GROUP

LIGHTING 17

(13000)

SECTION 17-01 Lighting, Exterior

VEHICLE APPLICATION

Capri.

DESCRIPTION

Headlamp

A plastic headlamp (sealed beam) is held in place by a retainer ring. The headlamp is aimed by turning a screw at the top or outer edge of each headlamp.

The headlamp assembly is mounted on a bracket that is raised and lowered by an electric motor. The headlamp assemblies raise automatically when the headlamps are turned on. The headlamps will lower, after a slight delay, when the headlamps are turned off.

DESCRIPTION (Continued)

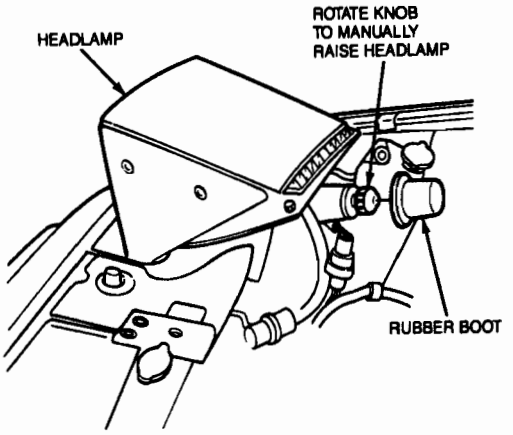
The headlamp motor switch, located on the console, is used to raise and lower the headlamps without turning the headlamps on. This switch allows service of headlamps and can be used to prevent lamps from freezing in the closed position in winter climates.

A manual control knob, located under a rubber boot, is provided at the rear of each headlamp. This knob allows each motor to be manually operated separately if there is no electrical power available.

NOTE: Do not raise or lower the headlamps manually if electrical power is available.

Refer to the following for complete operating procedure:

1. Open hood.
2. Remove rubber boot from manual knob.
3. Rotate knob to raise or lower headlamp.
4. Install rubber boot.
5. Close hood.



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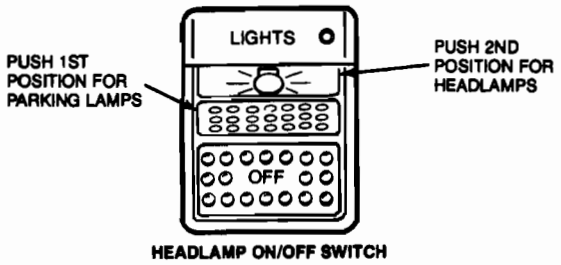
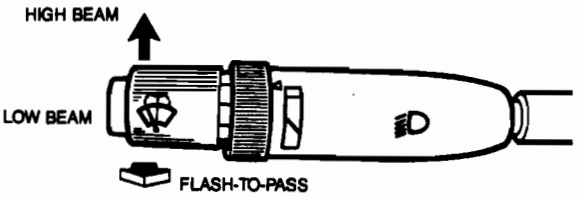
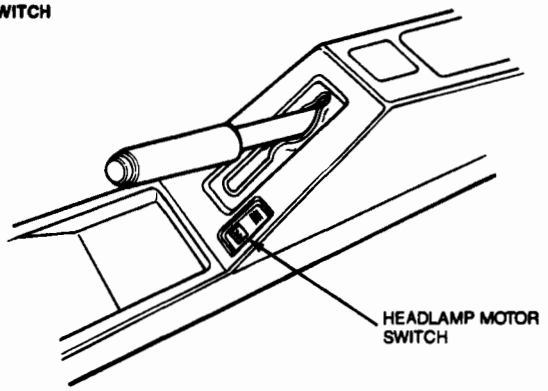


HEADLAMP ON/OFF SWITCH



HEADLAMP CONTROL SWITCH



Y4496-A

Fog Lamps

The fog lamp system consists of two fog lamps, a switch and wiring.

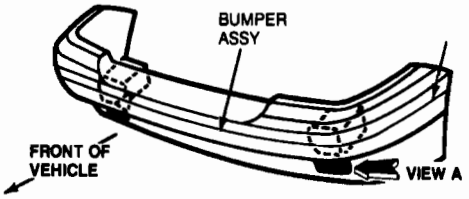
The fog lamps are mounted to the front bumper. The fog lamp switch is located on the LH side of the instrument panel.

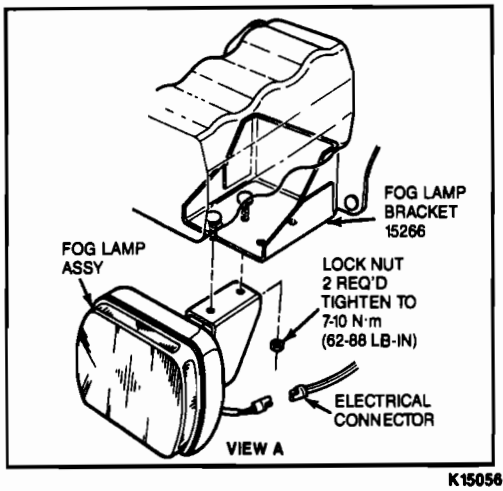
Push the switch to turn on the fog lamps. An indicator lamp on the switch will illuminate when the fog lamps are on.

DESCRIPTION (Continued)

Push the switch again to turn the fog lamps off.

NOTE: The fog lamps will operate only when the headlamps are on and in the low beam position.





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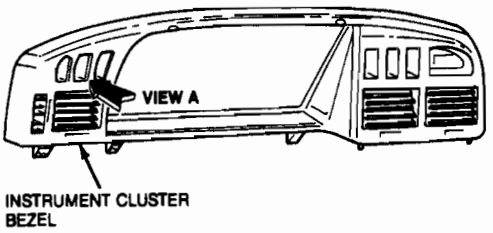
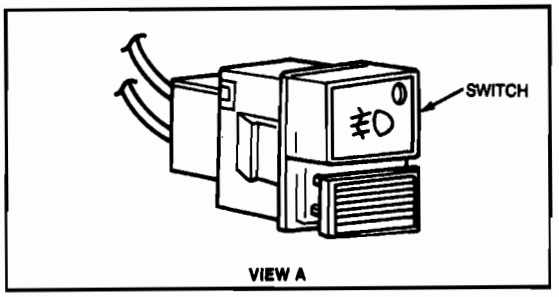




K14839-A

Parking/Marker, Tail and License Lamps

Parking/marker lamps, tail lamps and license lamp circuits are controlled by the headlamp switch. When the headlamp switch is depressed to the first detent, only the parking/marker lamps, tail lamps and license lamps are illuminated.

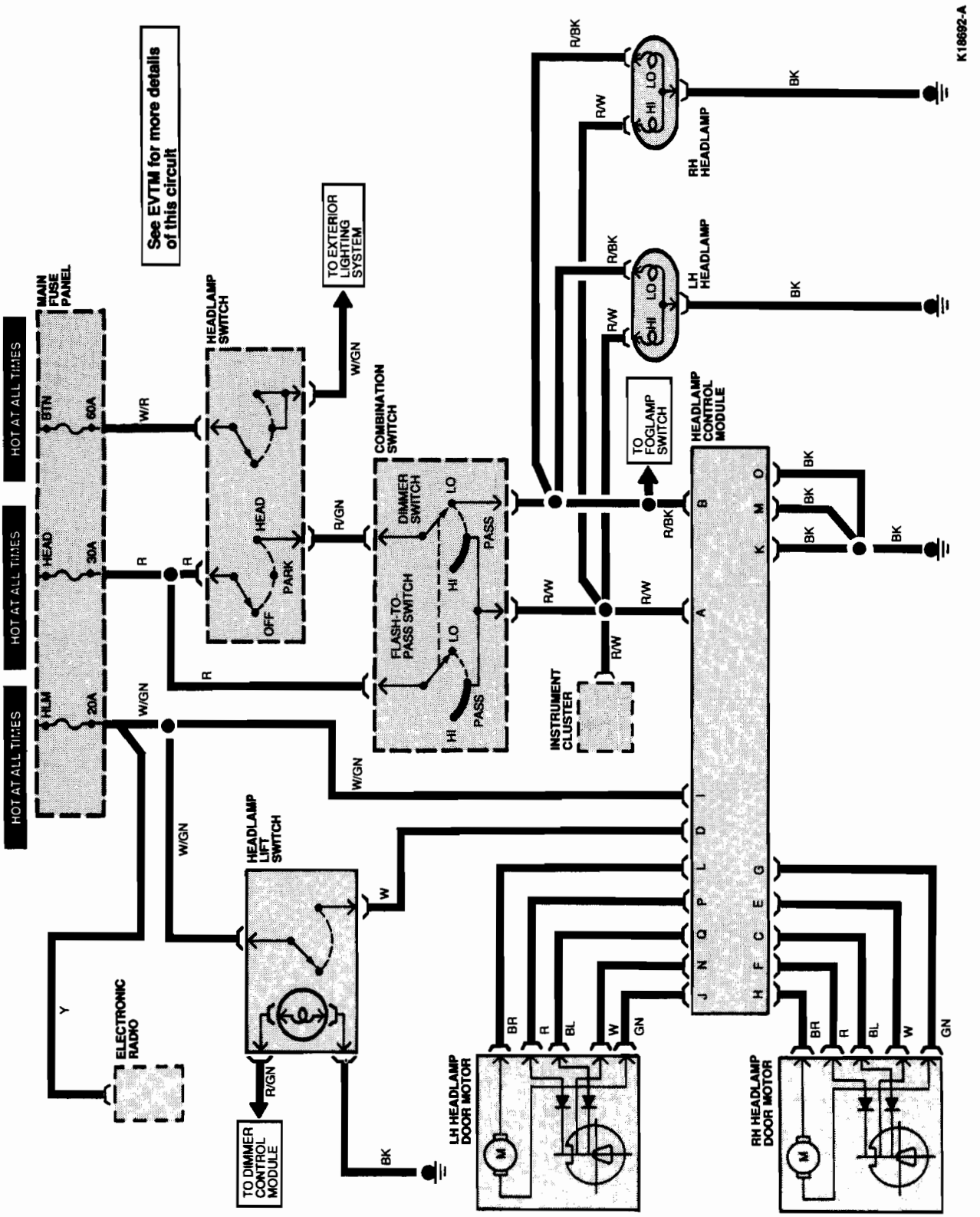
When the headlamp switch is depressed to the second detent, the parking/marker lamps, tail lamps and license lamps remain on, but the retractable headlamps also raise from the stored position and are illuminated.

Stoplamps

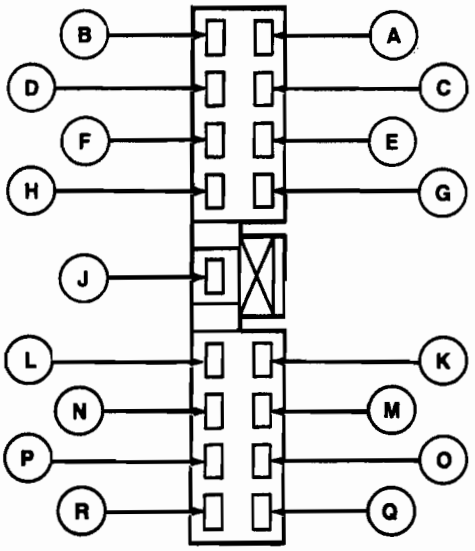
The stoplamps are controlled by a switch attached to the brake pedal arm. When the brakes are applied, the plunger in the switch extends, closing contacts inside the switch, allowing current to flow to the stoplamp bulbs in the rear lamp assemblies and the high-mount stoplamp.

DIAGNOSIS AND TESTING

Electrical Schematic — Headlamps and Fog Lamps System

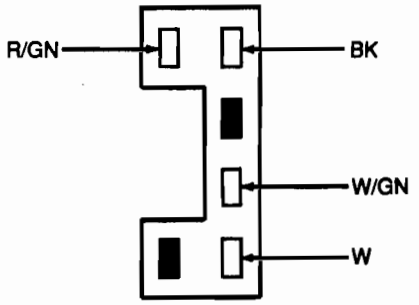


DIAGNOSIS AND TESTING (Continued)

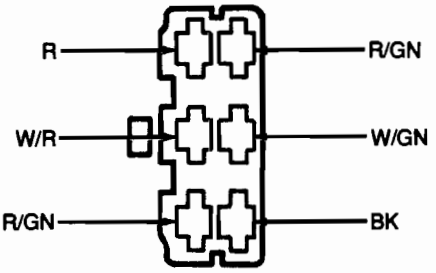


HEADLAMP CONTROL MODULE K18694-A

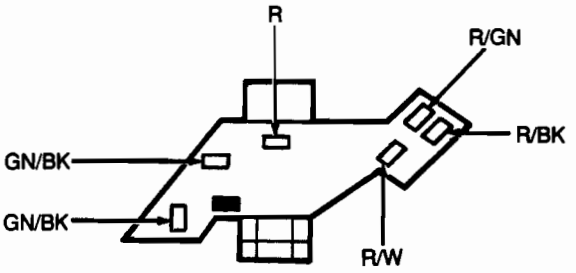
Pin Number	Wire Color	Circuit Function
A	R/W	Combination Switch
B	R/BK	Combination Switch
C	BL	RH Headlamp Door Motor
D	W	Headlamp Lift Switch
E	W	RH Headlamp Door Motor
F	R	RH Headlamp Door Motor
G	GN	RH Headlamp Door Motor
H	BR	RH Headlamp Door Motor
J	W/GN	Vehicle Power
K	GN	LH Headlamp Door Motor
L	BK	Ground
M	BR	LH Headlamp Door Motor
N	BK	Ground
O	W	LH Headlamp Door Motor
P	BK	Ground
Q	R	LH Headlamp Door Motor
R	BL	LH Headlamp Door Motor



HEADLAMP LIFT SWITCH K18695-A



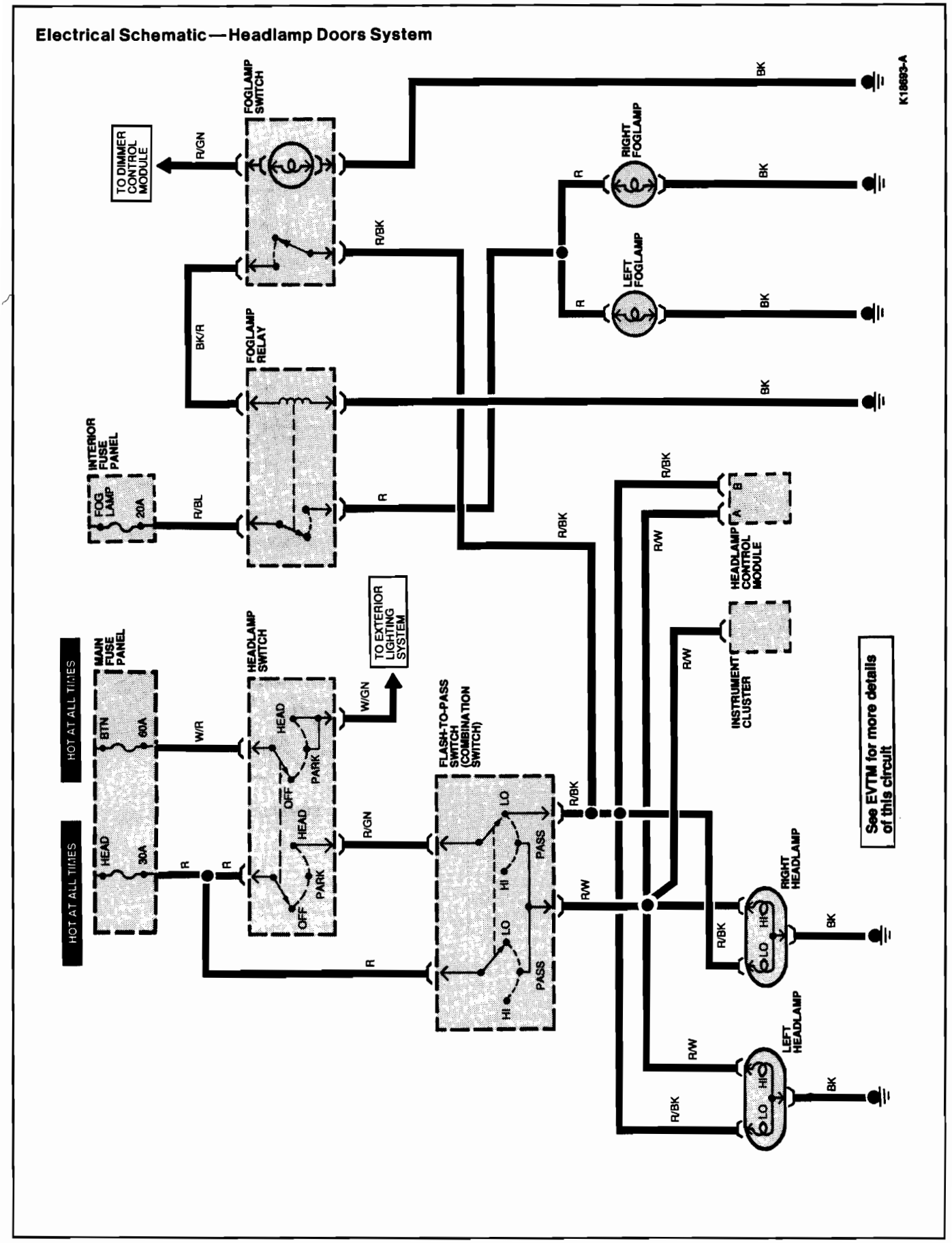
HEADLAMP SWITCH K18696-A



COMBINATION SWITCH K18697-A

DIAGNOSIS AND TESTING (Continued)

Electrical Schematic—Headlamp Doors System



DIAGNOSIS AND TESTING (Continued)

System Inspection—Headlamps/Headlamp Doors and Fog Lamps

1. Visually inspect the components of the headlamps/headlamp doors and fog lamp system.

VISUAL INSPECTION CHART

Mechanical	Electrical

• Damaged Components
• Headlamp Door Blockage
	• Blown Fuses:
	  • 60 amp BTN
	  • 30 amp HEAD
	  • 20 amp HLM
	  • 20 amp FOG LAMP
	• Damage to Wiring Harness
	• Loose or Corroded Connectors
	• Blown Bulbs

2. Shake the wiring harnesses. Look for obvious signs of shorts, opens or damage.
3. If the fault is not visually evident, verify condition and refer to the following condition chart.

CONDITION CHART—HEADLAMPS/HEADLAMP DOORS AND FOG LAMPS SYSTEM

CONDITION	POSSIBLE SOURCE	ACTION
• Headlamps Do Not Operate	• Fuse. • Headlamp switch. • Flash-to-pass switch. • Circuit.	• Go to **A1.** • Go to **A5.** • Go to **A8.** • Go to **A4.**
• Headlamps Stay On All The Time	• Headlamp switch. • Circuit.	• Go to **A5.** • Go to **A4.**
• Headlamps Turn On When Headlamp Switch is in First Position	• Headlamp switch. • Circuit.	• Go to **A5.** • Go to **A4.**
• High Beams Do Not Operate	• Headlamp switch. • Circuit.	• Go to **A5.** • Go to **A4.**
• High Beams Work, Low Beams Do Not Work	• Flash-to-pass switch. • Circuit.	• Go to **A8.** • Go to **A4.**
• Fog Lamps Do Not Operate	• Fuse. • Bulbs. • Fog lamp switch. • Fog lamp relay. • Circuit.	• Go to **B1.** • Go to **B10.** • Go to **B6.** • Go to **B9.** • Go to **B5.**
• Fog Lamps Stay On With High Beams On	• Flash-to-pass switch. • Circuit.	• Go to **B8.** • Go to **B4.**
• Fog Lamps Stay On All The Time	• Fog lamp switch. • Fog lamp relay. • Circuit.	• Go to **B6.** • Go to **B9.** • Go to**B4.**
• Fog Lamps Turn On With Headlamps Off	• Fog lamp relay. • Headlamp switch. • Circuit.	• Go to **B9.** • Go to **A4.** • Go to **B4.**
• Headlamp Doors Do Not Operate	• Fuse. • Headlamp control module. • Headlamp door motors. • Circuit. • Headlamp switch • Flash-to-pass switch.	• Go to **C1.** • Go to **C4.** • Go to **C9.** • Go to **C4.** • Go to **A5.** • Go to **A8.**
• Headlamp Doors Do Not Open When Headlamp Lift Switch is ON	• Headlamp lift switch. • Fuse. • Headlamp door motors. • Circuit.	• Go to **C12.** • Go to **C1.** • Go to **C9.** • Go to **C4.**
• Headlamp Doors Do Not Close	• Fuse. • Headlamp control module. • Headlamp door motors. • Circuit. • Headlamp switch.	• Go to **C1.** • Go to **C4.** • Go to **C9.** • Go to **C4.** • Go to **A5.**
• One Headlamp Door Does Not Operate	• Headlamp door motor. • Circuit. • Headlamp control module.	• Go to **C9.** • Go to **C4.** • Go to **C4.**

DIAGNOSIS AND TESTING (Continued)

CONDITION CHART — HEADLAMPS/HEADLAMP DOORS AND FOG LAMPS SYSTEM (Continued)

CONDITION	POSSIBLE SOURCE	ACTION
• Headlamp Doors Open When The Headlamp Switch is in First Position	• Headlamp switch. • Headlamp control module. • Circuit.	• Go to **A5.** • Go to **C4.** • Go to **C4.**

PINPOINT TEST A — HEADLAMPS SYSTEM

TEST STEP		RESULT ▶	ACTION TO TAKE
A1	CHECK FUSE		
	• Locate main fuse panel. • Check 30 amp HEAD fuse and 60 amp BTN fuse. • **Are fuses OK?**	Yes ▶ No ▶	GO to **A4.** GO to **A2.**
A2	CHECK SYSTEM		
	• Replace blown fuse(s) • **Does fuse(s) fail again?**	Yes ▶ No ▶	GO to **A3.** GO to **A4.**
A3	CHECK FOR SHORT TO GROUND		
	• Key OFF. • Locate and disconnect headlamp switch and combination switch connectors. • Locate and disconnect the main fuse panel connector. • Measure resistance between R wire at main fuse panel connector and ground. • Measure resistance between W/R wire at main fuse panel connector. • **Are resistances less than 5 ohms?**	Yes ▶ No ▶	SERVICE wires in question. GO to **A4.**
A4	CHECK POWER SUPPLY TO HEADLAMP SWITCH		
	• Locate and disconnect headlamp switch. • Key ON. • Measure voltage on the R and W/R wires at headlamp switch connector. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **A5.** SERVICE wires in question.
A5	CHECK HEADLAMP SWITCH		
	• Key OFF. • Locate and disconnect headlamp switch connector. • Press headlamp switch to first position. • Measure resistance from R wire terminal to the R/GN wire terminal at headlamp switch. • **Is resistance greater than 10,000 ohms?** • Press headlamp switch to second position. • Measure resistance from R wire terminal to the R/GN wire terminal at headlamp switch. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **A6.** REPLACE headlamp switch.
A6	CHECK WIRE TO FLASH-TO-PASS SWITCH		
	• Locate flash-to-pass switch. • Measure resistance of R/GN wire between headlamp switch and flash-to-pass switch. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **A7.** SERVICE R/GN wire.
A7	CHECK POWER SUPPLY TO FLASH-TO-PASS SWITCH		
	• Key ON. • Measure voltage on the R wire at the flash-to-pass switch. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **A8.** SERVICE R wire.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—HEADLAMPS SYSTEM (Continued)

TEST STEP		RESULT ▶	ACTION TO TAKE
A8	CHECK FLASH-TO-PASS SWITCH		
	• Verify the following wire voltages at the flash-to-pass switch connector at the specified flash-to-pass switch position.	Yes ▶	GO to **A9.**
		No ▶	REPLACE flash-to-pass switch.

Switch Position	Wire	Voltage
OFF (Headlamps OFF)	R	Greater than 10 volts
	all others	Less than 1 volt
ON (Headlamps ON)	R/GN, R/W, R	Greater than 10 volts
	all others	Less than 1 volt
ON (Headlamps OFF)	R, R/W	Greater than 10 volts
	all others	Less than 1 volt
OFF (Headlamps ON)	R, R/GN, R/BK	Greater than 10 volts
	all others	Less than 1 volt

	• **Are the voltages verified?**		
A9	SYMPTOM MENU		
	• Do headlamps operate correctly?	No ▶	GO to **A10.**
	• Do fog lamps operate correctly?	No ▶	GO to **B1.**
	• Do headlamp doors operate correctly?	No ▶	GO to **C1.**
A10	CHECK WIRES TO HEADLAMPS		
	• Locate headlamps.	Yes ▶	GO to **A11.**
	• Measure resistance of the R/W and R/BK wires between the flash-to-pass switch and headlamps.	No ▶	SERVICE wires in question.
	• **Are resistances less than 5 ohms?**		
A11	CHECK HEADLAMP GROUNDS		
	• Measure resistance between the BK wires at the headlamps and ground.	Yes ▶	GO to **A12.**
	• **Are resistances less than 5 ohms?**	No ▶	SERVICE BK wire(s).
A12	CHECK HEADLAMPS		
	• Turn headlamp switch ON.	Yes ▶	RETURN to condition chart.
	• **Does headlamp system work properly?**	No ▶	REPLACE headlamp in question.

PINPOINT TEST B—FOG LAMPS SYSTEM

TEST STEP		RESULT ▶	ACTION TO TAKE
B1	CHECK FUSE		
	• Locate interior fuse panel.	Yes ▶	GO to **B4.**
	• Check 20 amp FOG LAMP fuse.	No ▶	GO to **B2.**
	• **Is fuse OK?**		
B2	CHECK SYSTEM		
	• Replace 20 amp FOG LAMP fuse.	Yes ▶	GO to **B3.**
	• **Does fuse fail again?**	No ▶	GO to **B4.**
B3	CHECK FOR SHORT TO GROUND		
	• Key OFF.	Yes ▶	SERVICE R/BL wire.
	• Locate and disconnect fog lamp relay.	No ▶	GO to **B4.**
	• Locate and disconnect the interior fuse panel connector.		
	• Measure resistance between the R/BL wire at the interior fuse panel connector and ground.		
	• **Is resistance less than 5 ohms?**		

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST B—FOG LAMPS SYSTEM (Continued)

TEST STEP		RESULT ▶	ACTION TO TAKE
B4	CHECK POWER SUPPLY TO FOG LAMP RELAY		
	• Locate and disconnect the fog lamp relay connector. • Measure the voltage on the R/BL wire at the fog lamp relay connector. • **Is the voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **B5.** SERVICE the R/BL wire.
B5	CHECK WIRE TO FOG LAMP SWITCH		
	• Locate fog lamp switch. • Measure resistance of the R/BK wire between the flash-to-pass switch and the fog lamp switch. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **B6.** SERVICE R/BK wire.
B6	CHECK FOG LAMP SWITCH		
	• Press fog lamp switch to the ON position. • Measure resistance between R/BK wire and BK/R wire at the fog lamp switch. • **Is resistance less than 5 ohms?** • Press fog lamp switch to OFF position. • Measure resistance between R/BK wire and the BK/R wire at the fog lamp switch. • **Is resistance greater than 10,000 ohms?**	Yes ▶ No ▶	GO to **B7.** REPLACE fog lamp switch.
B7	CHECK WIRE TO RELAY		
	• Locate fog lamp relay. • Measure resistance of the BK/R wire between the fog lamp switch and fog lamp relay. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **B8.** SERVICE BK/R wire.
B8	CHECK FOG LAMP RELAY GROUND		
	• Measure resistance between the BK wire at fog lamp relay and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **B9.** SERVICE BK wire.
B9	CHECK FOG LAMP RELAY		
	• Disconnect and remove fog lamp relay. • Measure resistance between the R/BL and R wire terminals at the relay. • **Is resistance greater than 10,000 ohms?** • Apply 12 volts to the BK/R wire terminal at the relay. • Ground the BK wire terminal at the relay. • Measure resistance between the R/BL and R wire terminals at the relay. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **B10.** REPLACE fog lamp relay.
B10	CHECK SUPPLY TO FOG LAMPS		
	• Locate fog lamps. • Measure resistance of the R wire between the fog lamp relay and fog lamps. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **B11.** SERVICE R wire.
B11	CHECK FOG LAMP GROUNDS		
	• Measure resistance between the BK wire at the fog lamps and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **B12.** SERVICE BK wire.
B12	CHECK FOG LAMPS		
	• Turn headlamps ON. • Turn fog lamp switch ON. • **Do fog lamps work?**	Yes ▶ No ▶	RETURN to condition chart. REPLACE fog lamp that did not illuminate.

PINPOINT TEST C—HEADLAMP DOORS SYSTEM

TEST STEP		RESULT ▶	ACTION TO TAKE
C1	CHECK FUSE		
	• Locate main fuse panel. • Check 20 amp HLM fuse. • **Is fuse OK?**	Yes ▶ No ▶	GO to **C4.** GO to **C2.**

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST C—HEADLAMP DOORS SYSTEM (Continued)

TEST STEP		RESULT ▶	ACTION TO TAKE
C2	CHECK SYSTEM		
	• Replace 20 amp HLM fuse. • **Does fuse fail again?**	Yes ▶ No ▶	GO to **C3.** GO to **C4.**
C3	CHECK FOR SHORT TO GROUND		
	• Key OFF. • Locate and disconnect headlamp lift switch, electronic radio and headlamp control module connectors. • Locate and disconnect the main fuse panel connector. • Measure resistance between the W / GN wire at the main fuse panel connector and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE W / GN wire. GO to **C4.**
C4	CHECK POWER SUPPLY TO HEADLAMP CONTROL MODULE		
	• Locate the headlamp control module. • Measure voltage on W / GN wire at the headlamp control module. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **C5.** SERVICE W / GN wire.
C5	CHECK WIRES TO HEADLAMP CONTROL MODULE		
	• Headlamps ON. • Measure voltage on R / BK wire at the headlamp control module. • **Is voltage greater than 10 volts?** • Hi beams ON. • Measure voltage on R / W wire at the headlamp control module. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **C6.** SERVICE wire(s) in question.
C6	CHECK HEADLAMP CONTROL MODULE GROUND		
	• Key OFF. • Measure resistance between BK wire at the headlamp control module and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **C7.** SERVICE BK wire.
C7	CHECK WIRES TO MOTOR (LH)		
	• Locate LH headlamp door motor. • Measure resistance of the following wires between the headlamp control module and the LH headlamp door motor: •BR •R •BL •W •GN • **Are resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **C8.** SERVICE wire(s) in question.
C8	CHECK WIRES TO MOTOR (RH)		
	• Locate RH headlamp door motor. • Measure resistance of the following wires between the headlamp control module and the RH headlamp door motor: •BR •R •BL •W •GN • **Are resistances less than 5 ohms?**	Yes ▶ No ▶	GO to **C9.** SERVICE wire(s) in question.

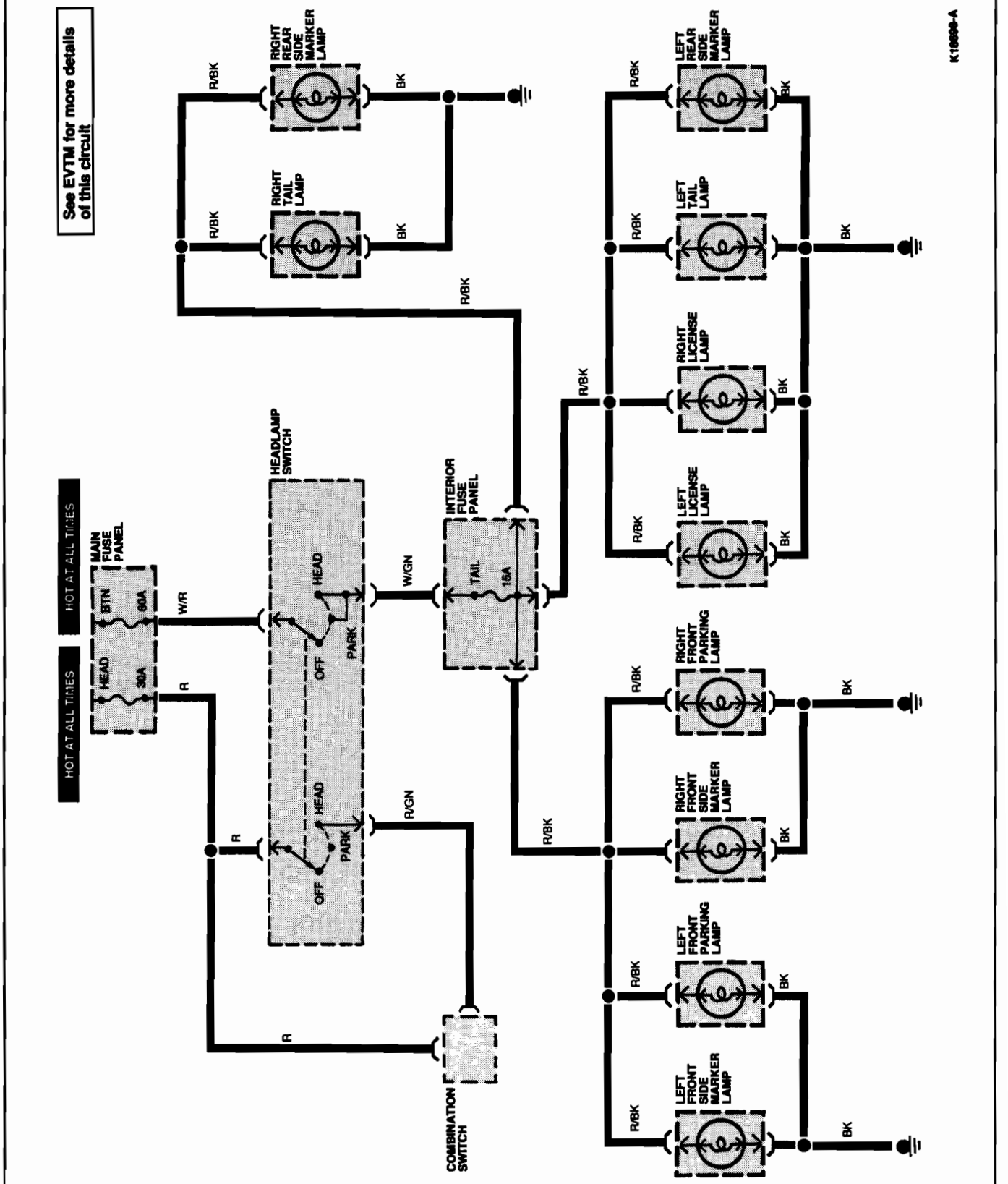
DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST C—HEADLAMP DOORS SYSTEM (Continued)

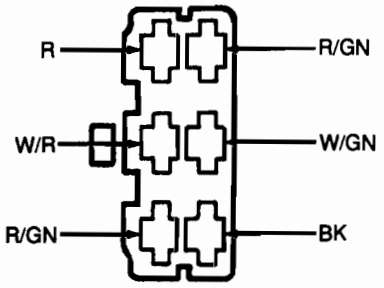
TEST STEP		RESULT ▶	ACTION TO TAKE
C9	CHECK HEADLAMP DOOR MOTOR		
	• Headlamps OFF. • Locate headlamp door motors. • Apply 12 volts to BR wire at the headlamp door motor connector. • Ground GN wire at the headlamp door motor connector. • **Does headlamp door open?** • Reverse connections. • **Does the headlamp door close?**	Yes ▶ No ▶	GO to **C10.** REPLACE headlamp door motor(s).
C10	CHECK POWER SUPPLY TO HEADLAMP LIFT SWITCH		
	• Locate headlamp lift switch. • Measure voltage on the W/GN wire at headlamp lift switch. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **C11.** SERVICE W/GN wire.
C11	CHECK WIRE BETWEEN HEADLAMP LIFT SWITCH AND HEADLAMP CONTROL MODULE		
	• Key OFF. • Locate headlamp control module. • Measure resistance of the W wire between the headlamp lift switch and the headlamp control module. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **C12.** SERVICE W wire.
C12	CHECK HEADLAMP LIFT SWITCH		
	• Key OFF. • Disconnect and remove headlamp lift switch. • Turn headlamp lift switch ON. • Measure resistance between W/GN wire terminal and the W wire terminal at the headlamp lift switch. • **Is resistance less than 5 ohms?** • Turn headlamp lift switch OFF. • Measure resistance between W/GN wire terminal and the W wire terminal at the headlamp lift switch. • **Is resistance greater than 10,000 ohms?**	Yes ▶ No ▶	GO to **C13.** REPLACE headlamp lift switch.
C13	CHECK HEADLAMP CONTROL MODULE		
	• Turn headlamps ON. • **Do headlamp doors open?** • Turn headlamps OFF. • **Do headlamp doors close?**	Yes ▶ No ▶	RETURN to condition chart. REPLACE headlamp control module.

DIAGNOSIS AND TESTING (Continued)

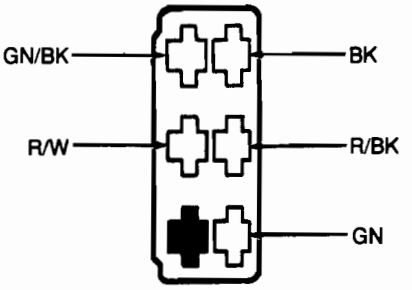
Electrical Schematic — Exterior Lighting System



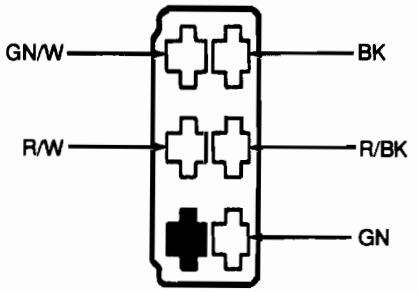
DIAGNOSIS AND TESTING (Continued)



HEADLAMP SWITCH K18699-A



LEFT TAIL LAMP K18700-A



RIGHT TAIL LAMP K19276-A

System Inspection—Exterior Lighting System

1. Visually inspect the components of the exterior lighting system.
2. Shake the wiring harnesses. Look for obvious signs of shorts, opens or damage.
3. If the fault is not visually evident, verify condition and refer to the following condition chart.

VISUAL INSPECTION CHART

Mechanical	Electrical

• Damaged Components	• Blown Fuses:
	  • 60 amp BTN
	  • 30 amp HEAD
	  • 15 amp TAIL
	• Damage to Wiring Harness
	• Loose or Corroded Connectors
	• Blown Bulbs

CONDITION CHART—EXTERIOR LIGHTING SYSTEM

CONDITION	POSSIBLE SOURCE	ACTION
• No Exterior Lamps Work	• BTN fuse. • TAIL fuse. • Headlamp switch. • Circuit. • Bulbs.	• Go to **E1.** • Go to **E7.** • Go to **E5.** • Go to **E4.** • Go to **E10.**
• Some Exterior Lamps Work, But Not All	• Circuit. • Bulb(s).	• Go to **E1.** • Go to **E10.**
• All Exterior Lamps Do Not Turn Off	• Headlamp switch. • Circuit.	• Go to **E5.** • Go to **E4.**
• Exterior Lamps Do Not Work When Headlamp Switch is in Second Position	• Headlamp switch. • Circuit. • Bulb(s).	• Go to **E5.** • Go to **E4.** • Go to **E10.**

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST E—EXTERIOR LIGHTING SYSTEM

	TEST STEP	RESULT ▶	ACTION TO TAKE
E1	CHECK FUSE ● Locate main fuse panel. ● Check 60 amp BTN fuse. ● **Is fuse OK?**	Yes ▶ No ▶	GO to **E4.** GO to **E2.**
E2	CHECK SYSTEM ● Replace 60 amp BTN fuse. ● **Does fuse fail again?**	Yes ▶ No ▶	GO to **E3.** GO to **E4.**
E3	CHECK FOR SHORT TO GROUND ● Key OFF. ● Locate and disconnect headlamp switch. ● Locate and disconnect main fuse panel connector. ● Measure resistance between the W/R wire at main fuse panel connector and ground. ● **Is resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE W/R wire. GO to **E4.**
E4	CHECK POWER SUPPLY TO HEADLAMP SWITCH ● Measure voltage on W/R wire at the headlamp switch. ● **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **E5.** SERVICE W/R wire.
E5	CHECK HEADLAMP SWITCH ● Key OFF. ● Locate and disconnect the headlamp switch. ● Press headlamp switch to first and then second position. ● Measure resistance between the W/R wire terminal and the W/GN wire terminal at the headlamp switch. ● **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **E6.** REPLACE headlamp switch.
E6	CHECK POWER SUPPLY TO TAIL FUSE ● Locate interior fuse panel connector. ● Measure resistance of the W/GN wire between the headlamp switch and the interior fuse panel connector. ● **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **E7.** SERVICE W/GN wire.
E7	CHECK FUSE ● Check 15 amp TAIL fuse. ● **Is fuse OK?**	Yes ▶ No ▶	GO to **E10.** GO to **E8.**
E8	CHECK SYSTEM ● Replace 15 amp TAIL fuse. ● Turn headlamps ON. ● **Does fuse fail again?**	Yes ▶ No ▶	GO to **E9.** GO to **E10.**
E9	CHECK FOR SHORT TO GROUND ● Key OFF. ● Locate and disconnect interior fuse panel connector. ● Disconnect tail lamps, license lamps, front parking lamps, front marker lamps and rear marker lamps. ● Measure resistance between R/BK wires at interior fuse panel connectors and ground. ● **Is resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE R/BK wire. GO to **E10.**
E10	CHECK BULB GROUNDS ● Locate bulbs. ● Measure resistance between the BK wires at bulbs and ground. ● **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **E11.** SERVICE BK wire.
E11	CHECK WIRES TO BULBS ● Measure resistance of the R/BK wires from the interior fuse panel to the bulbs. ● **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **E12.** SERVICE R/BK wire(s) in question.

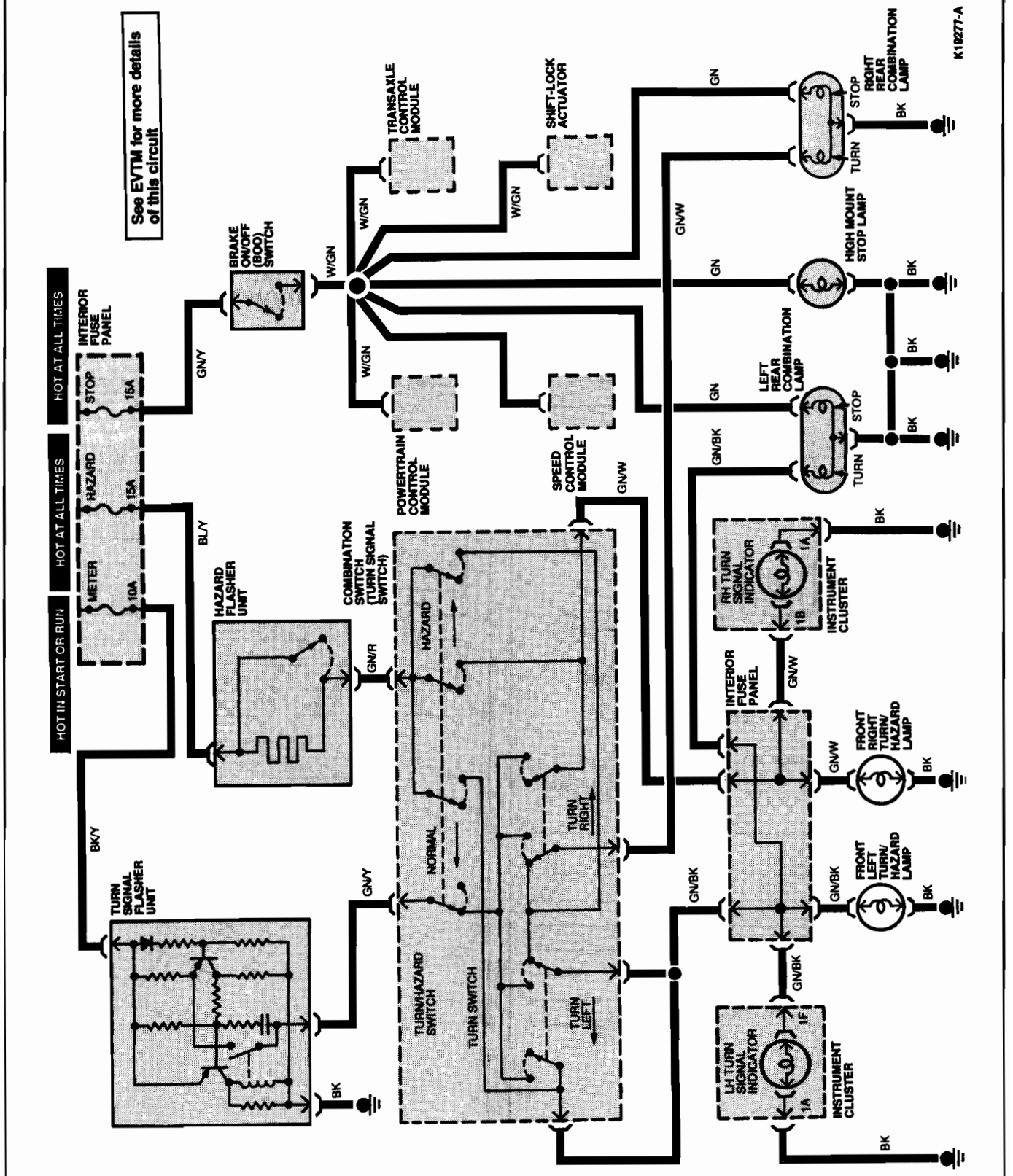
DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST E — EXTERIOR LIGHTING SYSTEM (Continued)

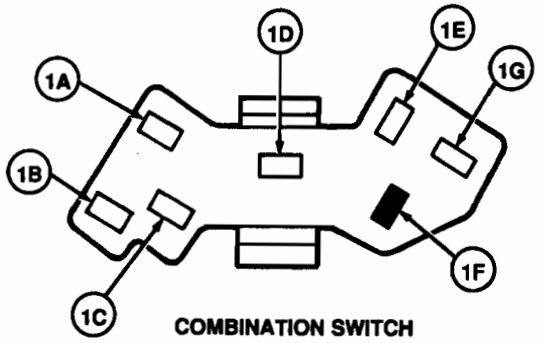
TEST STEP		RESULT ▶	ACTION TO TAKE
E12	CHECK BULBS		
	• Key ON. • Press headlamp switch into each position. • **Do exterior lamps work?**	Yes ▶	RETURN to condition chart.
		No ▶	REPLACE blown bulb(s).

DIAGNOSIS AND TESTING (Continued)

Electrical Schematic — Turn Signal / Hazard Warning And Stoplamps System

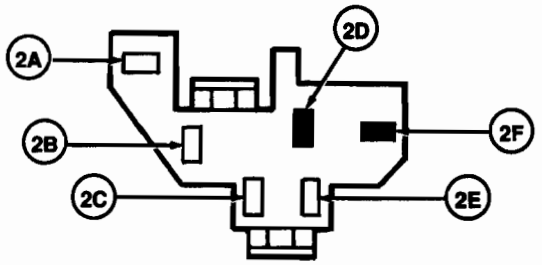


DIAGNOSIS AND TESTING (Continued)



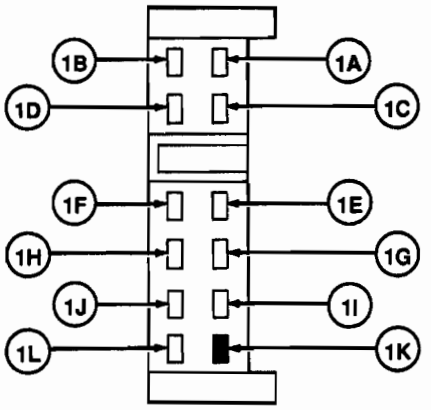
COMBINATION SWITCH K19278-A

Pin Number	Wire Color	Circuit Function
1A	R/GN	Headlamp Switch
1B	R/BK	Low Beam
1C	R/W	High Beam
1D	R	Power Supply
1E	GN/BK	Left Turn Signal
1F	—	Not Used
1G	GN/BK	Left Turn Signal



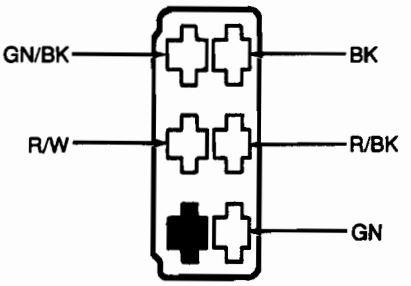
COMBINATION SWITCH K19279-A

Pin Number	Wire Color	Circuit Function
2A	GN/W	Right Turn Signal
2B	GN/W	Right Turn Signal
2C	GN/Y	Turn Signal Flasher Unit
2D	—	Not Used
2E	GN/R	Hazard Flasher Unit
2F	—	Not Used



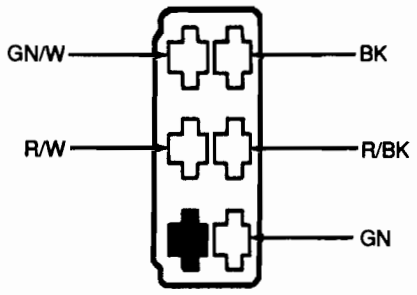
INSTRUMENT CLUSTER K18632-A

Pin Number	Wire Color	Circuit Function
1A	BK	Ground
1B	GN/W	RH Turn Indicator
1C	BR/Y	Transaxle Control Module
1D	R/W	High Beam Indicator
1E	BK/Y	Warning Indicator Lamp Power Supply
1F	GN/BK	LH Turn Indicator
1G	Y/R	Oil Pressure Switch
1H	R/GN	Dimmer Control Module
1I	BK	Ground
1J	BK	Ground
1K	—	Not Used
1L	Y/W	Temperature Gauge Sending Unit



LEFT TAIL LAMP K18700-A

DIAGNOSIS AND TESTING (Continued)



RIGHT TAIL LAMP

K19276-A

System Inspection—Turn Signal/Hazard Warning and Stoplamps System

1. Visually inspect the components of the turn signal/hazard warning and stoplamps system.

VISUAL INSPECTION CHART

Mechanical	Electrical

• Damaged Components	• Blown Fuses:
	  • 10 amp METER
	  • 15 amp HAZARD
	  • 15 amp STOP
	• Damage to Wiring Harness
	• Loose or Corroded Connectors
	• Blown Bulbs

2. Shake the wiring harnesses. Look for obvious signs of shorts, opens or damage.
3. If the fault is not visually evident, verify condition and refer to the following condition chart.

CONDITION CHART—TURN SIGNAL/HAZARD WARNING SYSTEM

CONDITION	POSSIBLE SOURCE	ACTION
• Turn Signal Lamps Work Only in One Direction	• Turn signal switch. • Circuit. • Bulbs.	• Go to **F12.** • Go to **F4.** • Go to **F14.**
• Turn Signal Lamps Stay On Continuously	• Turn signal switch. • Circuit.	• Go to **F12.** • Go to **F4.**
• Hazard Warning and/or Turn Signal Lamps Do Not Work	• Fuse(s). • Hazard warning switch. • Turn signal flasher unit. • Hazard flasher unit. • Turn signal switch. • Circuit. • Bulbs.	• Go to **F1.** • Go to **F5.** • Go to **F10.** • Go to **F3.** • Go to **F12.** • Go to **F4.** • Go to **F14.**
• Hazard Warning Lamps Run Continuously	• Hazard warning switch. • Circuit.	• Go to **F5.** • Go to **F4.**
• Hazard and/or Turn Signal Lamps Do Not Flash	• Turn signal flasher unit. • Circuit. • Hazard flasher unit.	• Go to **F10.** • Go to **F4.** • Go to **F3.**

PINPOINT TEST F—TURN SIGNAL/HAZARD WARNING SYSTEM

TEST STEP		RESULT ▶	ACTION TO TAKE
F1	CHECK FUSE		
	• Locate interior fuse panel. • Check 15 amp HAZARD fuse. • **Is fuse OK?**	Yes ▶ No ▶	GO to **F4.** GO to **F2.**
F2	CHECK SYSTEM		
	• Replace 15 amp HAZARD fuse. • **Does fuse fail again?**	Yes ▶ No ▶	GO to **F3.** GO to **F4.**

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST F—TURN SIGNAL/HAZARD WARNING SYSTEM (Continued)

TEST STEP		RESULT ▶	ACTION TO TAKE
F3	CHECK FOR SHORTS TO GROUND		
	• Key OFF. • Disconnect the hazard flasher unit. • Locate and disconnect the interior fuse panel connector. • Measure resistance between the BL/Y wire at the interior fuse panel connector and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE the BL/Y wire. SERVICE/REPLACE the hazard flasher unit.
F4	CHECK POWER SUPPLY TO HAZARD FLASHER UNIT		
	• Locate and disconnect the hazard flasher unit connector. • Key ON. • Measure voltage on the BL/Y wire at the hazard flasher unit connector. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **F5.** SERVICE BL/Y wire.
F5	CHECK WIRE TO HAZARD WARNING SWITCH		
	• Key OFF. • Locate hazard warning switch connector. • Measure resistance of the GN/R wire between the hazard warning switch and the hazard flasher unit connectors. • **Is resistance less than 5 ohms?** NOTE: The hazard warning switch is part of the combination switch.	Yes ▶ No ▶	GO to **F6.** SERVICE GN/R wire.
F6	CHECK HAZARD WARNING SWITCH FOR PROPER OPERATION		
	• Locate and disconnect hazard warning switch (combination switch). • Turn hazard warning switch ON. • Measure resistance between the GN/W wire terminal and the GN/R wire terminal at the switch. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **F7.** SERVICE/REPLACE hazard warning switch (combination switch).
F7	CHECK FUSE		
	• Locate interior fuse panel. • CHECK 10 amp METER fuse. • **Is fuse OK?**	Yes ▶ No ▶	GO to **F10.** GO to **F8.**
F8	CHECK SYSTEM		
	• Replace 10 amp METER fuse. • Key ON. • **Does fuse fail again?**	Yes ▶ No ▶	GO to **F9.** GO to **F10.**
F9	CHECK FOR SHORTS TO GROUND		
	• Locate and disconnect interior fuse panel connector. • Locate and disconnect turn signal flasher unit. • Measure resistance between the BK/Y wire at the interior fuse panel connector and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE/REPLACE the BK/Y wire. GO to **F10.**
F10	CHECK POWER SUPPLY TO TURN SIGNAL FLASHER UNIT		
	• Locate and disconnect turn signal flasher unit. • Measure voltage on the BK/Y wire at the turn signal flasher unit. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **F11.** SERVICE BK/Y wire.
F11	CHECK TURN SIGNAL FLASHER UNIT GROUND		
	• Measure resistance between the BK wire at the turn signal flasher unit and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **F12.** SERVICE BK wire.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST F — TURN SIGNAL/HAZARD WARNING SYSTEM (Continued)

	TEST STEP	RESULT ▶	ACTION TO TAKE
F12	CHECK WIRE TO TURN SIGNAL SWITCH		
	• Locate the turn signal switch (combination switch). • Measure resistance of the GN/Y wire between the turn signal flasher unit and the turn signal switch. • **Is resistance less than 5 ohms?** NOTE: The turn signal switch is part of the combination switch.	Yes ▶ No ▶	GO to **F13.** SERVICE GN/Y wire.
F13	CHECK TURN SIGNAL FLASHER UNIT FOR PROPER OPERATION		
	• Locate and disconnect the turn signal switch (combination switch). • Using a test lamp, connect one of the leads of the test lamps to ground and the other lead to the GN/Y wire at the turn signal switch connector. • Key ON. • **Does test lamp flash on and off in constant cycles?**	Yes ▶ No ▶	GO to **F14.** REPLACE the turn signal flasher unit.
F14	CHECK WIRES TO TURN LAMPS		
	• Locate turn lamps. • Measure resistance of the GN/W wire between the turn signal switch and the following lamps: — Front right turn lamp — Rear right turn lamp — RH turn signal indicator • Measure resistance of the GN/BK wire between turn signal switch and the following lamps: — Front left turn lamp — Rear left turn lamp — LH turn signal indicator • **Are resistances less than 5 ohms?**	Yes ▶ No ▶	GO to **F15.** SERVICE wire(s) in question.
F15	CHECK TURN LAMP GROUNDS		
	• Measure resistance between the BK wire and ground at the following lamps: — Front left turn lamp — Front right turn lamp — Rear left turn lamp — Rear right turn lamp — LH turn signal indicator — RH turn signal indicator • **Are resistances less than 5 ohms?**	Yes ▶ No ▶	GO to **F16.** SERVICE BK wire(s) in question.
F16	CHECK TURN LAMPS		
	• Apply 12 volts to the following wires at the lamp bulbs: — Front right turn lamp (GN/W) — Rear right turn lamp (GN/W) — RH turn indicator lamp (GN/W) wire at instrument cluster connector — Front left turn lamp (GN/BK) — Rear left turn lamp (GN/BK) — LH turn indicator lamp (GN/BK) wire at instrument cluster connector. • **Do the turn lamps illuminate?**	Yes ▶ No ▶	GO to **F17.** REPLACE any turn lamp that does not illuminate.
F17	CHECK SYSTEM (TURN SIGNAL SWITCH)		
	• Key ON. • Put turn signal switch to right and then left position. • **Does turn signal system operate correctly?**	Yes ▶ No ▶	RETURN to Condition Chart. REPLACE turn signal switch (combination switch).

DIAGNOSIS AND TESTING (Continued)

CONDITION CHART—STOPLAMP SYSTEM

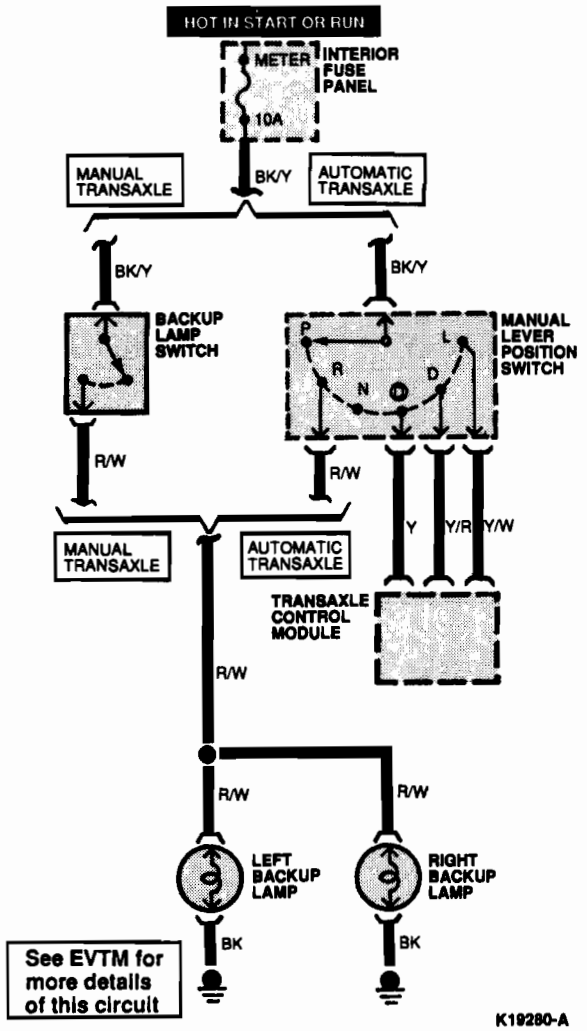
CONDITION	POSSIBLE SOURCE	ACTION
• Stoplamps Do Not Work	• Fuse. • Circuit. • Brake On/Off (BOO) switch. • Bulbs.	• Go to **D1.** • Go to **D4.** • Go to **D5.** • Go to **D6.**
• Stoplamps Run Continuously	• Circuit. • Brake On/Off (BOO) switch.	• Go to **D4.** • Go to **D5.**
• Not All Lamps Work	• Circuit. • Bulbs.	• Go to **D4.** • Go to **D6.**

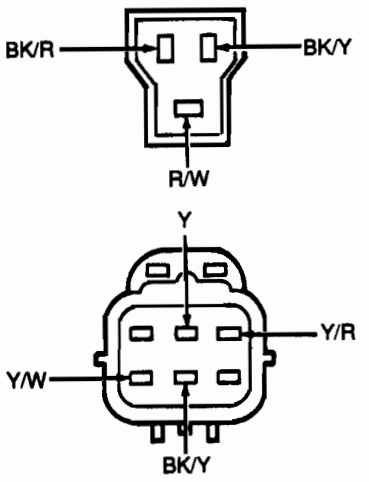
PINPOINT TEST D—STOPLAMP SYSTEM

TEST STEP		RESULT ▶	ACTION TO TAKE
D1	CHECK FUSE		
	• Locate interior fuse panel. • Check 20 amp STOP fuse. • **Is the fuse OK?**	Yes ▶ No ▶	GO to **D4.** GO to **D2.**
D2	CHECK SYSTEM		
	• Replace 20 amp STOP fuse. • **Does fuse fail again?**	Yes ▶ No ▶	GO to **D3.** GO to **D4.**
D3	CHECK FOR SHORTS TO GROUND		
	• Key OFF. • Locate and disconnect interior fuse panel connector. • Locate and disconnect brake on/off (BOO) switch. • Measure resistance between GN/Y wire at interior fuse panel connector and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE GN/Y wire. GO to **D4.**
D4	CHECK POWER SUPPLY TO BRAKE ON/OFF (BOO) SWITCH		
	• Locate stoplamp switch. • Measure voltage on GN/Y wire at the brake on/off (BOO) switch. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **D5.** SERVICE GN/Y wire.
D5	CHECK BRAKE ON/OFF (BOO) SWITCH OPERATION		
	• Locate stoplamp switch. • Depress brake pedal. • Measure resistance between the GN/Y wire and the W/GN wire at the brake on/off (BOO) switch. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **D6.** REPLACE brake on/off (BOO) switch.
D6	CHECK SUPPLY TO BULBS		
	• Locate stoplamp bulbs. • Key OFF. • Measure resistance between the W/GN wire at the brake on/off (BOO) switch and the GN wires at the stoplamp bulbs. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **D7.** SERVICE wires between brake on/off (BOO) switch and stoplamp bulbs.
D7	CHECK STOPLAMP BULBS GROUND		
	• Locate stoplamp bulbs. • Measure resistance between the BK wires at the stoplamp bulbs and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **D8.** SERVICE the BK wire(s).
D8	CHECK STOPLAMP BULBS		
	• Locate stoplamp bulbs. • Key ON. • Depress brake pedal. • **Are all stoplamp bulbs on?**	Yes ▶ No ▶	RETURN to condition chart. REPLACE stoplamp bulbs that do not illuminate.

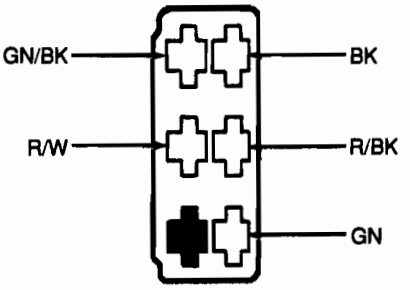
DIAGNOSIS AND TESTING (Continued)

Electrical Schematic—Backup Lamps System

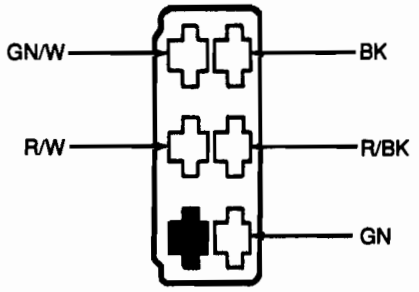




MANUAL LEVER POSITION SWTICH (4EAT) K19281-A



LEFT TAIL LAMP K18700-A



RIGHT TAIL LAMP K19276-A

System Inspection—Backup Lamps System

1. Visually inspect the components of the backup lamp system.

VISUAL INSPECTION CHART

Mechanical	Electrical
• Damaged Components • Improper Manual Lever Position Switch Adjustment	• Blown Fuse: • 10 amp METER • Damage to Wiring Harness • Loose or Corroded Connectors • Blown Bulbs

2. Shake the wiring harnesses. Look for obvious signs of shorts, opens or damage.
3. If the fault is not visually evident, verify condition and refer to the following condition chart.

DIAGNOSIS AND TESTING (Continued)

CONDITION CHART—BACKUP LAMPS SYSTEM

CONDITION	POSSIBLE SOURCE	ACTION
• Both Backup Lamps Not Working	• Fuse. • Circuit. • Manual lever position switch (4EAT only). • Backup lamp switch (MTX only). • Backup lamps.	• Go to **BL1.** • Go to **BL4.** • Go to **BL12.** • Go to **BL13.** • Go to **BL10.**
• One Backup Lamp Not Working	• Circuit. • Backup Lamp.	• Go to **BL8.** • Go to **BL10.**
• Backup Lamps Are Dim	• Ground circuit.	• Go to **BL11.**

PINPOINT TEST BL—BACKUP LAMPS SYSTEM

TEST STEP		RESULT ▶	ACTION TO TAKE
BL1	CHECK FUSE		
	• Locate the interior fuse panel. • Check the 10 amp METER fuse. • **Is the fuse OK?**	Yes ▶ No ▶	GO to **BL4.** GO to **BL2.**
BL2	CHECK SYSTEM		
	• Replace the 10 amp METER fuse. • Key ON. • **Does the fuse fail again?**	Yes ▶ No ▶	GO to **BL3.** GO to **BL4.**
BL3	CHECK FOR POWER SHORT TO GROUND		
	• Locate and disconnect the interior fuse panel connector. • Locate and disconnect the backup lamp switch connector (MTX) or the manual lever position switch connector. • Measure the resistance between the BK/Y wire at the interior fuse panel connector and ground. • **Is the resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE the BK/Y wire. GO to **BL4.**
BL4	CHECK FOR OPERATIONAL SHORT TO GROUND		
	• Key ON. • Shift the selector lever to the reverse position. • **Does the fuse fail?**	Yes (MTX) ▶ Yes (4EAT) ▶ No ▶	GO to **BL5.** GO to **BL6.** GO to **BL7.**
BL5	CHECK FOR SHORT TO GROUND (MTX)		
	• Disconnect the backup lamp switch connector and the backup lamp connectors. • Measure the resistance between the R/W wire at the backup lamp switch connector and ground. • **Is the resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE the R/W wire. GO to **BL7.**
BL6	CHECK FOR SHORT TO GROUND (4EAT)		
	• Disconnect the manual lever position switch connector and the backup lamp connectors. • Measure the resistance between the R/W wire at the manual lever position switch connector and ground. • **Is the resistance less than 5 ohms?**	Yes ▶ No ▶	SERVICE the R/W wire. GO to **BL7.**
BL7	CHECK POWER SUPPLY TO SWITCH		
	• Disconnect the backup lamp switch connector (MTX) or the manual lever position switch connector (4EAT). • Key ON. • Measure the voltage on the BK/Y wire at the switch connector. • **Is the voltage greater than 10 volts?**	Yes (MTX) ▶ Yes (4EAT) ▶ No ▶	GO to **BL8.** GO to **BL9.** SERVICE the BK/Y wire.
BL8	CHECK WIRE TO BACKUP LAMPS (MTX)		
	• Key OFF. • Measure the resistance of the R/W wires between the backup lamp switch connector and the backup lamp connectors. • **Is the resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **BL10.** SERVICE the R/W wire in question.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST BL—BACKUP LAMPS SYSTEM (Continued)

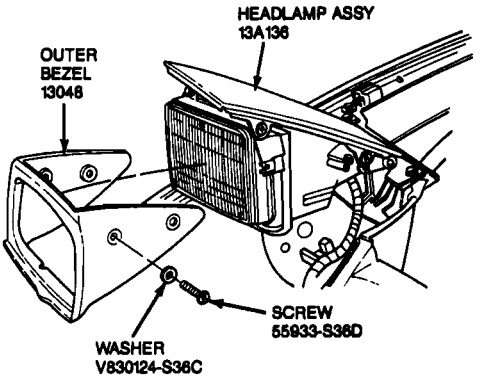
TEST STEP		RESULT ▶	ACTION TO TAKE
BL9	CHECK WIRE TO BACKUP LAMPS (4EAT)		
	• Key OFF. • Measure the resistance of R/W wires between the manual lever position switch connector and the backup lamp connectors. • **Is the resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **BL10.** SERVICE the R/W wire in question.
BL10	CHECK BACKUP LAMPS		
	• Remove the backup lamps. • Measure the resistance between the ground and power connections on each lamp. • **Is the resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **BL11.** REPLACE the lamp(s).
BL11	CHECK BACKUP LAMPS GROUND		
	• Key OFF. • Measure the resistance between the BK wire at the backup lamp connectors and ground. • **Is the resistance less than 5 ohms?**	Yes (MTX) ▶ Yes (4EAT) ▶ No ▶	GO to **BL13.** GO to **BL12.** SERVICE the BK wire in question.
BL12	CHECK MANUAL LEVER POSITION SWITCH (4EAT)		
	• Key ON. • Connect a jumper wire between the BK/Y wire at the 6 pin manual lever position switch connector and the R/W wire at the 3 pin manual lever position switch connector. • **Do the lamps illuminate?**	Yes ▶ No ▶	REPLACE the manual lever position switch. REPLACE the backup lamps.
BL13	CHECK BACKUP LAMP SWITCH (MTX)		
	• Key ON. • Connect a jumper wire between the BK/Y and R/W wires on the harness side connector of the backup lamp switch. • **Do the lamps illuminate?**	Yes ▶ No ▶	REPLACE the backup lamp switch. REPLACE the backup lamps.

REMOVAL AND INSTALLATION

Headlamp

Removal

1. Raise the headlamps to the normal operating position by turning headlamp motor switch on.
2. Remove the four screws and washers retaining the outer bezel enclosing the entire headlamp assembly. Remove the bezel.

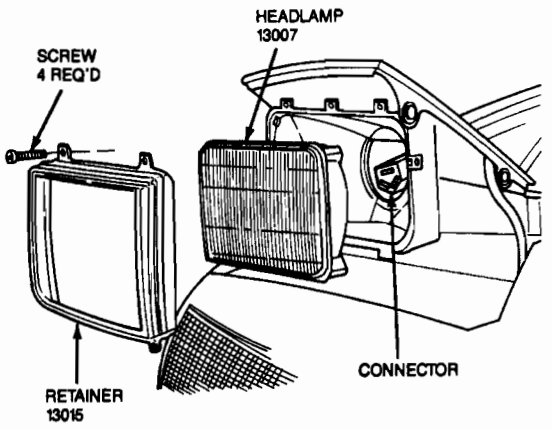


NOTE: Do not disturb the headlamp adjusting screws.

3. Remove four screws and retainer.

REMOVAL AND INSTALLATION (Continued)

4. Remove headlamp and unplug connector.



K14504-A

Installation

1. Plug connector onto headlamp.
2. Install headlamp with retainer and four screws. Tighten securely.
3. Check headlamp(s) for proper illumination.

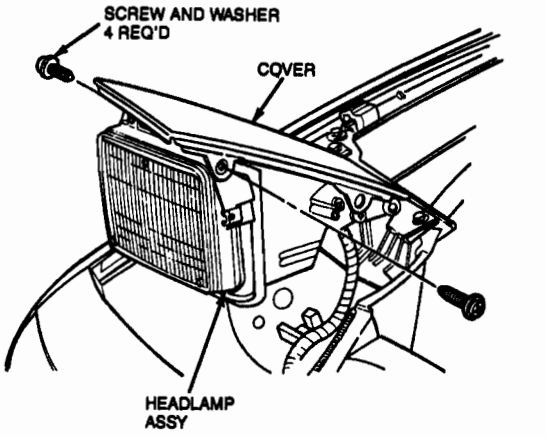
   CAUTION: Make sure lower edge of bezel is below the vehicle's front fascia. The screws and washers used to secure the outer bezel must be installed flush with the sides of the bezel. If the washers are installed upside-down the screws may protrude and interfere with headlamp assembly movement.
4. Install outer bezel over entire headlamp assembly. It may be necessary to "roll" the bezel into position starting with the lower edge. Install washers and screws so that screws are flush with sides of bezel.
5. Raise and lower headlamps to check for proper operation.

Headlamp Assembly

Removal

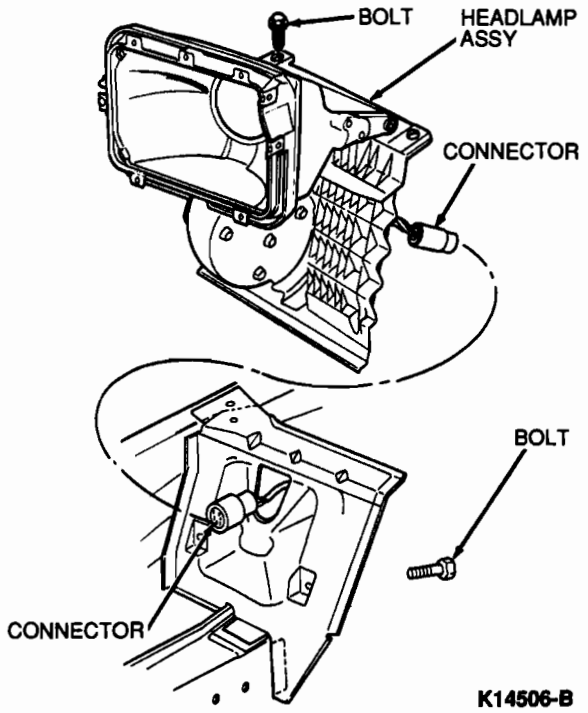
1. Raise headlamps to the normal operating position and open hood.
2. Remove the windshield washer reservoir or coolant reservoir, depending on which headlamp assembly requires servicing. Refer to Section 01-16 or 03-03.
3. Remove bezel and headlamp as outlined. Route wiring away from headlamp assembly.

   CAUTION: The headlamp assembly cover is painted to match body color. Use care to prevent damage during removal.
4. Remove four screws and cover from headlamp assembly.



K14505-A

5. Remove four bolts retaining headlamp assembly to body.
6. Unplug connector from motor and remove headlamp assembly.



K14506-B

CAUTION: Do not adjust linkage.

Installation

1. Position the headlamp assembly onto the vehicle. Route wiring and connect to motor.
2. Install four bolts that retain headlamp assembly. Tighten bolts to 3-5 N·m (27-44 lb-in).
3. Carefully install the headlamp cover with four screws. Tighten to 1.6-2.0 N·m (15-17 lb-in).
4. Lower headlamp cover and check for flush fit with surrounding body parts. Adjust as necessary.
5. Install headlamp and bezel as outlined.

REMOVAL AND INSTALLATION (Continued)

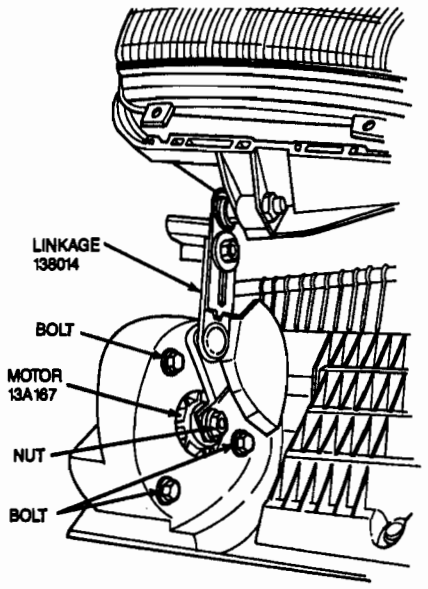
6. Install the windshield washer reservoir or coolant reservoir. Refer to Section 01-16 or 03-03.
7. Check operation and aim of headlamps. Adjust as required.

   CAUTION: Do not adjust linkage.

Headlamp Motor

Removal

1. Remove headlamp assembly as outlined.
2. Remove nut retaining linkage to motor.
3. Remove three retaining bolts and motor.



Installation

1. Position motor onto headlamp frame and secure with three bolts. Tighten bolts to 3-5 N·m (27-44 lb-in).
2. Connect linkage to motor and install nut. Tighten nut to 8-10 N·m (71-88 lb-in).
3. Install headlamp assembly as outlined.
4. Check headlamp assembly for proper operation.

   CAUTION: Do not adjust linkage.

Linkage

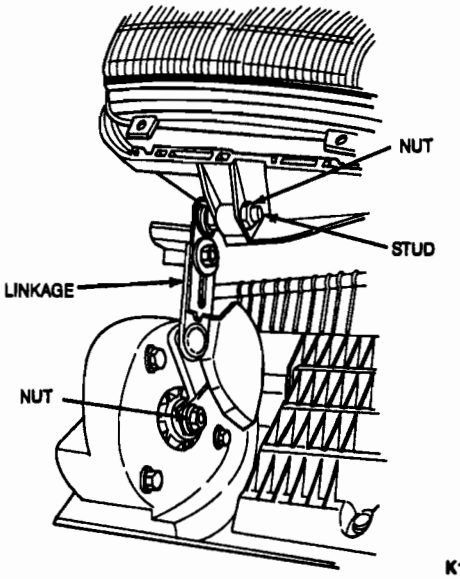
Removal

1. Raise headlamps to the normal operating position using switch.
2. Remove nut retaining linkage to motor.
3. Remove nut and linkage with stud from headlamp assembly. Remove linkage.

Installation

1. Install stud through headlamp assembly and install nut and tighten to 9-11 N·m (80-97 lb-in).
2. Connect linkage to motor and install nut. Tighten nut to 8-10 N·m (71-88 lb-in).
3. Check headlamp assembly for proper operation.

   CAUTION: Do not adjust linkage.



Headlamp Switch

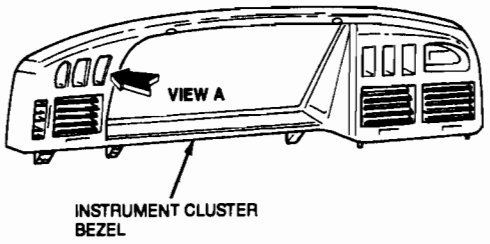
The headlamp switch is located on the LH side of the instrument panel.

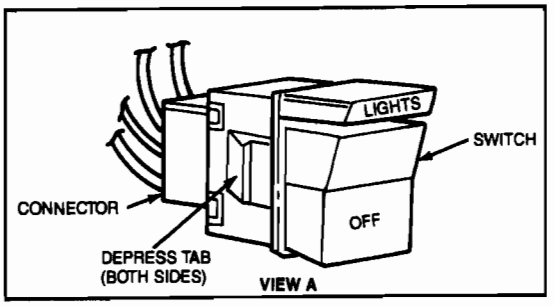
Removal

1. Disconnect negative battery cable.
2. Remove instrument cluster bezel. Refer to Section 01-12.
3. Disconnect electrical connector from switch.

REMOVAL AND INSTALLATION (Continued)

4. Depress tangs on both sides of switch and remove from bezel.





K14509-A

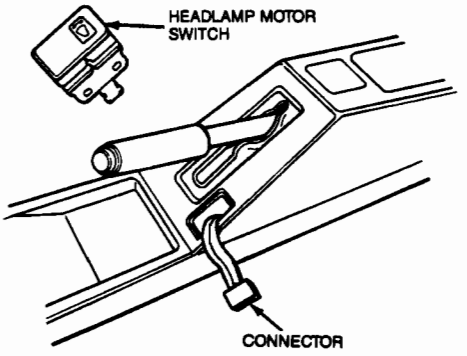
Installation

1. Insert switch into instrument bezel. Make sure switch is fully seated in bezel.
2. Connect electrical connector to switch.
3. Install instrument cluster bezel. Refer to Section 01-12.
4. Connect negative battery cable.
5. Check switch for proper operation.

Headlamp Motor Switch

Removal and Installation

1. Gently pry switch from console. If necessary loosen console and press from below. Refer to Section 01-12.
2. Disconnect electrical connector.
3. Connect electrical connector to switch and snap switch into console.
4. Check switch for proper operation.



K14838-A

High Beam/Flash-To-Pass Switch

Removal and Installation

The high beam/flash-to-pass switch is part of the turn signal switch on the steering column. Refer to Section 11-05 for Removal and Installation.

High Beam Indicator Lamp Bulb

Removal and Installation

The high beam indicator lamp bulb is located in the instrument cluster. For Removal and Installation of the bulb, refer to Section 13-01.

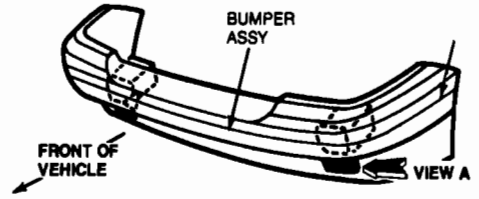
Fog Lamp

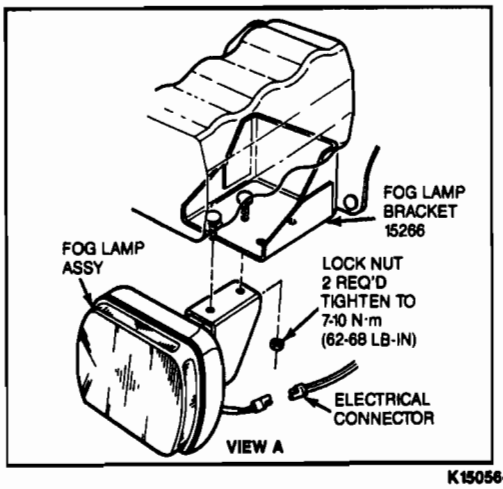
Removal and Installation

1. Disconnect the electrical connector at the rear of the fog lamp.
2. Remove two nuts retaining the fog lamp assembly to the bracket and remove the fog lamp assembly.

REMOVAL AND INSTALLATION (Continued)

3. To install, reverse Removal procedure. Tighten nuts to 7-10 N·m (62-88 lb-in).



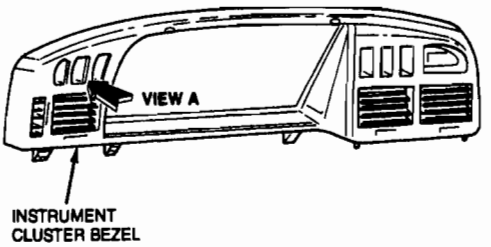


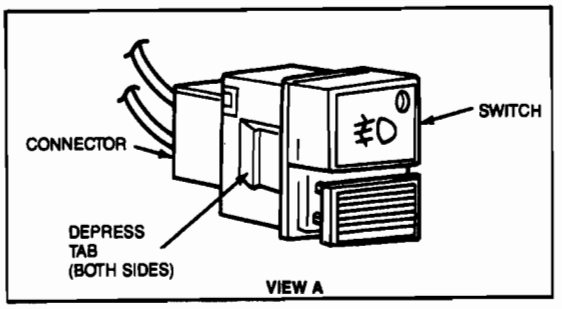
K15056-A

Fog Lamp Switch

Removal

1. Disconnect the negative battery cable.
2. Remove instrument cluster bezel. Refer to Section 01-12.
3. Disconnect electrical connector from switch.
4. Depress tangs on both sides of switch and remove from bezel.





K14840-A

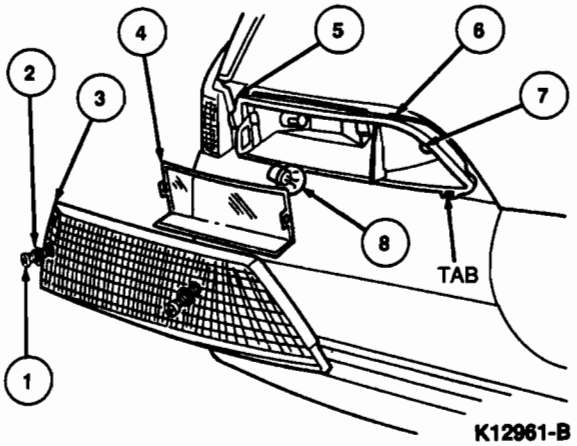
Installation

1. Insert switch into instrument cluster bezel. Make sure switch is fully seated in bezel.
2. Connect electrical connector to switch.
3. Install instrument cluster bezel. Refer to Section 01-12.
4. Connect negative battery cable. Check switch for proper operation.

Parking Lamp/Bulb, Front

Removal

1. Remove screws, outer lens and inner lens from front parking lamp assembly.
2. Remove bulb(s).
3. If necessary, disconnect wiring harness and remove parking lamp body.



K12961-B

REMOVAL AND INSTALLATION (Continued)

Item	Part Number	Description
1	13S341	Screw (2 Req'd)
2	13W341	Washer (2 Req'd)
3	—	Outer Lens
4	13A202	Inner Lens
5	15A201	Front Parking Lamp Assy
6	—	O-Ring Gasket
7	13465	Bulb
8	13466	Bulb

Installation

NOTE: Make sure O-ring gasket is in proper position on lamp assembly.

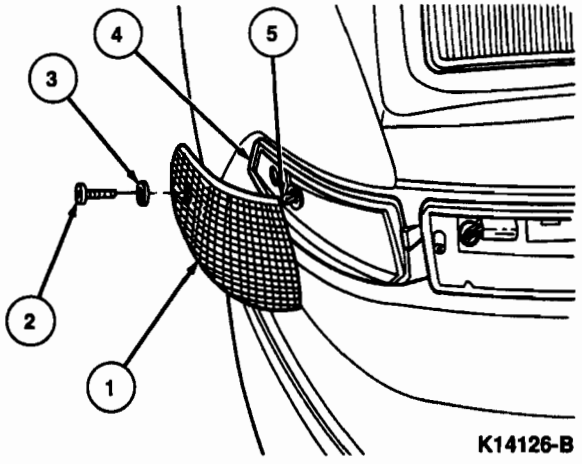
1. If removed, connect wiring and place front parking lamp body into position.
2. Install bulb(s) if removed.
3. Position O-ring gasket into groove.
4. Install inner lens.
5. Engage tab at inboard side of outer lens and install retaining screws.

Side Marker Lamp/Bulb, Front

Removal

NOTE: The front parking lamp outer retaining screw must be removed before the front side marker lamp.

1. Remove front parking lamp outer retaining screw.
2. Remove screws and front marker lamp lens.
3. Remove bulb.
4. Remove lamp socket and front marker lamp if necessary.



Item	Part Number	Description
1	13208	Lens
2	13S341	Screw
3	13W341	Washer
4	13211	O-Ring Gasket
5	13465	Bulb

Installation

NOTE: Make sure that O-ring gasket is in proper position on lamp assembly.

1. Install lamp socket into front marker body, if removed.
2. Install bulb.
3. Make sure O-ring gasket is in groove.
4. Engage tab at front of lens. Install lens with two screws.
5. Install front parking lamp outer retaining screw.

Lamp Assembly, Rear

Removal and Installation

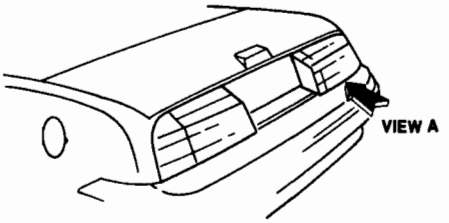
CAUTION: Take care not to damage the gasket located behind the lamp assembly. A new gasket must be installed if the existing gasket is damaged.

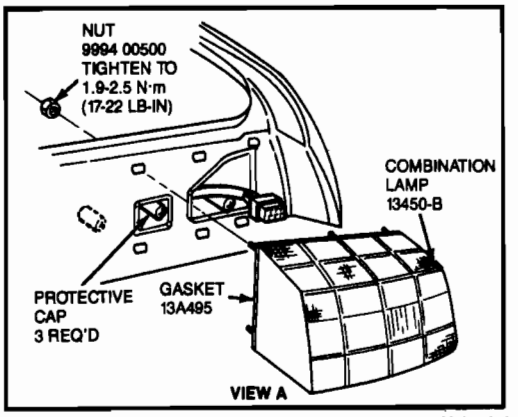
1. Remove protective caps from lower studs.
2. Remove nuts from studs on lamp assembly and slide assembly slightly forward.
3. Disconnect electrical connector from lamp assembly.
4. Remove lamp assembly from vehicle.

REMOVAL AND INSTALLATION (Continued)

5. To install, reverse Removal procedure. Tighten nuts to 1.9-2.5 N·m (17-22 lb-in).

   NOTE: Make sure that gasket is in proper position on lamp assembly.





K12942-A

Rear Lamp Assembly Bulb Replacement

Removal and Installation

1. Rotate bulb socket one quarter of a turn.
2. Remove socket from lamp body.
3. Remove bulb(s).
4. Install bulb socket.
5. Check bulb for proper operation.

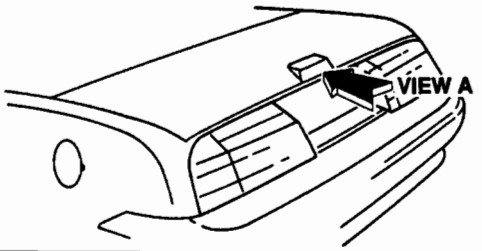
High-Mount Stoplamp

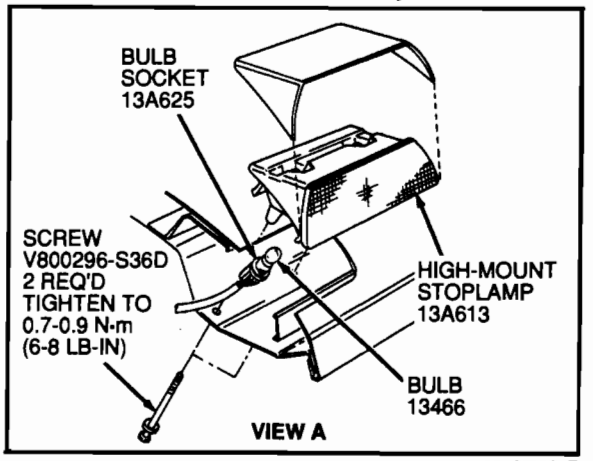
Removal and Installation

1. From underside of deck lid, remove two screws retaining lamp to deck lid.

   CAUTION: Take care not to damage gasket underneath lamp.

2. Slide lamp assembly forward to disengage hooks from opening edge, remove lamp assembly.
3. Twist bulb socket and remove from lamp housing.
4. Remove bulb from bulb socket.
5. To install, reverse Removal procedure. Tighten screws to 0.7-0.9 N·m (6-8 lb-in).





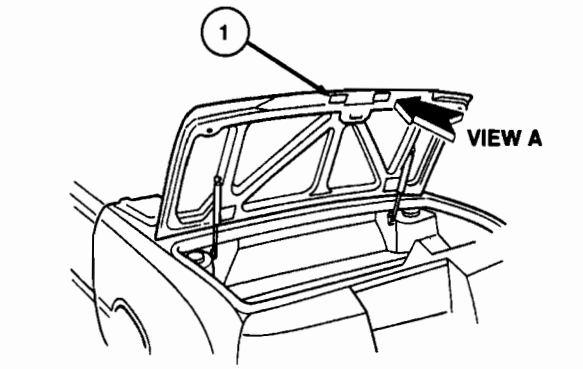
K13740-B

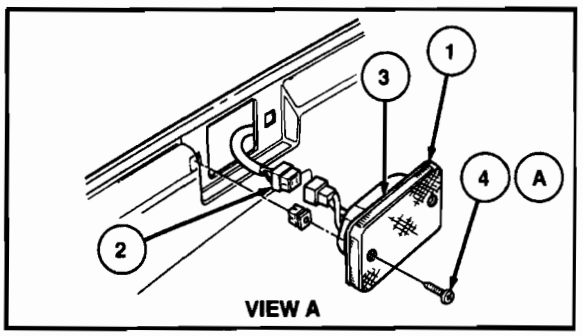
License Plate Lamp Bulb

Removal and Installation

1. Remove screws from license plate lamp.
2. Pull lamp assembly outward, remove bulb socket from lamp by twisting.
3. Remove bulb.
4. Remove gasket if necessary.
5. To install, reverse Removal procedure. Tighten nuts to 0.3-0.7 N·m (3-6 lb-in).

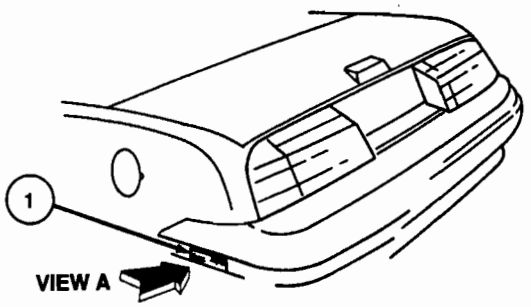
REMOVAL AND INSTALLATION (Continued)

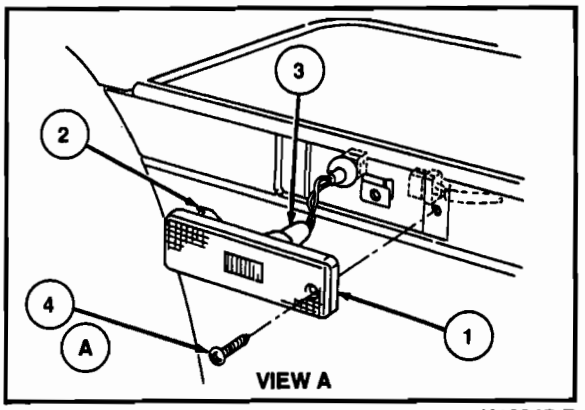




K12944-B

Item	Part Number	Description
1	13564	Lamp Assy
2	—	Wiring Assy
3	—	Gasket
4A	9986 10420B	Screw (2 Req'd)
A	—	Tighten to 0.3-0.7 N·m (3-6 Lb-In)





K12945-B

Item	Part Number	Description
1	15A201	Marker Lens
2	—	Tab
3	—	Bulb Socket
4A	9976 50520	Screw
A	—	Tighten to 1-1.6 N·m (9-14 Lb-In)

Side Marker Lamps, Rear

Removal and Installation

1. Remove one screw and pull lens out from rear to remove.
2. Twist bulb socket and remove from lamp.
3. Remove bulb by pulling bulb outward.
4. To install, reverse Removal procedure.

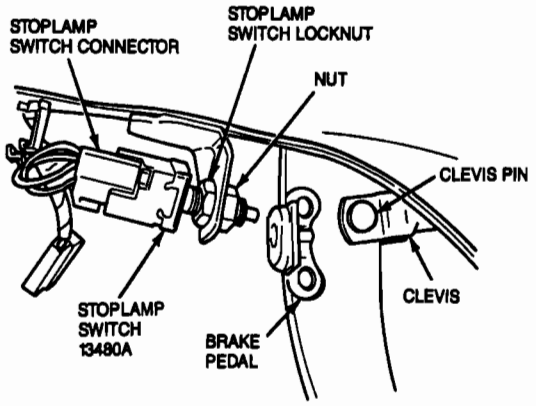
Stoplamp Switch

Removal and Installation

1. Disconnect electrical connector from stoplamp switch.
2. Remove nut securing stoplamp switch and remove switch.

REMOVAL AND INSTALLATION (Continued)

3. To install, reverse Removal procedure. Adjust switch as outlined.



L6741-A

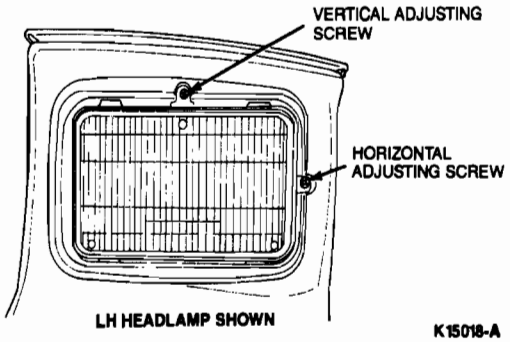
ADJUSTMENTS

Headlamp Aim

All headlamp adjustments should be made with a half tank of fuel, the luggage compartment empty (except for the spare tire and jack equipment) and correct tire pressures.

The area used to aim headlamps must be flat, although the headlamp aiming equipment can be calibrated to accommodate a slight slope in the floor.

The headlamp aiming screws are located at the top and outer sides of each headlamp. Both of these screws are accessible when the headlamps are in their normal operating position.



LH HEADLAMP SHOWN

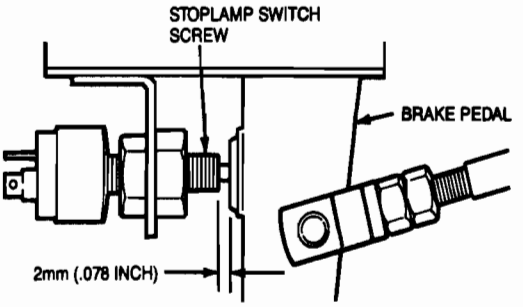
K15018-A

Raise and Lower Adjustment

NOTE: The headlamp linkage and assembly is preset at the factory to meet the clearance requirement between turn signal lamp and headlamp. If linkage is required to be adjusted, the headlamp carrier hinges and motor carrier assembly must be replaced with linkage.

Stoplamp Switch

1. Ensure brake pedal is fully returned (brake booster push rod is against return stop in brake booster).
2. Using a 2.0mm (0.078 inch) spacer, check distance between stoplamp switch and brake pedal rubber pad. If adjustment is required, perform remaining steps.
3. Disconnect stoplamp switch wiring connector.
4. Loosen switch locknut.
5. Check distance from brake pedal to stoplamp switch screw. The distance should be 2.0mm (0.078 inch).
6. If necessary, adjust distance by rotating switch in or out.
7. Tighten switch locknut.
8. Connect wiring connector.
9. Check operation of stoplamp switch and stoplamps.



WITH PEDAL STOPPED WITHIN THE BOOSTER

H7374-A

SPECIFICATIONS

TORQUE SPECIFICATIONS

Description	N-m	Lb-in
Headlamp Assembly Bolts	3-5	27-44
Headlamp Cover Screws	1.6-2.0	15-17
Fog Lamp Retainer Nuts	7-10	62-88
Rear Lamp Assembly Retaining Nuts	1.9-2.5	17-22
High-Mount Stoplamp Screws	0.7-0.9	6-8
License Plate Lamp Screws	0.3-0.7	3-6

(Continued)

SPECIFICATIONS (Continued)

TORQUE SPECIFICATIONS (Cont'd)

Description	N·m	Lb-in
Headlamp Door Motor Bolts	3-5	27-44

(Continued)

TORQUE SPECIFICATIONS (Cont'd)

Description	N·m	Lb-in
Motor Linkage Nut	8-10	71-88
Motor Linkage Stud Nut	9-11	80-97
Side Marker Lamp Screws	1-1.6	9-14

SECTION 17-02 Lighting, Interior

VEHICLE APPLICATION

Capri.

DESCRIPTION AND OPERATION

Courtesy lamps are provided under both sides of the instrument panel.

Two map lamps are located at the front of the dome lamp inside the optional hardtop. The map lamps are operated as individual units. The switches controlling them are on the outboard sides of the dome lamp assembly.

The courtesy lamps and dome lamp are automatically illuminated when either door is opened.

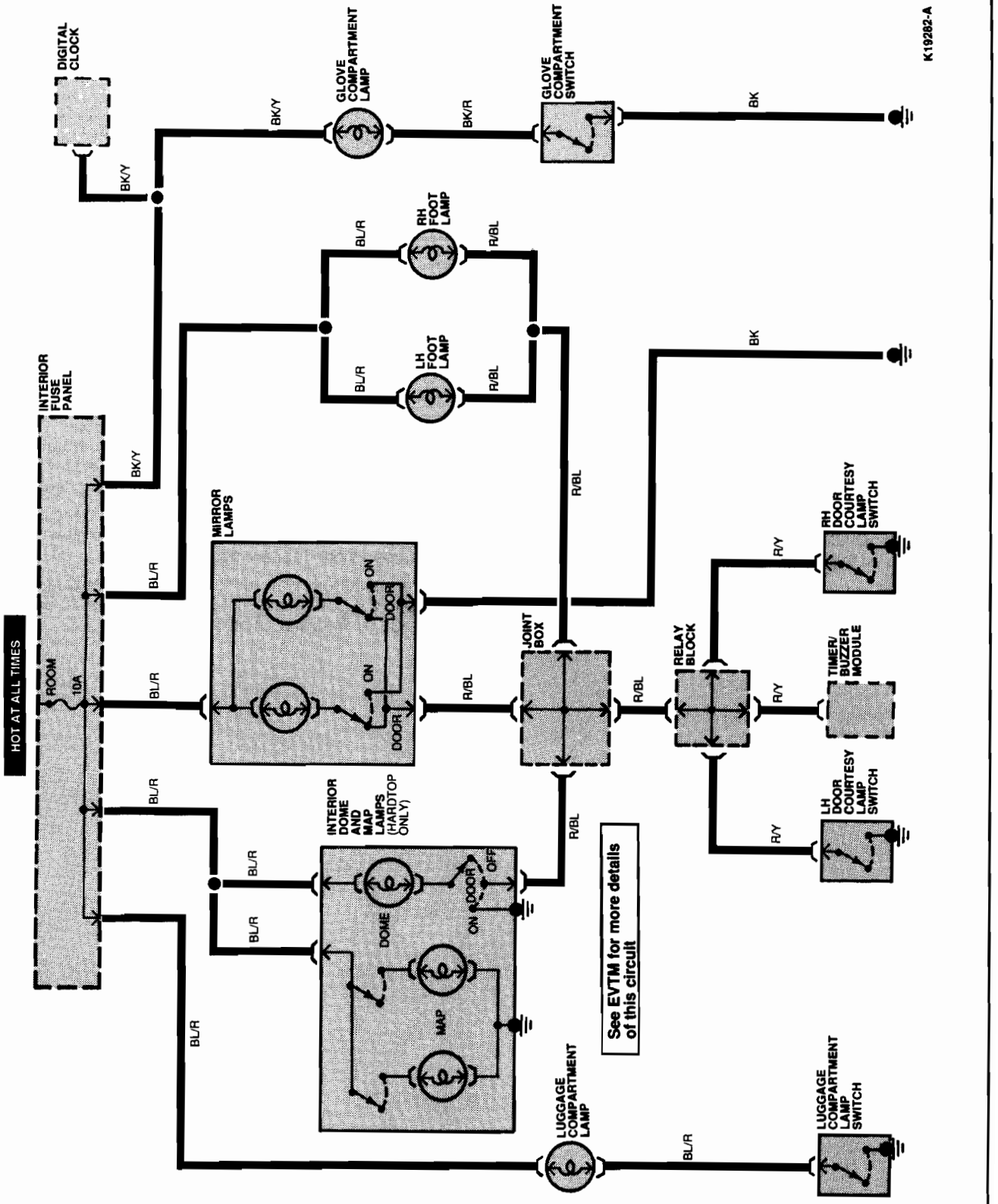
A cargo lamp is located in the luggage compartment and is illuminated when the deck lid is raised. The switch is part of the luggage compartment latch.

The glove compartment lamp is located in the glove compartment and is illuminated when the glove compartment door is opened.

The inside rear view mirror has dome/reading lamps along the bottom edge of the mirror. Refer to Section 01-09 for information on these lamps.

DIAGNOSIS AND TESTING

Electrical Schematic—Interior Lighting System



DIAGNOSIS AND TESTING (Continued)

System Inspection—Interior Lighting System

1. Visually inspect the components of the interior lighting system.

VISUAL INSPECTION CHART

Mechanical	Electrical
• Damaged Switches	• Blown Fuse: • 10 amp ROOM • Damage to Wiring Harness • Loose or Corroded Connections • Blown Lamps

2. Shake the wiring harness between the lamps and the interior fuse panel. Look for obvious signs of shorts, opens or damage.
3. Check to see if horn system works before proceeding. If not, check the BTN fuse in the main fuse panel.
4. If fault is not visually evident, verify condition and refer to the following condition chart.

CONDITION CHART—INTERIOR LIGHTING SYSTEM

CONDITION	POSSIBLE SOURCE	ACTION
• Glove Compartment Lamp Does Not Illuminate	• Fuse. • Glove compartment lamp. • Glove compartment switch. • Circuit.	• Go to **IL1.** • Go to **GB2.** • Go to **GB3.** • Go to **GB1.**
• Glove Compartment Lamp Does Not Turn Off	• Glove compartment switch . • Circuit.	• Go to **GB3.** • Go to **GB1.**
• Foot Lamps Do Not Illuminate When Door is Open	• Fuse. • Foot lamps. • Door courtesy lamp switch. • Circuit.	• Go to **IL1.** • Go to **FW2.** • Go to **FW4.** • Go to **FW1.**
• Foot Lamps Do Not Turn Off	• Door courtesy lamp switch. • Circuit.	• Go to **FW4.** • Go to **FW1.**
• Mirror Lamps Do Not Illuminate	• Fuse. • Mirror lamps. • Mirror lamp switch. • Circuit.	• Go to **IL1.** • Go to **M3.** • Go to **M4.** • Go to **M1.**
• Mirror Lamps Do Not Turn Off	• Mirror lamp switch. • Circuit.	• Go to **M4.** • Go to **M1.**
• Luggage Compartment Lamp Does Not Illuminate	• Fuse. • Luggage compartment lamp. • Luggage compartment lamp switch. • Circuit.	• Go to **IL1.** • Go to **LG2.** • Go to **LG5.** • Go to **LG1.**
• Luggage Compartment Lamp Does Not Turn Off	• Luggage compartment lamp switch. • Circuit.	• Go to **LG5.** • Go to **LG1.**
• Interior Dome Lamp Does Not Illuminate (Optional Hardtop)	• Fuse. • Interior dome lamp switch. • Interior dome lamp. • Door courtesy lamp switch. • Circuit.	• Go to **IL1.** • Go to **IS4.** • Go to **IS3.** • Go to **FW4.** • Go to **IS1.**
• Interior Dome Lamp Does Not Turn Off	• Door courtesy lamp switch. • Circuit.	• Go to **FW4.** • Go to **IS1.**
• Map Lamps Do Not Illuminate (Optional Hardtop)	• Fuse. • Map lamp. • Map lamp switch. • Circuit.	• Go to **IL1.** • Go to **IS3.** • Go to **IS4.** • Go to **IS1.**
• Map Lamps Do Not Turn Off (Optional Hardtop)	• Map lamp switch. • Circuit.	• Go to **IS4.** • Go to **IS1.**

PINPOINT TEST IL

TEST STEP		RESULT ▶	ACTION TO TAKE
IL1	CHECK FUSE		
	• Locate the interior fuse panel. • Check the 10 amp ROOM fuse. • **Is fuse OK?**	Yes ▶ No ▶	GO to **IL4.** GO to **IL2.**

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST IL (Continued)

TEST STEP		RESULT ▶	ACTION TO TAKE
IL2	CHECK SYSTEM		
	• Replace 10 amp ROOM fuse. • Key ON. • Open and close door. • **Does fuse fail again?**	Yes ▶ No ▶	GO to **IL3.** GO to **IL4.**
IL3	CHECK FOR SHORT TO GROUND		
	• Key OFF. • Locate and disconnect the interior fuse panel connectors. • Measure resistance between the BL / R wires at the interior fuse panel connectors and ground. • Measure resistance between the BK / Y wire at the interior fuse panel connector and ground. • **Are the resistances less than 5 ohms?**	Yes ▶ No ▶	SERVICE wire(s) in question. GO to **IL4.**
IL4	SYMPTOM MENU		
	• Glove compartment lamp does not work properly. • Foot lamps do not work properly. • Luggage compartment lamp does not work properly. • Interior dome and map lamps do not work properly. • Mirror lamps do not work properly.	▶ ▶ ▶ ▶ ▶	GO to **GB1.** GO to **FW1.** GO to **LG1.** GO to **IS1.** GO to **M1.**

PINPOINT TEST GB

TEST STEP		RESULT ▶	ACTION TO TAKE
GB1	CHECK POWER TO GLOVE COMPARTMENT LAMP		
	• Measure voltage on the BK / Y wire at the glove compartment lamp. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **GB2.** SERVICE BK / Y wire.
GB2	CHECK GLOVE COMPARTMENT LAMP		
	• Ground the BK / R wire at the glove compartment lamp connector. • **Does lamp illuminate?**	Yes ▶ No ▶	GO to **GB3.** REPLACE glove compartment bulb.
GB3	CHECK WIRE TO GLOVE COMPARTMENT SWITCH		
	• Key OFF. • Locate glove compartment switch connector. • Measure resistance of the BK / R wire between the glove compartment lamp and the glove compartment switch. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **GB4.** SERVICE BK / R wire.
GB4	CHECK GLOVE COMPARTMENT SWITCH GROUND		
	• Measure resistance between the BK wire at the glove compartment switch and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **GB5.** SERVICE BK wire.
GB5	CHECK GLOVE COMPARTMENT SWITCH		
	• Open glove compartment door. • **Does glove compartment door lamp turn on?** • Close glove compartment door. • **Does glove compartment door lamp turn off?**	Yes ▶ No ▶	RETURN to condition chart. REPLACE glove compartment switch.

PINPOINT TEST FW

TEST STEP		RESULT ▶	ACTION TO TAKE
FW1	CHECK POWER SUPPLY TO FOOT LAMPS		
	• Locate foot lamp connectors. • Measure voltage on the BL / R wires at the foot lamp connector. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **FW2.** SERVICE BL / R wire.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST FW (Continued)

	TEST STEP	RESULT ▶	ACTION TO TAKE
FW2	CHECK FOOT LAMPS		
	• Ground the R/BL wire at the foot lamp connector. • **Do the foot lamps illuminate?**	Yes ▶ No ▶	GO to **FW3.** REPLACE foot lamps.
FW3	CHECK WIRES BETWEEN FOOT LAMPS AND DOOR COURTESY LAMP SWITCHES		
	• Key OFF. • Locate door courtesy lamp switch connectors. • Measure resistances between the R/BL wire at the foot lamps to the R/Y wire at the door courtesy lamp switches. • **Is there continuity?**	Yes ▶ No ▶	GO to **FW4.** SERVICE wires between the lamps and switches.
FW4	CHECK DOOR COURTESY LAMP SWITCHES		
	• Locate door courtesy lamp switch connectors. • Open each of the doors. • Measure resistances between the R/Y wire at the door courtesy lamp switch and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	RETURN to condition chart. REPLACE door courtesy lamp switch(es).

PINPOINT TEST LG

	TEST STEP	RESULT ▶	ACTION TO TAKE
LG1	CHECK POWER SUPPLY TO LUGGAGE COMPARTMENT LAMP		
	• Key ON. • Locate luggage compartment lamp connector. • Measure voltage on the BL/R wire at the luggage compartment lamp connector. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **LG2.** SERVICE BL/R wire.
LG2	CHECK LUGGAGE COMPARTMENT LAMP		
	• Ground the BL/R wire at the luggage compartment lamp connector. • **Does luggage compartment lamp illuminate?**	Yes ▶ No ▶	GO to **LG3.** REPLACE luggage compartment bulb.
LG3	CHECK WIRE BETWEEN LUGGAGE COMPARTMENT LAMP AND LUGGAGE COMPARTMENT LAMP SWITCH		
	• Key OFF. • Measure resistance of the BL/R wire between the luggage compartment lamp and the luggage compartment lamp switch. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **LG4.** SERVICE BL/R wire.
LG4	CHECK LUGGAGE COMPARTMENT LAMP SWITCH GROUND		
	• Measure resistance between the luggage compartment lamp switch casing and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **LG5.** SERVICE luggage compartment lamp switch casing ground.
LG5	CHECK LUGGAGE COMPARTMENT LAMP SWITCH		
	• Open luggage compartment or back hatch. • **Does luggage compartment lamp illuminate?**	Yes ▶ No ▶	RETURN to condition chart. REPLACE luggage compartment lamp switch.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST IS

TEST STEP		RESULT ▶	ACTION TO TAKE
IS1	CHECK POWER SUPPLY TO INTERIOR DOME AND MAP LAMPS		
	• Locate interior dome and map lamp connectors. • Measure voltage on the BL/R wire at the interior dome and map lamp connectors. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	Go to **IS2.** SERVICE BL/R wire.
IS2	CHECK INTERIOR DOME AND MAP LAMP GROUND		
	• Key OFF. • Measure resistance between the interior dome and map lamp casing and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **IS3.** SERVICE interior dome and map lamp casing ground.
IS3	CHECK INTERIOR DOME AND MAP LAMPS		
	• Disconnect interior dome and map lamp connectors. • Apply 12 volts to the BL/R wire terminals and ground the casing. • Turn all switches to the ON position. • **Do lamps illuminate?**	Yes ▶ No ▶	GO to **IS4.** REPLACE bulb(s).
IS4	CHECK INTERIOR DOME AND MAP LAMP SWITCH		
	• Reconnect interior dome and map lamp connectors. • Turn interior dome and map lamps on and off. • **Do interior dome and map lamps turn on and off respectively?**	Yes ▶ No ▶	GO to **IS5.** REPLACE switch(es) in question.
IS5	CHECK WIRE BETWEEN INTERIOR DOME LAMP AND DOOR COURTESY LAMP SWITCHES		
	• Locate door courtesy lamp switches. • Measure resistance between the R/Y wire at the door courtesy lamp switches to the R/BL wire at the interior dome and map lamps. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **FW4.** SERVICE the wire(s) in question.

PINPOINT TEST M

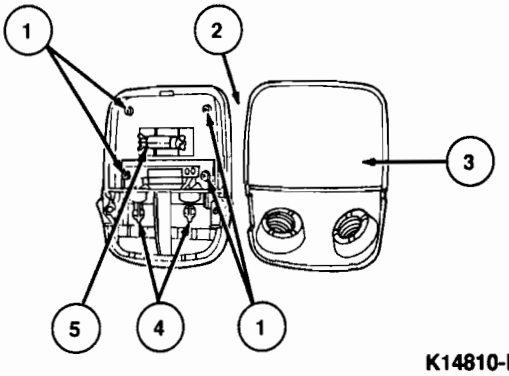
TEST STEP		RESULT ▶	ACTION TO TAKE
M1	CHECK POWER SUPPLY TO MIRROR LAMPS		
	• Locate mirror lamp connector. • Measure voltage on the BL/R wire at the mirror lamp connector. • **Is voltage greater than 10 volts?**	Yes ▶ No ▶	GO to **M2.** SERVICE BL/R wire.
M2	CHECK MIRROR LAMP GROUND		
	• Key OFF. • Measure resistance between the BK wire at the mirror lamps and ground. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **M3.** SERVICE BK wire.
M3	CHECK MIRROR LAMPS		
	• Disconnect mirror lamps. • Apply 12 volts to the BL/R wire terminal and ground the BK wire terminal. • Put the mirror lamps to the ON position. • **Do lamps illuminate?**	Yes ▶ No ▶	GO to **M4.** REPLACE bulb(s).
M4	CHECK MIRROR LAMP SWITCH		
	• Reconnect mirror lamps. • Turn mirror lamps on and off. • **Does mirror lamps turn on and off respectively?**	Yes ▶ No ▶	GO to **M5.** REPLACE mirror lamp switch.
M5	CHECK WIRE BETWEEN MIRROR LAMPS AND DOOR COURTESY LAMP SWITCHES		
	• Locate door courtesy lamp switches. • Measure resistance between the R/Y wire at the door courtesy lamp switches to the R/BL wire at the mirror lamps. • **Is resistance less than 5 ohms?**	Yes ▶ No ▶	GO to **FW4.** SERVICE wire(s).

REMOVAL AND INSTALLATION

Lamp, Dome

Removal and Installation

1. Squeeze the front and rear sides of the dome lamp lens to disengage retaining tangs.
2. Remove lens.
3. Remove bulb(s) as required.
4. Remove screws retaining lamp assembly to headlining / roof.
5. Disconnect electrical connector.
6. To install, reverse Removal procedure.



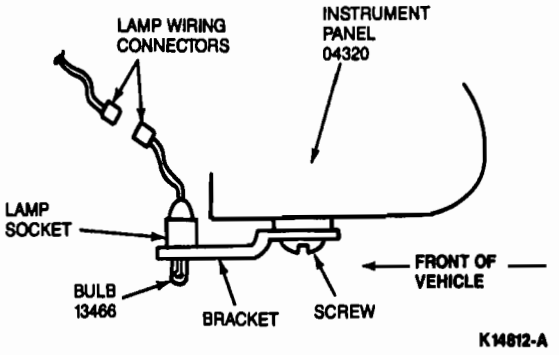
K14810-B

Item	Part Number	Description
1	E610247-S79	Interior Lamp Screws
2	—	Headliner
3	13734	Interior Lamp Lens Assy
4	13466	Bulb (2 Req'd)
5	13465	Bulb

Lamps, Courtesy

Removal and Installation

1. Remove bulb if necessary.
2. Disconnect lamp wiring connector.
3. Twist lamp socket and remove from bracket.
4. If necessary, remove screw retaining lamp bracket to underside of instrument panel.
5. To install, reverse Removal procedure.



K14812-A

Door Switch

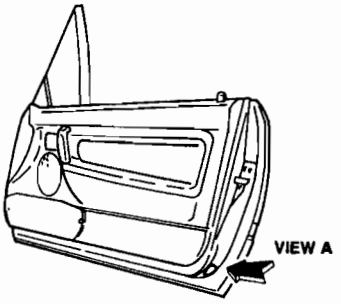
NOTE: There is a bumper located on the lower rear edge of the inside door. It is used to compress the door switch when the door is closed. Be sure that this bumper is attached and in good condition to ensure proper operation of the door switch.

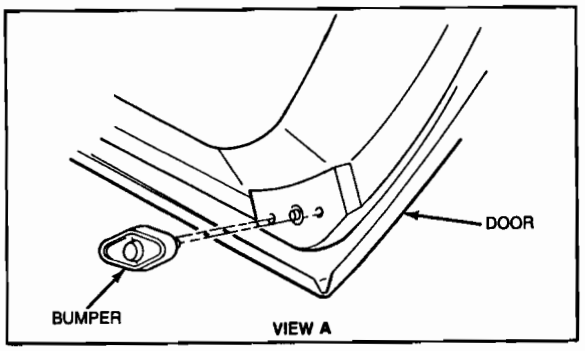
Removal and Installation

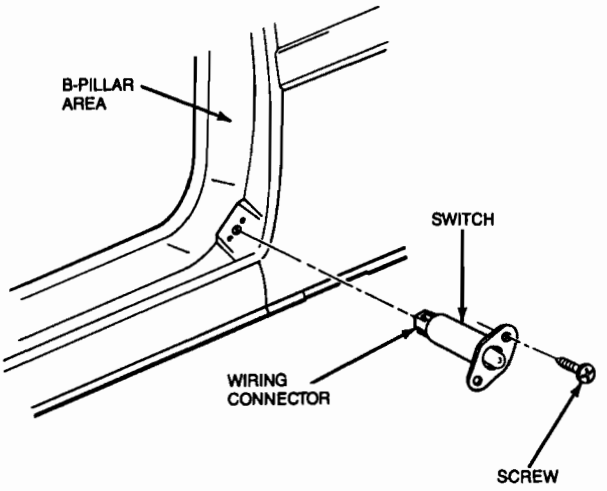
1. Remove screws securing door switch to lower B-pillar area.
2. Pull switch out of B-pillar.
3. Disconnect wiring connector from switch and remove switch.

REMOVAL AND INSTALLATION (Continued)

4. To install, reverse Removal procedure.







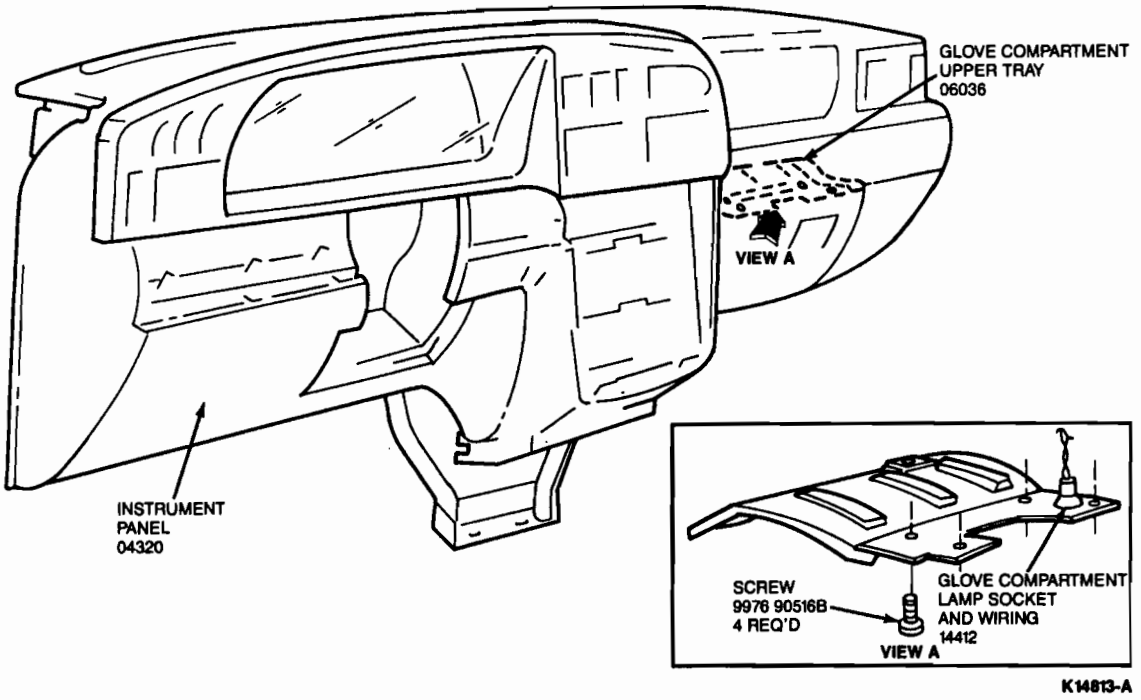
Lamp/Bulb, Glove Compartment

Removal and Installation

1. Remove bulb if necessary.
2. Open glove compartment door and squeeze sides in to allow door to open fully.
3. Remove five screws securing upper glove compartment tray assembly.
4. Lower tray and squeeze lamp socket retainers to remove.
5. Disconnect wiring connector.
6. Remove lamp socket.

REMOVAL AND INSTALLATION (Continued)

7. To install, reverse Removal procedure.



Lamp, Automatic Transaxle Selector

For Removal and Installation procedures, refer to Section 07-05.

Lens/Bulb, Cargo Lamp

Removal and Installation

1. Remove cargo lamp from inner left trim panel using a small screwdriver.
2. Disconnect wiring from lamp assembly.
3. Remove bulb from lamp assembly.
4. To install, reverse Removal procedure.