

## 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 LOCK unless otherwise noted.*

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# SPECIFICATIONS

## BULB USAGE CHART

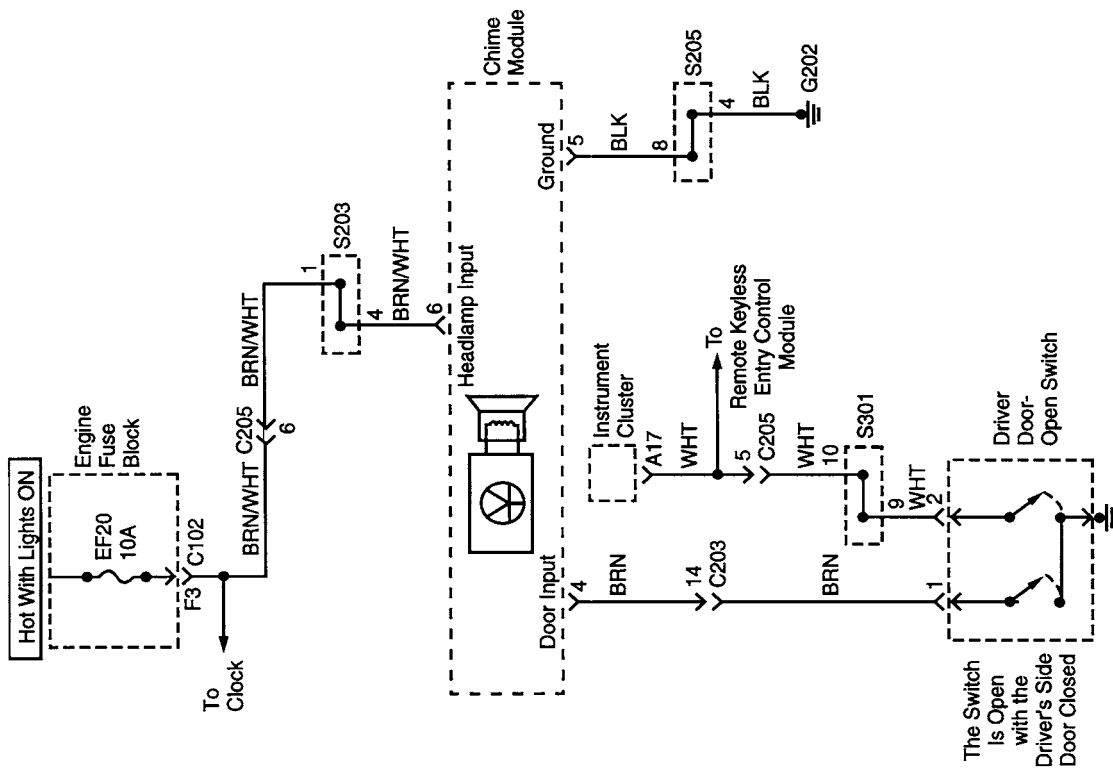
Bulb	Replacement Bulb Number
Backup Lamp	27W
Center High–Mounted Stoplamp	21W
Fog Lamp	55W
Glove Box Lamp	10W
Headlamp	Double 60/55W
Interior Courtesy Lamp	10W
License Plate Lamp	5W
Luggage Compartment Lamp	10W
Park and Front Turn Signal Lamp	Double 27/8W
Rear Turn Signal Lamp	Single 27/8W
Side Marker Lamp	8W
Taillamp and Stoplamp	Double 27/8W

## FASTENER TIGHTENING SPECIFICATIONS

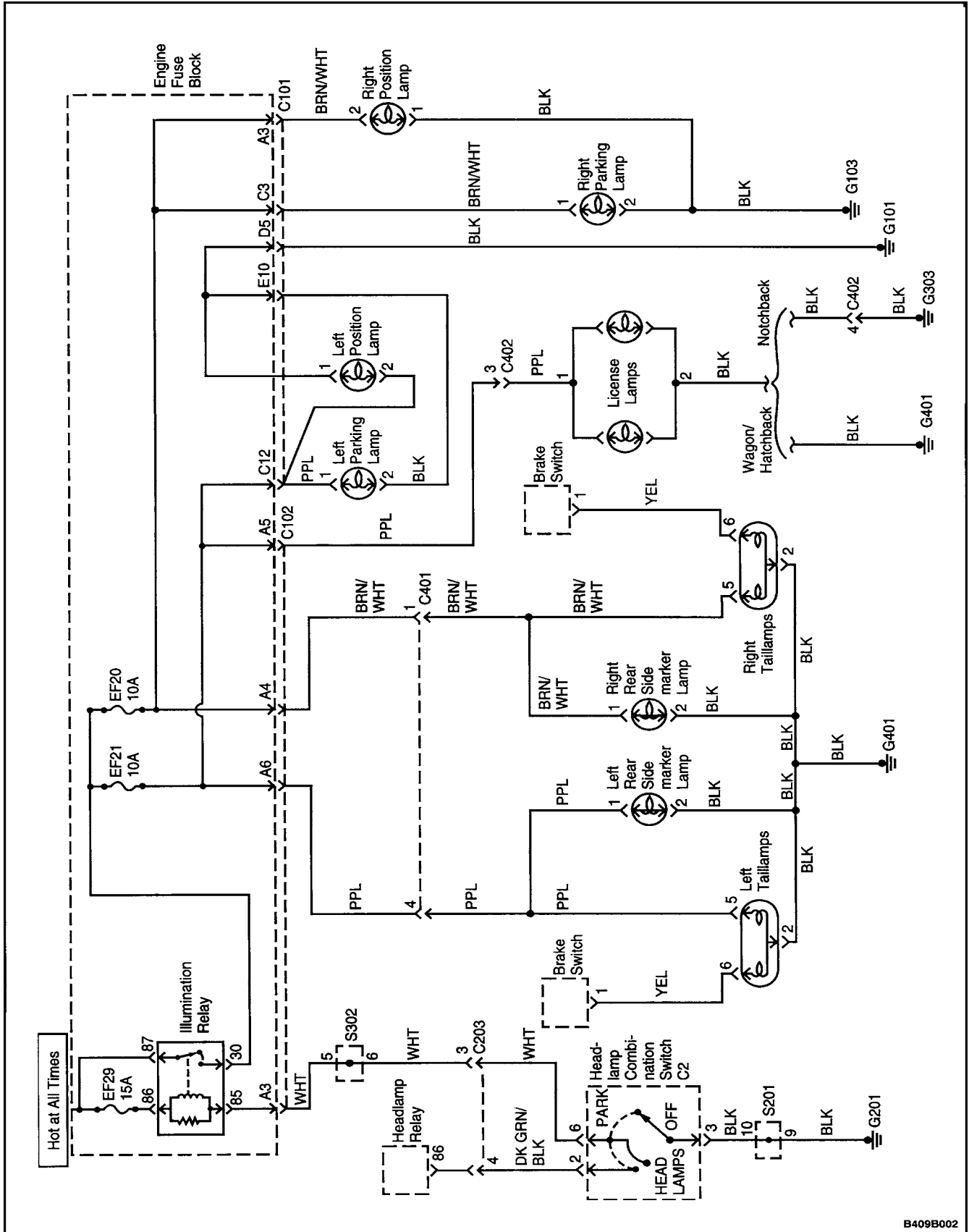
Application	N•m	Lb–Ft	Lb–In
CHMSL Mounting Nuts	4	–	35
CHMSL Mounting Screws	4	–	35
Daytime Running Lamp Module Screws	4	–	35
Door Jamb Switch Screw	4	–	35
Fog Lamp Nuts	4	–	35
Headlamp Assembly Bolts	4	–	35
Headlamp Assembly Nut	4	–	35
License Plate Lamp Screws	4	–	35
Map Lamp Screws	1	–	9
Rear Combination Lamp Assembly Screws	4	–	35

# SCHEMATIC AND ROUTING DIAGRAMS

## HEADLAMPS-ON REMINDER CHIME CIRCUIT

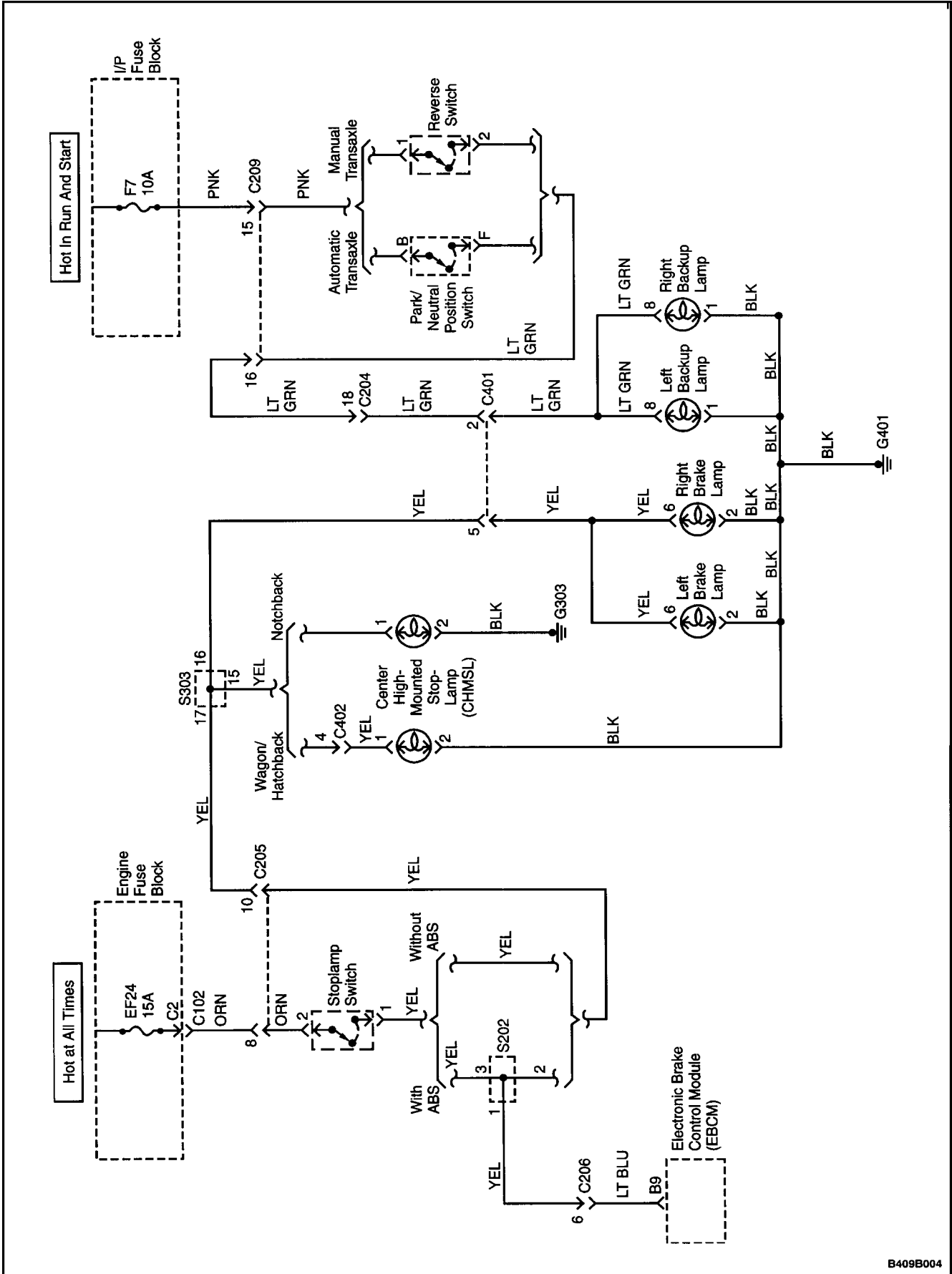


## PARKING, TAIL, POSITION AND LICENSE LAMPS CIRCUIT

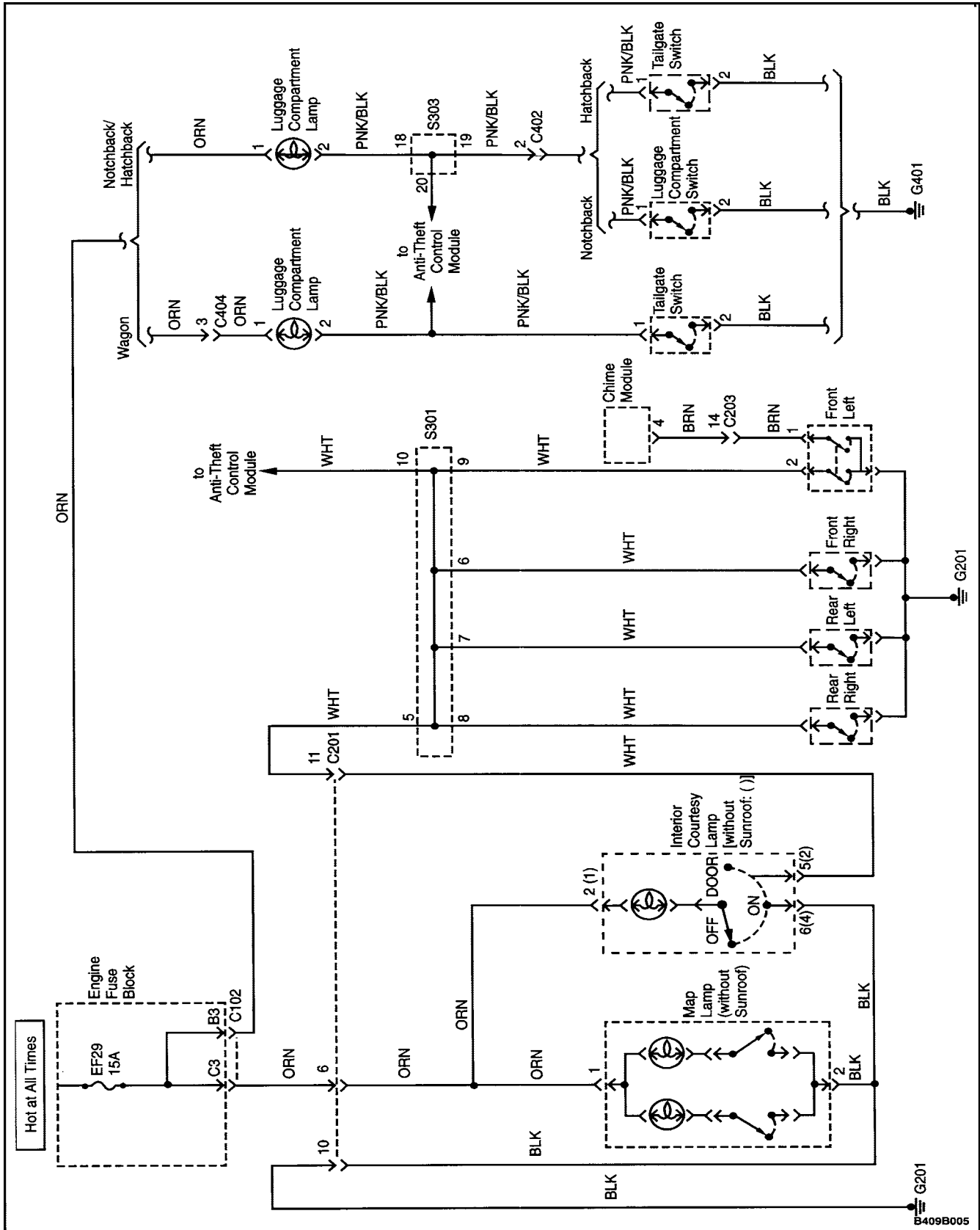




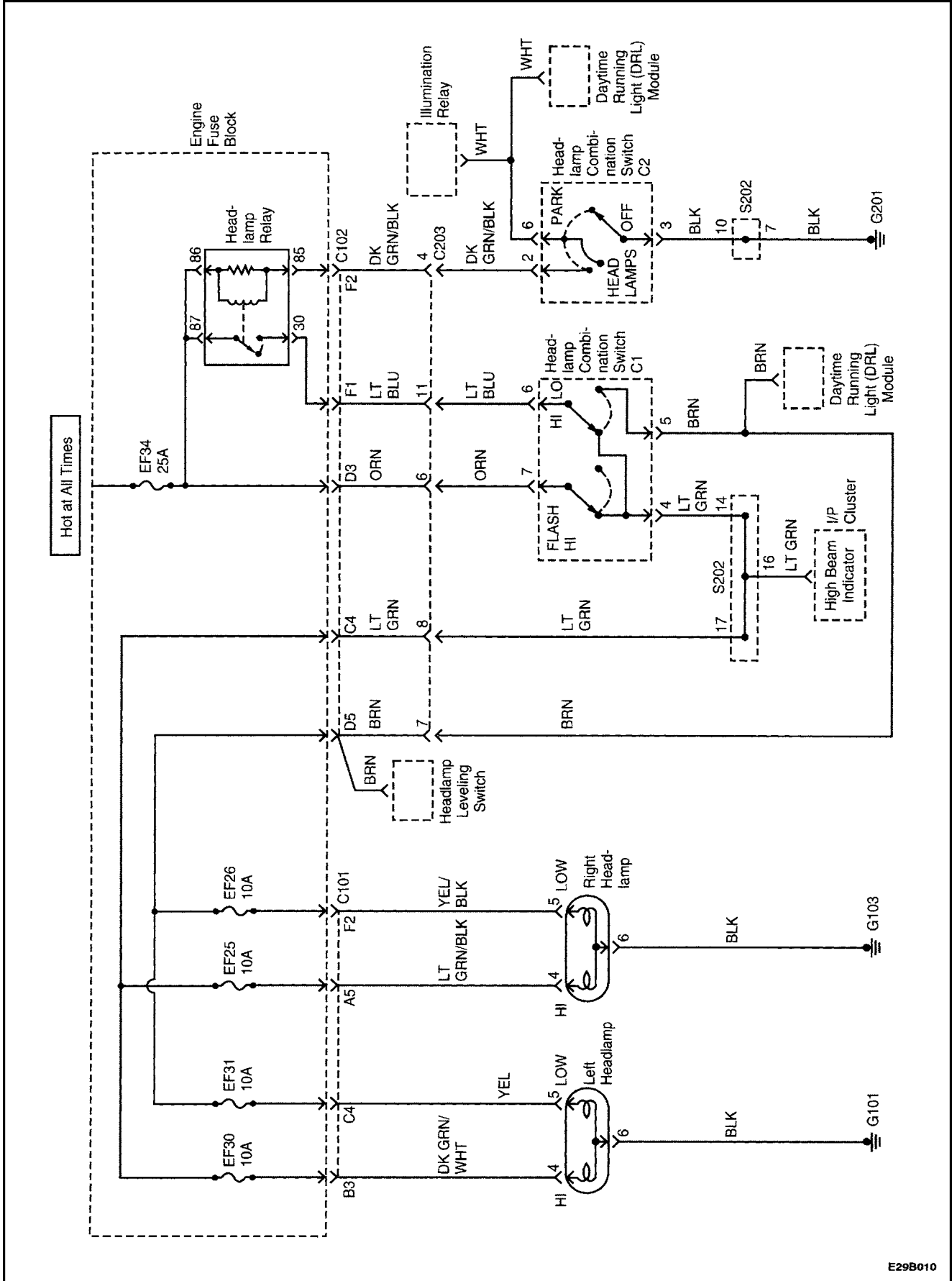
## BRAKE AND BACKUP LAMPS CIRCUIT



## INTERIOR COURTESY LAMP AND LUGGAGE COMPARTMENT LAMP CIRCUIT

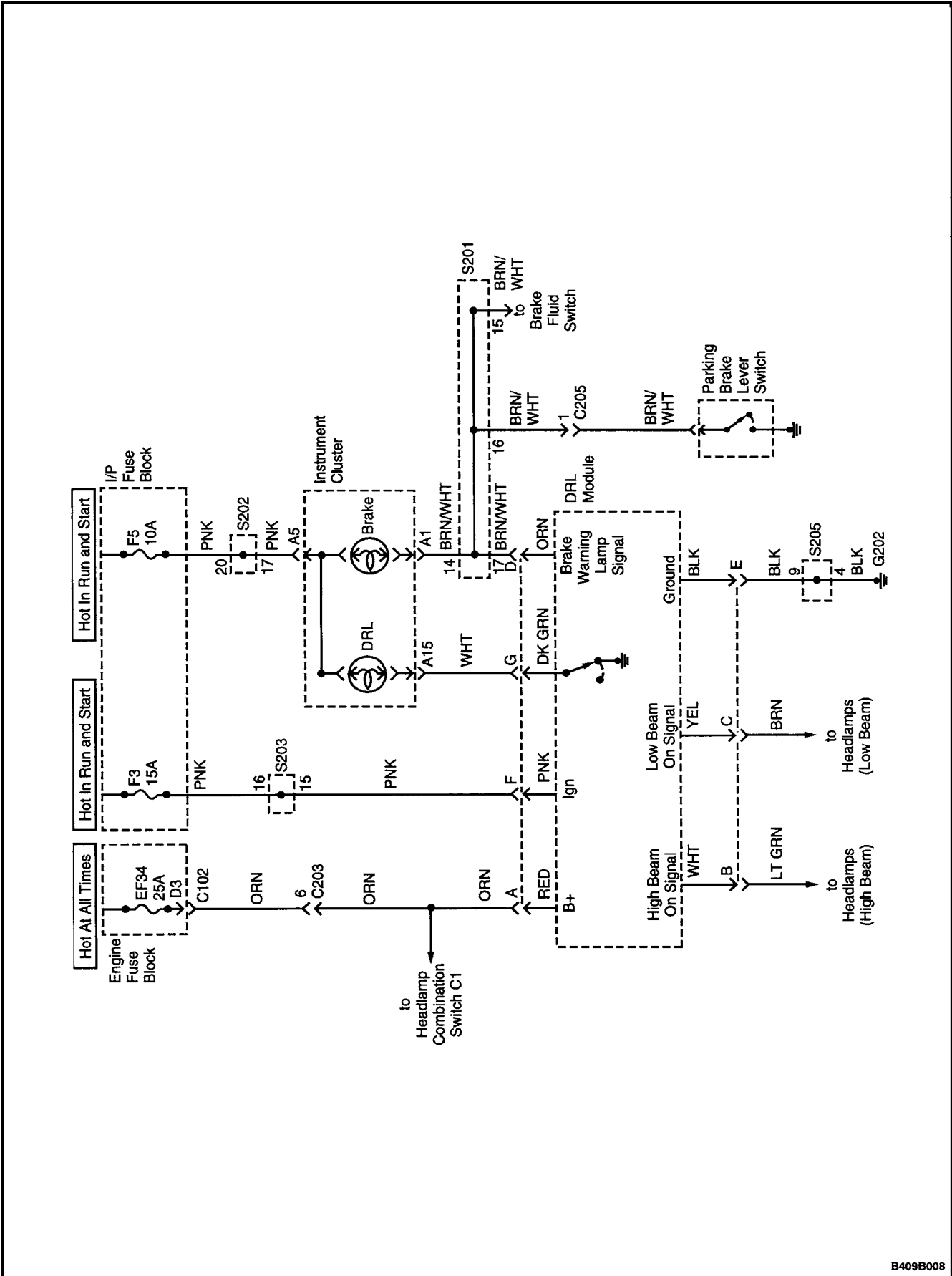


# HEADLAMPS CIRCUIT

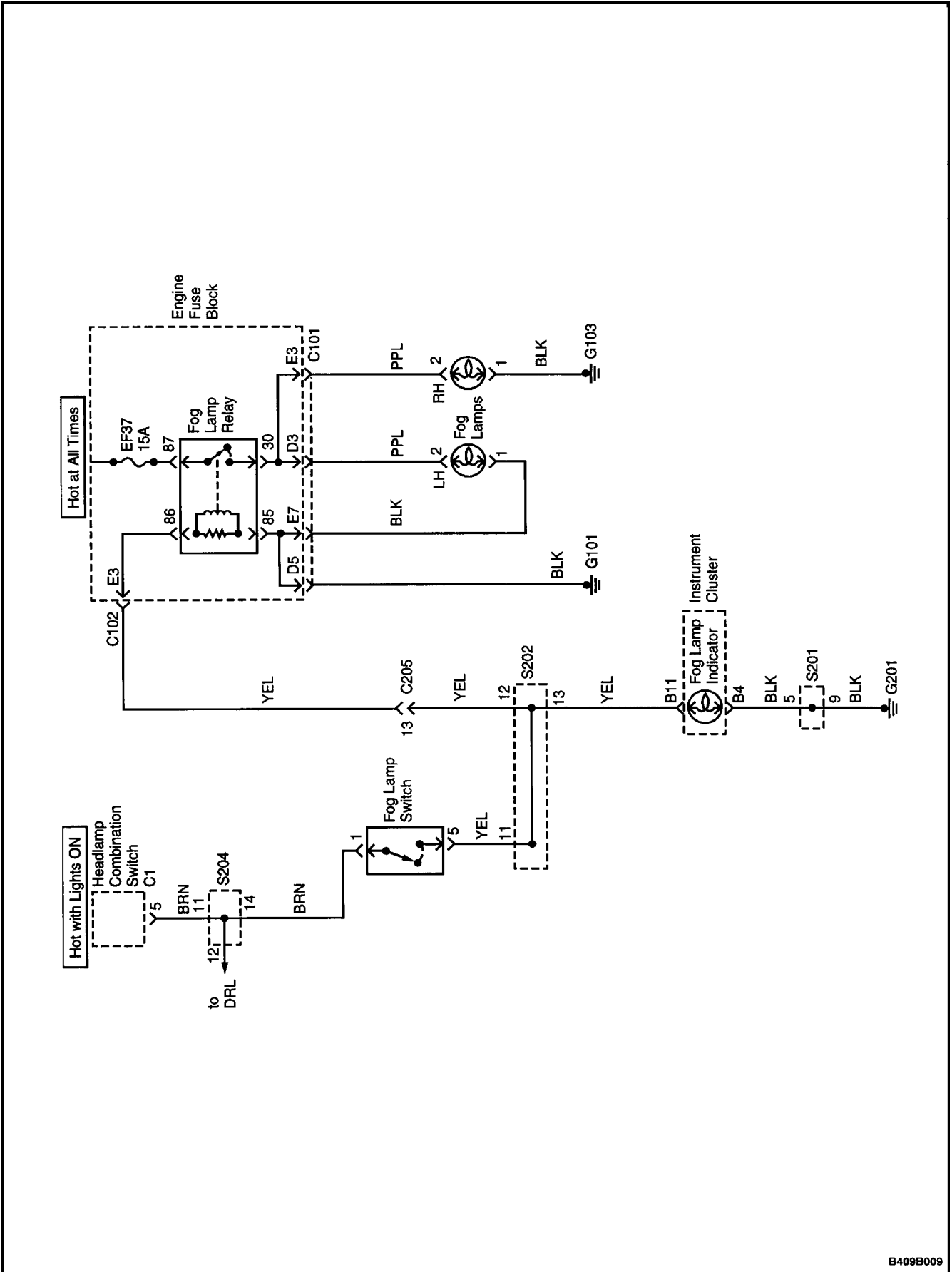




# DAYTIME RUNNING LAMPS CIRCUIT



### FOG LAMPS CIRCUIT



# DIAGNOSIS

## HEADLAMPS–ON REMINDER CHIME

### Headlamp Reminder Chime Is Inoperative

Step	Action	Value(s)	Yes	No
1	Check the parking lamps. Do the parking lamps work?		Go to <i>Step 3</i>	Go to <i>Step 2</i>
2	Repair the parking lamps. Is the repair complete?		Go to <i>Step 3</i>	Go to <i>Step 2</i>
3	Check fuse EF20. Is fuse EF20 blown?		Go to <i>Step 4</i>	Go to <i>Step 5</i>
4	1. Check for a short circuit and repair it, if necessary. 2. Replace fuse EF20. Is the repair complete?		System OK	
5	1. Turn the parking lamps on. 2. Use a voltmeter to check the voltage at fuse EF20. Is the specified voltage available at fuse EF20?	11–14 v	Go to <i>Step 7</i>	Go to <i>Step 6</i>
6	Repair the open powersupply circuit for fuse EF20. Is the repair complete?		System OK	
7	1. Disconnect the chime module. 2. Turn the parking lamps on. 3. Check the voltage at terminal 6 of the chime module connector. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 9</i>	Go to <i>Step 8</i>
8	Repair the open circuit between fuse EF20 and terminal 6 of the chime module. Is the repair complete?		System OK	
9	With the chime module disconnected, use an ohmmeter to check the resistance between ground and terminal 5 of the chime module connector. Is the resistance equal to the specified value?	$\approx 0 \Omega$	Go to <i>Step 11</i>	Go to <i>Step 10</i>
10	Repair the open circuit between ground and terminal 5 of the chime module. Is the repair complete?		System OK	
11	1. Open the driver door. 2. With the chime module disconnected, use an ohmmeter to check the resistance between ground and terminal 4 of the chime module connector. Is the resistance equal to the specified value?	$\approx 0 \Omega$	Go to <i>Step 15</i>	Go to <i>Step 12</i>
12	1. Remove the driver door–open switch. 2. Use an ohmmeter to check the resistance between terminal 4 of the chime module connector and terminal 1 of the driver door–open switch. Does the ohmmeter show the specified value?	$\approx 0 \Omega$	Go to <i>Step 14</i>	Go to <i>Step 13</i>

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Step	Action	Value(s)	Yes	No
13	Repair the open wire between the driver door–open switch and terminal 4 of the chime module connector. Is the repair complete?		System OK	
14	Replace the driver door–open switch. Is the repair complete?		System OK	
15	Replace the chime module. Is the repair complete?		System OK	

## HEADLAMPS

### Low–Beam Headlamps Are Inoperative, High–Beam Headlamps Are OK

Step	Action	Value(s)	Yes	No
1	Check fuses EF31 (left side headlamps) and EF26 (right side headlamps). Is fuse EF31 or EF26 blown?		Go to <i>Step 2</i>	Go to <i>Step 3</i>
2	1. Check for a short circuit and repair if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
3	Check the voltage at fuses EF31 and EF26. Are the voltages equal to the specified value?	11–14 v	Go to <i>Step 4</i>	Go to <i>Step 9</i>
4	1. Disconnect both headlamp connectors. 2. Turn the headlamps ON. 3. Select the low beams. Is the voltage at each headlamp connector terminal 5 equal to the specified value?	11–14 v	Go to <i>Step 6</i>	Go to <i>Step 5</i>
5	Repair the open circuit between fuses EF31 or EF26 and the low beam headlamps. Is the repair complete?		System OK	
6	1. Disconnect the headlamp connectors. 2. Connect an ohmmeter between ground and either headlamp connector terminal 6. Is the resistance equal to the value specified?	0 $\Omega$	Go to <i>Step 8</i>	Go to <i>Step 7</i>
7	Repair the ground circuit. Is the repair complete?		System OK	
8	Replace the faulty headlamps. Is the repair complete?		System OK	
9	1. Disconnect the headlamp combination switch connector C1. 2. Select the low beams. 3. Use an ohmmeter to check the continuity between terminals 6 and 5 of the headlamp combination switch. Does the ohmmeter indicate the value specified?	0 $\Omega$	Go to <i>Step 10</i>	Go to <i>Step 11</i>

Step	Action	Value(s)	Yes	No
10	Replace the headlamp combination switch. Is the repair complete?		System OK	
11	Repair the open circuit between fuses EF31 and EF26 and the headlamp combination switch connector C1 (terminal 5). Is the repair complete?		System OK	

### High-Beam Headlamps Are Inoperative, Low-Beam Headlamps Are OK

Step	Action	Value(s)	Yes	No
1	Check the high-beam headlamps in the "flash-to-pass" mode. Do the high-beam headlamps work in the "flash-to-pass" mode?		Go to <i>Step 8</i>	Go to <i>Step 2</i>
2	Check fuses EF30 and EF25. Is either fuse blown?		Go to <i>Step 3</i>	Go to <i>Step 4</i>
3	1. Check for a short circuit. Repair it if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
4	1. Turn the high-beam headlamps ON. 2. Check the voltage at fuses EF21 and EF22. Are the voltages equal to the specified value?	11–14 v	Go to <i>Step 5</i>	Go to <i>Step 10</i>
5	1. Turn the high-beam headlamps ON. 2. Check the voltage at headlamp terminal 4. Does the voltage available at the headlamp connector terminal 4 equal the value specified?	11–14 v	Go to <i>Step 7</i>	Go to <i>Step 6</i>
6	Repair the open circuit between fuse EF30 or EF25 and the high-beam headlamps. Is the repair complete?		System OK	
7	Replace the faulty headlamps. Is the repair complete?		System OK	
8	1. Disconnect the headlamp combination switch connector. 2. Put the switch in the high-beam position. 3. Use an ohmmeter to check the continuity of the headlamp switch between terminals 7 and 4. Does the ohmmeter indicate the specified value?	0 $\Omega$	Go to <i>Step 10</i>	Go to <i>Step 9</i>
9	Replace the headlamp combination switch. Is the repair complete?		System OK	
10	Repair the open circuit between headlamp combination switch connector C1 (terminal 4) and fuse EF30 or EF25. Is the repair complete?		System OK	

### High-Beam and Low-Beam Headlamps Are Inoperative On Both Left and Right Sides

## 9B – 14 LIGHTING SYSTEMS

Step	Action	Value(s)	Yes	No
1	Check fuses EF34, EF30, EF25, EF31, EF26, and EF24. Is any fuse blown?		Go to <i>Step 2</i>	Go to <i>Step 3</i>
2	1. Check for a short circuit and repair if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
3	1. Turn the low-beam headlamps ON. 2. Check the voltage at fuses EF24 and EF25. 3. Check the voltage at fuses EF21 and EF22 with high beams selected. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 4</i>	Go to <i>Step 9</i>
4	1. Turn the low-beam headlamps ON. 2. Check the voltage at the headlamp connector terminal 5. 3. Turn the high-beam headlamps ON. 4. Check the voltage at headlamp connector terminal 4. Does the battery voltage available at the headlamps equal the value specified?	11–14 v	Go to <i>Step 6</i>	Go to <i>Step 5</i>
5	Repair the open circuit between fuses EF30, EF25, EF31, and EF26 and the headlamps. Is the repair complete?		System OK	
6	Use an ohmmeter to check between ground and the headlamp connector terminal 6. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 8</i>	Go to <i>Step 7</i>
7	Repair the ground circuit. Is the repair complete?		System OK	
8	1. Replace the faulty headlamps. 2. Check the charging system to make sure that charging voltage is not excessively high. Repair if necessary. Is the repair complete?		System OK	
9	Use a voltmeter to check for power to fuses EF34 and EF29. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 11</i>	Go to <i>Step 10</i>
10	Repair the power supply circuit to fuses EF34 and EF29. Is the repair complete?		System OK	
11	Temporarily substitute the illumination relay in place of the headlamp relay. Do the headlamps operate with the substituted relay?		Go to <i>Step 12</i>	Go to <i>Step 13</i>
12	Install the illumination relay in its original position, and install a new headlamp relay. Is the repair complete?		System OK	
13	1. Return the illumination relay to its original position, but do not install the headlamp relay. 2. Use a voltmeter to check the headlamp relay connector for terminal 30. Does the voltmeter indicate the value specified?	11–14 v	Go to <i>Step 15</i>	Go to <i>Step 14</i>

Step	Action	Value(s)	Yes	No
14	Replace the engine fuse block. Is the repair complete?		System OK	
15	With the headlamp relay removed, use a voltmeter to check the headlamp relay connector terminal 85. Does the voltmeter indicate the value specified?	11–14 v	Go to <i>Step 16</i>	Go to <i>Step 14</i>
16	1. With the headlamp relay removed, turn the headlamps to low-beam. 2. Use an ohmmeter to check the continuity between connector relay terminal 86 and ground. Does the ohmmeter indicate the specified value?	$\approx 0 \Omega$	Go to <i>Step 22</i>	Go to <i>Step 17</i>
17	1. Reinstall the headlamp relay. 2. Check the voltage at the headlamp switch connector C2 (terminal 2). Does the voltage equal the specified value?	11–14 v	Go to <i>Step 19</i>	Go to <i>Step 18</i>
18	Repair the open circuit between headlamp relay terminal 85 and the headlamp switch connector C2 terminal 2. Is the repair complete?		System OK	
19	1. Disconnect the headlamp switch connector C2. 2. Turn the low-beam headlamps ON. 3. Use an ohmmeter to check the continuity between terminals 2 and 3 of headlamp combination switch C2. Does the ohmmeter indicate the specified value?	$\approx 0 \Omega$	Go to <i>Step 21</i>	Go to <i>Step 20</i>
20	Replace the headlamp switch. Is the repair complete?		System OK	
21	Repair the open circuit between terminal 3 of headlamp switch connector C2 and ground. Is the repair complete?		System OK	
22	Check the voltage at headlamp switch connector C1, (terminal 6). Does the voltage equal the specified value?	11–14 v	Go to <i>Step 24</i>	Go to <i>Step 23</i>
23	Repair the open circuit between headlamp switch connector C1 and terminal 87 of the headlamp relay. Is the repair complete?		System OK	
24	1. Disconnect headlamp switch connector C1. 2. Turn the headlamps to the low-beam position. 3. Connect an ohmmeter between terminals 5 and 6 of headlamp switch connector C1. 4. Turn the high-beam headlamps ON. 5. Connect an ohmmeter between terminals 4 and 6 of the headlamp switch. Does the ohmmeter show the specified value for both of the tests?	$\approx 0 \Omega$	Go to <i>Step 25</i>	Go to <i>Step 20</i>
25	Repair the open circuit between the headlamp switch and fuses EF30, EF25, EF31, and EF26. Is the repair complete?		System OK	

### Diagnostic Aids

The daytime running lamp (DRL) system will not work if the parking brake is applied. The system is designed to work only when the engine is running and the parking brake is released. If the parking brake circuit is shorted to ground or the switch stays closed when the engine is running, the DRL system will not work.

**Daytime Running Lamps Do Not Turn ON**

<b>Step</b>	<b>Action</b>	<b>Value(s)</b>	<b>Yes</b>	<b>No</b>
1	Turn the headlamps ON. Do the headlamps work?		Go to <i>Step 3</i>	Go to <i>Step 2</i>
2	Repair the headlamp system. Is the repair complete?		System OK	Go to <i>Step 3</i>
3	Check fuse EF34. Is fuse EF34 blown?		Go to <i>Step 4</i>	Go to <i>Step 5</i>
4	1. Check for a short circuit and repair it, if necessary. 2. Replace fuse EF34. Is the repair complete?		System OK	
5	1. Turn the ignition ON. 2. Check the voltage at fuse EF34. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 7</i>	Go to <i>Step 6</i>
6	Repair the power supply circuit to fuse EF34. Is the repair complete?		System OK	
7	<ul style="list-style-type: none"> <li>• Disconnect the electrical connector from the daytime running lamp (DRL) module.</li> <li>• Turn the ignition ON.</li> <li>• Check the voltage at terminal A of the DRL module.</li> </ul> Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 9</i>	Go to <i>Step 8</i>
8	Repair the open circuit between fuse EF34 and terminal A of the DRL module connector. Is the repair complete?		System OK	
9	With the DRL module still disconnected, use an ohmmeter to check the resistance between ground and terminal E of the DRL module connector. Is the resistance equal to the specified value?	$\approx 0 \Omega$	Go to <i>Step 11</i>	Go to <i>Step 10</i>
10	Repair the circuit between ground and terminal E of the DRL module connector. Is the repair complete?		System OK	
11	<ul style="list-style-type: none"> <li>• Release the parking brake.</li> <li>• Turn the ignition ON.</li> <li>• Observe the parking brake indicator lamp.</li> </ul> Is the parking brake indicator lamp ON?		Go to <i>Step 12</i>	Go to <i>Step 15</i>
12	Disconnect the electrical connector to the parking brake switch. Is the parking brake indicator lamp still ON?		Go to <i>Step 13</i>	Go to <i>Step 14</i>
13	Repair the short to ground in the parking brake circuit. Is the repair complete?		System OK	
14	Replace the parking brake switch. Is the repair complete?		System OK	
15	<ul style="list-style-type: none"> <li>• Turn the headlamps OFF.</li> <li>• With the DRL module disconnected, turn the ignition ON.</li> <li>• Check the voltage at terminal F of the DRL module.</li> </ul> Is the voltage equal to the specified value?	0 v	Go to <i>Step 17</i>	Go to <i>Step 16</i>



<b>Step</b>	<b>Action</b>	<b>Value(s)</b>	<b>Yes</b>	<b>No</b>
16	Repair the open circuit between fuse F3 and terminal F of the DRL module. Is the repair complete?		System OK	
17	Replace the DRL module. Is the repair complete?		System OK	

## FOG LAMPS

### Diagnostic Aids

The front fog lamp switch is powered by the headlamp switch, so the fog lamps may not operate if the headlamps or tail-lamps will not turn ON.

### Fog Lamps Do Not Work on Either Side

Step	Action	Value(s)	Yes	No
1	Check the headlamps and the exterior lamps. Are the headlamps and the exterior lamps working?		Go to <i>Step 3</i>	Go to <i>Step 2</i>
2	Repair the headlamps and exterior lamp systems. Is the repair complete?		Go to <i>Step 3</i>	
3	Check fuse EF20. Is fuse EF20 blown?		Go to <i>Step 5</i>	Go to <i>Step 4</i>
4	1. Check for a short circuit and repair if necessary. 2. Replace fuse EF20. Is the repair complete?		System OK	
5	Use a voltmeter to check if battery voltage is available at fuse EF20. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 7</i>	Go to <i>Step 6</i>
6	Repair the power supply to fuse EF20. Is the repair complete?		System OK	
7	1. Disconnect the connectors at the front fog lamps. 2. Use an ohmmeter to check the resistance between ground and the BLK wire at the fog lamps. Does the ohmmeter indicate the specified value?	$\approx 0 \Omega$	Go to <i>Step 9</i>	Go to <i>Step 8</i>
8	Repair the open ground circuit for the front fog lamps. Is the repair complete?		System OK	
9	1. With the fog lamps disconnected, turn the front fog lamps to the ON position. 2. Turn the headlamps ON. 3. Check the voltage at the PPL wire at the front fog lamp connectors. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 10</i>	Go to <i>Step 11</i>
10	Replace the fog lamp bulbs. Is the repair complete?		System OK	
11	1. Temporarily substitute the exterior illumination relay (taillamp relay) in place of the front fog lamp relay. 2. Turn the headlamps ON. 3. Turn the fog lamps. Do the front fog lamps work with the substituted relay?		Go to <i>Step 12</i>	Go to <i>Step 13</i>
12	1. Return the substituted relay to its original position. 2. Replace the front fog lamp relay. Is the repair complete?		System OK	

Step	Action	Value(s)	Yes	No
13	<ol style="list-style-type: none"> <li>Return the substituted relay to its original position, but do not reinstall the fog lamp relay.</li> <li>Use a voltmeter to probe each of the four terminals in the front fog lamp relay socket.</li> </ol> <p>Does one of the four terminals in the relay socket indicate the specified value?</p>	11–14 v	Go to <i>Step 15</i>	Go to <i>Step 14</i>
14	<p>Replace the engine fuse block. Is the repair complete?</p>		System OK	
15	<ol style="list-style-type: none"> <li>Turn the headlamps ON.</li> <li>Turn the fog lamps ON.</li> <li>Probe the front fog lamp relay socket with the voltmeter.</li> </ol> <p>Besides the terminal which indicated battery voltage in Step 13, does another terminal in the relay socket (relay coil positive terminal) now indicate the specified value?</p>	11–14 v	Go to <i>Step 21</i>	Go to <i>Step 16</i>
16	<ol style="list-style-type: none"> <li>Turn the headlamps ON.</li> <li>Check the voltage at the BRN wire at the front fog lamp switch.</li> </ol> <p>Does the voltmeter indicate the specified value?</p>	11–14 v	Go to <i>Step 18</i>	Go to <i>Step 17</i>
17	<p>Repair the open circuit between the headlamp switch and the front fog lamp switch. Is the repair complete?</p>		System OK	
18	<ol style="list-style-type: none"> <li>With the front fog lamp switch disconnected, connect an ohmmeter between the two terminals of the front fog lamp switch.</li> <li>Turn the front fog lamp switch to the ON position.</li> </ol> <p>Does the ohmmeter indicate the specified value?</p>	0 $\Omega$	Go to <i>Step 20</i>	Go to <i>Step 19</i>
19	<p>Replace the front fog lamp switch. Is the repair complete?</p>		System OK	
20	<p>Repair the open circuit between the front fog lamp switch and the front fog lamp relay. Is the repair complete?</p>		System OK	
21	<p>Check the resistance between ground and the ground terminal at the fog lamp relay socket. Does the ohmmeter indicate the specified value?</p>	$\approx 0 \Omega$	Go to <i>Step 23</i>	Go to <i>Step 22</i>
22	<p>Repair the ground circuit for the front fog lamp relay. Is the repair complete?</p>		System OK	
23	<p>Repair the open circuit between the front fog lamp relay and the front fog lamps. Is the repair complete?</p>		System OK	

## REAR COMBINATION LAMPS

### Exterior Illumination Lamps Do Not Work

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Step	Action	Value(s)	Yes	No
1	Check the headlamps. Do the headlamps work?		Go to <i>Step 3</i>	Go to <i>Step 2</i>
2	Repair the headlamps. After the headlamps have been repaired, are the rear combination lamps still inoperative?		Go to <i>Step 3</i>	System OK
3	1. Turn the illumination lamps ON. 2. Use a voltmeter to check voltage at the bulb socket positive terminal. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 4</i>	Go to <i>Step 7</i>
4	Connect an ohmmeter between ground and the lamp socket negative terminal. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 6</i>	Go to <i>Step 5</i>
5	Repair the ground circuit for the lamps. Is the repair complete?		System OK	
6	Replace the faulty bulbs. Is the repair complete?		System OK	
7	Check fuses EF20 and EF21. Is either of the fuses blown?		Go to <i>Step 8</i>	Go to <i>Step 9</i>
8	1. Check for a short circuit and repair if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
9	1. Temporarily substitute the headlamp relay in place of the illumination relay. 2. Turn the illumination lamps ON. Do the taillamps illuminate?		Go to <i>Step 10</i>	Go to <i>Step 11</i>
10	1. Return the headlamp relay to its original position. 2. Replace the illumination relay. Is the repair complete?		System OK	
11	1. Remove the illumination relay. 2. Use a voltmeter to check the illumination relay socket at connector terminal 87. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 13</i>	Go to <i>Step 12</i>
12	Replace the engine fuse block. Is the repair complete?		System OK	
13	With the illumination relay removed, use a voltmeter to check the illumination relay socket at connector terminal 86. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 14</i>	Go to <i>Step 12</i>
14	With the illumination relay removed, connect an ohmmeter between ground and connector terminal 85. the resistance equal to the specified value?	$\approx 0 \Omega$	Go to <i>Step 15</i>	Go to <i>Step 17</i>
15	1. Reinstall the illumination relay. 2. Turn the illumination lamps ON. 3. Check the voltage at EF20 and EF21. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 16</i>	Go to <i>Step 12</i>

Step	Action	Value(s)	Yes	No
16	Repair the open circuit between the fuses EF 21 and EF20 and the illumination lamps. Is the repair complete?		System OK	
17	1. Disconnect the headlamp switch connector C2. 2. Connect a fused jumper wire between ground and terminal 6 of connector C2 (instrument harness side). Do the illumination lamps turn ON with the jumper in place?		Go to <i>Step 19</i>	Go to <i>Step 18</i>
18	Repair the open circuit between terminal 85 of the illumination relay and terminal 6 of headlamp switch connector C2. Is the repair complete?		System OK	
19	1. Disconnect headlamp switch connector C2. 2. On the disconnected switch, select the illumination lamp ON position. 3. At the switch side of the connector C2, use an ohmmeter to check resistance between terminal 3 and terminal 6. Is the resistance equal to the specified value?	$\approx 0 \Omega$	Go to <i>Step 20</i>	Go to <i>Step 21</i>
20	Repair the open circuit between headlamp switch connector C2 terminal 3 and ground. Is the repair complete?		System OK	
21	Replace the headlamp switch. Is the repair complete?		System OK	

### Stoplamps Do Not Work

Step	Action	Value(s)	Yes	No
1	Check fuse EF24. Is fuse EF24 blown?		Go to <i>Step 2</i>	Go to <i>Step 3</i>
2	1. Check for a short circuit and repair if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
3	1. Depress the brake pedal. 2. With the brake pedal depressed, check the positive terminals of the bulb sockets with a test lamp. Does the test lamp illuminate?		Go to <i>Step 4</i>	Go to <i>Step 6</i>
4	Connect an ohmmeter between ground and the stoplamp ground terminal. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 6</i>	Go to <i>Step 5</i>
5	Repair the ground circuit. Is the repair complete?		System OK	
6	1. Disconnect the wiring connector from the brakelamp switch. 2. Press the brake pedal. 3. Use an ohmmeter to check the continuity between terminals 2 and 1 of the stoplamp switch. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 8</i>	Go to <i>Step 7</i>
7	Replace the brakelamp switch. Is the repair complete?		System OK	
8	1. Disconnect the stoplamp switch electrical connector. 2. Check the voltage at terminal 2. Does the voltmeter show the specified value?	11–14 v	Go to <i>Step 10</i>	Go to <i>Step 9</i>
9	Repair the open circuit between the fuse EF24 and the stoplamp switch. Is the repair complete?		System OK	
10	Repair the open circuit between the stoplamp switch and the stoplamps. Is the repair complete?		System OK	

### Center High–Mounted Stoplamp (CHMSL) Does Not Work

Step	Action	Value(s)	Yes	No
1	Check the stoplamps. Do the stoplamps work?		Go to <i>Step 3</i>	Go to <i>Step 2</i>
2	Repair the stoplamps. Does the center high–mounted stoplamp (CHMSL) work after the stoplamps have been repaired?		System OK	Go to <i>Step 3</i>
3	1. Remove the CHMSL bulb. 2. Visually and physically check the CHMSL bulb. Is the lamp bulb defective?		Go to <i>Step 4</i>	Go to <i>Step 5</i>
4	Replace the CHMSL bulb. Is the repair complete?		System OK	
5	1. Disconnect the CHMSL connector. 2. Use an ohmmeter to measure the resistance between ground and the BLK wire in the CHMSL connector. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 7</i>	Go to <i>Step 6</i>
6	Repair the open circuit between ground and the BLK wire in the CHMSL connector. Is the repair complete?		System OK	
7	Repair the open circuit between the stoplamp switch and the CHMSL. Is the repair complete?		System OK	

## Backup Lamps Inoperative

Step	Action	Value(s)	Yes	No
1	<ol style="list-style-type: none"> <li>Block the wheels.</li> <li>Apply the parking brake.</li> <li>Turn the ignition ON.</li> <li>Put the transaxle in REVERSE.</li> <li>Remove one of the backup lamps from its socket.</li> <li>Test the lamp socket positive terminal with a voltmeter.</li> </ol> Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 3</i>	Go to <i>Step 2</i>
2	Repair the open circuit between fuse F7 and the backup lamps. Is the repair complete?		System OK	
3	Connect an ohmmeter between ground and the negative terminal at the bulb socket. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 4</i>	Go to <i>Step 5</i>
4	Replace the faulty backup lamps. Is the repair complete?		System OK	
5	<ol style="list-style-type: none"> <li>Install the backup lamps.</li> <li>Disconnect the electrical connector at the reverse switch. (On automatic transaxle vehicles, disconnect the neutral safety/backup switch).</li> <li>Turn the ignition ON.</li> <li>Put the transaxle in REVERSE.</li> <li>Use a voltmeter to check the reverse switch terminal 1. (On automatic transaxle vehicles, test terminal B of the neutral safety/backup switch).</li> </ol> Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 7</i>	Go to <i>Step 6</i>
6	Repair the open circuit between the backup lamps and the reverse switch (or the neutral safety/backup switch, if equipped with A/T). Is the repair complete?		System OK	
7	<ol style="list-style-type: none"> <li>Put the transaxle in REVERSE.</li> <li>Use an ohmmeter to check the continuity between reverse switch terminal 1 and terminal 2 terminals B and F on the neutral safety/backup switch in automatic transaxle vehicles).</li> </ol> Does the continuity between terminals 1 and 2 (terminals D and F with A/T) equal the specified value?	0 $\Omega$	Go to <i>Step 9</i>	Go to <i>Step 8</i>
8	Replace the REVERSE switch (neutral safety/backup switch in automatic transaxle vehicles). Is the repair complete?		System OK	
9	Repair the ground circuit between the REVERSE switch (neutral safety/backup switch if equipped with A/T) and the backup lamps. Is the repair complete?		System OK	



### Turn Signal Lamps and Hazard Lamps Do Not Work

Step	Action	Value(s)	Yes	No
1	Check fuses F3 and EF12. Is either fuse blown?		Go to <i>Step 2</i>	Go to <i>Step 3</i>
2	1. Check for a short circuit and repair if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
3	1. Turn the ignition ON. 2. Check the voltage at fuse EF12 and F3. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 4</i>	Go to <i>Step 7</i>
4	1. Turn the hazard switch ON. 2. Remove each of the inoperative lamps from its socket. 3. Test each lamp socket positive terminal with a voltmeter. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 5</i>	Go to <i>Step 9</i>
5	At each bulb socket, use an ohmmeter to check the ground circuit. Is the resistance equal to the specified value?	$\approx 0 \Omega$	Go to <i>Step 6</i>	Go to <i>Step 8</i>
6	Replace any faulty turn signal/hazard bulbs. Is the repair complete?		System OK	
7	Repair the power supply circuit to fuses. Is the repair complete?		System OK	
8	Repair the open ground wires. Is the repair complete?		System OK	
9	1. Turn the hazard lamps ON. 2. Test blinker unit connector terminal 49a with a voltmeter. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 15</i>	Go to <i>Step 10</i>
10	1. Turn the hazard lamps ON. 2. Test blinker unit connector terminal 49 with a voltmeter. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 11</i>	Go to <i>Step 14</i>
11	1. Disconnect the blinker unit from the connector. 2. Use an ohmmeter to check between ground and the connector for terminal 31 of the blinker connector. Is the resistance equal to the specified value?	$\approx 0 \Omega$	Go to <i>Step 13</i>	Go to <i>Step 12</i>
12	Repair the blinker unit ground circuit. Is the repair complete?		System OK	
13	Replace faulty blinker unit. Is the repair complete?		System OK	
14	1. Disconnect the hazard switch connector. 2. Check for voltage at terminal 8. 3. Turn the ignition ON. 4. Check for voltage at terminal 10. Does the voltage available at both terminals equal the specified value?	11–14 v	Go to <i>Step 16</i>	Go to <i>Step 15</i>

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Step	Action	Value(s)	Yes	No
15	Repair the open circuit between the hazard switch and fuses F3 or EF12. Is the repair complete?		System OK	
16	With the hazard switch disconnected, use an ohmmeter to check for an open circuit between blinker unit terminal 49 and hazard switch connector terminal 7. Is there an open circuit?		Go to <i>Step 17</i>	Go to <i>Step 18</i>
17	Repair the open circuit between the hazard switch and the blinker unit. Is the repair complete?		System OK	
18	1. Remove the hazard switch. 2. Turn the hazard switch OFF. 3. Use an ohmmeter to check for continuity between terminals 7 and 10. 4. Turn the hazard switch ON. 5. Use an ohmmeter to check for continuity between terminals 7 and 8. Does the ohmmeter show the specified value for both tests?	0 Ω	Go to <i>Step 20</i>	Go to <i>Step 19</i>
19	Replace the hazard switch. Is the repair complete?		System OK	
20	1. With the hazard switch still removed for testing, turn the hazard switch to the ON position. 2. Use an ohmmeter to check the continuity between terminals 5, 6, and 9. Is there continuity between terminals 5, 6, and 9?		Go to <i>Step 19</i>	Go to <i>Step 21</i>
21	1. Disconnect connector C204. 2. Use an ohmmeter to check the continuity of the wire between the hazard switch terminal 5 and C204 terminal 1. Does the ohmmeter show the value specified?	∞	Go to <i>Step 23</i>	Go to <i>Step 22</i>
22	Repair the open wire between the hazard switch and C204. Is the repair complete?		System OK	
23	Use an ohmmeter to check the continuity of the wire between the hazard switch terminal 6 and C204 terminal 11. Does the ohmmeter show the specified value?	∞	Go to <i>Step 24</i>	Go to <i>Step 22</i>
24	Repair the open circuit between C204 and the turn signal bulbs. Is the repair complete?		System OK	

**Hazard Lamps Do Not Operate, Turn Signals Are OK**

<b>Step</b>	<b>Action</b>	<b>Value(s)</b>	<b>Yes</b>	<b>No</b>
1	Check fuse EF12. Is fuse EF12 blown?		Go to <i>Step 2</i>	Go to <i>Step 3</i>
2	1. Check for a short circuit and repair if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
3	Use a voltmeter to check the voltage at fuse EF12. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 5</i>	Go to <i>Step 4</i>
4	Repair the power supply circuit to fuse EF12. Is the repair complete?		System OK	
5	1. Disconnect the hazard lamp switch connector. 2. Use a voltmeter to check the voltage at hazard switch terminal 8. Is the voltage equal to the specified value?	11–14 v	Go to <i>Step 6</i>	Go to <i>Step 9</i>
6	1. Remove the hazard lamp switch. 2. Turn the hazard lamps ON. 3. Use an ohmmeter to check the resistance between terminals 7 and 8. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 7</i>	Go to <i>Step 10</i>
7	1. With the hazard lamp switch still removed and disconnected for testing, turn the hazard lamp switch to the ON position. 2. Use an ohmmeter to check between terminals 5, 6, and 9. Is the resistance equal to the specified value?	0 $\Omega$	Go to <i>Step 8</i>	Go to <i>Step 10</i>
8	Repair the open circuit between the hazard lamp switch connector and splice S204. Is the repair complete?		System OK	
9	Repair the open circuit between the hazard lamp switch connector terminal H and fuse EF12. Is the repair complete?		System OK	
10	Replace the faulty hazard lamp switch. Is the repair complete?		System OK	

## INTERIOR COURTESY AND LUGGAGE COMPARTMENT LAMPS

### Interior Courtesy Lamp Inoperative

**CAUTION :** Always make sure there is an electrical load (lamp bulb, etc.) in any circuit between battery terminals. Do not make a short circuit between battery terminals with a jumper wire. Hazardous sparking would result.

#### Test Description

The number(s) below refer to step(s) on the diagnostic

table.

1. Bulb test. Clip one end of a jumper wire to the negative battery terminal. Clip the other end of the jumper wire to the end of the bulb. Take the free end of the bulb (the end without the jumper attached) and touch it to the positive battery terminal.

Step	Action	Value(s)	Yes	No
1	1. Remove the interior courtesy lamp bulb and inspect the filament. 2. If the filament is not broken, test the bulb using the vehicle's battery and a jumper wire. Does the bulb pass the visual and physical checks?		Go to Step 3	Go to Step 2
2	Replace the bulb. Is the repair complete?		System OK	
3	1. Reinstall the interior courtesy lamp bulb. 2. Check fuse EF29. Is fuse EF29 blown?		Go to Step 4	Go to Step 5
4	1. Check for a short circuit and repair if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
5	Check fuse EF29. Is the voltage equal to the specified value?	11–14 v	Go to Step 7	Go to Step 6
6	Repair the open circuit between the battery and fuse EF29. Is the repair complete?		System OK	
7	1. Disconnect the interior courtesy lamp electrical connector. 2. Check the voltage at the ORN wire. Is the voltage equal to the specified value?	11–14 v	Go to Step 8	Go to Step 9
8	Repair the open circuit between fuse EF29 and the interior courtesy lamp. Is the repair complete?		System OK	
9	Use an ohmmeter to check the resistance between ground and the BLK wire of the interior courtesy lamp connector (harness side). Is the resistance equal to the specified value?	0 $\Omega$	Go to Step 10	Go to Step 11
10	Replace the interior courtesy lamp switch assembly. Is the repair complete?		System OK	
11	Repair the ground circuit for the interior courtesy lamp. Is the repair complete?		System OK	

## Luggage Compartment Lamp Inoperative

**CAUTION :** Always make sure there is an electrical load (lamp bulb, etc.) in any circuit between battery terminals. Do not make a short circuit between battery terminals with a jumper wire. Hazardous sparking will result.

### Test Description

The number(s) below refer to step(s) on the diagnostic

table.

1. Bulb test. Clip one end of a jumper wire to the negative battery terminal. Clip the other end of the jumper wire onto one end of the bulb. Take the free end of the bulb (the end without the jumper attached) and touch it to the positive battery terminal.

Step	Action	Value(s)	Yes	No
1	1. Remove the luggage compartment lamp bulb and inspect the filament. 2. If the filament is not broken, test the bulb using the vehicle's battery and a jumper wire. Does the bulb pass the visual and physical check?		Go to Step 3	Go to Step 2
2	Replace the bulb. Is the repair complete?		System OK	
3	1. Reinstall the luggage compartment lamp bulb. 2. Check fuse EF29. Is fuse EF29 blown?		Go to Step 4	Go to Step 5
4	1. Check for a short circuit and repair it, if necessary. 2. Replace the fuse. Is the repair complete?		System OK	
5	Check fuse EF29. Is the voltage equal to the specified value?	11–14 v	Go to Step 7	Go to Step 6
6	Repair the open circuit between the battery and fuse EF29. Is the repair complete?		System OK	
7	1. Disconnect the luggage compartment lamp electrical connector. 2. Check the voltage at the ORN wire. Does the voltage at the ORN wire equal the specified value?	11–14 v	Go to Step 8	Go to Step 9
8	Repair the open circuit between fuse EF29 and the luggage compartment lamp. Is the repair complete?		System OK	
9	1. Reconnect the luggage compartment lamp. 2. Remove the luggage compartment lamp (tailgate) switch. 3. With a voltmeter, test the PNK/BLK wire at the luggage compartment lamp (tailgate) switch. Is the voltage equal to the specified value?	11–14 v	Go to Step 11	Go to Step 10
10	Repair the open circuit between the luggage compartment lamp and the luggage compartment lamp (tailgate) switch. Is the repair complete?		System OK	
11	Use an ohmmeter to check the resistance between ground and the BLK wire at the luggage compartment (tailgate) lamp switch connector (harness side). Is the resistance equal to the specified value?	0 Ω	Go to Step 12	Go to Step 13

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<b>Step</b>	<b>Action</b>	<b>Value(s)</b>	<b>Yes</b>	<b>No</b>
12	Replace the luggage compartment lamp (tailgate) switch. Is the repair complete?		System OK	
13	Repair the ground circuit for the interior courtesy lamp. Is the voltage equal to the specified value?		System OK	