

SECTION 9A

AUDIO SYSTEMS

CAUTION: On vehicles equipped with Supplemental Inflatable Restraint (SIR), refer to **CAUTIONS** in Section 9J under "ON-VEHICLE SERVICE" and the SIR Component and Wiring Location view in Section 9J before performing service on or around SIR components or wiring. Failure to follow **CAUTIONS** could result in possible air bag deployment, personal injury, or otherwise unneeded SIR system repairs.

NOTICE: Always use the correct fastener in the correct location. When you replace a fastener, use **ONLY** the exact part number for that application. General Motors will call out those fasteners that require a replacement after removal. General Motors will also call out the fasteners that require thread lockers or thread sealant. **UNLESS OTHERWISE SPECIFIED**, do not use supplemental coatings (paints, greases, or other corrosion inhibitors) on threaded fasteners or fastener joint interfaces. Generally, such coatings adversely affect the fastener torque and joint clamping force, and may damage the fastener. When you install fasteners, use the correct tightening sequence and specifications. Following these instructions can help you avoid damage to parts and systems.

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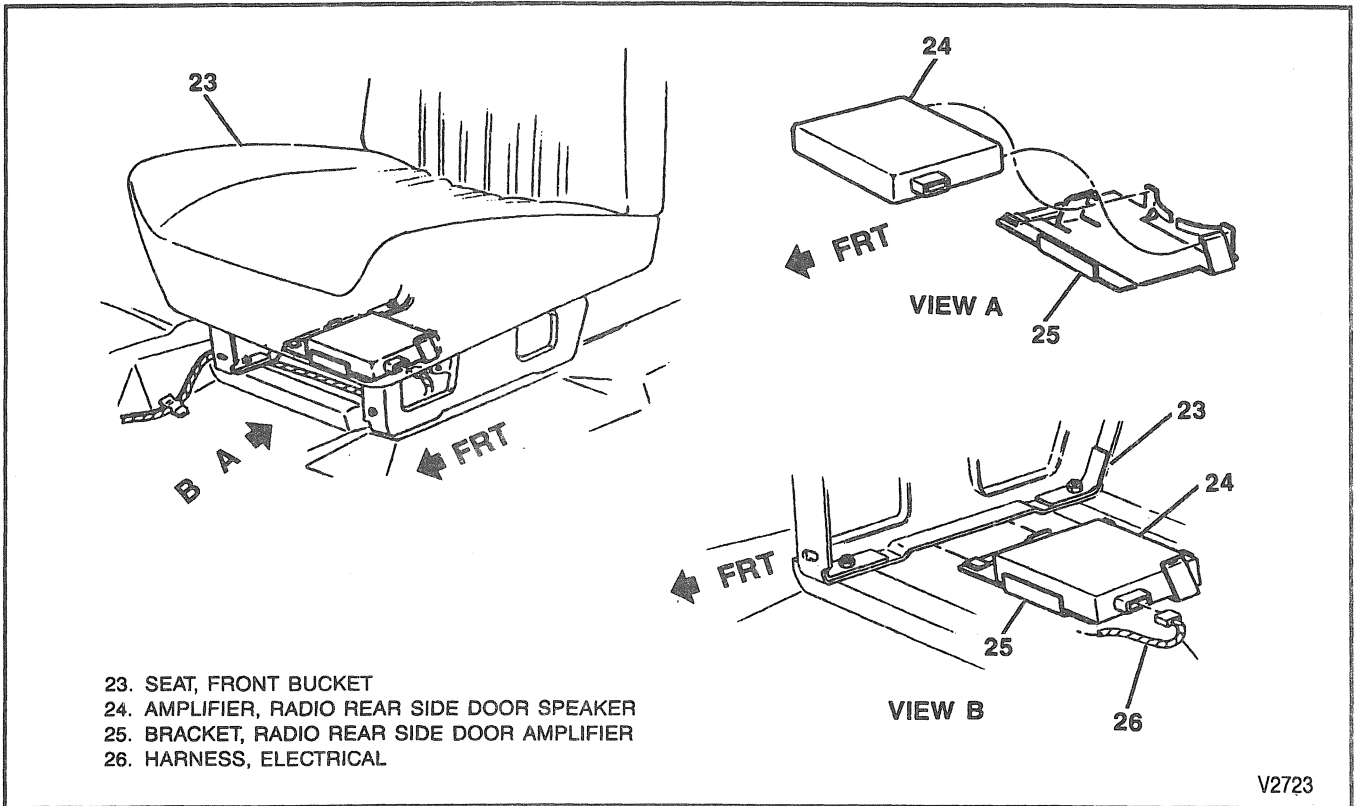


Figure 7—Amplifier Assembly (Front Bucket Seat-Suburban Models)

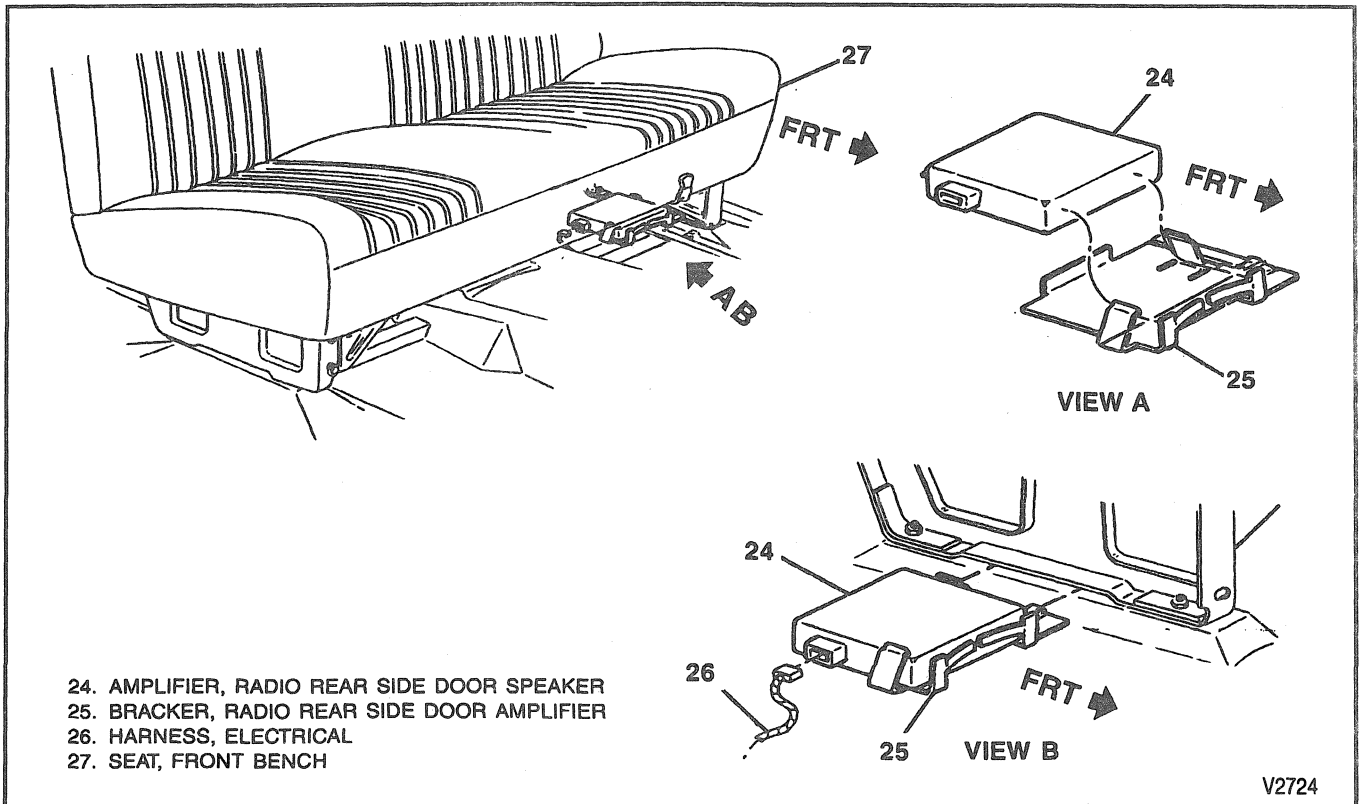


Figure 8—Amplifier Assembly (Front Bench Seat-Suburban Models)

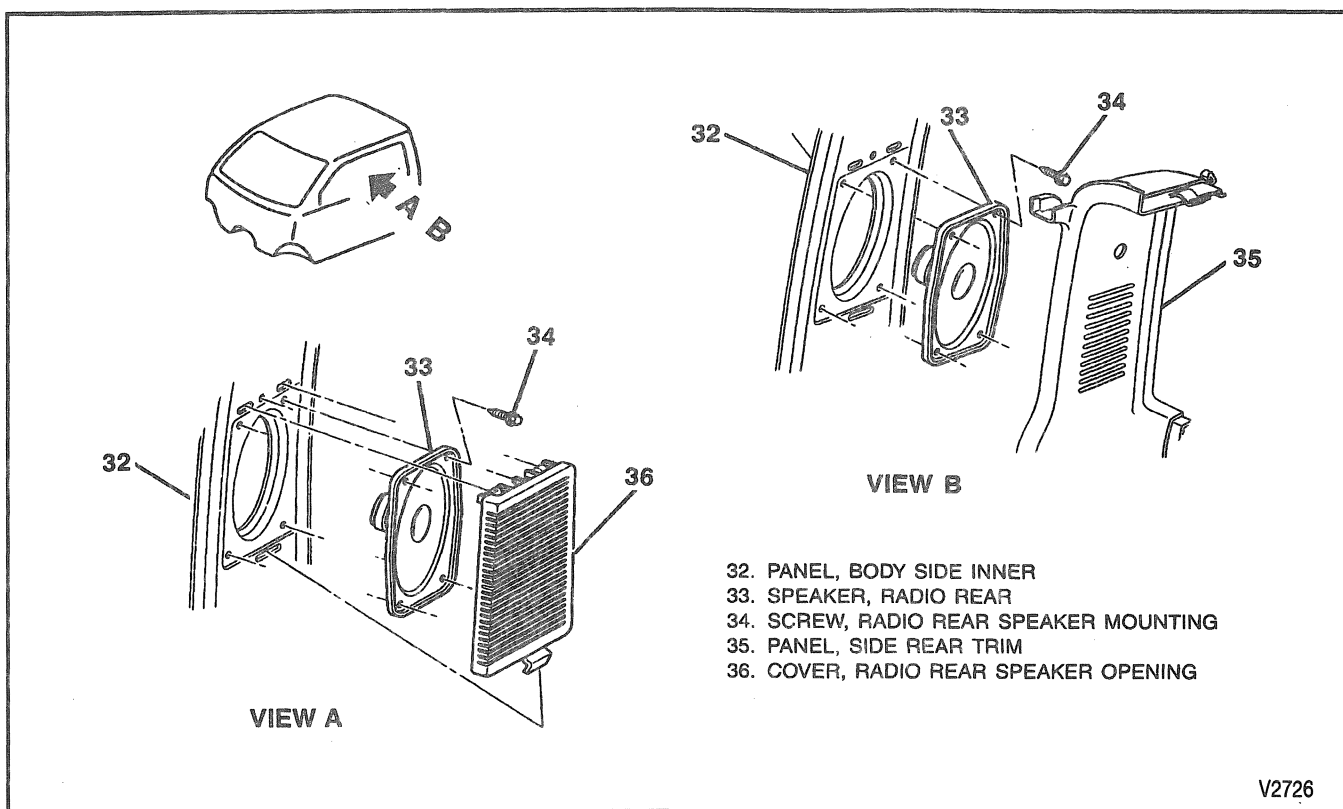


Figure 11—Rear Speaker Assembly (Pickup/Chassis-Cab Models)

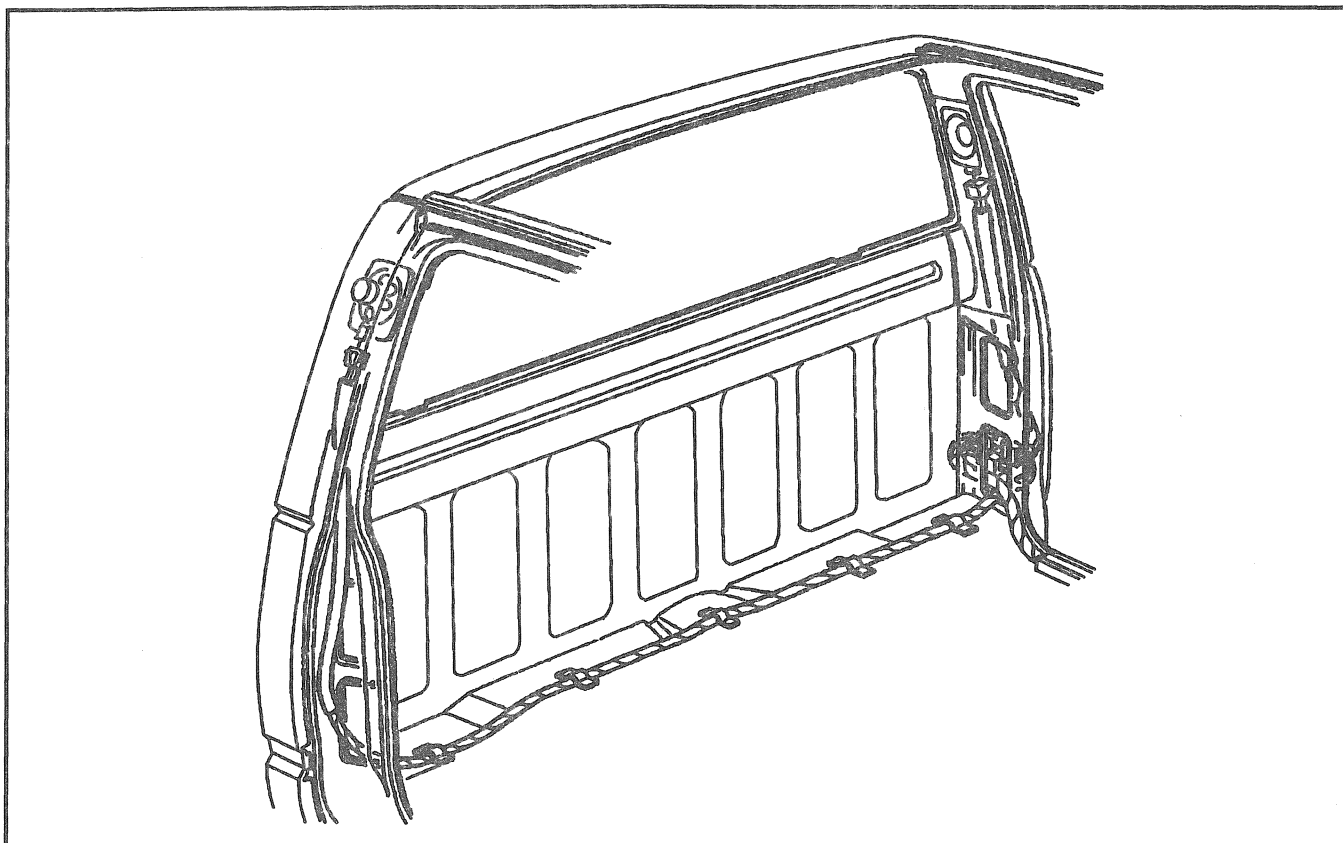


Figure 12—Rear Speaker Harness Routing (Pickup/Chassis-Cab Models)

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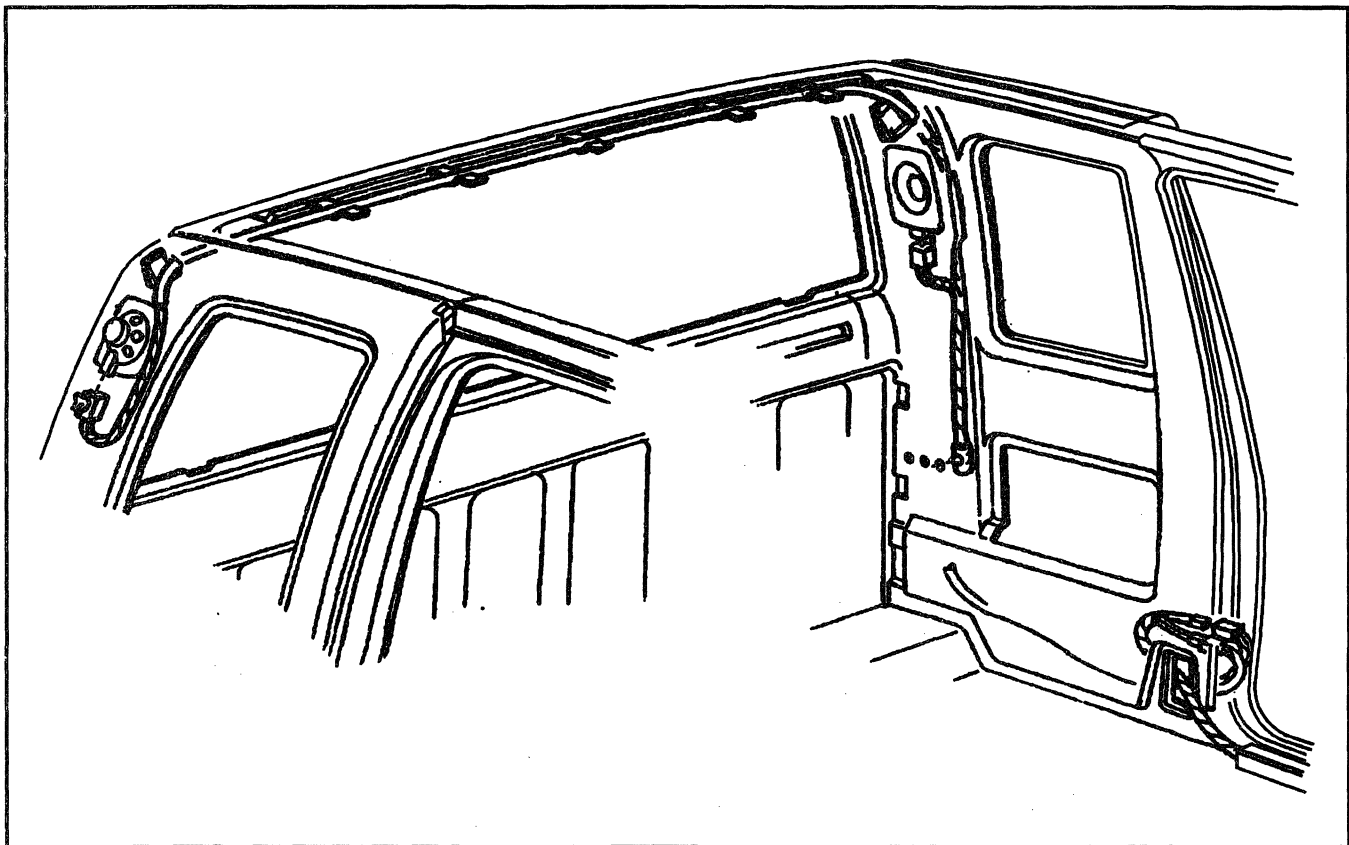


Figure 13—Rear Speaker Harness Routing (Extended Cab Models)

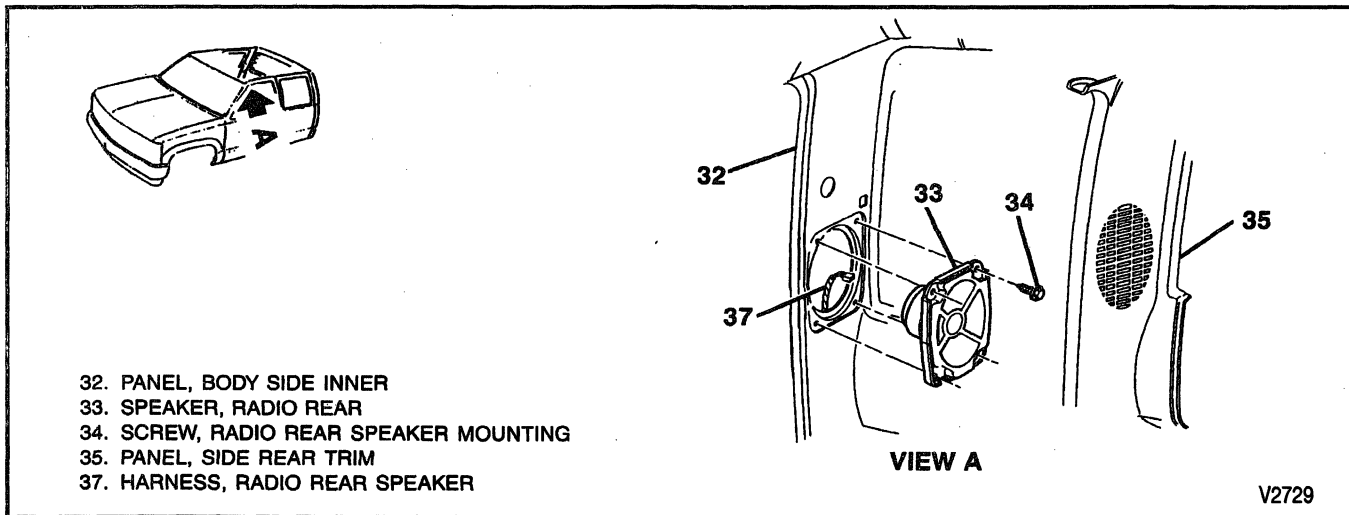


Figure 14—Rear Speaker Assembly (Extended Cab/Crew Cab Models)

2. Roof inner trim panel, if necessary. Refer to SECTION 10A4.
3. Screws.
4. Speaker from bracket.
5. Electrical connectors, as necessary.



Install or Connect (Figure 17)

1. Electrical connectors, as necessary.

2. Speaker to bracket.
3. Screws.



Tighten

- Screws to 2 N.m (18 lb. in.).
- 4. Roof inner trim panel, if necessary. Refer to SECTION 10A4.
- 5. Speaker grille.
 - Check component operation.

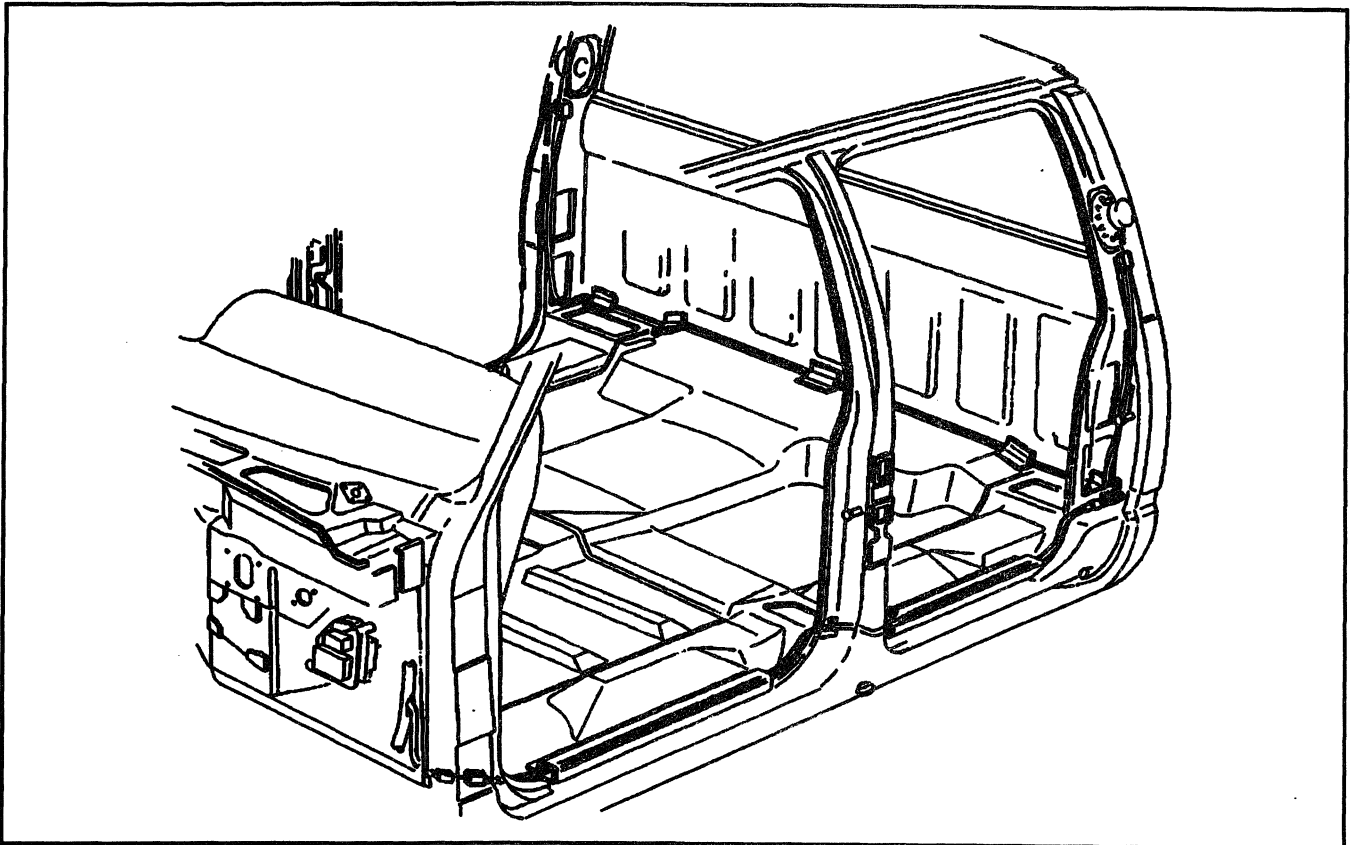
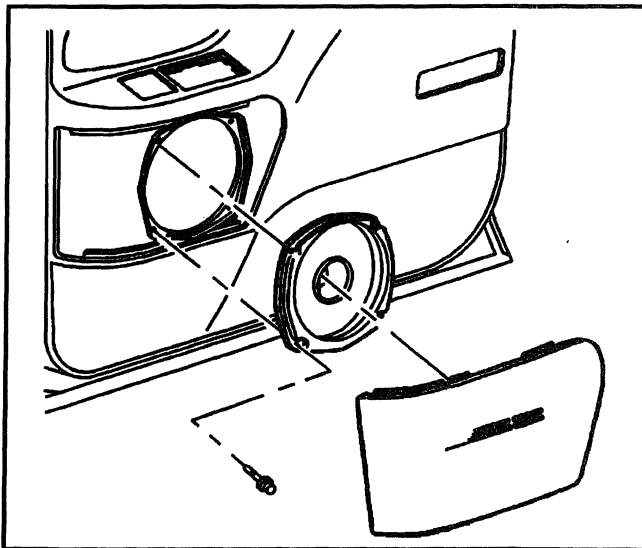
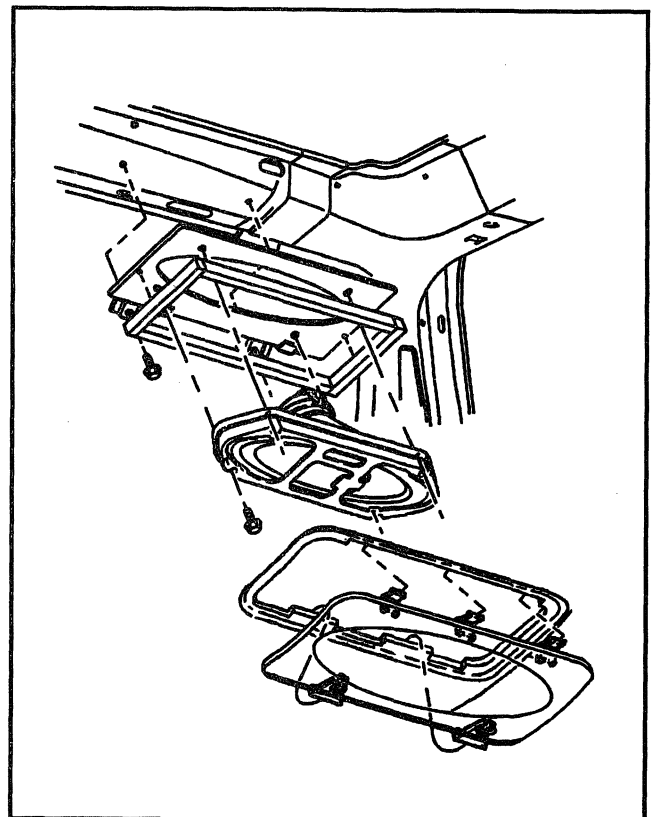


Figure 15—Rear Speaker Harness Routing (Crew Cab Models)



**Figure 16—Rear Side Door Speaker Assembly
(Suburban Models)**



**Figure 17—Rear Overhead Speaker Assembly
(Suburban and Utility Models)**

ANTENNAS

GENERAL DESCRIPTION

The fixed mast barbless antenna is designed to withstand most car washes without damage. It cannot be adjusted up or down. If the mast becomes slightly bent,

straighten it by hand. The antenna can be replaced if it becomes severely bent. Antennas must be kept clean for good performance.

DIAGNOSIS

Disconnect antenna from the extension cable and plug in a test antenna. Ground the antenna to the vehicle chassis. Keep hands off of the antenna. Test radio reception in an area away from electrical interference's such as tall buildings, metal structures, power lines, fluorescent lighting, and power tools. Tune to high and low ends of the dial on both AM and FM, checking weak and strong station reception. If reception is okay, the problem exists with the antenna and/or its lead-in cable. If reception is still poor, refer to "Diagnostic Charts" earlier in this section.

Testing for Good Ground of Antenna Mounting and Connections

Poor grounding at the antenna mounting or any connection in the antenna/lead-in system can result in seriously reduced radio performance. A poor ground can be a reason for excess ignition noise on AM or erratic audio. Also, make sure lead-in connectors are free of dirt and corrosion, and are tightly fastened.

Possible ground loss or high-resistance ground points are:

- Antenna upper mounting (loose screws, paint overspray, etc.).
- Lead-in cable connector at antenna (loose or internally corroded).
- Lead-in cable connector at radio (loose or internally corroded).
- Quick connect connector (corroded).
- Missing ground lead.

Measuring Resistance with Digital Volt-Ohmmeter

MEASURE RESISTANCE WITH DIGITAL VOLT-OHMMETER	
PROBES ON	INDICATION (OHMS)*
3 and 4	Less than 0.2
1 and 2	Less than 0.2
2 and 4	Infinite
1 and 3	Infinite
1 and 4	Infinite
2 and 3	Infinite
*WHILE MEASURING, WIGGLE LEAD-IN TIP AND CABLE; INDICATION SHOULD NOT VARY.	
T3226	

Usually, a broken center conductor of the lead-in cable will result in no AM and weak FM. In case of continued reception or noise complaints, always check the lead-in with an ohmmeter (Figure 18).

When checking resistance, wiggle the lead-in tip and cable. If the readings shown in the accompanying table are not obtained, some portion of the lead-in is intermittent. Replace the lead-in.

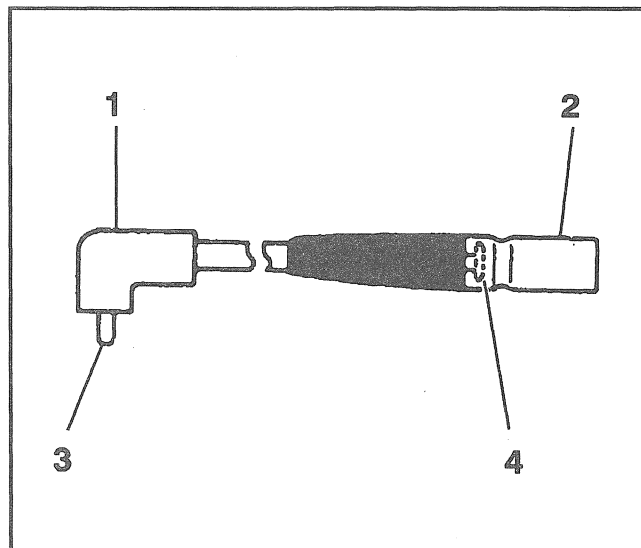


Figure 18—Lead-In Cable Diagnosis

ON-VEHICLE SERVICE

FIXED ANTENNA REPLACEMENT

↔ Remove or Disconnect (Figure 19)

1. Antenna mast.
2. Nut.
3. Bezel.
4. Antenna cable from extension cable.
5. Screws.
6. Antenna cable assembly.

→→ Install or Connect (Figure 19)

1. Antenna cable assembly.
2. Screws.

Tighten

- Screws to 5 N·m (58 lb. in.).

3. Antenna cable to extension cable.
4. Bezel.
5. Nut.

Tighten

- Nut to 5 N·m (58 lb. in.).

6. Antenna mast.

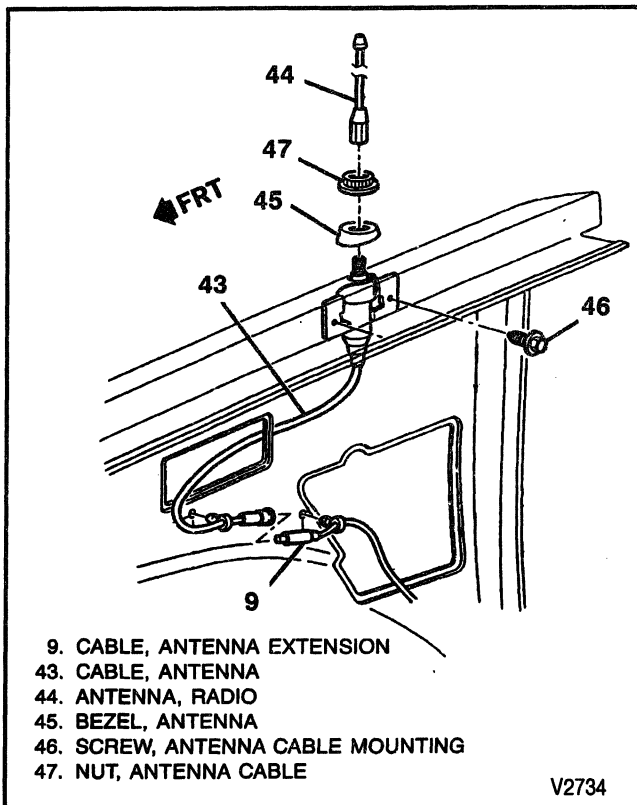


Figure 19—Antenna Assembly

LEAD-IN REPLACEMENT

↔ Remove or Disconnect (Figures 20 through 22)

1. Roll out instrument panel. Refer to SECTION 10A4.
2. Extension cable from radio (Figure 20).
3. Extension cable from HVAC duct (Figure 21).
4. Extension cable from antenna (Figure 22).

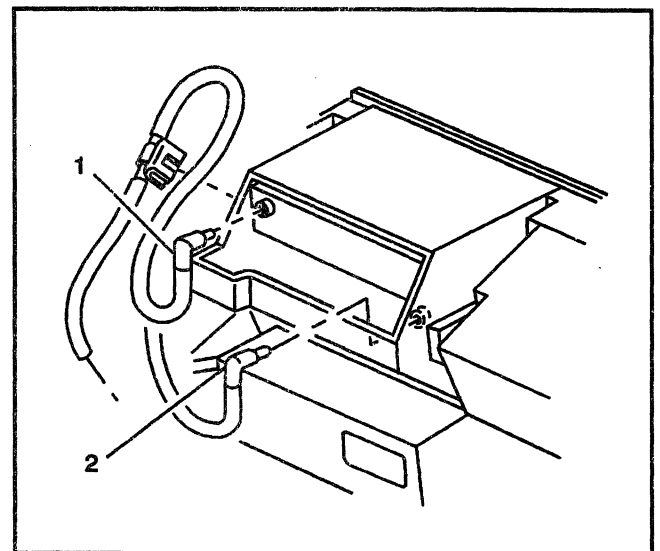


Figure 20—Antenna Extension Cable Routing to Radio

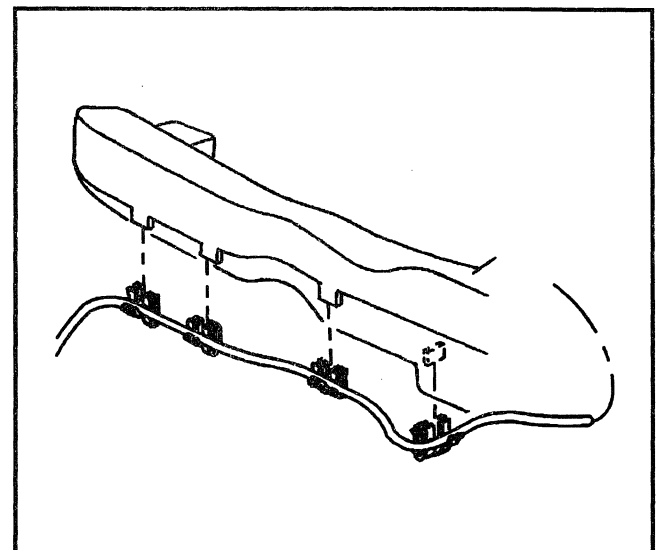


Figure 21—Antenna Extension Cable Routing to HVAC Duct

9A-16 AUDIO SYSTEMS



Install or Connect (Figures 20 through 22)

- 1. Extension cable to radio (Figure 20).
- 2. Extension cable to HVAC duct (Figure 21).
- 3. Extension cable to antenna (Figure 22).
- 4. Instrument panel. Refer to SECTION 10A4.

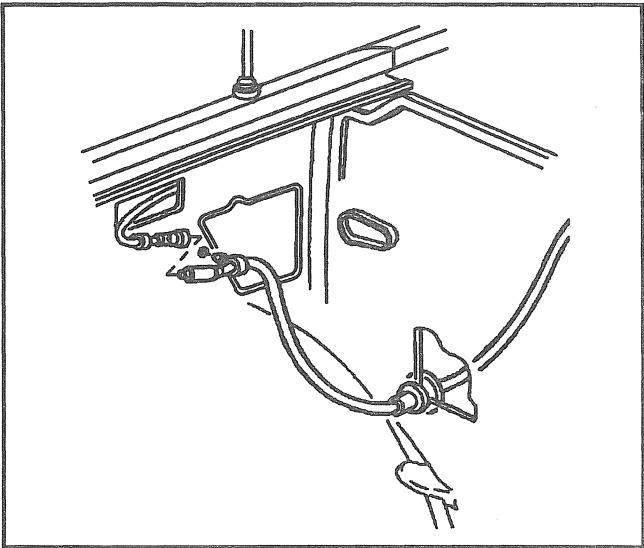


Figure 22—Antenna Extension Cable Routing to Antenna

FASTENER TIGHTENING SPECIFICATIONS

Item	N·m	Lb. FT.	Lb. In.
Antenna Cable Mounting Screw	5	—	58
Antenna Mounting Nut.....	5	—	58
Front Speaker Mounting Screw	2	—	18
Rear Overhead Speaker Mounting Screw.....	2	—	18
Rear Speaker Mounting Screw	2	—	18
			T3538

ON-VEHICLE SERVICE

CRUISE CONTROL CABLE



Remove or Disconnect (Figures 2 and 3)

1. Cable end fitting from cable stud (Refer to E in Figure 2).
2. Cable conduit from the cable bracket (Refer to D in Figure 2).
3. Cable conduit from the module housing (Refer to C in Figure 2).
4. Cable bead from the end of the ribbon (Refer to A in Figure 2).



Install or Connect (Figures 2 and 3)

1. Attach cable end to cruise motor ribbon end fitting (Refer to A in Figure 2).
2. Pull cruise cable engine end fitting until cable is taut (Refer to B in Figure 2).
3. Turn cruise cable engine end fitting to straighten ribbon. Ribbon must be flat and horizontal (Refer to B in Figure 2).
4. Slide cable conduit over ribbon and install tangs in cruise motor housing (Refer to C in Figure 2).
5. Install cable conduit in engine bracket. Press firmly until the tangs lock (Refer to D in Figure 2).
6. Install cable end fitting to TBI lever stud (Refer to E in Figure 2).
 - Make sure that throttle is closed on 7.4L engines.
7. Check for 0.0 to 5.0-mm (0.197-inch) clearance, or lash, in cruise cable. Turn adjuster screw, if required.

CRUISE CONTROL MODULE



Remove or Disconnect (Figure 4)

1. Negative battery cable. Refer to SECTION 6D1.
2. Cruise control cable. Refer to "Cruise Control Cable."
3. Electrical connector(s), as necessary.
4. Mounting screws.
5. Module.



Install or Connect (Figure 4)

1. Module.
2. Mounting screws.

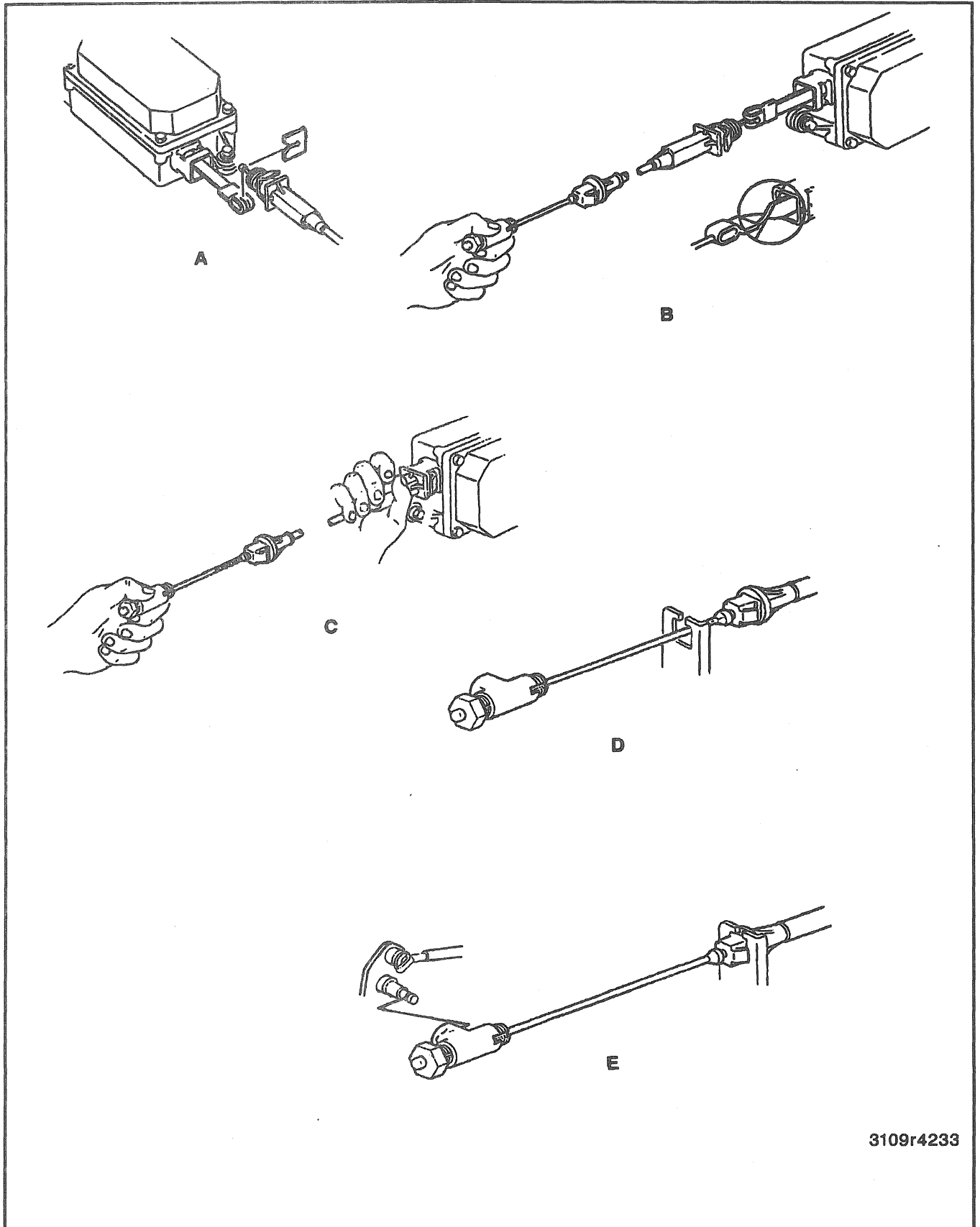


Tighten

- Screws to 5 N.m (44 lb. in.).
3. Electrical connector(s), as necessary.
 4. Cruise control cable. Refer to "Cruise Control Cable" in this section.
 5. Negative battery cable.
 - Check circuit operation.

ENGAGEMENT SWITCH

The cruise control engagement switch is part of the multifunction lever assembly and is not serviceable by itself. The multifunction lever and switch is serviced by replacement only. For replacement procedures, refer to SECTION 3F.



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Figure 2—Cruise Control Cable

9B-6 CRUISE CONTROL

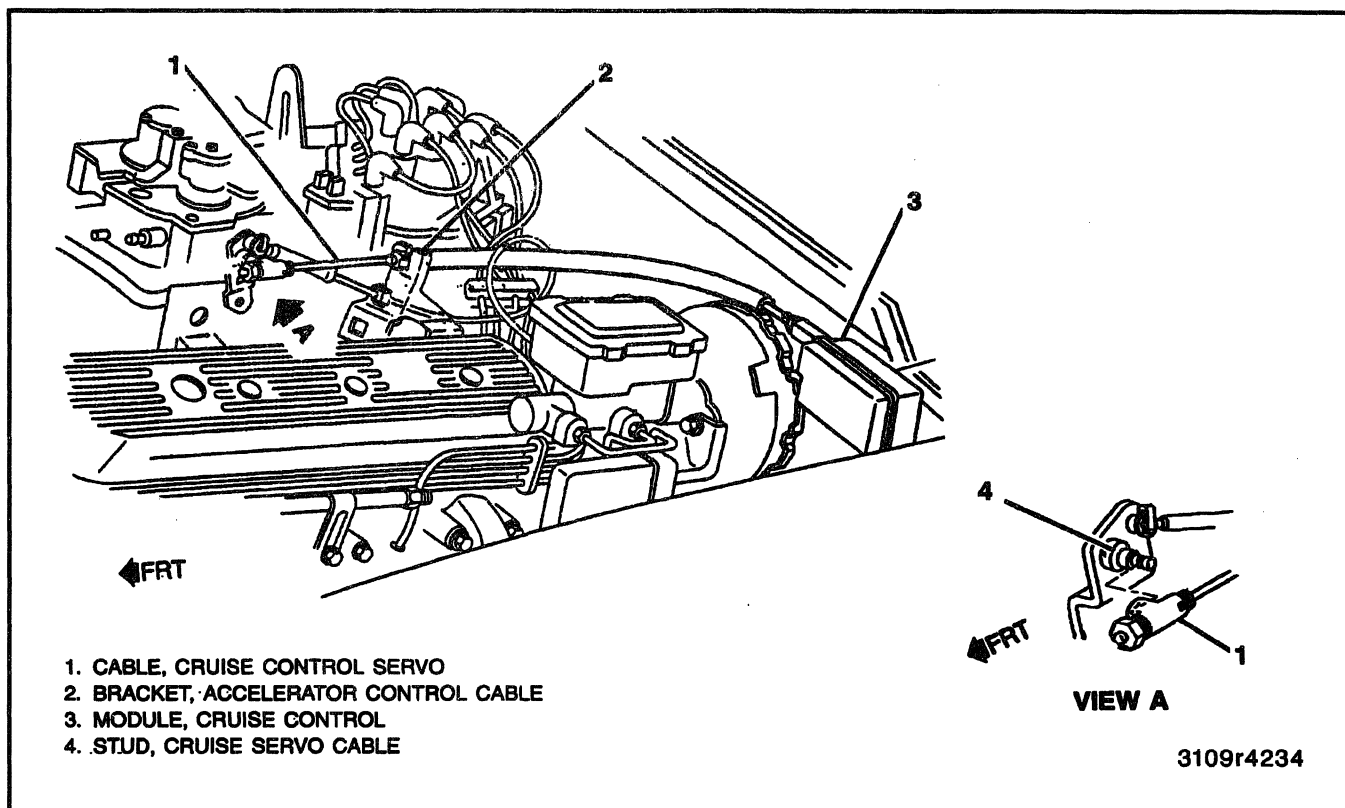


Figure 3—Cruise Control Cable Routing

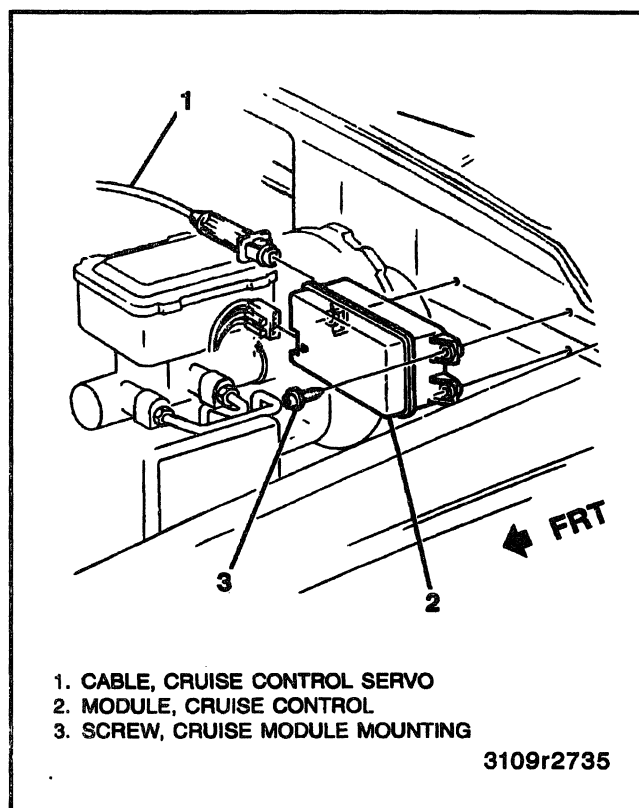


Figure 4—Cruise Control Module

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

ITEM	N·m	Lb. Ft.	Lb. In.
Cruise Control Module Mounting Screw	5	—	44
			T3507

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SECTION 9E

ENGINE COOLANT HEATER

CAUTION: On vehicles equipped with Supplemental Inflatable Restraint (SIR), refer to CAUTIONS in Section 9J under "ON-VEHICLE SERVICE" and the SIR Component and Wiring Location view in Section 9J before performing service on or around SIR components or wiring. Failure to follow CAUTIONS could result in possible air bag deployment, personal injury, or otherwise unneeded SIR system repairs.

NOTICE: Always use the correct fastener in the correct location. When you replace a fastener, use ONLY the exact part number for that application. General Motors will call out those fasteners that require a replacement after removal. General Motors will also call out the fasteners that require thread lockers or thread sealant. UNLESS OTHERWISE SPECIFIED, do not use supplemental coatings (paints, greases, or other corrosion inhibitors) on threaded fasteners or fastener joint interfaces. Generally, such coatings adversely affect the fastener torque and joint clamping force, and may damage the fastener. When you install fasteners, use the correct tightening sequence and specifications. Following these instructions can help you avoid damage to parts and systems.

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GENERAL DESCRIPTION

The optional engine coolant heater (RPO K05) preheats engine coolant to aid cold weather starting. The engine coolant heater operates from a 110-volt AC power source and uses a heating element that is installed in the water jacket of the engine block. The heating ele-

ment warms the coolant as long as the heater cord is plugged into an AC power source.

The unit has a detachable electrical cord. If the heater fails to operate, check the cord, connections, and power supply before replacing the heating element.

ON-VEHICLE SERVICE

ENGINE COOLANT HEATER

 Remove or Disconnect (Figures 1 through 5)

1. Engine coolant. Refer to SECTION 6B.
2. Coolant jacket plug.
 - If not originally equipped with an engine coolant heater, remove the coolant jacket plug. Carefully tap it near its outer edge, causing it to rotate out of the hole. Do not score the machined surface of the hole. Grasp with pliers and pull to remove.
3. Cord from engine coolant heater.

4. Loosen bolt.
5. Engine coolant heater.

 Clean

- Core plug hole, removing any burrs, compound, paint, or rough spots.

 Install or Connect (Figures 1 through 5)

1. Apply a coating of lubricant to the O-ring seal and the cleaned surface of plug opening in the block. Use a water spray resistant, high-temperature grease GM P/N 9985164 or equivalent.

9E-2 ENGINE COOLANT HEATER

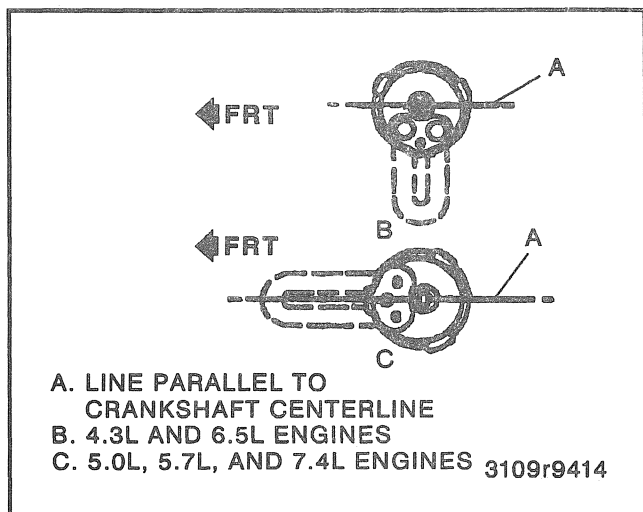


Figure 1—Engine Coolant Heater Element Positioning

2. The coolant heater and push tight to the block.



Important

- Install the heater element in the correct direction to avoid element contact to the inside walls of the engine block as shown in Figure 1.

3. Tighten screw until both locking wings draw tight against inner wall of engine block.



Tighten

- Screw to 2 N.m (18 lb. in.).

4. Heater cord to the coolant heater and route heater cord (Figures 2 through 6).



Important

- The heater cord must not touch the engine, hot pipes, manifold, or any moving parts.

5. Engine coolant. Refer to SECTION 6B.

- Check the system for leaks.

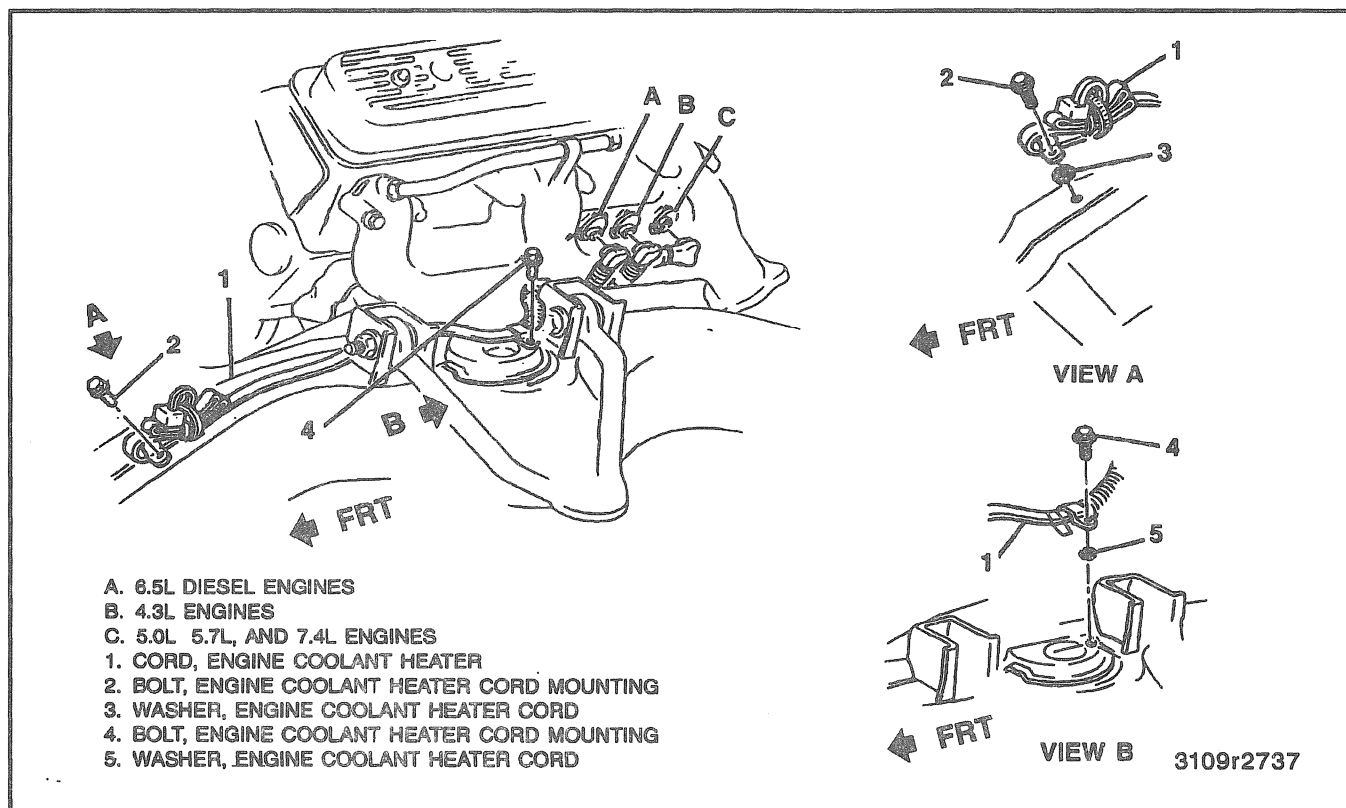
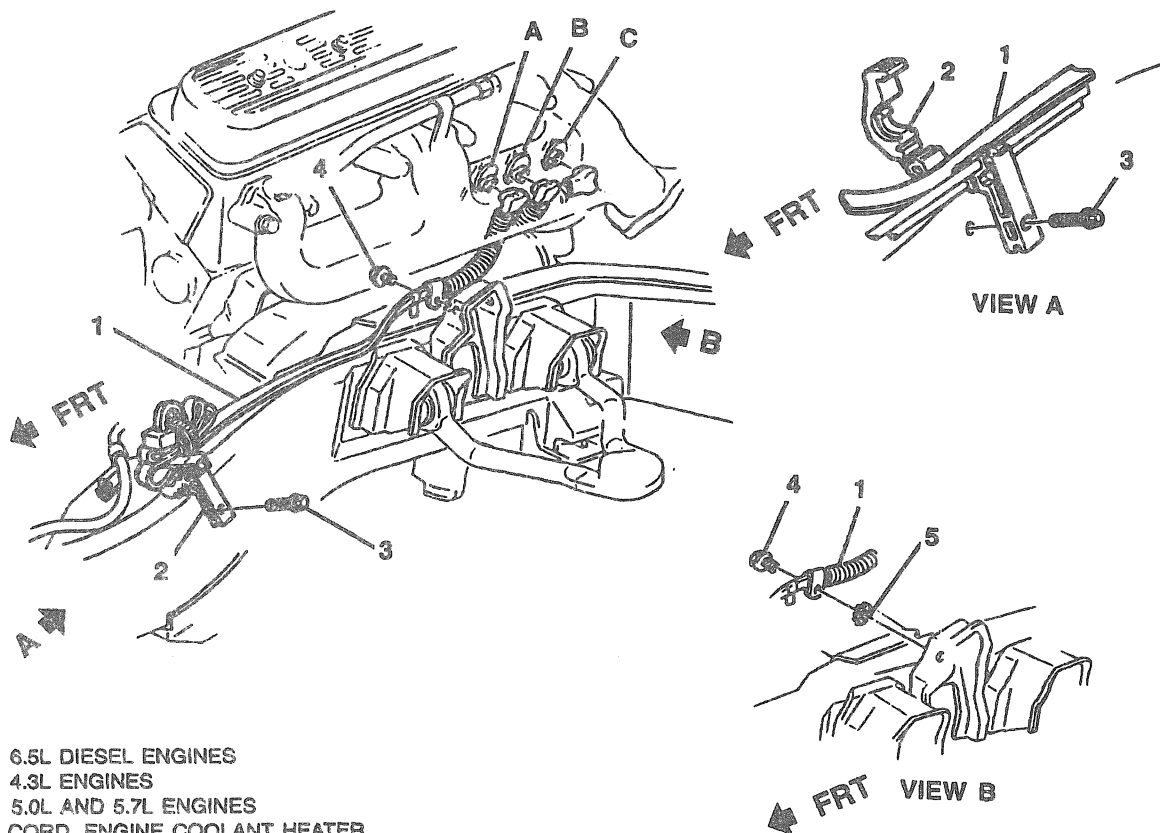


Figure 2—Engine Coolant Heater Cord Routing (Two-Wheel Drive Models)



- A. 6.5L DIESEL ENGINES
- B. 4.3L ENGINES
- C. 5.0L AND 5.7L ENGINES
- 1. CORD, ENGINE COOLANT HEATER
- 2. CLIP, ENGINE COOLANT HEATER CORD
- 3. BOLT, ENGINE COOLANT HEATER CORD CLIP MOUNTING
- 4. BOLT, ENGINE COOLANT HEATER CORD MOUNTING
- 5. WASHER, ENGINE COOLANT HEATER CORD

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Figure 3—Engine Coolant Heater Cord Routing (Four-Wheel Drive Models)

9E-4 ENGINE COOLANT HEATER

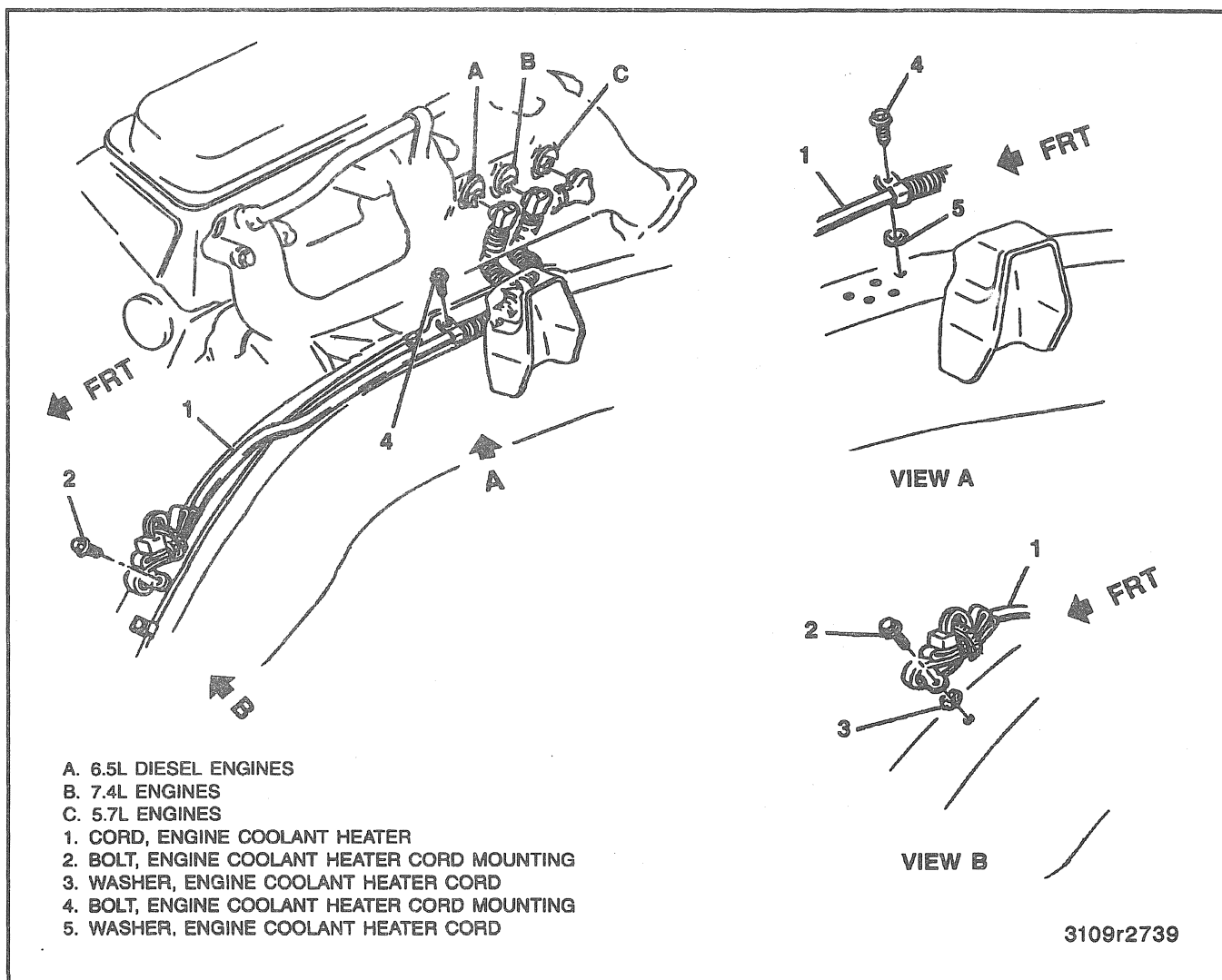


Figure 4—Engine Coolant Heater Cord Routing (Two-Wheel Drive - 1 Ton Models)

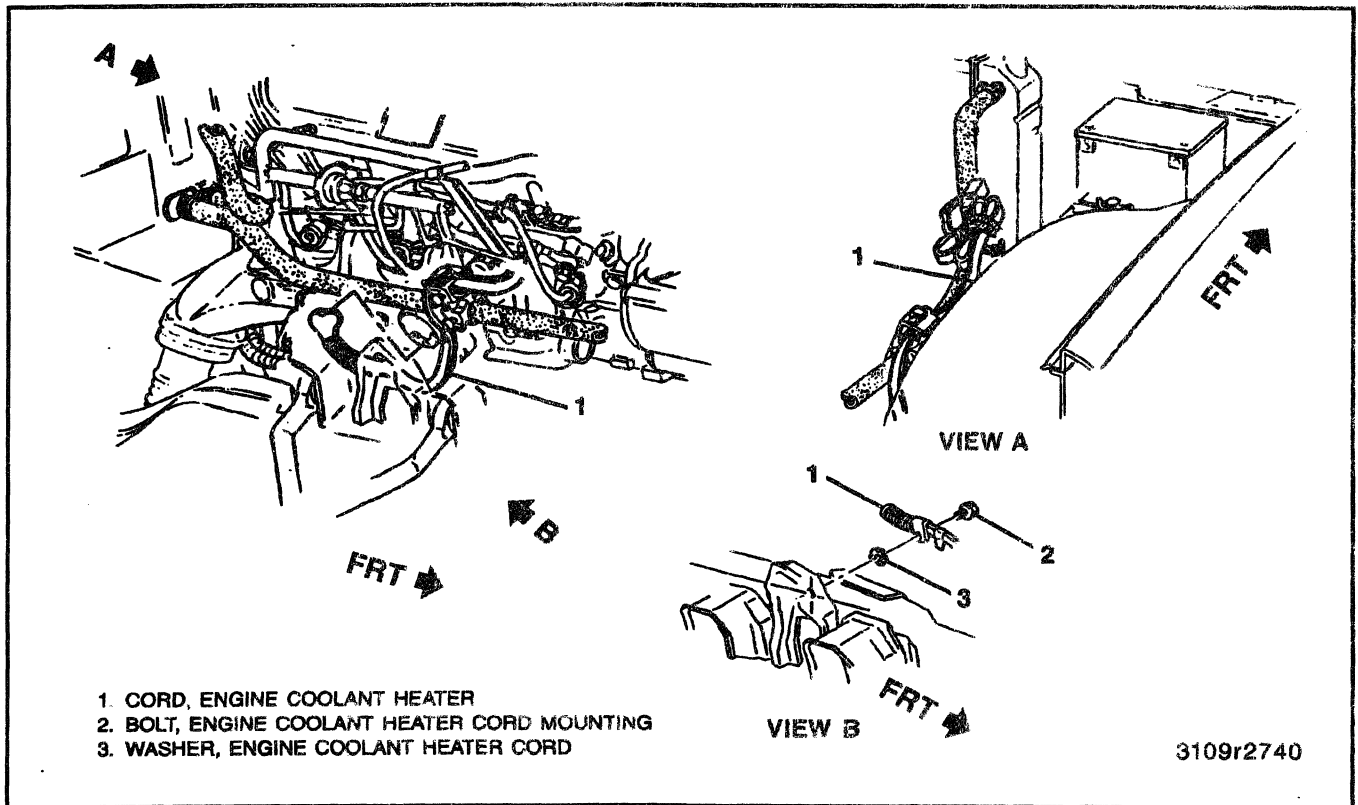


Figure 5—Engine Coolant Heater Cord Routing (Four-Wheel Drive Models with 7.4L Engine)

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Item	N-m	Lb. Ft.	Lb. In.
Engine Coolant Heater Mounting Screw.....	2	—	18
Engine Coolant Heater Cord Mounting Screw.....	8	—	71
			T3509

9E-6 ENGINE COOLANT HEATER

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9F-2 LUGGAGE CARRIER

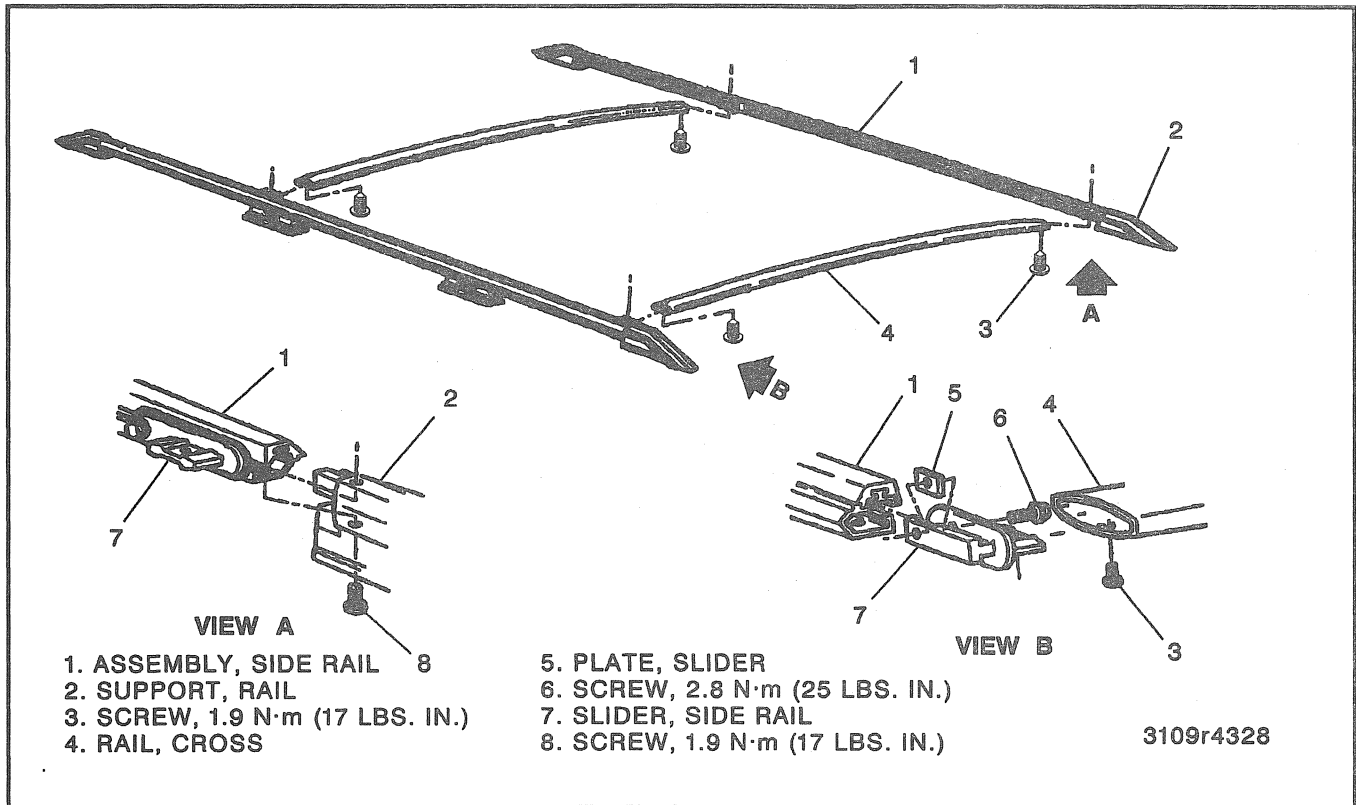


Figure 1—Luggage Carrier Components (Suburban Shown, 2 and 4 - Door Utility Similar)

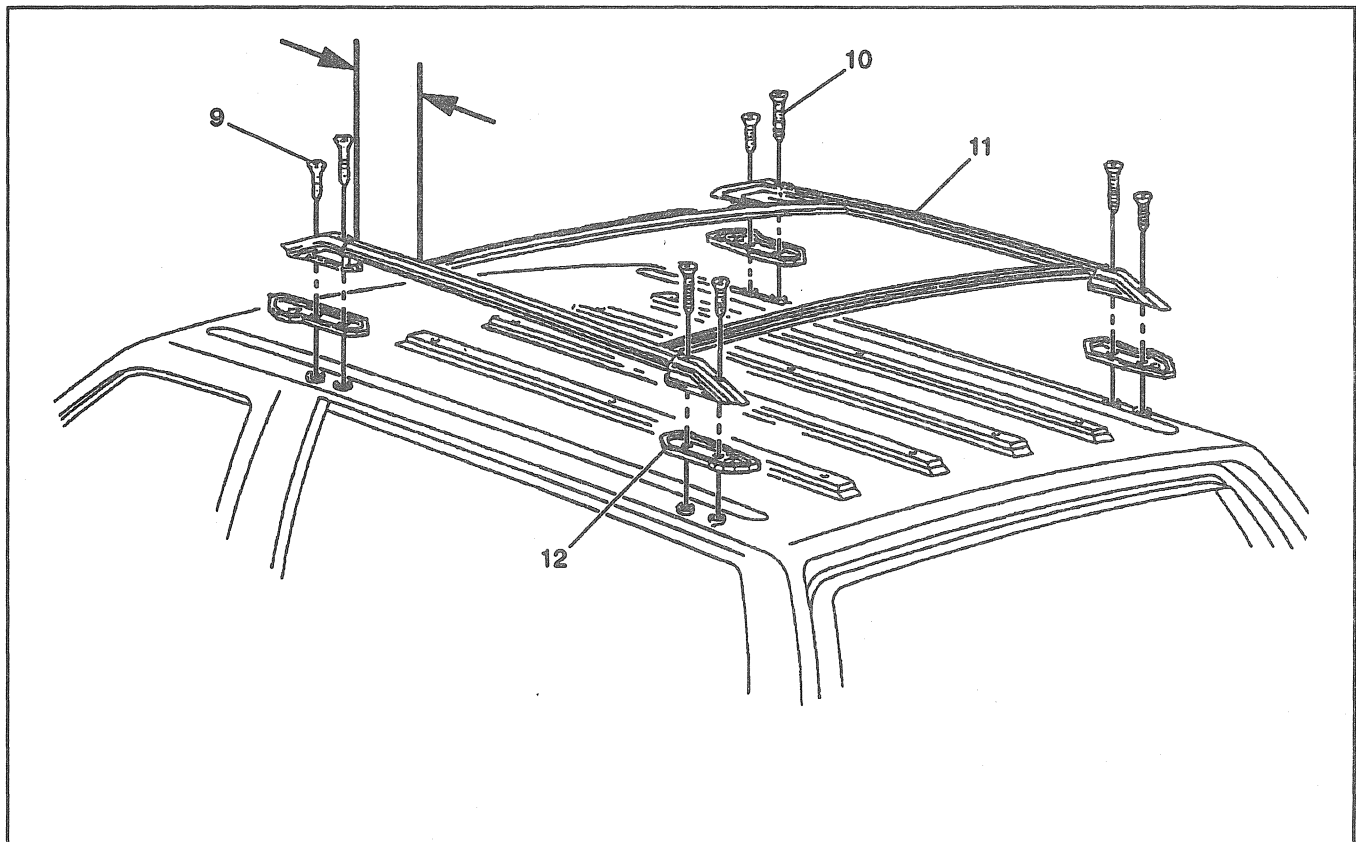


Figure 2—Luggage Carrier (2 - Door Utility)

9F-4 LUGGAGE CARRIER

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

ITEM	N·m	Lb. Ft.	Lb. In.
Cross Rail-To-Side Rail Slider Screw.....	2	—	18
Side Rail Support-To-Side Rail Screw	2	—	18
Side Rail-To-Body Mounting Screw.....	2.8	—	25
			T3508

9G-4 RUNNING BOARDS

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TABLE C**"AIR BAG" WARNING LAMP DOES NOT COME "ON"****Circuit Description:**

When the ignition switch is first turned to "RUN" ("ON"), "Ignition 1" voltage is applied from the "GAUGES" fuse to "Redundant Indicator Ignition 1," terminal "B2," and to the "AIR BAG" warning lamp which is connected to the "SIR Indicator," terminal "B1." The "AIR BAG" fuse applies system voltage to the "Ignition 1" input, terminal "A10." The DERM responds by flashing the "AIR BAG" warning lamp 7 times.

When the engine is being cranked, "Ignition 1" voltage is applied from the "CRANK" fuse to the DERM at the "Crank" input. The DERM responds by grounding the "SIR Indicator" output until "Ignition 1" voltage is removed from the "Crank" input. This results in the "AIR BAG" warning lamp being "ON" during cranking.

After cranking, the DERM will flash the "AIR BAG" warning lamp 6 times.

Table Test Description:

Number(s) below refer to step number(s) on the diagnostic table.

1. The "SIR DIAGNOSTIC SYSTEM CHECK" must be the starting point for all diagnostics.

2. This test determines whether the malfunction is in the DERM circuitry or in the instrument cluster power feed circuitry.
8. This test checks for an open in the "SIR Indicator" circuit, instrument cluster circuitry, and "AIR BAG" warning lamp bulb.
9. This test determines whether the malfunction is a short from the "SIR Indicator" circuit to B+.
16. This test checks whether the open is due to a bad bulb.
18. This test determines whether the malfunction is an open in the "SIR Indicator" circuit or an open in the instrument cluster.
21. This test checks whether power is available to the instrument cluster power feed circuit.
22. This test checks for a short from the instrument cluster power feed circuit to ground.
24. This test determines whether the short to ground is due to a short in the wiring or a malfunctioning DERM.
30. This test determines whether the malfunction is due to an open power feed circuit from the "GAUGES" fuse to the instrument cluster or an open power feed to the "GAUGES" fuse.

9J-22 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM

TABLE C - "AIR BAG" WARNING LAMP DOES NOT COME "ON"

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
27	1. Repair the instrument cluster electrical harness connector. Refer to SECTION 8A-5. 2. Has the connector been repaired?	Go to Step 28	—
28	1. Check for proper connection to the instrument cluster at terminal "22." 2. Are the instrument cluster terminals damaged or corroded?	Go to Step 29	Go to Step 30
29	1. Service or replace the instrument cluster as needed. Refer to SECTION 8C. 2. Install the instrument cluster. 3. Has the instrument cluster been installed?	Go to Step 33	—
30	1. Measure the resistance from instrument cluster electrical harness connector terminal "22" to each terminal of the "GAUGES" fuse holder. 2. Is either measurement 5.0Ω or less?	Go to Step 32	Go to Step 31
31	1. Repair open in CKT 39 between the instrument cluster and the "GAUGES" fuse holder. 2. Has the open circuit been repaired?	Go to Step 33	—
32	1. Repair the open in power feed to the "GAUGES" fuse holder wire. 2. Has the open circuit been repaired?	Go to Step 33	—
33	1. Reconnect all the SIR system components. 2. Ensure the components are properly mounted. 3. Have all the SIR system components been reconnected and properly mounted?	Go to Step 34	—
34	1. Clear all the SIR Diagnostic Trouble Codes. 2. Have the SIR Diagnostic Trouble Codes been cleared?	Go to "SIR Diagnostic System Check"	—

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9J-24 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM

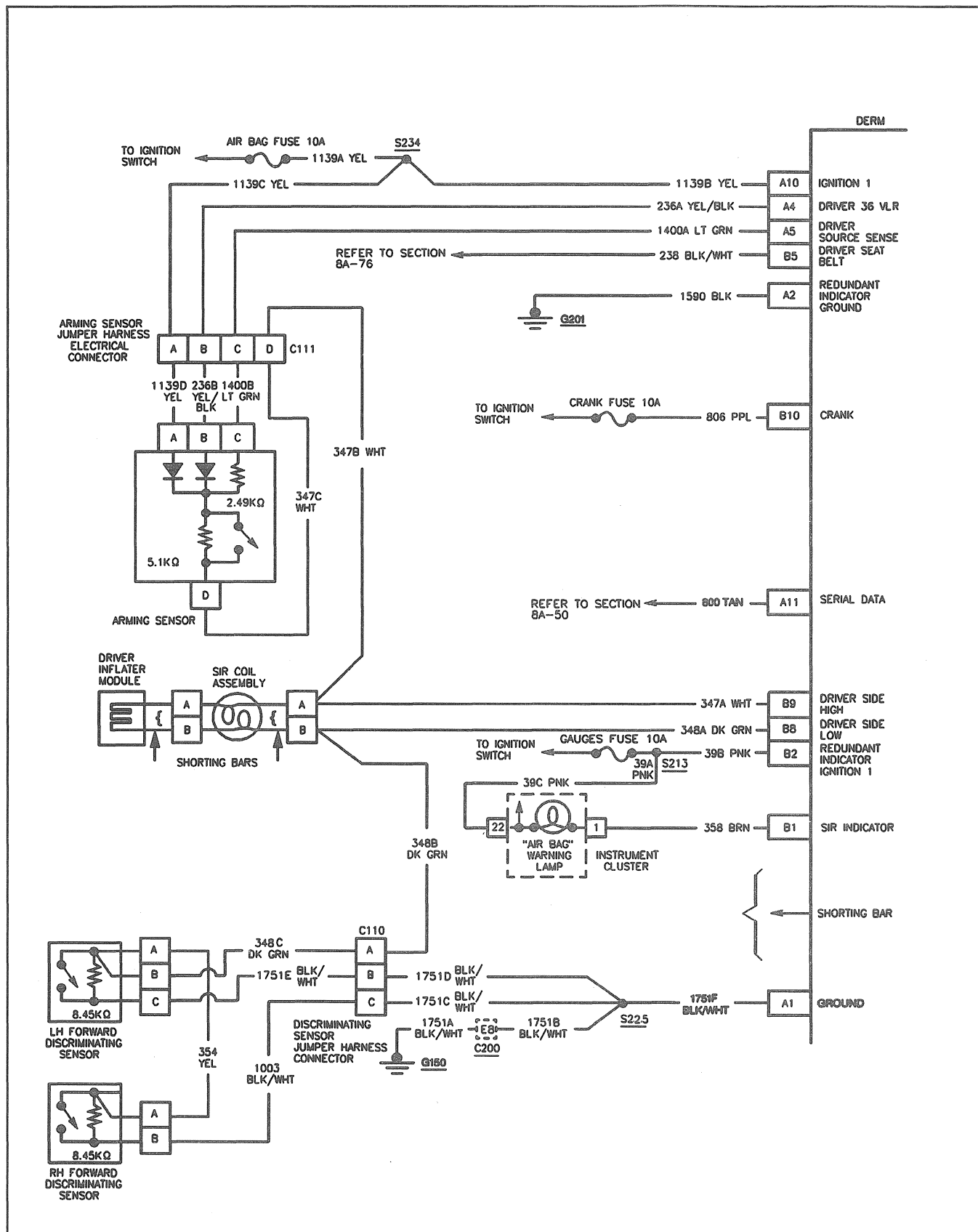


TABLE D**"AIR BAG" WARNING LAMP DOES NOT COME "ON" STEADY DURING CRANK****Circuit Description:**

When the ignition switch is first turned to "RUN" ("ON"), "Ignition 1" voltage is applied from the "GAUGES" fuse to "Redundant Indicator Ignition 1" terminal "B2," and to the "AIR BAG" warning lamp which is connected to "SIR Indicator" terminal "B1." The "AIR BAG" fuse applies system voltage to the "Ignition 1" input, terminal "A10." The DERM responds by flashing the "AIR BAG" warning lamp 7 times.

When the engine is being cranked, "Ignition 1" voltage is applied from the "CRANK" fuse to the DERM at the "Crank" input. The DERM responds by grounding the "SIR Indicator" output until "Ignition 1" voltage is removed from the "Crank" input. This results in the "AIR BAG" warning lamp being "ON" during cranking.

After cranking, the DERM will flash the "AIR BAG" warning lamp 6 times.

Table Test Description:

Number(s) below refer to step number(s) on the diagnostic table.

1. The "SIR DIAGNOSTIC SYSTEM CHECK" must be the starting point for all diagnostics.
2. This test checks whether the malfunction is due to an open "CRANK" fuse.
8. This test checks for a proper signal to the "Crank" input during cranking.
9. This test determines whether the lack of a proper crank signal is due to an open "Crank" input circuit or an open power feed to the "CRANK" fuse.
12. This test checks whether the "CRANK" fuse is open due to a short to ground in the "CRANK" input circuit.
13. This test determines whether the short to ground is in the wiring harness.

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SIR DTC 31 — DRIVER LOOP ENERGY RESERVE FEED OPEN

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
1	1. Was the "SIR Diagnostic System Check" performed?	Go to Step 2	Go to "SIR Diagnostic System Check"
2	1. Ignition switch "OFF." 2. Disconnect the yellow 2-way electrical connector at the base of the steering column. 3. Disconnect the Arming Sensor. 4. Check for proper connection to Arming Sensor at terminals "B" and "C." 5. Are the Arming Sensor electrical harness connector terminals damaged or corroded?	Go to Step 3	Go to Step 4
3	1. Replace the Arming Sensor electrical harness connector. 2. Has the connector been replaced?	Go to Step 5	—
4	1. Check for proper connection to the Arming Sensor at terminals "B" and "C." 2. Are the Arming Sensor terminals damaged or corroded?	Go to Step 6	Go to Step 7
5	1. Check for proper connection to the Arming Sensor at terminals "B" and "C." 2. Are the Arming Sensor terminals damaged or corroded?	Go to Step 6	Go to Step 27
6	1. Replace the Arming Sensor. Refer to ON-VEHICLE SERVICE, ARMING SENSOR. 2. Has the Arming Sensor been replaced?	Go to Step 27	—
7	1. Disconnect the DERM. 2. Check for proper connection to the DERM at terminals "A4" and "A5." 3. Are the DERM electrical harness connector terminals damaged or corroded?	Go to Step 8	Go to Step 9
8	1. Repair the DERM electrical harness connector. 2. Has the connector been repaired?	Go to Step 10	—
9	1. Check for proper connection to the DERM at terminals "A4" and "A5." 2. Are the DERM terminals damaged or corroded?	Go to Step 11	Go to Step 12
10	1. Check for proper connection to the DERM at terminals "A4" and "A5." 2. Are the DERM terminals damaged or corroded?	Go to Step 11	Go to Step 27
11	1. Replace the DERM. Refer to ON-VEHICLE SERVICE, DIAGNOSTIC ENERGY RESERVE MODULE (DERM). 2. Has the DERM been replaced?	Go to Step 27	—
12	1. Measure the resistance from the DERM electrical harness connector terminal "A4" to the Arming Sensor electrical harness connector terminal "B." 2. Is the resistance 5.0Ω or less?	Go to Step 18	Go to Step 13
13	1. Disconnect the Arming Sensor jumper harness electrical connector (C111). 2. Is the connector terminal "B" damaged or corroded?	Go to Step 14	Go to Step 15

9J-60 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM

SIR DTC 31 — DRIVER LOOP ENERGY RESERVE FEED OPEN

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
14	1. Replace the Arming Sensor jumper harness electrical connector (C111). 2. Has the connector been replaced?	Go to Step 27	—
15	1. Measure the resistance of CKT 236A from the DERM electrical harness connector terminal "A4" to the Arming Sensor jumper harness electrical connector (C111) terminal "B." 2. Is the resistance 5.0Ω or less?	Go to Step 16	Go to Step 17
16	1. Repair the open in CKT 236B. 2. Has the open circuit been repaired?	Go to Step 27	—
17	1. Repair the open in CKT 236A. 2. Has the open circuit been repaired?	Go to Step 27	—
18	1. Measure the resistance of CKT 1400 from the DERM electrical harness connector terminal "A5" to the Arming Sensor electrical harness connector terminal "C." 2. Is the resistance 5.0Ω or less?	Go to Step 24	Go to Step 19
19	1. Disconnect the Arming Sensor jumper harness electrical connector (C111). 2. Is the connector terminal "C" damaged or corroded?	Go to Step 20	Go to Step 21
20	1. Replace Arming Sensor jumper harness electrical connector (C111). 2. Has the connector been replaced?	Go to Step 27	—
21	1. Measure the resistance of CKT 1400A from the DERM electrical harness connector terminal "A5" to the Arming Sensor jumper harness electrical connector (C111) terminal "C." 2. Is the resistance 5.0Ω or less?	Go to Step 22	Go to Step 23
22	1. Repair the high resistance in CKT 1400B. 2. Has the high resistance been repaired?	Go to Step 27	—
23	1. Repair the high resistance in CKT 1400A. 2. Has the high resistance been repaired?	Go to Step 27	—
24	1. Ignition switch "ON." 2. Measure the voltage on the DERM electrical harness connector from terminal "A5" to terminal "A1" (ground). 3. Is the voltage 1 volt or less?	Go to Step 26	Go to Step 25
25	1. Ignition switch "OFF." 2. Repair the short from CKT 1400 to B+. 3. Has the short circuit been repaired?	Go to Step 27	—
26	1. Ignition switch "OFF." 2. Replace the Arming Sensor. Refer to ON-VEHICLE SERVICE, ARMING SENSOR. 3. Has the Arming Sensor been replaced?	Go to Table A	—

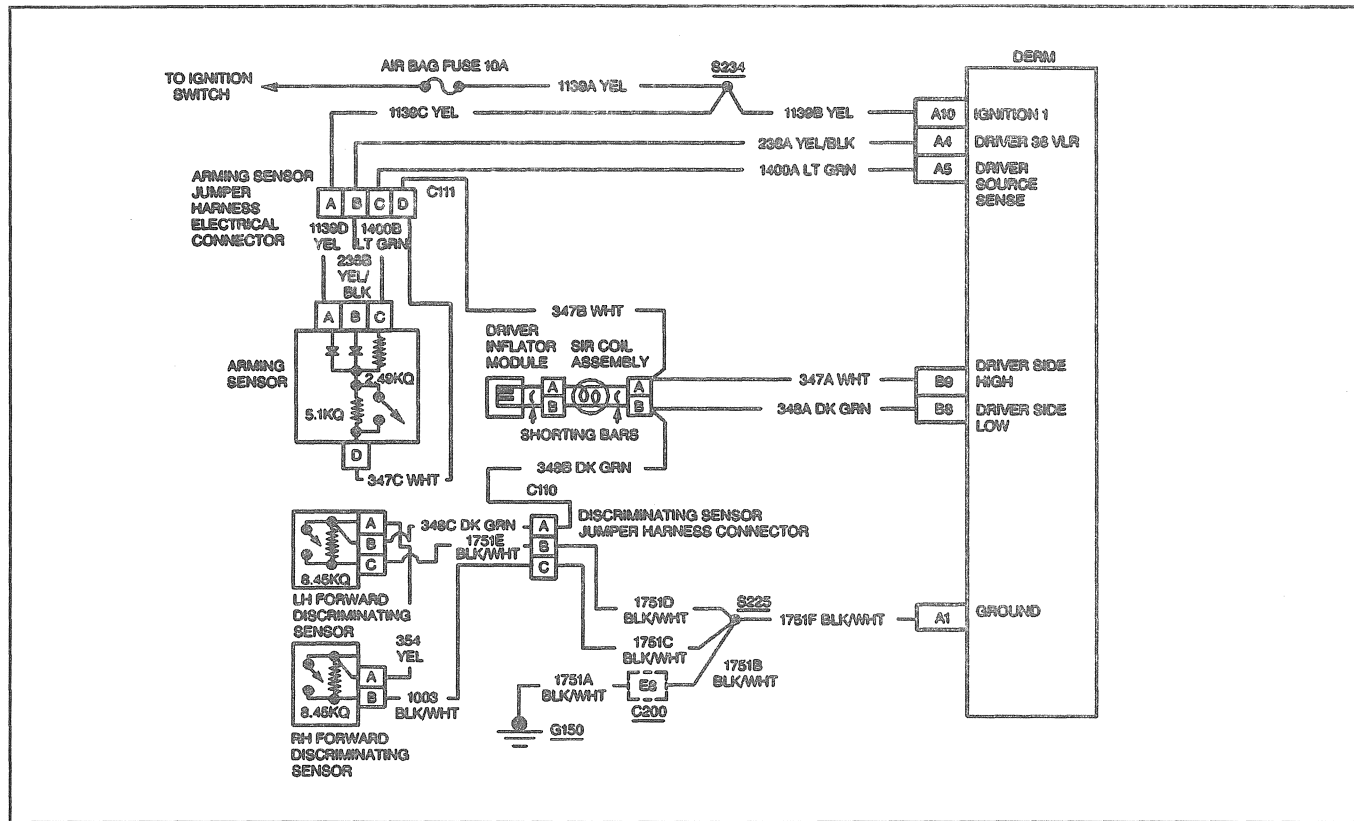
SIR DTC 31 — DRIVER LOOP ENERGY RESERVE FEED OPEN

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
27	1. Reconnect all the SIR system components. 2. Ensure the components are properly mounted. 3. Have all the SIR system components been reconnected and properly mounted?	Go to Step 28	—
28	1. Clear the SIR Diagnostic Trouble Codes. 2. Have the SIR Diagnostic Trouble Codes been cleared?	Go to "SIR Diagnostic System Check"	—

T3480

9J-62 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM



DTC 34 ARMING SENSOR IGNITION FEED OPEN

Circuit Description:

During the "Turn-ON" tests, performed at the beginning of each ignition cycle, the DERM delays the charging of the "Driver 36 VLR" power supply. While the delay is active, the DERM measures the voltage at the "Driver 36 VLR" terminal "A4" and "Driver Source Sense" terminal "A5." When the voltage measured at the "Driver 36 VLR" power supply indicates it is in a discharged state and the voltage measured at "Driver Source Sense" is a specified amount below "Ignition 1" voltage, DTC 34 is set.

DTC Will Set When:

With the "Driver 36 VLR" power supply in a discharged state, the voltage measured at "Driver Source Sense" terminal "A5" is a specified amount below "Ignition 1" voltage and no "higher priority faults" are detected. This test is run once each ignition cycle during the "Turn-ON" tests while the "36 VLR Delay" is active.

Action Taken:

DERM turns "ON" the "AIR BAG" warning lamp and sets a diagnostic trouble code.

DTC Will Clear When:

With the "Driver 36 VLR" power supply in a discharged state, the voltage measured at "Driver Source Sense" terminal "A5" is within specified range of "Ignition 1" voltage. When neither the set nor clear conditions are met, the state of the diagnostic trouble code from the previous ignition cycle is used.

DTC Table Test Description:

Number(s) below refer to step number(s) on the diagnostic table.

1. The "SIR DIAGNOSTIC SYSTEM CHECK" must be the starting point for all diagnostics.
7. This test checks whether a malfunction is occurring.
13. This test checks for an open in the arming sensor ignition feed circuit.
16. This test locates the open in the arming sensor ignition feed circuit.
19. This test determines whether the malfunction is an open in the "Driver Source Sense" circuit or an open in the arming sensor.
22. This test locates the open in the "Driver Source Sense" circuit.

Diagnostic Aids:

An intermittent condition is likely to be caused by an improper connection at arming sensor or arming sensor jumper harness electrical connector terminal "A" or "C," improper connection at DERM terminal "A5," open ignition feed to the arming sensor, open "Driver Source Sense" circuit or a malfunctioning arming sensor igni-

tion diode. The test for this diagnostic trouble code is only run while the "AIR BAG" warning lamp is performing the bulb test. When a scan tool "Clear Codes" command is issued and the malfunction is still present, the DTC will not reappear until the ignition switch is turned "OFF" for at least two minutes with the entire SIR system connected and then the ignition switch is turned "ON."

SIR DTC 34 — ARMING SENSOR IGNITION FEED OPEN

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
1	Was the "SIR Diagnostic System Check" performed?	Go to Step 2	Go to "SIR Diagnostic System Check"
2	1. Ignition switch "OFF." 2. Disconnect the yellow 2-way electrical connector at the base of the steering column. 3. Disconnect the DERM and check for proper connection at terminal "A5." 4. Is the DERM electrical harness connector damaged or corroded?	Go to Step 3	Go to Step 4
3	1. Repair the DERM electrical harness connector. 2. Has the connector been repaired?	Go to Step 5	—
4	1. Check for proper connection to DERM at terminal "A5." 2. Are the DERM terminals damaged or corroded?	Go to Step 6	Go to Step 7
5	1. Check for proper connection to DERM at terminal "A5." 2. Are the DERM terminals damaged or corroded?	Go to Step 6	Go to Step 25
6	1. Replace the DERM. Refer to ON-VEHICLE SERVICE, DIAGNOSTIC ENERGY RESERVE MODULE (DERM). 2. Has the DERM been replaced?	Go to Step 25	—
7	1. Ignition switch "ON." 2. Measure the voltage on the DERM electrical harness connector from terminal "A5" to terminal "A1" (ground). 3. Does meter indicate system voltage?	Go to Table A	Go to Step 8
8	1. Ignition switch "OFF." 2. Disconnect the Arming Sensor and check for proper connection at terminals "A" and "C". 3. Is the Arming Sensor electrical harness connector damaged or corroded?	Go to Step 9	Go to Step 10
9	1. Replace the Arming Sensor electrical harness connector. 2. Has the connector been replaced?	Go to Step 11	—
10	1. Check for proper connection to the Arming Sensor at terminals "A" and "C." 2. Are the Arming Sensor terminals damaged or corroded?	Go to Step 12	Go to Step 13
11	1. Check for proper connection to the Arming Sensor at terminals "A" and "C." 2. Are the Arming Sensor terminals damaged or corroded?	Go to Step 12	Go to Step 25
12	1. Replace the Arming Sensor. Refer to ON-VEHICLE SERVICE, ARMING SENSOR. 2. Has the Arming Sensor been replaced?	Go to Step 25	—

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SIR DTC 34 — ARMING SENSOR IGNITION FEED OPEN

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
13	1. Ignition switch "ON." 2. Measure the voltage from the Arming Sensor electrical harness connector terminal "A" to the DERM electrical harness connector terminal "A1" (ground). 3. Does meter indicate system voltage?	Go to Step 19	Go to Step 14
14	1. Ignition switch "OFF." 2. Disconnect the Arming Sensor jumper harness electrical connector (C111). 3. Check for proper connection of the Arming Sensor jumper harness electrical connector (C111). 4. Are the connector terminals damaged or corroded?	Go to Step 15	Go to Step 16
15	1. Replace the Arming Sensor jumper harness electrical connector (C111). 2. Has the connector been replaced?	Go to Step 25	—
16	1. Ignition switch "ON." 2. Measure the voltage from the Arming Sensor jumper harness electrical connector (C111) (bulk head side of the harness) terminal "A" to the DERM electrical harness connector terminal "A1" (ground). 3. Does meter indicate system voltage?	Go to Step 17	Go to Step 18
17	1. Repair the open in CKT 1139D. 2. Has the open circuit been repaired?	Go to Step 25	—
18	1. Repair the open in CKT 1139C 2. Has the open circuit been repaired?	Go to Step 25	—
19	1. Ignition switch "OFF." 2. Measure the resistance from the Arming Sensor harness electrical connector terminal "C" to the DERM electrical harness connector terminal "A5." 3. Is the resistance 5.0Ω or less?	Go to Step 12	Go to Step 20
20	1. Disconnect the Arming Sensor jumper harness electrical connector (C111). 2. Check for proper connection of the Arming Sensor jumper harness electrical connector (C111). 3. Is the connector terminal "C" damaged or corroded?	Go to Step 21	Go to Step 22
21	1. Replace the Arming Sensor jumper harness electrical connector (C111). 2. Has the connector been replaced?	Go to Step 25	—
22	1. Ignition switch "OFF." 2. Measure the resistance of CKT 1400A from the Arming Sensor jumper harness electrical connector (C111) terminal "C" to the DERM electrical harness connector terminal "A5." 3. Is the resistance 5.0Ω or less?	Go to Step 23	Go to Step 24
23	1. Repair the high resistance in CKT 1400B. 2. Has the high resistance been repaired?	Go to Step 25	—

SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM 9J-65

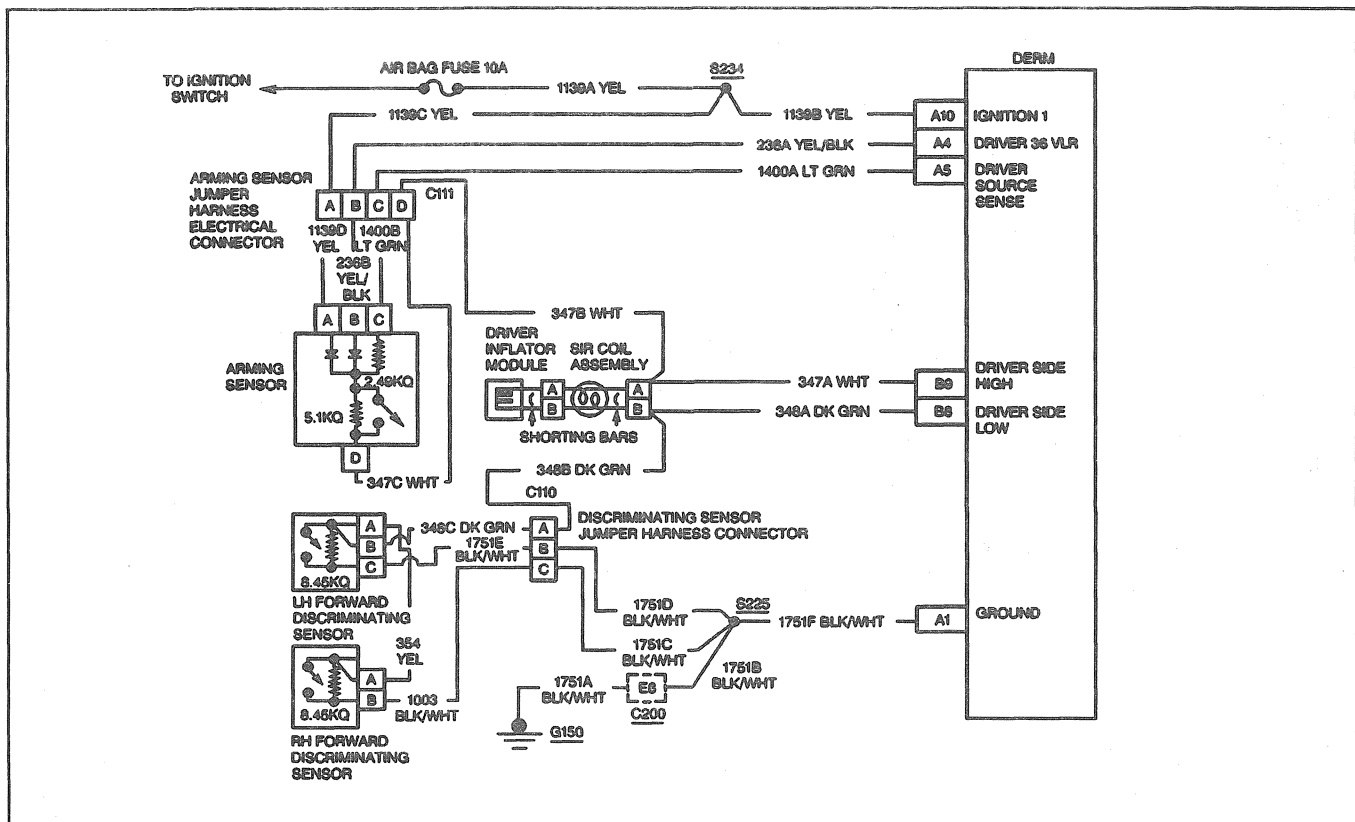
SIR DTC 34 — ARMING SENSOR IGNITION FEED OPEN

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
24	1. Repair the high resistance in CKT 1400A. 2. Has the high resistance been repaired?	Go to Step 25	—
25	1. Reconnect all the SIR system components. 2. Ensure the components are properly mounted. 3. Have all the SIR system components been reconnected and properly mounted?	Go to Step 26	—
26	1. Clear the SIR Diagnostic Trouble Codes. 2. Have the SIR Diagnostic Trouble Codes been cleared?	Go to "SIR Diagnostic System Check"	—

T3481

9J-66 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM



DTC 35 DISCRIMINATING SENSOR OPEN OR MISSING

Circuit Description:

During normal, non-deployment operation of the SIR system a small amount of current flows through the driver deployment loop. The diagnostic resistors within the arming sensor and the discriminating sensors along with the resistance of the inflator module cause voltage drops within the deployment loop. The DERM monitors the voltage at "Driver Side Low" terminal "B8" to detect shorts or opens within the deployment loop. When the measured voltage is within a specified percentage of "Driver 36 VLR" power supply for 500 milliseconds, DTC 35 is set.

DTC Will Set When:

The voltage measured at "Driver Side Low" terminal "B8" is within a specified percentage of the "Driver 36 VLR" power supply voltage for 500 milliseconds during "Continuous Monitoring."

Action Taken:

DERM turns "ON" the "AIR BAG" warning lamp and sets a diagnostic trouble code.

DTC Will Clear When:

The voltage measured at "Driver Side Low" terminal "B8" is above or below the percentage of "Driver 36 VLR" power supply voltage which sets DTC 35.

DTC Table Test Description:

Number(s) below refer to step number(s) on the diagnostic table.

1. The "SIR DIAGNOSTIC SYSTEM CHECK" must be the starting point for all diagnostics.
7. This test checks for increased resistance of the LH forward discriminating sensor.
8. This test checks for an open in the ground feed to the LH forward discriminating sensor.
11. This test locates the open in the ground feed to the LH forward discriminating sensor.
19. This test checks for increased resistance of the RH forward discriminating sensor.
21. This test checks for an open in the ground feed to the RH forward discriminating sensor.
24. This test locates the open in the ground feed to the RH forward discriminating sensor.
27. This test checks for an open in the discriminating sensor interconnect circuit.
29. This test checks for a malfunctioning arming sensor.

Diagnostic Aids:

An intermittent condition is likely to be an improper connection at any of the discriminating sensor terminals, an open in either ground feed to the discriminating sensors, an open discriminating sensor interconnect circuit, increased resistance of either discriminating sensor or decreased resistance of the arming sensor.

SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM 9J-67

SIR DTC 35 — DISCRIMINATING SENSOR OPEN OR MISSING

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
1	1. Was the "SIR Diagnostic System Check" performed?	Go to Step 2	Go to "SIR Diagnostic System Check"
2	1. Disconnect the yellow 2-way connector at the base of the steering column. 2. Disconnect the LH Forward Discriminating Sensor. 3. Check for proper connection to the LH Forward Discriminating Sensor at terminals "A", "B", and "C". 4. Is the LH Forward Discriminating Sensor electrical harness connector damaged or corroded?	Go to Step 3	Go to Step 5
3	1. Replace LH Forward Discriminating Sensor electrical harness connector. 2. Has the connector been replaced?	Go to Step 4	—
4	1. Check for proper connection to the LH Forward Discriminating Sensor. 2. Are the LH Forward Discriminating Sensor terminals damaged or corroded?	Go to Step 6	Go to Step 31
5	1. Check for proper connection to the LH Forward Discriminating Sensor. 2. Are the LH Forward Discriminating Sensor terminals damaged or corroded?	Go to Step 6	Go to Step 7
6	1. Replace the LH Forward Discriminating Sensor. Refer to ON-VEHICLE SERVICE, FORWARD DISCRIMINATING SENSORS (RH AND LH). 2. Has the sensor been replaced?	Go to Step 31	—
7	1. Measure the resistance on the LH Forward Discriminating Sensor from terminal "A" to terminal "C." 2. Is the resistance 8.54k Ω or more?	Go to Step 6	Go to Step 8
8	1. Measure the resistance from the LH Forward Discriminating Sensor electrical harness connector terminal "C" to ground. 2. Is the resistance 5.0 Ω or less?	Go to Step 14	Go to Step 9
9	1. Disconnect the Discriminating Sensor jumper harness electrical connector (C110). 2. Check for proper connection of the Discriminating Sensor jumper harness electrical connector (C110). 3. Is the Discriminating Sensor jumper harness electrical connector damaged or corroded?	Go to Step 10	Go to Step 11
10	1. Replace the Discriminating Sensor jumper harness electrical connector (C110). 2. Has the connector been replaced?	Go to Step 31	—
11	1. Measure the resistance of CKT 1751E from the LH Forward Discriminating Sensor harness electrical connector terminal "C" to the Discriminating Sensor jumper harness connector (C110) terminal "B." 2. Is the resistance 5.0 Ω or less?	Go to Step 12	Go to Step 13
12	1. Repair the open in CKT 1751D. 2. Has the open circuit been repaired?	Go to Step 31	—
13	1. Repair the open in CKT 1751E. 2. Has the open circuit been repaired?	Go to Step 31	—

9J-68 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM

SIR DTC 35 — DISCRIMINATING SENSOR OPEN OR MISSING

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
14	1. Disconnect the RH Forward Discriminating Sensor. 2. Check for proper connection to the RH Forward Discriminating Sensor at terminals "A" and "B." 3. Is the RH Forward Discriminating Sensor electrical harness connector damaged or corroded?	Go to Step 15	Go to Step 17
15	1. Replace the RH Forward Discriminating Sensor electrical harness connector. 2. Has the connector been replaced?	Go to Step 16	—
16	1. Check for proper connection to the RH Forward Discriminating Sensor. 2. Are the RH Forward Discriminating Sensor terminals damaged or corroded?	Go to Step 18	Go to Step 31
17	1. Check for proper connection to the RH Forward Discriminating Sensor. 2. Are the RH Forward Discriminating Sensor terminals damaged or corroded?	Go to Step 18	Go to Step 19
18	1. Replace the RH Forward Discriminating Sensor. Refer to ON-VEHICLE SERVICE, FORWARD DISCRIMINATING SENSORS (RH AND LH). 2. Has the sensor been replaced?	Go to Step 31	—
19	1. Measure the resistance on the RH Forward Discriminating Sensor electrical connector from terminal "A" to terminal "B." 2. Is the resistance 8.54k Ω or more?	Go to Step 20	Go to Step 21
20	1. Replace the RH Forward Discriminating Sensor. Refer to ON-VEHICLE SERVICE, FORWARD DISCRIMINATING SENSORS (RH AND LH). 2. Has the sensor been replaced?	Go to Step 31	—
21	1. Measure the resistance from the RH Forward Discriminating Sensor electrical harness connector terminal "B" to ground. 2. Is the resistance 5.0 Ω or less?	Go to Step 27	Go to Step 22
22	1. Disconnect the Discriminating Sensor jumper harness electrical connector (C110). 2. Check for proper connection of the Discriminating Sensor jumper harness electrical connector (C110). 3. Is the Discriminating Sensor jumper harness electrical connector (C110) damaged or corroded?	Go to Step 23	Go to Step 24
23	1. Replace the Discriminating Sensor jumper harness electrical connector (C110). 2. Has the connector been replaced?	Go to Step 31	—
24	1. Measure the resistance of CKT 1003 from the RH Forward Discriminating Sensor electrical harness connector terminal "B" to the Discriminating Sensor jumper harness electrical connector terminal "C." 2. Is the resistance 5.0 Ω or less?	Go to Step 25	Go to Step 26
25	1. Repair the open in CKT 1751C. 2. Has the open circuit been repaired?	Go to Step 31	—
26	1. Repair the open in CKT 1003. 2. Has the open circuit been repaired?	Go to Step 31	—

SIR DTC 35 — DISCRIMINATING SENSOR OPEN OR MISSING

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
27	1. Measure the resistance of CKT 354 from the RH Forward Discriminating Sensor electrical harness connector terminal "A" to the LH Forward Discriminating Sensor electrical harness connector terminal "A." 2. Is the resistance 5.0Ω or less?	Go to Step 29	Go to Step 28
28	1. Repair the open in CKT 354. 2. Has the open circuit been repaired?	Go to Step 31	—
29	1. Disconnect the Arming Sensor. 2. Measure the resistance on the Arming Sensor from terminal "C" to terminal "D." 3. Is the resistance 7.5kΩ or less?	Go to Step 30	Go to Table A
30	1. Replace the Arming Sensor. Refer to ON-VEHICLE SERVICE, ARMING SENSOR. 2. Has the sensor been replaced?	Go to Step 31	—
31	1. Reconnect all the SIR system components. 2. Ensure the components are properly mounted. 3. Have all the SIR system components been reconnected and properly mounted?	Go to Step 32	—
32	1. Clear the SIR Diagnostic Trouble Codes. 2. Have the SIR Diagnostic Trouble Codes been cleared?	Go to "SIR Diagnostic System Check"	—

T3482

SIR DTC 42 — LOOP ENERGY RESERVE VOLTAGE LOW

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
1	1. Was the "SIR Diagnostic System Check" performed?	Go to Step 2	Go to "SIR Diagnostic System Check"
2	1. Ignition switch "ON." 2. Using the TECH 1 SIR Data List Function select "Driver 36 VLR." 3. Is the displayed voltage 32.5 volts or more?	Go to Table A	Go to Step 3
3	1. Record the displayed voltage on the repair order. 2. Ignition switch "OFF." 3. Disconnect the yellow two-way electrical connector at the base of the steering column. 4. Disconnect the Arming Sensor. 5. Ignition switch "ON." 6. Using the TECH 1 Data List Function select "Driver 36 VLR." 7. Is the displayed voltage about the same as the recorded voltage?	Go to Step 5	Go to Step 4
4	1. Ignition switch "OFF." 2. Replace the Arming Sensor. Refer to ON-VEHICLE SERVICE, ARMING SENSOR. 3. Has the sensor been replaced?	Go to Step 13	—
5	1. Using the TECH 1 SIR Data List Function select "Ignition." 2. Is the displayed voltage about the same as the recorded voltage?	Go to Step 6	Go to Step 9
6	1. Ignition switch "OFF." 2. Disconnect the Arming Sensor jumper harness electrical connector (C111). 3. Ignition switch "ON." 4. Using the TECH 1 SIR Data List Function select "Ignition." 5. Is the displayed voltage about the same as the recorded voltage?	Go to Step 7	Go to Step 8
7	1. Ignition switch "OFF." 2. Repair the short from CKT 236A to B+. 3. Has the short circuit been repaired?	Go to Step 13	—
8	1. Ignition switch "OFF." 2. Repair the short from CKT 236B to B+. 3. Has the short circuit been repaired?	Go to Step 13	—
9	1. Ignition switch "OFF." 2. Is the recorded voltage on the repair order 1.0 volt or less?	Go to Step 10	Go to Table A
10	1. Disconnect the Arming Sensor jumper harness electrical connector (C111). 2. Ignition switch "ON." 3. Using the TECH 1 SIR Data List Function select "Driver 36 VLR." 4. Does the scan tool display 1.0 volt or less?	Go to Step 11	Go to Step 12
11	1. Repair the short from CKT 236A to ground. 2. Has the short circuit been repaired?	Go to Step 13	—
12	1. Repair the short from CKT 236B to ground. 2. Has the short circuit been repaired?	Go to Step 13	—

9J-72 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM

SIR DTC 42 — LOOP ENERGY RESERVE VOLTAGE LOW

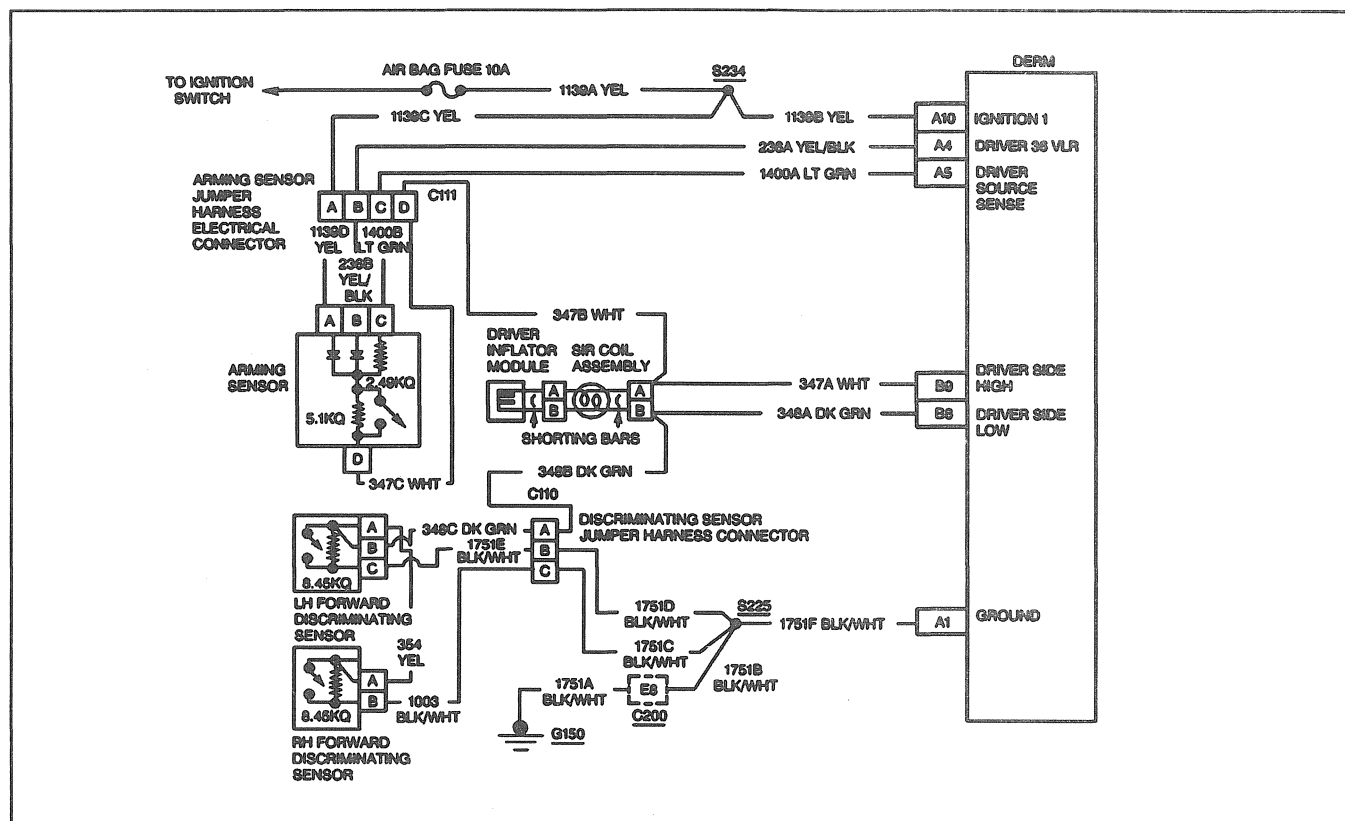
WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
13	1. Reconnect all the SIR components. 2. Ensure the components are properly mounted. 3. Have all the SIR components been reconnected and properly mounted?	Go to Step 14	—
14	1. Clear the SIR Diagnostic Trouble Codes. 2. Have the SIR Diagnostic Trouble Codes been cleared?	Go to "SIR Diagnostic System Check"	—

T3483

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9J-74 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM



DTC 43 DRIVER SOURCE FEED LOW

Circuit Description:

During normal, non-deployment operation of the SIR system the DERM monitors the voltage supplied through the arming sensor to the high side of the driver deployment loop at the "Driver Source Sense" terminal "A5." This measured voltage will have a value approximately equal to "Driver 36 VLR." When the voltage measured at "Driver Side Low" terminal "B8" is in its normal operating range, indicating driver deployment loop integrity has been maintained, while simultaneously the voltage measured at "Driver Source Sense" terminal "A5" is a specified amount below "Driver 36 VLR" for 500 milliseconds, DTC 43 is set.

DTC Will Set When:

The voltage measured at "Driver Side Low" terminal "B8" is within a specified percentage of "Driver 36 VLR," while simultaneously the voltage measured at "Driver Source Sense" terminal "A5" is a specified amount below "Driver 36 VLR" for 500 milliseconds during "Continuous Monitoring."

Action Taken:

DERM turns "ON" the "AIR BAG" warning lamp and sets a diagnostic trouble code.

DTC Will Clear When:

The voltage measured at "Driver Side Low" terminal "B8" is within a specified percentage of "Driver 36 VLR"

while simultaneously the voltage measured at "Driver Source Sense" terminal "A5" is within a specified amount of "Driver 36 VLR" for 500 milliseconds during "Continuous Monitoring."

DTC Table Test Description:

Number(s) below refer to step number(s) on the diagnostic table.

1. The "SIR DIAGNOSTIC SYSTEM CHECK" must be the starting point for all diagnostics.
12. This test checks for an open in "Driver Source Sense" circuit.
15. This test locates the open in "Driver Source Sense" circuit.
18. This test checks for a short from the "Driver Source Sense" circuit to ground.
19. This test locates the short from the "Driver Source Sense" circuit to ground.
22. The test determines whether the malfunction is due to increased resistance across the "Driver Source Sense" resistor in the arming sensor.

Diagnostic Aids:

An intermittent condition is likely to be caused by a poor connection to the DERM at terminal "A5," a poor connection to the arming sensor or arming sensor jumper harness electrical connector at terminal "C," an open or short to ground in CKT 1400, or an open arming sensor.

SIR DTC 43 - DRIVER SOURCE FEED LOW

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
1	1. Was the "SIR Diagnostic System Check" performed?	Go to Step 2	Go to "SIR Diagnostic System Check"
2	1. Ignition switch "OFF." 2. Disconnect the yellow 2-way electrical connector at the base of the steering column. 3. Disconnect the DERM. 4. Check for proper connection to the DERM terminal "A5." 5. Is the DERM electrical harness connector damaged or corroded?	Go to Step 3	Go to Step 5
3	1. Repair the DERM electrical harness connector. 2. Has the connector been repaired?	Go to Step 4	—
4	1. Check for proper connection to the DERM at terminal "A5." 2. Are the DERM terminals damaged or corroded?	Go to Step 6	Go to Step 23
5	1. Check for proper connection to the DERM at terminal "A5." 2. Are the DERM terminals damaged or corroded?	Go to Step 6	Go to Step 7
6	1. Replace the DERM. Refer to ON-VEHICLE SERVICE, DIAGNOSTIC ENERGY RESERVE MODULE (DERM). 2. Has the DERM been replaced?	Go to Step 23	—
7	1. Disconnect the Arming Sensor. 2. Check for proper connection to the Arming Sensor at terminal "C." 3. Is the Arming Sensor electrical harness connector damaged or corroded?	Go to Step 8	Go to Step 10
8	1. Replace the Arming Sensor electrical harness connector. 2. Has the connector been replaced?	Go to Step 9	—
9	1. Check for proper connection to the Arming Sensor at terminal "C." 2. Are the Arming Sensor terminals damaged or corroded?	Go to Step 11	Go to Step 23
10	1. Check for proper connection to the Arming Sensor at terminal "C." 2. Are the Arming Sensor terminals damaged or corroded?	Go to Step 11	Go to Step 12
11	1. Replace the Arming Sensor. Refer to ON-VEHICLE SERVICE, ARMING SENSOR. 2. Has the sensor been replaced?	Go to Step 23	—
12	1. Measure the resistance from the DERM electrical harness connector terminal "A5" to the Arming Sensor electrical harness connector terminal "C." 2. Is the resistance 5.0Ω or less?	Go to Step 18	Go to Step 13
13	1. Disconnect the Arming Sensor jumper harness electrical connector (C111). 2. Check for proper connection at the Arming Sensor jumper harness electrical connector (C111). 3. Is the Arming Sensor jumper harness electrical connector (C111) terminal "C" damaged or corroded?	Go to Step 14	Go to Step 15
14	1. Replace the Arming Sensor jumper harness electrical connector (C111). 2. Has the connector been replaced?	Go to Step 23	—

9J-76 SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) SYSTEM

SIR DTC 43 - DRIVER SOURCE FEED LOW

WHEN MEASUREMENTS ARE REQUESTED IN THIS TABLE, USE J 39200 DVM WITH CORRECT TERMINAL ADAPTER FROM J 35616-A. WHEN A CHECK FOR PROPER CONNECTION IS REQUESTED REFER TO "INTERMITTENTS AND POOR CONNECTIONS" IN SECTION 8A-4. WHEN A WIRE, CONNECTOR OR TERMINAL REPAIR IS REQUESTED USE J 38125-A AND REFER TO "WIRING REPAIR" IN THIS SECTION.

Step	Action	Yes	No
15	1. Measure the resistance of CKT 1400A from the DERM electrical harness connector terminal "A5" to the Arming Sensor jumper harness electrical connector terminal "C." 2. Is the resistance 5.0Ω or less?	Go to Step 16	Go to Step 17
16	1. Repair the open in CKT 1400B. 2. Has the open circuit been repaired?	Go to Step 23	—
17	1. Repair the open in CKT 1400A. 2. Has the open circuit been repaired?	Go to Step 23	—
18	1. Measure the resistance on the DERM electrical harness connector from terminal "A5" to terminal "A1" (ground). 2. Does J 39200 Display "OL" (infinite)?	Go to Step 22	Go to Step 19
19	1. Disconnect the Arming Sensor jumper harness electrical connector (C111). 2. Measure the resistance on the DERM electrical harness connector from terminal "A5" to terminal "A1" (ground). 3. Does J 39200 Display "OL" (infinite)?	Go to Step 20	Go to Step 21
20	1. Repair the short in CKT 1400B to ground. 2. Has the short circuit been repaired?	Go to Step 23	—
21	1. Repair the short in CKT 1400A to ground. 2. Has the short circuit been repaired?	Go to Step 23	—
22	1. Measure the resistance of the Arming Sensor from terminal "C" to terminal "D." 2. Is the resistance 7.67kΩ or more?	Go to Step 11	Go to Table A
23	1. Reconnect all the SIR system components. 2. Ensure the components are properly mounted. 3. Have all the SIR system components been reconnected and properly mounted?	Go to Step 24	—
24	1. Clear the SIR Diagnostic Trouble Codes. 2. Have the SIR Diagnostic Trouble Codes been cleared?	Go to "SIR Diagnostic System Check"	—

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