

2001 ELECTRICAL

Fuses & Circuit Breakers - Rio

IDENTIFICATION

CAUTION: When battery is disconnected, vehicle computer and memory systems may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See COMPUTER RELEARN PROCEDURES article in GENERAL INFORMATION before disconnecting battery.

PASSENGER COMPARTMENT FUSE BOX

NOTE: Passenger compartment fuse box is located on driver's side dash panel, below steering wheel.

PASSENGER COMPARTMENT FUSE BOX

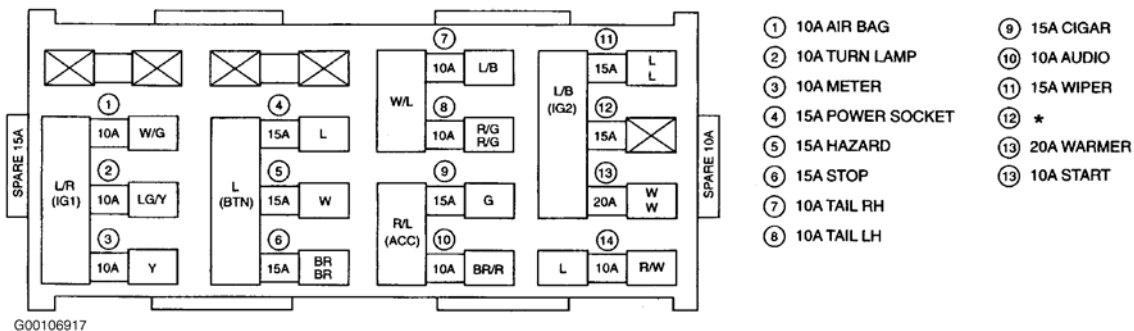
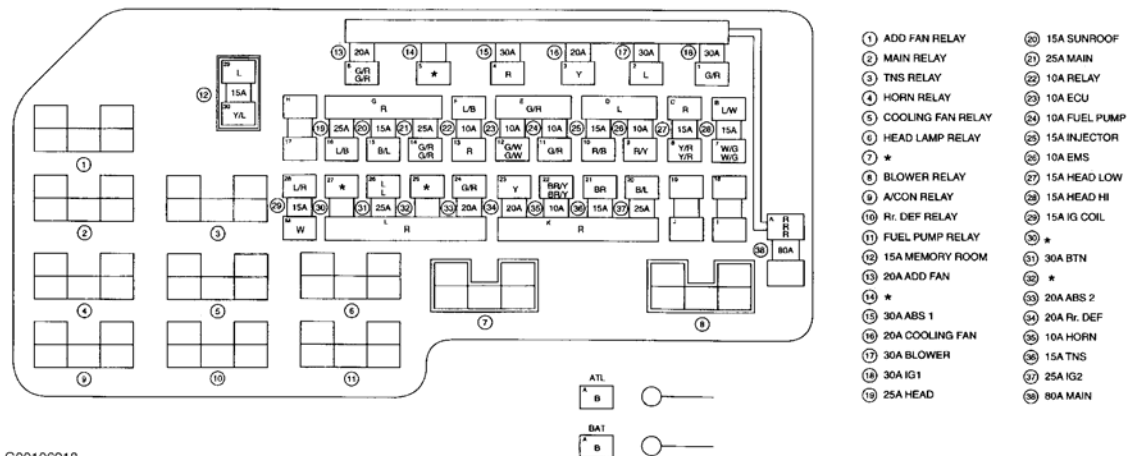


Fig. 1: Identifying Passenger Compartment Fuse Box Components
Courtesy of KIA MOTORS AMERICA, INC.

ENGINE COMPARTMENT FUSE/RELAY BOX

NOTE: Engine compartment fuse/relay box is located on driver's side of engine compartment.



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Fig. 2: Identifying Engine Compartment Fuse/Relay Box Components
 Courtesy of KIA MOTORS AMERICA, INC.

2001 SYSTEM WIRING DIAGRAMS

Kia - Rio

AIR CONDITIONING

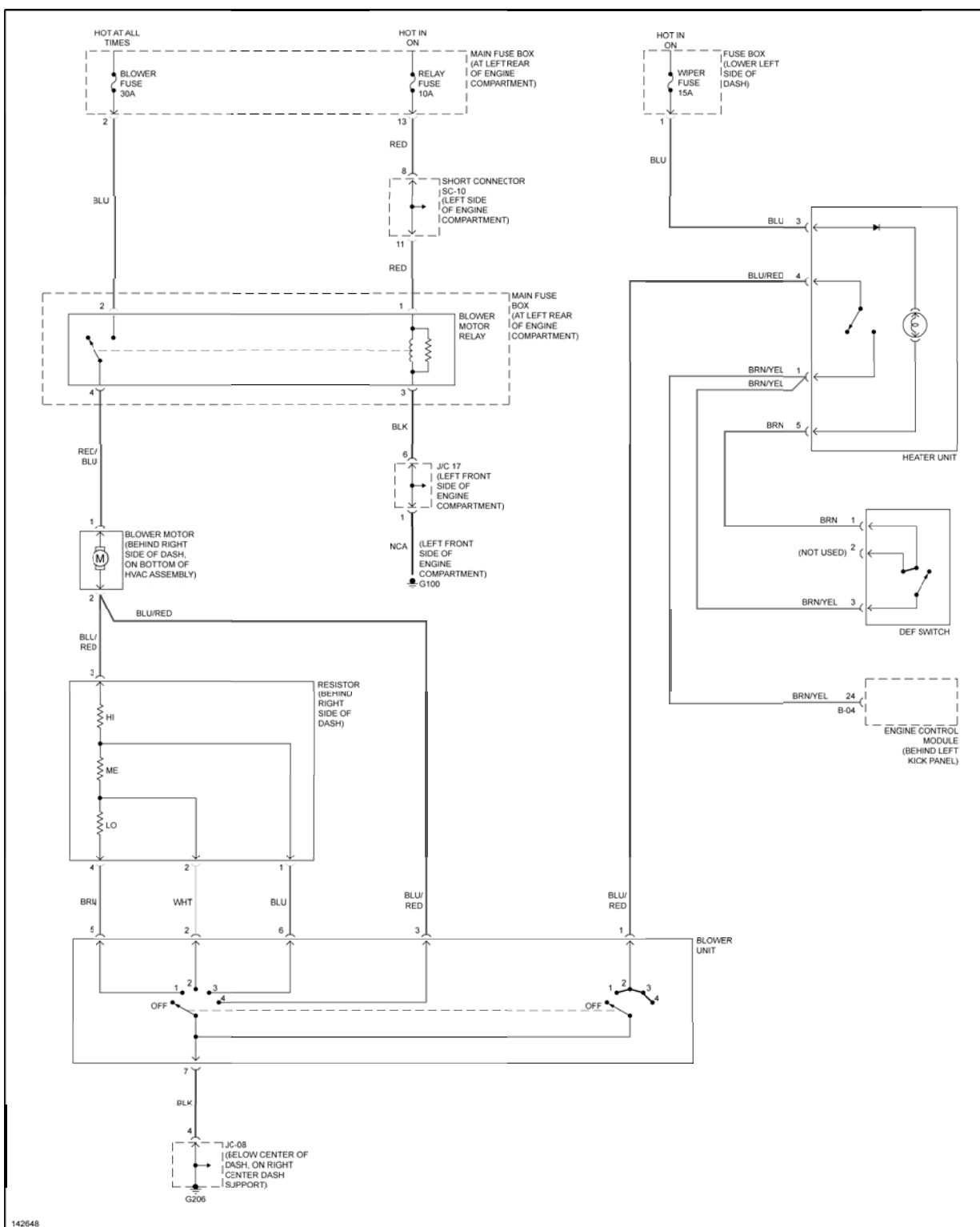


Fig. 1: Heater Circuit



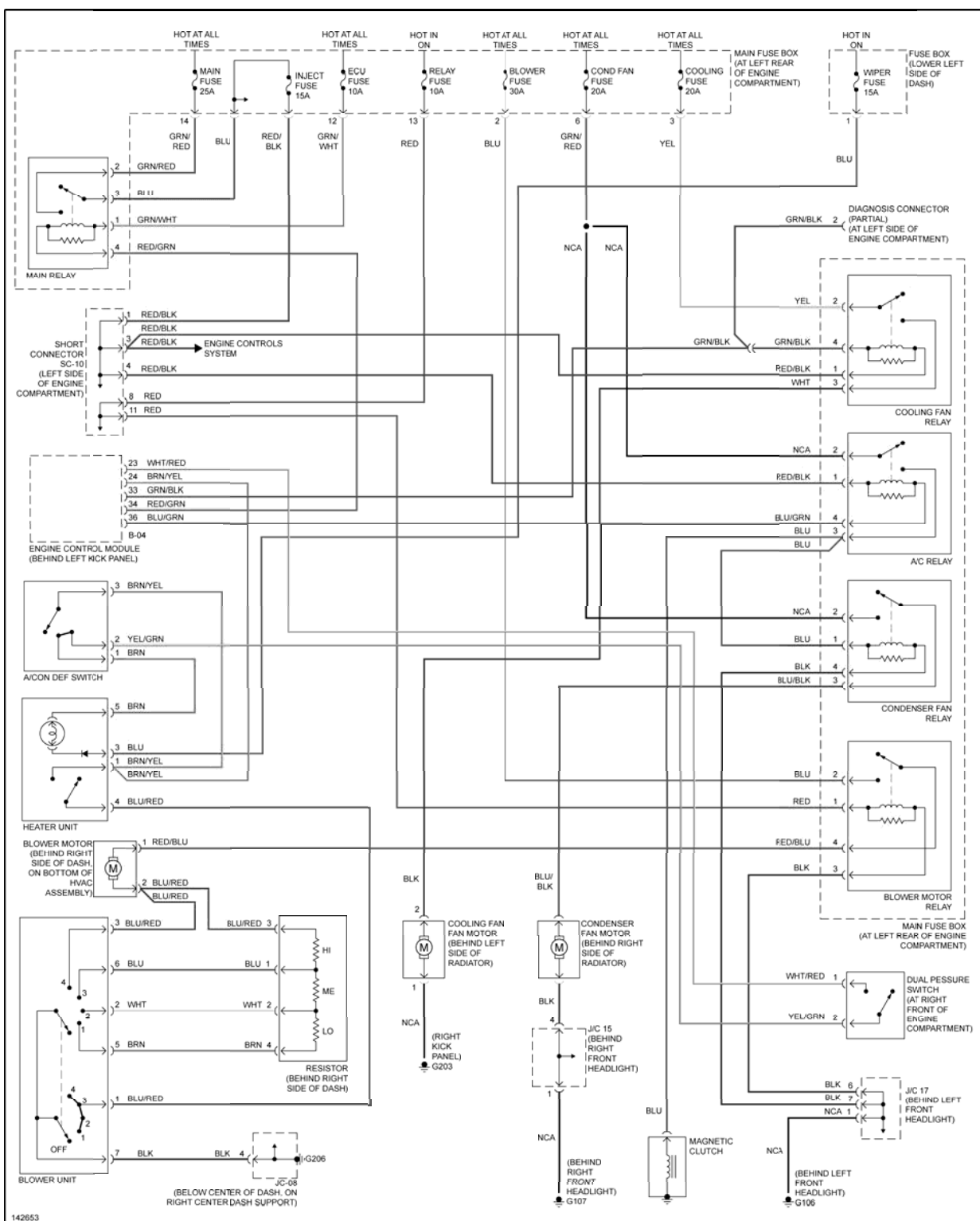


Fig. 2: Manual A/C Circuit

ANTI-LOCK BRAKES

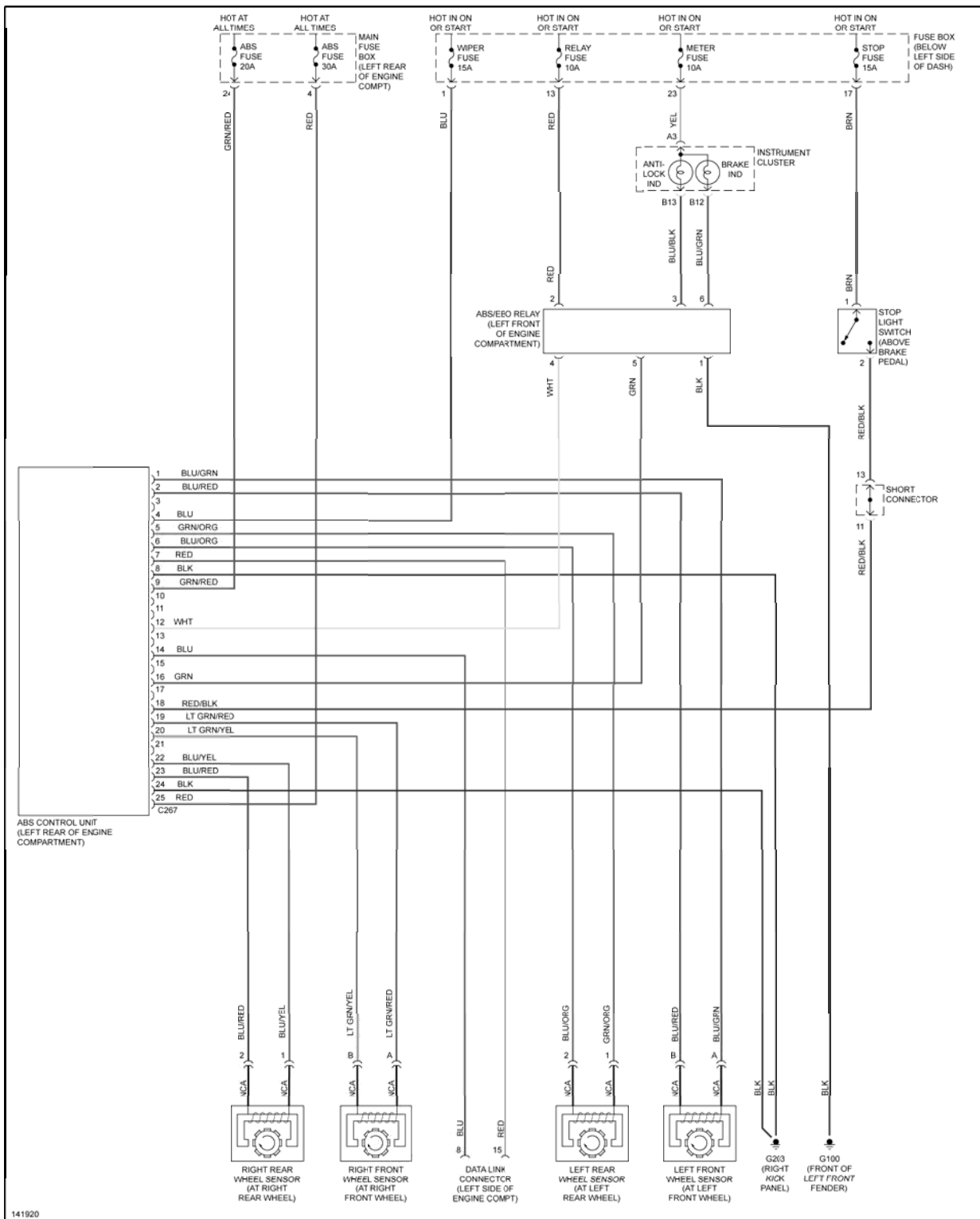


Fig. 3: Anti-lock Brake Circuits

COMPUTER DATA LINES

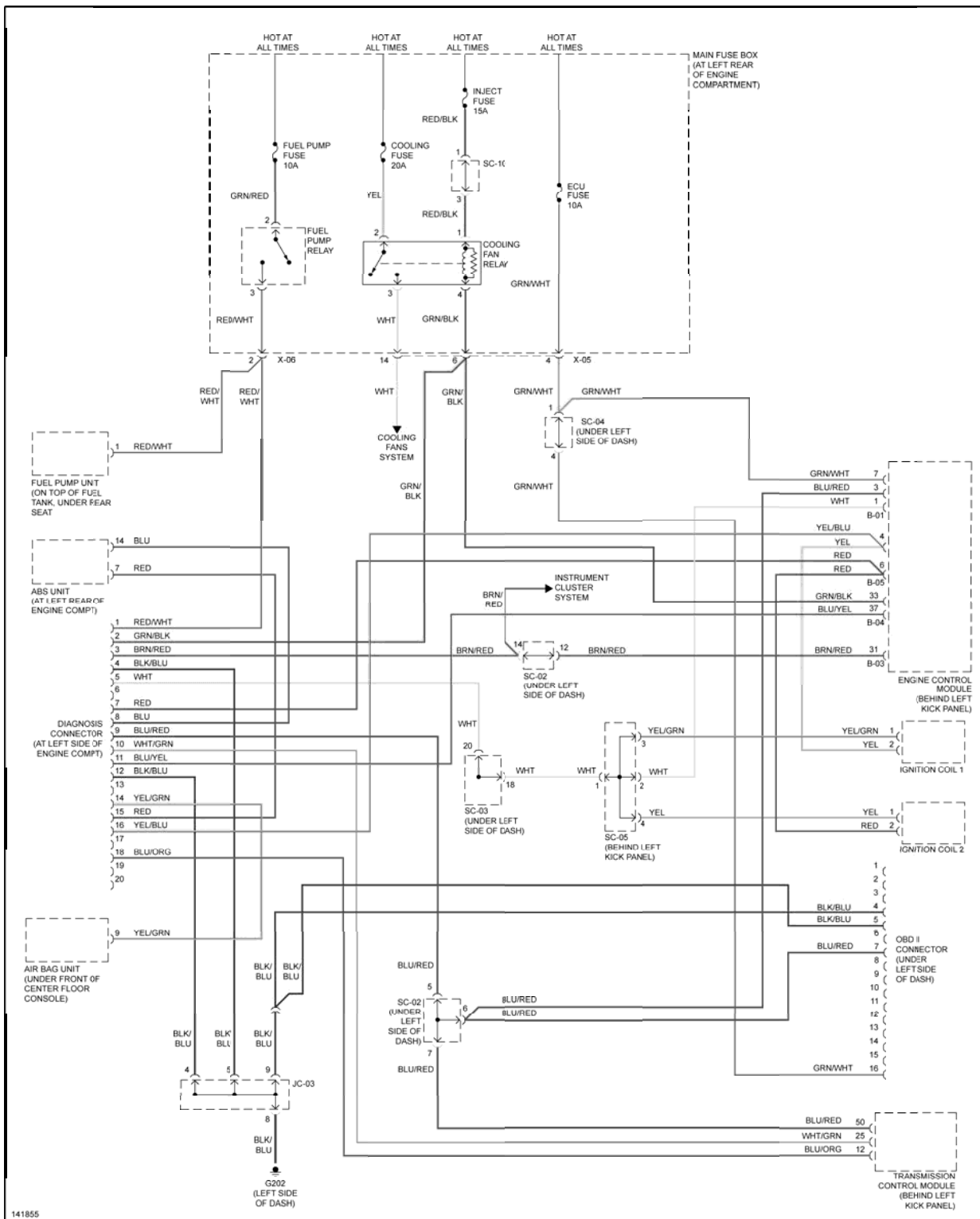


Fig. 4: Computer Data Lines

COOLING FAN

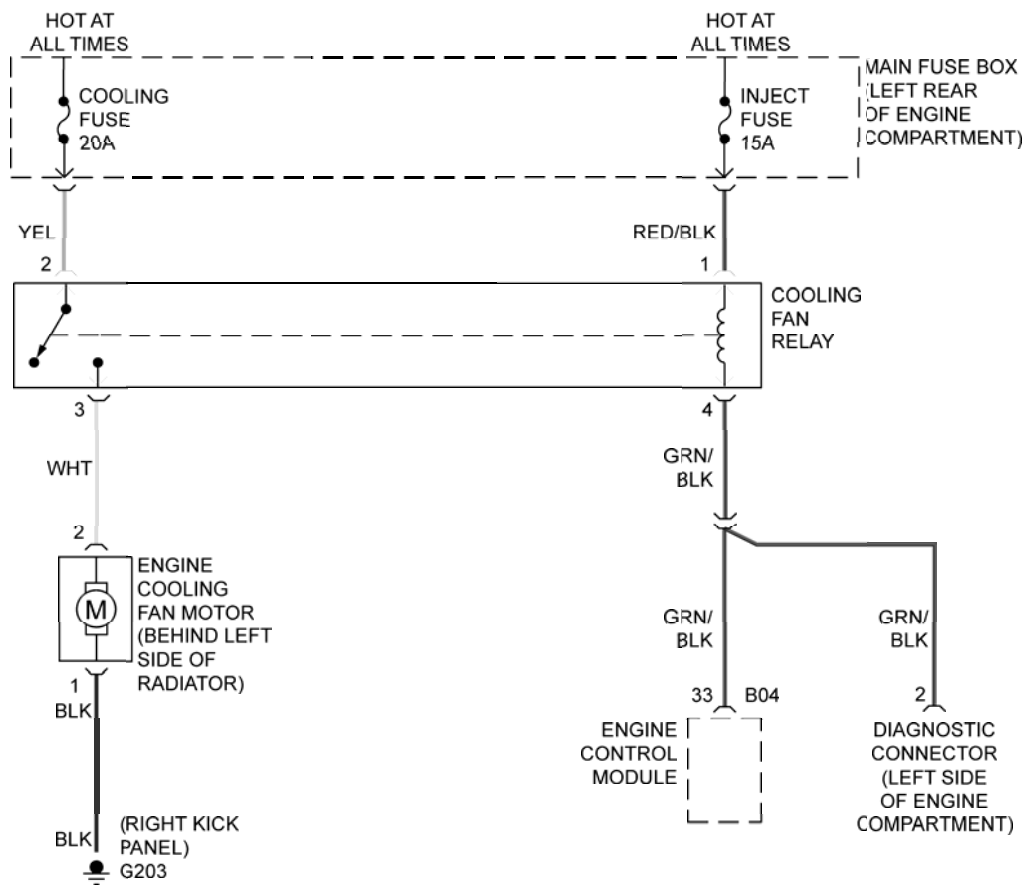


Fig. 5: Cooling Fan Circuit

DEFOGGERS

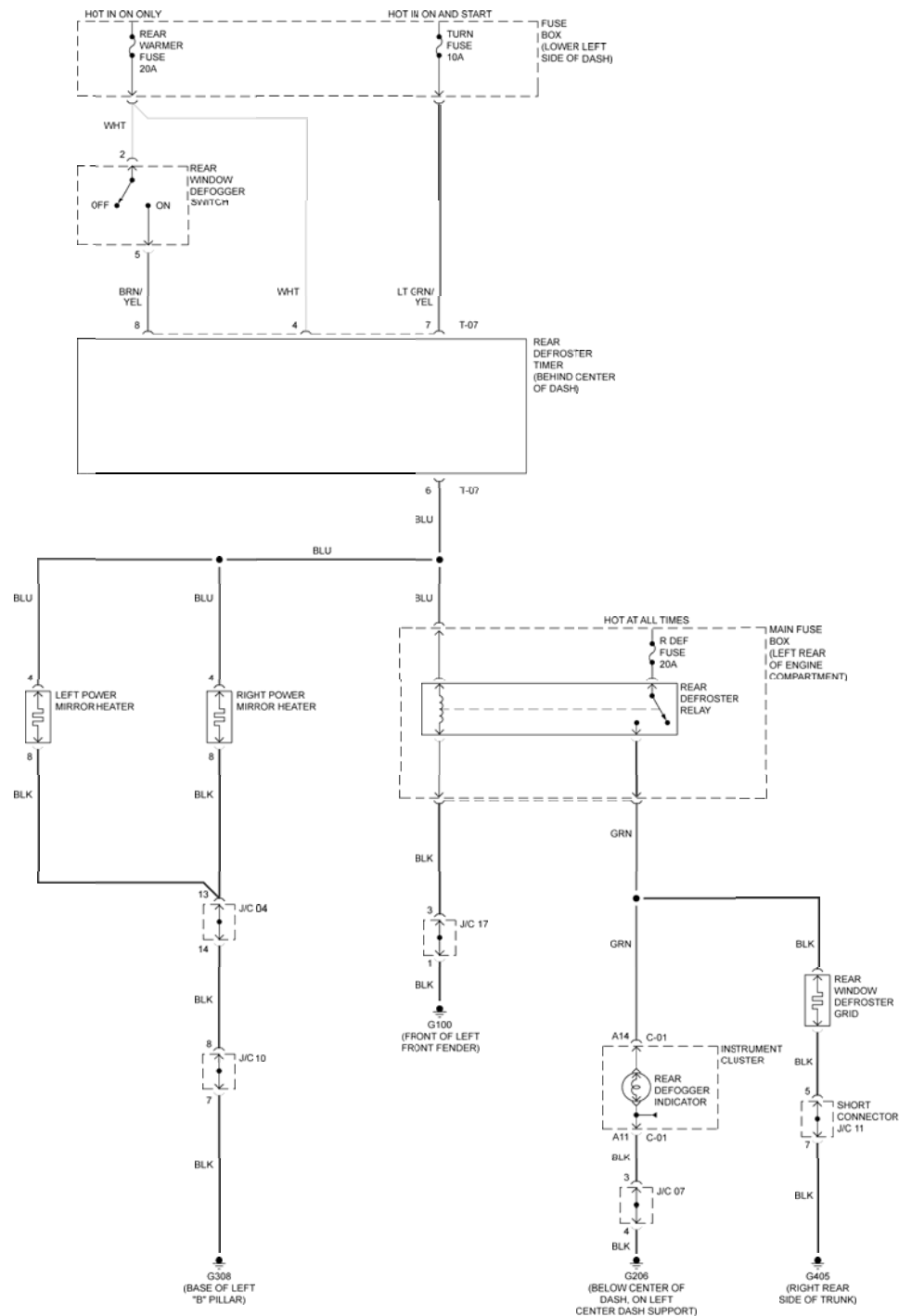


Fig. 6: Defogger Circuit

ENGINE PERFORMANCE

1.5L

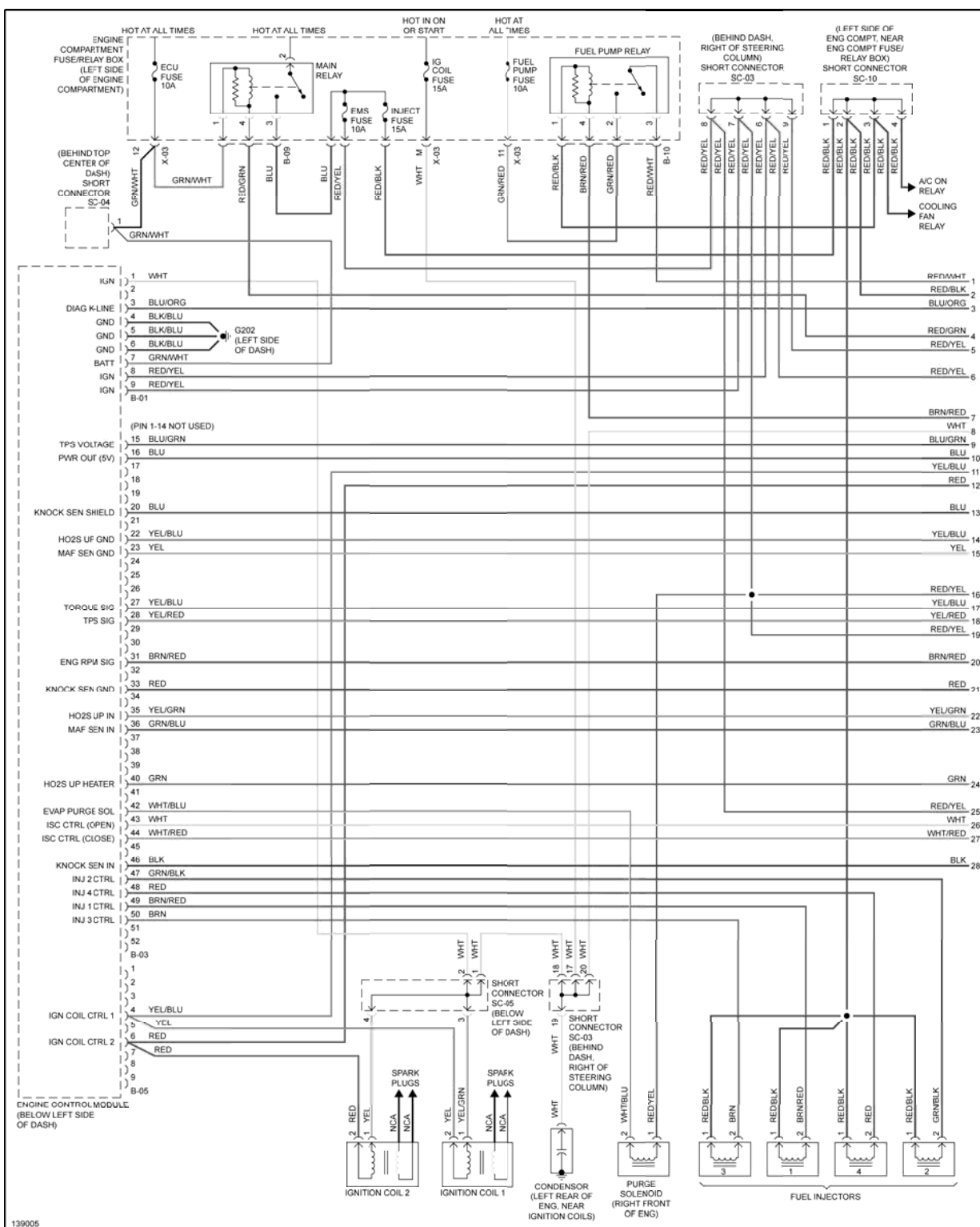


Fig. 7: 1.5L, Engine Performance Circuits (1 of 3)

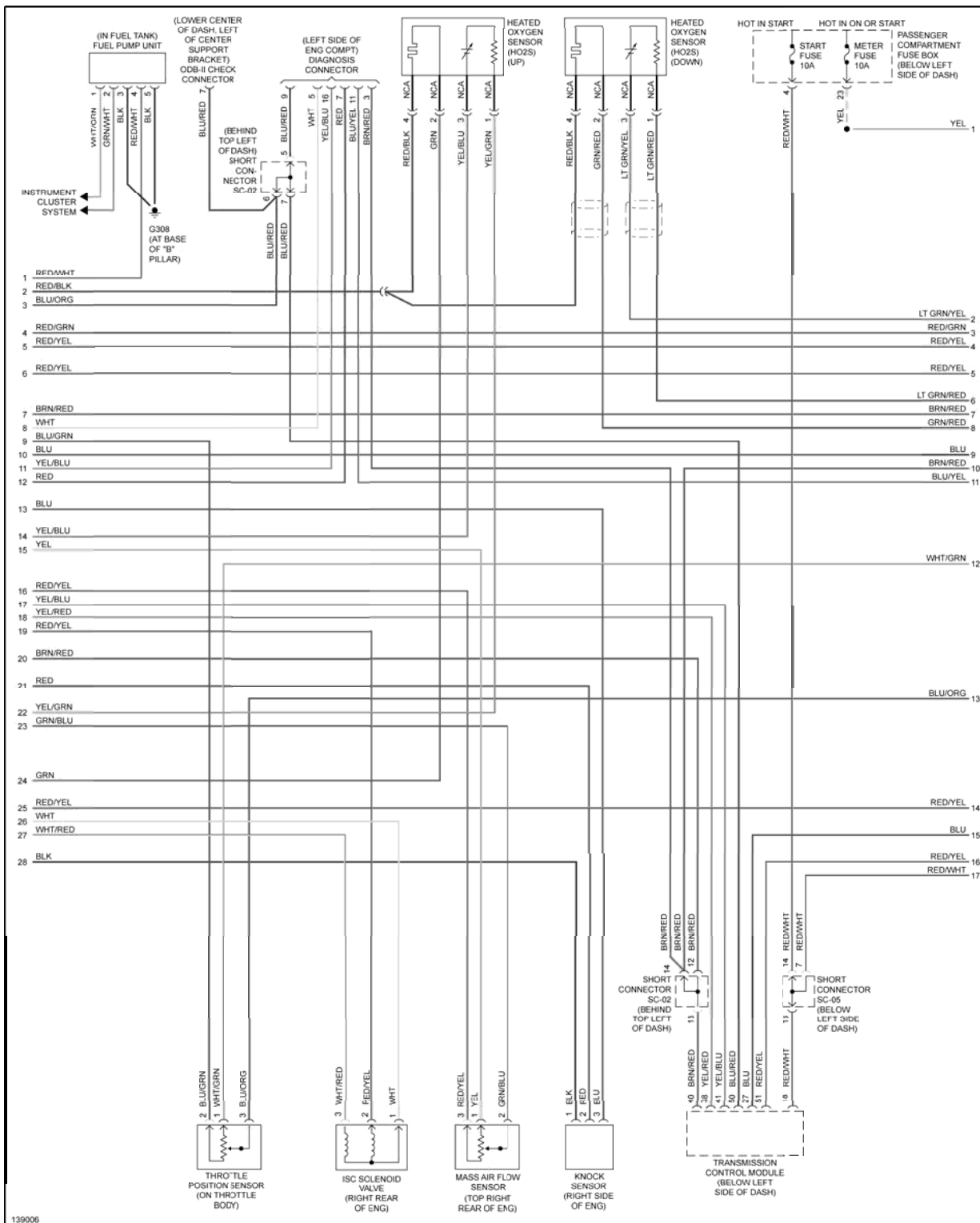
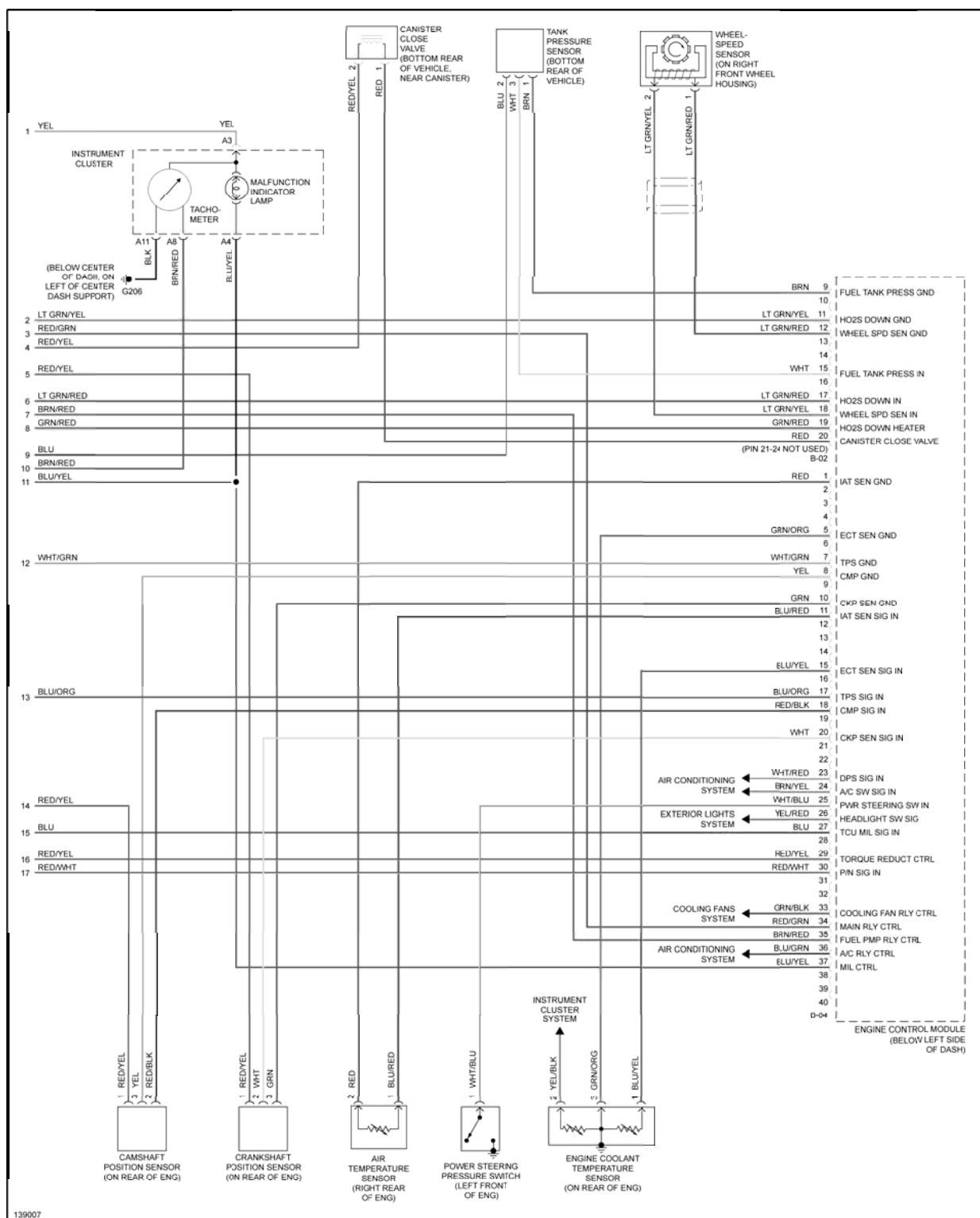


Fig. 8: 1.5L, Engine Performance Circuits (2 of 3)



EXTERIOR LIGHTS

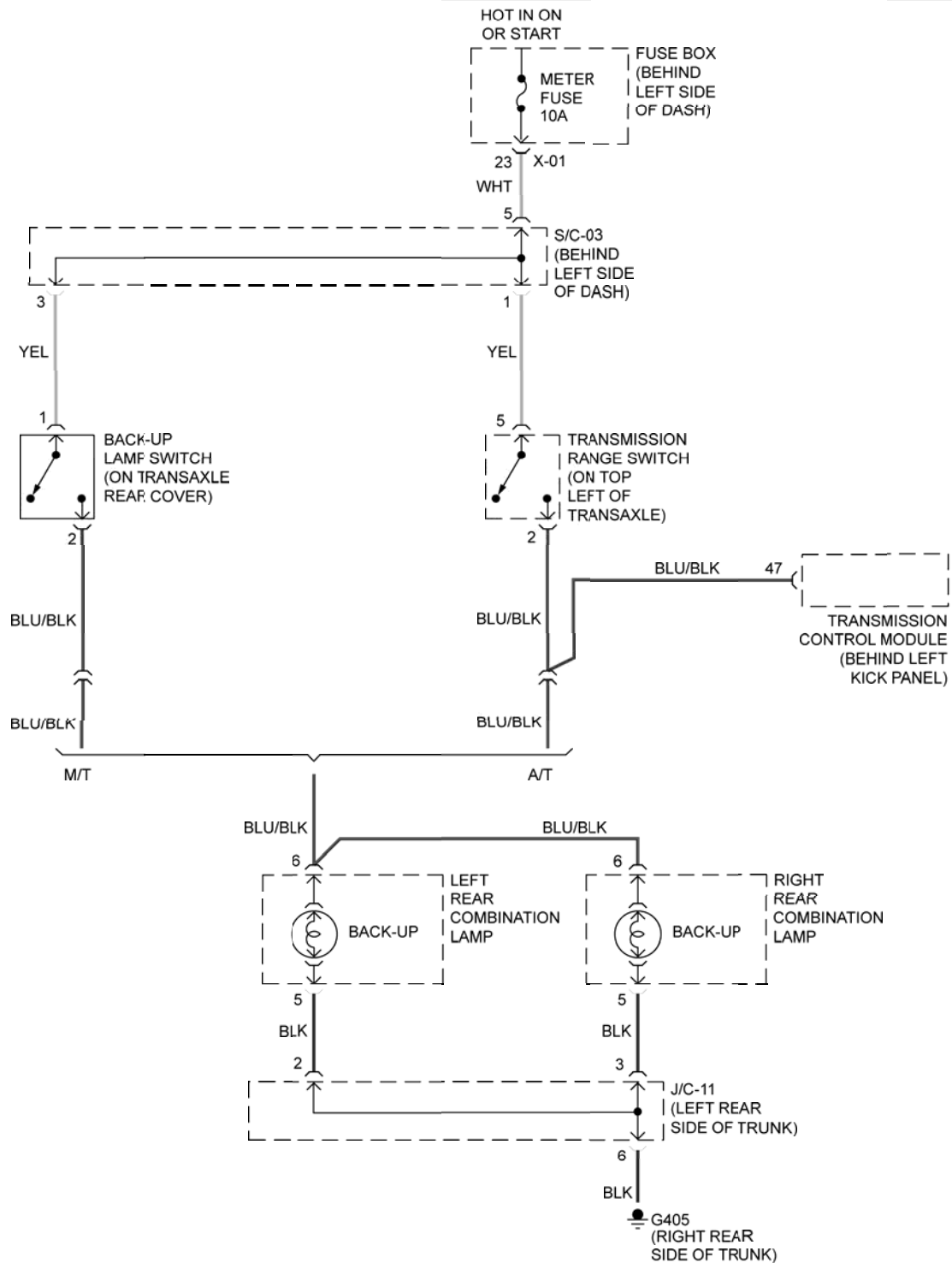


Fig. 10: Back-up Lamps Circuit



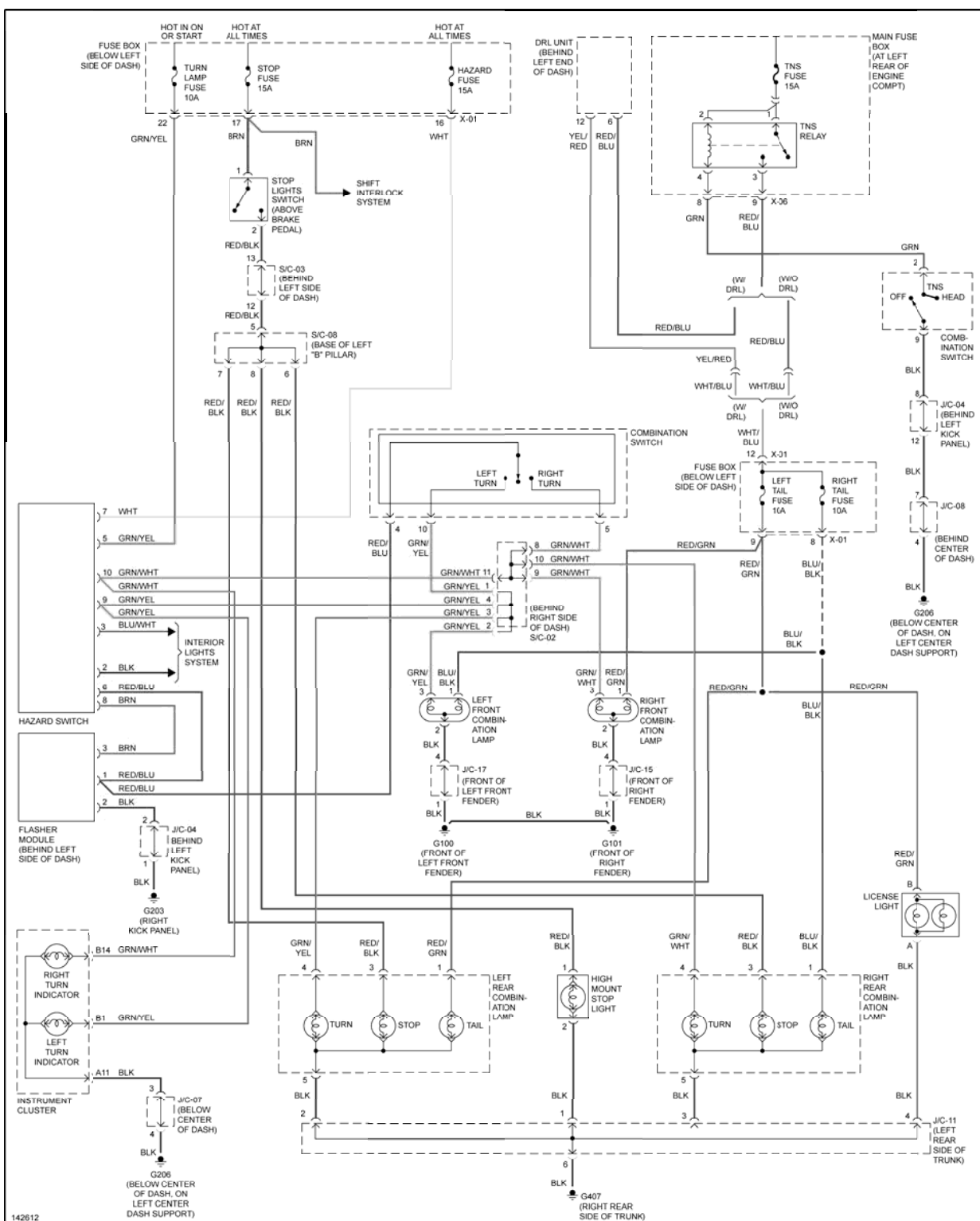


Fig. 11: Exterior Lamps Circuit

GROUND DISTRIBUTION

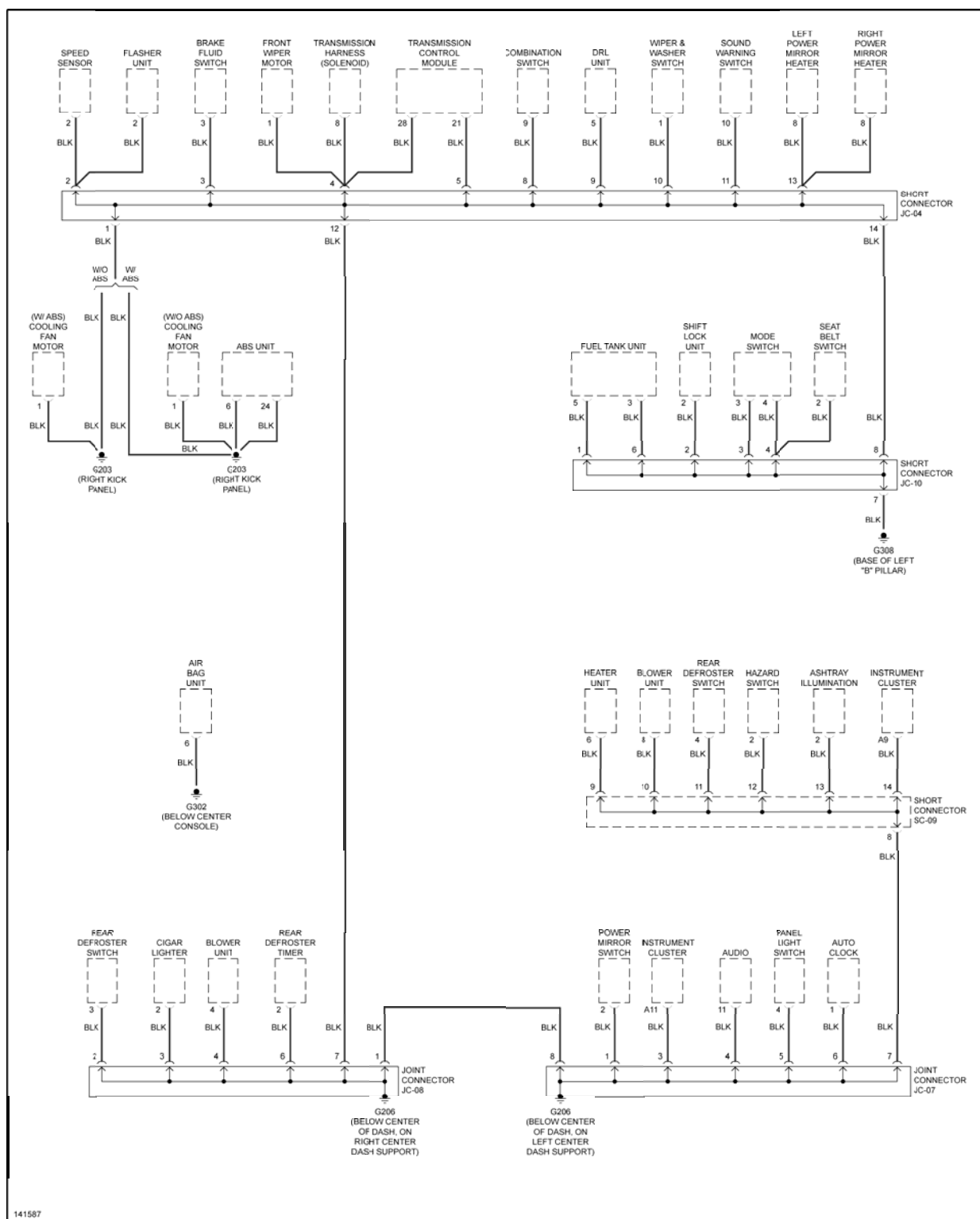


Fig. 12: Ground Distribution Circuit (1 of 2)

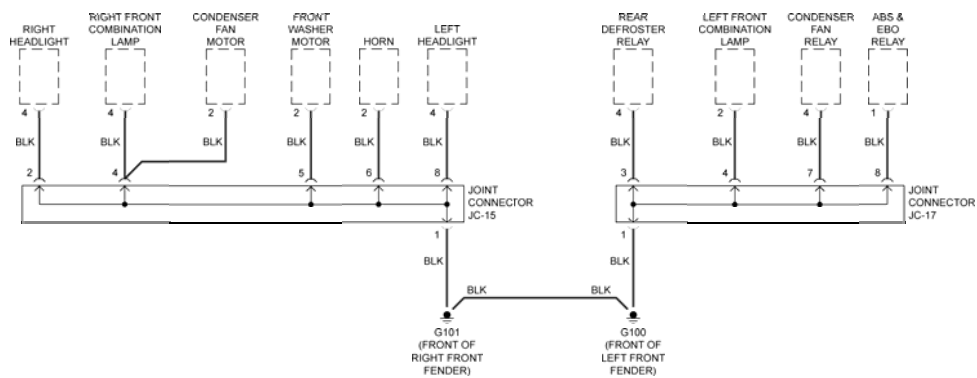
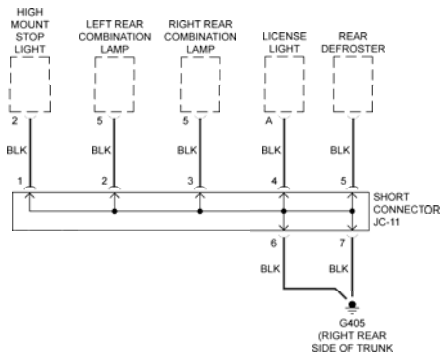
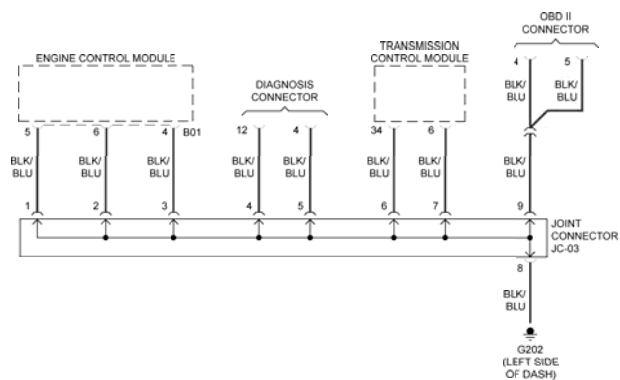


Fig. 13: Ground Distribution Circuit (2 of 2)

HEADLIGHTS

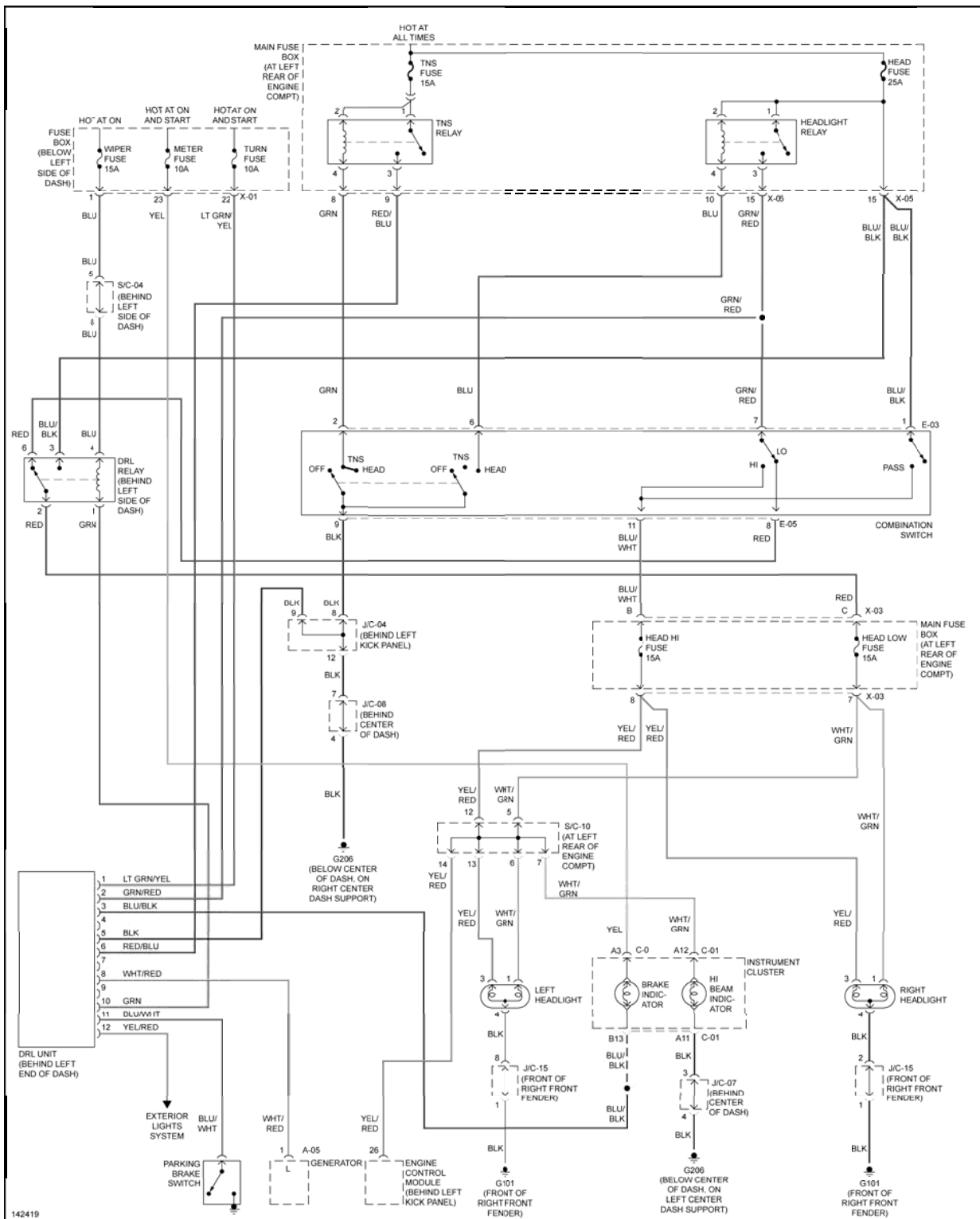


Fig. 14: Headlight Circuit, W/ DRL

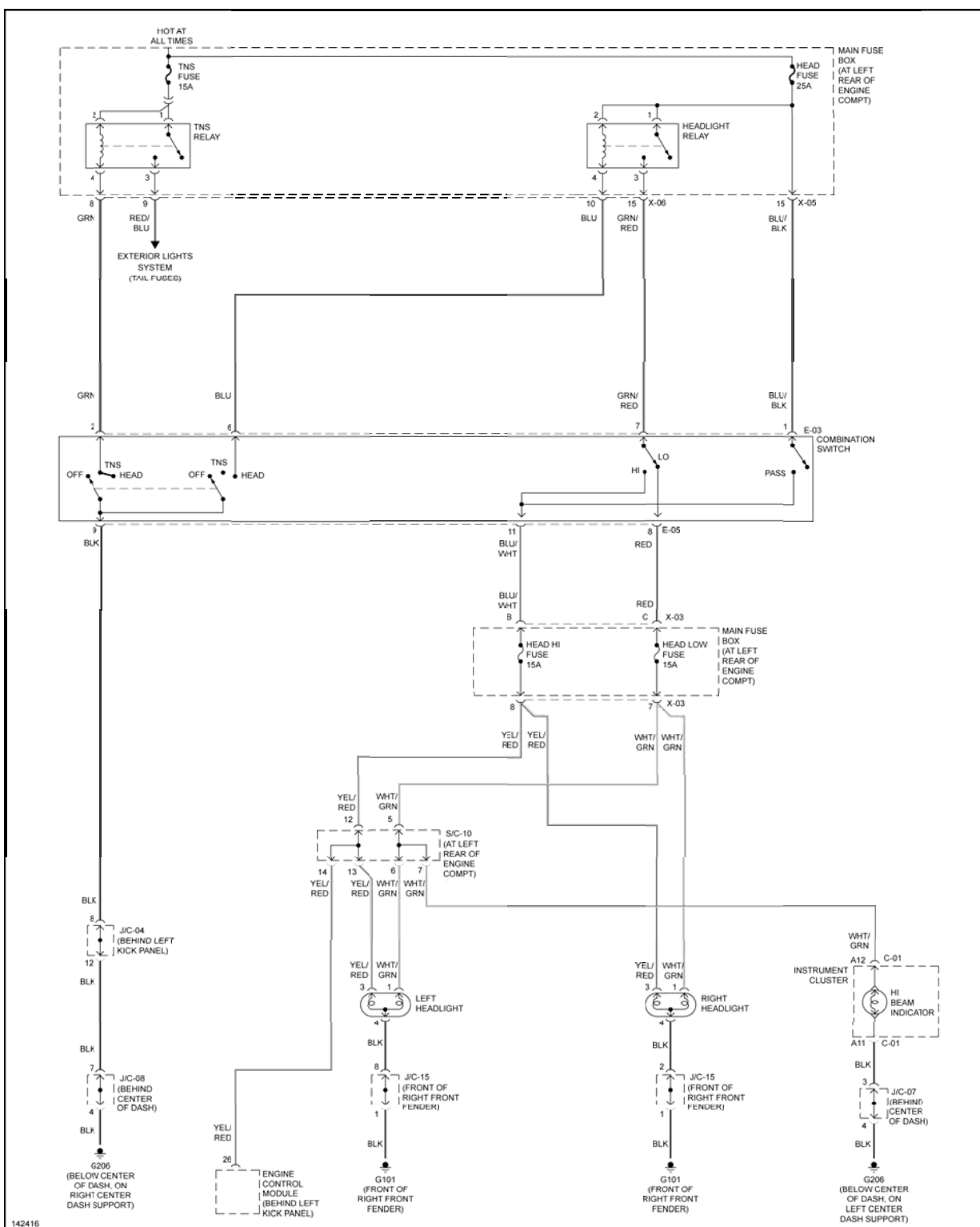
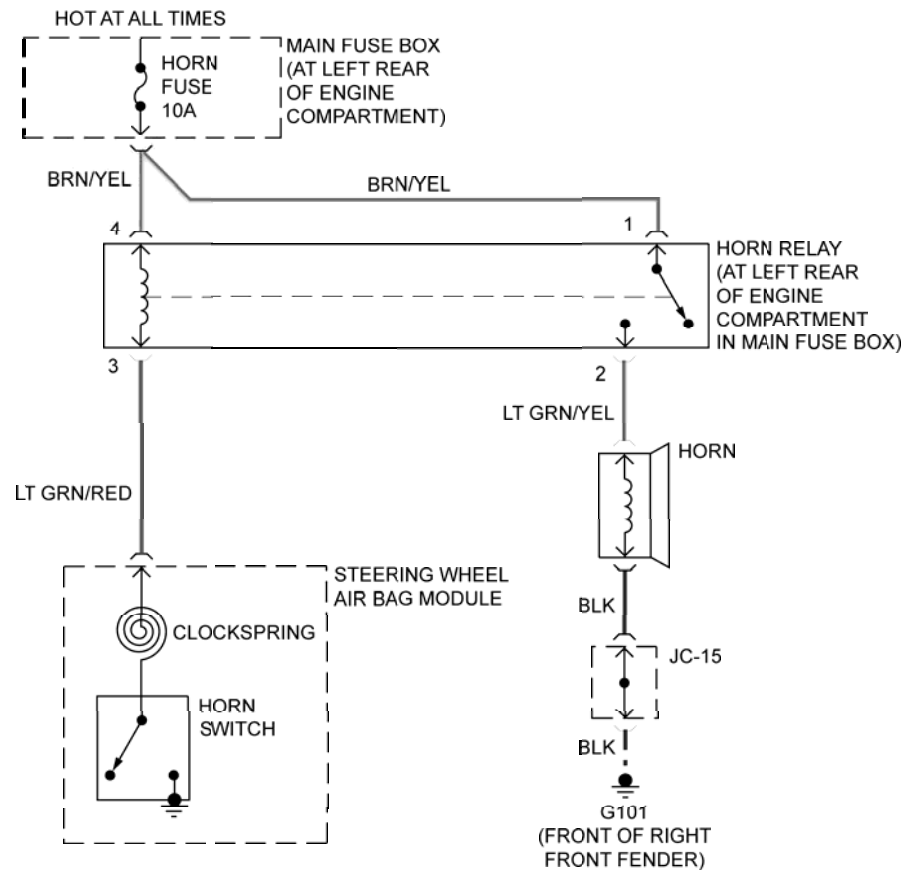


Fig. 15: Headlight Circuit, W/O DRL

HORN



141451

Fig. 16: Horn Circuit

INSTRUMENT CLUSTER

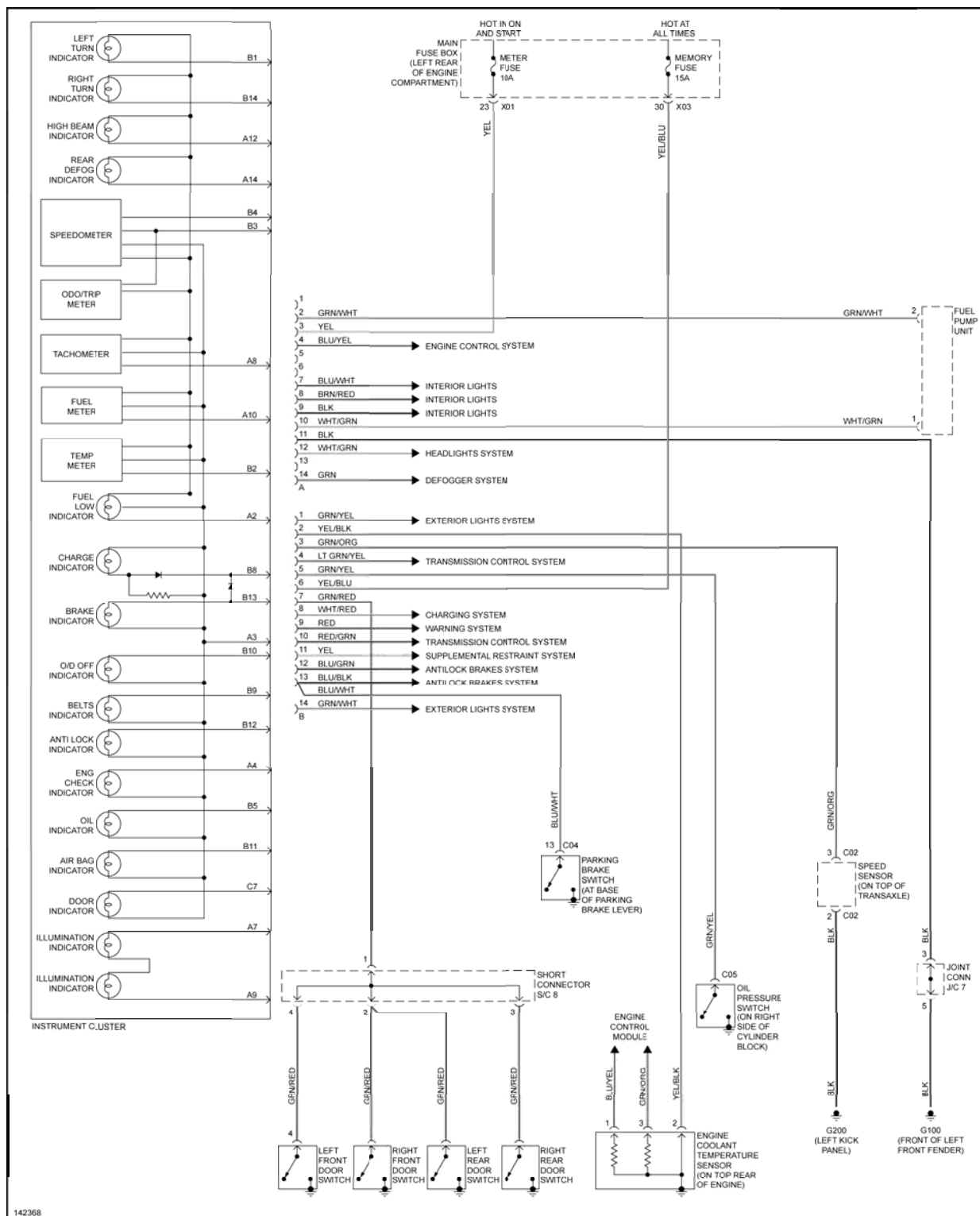


Fig. 17: Instrument Cluster Circuit

INTERIOR LIGHTS

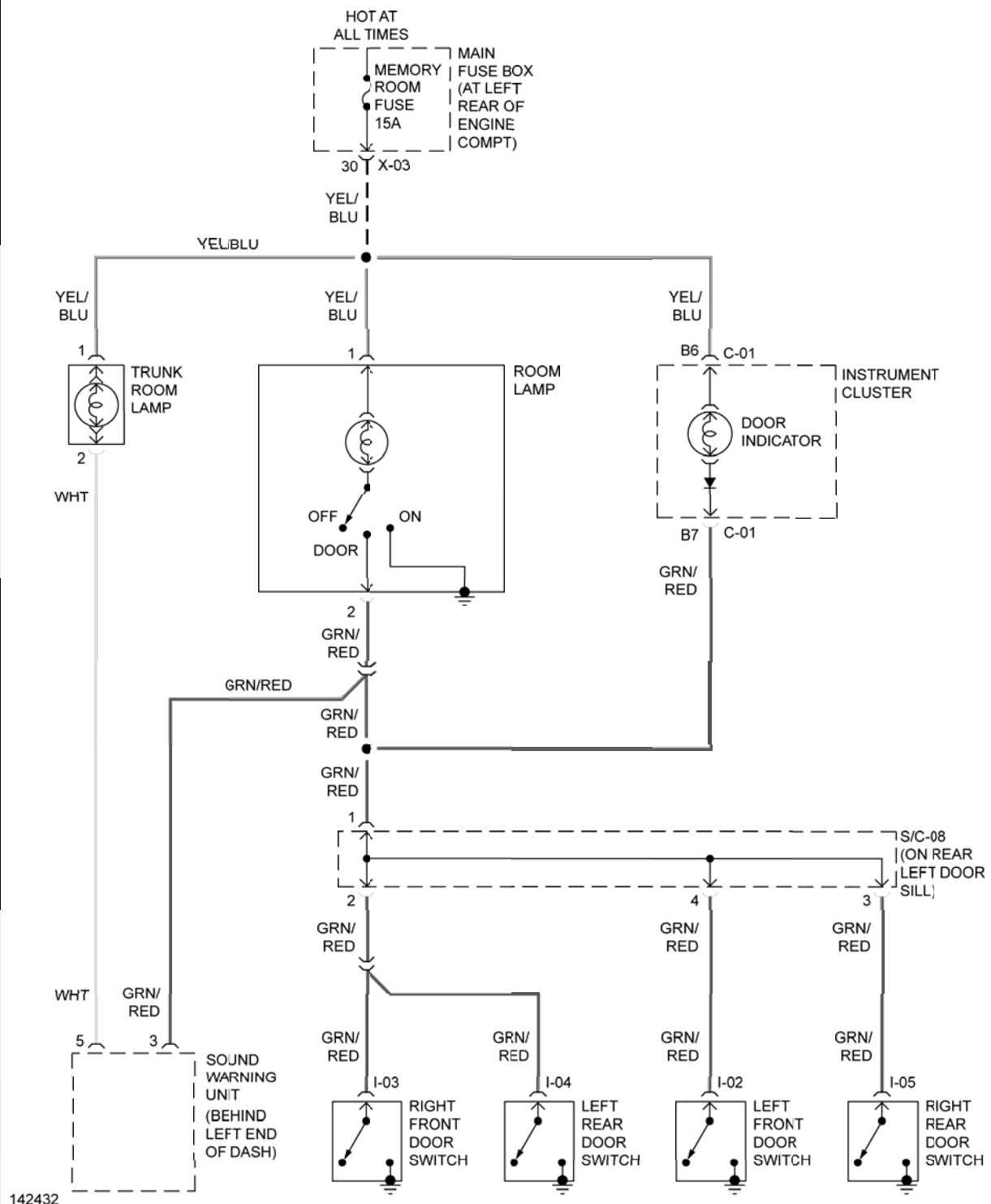


Fig. 18: Courtesy Lamps Circuit

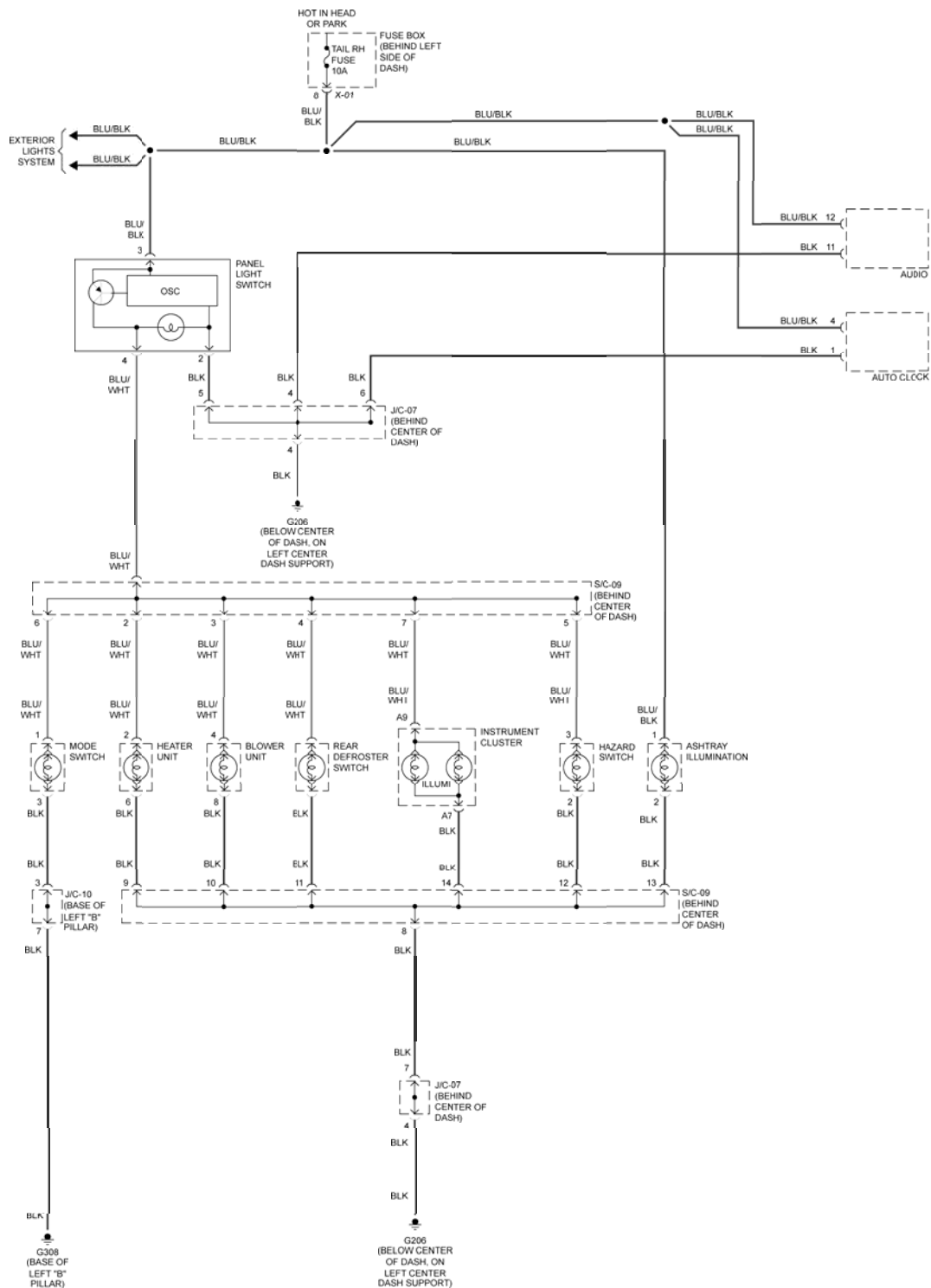


Fig. 19: Instrument Illumination Circuit

POWER DISTRIBUTION

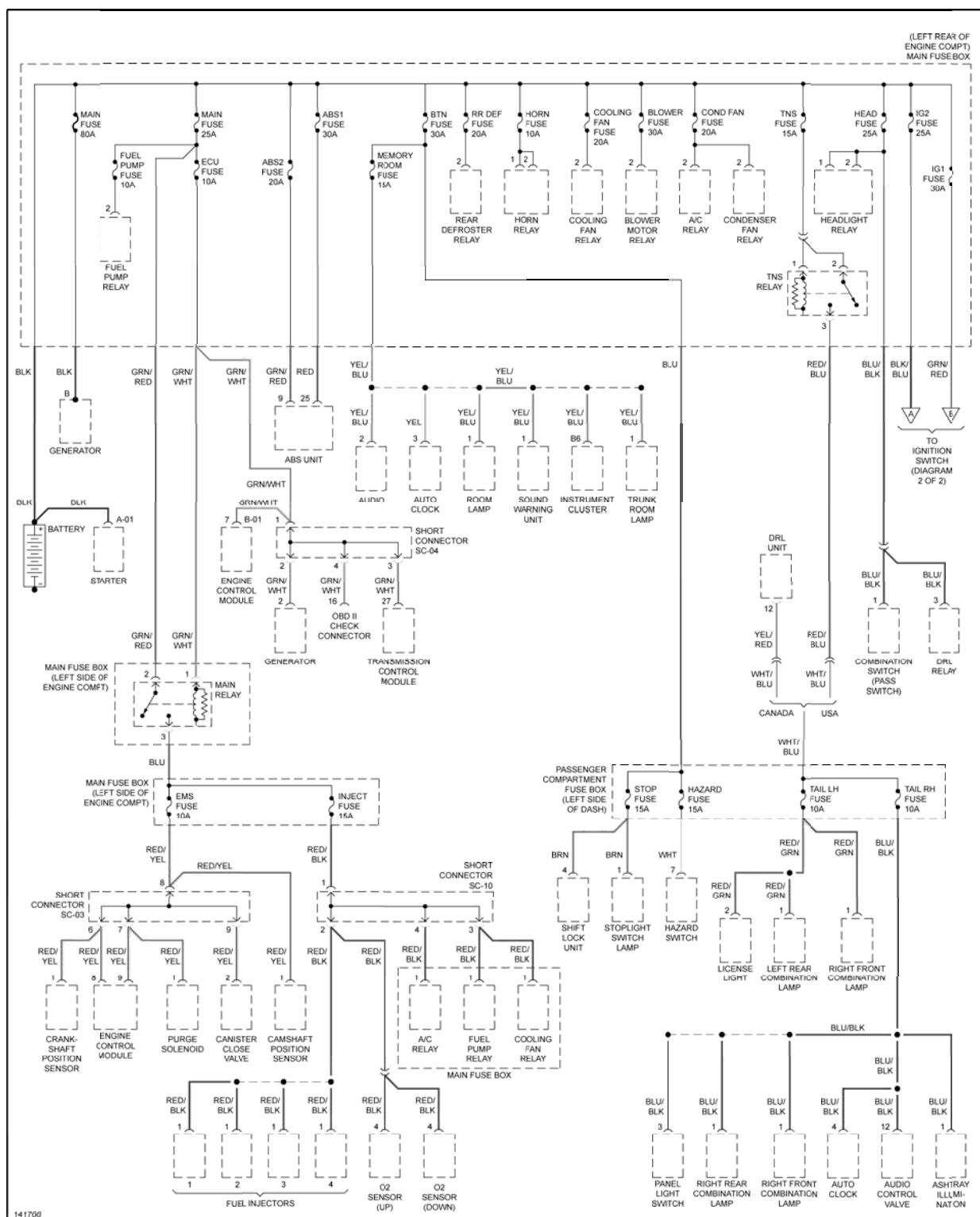


Fig. 20: Power Distribution Circuit (1 of 2)

Fig. 21: Power Distribution Circuit (2 of 2)

POWER MIRRORS

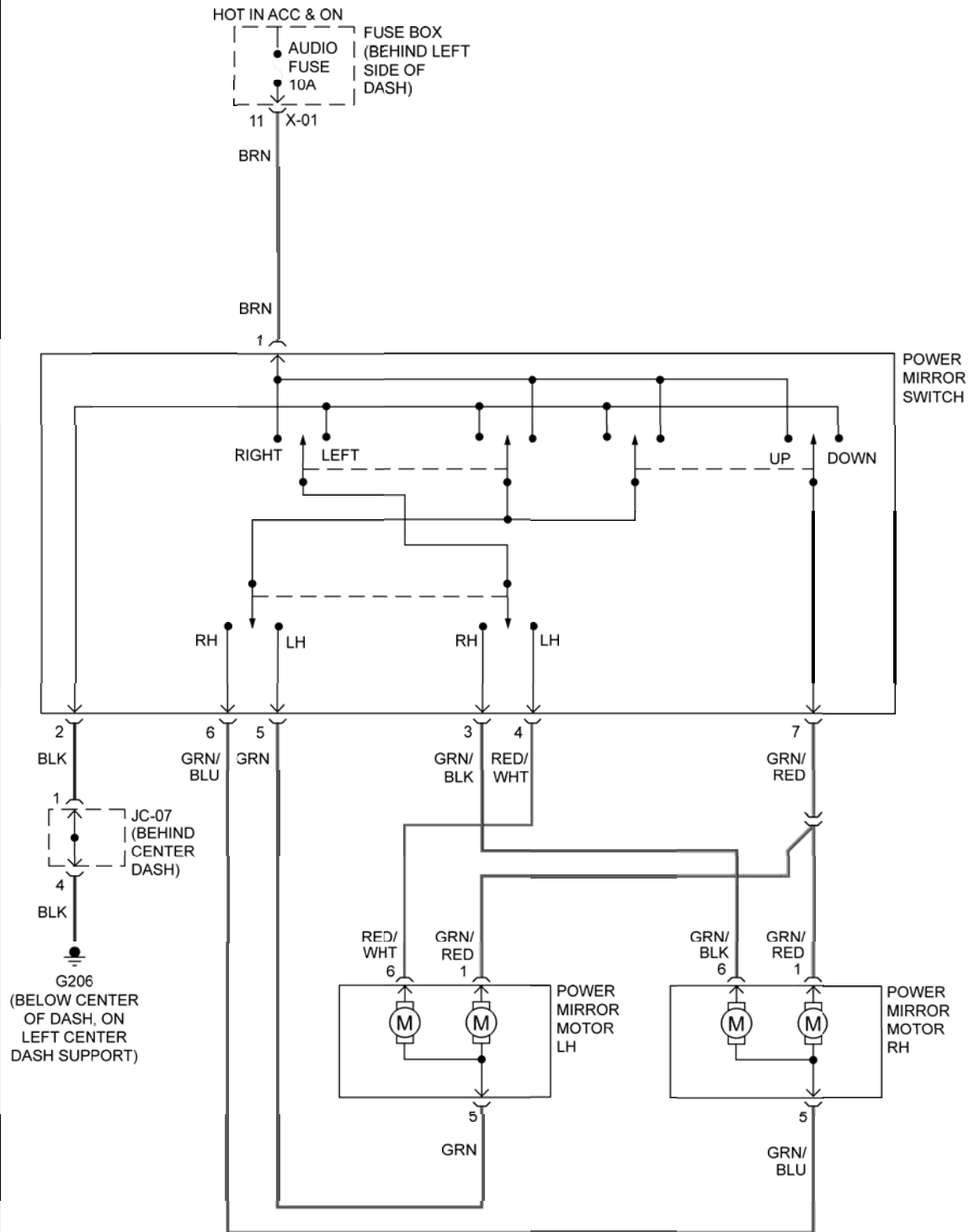


Fig. 22: Power Mirror Circuit

RADIO

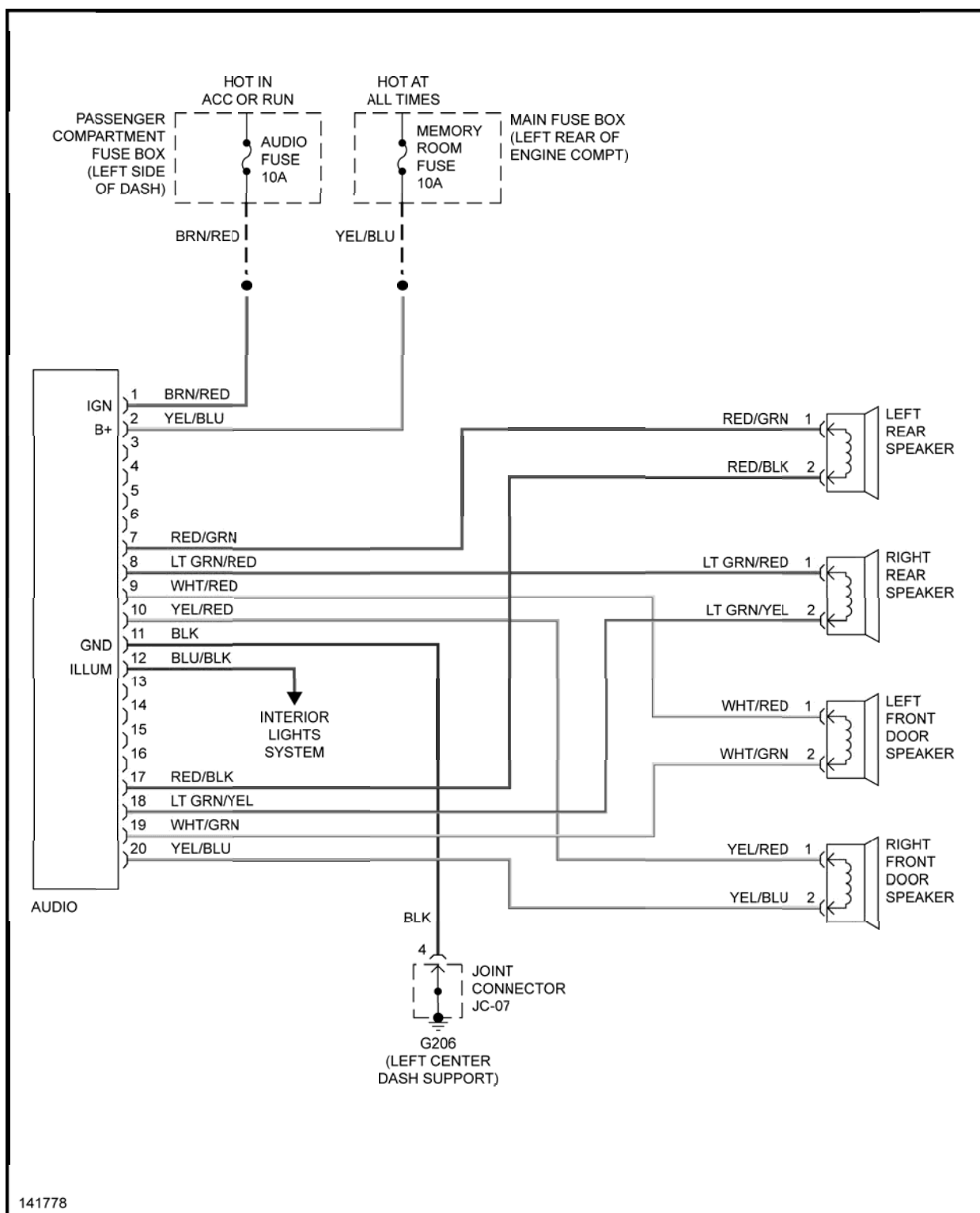


Fig. 23: Radio Circuits

SHIFT INTERLOCKS

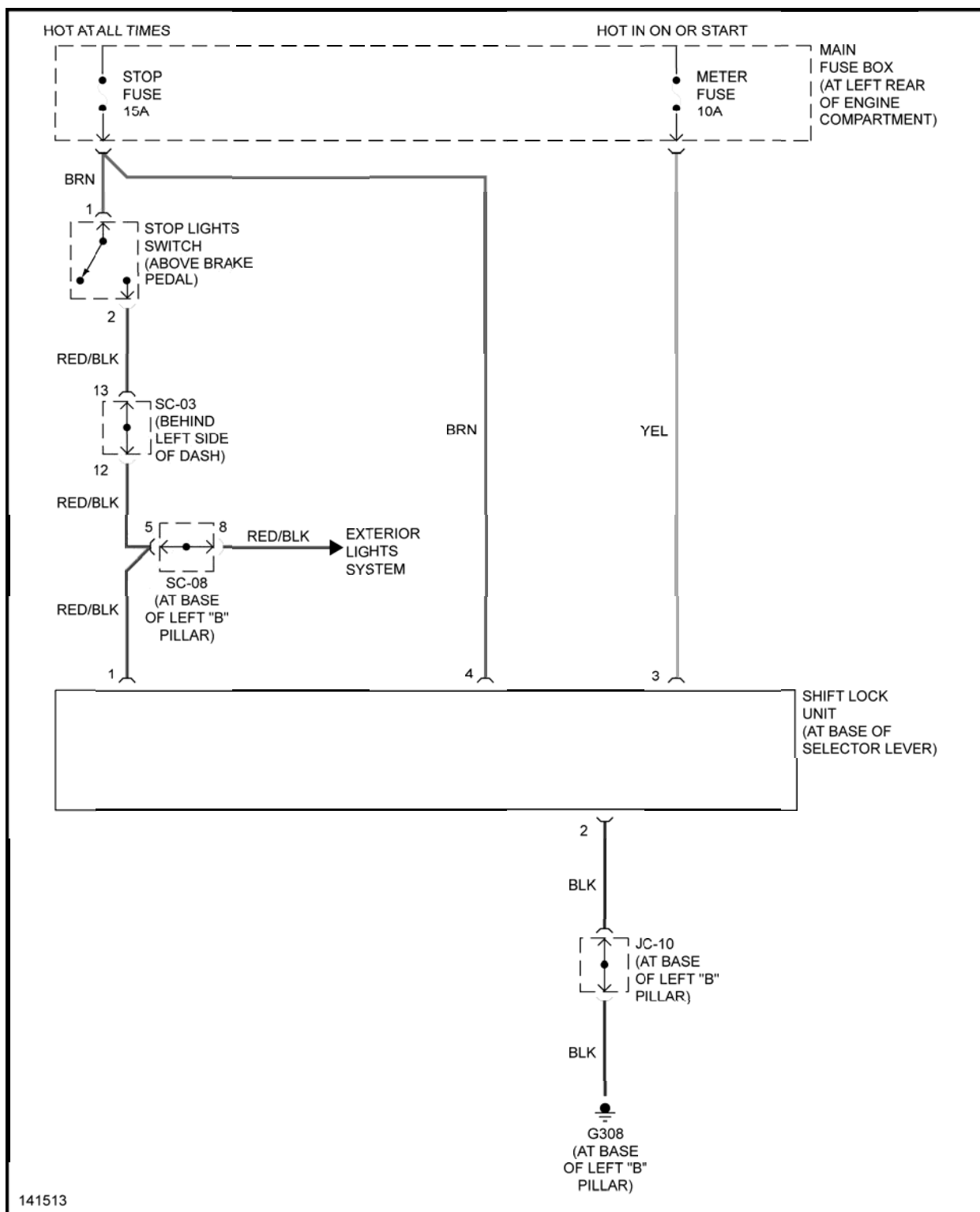


Fig. 24: Shift Interlock Circuit

STARTING/CHARGING

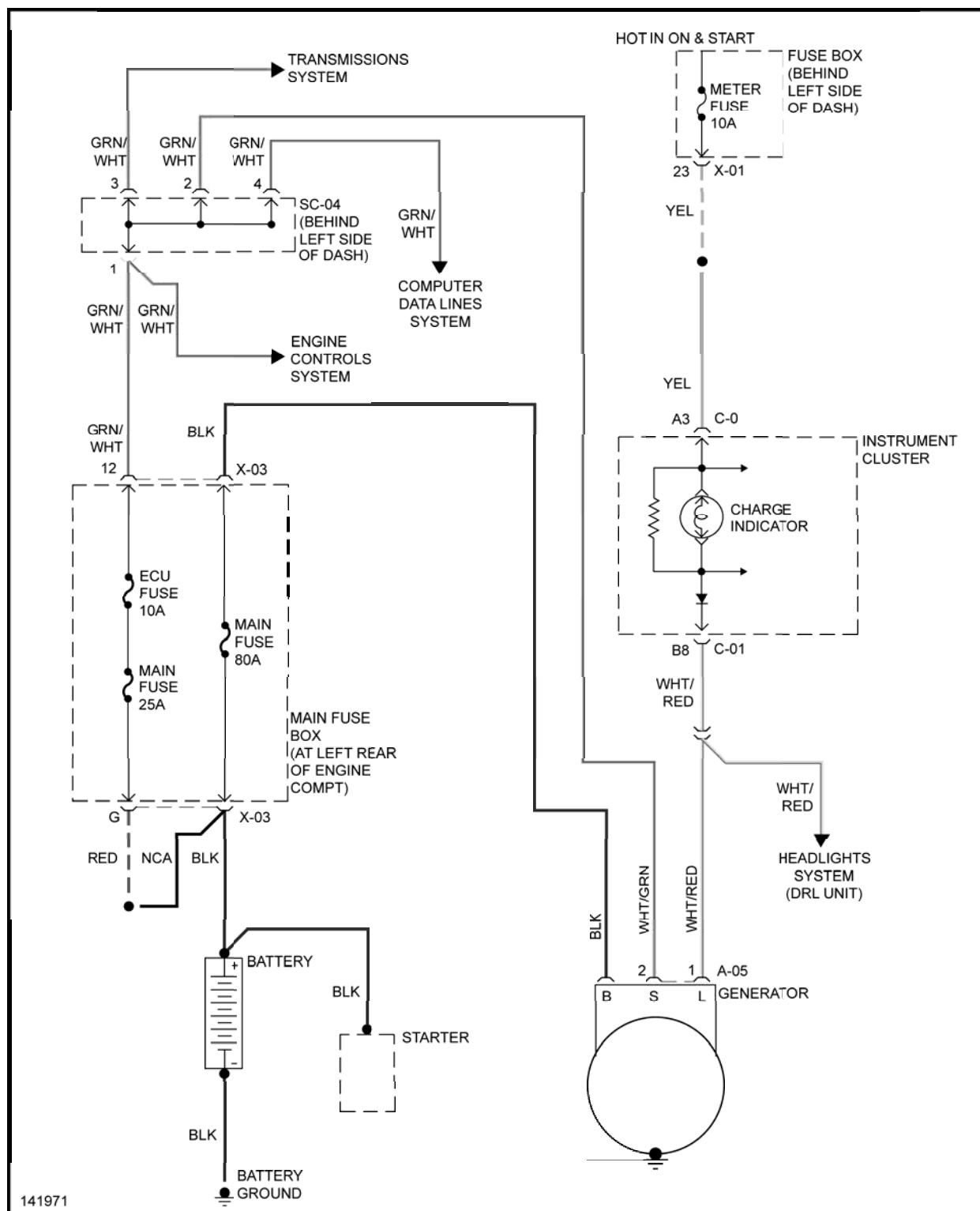


Fig. 25: Charging Circuit

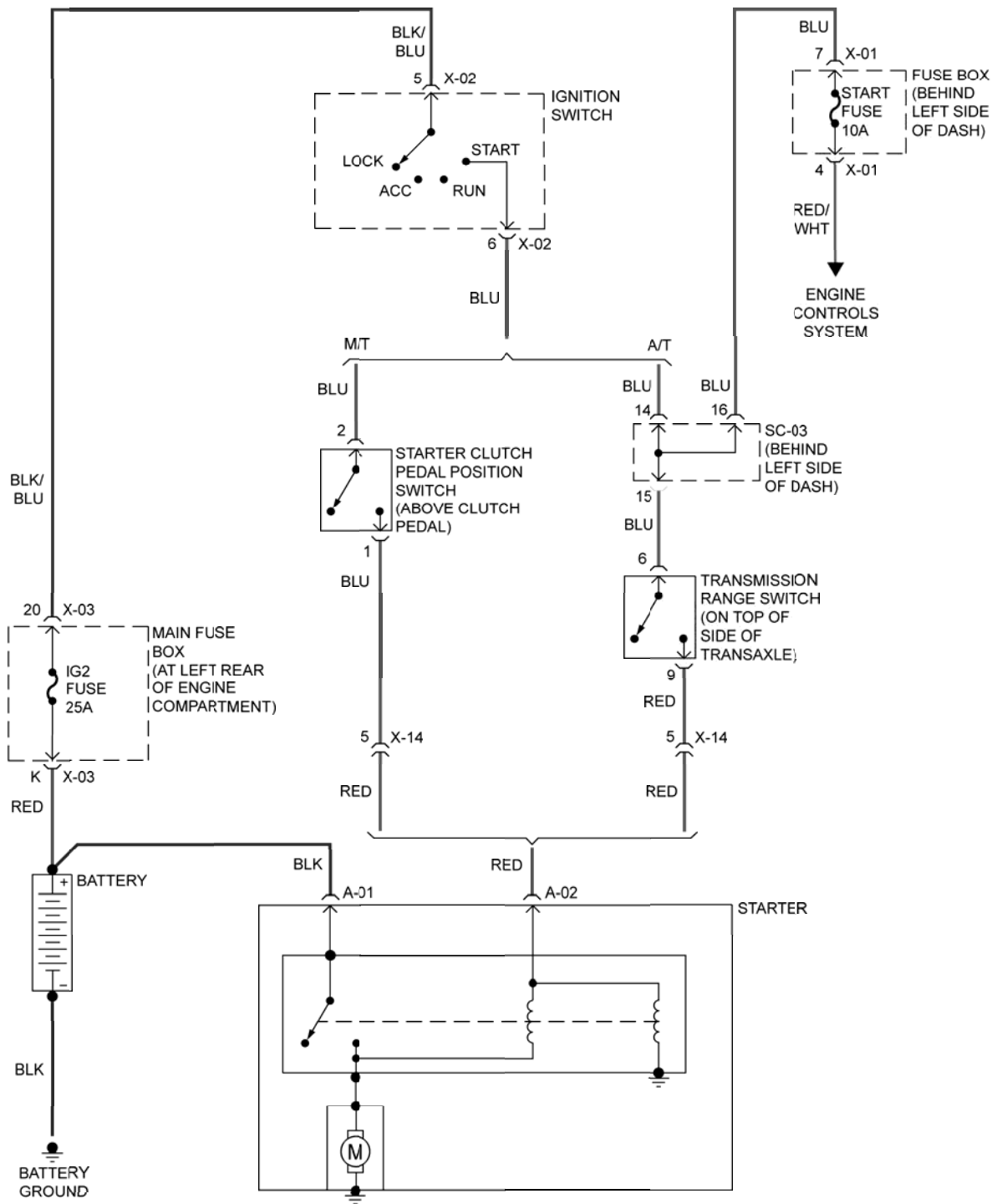


Fig. 26: Starting Circuit

SUPPLEMENTAL RESTRAINTS

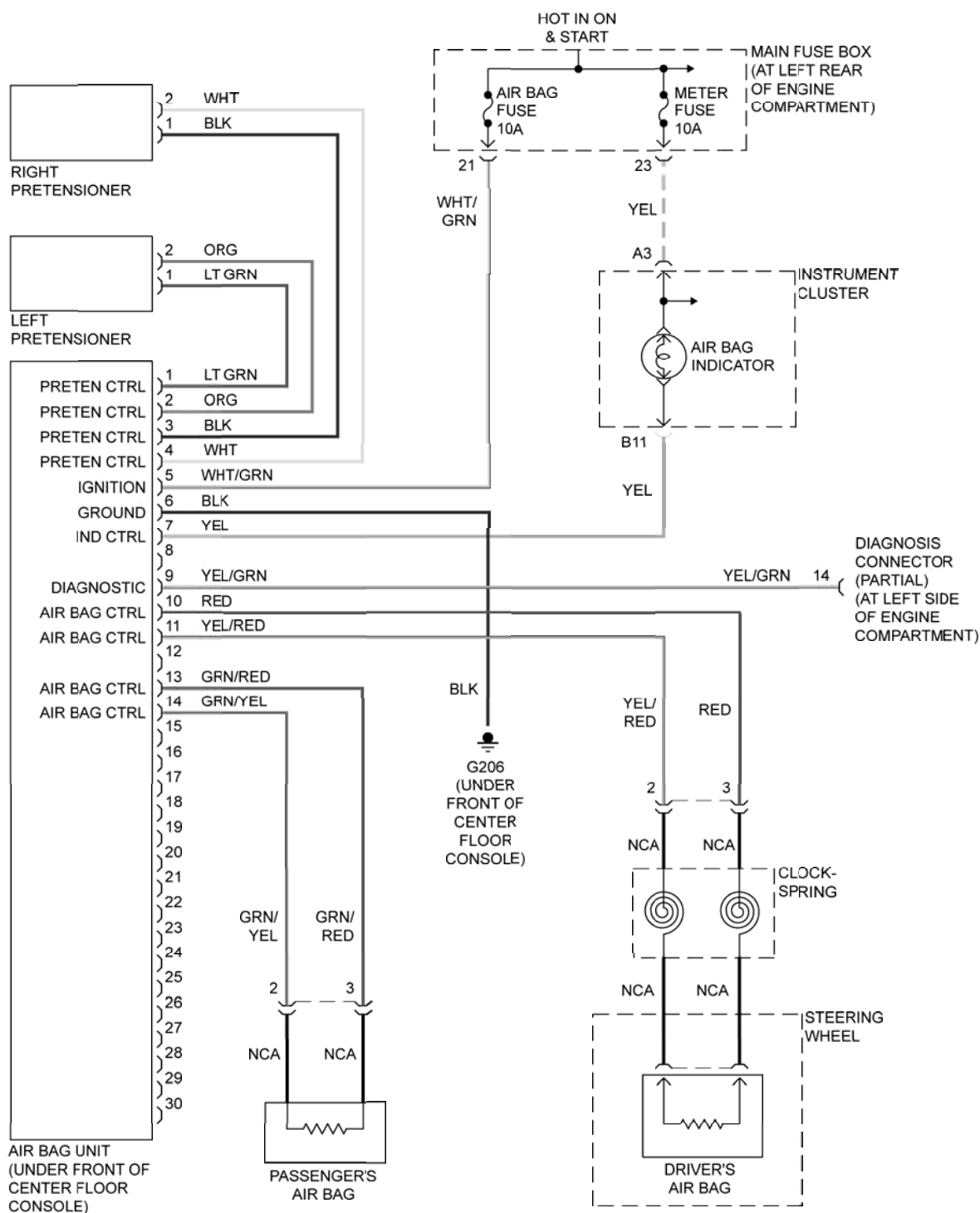


Fig. 27: Supplemental Restraint Circuit

WARNING SYSTEMS

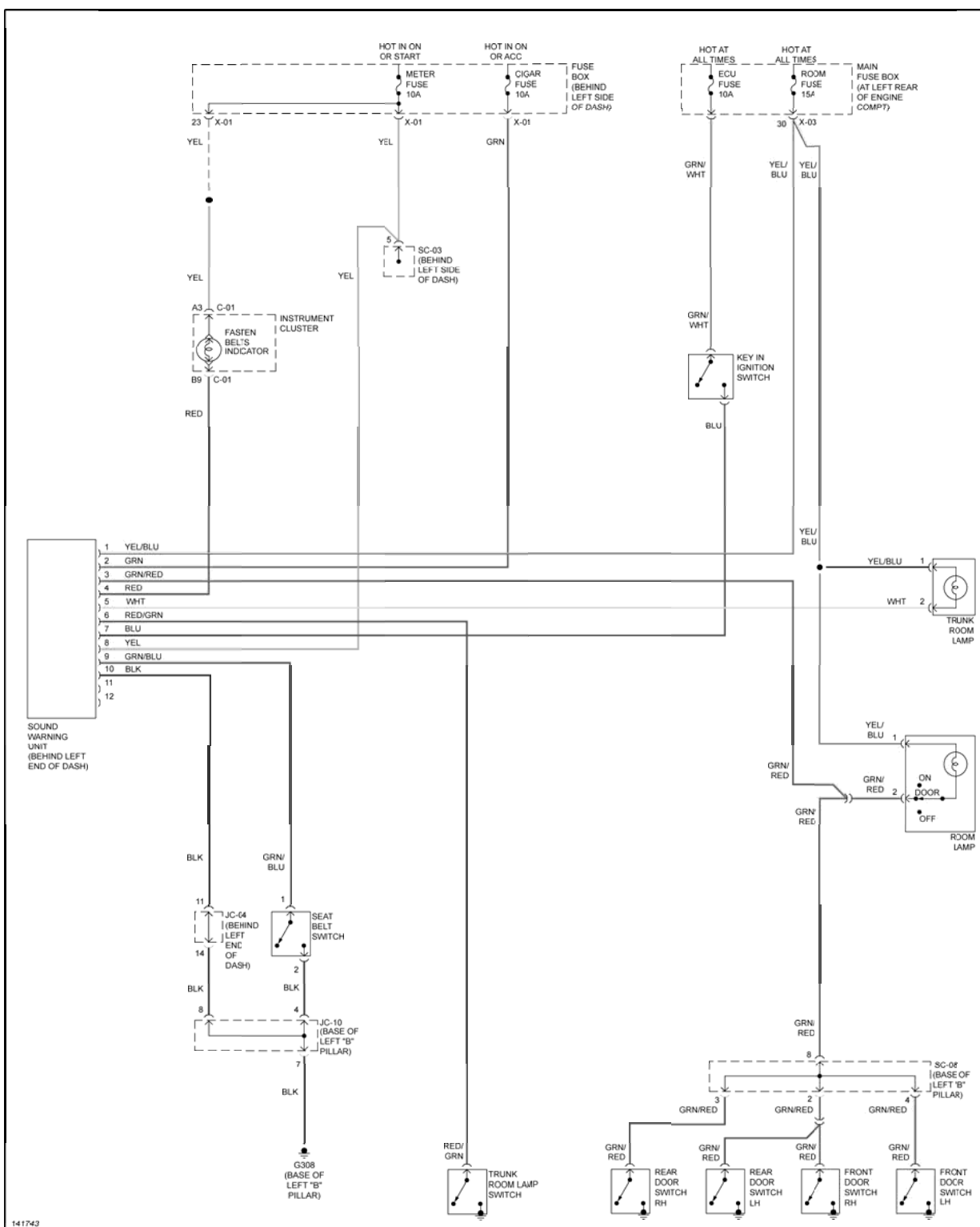


Fig. 28: Warning System Circuits

WIPER/WASHER

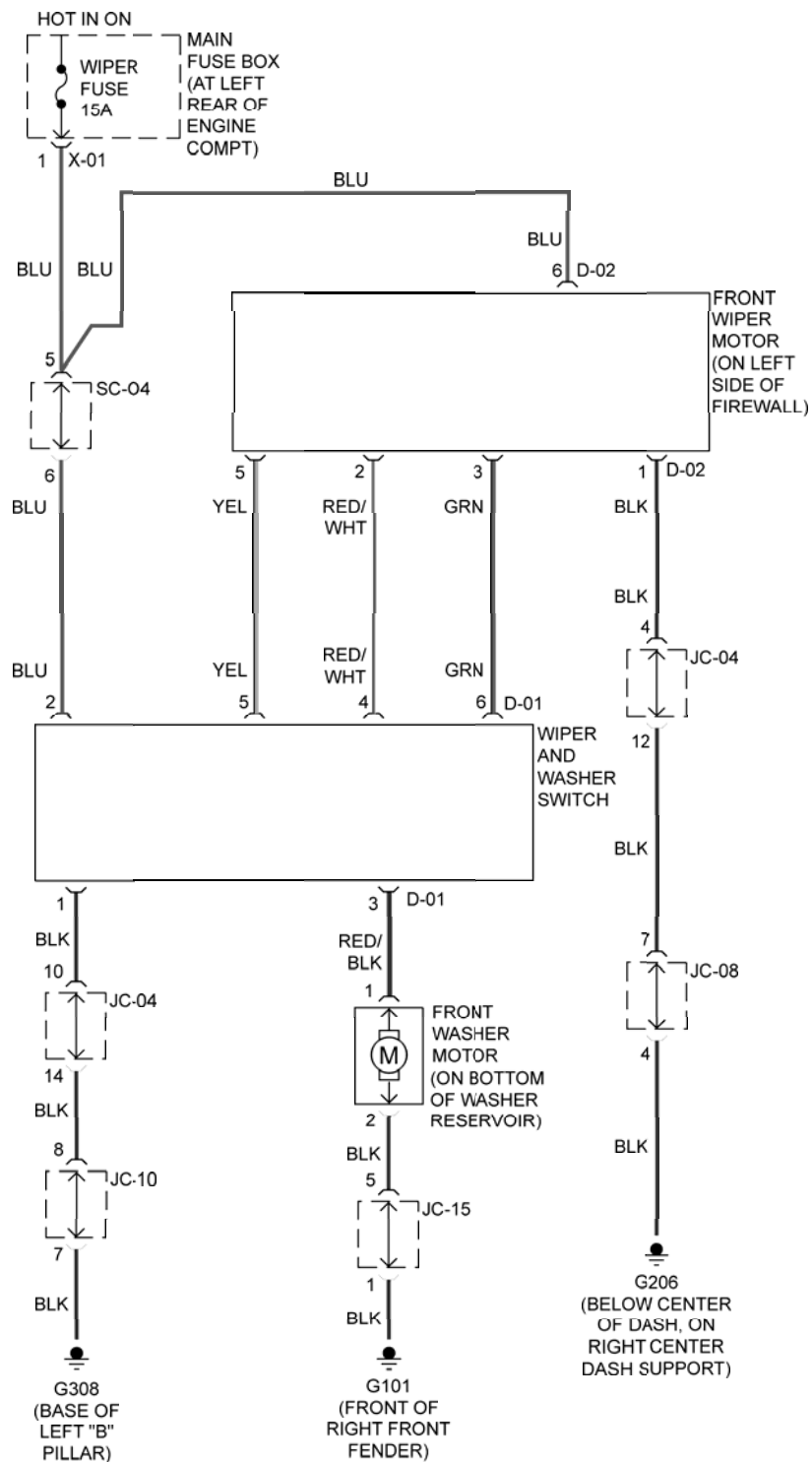


Fig. 29: Wiper/Washer Circuit



RIO

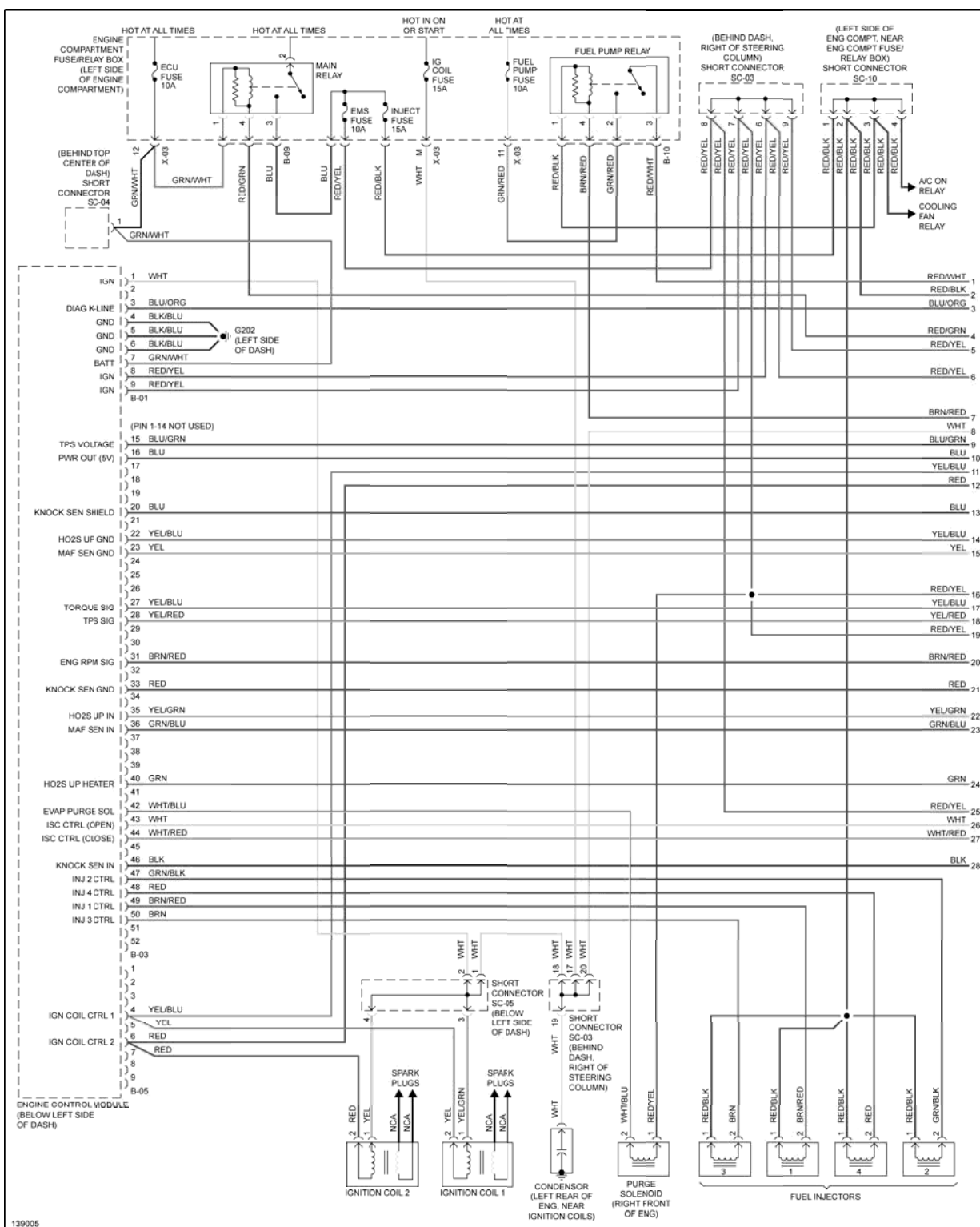


Fig. 12: Wiring Diagram (Rio 1.5L - 1 Of 3)

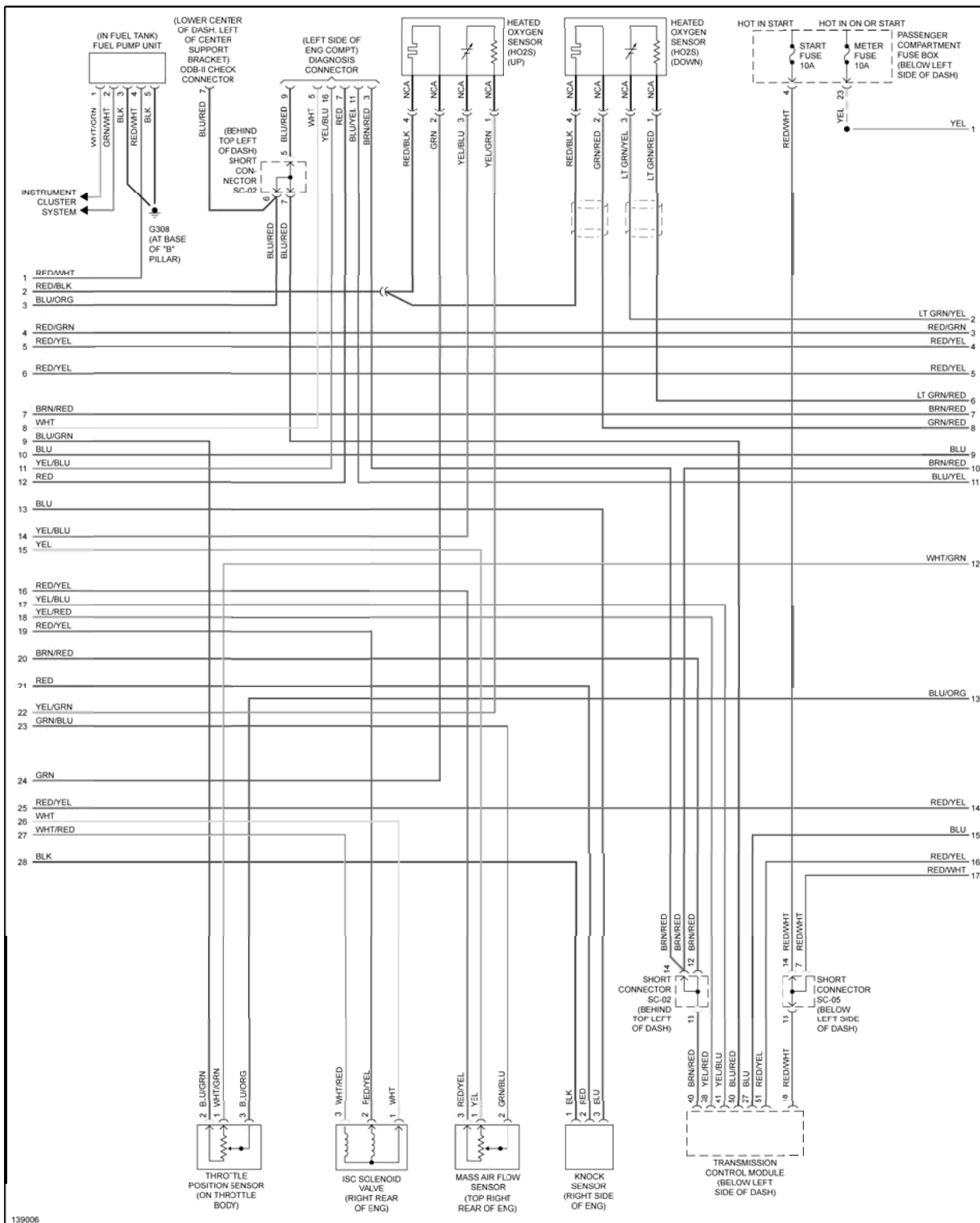


Fig. 13: Wiring Diagram (Rio 1.5L - 2 Of 3)

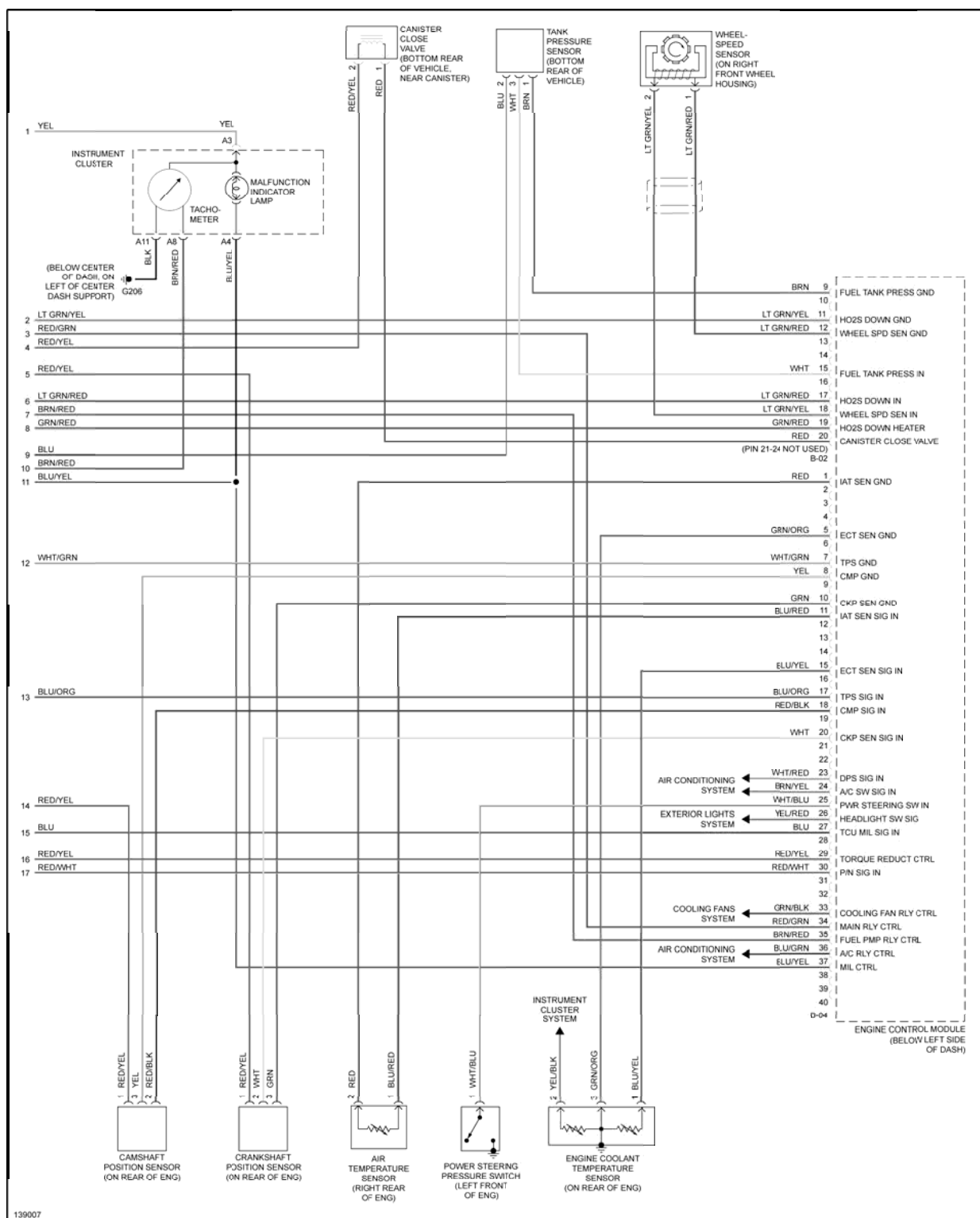


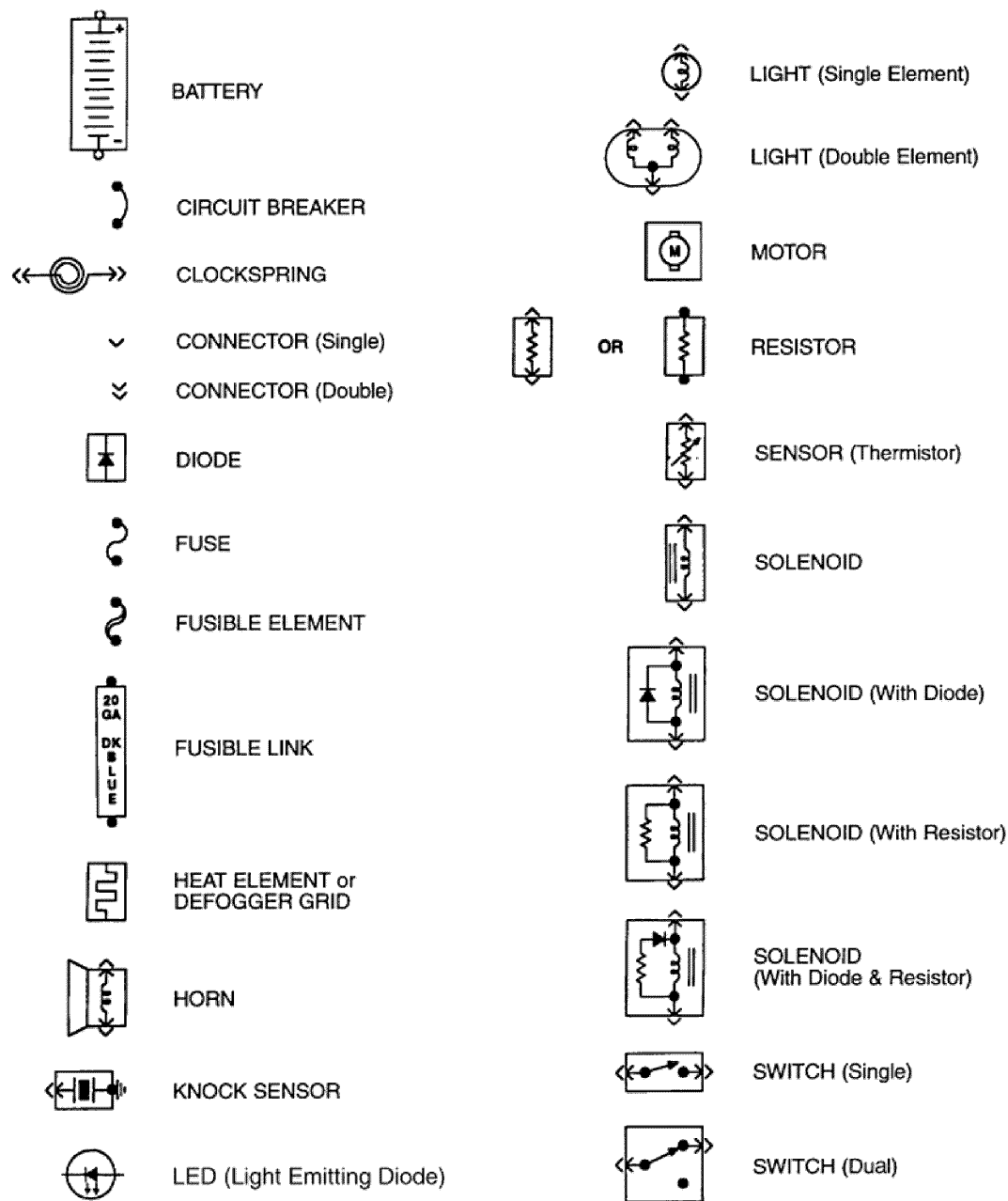
Fig. 14: Wiring Diagram (Rio 1.5L - 3 Of 3)

COLOR ABBREVIATIONS

Color	Normal	Optional
Black	BLK	BK
Blue	BLU	BU
Brown	BRN	BN
Clear	CLR	CR
Dark Blue	DK BLU	DK BU
Dark Green	DK GRN	DK GN
Green	GRN	GN
Gray	GRY	GY
Light Blue	LT BLU	LT BU
Light Green	LT GRN	LT GN
Orange	ORG	OG
Pink	PNK	PK
Purple	PPL	PL
Red	RED	RD
Tan	TAN	TN
Violet	VIO	VI
White	WHT	WT
Yellow	YEL	YL

WIRING DIAGRAM SYMBOLS

NOTE: Standard wiring symbols are used on all wiring diagrams. The list below will help clarify any symbols that are not easily understood at a glance. Most components are labeled "Motor", "Switch" or "Relay" in addition to being drawn with the standard symbol.

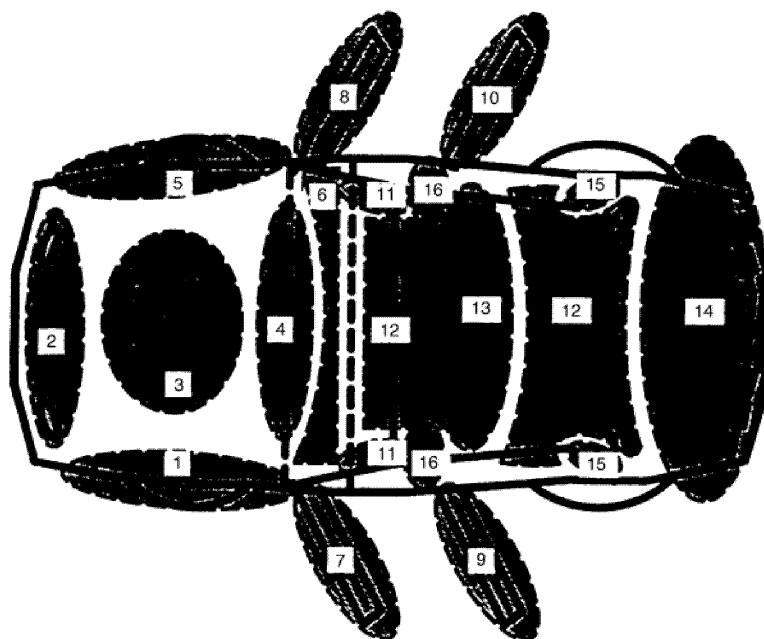


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Fig. 1: Identifying Standard Wiring Diagram Symbols

WIRING DIAGRAM GROUND NUMBER LOCATIONS

NOTE: The following illustration depicts standardized ground numbers and locations



1) Left Fender

G100 Front Of Fender
G102 On Shock Tower
G104 Rear Of Fender

2) Front of Vehicle

G106 Behind Left Headlight
G107 Behind Right Headlight
G108 Left Radiator Support
G109 Right Radiator Support

3) Engine

G110 Left Front Of Engine
G111 Left Front Behind Battery
G112 Left Side Of Engine
G114 Left Rear Of Engine
G115 Rear Of Engine
G117 Right Rear Of Engine
G119 Right Front Of Engine
G120 Right Side Of Engine
G125 Front Of Engine
G127 Left Underside Of Hood
G128 Right Underside Of Hood
G129 Top Center Of Transaxle

4) Safety Wall

G116 Left Side Of Safety Wall
G121 Center Of Safety Wall
G123 Right Side Of Safety Wall

5) Right Fender

G101 Front Of Fender
G103 On Shock Tower
G105 Rear Of Fender

6) Instrument Panel

G200 Left Kick Panel
G201 Right Side Of I/P
G202 Left Side Of I/P
G203 Right Kick Panel
G204 Left Rear Of Steering Support
G205 Right Rear Of Steering Support
G206 Center Of I/P
G207 Top Of Steering Column

7) Left Front Door

G500 Left Front Door

8) Right Front Door

G600 Right Front Door

9) Left Rear Door

G700 Left Rear Door

10) Right Rear Door

G800 Right Rear Door

11) "A" Pillars

G900 Left "A" Pillar
G901 Right "A" Pillar

12) Passenger Compartment

G300 Below Left Front Seat
G301 Below Right Front Seat
G302 Below Center Console
G303 Below Right Rear Seat
G304 Below Left Rear Seat
G306 Below Center Of Rear Seat
G307 Below Right Rear Window
G309 Left Front Door Sill
G310 Behind Right Rear Seat
G311 Center Of Rear Shelf
G312 Behind Left Rear Seat

13) Roof

G902 Left Front Of Roof
G903 Right Front Of Roof
G906 Left Rear Of Roof
G907 Right Rear Of Roof
G908 Center Front Of Roof
G909 Center Rear Of Roof

14) Rear Of Vehicle

G400 Left Front Side Of Trunk
G401 Right Front Side Of Trunk
G402 Left Rear Wheelwell
G403 Right Rear Wheelwell
G404 Left Rear Side Of Trunk
G405 Right Rear Side Of Trunk
G406 Center Rear Of Trunk Lid
G407 Center Rear Of Trunk
G408 Center Front Of Trunk
G409 Rear Of Cargo Bed

15) "C" Pillars

G904 Left "C" Pillar
G905 Right "C" Pillar

16) "B" Pillars

G305 Right "B" Pillar
G308 Left "B" Pillar

Fig. 2: Ground Numbers & Locations (2001 & Prior Model Years)

WIRING DIAGRAM COMPONENT LOCATIONS

When trying to locate a component in a wiring diagram and you don't know the specific system where it is located, use this handy component locator to find the system wiring diagram in which the component is located. Then, go to that system and locate the component within the wiring diagram.

For example, if you don't know the specific system in which the ignition switch is located, look up ignition switch in the wiring diagram component location tables and go to the appropriate wiring diagram(s) which contain either full or partial views of the ignition switch. The full view of the ignition switch is located in Power Distribution.

The first listing for the component will be the full or most complete view of the component. Additional listings will be partial views of the component. Not all components are used on all models.

All components will have a partial view in Ground Distribution and Power Distribution. Data Link Connectors show connecting circuits between modules. Alternate names for components may be listed in wiring diagram component locations tables.

WIRING DIAGRAM COMPONENT LOCATIONS

Component	Wiring Diagram
ABS Electronic Control Unit	Anti-Lock Brakes; Data Link Connectors
ABS Hydraulic Unit	Anti-Lock Brakes
Acceleration Sensor	Anti-Lock Brakes
Accessory Delay Relay	Power Windows
A/C Compressor Clutch Relay	Engine Performance
A/C Sensor	Engine Performance
A/C Pressure Switch	Engine Performance
Adaptive Lamp Control Module	Exterior Lights
Air Bag(s)	Air Bag Restraint System
Air Bag Module	Air Bag Restraint System
Air Bag Sensor(s)	Air Bag Restraint System
Air Injection Pump Relay	Engine Performance
Air Temperature Sensor	Overhead Console
Alternator (Generator)	Generators & Regulators
Anti-Theft Control Module	Anti-Theft System; Starters
Autolamp Control Relay	Headlight Systems; Daytime Running Lights
Automatic Shutdown (ASD) Relay	Engine Performance; Generators & Regulators
Autostick Switch	Engine Performance
Auxiliary Battery Relay	Generators & Regulators
Back-Up Lights	Back-Up Lights; Exterior Lights
Barometric (BARO) Pressure Sensor	Engine Performance
Battery	Power Distribution

Battery Temperature Sensor	Engine Performance
Body Control Module	Body Control Computer; Anti-Theft System; Daytime Running Lights; Engine Performance; Headlight Systems; Warning Systems
Boost Control Solenoid	Engine Performance
Boost Sensor	Engine Performance
Brake Fluid Level Switch	Analog Instrument Panels
Brake On/Off (BOO) Switch	Cruise Control Systems; Engine Performance; Shift Interlock Systems
Buzzer Module	Warning Systems
Camshaft Position (CMP) Sensor	Engine Performance
Central Control Module	Anti-Theft System
Clockspring	Air Bag Restraint System; Cruise Control Systems; Steering Column Switches
Clutch Pedal Position Switch	Starters
Clutch Start Switch	Starters
Combination Meter	Analog Instrument Panels
Constant Control Relay Module (CCRM)	Engine Performance; Electric Cooling Fans
Convenience Center	Power Distribution; Illumination/Interior Lights
Convertible Top Motor	Power Convertible Top
Convertible Top Switch	Power Convertible Top
Crankshaft Position (CKP) Sensor	Engine Performance
Cruise Control Module	Cruise Control Systems
Cruise Control Switch	Cruise Control Systems
Condenser Fan Relay(s)	Electric Cooling Fans
Data Link Connector (DLC)	Engine Performance
Daytime Running Lights Module	Daytime Running Lights; Exterior Lights
Defogger Relay	Rear Window Defogger
Diagnostic Energy Reserve Module (DERM)	Air Bag Restraint System
Discriminating Sensor (Air Bag)	Air Bag Restraint System
Distributor	Engine Performance
Door Lock Actuators	Power Door Locks; Remote Keyless Entry
Door Lock Relay(s)	Power Door Locks
Electrochromic Mirror	Power Mirrors
Electronic Level Control (ELC) Height Sensor	Electronic Suspension
Electronic Level Control (ELC) Module	Electronic Suspension
Engine Coolant Temperature (ECT) Sending Unit	Analog Instrument Panels
Engine Coolant Temperature	Engine Performance

(ECT) Sensor	
Engine Control Module	Engine Performance; Generators & Regulators; Starters
ETACS ECU	Warning Systems; Power Windows; Remote Keyless Entry
Evaporative (EVAP) Emissions Canister	Engine Performance
EVAP Canister Purge Solenoid	Engine Performance
EVAP Canister Vent Solenoid	Engine Performance
Exhaust Gas Recirculation (EGR) Valve	Engine Performance
Fuel Tank Vacuum Sensor	Engine Performance
Fog Lights	Headlight Systems; Daytime Running Lights
Fog Light Relay	Headlight Systems; Daytime Running Lights
Fuel Door Release Solenoid	Power Fuel Door Release
Fuel Gauge Sending Unit	Analog Instrument Panels
Fuel Injectors	Engine Performance
Fuel Pump	Engine Performance
Fuel Pump Relay	Engine Performance; Power Distribution
Fuse/Relay Block	Power Distribution
Fusible Links	Power Distribution; Generators & Regulators; Starters
Generator	Generators & Regulators; Engine Performance; Power Distribution
Generic Electronic Module (GEM)	Body Control Modules; Electronic Suspension
Glow Plug Relay	Engine Performance
Glow Plugs	Engine Performance
Grounds	Ground Distribution
Headlight Door Module	Headlight Doors
Headlight Relay	Headlight Systems; Daytime Running Lights
Headlights	Headlight Systems; Daytime Running Lights
Heated Oxygen Sensor(s) (HO2S)	Engine Performance
Heated Windshield Control Module	Heated Windshields
Height Sensor	Electronic Suspension
Horns	Steering Column Switches
Horn Relay	Steering Column Switches
Idle Air Control (IAC) Motor/Valve	Engine Performance
Ignition Coil(s)	Engine Performance
Ignition Key Lock Cylinder	Anti-Theft System
Ignition Module	Engine Performance
Ignition Switch	Power Distribution; Engine Performance; Generators & Regulators; Starters
Illuminated Entry Module	Illumination/Interior Lights

Illumination Lights	Illumination/Interior Lights
Impact Sensor	Air Bag Restraint System
Inertia Fuel Shutoff Switch	Engine Performance
Inhibit Relay	Starters
Instrument Cluster	Analog Instrument Panels
Intake Air Temperature (IAT) Sensor	Engine Performance
Interior Lights	Illumination/Interior Lights
Interlock Switch	Starters
Junction Block	Power Distribution
Keyless Entry Receiver	Remote Keyless Entry
Key Reminder Switch	Starters
Knock Sensor	Engine Performance
Lamp Control Module	Exterior Lights
License Plate Lamp	Exterior Lights
Lighting Control Module	Lighting Control Modules; Anti-Theft System; Daytime Running Lights; Headlight Systems
Lower Relay	Power Convertible Top
Malfunction Indicator Light (MIL)	Engine Performance; Instrument Panels
Manifold Absolute Pressure (MAP) Sensor	Engine Performance
Mass Airflow (MAF) Sensor	Engine Performance
Mega Fuse	Generators & Regulators
Memory Seat/Mirror Module	Memory Systems
Mirror Defogger	Rear Window Defogger
Moon Roof Motor	Power Moon Roof
Moon Roof Relay	Power Moon Roof
Multi-Function Control Module	Warning Systems
Neutral Safety Switch	Starters
Oil Level Switch	Engine Performance
Oil Pressure Switch/Sending Unit	Analog Instrument Panels; Engine Performance
Overhead Console	Overhead Console
Oxygen Sensor(s) (O2S)	Engine Performance
Parking Brake Switch	Analog Instrument Panels
Park Lights	Exterior Lights
Park/Neutral Position Switch	Starters; Engine Performance; Anti-Theft System; Body Control Module
Perimeter Lighting Control Relay	Exterior Lights
Power Amplifier	Power Antennas
Power Antenna Module	Power Antennas
Power Antenna Motor	Power Antennas

Power Distribution Center	Power Distribution; Generators & Regulators; Starters
Power Door Lock Motors	Power Door Locks
Power Mirror Motors	Power Mirrors; Memory Systems
Power Sliding Door Controller	Power Sliding Side Door
Power Seat Motors	Power Seats; Memory Systems
Power Steering Pressure Switch	Engine Performance
Power Top Motor	Power Convertible Top
Power Top Relay(s)	Power Convertible Top
Powertrain Control Module	Engine Performance; Analog Instrument Panels; Cruise Control Systems; Data Link Connectors; Generators & Regulators; Starters
Power Window Motors	Power Windows
Power Window Relay(s)	Power Windows
Radiator Fan Motor(s)	Electric Cooling Fans
Radiator Fan Relay(s)	Engine Performance; Electric Cooling Fans;
Rainsense Module	Wiper/Washer Systems
Raise Relay	Power Convertible Top
Remote Anti-Theft Personality (RAP) Module	Anti-Theft System; Starters; Warning Systems
Seat Belt Pretensioners	Air Bag Restraint System
Seat Belt Retractor Solenoid	Passive Restraints
Seat Belt Switch	Air Bag Restraint System; Passive Restraints
Shift Interlock Solenoid	Shift Interlock Systems
Shift Lock Actuator	Shift Interlock Systems
Side Marker Lights	Exterior Lights
SIR Coil Assembly (Clockspring)	Air Bag Restraint System
Slip Ring (Clockspring)	Air Bag Restraint System; Steering Column Switches
SRS Control Module	Air Bag Restraint System
Starter Motor	Starters
Starter Interrupt Relay	Starters
Starter Solenoid	Starters
Starter Relay	Starters
Steering Wheel Position Sensor	Anti-Lock Brakes
Stoplights	Exterior Lights
Stoplight Switch	Engine Performance; Cruise Control Systems; Anti-Lock Brakes
Sun Roof ECU	Power Sun Roof
Sun Roof Motor	Power Sun Roof
Sun Roof Position Sensor	Power Sun Roof
Taillights	Exterior Lights
Throttle Position (TP) Sensor	Engine Performance
Torque Converter Clutch Solenoid/Switch	Engine Performance

Traction Control Switch	Anti-Lock Brakes
Trailer Tow Connector	Exterior Lights
Trailer Tow Relay	Exterior Lights
Transmission/Transaxle	Engine Performance
Transmission Control Module (TCM)	Engine Performance; Starters
Transmission Range Sensor	Starters; Back-Up Lights; Engine Performance
Transmission Range Switch	Back-Up Lights; Engine Performance; Anti-Theft System
Turn Signal Flasher	Exterior Lights
Turn Signal Lights	Exterior Lights
Twilight Sentinel Switch	Headlight Systems; Daytime Running Lights
Vapor Canister Leak Detection Pump	Engine Performance
Vehicle Control Module (VCM)	Engine Performance
Vehicle Dynamic Module	Electronic Suspension
Vehicle Speed Control Servo	Cruise Control Systems
Vehicle Speed Sensor	Data Link Connectors; Analog Instrument Panels; Cruise Control Systems; Electronic Suspension
Voltage Regulator	Generators & Regulators
Water-In-Fuel Sensor	Engine Performance; Analog Instrument Panels
Wheel Speed Sensors	Anti-Lock Brakes
Window Timer Module	Power Convertible Top
Windshield Intermittent Wiper Relay	Wiper/Washer Systems
Windshield Washer Motor	Wiper/Washer Systems
Wiper Motor	Wiper/Washer Systems

2001 WIRING DIAGRAMS

Anti-Lock Brakes

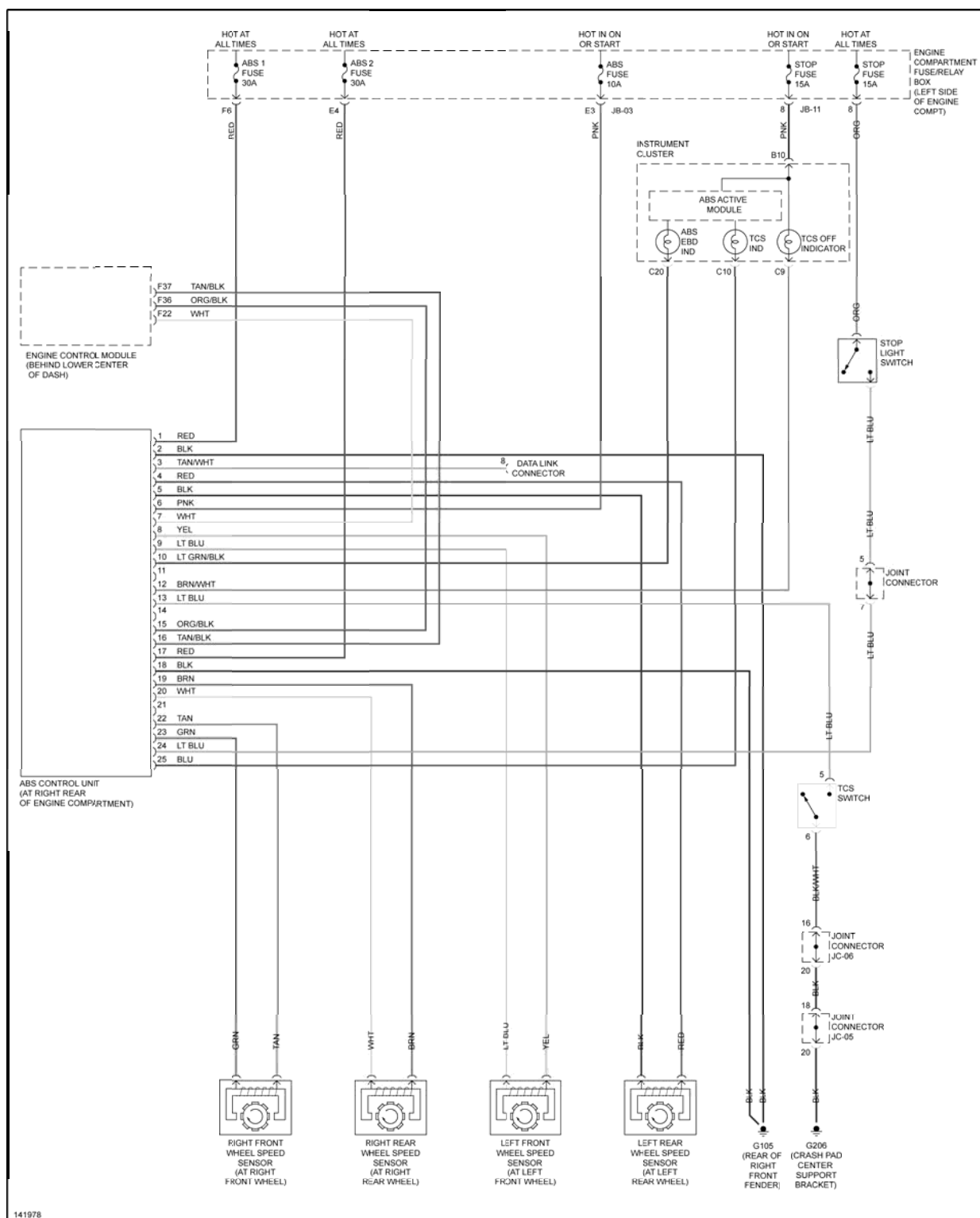


Fig. 1: Anti-Lock Brake System Wiring Diagram (Optima)



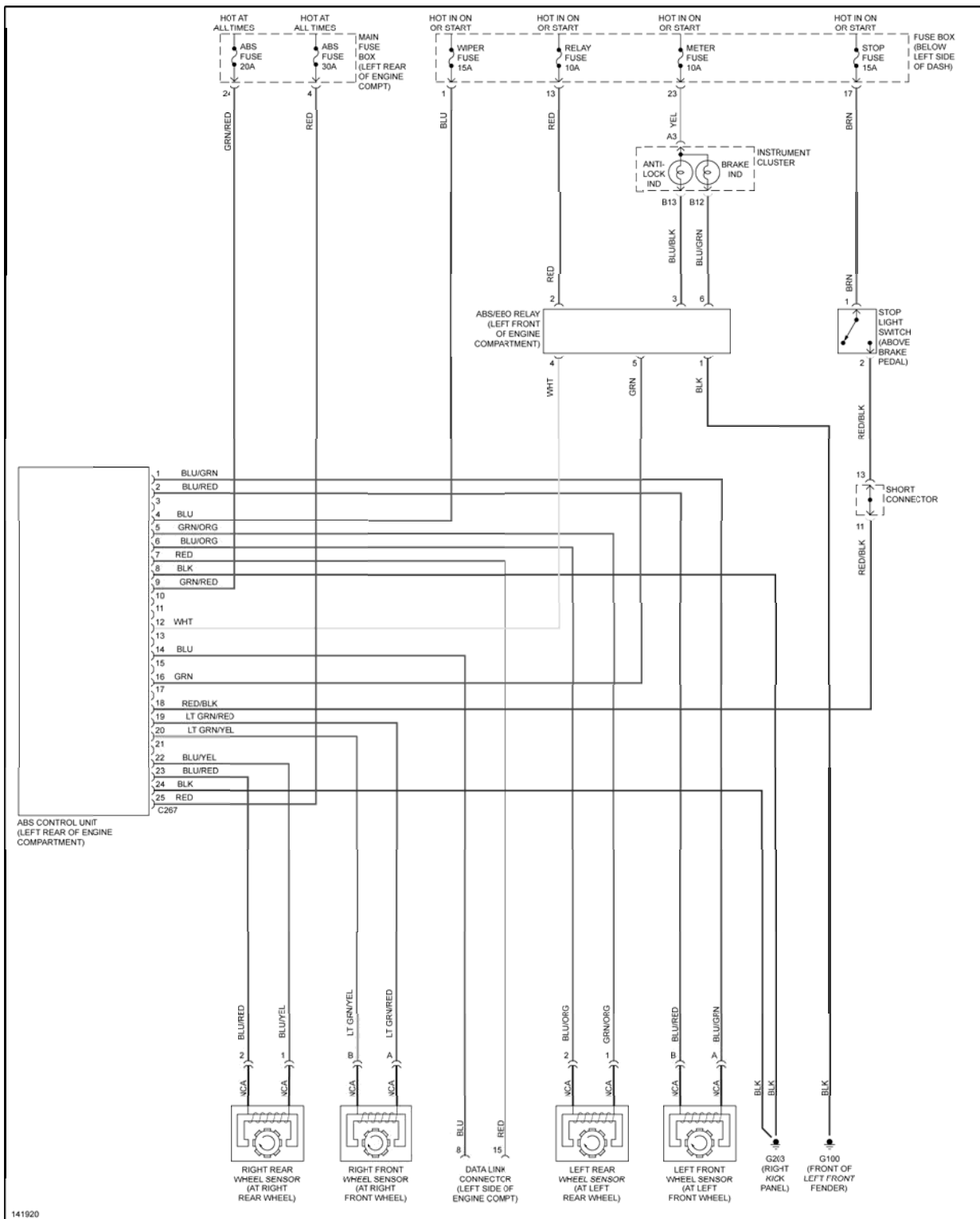


Fig. 2: Anti-Lock Brake System Wiring Diagram (Rio)



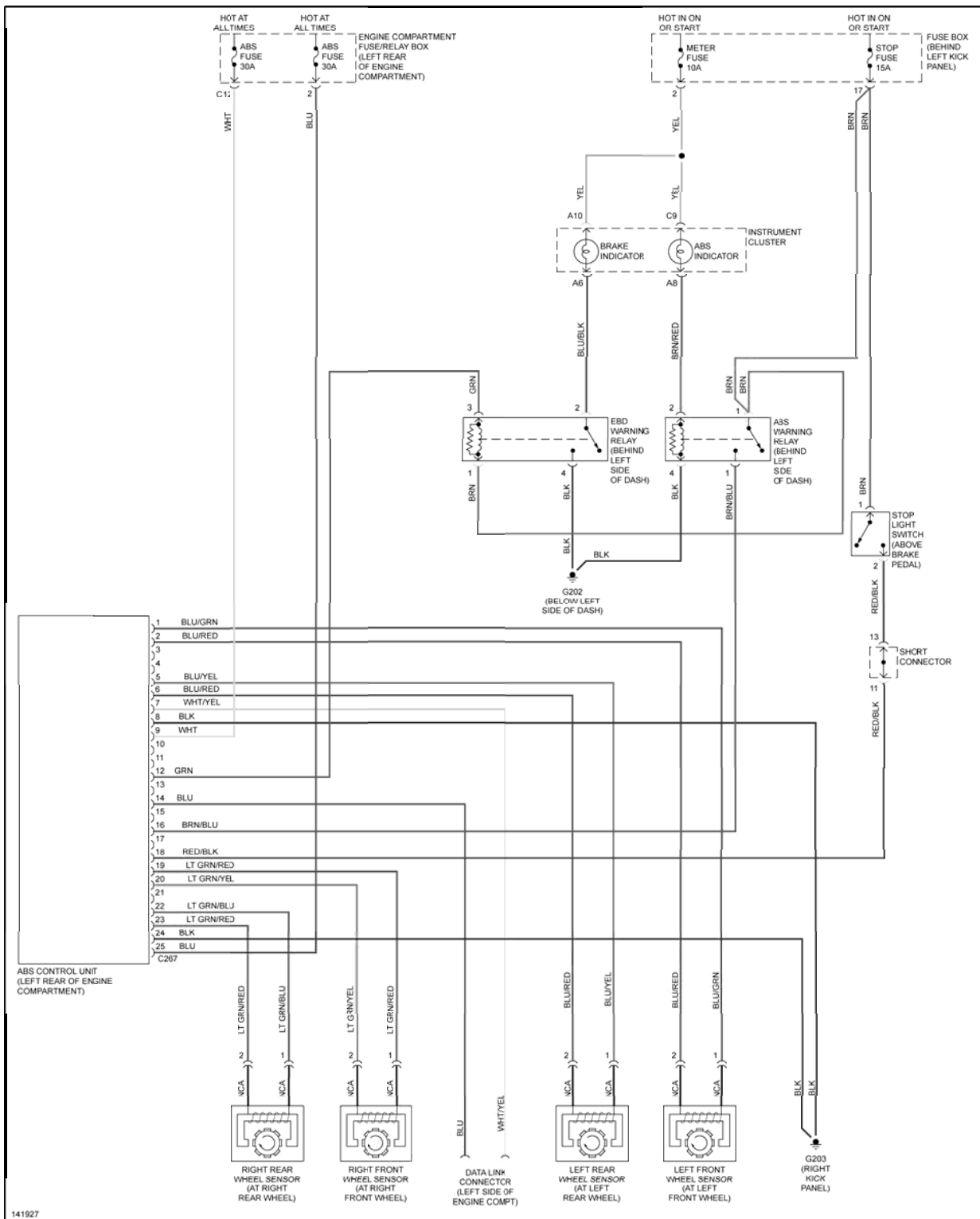


Fig. 3: Anti-Lock Brake System Wiring Diagram (Sephia & 2000-2001 Spectra)



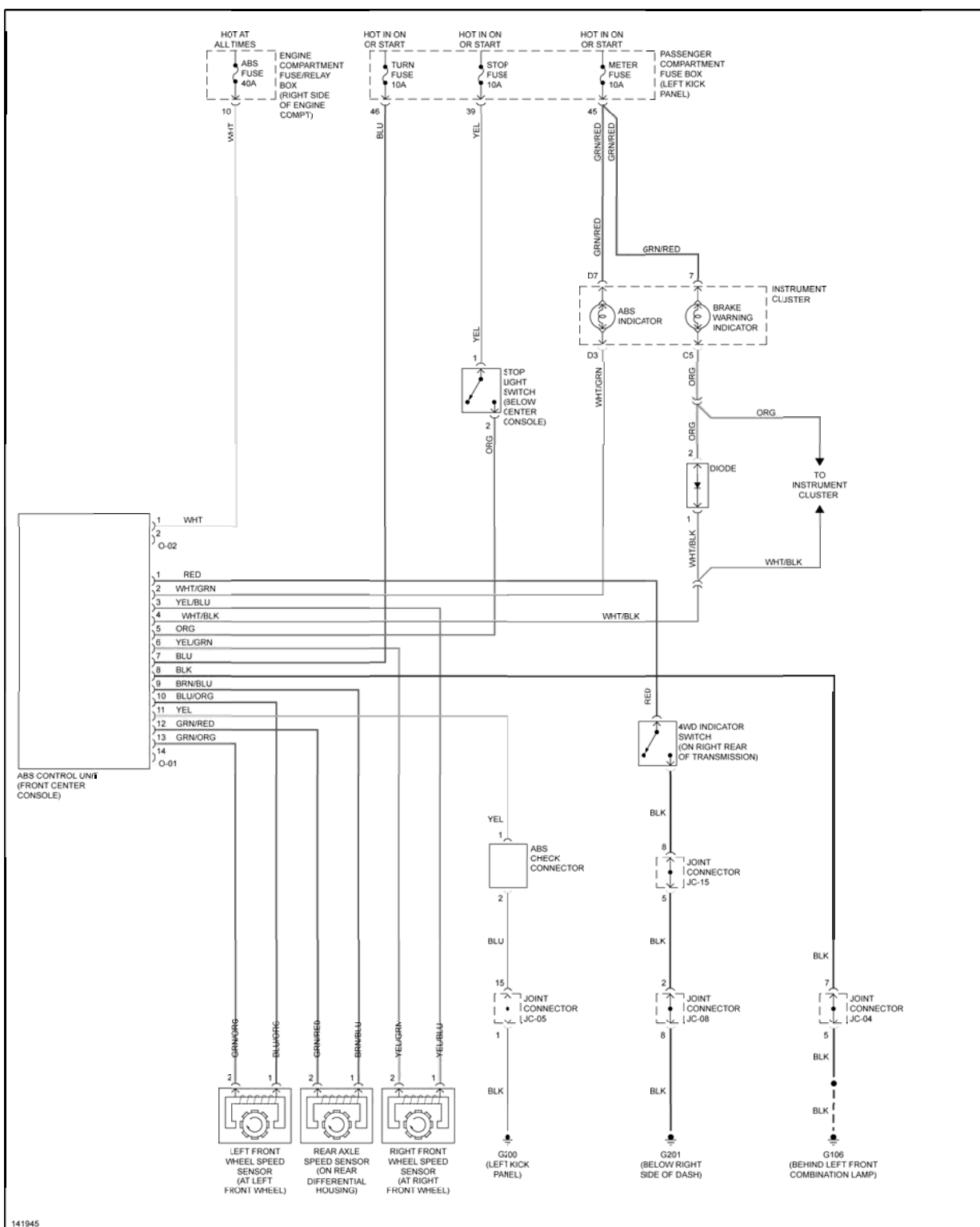


Fig. 4: Anti-Lock Brake System Wiring Diagram (Sportage)

