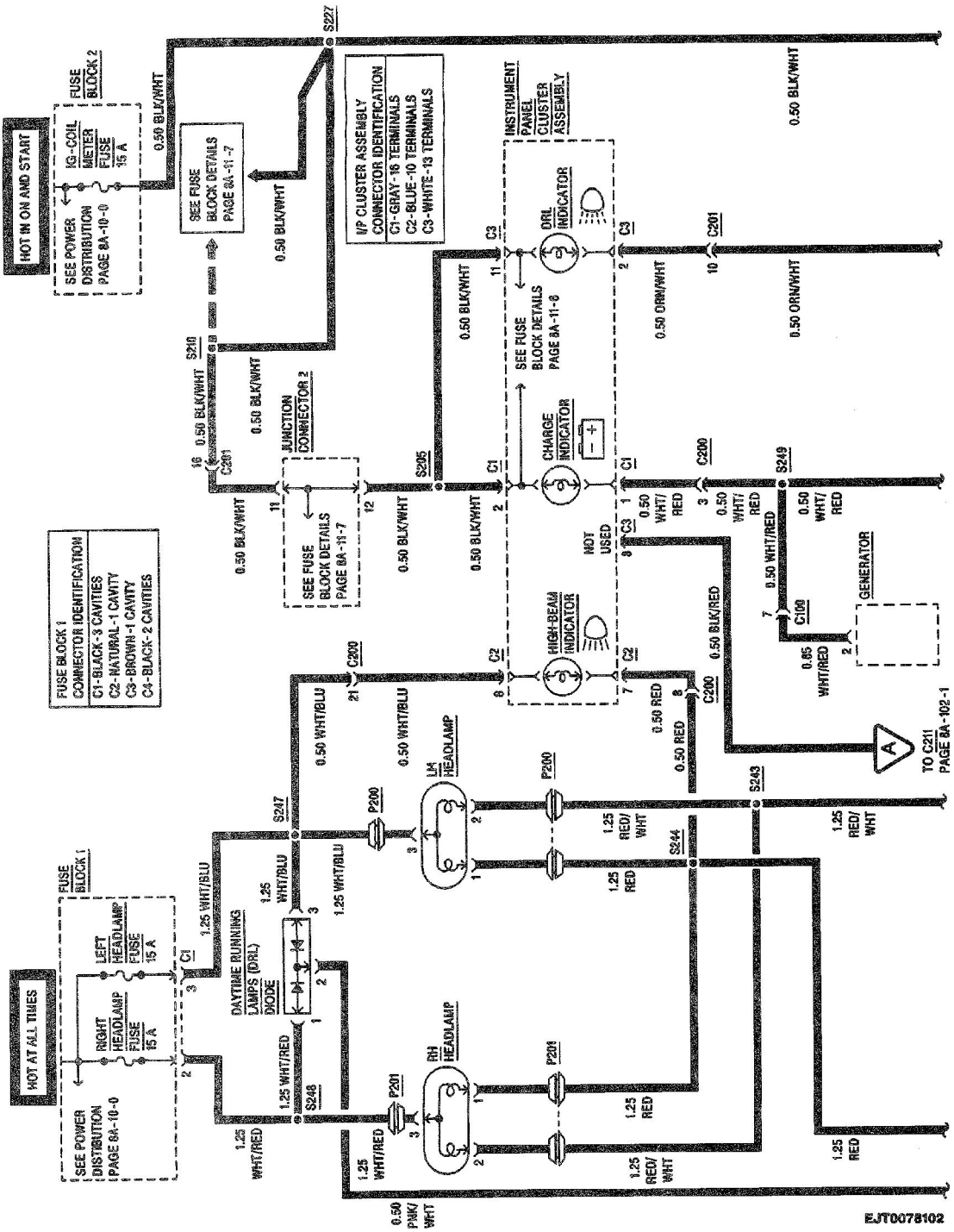
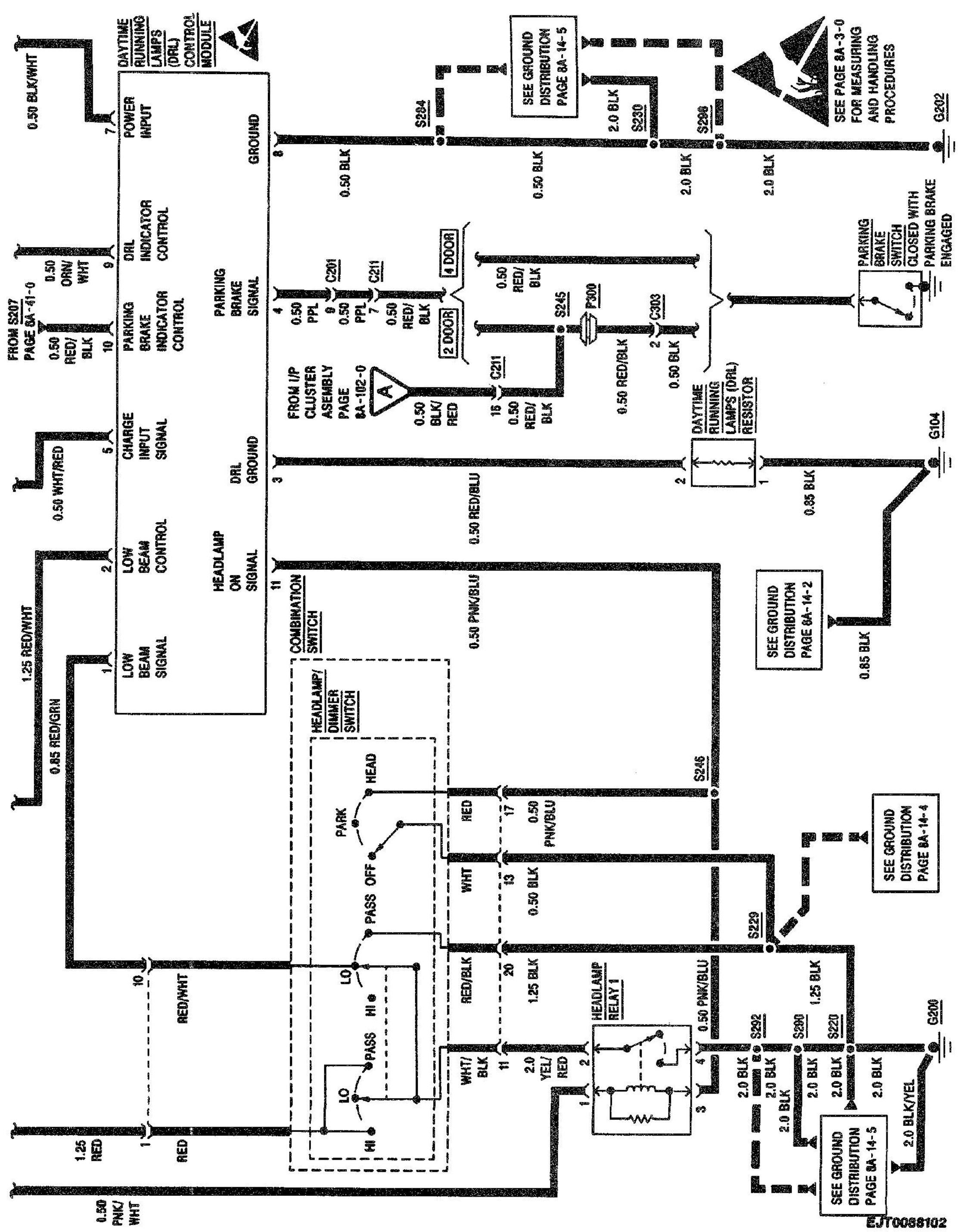
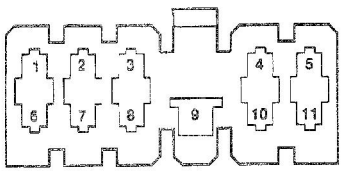
HEADLAMPS: DAYTIME RUNNING LAMPS




DAYTIME RUNNING LAMPS (DRL) CONTROL MODULE
POWER INPUT
DRL INDICATOR CONTROL
PARKING BRAKE INDICATOR CONTROL
CHARGE INPUT SIGNAL
LOW BEAM CONTROL
LOW BEAM SIGNAL
GROUND
PARKING BRAKE SIGNAL
DRL GROUND
HEADLAMP ON SIGNAL
0.50 BLK/WHT
FROM S207 PAGE 8A-41-0
0.50 ORN/WHT
0.50 RED/BLK
0.50 WHT/RED
1.25 RED/WHT
0.85 RED/GRN
0.50 BLK
S284
SEE GROUND DISTRIBUTION PAGE 8A-14-5
S230
S296
2.0 BLK
SEE PAGE 8A-3-0 FOR MEASURING AND HANDLING PROCEDURES
G202
0.50 PPL
C201
C211
4 DOOR
2 DOOR
S245
P300
C303
PARKING BRAKE SWITCH CLOSED WITH PARKING BRAKE ENGAGED
FROM I/P CLUSTER ASEMBLY PAGE 8A-102-0
0.50 BLK/RED
0.50 RED/BLU
DAYTIME RUNNING LAMPS (DRL) RESISTOR
G104
0.85 BLK
SEE GROUND DISTRIBUTION PAGE 8A-14-2
0.50 PNK/BLU
COMBINATION SWITCH
HEADLAMP/DIMMER SWITCH
HEAD
PARK
OFF
PASS
LO
HI
S246
SEE GROUND DISTRIBUTION PAGE 8A-14-4
RED
WHT
0.50 BLK
S229
RED/BLK
1.25 BLK
RED/WHT
HEADLAMP RELAY 1
WHT/BLK
2.0 YEL/RED
S292
S290
S220
G200
2.0 BLK/YEL
1.25 RED
0.50 PNK/WHT
EJT0088102

HEADLAMPS: DAYTIME RUNNING LAMPS

DAYTIME RUNNING LAMPS (DRL) CONTROL MODULE CONNECTOR



NATURAL

EJT0098102

WIRING DETAIL LEGEND

CAVITY	WIRE COLOR	CIRCUIT
1	RED/ GRN	Low Beam Signal
2	RED/ WHT	Low Beam Control
3	RED/BLU	DRL Ground
4	PPL	Parking Brake Signal
5	WHT/ RED	Charge Input Signal
6	—	NOT USED
7	BLK/ WHT	Power Input
8	BLK	Ground
9	ORN/ WHT	DRL Indicator Control
10	RED/BLK	Parking Brake Indicator Control
11	PNK/BLU	Headlamp On Signal

COMPONENT	LOCATION	201-PG	FIG.	CONN
Combination Switch	On Steering Column	06	A	202-00A1
Daytime Running Lamps (DRL) Control Module	Behind I/P, left of Steering Column on Engine Control Module (ECM) mounting Bracket			102-02
Daytime Running Lamps (DRL) Diode	RH I/P, taped to Main Harness above Blower Motor			
Daytime Running Lamps (DRL) Resistor	Inside RH Fender above Wheelhousing			
Fuse Block 1	RH Engine Compartment, front of Battery	01	A	
C1 (3 Cavities)	Main Harness to Fuse Block 1, below Fuse Block 1	01	A	
C2 (1 Cavity)	Main Harness to Fuse Block 1, below Fuse Block 1	01	A	
C3 (1 Cavity)	Main Harness to Fuse Block 1, below Fuse Block 1	01	A	
Fuse Block 2	Under LH I/P	06	A	
Generator	RH lower front of Engine			
Headlamp/Dimmer Switch	LH Steering Column, in Combination Switch			
Headlamp Relay 1	Center I/P, behind Blower Speed Selector Switch	06	A	202-15A3
Instrument Panel Cluster Assembly	LH I/P	07	A	
C1 (16 Terminals)	I/P Harness to I/P Cluster Assembly, behind I/P Cluster Assembly	07	A	81-03
C2 (10 Terminals)	I/P Harness to I/P Cluster Assembly, behind I/P Cluster Assembly	07	A	81-04
C3 (13 Terminals)	I/P Harness to I/P Cluster Assembly, behind I/P Cluster Assembly	07	A	81-05
Junction Connector 2 (20 Cavities)	I/P Harness, LH side of I/P, behind Illumination Controller			
Parking Brake Switch	In Center Console, left of Parking Brake Lever			
C100 (16 Cavities)	Main Harness to Engine Harness, on Bulkhead mounted to Bracket, left of Front Wiper Motor	04	A	202-01A1
C200 (22 Cavities)	Main Harness to I/P Harness, LH I/P near Fuse Block 2	06	A	202-06A1
C201 (16 Cavities)	Main Harness to I/P Harness, LH I/P near Fuse Block 2	06	A	202-07A1
C211 (16 Cavities)	I/P Harness to Floor Harness, LH I/P, near "A" Pillar	07	A	202-09A1
C303 (4 Cavities) (2-Door)	Floor Harness to Sub-Floor Harness, behind LH Rear Passenger Compartment Trim Panel	08	A	202-15A1
G104	RH Front Inner Fender near Washer Fluid Reservoir	02	A	
G200	Behind LH I/P, above Fuse Block 2	06	A	
G202	Behind Center I/P on Bulkhead			
P200	LH Engine Compartment on Bulkhead, near Brake Master Cylinder	04	A	
P201	RH Rear Engine Compartment on Bulkhead, near Battery	01	A	
P300 (2-Door)	LH "A" Pillar, under I/P, behind LH Kick Panel	08	A	

HEADLAMPS: DAYTIME RUNNING LAMPS

COMPONENT	LOCATION	201-PG FIG. CONN
S205	I/P Harness, behind center of I/P	
S210	Main Harness, at Bulkhead near Front Wiper Motor	
S220	Main Harness, near I/P left of Steering Column	
S227	Main Harness, near Fuse Block 2	
S229	Main Harness, near I/P left of Steering Column	
S230	Main Harness, near I/P left of Steering Column	
S243	Main Harness, near Engine Control Module (ECM) connector breakout	
S244	Main Harness, near I/P left of Steering Column	
S245	Floor Harness, near C211 connector breakout	
S246	Main Harness, near Stoplamp Switch connector breakout	
S247	Main Harness, near Daytime Running Lamps (DRL) Diode	
S248	Main Harness, near Daytime Running Lamps (DRL) Diode	
S249	Main Harness, left of Steering Column	
S284	Main Harness, left of Steering Column	
S290	Main Harness, left of Steering Column	
S298	Main Harness, at Blower Speed Selector Switch connctor breakout	

TROUBLESHOOTING HINTS

1. Check the RIGHT HEADLAMP and LEFT HEADLAMP Fuses with a fuse tester.
2. Check IG-COIL METER Fuse by turning ignition switch to "ON" and observing INSTRUMENT PANEL CLUSTER ASSEMBLY Indicators.
3. Check that G104, G200 and G202 are clean and tight.
4. Check Headlamp bulbs.

SYSTEM DIAGNOSIS

TEST	RESULT	ACTION
1. Turn the Headlamp Switch to the "HEAD" position and the Dimmer Switch to the "LOW" position.	Low-beam HEADLAMPS operate.	GO to step 2.
	Low-beam HEADLAMPS do not operate.	GO to step 7.
2. Push the Dimmer Switch forward to the "HIGH" position.	High-beam HEADLAMPS operate.	GO to step 3.
	High-beam HEADLAMPS do not operate.	GO to step 11.
3. Pull the Dimmer Switch back to the "PASS" position.	High-beam HEADLAMPS operate while switch is held.	Go to step 4.
	High-beam HEADLAMPS do not operate while switch is held.	Replace COMBINATION SWITCH.
4. Turn Headlamp switch to the "OFF" or "PARK" position. Start engine.	Daytime Running Lamps operate and Daytime Running Lamps (DRL) Indicator lights.	GO to step 5.
	Daytime Running Lamps do not operate.	GO to step 12.
	Daytime Running Lamps operate but Daytime Running Lamps (DRL) Indicator does not light.	GO to step 23.
5. Apply parking brake.	Daytime Running Lamps operation stops and Daytime Running Lamps (DRL) Indicator goes out.	GO to step 6.
	Daytime Running Lamps continue to operate.	GO to step 26.
	Daytime Running Lamps operation stops, but Daytime Running Lamps (DRL) Indicator remains lit.	GO to step 28.
6. Shut engine off and disengage parking brake. Turn Ignition Switch to "ON."	Daytime Running Lamps do not operate.	All systems diagnosed in this Section are functioning normally.
	Daytime Running Lamps continue to operate.	GO to step 29.
7. Disconnect DAYTIME RUNNING LAMPS (DRL) CONTROL MODULE connector. Connect a fused jumper from DRL CONTROL MODULE connector cavity 2 to chassis ground.	Low-beam HEADLAMPS do not operate.	Repair open in RED/WHT wire or WHT/RED or WHT/BLU wire between HEADLAMPS and FUSE BLOCK and DRL CONTROL MODULE.
	Low-beam HEADLAMPS operate.	GO to step 8.
8. Connect a digital multimeter from DRL CONTROL MODULE connector cavity 1 to chassis ground. Measure resistance.	Less than 0.3 ohms.	Replace DRL CONTROL MODULE.
	More than 0.3 ohms.	GO to step 9.
9. Backprobe COMBINATION SWITCH connector with a digital multimeter from cavity 10 to chassis ground. Measure resistance.	Less than 0.3 ohms.	Repair open in RED/GRN wire between COMBINATION SWITCH and DRL CONTROL MODULE.
	More than 0.3 ohms.	GO to step 10.
10. Backprobe COMBINATION SWITCH connector with a digital multimeter from cavity 11 to chassis ground. Measure resistance.	Less than 0.3 ohms.	Replace COMBINATION SWITCH.
	More than 0.3 ohms.	GO to step 30.

HEADLAMPS: DAYTIME RUNNING LAMPS

TEST	RESULT	ACTION
11. Disconnect COMBINATION SWITCH connector. Connect a digital multimeter from COMBINATION SWITCH connector (switch side) cavity 1 to cavity 20. Measure resistance.	Less than 0.3 ohms.	Repair open in RED wire between HEADLAMPS and COMBINATION SWITCH.
	More than 0.3 ohms.	Replace COMBINATION SWITCH.
12. Turn Ignition Switch to "LOCK." Disconnect DAYTIME RUNNING LAMPS (DRL) CONTROL MODULE connector. Connect a digital multimeter from DRL CONTROL MODULE connector cavity 8 to chassis ground. Measure resistance.	More than 0.3 ohms.	Repair BLK ground wire between DRL CONTROL MODULE and G202.
	Less than 0.3 ohms.	GO to step 13.
13. Turn Ignition Switch to "ON." Connect a test lamp from DRL CONTROL MODULE connector cavity 7 to chassis ground.	Test lamp does not light.	Repair open in BLK/WHT wire between FUSE BLOCK and DRL CONTROL MODULE.
	Test lamp lights.	GO to step 14.
14. Turn Ignition Switch to "LOCK." Connect a digital multimeter from DRL CONTROL MODULE connector cavity 11 to chassis ground. Measure resistance.	Less than infinite.	Go to step 15.
	Infinite.	GO to step 16.
15. Disconnect COMBINATION SWITCH connector. Connect a digital multimeter from COMBINATION SWITCH connector (switch side) cavity 17 to chassis ground. Measure resistance.	Less than infinite.	Replace COMBINATION SWITCH.
	Infinite.	Repair short to ground in PNK/BLU wire between COMBINATION SWITCH and DRL CONTROL MODULE.
16. Start engine. Connect a digital multimeter from DRL CONTROL MODULE connector cavity 5 to chassis ground. Measure voltage.	Less than 12.0 volts.	GO to step 17.
	More than 12.0 volts.	GO to step 18.
17. Backprobe GENERATOR connector with a digital multimeter from cavity 2 to chassis ground. Measure voltage.	More than 12.0 volts.	Repair open in WHT/RED wire between GENERATOR and DRL CONTROL MODULE.
	Less than 12.0 volts.	A fault exists in the GENERATOR charge warning circuit. Refer to SECTION 8A-30.
18. Turn Ignition Switch to "LOCK." Connect a digital multimeter from DRL CONTROL MODULE connector cavity 3 to chassis ground. Measure resistance.	Infinite.	GO to step 19.
	Less than infinite.	GO to step 21.
19. Disconnect DRL RESISTOR connector. Connect a digital multimeter from DRL CONTROL MODULE connector cavity 3 to DRL RESISTOR connector cavity 2. Measure resistance.	More than 3.0 ohms.	Repair open in RED/BLU wire between DRL CONTROL MODULE and DRL RESISTOR.
	Less than 3.0 ohms.	GO to step 20.
20. Connect a digital multimeter from DRL RESISTOR connector cavity 1 to chassis ground. Measure resistance.	More than 3.0 ohms.	Repair open in BLK ground wire between DRL RESISTOR and G104.
	Less than 3.0 ohms.	Replace DRL RESISTOR.

TEST	RESULT	ACTION
21. Connect a digital multimeter from DRL CONTROL MODULE connector cavity 4 to chassis ground. Measure resistance with parking brake fully released.	Infinite.	Replace DRL CONTROL MODULE.
	Less than infinite.	GO to step 22.
22. Disconnect PARKING BRAKE SWITCH connector. Connect a digital multimeter from PARKING BRAKE SWITCH connector cavity to chassis ground. Measure resistance.	Less than infinite.	Repair short to ground in PPL or RED/BLK wire.
	Infinite.	Replace PARKING BRAKE SWITCH.
23. Turn Ignition Switch to "LOCK." Disconnect DRL CONTROL MODULE connector. Connect a fused jumper from DRL CONTROL MODULE connector cavity 9 to chassis ground. Turn Ignition Switch to "ON."	DRL Indicator lights.	Replace DRL CONTROL MODULE.
	DRL Indicator does not light.	GO to step 24.
24. Disconnect INSTRUMENT PANEL CLUSTER ASSEMBLY connector C3. Connect a digital multimeter from INSTRUMENT PANEL CLUSTER ASSEMBLY connector C3 terminal 2 to DRL CONTROL MODULE connector cavity 9. Measure resistance.	More than 0.3 ohms.	Repair open in ORN/WHT wire between INSTRUMENT PANEL CLUSTER ASSEMBLY and DRL CONTROL MODULE.
	Less than 0.3 ohms.	GO to step 25.
25. Connect a test lamp from INSTRUMENT PANEL CLUSTER ASSEMBLY connector C3 cavity 11 to chassis ground.	Test lamp lights.	Check DRL Lamp If OK Repair/Replace INSTRUMENT PANEL CLUSTER printed circuit.
	Test lamp does not light.	Repair open in BLK/WHT wire between FUSE BLOCK and INSTRUMENT PANEL CLUSTER ASSEMBLY.
26. Turn Ignition Switch to "LOCK." Disconnect DRL CONTROL MODULE connector. Connect a digital multimeter from DRL CONTROL MODULE connector cavity 4 to chassis ground. Measure resistance with parking brake engaged.	Less than 3.0 ohms.	Replace DRL CONTROL MODULE.
	More than 3.0 ohms.	GO to step 27.
27. Backprobe PARKING BRAKE SWITCH connector with a digital multimeter from connector cavity to chassis ground. Measure resistance with parking brake engaged.	Less than 3.0 ohms.	Repair open in PPL or RED/BLK wire between DRL CONTROL MODULE and PARKING BRAKE SWITCH.
	More than 3.0 ohms.	Replace PARKING BRAKE SWITCH.
28. Turn Ignition Switch to "LOCK." Disconnect DRL CONTROL MODULE connector. Turn Ignition Switch to "ON."	DRL Indicator lights.	Repair short to ground in ORN/WHT wire between INSTRUMENT PANEL CLUSTER ASSEMBLY and DRL CONTROL MODULE.
	DRL Indicator does not light.	Replace DRL CONTROL MODULE.

HEADLAMPS: DAYTIME RUNNING LAMPS

TEST	RESULT	ACTION
29. Disconnect DAYTIME RUNNING LAMPS (DRL) CONTROL MODULE connector. Connect a digital multimeter from DRL CONTROL MODULE connector cavity 5 to chassis ground. Measure voltage.	Less than 1.0 volt.	Replace DRL CONTROL MODULE.
	More than 1.0 volt.	A fault exists in the GENERATOR charge warning circuit. Refer to SECTION 8A-30.
30. Backprobe HEADLAMP RELAY 1 connector with digital multimeter from cavity 2 to chassis ground. Measure resistance.	Less than 0.3 ohms.	GO to step 31.
	More than 0.3 ohms.	Repair open in YEL/RED wire between COMBINATION SWITCH and HEADLAMP RELAY 1.
31. Backprobe HEADLAMP RELAY 1 connector with digital multimeter from cavity 1 to chassis ground. Measure voltage.	Less than 10.0 volts.	GO to step 36.
	More than 10.0 volts.	GO to step 32.
32. Backprobe HEADLAMP RELAY 1 connector with digital multimeter from cavity 4 to chassis ground. Measure resistance.	Less than 0.3 ohms.	GO to step 33.
	More than 0.3 ohms.	Repair open in BLK wire between HEADLAMP RELAY 1 and G200.
33. Backprobe HEADLAMP RELAY 1 connector with digital multimeter from cavity 3 to chassis ground. Measure resistance.	Less than 0.3 ohms.	Replace HEADLAMP RELAY 1.
	More than 0.3 ohms.	GO to step 34.
34. Backprobe COMBINATION SWITCH connector with digital multimeter from cavity 17 to chassis ground. Measure resistance.	Less than 0.3 ohms.	Repair open in PNK/BLU wire between HEADLAMP RELAY 1 and COMBINATION SWITCH.
	More than 0.3 ohms.	GO to step 35.
35. Backprobe COMBINATION SWITCH connector with digital multimeter from cavity 13 to chassis ground. Measure resistance.	More than 0.3 ohms.	Repair open in BLK wire between COMBINATION SWITCH and G200.
	Less than 0.3 ohms.	Replace COMBINATION SWITCH.
36. Backprobe DRL DIODE connector with digital multimeter from cavity 2 to chassis ground. Measure voltage.	Less than 10.0 volts.	GO to step 37.
	More than 10.0 volts.	Repair open in PNK/WHT wire between DRL DIODE and HEADLAMP RELAY 1.
37. Backprobe DRL DIODE connector with digital multimeter from cavity 1 and 3 to chassis ground. Measure voltage.	Less than 10.0 volts.	Repair open in WHT/RED or WHT/BLU wire between HEADLAMP FUSE and DRL DIODE.
	More than 10.0 volts.	Replace DRL DIODE.