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.

NOTES, CAUTIONS, and WARNINGS

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

DESCRIPTION AND OPERATION (Continued)

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)

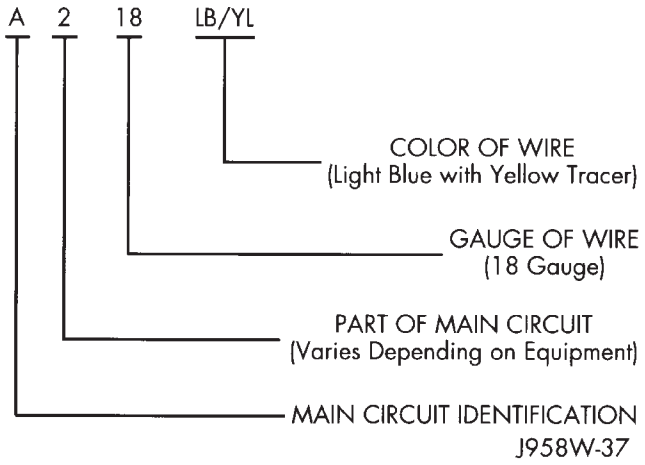


Fig. 1 Wire Code Identification

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).

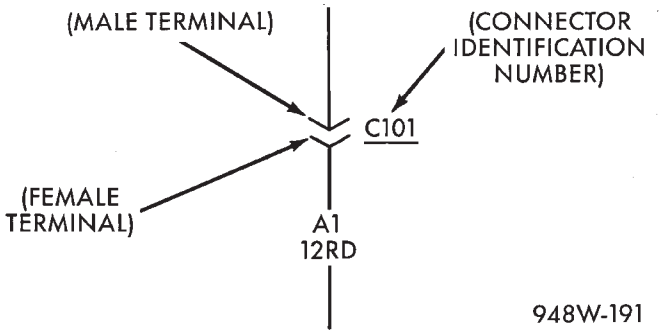


Fig. 4 Connector Identification

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
7	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.

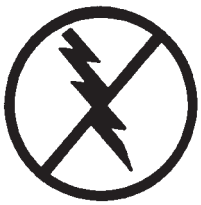


Fig. 6 Electrostatic Discharge Symbol

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.

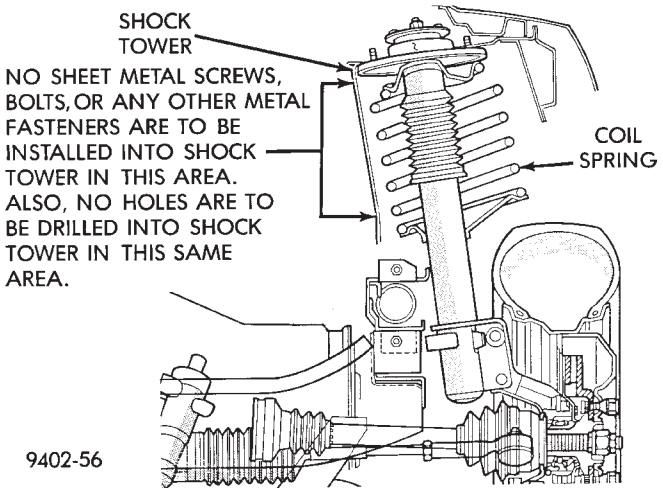


Fig. 7 Shock Tower to Spring Minimum Clearance Area

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.

- 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. 8). Select the proper

DIAGNOSIS AND TESTING (Continued)

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.

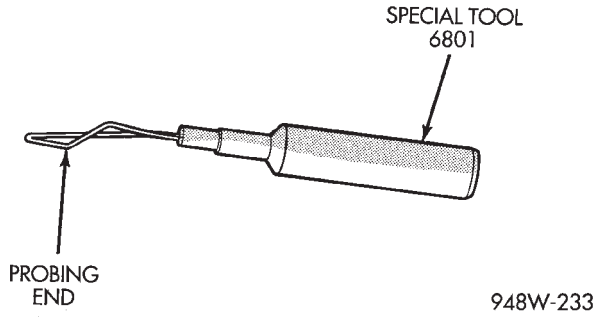


Fig. 8 Probing Tool

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. 9).

(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.

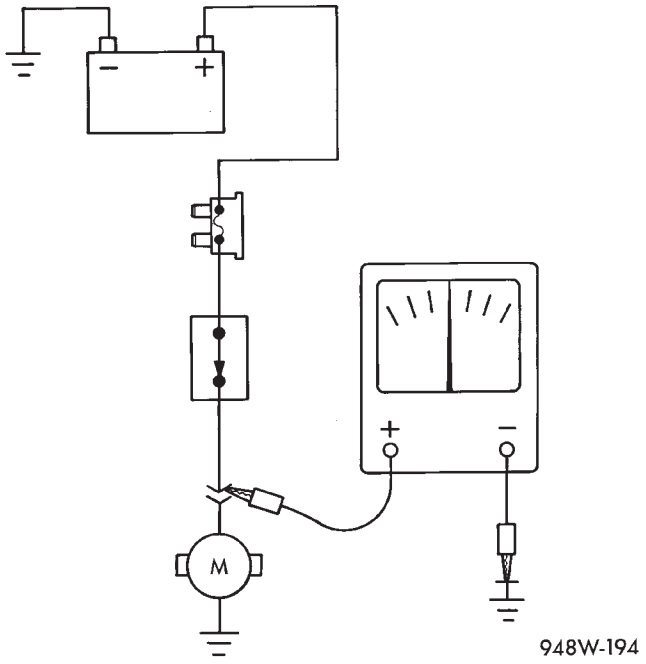


Fig. 9 Testing for Voltage

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. 10).

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

DIAGNOSIS AND TESTING (Continued)

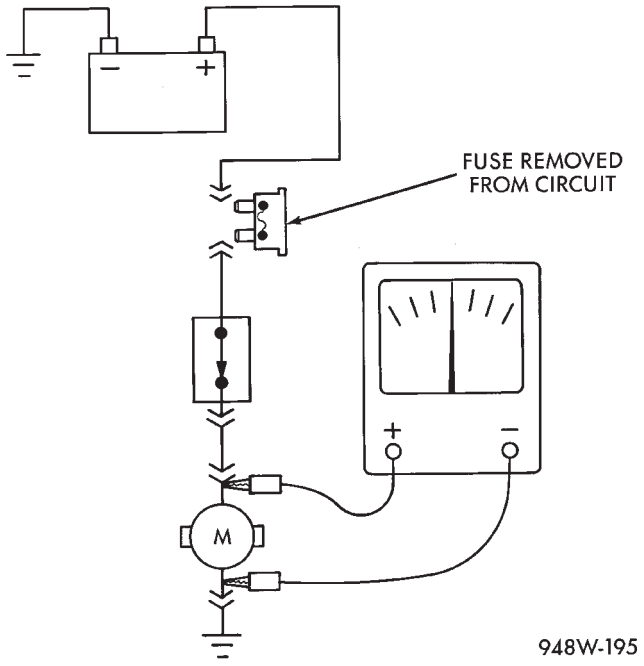


Fig. 10 Testing for Continuity

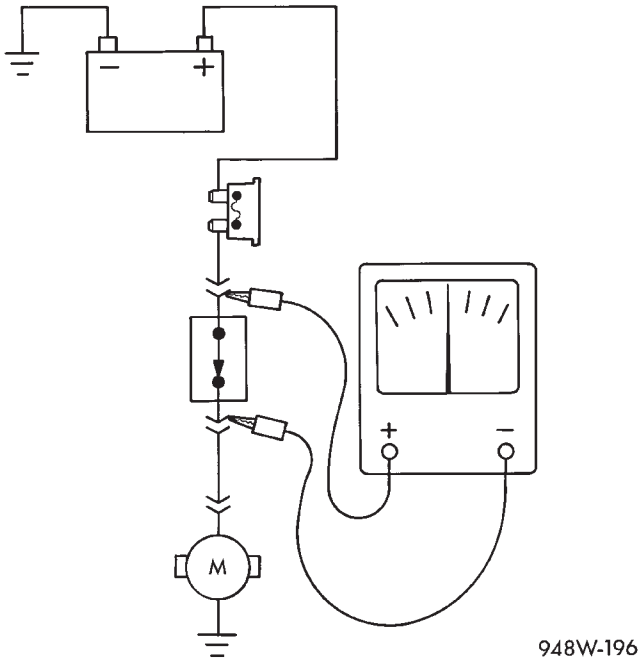


Fig. 11 Testing for Voltage Drop

(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. 11).

(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.

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

(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. 12)

(5) Push the two ends of wire together until the strands of wire are close to the insulation (example 2) (Fig. 12)

(6) Twist the wires together (example 3) (Fig. 12)

(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.

SERVICE PROCEDURES (Continued)

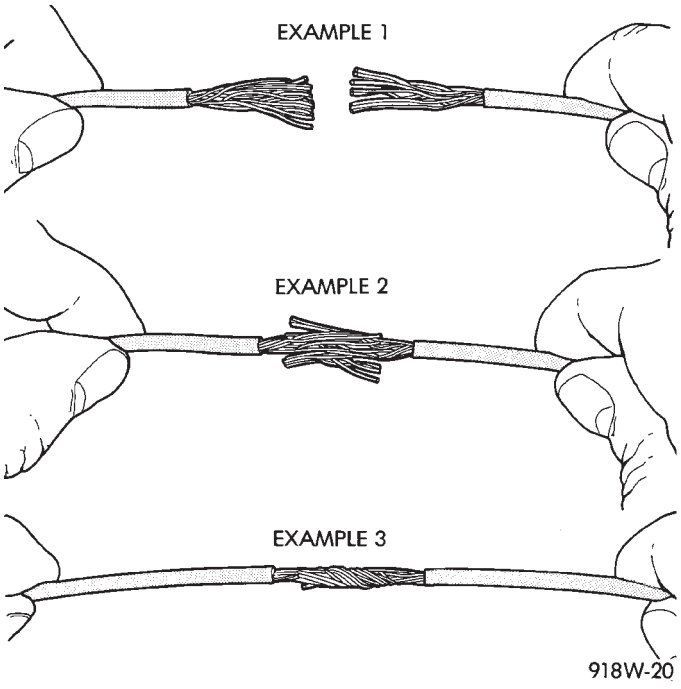


Fig. 12 Wire Repair

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. 13)

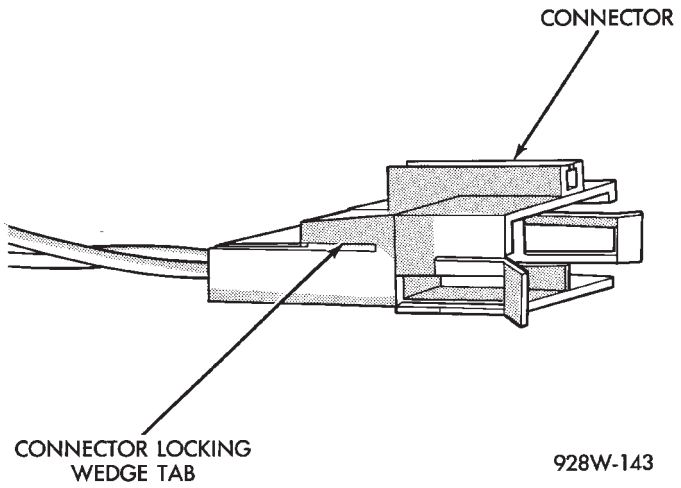


Fig. 13 Connector Locking Wedge

(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. 14) (Fig. 15).

(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.

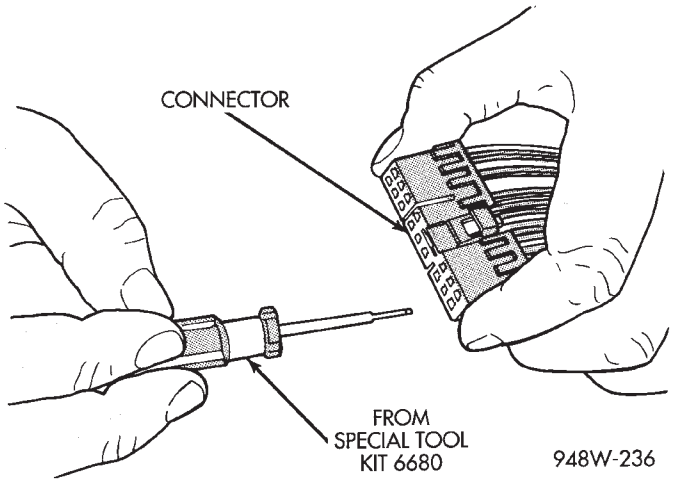


Fig. 14 Terminal Removal

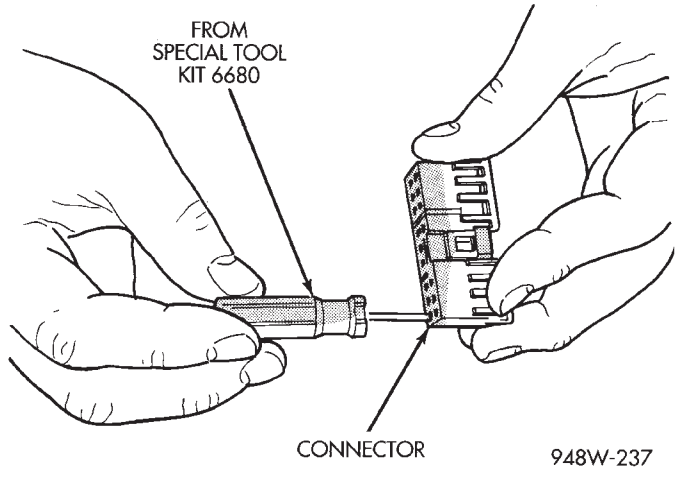


Fig. 15 Terminal Removal Using Special Tool

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. 16).

(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

SERVICE PROCEDURES (Continued)

for soldered connections. Check that the overall length is the same as the original (Fig. 16).

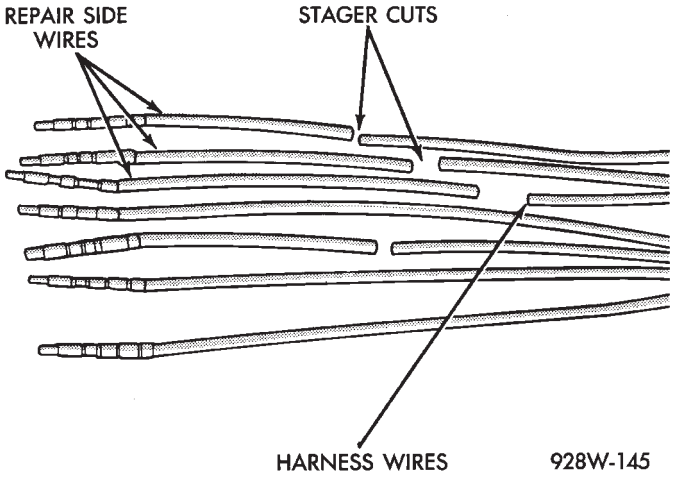


Fig. 16 Stagger Cutting Wires

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

(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/CONNECTOR REPAIR- AUGAT CONNECTORS

(1) Disconnect battery.

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

(3) Push down on the yellow connector locking tab to release the terminals (Fig. 17).

(4) Using special tool 6932, push the terminal to remove it from the connector (Fig. 18).

(5) Repair or replace the connector or terminal as necessary.

(6) When re-assembling the connector, the locking wedge must be placed in the locked position to prevent terminal push out.

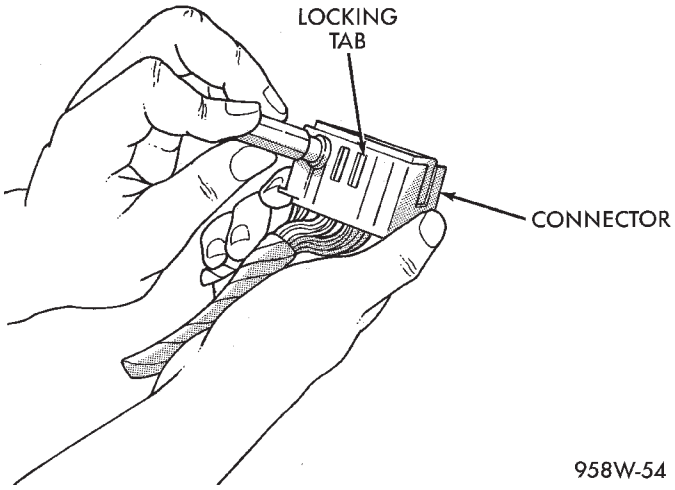


Fig. 17 Augat Connector Repair

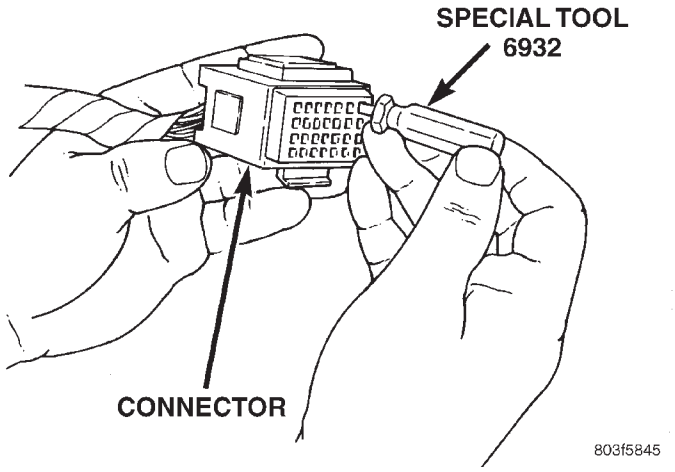


Fig. 18 Using Special Tool 6932

TERMINAL REPLACEMENT

(1) Disconnect battery.

(2) Disconnect the connector being repaired from its mating half. Remove connector locking wedge, if required (Fig. 19).

(3) Remove connector locking wedge, if required (Fig. 19).

(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. 20) (Fig. 21).

(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.

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

SERVICE PROCEDURES (Continued)

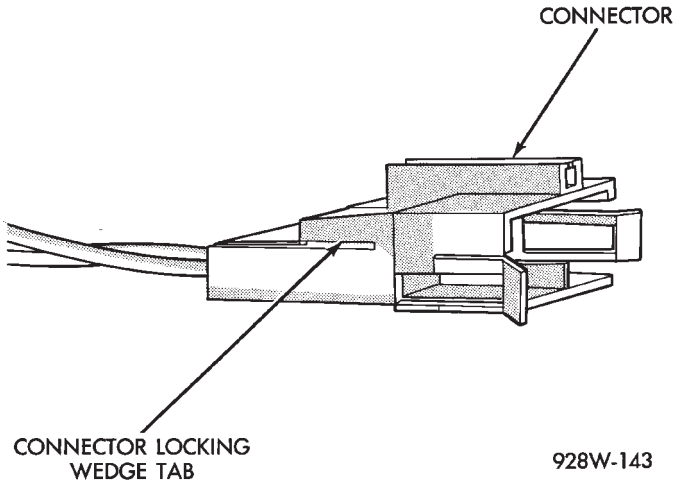


Fig. 19 Connector Locking Wedge Tab (Typical)

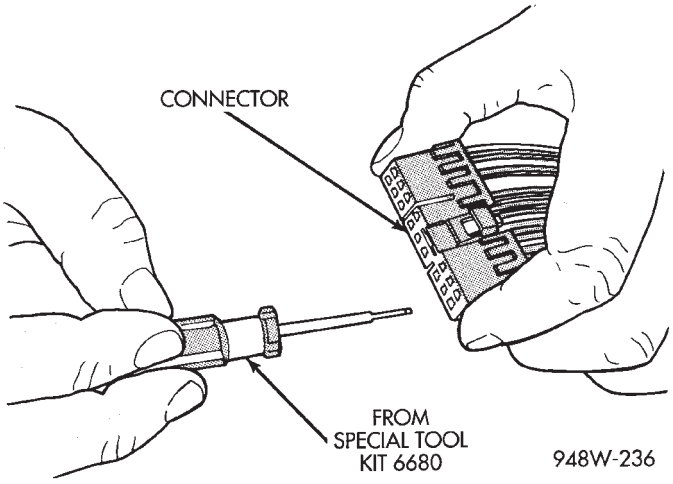


Fig. 20 Terminal Removal

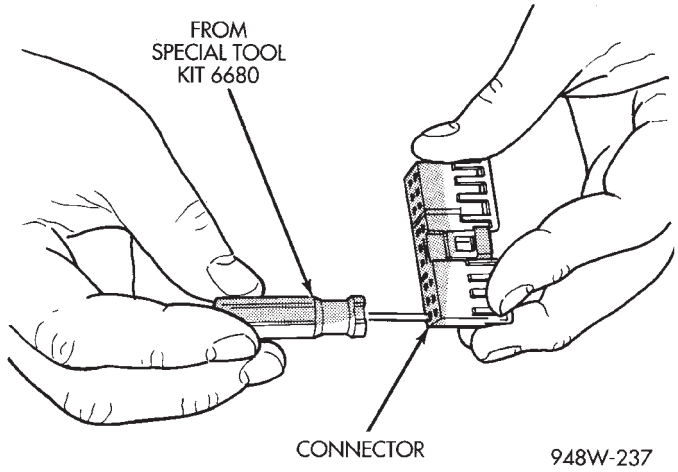


Fig. 21 Terminal Removal Using Special Tool

(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.

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. 22).

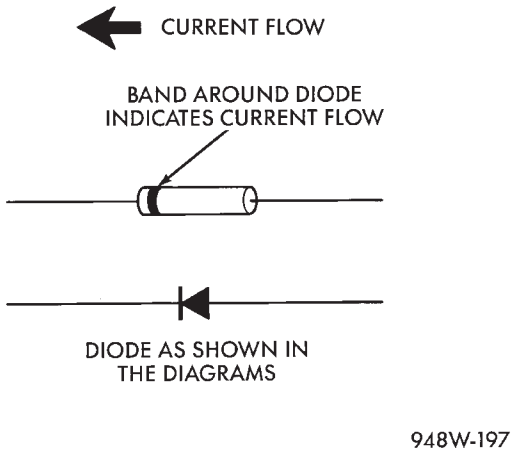


Fig. 22 Diode Identification

(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.

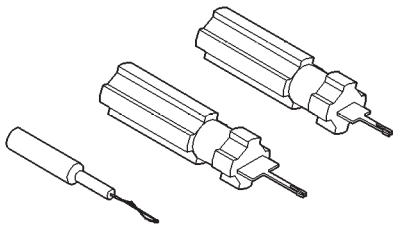
(6) Solder the connection together using rosin core type solder only. **Do not use acid core solder.**

(7) Tape the diode to the harness using electrical tape making, sure the diode is completely sealed from the elements.

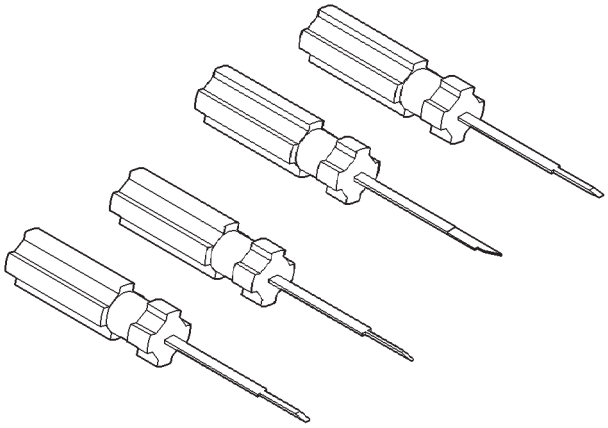
(8) Re-connect the battery, and test affected systems.

SPECIAL TOOLS

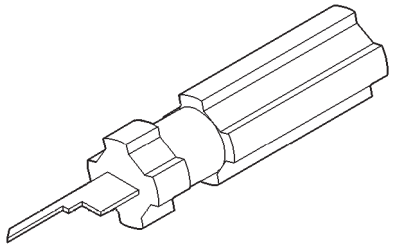
WIRING/TERMINAL



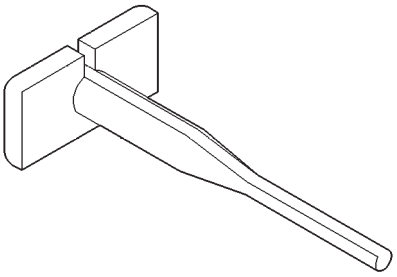
Probing Tool Package 6807



Terminal Pick 6680



Terminal Removing Tool 6932



Terminal Removing Tool 6934

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GENERAL INFORMATION

INTRODUCTION

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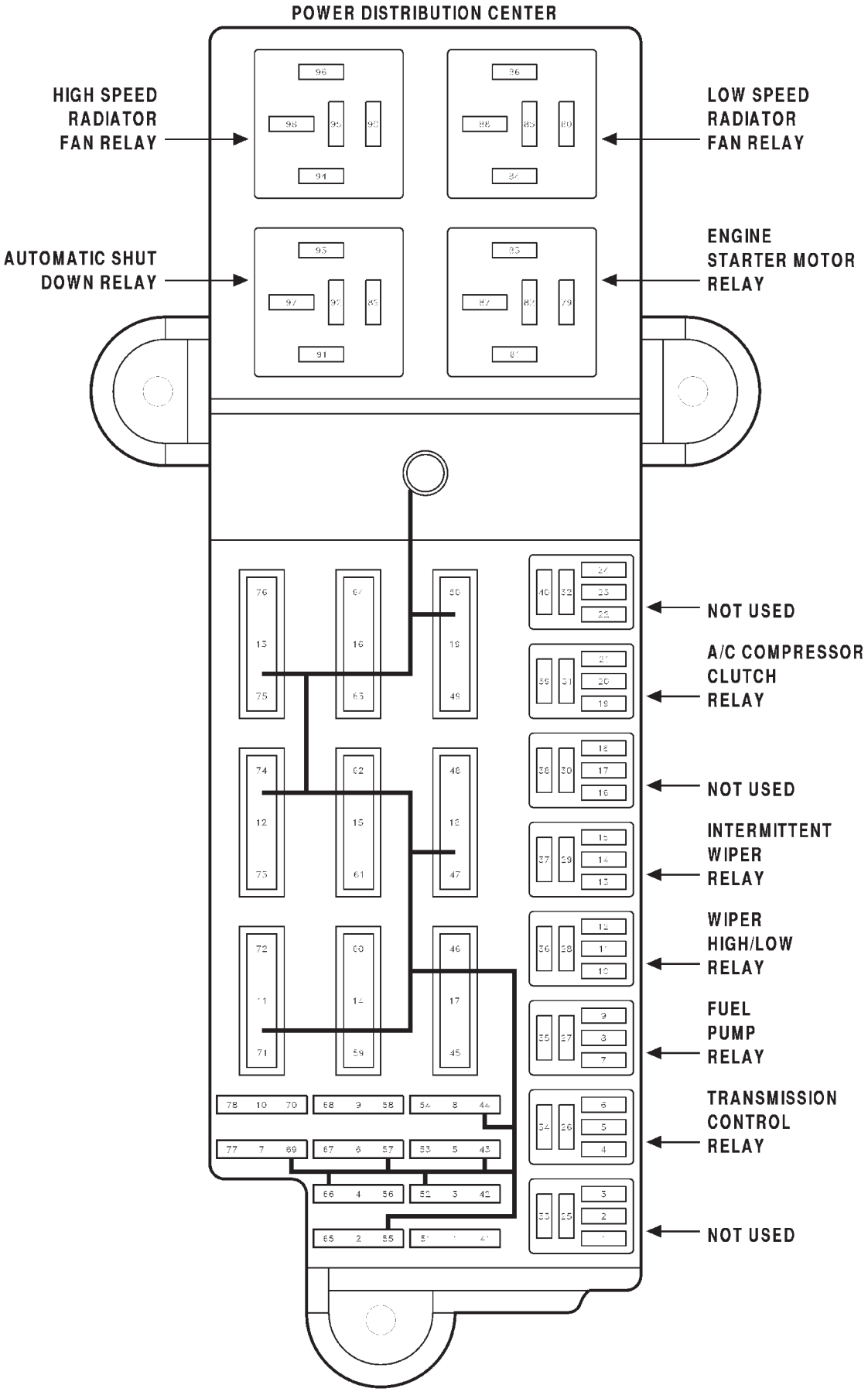
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LOW SPEED RADIATOR FAN RELAY
AUTOMATIC SHUT DOWN RELAY
ENGINE STARTER MOTOR RELAY
NOT USED
A/C COMPRESSOR CLUTCH RELAY
NOT USED
INTERMITTENT WIPER RELAY
WIPER HIGH/LOW RELAY
FUEL PUMP RELAY
TRANSMISSION CONTROL RELAY
NOT USED

FUSES

FUSE NO.	AMPS	FUSED CIRCUIT	FEED CIRCUIT
1	10A	F142 18OR/DG	A142 18DG/OR
2	20A	A20 16RD/DB	A0 4RD
3	20A	A44 16PK/YL A24 16PK/YL	A0 4RD
4	20A	A7 16RD/BK	A0 4RD
5	20A	A14 16RD/TN	A0 4RD
6	20A	A15 16PK	A0 4RD
7	10A	A51 20RD/LB	A0 4RD
8	20A	A1 16RD	A0 4RD
9	10A	F18 20LG/BK	A21 16DB
10	10A	F12 18DB/WT	A21 16DB A21 16DB
11	-	-	A0 4RD
12	40A	A4 12 BK/PK	A0 4RD
13	40A	A10 12RD/DG	A0 4RD
14	40A	A13 12PK/WT	A0 4RD
15	40A	A3 12RD/WT	A0 4RD
16	40A	A2 12PK/BK	A0 4RD
17	-	-	A0 4RD
18	40A	A5 12RD/GY	A0 4RD
19	40A	A16 12RD/LG	A0 4RD

A/C COMPRESSOR CLUTCH RELAY

CAVITY	CIRCUIT	FUNCTION
19	F18 20LG/BK	FUSED IGNITION (RUN-ST)
20	-	-
21	C28 20DB/OR	A/C COMPRESSOR CLUTCH RELAY CONTROL
31	C3 14DB/BK	A/C COMPRESSOR CLUTCH RELAY OUTPUT
39	A16 12RD/LG	FUSED B (+)

AUTOMATIC SHUT DOWN RELAY

CAVITY	CIRCUIT	FUNCTION
89	A142 18 DG/OR	AUTO SHUT DOWN RELAY OUTPUT
	A142 18 DG/OR	AUTO SHUT DOWN RELAY OUTPUT
91	A14 16RD/TN	FUSED B (+)
92	-	-
93	K51 20DB/VT	AUTO SHUT DOWN RELAY CONTROL
97	A14 16RD/TN	FUSED B (+)

ENGINE STARTER MOTOR RELAY (A/T)

CAVITY	CIRCUIT	FUNCTION
79	T40 14BR	STARTER RELAY OUTPUT
81	A41 16YL/OR	IGNITION (START)
	A41 16YL/OR	IGNITION (START)
82	-	-
83	T41 20BK/WT	PARK/NEUTRAL POSITION SWITCH SENSE
	T41 18BK/WT	PARK/NEUTRAL POSITION SWITCH SENSE
87	A1 16RD	FUSED B (+)

ENGINE STARTER MOTOR RELAY (M/T)

CAVITY	CIRCUIT	FUNCTION
79	T40 14BR	STARTER RELAY OUTPUT
81	A41 16YL/RD	CLUTCH SAFETY SWITCH SENSE
82	-	-
83	Z1 18BK	GROUND
87	A1 16RD	FUSED B (+)

FUEL PUMP RELAY

CAVITY	CIRCUIT	FUNCTION
7	F12 18DB/WT	FUSED IGNITION (RUN-ST)
8	-	-
9	K31 20BR/LG	FUEL PUMP RELAY CONTROL
27	A141 14DG/WT	FUEL PUMP RELAY OUTPUT
35	A1 16RD	FUSED B (+)

HIGH SPEED RADIATOR FAN RELAY

CAVITY	CIRCUIT	FUNCTION
90	C25 12YL/VT	HIGH SPEED RADIATOR FAN RELAY OUTPUT
94	F18 20LG/BK	FUSED IGNITION (RUN-ST)
95	-	-
96	C27 20DB/PK	HIGH SPEED RADIATOR FAN RELAY CONTROL
98	A16 12RD/LG	FUSED B (+)

INTERMITTENT WIPER RELAY

CAVITY	CIRCUIT	FUNCTION
13	F13 20DB/GY	FUSED IGNITION (RUN-ACC)
	F13 20DB/GY	FUSED IGNITION (RUN-ACC)
14	Z1 16BK	GROUND
15	V14 20PK/VT	WIPER ON/OFF RELAY CONTROL
29	A5 12RD/GY	FUSE B (+)
37	V5 14DG/VT	WIPER RELAY COMMON

LOW SPEED RADIATOR FAN RELAY

CAVITY	CIRCUIT	FUNCTION
80	C23 12DG/LG	LOW SPEED RADIATOR FAN RELAY OUTPUT
84	F18 20LG/BK	FUSED IGNITION (RUN-ST)
85	-	-
86	C24 20DB/TN	LOW SPEED RADIATOR FAN RELAY CONTROL
88	A16 12RD/LG	FUSED B (+)

NOT USED

CAVITY	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	-	-
25	-	-
33	-	-

NOT USED

CAVITY	CIRCUIT	FUNCTION
16	-	-
17	-	-
18	-	-
30	-	-
38	-	-

NOT USED

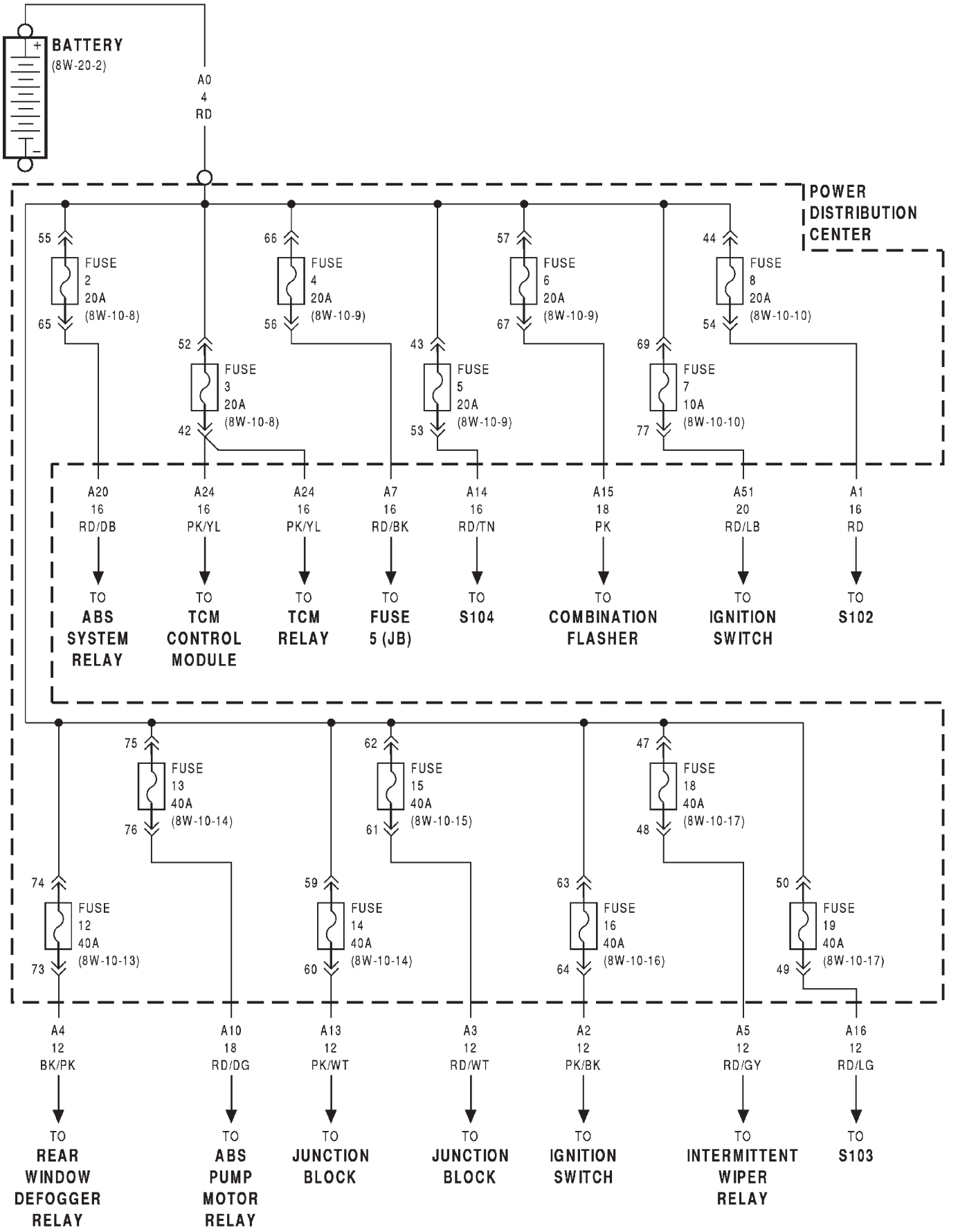
CAVITY	CIRCUIT	FUNCTION
22	-	-
23	-	-
24	-	-
32	-	-
40	-	-

TRANSMISSION CONTROL RELAY (A/T)

CAVITY	CIRCUIT	FUNCTION
4	T15 20LG/YL	12V SUPPLY
5	-	-
6	Z13 20BK/RD	GROUND
26	T16 16RD/BR	TRANSMISSION CONTROL RELAY OUTPUT
34	A24 16PK/YL	FUSED B (+)

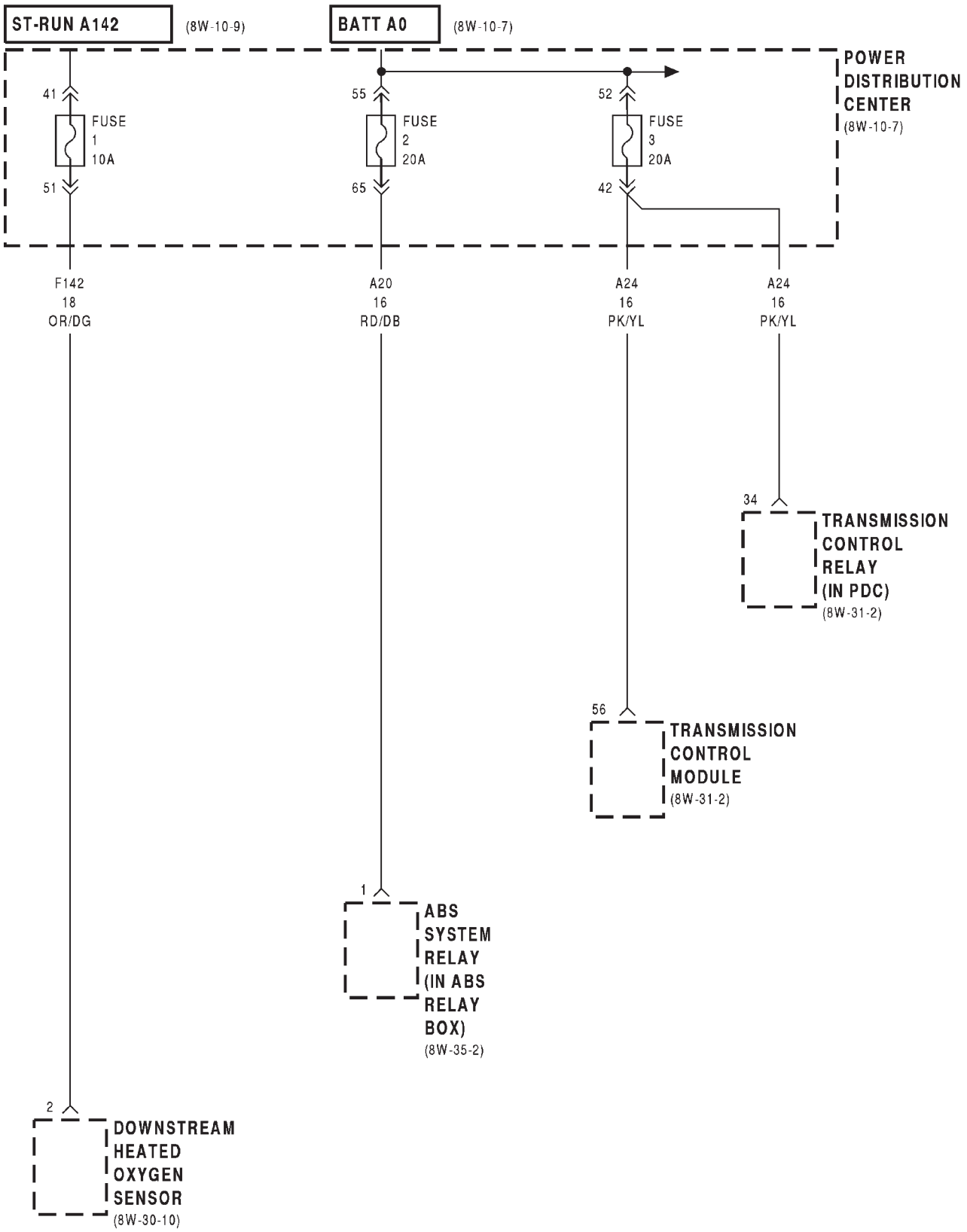
WIPER HIGH/LOW RELAY

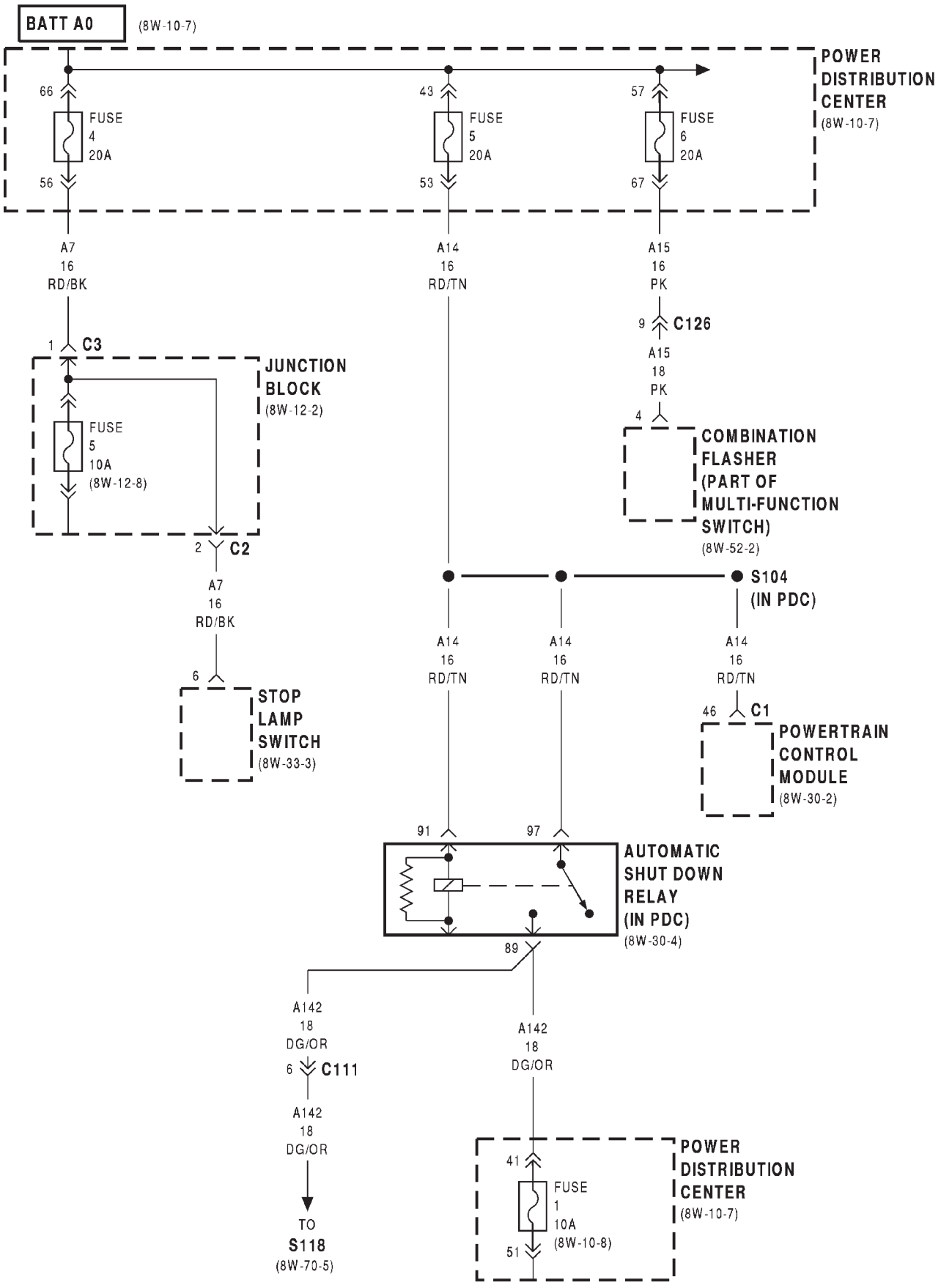
CAVITY	CIRCUIT	FUNCTION
10	F13 20DB/GY	FUSED IGNITION (RUN-ACC)
11	V3 14BR/OR	WIPER HIGH/LOW RELAY LOW SPEED OUTPUT
12	V16 20VT/PK	WIPER HIGH/LOW RELAY CONTROL
28	V4 14RD/YL	WIPER HIGH/LOW RELAY HIGH SPEED OUTPUT
36	V5 14DG/VT	WIPER RELAY COMMON

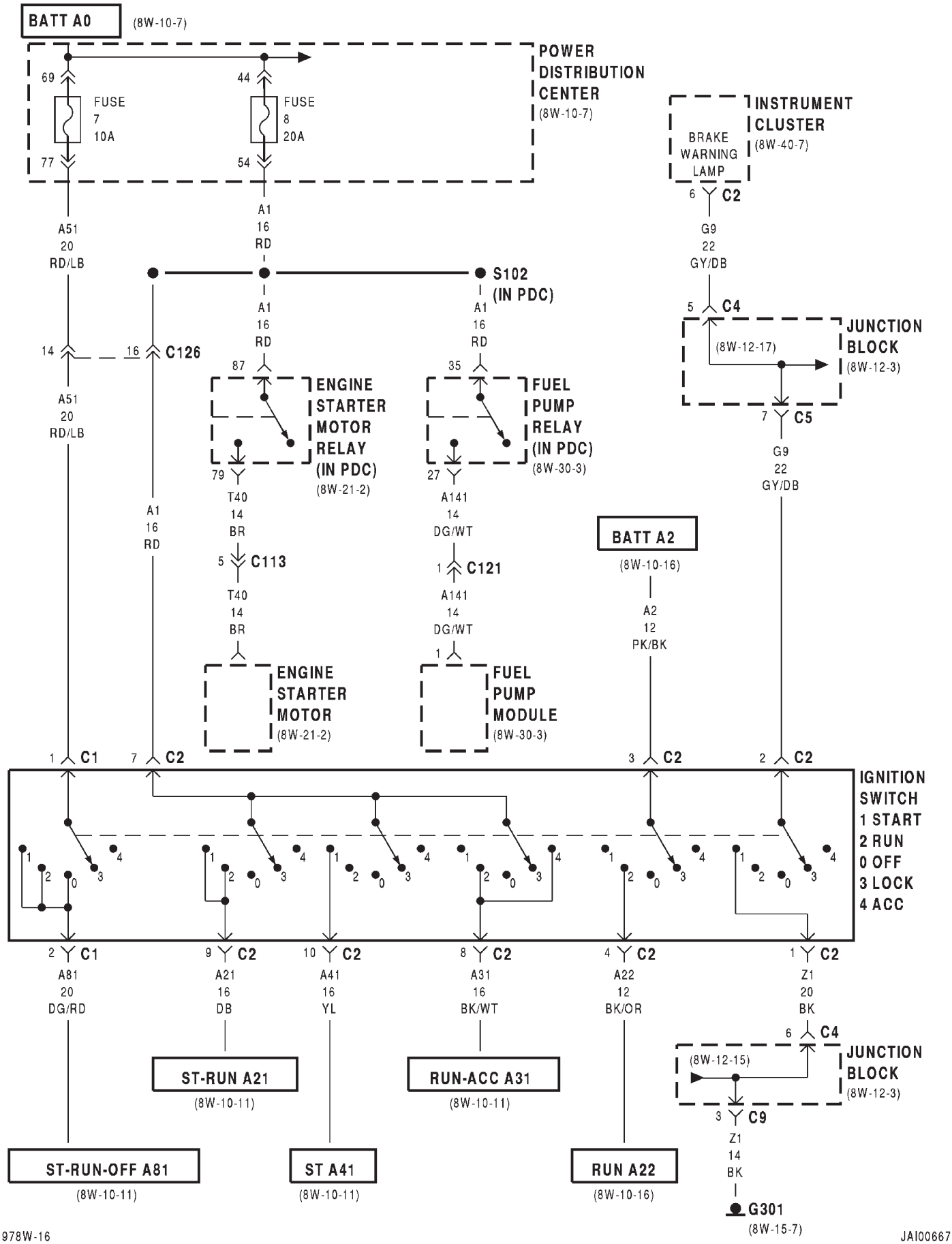


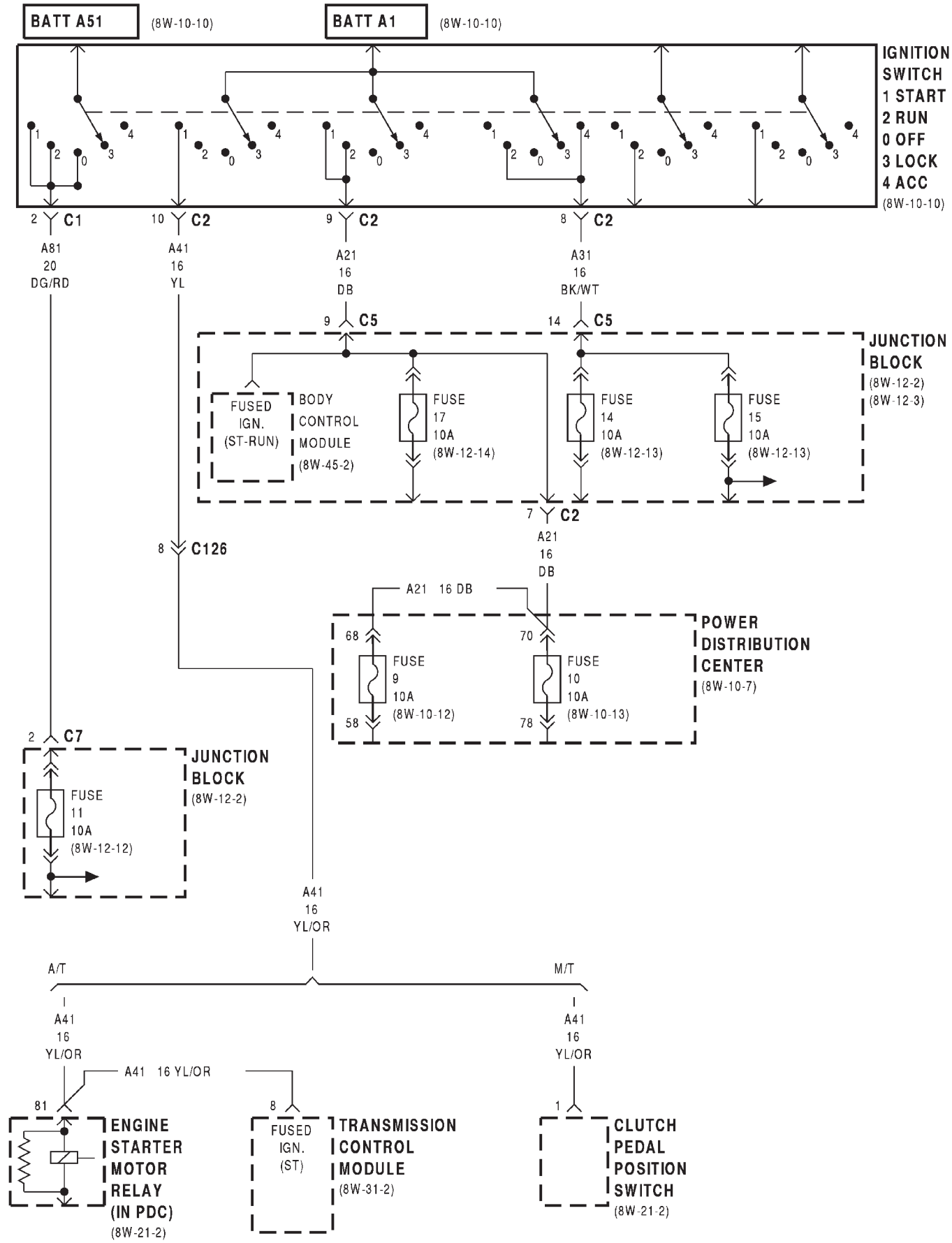
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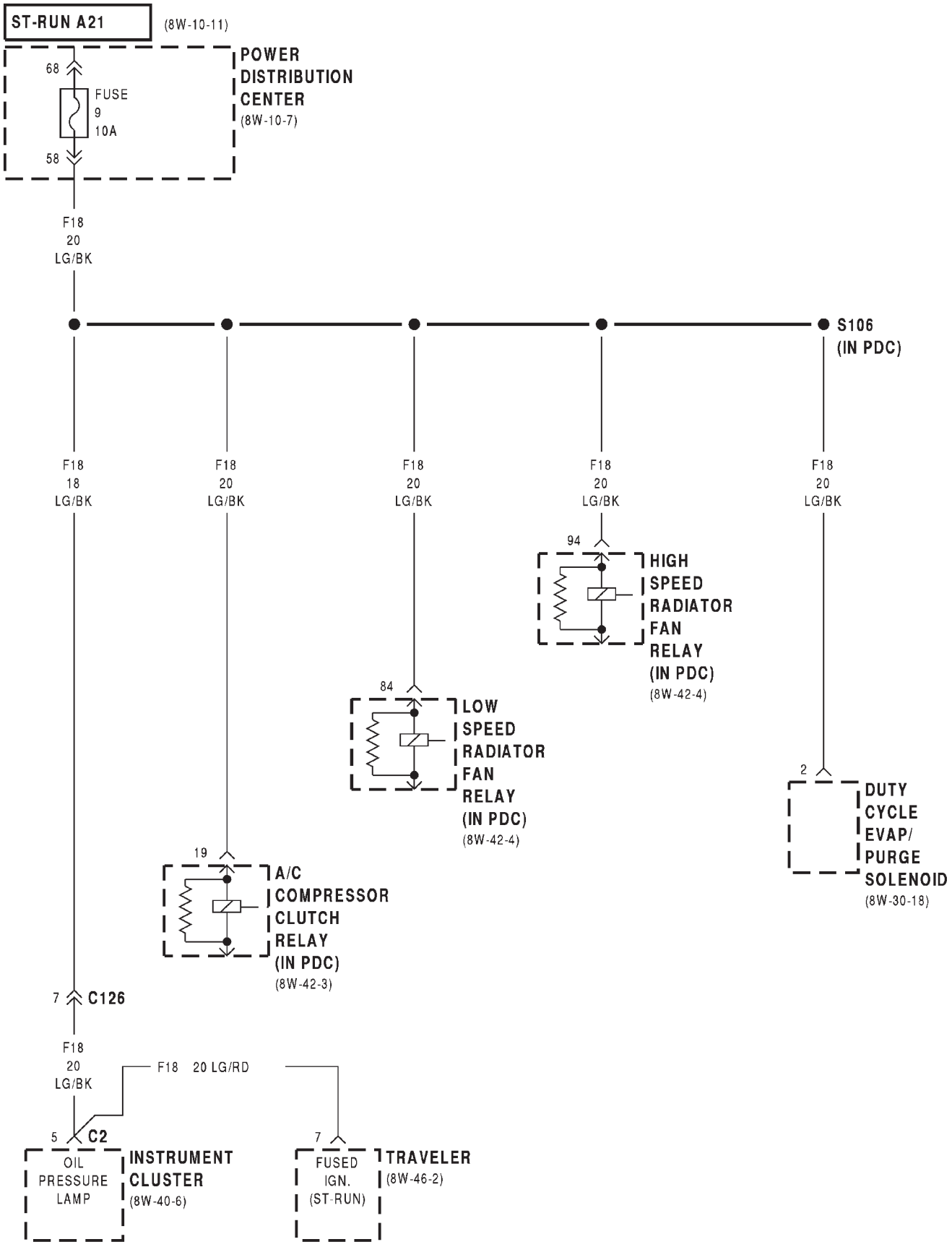
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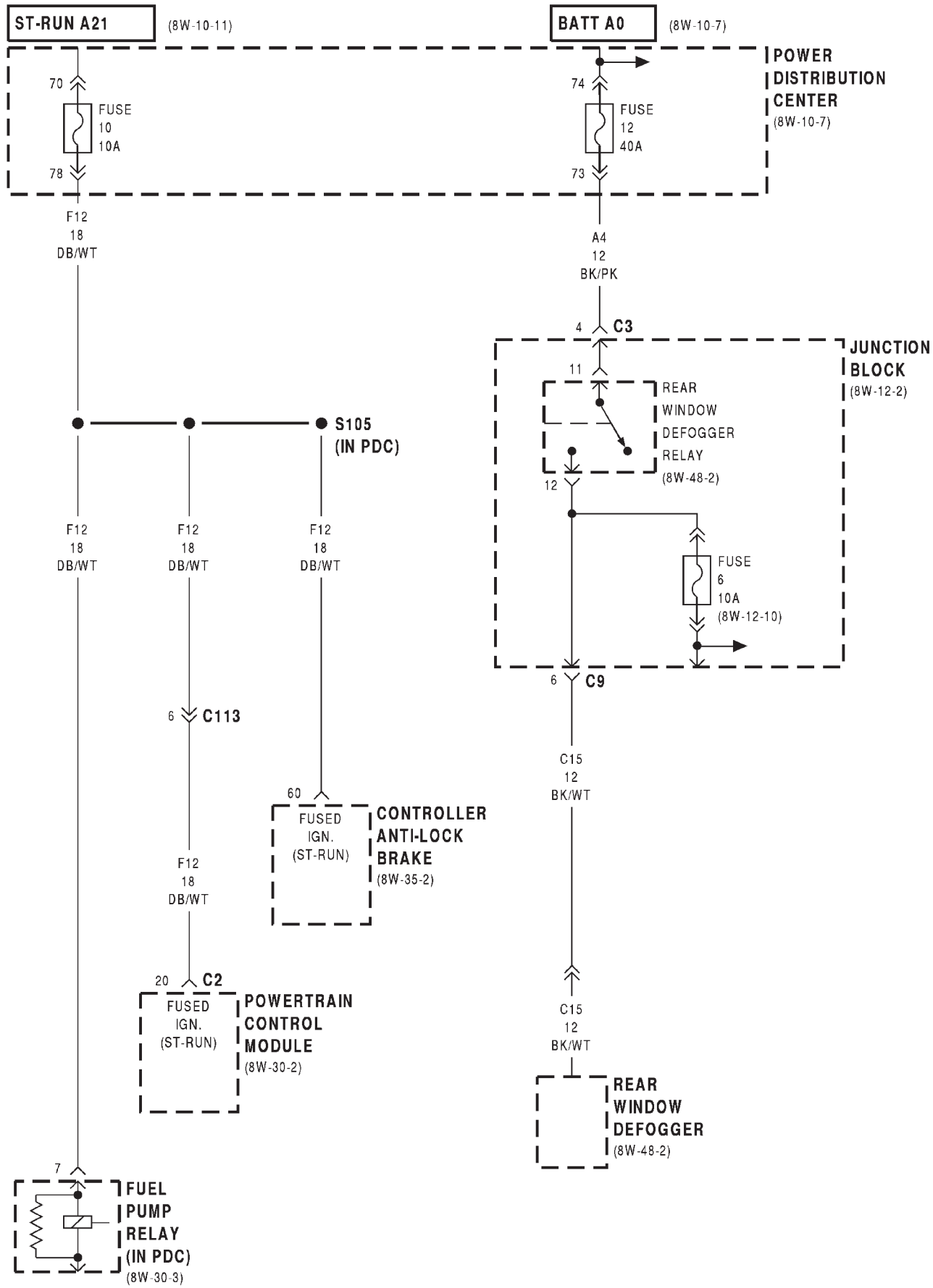

ST-RUN A142
(8W-10-9)
BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
41
FUSE 1 10A
51
55
FUSE 2 20A
65
52
FUSE 3 20A
42
F142 18 OR/DG
A20 16 RD/DB
A24 16 PK/YL
A24 16 PK/YL
34
TRANSMISSION CONTROL RELAY (IN PDC)
(8W-31-2)
56
TRANSMISSION CONTROL MODULE
(8W-31-2)
1
ABS SYSTEM RELAY (IN ABS RELAY BOX)
(8W-35-2)
2
DOWNSTREAM HEATED OXYGEN SENSOR
(8W-30-10)

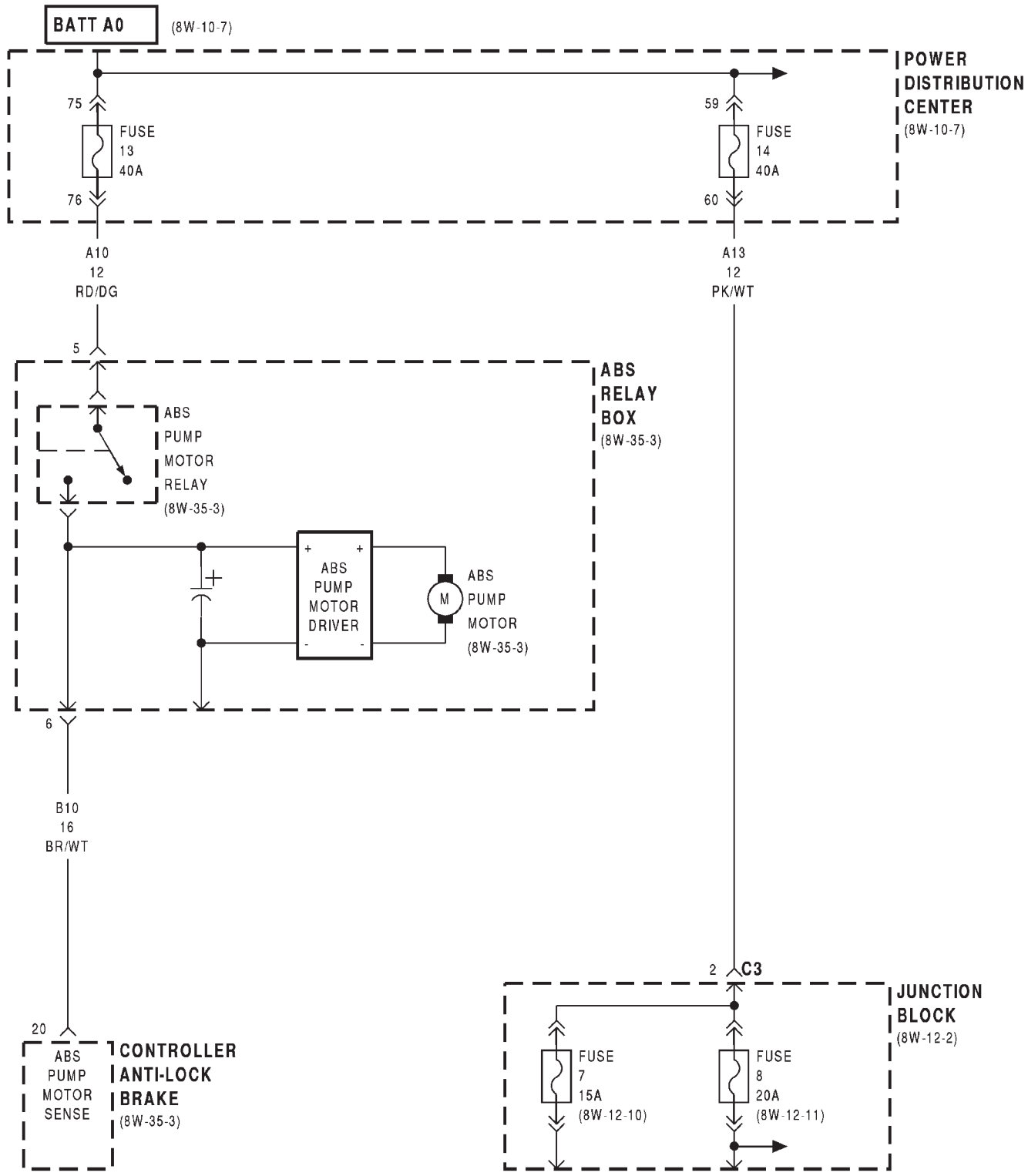

BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
66
FUSE 4 20A
56
43
FUSE 5 20A
53
57
FUSE 6 20A
67
A7 16 RD/BK
A14 16 RD/TN
A15 16 PK
9 C126
A15 18 PK
4
COMBINATION FLASHER (PART OF MULTI-FUNCTION SWITCH)
(8W-52-2)
1 C3
JUNCTION BLOCK
(8W-12-2)
FUSE 5 10A
(8W-12-8)
2 C2
A7 16 RD/BK
6
STOP LAMP SWITCH
(8W-33-3)
S104 (IN PDC)
A14 16 RD/TN
A14 16 RD/TN
A14 16 RD/TN
46 C1
POWERTRAIN CONTROL MODULE
(8W-30-2)
91
97
AUTOMATIC SHUT DOWN RELAY (IN PDC)
(8W-30-4)
89
A142 18 DG/OR
6 C111
A142 18 DG/OR
TO S118
(8W-70-5)
A142 18 DG/OR
41
FUSE 1 10A
(8W-10-8)
51
POWER DISTRIBUTION CENTER
(8W-10-7)

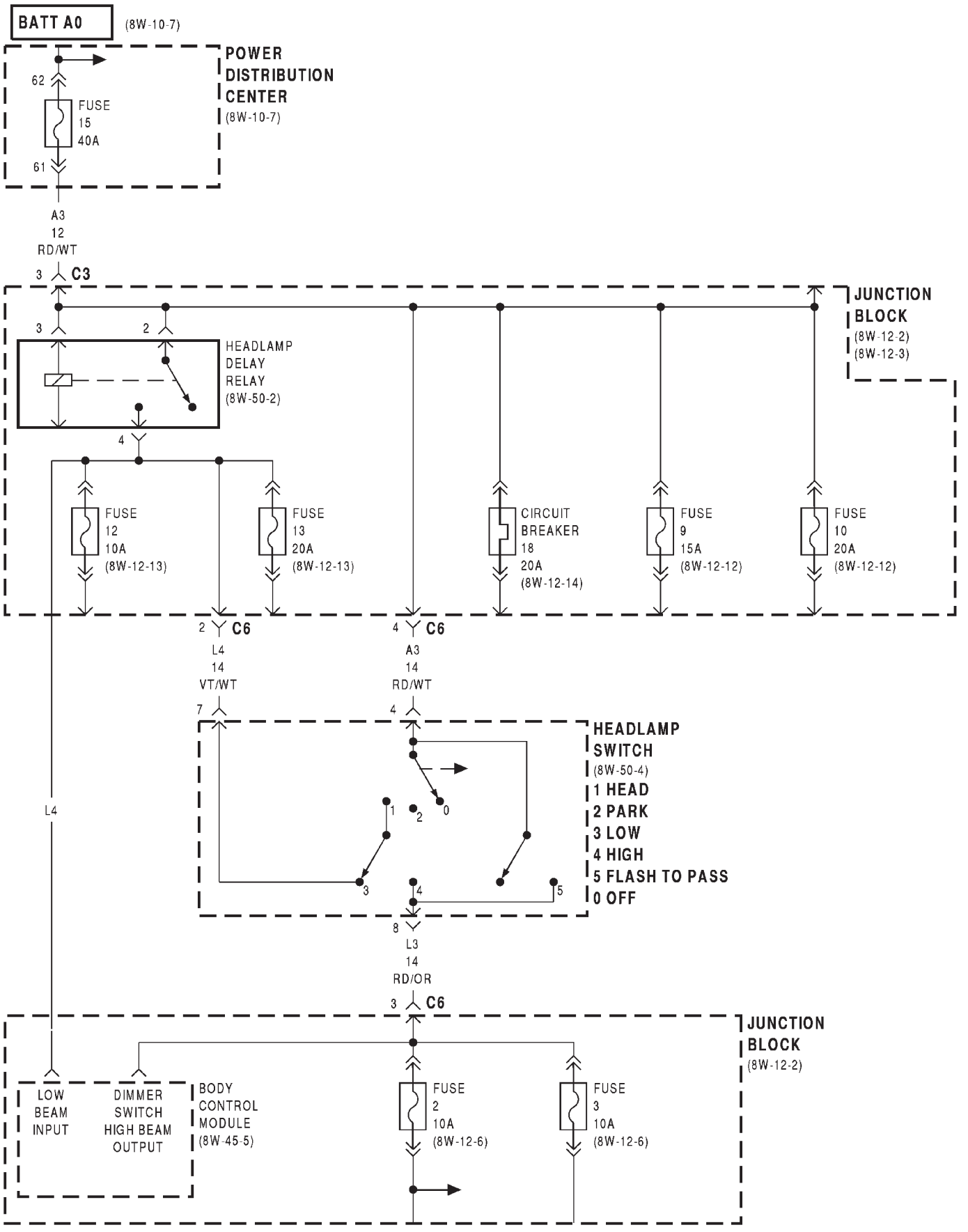

BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
69
FUSE 7 10A
77
44
FUSE 8 20A
54
INSTRUMENT CLUSTER
(8W-40-7)
BRAKE WARNING LAMP
6 C2
G9 22 GY/DB
5 C4
JUNCTION BLOCK
(8W-12-17)
(8W-12-3)
7 C5
G9 22 GY/DB
A51 20 RD/LB
A1 16 RD
S102 (IN PDC)
14
16 C126
A51 20 RD/LB
A1 16 RD
87
ENGINE STARTER MOTOR RELAY (IN PDC)
(8W-21-2)
79
T40 14 BR
5 C113
T40 14 BR
ENGINE STARTER MOTOR
(8W-21-2)
35
FUEL PUMP RELAY (IN PDC)
(8W-30-3)
27
A141 14 DG/WT
1 C121
A141 14 DG/WT
1
FUEL PUMP MODULE
(8W-30-3)
BATT A2
(8W-10-16)
A2 12 PK/BK
1 C1
7 C2
3 C2
2 C2
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 LOCK
4 ACC
2 C1
A81 20 DG/RD
9 C2
A21 16 DB
10 C2
A41 16 YL
8 C2
A31 16 BK/WT
4 C2
A22 12 BK/OR
1 C2
Z1 20 BK
6 C4
JUNCTION BLOCK
(8W-12-15)
(8W-12-3)
3 C9
Z1 14 BK
G301
(8W-15-7)
ST-RUN A21
(8W-10-11)
RUN-ACC A31
(8W-10-11)
ST-RUN-OFF A81
(8W-10-11)
ST A41
(8W-10-11)
RUN A22
(8W-10-16)

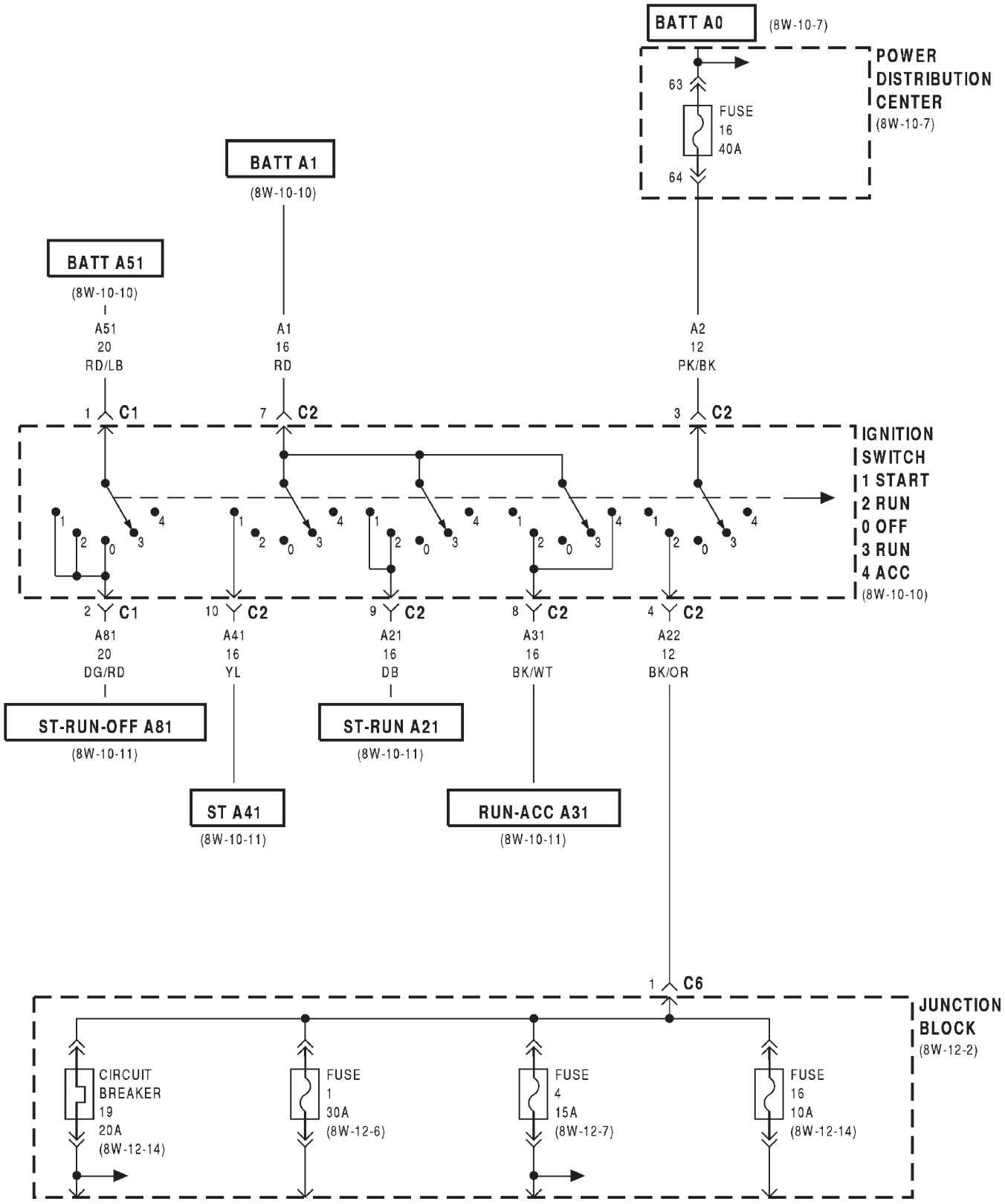

BATT A51
(8W-10-10)
BATT A1
(8W-10-10)
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 LOCK
4 ACC
(8W-10-10)
2 C1
10 C2
9 C2
8 C2
A81
20
DG/RD
A41
16
YL
A21
16
DB
A31
16
BK/WT
9 C5
14 C5
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSED IGN. (ST-RUN)
BODY CONTROL MODULE
(8W-45-2)
FUSE 17 10A
(8W-12-14)
FUSE 14 10A
(8W-12-13)
FUSE 15 10A
(8W-12-13)
7 C2
A21
16
DB
8 C126
A21 16 DB
68
70
FUSE 9 10A
(8W-10-12)
FUSE 10 10A
(8W-10-13)
58
78
POWER DISTRIBUTION CENTER
(8W-10-7)
2 C7
JUNCTION BLOCK
(8W-12-2)
FUSE 11 10A
(8W-12-12)
A41
16
YL/OR
A/T
M/T
A41
16
YL/OR
A41
16
YL/OR
A41 16 YL/OR
81
8
1
ENGINE STARTER MOTOR RELAY (IN PDC)
(8W-21-2)
FUSED IGN. (ST)
TRANSMISSION CONTROL MODULE
(8W-31-2)
CLUTCH PEDAL POSITION SWITCH
(8W-21-2)

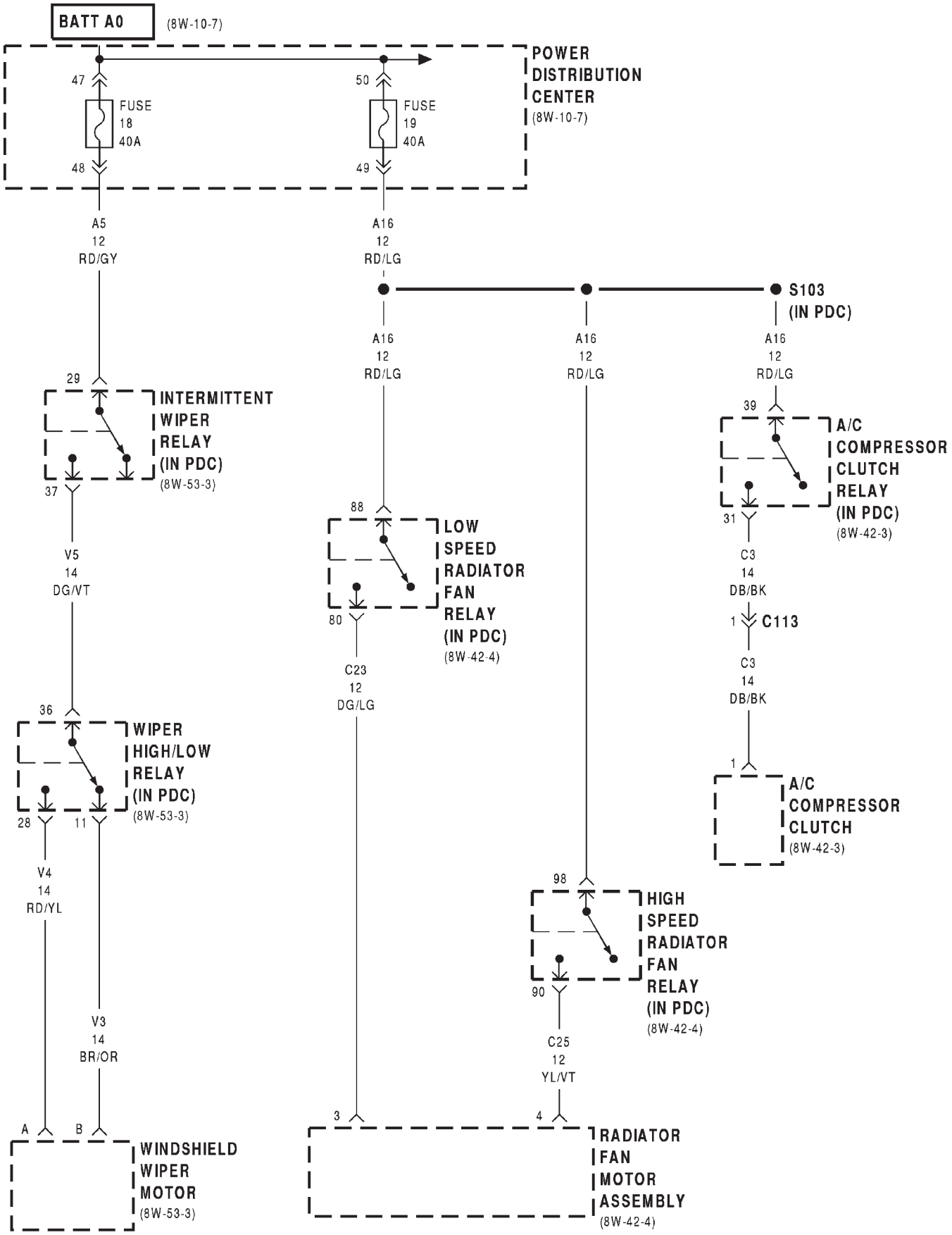

ST-RUN A21
(8W-10-11)
68
FUSE
9
10A
58
POWER
DISTRIBUTION
CENTER
(8W-10-7)
F18
20
LG/BK
S106
(IN PDC)
F18
18
LG/BK
F18
20
LG/BK
F18
20
LG/BK
F18
20
LG/BK
F18
20
LG/BK
94
HIGH
SPEED
RADIATOR
FAN
RELAY
(IN PDC)
(8W-42-4)
84
LOW
SPEED
RADIATOR
FAN
RELAY
(IN PDC)
(8W-42-4)
2
DUTY
CYCLE
EVAP/
PURGE
SOLENOID
(8W-30-18)
19
A/C
COMPRESSOR
CLUTCH
RELAY
(IN PDC)
(8W-42-3)
7
C126
F18
20
LG/BK
F18 20 LG/RD
5
C2
OIL
PRESSURE
LAMP
INSTRUMENT
CLUSTER
(8W-40-6)
7
FUSED
IGN.
(ST-RUN)
TRAVELER
(8W-46-2)


ST-RUN A21
(8W-10-11)
BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
70
FUSE 10 10A
78
74
FUSE 12 40A
73
F12 18 DB/WT
A4 12 BK/PK
4 C3
JUNCTION BLOCK
(8W-12-2)
11
REAR WINDOW DEFOGGER RELAY
(8W-48-2)
12
FUSE 6 10A
(8W-12-10)
6 C9
S105
(IN PDC)
F12 18 DB/WT
F12 18 DB/WT
F12 18 DB/WT
6 C113
60
FUSED IGN. (ST-RUN)
CONTROLLER ANTI-LOCK BRAKE
(8W-35-2)
C15 12 BK/WT
F12 18 DB/WT
20 C2
FUSED IGN. (ST-RUN)
POWERTRAIN CONTROL MODULE
(8W-30-2)
C15 12 BK/WT
REAR WINDOW DEFOGGER
(8W-48-2)
7
FUEL PUMP RELAY
(IN PDC)
(8W-30-3)


BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
75
FUSE 13 40A
76
59
FUSE 14 40A
60
A10 12 RD/DG
A13 12 PK/WT
5
ABS RELAY BOX
(8W-35-3)
ABS PUMP MOTOR RELAY
(8W-35-3)
ABS PUMP MOTOR DRIVER
ABS PUMP MOTOR
(8W-35-3)
6
B10 16 BR/WT
20
ABS PUMP MOTOR SENSE
CONTROLLER ANTI-LOCK BRAKE
(8W-35-3)
2 C3
JUNCTION BLOCK
(8W-12-2)
FUSE 7 15A
(8W-12-10)
FUSE 8 20A
(8W-12-11)


BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
62
FUSE 15 40A
61
A3 12 RD/WT
3 C3
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
3
2
HEADLAMP DELAY RELAY
(8W-50-2)
4
FUSE 12 10A
(8W-12-13)
FUSE 13 20A
(8W-12-13)
CIRCUIT BREAKER 18 20A
(8W-12-14)
FUSE 9 15A
(8W-12-12)
FUSE 10 20A
(8W-12-12)
2 C6
L4 14 VT/WT
4 C6
A3 14 RD/WT
7
4
HEADLAMP SWITCH
(8W-50-4)
1 HEAD
2 PARK
3 LOW
4 HIGH
5 FLASH TO PASS
0 OFF
L4
8
L3 14 RD/OR
3 C6
JUNCTION BLOCK
(8W-12-2)
LOW BEAM INPUT
DIMMER SWITCH HIGH BEAM OUTPUT
BODY CONTROL MODULE
(8W-45-5)
FUSE 2 10A
(8W-12-6)
FUSE 3 10A
(8W-12-6)


BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
63
FUSE 16 40A
64
BATT A1
(8W-10-10)
BATT A51
(8W-10-10)
A51 20 RD/LB
A1 16 RD
A2 12 PK/BK
1 C1
7 C2
3 C2
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 RUN
4 ACC
(8W-10-10)
2 C1
10 C2
9 C2
8 C2
4 C2
A81 20 DG/RD
A41 16 YL
A21 16 DB
A31 16 BK/WT
A22 12 BK/OR
ST-RUN-OFF A81
(8W-10-11)
ST-RUN A21
(8W-10-11)
ST A41
(8W-10-11)
RUN-ACC A31
(8W-10-11)
1 C6
JUNCTION BLOCK
(8W-12-2)
CIRCUIT BREAKER 19 20A
(8W-12-14)
FUSE 1 30A
(8W-12-6)
FUSE 4 15A
(8W-12-7)
FUSE 16 10A
(8W-12-14)


BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
47
FUSE 18 40A
48
50
FUSE 19 40A
49
A5 12 RD/GY
A16 12 RD/LG
S103 (IN PDC)
A16 12 RD/LG
A16 12 RD/LG
A16 12 RD/LG
29
INTERMITTENT WIPER RELAY (IN PDC)
(8W-53-3)
37
V5 14 DG/VT
88
LOW SPEED RADIATOR FAN RELAY (IN PDC)
(8W-42-4)
80
C23 12 DG/LG
39
A/C COMPRESSOR CLUTCH RELAY (IN PDC)
(8W-42-3)
31
C3 14 DB/BK
1
C113
C3 14 DB/BK
1
A/C COMPRESSOR CLUTCH
(8W-42-3)
36
WIPER HIGH/LOW RELAY (IN PDC)
(8W-53-3)
28
11
V4 14 RD/YL
V3 14 BR/OR
98
HIGH SPEED RADIATOR FAN RELAY (IN PDC)
(8W-42-4)
90
C25 12 YL/VT
A
B
WINDSHIELD WIPER MOTOR
(8W-53-3)
3
4
RADIATOR FAN MOTOR ASSEMBLY
(8W-42-4)

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 section of the wiring diagrams.

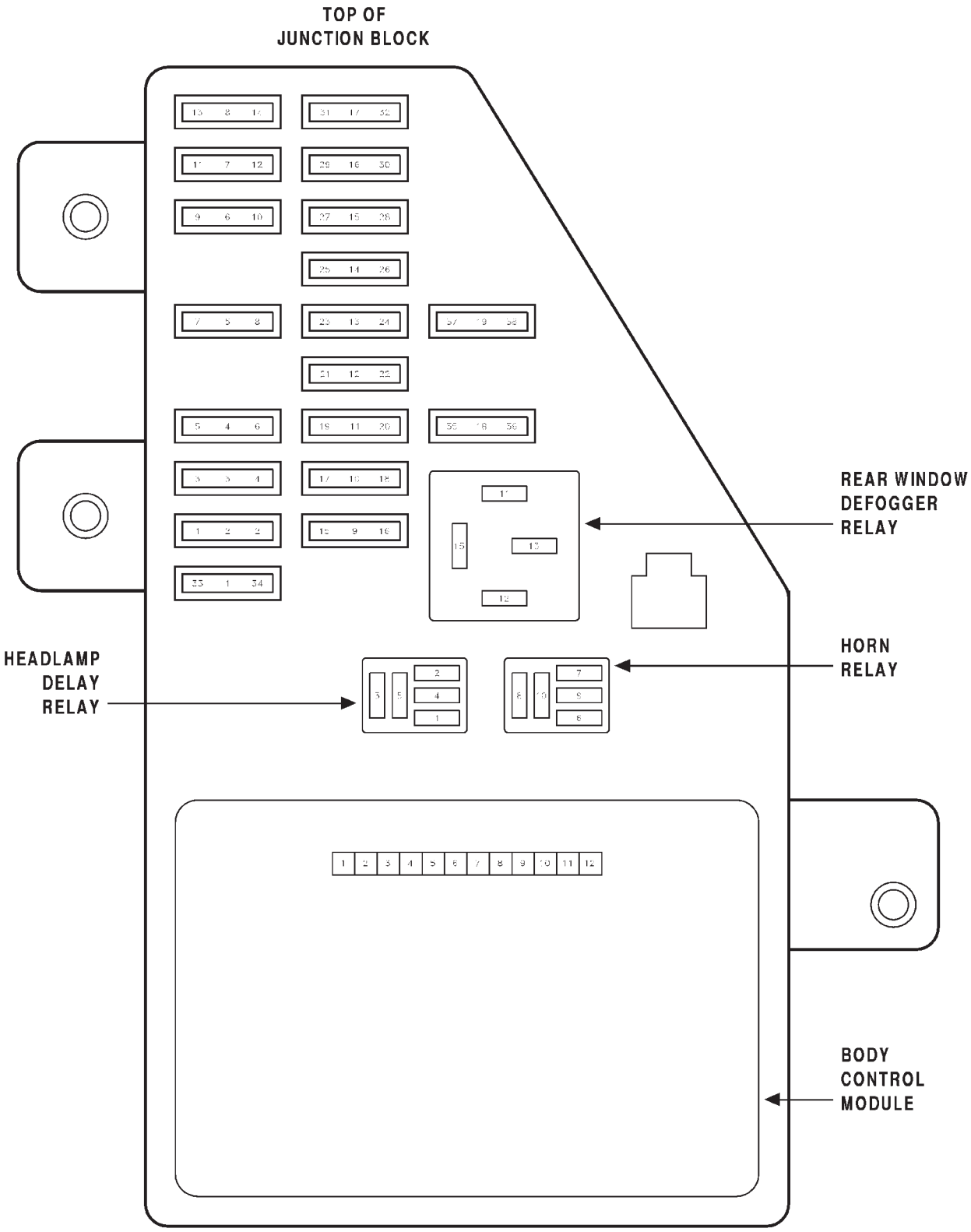
8W-12 JUNCTION BLOCK

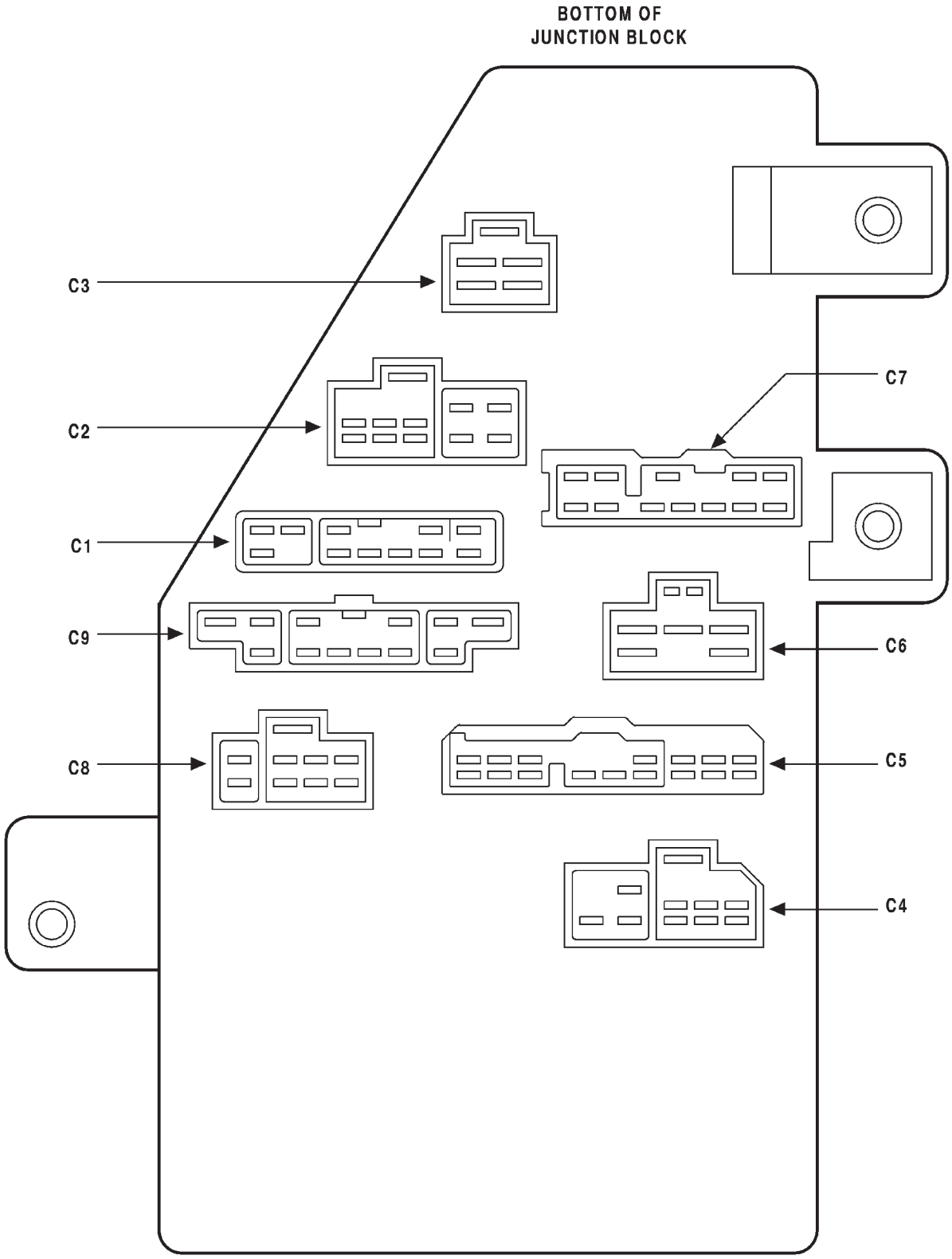
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Fuse 6 (JB)	8W-12-10
Fuse 7 (JB)	8W-12-10
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TOP OF
JUNCTION BLOCK
REAR WINDOW
DEFOGGER
RELAY
HORN
RELAY
HEADLAMP
DELAY
RELAY
BODY
CONTROL
MODULE


BOTTOM OF
JUNCTION BLOCK
C3
C2
C1
C9
C8
C7
C6
C5
C4

FUSES

FUSE NO.	AMPS	COLOR	FUSED CIRCUIT	FEED CIRCUIT
1	30A	GREEN	C1 DG	A22 12BK/OR
2	10A	BLUE	L34 RD/OR	L3 14RD/OR
3	10A	BLUE	L33 LG/BR	L3 14RD/OR
4	15A	RED	F20 WT	A22 12BK/OR
5	10A	BLUE	M1 PK	A7 16RD/BK
6	10A	BLUE	C16 LB/YL	C15 BK/WT
7	15A	RED	F33 PK/RD	A13 12PK/WT
8	20A	YELLOW	F30 RD	A13 12PK/WT
9	15A	RED	F136	A3 12RD/WT
10	20A	-	-	A3 12RD/WT
11	10A	BLUE	F11 RD/VT	A81 20DG/RD
12	10A	BLUE	L43 VT/OR	L4 14VT/WT
13	20A	YELLOW	L44 VT/RD	L4 14VT/WT
14	10A	BLUE	X12 RD/WT	A31 16BK/WT
15	10A	BLUE	F13 DB	A31 16BK/WT
16	10A	BLUE	F23 WT	A22 12BK/OR
17	10A	BLUE	F14 LG/YL	A21 16DB

CIRCUIT BREAKERS

CIRCUIT BREAKER NO.	AMPS	COLOR	FUSED CIRCUIT	FEED CIRCUIT
18	20A	SILVER	F35 RD	A3 12RD/WT
19	20A	SILVER	F21 TN	A22 12BK/OR

HEADLAMP DELAY RELAY

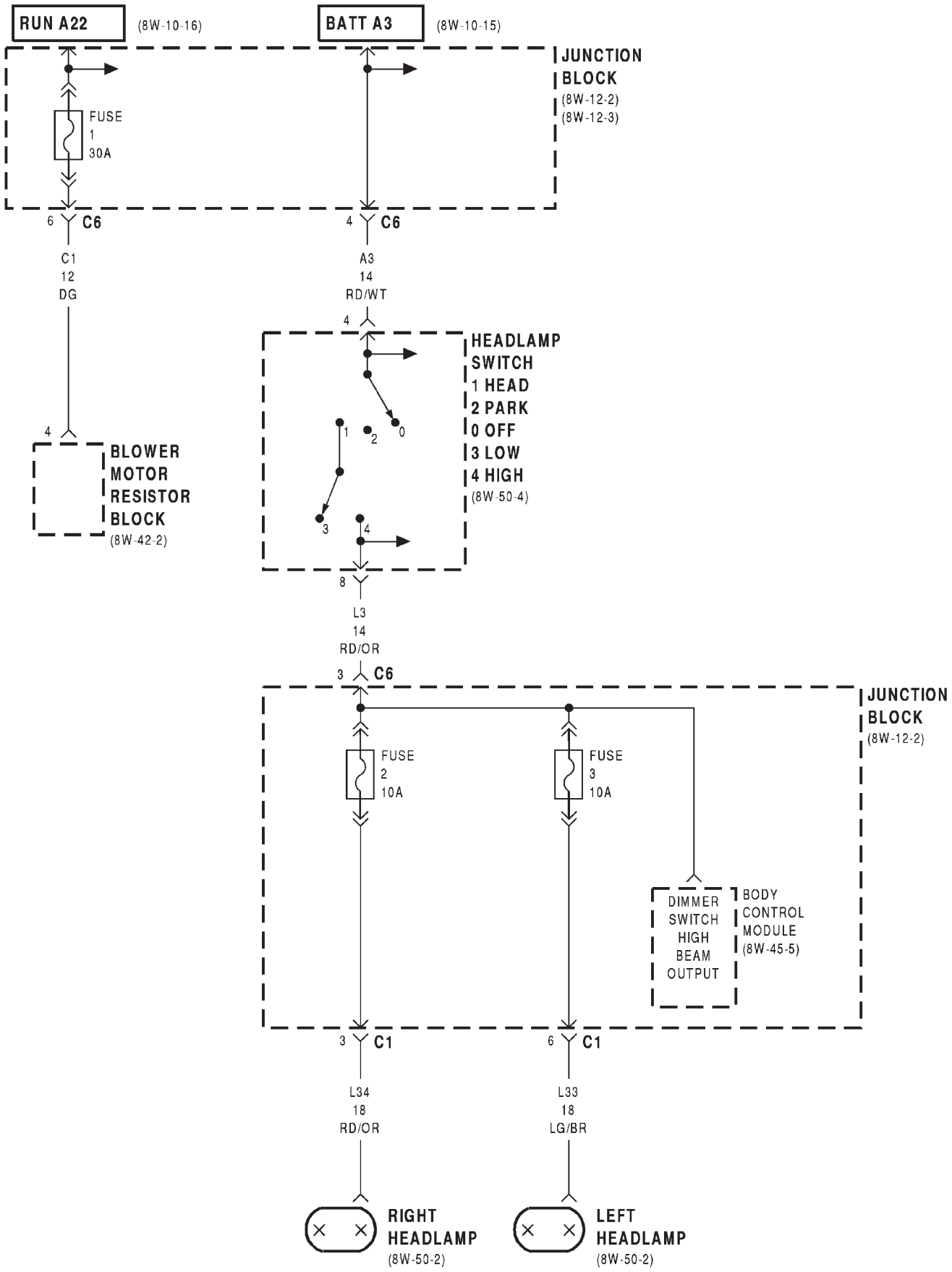
CAVITY	CIRCUIT	FUNCTION
1	G50	HEADLAMP DELAY RELAY CONTROL
2	A3	FUSED B (+)
3	A3	FUSED B (+)
4	-	-
5	L4	HEADLAMP DELAY RELAY OUTPUT

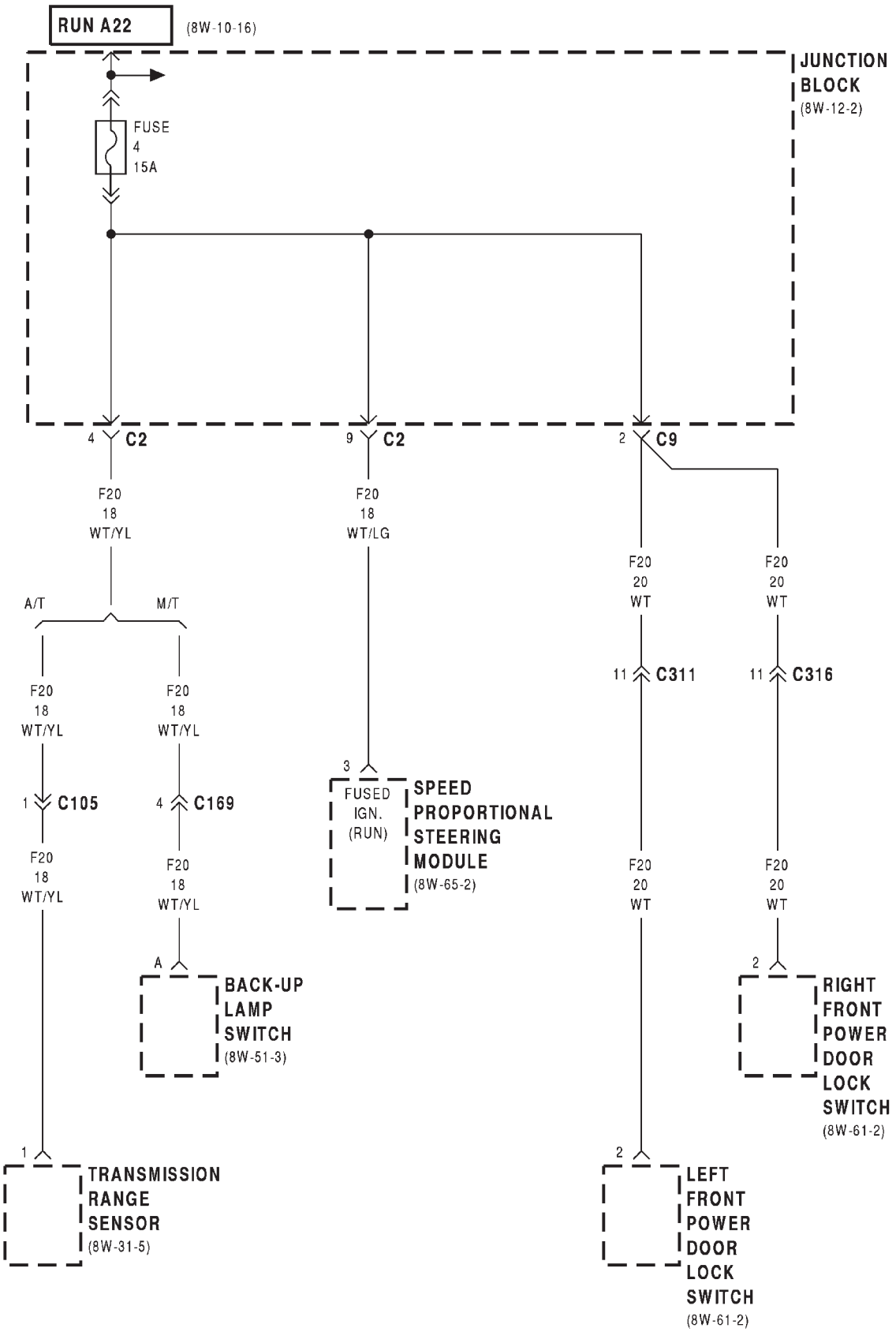
HORN RELAY

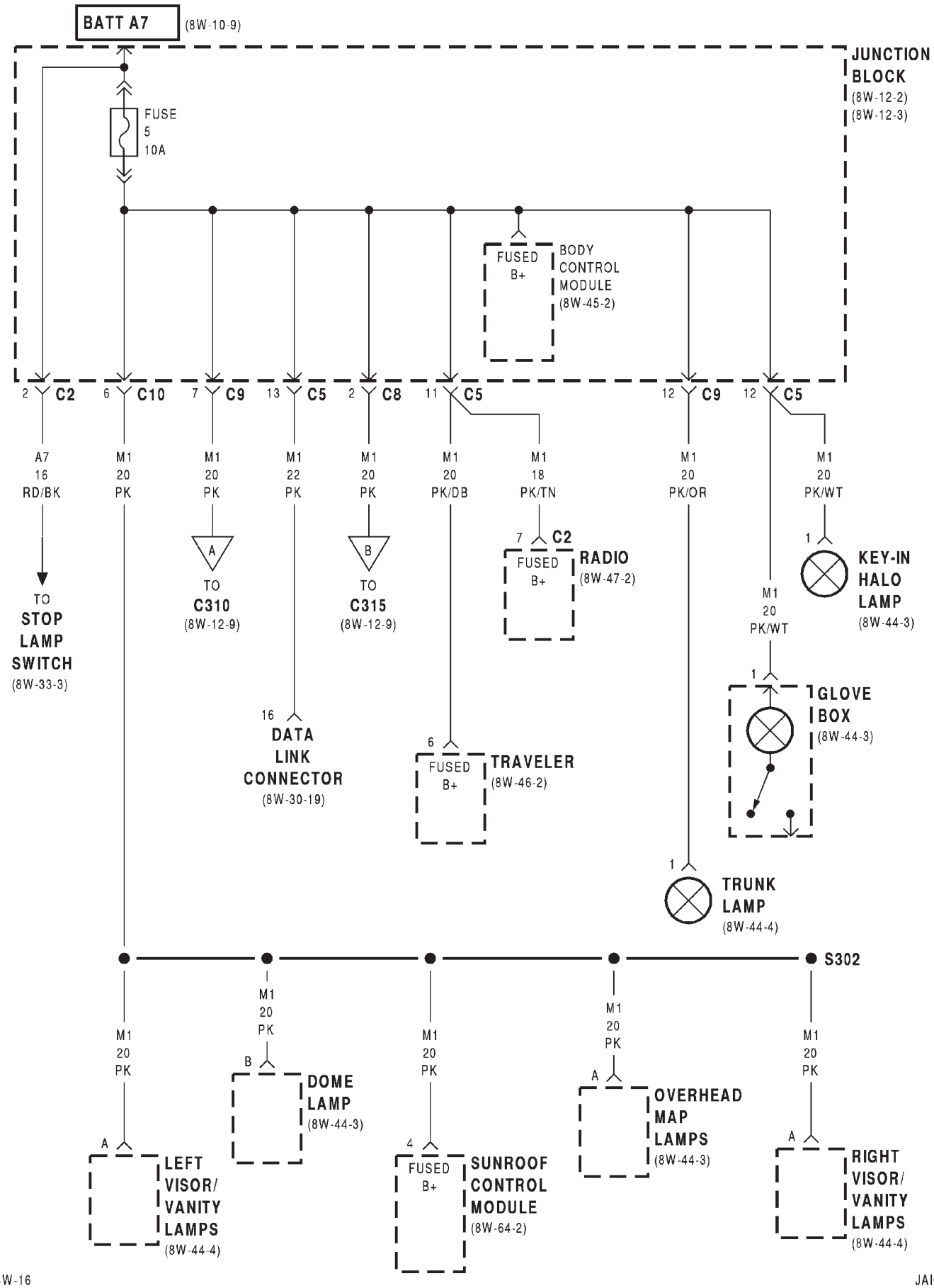
CAVITY	CIRCUIT	FUNCTION
6	F30	FUSED B (+)
7	X3	HORN RELAY CONTROL
8	F30	FUSED B (+)
9	-	-
10	X2	HORN RELAY OUTPUT

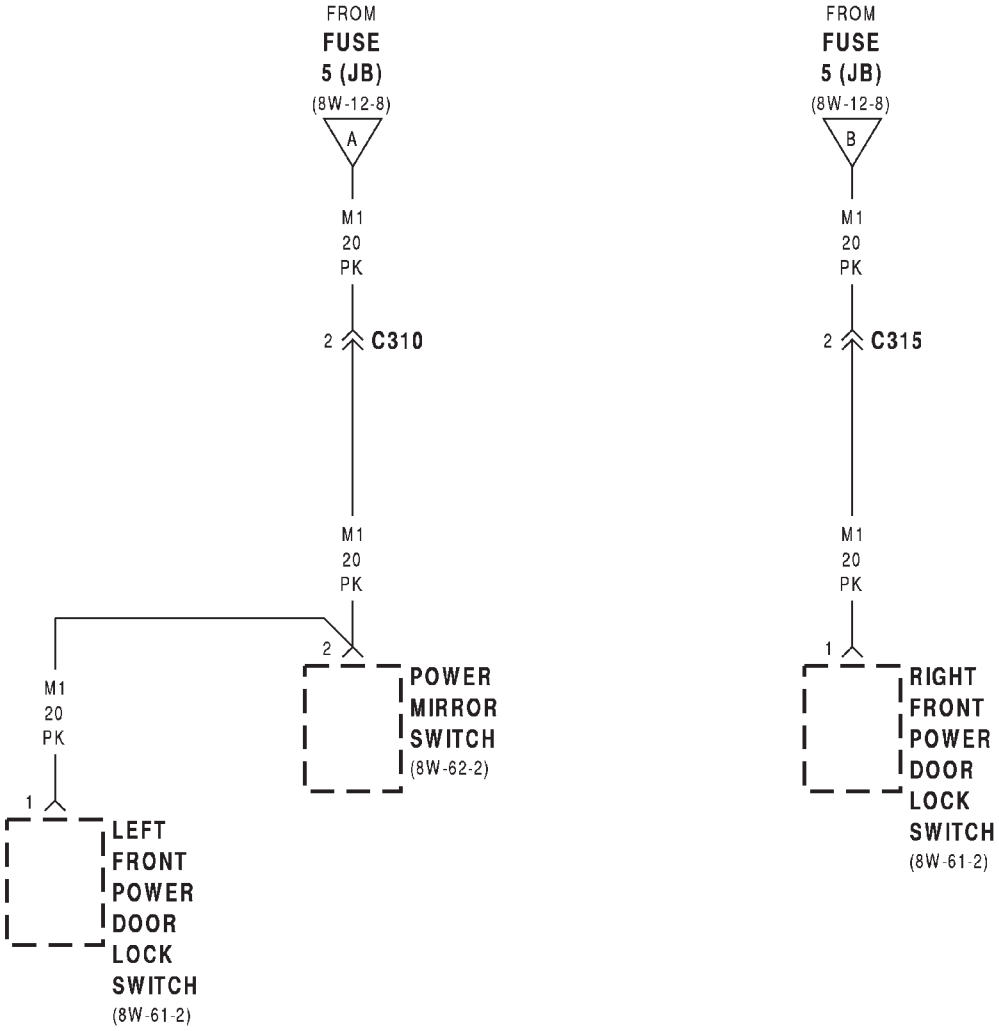
REAR WINDOW DEFOGGER RELAY

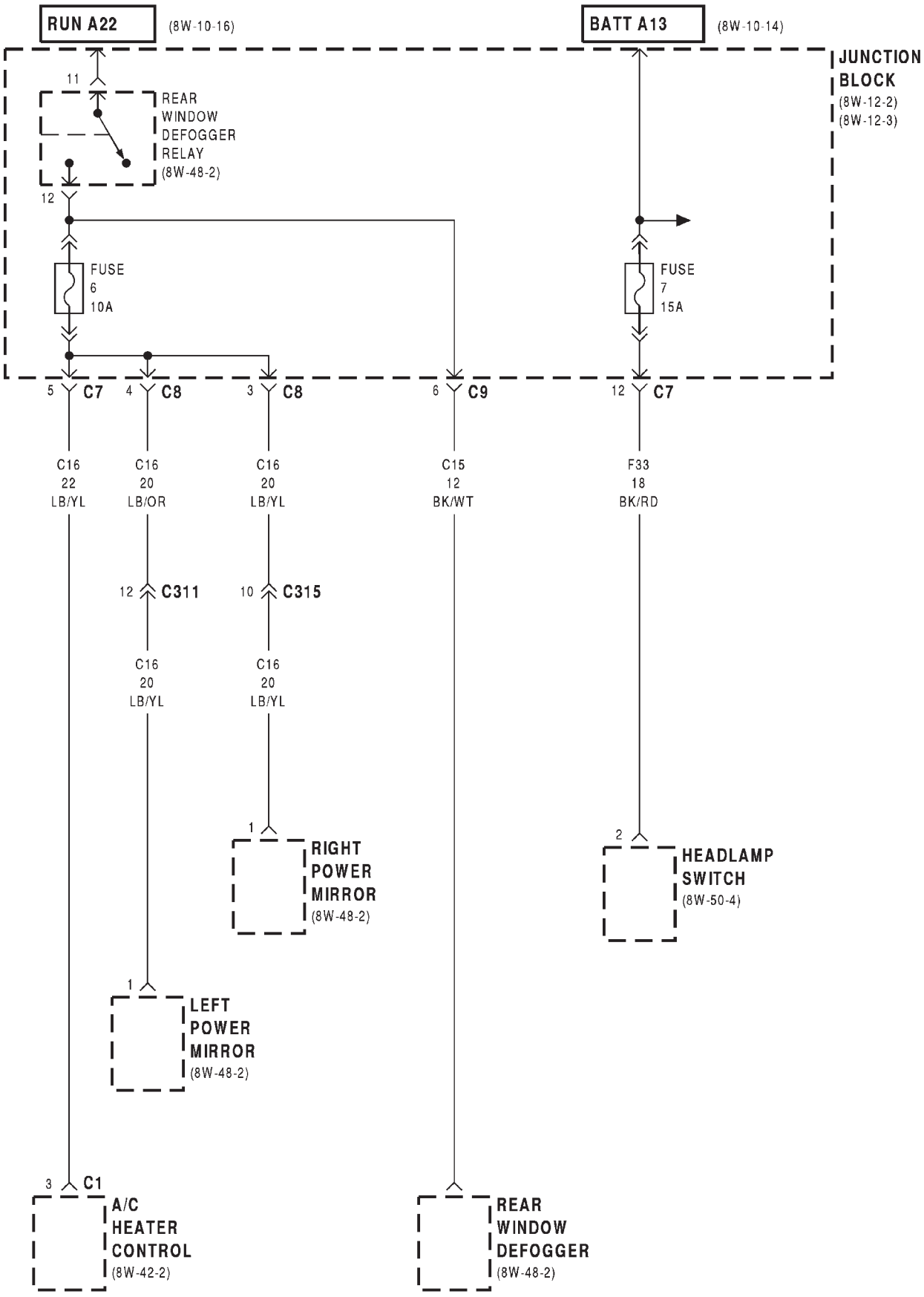
CAVITY	CIRCUIT	FUNCTION
11	A4	FUSED B (+)
12	C15	REAR WINDOW DEFOGGER RELAY OUTPUT
13	C80	REAR WINDOW DEFOGGER RELAY CONTROL
15	F13	FUSED IGNITION (RUN-ACC)

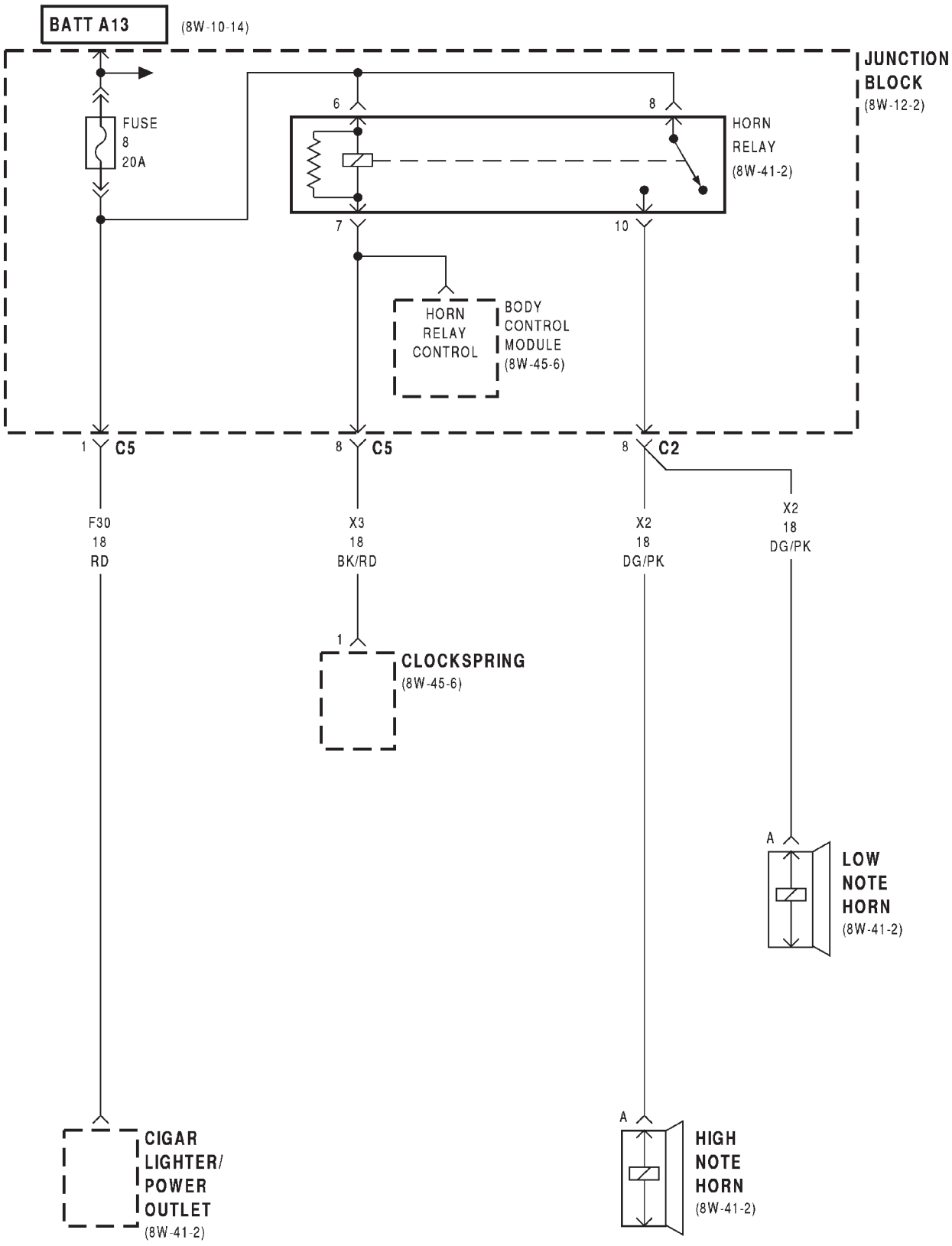

RUN A22
(8W-10-16)
BATT A3
(8W-10-15)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE 1 30A
6 C6
4 C6
C1 12 DG
A3 14 RD/WT
4
BLOWER MOTOR RESISTOR BLOCK
(8W-42-2)
HEADLAMP SWITCH
1 HEAD
2 PARK
0 OFF
3 LOW
4 HIGH
(8W-50-4)
8
L3 14 RD/OR
3 C6
JUNCTION BLOCK
(8W-12-2)
FUSE 2 10A
FUSE 3 10A
DIMMER SWITCH HIGH BEAM OUTPUT
BODY CONTROL MODULE
(8W-45-5)
3 C1
6 C1
L34 18 RD/OR
L33 18 LG/BR
RIGHT HEADLAMP
(8W-50-2)
LEFT HEADLAMP
(8W-50-2)

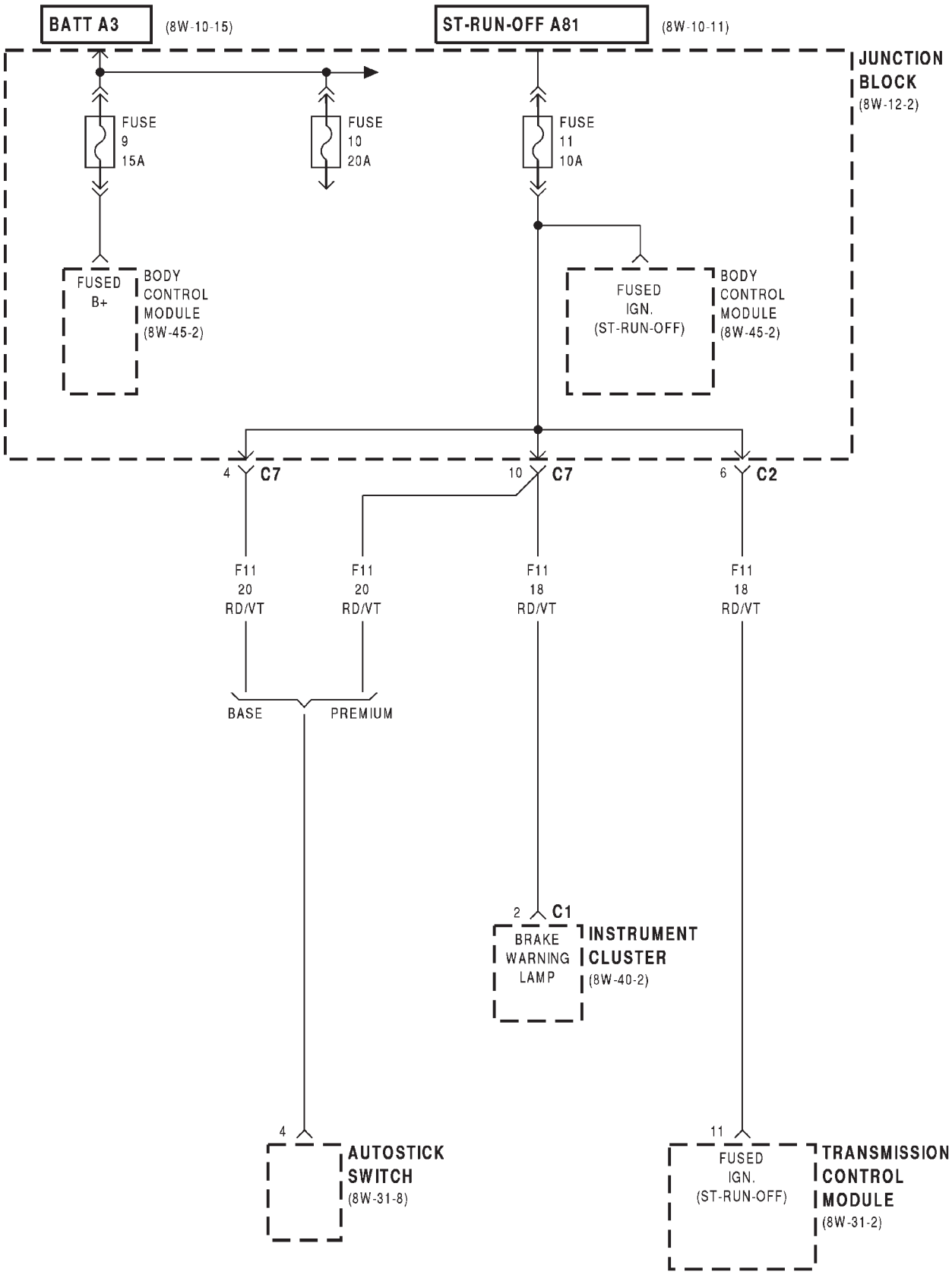

RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
FUSE
4
15A
4 C2
9 C2
2 C9
F20
18
WT/YL
F20
18
WT/LG
F20
20
WT
A/T
M/T
11 C311
11 C316
1 C105
4 C169
3
FUSED IGN. (RUN)
SPEED PROPORTIONAL STEERING MODULE
(8W-65-2)
A
BACK-UP LAMP SWITCH
(8W-51-3)
2
RIGHT FRONT POWER DOOR LOCK SWITCH
(8W-61-2)
1
TRANSMISSION RANGE SENSOR
(8W-31-5)
LEFT FRONT POWER DOOR LOCK SWITCH
(8W-61-2)

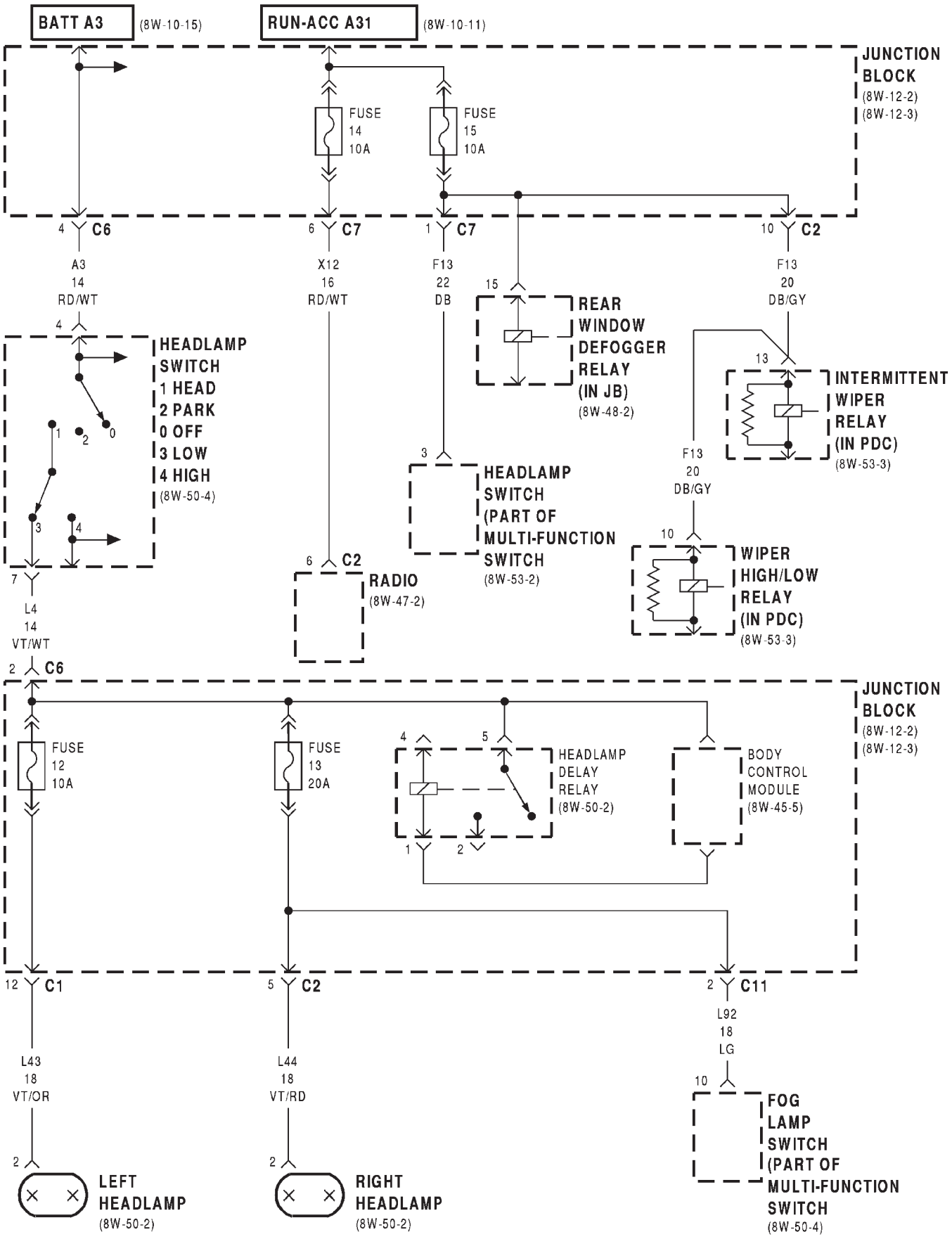

BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE 5 10A
FUSED B+
BODY CONTROL MODULE
(8W-45-2)
2 C2
6 C10
7 C9
13 C5
2 C8
11 C5
12 C9
12 C5
A7 16 RD/BK
M1 20 PK
M1 20 PK
M1 22 PK
M1 20 PK
M1 20 PK/DB
M1 18 PK/TN
M1 20 PK/OR
M1 20 PK/WT
M1 20 PK/WT
TO STOP LAMP SWITCH
(8W-33-3)
A
TO C310
(8W-12-9)
B
TO C315
(8W-12-9)
7 C2
FUSED B+
RADIO
(8W-47-2)
1
KEY-IN HALO LAMP
(8W-44-3)
M1 20 PK/WT
1
GLOVE BOX
(8W-44-3)
16
DATA LINK CONNECTOR
(8W-30-19)
6
FUSED B+
TRAVELER
(8W-46-2)
1
TRUNK LAMP
(8W-44-4)
S302
M1 20 PK
M1 20 PK
B
DOME LAMP
(8W-44-3)
M1 20 PK
4
FUSED B+
SUNROOF CONTROL MODULE
(8W-64-2)
M1 20 PK
A
OVERHEAD MAP LAMPS
(8W-44-3)
M1 20 PK
A
RIGHT VISOR/ VANITY LAMPS
(8W-44-4)
A
LEFT VISOR/ VANITY LAMPS
(8W-44-4)

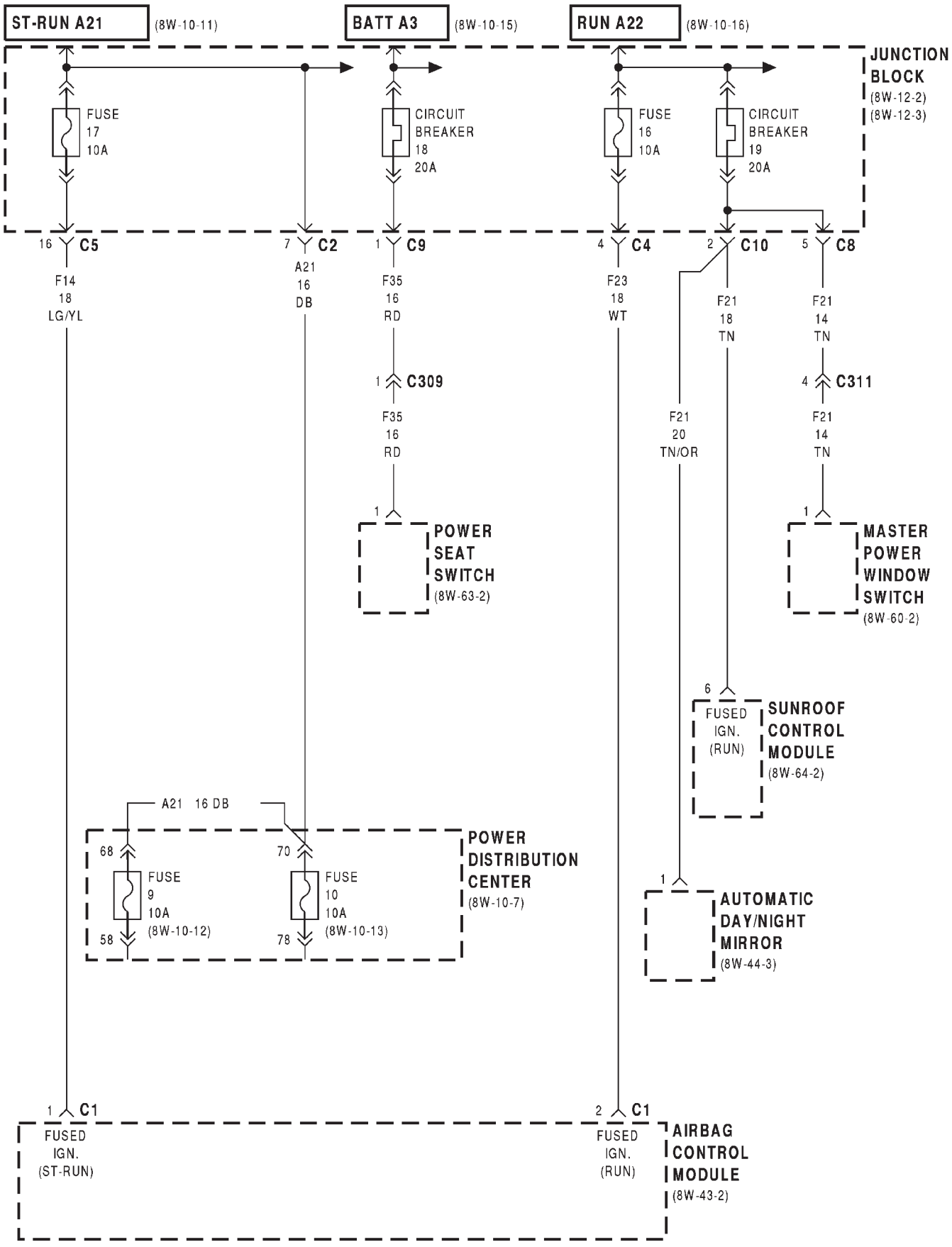

FROM
FUSE
5 (JB)
(8W-12-8)
A
M1
20
PK
2
C310
M1
20
PK
2
POWER
MIRROR
SWITCH
(8W-62-2)
M1
20
PK
1
LEFT
FRONT
POWER
DOOR
LOCK
SWITCH
(8W-61-2)
FROM
FUSE
5 (JB)
(8W-12-8)
B
M1
20
PK
2
C315
M1
20
PK
1
RIGHT
FRONT
POWER
DOOR
LOCK
SWITCH
(8W-61-2)

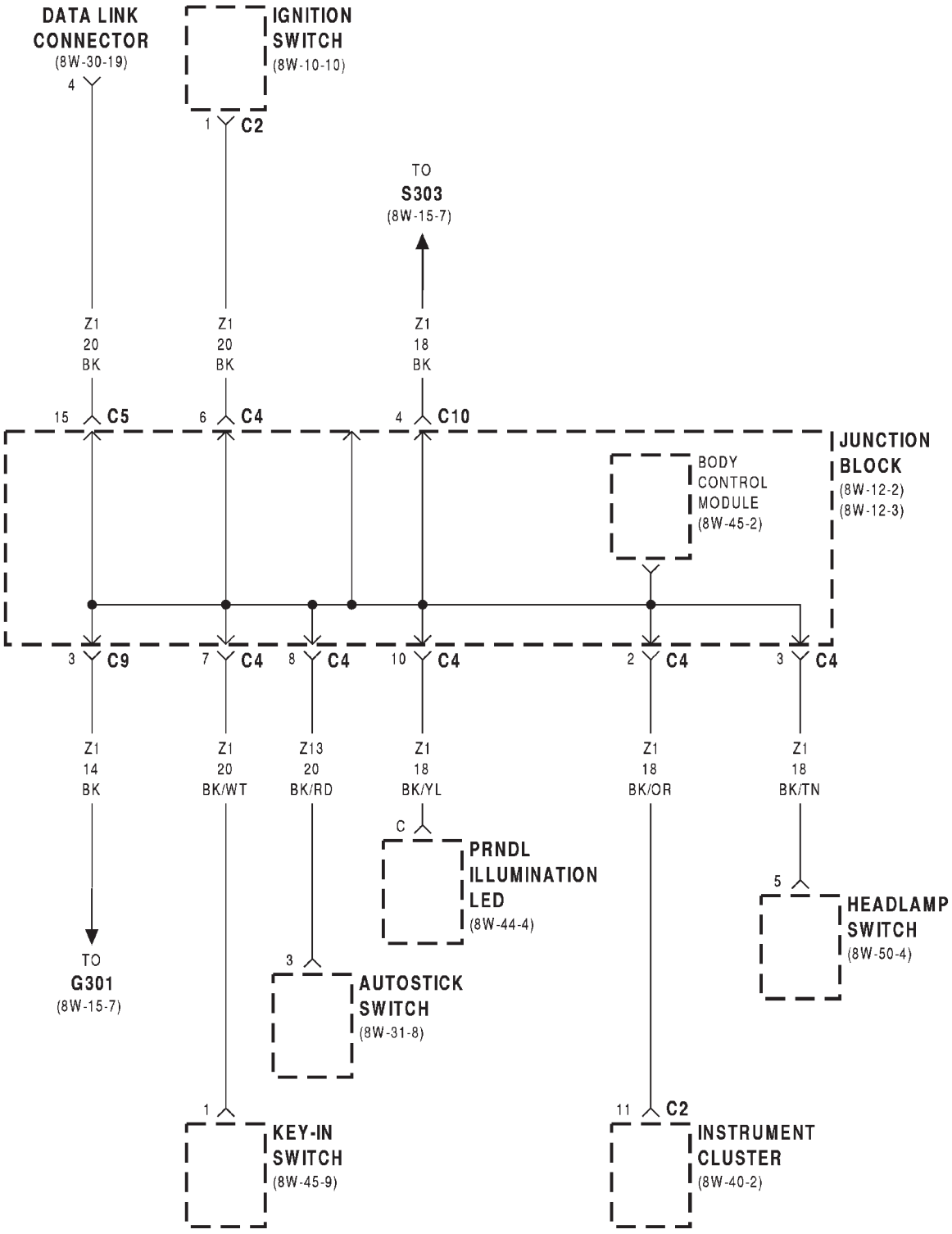

RUN A22
(8W-10-16)
BATT A13
(8W-10-14)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
11
REAR WINDOW DEFOGGER RELAY
(8W-48-2)
12
FUSE 6 10A
FUSE 7 15A
5 C7
4 C8
3 C8
6 C9
12 C7
C16 22 LB/YL
C16 20 LB/OR
C16 20 LB/YL
C15 12 BK/WT
F33 18 BK/RD
12 C311
10 C315
C16 20 LB/YL
C16 20 LB/YL
1
RIGHT POWER MIRROR
(8W-48-2)
2
HEADLAMP SWITCH
(8W-50-4)
1
LEFT POWER MIRROR
(8W-48-2)
3 C1
A/C HEATER CONTROL
(8W-42-2)
REAR WINDOW DEFOGGER
(8W-48-2)

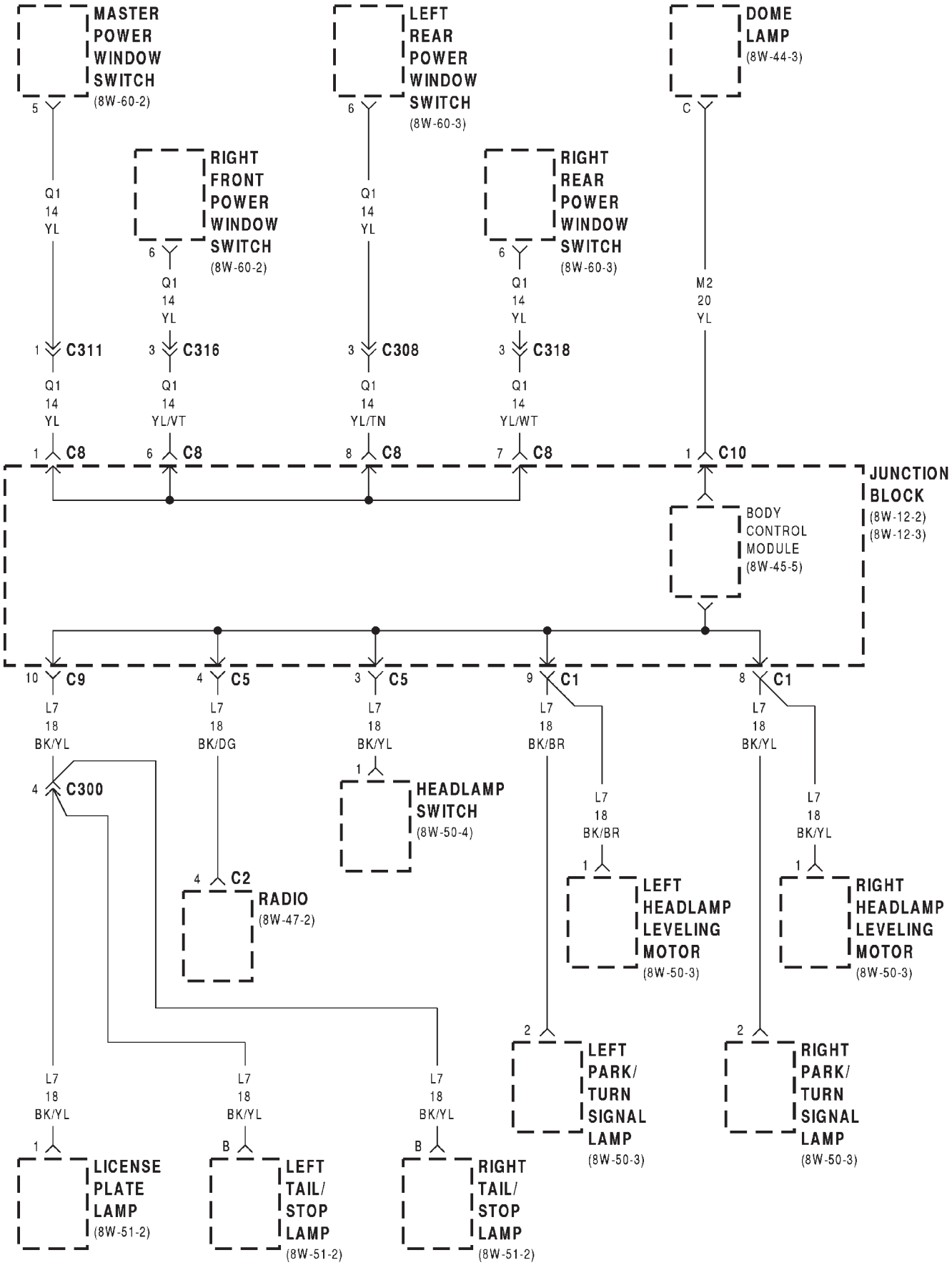

BATT A13
(8W-10-14)
JUNCTION BLOCK
(8W-12-2)
FUSE
8
20A
6
8
HORN
RELAY
(8W-41-2)
7
10
HORN
RELAY
CONTROL
BODY
CONTROL
MODULE
(8W-45-6)
1
C5
8
C5
8
C2
F30
18
RD
X3
18
BK/RD
X2
18
DG/PK
X2
18
DG/PK
1
CLOCKSPRING
(8W-45-6)
A
LOW
NOTE
HORN
(8W-41-2)
CIGAR
LIGHTER/
POWER
OUTLET
(8W-41-2)
A
HIGH
NOTE
HORN
(8W-41-2)

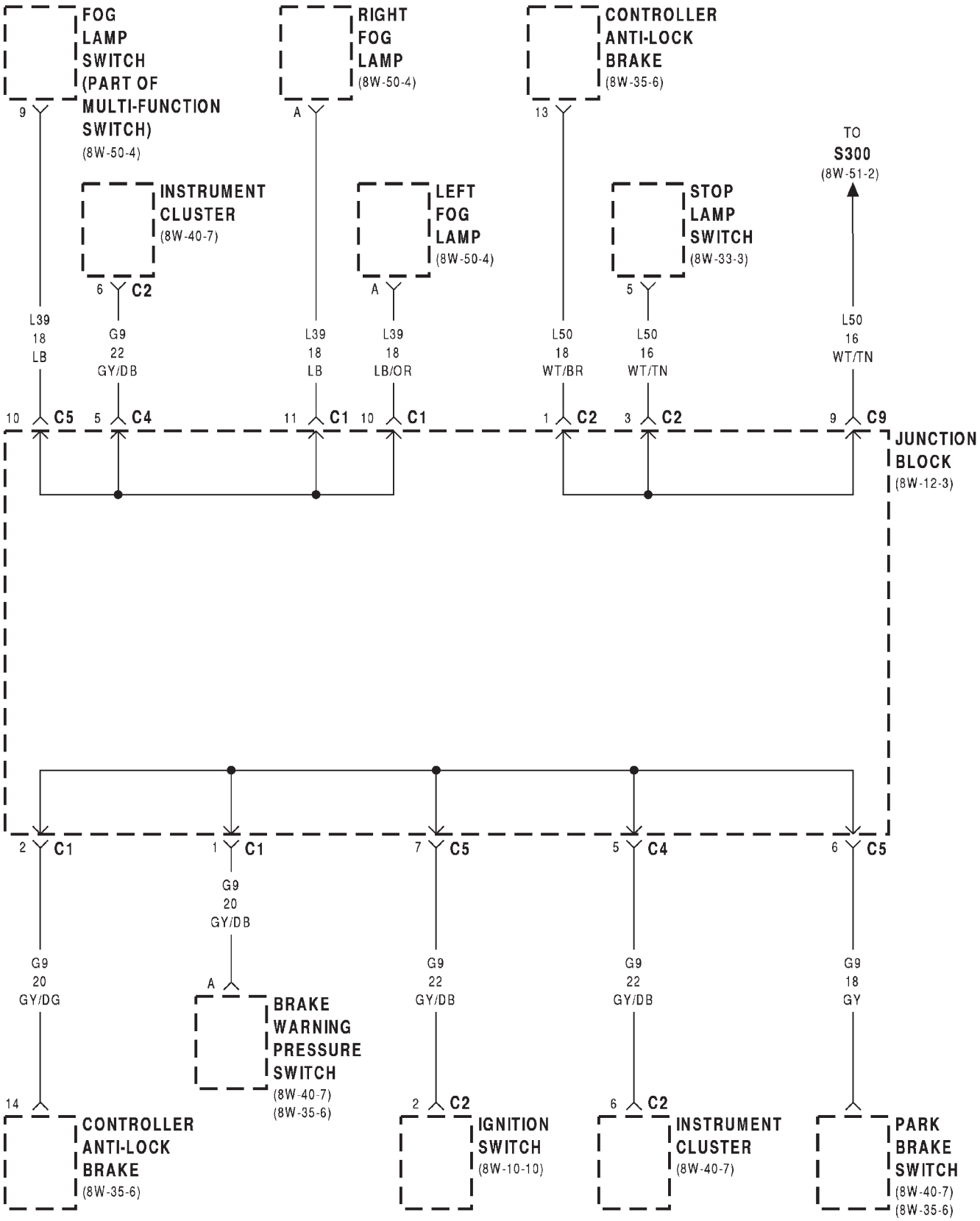

BATT A3
(8W-10-15)
ST-RUN-OFF A81
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
FUSE 9 15A
FUSE 10 20A
FUSE 11 10A
FUSED B+
BODY CONTROL MODULE
(8W-45-2)
FUSED IGN. (ST-RUN-OFF)
BODY CONTROL MODULE
(8W-45-2)
4 C7
10 C7
6 C2
F11 20 RD/VT
F11 20 RD/VT
F11 18 RD/VT
F11 18 RD/VT
BASE
PREMIUM
2 C1
BRAKE WARNING LAMP
INSTRUMENT CLUSTER
(8W-40-2)
4
AUTOSTICK SWITCH
(8W-31-8)
11
FUSED IGN. (ST-RUN-OFF)
TRANSMISSION CONTROL MODULE
(8W-31-2)

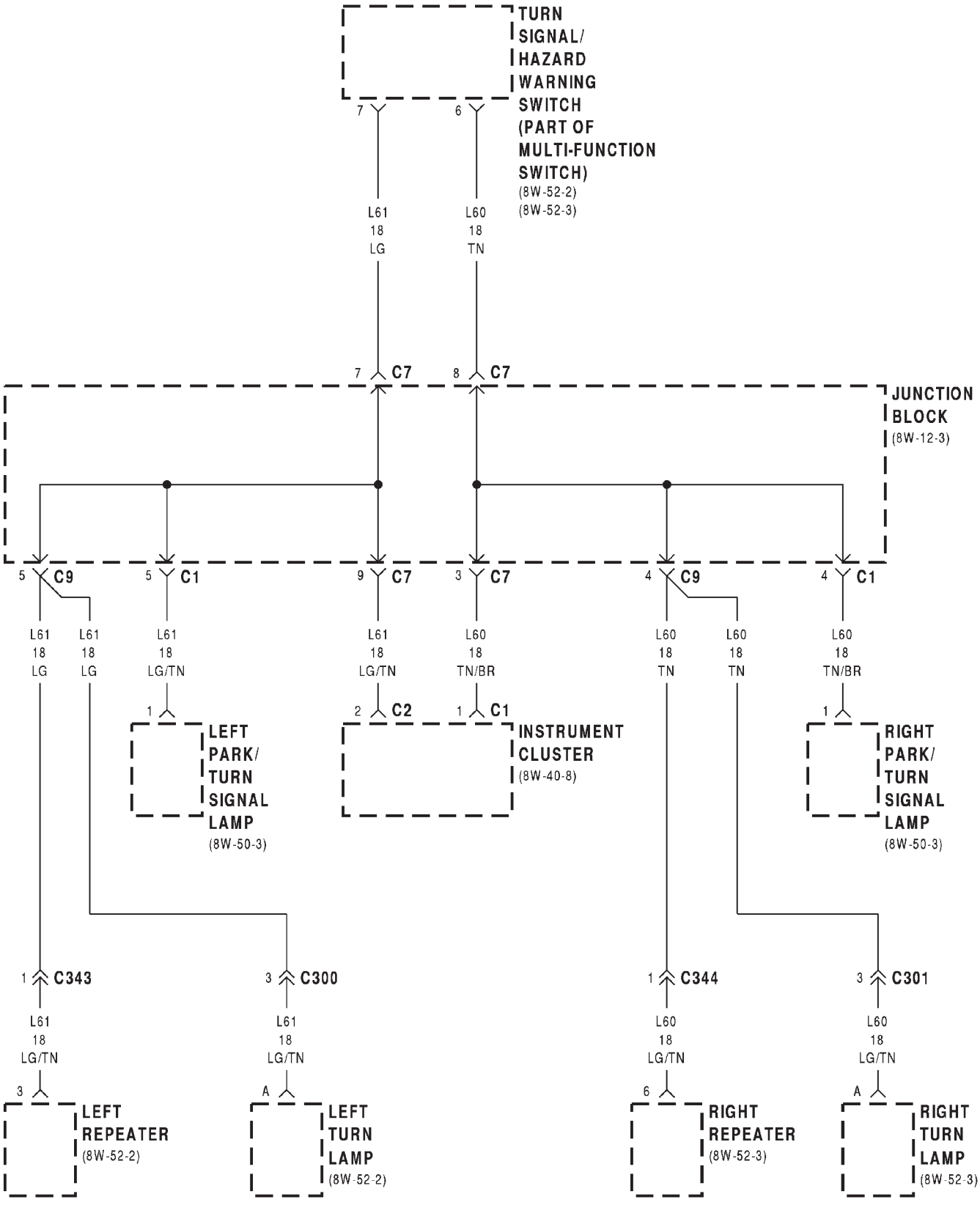

BATT A3
(8W-10-15)
RUN-ACC A31
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE 14 10A
FUSE 15 10A
4 C6
6 C7
1 C7
10 C2
A3 14 RD/WT
X12 16 RD/WT
F13 22 DB
F13 20 DB/GY
15
REAR WINDOW DEFOGGER RELAY (IN JB)
(8W-48-2)
13
INTERMITTENT WIPER RELAY (IN PDC)
(8W-53-3)
4
HEADLAMP SWITCH
1 HEAD
2 PARK
0 OFF
3 LOW
4 HIGH
(8W-50-4)
3
HEADLAMP SWITCH (PART OF MULTI-FUNCTION SWITCH)
(8W-53-2)
F13 20 DB/GY
10
WIPER HIGH/LOW RELAY (IN PDC)
(8W-53-3)
6 C2
RADIO
(8W-47-2)
7
L4 14 VT/WT
2 C6
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE 12 10A
FUSE 13 20A
4
5
HEADLAMP DELAY RELAY
(8W-50-2)
BODY CONTROL MODULE
(8W-45-5)
12 C1
5 C2
2 C11
L43 18 VT/OR
L44 18 VT/RD
L92 18 LG
10
FOG LAMP SWITCH (PART OF MULTI-FUNCTION SWITCH)
(8W-50-4)
2
LEFT HEADLAMP
(8W-50-2)
RIGHT HEADLAMP
(8W-50-2)


ST-RUN A21
(8W-10-11)
BATT A3
(8W-10-15)
RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE 17 10A
CIRCUIT BREAKER 18 20A
FUSE 16 10A
CIRCUIT BREAKER 19 20A
16 C5
7 C2
1 C9
4 C4
2 C10
5 C8
F14 18 LG/YL
A21 16 DB
F35 16 RD
F23 18 WT
F21 18 TN
F21 14 TN
1 C309
4 C311
F35 16 RD
F21 20 TN/OR
F21 14 TN
1
POWER SEAT SWITCH
(8W-63-2)
1
MASTER POWER WINDOW SWITCH
(8W-60-2)
6
FUSED IGN. (RUN)
SUNROOF CONTROL MODULE
(8W-64-2)
A21 16 DB
68
70
FUSE 9 10A
(8W-10-12)
58
FUSE 10 10A
(8W-10-13)
78
POWER DISTRIBUTION CENTER
(8W-10-7)
1
AUTOMATIC DAY/NIGHT MIRROR
(8W-44-3)
1 C1
FUSED IGN. (ST-RUN)
2 C1
FUSED IGN. (RUN)
AIRBAG CONTROL MODULE
(8W-43-2)


DATA LINK CONNECTOR
(8W-30-19)
4
IGNITION SWITCH
(8W-10-10)
1 C2
TO
S303
(8W-15-7)
Z1
20
BK
Z1
20
BK
Z1
18
BK
15 C5
6 C4
4 C10
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
BODY CONTROL MODULE
(8W-45-2)
3 C9
7 C4
8 C4
10 C4
2 C4
3 C4
Z1
14
BK
Z1
20
BK/WT
Z13
20
BK/RD
Z1
18
BK/YL
Z1
18
BK/OR
Z1
18
BK/TN
C
PRNDL ILLUMINATION LED
(8W-44-4)
5
HEADLAMP SWITCH
(8W-50-4)
TO
G301
(8W-15-7)
3
AUTOSTICK SWITCH
(8W-31-8)
1
KEY-IN SWITCH
(8W-45-9)
11 C2
INSTRUMENT CLUSTER
(8W-40-2)


MASTER POWER WINDOW SWITCH (8W-60-2)
5
LEFT REAR POWER WINDOW SWITCH (8W-60-3)
6
DOME LAMP (8W-44-3)
C
RIGHT FRONT POWER WINDOW SWITCH (8W-60-2)
6
RIGHT REAR POWER WINDOW SWITCH (8W-60-3)
6
Q1 14 YL
M2 20 YL
1 C311
3 C316
3 C308
3 C318
Q1 14 YL
Q1 14 YL/VT
Q1 14 YL/TN
Q1 14 YL/WT
1 C8
6 C8
8 C8
7 C8
1 C10
JUNCTION BLOCK (8W-12-2) (8W-12-3)
BODY CONTROL MODULE (8W-45-5)
10 C9
4 C5
3 C5
9 C1
8 C1
L7 18 BK/YL
L7 18 BK/DG
L7 18 BK/BR
4 C300
1 HEADLAMP SWITCH (8W-50-4)
4 C2
RADIO (8W-47-2)
1 LEFT HEADLAMP LEVELING MOTOR (8W-50-3)
1 RIGHT HEADLAMP LEVELING MOTOR (8W-50-3)
2 LEFT PARK/ TURN SIGNAL LAMP (8W-50-3)
2 RIGHT PARK/ TURN SIGNAL LAMP (8W-50-3)
1 LICENSE PLATE LAMP (8W-51-2)
B LEFT TAIL/ STOP LAMP (8W-51-2)
B RIGHT TAIL/ STOP LAMP (8W-51-2)


FOG LAMP SWITCH (PART OF MULTI-FUNCTION SWITCH) (8W-50-4)
9
RIGHT FOG LAMP (8W-50-4)
A
CONTROLLER ANTI-LOCK BRAKE (8W-35-6)
13
TO S300 (8W-51-2)
INSTRUMENT CLUSTER (8W-40-7)
6 C2
LEFT FOG LAMP (8W-50-4)
A
STOP LAMP SWITCH (8W-33-3)
5
L39 18 LB
G9 22 GY/DB
L39 18 LB
L39 18 LB/OR
L50 18 WT/BR
L50 16 WT/TN
L50 16 WT/TN
10 C5
5 C4
11 C1
10 C1
1 C2
3 C2
9 C9
JUNCTION BLOCK (8W-12-3)
2 C1
1 C1
7 C5
5 C4
6 C5
G9 20 GY/DB
G9 20 GY/DG
G9 22 GY/DB
G9 22 GY/DB
G9 18 GY
A
BRAKE WARNING PRESSURE SWITCH (8W-40-7) (8W-35-6)
14
CONTROLLER ANTI-LOCK BRAKE (8W-35-6)
2 C2
IGNITION SWITCH (8W-10-10)
6 C2
INSTRUMENT CLUSTER (8W-40-7)
PARK BRAKE SWITCH (8W-40-7) (8W-35-6)


TURN SIGNAL/ HAZARD WARNING SWITCH (PART OF MULTI-FUNCTION SWITCH)
(8W-52-2)
(8W-52-3)
7
6
L61 18 LG
L60 18 TN
7 C7
8 C7
JUNCTION BLOCK
(8W-12-3)
5 C9
5 C1
9 C7
3 C7
4 C9
4 C1
L61 18 LG
L61 18 LG
L61 18 LG/TN
L61 18 LG/TN
L60 18 TN/BR
L60 18 TN
L60 18 TN
L60 18 TN/BR
1
2 C2
1 C1
1
LEFT PARK/ TURN SIGNAL LAMP
(8W-50-3)
INSTRUMENT CLUSTER
(8W-40-8)
RIGHT PARK/ TURN SIGNAL LAMP
(8W-50-3)
1 C343
3 C300
1 C344
3 C301
L61 18 LG/TN
L61 18 LG/TN
L60 18 LG/TN
L60 18 LG/TN
3
A
6
A
LEFT REPEATER
(8W-52-2)
LEFT TURN LAMP
(8W-52-2)
RIGHT REPEATER
(8W-52-3)
RIGHT TURN LAMP
(8W-52-3)

8W-12 JUNCTION BLOCK

DESCRIPTION AND OPERATION

This section identifies the fuses, relays, module, and internal circuitry of the junction block. For additional information on system operation, refer to the appropriate group of the wiring diagrams.

8W-15 GROUND DISTRIBUTION

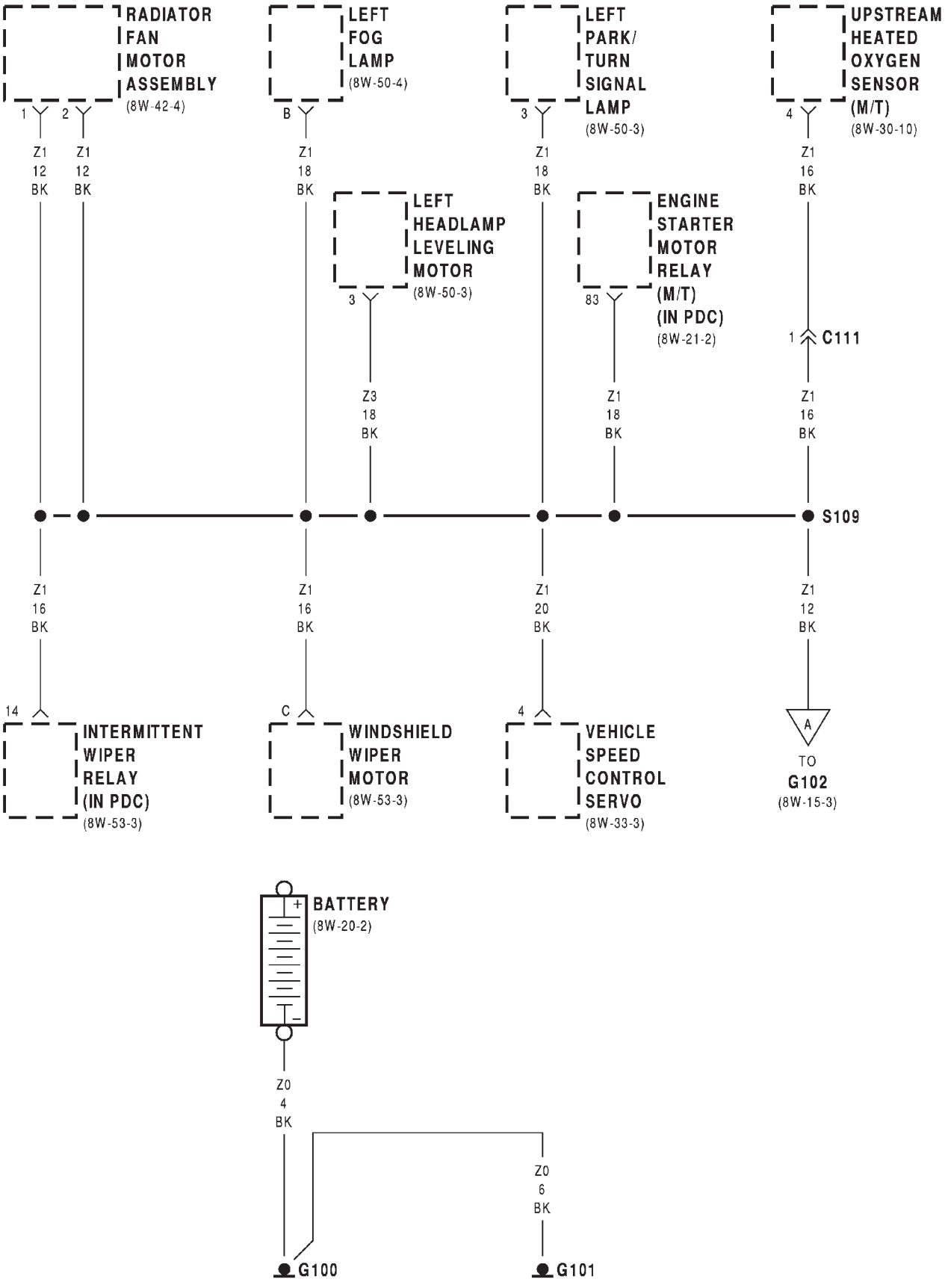
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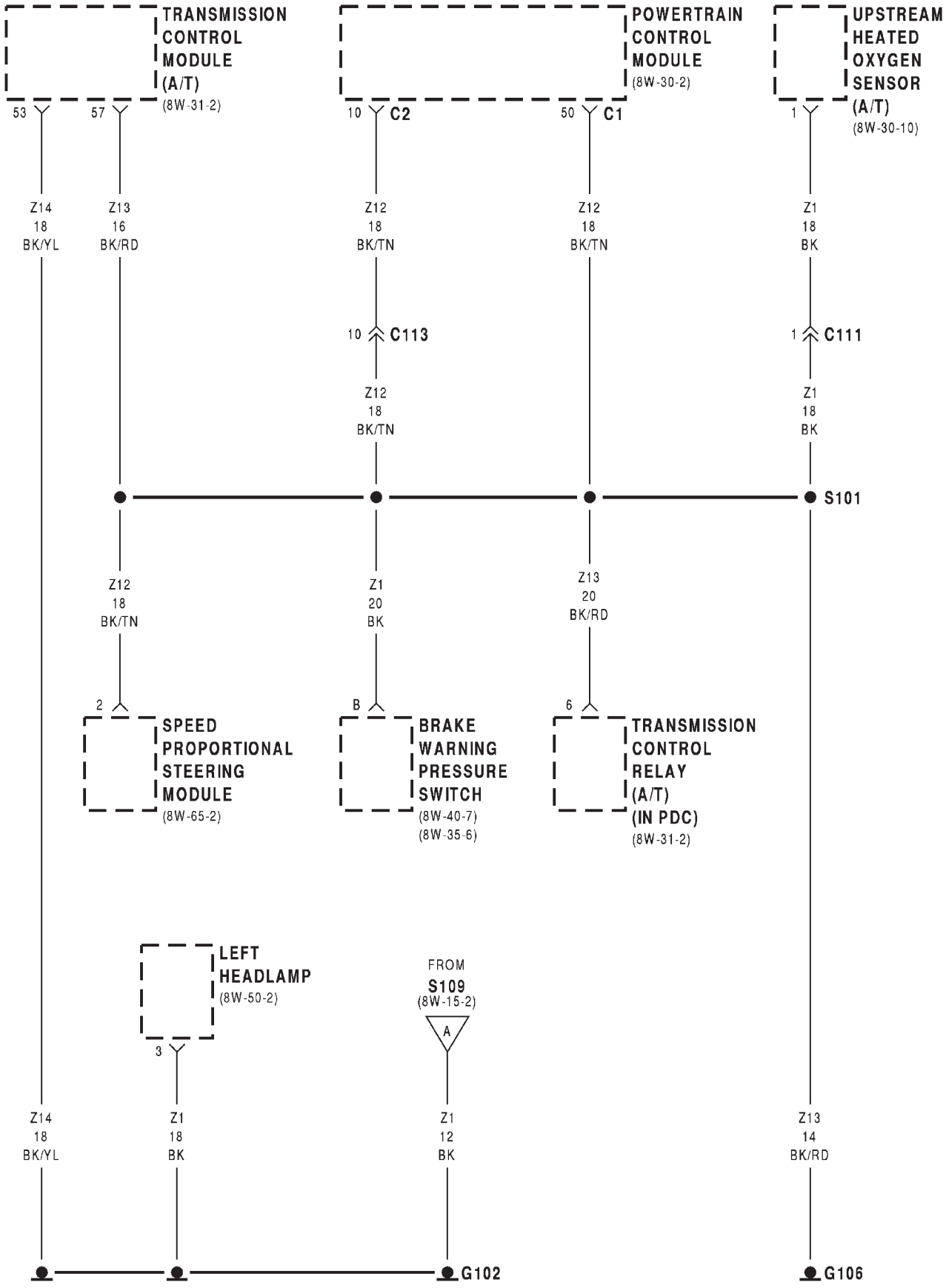
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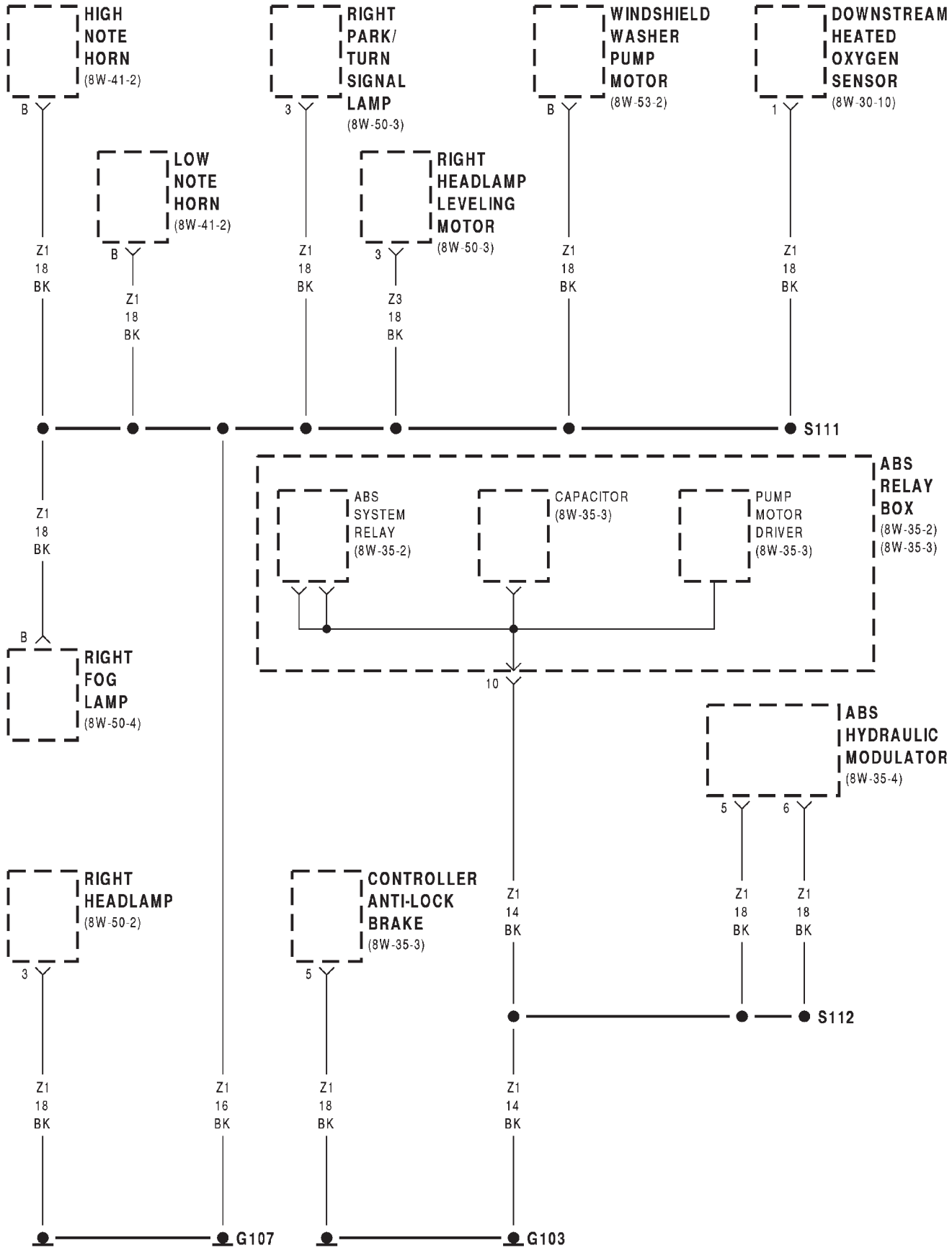
SCHEMATICS AND DIAGRAMS **1**
DESCRIPTION AND OPERATION **9**

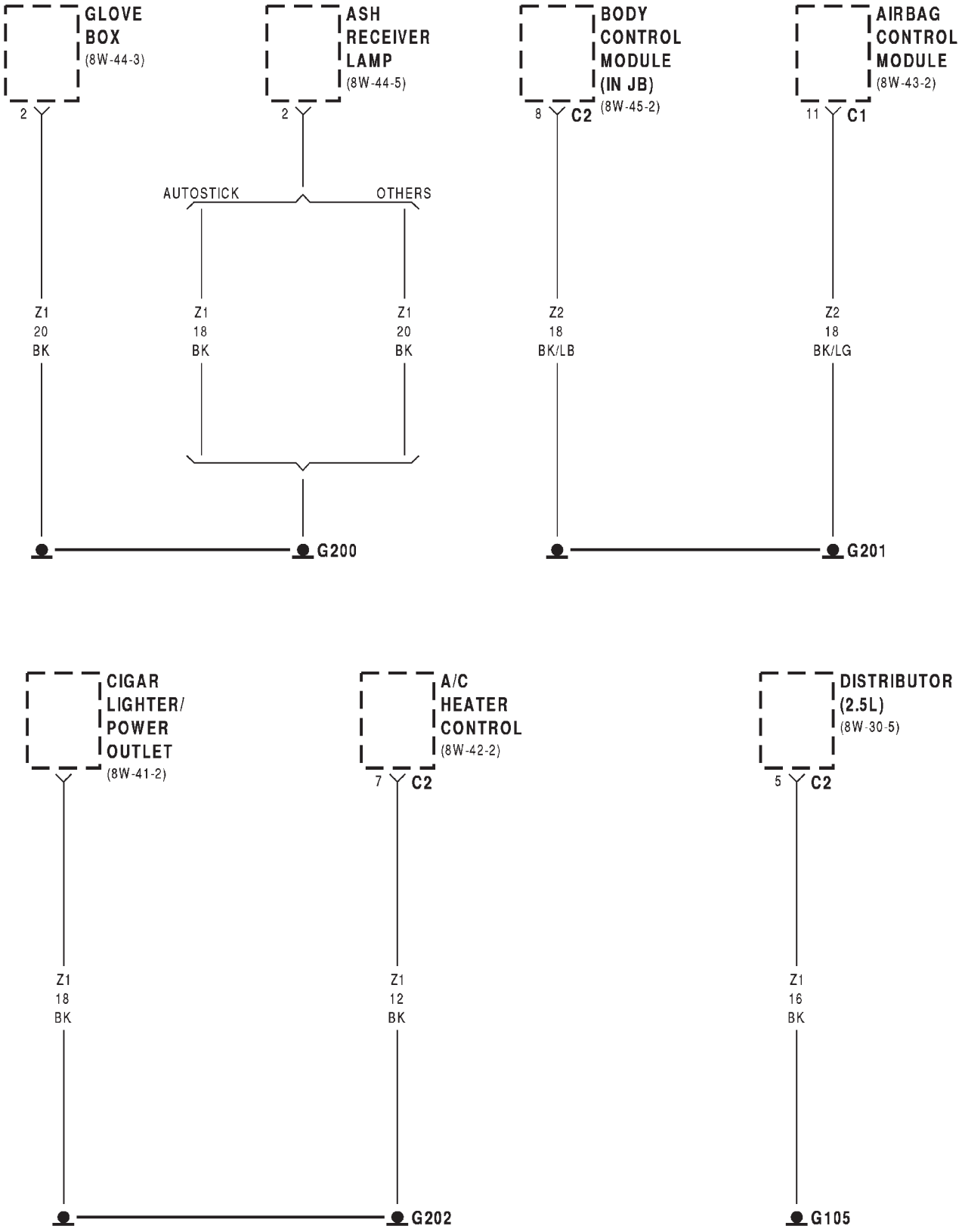
Component	Page
A/C Heater Control	8W-15-5
ABS Hydraulic Modulator	8W-15-4
ABS Relay Box	8W-15-4
ABS System Relay	8W-15-4
Airbag Control Module	8W-15-5
Ash Receiver Lamp	8W-15-5
Automatic Day/Night Mirror	8W-15-7
Autostick Switch	8W-15-7
Battery	8W-15-2
Body Control Module	8W-15-5, 7
Brake Warning Pressure Switch	8W-15-3
Capacitor	8W-15-4
Center High Mounted Stop Lamp	8W-15-6
Cigar Lighter/Power Outlet	8W-15-5
Controller Anti-Lock Brake	8W-15-4
Data Link Connector	8W-15-7
Distributor	8W-15-5
Dome Lamp	8W-15-7
Downstream Heated Oxygen Sensor	8W-15-4
Engine Starter Motor Relay	8W-15-2
Fuel Pump Module	8W-15-6
G100	8W-15-2
G101	8W-15-2
G102	8W-15-3
G103	8W-15-4
G105	8W-15-5
G106	8W-15-3
G107	8W-15-4
G200	8W-15-5
G201	8W-15-5
G202	8W-15-5
G300	8W-15-6
G301	8W-15-7
G302	8W-15-6
G303	8W-15-6
G304	8W-15-6
G305	8W-15-8
G306	8W-15-8
Glove Box	8W-15-5
Headlamp Leveling Switch	8W-15-7
Headlamp Switch	8W-15-7
High Note Horn	8W-15-4
Ignition Switch	8W-15-7
Instrument Cluster	8W-15-7
Intermittent Wiper Relay	8W-15-2
Junction Block	8W-15-7
Key-In Switch	8W-15-7
Left Back-Up Lamp	8W-15-6
Left Fog Lamp	8W-15-2

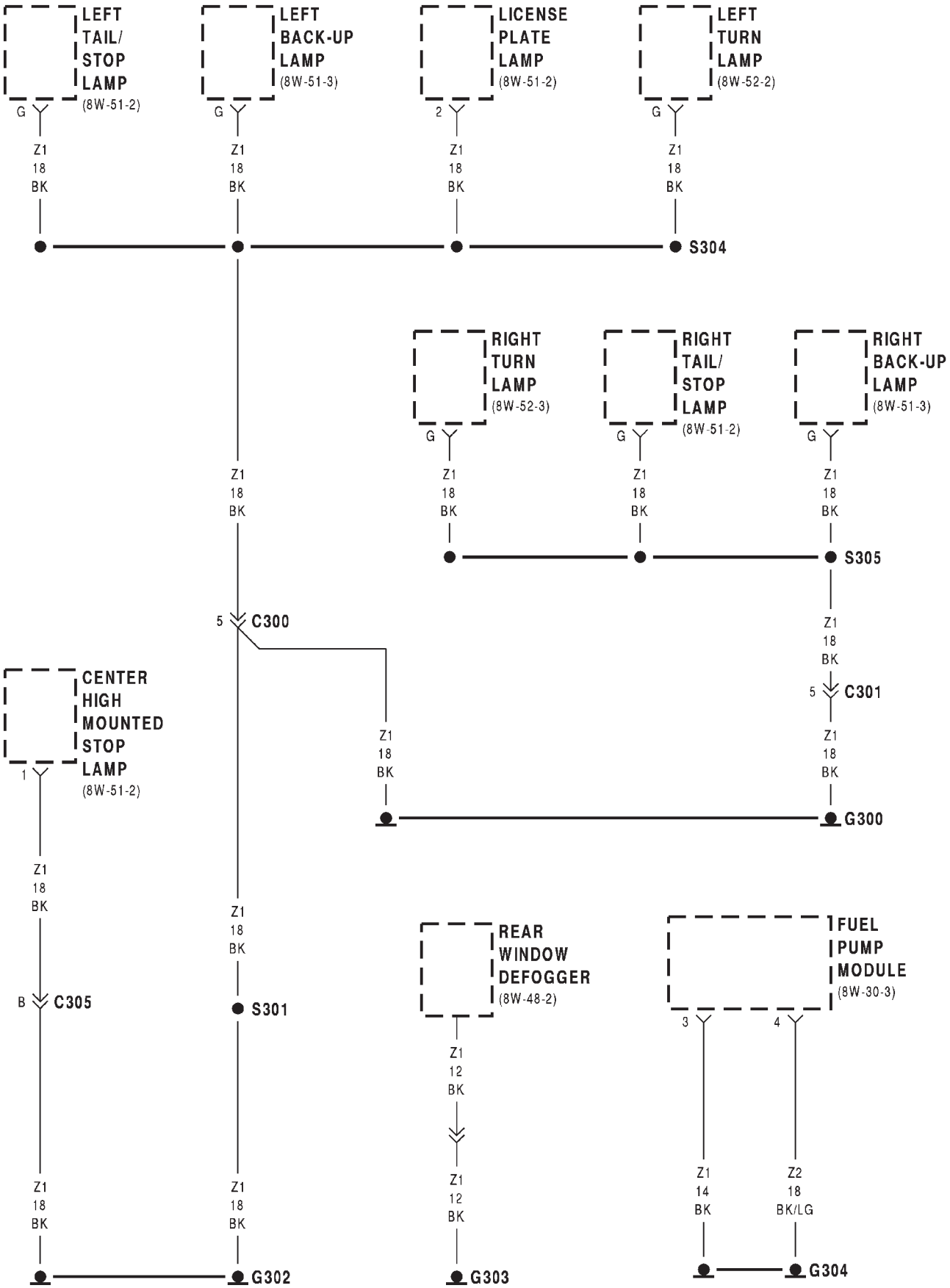
Component	Page
Left Front Power Door Lock Switch	8W-15-8
Left Headlamp	8W-15-3
Left Headlamp Leveling Motor	8W-15-2
Left Park/Turn Signal Lamp	8W-15-2
Left Power Mirror	8W-15-8
Left Repeater	8W-15-8
Left Tail/Stop Lamp	8W-15-6
Left Turn Signal Lamp	8W-15-6
Left Visor/Vanity Lamps	8W-15-7
License Plate Lamp	8W-15-6
Low Note Horn	8W-15-4
Master Power Window Switch	8W-15-8
Overhead Map Lamps	8W-15-7
Power Amplifier	8W-15-7
Power Seat Switch	8W-15-7
Powertrain Control Module	8W-15-3
PRNDL Illumination Led	8W-15-7
Pump Motor Driver	8W-15-4
Radiator Fan Motor Assembly	8W-15-2
Rear Window Defogger	8W-15-6
Right Back-Up Lamp	8W-15-6
Right Fog Lamp	8W-15-4
Right Front Power Door Lock Switch	8W-15-8
Right Headlamp	8W-15-4
Right Headlamp Leveling Motor	8W-15-4
Right Park/Turn Signal Lamp	8W-15-4
Right Power Mirror	8W-15-8
Right Repeater	8W-15-8
Right Tail/Stop Lamp	8W-15-6
Right Turn Signal Lamp	8W-15-6
Right Visor/Vanity Lamps	8W-15-7
S101	8W-15-3
S109	8W-15-2
S111	8W-15-4
S112	8W-15-4
S301	8W-15-6
S303	8W-15-7
S304	8W-15-6
S305	8W-15-6
S402	8W-15-8
Speed Proportional Steering Module	8W-15-3
Sunroof Control Module	8W-15-7
Transmission Control Module	8W-15-3
Transmission Control Relay	8W-15-3
Traveler	8W-15-7
Upstream Heated Oxygen Sensor	8W-15-2, 3
Vehicle Speed Control Servo	8W-15-2
Windshield Washer Pump Motor	8W-15-4
Windshield Wiper Motor	8W-15-2

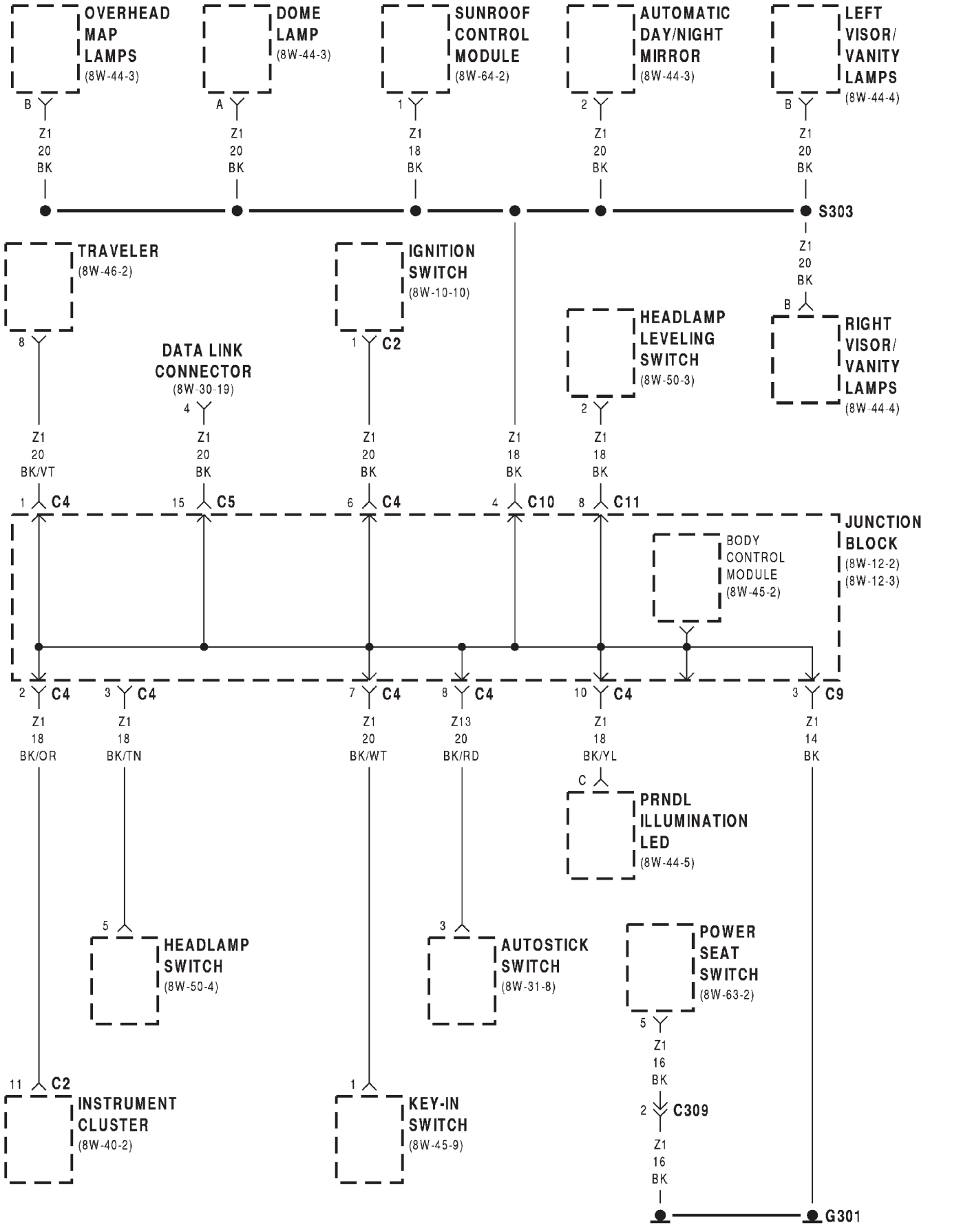

RADIATOR FAN MOTOR ASSEMBLY
(8W-42-4)
1
2
Z1 12 BK
Z1 12 BK
LEFT FOG LAMP
(8W-50-4)
B
Z1 18 BK
LEFT PARK/ TURN SIGNAL LAMP
(8W-50-3)
3
Z1 18 BK
UPSTREAM HEATED OXYGEN SENSOR (M/T)
(8W-30-10)
4
Z1 16 BK
LEFT HEADLAMP LEVELING MOTOR
(8W-50-3)
3
Z3 18 BK
ENGINE STARTER MOTOR RELAY (M/T) (IN PDC)
(8W-21-2)
83
Z1 18 BK
1
C111
Z1 16 BK
S109
Z1 16 BK
14
INTERMITTENT WIPER RELAY (IN PDC)
(8W-53-3)
Z1 16 BK
C
WINDSHIELD WIPER MOTOR
(8W-53-3)
Z1 20 BK
4
VEHICLE SPEED CONTROL SERVO
(8W-33-3)
Z1 12 BK
A
TO G102
(8W-15-3)
BATTERY
(8W-20-2)
+
-
Z0 4 BK
Z0 6 BK
G100
G101

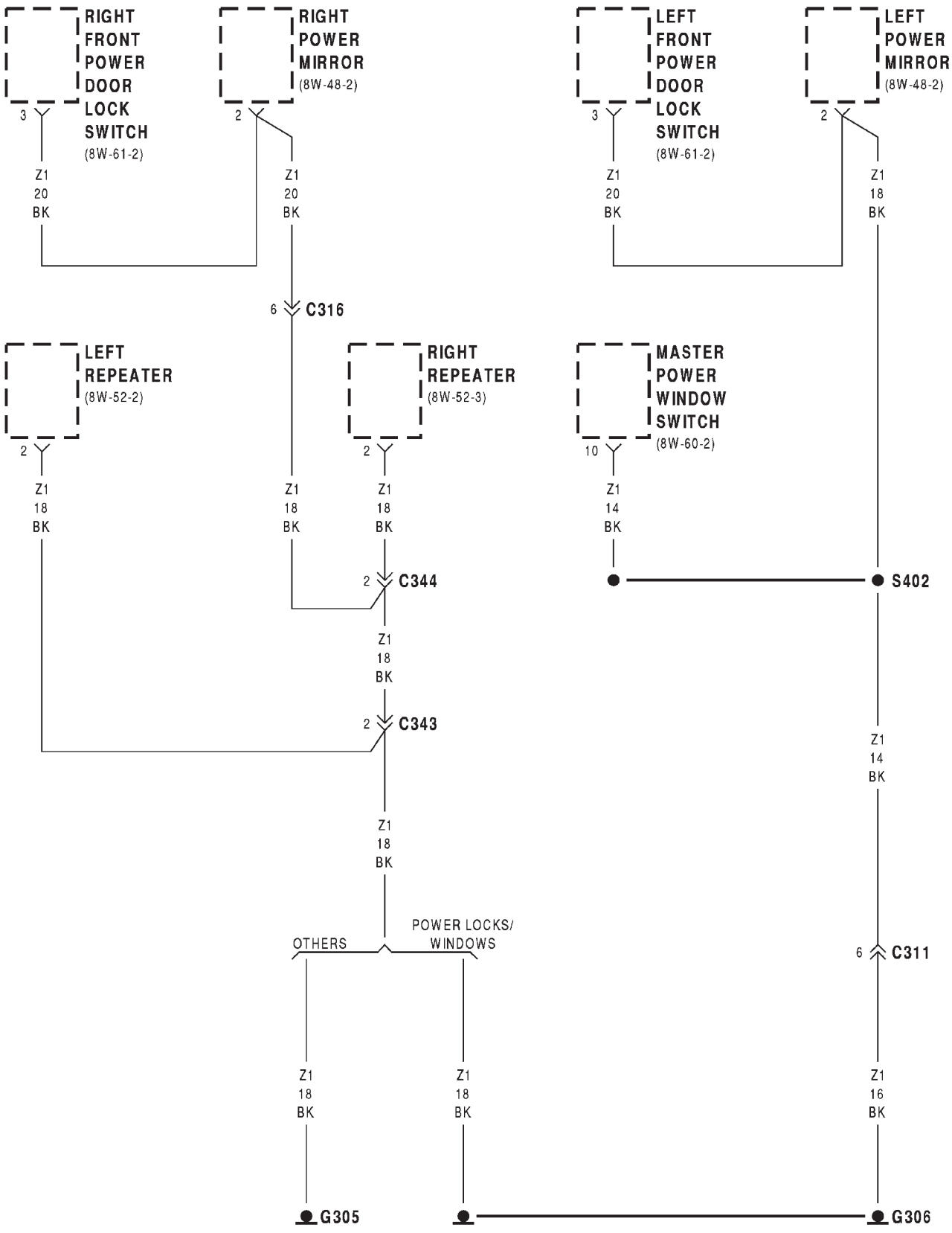

TRANSMISSION CONTROL MODULE (A/T)
(8W-31-2)
53
57
POWERTRAIN CONTROL MODULE
(8W-30-2)
10 C2
50 C1
UPSTREAM HEATED OXYGEN SENSOR (A/T)
(8W-30-10)
1
Z14 18 BK/YL
Z13 16 BK/RD
Z12 18 BK/TN
Z12 18 BK/TN
Z1 18 BK
10 C113
1 C111
Z12 18 BK/TN
Z1 18 BK
S101
Z12 18 BK/TN
Z1 20 BK
Z13 20 BK/RD
2
B
6
SPEED PROPORTIONAL STEERING MODULE
(8W-65-2)
BRAKE WARNING PRESSURE SWITCH
(8W-40-7)
(8W-35-6)
TRANSMISSION CONTROL RELAY (A/T) (IN PDC)
(8W-31-2)
LEFT HEADLAMP
(8W-50-2)
3
FROM S109
(8W-15-2)
A
Z14 18 BK/YL
Z1 18 BK
Z1 12 BK
Z13 14 BK/RD
G102
G106


HIGH NOTE HORN (8W-41-2)
B
Z1 18 BK
LOW NOTE HORN (8W-41-2)
B
Z1 18 BK
RIGHT PARK/ TURN SIGNAL LAMP (8W-50-3)
3
Z1 18 BK
RIGHT HEADLAMP LEVELING MOTOR (8W-50-3)
3
Z3 18 BK
WINDSHIELD WASHER PUMP MOTOR (8W-53-2)
B
Z1 18 BK
DOWNSTREAM HEATED OXYGEN SENSOR (8W-30-10)
1
Z1 18 BK
S111
Z1 18 BK
B
RIGHT FOG LAMP (8W-50-4)
ABS RELAY BOX (8W-35-2) (8W-35-3)
ABS SYSTEM RELAY (8W-35-2)
CAPACITOR (8W-35-3)
PUMP MOTOR DRIVER (8W-35-3)
10
ABS HYDRAULIC MODULATOR (8W-35-4)
5
6
Z1 18 BK
Z1 18 BK
S112
RIGHT HEADLAMP (8W-50-2)
3
Z1 18 BK
Z1 16 BK
G107
CONTROLLER ANTI-LOCK BRAKE (8W-35-3)
5
Z1 18 BK
Z1 14 BK
Z1 14 BK
G103


GLOVE BOX
(8W-44-3)
2
ASH RECEIVER LAMP
(8W-44-5)
2
AUTOSTICK
OTHERS
Z1
20
BK
Z1
18
BK
Z1
20
BK
G200
BODY CONTROL MODULE (IN JB)
(8W-45-2)
8
C2
Z2
18
BK/LB
AIRBAG CONTROL MODULE
(8W-43-2)
11
C1
Z2
18
BK/LG
G201
CIGAR LIGHTER/ POWER OUTLET
(8W-41-2)
Z1
18
BK
A/C HEATER CONTROL
(8W-42-2)
7
C2
Z1
12
BK
G202
DISTRIBUTOR
(2.5L)
(8W-30-5)
5
C2
Z1
16
BK
G105


LEFT TAIL/ STOP LAMP (8W-51-2)
LEFT BACK-UP LAMP (8W-51-3)
LICENSE PLATE LAMP (8W-51-2)
LEFT TURN LAMP (8W-52-2)
G
2
Z1 18 BK
S304
RIGHT TURN LAMP (8W-52-3)
RIGHT TAIL/ STOP LAMP (8W-51-2)
RIGHT BACK-UP LAMP (8W-51-3)
S305
5 C300
5 C301
G300
CENTER HIGH MOUNTED STOP LAMP (8W-51-2)
1
B C305
S301
G302
REAR WINDOW DEFOGGER (8W-48-2)
Z1 12 BK
G303
FUEL PUMP MODULE (8W-30-3)
3
4
Z1 14 BK
Z2 18 BK/LG
G304


OVERHEAD MAP LAMPS (8W-44-3)
B
Z1 20 BK
DOME LAMP (8W-44-3)
A
Z1 20 BK
SUNROOF CONTROL MODULE (8W-64-2)
1
Z1 18 BK
AUTOMATIC DAY/NIGHT MIRROR (8W-44-3)
2
Z1 20 BK
LEFT VISOR/ VANITY LAMPS (8W-44-4)
B
Z1 20 BK
S303
Z1 20 BK
B
RIGHT VISOR/ VANITY LAMPS (8W-44-4)
TRAVELER (8W-46-2)
8
Z1 20 BK/VT
1 C4
DATA LINK CONNECTOR (8W-30-19)
4
Z1 20 BK
15 C5
IGNITION SWITCH (8W-10-10)
1 C2
Z1 20 BK
6 C4
Z1 18 BK
4 C10
HEADLAMP LEVELING SWITCH (8W-50-3)
2
Z1 18 BK
8 C11
JUNCTION BLOCK (8W-12-2) (8W-12-3)
BODY CONTROL MODULE (8W-45-2)
2 C4
Z1 18 BK/OR
3 C4
Z1 18 BK/TN
7 C4
Z1 20 BK/WT
8 C4
Z13 20 BK/RD
10 C4
Z1 18 BK/YL
3 C9
Z1 14 BK
C
PRNDL ILLUMINATION LED (8W-44-5)
5
HEADLAMP SWITCH (8W-50-4)
3
AUTOSTICK SWITCH (8W-31-8)
POWER SEAT SWITCH (8W-63-2)
5
Z1 16 BK
2 C309
Z1 16 BK
11 C2
INSTRUMENT CLUSTER (8W-40-2)
1
KEY-IN SWITCH (8W-45-9)
G301


RIGHT FRONT POWER DOOR LOCK SWITCH (8W-61-2)
RIGHT POWER MIRROR (8W-48-2)
LEFT FRONT POWER DOOR LOCK SWITCH (8W-61-2)
LEFT POWER MIRROR (8W-48-2)
3
2
3
2
Z1 20 BK
Z1 20 BK
Z1 20 BK
Z1 18 BK
6 C316
LEFT REPEATER (8W-52-2)
RIGHT REPEATER (8W-52-3)
MASTER POWER WINDOW SWITCH (8W-60-2)
2
2
10
Z1 18 BK
Z1 18 BK
Z1 18 BK
Z1 14 BK
2 C344
S402
Z1 18 BK
Z1 14 BK
2 C343
Z1 18 BK
OTHERS
POWER LOCKS/ WINDOWS
6 C311
Z1 18 BK
Z1 18 BK
Z1 16 BK
G305
G306

8W-15 GROUND DISTRIBUTION

DESCRIPTION AND OPERATION

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.

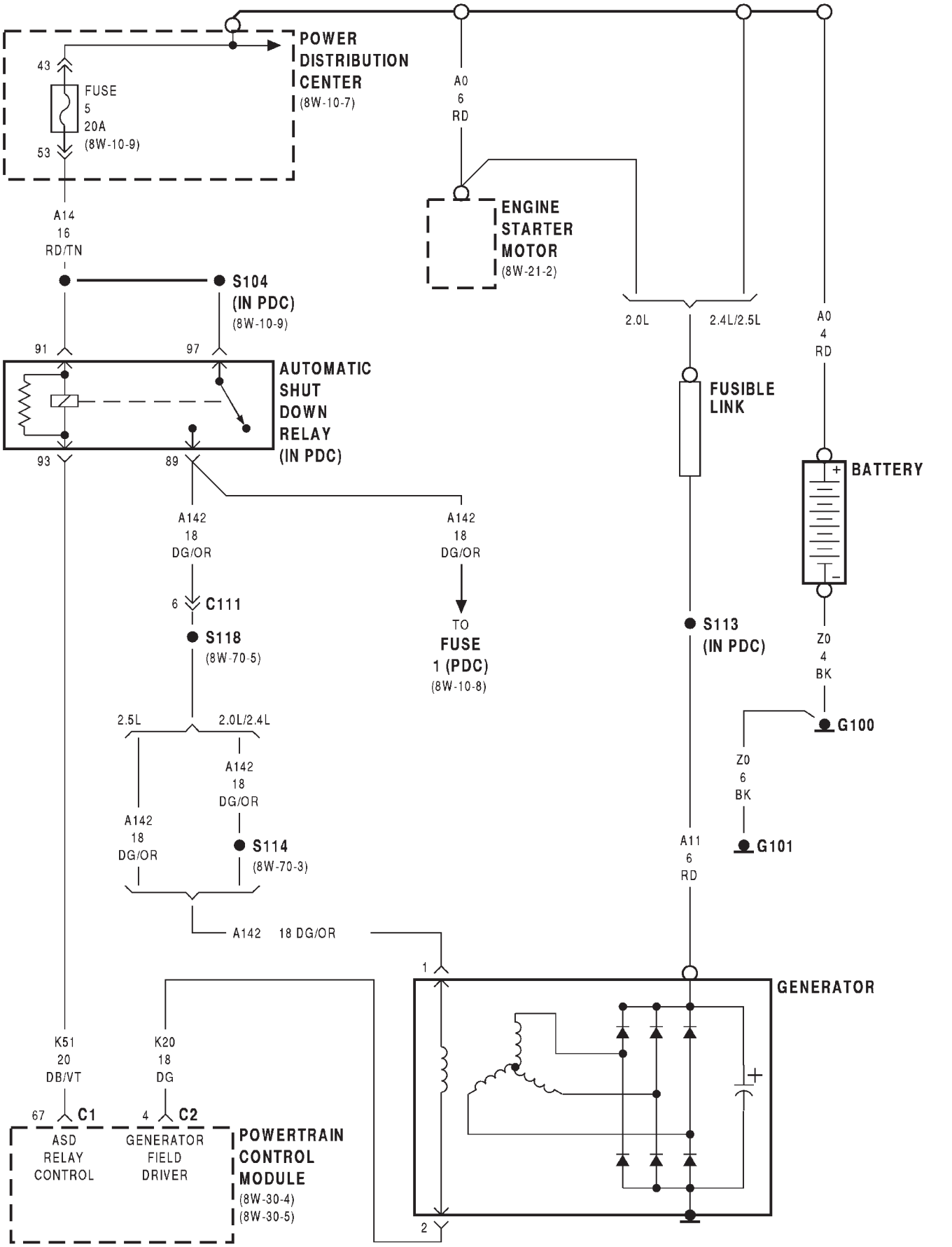
8W-20 CHARGING SYSTEM

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Fuse 5 (PDC)	8W-20-2
Fusible Link	8W-20-2
G100	8W-20-2
G101	8W-20-2
Generator	8W-20-2
Power Distribution Center	8W-20-2
Powertrain Control Module	8W-20-2
S104	8W-20-2
S113	8W-20-2
S114	8W-20-2
S118	8W-20-2


POWER DISTRIBUTION CENTER
(8W-10-7)
43
FUSE 5 20A
(8W-10-9)
53
A14 16 RD/TN
S104 (IN PDC)
(8W-10-9)
91
97
AUTOMATIC SHUT DOWN RELAY (IN PDC)
93
89
A142 18 DG/OR
6 C111
S118
(8W-70-5)
2.5L
2.0L/2.4L
A142 18 DG/OR
A142 18 DG/OR
S114
(8W-70-3)
A142 18 DG/OR
A142 18 DG/OR
TO FUSE 1 (PDC)
(8W-10-8)
A0 6 RD
ENGINE STARTER MOTOR
(8W-21-2)
2.0L
2.4L/2.5L
FUSIBLE LINK
S113
(IN PDC)
A11 6 RD
A0 4 RD
BATTERY
Z0 4 BK
G100
Z0 6 BK
G101
1
2
GENERATOR
K51 20 DB/VT
K20 18 DG
67 C1
4 C2
ASD RELAY CONTROL
GENERATOR FIELD DRIVER
POWERTRAIN CONTROL MODULE
(8W-30-4)
(8W-30-5)

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DESCRIPTION AND OPERATION
CHARGING SYSTEM 3

DESCRIPTION AND OPERATION

CHARGING SYSTEM

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

The charging system is protected by a 12 gauge (2.5L) or a 10 gauge (2.0L, 2.4L) fusible link located in the A11 circuit. The fusible link is spliced into the A0 circuit. The A0 circuit is connected to the battery feed terminal of the Power Distribution Center (PDC) and the engine starter motor.

The generator is case-grounded through 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, on all engine applications. This circuit is controlled by 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. Circuit K20 connects to cavity 4 of the PCM.

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 spliced to the A0 circuit. The A0 circuit is a direct battery feed from the PDC to the engine starter motor.

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

HELPFUL INFORMATION

- Inspect for a blown fusible link in the A11 circuit between the generator and the battery positive terminal.
- For additional information on charging system diagnosis, refer to the appropriate group of the Service Manual.

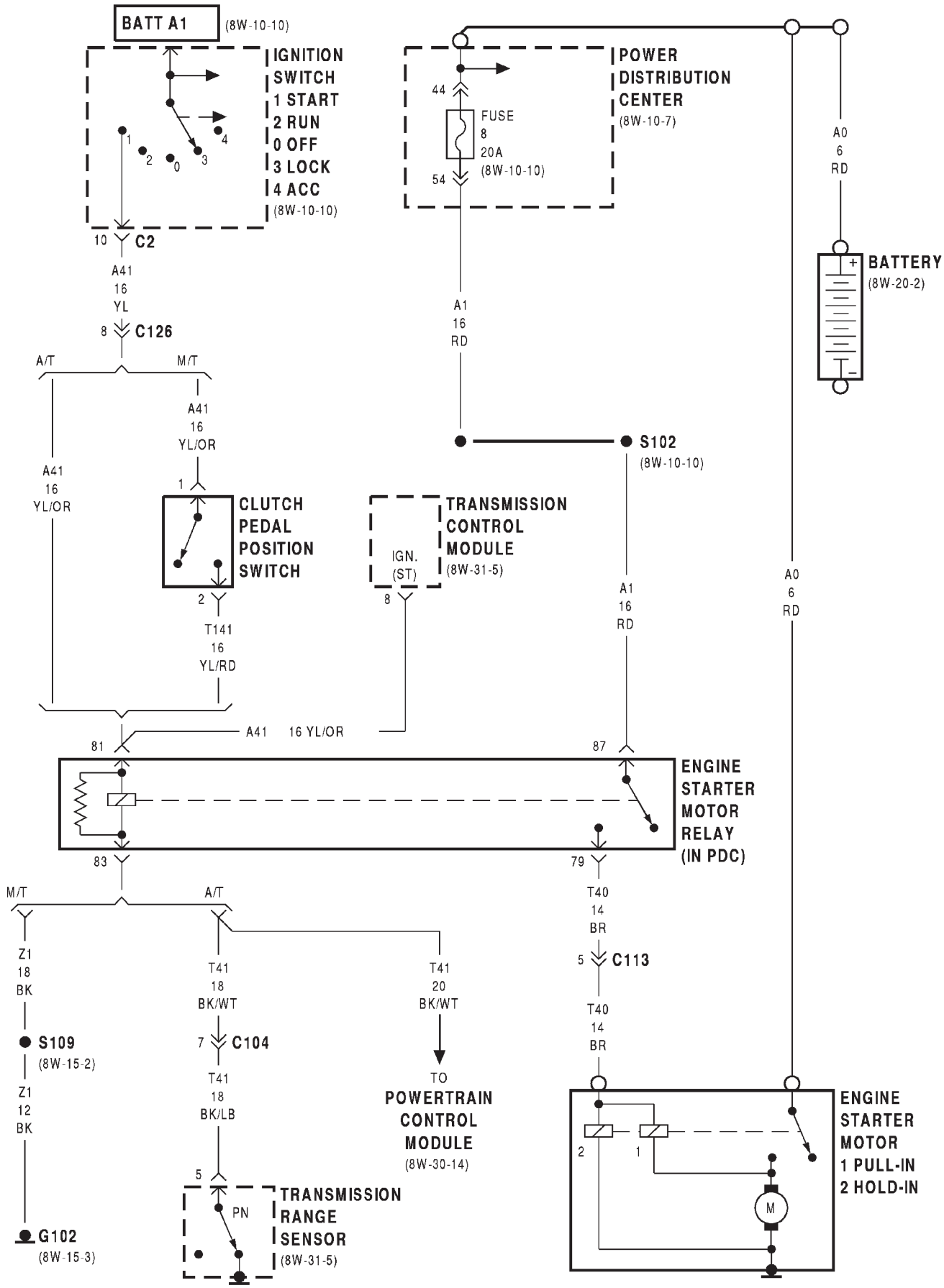
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G102	8W-21-2
Ignition Switch	8W-21-2
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Powertrain Control Module	8W-21-2
S102	8W-21-2
S109	8W-21-2
Transmission Control Module	8W-21-2
Transmission Range Sensor	8W-21-2


BATT A1
(8W-10-10)
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 LOCK
4 ACC
(8W-10-10)
10 C2
A41 16 YL
8 C126
A/T
M/T
A41 16 YL/OR
A41 16 YL/OR
1
CLUTCH PEDAL POSITION SWITCH
2
T141 16 YL/RD
POWER DISTRIBUTION CENTER
(8W-10-7)
44
FUSE 8 20A
(8W-10-10)
54
A1 16 RD
S102
(8W-10-10)
A0 6 RD
BATTERY
(8W-20-2)
TRANSMISSION CONTROL MODULE
(8W-31-5)
IGN. (ST)
8
A1 16 RD
A0 6 RD
A41 16 YL/OR
81
87
ENGINE STARTER MOTOR RELAY (IN PDC)
83
79
M/T
A/T
Z1 18 BK
S109
(8W-15-2)
Z1 12 BK
G102
(8W-15-3)
T41 18 BK/WT
7 C104
T41 18 BK/LB
5
PN
TRANSMISSION RANGE SENSOR
(8W-31-5)
T41 20 BK/WT
TO POWERTRAIN CONTROL MODULE
(8W-30-14)
T40 14 BR
5 C113
T40 14 BR
2
1
M
ENGINE STARTER MOTOR
1 PULL-IN
2 HOLD-IN

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STARTING SYSTEM (AUTOMATIC TRANSAXLE) 3
STARTING SYSTEM (MANUAL TRANSAXLE) 3

DESCRIPTION AND OPERATION

STARTING SYSTEM (MANUAL TRANSAXLE)

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 contains a 20 amp fuse, and feeds the contact side of the engine starter motor relay. Both the 20 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 is 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 engine starter motor when the solenoid energizes. Ground for the engine starter motor is supplied through the starter motor case.

HELPFUL INFORMATION

- Check for blown engine starter motor fuse in cavity 8 of the PDC
- Move the ignition key to the START position and with the clutch pedal pressed, listen for the starter motor relay to click. The engine starter motor relay is located in the PDC
- Check for a good ground at the starter motor

STARTING SYSTEM (AUTOMATIC TRANSAXLE)

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 contains a 20 amp fuse, and feeds the contact side of the engine starter motor relay. Both the 20 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/NEUTRALportion of the Transmission Range Sensor (TRS) is CLOSED. Circuit A41 also provides an ignition start input to the Transmission Control Module (TCM).

Ground for the coil side of the engine starter motor relay is supplied on the T41 circuit by the TRS, which is case-grounded. The T41 circuit is also an input to the Powertrain Control Module (PCM), cavity 76, and the TCM, cavity 41. This input is used to indicate when the vehicle is in the PARK or NEUTRAL positions.

Circuit A0 (battery positive cable) supplies battery voltage to the engine starter motor when the solenoid energizes. Ground for the engine starter motor is supplied through the starter motor case.

HELPFUL INFORMATION

- Check for blown engine starter motor fuse in cavity 8 of the PDC
- With the gear selector in the PARK or NEUTRAL position, move the ignition key to the START position and listen for the starter motor relay to click. The engine starter motor relay is located in the PDC
- Check for a good ground at the starter motor
- The TRS is case-grounded and supplies the ground for the coil side of the starter relay

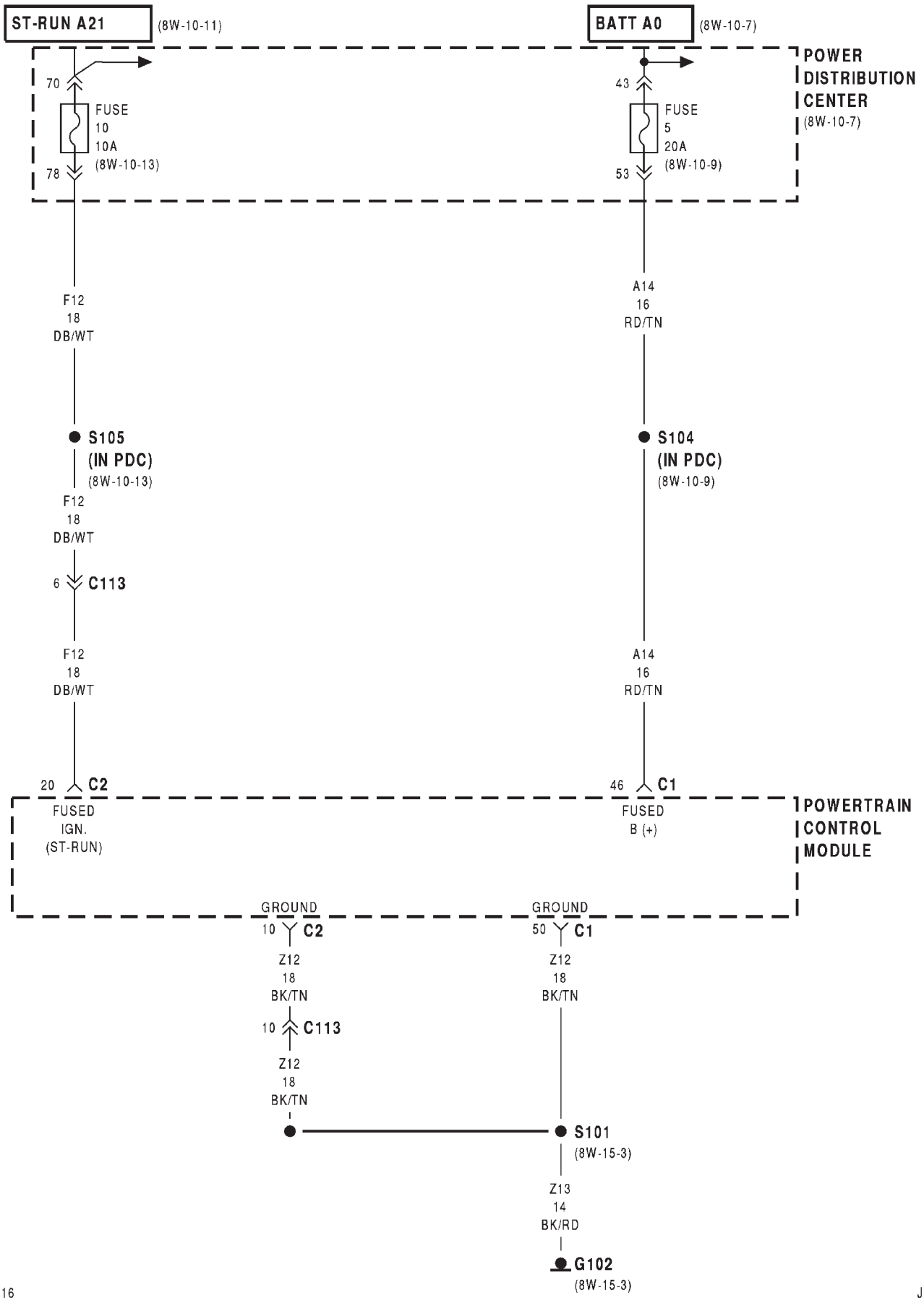
8W-30 FUEL/IGNITION SYSTEM

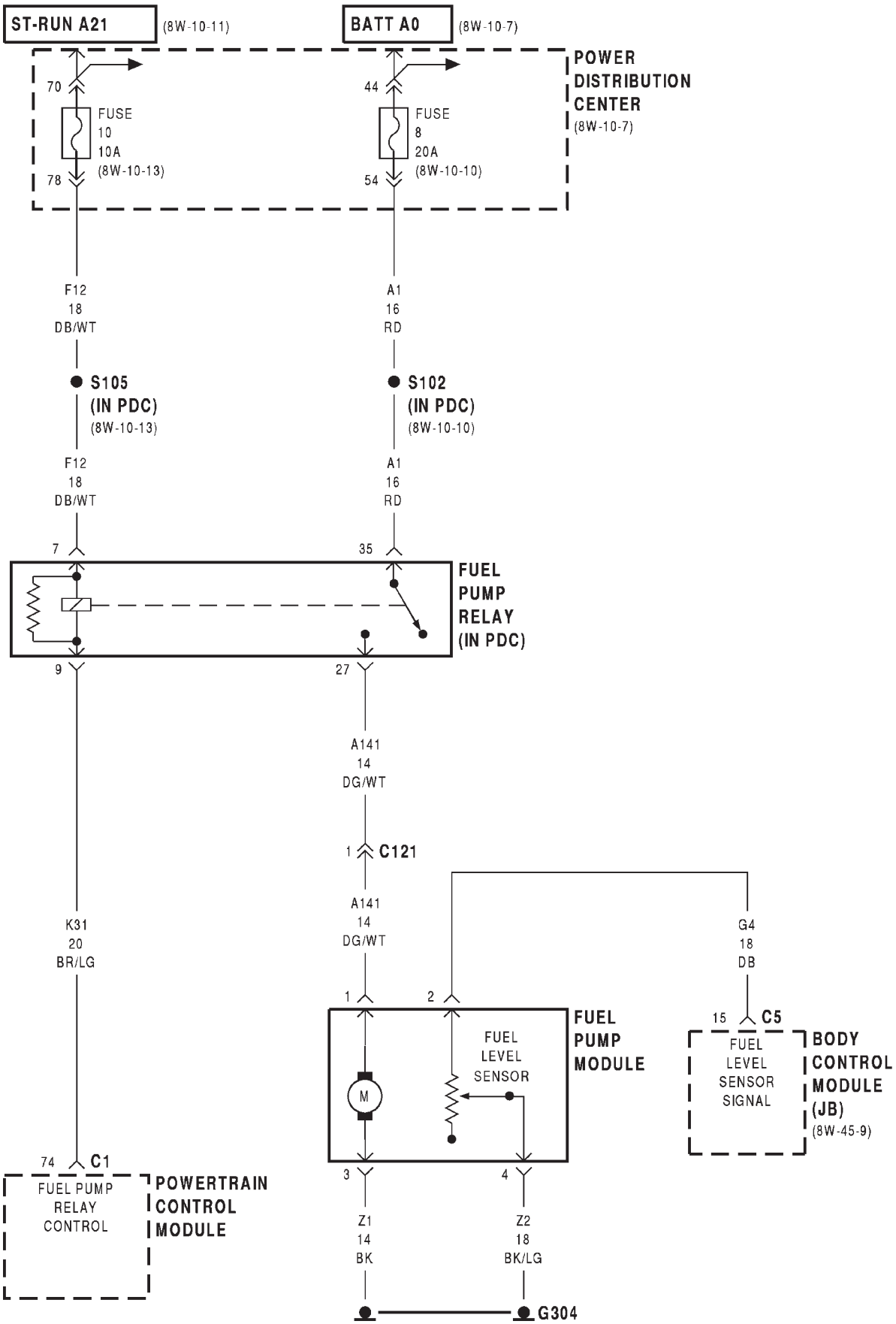
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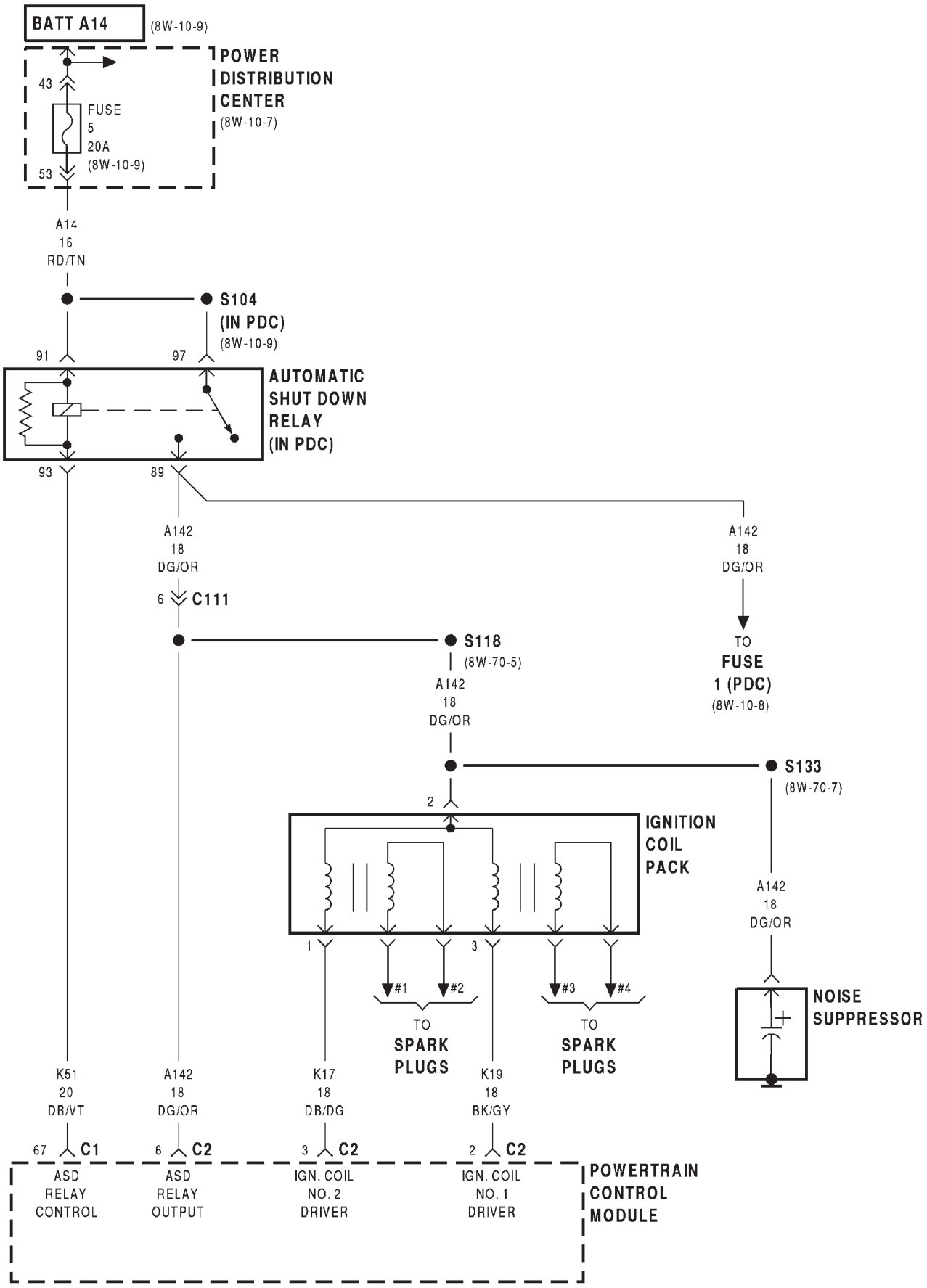
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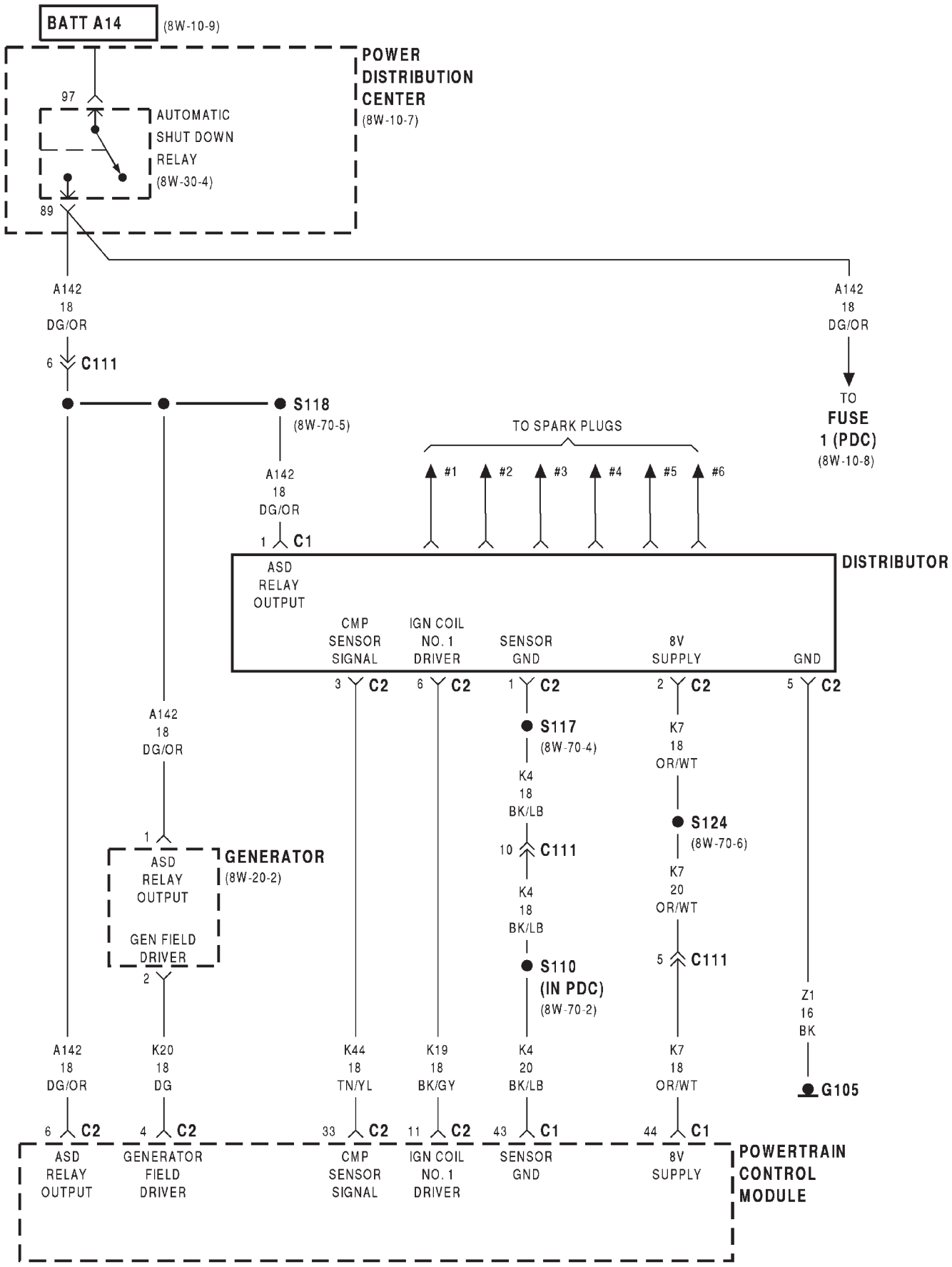
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S102	8W-30-3
S104	8W-30-2, 4
S105	8W-30-2, 3
S106	8W-30-17, 18
S108	8W-30-15
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S111	8W-30-10
S114	8W-30-6, 7, 10
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S129	8W-30-19
S130	8W-30-15
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Upstream Heated Oxygen Sensor	8W-30-10
Vehicle Speed Control Servo	8W-30-14
Vehicle Speed Control Switch	8W-30-14
Vehicle Speed Sensor	8W-30-15

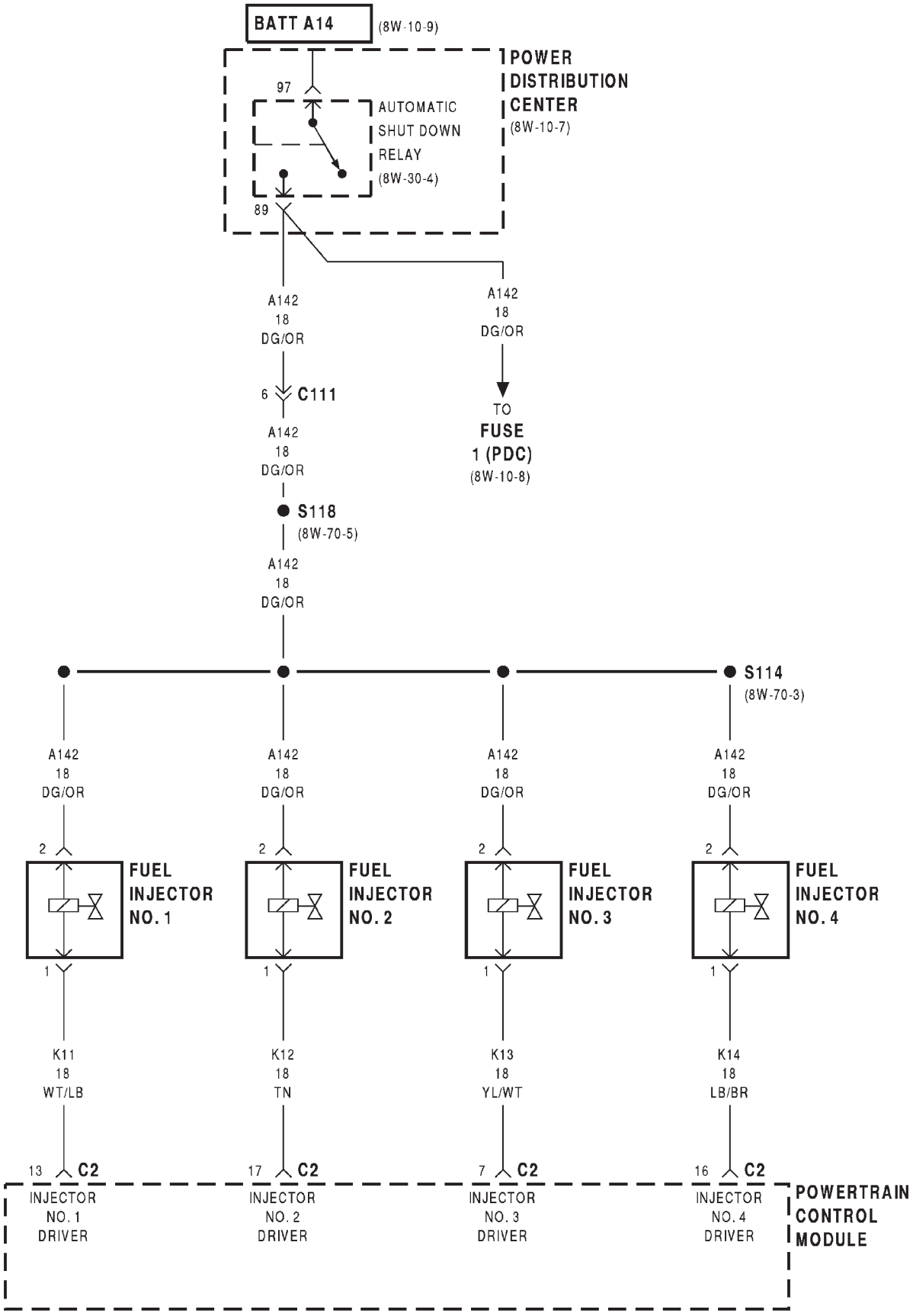

ST-RUN A21
(8W-10-11)
BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
70
FUSE 10 10A
(8W-10-13)
78
43
FUSE 5 20A
(8W-10-9)
53
F12 18 DB/WT
A14 16 RD/TN
S105 (IN PDC)
(8W-10-13)
S104 (IN PDC)
(8W-10-9)
F12 18 DB/WT
6 C113
F12 18 DB/WT
A14 16 RD/TN
20 C2
FUSED IGN. (ST-RUN)
46 C1
FUSED B (+)
POWERTRAIN CONTROL MODULE
GROUND
10 C2
GROUND
50 C1
Z12 18 BK/TN
Z12 18 BK/TN
10 C113
Z12 18 BK/TN
S101
(8W-15-3)
Z13 14 BK/RD
G102
(8W-15-3)


ST-RUN A21
(8W-10-11)
BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
70
FUSE 10 10A
(8W-10-13)
78
44
FUSE 8 20A
(8W-10-10)
54
F12 18 DB/WT
A1 16 RD
S105 (IN PDC)
(8W-10-13)
S102 (IN PDC)
(8W-10-10)
7
35
FUEL PUMP RELAY (IN PDC)
9
27
A141 14 DG/WT
1 C121
K31 20 BR/LG
G4 18 DB
1
2
FUEL PUMP MODULE
FUEL LEVEL SENSOR
M
15 C5
FUEL LEVEL SENSOR SIGNAL
BODY CONTROL MODULE (JB)
(8W-45-9)
74 C1
FUEL PUMP RELAY CONTROL
POWERTRAIN CONTROL MODULE
3
4
Z1 14 BK
Z2 18 BK/LG
G304

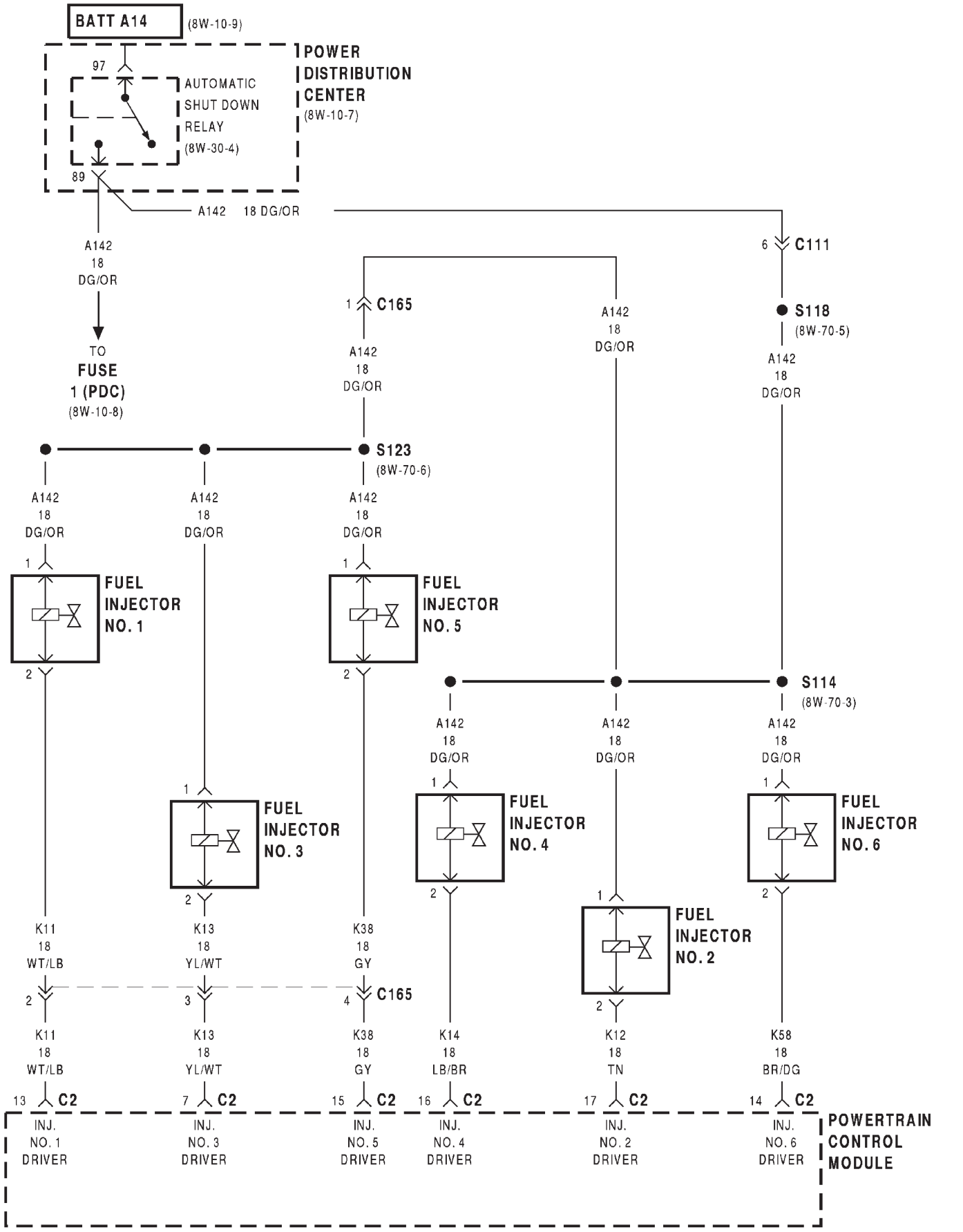

BATT A14
(8W-10-9)
POWER DISTRIBUTION CENTER
(8W-10-7)
43
FUSE 5 20A
(8W-10-9)
53
A14
16
RD/TN
S104
(IN PDC)
(8W-10-9)
91
97
AUTOMATIC SHUT DOWN RELAY
(IN PDC)
93
89
A142
18
DG/OR
6
C111
S118
(8W-70-5)
A142
18
DG/OR
TO
FUSE
1 (PDC)
(8W-10-8)
S133
(8W-70-7)
2
IGNITION COIL PACK
1
3
#1
#2
#3
#4
TO
SPARK
PLUGS
TO
SPARK
PLUGS
A142
18
DG/OR
NOISE SUPPRESSOR
K51
20
DB/VT
A142
18
DG/OR
K17
18
DB/DG
K19
18
BK/GY
67
C1
6
C2
3
C2
2
C2
ASD
RELAY
CONTROL
ASD
RELAY
OUTPUT
IGN. COIL
NO. 2
DRIVER
IGN. COIL
NO. 1
DRIVER
POWERTRAIN CONTROL MODULE

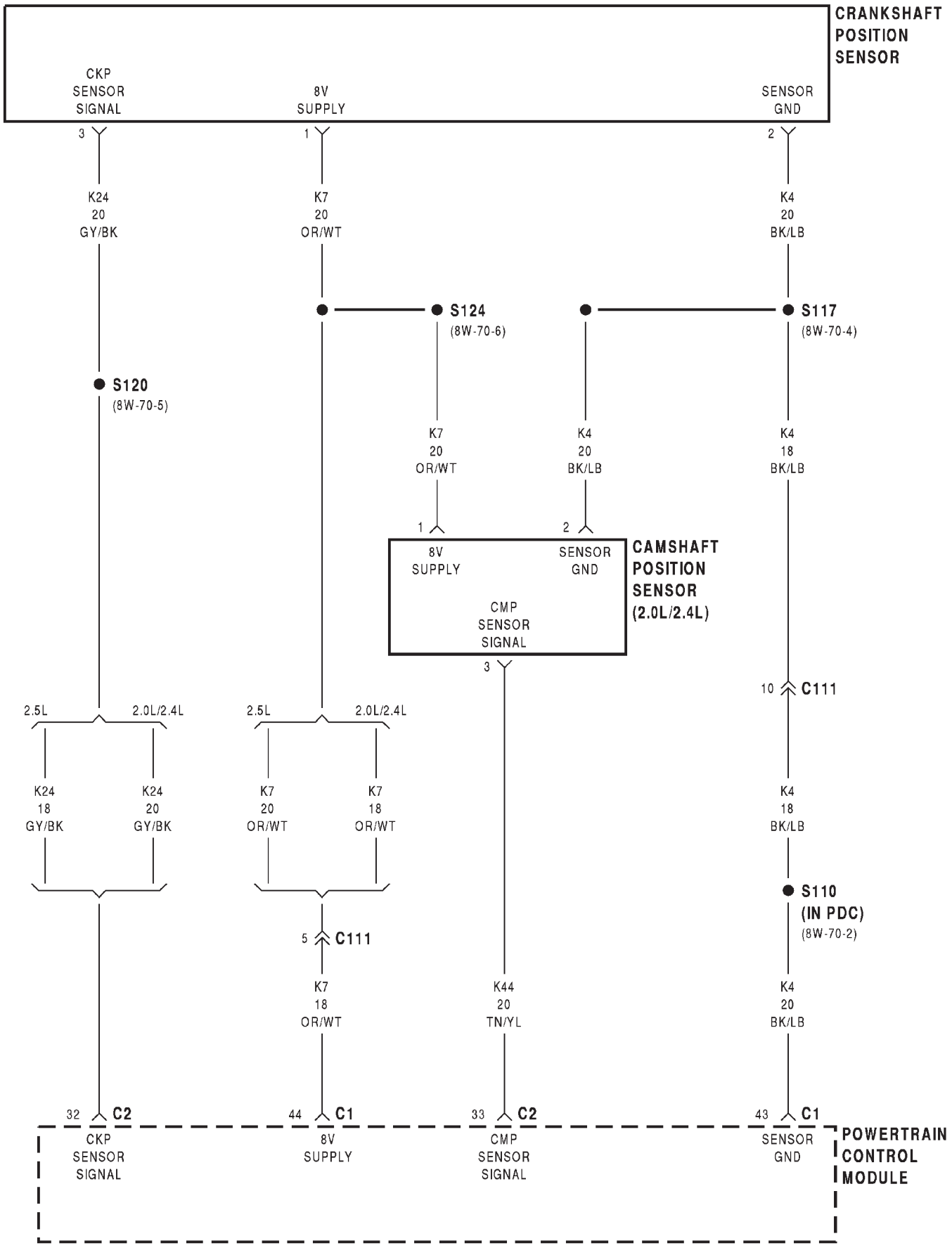
2.5L ENGINE

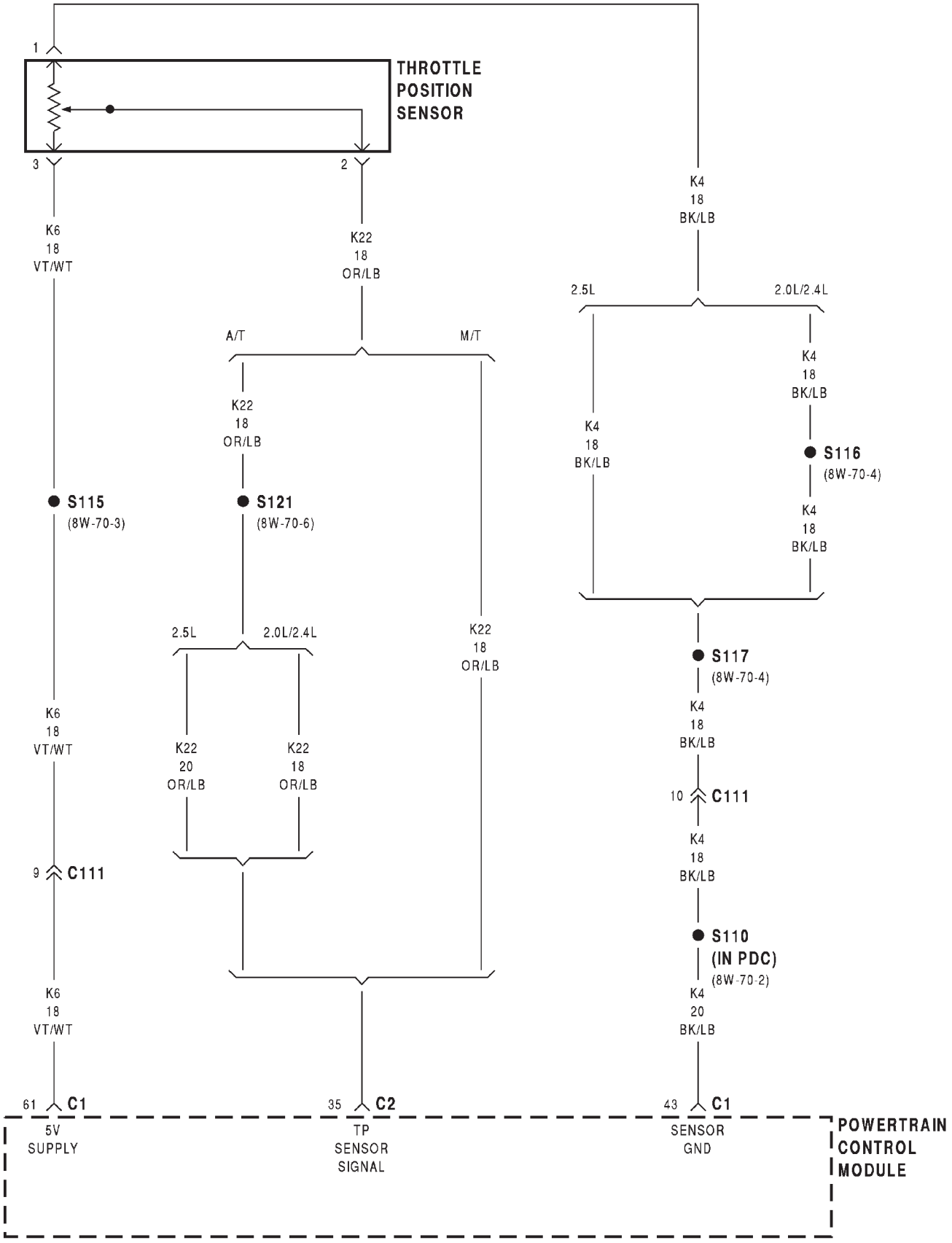

BATT A14
(8W-10-9)
POWER DISTRIBUTION CENTER
(8W-10-7)
97
AUTOMATIC SHUT DOWN RELAY
(8W-30-4)
89
A142
18
DG/OR
6 C111
S118
(8W-70-5)
A142
18
DG/OR
TO FUSE 1 (PDC)
(8W-10-8)
TO SPARK PLUGS
#1 #2 #3 #4 #5 #6
A142
18
DG/OR
1 C1
DISTRIBUTOR
ASD RELAY OUTPUT
CMP SENSOR SIGNAL
IGN COIL NO. 1 DRIVER
SENSOR GND
8V SUPPLY
GND
3 C2
6 C2
1 C2
2 C2
5 C2
A142
18
DG/OR
1
ASD RELAY OUTPUT
GEN FIELD DRIVER
GENERATOR
(8W-20-2)
2
S117
(8W-70-4)
K4
18
BK/LB
10 C111
K4
18
BK/LB
S110
(IN PDC)
(8W-70-2)
K7
18
OR/WT
S124
(8W-70-6)
K7
20
OR/WT
5 C111
Z1
16
BK
G105
A142
18
DG/OR
K20
18
DG
K44
18
TN/YL
K19
18
BK/GY
K4
20
BK/LB
K7
18
OR/WT
6 C2
4 C2
33 C2
11 C2
43 C1
44 C1
ASD RELAY OUTPUT
GENERATOR FIELD DRIVER
CMP SENSOR SIGNAL
IGN COIL NO. 1 DRIVER
SENSOR GND
8V SUPPLY
POWERTRAIN CONTROL MODULE

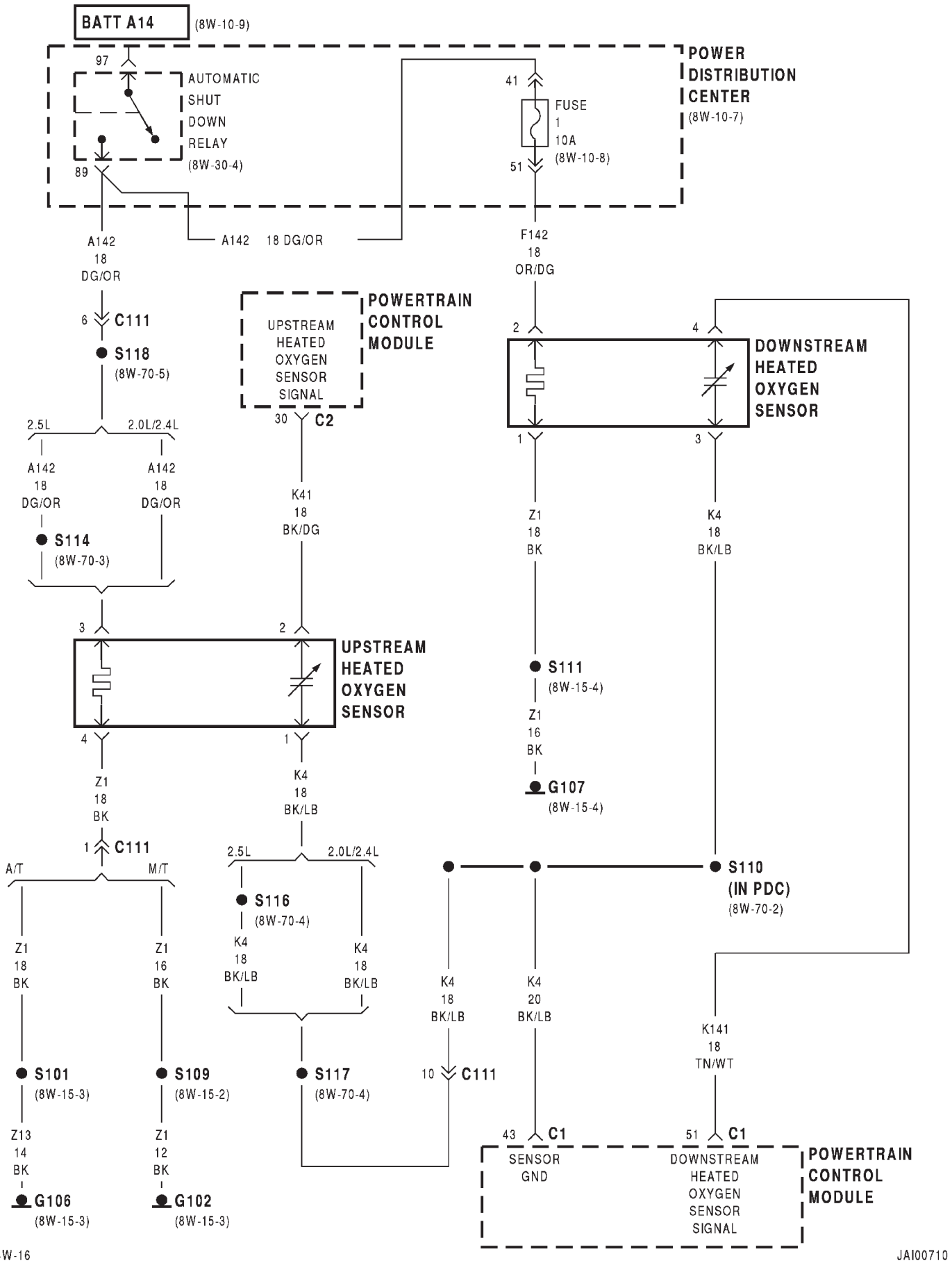

BATT A14
(8W-10-9)
POWER DISTRIBUTION CENTER
(8W-10-7)
97
AUTOMATIC SHUT DOWN RELAY
(8W-30-4)
89
A142 18 DG/OR
A142 18 DG/OR
6 C111
TO FUSE 1 (PDC)
(8W-10-8)
A142 18 DG/OR
S118
(8W-70-5)
A142 18 DG/OR
S114
(8W-70-3)
A142 18 DG/OR
A142 18 DG/OR
A142 18 DG/OR
A142 18 DG/OR
2
FUEL INJECTOR NO. 1
FUEL INJECTOR NO. 2
FUEL INJECTOR NO. 3
FUEL INJECTOR NO. 4
1
K11 18 WT/LB
K12 18 TN
K13 18 YL/WT
K14 18 LB/BR
13 C2
17 C2
7 C2
16 C2
INJECTOR NO. 1 DRIVER
INJECTOR NO. 2 DRIVER
INJECTOR NO. 3 DRIVER
INJECTOR NO. 4 DRIVER
POWERTRAIN CONTROL MODULE

2.5L ENGINE

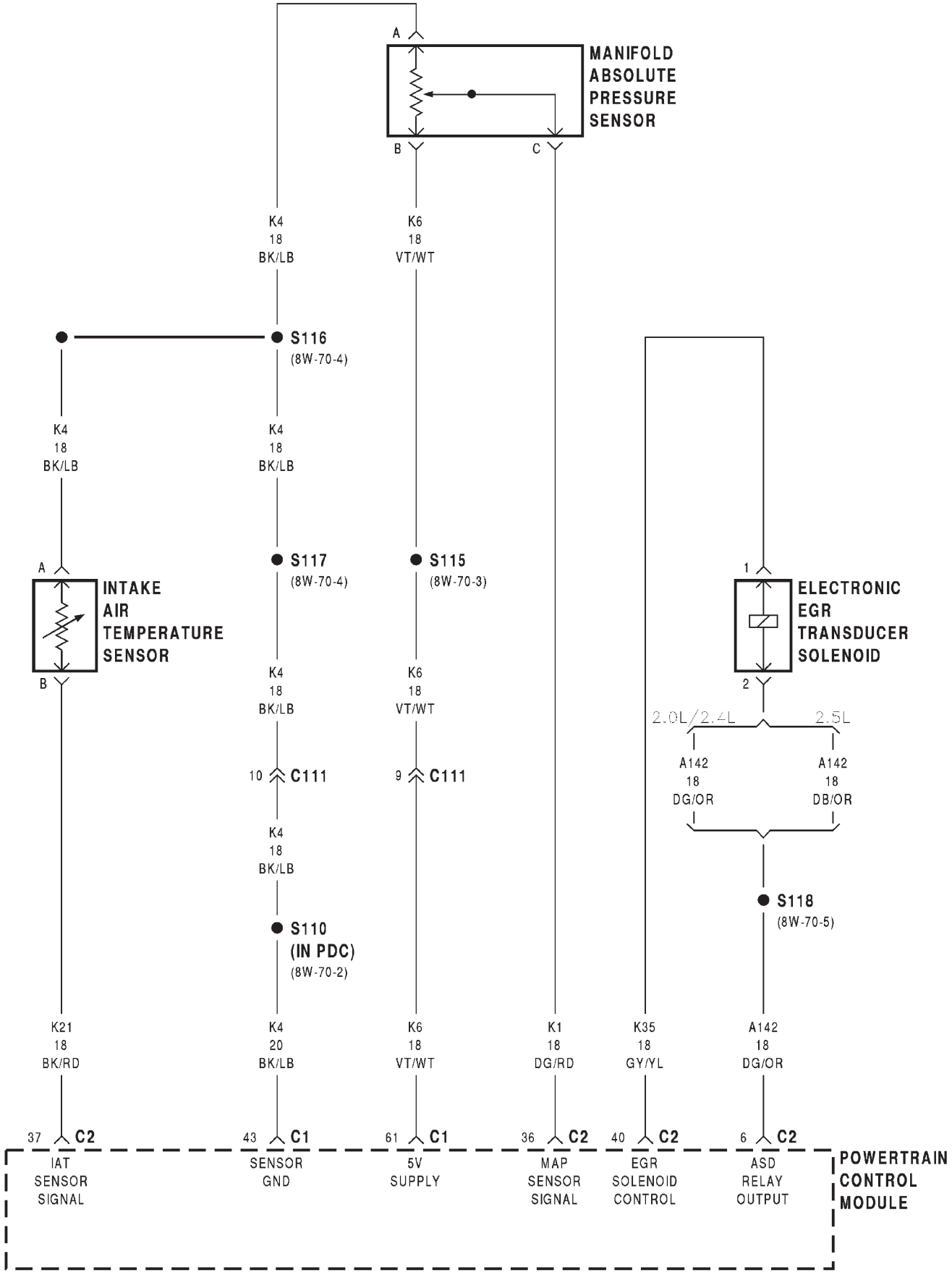

BATT A14
(8W-10-9)
POWER DISTRIBUTION CENTER
(8W-10-7)
97
AUTOMATIC SHUT DOWN RELAY
(8W-30-4)
89
A142 18 DG/OR
TO FUSE 1 (PDC)
(8W-10-8)
1 C165
6 C111
S118
(8W-70-5)
S123
(8W-70-6)
S114
(8W-70-3)
FUEL INJECTOR NO. 1
FUEL INJECTOR NO. 5
FUEL INJECTOR NO. 3
FUEL INJECTOR NO. 4
FUEL INJECTOR NO. 2
FUEL INJECTOR NO. 6
K11 18 WT/LB
K13 18 YL/WT
K38 18 GY
K14 18 LB/BR
K12 18 TN
K58 18 BR/DG
C2
INJ. NO. 1 DRIVER
INJ. NO. 3 DRIVER
INJ. NO. 5 DRIVER
INJ. NO. 4 DRIVER
INJ. NO. 2 DRIVER
INJ. NO. 6 DRIVER
POWERTRAIN CONTROL MODULE


CRANKSHAFT POSITION SENSOR
CKP SENSOR SIGNAL
8V SUPPLY
SENSOR GND
3
1
2
K24 20 GY/BK
K7 20 OR/WT
K4 20 BK/LB
S124
(8W-70-6)
S117
(8W-70-4)
S120
(8W-70-5)
K7 20 OR/WT
K4 20 BK/LB
K4 18 BK/LB
1
2
8V SUPPLY
SENSOR GND
CMP SENSOR SIGNAL
CAMSHAFT POSITION SENSOR (2.0L/2.4L)
3
10 C111
2.5L
2.0L/2.4L
2.5L
2.0L/2.4L
K24 18 GY/BK
K24 20 GY/BK
K7 20 OR/WT
K7 18 OR/WT
K4 18 BK/LB
S110 (IN PDC)
(8W-70-2)
5 C111
K7 18 OR/WT
K44 20 TN/YL
K4 20 BK/LB
32 C2
44 C1
33 C2
43 C1
CKP SENSOR SIGNAL
8V SUPPLY
CMP SENSOR SIGNAL
SENSOR GND
POWERTRAIN CONTROL MODULE


1
THROTTLE POSITION SENSOR
3
2
K6 18 VT/WT
K22 18 OR/LB
K4 18 BK/LB
2.5L
2.0L/2.4L
A/T
M/T
K22 18 OR/LB
K4 18 BK/LB
K4 18 BK/LB
S116 (8W-70-4)
K4 18 BK/LB
S115 (8W-70-3)
S121 (8W-70-6)
2.5L
2.0L/2.4L
K22 18 OR/LB
S117 (8W-70-4)
K6 18 VT/WT
K22 20 OR/LB
K22 18 OR/LB
K4 18 BK/LB
10 C111
9 C111
K4 18 BK/LB
S110 (IN PDC) (8W-70-2)
K6 18 VT/WT
K4 20 BK/LB
61 C1
35 C2
43 C1
5V SUPPLY
TP SENSOR SIGNAL
SENSOR GND
POWERTRAIN CONTROL MODULE


BATT A14
(8W-10-9)
97
AUTOMATIC SHUT DOWN RELAY
(8W-30-4)
89
POWER DISTRIBUTION CENTER
(8W-10-7)
41
FUSE 1 10A
(8W-10-8)
51
A142 18 DG/OR
A142 18 DG/OR
F142 18 OR/DG
6 C111
S118
(8W-70-5)
POWERTRAIN CONTROL MODULE
UPSTREAM HEATED OXYGEN SENSOR SIGNAL
30 C2
2 4
DOWNSTREAM HEATED OXYGEN SENSOR
1 3
2.5L
2.0L/2.4L
A142 18 DG/OR
A142 18 DG/OR
S114
(8W-70-3)
K41 18 BK/DG
Z1 18 BK
K4 18 BK/LB
3 2
UPSTREAM HEATED OXYGEN SENSOR
4 1
S111
(8W-15-4)
Z1 16 BK
G107
(8W-15-4)
Z1 18 BK
1 C111
A/T
M/T
2.5L
2.0L/2.4L
S116
(8W-70-4)
K4 18 BK/LB
K4 18 BK/LB
S110 (IN PDC)
(8W-70-2)
K4 18 BK/LB
K4 20 BK/LB
K141 18 TN/WT
Z1 18 BK
Z1 16 BK
S101
(8W-15-3)
S109
(8W-15-2)
S117
(8W-70-4)
10 C111
43 C1
51 C1
Z13 14 BK
Z1 12 BK
G106
(8W-15-3)
G102
(8W-15-3)
SENSOR GND
DOWNSTREAM HEATED OXYGEN SENSOR SIGNAL
POWERTRAIN CONTROL MODULE

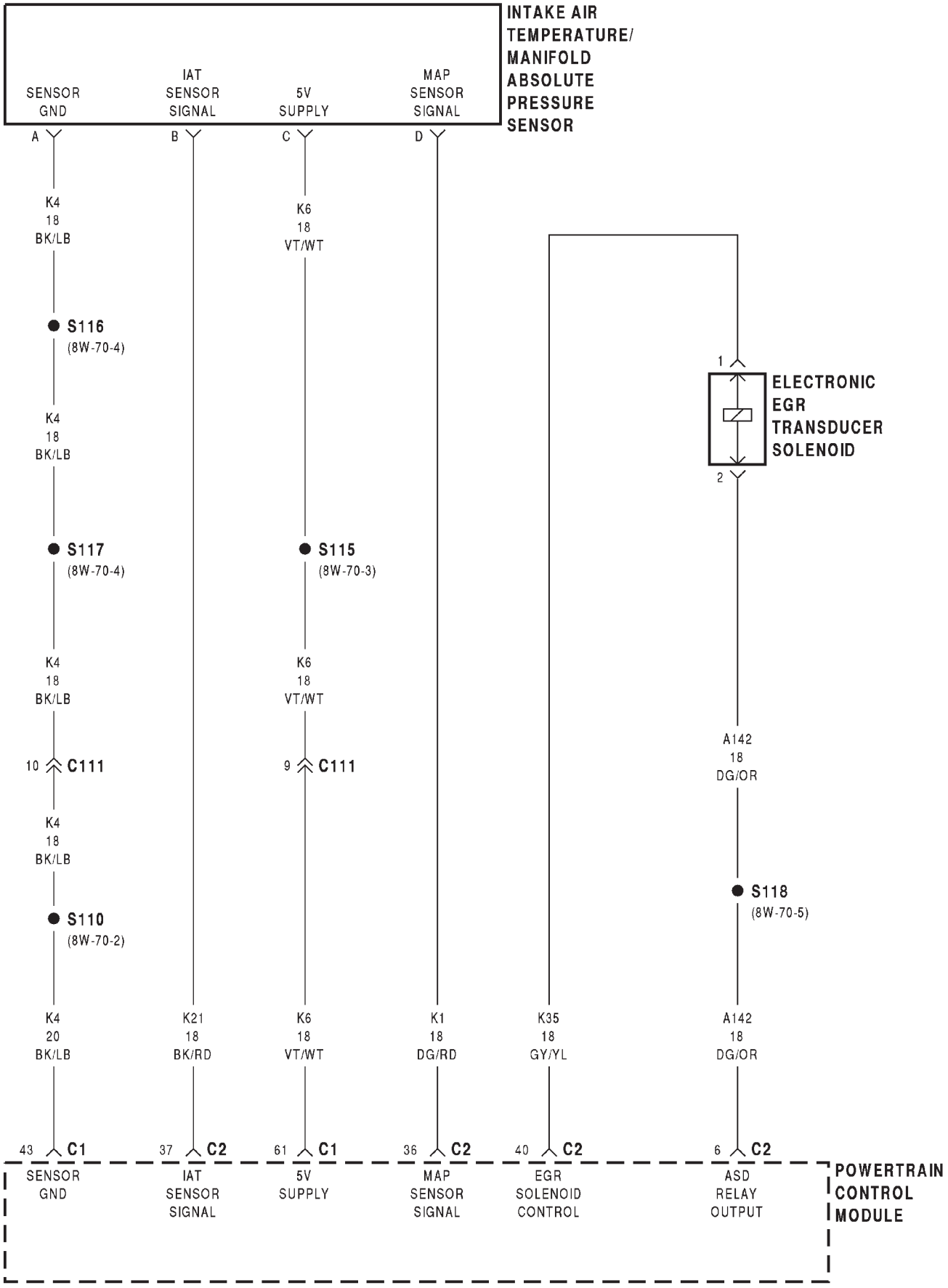
2.4L AND 2.5L ENGINE

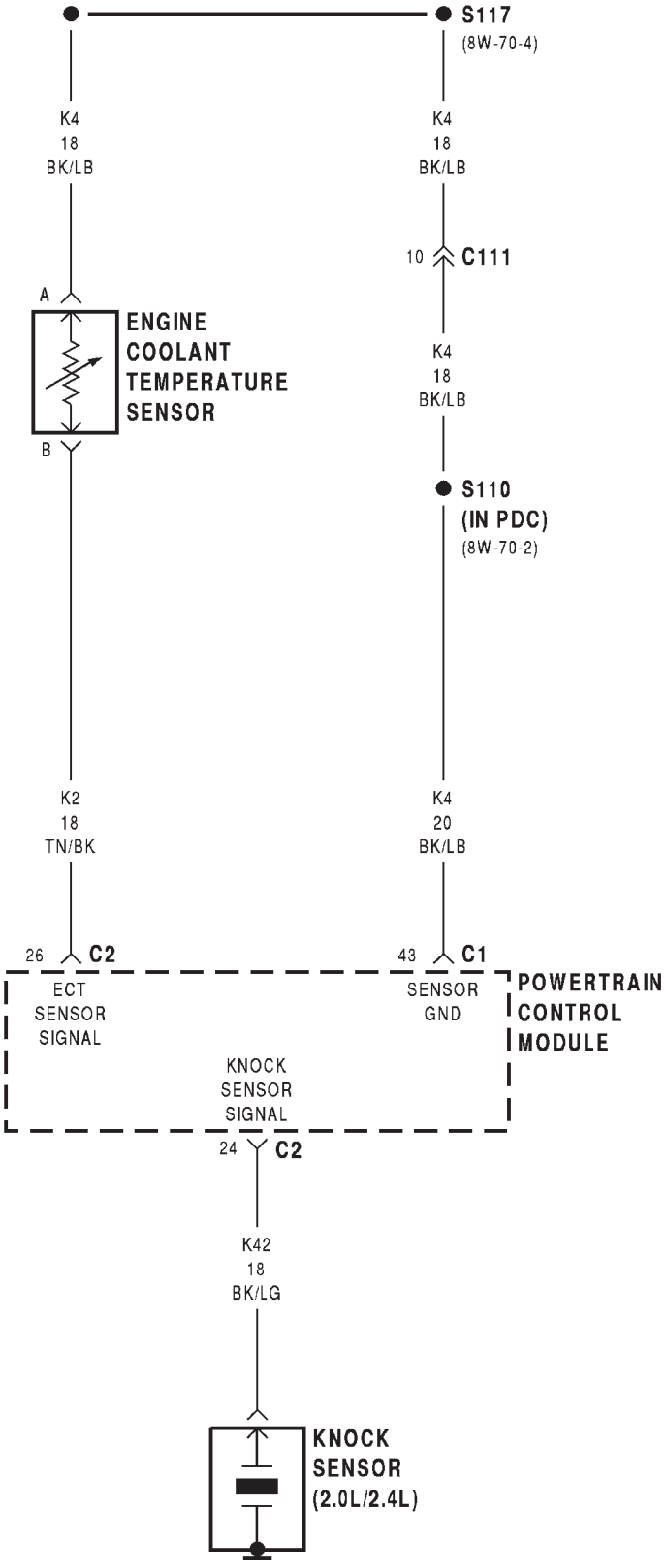


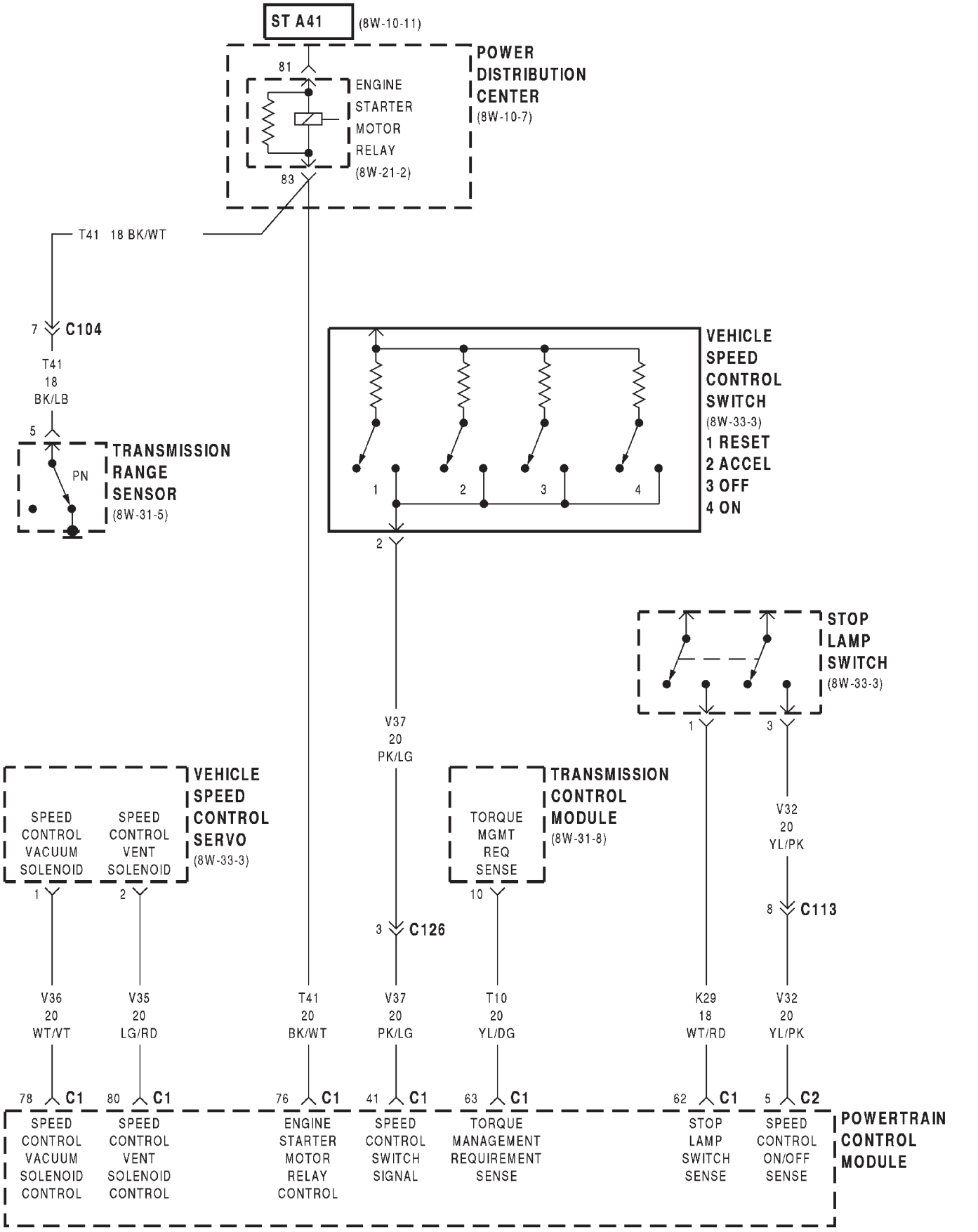
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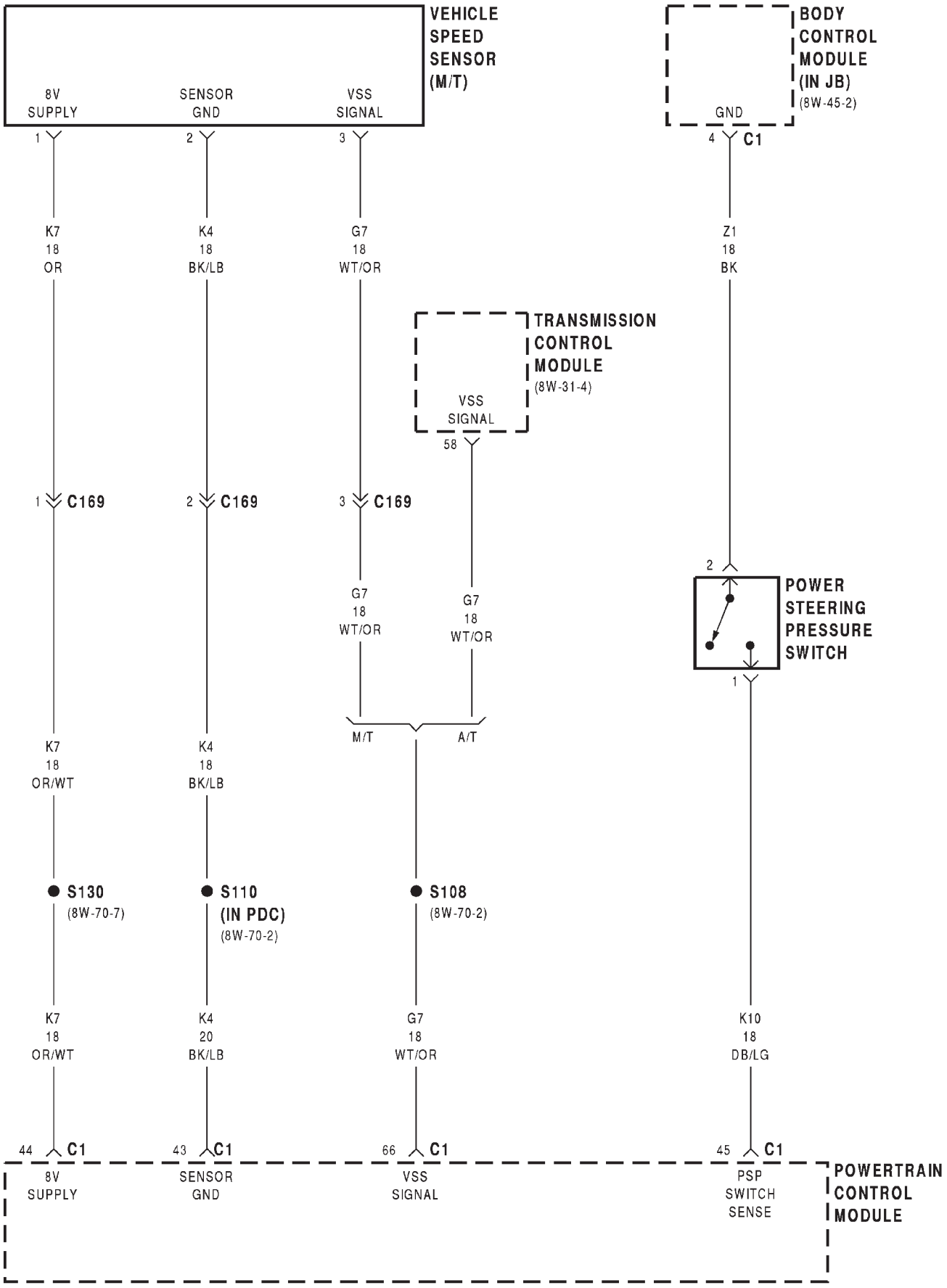
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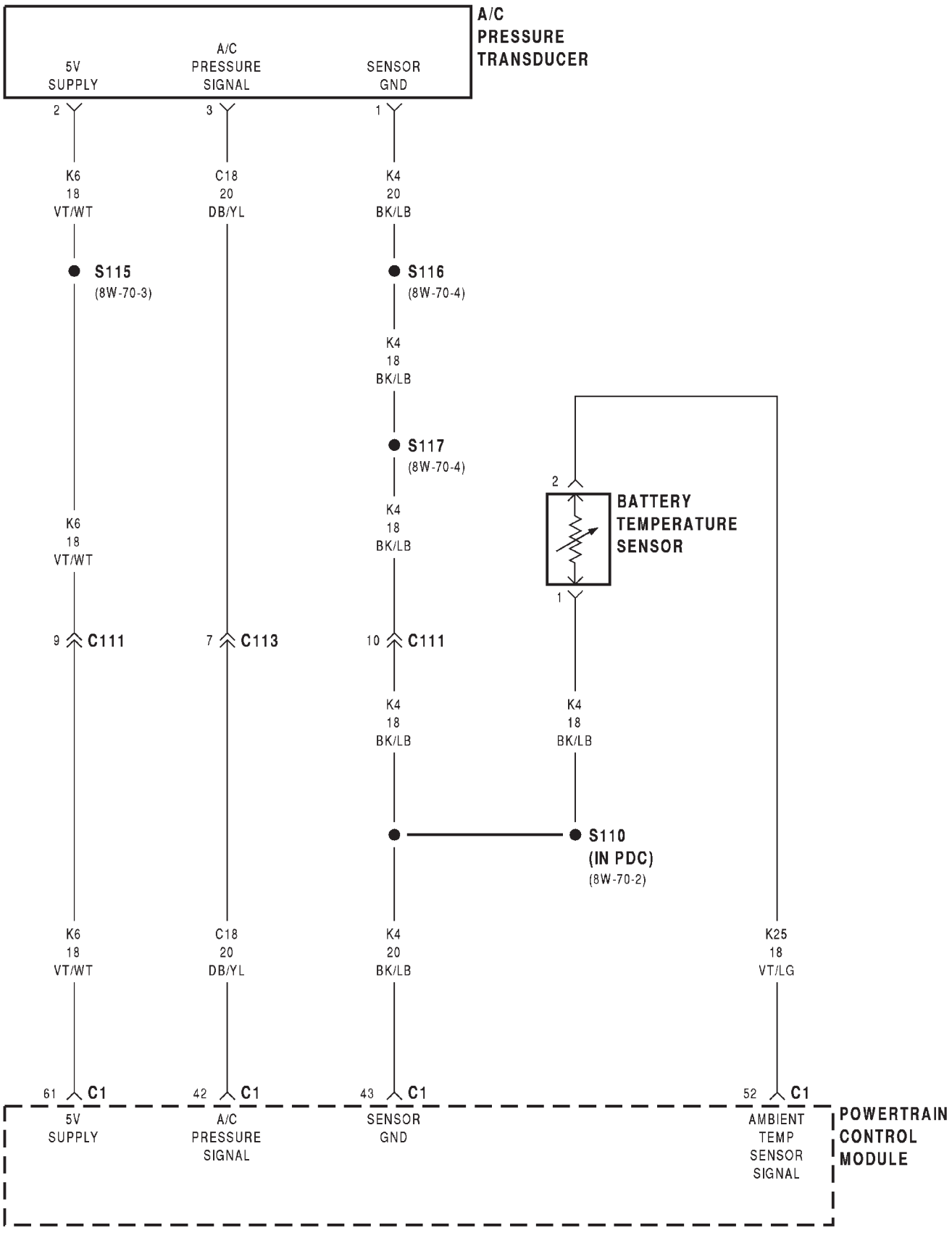
2.0L ENGINE

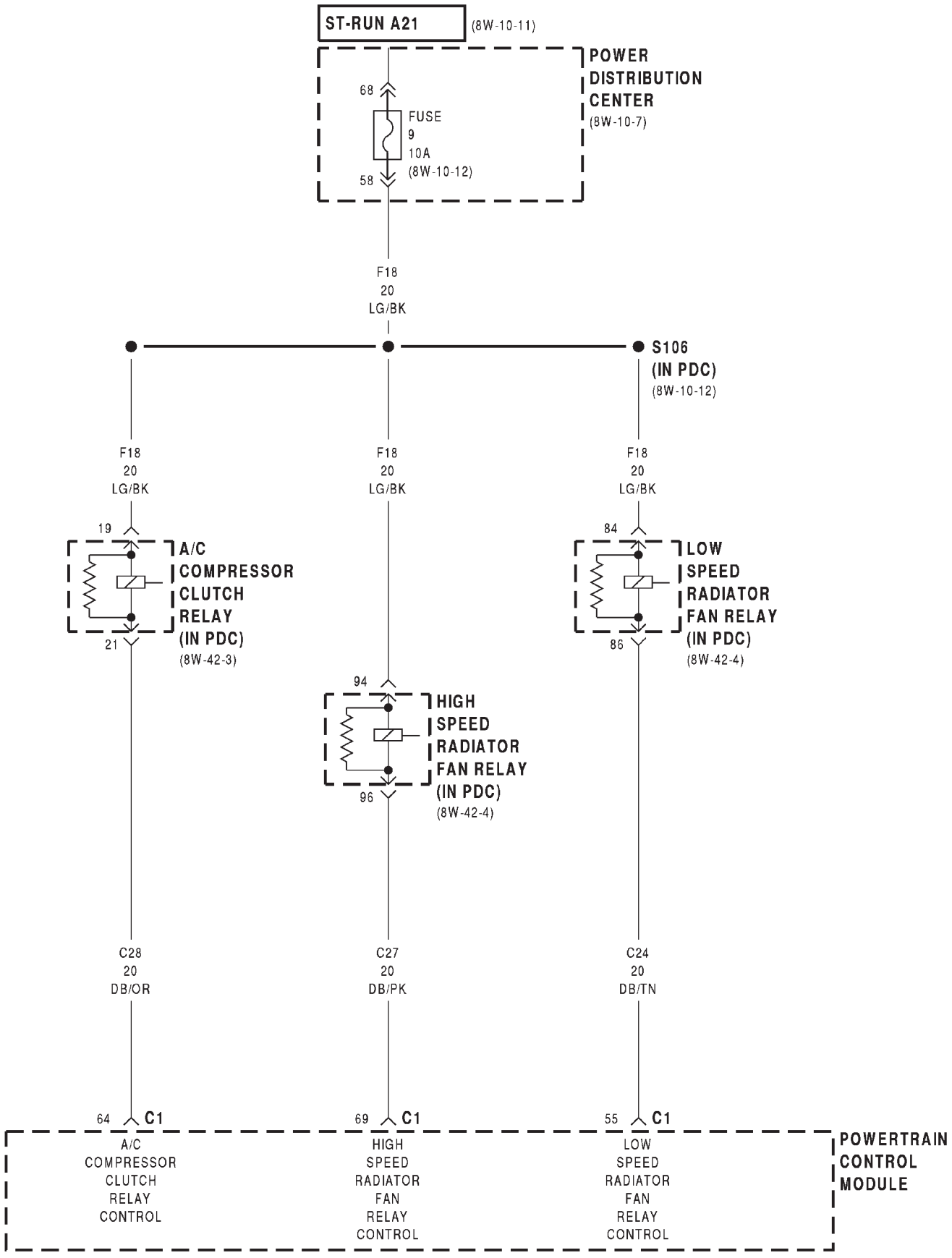

INTAKE AIR TEMPERATURE/ MANIFOLD ABSOLUTE PRESSURE SENSOR
SENSOR GND
IAT SENSOR SIGNAL
5V SUPPLY
MAP SENSOR SIGNAL
A
B
C
D
K4 18 BK/LB
K6 18 VT/WT
S116 (8W-70-4)
K4 18 BK/LB
S117 (8W-70-4)
S115 (8W-70-3)
K4 18 BK/LB
K6 18 VT/WT
10 C111
9 C111
K4 18 BK/LB
S110 (8W-70-2)
1
ELECTRONIC EGR TRANSDUCER SOLENOID
2
A142 18 DG/OR
S118 (8W-70-5)
K4 20 BK/LB
K21 18 BK/RD
K6 18 VT/WT
K1 18 DG/RD
K35 18 GY/YL
A142 18 DG/OR
43 C1
37 C2
61 C1
36 C2
40 C2
6 C2
SENSOR GND
IAT SENSOR SIGNAL
5V SUPPLY
MAP SENSOR SIGNAL
EGR SOLENOID CONTROL
ASD RELAY OUTPUT
POWERTRAIN CONTROL MODULE

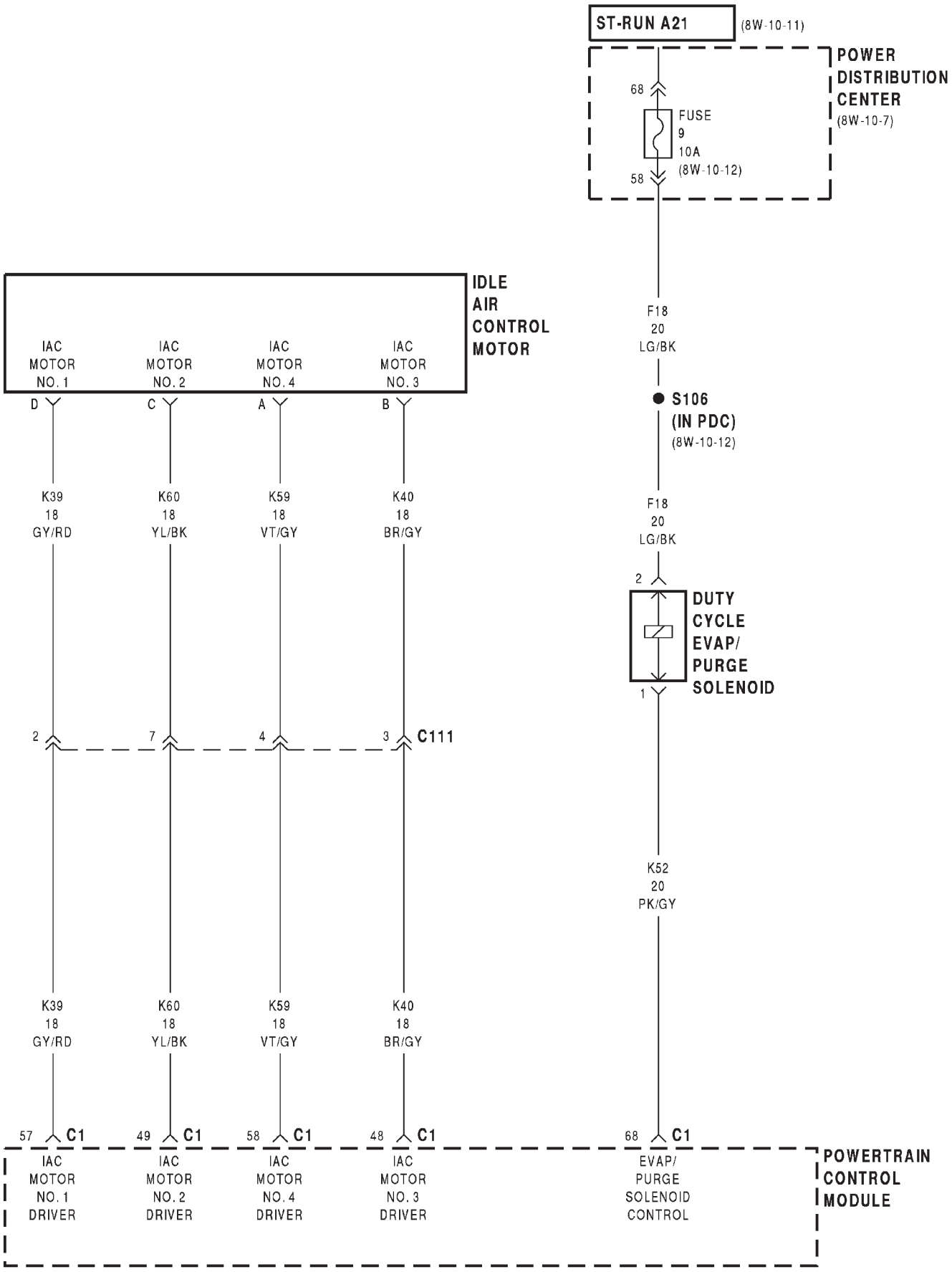

S117
(8W-70-4)
K4
18
BK/LB
K4
18
BK/LB
10
C111
A
ENGINE
COOLANT
TEMPERATURE
SENSOR
B
K4
18
BK/LB
S110
(IN PDC)
(8W-70-2)
K2
18
TN/BK
K4
20
BK/LB
26
C2
43
C1
ECT
SENSOR
SIGNAL
SENSOR
GND
POWERTRAIN
CONTROL
MODULE
KNOCK
SENSOR
SIGNAL
24
C2
K42
18
BK/LG
KNOCK
SENSOR
(2.0L/2.4L)

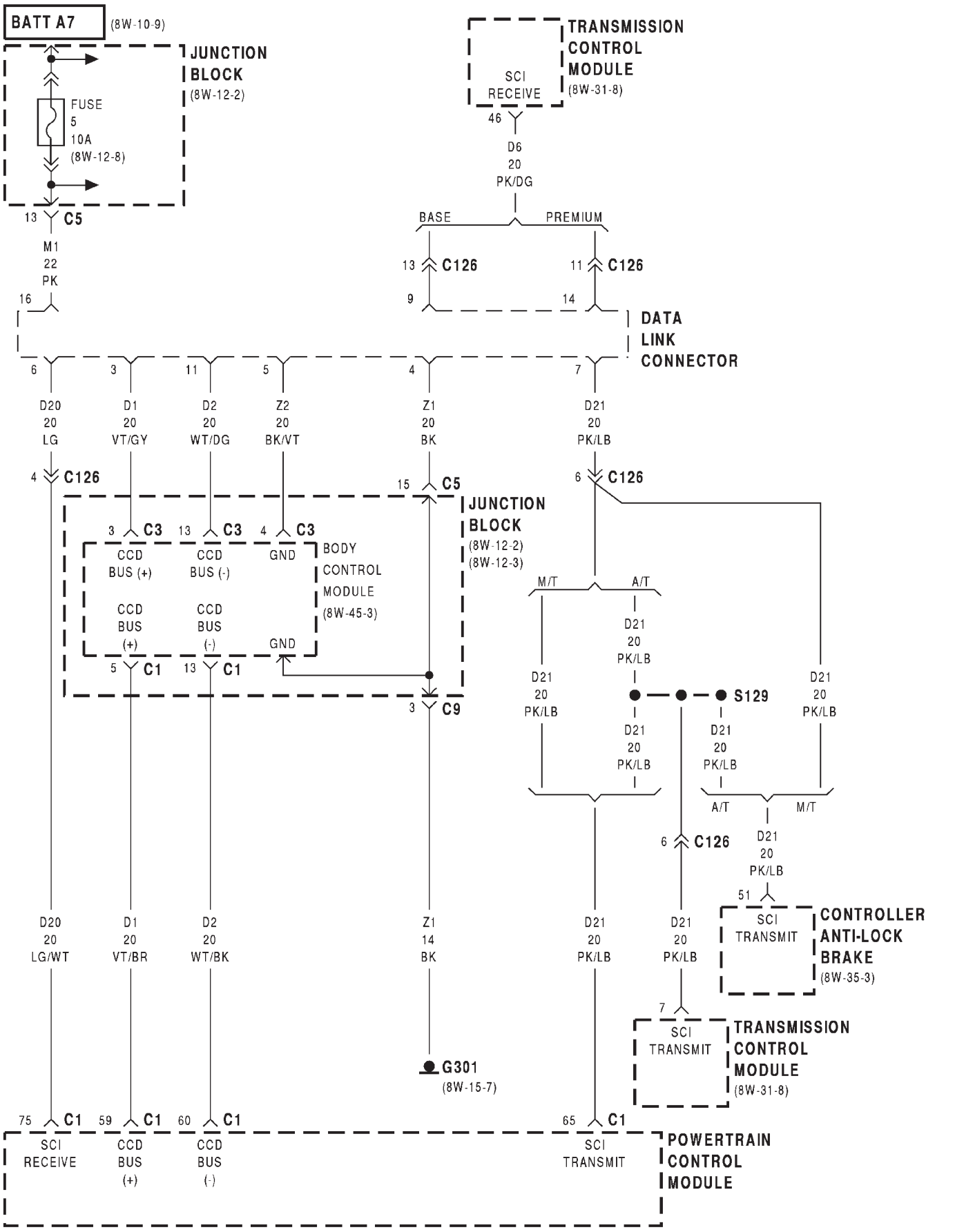

ST A41
(8W-10-11)
POWER DISTRIBUTION CENTER
(8W-10-7)
81
ENGINE STARTER MOTOR RELAY
(8W-21-2)
83
T41 18 BK/WT
7 C104
T41
18
BK/LB
5
TRANSMISSION RANGE SENSOR
(8W-31-5)
PN
VEHICLE SPEED CONTROL SWITCH
(8W-33-3)
1 RESET
2 ACCEL
3 OFF
4 ON
1
2
3
4
2
STOP LAMP SWITCH
(8W-33-3)
1
3
V37
20
PK/LG
V32
20
YL/PK
8 C113
VEHICLE SPEED CONTROL SERVO
(8W-33-3)
SPEED CONTROL VACUUM SOLENOID
SPEED CONTROL VENT SOLENOID
1
2
TRANSMISSION CONTROL MODULE
(8W-31-8)
TORQUE MGMT REQ SENSE
10
3 C126
V36
20
WT/VT
V35
20
LG/RD
T41
20
BK/WT
V37
20
PK/LG
T10
20
YL/DG
K29
18
WT/RD
V32
20
YL/PK
78 C1
80 C1
76 C1
41 C1
63 C1
62 C1
5 C2
SPEED CONTROL VACUUM SOLENOID CONTROL
SPEED CONTROL VENT SOLENOID CONTROL
ENGINE STARTER MOTOR RELAY CONTROL
SPEED CONTROL SWITCH SIGNAL
TORQUE MANAGEMENT REQUIREMENT SENSE
STOP LAMP SWITCH SENSE
SPEED CONTROL ON/OFF SENSE
POWERTRAIN CONTROL MODULE


VEHICLE SPEED SENSOR (M/T)
8V SUPPLY
SENSOR GND
VSS SIGNAL
1
2
3
BODY CONTROL MODULE (IN JB)
(8W-45-2)
GND
4
C1
K7 18 OR
K4 18 BK/LB
G7 18 WT/OR
Z1 18 BK
TRANSMISSION CONTROL MODULE
(8W-31-4)
VSS SIGNAL
58
1 C169
2 C169
3 C169
G7 18 WT/OR
G7 18 WT/OR
2
POWER STEERING PRESSURE SWITCH
1
M/T
A/T
K7 18 OR/WT
K4 18 BK/LB
S130
(8W-70-7)
S110
(IN PDC)
(8W-70-2)
S108
(8W-70-2)
K7 18 OR/WT
K4 20 BK/LB
G7 18 WT/OR
K10 18 DB/LG
44 C1
43 C1
66 C1
45 C1
8V SUPPLY
SENSOR GND
VSS SIGNAL
PSP SWITCH SENSE
POWERTRAIN CONTROL MODULE


A/C PRESSURE TRANSDUCER
5V SUPPLY
A/C PRESSURE SIGNAL
SENSOR GND
2
3
1
K6 18 VT/WT
C18 20 DB/YL
K4 20 BK/LB
S115 (8W-70-3)
S116 (8W-70-4)
K4 18 BK/LB
S117 (8W-70-4)
2
BATTERY TEMPERATURE SENSOR
1
K6 18 VT/WT
K4 18 BK/LB
9 C111
7 C113
10 C111
K4 18 BK/LB
K4 18 BK/LB
S110 (IN PDC) (8W-70-2)
K6 18 VT/WT
C18 20 DB/YL
K4 20 BK/LB
K25 18 VT/LG
61 C1
42 C1
43 C1
52 C1
5V SUPPLY
A/C PRESSURE SIGNAL
SENSOR GND
AMBIENT TEMP SENSOR SIGNAL
POWERTRAIN CONTROL MODULE


ST-RUN A21
(8W-10-11)
POWER DISTRIBUTION CENTER
(8W-10-7)
68
FUSE 9 10A
(8W-10-12)
58
F18 20 LG/BK
S106
(IN PDC)
(8W-10-12)
F18 20 LG/BK
F18 20 LG/BK
F18 20 LG/BK
19
A/C COMPRESSOR CLUTCH RELAY
(IN PDC)
(8W-42-3)
21
84
LOW SPEED RADIATOR FAN RELAY
(IN PDC)
(8W-42-4)
86
94
HIGH SPEED RADIATOR FAN RELAY
(IN PDC)
(8W-42-4)
96
C28 20 DB/OR
C27 20 DB/PK
C24 20 DB/TN
64 C1
69 C1
55 C1
A/C COMPRESSOR CLUTCH RELAY CONTROL
HIGH SPEED RADIATOR FAN RELAY CONTROL
LOW SPEED RADIATOR FAN RELAY CONTROL
POWERTRAIN CONTROL MODULE


ST-RUN A21
(8W-10-11)
POWER DISTRIBUTION CENTER
(8W-10-7)
68
FUSE 9 10A
(8W-10-12)
58
IDLE AIR CONTROL MOTOR
IAC MOTOR NO. 1
IAC MOTOR NO. 2
IAC MOTOR NO. 4
IAC MOTOR NO. 3
D
C
A
B
F18 20 LG/BK
S106 (IN PDC)
(8W-10-12)
K39 18 GY/RD
K60 18 YL/BK
K59 18 VT/GY
K40 18 BR/GY
F18 20 LG/BK
2
DUTY CYCLE EVAP/ PURGE SOLENOID
1
2
7
4
3
C111
K52 20 PK/GY
K39 18 GY/RD
K60 18 YL/BK
K59 18 VT/GY
K40 18 BR/GY
57 C1
49 C1
58 C1
48 C1
68 C1
IAC MOTOR NO. 1 DRIVER
IAC MOTOR NO. 2 DRIVER
IAC MOTOR NO. 4 DRIVER
IAC MOTOR NO. 3 DRIVER
EVAP/ PURGE SOLENOID CONTROL
POWERTRAIN CONTROL MODULE


BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
FUSE 5 10A
(8W-12-8)
13 C5
M1 22 PK
16
TRANSMISSION CONTROL MODULE
(8W-31-8)
SCI RECEIVE
46
D6 20 PK/DG
BASE
PREMIUM
13 C126
11 C126
9
14
DATA LINK CONNECTOR
6
3
11
5
4
7
D20 20 LG
D1 20 VT/GY
D2 20 WT/DG
Z2 20 BK/VT
Z1 20 BK
D21 20 PK/LB
4 C126
15 C5
6 C126
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
3 C3
13 C3
4 C3
CCD BUS (+)
CCD BUS (-)
GND
BODY CONTROL MODULE
(8W-45-3)
CCD BUS (+)
CCD BUS (-)
GND
5 C1
13 C1
3 C9
M/T
A/T
D21 20 PK/LB
S129
6 C126
51
SCI TRANSMIT
CONTROLLER ANTI-LOCK BRAKE
(8W-35-3)
7
SCI TRANSMIT
TRANSMISSION CONTROL MODULE
(8W-31-8)
D20 20 LG/WT
D1 20 VT/BR
D2 20 WT/BK
Z1 14 BK
G301
(8W-15-7)
75 C1
59 C1
60 C1
65 C1
SCI RECEIVE
CCD BUS (+)
CCD BUS (-)
SCI TRANSMIT
POWERTRAIN CONTROL MODULE

8W-30 FUEL/IGNITION SYSTEM

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DESCRIPTION AND OPERATION

IGNITION SWITCH

When the ignition switch is in the START/RUN position, it connects circuit A1 from the Power Distribution Center (PDC) to circuit A21 through the ignition switch. A 20 amp fuse in cavity 8 of the PDC protects circuits A1 and A21. Circuit A1 is spliced and provides power to the fuel pump relay, Powertrain Control Module (PCM), and the engine starter motor relay.

The A21 circuit connects from the ignition switch to the junction block on circuit F12. The F12 circuit is protected by a 10 amp fuse located in cavity 10. Circuit F12 is spliced and connects to the Powertrain Control Module (PCM), fuel pump relay, and the ABS Control Module, and distributor (2.5L only).

BATTERY FEED

Circuit A14 is used to provide a constant battery feed to the Powertrain Control Module (PCM). This circuit originates in the Power Distribution Center (PDC) and is protected by a 20 amp fuse located in cavity 5. It is also spliced and provides power for the Automatic Shut- Down (ASD) relay, coil and contact sides.

POWER (DEVICE) GROUND

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

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

HELPFUL INFORMATION

Circuit Z12 which supplies a ground for the PCM high current drivers, terminates at the left strut tower.

If the system loses ground for the Z12 circuit the vehicle will not operate.

RFI GROUND

The RFI ground for this vehicle connects to cavity 71 of the Powertrain Control Module (PCM) connector. This ground is used for radio frequency elimination.

UNIVERSAL DATA LINK CONNECTOR

Circuit M1 supplies battery voltage to the universal data link connector. This circuit is protected by a 10 amp fuse located in cavity 5 of the junction block. Circuit M1 is the Ignition-Off Draw circuit and supplies power to the Body Control Module (BCM), radio memory, interior lamps, and other components.

DESCRIPTION AND OPERATION (Continued)

A twisted pair of wires, circuits D1 and D2, connect to the data link connector. These wires are connected to the CCD Bus. The CCD Bus is used for diagnosing vehicle components and modules.

Circuits D20 and D21 from the Powertrain Control Module (PCM) connect to the data link connector. Circuit D20 connects to cavity 75 of the PCM and is the SCI receive circuit. Circuit D21 connects to cavity 65 of the PCM and is the SCI transmit. The D21 circuit is also spliced and connects to the Transmission Control Module (TCM), and the Controller Anti Lock Brakes (CAB), if equipped.

The D6 circuit is also connected to the universal data link connector. This cirucit is used as a SCI line from the TCM.

The universal data link connector is also interfaced with the CCD Bus. Circuit D1 is used for CCD (+) and D2 is used for CCD (-).

There are also two grounds used for the universal data link connector. One is a power ground and one is a regular ground.

CCD BUS

The CCD Bus is used to allow the Powertrain Control Module (PCM) and other modules to communicate with each other and the universal data link connector.

Circuit D1 is used for CCD (+) and connects to cavity 59 of the PCM connector. Circuit D2 is used for CCD (-) and connects to cavity 60 of the PCM connector.

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 provided by circuit A14. This circuit is HOT at all times and protected by a 20 amp fuse located in cavity 5 of the PDC.

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

When the relay is energized, the contacts internal to the relay CLOSE connecting circuits A14 and A142. The A142 circuit is spliced and provides power to the fuel injectors, generator, electronic EGR transducer solenoid, and the ignition coil.

The A142 circuit is also spliced and connects to the PCM connector, cavity 6. This input is used for ASD sense by the PCM.

HELPFUL INFORMATION

- Refer to group 14, for system operation.

Check the 20 amp fuse located in cavity 5 of the PDC.

FUEL PUMP MOTOR

The fuel pump motor, located in the fuel tank, is controlled by the fuel pump relay located in the Power Distribution Center (PDC). Power for the coil side of the relay is provided by circuit F12. The F12 circuit is HOT in the START and RUN position only and protected by a 10 amp fuse located in cavity 10 of the PDC.

Circuit A21 is used to power the fuse and is connected between the ignition switch and the PDC. Power for the A21 circuit is provided by circuit A1. This circuit originates in the PDC and is protected by a 20 amp fuse located in cavity 8.

The F12 circuit is spliced and provides voltage to the Powertrain Control Module (PCM) and the Controller Anti-Lock Brake (CAB) module.

The ground for the coil side of the relay is controlled by the PCM through circuit K31. The K31 circuit connects to cavity 74 of the PCM. Logic internal to the PCM determines when the coil side of the relay should be grounded.

When the PCM grounds circuit K31, the contacts in the fuel pump relay CLOSE connecting circuits A1 and A141. Circuit A1 is connected to the BUS bar in the PDC, HOT at all times, and protected by a 20 amp fuse located in cavity 8. Circuit A141 is connected from the relay to the fuel pump motor. Ground for the fuel pump motor is provided on circuit Z1.

HELPFUL INFORMATION

- Check the 20 amp fuse located in cavity 8 of the PDC
- Check the 10 amp fuse located in cavity 10 of the PDC
- Check the ground
- Refer to group 14 of the Service Manual or the appropriate Diagnostic Test Procedures Manual for additional information.

VEHICLE SPEED INPUT

The Powertrain Control Module (PCM) receives an input on vehicle speed from the Transmission Control Module (TCM).

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

VEHICLE SPEED SENSOR

On vehicles equipped with the manual transmission, a Vehicle Speed Sensor (VSS) located in the transmission is used. Circuit K7 supplies 8 volts from the Powertrain Control Module (PCM) to the VSS. The K7 circuit connects to cavity 44 of the PCM connector.

DESCRIPTION AND OPERATION (Continued)

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

HELPFUL INFORMATION

Circuit G7 is spliced and provides an input to the Body Control Module (BCM) for vehicle speed.

Circuit K7 splices to provide 8 volts to the crankshaft position sensor and the camshaft position sensor (2.0L and 2.4L only).

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

- Intake air temperature sensor
- Engine coolant temperature sensor
- Manifold absolute pressure sensor
- Throttle position sensor
- A/C pressure switch
- Camshaft position sensor
- Crankshaft position sensor
- Heated oxygen sensors

HEATED OXYGEN SENSORS

Circuit A14 is connected to the BUS bar in the Power Distribution Center (PDC), which connects to battery voltage. The contact side of the Automatic Shut-Down (ASD) relay connects circuit A14 and circuit A142. A 20 amp fuse, located in cavity 5 of 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.

Circuit A142 splices to supply voltage to the upstream and downstream heated oxygen sensors on the 2.5L only.

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

On the 2.0L and 2.4L engines, the A142 circuit supplies voltage for the upstream heated oxygen sensor and circuit F142 supplies voltage to the downstream heated oxygen sensor. The F142 circuit is protected by a 10 amp fuse located in cavity 1 of the PDC. Power for the fuse is supplied by circuit A142.

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 (left) and downstream (right) heated oxygen sensor signals (circuits K41 and K141) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

Circuit Z1 provides the ground path for the heater circuits in the sensors. This ground terminates at the right frame rail.

HELPFUL INFORMATION

Circuit A142 splices to supply voltage to the fuel injectors, ignition coil (2.0L and 2.4L only), distributor (2.5L only), ASD relay, generator, and the EGR solenoid. The PCM controls the ground path for each of the components powered by circuit A142.

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

- Intake air temperature sensor
- Engine coolant temperature sensor
- Manifold absolute pressure sensor
- Throttle position sensor
- A/C pressure switch
- Camshaft position sensor
- Crankshaft position sensor
- Vehicle speed sensor

CRANKSHAFT POSITION SENSOR

All engine packages in this vehicle use a 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.

Circuit K24 from the sensor provides an input signal to the PCM. The K24 circuit connects to cavity 32 of the PCM. On automatic transmission vehicles this circuit is splices and provides an input to the Transmission Control Module (TCM).

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

HELPFUL INFORMATION

On the 2.0L and 2.4L engines the K7 circuit is spliced and provides 8 volts for the camshaft position sensor, and the vehicle speed sensor (manual transmission only). On the 2.5L engine the K7 circuit supplies 8 volts to the distributor.

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

- Intake air temperature sensor
- Engine coolant temperature sensor
- Manifold absolute pressure sensor
- Throttle position sensor
- A/C pressure switch
- Camshaft position sensor
- Vehicle speed sensor
- Heated oxygen sensors

DESCRIPTION AND OPERATION (Continued)

CAMSHAFT POSITION SENSOR (2.0L and 2.4L)

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.

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

HELPFUL INFORMATION

On the 2.0L and 2.4L engines the K7 circuit is spliced and provides 8 volts for the crankshaft position sensor, and the vehicle speed sensor (manual transmission only).

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

- Intake air temperature sensor
- Engine coolant temperature sensor
- Manifold absolute pressure sensor
- Throttle position sensor
- A/C pressure switch
- Crankshaft position sensor
- Vehicle speed sensor
- Heated oxygen sensors

CAMSHAFT POSITION SENSOR (2.5L)

This engine uses a camshaft position sensor internal to the distributor. Refer to distributor operation in this section for operation of the sensor.

ENGINE COOLANT TEMPERATURE SENSOR

The engine coolant temperature sensor provides an input to the Powertrain Control Module (PCM) on circuit K2. This sensor input is also used for the instrument cluster coolant temperature gauge. Refer to Section 8W-40 for engine coolant temperature gauge 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 a change in current draw. The K2 circuit connects to cavity 26 of the PCM connector. The PCM provides a ground for the engine coolant temperature sensor signal (circuit K2) through circuit K4. Circuit K4 connects to cavity 43 of the PCM.

HELPFUL INFORMATION

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

- Intake air temperature sensor
- Camshaft position sensor
- Manifold absolute pressure sensor
- Throttle position sensor
- A/C pressure switch
- Crankshaft position sensor
- Vehicle speed sensor
- Heated oxygen sensors

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 a ground path 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 throttle position sensor operation.

Circuit K6 is spliced and provides 5 volts to the A/C pressure switch and the map sensor.

On automatic transmission vehicles, circuit K22 is spliced and provides an input to the Transmission Control Module (TCM).

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

- Intake air temperature sensor
- Camshaft position sensor
- Manifold absolute pressure sensor
- Ambient temperature sensor
- A/C pressure switch
- Crankshaft position sensor
- Vehicle speed sensor
- Heated oxygen sensors

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 a ground path for the MAP 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.

DESCRIPTION AND OPERATION (Continued)

Circuit K6 is spliced and provides 5 volts to the A/C pressure switch and the throttle position sensor.

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

- Intake air temperature sensor
- Camshaft position sensor
- Throttle position sensor
- Ambient temperature sensor
- A/C pressure switch
- Crankshaft position sensor
- Vehicle speed sensor
- Heated oxygen sensors

INTAKE AIR TEMPERATURE SENSOR

On the 2.0L engine the intake air temperature sensor is combination unit with the map sensor.

The intake air temperature sensor provides an input to the Powertrain Control Module (PCM) on circuit K21. The K21 circuit 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 a ground path for the intake air temperature sensor signal (circuit K21) through circuit K4. Circuit K4 connects to cavity 43 of the PCM connector.

HELPFUL INFORMATION

Refer to group 14 for intake air temperature sensor operation.

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

- Manifold absolute pressure sensor
- Camshaft position sensor
- Throttle position sensor
- Ambient temperature sensor
- A/C pressure switch
- Crankshaft position sensor
- Vehicle speed sensor
- Heated oxygen sensors

KNOCK SENSOR (2.0L and 2.4L only)

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.

The knock sensor is case grounded to the engine block.

HELPFUL INFORMATION

Refer to group 14, for knock sensor operation.

BATTERY TEMPERATURE SENSOR

The battery temperature sensor draws voltage from the Powertrain Control Module (PCM) on circuit K118. The sensor is a variable resistor. As temperature changes, the resistance draw in the sensor changes causing a change in current draw. Circuit K118 connects to cavity 52 of the PCM connector.

The PCM provides a ground for the ambient temperature sensor on 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:

- Intake air temperature sensor
- Camshaft position sensor
- Manifold absolute pressure sensor
- Throttle position sensor
- A/C pressure switch
- Crankshaft position sensor
- Vehicle speed sensor
- Heated oxygen sensors

FUEL INJECTORS

Circuit A14 is connected to the 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 A142. A 20 amp fuse, in cavity 5 of 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.

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

- 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.

On the 2.5L engine there are two additional injectors used. The PCM controls the ground path for these injectors as follows:

- Circuit K38 is the ground circuit for Injector #5. Circuit K38 connects to cavity 15 of the PCM.
- Circuit K58 is the ground circuit for Injector #6. Circuit K58 connects to cavity 14 of the PCM.

DESCRIPTION AND OPERATION (Continued)

HELPFUL INFORMATION

Circuit A142 splices to supply voltage to the fuel injectors, ignition coil, ASD relay, generator, and the upstream and downstream (2.5L only) 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 (2.0L and 2.4L)

Circuit A14 is connected to the 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 cavity 5 of 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.

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

HELPFUL INFORMATION

Circuit A142 splices to supply voltage to the fuel injectors, ASD relay, generator, and the upstream and downstream (2.5L) heated oxygen sensors. The PCM controls the ground circuit for each of the components powered by circuit A142.

DISTRIBUTOR (2.5L)

The 2.5L V-6 engine uses a distributor. The distributor is used for firing the spark plugs and for providing camshaft position input to the Powertrain Control Module (PCM). Circuit K44 is used to indicate to the PCM camshaft position and connects to cavity 33 of the PCM. Circuit K4 is used for the sensor return to the PCM and connects to cavity 43.

The K19 circuit is an output from the PCM to the distributor and is used for the coil driver. Grounding for the distributor is provided at the cylinder head ground.

Battery voltage for the distributor is provided from two sources, circuits A142 and K7. The K7 circuit is the 8 volt output from the PCM. Circuit A142 is HOT when the contacts in the ASD relay are CLOSED.

HELPFUL INFORMATION

- Refer to group 14 for system operation.

IDLE AIR CONTROL MOTOR

The Powertrain Control Module (PCM) operates the idle air control 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
- Circuit K59 connects to cavity 58 of the PCM connector
- Circuit K60 connects to cavity 49 of the PCM connector

HELPFUL INFORMATION

- Refer to group 14 of the Service Manual or the appropriate Diagnostic Test Procedures Manual for additional information.

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 Z1 provides a ground for the power steering pressure switch. The ground is terminated at the Body Control Module (BCM).

DUTY CYCLE EVAP/PURGE SOLENOID

Circuit F18 supplies battery voltage to the duty cycle EVAP/Purge solenoid. This circuit is HOT in the START and RUN position only. It is also spliced and provides power for the Anti-Lock warning lamp, A/C clutch relay, and high speed radiator fan relay.

Circuit F18 connects to the PDC, cavity 9, and is protected by a 10 amp fuse. Power for the fuse is supplied on circuit A21 from the ignition switch. Circuit A1 provides power for the A21 circuit and is protected by a 20 amp fuse located in cavity 8 of the Power Distribution Center (PDC).

The Powertrain Control Module (PCM) controls the ground path for the solenoid on circuit K52. Circuit K52 connects to cavity 68 of the PCM connector.

HELPFUL INFORMATION

- Refer to group 14 and group 25, for system operation
- Check the 10 amp fuse located in cavity 9 of the PDC.
- Check the 20 amp fuse located in cavity 8 of the PDC

DESCRIPTION AND OPERATION (Continued)

VAPOR CANISTER LEAK DETECTOR

Power for the vapor canister leak detector is provided on circuit F18. This circuit is protected by a 10 amp fuse located in cavity 9 of the Power Distribution Center (PDC). Power for the fuse is supplied on circuit A21 from the ignition switch. Circuit A21 is HOT in the START and RUN positions only.

The Powertrain Control Module (PCM) controls the ground path for the leak detection pump solenoid and leak detection pump switch.

Circuit K106 is connected to cavity 77 of the PCM connector and to the leak detection solenoid.

Circuit K107 is connected to cavity 72 of the PCM connector and to the leak detection pump switch.

HELPFUL INFORMATION

- Check the 10 amp fuse located in cavity 9 of the PDC.
- Refer to the appropriate section of the service manual, or the diagnostic test procedures manual.

ELECTRONIC EGR TRANSDUCER (EET) SOLENOID

Circuit A142 supplies voltage to the EET solenoid. The Powertrain Control Module (PCM) controls the ground path for the solenoid on circuit K35 and connects to cavity 40 of the PCM connector.

Circuit A142 is spliced and connects with the fuel injectors, generator, and the Automatic Shut-Down (ASD) relay. This circuit is HOT when the ASD relay is energized.

HELPFUL INFORMATION

- Refer to Group 14, for system operation.

PARK/NEUTRAL SWITCH INPUT

When CLOSED the Transmission Range Switch (TRS) provides an input to the Powertrain Control Module (PCM) on circuit T41. This circuit connects to cavity 76 of the PCM connector. The T41 circuit is spliced and provides a ground path for the engine starter relay, and the Transmission Control Module (TCM).

TORQUE MANAGEMENT INPUT

Circuit T10 connects from the Transmission Control Module (TCM) to the Powertrain Control Module (PCM) cavity 63. This is the torque management request from the TCM to the PCM.

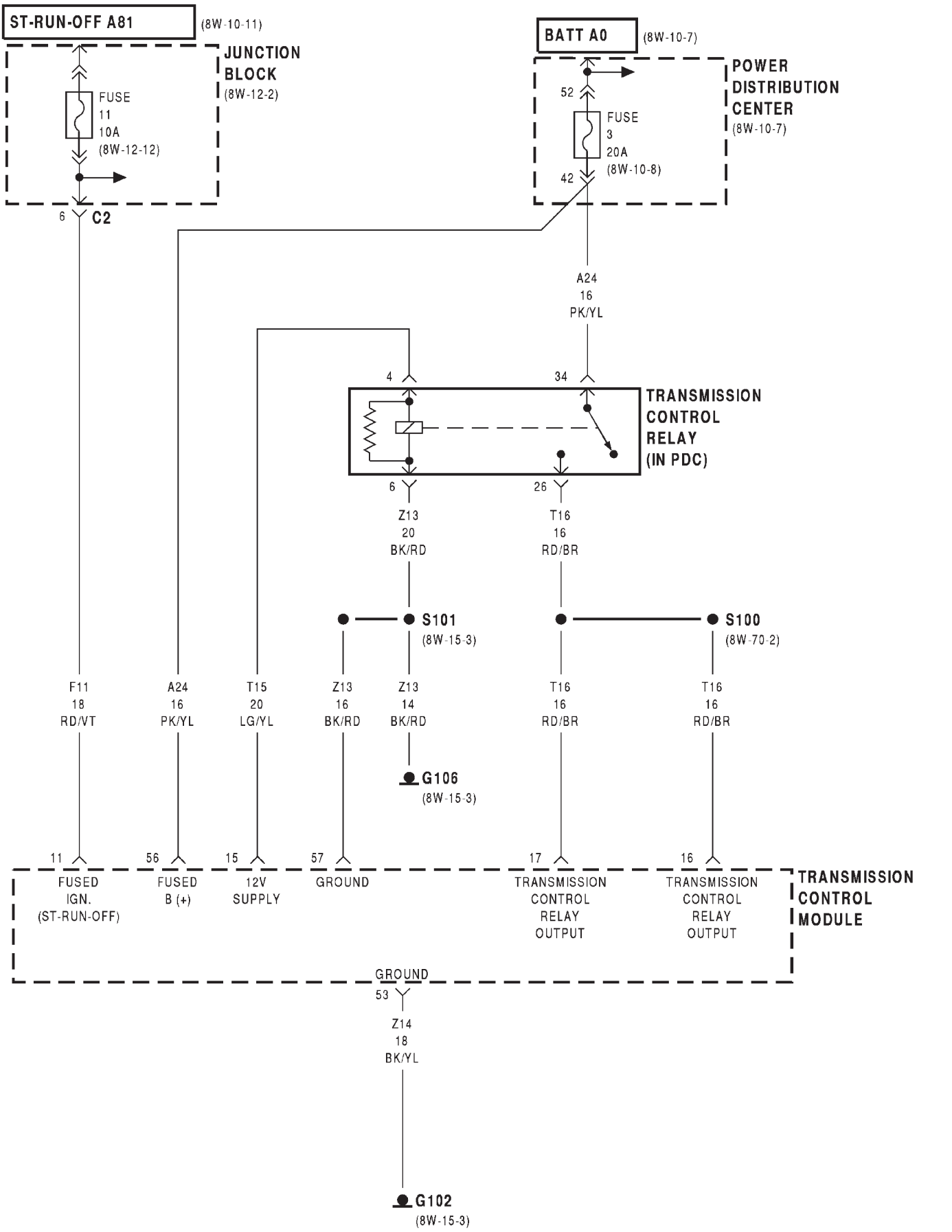
8W-31 TRANSMISSION CONTROL SYSTEM

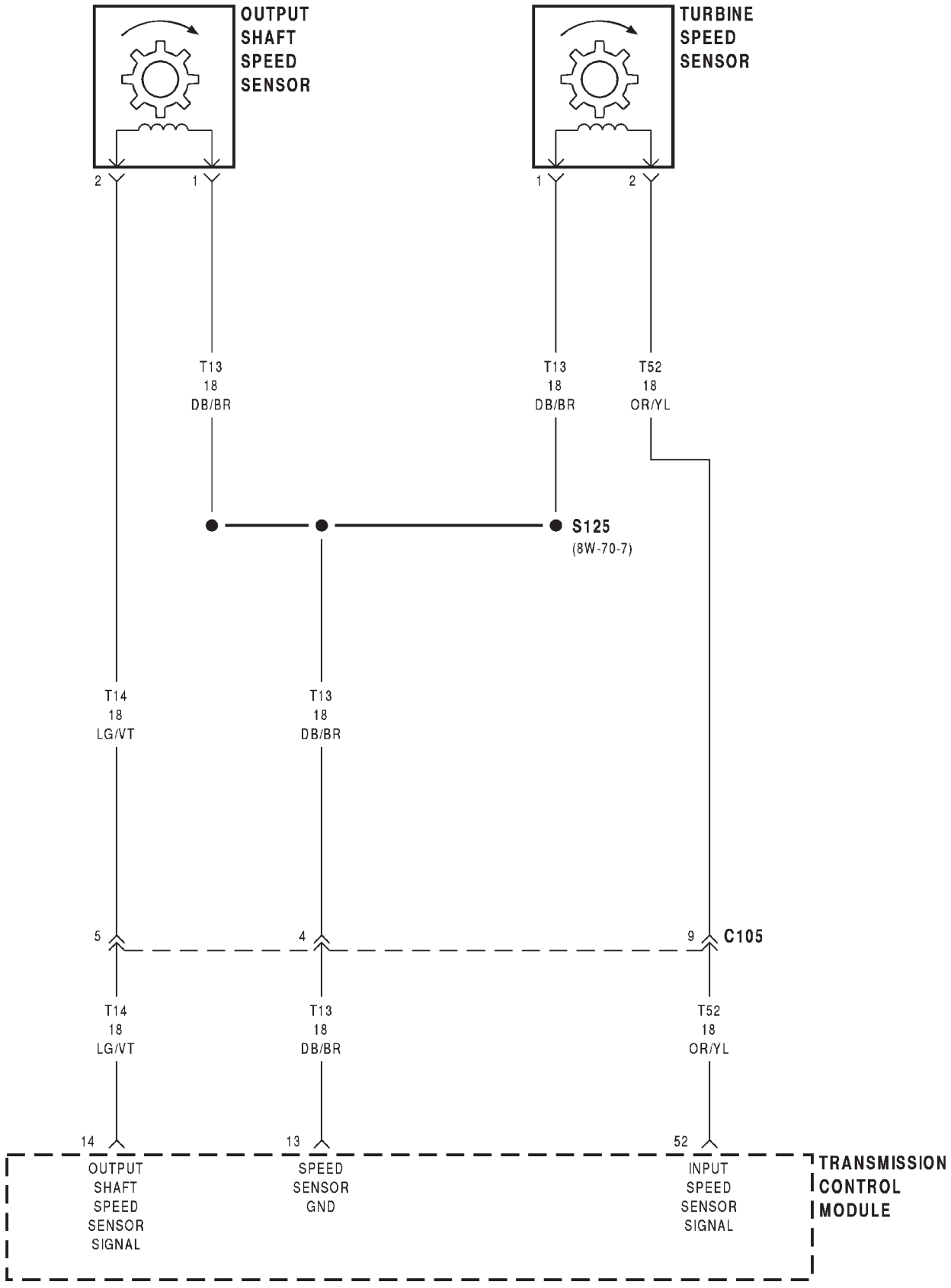
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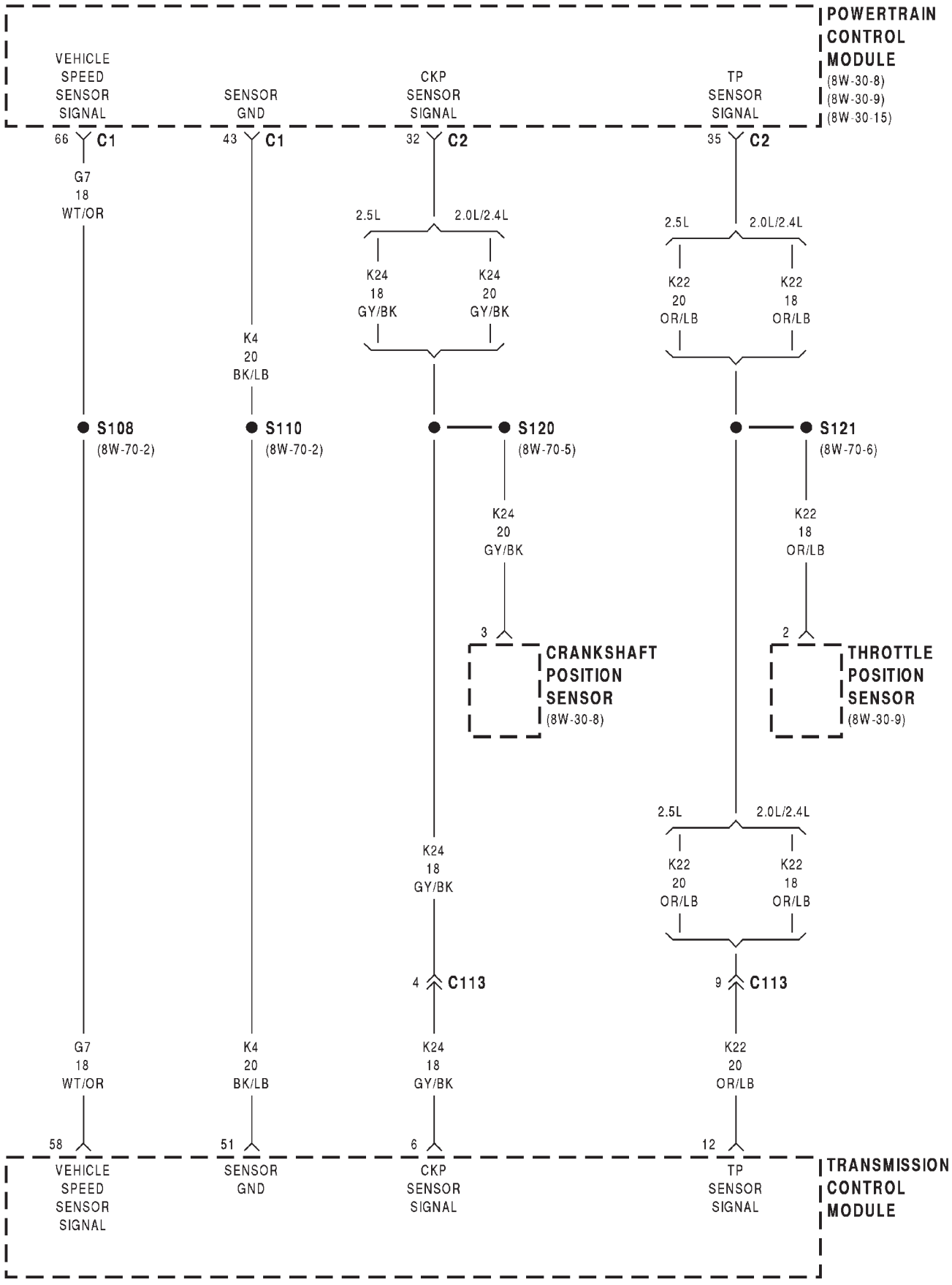
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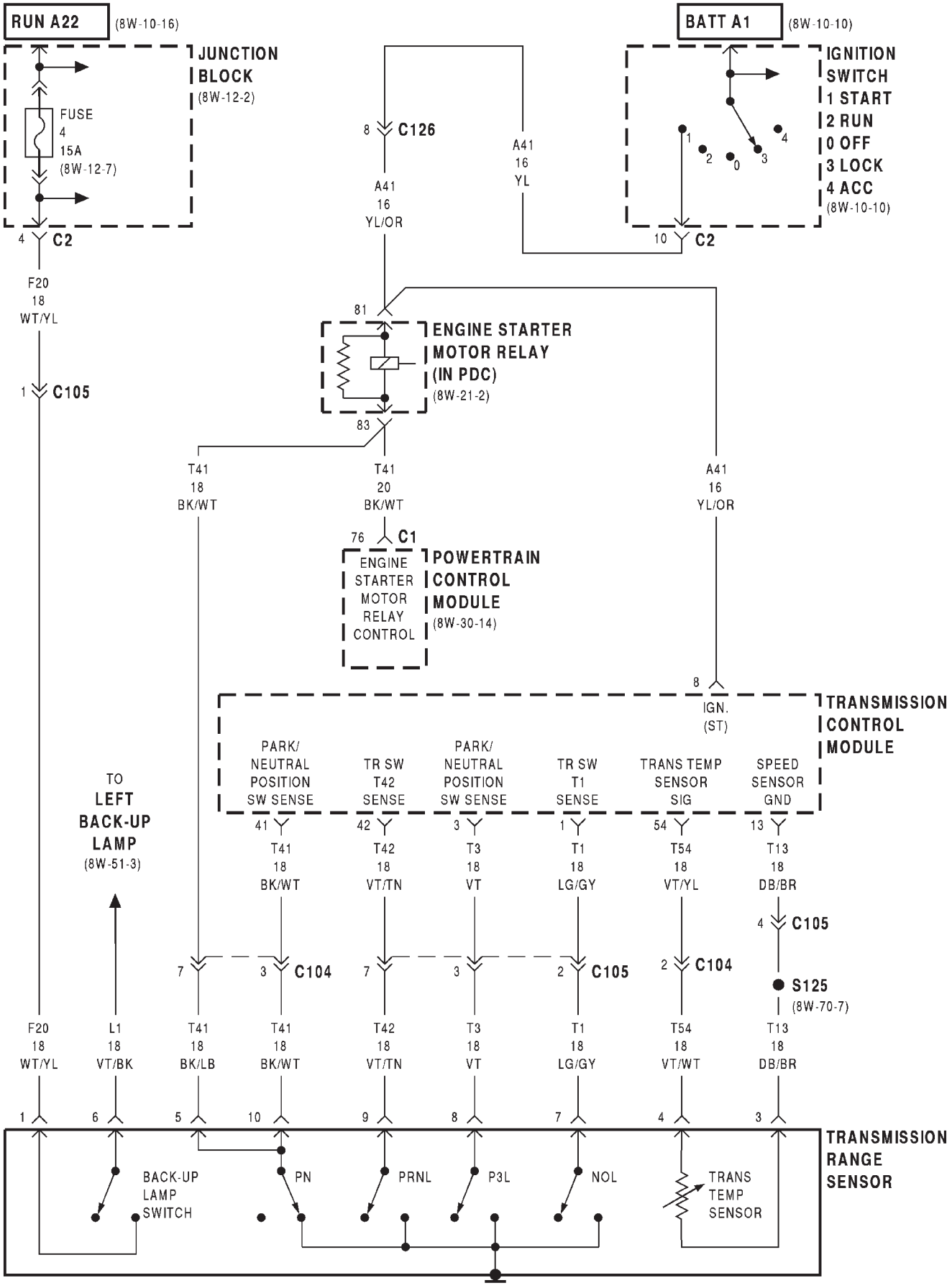
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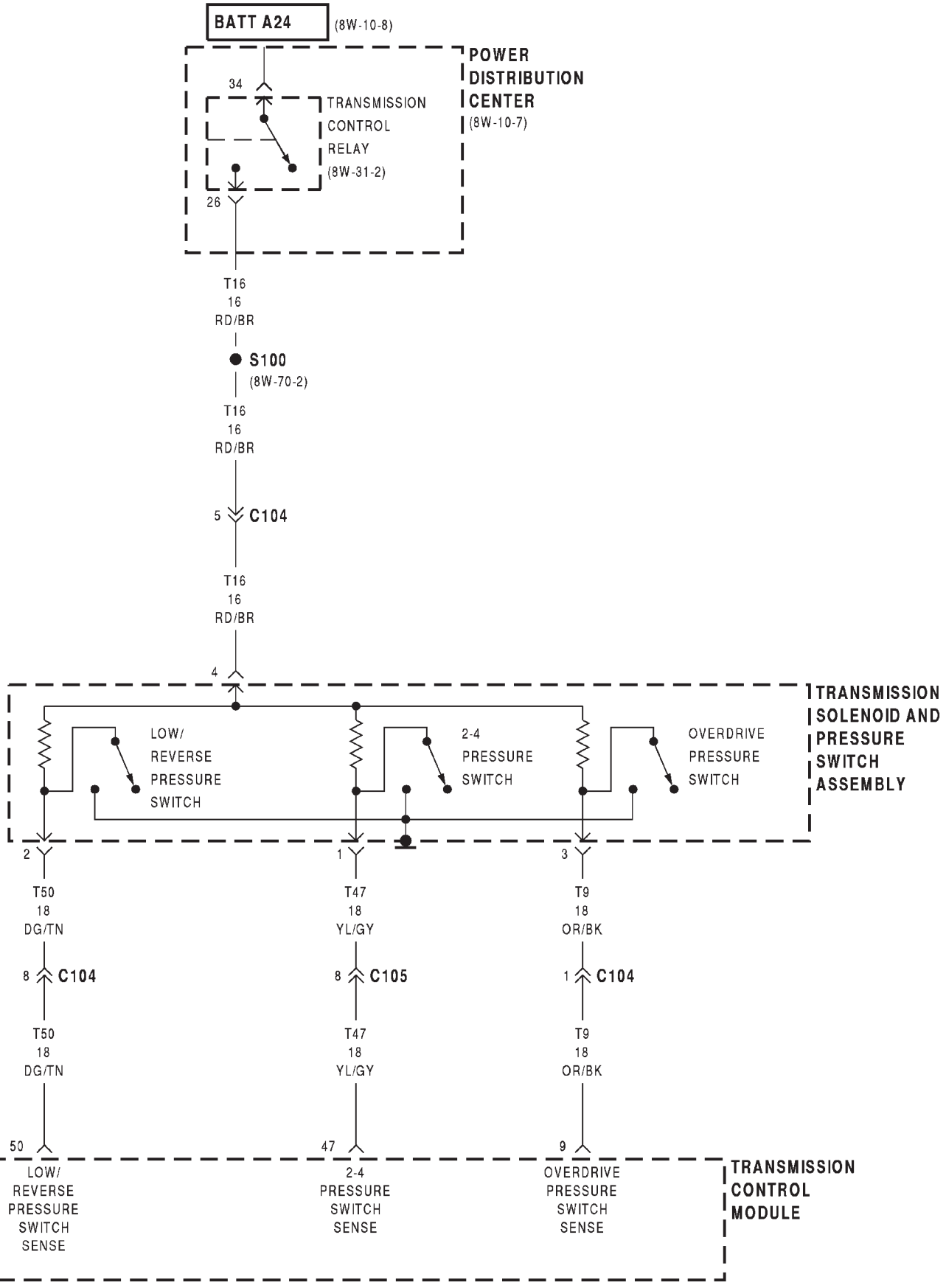

OUTPUT SHAFT SPEED SENSOR
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1
1
2
T13 18 DB/BR
T13 18 DB/BR
T52 18 OR/YL
S125
(8W-70-7)
T14 18 LG/VT
T13 18 DB/BR
5
4
9
C105
T14 18 LG/VT
T13 18 DB/BR
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14
13
52
OUTPUT SHAFT SPEED SENSOR SIGNAL
SPEED SENSOR GND
INPUT SPEED SENSOR SIGNAL
TRANSMISSION CONTROL MODULE

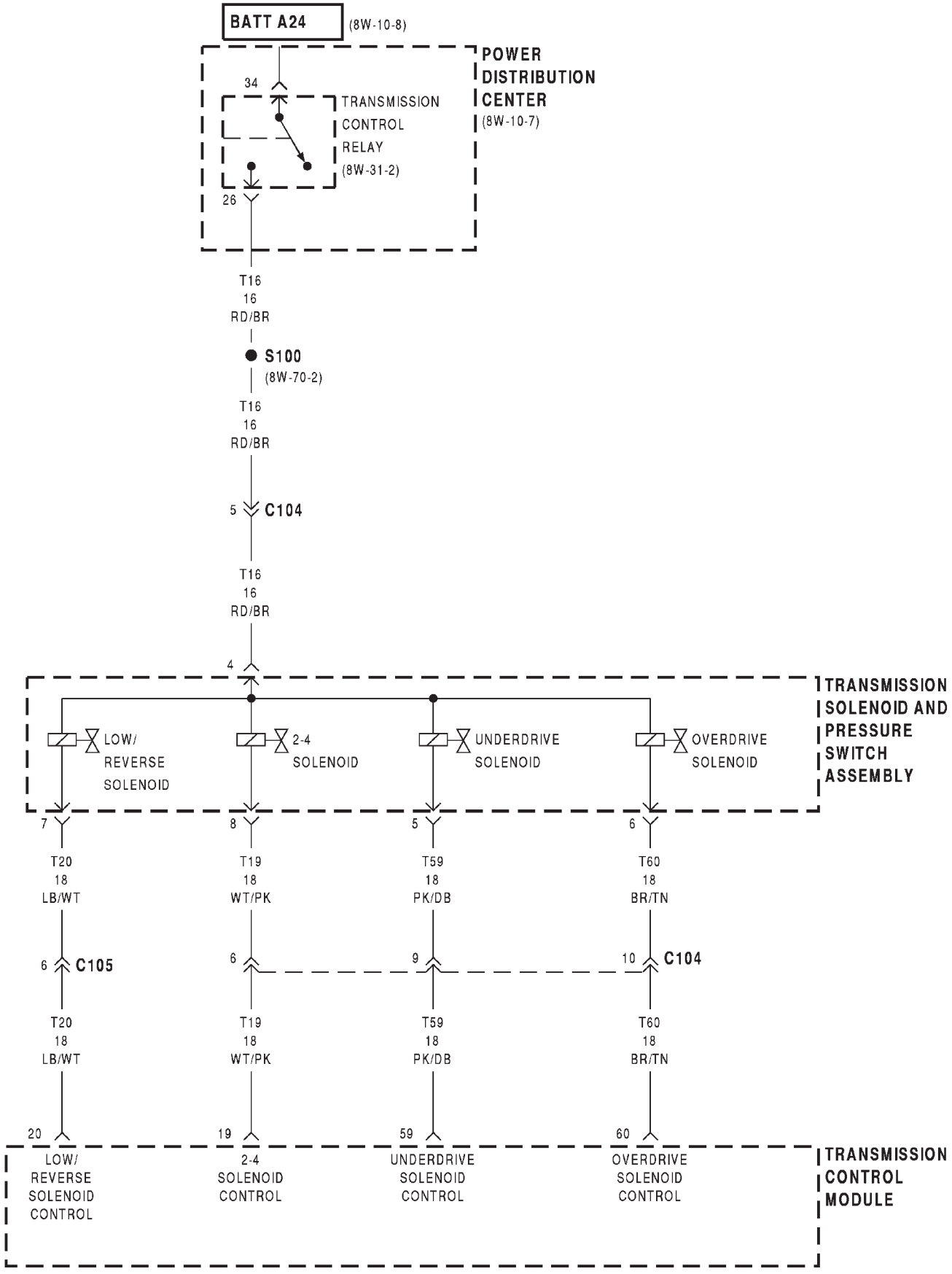

POWERTRAIN CONTROL MODULE
(8W-30-8)
(8W-30-9)
(8W-30-15)
VEHICLE SPEED SENSOR SIGNAL
SENSOR GND
CKP SENSOR SIGNAL
TP SENSOR SIGNAL
66 C1
43 C1
32 C2
35 C2
G7 18 WT/OR
K4 20 BK/LB
2.5L
2.0L/2.4L
K24 18 GY/BK
K24 20 GY/BK
K22 20 OR/LB
K22 18 OR/LB
S108 (8W-70-2)
S110 (8W-70-2)
S120 (8W-70-5)
S121 (8W-70-6)
K24 20 GY/BK
K22 18 OR/LB
3
2
CRANKSHAFT POSITION SENSOR
(8W-30-8)
THROTTLE POSITION SENSOR
(8W-30-9)
K24 18 GY/BK
4 C113
9 C113
G7 18 WT/OR
K4 20 BK/LB
K24 18 GY/BK
K22 20 OR/LB
58
51
6
12
VEHICLE SPEED SENSOR SIGNAL
SENSOR GND
CKP SENSOR SIGNAL
TP SENSOR SIGNAL
TRANSMISSION CONTROL MODULE

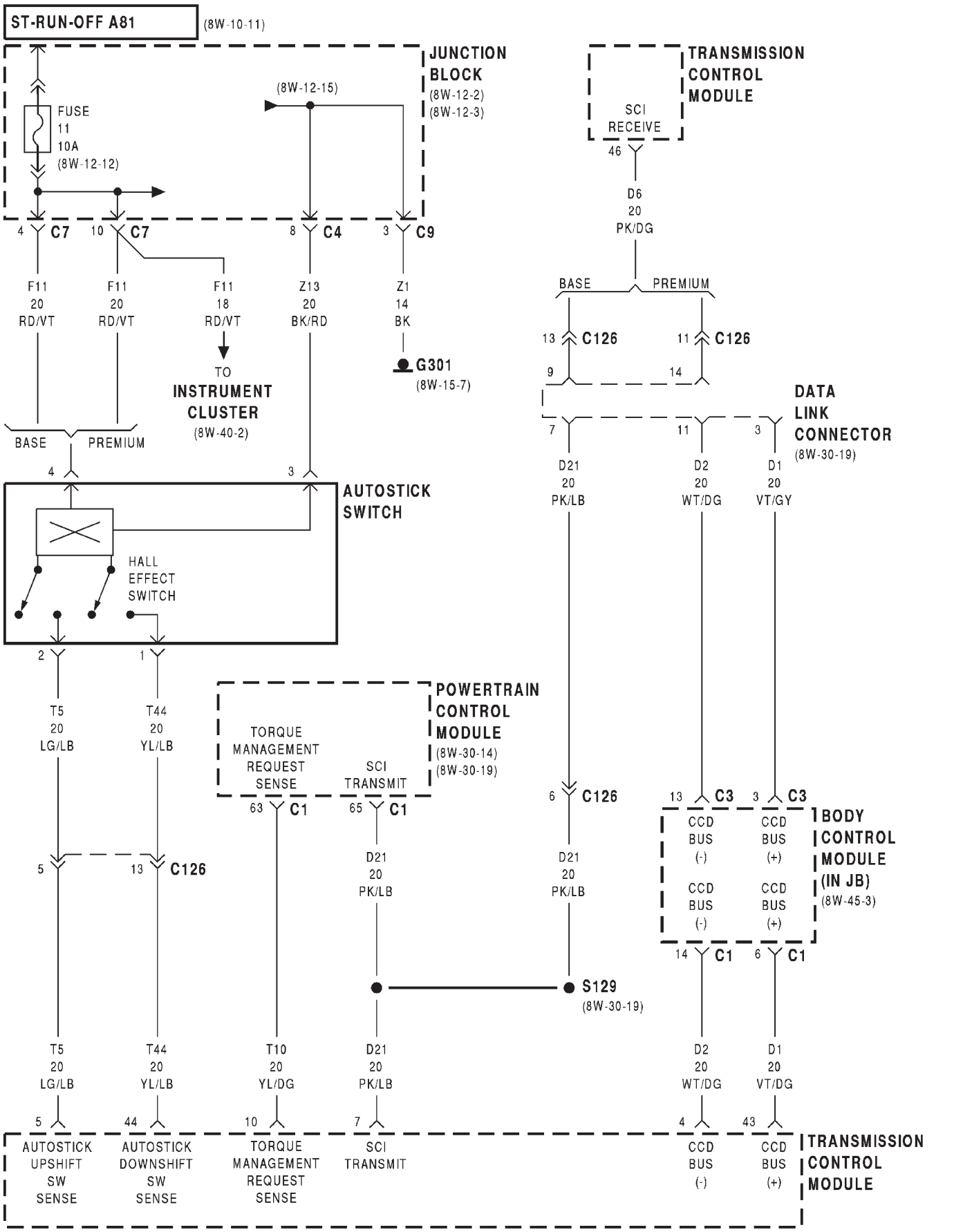


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BATT A24
(8W-10-8)
POWER DISTRIBUTION CENTER
(8W-10-7)
34
TRANSMISSION CONTROL RELAY
(8W-31-2)
26
T16
16
RD/BR
S100
(8W-70-2)
T16
16
RD/BR
5
C104
T16
16
RD/BR
4
TRANSMISSION SOLENOID AND PRESSURE SWITCH ASSEMBLY
LOW/ REVERSE PRESSURE SWITCH
2-4 PRESSURE SWITCH
OVERDRIVE PRESSURE SWITCH
2
1
3
T50
18
DG/TN
T47
18
YL/GY
T9
18
OR/BK
8
C104
8
C105
1
C104
T50
18
DG/TN
T47
18
YL/GY
T9
18
OR/BK
50
47
9
LOW/ REVERSE PRESSURE SWITCH SENSE
2-4 PRESSURE SWITCH SENSE
OVERDRIVE PRESSURE SWITCH SENSE
TRANSMISSION CONTROL MODULE


BATT A24
(8W-10-8)
POWER DISTRIBUTION CENTER
(8W-10-7)
34
TRANSMISSION CONTROL RELAY
(8W-31-2)
26
T16
16
RD/BR
S100
(8W-70-2)
T16
16
RD/BR
5
C104
T16
16
RD/BR
4
TRANSMISSION SOLENOID AND PRESSURE SWITCH ASSEMBLY
LOW/ REVERSE SOLENOID
2-4 SOLENOID
UNDERDRIVE SOLENOID
OVERDRIVE SOLENOID
7
8
5
6
T20
18
LB/WT
T19
18
WT/PK
T59
18
PK/DB
T60
18
BR/TN
6
C105
6
9
10
C104
T20
18
LB/WT
T19
18
WT/PK
T59
18
PK/DB
T60
18
BR/TN
20
19
59
60
LOW/ REVERSE SOLENOID CONTROL
2-4 SOLENOID CONTROL
UNDERDRIVE SOLENOID CONTROL
OVERDRIVE SOLENOID CONTROL
TRANSMISSION CONTROL MODULE


ST-RUN-OFF A81
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE 11 10A
(8W-12-12)
(8W-12-15)
4 C7
10 C7
8 C4
3 C9
F11 20 RD/VT
F11 20 RD/VT
F11 18 RD/VT
Z13 20 BK/RD
Z1 14 BK
TO INSTRUMENT CLUSTER
(8W-40-2)
G301
(8W-15-7)
BASE
PREMIUM
4
3
AUTOSTICK SWITCH
HALL EFFECT SWITCH
2
1
T5 20 LG/LB
T44 20 YL/LB
5
13 C126
T5 20 LG/LB
T44 20 YL/LB
T10 20 YL/DG
D21 20 PK/LB
5
44
10
7
AUTOSTICK UPSHIFT SW SENSE
AUTOSTICK DOWNSHIFT SW SENSE
TORQUE MANAGEMENT REQUEST SENSE
SCI TRANSMIT
POWERTRAIN CONTROL MODULE
(8W-30-14)
(8W-30-19)
TORQUE MANAGEMENT REQUEST SENSE
SCI TRANSMIT
63 C1
65 C1
D21 20 PK/LB
S129
(8W-30-19)
TRANSMISSION CONTROL MODULE
SCI RECEIVE
46
D6 20 PK/DG
BASE
PREMIUM
13 C126
11 C126
9
14
DATA LINK CONNECTOR
(8W-30-19)
7
11
3
D21 20 PK/LB
D2 20 WT/DG
D1 20 VT/GY
6 C126
D21 20 PK/LB
13 C3
3 C3
BODY CONTROL MODULE (IN JB)
(8W-45-3)
CCD BUS (-)
CCD BUS (+)
CCD BUS (-)
CCD BUS (+)
14 C1
6 C1
D2 20 WT/DG
D1 20 VT/DG
4
43
CCD BUS (-)
CCD BUS (+)
TRANSMISSION CONTROL MODULE

8W-31 TRANSMISSION CONTROL SYSTEM

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TRANSMISSION RANGE SENSOR 10
TRANSMISSION TEMPERATURE SENSOR 10
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VEHICLE SPEED INPUT 11

DESCRIPTION AND OPERATION

TRANSMISSION CONTROL MODULE (TCM)

The Transmission Control System is used on all automatic transmission applications. It provides smooth and accurate shift points and can adjust as the transmission wears.

Power for the Transmission Control Module (TCM) is supplied from three sources. One is a direct battery feed on circuit A24. This circuit is protected by a 20 amp fuse located in the Power Distribution Center (PDC) cavity 3. It is also spliced and supplies power for the transmission control relay, contact side.

Power is also supplied on circuit A41. This is the power supply is for the engine starter relay, coil side, and is HOT in the START position only. Circuit A1, which connects to the ignition switch, supplies power to circuit A41 in the START position and is protected by a 20 amp fuse located in cavity 8 of the PDC.

Circuit F11 also supplies power to the TCM. This circuit is protected by a 10 amp fuse located in cavity 11 of the junction block. Power for the fuse is supplied on circuit A81. This circuit is protected by a 20 amp fuse located in cavity 8 of the PDC. The F11 circuit also supplies power to the optional Auto Stick switches.

Ground for the TCM is supplied on the Z13 circuit, which is a power ground, and circuit Z14, which is a signal ground. Both grounds terminate at the left strut tower.

The CCD Data Bus is used to allow the controller to communicate with other controllers and the Universal Data Link connector. The circuits involved are, D1 for CCD positive, and D2 for CCD negative.

Circuits D6 and D21 are connected from the TCM to the universal data link connector. The D6 ciruit is used for SCI receive, and the D21 circuit is used for SCI transmit.

TRANSMISSION CONTROL RELAY

The Transmission Control Relay, located in the Power Distribution Center (PDC), is used to power the Transmission Solenoids and Pressure Switches. Power for the coil side of the relay is supplied from the TCM on circuit T15. Ground for the coil side is provided on circuit Z1 and terminates at the left strut tower.

When the relay is energized, contacts inside the relay CLOSE and connect circuits A24, which is a direct battery feed, and circuit T16, which connects to the solenoid and pressure switch assembly. Circuit T16 is also spliced to the TCM and is used to control the switched battery feed.

BACK UP LAMPS

AUTOMATIC TRANSMISSION

Operation of the back-up lamps is controlled by a switch located internal to the Transmission Range Sensor (TRS).

Power for the back-up lamp switch is supplied on circuit F20 which is protected by a 15 amp fuse located in cavity 4 of the junction block. This fuse is HOT in the RUN position only.

Power for the fuse is supplied by cirucit A22. This circuit connects from the ignition switch to the junction block. Power for the A22 circuit is supplied by circuit A2. This circuit originates in the Power Distribution Center and is protected by a 40 amp fuse located in cavity 16.

When the operator places the vehicle in REVERSE circuits F20 and L1 are connected. Circuit L1 connects from the TRS to the back-up lamps.

Ground for the lamps is supplied on circuit Z1 and terminates at the deck lid ground.

MANUAL TRANSMISSION

Operation of the back-up lamps for manual transmission vehicles is covered in section 8W-51, Rear Lighting.

DESCRIPTION AND OPERATION (Continued)

SOLENOIDS AND PRESSURE SWITCHES

The Solenoid and Pressure Switch assembly, located in the transmission, is used to control the shifting of the transmission. Power for the assembly is provided on circuit T16 from the transmission control relay. The Transmission Control Module (TCM) provides the ground path for the various solenoids depending on operating conditions. This assembly is also case grounded to the transmission. The case ground supplies the ground path for the pressure switches.

The following circuits are controlled by the TCM for the Solenoid and Pressure Switch Assembly.

- T20- Low/Reverse solenoid
- T19- 2/4 solenoid
- T60- Overdrive solenoid
- T59- Underdrive Pressure Switch
- T50- Low/Reverse pressure switch
- T47- Kick down pressure switch
- T9- Overdrive pressure switch

Circuits T9, T47, and T50 are switch inputs to the TCM.

TURBINE SPEED SENSOR

The Turbine Speed sensor is used to measure the speed of the torque converter turbine. Circuit T52 is an input to the Transmission Control Module (TCM). Ground for the sensor is provided on circuit T13. This ground is spliced and shared with the Output Speed sensor.

OUTPUT SPEED SENSOR

The Output Speed sensor is used to measure the speed of the output shaft of the transmission. Circuit T14 supplies an input to the Transmission Control Module (TCM). Ground for the sensor is provided on circuit T13. This ground is spliced and shared with the Turbine Speed sensor.

AUTO STICK

The auto stick is used to allow the operator to control the shifting of the transmission. This system uses hall effect switches located at the base of the shifter.

There are two hall effect switches used. One is for the Upshift and that circuit connects to cavity 5 of the Transmission Control Module (TCM) connector. The other switch is used for downshifting. This circuit connects to cavity 44 of the TCM connector.

Power for the switches is supplied on circuit F11. This circuit is protected by a 10 amp fuse located in cavity 11 of the junction block. Power for the fuse is supplied on circuit A81. This circuit connects from the ignition switch to the junction block and is HOT in the OFF/RUN/START position.

Power for the A81 circuit is supplied by circuit A51. This circuit is protected by a 10 amp fuse located in cavity 7 of the Power Distribution Center (PDC).

Ground for the switches is supplied on circuit Z1.

TRANSMISSION TEMPERATURE SENSOR

The transmission temperature sensor is used to monitor the temperature of the transmission fluid. The sensor is a variable resistor and is part of the Transmission Range Sensor (TRS).

Power for the sensor is supplied by the Transmission Control Module (TCM) on circuit T54. The T54 circuit connects to cavity 54 of the TCM connector.

Ground for the sensor is supplied on circuit T13. This circuit is spliced with the turbine speed and output speed sensor. This circuit connects to cavity 13 of the TCM connector.

TRANSMISSION RANGE SENSOR

The Transmission Range Sensor (TRS) is located internal to the transmission. This sensor provides the Transmission Control Module (TCM) with information on shift lever position, contains the transmission temperature sensor, and contains the switch for the back-up lamps.

Operation of the transmission temperature sensor and the back-up lamps is covered in this section.

Circuit T1 provides an input to the TCM when the shift lever is in the NEUTRAL/OVERDRIVE or LOW position.

Circuit T3 provides an input to the TCM when the shift lever is in the PARK, 3, or LOW position.

Circuit T42 provides an input to the TCM when the shift lever is in the PARK, REVERSE, NEUTRAL, or LOW position.

Circuit T41 provides an input to the TCM when the shift lever is in the PARK, or NEUTRAL position. This circuit is also the ground circuit for the coil side of the engine starter motor relay.

The TRS is case grounded to the transmission.

TORQUE MANAGEMENT INPUT

Circuit T10 connects from the Transmission Control Module (TCM) to the Powertrain Control Module (PCM) cavity 63. This is the torque management request from the TCM to the PCM.

FUEL/IGNITION SYSTEM INPUTS

The following inputs are used by the Transmission Control Module (TCM) to determine proper vehicle shift points.

- Circuit K22 is used to provide the TCM with the throttle position

DESCRIPTION AND OPERATION (Continued)

- Circuit K4 is used to provide the throttle position sensor ground to the Powertrain Control Module (PCM)
- Circuit K24 is used to provide the TCM with the engine speed input

VEHICLE SPEED INPUT

The Powertrain Control Module (PCM) receives an input on vehicle speed from the Transmission Control Module (TCM).

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

HELPFUL INFORMATION

- Refer to the appropriate group of the Service Manual or the Diagnostic Test Procedures Manual for diagnostic procedures.

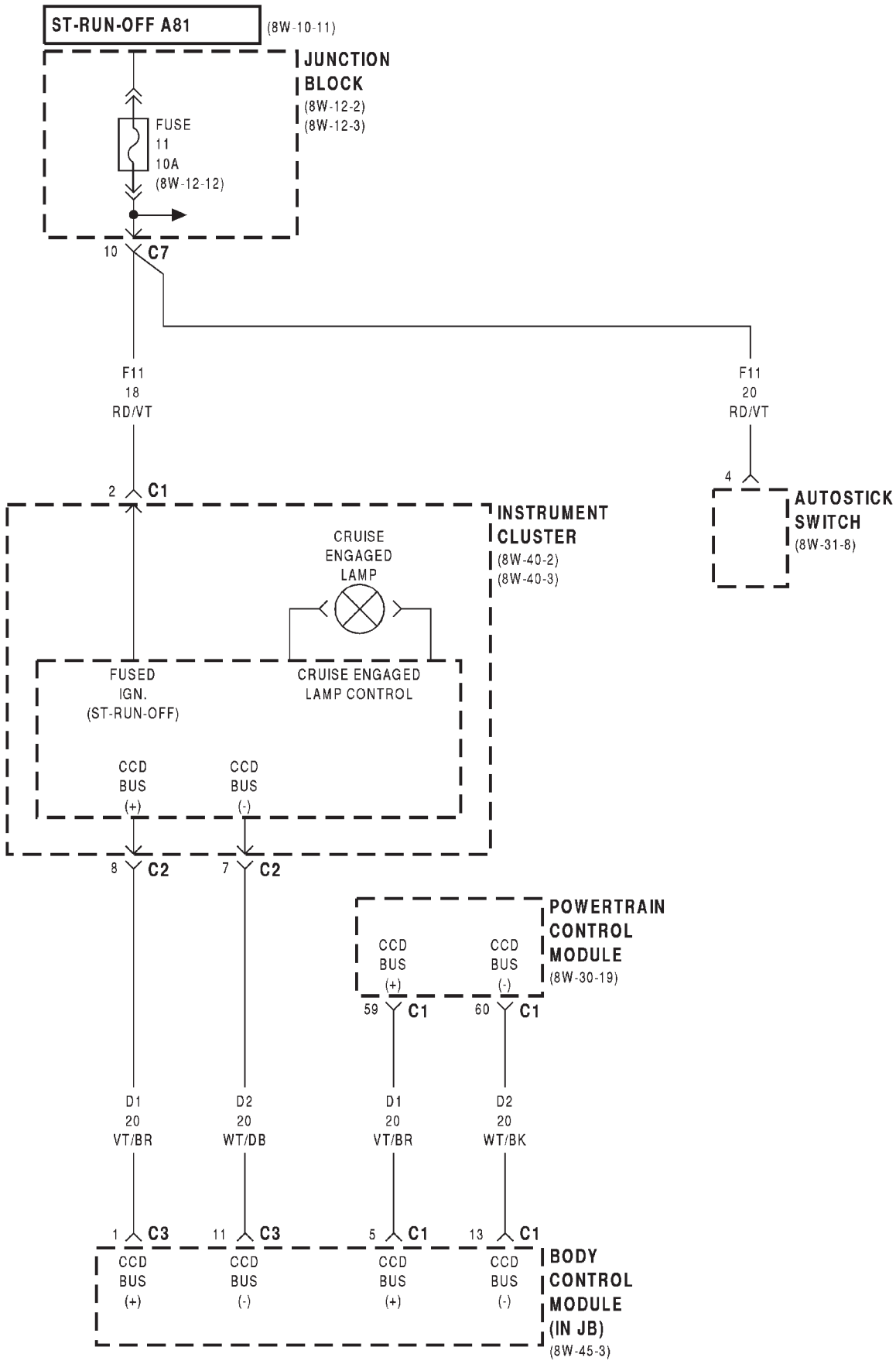
8W-33 VEHICLE SPEED CONTROL

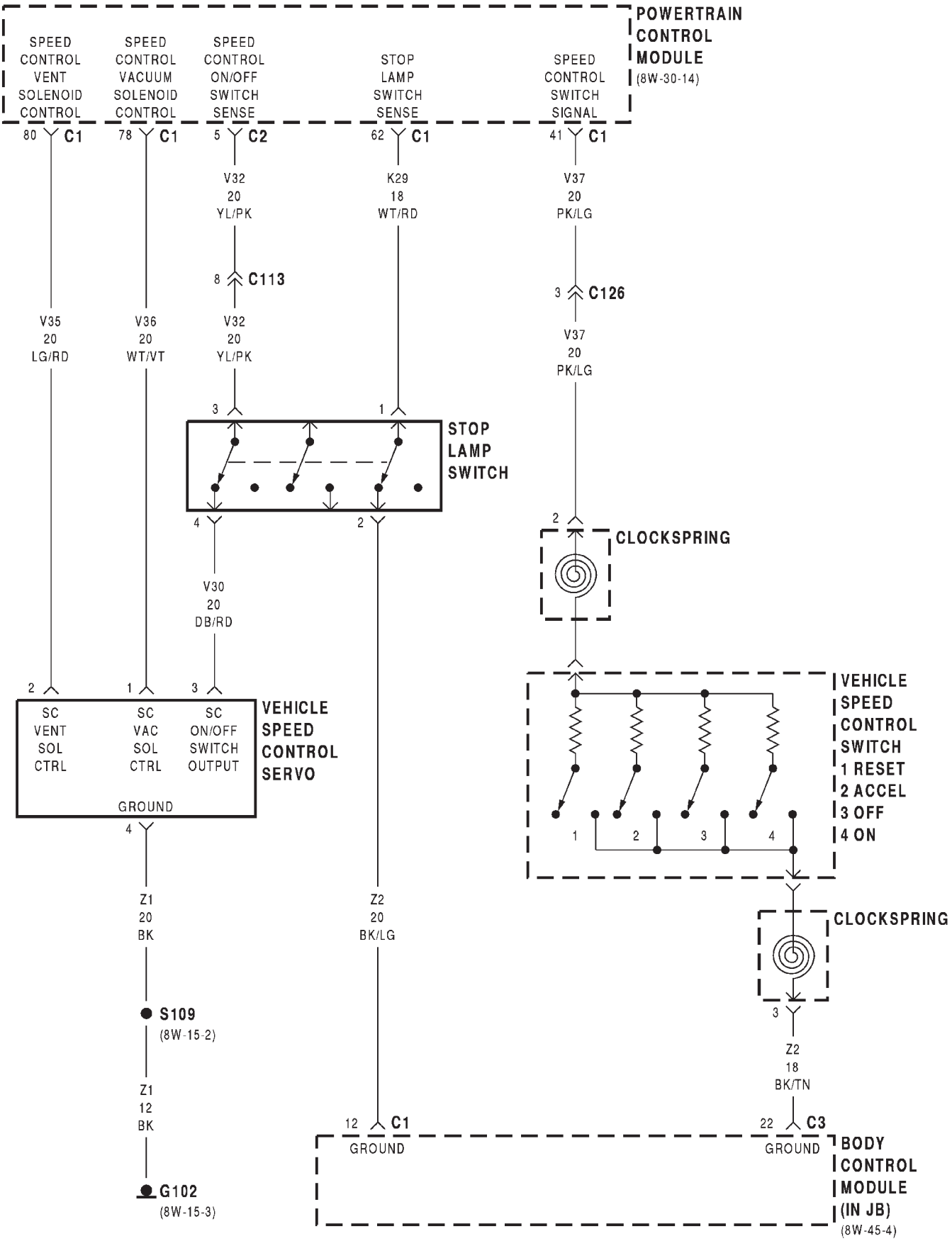
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Vehicle Speed Control Servo	8W-33-3
Vehicle Speed Control Switch	8W-33-3


ST-RUN-OFF A81
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE
11
10A
(8W-12-12)
10 C7
F11
18
RD/VT
F11
20
RD/VT
2 C1
4
AUTOSTICK SWITCH
(8W-31-8)
INSTRUMENT CLUSTER
(8W-40-2)
(8W-40-3)
CRUISE ENGAGED LAMP
FUSED IGN. (ST-RUN-OFF)
CRUISE ENGAGED LAMP CONTROL
CCD BUS (+)
CCD BUS (-)
8 C2
7 C2
POWERTRAIN CONTROL MODULE
(8W-30-19)
59 C1
60 C1
D1
20
VT/BR
D2
20
WT/DB
D1
20
VT/BR
D2
20
WT/BK
1 C3
11 C3
5 C1
13 C1
BODY CONTROL MODULE (IN JB)
(8W-45-3)


POWERTRAIN CONTROL MODULE
(8W-30-14)
SPEED CONTROL VENT SOLENOID CONTROL
SPEED CONTROL VACUUM SOLENOID CONTROL
SPEED CONTROL ON/OFF SWITCH SENSE
STOP LAMP SWITCH SENSE
SPEED CONTROL SWITCH SIGNAL
80 C1
78 C1
5 C2
62 C1
41 C1
V32 20 YL/PK
K29 18 WT/RD
V37 20 PK/LG
8 C113
3 C126
V35 20 LG/RD
V36 20 WT/VT
V32 20 YL/PK
V37 20 PK/LG
3
1
STOP LAMP SWITCH
4
2
2
CLOCKSPRING
V30 20 DB/RD
2
1
3
SC VENT SOL CTRL
SC VAC SOL CTRL
SC ON/OFF SWITCH OUTPUT
GROUND
VEHICLE SPEED CONTROL SERVO
VEHICLE SPEED CONTROL SWITCH
1 RESET
2 ACCEL
3 OFF
4 ON
1
2
3
4
4
CLOCKSPRING
Z1 20 BK
Z2 20 BK/LG
3
S109
(8W-15-2)
Z2 18 BK/TN
Z1 12 BK
12 C1
22 C3
GROUND
GROUND
BODY CONTROL MODULE (IN JB)
(8W-45-4)
G102
(8W-15-3)

8W-33 VEHICLE SPEED CONTROL

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DESCRIPTION AND OPERATION
CRUISE (VEHICLE SPEED CONTROL) ENGAGED LAMP 4
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VEHICLE SPEED CONTROL 4

DESCRIPTION AND OPERATION

VEHICLE SPEED CONTROL

The vehicle speed control system is powered by the Powertrain Control Module (PCM). The vehicle speed control switches, located in the steering wheel, use resistors internal to the switch to send a signal to the PCM indicating what the operator is requesting. The V37 circuit, from cavity 41 of the PCM supplies power for the switch. Circuit Z2 is the ground for the switch.

The V37 and Z2 circuits are spliced internal to the clockspring to provide power and ground for the two switches.

When the system is turned ON, the vehicle is moving forward, vehicle speed is above 35 mph, and the SET switch is pressed, the PCM looks at the vehicle speed through the vehicle speed sensor on the manual transmission equipped vehicles. On vehicles equipped with the automatic transmission, the vehicle speed input is provided from the Transmission Control Module (TCM) to the PCM.

With this information, the PCM sends a signal to the vehicle speed control servo, on the V36 circuit, and the servo applies vacuum to hold the desired speed. Circuit V36 connects to cavity 78 of the PCM.

When the operator selects the COAST feature in the system, the PCM measures the resistance on the V37 circuit and uses this information to apply voltage on the V35 circuit, which is the vent side of the vehicle speed control servo. Circuit V35 connects to cavity 80 of the PCM.

Grounding for the vehicle speed control servo is supplied on the Z1 circuit. Circuit Z1 terminates at the left strut tower. An additional input to the servo is provided by the stop lamp switch on the V30 circuit. When the operator presses on the brakes the ground path for the V30 circuit is broken. This break in the ground path causes the vehicle speed control servo to vent and disengage the system.

Circuits V32 and K29 are used as inputs to the PCM to indicate when the operator is applying the brakes, as vehicle speed control is canceled when this happens. Circuit V32 connects to cavity 5 of the PCM. Circuit K29 connects to cavity 62 of the PCM.

CRUISE (VEHICLE SPEED CONTROL) ENGAGED LAMP

The CRUISE lamp is used to indicate to the operator when the vehicle speed control is engaged. The signal to illuminate the lamp is carried over the CCD Bus from the Body Control Module (BCM).

The BCM receives information on vehicle speed control engagement from the PCM over the CCD Bus. This lamp also is illuminated, for a few seconds, when the ignition switch is moved from the OFF to the RUN position as a bulb check. The bulb check operation is controlled by the PCM.

HELPFUL INFORMATION

- Refer to Group 8H for diagnosis procedures

8W-35 ANTI-LOCK BRAKES

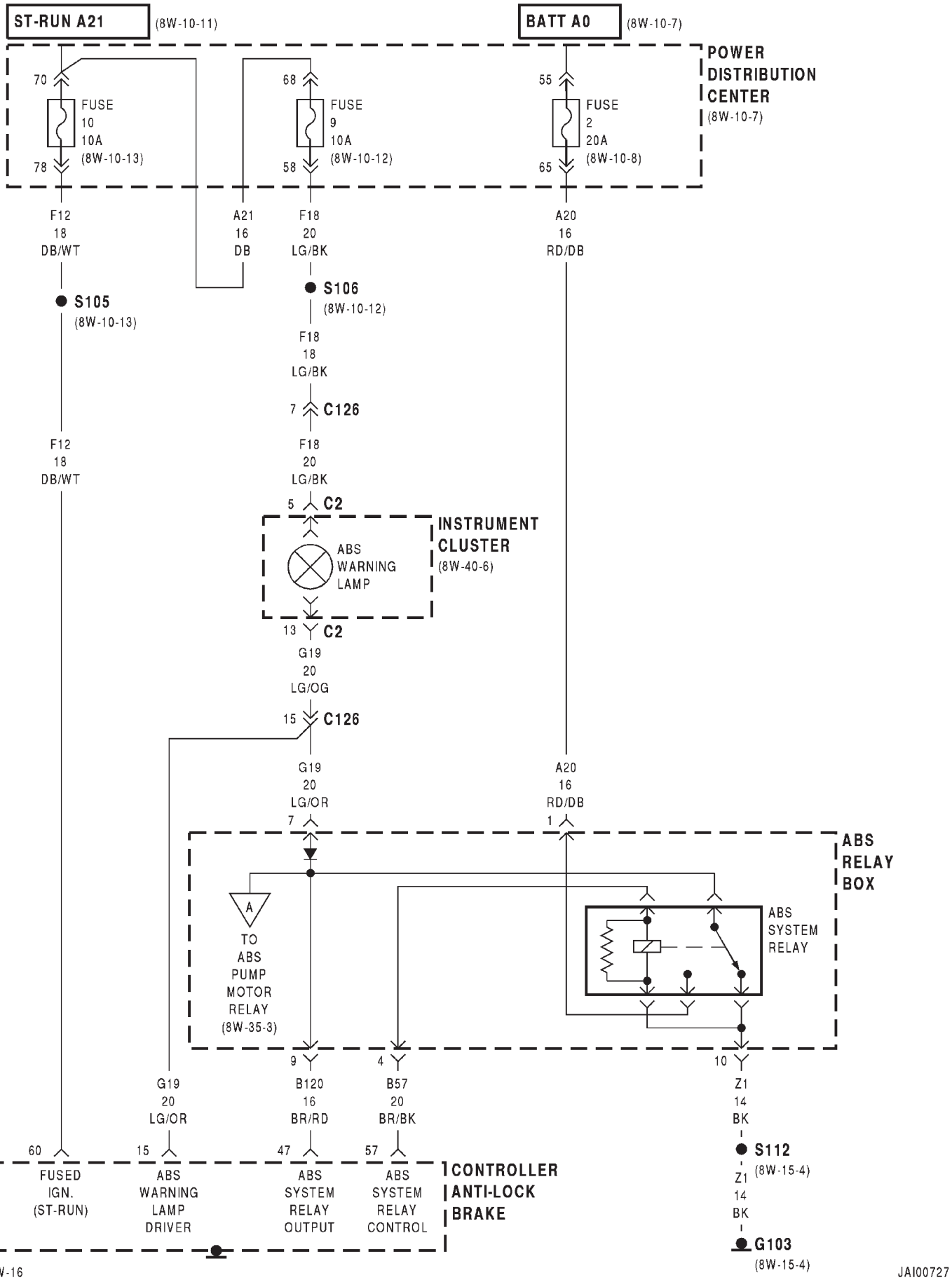
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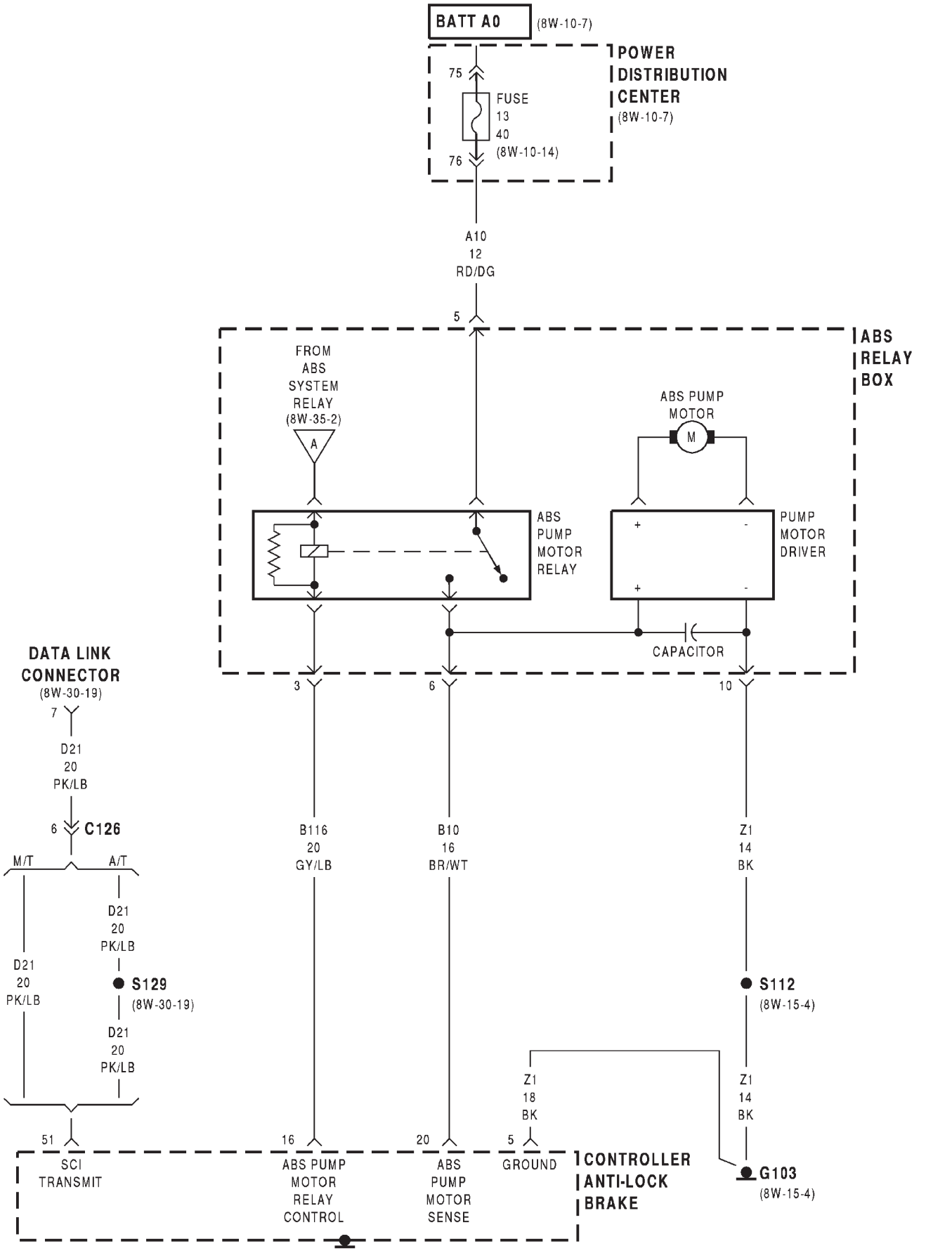
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G106	8W-35-6
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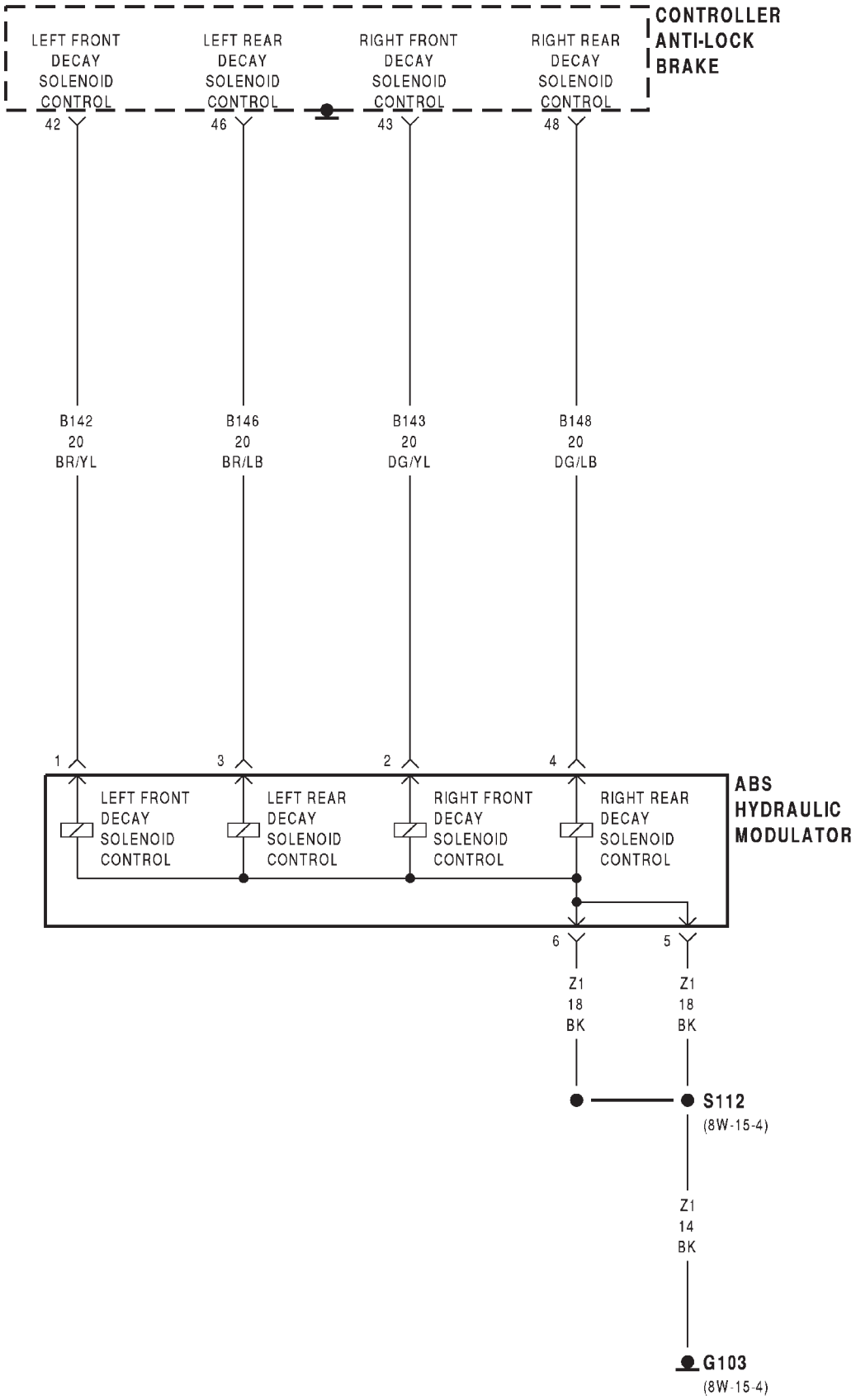
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S105	8W-35-2
S106	8W-35-2
S112	8W-35-2, 3, 4
S129	8W-35-3
Stop Lamp Switch	8W-35-6

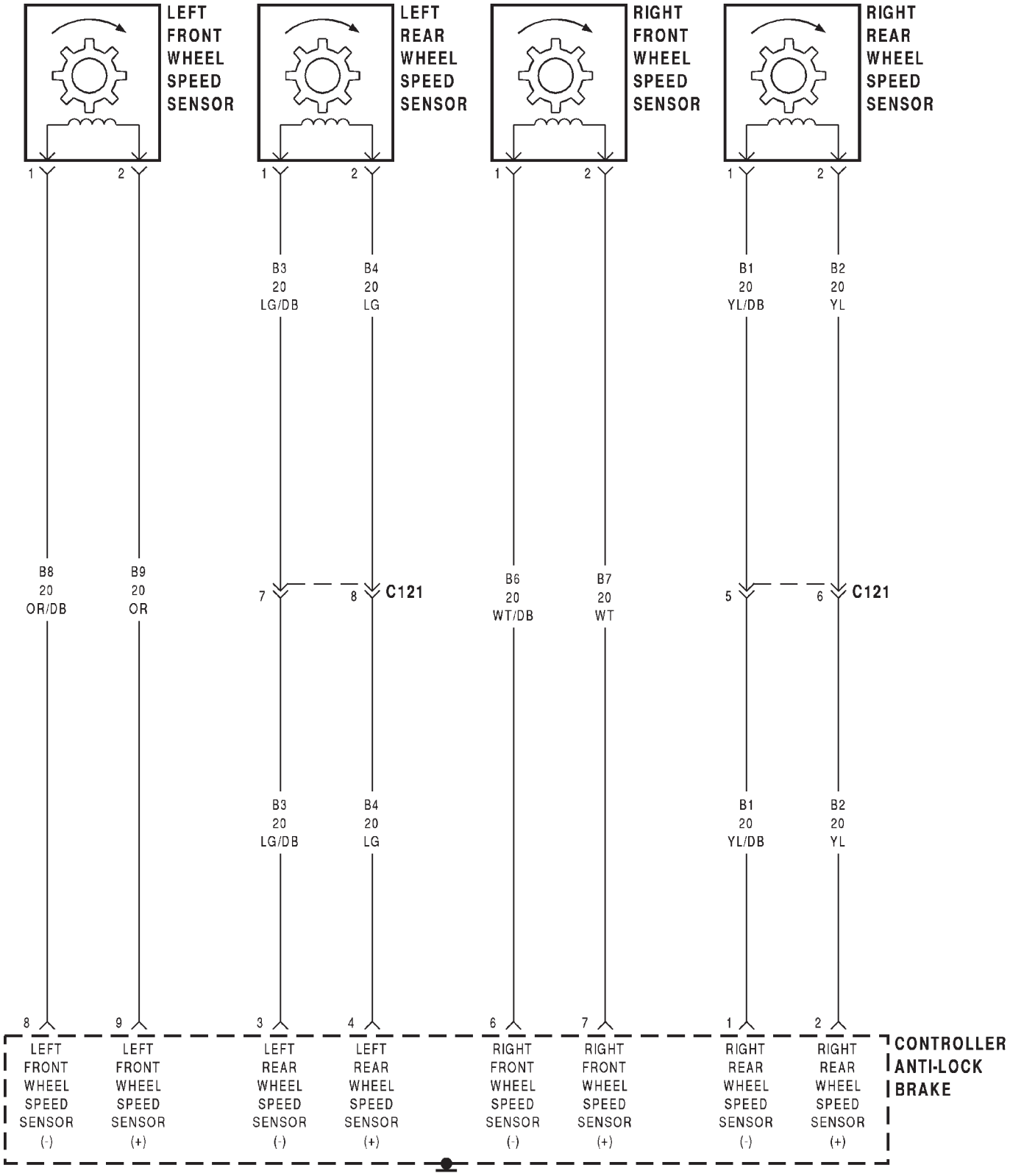


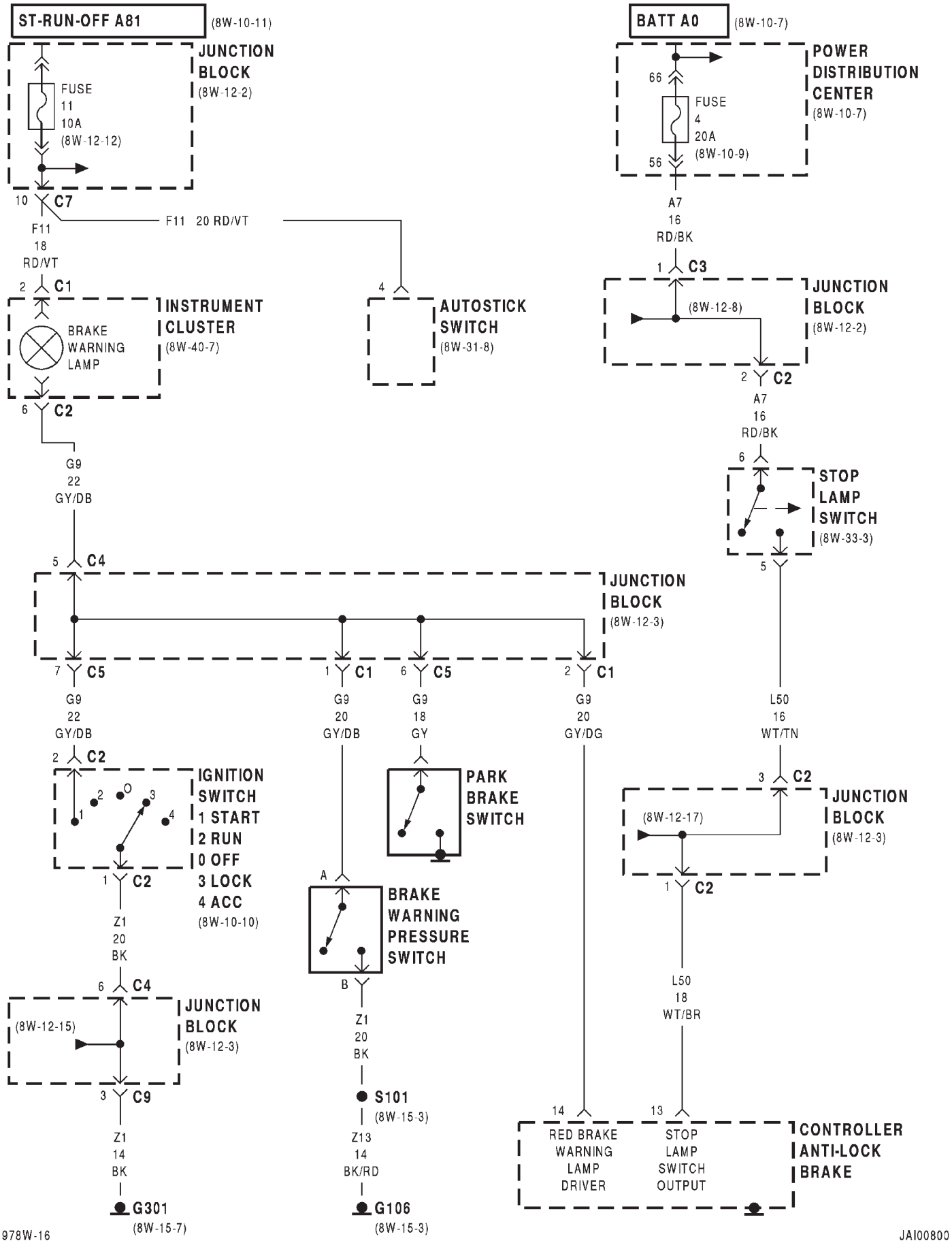
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BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
75
FUSE 13 40
(8W-10-14)
76
A10
12
RD/DG
5
ABS RELAY BOX
FROM ABS SYSTEM RELAY
(8W-35-2)
A
ABS PUMP MOTOR
M
ABS PUMP MOTOR RELAY
PUMP MOTOR DRIVER
CAPACITOR
3
6
10
DATA LINK CONNECTOR
(8W-30-19)
7
D21
20
PK/LB
6
C126
M/T
A/T
D21
20
PK/LB
D21
20
PK/LB
S129
(8W-30-19)
D21
20
PK/LB
B116
20
GY/LB
B10
16
BR/WT
Z1
14
BK
S112
(8W-15-4)
Z1
18
BK
Z1
14
BK
G103
(8W-15-4)
51
16
20
5
SCI TRANSMIT
ABS PUMP MOTOR RELAY CONTROL
ABS PUMP MOTOR SENSE
GROUND
CONTROLLER ANTI-LOCK BRAKE


CONTROLLER ANTI-LOCK BRAKE
LEFT FRONT DECAY SOLENOID CONTROL
LEFT REAR DECAY SOLENOID CONTROL
RIGHT FRONT DECAY SOLENOID CONTROL
RIGHT REAR DECAY SOLENOID CONTROL
42
46
43
48
B142 20 BR/YL
B146 20 BR/LB
B143 20 DG/YL
B148 20 DG/LB
1
3
2
4
LEFT FRONT DECAY SOLENOID CONTROL
LEFT REAR DECAY SOLENOID CONTROL
RIGHT FRONT DECAY SOLENOID CONTROL
RIGHT REAR DECAY SOLENOID CONTROL
ABS HYDRAULIC MODULATOR
6
5
Z1 18 BK
Z1 18 BK
S112
(8W-15-4)
Z1 14 BK
G103
(8W-15-4)


LEFT FRONT WHEEL SPEED SENSOR
LEFT REAR WHEEL SPEED SENSOR
RIGHT FRONT WHEEL SPEED SENSOR
RIGHT REAR WHEEL SPEED SENSOR
1
2
B3 20 LG/DB
B4 20 LG
B1 20 YL/DB
B2 20 YL
B8 20 OR/DB
B9 20 OR
7
8
C121
B6 20 WT/DB
B7 20 WT
5
6
C121
B3 20 LG/DB
B4 20 LG
B1 20 YL/DB
B2 20 YL
8
9
3
4
6
7
1
2
LEFT FRONT WHEEL SPEED SENSOR (-)
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 (+)
RIGHT REAR WHEEL SPEED SENSOR (-)
RIGHT REAR WHEEL SPEED SENSOR (+)
CONTROLLER ANTI-LOCK BRAKE



978W-16

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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 (ABS) system is supplied by three fuses. There is a 10 amp fuse located in the Power Distribution Center (PDC) cavity 10. This fuse supplies power to the Controller Anti Lock Brake (CAB), Powertrain Control Module (PCM) and the fuel pump relay on the F12 circuit. Power for the fuse is supplied on the A21 circuit from the ignition switch. This fuse is HOT when the ignition switch is in the START/RUN position.

The second fuse is located in the PDC cavity 13. It is a 40 amp fuse and used to supply power to the ABS Pump Motor relay on circuit A10. This relay is located in the ABS relay box. The fuse is HOT at all times and powers the contact side of the relay.

The third fuse is also located in the PDC cavity 2. It is a 20 amp fuse and used to power the contact side of the ABS System relay on circuit A20. The fuse is HOT at all times.

There are 3 grounding points used in the ABS system. One is a case ground on the Controller Anti Lock Brake (CAB). The second is on the Z1 circuit from the ABS Hydraulic Modulator and the ABS Relay Box. This ground terminates at the right frame rail.

The third ground is also on the a Z1 circuit from the CAB and terminates at the right frame rail.

Additional information on circuit functions of the ABS system follows. For diagnostic and testing procedures refer to the appropriate group 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 right frame rail.

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 right frame rail. If a problem is detected in the system, the contact side of the relay switches from the Z1 to the A20 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 B120 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 B10 from the relay box 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 controlling the brake system pressure to the wheels. The modulator is composed 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.

DESCRIPTION AND OPERATION (Continued)

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 right frame rail, and are spliced in with the ABS pump motor and the ABS system relay.

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 Brakes (CAB) is done on the following circuits, each of which is 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.

PARK BRAKE SWITCH INPUT

Circuit G9 provides a park brake switch input to the Controller Anti-Lock Brakes (CAB). This circuit connects to cavity 14 of the CAB.

DATA LINK CONNECTOR

Circuit D21 is used for diagnostics of a fault within the ABS system. It is spliced in with the Powertrain Control Module (PCM) circuits, and is 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 10 amp fuse located in cavity 10 of the PDC
- Check the 40 amp fuse located in cavity 13 of the PDC
- Check the 20 amp fuse located in cavity 2 of the PDC
- Check for a good ground at the right frame rail
- Check the case ground on the CAB
- Refer to the appropriate group of the Service Manual, or the Diagnostic Test Procedures Manual.

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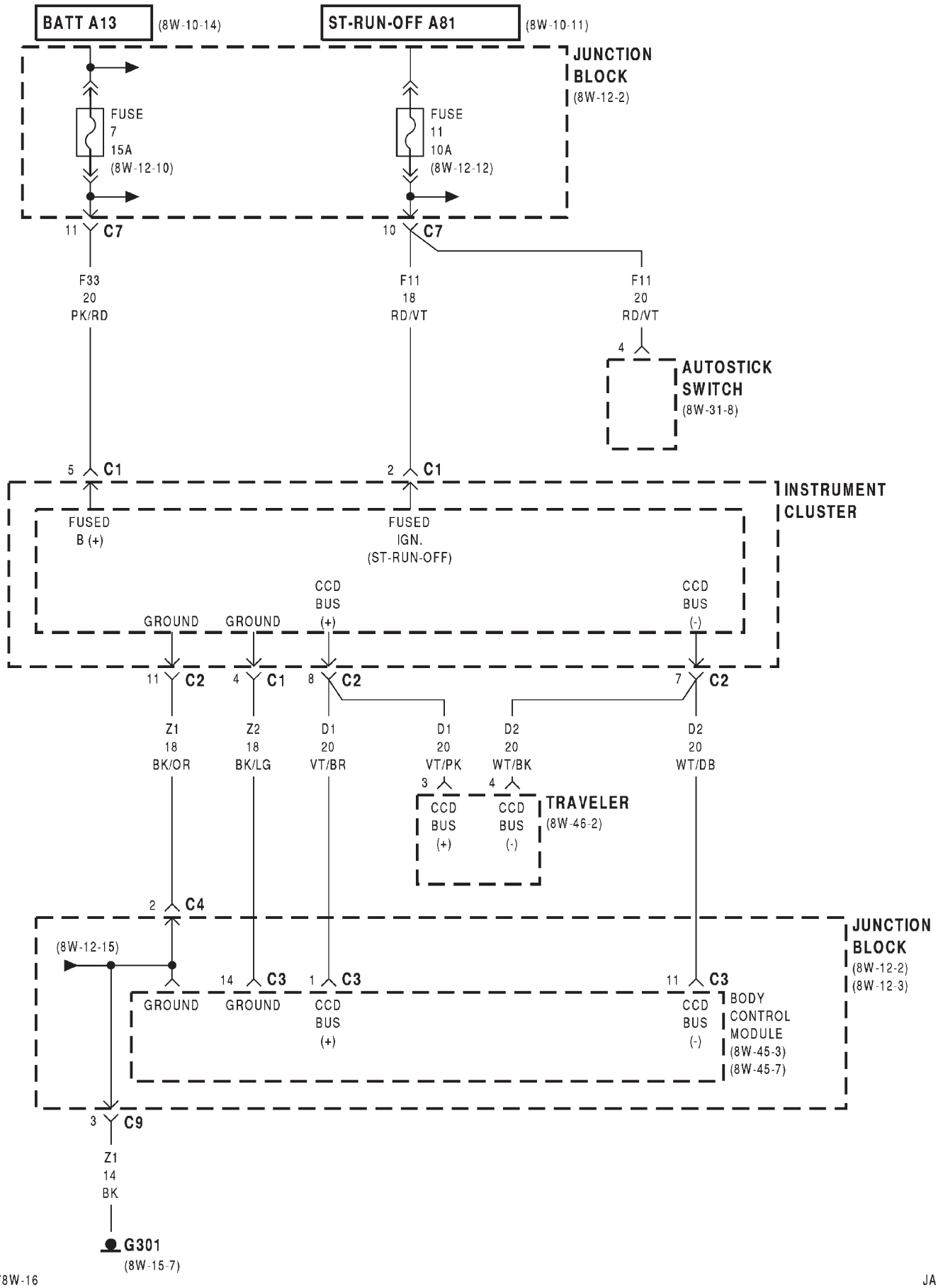
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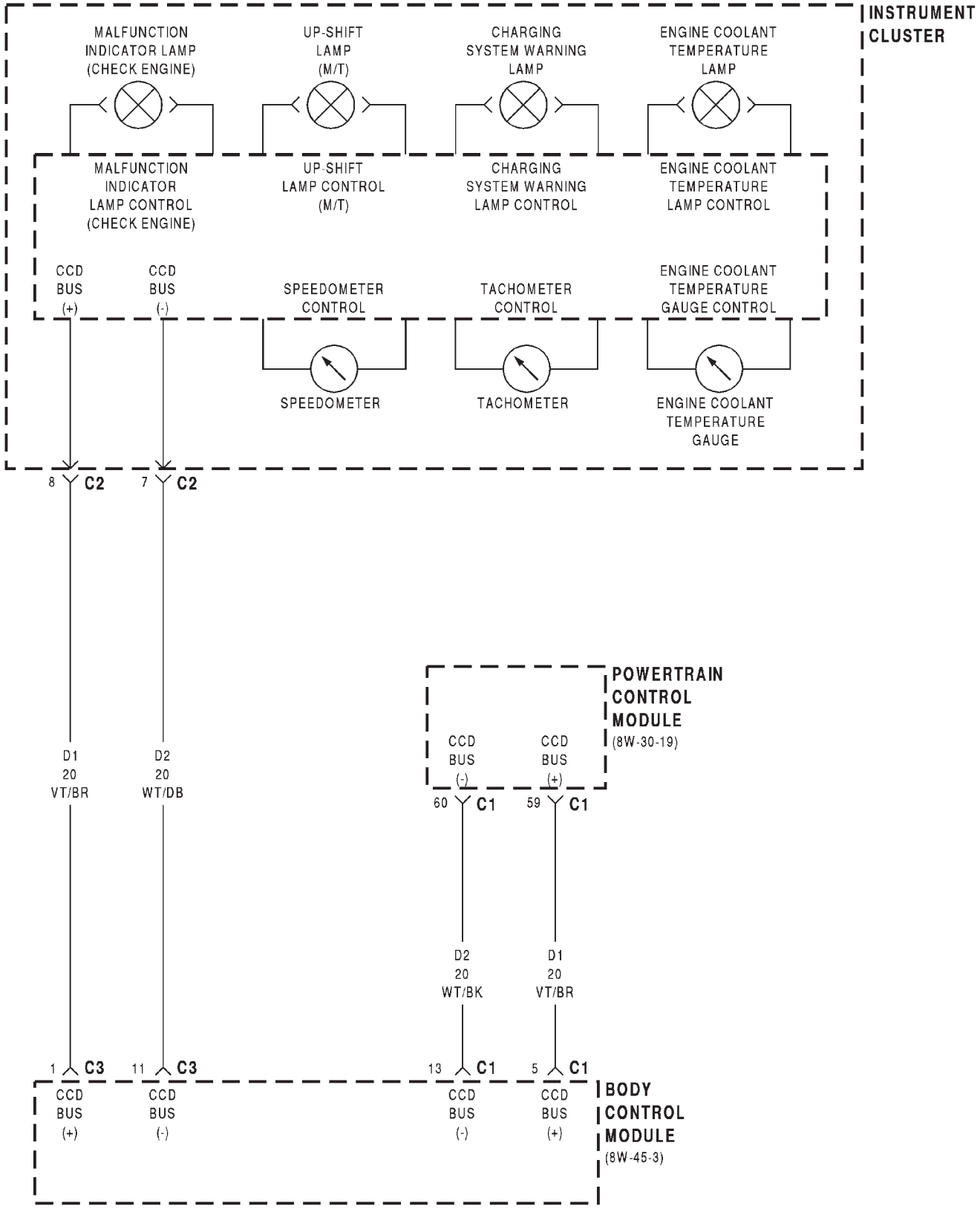
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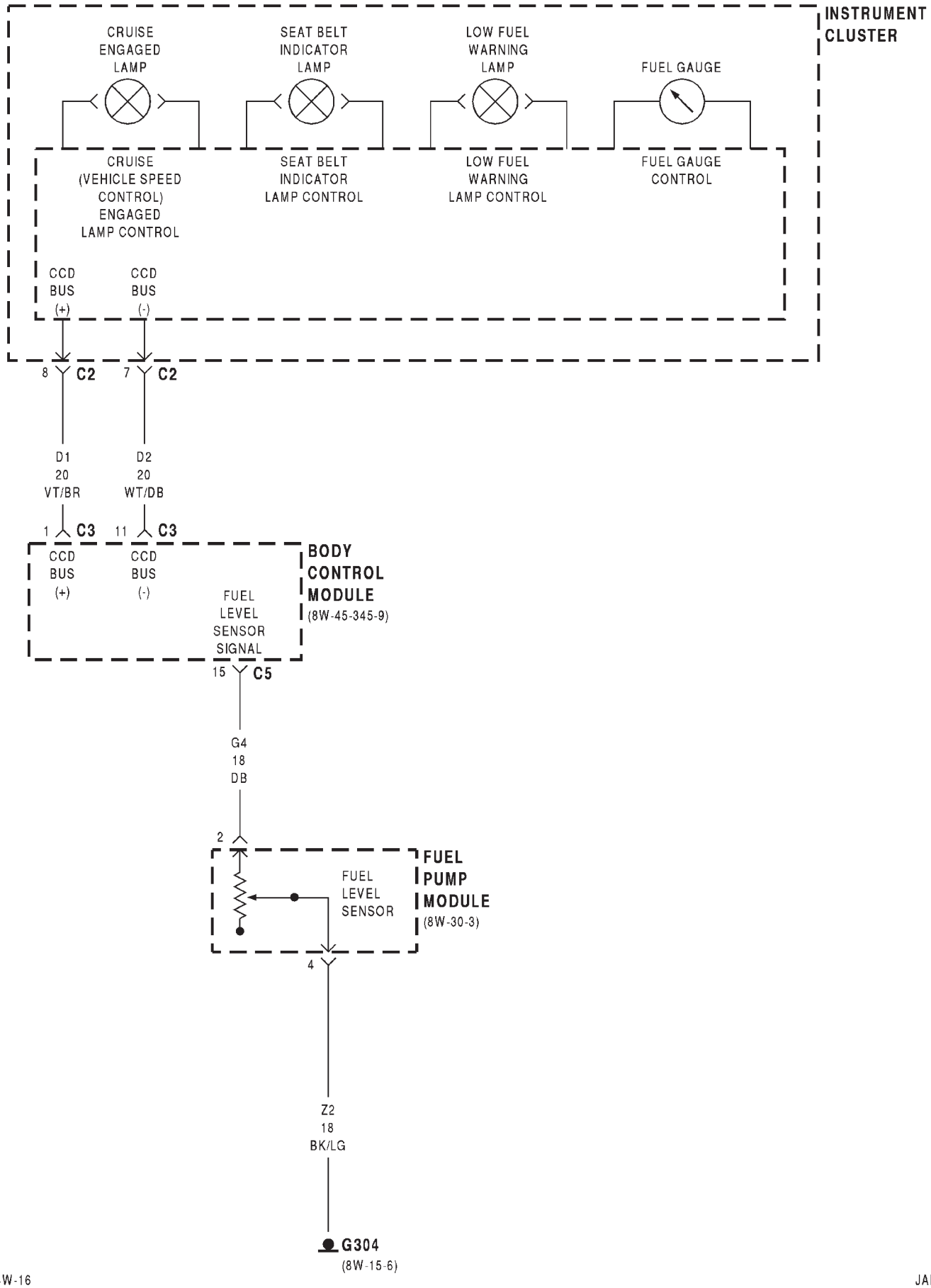
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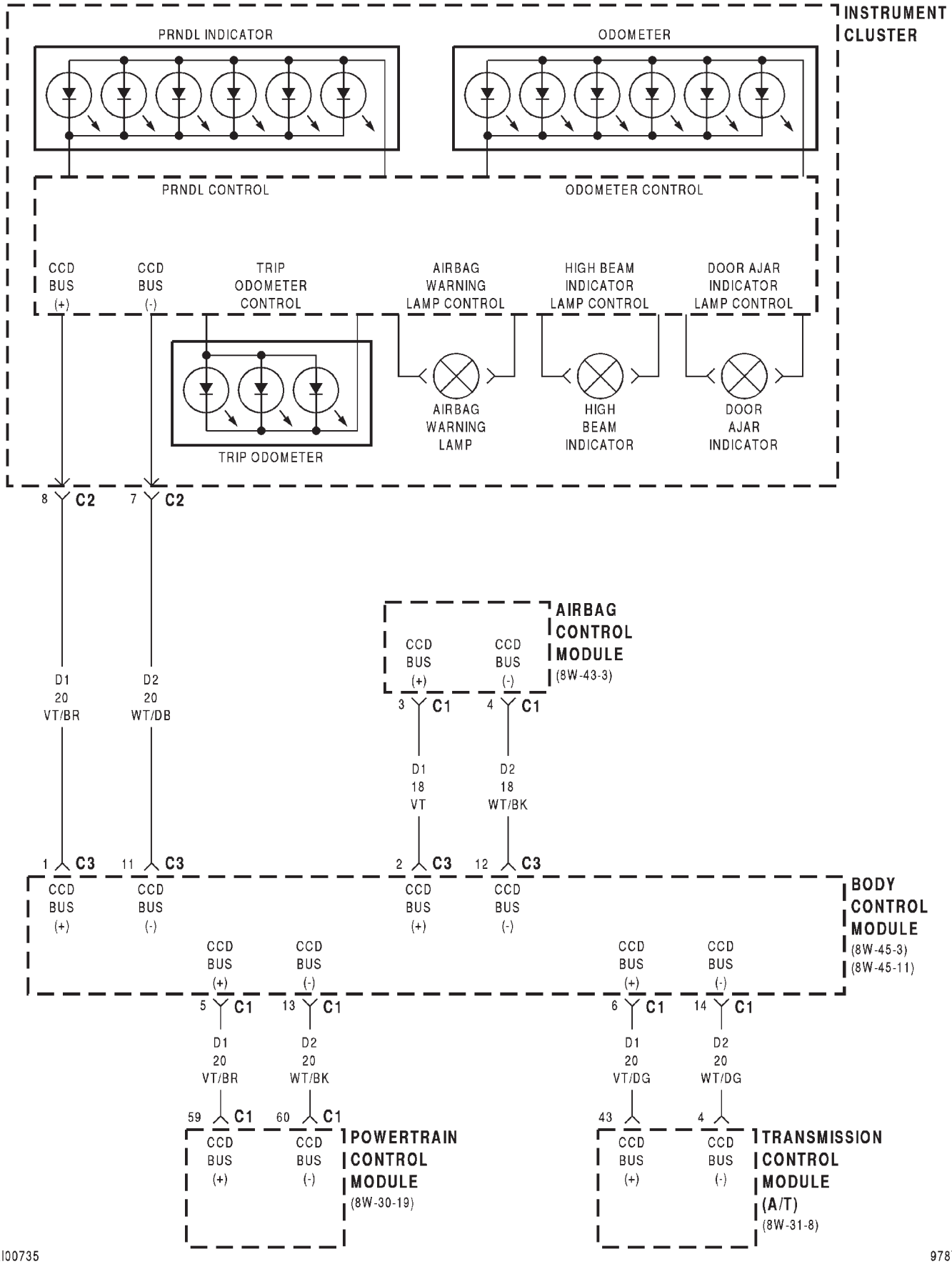
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JUNCTION BLOCK
(8W-12-2)
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(8W-12-10)
FUSE 11 10A
(8W-12-12)
11 C7
10 C7
F33 20 PK/RD
F11 18 RD/VT
F11 20 RD/VT
4
AUTOSTICK SWITCH
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5 C1
2 C1
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FUSED IGN. (ST-RUN-OFF)
GROUND
GROUND
CCD BUS (+)
CCD BUS (-)
11 C2
4 C1
8 C2
7 C2
Z1 18 BK/OR
Z2 18 BK/LG
D1 20 VT/BR
D1 20 VT/PK
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D2 20 WT/DB
3
4
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CCD BUS (-)
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11 C3
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GROUND
CCD BUS (+)
CCD BUS (-)
BODY CONTROL MODULE
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(8W-45-7)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
3 C9
Z1 14 BK
G301
(8W-15-7)

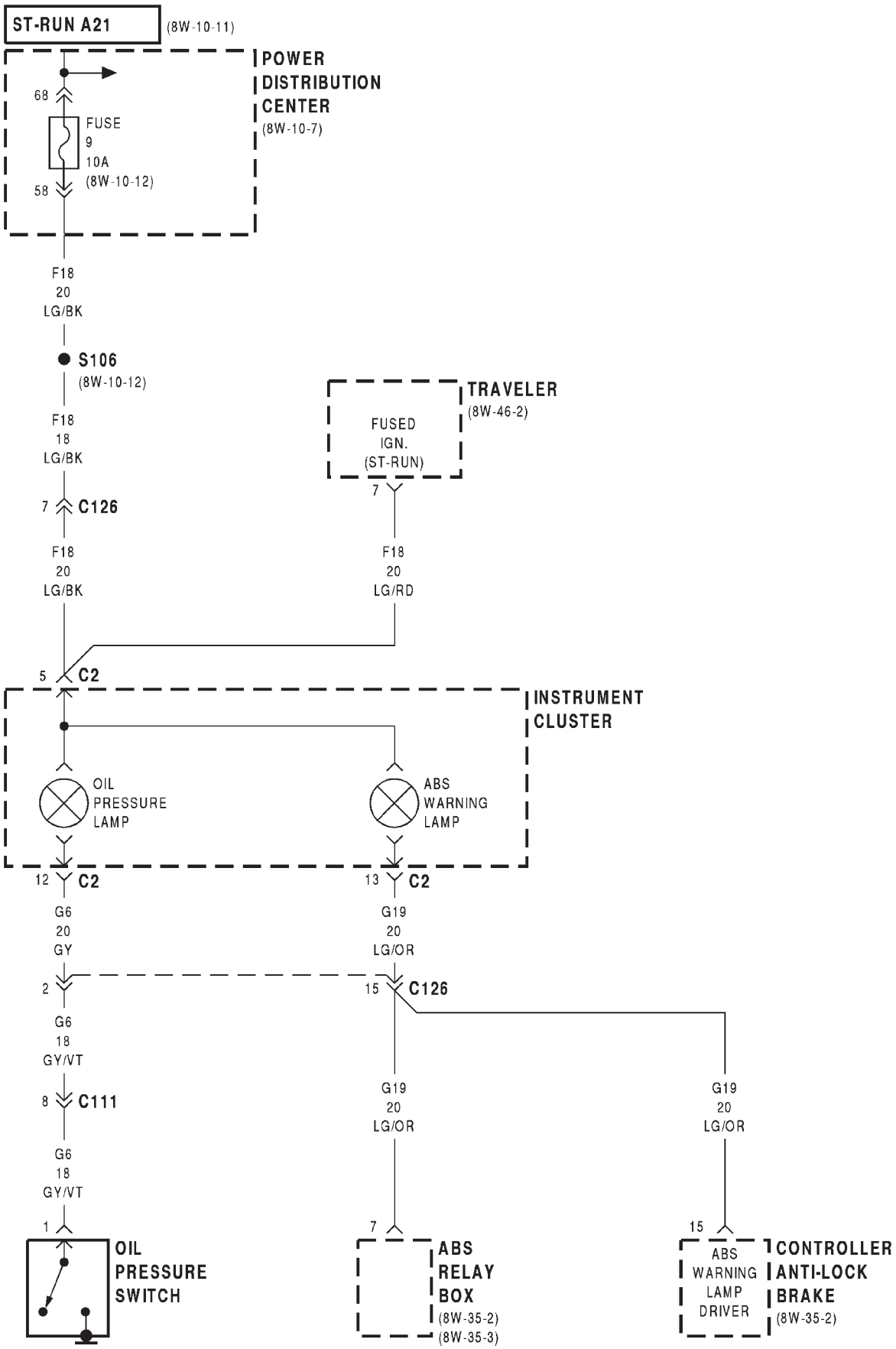

INSTRUMENT CLUSTER
MALFUNCTION INDICATOR LAMP (CHECK ENGINE)
UP-SHIFT LAMP (M/T)
CHARGING SYSTEM WARNING LAMP
ENGINE COOLANT TEMPERATURE LAMP
MALFUNCTION INDICATOR LAMP CONTROL (CHECK ENGINE)
UP-SHIFT LAMP CONTROL (M/T)
CHARGING SYSTEM WARNING LAMP CONTROL
ENGINE COOLANT TEMPERATURE LAMP CONTROL
CCD BUS (+)
CCD BUS (-)
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TACHOMETER CONTROL
ENGINE COOLANT TEMPERATURE GAUGE CONTROL
SPEEDOMETER
TACHOMETER
ENGINE COOLANT TEMPERATURE GAUGE
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7 C2
D1 20 VT/BR
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13 C1
5 C1
CCD BUS (+)
CCD BUS (-)
CCD BUS (-)
CCD BUS (+)
BODY CONTROL MODULE
(8W-45-3)

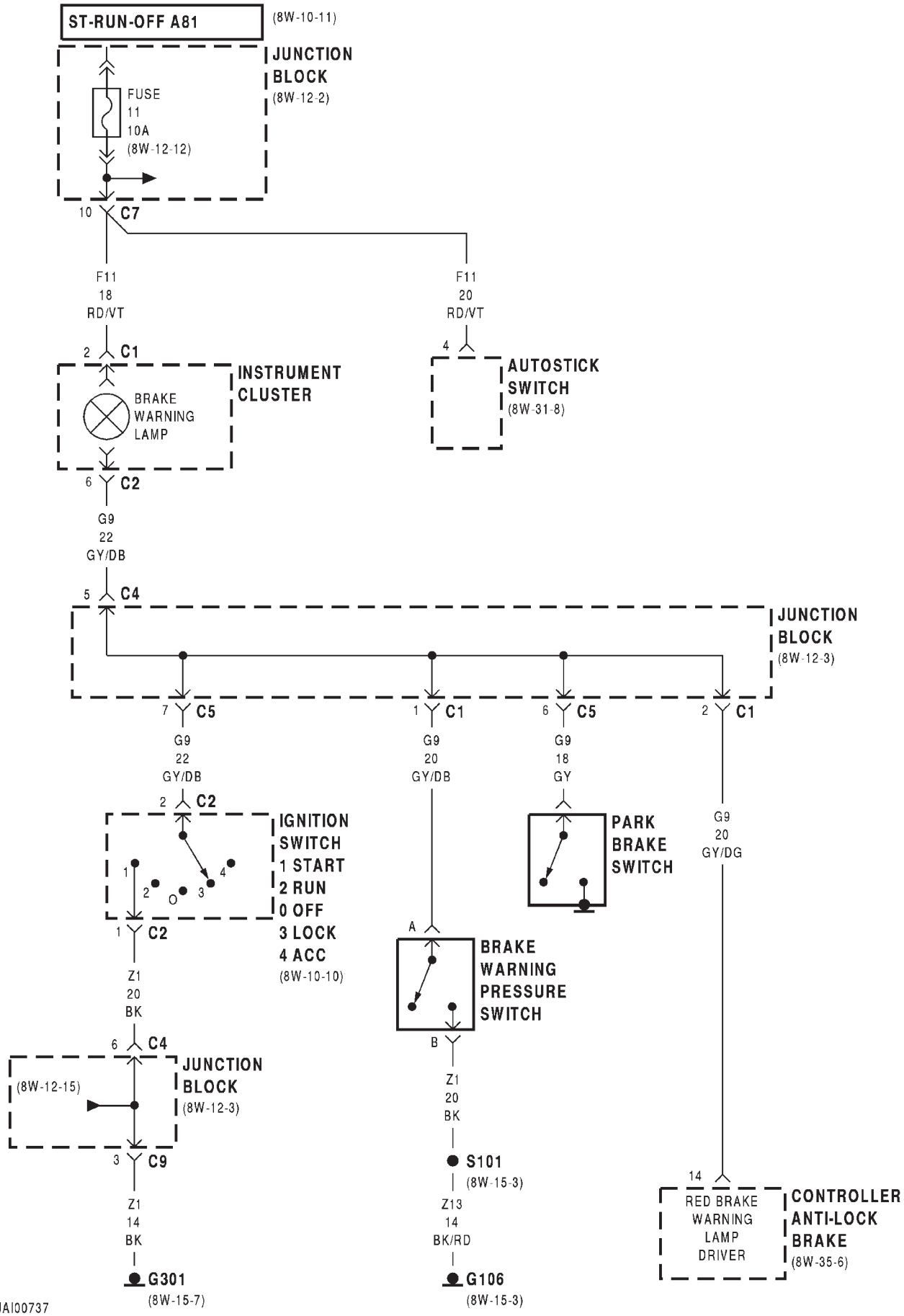

INSTRUMENT CLUSTER
CRUISE ENGAGED LAMP
SEAT BELT INDICATOR LAMP
LOW FUEL WARNING LAMP
FUEL GAUGE
CRUISE (VEHICLE SPEED CONTROL) ENGAGED LAMP CONTROL
SEAT BELT INDICATOR LAMP CONTROL
LOW FUEL WARNING LAMP CONTROL
FUEL GAUGE CONTROL
CCD BUS (+)
CCD BUS (-)
8 C2
7 C2
D1 20 VT/BR
D2 20 WT/DB
1 C3
11 C3
CCD BUS (+)
CCD BUS (-)
FUEL LEVEL SENSOR SIGNAL
BODY CONTROL MODULE
(8W-45-345-9)
15 C5
G4 18 DB
2
FUEL LEVEL SENSOR
FUEL PUMP MODULE
(8W-30-3)
4
Z2 18 BK/LG
G304
(8W-15-6)



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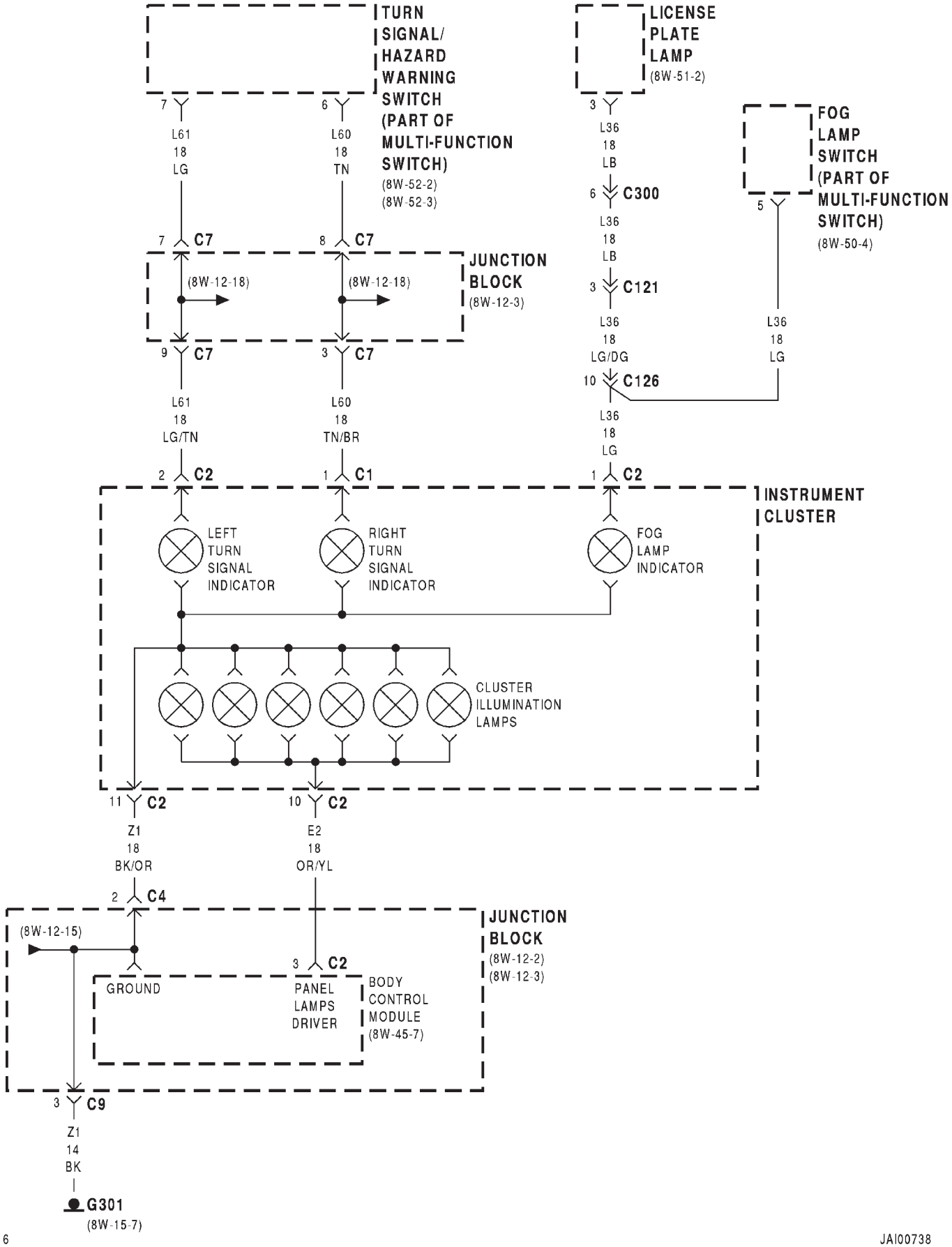
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(8W-10-7)
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FUSE 9 10A
(8W-10-12)
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F18 20 LG/BK
S106
(8W-10-12)
F18 18 LG/BK
7 C126
F18 20 LG/BK
TRAVELER
(8W-46-2)
FUSED IGN. (ST-RUN)
7
F18 20 LG/RD
5 C2
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ABS WARNING LAMP
12 C2
13 C2
G6 20 GY
G19 20 LG/OR
2
15 C126
G6 18 GY/VT
8 C111
G6 18 GY/VT
G19 20 LG/OR
G19 20 LG/OR
1
7
15
OIL PRESSURE SWITCH
ABS RELAY BOX
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(8W-35-3)
ABS WARNING LAMP DRIVER
CONTROLLER ANTI-LOCK BRAKE
(8W-35-2)



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(8W-52-3)
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(8W-51-2)
FOG LAMP SWITCH (PART OF MULTI-FUNCTION SWITCH)
(8W-50-4)
7 L61 18 LG
6 L60 18 TN
3 L36 18 LB
6 C300
L36 18 LB
3 C121
L36 18 LG/DG
10 C126
5
L36 18 LG
7 C7
8 C7
(8W-12-18)
(8W-12-18)
JUNCTION BLOCK
(8W-12-3)
9 C7
3 C7
L61 18 LG/TN
L60 18 TN/BR
2 C2
1 C1
1 C2
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LEFT TURN SIGNAL INDICATOR
RIGHT TURN SIGNAL INDICATOR
FOG LAMP INDICATOR
CLUSTER ILLUMINATION LAMPS
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10 C2
Z1 18 BK/OR
E2 18 OR/YL
2 C4
(8W-12-15)
3 C2
GROUND
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BODY CONTROL MODULE
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Z1 14 BK
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8W-40 INSTRUMENT CLUSTER

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DESCRIPTION AND OPERATION

INSTRUMENT CLUSTER

The Instrument Cluster, located on the left side of the instrument panel, provides the operator with gauges and warning lamps indicating vehicle operation. All gauges, regardless of engine type, are driven by the CCD Bus from the Body Control Module (BCM).

The indicator lamps for the Seat Belt, Charging System, Vehicle Speed Control (Cruise), Airbag, Check Engine (Malfunction Indicator Lamp), Low Fuel, High Beam, and Engine Coolant Temperature are also driven by the BCM.

Battery voltage for the instrument cluster is provided from two different sources. One is the F33 circuit which supplies battery voltage for the cluster. This circuit is protected by 20 amp fuse and located in cavity 7 of the junction block. Power for the fuse is supplied by circuit A13. This fuse is HOT at all times and protected by a 40 amp fuse located in cavity 14 of the Power Distribution Center (PDC). Circuit A13 also supplies power to the fuses for the horns, and the cigar lighter.

The second power source for the cluster is the F11 circuit. This circuit is HOT in the OFF, START, and RUN positions. The F11 circuit is protected by a 10 amp fuse located in cavity 11 of the junction block.

Illumination lamps, internal to the cluster, receive battery voltage on the E2 circuit. This circuit originates in the BCM and lamp intensity is controlled by the BCM. Ground for the lamps is provided on the Z1 circuit and terminates at the instrument panel left side cowl.

CCD BUS

The CCD Bus is used to supply all of the communications between the Body Control Module (BCM) and the instrument cluster. The bus wires are a twisted pair. There are two different circuits used for the bus.

The positive side of the bus wire is accomplished on the D1 circuit, and the negative is on the D2 circuit.

SPEEDOMETER

The speedometer receives its information across the CCD Bus from the Body Control Module (BCM). Information on vehicle speed is transmitted from the Powertrain Control Module (PCM) across the CCD Bus to the BCM.

The PCM receives its information on vehicle speed on the G7 circuit from the Transmission Control Module (TCM) on automatic transmission vehicles.

On vehicles equipped with the manual transmission the vehicle speed is sent to the PCM on the G7 circuit from the Vehicle Speed Sensor (VSS), which is mounted in the transmission. For additional information on VSS operation refer to section 8W-30.

The BCM calculates the position of the speedometer pointer based on the input from the PCM and adjusts the position of the gauge pointer as necessary. This signal is sent over the CCD Bus to the instrument cluster.

TACHOMETER

The tachometer receives its information across the CCD Bus from the Body Control Module (BCM). Information on engine RPM is transmitted from the

DESCRIPTION AND OPERATION (Continued)

Powertrain Control Module (PCM) across the CCD Bus to the BCM. The BCM calculates the position of the tachometer pointer based on the input from the PCM and adjusts the position of the gauge pointer to the necessary position. This signal is sent over the CCD Bus to the instrument cluster.

ENGINE COOLANT TEMPERATURE GAUGE

The engine coolant temperature gauge receives its information across the CCD Bus from the Body Control Module (BCM). The engine coolant temperature sensor uses a variable resistor to send a signal to the Powertrain Control Module (PCM) indicating coolant temperature. The PCM then sends this information to the BCM across the CCD Bus.

The BCM calculates the position of the engine coolant temperature gauge and based on the information received from the PCM it adjusts the position of the gauge pointer. This signal is sent over the CCD Bus to the instrument cluster.

FUEL GAUGE

The Body Control Module (BCM) calculates the pointer position of the fuel gauge based on the input of the fuel tank gauge level sending unit relative to fuel tank ground. The G4 circuit sends the signal to the BCM.

The fuel pump module, located in the fuel tank, contains the fuel pump and the variable resistor for the fuel gauge. Ground for the resistor is located at the left kick panel. As the position of the float arm changes, the resistor changes the current flow through the G4 circuit. The change in current flow is then measured by the BCM and the fuel gauge pointer position is adjusted to reflect the fuel tank level. The signal is sent over the CCD Bus to the instrument cluster.

PRNDL (Electronic)

On vehicles equipped with an automatic transmission an electronic PRNDL is used to indicate to the operator gearshift position.

When the ignition switch is in the OFF (unlock), RUN, or START position the Body Control Module (BCM) transmits a message over the CCD Bus instructing the instrument cluster to illuminate the proper display.

The BCM receives its information over the CCD Bus from the Transmission Control Module (TCM). When the ignition switch is moved to the RUN position, the BCM instructs the instrument cluster to illuminate all segments of the PRNDL as a check.

ODOMETER

The Odometer function of the instrument cluster is controlled by the Body Control Module (BCM). To calculate the proper milage for the vehicle the BCM receives information from the Powertrain Control Module (PCM) and the Transmission Control Module (TCM) (if equipped) over the CCD Bus. It then calculates this information and sends the proper signal over the CCD Bus to the instrument cluster.

TRIP ODOMETER

The trip odometer function of the instrument cluster is controlled by the Body Control Module (BCM). All information is sent across the CCD Bus.

CHECK ENGINE (MALFUNCTION INDICATOR) LAMP

The check engine lamp is used to indicate to the operator a problem in the engine control system. If a problem is detected, the Powertrain Control Module (PCM) sends a message, over the CCD Bus, to the Body Control Module (BCM).

The BCM interprets this message and sends a signal to the instrument cluster to illuminate the lamp. This lamp also is illuminated, for a few seconds, when the ignition switch is moved from the OFF to the RUN position as a bulb check. The bulb check operation is controlled by the PCM.

SEAT BELT INDICATOR

The fasten seat belt indicator is used with the warning chime to tell the operator to fasten the seat belt. The seat belt switch is normally OPEN when the seat belt is buckled.

If the seat belt is not buckled, the switch CLOSES, and a ground path is completed on the G10 circuit to the Z1 circuit. The G10 circuit is connected to the Body Control Module (BCM). When the ground path is complete a signal is sent over the CCD Bus to the instrument cluster. This illuminates the lamp in the instrument cluster.

When the ignition switch is moved to the START position, the lamp is illuminated as a bulb check. Logic internal to the BCM determines the length of time the lamp remains illuminated.

LOW FUEL WARNING LAMP

When the Body Control Module (BCM) detects a low fuel condition based on the fuel level sensor input, it transmits a message across the CCD Bus to the instrument cluster to illuminate the low fuel lamp.

DOOR AJAR INDICATOR LAMP

The door ajar warning lamp is used to alert the operator that a door is ajar. A chime tone is used along with the lamp for an audible warning.

There are four door ajar switches used. All of the switches are case grounded. The switches for the passenger door and the rear doors provide an input to

DESCRIPTION AND OPERATION (Continued)

the Body Control Module (BCM) on the G74 circuit. Circuit G75 is used for the drivers door. When any of the switches are grounded (door ajar), and the vehicle is moving, the Body Control Module (BCM) sends a signal over the CCD Bus to the instrument cluster for lamp illumination.

The driver's door works the same as the other doors, except the switch is also used for the Key-In reminder, and the Headlamp ON chime.

CHARGING SYSTEM WARNING LAMP

The charging system lamp is used to alert the operator that the charging system voltage has risen above or fallen below the normal operating range. When the Powertrain Control Module (PCM) determines a problem, a message is sent across the CCD Bus to the Body Control Module (BCM).

The BCM processes this message and sends a signal on the CCD Bus to the instrument cluster for lamp illumination. This lamp also is illuminated, for a few seconds, when the ignition switch is moved from the OFF to the RUN position as a bulb check.

ENGINE COOLANT TEMPERATURE LAMP

The engine coolant temperature lamp is used to alert the operator that the coolant temperature has risen above the normal operating range. When the Powertrain Control Module (PCM) determines a problem, a message is sent across the CCD Bus to the Body Control Module (BCM).

The PCM receives coolant temperature information from the engine coolant temperature sensor. This sensor uses a variable resistor to send a signal to the PCM indicating engine coolant temperature.

The BCM processes this message and sends a signal on the CCD Bus to the instrument cluster for lamp illumination. This lamp also is illuminated, for a few seconds, when the ignition switch is moved from the OFF to the RUN position as a bulb check.

CRUISE (VEHICLE SPEED CONTROL) ENGAGED LAMP

The CRUISE lamp is used to indicate to the operator when the vehicle speed control is engaged. The signal to illuminate the lamp is carried over the CCD Bus from the Body Control Module (BCM).

The BCM receives information on vehicle speed control engagement from the PCM over the CCD Bus. This lamp also is illuminated, for a few seconds, when the ignition switch is moved from the OFF to the RUN position as a bulb check. The bulb check operation is controlled by the PCM.

AIRBAG WARNING LAMP

Illumination of the Airbag warning lamp is controlled by the Body Control Module (BCM) and the CCD Bus. When the Airbag Control Module (ACM) detects a problem in the system it sends a signal on the CCD Bus to the BCM. The BCM process the signal and illuminates the AIRBAG lamp in the instrument cluster.

OIL PRESSURE LAMP

The low oil pressure lamp is used to alert the operator that engine oil pressure has dropped below a predetermined pressure. The oil pressure switch uses a switch that CLOSES when the pressure is below the predetermined level. The switch is case grounded to the engine block.

Power for the lamp is supplied on the F18 circuit. This circuit also powers the Anti-Lock lamp, located internal to the cluster, high speed fan relay, A/C Clutch relay, and the Powertrain Control Module (PCM). This circuit is protected by a 10 amp fuse located in cavity 9 of the Power Distribution Center (PDC).

The ground side of the lamp is controlled by the G6 circuit. This circuit is connected from the instrument cluster to the engine oil pressure switch.

RIGHT AND LEFT TURN SIGNAL INDICATORS

These lamps are used to indicate to the operator which turn signal is ON. Power for the lamps is supplied from the turn signal switch. The L60 circuit is used for the right turn indicator, and the L61 is used for the left turn indicator.

Ground for the lamps is provided on the Z1 circuit and terminates at the instrument panel left side cowl panel.

BRAKE WARNING LAMP

The brake warning lamp is used to alert the operator of a problem in the vehicles braking system. This lamp also illuminates when the ignition switch is turned to the START position to perform a self check.

Power for the lamp is supplied on circuit F11. This circuit is HOT when the ignition switch is in the OFF, START, and RUN positions. The F11 circuit is protected by a 10 amp fuse located in cavity 11 of the junction block.

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 second switch used is the brake warning lamp switch. This switch in normally OPEN. When the brake system pressure is below the predetermined level the switch CLOSES and completes a path to ground.

DESCRIPTION AND OPERATION (Continued)

The G9 circuit is used to connect the switches to the cluster. Grounding for the brake warning lamp switch is completed on the Z1 circuit which terminates at the left strut tower.

If the vehicle is built for sale in Canada the parking brake switch is used for the Daytime Running Lamp (DRL) system. For further information on the DRL refer to Section 8W-50.

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.

REAR FOG LAMP INDICATOR

On vehicles equipped with optional Fog Lamps, a lamp internal to the cluster is illuminated when the system is turned ON. The lamp is powered by the fog lamp switch on circuit L36. Ground for the lamp is provided on the Z1 circuit and terminates at the instrument panel left side cowl.

For additional information on fog lamp operation refer to section 8W-51.

HIGH BEAM INDICATOR LAMP

Operation of the high beam indicator lamp is controlled by the Body Control Module (BCM). Circuit L4 provides an input to the BCM when the operator has turned ON the high beam headlamps.

When the BCM receives this input in sends a message over the CCD Bus to the instrument cluster requesting lamp illumination.

HELPFUL INFORMATION

- Check the 10 amp fuse located in cavity 9 of the PDC.
- Check the 20 amp fuse located in cavity 7 of the junction block.
- Check the 10 amp fuse located in cavity 11 of the junction block.
- Check for a good ground at the instrument panel left side cowl.
- For additional diagnostic test, refer to the appropriate group of the Service Manual or the Diagnostic Test Procedures Manual.

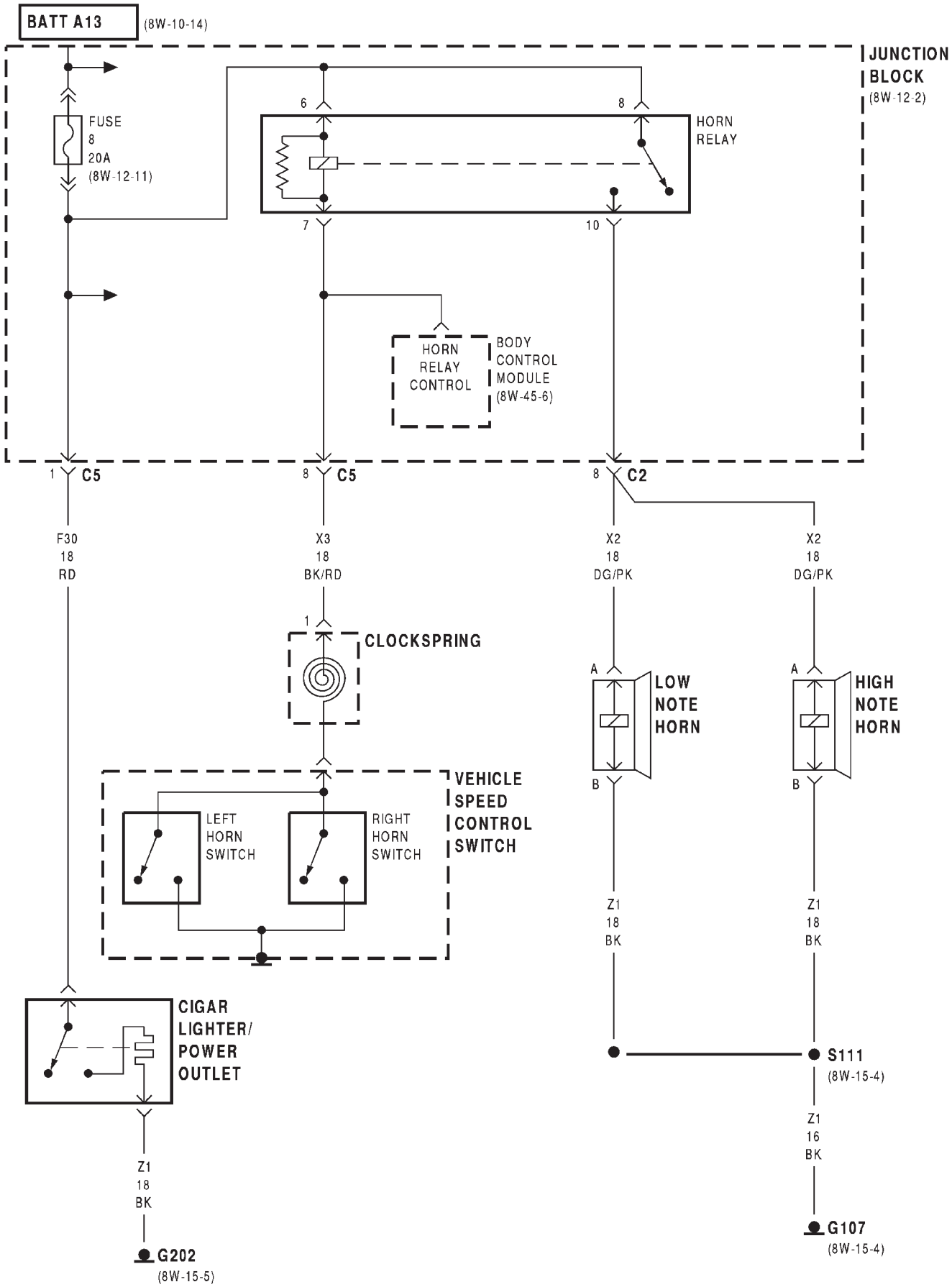
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BATT A13
(8W-10-14)
JUNCTION BLOCK
(8W-12-2)
FUSE 8 20A
(8W-12-11)
6
8
HORN RELAY
7
10
HORN RELAY CONTROL
BODY CONTROL MODULE
(8W-45-6)
1 C5
8 C5
8 C2
F30 18 RD
X3 18 BK/RD
X2 18 DG/PK
X2 18 DG/PK
1
CLOCKSPRING
A
LOW NOTE HORN
B
A
HIGH NOTE HORN
B
VEHICLE SPEED CONTROL SWITCH
LEFT HORN SWITCH
RIGHT HORN SWITCH
Z1 18 BK
Z1 18 BK
CIGAR LIGHTER/ POWER OUTLET
S111
(8W-15-4)
Z1 16 BK
Z1 18 BK
G107
(8W-15-4)
G202
(8W-15-5)

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CIGAR LIGHTER 3
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DESCRIPTION AND OPERATION

HORNS

The horn system is powered by a 20 amp fuse located in cavity 8 of the junction block. The fuse is HOT at all times on circuit F30. This circuit supplies voltage to the coil and to the contact side of the horn relay. Circuit F30 is spliced internal to the junction block and supplies voltage to the cigar lighter/power outlet and the power amplifier.

Power for the fuse is supplied on circuit A13 which originates in the Power Distribution Center (PDC) and is protected by a 40 amp fuse located in cavity 14.

When the operator presses the horn switch, a ground path is completed on the coil side of the horn relay through the switch, on circuit X3. The horn relay, located in the junction block, then CLOSES the relay contacts. Voltage is passed through the CLOSED relay contacts on circuit X2 to the horns. Grounding for the horns is on the Z1 circuit.

On vehicles equipped with Vehicle Theft Security System (VTSS), the X3 circuit is spliced to the Body Control Module (BCM). For operation of the VTSS, refer to section 8W-39.

HELPFUL INFORMATION

- Check the 20 amp fuse in cavity 8 of the junction block
- Check the 40 amp fuse located in cavity 12 of 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 strut tower for the left horn, and at the right frame rail for the right horn

CIGAR LIGHTER

The cigar lighter is powered by a 40 amp fuse located in the Power Distribution Center (PDC). There is also a 20 amp fuse located in cavity 8 of the junction block.

When the operator presses the lighter, the contacts inside of the lighter element CLOSE, and voltage flows through the heating element to ground. Ground for the lighter is provided on the Z1 circuit and terminates at the instrument left side cowl.

HELPFUL INFORMATION

- Check the 40 amp fuse located in cavity 12 of the PDC
- Check the 20 amp fuse located in cavity 8 of the junction block
- Check for a good ground at the instrument panel left side cowl
- Check the cigar lighter element

POWER OUTLET

The power outlet is powered by a 40 amp fuse located in the Power Distribution Center (PDC). There is also a 20 amp fuse located in cavity 8 of the junction block.

Ground for the lighter is provided on the Z1 circuit and terminates at the instrument left side cowl.

HELPFUL INFORMATION

- Check the 40 amp fuse located in cavity 12 of the PDC
- Check the 20 amp fuse located in cavity 8 of the junction block
- Check for a good ground at the instrument panel left side cowl

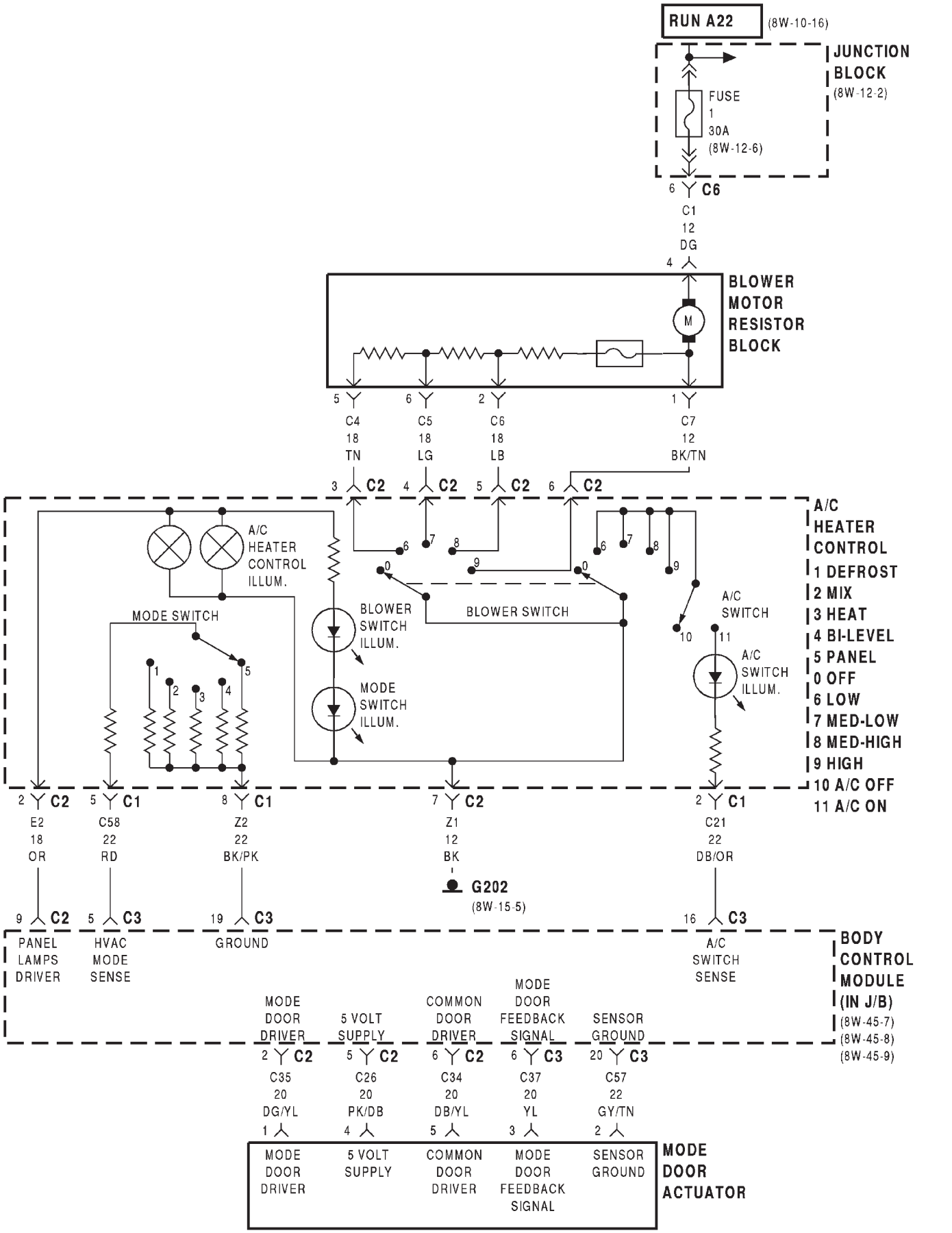
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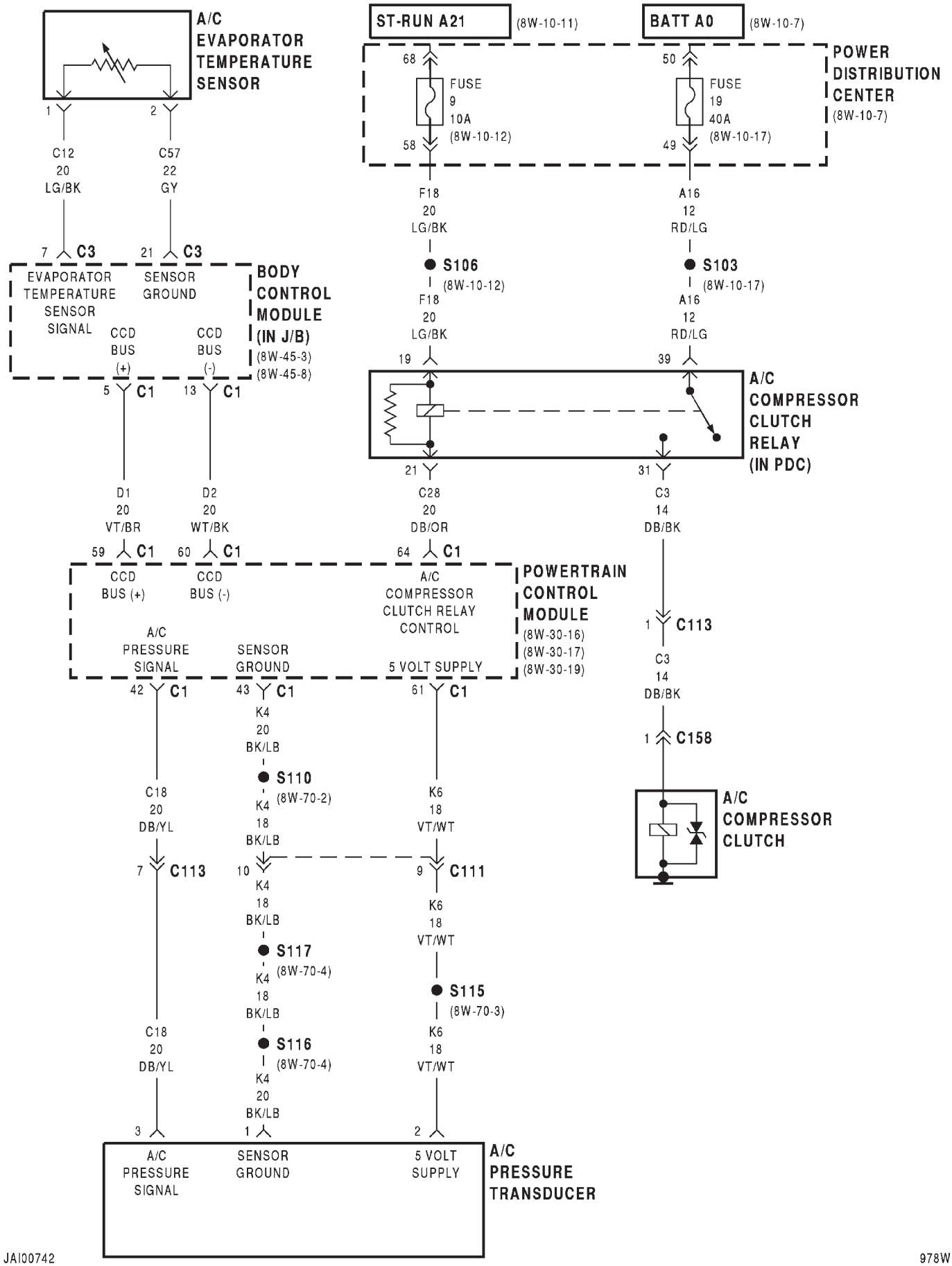
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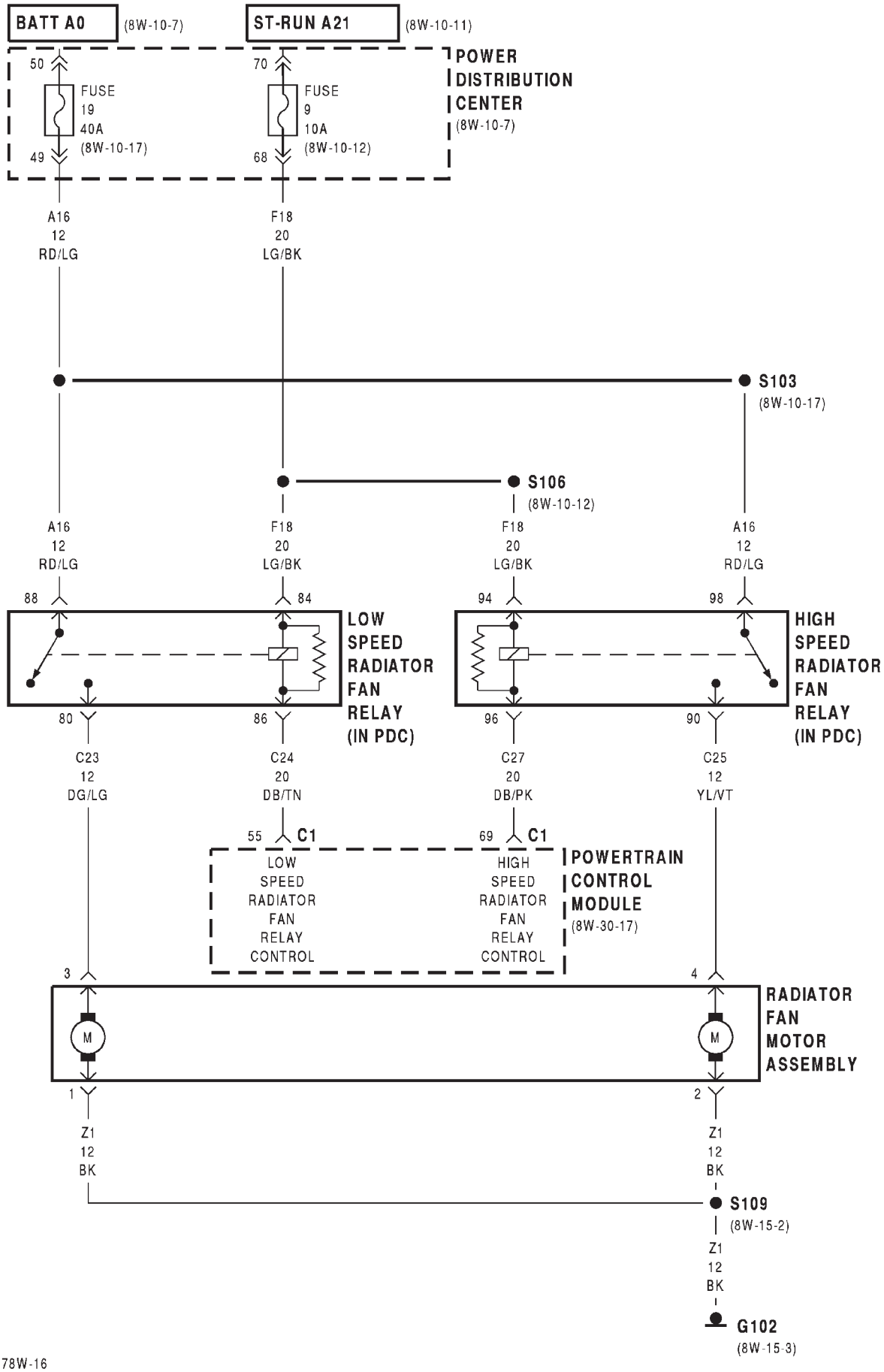
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S106	8W-42-3
S106	8W-42-4
S109	8W-42-4
S110	8W-42-3
S115	8W-42-3
S116	8W-42-3
S117	8W-42-3


RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
FUSE 1 30A
(8W-12-6)
6 C6
C1 12 DG
4
BLOWER MOTOR RESISTOR BLOCK
M
5 C4 18 TN
6 C5 18 LG
2 C6 18 LB
1 C7 12 BK/TN
3 C2
4 C2
5 C2
6 C2
A/C HEATER CONTROL ILLUM.
MODE SWITCH
BLOWER SWITCH ILLUM.
MODE SWITCH ILLUM.
BLOWER SWITCH
A/C SWITCH
A/C SWITCH ILLUM.
A/C HEATER CONTROL
1 DEFROST
2 MIX
3 HEAT
4 BI-LEVEL
5 PANEL
0 OFF
6 LOW
7 MED-LOW
8 MED-HIGH
9 HIGH
10 A/C OFF
11 A/C ON
2 C2 E2 18 OR
5 C1 C58 22 RD
8 C1 Z2 22 BK/PK
7 C2 Z1 12 BK
2 C1 C21 22 DB/OR
G202
(8W-15-5)
9 C2
5 C3
19 C3
16 C3
PANEL LAMPS DRIVER
HVAC MODE SENSE
GROUND
A/C SWITCH SENSE
BODY CONTROL MODULE (IN J/B)
(8W-45-7)
(8W-45-8)
(8W-45-9)
MODE DOOR DRIVER
5 VOLT SUPPLY
COMMON DOOR DRIVER
MODE DOOR FEEDBACK SIGNAL
SENSOR GROUND
2 C2 C35 20 DG/YL
5 C2 C26 20 PK/DB
6 C2 C34 20 DB/YL
6 C3 C37 20 YL
20 C3 C57 22 GY/TN
1
4
5
3
2
MODE DOOR DRIVER
5 VOLT SUPPLY
COMMON DOOR DRIVER
MODE DOOR FEEDBACK SIGNAL
SENSOR GROUND
MODE DOOR ACTUATOR


A/C EVAPORATOR TEMPERATURE SENSOR
1
2
C12
20
LG/BK
C57
22
GY
7 C3
21 C3
EVAPORATOR TEMPERATURE SENSOR SIGNAL
SENSOR GROUND
CCD BUS (+)
CCD BUS (-)
BODY CONTROL MODULE (IN J/B)
(8W-45-3)
(8W-45-8)
5 C1
13 C1
D1
20
VT/BR
D2
20
WT/BK
59 C1
60 C1
CCD BUS (+)
CCD BUS (-)
A/C PRESSURE SIGNAL
SENSOR GROUND
5 VOLT SUPPLY
POWERTRAIN CONTROL MODULE
(8W-30-16)
(8W-30-17)
(8W-30-19)
42 C1
43 C1
61 C1
C18
20
DB/YL
7 C113
K4
20
BK/LB
S110
(8W-70-2)
K4
18
BK/LB
10 C113
K4
18
BK/LB
S117
(8W-70-4)
K4
18
BK/LB
S116
(8W-70-4)
K4
20
BK/LB
3
1
2
A/C PRESSURE SIGNAL
SENSOR GROUND
5 VOLT SUPPLY
A/C PRESSURE TRANSDUCER
K6
18
VT/WT
9 C111
K6
18
VT/WT
S115
(8W-70-3)
K6
18
VT/WT
ST-RUN A21
(8W-10-11)
BATT A0
(8W-10-7)
68
58
FUSE
9
10A
(8W-10-12)
50
49
FUSE
19
40A
(8W-10-17)
POWER DISTRIBUTION CENTER
(8W-10-7)
F18
20
LG/BK
A16
12
RD/LG
S106
(8W-10-12)
S103
(8W-10-17)
F18
20
LG/BK
A16
12
RD/LG
19
39
21
31
A/C COMPRESSOR CLUTCH RELAY (IN PDC)
C28
20
DB/OR
C3
14
DB/BK
64 C1
1 C113
C3
14
DB/BK
1 C158
A/C COMPRESSOR CLUTCH


BATT A0
(8W-10-7)
ST-RUN A21
(8W-10-11)
POWER DISTRIBUTION CENTER
(8W-10-7)
50
FUSE 19 40A
(8W-10-17)
49
70
FUSE 9 10A
(8W-10-12)
68
A16 12 RD/LG
F18 20 LG/BK
S103
(8W-10-17)
S106
(8W-10-12)
A16 12 RD/LG
F18 20 LG/BK
F18 20 LG/BK
A16 12 RD/LG
88
84
94
98
LOW SPEED RADIATOR FAN RELAY (IN PDC)
HIGH SPEED RADIATOR FAN RELAY (IN PDC)
80
86
96
90
C23 12 DG/LG
C24 20 DB/TN
C27 20 DB/PK
C25 12 YL/VT
55
C1
69
C1
LOW SPEED RADIATOR FAN RELAY CONTROL
HIGH SPEED RADIATOR FAN RELAY CONTROL
POWERTRAIN CONTROL MODULE
(8W-30-17)
3
4
M
M
RADIATOR FAN MOTOR ASSEMBLY
1
2
Z1 12 BK
Z1 12 BK
S109
(8W-15-2)
Z1 12 BK
G102
(8W-15-3)

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DESCRIPTION AND OPERATION

A/C-HEATER CONTROL

The air conditioning-heater system is controlled by the Body Control Module (BCM). The BCM sends out voltage to the A/C-Heater control on circuit C58. The control uses resistors to internal to the control. These resistors are connected to the Z2 ground circuit.

When the operator requests a function in the system the BCM measures the voltage drop, on circuit C58, and activates the mode actuator door to the proper position.

A separate A/C switch is used in the system. This switch works the same as the mode actuator switches. When the operator presses the switch the BCM measures the voltage drop in the C21 circuit and activates the proper functions. Internal to the A/C-Heater control the A/C switch is connected to the blower motor switch. This allows the A/C system to only operate when the blower switch in an ON position.

Ground for the A/C switch is provided through the blower motor switch to the Z1 circuit. This circuit terminates at the instrument panel left side cowl. A Light Emitting Diode (LED) is connected in the C21 circuit and illuminates when the A/C system is operating.

Illumination lamps and LED's are internal to the control. These are controlled by the BCM. The E2 circuit from the BCM provides the voltage to the control for lamp and LED illumination. Ground for the lamps and LED's is provided on the Z1 circuit which terminates at the instrument panel left side cowl.

MODE DOOR ACTUATOR (MANUAL A/C)

The mode door actuator is located on the lower left side of the A/C- Heater housing. This actuator controls the position of the panel/bi-level door and the floor/defrost door.

Power for the mode door actuator is provided by the Body Control Module (BCM) on the C26 circuit. This is a 5 volt feed.

Circuit C35 is the mode drive circuit from the BCM to the actuator.

The C37 circuit is the feedback from the actuator to the BCM. The BCM uses this information to adjust the door to the proper position.

Circuit C57 is the sensor return to the BCM. This circuit is spliced with the blend air door actuator.

Circuit C34 is the common line that is spliced, and connects, to the blend air door actuator and the recirculation door actuator.

A/C EVAPORATOR TEMPERATURE SENSOR

The A/C evaporator temperature sensor, located in the A/C-Heater housing, provides the Body Control Module (BCM) with the evaporator temperature to prevent the evaporator from freezing. Power for the sensor is provided from the BCM to the sensor on circuit C12. The ground for the sensor is on circuit C57 to the BCM.

Information on evaporator temperature is sent to the Powertrain Control Module (PCM) across the CCD Bus. The PCM uses this information to control operation of the A/C compressor clutch.

A/C OPERATION

When the A/C switch is CLOSED or the Defrost switch is moved to the ON position, and the evaporator temperature is in the normal limits, the Body Control Module (BCM) sends a signal to the Powertrain Control Module (PCM), over the CCD Bus, requesting A/C operation.

After receiving this input, the PCM activates the A/C compressor by grounding the C28 circuit, which is attached to the coil side of the A/C clutch relay. This relay is located in the Power Distribution Center (PDC). Power for the coil side of the relay is supplied on the F18 circuit. The F18 circuit is protected by a 10 amp fuse located in cavity 19 of the Power Distribution Center (PDC).

When the coil is energized contacts in the relay CLOSE connecting circuits A16 and C3. Circuit A16 is protected by a 40 amp fuse located in cavity 19 of the PDC and also supplies power for the radiator fan

DESCRIPTION AND OPERATION (Continued)

relays. The C3 circuit connects from the relay to the A/C compressor clutch.

The A/C compressor clutch receives this current and creates a magnetic field, energizing the clutch. The A/C compressor clutch is case grounded to the A/C compressor.

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

A/C PRESSURE TRANSDUCER

The A/C pressure transducer is located on the discharge line near the compressor. Circuit C18 connects from the Powertrain Control Module (PCM), cavity 42, to the transducer. The PCM uses information from the transducer to control operation of the radiator fans.

Ground for the transducer is supplied on circuit K4. This circuit connects to cavity 43 of the PCM. The K4 circuit is spliced in with many of the sensors used in the fuel injection system.

RADIATOR FAN OPERATION

The radiator fan system uses two relays located in the Power Distribution Center (PDC). One relay is used for LOW speed fan operation and the other is for HIGH speed operation. The Powertrain Control Module (PCM) controls the operation of the relays depending on engine coolant temperature or A/C operation.

Power for the coil side of both relays is provided on circuit F18. This circuit is protected by a 10 amp fuse located in cavity 9 of the Power Distribution Center (PDC). Power for the contact side of the relays is provided on circuit A16. This circuit is protected by a 40 amp fuse located in cavity 19 of the PDC.

When LOW speed fan operation is required the PCM grounds circuit C24. This causes the contacts in the relay to CLOSE connecting circuits A16 and C23. Circuit C23 connects from the relay to the low speed fan motor. Ground for the motor is provided on circuit Z1, which terminates at the left strut tower.

When HIGH speed fan operation is required the PCM grounds circuit C27. This causes the contacts in the relay to CLOSE connecting circuits A16 and C25. Circuit C25 connects from the relay to the high speed fan motor. Ground for the motor is provided on circuit Z1, which terminates at the left strut tower.

BLOWER MOTOR OPERATION

With the ignition switch is in the RUN position, power flows from the 30 amp fuse located in the junction block, cavity 1, to the blower motor. Blower motor speed is controlled by the fan control switch located in the A/C—Heater control head, and by 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 flows from the C1 circuit to the blower motor resistor. Internal to the resistor circuit C1 changes to C73. Power flows from the resistor, on circuit C73, through the blower motor back to the resistor. Voltage is passed through the resistor to circuit C4. Circuit C4 connects from the resistor block to the fan control switch. Ground flows through the switch to the Z1 circuit. The Z1 circuit terminates at a grounding point located at the instrument panel left side cowl.

The operation of blower motor M1 and M2 speed operations is the same as the LOW speed except that circuit C5 is used for the M1 speed, and circuit C6 is used for the M2 speed operation.

Blower motor HIGH speed operation is accomplished on the C7 circuit. There are no resistors used in the HIGH speed mode.

HELPFUL INFORMATION

Check the 10 amp fuse located in cavity 9 of the junction block.

Check the 40 amp fuse located in cavity 19 of the PDC.

Check the 30 amp fuse located in cavity 1 of the junction block.

Check for a good ground at the instrument panel left side cowl.

Check for a good ground at the left strut tower.

Check the A/C refrigerant level. The system will not operate with a low level of refrigerant.

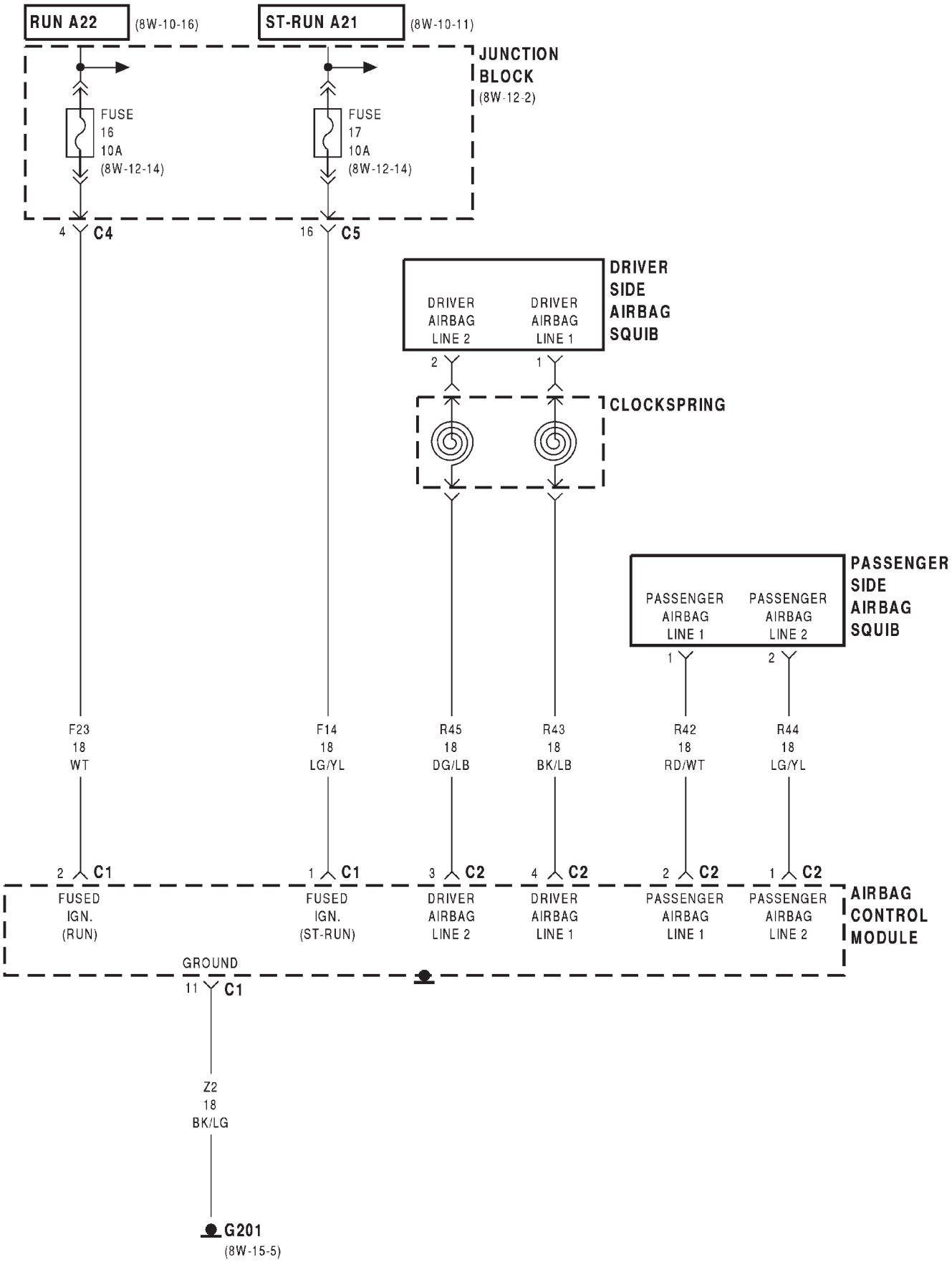
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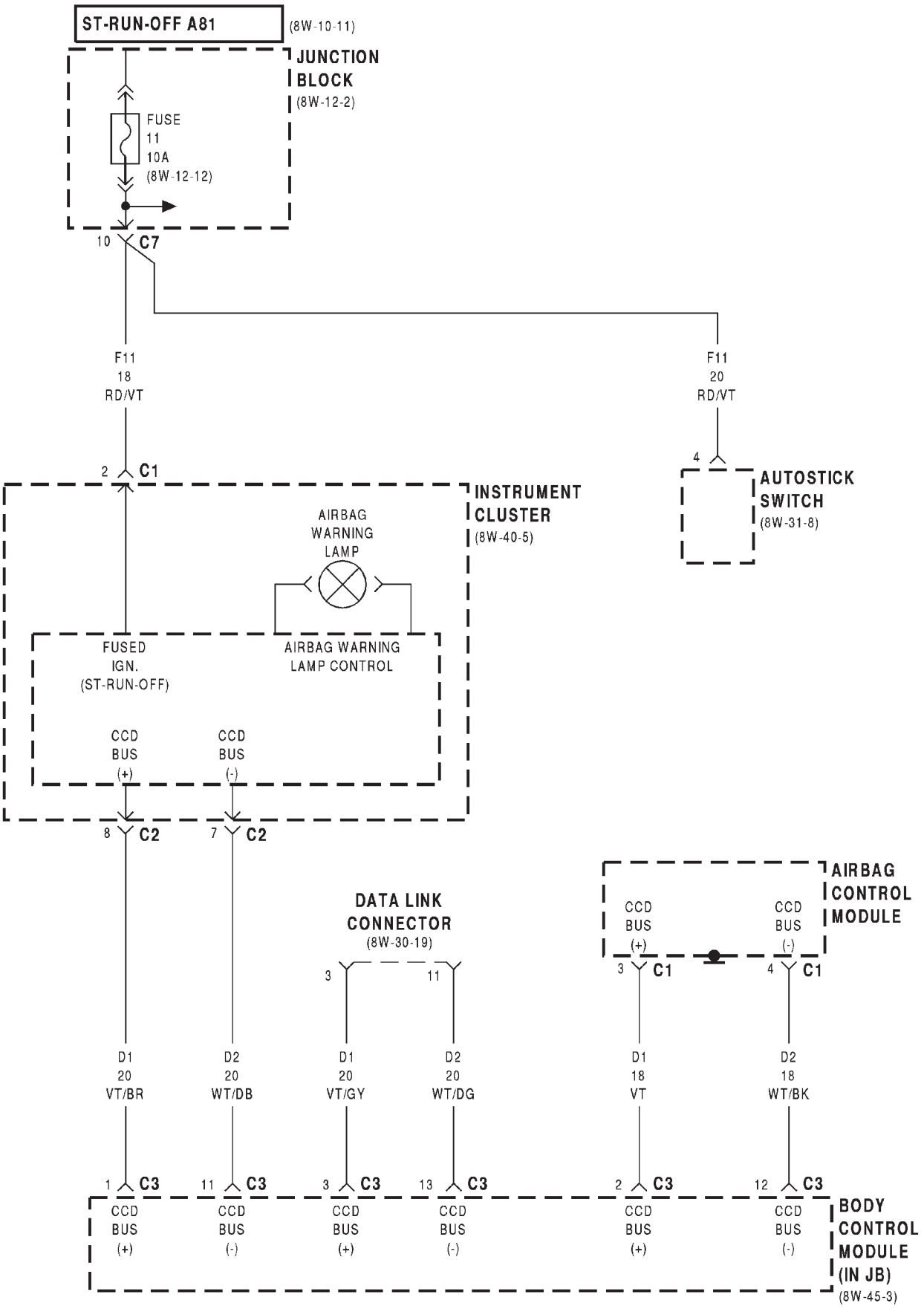
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RUN A22
(8W-10-16)
ST-RUN A21
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
FUSE 16 10A
(8W-12-14)
FUSE 17 10A
(8W-12-14)
4 C4
16 C5
DRIVER SIDE AIRBAG SQUIB
DRIVER AIRBAG LINE 2
DRIVER AIRBAG LINE 1
2
1
CLOCKSPRING
PASSENGER SIDE AIRBAG SQUIB
PASSENGER AIRBAG LINE 1
PASSENGER AIRBAG LINE 2
1
2
F23 18 WT
F14 18 LG/YL
R45 18 DG/LB
R43 18 BK/LB
R42 18 RD/WT
R44 18 LG/YL
2 C1
1 C1
3 C2
4 C2
2 C2
1 C2
FUSED IGN. (RUN)
FUSED IGN. (ST-RUN)
DRIVER AIRBAG LINE 2
DRIVER AIRBAG LINE 1
PASSENGER AIRBAG LINE 1
PASSENGER AIRBAG LINE 2
AIRBAG CONTROL MODULE
GROUND
11 C1
Z2 18 BK/LG
G201
(8W-15-5)


ST-RUN-OFF A81
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
FUSE
11
10A
(8W-12-12)
10
C7
F11
18
RD/VT
F11
20
RD/VT
2
C1
4
AUTOSTICK SWITCH
(8W-31-8)
INSTRUMENT CLUSTER
(8W-40-5)
AIRBAG WARNING LAMP
FUSED IGN. (ST-RUN-OFF)
AIRBAG WARNING LAMP CONTROL
CCD BUS (+)
CCD BUS (-)
8
C2
7
C2
DATA LINK CONNECTOR
(8W-30-19)
3
11
AIRBAG CONTROL MODULE
CCD BUS (+)
CCD BUS (-)
3
C1
4
C1
D1
20
VT/BR
D2
20
WT/DB
D1
20
VT/GY
D2
20
WT/DG
D1
18
VT
D2
18
WT/BK
1
C3
11
C3
3
C3
13
C3
2
C3
12
C3
CCD BUS (+)
CCD BUS (-)
CCD BUS (+)
CCD BUS (-)
CCD BUS (+)
CCD BUS (-)
BODY CONTROL MODULE (IN JB)
(8W-45-3)

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DESCRIPTION AND OPERATION

AIRBAG CONTROL MODULE (ACM)

Two different circuits supply battery voltage from the junction block to the Airbag Control Module (ACM), they are F14 and F23. The F14 and F23 circuits are connected to separate bus bars internal to the junction block. Different circuits from the Power Distribution Center (PDC) and the ignition switch supply battery voltage to the junction block bus bars.

The F23 circuit supplies battery voltage to the ACM only when the ignition switch is in the RUN position. The F14 circuit powers the ACM when the ignition switch is in either the START or RUN position.

A bus bar internal to the ignition switch connects the A1 circuit from the Power Distribution Center (PDC) to the A21 circuit when the switch is in either the START or RUN position. The A21 circuit supplies battery voltage to the junction block bus bar that feeds the F14 circuit. A 20 amp fuse in the PDC, cavity 8, protects the A1 and A21 circuits. A 10 amp fuse in cavity 17 of the unction block protects the F14 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 junction block bus bar that feeds the F23 circuit. A 40 amp fuse in cavity 16 of the PDC protects the A2 and A22 circuits. A 10 amp fuse in cavity 16 of the junction block protects the F23 circuit.

The ACM has a case ground and an external dedicated ground, circuit Z2. The dedicated ground connects to the floor pan near the ACM.

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)

DRIVER'S SIDE AIRBAG

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

PASSENGER'S SIDE AIRBAG

Two circuits, R42 and R44, connect the Airbag Control Module (ACM) to the passenger's side Airbag squib (igniter). Circuit R42 from cavity 2 of the ACM 4-way connector connects to the squib. Circuit R44 from cavity 1 of the ACM 4-way connector connects to the squib. R42 and R44 are a twisted pair of wires.

AIRBAG WARNING LAMP

Illumination of the Airbag warning lamp is controlled by the Body Control Module (BCM) and the CCD Bus. When the Airbag Control Module (ACM) detects a problem in the system it sends a signal on the CCD Bus to the BCM. The BCM process the signal and illuminates the AIRBAG lamp in the instrument cluster.

HELPFUL INFORMATION

- Check for blown fuses in the circuits that connect to the ignition switch and in those that connect to the ACM
- While the bus bars in the junction 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 floor pan near the ACM

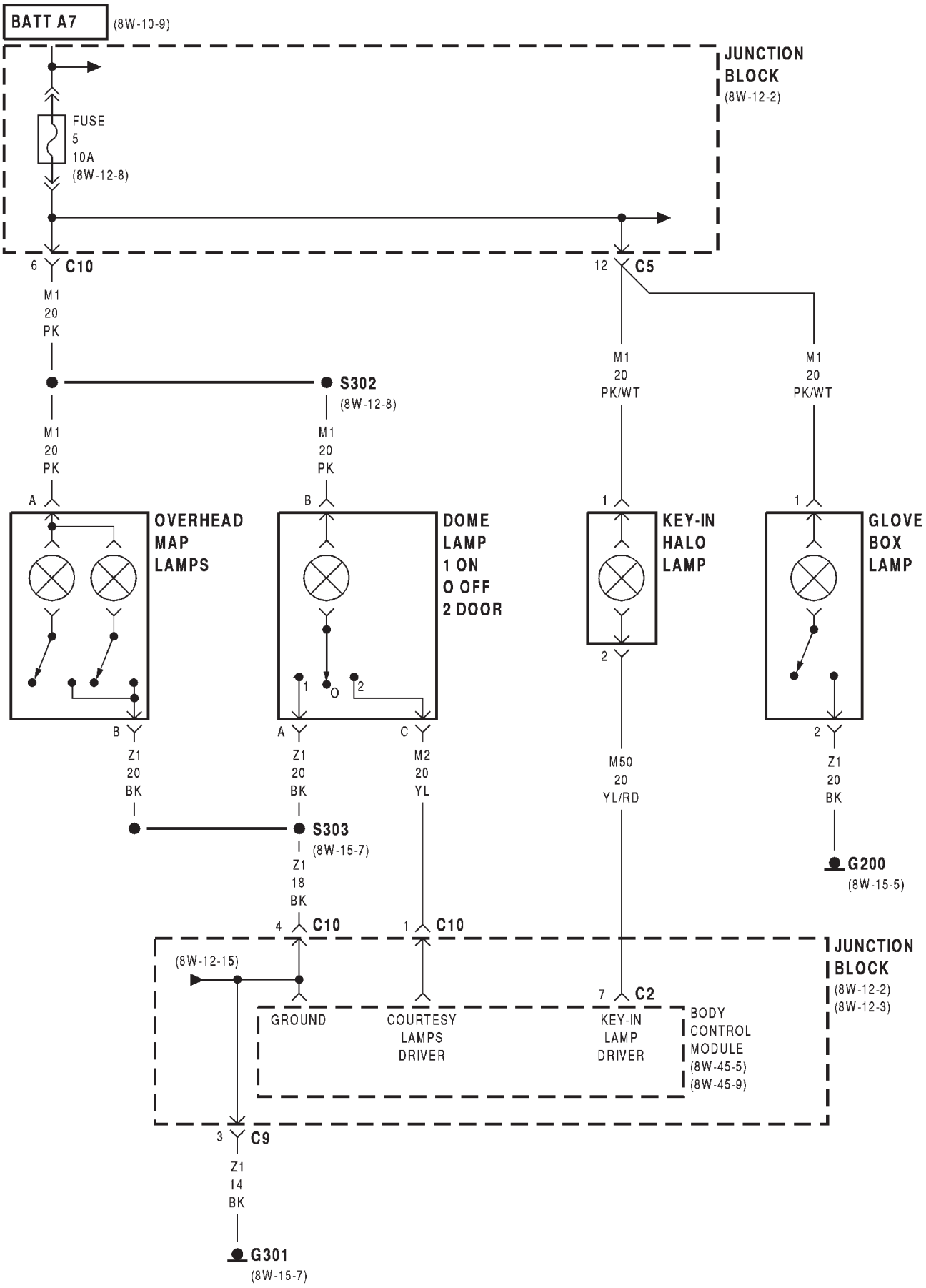
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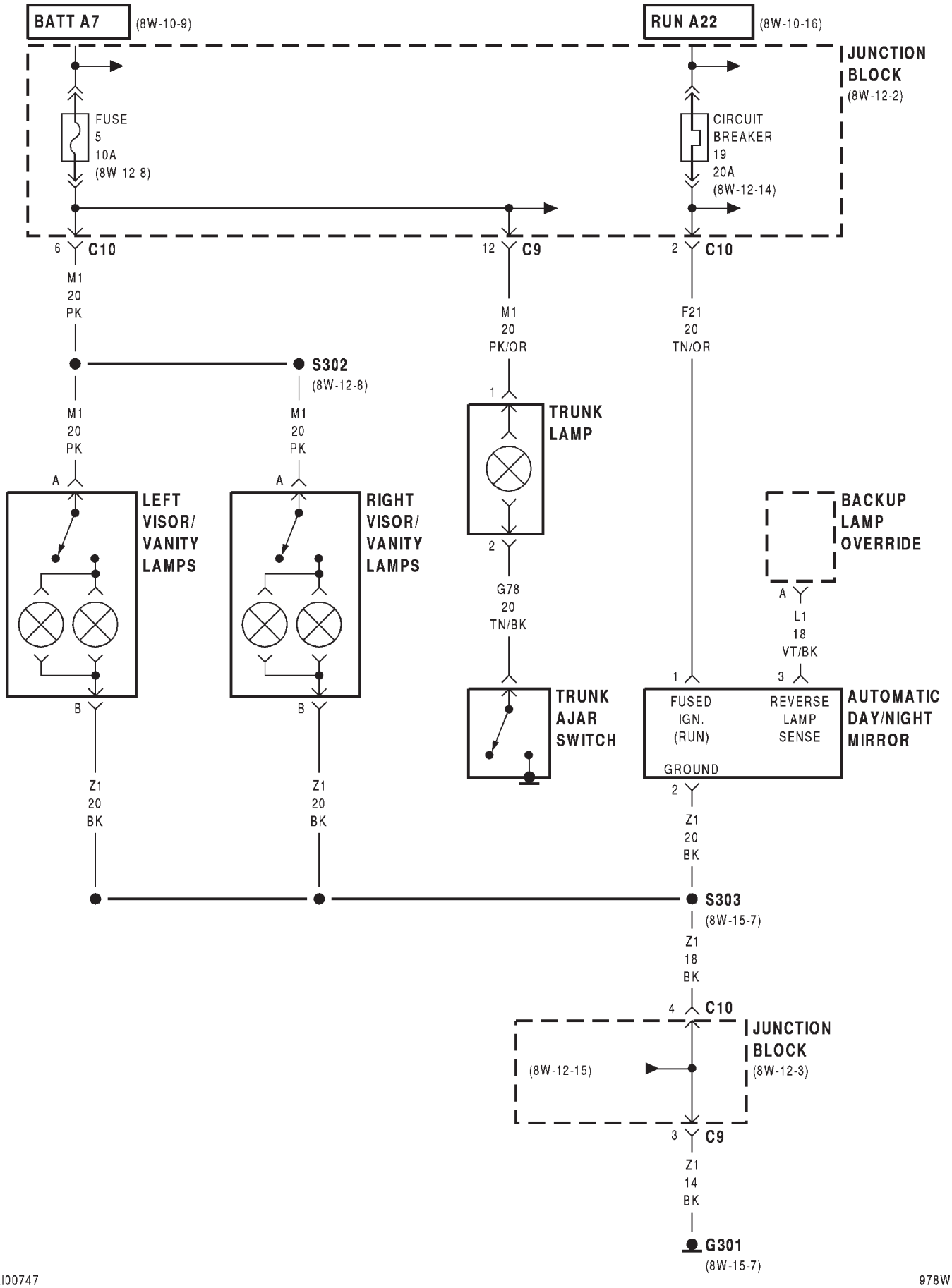
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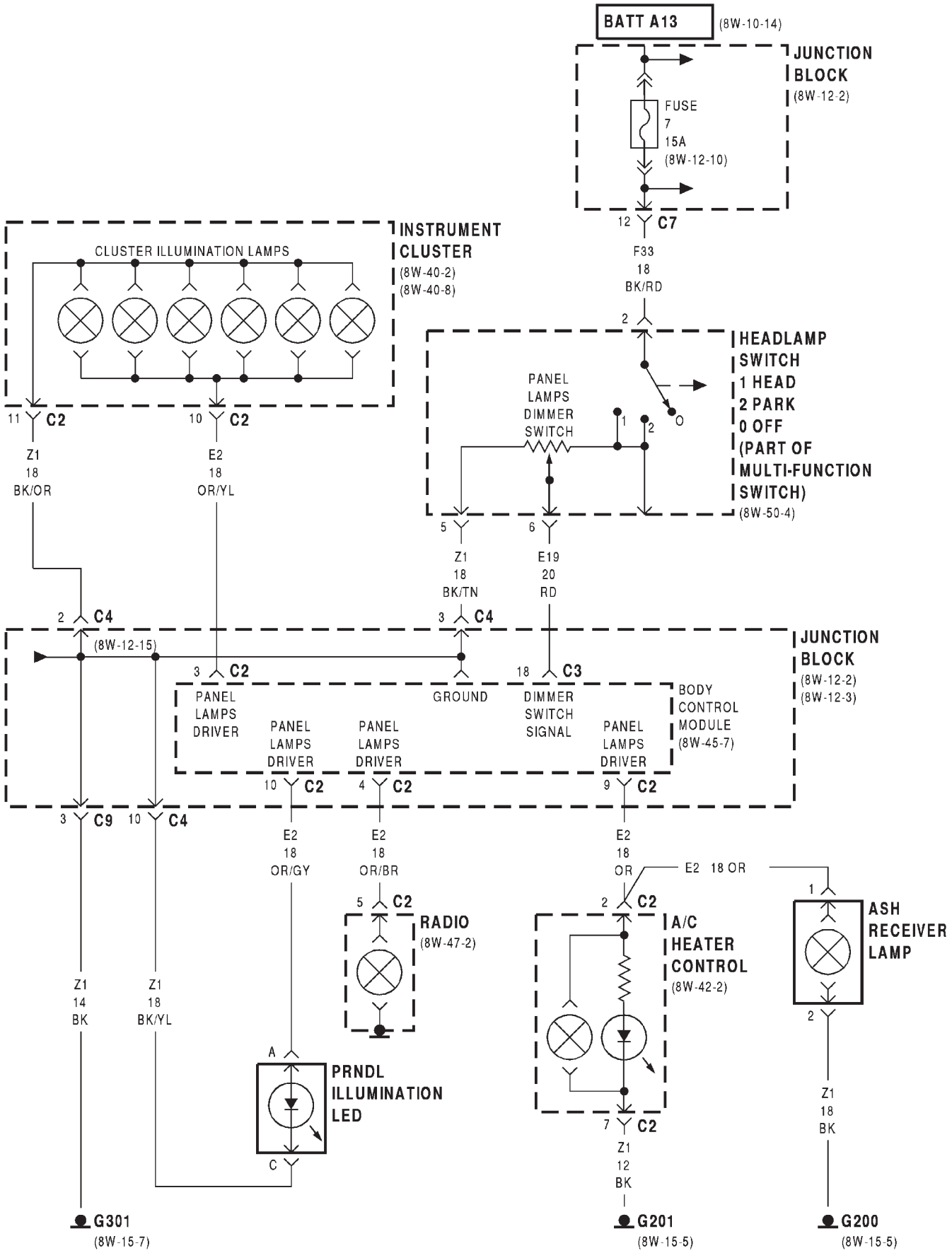
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BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
FUSE
5
10A
(8W-12-8)
6 C10
12 C5
M1
20
PK
S302
(8W-12-8)
M1
20
PK/WT
M1
20
PK/WT
A
B
1
1
OVERHEAD MAP LAMPS
DOME LAMP
1 ON
O OFF
2 DOOR
KEY-IN HALO LAMP
GLOVE BOX LAMP
2
Z1
20
BK
M2
20
YL
M50
20
YL/RD
S303
(8W-15-7)
Z1
18
BK
4 C10
1 C10
G200
(8W-15-5)
(8W-12-15)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
7 C2
GROUND
COURTESY LAMPS DRIVER
KEY-IN LAMP DRIVER
BODY CONTROL MODULE
(8W-45-5)
(8W-45-9)
3 C9
Z1
14
BK
G301
(8W-15-7)


BATT A7
(8W-10-9)
RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
FUSE 5 10A
(8W-12-8)
CIRCUIT BREAKER 19 20A
(8W-12-14)
6 C10
12 C9
2 C10
M1 20 PK
M1 20 PK/OR
F21 20 TN/OR
S302
(8W-12-8)
M1 20 PK
M1 20 PK
1
TRUNK LAMP
2
G78 20 TN/BK
A
LEFT VISOR/ VANITY LAMPS
B
A
RIGHT VISOR/ VANITY LAMPS
B
TRUNK AJAR SWITCH
BACKUP LAMP OVERRIDE
A
L1 18 VT/BK
1
3
FUSED IGN. (RUN)
REVERSE LAMP SENSE
GROUND
AUTOMATIC DAY/NIGHT MIRROR
2
Z1 20 BK
Z1 20 BK
Z1 20 BK
S303
(8W-15-7)
Z1 18 BK
4 C10
(8W-12-15)
JUNCTION BLOCK
(8W-12-3)
3 C9
Z1 14 BK
G301
(8W-15-7)


BATT A13
(8W-10-14)
JUNCTION BLOCK
(8W-12-2)
FUSE 7 15A
(8W-12-10)
12 C7
F33 18 BK/RD
INSTRUMENT CLUSTER
(8W-40-2)
(8W-40-8)
CLUSTER ILLUMINATION LAMPS
11 C2
10 C2
Z1 18 BK/OR
E2 18 OR/YL
HEADLAMP SWITCH
1 HEAD
2 PARK
0 OFF
(PART OF MULTI-FUNCTION SWITCH)
(8W-50-4)
PANEL LAMPS DIMMER SWITCH
5 Z1 18 BK/TN
6 E19 20 RD
2 C4
3 C4
(8W-12-15)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
3 C2
18 C3
PANEL LAMPS DRIVER
GROUND
DIMMER SWITCH SIGNAL
PANEL LAMPS DRIVER
BODY CONTROL MODULE
(8W-45-7)
10 C2
4 C2
9 C2
3 C9
10 C4
E2 18 OR/GY
E2 18 OR/BR
E2 18 OR
E2 18 OR
1
2 C2
ASH RECEIVER LAMP
5 C2
RADIO
(8W-47-2)
A/C HEATER CONTROL
(8W-42-2)
Z1 14 BK
Z1 18 BK/YL
A
PRNDL ILLUMINATION LED
C
7 C2
Z1 12 BK
2
Z1 18 BK
G301
(8W-15-7)
G201
(8W-15-5)
G200
(8W-15-5)

8W-44 INTERIOR LIGHTING

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DESCRIPTION AND OPERATION

INTRODUCTION

The interior lamps system is powered at all times by the 10 amp fuse located in cavity 5 of the junction block. This is the Ignition-Off Draw (IOD) fuse. Circuit M1 is connected from the fuse to the trunk lamp, vanity lamps, dome lamp, universal garage door opener (if equipped), and overhead lamps.

Power for the fuse is supplied on circuit A7 from the Power Distribution Center (PDC). The A7 circuit is protected by a 10 amp fuse located in cavity 4 of the PDC.

DIMMER CONTROL

The dimmer control is used to control the intensity of the instrument panel lamps. It is located in the left multi-function switch. Power for the control is supplied from the L7 circuit, which is the feed for the parking lamps. This circuit is HOT when the parking lamp switch is in the ON position. Ground for the control is provided on the Z1 circuit which terminates at the instrument panel left side cowl.

The control uses a variable resistor and is connected to circuit E19. Circuit E19 connects to the Body Control Module (BCM). When the operator moves the control, resistance in the circuit changes and the signal sent to the BCM changes. With the change is resistance the BCM sends a signal over the CCD Bus to the instrument panel changing the lamp intensity.

DAY/NIGHT MIRROR

Power for the automatic day/night mirror is supplied by circuit F21. This circuit is protected by a 20 amp fuse located in the junction block. Power for the fuse is supplied on circuit A22.

The A22 circuit connects between the ignition switch and the junction block. Circuit A22 is HOT in the RUN position only.

Ground for the mirror is provided on circuit Z1. This circuit terminates at the instrument panel left side cowl.

The mirror receives an input on circuit L1. This input is used to tell the mirror when the vehicle is placed in REVERSE. The L1 circuit is spliced in with the back-up lamps. Refer to section 8W-31 for back-up lamp operation.

IGNITION KEY HALO LAMP

The Body Control Module (BCM) controls the operation of the halo lamp upon vehicle entry. When the drivers door is OPENED the door ajar switch CLOSES and circuit G75 is grounded. The BCM sees that the door is ajar and provides a ground path for circuit M50 from the lamp. Power for the lamp is provided on circuit M1. This is the Ignition-Off Draw (IOD) circuit and is protected by a 10 amp fuse located in cavity 5 of the junction block.

PRNDL ILLUMINATION

The PRNDL illumination is handled by a Light Emitting Diode (LED) and receives power on the E2 circuit from the Body Control Module (BCM). This circuit is HOT when the operator has turned the headlamp switch to the PARK or ON position. Lamp intensity is controlled by the input of the dimmer switch to the BCM on circuit E19.

Ground for the LED is provided by the Z1 circuit. This circuit terminates at the instrument panel left side cowl after passing through the ground joint in the junction block.

VISOR/VANITY LAMPS

The visor/vanity lamps are operated by a switch internal to the assembly. Power for the lamps is provided by circuit M1. The M1 circuit is spliced and provides power to both lamps and is HOT at all times.

When the operator lifts the cover on the lamp, the switch CLOSES, completing a path to ground on cir-

DESCRIPTION AND OPERATION (Continued)

cuit Z1. This circuit terminates at the instrument panel left side cowl after passing through the ground joint in the junction block.

On vehicles equipped with the optional garage door opener the ground circuit is changed from Z1 to G38. The G38 circuit connects from the lamps to the Body Control Module (BCM). This input to the BCM allows for a garage door opener lock-out feature.

DOME LAMP

The dome lamp receives power from the 10 amp fuse located in the junction block on the M1 circuit. This fuse is the Ignition-Off Draw (IOD) fuse and is located in cavity 5. This circuit is HOT at all times. The ground path for the lamps is provided in two different ways.

One way is through the Body Control Module (BCM) and the door ajar switches. Circuit M2 is connected between the ground side of the dome lamp and the BCM. When the door is OPENED, the door ajar switch CLOSES completing a path to ground. The BCM then process this information and grounds the M2 circuit.

The second ground path is through the dome lamp switch. When the operator turns the switch to the ON position, a ground path is provided through the switch on the Z1 circuit. This ground terminates at the instrument panel left side cowl after passing through the ground joint in the junction block.

OVERHEAD MAP LAMPS

The overhead map lamps are powered by the 10 amp fuse located in the junction block on the M1 circuit. This fuse is the Ignition-Off Draw (IOD) fuse and is located in cavity 5. This circuit is HOT at all times.

Ground for the lamps is supplied on two different circuits. One way is when the operator turns the lamp ON by CLOSING the switch. A ground path is completed on circuit Z1. This ground terminates at the instrument panel left side cowl.

Ground for the lamp(s) can also be supplied on circuit M2 when the Body Control Module (BCM) supplies a ground path.

ASH RECEIVER LAMP

The ash receiver lamp receives power on the E2 circuit from the Body Control Module (BCM). This circuit is HOT when the operator has turned the headlamp switch to the PARK or ON position. Lamp intensity is controlled by the input of the dimmer switch to the BCM on circuit E19.

Ground for the lamp is provided by the Z1 circuit. This circuit terminates at the instrument panel left side cowl after passing through the ground joint in the junction block.

GLOVE BOX LAMP

The glove box lamp is powered by the 10 amp fuse located in the junction block on the M1 circuit. This is the Ignition-Off Draw (IOD) fuse and is located in cavity 5. This circuit is HOT at all times.

The glove box switch is normally OPEN. When the operator opens the glove box door the switch CLOSES completing a path to ground through the switch and the lamp on circuit Z1. This ground terminates at the instrument panel left side cowl.

TRUNK LAMP

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

HELPFUL INFORMATION

Check the 10 amp fuse located in cavity 5 of the PDC.

Check for a good ground located at the instrument panel left side cowl.

Check the door switches for a good ground.

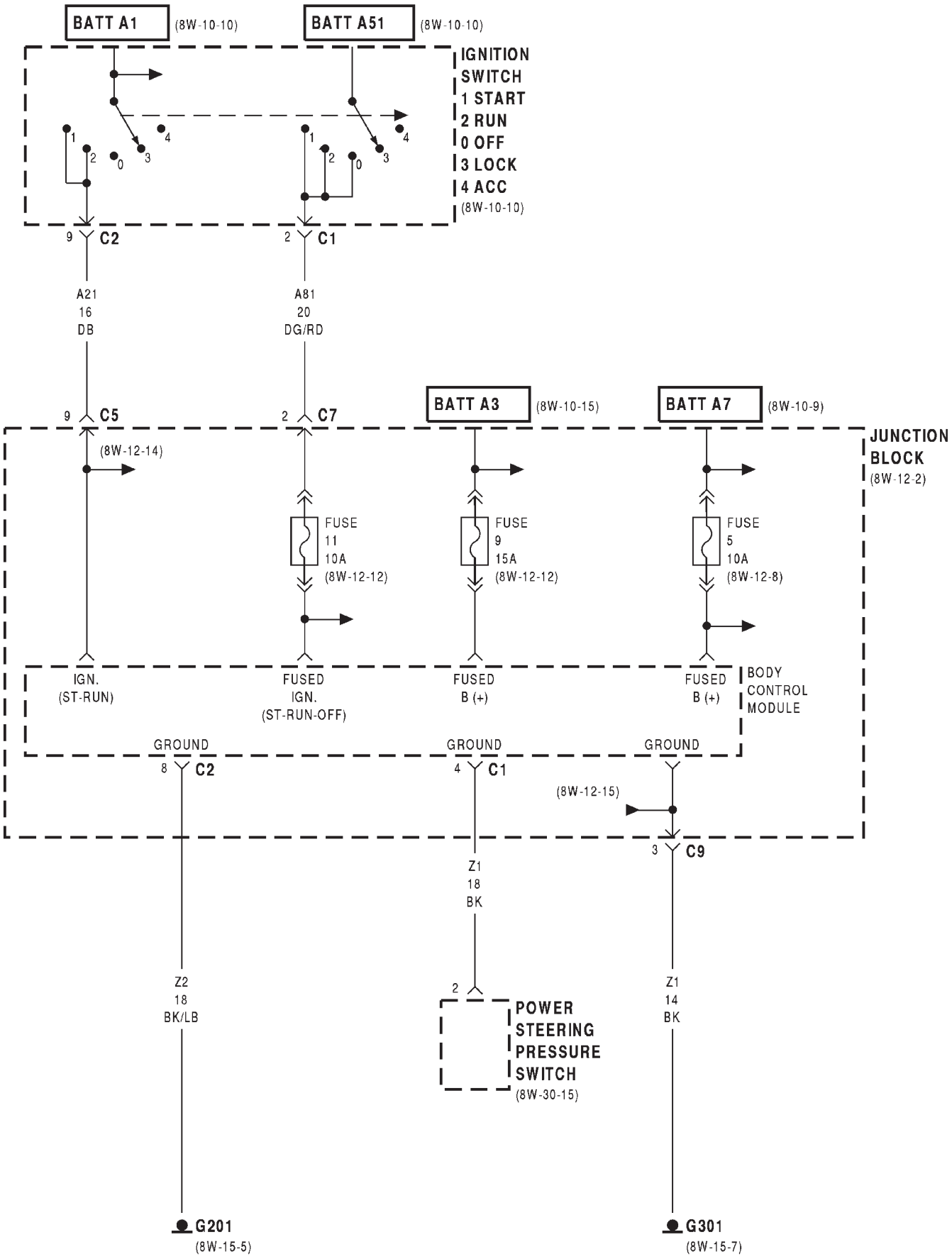
8W-45 BODY CONTROL MODULE

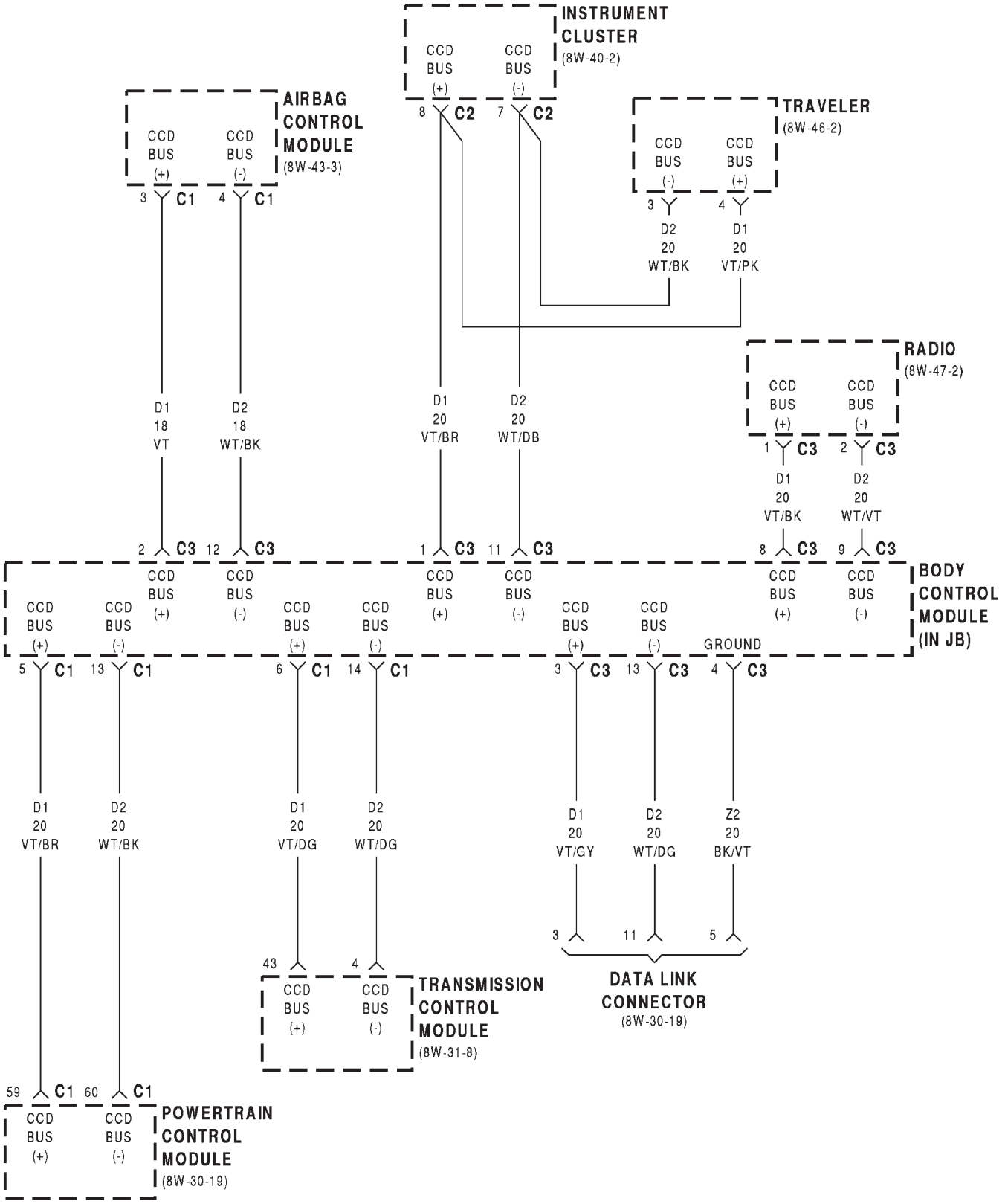
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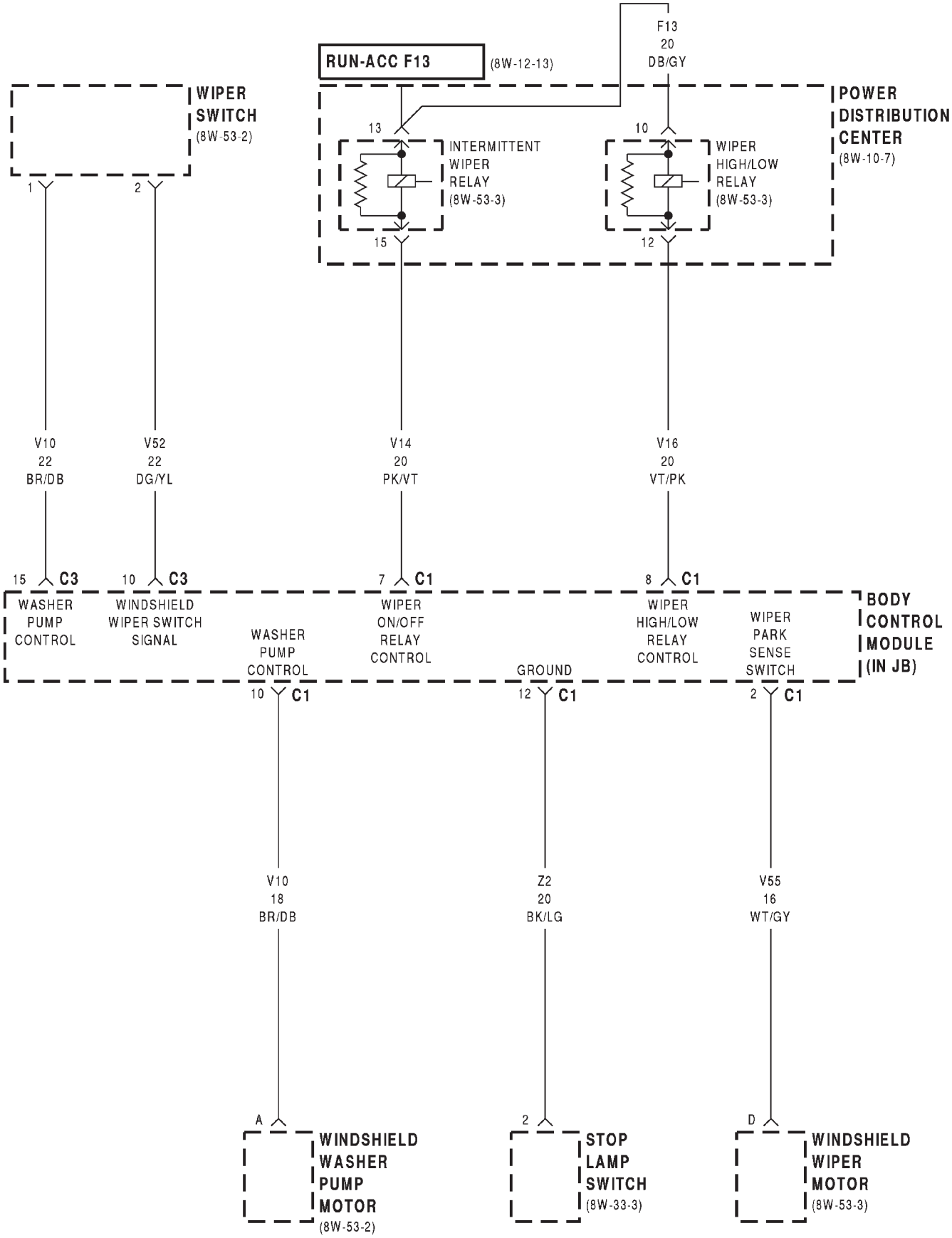
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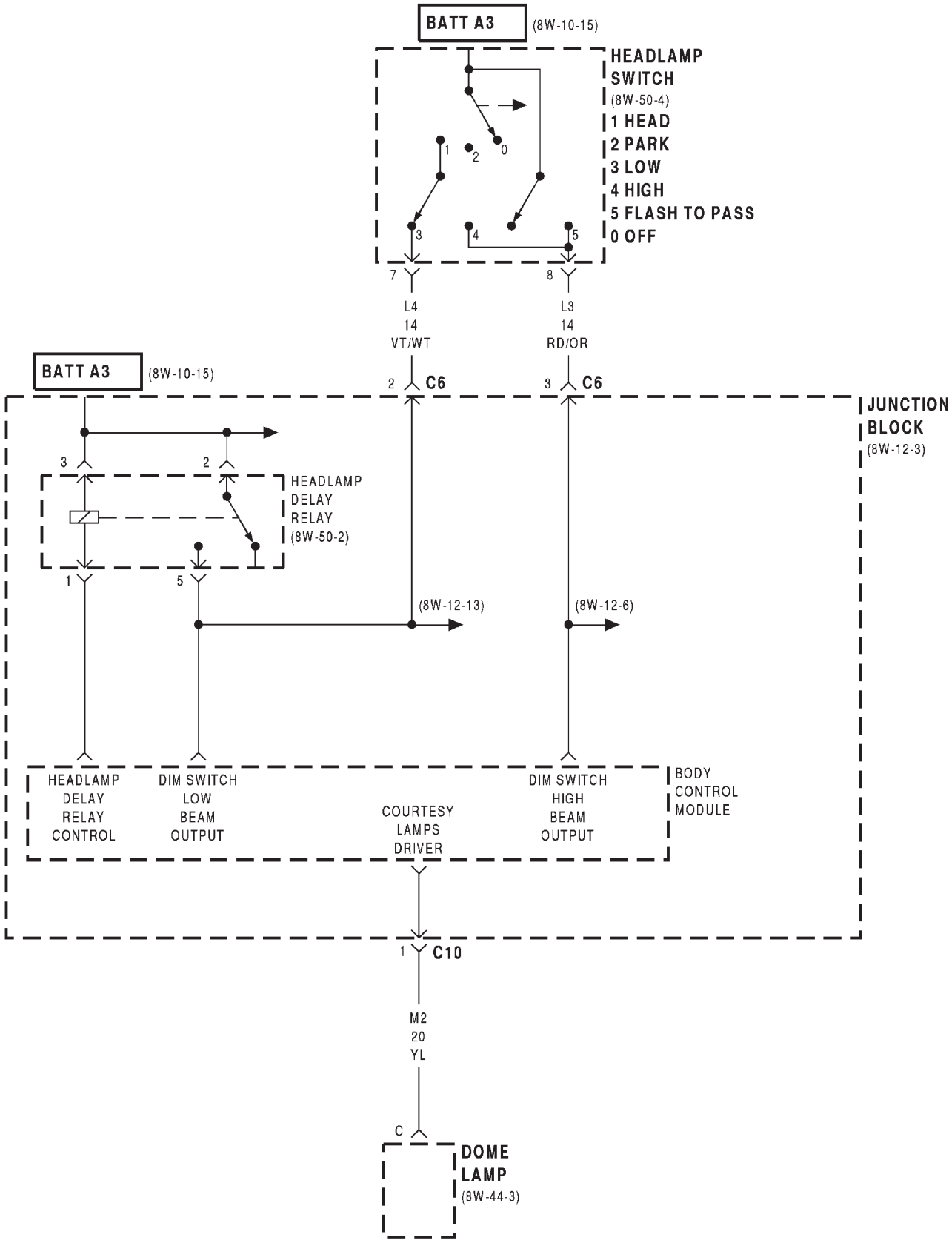
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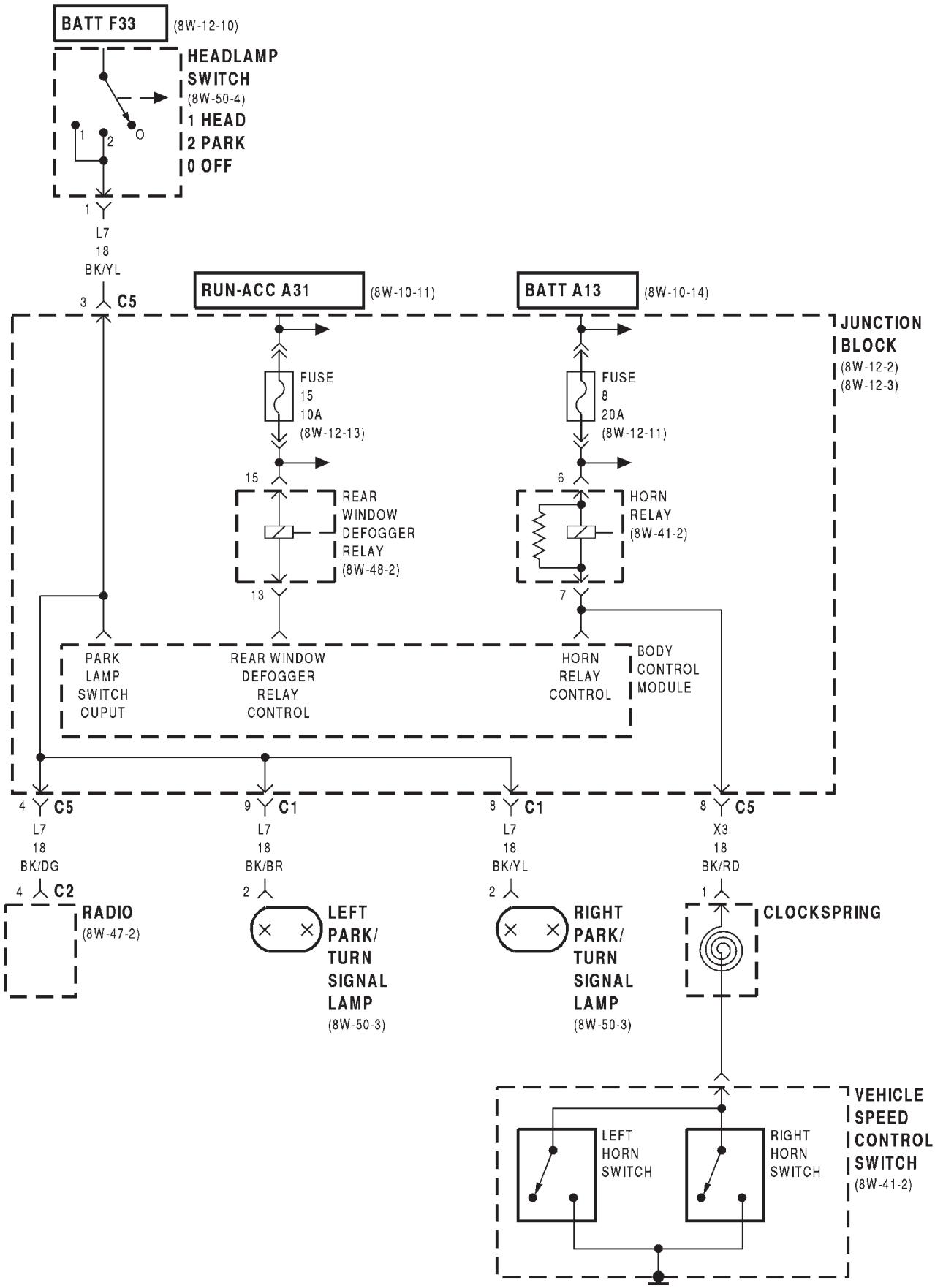
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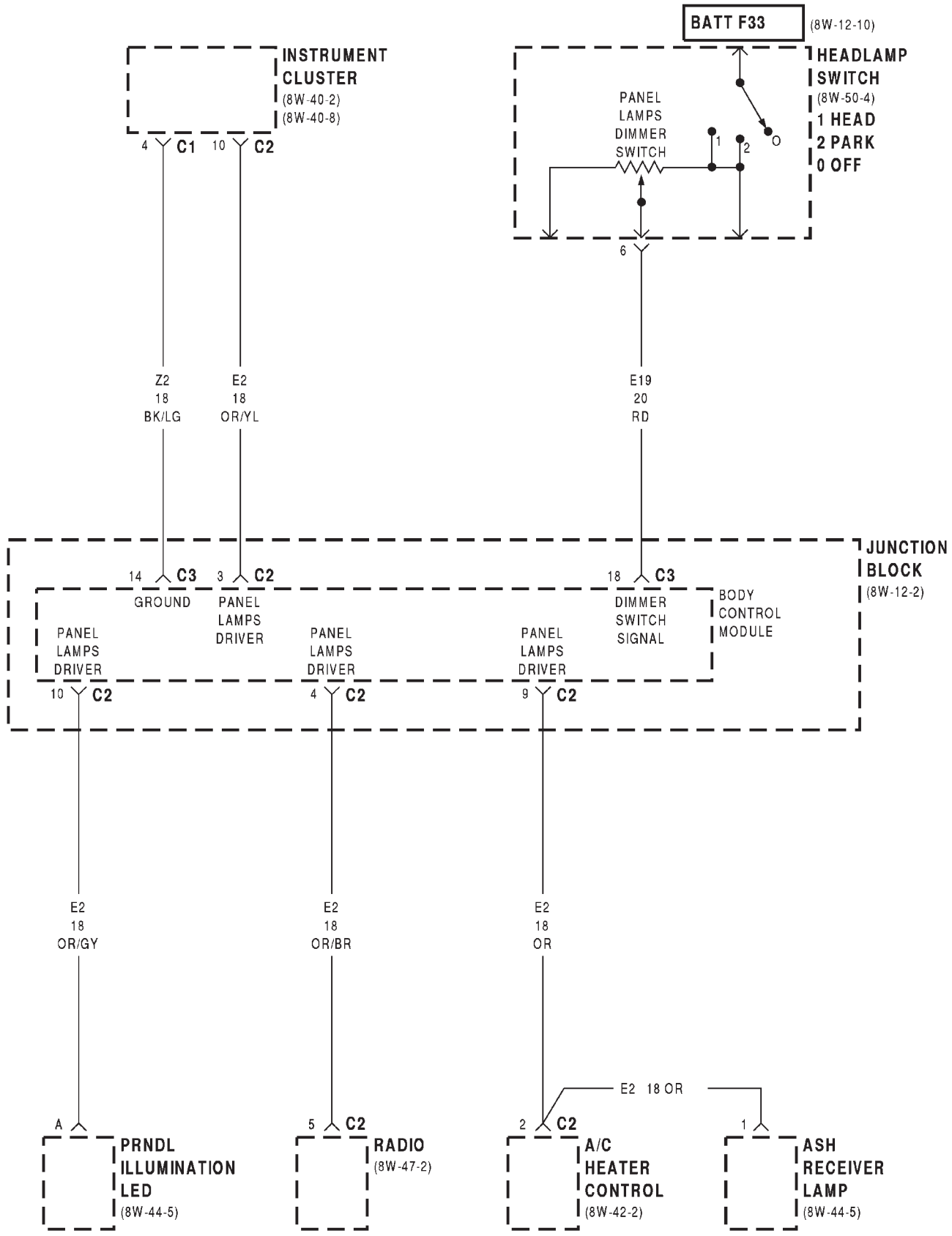

BATT A1
(8W-10-10)
BATT A51
(8W-10-10)
IGNITION SWITCH
1 START
2 RUN
0 OFF
3 LOCK
4 ACC
(8W-10-10)
9 C2
2 C1
A21
16
DB
A81
20
DG/RD
9 C5
2 C7
BATT A3
(8W-10-15)
BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
(8W-12-14)
FUSE
11
10A
(8W-12-12)
FUSE
9
15A
(8W-12-12)
FUSE
5
10A
(8W-12-8)
IGN.
(ST-RUN)
FUSED
IGN.
(ST-RUN-OFF)
FUSED
B (+)
FUSED
B (+)
BODY CONTROL MODULE
GROUND
GROUND
GROUND
8 C2
4 C1
(8W-12-15)
3 C9
Z1
18
BK
Z2
18
BK/LB
2
POWER STEERING PRESSURE SWITCH
(8W-30-15)
Z1
14
BK
G201
(8W-15-5)
G301
(8W-15-7)

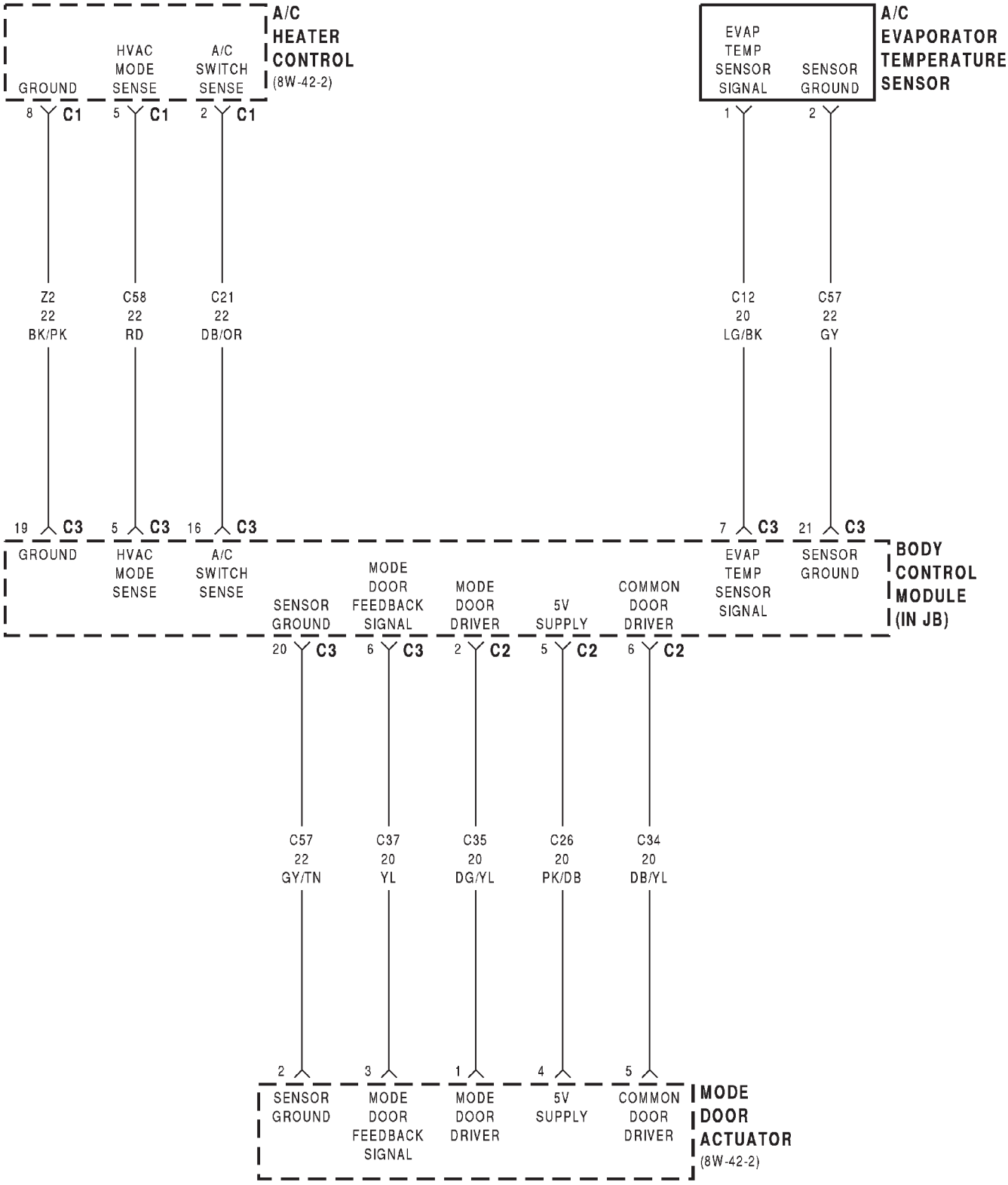

INSTRUMENT CLUSTER
(8W-40-2)
CCD BUS (+)
CCD BUS (-)
8 C2
7 C2
AIRBAG CONTROL MODULE
(8W-43-3)
3 C1
4 C1
TRAVELER
(8W-46-2)
3
4
D2 20 WT/BK
D1 20 VT/PK
RADIO
(8W-47-2)
1 C3
2 C3
D1 20 VT/BK
D2 20 WT/VT
D1 18 VT
D2 18 WT/BK
D1 20 VT/BR
D2 20 WT/DB
2 C3
12 C3
1 C3
11 C3
8 C3
9 C3
BODY CONTROL MODULE (IN JB)
GROUND
5 C1
13 C1
6 C1
14 C1
3 C3
13 C3
4 C3
D1 20 VT/BR
D2 20 WT/BK
D1 20 VT/DG
D2 20 WT/DG
D1 20 VT/GY
D2 20 WT/DG
Z2 20 BK/VT
43
4
TRANSMISSION CONTROL MODULE
(8W-31-8)
3
11
5
DATA LINK CONNECTOR
(8W-30-19)
59 C1
60 C1
POWERTRAIN CONTROL MODULE
(8W-30-19)

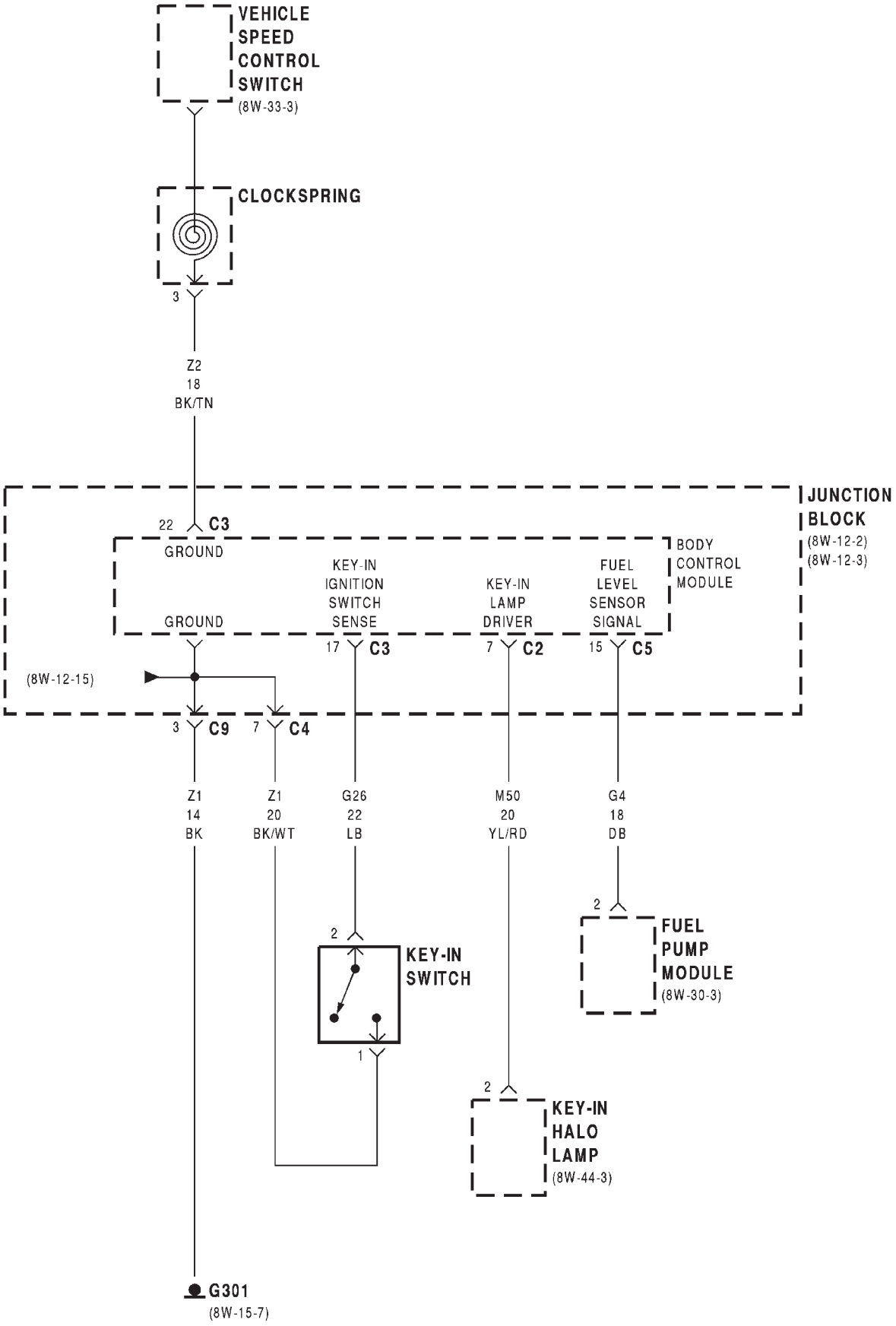

RUN-ACC F13
(8W-12-13)
F13
20
DB/GY
WIPER
SWITCH
(8W-53-2)
POWER
DISTRIBUTION
CENTER
(8W-10-7)
13
INTERMITTENT
WIPER
RELAY
(8W-53-3)
10
WIPER
HIGH/LOW
RELAY
(8W-53-3)
1
2
15
12
V10
22
BR/DB
V52
22
DG/YL
V14
20
PK/VT
V16
20
VT/PK
15 C3
10 C3
7 C1
8 C1
WASHER
PUMP
CONTROL
WINDSHIELD
WIPER SWITCH
SIGNAL
WASHER
PUMP
CONTROL
WIPER
ON/OFF
RELAY
CONTROL
GROUND
WIPER
HIGH/LOW
RELAY
CONTROL
WIPER
PARK
SENSE
SWITCH
BODY
CONTROL
MODULE
(IN JB)
10 C1
12 C1
2 C1
V10
18
BR/DB
Z2
20
BK/LG
V55
16
WT/GY
A
2
D
WINDSHIELD
WASHER
PUMP
MOTOR
(8W-53-2)
STOP
LAMP
SWITCH
(8W-33-3)
WINDSHIELD
WIPER
MOTOR
(8W-53-3)

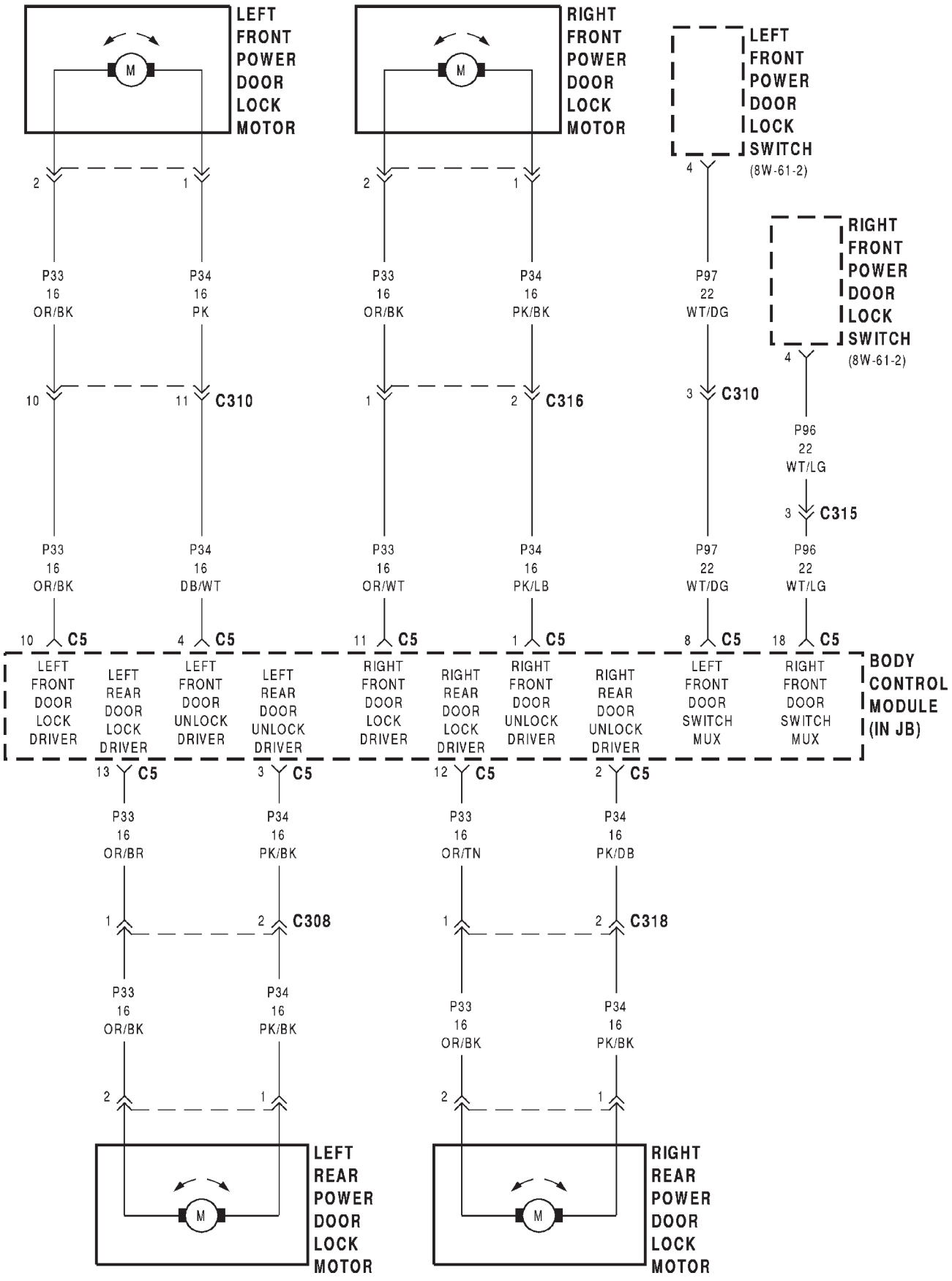

BATT A3
(8W-10-15)
HEADLAMP SWITCH
(8W-50-4)
1 HEAD
2 PARK
3 LOW
4 HIGH
5 FLASH TO PASS
0 OFF
1
2
0
3
4
5
7
8
L4
14
VT/WT
L3
14
RD/OR
2 C6
3 C6
BATT A3
(8W-10-15)
JUNCTION BLOCK
(8W-12-3)
3
2
HEADLAMP DELAY RELAY
(8W-50-2)
1
5
(8W-12-13)
(8W-12-6)
HEADLAMP DELAY RELAY CONTROL
DIM SWITCH LOW BEAM OUTPUT
COURTESY LAMPS DRIVER
DIM SWITCH HIGH BEAM OUTPUT
BODY CONTROL MODULE
1 C10
M2
20
YL
C
DOME LAMP
(8W-44-3)

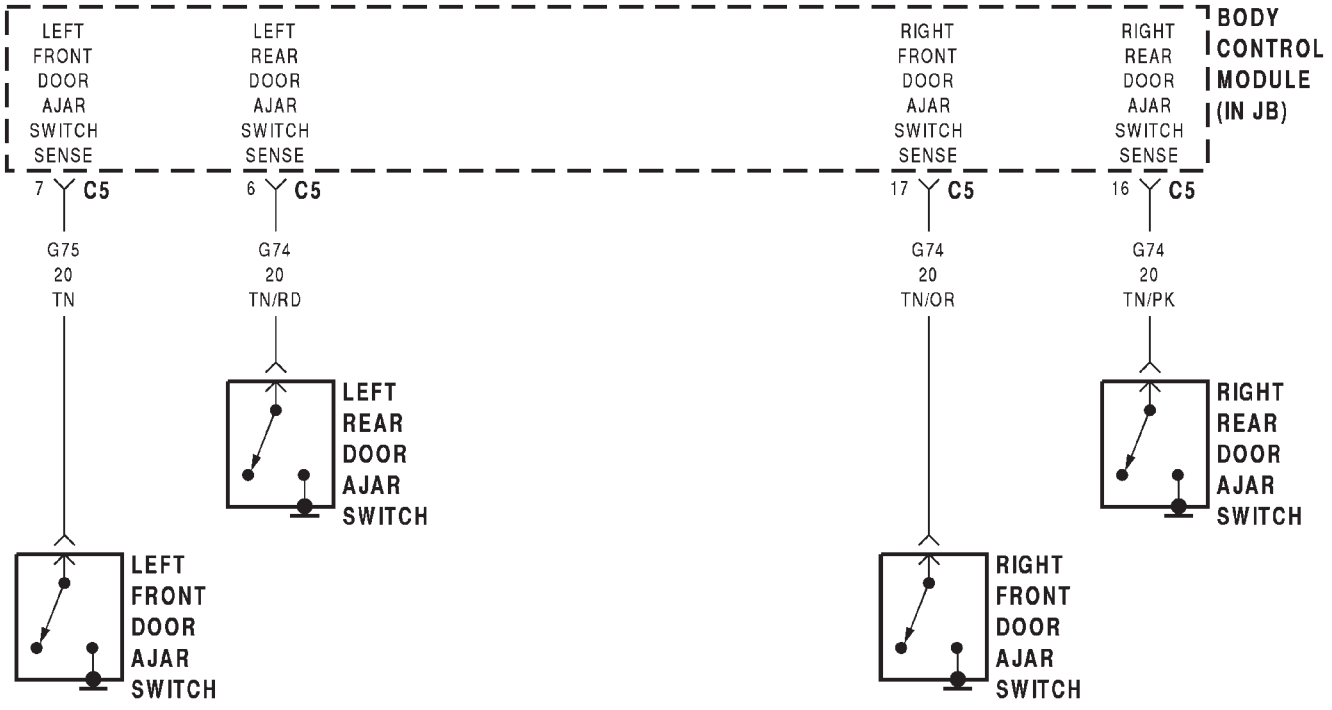

BATT F33
(8W-12-10)
HEADLAMP SWITCH
(8W-50-4)
1 HEAD
2 PARK
0 OFF
1
2
O
1
L7
18
BK/YL
3 C5
RUN-ACC A31
(8W-10-11)
BATT A13
(8W-10-14)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
FUSE
15
10A
(8W-12-13)
FUSE
8
20A
(8W-12-11)
15
6
REAR WINDOW DEFOGGER RELAY
(8W-48-2)
HORN RELAY
(8W-41-2)
13
7
PARK LAMP SWITCH OUPUT
REAR WINDOW DEFOGGER RELAY CONTROL
HORN RELAY CONTROL
BODY CONTROL MODULE
4 C5
L7
18
BK/DG
9 C1
L7
18
BK/BR
8 C1
L7
18
BK/YL
8 C5
X3
18
BK/RD
4 C2
RADIO
(8W-47-2)
2
LEFT PARK/ TURN SIGNAL LAMP
(8W-50-3)
2
RIGHT PARK/ TURN SIGNAL LAMP
(8W-50-3)
1
CLOCKSPRING
LEFT HORN SWITCH
RIGHT HORN SWITCH
VEHICLE SPEED CONTROL SWITCH
(8W-41-2)


BATT F33
(8W-12-10)
INSTRUMENT CLUSTER
(8W-40-2)
(8W-40-8)
4 C1
10 C2
HEADLAMP SWITCH
(8W-50-4)
1 HEAD
2 PARK
0 OFF
PANEL LAMPS DIMMER SWITCH
1
2
O
6
Z2
18
BK/LG
E2
18
OR/YL
E19
20
RD
JUNCTION BLOCK
(8W-12-2)
14 C3
GROUND
3 C2
PANEL LAMPS DRIVER
18 C3
DIMMER SWITCH SIGNAL
BODY CONTROL MODULE
PANEL LAMPS DRIVER
10 C2
PANEL LAMPS DRIVER
4 C2
PANEL LAMPS DRIVER
9 C2
E2
18
OR/GY
E2
18
OR/BR
E2
18
OR
E2 18 OR
A
PRNDL ILLUMINATION LED
(8W-44-5)
5 C2
RADIO
(8W-47-2)
2 C2
A/C HEATER CONTROL
(8W-42-2)
1
ASH RECEIVER LAMP
(8W-44-5)


A/C HEATER CONTROL
(8W-42-2)
GROUND
HVAC MODE SENSE
A/C SWITCH SENSE
8 C1
5 C1
2 C1
Z2 22 BK/PK
C58 22 RD
C21 22 DB/OR
A/C EVAPORATOR TEMPERATURE SENSOR
EVAP TEMP SENSOR SIGNAL
SENSOR GROUND
1
2
C12 20 LG/BK
C57 22 GY
19 C3
5 C3
16 C3
7 C3
21 C3
GROUND
HVAC MODE SENSE
A/C SWITCH SENSE
EVAP TEMP SENSOR SIGNAL
SENSOR GROUND
BODY CONTROL MODULE (IN JB)
SENSOR GROUND
MODE DOOR FEEDBACK SIGNAL
MODE DOOR DRIVER
5V SUPPLY
COMMON DOOR DRIVER
20 C3
6 C3
2 C2
5 C2
6 C2
C57 22 GY/TN
C37 20 YL
C35 20 DG/YL
C26 20 PK/DB
C34 20 DB/YL
2
3
1
4
5
SENSOR GROUND
MODE DOOR FEEDBACK SIGNAL
MODE DOOR DRIVER
5V SUPPLY
COMMON DOOR DRIVER
MODE DOOR ACTUATOR
(8W-42-2)


VEHICLE SPEED CONTROL SWITCH
(8W-33-3)
CLOCKSPRING
3
Z2
18
BK/TN
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
22 C3
GROUND
BODY CONTROL MODULE
GROUND
KEY-IN IGNITION SWITCH SENSE
17 C3
KEY-IN LAMP DRIVER
7 C2
FUEL LEVEL SENSOR SIGNAL
15 C5
(8W-12-15)
3 C9
7 C4
Z1
14
BK
Z1
20
BK/WT
G26
22
LB
M50
20
YL/RD
G4
18
DB
2
KEY-IN SWITCH
1
2
FUEL PUMP MODULE
(8W-30-3)
2
KEY-IN HALO LAMP
(8W-44-3)
G301
(8W-15-7)


LEFT FRONT POWER DOOR LOCK MOTOR
RIGHT FRONT POWER DOOR LOCK MOTOR
LEFT FRONT POWER DOOR LOCK SWITCH
(8W-61-2)
RIGHT FRONT POWER DOOR LOCK SWITCH
(8W-61-2)
P33 16 OR/BK
P34 16 PK
P34 16 PK/BK
P97 22 WT/DG
P96 22 WT/LG
C310
C316
C315
P33 16 OR/BK
P34 16 DB/WT
P33 16 OR/WT
P34 16 PK/LB
C5
LEFT FRONT DOOR LOCK DRIVER
LEFT REAR DOOR LOCK DRIVER
LEFT FRONT DOOR UNLOCK DRIVER
LEFT REAR DOOR UNLOCK DRIVER
RIGHT FRONT DOOR LOCK DRIVER
RIGHT REAR DOOR LOCK DRIVER
RIGHT FRONT DOOR UNLOCK DRIVER
RIGHT REAR DOOR UNLOCK DRIVER
LEFT FRONT DOOR SWITCH MUX
RIGHT FRONT DOOR SWITCH MUX
BODY CONTROL MODULE (IN JB)
P33 16 OR/BR
P34 16 PK/BK
P33 16 OR/TN
P34 16 PK/DB
C308
C318
P33 16 OR/BK
P34 16 PK/BK
LEFT REAR POWER DOOR LOCK MOTOR
RIGHT REAR POWER DOOR LOCK MOTOR


LEFT FRONT DOOR AJAR SWITCH SENSE
LEFT REAR DOOR AJAR SWITCH SENSE
RIGHT FRONT DOOR AJAR SWITCH SENSE
RIGHT REAR DOOR AJAR SWITCH SENSE
BODY CONTROL MODULE (IN JB)
7 C5
6 C5
17 C5
16 C5
G75 20 TN
G74 20 TN/RD
G74 20 TN/OR
G74 20 TN/PK
LEFT REAR DOOR AJAR SWITCH
RIGHT REAR DOOR AJAR SWITCH
LEFT FRONT DOOR AJAR SWITCH
RIGHT FRONT DOOR AJAR SWITCH

8W-45 BODY CONTROL MODULE

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DOOR LOCK INHIBIT 12
EXTERIOR LAMP-ON WARNING 12
FUNERAL MODE DISPLAY ILLUMINATION 13
HELPFUL INFORMATION 13
ILLUMINATED ENTRY 12
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KEY-IN IGNITION WARNING 13
SEAT BELT WARNING 12

DESCRIPTION AND OPERATION

INTRODUCTION

The Body Control Module (BCM) is used to supply the vehicles occupants with visual and audible information, control various vehicle functions, and provide a centralized power distribution for the passenger compartment. To both provide and receive vehicle information the BCM is interfaced to the CCD Bus.

Power for the BCM is supplied from four sources. One is the M1 circuit. This circuit is HOT at all times, and is the Ignition-Off Draw (IOD) circuit. This circuit is protected by a 10 amp fuse located in cavity 5 of the junction block.

Power is also supplied to the BCM on circuit A21. This circuit is HOT when the ignition switch is in the START/RUN position only, and connects from the ignition switch to the BCM. Power for the A21 circuit is supplied by circuit A1. Circuit A1 is connected between the PDC and the ignition switch and is protected by a 20 amp fuse located in cavity 8 of the PDC.

Circuit F11, which is HOT when the ignition switch is in the OFF/RUN/START position, supplies a constant feed to the BCM. This circuit is protected by a 10 amp fuse located in cavity 11 of the junction block. Power for the fuse is supplied on circuit A81 from the ignition switch. Circuit A81 receives its power from circuit A1 which originates in the PDC and is protected by a 20 amp fuse located in cavity 8.

Circuit F135 also supplies power to the BCM and is protected by a 15 amp fuse located in cavity 9 of the junction block. This circuit is used for the feed to the power door lock motors.

Ground for the BCM is provided by circuits Z1 and Z2. These circuits terminate at the instrument panel left side cowl.

CCD Bus interface is accomplished on circuits D1 and D2. The D1 circuit is used for Bus (+), and D2 is for Bus (-).

ILLUMINATED ENTRY

On vehicles equipped with Remote Keyless Entry (RKE) the Body Control Module (BCM) will turn ON the interior lamps with a valid UNLOCK signal from the RKE transmitter. When the signal is received the BCM provides a ground path for circuit M2. This causes the interior lamps to illuminate. The BCM also controls the amount of time ON for the lamps.

SEAT BELT WARNING

The seat belt chime is used to indicate to the operator that the seat belt is not fastened when the ignition switch is in the RUN position. The seat belt switch, located in the left B-Pillar, is normally OPEN with the seat belt buckled. Circuit G10 is connected between the Body Control Module (BCM) and the switch. Ground for the switch is provided on circuit Z1. The Z1 circuit terminates at the deck lid ground.

EXTERIOR LAMP-ON WARNING

The exterior lamp ON chime is used to indicate to the operator that the lamps are ON with the drivers door OPEN and the key removed from the ignition. The Body Control Module (BCM) uses information from circuit L7 to determine if the lamps are ON, and circuit G75 for drivers door ajar. The chime function will not operate when the headlamp delay feature is active.

DOOR AJAR WARNING

This feature is used to alert the operator the drivers door is ajar while the vehicle is in motion. The Body Control Module (BCM) uses information on vehicle speed from the CCD Bus and circuit G75 which connects to the drivers door ajar switch.

DOOR LOCK INHIBIT

When the Key-In switch is CLOSED (circuit G26 connected to circuit Z1) the Body Control Module (BCM) ignores the operators request for power door lock operation.

DESCRIPTION AND OPERATION (Continued)

KEY-IN IGNITION WARNING

The Key-In chime is used to indicate to the operator that the key is in the ignition with the driver's door OPEN. If the key is in the ignition, a ground path is completed from the G26 circuit at the Body Control Module (BCM), through the CLOSED switch, to the Z1 circuit. The Z1 circuit is the ground circuit and terminates at the body ground located at the left kick panel.

When the driver's door is open the normally OPEN door ajar switch CLOSES completing a path to ground on circuit G75. The BCM processes this information and turns on the chime.

FUNERAL MODE DISPLAY ILLUMINATION

The Body Control Module (BCM) controls the intensity of the instrument cluster vacuum florescent displays. This is accomplished using the input from the headlamp dimmer switch on circuit E19. When the exterior lamps are ON, and the dimmer switch is moved to the high end of it's travel, the BCM sends a message over the CCD Bus to the instrument cluster for full lamp intensity.

INSTRUMENT PANEL LAMP DIMMING

The Body Control Module (BCM) controls the instrument panel lamp intensity using input from the dimmer switch, circuit E19. The BCM uses the CCD Bus to send a signal to the instrument cluster for proper lamp intensity.

HELPFUL INFORMATION

Refer to the appropriate group of the Service Manual of the Diagnostic Test Procedures Manual.

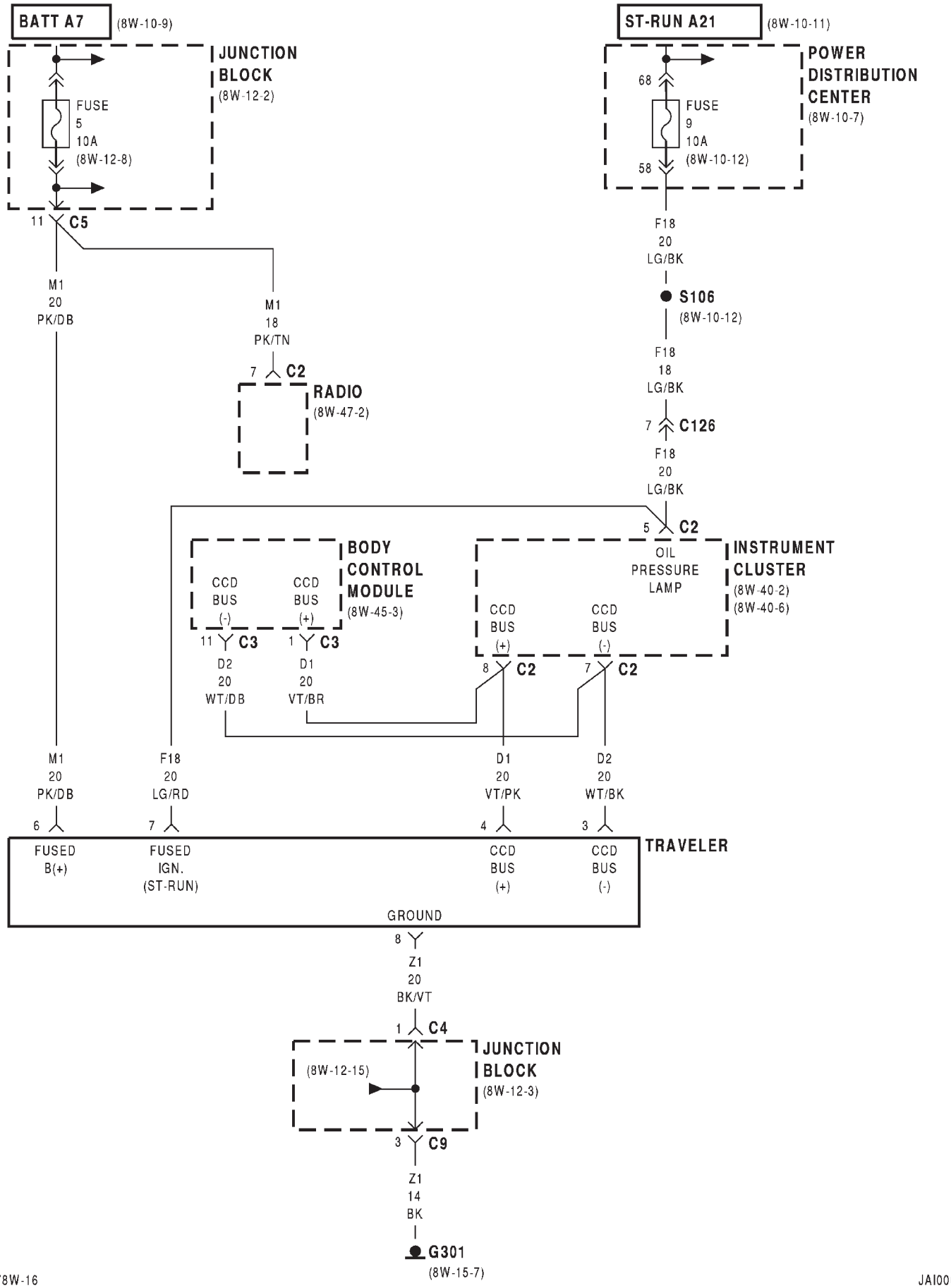
8W-46 TRAVELER

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Fuse 9 (PDC)	8W-46-2	Radio	8W-46-2
G301	8W-46-2	S106	8W-46-2
Instrument Cluster	8W-46-2	Traveler	8W-46-2


BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
FUSE 5 10A
(8W-12-8)
11 C5
M1 20 PK/DB
M1 18 PK/TN
7 C2
RADIO
(8W-47-2)
ST-RUN A21
(8W-10-11)
POWER DISTRIBUTION CENTER
(8W-10-7)
68
FUSE 9 10A
(8W-10-12)
58
F18 20 LG/BK
S106
(8W-10-12)
F18 18 LG/BK
7 C126
F18 20 LG/BK
5 C2
OIL PRESSURE LAMP
INSTRUMENT CLUSTER
(8W-40-2)
(8W-40-6)
BODY CONTROL MODULE
(8W-45-3)
CCD BUS (-)
CCD BUS (+)
11 C3
1 C3
D2 20 WT/DB
D1 20 VT/BR
CCD BUS (+)
CCD BUS (-)
8 C2
7 C2
M1 20 PK/DB
F18 20 LG/RD
D1 20 VT/PK
D2 20 WT/BK
6
7
4
3
FUSED B(+)
FUSED IGN. (ST-RUN)
CCD BUS (+)
CCD BUS (-)
TRAVELER
GROUND
8
Z1 20 BK/VT
1 C4
(8W-12-15)
JUNCTION BLOCK
(8W-12-3)
3 C9
Z1 14 BK
G301
(8W-15-7)

8W-46 TRAVELER

DESCRIPTION AND OPERATION

TRAVELER

Power for the traveler is supplied from two sources. There is a constant battery feed on circuit M1. This is the Ignition Off Draw (IOD) circuit and is protected by a 10 amp fuse located in cavity 5 of the junction block.

Power is also supplied to the traveler on circuit F18. This circuit is HOT in the START and RUN position and protected by a 10 amp fuse located in cavity 9 of the Power Distribution Center (PDC). Power for the fuse is supplied on circuit A21 from the ignition switch.

Ground for the traveler is supplied on circuit Z1. This circuit terminates at the instrument panel left side cowl.

The traveler is also interfaced with the CCD Bus. This interface allows the traveler to receive the necessary information for display to the operator. The circuits involved are D1 for CCD (+), and D2 for CCD (-).

HELPFUL INFORMATION

- Check the 10 amp IOD fuse in cavity 5 of the junction block
- Check the 10 amp fuse located in cavity 9 of the PDC
- Check the ground at the instrument panel left side cowl

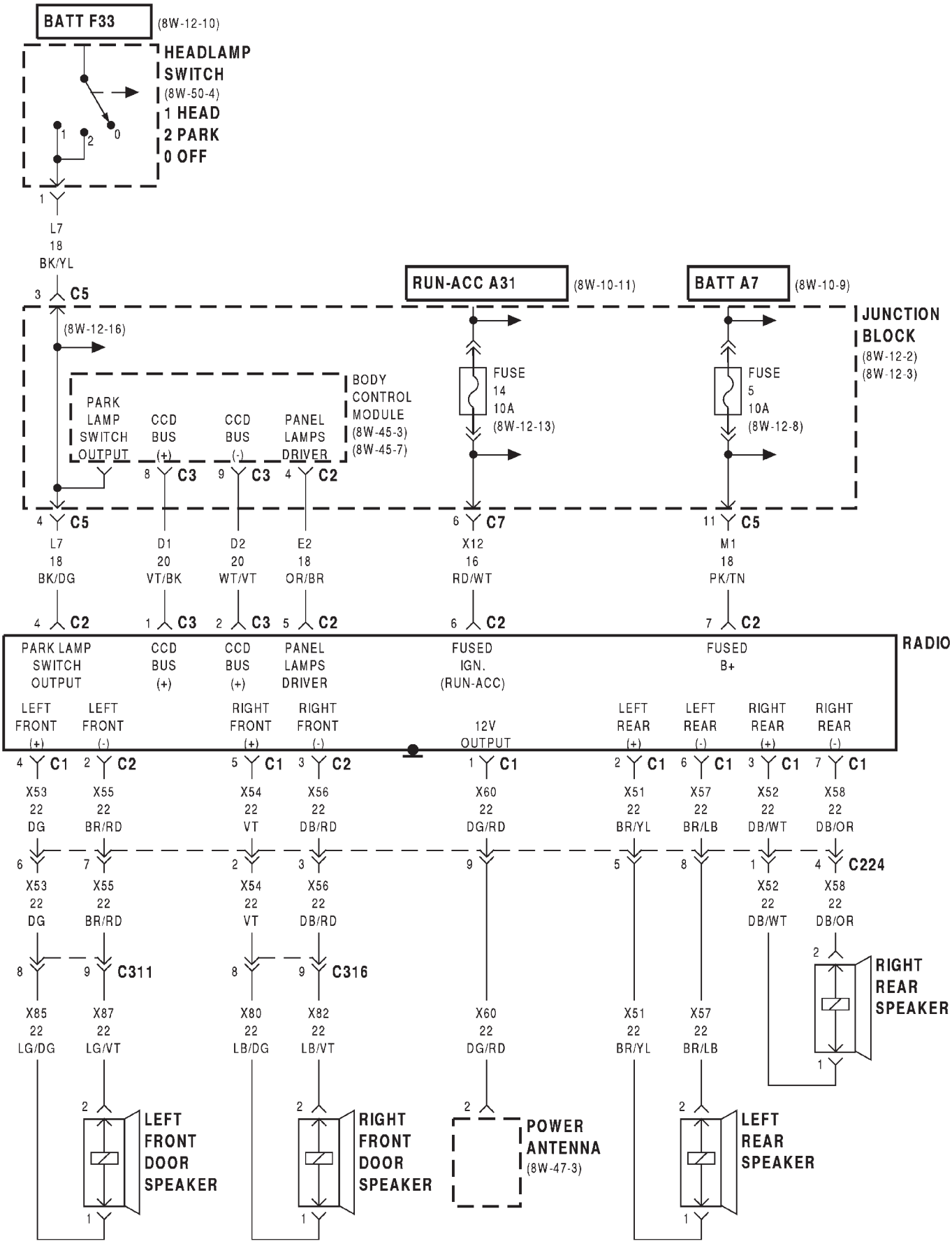
8W-47 AUDIO SYSTEM

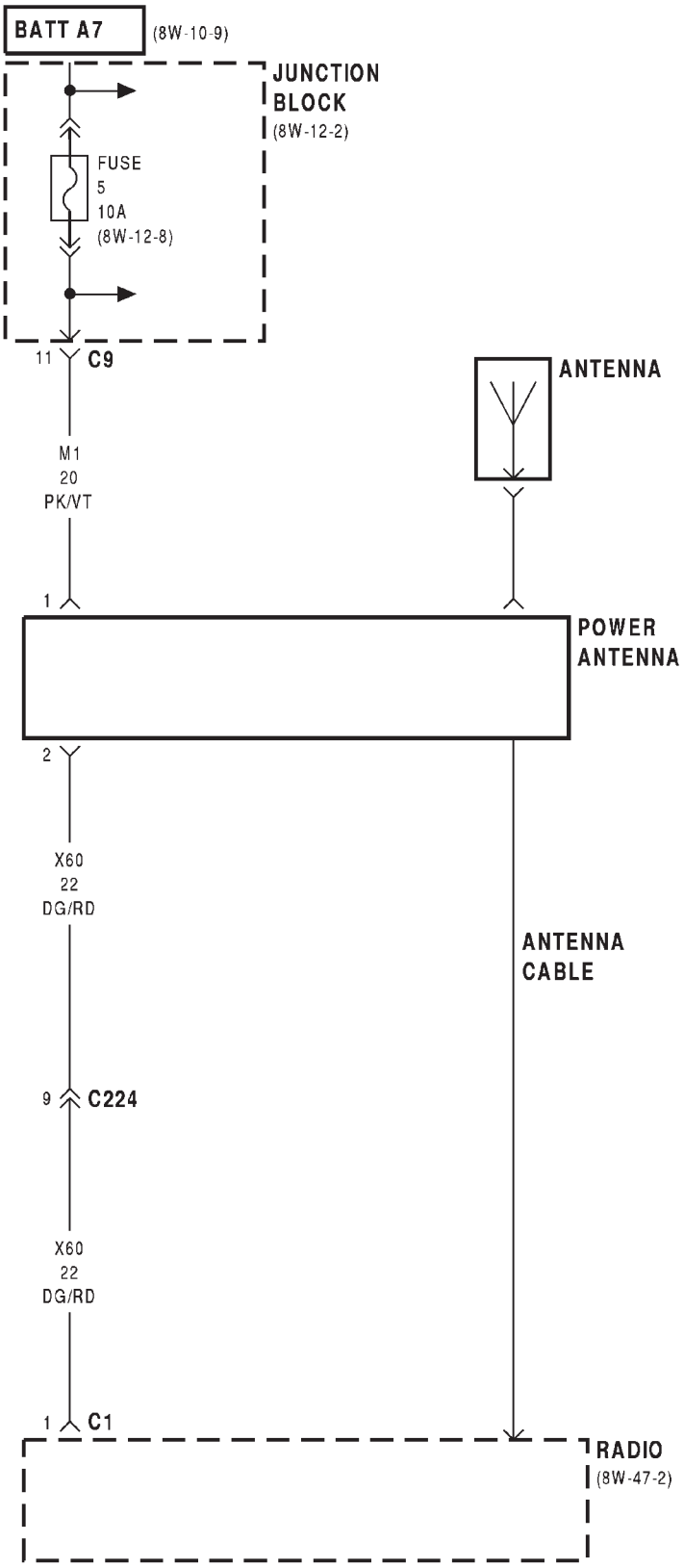
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Power Antenna	8W-47-2, 3
Radio	8W-47-2, 3
Right Front Door Speaker	8W-47-2
Right Rear Speaker	8W-47-2


BATT F33
(8W-12-10)
HEADLAMP SWITCH
(8W-50-4)
1 HEAD
2 PARK
0 OFF
L7
18
BK/YL
C5
RUN-ACC A31
(8W-10-11)
BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
(8W-12-16)
BODY CONTROL MODULE
(8W-45-3)
(8W-45-7)
PARK LAMP SWITCH OUTPUT
CCD BUS (+)
CCD BUS (-)
PANEL LAMPS DRIVER
FUSE 14 10A
(8W-12-13)
FUSE 5 10A
(8W-12-8)
L7 18 BK/DG
D1 20 VT/BK
D2 20 WT/VT
E2 18 OR/BR
X12 16 RD/WT
M1 18 PK/TN
C2
C3
C7
RADIO
FUSED IGN. (RUN-ACC)
FUSED B+
LEFT FRONT (+)
LEFT FRONT (-)
RIGHT FRONT (+)
RIGHT FRONT (-)
12V OUTPUT
LEFT REAR (+)
LEFT REAR (-)
RIGHT REAR (+)
RIGHT REAR (-)
C1
X53 22 DG
X55 22 BR/RD
X54 22 VT
X56 22 DB/RD
X60 22 DG/RD
X51 22 BR/YL
X57 22 BR/LB
X52 22 DB/WT
X58 22 DB/OR
C224
C311
C316
X85 22 LG/DG
X87 22 LG/VT
X80 22 LB/DG
X82 22 LB/VT
LEFT FRONT DOOR SPEAKER
RIGHT FRONT DOOR SPEAKER
POWER ANTENNA
(8W-47-3)
LEFT REAR SPEAKER
RIGHT REAR SPEAKER


BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
FUSE
5
10A
(8W-12-8)
11
C9
M1
20
PK/VT
ANTENNA
1
POWER ANTENNA
2
X60
22
DG/RD
ANTENNA CABLE
9
C224
X60
22
DG/RD
1
C1
RADIO
(8W-47-2)

8W-47 AUDIO SYSTEM

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CD PLAYER 4
HELPFUL INFORMATION 5
POWER AMPLIFIER 4
POWER ANTENNA 5
RADIO ILLUMINATION 4
RADIO MEMORY 4
RADIO OPERATION 4
SPEAKERS (BASE SYSTEM) 4
SPEAKERS (PREMIUM SYSTEM) 4

DESCRIPTION AND OPERATION

RADIO OPERATION

There are two audio systems offered on this vehicle. The base system uses four speakers and a standard antenna. The optional system has six speakers, power amplifier, and a power antenna.

Both systems are powered by a 10 amp fuse located in cavity 14 of the junction block on circuit X12. This fuse is HOT when the ignition switch is in the ACCESSORY or RUN position.

The A31 circuit, which receives it's power from the ignition switch, on circuit A1, is protected by a 20 amp fuse located in cavity 8 of the Power Distribution Center (PDC).

Both the standard and optional radios use an external case ground. This case ground attaches to the rear of the radio and the instrument panel.

RADIO MEMORY

Both the base and premium systems use the M1 circuit to maintain radio memory. This circuit is connected to the battery through the Power Distribution Center (PDC), and protected by a 10 amp Ignition-Off Draw (IOD) fuse. The M1 circuit is used to supply power to the Body Control Module (BCM), Power Mirrors, and the Power Door Locks. This fuse is also used in several other circuits, refer to section 8W-12 for additional information on the IOD fuse. The IOD fuse is removed during vehicle shipping to prevent excessive battery draw.

RADIO ILLUMINATION

When the parking lamps or the headlamps are ON, circuits E2 and L7 are used to power the radio illumination lamps. Circuit E2 is controlled by the Body Control Module (BCM). Circuit L7 is controlled by the park lamp switch.

CD PLAYER

The optional CD player is connected to the radio through a DIN cable.

Operation of the CD player is covered in group 8F, Audio Systems, in this service manual. Refer to that section for additional information

SPEAKERS (BASE SYSTEM)

Circuit X53 is the feed to the left front door speaker. Circuit X55 is the return from the speaker to the radio.

Circuit X54 is the feed to the right front door speaker. Circuit X56 is the return from the speaker to the radio.

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

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

POWER AMPLIFIER

The power amplifier is used in the premium system only. It is placed between the radio and the speakers. The feed for the amplifier is provided on the F30 circuit.

The F30 circuit is protected by a 20 amp fuse located in cavity 8 of the junction block. Circuit F30 is spliced and provides power to the horns and the cigar lighter. Ground is provided on the Z1 circuit and terminates at the instrument panel left side cowl.

SPEAKERS (PREMIUM SYSTEM)

Circuit X53 is the feed for the left front speaker to the power amplifier. Circuit X55 is the return from the amplifier to the radio.

Circuit X54 is the feed for the right front speaker to the power amplifier. Circuit X55 is the return from the amplifier to the radio.

Circuit X51 is the feed for the left rear speaker to the power amplifier. Circuit X57 is the return from the amplifier to the radio.

Circuit X53 is the feed for the left front speaker to the power amplifier. Circuit X55 is the return from the amplifier to the radio.

DESCRIPTION AND OPERATION (Continued)

Circuit X52 is the feed for the right rear speaker to the power amplifier. Circuit X58 is the return from the amplifier to the radio.

Circuits X84 and X86 supply power and ground for the right front instrument panel speaker.

Circuits X83 and X81 supply power and ground for the left front instrument panel speaker.

Circuits X87 and X85 supply power and ground for the left front door speaker.

Circuits X82 and X80 supply power and ground for the right front door speaker.

Circuits X91, X93, X95, and X97 supply power and ground for the left rear speaker.

Circuits X92, X94, X96, and X98 supply power and ground for the left rear speaker.

POWER ANTENNA

The power antenna is used on the premium systems only. Battery feed for the antenna is provided from two different circuits.

One is the M1 circuit. The M1 circuit is used to supply power to the Body Control Module (BCM), Power Mirrors, and the Power Door Locks. This fuse is also used in several other circuits, refer to section 8W-12 for additional information on the IOD fuse. The IOD fuse is removed during vehicle shipping to prevent excessive battery draw.

The other circuit is the X60 circuit from the power amplifier. This circuit is HOT when the radio is in the ON position. Ground for the antenna is a case ground.

CCD BUS

The CCD Bus is used on the premium system only. It allows the radio to interface with the CCD bus. Circuits D1 and D2 are used. The D1 circuit is the CCD (+), and circuit D2 is the CCD(-).

HELPFUL INFORMATION

- Check for a blown 20 amp fuse in cavity 8 of the junction block
- Check the 20 amp fuse located in cavity 8 of the PDC
- Check the case ground attached to the rear of the radio
- Check the 10 amp IOD fuse located in cavity 5 of the junction block

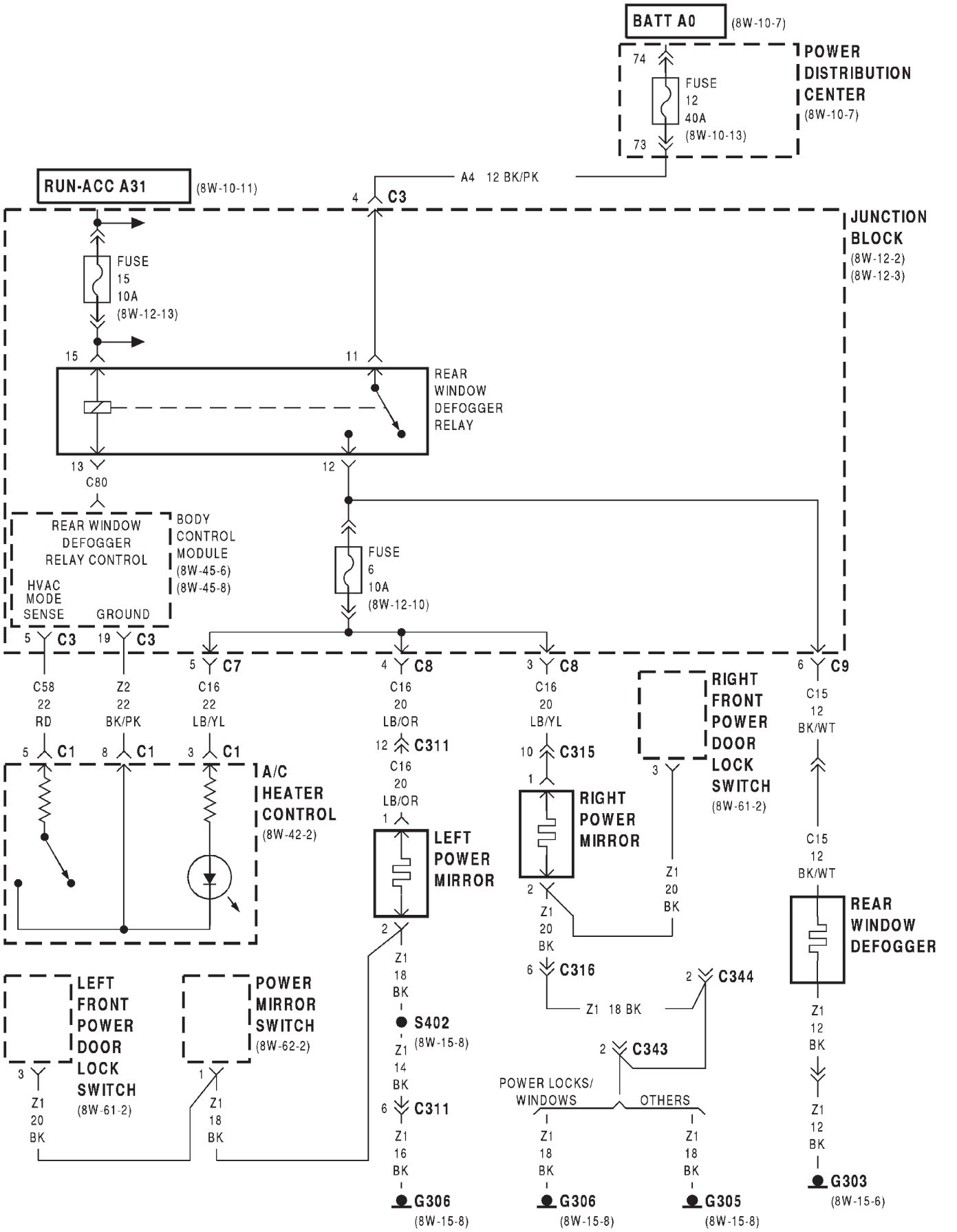
8W-48 REAR WINDOW DEFOGGER

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Component	Page
A/C Heater Control	8W-48-2
Body Control Module	8W-48-2
Fuse 6 (JB)	8W-48-2
Fuse 12 (PDC)	8W-48-2
Fuse 15 (JB)	8W-48-2
G303	8W-48-2
G305	8W-48-2
G306	8W-48-2
Junction Block	8W-48-2
Left Front Power Door Lock Switch	8W-48-2
Left Power Mirror	8W-48-2
Power Distribution Center	8W-48-2
Power Mirror Switch	8W-48-2
Rear Window Defogger	8W-48-2
Rear Window Defogger Relay	8W-48-2
Right Front Power Door Lock Switch	8W-48-2
Right Power Mirror	8W-48-2
S402	8W-48-2


BATT A0
(8W-10-7)
74
FUSE
12
40A
(8W-10-13)
73
POWER
DISTRIBUTION
CENTER
(8W-10-7)
RUN-ACC A31
(8W-10-11)
A4 12 BK/PK
4 C3
JUNCTION
BLOCK
(8W-12-2)
(8W-12-3)
FUSE
15
10A
(8W-12-13)
15
11
REAR
WINDOW
DEFOGGER
RELAY
13
C80
12
REAR WINDOW
DEFOGGER
RELAY CONTROL
HVAC
MODE
SENSE
GROUND
BODY
CONTROL
MODULE
(8W-45-6)
(8W-45-8)
FUSE
6
10A
(8W-12-10)
5 C3
19 C3
5 C7
4 C8
3 C8
6 C9
C58
22
RD
Z2
22
BK/PK
C16
22
LB/YL
C16
20
LB/OR
C16
20
LB/YL
C15
12
BK/WT
5 C1
8 C1
3 C1
A/C
HEATER
CONTROL
(8W-42-2)
12 C311
C16
20
LB/OR
1
LEFT
POWER
MIRROR
2
10 C315
1
RIGHT
POWER
MIRROR
2
RIGHT
FRONT
POWER
DOOR
LOCK
SWITCH
(8W-61-2)
3
Z1
20
BK
Z1
20
BK
6 C316
Z1 18 BK
2 C344
2 C343
POWER LOCKS/
WINDOWS
OTHERS
Z1
18
BK
Z1
18
BK
G306
(8W-15-8)
G306
(8W-15-8)
G305
(8W-15-8)
C15
12
BK/WT
REAR
WINDOW
DEFOGGER
Z1
12
BK
Z1
12
BK
G303
(8W-15-6)
LEFT
FRONT
POWER
DOOR
LOCK
SWITCH
(8W-61-2)
3
Z1
20
BK
POWER
MIRROR
SWITCH
(8W-62-2)
1
Z1
18
BK
Z1
18
BK
S402
(8W-15-8)
Z1
14
BK
6 C311
Z1
16
BK
G306
(8W-15-8)

8W-48 REAR WINDOW DEFOGGER

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DESCRIPTION AND OPERATION

REAR WINDOW DEFOGGER

The rear window defogger system uses a relay located in the junction block. This relay is protected by two fuses and controlled by the Body Control Module (BCM). When the operator pushes the ON switch for the rear window defogger a signal is sent to the BCM on circuit C58. The A/C- Heater control uses resistors internal to the unit and the BCM measures the voltage drop on the circuit to determine operator request. Ground for the control is provided on circuit Z2 and terminates at the instrument panel left side cowl after passing through the ground joint in the junction block.

When the signal is processed by the BCM it grounds circuit C80. This is the coil side of the relay. Power for the coil side is provided on circuit F13. This circuit also supplies power for the windshield wipers and combo flasher. Circuit F13 is protected by a 10 amp fuse in cavity 15 of the junction block and is HOT in the ACCESSORY and RUN positions only. Power for the fuse is provided on circuit A31 from the ignition switch.

The A31 circuit receives power from the A1 circuit which originates in the Power Distribution Center (PDC) and is protected by a 20 amp fuse located in cavity 8.

As current flows through the relay, contacts in the relay CLOSE connecting circuits A4 and C15. The A4 circuit is protected by a 40 amp fuse located in cavity 12 of the PDC. Circuit C15 connects from the relay to the rear window defogger grid and the heated mirrors.

The rear window defogger grid consists of two BUS bars and grid lines that form a parallel circuit. When current flows through the grid the grid lines heat up and transfer the heat to the window. Ground for the grid is provided on circuit Z1 and terminates at the right rear wheel well.

When the system is in operation a Light Emitting Diode (LED) located in the A/C-Heater control is illuminated.

HELPFUL INFORMATION

- Check the 10 amp fuse located in the junction block cavity 15
- Check the 40 amp fuse located in cavity 12 of the PDC
- Check for broken grid lines on the window
- Check for a broken BUS bar or disconnected leads at the window
- Check for a good ground at the right rear wheel well

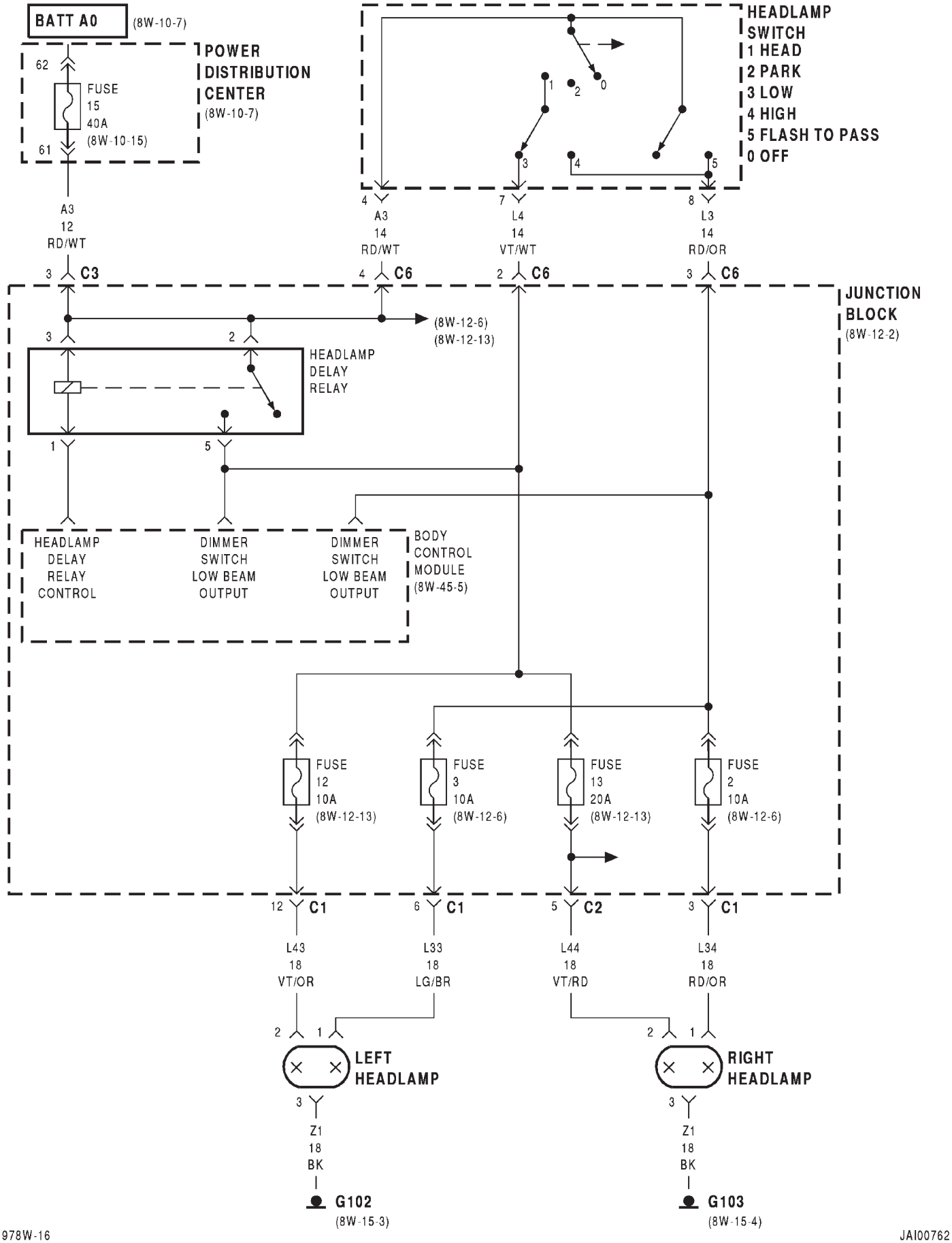
8W-50 FRONT LIGHTING

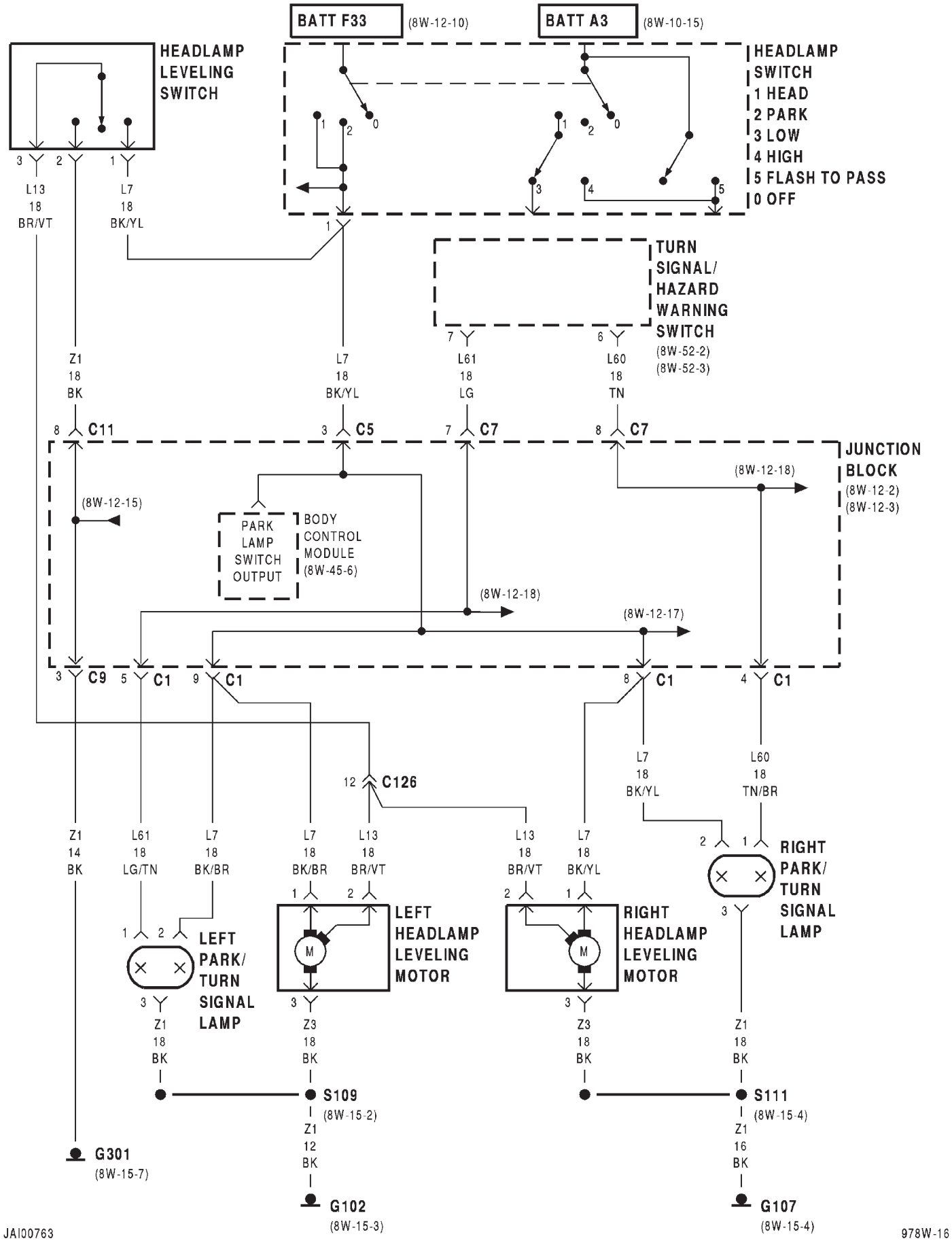
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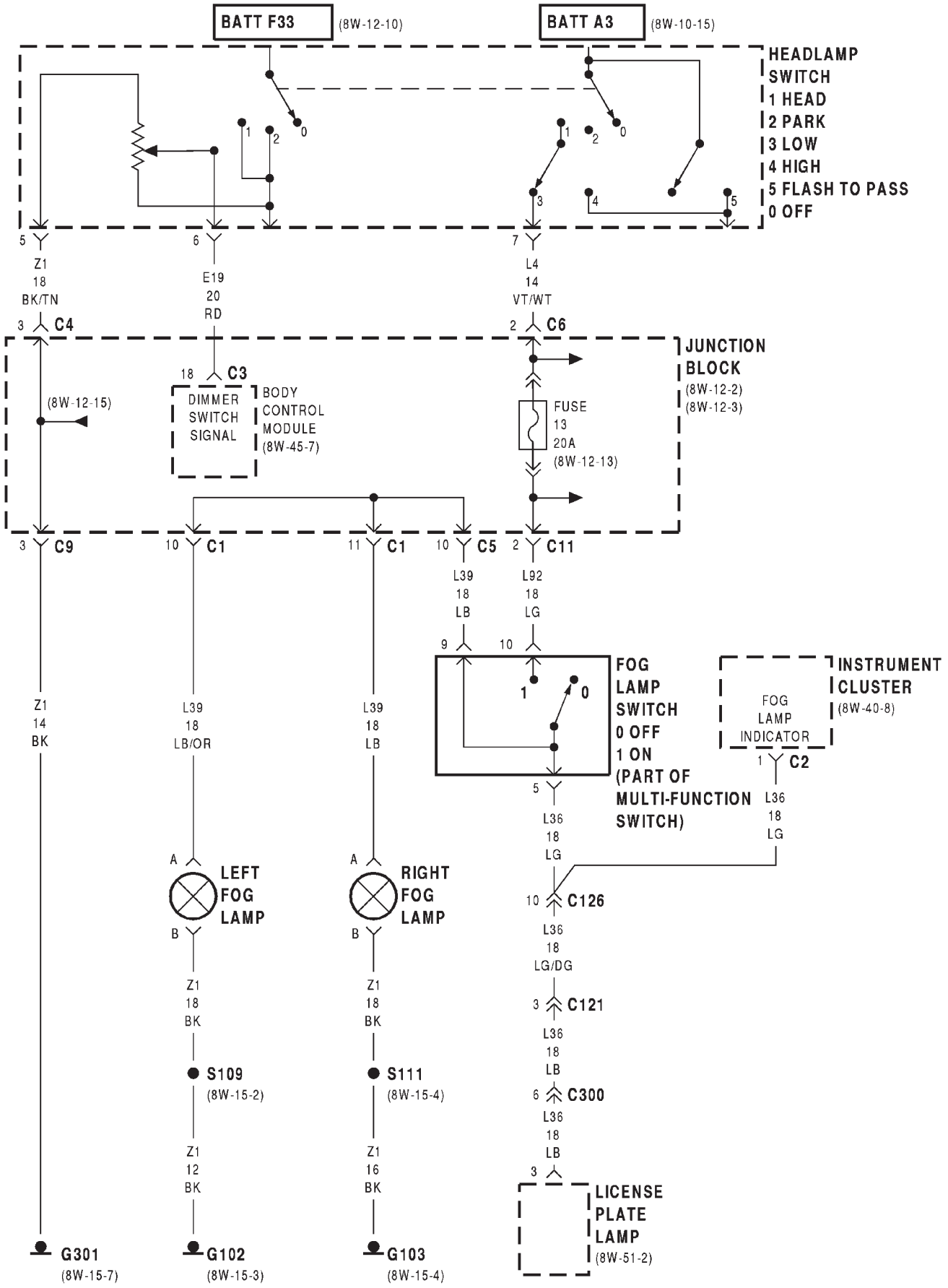
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BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
62
FUSE 15 40A
(8W-10-15)
61
A3 12 RD/WT
3 C3
HEADLAMP SWITCH
1 HEAD
2 PARK
3 LOW
4 HIGH
5 FLASH TO PASS
0 OFF
4 A3 14 RD/WT
7 L4 14 VT/WT
8 L3 14 RD/OR
4 C6
2 C6
3 C6
JUNCTION BLOCK
(8W-12-2)
(8W-12-6)
(8W-12-13)
HEADLAMP DELAY RELAY
HEADLAMP DELAY RELAY CONTROL
DIMMER SWITCH LOW BEAM OUTPUT
DIMMER SWITCH LOW BEAM OUTPUT
BODY CONTROL MODULE
(8W-45-5)
FUSE 12 10A
(8W-12-13)
FUSE 3 10A
(8W-12-6)
FUSE 13 20A
(8W-12-13)
FUSE 2 10A
(8W-12-6)
12 C1
6 C1
5 C2
3 C1
L43 18 VT/OR
L33 18 LG/BR
L44 18 VT/RD
L34 18 RD/OR
LEFT HEADLAMP
RIGHT HEADLAMP
Z1 18 BK
G102
(8W-15-3)
G103
(8W-15-4)


BATT F33
(8W-12-10)
BATT A3
(8W-10-15)
HEADLAMP LEVELING SWITCH
HEADLAMP SWITCH
1 HEAD
2 PARK
3 LOW
4 HIGH
5 FLASH TO PASS
0 OFF
L13 18 BR/VT
L7 18 BK/YL
TURN SIGNAL/ HAZARD WARNING SWITCH
(8W-52-2)
(8W-52-3)
L61 18 LG
L60 18 TN
Z1 18 BK
C11
C5
C7
C7
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
(8W-12-15)
(8W-12-18)
PARK LAMP SWITCH OUTPUT
BODY CONTROL MODULE
(8W-45-6)
(8W-12-18)
(8W-12-17)
C9
C1
C1
C1
C1
C126
L7 18 BK/YL
L60 18 TN/BR
Z1 14 BK
L61 18 LG/TN
L7 18 BK/BR
L7 18 BK/BR
L13 18 BR/VT
L13 18 BR/VT
L7 18 BK/YL
RIGHT PARK/ TURN SIGNAL LAMP
LEFT PARK/ TURN SIGNAL LAMP
LEFT HEADLAMP LEVELING MOTOR
RIGHT HEADLAMP LEVELING MOTOR
Z1 18 BK
Z3 18 BK
Z3 18 BK
Z1 18 BK
S109
(8W-15-2)
S111
(8W-15-4)
Z1 12 BK
Z1 16 BK
G301
(8W-15-7)
G102
(8W-15-3)
G107
(8W-15-4)


BATT F33
(8W-12-10)
BATT A3
(8W-10-15)
HEADLAMP SWITCH
1 HEAD
2 PARK
3 LOW
4 HIGH
5 FLASH TO PASS
0 OFF
Z1 18 BK/TN
E19 20 RD
L4 14 VT/WT
C4
C6
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
C3
DIMMER SWITCH SIGNAL
BODY CONTROL MODULE
(8W-45-7)
(8W-12-15)
FUSE 13 20A
(8W-12-13)
C9
C1
C1
C5
C11
L39 18 LB
L92 18 LG
FOG LAMP SWITCH
0 OFF
1 ON
(PART OF MULTI-FUNCTION SWITCH)
INSTRUMENT CLUSTER
(8W-40-8)
FOG LAMP INDICATOR
C2
L36 18 LG
Z1 14 BK
L39 18 LB/OR
L39 18 LB
LEFT FOG LAMP
RIGHT FOG LAMP
C126
L36 18 LG/DG
C121
L36 18 LB
C300
L36 18 LB
LICENSE PLATE LAMP
(8W-51-2)
Z1 18 BK
Z1 18 BK
S109
(8W-15-2)
S111
(8W-15-4)
Z1 12 BK
Z1 16 BK
G301
(8W-15-7)
G102
(8W-15-3)
G103
(8W-15-4)

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HEADLAMPS 5
PARKING LAMPS 5

GENERAL INFORMATION

INTRODUCTION

The headlamp switch has three positions, OFF, PARK (parking lamps), and ON. Power for the headlamp portion of the headlamp switch is provided on circuit A3. This circuit originates in the Power Distribution Center (PDC) and is protected by a 40 amp fuse located in cavity 14. The headlamp switch has a LOW beam and HIGH beam select position.

Power for the parking lamp portion of the headlamp switch is provided on circuit F33. Circuit A13 in the Power Distribution Center (PDC) powers a 20 amp fuse located in cavity 7 of the junction block. The A13 circuit is protected by a 40 amp fuse located in cavity 14 of the PDC. Circuit F33, which connects to the other side of the fuse in the junction block, connects to the headlamp switch and is spliced to provide power for the instrument cluster.

DESCRIPTION AND OPERATION

PARKING LAMPS

Power for the parking lamp portion of the headlamp switch is provided on circuit F33. Circuit A13 in the Power Distribution Center (PDC) powers a 20 amp fuse located in cavity 7 of the junction block. The A13 circuit is protected by a 40 amp fuse located in cavity 14 of the PDC. Circuit F33, which connects to the other side of the fuse in the junction block, connects to the headlamp switch and is spliced to provide power for the instrument cluster.

When the headlamp switch is in the PARK or ON position, it connects circuit F33 to circuit L7. From the headlamp switch, circuit L7 splices to power the front parking lamps, rear tail lamps, and the license lamp. It also provides an input to the Body Control Module (BCM) indicating the lamps are ON, to the radio for illumination, and to the dimmer switch.

HELPFUL INFORMATION

- Check for a blown 40 amp fuse located in cavity 14 of the PDC.
- Check for a blown 20 amp fuse located in cavity 7 of the junction block.
- For the left front lamps check the grounding point at the left strut tower.
- For the right front lamps check the grounding point at the right frame rail.

HEADLAMPS

When the headlamp switch is in the ON position, the A3 circuit from the Power Distribution Center (PDC) connects to circuit L4 (for LOW beam operation). The L4 circuit is spliced and connects a BUS bar in the junction block and to the Body Control Module (BCM). Circuits L43 and L44 connect to the BUS bar in the junction block, and power the low-beam headlamps. Circuit L43 supplies power to the left headlamp. Circuit L44 supplies power to the right headlamp. The L43 and L44 circuits each have separate fuses in the junction block. The L43 circuit is protected by a 10 amp fuse in cavity 12, and L44 is protected by a 20 amp fuse in cavity 13.

When the operator selects high-beam operation, with the turn signal stalk of the multi-function switch, circuit A3 connects to the L3 circuit. Circuit L3 powers high-beam operation. This circuit is spliced and provides an input to the BCM, along with supplying power to the high-beam fuses in the junction block.

Circuit L33 is used for left high-beam operation and is protected by a 10 amp fuse located in cavity 3 of the junction block. Circuit L34 is used for the right high-beam and is protected by a 10 amp fuse located in cavity 2 of the junction block.

HEADLAMP GROUND

Although circuit Z1 provides ground for the right and left headlamps, it has different termination points. For the right headlamp, the Z1 circuit is terminated at the right frame rail. For the left headlamp, the Z1 terminates at the left strut tower.

HELPFUL INFORMATION

- Check for a blown 40 amp fuse located in cavity 14 of the PDC.

DESCRIPTION AND OPERATION (Continued)

- Check for a blown 20 amp fuse located in cavity 7 of the junction block.
- For the left front lamps check the grounding point at the left strut tower.
- For the right front lamps check the grounding point at the right frame rail.

HEADLAMP LEVELING MOTORS

Power fort the headlamp leveling switch is supplied from the headlamp switch on circuit L7. This circuit is HOT when the headlamp switch is in the PARK or ON position. This circuit provides power to the parking lamps. Ground for the switch is supplied on circuit Z1.

The L7 circuit also supplies power to the headlamp leveling motors. Ground for the headlamp leveling motors is supplied on circuit Z3.

Circuit L13 connects from the headlamp leveling motors to the switch. This circuit is used to provide power or ground to the motors depending on switch position.

FOG LAMPS

The fog lamps operate only when the headlamp switch is in the ON position and the operator has selected LOW-beam operation. When the headlamps are in HIGH-beam mode, the fog lamps will not operate.

When the operator tunrs the fog lamps switch ON circuit L44 is connected to circuit L39. The L44 circuit is protected by a 20 amp fuse located in cavity 13 of the junction block, and powers the LOW beam headlamps.

Circuit L39 connects from the switch to the fog lamps.

Ground for the lamps is different for the left and right lamps. For the right fog lamp, the ground is provided on circuit Z1 and terminates at the right frame rail. For the left fog lamp, the ground is provided on circuit Z1 and terminates at the left strut tower.

HELPFUL INFORMATION

- Check for a blown 40 amp fuse in cavity 14, and 15 of the PDC. If this fuse is blown the headlamps will not operate.
- Check for a blown 20 amp fuse in cavity 10 of the junction block. If this fuse is blown the right low-beam headlamp will not operate.
- Check for a good ground at the right frame rail for the right fog lamp.
- Check for a good ground at the left strut tower for the left fog lamp.

HEADLAMP DELAY

The headlamp delay uses a relay located in the junction block. Power for the relay is supplied on circuit A3. This circuit powers the coil and contact sides of the relay and is protected by a 40 amp fuse located in the Power Distribution Center (PDC) cavity 15.

The relay is activated by the operator turning OFF the ignition with the headlamps ON. The Body Control Module (BCM) controls the ground for the coil side of the relay and the amount of time the headlamps stay ON. Circuit G50 connects the coil side of the relay to the BCM.

When the relay is energized, the contacts in the relay CLOSE connecting circuits A3 and L4. Circuit L4 is used to power the fuses used for low-beam headlamp operation.

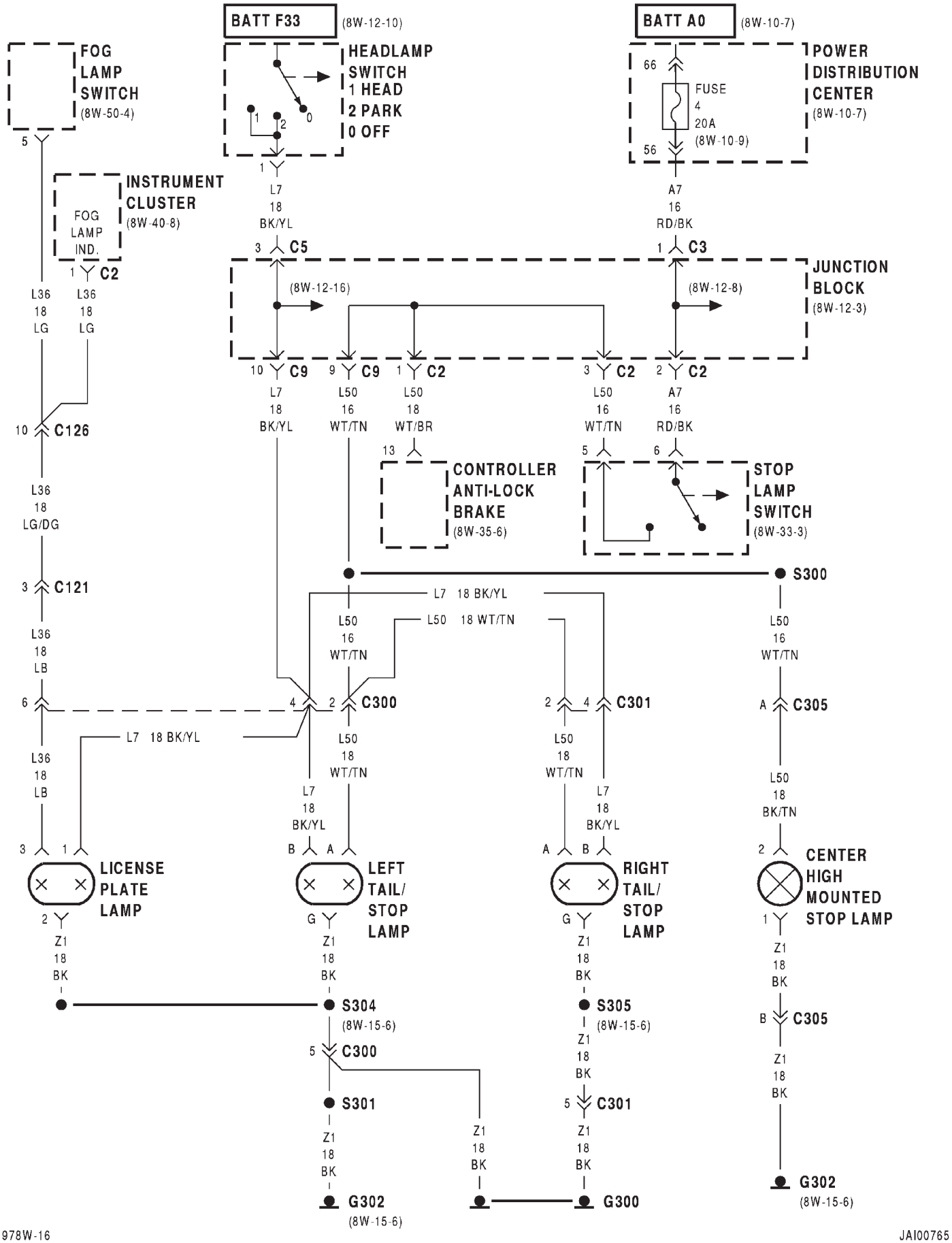
8W-51 REAR LIGHTING

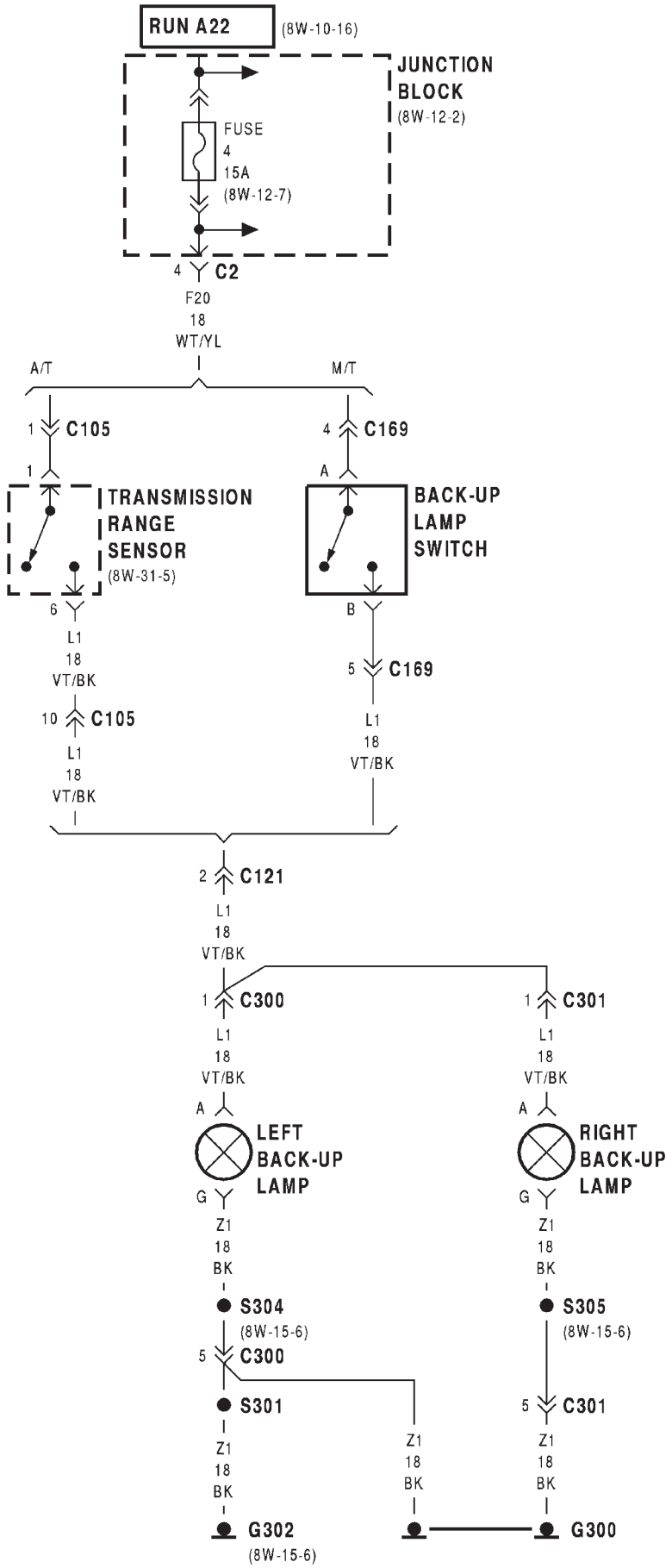
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S301	8W-51-2, 3
S304	8W-51-2, 3
S305	8W-51-2, 3
Stop Lamp Switch	8W-51-2
Transmission Range Sensor	8W-51-3


BATT F33
(8W-12-10)
BATT A0
(8W-10-7)
FOG LAMP SWITCH
(8W-50-4)
HEADLAMP SWITCH
1 HEAD
2 PARK
0 OFF
POWER DISTRIBUTION CENTER
(8W-10-7)
FUSE 4 20A
(8W-10-9)
INSTRUMENT CLUSTER
(8W-40-8)
FOG LAMP IND.
L7 18 BK/YL
A7 16 RD/BK
C5
C3
C2
JUNCTION BLOCK
(8W-12-3)
(8W-12-16)
(8W-12-8)
C9
C9
C2
C2
C2
L36 18 LG
L50 16 WT/TN
L50 18 WT/BR
L50 16 WT/TN
A7 16 RD/BK
C126
CONTROLLER ANTI-LOCK BRAKE
(8W-35-6)
STOP LAMP SWITCH
(8W-33-3)
L36 18 LG/DG
C121
S300
L7 18 BK/YL
L50 18 WT/TN
L50 16 WT/TN
L36 18 LB
C300
C301
C305
L50 18 BK/TN
LICENSE PLATE LAMP
LEFT TAIL/ STOP LAMP
RIGHT TAIL/ STOP LAMP
CENTER HIGH MOUNTED STOP LAMP
Z1 18 BK
S304
(8W-15-6)
S305
(8W-15-6)
C300
C301
C305
S301
G302
(8W-15-6)
G300
G302
(8W-15-6)



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STOP LAMPS 4
TAIL LAMPS AND REAR LICENSE LAMPS 4

DESCRIPTION AND OPERATION

TAIL LAMPS AND REAR LICENSE LAMPS

Circuit A13 in the Power Distribution Center (PDC) powers a 20 amp fuse located in cavity 7 of the junction block. The A13 circuit is protected by a 40 amp fuse located in cavity 14. Circuit F33, which connects to the other side of the fuse in the junction block, connects to the headlamp switch and is spliced to provide power for the instrument cluster.

The headlamp switch has three positions: OFF, PARK (parking lamps), and ON. When the headlamp switch is in the PARK or ON position, it connects circuit F33 to circuit L7. From the headlamp switch, circuit L7 splices to power the front parking lamps, rear tail lamps, and the license lamp. It also provides an input to the Body Control Module (BCM) indicating the lamps are ON, to the radio for illumination, and to the dimmer switch.

GROUND CIRCUIT

Circuit Z1 provides a ground for the tail lamps, parking lamps, headlamps, and the license plate lamp, although different grounding points are used.

HELPFUL INFORMATION

- Check for a blown 40 amp fuse located in cavity 14 of the PDC
- Check for a blown 20 amp fuse located in cavity 7 of the junction block
- For all of the rear lamps check the grounding point at the deck lid ground

STOP LAMPS

Circuit A7 supplies power for the stop lamp switch. This circuit originates in the Power Distribution Center (PDC) and is protected by a 20 amp fuse. The A7 circuit is spliced in the junction block and supplies voltage for the Ignition-Off Draw (IOD) fuse.

When the operator presses the brake pedal, the stop lamp switch CLOSES, and connects circuit A7 to circuit L50. Circuit L50 connects from the stop lamp switch to the stop lamps and the Center High Mounted Stop Lamp (CHMSL). Ground for the lamps is provided on circuit Z1 and terminates at the deck lid ground.

HELPFUL INFORMATION

- Check for a blown 20 amp fuse located in cavity 4 of the PDC.
- Check the grounding point for the rear lamps.
- Check for continuity across the stop lamp switch when it is closed.

BACK-UP LAMPS

For automatic transmission vehicles refer to section 8W-31 for lamp operation. On manual transmission vehicles the back-up lamps are controlled by the back-up lamp switch on the transmission. Power for the switch is supplied on circuit F20. This circuit is protected by a 15 amp fuse located in cavity 4 of the junction block. The switch is normally OPEN.

When the operator places the vehicle in REVERSE the switch CLOSES and power is passed to the L1 circuit. The L1 circuit connects between the switch and the back-up lamps.

Ground for the back-up lamps is provided on circuit Z1. This circuit terminates at the deck lid ground.

REAR FOG LAMPS

Power for the rear fog lamps is supplied on circuit L36. This circuit connects from the fog lamp switch to the rear fog lamps. Power for this circuit is supplied by circuit L92. The L92 circuit is protected by a 20 amp fuse located in cavity 13 of the junction block.

When the operator turns the switch ON circuits L92 and L36 are connected. Ground for the lamps is supplied on circuit Z1.

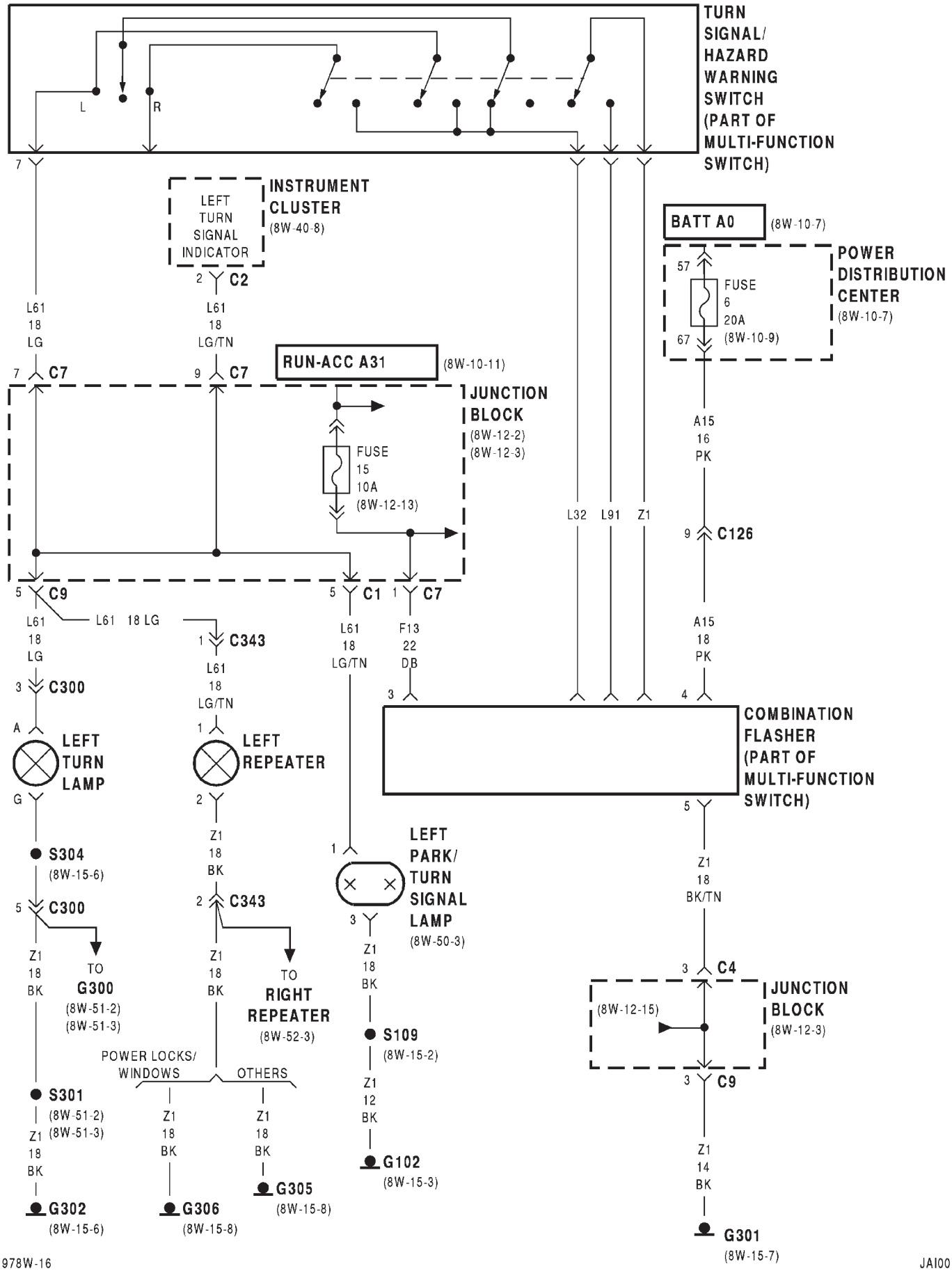
8W-52 TURN SIGNALS

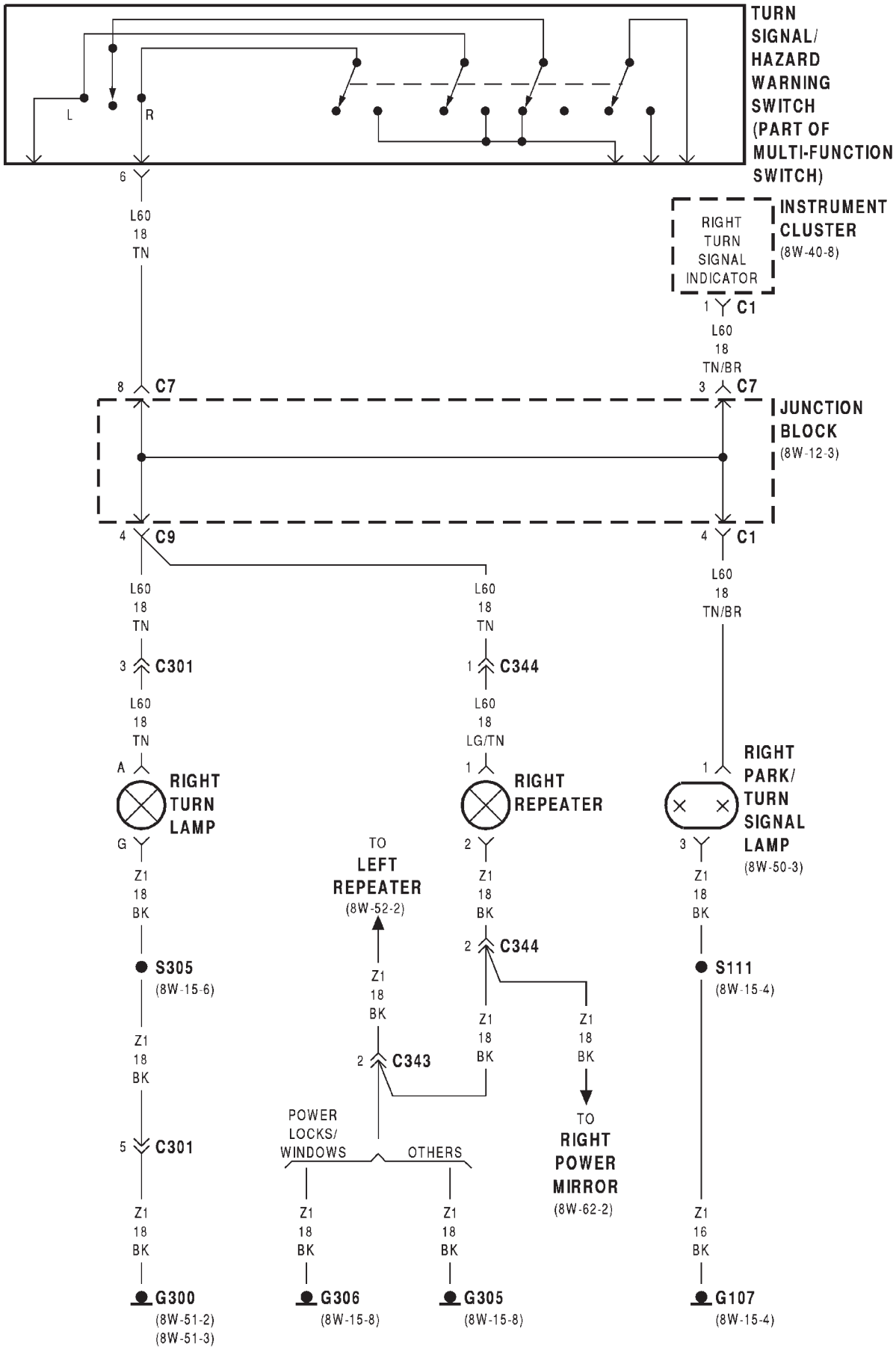
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Right Power Mirror	8W-52-3
Right Repeater	8W-52-2, 3
Right Turn Lamp	8W-52-3
S109	8W-52-2
S111	8W-52-3
S301	8W-52-2
S304	8W-52-2
S305	8W-52-3
Turn Signal/Hazard Warning Switch	8W-52-2, 3


TURN SIGNAL/ HAZARD WARNING SWITCH (PART OF MULTI-FUNCTION SWITCH)
L
R
7
INSTRUMENT CLUSTER
LEFT TURN SIGNAL INDICATOR
(8W-40-8)
2 C2
L61 18 LG
L61 18 LG/TN
BATT A0 (8W-10-7)
POWER DISTRIBUTION CENTER (8W-10-7)
57
FUSE 6 20A
67
(8W-10-9)
A15 16 PK
7 C7
9 C7
RUN-ACC A31 (8W-10-11)
JUNCTION BLOCK (8W-12-2) (8W-12-3)
FUSE 15 10A (8W-12-13)
L32 L91 Z1
9 C126
5 C9
L61 18 LG
5 C1
1 C7
L61 18 LG/TN
F13 22 DB
A15 18 PK
3
4
COMBINATION FLASHER (PART OF MULTI-FUNCTION SWITCH)
1 C343
L61 18 LG/TN
3 C300
A
LEFT TURN LAMP
G
1
LEFT REPEATER
2
5
Z1 18 BK/TN
Z1 18 BK
S304 (8W-15-6)
5 C300
TO G300 (8W-51-2) (8W-51-3)
2 C343
TO RIGHT REPEATER (8W-52-3)
1
LEFT PARK/ TURN SIGNAL LAMP (8W-50-3)
3
3 C4
(8W-12-15)
JUNCTION BLOCK (8W-12-3)
3 C9
POWER LOCKS/ WINDOWS
OTHERS
S109 (8W-15-2)
Z1 12 BK
Z1 14 BK
S301 (8W-51-2) (8W-51-3)
G102 (8W-15-3)
G302 (8W-15-6)
G306 (8W-15-8)
G305 (8W-15-8)
G301 (8W-15-7)


TURN SIGNAL/ HAZARD WARNING SWITCH (PART OF MULTI-FUNCTION SWITCH)
L
R
6
L60 18 TN
INSTRUMENT CLUSTER (8W-40-8)
RIGHT TURN SIGNAL INDICATOR
1 C1
L60 18 TN/BR
8 C7
3 C7
JUNCTION BLOCK (8W-12-3)
4 C9
4 C1
L60 18 TN
L60 18 TN
L60 18 TN/BR
3 C301
1 C344
L60 18 TN
L60 18 LG/TN
A
1
1
RIGHT TURN LAMP
RIGHT REPEATER
RIGHT PARK/ TURN SIGNAL LAMP (8W-50-3)
G
2
3
Z1 18 BK
TO LEFT REPEATER (8W-52-2)
Z1 18 BK
Z1 18 BK
S305 (8W-15-6)
2 C344
S111 (8W-15-4)
Z1 18 BK
Z1 18 BK
Z1 18 BK
2 C343
5 C301
POWER LOCKS/ WINDOWS
OTHERS
TO RIGHT POWER MIRROR (8W-62-2)
Z1 18 BK
Z1 18 BK
Z1 18 BK
Z1 16 BK
G300 (8W-51-2) (8W-51-3)
G306 (8W-15-8)
G305 (8W-15-8)
G107 (8W-15-4)

8W-52 TURN SIGNALS

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DESCRIPTION AND OPERATION

TURN SIGNALS

Power for the turn signals flows from the Power Distribution Center (PDC) to the ignition switch on circuit A1. The A1 circuit is protected by a 20 amp fuse located in cavity 8 of the PDC. With the key in the ACCESSORY or RUN position, the ignition switch connects voltage from the A1 circuit to the A31 circuit.

Circuit A31 connects to the junction block and powers fuse 15. This is a 10 amp fuse. From the fuse, circuit F13 supplies voltage to the combination flasher. The F13 circuit also supplies power to the windshield wipers and the rear window defogger relay.

Circuit A15 also supplies voltage to the combination flasher. This circuit is HOT at all times and is protected by a 20 amp fuse located in cavity 6 of the PDC.

The L32 circuit connects between the combination flasher and the turn signal portion of the multi-function switch. Circuit L32 connects to a BUS bar internal to the switch that powers the turn signals and the hazard flasher.

RIGHT TURN SIGNAL

When the operator selects the right turn signal, the multi-function switch connects power from circuit L32 to circuit L60. Circuit L60 supplies power for the front and rear turn signal lamps and the side repeater lamps. This circuit also splices and supplies power to the instrument cluster indicator lamp.

Ground for the rear lamp is provided on circuit Z1 and terminates at the deck lid ground. The ground for the front lamp is provided on circuit Z1 and terminates at the right frame rail.

LEFT TURN SIGNAL

When the operator selects the left turn signal, the multi-function switch connects power from circuit L32 to circuit L61. Circuit L61 supplies power for the front and rear turn signal lamps and the side repeater lamps. This circuit also splices and supplies power to the instrument cluster indicator lamp.

Ground for the rear lamp is provided on circuit Z1 and terminates at the deck lid ground. The ground for the front lamp is provided on circuit Z1 and terminates at the left strut tower.

HELPFUL INFORMATION

- Check the 20 amp fuses located in cavities 6, and 8 of the PDC
- Check the 10 amp fuse located in cavity 15 of the junction block
- For the left front turn signal lamp check the grounding point at the left strut tower
- For the right front turn signal lamp check the grounding point at the right frame rail
- For the left and right rear turn signal lamps check the grounding point at the deck lid ground.

HAZARD FLASHERS

Power for the hazard flashers flows from the Power Distribution Center (PDC) to the ignition switch on circuit A1. The A1 circuit is protected by a 20 amp fuse located in cavity 8. With the key in the ACCESSORY or RUN position, the ignition switch connects voltage from the A1 circuit to the A31 circuit.

Circuit A31 connects to the junction block and powers fuse 15. This is a 10 amp fuse. From the fuse, circuit F13 supplies voltage to the combination flasher. The F13 circuit also supplies power to the windshield wipers and the rear window defogger relay.

Circuit A15 also supplies voltage to the combination flasher. This circuit is HOT at all times and is protected by a 20 amp fuse located in cavity 6 of the PDC.

The L32 circuit connects between the combination flasher and the BUS bar that powers the turn signals and the hazard flasher internal to the switch.

When the hazard flashers are ON, the multi-function switch connects circuit L32 to circuits L60 and L61. It also connects circuits L91 and Z1. Circuit Z1 is the ground path for the combination flasher and terminates at the instrument panel left side cowl.

Circuit L60 supplies voltage for the right side lamps and circuit L61 powers the left side lamps. These circuits also splice and supply voltage for the indicator lamps in the instrument cluster.

DESCRIPTION AND OPERATION (Continued)

HELPFUL INFORMATION

- Check the 20 amp fuses located in cavities 6, and 8 of the PDC.
- Check the 10 amp fuse located in cavity 15 of the junction block.
- For the left front lamp check the grounding point at the left strut tower.
- For the right front lamp check the grounding point at the right frame rail.
- For the left and right rear lamps check the grounding point at the deck lid ground.
- Check the grounding point for the combination flasher located at the instrument panel left side cowl.

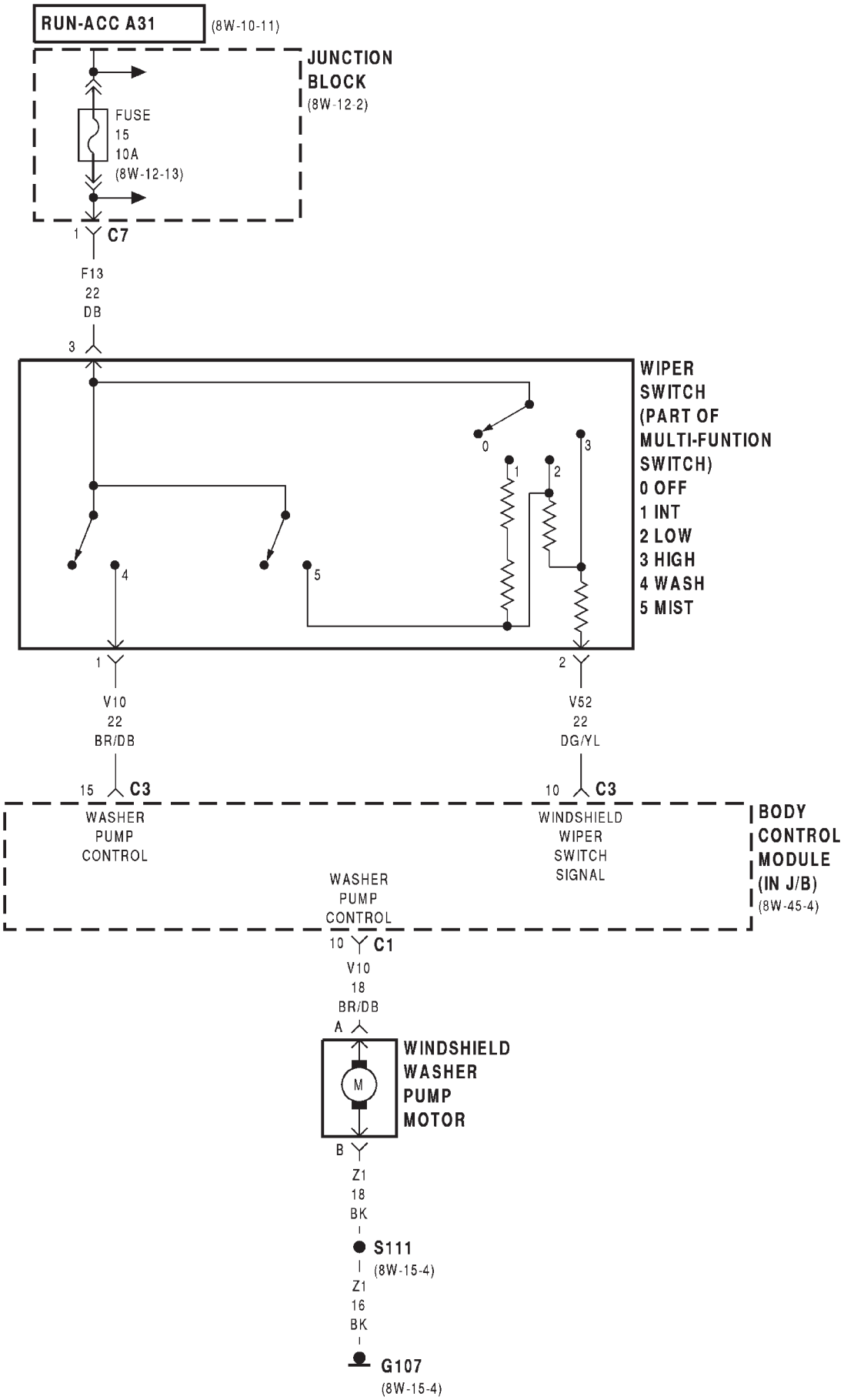
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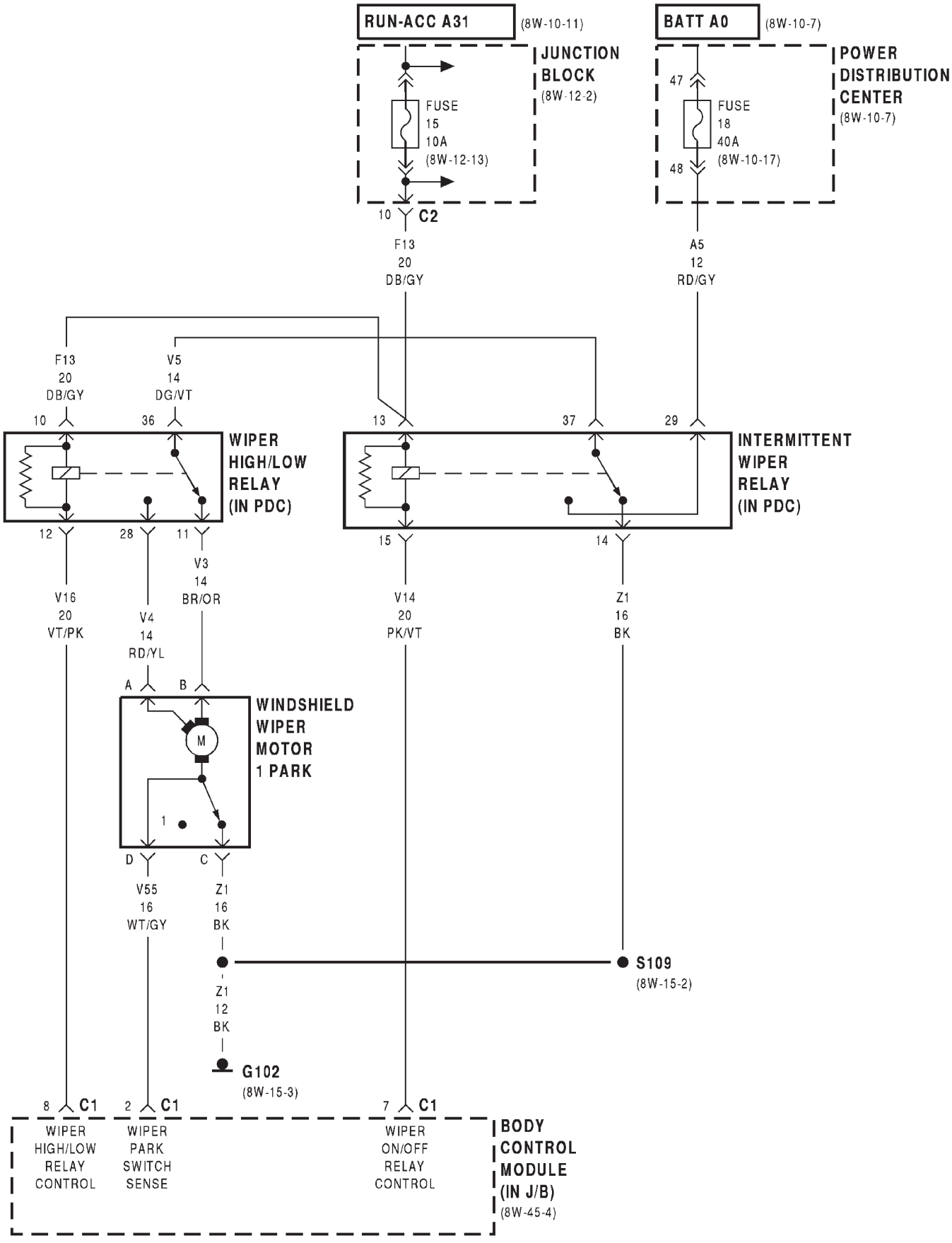
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RUN-ACC A31
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
FUSE
15
10A
(8W-12-13)
1
C7
F13
22
DB
3
WIPER SWITCH (PART OF MULTI-FUNTION SWITCH)
0 OFF
1 INT
2 LOW
3 HIGH
4 WASH
5 MIST
0
1
2
3
4
5
1
V10
22
BR/DB
2
V52
22
DG/YL
15
C3
10
C3
WASHER PUMP CONTROL
WINDSHIELD WIPER SWITCH SIGNAL
BODY CONTROL MODULE (IN J/B)
(8W-45-4)
WASHER PUMP CONTROL
10
C1
V10
18
BR/DB
A
M
WINDSHIELD WASHER PUMP MOTOR
B
Z1
18
BK
S111
(8W-15-4)
Z1
16
BK
G107
(8W-15-4)


RUN-ACC A31
(8W-10-11)
JUNCTION BLOCK
(8W-12-2)
FUSE 15 10A
(8W-12-13)
BATT A0
(8W-10-7)
POWER DISTRIBUTION CENTER
(8W-10-7)
47
FUSE 18 40A
(8W-10-17)
48
10
C2
F13 20 DB/GY
A5 12 RD/GY
F13 20 DB/GY
V5 14 DG/VT
10
36
13
37
29
WIPER HIGH/LOW RELAY (IN PDC)
INTERMITTENT WIPER RELAY (IN PDC)
12
28
11
15
14
V16 20 VT/PK
V4 14 RD/YL
V3 14 BR/OR
V14 20 PK/VT
Z1 16 BK
A
B
WINDSHIELD WIPER MOTOR 1 PARK
M
1
D
C
V55 16 WT/GY
Z1 16 BK
S109
(8W-15-2)
Z1 12 BK
G102
(8W-15-3)
8
C1
2
C1
7
C1
WIPER HIGH/LOW RELAY CONTROL
WIPER PARK SWITCH SENSE
WIPER ON/OFF RELAY CONTROL
BODY CONTROL MODULE (IN J/B)
(8W-45-4)

8W-53 WIPERS

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DESCRIPTION AND OPERATION

WINDSHIELD WIPERS

The windshield wiper system is powered by a 10-amp fuse located in cavity 15 of the junction block. This fuse is HOT in the ACCESSORY and RUN positions only. Power for the fuse is supplied on the A31 circuit.

The A31 circuit originates at the ignition switch. Power for the A31 circuit is supplied by circuit A1 from the Power Distribution Center (PDC) and protected by a 20 amp fuse located in cavity 8.

The F13 circuit supplies the power from the fuse in the junction block to the wiper switch, coil side if the intermittent wiper relay, and the coil side of the HI/LOW Wiper relay. This circuit is spliced and also supplies power to the Rear Window Defogger relay, and the Turn Signal Combo Flasher. Both of the relays used in the wiper system are located in the PDC.

The Body Control Module (BCM) controls all functions of the wiper system. This is accomplished through a multi-plexed input from the wiper switch to the BCM on circuit V52.

INTERMITTENT WIPER OPERATION

When the operator selects intermittent wiper operation a multi-plexed signal is sent to the Body Control Module (BCM) on the V52 circuit. The BCM then grounds circuit V14, which is the coil side of the intermittent wiper relay. This causes the relay to switch from its normally grounded position and connect circuit A5 to circuit V5. The A5 circuit is protected by a 40 amp fuse located in cavity 14 of the Power Distribution Center (PDC).

The V5 circuit is connected to the HI/LOW Wiper relay LOW speed side. Voltage is passed through the relay to circuit V3, then to the LOW speed side of the wiper motor. Ground for the wiper motor is provided on circuit Z1.

When the wiper motor completes one cycle, the BCM turns OFF the motor by deactivating the wiper relays. The amount of delay between wipes is dependent on the voltage level being sent to the BCM from the wiper switch.

As the windshield wiper motor turns, the park switch internal to the motor moves from its grounded position to the open RUN position. The BCM uses input from the park switch, on circuit V55, for wiper position and system operation.

The delay times are also compensated for vehicle speed. If the vehicle is moving less than 10 mph, the delay time is doubled. Once the vehicle speed exceeds 10 mph, the normal delay times are used.

WIPER AFTER WASH

When the wash button is pressed momentarily a signal is sent to the Body Control Module (BCM) on circuit V10. The BCM then turns the wipers ON low speed for three consecutive wipes after the button is released.

The BCM turns the wipers ON by providing a ground path for circuit V14. This causes the intermittent wipe relay to switch from its normally grounded position and connect circuit A5 to circuit V5. The A5 circuit is protected by a 40 amp fuse located in cavity 14 of the PDC.

The V5 circuit is connected to the HI/LOW Wiper relay low speed side. Voltage is passed through the relay to circuit V3, then to the LOW speed side of the wiper motor. Ground for the wiper motor is provided on circuit Z1.

As the windshield wiper motor turns, the park switch internal to the motor moves from its grounded position to the open RUN position. The BCM uses input from the park switch, on circuit V55, for wiper position and system operation.

MIST FUNCTION

When the MIST switch is activated, and the wiper switch is in the OFF position, a multi-plexed signal is sent to the Body Control Module (BCM) on circuit V52. The BCM then turns the wipers on LOW speed for as long as the switch is held.

The BCM turns the wipers ON by providing a ground path for circuit V14. This causes the intermit-

DESCRIPTION AND OPERATION (Continued)

tent wipe relay to switch from its normally grounded position and connect circuit A5 to circuit V5. The A5 circuit is protected by a 40 amp fuse located in cavity 14 of the PDC.

The V5 circuit is connected to the HI/LOW Wiper relay low speed side. Voltage is passed through the relay to circuit V3, then to the LOW speed side of the wiper motor. Ground for the wiper motor is provided on circuit Z1.

If after the MIST switch is released and the wiper control switch is no longer in the OFF position, the wipers will enter the mode indicated by the wiper control switch.

As the windshield wiper motor turns, the park switch internal to the motor moves from its grounded position to the open RUN position. The BCM uses input from the park switch, on circuit V55, for wiper position and system operation.

LOW SPEED OPERATION

When the LOW speed switch is activated a multiplexed signal is sent to the Body Control Module (BCM) on circuit V52. The BCM then turns the wipers ON LOW speed by providing a ground path for circuit V14. This causes the intermittent wipe relay to switch from its normally grounded position and connect circuit A5 to circuit V5. The A5 circuit is protected by a 40 amp fuse located in cavity 14 of the PDC.

The V5 circuit is connected to the HI/LOW Wiper relay low speed side. Voltage is passed through the relay to circuit V3, then to the LOW speed side of the wiper motor. Ground for the wiper motor is provided on circuit Z1.

As the windshield wiper motor turns, the park switch internal to the motor moves from its grounded position to the open RUN position. The BCM uses input from the park switch, on circuit V55, for wiper position and system operation.

HI SPEED OPERATION

When HIGH speed operation is selected, a multiplexed signal is sent to the Body Control Module (BCM) on circuit V52. The BCM then turns the wipers ON by grounding the V14 and V16 circuits.

By grounding the V14 circuit the intermittent wiper relay is switched from its normally grounded position to connect circuits A5 and V5. The A5 circuit, which originates in the PDC and is protected by a 40 amp fuse located in cavity 14, then supplies power to the HI/LOW wiper relay through circuit V5.

When the V16 circuit is grounded the HI/LOW relay switches, from its normal position of LOW speed, to the HIGH speed contact. Power for the coil side of the relay is supplied by the F13 circuit. This circuit also is the feed for the wiper switch and the intermittent wiper relay.

Power for the windshield wiper motor is supplied from the HI/LOW wiper relay to the motor on circuit V4. Ground for the wiper motor is provided on circuit Z1.

As the windshield wiper motor turns, the park switch internal to the motor moves from its grounded position to the open RUN position. The BCM uses input from the park switch, on circuit V55, for wiper position and system operation.

WASHER OPERATION

When the operator presses the WASH switch power is supplied on the F13 circuit, through the CLOSED switch contacts, to circuit V10. The V10 circuit is spliced and conects to the Body Control Module (BCM) and the windshield washer pump motor. The pump motor, which is located in the washer fluid reservoir, is grounded at the right frame rail.

HELPFUL INFORMATION

- Check the 10 amp fuse located in cavity 15 of the junction block
- Check the 40 amp fuse located in cavity 14 of the PDC
- Check for a good ground at the instrument panel left side cowl
- Check for a good ground at the right frame rail

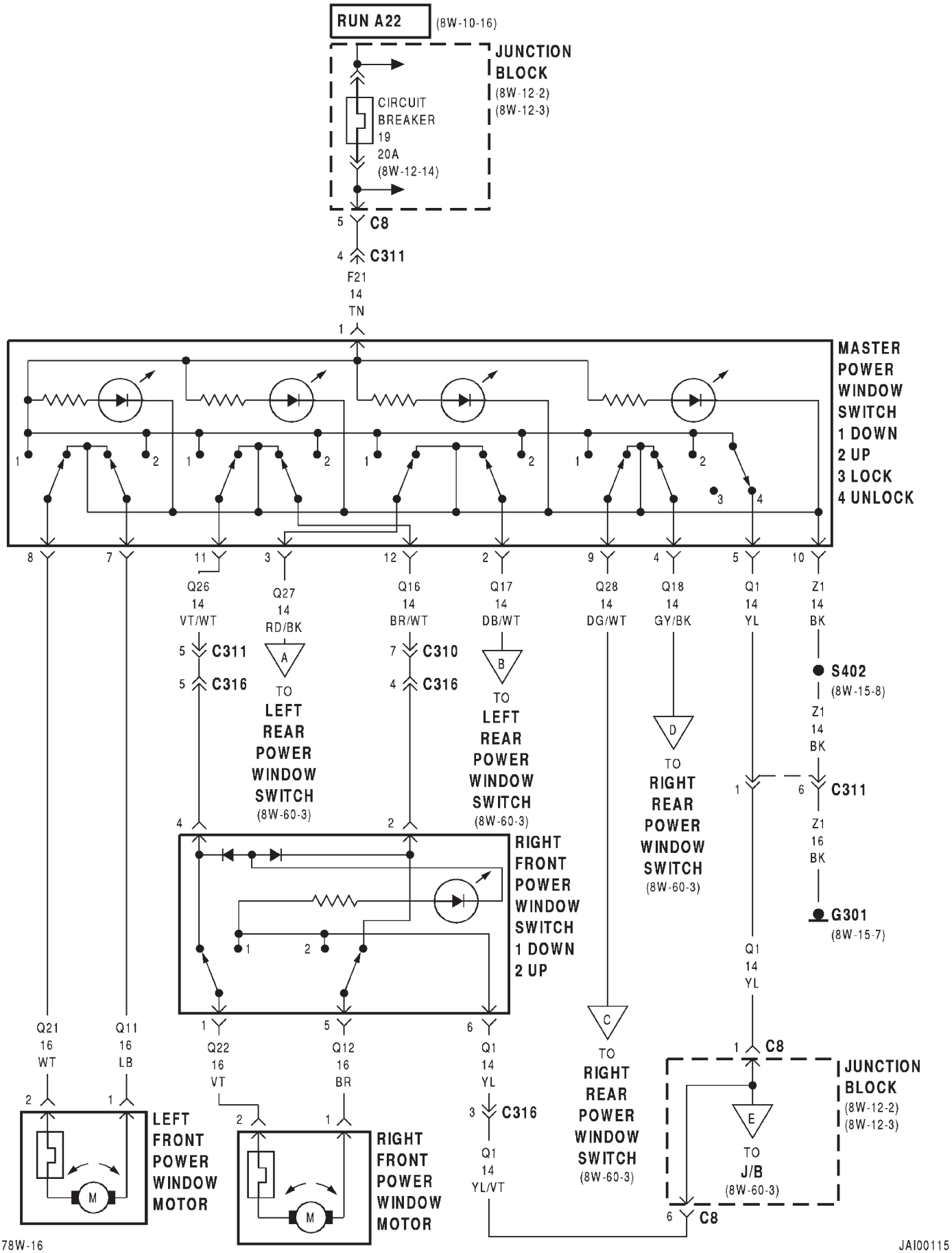
8W-60 POWER WINDOWS

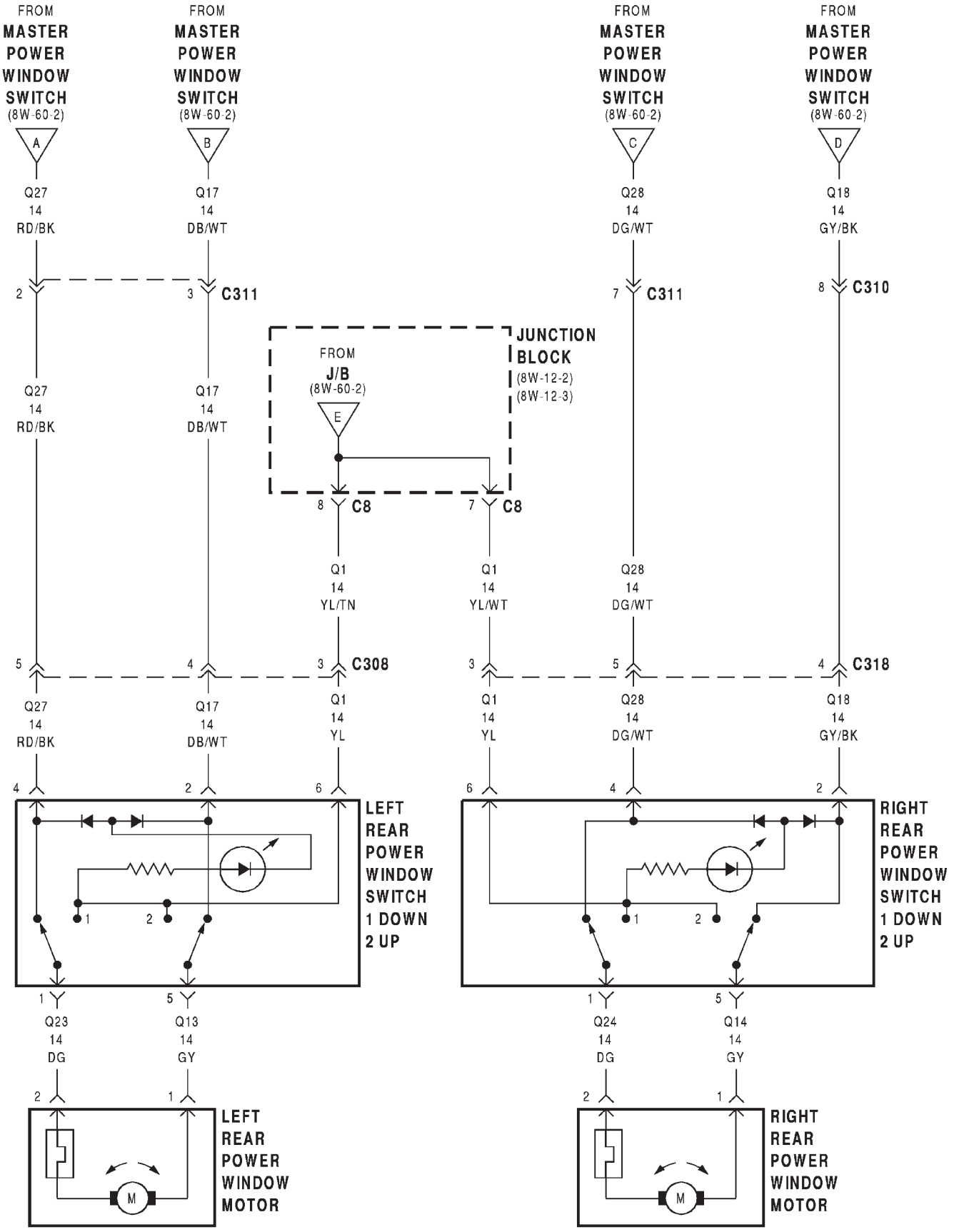
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Right Front Power Window Switch	8W-60-2
Right Rear Power Window Motor	8W-60-3
Right Rear Power Window Switch	8W-60-3
S402	8W-60-2


RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
CIRCUIT BREAKER 19 20A
(8W-12-14)
5 C8
4 C311
F21 14 TN
1
MASTER POWER WINDOW SWITCH
1 DOWN
2 UP
3 LOCK
4 UNLOCK
8 7 11 3 12 2 9 4 5 10
Q26 14 VT/WT
Q27 14 RD/BK
Q16 14 BR/WT
Q17 14 DB/WT
Q28 14 DG/WT
Q18 14 GY/BK
Q1 14 YL
Z1 14 BK
5 C311
5 C316
A
TO LEFT REAR POWER WINDOW SWITCH
(8W-60-3)
7 C310
4 C316
B
TO LEFT REAR POWER WINDOW SWITCH
(8W-60-3)
D
TO RIGHT REAR POWER WINDOW SWITCH
(8W-60-3)
S402
(8W-15-8)
Z1 14 BK
1 6 C311
Z1 16 BK
G301
(8W-15-7)
RIGHT FRONT POWER WINDOW SWITCH
1 DOWN
2 UP
4 2
1 5 6
Q22 16 VT
Q12 16 BR
Q1 14 YL
Q1 14 YL
1 C8
C
TO RIGHT REAR POWER WINDOW SWITCH
(8W-60-3)
JUNCTION BLOCK
(8W-12-2)
(8W-12-3)
E
TO J/B
(8W-60-3)
6 C8
3 C316
Q1 14 YL/VT
Q21 16 WT
Q11 16 LB
2 1
LEFT FRONT POWER WINDOW MOTOR
M
2 1
RIGHT FRONT POWER WINDOW MOTOR
M


FROM MASTER POWER WINDOW SWITCH (8W-60-2)
A
B
C
D
Q27 14 RD/BK
Q17 14 DB/WT
Q28 14 DG/WT
Q18 14 GY/BK
2
3
7
8
C311
C311
C310
FROM J/B (8W-60-2)
E
JUNCTION BLOCK (8W-12-2) (8W-12-3)
8
7
C8
C8
Q1 14 YL/TN
Q1 14 YL/WT
Q28 14 DG/WT
5
4
3
3
5
4
C308
C318
Q27 14 RD/BK
Q17 14 DB/WT
Q1 14 YL
Q1 14 YL
Q28 14 DG/WT
Q18 14 GY/BK
4
2
6
6
4
2
1
2
1
2
LEFT REAR POWER WINDOW SWITCH 1 DOWN 2 UP
RIGHT REAR POWER WINDOW SWITCH 1 DOWN 2 UP
1
5
1
5
Q23 14 DG
Q13 14 GY
Q24 14 DG
Q14 14 GY
2
1
2
1
M
M
LEFT REAR POWER WINDOW MOTOR
RIGHT REAR POWER WINDOW MOTOR

8W-60 POWER WINDOWS

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DESCRIPTION AND OPERATION

POWER WINDOWS

The power window system is powered by a 20 amp circuit breaker located in the junction block cavity 19. This circuit breaker also feeds the power sun roof.

The circuit breaker receives its feed from the ignition switch on the A22 circuit. This circuit breaker is HOT when the ignition switch is in the RUN position only.

Circuit F21 is the feed circuit from the circuit breaker to the power window switch. This circuit is the feed for the entire system. The ground path for the power windows is on the Z1 circuit and terminates at the instrument panel left side cowl.

A LOCK-OUT feature is provided on the driver's door window switch. When this feature is engaged the other windows in the system will not operate.

All of the door switches have a Light Emitting Diode (L.E.D.) located inside of the switch. This diode allows the operator to see the switch when it is dark. The diodes are powered at all times, except when the LOCK-OUT feature has been selected from the drivers door switch. The L.E.D.'s located in the driver's door switch will always be illuminated regardless of switch position.

Resistors and diodes internal to the switches are used for the L.E.D's. No attempt should be made to repair these items. If the L.E.D. is not working, the switch should be replaced.

LEFT FRONT WINDOW OPERATION

When the operator selects window DOWN operation power is supplied on the F21 circuit through the switch to circuit Q21. Circuit Q21 connects from the switch to the power window motor. Ground for the motor is supplied on the Q11 circuit back to the switch. A bus bar, internal to the switch, connects the Q11 circuit to the Z1 circuit. The Z1 circuit is terminated at the instrument panel left side cowl.

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

RIGHT FRONT WINDOW OPERATION

When the DRIVER selects window DOWN operation power is supplied on the F21 circuit through the switch to circuit Q26. Circuit Q26 connects from the drivers door switch to the right front door switch. Power is passed through this switch to circuit Q22. The Q22 circuit then connects to the right front window motor.

Ground for the window motor is supplied on the Q12 circuit back to the right door switch. Circuity internal to the switch then passes the ground to circuit Q16. Circuit Q16 connects from the right front door switch to the master switch. A bus bar, internal to the switch, connects the Q16 circuit to the Z1 circuit. The Z1 circuit is terminated at the instrument panel left side cowl.

For window UP operation the circuits are reversed. Circuits Q16 and Q12 are the feeds, and circuits Q22 and Q26 are the grounds.

If the switch is being operated from the PASSENGER'S front door, and the operator is requesting window DOWN operation, power is supplied on the Q1 circuit from the driver's master switch circuit through the switch to the Q22 circuit.

Ground for the motor is supplied on the Q12 circuit through the switch and back to the master switch on circuit Q16. A bus bar, internal to the switch, connects the Q16 circuit to the Z1 circuit. The Z1 circuit is terminated at the instrument panel left side cowl.

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

LEFT REAR WINDOW

When the DRIVER selects window DOWN operation power is supplied on the F21 circuit through the switch to circuit Q27. Circuit Q27 connects from the drivers door switch to the left rear door switch. Power is passed through this switch to circuit Q23. The Q23 circuit then connects to the left rear window motor.

Ground for the window motor is supplied on the Q13 circuit back to the left rear door switch. Circuity internal to the switch then passes the ground to circuit Q17. Circuit Q17 connects from the left rear door switch to the master switch. A bus bar, internal to

DESCRIPTION AND OPERATION (Continued)

the switch, connects the Q17 circuit to the Z1 circuit. The Z1 circuit is terminated at the instrument panel left side cowl.

For window UP operation the circuits are reversed. Circuits Q17 and Q13 are the feeds, and circuits Q23 and Q27 are the grounds.

If the switch is being operated from the LEFT REAR door, and the operator is requesting window DOWN operation, power is supplied on the Q1 circuit from the driver's master switch circuit through the switch to the Q23 circuit.

Ground for the motor is supplied on the Q13 circuit through the switch and back to the master switch on circuit Q17. A bus bar, internal to the switch, connects the Q17 circuit to the Z1 circuit. The Z1 circuit is terminated at the instrument panel left side cowl.

For window UP operation, the circuits are reversed. Circuit Q13 is the power and circuit Q23 is the ground.

RIGHT REAR WINDOW

When the DRIVER selects window DOWN operation power is supplied on the F21 circuit through the switch to circuit Q28. Circuit Q28 connects from the drivers door switch to the right rear door switch. Power is passed through this switch to circuit Q24. The Q24 circuit then connects to the right rear window motor.

Ground for the window motor is supplied on the Q14 circuit back to the right rear door switch. Circuity internal to the switch then passes the ground to circuit Q18. Circuit Q18 connects from the right rear door switch to the master switch. A bus bar, internal to the switch, connects the Q18 circuit to the Z1 circuit. The Z1 circuit is terminated at the Instrument Panel left side cowl.

For window UP operation the circuits are reversed. Circuits Q18 and Q14 are the feeds, and circuits Q24 and Q28 are the grounds.

If the switch is being operated from the RIGHT REAR door, and the operator is requesting window DOWN operation, power is supplied on the Q1 circuit from the driver's master switch circuit through the switch to the Q24 circuit.

Ground for the motor is supplied on the Q14 circuit through the switch and back to the master switch on circuit Q18. A bus bar, internal to the switch, connects the Q18 circuit to the Z1 circuit. The Z1 circuit is terminated at the Instrument Panel left side cowl.

For window UP operation, the circuits are reversed. Circuit Q14 is the power and circuit Q24 is the ground.

HELPFUL INFORMATION

- Check the 20 amp circuit breaker located in cavity 19 of the junction block
- Check the 40 amp fuse located in cavity 18 of the PDC
- Check for a good ground at the instrument panel left side cowl
- Refer to the appropriate group of the Service Manual for additional test procedures

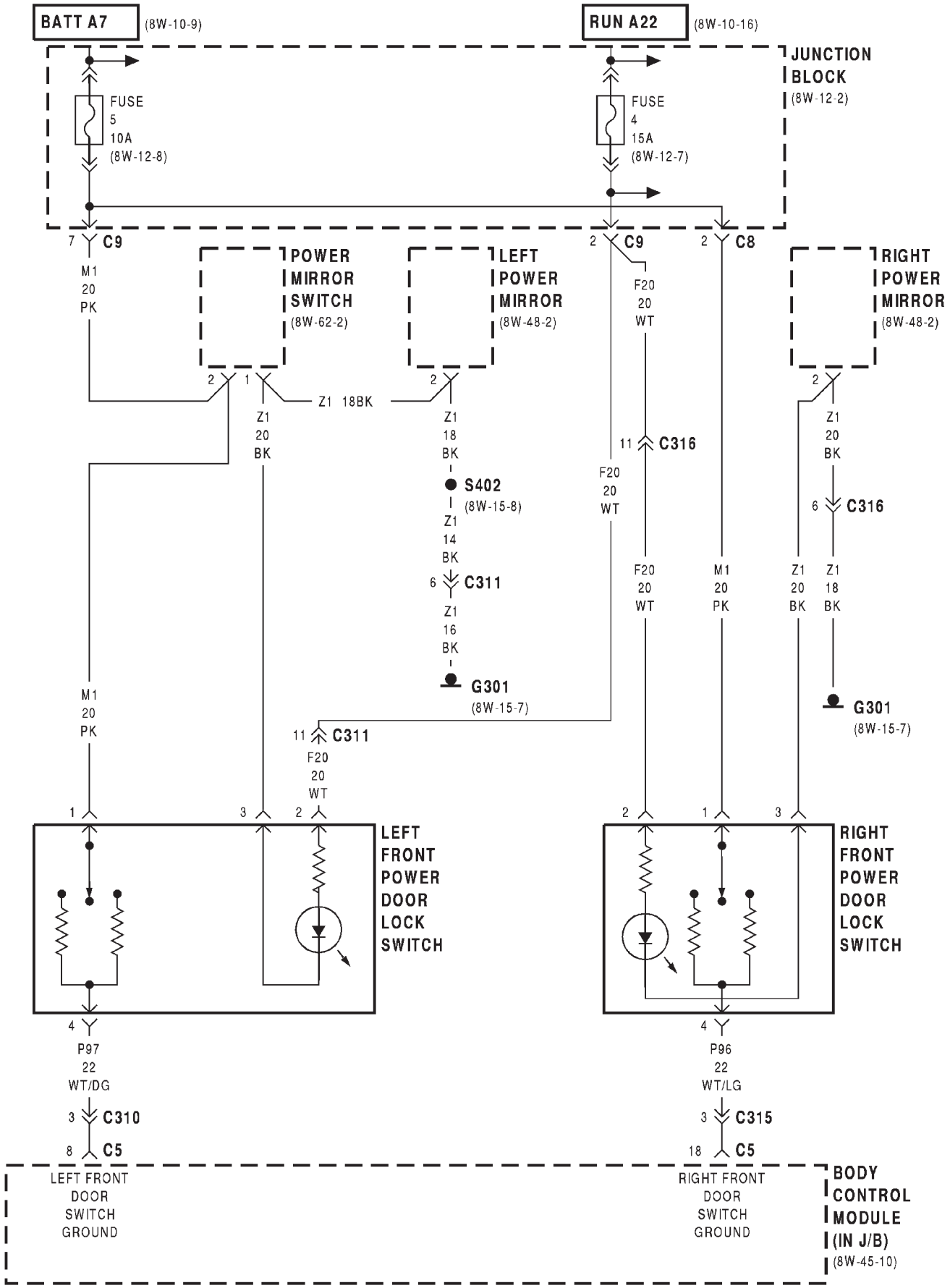
8W-61 POWER DOOR LOCKS

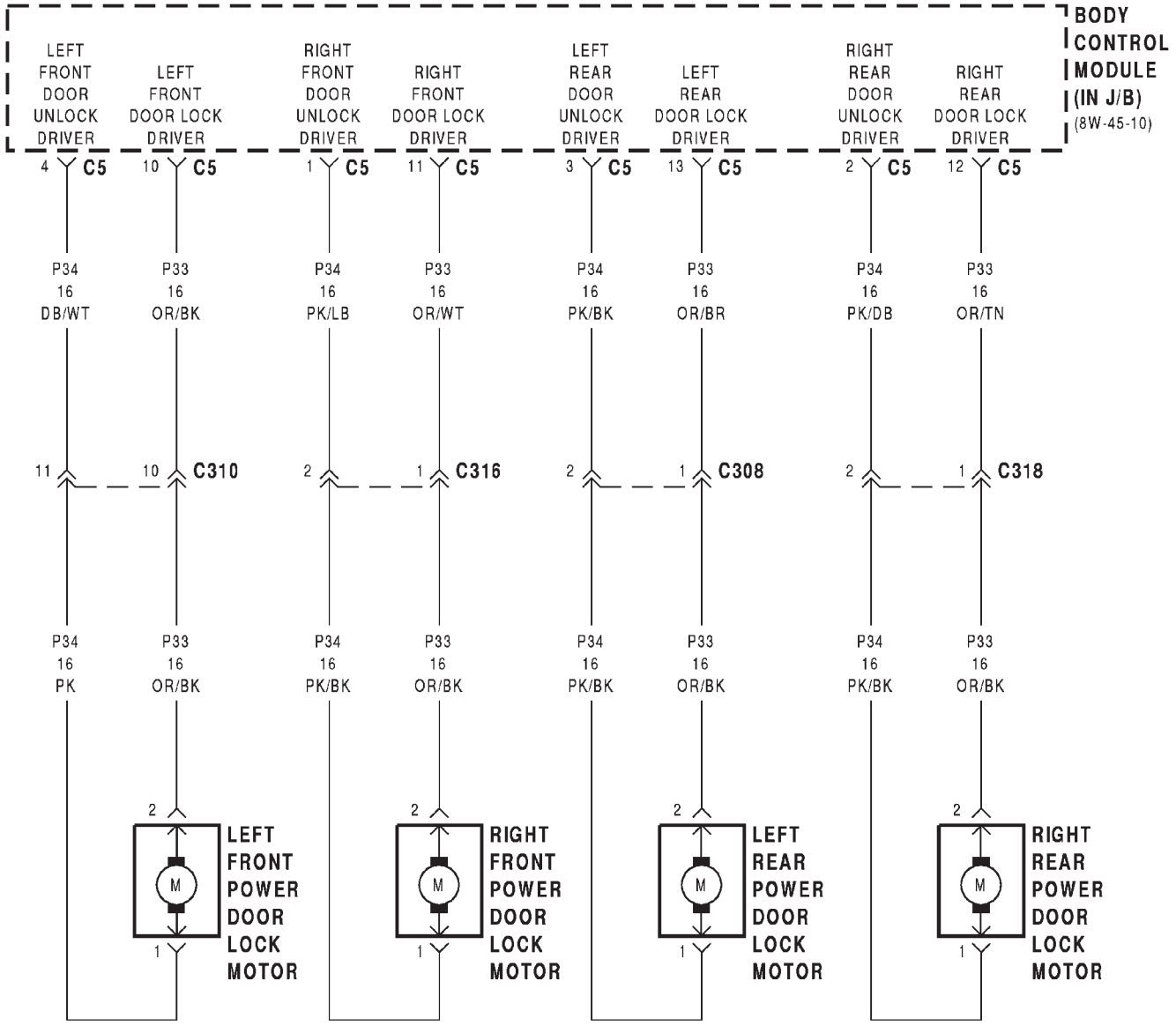
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S402	8W-61-2


BATT A7
(8W-10-9)
RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
FUSE 5 10A
(8W-12-8)
FUSE 4 15A
(8W-12-7)
7 C9
M1 20 PK
POWER MIRROR SWITCH
(8W-62-2)
LEFT POWER MIRROR
(8W-48-2)
2 C9
2 C8
F20 20 WT
RIGHT POWER MIRROR
(8W-48-2)
2 1
Z1 18BK
2
Z1 20 BK
Z1 18 BK
S402
(8W-15-8)
Z1 14 BK
6 C311
Z1 16 BK
G301
(8W-15-7)
11 C316
F20 20 WT
2
Z1 20 BK
6 C316
Z1 18 BK
G301
(8W-15-7)
M1 20 PK
11 C311
F20 20 WT
F20 20 WT
M1 20 PK
Z1 20 BK
1
3
2
2
1
3
LEFT FRONT POWER DOOR LOCK SWITCH
RIGHT FRONT POWER DOOR LOCK SWITCH
4
P97 22 WT/DG
3 C310
8 C5
4
P96 22 WT/LG
3 C315
18 C5
LEFT FRONT DOOR SWITCH GROUND
RIGHT FRONT DOOR SWITCH GROUND
BODY CONTROL MODULE (IN J/B)
(8W-45-10)


BODY CONTROL MODULE (IN J/B)
(8W-45-10)
LEFT FRONT DOOR UNLOCK DRIVER
LEFT FRONT DOOR LOCK DRIVER
RIGHT FRONT DOOR UNLOCK DRIVER
RIGHT FRONT DOOR LOCK DRIVER
LEFT REAR DOOR UNLOCK DRIVER
LEFT REAR DOOR LOCK DRIVER
RIGHT REAR DOOR UNLOCK DRIVER
RIGHT REAR DOOR LOCK DRIVER
4 C5
10 C5
1 C5
11 C5
3 C5
13 C5
2 C5
12 C5
P34 16 DB/WT
P33 16 OR/BK
P34 16 PK/LB
P33 16 OR/WT
P34 16 PK/BK
P33 16 OR/BR
P34 16 PK/DB
P33 16 OR/TN
11 C310
10
2 C316
1
2 C308
1
2 C318
1
P34 16 PK
P33 16 OR/BK
P34 16 PK/BK
P33 16 OR/BK
P34 16 PK/BK
P33 16 OR/BK
P34 16 PK/BK
P33 16 OR/BK
2
M
1
LEFT FRONT POWER DOOR LOCK MOTOR
RIGHT FRONT POWER DOOR LOCK MOTOR
LEFT REAR POWER DOOR LOCK MOTOR
RIGHT REAR POWER DOOR LOCK MOTOR

8W-61 POWER DOOR LOCKS

DESCRIPTION AND OPERATION

POWER DOOR LOCKS

The power door lock system is controlled by the Body Control Module (BCM). The door lock switches, located in the front doors, are supplied power on the M1 circuit. This circuit is the Ignition-Off Draw (IOD) circuit. It is protected by a 10 amp fuse located in cavity 5 of the junction block.

Both switches have a Light Emitting Diode (LED) located internal to the switch for night illumination. Power for the LED's is supplied on circuit F20. The F20 circuit is protected by a 15 amp fuse located in cavity 4 of the junction block. Power for the fuse is supplied on circuit A22. The A22 circuit connects to the ignition switch and is HOT in the RUN position only.

Circuit A22 is powered by circuit A2 from the PDC. This circuit is protected by a 40 amp fuse located in cavity 16 of the PDC. Ground for the LED's is supplied on circuit Z1 and terminates at the instrument panel left side cowl.

Power for the door lock motors is supplied to the BCM on circuit F135. This circuit is protected by a 15 amp fuse located in cavity 9 of the junction block. Circuit A3 is used to supply power to the fuse.

Circuit A3 is HOT at all times and is protected by a 40 amp fuse located in cavity 15 of the PDC. This circuit also supplies power for the Power Seat circuit breaker, and the Headlamp Delay Relay.

DOOR SWITCH OPERATION

The door lock switches use resistors internal to the switch. There are different resistors used for the LOCK and UNLOCK functions. Both switches have the same amount of resistance for the LOCK and UNLOCK functions.

When the operator selects the LOCK or UNLOCK function, from either switch, voltage is passed through the CLOSED contacts in the switch, through the appropriate resistor, to the P96 circuit for the right front door, and circuit P97 for the left front door. These circuits then connect to the Body Control Module (BCM).

The BCM then process this request and supplies power and ground to the appropriate circuits. When the LOCK function is selected power is supplied on circuit P33 to all the motors. Ground is supplied on circuit P34. For the UNLOCK function the circuits are reversed. On vehicles without Vehicle Theft Security System (VTSS) all door motors are spliced together.

When the vehicle is equipped with VTSS the LEFT FRONT door motor uses a separate circuit for the UNLOCK function. Circuit P55 is used to control the this function and operates the same as the P34 circuit.

REMOTE KEYLESS ENTRY

Operation of the power door lock system with Remote Keyless Entry (RKE) is the same as systems without RKE. The Body Control Module (BCM) still controls the operation of the door motors.

Two RKE antennas are connected to the BCM and is used to provide the input indicating what the operator is requesting.

HELPFUL INFORMATION

- Check the 40 amp fuse located in cavity 15 of the PDC
- Check the 15 amp fuse located in cavity 9 of the junction block
- Check the IOD fuse located in cavity 5 of the PDC
- Check for a good door switch ground at the instrument panel left side cowl
- Refer to the appropriate group of the Service Manual or the Diagnostic Test Procedures Manual for further diagnostic procedures

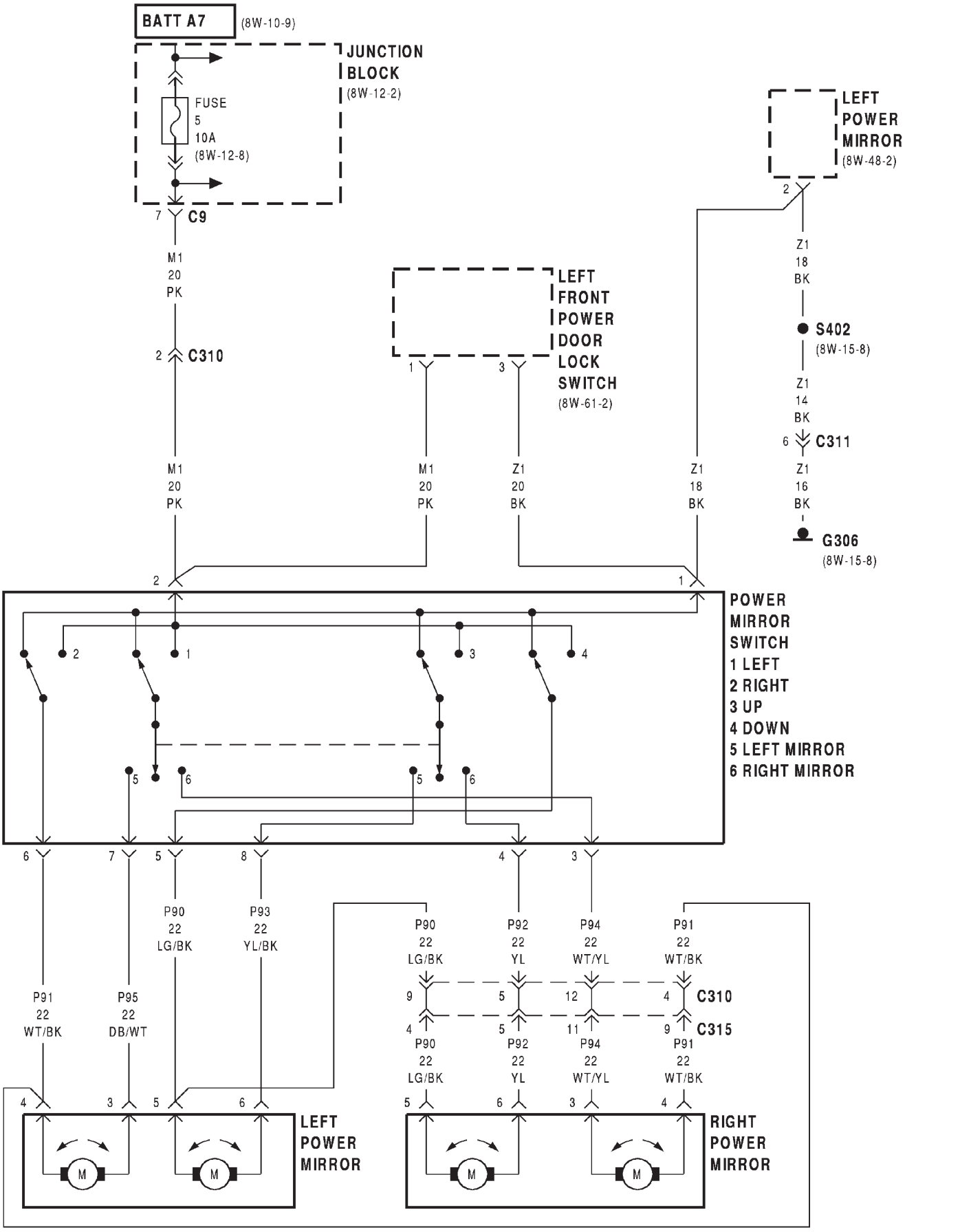
8W-62 POWER MIRRORS

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Fuse 5 (JB)	8W-62-2	Left Power Mirror	8W-62-2
G306	8W-62-2	Power Mirror Switch	8W-62-2
Junction Block	8W-62-2	Right Power Mirror	8W-62-2
Left Front Power Door Lock Switch	8W-62-2	S402	8W-62-2


BATT A7
(8W-10-9)
JUNCTION BLOCK
(8W-12-2)
FUSE 5 10A
(8W-12-8)
7 C9
M1 20 PK
2 C310
LEFT FRONT POWER DOOR LOCK SWITCH
(8W-61-2)
1
3
LEFT POWER MIRROR
(8W-48-2)
2
Z1 18 BK
S402
(8W-15-8)
Z1 14 BK
6 C311
Z1 16 BK
G306
(8W-15-8)
M1 20 PK
M1 20 PK
Z1 20 BK
Z1 18 BK
2
1
POWER MIRROR SWITCH
1 LEFT
2 RIGHT
3 UP
4 DOWN
5 LEFT MIRROR
6 RIGHT MIRROR
2
1
3
4
5
6
5
6
6
7
5
8
4
3
P90 22 LG/BK
P93 22 YL/BK
P90 22 LG/BK
P92 22 YL
P94 22 WT/YL
P91 22 WT/BK
P91 22 WT/BK
P95 22 DB/WT
9
5
12
4
C310
C315
4
5
11
9
P90 22 LG/BK
P92 22 YL
P94 22 WT/YL
P91 22 WT/BK
4
3
5
6
5
6
3
4
LEFT POWER MIRROR
RIGHT POWER MIRROR
M
M
M
M

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DESCRIPTION AND OPERATION

POWER MIRRORS

The power mirrors use a single switch located in the left door trim panel. The feed for the system is supplied from the 10 amp Ignition-Off Draw (IOD) fuse located in the junction block cavity 5. This fuse also supplies power for the radio, interior lamps and other components. Grounding for the power mirrors, along with power door locks and A/C Heater control, is provided through the Z1 circuit, which attaches to the left side cowl.

SWITCH AND MIRROR OPERATION

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

When the switch is moved to the LEFT position and mirror movement UP is selected, voltage is supplied through the P93 circuit and the ground path is through circuit P90. When the DOWN movement is selected, the power and ground are reversed.

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

When the switch is moved to the RIGHT position and mirror movement UP is selected, voltage is supplied through the P92 circuit and the ground path is through circuit P90. When the DOWN movement is selected, the power and ground are reversed.

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

HEATER OPERATION

The mirrors are also equipped with heating elements. These elements are activated when the operator has turned ON the rear window defogger. Circuit C16 provides power for the heaters. The C15 circuit is the power supply for the rear window defogger grid.

The heated mirrors and rear window defogger switch are protected by a 10 amp fuse located in the junction block cavity 15. Grounding for the mirror heaters is provided on the Z1 circuit and terminates at the left side cowl.

HELPFUL INFORMATION

- Check the IOD fuse located in the junction block
- Circuit M1 supplies voltage to the radio, cargo lamp, dome lamp, time delay relay, glove box lamp, and vanity lamps. Check for proper operation of these items
- Move the switch to its various positions and listen for the motors to click or try to move. Some movement or clicking indicates a poor connection or a mechanical problem with a mirror

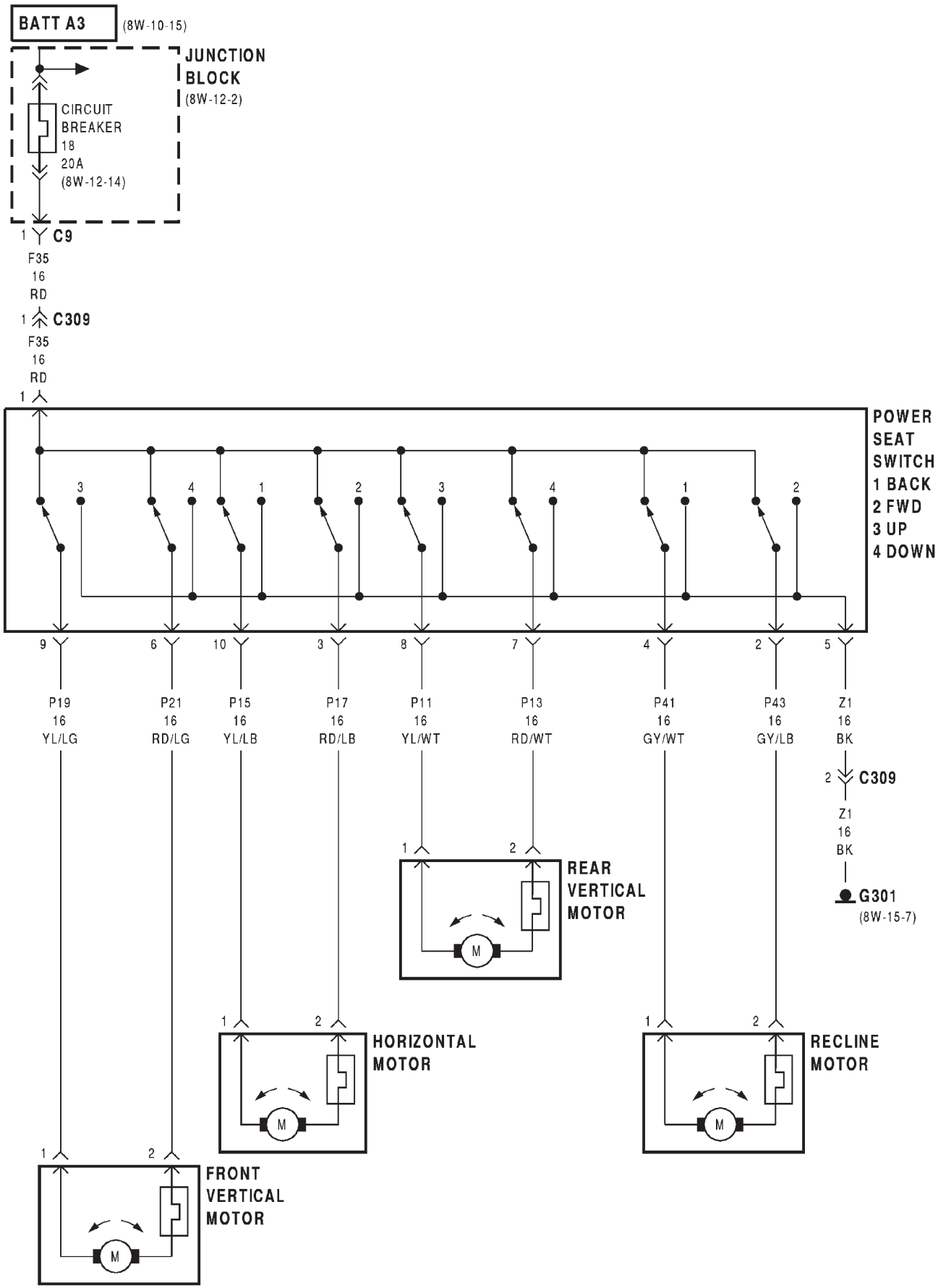
8W-63 POWER SEAT

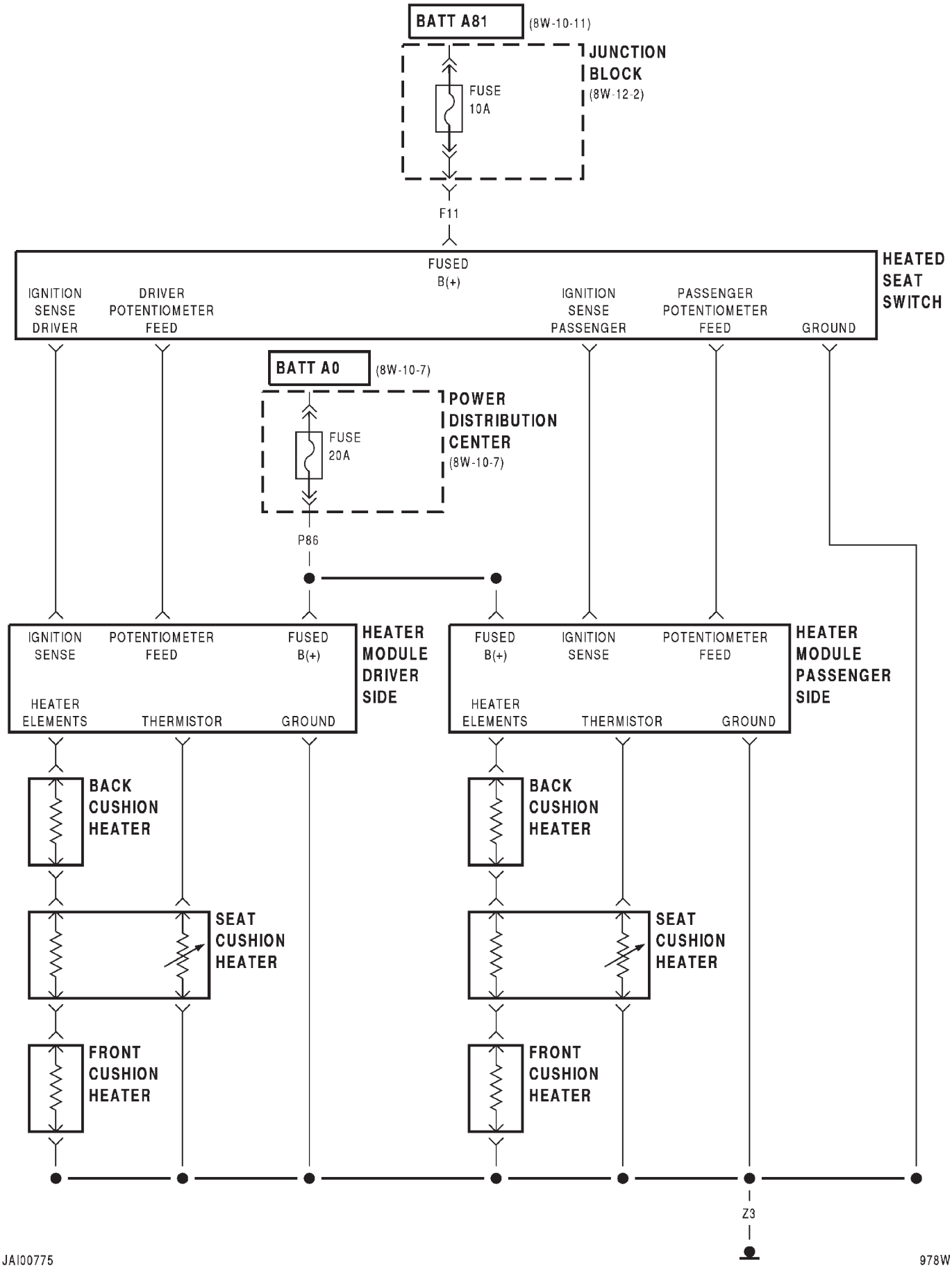
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Back Cushion Heater	8W-63-3
Circuit Breaker 18 (JB)	8W-63-2
Front Cushion Heater	8W-63-3
Front Vertical Motor	8W-63-2
Fuse	8W-63-3
G301	8W-63-2
Heated Seat Switch	8W-63-3
Heater Module Driver Side	8W-63-3
Heater Module Passenger Side	8W-63-3
Horizontal Motor	8W-63-2
Junction Block	8W-63-2
Junction Block	8W-63-3
Power Distribution Center	8W-63-3
Power Seat Switch	8W-63-2
Rear Vertical Motor	8W-63-2
Recline Motor	8W-63-2
Seat Cushion Heater	8W-63-3


BATT A3
(8W-10-15)
JUNCTION BLOCK
(8W-12-2)
CIRCUIT BREAKER 18 20A
(8W-12-14)
1 C9
F35 16 RD
1 C309
F35 16 RD
1
POWER SEAT SWITCH
1 BACK
2 FWD
3 UP
4 DOWN
9 P19 16 YL/LG
6 P21 16 RD/LG
10 P15 16 YL/LB
3 P17 16 RD/LB
8 P11 16 YL/WT
7 P13 16 RD/WT
4 P41 16 GY/WT
2 P43 16 GY/LB
5 Z1 16 BK
2 C309
Z1 16 BK
G301
(8W-15-7)
REAR VERTICAL MOTOR
HORIZONTAL MOTOR
RECLINE MOTOR
FRONT VERTICAL MOTOR
M



JAI00775

978W-16

8W-63 POWER SEAT

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POWER SEAT 4

DESCRIPTION AND OPERATION

POWER SEAT

The power seat system is protected by a 20 amp circuit breaker located in cavity 18 of the junction block. This circuit breaker is HOT at all times. Circuit A3 is the power supply for the circuit breaker.

The A3 circuit originates in the Power Distribution Center (PDC) and is protected by a 40 amp fuse located in cavity 15. This circuit is also the feed for the Daytime Running Lamps, Headlamp Relay, and Power Door Locks.

Circuit F35 is the feed for the switch and the seat motors from the circuit breaker. A BUS bar internal to the switch feeds all the contacts. Grounding for the seat is provided on the Z1 circuit.

When the operator selects the FRONT VERTICAL UP function power is passed on the F35 circuit through the CLOSED contacts in the switch to the P19 circuit. The P19 circuit connects to the motor. Ground is provided on the P21 circuit back to the switch. A ground BUS bar internal to the switch then connects to the Z1 circuit.

For FRONT VERTICAL DOWN function the circuits are reversed. P21 is the feed and P19 is the ground.

When the operator selects the HORIZONTAL FORWARD function power is passed on the F35 circuit through the CLOSED contacts in the switch to the P15 circuit. The P15 circuit connects to the motor. Ground is provided on the P17 circuit back to the switch. A ground BUS bar internal to the switch then connects to the Z1 circuit.

For HORIZONTAL REARWARD function the circuits are reversed. P17 is the feed and P15 is the ground.

When the operator selects the REAR VERTICAL UP function power is passed on the F35 circuit through the CLOSED contacts in the switch to the P11 circuit. The P11 circuit connects to the motor. Ground is provided on the P13 circuit back to the switch. A ground BUS bar internal to the switch then connects to the Z1 circuit.

For REAR VERTICAL DOWN function the circuits are reversed. P13 is the feed and P11 is the ground.

When the operator selects the RECLINE REARWARD function power is passed on the F35 circuit through the CLOSED contacts in the switch to the P41 circuit. The P41 circuit connects to the motor. Ground is provided on the P43 circuit back to the switch. A ground BUS bar internal to the switch then connects to the Z1 circuit.

For RECLINE FORWARD function the circuits are reversed. P43 is the feed and P41 is the ground.

POWER HEATED SEATS

Power for the heated seat switch is supplied on circuit F11. This circuit is protected by a 10 amp fuse located in the junction block. Ground for the switch is supplied on circuit Z3.

Power for the heated seat modules is supplied on circuit P86. This circuit is protected by a 20 amp fuse located in the Power Distribution Center (PDC). Ground for the heated seat modules is supplied on circuit Z3.

HELPFUL INFORMATION

- Check the 20 amp circuit breaker in located in cavity 18 of the junction block
- Check the 40 amp fuse located in cavity 15 of the PDC
- Check for a good ground at the instrument panel left side cowl

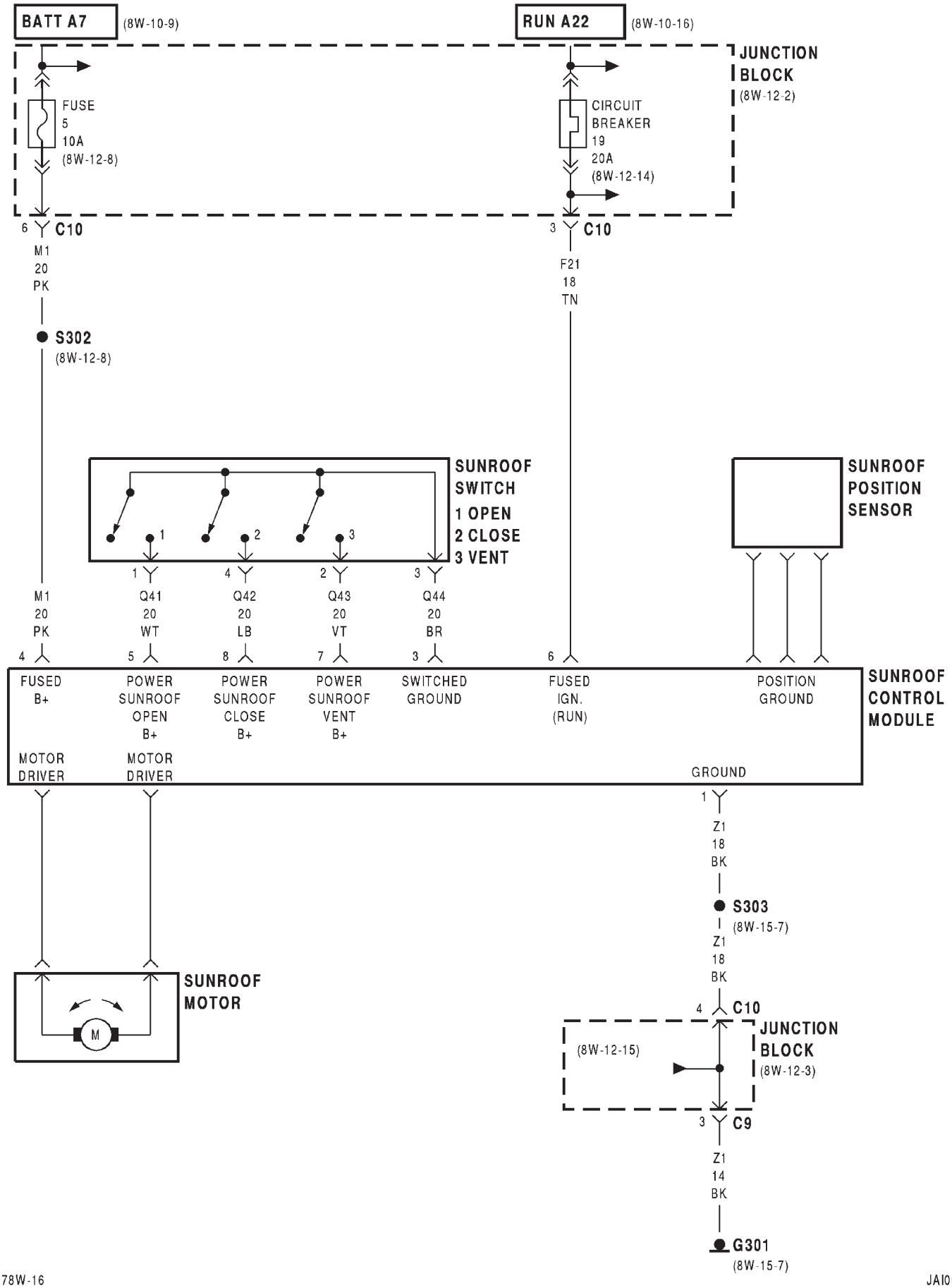
8W-64 POWER SUNROOF

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Fuse 5 (JB)	8W-64-2	Sunroof Control Module	8W-64-2
G301	8W-64-2	Sunroof Motor	8W-64-2
Junction Block	8W-64-2	Sunroof Position Sensor	8W-64-2
S302	8W-64-2	Sunroof Switch	8W-64-2


BATT A7
(8W-10-9)
RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
FUSE 5 10A
(8W-12-8)
CIRCUIT BREAKER 19 20A
(8W-12-14)
6 C10
3 C10
M1 20 PK
F21 18 TN
S302
(8W-12-8)
SUNROOF SWITCH
1 OPEN
2 CLOSE
3 VENT
SUNROOF POSITION SENSOR
Q41 20 WT
Q42 20 LB
Q43 20 VT
Q44 20 BR
FUSED B+
POWER SUNROOF OPEN B+
POWER SUNROOF CLOSE B+
POWER SUNROOF VENT B+
SWITCHED GROUND
FUSED IGN. (RUN)
POSITION GROUND
SUNROOF CONTROL MODULE
MOTOR DRIVER
MOTOR DRIVER
GROUND
Z1 18 BK
S303
(8W-15-7)
Z1 18 BK
C10
JUNCTION BLOCK
(8W-12-3)
(8W-12-15)
C9
Z1 14 BK
G301
(8W-15-7)
SUNROOF MOTOR
M

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DESCRIPTION AND OPERATION

POWER SUNROOF

The optional Power Sunroof is supplied power from two sources. One is the F21 circuit, which also powers the power windows. This cirucit is protected by a 20 amp circuit breaker located in cavity 19 of the junction block.

The circuit breaker receives its feed from the ignition switch on the A2 circuit. This circuit is HOT when the ignition switch is in the RUN position.

The second power source is from the M1 circuit. This is the Ignition-Off Draw (IOD) circuit and is HOT at all times protected by a 10 amp fuse located in cavity 5 of the junction block.

Ground for the power sunroof and the control module is supplied on circuit Z1. This circuit terminates at the instrument panel left side cowl.

Ground for the sunroof is provided on circuit Z1. This ground terminates at the Airbag Control Module (ACM) bracket.

When the operator selects the OPEN function, voltage is provided on the Q41 circuit from the control module through the CLOSED switch and to the Q44 circuit. Circuit Q44 is the switched ground back to the control module.

The control module then activates the motor and moves the sunroof to the desired position. A position sensor is used to prevent the sunroof from being moved to far in any one direction. When the sensor detects the roof is at the end of its travel it sends a signal to the control module and voltage is shut off to the motor.

When the operator selects the CLOSE function, voltage is provided on the Q42 circuit from the control module through the CLOSED switch and to the Q44 circuit. Circuit Q44 is the switched ground back to the control module.

The control module then activates the motor and moves the sunroof to the desired position. A position sensor is used to prevent the sunroof from being moved to far in any one direction. When the sensor detects the roof is at the end of its travel it sends a signal to the control module and voltage is shut off to the motor.

When the operator selects the VENT function, voltage is provided on the Q43 circuit from the control module through the CLOSED switch and to the Q44 circuit. Circuit Q44 is the switched ground back to the control module.

The control module then activates the motor and moves the sunroof to the desired position. A position sensor is used to prevent the sunroof from being moved to far in any one direction. When the sensor detects the roof is at the end of its travel it sends a signal to the control module and voltage is shut off to the motor.

HELPFUL INFORMATION

- Check the 10 amp IOD fuse located in cavity 5 of the junction block
- Check the 20 amp circuit breaker located in cavity 19 of the junction block
- Check for a good ground at the instrument panel left side cowl

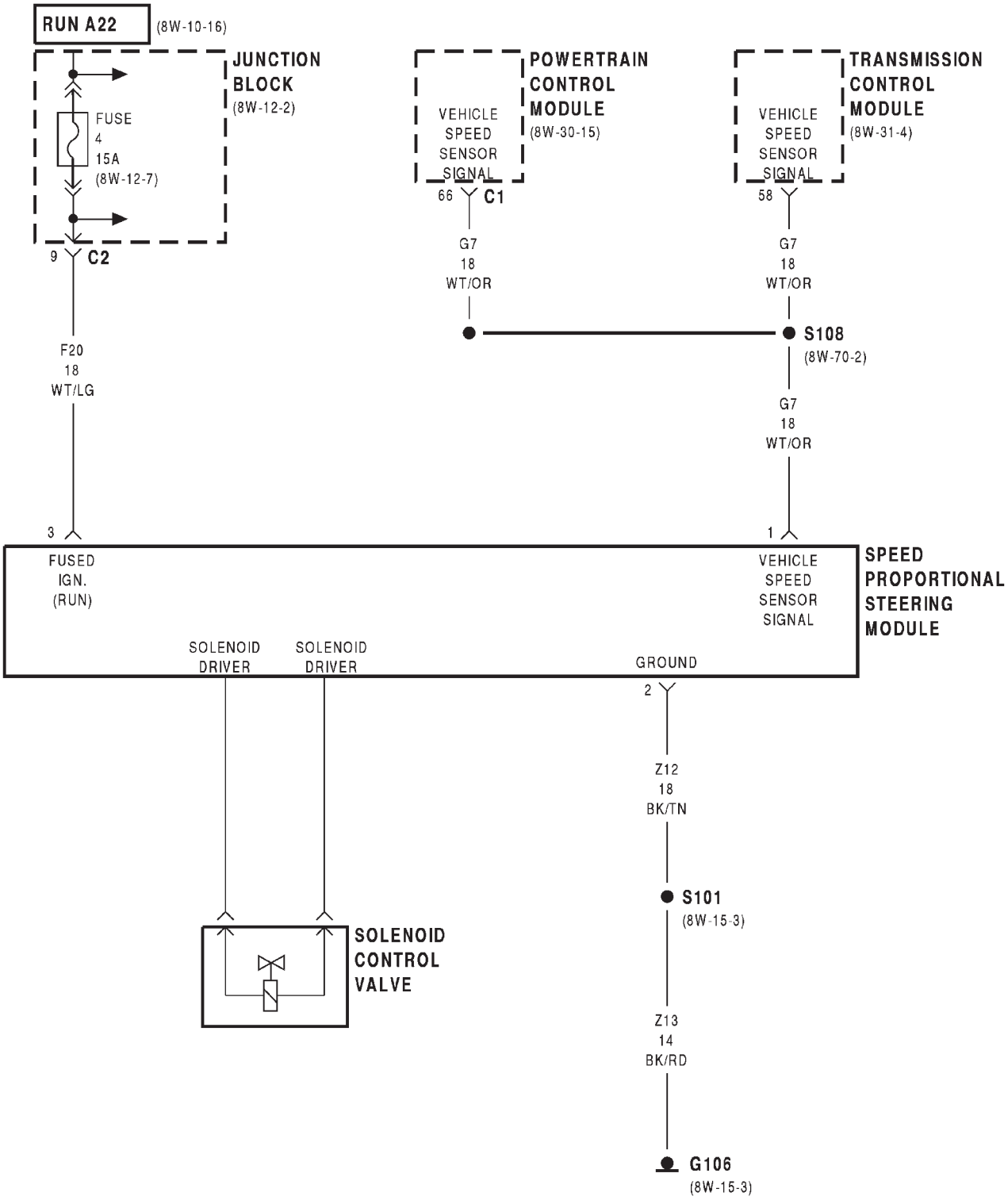
8W-65 SPEED PROPORTIONAL STEERING

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Junction Block	8W-65-2
Powertrain Control Module	8W-65-2
S101	8W-65-2
S108	8W-65-2
Solenoid Control Valve	8W-65-2
Speed Proportional Steering Module	8W-65-2
Transmission Control Module	8W-65-2


RUN A22
(8W-10-16)
JUNCTION BLOCK
(8W-12-2)
FUSE
4
15A
(8W-12-7)
9
C2
F20
18
WT/LG
3
FUSED IGN. (RUN)
POWERTRAIN CONTROL MODULE
(8W-30-15)
VEHICLE SPEED SENSOR SIGNAL
66
C1
G7
18
WT/OR
TRANSMISSION CONTROL MODULE
(8W-31-4)
VEHICLE SPEED SENSOR SIGNAL
58
G7
18
WT/OR
S108
(8W-70-2)
G7
18
WT/OR
1
VEHICLE SPEED SENSOR SIGNAL
SPEED PROPORTIONAL STEERING MODULE
SOLENOID DRIVER
SOLENOID DRIVER
GROUND
2
Z12
18
BK/TN
S101
(8W-15-3)
Z13
14
BK/RD
G106
(8W-15-3)
SOLENOID CONTROL VALVE

8W-65 SPEED PROPORTIONAL STEERING

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DESCRIPTION AND OPERATION

SPEED PROPORTIONAL STEERING

The Speed Proportional Steering Module is mounted on the rack and pinion assembly. This module adjusts the amount of power steering assist the operator receives based on vehicle speed.

At slower vehicle speeds power steering assist is increased, and at higher vehicle speeds the assist is decreased. A solenoid control valve is mounted in the power steering line and uses a variable orifice to control the assist.

Power for the steering module is provided on the F20 circuit. This circuit is protected by a 15 amp fuse located in cavity 4 of the junction block. Feed for the fuse is supplied on the A22 circuit from the ignition switch. The fuse is HOT in the RUN position only.

The A2 circuit is protected by a 40 amp fuse located in cavity 16 of the Power Distribution Center (PDC). Circuit A2 connects the PDC to the ignition switch.

Ground for the system is provided on the Z12 circuit and terminates at the left strut tower.

The steering module receives the vehicle speed input from the G7 circuit. Circuit G7 is an output from the Transmission Control Module (TCM) on automatic vehicles, or the Vehicle Speed Sensor (VSS) on manual transmission vehicles.

HELPFUL INFORMATION

- Check the 15 amp fuse located in cavity 4 of the junction block
- Check the 40 amp fuse located in cavity 18 of the PDC
- Check for a good ground at the left strut tower
- For additional diagnosis information, refer to the appropriate group of the Service Manual or Diagnostic Test Procedures Manual

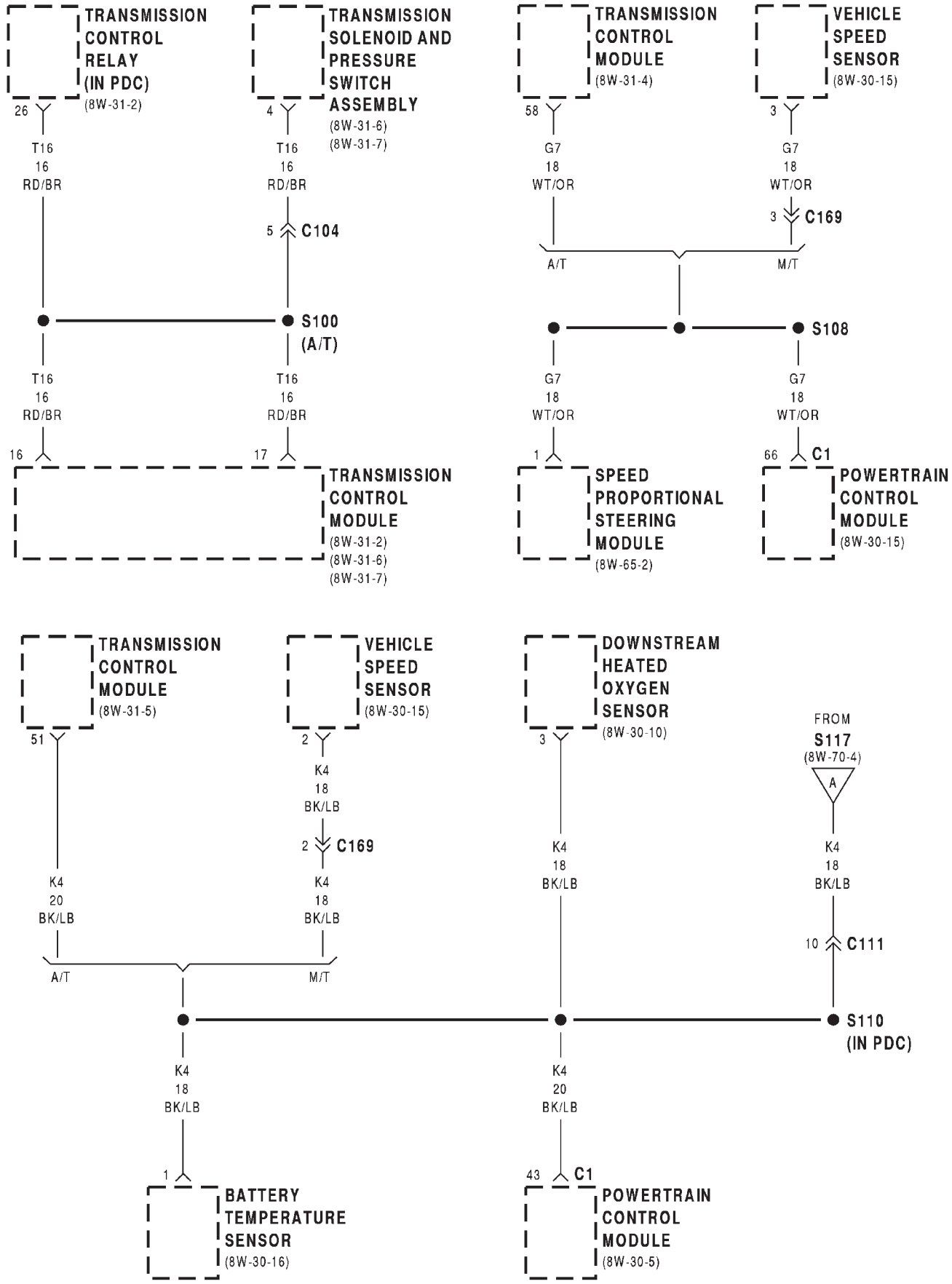
8W-70 SPLICE INFORMATION

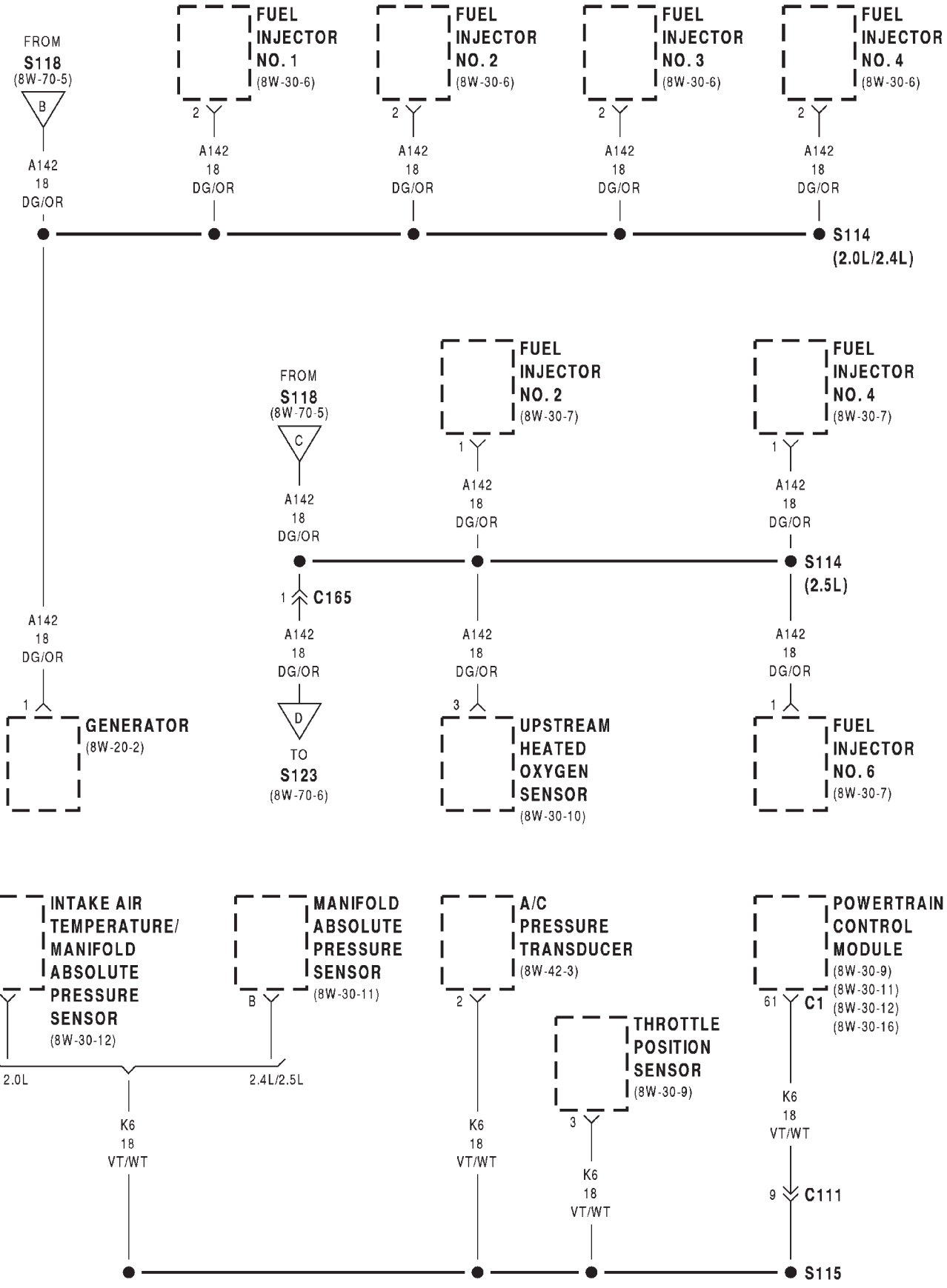
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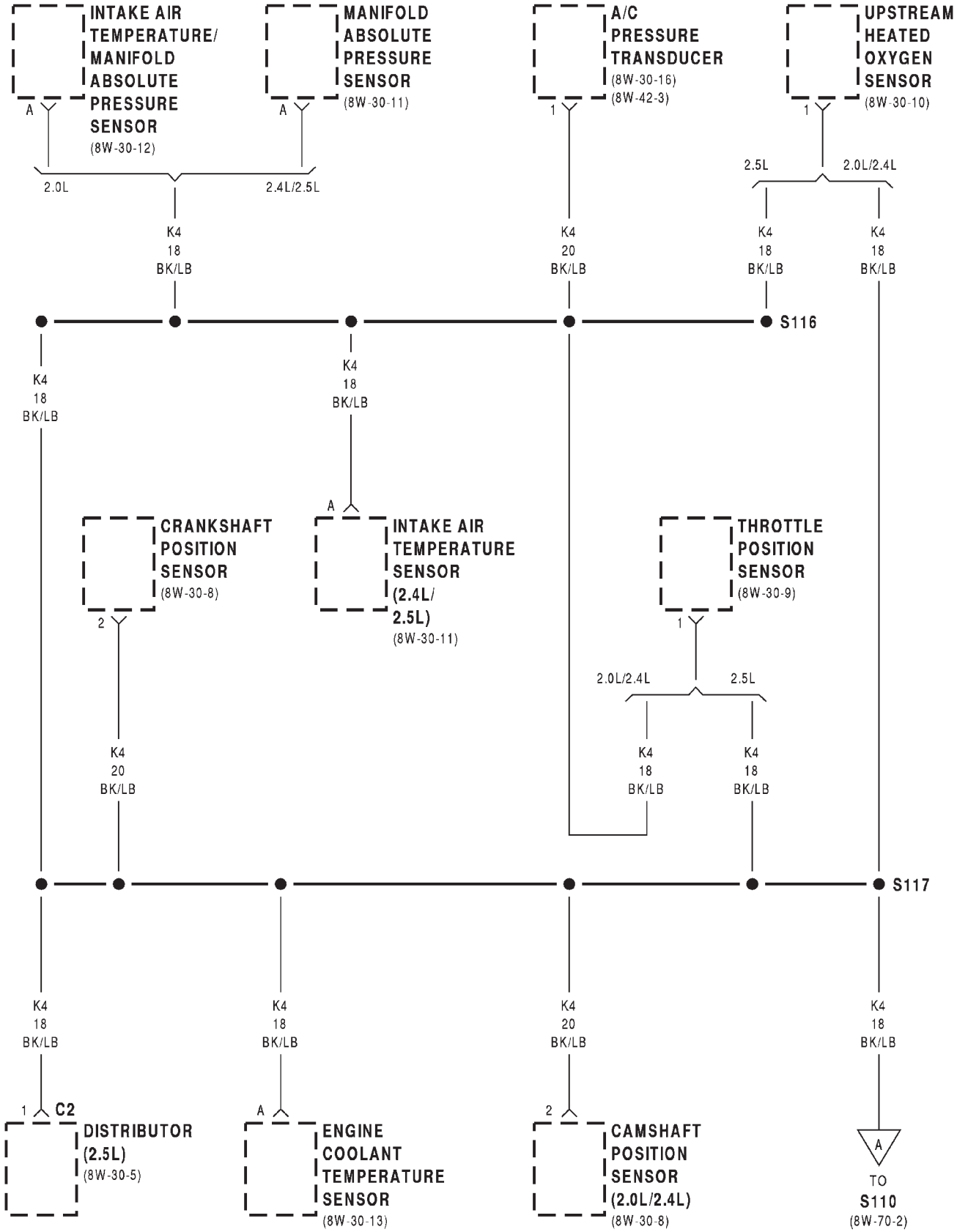
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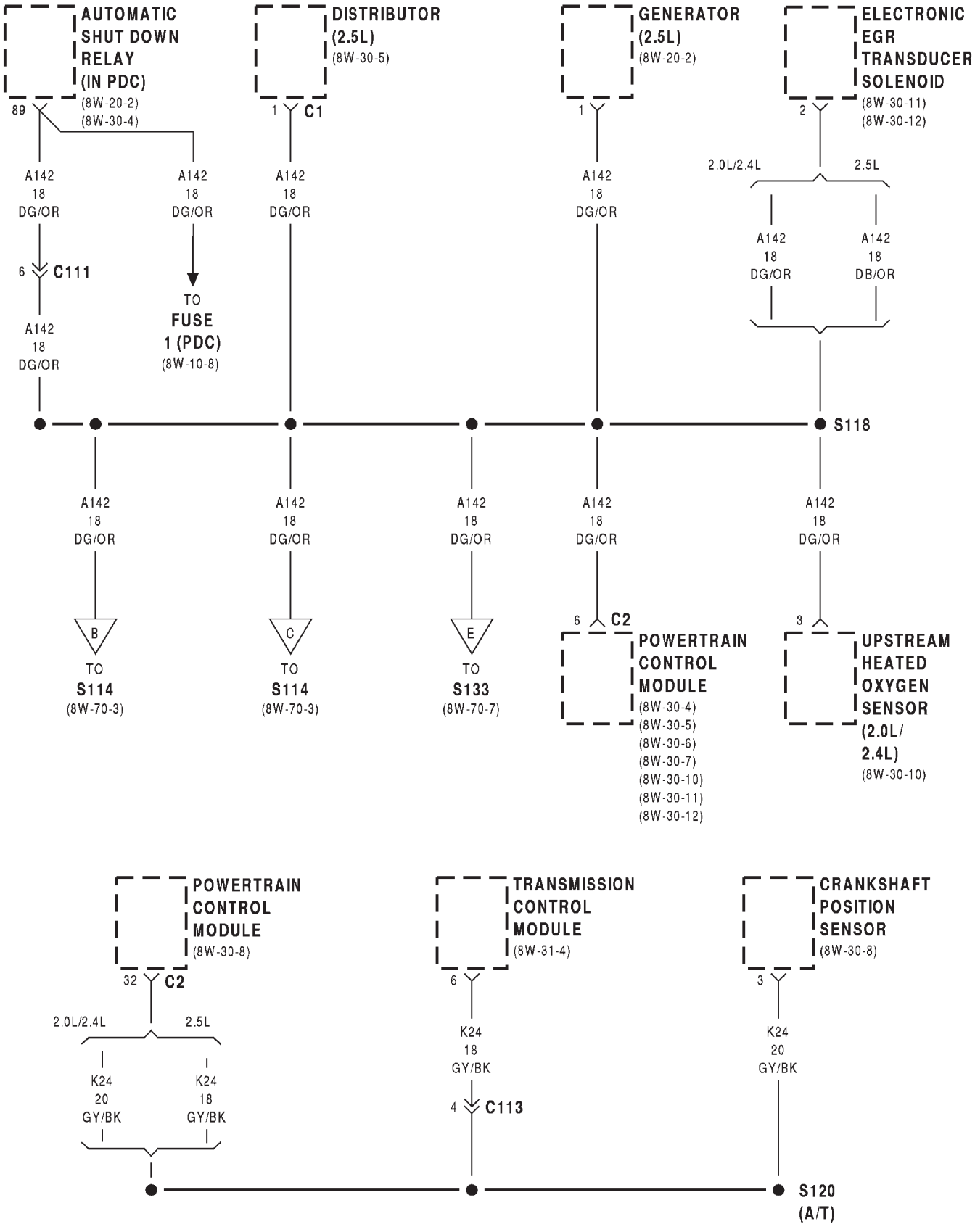
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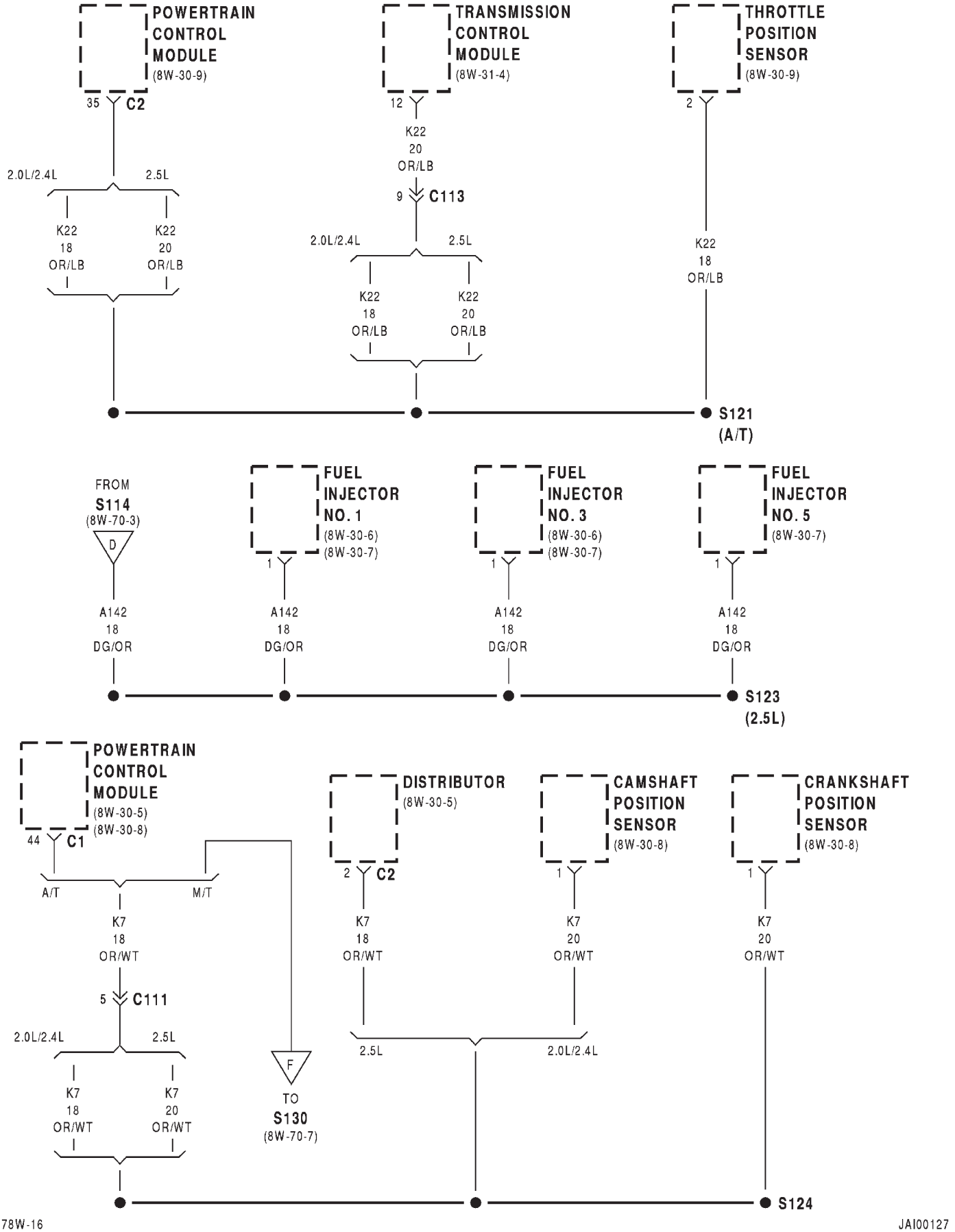
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S101	8W-15-3	S123	8W-70-6
S102	8W-10-10	S124	8W-70-6
S103	8W-10-17	S125	8W-70-7
S104	8W-10-9	S129	8W-30-19
S105	8W-10-13	S130	8W-70-7
S106	8W-10-12	S133	8W-70-7
S108	8W-70-2	S300	8W-51-2
S109	8W-15-2	S301	8W-15-6
S110	8W-70-2	S301	8W-51-2
S111	8W-15-4	S301	8W-51-3
S112	8W-15-4	S302	8W-12-8
S113	8W-20-2	S303	8W-15-7
S114	8W-70-3	S304	8W-15-6
S115	8W-70-3	S305	8W-15-6
S116	8W-70-4	S400	8W-12-9
S117	8W-70-4	S401	8W-12-9
S118	8W-70-5	S402	8W-15-8
S120	8W-70-5		

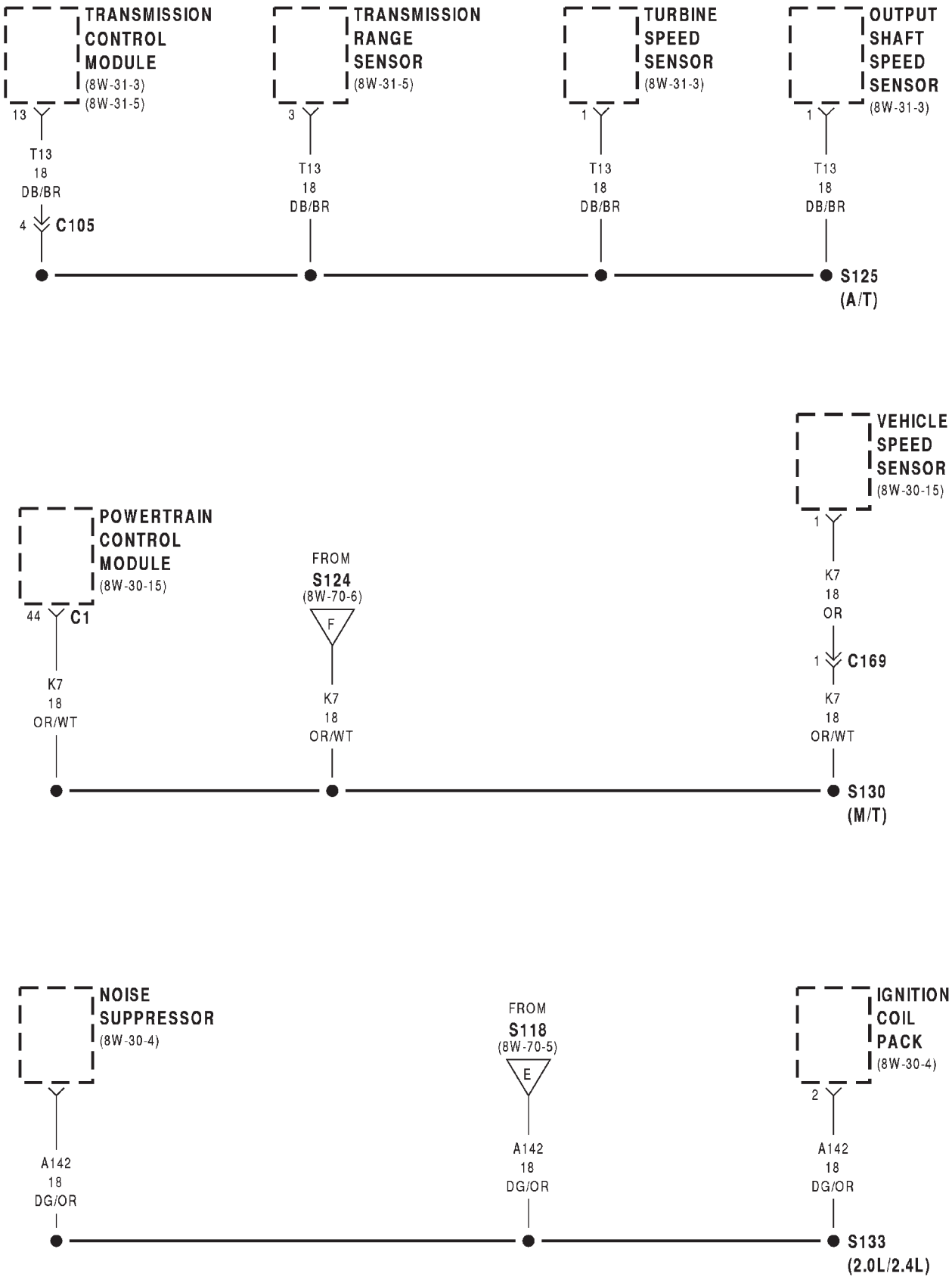

TRANSMISSION CONTROL RELAY (IN PDC) (8W-31-2)
26
T16 16 RD/BR
TRANSMISSION SOLENOID AND PRESSURE SWITCH ASSEMBLY (8W-31-6) (8W-31-7)
4
T16 16 RD/BR
5 C104
S100 (A/T)
T16 16 RD/BR
16
T16 16 RD/BR
17
TRANSMISSION CONTROL MODULE (8W-31-2) (8W-31-6) (8W-31-7)
TRANSMISSION CONTROL MODULE (8W-31-4)
58
G7 18 WT/OR
VEHICLE SPEED SENSOR (8W-30-15)
3
G7 18 WT/OR
3 C169
A/T
M/T
S108
G7 18 WT/OR
1
SPEED PROPORTIONAL STEERING MODULE (8W-65-2)
G7 18 WT/OR
66 C1
POWERTRAIN CONTROL MODULE (8W-30-15)
TRANSMISSION CONTROL MODULE (8W-31-5)
51
K4 20 BK/LB
VEHICLE SPEED SENSOR (8W-30-15)
2
K4 18 BK/LB
2 C169
K4 18 BK/LB
A/T
M/T
DOWNSTREAM HEATED OXYGEN SENSOR (8W-30-10)
3
K4 18 BK/LB
FROM S117 (8W-70-4)
A
K4 18 BK/LB
10 C111
S110 (IN PDC)
K4 18 BK/LB
1
BATTERY TEMPERATURE SENSOR (8W-30-16)
K4 20 BK/LB
43 C1
POWERTRAIN CONTROL MODULE (8W-30-5)


FROM
S118
(8W-70-5)
B
A142
18
DG/OR
FUEL
INJECTOR
NO. 1
(8W-30-6)
2
A142
18
DG/OR
FUEL
INJECTOR
NO. 2
(8W-30-6)
2
A142
18
DG/OR
FUEL
INJECTOR
NO. 3
(8W-30-6)
2
A142
18
DG/OR
FUEL
INJECTOR
NO. 4
(8W-30-6)
2
A142
18
DG/OR
S114
(2.0L/2.4L)
FROM
S118
(8W-70-5)
C
A142
18
DG/OR
1
C165
A142
18
DG/OR
D
TO
S123
(8W-70-6)
FUEL
INJECTOR
NO. 2
(8W-30-7)
1
A142
18
DG/OR
A142
18
DG/OR
3
UPSTREAM
HEATED
OXYGEN
SENSOR
(8W-30-10)
FUEL
INJECTOR
NO. 4
(8W-30-7)
1
A142
18
DG/OR
S114
(2.5L)
A142
18
DG/OR
1
FUEL
INJECTOR
NO. 6
(8W-30-7)
A142
18
DG/OR
1
GENERATOR
(8W-20-2)
INTAKE AIR
TEMPERATURE/
MANIFOLD
ABSOLUTE
PRESSURE
SENSOR
(8W-30-12)
C
2.0L
MANIFOLD
ABSOLUTE
PRESSURE
SENSOR
(8W-30-11)
B
2.4L/2.5L
K6
18
VT/WT
A/C
PRESSURE
TRANSDUCER
(8W-42-3)
2
K6
18
VT/WT
THROTTLE
POSITION
SENSOR
(8W-30-9)
3
K6
18
VT/WT
POWERTRAIN
CONTROL
MODULE
(8W-30-9)
(8W-30-11)
(8W-30-12)
(8W-30-16)
61
C1
K6
18
VT/WT
9
C111
S115


INTAKE AIR TEMPERATURE/ MANIFOLD ABSOLUTE PRESSURE SENSOR (8W-30-12)
MANIFOLD ABSOLUTE PRESSURE SENSOR (8W-30-11)
A/C PRESSURE TRANSDUCER (8W-30-16) (8W-42-3)
UPSTREAM HEATED OXYGEN SENSOR (8W-30-10)
A
A
1
1
2.0L
2.4L/2.5L
2.5L
2.0L/2.4L
K4 18 BK/LB
K4 20 BK/LB
K4 18 BK/LB
K4 18 BK/LB
S116
K4 18 BK/LB
K4 18 BK/LB
A
CRANKSHAFT POSITION SENSOR (8W-30-8)
INTAKE AIR TEMPERATURE SENSOR (2.4L/ 2.5L) (8W-30-11)
THROTTLE POSITION SENSOR (8W-30-9)
2
1
2.0L/2.4L
2.5L
K4 20 BK/LB
K4 18 BK/LB
K4 18 BK/LB
S117
K4 18 BK/LB
K4 18 BK/LB
K4 20 BK/LB
K4 18 BK/LB
1
C2
A
2
A
DISTRIBUTOR (2.5L) (8W-30-5)
ENGINE COOLANT TEMPERATURE SENSOR (8W-30-13)
CAMSHAFT POSITION SENSOR (2.0L/2.4L) (8W-30-8)
TO S110 (8W-70-2)


AUTOMATIC SHUT DOWN RELAY (IN PDC)
(8W-20-2)
(8W-30-4)
89
A142 18 DG/OR
6 C111
A142 18 DG/OR
A142 18 DG/OR
TO FUSE 1 (PDC)
(8W-10-8)
DISTRIBUTOR (2.5L)
(8W-30-5)
1 C1
A142 18 DG/OR
GENERATOR (2.5L)
(8W-20-2)
1
A142 18 DG/OR
ELECTRONIC EGR TRANSDUCER SOLENOID
(8W-30-11)
(8W-30-12)
2
2.0L/2.4L
2.5L
A142 18 DG/OR
A142 18 DB/OR
S118
A142 18 DG/OR
B
TO S114
(8W-70-3)
A142 18 DG/OR
C
TO S114
(8W-70-3)
A142 18 DG/OR
E
TO S133
(8W-70-7)
A142 18 DG/OR
6 C2
POWERTRAIN CONTROL MODULE
(8W-30-4)
(8W-30-5)
(8W-30-6)
(8W-30-7)
(8W-30-10)
(8W-30-11)
(8W-30-12)
A142 18 DG/OR
3
UPSTREAM HEATED OXYGEN SENSOR (2.0L/ 2.4L)
(8W-30-10)
POWERTRAIN CONTROL MODULE
(8W-30-8)
32 C2
2.0L/2.4L
2.5L
K24 20 GY/BK
K24 18 GY/BK
TRANSMISSION CONTROL MODULE
(8W-31-4)
6
K24 18 GY/BK
4 C113
CRANKSHAFT POSITION SENSOR
(8W-30-8)
3
K24 20 GY/BK
S120 (A/T)


POWERTRAIN CONTROL MODULE
(8W-30-9)
35 C2
2.0L/2.4L
2.5L
K22 18 OR/LB
K22 20 OR/LB
TRANSMISSION CONTROL MODULE
(8W-31-4)
12
K22 20 OR/LB
9 C113
2.0L/2.4L
2.5L
K22 18 OR/LB
K22 20 OR/LB
THROTTLE POSITION SENSOR
(8W-30-9)
2
K22 18 OR/LB
S121 (A/T)
FROM S114 (8W-70-3)
D
A142 18 DG/OR
FUEL INJECTOR NO. 1
(8W-30-6) (8W-30-7)
1
A142 18 DG/OR
FUEL INJECTOR NO. 3
(8W-30-6) (8W-30-7)
1
A142 18 DG/OR
FUEL INJECTOR NO. 5
(8W-30-7)
1
A142 18 DG/OR
S123 (2.5L)
POWERTRAIN CONTROL MODULE
(8W-30-5) (8W-30-8)
44 C1
A/T
M/T
K7 18 OR/WT
5 C111
2.0L/2.4L
2.5L
K7 18 OR/WT
K7 20 OR/WT
F
TO S130
(8W-70-7)
DISTRIBUTOR
(8W-30-5)
2 C2
K7 18 OR/WT
2.5L
CAMSHAFT POSITION SENSOR
(8W-30-8)
1
K7 20 OR/WT
2.0L/2.4L
CRANKSHAFT POSITION SENSOR
(8W-30-8)
1
K7 20 OR/WT
S124


TRANSMISSION CONTROL MODULE
(8W-31-3)
(8W-31-5)
13
T13
18
DB/BR
4
C105
TRANSMISSION RANGE SENSOR
(8W-31-5)
3
T13
18
DB/BR
TURBINE SPEED SENSOR
(8W-31-3)
1
T13
18
DB/BR
OUTPUT SHAFT SPEED SENSOR
(8W-31-3)
1
T13
18
DB/BR
S125
(A/T)
VEHICLE SPEED SENSOR
(8W-30-15)
1
K7
18
OR
1
C169
K7
18
OR/WT
POWERTRAIN CONTROL MODULE
(8W-30-15)
44
C1
K7
18
OR/WT
FROM
S124
(8W-70-6)
F
K7
18
OR/WT
S130
(M/T)
NOISE SUPPRESSOR
(8W-30-4)
A142
18
DG/OR
FROM
S118
(8W-70-5)
E
A142
18
DG/OR
IGNITION COIL PACK
(8W-30-4)
2
A142
18
DG/OR
S133
(2.0L/2.4L)

8W-80 CONNECTOR PIN-OUTS

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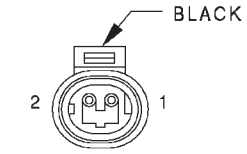
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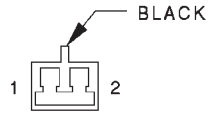
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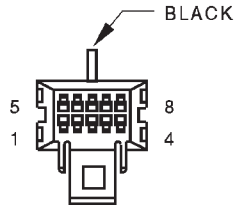
A/C COMPRESSOR CLUTCH

CAV	CIRCUIT	FUNCTION
1	C3 14DB/BK	A/C COMPRESSOR CLUTCH RELAY OUTPUT
2	-	-



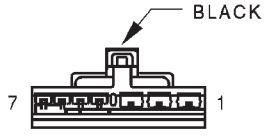
A/C EVAPORATOR TEMPERATURE SENSOR

CAV	CIRCUIT	FUNCTION
1	C12 20LG/BK	EVAPORATOR TEMPERATURE SENSOR SIGNAL
2	C57 22GY	SENSOR GROUND



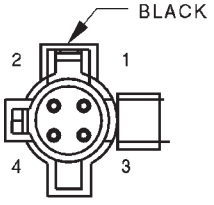
A/C-HEATER CONTROL - C1

CAV	CIRCUIT	FUNCTION
1	-	-
2	C21 22DB/OR	A/C SWITCH SENSE
3	C16 22LB/YL	REAR DEFOGGER LAMP DRIVER
4	-	-
5	C58 22RD	HVAC MODE SENSE
6	-	-
7	-	-
8	Z2 22BK/PK	GROUND



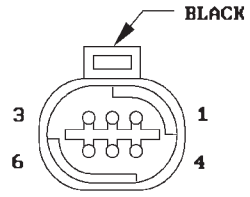
A/C-HEATER CONTROL - C2

CAV	CIRCUIT	FUNCTION
1	-	-
2	E2 18OR	PANEL LAMPS DRIVER
	E2 18OR	PANEL LAMPS DRIVER
3	C4 18TN	LO BLOWER MOTOR DRIVER
4	C5 18LG	M1 BLOWER MOTOR DRIVER
5	C6 18LB	M2 BLOWER MOTOR DRIVER
6	C7 12BK/TN	HI BLOWER MOTOR DRIVER
7	Z1 12BK	GROUND



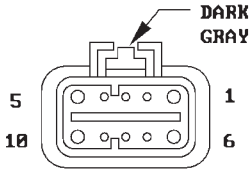
A/C PRESSURE TRANSDUCER

CAV	CIRCUIT	FUNCTION
1	K4 20BK/LB	SENSOR GROUND
2	K6 18VT/WT	5 VOLT SUPPLY
3	C18 20DB/YL	A/C PRESSURE SIGNAL
4	-	-



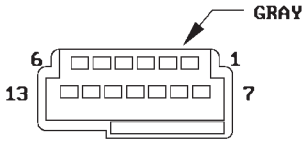
ABS HYDRAULIC MODULATOR

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



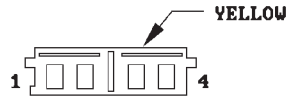
ABS RELAY BOX

CAV	CIRCUIT	FUNCTION
1	A20 16RD/DB	FUSED B(+)
2	-	-
3	B116 20GY/LB	ABS PUMP MOTOR RELAY CONTROL
4	B57 20BR/BK	ABS SYSTEM RELAY CONTROL
5	A10 12RD/DG	FUSED B(+)
6	B10 16BR/WT	ABS PUMP MOTOR SENSE
7	G19 20LG/OR	ABS WARNING LAMP DRIVER
8	-	-
9	B120 16BR/RD	ABS PUMP/MOTOR RELAY OUTPUT
10	Z1 14BK	GROUND



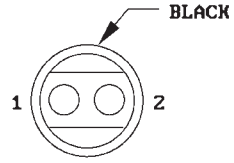
AIRBAG CONTROL MODULE - C1

CAV	CIRCUIT	FUNCTION
1	F14 18LG/YL	FUSED IGNITION SWITCH OUTPUT (RUN/START)
2	F23 18WT	FUSED IGNITION SWITCH OUTPUT (RUN)
3	D1 18VT	CCD BUS (+)
4	D2 18WT/BK	CCD BUS (-)
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	Z2 18BK/LG	GROUND
12	-	-
13	-	-



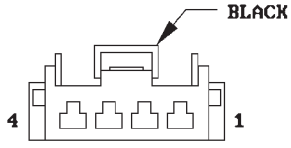
AIRBAG CONTROL MODULE - C2

CAV	CIRCUIT	FUNCTION
1	R44 18LG/YL	PASSENGER AIRBAG LINE 2
2	R42 18RD/WT	PASSENGER AIRBAG LINE 1
3	R45 18DG/LB	DRIVER AIRBAG LINE 2
4	R43 18BK/LB	DRIVER AIRBAG LINE 1



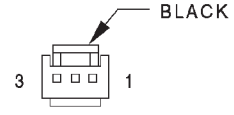
ASH RECEIVER LAMP

CAV	CIRCUIT	FUNCTION
1	E2 18OR	PANEL LAMPS DRIVER
2	Z1 20BK*	GROUND
2	Z1 18BK**	GROUND



AUTOSTICK SWITCH

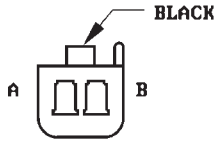
CAV	CIRCUIT	FUNCTION
1	T44 20YL/LB	AUTOSTICK DOWNSHIFT SWITCH SENSE
2	T5 20LG/LB	AUTOSTICK UPSHIFT SWITCH SENSE
3	Z13 20BK/RD	GROUND
4	F11 20RD/VT	FUSED IGNITION SWITCH OUTPUT (OFF/RUN/START)



AUTOMATIC DAY/ NIGHT MIRROR

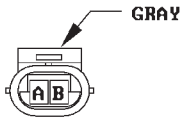
CAV	CIRCUIT	FUNCTION
1	G5 22DB/WT	FUSED IGNITION SWITCH OUTPUT (START/RUN))
2	Z1 20BK	GROUND
3	L1 18VT/BK	REVERSE LAMP SENSE

* OTHERS
** AUTOSTICK



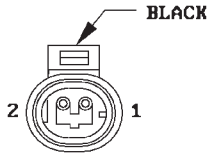
BACK-UP LAMP OVERRIDE

CAV	CIRCUIT -	FUNCTION
A	L1 18VT/BK	BACK-UP LAMP OVERRIDE
B		-



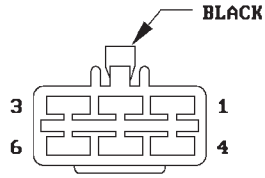
BACK-UP LAMP SWITCH

CAV	CIRCUIT	FUNCTION
A	F20 18WT/YL	FUSED IGNITION SWITCH OUTPUT
B	L1 18VT/BK	REVERSE LAMP SENSE



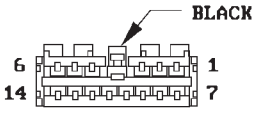
BATTERY TEMPERATURE SENSOR

CAV	CIRCUIT	FUNCTION
1	K4 18BK/LB	SENSOR GROUND
2	K25 18VT/LG	AMBIENT TEMPERATURE SENSOR SIGNAL



BLOWER MOTOR RESISTOR BLOCK

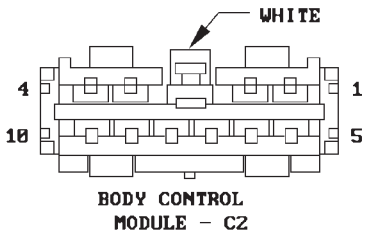
CAV	CIRCUIT	FUNCTION
1	C7 12BK/TN	HI BLOWER MOTOR DRIVER
2	C6 18LB	M2 BLOWER MOTOR DRIVER
3	-	-
4	C1 12DG	FUSED IGNITION SWITCH OUTPUT (RUN)
5	C4 18TN	LO BLOWER MOTOR DRIVER
6	C5 18LG	M1 BLOWER MOTOR DRIVER



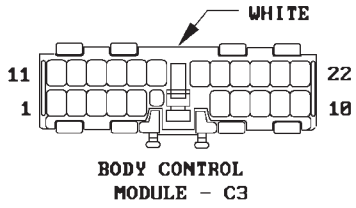
BODY CONTROL MODULE - C1

CAV	CIRCUIT	FUNCTION
1	-	-
2	V55 16WT/GY	WIPER PARK SWITCH SENSE
3	-	-
4	Z1 18BK	GROUND
5	D1 20VT/BR	CCD BUS (+)
6	D1 20VT/DG*	CCD BUS (+)
7	V14 20PK/VT	WIPER ON/OFF RELAY CONTROL
8	V16 20VT/PK	WIPER HI/LO RELAY CONTROL
9	-	-
10	V10 18BR/DB	WASHER PUMP CONTROL
11	-	-
12	Z2 20BK/LG	GROUND
13	D2 20WT/BK	CCD BUS (-)
14	D2 20WT/DG*	CCD BUS (-)

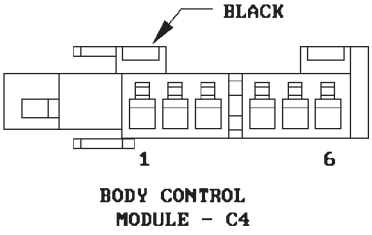
* WITH ATX



CAV	CIRCUIT	FUNCTION
1	-	-
2	C35 20DG/YL	MODE DOOR DRIVER
3	E2 18OR/YL	PANEL LAMPS DRIVER
4	E2 18OR/BR	PANEL LAMPS DRIVER
5	C26 20PK/DB	5 VOLT SUPPLY
6	C34 20DB/YL	COMMON DOOR DRIVER
7	M50 20YL/RD	KEY-IN LAMP DRIVER
8	Z2 18BK/LB	GROUND
9	E2 18OR	PANEL LAMPS DRIVER
10	E2 18OR/GY	PANEL LAMPS DRIVER

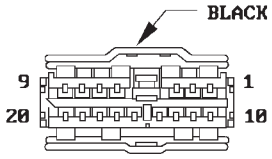


CAV	CIRCUIT	FUNCTION
1	D1 20VT/BR	CCD BUS (+)
2	D1 18VT	CCD BUS (+)
3	D1 20VT/GY	CCD BUS (+)
4	Z2 20BK/VT	GROUND
5	C58 22RD	HVAC MODE SENSE
6	C37 20YL	MODE DOOR FEEDBACK SIGNAL
7	C12 20LG/BK	EVAPORATOR TEMPERATURE SENSOR SIGNAL
8	D1 20VT/BK	SERIAL BUS (+)
9	D2 20WT/VT	SERIAL BUS (-)
10	V52 22DG/YL	WINDSHIELD WIPER SWITCH SIGNAL
11	D2 20WT/DB	CCD BUS (-)
12	D2 18WT/BK	CCD BUS (-)
13	D2 20WT/DG	CCD BUS (-)
14	Z2 18BK/LG	GROUND
15	V10 22BR/DB	WASHER PUMP CONTROL
16	C21 22DB/OR	A/C SWITCH SENSE
17	G26 22LB	KEY-IN IGNITION SWITCH SENSE
18	E19 20RD	DIMMER SWITCH SIGNAL
19	Z2 22BK/PK	GROUND
20	C57 22GY/TN	SENSOR GROUND
21	C57 22GY	SENSOR GROUND
22	Z2 18BK/TN	GROUND



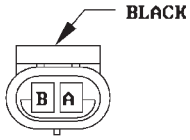
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	R2 20RD*	RIGHT RKE ANTENNA
3	P158 20RD**	RIGHT RKE ANTENNA
4	R1 20BK*	LEFT RKE ANTENNA
4	P58 20BK**	LEFT RKE ANTENNA
5	-	-
6	-	-

* WITH AUTOSTICK
** WITHOUT AUTOSTICK



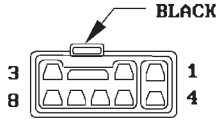
BODY CONTROL MODULE - C5

CAV	CIRCUIT	FUNCTION
1	P34 16PK/LB	RIGHT FRONT DOOR UNLOCK DRIVER
2	P34 16PK/DB	RIGHT REAR DOOR UNLOCK DRIVER
3	P34 16PK/BK	LEFT REAR DOOR UNLOCK DRIVER
4	P34 16DB/WT*	LEFT FRONT DOOR UNLOCK DRIVER
4	P55 16DB/WT**	LEFT FRONT DOOR UNLOCK DRIVER
5	-	-
6	G74 20TN/RD	LEFT REAR DOOR AJAR SWITCH SENSE
7	G75 20TN	LEFT FRONT DOOR AJAR SWITCH SENSE
8	P97 22WT/DG	LEFT FRONT DOOR SWITCH MUX
9	-	-
10	P33 16OR/BK	LEFT FRONT DOOR LOCK DRIVER
11	P33 16OR/WT	RIGHT FRONT DOOR LOCK DRIVER
12	P33 16OR/TN	RIGHT REAR DOOR LOCK DRIVER
13	P33 16OR/BR	LEFT REAR DOOR LOCK DRIVER
14	-	-
15	G4 18DB	FUEL LEVEL SENSOR SIGNAL
16	G74 20TN/PK	RIGHT REAR DOOR AJAR SWITCH SENSE
17	G74 20TN/OR	RIGHT FRONT DOOR AJAR SWITCH SENSE
18	P96 22WT/LG	RIGHT FRONT DOOR SWITCH MUX
19	G73 18LG/OR**	LEFT VTSS ARM/DISARM SENSE
20	G72 18DG/OR**	RIGHT VTSS ARM/DISARM SENSE



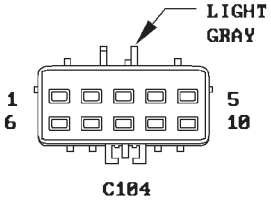
BRAKE WARNING PRESSURE SWITCH

CAV	CIRCUIT	FUNCTION
A	G9 20GY/DB	RED BRAKE WARNING LAMP DRIVER
B	Z1 20BK	GROUND



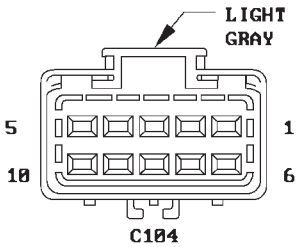
BUX FEED

CAV	CIRCUIT	FUNCTION
2	L92 18LG	FOG LAMP FEED
8	Z1 18BK	GROUND



C104

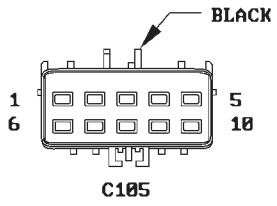
CAV	CIRCUIT
1	T9 18OR/BK
2	T54 18VT/WT
3	T41 18BK/WT
4	-
5	T16 16RD/BR
6	T19 18WT/PK
7	T41 18BK/LB
8	T50 18DG/TN
9	T59 18PK/DB
10	T60 18BR/TN



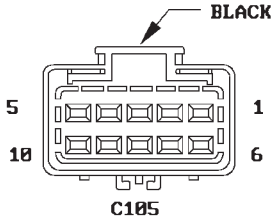
C104

CAV	CIRCUIT
1	T9 18OR/BK
2	T54 18VT/YL
3	T41 18BK/WT
4	-
5	T16 16RD/BR
6	T19 18WT/PK
7	T41 18BK/WT
8	T50 18DG/TN
9	T59 18PK/DB
10	T60 18BR/TN

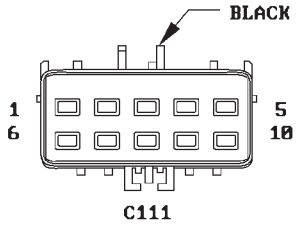
* WITHOUT VTSS
** WITH VTSS



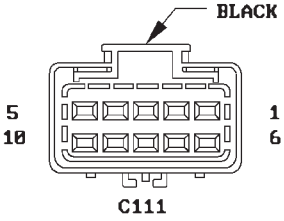
CAV	CIRCUIT
1	F20 18WT/YL
2	T1 18LG/GY
3	T3 18VT
4	T13 18DB/BR
5	T14 18LG/VT
6	T20 18LB/WT
7	T42 18VT/TN
8	T47 18YL/GY
9	T52 18OR/YL
10	L1 18VT/BK



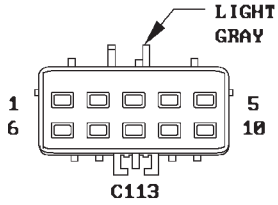
CAV	CIRCUIT
1	F20 18WT/YL
2	T1 18LG/GY
3	T3 18VT
4	T13 18DB/BR
5	T14 18LG/VT
6	T20 18LB/WT
7	T42 18VT/TN
8	T47 18YL/GY
9	T52 18OR/YL
10	L1 18VT/BK



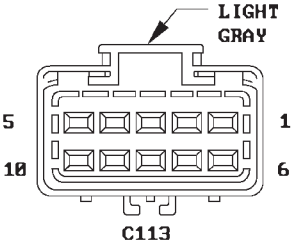
CAV	CIRCUIT
1	Z1 16BK ●
1	Z1 18BK ●●
2	K39 18GY/RD
3	K40 18BR/GY
4	K59 18VT/GY
5	K7 18OR/WT ●
5	K7 20OR/WT ●●
6	A142 18DG/OR
7	K60 18YL/BK
8	G6 18GY/VT
9	K6 18VT/WT
10	K4 18BK/LB



CAV	CIRCUIT
1	Z1 16BK*
1	Z1 18BK**
2	K39 18GY/RD
3	K40 18BR/GY
4	K59 18VT/GY
5	K7 18OR/WT
6	A142 18DG/OR
7	K60 18YL/BK
8	G6 18GY/VT
9	K6 18VT/WT
10	K4 18BK/LB

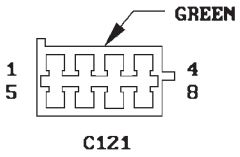


CAV	CIRCUIT
1	C3 14DB/BK
2	–
3	–
4	K24 18GY/BK
5	T40 14BR
6	F12 18DB/WT
7	C18 20DB/YL
8	V32 20YL/PK
9	K22 18OR/LB ●
9	K22 20OR/LB ●●
10	Z12 18BK/TN



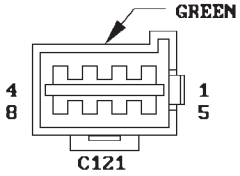
CAV	CIRCUIT
1	C3 14DB/BK
2	–
3	–
4	K24 18GY/BK**
5	T40 14BR
6	F12 18DB/WT
7	C18 20DB/YL
8	V32 20YL/PK
9	K22 20OR/LB**
10	Z12 18BK/TN

● 2.0L/2.4L ENGS
●● 2.5L ENG
* MTX
** ATX



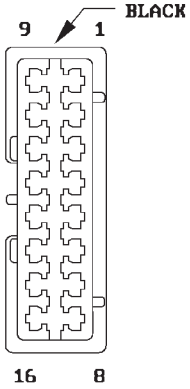
C121

CAV	CIRCUIT
1	A141 14DG/WT
2	L1 18VV/BK
3	L36 18LG/DG
4	_ -
5	B1 20YL/DB
6	B2 20YL
7	B3 20LG/DB
8	B4 20LG



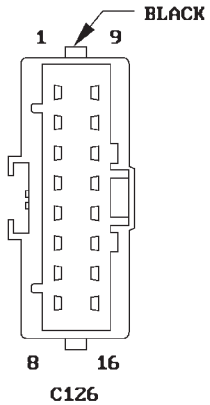
C121

CAV	CIRCUIT
1	A141 14DG/WT
2	L1 18VT/BK
	L1 18VT/BK
3	L36 18LB
4	-
5	B1 20YL/DB
6	B2 20YL
7	B3 20LG/DB
8	B4 20LG



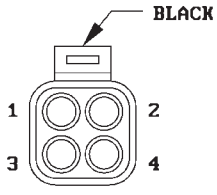
C126

CAV	CIRCUIT
1	A2 12PK/BK
2	G6 18GY/VT
3	V37 20PK/LG
4	D20 20LG/WT
5	T5 20LG/LB**
6	D21 20PK/LB*
	D21 20PK/LB**
7	F18 18LG/BK
8	A41 16YL/OR
9	A15 16PK
10	L36 18LG/DG
11	D6 20PK/DG**
12	L13 18BR/VT
	L13 18BR/VT
13	T44 20YL/LB •
13	D6 20PK/DG*
14	A51 20RD/LB
15	G19 20LG/OR
	G19 20LG/OR
16	A1 16RD



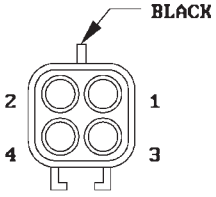
C126

CAV	CIRCUIT
1	A2 12PK/BK
2	G6 20GY
3	V37 20PK/LG
4	D20 20LG
5	T5 20YL/LB •
6	D21 20PK/LB
7	F18 20LG/BK
8	A41 16YL
9	A15 18PK
10	L36 18LG
	L36 18LG
11	D6 20PK/DG •
12	L13 19BR/VT
13	T44 20YL/LB •
13	D6 20PK/DG*
14	A51 20RD/LB
15	G19 20LG/OR
16	A1 16RD
	A1 16RD



C165 (2.5L ENGINE ONLY)

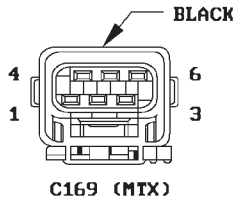
CAV	CIRCUIT
1	A142 18DG/OR
2	K11 18WT/LB
3	K13 18YL/WT
4	K38 18GY



C165 (2.5L ENGINE ONLY)

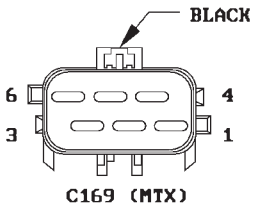
CAV	CIRCUIT
1	A142 18DG/OR
2	K11 18WT/LB
3	K13 18YL/WT
4	K38 18GY

* MTX
** ATX
• AUTOSTICK



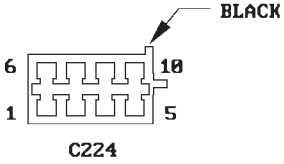
C169 (MTX)

CAV	CIRCUIT
1	K7 18OR/WT
2	K4 18BK/LB
3	G7 18WT/OR
4	F20 18WT/YL
5	L1 18VT/BK
6	–



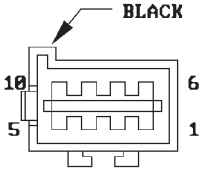
C169 (MTX)

CAV	CIRCUIT
1	K7 18OR
2	K4 18BK/LB
3	G7 18WT/OR
4	F20 18WT/YL
5	L1 18VT/BK
6	–



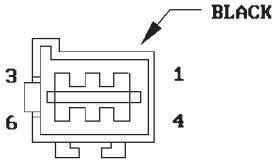
C224

CAV	CIRCUIT
1	X52 22DB/WT
2	X54 22VT
3	X56 22DB/RD
4	X58 22DB/OR
5	X51 22BR/YL
6	X53 22DG
7	X55 22BR/RD
8	X57 22BR/LB
9	X60 22DG/RD
10	–



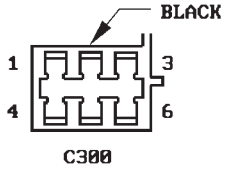
C224

CAV	CIRCUIT
1	X52 22DB/WT
2	X54 22VT
3	X56 22DB/RD
4	X58 22DB/OR
5	X51 22BR/YL
6	X53 22DG
7	X55 22BR/RD
8	X57 22BR/LB
9	X60 22DG/RD
10	–



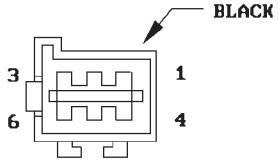
C300

CAV	CIRCUIT
1	L1 18VT/BK
	L1 18VT/BK
2	L50 16WT/TN
	L50 18WT/TN
3	L61 18LG
4	L7 18BK/YL
	L7 18BK/YL
5	Z1 18BK
	Z1 18BK
6	L36 18LB



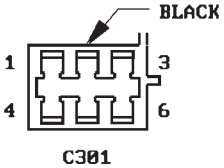
C300

CAV	CIRCUIT
1	L1 18VT/BK
2	L50 18WT/TN
3	L61 18LG
4	L7 18BK/YL
	L7 18BK/YL
5	Z1 18BK
6	L36 18LB



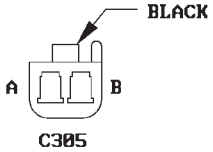
C301

CAV	CIRCUIT
1	L1 18VT/BK
2	L50 18WT/TN
3	L60 18TN
4	L7 18BK/YL
5	Z1 18BK
6	–



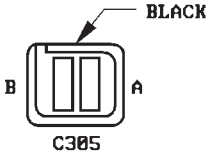
C301

CAV	CIRCUIT
1	L1 18VT/BK
2	L50 18WT/TN
3	L60 18TN
4	L7 18BK/YL
5	Z1 18BK
6	–



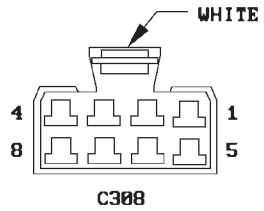
C305

CAV	CIRCUIT
A	L50 16WT/TN
B	Z1 18BK



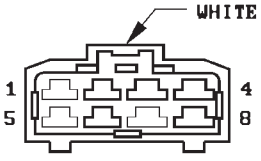
C305

CAV	CIRCUIT
A	L50 18BK/TN
B	Z1 18BK



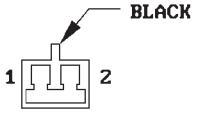
C308

CAV	CIRCUIT
1	P33 16OR/BR
2	P34 16PK/BK
3	Q1 14YL/TN
4	Q17 14DB/WT
5	Q27 14RD/BK
6	–
7	–
8	–



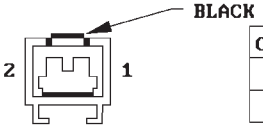
C308

CAV	CIRCUIT
1	P33 16OR/BK
2	P34 16PK/BK
3	Q1 14YL
4	Q17 14DB/WT
5	Q27 14RD/BK
6	–
7	–
8	–



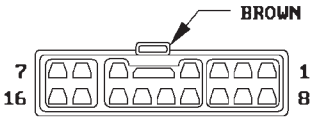
C309 (WITH POWER SEAT)

CAV	CIRCUIT
1	F35 16RD
2	Z1 16BK



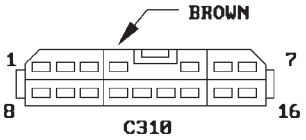
C309 (WITH POWER SEAT)

CAV	CIRCUIT
1	F35 16RD
2	Z1 16BK



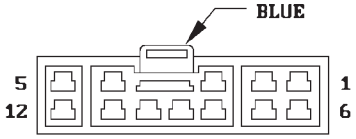
C310

CAV	CIRCUIT
1	–
2	M1 20PK
3	P97 22WT/DG
4	P91 22WT/BK
5	P92 22YL
6	–
7	Q16 14BR/WT
8	Q18 14GY/BK
9	P90 22LG/BK
10	P33 16OR/BK
11	P55 16DB/WT ●●
11	P34 16DB/WT
12	P94 22WT/YL
13	–
14	–
15	–
16	–



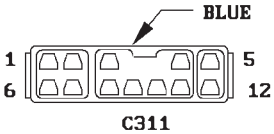
C310

CAV	CIRCUIT
1	–
2	M1 20PK
3	P97 22WT/DG
4	P91 22WT/BK
5	P92 22YL
6	–
7	Q16 14BR/WT
8	Q18 14GY/BK
9	P90 22LG/BK
10	P33 16OR/BK
11	P55 16PK ●●
11	P34 16PK ●
12	P94 22WT/YL
13	–
14	–
15	–
16	–



C311

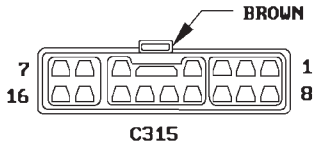
CAV	CIRCUIT
1	Q1 14YL
2	Q27 14RD/BK
3	Q17 14DB/WT
4	F21 14TN
5	Q26 14VT/WT
6	Z1 16BK
7	Q28 14DG/WT
8	X53 22DG*
8	X85 22LG/DG**
9	X55 22BR/RD*
9	X87 22LG/VT**
10	G73 18LG/OR ●●
11	F20 20WT
12	C16 20LB/OR



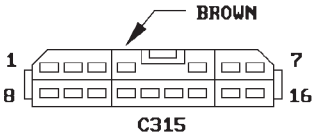
C311

CAV	CIRCUIT
1	Q1 14YL
2	Q27 14RD/BK
3	Q17 14DB/WT
4	F21 14TN
5	Q26 14VT/WT
6	Z1 14BK
7	Q28 14DG/WT
8	X85 22LG/DG
9	X87 22LG/VT
10	G73 18LG/OR ●●
11	F20 20WT
12	C16 20LB/YL

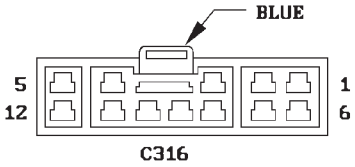
* STANDARD RADIO
** PREMIUM RADIO
● WITHOUT VTSS
●● WITH VTSS



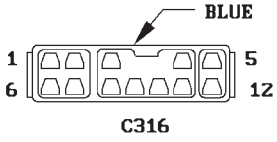
CAV	CIRCUIT
1	–
2	M1 20PK
3	P96 22WT/LG
4	P90 22LG/BK
5	P92 22YL
6	–
7	–
8	–
9	P91 22WT/BK
10	C16 20LB/YL
11	P94 22WT/YL
12	–
13	–
14	–
15	–
16	–



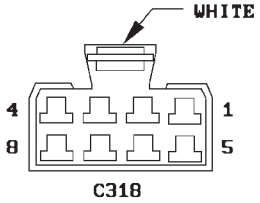
CAV	CIRCUIT
1	–
2	M1 20PK
3	P96 22WT/LG
4	P90 22LG/BK
5	P92 22YL
6	–
7	–
8	–
9	P91 22WT/BK
10	C16 20LB/YL
11	P94 22WT/YL
12	–
13	–
14	–
15	–
16	–



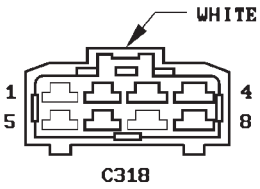
CAV	CIRCUIT
1	P33 16OR/WT
2	P34 16PK/LB
3	Q1 14YL/VT
4	Q16 14BR/WT
5	Q26 14VT/WT
6	Z1 18BK
7	G72 18DG/OR
8	X54 22VT*
8	X80 22LB/DG**
9	X56 22DB/RD*
9	X82 22LB/VT**
10	–
11	F20 20WT
12	–



CAV	CIRCUIT
1	P33 16OR/BK
2	P34 16PK/BK
3	Q1 14YL
4	Q16 14BR/WT
5	Q26 14VT/WT
6	Z1 20BK
7	G72 18DG/OR
8	X80 22LB/DG
9	X82 22LB/VT
10	–
11	F20 20WT
12	–

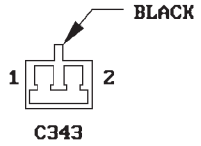


CAV	CIRCUIT
1	P33 16OR/TN
2	P34 16PK/DB
3	Q1 14YL/WT
4	Q18 14GY/BK
5	Q28 14DG/WT
6	–
7	–
8	–

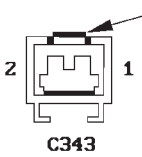


CAV	CIRCUIT
1	P33 16OR/BK
2	P34 16PK/BK
3	Q1 14YL
4	Q18 14GY/BK
5	Q28 14DG/WT
6	–
7	–
8	–

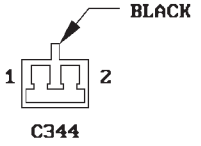
* STANDARD RADIO
** PREMIUM RADIO



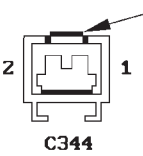
CAV	CIRCUIT
1	L61 18LG/TN
2	Z1 18BK



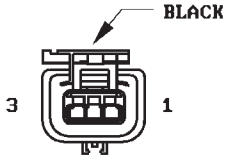
CAV	CIRCUIT
1	L61 18LG
2	Z1 18BK
	Z1 18BK



CAV	CIRCUIT
1	L60 18LG/TN
2	Z1 18BK

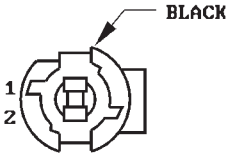


CAV	CIRCUIT
1	L60 18TN
2	Z1 18BK
	Z1 18BK



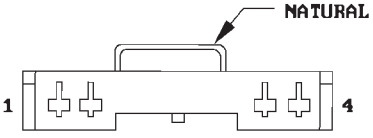
CAMSHAFT POSITION SENSOR
(2.0L AND 2.4L ENGINES ONLY)

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



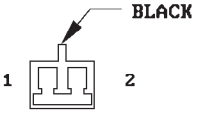
CENTER HIGH MOUNTED STOP LAMP (CHMSL)

CAV	CIRCUIT	FUNCTION
1	Z1 18BK	GROUND
2	L50 18BK/TN	BRAKE LAMP SWITCH OUTPUT



CLOCKSPRING

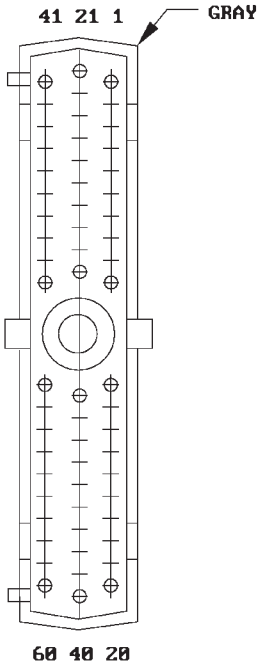
CAV	CIRCUIT	FUNCTION
1	X3 18BK/RD	HORN RELAY CONTROL
2	V37 20PK/LG	SPEED CONTROL SWITCH SIGNAL
3	Z2 18BK/TN	GROUND
4	-	-



CLUTCH PEDAL POSITION SWITCH (MANUAL ONLY)

CAV	CIRCUIT	FUNCTION
1	A41 16YL/OR	IGNITION SWITCH OUTPUT (START)
2	T141 16YL/RD	CLUTCH SAFETY SWITCH SENSE

* STANDARD RADIO
** PREMIUM RADIO
● WITH VTSS



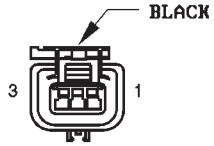
CONTROLLER
ANTILOCK
BRAKE

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	Z1 18BK	GROUND
6	B6 20WT/DB	RIGHT FRONT WHEEL SPEED SENSOR (-)
7	B7 20WT	RIGHT FRONT WHEEL SPEED SENSOR (+)
8	B8 20OR/DB	LEFT FRONT WHEEL SPEED SENSOR (-)
9	B9 20OR	LEFT FRONT WHEEL SPEED SENSOR (+)
10	-	-
11	-	-
12	-	-
13	L50 18WT/BR	STOP LAMP SWITCH OUTPUT
14	G9 20GY/DG	RED BRAKE WARNING LAMP DRIVER
15	G19 20LG/OR	ABS WARNING LAMP DRIVER
16	B116 20GY/LB	ABS PUMP/MOTOR RELAY CONTROL
17	-	-
18	-	-
19	-	-
20	B10 16BR/WT	ABS PUMP MOTOR SENSE
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 DECAY SOLENOID CONTROL
43	B143 20DG/YL	RIGHT FRONT DECAY SOLENOID CONTROL
44	-	-
45	-	-

(CONTINUED ON NEXT PAGE)

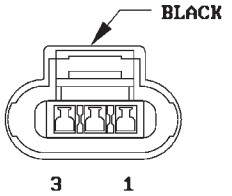
(CONTINUED FROM PREVIOUS PAGE)

CAV	CIRCUIT	FUNCTION
46	B146 20BR/LB	LEFT REAR DECAY SOLENOID CONTROL
47	B120 16BR/RD	ABS SYSTEM RELAY OUTPUT
48	B148 20DG/LB	RIGHT REAR DECAY SOLENOID CONTROL
49	-	-
50	-	-
51	D21 20PK/LB	SCI TRANSMIT -
52		-
53	-	-
54	-	-
55	-	-
56	-	-
57	B57 20BR/BK	ABS SYSTEM RELAY CONTROL
58	-	-
59	-	-
60	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)



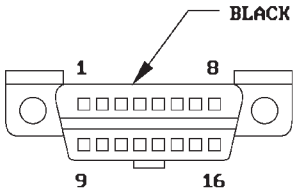
CRANKSHAFT POSITION SENSOR (2.0L/2.4L ENG)

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



CRANKSHAFT POSITION SENSOR (2.5L ENG)

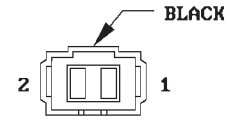
CAV	CIRCUIT	FUNCTION
1	K7 20OR/WT	8 VOLT SUPPLY
2	K4 20BK/LB	SENSOR GROUND
3	K24 20GY/BK	CRANKSHAFT POSITION SENSOR SIGNAL



DATA LINK CONNECTOR

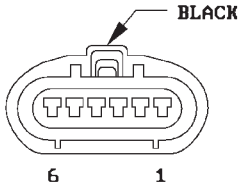
CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	D1 20VT/GY	CCD BUS (+)
4	Z1 20BK	GROUND
5	Z2 20BK/VT	GROUND
6	D20 20LG	SCI RECEIVE
7	D21 20PK/LB	SCI TRANSMIT
8	-	-
9	D6 20PK/DG*	TRANSMISSION CONTROL MODULE (SCI RECEIVE)
10	-	-
11	D2 20WT/DG	CCD BUS (-)
14	D6 20PK/DG	SCI RECEIVE
15	-	-
16	M1 22PK	FUSED B(+)

* BASE



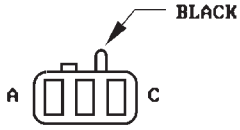
DISTRIBUTOR - C1
(2.5L ENGINE)

CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
2	-	-



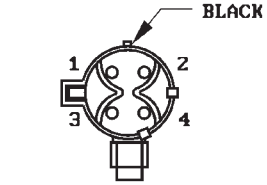
DISTRIBUTOR - C2
(2.5L ENGINE)

CAV	CIRCUIT	FUNCTION
1	K4 18BK/LB	SENSOR GROUND
2	K7 18OR/WT	8 VOLT SUPPLY
3	K44 18TN/YL	CAMSHAFT POSITION SENSOR SIGNAL
4	-	-
5	Z1 16BK	GROUND
6	K19 18BK/GY	IGNITION COIL NO. 1 DRIVER



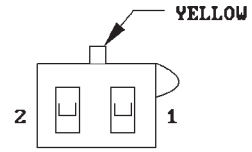
DOME LAMP

CAV	CIRCUIT	FUNCTION
A	Z1 20 BK	GROUND
B	M1 20PK	FUSED B(+)
C	M2 20YL	DOOR LATCH SWITCH SENSE



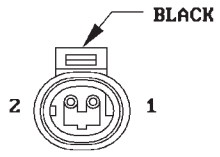
DOWNSTREAM HEATED
OXYGEN SENSOR

CAV	CIRCUIT	FUNCTION
1	Z1 18BK	GROUND
2	F142 18OR/DG	FUSED AUTOMATIC SHUT DOWN RELAY OUTPUT
3	K4 18BK/LB	SENSOR GROUND
4	K141 18TN/WT	DOWNSTREAM HEATED OXYGEN SENSOR SIGNAL



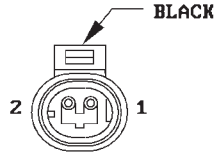
DRIVER SIDE
AIRBAG SQUIB

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



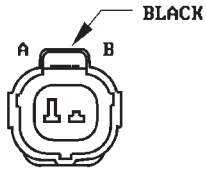
DUTY CYCLE
EVAP/PURGE
SOLENOID

CAV	CIRCUIT	FUNCTION
1	K52 20PK/GY	EVAP/PURGE SOLENOID CONTROL
2	F18 20LG/BK	FUSED IGNITION SWITCH OUTPUT (RUN/START)



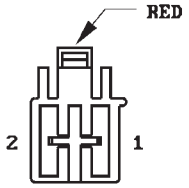
ELECTRONIC EGR
TRANSDUCER SOLENOID

CAV	CIRCUIT	FUNCTION
1	K35 18GY/YL	EGR SOLENOID CONTROL
2	A142 18DG/OR*	AUTOMATIC SHUT DOWN RELAY OUTPUT
2	A142 18DB/OR**	AUTOMATIC SHUT DOWN RELAY OUTPUT



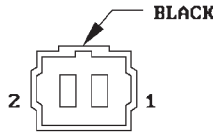
ENGINE COOLANT
TEMPERATURE SENSOR

CAV	CIRCUIT	FUNCTION
A	K4 18BK/LB	SENSOR GROUND
B	K2 18TN/BK	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL



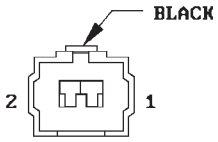
FRONT VERTICAL
MOTOR

CAV	CIRCUIT	FUNCTION
1	P19 16YL/LG	POWER SEAT FRONT VERTICAL MOTOR
2	P21 16RD/LG	POWER SEAT FRONT VERTICAL MOTOR



FUEL INJECTOR
NO. 1
(2.0L AND 2.4L ENGINES)

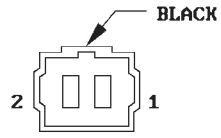
CAV	CIRCUIT	FUNCTION
1	K11 18WT/LB	INJECTOR NO. 1 DRIVER
2	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT



FUEL INJECTOR
NO. 1
(2.5L ENGINE)

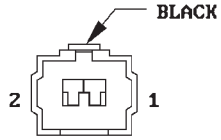
CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
2	K11 18WT/LB	INJECTOR NO. 1 DRIVER

* 2.0L/2.4L ENGS
** 2.5L ENG



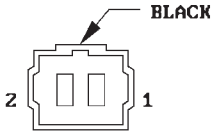
FUEL INJECTOR
NO. 2
(2.0L AND 2.4L ENGINES)

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



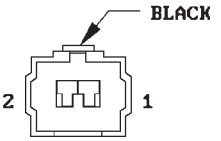
FUEL INJECTOR
NO. 2
(2.5L ENGINE)

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



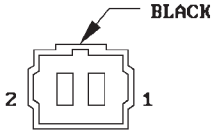
FUEL INJECTOR
NO. 3
(2.0L AND 2.4L ENGINES)

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



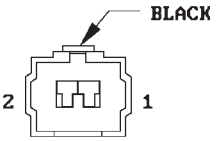
FUEL INJECTOR
NO. 3
(2.5L ENGINE)

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



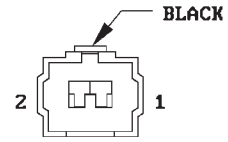
FUEL INJECTOR
NO. 4
(2.0L AND 2.4L ENGINES)

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



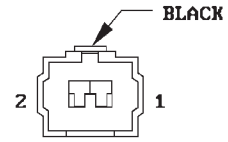
FUEL INJECTOR
NO. 4
(2.5L ENGINE)

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



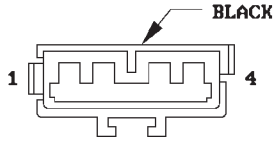
FUEL INJECTOR
NO. 5 (2.5L ENG.)

CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
2	K38 18GY	INJECTOR NO. 5 DRIVER



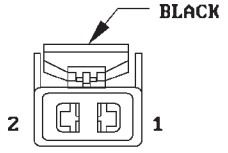
FUEL INJECTOR
NO. 6 (2.5L ENG.)

CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
2	K58 18BR/DG	INJECTOR NO. 6 DRIVER



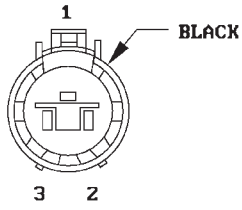
FUEL PUMP
MODULE

CAV	CIRCUIT	FUNCTION
1	A141 14DG/WT	FUEL PUMP RELAY OUTPUT
2	G4 18DB	FUEL LEVEL SENSOR SIGNAL
3	Z1 14BK	GROUND
4	Z2 18BK/LG	GROUND



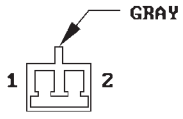
GENERATOR
(2.5L ENGINE)

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



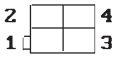
GENERATOR
(2.0L AND 2.4L ENGINES)

CAV	CIRCUIT	FUNCTION
1	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
2	K20 18DG	GENERATOR FIELD DRIVER
3	-	-



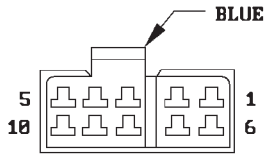
GLOVE BOX LAMP

CAV	CIRCUIT	FUNCTION
1	M1 20PK/WT	FUSED B(+)
2	Z1 20BK	GROUND



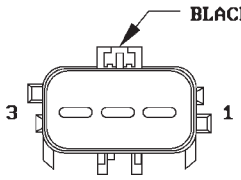
HEADLAMP LEVELING SWITCH

CAV	CIRCUIT	FUNCTION
1	L7 18BK/YL	BEAM SELECT SWITCH
2	Z1 18BK	GROUND
3	L13 18BR/VT	BEAM SELECT SWITCH



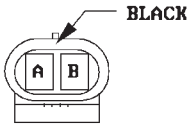
HEADLAMP SWITCH

CAV	CIRCUIT	FUNCTION
1	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
	L7 18BK/YL	PARKLAMP SWITCH OUTPUT
2	F33 18BK/RD	FUSED B(+)
3	-	-
4	A3 14RD/WT	FUSED B(+)
5	Z1 18BK/TN	GROUND
6	E19 20RD	DIMMER SWITCH SIGNAL
7	L4 14VT/WT	DIMMER SWITCH LOW BEAM OUTPUT
8	L3 14RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
9	L39 18LB	FOG LAMP SWITCH OUTPUT
10	L44 18VT/RD	FUSED RIGHT LOW BEAM OUTPUT



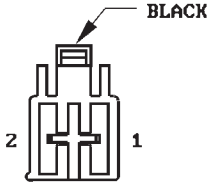
HEATED SEAT

CAV	CIRCUIT	FUNCTION
1	A1 16RD	BATTERY FEED TO IGNITION SWITCH
2	A21 16DB	IGNITION SWITCH OUTPUT (START/RUN)
3	Z1 18BK	GROUND



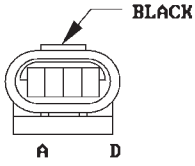
HIGH NOTE HORN

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



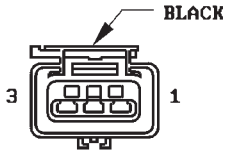
HORIZONTAL MOTOR

CAV	CIRCUIT	FUNCTION
1	P15 16YL/LB	POWER SEAT HORIZONTAL MOTOR
2	P17 16RD/LB	POWER SEAT HORIZONTAL MOTOR



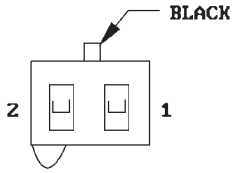
IDLE AIR CONTROL MOTOR

CAV	CIRCUIT	FUNCTION
A	K59 18VT/GY	IAC MOTOR NO. 4 DRIVER
B	K40 18BR/GY	IAC MOTOR NO. 3 DRIVER
C	K60 18YL/BK	IAC MOTOR NO. 2 DRIVER
D	K39 18GY/RD	IAC MOTOR NO. 1 DRIVER



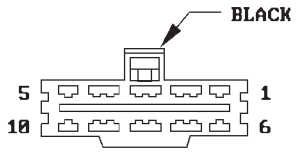
IGNITION COIL PACK
(2.0L AND 2.4L ENGINES)

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



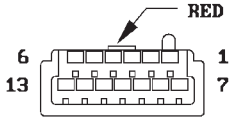
IGNITION SWITCH - C1

CAV	CIRCUIT	FUNCTION
1	A51 20RD/LB	FUSED B(+)
2	A81 20DG/RD	IGNITION SWITCH OUTPUT (OFF/RUN/START)



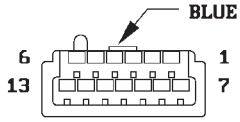
IGNITION SWITCH - C2

CAV	CIRCUIT	FUNCTION
1	Z1 20BK	GROUND
2	G9 22GY/DB	RED BRAKE WARNING LAMP DRIVER
3	A2 12PK/BK	FUSED B(+)
4	A22 12BK/OR	IGNITION SWITCH OUTPUT (RUN)
5	-	-
6	-	-
7	A1 16RD	FUSED B(+)
8	A31 16BK/WT	IGNITION SWITCH OUTPUT (ACC/RUN)
9	A21 16DB	IGNITION SWITCH OUTPUT (RUN/START)
10	A41 16YL	IGNITION SWITCH OUTPUT (START)



INSTRUMENT CLUSTER - C1

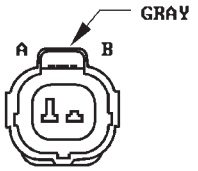
CAV	CIRCUIT	FUNCTION
1	L60 18TN/BR	RIGHT TURN SIGNAL
2	F11 18RD/VT	FUSED IGNITION SWITCH OUTPUT (OFF/RUN/START)
3	-	-
4	Z2 18BK/LG	GROUND
5	F33 20PK/RD	FUSED B(+)
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-



INSTRUMENT CLUSTER - C2

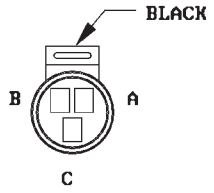
CAV	CIRCUIT	FUNCTION
1	L36 18LG	FOG LAMP SWITCH OUTPUT
2	L61 18LG/TN	LEFT TURN SIGNAL
3	-	-
4	-	-
5	F18 20LG/BK	FUSED IGNITION SWITCH OUTPUT (RUN/START)
	F18 20LG/RD	FUSED IGNITION SWITCH OUTPUT (RUN/START)
6	G9 22GY/DB	RED BRAKE WARNING LAMP DRIVER
7	D2 20WT/DB	CCD BUS (-)
	D2 20WT/BK	CCD BUS (-) -
8	D1 20VT/BR	CCD BUS (+)
	D1 20VT/PK	CCD BUS (+) -
9	-	-
10	E2 18OR/YL	PANEL LAMPS DRIVER
11	Z1 18BK/OR	GROUND
12	G6 20GY	OIL PRESSURE SWITCH SENSE
13	G19 20LG/OR	ABS WARNING LAMP DRIVER

* WITH VTSS



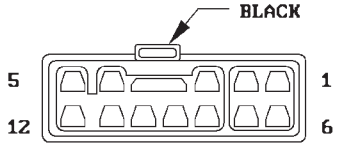
INTAKE AIR
TEMPERATURE SENSOR
(2.4L/2.5L ENGINE)

CAV	CIRCUIT	FUNCTION
A	K4 18BK/LB	SENSOR GROUND
B	K21 18BK/RD	INTAKE AIR TEMPERATURE SIGNAL



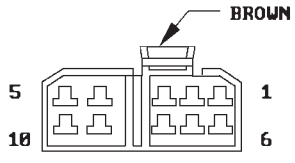
INTAKE AIR
TEMPERATURE/MANIFOLD
ABSOLUTE PRESSURE
(IAT/MAP) SENSOR
(2.8L/ 2.4L ENGINE)

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



JUNCTION BLOCK - C1

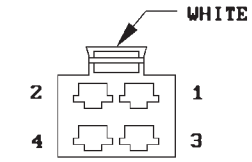
CAV	CIRCUIT	FUNCTION
1	G9 20GY/DB	RED BRAKE WARNING LAMP DRIVER
2	G9 20GY/DG	RED BRAKE WARNING LAMP DRIVER
3	L34 18RD/OR	FUSED RIGHT HIGH BEAM OUTPUT
4	L60 18TN/BR	RIGHT TURN SIGNAL
5	L61 18LG/TN	LEFT TURN SIGNAL
6	L33 18LG/BR	FUSED LEFT HIGH BEAM OUTPUT
7	-	-
8	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
8	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
9	L7 18BK/BR	PARK LAMP SWITCH OUTPUT
9	L7 18BK/BR	PARK LAMP SWITCH OUTPUT
10	L39 18LB/OR	FOG LAMP SWITCH OUTPUT
11	L39 18 LB	FOG LAMP FEED
12	L43 18VT/OR	FUSED LEFT LOW BEAM OUTPUT



JUNCTION BLOCK - C2

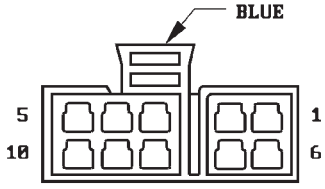
CAV	CIRCUIT	FUNCTION
1	L50 18WT/BR	STOP LAMP SWITCH OUTPUT
2	A7 16RD/BK	FUSED B(+)
3	L50 16WT/TN	BRAKE LAMP SWITCH OUTPUT
4	F20 18WT/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
5	L44 18VT/RD	FUSED RIGHT LOW BEAM OUTPUT
6	F11 18RD/VT**	FUSED IGNITION SWITCH OUTPUT (OFF/RUN/START)
7	A21 16DB	IGNITION SWITCH OUTPUT (RUN/START)
8	X2 18DG/PK	HORN RELAY OUTPUT
	X2 18DG/PK	HORN RELAY OUTPUT
9	F20 18WT/LG	FUSED IGNITION SWITCH OUTPUT (RUN)
10	F13 20DB/GY	FUSED IGNITION SWITCH OUTPUT (ACC/RUN)

** ATX



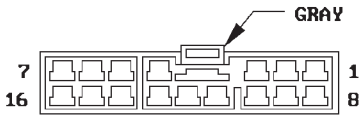
JUNCTION BLOCK - C3

CAV	CIRCUIT	FUNCTION
1	A7 16RD/BK	FUSED B(+)
2	A13 12PK/WT	FUSED B(+)
3	A3 12RD/WT	FUSED B(+)
4	A4 12BK/PK	FUSED B(+)



JUNCTION BLOCK - C4

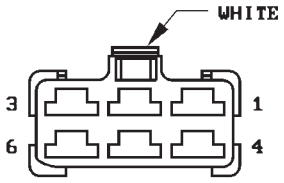
CAV	CIRCUIT	FUNCTION
1	Z1 20BK/VT	GROUND
2	Z1 18BK/OR	GROUND
3	Z1 18BK/TN	GROUND
4	F23 18WT	FUSED IGNITION SWITCH OUTPUT (RUN)
5	G9 22GY/DB	RED BRAKE WARNING LAMP DRIVER
6	Z1 20BK	GROUND
7	Z1 20BK/WT	GROUND
8	Z13 20BK/RD*	GROUND
9	Z1 18BK/LB**	GROUND
10	Z1 18BK/YL	GROUND



JUNCTION BLOCK - C5

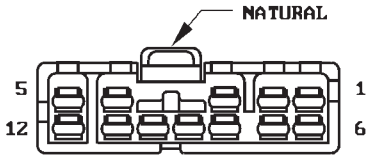
CAV	CIRCUIT	FUNCTION
1	F30 18RD	FUSED B(+)
2	F30 18RD/PK**	FUSED B(+)
3	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
4	L7 18BK/DG	PARK LAMP SWITCH OUTPUT
5	-	-
6	G9 18GY	RED BRAKE WARNING LAMP DRIVER
7	G9 22GY/DB	RED BRAKE WARNING LAMP DRIVER
8	X3 18BK/RD	HORN RELAY CONTROL
9	A21 16DB	IGNITION SWITCH OUTPUT (RUN/START)
9	A21 16DB	FOG LAMP SWITCH OUTPUT
10	L39 18LB●	IGNITION SWITCH OUTPUT (RUN/START)
11	M1 18PK/TN	FUSED B(+)
	M1 20PK/DB	FUSED B(+)
12	M1 20PK/WT	FUSED B(+)
	M1 20PK/WT	FUSED B(+)
13	M1 22PK	FUSED B(+)
14	A31 16BK/WT	IGNITION SWITCH OUTPUT (ACC/RUN)
15	Z1 20BK	GROUND
16	F14 18LG/YL	FUSED IGNITION SWITCH OUTPUT (RUN/START)

* WITH AUTOSTICK
** WITH PREMIUM SOUND
● WITH FOG LAMPS



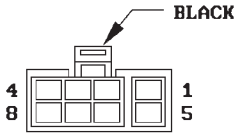
JUNCTION BLOCK - C6

CAV	CIRCUIT	FUNCTION
1	A22 12BK/OR	IGNITION SWITCH OUTPUT (RUN)
2	L4 14VT/WT	DIMMER SWITCH LOW BEAM OUTPUT
3	L3 14RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
4	A3 14RD/WT	FUSED B(+)
5	-	-
6	C1 12DG	FUSED IGNITION SWITCH OUTPUT (RUN)



JUNCTION BLOCK - C7

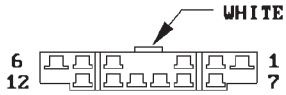
CAV	CIRCUIT	FUNCTION
1	F13 22DB	FUSED IGNITION SWITCH OUTPUT (RUN/ACC)
2	A81 20DG/RD	IGNITION SWITCH OUTPUT (OFF/RUN/START)
3	L60 18TN/BR	RIGHT TURN SIGNAL
4	F11 20RD/VT	FUSED IGNITION SWITCH OUTPUT (OFF/RUN/START)
5	C16 22LB/YL	REAR DEFOGGER LAMP DRIVER
6	X12 16RD/WT	FUSED IGNITION SWITCH OUTPUT (RUN/ACC)
7	L61 18LG	LEFT TURN SIGNAL
8	L60 18TN	RIGHT TURN SIGNAL
9	L61 18LG/TN	LEFT TURN SIGNAL
10	F11 18RD/VT	FUSED IGNITION SWITCH OUTPUT (OFF/RUN/START)
	F11 20RD/VT*	FUSED IGNITION SWITCH OUTPUT (OFF/RUN/START)
11	F33 20PK/RD	FUSED B(+)
12	F33 18BK/RD	FUSED B(+)



JUNCTION BLOCK - C8

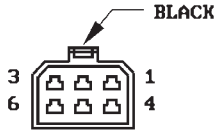
CAV	CIRCUIT	FUNCTION
1	Q1 14YL	POWER WINDOW LOCKOUT SWITCH OUTPUT
2	M1 20PK	FUSED B(+)
3	C16 20LB/YL	REAR DEFOGGER LAMP DRIVER
4	C16 20LB/OR	REAR DEFOGGER LAMP DRIVER
5	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN)
6	Q1 14YL/VT	POWER WINDOW LOCKOUT SWITCH OUTPUT
7	Q1 14YL/WT	POWER WINDOW LOCKOUT SWITCH OUTPUT
8	Q1 14YL/TN	POWER WINDOW LOCKOUT SWITCH OUTPUT

* WITH AUTOSTICK



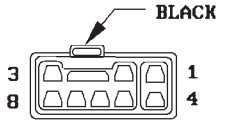
JUNCTION BLOCK - C9

CAV	CIRCUIT	FUNCTION
1	F35 16RD	FUSED B(+)
2	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)
	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)
3	Z1 14BK	GROUND
4	L60 18TN	RIGHT TURN SIGNAL
	L60 18TN	RIGHT TURN SIGNAL
5	L61 18LG	LEFT TURN SIGNAL
	L61 18LG	LEFT TURN SIGNAL
6	C15 12BK/WT	REAR DEFOGGER RELAY OUTPUT
7	M1 20PK	FUSED B(+)
8	-	-
9	L50 16WT/TN	STOP LAMP SWITCH OUTPUT
10	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
11	M1 20PK/VT	FUSED B(+)
12	M1 20PK/OR	FUSED B(+)



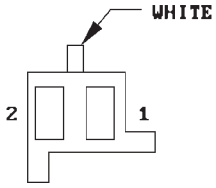
JUNCTION BLOCK - C10

CAV	CIRCUIT	FUNCTION
1	M2 20YL	COURTESY LAMPS DRIVER
2	F21 18TN	FUSED IGNITION SWITCH OUTPUT (RUN)
	F21 20TN/BR	FUSED IGNITION SWITCH OUTPUT (RUN)
3	-	-
4	Z1 18BK	GROUND
5	-	-
6	M1 20PK	FUSED B (+)



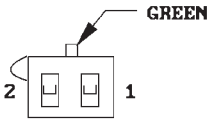
JUNCTION BLOCK - C11

CAV	CIRCUIT	FUNCTION
2	L92 18LG	FOG LAMP FEED
8	Z1 18BK	GROUND



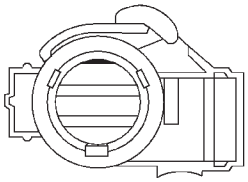
KEY-IN HALO LAMP

CAV	CIRCUIT	FUNCTION
1	M1 20PK/WT	FUSED B(+)
2	M50 20YL/RD	KEY-IN LAMP DRIVER



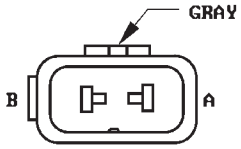
KEY-IN SWITCH

CAV	CIRCUIT	FUNCTION
1	Z1 20BK/WT	GROUND
2	G26 22LB	KEY-IN IGNITION SWITCH SENSE



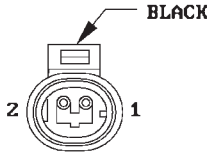
LEFT BACK-UP LAMP

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



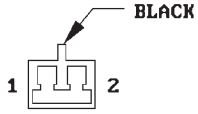
LEFT FOG LAMP

CAV	CIRCUIT	FUNCTION
A	L39 18 LB/OR	FOG LAMP SWITCH OUTPUT
B	Z1 18BK	GROUND



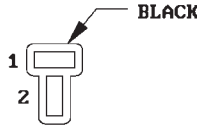
LEFT FRONT DOOR
ARM/DISARM SWITCH

CAV	CIRCUIT	FUNCTION
1	G73 18 LG/OR	LEFT VTSS DISARM SENSE
2	M1 20PK	FUSED B(+)



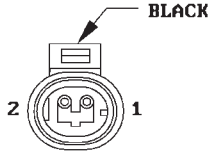
LEFT FRONT
DOOR SPEAKER

CAV	CIRCUIT	FUNCTION
1	X85 22LG/DG*	LEFT FRONT (+)
1	X85 22LG/DG**	AMPLIFIED LEFT FRONT DOOR (-)
2	X87 22LG/VT*	LEFT FRONT (-)
2	X87 22LG/VT**	AMPLIFIED LEFT FRONT DOOR(+)



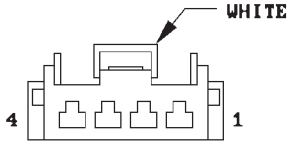
LEFT FRONT
I.P. SPEAKER
(PREMIUM SOUND)

CAV	CIRCUIT	FUNCTION
1	X81 20YL/BK	AMPLIFIED LEFT INSTRUMENT PANEL (-)
2	X83 20YL/RD	AMPLIFIED LEFT INSTRUMENT PANEL (+)



LEFT FRONT POWER
DOOR LOCK MOTOR

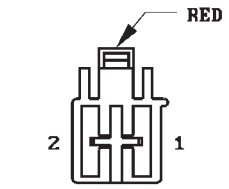
CAV	CIRCUIT	FUNCTION
1	P34 16PK●	LEFT FRONT DOOR UNLOCK DRIVER
1	P55 16PK●●	LEFT FRONT DOOR UNLOCK DRIVER
2	P33 16OR/BK	LEFT FRONT DOOR LOCK DRIVER



LEFT FRONT POWER
DOOR LOCK SWITCH

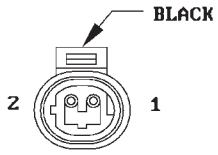
CAV	CIRCUIT	FUNCTION
1	M1 20 PK	FUSED B(+)
2	F20 20WT	FUSED IGNITION SWITCH OUTPUT
3	Z1 20BK	GROUND
4	P97 22WT/DG	LEFT FRONT DOOR SWITCH MUX

● WITHOUT VTSS
●● WITH VTSS
* STANDARD SOUND
** PREMIUM SOUND



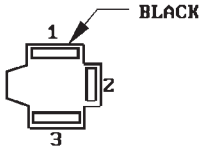
LEFT FRONT POWER WINDOW MOTOR

CAV	CIRCUIT	FUNCTION
1	Q11 16LB	LEFT FRONT WINDOW DRIVER (UP)
2	Q21 16WT	LEFT FRONT WINDOW DRIVER (DOWN)



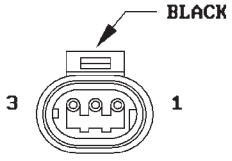
LEFT FRONT WHEEL SPEED SENSOR

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



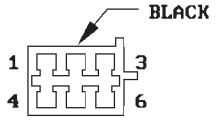
LEFT HEADLAMP

CAV	CIRCUIT	FUNCTION
1	L33 18LG/BR	FUSED LEFT HIGH BEAM OUTPUT
2	L43 18VT/OR	FUSED LEFT LOW BEAM OUTPUT
3	Z1 18BK	GROUND



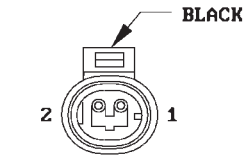
LEFT PARK/TURN SIGNAL LAMP

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



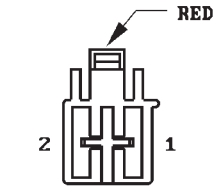
LEFT POWER MIRROR

CAV	CIRCUIT	FUNCTION
1	C16 20LB/YL	REAR WINDOW DEFOGGER LAMP DRIVER
2	Z1 18BK	GROUND
	Z1 18BK	GROUND
3	P95 22DB/WT	POWER MIRROR HORIZONTAL (LEFT)
4	P91 22WT/BK	POWER MIRROR HORIZONTAL (LEFT)
	P91 22WT/BK	POWER MIRROR HORIZONTAL (RIGHT)
5	P90 22LG/BK	POWER MIRROR VERTICAL (LEFT)
	P90 22LG/BK	POWER MIRROR VERTICAL (RIGHT)
6	P93 22YL/BK	POWER MIRROR VERTICAL (LEFT)



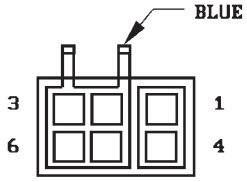
LEFT REAR POWER DOOR LOCK MOTOR

CAV	CIRCUIT	FUNCTION
1	P34 16PK/BK	LEFT REAR DOOR UNLOCK DRIVER
2	P33 16OR/BK	LEFT REAR DOOR LOCK DRIVER



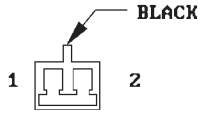
LEFT REAR POWER WINDOW MOTOR

CAV	CIRCUIT	FUNCTION
1	Q13 14GY	LEFT REAR WINDOW MOTOR (UP)
2	Q23 14DG	LEFT REAR WINDOW MOTOR (DOWN)



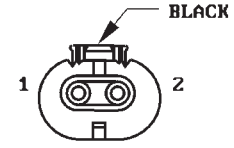
LEFT REAR POWER WINDOW SWITCH

CAV	CIRCUIT	FUNCTION
1	Q23 14DG	LEFT REAR WINDOW MOTOR (DOWN)
2	Q17 14DB/WT	LEFT REAR WINDOW DRIVER (UP)
3	-	-
4	Q27 14RD/BK	LEFT REAR WINDOW DRIVER (DOWN)
5	Q13 14GY	LEFT REAR WINDOW MOTOR (UP)
6	Q1 14YL	POWER WINDOW LOCKOUT SWITCH



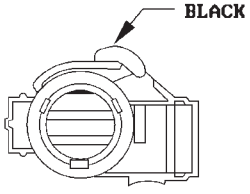
LEFT REAR SPEAKER

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



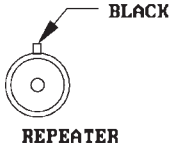
LEFT REAR WHEEL SPEED SENSOR

CAV	CIRCUIT	FUNCTION
1	B3 20LG/DB	LR WHEEL SPEED SENSOR (-)
2	B4 20LG	LR WHEEL SPEED SENSOR (+)



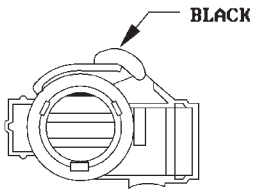
LEFT TURN LAMP

CAV	CIRCUIT	FUNCTION
A	L61 18LG	LEFT TURN LAMP FEED
G	Z1 18BK	GROUND



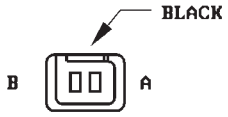
LEFT REPEATER

CAV	CIRCUIT	FUNCTION
1	L61 18LG/TN	REPEATER FEED
2	Z1 18BK	GROUND



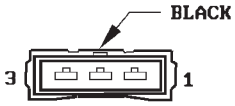
LEFT TAIL/STOP LAMP

CAV	CIRCUIT	FUNCTION
A	L50 18WT/TN	STOP LAMP FEED
B	L7 18BK/YL	TAIL LAMP FEED
G	Z1 18BK	GROUND



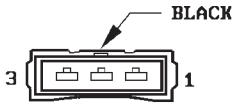
LEFT VISOR/
VANITY LAMP

CAV	CIRCUIT	FUNCTION
A	M1 20PK	FUSED B(+)
B	Z1 20BK	GROUND



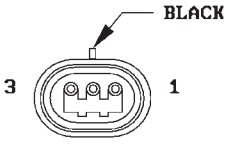
LEVELING MOTOR 1
(LEFT HEADLAMP)

CAV	CIRCUIT	FUNCTION
1	L7 18BK/BR	PARK LAMP SWITCH OUTPUT
2	L13 18BR/VT	BEAM SELECT SWITCH
3	Z3 18BK	GROUND



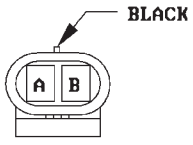
LEVELING MOTOR 2
(RIGHT HEADLAMP)

CAV	CIRCUIT	FUNCTION
1	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
2	L13 18BR/VT	BEAM SELECT SWITC
3	Z3 18BK	GROUND



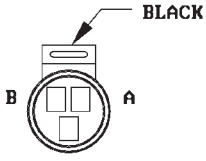
LICENSE PLATE
LAMP

CAV	CIRCUIT	FUNCTION
1	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
2	Z1 18BK	GROUND
3	L36 18LB	FOG LAMP FEED



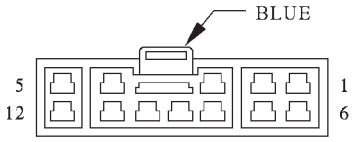
LOW NOTE HORN

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



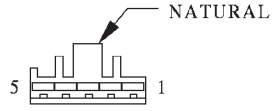
MANIFOLD ABSOLUTE
PRESSURE SENSOR
(2.5L ENGINE)

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



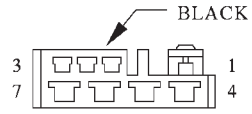
MASTER POWER WINDOW SWITCH

CAV	CIRCUIT	FUNCTION
1	F21 14TN	FUSED IGNITION SWITCH OUTPUT (RUN)
2	Q17 14DB/WT	LEFT REAR WINDOW DRIVER (UP)
3	Q27 14RD/BK	LEFT REAR WINDOW DRIVER (DOWN)
4	Q18 14GY/BK	RIGHT REAR WINDOW DRIVER (UP)
5	Q1 14YL	POWER WINDOW LOCKOUT SWITCH
6	-	-
7	Q11 16LB	LEFT FRONT WINDOW DRIVER (UP)
8	Q21 16WT	LEFT FRONT WINDOW DRIVER (DOWN)
9	Q28 14DG/WT	RIGHT REAR WINDOW DRIVER (DOWN)
10	Z1 14BK	GROUND
11	Q26 14VT/WT	RIGHT FRONT WINDOW DRIVER (DOWN)
12	Q16 14BR/WT	RIGHT FRONT WINDOW DRIVER (UP)



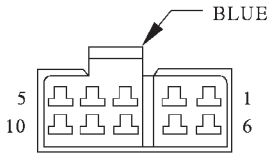
MODE DOOR ACTUATOR

CAV	CIRCUIT	FUNCTION
1	C35 20DG/YL	MODE DOOR DRIVER
2	C57 22GY/TN	SENSOR GROUND
3	C37 20YL	MODE DOOR FEEDBACK SIGNAL
4	C26 20PK/DB	5 VOLT SUPPLY
5	C34 20DB/YL	COMMON DOOR DRIVER



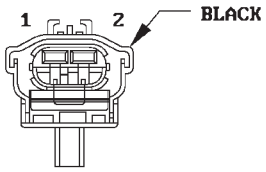
MULTI-FUNCTION SWITCH (LEFT SIDE)

CAV	CIRCUIT	FUNCTION
1	V10 22BR/DB	WASHER PUMP CONTROL
2	V52 22DG/YL	WINDSHIELD WIPER SWITCH SIGNAL
3	F13 22DB	FUSED IGNITION SWITCH OUTPUT (ACC/RUN)
4	A15 18PK	FUSED B(+)
5	Z1 18BK/TN	GROUND
6	L60 18TN	RIGHT TURN SIGNAL
7	L61 18LG	LEFT TURN SIGNAL



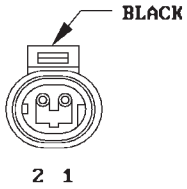
MULTI-FUNCTION SWITCH (RIGHT SIDE)

CAV	CIRCUIT	FUNCTION
1	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
2	F33 18BK/RD	FUSED B(+)
3	-	-
4	A3 14RD/WT	FUSED B(+)
5	L36 18LG	REAR FOG LAMP
6	E19 20RD	DIMMER SWITCH SIGNAL
7	L4 14VT/WT	DIMMER SWITCH LOW BEAM OUTPUT
8	L3 14RD/OR	DIMMER SWITCH HIGH BEAM OUTPUT
9	L39 18LB	FOG LAMP SWITCH OUTPUT
10	L92 18LG	FUSED HEADLAMP SIGNAL



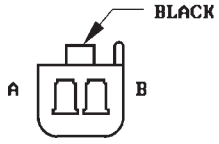
OIL PRESSURE SWITCH

CAV	CIRCUIT	FUNCTION
1	G6 18GY/VT	OIL PRESSURE SWITCH SENSE
2	-	-



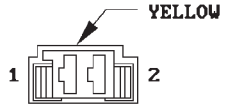
OUTPUT SHAFT
SPEED SENSOR

CAV	CIRCUIT	FUNCTION
1	T13 18DB/BR	SPEED SENSOR GROUND
2	T14 18LG/VT	OUTPUT SHAFT SPEED SENSOR SIGNAL



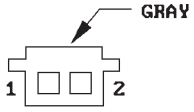
OVERHEAD MAP LAMPS

CAV	CIRCUIT	FUNCTION
A	M1 20PK	FUSED B(+)
B	Z1 20BK	GROUND



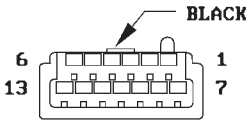
PASSENGER SIDE
AIRBAG SQUIB

CAV	CIRCUIT	FUNCTION
1	R42 18RD/WT	PASSENGER AIRBAG LINE 1
2	R44 18LG/YL	PASSENGER AIRBAG LINE 2



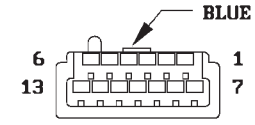
POWER AMPLIFIER - C1
(PREMIUM SOUND)

CAV	CIRCUIT	FUNCTION
1	F30 18RD/PK	FUSED B(+)
2	Z1 18BK/LB	GROUND



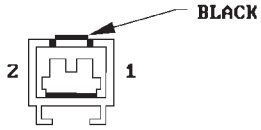
POWER AMPLIFIER - C2
(PREMIUM SOUND)

CAV	CIRCUIT	FUNCTION
1	X84 20OR/BK	AMPLIFIED RIGHT INSTRUMENT PANEL (-)
2	X81 20YL/BK	AMPLIFIED LEFT INSTRUMENT PANEL (+)
3	X56 22DB/RD	RIGHT FRONT (-)
4	X55 22BR/RD	LEFT FRONT (-)
5	X58 22DB/OR	RIGHT REAR (-)
6	X57 22BR/LB	LEFT REAR (-)
7	X86 20OR/RD	AMPLIFIED RIGHT INSTRUMENT PANEL (+)
8	X83 20YL/RD	AMPLIFIED LEFT INSTRUMENT PANEL (+)
9	X60 22DG/RD	RADIO 12 VOLT OUTPUT
10	X54 22VT	RIGHT FRONT (+)
11	X53 22DG	LEFT FRONT (+)
12	X52 22DB/WT	RIGHT REAR (+)
13	X51 22BR/YL	LEFT REAR (+)



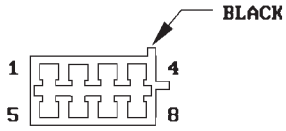
POWER AMPLIFIER - C3
(PREMIUM SOUND)

CAV	CIRCUIT	FUNCTION
1	X93 20WT/VT	AMPLIFIED LO LEFT REAR (+)
2	X91 20WT/DG	AMPLIFIED LO LEFT REAR (-)
3	X60 22DG/RD	RADIO 12 VOLT OUTPUT
4	X96 20TN/BK	AMPLIFIED HI RIGHT REAR (-)
5	X98 20TN/RD	AMPLIFIED HI RIGHT REAR (+)
6	X95 20WT/RD	AMPLIFIED HI LEFT REAR (+)
7	X94 20TN/VT	AMPLIFIED LO RIGHT REAR (+)
8	X92 20TN/DG	AMPLIFIED LO RIGHT REAR (-)
9	X85 22LG/DG	AMPLIFIED LEFT FRONT DOOR (-)
10	X87 22LG/VT	AMPLIFIED LEFT FRONT DOOR (+)
11	X82 22LB/VT	AMPLIFIED RIGHT FRONT DOOR (+)
12	X80 22LB/DG	AMPLIFIED RIGHT FRONT DOOR (-)
13	X97 20WT/BK	AMPLIFIED HI LEFT REAR (-)



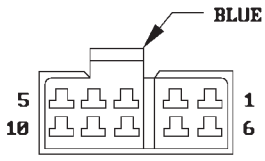
POWER ANTENNA

CAV	CIRCUIT	FUNCTION
1	M1 20PK/VT	FUSED B(+)
2	X60 22DG/RD	POWER ANTENNA



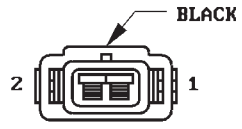
POWER MIRROR
SWITCH

CAV	CIRCUIT	FUNCTION
1	Z1 18BK	GROUND
	Z1 20BK	GROUND
2	M1 20PK	FUSED B(+)
	M1 20PK	FUSED B(+)
3	P94 22WT/YL	POWER MIRROR HORIZONTAL (RIGHT)
4	P92 22YL	POWER MIRROR VERTICAL (RIGHT)
5	P90 22LG/BK	POWER MIRROR VERTICAL (LEFT/RIGHT)
6	P91 22WT/BK	POWER MIRROR HORIZONTAL (LEFT/RIGHT)
7	P95 22DB/WT	POWER MIRROR HORIZONTAL (LEFT)
8	P93 22YL/BK	POWER MIRROR VERTICAL (LEFT)



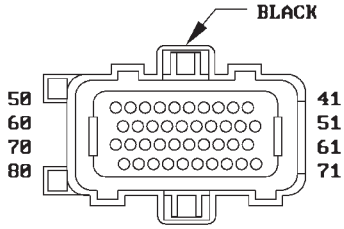
POWER SEAT SWITCH

CAV	CIRCUIT	FUNCTION
1	F35 16RD	FUSED B(+)
2	P43 16GY/LB	POWER SEAT RECLINER
3	P17 16RD/LB	POWER SEAT HORIZONTAL
4	P41 16GY/WT	POWER SEAT RECLINER
5	Z1 16 BK	GROUND
6	P21 16RD/LG	POWER SEAT FRONT VERTICAL
7	P13 16RD/WT	POWER SEAT REAR VERTICAL
8	P11 16YL/WT	POWER SEAT REAR VERTICAL
9	P19 16YL/LG	POWER SEAT FRONT HORIZONTAL
10	P15 16YL/LB	POWER SEAT HORIZONTAL



POWER STEERING
PRESSURE SWITCH

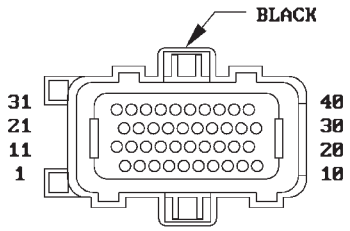
CAV	CIRCUIT	FUNCTION
1	K10 18DB/LG	POWER STEERING PRESSURE SWITCH SENSE
2	Z1 18BK	GROUND



POWERTRAIN
CONTROL MODULE - C1

CAV	CIRCUIT	FUNCTION
41	V37 20PK/LG	SPEED CONTROL SWITCH SIGNAL
42	C18 20DB/YL	A/C PRESSURE SIGNAL
43	K4 20BK/LB	SENSOR GROUND
44	K7 18OR/WT	8 VOLT SUPPLY
45	K10 18DB/LG	POWER STEERING PRESSURE SWITCH SENSE
46	A14 16RD/TN	FUSED B(+)
47	-	-
48	K40 18BR/GY	IDLE AIR CONTROL MOTOR NO. 3 DRIVER
49	K60 18YL/BK	IDLE AIR CONTROL MOTOR NO. 2 DRIVER
50	Z12 18BK/TN	GROUND
51	K141 18TN/WT*	DOWNSTREAM HEATED OXYGEN SENSOR SIGNAL
51	K141 18TN/WT**	DOWNSTREAM HEATED OXYGEN SENSOR SIGNAL
52	K25 18VT/LG	AMBIENT TEMPERATURE SENSOR SIGNAL
53	-	-
54	-	-
55	C24 20DB/TN	LOW SPEED RADIATOR FAN RELAY CONTROL
56	-	-
57	K39 18GY/RD	IDLE AIR CONTROL MOTOR NO. 1 DRIVER
58	K59 18VT/GY	IDLE AIR CONTROL MOTOR NO. 4 DRIVER
59	D1 20VT/BR	CCD BUS (+)
60	D2 20WT/BK	CCD BUS (-)
61	K6 18VT/WT	5 VOLT SUPPLY
62	K29 18WT/RD	STOP LAMP SWITCH SENSE
63	T10 20YL/DG**	TORQUE MANAGEMENT REQUEST SENSE
64	C28 20DB/OR	A/C COMPRESSOR CLUTCH RELAY CONTROL
65	D21 20PK/LB	SCI TRANSMIT
66	G7 18WT/OR	VEHICLE SPEED SENSOR SIGNAL
67	K51 20DB/VT	AUTOMATIC SHUT DOWN RELAY CONTROL
68	K52 20PK/GY	EVAP/PURGE SOLENOID CONTROL
69	C27 20DB/PK	HIGH SPEED RADIATOR FAN RELAY CONTROL
70	-	-
71	-	-
72	K107 18OR/DG	LEAK DETECTION PUMP SWITCH SENSE
73	-	-
74	K31 20BR/LG	FUEL PUMP RELAY CONTROL
75	D20 20LG/WT	SCI RECEIVE
76	T41 20BK/WT**	PARK/NEUTRAL POSITION SWITCH SENSE
77	K106 18WT/DG	LEAK DETECTION PUMP SOLENOID CONTROL
78	V36 20WT/VT	SPEED CONTROL VACUUM SOLENOID CONTROL
79	-	-
80	V35 20LG/RD	SPEED CONTROL VENT SOLENOID CONTROL

* MTX
** ATX



POWERTRAIN
CONTROL MODULE - C2

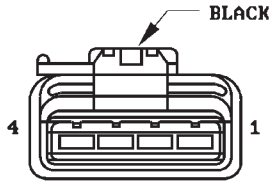
CAV	CIRCUIT	FUNCTION
1	-	-
2	K19 18BK/GY*	IGNITION COIL NO. 1 DRIVER
3	K17 18DB/DG*	IGNITION COIL NO. 2 DRIVER
4	K20 18DG	GENERATOR FIELD DRIVER
5	V32 20YL/PK	SPEED CONTROL ON/OFF SWITCH SENSE
6	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
7	K13 18YL/WT	INJECTOR NO. 3 DRIVER
8	-	-
9	-	-
10	Z12 18BK/TN	GROUND
11	K19 18BK/GY**	IGNITION COIL NO. 1 DRIVER
12	-	-
13	K11 18WT/LB	INJECTOR NO. 1 DRIVER
14	K58 18BR/DG**	INJECTOR NO. 6 DRIVER
15	K38 18GY**	INJECTOR NO. 5 DRIVER
16	K14 18LB/BR	INJECTOR NO. 4 DRIVER
17	K12 18TN	INJECTOR NO. 2 DRIVER
18	-	-
19	-	-
20	F12 18DB/WT	FUSED IGNITION SWITCH OUTPUT (RUN/START)
21	-	-
22	-	-
23	-	-
24	K42 18BK/LG*	KNOCK SENSOR SIGNAL
25	-	-
26	K2 18TN/BK	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL
27	-	-
28	-	-
29	-	-
30	K41 18BK/DG	UPSTREAM HEATED OXYGEN SENSOR SIGNAL
31	-	-
32	K24 18GY/BK**	CRANKSHAFT POSITION SENSOR SIGNAL
32	K24 20GY/BK*	CRANKSHAFT POSITION SENSOR SIGNAL
33	K44 20TN/YL*	CAMSHAFT POSITION SENSOR SIGNAL
33	K44 18TN/YL**	CAMSHAFT POSITION SENSOR SIGNAL
34	-	-
35	K22 18OR/LB*	THROTTLE POSITION SENSOR SIGNAL
35	K22 20OR/LB**	THROTTLE POSITION SENSOR SIGNAL
36	K1 18DG/RD	MAP SENSOR SIGNAL
37	K21 18BK/RD	INTAKE AIR TEMPERATURE SENSOR SIGNAL
38	-	-
39	-	-
40	K35 18GY/YL	EGR SOLENOID CONTROL

* 2.0L/2.4L
** 2.5L



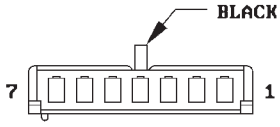
PRNDL ILLUMINATION LED

CAV	CIRCUIT	FUNCTION
A	E2 18OR/GY	PANEL LAMPS DRIVER
C	Z1 18BK/YL	GROUND
C	Z1 18BK	GROUND



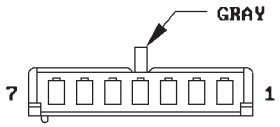
RADIATOR FAN MOTOR ASSEMBLY

CAV	CIRCUIT	FUNCTION
1	Z1 12BK	GROUND
2	Z1 12BK	GROUND
3	C23 12DG/LG	LOW SPEED RADIATOR FAN RELAY OUTPUT
4	C25 12YL/VT	HIGH SPEED RADIATOR FAN RELAY OUTPUT



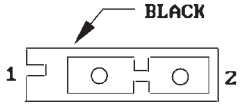
RADIO - C1

CAV	CIRCUIT	FUNCTION
1	X60 22DG/RD	RADIO 12 VOLT OUTPUT
2	X51 22BR/YL	LEFT REAR (+)
3	X52 22DB/WT	RIGHT REAR (+)
4	X53 22DG	LEFT FRONT DOOR (+)
5	X54 22VT	RIGHT FRONT DOOR (+)
6	X57 22BR/LB	LEFT REAR (-)
7	X58 22DB/OR	RIGHT REAR (-)



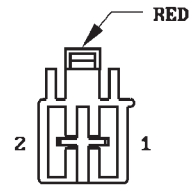
RADIO - C2

CAV	CIRCUIT	FUNCTION
1	-	-
2	X55 22BR/RD	LEFT FRONT DOOR (-)
3	X56 22DB/RD	RIGHT FRONT DOOR (-)
4	L7 18BK/DG	PARK LAMP SWITCH OUTPUT
5	E2 18OR/BR	PANEL LAMPS DRIVER
6	X12 16RD/WT	FUSED IGNITION SWITCH OUTPUT (ACC/RUN)
7	M1 18PK/TN	FUSED B(+)



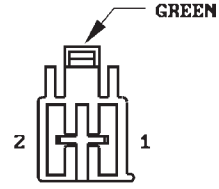
RADIO - C3

CAV	CIRCUIT	FUNCTION
1	D1 20VT/BK	CCD BUS (+)
2	D2 20WT/VT	CCD BUS (-)



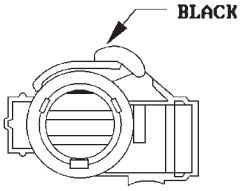
REAR VERTICAL MOTOR

CAV	CIRCUIT	FUNCTION
1	P11 16YL/WT	POWER SEAT REAR VERTICAL MOTOR
2	P13 16RD/WT	POWER SEAT REAR VERTICAL MOTOR



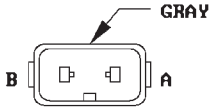
RECLINE MOTOR

CAV	CIRCUIT	FUNCTION
1	P41 16GY/WT	POWER SEAT RECLINER MOTOR
2	P43 16GY/LB	POWER SEAT RECLINER MOTOR



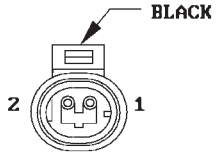
RIGHT BACK-UP LAMP

CAV	CIRCUIT	FUNCTION
A	L1 18VT/BK	BACK-UP LAMP FEED
G	Z1 18BK	GROUND



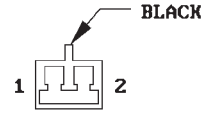
RIGHT FOG LAMP

CAV	CIRCUIT	FUNCTION
A	L39 18LB	FOG LAMP SWITCH OUTPUT
B	Z1 18BK	GROUND



RIGHT FRONT DOOR ARM/DISARM SWITCH

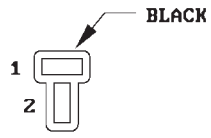
CAV	CIRCUIT	FUNCTION
1	G72 18DG/OR	RIGHT VTSS DISARM SENSE
2	M1 20PK	FUSED B(+)



RIGHT FRONT DOOR SPEAKER

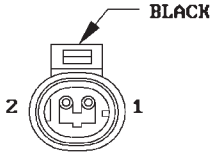
CAV	CIRCUIT	FUNCTION
1	X80 22LB/DG*	RIGHT FRONT (+)
1	X80 22LB/DG**	AMPLIFIED RIGHT FRONT DOOR(-)
2	X82 22LB/VT*	RIGHT FRONT (-)
2	X82 22LB/VT**	AMPLIFIED RIGHT FRONT DOOR (+)

* STANDARD RADIO
** PREMIUM RADIO



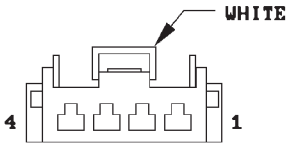
RIGHT FRONT
I.P. SPEAKER
(PREMIUM SOUND)

CAV	CIRCUIT	FUNCTION
1	X84 20OR/BK	AMPLIFIED RIGHT INSTRUMENT PANEL (-)
2	X86 20OR/RD	AMPLIFIED RIGHT INSTRUMENT PANEL (+)



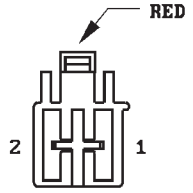
RIGHT FRONT POWER
DOOR LOCK MOTOR

CAV	CIRCUIT	FUNCTION
1	P34 16PK/BK	RIGHT FRONT DOOR UNLOCK DRIVER
2	P33 16OR/BK	RIGHT FRONT DOOR LOCK DRIVER



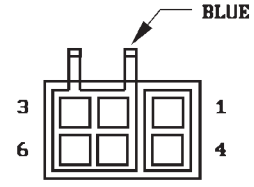
RIGHT FRONT POWER
DOOR LOCK SWITCH

CAV	CIRCUIT	FUNCTION
1	M1 20PK	FUSED B(+)
2	F20 20WT	FUSED IGNITION SWITCH OUTPUT
3	Z1 20BK	GROUND
4	P96 22WT/LG	RIGHT FRONT DOOR SWITCH MUX



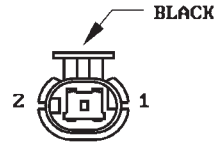
RIGHT FRONT POWER
WINDOW MOTOR

CAV	CIRCUIT	FUNCTION
1	Q12 16BR	RIGHT FRONT WINDOW DRIVER (UP)
2	Q22 16VT	RIGHT FRONT WINDOW DRIVER (DOWN)



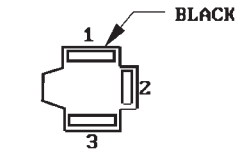
RIGHT FRONT POWER
WINDOW SWITCH

CAV	CIRCUIT	FUNCTION
1	Q22 16VT	RIGHT FRONT WINDOW DRIVER (DOWN)
2	Q16 14BR/WT	RIGHT FRONT WINDOW DRIVER (UP)
3	-	-
4	Q26 14VT/WT	RIGHT FRONT WINDOW DRIVER (DOWN)
5	Q12 16BR	RIGHT FRONT WINDOW DRIVER (UP)
6	Q1 14YL	POWER WINDOW LOCKOUT SWITCH



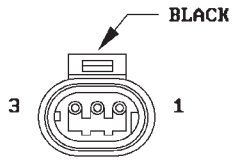
RIGHT FRONT WHEEL
SPEED SENSOR

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



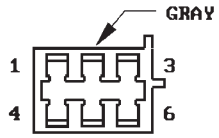
RIGHT HEADLAMP

CAV	CIRCUIT	FUNCTION
1	L34 18RD/OR	FUSED RIGHT HIGH BEAM OUTPUT
2	L44 18VT/RD	FUSED RIGHT LOW BEAM OUTPUT
3	Z1 18BK	GROUND



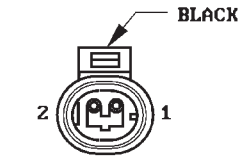
RIGHT PARK/TURN SIGNAL LAMP

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



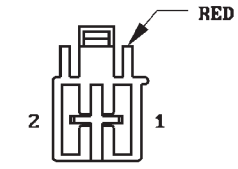
RIGHT POWER MIRROR

CAV	CIRCUIT	FUNCTION
1	C16 20LB/YL	REAR DEFOGGER LAMP DRIVER
2	Z1 20BK	GROUND
	Z1 20BK	GROUND
3	P94 22WT/YL	POWER MIRROR VERTICAL (RIGHT)
4	P91 22WT/BK	POWER MIRROR HORIZONTAL (RIGHT)
5	P90 22LG/BK	POWER MIRROR VERTICAL (RIGHT)
6	P92 22YL	POWER MIRROR HORIZINTAL (RIGHT)



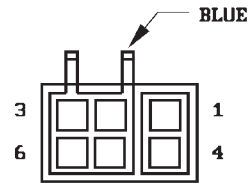
RIGHT REAR POWER DOOR LOCK MOTOR

CAV	CIRCUIT	FUNCTION
1	P34 16PK/BK	RIGHT REAR DOOR UNLOCK DRIVER
2	P33 16OR/BK	RIGHT REAR DOOR LOCK DRIVER



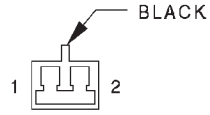
RIGHT REAR POWER WINDOW MOTOR

CAV	CIRCUIT	FUNCTION
1	Q14 14GY	RIGHT REAR WINDOW MOTOR (UP)
2	Q24 14DG	RIGHT REAR WINDOW MOTOR (DOWN)



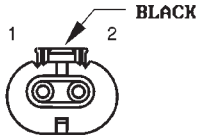
RIGHT REAR POWER WINDOW SWITCH

CAV	CIRCUIT	FUNCTION
1	Q24 14DG	RIGHT REAR WINDOW MOTOR (DOWN)
2	Q18 14GY/BK	RIGHT REAR WINDOW DRIVER (UP)
3	-	-
4	Q28 14DG/WT	RIGHT REAR WINDOW DRIVER (DOWN)
5	Q14 14GY	RIGHT REAR WINDOW MOTOR (UP)
6	Q1 14YL	POWER WINDOW LOCKOUT SWITCH



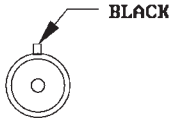
RIGHT REAR SPEAKER

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



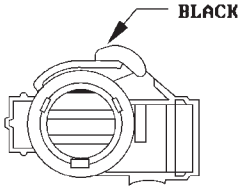
RIGHT REAR WHEEL SPEED SENSOR

CAV		FUNCTION
1	B1 20YL/DB	RIGHT REAR WHEEL SPEED SENSOR (-)
2	B2 20YL	RIGHT REAR WHEEL SPEED SENSOR (+)



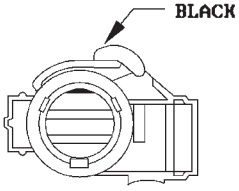
RIGHT REPEATER

CAV		FUNCTION
1	L60 18LG/TN	REPEATER FEED
2	Z1 18BK	GROUND



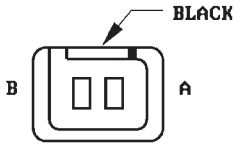
RIGHT TAIL/STOP LAMP

CAV		FUNCTION
A	L50 18WT/TN	STOP LAMP FEED
B	L7 18BK/YL	TAIL LAMP FEED
G	Z1 18BK	GROUND



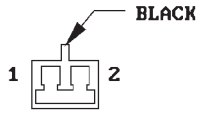
RIGHT TURN LAMP

CAV		FUNCTION
A	L60 18TN	RIGHT TURN LAMP FEED
G	Z1 18BK	GROUND



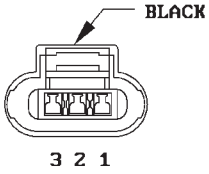
RIGHT VISOR/
VANITY LAMP

CAV	CIRCUIT	FUNCTION
A	M1 20PK	FUSED B(+)
B	Z1 20BK	GROUND



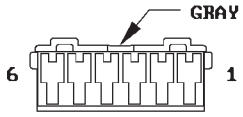
SEAT BELT
SWITCH

CAV	CIRCUIT	FUNCTION
1	G10 20LG/RD	SEAT BELT SWITCH SENSE
2	Z1 20BK	GROUND



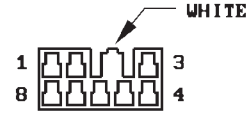
SPEED PROPORTIONAL
STEERING MODULE

CAV	CIRCUIT	FUNCTION
1	G7 18WT/OR	VEHICLE SPEED SENSOR SIGNAL
2	Z12 18BK/TN	GROUND
3	F20 18WT/LG	FUSED IGNITION SWITCH OUTPUT (RUN)



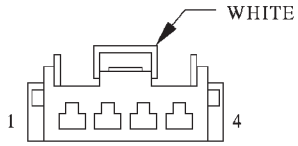
STOP LAMP SWITCH

CAV	CIRCUIT	FUNCTION
1	K29 18WT/RD	STOP LAMP SWITCH SENSE
2	Z2 20BK/LG	GROUND
3	V32 20YL/PK	SPEED CONTROL ON/OFF SWITCH SENSE
4	V30 20DB/RD	SPEED CONTROL BRAKE SWITCH OUTPUT
5	L50 16WT/TN	STOP LAMP SWITCH OUTPUT
6	A7 16RD/BK	FUSED B(+)



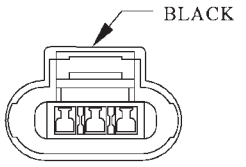
SUNROOF CONTROL
MODULE

CAV	CIRCUIT	FUNCTION
1	Z1 18BK	GROUND
2	-	-
3	Q44 20BR	SWITCHED GROUND
4	M1 20PK	FUSED B(+)
5	Q41 20WT	POWER SUNROOF OPEN B(+)
6	F21 18TN	FUSED IGNITION SWITCH OUTPUT (RUN)
7	Q43 20VT	POWER SUNROOF VENT B(+)
8	Q42 20LB	POWER SUNROOF CLOSE B(+)



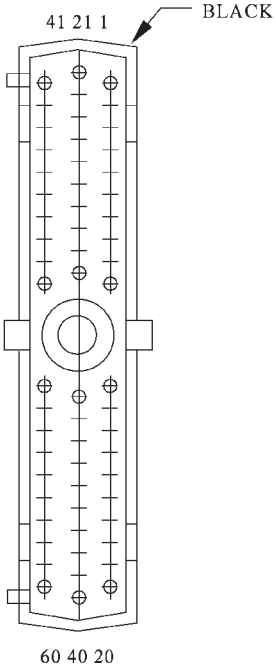
SUNROOF SWITCH

CAV	CIRCUIT	FUNCTION
1	Q41 20WT	POWER SUNROOF OPEN B(+)
2	Q43 20VT	POWER SUNROOF VENT B(+)
3	Q44 20BR	SWITCHED GROUND
4	Q42 20LB	POWER SUNROOF CLOSE B(+)



THROTTLE POSITION SENSOR

CAV	CIRCUIT	FUNCTION
1	K4 18BK/LB	SENSOR GROUND
2	K22 18OR/LB	THROTTLE POSITION SENSOR SIGNAL
3	K6 18VT/WT	5 VOLT SUPPLY



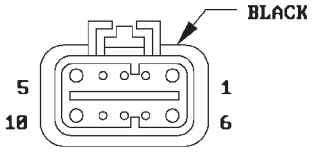
TRANSMISSION CONTROL MODULE

CAV	CIRCUIT	FUNCTION
1	T1 18LG/GY	TRANSMISSION RANGE SWITCH T1 SENSE
2	-	-
3	T3 18VT	PARK/NEUTRAL POSITION SWITCH SENSE
4	D2 20WT/DG	CCD BUS(-)
5	T5 20LG/LB	AUTOSTICK UPSHIFT SWITCH SENSE
6	K24 18GY/BK	CRANKSHAFT POSITION SENSOR SIGNAL
7	D21 20PK/LB	SCI TRANSMIT
8	A41 16YL/OR	IGNITION SWITCH OUTPUT (START)
9	T9 18OR/BK	OVERDRIVE PRESSURE SWITCH SENSE
10	T10 20YL/DG	TORQUE MANAGEMENT REQUEST SENSE
11	F11 18RD/VT	FUSED IGNITION SWITCH OUTPUT (OFF/RUN/START)
12	K22 20OR/LB	THROTTLE POSITION SENSOR SIGNAL
13	T13 18DB/BR	SPEED SENSOR GROUND
14	T14 18LG/VT	OUTPUT SHAFT SPEED SENSOR SIGNAL (+)
15	T15 20LG/YL	12 VOLT SUPPLY
16	T16 16RD/BR	TRANS OUTPUT CTRL RLY (SWITCHED B(+))
17	T16 16RD/BR	TRANS OUTPUT CTRL RLY (SWITCHED B(+))
18	-	-
19	T19 18WT/PK	2-4 SOLENOID CONTROL
20	T20 18LB/WT	LOW/REVERSE SOLENOID CONTROL
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-

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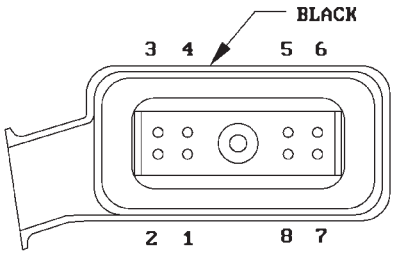
(CONTINUED)

CAV	CIRCUIT	FUNCTION
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	T41 18BK/WT	PARK/NEUTRAL POSITION SWITCH SENSE
42	T42 18VT/TN	TRANSMISSION RANGE SWITCH T42 SENSE
43	D1 20VT/DG	CCD BUS(+)
44	T44 20YL/LB	AUTOSTICK DOWNSHIFT SWITCH SENSE
45	-	-
46	D6 20PK/DG	SCI RECEIVE
47	T47 18YL/GY	2-4 PRESSURE SWITCH SENSE
48	-	-
49	-	-
50	T50 18DG/TN	LOW/REVERSE PRESSURE SWITCH SENSE
51	K4 20BK/LB	SENSOR GROUND
52	T52 18OR/YL	INPUT SPEED SENSOR SIGNAL
53	Z14 18BK/YL	GROUND
54	T54 18VT/YL	TRANSMISSION TEMPERATURE SENSOR SIGNAL
55	-	-
56	A24 16PK/YL	FUSED B(+)
57	Z13 16BK/RD	GROUND
58	G7 18WT/OR	VEHICLE SPEED SENSOR SIGNAL
59	T59 18PK/DB	UNDERDRIVE SOLENOID CONTROL
60	T60 18BR/TN	OVERDRIVE SOLENOID CONTROL



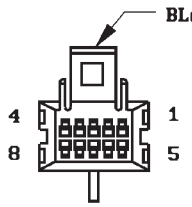
TRANSMISSION
RANGE
SENSOR
(ATX ONLY)

CAV	CIRCUIT	FUNCTION
1	F20 18WT/YL	FUSED IGNITION SWITCH OUTPUT (RUN)
2	-	-
3	T13 18DB/BR	SPEED SENSOR GROUND
4	T54 18VT/WT	TRANSMISSION TEMPERATURE SENSOR SIGNAL
5	T41 18BK/LB	PARK/NEUTRAL POSITION SWITCH SENSE
6	L1 18VT/BK	REVERSE LAMP SENSE
7	T1 18LG/GY	TRANSMISSION RANGE SWITCH T1 SENSE
8	T3 18VT	PARK/NEUTRAL POSITION SWITCH SENSE
9	T42 18VT/TN	TRANSMISSION RANGE SWITCH T42 SENSE
10	T41 18BK/WT	PARK/NEUTRAL POSITION SWITCH SENSE



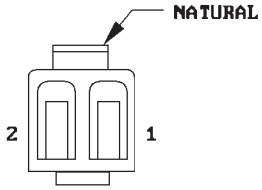
TRANSMISSION SOLENOID AND PRESSURE SWITCH ASSEMBLY

CAV	CIRCUIT	FUNCTION
1	T47 18YL/GY	2-4 PRESSURE SWITCH SENSE
2	T58 18DG/TN	LOW/REVERSE PRESSURE SWITCH SENSE
3	T9 18OR/BK	OVERDRIVE OFF SWITCH SENSE
4	T16 16RD/BR	TRANSMISSION CONTROL RELAY OUTPUT
5	T59 18PK/DB	UNDERDRIVE SOLENOID CONTROL
6	T60 18BR/TN	OVERDRIVE SOLENOID CONTROL
7	T20 18LB/WT	LOW/REVERSE SOLENOID CONTROL
8	T19 18WT/PK	2-4 SOLENOID CONTROL



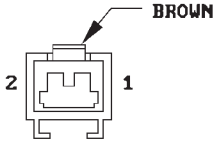
TRAVELER

CAV	CIRCUIT	FUNCTION
1	-	-
2	-	-
3	D2 20WT/BK	CCD BUC (-)
4	D1 20VT/PK	CCD BUS (+)
5	-	-
6	M1 20PK/DB	FUSED BATTERY TO TRAVELER
7	F18 20LG/RD	IGN. FEED TO CLUSTER
8	Z1 20BK/VT	GROUND



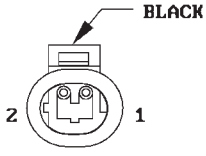
TRUNK KEY CYLINDER SWITCH (WITH VTSS)

CAV	CIRCUIT	FUNCTION
1	G71 20VT/YL	TRUNK KEY CYLINDER SENSE
2	Z1 20BK	GROUND



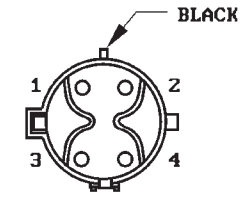
TRUNK LAMP

CAV	CIRCUIT	FUNCTION
1	M1 20PK/OR	FUSED B(+)
2	G78 20TN/BK	TRUNK AJAR SWITCH SENSE



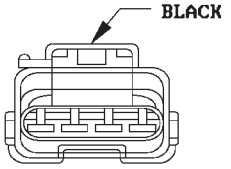
TURBINE SPEED SENSOR

CAV	CIRCUIT	FUNCTION
1	T13 18DB/BR	SPEED SENSOR GROUND
2	T52 18OR/YL	INPUT SPEED SENSOR SIGNAL



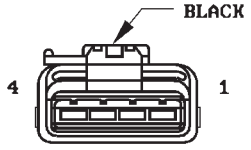
UPSTREAM HEATED OXYGEN SENSOR

CAV	CIRCUIT	FUNCTION
1	K4 18BK/LB	SENSOR GROUND
2	K41 18BK/DG	UPSTREAM OXYGEN SENSOR SIGNAL
3	A142 18DG/OR	AUTOMATIC SHUT DOWN RELAY OUTPUT
4	Z1 16BK*	GROUND
4	Z1 18BK**	GROUND



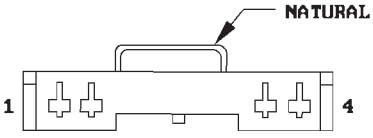
VAPOR CANISTER LEAK DETECTION PUMP (2.0L AND 2.4L ENGINES)

CAV	CIRCUIT	FUNCTION
1	-	-
2	F18 18LG/BK	FUSED IGNITION SWITCH OUTPUT (RUN/START)
3	K106 18WT/DG	LEAK DETECTION PUMP SOLENOID CONTROL
4	K107 18OR/DG	LEAK DETECTION PUMP SWITCH SENSE



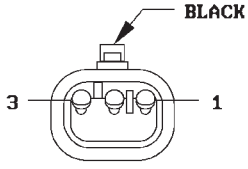
VEHICLE SPEED CONTROL SERVO

CAV	CIRCUIT	FUNCTION
1	V36 20WT/VT	SPEED CONTROL VACUUM SOLENOID CONTROL
2	V35 20LG/RD	SPEED CONTROL VENT SOLENOID CONTROL
3	V30 20DB/RD	SPEED CONTROL ON/OFF SWITCH OUTPUT
4	Z1 20BK	GROUND



VEHICLE SPEED CONTROL AND HORN SWITCHES

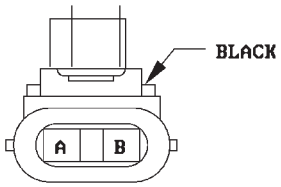
CAV	CIRCUIT	FUNCTION
1	X3 18BK/RD	HORN RELAY CONTROL
2	V37 20PK/LG	SPEED CONTROL SWITCH SIGNAL
3	Z2 18BK/TN	GROUND
4	-	-



VEHICLE SPEED SENSOR

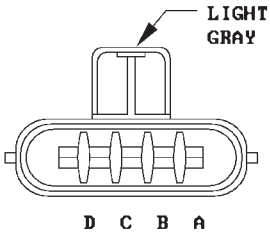
CAV	CIRCUIT	FUNCTION
1	K7 18OR	5 VOLT SUPPLY
2	K4 18BK/LB	SENSOR GROUND
3	G7 18WT/OR	VEHICLE SPEED SENSOR SIGNAL

* MTX
** ATX



WINDSHIELD WASHER PUMP MOTOR

CAV	CIRCUIT	FUNCTION
A	V10 18BR/DB	WASHER PUMP CONTROL
B	Z1 18BK	GROUND



WINDSHIELD WIPER MOTOR

CAV	CIRCUIT	
A	V4 14RD/YL	WIPER SWITCH HIGH SPEED OUTPUT
B	V3 14BR/OR	WIPER SWITCH LOW SPEED OUTPUT
C	Z1 16BK	GROUND
D	V55 16WT/GY	WIPER PARK SWITCH SENSE

8W-90 CONNECTOR/GROUND LOCATIONS

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INTRODUCTION 1

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	GY	Top of Compressor	4, 5
A/C Evap Temp Sensor	BK	RT Side of HVAC	11
A/C-Heater Control C1	BK	Rear of Control	11
A/C-Heater Control C2	BK	Rear of Control	11
A/C Pressure Transducer	GY	Top of A/C Compressor	4, 5
ABS Hydraulic Modulator	BK	Right Cowl Panel	3
ABS Relay Box	DK/GY	Right Cowl Panel	3
Airbag Control Module C1	GY	At Module	13
Airbag Control Module C2	YL	At Module	13
Ash Receiver Lamp	BK	Rear of Lamp	N/S
Autostick Switch	BK	Base of Shifter	N/S
Back-Up Lamp Switch	GY	Rear of Transmission	6
Battery Temp Sensor	BK	Near Battery	2

Connector Name/Number	Color	Location	Fig.
Blower Motor Resistor Block	BK	RT Side of HVAC	11
Body Control Module C1	BK	At Module	10
Body Control Module C2	WT	At Module	9
Body Control Module C3	WT	At Module	9
Body Control Module C4	BL	At Module	N/S
Body Control Module C5	BK	At Module	10
Brake Warn Press Sw	BK	On Master Cylinder	2
C104	LT/GY	Under PDC	2
C105	BK	Under PDC	2
C111	BK	Rear of PCM	2
C113	GY	Rear of PCM	2
C121	GN	Left Side Cowl Panel	12
C126	BK	Near Junction Block	10
C165 (2.5L)	BK	Left Side of Intake	5
C169	BK	Left Side of Trans	N/S

DESCRIPTION AND OPERATION (Continued)

Connector Name/Number	Color	Location	Fig.
C224	BK	Left Side of Steering Column	N/S
C305	BK	Near Trunk Latch	N/S
C308	WT	Left B-Pillar	12
C309	BK	Under Seat	N/S
C310	BR	Left A-Pillar	12
C311	BL	Left A-Pillar	12
C315	BR	Right A-Pillar	12
C316	BL	Right A-Pillar	12
C318	WT	Right B-Pillar	12
Camshaft Position Sensor	BK	Left Side of Cyl Head	4
CHMSL	BK	At Lamp	18
Clockspring	NAT	Rear of Clockspring	7
Controller Anti-Lock Brake	GY	Right Fender Side Shield	3
Crankshaft Position Sensor 2.0L/2.4L	BK	Rear of Cyl Block	4
Crankshaft Position Sensor 2.5L	BK	Under Distributor	5
Data Link	BK	LT Side of Steering Column	9
Distributor C1	BK	On Distributor	5
Distributor C2	BK	On Distributor	5
Dome Lamp	BK	At Lamp	15
Downstream Heated O2 Sensor	BK	Rear of Engine	3, 5
Driver Side Airbag Squib	YL	Rear of Clockspring	7
Duty Cycle/ EVAP Purge Solenoid	GY	At Solenoid	2
Electronic EGR Transducer Solenoid	BK	At Solenoid	4, 5
Engine Coolant Temp Sensor	BK	At Sensor	4, 5
Front Vertical Motor	BK	At Motor	N/S

Connector Name/Number	Color	Location	Fig.
Fuel Injector #1 (2.0L/2.4L)	BK	At Injector	4
Fuel Injector #1 (2.5L)	BK	At Injector	N/S
Fuel Injector #2 (2.0L/2.4L)	BK	At Injector	4
Fuel Injector #2 (2.5L)	BK	At injector	5
Fuel Injecotr #3 (2.0L/2.4L)	BK	At Injector	4
Fuel Injector #3 (2.5L)	BK	At Injector	N/S
Fuel Injector #4 (2.0L/2.4L)	BK	At Injector	4
Fuel Injector #4 (2.5L)	BK	At Injector	5
Fuel Injector #5 (2.5L)	BK	At Injector	N/S
Fuel Injector #6 (2.5L)	BK	At Injector	5
Fuel Pump Module	BK	Center Rear of Trunk Area	14
G100		Left Strut Tower	2
G101		Rear of Transmission	6
G102		Left Strut Tower	1
G103		Right Strut Tower	3
G104		Left Side Cowl Panel	12
G200		Right I.P. Center Support	8
G201		Base of Gearshift	13
G300		Center of Trunk Opening	14
G301		Left Side Cowl	12
G302		Center of Deck Lid	18
Generator (2.0L/2.4L)	BK	Rear of Generator	4
Generator (2.5L)	BK	Rear of Generator	5
Glove Box Lamp	BK	At Lamp	N/S

DESCRIPTION AND OPERATION (Continued)

Connector Name/Number	Color	Location	Fig.
Headlamp Switch	BK	At Switch	N/S
High Note Horn	BK	Right Front Fender	3
Horizontal Motor	BK	At Motor	N/S
Idle Air Control Motor	BK	On Throttle Body	4, 5
Ignition Coil Pack	BK	Top of Valve Cover	4
Ignition Switch C1	BK	At Switch	7
Ignition Switch C2	BK	At Switch	7
Instrument Cluster C1	RD	Rear of Clustrer	9
Instrument Cluster C2	BL	Rear of Cluster	9
Intake Air Temp Sensor (2.5L)	GY	Rear of Intake	5
Intake Air Temp/Map Sensor (2.0L/2.4L)	BK	On Intake	4
Junction Block C1	BK	At Junction Block	10
Junction Block C2	BR	At Junction Block	10
Junction Block C3	WT	At Junction Block	10
Junction BLock C4	BL	At Junction Block	9
Junction Block C5	GY	At Junction Block	9
Junction Block C6	WT	At Junction Block	9
Junction Block C7	NAT	At Junction Block	9
Junction Block C8	BK	At Junction Block	10
Junction Block C9	WT	At Junction Block	10
Junction Block C10	BK	At Junction Block	N/S
Key-In Halo Lamp	WT	At Lamp	7
Key-In Switch	GN	At Switch	7
Left Fog Lamp	GY	At Lamp	1

Connector Name/Number	Color	Location	Fig.
Left Door Arm/Disarm Switch	BK	At Switch	16
Left Front Door Speaker	BK	At Speaker	16
Left Front I.P. Speaker	BK	At Speaker	16
Left Front Power Door Lock Motor	BK	At Motor	16
Left Front Power Door Lock Switch	BL	At Switch	16
Left Front Power Window Motor	RD	At Motor	16
Left Front Wheel Speed Sensor	BK	Left Fender Side Shield	1
Left Headlamp	BK	At Lamp	1
Left Park/Trun Signal Lamp	BK	At Lamp	1
Left Power Mirror	GY	At Mirror	16
Left Rear Power Door Lock Motor	BK	At Motor	17
Left Rear Power Window Motor	RD	At Motor	17
Left Rear Power Window Switch	BL	At Switch	17
Left Rear Speaker	BK	At Speaker	14
Left Rear Wheel Speed Sensor	BK	Left Quarter Panel	14
Left Tail/Stop/ Turn Lamp C1	BK	At Lamp	14
Left Rear Tail/Stop/Turn Lamp C2	BK	At Lamp	15
Left Visor/Vanity Lamp	BK	At Lamp	15
License Plate Lamp	BK	At Lamp	N/S
Low Note Horn	BK	Right Front Fender	3

DESCRIPTION AND OPERATION (Continued)

Connector Name/Number	Color	Location	Fig.
MAP Sensor (2.5L)	BK	Rear of Intake	5
Master Power WIndow Switch	WT	At Switch	16
Mode Door Actuator	NAT	LT Side of HVAC	11
Multi-Function Switch (Left)	BK	Left Side of Switch	7
Multi-Function Switch (Right)	BL	Right Side of Switch	7
Oil Pressure Switch	BK	At Switch	4, 5
Output Shaft Speed Sensor	BK	Front of Transmission	6
Overhead Map Lamp	BK	At Lamp	15
Passenger Side Airbag	YL	At Airbag	9
Power Amplifier C1	GY	At Amplifier	13
Power Amplifier C2	BK	At Amplifier	13
Power Amplifier C3	BL	At Amplifier	12
Power Mirror Switch	BK	At Switch	16
Power Seat Switch	BK	Under Seat	12
Power Steering Pressure Switch	BL	Left Side of Steering Gear	1
Powertrain Control Module C1	BK	Side of PDC	1
Powertrain Control Module C2	BK	Side of PDC	2
PRNDL Illumination LED	BK	Base of Gearshifter	13
Radiator Fan Motor	BK	Rear of Motor	1
Radio C1	BK	Rear of Radio	8
Radio C2	GY	Rear of Radio	8
Rear Vertical Motor	BK	At Motor	N/S
Recline Motor	BK	At Motor	N/S
Right Fog Lamp	GY	At Lamp	3

Connector Name/Number	Color	Location	Fig.
Right Front Door Arm/ Disarm Switch	BK	At Switch	16
Right Front Door Speaker	BK	At Speaker	N/S
Right Front I.P. Speaker	BK	At Speaker	8
Right Front Power Door Lock Motor	BK	At Motor	16
Right Front Power Door Lock Switch	BK	At Switch	16
Right Front Power Window Motor	RD	At Motor	16
Right Front Power Window Switch	WT	At Switch	16
Right Front Wheel Speed Sensor	BK	Right Fender Side Shield	3
Right Headlamp	BK	At Lamp	3
Right Park/Turn Signal Lamp	BK	At Lamp	3
Right Power Mirror	GY	At Mirror	16
Right Rear Power Door Lock Motor	BK	At Motor	17
Right Rear Power Window Motor	RD	At Motor	17
Right Rear Power Window Switch	BL	At Switch	17
Right Rear Speaker	BK	At Speaker	14
Right Rear Wheel Speed Sensor	BK	Right Side Trunk Area	N/S
Right Tail/Stop/ Turn Lamp	BK	At Lamp	14
Right Visor/ Vanity Lamp	BK	At Lamp	15
Seat Belt Switch	BK	Left B-Pillar	12

DESCRIPTION AND OPERATION (Continued)

Connector Name/Number	Color	Location	Fig.
Speed Proportional Steering Module	BK	Left Side of Steering Gear	1
Stop Lamp Switch	BK	Top of Brake Pedal	N/S
Sunroof Control Module	WT	At Module	15
Sunroof Switch	WT	At Switch	15
Throttle Position Sensor	BK	On Throttle Body	4, 5
Transmission Control Module	BK	Next to PDC	2
Transmission Range Switch	BK	Front of Transmision	6
Transmission Solenoids and Pressure Switches	BK	Front of Transmission	6
Traveler	BK	Rear of Traveler	N/S
Trunk Key Cylinder Switch	NAT	At Switch	18

Connector Name/Number	Color	Location	Fig.
Trunk Lamp	BR	At Lamp	14
Turbine Speed Sensor	BK	Front of Transmission	6
Upstream Heated O2 Sensor	BK	Rear of Generator	4, 5
Vapor Canister/Leak Detection Pump	BK	Right Front Fender	3
Vehicle Speed Control Servo	BK	At Servo	2
Vehicle Speed Control and Horn Switches	BK	Rear of Clockspring	N/S
Windshiel Washer Pump Motor	BK	Bottom of Reservior	3
Windshield Wiper Motor	LT/GY	Left Strut Tower	1

DESCRIPTION AND OPERATION (Continued)

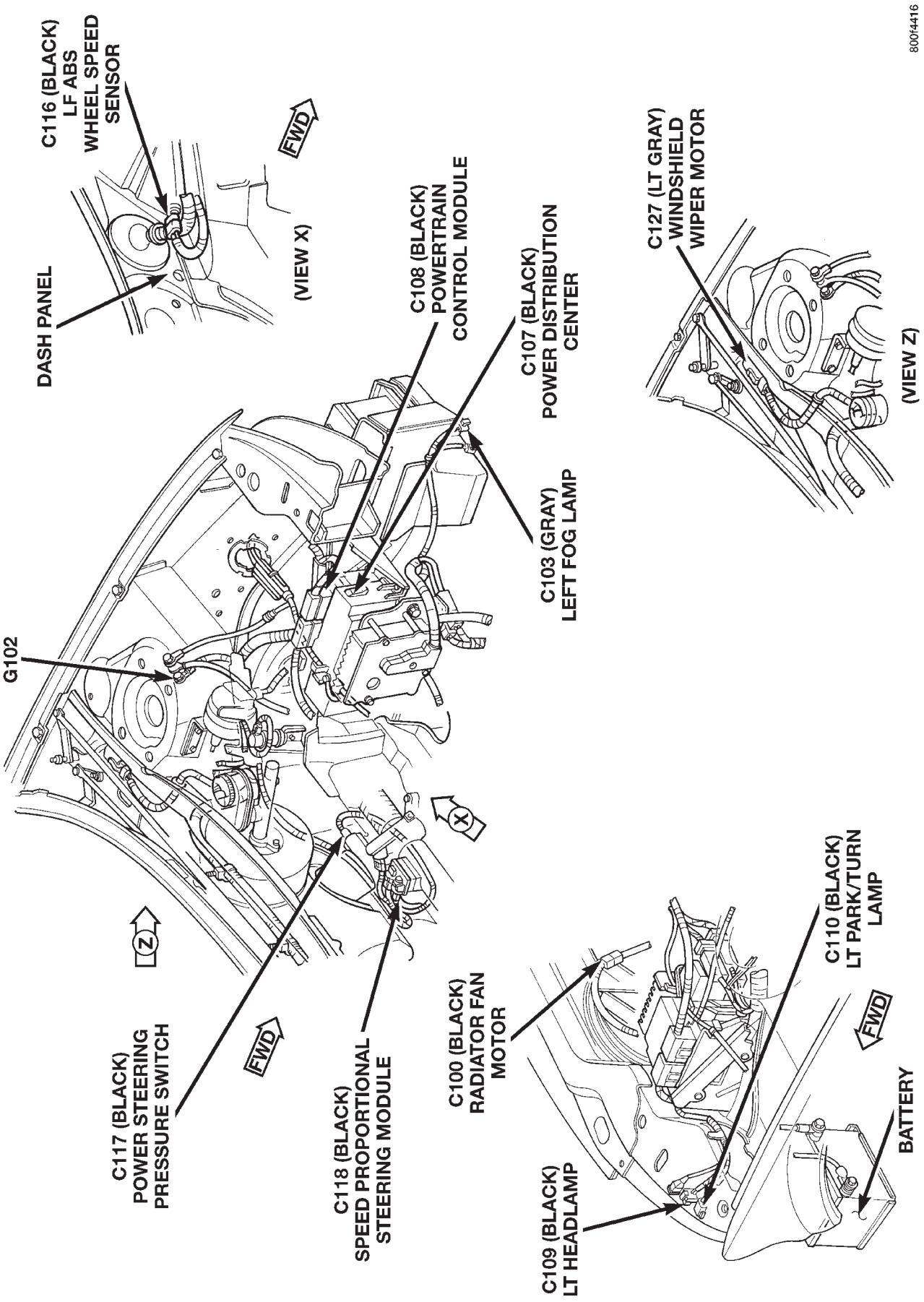


Fig.1 Engine Compartment Connections (Left Side)

DESCRIPTION AND OPERATION (Continued)

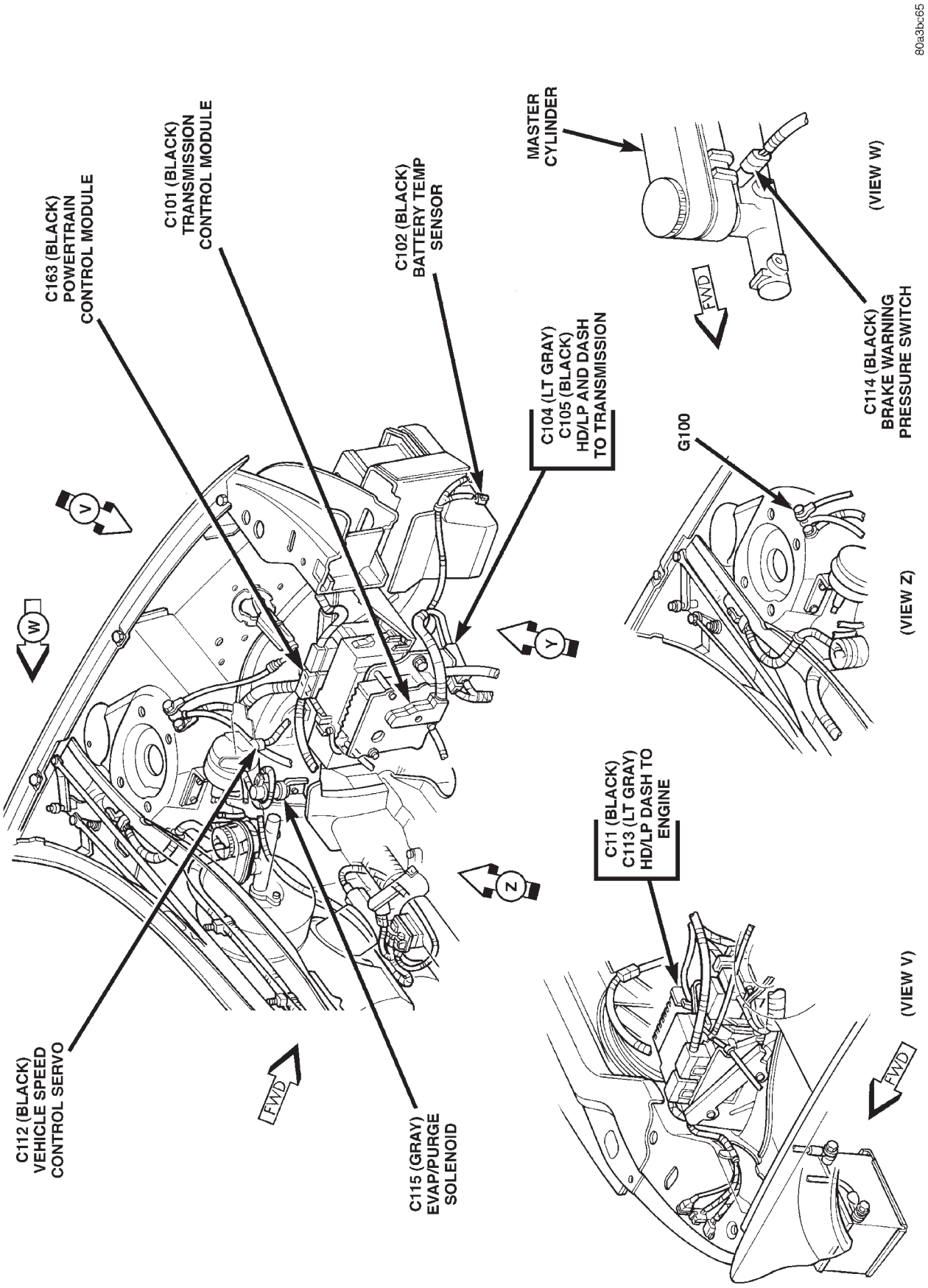


Fig. 2 Engine Compartment Connections (Left Side)

DESCRIPTION AND OPERATION (Continued)

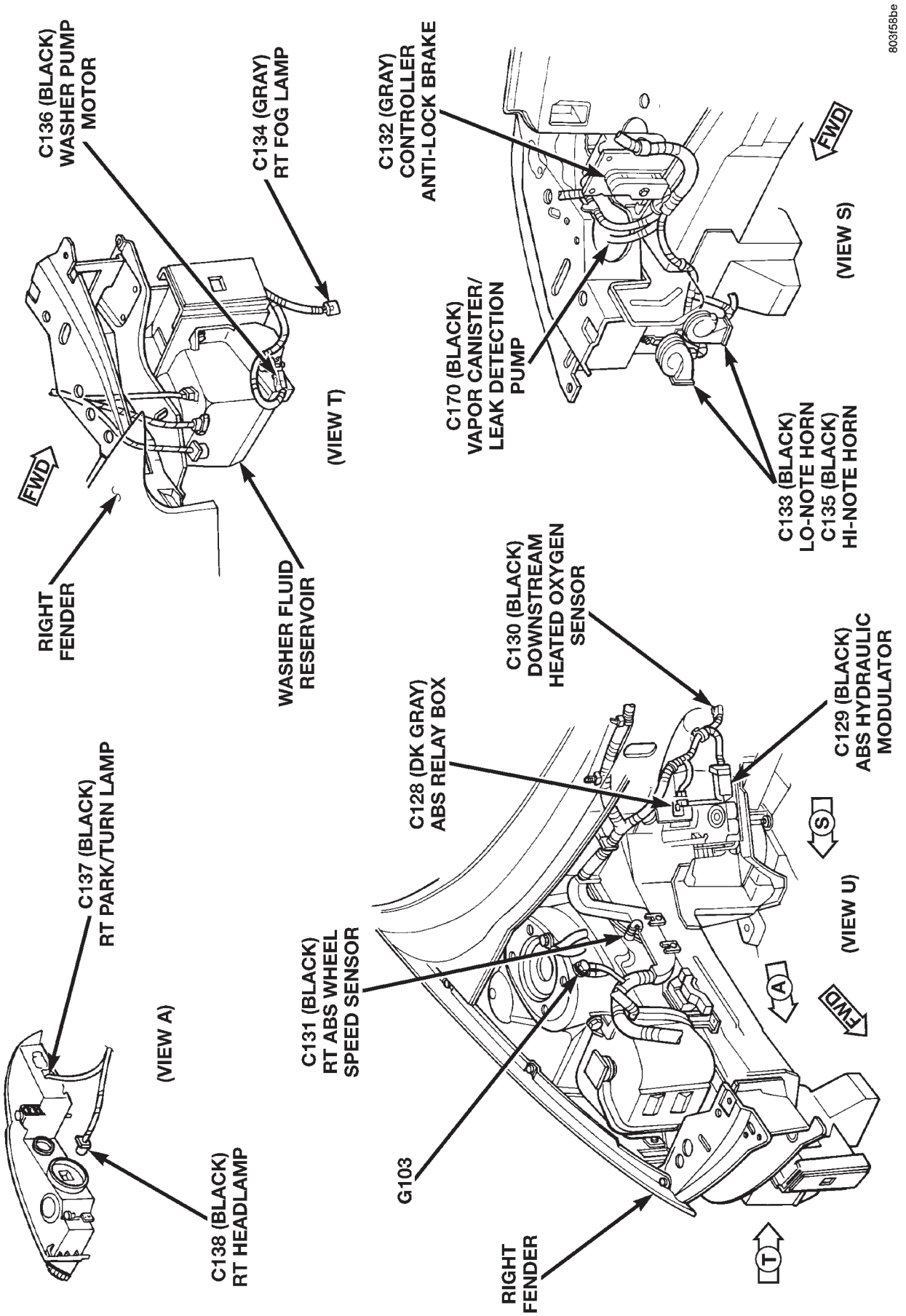


Fig.3 Engine Compartment Connections (Right Side)

DESCRIPTION AND OPERATION (Continued)

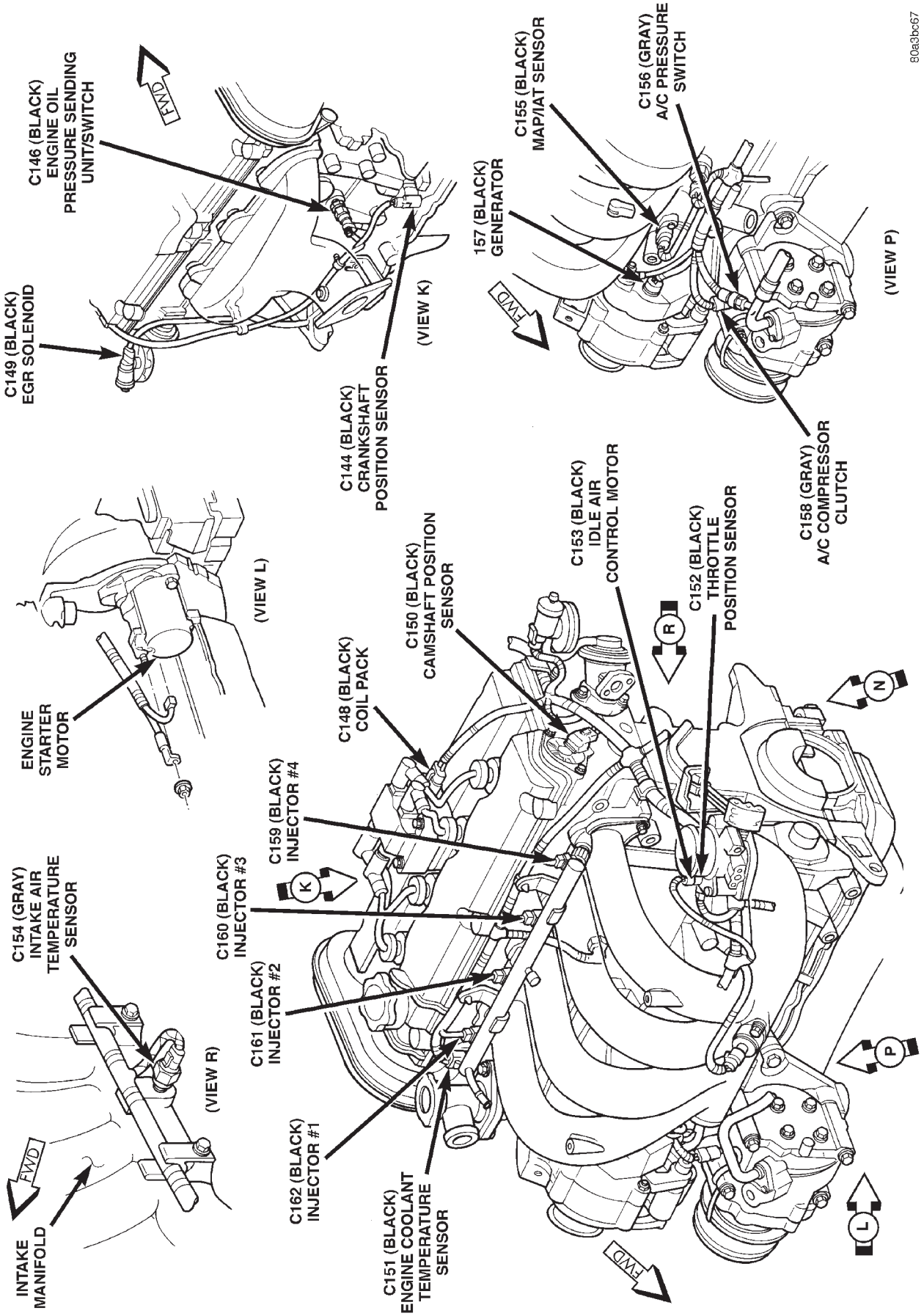


Fig. 4 Engine Connections (2.0L-2.4L)

DESCRIPTION AND OPERATION (Continued)

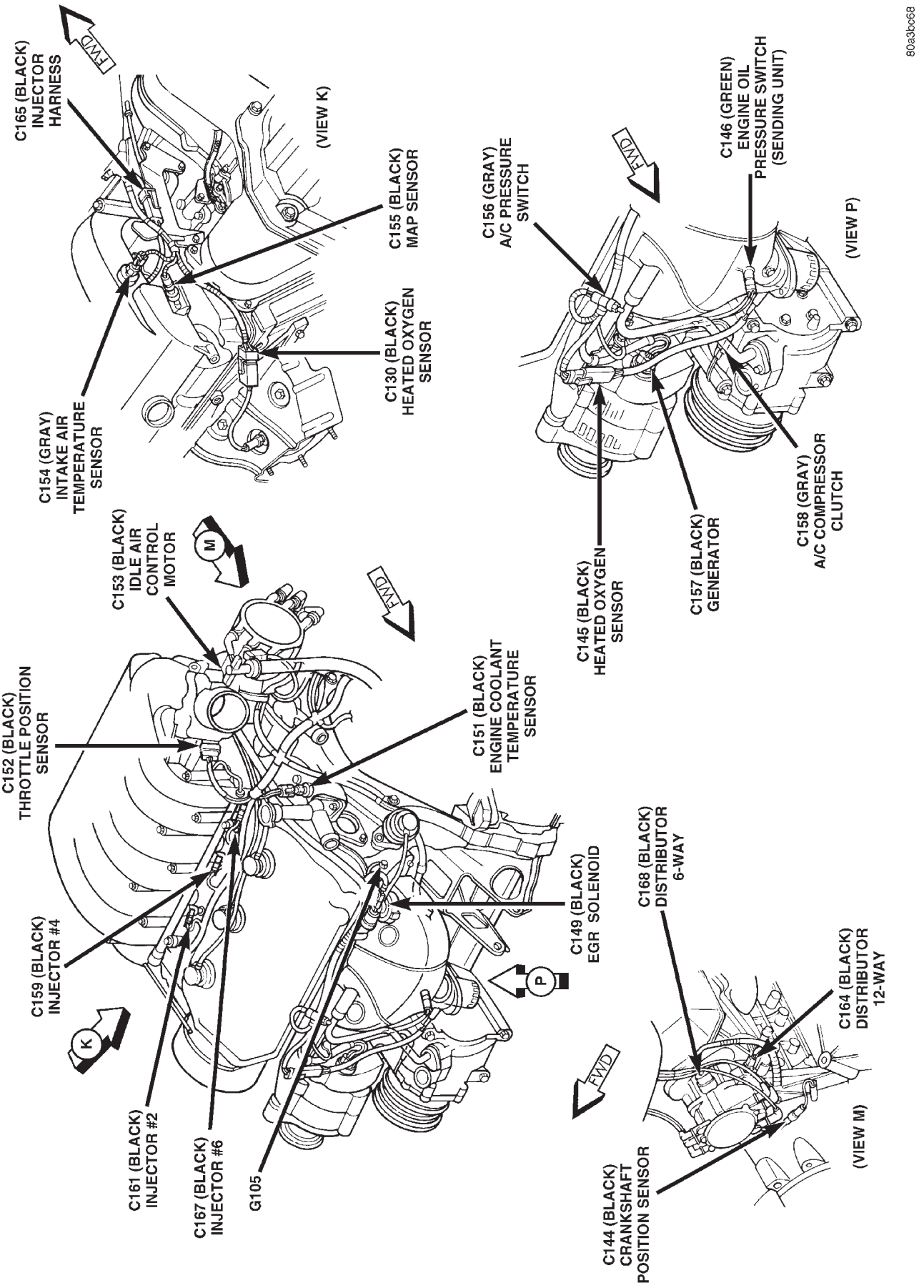


Fig.5 Engine Connections (2.5L)

DESCRIPTION AND OPERATION (Continued)

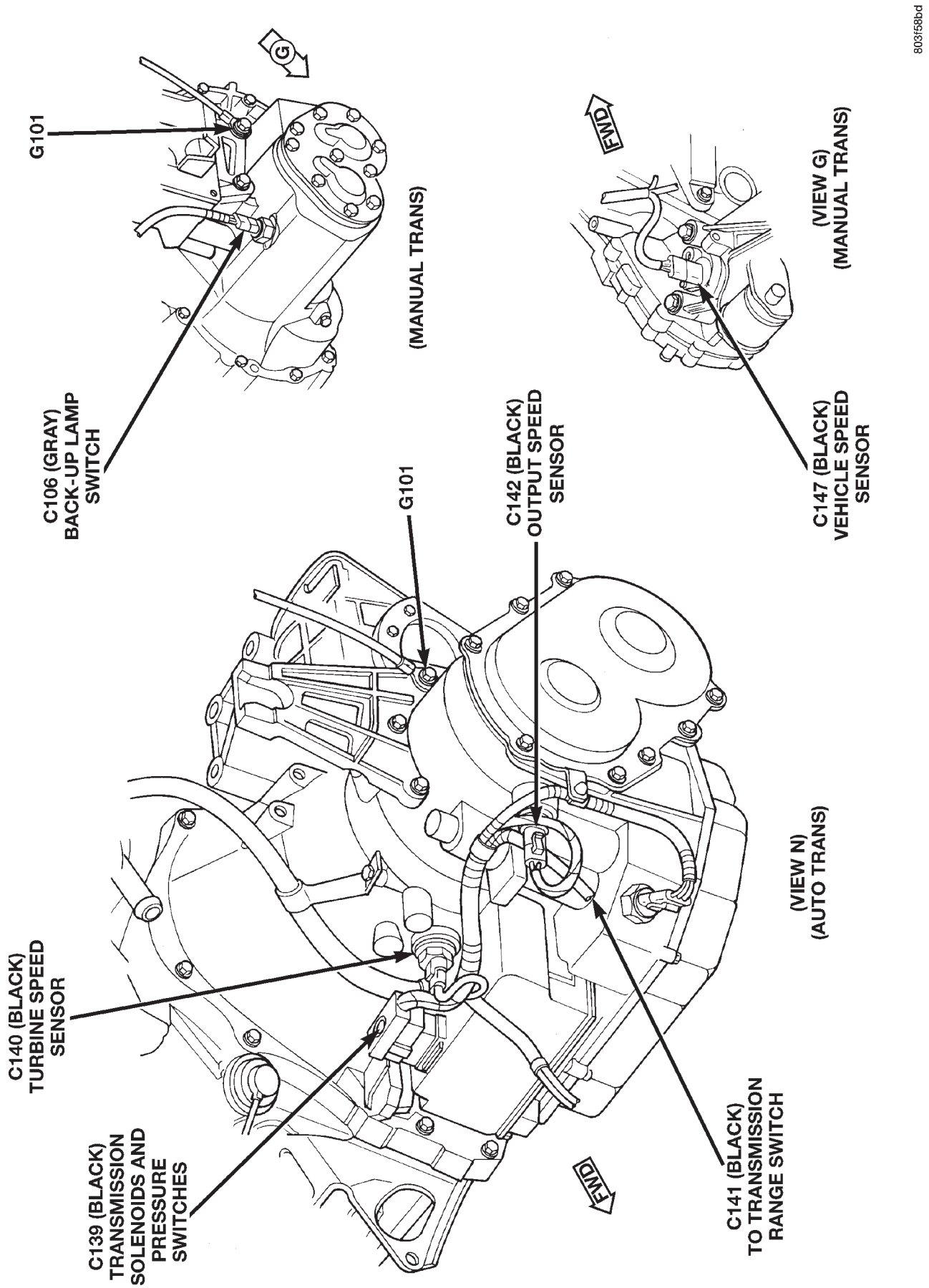


Fig. 6 Transmission Connections

DESCRIPTION AND OPERATION (Continued)

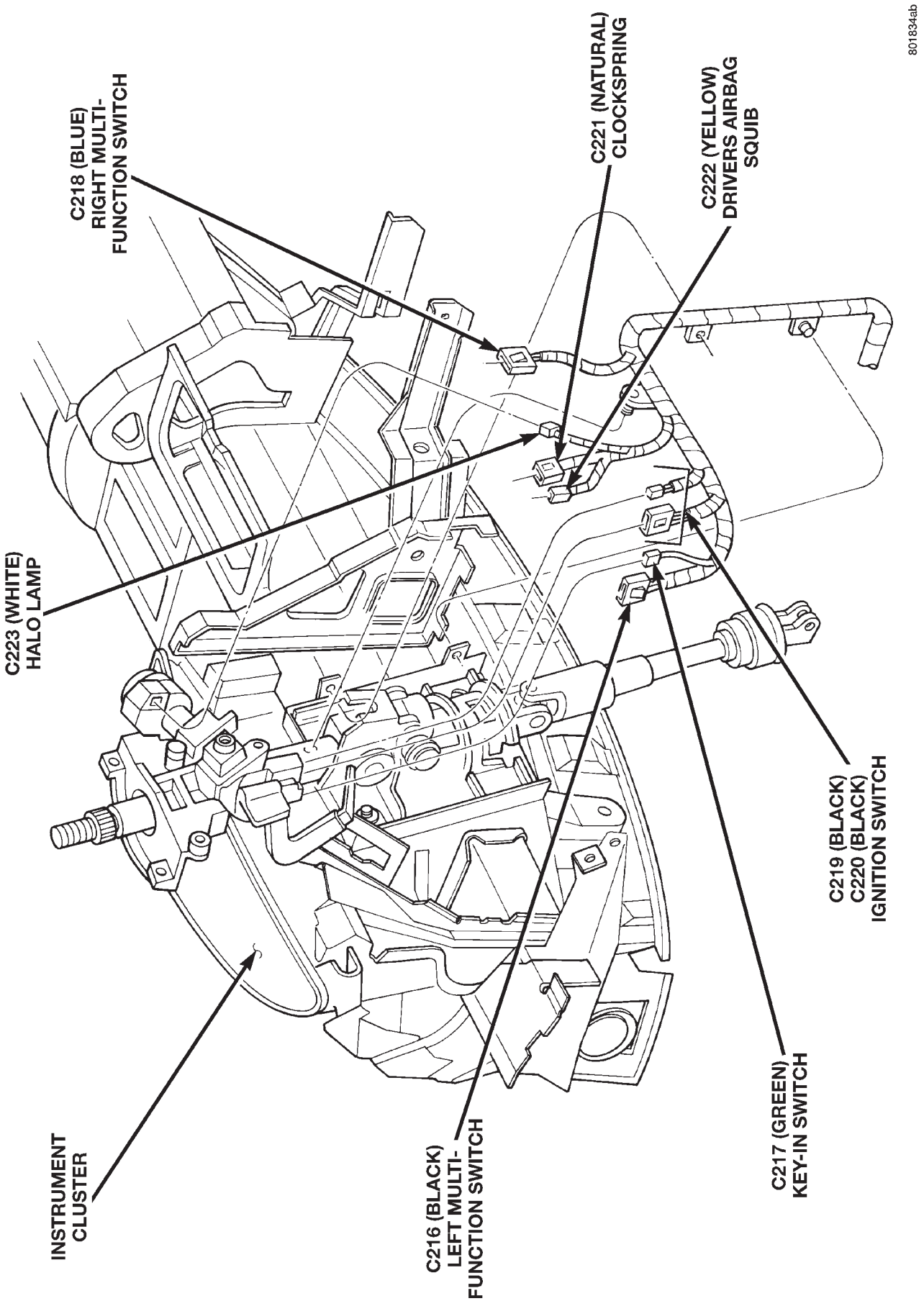


Fig. 7 Steering Column Connections

DESCRIPTION AND OPERATION (Continued)

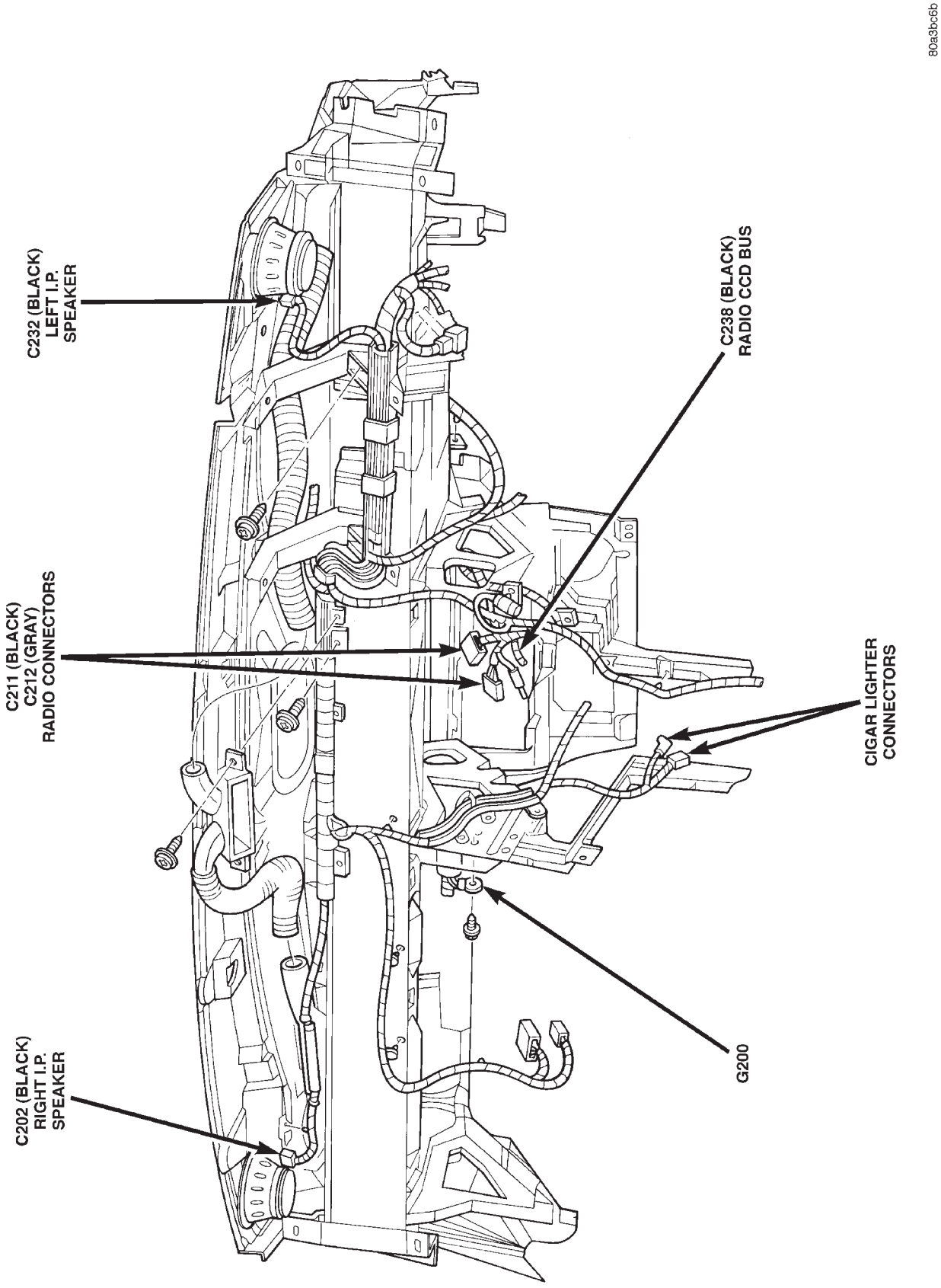


Fig. 8 Instrument Panel Connections

DESCRIPTION AND OPERATION (Continued)

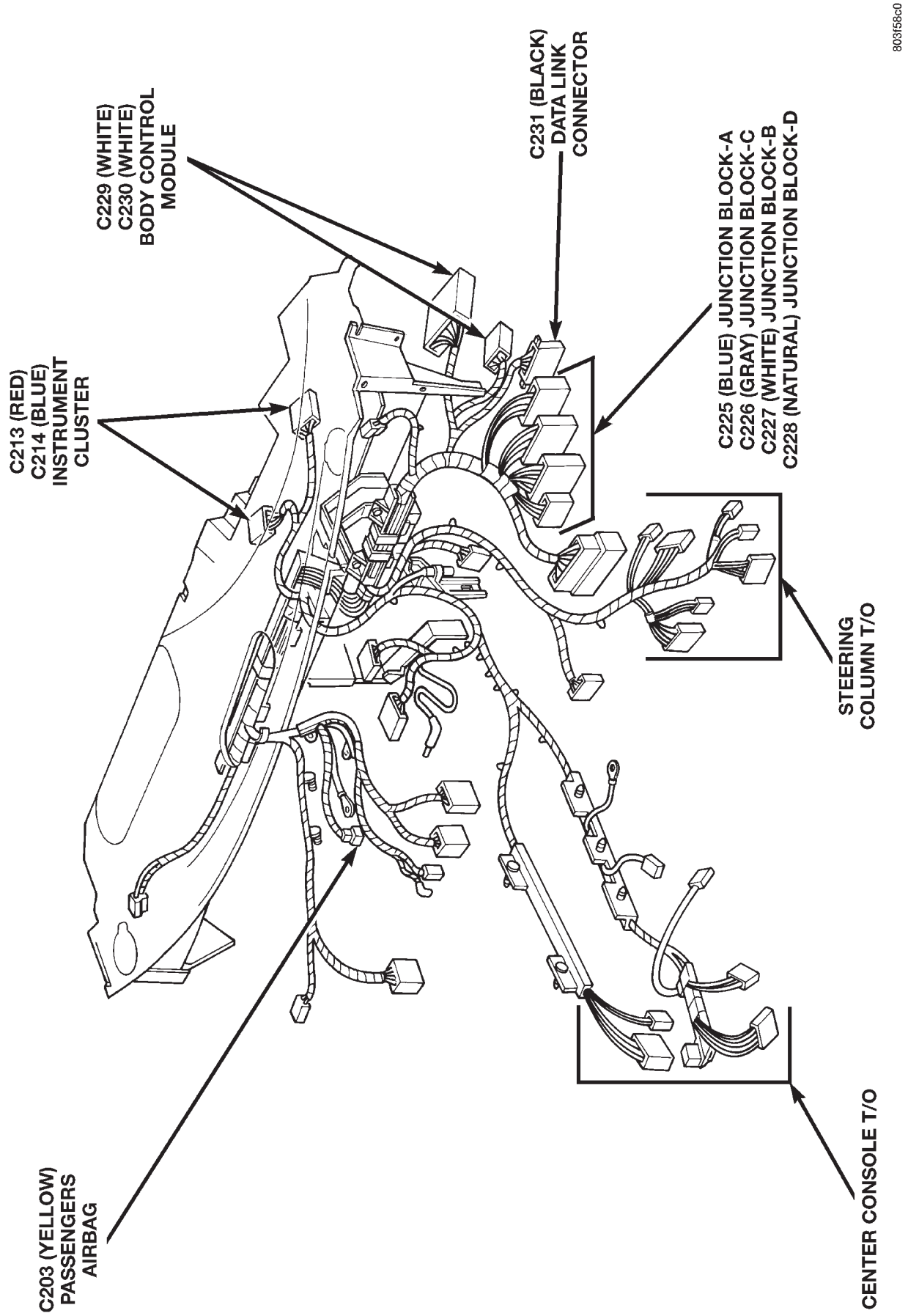


Fig. 9 Instrument Panel Connections

DESCRIPTION AND OPERATION (Continued)

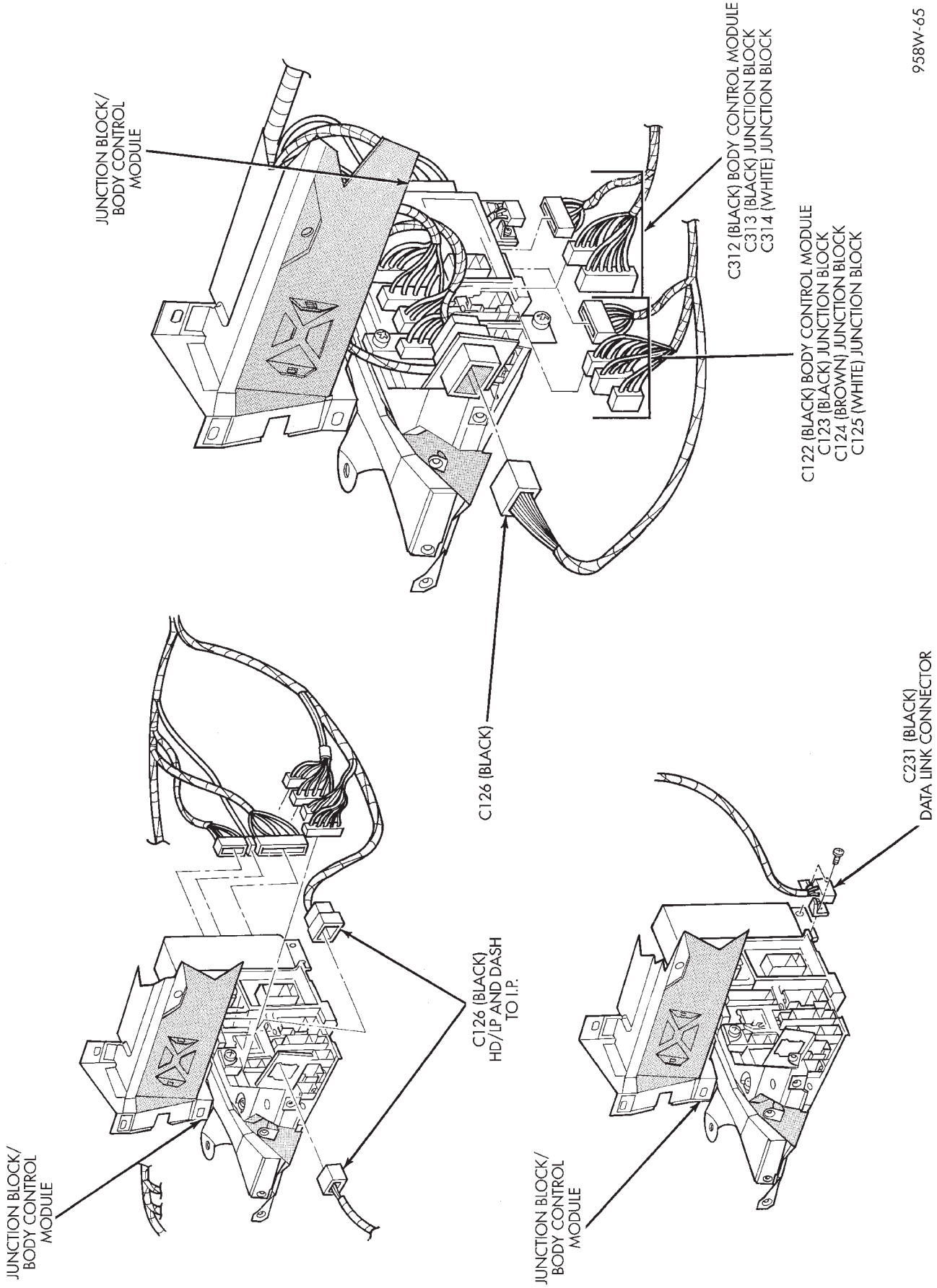


Fig. 10 Junction Block Connections

DESCRIPTION AND OPERATION (Continued)

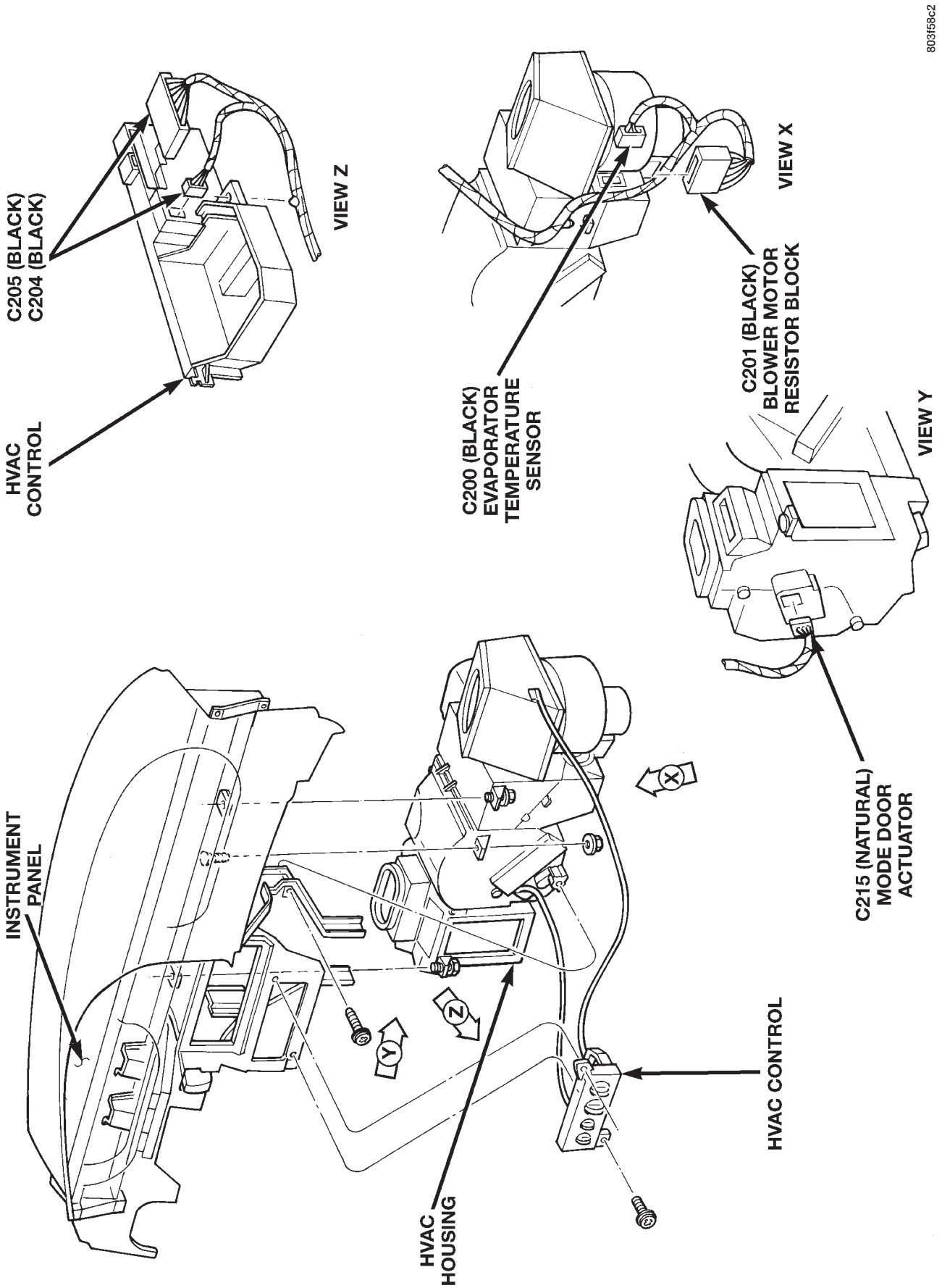


Fig. 11 HVAC Connections

DESCRIPTION AND OPERATION (Continued)

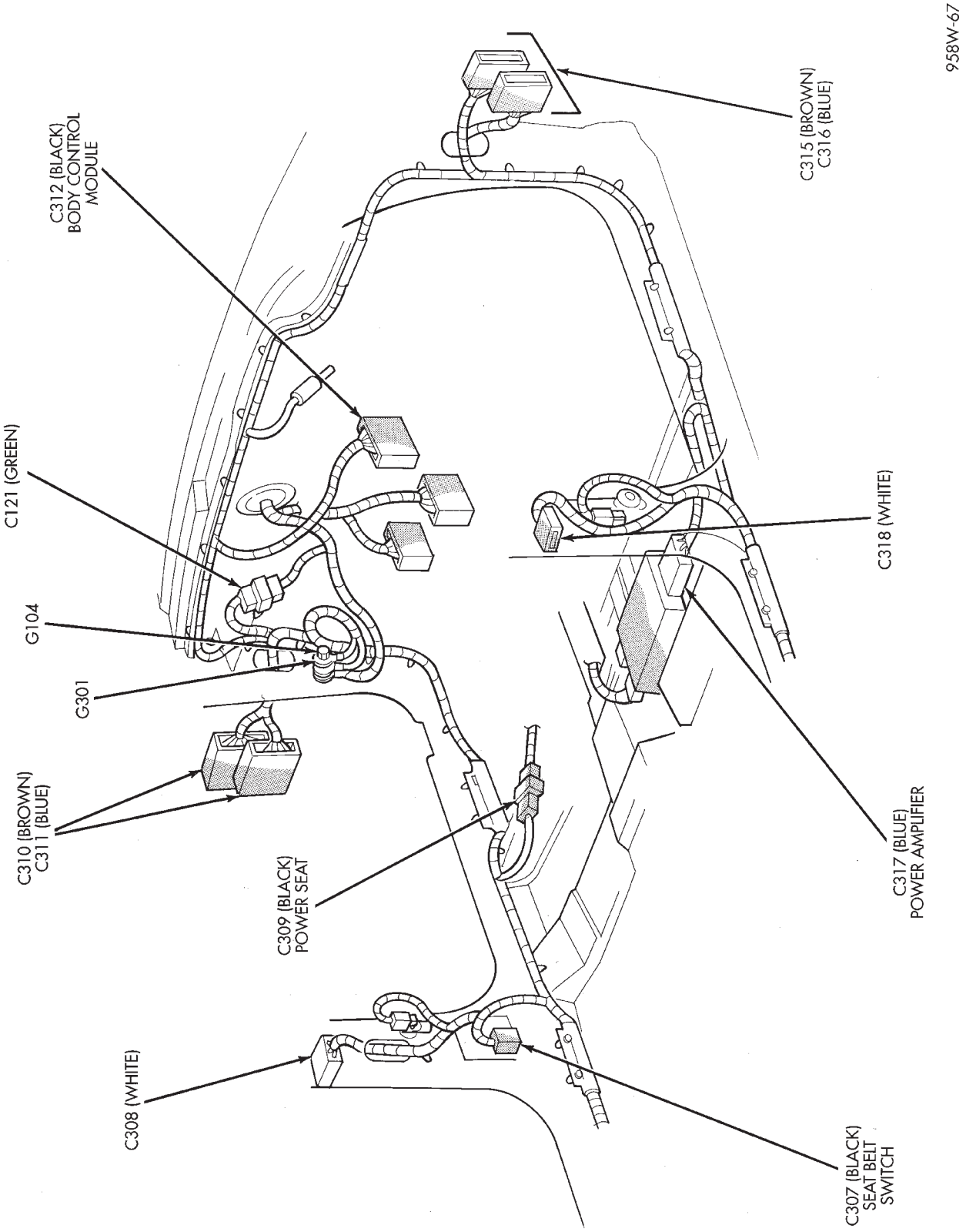


Fig. 12 Body Connections

DESCRIPTION AND OPERATION (Continued)

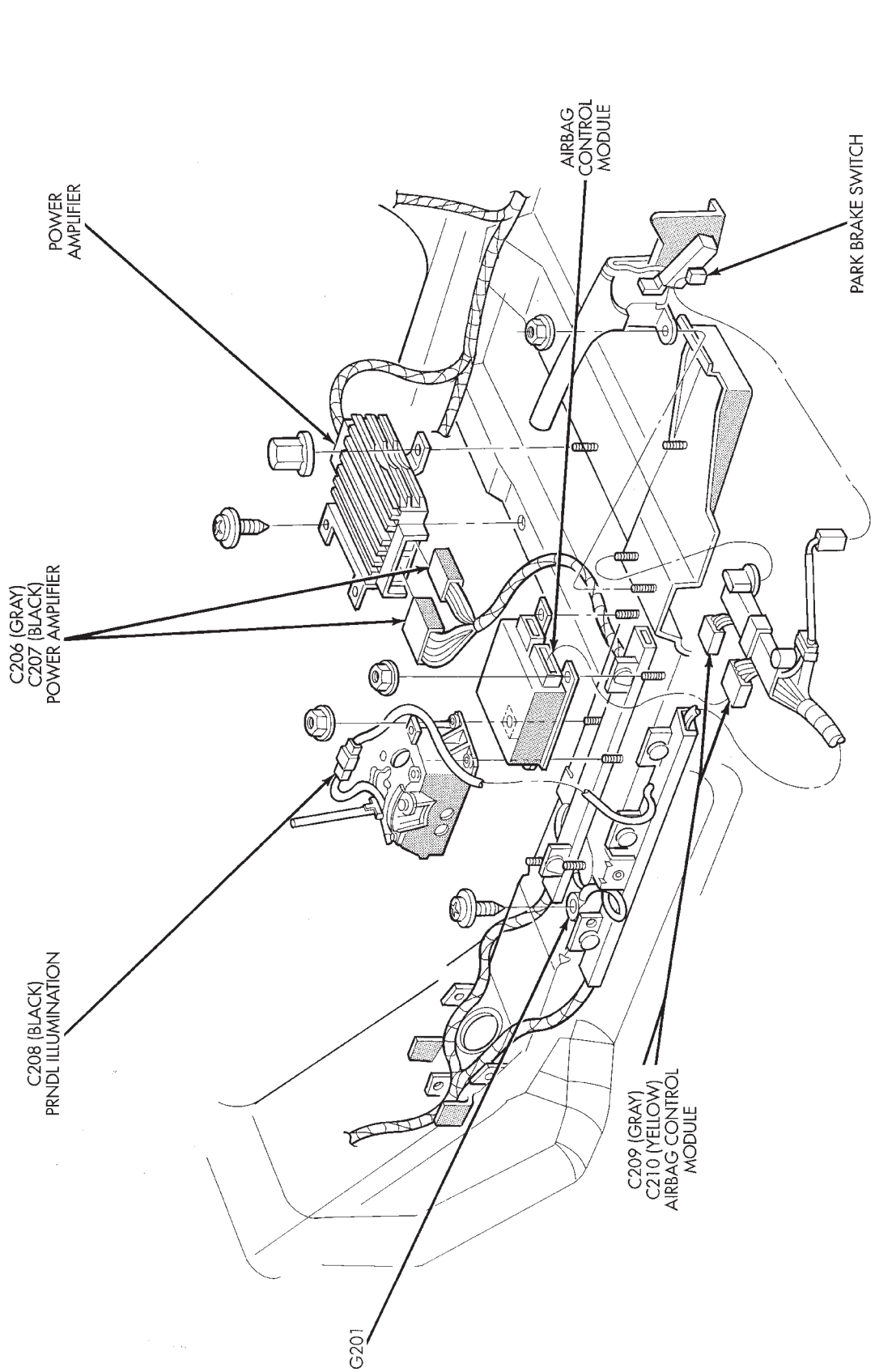


Fig. 13 Body Connections

DESCRIPTION AND OPERATION (Continued)

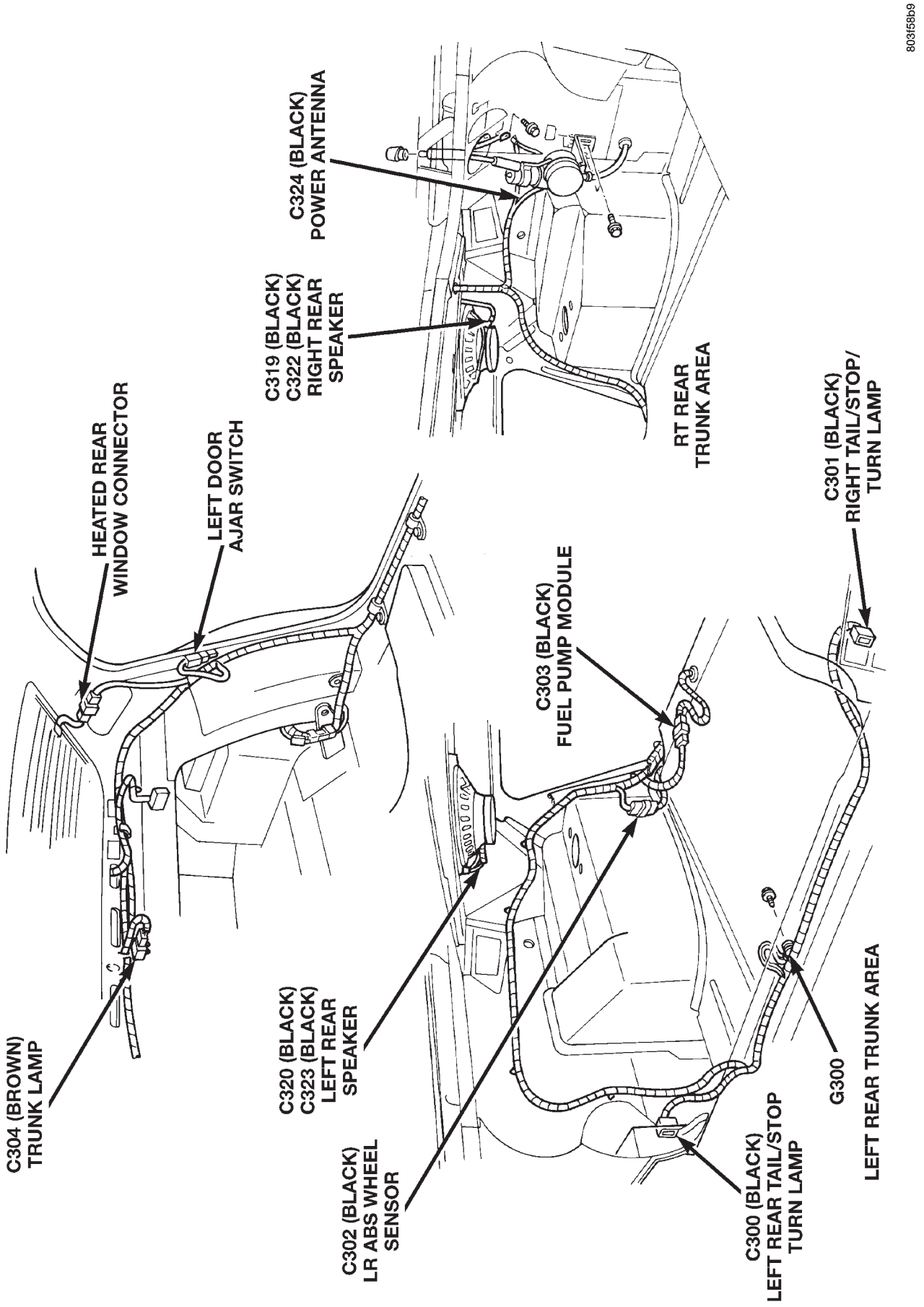


Fig. 14 Body Connections

DESCRIPTION AND OPERATION (Continued)

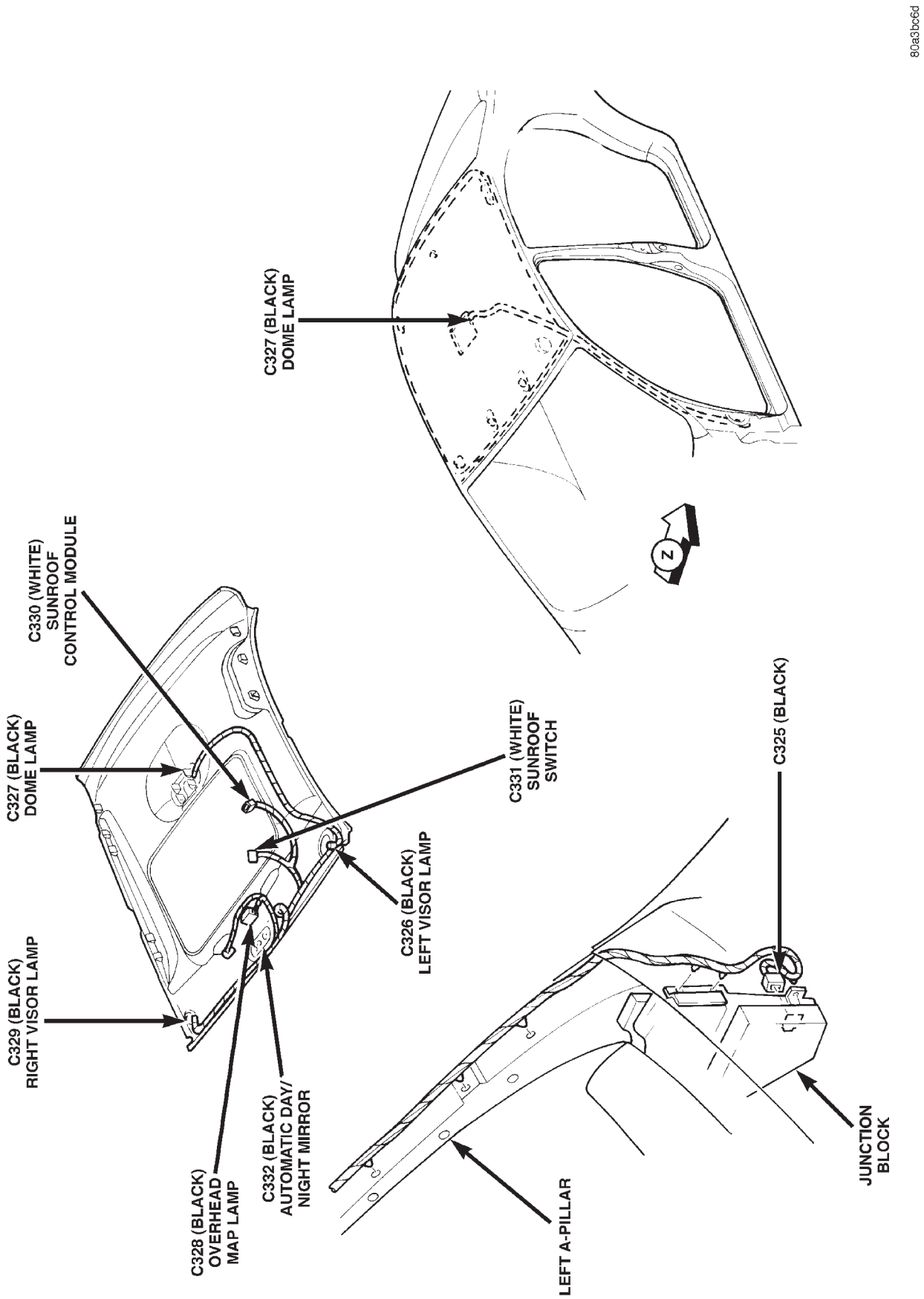


Fig. 15 Roof Connections

DESCRIPTION AND OPERATION (Continued)

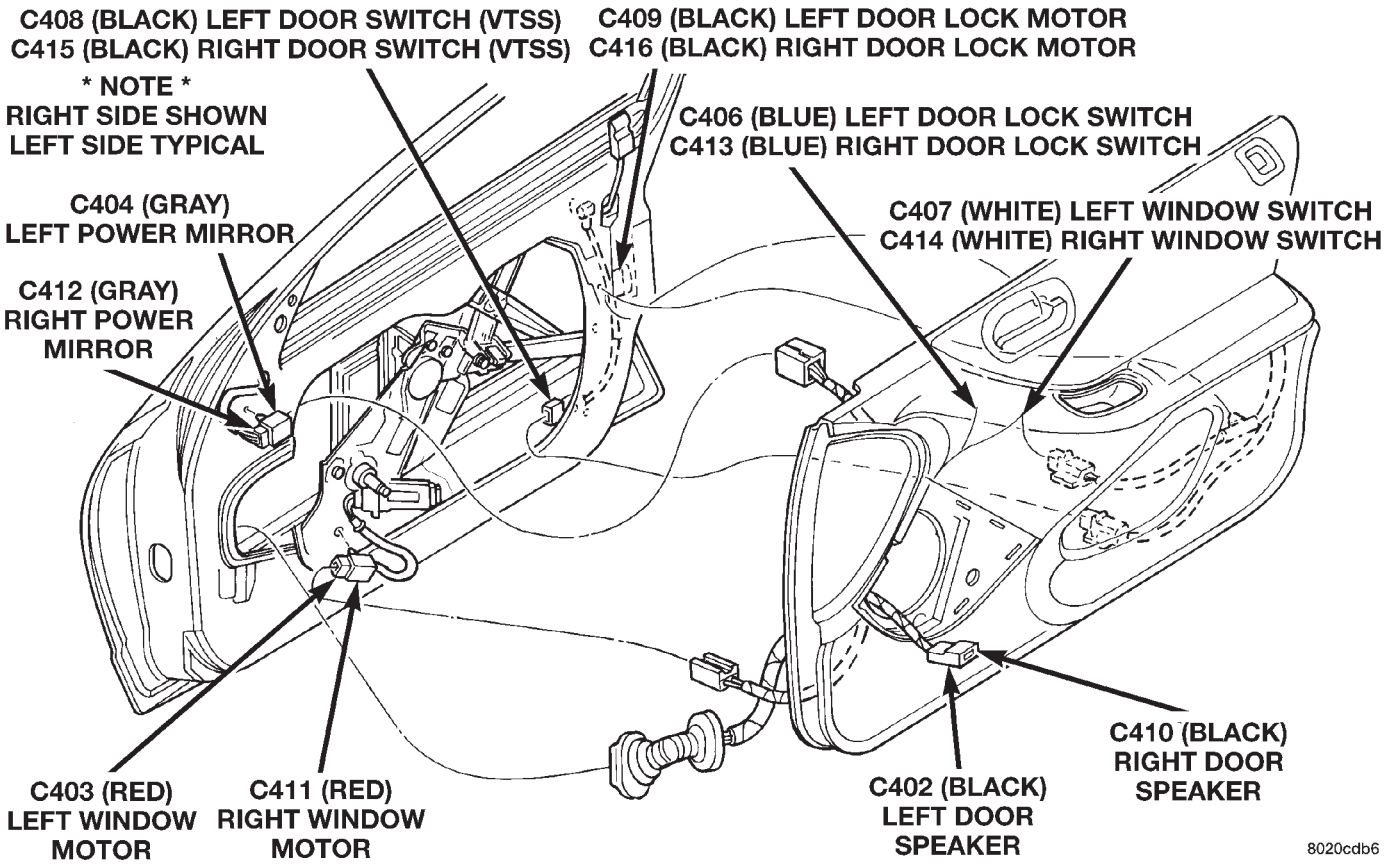


Fig. 16 Door Connections (Front)

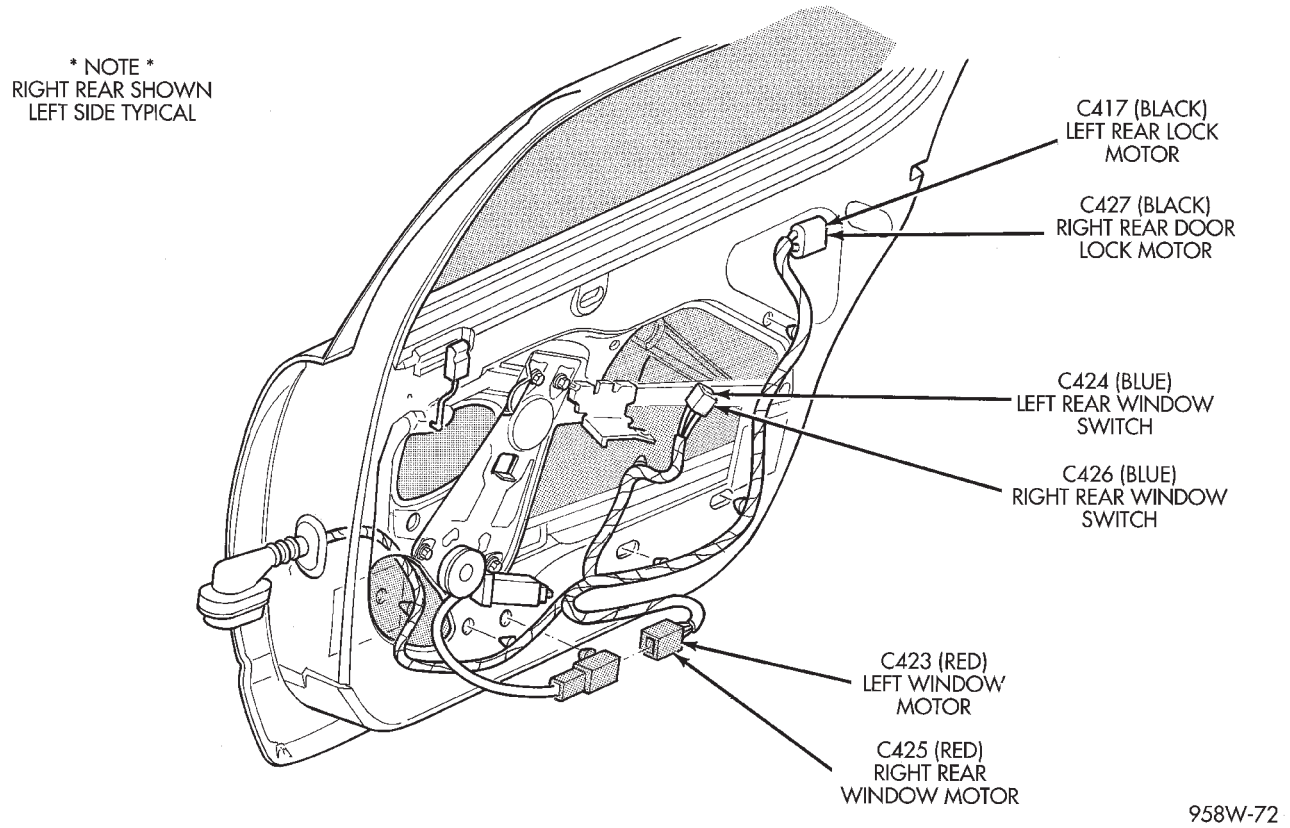


Fig. 17 Door Connections (Rear)

DESCRIPTION AND OPERATION (Continued)

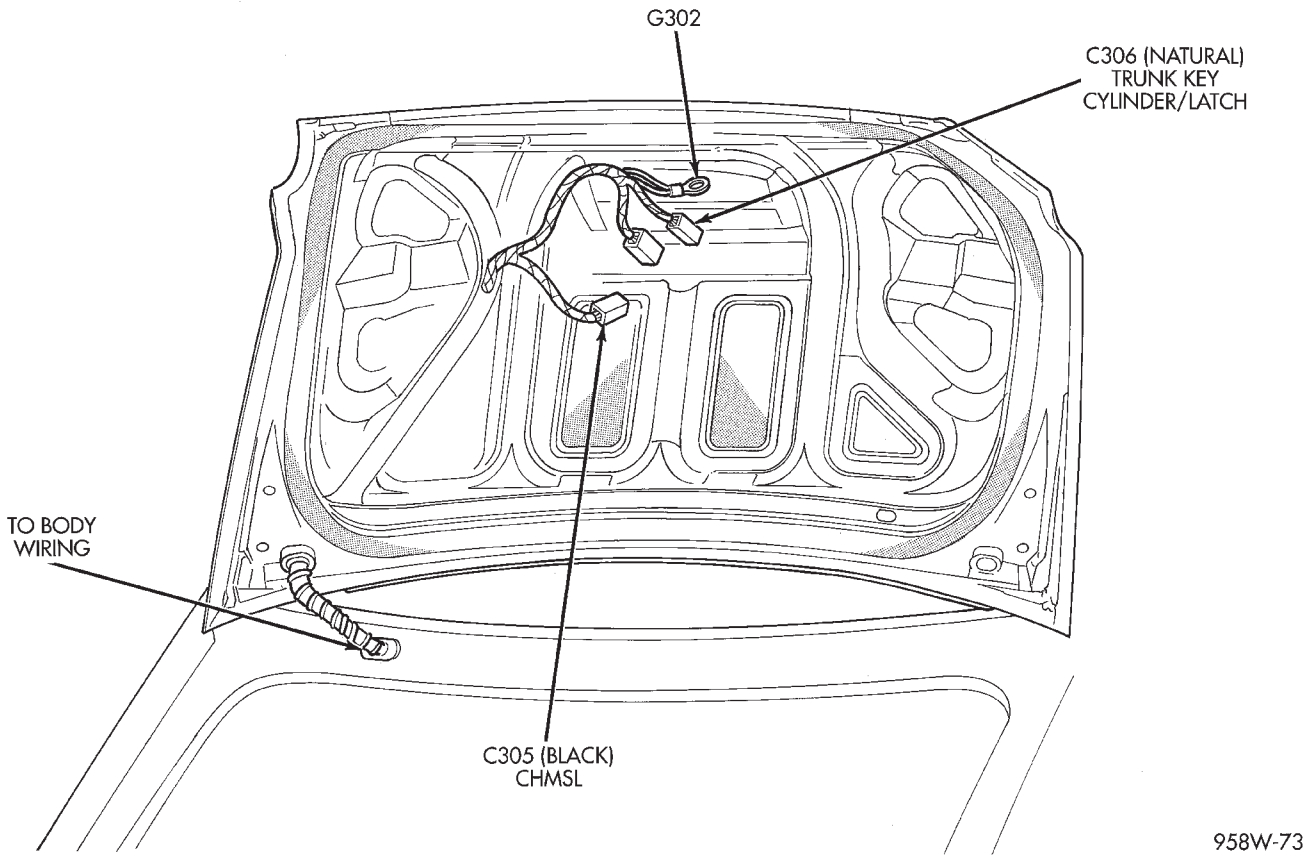


Fig. 18 Deck Lid Connections

8W-95 SPLICE LOCATIONS

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SPLICE LOCATIONS 1

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

For splices that are not shown in the figures in this section a N/S is plcaed in the Fig. column.

Splice Number	Location	Fig.
S100	In T/O for TCM	1
S101	Left Strut Tower	1
S102	Internal to the PDC	1
S103	Internal to the PDC	1
S104	Internal to the PDC	1
S105	Internal to the PDC	1
S106	Internal to the PDC	1
S108	Near T/O for PCM connector	1
S109	Left Strut Tower	1
S110	Internal to the PDC	1
S111	Right Strut Tower	3
S112	Rt Side of Dash Panel	3
S113 (2.0L, 2.4L)	In T/O for Generator Feed Terminal	N/S
S113 (2.5L)	In Generator T/O	6
S114 (2.0L, 2.4L)	In Injector T/O	5
S114 (2.5L)	Between Inj #2 and #4	N/S
S115 (2.0L, 2.4L)	Near T/O for MAP/IAT Sensor	5
S115 (2.5L)	Near EGR T/O	6
S116 (2.0L, 2.4L)	Near T/O for MAP/IAT Sensor	5
S116 (2.5L)	Near Inj #6 T/O	6
S117 (2.0L, 2.4L)	Near T/O for Cam Sensor	5
S117 (2.5L)	Near IAC Motor T/O	6
S118 (2.0L, 2.4L)	Near Cam Sensor T/O	5
S118 (2.5L)	Near T/O for ECT Sensor	6
S120	Near T/O for PCM	2
S121 (2.5L)	In T/O for PCM	2
S123	In Fuel Rail Harness	6
S124 (2.0L, 2.4L)	Near T/O for Nosie Suppressor	N/S
S124 (2.5L)	Near Distributor T/O	6
S125	Near T/O for Turbine Speed Sensor	4
S126	Near EGR T/O	N/S
S129	Near Stop Lamp SW T/O	N/S
S130	Near T/O for PCM Connector	1
S133 (2.0L, 2.4L)	In Ignition Coil T/O	5
S300	Left C-Pillar	7
S301	Near Trunk Latch	8
S302	Between LT and RT Visor Lamps	7
S303	Between LT and RT Visor Lamps	7
S400	Near Left Door Speaker	9
S401	Near Right Door Lock SW	9
S402	Near T/O for LT Door Speaker	9

DESCRIPTION AND OPERATION (Continued)

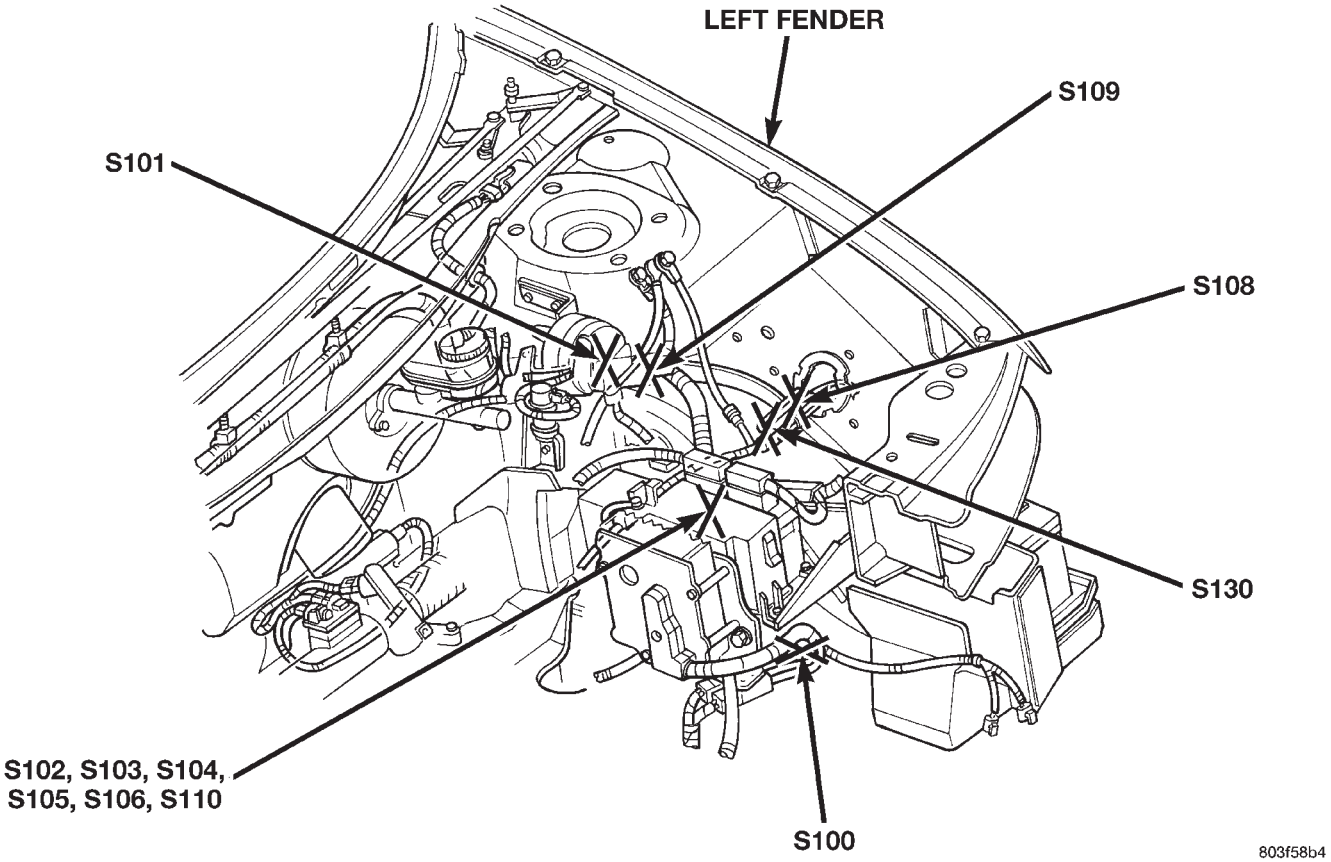


Fig. 1 Engine Compartment Splices

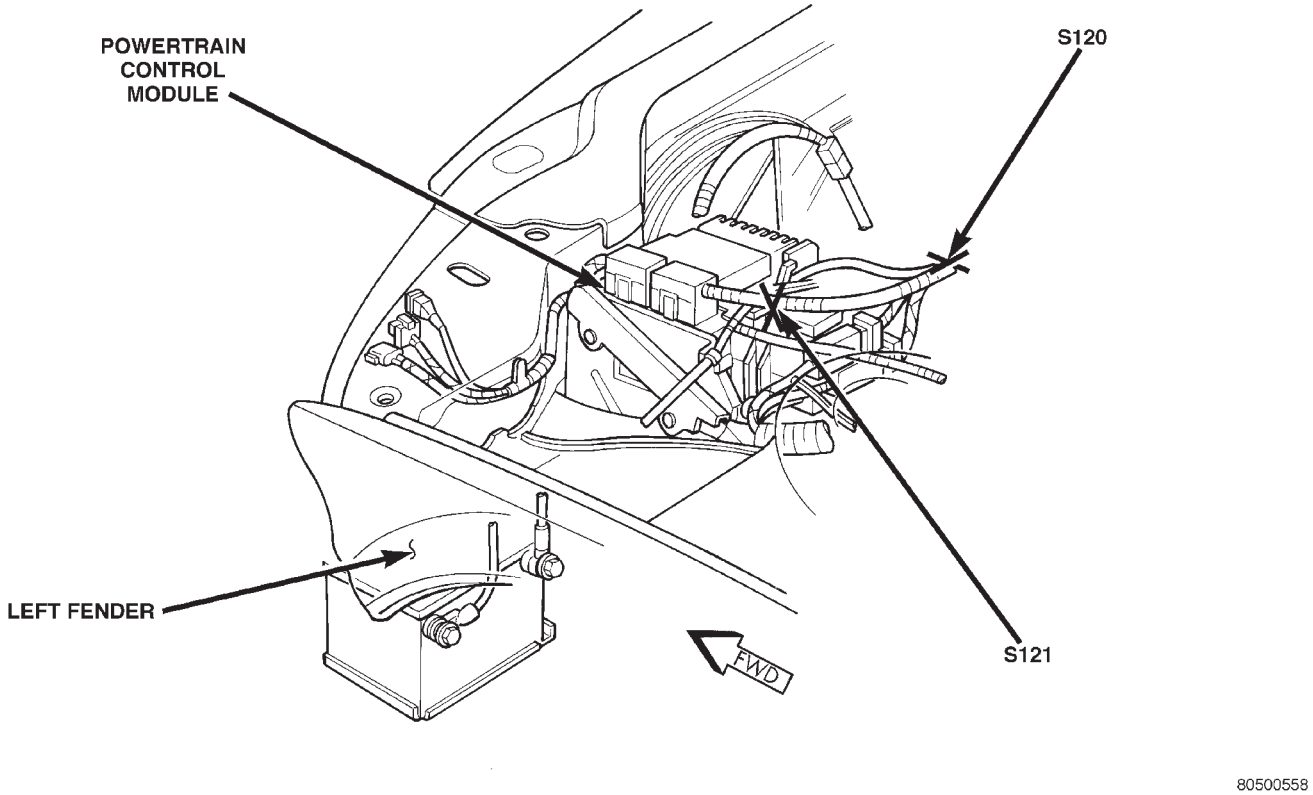


Fig. 2 Engine Compartment Splices

DESCRIPTION AND OPERATION (Continued)

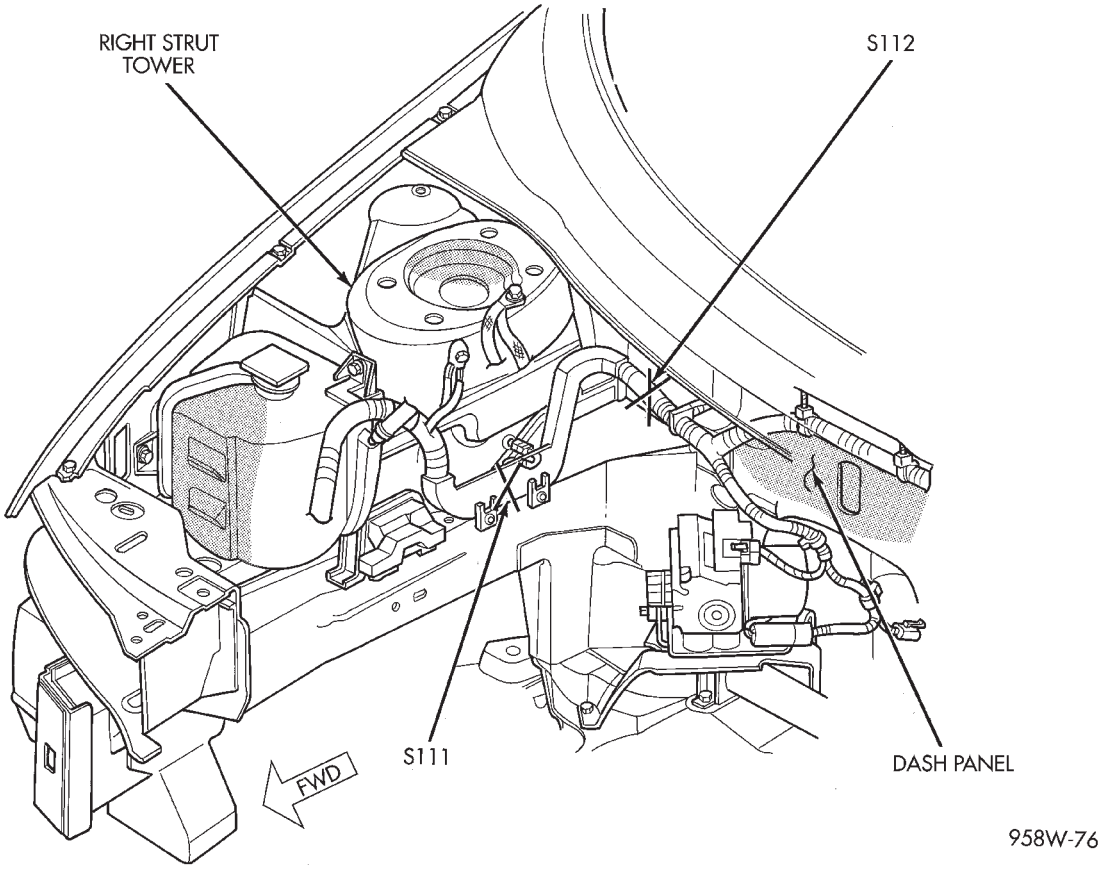


Fig. 3 Engine Compartment Splices

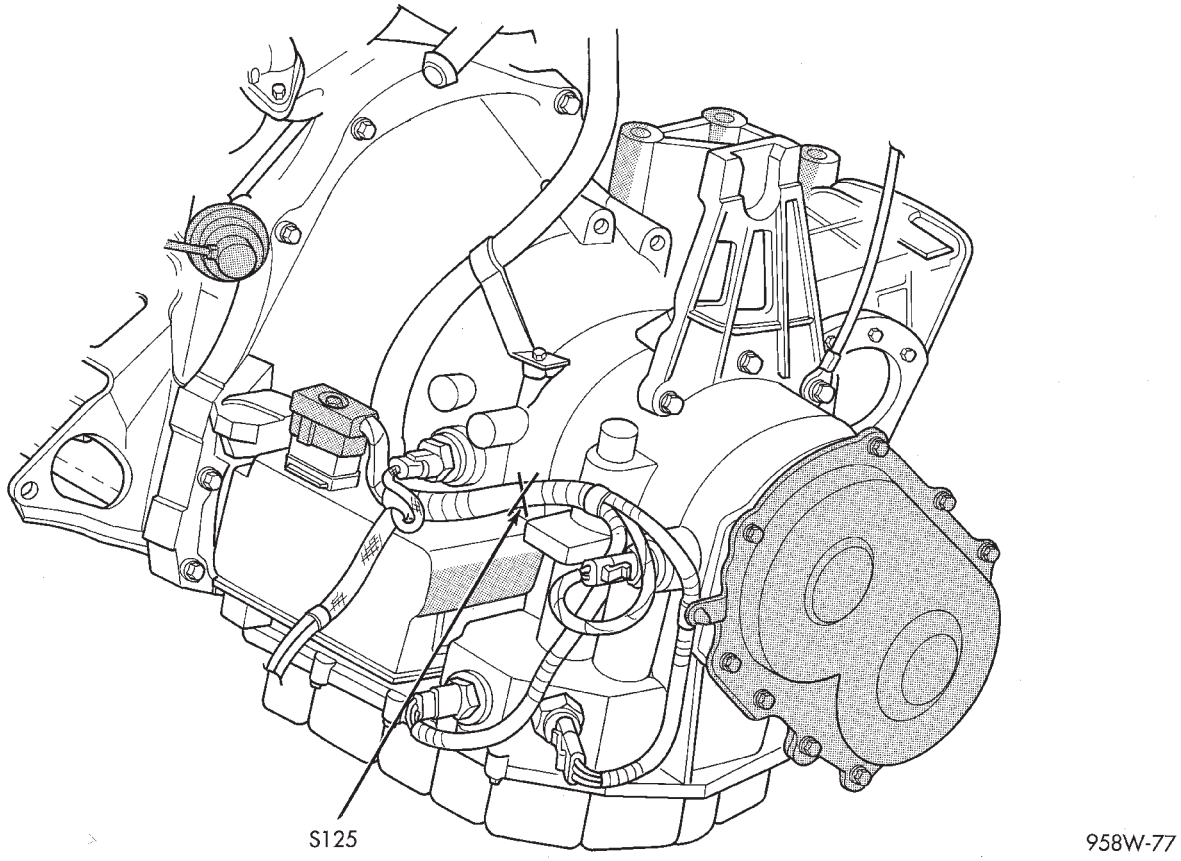


Fig. 4 Transmission Splices

DESCRIPTION AND OPERATION (Continued)

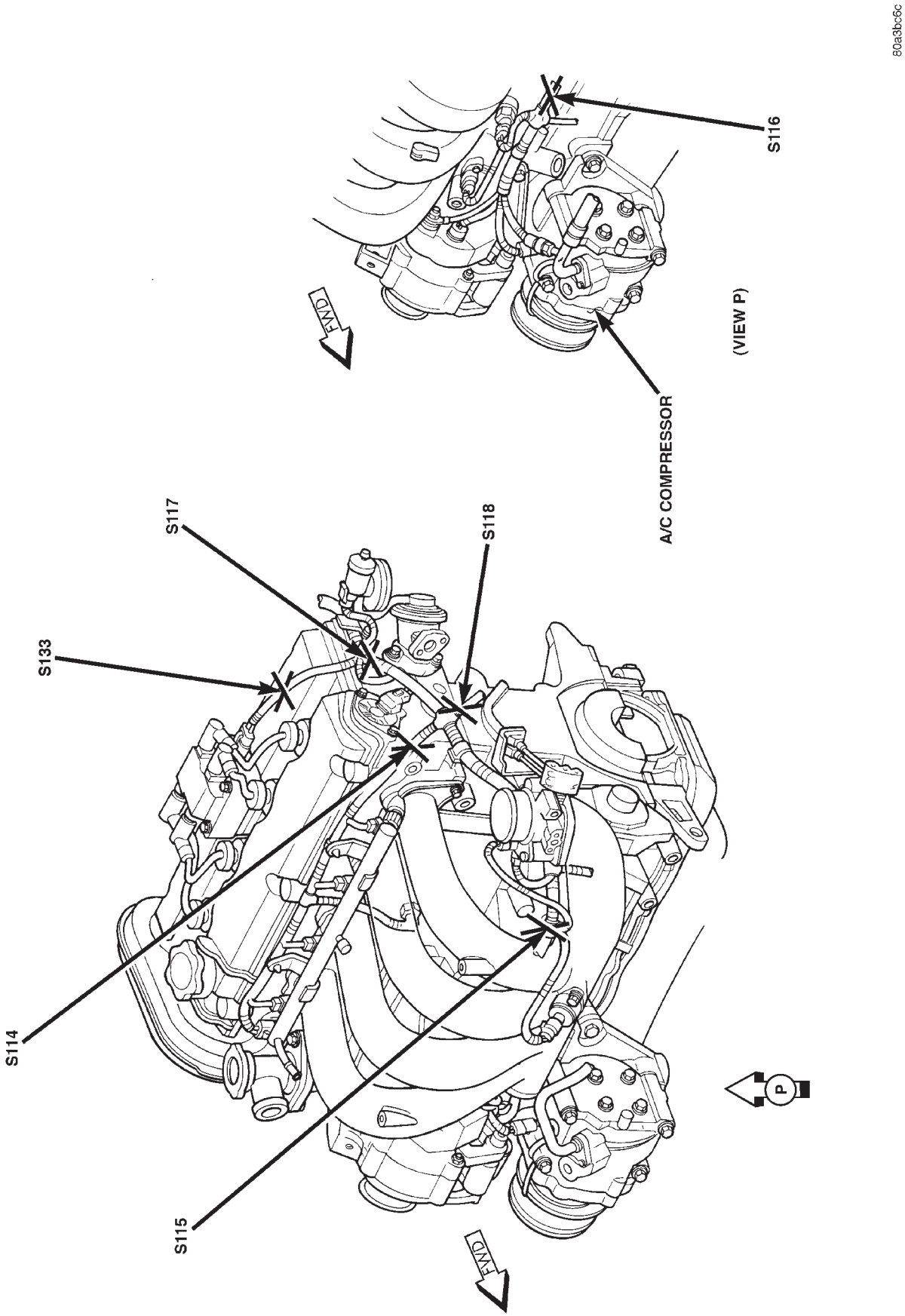


Fig. 5 Engine Splices 2.0L, 2.4L

DESCRIPTION AND OPERATION (Continued)

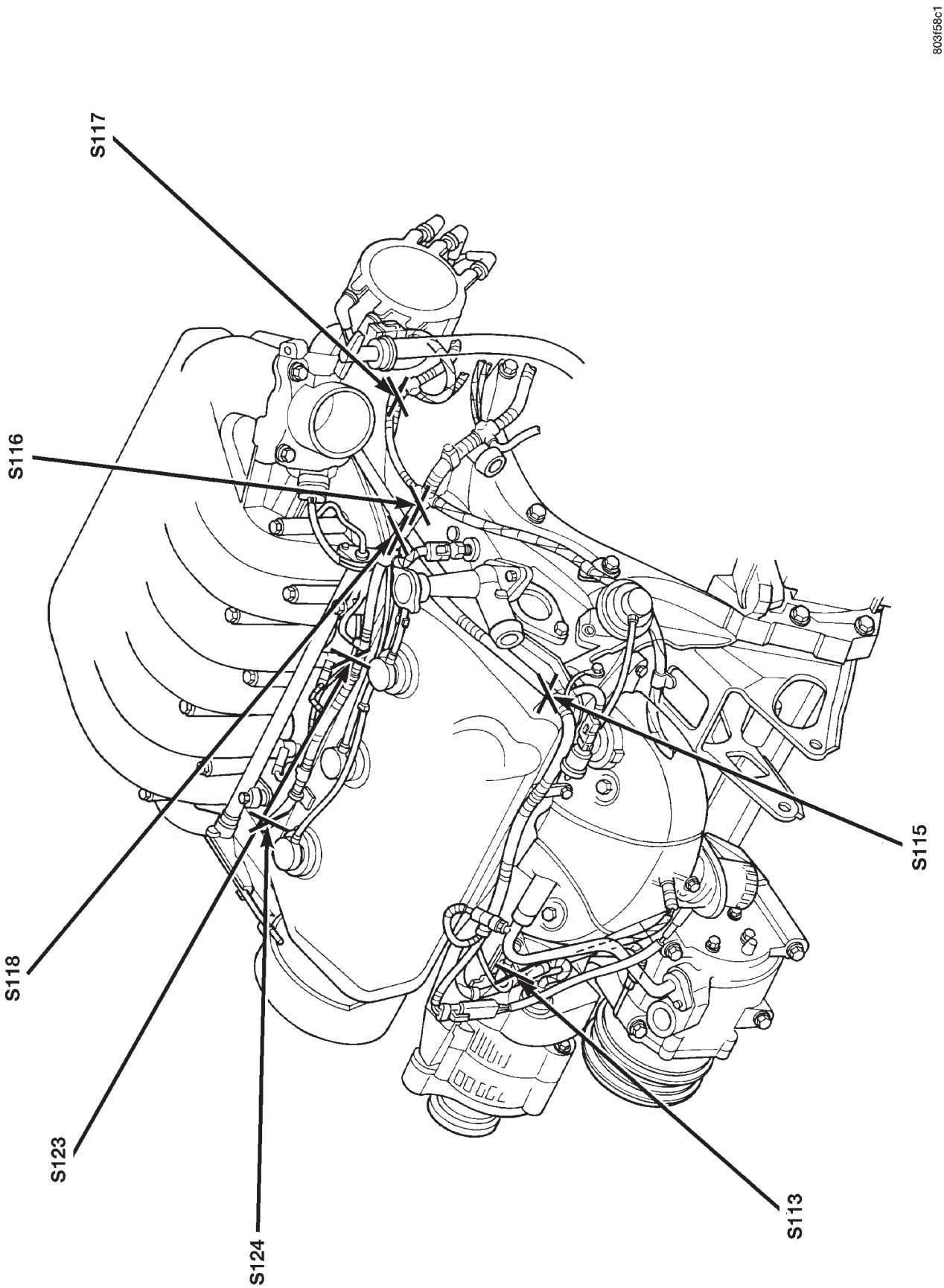


Fig. 6 Engine Splices 2.5L

DESCRIPTION AND OPERATION (Continued)

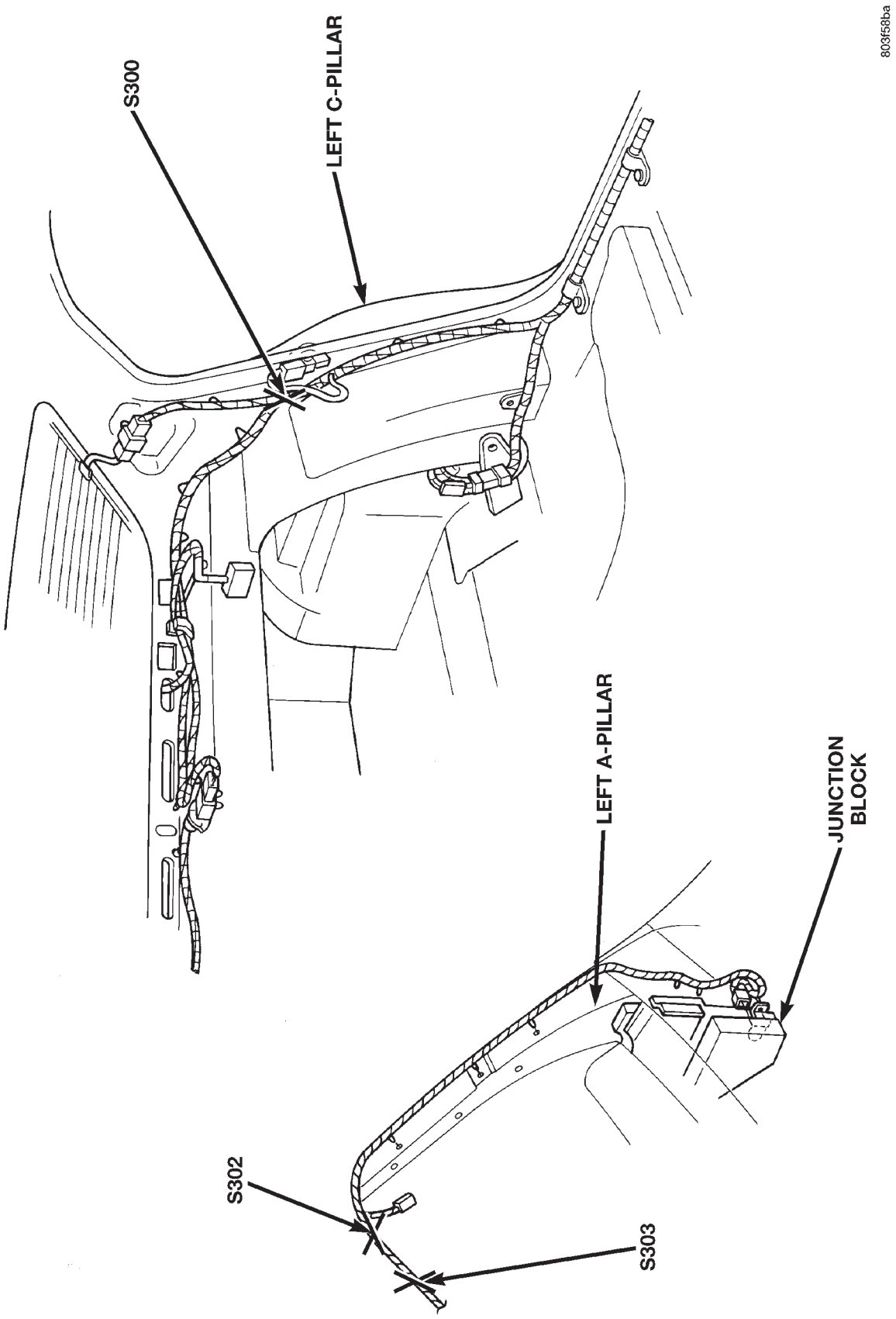


Fig. 7 Body Splices

DESCRIPTION AND OPERATION (Continued)

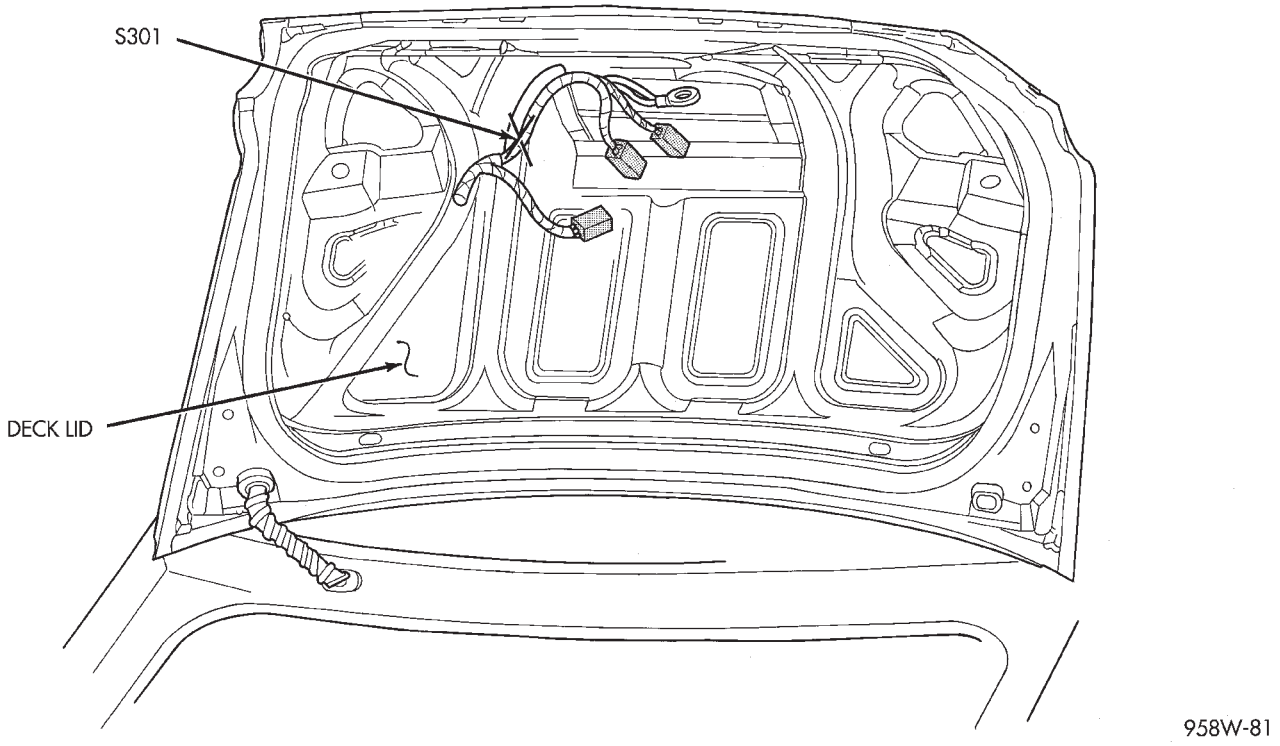


Fig. 8 Deck Lid Splices

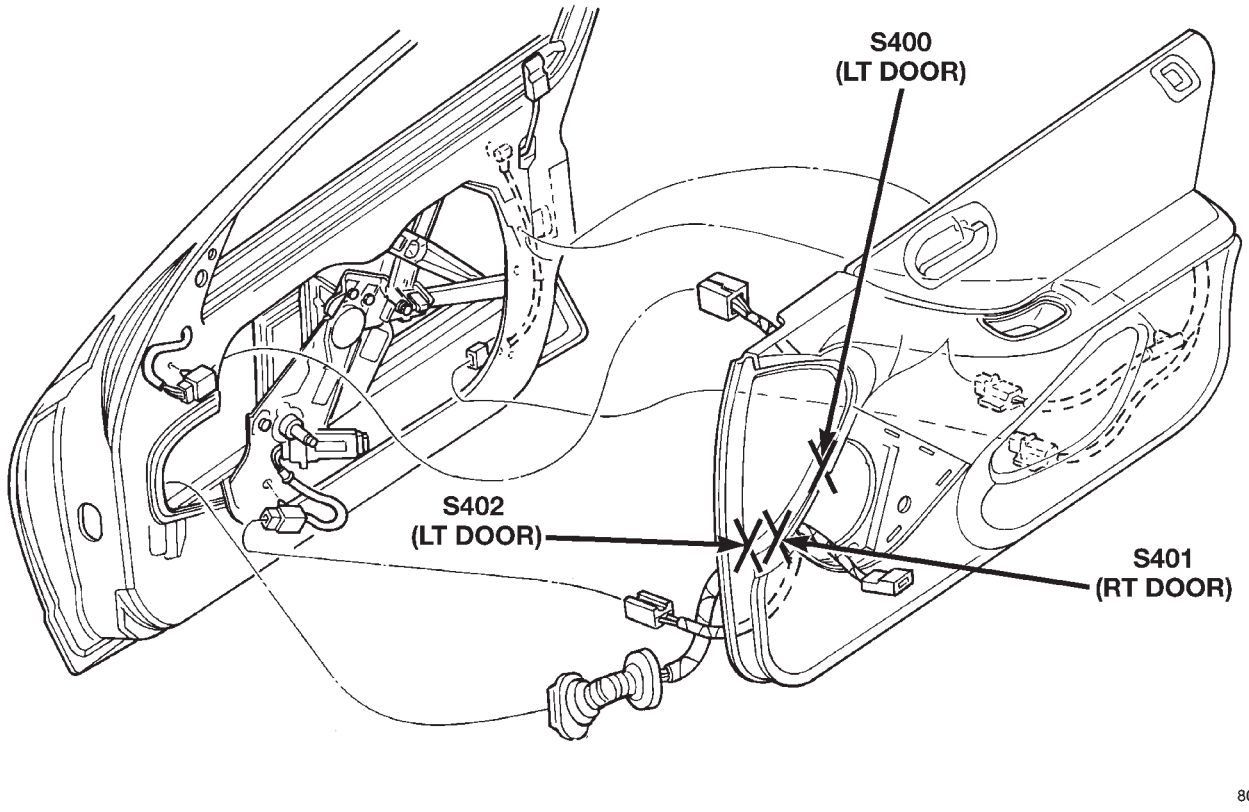


Fig. 9 Door Splices