HALF SHAFT (Continued)

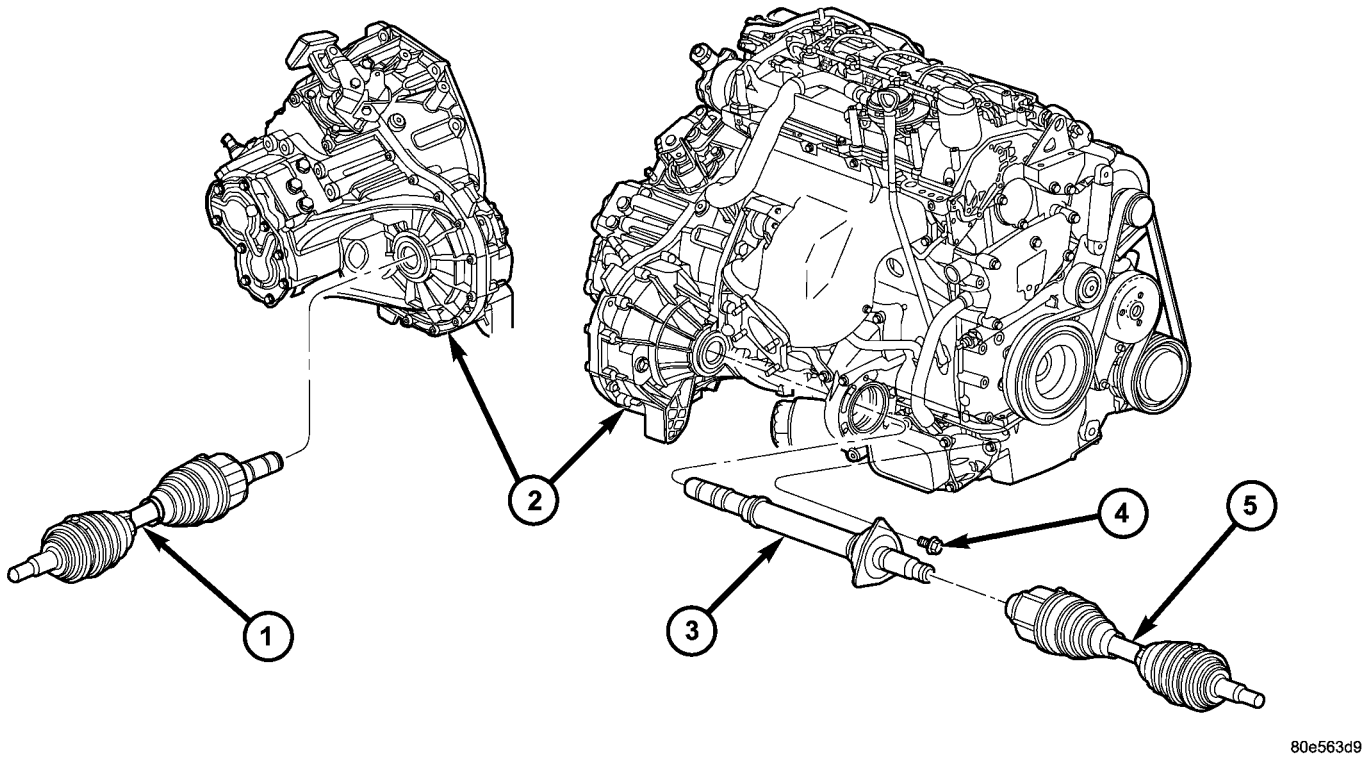


Fig. 2 Halfshaft and Intermediate Shaft (2.2L TD Shown—2.4L Turbo Similar)

1 - HALFSHAFT (LH)
2 - TRANSAXLE
3 - INTERMEDIATE SHAFT
4 - BOLT (3)
5 - HALFSHAFT (RH)

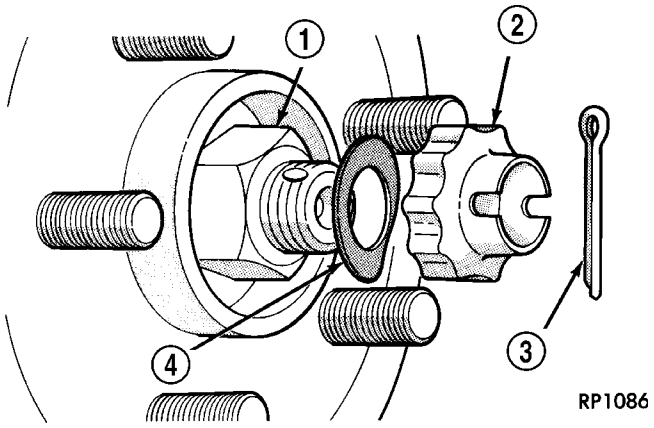


Fig. 3 Driveshaft Retaining Hardware

1 - HUB NUT
2 - NUT LOCK
3 - COTTER PIN
4 - SPRING WASHER

DIAGNOSIS AND TESTING - HALFSHAFT DIAGNOSIS

VEHICLE INSPECTION

(1) Check for grease in the vicinity of the inboard tripod joint and outboard C/V joint; this is a sign of inner or outer joint seal boot or seal boot clamp damage.

NOISE AND/OR VIBRATION IN TURNS

A clicking noise and/or a vibration in turns could be caused by one of the following conditions:

(1) Loose hub nut. Using a click-style torque wrench, torque hub nut to 244 N·m (180 ft. lbs.).

(2) Damaged outer C/V or inner tripod joint seal boot or seal boot clamps, which is evident by the presence of grease slung outward from the joint. This will result in the loss and/or contamination of the joint grease, resulting in inadequate lubrication of the joint.

(3) Noise may also be caused by another component of the vehicle coming in contact with the halfshafts.

CLUNKING NOISE DURING ACCELERATION

This noise may be a result of one of the following conditions:

(1) A torn seal boot on the inner or outer joint of the halfshaft assembly, which is evident by the presence of grease slung outward from the joint. This will result in the loss and/or contamination of the joint grease, resulting in inadequate lubrication of the joint.

MASTER CYLINDER (Continued)

(7) Disconnect the two brake tubes from the master cylinder primary and secondary ports (Fig. 73). Install plugs at all of the open brake tube outlets on the master cylinder.

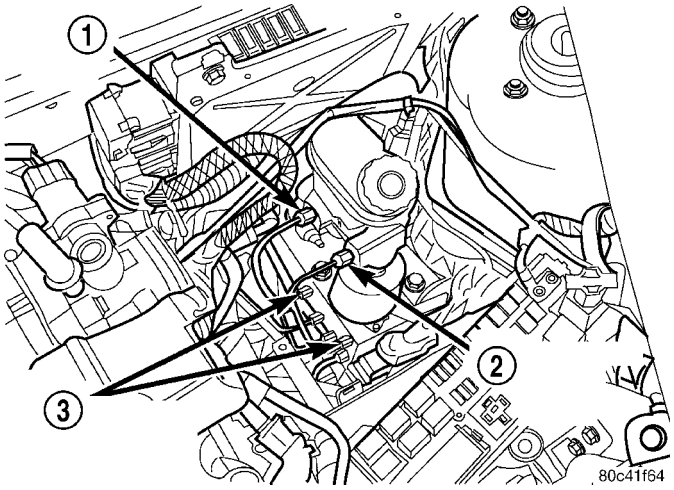


Fig. 73 Brake Tubes At Master Cylinder - W/ABS

1 - PRIMARY BRAKE TUBE
2 - SECONDARY BRAKE TUBE
3 - BRAKE TUBES FROM MASTER CYLINDER

(8) Clean the area around where the master cylinder attaches to the power brake booster using a suitable brake cleaner such as Mopar® Brake Parts Cleaner or an equivalent.

(9) Remove the two nuts attaching the master cylinder to the power brake booster.

(10) Slide the master cylinder straight out of the power brake booster.

REMOVAL - LHD WITHOUT ABS

NOTE: Before proceeding, (Refer to 5 - BRAKES - WARNING)(Refer to 5 - BRAKES - CAUTION).

CAUTION: The vacuum in the power brake booster must be pumped down before removing the master cylinder to prevent the booster from sucking in any contamination. This can be done by pumping the brake pedal while the engine is not running until a firm brake pedal is achieved.

(1) With the engine not running, pump the brake pedal 4-5 strokes until the pedal feel is firm.

(2) Unclip the air cleaner cover (two clips) and move the cover aside.

(3) Remove the air cleaner housing by pulling straight up.

(4) Disconnect the negative (ground) cable from the battery and isolate the cable.

(5) Unlatch the power distribution center, lift it up, and move it to the side.

(6) Remove the vehicle wiring harness connector from brake fluid level switch in master cylinder brake fluid reservoir (Fig. 74).

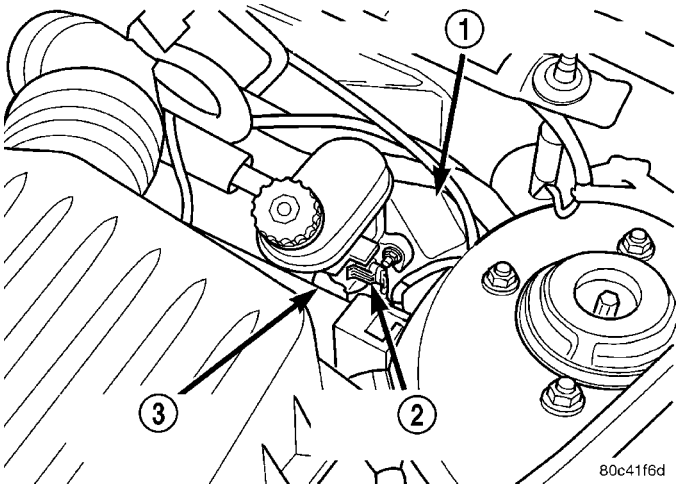


Fig. 74 Master Cylinder

1 - POWER BRAKE BOOSTER
2 - BRAKE FLUID LEVEL SWITCH
3 - MASTER CYLINDER

(7) Disconnect the two brake tubes from the master cylinder, and two brake tubes from the proportioning valves (Fig. 75). Install plugs at all of the open brake tube outlets on the master cylinder.

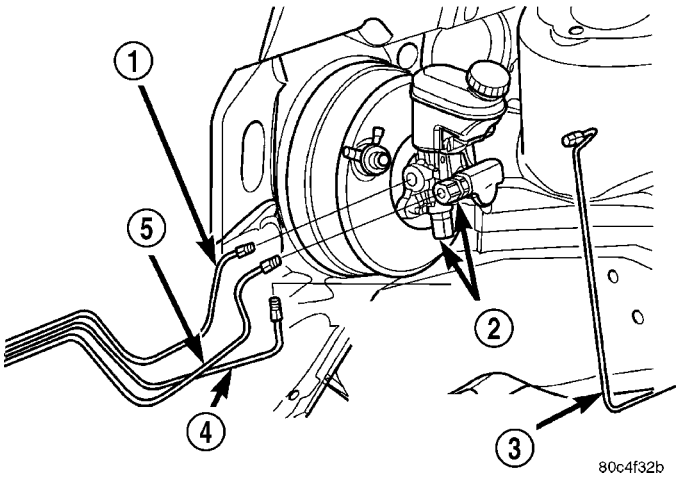


Fig. 75 Brake Tubes At Master Cylinder - W/O ABS

1 - RIGHT FRONT BRAKE TUBE
2 - PROPORTIONING VALVES
3 - LEFT FRONT BRAKE TUBE
4 - LEFT REAR BRAKE TUBE
5 - RIGHT REAR BRAKE TUBE

(8) Clean the area around where the master cylinder attaches to the power brake booster using a suitable brake cleaner such as Mopar® Brake Parts Cleaner or equivalent.

(9) Remove the two nuts attaching the master cylinder to the power brake booster.

CLUTCH DISC AND PRESSURE PLATE

REMOVAL

REMOVAL—1.6L

(1) Remove transaxle. (Refer to 21 - TRANSMISSION/TRANSAXLE/MANUAL - REMOVAL)

(2) Mark position of pressure plate on flywheel with paint or a scriber for assembly reference.

(3) Loosen and remove six (6) pressure plate-to-flywheel bolts. Remove pressure plate and clutch disc (Fig. 7).

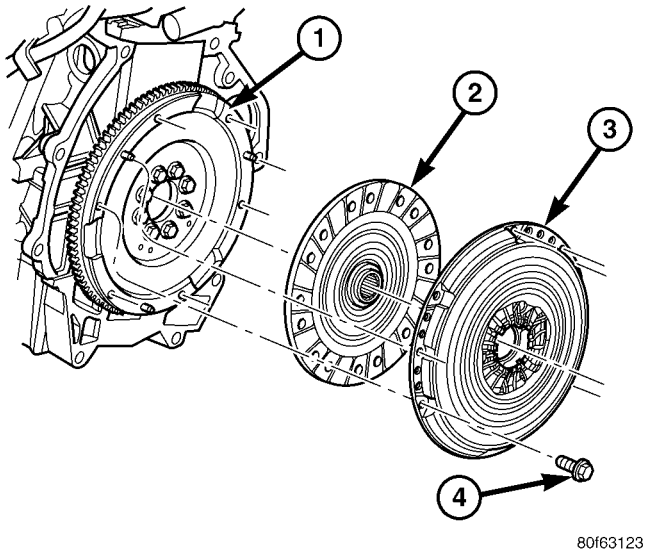


Fig. 7 Clutch Disc and Pressure Plate

1 - FLYWHEEL
2 - CLUTCH DISC
3 - PRESSURE PLATE
4 - BOLT (6)

(4) Remove eight (8) flywheel-to-crankshaft bolts and remove flywheel (Fig. 8).

(5) Inspect release lever and bearing (Fig. 9). Replace as necessary. (Refer to 6 - CLUTCH/CLUTCH RELEASE BEARING - REMOVAL)

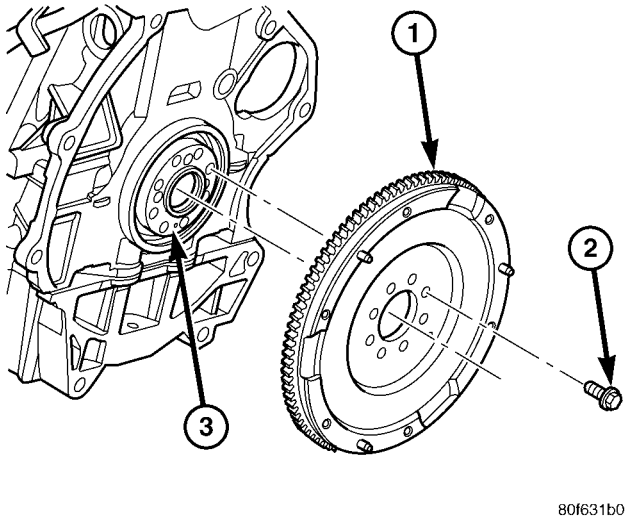


Fig. 8 Flywheel-to-Crankshaft

1 - FLYWHEEL
2 - BOLT (8)
3 - CRANKSHAFT FLANGE

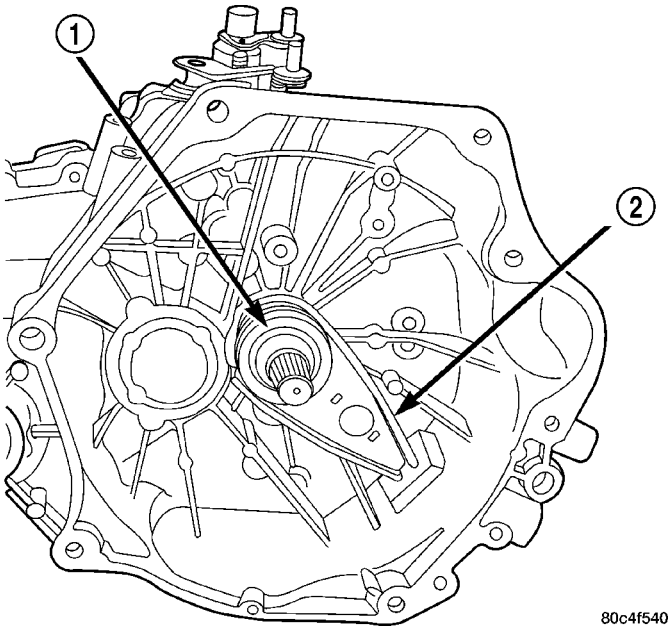


Fig. 9 Release Bearing and Lever

1 - RELEASE BEARING
2 - LEVER

CLUTCH DISC AND PRESSURE PLATE (Continued)

REMOVAL—2.2L TD

(1) Remove transaxle assembly. (Refer to 21 - TRANSMISSION/TRANSAXLE/MANUAL - REMOVAL)

(2) Mark position of pressure plate on flywheel with paint or a scriber for assembly reference.

(3) Loosen and remove six (6) pressure plate-to-flywheel bolts. Remove pressure plate and clutch disc (Fig. 10).

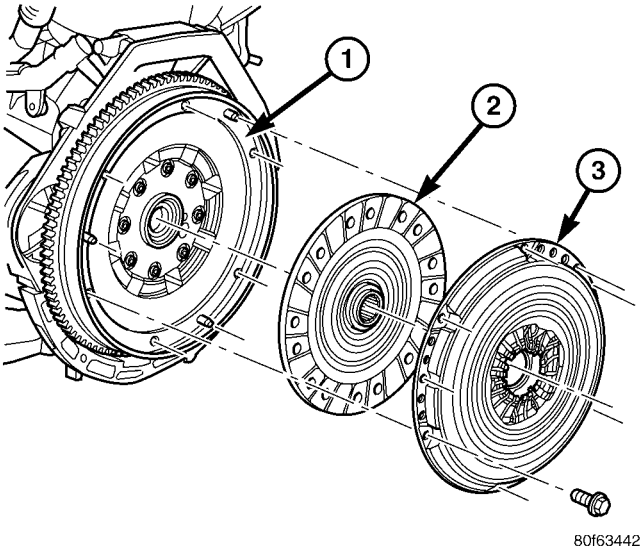


Fig. 10 Clutch Disc and Pressure Plate

1 - FLYWHEEL (DUAL-MASS)
2 - CLUTCH DISC
3 - PRESSURE PLATE

(4) Remove eight (8) flywheel-to-crankshaft bolts and remove flywheel assembly (Fig. 11).

INSTALLATION

INSTALLATION—1.6L

(1) Inspect clutch release bearing and lever for excessive wear and replace as necessary (Fig. 9).

(2) Clean the surfaces of the flywheel and pressure plate to make certain that all oil, grease, and rust have been removed.

(3) Verify the crankshaft mounting flange is free of debris, oil, grease, etc. Position the flywheel onto the engine crankshaft (Fig. 8).

(4) Install and torque the flywheel-to-crankshaft bolts to 95 N·m (70 ft.lbs.).

(5) Apply a very light coating of grease to the splines in the clutch disc hub.

(6) Position the clutch disc to the flywheel. Make sure the side marked “FLYWHEEL SIDE” faces the flywheel.

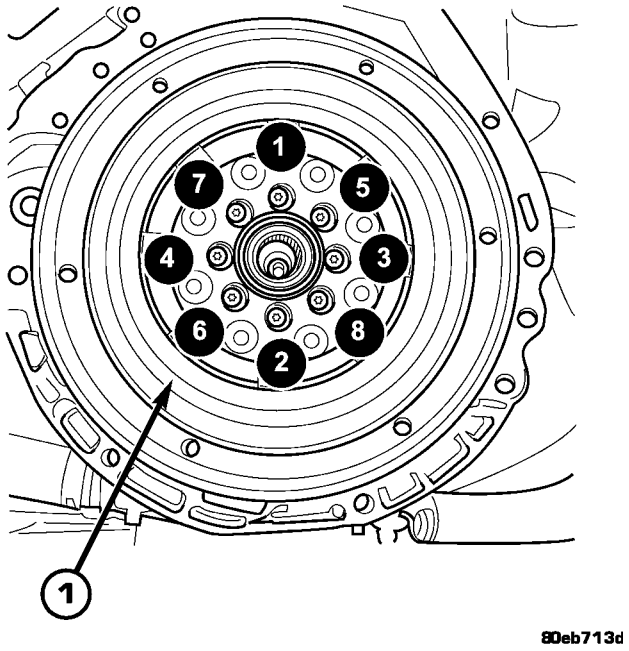


Fig. 11 Flywheel-to-Crankshaft Bolt Pattern

1 - FLYWHEEL ASSEMBLY

(7) Install the clutch pressure plate to the flywheel and clutch disc (Fig. 7). Finger tighten the six (6) pressure plate-to-flywheel bolts.

(8) Use Clutch Alignment Tool 6724 to position the clutch disc to the center of the flywheel (Fig. 12).

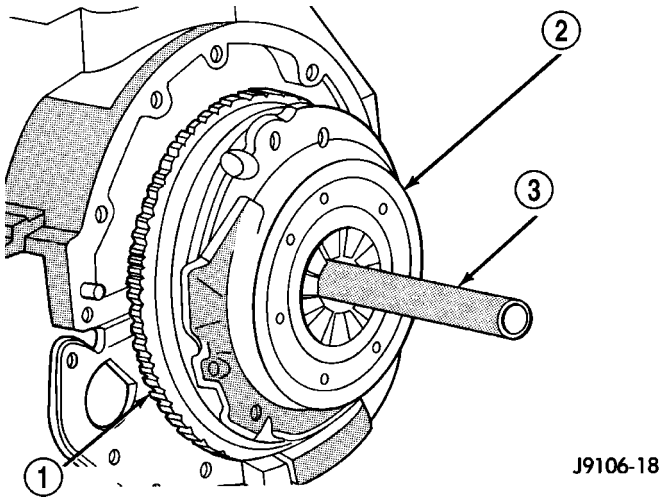


Fig. 12 Aligning Clutch Disc—Typical

1 - FLYWHEEL
2 - PRESSURE PLATE
3 - CLUTCH DISC ALIGNMENT TOOL

STARTING (Continued)

(3) Perform a visual inspection of the starter/ starter solenoid for corrosion, loose connections or faulty wiring.

(4) Locate and remove the starter relay from the Power Distribution Center (PDC). Refer to the PDC label for relay identification and location.

(5) Connect a remote starter switch or a jumper wire between the remote battery positive post and terminal 87 of the starter relay connector.

(a) If engine cranks, starter/starter solenoid is good. Go to the Starter Relay Test.

(b) If engine does not crank or solenoid chatters, check wiring and connectors from starter relay to starter solenoid and from the battery positive terminal to starter post for loose or corroded connections. Particularly at starter terminals.

(c) Repeat test. If engine still fails to crank properly, trouble is within starter or starter mounted solenoid, and replace starter. Inspect the ring gear teeth.

STARTER RELAY

WARNING: CHECK TO ENSURE THAT THE TRANSMISSION IS IN THE PARK/NEUTRAL POSITION WITH THE PARKING BRAKE APPLIED.

RELAY TEST

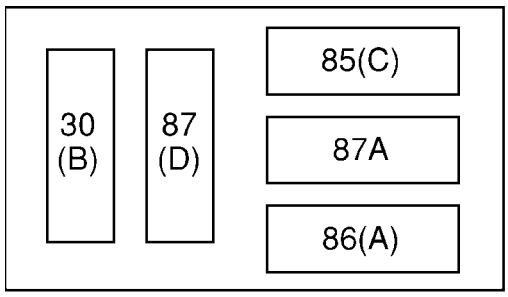
The starter relay is located in the Power Distribution Center (PDC) in the engine compartment. Refer to the PDC label for relay identification and location.

Remove the starter relay from the PDC as described in this group to perform the following tests:

(1) A relay in the de-energized position should have continuity between terminals 87A and 30, and no continuity between terminals 87 and 30. If OK, go to Step 2. If not OK, replace the faulty relay.

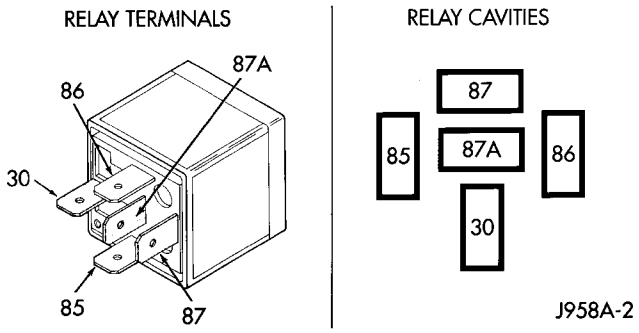
(2) Resistance between terminals 85 and 86 (electromagnet) should be 75 ±5 ohms. If OK, go to Step 3. If not OK, replace the faulty relay.

(3) Connect a battery B+ lead to terminals 85 and a ground lead to terminal 86 to energize the relay. The relay should click. Also test for continuity between terminals 30 and 87, and no continuity between terminals 87A and 30. If OK, refer to Relay Circuit Test procedure. If not OK, replace the faulty relay.

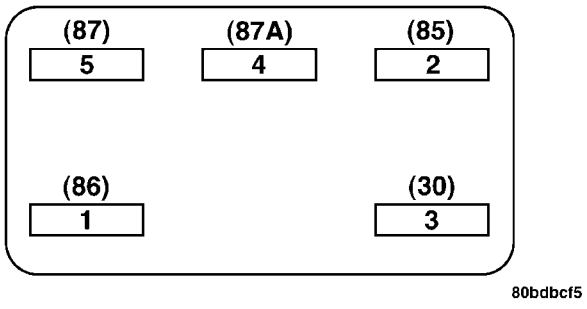


80b1b41e

Starter Relay Pinout



Starter Relay Pinout



Starter Relay Pinout

CAV	FUNCTION
30	B (+)
85	IGNITION SWITCH OUTPUT
86	PCM-CONTROLLED GROUND
87	STARTER RELAY OUTPUT
87A	NO CONNECT

REAR CARGO LAMP UNIT (Continued)

(3) Place cargo lamp unit into opening and apply hand pressure to seat lamp unit into rear quarter panel.
(4) Install jack and tool bag in the storage area.
(5) Install jack storage door to the right rear quarter trim panel.
(6) Close liftgate.

TRANS RANGE INDICATOR ILLUMINATION

REMOVAL

(1) Remove gear shift knob.
(2) Remove floor console.
(3) Disconnect socket from transaxle range indicator (Fig. 10).
(4) Remove bulb from socket.

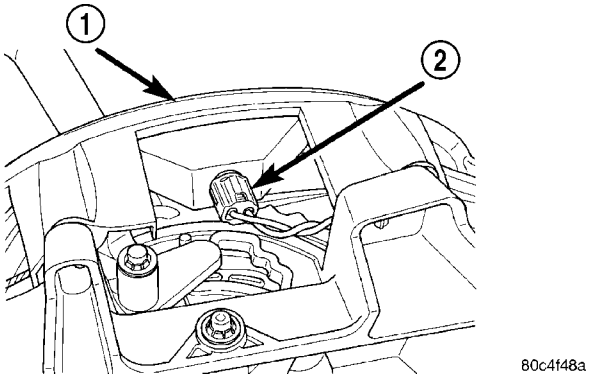


Fig. 10 TRANSMISSION RANGE INDICATOR

1 - TRANSMISSION RANGE INDICATOR
2 - TRANSMISSION RANGE INDICATOR LAMP BULB AND SOCKET

INSTALLATION

(1) Push bulb into socket (Fig. 10).
(2) Snap socket into position.
(3) Install floor console into position.
(4) Install gear shift knob.

VANITY LAMP

REMOVAL

(1) Lower visor.
(2) Insert a small flat bladed tool into the slot between the lamp lens and lamp.
(3) Carefully pry lens outward.
(4) Remove bulb from socket.

INSTALLATION

(1) Position bulb in socket and push into place.
(2) Position lens on lamp and snap into place.

VACUUM RESERVOIR (Continued)

(6) Remove the 2 screws from vacuum reservoir (Fig. 19).

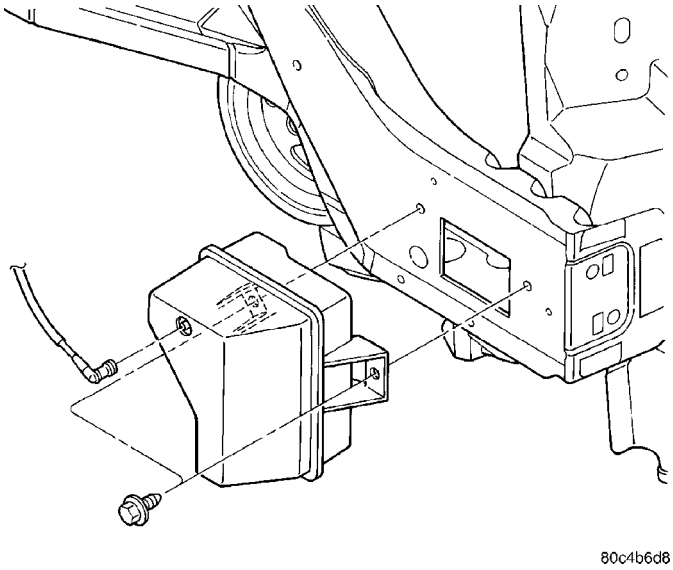


Fig. 19 Reservoir Mounting Screws

(7) Disconnect vacuum hose from reservoir (Fig. 20).

INSTALLATION

The vacuum reservoir is located in the right front fender well on the frame rail (Fig. 19). It is made of plastic.

(1) Connect hoses to reservoir.

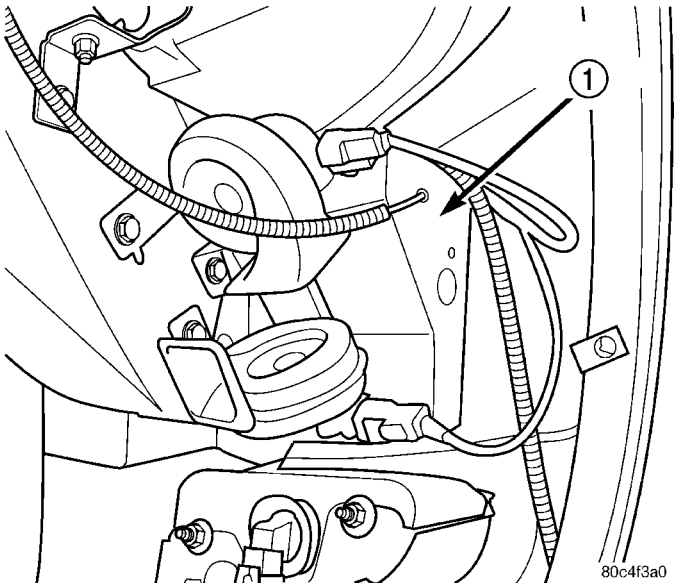


Fig. 20 Vacuum Reservoir

1 - VACUUM RESERVOIR

(2) Install reservoir and tighten screws to 5 N·m (45 ins. lbs.) (Fig. 19).

(3) Install the inner splash shield (Fig. 18).

(4) Lower vehicle.

(5) Install the negative battery cable.

(6) Install the air cleaner lid, connect the inlet air temperature sensor and makeup air hose.

VEHICLE THEFT SECURITY (Continued)

OPERATION

VEHICLE THEFT SECURITY SYSTEM

The system is armed when the vehicle is locked using the:

- Power door lock switches.
- Remote Keyless Entry (RKE) transmitter.
- Key cylinder switches.

After the vehicle is locked and the last door is closed, the circular red VTSS indicator in the instrument cluster will flash quickly for 16 seconds, indicating that arming is in progress. If no monitored systems are activated during this period the system will arm. After 16 seconds, the LED will continue to flash at a slower rate indicating the system is armed.

If the VTSS indicator does not illuminate at all upon door closing it indicates that the system is not arming.

VTSS disarming occurs upon normal vehicle entry by unlocking either door via the key cylinders or RKE transmitter, or by starting the vehicle with a valid Sentry Key. This disarming will also halt the alarm once it has been activated.

A tamper alert exists to notify the driver that the system had been activated. This alert consists of 3 horn pulses when the vehicle is disarmed.

The VTSS will not arm by mechanically locking the vehicle doors. This will manually override the system.

TRIGGERING THE VTSS

ARMING THE VTSS

Locking the power door switch and closing the door or the keyless transmitter will arm the system, or locking any door or liftgate with the key cylinder switch.

SETTING OFF THE VTSS Any of the following actions will trigger the system:

(1) Opening any door or liftgate.

NOTE: Only EXPORT alarm systems will include a hood ajar switch, motion sensor, and decklid ajar switch.

(2) Turning the ignition to the ON position with an invalid key.

VEHICLE THEFT SECURITY SYSTEM - EXPORT

In the event the Premium VTSS is triggered, the VTSS siren will sound and the turn indicator lamps will flash on the premium security system. The premium system cannot be disarmed via the key cylinders.

In the event the Standard VTSS is triggered, the VTSS will sound the vehicle horn and flash the headlamp and park lamps in a alternating fashion.

The VTSS and RKE system receives signals from the hand-held key fob or transmitter. European market vehicles use 433 MHz frequency. Japan market vehicles use 268 MHz frequency.

SENTRY KEY IMMOBILIZER SYSTEM

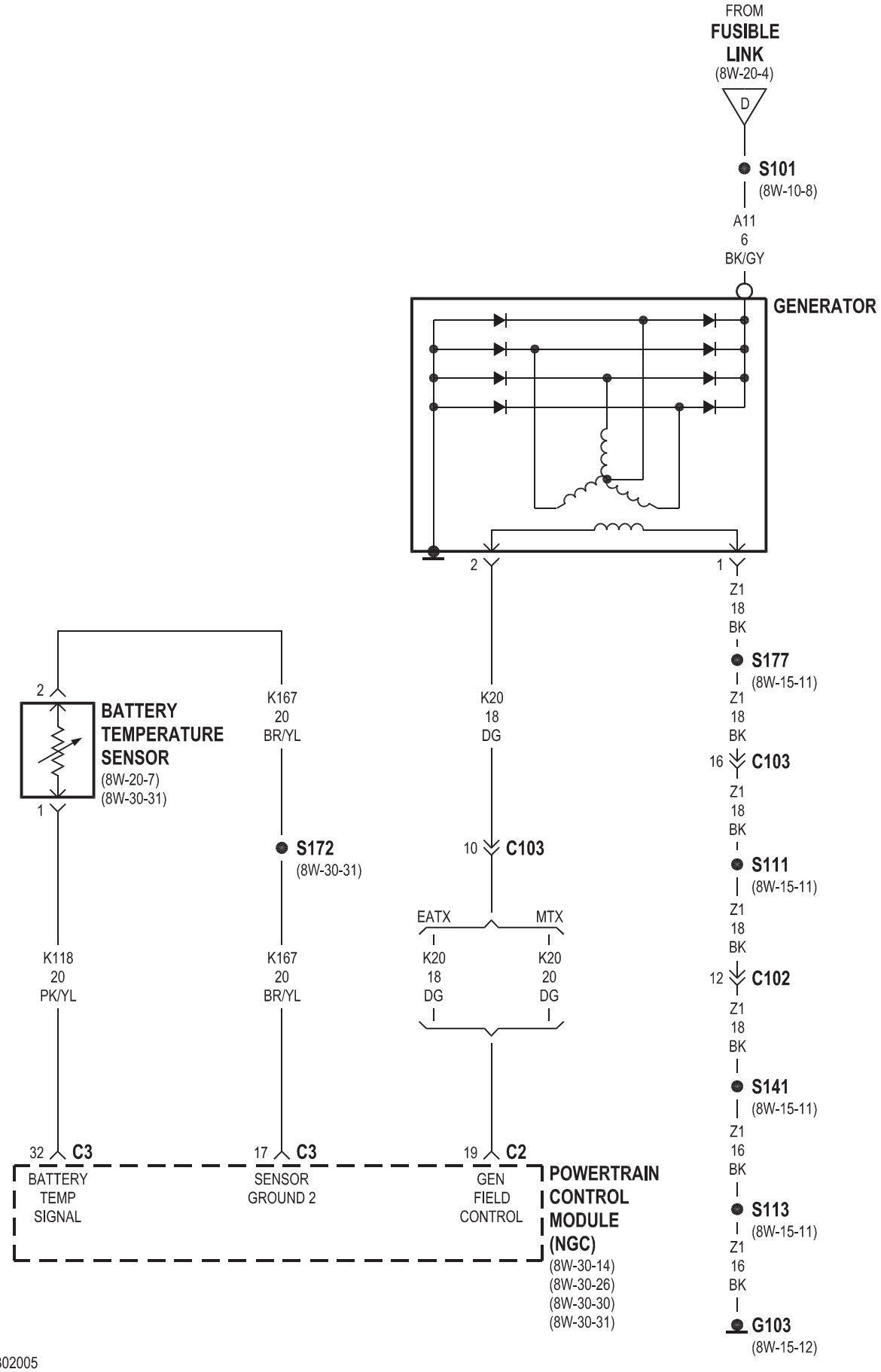
The SKIS includes keys from the factory which are pre-programmed. Each SKIM will recognize a maximum of eight Sentry Keys. If the customer would like to own additional keys other than those provided with the vehicle, they can be purchased from any authorized dealer. These keys must be programmed to the SKIM on the vehicle in order for the system to recognize them as valid keys. This can be done by the dealer with a DRB III® scan tool or by a customer if this feature is available in their market and they have two (2) valid keys already available to them. Refer to the Service Procedures portion of this system for additional details. The SKIS performs a self-test each time the ignition switch is turned to the ON position and will store Diagnostic Trouble Codes (DTC's) if a system malfunction is detected. The DTC's can be retrieved using a DRB III® scan tool. The SKIS can be diagnosed using the proper Powertrain Diagnostic Procedures manual.

DIAGNOSIS AND TESTING - SENTRY KEY IMMOBILIZER SYSTEM

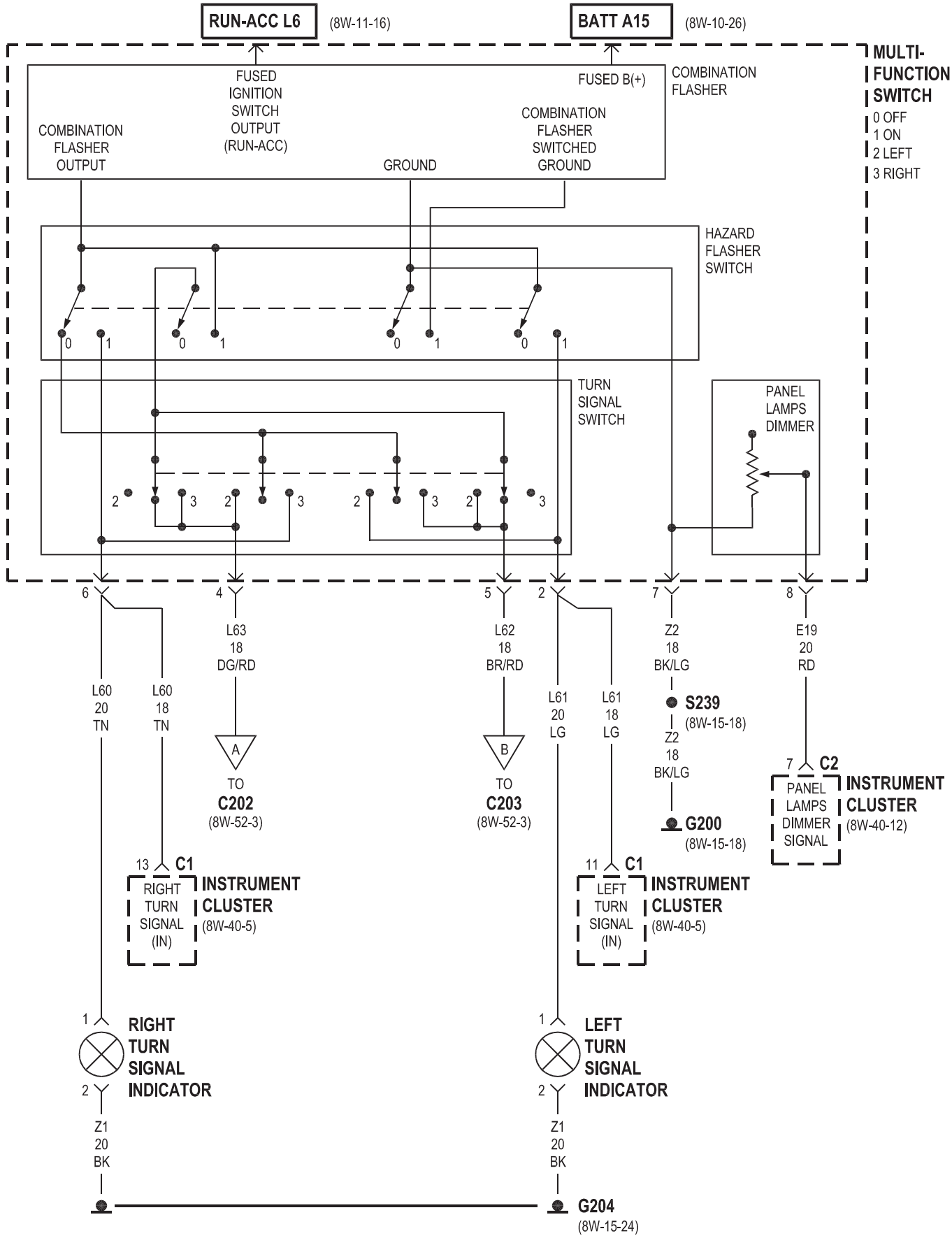
WARNING: ON VEHICLES EQUIPPED WITH AIRBAGS, (Refer to 8 - ELECTRICAL/RESTRAINTS - WARNING). FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

NOTE: The following tests may not prove conclusive in the diagnosis of this system. The most reliable, efficient, and accurate means to diagnose the Sentry Key Immobilizer System (SKIS) involves the use of a DRB lll® scan tool and the proper Powertrain Diagnostic Procedures manual.

The Sentry Key Immobilizer System (SKIS) and the Programmable Communication Interface (PCI) bus network should be diagnosed using a DRB lll® scan tool. The DRB lll® will allow confirmation that the PCI bus is functional, that the Sentry Key Immobilizer Module (SKIM) is placing the proper messages on the PCI bus, and that the Powertrain Control Module (PCM) and the instrument cluster are receiving the PCI bus messages. Refer to the proper Powertrain Diagnostic Procedures manual. Refer to


FROM
FUSIBLE
LINK
(8W-20-4)
D
S101
(8W-10-8)
A11
6
BK/GY
GENERATOR
2
1
Z1
18
BK
S177
(8W-15-11)
Z1
18
BK
16
C103
Z1
18
BK
S111
(8W-15-11)
Z1
18
BK
12
C102
Z1
18
BK
S141
(8W-15-11)
Z1
16
BK
S113
(8W-15-11)
Z1
16
BK
G103
(8W-15-12)
2
BATTERY
TEMPERATURE
SENSOR
(8W-20-7)
(8W-30-31)
1
K118
20
PK/YL
K167
20
BR/YL
S172
(8W-30-31)
K167
20
BR/YL
K20
18
DG
10
C103
EATX
MTX
K20
18
DG
K20
20
DG
32
C3
BATTERY
TEMP
SIGNAL
17
C3
SENSOR
GROUND 2
19
C2
GEN
FIELD
CONTROL
POWERTRAIN
CONTROL
MODULE
(NGC)
(8W-30-14)
(8W-30-26)
(8W-30-30)
(8W-30-31)

EXCEPT EXPORT



▼ CANADA ONLY

CONNECTOR/GROUND/SPLICE LOCATION (Continued)

GROUNDS

GROUND	LOCATION	FIG.
G100 (Gas)	Left Front Engine Compartment	2, 5, 6
G100 (Diesel)	Below Passenger Seat	7, 48
G101	At Battery Tray	5, 6, 7, 18
G102	Left Fender Area	1, 14, 16
G103	Left Fender Area	1, 14, 16
G104	Right Fender Area	9, 10, 11, 17
G105	Left Front Inner Fender	13, 14, 16
G106	In T/O for Powertrain Control Module	25, 26
G200	Center Rear of Instrument Panel	31
G201	Center Rear of Instrument Panel	28, 33
G202	Left Kick Panel Near T/O for Airbag Control Module	36
G203	Center Rear of Instrument Panel	31
G204	Left Kick Panel	31
G300	Left Rear Quarter	46, 47
G301	Right Rear Quarter	43
G302	Upper Left Rear Cargo Area	N/S

SPLICES

SPLICE	LOCATION	FIG.
S100	Near T/O for Fuel Injectors	N/S
S101	Near Engine Starter Eyelet	23
S102	Near T/O for Inline C103	21
S103	Near T/O for Powertrain Control Module - C1	22
S104	In T/O for PCM C4	21
S106	Near T/O for Oxygen Sensor 1/1 Upstream	22
S107	Near T/O for C103, Left Side of Engine	21
S109	Near T/O for Engine Oil Pressure Switch	22
S111 (MTX)	Near T/O for Back-up Lamp Switch	21
S111 (ATX)	Near T/O for Input Speed Sensor	N/S
S113 (LHD)	Near T/O for Brake Warning Indicator Switch	1, 12
S114	In T/O for Oxygen Sensor 1/1 Upstream	22
S115 (1.6L)	Near T/O for Brake Warning Indicator Switch	2
S115 (2.0L/2.4L Except Turbo)	Near T/O for Grounds G102/G103	1
S116 (1.6L)	In T/O for Left Low Beam Headlamp	3
S116 (2.0L export)	Near T/O for Grounds G102/G103	1, 12
S117	Near T/O for Radiator Fan Motor	13, 15, 19
S118	Left Front Engine Compartment	1, 13, 19
S119	Near T/O for Controller Antilock Brake	2, 6, 15, 16
S120	Near T/O for Right Headlamp Assembly	1, 17, 19

TORQUE STRUTS (Continued)

INSTALLATION

UPPER TORQUE STRUT

(1) Position the upper torque strut into mounting locations (Fig. 83).
(2) Install the mounting bolts.
(3) Perform torque strut adjustment procedure (Refer to 9 - ENGINE/ENGINE MOUNTING/ TORQUE STRUT - ADJUSTMENTS).

LOWER TORQUE STRUT

(1) Position lower torque strut into mounting locations (Fig. 83).
(2) Install mounting bolts.
(3) Install pencil strut (Fig. 84).
(4) Perform torque strut adjustment procedure (Refer to 9 - ENGINE/ENGINE MOUNTING/ TORQUE STRUT - ADJUSTMENTS).
(5) Install accessory drive belt splash shield.
(6) Lower vehicle.

ADJUSTMENTS

ADJUSTMENT

The upper and lower torque struts need to be adjusted together to assure proper engine positioning and engine mount loading. Whenever a torque strut bolt(s) is loosened, this procedure must be performed.
(1) Loosen the upper and lower torque strut attaching bolt at the suspension crossmember and shock tower bracket.
(2) The engine position may now be adjusted by positioning a suitable floor jack on the forward edge of the transmission bell housing (Fig. 85).

NOTE: The floor jack must be positioned as shown in (Fig. 85) to prevent minimal upward lifting of the engine.

(3) With the engine supported, remove the upper and lower torque strut attachment bolt(s) at shock tower bracket and suspension crossmember (Fig. 83). Verify that the torque struts are free to move within the shock tower bracket and crossmember. Reinstall the torque strut bolt(s), but do not tighten.
(4) Carefully apply upward force, allowing the upper engine to rotate rearward until the distance between the center of the rearmost attaching stud on the engine mount bracket (point “A”) and the center of the hole for the washer hose clip on the shock tower bracket (point “B”) is 119 mm (4.70 in.) (Fig. 86).
(5) With the engine held at the proper position, tighten both the upper and lower torque strut bolts to 118 N·m (87 ft. lbs.) (Fig. 83).
(6) Remove the floor jack.

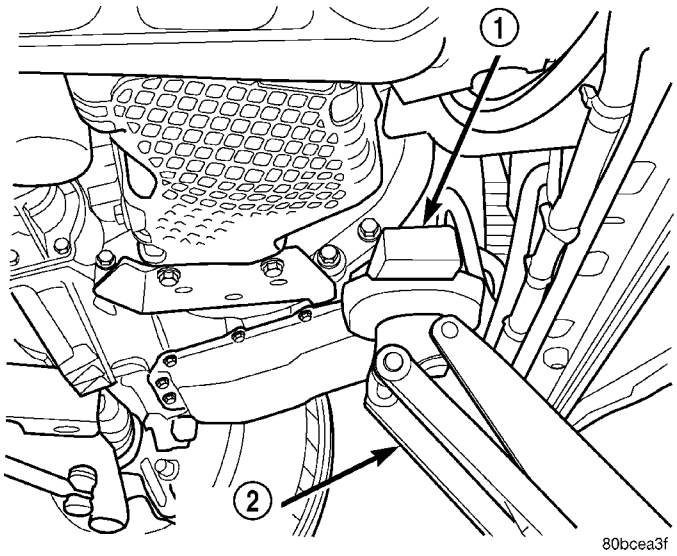


Fig. 85 Floor Jack Positioning

1 - WOOD BLOCK
2 - FLOOR JACK

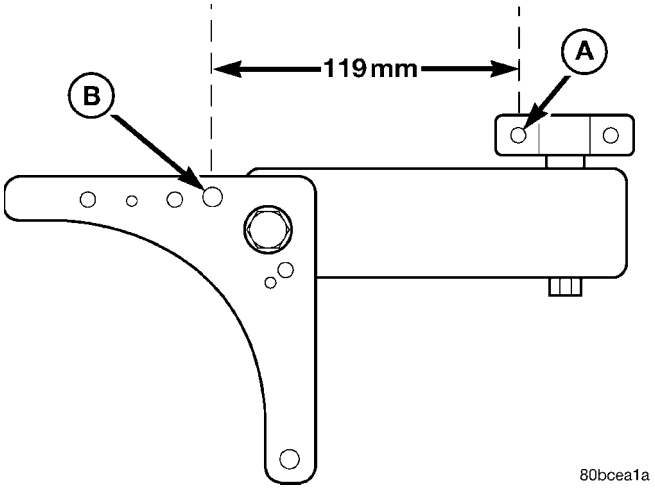


Fig. 86 Engine Position Measurement

RIGHT ENGINE MOUNT BRACKET

REMOVAL

(1) Remove upper torque strut (Refer to 9 - ENGINE/ENGINE MOUNTING/TORQUE STRUT - REMOVAL).
(2) Remove fasteners securing power steering reservoir bracket to right engine mount bracket.
(3) Remove fastener securing power steering return line to right engine mount bracket.
(4) Raise vehicle on hoist.
(5) Remove right front wheel.
(6) Remove accessory drive belt splash shield.

ENGINE 2.4L DOHC (Continued)

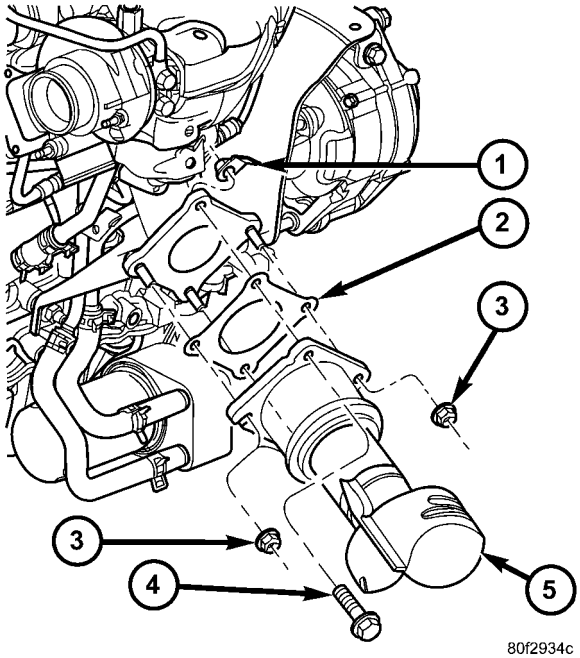


Fig. 11 Converter to Exhaust Manifold Connection - 2.4L Turbo

1 - FLAG NUT
2 - GASKET
3 - NUT
4 - BOLT
5 - CATALYTIC CONVERTER

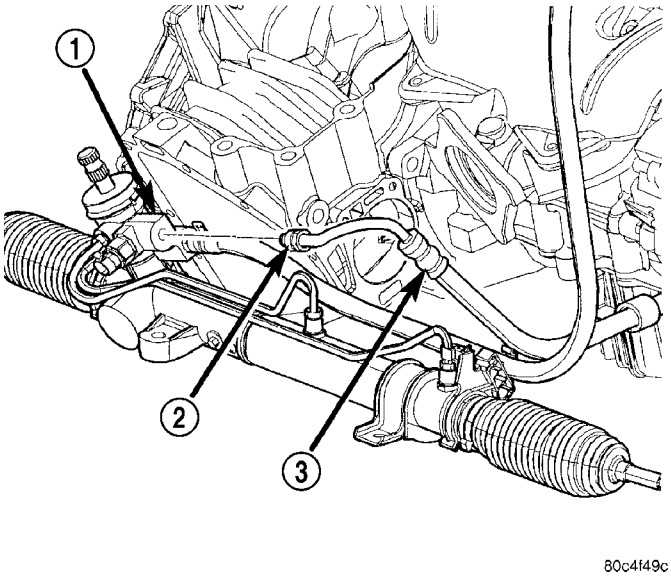


Fig. 12 Power Steering Fluid Pressure Hose

1 - STEERING GEAR
2 - FITTING
3 - POWER STEERING PRESSURE HOSE

(38) Remove structural collar (Refer to 9 - ENGINE/ENGINE BLOCK/STRUCTURAL COLLAR - REMOVAL).

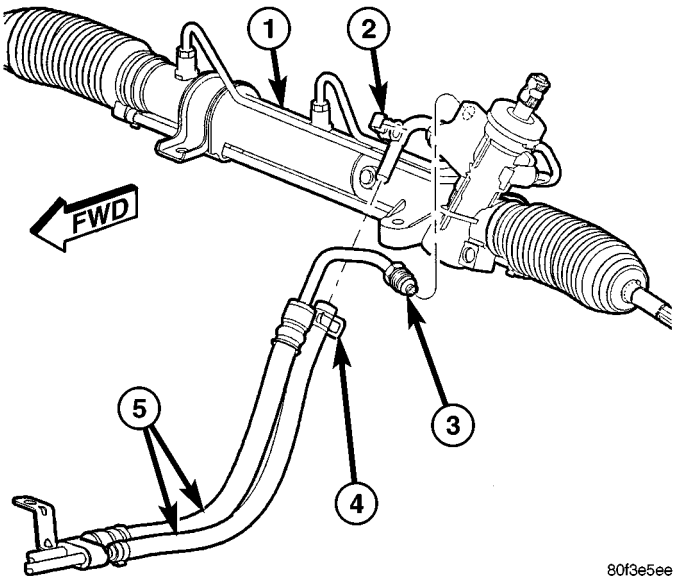


Fig. 13 Hoses At Power Steering Gear - 2.4L Turbo

1 - POWER STEERING GEAR
2 - ROUTING CLIP
3 - PRESSURE HOSE TUBE NUT
4 - RETURN HOSE CLAMP
5 - PRESSURE/RETURN HOSE ASSEMBLY

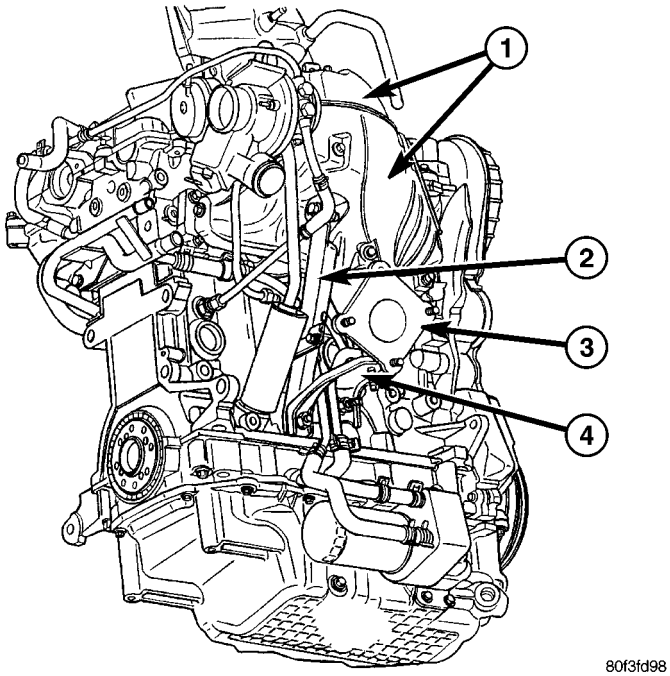


Fig. 14 Turbocharger Brackets and Heat Shields

1 - UPPER/LOWER HEAT SHIELDS
2 - TURBOCHARGER SUPPORT BRACKET
3 - ELBOW
4 - ELBOW SUPPORT BRACKET

(39) **Automatic Transmission equipped vehicles:**

(a) Remove torque converter bolts and mark converter to flex plate orientation for reassembly.

FUEL INJECTOR (Continued)

(11) Remove the 5 bolts from the front of the intake manifold.

(12) Remove the 2 bolts from the rear of the intake manifold (Fig. 23).

(13) Remove the intake manifold. Cover the lower intake manifold openings (Fig. 24).

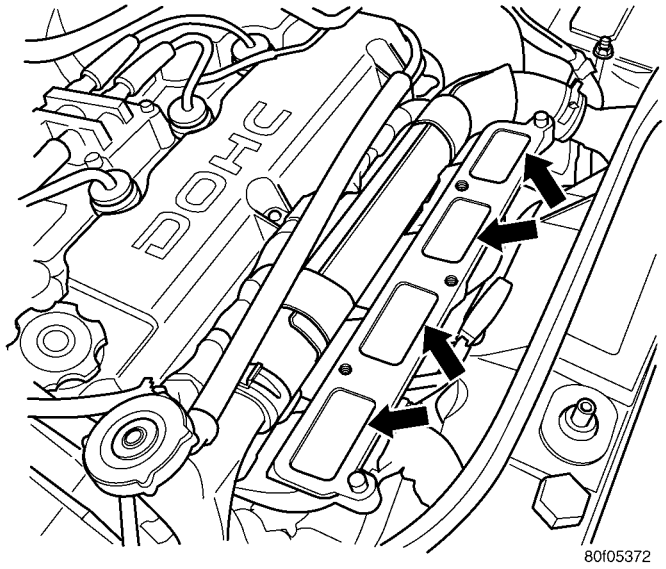


Fig. 24 LOWER INTAKE MANIFOLD - 2.4L TURBO

(14) Drain the Coolant system, refer to the Cooling section for more information.

(15) Move the upper radiator hose clamp (Fig. 25), so that the hose can be rotated up and out of the way.

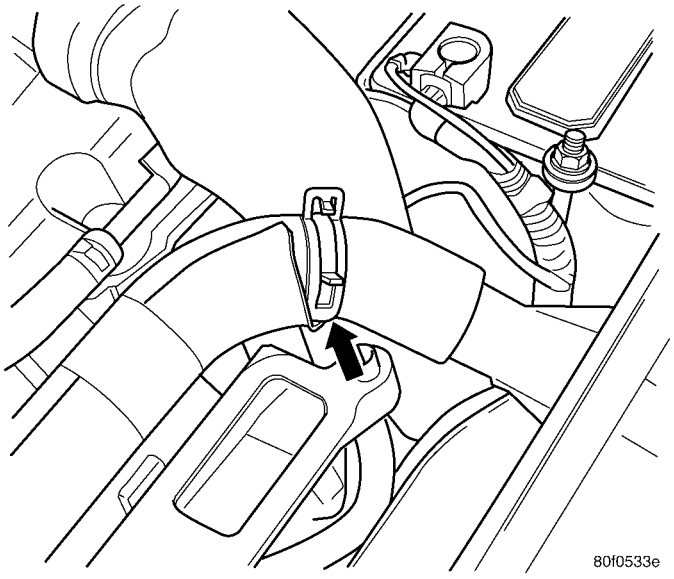


Fig. 25 UPPER RADIATOR HOSE CLAMP - 2.4L TURBO

(16) Remove the 2 small hoses from the thermostat housing (Fig. 26).

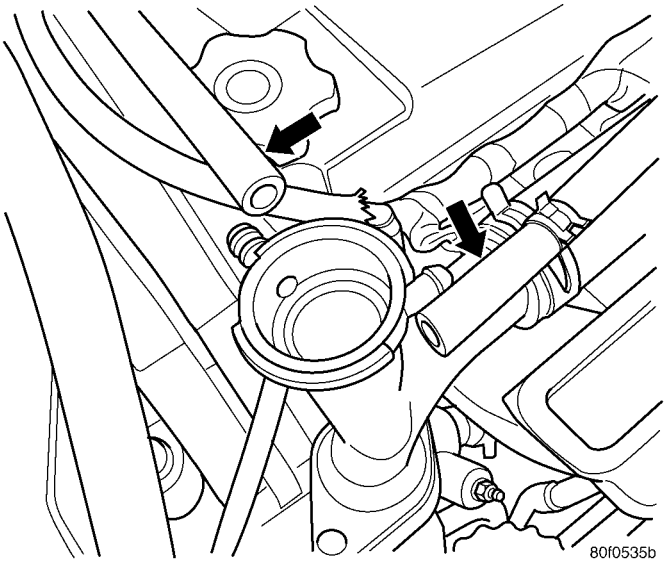


Fig. 26 SMALL HOSES AT HOUSING - 2.4L TURBO

(17) Remove the 2 bolts from the thermostat housing (Fig. 27)and rotate the assembly up and out of the way (Fig. 28).

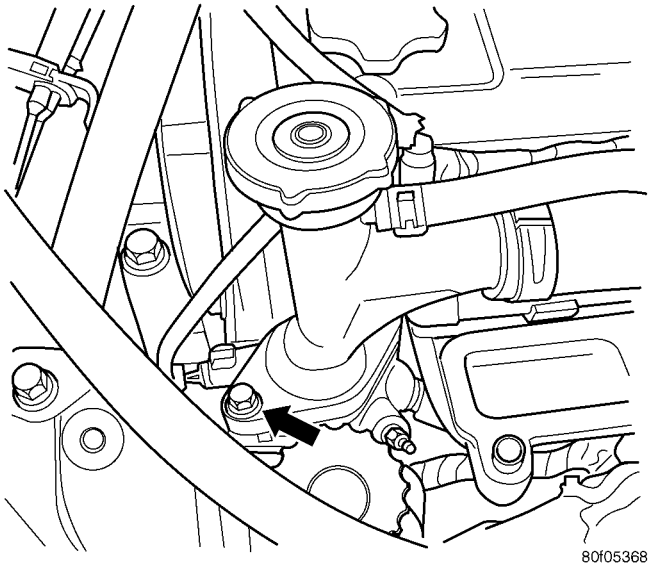


Fig. 27 THERMOSTAT HOUSING - 2.4L TURBO

CONDENSATION DRAIN TUBE (Continued)

INSTALLATION

(1) Squeeze the retaining clamp and install the tube over the nipple.
(2) Lower the vehicle.

HEATER CORE

DESCRIPTION

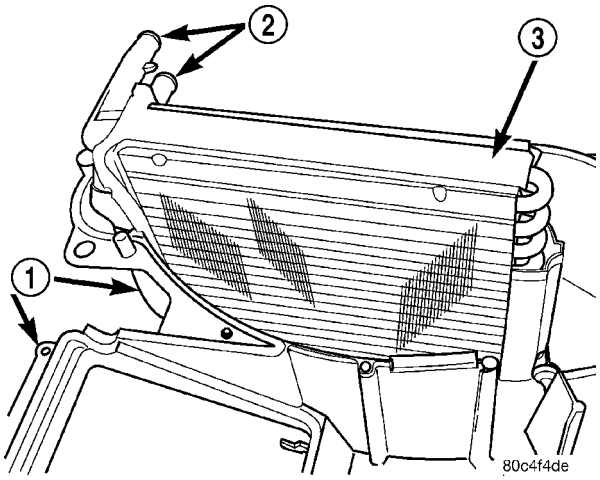


Fig. 55 Heater Core

1 - LOWER HEATER-A/C UNIT HOUSING
2 - HEATER CORE HOSE NIPPLES
3 - HEATER CORE

The heater core (Fig. 55) is located in the heater-A/C unit housing, under the instrument panel. It is a heat exchanger made of rows of tubes and fins. One end of the core is fitted with a molded plastic tank that includes the integral heater core hose nipples.

OPERATION

Engine coolant is circulated through heater hoses to the heater core at all times. As the coolant flows through the heater core, heat removed from the engine is transferred to the heater core fins and tubes. Air directed through the heater core picks up the heat from the heater core fins. The blend air door allows control of the heater output air temperature by controlling how much of the air flowing through the heater-A/C housing is directed through the heater core. The blower motor speed controls the volume of air flowing through the heater-A/C housing.

The heater core cannot be repaired and, if faulty or damaged, it must be replaced. Refer to Cooling System for more information on the engine cooling system, the engine coolant and the heater hoses.

REMOVAL

WARNING: ON VEHICLES EQUIPPED WITH AIR-BAGS, REFER TO PASSIVE RESTRAINT SYSTEMS BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. FAILURE TO TAKE THE PROPER PRE-CAUTIONS COULD RESULT IN ACCIDENTAL AIR-BAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

WARNING: DO NOT OPEN THE RADIATOR DRAIN-COCK OR DISCONNECT COOLANT HOSES WHEN THE SYSTEM IS HOT AND UNDER PRESSURE. SERIOUS BURNS FROM COOLANT CAN OCCUR.

(1) Disconnect the negative battery cable.
(2) Drain the cooling system(Refer to 7 - COOLING/ENGINE - STANDARD PROCEDURE).
(3) Evacuate the refrigerant system(Refer to 24 - HEATING & AIR CONDITIONING - STANDARD PROCEDURE).
(4) Remove the instrument panel(Refer to 23 - BODY/INSTRUMENT PANEL/INSTRUMENT PANEL ASSEMBLY - REMOVAL).
(5) Remove the refrigerant lines from the evaporator connections.
(6) Remove the heater core coolant supply hoses from the heater core (Fig. 56).

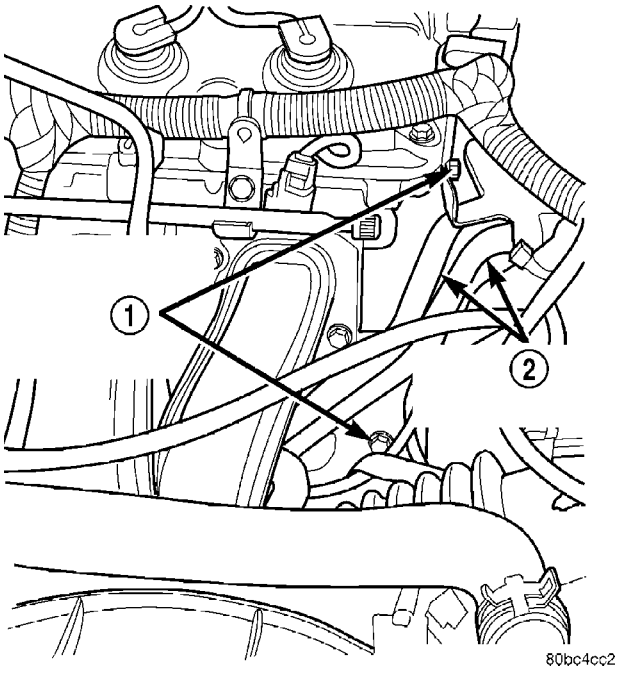


Fig. 56 Heater Core Coolant Supply Lines

1 - HEATER CORE COOLANT LINE SUPPORT BRACKET BOLTS
2 - HEATER CORE COOLANT SUPPLY LINES

(7) Working from inside the engine compartment, remove the A/C-heater housing retaining fateners from the bulk head.
(8) Remove the A/C-heater housing drain tube. Remove the spring clip from the A/C-heater housing and body attachement point.