# **SECTION 9B**

# **LIGHTING SYSTEMS**

CAUTION: Disconnect the negative battery cable before removing or installing any electrical unit or when a tool or equipment could easily come in contact with exposed electrical terminals. Disconnecting this cable will help prevent personal injury and damage to the vehicle. The ignition must also be in B unless otherwise noted.

# **TABLE OF CONTENTS**

Description and Operation 9B-2	CHMSL Mounting Bracket 9B-12
Headlamps and Parking Lamps 9B-2	License Plate Lamps
Front Turn Signal Lamps 9B-2	Door Jamb Switch 9B-13
Rear Fog Lamp 9B-2	Interior Courtesy Lamp 9B-13
Taillamps	Daytime Running Lamp Module
License Plate Lamp	(W/Europe Only)
Interior Courtesy Lamp 9B-2	Ashtray Lamp
Backup Lamp(s)	Luggage Room Lamp 9B-15
Daytime Running Lamps (DRL)	Specifications
(W/Europe Only) 9B-2	Bulb Usage Chart
Diagnostic Information and Procedures 9B-3	Schematic and Routing Diagrams 9B-17
Headlamps	Backup Lamp(s) Circuit 9B-17
Turn Signal Lamps and Hazard Lamps 9B-4	Headlamps Circuit
Stoplamps and Interior Courtesy Lamp 9B-5	Headlamp Leveling Circuit 9B-19
Rear Fog Lamp 9B-6	Tail and Licence Plate Lamps Circuit 9B-20
Repair Instructions 9B-7	Stoplamps Circuit
Headlamps 9B-7	Turn and Hazard Lamps Circuit 9B-22
Turn Signal Lamps 9B-8	Interior Courtesy Lamp Circuit 9B-23
Side Turn Signal Lamps	Front Fog Lamp Circuit
Taillamps Assembly	Rear Fog Lamp Circuit
Front Fog Lamp 9B-9	Dimmer Control Circuit (Except W/Europe) 9B-26
Rear Fog/Backup Lamp(s) 9B-10	Daytime Running Lamps Circuit
Center High-Mounted Stoplamp 9B-11	(W/Europe Only) 9B-27

## **DESCRIPTION AND OPERATION**

#### **HEADLAMPS AND PARKING LAMPS**

The headlamps are controlled by the multifunction lever located on the left side of the steering column. They will come on with the ignition switch in any position. Turning the headlamp switch to the first position turns on the parking lamps, the license plate lamps and the instrument panel illumination. Turning the switch to the second position turns on all of the previous lamps and the headlamps. Turning the switch to the off position turns off all the lamps.

The parking lamps can be turned on by turning the lighting switch to the first position. The parking lamps can be turned off by turning the switch to the OFF position.

Headlamp high beam and low beam are also controlled by this lever. When the headlamps are on, pushing the lever away from the driver until the switch clicks changes the lamp from low beam to high beam. An indicator lamp on the instrument cluster assembly will come on when the high beam headlamps are on. To return the headlamps to low beam, pull the lever toward the driver.

The headlamps must be aimed for proper illumination of the road. Headlamp aim should be checked whenever a new headlamp assembly is installed or service repairs to the front end area may have disturbed the headlamp assembly or its mountings.

#### FRONT TURN SIGNAL LAMPS

When the turn signals are activated, the side turn signal lamps flash to signal a turn. The turn signal works only when the ignition switch is on.

The turn signals are controlled by the light switch on the left side of the steering column. Moving the lever all the way up or down (past the detent) will turn on the turn signals. When the turn is completed, the lever will return to horizontal and the turn signals will stop flashing.

For changing lanes or shallow turns where the steering wheel does not turn far enough to cancel the signal, move the signal only to the first detent and hold it there. When the lever is released, it will return to horizontal and the turn signal will cancel.

#### REAR FOG LAMP

The rear fog lamp is incorporated in the drive side taillamp assembly and are controlled by the rear fog lamp switch on the instrument panel. The rear fog lamp can be turned on only when headlamps are on.

#### **TAILLAMPS**

The taillamps, stoplamps, backup lamp(s), rear fog lamp (if equipped with) and turn signal lamps are one assembly.

Turning on either the headlamps or the parking lamps will also turn on the taillamps. When the brake pedal is pushed, the taillamps will glow brighter to serve as stoplamps.

The center high-mounted stoplamp is located in the rear window and will come on when the brake pedal is pressed.

#### LICENSE PLATE LAMPS

The license plate lamps will come on when the headlamps or the parking lamps are on. The license plate lamps are mounted on the rear bumper, above the license plate.

#### INTERIOR COURTESY LAMP

The courtesy lamp is located on the headliner just before the front seats. The lamp switch has three positions. If the switch is in the center position, the lamp will go on whenever a door is opened and go off when it is closed. In the ON position, the lamp will stay on until it is turned off. In the OFF position, the lamp will not come on, even when a door is opened.

## **BACKUP LAMP(S)**

The backup lamps are located in the rear combination lamps. They will come on when the transaxle is shifted into REVERSE. On a vehicle with a manual transaxle, they are activated by a reverse switch which is part of the transaxle.

# DAYTIME RUNNING LAMPS (DRL) (W/Europe Only)

The daytime running lamps (DRL) work in conjunction with the exterior lamps system. When the ignition switch is turned to the "II" position with the light switch off, parking, tail, license plate and instrument panel lights illuminate. And, when the engine is started, the headlamps (low beam) also come on.

They remain on until the ignition switch is turned off or the light switch is turned on. They revert to normal operation when the light switch is on.

The daytime running lamps (DRL) is optional.

# **DIAGNOSTIC INFORMATION AND PROCEDURES**

## **HEADLAMPS**

Condition	Probable Cause	Correction
Low Beam Headlamps Are Inoperative, High Beam Headlamps Are OK.	Faulty headlamp combination switch.	Replace the headlamp combination switch.
	The open circuit or a short circuit between the fuse Ef10/Ef11 and the terminal 5 of the headlamp combination switch.	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Fuse Ef10 or Ef11 is blown.	<ul> <li>Replace the fuse Ef10 or Ef11</li> </ul>
	<ul> <li>The open circuit or a short circuit between the fuse Ef10 or Ef11 and the terminal 2 of the headlamp connector.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Headlamp bulb is blown.	<ul> <li>Replace the headlamp bulb.</li> </ul>
	The open grounds (G101, G102) circuit.	<ul> <li>Repair or replace the open ground circuit.</li> </ul>
High Beam Headlamps Are Inoperative, Low Beam	<ul> <li>Faulty headlamp combination switch.</li> </ul>	<ul> <li>Replace the headlamp combination switch.</li> </ul>
Headlamps Are OK.	<ul> <li>The open circuit or a short circuit between the fuse Ef8/Ef9 and the terminal 4 of the headlamp combination switch.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Fuse Ef8 or Ef9 is blown.	Replace the fuse Ef10 or Ef11.
	<ul> <li>The open circuit or a short circuit between the fuse Ef8 or Ef9 and the terminal 1 of the headlamp connector.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Headlamp bulb is blown.	Replace the headlamp bulb.
	The open grounds (G101, G102) circuit.	<ul> <li>Repair or Replace the open ground circuit.</li> </ul>
High Beam and Low Beam Headlamps Are Inoperative On Both Left and Right Sides.	<ul> <li>The open circuit or a short circuit in the power supply circuit to the fuse Ef18.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Fuse Ef18 is blown.	<ul> <li>Replace the fuse Ef18 (20A).</li> </ul>
	<ul> <li>The open circuit or a short circuit between the fuse Ef18 and the terminal 86, 30 of the headlamp relay.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Faulty headlamp relay.	<ul> <li>Replace the headlamp relay.</li> </ul>
	<ul> <li>The open circuit or a short circuit between the terminal 87 of the headlamp relay and the terminal 6 of the headlamp combination switch.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Faulty headlamp combination switch.	<ul> <li>Replace the headlamp combination switch.</li> </ul>
	The open ground (G201) circuit.	<ul> <li>Repair or Replace the open ground circuit.</li> </ul>

## **TURN SIGNAL LAMPS AND HAZARD LAMPS**

Condition	Probable Cause	Correction
Turn Signal Lamps and Hazard Lamps Do Not Work.	<ul> <li>The open circuit or a short circuit between the power supply circuit and the fuse Ef2.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Fuse Ef2 is blown.	Replace the fuse Ef2.
	<ul> <li>The open circuit or a short circuit between the fuse Ef2 and the fuse F12.</li> </ul>	<ul> <li>Repair of Replace the wiring harness.</li> </ul>
	Fuse F12 is blown.	Replace the fuse F12.
	<ul> <li>The open circuit or a short circuit between the fuse F12 and the terminal 8 of the hazard lamp switch connector.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	<ul> <li>Faulty hazard lamp switch.</li> </ul>	<ul> <li>Replace the hazard lamp switch.</li> </ul>
	<ul> <li>The open circuit or a short circuit between the terminal 7 of the hazard lamp switch connector and the terminal 49 of the turn signal lamp relay.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	<ul> <li>The open circuit or a short circuit between the terminal 49a of the turn signal lamp relay and the terminal 9 of the hazard lamp switch connector.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>
	Faulty turn signal lamp relay.	Replace the turn signal lamp relay.
	<ul> <li>The open circuit or a short circuit between the terminal 49a of the turn signal lamp relay and the terminal 2 of the turn signal lamp switch connector.</li> </ul>	
	Faulty turn signal lamp switch.	Replace the turn signal lamp switch.
	<ul> <li>The open circuit or a short circuit between the terminal 1,3 of the turn signal switch connector and the terminal 2,5 of each turn signal lamp connectors.</li> </ul>	Repair or Replace the wiring harness.
	Turn signal lamp bulb is blown.	Replace the turn signal lamp bulb.
	<ul> <li>The open grounds (G101, G102, G401, G402) circuits.</li> </ul>	<ul> <li>Repair or Replace the open ground circuit.</li> </ul>
Hazard Lamps Do Not Operate, Turn Signals Are OK.	<ul> <li>The open circuit or a short circuit between the terminal 49a of the turn signal lamp relay and the terminal 9 of the hazard lamp switch connector.</li> </ul>	Repair or Replace the open circuit.
	<ul> <li>The open circuit or a short circuit between the terminals 5,6 of the hazard lamp switch connector and the terminals 2,5 of the turn signal lamp connectors.</li> </ul>	<ul> <li>Repair or Replace the wiring harness.</li> </ul>

# STOPLAMPS AND INTERIOR COURTESY LAMP

Condition	Probable Cause	Correction
Stoplamps Do Not Work.	• Fuse F5 is blown.	Replace the fuse F5.
	<ul> <li>The open circuit or a short circuit between the fuse F11 and the terminal 2 of the stoplamps switch connector (For vehicle equipped with M/T).</li> </ul>	Repair or Replace the wiring harness.
	Faulty stoplamp switch.	<ul> <li>Replace the stoplamp switch.</li> </ul>
	<ul> <li>The open circuit or a short circuit between the terminal 1 of the stoplamp switch connector and the terminal 3 of the stoplamps connector (For vehicle equipped with M/T).</li> </ul>	Repair or Replace the wiring harness.
	Stoplamp bulb is blown.	Replace the stoplamp bulb.
	The open ground (G401, G402) circuits.	<ul> <li>Repair or Replace the open ground circuit.</li> </ul>
Interior Courtesy Lamp Does Not Work.	<ul> <li>The open circuit or a short circuit in the power supply circuit to the fuse Ef2.</li> </ul>	<ul> <li>Repair or Replace the wring harness.</li> </ul>
	• Fuse Ef2 is blown.	Replace the fuse Ef2.
	<ul> <li>The open circuit or a short circuit between the fuse Ef2 and the fuse F11.</li> </ul>	Repair or Replace the wiring harness.
	• Fuse F11 is blown.	Replace the fuse F11.
	<ul> <li>The open circuit or a short circuit between the fuse F11 and the terminal 1 of the interior courtesy lamp connector.</li> </ul>	Repair or Replace the wiring connector.
	<ul> <li>Interior courtesy lamp bulb is blown.</li> </ul>	Replace the bulb.
	Faulty interior courtesy lamp.	Replace the interior courtesy lamp.

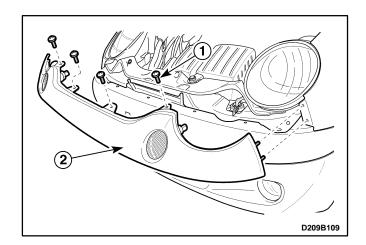
## **REAR FOG LAMP**

**Diagnostic Aids:** The rear fog lamp will not operate unless the headlamps are ON. If the headlamps are not operating, repair that problem before attempting to diagnose the rear fog lamp.

Condition	Probable Cause	Correction
Rear Fog Lamp Does Not Work.	<ul> <li>The open circuit or a short circuit between the terminal 87 of the headlamp relay and terminal 15,30 of the rear fog lamp relay.</li> </ul>	Repair or Replace the wiring harness.
	<ul> <li>Faulty rear fog lamp relay.</li> </ul>	Replace the rear fog lamp relay.
	<ul> <li>The open circuit or a short circuit between the terminal 87 of the rear fog lamp relay and terminal 6 of the rear fog lamp connector.</li> </ul>	Repair or Replace the wiring harness.
The open circuit or a short circuit between the terminal E of the rear fog lamp relay and terminal 6 of the rear fog lamp switch.	Repair or Replace the wiring harness.	
	Faulty rear fog lamp switch.	Replace the rear fog lamp switch.
	The open grounds (G201, G401) circuits.	Repair or Replace the open ground circuit.
	<ul> <li>Rear fog lamp bulb is blown.</li> </ul>	Replace the rear fog lamp bulb.

# **REPAIR INSTRUCTIONS**

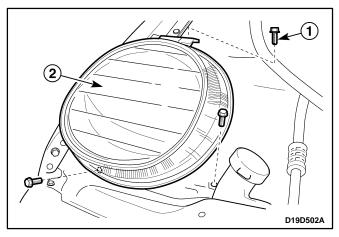
# **ON-VEHICLE SERVICE**



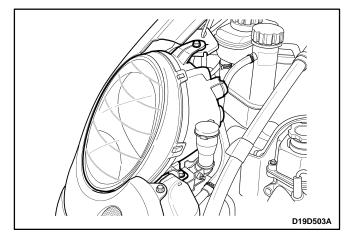
#### **HEADLAMPS**

#### **Removal Procedure**

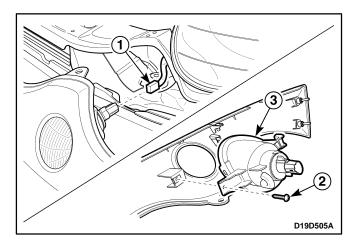
- 1. Support the hood suitably.
- 2. Disconnect the negative battery cable.
- 3. Remove the front bumper spacer.
  - Remove the bolts (1).
  - Remove the front bumper spacer from the bumper fasia (2).

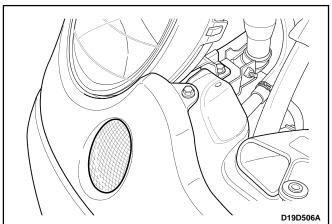


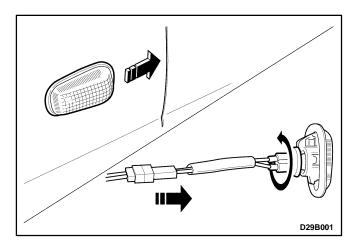
- 4. Remove the headlamp.
  - Remove the bolts and washer (1).
  - Disconnect the electrical connectors.
  - Remove the headlamp (2) .

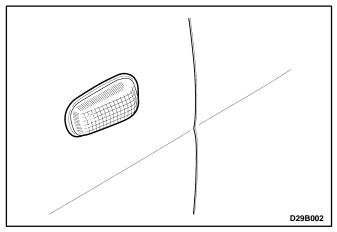


- 1. Install the headlamp with the bolts.
- 2. Connect the headlamp connector and parking lamp connector.
- 3. Install the front bumper spacer with the bolts.
- 4. Connect the negative battery cable.









#### **TURN SIGNAL LAMPS**

#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Remove the front bumper spacer. Refer to *Section* 9M, Exterior Trim.
- 3. Remove the turn signal lamps from the front bumper spacer.
  - Disconnect the electrical connector (1).
  - Remove the screw (2).
  - Remove the turn signal lamp assembly (3).

#### **Installation Procedure**

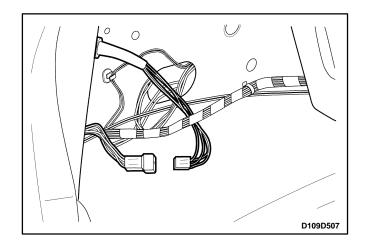
- 1. Connect the electrical connector.
- 2. Install the turn signal lamp assembly with the screw.
- 3. Install the front bumper spacer. Refer to Section 9M, Exterior Trim.
- 4. Connect the negative battery cable.

#### SIDE TURN SIGNAL LAMPS

#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Slide the side turn signal lamp rearward.
- 3. Remove the lamp.
- 4. Disconnect the electrical connector.

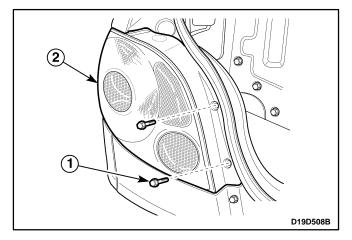
- 1. Connect the electrical connector.
- 2. Install the side turn signal lamp.
- 3. Connect the negative battery cable.



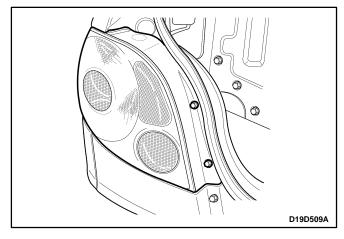
#### TAILLAMPS ASSEMBLY

#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Open the tailgate.
- 3. Remove the luggage compartment wheelhouse trim. Refer to *Section 9G*, *Interior Trim*.
- 4. Disconnect the electrical connector.

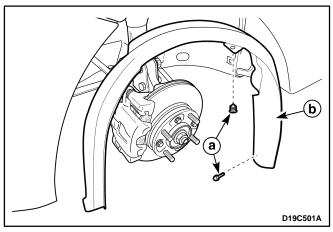


- 5. Remove the taillamp assembly.
  - Remove the screws (1).
  - Remove the taillamp (2).



#### **Installation Procedure**

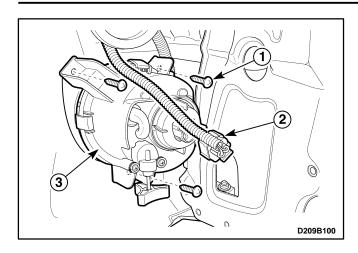
- 1. Install the taillamp assembly with the screws.
- 2. Connect the electrical connector.
- 3. Install the luggage compartment wheelhouse trim. Refer to Section 9G, Interior Trim.
- 4. Connect the negative battery cable.



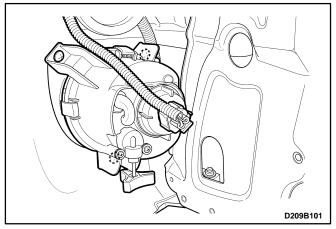
#### FRONT FOG LAMP

#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Raise and suitably support the vehicle.
- 3. Remove the front wheels.
- 4. Remove the front wheel house splash shield.
  - Remove the clip and bolts.
    - a. Bolt and clips.
  - Remove the wheel house splash shield.
    - b. Splash shield.

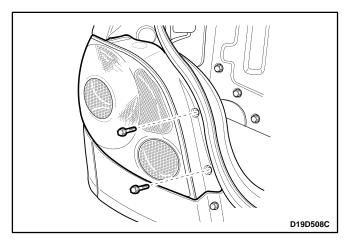


- 5. Remove the front fog lamp.
  - Remove the screws (1).
  - Disconnect the electrical connector (2).
  - Remove the front fog lamp (3).



#### **Installation Procedure**

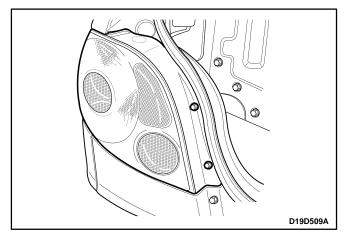
- 1. Install the front fog lamp with the screws.
- 2. Connect the front fog lamp connector.
- 3. Install the front wheelhouse splash shields with the clips and the bolts.
- 4. Install the front wheels.
- 5. Lower the vehicle.
- 6. Connect the negative battery cable.



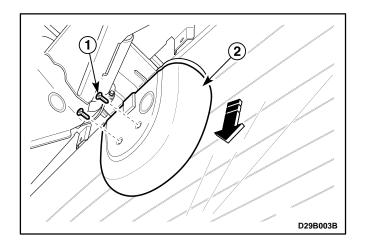
## **REAR FOG/BACKUP LAMP(S)**

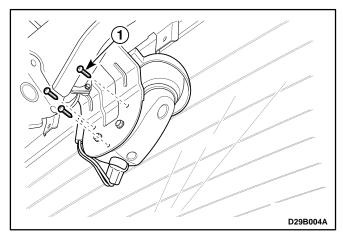
#### **Removal Procedure**

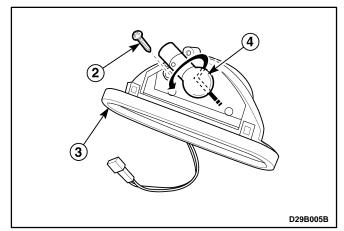
- 1. Disconnect the negative battery cable.
- 2. Remove the taillamp assembly. Refer to "Taillamps Assembly" in this section.
- 3. Remove the bulb(s).

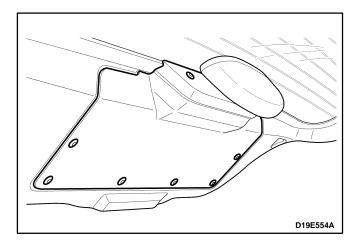


- 1. Install the bulb(s).
- 2. Install the taillamp assembly. Refer to "Taillamps Assembly" in this section.
- 3. Connect the negative battery cable.









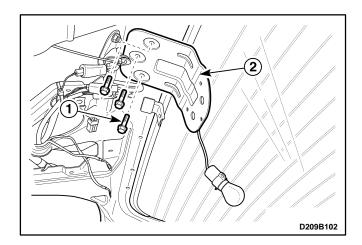
# CENTER HIGH-MOUNTED STOPLAMP (CHMSL)

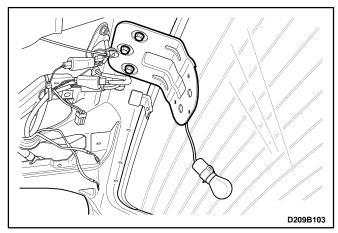
## **Removal Procedure**

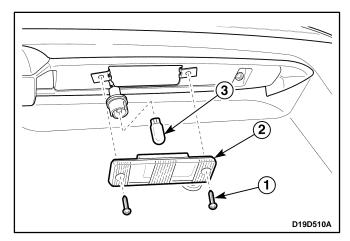
- 1. Disconnect the negative battery cable.
- 2. Open the tailgate.
- 3. Pry off the tailgate trim panel. Refer to Section 9G Interior Trim.
- 4. Remove the CHMSL cover.
  - Remove the screws (1).
  - Remove the CHMSL cover (2).
- 5. Remove the CHMSL and bulb.
  - Remove the screws (1).

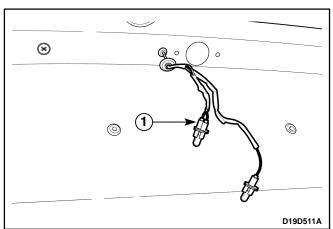
- Remove the screw from bulb socket (2).
- Remove the CHMSL (3).
- Remove the bulb (4).

- 1. Install the CHMSL bulb.
- 2. Install the CHMSL with the screws.
- 3. Install the CHMSL cover with the screws.
- 4. Install the tailgate trim panel. Refer to Section 9G, Interior Trim.
- 5. Connect the negative battery cable.









#### **CHMSL MOUNTING BRACKET**

#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- Remove the center high-mounted stoplamp (CHMSL). Refer to "Center High-Mounted Stoplamp" in this section.
- 3. Remove the rear window wiper motor assembly. Refer to Section 9D, Wipers/Washer Systems.
- 4. Remove the CHMSL mounting bracket.
  - Remove the bolts (1).
  - Remove the CHMSL mounting bracket (2).

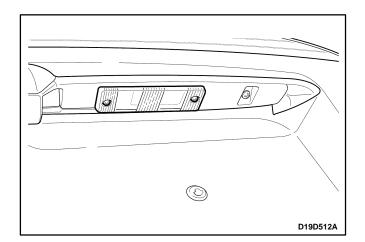
#### **Installation Procedure**

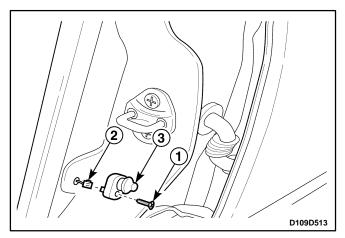
- 1. Install the CHMSL mounting bracket with the bolts.
- 2. Install the rear window wiper motor assembly. Refer to Section 9D, Wipers/Washer Systems.
- 3 .Install the CHMSL. Refer to "Center High–Mounted Stoplamp" in this section.
- 4. Connect the negative battery cable.

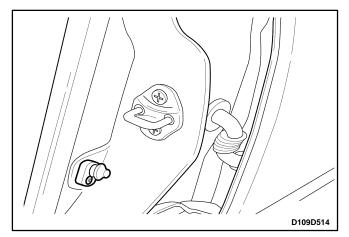
#### LICENSE PLATE LAMPS

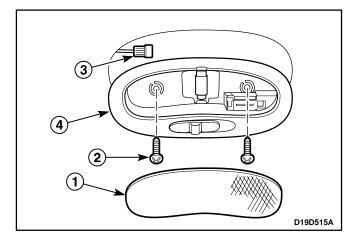
#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- Remove the license plate lamp from the tailgate handle.
  - Remove the screws (1).
  - Draw out the license plate lamp (2).
  - Remove the license plate lamp bulb (3).
- 3. Remove the rear window wiper motor assembly. Refer to Section 9D, Wipers/Washer Systems.
- 4. Disconnect the electrical connector in the tailgate.
- 5. Remove the tailgate handle. Refer to Section 9M, Exterior Trim.
- 6. Remove the license plate lamp socket.
  - Remove the socket (1).









#### **Installation Procedure**

- 1. Install the license plate lamp socket.
- 2. Install the tailgate handle. Refer to Section 9M, Exterior Trim.
- 3. Connect the electrical connector.
- 4. Remove the rear window wiper motor assembly. Refer to Section 9D, Wipers/Washer Systems.
- 5. Install the license plate lamp bulb.
- 6. Install the license plate lamp with the screws.
- 7. Connect the negative battery cable.

#### **DOOR JAMB SWITCH**

#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Remove the door jamb switch.
  - Remove the screw (1).
  - Disconnect the electrical connector (2).
  - Remove the door jamb switch (3).

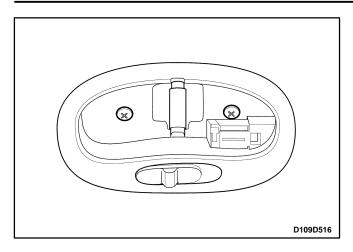
#### **Installation Procedure**

- 1. Install the door jamb switch with the screw.
- 2. Connect the electrical connector.
- 3. Connect the negative battery cable.

#### INTERIOR COURTESY LAMP

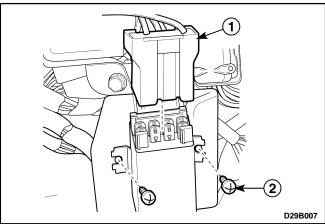
#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Remove the interior courtesy lamp.
  - Pry off the interior courtesy lamp lens (1).
  - Remove the screws (2).
  - Disconnect the electrical connector (3).
  - Remove the interior courtesy lamp (4).



#### **Installation Procedure**

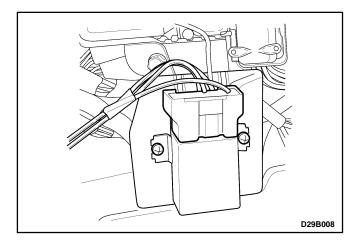
- 1. Connect the electrical connector.
- 2. Install the interior courtesy lamp with the screws.
- 3. Install the interior courtesy lamp lens.
- 4. Connect the negative battery cable.



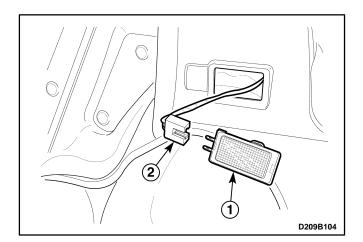
# DAYTIME RUNNING LAMP MODULE (W/Europe Only)

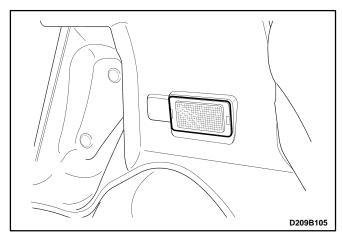
#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Disconnect the electrical connector (1).
- 3. Remove the screws (2) and the daytime running lamp module.



- 1. Install the daytime running lamp module with the bolts.
- 2. Connect the electrical connector.
- 3. Connect the negative battery cable.





## **LUGGAGE ROOM LAMP**

#### **Removal Procedure**

- 1. Disconnect the negative battery cable.
- 2. Open the tailgate.
- 3. Remove the luggage room lamp.
  - Remove the luggage room lamp (1).
  - Disconnect the electrical connector (2).

- 1. Connect the electrical connector.
- 2. Install the luggage room lamp.
- 3. Connect the negative battery cable.

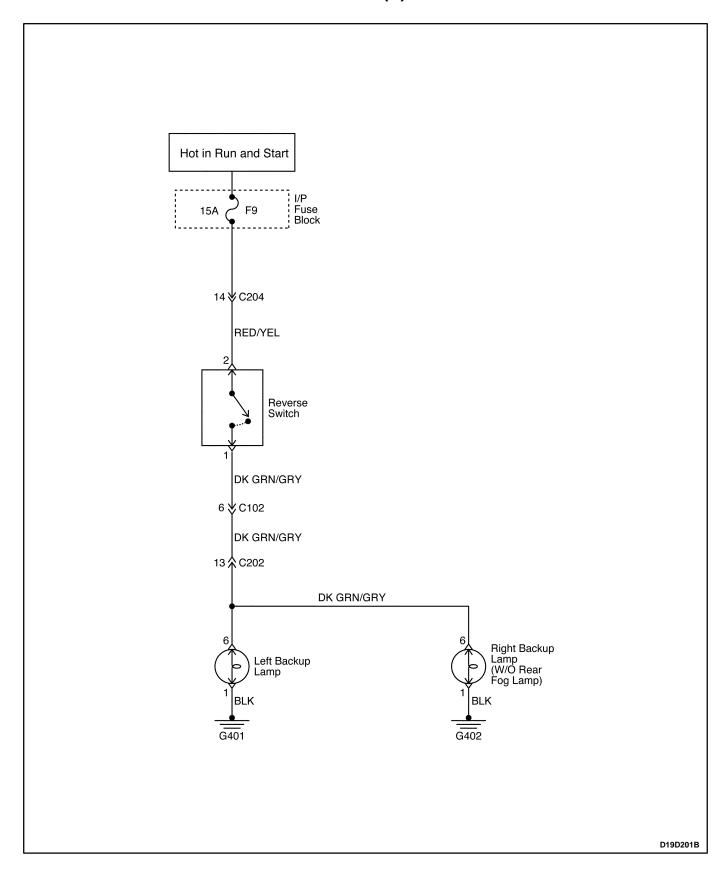
# **SPECIFICATIONS**

# **BULB USAGE CHART**

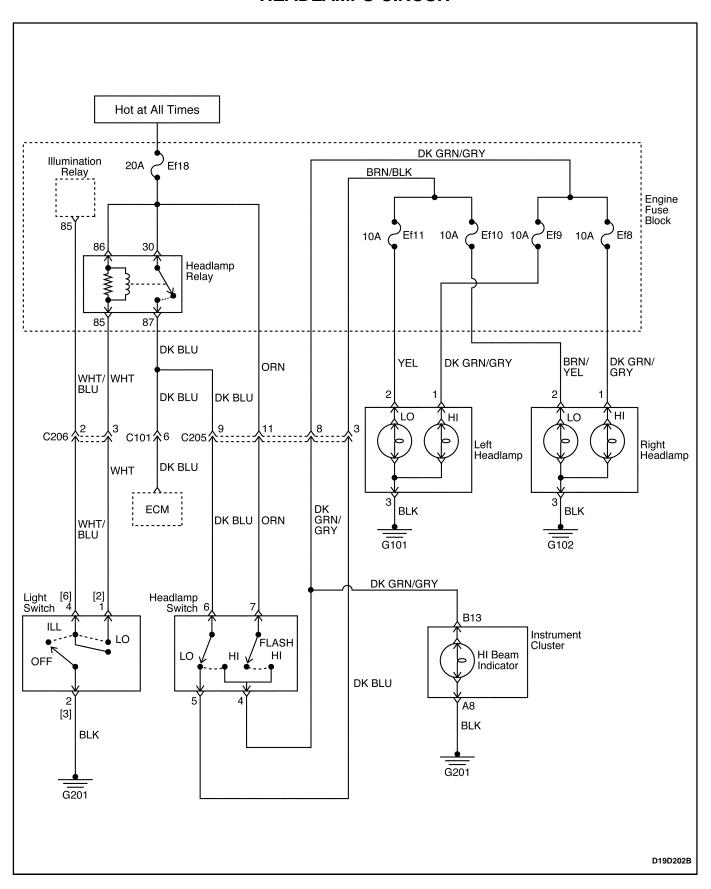
Bulb	Replacement Bulb Number
Backup Lamp(s)	21W
Center High Mounted Stoplamp	21W
Headlamps	Double 60/55W
Interior Courtesy Lamp	10W
License Plate Lamp	5W
Front Turn Signal Lamps	21W
Rear Fog Lamp	21W
Rear Turn Signal Lamps	21W
Side Marker Turn Signal Lamps	5W
Tail and Stoplamp	Double 5/21W, 5W
Parking Lamp	5W

# **SCHEMATIC AND ROUTING DIAGRAMS**

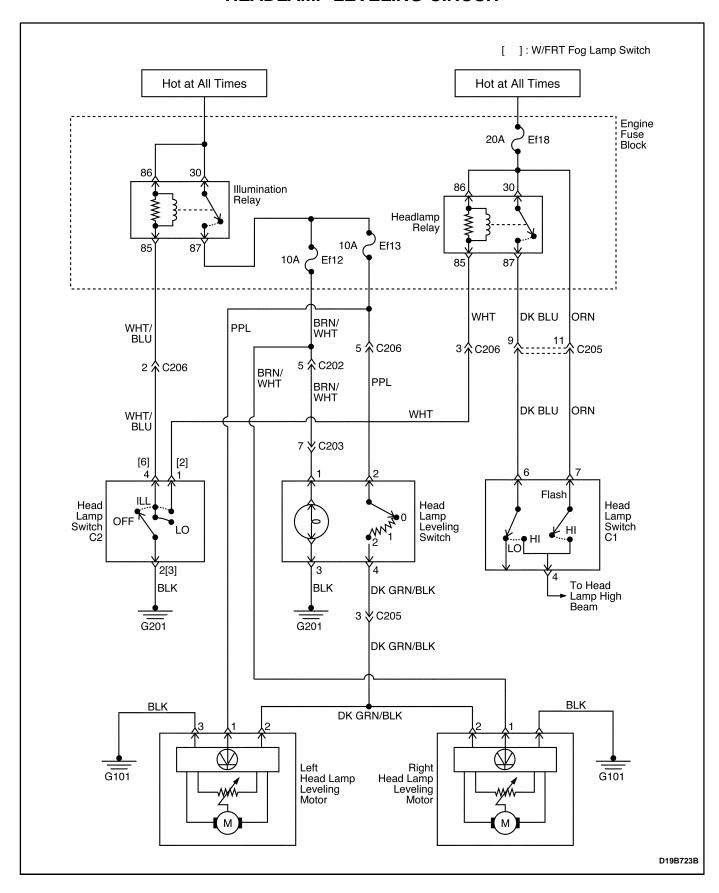
# **BACKUP LAMP(S) CIRCUIT**



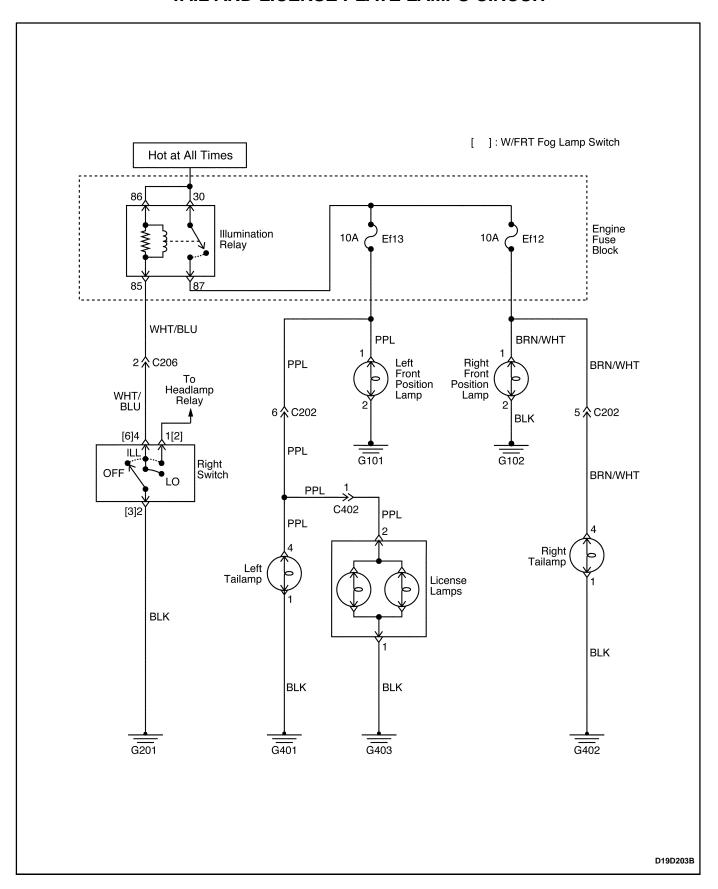
## **HEADLAMPS CIRCUIT**



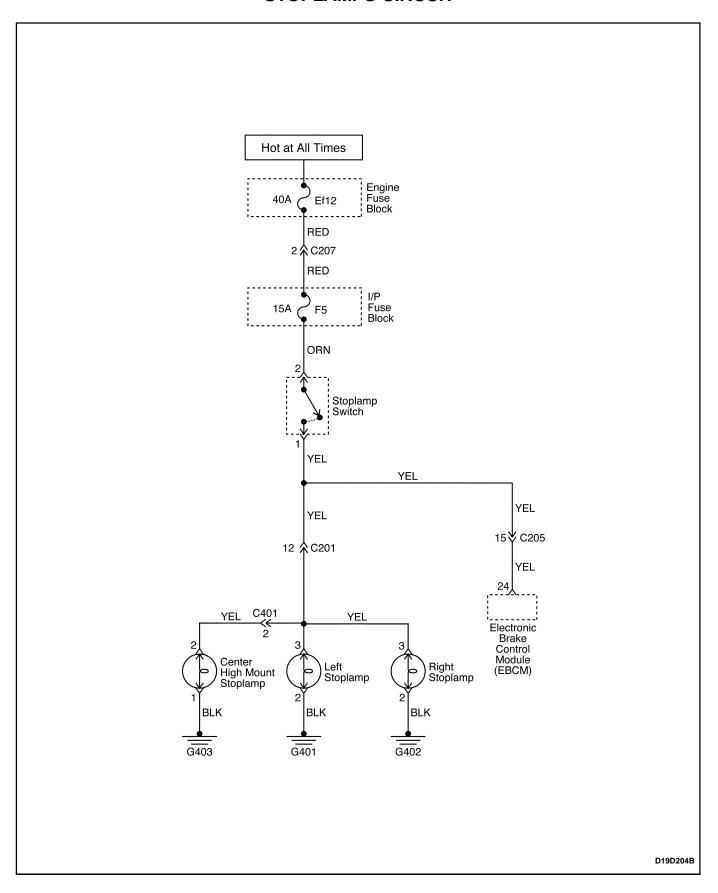
## **HEADLAMP LEVELING CIRCUIT**



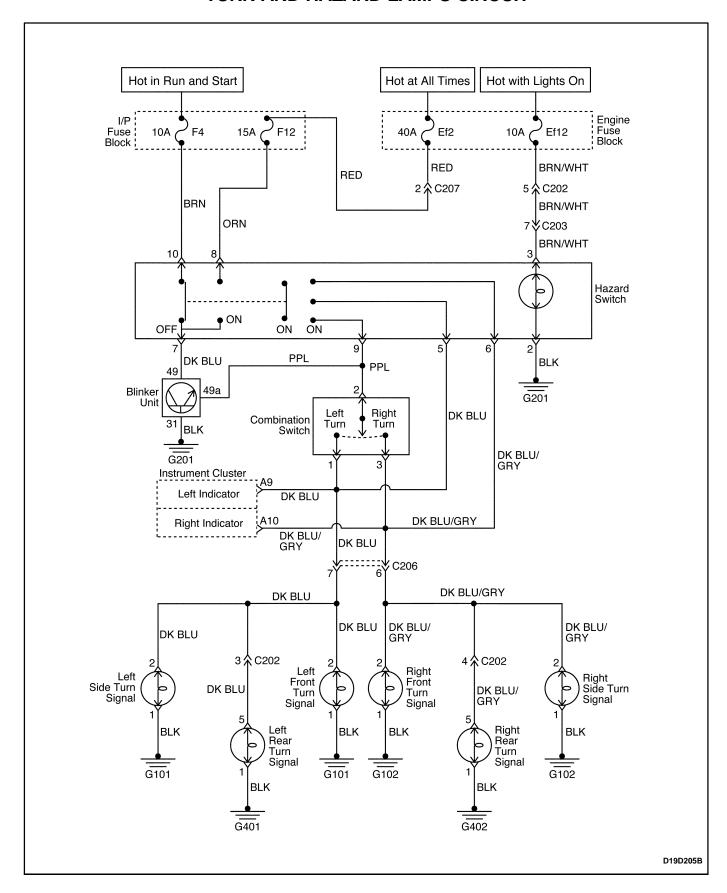
## TAIL AND LICENSE PLATE LAMPS CIRCUIT



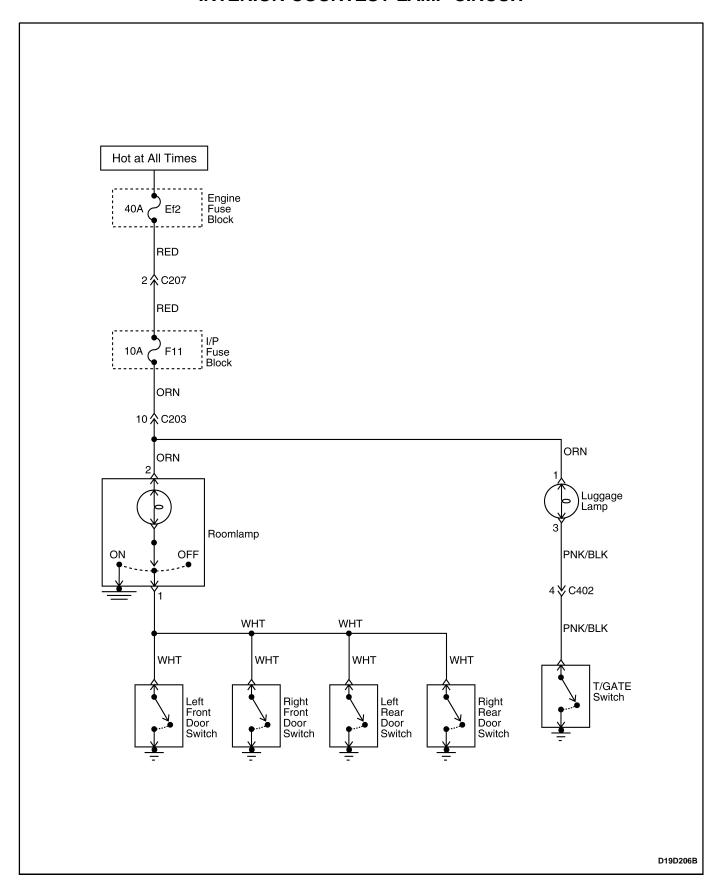
## **STOPLAMPS CIRCUIT**



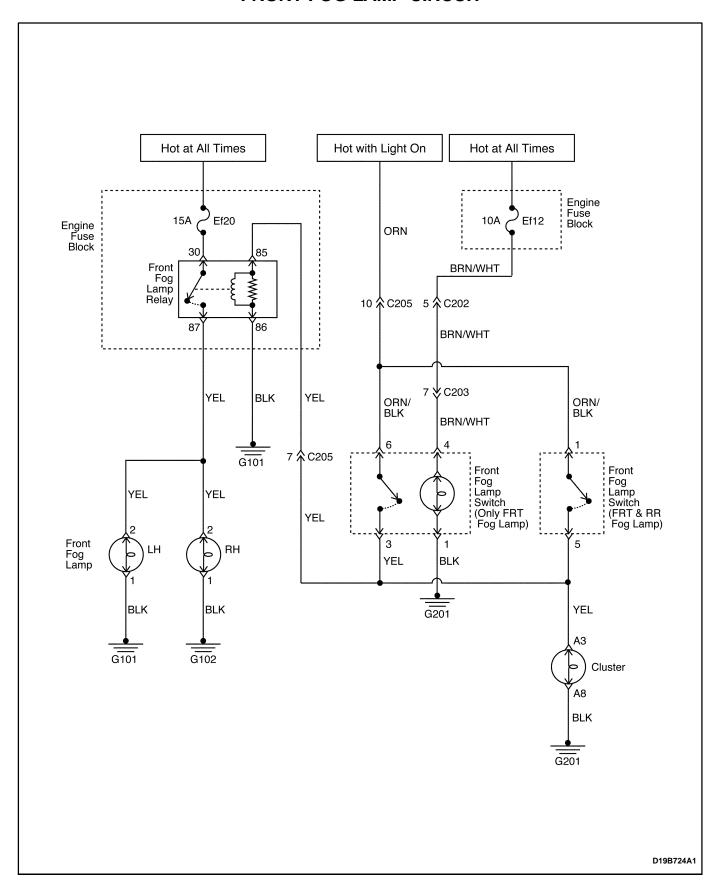
## TURN AND HAZARD LAMPS CIRCUIT



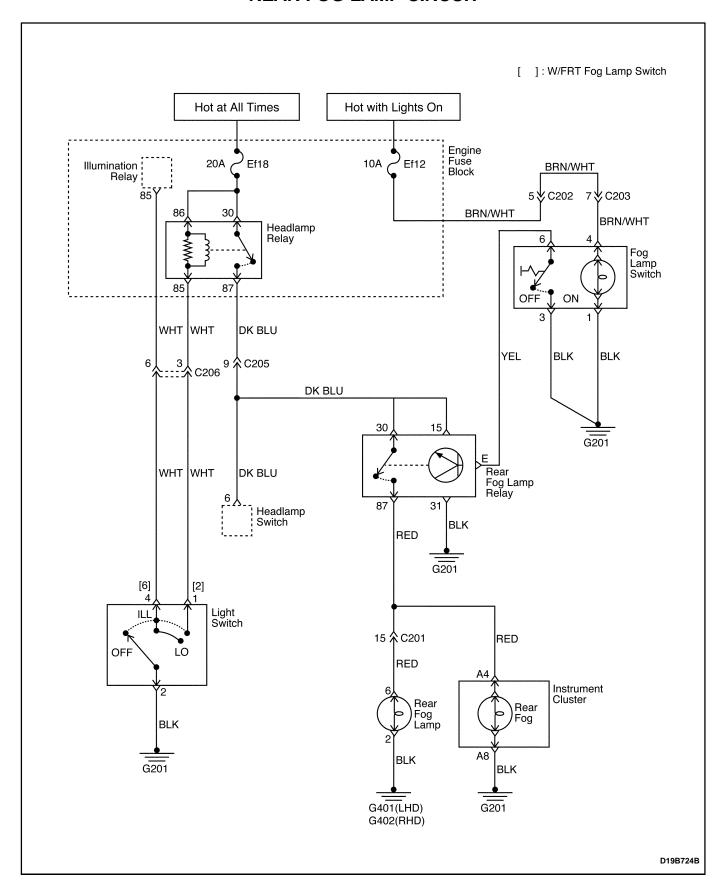
## INTERIOR COURTESY LAMP CIRCUIT



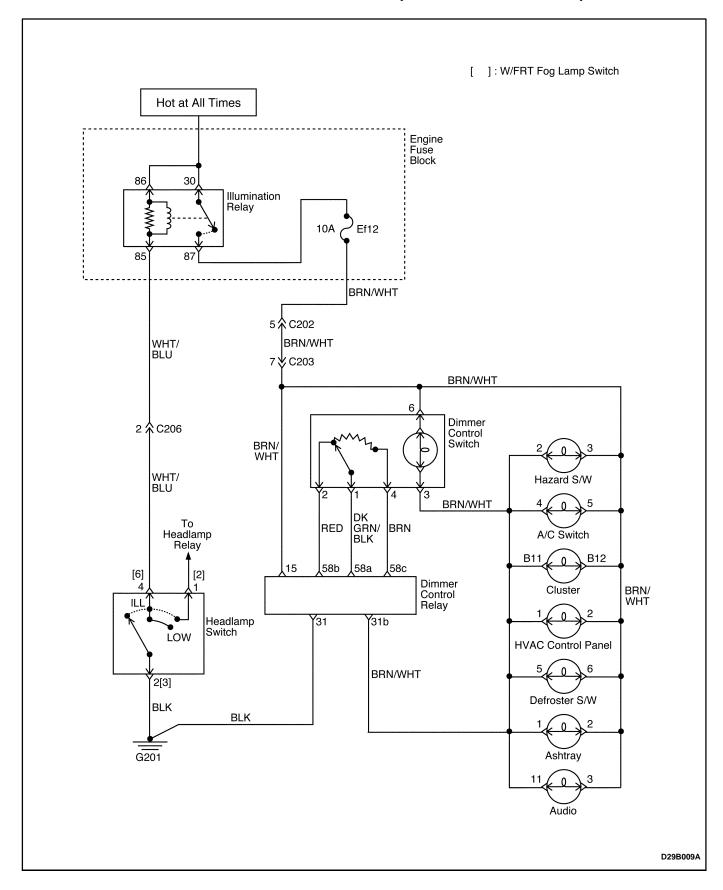
## FRONT FOG LAMP CIRCUIT



## **REAR FOG LAMP CIRCUIT**



# **DIMMER CONTROL CIRCUIT (EXCEPT W/EUROPE)**



# DAYTIME RUNNING LAMPS CIRCUIT (W/EUROPE ONLY)

