INTRODUCTION

CONTENTS

GENERAL INFORMATION

VEHICLE SAFETY CERTIFICATION LABEL

A vehicle safety certification label (Fig. 1) is attached to the rear facing of the driver's door. This label indicates date of manufacture (month and year), Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating (GAWR) front, Gross Axle Weight Rating (GAWR) rear and the Vehicle Identification Number (VIN). The Month, Day and Hour of manufacture is also included.

All communications or inquiries regarding the vehicle should include the Month-Day-Hour and Vehicle Identification Number.

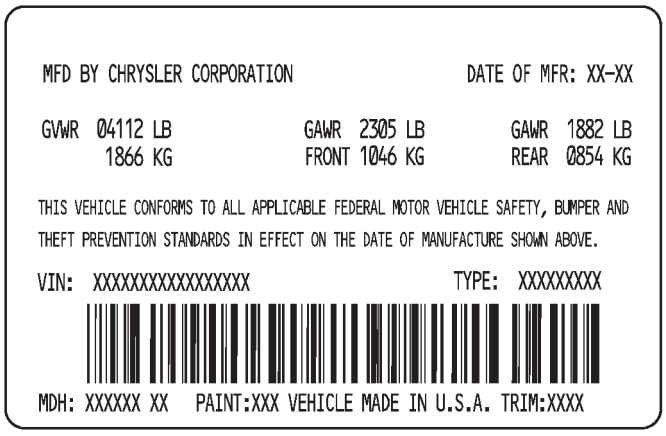


Fig. 1 Vehicle Safety Certification Label

VEHICLE IDENTIFICATION NUMBER

The Vehicle Identification Number (VIN) is located on the upper left corner of the instrument panel, near the left windshield pillar (Fig. 2). The VIN consists of 17 characters in a combination of letters and numbers that provide specific information about the vehicle. Refer to VIN Code Breakdown table for decoding information.

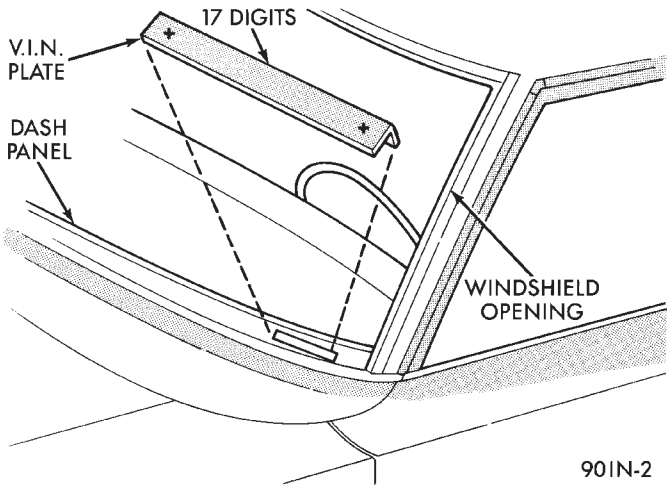


Fig. 2 Vehicle Identification Number (VINPlate)

VIN CHECK DIGIT

To protect the consumer from theft and possible fraud, the manufacturer is required to include a Check Digit at the ninth position of the Vehicle Identification Number. The check digit is used by the manufacturer and government agencies to verify the authenticity of the vehicle and official documentation. The formula to use the check digit is not released to the general public.

BODY CODE PLATE

LOCATION AND DECODING

The Body Code Plate (Fig. 3) is located in the engine compartment on the driver side strut tower. There are seven lines of information on the body code plate. Lines 4, 5, 6, and 7 are not used to define service information. Information reads from left to right, starting with line 3 in the center of the plate to line 1 at the bottom of the plate.

JUMP STARTING, HOISTING AND TOWING

INDEX

SERVICE PROCEDURES

JUMP STARTING PROCEDURE

WARNING: REVIEW ALL SAFETY PRECAUTIONS AND WARNINGS IN GROUP 8A, BATTERY/STARTING/CHARGING SYSTEMS DIAGNOSTICS. DO NOT JUMP START A FROZEN BATTERY, PERSONAL INJURY CAN RESULT. DO NOT JUMP START WHEN MAINTENANCE FREE BATTERY INDICATOR DOT IS YELLOW OR BRIGHT COLOR. DO NOT JUMP START A VEHICLE WHEN THE BATTERY FLUID IS BELOW THE TOP OF LEAD PLATES. DO NOT ALLOW JUMPER CABLE CLAMPS TO TOUCH EACH OTHER WHEN CONNECTED TO A BOOSTER SOURCE. DO NOT USE OPEN FLAME NEAR BATTERY. REMOVE METALLIC JEWELRY WORN ON HANDS OR WRISTS TO AVOID INJURY BY ACCIDENTAL ARCING OF BATTERY CURRENT. WHEN USING A HIGH OUTPUT BOOSTING DEVICE, DO NOT ALLOW BATTERY VOLTAGE TO EXCEED 16 VOLTS. REFER TO INSTRUCTIONS PROVIDED WITH DEVICE BEING USED.

CAUTION: When using another vehicle as a booster, do not allow vehicles to touch. Electrical systems can be damaged on either vehicle.

TO JUMP START A DISABLED VEHICLE:

(1) Raise hood on disabled vehicle and visually inspect engine compartment for:

- Battery cable clamp condition, clean if necessary.
- Frozen battery.
- Yellow or bright color test indicator, if equipped.
- Low battery fluid level.
- Generator drive belt condition and tension.
- Fuel fumes or leakage, correct if necessary.

CAUTION: If the cause of starting problem on disabled vehicle is severe, damage to booster vehicle charging system can result.

(2) When using another vehicle as a booster source, park the booster vehicle within cable reach. Turn off all accessories, set the parking brake, place the automatic transmission in PARK or the manual transmission in NEUTRAL and turn the ignition OFF.

(3) On disabled vehicle, place gear selector in park or neutral and set park brake. Turn off all accessories.

(4) Connect jumper cables to booster battery. RED clamp to positive terminal (+). BLACK clamp to negative terminal (-). DO NOT allow clamps at opposite end of cables to touch, electrical arc will result. Review all warnings in this procedure.

(5) On disabled vehicle, connect RED jumper cable clamp to positive (+) terminal. Connect BLACK jumper cable clamp to engine ground as close to the ground cable attaching point as possible (Fig. 1).

(6) Start the engine in the vehicle which has the booster battery, let the engine idle a few minutes, then start the engine in the vehicle with the discharged battery.

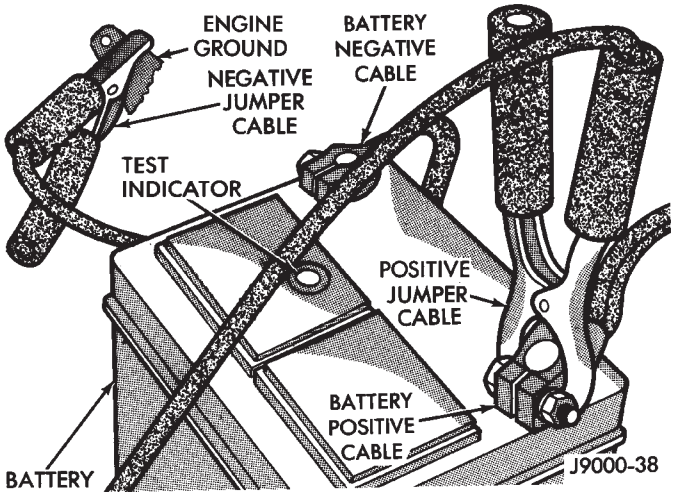


Fig. 1 Jumper Cable Clamp Connections

CAUTION: Do not crank starter motor on disabled vehicle for more than 15 seconds, starter will overheat and could fail.

(7) Allow battery in disabled vehicle to charge to at least 12.4 volts (75% charge) before attempting to start engine. If engine does not start within 15 seconds, stop cranking engine and allow starter to cool (15 min.), before cranking again.

REMOVAL AND INSTALLATION (Continued)

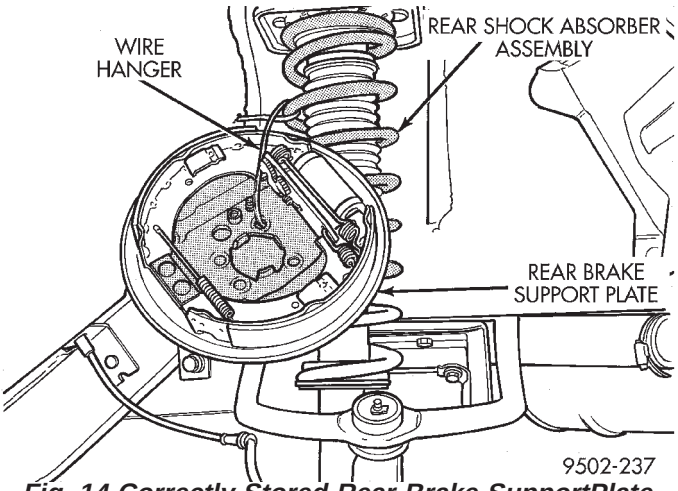


Fig. 14 Correctly Stored Rear Brake SupportPlate

(8) Remove the nuts and bolts attaching the forward and rear lateral links (Fig. 15) to the rear knuckle.

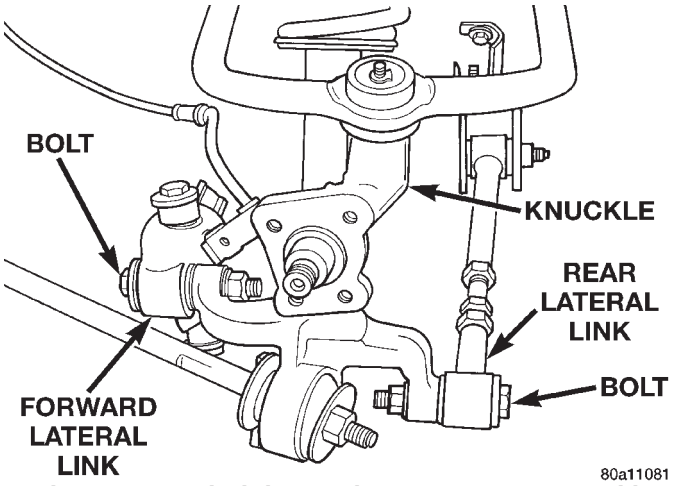


Fig. 15 Lateral Link Attachment To Rear Knuckle

(9) Remove cotter pin and castle nut attaching upper control arm ball joint to knuckle.

(10) Remove ball joint stud from knuckle using Puller, Special Tool, CT-1106 (Fig. 16). When using puller, install castle nut on ball joint stud (Fig. 16) to protect threads from damage.

(11) Remove the nut and washer attaching the trailing link to the rear knuckle. Use a wrench on the flat of the trailing link to keep it from turning when removing nut (Fig. 17).

(12) Remove the shock absorber clevis bracket to knuckle attaching nut and bolt (Fig. 18).

(13) Remove the knuckle assembly from the vehicle.

INSTALL

(1) Install knuckle on clevis bracket of rear shock absorber. Then install clevis bracket to shock absorber attaching bolt with head of bolt facing rear of vehicle (Fig. 18).

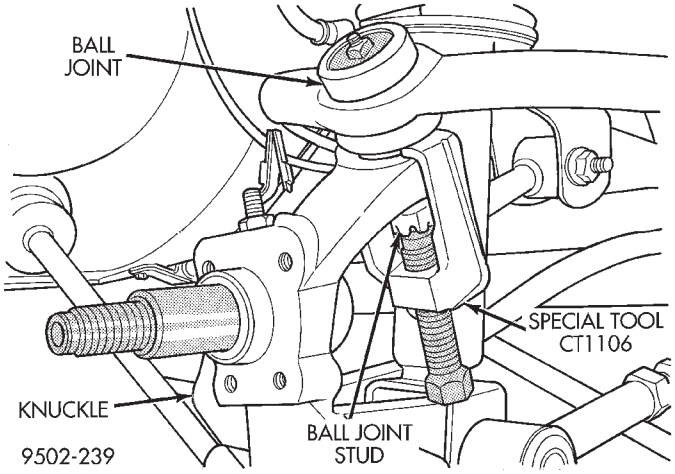


Fig. 16 Removing Ball Joint Stud From Knuckle

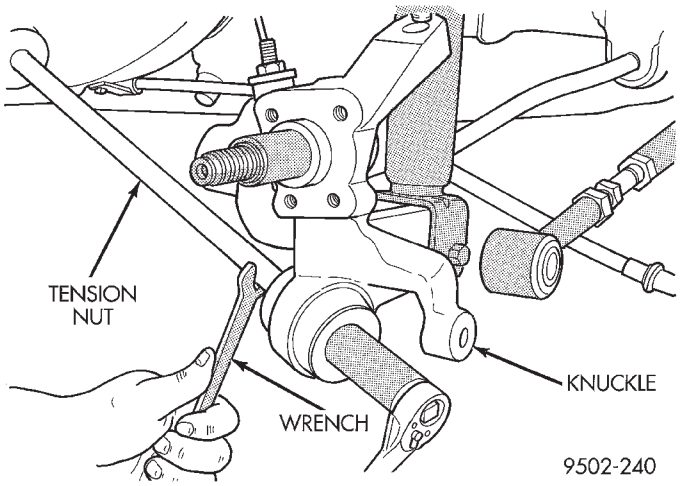


Fig. 17 Trailing Link Attachment To RearKnuckle

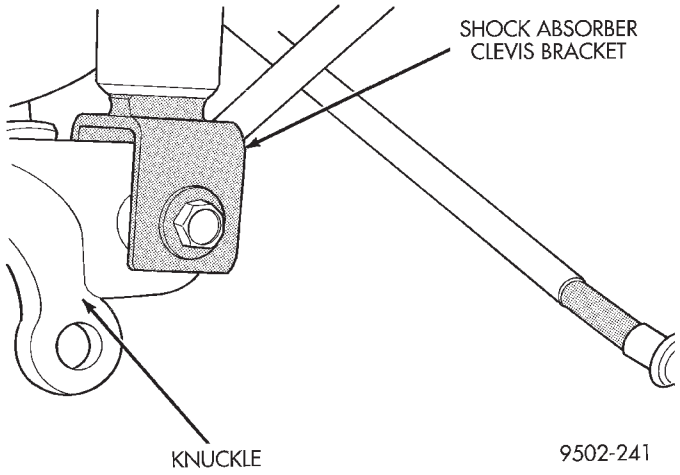


Fig. 18 Shock Absorber Attachment To Knuckle

DISASSEMBLY AND ASSEMBLY (Continued)

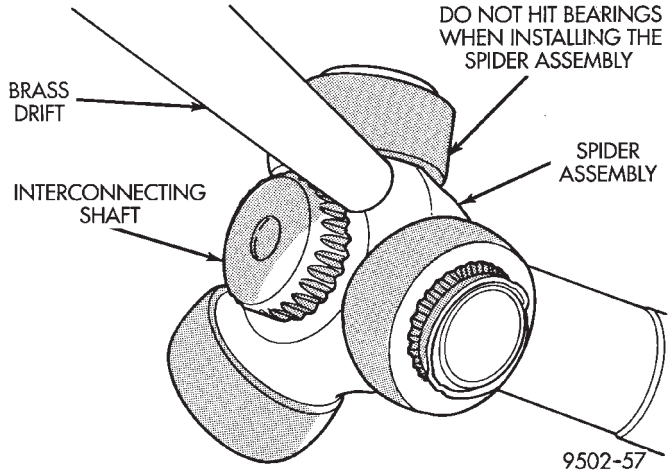


Fig. 32 Installing Spider Assembly on InterconnectingShaft

(3) Install the spider assembly to interconnecting shaft retaining snap ring into groove on end of interconnecting shaft (Fig. 33). Be sure the snap ring is fully seated into groove on interconnecting shaft.

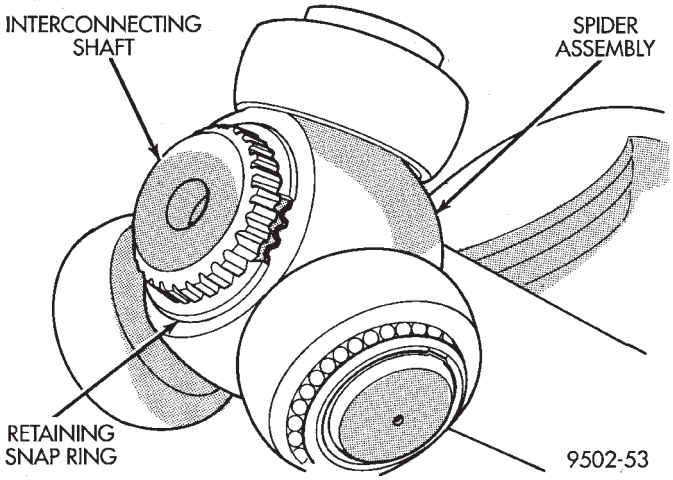


Fig. 33 Spider Assembly Retaining Snap RingInstalled

(4) Distribute 1/2 the amount of grease provided in the seal boot service package (DO NOT USE ANY OTHER TYPE OF GREASE) into tripod housing. Put the remaining amount into the sealing boot.

(5) Align tripod housing with spider assembly and then slide tripod housing over spider assembly and interconnecting shaft (Fig. 34).

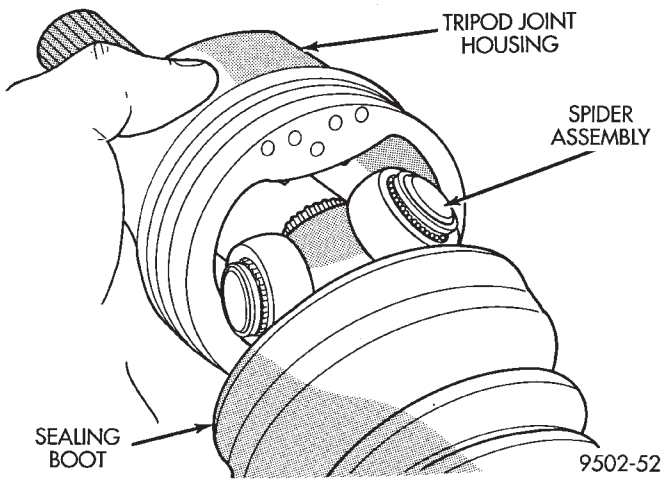


Fig. 34 Installing Tripod Housing on SpiderAssembly

(6) Install inner tripod joint seal boot to interconnecting shaft clamp evenly on sealing boot.

(7) Clamp sealing boot onto interconnecting shaft using crimper, Special Tool C-4975-A and the following procedure. Place crimping tool C- 4975-A over bridge of clamp (Fig. 35). Tighten nut on crimping tool C- 4975-A until jaws on tool are closed completely together, face to face (Fig. 36).

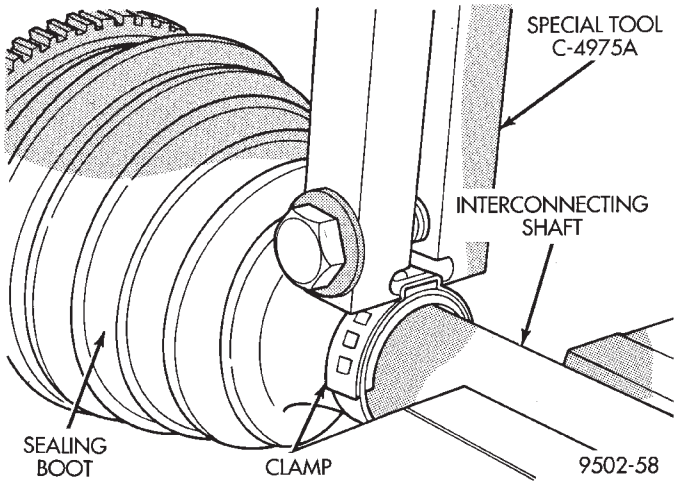


Fig. 35 Crimping Tool Installed on SealingBoot Clamp

REMOVAL AND INSTALLATION (Continued)

(14) Install the box end of a 1/2 in. wrench over the park brake cable retainer as indicated in (Fig. 145). This will compress tabs on park brake cable retainer, allowing cable to be removed from console bracket. From under carpet, grasp park brake cable housing and pull cable straight out of console bracket.

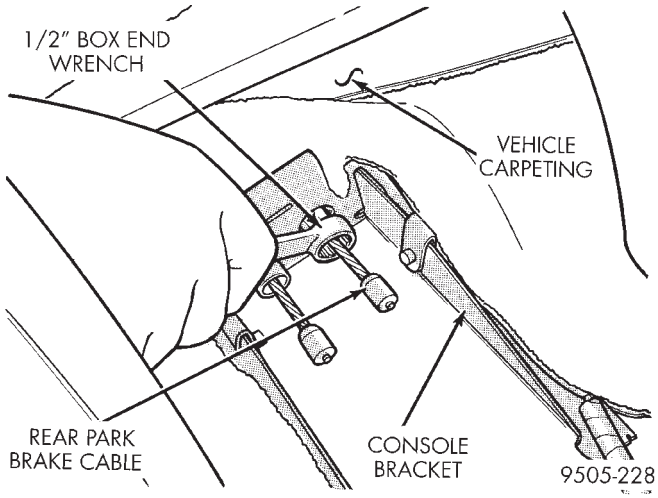


Fig. 145 Compressing Park Brake Cable RetainingTabs

(15) Raise vehicle on jackstands or centered on a frame contact type hoist. See Hoisting in the Lubrication and Maintenance section of this manual for the required lifting procedure to be used for this vehicle.

(16) Remove rear wheel and tire assembly from the side of the vehicle requiring park brake cable service.

(17) Remove the rear brake drum (Fig. 146) from the rear hub/bearing assembly.

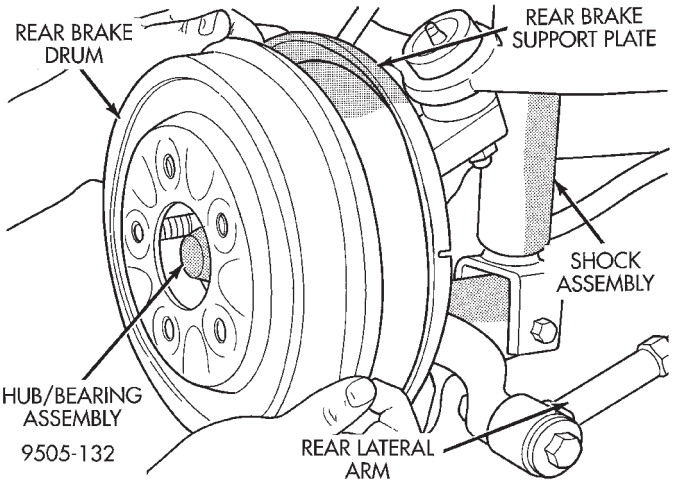


Fig. 146 Rear Brake Drum

(18) Remove dust cap (Fig. 147) from rear hub/bearing assembly.

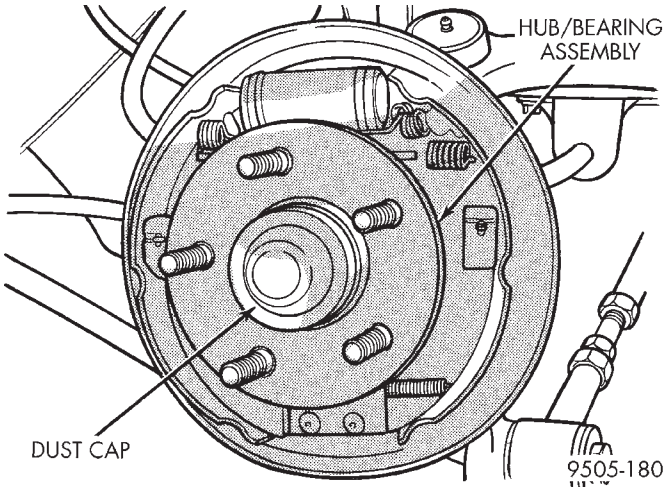


Fig. 147 Rear Hub/Bearing Dust Cap

(19) Remove the rear hub/bearing assembly retaining nut (Fig. 148).

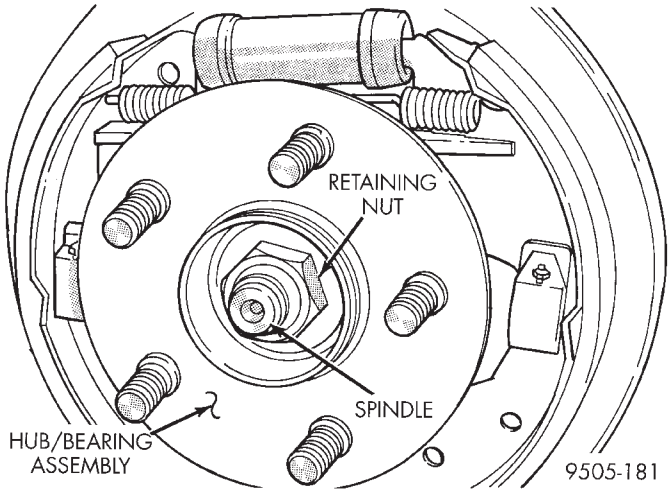
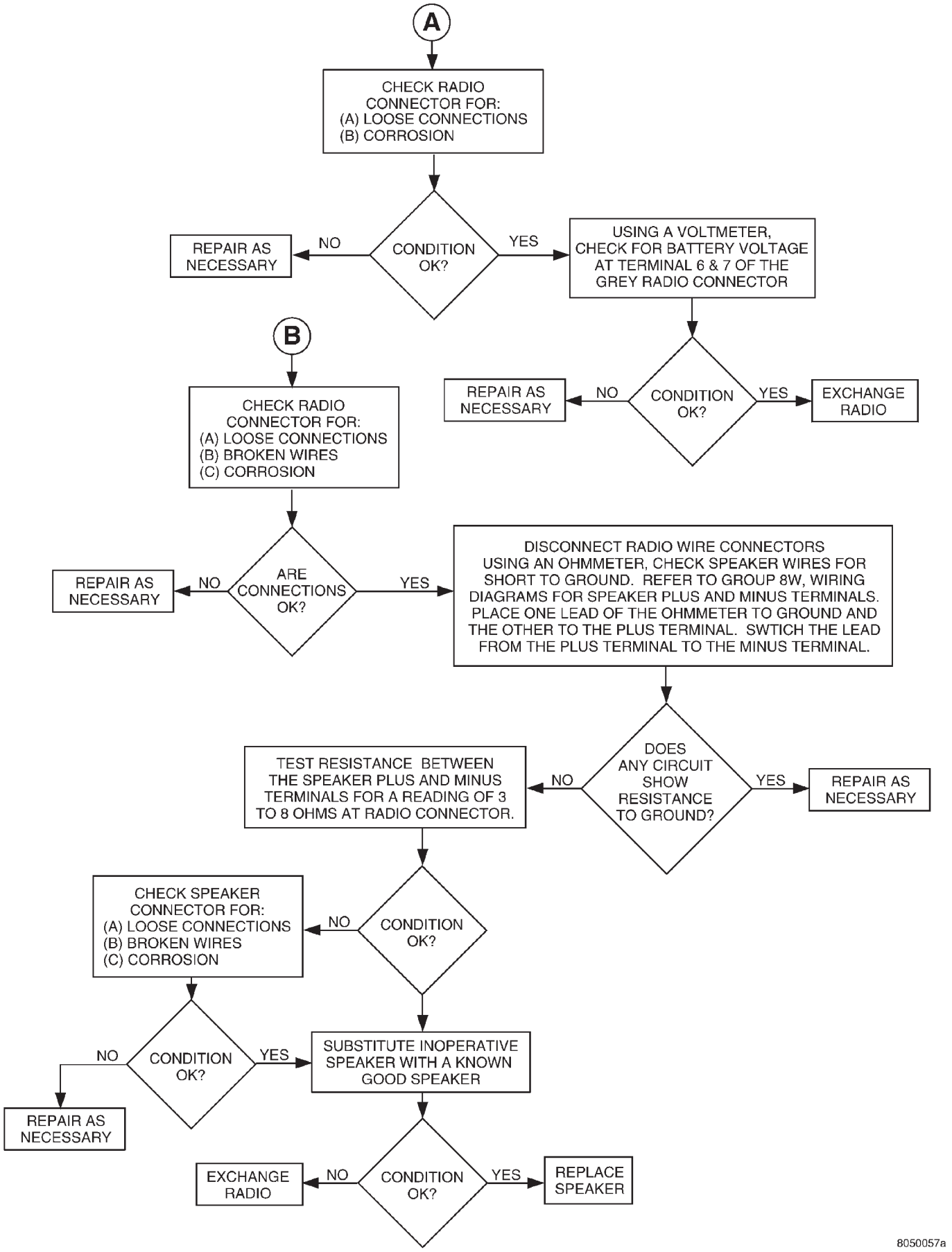


Fig. 148 Hub/Bearing Assembly Retaining Nut

(20) Remove the rear hub/bearing assembly from the rear spindle.

DIAGNOSIS AND TESTING (Continued)



BASE 4 SPEAKER SYSTEM CONTINUED

REMOVAL AND INSTALLATION (Continued)

WASHER RESERVOIR PUMP

REMOVAL

(1) Partially remove the bumper facia as needed to gain access to the reservoir pump. Refer to Group 23, Body.

(2) Place a drain bucket below the reservoir to catch any washer solvent tha may leak out.

(3) Firmly grasping pump by hand twist and pull away from reservoir and out of grommet. Care must be taken not to puncture reservoir (Fig. 13).

(4) Remover rubber grommet from reservoir and throw away.

INSTALLATION

For installation, reverse the above procedures. A new grommet is required for installation. Refill reservoir with the washer solvent.

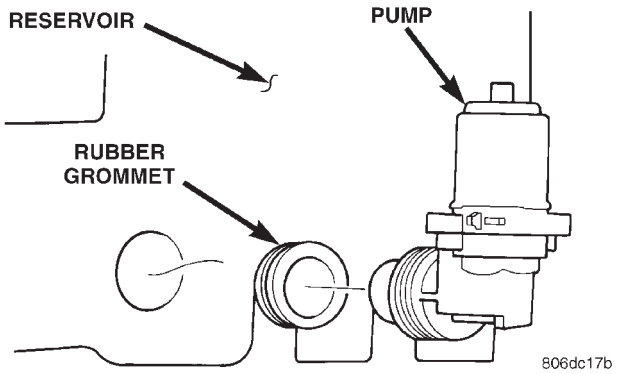


Fig. 13 Washer Pump

WIPER ARM AND BLADE

REMOVAL

(1) Place the wiper arm/blades in the PARK position and turn ignition OFF.

(2) Unsnap arm cover. By hand rock gently side to side and slide away from arm pivot. To remove the left side raise hood for clearance

(3) Loosen retention nut.

(4) Remove the arm from the pivot by using a universal claw puller or by hand rock gently side to side and slide. Raise blade and arm off glass and rock side to side while applying pressure with the puller till loose. Ensure that the puller is not on the collar below the arm.

(5) Remove arm retention nut and arm.

INSTALLATION

(1) Place arm on pivot shaft, align arm with keyway and push down on arm to start on pivot shaft.

(2) Start retention nut.

(3) Raise arm and blade off windshield while tightening retention nut. Tighten nut to 37 to 43 N· mm (27 to 32 ft. lbs.).

(4) Install arm head cover.

WIPER BLADE

REMOVAL

(1) Turn wiper switch ON, position blades to a convenient place on the windshield by turning the ignition switch ON and OFF. Turn ignition switch OFF, when blade is in the desirable position.

(2) Lift wiper arm to raise blade off glass.

(3) Remove blade assembly from arm by pushing release tab under arm tip and slide blade away from arm tip (Fig. 14) and (Fig. 15).

(4) The driver's side wiper blade has a air foil on it and the air foil points downward as in (Fig. 2).

(5) Gently place wiper arm tip on windshield.

INSTALLATION

For installation reverse the above procedures. When complete turn ignition switch ON. Turn wiper switch OFF allowing the wiper blades PARK, then turn ignition switch OFF.

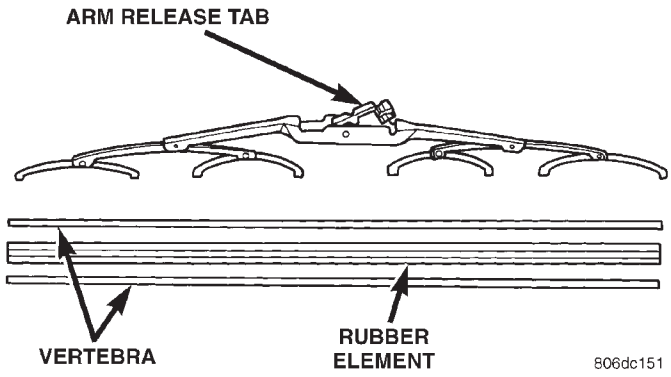


Fig. 14 Wiper Blade and Element

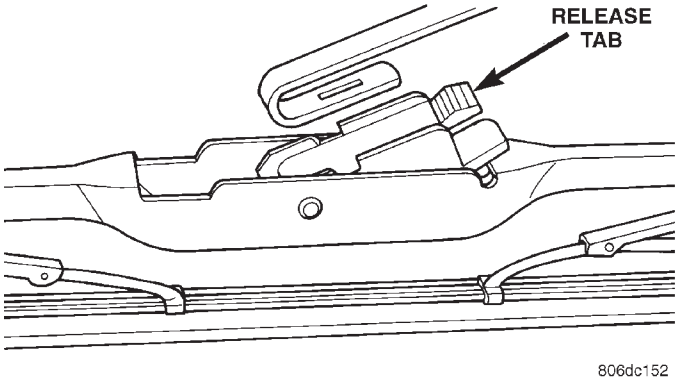
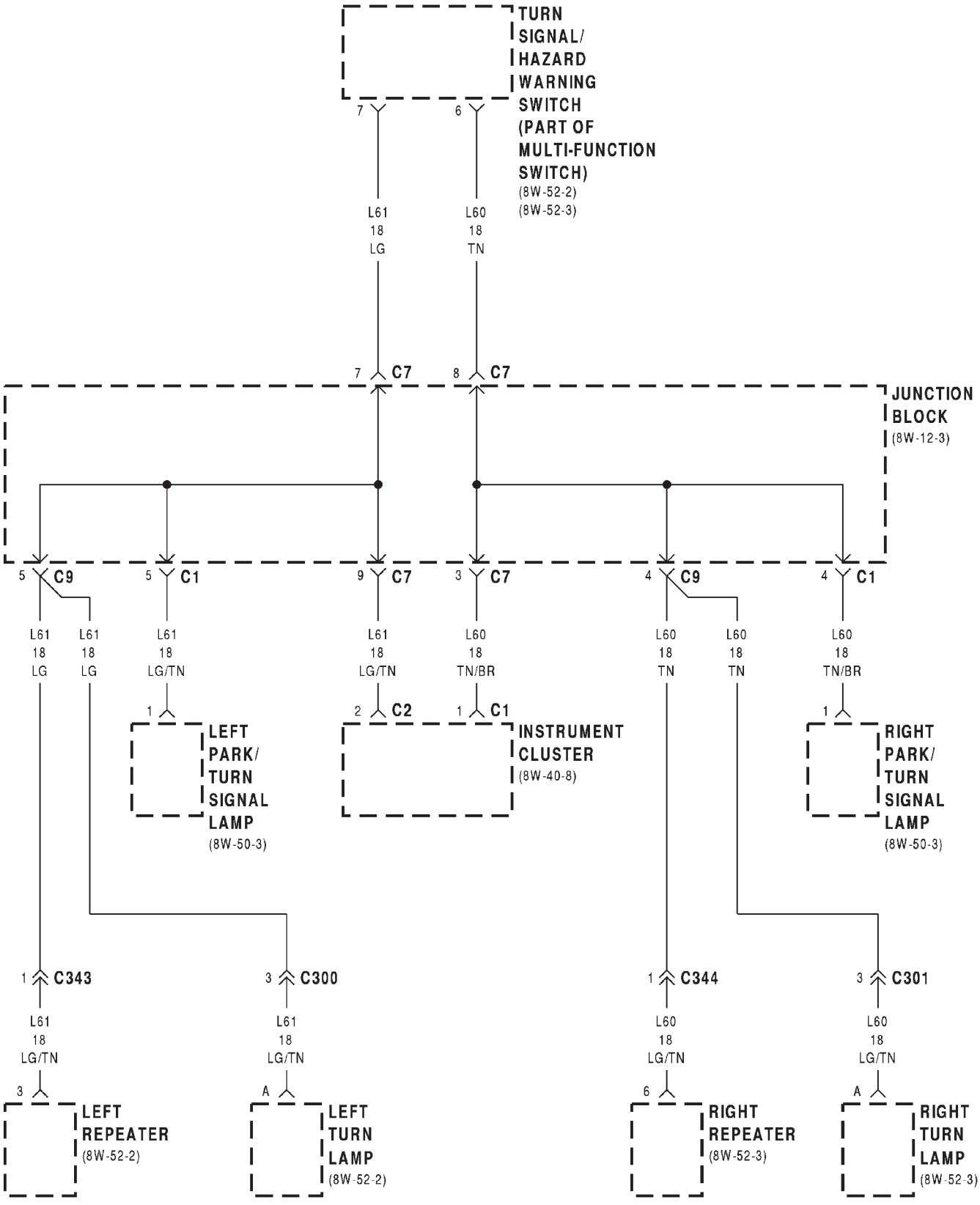


Fig. 15 Remove Blade from Arm

WIPER BLADE ELEMENT

REMOVAL

(1) Lift wiper arm to raise blade off the windshield.


TURN SIGNAL/ HAZARD WARNING SWITCH (PART OF MULTI-FUNCTION SWITCH)
(8W-52-2)
(8W-52-3)
7
6
L61 18 LG
L60 18 TN
7 C7
8 C7
JUNCTION BLOCK
(8W-12-3)
5 C9
5 C1
9 C7
3 C7
4 C9
4 C1
L61 18 LG
L61 18 LG
L61 18 LG/TN
L61 18 LG/TN
L60 18 TN/BR
L60 18 TN
L60 18 TN
L60 18 TN/BR
1
2 C2
1 C1
1
LEFT PARK/ TURN SIGNAL LAMP
(8W-50-3)
INSTRUMENT CLUSTER
(8W-40-8)
RIGHT PARK/ TURN SIGNAL LAMP
(8W-50-3)
1 C343
3 C300
1 C344
3 C301
L61 18 LG/TN
L61 18 LG/TN
L60 18 LG/TN
L60 18 LG/TN
3
A
6
A
LEFT REPEATER
(8W-52-2)
LEFT TURN LAMP
(8W-52-2)
RIGHT REPEATER
(8W-52-3)
RIGHT TURN LAMP
(8W-52-3)

8W-33 VEHICLE SPEED CONTROL

INDEX

DESCRIPTION AND OPERATION

VEHICLE SPEED CONTROL

The vehicle speed control system is powered by the Powertrain Control Module (PCM). The vehicle speed control switches, located in the steering wheel, use resistors internal to the switch to send a signal to the PCM indicating what the operator is requesting. The V37 circuit, from cavity 41 of the PCM supplies power for the switch. Circuit Z2 is the ground for the switch.

The V37 and Z2 circuits are spliced internal to the clockspring to provide power and ground for the two switches.

When the system is turned ON, the vehicle is moving forward, vehicle speed is above 35 mph, and the SET switch is pressed, the PCM looks at the vehicle speed through the vehicle speed sensor on the manual transmission equipped vehicles. On vehicles equipped with the automatic transmission, the vehicle speed input is provided from the Transmission Control Module (TCM) to the PCM.

With this information, the PCM sends a signal to the vehicle speed control servo, on the V36 circuit, and the servo applies vacuum to hold the desired speed. Circuit V36 connects to cavity 78 of the PCM.

When the operator selects the COAST feature in the system, the PCM measures the resistance on the V37 circuit and uses this information to apply voltage on the V35 circuit, which is the vent side of the vehicle speed control servo. Circuit V35 connects to cavity 80 of the PCM.

Grounding for the vehicle speed control servo is supplied on the Z1 circuit. Circuit Z1 terminates at the left strut tower. An additional input to the servo is provided by the stop lamp switch on the V30 circuit. When the operator presses on the brakes the ground path for the V30 circuit is broken. This break in the ground path causes the vehicle speed control servo to vent and disengage the system.

Circuits V32 and K29 are used as inputs to the PCM to indicate when the operator is applying the brakes, as vehicle speed control is canceled when this happens. Circuit V32 connects to cavity 5 of the PCM. Circuit K29 connects to cavity 62 of the PCM.

CRUISE (VEHICLE SPEED CONTROL) ENGAGED LAMP

The CRUISE lamp is used to indicate to the operator when the vehicle speed control is engaged. The signal to illuminate the lamp is carried over the CCD Bus from the Body Control Module (BCM).

The BCM receives information on vehicle speed control engagement from the PCM over the CCD Bus. This lamp also is illuminated, for a few seconds, when the ignition switch is moved from the OFF to the RUN position as a bulb check. The bulb check operation is controlled by the PCM.

HELPFUL INFORMATION

- Refer to Group 8H for diagnosis procedures

DESCRIPTION AND OPERATION (Continued)

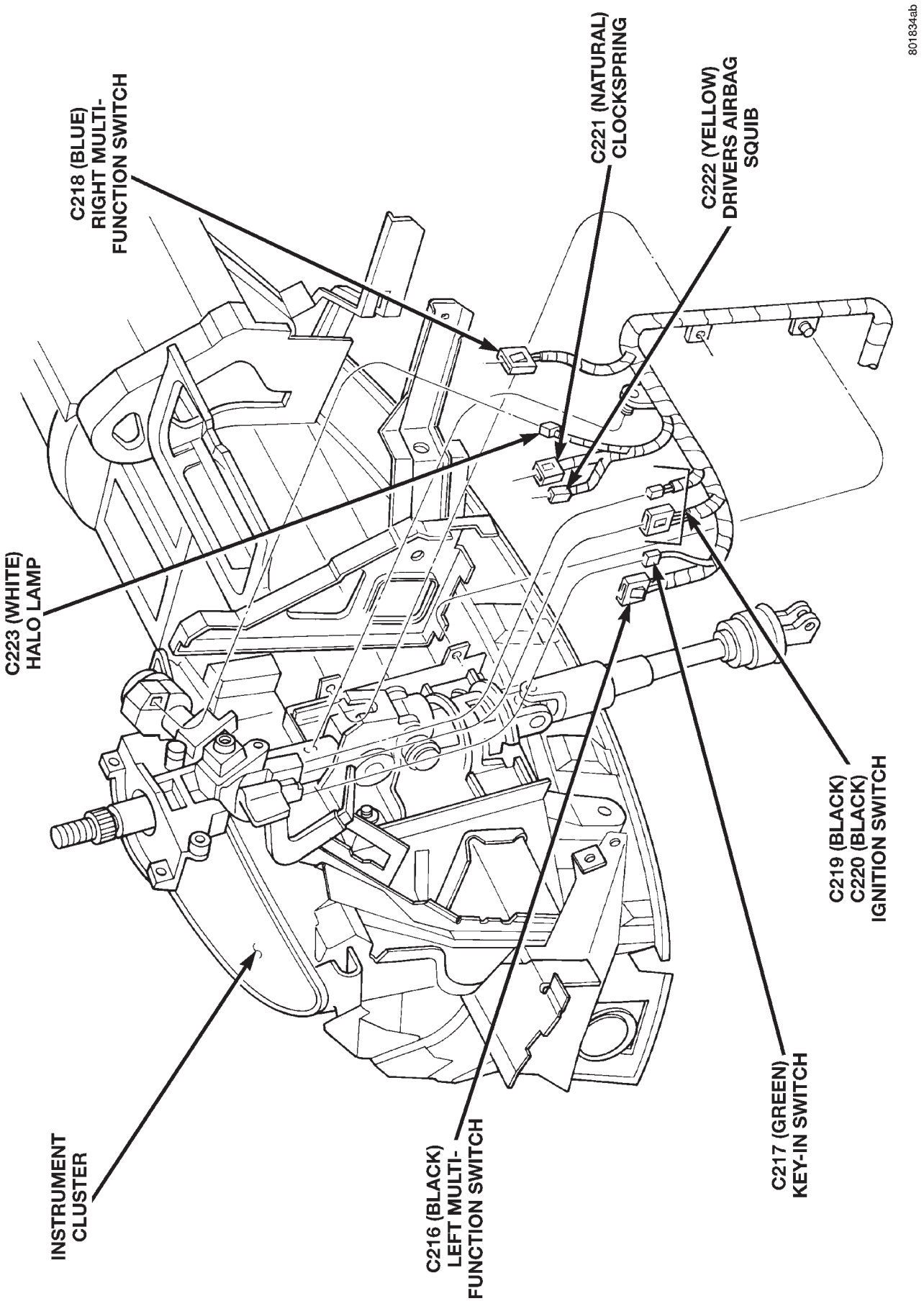
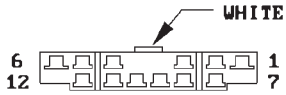
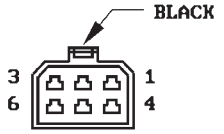


Fig. 7 Steering Column Connections



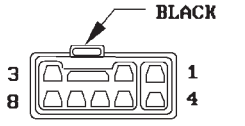
JUNCTION BLOCK - C9

CAV	CIRCUIT	FUNCTION
1	F35 16RD	FUSED B(+)
2	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)
	F20 20WT	FUSED IGNITION SWITCH OUTPUT (RUN)
3	Z1 14BK	GROUND
4	L60 18TN	RIGHT TURN SIGNAL
	L60 18TN	RIGHT TURN SIGNAL
5	L61 18LG	LEFT TURN SIGNAL
	L61 18LG	LEFT TURN SIGNAL
6	C15 12BK/WT	REAR DEFOGGER RELAY OUTPUT
7	M1 20PK	FUSED B(+)
8	-	-
9	L50 16WT/TN	STOP LAMP SWITCH OUTPUT
10	L7 18BK/YL	PARK LAMP SWITCH OUTPUT
11	M1 20PK/VT	FUSED B(+)
12	M1 20PK/OR	FUSED B(+)



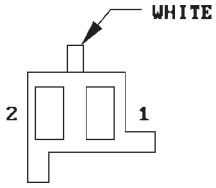
JUNCTION BLOCK - C10

CAV	CIRCUIT	FUNCTION
1	M2 20YL	COURTESY LAMPS DRIVER
2	F21 18TN	FUSED IGNITION SWITCH OUTPUT (RUN)
	F21 20TN/BR	FUSED IGNITION SWITCH OUTPUT (RUN)
3	-	-
4	Z1 18BK	GROUND
5	-	-
6	M1 20PK	FUSED B (+)



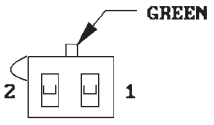
JUNCTION BLOCK - C11

CAV	CIRCUIT	FUNCTION
2	L92 18LG	FOG LAMP FEED
8	Z1 18BK	GROUND



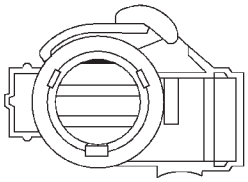
KEY-IN HALO LAMP

CAV	CIRCUIT	FUNCTION
1	M1 20PK/WT	FUSED B(+)
2	M50 20YL/RD	KEY-IN LAMP DRIVER



KEY-IN SWITCH

CAV	CIRCUIT	FUNCTION
1	Z1 20BK/WT	GROUND
2	G26 22LB	KEY-IN IGNITION SWITCH SENSE



LEFT BACK-UP LAMP

CAV	CIRCUIT	FUNCTION
1	L1 18VT/BK	BACK-UP LAMP FEED
2	Z1 18BK	GROUND

DIAGNOSIS AND TESTING (Continued)

CONDITION	POSSIBLE CAUSES	CORRECTION
Objectionable Hiss Or Whistle	1. Damaged or mispositioned steering column coupler to dash panel seal. 2. Noisy valve in power steering gear.	1. Check for proper seal between steering column coupler and dash seal. 2. Replace steering gear assembly.
Rattle Or Clunk	1. Steering gear loose on front suspension crossmember. 2. Front suspension crossmember to frame bolts or studs loose. 3. Tie rod looseness (outer or inner). 4. Loose lower control arm to front suspension crossmember bolts. 5. Loose strut assembly to body attaching bolts or nuts. 6. Power steering fluid pressure hose touching the body of the vehicle. 7. Noise internal to power steering gear. 8. Damaged front suspension crossmember.	1. Check steering gear to front suspension crossmember mounting bolts. Tighten to specified if found to be loose. 2. Tighten the front suspension crossmember attaching bolts or studs to the specified torque. 3. Check tie rod pivot points for wear. Replace worn/loose parts as required. 4. Tighten control arm mounting bolts to the specified torques. 5. Check upper strut mount to body attaching bolts or nuts for looseness. If required tighten to the specified torques. 6. Adjust hose to proper position by loosening, repositioning, and tightening fitting to specified torque. Do not bend tubing. 7. Replace steering gear assembly. 8. Replace front suspension crossmember.
Chirp or squeal (in the area of the power steering pump). Particularly noticeable at full wheel travel and during standstill parking.	1. Loose power steering pump drive belt.	1. Adjust power steering pump drive belt to specified tension.

DIAGNOSIS AND TESTING

SPEED PROPORTIONAL STEERING SYSTEM

The variable-assist speed-proportional power steering system, is diagnosed if suspected of not functioning properly, using the DRB scan tool. The test consists of checking available power steering assist, using the DRB scan tool, to create an electronically simulated vehicle speed of 0 and 60 mph. Refer to the 1996 M.Y. 41 TE Transaxle Diagnostic Procedures Manual for the specific testing procedure.

The solenoid control valve and solenoid control module are both serviceable components of the variable-assist speed-proportional power steering gear assembly. Both components are replaceable without requiring removal of the steering gear from the vehicle. Refer to the specific component service in the section for the required replacement procedures.

REMOVAL AND INSTALLATION

SOLENOID CONTROL VALVE CONTROL MODULE

The solenoid control module (Fig. 2) is mounted on the steering gear assembly fluid lines (Fig. 2) using attaching clips on back of module. The solenoid control module is removable from the steering gear for servicing, without removing steering gear from vehicle.

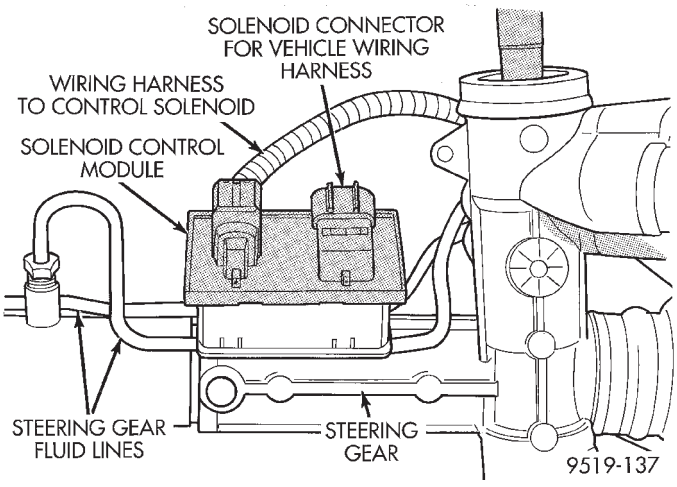


Fig. 2 Solenoid Control Module LocationOn Steering Gear

If the variable-assist speed-proportional power steering system is not functioning properly, refer to the 1995 M.Y. 41 TE Transaxle Diagnostic Procedures Manual for specific testing procedure, to properly determine failed component.

REMOVE

(1) Remove wiring harness connectors from solenoid control module (Fig. 2).

(2) Un-clip locking tab (Fig. 3) on bottom side of solenoid control module, holding control module to steering gear fluid lines. Then rotate control module upward and remove the upper 2 attaching clips from the steering gear fluid lines (Fig. 3).

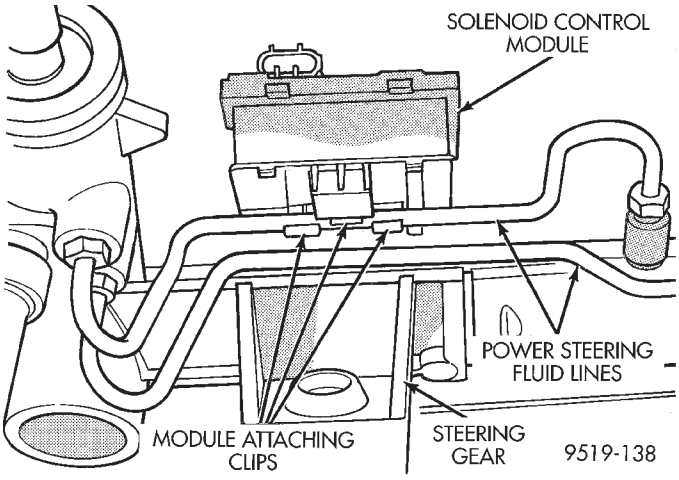


Fig. 3 Solenoid Control Module MountingTo Fluid Lines

INSTALL

(1) Hook upper tabs on solenoid control module onto upper steering gear fluid line (Fig. 3). Then rotate module downward until locking tab on bottom of module (Fig. 3) is locked on lower power steering gear fluid line.

(2) Connect wiring harness connectors onto solenoid control module (Fig. 2). **Be sure wiring harness connector seals are on connectors and in good condition before installing connectors on control module.**

SOLENOID CONTROL VALVE

If a solenoid control valve needs to be replaced on the speed proportional steering gear, the steering gear will need to be removed from the vehicle. Refer to Steering Gear Service in this section of the service manual for the required removal and replacement procedure.

DISASSEMBLY AND ASSEMBLY (Continued)

SHIFT RAIL BUSHINGS

REMOVAL

(1) Thread tool #6786 into shift rail bushing.
(2) Install slide hammer #3752 onto tool.
(3) Remove bushing using slide hammer and tool assembly (Fig. 142).

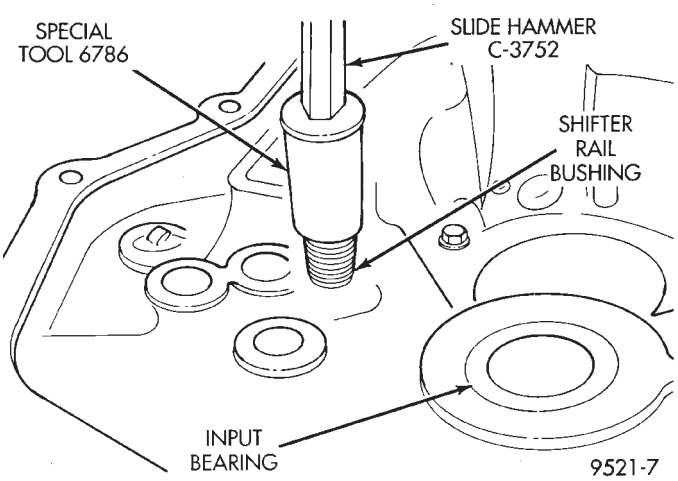


Fig. 142 Shift Rail Bushing Removal

INSTALLATION

(1) Line up replacement bushing in bore.
(2) Using tool #MD998343, tap bushing into bore until flush with the chamfer in the case.

SHIFT SHAFT SEALS

It is not necessary to remove the shift shafts from the transaxle to service the shift shaft seals.

REMOVAL

(1) Using a pick tool, pry up on the shift shaft seal and remove seal from bore.

INSTALLATION

(1) Position new shift shaft seal in bore.
(2) Install shift shaft seal into bore using an appropriate size deep-well socket.

SHIFT SELECTOR SHAFT

REMOVAL

(1) Disassemble transaxle using the procedure outlined in this group.
(2) With the transaxle disassembled, remove the selector shaft by pushing on the shaft from the outside. Pull shaft out from the inside.

INSTALLATION

(1) Reverse removal procedure to install selector shaft.

SHIFT CROSSOVER SHAFT

REMOVAL

(1) Disassemble transaxle using the procedure outlined in this group.
(2) With the transaxle disassembled, remove the crossover shaft seal.
(3) Using snap–ring pliers, remove the snap ring at the crossover shaft bore (Fig. 143).

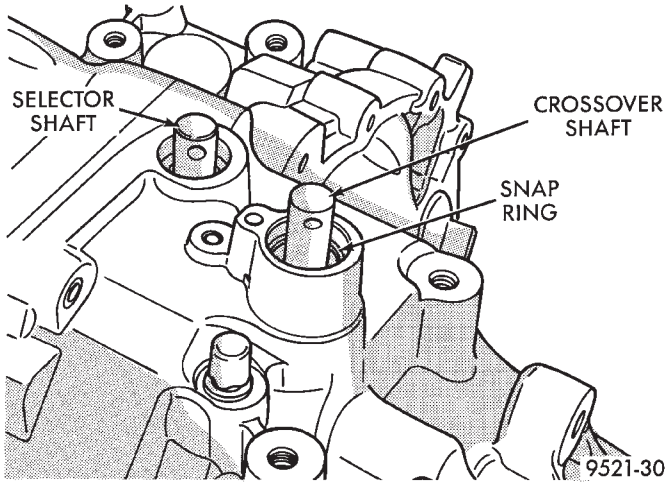


Fig. 143 Crossover Shaft Snap Ring

(4) Push the crossover shaft in the case and remove the crossover assembly.

INSTALLATION

(1) Reverse removal procedure to install crossover shaft.

SHIFT SELECTOR SHAFT BUSHING

REMOVAL

(1) Remove selector shaft using procedure in this group.
(2) Thread tool #6786 into bushing.
(3) Install slide hammer #3752 onto tool and remove bushing using slide hammer (Fig. 144).

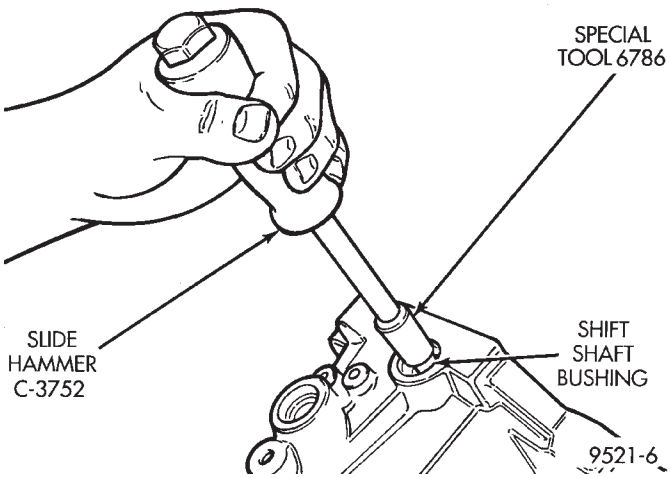


Fig. 144 Selector Shaft Bushing Removal

REMOVAL AND INSTALLATION (Continued)

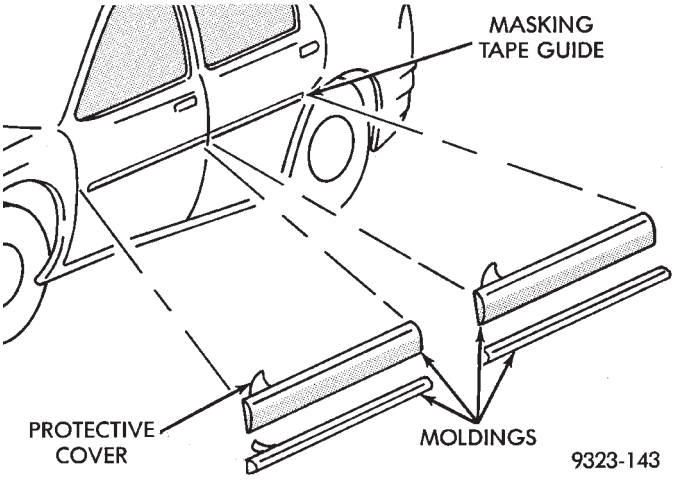


Fig. 60 Body Side Molding

INSTALLATION

(1) If molding is to be reused, remove tape residue from molding. Clean back of molding with Mopar® Super Kleen solvent or equivalent. Wipe molding dry with lint free cloth. Apply new body side molding (two sided adhesive) tape to back of molding.

(2) Clean body surface with Mopar® Super Kleen solvent or equivalent. Wipe surface dry with lint free cloth.

(3) Apply a length of masking tape on the body, parallel to the top edge of the molding to use as a guide, if necessary.

(4) Remove protective cover from tape on back of molding. Apply molding to body below the masking tape guide.

(5) Remove masking tape guide and heat body and molding, see Step 1 of Removal. Firmly press molding to body surface to assure adhesion.

TRUNK HINGE

REMOVAL

(1) Open trunk lid.

(2) Mark outline of hinge on quarter panel trough and inside of trunk lid to aid installation (Fig. 61).

(3) Place a padded block between the deck panel and the trunk lid.

(4) Remove bolts holding hinge to trunk lid.

(5) Place trunk lid against padded block and hold it steady.

(6) Remove bolts holding hinge to quarter panel trough.

(7) Separate hinge from vehicle.

INSTALLATION

Reverse the preceding operation.

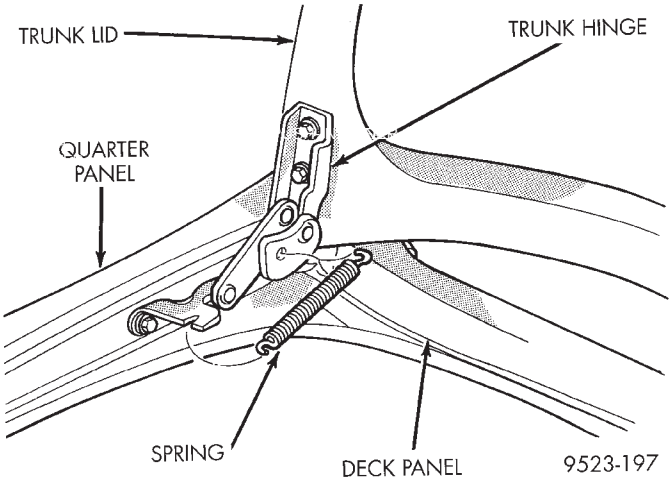


Fig. 61 Trunk Hinge

TRUNK LATCH

REMOVAL

(1) Open trunk lid.

(2) Disengage clips holding latch cover to trunk lid (Fig. 62).

(3) Disengage wire connectors from trunk latch.

(4) Remove bolts holding trunk latch to trunk lid.

(5) Separate trunk latch from trunk lid.

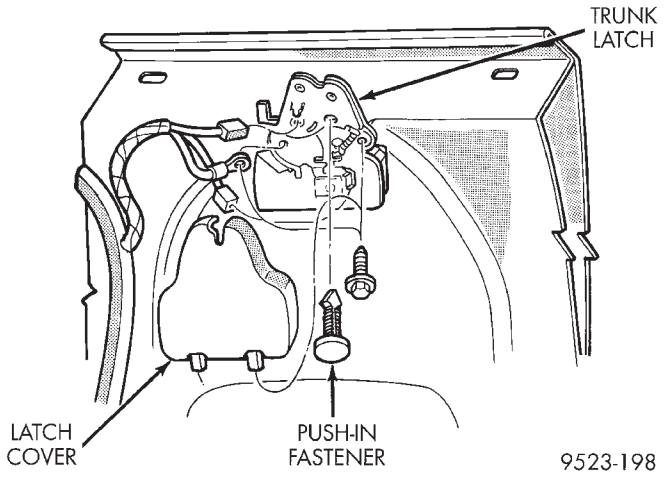


Fig. 62 Trunk Latch

INSTALLATION

Reverse the preceding operation.

TRUNK LOCK

REMOVAL

(1) Remove trunk latch.

(2) Remove clip holding trunk lock cylinder to trunk latch (Fig. 63).

(3) Separate lock cylinder from trunk latch.