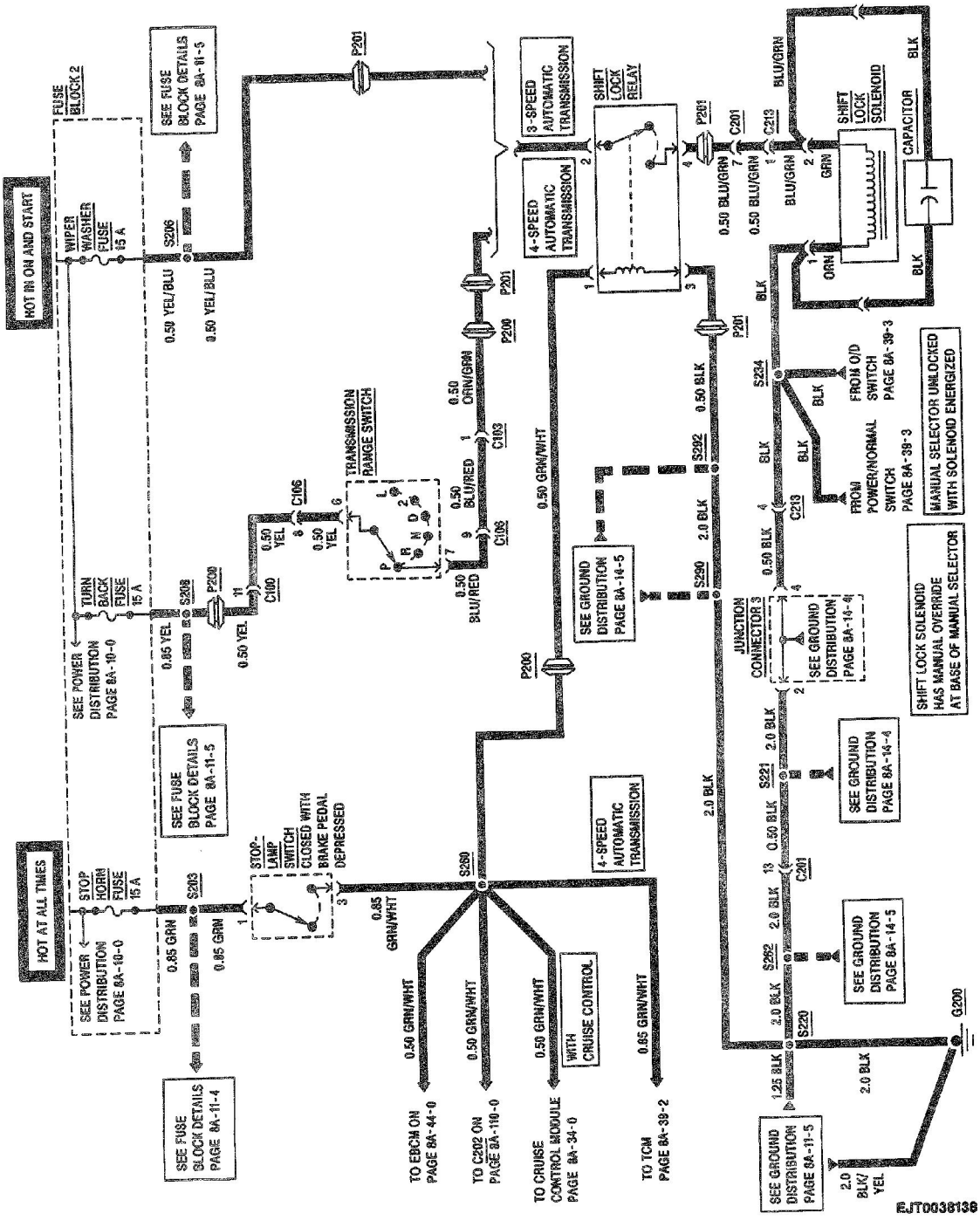
BRAKE TRANSMISSION SHIFT INTERLOCK



COMPONENT	LOCATION	201-PG	FIG.	CONN
Fuse Block 2	Under LH I/P	06	A	
Junction Connector 3 (10 Cavities)	I/P Harness, RH side of I/P, near RH Front Speaker			
Shift Lock Relay (Automatic Transmission)	RH Side of Engine, in front of Battery			
Shift Lock Solenoid (Automatic Transmission)	Center Console, under Manual Selector Lever Assembly			
Shift Lock Solenoid Capacitor (Automatic Transmission)	Center Console, under Manual Selector Lever Assembly			
Stoplamp Switch	Under LH I/P, above Brake Pedal	06	A	
Transmission Range Switch (Automatic Transmission)	RH side of Transmission	14	B	202-14A1
C103 (12 Cavities) (Manual and 4-Speed Automatic Transmissions)	Main Harness to Engine Harness, on Bulkhead mounted to Bracket, left of Front Wiper Motor	04	A	202-03A1
C106 (10 Cavities) (4-Speed Automatic Transmission)	Engine Harness to Transmission Harness, RH Rear Engine, under Intake Manifold			202-05A1
C201 (16 Cavities)	Main Harness to I/P Harness, LH I/P near Fuse Block 2	06	A	202-07A1
C213 (6 Cavities)	I/P Harness to Shift Illumination Jumper Harness, Center I/P			202-15B3
G200	Behind LH I/P, above Fuse Block 2	06	A	
P200	LH Engine Compartment on Bulkhead, near Brake Master Cylinder	04	A	
P201	RH Rear Engine Compartment on Bulkhead, near Battery	01	A	
S203	Main Harness, behind I/P left of Steering Column			
S206	Main Harness, behind LH I/P near Fuse Block 2			
S208	Main Harness, near Fuse Block 2			
S220	Main Harness, near I/P left of Steering Column			
S221	I/P Harness near, C201 breakout			
S234 (4-Speed Automatic)	In Manual Selector Lever Harness			
S260	Main Harness, near Blower Speed Selector Switch			
S262	Main Harness, left of Steering Column			
S290	Main Harness, left of Steering Column			
S292	Main Harness, near P200			

TROUBLESHOOTING HINTS

1. Check STOP HORN Fuse by pressing horn switch.
2. Check WIPER WASHER Fuse by operating wipers.
3. Check TURN BACK Fuse by operating Turn Signals.
4. Check that G200 is clean and tight.

BRAKE TRANSMISSION SHIFT INTERLOCK

SYSTEM DIAGNOSIS

TEST	RESULT	ACTION
1. Turn ignition switch to "ON." Attempt to move manual selector from "P" position.	Manual selector cannot be moved from "P."	GO to step 2.
	Manual selector can be moved from "P."	GO to step 13.
2. Depress brake pedal, press manual selector button and move manual selector out of "P."	Manual selector can be moved out of "P."	All systems diagnosed in this section are functioning normally.
	Manual selector cannot be moved out of "P."	GO to step 3.
3. Backprobe STOPLAMP SWITCH connector with a test lamp from cavity 1 to chassis ground.	Test lamp does not light.	Repair open in GRN wire between FUSE BLOCK and STOPLAMP SWITCH.
	Test lamp lights.	GO to step 4.
4. Backprobe STOPLAMP SWITCH connector with a test lamp from cavity 3 to chassis ground. Press and hold brake pedal.	Test lamp does not light.	Replace STOPLAMP SWITCH.
	Test lamp lights.	GO to step 5.
5. Backprobe SHIFT LOCK RELAY connector with a test lamp from cavity 1 to chassis ground. Press and hold brake pedal.	Test lamp does not light.	Repair open in GRN/WHT wire between STOPLAMP SWITCH and SHIFT LOCK RELAY.
	Test lamp lights.	GO to step 6.
6. Backprobe SHIFT LOCK RELAY connector with a test lamp from cavity 2 to chassis ground.	Test lamp does not light.	Repair open in YEL/BLU wire between FUSE BLOCK and SHIFT LOCK RELAY. (See step 11 for 4-speed Automatic Transmission)
	Test lamp lights.	GO to step 7.
7. Disconnect SHIFT LOCK RELAY connector. Connect a digital multimeter from cavity 3 to chassis ground. Measure resistance to G200.	Less than 0.3 ohms.	GO to step 8.
	More than 0.3 ohms.	Repair open in BLK wire between SHIFT LOCK RELAY AND G200.
8. Reconnect SHIFT LOCK RELAY connector. Backprobe connector with a test lamp from cavity 4 to chassis ground.	Test lamp does not light.	Replace SHIFT LOCK RELAY.
	Test lamp lights.	GO to step 9.
9. Disconnect SHIFT LOCK RELAY and SHIFT LOCK SOLENOID connectors. Connect a digital multimeter from SHIFT LOCK RELAY connector cavity 4 to SHIFT LOCK SOLENOID connector cavity 2. Measure resistance.	More than 0.3 ohms.	Repair open in BLU/GRN wire between SHIFT LOCK RELAY and SHIFT LOCK SOLENOID.
	Less than 0.3 ohms.	GO to step 10.
10. Connect a digital multimeter from cavity 1 to chassis Ground. Measure resistance to ground G200.	More than 0.3 ohms.	Repair open in BLK Ground wire between SHIFT LOCK SOLENOID and G200.
	Less than 0.3 ohms.	Replace SHIFT LOCK SOLENOID.
11. Backprobe Transmission Range Switch Connector with a test lamp from cavity 7 to chassis Ground and and selector in PARK.	Test lamp lights.	Repair open in BLU/RED or ORN/GRN wire Between SHIFT LOCK RELAY and TRANSMISSION RANGE SWITCH.
	Test lamp does not light.	GO to step 12.

TEST	RESULT	ACTION
12. Backprope TRANSMISSION RANGE SWITCH connector with a test lamp from cavity 6 to chassis ground.	Test lamp does not light.	Repair open in YEL wire between FUSE BLOCK and TRANSMISSION RANGE SWITCH.
	Test lamp lights.	Replace TRANSMISSION RANGE SWITCH.
13. Disconnect SHIFT LOCK SOLENOID connector. Connect a test lamp from connector cavity 2 to chassis ground.	Test lamp does not light.	Replace SHIFT LOCK SOLENOID.
	Test lamp lights.	Go to step 14.
14. Disconnect SHIFT LOCK RELAY connector. Connect a test lamp from SHIFT LOCK RELAY connector cavity 4 to chassis ground.	Test lamp lights.	Repair short to voltage in BLU/GRN wire between SHIFT LOCK RELAY and SHIFT LOCK SOLENOID.
	Test lamp does not light.	GO to step 15.
15. Disconnect STOPLAMP SWITCH connector. Connect a test lamp from STOPLAMP SWITCH connector cavity 3 to chassis ground.	Test lamp lights.	Repair short to voltage in GRN/WHT wire between STOPLAMP SWITCH and SHIFT LOCK RELAY.
	Test lamp does not light.	Replace STOPLAMP SWITCH.

COMPONENT REPLACEMENT INFORMATION

For component replacement procedures, refer to the section listed below.

CIRCUIT OPERATION

3-SPEED AUTOMATIC

Voltage is applied at all times through the STOP HORN Fuse to the STOPLAMP SWITCH. Voltage is also applied through the WIPER WASHER Fuse to the SHIFT LOCK RELAY with the ignition switch in the " ON" and "START" positions. When the brake pedal is pressed, voltage is applied through the closed contacts in the STOPLAMP SWITCH to the coil in the SHIFT LOCK RELAY. Since the relay is grounded at G200, the coil becomes energized closing the contacts. Voltage flows through the closed contacts in the SHIFT LOCK RELAY to the SHIFT LOCK SOLENOID. Since the solenoid is grounded at G200, the solenoid becomes energized allowing the manual selector lever to be moved from the "P" position.

4-SPEED AUTOMATIC

Voltage is applied at all times through the STOP HORN Fuse to the STOPLAMP SWITCH. Voltage is also applied through the TURN BACK Fuse to the TRANSMISSION RANGE SWITCH contacts, which are closed only in park. When these contacts are closed, voltage is then provided to the SHIFT LOCK RELAY with the ignition switch in the "ON" and "START" positions. When the brake pedal is pressed, voltage is applied through the closed contacts in the STOPLAMP SWITCH to the coil in the SHIFT LOCK RELAY. Since the relay is grounded at G200, the coil becomes energized closing the contacts. Voltage flows through the closed contacts in the SHIFT LOCK RELAY to the SHIFT LOCK SOLENOID. Since the solenoid is grounded at G200, the solenoid becomes energized allowing the manual selector lever to be moved from the "P" position.