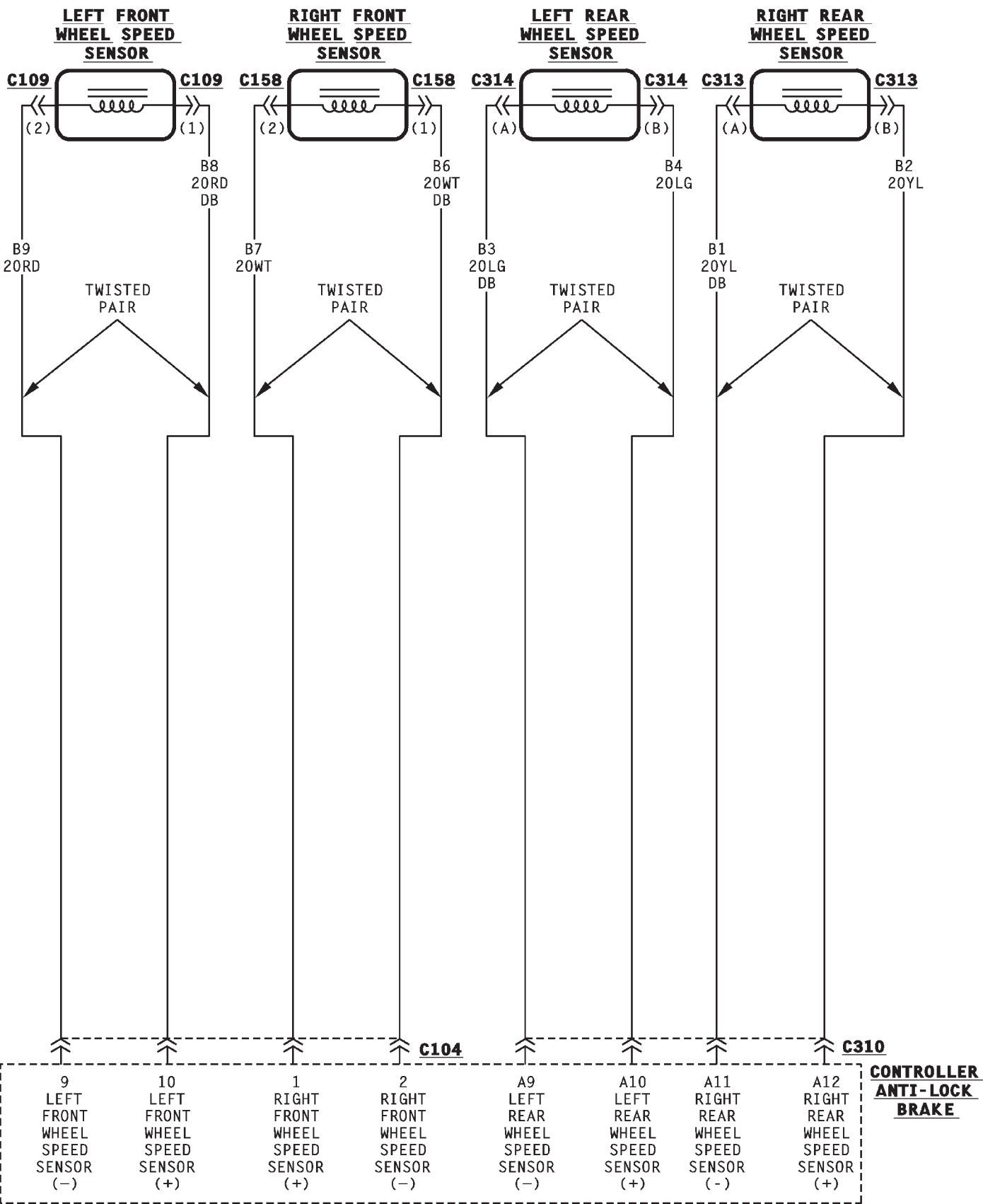




8W-39 VEHICLE THEFT SECURITY SYSTEM

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DESCRIPTION AND OPERATION

INTRODUCTION

The Body Control Module (BCM) operates the Vehicle Theft Security System (VTSS). The BCM monitors the vehicle doors, hood, liftglass in the liftgate, liftgate, and ignition for unauthorized operation.

When the BCM detects unauthorized operation, it operates the horn repeatedly for three minutes and flashes the headlamps and tail lamps for 15 minutes. Also, the engine will not operate until the VTSS is disarmed.

The vehicle operator can activate the alarm by pushing the panic button on the Remote Keyless Entry (RKE) transmitter. When the operator pushes the panic button, the radio frequency receiver in the Passenger Door Module (PDM) receives the PANIC signal and broadcasts a message on the CCD bus. When the BCM sees the PANIC message on the CCD bus, it operates the horn repeatedly, turns on the interior lights, and flashes the headlamps and tail lamps. The BCM activates the panic alarm for three minutes unless the operator starts the vehicle and drives at a speed above 15 MPH or pushes the panic button on the RKE transmitter a second time.

When the ignition switch is in the START or RUN position, it connects circuit A1 from fuse 8 in the PDC to circuit A21. Circuit A21 powers circuit F99 through PDC fuse 18. Circuit F99 feeds the BCM.

In the ACCESSORY or RUN position, the ignition switch connects circuit A1 to circuit A31. Circuit A31 powers circuit V23 through fuse 3 in the junction block. Circuit V23 feeds the BCM.

VEHICLE THEFT SECURITY SYSTEM OPERATION

Each door, the liftgate, hood, and the liftglass in the liftgate have an ajar switch that connects to the Body Control Module (BCM). The ajar switches are normally open when the doors, liftgate, liftglass and hood are closed. When one of them open, its ajar switch closes and connects the BCM to ground. In response, if the Vehicle Theft Security System is

armed, the BCM starts the alarm. Refer to the Introduction in this section for alarm information.

The BCM receives the ajar switch signals on the following circuits.

- Circuit G75 provides the left front door ajar switch signal
- Circuit G74 provides the right front door ajar switch signal
- Circuit G77 provides the left rear door ajar switch signal
- Circuit G76 provides the right rear door ajar switch signal
- Circuit G78 provides the liftgate ajar and liftglass ajar signals

SYSTEM ARMING

The system alarm sets after the operator uses the power door locks or Remote Keyless Entry (RKE) transmitter to lock the doors and liftgate. After all doors and the liftgate are locked and closed, the BCM illuminates a red Light Emitting Diode (LED) (VTSS indicator light) on circuit G69. The red LED is located on the top of the instrument panel. The LED flashes rapidly signalling the system is arming. It flashes at slower rate after approximately 15 seconds, indicating the BCM has set the VTSS.

SYSTEM DISARMING

The operator can disarm the system by unlocking a front door or the liftgate with the key or the RKE transmitter. The BCM monitors the lock cylinder switch in each front door and the liftgate lock cylinder switches on circuit G71.

HORNS

When the BCM activates the horns, it energizes the horn relay by providing a ground path for the relay coil on circuit X4. Circuit F31 from fuse 6 in the Power Distribution Center (PDC) powers the coil and contact sides of the relay.

When the horn relay energize, its contact close and connect circuit F31 to circuit X2. Circuit X2 feeds the horns. Circuit Z1 provides ground for the horns.

DESCRIPTION AND OPERATION (Continued)

PARKING LAMPS

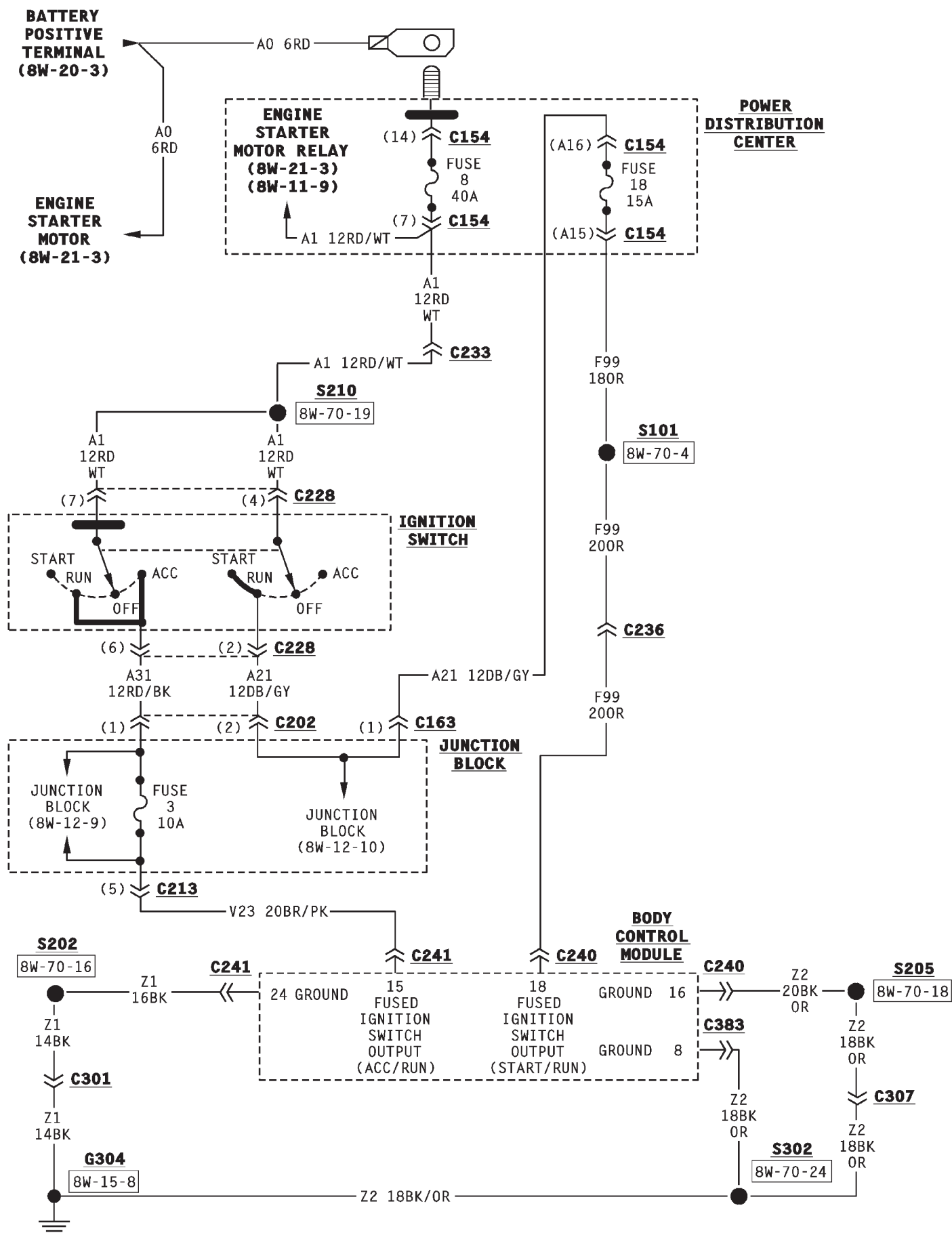
The BCM operates the park lamps when it senses unauthorized entry to the vehicle while the Vehicle Theft Security System is armed. When it senses unauthorized entry, the BCM energizes the park lamp relay by providing ground for the relay coil on circuit L79. Circuit 366 powers the relay coil and contacts. When the relay energizes, it connects circuit 366 to circuit L90. Circuit L90 powers the park lamps, side marker lamps and tail lamps.

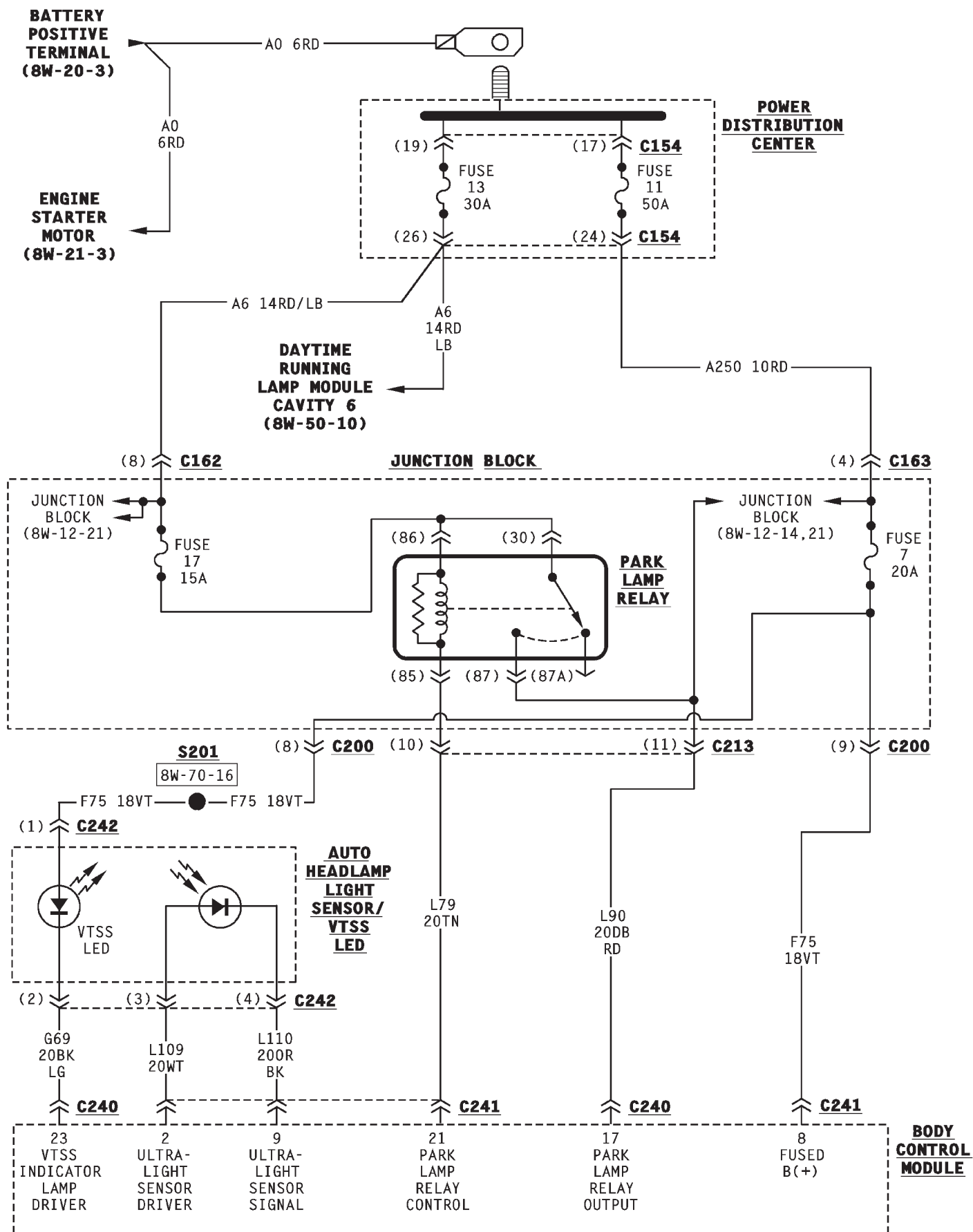
SCHEMATICS AND DIAGRAMS**WIRING DIAGRAM INDEX**

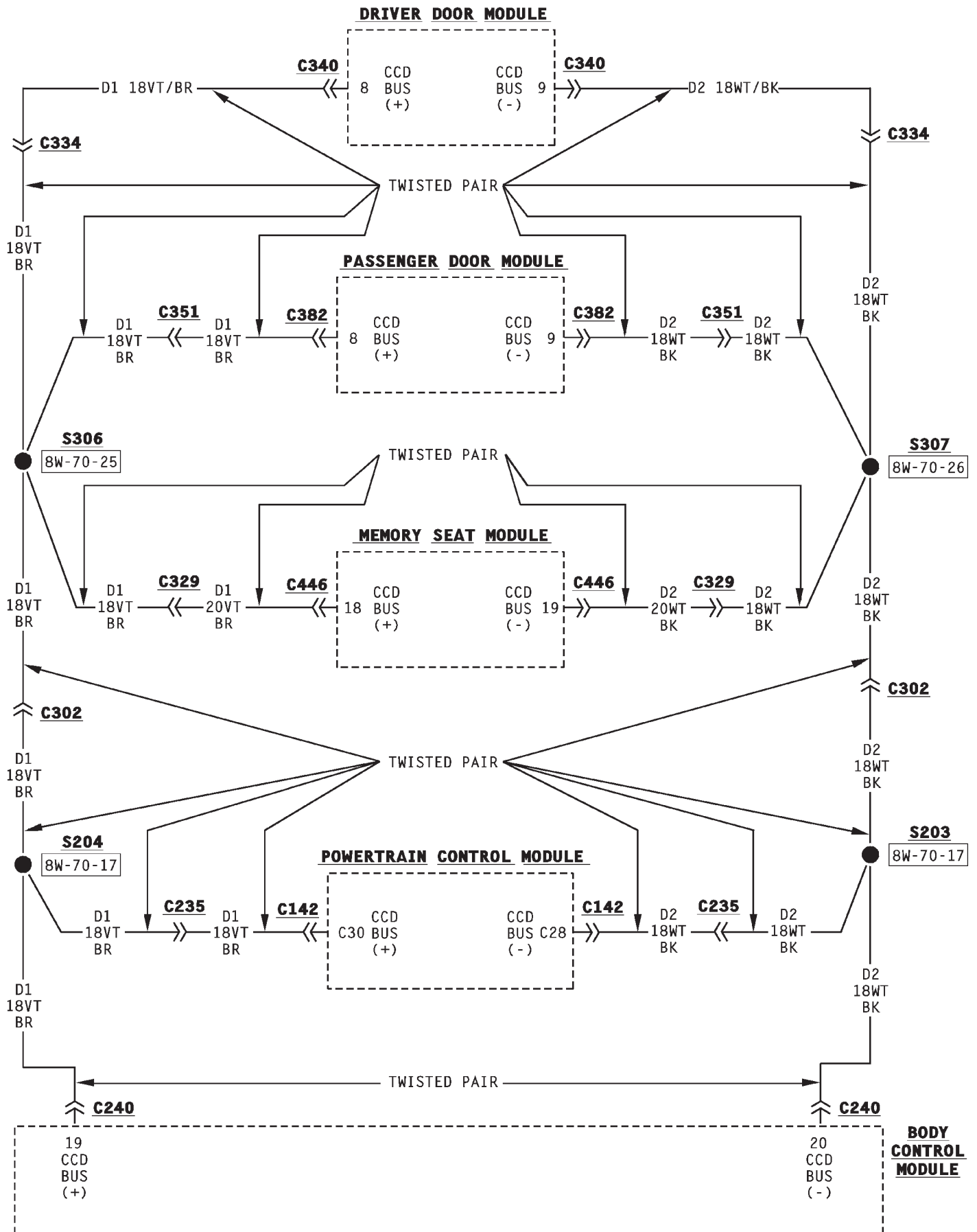
The following index covers all components found in this section of the wiring diagrams. If the component you are looking for is not found here, refer to section 8W-02 for a complete list of all components shown in the wiring diagrams.

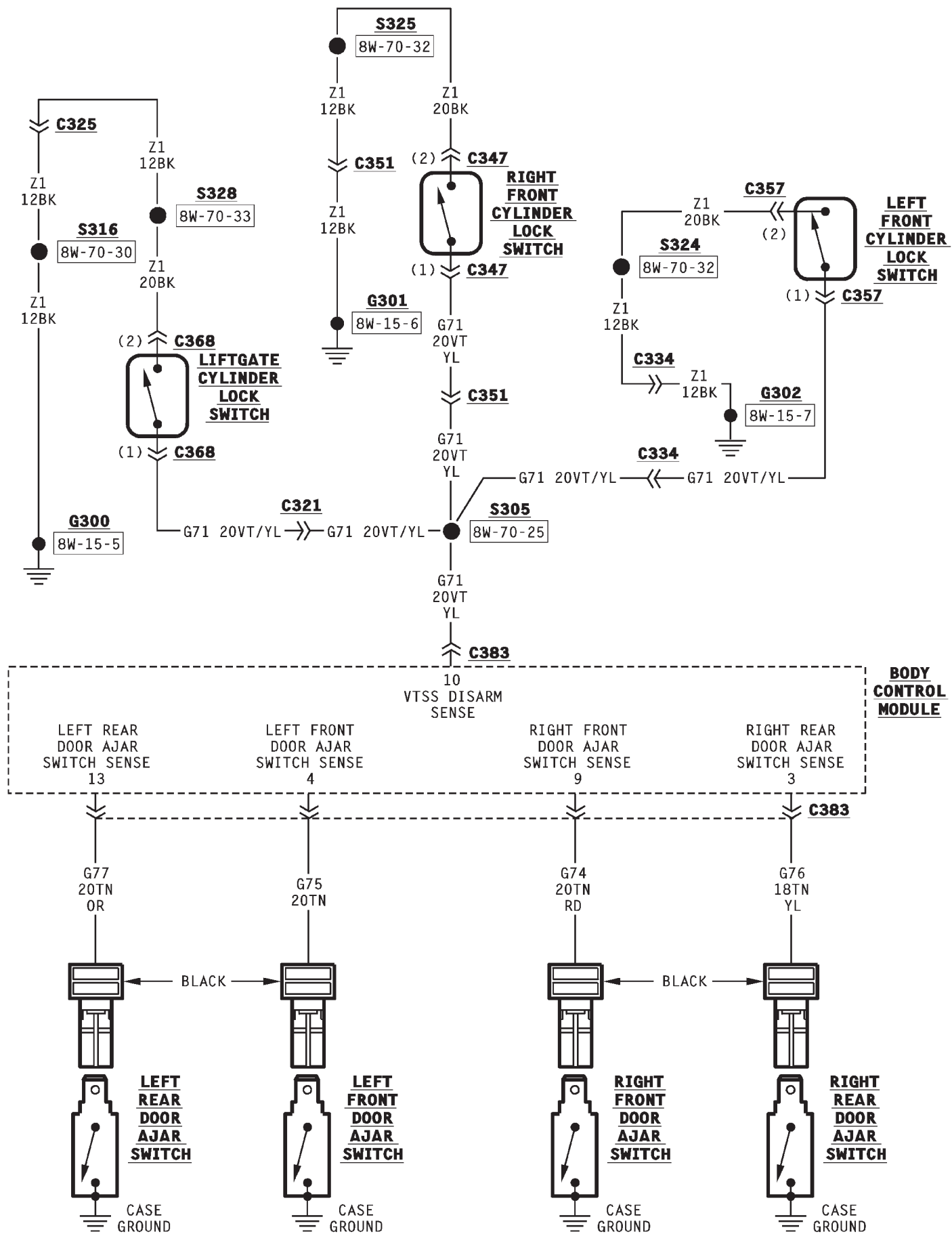
DIAGRAM INDEX

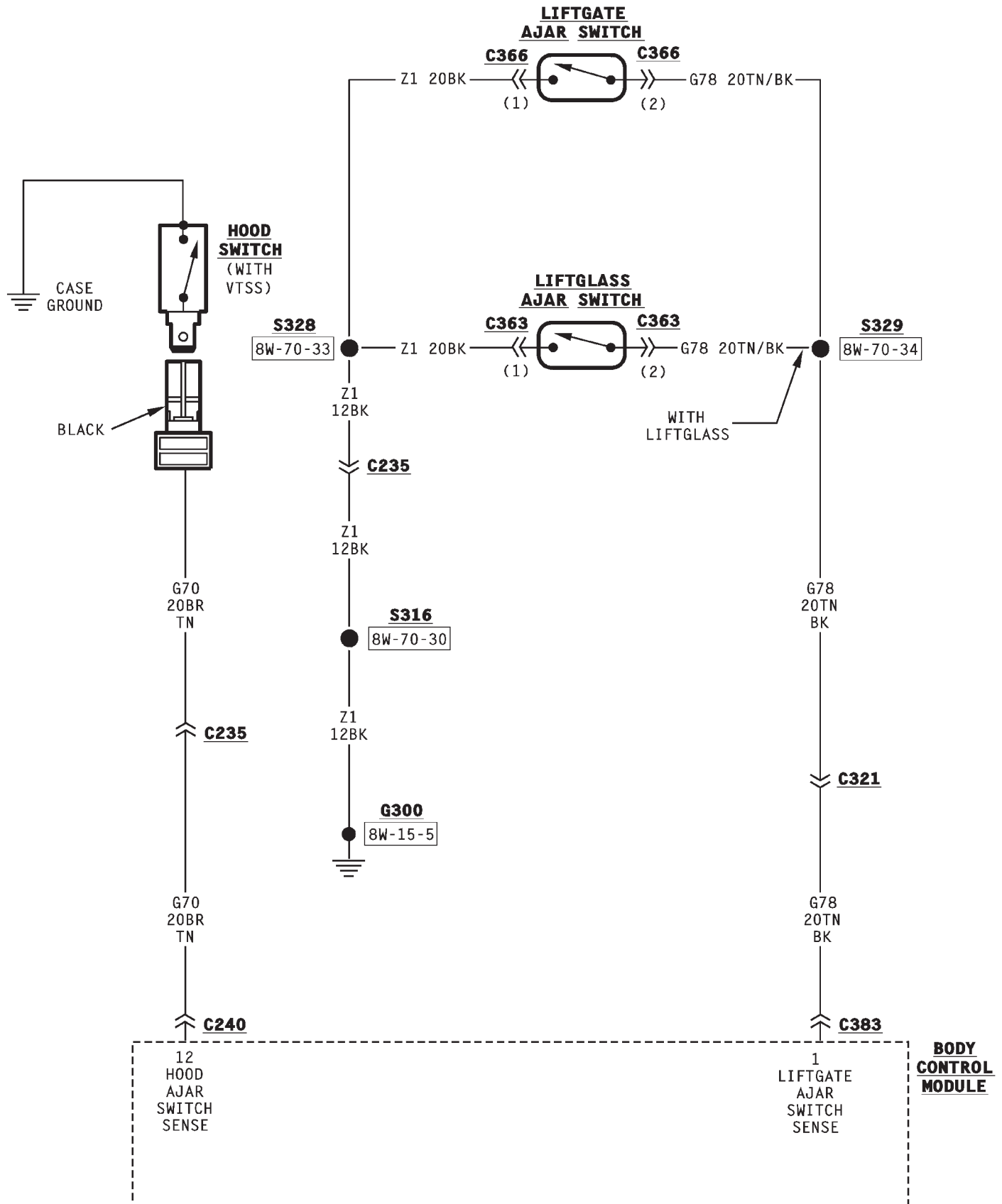
Component	Page	Component	Page
Auto Headlamp Light Sensor/VTSS LED	8W-39-5	Ignition Switch	8W-39-4
Body Control Module	8W-39-4 thru 9	Left Front Door Ajar Switch	8W-39-7
Driver Door Module	8W-39-6	Left Front Cylinder Lock Switch	8W-39-7
Fuse 3	8W-39-4	Left Rear Door Ajar Switch	8W-39-7
Fuse 6 (PDC)	8W-39-9	Liftgate Ajar Switch	8W-39-8
Fuse 7	8W-39-5	Liftgate Cylinder Lock Switch	8W-39-7
Fuse 8 (PDC)	8W-39-4	Liftglass Ajar Switch	8W-39-8
Fuse 11 (PDC)	8W-39-5	Memory Seat Module	8W-39-6
Fuse 13 (PDC)	8W-39-5	Park Lamp Relay	8W-39-5
Fuse 17	8W-39-5	Passenger Door Module	8W-39-6
Fuse 18 (PDC)	8W-39-4	Powertrain Control Module	8W-39-6
Hood Switch	8W-39-8	Right Front Door Ajar Switch	8W-39-7
Horn No.1	8W-39-9	Right Front Cylinder Lock Switch	8W-39-7
Horn No.2	8W-39-9	Right Rear Door Ajar Switch	8W-39-7
Horn Relay	8W-39-9		













**ENGINE
STARTER
MOTOR
(8W-21-3)**

**POWER
DISTRIBUTION
CENTER**

JUNCTION BLOCK

BODY CONTROL MODULE

8W-40 INSTRUMENT CLUSTER

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ABS WARNING LAMP	1	TACHOMETER	1
ENGINE COOLANT TEMPERATURE GAUGE	1	TURN SIGNAL INDICATOR LAMPS	2
FUEL GAUGE	1	VOLTMETER	1
HIGH BEAM INDICATOR LAMP	2	WARNING LAMPS—EXCEPT ABS	1
ILLUMINATION LAMPS	2	SCHEMATICS AND DIAGRAMS	
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OIL PRESSURE GAUGE	2		

DESCRIPTION AND OPERATION

INTRODUCTION

The electronic instrument cluster contains a micro-processor which controls cluster functions based on data it receives from the CCD bus. Circuit A250 from fuse 11 in the Power Distribution Center (PDC) powers circuit F75 through fuse 7 in the junction block. Circuit F75 powers the cluster micro-processor plus the warning lamps (except the ABS warning lamp) and the high beam indicator lamp. The cluster micro-processor switches the warning lamps and high beam indicator lamps on and off by controlling a transistor in the ground path for each lamp.

WARNING LAMPS—EXCEPT ABS

Circuit F75 feeds all the warning lamps in the instrument cluster except the ABS warning lamp. The micro-processor in the cluster controls each lamp (except the ABS lamp) through a transistor in the ground path of each lamp. The cluster micro-processor turns the warning lamps ON and OFF based on inputs received on the CCD bus. Circuits Z1 and Z2 provide ground for the lamps and micro-processor.

SPEEDOMETER

The micro-processor in the instrument cluster calculates the position of the speedometer needle based on the vehicle speed signal broadcast on the CCD bus by the Powertrain Control Module. The PCM determines vehicle speed from the input provided by the vehicle speed sensor.

TACHOMETER

The Powertrain Control Module (PCM) transmits the engine RPM data on the CCD bus. From the bus, the instrument cluster calculates tachometer needle position based on the engine RPM signal.

VOLTMETER

The Powertrain Control Module (PCM) broadcasts system voltage data on the CCD bus. The micro-processor in the instrument cluster calculate voltmeter needle position base on the signal received from the CCD bus.

FUEL GAUGE

The Powertrain Control Module (PCM) transmits the fuel percentage data over the CCD bus. The micro-processor in the instrument cluster calculates position of the fuel gauge needle based on the signal from the PCM.

ENGINE COOLANT TEMPERATURE GAUGE

The Powertrain Control Module (PCM) broadcasts the engine coolant temperature data over the CCD bus. From the data signal on the CCD bus, the instrument cluster micro-processor calculates coolant temperature gauge needle position.

ABS WARNING LAMP

Circuit F87 from fuse 5 in the junction block provides power for the ABS warning lamp in the instrument cluster. Ground for the ABS warning lamp is provided by either the Controller, Anti-Lock Brakes (CAB) or by the ABS main relay when the relay is not energized. The CAB illuminates the lamp by providing ground on circuit B205.

Circuit B205 splices to connect to circuit B47 through a diode. When the ABS main relay is not energized, it connects circuit B47 to ground on circuit Z4. The ground path for the warning lamp is through the diode to circuit B47, through the ABS main relay to ground on circuit Z4.

The diode between circuit B205 and B47 prevents voltage from flowing to the CAB when the ABS main relay switches to supply power on circuit B47.

DESCRIPTION AND OPERATION (Continued)

HELPFUL INFORMATION

When the ignition switch is in the START or RUN position, it connects circuit A1 from fuse 8 in the Power Distribution Center (PDC) to circuit A21. Circuit A21 powers circuit F87 through fuse 5 in the junction block.

OIL PRESSURE GAUGE

The instrument cluster micro-processor calculates engine oil pressure gauge needle position based on the oil pressure data received over the CCD bus. The Powertrain Control Module (PCM) transmits the data over the CCD bus.

HIGH BEAM INDICATOR LAMP

The micro-processor in the instrument cluster switches the high beam indicator lamp ON and OFF through a transistor in lamps ground circuit. The Body Control Module (BCM) signals the instrument cluster micro-processor over the CCD bus to turn the high beam indicator ON or OFF. Circuit F75 powers the lamp.

TURN SIGNAL INDICATOR LAMPS

Circuits L65 and L64 from the turn signal/hazard flasher circuitry in the multi-function switch power the turn signal indicator lamps. Circuit L64 powers the right turn signal indicator lamp. Circuit L65 powers the left indicator lamp. Circuits Z1 and Z2 provide ground for the lamps.

ILLUMINATION LAMPS

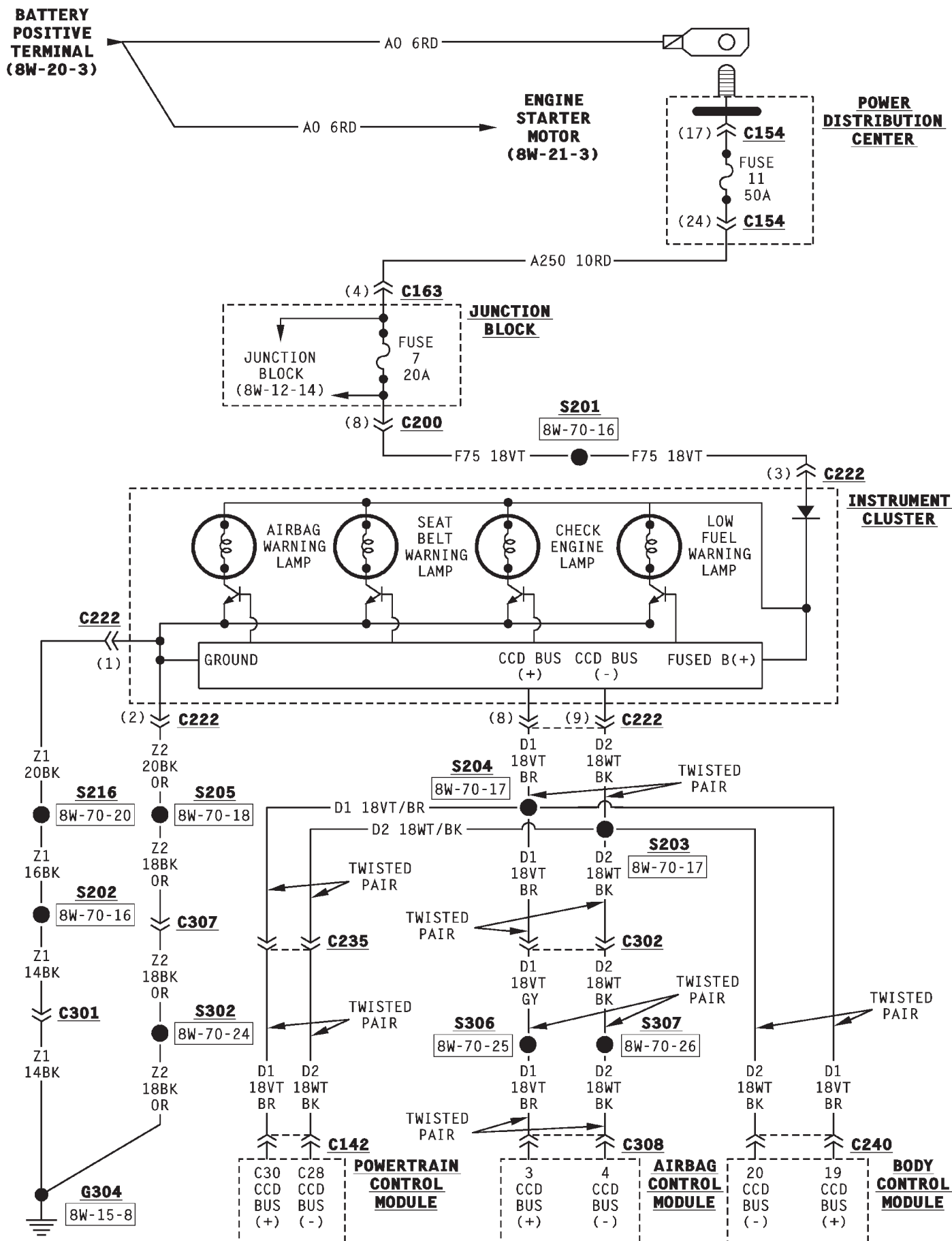
Circuit E2 from the headlamp switch powers the illumination lamps in the instrument cluster. Circuits Z1 and Z2 provide ground for the lamps.

SCHEMATICS AND DIAGRAMS**WIRING DIAGRAM INDEX**

The following index covers all components found in this section of the wiring diagrams. If the component you are looking for is not found here, refer to section 8W-02 for a complete list of all components shown in the wiring diagrams.

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ABS Diode	8W-40-9	Fuse 7	8W-40-4, 5, 6, 7
ABS Main Relay	8W-40-9	Fuse 8 (PDC)	8W-40-9
Airbag Control Module	8W-40-4	Fuse 11 (PDC)	8W-40-4, 5, 6, 7
Body Control Module	8W-40-4 thru 8	Fuse 14 (PDC)	8W-40-9
Brake Warning Switch	8W-40-5	Ignition Switch	8W-40-9
Controller Anti-Lock Brake	8W-40-9	Instrument Cluster	8W-40-4 thru 9
Fuse 5	8W-40-9	Powertrain Control Module	8W-40-4, 5, 6, 7





**BATTERY
POSITIVE
TERMINAL
(8W-20-3)**

A0 6RD

A0 6RD

**ENGINE
STARTER
MOTOR
(8W-21-3)**

(17)

C154

FUSE

11

50A

(24)

C154

**POWER
DISTRIBUTION
CENTER**

A250 10RD

(4)

C163

**JUNCTION
BLOCK**

JUNCTION
BLOCK
(8W-12-14)

FUSE

7

20A

(8)

C200**S201**

8W-70-16

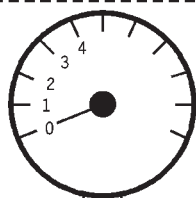
F75 18VT

F75 18VT

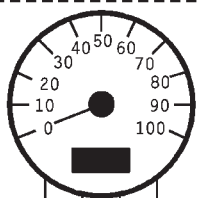
(3)

C222

**INSTRUMENT
CLUSTER**



TACHOMETER



SPEEDOMETER

C222

(1)

GROUND

CCD BUS

CCD BUS

FUSED B(+)

(2)

C222

(8)

C222

D1

18VT

BR

D2

18WT

BK

S204

8W-70-17

S203

8W-70-17

D1

18VT

BR

D2

18WT

BK

D1

18VT

BR

D2

18WT

BK

D1

18VT

BR

D2

18WT

BK

C30

CCD

BUS

(+)

C28

CCD

BUS

(-)

**POWERTRAIN
CONTROL
MODULE**

C142

D2

18WT

BK

D2

18WT

BK

20

CCD

BUS

(-)

C240

19

CCD

BUS

(+)

**BODY
CONTROL
MODULE**

Z1

20BK

S216

8W-70-20

Z1

16BK

S202

8W-70-16

Z1

14BK

C301

Z1

14BK

Z2

20BK

OR

S205

8W-70-18

Z2

18BK

OR

C307

Z2

18BK

OR

S302

8W-70-24

Z2

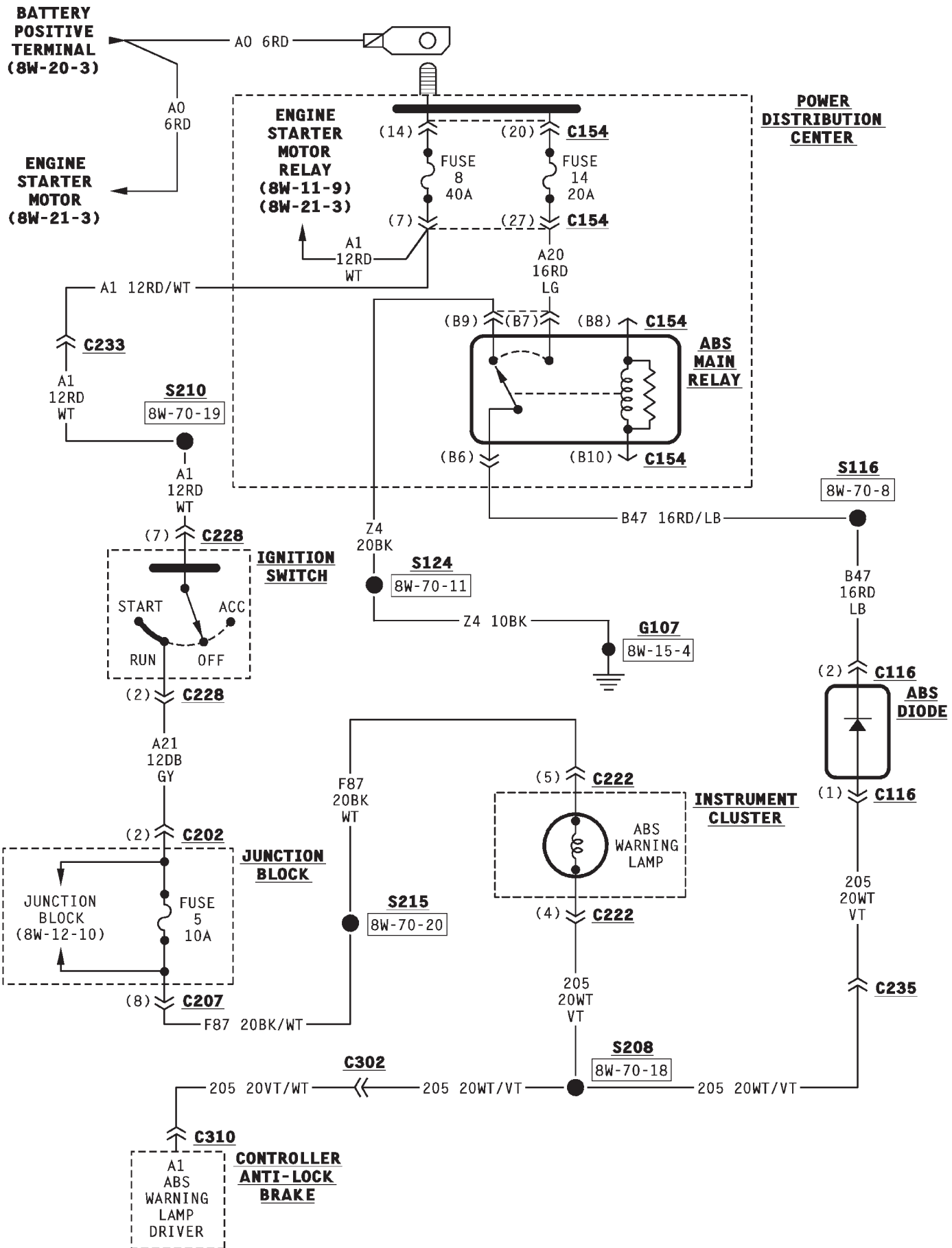
18BK

OR

G304

8W-15-8





8W-41 HORN/CIGAR LIGHTER

DESCRIPTION AND OPERATION

HORN

The horn system is powered by circuit F31 from fuse 6 in the Power Distribution Center (PDC). Circuit F31 supplies voltage to the coil and contact sides of the horn relay in the PDC.

When the operator presses the horn switch, a ground path is completed on the coil side of the horn relay through the case grounded switch, on circuit X4. The horn relay contacts then closes to connect circuit F31 to circuit X2. Circuit X2 powers the horns. Circuit Z1 provides ground for the horns.

On vehicles equipped with Vehicle Theft Security System (VTSS), the X4 circuit is spliced to the Body Control Module (BCM). For operation of the VTSS, refer to section 8W-39.

CIGAR LIGHTER

The cigar lighter relay powers the cigar lighter. The relay energizes when the ignition switch is in the ACCESSORY or RUN position. In the ACCESSORY or RUN position, the switch connects circuit A1 from fuse 8 in the Power Distribution Center (PDC) to circuit A31. Circuit A31 powers relay coil. Circuit Z1 provides ground for the relay coil.

When the relay energizes, it connects circuit F61 from fuse 10 in the PDC to circuit F30. Circuit F30 powers the cigar lighter.

When the operator depresses the lighter, contacts inside the lighter element close, and voltage from circuit F30 flows through the heating element to ground. Circuit Z1 provides ground for the lighter.

HELPFUL INFORMATION

Circuit Z1 also grounds the power outlet.

POWER OUTLET

Circuit A7 from 15 in the Power Distribution Center (PDC) powers circuit F38 through fuse 21 in the junction block. Circuit F38 feeds the power outlet. Circuits A7 and F38 are HOT at all times. Circuit Z1 provides ground for the power outlet.

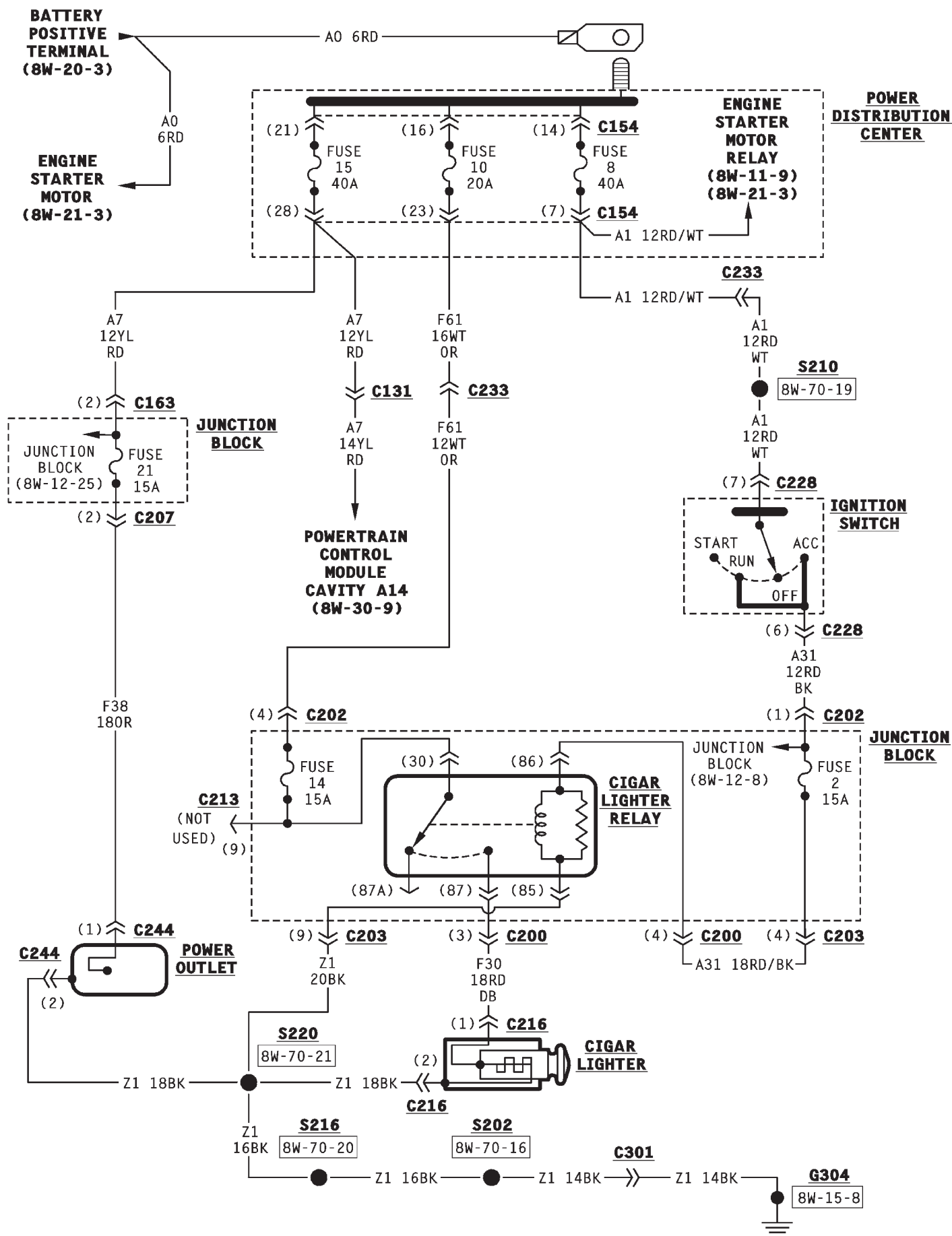
SCHEMATICS AND DIAGRAMS

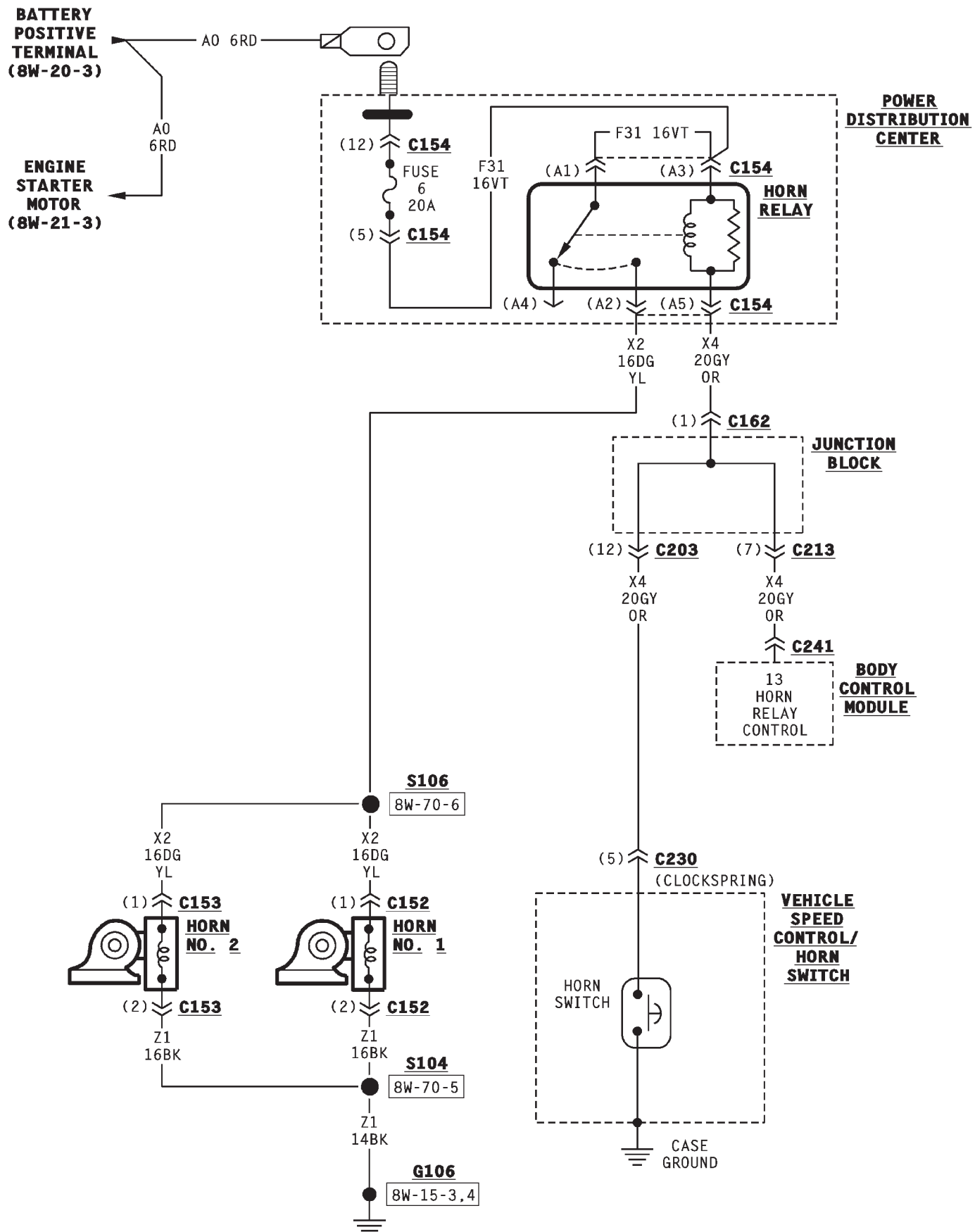
WIRING DIAGRAM INDEX

The following index covers all components found in this section of the wiring diagrams. If the component you are looking for is not found here, refer to section 8W-02 for a complete list of all components shown in the wiring diagrams.

DIAGRAM INDEX

Component	Page	Component	Page
Body Control Module	8W-41-4	Fuse 15 (PDC)	8W-41-3
Cigar Lighter	8W-41-3	Fuse 21	8W-41-3
Cigar Lighter Relay	8W-41-3	Horn No. 1	8W-41-4
Fuse 2	8W-41-3	Horn No. 2	8W-41-4
Fuse 6 (PDC)	8W-41-4	Horn Relay	8W-41-4
Fuse 8 (PDC)	8W-41-3	Ignition Switch	8W-41-3
Fuse 10 (PDC)	8W-41-3	Power Outlet	8W-41-3
Fuse 14	8W-41-3	Vehicle Speed Control/Horn Switch	8W-41-4





8W-42 AIR CONDITIONING/HEATER

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A/C OPERATION—MANUAL A/C	2	MANUAL A/C-HEATER	1
AMBIENT TEMPERATURE SENSOR	2	MODE DOOR MOTOR—AUTOMATIC	
AUTOMATIC TEMPERATURE CONTROL (ATC)		TEMPERATURE CONTROL	3
MODULE	2	RECIRCULATION DOOR MOTOR—AUTOMATIC	
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BLEND AIR DOOR MOTOR ACTUATOR—		SOLAR SENSOR	2
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BLEND DOOR MOTOR—AUTOMATIC		WIRING DIAGRAM INDEX	3

GENERAL INFORMATION

INTRODUCTION

This section of the wiring diagrams is divided into two sub-sections; Manual A/C-Heater, and Automatic Temperature Control (ATC). When referring to the circuit descriptions or wiring diagrams, ensure that you use the correct one.

DESCRIPTION AND OPERATION

MANUAL A/C-HEATER

Several fuses supply power for the manual air conditioning/heater system. When the ignition switch is in the RUN position, it connects circuit A1 from fuse 8 in the Power Distribution Center (PDC) to circuit A22. Circuit A22 powers circuit F71 through fuse 12 in the junction block. Circuit F71 connects to the A/C control switches and the blend air door motor.

When the ignition switch is in the START or RUN position, it connects circuit A1 to circuit A21. Circuit A21 powers circuit F99 through fuse 18 in the PDC. Circuit F99 powers the coil side of the A/C compressor clutch relay.

Circuit A900 from fuse 3 in the PDC powers circuit F250 through fuse 21 in the PDC. Circuit F250 powers the contact side of the A/C compressor clutch relay.

Circuit E2 from the headlamp dimmer switch powers the case grounded illumination lamp in the A/C-heater control switch.

BLOWER MOTOR—MANUAL A/C-HEATER

The blower motor switch has four positions; LOW, MEDIUM 1, MEDIUM 2, AND HIGH. Circuit A19 from fuse 7 in the PDC supplies power to the blower motor. Ground for the blower motor is supplied on circuit C7 through the blower motor resistor block to the blower motor switch, through an internal relay in the A/C-Heater Control head. When the internal relay energizes, it connects the blower motor switch to circuit C1. Circuit C1 connects to ground circuit Z4.

In the HIGH position, the blower motor switch connects circuit C7 from the blower motor directly to ground on circuits C1 and Z4. In the LOW or MEDIUM positions, the ground path passes through the blower motor resistor block to the switch. The switch connects the circuit C1.

The blower motor resistor block consists of three resistors connected in series. Depending on blower motor switch position, the ground path on circuit C7 from the blower motor passes through one or more resistors to circuit C1.

When the blower motor switch is in the LOW position, the ground path passes through all three resistors in the blower motor resistor block to circuit C4. The blower motor switch connects circuit C4 to circuits C1 and Z4.

In the MEDIUM 1 position, the ground path passes through two resistors in the resistor block to circuit C5. The blower motor switch connects circuit C5 to circuits C1 and Z4.

In the MEDIUM 2 position, the ground path passes through one resistor in the resistor block to circuit C6. The blower motor switch connects circuit C6 to circuits C1 and Z4.

DESCRIPTION AND OPERATION (Continued)

A/C OPERATION—MANUAL A/C

When the A/C-heater control switch is moved to an A/C position or the defrost position, the Body Control Module (BCM) receives the A/C select signal on circuit C90. After receiving the input, the BCM signals the Powertrain Control Module (PCM) on the CCD bus.

The A/C low pressure and high pressure switches are wired in series and connect to ground on circuit Z1. Circuit C3 from the PCM connects to the low pressure switch. Circuit C21 connects the low pressure switch to the high pressure switch. The high pressure switch connects circuit C21 to ground circuit Z1. If the A/C low pressure and high pressure switches are closed, the PCM senses the A/C request signal on circuit C3.

After sensing the A/C request signal, the PCM supplies ground for the coil side of A/C compressor clutch relay on circuit C13. Circuit F99 from fuse 18 in the PDC powers the coil side of the relay.

When the PCM grounds the A/C compressor clutch relay, the contacts close and connect circuit F250 from fuse 21 in the PDC to circuit C2. Circuit C2 supplies power to the case grounded A/C compressor clutch.

The A/C compressor clutch has a built-in diode. The diode controls the induced voltage that results from the magnetic field collapsing when the clutch disengages. The diode provides a current path to protect other components and systems.

HELPFUL INFORMATION

Circuit A900 from fuse 3 in the PDC powers circuit F250 through PDC fuse 21.

BLEND AIR DOOR MOTOR ACTUATOR—MANUAL A/C-HEATER

The A/C-Heater control head contains a blend door position sensor. The sensor is a variable resistor that provides the blend door position input to the blend door motor actuator on circuit C36.

Circuit F71 from fuse 12 in the junction block powers the actuator when the ignition switch is in the RUN position. Circuit C34 splices to connect the blend door actuator to ground circuit Z1.

AUTOMATIC TEMPERATURE CONTROL (ATC)

Several fuses supply power for the Automatic Temperature Control (ATC) system. When the ignition switch is in the RUN position, it connects circuit A1 from fuse 8 in the Power Distribution Center (PDC) to circuit A22. Circuit A22 powers circuit F71 through fuse 12 in the junction block. Circuit F71 connects to the ATC module and the recirculation door motor.

Circuit A7 from fuse 15 in the PDC powers circuit F60 through fuse 20 in the junction block. Circuit F60 supplies power to the ATC module.

When the ignition switch is in the START or RUN position, it connects circuit A1 from PDC fuse 8 to circuit A21. Circuit A21 powers circuit F99 through fuse 18 in the PDC. Circuit F99 powers the coil side of the A/C compressor clutch relay.

Circuit A19 from fuse 7 in the PDC connects to the blower power module and to the coil and contact sides of the high speed blower motor relay.

AUTOMATIC TEMPERATURE CONTROL (ATC) MODULE

Circuit F71 supplies battery voltage to the Automatic Temperature Control (ATC) module when the ignition switch is in the RUN position. Circuit F60 from fuse 20 in the junction block connects to the ATC module. Circuit F60 is HOT at all times. Circuit Z4 provides ground for the ATC module.

Circuit E2 from the headlamp dimmer switch connects to the ATC module.

The ATC module communicates with other vehicle modules and controllers on the CCD bus. Circuits D1 and D2 for the CCD Bus connect to the ATC module.

AMBIENT TEMPERATURE SENSOR

The ambient temperature sensor is a variable resistor. Circuit C8 provides the ambient temperature sensor signal to the ATC module. Circuit D41 provides ground for the sensor. Circuit D41 connects to the ATC module.

IN-CAR TEMPERATURE SENSOR

The in-car temperature sensor is a variable resistor. Circuit C10 provides the in-car temperature sensor signal to the ATC module. Circuit D41 provides ground for the sensor. Circuit D41 connects to the ATC module.

SOLAR SENSOR

The solar sensor is a variable resistor. Circuit C47 from the ATC module connects to the solar sensor. Circuit D41 provides ground for the sensor. Circuit D41 connects to the ATC module.

A/C OPERATION—AUTOMATIC TEMPERATURE CONTROL

When the A/C select switch in the Automatic Temperature Control (ATC) control head closes circuit C90 provides the A/C select signal to the Body Control Module (BCM). After receiving the input, the BCM signals the Powertrain Control Module (PCM) on the CCD bus.

The A/C low pressure and high pressure switches are wired in series and connect to ground on circuit

DESCRIPTION AND OPERATION (Continued)

Z1. Circuit C3 from the PCM connects to the low pressure switch. Circuit C21 connects the low pressure switch to the high pressure switch. The high pressure switch connects circuit C21 to ground circuit Z1. If the A/C low pressure and high pressure switches are closed, the PCM senses the A/C request signal on circuit C3.

After sensing the A/C request signal, the PCM supplies ground for the coil side of A/C compressor clutch relay on circuit C13. Circuit F99 from fuse 18 in the PDC powers the coil side of the relay.

When the PCM grounds the A/C compressor clutch relay, the contacts close and connects circuit F250 from fuse 21 in the PDC to circuit C2. Circuit C2 supplies power to the case grounded A/C compressor clutch.

The A/C compressor clutch has a built-in diode. The diode controls the induced voltage that results from the magnetic field collapsing when the clutch disengages. The diode provides a current path to protect other components and systems.

HELPFUL INFORMATION

Circuit A900 from fuse 3 in the PDC powers circuit F250 through PDC fuse 21.

RECIRCULATION DOOR MOTOR—AUTOMATIC TEMPERATURE CONTROL

When the ignition switch is in the RUN position, it connects circuit A1 from fuse 8 in the Power Distribution Center (PDC) to circuit A22. Circuit A22 powers circuit F71 through fuse 12 in the junction block. Circuit F71 feeds the recirculation door motor. Circuit F71 also connects to the Automatic Temperature Control (ATC) module.

Circuits C32 and C33 from the ATC module connect to the recirculation door motor. Circuits C32 and C33 provide ground for the motor.

MODE DOOR MOTOR—AUTOMATIC TEMPERATURE CONTROL

Circuit C40 from the Automatic Temperature Control (ATC) module supplies 5 volts to the position switch in the mode door motor. The ATC module receives the sensor signal from the mode door motor on circuit C39. Circuit D41 provides ground for the mode door position sensor. Circuit D41 connects to the ATC module.

The ATC module operates the mode door motor on circuits C37 and C38.

BLEND DOOR MOTOR—AUTOMATIC TEMPERATURE CONTROL

Circuit C40 from the Automatic Temperature Control (ATC) module supplies 5 volts to the position

switch in the blend door motor. The ATC module receives the sensor signal from the blend door motor on circuit C36. Circuit D41 provides ground for the mode door position sensor. Circuit D41 connects to the ATC module.

The ATC module operates the mode door motor on circuits C35 and C34.

BLOWER MOTOR—AUTOMATIC TEMPERATURE CONTROL

When the operator selects blower motor HIGH speed operation, the Automatic Temperature Control (ATC) module grounds high speed blower motor relay. For any speed other than HIGH, the blower power module supplies battery voltage for the blower motor.

BLOWER MOTOR POWER MODULE

When the operator selects any blower motor speed other than HIGH, the blower motor power module supplies voltage for the blower motor. Circuit A19 from fuse 7 in the Power Distribution Center (PDC) supplies battery voltage to the blower motor power module.

The voltage level fed to the blower motor depends on the blower speed selected by the operator. Slower speed selections provide lower voltage to the motor. The blower motor power module feeds the blower motor on circuit C42. Circuit Z4 provides ground for the blower motor and the blower motor power module.

Circuit C43 from the power module connects to the ATC module. The ATC module controls feedback on circuit C43.

HIGH SPEED BLOWER MOTOR RELAY

Circuit A19 from fuse 7 in the Power Distribution Center supplies battery voltage to the coil and contacts sides of the high speed blower motor relay. The ATC module provides ground for the coil side of the relay on circuit C41.

When the ATC module grounds the high speed blower motor relay, the relay contacts close and connect circuit A19 to circuit C42. Circuit C42 connects to the blower motor and the ATC module. Circuit Z4 provides ground for the blower motor.

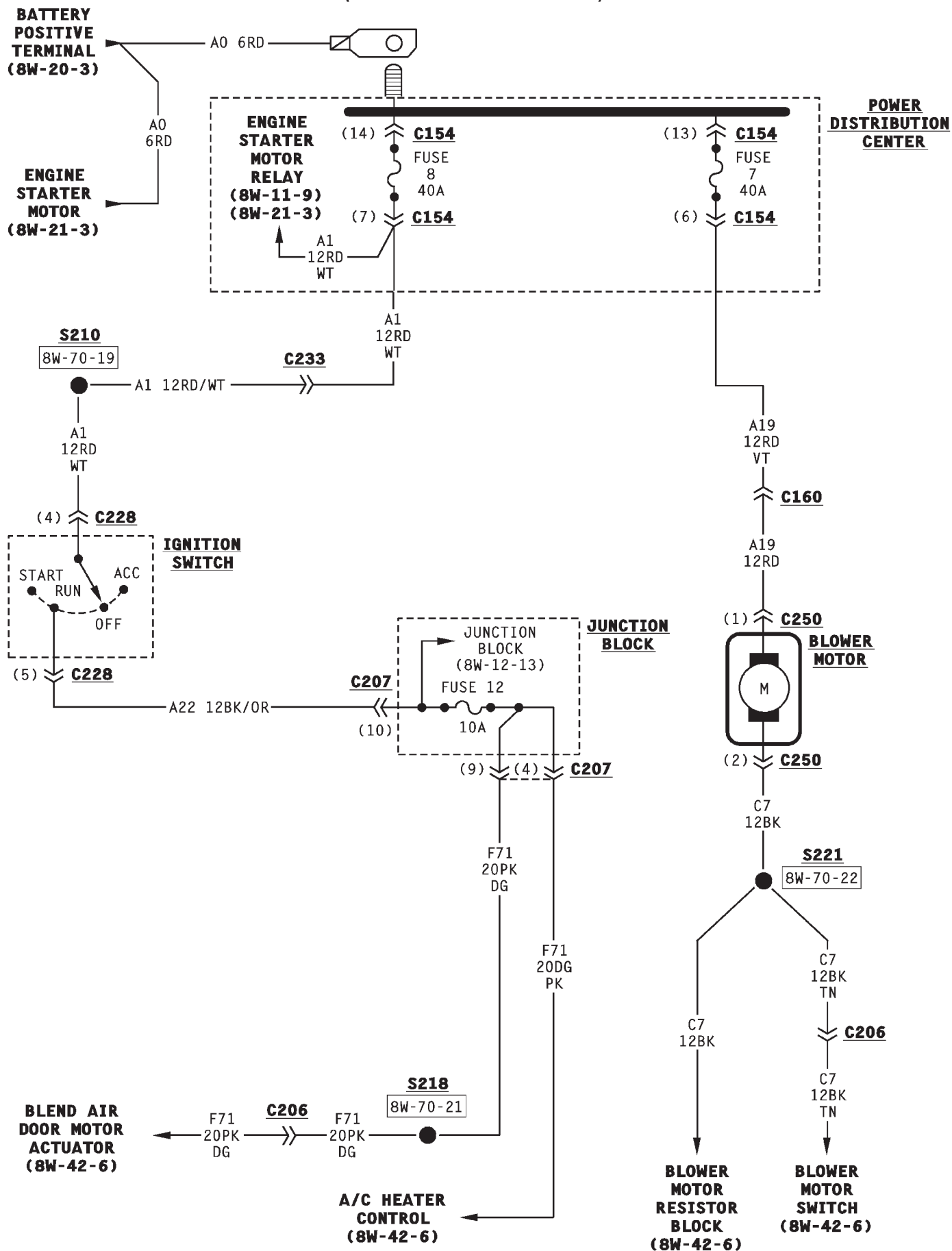
SCHEMATICS AND DIAGRAMS**WIRING DIAGRAM INDEX**

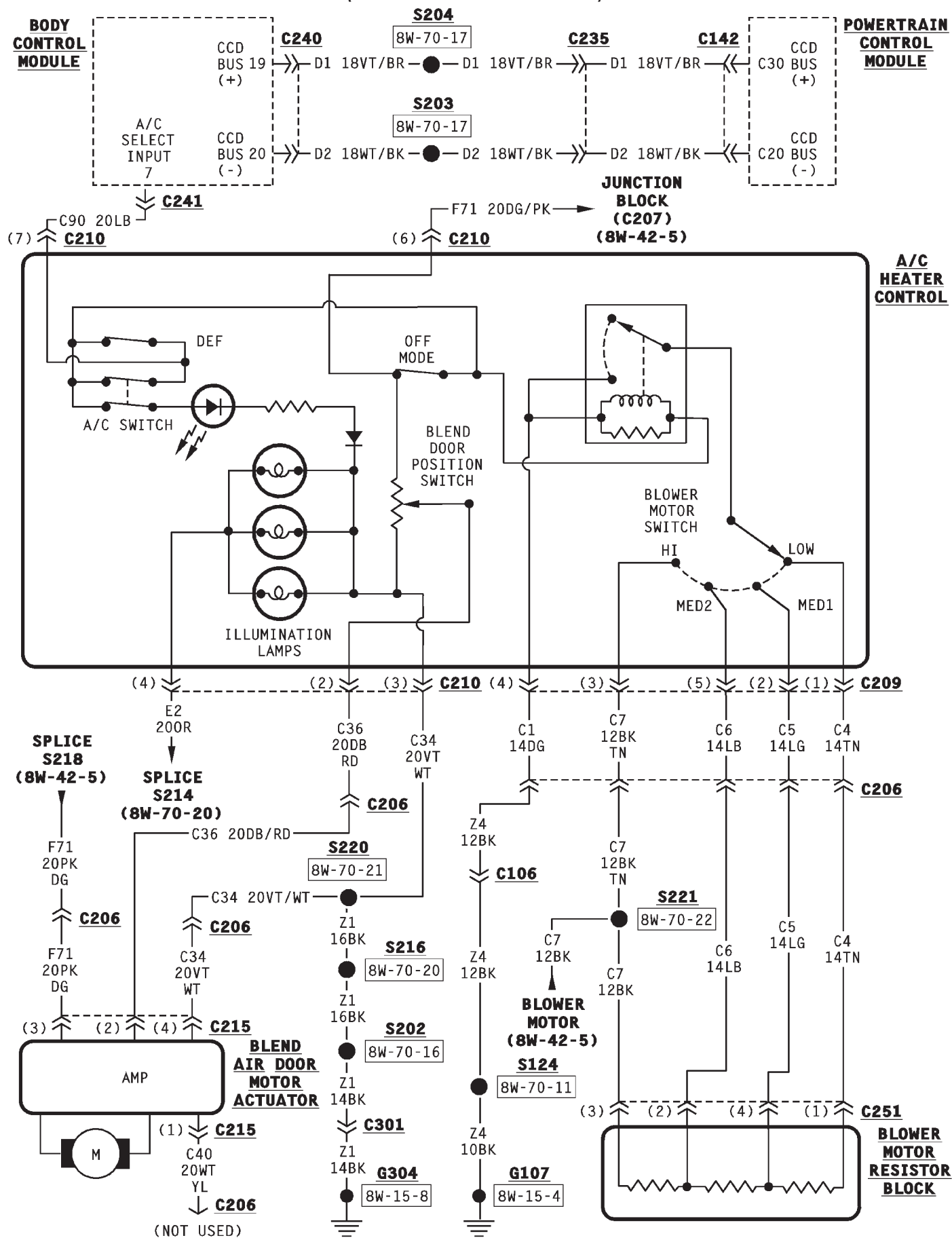
The following index covers all components found in this section of the wiring diagrams. If the component you are looking for is not found here, refer to section 8W-02 for a complete list of all components shown in the wiring diagrams.

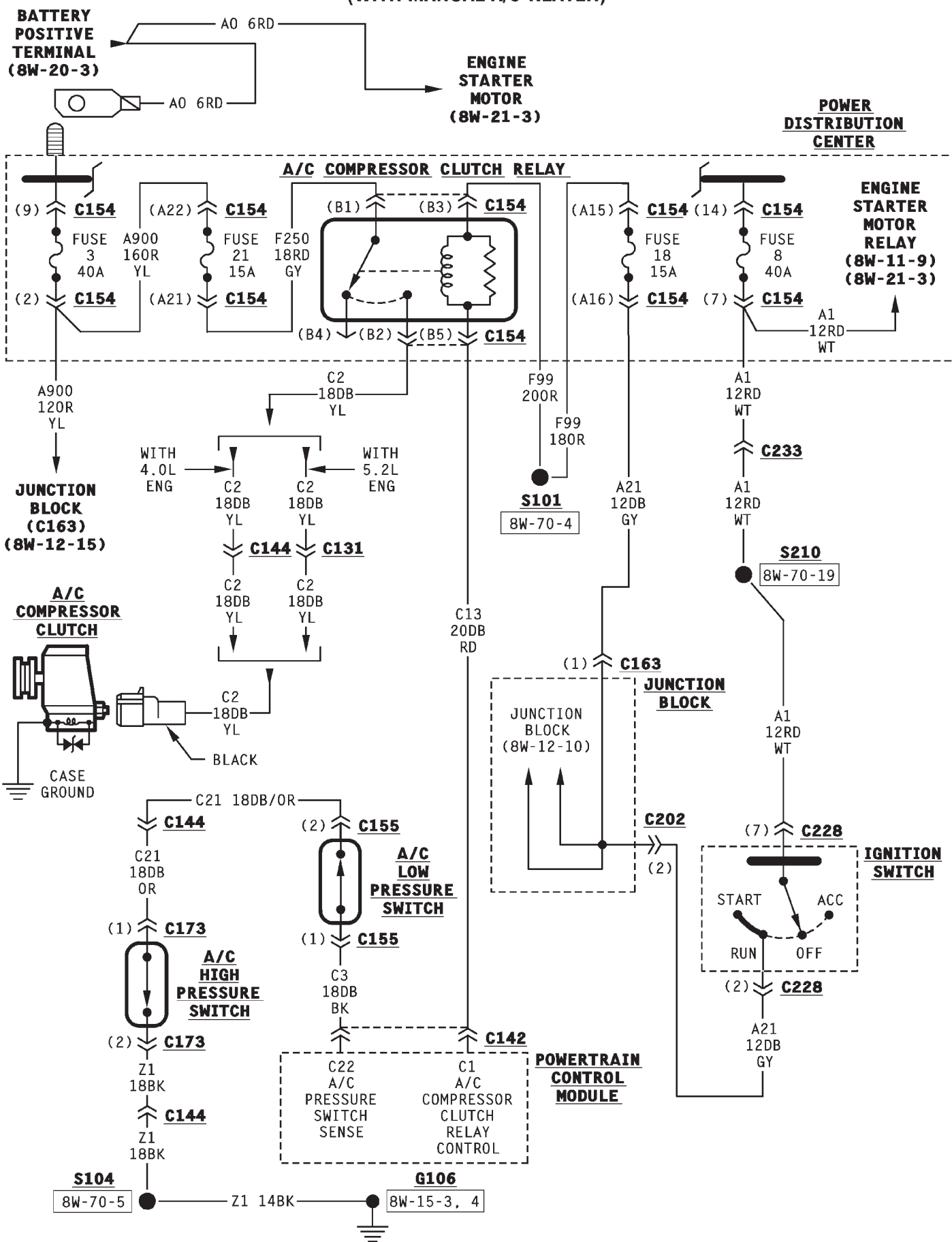
DIAGRAM INDEX

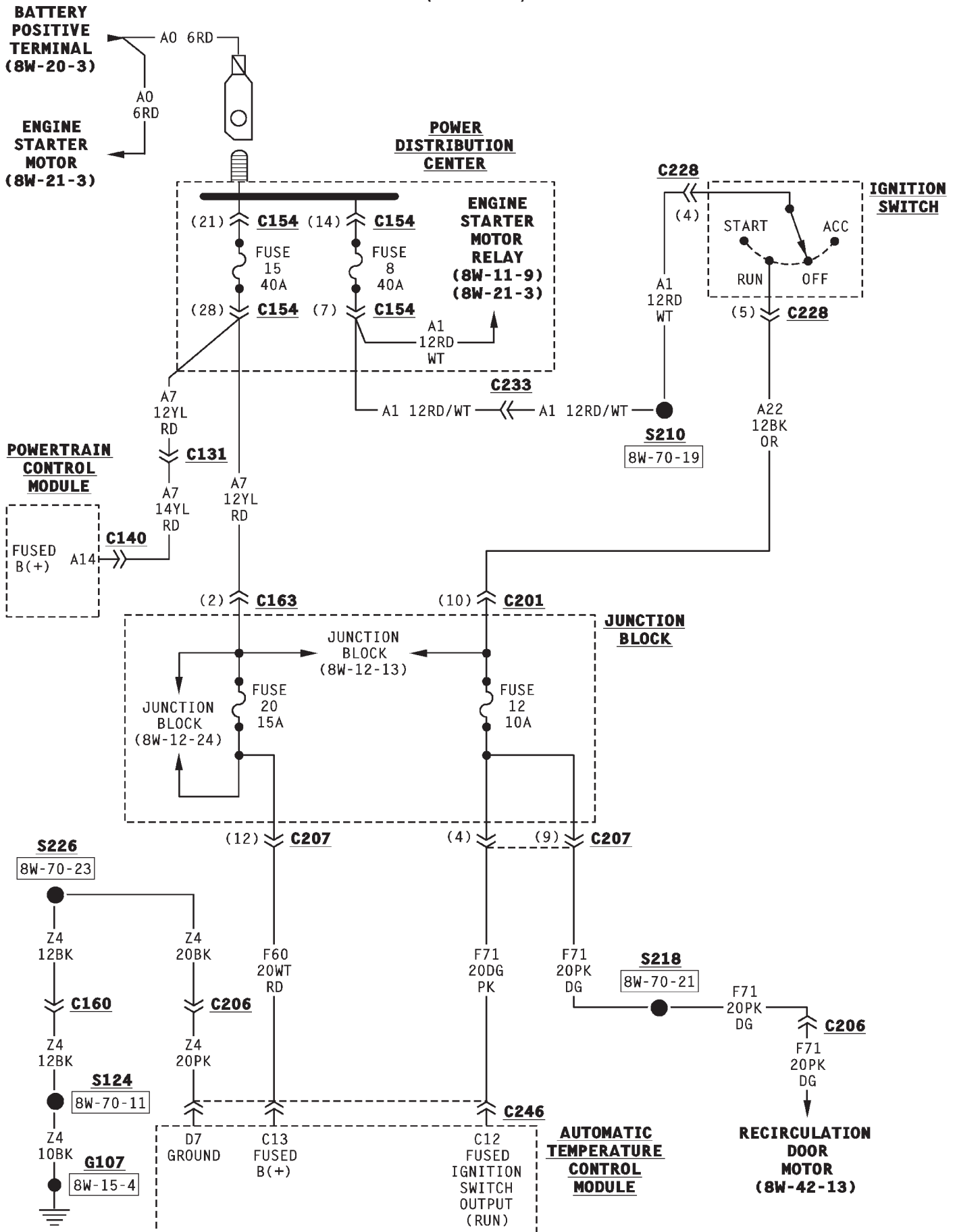
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A/C Compressor Clutch	8W-42-7, 11
A/C Compressor Clutch Relay	8W-42-7, 11
A/C High Pressure Switch	8W-42-7, 11
A/C Low Pressure Switch	8W-42-7, 11
A/C-Heater Control	8W-42-6
Ambient Temperature Sensor (With ATC)	8W-42-12
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Blower Power Module (With ATC)	8W-42-9
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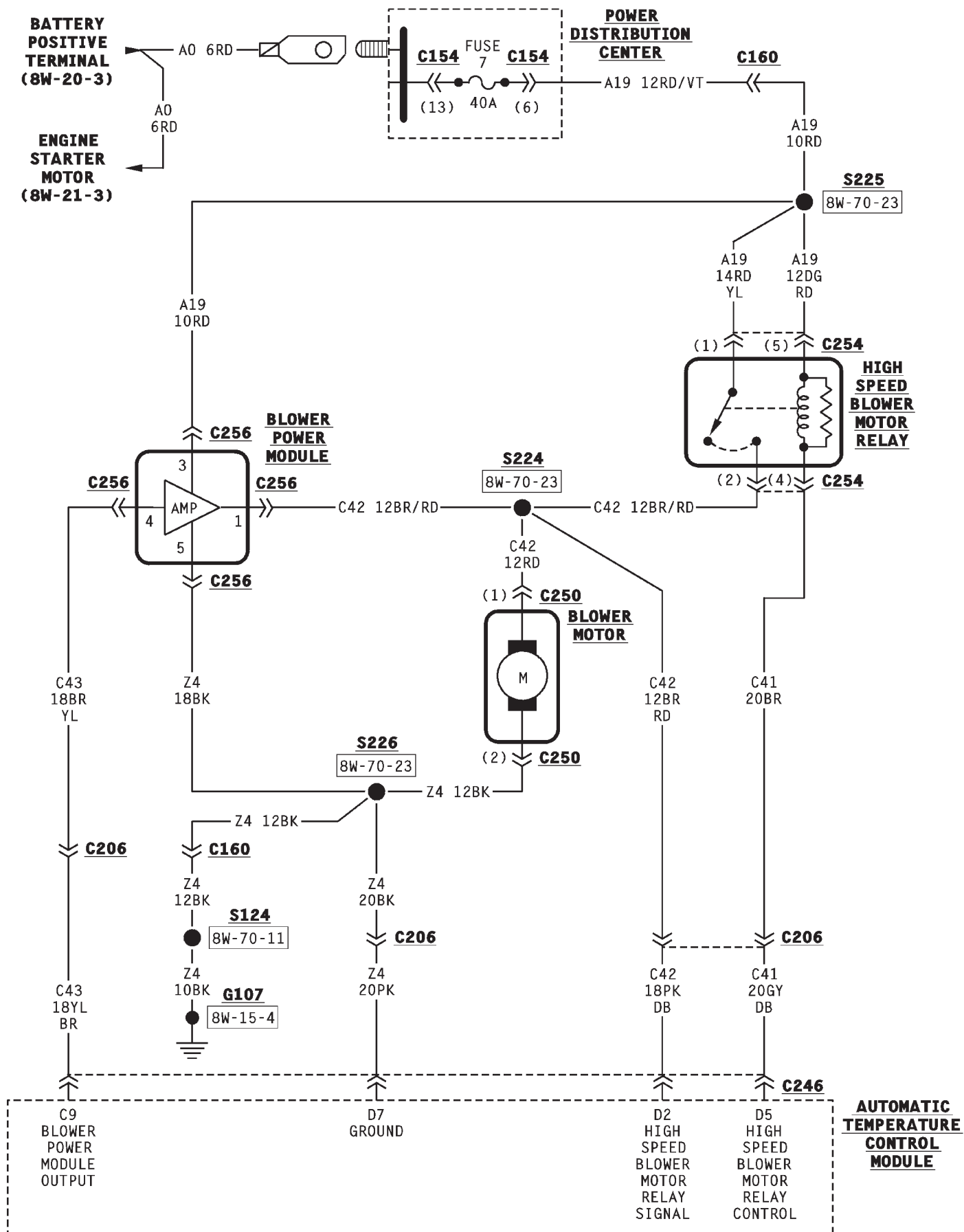
Component	Page
Fuse 3 (PDC)	8W-42-7, 11
Fuse 7 (PDC)	8W-42-5, 9
Fuse 8 (PDC)	8W-42-6, 7, 8, 11, 13
Fuse 12	8W-42-6, 8, 13
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Fuse 18 (PDC)	8W-42-7, 11
Fuse 20	8W-42-8
Fuse 21 (PDC)	8W-42-7, 11
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Ignition Switch	8W-42-6, 7, 8, 11, 13
In-Car Temperature Sensor (With ATC)	8W-42-12
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Powertrain Control Module	8W-42-6, 7, 8, 10, 11
Recirculation Door Motor (With ATC)	8W-42-13
Solar Sensor (With ATC)	8W-42-12

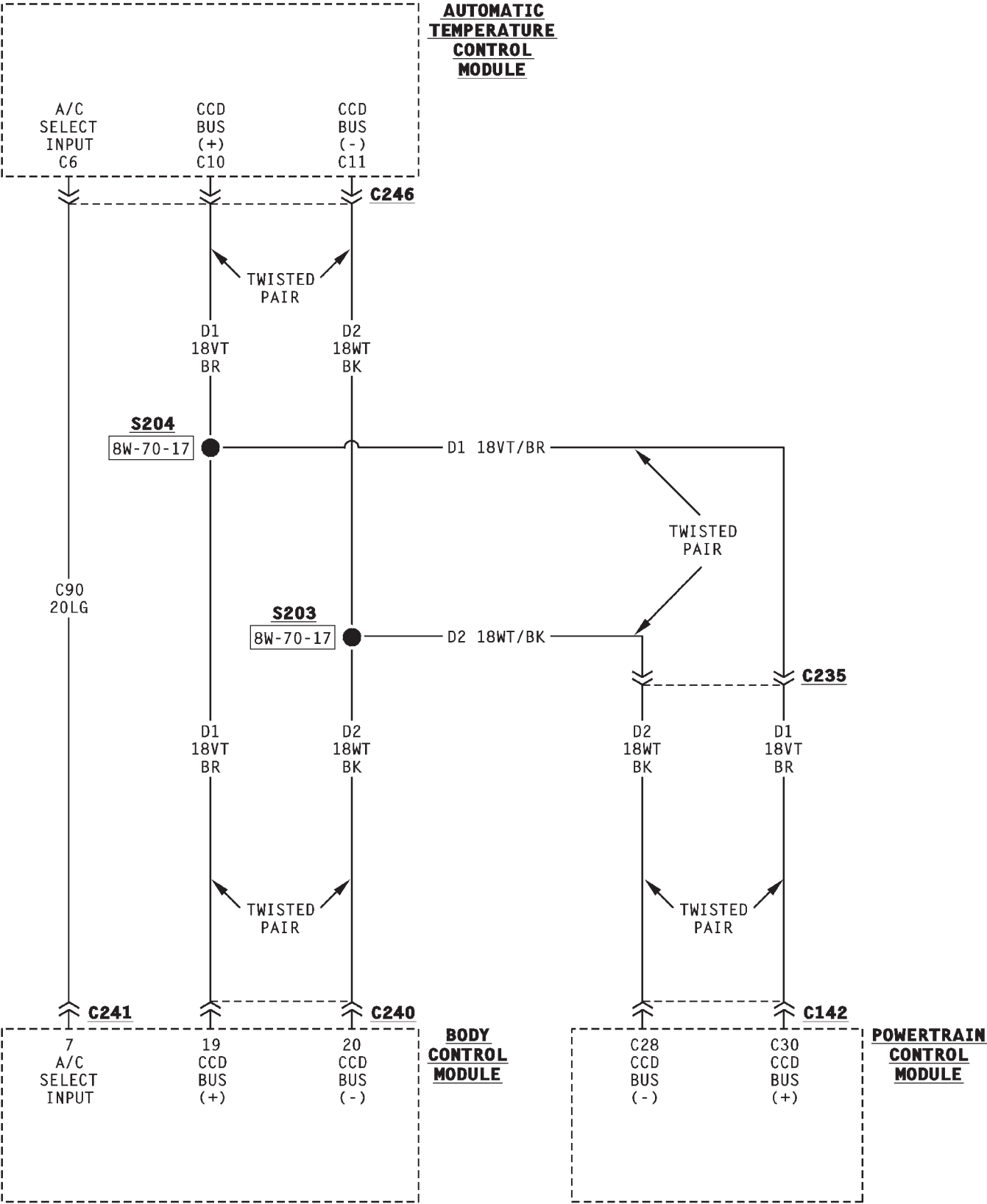




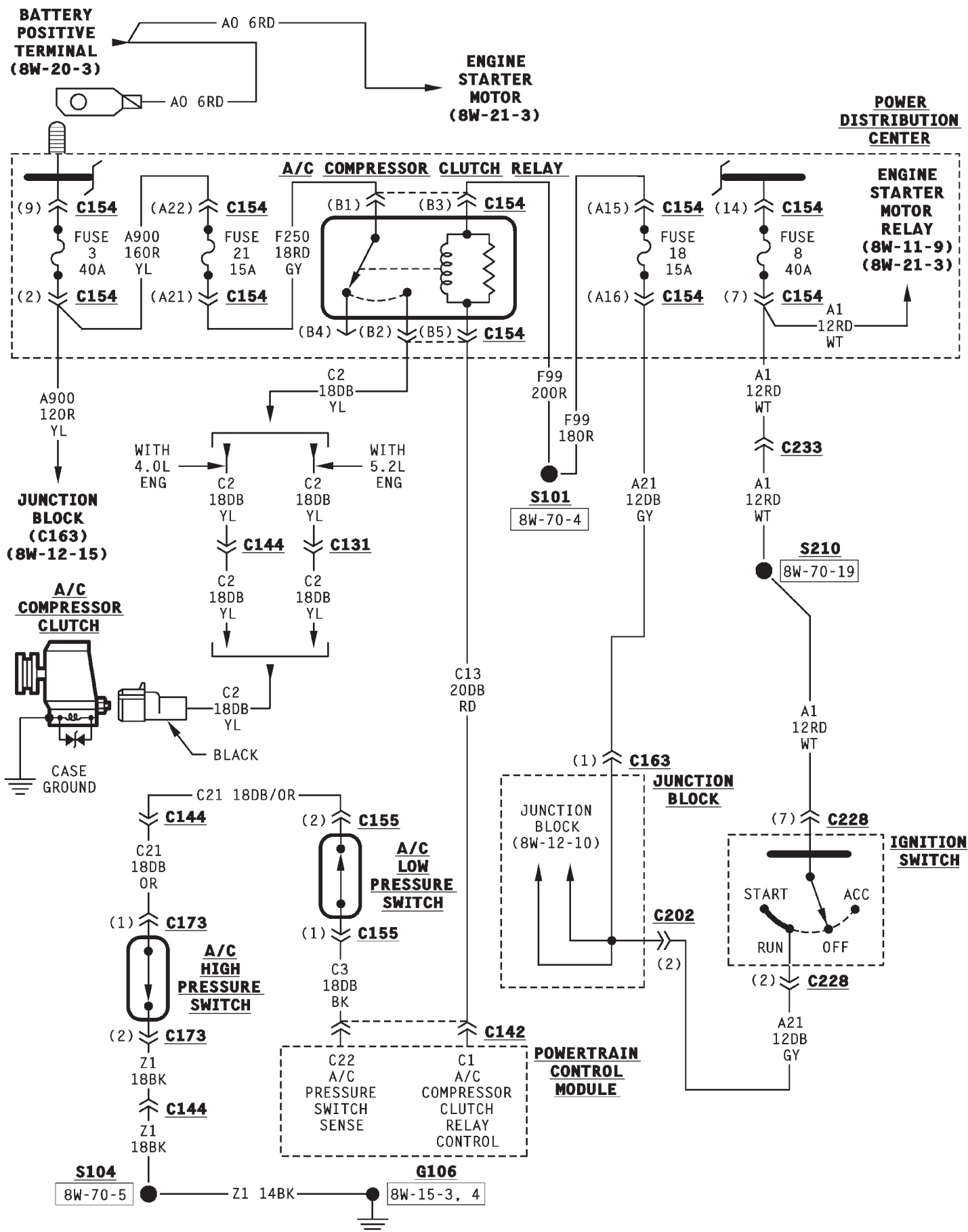


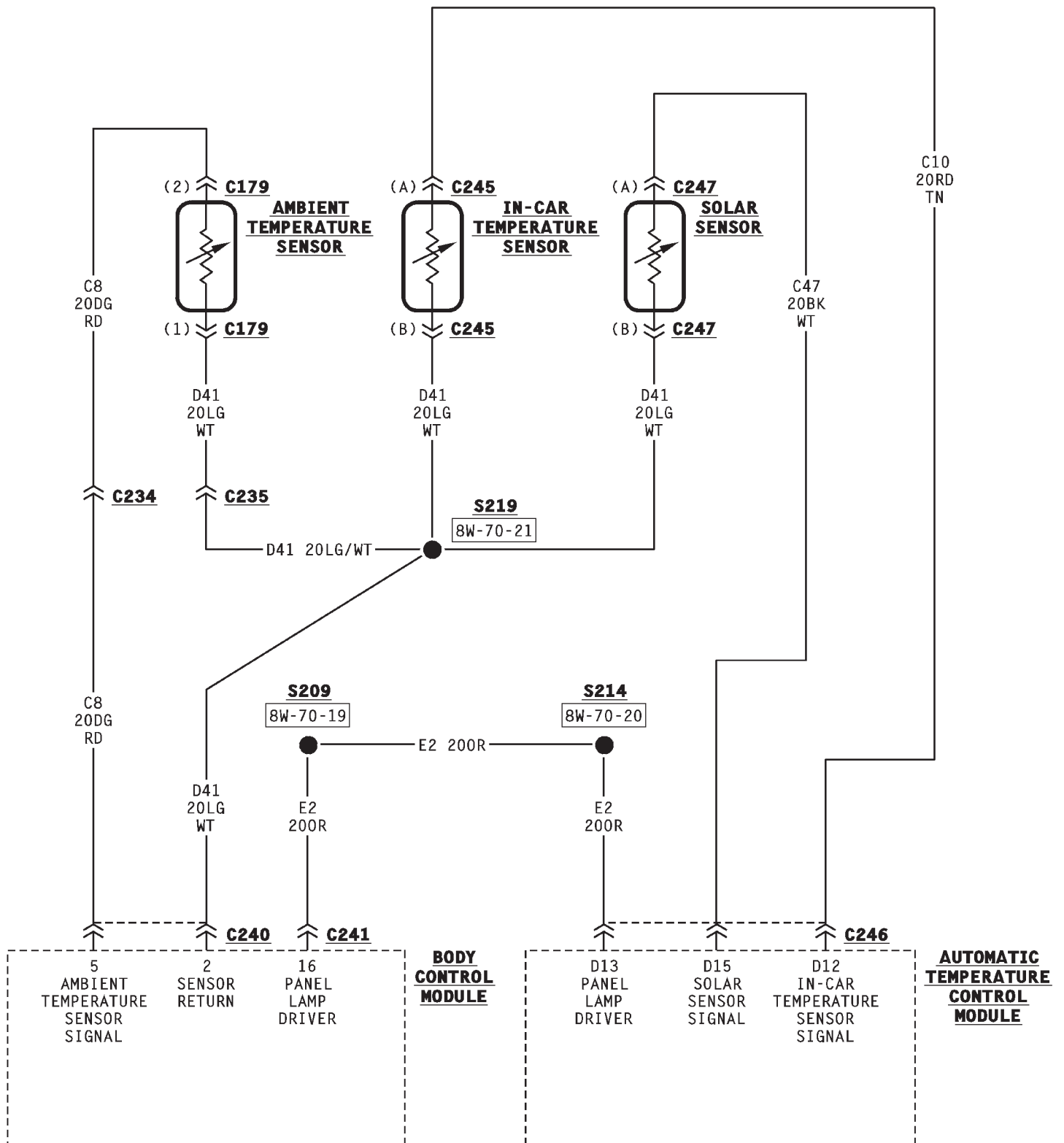


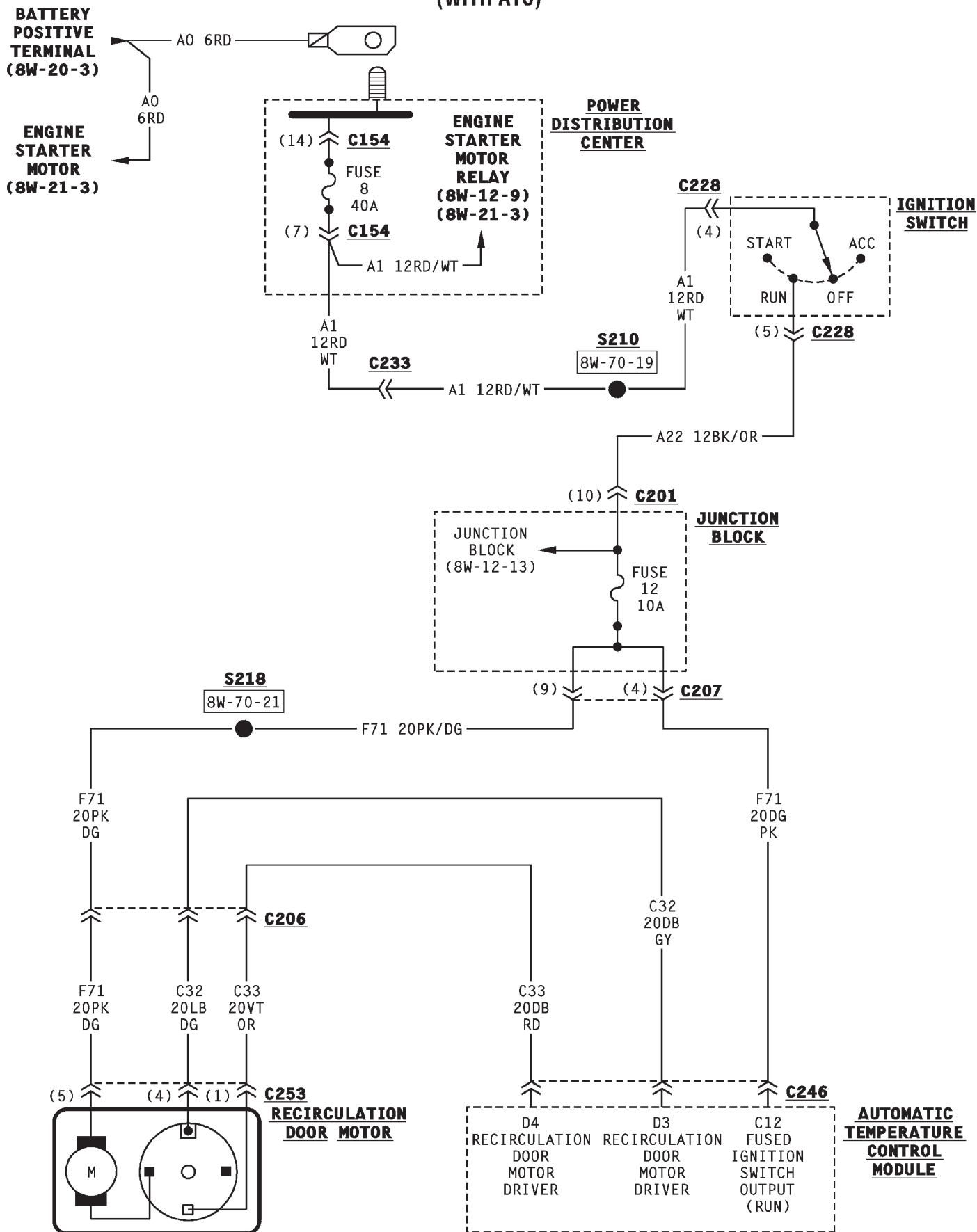


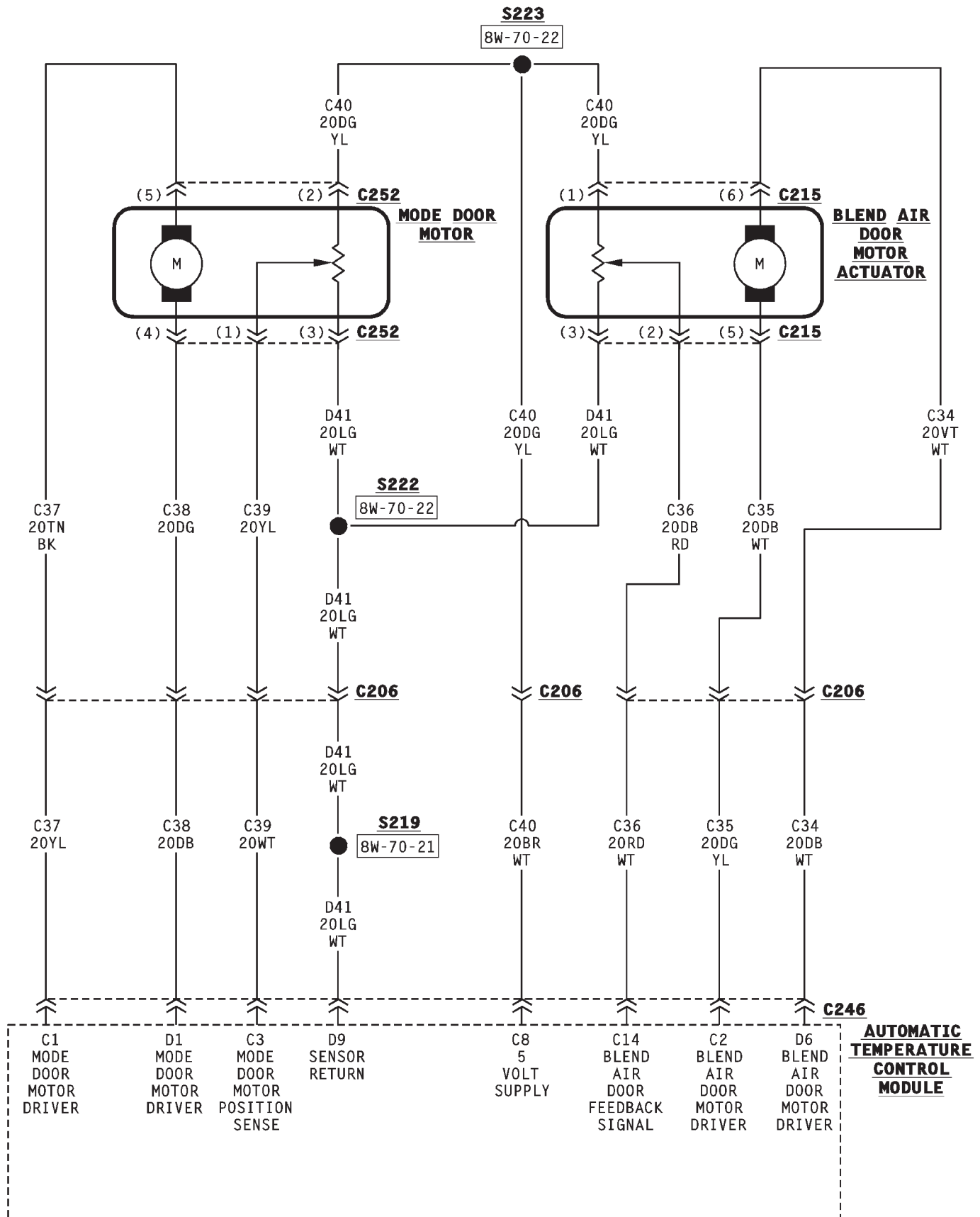


ZJ **8W-42 AIR CONDITIONING/HEATER (WITH ATC)** **8W - 42 - 11**









8W-43 AIRBAG SYSTEM

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DESCRIPTION AND OPERATION		INTRODUCTION	1
AIRBAG IMPACT SENSORS	1	SCHEMATICS AND DIAGRAMS	
AIRBAG SQUIB (AIRBAG IGNITER)	1	WIRING DIAGRAM INDEX	1
AIRBAG WARNING LAMP	1		

DESCRIPTION AND OPERATION

INTRODUCTION

This vehicle has a drivers airbag and a passengers airbag. The Airbag Control Module (ACM) operates both. The airbag system has two sensors, located at the left front and right front of the engine compartment.

In the START or RUN position, the ignition switch connects circuit A1 from fuse 8 in the Power Distribution Center (PDC) to circuit A22. Circuit A22 powers circuit F20 through fuse 22 in the junction block. Circuit F20 connects to the ACM.

When the ignition switch is in the RUN position, it connects circuit A1 to circuit A21. Circuit A21 powers circuit G5 through fuse 4 in the junction block. Circuit G5 connects to the ACM. Circuit Z6 provides ground for the ACM.

Circuit A250 from fuse 11 in the PDC powers circuit F75 through fuse 7 in the junction block. Circuit F75 powers the airbag warning lamp in the instrument cluster.

AIRBAG IMPACT SENSORS

Two airbag impact sensors provide input to the airbag control module (ACM). Each sensor has two circuits that connect to the ACM.

From the left impact sensor, Circuits R47 and R49 connect to the ACM.

From the right impact sensor, Circuits R46 and R48 connect to the ACM.

AIRBAG SQUIB (AIRBAG IGNITER)

Circuits, R43 and R45, connect the ACM to the drivers airbag squib (igniter) after passing through

the clock spring connector. Circuit R43 from cavity 3 of the ACM 4-way connector connects to the squib. Circuit R45 from cavity 4 of the ACM 4-way connector connects to the squib.

Circuits, R42 and R44, connect the ACM to the passenger airbag squib (igniter). Circuit R42 from cavity 1 of the ACM 4-way connector connects to the squib. Circuit R44 from cavity 2 of the ACM 4-way connector connects to the squib.

AIRBAG WARNING LAMP

Circuit F75 from fuse 7 in the junction block feeds the airbag warning lamp. Ground circuit Z1 connects to the warning lamp through a transistor controlled by the microprocessor in the instrument cluster. When the microprocessor receives a signal from Airbag Control Module (ACM) on the CCD bus, it switches the transistor to connect the lamp to ground.

SCHEMATICS AND DIAGRAMS

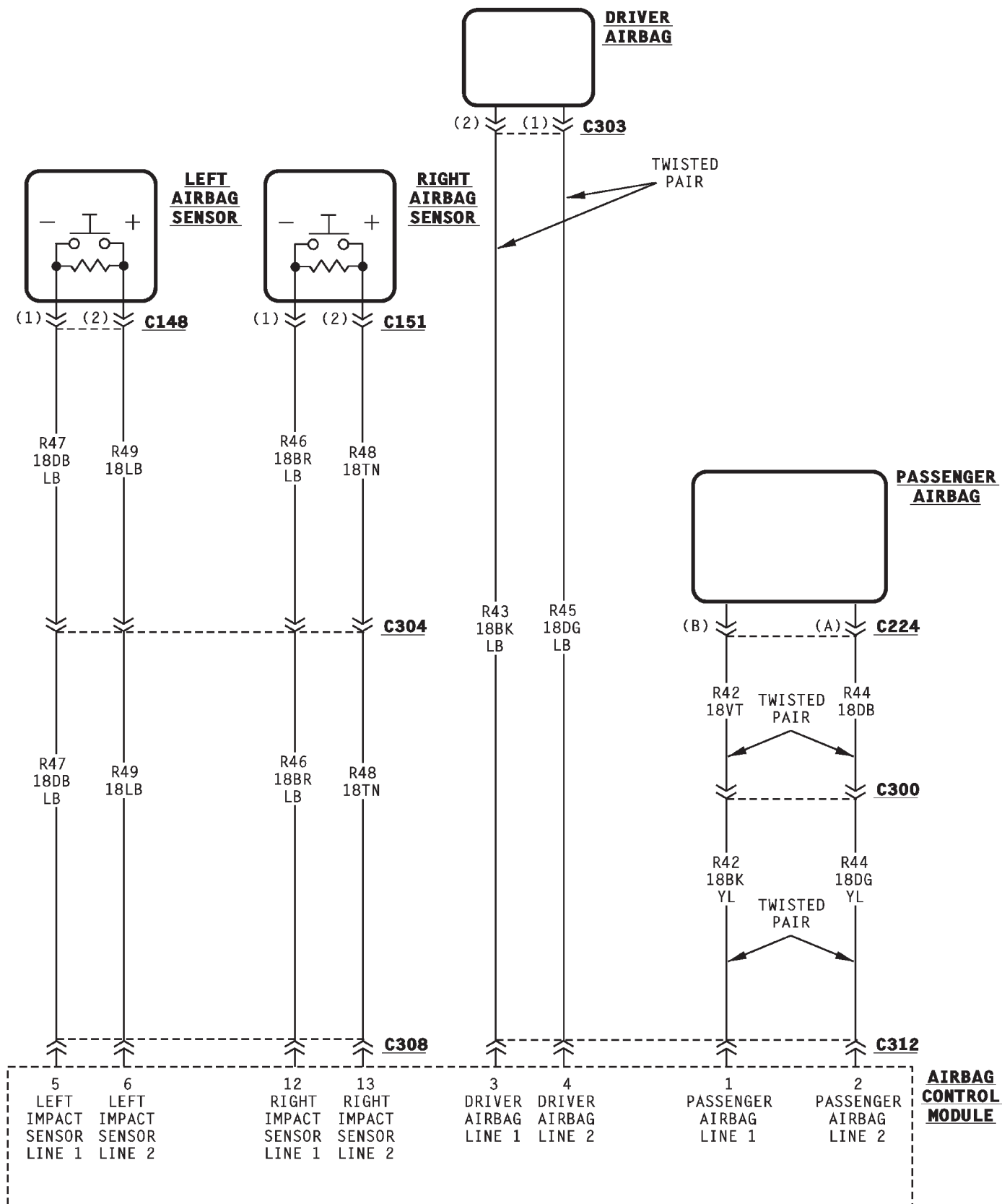
WIRING DIAGRAM INDEX

The following index covers all components found in this section of the wiring diagrams. If the component you are looking for is not found here, refer to section 8W-02 for a complete list of all components shown in the wiring diagrams.

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Fuse 7	8W-43-3	Left Airbag Sensor	8W-43-4
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8W-44 INTERIOR LIGHTING

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SWITCH KEY-IN HALO LAMP	1	UNIVERSAL GARAGE DOOR OPENER	2
DAY/NIGHT MIRROR	2	VISOR VANITY MIRRORS	2
GLOVE BOX LAMP	2	SCHEMATICS AND DIAGRAMS	
ILLUMINATION LAMPS	1	WIRING DIAGRAM INDEX	2
INTRODUCTION	1		

DESCRIPTION AND OPERATION

INTRODUCTION

The Body Control Module (BCM) controls the courtesy lamps and rear cargo lamps. The reading dome/reading lamps in the overhead console act as courtesy lamps as well as containing a switch for independent operation.

Circuit 707 from the dimmer switch circuitry in the head lamp switch provides the illumination lamp intensity signal to the BCM. The BCM powers the illumination lamps on circuit E2.

When the ignition switch is in the START or RUN position, it connects circuit A1 from fuse 8 in the PDC to circuit A21. Circuit A21 powers circuit F99 through PDC fuse 15. Circuit F99 feeds the BCM.

In the ACCESSORY or RUN position, the ignition switch connects circuit A1 to circuit A31. Circuit A31 powers circuit V23 through fuse 3 in the junction block. Circuit V23 feeds the BCM.

ILLUMINATION LAMPS

When the headlamps or parking lamps are ON, the The Body Control Module (BCM) receives the park lamp input on circuit L90 and the illumination lamp intensity signal on circuit 707. Circuit 707 from the dimmer switch circuitry in the head lamp switch provides the illumination lamp intensity signal to the BCM.

After calculating the requested illumination lamp intensity, the BCM powers the following illumination lamps on circuit E2:

- Headlamp switch
- Floor console
- Instrument panel
- Ash receiver
- Graphic Display or Vehicle Information Center (VIC)
- Cigar lighter
- Radio

- A/C-Heater control switch

Circuit Z1 provides ground for the floor console lamps, instrument panel lamps, ash receiver lamp, graphic display or VIC. Circuit Z4 grounds the automatic temperature control switch lamp. Circuit Z5 grounds the radio lamp. The cigar lighter lamp and A/C-Heater control switch lamp (manual A/C-Heater) are case grounded.

COURTESY LAMPS, CARGO LAMP, IGNITION SWITCH KEY-IN HALO LAMP

When the courtesy lamp switch closes, it connects circuit M11 from the Body Control Module to ground on circuit Z1. In response the to the courtesy lamp signal, the BCM energizes the courtesy lamp relay by grounding the relay coil on circuit M112. When the relay energizes, it connects circuit M2 to ground on circuit Z1. Circuit M2 provides ground for the right and left courtesy lamps, dome/reading lamps, key-in halo lamp and cargo lamp.

Circuit A7 from fuse 15 in the Power Distribution Center (PDC) powers circuit M1 through fuse 16 in the junction block. Circuit M1 powers the right and left courtesy lamps, ignition switch key-in halo lamp, and cargo lamp. Circuit M1 also powers the glove box lamp and underhood lamp.

DOOR COURTESY LAMPS

When the BCM receives the courtesy lamp signal, it broadcasts a message on the CCD bus. The message signals the Drivers Door Module (DDM) and Passenger Door Module (PDM). In response, the DDM and PDM power the courtesy lamps in the front doors on circuit M1. Circuit Z1 grounds the courtesy lamps in the front doors.

Circuit F81 from the circuit breaker in cavity 2 of the junction block powers the DDM and PDM. Circuit A250 from fuse 11 in the PDC feeds circuit F81 through the circuit breaker.

DESCRIPTION AND OPERATION (Continued)

LIFTGATE COURTESY LAMP DISABLE SWITCH

When closed, the liftgate disable switch provides signal to the BCM on circuit M4 indicating a request to disable the courtesy lamps. To operate, all the doors must be closed with only the liftgate open. Pushing on the liftgate lens activates the switch. Pushing on the lense a second time deactivates the switch.

After receiving the courtesy lamp disable signal, the BCM turns off the courtesy lamps by de-energizing the courtesy lamp relay.

GLOVE BOX LAMP

Circuit A7 from 15 in the Power Distribution Center (PDC) powers circuit M1 through fuse 16 in the junction block. Circuit M1 powers the glove box lamp. The lamp has a switch in series which when closed, connects the lamp to ground on circuit Z1.

UNDERHOOD LAMP

Circuit M1 from fuse 16 in the Power Distribution Center (PDC) feeds the underhood lamp. The lamp contains a mercury switch which connects the lamp to ground on circuit Z1 when the hood is raised.

VISOR VANITY MIRRORS

Circuit A7 from fuse 15 in the Power Distribution Center (PDC) powers circuit M1 through fuse 16 in the junction block. Circuit M1 feeds the visor vanity mirror lamps. Each mirror has a switch grounds the lamps in the mirrors to circuit Z1.

OVERHEAD CONSOLE LAMPS

Circuit A7 from fuse 15 in the Power Distribution Center (PDC) powers circuit M1 through fuse 16 in the junction block. Circuit M1 feeds the overhead console lamps.

Each overhead console lamp has a switch that connects the lamps to ground on circuit Z1. The lamps are also grounded when the Body Control Module (BCM) energizes the courtesy lamp relay to connect circuit M2 to ground on circuit Z1.

DAY/NIGHT MIRROR

When the ignition switch is in the RUN position, it connects circuit A1 from fuse 8 in the Power Distribution Center (PDC) circuit A22. Circuit A22 powers circuit F83 through fuse 6 in the junction block. Circuit F83 feeds the day/night rear view mirror. Circuit Z1 grounds mirror.

Circuits P112 and P114 connect from the day/night mirror to the drivers outside mirror.

Circuit L10 from the park/neutral switch signals the day/night mirror when the vehicle is in reverse. The mirror turns off when the vehicle is in reverse.

UNIVERSAL GARAGE DOOR OPENER

Circuit A7 from fuse 15 in the Power Distribution Center (PDC) powers circuit M1 through fuse 16 in the junction block. Circuit M1 feeds the visor vanity mirrors and the universal garage door opener. The opener is located on the left visor. Circuit Z1 provides ground for the opener.

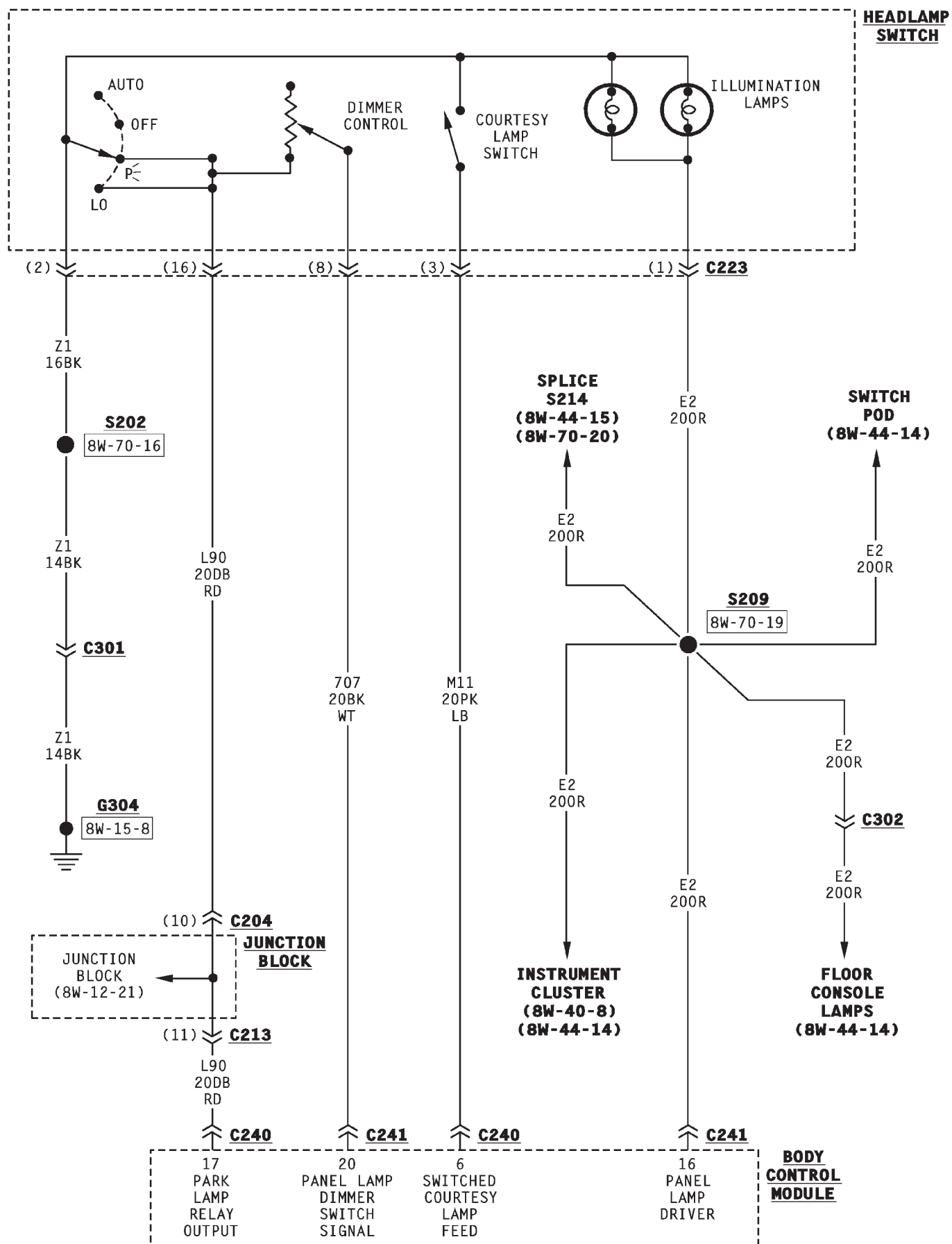
SCHEMATICS AND DIAGRAMS**WIRING DIAGRAM INDEX**

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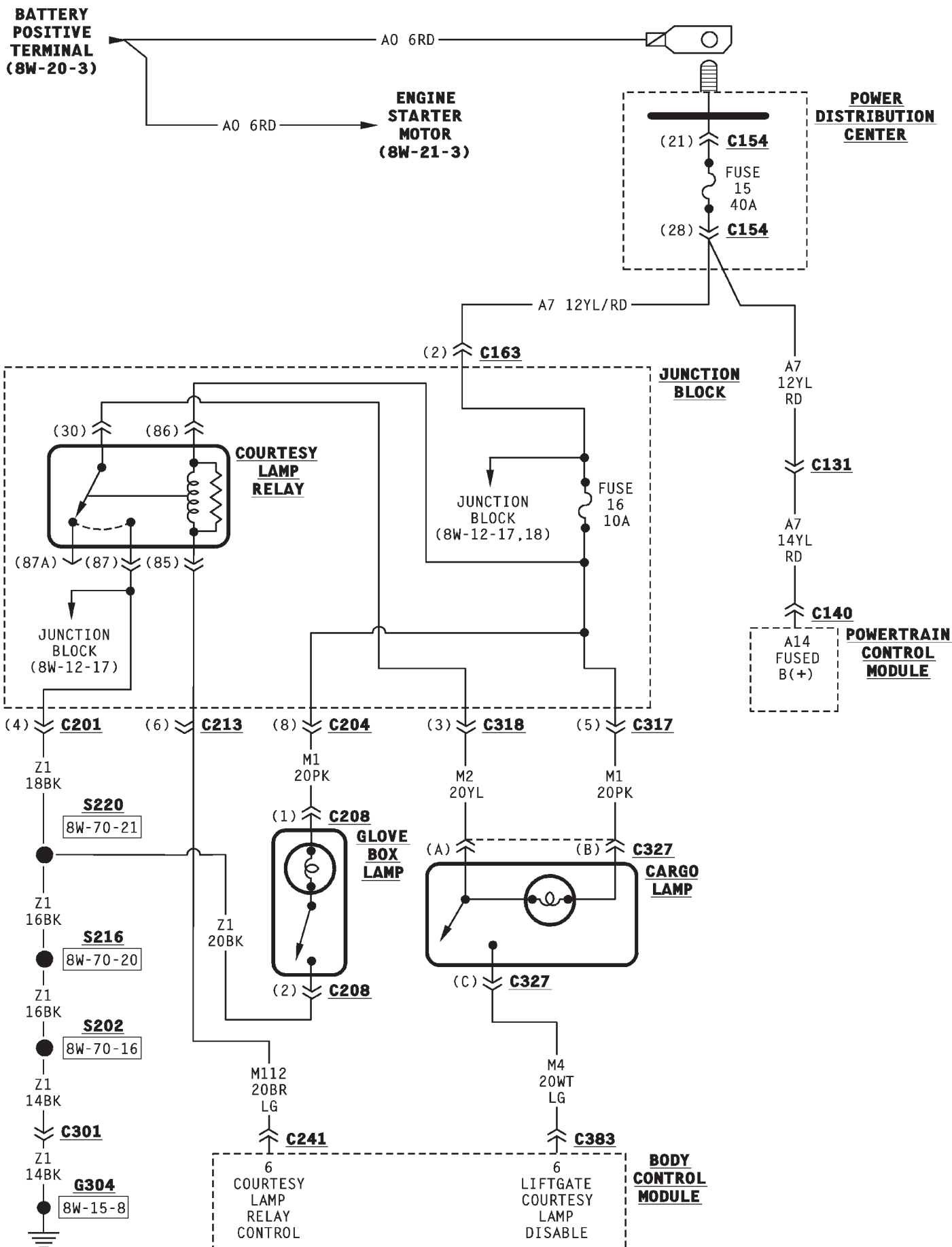
DIAGRAM INDEX

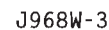
Component	Page	Component	Page
A/C-Heater Control Lamp	8W-44-16	Key-In Switch/Halo Lamp.	8W-44-6
Ash Receiver Lamp	8W-44-15	Left Courtesy Lamp	8W-44-6
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**ENGINE
STARTER
MOTOR
(8W-21-3)**

POWER
DISTRIBUTION
CENTER

JUNCTION BLOCK

C334

F81
12TN

↓

**DRIVER
DOOR
MODULE**

CAVITY 12
(8W-60-4)
(8W-61-3)
(8W-62-3)

PASSENGER DOOR MODULE

MUX
COURTESY
LAMP
DRIVER

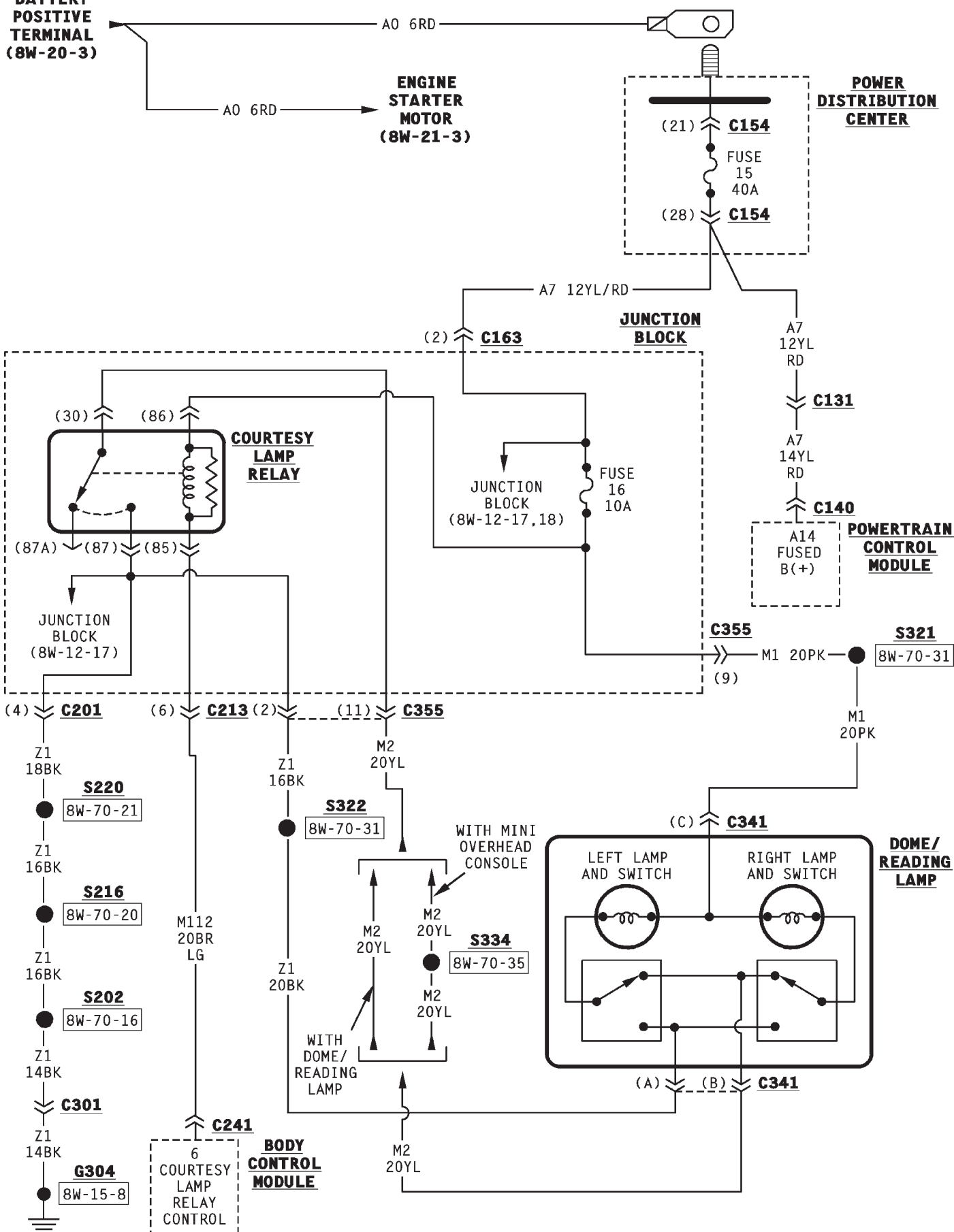
CCD
BUS
(+)CCD
BUS
(-)

BODY **CONTROL** **MODULE**

**BATTERY
POSITIVE
TERMINAL
(8W-20-3)**

**ENGINE
STARTER
MOTOR
(8W-21-3)**

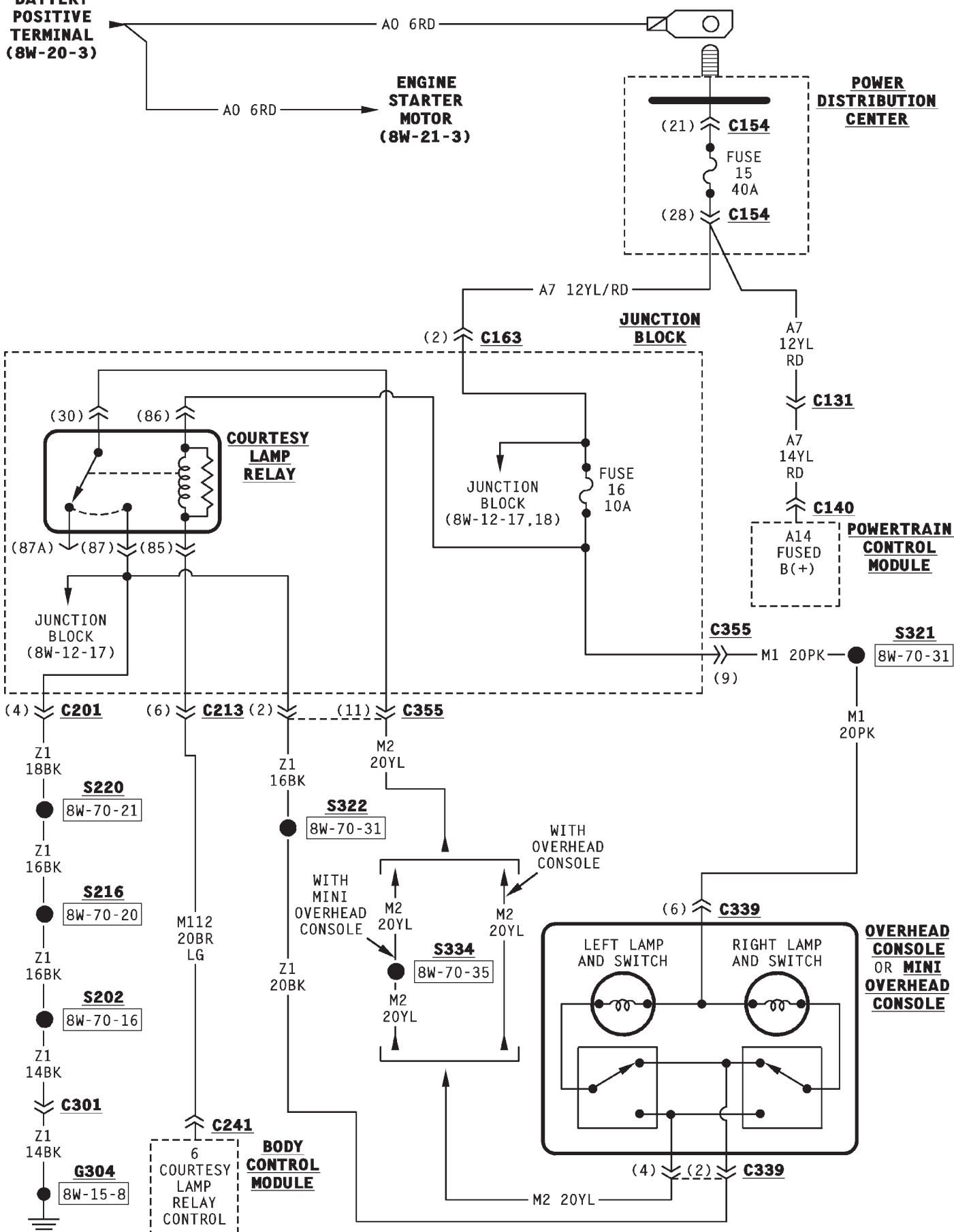
**POWER
DISTRIBUTION
CENTER**



**BATTERY
POSITIVE
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**ENGINE
STARTER
MOTOR
(8W-21-3)**

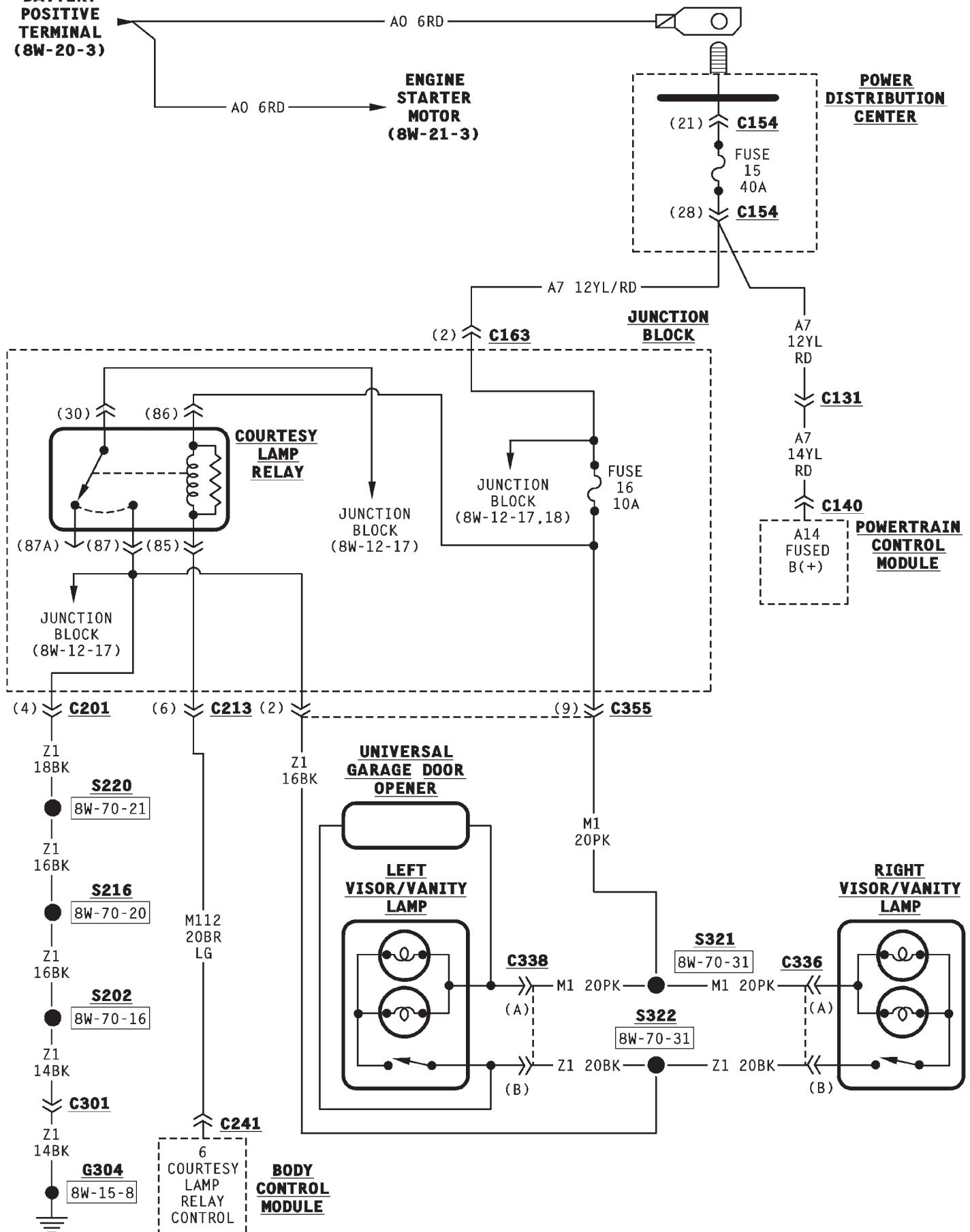
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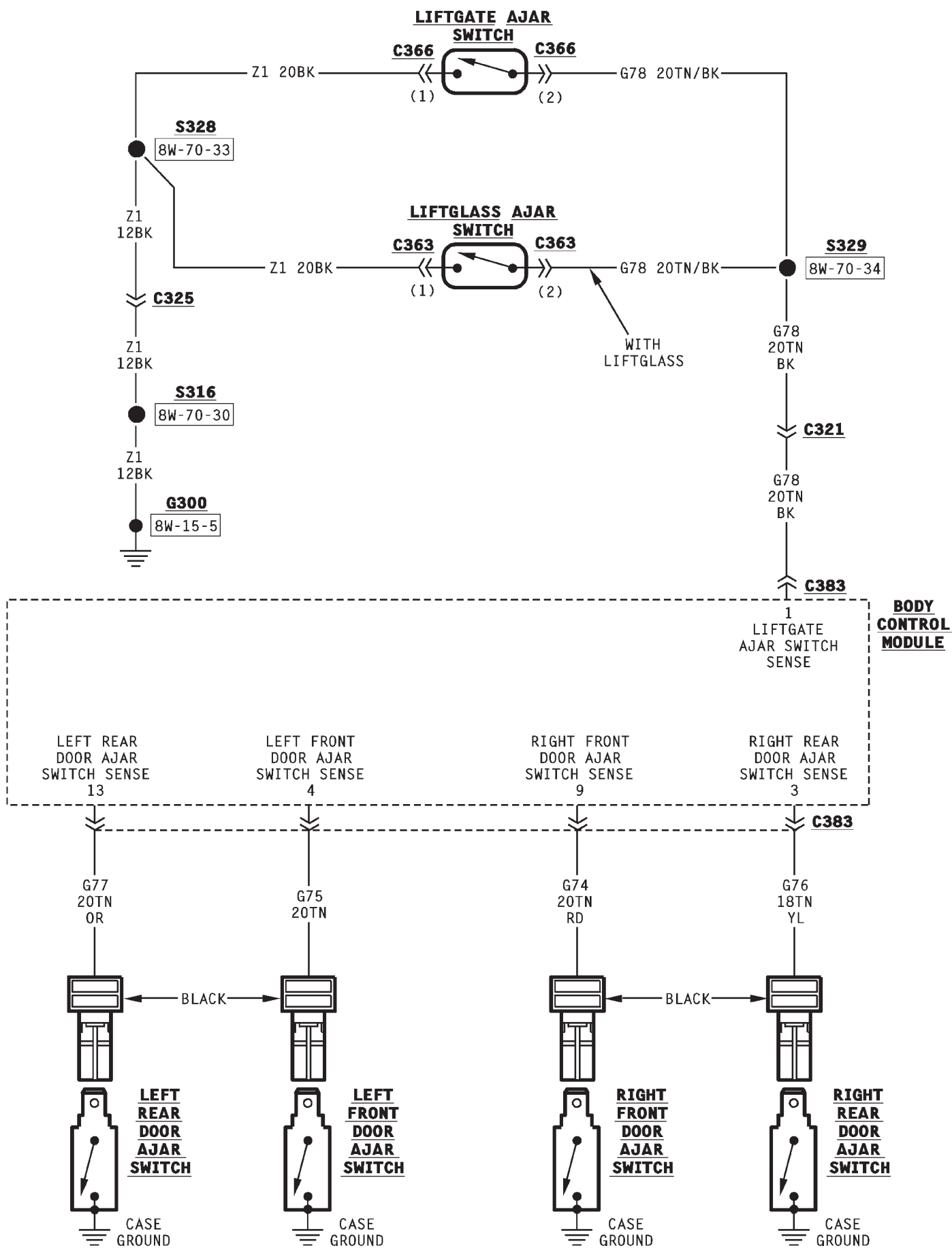


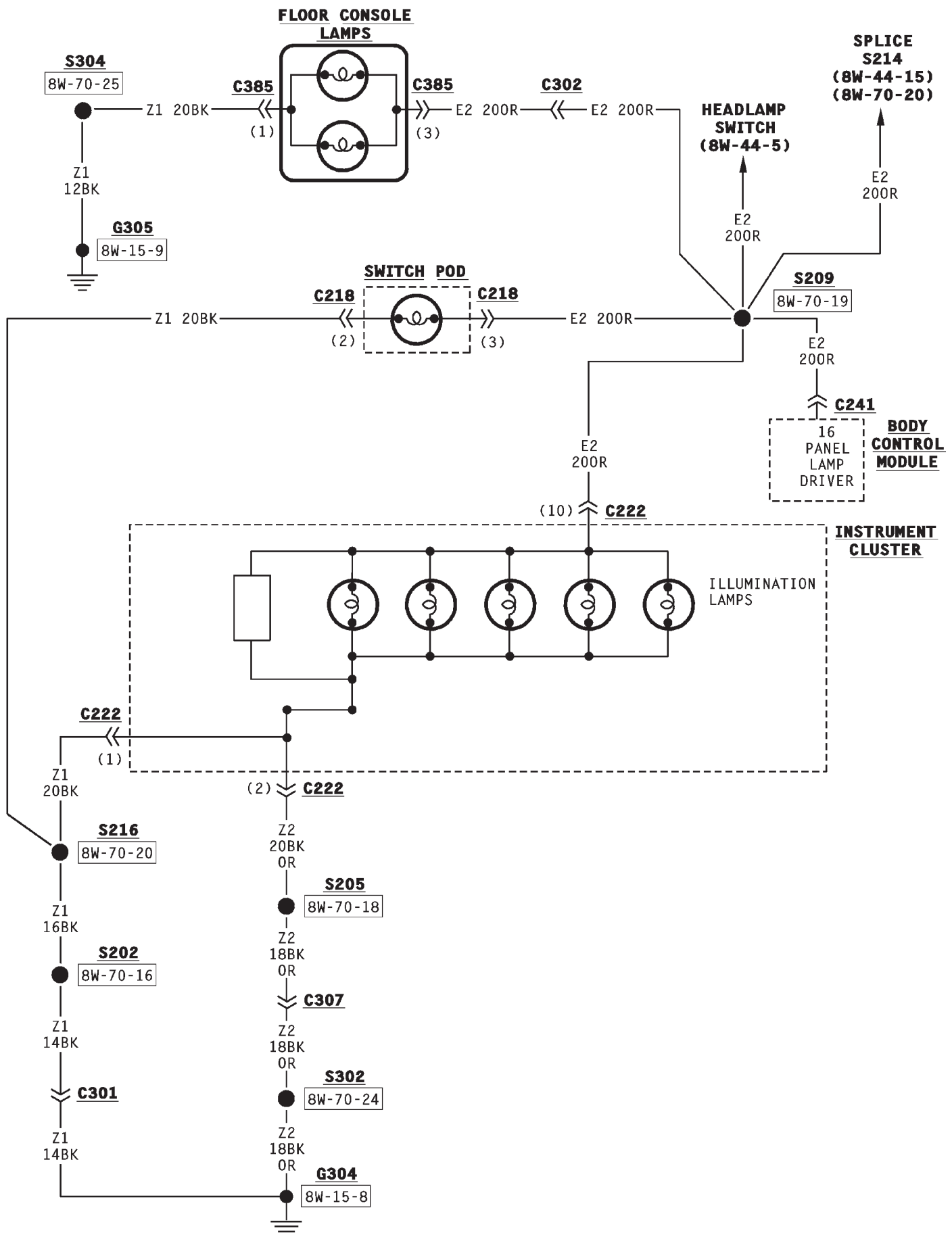
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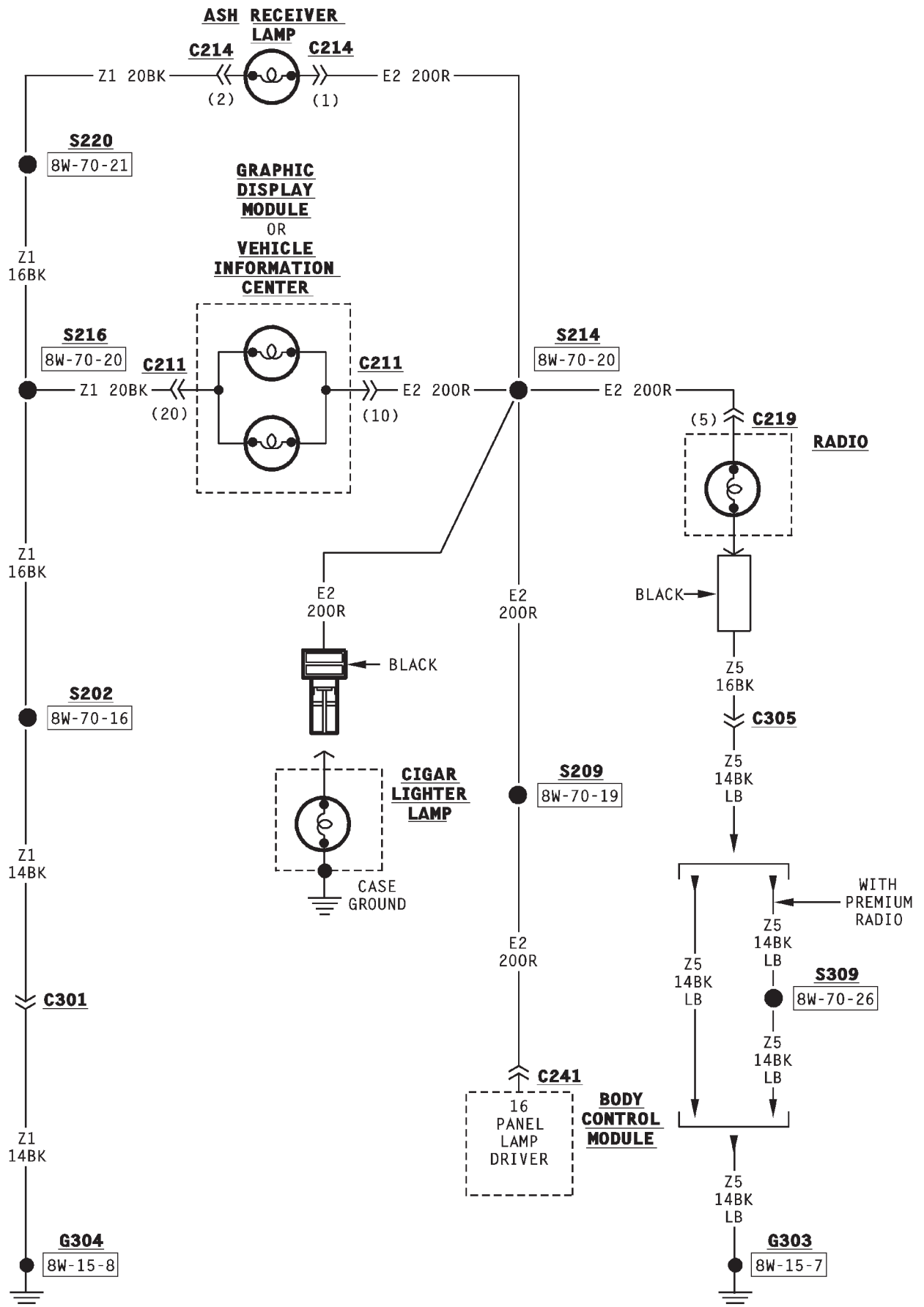
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(8W-21-3)**

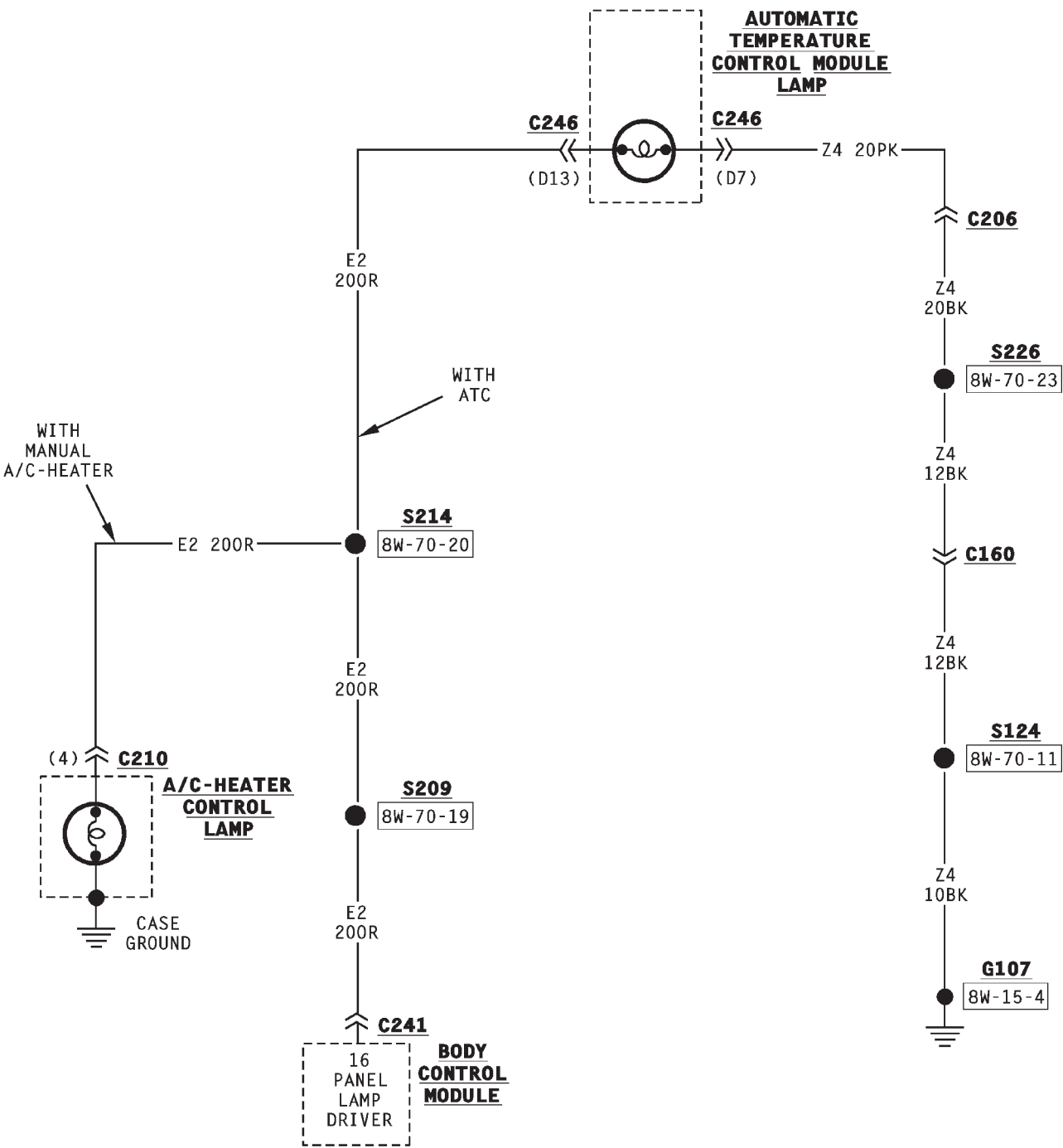
**POWER
DISTRIBUTION
CENTER**











**BATTERY
POSITIVE
TERMINAL
(8W-20-3)**

**ENGINE
STARTER
MOTOR
(8W-21-3)**

**AUTOMATIC
DAY/NIGHT
REARVIEW
MIRROR**

**ENGINE
STARTER
MOTOR
RELAY
(8W-11-9)
(8W-21-3)**

**POWER
DISTRIBUTION
CENTER**

**IGNITION
SWITCH**

