70-2)
S123 (8W-30-13)
INSTRUMENT CLUSTER (8W-40-3)
K4 20 BK/LB
K7 18 OR
C1
C161
K59 20 VT
K60 20 YL/BK
K40 20 BR/WT
K39 20 GY/RD
K4 20 BK/LB
K7 20 OR
G7 22 WT/OR
S110 (8W-30-3)
C103
IMMOBILIZER SENSOR (8W-30-13)
K4 20 BK/LB
K7 20 OR
G7 20 WT/OR
IDLE AIR CONTROL MOTOR DRIVER NO. 4
IDLE AIR CONTROL MOTOR DRIVER NO. 2
IDLE AIR CONTROL MOTOR DRIVER NO. 3
IDLE AIR CONTROL MOTOR DRIVER NO. 1
SENSOR GROUND
8V SUPPLY
VEHICLE SPEED SENSOR SIGNAL
POWERTRAIN CONTROL MODULE


ST-RUN A21
(8W-10-12)
FUSE BLOCK
(8W-11-2)
10
FUSE 10 15A
(8W-11-9)
30
F12 20 DG/WT
6 C101
F12 20 DG/WT
S109
(8W-11-9)
F12 20 DG/WT
F12 20 DG/WT
F12 18 DG/WT
F12 20 DG/WT
2
DUTY CYCLE EVAP/ PURGE SOLENOID
1
3
TORQUE CONVERTER CLUTCH SOLENOID (A/T)
2
2
VAPOR CANISTER LEAK DETECTOR
3
4
7 C160
F12 18 DB/WT
S126
K52 20 PK/BK
K54 20 OR/BK
K106 18 WT/LG
K107 18 OR
F12 18 DB/WT
2
EGR TRANSDUCER SOLENOID
1
K35 20 GY/YL
F12 18 DB/WT
68 C1
79 C1
77 C1
72 C1
40 C2
20 C2
DUTY CYCLE EVAP/ PURGE SOLENOID CONTROL
TORQUE CONVERTER CLUTCH SOLENOID CONTROL
VAPOR CANISTER SOLENOID DRIVER
VAPOR CANISTER PUMP SWITCH DRIVER
EGR SOLENOID CONTROL
FUSED IGN. (ST-RUN)
POWERTRAIN CONTROL MODULE


ST-RUN A21
(8W-10-12)
FUSE BLOCK
(8W-11-2)
10
FUSE 10 15A
(8W-11-9)
30
F12 20 DG/WT
S109
(8W-11-9)
F12 20 DG/WT
6 C101
F12 20 DG/WT
INSTRUMENT CLUSTER
(8W-40-6)
FUEL GAUGE
10 C2
G4 20 DB
POWERTRAIN CONTROL MODULE
FUEL LEVEL SENSOR SIGNAL
23 C2
G4 20 DB
3 C160
G4 20 DB
7 C105
G4 20 DB
BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
71
22
FUSE 21 20A
(8W-10-10)
21
56
55
FUEL PUMP RELAY
53
52
6 C230
K31 18 BR
A141 16 DG/WT
6 C105
A141 18 DG/WT
G4 18 DB
74 C1
FUEL PUMP RELAY CONTROL
POWERTRAIN CONTROL MODULE
4
3
M
FUEL PUMP MODULE
1
2
Z1 18 BK
Z2 18 BK
G303
(8W-15-9)


INSTRUMENT CLUSTER
(8W-40-3)
(8W-40-5)
(8W-40-6)
7 C2
7 C1
3 C2
A/C HIGH PRESSURE SWITCH
(8W-42-5)
1
G12 22 TN/BK
G21 22 GY/LB
G3 22 BK/PK
SOLID STATE FAN RELAY
(8W-42-5)
2
6
8
11 C103
A/C COMPRESSOR CLUTCH RELAY (IN PDC)
(8W-42-2)
36
G12 20 TN/BK
G21 20 GY/LB
G3 20 BK/PK
C20 20 BR/OR
K173 20 DG
GENERATOR
(8W-20-2)
2
9
5
13 C160
G3 20 BK/PK
C20 18 BR/OR
K173 20 LG
C28 18 DB/OR
K20 18 DG
56 C1
73 C1
8 C2
38 C2
18 C2
64 C1
4 C2
GENERATOR LAMP DRIVER
TACHOMETER SIGNAL
CHECK ENGINE LAMP DRIVER
A/C SWITCH SENSE
RADIATOR FAN RELAY CONTROL
A/C COMPRESSOR CLUTCH RELAY CONTROL
GENERATOR FIELD DRIVER
POWERTRAIN CONTROL MODULE


RUN A22
(8W-10-4)
FUSE BLOCK
(8W-11-2)
5
FUSE 5 10A
(8W-11-8)
25
F20 20 WT
S211
(8W-11-8)
F20 20 WT
3
C103
F20 20 WT
3
PARK/ NEUTRAL POSITION SWITCH (A/T)
(8W-21-2)
2
T41 20 BR/YL
S106
(8W-21-2)
T41 20 BR/YL
76
C1
PARK/ NEUTRAL POSITION SWITCH SENSE
POWERTRAIN CONTROL MODULE (A/T)
STOP LAMP SWITCH SENSE
POWERTRAIN CONTROL MODULE
62
C1
K29 20 WT/PK
1
2
Z12 20 BK/TN
S104
(8W-15-3)
Z12 20 BK/TN
G102
(8W-15-3)
BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
73
FUSE 25 15A
(8W-10-9)
25
F32 18 PK/DB
6
STOP LAMP SWITCH
5
L50 20 WT/TN
M/T
A/T
L50 22 WT/TN
L50 20 WT/TN
2
C105
L50 20 WT/TN
1
NO CONNECTION
NO CONNECTION
L50 22 WT/TN
S101
L50 20 WT/TN
13
CONTROLLER ANTI-LOCK BRAKE
(8W-35-4)


IMMOBILIZER ENGINE SENSOR
1
2
K241 20 GY/BK
K240 20 GY
S129
K241 20 GY/BK
1
4
IMMOBILIZER SENSOR
3
2
K4 20 BK/LB
K7 20 OR
5 C161
K7 18 OR
K7 20 OR
S110 (8W-30-3)
S123
K7 20 OR
K7 18 OR
K7 20 OR
K4 20 BK/LB
1
1
1
44 C1
43 C1
CAMSHAFT POSITION SENSOR (8W-30-7)
VEHICLE SPEED SENSOR (8W-30-8)
CRANKSHAFT POSITION SENSOR (8W-30-7)
8V SUPPLY
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DESCRIPTION AND OPERATION

IGNITION SWITCH

In the RUN position, the ignition switch connects circuit A1 from the Power Distribution Center (PDC) to circuit A21. A 30 amp fuse in the PDC protects circuits A1 and A21. Circuit A21 feeds a bus bar in the fuse block. The bus bar feeds circuits G5, F12, and F15.

- Circuit G5 powers the gauge cluster warning lamps and the daytime running lamp (DRL) module. Fuse cavity 11 (5 amp) in the fuse block protects circuit G5.
- Circuit F12 splices to the Powertrain Control Module (PCM), duty cycle purge solenoid, EGR solenoid, ABS system, and a bus bar in the PDC. The bus bar in the PDC feeds the coil side of the radiator fan relay, A/C compressor clutch relay, and the fuel pump relay. A 15 amp fuse in the fuse block, cavity 10, protects circuit F12.
- Circuit F15 feeds the Airbag Control Module (ACM). A 10 amp fuse in the fuse block, cavity 9, protects circuit F15.

BATTERY FEED

Circuit A14 from the Power Distribution Center (PDC) supplies battery voltage to cavity 46 of the Powertrain Control Module (PCM). A 20 amp fuse in the PDC protects circuit A14.

HELPFUL INFORMATION

Circuit A14 connects to a bus bar in the PDC that the battery feeds. Circuit A14 powers the Automatic Shut Down (ASD) relay and fuel pump relay. The A14 circuit also splices to the data link connector.

POWER (DEVICE) GROUND

Circuit Z12 connects to cavities 10 and 50 of the Powertrain Control Module (PCM). The Z12 circuit provides ground for PCM internal drivers that operate high current devices like the injectors and ignition coils.

Internal to the PCM, the power (device) ground circuit connects to the PCM sensor return circuit (from circuit K4) and the signal ground circuit (Z11).

HELPFUL INFORMATION

Circuit Z12 which supplies ground for the PCM high current drivers, has the same termination point as circuit Z11. The termination point is the left side of the radiator closure panel.

If the system loses ground for the ganged circuits, at the left side of the radiator closure panel, the vehicle will not operate. Check the connection at the ganged ground circuit eyelet.

SIGNAL GROUND

The signal ground circuit Z11 connects to cavity 47 of the PCM. The Z11 circuit provides ground for the sensors that provide inputs to the PCM. Internal to the PCM, the signal ground circuit connects to the PCM sensor return circuit (from circuit K4) and the power (device) ground circuit (Z12).

The termination point for circuit Z11 is an eyelet attached to the left side of the radiator closure panel.

DESCRIPTION AND OPERATION (Continued)

HELPFUL INFORMATION

Circuit Z12 which supplies ground for the PCM high current drivers, has the same termination point as circuit Z11. The termination point is the left side of the radiator closure panel.

If the system loses ground for the ganged circuits, at the left side of the radiator closure panel, the vehicle will not operate. Check the connection at the ganged ground circuit eyelet.

DATA LINK CONNECTOR

Circuit A14 supplies battery voltage to the universal data link connector. Circuit A14 originates in the Power Distribution Center (PDC) and connects to a battery fed bus bar. A 20 amp fuse protects circuit A14.

A twisted pair of wires, circuits D1 and D2, from the Airbag Control Module (ACM) connect to the universal data link connector.

Ground circuit Z12 splices to two cavities of the data link connector. The Z12 circuit also connects to cavities 10 and 50 of the PCM connector.

Circuit D20 connects to cavity 75 of the PCM and to the universal data link connector. Circuit D20 is the SCI receive circuit for the PCM.

Circuit D21 connects to cavity 65 of the PCM and to the universal data link connector. Circuit D21 is the SCI transmit circuit for the PCM. The D21 circuit splices to the ABS module.

HELPFUL INFORMATION

The grounding point for circuit Z12 is the left side of the radiator closure panel.

Circuit Z12 also supplies ground for the PCM high current drivers and has the same termination point as circuit Z11.

If the system loses ground for the ganged circuits at the left side radiator closure panel the vehicle will not operate. Check the connection at the ganged ground circuit eyelet.

AUTOMATIC SHUT DOWN RELAY

The Automatic Shut Down (ASD) relay is located in the Power Distribution Center (PDC). Power for the coil and contact side of the relay is supplied on circuit A14. This circuit is HOT at all times and protected by a 20 amp fuse located in the PDC.

The Powertrain Control Module (PCM) controls the ground path for the coil side of the relay on circuit K51. This circuit connects to cavity 67 of the PCM.

When the PCM supplies the ground path on circuit K51 the contacts in the relay CLOSE connecting circuits A14 and A142. The A142 circuit is spliced and supplies power to the generator, fuel injectors, PCM, ignition coil, and heated oxygen sensors.

HELPFUL INFORMATION

- Refer to group 14 Fuel System, for additional information.
- Check the 20 amp fuse located in the PDC.

FUEL PUMP MOTOR

Circuit A14 is a bus bar in the Power Distribution Center (PDC) and connects to battery voltage. The contact side of the fuel pump relay connects circuit A14 and circuit A141. A 20 amp fuse in the PDC protects circuits A14 and A142.

Circuit A141 supplies voltage for the fuel pump motor. Circuit Z1 provides ground for the fuel pump motor. The grounding point for circuit Z1 is the right rear wheel house.

Circuit F12 supplies voltage to the coil side of the fuel pump relay. The Powertrain Control Module (PCM) controls the ground path circuit for the coil side of the fuel pump relay on circuit K31. Circuit K31 connects to cavity 74 of the PCM.

HELPFUL INFORMATION

Circuit F12 originates in the fuse block where it connects to a bus bar fed by circuit A21. In the START and RUN position, the ignition switch connects circuit A1 from the PDC to circuit A21. A 30 amp fuse in the PDC protects circuits A1 and A21.

Circuit F12 splices to feed the ABS control module, EGR solenoid, Torque Converter Clutch (TCC) solenoid, leak detection pump, and the EVAP/Purge solenoid.

Circuit F12 also connects to a bus bar in the PDC. The bus bar supplies voltage to the coil side of radiator fan relay and A/C clutch relay, as well as the fuel pump relay.

VEHICLE SPEED SENSOR

Circuit K7 supplies 8 volts from the Powertrain Control Module (PCM) to the Vehicle Speed Sensor (VSS). The K7 circuit connects to cavity 44 of the PCM connector.

Circuit G7 from the VSS provides an input signal to the PCM. The G7 circuit connects to cavity 66 of the PCM connector.

The PCM provides ground for the VSS signal (circuit G7) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Circuit G7 splices to the speedometer and odometer in the instrument cluster.

Circuit K7 splices to supply 8 volts to the camshaft position sensor and crankshaft position sensor.

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor

DESCRIPTION AND OPERATION (Continued)

- Crankshaft position sensor
- Camshaft position sensor
- Battery temperature sensor
- Throttle position sensor
- Manifold absolute pressure sensor
- Engine coolant temperature sensor
- Knock sensor
- Intake air temperature sensor

HEATED OXYGEN SENSORS

Circuit A14 is a bus bar in the Power Distribution Center (PDC), and connects to battery voltage. The contact side of the Automatic Shut Down (ASD) relay connects circuit A14 and circuit A142. A 20 amp fuse in the PDC protects circuits A14 and A142.

Circuit A14 also supplies voltage to the coil side of the ASD relay. The Powertrain Control Module (PCM) controls the ground path circuit for the coil side of the ASD relay on circuit K51. Circuit K51 connects to cavity 67 of the PCM connector.

Circuit A142 splices to supply voltage for the upstream and downstream heated oxygen sensors.

The A142 circuit also splices to cavity 6 of the PCM. The input provided by circuit A142 at cavity 6 tells the PCM that the ASD relay energized.

Circuit K41 delivers the signal from the upstream heated oxygen sensor to the PCM. Circuit K41 connects to cavity 30 of the PCM connector.

Circuit K141 delivers the signal from the downstream heated oxygen sensor to the PCM. Circuit K141 connects to cavity 51 of the PCM connector.

The PCM provides a ground for the upstream and downstream heated oxygen sensor signals (circuit K41 and K141) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

Circuit Z1 provides ground for the heater circuits in each sensor. Circuit Z1 terminates at the left side of the radiator closure panel.

HELPFUL INFORMATION

Circuit A142 splices to supply voltage to the fuel injectors, ignition coil, ASD relay, generator, and the upstream and downstream heated oxygen sensors. The PCM controls the ground circuit for each of the components powered by circuit A142.

CRANKSHAFT POSITION SENSOR

Circuit K7 supplies 8 volts from the Powertrain Control Module (PCM) to the crankshaft position sensor. The K7 circuit connects to cavity 44 of the PCM connector.

Circuit K24 from the sensor provides an input signal to the PCM. The K24 circuit connects to cavity 32 of the PCM connector.

The PCM provides ground for the crankshaft position sensor signal (circuit K24) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Circuit K7 splices to supply 8 volts to the camshaft position sensor and vehicle speed sensor.

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Camshaft position sensor
- Battery temperature sensor
- Throttle position sensor
- Manifold absolute pressure sensor
- Engine coolant temperature sensor
- Knock sensor
- Intake air temperature sensor
- Vehicle speed sensor

CAMSHAFT POSITION SENSOR

Circuit K7 supplies 8 volts from the Powertrain Control Module (PCM) to the camshaft position sensor. The K7 circuit connects to cavity 44 of the PCM connector.

Circuit K44 from the sensor provides an input signal to the PCM. The K44 circuit connects to cavity 33 of the PCM connector.

The PCM provides ground for the camshaft position sensor signal (circuit K44) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Circuit K7 splices to supply 8 volts to the camshaft position sensor and vehicle speed sensor.

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Crankshaft position sensor
- Battery temperature sensor
- Throttle position sensor
- Manifold absolute pressure sensor
- Engine coolant temperature sensor
- Knock sensor
- Intake air temperature sensor
- Vehicle speed sensor

ENGINE COOLANT TEMPERATURE SENSOR

The engine coolant temperature sensor provides an input to the Powertrain Control Module (PCM) on circuit K2. The sensor also operates the engine coolant temperature gauge in the instrument cluster on circuit G20. Refer to Section 8W-40 for coolant temperature gauge circuit description.

From circuit K2 the engine coolant temperature sensor draws up to 5 volts from the PCM. The sensor is a variable resistor. As coolant temperature changes, the resistance in the sensor changes causing

DESCRIPTION AND OPERATION (Continued)

a change in current draw. The K2 circuit connects to cavity 26 of the PCM connector.

The PCM provides ground for the engine coolant temperature sensor signal (circuit K2) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

The engine coolant temperature sensor is case grounded. The case ground provides the ground for the coolant temperature gauge circuit G20.

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Camshaft position sensor
- Crankshaft position sensor
- Battery temperature sensor
- Throttle position sensor
- Manifold absolute pressure sensor
- Knock sensor
- Intake air temperature sensor
- Vehicle speed sensor

THROTTLE POSITION SENSOR

From the Powertrain Control Module (PCM), circuit K6 supplies 5 volts to the Throttle Position Sensor (TPS). Circuit K6 connects to cavity 61 of the PCM connector.

Circuit K22 delivers the TPS signal to the PCM. Circuit K22 connects to cavity 35 of the PCM connector.

The PCM provides ground for the TPS signal (circuit K22) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Refer to Group 14 for TPS operation.

Circuit K6 splices to supply 5 volts to the Manifold Absolute Pressure (MAP) sensor.

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Battery temperature sensor
- Camshaft position sensor
- Crankshaft position sensor
- Engine coolant temperature sensor
- Manifold absolute pressure sensor
- Knock sensor
- Intake air temperature sensor
- Vehicle speed sensor

MANIFOLD ABSOLUTE PRESSURE SENSOR

From the Powertrain Control Module (PCM), circuit K6 supplies 5 volts to the Manifold Absolute Pressure (MAP) sensor. Circuit K6 connects to cavity 61 of the PCM connector.

Circuit K1 delivers the MAP signal to the PCM. Circuit K1 connects to cavity 36 of the PCM connector.

The PCM provides ground for the MAP sensor signal (circuit K1) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Refer to Group 14 for MAP sensor operation.

Circuit K6 splices to supply 5 volts to the Throttle Position Sensor.

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Battery temperature sensor
- Camshaft position sensor
- Crankshaft position sensor
- Engine coolant temperature sensor
- Throttle position sensor
- Knock sensor
- Intake air temperature sensor
- Vehicle speed sensor

INTAKE AIR TEMPERATURE SENSOR

The intake air temperature sensor provides an input to the Powertrain Control Module (PCM) on circuit K21. Circuit K21 connects to cavity 37 of the PCM connector.

From circuit K21 the intake air temperature sensor draws voltage from the PCM. The sensor is a variable resistor. As intake air temperature changes, the resistance in the sensor changes causing a change in current draw.

The PCM provides ground for the intake air temperature sensor signal (circuit K21) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Battery temperature sensor
- Camshaft position sensor
- Crankshaft position sensor
- Engine coolant temperature sensor
- Throttle position sensor
- Knock sensor
- Manifold absolute pressure sensor
- Vehicle speed sensor

KNOCK SENSOR

The knock sensor provides an input to the Powertrain Control Module (PCM) on circuit K42. Circuit K42 connects to cavity 24 of the PCM connector.

DESCRIPTION AND OPERATION (Continued)

The PCM provides ground for the knock sensor signal (circuit K42) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Battery temperature sensor
- Camshaft position sensor
- Crankshaft position sensor
- Engine coolant temperature sensor
- Throttle position sensor
- Intake air temperature sensor
- Manifold absolute pressure sensor
- Vehicle speed sensor

BATTERY TEMPERATURE SENSOR

From circuit G31 the battery temperature sensor draws voltage from the Powertrain Control Module (PCM). The sensor is a variable resistor. As battery temperature changes, the resistance in the sensor changes causing a change in current draw. Circuit G31 connects to cavity 52 of the PCM connector.

The PCM provides ground for the battery temperature sensor signal (circuit G31) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Circuit K4 splices to supply ground for the signals from the following:

- Upstream heated oxygen sensor
- Downstream heated oxygen sensor
- Camshaft position sensor
- Crankshaft position sensor
- Engine coolant temperature sensor
- Throttle position sensor
- Manifold absolute pressure sensor
- Knock sensor
- Intake air temperature sensor
- Vehicle speed sensor

FUEL INJECTORS

Circuit A14 is a bus bar in the Power Distribution Center (PDC), and connects to battery voltage. The contact side of the Automatic Shut Down (ASD) relay connects circuit A14 and circuit A142. A 20 amp fuse in the PDC protects circuits A14 and A142.

Circuit A14 also supplies voltage to the coil side of the ASD relay. The Powertrain Control Module (PCM) controls the ground circuit for the coil side of the ASD relay on circuit K51. Circuit K51 connects to cavity 67 of the PCM connector.

Circuit A142 supplies voltage for the fuel injectors. The PCM controls the ground circuit of each injector.

- Circuit K11 is the ground circuit for Injector #1. Circuit K11 connects to cavity 13 of the PCM.
- Circuit K12 is the ground circuit for Injector #2. Circuit K12 connects to cavity 17 of the PCM.
- Circuit K13 is the ground circuit for Injector #3. Circuit K13 connects to cavity 7 of the PCM.
- Circuit K14 is the ground circuit for Injector #4. Circuit K14 connects to cavity 16 of the PCM.

HELPFUL INFORMATION

Circuit A142 splices to supply voltage to the fuel injectors, ignition coil, ASD relay, generator, and the upstream and downstream heated oxygen sensors. The PCM controls the ground circuit for each of the components powered by circuit A142.

The injectors operate in sequence. Refer to Group 14 for system operation.

IGNITION COIL PACK

Circuit A14 is a bus bar in the Power Distribution Center (PDC), and connects to battery voltage. The contact side of the Automatic Shut Down (ASD) relay connects circuit A14 and circuit A142. A 20 amp fuse in the PDC protects circuits A14 and A142.

Circuit A14 also supplies voltage to the coil side of the ASD relay. The Powertrain Control Module (PCM) controls the ground path circuit for the coil side of the ASD relay on circuit K51. Circuit K51 connects to cavity 67 of the PCM connector.

Circuit A142 supplies voltage for the ignition coil pack. The coil pack consists of two individual coils molded together. The PCM controls the ground circuit of each coil.

- Circuit K19 is the ground circuit for the ignition coil that fires spark plugs # 1 and # 4. Circuit K19 connects to cavity 2 of the PCM.
- Circuit K17 is the ground circuit for the ignition coil that fires spark plugs #2 and # 3. Circuit K17 connects to cavity 3 of the PCM.

HELPFUL INFORMATION

Circuit A142 splices to supply voltage to the fuel injectors, ignition coil, ASD relay, generator, upstream heated oxygen sensor and downstream heated oxygen sensor. The PCM controls the ground circuit for each of the components powered by circuit A142.

IDLE AIR CONTROL MOTOR

The Powertrain Control Module (PCM) operates the Idle Air Control (IAC) motor through 4 circuits - K39, K40, K59, and K60. Each circuit connects to separate cavities in the PCM connector.

- Circuit K39 connects to cavity 57 of the PCM connector.
- Circuit K40 connects to cavity 48 of the PCM connector.

DESCRIPTION AND OPERATION (Continued)

- Circuit K59 connects to cavity 58 of the PCM connector.
- Circuit K60 connects to cavity 49 of the PCM connector.

POWER STEERING PRESSURE SWITCH

The power steering pressure switch opens and closes circuit K10 between the Powertrain Control Module (PCM) and ground. Circuit K10 connects to cavity 45 of the PCM connector.

Circuit Z12 provides ground for the power steering pressure switch. The grounding point for circuit Z12 is the left side of the radiator closure panel.

TORQUE CONVERTER CLUTCH SOLENOID (TCC)

The Powertrain Control Module (PCM) operates the TCC solenoid by providing a ground path on circuit K54. Circuit K54 connects to PCM cavity 79.

Circuit F12 supplies battery voltage to the TCC solenoid. Circuit F12 connects to a bus bar in the fuse block fed by circuit A21. A 15 amp fuse in the fuse block, cavity 10, protects circuit F12. Circuit F12 connects to cavity 20 of the PCM connector.

HELPFUL INFORMATION

Circuit F12 splices to feed the ABS control module, PCM, EGR solenoid, leak detection pump, and the duty cycle EVAP/Purge solenoid. The F12 circuit also connects to a bus bar in the PDC that supplies voltage to the coil side of radiator fan relay, A/C clutch relay, and fuel pump relay.

In the RUN or START position, the ignition switch connects circuit A1 from the fuse block and circuit A21. Circuit A1 connects to battery voltage and is protected by a 30 amp fuse in the PDC.

DUTY CYCLE EVAP/PURGE SOLENOID

Circuit F12 supplies battery voltage to the Duty Cycle EVAP/Purge solenoid. The Powertrain Control Module (PCM) switches ground path for the solenoid ON and OFF through circuit K52.

Circuit F12 connects to a bus bar in the fuse block fed by circuit A21. A 15 amp fuse in the fuse block, cavity 10, protects circuit F12. Circuit F12 also connects to cavity 20 of the PCM connector.

Circuit K52 connects to cavity 68 of the PCM, and cavity 1 of the solenoid connector.

HELPFUL INFORMATION

Circuit F12 splices to feed the ABS control module, PCM, EET solenoid, leak detection pump, and the TCC solenoid. The F12 circuit also connects to a bus bar in the PDC that supplies voltage to the coil side of radiator fan relays, A/C clutch relay, and fuel pump relay.

In the START or RUN position, the ignition switch connects circuit A1 from the fuse block and circuit A21. Circuit A1 connects to battery voltage and is protected by a 30 amp fuse in the PDC.

EGR TRANSDUCER (EET) SOLENOID

Circuit F12 supplies battery voltage to the EET solenoid. The Powertrain Control Module (PCM) switches ground path for the solenoid ON and OFF through circuit K35.

Circuit F12 connects to a bus bar in the fuse block fed by circuit A21. A 15 amp fuse in the fuse block, cavity 10, protects circuit F12. Circuit F12 also connects to cavity 20 of the PCM.

Circuit K35 connects to cavity 40 of the PCM connector.

HELPFUL INFORMATION

Circuit F12 splices to feed the ABS control module, PCM, Duty Cycle EVAP/Purge solenoid, leak detection pump, and the TCC solenoid. The F12 circuit also connects to a bus bar in the PDC that supplies voltage to the coil side of radiator fan relays, A/C clutch relay, and fuel pump relay.

In the START or RUN position, the ignition switch connects circuit A1 from the fuse block and circuit A21. Circuit A1 connects to battery voltage and is protected by a 30 amp fuse in the PDC.

LOW FUEL DETECT INPUT

Circuit G4 provides an input to the Powertrain Control Module (PCM) indicating fuel tank level. This circuit connects to cavity 23 of the PCM connector.

The G4 circuit is also used for the fuel gauge located in the instrument cluster. For operation of the fuel gauge, refer to section 8W-40.

PARK/NEUTRAL POSITION SWITCH INPUT (3–SPD TRANSMISSION)

On vehicles equipped with the 3–spd automatic transmission the park/neutral switch provides an input to the Powertrain Control Module (PCM).

When CLOSED, the park/neutral position switch provides a ground path on circuit T41 for the coil side of the engine starter motor relay. The case grounded switch provides ground for circuit T41.

Circuit A41 from the ignition switch provides battery voltage to the coil side of the relay.

Circuit T41 splices to cavity 76 of the PCM. The park/neutral position switch provides an input to the Powertrain Control Module (PCM).

HELPFUL INFORMATION

In the START position, the ignition switch connects circuit A1 from the Power Distribution Center (PDC) to circuit A41. A 30 amp fuse protects circuits A1 and A41.

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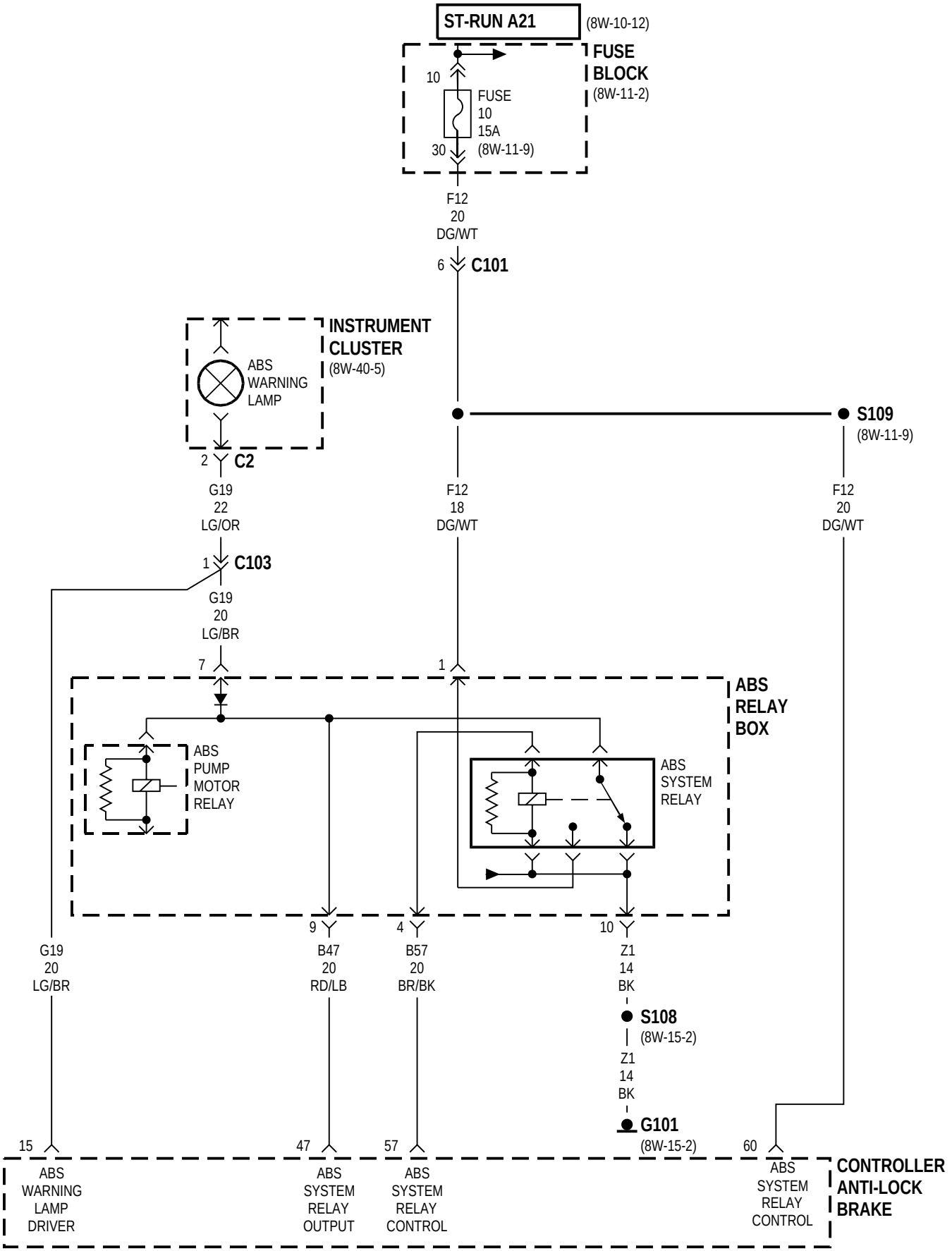
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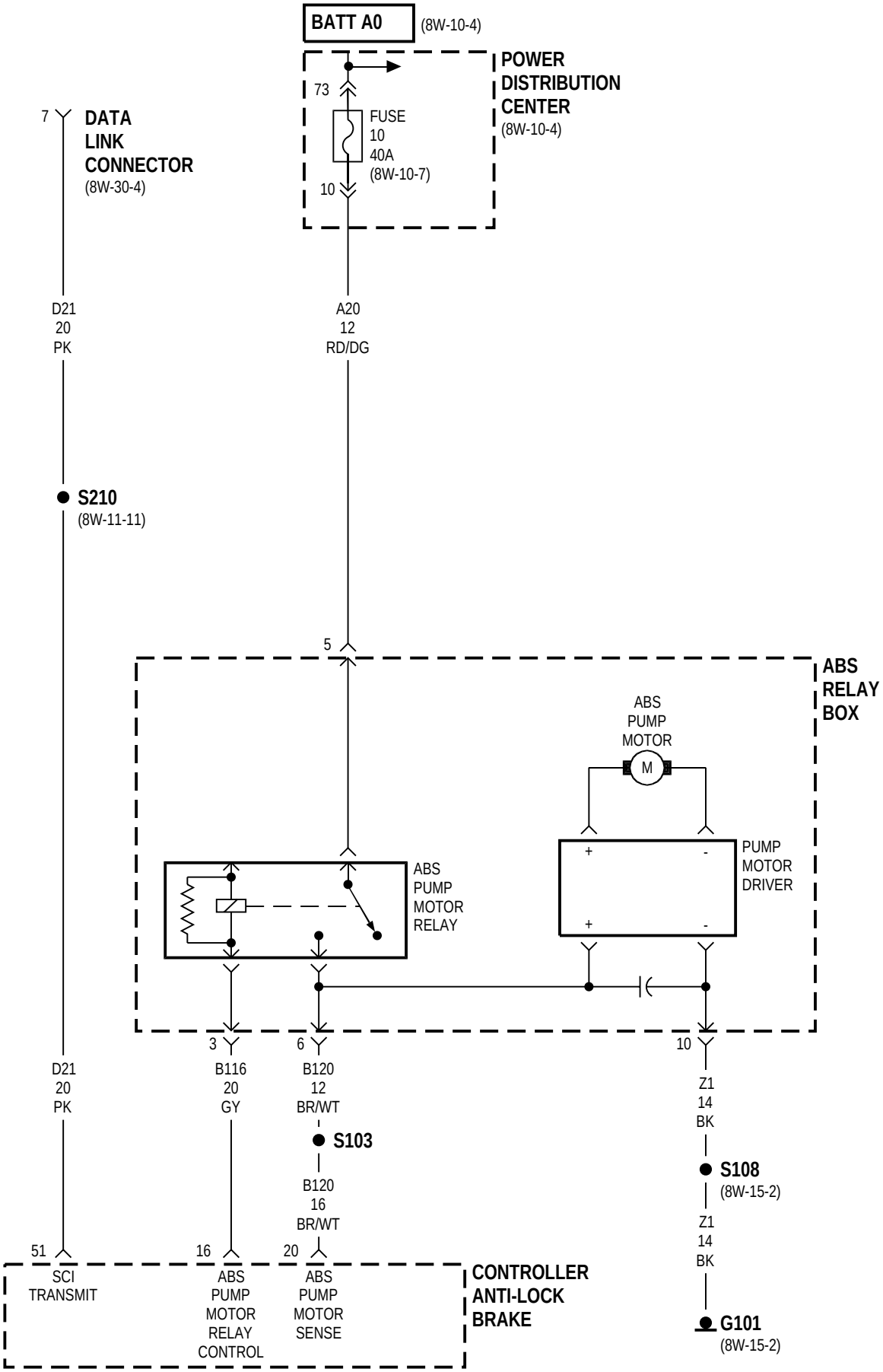
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51
16
20
SCI TRANSMIT
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ABS PUMP MOTOR SENSE
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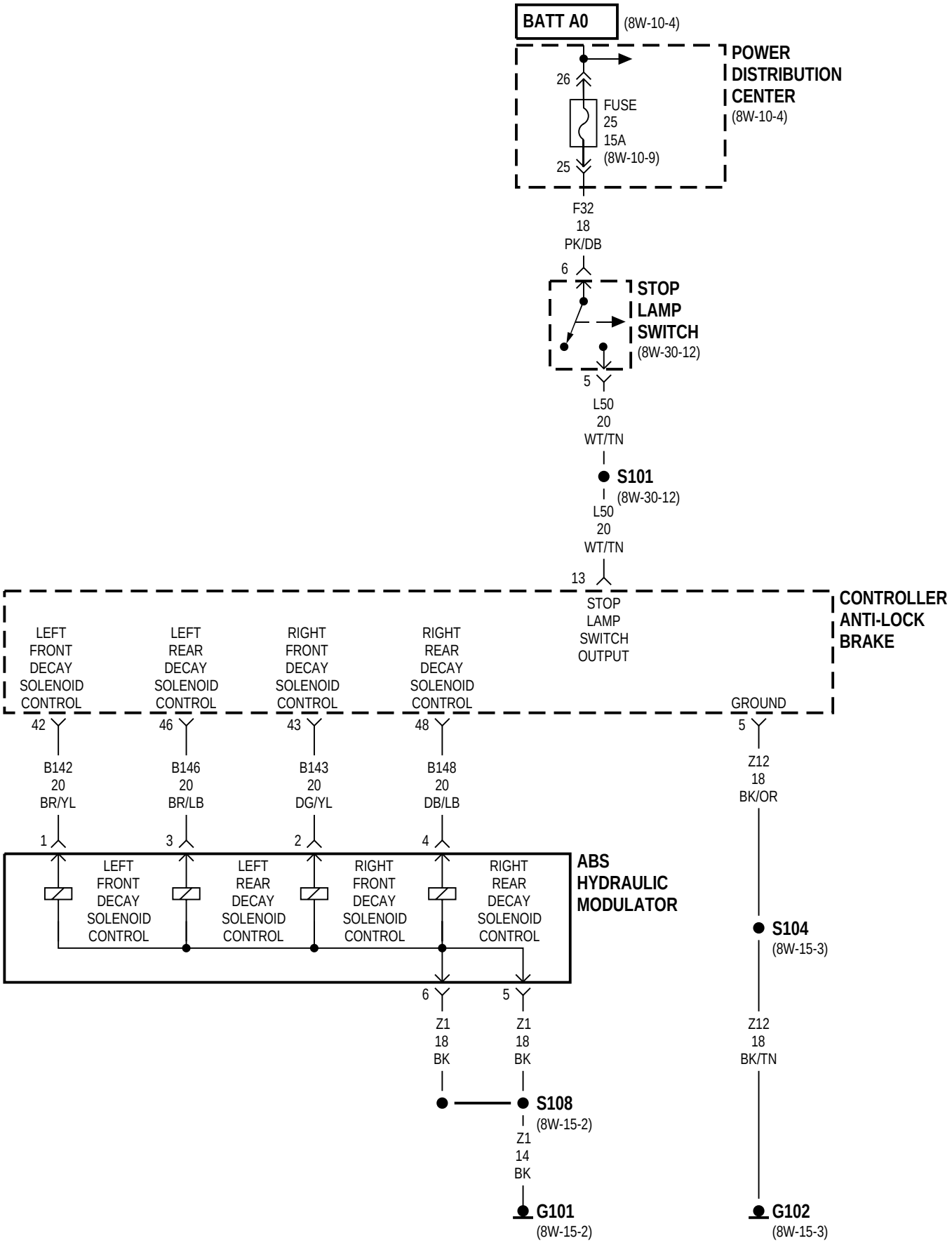
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Z1
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BK
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BK/TN
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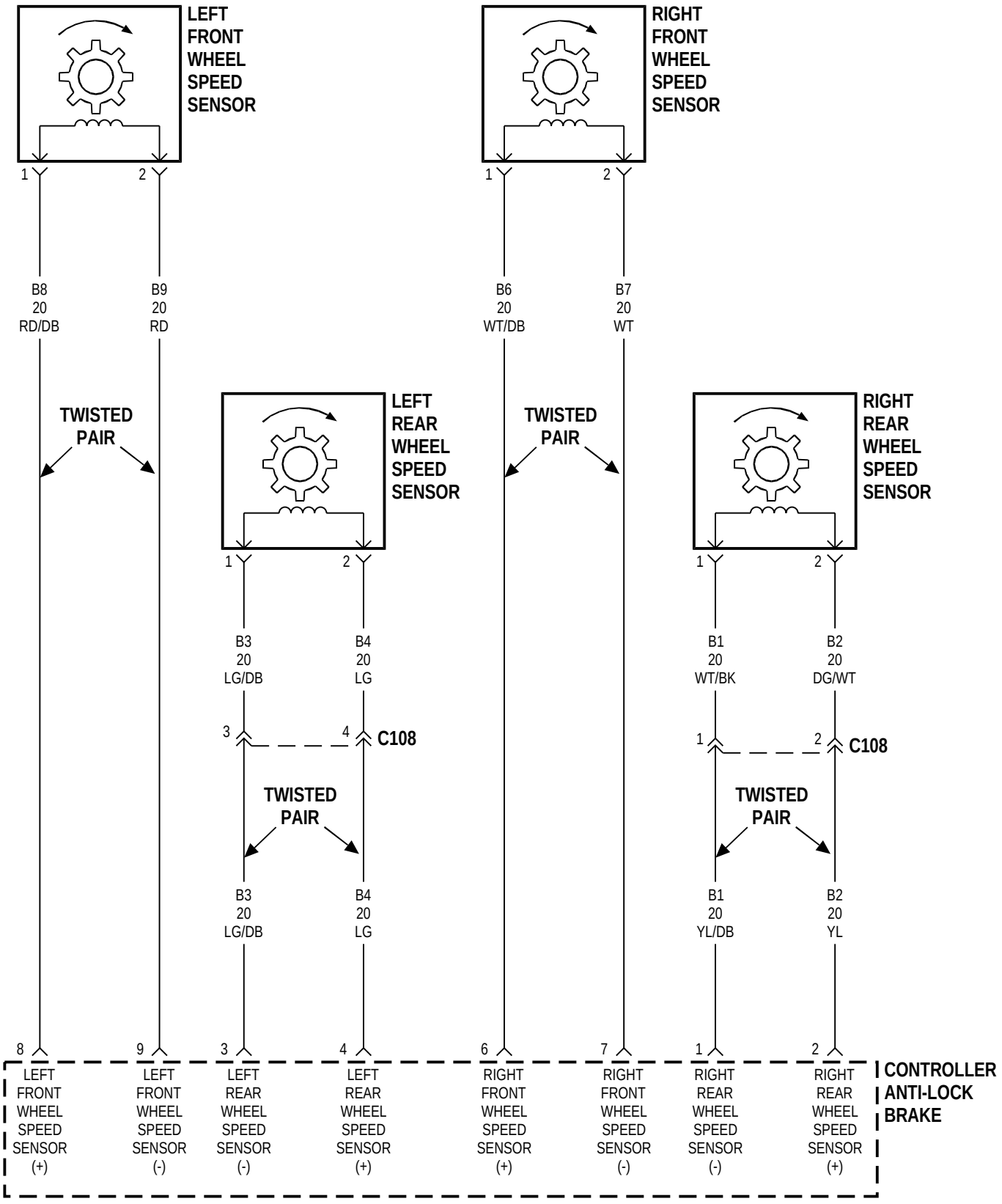
(8W-15-2)
Z1
14
BK
G101
(8W-15-2)
G102
(8W-15-3)


LEFT FRONT WHEEL SPEED SENSOR
RIGHT FRONT WHEEL SPEED SENSOR
LEFT REAR WHEEL SPEED SENSOR
RIGHT REAR WHEEL SPEED SENSOR
1
2
B8 20 RD/DB
B9 20 RD
B6 20 WT/DB
B7 20 WT
TWISTED PAIR
B3 20 LG/DB
B4 20 LG
B1 20 WT/BK
B2 20 DG/WT
3
4
C108
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B4 20 LG
B1 20 YL/DB
B2 20 YL
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7
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LEFT FRONT WHEEL SPEED SENSOR (-)
LEFT REAR WHEEL SPEED SENSOR (-)
LEFT REAR WHEEL SPEED SENSOR (+)
RIGHT FRONT WHEEL SPEED SENSOR (+)
RIGHT FRONT WHEEL SPEED SENSOR (-)
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8W-35 ANTI-LOCK BRAKES

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DESCRIPTION AND OPERATION

ANTI-LOCK BRAKES

Power for the Anti-Lock brake system is supplied by two fuses. There is a 15 amp fuse located in the fuse block cavity 10. This fuse supplies power to the Controller Anti Lock Brake (CAB), and the ABS system relay on the F12 circuit. The F12 circuit also supplies power to the Powertrain Control Module (PCM). Power for the fuse is supplied on the A21 circuit from the ignition switch. This fuse is HOT in the START/RUN position.

The second fuse is located in the Power Distribution Center (PDC). It is a 40 amp fuse. This fuse is HOT at all times and supplies power to the contact side of the ABS pump motor relay.

There are three grounding points used in the ABS system. One is a case ground on the CAB. The second is the Z12 circuit at the CAB connector cavity 5. This ground is spliced, and terminates at the left side of the radiator closure panel.

The third ground is on the Z1 circuit. This ground is used for the ABS hydraulic modulator, ABS system relay, and the ABS pump motor. This ground, like the Z12 ground splices and terminates at the left headlamp ground.

Additional information on the circuit function of the ABS system is listed below. For diagnostic and testing procedures, refer to the appropriate section of the Service Manual or the Diagnostic Test Procedures Manual.

ABS WARNING LAMP

The ABS warning lamp is an output from the Controller Anti Lock Brake (CAB) and the ABS relay box. It is used to alert the operator of a problem in the ABS system. The G19 circuit from the CAB and the ABS system relay is used to detect a problem. If a problem is detected, the CAB grounds the G19 circuit and illuminates the lamp in the instrument cluster.

Circuit G19 is also an output of the CAB to the ABS system relay contact side.

ABS SYSTEM RELAY

The system relay is used for the operation of the ABS system. Power for the relay is supplied on the B57 circuit from cavity 57 of the Controller Anti Lock Brake (CAB).

Ground for the relay is on the Z1 circuit. This ground is spliced in with the pump motor and terminates at the left headlamp ground.

When the system is operating normally power for the contact side of the relay is supplied from the CAB on the B57 circuit. It passes through the relay to the Z1 ground and terminates at the left headlamp ground. If a problem is detected in the system, the contact side of the relay switches from the Z1 to the F12 circuit. This causes the ABS warning lamp in the instrument cluster to illuminate.

ABS PUMP MOTOR RELAY

The ABS pump motor relay controls when the pump motor runs. Power for the coil side of the relay is supplied from cavity 47 of the Controller Anti Lock Brake (CAB) on the B47 circuit. This circuit also supplies voltage for the contact side of the system relay. The ground side of the coil is controlled by the B116 circuit. Circuit B116 connects to cavity 16 of the CAB connector.

Circuit B120 from cavity 20 of the CAB connector powers the ABS pump motor. This circuit is also used as an input to the CAB for pump motor monitoring.

HYDRAULIC MODULATOR

The hydraulic modulator is used for the controlling of the brake system pressure to the wheels. The modulator is made up of four solenoids.

Circuits involved are, B142 for the left front wheel, B143 for the right front wheel, B146 for the left rear wheel, and B148 for the right rear wheel.

The solenoids use a common ground on the Z1 circuit. There are two Z1 circuits from the modulator. Both of these grounds terminate at the left headlamp ground, and are spliced in with the ABS pump motor and the ABS system relay.

DESCRIPTION AND OPERATION (Continued)

WHEEL SPEED SENSORS

There are four wheel speed sensors, one at each wheel. The sensors use a tone wheel to determine wheel speed. Input to the Controller Anti Lock Brake (CAB) is done on the following circuits. All of these circuits are a twisted pair.

B8 and B9 for the left front wheel (cavity 8 and cavity 9).

B6 and B7 for the right front wheel (cavity 6 and cavity 7).

B3 and B4 for the left rear wheel (cavity 3 and cavity 4).

B1 and B2 for the right rear wheel (cavity 1 and cavity 2).

BRAKE SWITCH INPUT

Circuit L50 is an input to the Controller Anti Lock Brake (CAB). The L50 connects to cavity 13 of the CAB connector. Circuit L50 is spliced in with the stop lamps and is used to provide the CAB with information on when the brakes are being applied.

DATA LINK CONNECTOR

Circuit D21 is used for diagnostics of a fault with the ABS system. It is spliced in with the Powertrain Control Module (PCM) circuits and used as an output from the Controller Anti Lock Brake (CAB). Circuit D21 connects to cavity 51 of the CAB connector.

HELPFUL INFORMATION

- Check the 15 amp fuse located in cavity 10 of the fuse block.
- Check the 40 amp fuse located in the PDC.
- Check for a good ground at the left headlamp ground.
- Check the case ground on the CAB
- Refer to the appropriate section of the service manual, or the Diagnostic Test Procedures Manual.

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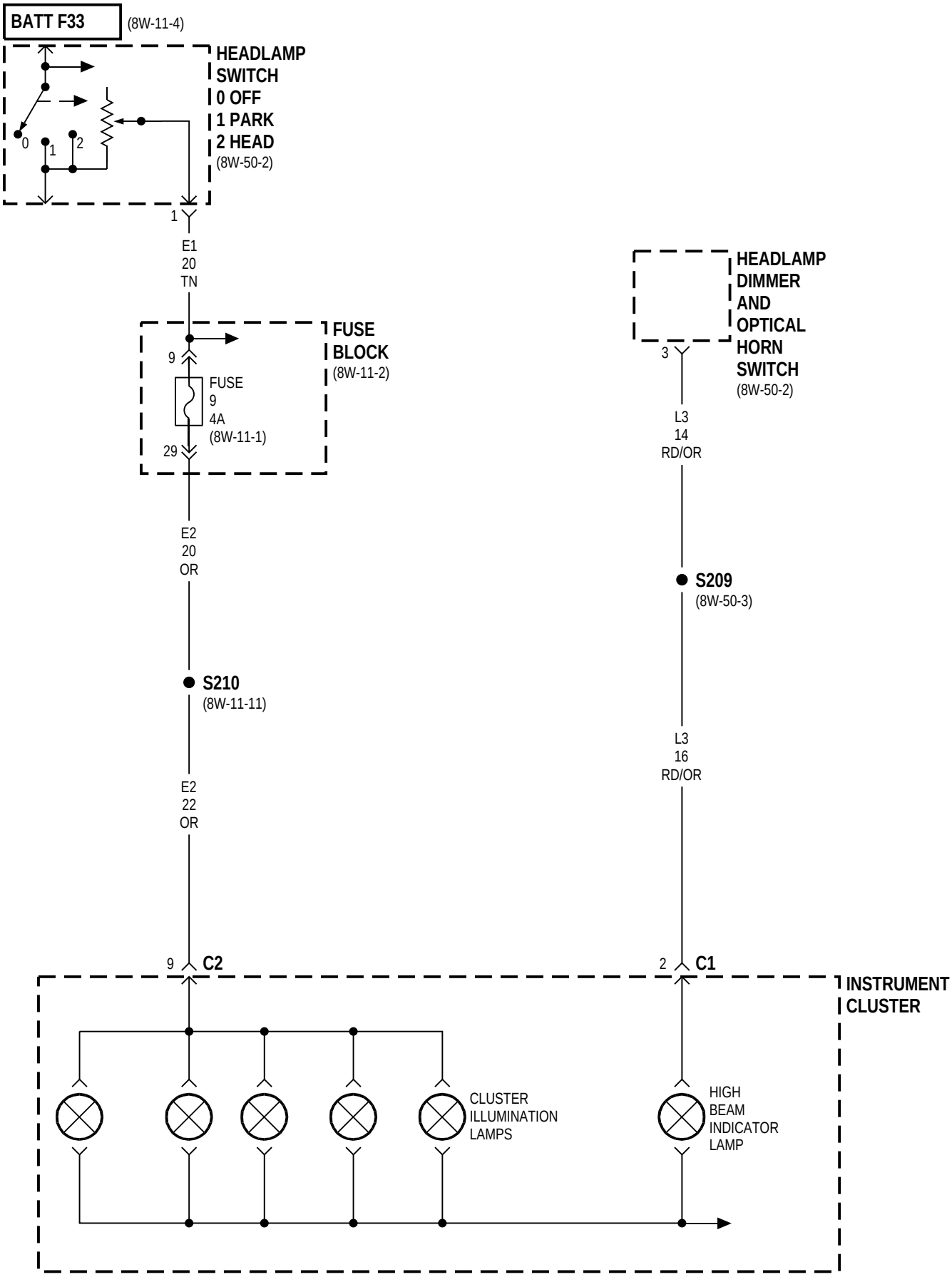
BATT F33
(8W-11-4)
HEADLAMP SWITCH
0 OFF
1 PARK
2 HEAD
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0
1
2
1
E1
20
TN
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(8W-11-2)
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FUSE
9
4A
(8W-11-1)
29
E2
20
OR
S210
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16
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2
C1
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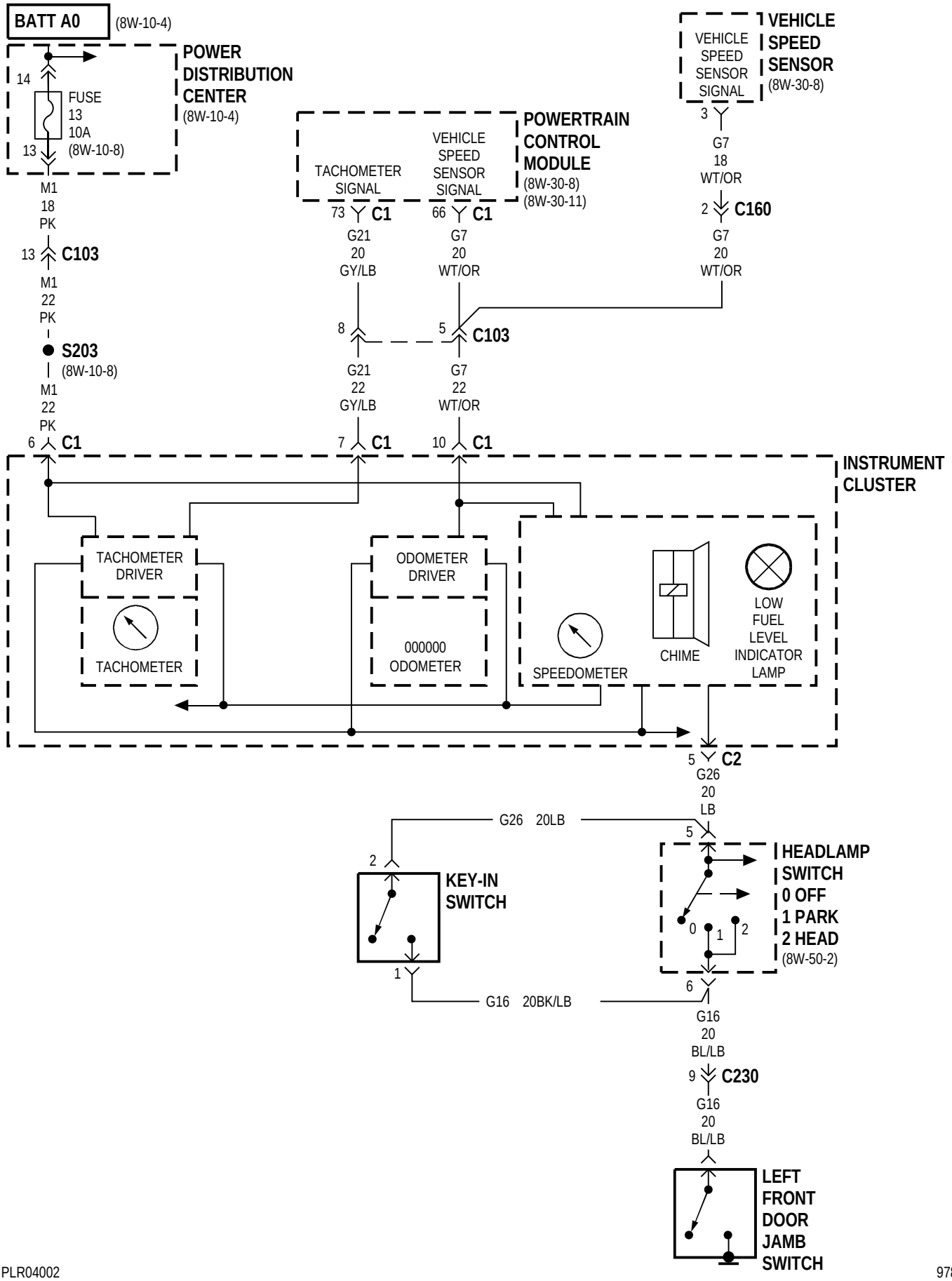
CLUSTER ILLUMINATION LAMPS
HIGH BEAM INDICATOR LAMP


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
14
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13
(8W-10-8)
M1 18 PK
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M1 22 PK
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TACHOMETER
ODOMETER DRIVER
000000 ODOMETER
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CHIME
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G26 20LB
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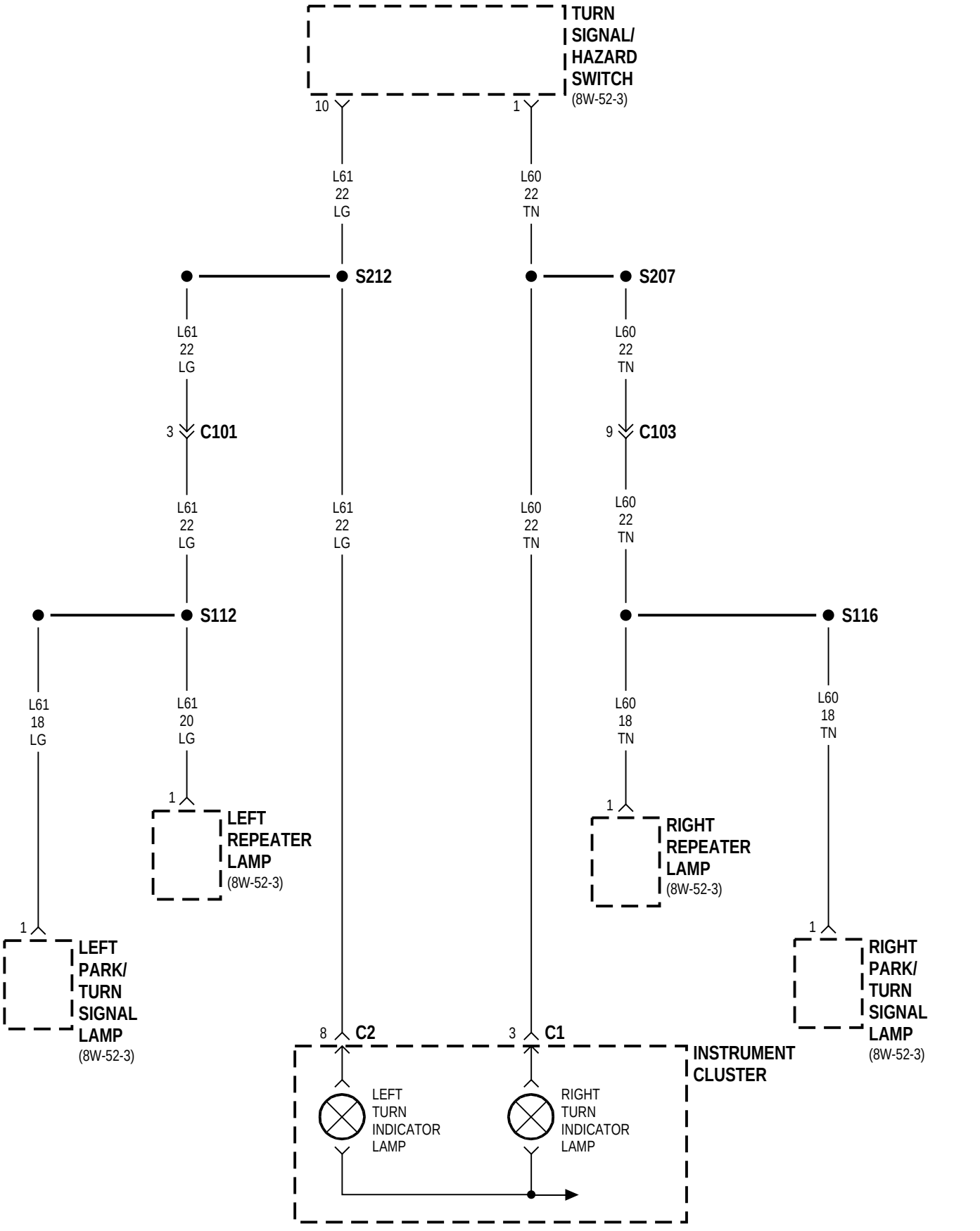
1
G16 20BK/LB
HEADLAMP SWITCH
0 OFF
1 PARK
2 HEAD
(8W-50-2)
0
1
2
6
G16 20 BL/LB
9 C230
G16 20 BL/LB
LEFT FRONT DOOR JAMB SWITCH


TURN SIGNAL/ HAZARD SWITCH
(8W-52-3)
10
1
L61 22 LG
L60 22 TN
S212
S207
L61 22 LG
L60 22 TN
3
C101
9
C103
L61 22 LG
L61 22 LG
L60 22 TN
L60 22 TN
S112
S116
L61 18 LG
L61 20 LG
L60 18 TN
L60 18 TN
1
LEFT REPEATER LAMP
(8W-52-3)
1
RIGHT REPEATER LAMP
(8W-52-3)
1
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(8W-52-3)
1
RIGHT PARK/ TURN SIGNAL LAMP
(8W-52-3)
8
C2
3
C1
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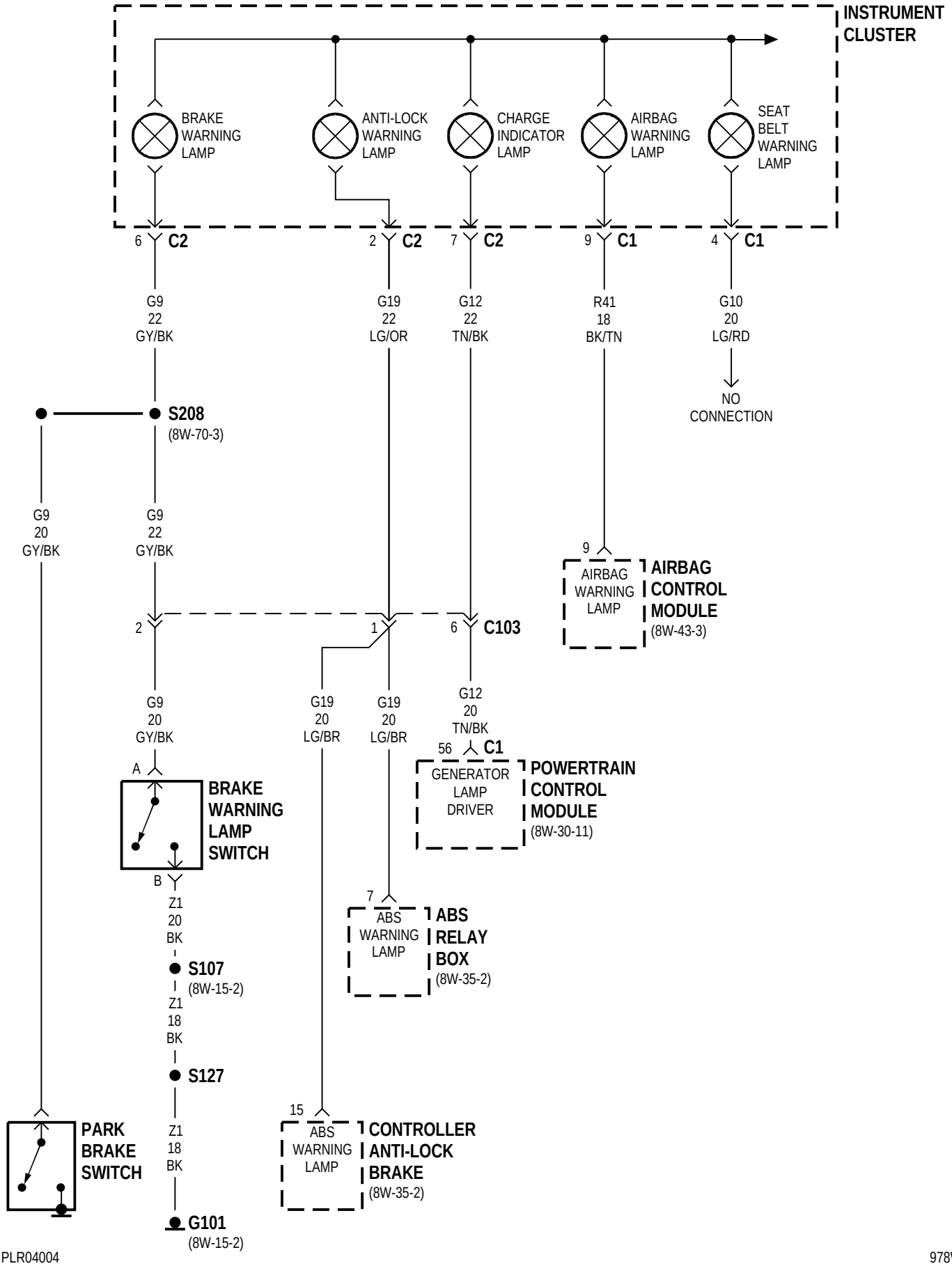
RIGHT TURN INDICATOR LAMP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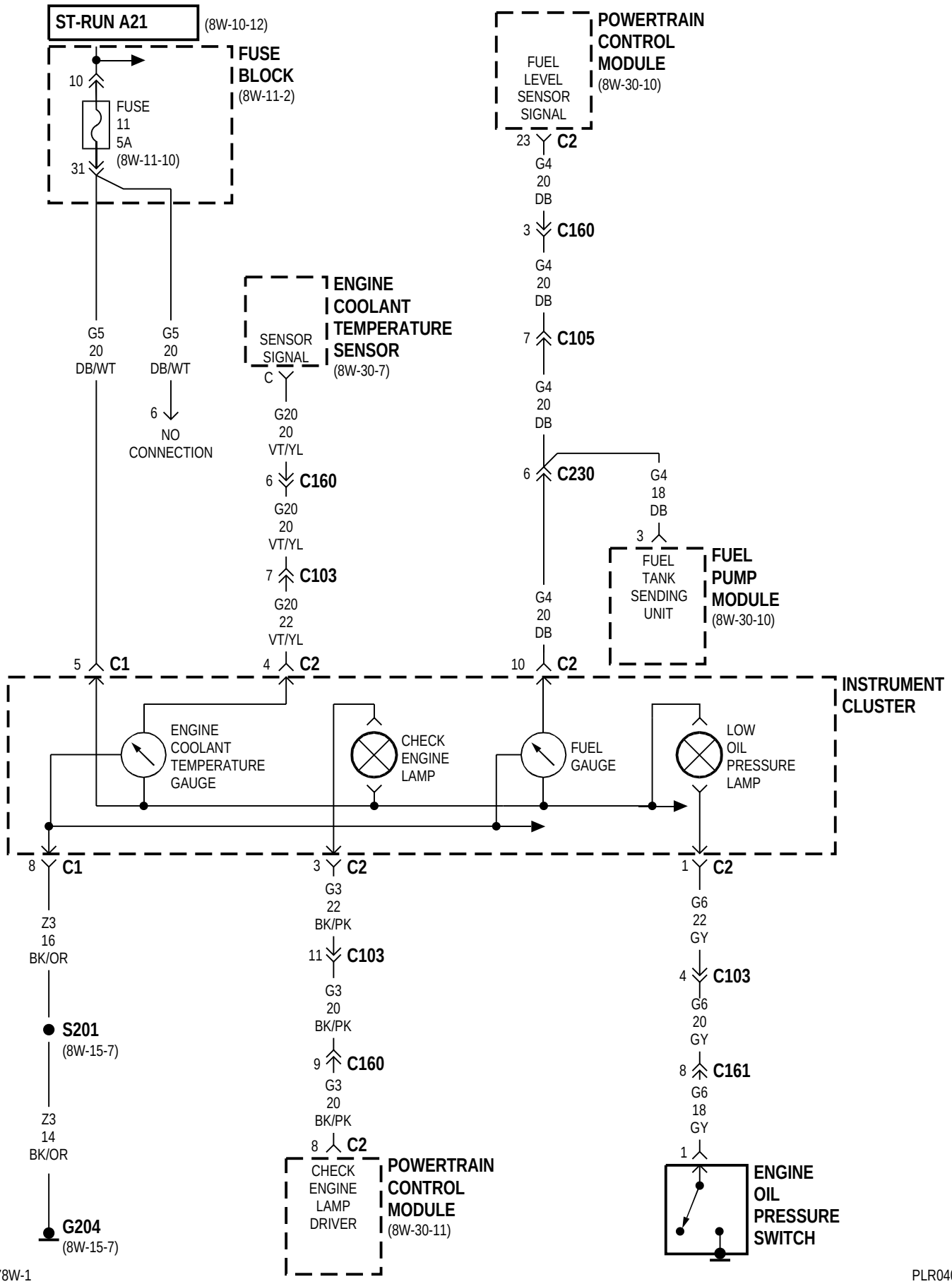
ST-RUN A21
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FUSE 11 5A
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G5 20 DB/WT
G5 20 DB/WT
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1 C2
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(8W-15-7)
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11 C103
G3 20 BK/PK
9 C160
G3 20 BK/PK
8 C2
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DESCRIPTION AND OPERATION

INSTRUMENT CLUSTER

The Instrument Cluster, located on the right side of the instrument panel, provides the operator with gauges and warning lamps relating to vehicle operation. All gauges in the standard and optional cluster are magnetic type and logic driven.

Battery voltage for the clusters warning lamps and gauges is provided on the G5 circuit. This circuit connects from the fuse block and is protected by a 5 amp fuse located in cavity 11. The cluster is powered only when the ignition switch is in the START or RUN position. The cluster is also powered on initial driver's door opening.

Illumination lamps, internal to the cluster, receive battery voltage on the E2 circuit from the 4 amp fuse located in cavity 12 of the fuse block. This circuit is HOT only when the headlamp switch is in the ON position. Grounding for the cluster is provided on the Z3 circuit and terminates at the instrument panel left center support.

The M1 circuit also feeds the cluster through a 10 amp fuse in the Power Distribution Center (PDC). This fuse is HOT at all times and also used to power the underhood lamp, and the interior lamps. The fuse is also lifted OPEN during vehicle shipping to reduce battery draw.

SPEEDOMETER

The speedometer and odometer receive their information on the G7 circuit from the Vehicle Speed Sensor (VSS) on manual and 3–spd automatic transmission applications. The G7 circuit also provides a signal to the Powertrain Control Module (PCM).

Logic internal to the instrument cluster adjusts the position of the gauge pointer to the correct vehicle speed using the signal on the G7 circuit.

TACHOMETER

The tachometer is connected to the Powertrain Control Module (PCM) on the G21 circuit. It uses solid state circuity to decode the ignition pulses received from the PCM to adjust the gauge pointer to the proper position.

ENGINE COOLANT TEMPERATURE GAUGE

The temperature gauge is connected to the engine coolant temperature sensor on the G20 circuit. The engine coolant temperature sensor for the gauge is a combination unit. One side of the unit is used for the Powertrain Control Module (PCM) and the other side for the cluster. The sending unit is case grounded to the engine.

The logic driven gauge moves in response to the measured resistance of the engine coolant temperature sending unit.

FUEL GAUGE

The fuel level gauge is connected to the fuel pump module on the G4 circuit. The fuel pump module contains the fuel pump and a variable resistor for the gauge. Grounding for the fuel pump module is provided on the Z2 circuit and terminates at the left rear wheel house.

The logic driven gauge moves in response to the measured resistance of the fuel tank sending unit.

The fuel level sensor contains a variable resistor. As the position of the float arm on the level sensor changes, the resistor changes the current flow through the fuel gauge circuit. A change in current flow alters the magnetic field in the fuel gauge which changes the pointer position.

DESCRIPTION AND OPERATION (Continued)

ODOMETER

The speedometer and odometer receive their information on the G7 circuit from the Vehicle Speed Sensor (VSS) on vehicles equipped with the manual or 3–spd automatic transmission. This circuit also provides a signal to the Powertrain Control Module (PCM).

Logic internal to the cluster steps the odometer at a high rate to indicate the proper mileage.

SERVICE ENGINE SOON LAMP

The Service Engine Soon lamp illuminates when the ignition switch is in the ON position and prior to starting the vehicle. The lamp will turn off after the vehicle is started.

If while the vehicle is running a problem is detected in the engine control system the lamp is illuminated. This is accomplished by the Powertrain Control Module (PCM) grounding the G3 circuit.

SEAT BELT WARNING INDICATOR

The fasten seat belt indicator is used with the warning chime to indicate to the operator to fasten the seat belt. There is a switch located in the drivers side B-pillar that is normally OPEN with the seat belt buckled.

If the seat belt is not buckled the switch CLOSES and a ground path is completed from the G10 circuit to the Z1 circuit. This will illuminate the lamp in the instrument cluster.

When the ignition switch is moved to the START position the lamp will illuminate. Logic internal to the instrument cluster determines the length of time.

LOW FUEL LAMP

The low fuel lamp is used to indicate to the operator that the fuel level is below a predetermined level. This lamp is logic driven by the instrument cluster.

When the instrument cluster determines a low fuel condition based on an input from the fuel tank gauge level sending unit (circuit G4) it illuminates the lamp.

HEADLAMP ON CHIME

The headlamp ON chime is used to indicate to the operator that the headlamps or parking lamps are ON when the drivers door is OPEN. If the lamps are ON and the drivers door is opened, a ground path is completed from the G26 circuit at the cluster, through the headlamp switch, to the G16 circuit and ending at the door ajar switch. The door ajar switch is case grounded.

KEY-IN CHIME

The key-in chime is used to indicate to the operator that the key is in the ignition with the drivers door OPEN. If the key is in the ignition and the drivers door is OPEN, a ground path is completed from the G26 circuit at the cluster, through the CLOSED key-in switch, to the G16 circuit and terminating at the door ajar switch which is case grounded.

CHARGE INDICATOR LAMP

The Charge Indicator lamp is used to alert the operator that the charging system voltage has fallen below the normal operating range. This circuit is controlled by the Powertrain Control Module (PCM). When the PCM determines a problem, it grounds the G12 circuit.

AIRBAG WARNING LAMP

The Airbag Warning lamp is used to alert the operator of a problem with the Airbag system. The lamp is illuminated when the Airbag Control Module (ACM) grounds the R41 circuit. Refer to the appropriate section of the Service Manual or Diagnostic Test Procedures Manual to diagnosis this system.

LOW OIL PRESSURE LAMP

The low oil pressure lamp is used to indicate to the operator that the engine oil pressure has dropped below a predetermined pressure. Power for the lamp is provided on the G5 circuit which also powers the other warning lamps.

When the oil pressure is low the normally OPEN oil pressure switch CLOSES completing a path to ground on circuit G6. The oil pressure switch is case grounded to the engine block.

HIGH BEAM INDICATOR LAMP

The High Beam Indicator Lamp is used to indicate to the operator that the high beam headlamps are ON. Power is supplied to the cluster on the L3 circuit. Ground is provided on the Z3 circuit.

Circuit L3 connects from the headlamp dimmer switch to the instrument cluster.

RIGHT AND LEFT TURN SIGNAL INDICATORS

These lamps are used to indicate to the operator which turn signal is ON. Power for the lamps comes from the turn signal switch. The L60 circuit is for the right turn indicator, and the L61 circuit is used for the left turn signal indicator. Ground for the circuits is provided on the Z3 circuit.

BRAKE WARNING INDICATOR LAMP

The Brake Warning Indicator lamp is used to alert the operator of a problem with the vehicles braking system. The lamp illuminates when the ignition switch is turned to START position to perform a self check.

DESCRIPTION AND OPERATION (Continued)

There are two switches used in this system and they are wired in parallel form. A parking brake switch located on the parking brake mechanism will illuminate the lamp if the normally OPEN switch is CLOSED. This switch is case grounded.

The other switch used is the brake warning lamp switch. This switch is normally OPEN. When the brake system pressure is below a predetermined level the switch CLOSES and completes a path to ground from the G9 circuit at the cluster, through the switch, to the left headlamp ground.

ANTI-LOCK WARNING LAMP

The Anti-Lock warning lamp is used to alert the driver of a problem in the ABS system. When the ABS controller determines a problem in the system it grounds the G19 circuit and illuminates the lamp.

HELPFUL INFORMATION

- Check the 5 amp fuse in cavity 11 of the fuse block.
- Check the 4 amp fuse in cavity 12 of the fuse block.
- Check the Ignition-Off Draw fuse in the PDC.
- Check for a good ground at the instrument panel left center support.
- For additional diagnostic tests refer to the appropriate section of the Service Manual.

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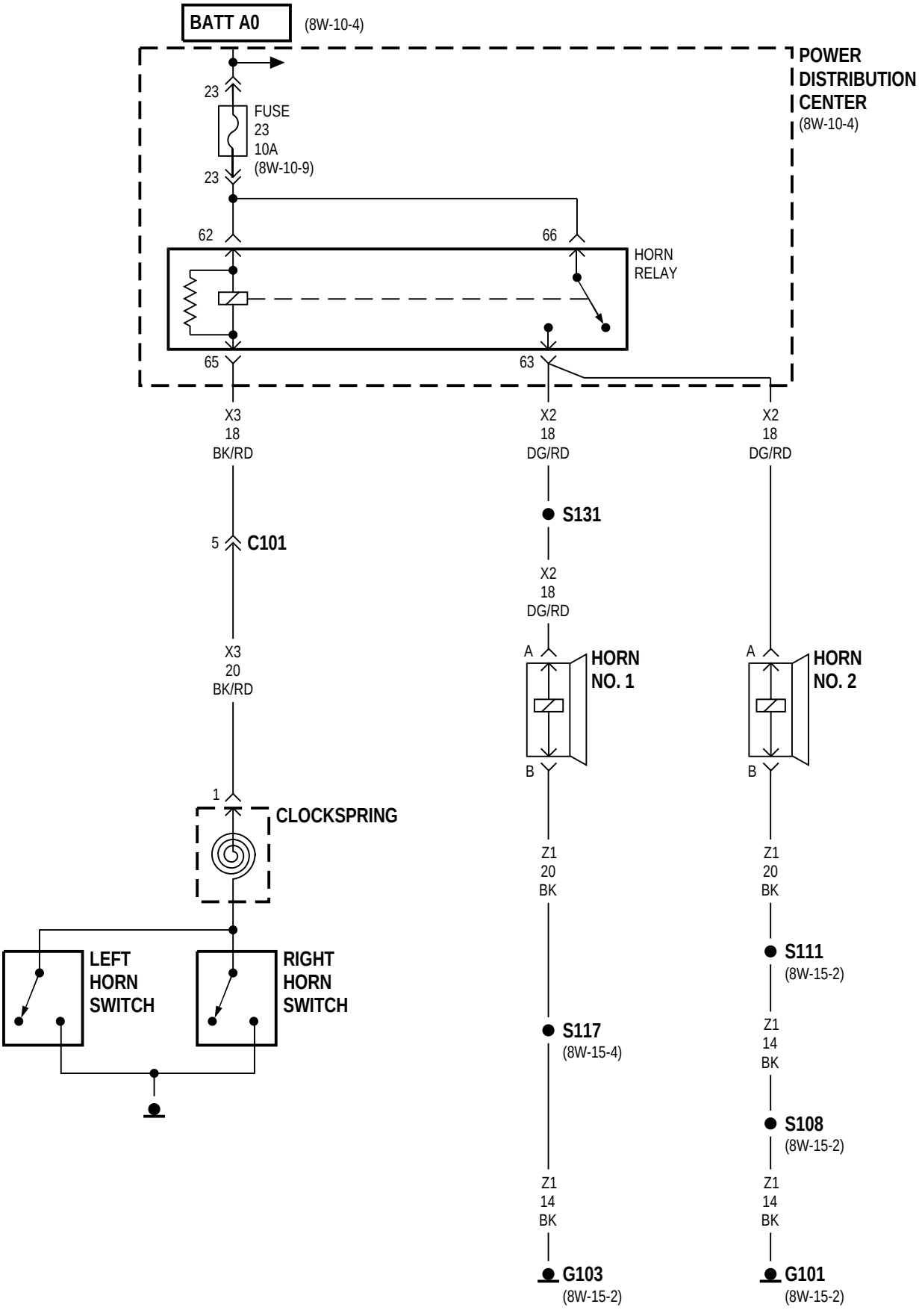
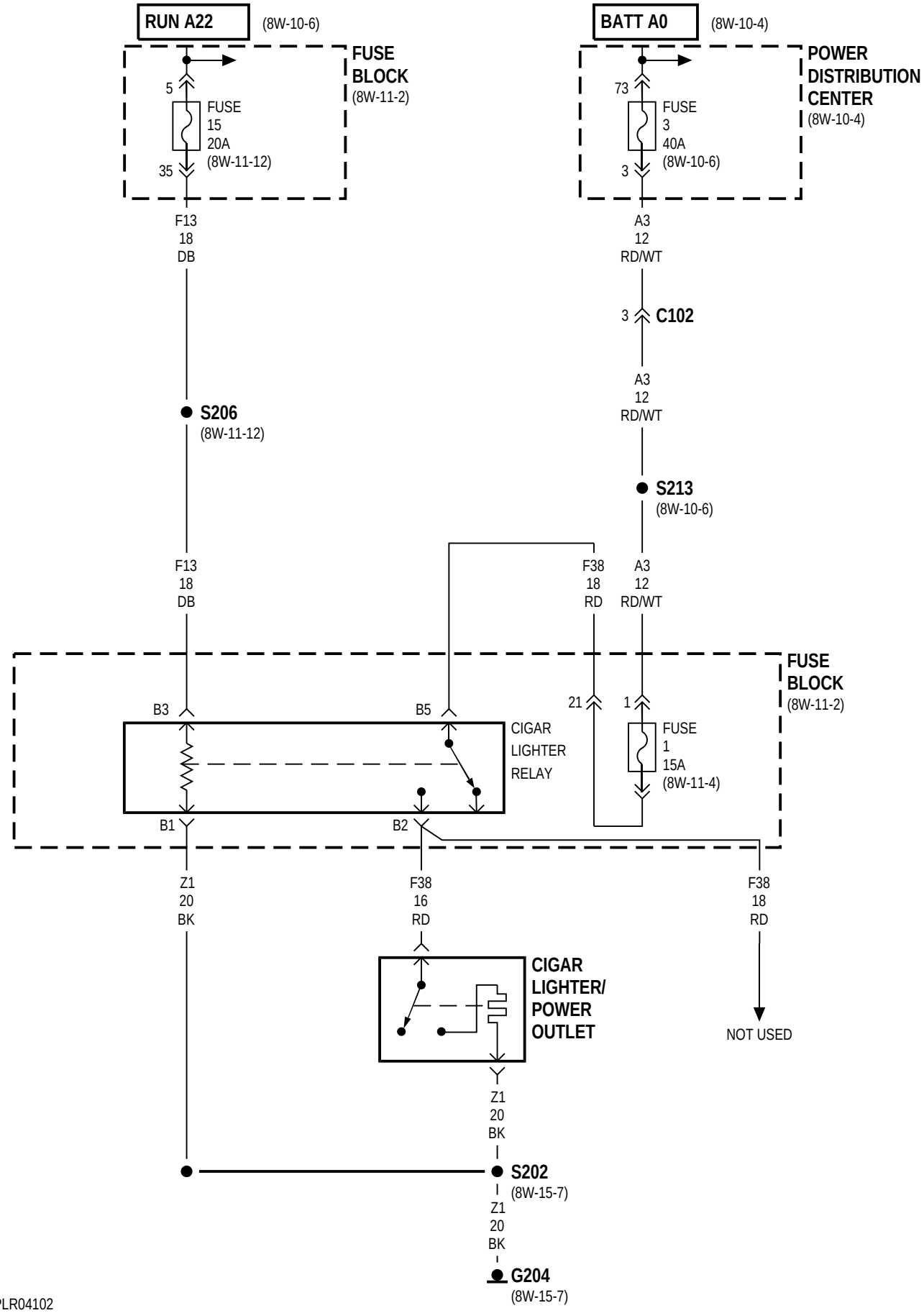
G103	8W-41-2
G204	8W-41-3
Horn No. 1	8W-41-2
Horn No. 2	8W-41-2
Horn Relay	8W-41-2
Left Horn Switch	8W-41-2
Power Distribution Center	8W-41-2, 3
Right Horn Switch	8W-41-2
S108	8W-41-2
S111	8W-41-2
S117	8W-41-2
S131	8W-41-2
S202	8W-41-3
S206	8W-41-3
S213	8W-41-3


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
23
FUSE 23 10A
(8W-10-9)
23
62
66
HORN RELAY
65
63
X3 18 BK/RD
X2 18 DG/RD
X2 18 DG/RD
S131
5
C101
X2 18 DG/RD
X3 20 BK/RD
A
HORN NO. 1
A
HORN NO. 2
B
B
1
CLOCKSPRING
Z1 20 BK
Z1 20 BK
S111
(8W-15-2)
LEFT HORN SWITCH
RIGHT HORN SWITCH
Z1 14 BK
S117
(8W-15-4)
S108
(8W-15-2)
Z1 14 BK
Z1 14 BK
G103
(8W-15-2)
G101
(8W-15-2)


RUN A22
(8W-10-6)
FUSE BLOCK
(8W-11-2)
5
FUSE 15 20A
(8W-11-12)
35
BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
73
FUSE 3 40A
(8W-10-6)
3
F13 18 DB
A3 12 RD/WT
3 C102
S206
(8W-11-12)
S213
(8W-10-6)
F38 18 RD
FUSE BLOCK
(8W-11-2)
B3
B5
CIGAR LIGHTER RELAY
21
1
FUSE 1 15A
(8W-11-4)
B1
B2
Z1 20 BK
F38 16 RD
F38 18 RD
CIGAR LIGHTER/ POWER OUTLET
NOT USED
S202
(8W-15-7)
G204
(8W-15-7)

8W-41 HORNS/CIGAR LIGHTER

DESCRIPTION AND OPERATION

HORNS

The horn system is powered by a 15 amp fuse located in the Power Distribution Center (PDC) which is HOT at all times on circuit F31. This circuit supplies voltage to the coil and contact side of the horn relay.

When the operator presses the horn switch, a ground path is completed on the coil side of the horn relay through the switch. The horn relay, located in the PDC, then CLOSES the relay contacts. Voltage is passed through the CLOSED relay contacts on circuit X2 to the horn. Grounding for the horn is on the Z1 circuit to the left headlamp ground which is located on the left side of the radiator closure panel.

HELPFUL INFORMATION

- Check the 15 amp fuse in the PDC.
- Press the horn switch and listen for the horn relay to click. A clicking relay indicates voltage is present up to the switch.
- Check for a good ground at the left headlamp ground.

CIGAR LIGHTER

The cigar lighter in this vehicle uses a cigar lighter relay and a cigar lighter element. Power for the cigar lighter relay is supplied by two sources.

Power for the coil side of the relay is supplied by circuit F13. This circuit is protected by a 20 amp fuse located in the fuse block. Power for the contact side of the relay is supplied on circuit F38. The F38 circuit is protected by a 15 amp fuse.

Ground for the cigar lighter element and relay is supplied on circuit Z1.

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Power Distribution Center	8W-42-2, 5
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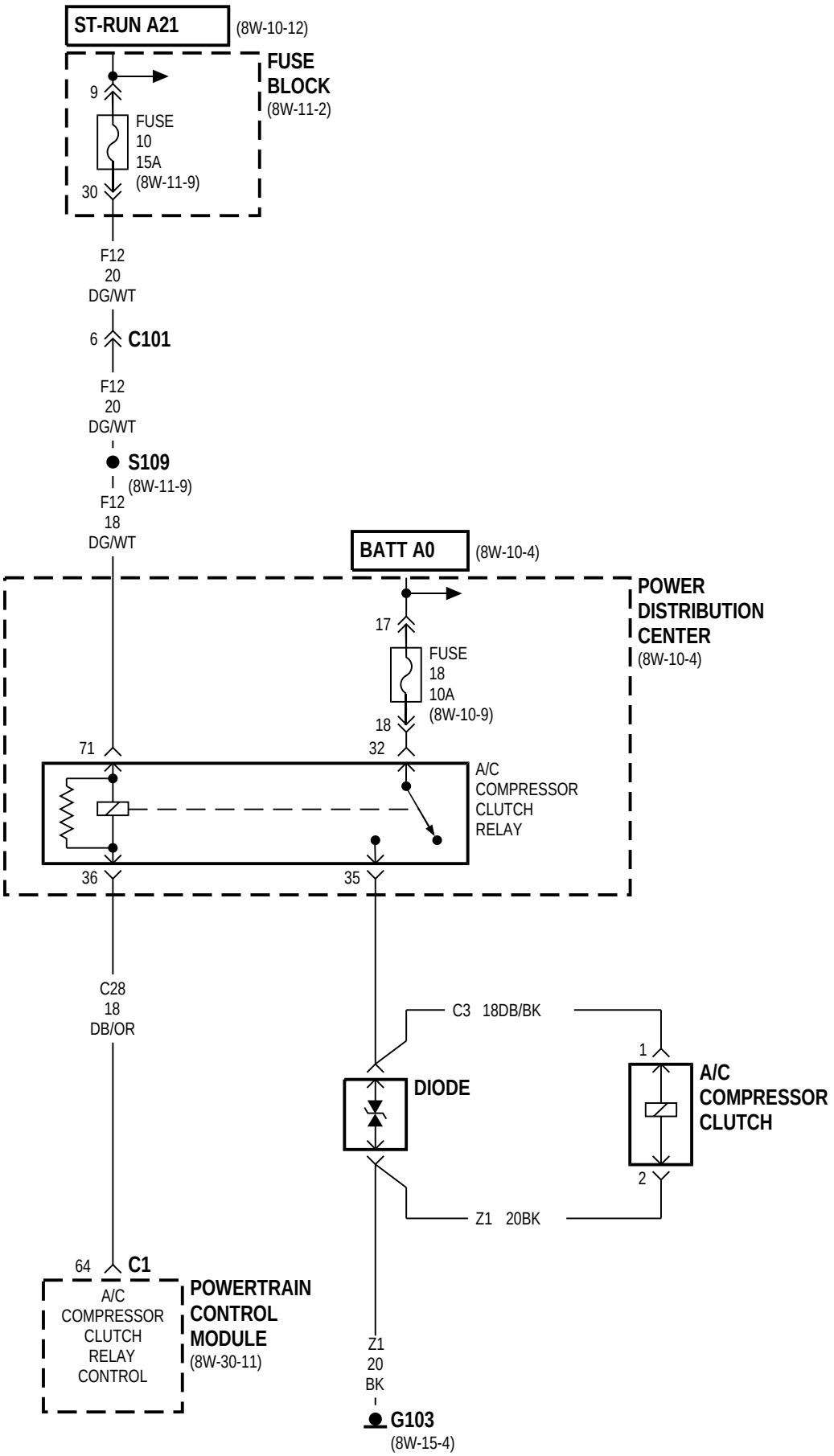
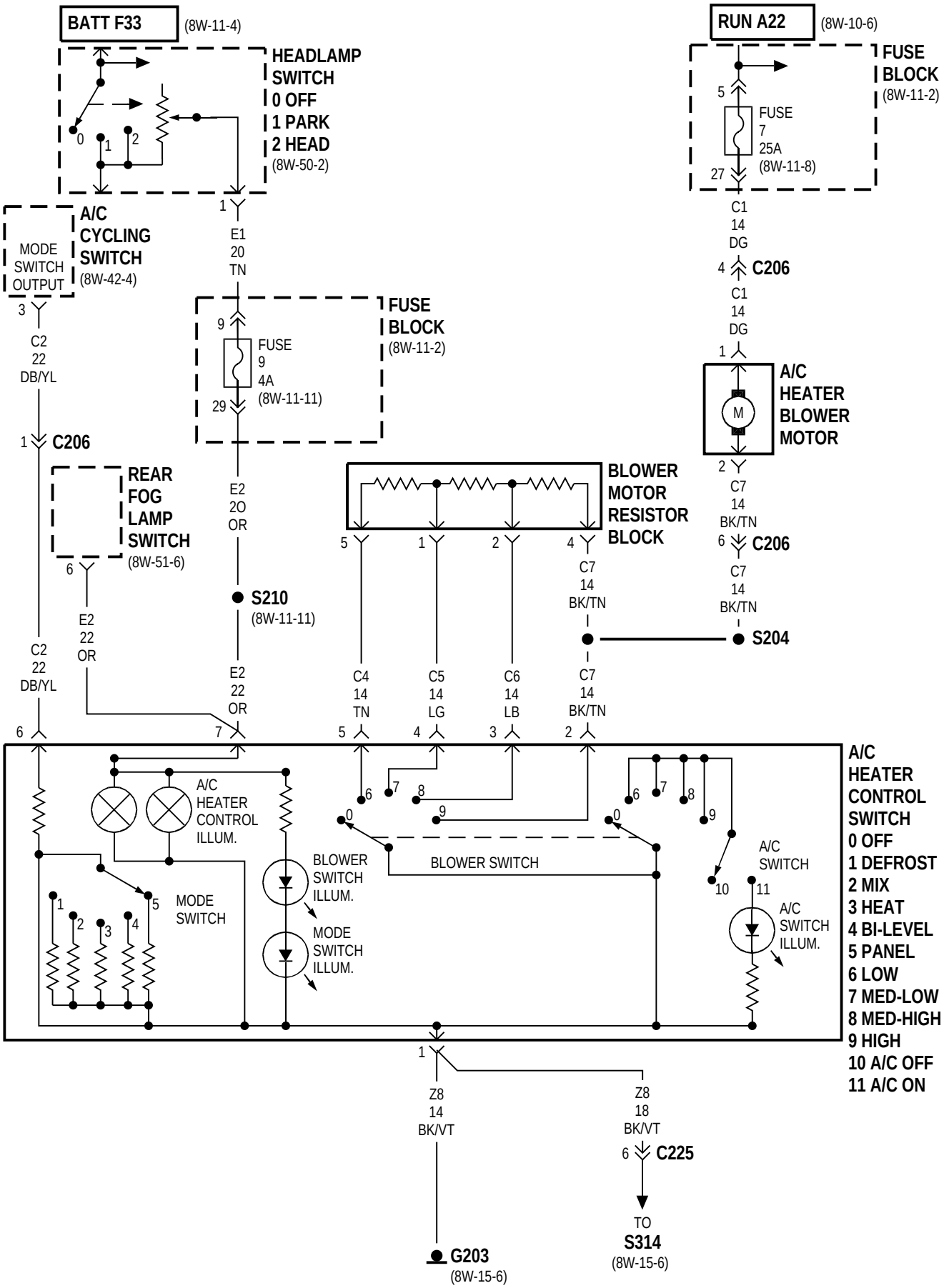
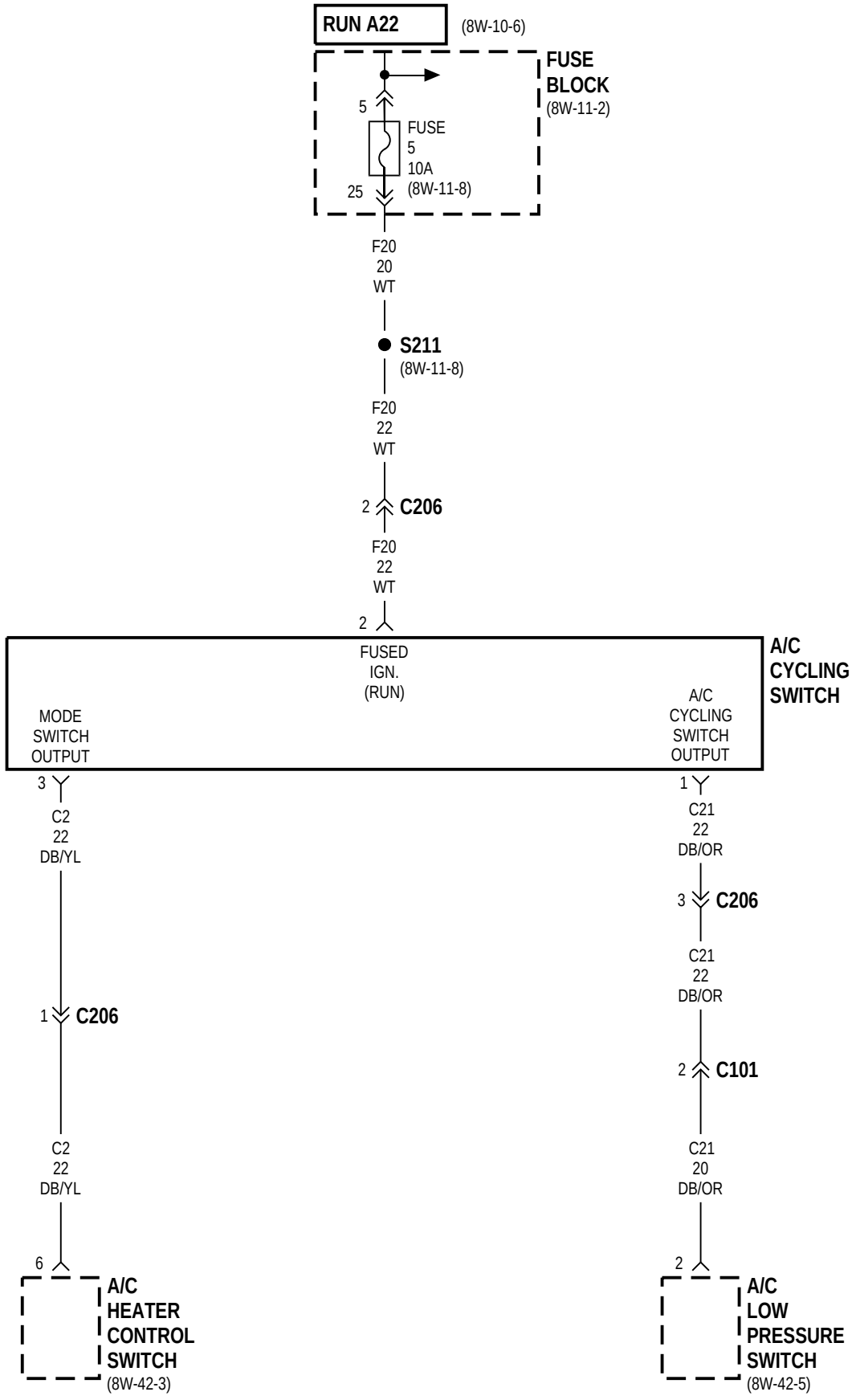
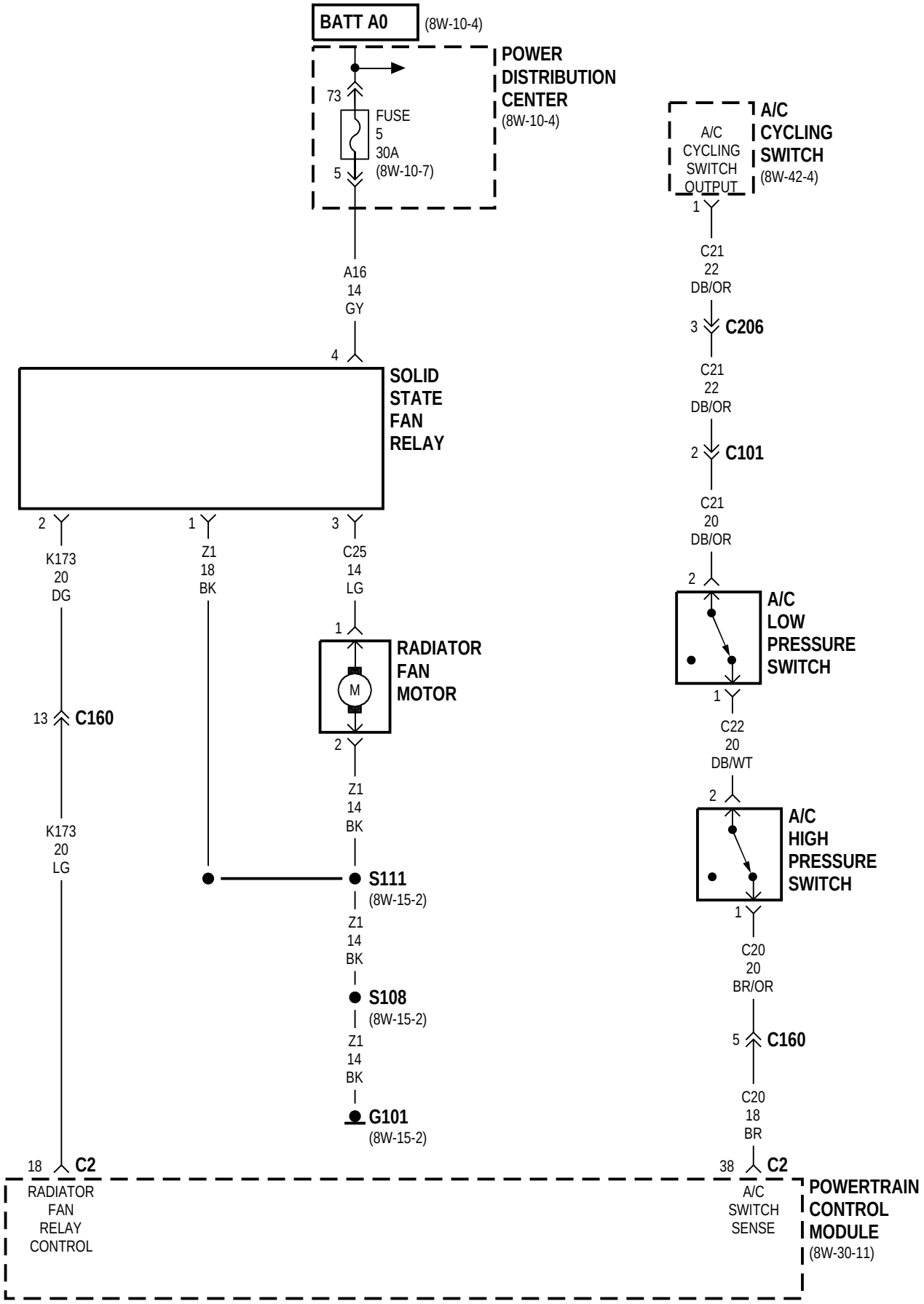
Radiator Fan Motor	8W-42-5
Rear Fog Lamp Switch	8W-42-3
S108	8W-42-5
S109	8W-42-2
S111	8W-42-5
S204	8W-42-3
S210	8W-42-3
S211	8W-42-4
S314	8W-42-3
Solid State Fan Relay	8W-42-5


ST-RUN A21
(8W-10-12)
FUSE BLOCK
(8W-11-2)
9
FUSE 10 15A
(8W-11-9)
30
F12 20 DG/WT
6
C101
F12 20 DG/WT
S109
(8W-11-9)
F12 18 DG/WT
BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
17
FUSE 18 10A
(8W-10-9)
18
71
32
A/C COMPRESSOR CLUTCH RELAY
36
35
C28 18 DB/OR
C3 18DB/BK
DIODE
1
A/C COMPRESSOR CLUTCH
2
Z1 20BK
64
C1
A/C COMPRESSOR CLUTCH RELAY CONTROL
POWERTRAIN CONTROL MODULE
(8W-30-11)
Z1 20 BK
G103
(8W-15-4)


BATT F33
(8W-11-4)
HEADLAMP SWITCH
0 OFF
1 PARK
2 HEAD
(8W-50-2)
RUN A22
(8W-10-6)
FUSE BLOCK
(8W-11-2)
FUSE 7 25A
(8W-11-8)
A/C CYCLING SWITCH
(8W-42-4)
MODE SWITCH OUTPUT
E1 20 TN
C1 14 DG
C206
FUSE BLOCK
(8W-11-2)
FUSE 9 4A
(8W-11-11)
C2 22 DB/YL
C206
A/C HEATER BLOWER MOTOR
REAR FOG LAMP SWITCH
(8W-51-6)
E2 2O OR
BLOWER MOTOR RESISTOR BLOCK
C7 14 BK/TN
C206
S210
(8W-11-11)
S204
E2 22 OR
C4 14 TN
C5 14 LG
C6 14 LB
A/C HEATER CONTROL ILLUM.
BLOWER SWITCH ILLUM.
MODE SWITCH ILLUM.
MODE SWITCH
BLOWER SWITCH
A/C SWITCH
A/C SWITCH ILLUM.
A/C HEATER CONTROL SWITCH
0 OFF
1 DEFROST
2 MIX
3 HEAT
4 BI-LEVEL
5 PANEL
6 LOW
7 MED-LOW
8 MED-HIGH
9 HIGH
10 A/C OFF
11 A/C ON
Z8 14 BK/VT
Z8 18 BK/VT
C225
TO S314
(8W-15-6)
G203
(8W-15-6)


RUN A22
(8W-10-6)
FUSE BLOCK
(8W-11-2)
5
FUSE 5 10A
(8W-11-8)
25
F20 20 WT
S211
(8W-11-8)
F20 22 WT
2
C206
F20 22 WT
2
FUSED IGN. (RUN)
A/C CYCLING SWITCH
MODE SWITCH OUTPUT
A/C CYCLING SWITCH OUTPUT
3
C2 22 DB/YL
1
C206
C2 22 DB/YL
6
A/C HEATER CONTROL SWITCH
(8W-42-3)
1
C21 22 DB/OR
3
C206
C21 22 DB/OR
2
C101
C21 20 DB/OR
2
A/C LOW PRESSURE SWITCH
(8W-42-5)


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
73
FUSE 5 30A
(8W-10-7)
5
A16
14
GY
4
SOLID STATE FAN RELAY
2
K173
20
DG
13
C160
K173
20
LG
18
C2
RADIATOR FAN RELAY CONTROL
1
Z1
18
BK
3
C25
14
LG
1
RADIATOR FAN MOTOR
M
2
Z1
14
BK
S111
(8W-15-2)
Z1
14
BK
S108
(8W-15-2)
Z1
14
BK
G101
(8W-15-2)
A/C CYCLING SWITCH OUTPUT
A/C CYCLING SWITCH
(8W-42-4)
1
C21
22
DB/OR
3
C206
C21
22
DB/OR
2
C101
C21
20
DB/OR
2
A/C LOW PRESSURE SWITCH
1
C22
20
DB/WT
2
A/C HIGH PRESSURE SWITCH
1
C20
20
BR/OR
5
C160
C20
18
BR
38
C2
A/C SWITCH SENSE
POWERTRAIN CONTROL MODULE
(8W-30-11)

8W-42 AIR CONDITIONING-HEATER

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BLOWER MOTOR OPERATION 6
HELPFUL INFORMATION 7
RADIATOR FAN OPERATION 6

DESCRIPTION AND OPERATION

AIR CONDITIONING-HEATER SYSTEM

The A/C-Heater System is powered by a by several fuses. Fuse 10, a 15 amp fuse located in the fuse block, is HOT in the RUN position. This fuse powers the coil side of the A/C compressor clutch relay located in the Power Distribution Center (PDC).

A 30 amp fuse, on circuit A16 located in the PDC, powers the solid state radiator fan relay. This fuse is HOT at all times. The 10 amp fuse on circuit A17 located in the PDC powers the contact side of the A/C compressor clutch relay.

The A/C-Heater blower motor is protected by a 25 amp fuse located in cavity 7 of the fuse block. This fuse in HOT in the RUN position only. When the ignition switch is in the RUN position, power is supplied to the fuse on circuit A22. The power leaves the fuse on circuit C1 and goes directly to the blower motor.

There is a 4 amp fuse located in cavity 12 of the fuse block used for the illumination lamps in the A/C-Heater control. The fuse is HOT at all times.

A/C OPERATION

When the A/C or the defrost switch is put in the ON position, and the A/C cycling switch, low pressure cut-out switch, and the high pressure switch are CLOSED, the Powertrain Control Module (PCM) receives a request for A/C.

After receiving this input, the PCM activates the A/C compressor by grounding the C28 circuit on the coil side of the A/C Compressor Clutch relay. Power for the coil side of the relay is supplied on the bus bar located in the Power Distribution Center (PDC). With the coil energized, current flows from the 10 amp fuse in the PDC on circuit A17 through the CLOSED contacts in the relay, on the C3 circuit to the A/C compressor clutch.

The A/C compressor clutch receives this voltage and creates a magnetic field energizing the clutch. Ground for the coil is provided at the right headlamp ground.

The connector at the A/C compressor has a diode located in it. This diode is used to control the induced voltage resulting from the magnetic field collapsing when the clutch is disengaged. The diode provides a path for the voltage to protect other components and systems.

The A/C compressor clutch relay is also used by the PCM to disengage the compressor in a Wide Open Throttle (W.O.T.) condition.

RADIATOR FAN OPERATION

The radiator fan system used in this vehicle uses a solid state relay that controls the speed of the radiator fan.

Power for the relay is supplied on circuit A16 This circuit is HOT at all times and protected by a 30 amp fuse located in the Power Distribution Center (PDC).

Ground for the coil side of the relay is controlled by the Powertrain Control Module (PCM). When the PCM determines the need for fan operation the PCM supplies the ground path for circuit K173. This circuit connects to cavity 18 of the PCM connector.

From the relay circuit C25 connects to the radiator fan motor(s). On vehicles equipped with the manual transmission only one radiator fan is used. For vehicles equipped with an automatic transmission there are two radiator fans used.

Ground for the radiator fans is supplied on circuit Z1.

BLOWER MOTOR OPERATION

With the ignition switch in the RUN position, power flows from the 25 amp fuse, in cavity 7 of the fuse block, to the blower motor. Blower motor speed is controlled by the fan control switch located in the instrument panel, and the resistor block.

Blower motor LOW speed operation is accomplished on the C4 circuit. When the control switch is moved to the LOW speed position, current is passed on the C7 circuit through the blower motor resistor to the C4 circuit. It then flows through the blower motor switch to the Z8 circuit. The Z8 circuit terminates at a grounding point on the instrument panel left center support.

The operation of the blower motor M1 and M2 speed operations is the same as the LOW speed

DESCRIPTION AND OPERATION (Continued)

except, the C5 circuit is used for the M1 speed and circuit C6 is used for M2 speed operation.

Blower motor HIGH speed operation is accomplished on the C7 circuit which supplies battery voltage directly to the blower motor. There are no resistors used in the HIGH speed mode.

HELPFUL INFORMATION

- Check the 30 amp fuse located in the PDC for the radiator fan motor
- Check the 15 amp fuse located in cavity 10 of the fuse block for the A/C compressor clutch relay
- Check the 10 amp fuse located in the PDC for the A/C compressor clutch relay.
- Check the 25 amp fuse located in cavity 7 of the fuse block for the blower motor.
- Check the right headlamp ground located at the right fender side shield.
- Check the left headlamp ground located on the left side of the radiator closure panel.
- On vehicles equipped with A/C check the refrigerant level. The system will not operate with a low level of refrigerant.

8W-43 AIRBAG SYSTEM

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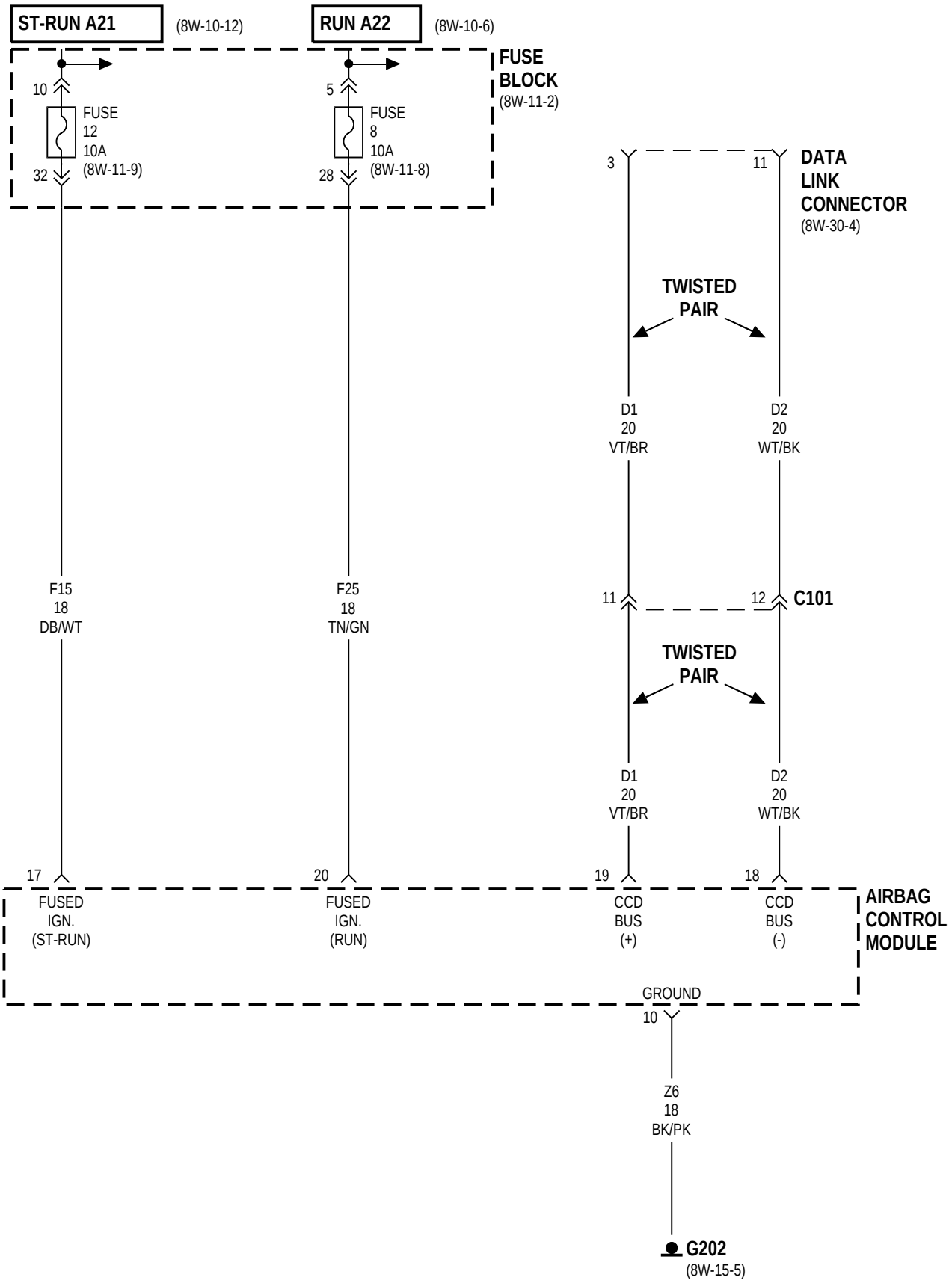
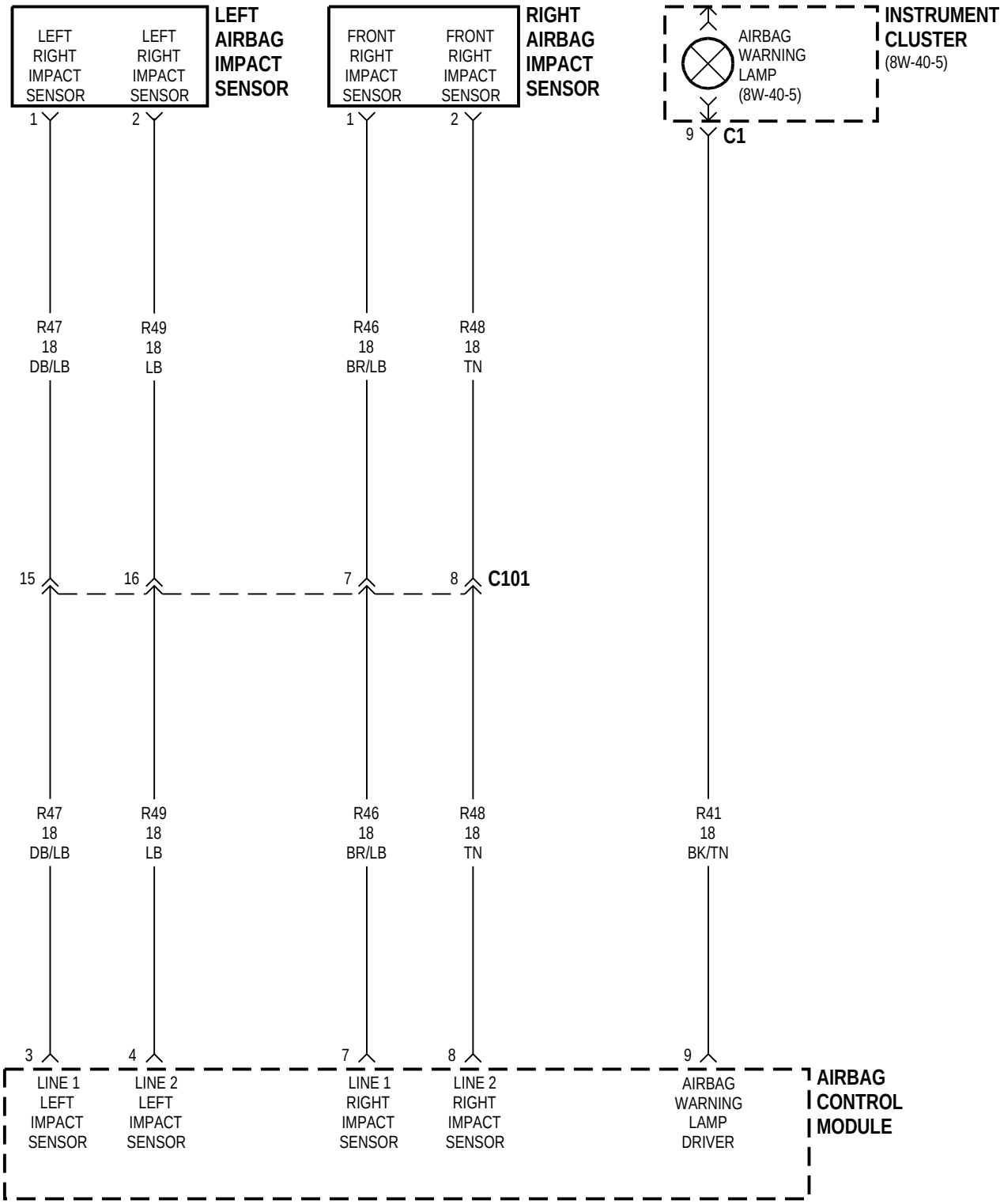
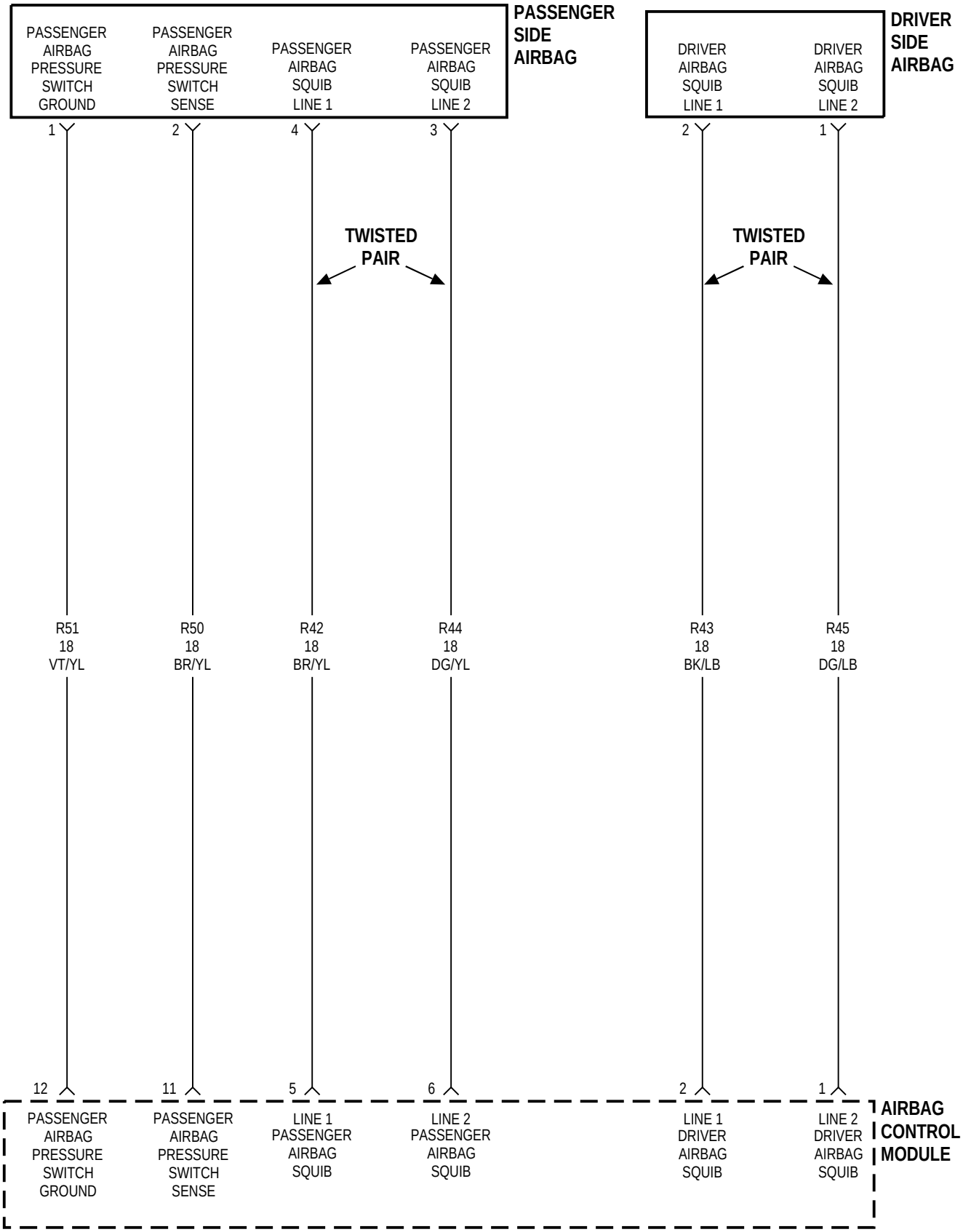
Instrument Cluster	8W-43-3
Left Airbag Impact Sensor	8W-43-3
Passenger Side Airbag	8W-43-4
Right Airbag Impact Sensor	8W-43-3


ST-RUN A21
(8W-10-12)
RUN A22
(8W-10-6)
FUSE BLOCK
(8W-11-2)
10
FUSE 12 10A
(8W-11-9)
32
5
FUSE 8 10A
(8W-11-8)
28
3
11
DATA LINK CONNECTOR
(8W-30-4)
TWISTED PAIR
D1 20 VT/BR
D2 20 WT/BK
F15 18 DB/WT
F25 18 TN/GN
11
12
C101
TWISTED PAIR
D1 20 VT/BR
D2 20 WT/BK
17
20
19
18
FUSED IGN. (ST-RUN)
FUSED IGN. (RUN)
CCD BUS (+)
CCD BUS (-)
AIRBAG CONTROL MODULE
GROUND
10
Z6 18 BK/PK
G202
(8W-15-5)


LEFT AIRBAG IMPACT SENSOR
LEFT RIGHT IMPACT SENSOR
LEFT RIGHT IMPACT SENSOR
1
2
RIGHT AIRBAG IMPACT SENSOR
FRONT RIGHT IMPACT SENSOR
FRONT RIGHT IMPACT SENSOR
1
2
INSTRUMENT CLUSTER
(8W-40-5)
AIRBAG WARNING LAMP
(8W-40-5)
9
C1
R47
18
DB/LB
R49
18
LB
R46
18
BR/LB
R48
18
TN
15
16
7
8
C101
R47
18
DB/LB
R49
18
LB
R46
18
BR/LB
R48
18
TN
R41
18
BK/TN
3
4
7
8
9
AIRBAG CONTROL MODULE
LINE 1 LEFT IMPACT SENSOR
LINE 2 LEFT IMPACT SENSOR
LINE 1 RIGHT IMPACT SENSOR
LINE 2 RIGHT IMPACT SENSOR
AIRBAG WARNING LAMP DRIVER


PASSENGER SIDE AIRBAG
PASSENGER AIRBAG PRESSURE SWITCH GROUND
PASSENGER AIRBAG PRESSURE SWITCH SENSE
PASSENGER AIRBAG SQUIB LINE 1
PASSENGER AIRBAG SQUIB LINE 2
DRIVER SIDE AIRBAG
DRIVER AIRBAG SQUIB LINE 1
DRIVER AIRBAG SQUIB LINE 2
1
2
4
3
2
1
TWISTED PAIR
TWISTED PAIR
R51 18 VT/YL
R50 18 BR/YL
R42 18 BR/YL
R44 18 DG/YL
R43 18 BK/LB
R45 18 DG/LB
12
11
5
6
2
1
AIRBAG CONTROL MODULE
PASSENGER AIRBAG PRESSURE SWITCH GROUND
PASSENGER AIRBAG PRESSURE SWITCH SENSE
LINE 1 PASSENGER AIRBAG SQUIB
LINE 2 PASSENGER AIRBAG SQUIB
LINE 1 DRIVER AIRBAG SQUIB
LINE 2 DRIVER AIRBAG SQUIB

8W-43 AIRBAG SYSTEM

DESCRIPTION AND OPERATION

AIRBAG CONTROL MODULE (ACM)

Two different circuits supply battery voltage from the fuse block to the Airbag Control Module (ACM), F15 and F25. The F15 and F25 circuits are connected to separate bus bars internal to the fuse block. Different circuits from the Power Distribution Center (PDC) and ignition switch supply battery voltage to the fuse block bus bars.

The F25 circuit supplies battery voltage to the ACM only when the ignition switch is in the RUN position. The F15 circuit powers the ACM when the ignition switch is in either the START or RUN position.

An internal bus bar in the ignition switch connects the A1 circuit from the PDC to the A21 circuit when the switch is either the START or RUN position. The A21 circuit supplies battery voltage to the bus bar in the fuse block that feeds the F15 circuit. A 30 amp fuse in the PDC protects the A1 and A21 circuits. A 10 amp fuse in the fuse block, cavity 9, protects the F15 circuit.

When the ignition switch is in the RUN position, it connects the A2 circuit from the PDC to the A22 circuit. The A22 circuit supplies battery voltage to the fuse block bus bar that feeds the F25 circuit. A 40 amp fuse in the PDC protects the A2 and A22 circuits. A 10 amp fuse in the fuse block, cavity 5, protects the F25 circuit.

Circuits D1 and D2 are connected to the CCD Bus and the ACM. The CCD bus is used to provide communications between modules and the universal data link connector.

The ACM has a case ground and an external dedicated ground, circuit Z6. The dedicated ground connects to the instrument panel right center support.

AIRBAG IMPACT SENSOR

The Airbag system uses a sensor internal to the Airbag Control Module (ACM) to detect impact. For information regarding operation of this sensor, refer to the appropriate group of the Service Manual.

AIRBAG SQUIB (AIRBAG IGNITER)

DRIVERS SIDE AIRBAG

Two circuits, R43 and R45, connect the ACM to the drivers side airbag module squib (igniter) after passing through the clock spring connector. Circuit R43 from cavity 3 of the ACM 4-way connector connects to the squib. Circuit R45 from cavity 4 of the ACM 4-way connector connects to the squib. R43 and R45 are a twisted pair of wires.

PASSENGERS SIDE AIRBAG

Two circuits, R42 and R44, connect the ACM to the passengers side airbag module squib (igniter). Circuit R42 from cavity 1 of the ACM 4-way connector connects to the squib. Circuit R44 from cavity 2 of the ACM 4- way connector connects to the squib. R42 and R44 are a twisted pair of wires.

Circuits R50 and R51 are connected from the ACM to the passangers airbag. These circuits are used to monitor the pressure switch.

AIRBAG WARNING LAMP

The Airbag Warning lamp is used to alert the operator of a problem with the Airbag system. The lamp is illuminated when the Airbag Control Module (ACM) grounds the R41 circuit. Refer to the appropriate section of the Service Manual or Diagnostic Test Procedures Manual to diagnosis this system.

HELPFUL INFORMATION

- Check for blown fuses in the circuit that connect to the ignition switch and those that connect to the ACM.
- While the bus bars in the fuse block power the ACM, they also feed additional components on separate fuse protected circuits.
- The ACM has a case ground and an external dedicated ground. The dedicated ground connects to the instrument panel right center support.

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Fuse 9 (FB)	8W-44-4
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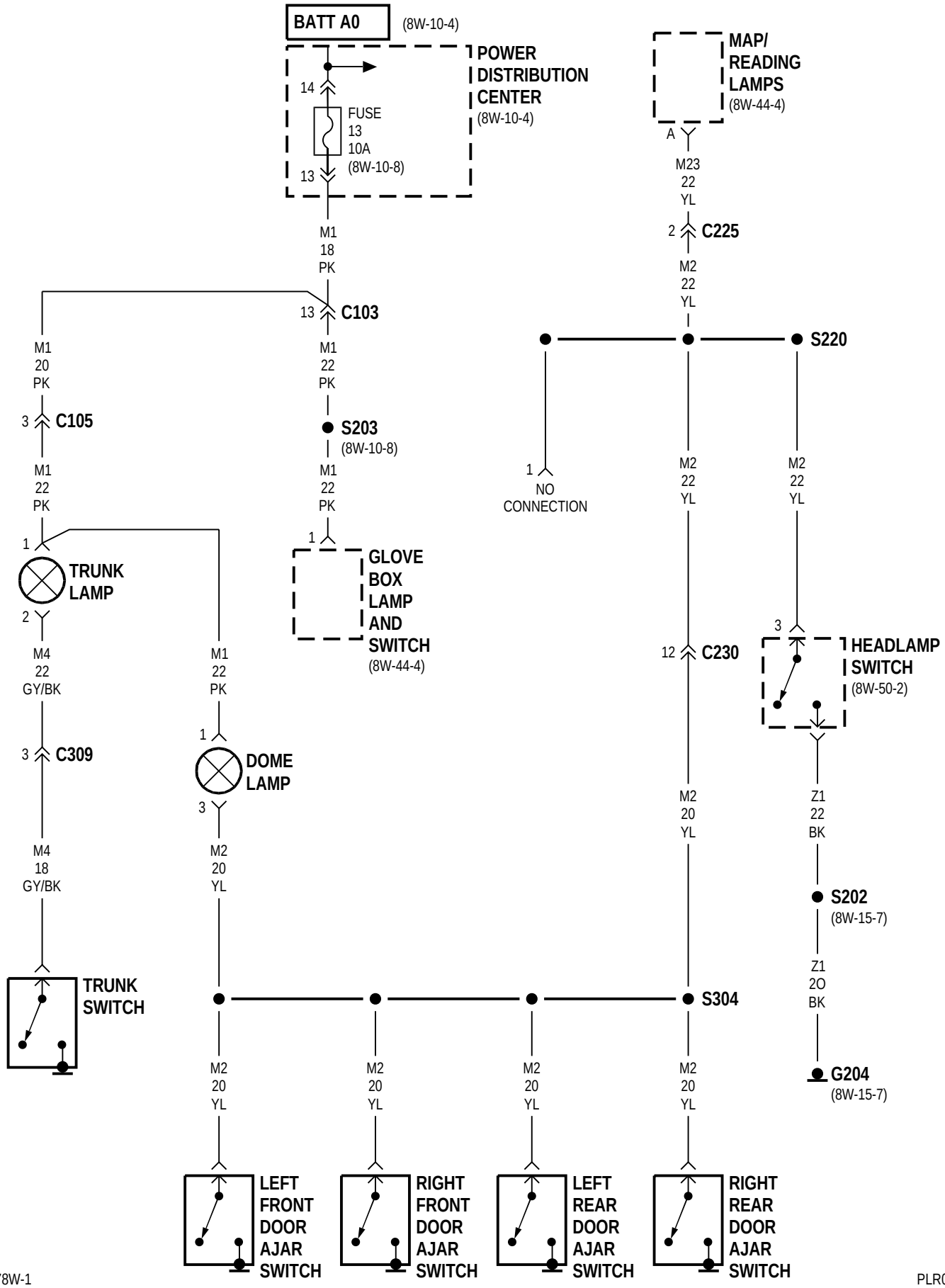
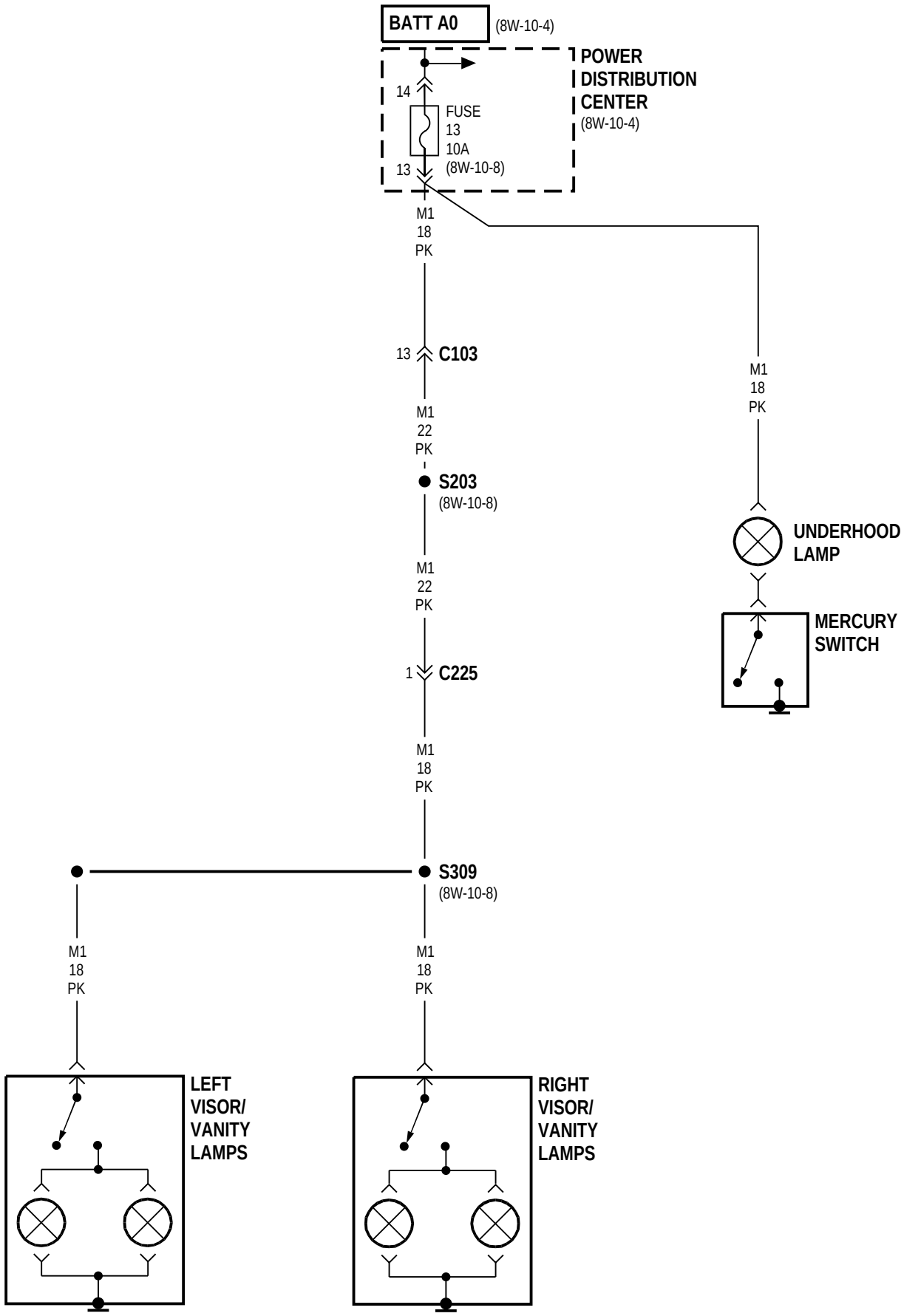
PRNDL Lamp	8W-44-4
Right Front Door Ajar Switch	8W-44-2
Right Rear Door Ajar Switch	8W-44-2
Right Visor/Vanity Lamps	8W-44-3
S201	8W-44-4
S202	8W-44-2
S203	8W-44-2, 3, 4
S210	8W-44-4
S220	8W-44-2, 4
S304	8W-44-2
S309	8W-44-3, 4
Trunk Lamp	8W-44-2
Trunk Switch	8W-44-2
Underhood Lamp	8W-44-3


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
14
FUSE 13 10A
(8W-10-8)
13
MAP/ READING LAMPS
(8W-44-4)
A
M23 22 YL
2 C225
M2 22 YL
M1 18 PK
13 C103
S220
M1 20 PK
3 C105
M1 22 PK
S203
(8W-10-8)
M1 22 PK
1 NO CONNECTION
M2 22 YL
M2 22 YL
1
TRUNK LAMP
2
1
GLOVE BOX LAMP AND SWITCH
(8W-44-4)
12 C230
3
HEADLAMP SWITCH
(8W-50-2)
M4 22 GY/BK
M1 22 PK
1
DOME LAMP
3
M2 20 YL
Z1 22 BK
3 C309
M4 18 GY/BK
S202
(8W-15-7)
Z1 2O BK
G204
(8W-15-7)
TRUNK SWITCH
S304
M2 20 YL
M2 20 YL
M2 20 YL
M2 20 YL
LEFT FRONT DOOR AJAR SWITCH
RIGHT FRONT DOOR AJAR SWITCH
LEFT REAR DOOR AJAR SWITCH
RIGHT REAR DOOR AJAR SWITCH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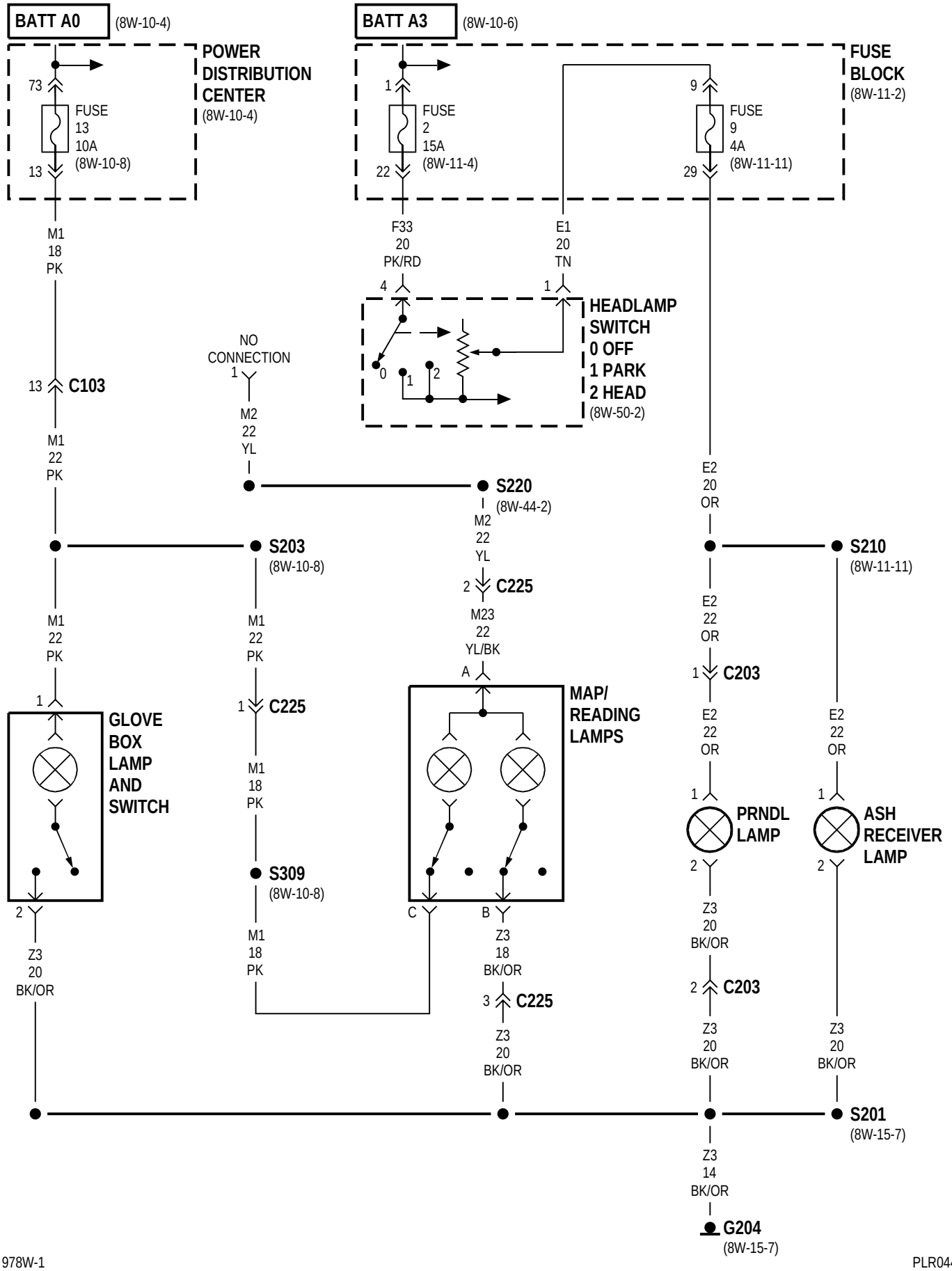
POWER
DISTRIBUTION
CENTER
(8W-10-4)
14
FUSE
13
10A
(8W-10-8)
13
M1
18
PK
13
C103
M1
22
PK
S203
(8W-10-8)
M1
22
PK
1
C225
M1
18
PK
M1
18
PK
UNDERHOOD
LAMP
MERCURY
SWITCH
S309
(8W-10-8)
M1
18
PK
M1
18
PK
LEFT
VISOR/
VANITY
LAMPS
RIGHT
VISOR/
VANITY
LAMPS


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
73
FUSE 13 10A
(8W-10-8)
13
M1 18 PK
13 C103
M1 22 PK
BATT A3
(8W-10-6)
FUSE BLOCK
(8W-11-2)
1
FUSE 2 15A
(8W-11-4)
22
9
FUSE 9 4A
(8W-11-11)
29
F33 20 PK/RD
E1 20 TN
4
1
HEADLAMP SWITCH
0 OFF
1 PARK
2 HEAD
(8W-50-2)
0
1
2
NO CONNECTION
1
M2 22 YL
S220
(8W-44-2)
M2 22 YL
2 C225
M23 22 YL/BK
A
E2 20 OR
S210
(8W-11-11)
S203
(8W-10-8)
M1 22 PK
1 C225
M1 18 PK
S309
(8W-10-8)
M1 18 PK
1
GLOVE BOX LAMP AND SWITCH
2
Z3 20 BK/OR
C
B
MAP/ READING LAMPS
Z3 18 BK/OR
3 C225
Z3 20 BK/OR
E2 22 OR
1 C203
E2 22 OR
1
PRNDL LAMP
2
Z3 20 BK/OR
2 C203
Z3 20 BK/OR
E2 22 OR
1
ASH RECEIVER LAMP
2
Z3 20 BK/OR
S201
(8W-15-7)
Z3 14 BK/OR
G204
(8W-15-7)

8W-44 INTERIOR LIGHTING

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DOME LAMP 5
GLOVE BOX LAMP 6
HALO LAMP/TIME DELAY RELAY 5
HELPFUL INFORMATION 6
INTRODUCTION 5
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PRNDL (TRANSMISSION RANGE INDICATOR) LAMP 5
TIME OUT RELAY 5
TRUNK LAMP 6
UNDERHOOD LAMP 6
VISOR/VANITY LAMPS 5

DESCRIPTION AND OPERATION

INTRODUCTION

The courtesy lamp system is powered at all times by the 10 amp fuse located in the Power Distribution Center (PDC). The M1 circuit feeds the courtesy lamps, which include the trunk lamp, underhood lamp, visor/vanity lamps, dome lamp, time delay relay, and the glove box lamp.

HALO LAMP/TIME DELAY RELAY

The time delay relay is used to allow a time-ON function for the ignition switch halo lamp. Power for the relay is received on the M1 circuit from the 10 amp fuse located in the Power Distribution Center (PDC). This is the Ignition-Off Draw (IOD) fuse and HOT at all times.

When a door is OPENED, or the headlamp switch is moved to the dome lamp position, a ground path is provided for the relay on the M23 circuit. This energizes the relay, CLOSING the contacts. When the relay contacts are CLOSED, power is provided through the relay to the M50 circuit.

The M50 circuit supplies current to the ignition switch lamp in the steering column. Ground for the lamp is provided on the Z3 circuit. This circuit splices with the glove box lamp, the ash receiver lamp, and the PRNDL lamp. The Z3 circuit terminates at the instrument panel left center support.

Circuit M23 is also spliced with the Remote Keyless Entry (RKE) module and the time out relay located in the fuse block.

TIME OUT RELAY

The time out relay is located in the fuse block and is used to control the ground path for various interior lamps. It will also turn the lamps OFF after a specified period of time, and works with the Remote Keyless Entry (RKE) system for illuminated entry.

Cirucit M2 connects to the relay and supplied a ground path through the door ajar switches.

Circuit M1 is used to supply battery voltage to the relay. This circuit is proteced by a 10 amp fuse located in cavity 13 of the Power Distribution Center (PDC).

Circuit M32 is connected from the relay to the various interior lamps and RKE module.

PRNDL (TRANSMISSION RANGE INDICATOR) LAMP

The PRNDL lamp receives power on the E2 circuit from the 4 amp fuse located in the fuse block in cavity 12. The fuse receives power from the headlamp switch. Circuit E2 also powers the ash receiver lamp.

When the headlamp switch is moved to the PARK or ON position, current flows through the fuse to the PRNDL lamp. The ground for the lamp is supplied on the Z3 circuit, and terminates at the instrument panel left center support. This circuit is also spliced in with the ash receiver lamp, the ignition switch lamp, and the glove box lamp.

VISOR/VANITY LAMPS

The visor/vanity lamps are case-grounded, and are operated by a switch internal to the assembly. Power for the lamps is on the M1 circuit from the Power Distribution Center (PDC). When the operator opens the cover, the switch CLOSES, completing a path to ground illuminating the lamp.

DOME LAMP

The dome lamp receives power from the 10 amp fuse located in the Power Distribution Center on the M1 circuit. This circuit is HOT at all times and the Ignition-Off Draw (IOD) fuse. The ground path for the lamp is provided in two different ways.

One way is through the door ajar switches and the time out relay. Circuit M2 connects to all the door ajar switches from the time out relay. The switches are case-grounded to the body. When a door is OPENED, the plunger in the switch CLOSES, completing a path to ground.

DESCRIPTION AND OPERATION (Continued)

The second ground path is through the headlamp switch. Circuit M23 is spliced in with the time out relay. When the operator turns the headlamp switch to the dome lamp ON position, a ground path is provided through the switch on the Z1 circuit. This ground terminates at the instrument panel left center support.

On vehicles equipped with Remote Keyless Entry (RKE) the M23 circuit is spliced to the RKE module. This allows the lamp to be turned ON when a valid signal is reveived by the RKE module from the transmitter.

MAP/READING LAMPS

The map/reading lamps are powered by the M1 circuit from the Power Distribution Center (PDC). This circuit is the Ignition-Off Draw circuit and protected by a 10 amp fuse. The M1 circuit is spliced and provides power for the visor/vanity lamps, radio, power mirrors, dome lamp, time delay relay, and other interior lamps.

Ground for the lamps is provided from two sources. One is the Z3 circuit which is spliced in with the glove box lamp and terminates at the instrument panel left center support. The second ground is provided on circuit M23. This circuit is spliced in with the time out relay so the lamps will turn ON when any door is OPENED.

On vehicles equipped with Remote Keyless Entry (RKE) the M23 circuit, which is the ground circuit when a door is OPENED, is connected to the RKE module. The module will provide a ground path for the lamps with a valid signal from the transmitter.

GLOVE BOX LAMP

The glove box lamp receives power on the M1 circuit from the 10 amp fuse located in the Power Distribution Center (PDC). A switch, wired in series after the lamp, CLOSES when the glove box door is opened, and completes a path to ground on the Z3 circuit.

The Z3 circuit is spliced in with the ash receiver lamp, PRNDL lamp, and the time delay relay. The Z3 circuit terminates at the instrument panel left center support.

ASH RECEIVER LAMP

The ash receiver lamp receives power on the E2 circuit from the 4 amp fuse located in the fuse block in cavity 12. The fuse receives power from the headlamp switch. Circuit E2, which is HOT at all times, also powers the Transmission Range Indicator (PRNDL) lamp.

When the headlamp switch is moved to the PARK or ON position, current flows through the fuse to the ash receiver lamp. The ground for the lamp is supplied on the Z3 circuit, and terminates at the instrument panel left center support. This circuit is also spliced in with the PRNDL lamp, the ignition switch lamp, and the glove box lamp.

UNDERHOOD LAMP

Power for the underhood lamp is supplied on circuit M1. This is the Ignition-Off Draw (IOD) circuit and is protected by a 10 amp fuse located in the Power Distribution Center (PDC).

When the hood is raised a ground path is completed through the mercury switch to a case ground illuminating the lamp.

TRUNK LAMP

The trunk lamp uses a case-grounded switch located on the trunk latch. The switch is normally OPEN. When the deck lid is opened, the switch CLOSES, completing a path to ground on circuit M4. The M1 circuit provides power to the lamp, and is HOT at all times.

HELPFUL INFORMATION

- Check the 10 amp fuse located in the Power Distribution Center (PDC) for the trunk lamp, underhood lamp, visor/vanity lamps, dome lamp, time delay relay, and the glove box lamp.
- Check for a good ground at the instrument panel left center support.
- Check the door switches for a good ground.
- Check the 4 amp fuse in the fuse block, cavity 12.

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G201	8W-47-2, 3, 4
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Left Rear Speaker	8W-47-4
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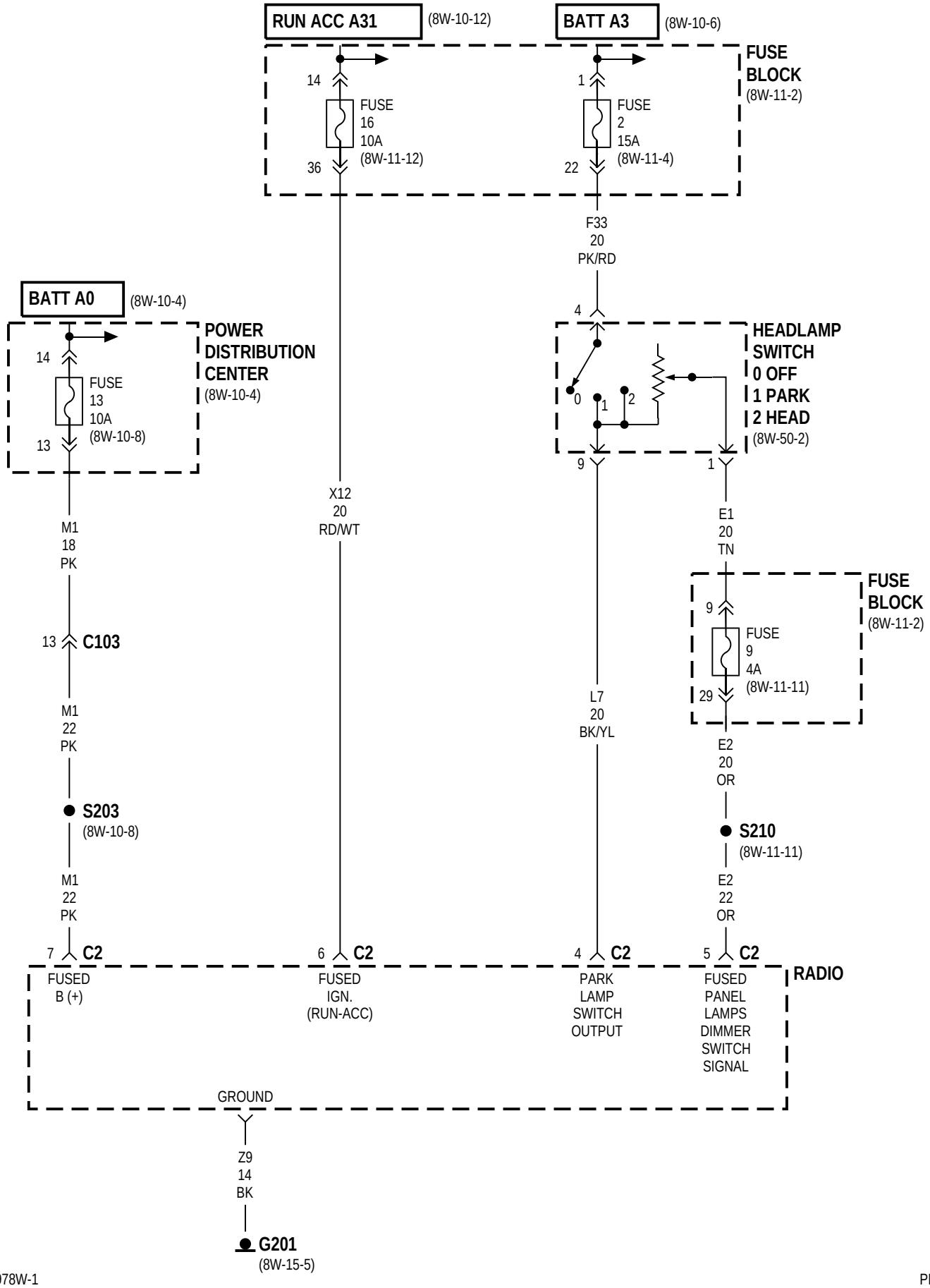
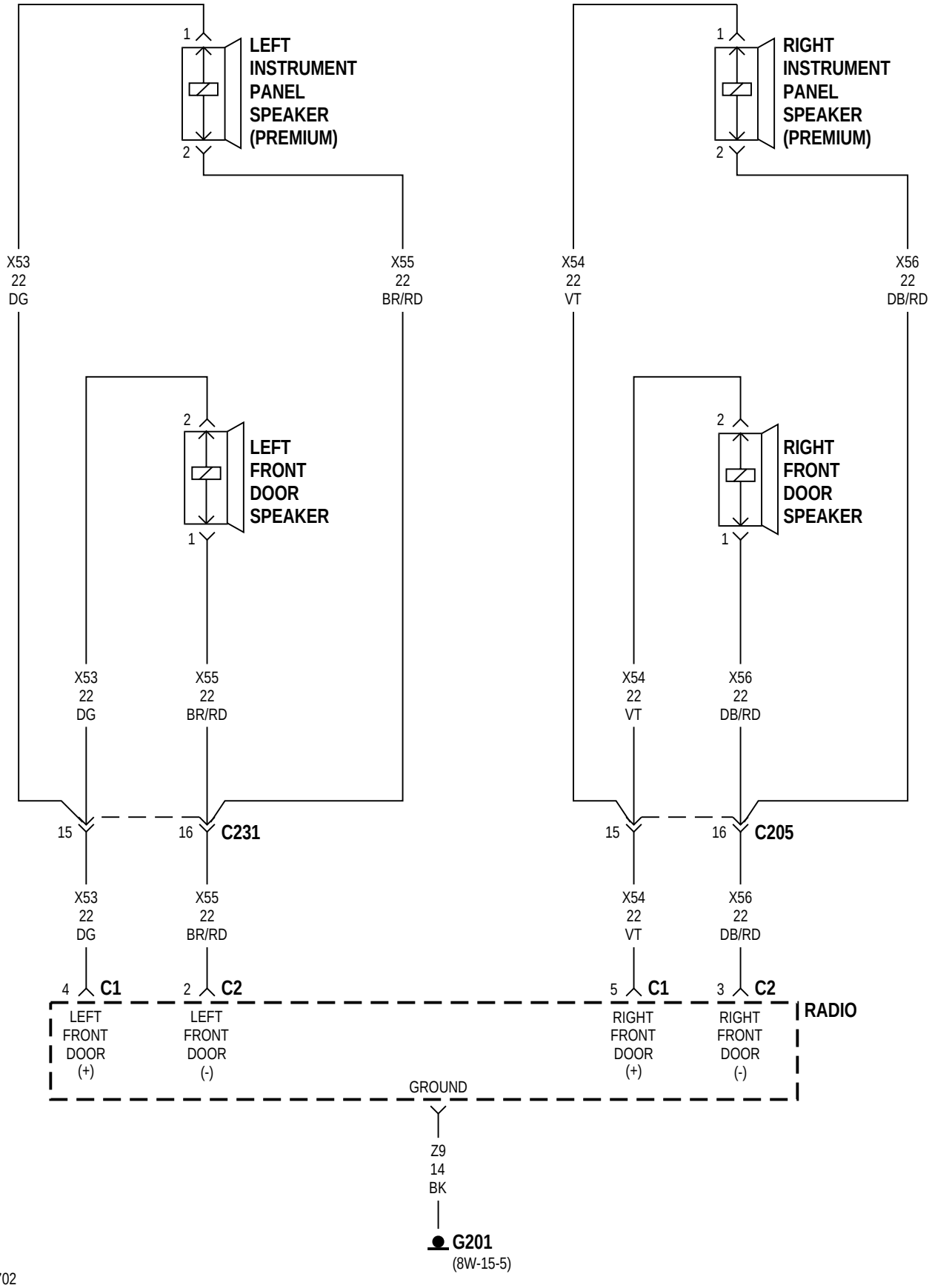
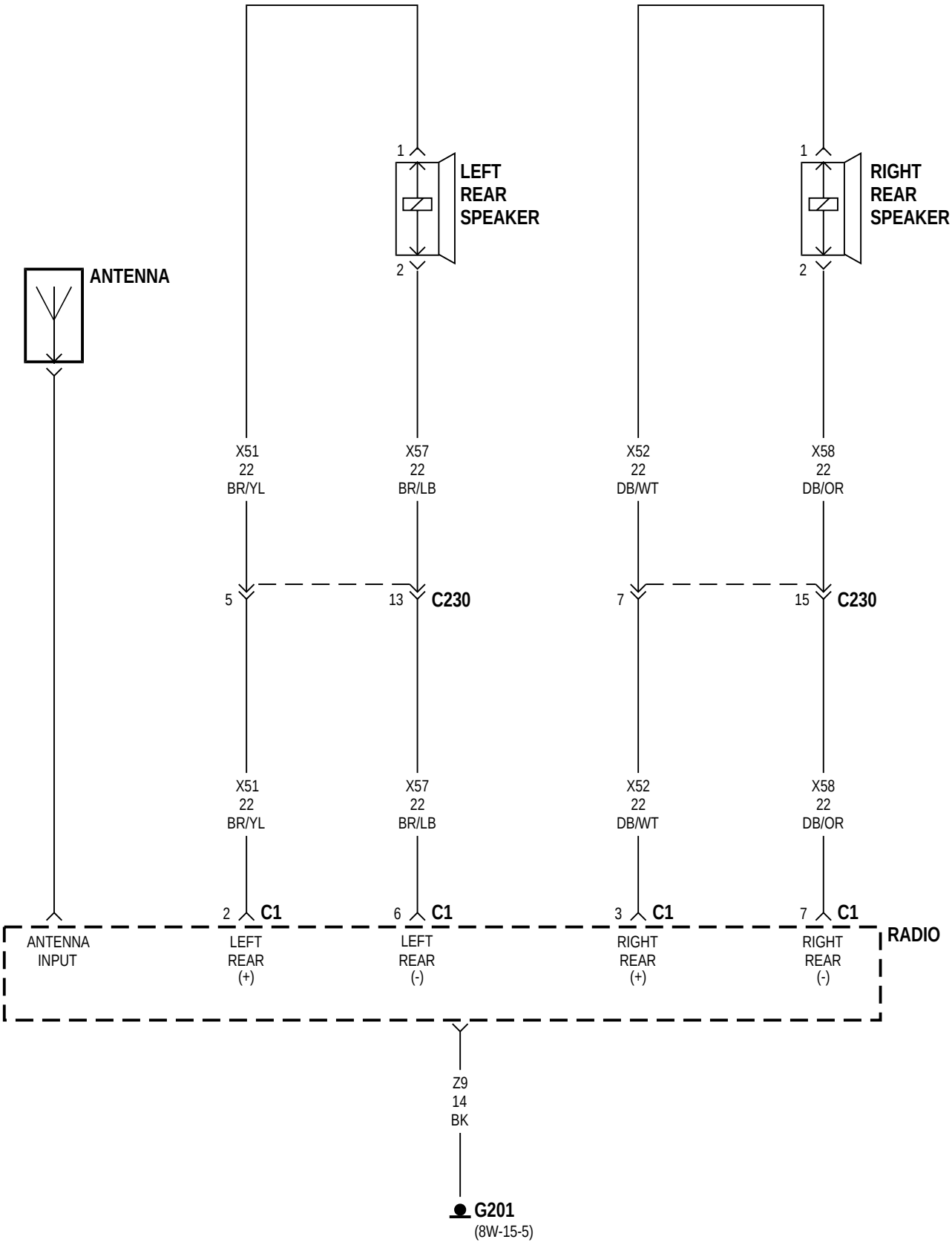
Right Front Door Speaker	8W-47-3
Right Instrument Panel Speaker	8W-47-3
Right Rear Speaker	8W-47-4
S203	8W-47-2
S210	8W-47-2


RUN ACC A31
(8W-10-12)
BATT A3
(8W-10-6)
FUSE BLOCK
(8W-11-2)
14
FUSE 16 10A
(8W-11-12)
36
1
FUSE 2 15A
(8W-11-4)
22
F33 20 PK/RD
BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
14
FUSE 13 10A
(8W-10-8)
13
4
HEADLAMP SWITCH
0 OFF
1 PARK
2 HEAD
(8W-50-2)
0
1
2
9
1
X12 20 RD/WT
M1 18 PK
E1 20 TN
FUSE BLOCK
(8W-11-2)
9
FUSE 9 4A
(8W-11-11)
29
13
C103
L7 20 BK/YL
M1 22 PK
E2 20 OR
S203
(8W-10-8)
S210
(8W-11-11)
M1 22 PK
E2 22 OR
7
C2
6
C2
4
C2
5
C2
RADIO
FUSED B (+)
FUSED IGN. (RUN-ACC)
PARK LAMP SWITCH OUTPUT
FUSED PANEL LAMPS DIMMER SWITCH SIGNAL
GROUND
Z9 14 BK
G201
(8W-15-5)


1
LEFT INSTRUMENT PANEL SPEAKER (PREMIUM)
2
1
RIGHT INSTRUMENT PANEL SPEAKER (PREMIUM)
2
X53 22 DG
X55 22 BR/RD
X54 22 VT
X56 22 DB/RD
2
LEFT FRONT DOOR SPEAKER
1
2
RIGHT FRONT DOOR SPEAKER
1
X53 22 DG
X55 22 BR/RD
X54 22 VT
X56 22 DB/RD
15
16
C231
15
16
C205
X53 22 DG
X55 22 BR/RD
X54 22 VT
X56 22 DB/RD
4
C1
2
C2
5
C1
3
C2
RADIO
LEFT FRONT DOOR (+)
LEFT FRONT DOOR (-)
RIGHT FRONT DOOR (+)
RIGHT FRONT DOOR (-)
GROUND
Z9 14 BK
G201
(8W-15-5)


ANTENNA
1
2
LEFT
REAR
SPEAKER
1
2
RIGHT
REAR
SPEAKER
X51
22
BR/YL
X57
22
BR/LB
X52
22
DB/WT
X58
22
DB/OR
5
13
C230
7
15
C230
X51
22
BR/YL
X57
22
BR/LB
X52
22
DB/WT
X58
22
DB/OR
2
C1
6
C1
3
C1
7
C1
RADIO
ANTENNA
INPUT
LEFT
REAR
(+)
LEFT
REAR
(-)
RIGHT
REAR
(+)
RIGHT
REAR
(-)
Z9
14
BK
G201
(8W-15-5)

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RADIO MEMORY 5
RADIO OPERATION 5
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DESCRIPTION AND OPERATION

RADIO OPERATION

When the ignition switch is in either the ACCESSORY or RUN position, it connects circuit A1 from the Power Distribution Center (PDC) to circuit A31. Circuit A31 powers a bus bar in the fuse block. The bus bar feeds two circuits, one of which is circuit X12. Circuit X12 powers the radio. A 10 amp fuse, in cavity 16 of the fuse block, protects circuit X12.

Circuit Z9 supplies the ground path for the radio. The grounding point for circuit Z9 is the instrument panel right center support.

RADIO MEMORY

Circuit M1 from the Power Distribution Center (PDC) supplies power for the radio memory. The circuit contains the Ignition Off Draw (IOD) fuse. The IOD fuse is removed during vehicle shipping to prevent excessive battery draw.

RADIO ILLUMINATION

When the parking lamps or headlamps are ON, circuits E2 and L7 power the radio illumination lamps and park lamps. Circuit E2 feeds the illumination lamp. Circuit L7 feeds the park lamps of the radio. Circuit F33 feeds circuit L7.

A 4 amp fuse, in cavity 12 of the fuse block, protects circuit E2. A 15 amp fuse, in cavity 2 of the fuse block, protects circuits L7 and F33.

SPEAKERS

Circuit X53 feeds the speaker in the left front door. Circuit X55 is the return from the speaker to the radio. On the premium system the X53 and X55 circuits are connected in with the instrument panel speaker.

Circuit X54 feeds the speaker in the right front door. Circuit X56 is the return from the speaker to the radio. On the premium system the X54 and X56 circuits are connected in with the instrument panel speaker.

Circuit X51 feeds the left rear speaker. Circuit X57 is the return from the speaker to the radio.

Circuit X52 feeds the right rear speaker. Circuit X58 is the return from the speaker to the radio.

HELPFUL INFORMATION

- Circuit M1 also powers the vanity lamps, glove box lamp, time delay relay, dome lamps, underhood lamp, cargo lamp, and power mirrors.
- If the radio does not operate, check for blown fuses in circuits A1 and X12.
- Circuits A3, and F33 feed the L7 circuit.
- If the radio illumination lamps do not operate, check for blown fuses in circuits E2, F33, and A3.

8W-48 REAR WINDOW DEFOGGER

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G301	8W-48-2
Headlamp Switch	8W-48-2
Power Distribution Center	8W-48-2
Rear Window Defogger	8W-48-2
Rear Window Defogger Switch	8W-48-2
S205	8W-48-2
S210	8W-48-2
S211	8W-48-2
Switch Illumination	8W-48-2

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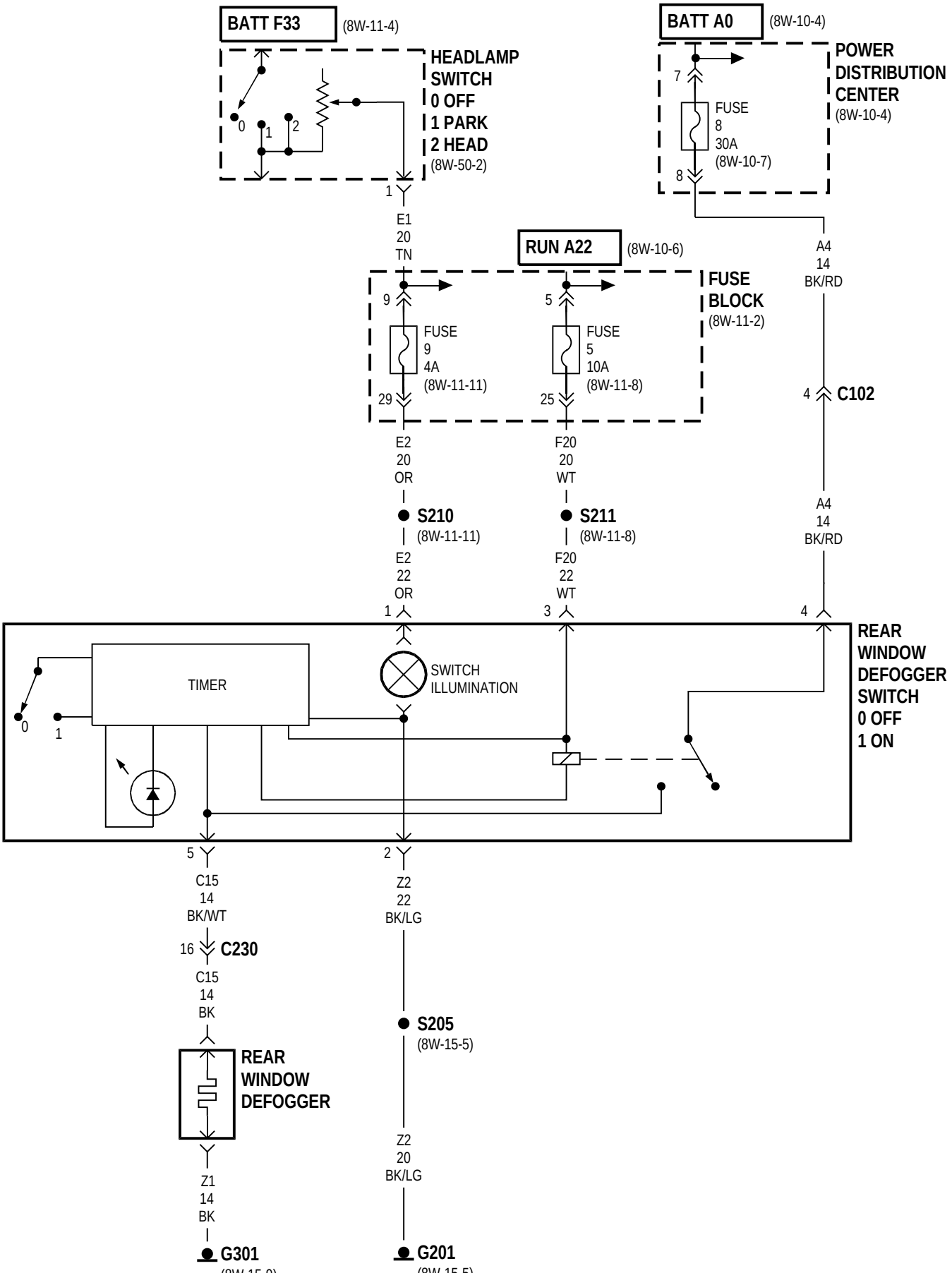

8W-48 REAR WINDOW DEFOGGER

DESCRIPTION AND OPERATION

REAR WINDOW DEFOGGER

The Rear Window Defogger system is powered by a 40 amp fuse located in the Power Distribution Center (PDC) on circuit A4. This circuit is HOT at all times. The system is also powered by a 10 amp fuse located in cavity 8 of the fuse block, this fuse is HOT in the RUN position only.

When the operator presses the rear window defogger switch the contacts internal to the switch CLOSE and the timer starts. When the switch is released the timer circuity keeps the relay energized for the specified time.

Voltage is passed through the switch on the A4 circuit to the C15 circuit and then to the rear window defogger grid. The grid consists of two bus bars and grid lines that form a parallel circuit. When voltage is passed through the grid, the grid lines heat up and heat the rear window.

Grounding for the rear window defogger switch is provided on the Z2 circuit and terminates at the instrument panel right center support. The grid uses the grounding point at the rear body in the right wheel house.

When the system is in operation, a L.E.D. located in the switch, indicates to the operator the system is functioning. The switch is also illuminated when the headlamp switch is in the PARK or ON position. Power for the illumination circuit comes from the 4 amp fuse, located in cavity 12 of the fuse block, on the E2 circuit.

HELPFUL INFORMATION

- Check the 40 amp fuse in the Power Distribution Center (PDC).
- Check the 10 amp fuse in cavity 8 of the fuse block.
- Check for broken gird lines on the window.
- Check for a broken buss bar or disconnected leads at the rear window.
- Check for a good ground at the rear body ground located in the right rear wheel house.

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Fuse Block	8W-50-3
Fuse Block	8W-50-4
Fuse Block	8W-50-5
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Left Headlamp	8W-50-3, 4, 6
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Right Headlamp	8W-50-3
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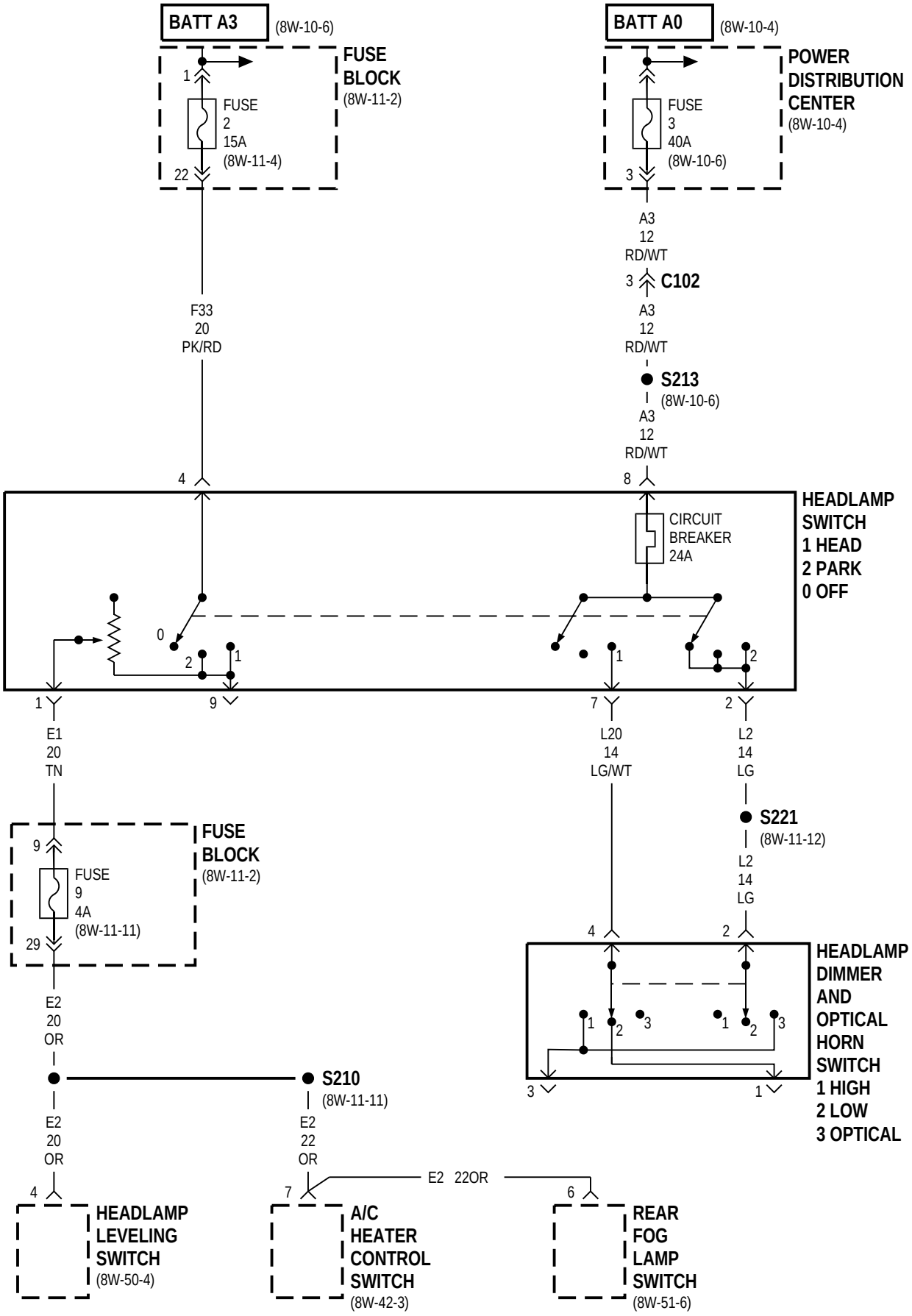
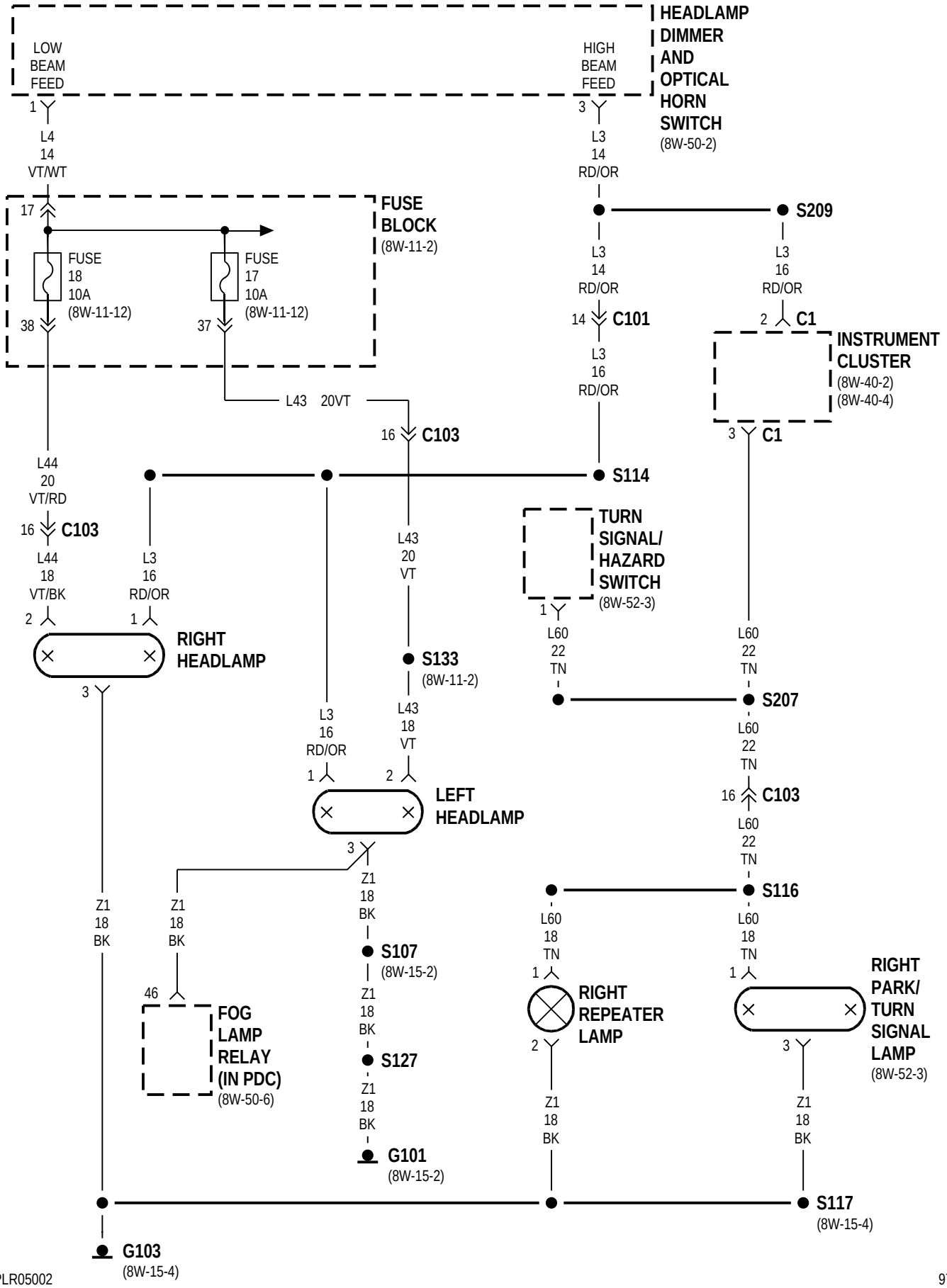
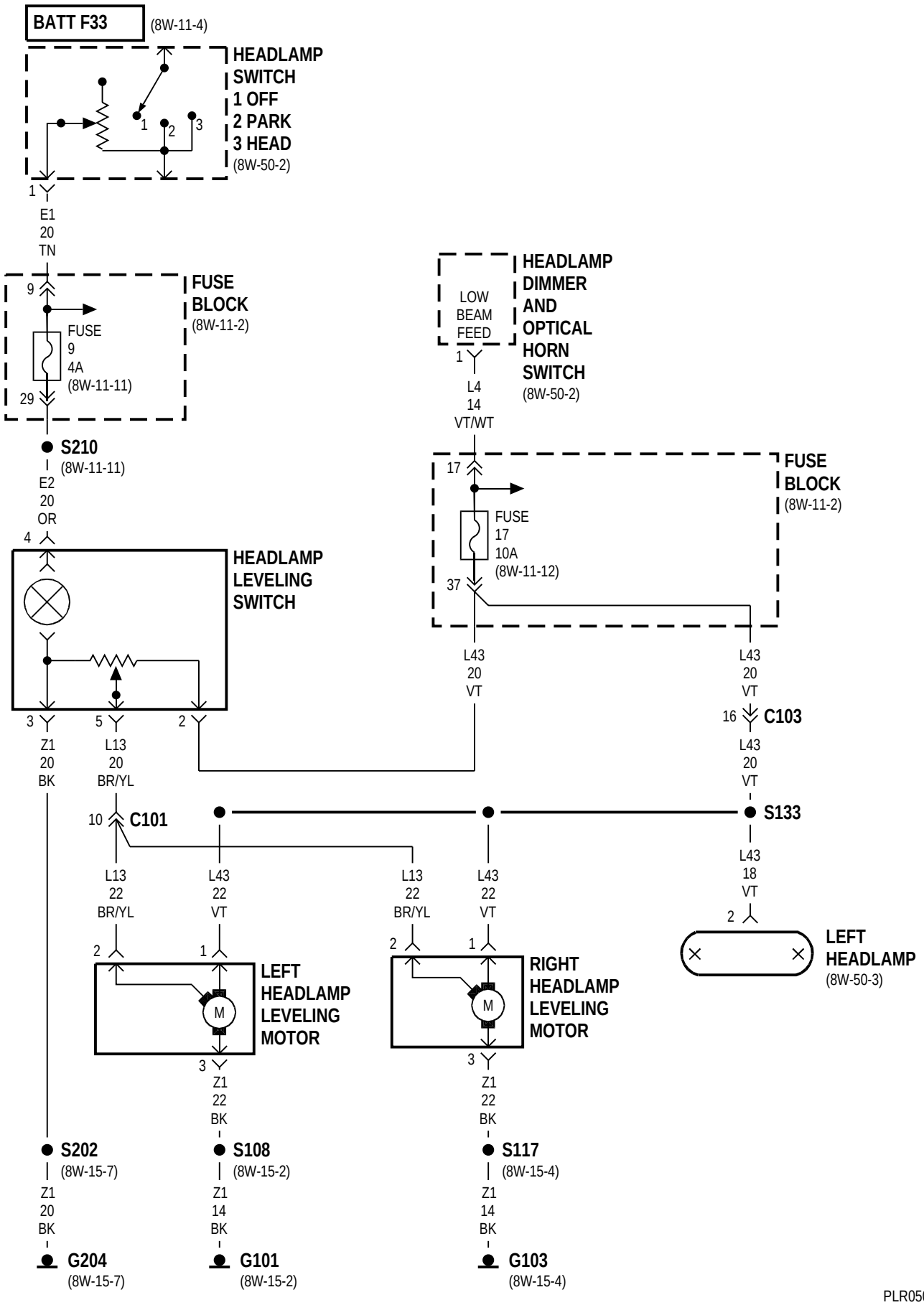
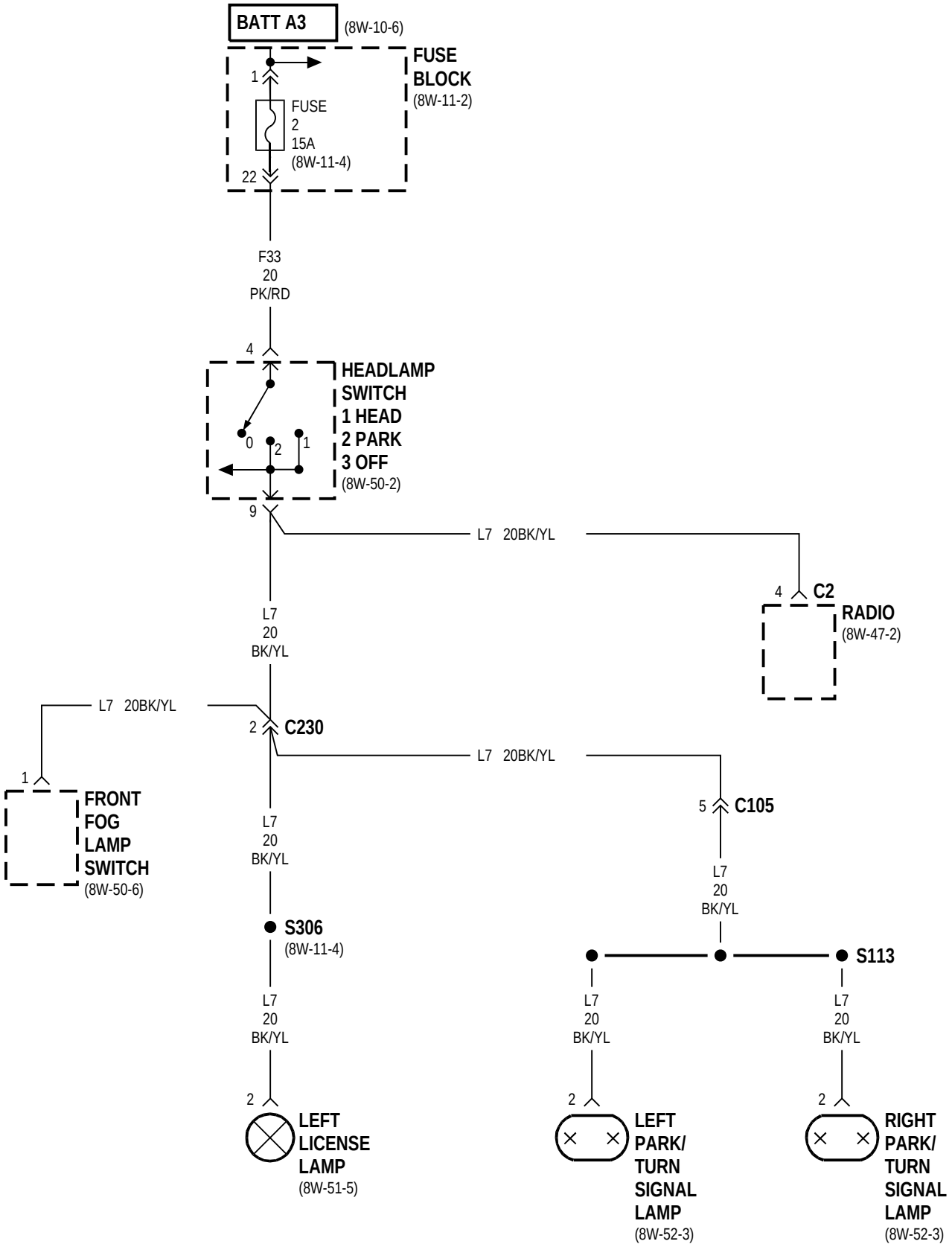
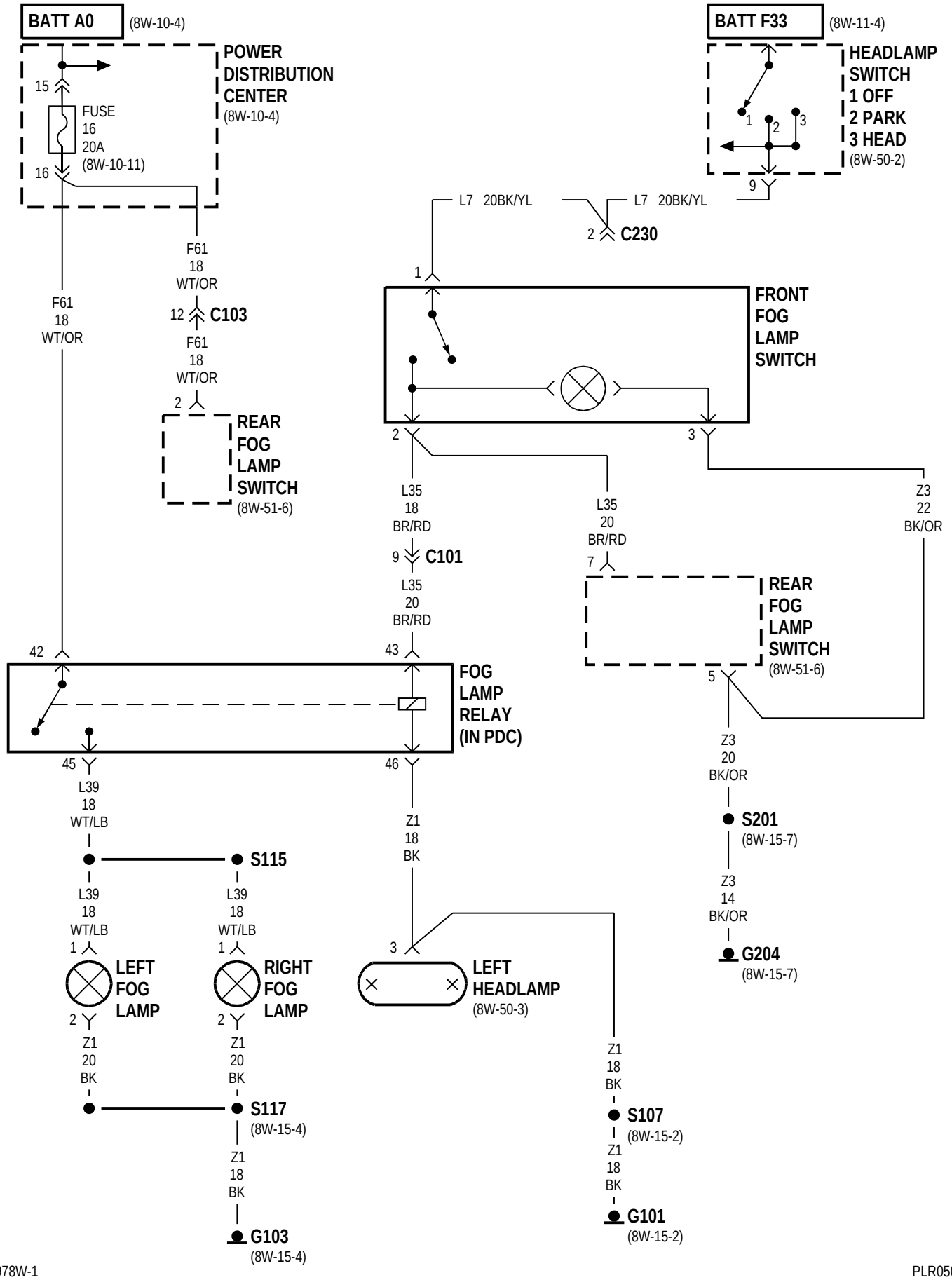
Right Repeater Lamp	8W-50-3
S107	8W-50-3, 6
S108	8W-50-4
S113	8W-50-5
S114	8W-50-3
S115	8W-50-6
S116	8W-50-3
S117	8W-50-3, 4, 6
S127	8W-50-3
S133	8W-50-3, 4
S201	8W-50-6
S202	8W-50-4
S207	8W-50-3
S209	8W-50-3
S210	8W-50-2, 4
S213	8W-50-2
S221	8W-50-2
S306	8W-50-5
Turn Signal/Hazard Switch	8W-50-3


BATT A3
(8W-10-6)
FUSE BLOCK
(8W-11-2)
1
FUSE 2 15A
(8W-11-4)
22
BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
FUSE 3 40A
(8W-10-6)
3
A3 12 RD/WT
3
C102
A3 12 RD/WT
S213
(8W-10-6)
A3 12 RD/WT
F33 20 PK/RD
4
8
CIRCUIT BREAKER 24A
HEADLAMP SWITCH
1 HEAD
2 PARK
0 OFF
0
2
1
1
9
7
2
E1 20 TN
L20 14 LG/WT
L2 14 LG
FUSE BLOCK
(8W-11-2)
9
FUSE 9 4A
(8W-11-11)
29
S221
(8W-11-12)
L2 14 LG
4
2
HEADLAMP DIMMER AND OPTICAL HORN SWITCH
1 HIGH
2 LOW
3 OPTICAL
1
2
3
3
1
E2 20 OR
S210
(8W-11-11)
E2 20 OR
E2 22 OR
E2 22OR
4
7
6
HEADLAMP LEVELING SWITCH
(8W-50-4)
A/C HEATER CONTROL SWITCH
(8W-42-3)
REAR FOG LAMP SWITCH
(8W-51-6)


HEADLAMP DIMMER AND OPTICAL HORN SWITCH
(8W-50-2)
LOW BEAM FEED
HIGH BEAM FEED
1
3
L4 14 VT/WT
L3 14 RD/OR
17
FUSE BLOCK
(8W-11-2)
FUSE 18 10A
(8W-11-12)
FUSE 17 10A
(8W-11-12)
38
37
S209
L3 14 RD/OR
L3 16 RD/OR
14 C101
2 C1
INSTRUMENT CLUSTER
(8W-40-2)
(8W-40-4)
3 C1
L43 20VT
16 C103
L44 20 VT/RD
S114
16 C103
L44 18 VT/BK
L3 16 RD/OR
2
1
RIGHT HEADLAMP
3
TURN SIGNAL/ HAZARD SWITCH
(8W-52-3)
L43 20 VT
S133
(8W-11-2)
1
L60 22 TN
L60 22 TN
S207
L3 16 RD/OR
L43 18 VT
1
2
LEFT HEADLAMP
3
L60 22 TN
16 C103
L60 22 TN
S116
Z1 18 BK
Z1 18 BK
Z1 18 BK
S107
(8W-15-2)
L60 18 TN
L60 18 TN
1
1
46
FOG LAMP RELAY (IN PDC)
(8W-50-6)
Z1 18 BK
S127
RIGHT REPEATER LAMP
RIGHT PARK/ TURN SIGNAL LAMP
(8W-52-3)
2
3
Z1 18 BK
Z1 18 BK
G101
(8W-15-2)
S117
(8W-15-4)
G103
(8W-15-4)


BATT F33
(8W-11-4)
HEADLAMP SWITCH
1 OFF
2 PARK
3 HEAD
(8W-50-2)
1
2
3
E1
20
TN
FUSE BLOCK
(8W-11-2)
9
FUSE
9
4A
(8W-11-11)
29
S210
(8W-11-11)
E2
20
OR
4
HEADLAMP LEVELING SWITCH
3
5
2
Z1
20
BK
L13
20
BR/YL
10
C101
HEADLAMP DIMMER AND OPTICAL HORN SWITCH
(8W-50-2)
LOW BEAM FEED
1
L4
14
VT/WT
FUSE BLOCK
(8W-11-2)
17
FUSE
17
10A
(8W-11-12)
37
L43
20
VT
L43
20
VT
16
C103
L43
20
VT
S133
L43
18
VT
2
LEFT HEADLAMP
(8W-50-3)
L13
22
BR/YL
L43
22
VT
2
1
LEFT HEADLAMP LEVELING MOTOR
M
3
Z1
22
BK
L13
22
BR/YL
L43
22
VT
2
1
RIGHT HEADLAMP LEVELING MOTOR
M
3
Z1
22
BK
S202
(8W-15-7)
Z1
20
BK
G204
(8W-15-7)
S108
(8W-15-2)
Z1
14
BK
G101
(8W-15-2)
S117
(8W-15-4)
Z1
14
BK
G103
(8W-15-4)


BATT A3
(8W-10-6)
FUSE BLOCK
(8W-11-2)
1
FUSE 2 15A
(8W-11-4)
22
F33
20
PK/RD
4
HEADLAMP SWITCH
1 HEAD
2 PARK
3 OFF
(8W-50-2)
0
2
1
9
L7 20BK/YL
4
C2
RADIO
(8W-47-2)
L7
20
BK/YL
L7 20BK/YL
2
C230
L7 20BK/YL
1
FRONT FOG LAMP SWITCH
(8W-50-6)
5
C105
L7
20
BK/YL
S306
(8W-11-4)
S113
L7
20
BK/YL
2
LEFT LICENSE LAMP
(8W-51-5)
LEFT PARK/ TURN SIGNAL LAMP
(8W-52-3)
RIGHT PARK/ TURN SIGNAL LAMP
(8W-52-3)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(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
15
FUSE 16 20A
(8W-10-11)
16
BATT F33
(8W-11-4)
HEADLAMP SWITCH
1 OFF
2 PARK
3 HEAD
(8W-50-2)
1
2
3
9
L7 20BK/YL
L7 20BK/YL
2
C230
F61 18 WT/OR
F61 18 WT/OR
12
C103
F61 18 WT/OR
2
REAR FOG LAMP SWITCH
(8W-51-6)
1
FRONT FOG LAMP SWITCH
2
3
L35 18 BR/RD
9
C101
L35 20 BR/RD
L35 20 BR/RD
7
REAR FOG LAMP SWITCH
(8W-51-6)
Z3 22 BK/OR
5
Z3 20 BK/OR
S201
(8W-15-7)
Z3 14 BK/OR
G204
(8W-15-7)
42
43
FOG LAMP RELAY (IN PDC)
45
46
L39 18 WT/LB
Z1 18 BK
S115
L39 18 WT/LB
L39 18 WT/LB
1
1
LEFT FOG LAMP
RIGHT FOG LAMP
2
2
3
LEFT HEADLAMP
(8W-50-3)
Z1 20 BK
Z1 20 BK
S117
(8W-15-4)
Z1 18 BK
G103
(8W-15-4)
Z1 18 BK
S107
(8W-15-2)
Z1 18 BK
G101
(8W-15-2)

8W-50 FRONT LIGHTING

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GENERAL INFORMATION

INTRODUCTION

The headlamp switch has 3 positions, ON, PARK (parking lights) and OFF. Two circuits, L2 and L20 connect the headlamp switch to the headlamp dimmer/optical horn switch located in the multi-function switch. The multi-function switch feeds the low and high beams of the headlamps.

DESCRIPTION AND OPERATION

PARKING LAMPS

Circuit A3 in the Power Distribution Center (PDC) connects to a bus bar in the fuse block. One of the four circuits powered by the bus bar is circuit F33. Circuit F33 connects to the headlamp switch. A 40 amp fuse in the PDC protects the A3 circuit. A 15 amp fuse, in cavity 2 of the fuse block, protects the F33 circuit.

The headlamp switch has 3 positions, ON, PARK (tail lamps) and OFF, plus a dimmer switch. When the headlamp switch is in the PARK or ON position, the switch connects circuit F33 to circuit L7. From the headlamp switch, circuit L7 branches to power the front parking lamps and rear tail lamps, lavalier lamps, side marker lamps, and rear license plate lamp.

GROUND CIRCUIT

Circuit Z1 provides ground for the parking lamps, headlamps, lavalier lamps, tail lamps, side marker lamps and rear license plate lamp although different grounding points are used. Circuit Z1 also provides the ground path for the headlamps and turn signals.

HELPFUL INFORMATION

- Check for a blown 40 amp fuse in the PDC.
- Check for a blown fuse in cavity 2 of the fuse block.
- For the left front parking lamp, turn signal, side marker lamp and left headlamp, the Z1 circuit grounding point is the left side of the radiator closure panel.
- For the right front parking lamp, turn signal, side marker lamp and right headlamp, the Z1 circuit grounding point is in the right fender side shield.
- Circuit L7 also feeds the radio, if equipped.
- When the headlamp switch is in the PARK or ON position, the dimmer circuit, F33, also connects to circuit E1. Circuit E1 powers the ash receiver lamp, transmission range indicator lamp, instrument panel cluster illumination lamps, HVAC control lamp, heated rear window lamp, and radio lamp. A 4 amp fuse, in cavity 12 of the fuse block, protects circuit E1.

HEADLAMPS

The headlamp switch has 3 positions, ON, PARK (parking lights) and OFF. Two circuits, L2 and L20 connect the headlamp switch to the headlamp dimmer/optical horn switch located in the multi-function switch. The multi-function switch feeds the low and high beams of the headlamps.

HEADLAMP SWITCH IN OFF OR PARKING LAMP POSITION

Circuit A3 originates in the Power Distribution Center (PDC) and supplies battery voltage for the headlamp switch. A 40 amp fuse protects the A3 circuit. The headlamp switch has an internal 24 amp circuit breaker that connects circuit A3 to either the L2 or L20 circuits, depending on switch position.

In the OFF and PARK positions the headlamp switch feeds the L20 circuit that connects to the multi-function switch. Circuit L20 powers the high beam circuit when the operator flashes the headlamps with the turn signal stalk of the multi-function switch. When the operator flashes the headlamps with the stalk, the multi-function switch connects the L20 circuit to the L3 circuit. The L3 circuit feeds the high beam of the headlamps.

HEADLAMP SWITCH IN ON POSITION

When the headlamp switch is in the ON position, it connects the A3 circuit from the PDC to circuit L2.

DESCRIPTION AND OPERATION (Continued)

Circuit L2 connects to the multi- function switch and feeds the L4 circuit (for low beam operation). The L4 circuit connects to a bus bar in the fuse block. Circuits L43 and L44 connect to the bus bar in fuse block and power the low beam headlamps. Circuit L43 supplies voltage to the left headlamp. Circuit L44 supplies voltage to the right headlamp. Both the L43 and L44 circuits have separate 10 amp fuses located in fuse block. Fuse 17 protects circuit L43, and fuse 18 protects circuit L44.

When the operator selects high beam operation with the turn signal stalk of the multi-function switch, circuit L2 connects to the L3 Circuit L3 powers high beam operation.

HEADLAMP GROUND

Although circuit Z1 provides ground for the right and left headlamps it has different termination points for both. For the right headlamp the Z1 circuit terminates at the right inner fender shield. For the left headlamp the Z1 circuit terminates at the left side of the radiator closure panel.

HELPFUL INFORMATION

- Check for a blown fuse in cavity 17 for L43 and cavity 18 for L44.
- Check the 40 amp fuse located in the PDC.
- The headlamp switch has a 24 amp internal circuit breaker.
- For the left front parking lamp, turn signal, side marker lamp and left headlamp, the Z1 circuit grounding point is the left side of the radiator closure panel.
- For the right front parking lamp, turn signal, side marker lamp and right headlamp, the Z1 circuit grounding point is in the right fender side shield.

HEADLAMP LEVELING MOTORS

The headlamp leveling system used in this vehicle uses a variable position switch located in the instrument panel along with headlamp leveling motors located at the headlamps.

Power for the switch and the leveling motors is supplied on circuit L43. This circuit is HOT when the headlamp switch is in the ON position and the operator has selected LOW beam operation. In addition, circuit L43 is protected by a 10 amp fuse located in the fuse block and is the feed for the left LOW beam headlamp.

Ground for the switch is supplied on circuit Z1. When the operator moves the switch, power is supplied on circuit L13 from the switch to the headlamp leveling motors. Ground for the leveling motors is supplied on circuit Z1 and has the same termination point as the respective headlamps.

The headlamp leveling switch also has a lamp located in it for night illumination. Power for the lamp is supplied on circuit E2. The E2 circuit is HOT when the operator has turned the headlamp switch to the PARK or ON position. The E2 circuit is protected by a 4 amp fuse located in the fuse block.

FOG LAMPS (FRONT)

The fog lamp system in this vehicle uses a switch located in the instrument panel along with a relay located in the Power Distribution Center (PDC).

Power for the switch is supplied on circuit L7. This circuit is the feed for the front and rear parking lamps and is HOT when the headlamp switch is in the PARK position.

Power for the contact side of the relay is supplied on circuit F61. This circuit is HOT at all times and protected by a 20 amp fuse in the PDC. Ground for the coil side of the relay is supplied in circuit Z1.

When the operator turns the lamps ON by closing the switch, power flows on circuit L7 through the switch to circuit L35. Circuit L35 connects from the switch to the coil side of the fog lamp relay. With this input the contacts in the fog lamp relay CLOSE connecting circuits F61 and L39.

Circuit L39 connects from the relay to the fog lamps. Ground for the lamps is supplied on circuit Z1.

HELPFUL INFORMATION

- Check the 20 amp fuse located in the PDC for the fog lamps
- Check the lamp filament
- Check the grounding points for the lamps, switch and relay

8W-51 REAR LIGHTING

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Right Tail/Stop Lamp	8W-51-5
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S106	8W-51-2
S107	8W-51-6
S115	8W-51-6
S117	8W-51-6
S127	8W-51-6
S201	8W-51-6
S210	8W-51-8
S211	8W-51-2
S213	8W-51-8
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S306	8W-51-5
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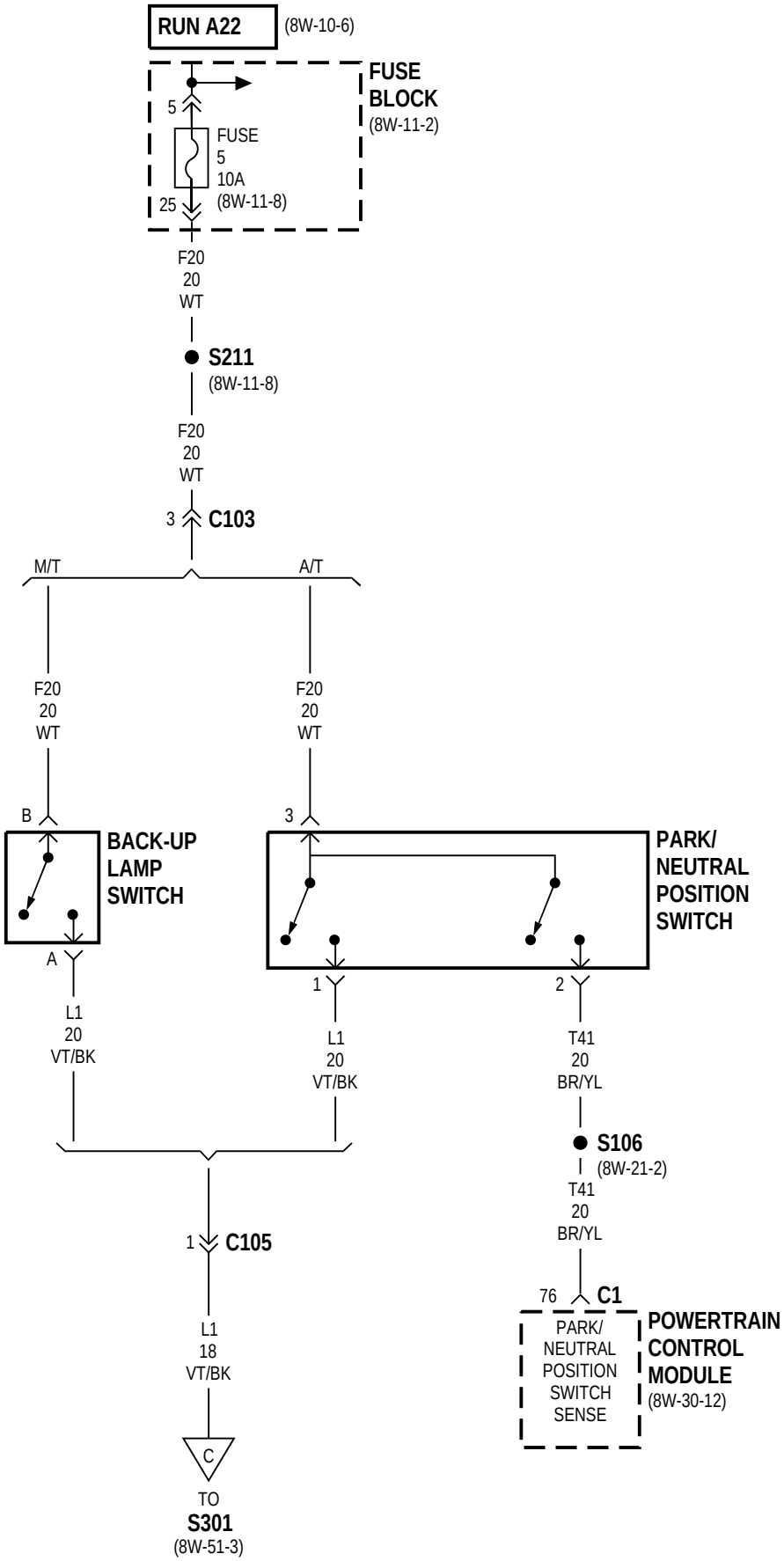
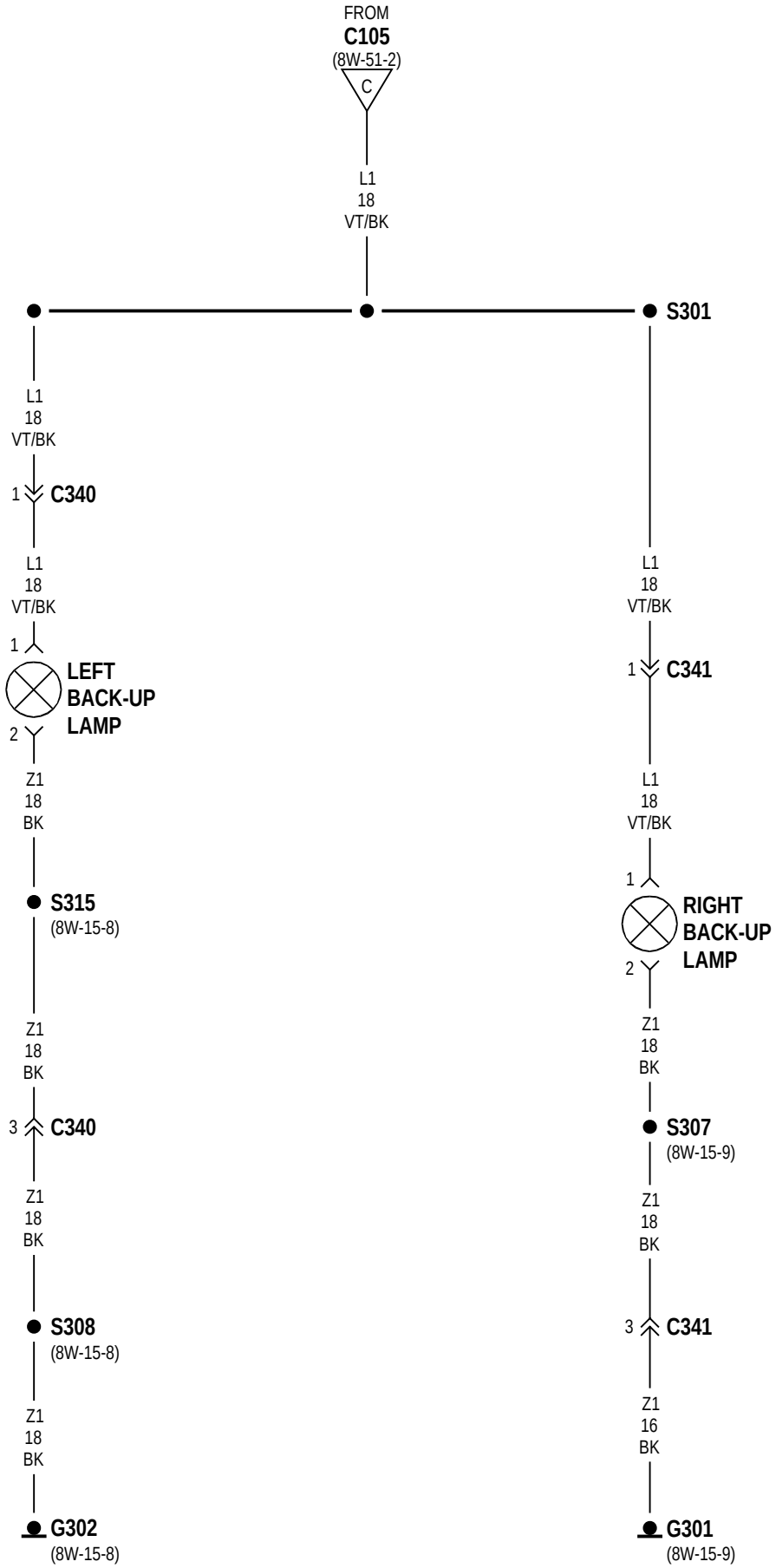
S315	8W-51-3
S315	8W-51-5, 7
S316	8W-51-5
S317	8W-51-7
Stop Lamp Switch	8W-51-4


RUN A22
(8W-10-6)
FUSE BLOCK
(8W-11-2)
5
FUSE 5 10A
(8W-11-8)
25
F20 20 WT
S211
(8W-11-8)
F20 20 WT
3
C103
M/T
A/T
F20 20 WT
F20 20 WT
B
3
BACK-UP LAMP SWITCH
PARK/ NEUTRAL POSITION SWITCH
A
1
2
L1 20 VT/BK
L1 20 VT/BK
T41 20 BR/YL
S106
(8W-21-2)
T41 20 BR/YL
1
C105
76
C1
L1 18 VT/BK
PARK/ NEUTRAL POSITION SWITCH SENSE
POWERTRAIN CONTROL MODULE
(8W-30-12)
C
TO
S301
(8W-51-3)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C105
(8W-51-2)
C
L1
18
VT/BK
S301
L1
18
VT/BK
1
C340
L1
18
VT/BK
1
2
LEFT
BACK-UP
LAMP
Z1
18
BK
S315
(8W-15-8)
Z1
18
BK
3
C340
Z1
18
BK
S308
(8W-15-8)
Z1
18
BK
G302
(8W-15-8)
L1
18
VT/BK
1
C341
L1
18
VT/BK
1
2
RIGHT
BACK-UP
LAMP
Z1
18
BK
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BK
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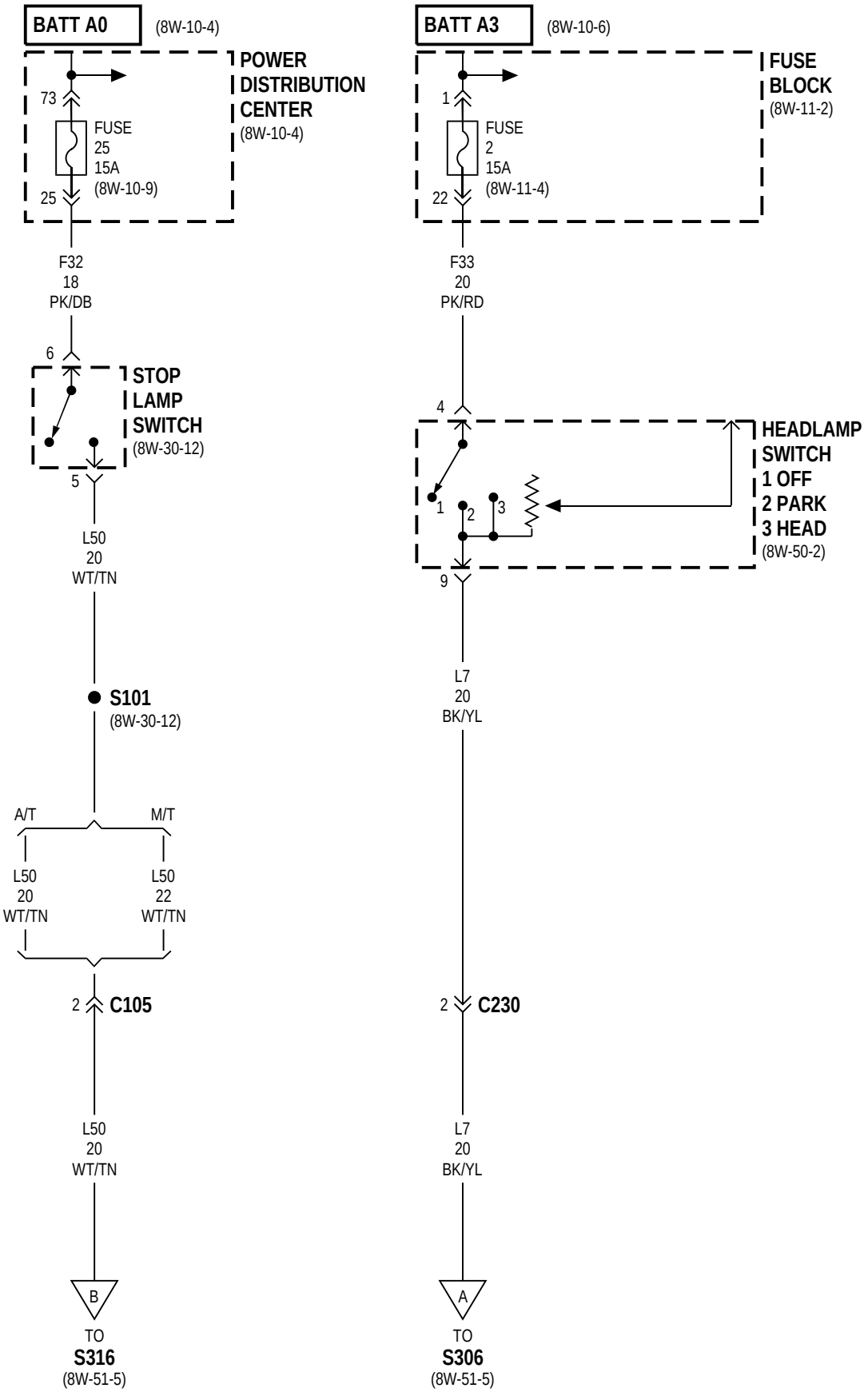
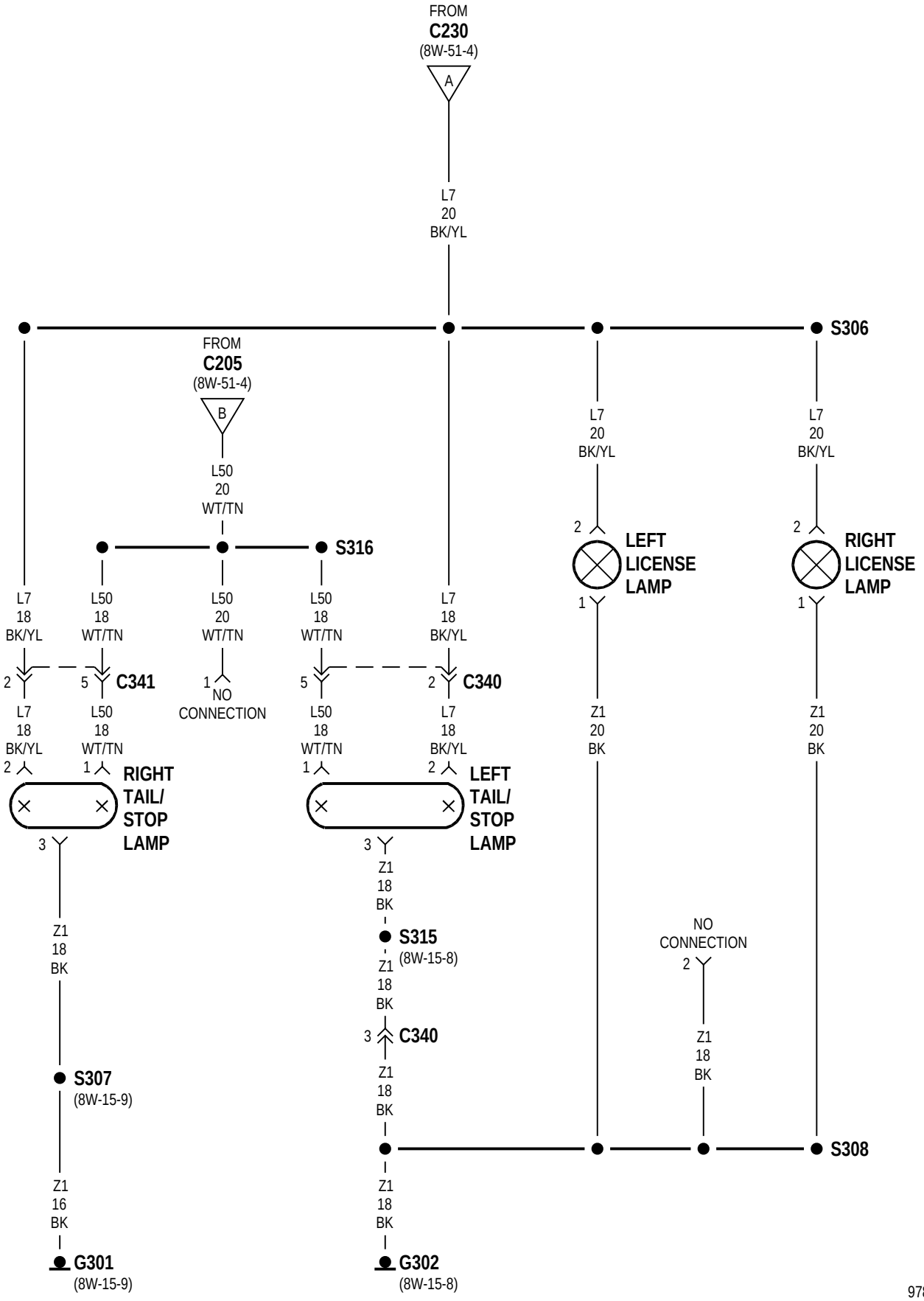
C341
Z1
16
BK
G301
(8W-15-9)


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
73
FUSE 25 15A
(8W-10-9)
25
F32
18
PK/DB
6
STOP LAMP SWITCH
(8W-30-12)
5
L50
20
WT/TN
S101
(8W-30-12)
A/T
M/T
L50
20
WT/TN
L50
22
WT/TN
2
C105
L50
20
WT/TN
B
TO
S316
(8W-51-5)
BATT A3
(8W-10-6)
FUSE BLOCK
(8W-11-2)
1
FUSE 2 15A
(8W-11-4)
22
F33
20
PK/RD
4
HEADLAMP SWITCH
1 OFF
2 PARK
3 HEAD
(8W-50-2)
1
2
3
9
L7
20
BK/YL
2
C230
L7
20
BK/YL
A
TO
S306
(8W-51-5)


FROM
C230
(8W-51-4)
A
L7
20
BK/YL
S306
FROM
C205
(8W-51-4)
B
L50
20
WT/TN
S316
L7
20
BK/YL
L7
20
BK/YL
2
LEFT
LICENSE
LAMP
1
2
RIGHT
LICENSE
LAMP
1
L7
18
BK/YL
L50
18
WT/TN
L50
20
WT/TN
L50
18
WT/TN
L7
18
BK/YL
2
5
C341
1
NO
CONNECTION
5
2
C340
L7
18
BK/YL
L50
18
WT/TN
L50
18
WT/TN
L7
18
BK/YL
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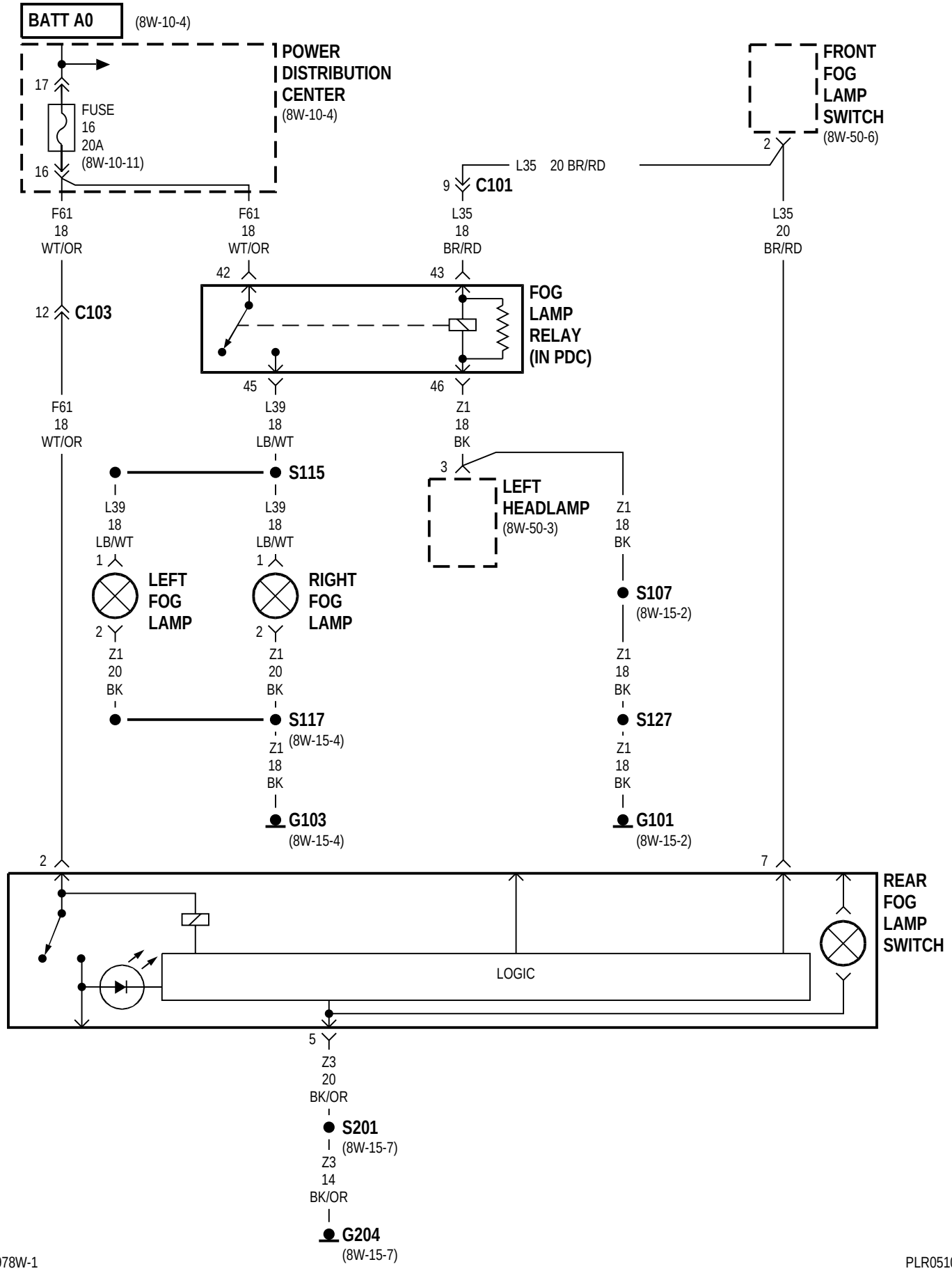
20
BK
Z1
20
BK
2
1
RIGHT
TAIL/
STOP
LAMP
1
2
LEFT
TAIL/
STOP
LAMP
3
3
Z1
18
BK
Z1
18
BK
S315
(8W-15-8)
NO
CONNECTION
2
Z1
18
BK
3
C340
Z1
18
BK
S307
(8W-15-9)
Z1
18
BK
S308
Z1
16
BK
Z1
18
BK
G301
(8W-15-9)
G302
(8W-15-8)


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
17
FUSE 16 20A
(8W-10-11)
16
FRONT FOG LAMP SWITCH
(8W-50-6)
2
L35 20 BR/RD
9 C101
F61 18 WT/OR
F61 18 WT/OR
L35 18 BR/RD
L35 20 BR/RD
42
43
12 C103
FOG LAMP RELAY (IN PDC)
45
46
F61 18 WT/OR
L39 18 LB/WT
Z1 18 BK
3
S115
LEFT HEADLAMP
(8W-50-3)
L39 18 LB/WT
L39 18 LB/WT
Z1 18 BK
1
1
LEFT FOG LAMP
RIGHT FOG LAMP
S107
(8W-15-2)
2
2
Z1 20 BK
Z1 20 BK
Z1 18 BK
S117
(8W-15-4)
S127
Z1 18 BK
Z1 18 BK
G103
(8W-15-4)
G101
(8W-15-2)
2
7
REAR FOG LAMP SWITCH
LOGIC
5
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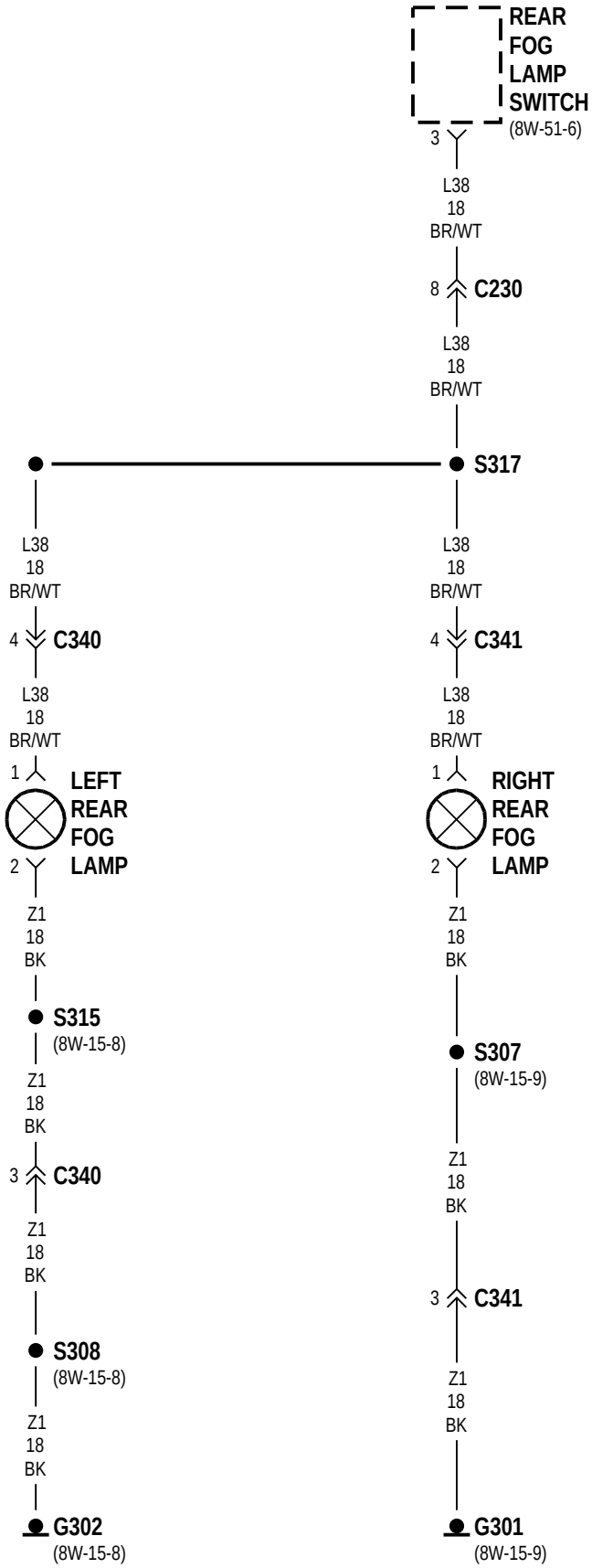
S201
(8W-15-7)
Z3 14 BK/OR
G204
(8W-15-7)


REAR
FOG
LAMP
SWITCH
(8W-51-6)
3
L38
18
BR/WT
8
C230
L38
18
BR/WT
S317
L38
18
BR/WT
4
C340
L38
18
BR/WT
1
LEFT
REAR
FOG
LAMP
2
Z1
18
BK
S315
(8W-15-8)
Z1
18
BK
3
C340
Z1
18
BK
S308
(8W-15-8)
Z1
18
BK
G302
(8W-15-8)
L38
18
BR/WT
4
C341
L38
18
BR/WT
1
RIGHT
REAR
FOG
LAMP
2
Z1
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C341
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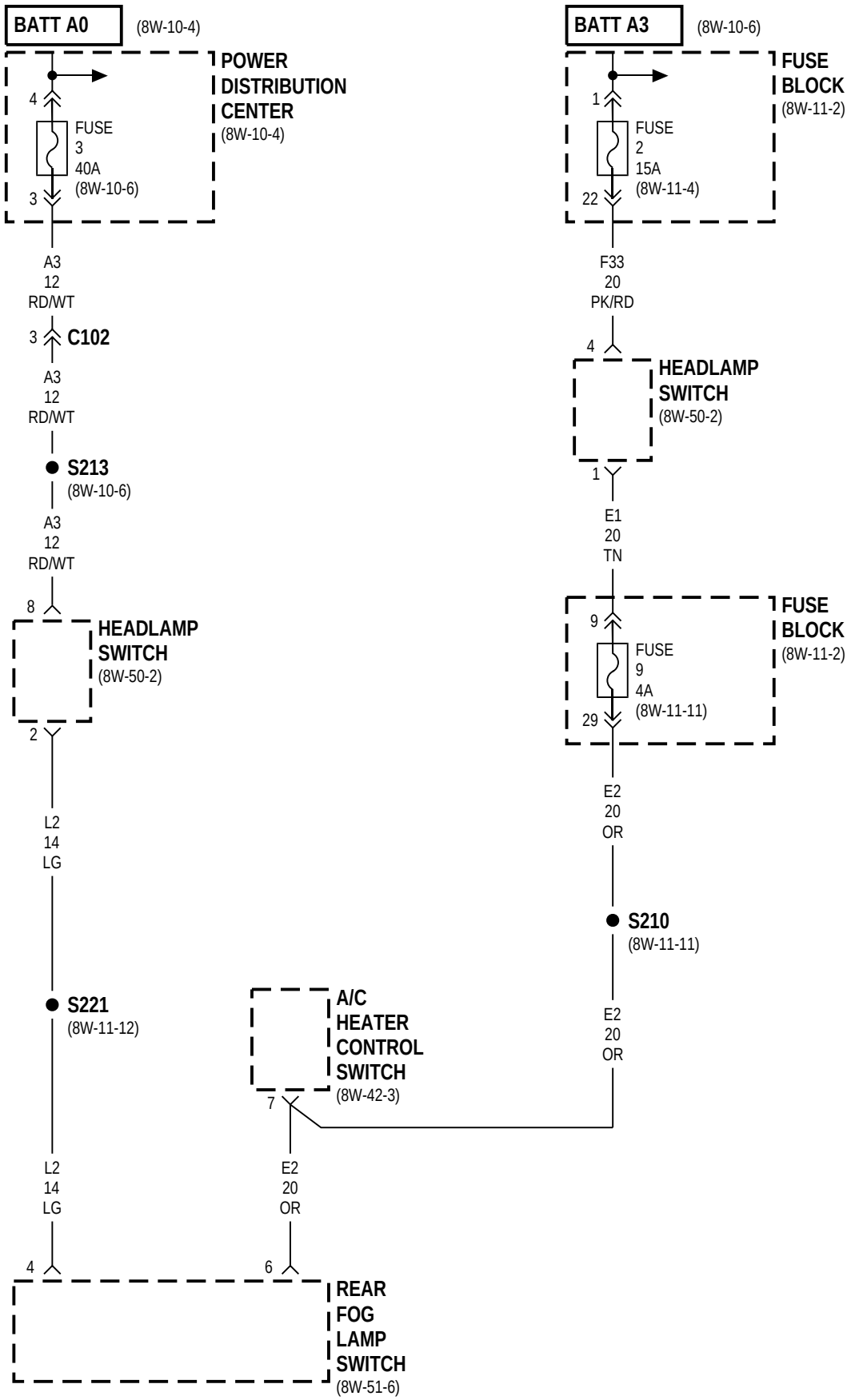
G301
(8W-15-9)


BATT A0
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
4
FUSE 3 40A
(8W-10-6)
3
A3 12 RD/WT
3
C102
A3 12 RD/WT
S213
(8W-10-6)
A3 12 RD/WT
8
HEADLAMP SWITCH
(8W-50-2)
2
L2 14 LG
S221
(8W-11-12)
L2 14 LG
4
BATT A3
(8W-10-6)
FUSE BLOCK
(8W-11-2)
1
FUSE 2 15A
(8W-11-4)
22
F33 20 PK/RD
4
HEADLAMP SWITCH
(8W-50-2)
1
E1 20 TN
FUSE BLOCK
(8W-11-2)
9
FUSE 9 4A
(8W-11-11)
29
E2 20 OR
S210
(8W-11-11)
E2 20 OR
A/C HEATER CONTROL SWITCH
(8W-42-3)
7
E2 20 OR
6
REAR FOG LAMP SWITCH
(8W-51-6)

8W-51 REAR LIGHTING

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DESCRIPTION AND OPERATION

TAIL LAMPS AND LICENSE LAMPS

Circuit A3 in the Power Distribution Center (PDC) connects to a bus bar in the fuse block. One of the four circuits powered by the bus bar is circuit F33. A 40 amp fuse in the PDC protects the A3 circuit. A 15 amp fuse, in cavity number 2 of the fuse block, protects the F33 circuit.

The headlamp switch has 3 positions, ON, PARK (tail lamps) and OFF, plus a dimmer switch. When the headlamp switch is in the PARK or ON position, it connects circuit F33 to circuit L7. From the headlamp switch, circuit L7 branches to power the front parking lamps, rear tail lamps, side marker lamps, and rear license plate lamp.

GROUND CIRCUIT

Circuit Z1 provides ground for the tail lamps, parking lamps, headlamps, side marker lamps, lamps and rear license plate lamps although different grounding points are used. Circuit Z1 also provides the ground path for the headlamps, stop lamps and turn signals.

HELPFUL INFORMATION

- Check for a blown 40 amp fuse in the PDC.
- Check for a blown fuse in cavity 2 of the fuse block
- For the left rear parking lamp, turn signal, side marker lamp, and the rear license plate the Z1 circuit grounding point is in the left rear wheel well.
- For the right rear parking lamp, turn signal and side marker lamp, the Z1 circuit grounding point is in the right rear wheel well.
- Circuit L7 also feeds the radio, if equipped.
- When the headlamp switch is in the PARK or ON position, the dimmer circuit, F33, connects to circuit E1. Circuit E1 powers the ash receiver lamp, transmission range indicator lamp, instrument panel cluster illumination lamps, HVAC control lamp, heated rear window lamp, and radio lamp. A 4 amp fuse, in cavity 12 of the fuse block, protects circuit E1.

FOG LAMPS (REAR)

The rear fog lamps will operate only when the headlamp switch is in the ON position.

Circuit A3 from the Power Distribution Center supplies (PDC) voltage to a bus bar in the fuse block. Circuit F61 is one of four circuits that the bus bar feeds and is protected by a 20 amp fuse in cavity 4. Circuit F61 connects to the rear fog lamp switch and the front fog lamp relay.

The fog lamp switch contains a relay that supplies voltage to the fog lamps. Circuit L2 from the multifunction switch supplies voltage to the coil side of the relay (only when the headlamps operate on LOW beam). Circuit F61 supplies voltage to the contact side of the relay. During LOW beam headlamp operation when the fog lamp switch contacts CLOSE, circuit F61 connects to circuit L38.

Circuit L38 feeds right and left fog lamp. Circuit L38 also feeds the green L.E.D. in the switch that illuminates during fog lamps operation.

When the headlamp switch is in the PARK or ON position, circuit E1 from the headlamp switch supplies voltage for circuit E2. Circuit E2 contains a 4 amp fuse in cavity 12 of the fuse block, and powers the bulb in the fog lamp switch.

GROUND CIRCUIT

Although circuit Z1 provides the ground path for the fog lamps, the circuit has different grounding points for each lamp.

Circuit Z3 supplies the ground path for the fog lamp switch. The grounding point for the headlamp switch is the instrument panel left center support.

HELPFUL INFORMATION

- Circuit Z1 also supplies ground for side marker lamps, turn signals, parking lamps and headlamps.
- Circuit A3 from the PDC supplies voltage to the headlamp switch for circuit L2.
- Circuit F33 from the fuse block supplies voltage to the headlamp switch for circuit E1. Circuit A3 from the PDC supplies voltage to a bus bar in the fuse block that feeds the F33 circuit. Fuse 2, in the fuse block, protects the F33 circuit.

DESCRIPTION AND OPERATION (Continued)

STOP LAMPS

Circuit F32 in the Power Distribution Center (PDC) feeds the stop lamps. Circuit F32 connects to the stop lamp switch. A 15 amp fuse in the PDC protects circuit F32.

When the operator presses the brake pedal, the stop lamp switch CLOSES and connects circuit F32 to circuit L50. Circuit L50 connects to the stop lamps. Circuit L50 also splices to power the CHMSL lamp.

GROUND CIRCUIT

Circuit Z1 provides ground for the stop lamps, CHMSL lamp, and the stop lamp switch. The Z1 circuit has more than one grounding point. It also supplies ground path for the tail lamps, parking lamps, headlamps, side marker lamps, rear license plate lamp, back-up lamps and turn signals.

HELPFUL INFORMATION

- Check for blown fuses in circuit F32 (in PDC).
- Check for continuity across the stop lamp switch when it is CLOSED.
- For rear lighting on the left side of the vehicle, the Z1 circuit grounding point is in the left rear wheel well.
- For rear lighting on the right side of the vehicle, the Z1 circuit grounding point is in the right rear wheel well.
- For the stop lamp switch, the Z1 circuit grounding point is in the left front inner fender shield.

BACK-UP LAMPS

In the RUN position, the ignition switch connects circuit A2 from the Power Distribution Center (PDC) to circuit A22. Circuit A22 feeds a bus bar in the fuse block. A 40 amp fuse in the PDC protects the A2 and A22 circuits.

Circuit F20 is one of four circuits that connects to the fuse block bus bar fed by circuit A22. Circuit F20 supplies power to the back-up lamp switch. On 3–spd automatic transaxle vehicles, the back-up lamp switch is part of an assembly that includes the park/neutral position switch.

When the operator puts the transmission in REVERSE, the back-up lamp switch connects circuit F20 to circuit L1. Circuit L1 feeds the back-up lamps. A 10 amp fuse, in cavity 8 of the fuse block, protects F20 and L1 circuits.

GROUND CIRCUIT

Circuit Z1 provides ground for the back-up lamps. The Z1 circuit has more than one grounding point. It also supplies ground path for the tail lamps, parking lamps, headlamps, side marker lamps, rear license plate lamp, stop lamps and turn signals.

HELPFUL INFORMATION

- Check for blown fuses in circuits A2 and F20.
- Check for continuity across the stop lamp switch when it is CLOSED.
- For rear lighting on the left side of the vehicle, the Z1 circuit grounding point is in the left rear wheel well.
- For rear lighting on the right side of the vehicle, the Z1 circuit grounding point is in the right rear wheel well.
- Circuit F20 feeds the heated rear window switch and A/C clutch cycling switch.

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S112	8W-52-3
S113	8W-52-3
S116	8W-52-3
S117	8W-52-3
S127	8W-52-3
S205	8W-52-2
S207	8W-52-3
S212	8W-52-3
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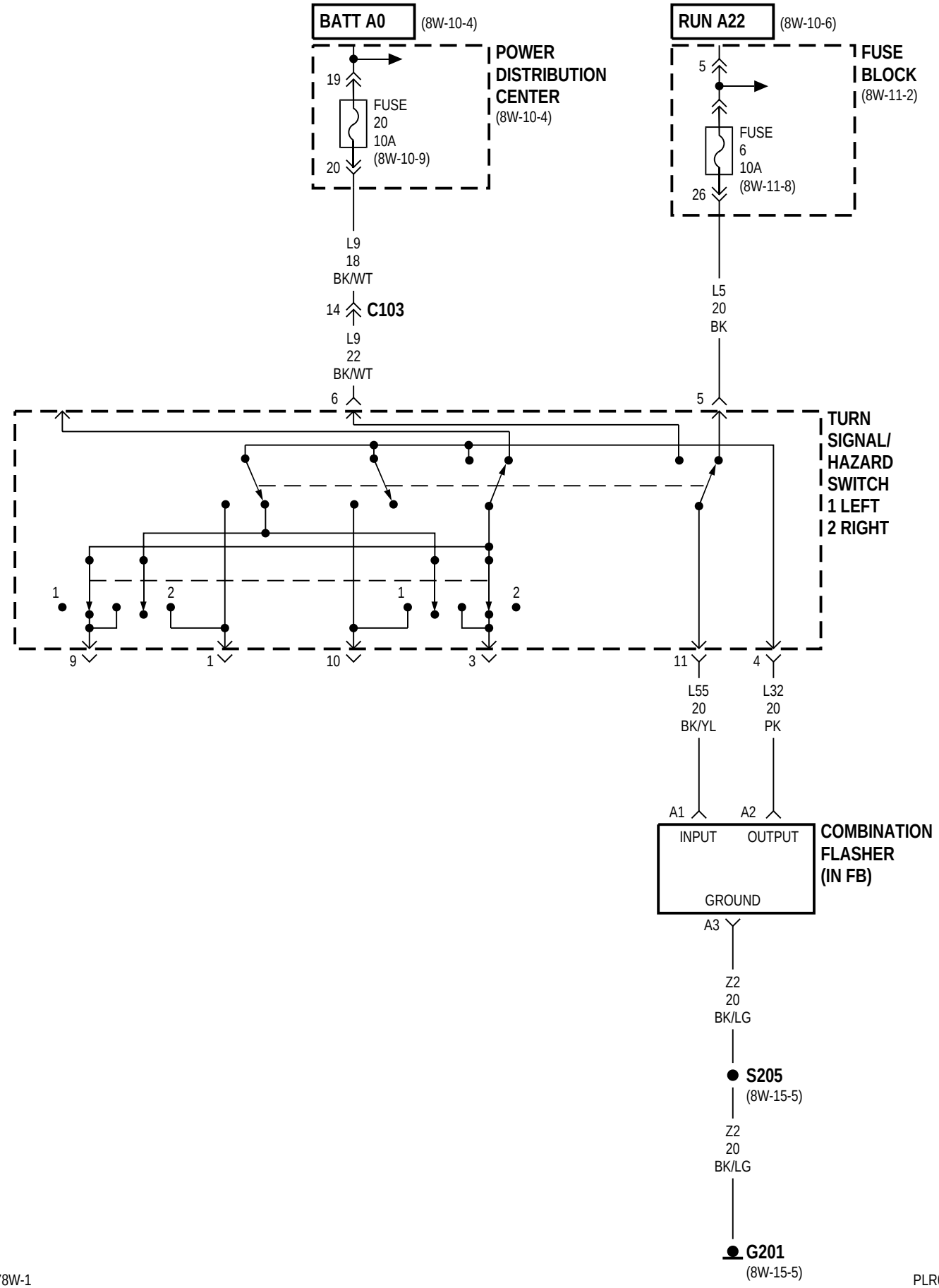
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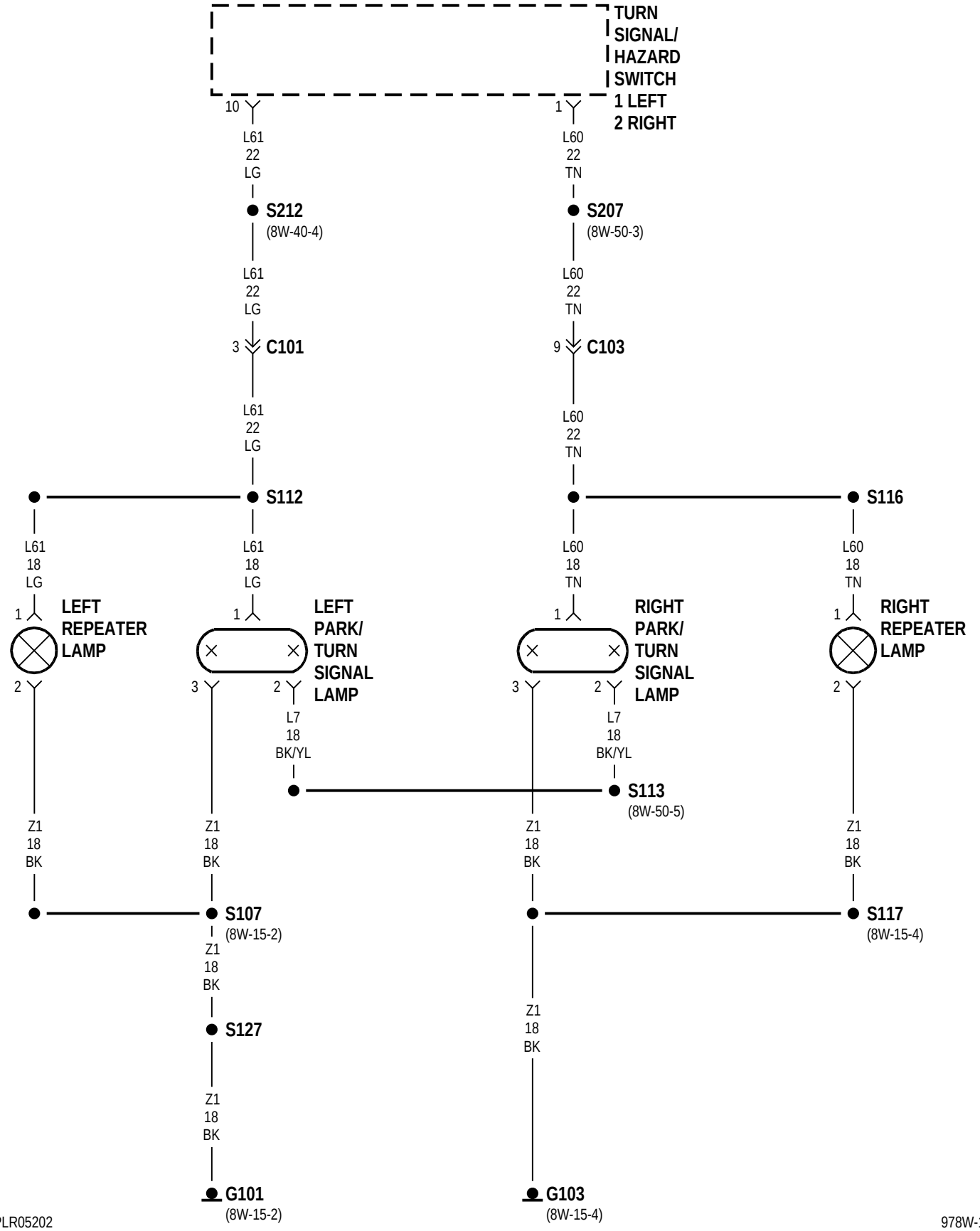
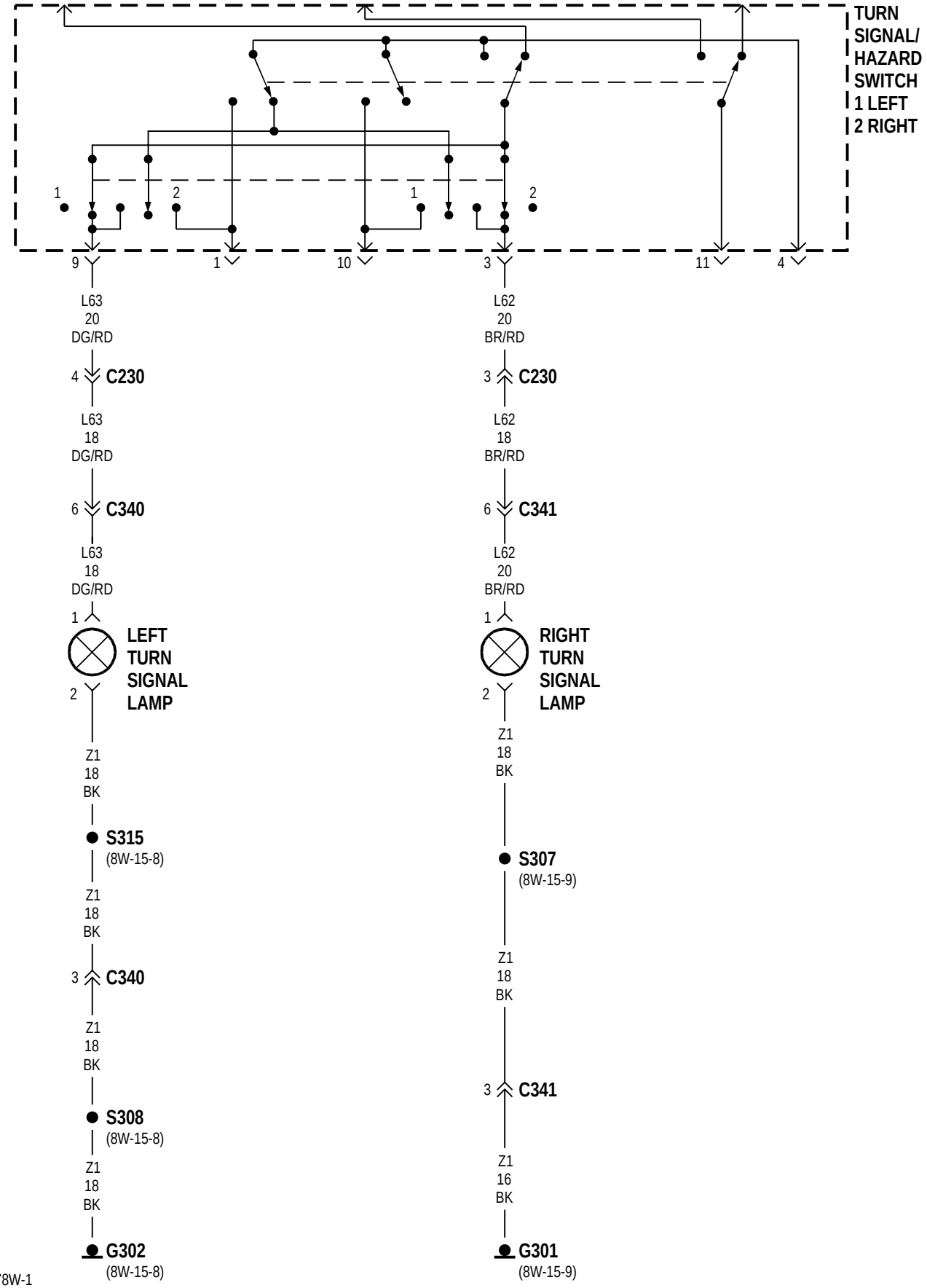
(8W-10-4)
POWER DISTRIBUTION CENTER
(8W-10-4)
19
FUSE 20 10A
(8W-10-9)
20
RUN A22
(8W-10-6)
FUSE BLOCK
(8W-11-2)
5
FUSE 6 10A
(8W-11-8)
26
L9 18 BK/WT
14
C103
L9 22 BK/WT
6
L5 20 BK
5
TURN SIGNAL/ HAZARD SWITCH 1 LEFT 2 RIGHT
1
2
1
2
9
1
10
3
11
4
L55 20 BK/YL
L32 20 PK
A1
A2
INPUT
OUTPUT
GROUND
COMBINATION FLASHER (IN FB)
A3
Z2 20 BK/LG
S205
(8W-15-5)
Z2 20 BK/LG
G201
(8W-15-5)


TURN SIGNAL/ HAZARD SWITCH
1 LEFT
2 RIGHT
10
1
L61 22 LG
L60 22 TN
S212
(8W-40-4)
S207
(8W-50-3)
L61 22 LG
L60 22 TN
3
C101
9
C103
L61 22 LG
L60 22 TN
S112
S116
L61 18 LG
L61 18 LG
L60 18 TN
L60 18 TN
1
LEFT REPEATER LAMP
1
LEFT PARK/ TURN SIGNAL LAMP
1
RIGHT PARK/ TURN SIGNAL LAMP
1
RIGHT REPEATER LAMP
2
3
2
L7 18 BK/YL
S113
(8W-50-5)
Z1 18 BK
S107
(8W-15-2)
S117
(8W-15-4)
Z1 18 BK
S127
Z1 18 BK
G101
(8W-15-2)
G103
(8W-15-4)


TURN SIGNAL/ HAZARD SWITCH
1 LEFT
2 RIGHT
1
2
1
2
9
1
10
3
11
4
L63
20
DG/RD
4
C230
L63
18
DG/RD
6
C340
L63
18
DG/RD
1
LEFT TURN SIGNAL LAMP
2
Z1
18
BK
S315
(8W-15-8)
Z1
18
BK
3
C340
Z1
18
BK
S308
(8W-15-8)
Z1
18
BK
G302
(8W-15-8)
L62
20
BR/RD
3
C230
L62
18
BR/RD
6
C341
L62
20
BR/RD
1
RIGHT TURN SIGNAL LAMP
2
Z1
18
BK
S307
(8W-15-9)
Z1
18
BK
3
C341
Z1
16
BK
G301
(8W-15-9)

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DESCRIPTION AND OPERATION

TURN SIGNALS

Voltage for the turn signals flows from the Power Distribution Center (PDC) to the ignition switch on circuit A2. With the key in the RUN position, the ignition switch connects voltage from the A2 circuit to the A22 circuit. A 40 amp fuse in the PDC protects the A2 and A22 circuits.

Circuit A22 connects to a bus bar in the fuse block. L5 is one of the circuits fed by the bus bar. Circuit L5 contains a 10 amp fuse and supplies voltage to the multi-function switch. The multi- function switch supplies voltage to the combination flashing unit on circuit L55. Voltage leaves the combination flashing unit on circuit L32 and flows to the multi-function switch connector.

RIGHT TURN SIGNAL

When the operator selects the right turn signal, the multi-function connects power from circuit L32 to circuits L60 and L62. Circuit L62 connects to the multi-function switch and feeds the right rear turn signal/hazard flasher/stop lamp.

Circuit L60 connects to the multi-function switch and feeds the right front turn signal/hazard flasher lamp and side marker lamp. Circuit L60 also splices to power the turn signal indicator lamp on the instrument cluster.

LEFT TURN SIGNAL

When the operator selects the left turn signal, the multi-function connects power from circuit L32 to circuits L61 and L63. Circuit L63 connects to the multi-function switch and feeds the left rear turn signal/ hazard flasher/stop lamp.

Circuit L61 connects to the multi-function switch and feeds the left right front turn signal/hazard flasher lamp and side marker lamp. Circuit L61 also splices to power the turn signal indicator lamp on the instrument cluster.

GROUND CIRCUIT

Circuit Z1 provides ground for all the turn signal lamps, although the it has different grounding points for each turn signal circuit. Circuit Z2 provides the ground path for the combination flashing unit.

HELPFUL INFORMATION

- For the left front turn signal/hazard flasher lamp, the Z1 circuit grounding point is the left side of the radiator closure panel.
- For the right front turn signal/hazard flasher lamp, the Z1 circuit grounding point is in the right fender side shield.
- For the left rear turn signal/hazard flasher/stop lamp, the Z1 circuit grounding point is in the left rear wheel well.
- For the right rear turn signal/hazard flasher/ stop lamp, the Z1 circuit grounding point is in the right rear wheel well.
- Circuit Z1 also supplies ground for the headlamps, parking lamps, rear license plate lamp, back-up lamps and side marker lamps.
- The grounding point for circuit Z2 is the instrument panel right center support. Circuit Z2 supplies ground for the combination flashing unit.
- A 10 amp fuse, in cavity 6 of the fuse block, protects circuit L5.
- A 40 amp fuse in the PDC protects the A2 and A22 circuits.
- The bus bar in the fuse block that connects to circuit A22 and feeds circuit L5 for the turn signals also powers three other fuse protected circuits. The other circuits are C1, F20 and F25.

HAZARD FLASHERS

Circuit L9 from the Power Distribution Center (PDC) supplies battery voltage for the hazard flashers. A 10 amp fuse in the PDC protects circuit L9.

Circuit L9 connects to the multi-function switch. With the hazard flashers ON, the multi-function switch connects circuits L9 and L55.

Circuit L55 feeds the combination flashing unit. Circuit Z2 provides ground for the flashing unit.

From the flashing unit, circuit L32 connects to the multi-function switch. With the hazard flashers ON, the multi-function switch connects circuit L32 to circuits L60, L61, L62, and L63.

DESCRIPTION AND OPERATION (Continued)

Circuit L60 supplies voltage to the right front turn signal/hazard lamp. The L60 circuit splices to the instrument cluster to power the right indicator lamp.

Circuit L61 supplies voltage to the left front turn signal/hazard lamp. The L61 circuit splices to the instrument cluster to power the left indicator lamp.

Circuit L62 supplies voltage to the right rear turn signal/hazard flasher/stop lamp.

Circuit L63 supplies voltage to the left rear turn signal/hazard/flasher/stop lamp.

GROUND CIRCUITS

Circuit Z3 provides ground for the instrument cluster indicator lamps. The termination point for circuit Z3 is the instrument panel left center support.

Circuit Z1 provides ground for all the turn signal/hazard lamps, although the it has different grounding points for each circuit. Circuit Z2 provides the ground path for the combination flashing unit.

HELPFUL INFORMATION

- For the left front turn signal/hazard flasher lamp the Z1 circuit grounding point is the left side of the radiator closure panel.
- For the right front turn signal/hazard flasher lamp the Z1 circuit grounding point is in the right fender side shield.
- For the left rear turn signal/hazard flasher/stop lamp the Z1 circuit grounding point is in the left rear wheel well.
- For the right rear turn signal/hazard flasher/stop lamp the Z1 circuit grounding point is in the right rear wheel well.
- Circuit Z1 also supplies ground for the headlamps, parking lamps, rear license plate lamp, back-up lamps and side marker lamps.
- The grounding point for circuit Z2 is the instrument panel right center support. Circuit Z2 supplies ground for the combination flashing unit.

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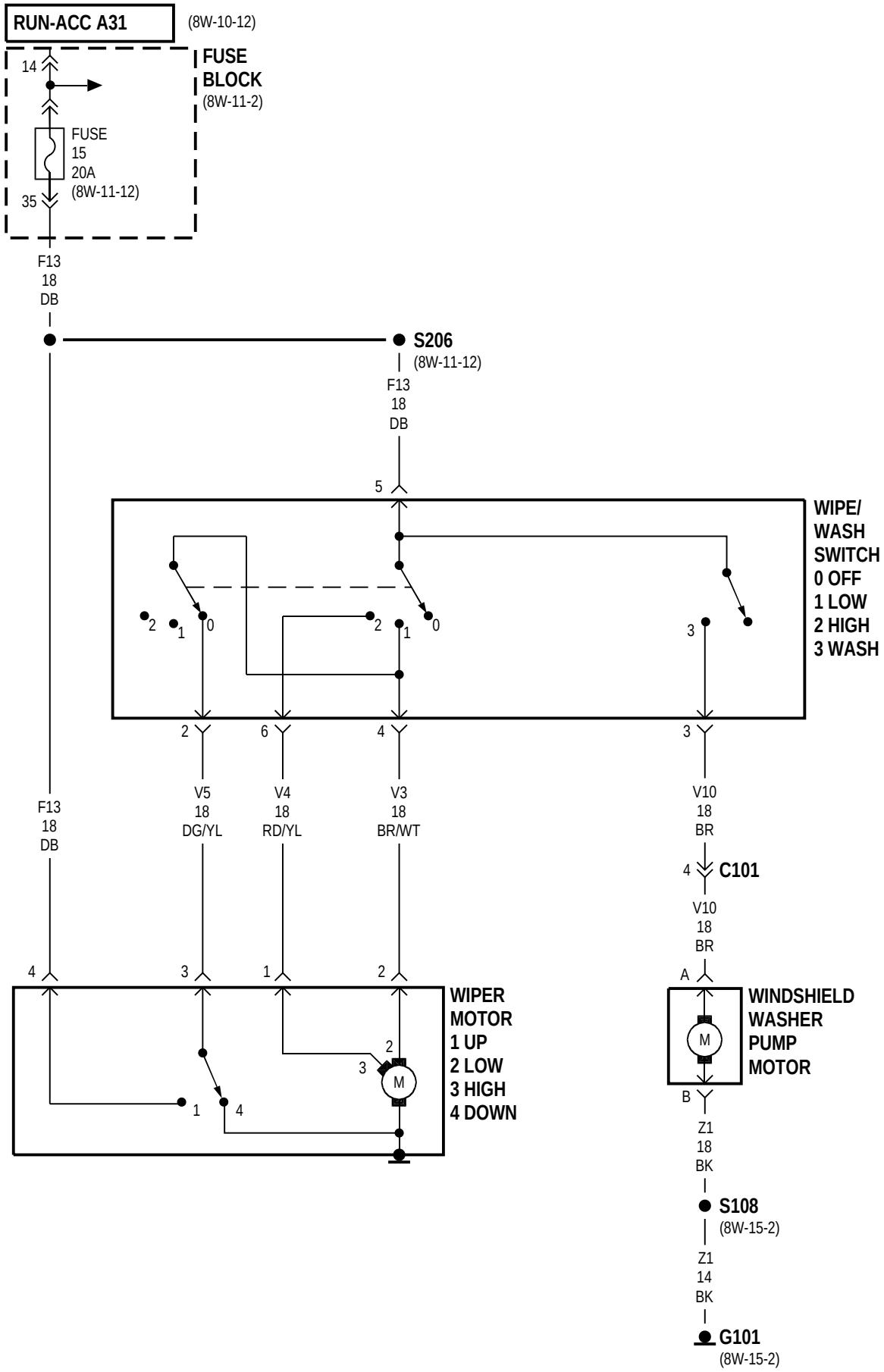
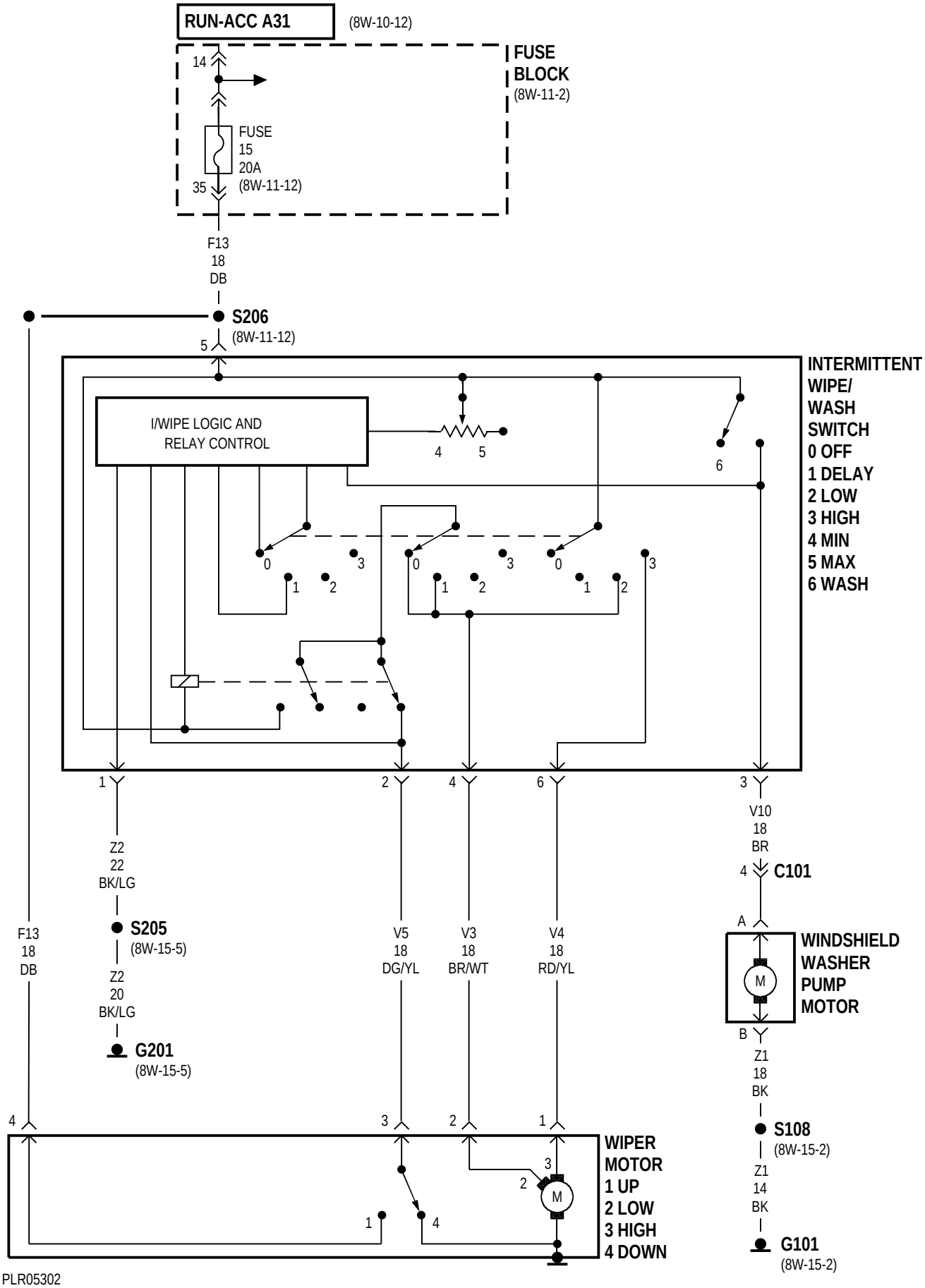

RUN-ACC A31
(8W-10-12)
FUSE BLOCK
(8W-11-2)
14
FUSE 15 20A
(8W-11-12)
35
F13 18 DB
S206
(8W-11-12)
F13 18 DB
5
WIPE/ WASH SWITCH
0 OFF
1 LOW
2 HIGH
3 WASH
2
6
4
3
V5 18 DG/YL
V4 18 RD/YL
V3 18 BR/WT
V10 18 BR
4
C101
V10 18 BR
A
B
WINDSHIELD WASHER PUMP MOTOR
M
F13 18 DB
4
3
1
2
WIPER MOTOR
1 UP
2 LOW
3 HIGH
4 DOWN
Z1 18 BK
S108
(8W-15-2)
Z1 14 BK
G101
(8W-15-2)

INTERMITTENT



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DESCRIPTION AND OPERATION

WIPERS—INTERMITTENT

The intermittent windshield wiper system is powered by a 20 amp fuse located in the fuse block. This fuse is HOT in the RUN and ACCESORY position. This system has three modes of operation, INTERMITTENT, LOW, and HIGH.

When the ignition switch is in the RUN or ACCESORY position, power is supplied on the F13 circuit to the windshield wiper switch and wiper motor. The wiper motor is case grounded and the switch logic and relay control uses its own ground on the Z2 circuit to the right instrument panel center support.

When the operator moves the switch to LOW speed position, battery voltage is passed through the switch to circuit V3, which connects to the LOW speed brushes of the wiper motor. If the switch is moved to the HIGH speed mode of operation, power is switched to the V4 circuit and to the HIGH speed brushes of the motor.

When the delay mode of operation is selected circuits internal to the switch power up the logic and relay control. The internal control supplies power to the LOW speed area of the switch (V3 circuit) and cycles the wipers. The amount of delay between wiper cycles is dependent on switch position. All relays and internal logic in the switch are not serviceable and should be replaced as an assembly.

As the windshield wiper motor turns, the park switch internal to the motor moves from its grounded position to the powered RUN position. When the wiper switch is turned OFF, the V5 circuit is used to prevent the wipers from stopping in any position but park.

The intermittent windshield wiper system is also equipped with a pulse wipe feature. To activate this feature the operator presses the washer switch momentarily. When the washer switch CLOSES, a voltage signal is sent to the internal logic and relay control. The control will cycle the wipers. In addition, the wipers are placed in the maximum delay position.

The windshield washer uses a pump motor inside of the windshield washer fluid reservoir. When the washer switch is pressed, power is supplied on the V10 circuit to the pump motor. Ground for the pump motor is the Z1 circuit and terminates at the left headlamp ground.

HELPFUL INFORMATION

- Check the 20 amp fuse in cavity 15 of the fuse block.
- Check the ground strap on the windshield wiper motor.
- For the intermittent wiper system a ground is dedicated to the wiper switch.

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Right Power Window Motor	8W-60-2
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S310	8W-60-2

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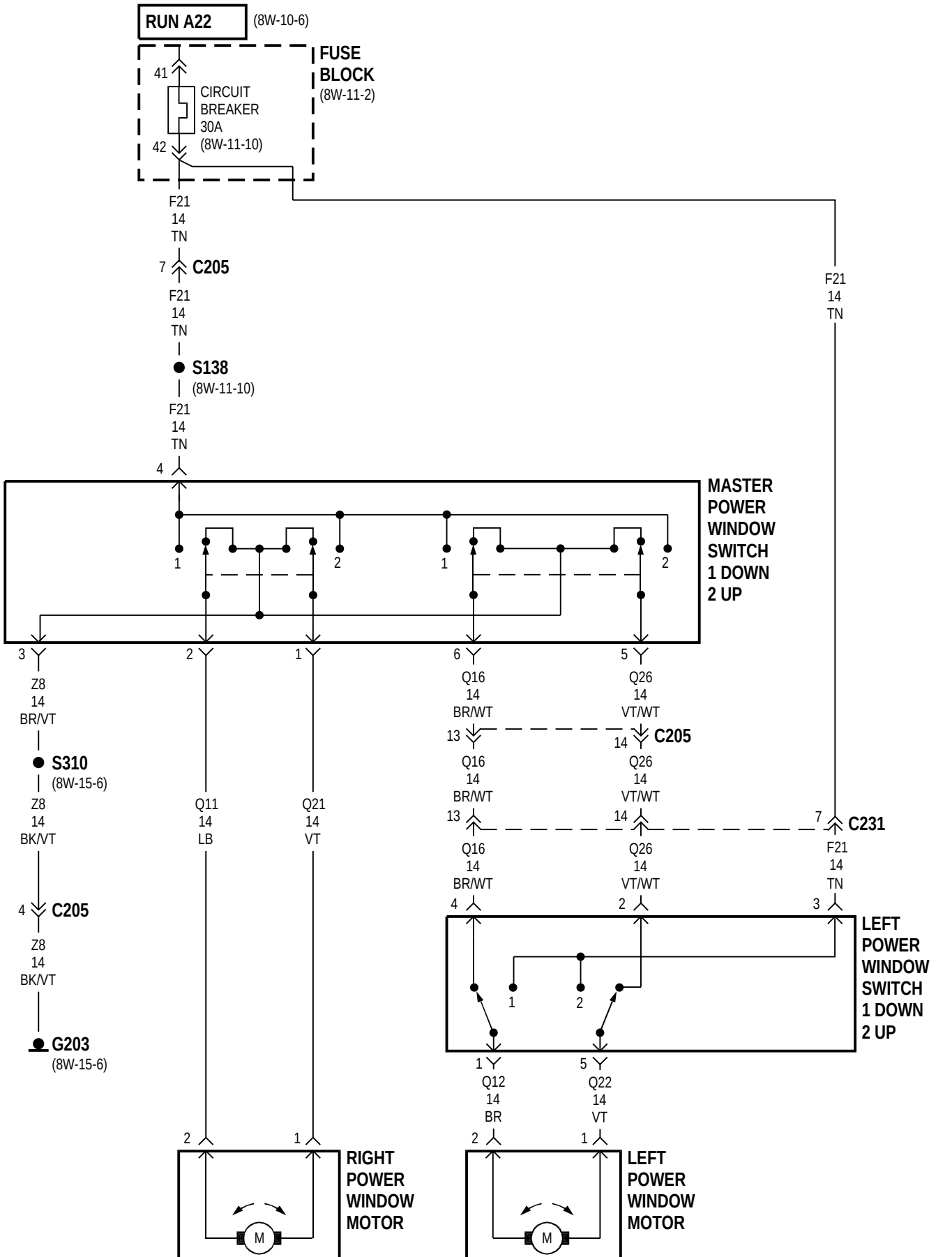

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DESCRIPTION AND OPERATION

POWER WINDOWS

The power window system is supplied power from the 30 amp circuit breaker located behind the fuse block. Power for the circuit breaker is supplied on circuit A22 from the ignition switch. This circuit is HOT when the ignition switch is in the RUN position.

Power for the A22 circuit is supplied by the A2 circuit which is HOT at all times and protected by a 40-amp fuse located in the Power Distribution Center (PDC). The A22 is spliced and supplies power for the fuses that protect the Airbag, A/C-Heater blower motor, turn signals, and the heated rear window.

Circuit F21 connects, from the circuit breaker, to both window switches. This is the feed for the switches. Both switches use a BUS bar to provide power for the different functions of the switch.

The ground path for the system is through master window switch on the Z8 circuit. The grounding point is located at the instrument panel left center support brace.

MASTER WINDOW SWITCH (LEFT WINDOW OPERATION)

When the window switch is moved to the window DOWN position, voltage is supplied on the F21 circuit through the CLOSED contacts in the switch to the Q21 circuit. The Q21 circuit connects from the switch to the left front window motor. Grounding is provided on circuit Q11 from the motor back to the switch. The ground is passed through the switch to the Z8 circuit. The Z8 circuit goes to its grounding point.

When window UP operation is selected, the power and ground circuits are reversed. Circuit Q11 is the feed and circuit Q21 is the ground.

MASTER WINDOW SWITCH (RIGHT WINDOW OPERATION)

When the window switch is moved to the window DOWN position, voltage is supplied on the F21 circuit through the CLOSED contacts in the switch to the Q26 circuit. The Q26 circuit connects from the master switch to the right window switch. A BUS bar internal to the right switch passes the voltage through the switch to circuit Q22. Circuit Q22 connects from the switch to the right window motor. Grounding is provided on circuit Q12 from the motor back to the right switch.

The ground is passed through the switch on a BUS bar to circuit Q16. Circuit Q16 then goes to the master switch. The ground is passed through the switch to the Z8 circuit. The Z8 circuit attaches to its grounding point.

When window UP operation is selected, the power and ground circuits are reversed. Circuits Q12 and Q16 are the feeds and circuits Q22 and Q26 are the grounds.

RIGHT WINDOW SWITCH OPERATION

When the window switch is moved to the window DOWN position, voltage is supplied on the F21 circuit through the CLOSED contacts in the switch to the Q22 circuit. The Q22 circuit connects from the switch to the right front window motor. Grounding is provided on circuit Q12 from the motor back to the switch. The ground is passed through the switch to the Q16 circuit. The Q16 circuit connects from the right switch to the master switch. Ground is passed through the master switch to the Z8 circuit. The Z8 circuit goes to its grounding point.

When window UP operation is selected, the power and ground circuits are reversed. Circuit Q12 is the feed and circuit Q22 is the ground.

HELPFUL INFORMATION

- Check the 40 amp fuse located in the PDC.
- Check the 30 amp circuit breaker located behind the fuse block.
- Check the ground at the instrument panel left center support.

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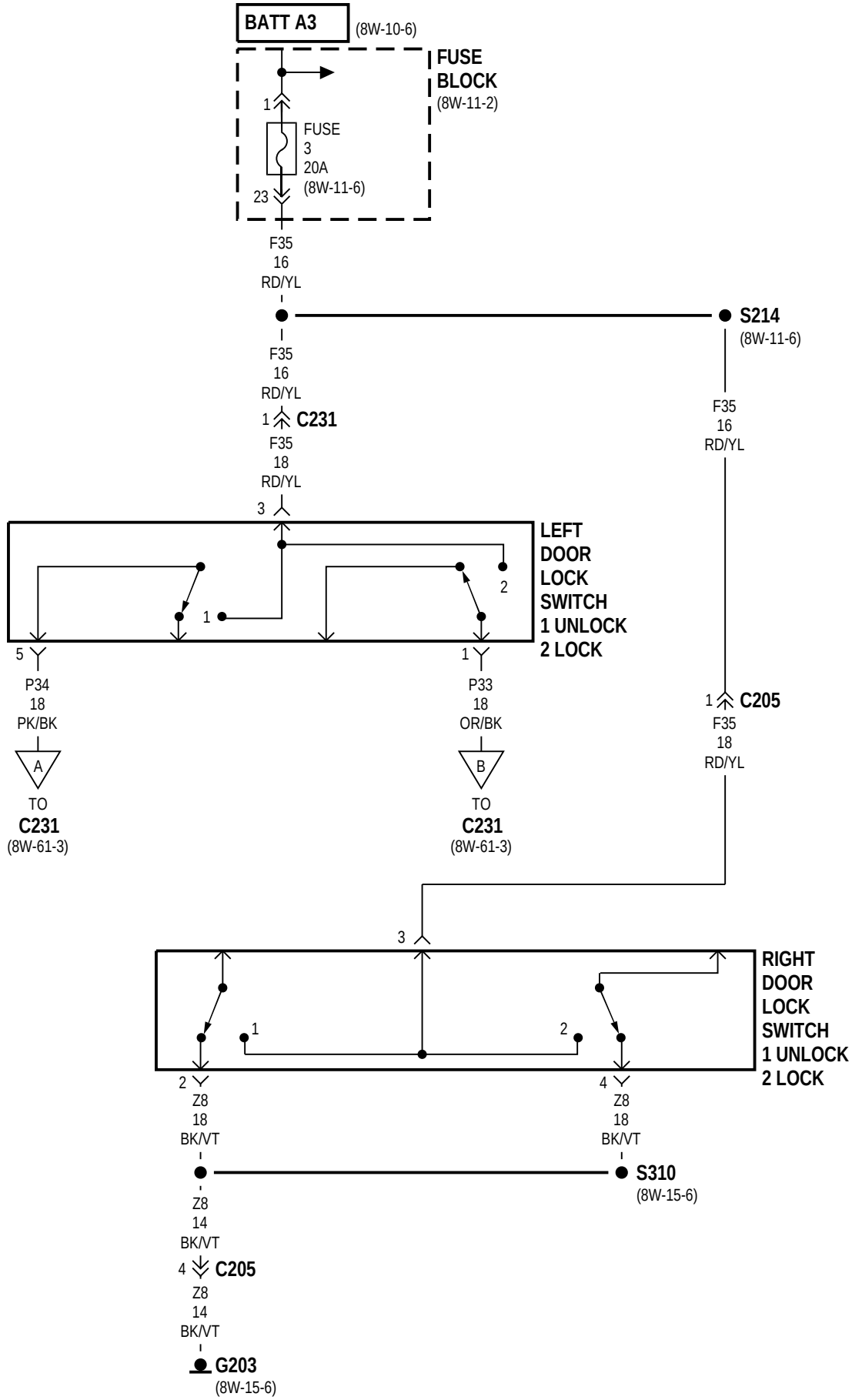
Left Rear Door Lock Motor	8W-61-3
Right Door Lock Switch	8W-61-2, 4
Right Front Door Lock Motor	8W-61-3
Right Rear Door Lock Motor	8W-61-3
S214	8W-61-2
S302	8W-61-3
S303	8W-61-3
S310	8W-61-2, 4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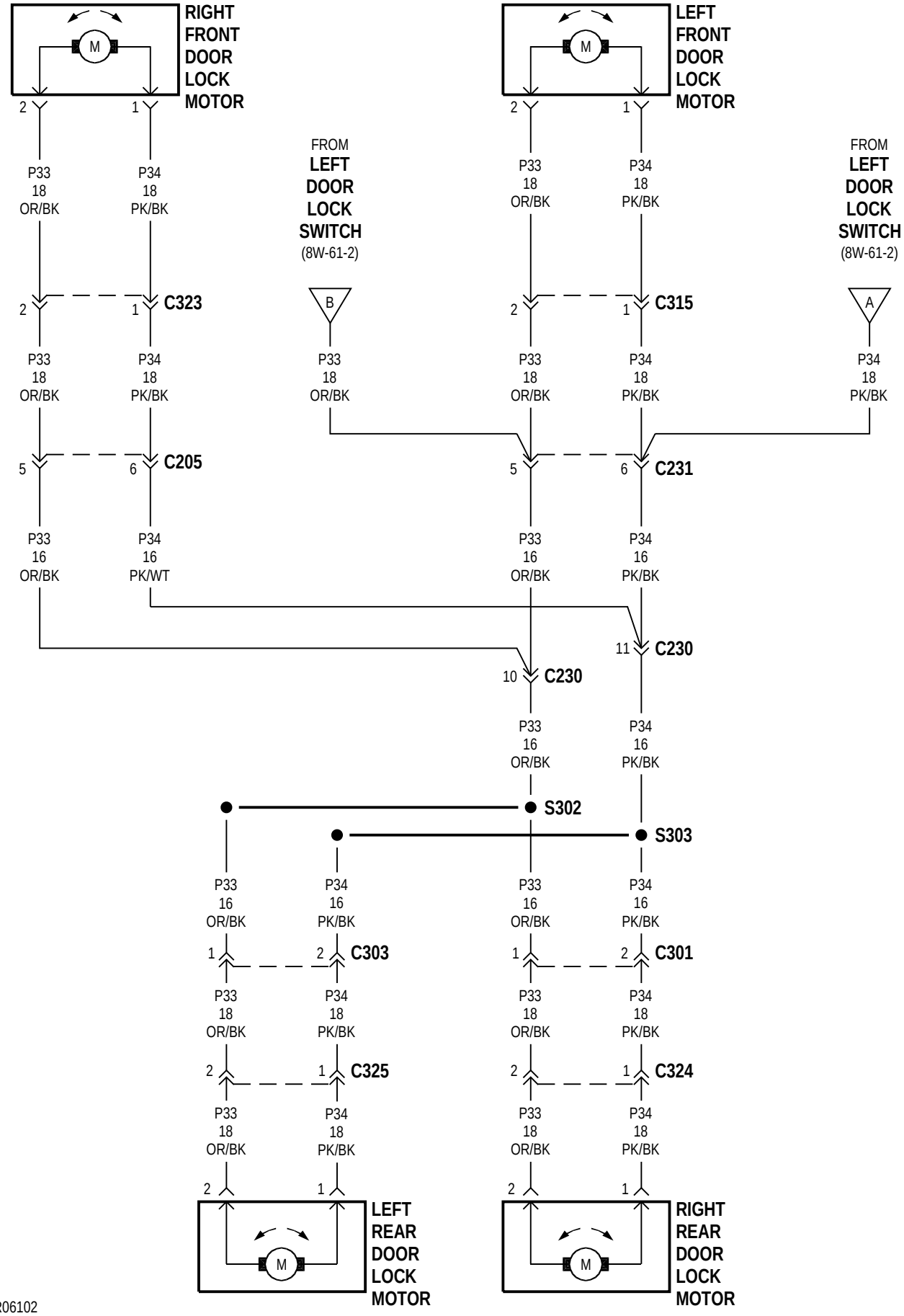
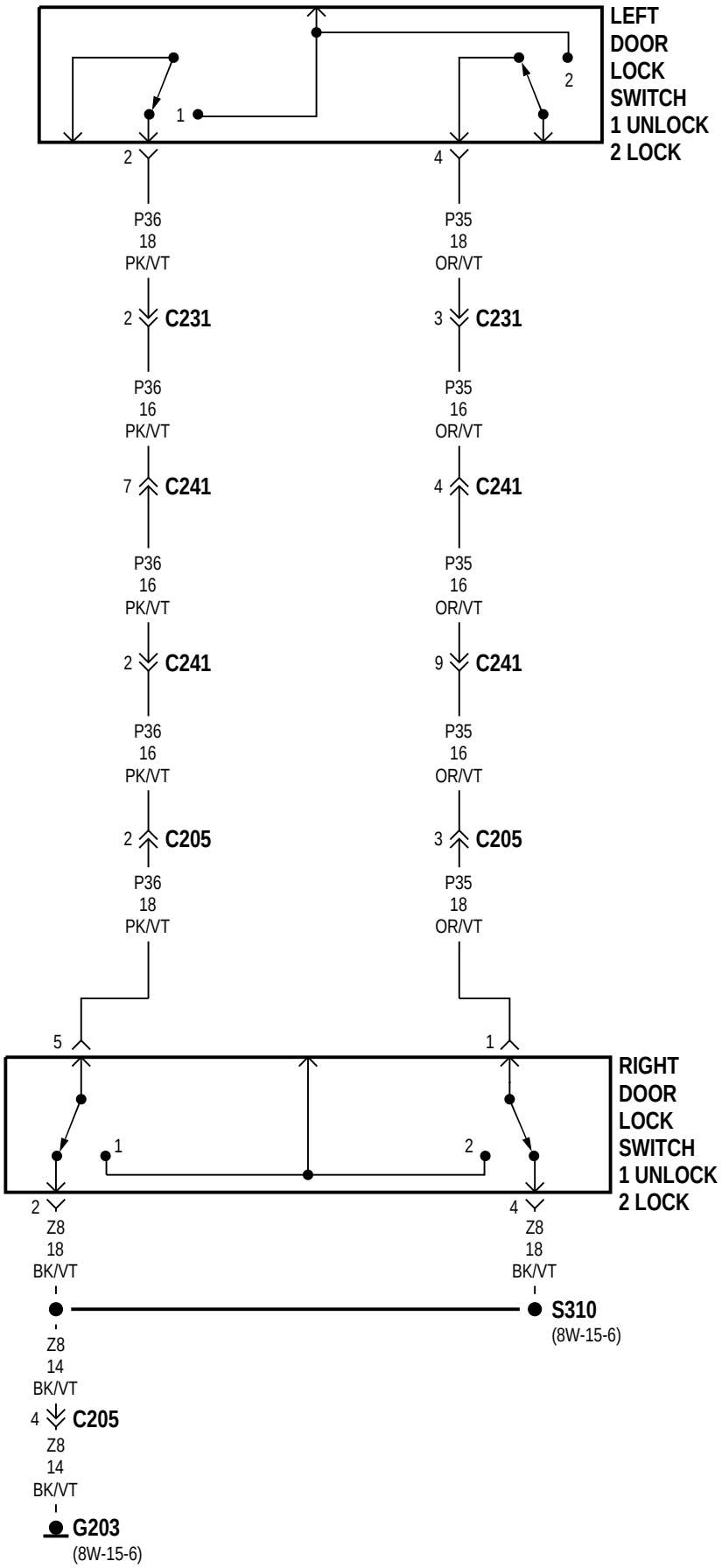
(8W-10-6)
FUSE BLOCK
(8W-11-2)
1
FUSE 3 20A
(8W-11-6)
23
F35 16 RD/YL
S214
(8W-11-6)
F35 16 RD/YL
1 C231
F35 18 RD/YL
3
LEFT DOOR LOCK SWITCH 1 UNLOCK 2 LOCK
1
2
5
P34 18 PK/BK
A
TO C231
(8W-61-3)
1
P33 18 OR/BK
B
TO C231
(8W-61-3)
1 C205
F35 18 RD/YL
3
RIGHT DOOR LOCK SWITCH 1 UNLOCK 2 LOCK
1
2
2
Z8 18 BK/VT
4
Z8 18 BK/VT
S310
(8W-15-6)
Z8 14 BK/VT
4 C205
Z8 14 BK/VT
G203
(8W-15-6)


RIGHT FRONT DOOR LOCK MOTOR
LEFT FRONT DOOR LOCK MOTOR
FROM LEFT DOOR LOCK SWITCH (8W-61-2)
FROM LEFT DOOR LOCK SWITCH (8W-61-2)
C323
C315
C205
C231
C230
C230
S302
S303
C303
C301
C325
C324
LEFT REAR DOOR LOCK MOTOR
RIGHT REAR DOOR LOCK MOTOR


LEFT
DOOR
LOCK
SWITCH
1 UNLOCK
2 LOCK
1
2
2
4
P36
18
PK/VT
P35
18
OR/VT
2 C231
3 C231
P36
16
PK/VT
P35
16
OR/VT
7 C241
4 C241
P36
16
PK/VT
P35
16
OR/VT
2 C241
9 C241
P36
16
PK/VT
P35
16
OR/VT
2 C205
3 C205
P36
18
PK/VT
P35
18
OR/VT
5
1
RIGHT
DOOR
LOCK
SWITCH
1 UNLOCK
2 LOCK
1
2
2
4
Z8
18
BK/VT
Z8
18
BK/VT
S310
(8W-15-6)
Z8
14
BK/VT
4 C205
Z8
14
BK/VT
G203
(8W-15-6)

8W-61 POWER DOOR LOCKS

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DESCRIPTION AND OPERATION

POWER DOOR LOCKS

The Power Distribution Center (PDC) supplies voltage to the fuse block from the 40 amp HEADLAMPS fuse on circuit A3. Fuse 3, a 20 amp located in the fuse block, supplies battery voltage on the F35 circuit to both door lock switches.

The ground path for the system is through the left door lock switch on the Z8 circuit. The grounding point is located at the instrument panel left center support brace.

LEFT DOOR SWITCH OPERATION (LOCK)

When the door lock switch is moved to the LOCK position, voltage is supplied on the P35 circuit to the bus bar located inside the right door switch, lock side. Battery voltage is passed through the switch to the P33 circuit to the door motors. Grounding is provided through the P34 circuit for all door motors back to the right door switch. The ground is passed through the bus bar internal to the switch, UNLOCK side, to the P36 circuit. The P36 circuit connects to the left front switch to a bus bar, internal to the switch, and then to the Z8 circuit. The Z8 circuit connects to its grounding point.

LEFT DOOR SWITCH OPERATION (UNLOCK)

When the switch is moved to the UNLOCK position, voltage is supplied on the P36 circuit to the right door switch, unlock side. The battery voltage is passed through the switch internal bus bar to the P34 circuit. The P34 circuit then connects to the door motors on the unlock side. Grounding for the UNLOCK function is provided by the P33 circuit.

The P33 circuit conects back to the right door switch, LOCK side, and passes through the internal bus bar to the P35 circuit. The P35 circuit conects back to the left door switch, and passes through the switch to the Z8 circuit. The Z8 circuit goes to it's grounding point.

RIGHT DOOR SWITCH OPERATION (LOCK)

When the switch is moved to the LOCK position, voltage is supplied to the P33 circuit, and then to the door lock motors. The ground path is provided on the P34 circuit back to the right door switch. The ground is passed through the switch internal bus bar to the P36 circuit. The P36 circuit connects to the left door switch and through to the Z8 circuit. The Z8 circuit then connects to the grounding point at the left center instrument panel support.

RIGHT DOOR SWITCH OPERATION (UNLOCK)

When the switch is moved to the UNLOCK position voltage is supplied to the P34 circuit from the switch to the door UNLOCK side of the motors. The grounding path is through the LOCK side of the motors, circuit P33, back to the switch. The ground continues through the internal bus bar of the switch on circuit P35 to the left door switch. At the left door switch, the ground passes through that switches internal bus bar to the Z8 grounding point.

HELPFUL INFORMATION

- Check the 40 amp fuse in the PDC.
- Check the 15 amp fuse in cavity 3 of the fuse block.
- Check the grounding point on the instrument panel left center support brace.

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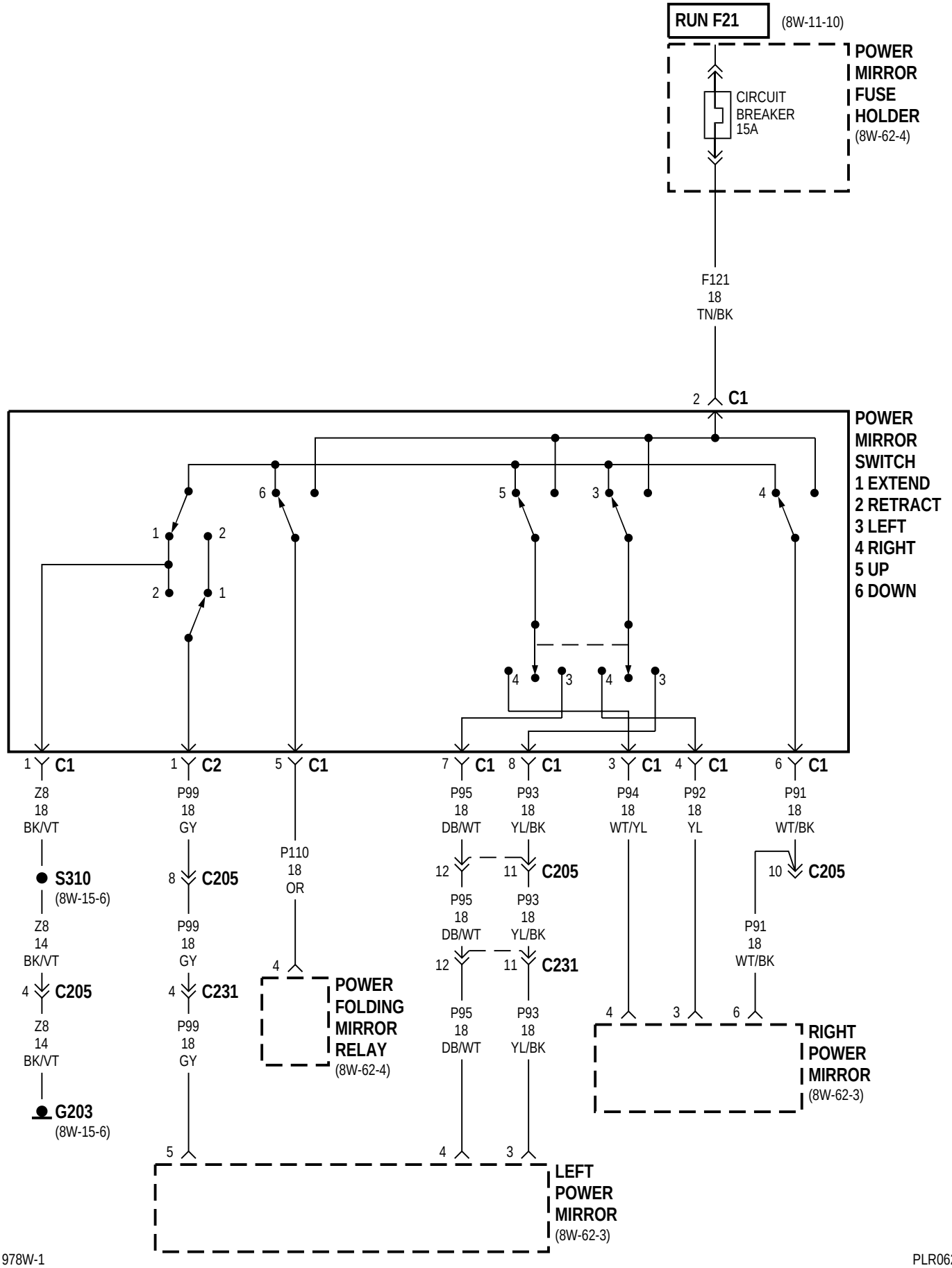
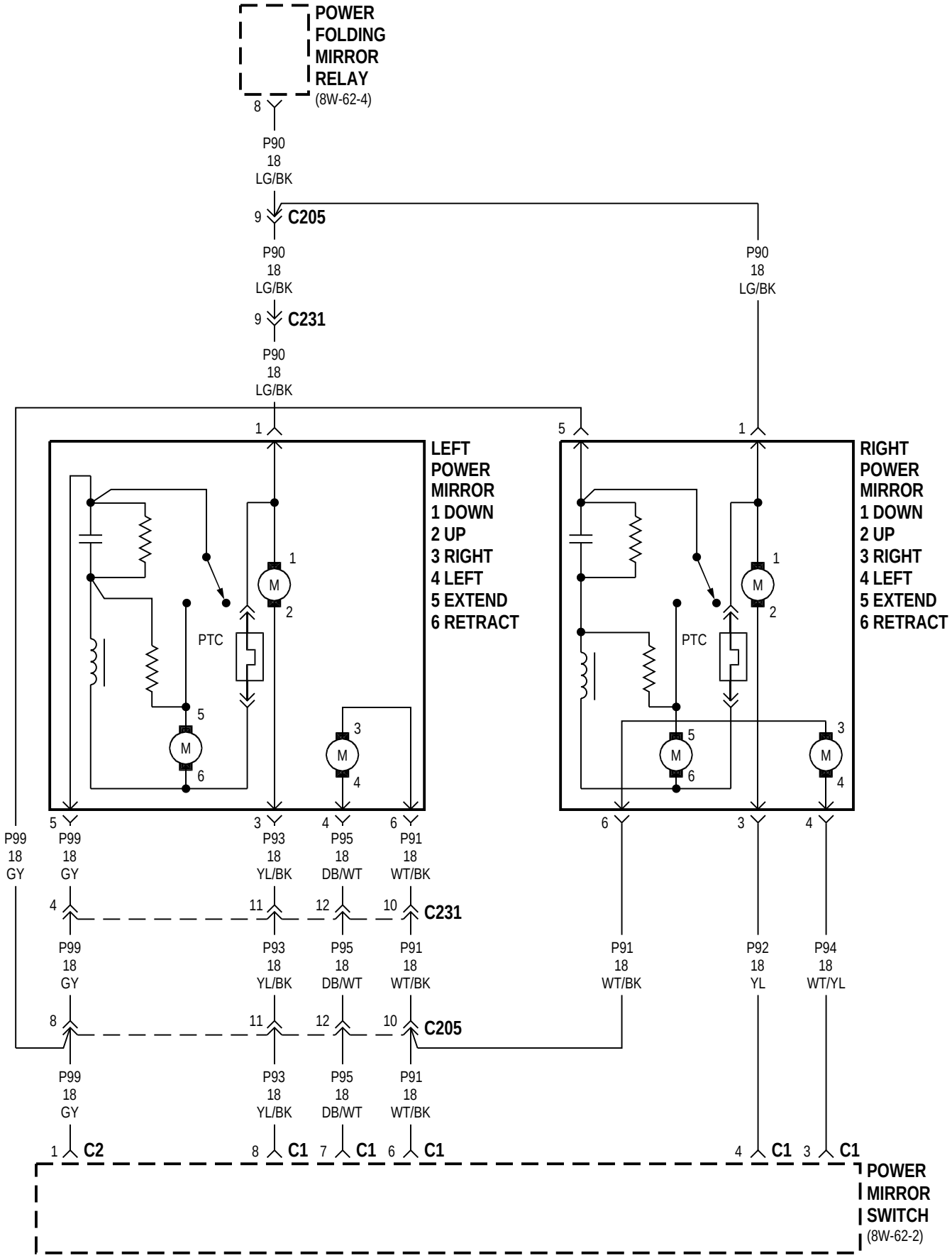
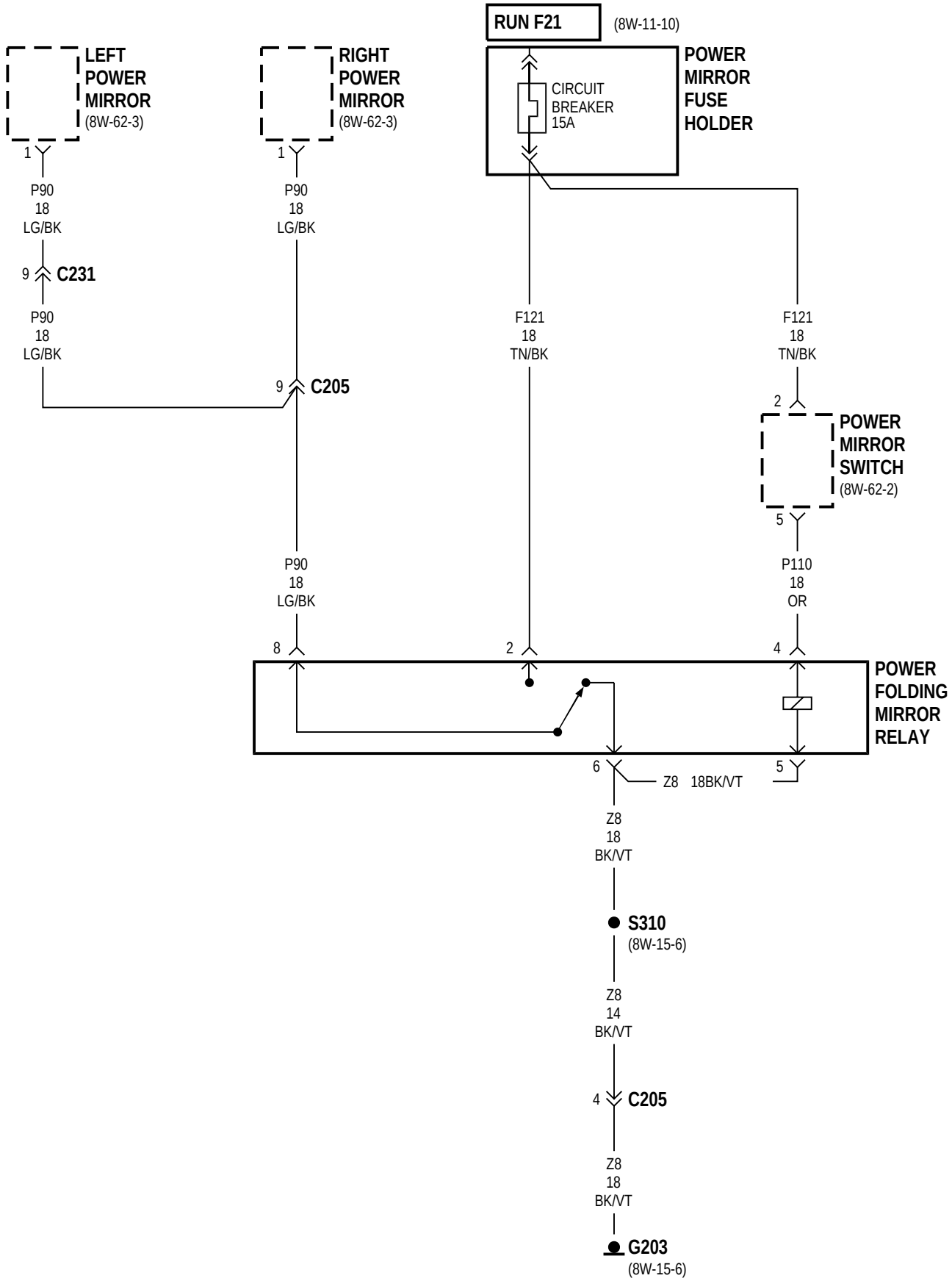

RUN F21
(8W-11-10)
POWER MIRROR FUSE HOLDER
(8W-62-4)
CIRCUIT BREAKER 15A
F121
18
TN/BK
2 C1
POWER MIRROR SWITCH
1 EXTEND
2 RETRACT
3 LEFT
4 RIGHT
5 UP
6 DOWN
1 C1
Z8
18
BK/VT
S310
(8W-15-6)
Z8
14
BK/VT
4 C205
Z8
14
BK/VT
G203
(8W-15-6)
1 C2
P99
18
GY
8 C205
P99
18
GY
4 C231
P99
18
GY
5
5 C1
P110
18
OR
4
POWER FOLDING MIRROR RELAY
(8W-62-4)
7 C1
P95
18
DB/WT
12
P95
18
DB/WT
12
P95
18
DB/WT
4
8 C1
P93
18
YL/BK
11 C205
P93
18
YL/BK
11 C231
P93
18
YL/BK
3
3 C1
P94
18
WT/YL
4
4 C1
P92
18
YL
3
6 C1
P91
18
WT/BK
10 C205
P91
18
WT/BK
6
RIGHT POWER MIRROR
(8W-62-3)
LEFT POWER MIRROR
(8W-62-3)


POWER FOLDING MIRROR RELAY
(8W-62-4)
8
P90 18 LG/BK
9 C205
P90 18 LG/BK
9 C231
P90 18 LG/BK
P90 18 LG/BK
1
5
1
LEFT POWER MIRROR
1 DOWN
2 UP
3 RIGHT
4 LEFT
5 EXTEND
6 RETRACT
RIGHT POWER MIRROR
1 DOWN
2 UP
3 RIGHT
4 LEFT
5 EXTEND
6 RETRACT
PTC
M
5 P99 18 GY
3 P93 18 YL/BK
4 P95 18 DB/WT
6 P91 18 WT/BK
P99 18 GY
4 11 12 10 C231
P99 18 GY
P93 18 YL/BK
P95 18 DB/WT
P91 18 WT/BK
P91 18 WT/BK
P92 18 YL
P94 18 WT/YL
8 11 12 10 C205
P99 18 GY
P93 18 YL/BK
P95 18 DB/WT
P91 18 WT/BK
1 C2
8 C1
7 C1
6 C1
4 C1
3 C1
POWER MIRROR SWITCH
(8W-62-2)


RUN F21
(8W-11-10)
POWER MIRROR FUSE HOLDER
CIRCUIT BREAKER 15A
LEFT POWER MIRROR
(8W-62-3)
RIGHT POWER MIRROR
(8W-62-3)
1
P90 18 LG/BK
9 C231
P90 18 LG/BK
9 C205
P90 18 LG/BK
F121 18 TN/BK
F121 18 TN/BK
2
POWER MIRROR SWITCH
(8W-62-2)
5
P110 18 OR
8
2
4
POWER FOLDING MIRROR RELAY
6
Z8 18BK/VT
5
Z8 18 BK/VT
S310
(8W-15-6)
Z8 14 BK/VT
4 C205
Z8 18 BK/VT
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(8W-15-6)

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DESCRIPTION AND OPERATION

POWER MIRRORS

Power for the power mirror switch is supplied on circuit F121. This circuit is protected by a 15 amp circuit breaker located in the right front door. Power for the circuit breaker is supplied by circuit F21.

The F21 circuit is protected by a 30 amp circuit breaker. This circuit breaker also supplies power to the power windows.

The power mirror switch has a right and left position. Moving the switch to either of these positions changes the voltage path internal to the switch (ie. changes polarity at the motors).

When the switch is moved to the RIGHT position and mirror movement UP is selected, voltage is supplied to the mirror on circuit P92 and the ground path is supplied on circuit P90. The P90 circuit connects from the mirror to the normally CLOSED contacts in the mirror relay located in the right door.

When the right mirror DOWN movement is selected voltage is supplied through the switch to circuit P110. The P110 circuit connects from the switch to the power mirror relay located in the door, coil side. Power on the coil side causes the contacts in the relay to CLOSE connecting circuits F121 and P90. The P90 circuit then supplies power to the DOWN side of the motor. Ground for the motor is supplied on circuit P92 back to the switch and then connects to circuit Z8. The Z8 circuit connects from the switch to its grounding point on the right instrument panel center support.

If right door mirror movement LEFT is selected voltage is supplied through the P94 circuit and the ground is passed through circuit P91. When left mirror RIGHT movement is selected the power and ground are reversed.

When the switch is moved to the LEFT position and mirror movement UP is selected, voltage is supplied to the mirror on circuit P93 and the ground path is supplied on circuit P90. The P90 circuit connects from the mirror to the normally CLOSED contacts in the mirror relay located in the right door.

When the left mirror DOWN movement is selected voltage is supplied through the switch to circuit P110. The P110 circuit connects from the switch to the power mirror relay located in the door, coil side. Power on the coil side causes the contacts in the relay to CLOSE connecting circuits F121 and P90. The P90 circuit then supplies power to the DOWN side of the motor. Ground for the motor is supplied on circuit P93 back to the switch and then connects to circuit Z8. The Z8 circuit connects from the switch to its grounding point on the right instrument panel center support.

If left door mirror movement LEFT is selected voltage is supplied through the P95 circuit and the ground is passed through circuit P91. When left mirror RIGHT movement is selected the power and ground are reversed.

POWER FOLDING MIRRORS

Power for the power mirror switch is supplied on circuit F121. This circuit is protected by a 15 amp circuit breaker located in the right front door. Power for the circuit breaker is supplied by circuit F21.

The F21 circuit is protected by a 30 amp circuit breaker. This circuit breaker also supplies power to the power windows.

When the operator selects mirrors RETRACT voltage is supplied on circuit F121 through the CLOSED contacts in the switch to circuit P110. Circuit P110 connects to the power mirror relay coil side.

Voltage on the coil side of the relay causes the contacts in the relay to CLOSE connecting circuits F121 and P90. The P90 circuit connects from the relay to the power mirrors. Ground for the motors is supplied on circuit P99 back to the power mirror switch. Internal to the switch the P99 circuit connects to the Z8 ground circuit.

When the operator selects the EXTEND function power is supplied on circuit F121 through the CLOSED contacts in the switch to circuit P99. The P99 circuit connects to the power mirror motors. Ground for the motors is supplied on circuit P90.

HELPFUL INFORMATION

- Check the 30 amp circuit breaker located behind the fuse block
- Check the 15 amp circuit breaker located in the right door
- Check the grounding point at the instrument panel right center support

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S314	8W-64-2
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Sunroof Vent Switch	8W-64-2

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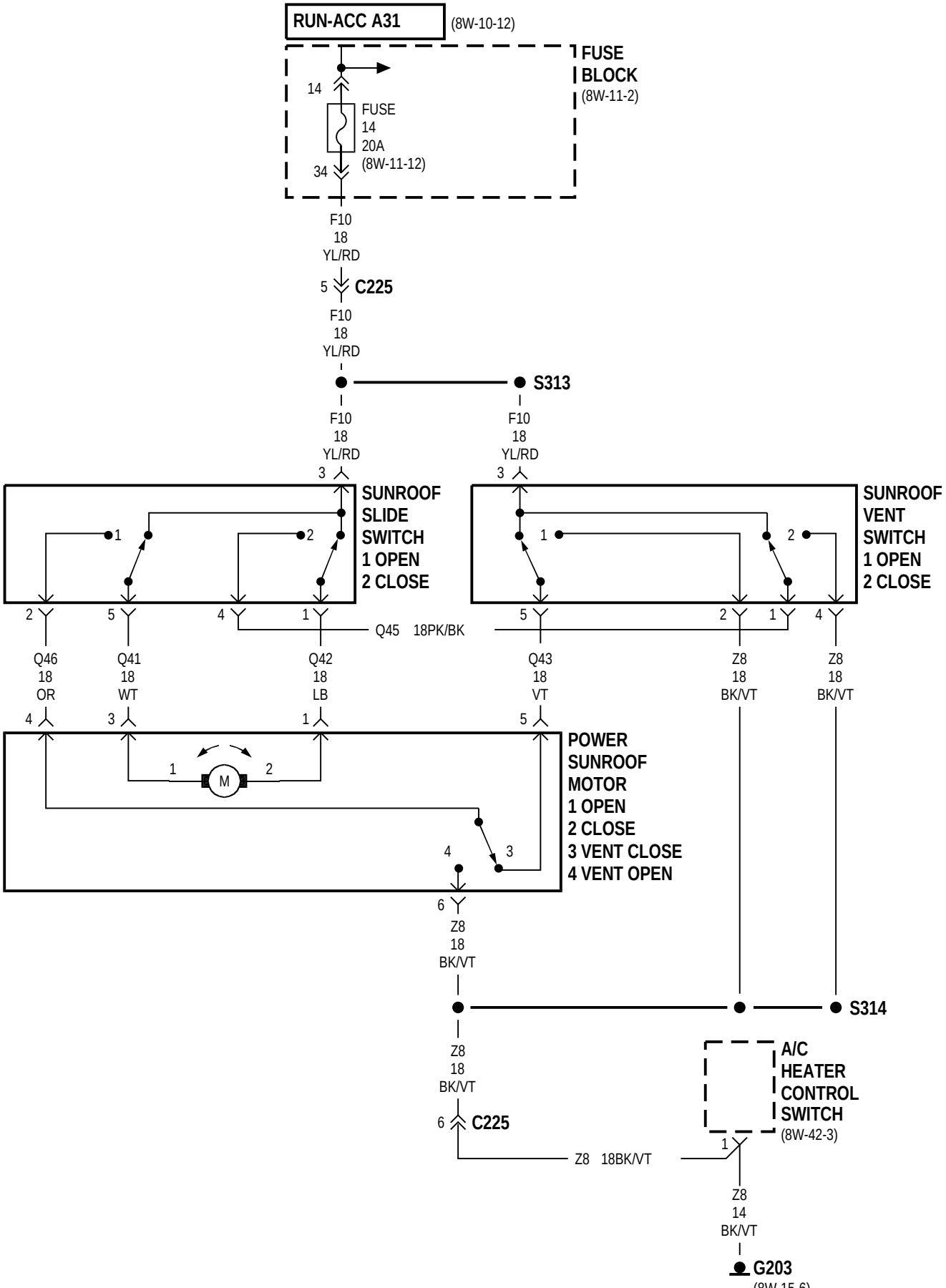

8W-64 POWER SUNROOF

DESCRIPTION AND OPERATION

POWER SUNROOF

Power for the tilt and slide switches is supplied on circuit F10. This circuit is HOT in the ACCESSORY and RUN position only, and protected by a 20 amp fuse located in the fuse block, cavity 14.

Power for the fuse is supplied by circuit A31. This circuit connects from the ignition switch to the fuse block.

Feed for the A31 circuit is supplied on circuit A1. This circuit is protected by a 30 amp fuse located in the Power Distribution Center (PDC).

SUNROOF OPEN/CLOSE

When the operator selects sunroof OPEN the switch connects the feed circuit F10 to circuit Q41. The Q41 circuit connects from the switch to the OPEN side of the motor.

Ground for the motor is supplied on circuit Q42 from the motor back to the CLOSE side of the open/close switch. The ground is passed through the bus bar in the switch to circuit Q45. Circuit Q45 connects from the open/close switch to the tilt switch.

The ground is passed through the switch to circuit Z8 and finally to ground.

When the operator selects the CLOSE function, power and ground are reversed.

TILT OPEN/CLOSE

When the operator selects tilt OPEN circuit F10 is connected to circuit Q43. Circuit Q43 connects from the switch to the CLOSED vent limit switch in the sunroof module.

The voltage is passed through the switch to circuit Q46. The Q46 circuit connects from the limit switch to the slide switch OPEN side.

Power is passed through the switch to the Q41 circuit, then to the power sunroof motor.

Ground is provided on circuit Q42 from the motor to the slide switch CLOSE side. The ground is passed through the bus bar in the switch to circuit Q45. The Q45 circuit connects from the slide switch to the tilt switch CLOSE side.

Ground is passed through the switch to the Z8 circuit and to ground.

When the operator selects the VENT CLOSE function, power and ground are reversed.

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S315	8W-15-8
S316	8W-51-5
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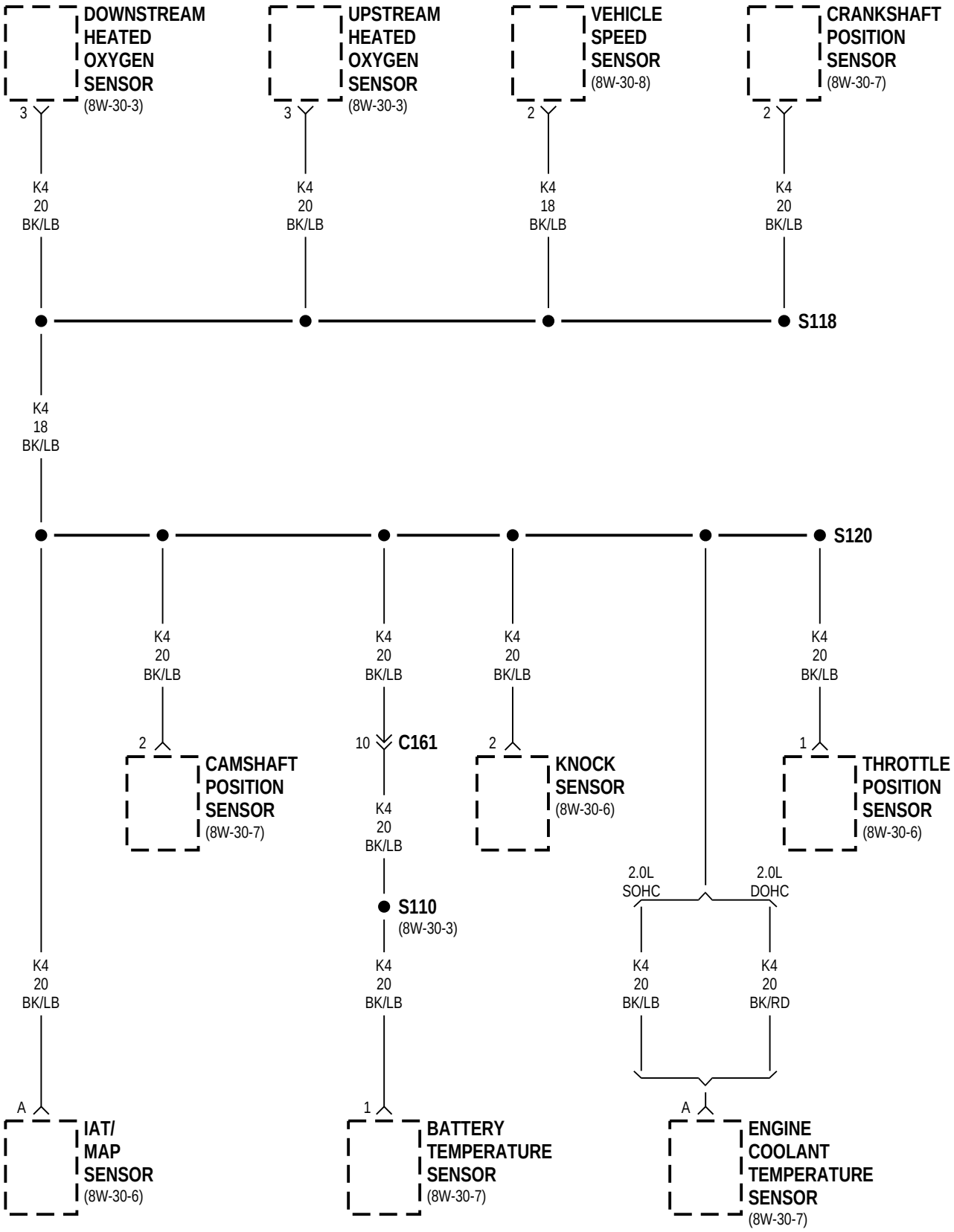
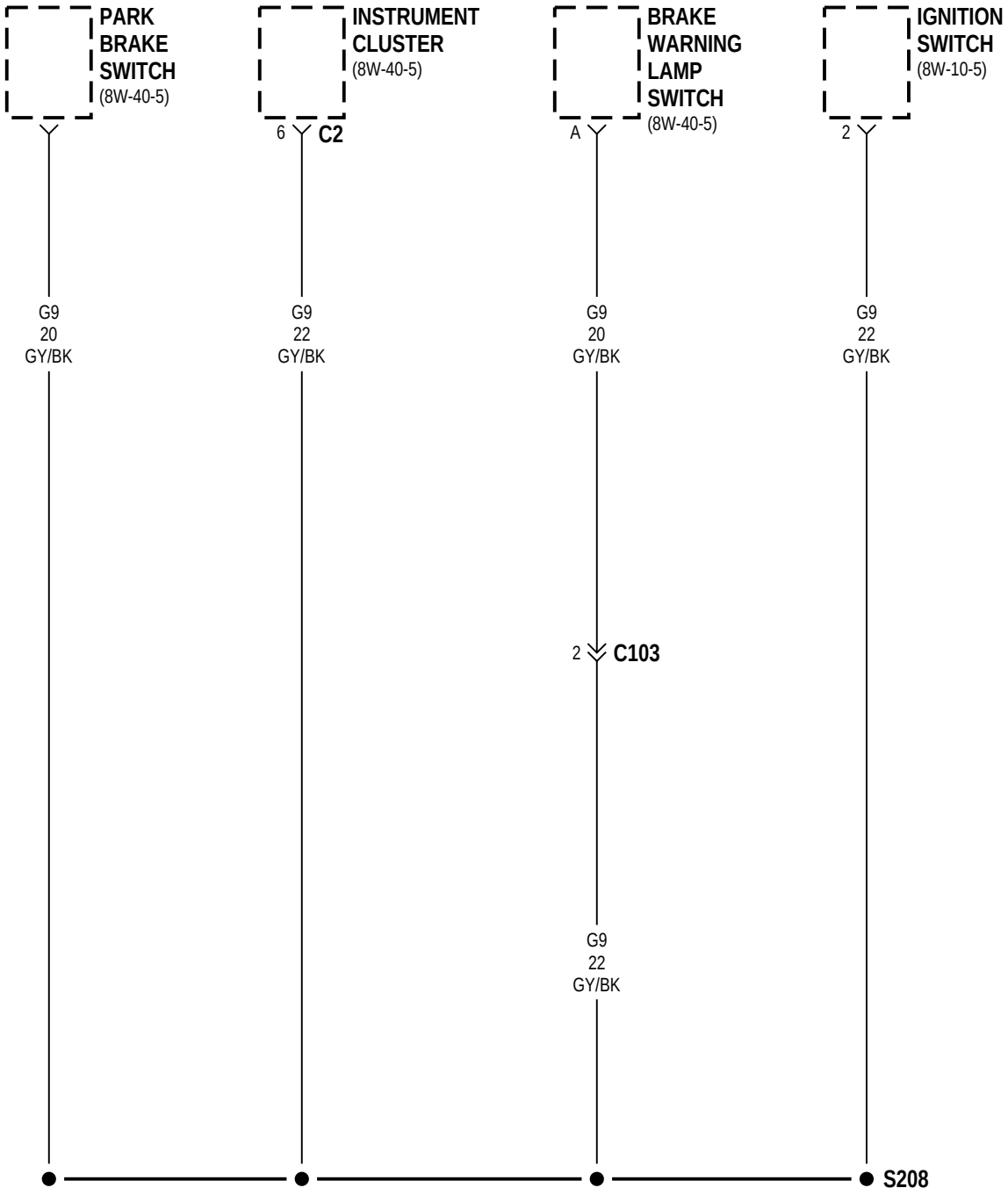

DOWNSTREAM HEATED OXYGEN SENSOR (8W-30-3)
UPSTREAM HEATED OXYGEN SENSOR (8W-30-3)
VEHICLE SPEED SENSOR (8W-30-8)
CRANKSHAFT POSITION SENSOR (8W-30-7)
3
3
2
2
K4 20 BK/LB
K4 20 BK/LB
K4 18 BK/LB
K4 20 BK/LB
S118
K4 18 BK/LB
S120
K4 20 BK/LB
K4 20 BK/LB
K4 20 BK/LB
K4 20 BK/LB
2
CAMSHAFT POSITION SENSOR (8W-30-7)
10
C161
2
KNOCK SENSOR (8W-30-6)
1
THROTTLE POSITION SENSOR (8W-30-6)
2.0L SOHC
2.0L DOHC
S110 (8W-30-3)
K4 20 BK/LB
K4 20 BK/LB
K4 20 BK/RD
K4 20 BK/LB
A
1
A
IAT/ MAP SENSOR (8W-30-6)
BATTERY TEMPERATURE SENSOR (8W-30-7)
ENGINE COOLANT TEMPERATURE SENSOR (8W-30-7)


PARK BRAKE SWITCH (8W-40-5)
INSTRUMENT CLUSTER (8W-40-5)
BRAKE WARNING LAMP SWITCH (8W-40-5)
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6
C2
A
2
G9
20
GY/BK
G9
22
GY/BK
G9
20
GY/BK
G9
22
GY/BK
2
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C161	8W-80-8
C203	8W-80-9
C205	8W-80-9
C206	8W-80-9
C225	8W-80-9
C230	8W-80-10
C231	8W-80-10
C241	8W-80-10
C301	8W-80-11
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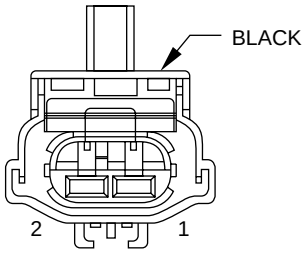
Right Front Door Speaker	8W-80-30
Right Front Wheel Speed Sensor	8W-80-31
Right Headlamp	8W-80-31
Right Headlamp Leveling Motor	8W-80-31

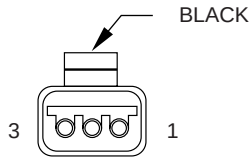
DESCRIPTION AND OPERATION (Continued)

Component	Page
Right Instrument Panel Speaker (Premium)	8W-80-31
Right License Lamp	8W-80-31
Right Park/Turn Signal Lamp	8W-80-31
Right Power Mirror	8W-80-32
Right Rear Door Lock Motor	8W-80-32
Right Rear Fog Lamp	8W-80-32
Right Rear Speaker	8W-80-32
Right Rear Wheel Speed Sensor	8W-80-32
Right Repeater Lamp	8W-80-33
Right Tail/Stop Lamp	8W-80-33
Right Turn Signal Lamp	8W-80-33
Solid State Fan Relay	8W-80-33
Stop Lamp Switch	8W-80-33
Sunroof Slide Switch	8W-80-34
Sunroof Vent Switch	8W-80-34
Throttle Position Sensor (TPS)	8W-80-34
Torque Convertor Clutch (TCC) Solenoid (ATX)	8W-80-34
Trunk Lamp	8W-80-34
Turn Signal/Hazard Switch	8W-80-35
Upstream Heated Oxygen Sensor	8W-80-35
Vapor Canister Leak Detector	8W-80-35
Vehicle Speed Sensor	8W-80-35
Windsheild Washer Pump Motor	8W-80-36
Wiper Motor	8W-80-36



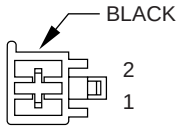
A/C COMPRESSOR CLUTCH

CAV	CIRCUIT	FUNCTION
1	C3 18DB/BK	A/C COMPRESSOR CLUTCH RELAY OUTPUT
2	Z1 20BK	GROUND



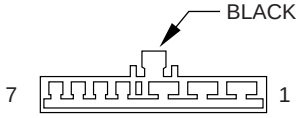
A/C CYCLING SWITCH

CAV	CIRCUIT	FUNCTION
1	C21 22DB/OR	A/C CYCLING SWITCH OUTPUT
2	F20 22WT	FUSED IGNITION SWITCH OUTPUT (RUN)
3	C2 22DB/YL	MODE SWITCH OUTPUT



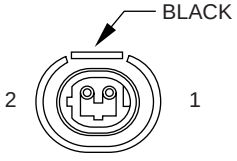
A/C-HEATER BLOWER MOTOR (WITH A/C)

CAV	CIRCUIT	FUNCTION
1	C1 14DG	FUSED IGNITION SWITCH OUTPUT (RUN)
2	C7 14BK/TN	HIGH BLOWER MOTOR DRIVER



A/C-HEATER CONTROL SWITCH

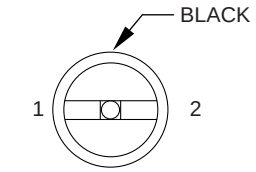
CAV	CIRCUIT	FUNCTION
1	Z8 14BK/VT	GROUND
	Z8 18BK/VT	GROUND
2	C7 14BK/TN	HIGH BLOWER MOTOR DRIVER
3	C6 14LB	M2 BLOWER MOTOR DRIVER
4	C5 14LG	M1 BLOWER MOTOR DRIVER
5	C4 14TN	LOW BLOWER MOTOR DRIVER
6	C2 22DB/YL*	MODE SWITCH OUTPUT
7	E2 22OR	FUSED PANEL LAMPS DIMMER SWITCH SIGNAL
7	E2 22OR	FUSED PANEL LAMPS DIMMER SWITCH SIGNAL



A/C HIGH PRESSURE SWITCH

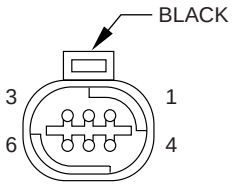
CAV	CIRCUIT	FUNCTION
1	C20 20BR/OR	A/C SWITCH SENSE
2	C22 20DB/WT	LOW PRESSURE SWITCH OUTPUT

* WITH A/C



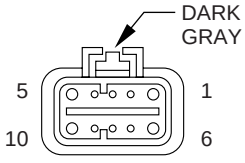
A/C LOW
PRESSURE SWITCH

CAV	CIRCUIT	FUNCTION
1	C22 20DB/WT	LOW PRESSURE SWITCH OUTPUT
2	C21 20DB/OR	A/C CYCLING SWITCH OUTPUT



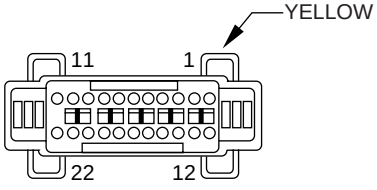
ABS HYDRAULIC
MODULATOR

CAV	CIRCUIT	FUNCTION
1	B142 20BR/YL	LEFT FRONT DUMP SOLENOID CONTROL
2	B143 20DG/YL	RIGHT FRONT DUMP SOLENOID CONTROL
3	B146 20BR/LB	LEFT REAR DUMP SOLENOID CONTROL
4	B148 20DB/LB	RIGHT REAR DUMP SOLENOID CONTROL
5	Z1 18BK	GROUND
6	Z1 18BK	GROUND



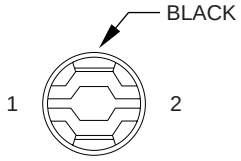
ABS RELAY BOX

CAV	CIRCUIT	FUNCTION
1	F12 18DG/WT	ABS RELAY FEED
2	–	–
3	B116 20GY	ABS PUMP MOTOR RELAY CONTROL
4	B57 20BR/BK	ABS SYSTEM RELAY CONTROL
5	A20 12RD/DG	FUSED B(+)
6	B120 12BR/WT	ABS PUMP MOTOR RELAY OUTPUT
7	G19 20LG/BR	ABS WARNING LAMP DRIVER
8	–	–
9	B47 20RD/LB	ABS SYSTEM RELAY OUTPUT
10	Z1 14BK	GROUND



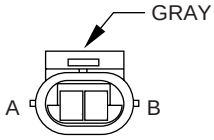
AIRBAG CONTROL
MODULE

CAV	CIRCUIT	FUNCTION
1	R45 18DG/LB	DRIVER AIRBAG SQUIB LINE 2
2	R43 18BK/LB	DRIVER AIRBAG SQUIB LINE 1
3	R47 18DB/LB	LEFT IMPACT SENSOR LINE 1
4	R49 18LB	LEFT IMPACT SENSOR LINE 2
5	R42 18BK/YL	PASSENGER AIRBAG SQUIB LINE 1
6	R44 18DG/YL	PASSENGER AIRBAG SQUIB LINE 2
7	R46 18BR/LB	RIGHT IMPACT SENSOR LINE 1
8	R48 18TN	RIGHT IMPACT SENSOR LINE 2
9	R41 18BK/TN	AIRBAG WARNING LAMP DRIVER
10	Z6 18BK/PK	GROUND
11	R50 18BR/YL	PASSENGER AIRBAG PRESSURE SWTICH SENSE
12	R51 18VT/YL	PASSENGER AIRBAG PRESSURE SWITCH GROUND
17	F15 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)
18	D2 20WT/BK	CCD BUS (–)
19	D1 20VT/BR	CCD BUS (+)
20	F25 18TN/LG	FUSED IGNITION SWITCH OUTPUT (RUN)



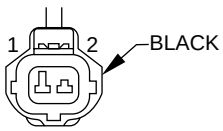
ASH
RECEIVER
LAMP

CAV	CIRCUIT	FUNCTION
1	E2 22OR	FUSED PANEL LAMPS DIMMER SWITCH SIGNAL
2	Z3 20BK/OR	GROUND



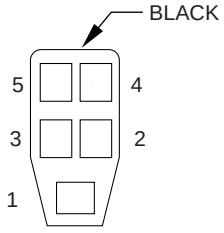
BACK-UP LAMP
SWITCH (MTX)

CAV	CIRCUIT	FUNCTION
A	L1 20VT/BK	REVERSE LAMP SENSE
B	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)



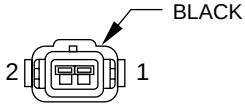
BATTERY
TEMPERATURE SENSOR

CAV	CIRCUIT	FUNCTION
1	K4 18BK/LB	SENSOR GROUND
2	G31 18VT/LG	AMBIENT TEMPERATURE SENSOR SIGNAL



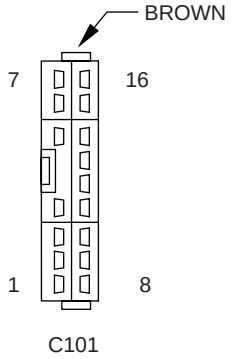
BLOWER MOTOR
RESISTOR
BLOCK

CAV	CIRCUIT	FUNCTION
1	C5 14LG	M1 BLOWER MOTOR DRIVER
2	C6 14LB	M2 BLOWER MOTOR DRIVER
3	–	–
4	C7 14BK/TN	HIGH BLOWER MOTOR DRIVER
5	C4 14TN	LOW BLOWER MOTOR DRIVER



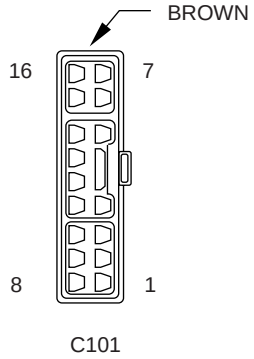
BRAKE WARNING
LAMP SWITCH

CAV	CIRCUIT	FUNCTION
1	G9 20GY/BK	RED BRAKE WARNING LAMP DRIVER
2	Z1 20BK	GROUND



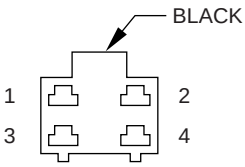
C101

CAV	CIRCUIT
1	A41 14YL
2	C21 20DB/OR
3	L61 22LG
4	V10 18BR
5	X3 18BK/RD
6	F12 20DG/WT
7	R46 18BR/LB
8	R48 18TN
9	L35 18BR/RD
10	L13 22BR/YL
	L13 22BR/YL
11	D1 20VT/BR
12	D2 20WT/BK
13	L50 22WT/TN
14	L3 16RD/OR
15	R47 18DB/LB
16	R49 18LB



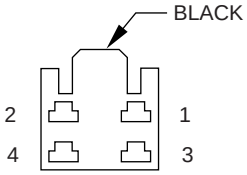
C101

CAV	CIRCUIT
1	A41 14YL/BK
2	C21 22DB/OR
3	L61 22LG
4	V10 18BR
5	X3 20BK/RD
6	F12 20DG/WT
7	R46 18BR/LB
8	R48 18TN
9	L35 20BR/RD
10	L13 20BR/YL
11	D1 20VT/BR
12	D2 20WT/BK
13	–
14	L3 14RD/OR
15	R47 18DB/LB
16	R49 18LB



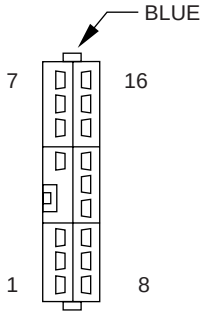
C102

CAV	CIRCUIT
1	A1 14RD
2	A2 12PK/BK
3	A3 12RD/WT
4	A4 14BK/RD



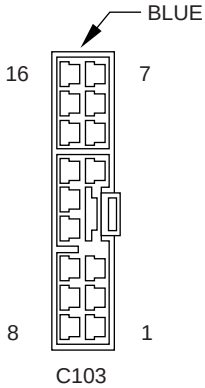
C102

CAV	CIRCUIT
1	A1 14RD
2	A2 12PK/BK
3	A3 12RD/WT
4	A4 14BK/RD



C103

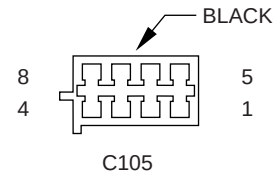
CAV	CIRCUIT
1	G19 20LG/BR
	G19 20LG/BR
2	G9 20GY/BK
3	F20 20WT
4	G6 20GY
5	G7 20WT/OR
	G7 20WT/OR
6	G12 20TN/BK
7	G20 20VT/YL
8	G21 20GY/LB
9	L60 22TN
10	–
11	G3 20BK/PK
12	F61 18WT/OR
13	M1 18PK
	M1 20PK
14	L9 18BK/WT
15	L44 18VT/BK
16	L43 18VT



C103

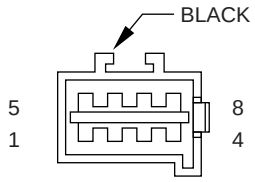
CAV	CIRCUIT
1	G19 22LG/OR
2	G9 22GY/BK
3	F20 20WT
4	G6 22GY
5	G7 22WT/OR
6	G12 22TN/BK
7	G20 22VT/YL
8	G21 22GY/LB
9	L60 22TN
10	–
11	G3 22BK/PK
12	F61 18WT/OR
13	M1 22PK
14	L9 22BK/WT
15	L44 20VT/RD
16	L43 20VT

• DOUBLE CRIMP WITH RKE



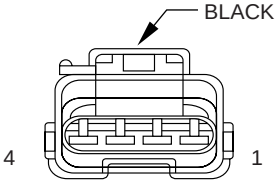
C105

CAV	CIRCUIT
1	L1 20VT/BK
2	L50 22WT/TN
2	L50 20WT/TN*
3	M1 20PK
4	–
5	L7 20BK/YL
6	A141 16DG/WT
7	G4 20DB
8	–



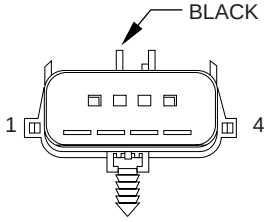
C105

CAV	CIRCUIT
1	L1 18VT/BK
2	L50 20WT/TN
3	M1 22PK
4	–
5	L7 20BK/YL
6	A141 18DG/WT
7	G4 20DB
8	–



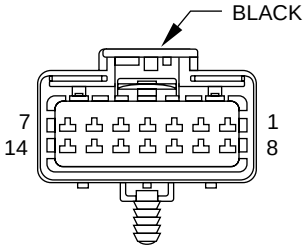
C108

CAV	CIRCUIT
1	B1 20WT/BK
2	B2 20DG/WT
3	B3 20LG/DB
4	B4 20LG



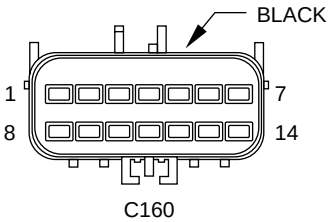
C108

CAV	CIRCUIT
1	B1 20YL/DB
2	B2 20YL
3	B3 20LG/DB
4	B4 20LG



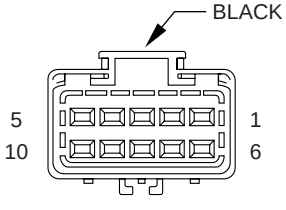
C160

CAV	CIRCUIT
1	T40 14BR
2	G7 20WT/OR
3	G4 20DB
4	K141 20TN/WT
5	C20 20BR/OR
6	G20 20VT/YL
7	F12 20DG/WT
8	–
9	G3 20BK/PK
10	Z12 20BK/TN
11	–
12	–
13	K173 20DG
14	–



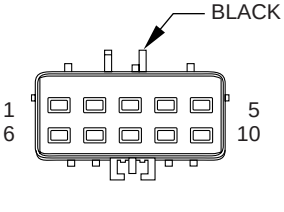
C160

CAV	CIRCUIT
1	T40 14BR
2	G7 18WT/OR
3	G4 20DB
4	K141 20TN/WT
5	C20 18BR
6	G20 20VT/YL
7	F12 18DB/WT
8	–
9	G3 20BK/PK
10	Z12 18BK/TN
11	–
12	–
13	K173 20LG
14	–



C161

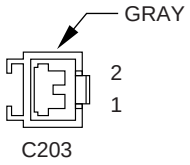
CAV	CIRCUIT
1	Z1 20BK
2	K39 20GY/RD
3	K40 20BR/WT
4	K59 20VT
5	K7 20OR
6	A142 18DG/OR
7	K60 20YL/BK
8	G6 20GY
9	K6 20VT/WT
10	K4 20BK/LB



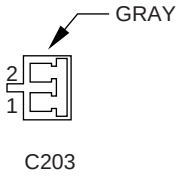
C161

CAV	CIRCUIT
1	Z1 18BK
2	K39 18GY/RD
3	K40 18BR/WT
4	K59 18VT
5	K7 18OR
6	A142 18DG/OR
7	K60 18YL/BK
8	G6 18GY
9	K6 20VT/WT
10	K4 20BK/LB

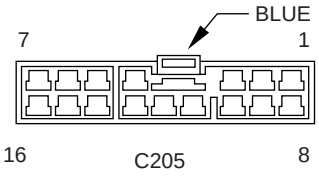
* WITH A/T



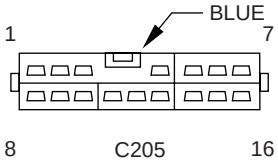
CAV	CIRCUIT
1	E2 22OR
2	Z3 20BK/OR



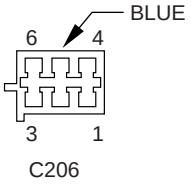
CAV	CIRCUIT
1	E2 22OR
2	Z3 20BK/OR



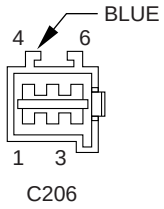
CAV	CIRCUIT
1	F35 16RD/YL
2	P36 16PK/VT
3	P35 16OR/VT
4	Z8 14BK/VT
5	P33 16OR/BK
6	P34 16PK/BK
7	F21 14TN
8	P99 18GY
9	P90 18LG/BK
10	P91 18WT/BK
11	P93 18YL/BK
12	P95 18DB/WT
13	Q16 14BR/WT
14	Q26 14VT/WT
15	X54 22VT
15	X54 22VT
16	X56 22DB/RD
16	X56 22DB/RD



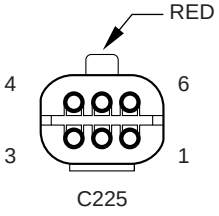
CAV	CIRCUIT
1	F35 18RD/YL
1	F35 18RD/YL
2	P36 18PK/VT
3	P35 18OR/VT
4	Z8 14BK/VT
5	P33 18OR/BK
6	P34 18PK/BK
7	F21 14TN
8	P99 18GY
8	P99 18GY
9	P90 18LG/BK
9	P90 18LG/BK
10	P91 18WT/BK
10	P91 18WT/BK
11	P93 18YL/BK
12	P95 18DB/WT
13	Q16 14BR/WT
14	Q26 14VT/WT
15	X54 22VT
16	X56 22DB/RD



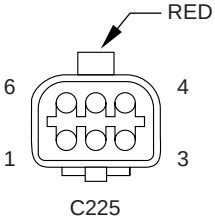
CAV	CIRCUIT
1	C2 22DB/YL●●
2	F20 22WT●●
3	C21 22DB/OR●●
4	C1 14DG
5	–
6	C7 14BK/TN



CAV	CIRCUIT
1	C2 22DB/YL●●
2	F20 22WT●●
3	C21 22DB/OR●●
4	C1 14DG
5	–
6	C7 14BK/TN

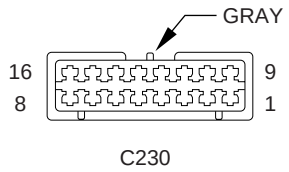


CAV	CIRCUIT
1	M1 18PK
2	M23 22YL/BK
3	Z3 18BK/OR
4	–
5	F10 18YL/RD
6	Z8 18BK/VT



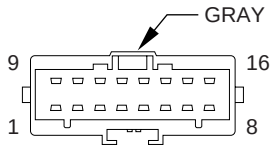
CAV	CIRCUIT
1	M1 22PK
2	M2 22YL
3	Z3 20BK/OR
4	–
5	F10 18YL/RD
6	Z8 18BK/VT

●● WITH A/C



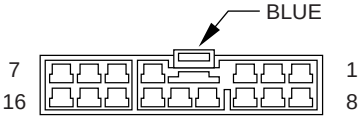
C230

CAV	CIRCUIT
1	–
2	L7 20BK/YL
	L7 20BK/YL
3	L62 18BR/RD
4	L63 18DG/RD
5	X51 22BR/YL
6	G4 18DB
	G4 20DB
7	X52 22DB/WT
8	L38 18BR/WT
9	G16 20BK/LB
10	P33 16OR/BK
11	P34 16PK/BK
12	M2 20YL
13	X57 22BR/LB
14	–
15	X58 22DB/OR
16	C15 14BK



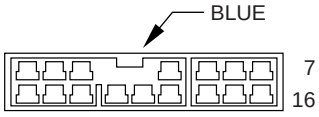
C230

CAV	CIRCUIT
1	–
2	L7 20BK/YL
	L7 20BK/YL
3	L62 20BR/RD
4	L63 20DG/RD
5	X51 22BR/YL
6	G4 20DB
7	X52 22DB/WT
8	L38 18BR/WT
9	G16 20BK/LB
10	P33 16OR/BK
	P33 16OR/BK
11	P34 16PK/BK
	P34 16PK/BK
12	M2 22YL
13	X57 22BR/LB
14	–
15	X58 22DB/OR
16	C15 14BK/WT



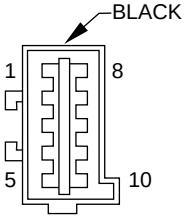
C231

CAV	CIRCUIT
1	F35 16RD/YL
2	P36 16PK/VT
3	P35 16OR/VT
4	P99 18GY
5	P33 16OR/BK
6	P34 16PK/BK
7	F21 14TN
8	–
9	P90 18LG/BK
10	P91 18WT/BK
11	P93 18YL/BK
12	P95 18DB/WT
13	Q16 14BR/WT
14	Q26 14VT/WT
15	X53 22DG
	X53 22DG
16	X55 22BR/RD
	X55 22BR/RD



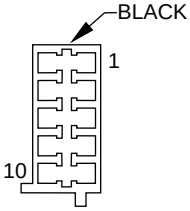
C231

CAV	CIRCUIT
1	F35 18RD/YL
2	P36 18PK/VT
3	P35 18OR/VT
4	P99 18GY
5	P33 18OR/BK
6	P34 18PK/BK
	P34 18PK/BK
7	F21 14TN
8	–
9	P90 18LG/BK
10	P91 18WT/BK
11	P93 18YL/BK
12	P95 18DB/WT
13	Q16 14BR/WT
14	Q26 14VT/WT
15	X53 22DG
16	X55 22BR/RD



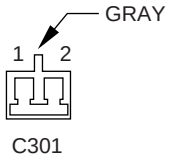
C241

CAV	CIRCUIT
1	M2 22YL
2	P36 16PK/VT
3	A41 14YL/BK
4	P35 16OR/VT
5	Z2 20BK/LG
6	G5 20DB/WT
7	P36 18PK/VT
8	A41 14YL/BK
9	P35 16OR/VT
10	F35 16RD/YL



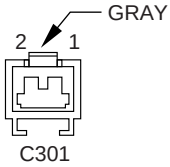
C241

CAV	CIRCUIT
1	–
2	P36 16PK/VT
3	A41 14YL/BK
4	P35 16OR/VT
5	–
6	–
7	P36 18PK/VT
8	A41 14YL/BK
9	P35 16OR/VT
10	–



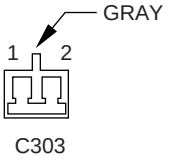
C301

CAV	CIRCUIT
1	P33 16OR/BK
2	P34 16PK/BK



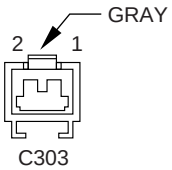
C301

CAV	CIRCUIT
1	P33 18OR/BK
2	P34 18PK/BK



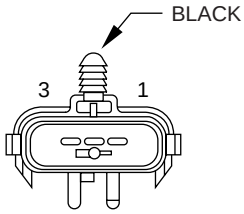
C303

CAV	CIRCUIT
1	P33 16OR/BK
2	P34 16PK/BK



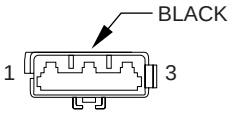
C303

CAV	CIRCUIT
1	P33 18OR/BK
2	P34 18PK/BK



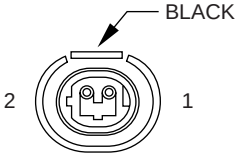
C309

CAV	CIRCUIT
1	L50 20WT/TN
2	Z1 20BK
3	M4 22GY/BK



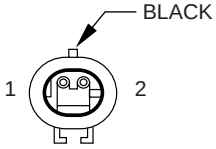
C309

CAV	CIRCUIT
1	–
2	–
3	M4 18GY/BK



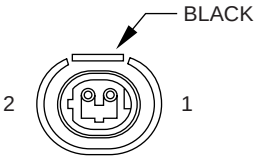
C315

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



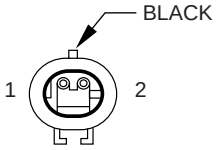
C315

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



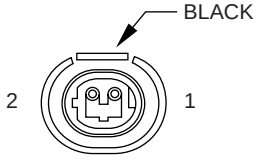
C323

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



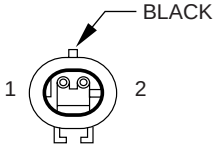
C323

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



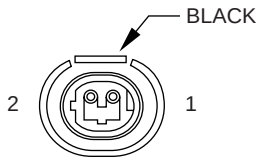
C324

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



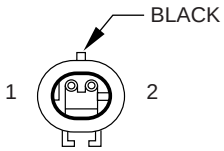
C324

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



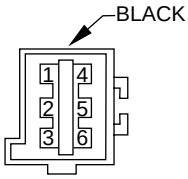
C325

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



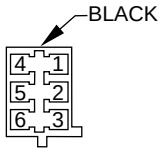
C325

CAV	CIRCUIT
1	P34 18PK/BK
2	P33 18OR/BK



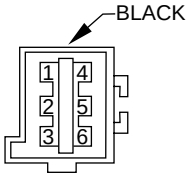
C340

CAV	CIRCUIT
1	L1 18VT/BK
2	L7 18BK/YL
3	Z1 18BK
4	L38 18BR/WT
5	L50 18WT/TN
6	L63 18DG/RD



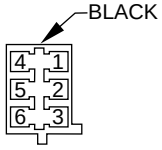
C340

CAV	CIRCUIT
1	L1 18VT/BK
2	L7 18BK/YL
3	Z1 18BK
4	L38 18BR/WT
5	L5018WT/TN
6	L63 18DG/RD



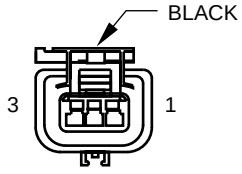
C341

CAV	CIRCUIT
1	L1 18VT/BK
2	L7 18BK/YL
3	Z1 16BK
4	L38 18BR/WT
5	L50 18WT/TN
6	L62 18BR/RD



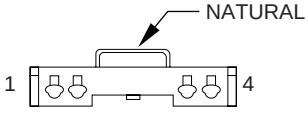
C341

CAV	CIRCUIT
1	L1 18VT/BK
2	L7 18BK/YL
3	Z1 18BK
4	L38 18BR/WT
5	L50 18WT/TN
6	L63 18DG/RD



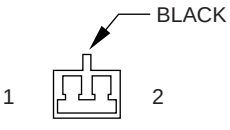
CAMSHAFT
POSITION SENSOR

CAV	CIRCUIT	FUNCTION
1	K7 20OR	8 VOLT SUPPLY
2	K4 20BK/LB	SENSOR GROUND
3	K44 20TN/YL	CAMSHAFT POSITION SENSOR SIGNAL



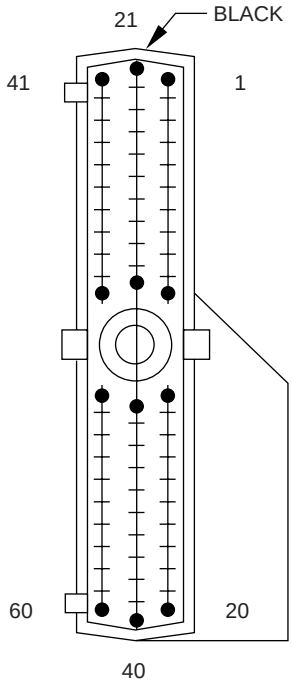
CLOCKSPRING

CAV	CIRCUIT	FUNCTION
1	X3 20BK/RD	HORN RELAY CONTROL
2	–	–
3	–	–
4	–	–



CLUTCH PEDAL
POSITION SWITCH (MTX)

CAV	CIRCUIT	FUNCTION
1	T141 14YL/RD	CLUTCH PEDAL POSITION SWITCH SIGNAL
2	A41 14YL	IGNITION SWITCH FEED



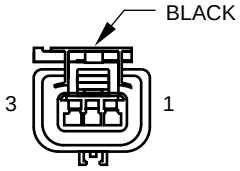
CONTROLLER
ANTI-LOCK
BRAKE

CAV	CIRCUIT	FUNCTION
1	B1 20YL/DB	RIGHT REAR WHEEL SPEED SENSOR (–)
2	B2 20YL	RIGHT REAR WHEEL SPEED SENSOR (+)
3	B3 20LG/DB	LEFT REAR WHEEL SPEED SENSOR (–)
4	B4 20LG	LEFT REAR WHEEL SPEED SENSOR (+)
5	Z12 18BK/OR	GROUND
6	B6 20WT/DB	RIGHT FRONT WHEEL SPEED SENSOR (+)
7	B7 20WT	RIGHT FRONT WHEEL SPEED SENSOR (–)
8	B8 20RD/DB	LEFT FRONT WHEEL SPEED SENSOR (+)
9	B9 20RD	LEFT FRONT WHEEL SPEED SENSOR (–)
10	–	–
11	–	–
12	–	–
13	L50 20WT/TN	STOP LAMP SWITCH OUTPUT
14	–	–
15	G19 20LG/BR	ABS WARNING LAMP DRIVER
16	B116 20GY	ABS PUMP MOTOR RELAY CONTROL
17	–	–
18	–	–
19	–	–
20	B120 16BR/WT	ABS PUMP MOTOR RELAY OUTPUT
21	–	–
22	–	–
23	–	–
24	–	–
25	–	–
26	–	–
27	–	–
28	–	–
29	–	–
30	–	–
31	–	–
32	–	–
33	–	–
34	–	–
35	–	–
36	–	–
37	–	–
38	–	–
39	–	–
40	–	–
41	–	–
42	B142 20BR/YL	LEFT FRONT DUMP SOLENOID CONTROL
43	B143 20DG/YL	RIGHT FRONT DUMP SOLENOID CONTROL
44	–	–
45	–	–
46	B146 20BR/LB	LEFT REAR DUMP SOLENOID CONTROL
47	B47 20RD/LB	ABS SYSTEM RELAY OUTPUT
48	B148 20DB/LB	RIGHT REAR DUMP SOLENOID CONTROL
49	–	–
50	–	–

(CONTINUED ON NEXT PAGE)

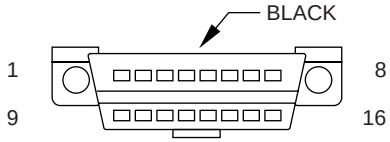
(CONTINUED)

CAV	CIRCUIT	FUNCTION
51	D21 20PK	SCI TRANSMIT
52	–	–
53	–	–
54	–	–
55	–	–
56	–	–
57	B57 20BR/BK	ABS SYSTEM RELAY CONTROL
58	–	–
59	–	–
60	F12 20DG/WT	ABS MODULE FEED



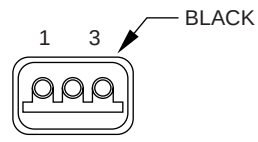
CRANKSHAFT POSITION (CKP) SENSOR

CAV	CIRCUIT	FUNCTION
1	K7 20OR	8 VOLT SUPPLY
2	K4 20BK/LB	SENSOR GROUND
3	K24 20GY/BK	CRANKSHAFT POSITION SENSOR SIGNAL



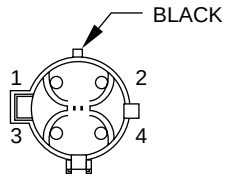
DATA LINK CONNECTOR

CAV	CIRCUIT	FUNCTION
1	–	–
2	–	–
3	D1 20VT/BR	CCD BUS (+)
4	Z12 22BK/TN	GROUND
5	Z12 22BK/TN	GROUND
6	D20 20LG	SCI RECEIVE
7	D21 20PK	SCI TRANSMIT
8	–	–
9	–	–
10	–	–
11	D2 20WT/BK	CCD BUS (–)
12	–	–
13	–	–
14	–	–
15	–	–
16	A14 16RD/WT	FUSED B(+)



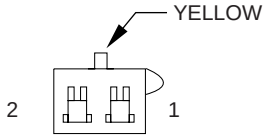
DOME LAMP

CAV	CIRCUIT	FUNCTION
1	M1 22PK	FUSED B(+)
2	–	–
3	M2 20YL	DOME LAMP FEED



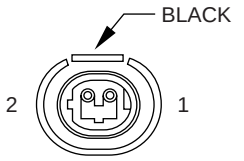
DOWNSTREAM HEATED OXYGEN SENSOR

CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT
2	Z1 18BK	GROUND
3	K4 20BK/LB	SENSOR GROUND
4	K141 20TN/WT	DOWNSTREAM HEATED OXYGEN SENSOR SIGNAL



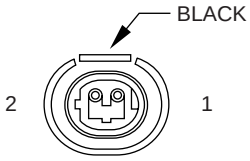
DRIVER SIDE AIRBAG

CAV	CIRCUIT	FUNCTION
1	R45 18DG/LB	DRIVER AIRBAG SQUIB LINE 2
2	R43 18BK/LB	DRIVER AIRBAG SQUIB LINE 1



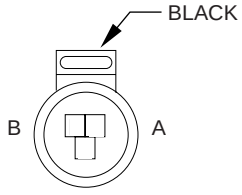
DUTY CYCLE EVAP/PURGE SOLENOID

CAV	CIRCUIT	FUNCTION
1	K52 20PK/BK	DUTY CYCLE EVAP/PURGE SOLENOID CONTROL
2	F12 20DG/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)



(EGR) TRANSDUCER SOLENOID

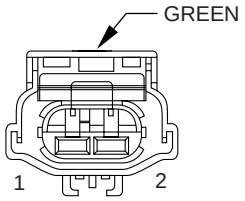
CAV	CIRCUIT	FUNCTION
1	K35 20GY/YL	EXHAUST GAS RECIRCULATION SOLENOID CONTROL
2	F12 18DB/WT	FUSED IGNITION SWITCH RELAY OUTPUT



C
ENGINE COOLANT TEMPERATURE (ECT) SENSOR

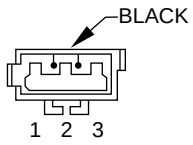
CAV	CIRCUIT	FUNCTION
A	K4 20BK/LB*	SENSOR GROUND
A	K4 20BK/RD•	SENSOR GROUND
B	K2 20TN/DB*	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL
B	K2 20TN/BK•	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL
C	G20 20VT/YL	ENGINE COOLANT TEMPERATURE GAUGE SIGNAL

* 2.0L SOHC ENGINE
• 2.0L DOHC ENGINE



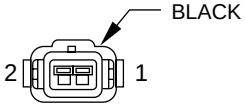
ENGINE OIL
PRESSURE SWITCH

CAV	CIRCUIT	FUNCTION
1	G6 18GY	OIL PRESSURE SWITCH SENSOR
2	–	–



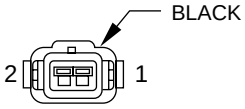
FRONT FOG LAMP
SWITCH

CAV	CIRCUIT	FUNCTION
1	L7 20BK/YL	HEADLAMP SWITCH FEED TO FRONT FOG LAMP SWITCH
2	L35 20BR/RD	FRONT FOG LAMP SWITCH TO RELAY
2	L35 20BR/RD	FRONT FOG LAMP SWITCH TO REAR FOG LAMP SWITCH
3	Z3 22BK/OR	GROUND



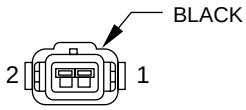
FUEL INJECTOR NO. 1

CAV	CIRCUIT	FUNCTION
1	K11 18WT/DB	INJECTOR NO. 1 DRIVER
2	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT



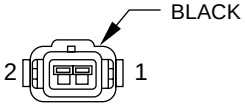
FUEL INJECTOR NO. 2

CAV	CIRCUIT	FUNCTION
1	K12 18TN	INJECTOR NO. 2 DRIVER
2	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT



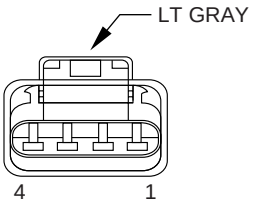
FUEL INJECTOR NO. 3

CAV	CIRCUIT	FUNCTION
1	K13 18YL/WT	INJECTOR NO. 3 DRIVER
2	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT



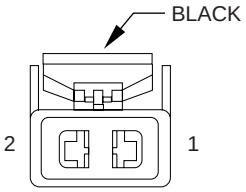
FUEL INJECTOR NO. 4

CAV	CIRCUIT	FUNCTION
1	K14 18LB/BR	INJECTOR NO. 4 DRIVER
2	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT



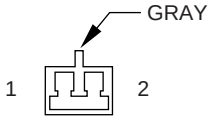
FUEL PUMP MODULE

CAV	CIRCUIT	FUNCTION
1	Z1 18BK	GROUND
2	Z2 18BK	GROUND
3	G4 18DB	FUEL LEVEL SENSOR SIGNAL
4	A141 18DG/WT	FUEL PUMP RELAY OUTPUT



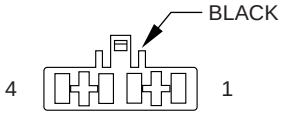
GENERATOR

CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT
2	K20 18DG	GENERATOR FIELD DRIVER



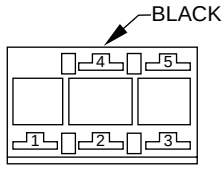
GLOVE BOX LAMP AND SWITCH

CAV	CIRCUIT	FUNCTION
1	M1 22PK	FUSED B(+)
2	Z3 20BK/OR	GROUND



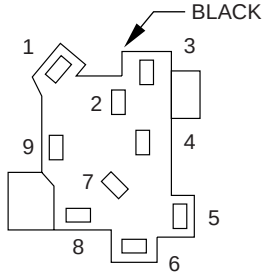
HEADLAMP DIMMER AND OPTICAL HORN SWITCH

CAV	CIRCUIT	FUNCTION
1	L4 14VT/WT	DIMMER SWITCH LOW BEAM OUTPUT
2	L2 14LG	HEADLAMP SWITCH OUTPUT
3	L3 14RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
4	L20 14LG/WT	FUSED B(+)



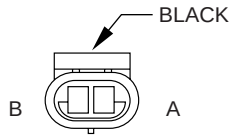
HEADLAMP LEVELING SWITCH

CAV	CIRCUIT	FUNCTION
1	–	–
2	L43 20VT	LEFT HEADLAMP FEED
3	Z1 20BK	GROUND
4	E2 20OR	ILLUMINATION FEED
5	L13 20BR/YL	HEADLAMP LEVELING SIGNAL TO MOTORS



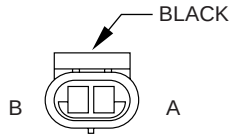
HEADLAMP SWITCH

CAV	CIRCUIT	FUNCTION
1	E1 20TN	PANEL LAMPS DIMMER SWITCH SIGNAL
2	L2 14LG	HEADLAMP SWITCH OUTPUT
3	M2 22YL	TIME OUT RELAY
4	F33 20PK/RD	FUSED B(+)
5	G26 20LB	KEY-IN IGNITION SWITCH SENSE
	G26 20LB	KEY-IN IGNITION SWITCH SENSE
6	G16 20BK/LB	LEFT FRONT DOOR JAMB SWITCH SENSE
	G16 20BK/LB	LEFT FRONT DOOR JAMB SWITCH SENSE
7	L20 14LG/WT	FUSED B(+)
8	A3 12RD/WT	FUSED B(+)
9	L7 20BK/YL	PARK LAMP SWITCH OUTPUT
	L7 20BK/YL	PARK LAMP SWITCH OUTPUT



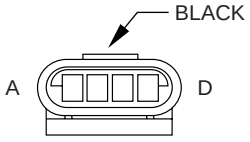
HORN NO. 1

CAV	CIRCUIT	FUNCTION
A	X2 18DG/RD	HORN RELAY OUTPUT
B	Z1 20BK	GROUND



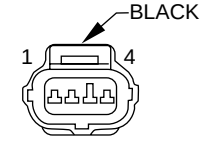
HORN NO.2

CAV	CIRCUIT	FUNCTION
A	X2 18DG/RD	HORN RELAY OUTPUT
B	Z1 20BK	GROUND



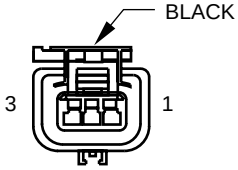
(IAT/MAP) SENSOR

CAV	CIRCUIT	FUNCTION
A	K4 18BK/LB	SENSOR GROUND
B	K21 18BK/RD	INTAKE AIR TEMPERATURE SENSOR SIGNAL
C	K6 18VT/WT	5 VOLT SUPPLY
D	K1 18DG/RD	MAP SENSOR SIGNAL



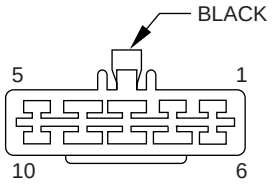
IDLE AIR CONTROL (IAC) MOTOR

CAV	CIRCUIT	FUNCTION
1	K59 18VT	IDLE AIR CONTROL MOTOR NO. 4 DRIVER
2	K40 18BR/WT	IDLE AIR CONTROL MOTOR NO. 1 DRIVER
3	K60 18YL/BK	IDLE AIR CONTROL MOTOR NO. 2 DRIVER
4	K39 18GY/RD	IDLE AIR CONTROL MOTOR NO. 3 DRIVER



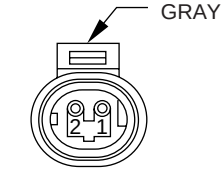
IGNITION COIL PACK

CAV	CIRCUIT	FUNCTION
1	K17 18DB/TN	IGNITION COIL NO. 2 DRIVER
2	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT
3	K19 18BK/GY	IGNITION COIL NO. 1 DRIVER



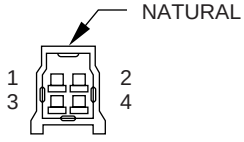
IGNITION SWITCH

CAV	CIRCUIT	FUNCTION
1	Z1 22BK	GROUND
2	G9 22GY/BK	RED BRAKE WARNING LAMP DRIVER
3	A2 12PK/BK	FUSED B(+)
4	A22 12BK/OR	IGNITION SWITCH OUTPUT (RUN)
5	–	–
6	–	–
7	A1 14RD	FUSED (B+)
8	A31 14BK/WT	IGNITION SWITCH OUTPUT (ACC/RUN)
9	A21 14DB	IGNITION SWITCH OUTPUT (RUN/START)
10	A41 14YL/BK	IGNITION SWITCH OUTPUT (START)



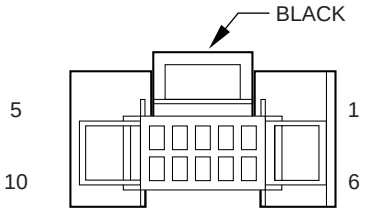
IMMOBILIZER ENGINE SENSOR

CAV	CIRCUIT	FUNCTION
1	K241 20GY/BK	IMMOBILIZER SENSOR
2	K240 20GY	IMMOBILIZER SENSOR



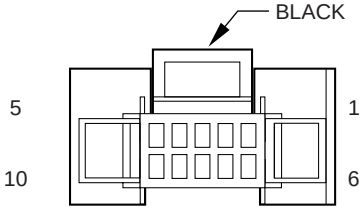
IMMOBILIZER SENSOR

CAV	CIRCUIT	FUNCTION
1	K241 20GY/BK	IMMOBILIZER ENGINE SENSOR
2	K4 20BK/LB	SENSOR GROUND
3	K7 20OR	8 VOLT SUPPLY
	K7 20OR	8 VOLT SUPPLY
4	K240 GY	IMMOBILIZER ENGINE SENSOR



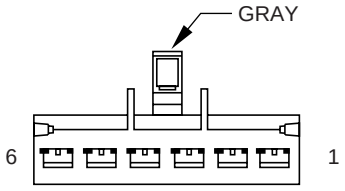
INSTRUMENT CLUSTER – C1

CAV	CIRCUIT	FUNCTION
1	–	–
2	L3 16RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
3	L60 22TN	RIGHT TURN SIGNAL
4	G10 20LG/RD	SEAT BELT SWITCH SENSE
5	G5 20DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)
6	M1 22PK	FUSED B(+)
7	G21 22GY/LB	TACHOMETER SIGNAL
8	Z3 16BK/OR	GROUND
9	R41 18BK/TN	AIRBAG WARNING LAMP DRIVER
10	G7 22WT/OR	VEHICLE SPEED SENSOR SIGNAL



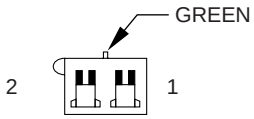
INSTRUMENT CLUSTER – C2

CAV	CIRCUIT	FUNCTION
1	G6 22GY	OIL PRESSURE SWITCH SENSE
2	G19 22LG/OR	ABS WARNING LAMP DRIVER
3	G3 22BK/PK	CHECK ENGINE LAMP DRIVER
4	G20 22VT/YL	ECT GAUGE SENSOR SIGNAL
5	G26 20LB	KEY-IN IGNITION SWITCH SENSE
6	G9 22GY/BK	RED BRAKE WARNING LAMP DRIVER
7	G12 22TN/BK	GENERATOR LAMP DRIVER
8	L61 22LG	LEFT TURN SIGNAL
9	E2 22OR	PANEL LAMPS DRIVER
10	G4 20DB	FUEL LEVEL SENSOR SIGNAL



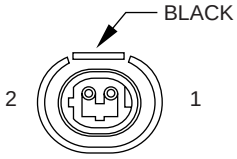
INTERMITTENT
WIPE/WASH
SWITCH

CAV	CIRCUIT	FUNCTION
1	Z2 22BK/LG**	GROUND
2	V5 18DG/YL	WIPER RELAY COMMON
3	V10 18BR	WINDSHIELD WASHER RELAY OUTPUT
4	V3 18BR/WT	WIPER SWITCH LOW SPEED OUTPUT
5	F13 18DB	FUSED IGNITION SWITCH OUTPUT (RUN/ACC)
6	V4 18RD/YL	WIPER SWITCH HIGH SPEED OUTPUT



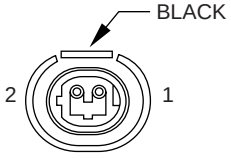
KEY-IN SWITCH

CAV	CIRCUIT	FUNCTION
1	G16 20BK/LB	LEFT FRONT DOOR JAMB SWITCH SENSE
2	G26 20LB	KEY-IN IGNITION SWITCH SENSE



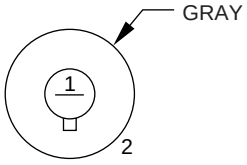
KNOCK
SENSOR

CAV	CIRCUIT	FUNCTION
1	K42 20DB/LG*	KNOCK SENSOR SIGNAL
1	K42 20BK/LG•	KNOCK SENSOR SIGNAL
2	K4 20BK/LB	SENSOR GROUND



LEFT
AIRBAG IMPACT SENSOR

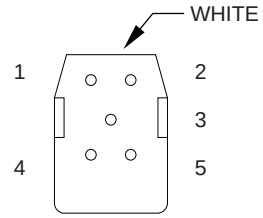
CAV	CIRCUIT	FUNCTION
1	R47 18DB/LB	LEFT IMPACT SENSOR LINE 1
2	R49 18LB	LEFT IMPACT SENSOR LINE 2



LEFT BACK-UP
LAMP

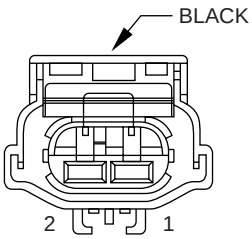
CAV	CIRCUIT	FUNCTION
1	L1 18VT/BK	BACK-UP LAMP SENSE
2	Z1 18BK	GROUND

* 2.0L SOHC ENGINE
• 2.0L DOHC ENGINE
** WITH INTERMITTENT WIPERS



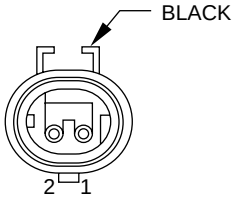
LEFT DOOR
LOCK SWITCH

CAV	CIRCUIT	FUNCTION
1	Z8 18BK/VT	GROUND
2	P36 18PK/VT	DOOR UNLOCK SWITCH OUTPUT
3	F35 18RD/YL	FUSED B(+)
4	P35 18OR/VT	LEFT DOOR LOCK SWITCH OUTPUT
5	P36 18PK/VT	LEFT DOOR UNLOCK SWITCH OUTPUT



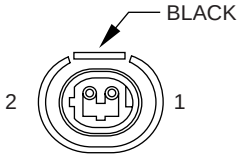
LEFT DOOR
WINDOW MOTOR

CAV	CIRCUIT	FUNCTION
1	Q22 14VT	LEFT FRONT DOWN
2	Q12 14BR	LEFT FRONT UP



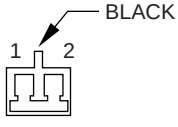
LEFT FOG
LAMP

CAV	CIRCUIT	FUNCTION
1	L39 20LB/WT	FRONT FOG LAMPS SWITCH OUTPUT
2	Z1 20BK	GROUND



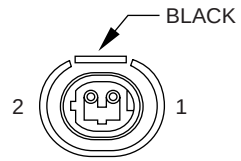
LEFT FRONT
DOOR LOCK
MOTOR

CAV	CIRCUIT	FUNCTION
1	P34 18PK/BK	DOOR UNLOCK DRIVER
2	P33 18OR/BK	DOOR LOCK DRIVER



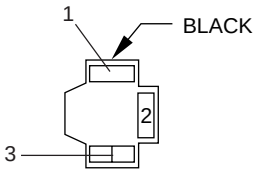
LEFT FRONT
DOOR SPEAKER

CAV	CIRCUIT	FUNCTION
1	X55 22BR/RD	LEFT FRONT SPEAKER (–)
2	X53 22DG	LEFT FRONT SPEAKER (+)



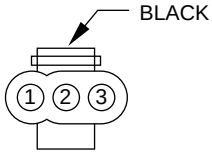
LEFT FRONT
WHEEL SPEED SENSOR

CAV	CIRCUIT	FUNCTION
1	B8 20RD/DB	LEFT FRONT WHEEL SPEED SENSOR (+)
2	B9 20RD	LEFT FRONT WHEEL SPEED SENSOR (-)



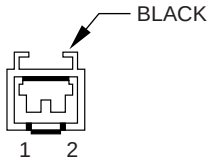
LEFT HEADLAMP

CAV	CIRCUIT	FUNCTION
1	L3 16RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
2	L43 18VT	FUSED LEFT LOW BEAM OUTPUT
3	Z1 18BK	GROUND
	Z1 18BK	GROUND



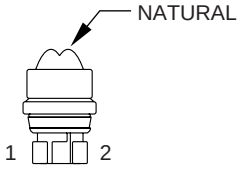
LEFT HEADLAMP
LEVELING MOTOR

CAV	CIRCUIT	FUNCTION
1	L43 22VT	LEFT HEADLAMP FEED
2	L13 22BR/YL	HEADLAMP LEVELING SIGNAL FROM SWITCH
3	Z1 22BK	GROUND



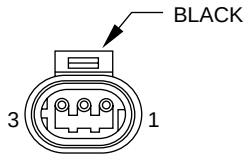
LEFT INSTRUMENT
PANEL SPEAKER (PREMIUM)

CAV	CIRCUIT	FUNCTION
1	X53 22DG	LEFT FRONT SPEAKER (+)
2	X55 22BR/RD	LEFT FRONT SPEAKER (–)



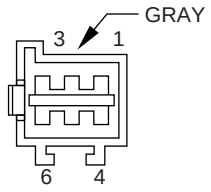
LEFT
LICENSE LAMP

CAV	CIRCUIT	FUNCTION
1	Z1 20BK	GROUND
2	L7 20BK/YL	PARK LAMP SWITCH OUTPUT



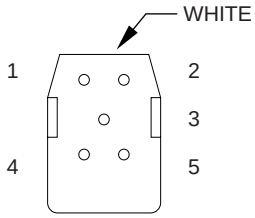
LEFT PARK/TURN
SIGNAL LAMP

CAV	CIRCUIT	FUNCTION
1	L61 18LG	LEFT TURN SIGNAL
2	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
3	Z1 18BK	GROUND



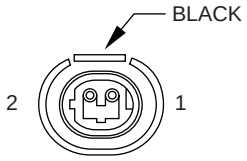
LEFT
POWER MIRROR

CAV	CIRCUIT	FUNCTION
1	P90 18LG/BK	LEFT/RIGHT POWER MIRROR VERTICAL SUPPLY
2	–	–
3	P93 18YL/BK	LEFT POWER MIRROR (VERTICAL)
4	P95 18DB/WT	LEFT POWER MIRROR (HORIZONTAL)
5	P99 18GY	LEFT POWER MIRROR SUPPLY
6	P91 18WT/BK	LEFT/RIGHT POWER MIRROR HORIZONTAL SUPPLY



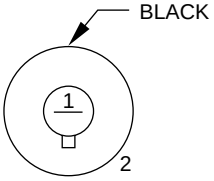
LEFT POWER
WINDOW SWITCH

CAV	CIRCUIT	FUNCTION
1	Q12 14BR	LEFT FRONT UP
2	Q26 14VT/WT	MASTER SWITCH LEFT FRONT DOWN
3	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN/START)
4	Q16 14BR/WT	MASTER SWITCH LEFT FRONT UP
5	Q22 14VT	LEFT FRONT DOWN



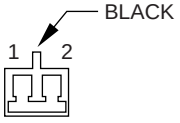
LEFT REAR
DOOR LOCK
MOTOR

CAV	CIRCUIT	FUNCTION
1	P34 18PK/BK	DOOR UNLOCK DRIVER
2	P33 18OR/BK	DOOR LOCK DRIVER



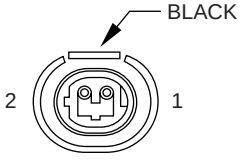
LEFT REAR FOG LAMP

CAV	CIRCUIT	FUNCTION
1	L38 18BR/WT	REAR FOG LAMP FEED
2	Z1 18BK	GROUND



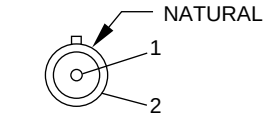
LEFT REAR
SPEAKER

CAV	CIRCUIT	FUNCTION
1	X51 22BR/YL	LEFT REAR SPEAKER (+)
2	X57 22BR/LB	LEFT REAR SPEAKER (–)



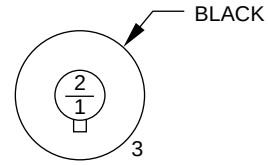
LEFT REAR
WHEEL SPEED
SENSOR

CAV	CIRCUIT	FUNCTION
1	B3 20LG/DB	LEFT REAR WHEEL SPEED SENSOR (–)
2	B4 20LG	LEFT REAR WHEEL SPEED SENSOR (+)



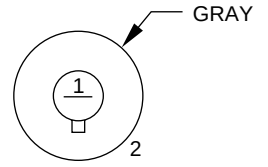
LEFT REPEATER LAMP

CAV	CIRCUIT	FUNCTION
1	L61 18LG	LEFT TURN SIGNAL
2	Z1 18BK	GROUND



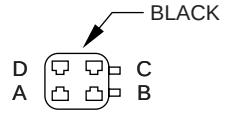
LEFT TAIL/STOP LAMP

CAV	CIRCUIT	FUNCTION
1	L50 18WT/TN	TAIL/STOP
2	L7 18BK/YL	TAIL/STOP
3	Z1 18BK	GROUND



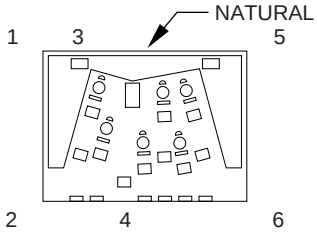
LEFT TURN SIGNAL LAMP

CAV	CIRCUIT	FUNCTION
1	L63 18DG/RD	LEFT TURN SIGNAL LAMP FEED
2	Z1 18BK	GROUND



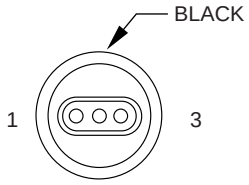
MAP/READING LAMPS

CAV	CIRCUIT	FUNCTION
A	M23 22YL/BK	TIME OUT RELAY
B	Z3 18BK/OR	GROUND
C	M1 18PK	FUSED B(+)
D	–	–



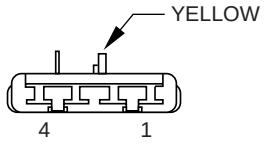
MASTER POWER WINDOW SWITCH

CAV	CIRCUIT	FUNCTION
1	Q21 14WT	RIGHT FRONT DOWN
2	Q11 14LB	RIGHT FRONT UP
3	Z8 14BK/VT	GROUND
4	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN/START)
5	Q26 14VT/WT	MASTER SWITCH LEFT FRONT DOWN
6	Q16 14BR/WT	MASTER SWITCH LEFT FRONT UP



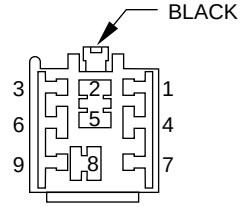
PARK/NEUTRAL
POSITION SWITCH (ATX)

CAV	CIRCUIT	FUNCTION
1	L1 20VT/BK	REVERSE LAMP SENSE
2	T41 20BR/YL	PARK/NEUTRAL POSITION SWITCH SENSE
3	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)



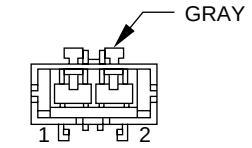
PASSENGER SIDE
AIRBAG

CAV	CIRCUIT	FUNCTION
1	R51 18VT/YL	PASSENGER AIRBAG PRESSURE SWITCH GROUND
2	R50 18BR/YL	PASSENGER AIRBAG PRESSURE SWITCH SENSE
3	R44 18DG/YL	PASSENGER AIRBAG SQUIB LINE 2
4	R42 18BK/YL	PASSENGER AIRBAG SQUIB LINE 1



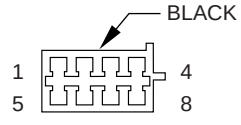
POWER FOLDING
MIRROR RELAY

CAV	CIRCUIT	FUNCTION
1	–	–
2	F121 18TN/BK	POWER FOLDING MIRROR RELAY OUTPUT
3	–	–
4	P110 18OR	RELAY COIL FEED
5	Z8 18BK/VT	GROUND
6	Z8 18BK/VT	GROUND
6	Z8 18BK/VT	GROUND
7	–	–
8	P90 18LG/BK	POWER MIRRORS
9	–	–



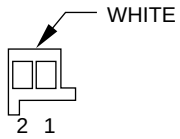
POWER MIRROR
FUSE HOLDER

CAV	CIRCUIT	FUNCTION
1	F121 18TN/BK	POWER FOLDING MIRROR FEED
1	F121 18TN/BK	POWER MIRROR SWITCH FEED
2	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN)



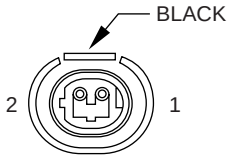
POWER MIRROR
SWITCH-C1

CAV	CIRCUIT	FUNCTION
1	Z8 18BK/VT	GROUND
2	F121 18TN/BK	POWER FOLDING MIRROR FEED
3	P94 18WT/YL	RIGHT POWER MIRROR (HORIZONTAL)
4	P92 18YL	RIGHT POWER MIRROR (VERTICAL)
5	P110 18OR	LEFT/RIGHT POWER MIRROR VERTICAL SUPPLY
6	P91 18WT/BK	LEFT/RIGHT POWER MIRROR HORIZONTAL SUPPLY
7	P95 18DB/WT	LEFT POWER MIRROR (HORIZONTAL)
8	P93 18YL/BK	LEFT POWER MIRROR (VERTICAL)



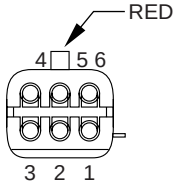
POWER MIRROR SWITCH-C2

CAV	CIRCUIT	FUNCTION
1	P99 18GY	LEFT/RIGHT POWER FOLDING MIRROR (B+) EXT (B-) RET
2	–	–



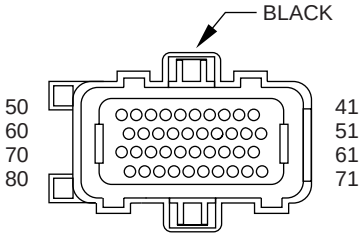
POWER STEERING PRESSURE SWITCH

CAV	CIRCUIT	FUNCTION
1	K10 20WT	POWER STEERING PRESSURE SWITCH SENSE
2	Z12 22BK/TN	GROUND



POWER SUNROOF MOTOR

CAV	CIRCUIT	FUNCTION
1	Q42 18LB	POWER SUNROOF CLOSE
2	–	–
3	Q41 18WT	POWER SUNROOF OPEN
4	Q46 18OR	POWER SUNROOF VENT OPEN/CLOSE LIMIT
5	Q43 18VT	POWER SUNROOF VENT
6	Z8 18BK/VT	GROUND



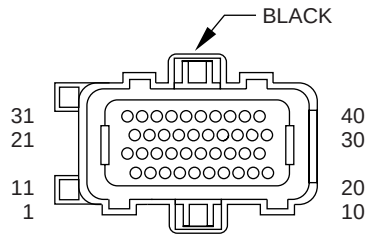
POWERTRAIN CONTROL MODULE – C1

CAV	CIRCUIT	FUNCTION
41	–	–
42	–	–
43	K4 20BK/LB	SENSOR GROUND
44	K7 20OR	8 VOLT SUPPLY
45	K10 20WT	POWER STEERING PRESSURE SWITCH SENSE
46	A14 18RD/WT	FUSED B(+)
47	Z11 20BK/WT	GROUND
48	K40 20BR/WT	IDLE AIR CONTROL MOTOR NO. 3 DRIVER
49	K60 20YL/BK	IDLE AIR CONTROL MOTOR NO. 2 DRIVER
50	Z12 20BK/TN	GROUND
51	K141 20TN/WT	DOWNSTREAM HEATED OXYGEN SENSOR SIGNAL
52	G31 18VT/LG	AMBIENT TEMPERATURE SENSOR SIGNAL
53	–	–
54	–	–
55	–	–
56	G12 20TN/BK	GENERATOR LAMP DRIVER
57	K39 20GY/RD	IDLE AIR CONTROL MOTOR NO. 1 DRIVER
58	K59 20VT	IDLE AIR CONTROL MOTOR NO. 4 DRIVER
59	–	–
60	–	–

(CONTINUED ON NEXT PAGE)

(CONTINUED)

CAV	CIRCUIT	FUNCTION
61	K6 20VT/WT	5 VOLT SUPPLY
62	K29 20WT/PK	STOP LAMP SWITCH SENSE
63	–	–
64	C28 18DB/OR	A/C COMPRESSOR CLUTCH RELAY CONTROL
65	D21 20PK	SCI TRANSMIT
66	G7 20WT/OR	VEHICLE SPEED SENSOR SIGNAL
67	K51 18DB/YL	AUTOMATIC SHUT DOWN RELAY CONTROL
68	K52 20PK/BK	DUTY CYCLE EVAP/PURGE SOLENOID CONTROL
69	–	–
70	–	–
71	Z2 18BK/OR	–
72	K107 18OR	VAPOR CANISTER PUMP SWITCH DRIVER
73	G21 20GY/LB	TACHOMETER SIGNAL
74	K31 18BR	FUEL PUMP RELAY CONTROL
75	D20 20LG	SCI RECEIVE
76	– **	–
76	T41 20BR/YL••	PARK/NEUTRAL POSITION SWITCH SENSE
77	K106 18WT/LG	VAPOR CANISTER SOLENOID DRIVER
78	–	–
79	– **	–
79	K54 20OR/BK••	TORQUE CONVERTOR CLUTCH SOLENOID CONTROL
80	–	–



POWERTRAIN CONTROL MODULE – C2

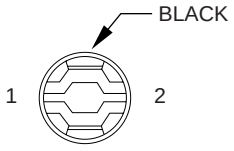
CAV	CIRCUIT	FUNCTION
1	–	–
2	K19 18BK/GY	IGNITION COIL NO. 1, 3 DRIVER
3	K17 18DB/TN	IGNITION COIL NO. 2, 4 DRIVER
4	K20 18DG	GENERATOR FIELD DRIVER
5	V32 20YL/RD	SPEED CONTROL FEED
6	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
7	K13 18YL/WT	INJECTOR NO. 3 DRIVER
8	G3 20BK/PK	CHECK ENGINE LAMP DRIVER
9	–	–
10	Z12 18BK/TN	GROUND
11	–	–
12	–	–
13	K11 18WT/DB	INJECTOR NO. 1 DRIVER
14	–	–
15	–	–
16	K14 18LB/BR	INJECTOR NO. 4 DRIVER
17	K12 18TN	INJECTOR NO. 2 DRIVER
18	K173 20LG	RAD FAN PULSE CONTROL
19	–	–
20	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)
21	–	–
22	–	–
23	G4 20DB	FUEL LEVEL SENSOR SIGNAL
24	K42 20BK/LG•	KNOCK SENSOR SIGNAL
24	K42 20DB/LG*	KNOCK SENSOR SIGNAL

(CONTINUED ON NEXT PAGE)

* 2.0L (SOHC) ENGINE
• 2.0L (DOHC) ENGINE
** MTX
•• ATX

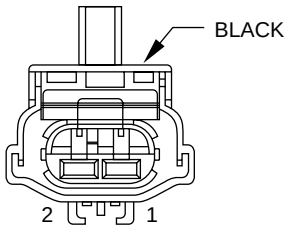
(CONTINUED)

CAV	CIRCUIT	FUNCTION
25	–	–
26	K2 20TN/DB*	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL
26	K2 20TN/BK•	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL
27	–	–
28	–	–
29	–	–
30	K41 20BK/DG	UPSTREAM HEATED OXYGEN SENSOR SIGNAL
31	–	–
32	K24 20GY/BK	CRANKSHAFT POSITION SENSOR SIGNAL
33	K44 20TN/YL	CAMSHAFT POSITION SENSOR SIGNAL
34	–	–
35	K22 20OR/DB	THROTTLE POSITION SENSOR SIGNAL
36	K1 18DG/RD	MANIFOLD ABSOLUTE PRESSURE SENSOR SIGNAL
37	K21 18BK/RD	INTAKE AIR TEMPERATURE SENSOR SIGNAL
38	C20 18BR	A/C SWITCH SENSE
39	–	–
40	K35 20GY/YL	EXHAUST GAS RECIRCULATION SOLENOID CONTROL



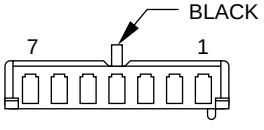
PRNDL
LAMP

CAV	CIRCUIT	FUNCTION
1	E2 22OR	FUSED PANEL LAMPS DIMMER SWITCH SIGNAL
2	Z3 20BK/OR	GROUND



RADIATOR
FAN MOTOR

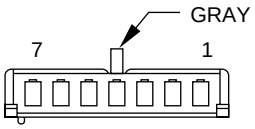
CAV	CIRCUIT	FUNCTION
1	C25 14LG	RADIATOR FAN RELAY OUTPUT
2	Z1 14BK	GROUND



RADIO - C1

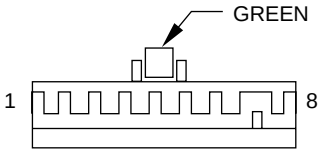
CAV	CIRCUIT	FUNCTION
1	–	–
2	X51 22BR/YL	LEFT REAR SPEAKER (–)
3	X52 22DB/WT	RIGHT REAR SPEAKER (+)
4	X53 22DG	LEFT FRONT SPEAKER (+)
5	X54 22VT	RIGHT FRONT SPEAKER (+)
6	X57 22BR/LB	LEFT REAR SPEAKER (–)
7	X58 22DB/OR	RIGHT REAR SPEAKER (–)

* 2.0L (SOHC) ENGINE
• 2.0L (DOHC) ENGINE



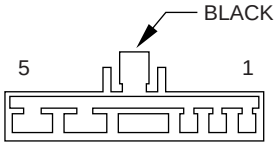
RADIO - C2

CAV	CIRCUIT	FUNCTION
1	–	–
2	X55 22BR/RD	LEFT FRONT SPEAKER (–)
3	X56 22DB/RD	RIGHT FRONT SPEAKER (–)
4	L7 20BK/YL	PARK LAMP SWITCH OUTPUT
5	E2 22OR	FUSED PANEL LAMPS DIMMER SWITCH SIGNAL
6	X12 20RD/WT	FUSED IGNITION SWITCH OUTPUT (ACC/RUN)
7	M1 22 PK	FUSED B(+)



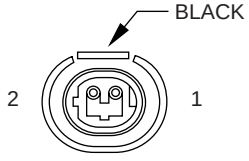
REAR FOG
LAMP SWITCH

CAV	CIRCUIT	FUNCTION
1	–	–
2	F61 18WT/OR	FOG LAMP FEED
3	L38 18BR/WT	REAR FOG LAMP FEED
4	L2 14LG	HEADLAMP SWITCH FEED
5	Z3 22BK/OR	GROUND
5	Z3 20BK/OR	GROUND
6	E2 22OR	FUSED ILLUMINATION FEED
7	L35 20BR/RD	FRONT FOG LAMP FEED
8	–	–



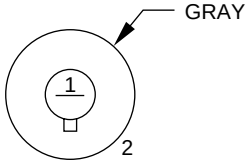
REAR WINDOW
DEFOGGER SWITCH

CAV	CIRCUIT	FUNCTION
1	E2 220R	FUSED PANEL LAMPS DIMMER SWITCH SIGNAL
2	Z2 22BK/LG	GROUND
3	F20 22WT	FUSED IGNITION SWITCH OUTPUT (RUN)
4	A4 14BK/RD	FUSED B(+)
5	C15 14BK/WT	REAR WINDOW DEFOGGER RELAY OUTPUT



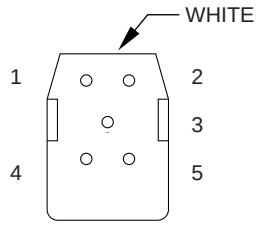
RIGHT
AIRBAG IMPACT SENSOR

CAV	CIRCUIT	FUNCTION
1	R46 18BR/LB	RIGHT IMPACT SENSOR LINE 1
2	R48 18TN	RIGHT IMPACT SENSOR LINE 2



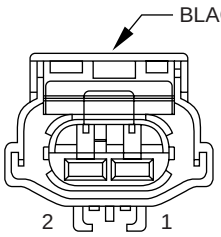
RIGHT BACK-UP
LAMP

CAV	CIRCUIT	FUNCTION
1	L1 18VT/BK	BACK-UP LAMP SENSE
2	Z1 18BK	GROUND



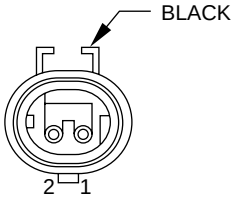
RIGHT DOOR
LOCK SWITCH

CAV	CIRCUIT	FUNCTION
1	P35 18OR/VT	RIGHT DOOR LOCK SWITCH OUTPUT
2	Z8 18BK/VT	GROUND
3	F35 18RD/YL	FUSED B(+)
4	Z8 18BK/VT	GROUND
5	P36 18PK/VT	DOOR UNLOCK SWITCH OUTPUT



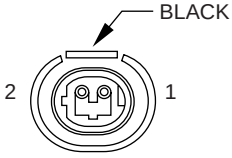
RIGHT DOOR
WINDOW MOTOR

CAV	CIRCUIT	FUNCTION
1	Q21 14VT	RIGHT FRONT DOWN
2	Q11 14LB	RIGHT FRONT UP



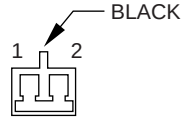
RIGHT FOG
LAMP

CAV	CIRCUIT	FUNCTION
1	L39 18LB/WT	FRONT FOG LAMPS SWITCH OUTPUT
2	Z1 20BK	GROUND



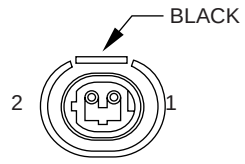
RIGHT FRONT
DOOR LOCK
MOTOR

CAV	CIRCUIT	FUNCTION
1	P34 18PK/BK	DOOR UNLOCK DRIVER
2	P33 18OR/BK	DOOR LOCK DRIVER



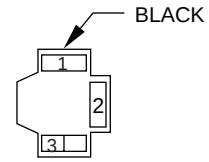
RIGHT FRONT
DOOR SPEAKER

CAV	CIRCUIT	FUNCTION
1	X56 22DB/RD	RIGHT FRONT SPEAKER (–)
2	X54 22VT	RIGHT FRONT SPEAKER (+)



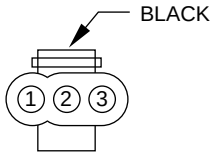
RIGHT FRONT
WHEEL SPEED SENSOR

CAV	CIRCUIT	FUNCTION
1	B6 20WT/DB	RIGHT FRONT WHEEL SPEED SENSOR (+)
2	B7 20WT	RIGHT FRONT WHEEL SPEED SENSOR (–)



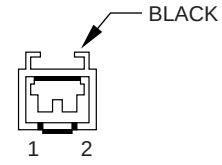
RIGHT
HEADLAMP

CAV	CIRCUIT	FUNCTION
1	L3 16RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
2	L44 18VT/BK	FUSED RIGHT LOW BEAM OUTPUT
3	Z1 18BK	GROUND



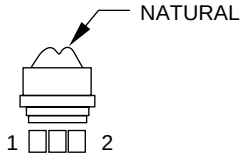
RIGHT HEADLAMP
LEVELING MOTOR

CAV	CIRCUIT	FUNCTION
1	L43 22VT	RIGHT HEADLAMP FEED
2	L13 22BR/YL	HEADLAMP LEVELING SIGNAL FROM SWITCH
3	Z1 22BK	GROUND



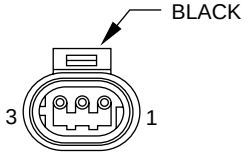
RIGHT INSTRUMENT
PANEL SPEAKER (PREMIUM)

CAV	CIRCUIT	FUNCTION
1	X54 22VT	RIGHT FRONT SPEAKER (+)
2	X56 22DB/RD	RIGHT FRONT SPEAKER (–)



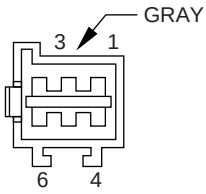
RIGHT LICENSE
LAMP

CAV	CIRCUIT	FUNCTION
1	Z1 20BK	GROUND
2	L7 20BK/YL	LICENSE LAMP FEED



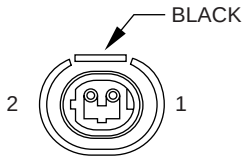
RIGHT PARK/TURN
SIGNAL LAMP

CAV	CIRCUIT	FUNCTION
1	L60 18TN	RIGHT TURN SIGNAL
2	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
3	Z1 18BK	GROUND



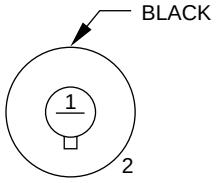
RIGHT
POWER MIRROR

CAV	CIRCUIT	FUNCTION
1	P90 18LG/BK	LEFT/RIGHT POWER MIRROR VERTICAL SUPPLY
2	–	
3	P92 18YL	LEFT POWER MIRROR (VERTICAL)
4	P94 18WT/YL	LEFT POWER MIRROR (HORIZONTAL)
5	P99 18GY	–
6	P91 18WT/BK	LEFT/RIGHT POWER MIRROR HORIZONTAL SUPPLY



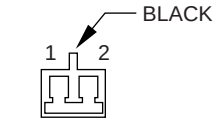
RIGHT REAR
DOOR LOCK
MOTOR

CAV	CIRCUIT	FUNCTION
1	P34 18PK/BK	DOOR UNLOCK DRIVER
2	P33 18OR/BK	DOOR LOCK DRIVER



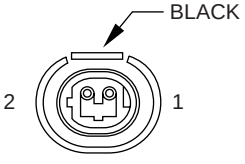
RIGHT REAR
FOG LAMP

CAV	CIRCUIT	FUNCTION
1	L38 18BR/WT	REAR FOG LAMP FEED
2	Z1 18BK	GROUND



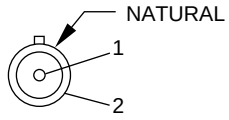
RIGHT REAR
SPEAKER

CAV	CIRCUIT	FUNCTION
1	X52 22DB/WT	RIGHT REAR SPEAKER (+)
2	X58 22DB/OR	RIGHT REAR SPEAKER (–)



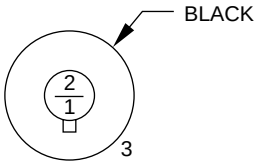
RIGHT REAR
WHEEL SPEED
SENSOR

CAV	CIRCUIT	FUNCTION
1	B1 20WT/BK	RIGHT REAR WHEEL SPEED SENSOR (–)
2	B2 20DG/WT	RIGHT REAR WHEEL SPEED SENSOR (+)



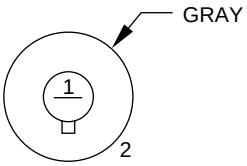
RIGHT REPEATER LAMP

CAV	CIRCUIT	FUNCTION
1	L60 18TN	RIGHT TURN SIGNAL
2	Z1 18BK	GROUND



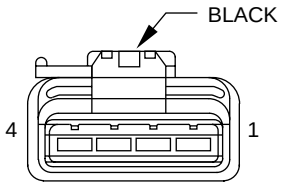
RIGHT TAIL/STOP LAMP

CAV	CIRCUIT	FUNCTION
1	L50 18WT/TN	TAIL/STOP
2	L7 18BK/YL	TAIL/STOP
3	Z1 18BK	GROUND



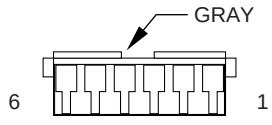
RIGHT TURN SIGNAL LAMP

CAV	CIRCUIT	FUNCTION
1	L63 18DG/RD	RIGHT TURN SIGNAL LAMP FEED
2	Z1 18BK	GROUND



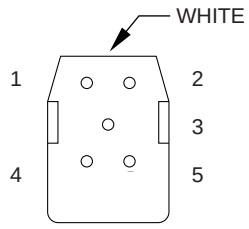
SOLID STATE FAN RELAY

CAV	CIRCUIT	FUNCTION
1	Z1 18BK	GROUND
2	K173 20DG	RADIATOR FAN RELAY CONTROL
3	C25 14LG	ENGINE FAN FEED
4	A16 14GY	RADIATOR FAN RELAY FEED



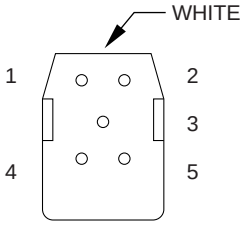
STOP LAMP SWITCH

CAV	CIRCUIT	FUNCTION
1	K29 20WT/PK	STOP LAMP SWITCH SENSE
2	Z12 20BK/TN	GROUND
3	–	–
4	–	–
5	L50 20WT/TN	STOP LAMP SWITCH OUTPUT
6	F32 18PK/DB	FUSED B(+)



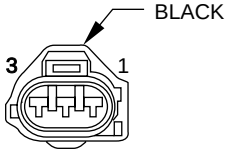
SUNROOF
SLIDE SWITCH

CAV	CIRCUIT	FUNCTION
1	Q42 18LB	POWER SUNROOF CLOSE
2	Q46 18OR	POWER SUNROOF VENT OPEN/CLOSE LIMIT
3	F10 18YL/RD	FUSED IGNITION SWITCH OUTPUT (RUN/ACC)
4	Q45 18PK/BK	POWER SUNROOF VENT CLOSE
5	Q41 18WT	POWER SUNROOF OPEN



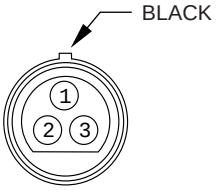
SUNROOF
VENT SWITCH

CAV	CIRCUIT	FUNCTION
1	Q45 18PK/BK	POWER SUNROOF VENT CLOSE
2	Z8 18BK/VT	GROUND
3	F10 18YL/RD	FUSED IGNITION SWITCH OUTPUT (RUN/ACC)
4	Z8 18BK/VT	GROUND
5	Q43 18VT	POWER SUNROOF VENT



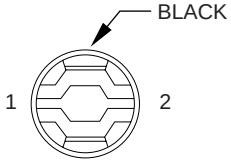
THROTTLE
POSITION (TPS)
SENSOR

CAV	CIRCUIT	FUNCTION
1	K4 20BK/LB	SENSOR GROUND
2	K22 20OR/DB	THROTTLE POSITION SENSOR SIGNAL
3	K6 20VT/WT	5 VOLT SUPPLY



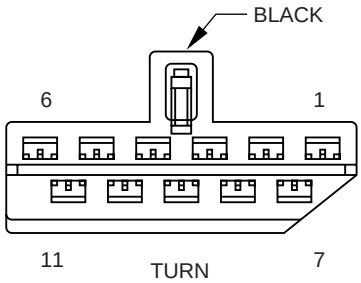
TORQUE CONVERTOR
CLUTCH (TCC) SOLENOID – (ATX)

CAV	CIRCUIT	FUNCTION
1	–	–
2	K54 20OR/BK	TORQUE CONVERTOR CLUTCH SOLENOID CONTROL
3	F12 20DG/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)



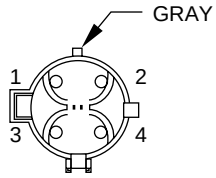
TRUNK LAMP

CAV	CIRCUIT	FUNCTION
1	M1 22PK	FUSED B(+)
	M1 22PK	FUSED B(+)
2	M4 22GY/BK	TRUNK LAMP SWITCH OUTPUT



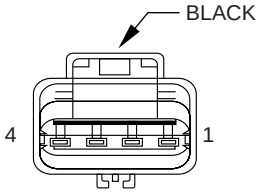
TURN SIGNAL/HAZARD SWITCH

CAV	CIRCUIT	FUNCTION
1	L60 22TN	RIGHT TURN SIGNAL
2	–	–
3	L62 20BR/RD	RIGHT REAR STOP/TURN SIGNAL LAMP OUTPUT
4	L32 20PK	COMBINATION FLASHER OUTPUT
5	L5 20BK	FUSED IGNITION SWITCH OUTPUT (RUN)
6	L9 22BK/WT	FUSED B(+)
7	–	–
8	–	–
9	L63 20DG/RD	LEFT REAR STOP/TURN SIGNAL LAMP OUTPUT
10	L61 22LG	LEFT TURN SIGNAL
11	L55 20BK/YL	COMBINATION FLASHER INPUT



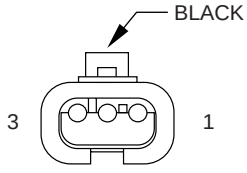
UPSTREAM HEATED OXYGEN SENSOR

CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUTDOWN RELAY OUTPUT
2	Z1 18BK	GROUND
3	K4 20BK/LB	SENSOR GROUND
4	K41 20BK/DG	UPSTREAM HEATED OXYGEN SENSOR SIGNAL



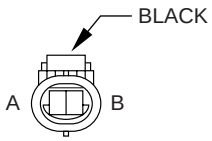
VAPOR CANISTER LEAK DETECTOR

CAV	CIRCUIT	FUNCTION
1	–	–
2	F12 18DG/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)
3	K106 18WT/LG	VAPOR CANISTER SOLENOID DRIVER
4	K107 18OR	VAPOR CANISTER PUMP SWITCH DRIVER



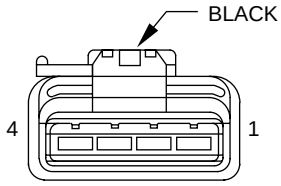
VEHICLE SPEED SENSOR

CAV	CIRCUIT	FUNCTION
1	K7 18OR	8 VOLT SUPPLY
2	K4 18BK/LB	SENSOR GROUND
3	G7 18WT/OR	VEHICLE SPEED SENSOR SIGNAL



WINDSHIELD WASHER PUMP MOTOR

CAV	CIRCUIT	FUNCTION
A	V10 18BR	WASHER PUMP CONTROL SWITCH OUTPUT
B	Z1 18BK	GROUND



WIPER MOTOR

CAV	CIRCUIT	FUNCTION
1	V4 18RD/YL	WIPER SWITCH HIGH SPEED OUTPUT
2	V3 18BR/WT	WIPER SWITCH LOW SPEED OUTPUT
3	V5 18DG/YL	WIPER RELAY COMMON
4	F13 18DB	FUSED IGNITION SWITCH OUTPUT (RUN/ACC)

8W-90 CONNECTOR/GROUND LOCATIONS

DESCRIPTION AND OPERATION

INTRODUCTION

This section provides illustrations identifying the general location of components, grounds, and connectors in the vehicle. A index is provided. Use the wiring diagrams in each section for connector/ground number identification. Refer to the index for the proper figure number.

CONNECTOR/GROUND LOCATIONS

For items not shown in this section a N/S is placed in the Fig. column.

Connector Name/Number	Color	Location	Fig.
A/C Compressor Clutch	BK	Top of Compressor	8
A/C Cycling Switch	BK	Center of HVAC Housing	N/S
A/C-Heater Blower Motor	BK	RT Side of HVAC Housing	N/S
A/C-Heater Control Switch	BK	Rear of Control	13
A/C High Pressure Switch	GY	Top of A/C Compressor	8
A/C Low Pressure Switch	BK	LT Side of Cowl Panel	N/S
ABS Hydraulic Modulator	DK/ GY	Top of Hydraulic Unit	N/S
ABS Relay Box	BK	Top of Hydraulic Unit	N/S
Airbag Control Module	YL	Rear of Gearshift	11
Ash Receiver Lamp	BK	At Lamp	13
Back-Up Lamp Switch	GY	Top of Transmission	3
Battetry Temperature Sensor	BK	Bottom of Battery Tray	6
Blower Motor Resistor Block	NAT	Left Side Cowl Top	N/S
Brake Warning Lamp Switch	BK	Right Frame Rail	N/S
C101	BR	Top of I.P.	13
C102	BK	Top of I.P.	13
C103	BL	Top of I.P.	13
C105	BL	Right Kick Panel	N/S
C108	BK	Left Lower Cowl	N/S
C160	LT/ GY	Left Fender Side Shield	5

Connector Name/Number	Color	Location	Fig.
C161	BK	Left Fender Side Shield	5
C203	BK	Left Side of I.P.	N/S
C205	BL	Left Kick Panel	13
C206	BL	Top Left of I.P.	N/S
C225	RD	Left Kick Panel	9
C230	GY	Right Kick Panel	14
C231	BL	Right Kick Panel	N/S
C241	BK	Right Side of I.P.	N/S
C301	GY	Right B-Pillar	15
C303	GY	Right B-Pillar	15
C309	BK	Left Trunk Area	18
Camshaft Position Sensor	BK	Left Side of Engine	7
Clockspring	NAT	Rear of Clockspring	10
Clutch Pedal Position Switch	BK	Top of Clutch Pedal	2
Controller Anti-Lock Brake	BK	Left Side Kick Panel	N/S
Crankshaft Position Sensor	BK	Rear of Engine	7
Datalink Connector	BK	Left Side of Steering Column	N/S
Dome Lamp	BK	Left C- Pillar	16
Downstream Heated Oxygen Sensor	BK	Rear of Catalytic Converter	N/S
Driver Side Airbag	YL	Rear of Clockspring	10
Duty Cycle/EVAP Purge Solenoid	GY	Right Frame Rail	4
Engine Coolant Temp Sensor	BK	Left Side of Engine	7

DESCRIPTION AND OPERATION (Continued)

Connector Name/Number	Color	Location	Fig.
Engine Oil Pressure Switch	GN	Rear of Engine	7
EGR Transducer Solenoid	GY	Left Rear of Engine	7
Front Fog Lamp Switch	GN	Rear of Switch	14
Fuel Injector #1	BK	At Injector	8
Fuel Injector #2	BK	At Injector	8
Fuel Injector #3	BK	At Injector	8
Fuel Injector #4	BK	At Injector	8
Fuel Pump Module	LT/ GY	Right Rear Frame Rail	19
Generator	BK	Rear of Generator	7
Glove Box Lamp and Switch	GY	Rear of Switch	13
Headlamp Dimmer and Optical Horn Switch	BK	Rear of Switch	10
Headlamp Leveling Switch	BK	Rear of Switch	10
Headlamp Switch	BK	Rear of Switch	14
Horn #1	BK	Left Rear of Fascia	6
Horn #2	BK	Left Rear of Fascia	6
Idle Air Control Motor	BK	On Throttle Body	8
Ignition Coil Pack	BK	Top of Valve Cover	7
Ignition Switch	BK	Rear of Switch	10
Immobilizer Engine Sensor	BK	Right Fender Side Shield	N/S
Immobilizer Sensor	BK	Top of I.P.	N/S
Instrument Cluster C1	BK	Rear of Cluster	14
Instrument Cluster C2	BK	Rear of Cluster	14
Intake Air Temp/MAP Sensor	BK	Left Side of Intake	8
Intermittent Wipe/Wash Switch	NAT	Rear of Switch	10
Key-In Switch	GN	Rear of Switch	10
Knock Sensor	GY	Front of Engine	8

Connector Name/Number	Color	Location	Fig.
Left Airbag Impact Sensor	GY	Left Side of Radiator Closure Panel	1
Left Back-Up Lamp	GY	At Lamp	20
Left Door Lock Switch	WT	At Switch	12
Left Door Window Motor	BK	At Motor	12
Left Fog Lamp	BK	Rear of Lamp	4
Left Front Door Lock Motor	BK	At Motor	12
Left Front Door Speaker	BK	At Speaker	12
Left Front Wheel Speed Sensor	GY	Left Fender Side Shield	N/S
Left Headlamp	BK	At Lamp	6
Left Headlamp Leveling Motor	BK	Rear of Left Headlamp	N/S
Left Instrument Panel Speaker	BK	At Speaker	N/S
Left License Lamp	NAT	At Lamp	18
Left Park/Turn Signal Lamp	BK	Rear of Lamp	6
Left Power Mirror	BK	At Mirror	12
Left Power Window Switch	WT	At Switch	12
Left Rear Door Lock Motor	BK	Rear of Door	15
Left Rear Fog Lamp	NAT	At Lamp	N/S
Left Rear Speaker	BK	At Speaker	16
Left Rear Wheel Speed Sensor	BK	Left Rear Frame Rail	N/S
Left Repeater Lamp	BK	At Lamp	N/S
Left Tail/Stop Lamp	BK	At Lamp	20
Left Turn Signal Lamp	NAT	At Lamp	6
Map/Reading Lamps	BK	At Lamp	9
Master Power Window Switch	WT	At Switch	12
Park/Neutral Position Switch	BK	Front of Transmission	3
Passenger Side Airbag	YL	Left Side of I.P.	13

DESCRIPTION AND OPERATION (Continued)

Connector Name/Number	Color	Location	Fig.
Power Folding Mirror Relay	BK	Near Power Mirror	N/S
Power Mirror Fuse Holder	BK	Near Power Mirror	N/S
Power Mirror Switch C1	BK	At Switch	12
Power Mirror Switch C2	BK	At Switch	12
Power Steering Pressure Switch	GY	Rear of Steering Gear	5
Power Sunroof Motor	RD	At Motor	9
Powertrain Control Module C1	BK	Left Fender Side Shield	5
Powertrain Control Module C2	BK	Left Fender Side Shield	5
PRNDL Lamp	BK	Rear of Gearshift	11
Radiator Fan Motor	BK	Rear of Fan	6
Radio C1	BK	Rear of Radio	13
Radio C2	GY	Rear of Radio	13
Rear Fog Lamp Switch	BK	At Switch	N/S
Rear Window Defogger Switch	BK	Rear of Switch	13
Right Airbag Impact Sensor	GY	Right Side Radiator Closure Panel	1
Right Back-Up Lamp	GY	At Lamp	20
Right Door Lock Switch	WT	At Switch	12
Right Door Window Motor	BK	At Motor	12
Right Fog Lamp	BK	Rear of Fascia	4
Right Front Door Lock Motor	BK	At Motor	12
Right Front Door Speaker	BK	At Speaker	12
Right Front Wheel Speed Sensor	GY	Right Fender Side Shield	4
Right Headlamp	BK	Rear of Lamp	4
Right Headlamp Leveling Motor	BK	Rear of Right Headlamp	4
Right Instrument Panel Speaker	BK	At Speaker	N/S

Connector Name/Number	Color	Location	Fig.
Right License Lamp	NAT	At Lamp	18
Right Park/Turn Signal Lamp	NAT	At Lamp	4
RIght Power Mirror	BK	At Mirror	12
Right Rear Door Lock Motor	BK	Rear of Door	15
Right Rear Fog Lamp	NAT	At Lamp	N/S
Right Rear Speaker	BK	At Speaker	16
Right Rear Wheel Speed Sensor	BK	Right Rear Frame Rail	N/S
Right Repeater Lamp	BK	At Lamp	N/S
Right Tail/Stop Lamp	BK	At Lamp	4
Right Turn Signal Lamp	BK	At Lamp	20
Solid State Fan Relay	BK	Left Front Frame Rail	6
Stop Lamp Switch	GY	Top of Brake Pedal	2
Sunroof Slide Switch	BL	At Switch	9
Sunroof Vent Switch	YL	At Switch	9
Throttle Position Sensor	BK	On Throttle Body	8
Torque Converter Clutch Solenoid	BK	Top of Transmission	3
Trunk Lamp	BK	At Lamp	17
Turn Signal/Hazard Switch	BK	Rear of Switch	10
Upstream Heated Oxygen Sensor	GY	Right Rear of Engine	4, 7
Vapor Canister Leak Detector	BK	Right Front Fender	N/S
Vehicle Speed Sensor	BK	Rear of Transmission	3
Windshield Washer Pump Motor	BK	Bottom of Reservior	6
Wiper Motor	BK	Right Side of Cowl Panel	N/S

DESCRIPTION AND OPERATION (Continued)

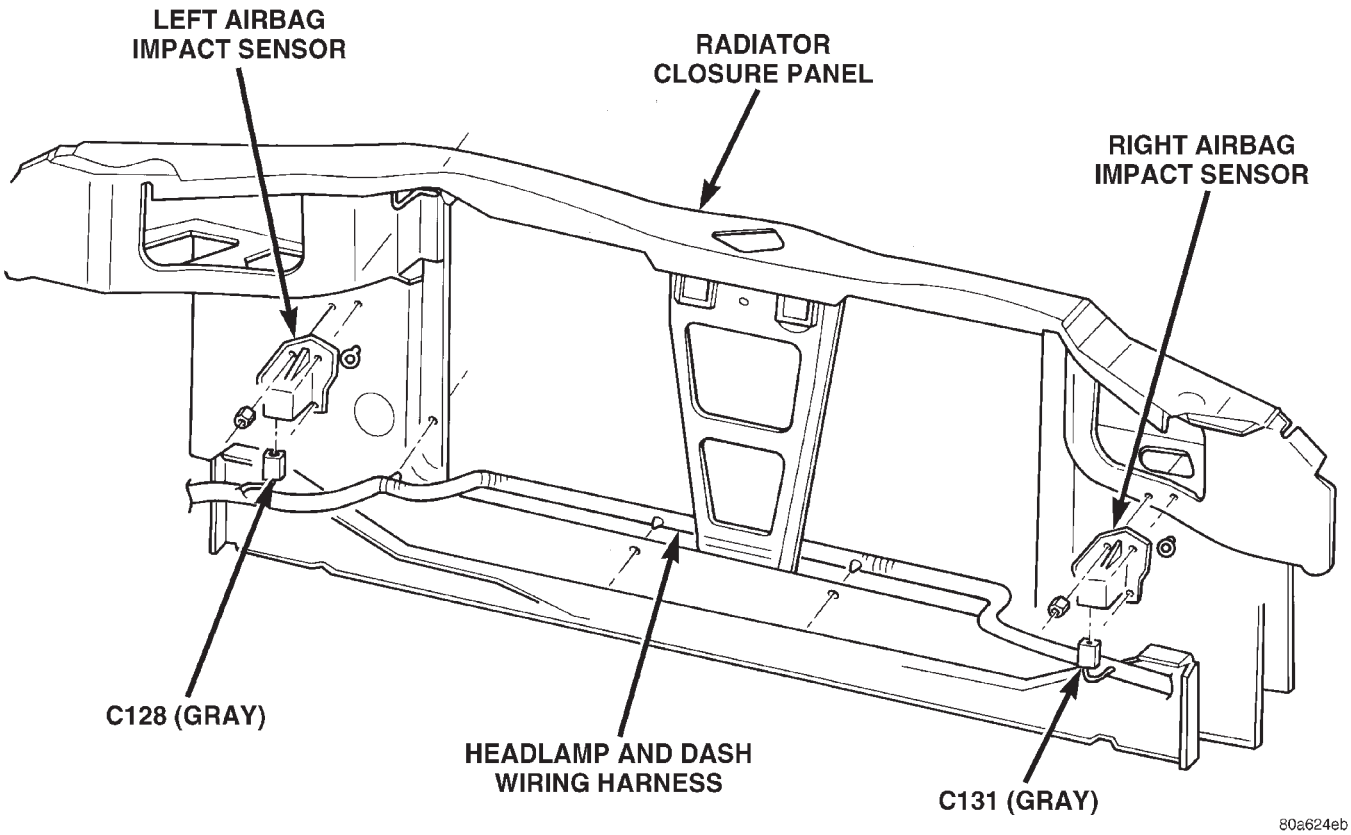


Fig. 1 Airbag Impact Sensors

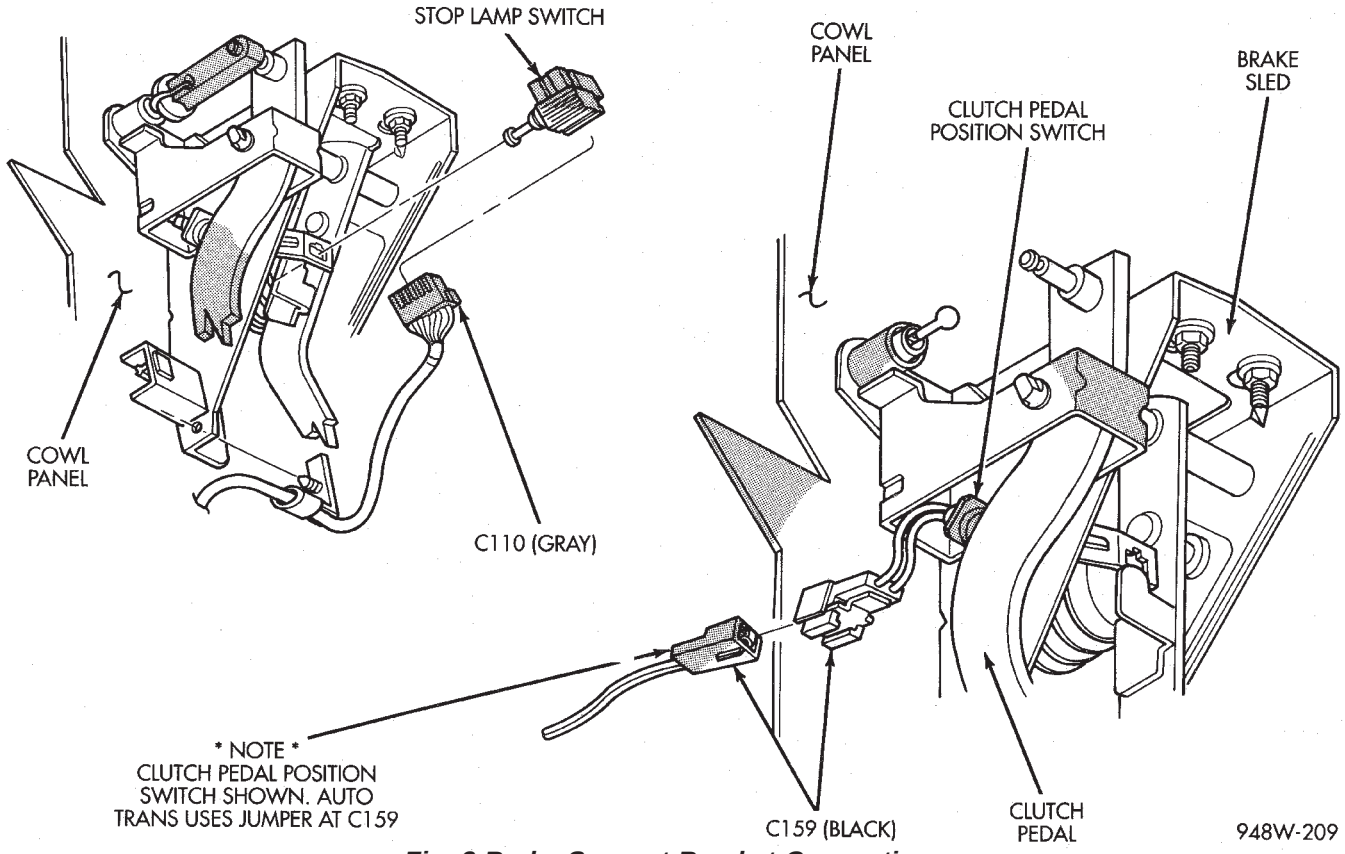


Fig. 2 Brake Support Bracket Connections

DESCRIPTION AND OPERATION (Continued)

DESCRIPTION AND OPERATION (Continued)

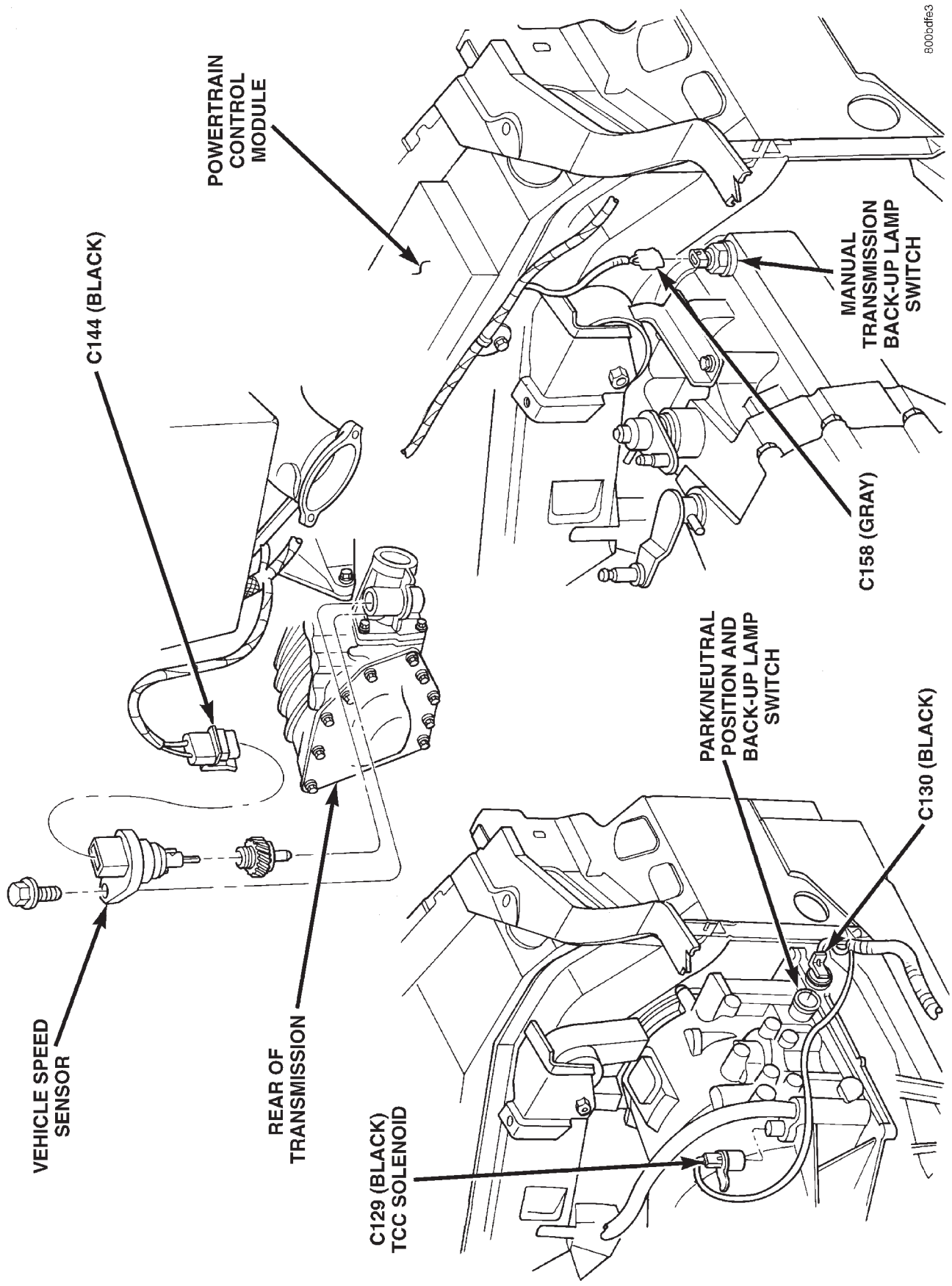


Fig. 3 Transmission Connections

DESCRIPTION AND OPERATION (Continued)

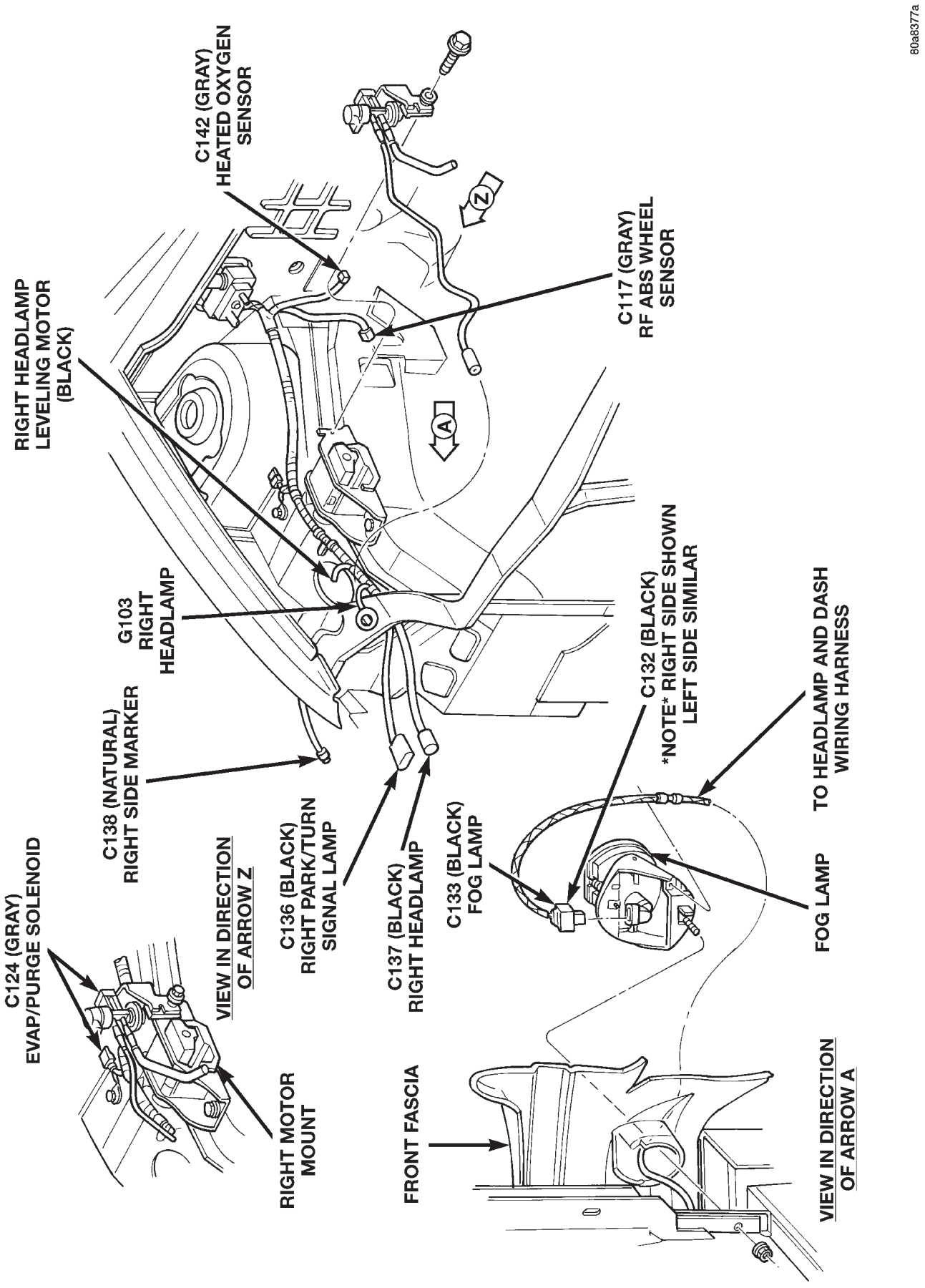


Fig. 4 Engine Compartment Connections (Right Side)

DESCRIPTION AND OPERATION (Continued)

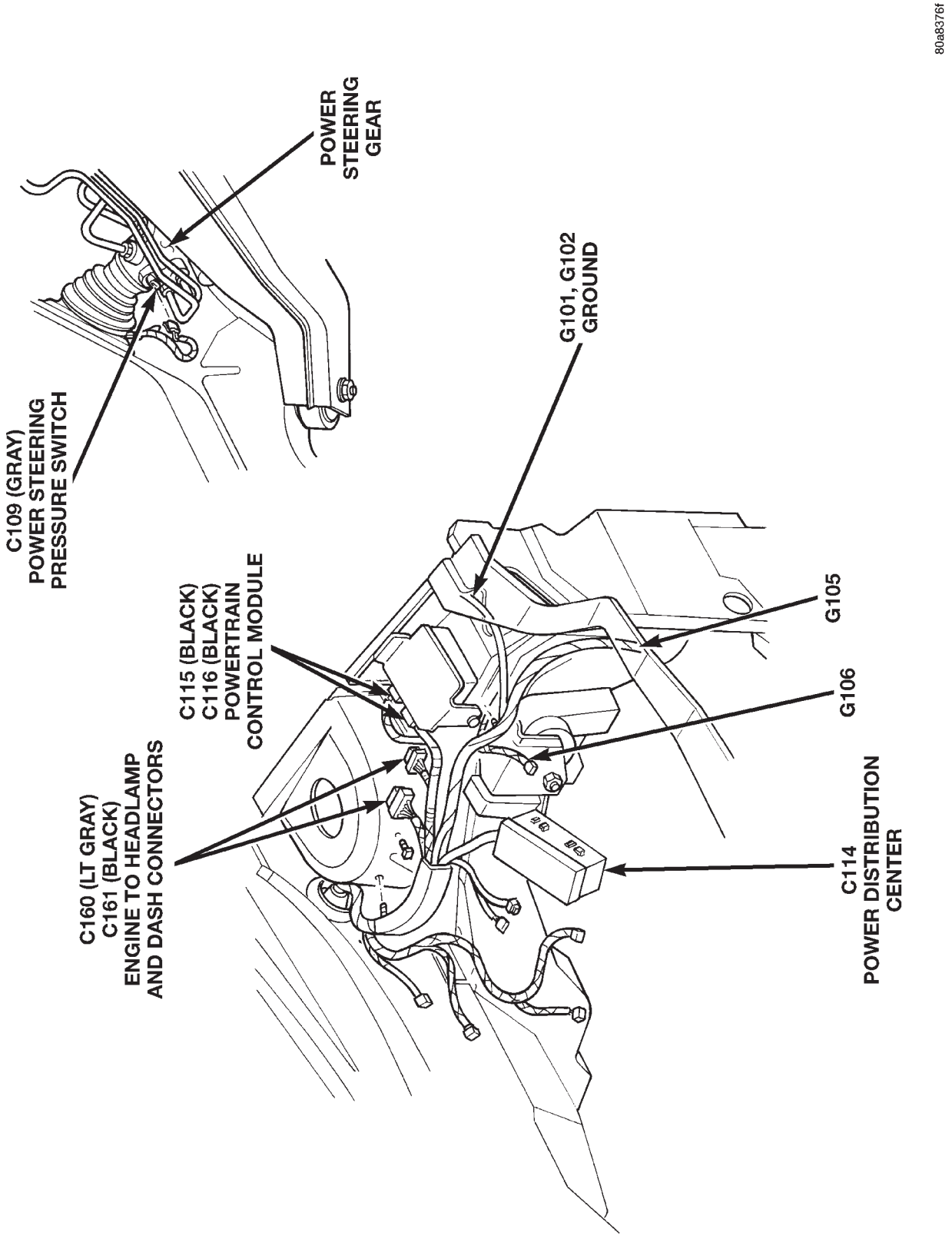


Fig. 5 Engine Compartment Connections (Left Side)

DESCRIPTION AND OPERATION (Continued)

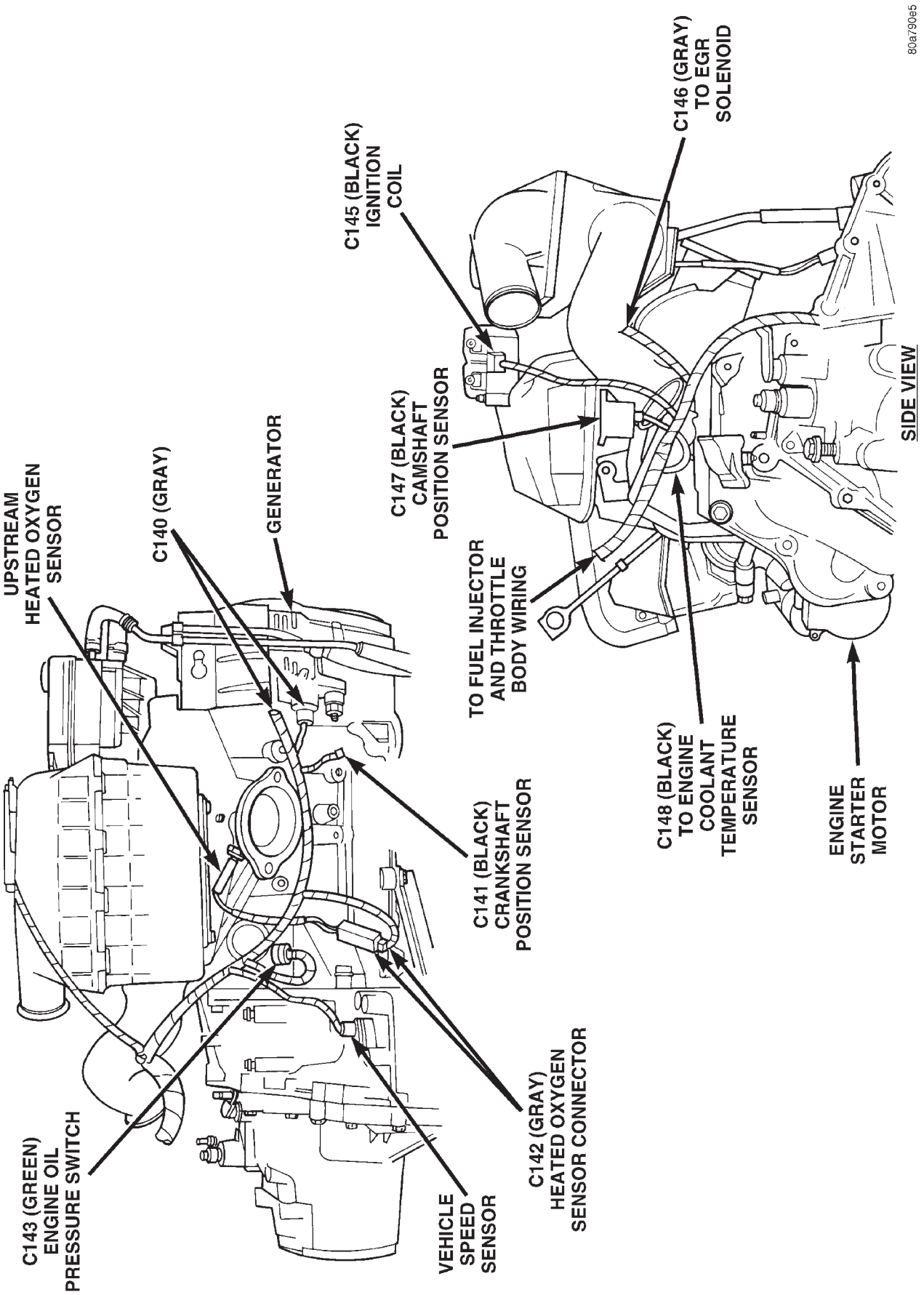


Fig. 6 Engine Compartment Connections

DESCRIPTION AND OPERATION (Continued)

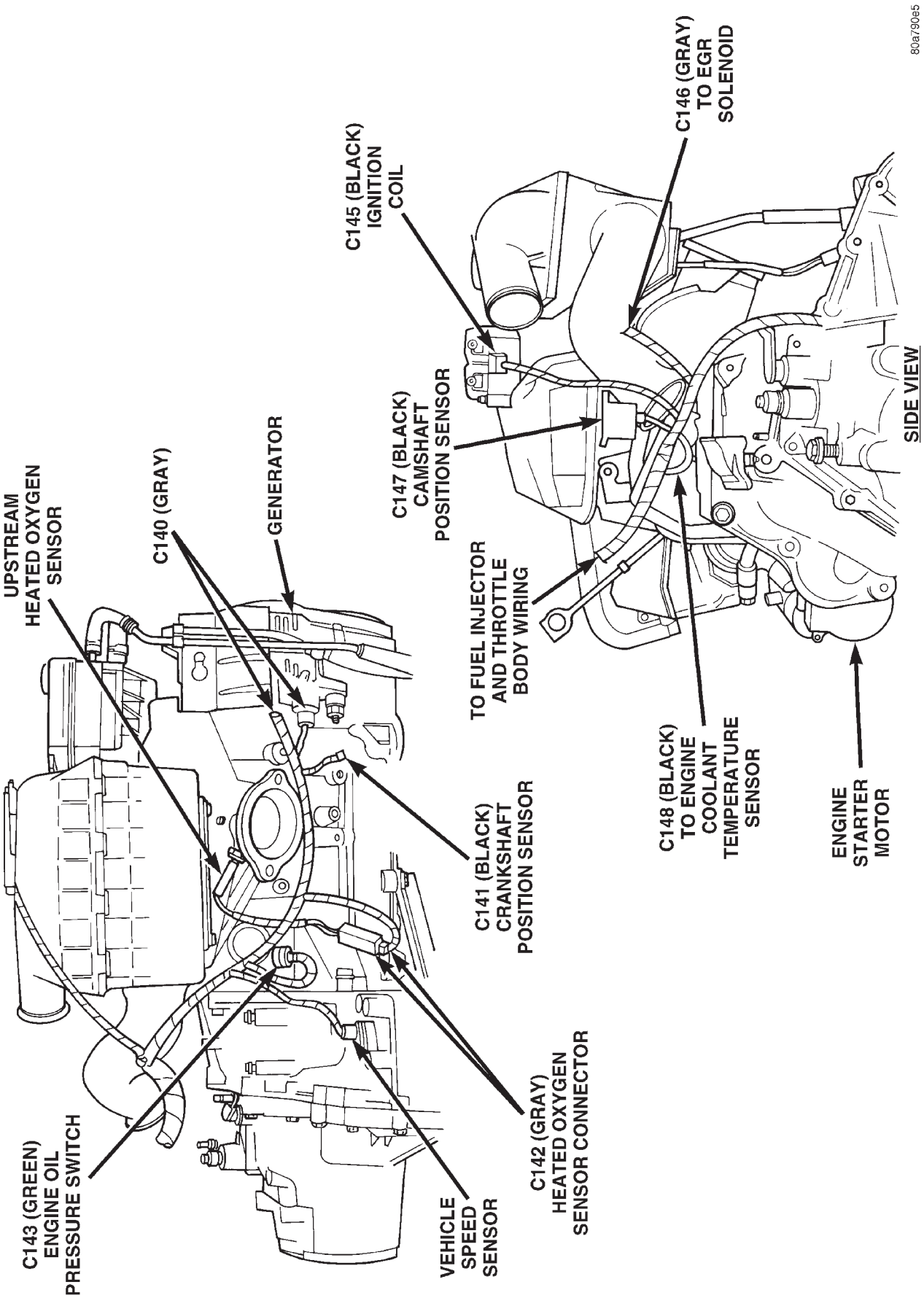


Fig. 7 Engine Connections

DESCRIPTION AND OPERATION (Continued)

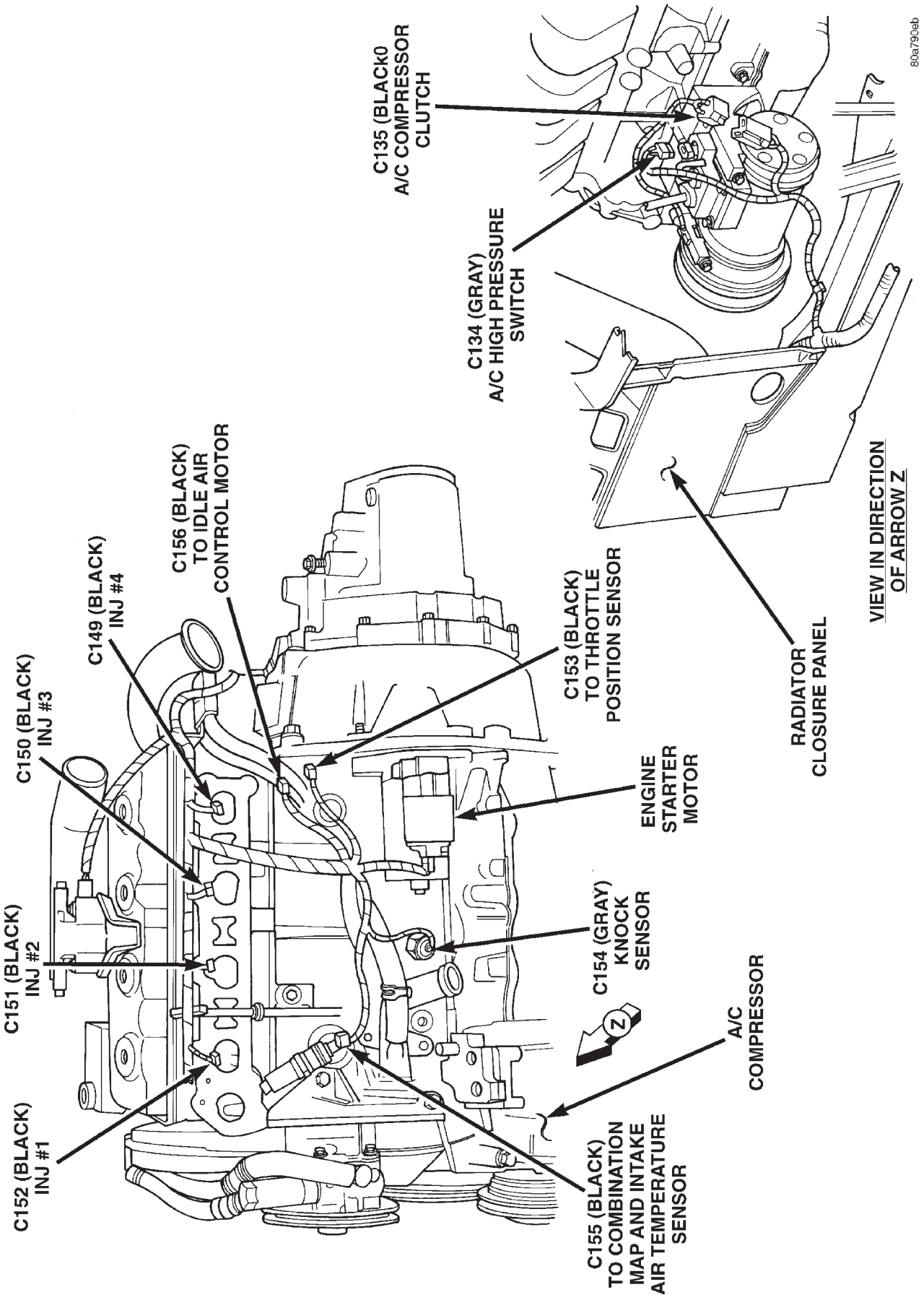


Fig. 8 Engine Connections

DESCRIPTION AND OPERATION (Continued)

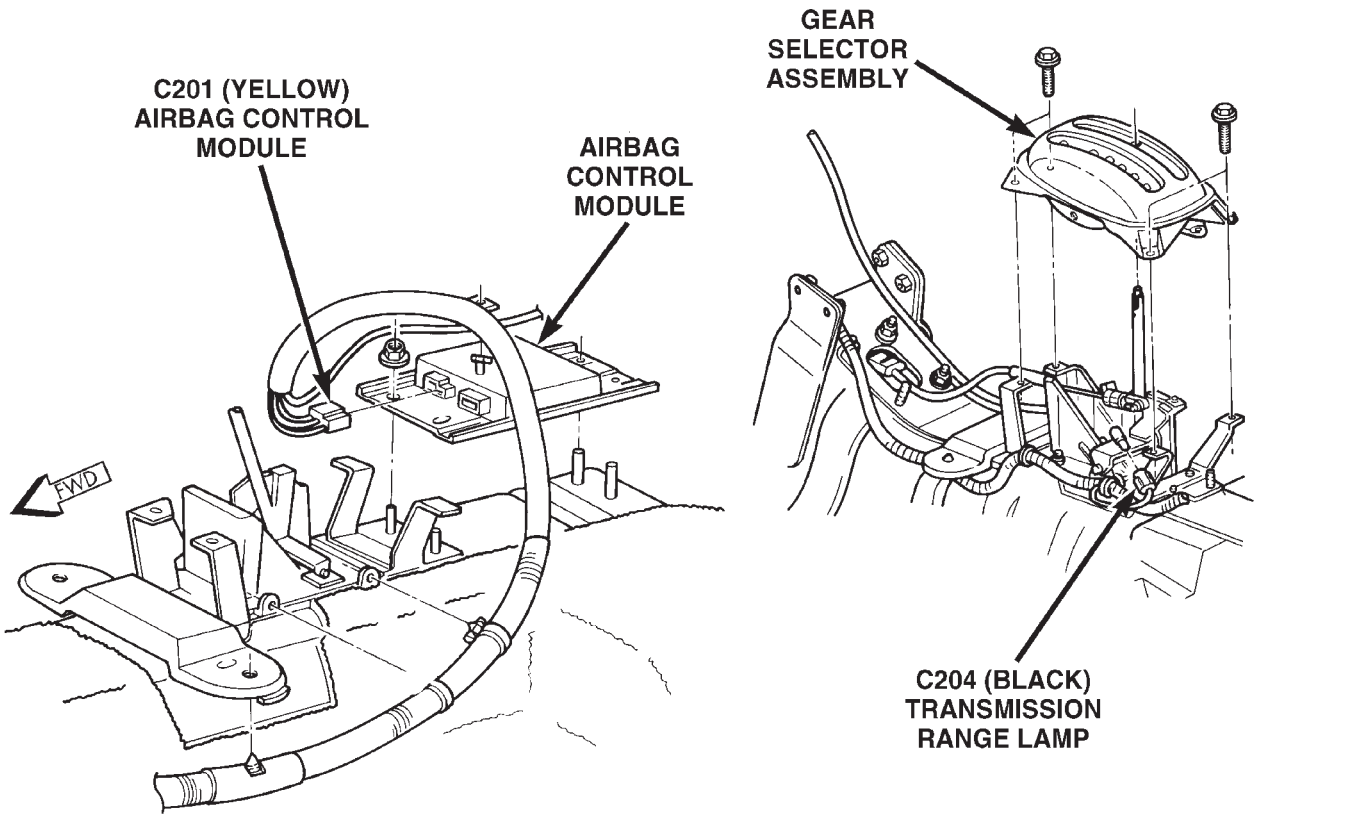


Fig. 11 Console Connections

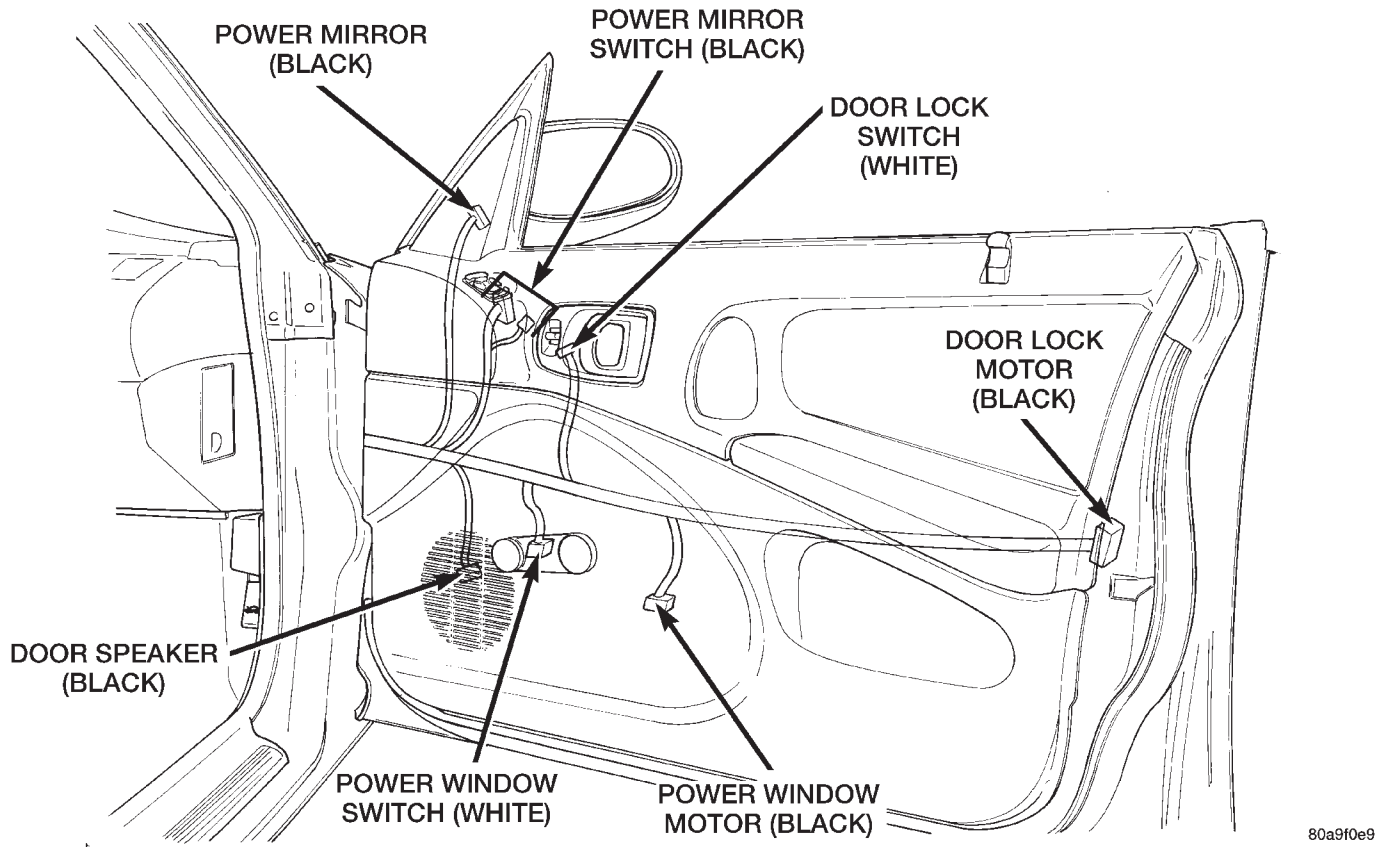


Fig. 12 Door Connections (Front)

DESCRIPTION AND OPERATION (Continued)

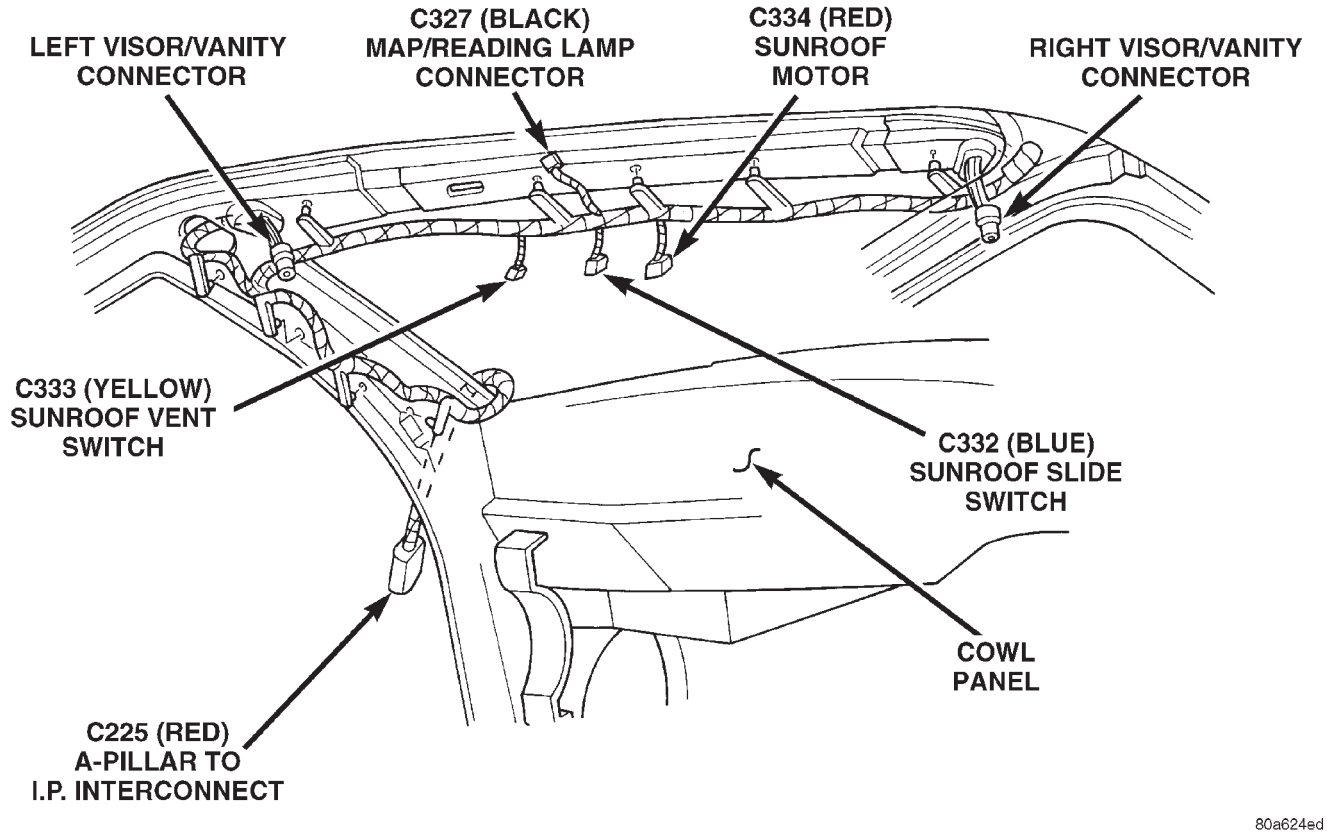


Fig. 9 Visor/Vanity Connections

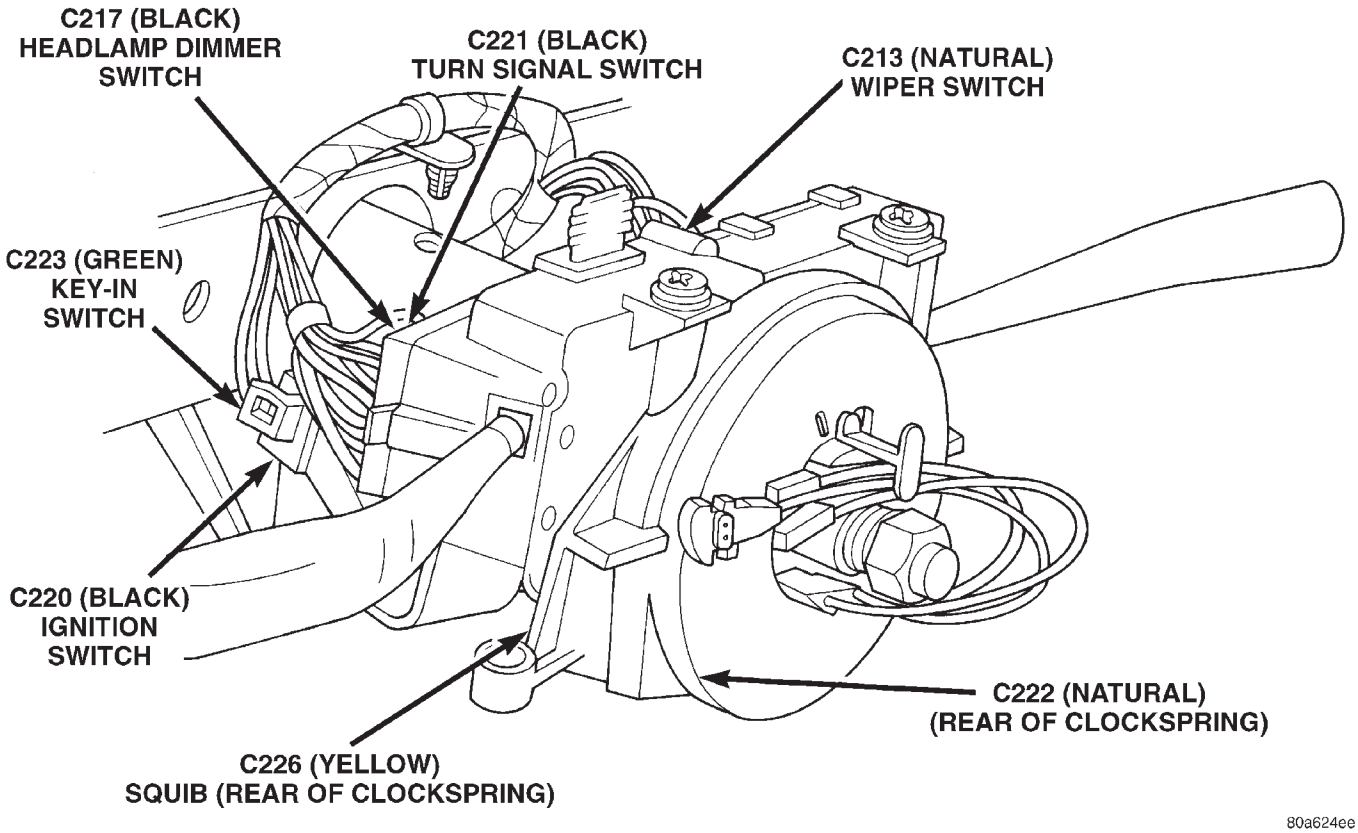


Fig. 10 Steering Column Connections

DESCRIPTION AND OPERATION (Continued)

DESCRIPTION AND OPERATION (Continued)

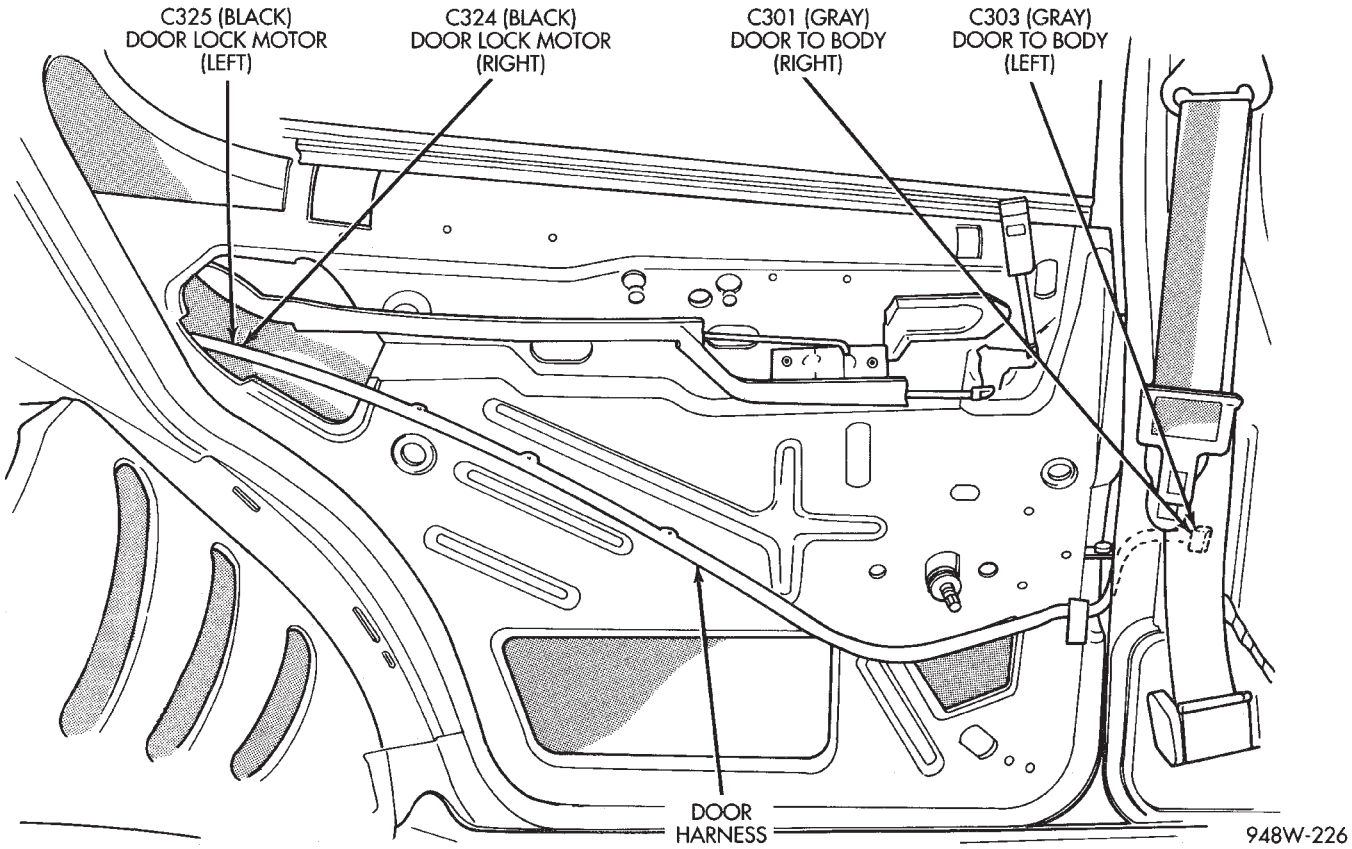


Fig. 15 Door Connections (Rear)

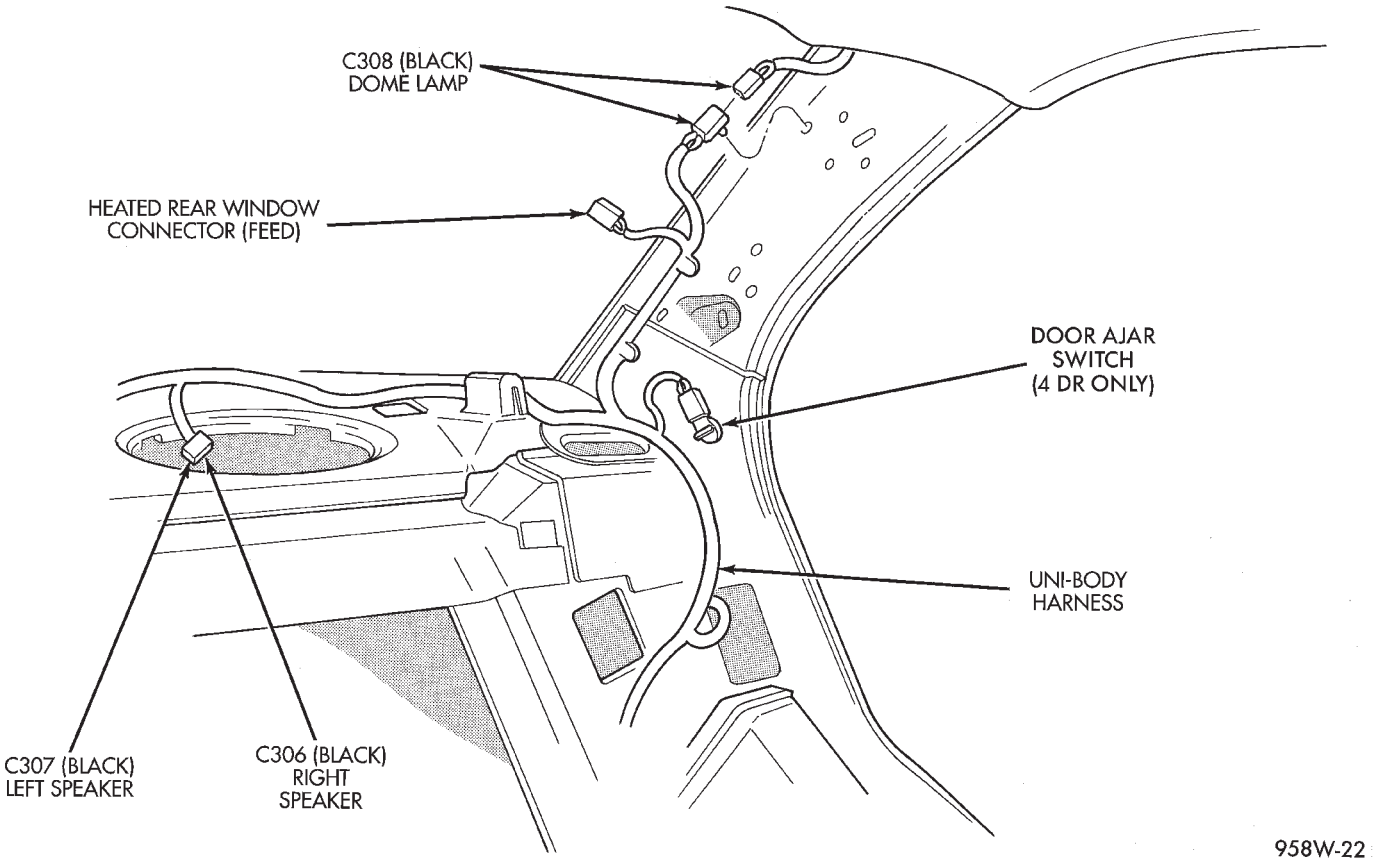


Fig. 16 Body Connections (Left Side)

DESCRIPTION AND OPERATION (Continued)

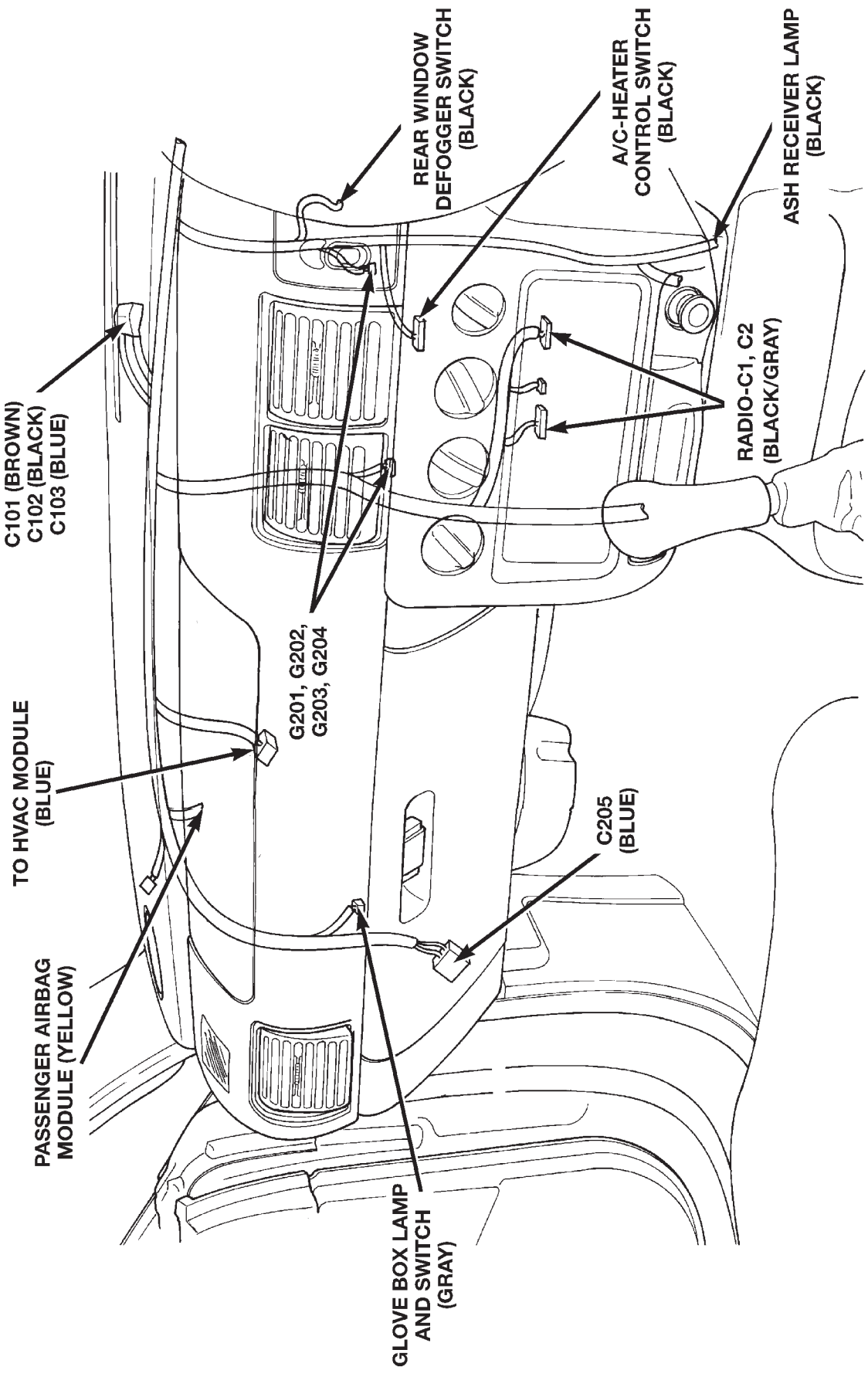


Fig. 13 Left Side Instrument Panel Connections

DESCRIPTION AND OPERATION (Continued)

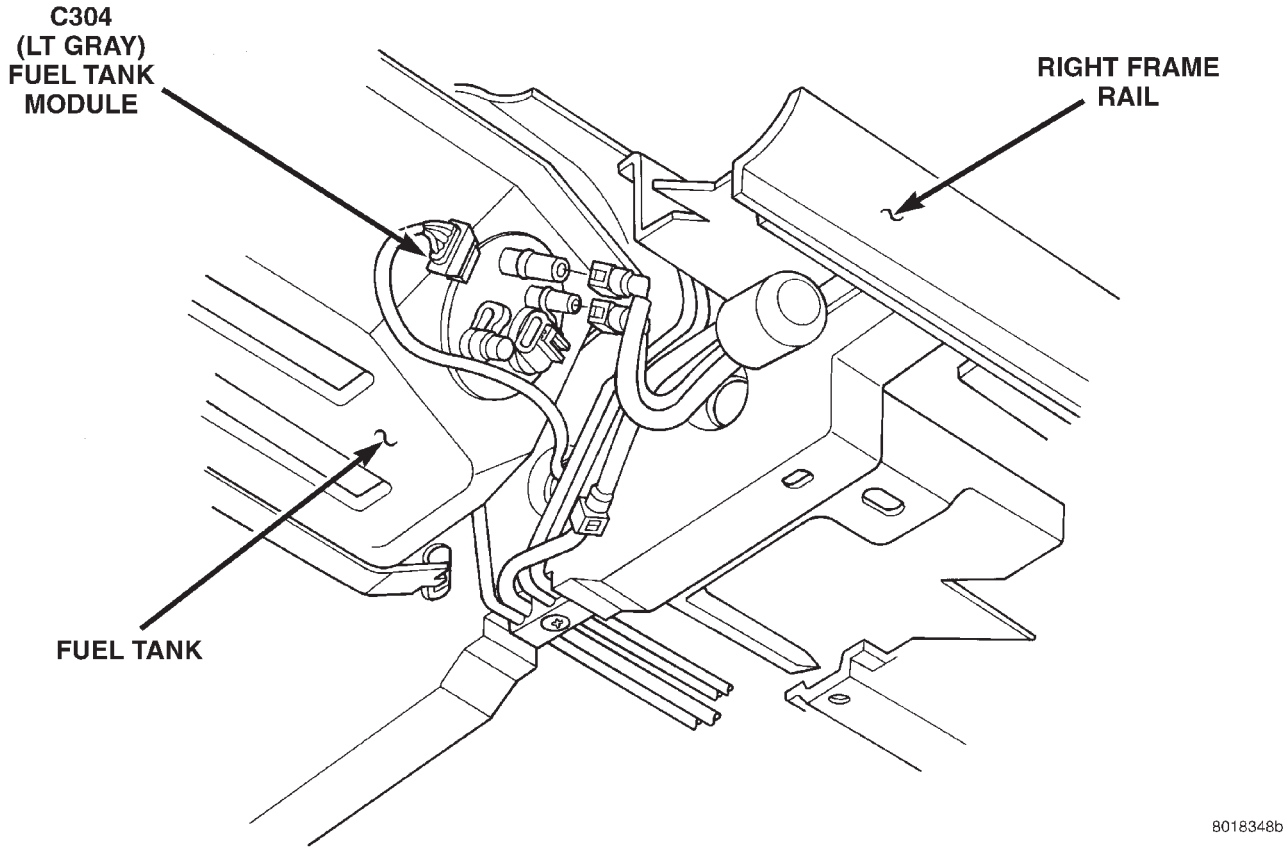


Fig. 19 Fuel Tank Connections

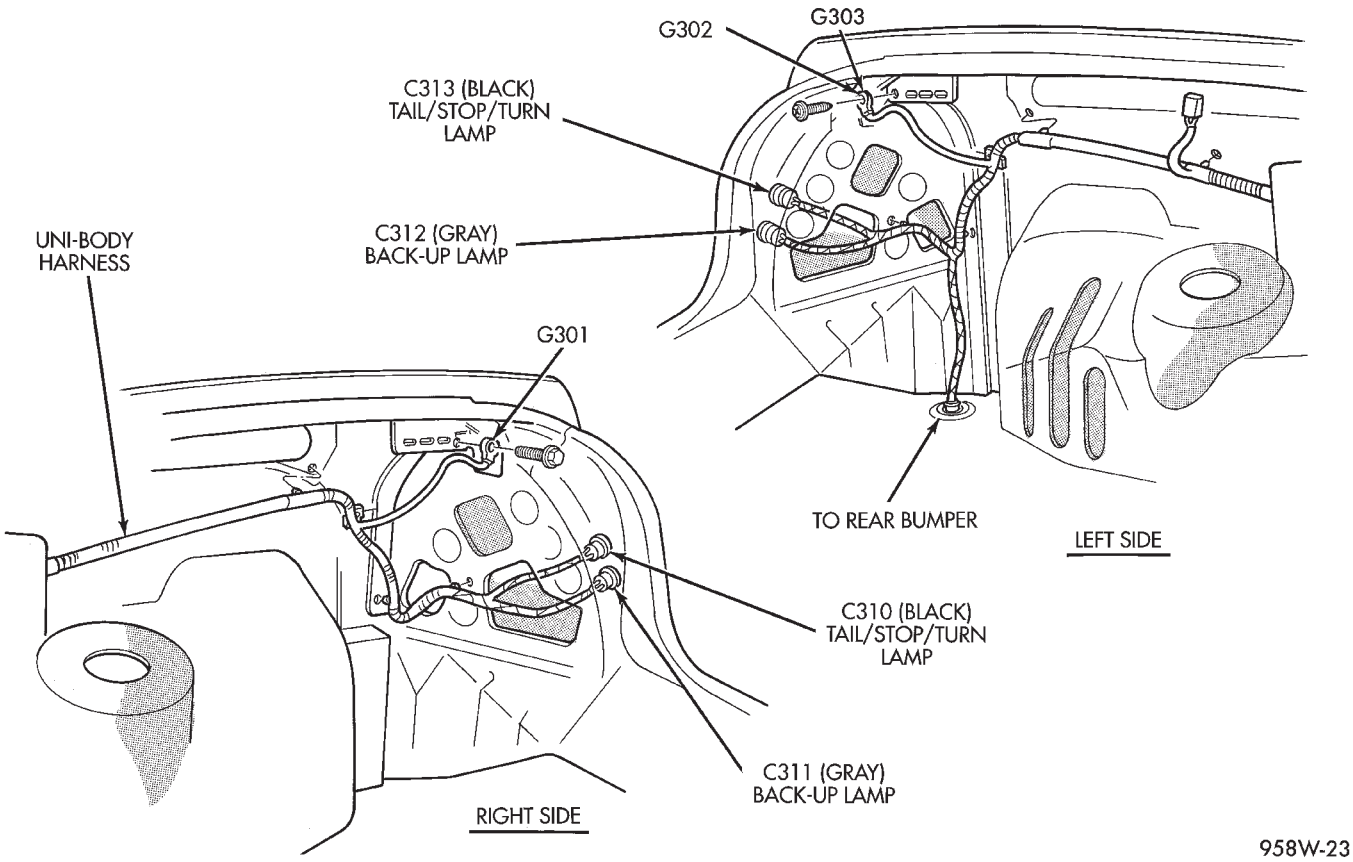


Fig. 20 Rear Lighting Connections

DESCRIPTION AND OPERATION (Continued)

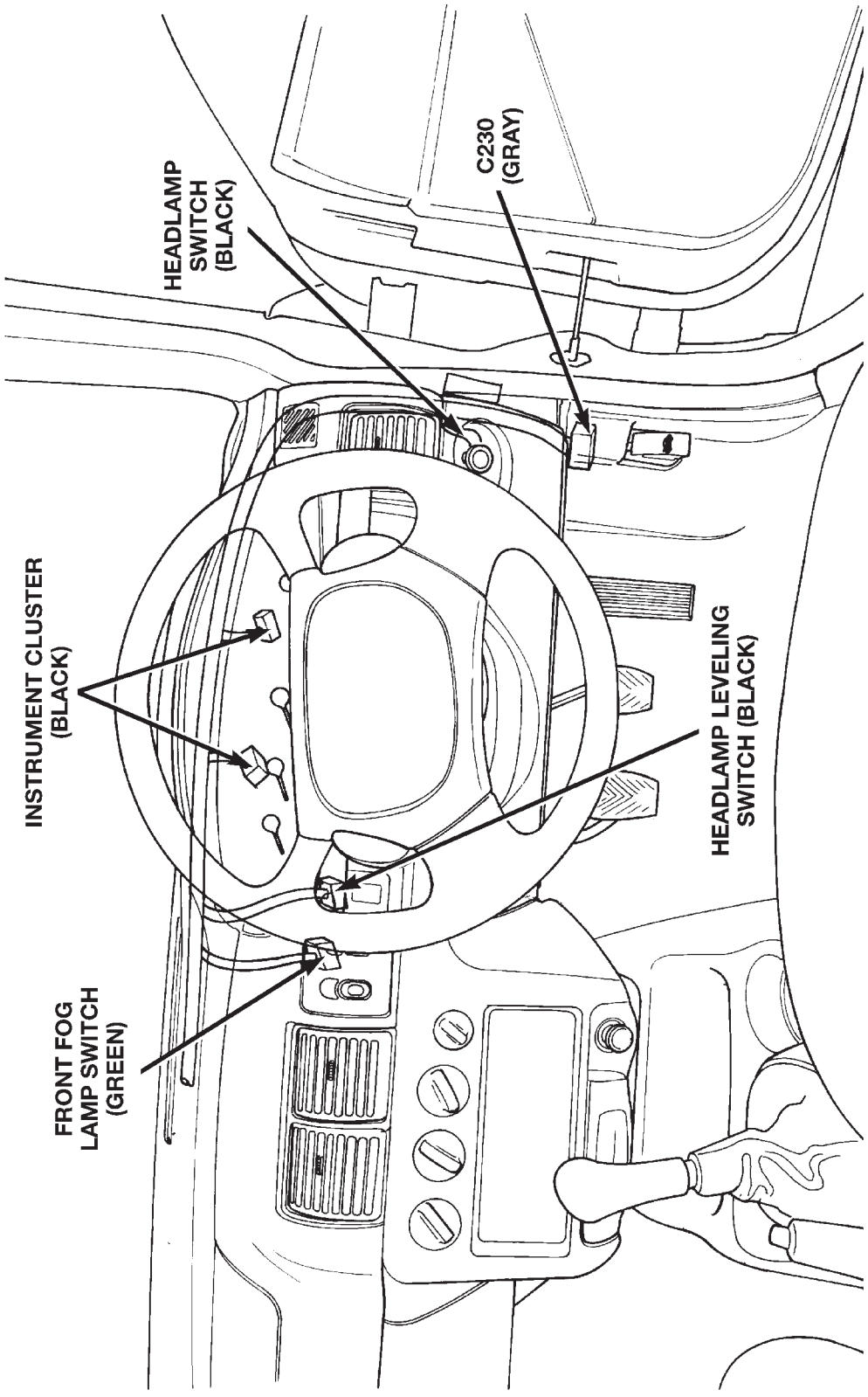


Fig. 14 Right Side Instrument Panel Connections

DESCRIPTION AND OPERATION (Continued)

DESCRIPTION AND OPERATION (Continued)

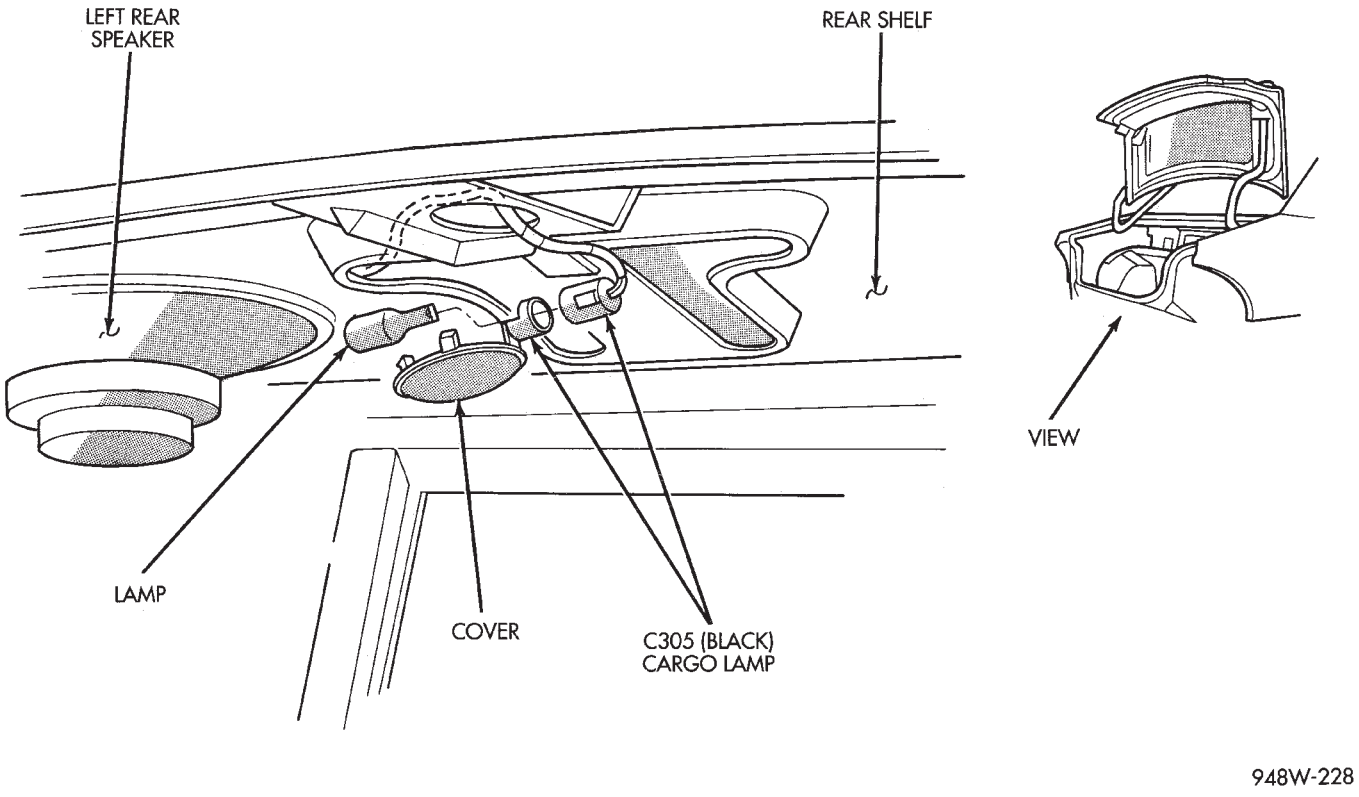


Fig. 17 Trunk Connections

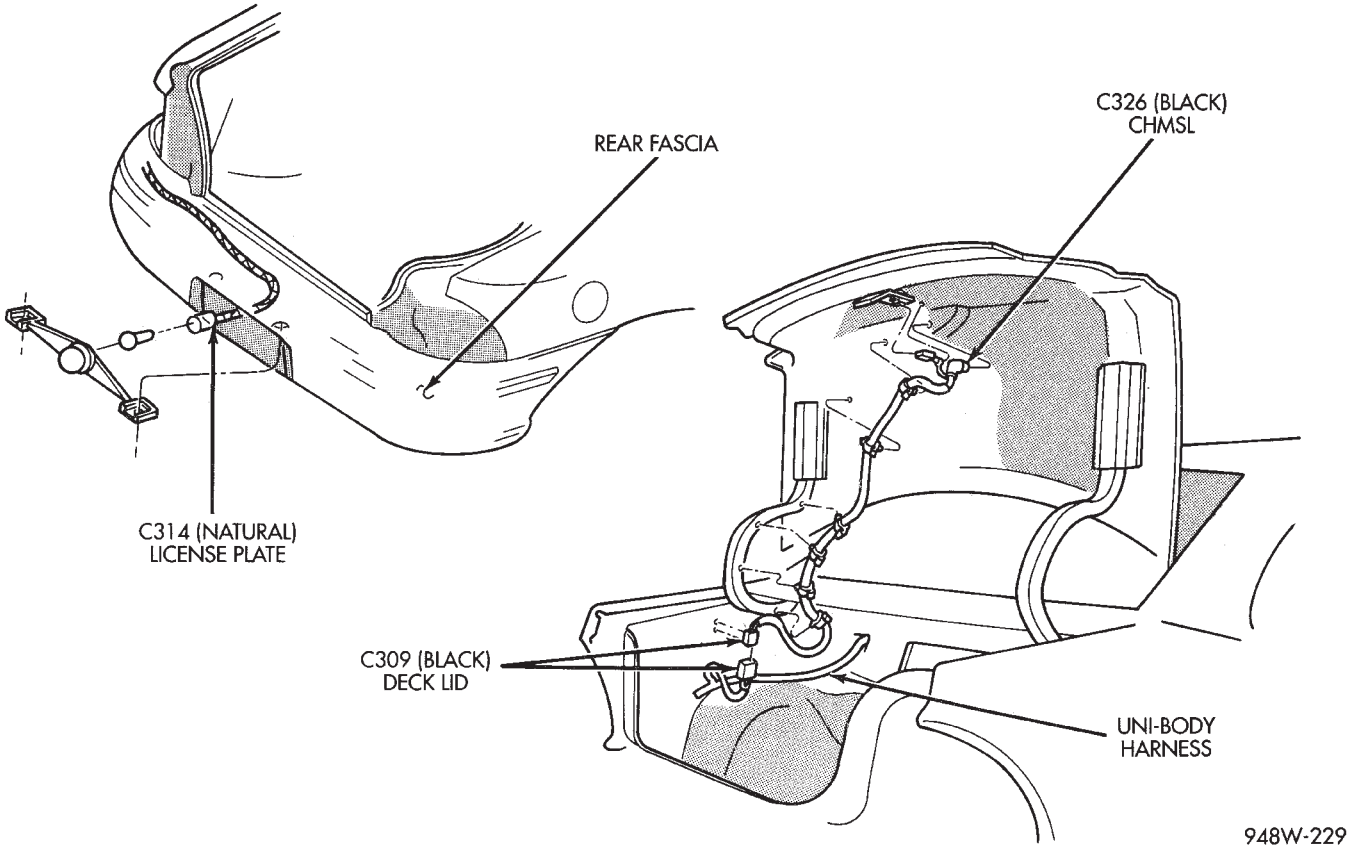


Fig. 18 Decklid/Rear Bumper Connections

DESCRIPTION AND OPERATION (Continued)

8W-95 SPLICE LOCATIONS

DESCRIPTION AND OPERATION

INTRODUCTION

This section provides illustrations identifying the general location of the splices in this vehicle. A splice index is provided. Use the wiring diagrams in each section for splice number identification. Refer to the index for the proper splice number.

SPLICE LOCATIONS

The following index covers all splices shown in the wiring diagrams. If a splice is not shown in this section, a N/S will be in the Fig. column.

Spllice	Location	Fig.
S101	Near Dat Link T/O	1
S102	In CAB T/O	1
S103	Near CAB Connector	1
S104	Right Strut Tower	1
S105	Near Right Cowl Top Grommet	N/S
S106	Near PCM T/O	1
S107	Before T/O for Left Headlamp	2
S108	Before T/O for Left Headlamp	2
S109	Before T/O for Left Headlamp	2
S110	In PCM T/O	1
S111	In PCM T/O	1
S112	Near T/O for Left Headlamp	2
S113	Near T/O for Left Headlamp	2
S114	Near T/O for Left Headlamp	2
S115	Neat T/O for Radiator Fan Motor	2
S116	Near T/O for Left Fog Lamp	2
S117	Near EVAP/Purge Sol T/O	2
S118	Between O2S and Crank Sensor T/O	3
S119	Between O2S and VSS T/O	3
S120	Between INJ #3 and #4 T/O	3
S121	Between INJ #1 and #2 T/O	3
S122	Near T/O for EGR Sol	3
S123	Near HD/LP and Dash Connector	3
S124	Between Cam Sensor and Coil T/O's	3
S125	Near Starter	3
S126	Near PCM T/O	1
S127	Near Ignition Coil	3
S128	Near A/C Compressor Clutch T/O	N/S
S129	In PCM T/O	1
S201	Near T/O for Center Console	N/S
S202	Near T/O for PAB	5
S203	Near T/O for HVAC	5

Spllice	Location	Fig.
S204	Near HVAC Connector	5
S205	Near Center Stack T/O	5
S206	Near Center Stack T/O	5
S207	Top Center of I.P.	4
S208	Top Center of I.P.	4
S209	Top Center of I.P.	4
S210	Top Center of I.P.	4
S211	Between RT and LT Cluster T/O's	4
S212	Between RT and LT Cluster T/O's	4
S213	Near T/O for Fuseblock	4
S214	Near T/O for Fuseblock	4
S217	Near T/O for Fuseblock	4
S218	Between RT and LT Cluster T/O's	4
S220	Near Fuseblock T/O	4
S221	Top Right of I.P.	5
S301	Near LT B-Pillar T/O	6
S302	Near LT B-Pillar T/O	6
S303	Near LT B-Pillar T/O	6
S304	Near Fuel Tank T/O	6
S305	Near Right Rear Body Ground T/O	7
S306	Near Fuel Tank T/O	7
S307	Between LR Body Ground and LT Tail Lamp T/O	6
S308	Near LR Body Ground	6
S309	Near Top of A-Pillar, Left Side	N/S
S310	Near DR/LK SW and PWR Mirro T/O	8
S311	Near LR Wheel House T/O	6
S312	On RR Wheel House	7
S313	Near T/O for Sunroof Slide SW	N/S
S314	Near T/O for Sunroof Slide Switch	N/S
S316	Near Fuel Tank T/O	6
S317	Near Fuel Tank T/O	7
S318	Near DR/LK Switch T/O	8

DESCRIPTION AND OPERATION (Continued)

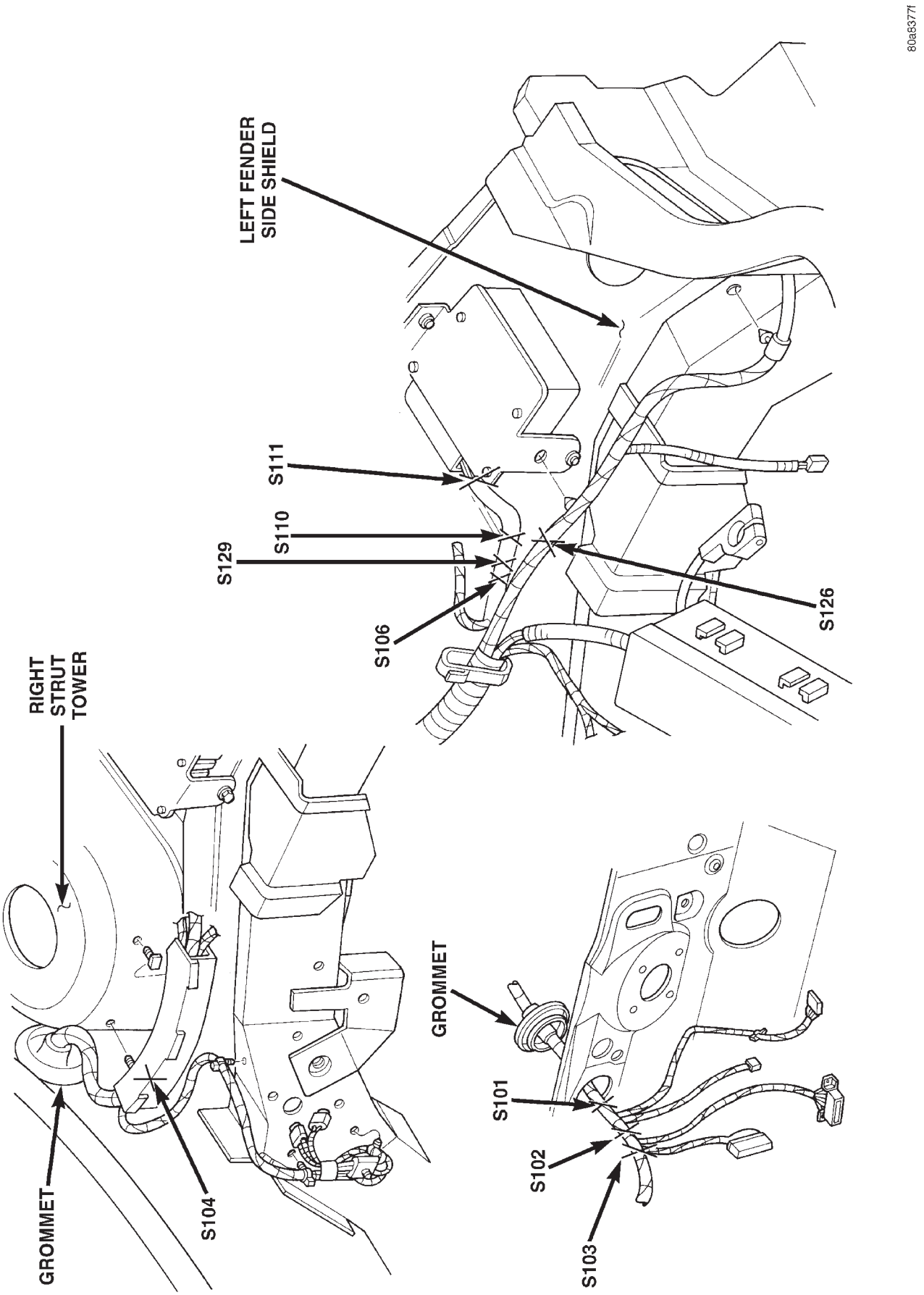


Fig. 1 Engine Compartment Splices

DESCRIPTION AND OPERATION (Continued)

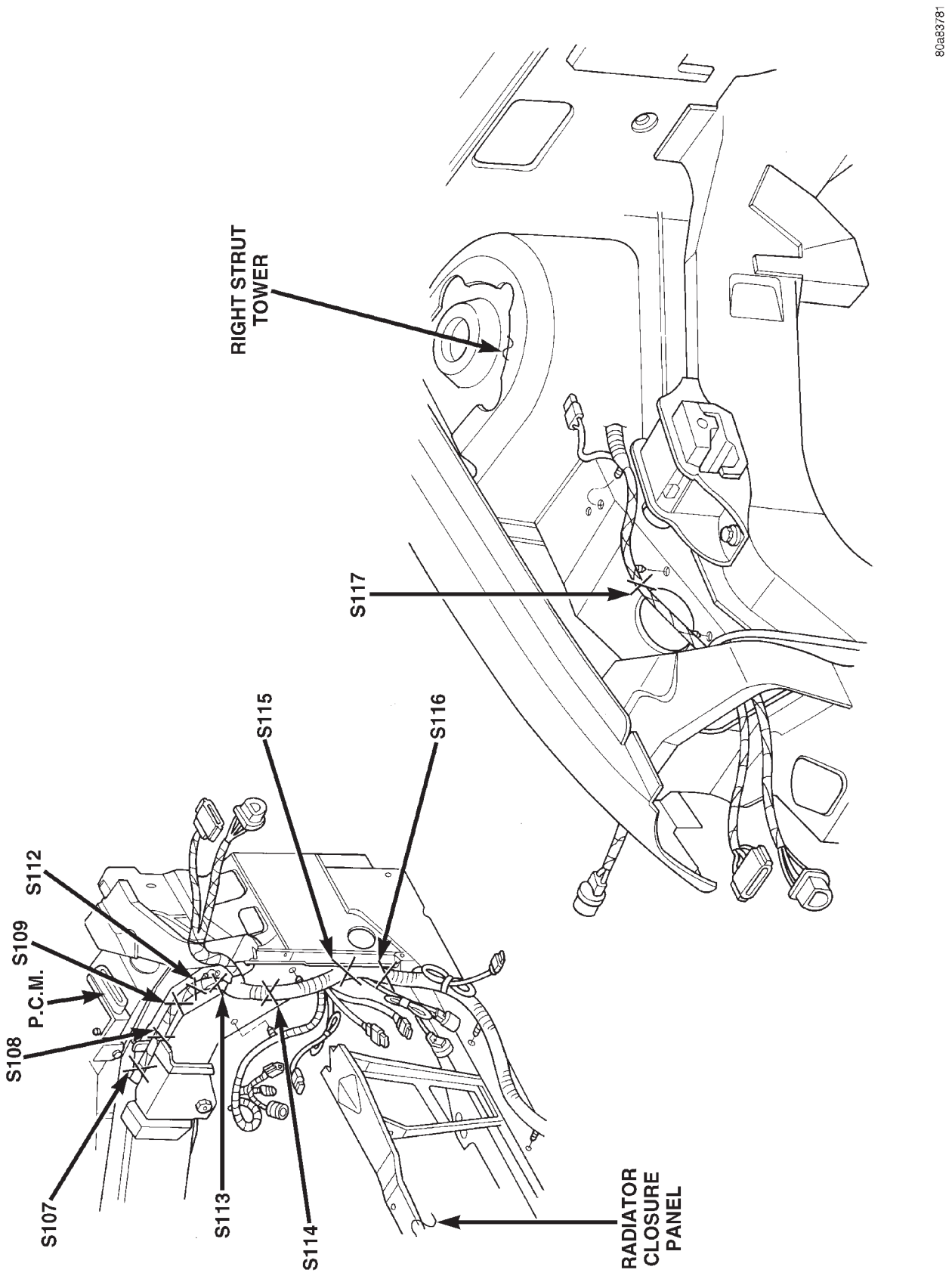


Fig. 2 Engine Compartment Splices

DESCRIPTION AND OPERATION (Continued)

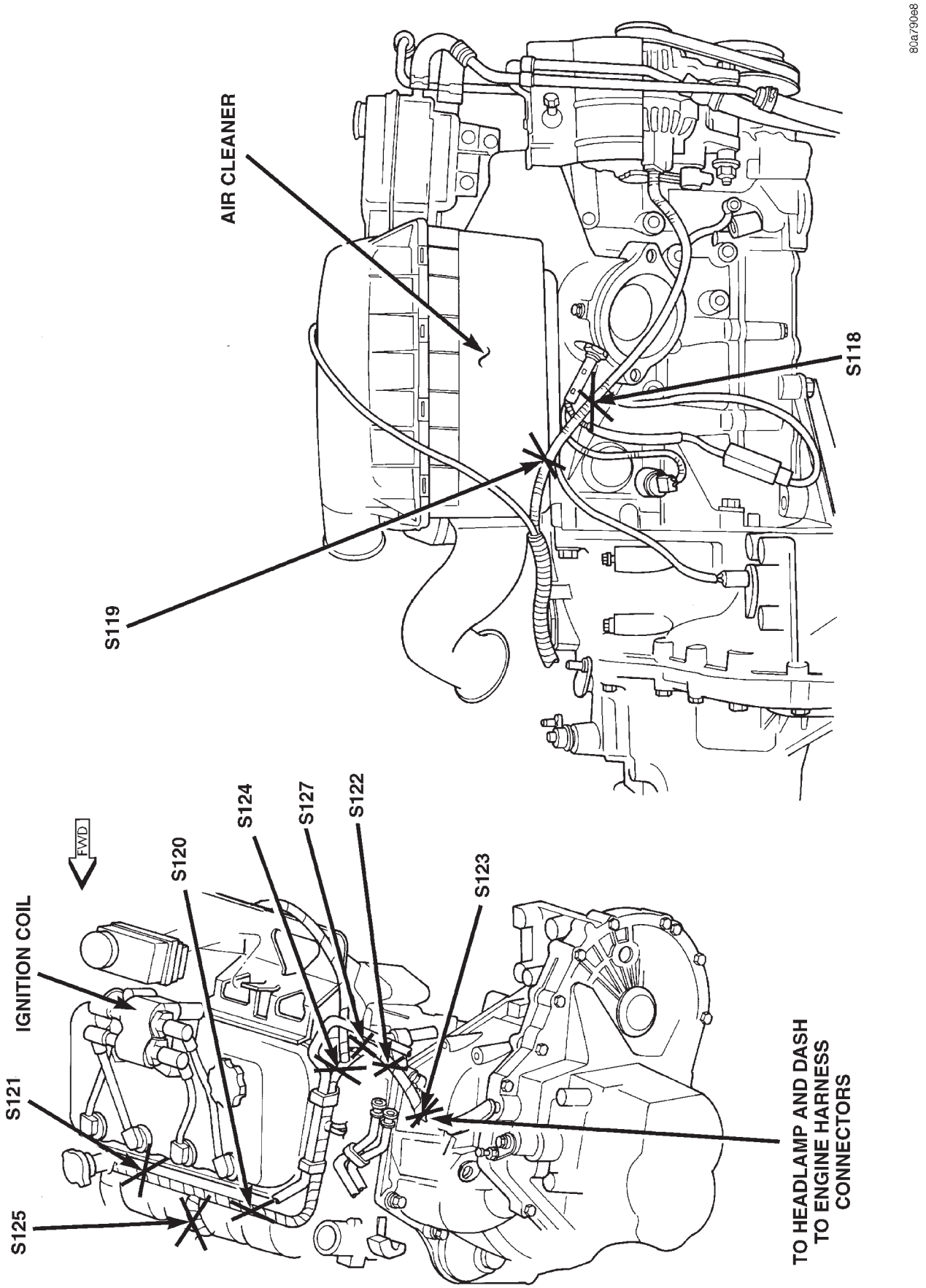


Fig. 3 Engine Splices

DESCRIPTION AND OPERATION (Continued)

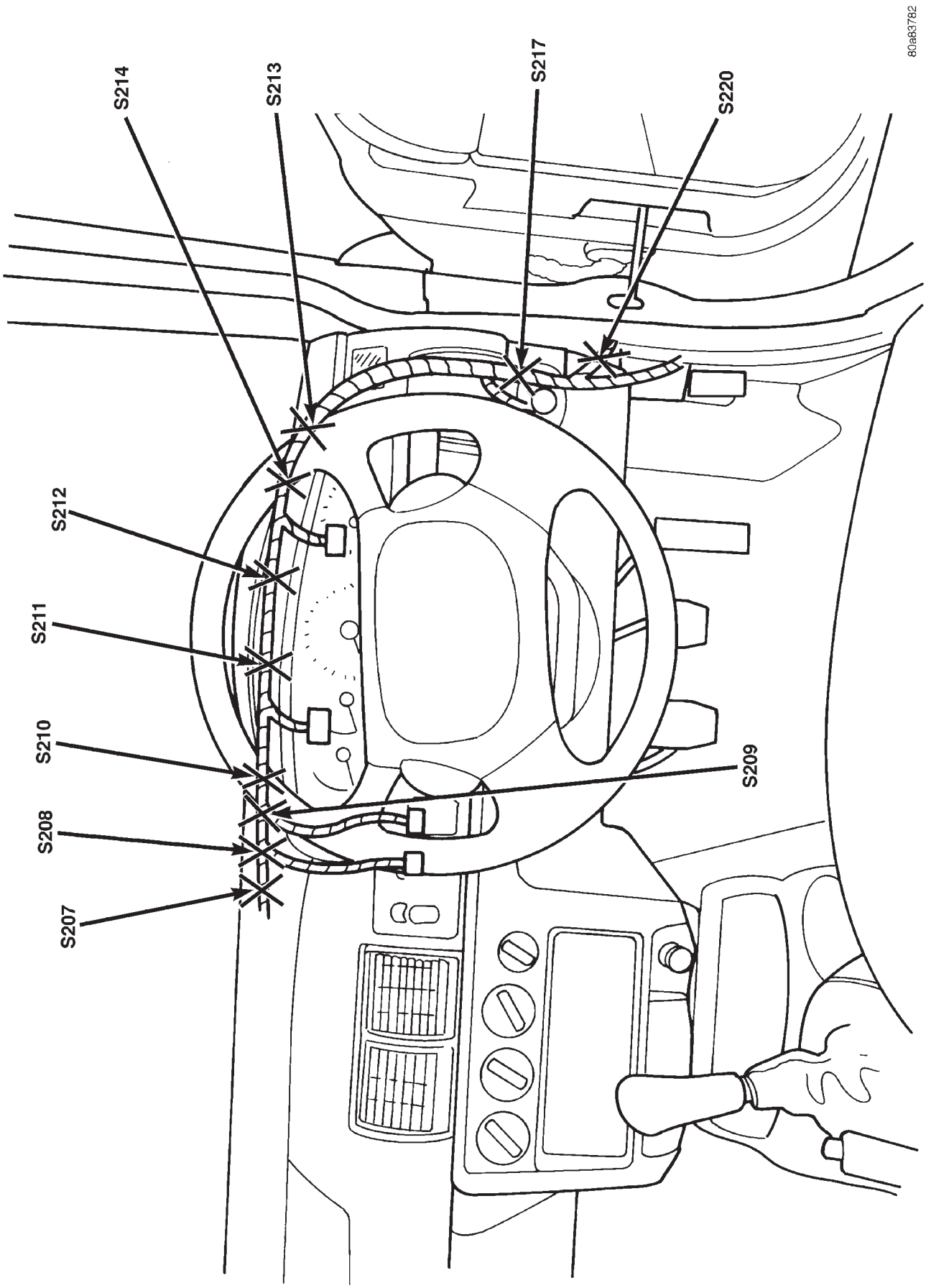


Fig. 4 Instrument Panel Splices (Right Side)

DESCRIPTION AND OPERATION (Continued)

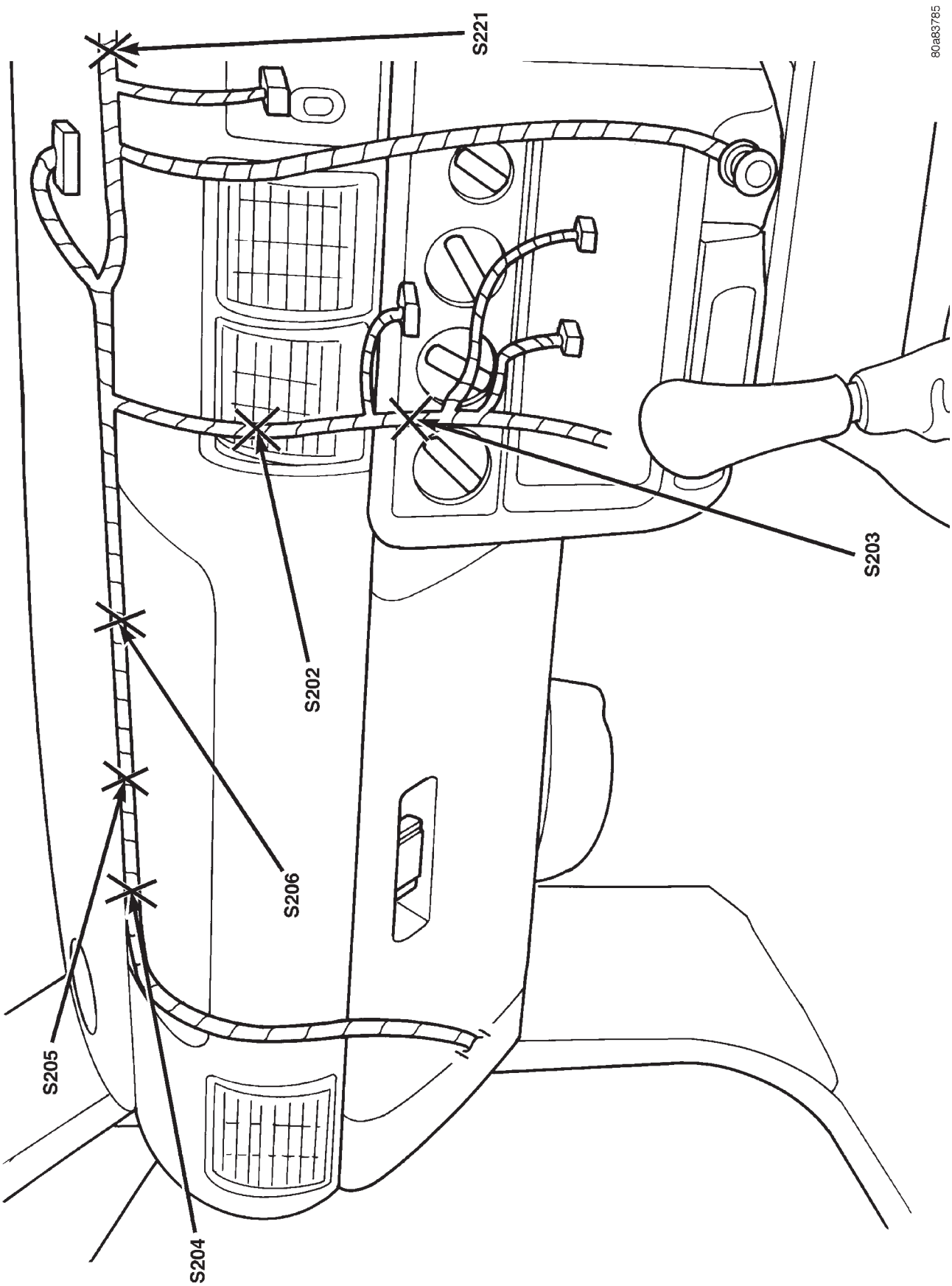


Fig. 5 Instrument Panel Splices (Left Side)

DESCRIPTION AND OPERATION (Continued)

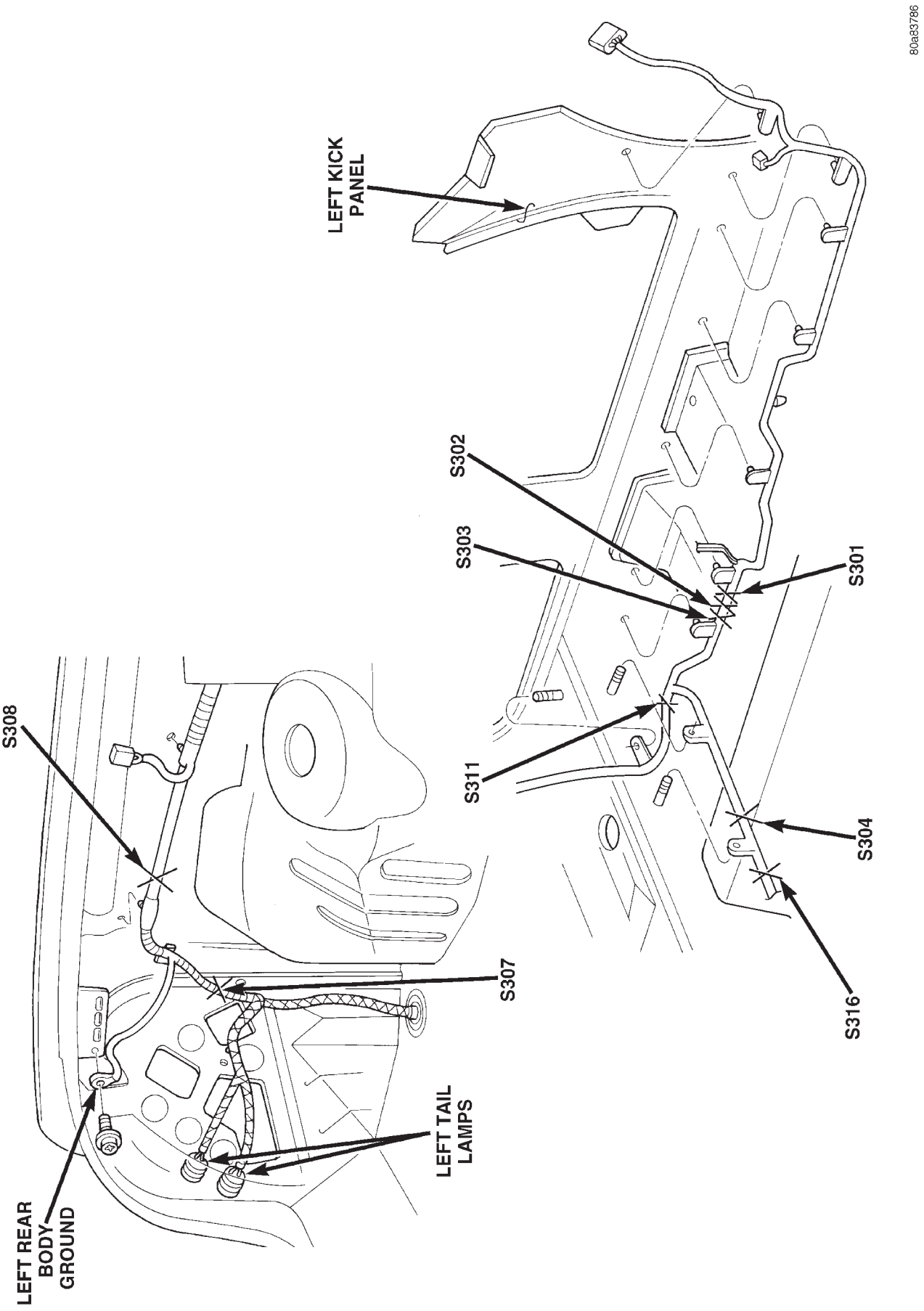


Fig. 6 Body Splices (Left Side)

DESCRIPTION AND OPERATION (Continued)

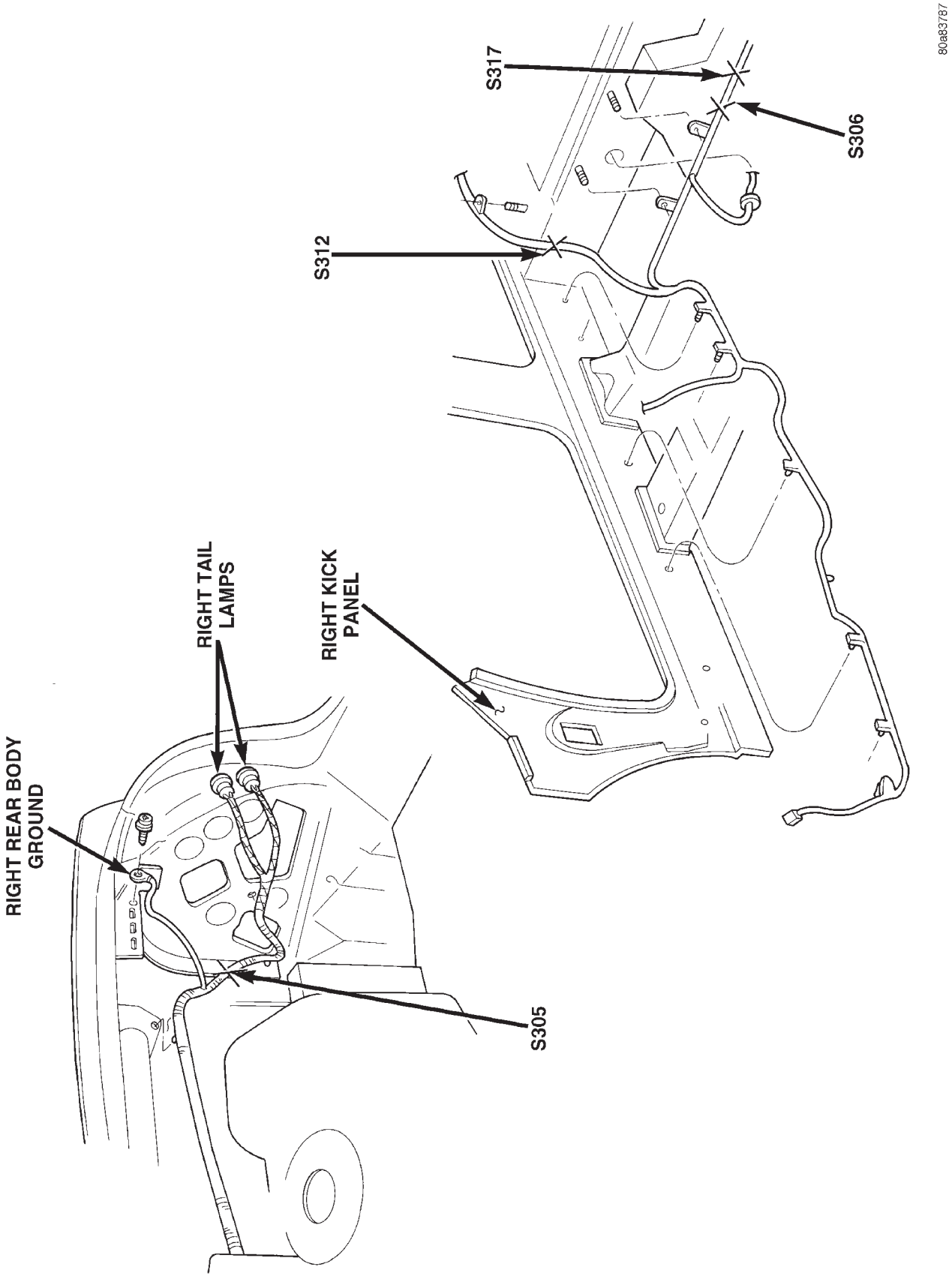


Fig. 7 Body Splices (Right Side)

DESCRIPTION AND OPERATION (Continued)

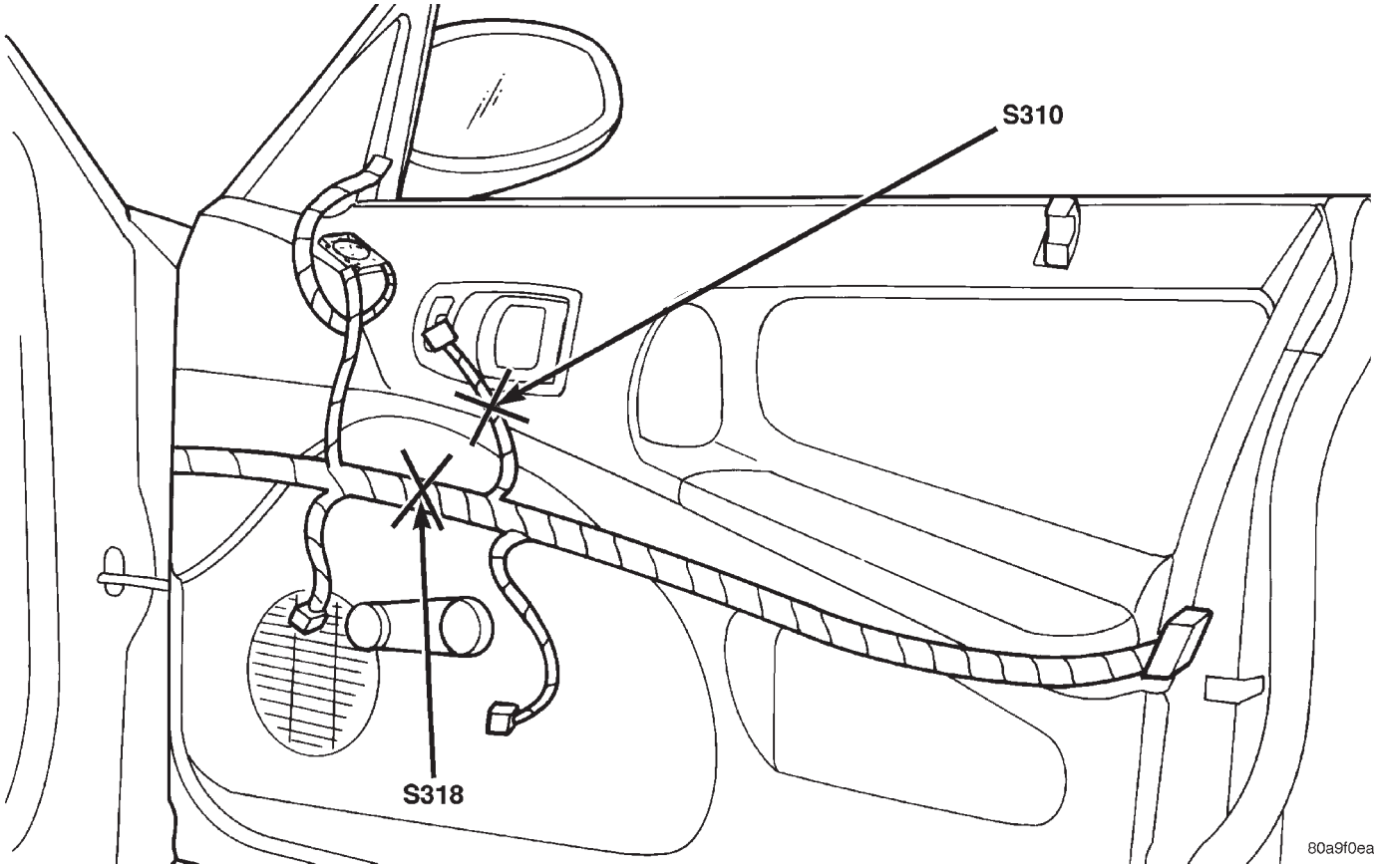


Fig. 8 Door Splices