

INTRODUCTION

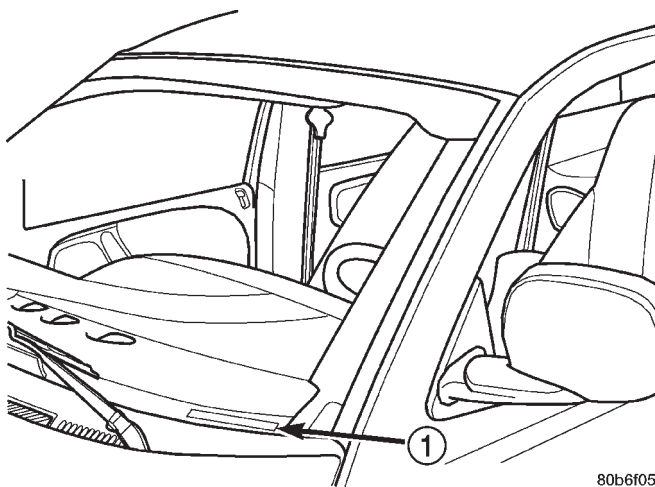
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DESCRIPTION AND OPERATION

VEHICLE IDENTIFICATION NUMBER (VIN) PLATE

The Vehicle Identification Number (VIN) plate is attached to the top left side of the instrument panel (Fig. 1). The VIN contains 17 characters that provide data concerning the vehicle. Refer to the decoding chart to determine the identification of a vehicle.



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Fig. 1 Vehicle Identification Number (VIN)

1 - VIN

DIAGNOSIS AND TESTING (Continued)

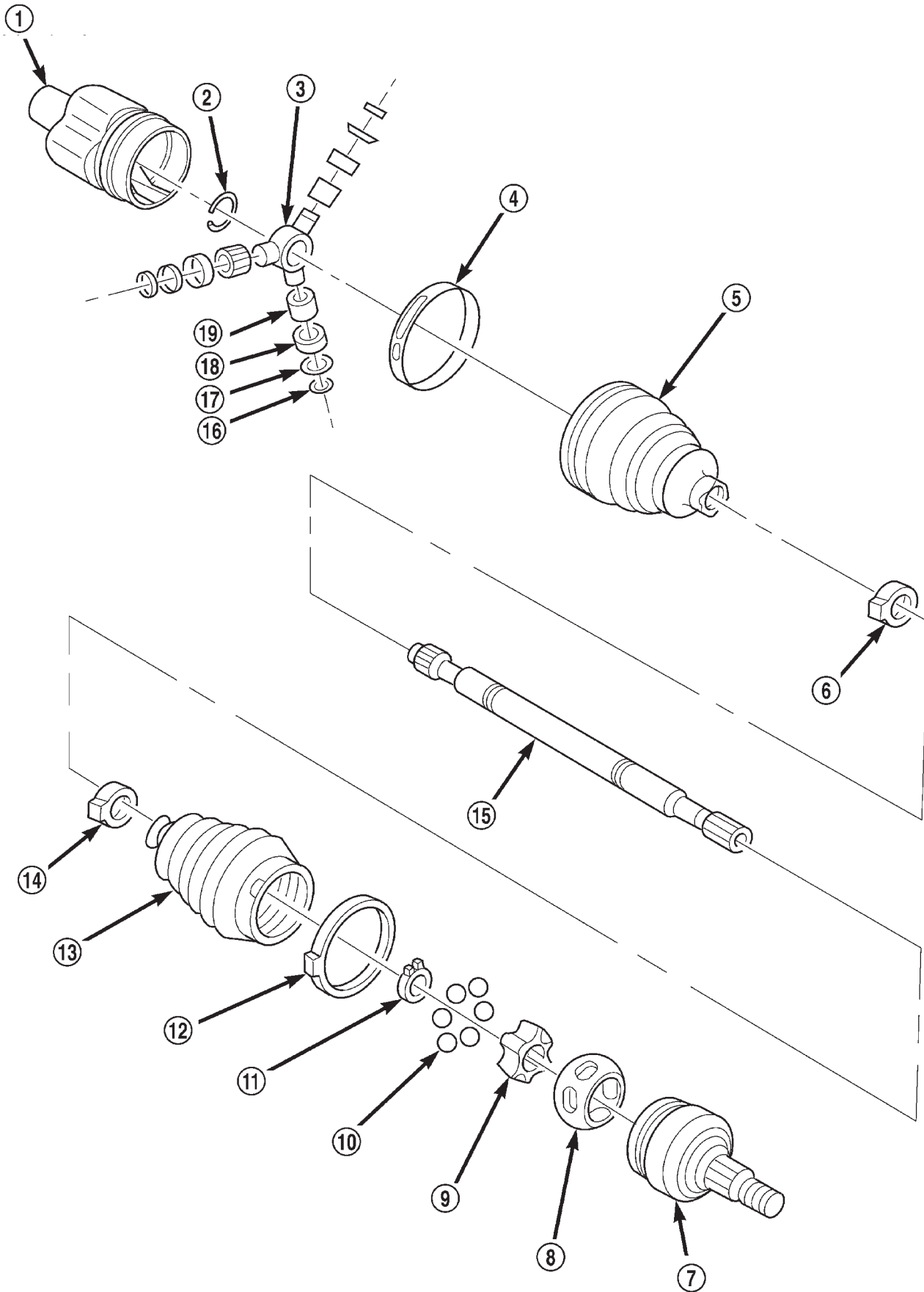
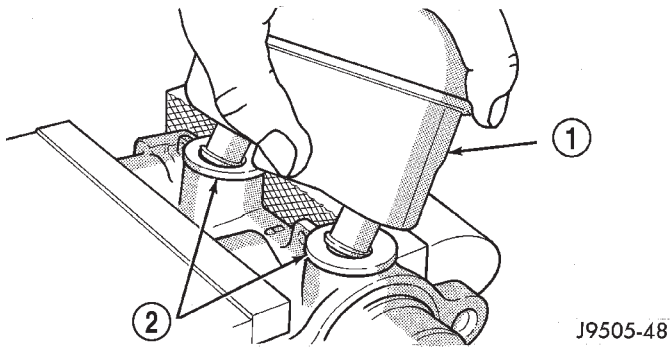
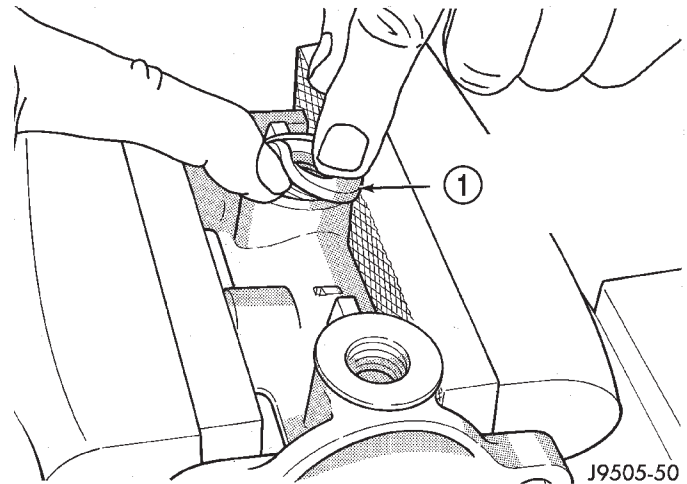


Fig. 1 C/V Drive Shaft Components

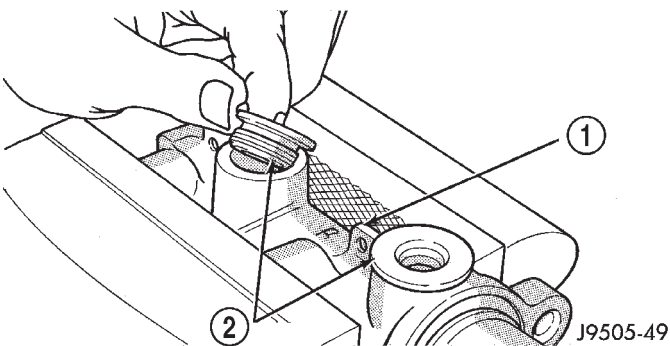
DISASSEMBLY AND ASSEMBLY (Continued)

**Fig. 42 Reservoir Removal**

- 1 - RESERVOIR
2 - GROMMETS

**Fig. 44 Grommet Installation**

- 1 - WORK NEW GROMMETS INTO PLACE USING FINGER PRESSURE ONLY

**Fig. 43 Grommet Removal**

- 1 - MASTER CYLINDER BODY
2 - GROMMETS

INSTALLATION

CAUTION: Do not use any type of tool to install the grommets. Tools may cut, or tear the grommets creating a leak problem after installation. Install the grommets using finger pressure only.

(1) Lubricate new grommets with clean brake fluid and install new grommets in cylinder body (Fig. 44). Use finger pressure to install and seat grommets.

(2) Start reservoir in grommets. Then rock reservoir back and forth while pressing downward to seat it in grommets.

(3) Install pins that retain reservoir to cylinder body.

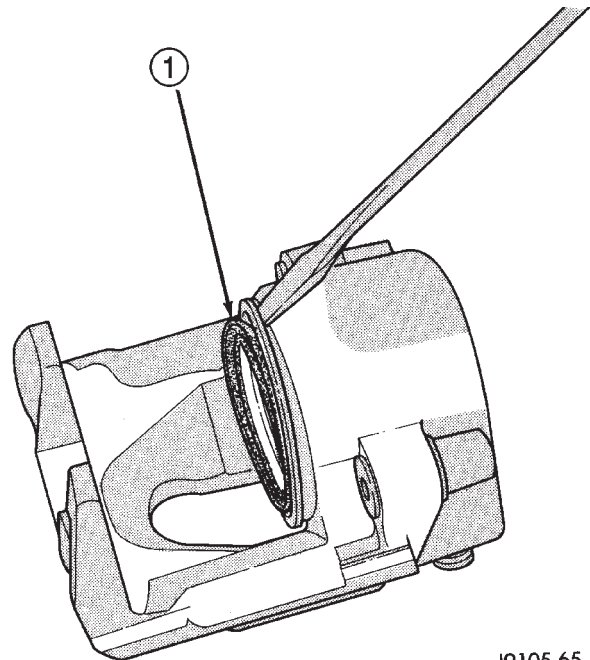
(4) Fill and bleed master cylinder on bench before installation in vehicle.

DISC BRAKE CALIPER

DISASSEMBLY

(1) Drain old brake fluid out of caliper into drain pan.

(2) Remove piston dust boot (Fig. 45). Use screwdriver to push boot out of groove.

**Fig. 45 Piston Dust Boot**

- 1 - PISTON BOOT DUST

(3) Pad outboard shoe side of caliper interior with a minimum 1 inch thickness of shop towels (Fig. 46). Towels will prevent piston damage when piston comes out of the caliper bore.

(4) Remove caliper piston with short bursts of compressed air. Apply air pressure through fluid inlet port of caliper (Fig. 46).

REMOVAL AND INSTALLATION (Continued)

(6) Reach through the glove box opening to access and disengage the retainer that secures the antenna cable to the instrument panel structural support on the inboard side of the glove box opening.

(7) Remove the radio receiver from the instrument panel. Refer to **Radio Receiver** in the Removal and Installation section of this group for the procedures.

(8) Pull the antenna cable out through the radio receiver opening in the instrument panel.

(9) Untie the cord or twine from the instrument panel antenna cable connector, leaving the cord or twine in place of the cable in the instrument panel.

(10) Remove the antenna cable from the instrument panel.

INSTALLATION

ANTENNA BODY AND CABLE

(1) Position the antenna body and cable in the opening between the right cowl side outer panel and the fender through the front door opening.

(2) Push the antenna coaxial cable into the passenger compartment through the hole in the right cowl side outer panel.

(3) Engage the antenna coaxial cable grommet in the hole in the right cowl side outer panel.

(4) Position the antenna body through the mounting hole in the top of the fender.

(5) Install the adapter over the antenna body from the top of the fender.

(6) Install and tighten the antenna cap nut using an antenna nut wrench (Special Tool C-4816). Tighten the antenna cap nut to 8 N·m (70 in. lbs.).

(7) Install and tighten the antenna mast onto the antenna body. Tighten the mast to 3.3 N·m (30 in. lbs.).

(8) Engage the antenna coaxial cable retainers at the right cowl side inner panel and inside the right front fender.

(9) Engage the antenna coaxial cable in the retainer clips on the lower instrument panel reinforcement and the heater-A/C housing.

(10) Reach under the instrument panel below the glove box to reconnect the antenna coaxial cable connector.

(11) Install the trim cover onto the right cowl side inner panel. Refer to **Cowl Trim Cover** in the Removal and Installation section of Group 23 - Body for the procedures.

(12) Reconnect the battery negative cable.

INSTRUMENT PANEL ANTENNA CABLE

(1) Tie the end of the cord or twine that was used during instrument panel antenna cable removal securely to the connector on the end of the antenna coaxial cable being installed into the instrument

panel. This cord will be used to pull or “fish” the cable back into position.

(2) Using the cord or twine, pull the antenna cable through the radio receiver opening from under the instrument panel.

(3) Install the radio receiver onto the instrument panel. Refer to **Radio Receiver** in the Removal and Installation section of this group for the procedures.

(4) Reach through the glove box opening to access and engage the retainer that secures the antenna cable to the instrument panel structural support on the inboard side of the glove box opening.

(5) Install the glove box onto the instrument panel. Refer to **Glove Box** in the Removal and Installation section of Group 8E - Instrument Panel Systems for the procedures.

(6) Engage the instrument panel antenna cable to the retainer clip on the lower instrument panel reinforcement inboard of the glove box opening.

(7) Untie the cord or twine from the instrument panel half of the antenna coaxial cable connector.

(8) Reach under the instrument panel below the glove box to access and reconnect the antenna coaxial cable connector.

(9) Reconnect the battery negative cable.

RADIO NOISE SUPPRESSION COMPONENTS

WARNING: ON VEHICLES EQUIPPED WITH AIR-BAGS, REFER TO GROUP 8M - PASSIVE RESTRAINT SYSTEMS BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIR-BAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

REMOVAL

ENGINE-TO-BODY GROUND STRAPS

(1) Remove the nut and washer that secures the left engine-to-body ground strap eyelet terminal to the weld stud on the left side of the lower plenum panel (Fig. 16).

(2) Remove the nut and washer that secures the right engine-to-body ground strap eyelet terminal to the inboard weld stud on the right side of the lower plenum panel (Fig. 16).

(3) Remove the screw that secures the left engine-to-body ground strap eyelet terminal to the rear of the left cylinder head (Fig. 17) or (Fig. 18).

(4) Remove the screw that secures the right engine-to-body ground strap eyelet terminal to the rear of the right cylinder head (Fig. 17) or (Fig. 18).

DESCRIPTION AND OPERATION (Continued)

HORN RELAY

The horn relay is a International Standards Organization (ISO) micro-relay. The terminal designations and functions are the same as a conventional ISO relay. However, the micro-relay terminal orientation (or footprint) is different, current capacity is lower, and the relay case dimensions are smaller than those of the conventional ISO relay.

The horn relay is a electromechanical device that switches battery current to the horn when the horn switch or the high-line Central Timer Module (CTM) grounds the relay coil. Refer to **Relays** in the Diagnosis and Testing section of this group for more information.

The horn relay is located in the Junction Block (JB), on the left end of the instrument panel in the passenger compartment. See the fuse and relay layout label on the inside of the fuse access panel for relay identification and location.

If a problem is encountered with a continuously sounding horn, it can usually be quickly resolved by removing the horn relay from the JB until further diagnosis is completed.

The horn relay cannot be repaired and, if faulty or damaged, it must be replaced.

SECURITY LAMP

The security lamp is located within the instrument cluster on the instrument panel. The security lamp is illuminated by a red Light-Emitting Diode (LED) that is integral to the instrument cluster circuit board. The security lamp receives fused battery feed at all times and is grounded by the high-line Central Timer Module (CTM) to give a visual indication of the Vehicle Theft Security System (VTSS) arming status.

The security lamp cannot be repaired and, if faulty or damaged, the instrument cluster unit must be replaced. Refer to Instrument Cluster in the Removal and Installation section of Group 8E - Instrument Panel Systems for the service procedures.

DIAGNOSIS AND TESTING**VEHICLE THEFT SECURITY SYSTEM**

WARNING: ON VEHICLES EQUIPPED WITH AIR-BAGS, REFER TO GROUP 8M - PASSIVE RESTRAINT SYSTEMS BEFORE ATTEMPTING ANY STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIR-BAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY.

The Vehicle Theft Security System (VTSS) and the Chrysler Collision Detection (CCD) data bus network should be diagnosed using a DRB scan tool and the proper Diagnostic Procedures manual. The DRB will provide confirmation that the data bus is functional, that the high-line Central Timer Module (CTM) is receiving and sending the proper messages on the data bus, that the CTM is receiving the proper hard-wired inputs and sending the proper hard-wired outputs, and that the Powertrain Control Module (PCM) is receiving the data bus messages from the CTM. Refer to the Vehicle Theft Security System menu item on the DRB scan tool for the procedures. Refer to 8W-39 - Vehicle Theft Security System in Group 8W - Wiring Diagrams for complete circuit descriptions and diagrams.

DOOR LOCK CYLINDER SWITCH

Refer to **Vehicle Theft Security System** in the index of this service manual for the location of complete door lock cylinder switch wiring diagrams.

(1) Disconnect the door lock cylinder switch wire harness connector from the door wire harness connector.

(2) Using an ohmmeter, perform the switch resistance checks between the two cavities of the door lock cylinder switch wire harness connector. Actuate the switch by rotating the key in the door lock cylinder to test for the proper resistance values in each of the three switch positions, as shown in the Door Lock Cylinder Switch chart.

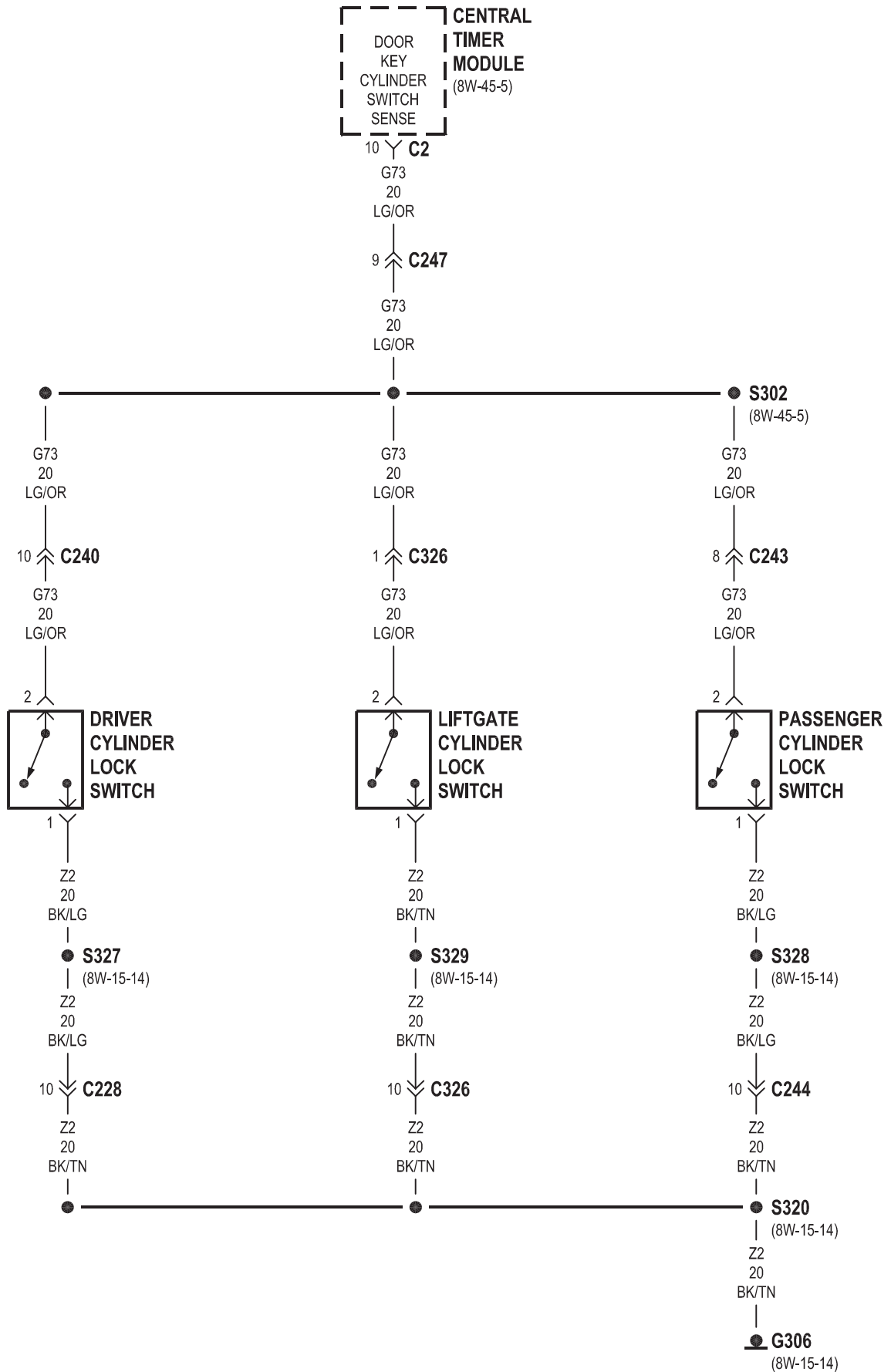
DOOR LOCK CYLINDER SWITCH		
Switch Position		Resistance
Driver Side	Passenger Side	
Neutral	Neutral	12 Kilohms
Lock (Clockwise)	Lock (Counter Clockwise)	644 Ohms
Unlock (Counter Clockwise)	Unlock (Clockwise)	1565 Ohms

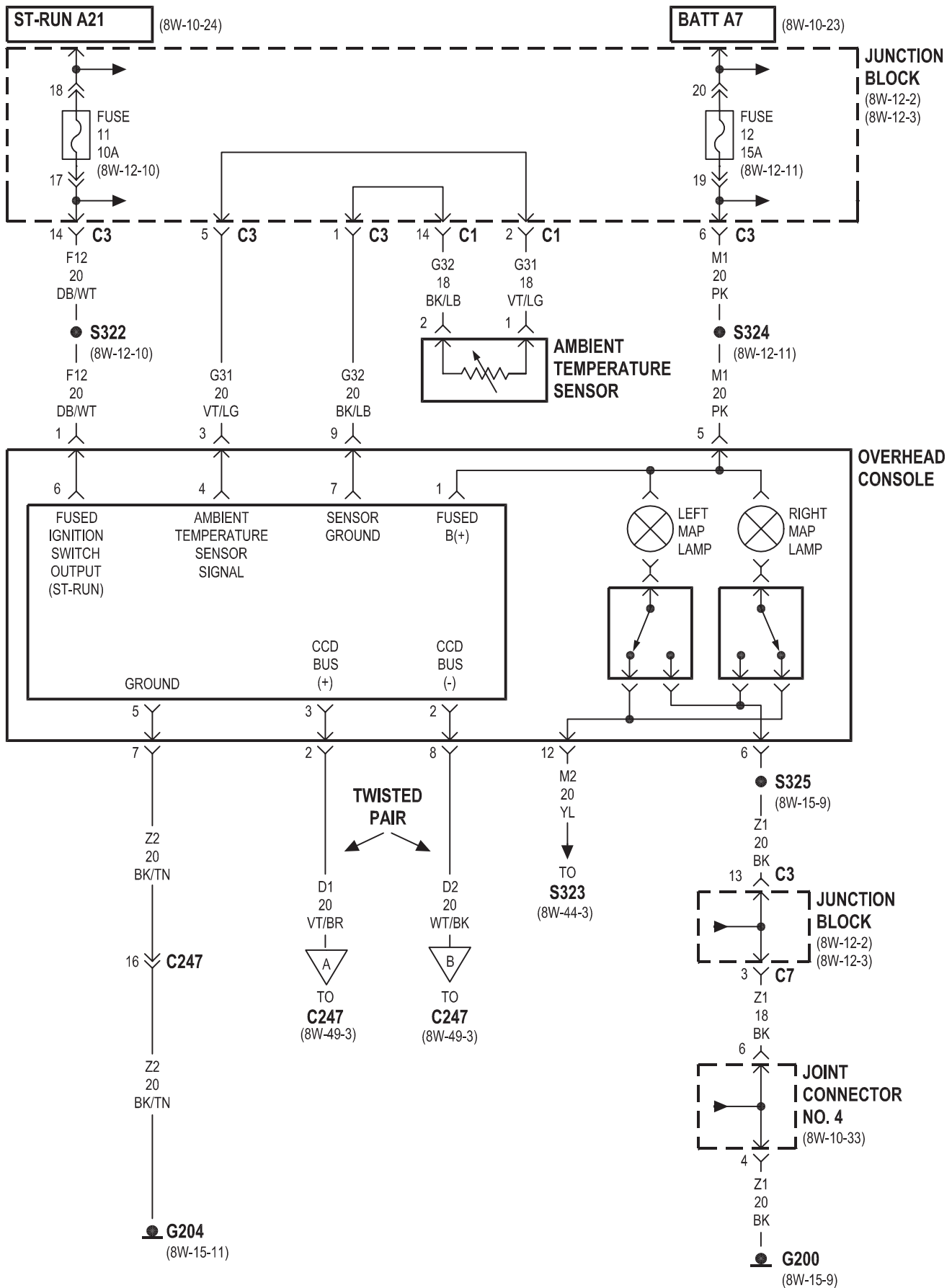
(3) If a door lock cylinder switch fails any of the resistance tests, replace the faulty switch as required.

LIFTGATE LOCK CYLINDER SWITCH

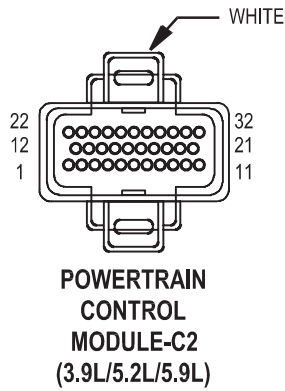
Refer to **Vehicle Theft Security System** in the index of this service manual for the location of complete liftgate lock cylinder switch wiring diagrams.

(1) Disconnect the liftgate lock cylinder switch wire harness connector from the liftgate wire harness connector.





Component	Page	Component	Page
Generator	8W-80-25	Liftgate Ajar Switch	8W-80-36
Glove Box Lamp	8W-80-25	Liftgate Cylinder Lock Switch	8W-80-37
Headlamp Switch	8W-80-25	Liftgate Lamp	8W-80-37
Heater Control	8W-80-4	Liftgate Lock Motor	8W-80-37
High Note Horn	8W-80-26	Line Pressure Sensor	8W-80-37
Idle Air Control Motor	8W-80-26	Low Note Horn	8W-80-37
Ignition Coil	8W-80-26	Manifold Absolute Pressure Sensor	8W-80-38
Ignition Switch	8W-80-26, 27	Multi-Function Switch	8W-80-38
Input Speed Sensor	8W-80-27	Oil Pressure Sensor	8W-80-38
Instrument Cluster	8W-80-27	Output Speed Sensor	8W-80-39
Intake Air Temperature Sensor	8W-80-28	Overdrive Switch	8W-80-39
Joint Connector No. 1	8W-80-28	Overhead A/C Blower	8W-80-40
Joint Connector No. 2	8W-80-29	Overhead A/C Control	8W-80-40
Joint Connector No. 3	8W-80-29	Overhead A/C Resistor Block	8W-80-40
Joint Connector No. 4	8W-80-30	Overhead Console	8W-80-40
Junction Block	8W-80-30, 31, 32	Oxygen Sensor 1/1 Upstream	8W-80-41
Key-In Ignition Switch	8W-80-32	Oxygen Sensor 1/2 Downstream	8W-80-41
Leak Detection Pump	8W-80-33	Oxygen Sensor 2/1 Upstream	8W-80-42
Left Door Speaker	8W-80-33	Oxygen Sensor 2/2 Downstream	8W-80-42
Left Door Tweeter	8W-80-33	Park/Neutral Position Switch	8W-80-42
Left Door Woofer	8W-80-33	Passenger Airbag	8W-80-42
Left Fog Lamp	8W-80-33	Passenger Cylinder Lock Switch	8W-80-43
Left Front Side Marker Lamp	8W-80-34	Passenger Door Ajar Switch	8W-80-43
Left Front Wheel Speed Sensor	8W-80-34	Passenger Door Lock Motor/Ajar Switch	8W-80-43
Left Headlamp	8W-80-34	Passenger Door Lock Switch	8W-80-43
Left Park/Turn Signal Lamp No. 1	8W-80-34	Passenger Door Window Motor	8W-80-44
Left Park/Turn Signal Lamp No. 2	8W-80-34	Passenger Door Window Switch	8W-80-44
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Left Rear Window Motor	8W-80-35	Power Outlet	8W-80-46
Left Rear Window Switch	8W-80-35	Power Seat Motors	8W-80-46
Left Remote Radio Switch	8W-80-36	Power Seat Switch	8W-80-46
Left Speed Control Switch	8W-80-36	Power Steering Pressure Switch	8W-80-47
Left Tail Lamp Assembly	8W-80-36	Powertrain Control Module	8W-80-47, 48, 49, 50, 51
Left Visor/Vanity Lamp	8W-80-36	Proportional Purge Solenoid	8W-80-52
License Lamp	8W-80-36		



CAV	CIRCUIT	FUNCTION
1	T34 18GY/BK	TRANSMISSION TEMPERATURE SENSOR SIGNAL
2	K26 18VT •	FUEL INJECTOR NO. 7 DRIVER
3	-	-
4	K11 18WT/DB	FUEL INJECTOR NO. 1 DRIVER
5	K13 18YL/WT	FUEL INJECTOR NO. 3 DRIVER
6	K38 18GY	FUEL INJECTOR NO. 5 DRIVER
7	-	-
8	K88 18VT/WT	VARIABLE FORCE SOLENOID CONTROL
9	-	-
10	K20 18DG	GENERATOR FIELD
11	K54 18OR/BK	TORQUE CONVERTER CLUTCH SOLENOID CONTROL
12	K58 18BR/DB	FUEL INJECTOR NO. 6 DRIVER
13	K28 18GY/LB •	FUEL INJECTOR NO. 8 DRIVER
14	-	-
15	K12 18TN	FUEL INJECTOR NO. 2 DRIVER
16	K14 18LB/BR	FUEL INJECTOR NO. 4 DRIVER
17	C24 18DB/PK	RADIATOR FAN RELAY CONTROL
18	-	-
19	-	-
20	-	-
21	T60 18BR	3-4 SHIFT SOLENOID CONTROL
22	-	-
23	G60 16GY/YL	ENGINE OIL PRESSURE SENSOR SIGNAL
24	-	-
25	T13 18DB/BK	SPEED SENSOR GROUND
26	-	-
27	G7 18WT/OR	VEHICLE SPEED SENSOR SIGNAL
28	T14 18LG/WT	OUTPUT SPEED SENSOR SIGNAL
29	T25 18LG/RD	GOVERNOR PRESSURE SIGNAL
30	K30 18PK	TRANSMISSION CONTROL RELAY CONTROL
31	K7 18OR	5V SUPPLY (SECONDARY)
32	-	-

• 5.2L/5.9L

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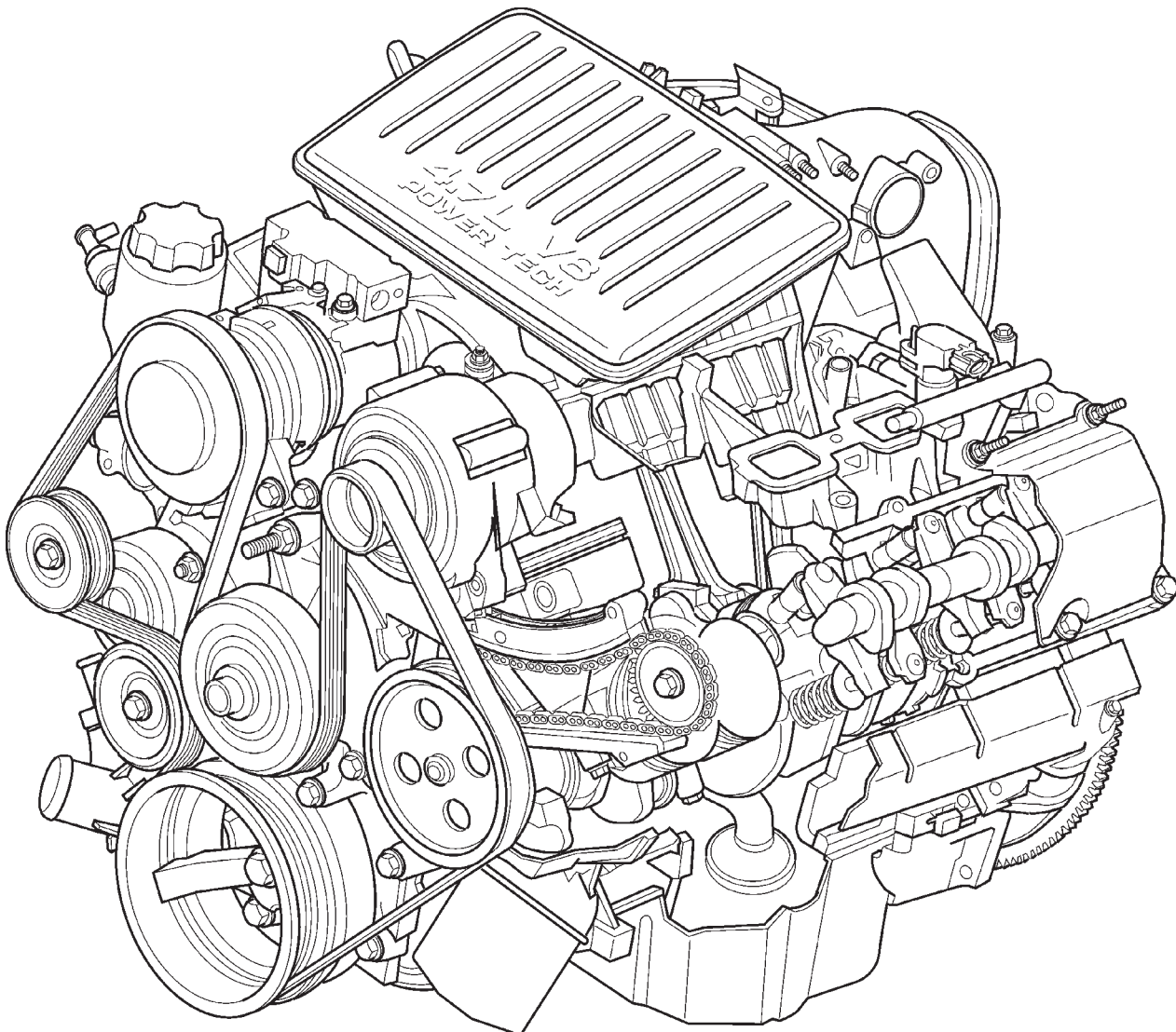
DESCRIPTION AND OPERATION

ENGINE

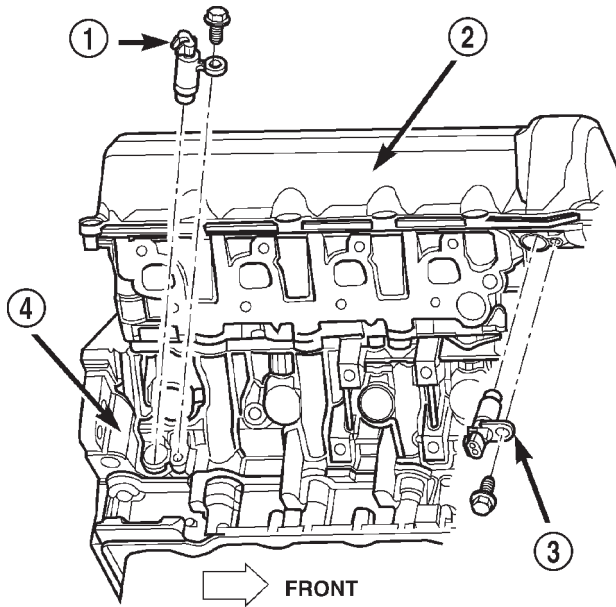
DESCRIPTION

The 4.7 liter (287 CID) eight-cylinder engine is an 90° single overhead camshaft engine. The cast iron

cylinder block is made up of two different components; the first component is the cylinder bore and upper block, the second component is the bedplate that comprises the lower portion of the cylinder block and houses the lower half of the crankshaft main bearings. The cylinders are numbered from front to rear with the left bank being numbered 1,3,5 and 7, and the right bank being numbered 2,4,6 and 8. The



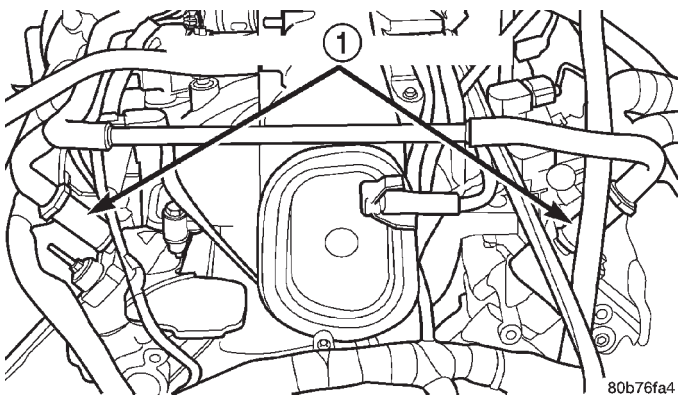
REMOVAL AND INSTALLATION (Continued)



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Fig. 43 Crankshaft Position Sensor

- 1 - CRANKSHAFT POSITION SENSOR
- 2 - CYLINDER HEAD COVER
- 3 - CAMSHAFT POSITION SENSOR
- 4 - RIGHT SIDE CYLINDER BLOCK

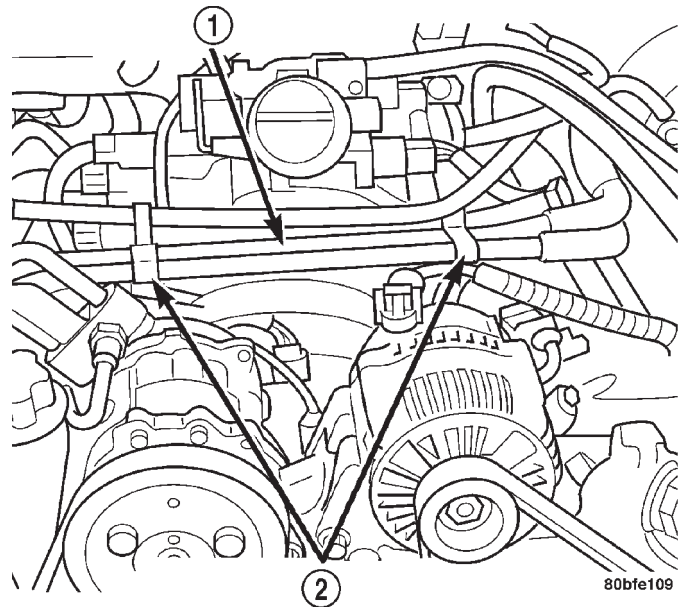


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Fig. 44 Crankcase Breather Connection Points

- 1 - CRANKCASE BREATHERS

- (2) **4X4 vehicles** Install locknuts onto the engine mount brackets. Tighten locknuts to 41 N·m (30 ft. lbs.).
- (3) Remove jack from under the transmission.
- (4) Remove Engine Lifting Fixture Special Tool 8347 (Fig. 47).
- (5) Remove Special Tools 8400 Lifting Studs.
- (6) Position generator wiring behind the oil dipstick tube, then install the oil dipstick tube upper mounting bolt.
- (7) Connect both left and right side body ground straps.



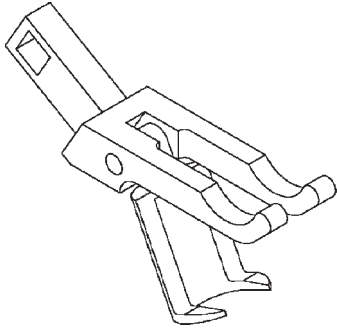
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Fig. 45 Heater Hoses and Tubes Removal / Installation

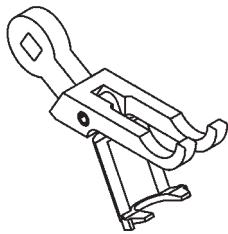
- 1 - HEATER HOSES AND TUBES
- 2 - ROUTING/RETAINING CLIPS

- (8) Install power steering pump.
- (9) Connect fuel supply line quick connect fitting.
- (10) Connect the vacuum lines at the throttle body and intake manifold.
- (11) Connect engine harness at the following points (Fig. 46) :
 - Intake Air Temperature (IAT) Sensor
 - Idle Air Control (IAC) Motor
 - Fuel Injectors
 - Throttle Position (TPS) Switch
 - Engine Oil Pressure Switch
 - Engine Coolant Temperature (ECT) Sensor
 - Manifold Absolute Pressure (MAP) Sensor
 - Camshaft Position (CMP) Sensor
 - Coil Over Plugs
- (12) Position and install heater hoses and tubes onto intake manifold.
- (13) Install the heater hoses onto the heater core and the engine front cover.
- (14) Install generator.
- (15) Install A/C condenser, radiator and transmission oil cooler as an assembly.
- (16) Connect radiator upper and lower hoses.
- (17) Connect the transmission oil cooler lines to the radiator.
- (18) Install accessory drive belt, fan assembly and shroud.
- (19) Install A/C compressor. Tighten the A/C compressor and generator M10 mounting bolts 40–68N·M (30–50 ft. lbs.) and the M8 bolts 22–34 N·m (200–300 in. lbs.).

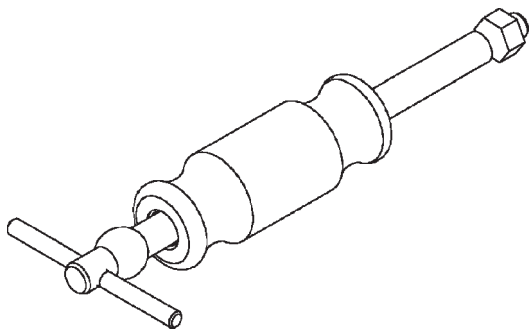
SPECIAL TOOLS (Continued)



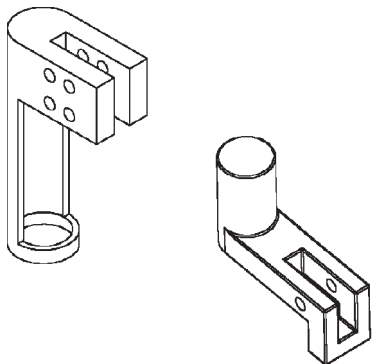
Remover, Rocker Arm 8516



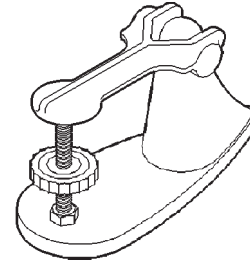
Valve Spring Compressor 8387



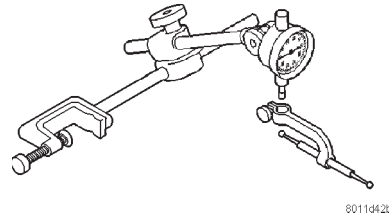
Idler Shaft Remover 8517



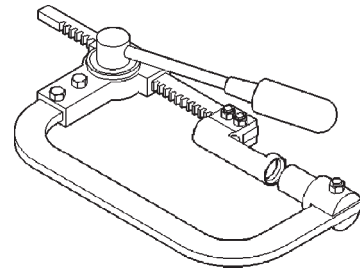
Valve Spring Compressor Adapters 8519



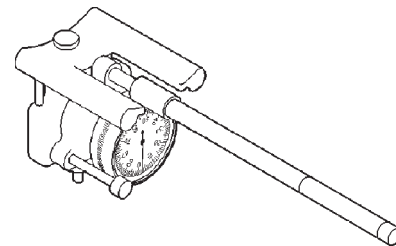
Valve Spring Tester C-647



Dial Indicator C-3339

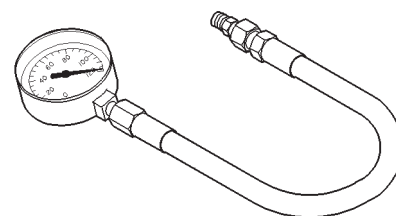


Valve Spring Compressor C-3422-B



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Bore Size Indicator C-119



Oil Pressure Gauge C-3292

DIAGNOSIS AND TESTING (Continued)

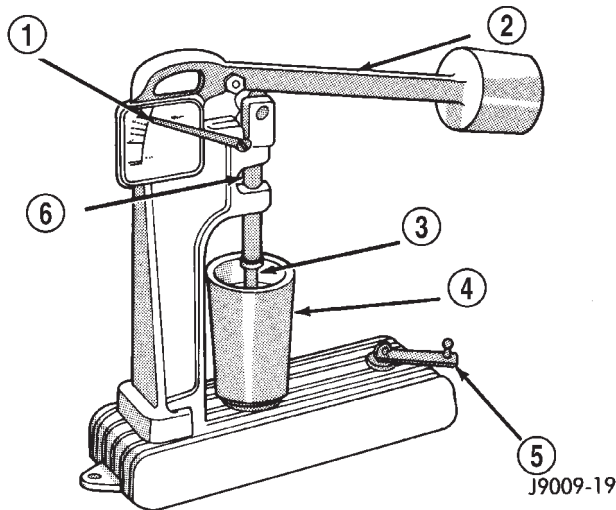


Fig. 11 Leak-Down Tester

- 1 - POINTER
- 2 - WEIGHTED ARM
- 3 - RAM
- 4 - CUP
- 5 - HANDLE
- 6 - PUSH ROD

(2) Install Oil Pressure Line and Gauge Tool C-3292. Start engine and record pressure. Refer to Oil Pressure in Engine Specifications for the proper pressures.

SERVICE PROCEDURES

FORM-IN-PLACE GASKETS

There are several places where form-in-place gaskets are used on the engine. **DO NOT use form-in-place gasket material unless specified.** Care must be taken when applying form-in-place gaskets. Bead size, continuity and location are of great importance. Too thin a bead can result in leakage while too much can result in spill-over. A continuous bead of the proper width is essential to obtain a leak-free joint.

Two types of form-in-place gasket materials are used in the engine area (Mopar Silicone Rubber Adhesive Sealant and Mopar Gasket Maker). Each have different properties and cannot be used interchangeably.

MOPAR SILICONE RUBBER ADHESIVE SEALANT

Mopar Silicone Rubber Adhesive Sealant, normally black in color, is available in 3 ounce tubes. Moisture in the air causes the sealant material to cure. This material is normally used on flexible metal flanges. It has a shelf life of a year and will not properly cure if over aged. Always inspect the package for the expiration date before use.

MOPAR GASKET MAKER

Mopar Gasket Maker, normally red in color, is available in 6 cc tubes. This anaerobic type gasket material cures in the absence of air when squeezed between smooth machined metallic surfaces. It will not cure if left in the uncovered tube. **DO NOT** use on flexible metal flanges.

SURFACE PREPARATION

Parts assembled with form-in-place gaskets may be disassembled without unusual effort. In some instances, it may be necessary to lightly tap the part with a mallet or other suitable tool to break the seal between the mating surfaces. A flat gasket scraper may also be lightly tapped into the joint but care must be taken not to damage the mating surfaces.

Scrape or wire brush all gasket surfaces to remove all loose material. Inspect stamped parts to ensure gasket rails are flat. Flatten rails with a hammer on a flat plate, if required. Gasket surfaces must be free of oil and dirt. Make sure the old gasket material is removed from blind attaching holes.

GASKET APPLICATION

Assembling parts using a form-in-place gasket requires care.

Mopar Silicone Rubber Adhesive Sealant should be applied in a continuous bead approximately 3 mm (0.12 inch) in diameter. All mounting holes must be circled. For corner sealing, a 3 or 6 mm (1/8 or 1/4 inch) drop is placed in the center of the gasket contact area. Uncured sealant may be removed with a shop towel. Components should be torqued in place while the sealant is still wet to the touch (within 10 minutes). The use of a locating dowel is recommended during assembly to prevent smearing the material off location.

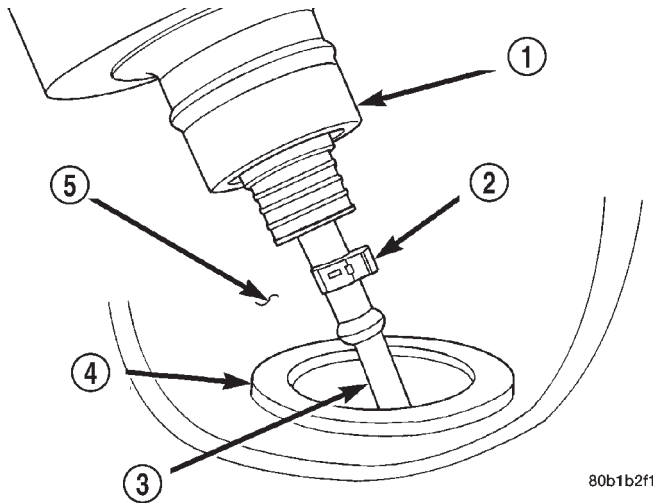
Mopar Gasket Maker should be applied sparingly to one gasket surface. The sealant diameter should be 1.00 mm (0.04 inch) or less. Be certain the material surrounds each mounting hole. Excess material can easily be wiped off. Components should be torqued in place within 15 minutes. The use of a locating dowel is recommended during assembly to prevent smearing the material off location.

ENGINE PERFORMANCE

It is important that the vehicle is operating to its optimum performance level to maintain fuel economy and the lowest emission levels. If vehicle is not operating to these standards, refer to Engine Diagnosis outlined in this section. The following procedures can assist in achieving the proper engine diagnosis.

- (1) Test cranking amperage draw. Refer to Electrical Group 8B, Cold Cranking Test.

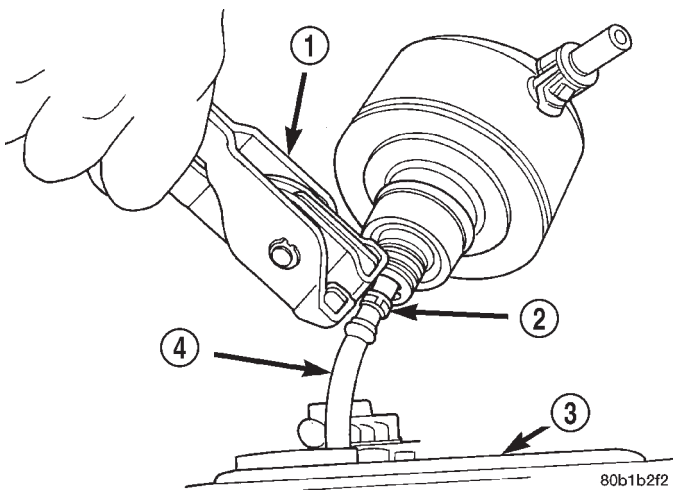
REMOVAL AND INSTALLATION (Continued)



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Fig. 23 Fuel Tube and Clamp—TYPICAL

- 1 - FUEL FILTER/FUEL PRESSURE REGULATOR
- 2 - TUBE CLAMP
- 3 - FUEL TUBE
- 4 - RUBBER GROMMET
- 5 - TOP OF PUMP MODULE



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Fig. 24 Tightening Fuel Filter Tube Clamp—TYPICAL

- 1 - TOOL C-4124
- 2 - TUBE CLAMP
- 3 - TOP OF PUMP MODULE
- 4 - FUEL TUBE

(1) Drain fuel tank and remove tank. Refer to Fuel Tank Removal/Installation in this group.

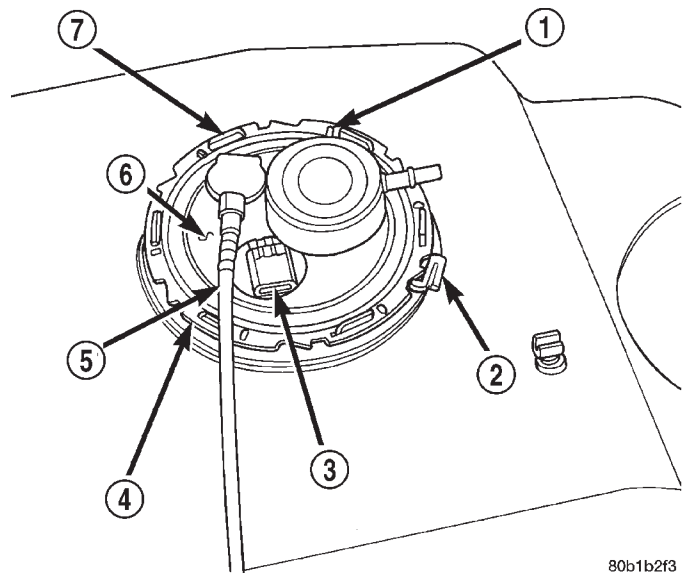
(2) Thoroughly wash and clean area around pump module to prevent contaminants from entering tank.

(3) Part of Fuel Tank Removal Procedure: Disconnect EVAP line at pump module (Fig. 25); disconnect wiring harness connector at pump module; disconnect fuel line from fuel filter fitting.

(4) Rotate fuel filter until its fitting is pointed towards center of pump module.

(5) A metal locking ring is used to secure fuel pump module to fuel tank (Fig. 25). Six metal fingers (Fig. 25) are molded into the plastic fuel tank. The fingers are used to retain locking ring to fuel tank. A rubber gasket is used as a seal between module and fuel tank.

(6) Before removing locking ring, apply a small amount of engine oil to 6 fingers where fingers meet locking ring (to act as a lubricant).



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Fig. 25 Fuel Pump Module and Lockring

- 1 - FINGER LOCK (6)
- 2 - LOCK TAB
- 3 - ELEC. CONNec.
- 4 - LOCKRING
- 5 - EVAP LINE
- 6 - FUEL PUMP MODULE
- 7 - FINGERS (6)

FUEL PUMP MODULE

REMOVAL

WARNING: THE FUEL SYSTEM IS UNDER A CONSTANT PRESSURE (EVEN WITH ENGINE OFF). BEFORE SERVICING FUEL PUMP MODULE, FUEL SYSTEM PRESSURE MUST BE RELEASED.

The fuel pump module is located in top of fuel tank.

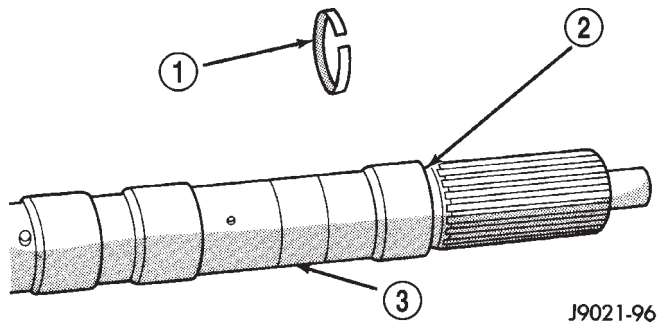
(7) Remove (rotate) locking ring counterclockwise using a brass or bronze drift punch and a hammer. This must be done while slightly prying back on lock tab (Fig. 25).

(8) Remove locking ring and pump module from fuel tank.

INSTALLATION

CAUTION: Whenever fuel pump module is serviced, the module gasket must be replaced.

REMOVAL AND INSTALLATION (Continued)

**Fig. 94 Intermediate Shaft Selective Spacer Location**

- 1 - SELECTIVE SPACER
- 2 - SPACER GROOVE
- 3 - INTERMEDIATE SHAFT

(8) Verify that splines in overdrive planetary gear and overrunning clutch hub are aligned with Alignment Tool 6227-2. Overdrive unit cannot be installed if splines are not aligned. If splines have rotated out of alignment, unit will have to be disassembled to realign splines.

(9) Carefully slide Alignment Tool 6227-2 out of overdrive planetary gear and overrunning clutch splines.

(10) Raise overdrive unit and carefully slide it straight onto intermediate shaft. Insert park rod into park lock reaction plug at same time. Avoid tilting overdrive during installation as this could cause planetary gear and overrunning clutch splines to rotate out of alignment. If this occurs, it will be necessary to remove and disassemble overdrive unit to realign splines.

(11) Work overdrive unit forward on intermediate shaft until seated against transmission case.

(12) Install bolts attaching overdrive unit to transmission unit. Tighten bolts in diagonal pattern to 34 N·m (25 ft-lbs).

(13) Install speed sensor.

(14) Connect speed sensor and overdrive wires.

(15) Install the transfer case, if equipped.

(16) Align and install rear propeller shaft, if necessary.

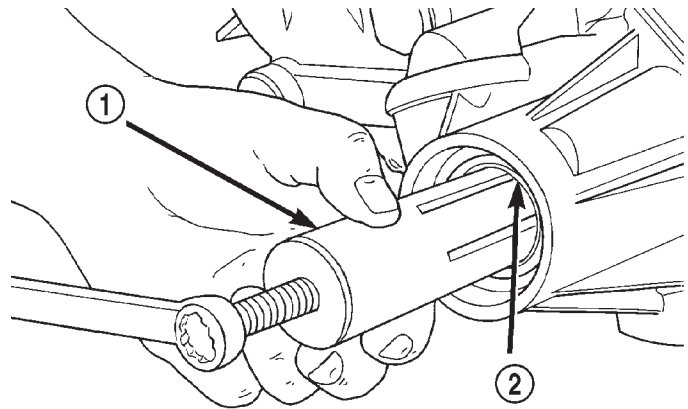
OVERDRIVE HOUSING BUSHING**REMOVAL**

(1) Remove overdrive housing yoke seal.

(2) Insert Remover 6957 into overdrive housing. Tighten tool to bushing and remove bushing (Fig. 95).

INSTALLATION

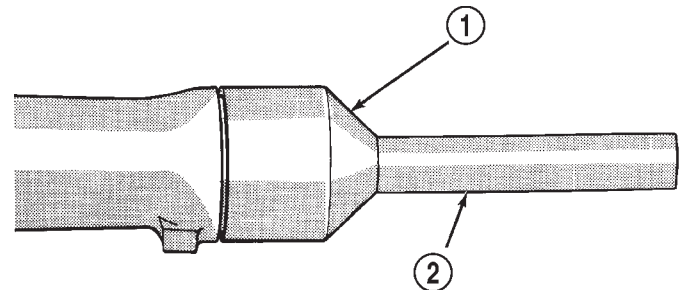
(1) Align bushing oil hole with oil slot in overdrive housing.

**Fig. 95 Bushing Removal—Typical**

- 1 - REMOVER 6957
- 2 - EXTENSION HOUSING BUSHING

(2) Tap bushing into place with Installer 6951 and Handle C-4171.

(3) Install new oil seal in housing using Seal Installer C-3995-A (Fig. 96).

**Fig. 96 Overdrive Housing Seal Installation**

- 1 - SPECIAL TOOL C-3995-A OR C-3972-A
- 2 - SPECIAL TOOL C-4471

OUTPUT SHAFT REAR BEARING**REMOVAL**

(1) Remove overdrive unit from the vehicle.

(2) Remove overdrive geartrain from housing.

(3) Remove snap ring holding output shaft rear bearing into overdrive housing (Fig. 97).

(4) Using a suitable driver inserted through the rear end of housing, drive bearing from housing.

INSTALLATION

(1) Place replacement bearing in position in housing.

(2) Using a suitable driver, drive bearing into housing until the snap ring groove is visible.

(3) Install snap ring to hold bearing into housing (Fig. 97).