



## - 117 - 2 ELECTRICAL DIAGNOSIS

INTERIOR LIGHTS DIMMING 201-PG FIG. CONN				
COMPONENT	I ACATION			202-00A1
Combination Switch	On Steering Column	. 001		
Cruise Control On/Off Switch	LH I/P, right of the Steering Column	06	A	
Fuse Block 2	Under LH I/P	00		
Headlamp/Dimmer Switch	LH Steering Column, in Combination Switch	06	Δ	202-15A3
Headlamp Relay 2	Center I/P, behind Blower Speed Selector Switch	00	Α	
Illumination Controller	LH I/P, left of Steering Column			
Instrument Panel Cluster Assembly	LH I/P IIV. I/D. Choter	07	A	
C1 (16 Terminals)	I/P Harness to I/P Cluster Assembly, behind I/P Cluster Assembly	07	A	81-03
Junction Connector 1 (20 Cavities)	I/P Harness, Center of I/P, left of Radio			
Junction Connector 2 (20 Cavities)	I/P Harness, LH side of I/P, behind Illumination Controller	r		
Junction Connector 3 (10 Cavities)	. I/P Harness, RH side of I/P, near RH Front Speaker			
Power/Normal Switch (4-Speed Automatic Transmission)	in Center Console. Helit of Milliani			150-02
Radio				
Rear Defogger Switch (4-Door LSi)	I/P, left of Steering Column			
Rear Wiper/Washer Switch (4-Door)	LH I/P, right of Steering Column		 A	202-15B2 202-06A1
C200 (22 Cavities)	Main Harness to I/P Harness, LH I/P near Fuse Block 2.	06	., A	202-07A1
C201 (16 Cavities)	Main Harness to I/P Harness, LH I/P near Fuse Block 2.	T/P		
C213 (6 Cavities)	I/P Harness to Shift Illumination Jumper Harness, Center	06	A	
G200	a a a di Calumn			
S212	war to Column			
S220				
S221	1 c. Column			
S229	- True CT/D man Dlower Speed-			
S231	Selector Switch			
S232	Selector Switch			
S233	Floor Harness 1, near LH Rear Wheelhousing			
S262	to Column			

COMPONENT

LOCATION

201-PG FIG. CONN

S263 (4-Speed Automatic

Transmission) ...... In Manual Selector Lever Harness

S265 (4-Speed Automatic

Transmission) ...... In Manual Selector Lever Harness

#### TROUBLESHOOTING HINTS

- 1. Check the TAIL-DOME Fuse with a fuse tester.
- 2. Check that G200 is clean and tight.
- 3. Check for open panel lamp bulbs.
- 4. Before component replacement, check for poor connections at related component and in-line harness connector terminal connections.

#### SYSTEM DIAGNOSIS

TEST	RESULT	ACTION
1. Turn HEADLAMP/DIMMER SWITCH to "PARK" position. Turn ILLUMINATION CONTROLLER completely clockwise.	Charles Allen and Charles and	GO to step 2.
	All PANEL ILLUMINATION LAMPS are inoperative.	GO to step 4.
	INSTRUMENT PANEL CLUSTER ASSEMBLY PANEL ILLUMINATION LAMPS are inoperative.	GO to step 13.
	REAR DEFOGGER SWITCH ILLUMINATION LAMP is inoperative (4-Door).	GO to step 15.
	All PANEL ILLUMINATION LAMPS are inoperative except the INSTRUMENT PANEL CLUSTER ASSEMBLY PANEL ILLUMINATION LAMPS and the REAR DEFOGGER SWITCH ILLUMINATION LAMPS.	GO to step 17.
	REAR WIPER/WASHER SWITCH ILLUMINATION LAMP is inoperative (4-Door).	GO to step 18.
	CIGAR LIGHTER ILLUMINATION LAMP is inoperative.	GO to step 20.
	ASHTRAY ILLUMINATION LAMP is inoperative.	GO to step 21.
	RADIO ILLUMINATION is inoperative.	Refer to SECTION 8A-150.
	CRUISE CONTROL ON/OFF SWITCH ILLUMINATION LAMP is inoperative.	GO to step 22.
	HEATER CONTROL ILLUMINATION LAMP is inoperative.	GO to step 24.
TO THE PARTY OF TH	MANUAL SELECTOR LEVER ILLUMINATION LAMP is inoperative (Automatic Transmission only).	GO to step 25.
100	POWER/NORMAL SWITCH ILLUMINATION LAMP is inoperative (4-Speed Automatic Transmission only).	GO to step 26.

#### 8A - 117 - 4 ELECTRICAL DIAGNOSIS

TEST	RESULT	ACTION
2. Turn ILLUMINATION CONTROLLER slowly counterclockwise.	CONTROLLER is turned.	GO to step 3.
	All PANEL ILLUMINATION LAMPS do not dim as the ILLUMINATION CONTROLLER is turned.	GO to step 27.
3. Turn HEADLAMP/DIMMER SWITCH to "OFF" position.	All PANEL ILLUMINATION LAMPS go out.	All systems diagnosed in this Section are functioning normally.
	All PANEL ILLUMINATION LAMPS remain lit.	GO to step 29.
4. Remove HEADLAMP RELAY 2. Connect a fused jumper from	light.	GO to step 5.
HEADLAMP RELAY 2 connector cavity 2 to cavity 4.	All PANEL ILLUMINATION LAMPS do not light.	GO to step 7.
5. Connect a test lamp from	Test lamp lights.	GO to step 6.
HEADLAMP RELAY 2 connector cavity 1 to ground.	Test lamp does not light.	Repair open in WHT wire between FUSE BLOCK 2 and HEADLAMP RELAY 2.
6. Backprobe COMBINATION SWITCH connector with a test lamp from cavity 18 to B+.		Check for an open in RED/BLK wire between HEADLAMP RELAY 2 and COMBINATION SWITCH. If OK, replace HEADLAMP RELAY 2.
	Test lamp does not light.	Check for an open in BLK wire between COMBINATION SWITCH and G200. If OK, replace COMBINATION SWITCH.
7. With fused jumper still connected,	Test lamp lights.	GO to step 8.
backprobe HEADLAMP RELAY 2 connector with a test lamp from cavity 4 to ground.	Test lamp does not light.	Repair open in WHT wire between S212 and HEADLAMP RELAY 2.
8. Backprobe JUNCTION	Test lamp lights.	GO to step 9.
CONNECTOR 2 with a test lamp from cavity 18 to ground.	Test lamp does not light.	Check for an open in RED/YEL wire between HEADLAMP RELAY 2 and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
9. Backprobe ILLUMINATION	Test lamp lights.	GO to step 10.
CONTROLLER connector with a test lamp from cavity 2 to ground.		Repair open in RED/YEL wire between JUNCTION CONNECTOR 2 and ILLUMINATION CONTROLLER.
10. Backprobe ILLUMINATION	Test lamp lights.	GO to step 12.
CONTROLLER connector with a test lamp from cavity 1 to B+.	Test lamp does not light.	GO to step 11.
11. Backprobe JUNCTION CONNECTOR 3 with a test lamp from cavity 6 to B+.		Repair open in BLK wire between ILLUMINATION CONTROLLER and JUNCTION CONNECTOR 3.
	Test lamp does not light.	Check for an open in BLK wire between JUNCTION CONNECTOR 3 and G200. If OK, replace JUNCTION CONNECTOR 3.

	TEST	RESULT	ACTION
12.	Backprobe JUNCTION CONNECTOR 2 with a test lamp	Test lamp lights.	Replace JUNCTION CONNECTOR 2.
	from cavity 1 to B+.	Test lamp does not light.	Check for an open in RED/GRN wire between JUNCTION CONNECTOR 2 and ILLUMINATION CONTROLLER. If OK, replace ILLUMINATION CONTROLLER.
13.	Backprobe INSTRUMENT PANEL CLUSTER ASSEMBLY	Test lamp lights.	GO to step 14.
	connector C1 with a test lamp from cavity 16 to ground.	Test lamp does not light.	Check for an open in RED/YEL wire between JUNCTION CONNECTOR 2 and INSTRUMENT PANEL CLUSTER ASSEMBLY. If OK, replace JUNCTION CONNECTOR 2.
14.	Backprobe INSTRUMENT PANEL CLUSTER ASSEMBLY connector C1 with a test lamp		Repair/replace INSTRUMENT PANEL CLUSTER ASSEMBLY PRINTED CIRCUIT.
	from cavity 15 to B+.	Test lamp does not light.	Check for an open in RED/GRN wire between INSTRUMENT PANEL CLUSTER ASSEMBLY and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
15.	Backprobe REAR DEFOGGER	Test lamp lights.	GO to step 16.
TO THE THE PROPERTY OF THE PRO	SWITCH connector with a test lamp from cavity 5 to ground.	Test lamp does not light.	Check for an open in RED/YEL wire between REAR DEFOGGER SWITCH and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
16.	Backprobe REAR DEFOGGER SWITCH connector with a test	F -81101	Replace REAR DEFOGGER SWITCH.
WOMEOUT TO CANADA ANALYSIA NA LUNGANINO CONTROL NA	lamp from cavity 3 to B+.	Test lamp does not light.	Check for an open in RED/GRN wire between JUNCTION CONNECTOR 2 and REAR DEFOGGER SWITCH. If OK, replace JUNCTION CONNECTOR 2.
17.	Backprobe JUNCTION	Test lamp lights.	Replace JUNCTION CONNECTOR 1.
	CONNECTOR 1 with a test lamp from cavity 1 to ground.	Test lamp does not light.	Check for an open in RED/YEL wire between JUNCTION CONNECTOR 2 and JUNCTION CONNECTOR 1. If OK, replace JUNCTION CONNECTOR 2.
18.	Backprobe REAR	Test lamp lights.	GO to step 19.
	WIPER/WASHER SWITCH connector with a test lamp from cavity 6 to ground.	Test lamp does not light.	Check for an open in RED/YEL wire between JUNCTION CONNECTOR 1 and REAR WIPER/WASHER SWITCH. If OK, replace JUNCTION CONNECTOR 1.
	WIPER/WASHER SWITCH	Test lamp lights.	Replace REAR WIPER/WASHER SWITCH.
	connector with a test lamp from cavity 4 to B+.	Test lamp does not light.	Check for an open in RED/GRN wire between JUNCTION CONNECTOR 2 and REAR WIPER/WASHER SWITCH. If OK, replace JUNCTION CONNECTOR 2.

### 8A - 117 - 6 ELECTRICAL DIAGNOSIS

TEST	RESULT	ACTION
20. Backprobe CIGAR LIGHTER LAMP connector with a test lamp from cavity 1 to ground.		Check for an open in RED/GRN wire between CIGAR LIGHTER LAMP and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
	Test lamp does not light.	Check for an open in RED/YEL wire between CIGAR LIGHTER LAMP and JUNCTION CONNECTOR 1. If OK, replace JUNCTION CONNECTOR 1.
21. Backprobe ASHTRAY LAMP connector with a test lamp from cavity 2 to ground.		Check for an open in RED/GRN wire between ASHTRAY LAMP and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
	Test lamp does not light.	Check for an open in RED/YEL wire between ASHTRAY LAMP and JUNCTION CONNECTOR 1. If OK, replace JUNCTION CONNECTOR 1.
22. Backprobe CRUISE CONTROL		GO to step 23.
ON/OFF SWITCH connector with a test lamp from cavity 6 to ground.	rest tamp does not light.	Check for an open in RED/YEL wire between CRUISE CONTROL ON/OFF SWITCH and JUNCTION CONNECTOR 1. If OK, replace JUNCTION CONNECTOR 1.
23. Backprobe JUNCTION CONNECTOR 2 with a test lamp from cavity 10 to ground.		Check for an open in RED/GRN wire between JUNCTION CONNECTOR 2 and CRUISE CONTROL ON/OFF SWITCH. If OK, replace CRUISE CONTROL ON/OFF SWITCH.
	Test lamp does not light.	Replace JUNCTION CONNECTOR 2.
24. Backprobe HEATER CONTROL ILLUMINATION LAMP connector with a test lamp from cavity 2 to ground.	Test lamp lights.	Check for an open in RED/GRN wire between HEATER CONTROL ILLUMINATION LAMP and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
	Test lamp does not light.	Check for an open in RED/YEL wire between HEATER CONTROL ILLUMINATION LAMP and JUNCTION CONNECTOR 1. If OK, replace JUNCTION CONNECTOR 1.
<ol> <li>Backprobe MANUAL SELECTOR LEVER ILLUMINATION LAMP with a test lamp from cavity 1 to ground.</li> </ol>		Check for an open in RED/GRN wire between MANUAL SELECTOR LEVER ILLUMINATION LAMP and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
		Check for an open in RED/YEL wire between MANUAL SELECTOR LEVER ILLUMINATION LAMP and JUNCTION CONNECTOR 1. If OK, replace JUNCTION CONNECTOR 1.
SWITCH connector with a test lamp from cavity 1 to ground.		Check for an open in RED/GRN wire between S265 and POWER/NORMAL SWITCH. If OK, replace POWER/NORMAL SWITCH.
	-	Repair open in RED/YEL wire between S263 and POWER/NORMAL SWITCH.

TEST	RESULT	ACTION
27. Backprobe ILLUMINATIO	Contract of the Contract of th	GO to step 28.
CONTROLLER connector with test lamp from cavity 2 to grou	nd.	Check for an open in RED/YEL wire between ILLUMINATION CONTROLLER and JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
28. Disconnect ILLUMINATION CONTROLLER connect Connect a test lamp from ILLUMINATION CONTROLL connector cavity 3 to B+.	or.	Check for a short to ground in RED/GRN wire between ILLUMINATION CONTROLLER and JUNCTION CONNECTOR 2 or in RED/GRN wires between JUNCTION CONNECTOR 2 and PANEL ILLUMINATION LAMPS. If OK, replace JUNCTION CONNECTOR 2.
	Test lamp does not light.	Replace ILLUMINATION CONTROLLER.
29. Backprobe HEADLAMP REL 2 with a test lamp from cavity to B+.		Check for a short to ground in RED/BLU wire between COMBINATION SWITCH and HEADLAMP RELAY 2. If OK, replace COMBINATION SWITCH.
	Test lamp does not light.	GO to step 30.
30. Remove HEADLAMP RELAY	2. All PANEL ILLUMINATION LAMPS go out.	Replace HEADLAMP RELAY 2.
	All PANEL ILLUMINATION LAMPS remain lit.	GO to step 31.
31. Disconnect JUNCTIC CONNECTOR 1.	N Only INSTRUMENT PANEL CLUSTER ASSEMBLY PANEL ILLUMINATION LAMPS and the REAR DEFOGGER SWITCH ILLUMINATION LAMPS are lit, all others are not lit.	Check for a short to voltage in all RED/YEL wires leading from JUNCTION CONNECTOR 2. If OK, replace JUNCTION CONNECTOR 2.
	INSTRUMENT PANEL CLUSTER ASSEMBLY PANEL ILLUMINATION LAMPS and the REAR DEFOGGER SWITCH ILLUMINATION LAMPS went out, all other PANEL ILLUMINATION LAMPS remain lit.	Check for a short to voltage in RED/YEL wires leading from JUNCTION CONNECTOR 1. If OK, replace JUNCTION CONNECTOR 1.

### **COMPONENT REPLACEMENT INFORMATION**

For component replacement procedures, refer to the section listed below.		
Headlamp Relay 2	Section 8	8I
Combination Switch		
Illumination Controller	Section 8	81
Instrument Panel Cluster Assembly Printed Circuit	Section 8	30
Rear Defogger Switch	Section 8	30
Cruise Control On/Off Switch		
Power/Normal Switch		

# INTERIOR LIGHTS DIMMING CIRCUIT OPERATION

Voltage is applied at all times through the TAIL DOME Fuse to HEADLAMP RELAY 2. When the HEADLAMP/DIMMER SWITCH is turned to "PARK" or "HEAD" position, a ground path is provided to the coil side of the relay to G200, energizing the coil of the relay. This closes the contacts in the relay, applying voltage to the ILLUMINATION CONTROLLER and all the Illumination Lamps. The Illumination Lamps are grounded through the ILLUMINATION CONTROLLER. Since the

ILLUMINATION CONTROLLER is grounded through JUNCTION CONNECTOR 3 to G200, the lamps will illuminate when voltage is applied.

The brilliance of the lamps is controlled by the ILLUMINATION CONTROLLER. By turning the knob clockwise (more current) or counterclockwise (less current), it controls the amount of current from the lamps. As the amount of current increases, the lamps become brighter. As the amount of current decreases, the lamps become dimmer.