Jeep

Diagnosis and Repair Bulletin

Subject: Six-Cylinder Camshaft Pin Breakage	Application: 1977-80 Jeep Vehicles With Six-Cylinder Engines	File: POWER PLANT Engines No. 80-3 Feb. 4, 1980

If incorrect valve timing is indicated after checking valve timing, the cause may be a broken camshaft pin. It is no longer necessary to replace the camshaft because of pin failure. A spring pin is now available as a service replacement part.

Service correction involves replacing a broken camshaft pin with a new spring pin.

The following parts are available and will be required.

Description	Quantity	Part No.	Group
PIN, Spring (Camshaft)	1	GM456384	1.040
GASKET SET, Timing Case Cover	1	8129097	1.121
SCREW, Hex Washer Head Tapping	1	G448423	17.671

PROCEDURE

(1) Disconnect battery negative cable.

(2) Drain radiator.

NOTE: *Do not waste usable coolant. Collect drained coolant in a clean container.*

(3) Remove fan and shroud.

(4) Disconnect overflow hose, radiator hoses and transmission cooler lines from radiator and remove radiator.

(5) If equipped with air conditioning:
- (a) Remove air conditioning belt intermediate pulley.
- (b) Disconnect and remove alternator.

CAUTION: *Do not loosen or disconnect any air conditioning system fittings. Move the condenser aside as a complete assembly.*

- (c) Remove air conditioning condenser attaching bolts and move condenser up and out of way.

(6) Remove all drive belts.

(7) Remove crankshaft vibration damper.

(8) Remove timing chain cover.

(9) Remove camshaft gear bolt and remove gear and chain.

CAUTION: *The following procedural step must be performed to prevent the camshaft from damaging the rear camshaft plug during pin installation.*

(10) Remove fuel pump. Insert suitable tool into fuel pump opening and wedge tool against side of opening and camshaft to prevent camshaft movement.

(11) Inspect damaged camshaft pin.
- (a) If pin is spring pin, remove broken pin by inserting G448423 screw into pin and carefully pulling pin from camshaft.
- (b) If pin is dowel pin:

CAUTION: *Be sure the exact center is located when center punching the pin.*

1. Center punch pin.
2. Drill through pin center using 5/32-inch drill bit.
3. Insert G448423 screw into drilled pin and carefully pull pin from camshaft.

NOTE: *Cover the open oil pan area to prevent metal chips from entering the pan.*

(12) Clean camshaft pin hole of any loose material.

(13) Compress replacement spring pin in center using vise grips. Carefully drive pin into camshaft until it is seated.

CAUTION: *If the camshaft moves rearward, reposition the tool wedged against the camshaft so that the camshaft cannot move. If the camshaft moves rearward, damage to the rear camshaft plug may result.*

(14) Install camshaft gear and timing chain. Tighten camshaft gear bolt to 50 foot-pounds (68 N·m) torque. Check valve timing as outlined in 1980 Jeep Technical Service Manual.

(15) Remove tool wedged in fuel pump opening. Install fuel pump. Tighten pump bolts to 16 foot-pounds (22 N·m) torque and connect fuel lines.

(16) Remove timing case cover seal and clean cover.

(17) Position oil pan tab gaskets on oil pan and use RTV type sealer to hold gasket in place. Coat both sides of timing case cover gasket with sealer. Apply 1/8-inch (3 mm) bead of sealer to joint formed at oil pan and cylinder block.

(18) Loosen front four oil pan bolts about 3 turns to allow oil pan movement during timing case cover installation.

(19) Position timing case cover on engine. Place timing case alignment tool and seal installer J-22248, in crankshaft opening of cover.

(20) Install and tighten oil pan and front cover screws.

NOTE: *Tighten 1/4-20 oil pan screws to 7 foot-pounds (9 N·m) torque and 5/16-18 oil pan screws to 11 foot-pounds (15 N·m) torque.*

(21) Remove cover aligning tool and position replacement oil seal on tool with lip facing outward. Apply light film of AMC Perfect Seal, or equivalent, on outside diameter of seal.

(22) Position tool and seal in front cover opening. Use vibration damper bolt to pull seal into front cover. Turn bolt until tool bottoms against cover.

(23) Remove tool and install vibration damper on crankshaft. Tighten damper bolt to 80 foot-pounds (108 N·m) torque.

NOTE: *If the crankshaft turns before the damper bolt torque value is reached, the damper can be held from turning by placing two 5/16 X 1-1/2-inch bolts into the vibration damper front pulley holes and wedging a bar between them. Rotate the bar until it contacts the frame member to prevent the damper from turning.*

(24) If equipped with air conditioning:
- (a) Install air conditioning belt intermediate pulley.
- (b) Install alternator.
- (c) Install air conditioner condenser.

(25) Install drive belts on pulleys.

(26) Install radiator. Connect radiator hoses, transmission cooler lines if equipped and fill cooling system.

(27) Install fan and shroud.

(28) Follow belt tightening procedure outlined in 1980 Jeep Technical Service Manual.

(29) Tighten fan assembly nuts to 18 foot-pounds (24 N·m) torque.

(30) Connect battery negative cable.

The following operation and standard work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME				SKILL LEVEL
				77	78	79	80	
PIN, SPRING CAMSHAFT GEAR DRIVE— REPLACE	1.040	1163	6-Cyl.	1.7	1.7	1.7	1.7	G
With Air Conditioning— Add				0.3	0.3	0.3	0.3	
With Power Steering— Add.				0.4	0.4	0.4	0.4	
Includes 6 minutes helper time.								

80-044-01A/J

Jeep

Diagnosis and Repair Bulletin

Subject: Oil Leakage at Cylinder Head Cover or Oil Pan Gasket Surface

Application: All 1976-1978 Jeep Models

File: POWER PLANT
Engines
Group 1.000

No. 8-03 July 11, 1978

If oil leaks occur at either the cylinder head cover or oil pan gasket surfaces of the subject vehicles, two methods of sealing may be used. A room temperature vulcanizing (RTV) adhesive such as Gasket-in-a Tube, part number 8993317, or equivalent may be used in place of a gasket; or a gasket coated on both sides with a quick drying adhesive such as AMC part number 8127960, or equivalent may be used.

Procedures for sealing cylinder head covers and oil pans are published in the appropriate Jeep Technical Service Manual. The following chart lists the engine, model, year, Technical Service Manual and page number of the procedures applying to the vehicles involved.

Year and Technical Service Manual Page Number

Engine/Model	1976	1977	1978
6 Cyl. Engine			
CJ-5 & 7			
Cyl. Head Cover	1A-9 1977 Jeep Technical Service Manual	1A-9	1B-16, Volume 1
Oil Pan	1A-21	1A-22	1B-21, Volume 1
Cherokee			
Cyl. Head Cover	1A-9 1977 Jeep Technical Service Manual	1A-9	1B-16, Volume 1
Oil Pan	1A-21	1A-22	1B-21, Volume 1
Truck			
Cyl. Head Cover	1A-9 1977 Jeep Technical Service Manual	1A-9	1B-16, Volume 1
Oil Pan	1A-21	1A-22	1B-21, Volume 1
8-Cyl. Engine			
CJ-5 & 7			
Cyl. Head Cover	1B-11	1B-12	1B-51, Volume 1
Oil Pan	1B-24	1B-25	1B-56, Volume 1
Wagoneer			
Cyl. Head Cover	1B-11	1B-12	1B-51, Volume 1
Oil Pan	1B-24	1B-25	1B-56, Volume 1
Cherokee			
Cyl. Head Cover	1B-11	1B-12	1B-51, Volume 1
Oil Pan	1B-24	1B-25	1B-56, Volume 1
Truck			
Cyl. Head Cover	1B-11	1B-12	1B-51, Volume 1
Oil Pan	1B-24	1B-25	1B-56, Volume 1

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The following operations and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
COVER, CYL. HEAD — RESEAL WITH RTV ..... 6 Cyl.	1.072	1011	6 Cyl.	0.5	0.5	0.5	G
8 Cyl. One			8 Cyl.	0.5	0.5	0.5	
Both			8 Cyl.	0.7	0.7	0.7	
Material Allowance For Sealer is $1.30							
Oil Pan — Reseal With RTV ..... 6 Cyl.	1.152	A	6 Cyl.	0.8	0.8	0.8	G
8 Cyl.			8 Cyl.	0.8	0.8	0.8	
Material Allowance For Sealer is $1.30							
PAN, 6 OR 8 CYL. ENGINE OIL — RESEAL WITH RTV	1.152	1013	6 Cyl.	0.9	0.9	0.9	G
			8 Cyl.	0.9	0.9	0.9	
Material Allowance For Sealer is $1.30							

Diagnosis and Repair Bulletin

No. 7-02

May 26, 1977

Subject: Oil Filter May Contact Right Front Engine Support Cushion During Severe Off-Road Operation

Application: 1976 and 1977 CJ Models With Six-Cylinder Engine Built Prior to VIN J7XXXXX024954

File: Group 1.000

This bulletin is being issued to replace Diagnosis and Repair Bulletin No. 7-05, File: Group 3.000, dated May 18, 1977 which was incorrectly assigned to the wrong group. Remove and discard DRB No. 7-05 from Group 3.000 of your DRB binder and insert the corrected DRB in Group 1.000 of your binder.

During severe off-road operation of some 1976 and 1977 CJ models, built prior to VIN J7XXXXX024954, it is possible that the oil filter may contact the right front engine support cushion.

Service correction on a complaint basis involves modifying the right front engine support bracket and installing the following engine support cushion (as necessary).

Description	Quantity	Part No.	Group
Cushion, Engine Support	1	8128488	1.009
Nut, 7/16-14	1	4003975	10.290

PROCEDURE

(1) Raise vehicle.

(2) Remove right front support cushion stud nut and lockwasher. Discard nut.

(3) Remove fuel line clamp from right front support bracket.

(4) Raise and support engine (under oil pan skid plate) to provide sufficient clearance for removal of engine support cushion.

(5) Remove right front support bracket and support cushion.

(6) Remove support cushion from support bracket.
(a) If equipped with a restrictor plate and support cushion, discard plate and cushion (Fig. 1).
(b) If not equipped with a restrictor plate and support cushion has interlock, retain support cushion (Fig. 1).

(7) Position support bracket in a vise with support cushion mounting holes facing outward.

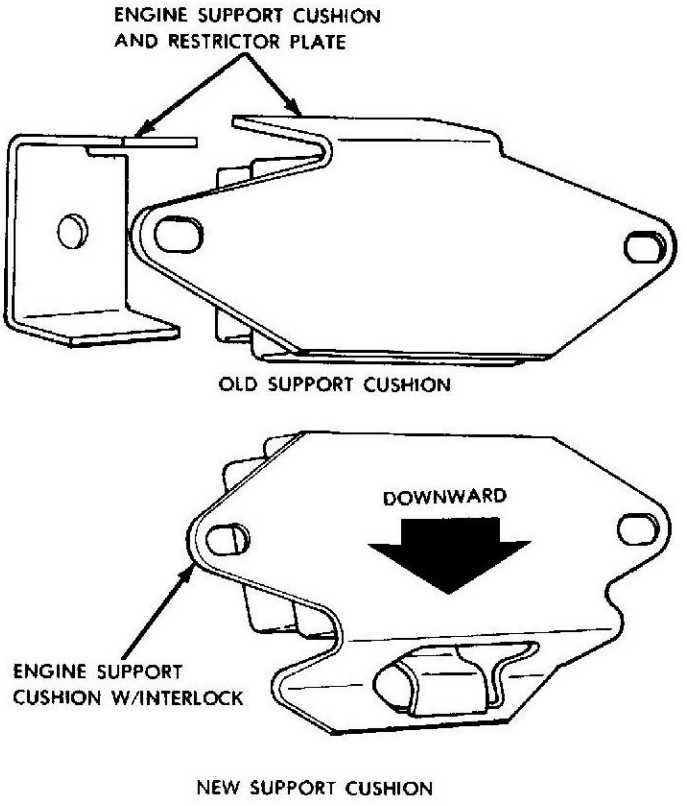

Fig. 1 Right Front Engine Support Cushion

(8) Measure 3/4 inch from front edge of support bracket and scribe a mark (Fig. 2).

(9) Cut off marked edge of bracket. Remove rough edges.

(10) Install support bracket. Tighten nuts to 37 foot-pounds torque.

(11) Install support cushion. Tighten cushion attaching bolts to 37 foot-pounds torque.

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NOTE: *Install support cushion with interlock positioned downward (see illustration).*

(12) Lower engine and remove support.

(13) Install support cushion replacement nut and lockwasher. Tighten nut to 38 foot-pounds torque.

(14) Install fuel line clamp to right front support bracket.

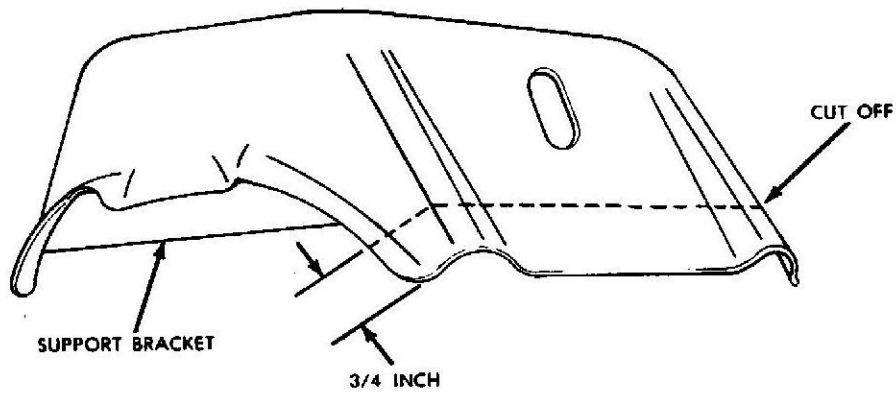

Fig. 2 Right Front Engine Support Bracket

The following standard operations and work times will apply.

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
BRACKET, RIGHT FRONT ENGINE SUPPORT —MODIFY..... Includes installing right front support cushion	1.004	1207	CJ	0.4	0.4	—	G

Diagnosis and Repair Bulletin

No. 7-01

April 25, 1977

Subject: Connecting Rod Bearing Noise	Application: Early 1977 Models With Six-Cylinder Engine	File: Group 1.000

Some six-cylinder engines may produce bearing noise which is noticeable either while the engine is idling or while decelerating from 35-to-25 mph with the throttle closed.

The noise may be the result of excessive connecting rod bearing clearance which can be caused by one or more of the following conditions:

- Foreign matter trapped between connecting rod and cap mating surfaces.
- Incorrect connecting rod cap nut torque.
- Incorrect bearing inserts installed.
- Burrs on back of bearing insert preventing proper seating of insert to cap.
- Cap misalignment due to undersize bolts.
- Step at bearing insert mating surface breaking up oil film.

In most instances, the above conditions can be corrected without replacing the bearing inserts by diagnosing and correcting the problem as follows:

DIAGNOSIS

Engine Noise At Idle Speed

Disconnect spark plug wires, one at a time, using insulated pliers. When affected cylinder is located, the noise will be less noticeable or may stop completely. Proceed with repair procedure.

CAUTION: *On vehicles with catalytic converters, do not leave a spark plug wire disconnected for more than 30 seconds as damage to the converter could result.*

Engine Noise Upon Deceleration

On a smooth road, accelerate to 35 mph, release the accelerator, leave the vehicle in gear, and allow vehicle to coast to 25 mph. If noise is apparent, proceed with repair procedure.

PROCEDURE

(1) Drain oil and remove oil pan (refer to Section 1A of the 1977 Technical Service Manual).

(2) Visually inspect upper end of connecting rod at piston pin area to determine that the rod is in the center of the piston and is not misaligned. If the rod isn't centered, it could be bent or the rod may not have been pressed to the center of the pin. A bent or damaged rod should be replaced (refer to Section 1A of the 1977 Technical Service Manual). Check all connecting rods in this manner.

NOTE: *When replacing a bent or damaged rod, always replace the rod bearing.*

(3) Rotate crankshaft until connecting rod is at the bottom of its stroke.

(4) Check connecting rod bolt nut torque to verify that it is within specified range.

(5) Remove connecting rod bearing cap and bearing inserts.

CAUTION: *Be careful when rotating crankshaft while bearing cap is removed. Connecting rod bolts could contact the rod journals and scratch the finish. A length of rubber hose installed over the connecting rod bolts will prevent damage to the journals.*

(6) Examine connecting rod and cap for the following conditions:

(a) Sharp edges at parting line on inside of bearing insert.

(b) Burrs or foreign material on back of bearing inserts (usually at parting line).

NOTE: *Emery cloth may be used to remove burrs or to smooth the edges of the bearing inserts.*

(7) Wipe insert bearing surfaces and rod journal clean with a lint-free cloth and check bearing clearance using Plastigage (refer to Section 1A of the 1977 Technical Service Manual).

(a) In most cases, the clearance will now check within the acceptable range of 0.0010-0.0030 inch. Proceed to step (8).

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(b) If clearance is over 0.0030 inch, install new bearing inserts to reduce the clearance to 0.0015-0.0020 inch. Recheck clearances after replacing bearing inserts, then proceed to step (8).

NOTE: *When required, different-sized upper and lower bearing inserts may be used as a pair.*

EXAMPLE: *A standard size insert may be used in combination with a 0.001 inch undersized insert to reduce clearance by 0.0005 inch. Do not use a pair of bearing inserts with a size difference of more than 0.001 inch.*

(8) Check alignment of upper rod bearing insert with rod.

(9) Lubricate bearing surface of insert with engine oil and position rod on crankshaft.

NOTE: *When lubricating bearing surfaces, SAE 50 or 40 weight oil is recommended to help align the rod cap.*

(10) While holding rod cap, install rod bolt nuts and tighten finger tight. Alternately tighten nuts to 33 foot-pounds torque.

(11) Install oil pan (refer to Section 1A of the 1977 Technical Service Manual). Fill crankcase with new oil to specified level.

The Standard Servicing Operations and work times as published in the current SSO Manual are not affected by this bulletin.

Diagnosis and Repair Bulletin

No. 7-01

February 24, 1977

Subject: Possible Coolant Leak Due to Punctured Bottom Radiator Tank — Caused by Radiator Being Positioned Too Low

Application: 1977 Wagoneer and Cherokee Models With V-8 Engine and Power Steering — Built Prior to VIN J7XXXXX058859

File: Group 2.000

On some 1977 Wagoneer and Cherokee models, with V-8 engine and power steering, the radiator may be positioned too low. Under severe conditions the bottom tank may contact the overcenter adjusting screw and become punctured resulting in a coolant leak.

When a 1977 Wagoneer or Cherokee, built prior to VIN J7XXXXX058859 is brought in for any type of service the clearance between the bottom radiator tank and overcenter adjusting screw should be checked. If the bottom tank contacts the adjusting screw, the radiator should be repositioned, in accordance with the following procedure, to obtain proper clearance.

PROCEDURE

Radiator Repositioning

(1) Drain radiator coolant.

(2) Disconnect upper and lower radiator hoses at radiator.

(3) Remove flexible transmission cooler lines, if equipped.

(4) Remove radiator and shroud attaching bolts and move shroud back on top of fan.

(5) Remove radiator. Repair bottom tank if necessary (refer to Radiator Bottom Tank Repair Procedure).

(6) Measure down 3/8 inch from center of existing mounting holes and centerpunch (see illustration).

(7) Drill four 5/16 inch holes at positions marked in step (6).

(8) Position radiator in vehicle, align shroud and install attaching bolts.

NOTE: *It may be necessary to elongate one or more holes for proper alignment.*

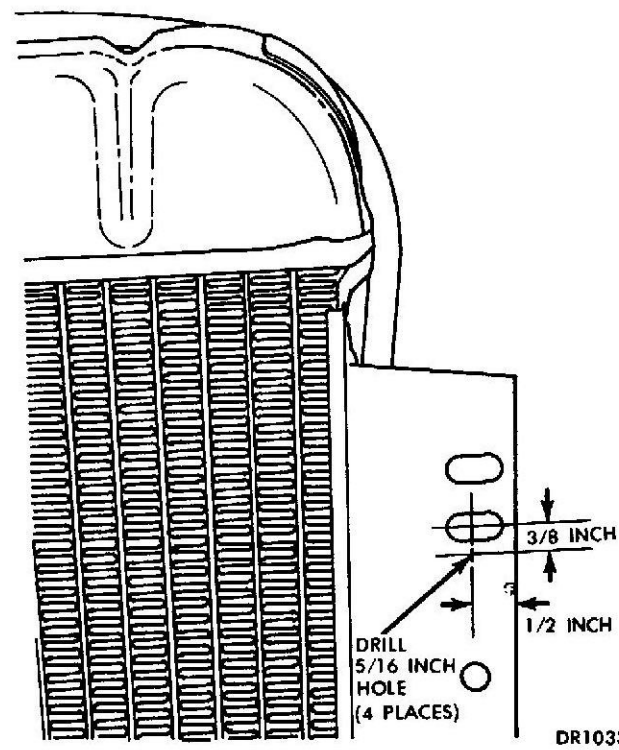
(9) Connect upper and lower radiator hoses.

(10) Install flexible transmission cooler lines, if equipped.

(11) Fill radiator with coolant drained in step (1).

(12) Check and adjust fluid level of automatic transmission, if equipped.

(13) Check cooling system and transmission cooler lines for leaks.



Radiator Mounting Hole Relocation (4 places)

Radiator Bottom Tank Repair

(1) Cut a 1 inch square patch from a piece of copper or brass shim stock at least 0.040 inch thick.

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(2) Position radiator in vice with bottom tank up.

(3) Clean area to be patched thoroughly with a wire brush and if necessary fine grit sandpaper.

(4) Using a 60-40 solder and flux tin area of tank to be patched and one side of patch.

(5) Position tinned side of patch on tank and apply enough heat to bond patch to tank.

NOTE: *Make sure all edges and corners are contoured to tank.*

(6) Complete patching operation by applying flux and soldering all four sides.

The following operations and standard work times will apply.

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
RADIATOR — REPOSITION	2.020	2001	WAG, CKE	0.4	—	—	G
Radiator Bottom Tank — Repair	2.020	A		0.2	—	—	G
If equipped with automatic transmission add				0.1	—	—	G

Jeep

SERVICE TECHNICAL BULLETIN

No. TB 1 — 7700 Series
3 — 7600 Series

Group: 2.000
Date: September 28, 1976

Subject: **Engine Overheating—1976 and 1977 CJ-5, CJ-7, Cherokee and Truck Models With Six-Cylinder Engine—Built Prior to J7XXXXX002807**

ALL JEEP DEALERS

Some of the subject vehicles may have an engine overheating problem. Overheating is usually caused by improper belt tension, low coolant level or other cooling system malfunctions. However, some vehicles built prior to VIN J7XXXXX002807 may have incorrect cooling system components which will also cause this problem. Vehicles built after this VIN number are all equipped with the correct components as outlined in this bulletin.

If a vehicle is brought in with an overheating complaint and the cooling system is functioning properly, inspect cooling system as outlined under inspection and replace any incorrect components.

INSPECTION

Perform the following steps and compare results with application chart for standard cooling, heavy duty cooling or air conditioning.

(1) Measure and record diameter of fan. Count number of fan blades.

(2) Count radiator tubes.

(3) Count radiator fins-per-inch by placing a piece of paper against the radiator and marking a line 6 inches long. Count the number of fins within the 6 inch line and divide by 6, this is the number of fins per inch.

(4) Inspect for fan shroud.

COMPONENT APPLICATION

NOTE: *The Radiator Tubes/Fins per Inch columns show the minimum acceptable radiator. If a vehicle has either more tubes or more fins per inch than shown, do not replace it.*

Type of Cooling	Model	Fan		Radiator		Shroud Part Number	Fan Part Number	Fan Spacer Part Number
		Dia. (Inches)	Number of Blades	Number of Tubes	Fins per Inch			
Standard Cooling	*CJ	16.25	4	2	7	no	3224499	no
	Truck	16.25	4	2	7	no	3224499	no
	Cherokee	16.25	4	2	7	no	3224499	no
Heavy Duty Cooling	CJ	15.62	7	2	10	5356475	998795	3213700
	Truck	15.62	7	2	10	5355271	998795	3213700
	Cherokee	15.62	7	2	10	5356475	998795	3213700
Air Condi-tioning	CJ	15.62	7	2	10	5356475	**5357390	3213700
	Truck	15.62	7	2	10	5355271	998795	3213700
	Cherokee	15.62	7	2	10	5356475	998795	3213700

*A few CJ models with standard cooling were built with a shroud and 7-blade fan. Remove shroud and install designated 4-blade fan on these models.

**Fan blade part number 5357390 is the same as fan blade part number 998795, except it is notched to provide proper radiator clearance on CJ models equipped with air conditioning. Part number 5357390 may be used in place of part number 998795 for all other applications.

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Service procedures and SSO times for replacing necessary components remain as outlined in the appropriate Technical Service Manuals and SSO Manual with the following exceptions:

- When installing the large diameter 4-blade fan on CJ-7 models with automatic transmission it will be necessary to relocate the radiator 1/2 inch higher to provide sufficient clearance. (Refer to Radiator Relocation Procedure.)
- On some CJ models the cooling system may be operating properly, have all the correct components, and still have a high reading on the temperature gauge. For these models *only*, install a 2.7 ohm 1 watt resistor in the temperature sender wire (refer to Resistor Installation Procedure). The 2.7 ohm 1 watt resistor is available from most TV and radio repair shops at a cost of approximately $0.18.

PROCEDURE

Resistor Installation (CJ Models Only)

(1) Trace wire lead from temperature sending unit to wiring harness.

(2) Cut wire lead at a point 3 inches from harness.

(3) Trim insulation enough to allow soldering resistor pigtails.

(4) Solder resistor pigtails between wire leads.

NOTE: *Be careful not to overheat resistor when soldering.*

(5) Wrap soldered joints using plastic electrical tape.

Radiator Relocation (CJ Models Only)

(1) Drain radiator.

(2) Disconnect hoses.

(3) Remove radiator.

(4) Elongate attaching holes downward 1/2 inch.

(5) Install radiator using bottom of elongated holes for positioning.

(6) Connect hoses.

(7) Fill radiator and check for leaks.

The following operations and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
RADIATOR AND FAN—INSPECT FOR INCORRECT COOLING SYSTEM COMPONENTS		2029		0.1	0.1	—	G
Resistor—Install	3.608	A		0.2	0.2	—	G
Radiator—Relocate	2.020	B		0.4	0.4	—	G

Diagnosis and Repair Bulletin

Subject: BID Distributor Sensor Kit	Application: 1975, 1976, and 1977 Models With BID Ignition System	File: Group 3.000 Electrical No. 7-05 August 10, 1977

A new distributor sensor kit has been developed which eliminates the possibility of a resistance build-up in the 2-wire connector. The new sensor kit has a 4-wire connector which combines the sensor with an ignition adapter harness.

This new BID sensor kit supersedes sensor part number 8127317 and harness part number 3229757.

Discription	Quantity	Part Number	Group
Kit, BID Sensor	1	8128999	3.038

NOTE: *The BID Sensor Kit will be available from your parts distribution center the week of August 22, 1977. Do not order parts before this date.*

PROCEDURE

Distributor Sensor Replacement

NOTE: *It is not necessary to remove distributor from engine to install sensor kit. However, if a distributor is removed it should be placed in a suitable holding device.*

(1) Remove distributor cap, rotor and dust shield.

(2) Remove trigger wheel using a small gear puller (fig. 1). Position a thick flat washer or nut as a spacer, between puller screw and inner shaft. Do not position puller screw directly on inner shaft.

CAUTION: *Be sure puller jaws grip inner shoulder of trigger wheel or damage to trigger wheel may result.*

(3) Remove sensor locking screw.

NOTE: *Sensor locking screw has a tamper-proof head, use Special Driver Bit Tool J-25097 to remove screw. If a driver bit is not available, small needlenose pliers may be used to remove screw. Replacement screw has a standard slotted-head.*

(4) Lift sensor lead grommet out of distributor bowl. Pull sensor leads out of slot around spring pivot pin. Lift and release sensor spring, making sure it clears leads, then slide sensor off of bracket (fig. 2).

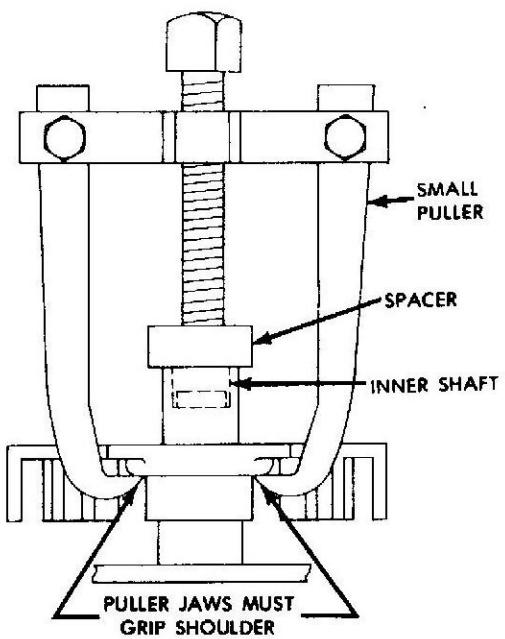

Fig. 1 Trigger Wheel Removal

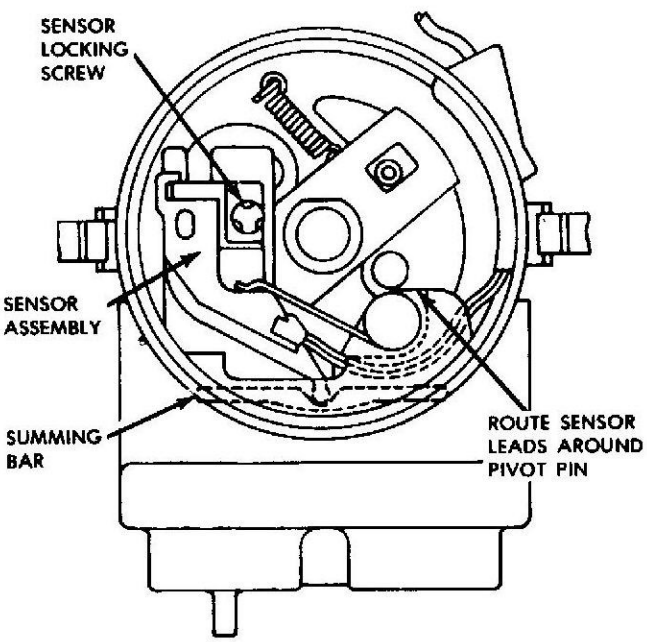

Fig. 2 Sensor Removal

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(5) Install replacement sensor assembly on vacuum chamber bracket, making sure that tip of sensor is located properly in summing bar (fig. 2).

(6) Install sensor spring on sensor.

(7) Route sensor leads around spring pivot pin.

CAUTION: *Do not use a screwdriver or other sharp tool to route leads around spring pivot pin.*

(8) Install sensor lead grommet in distributor bowl, making sure that leads are positioned so they will not get caught by trigger wheel.

(9) Install positioning gauge over yoke against flat side of yoke. (fig. 3).

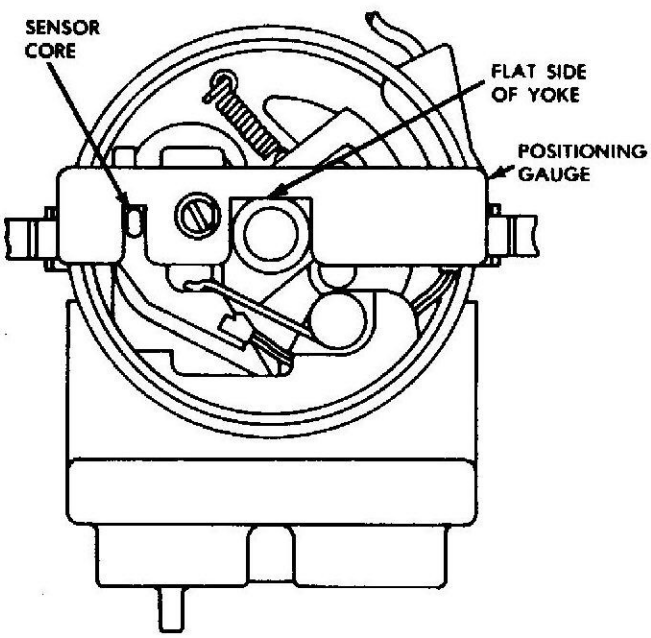


Fig. 3 Sensor Positioning

(10) Move sensor sideways until positioned in gauge.

(11) Install replacement slotted-head screw. Do not tighten.

(12) Check sensor position by removing and installing positioning gauge. When sensor is properly positioned gauge can be removed and installed without any side movement of sensor.

(13) Remove positioning gauge and tighten retaining screw. Tighten screw to 5 to 10 inch ounces torque.

(14) Install trigger wheel, do not press into position.

(15) Check position of sensor core to be sure it is positioned approximately in center of trigger wheel legs and that legs do not touch sensor core.

(16) Seat trigger wheel on yoke using an 11/16 inch deep well socket and small hammer.

NOTE: *If distributor has been removed from engine be sure to support distributor shaft when seating trigger wheel.*

(17) Bend 0.050 inch OD wire gauge (contained in kit) as illustrated in figure 4.

(18) Check clearance between trigger wheel and sensor base using 0.050 inch OD wire gauge. Trigger wheel should just touch wire gauge (fig. 4).

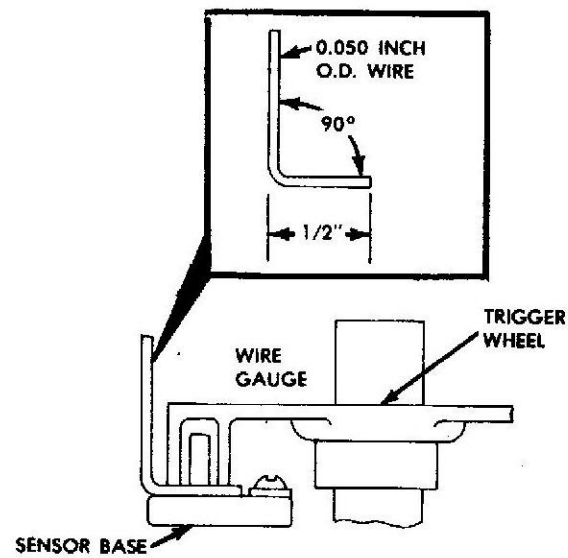


Fig. 4 Trigger Wheel Clearance

(19) Apply 3 to 5 drops of SAE 20 oil to felt wick in top of yoke.

(20) Install dust shield, rotor and distributor cap.

(21) Proceed to applicable wiring procedure.

Wiring Procedures

Spade Type Coil Terminals

(1) Remove nuts and channel washers from coil terminals and discard.

(2) Cutoff wire leading to coil negative terminal (if patch harness was not preivously installed). Also cutoff two wires previously connected to sensor.

NOTE: *Cut wires flush with harness wrapping. It is not necessary to tape cut wire ends.*

(3) Cut terminal ends from wires previously attached to coil positive terminal.

(4) Turn ignition switch to run position. With a voltmeter or test lamp, determine which wire removed from positive terminal has voltage.

(5) Cutoff wire that does not have voltage. Cut wire flush with harness wrapping.

(6) Cutoff ground wire that was attached to coil bracket or alternator.

(7) Turn ignition switch off.

(8) Attach harness wire with female bullet connector to coil wire that had voltage and solder connection.

NOTE: *Do not use acid core solder or acid flux on solder joints. Use rosin core solder or rosin flux only.*

(9) Wrap soldered joint with 3M electrical tape (or equivalent).

(10) Remove capacitor attaching screw and cutoff spade terminal.

(11) Attach harness wire with male bullet connector and solder connection (if applicable). Wrap soldered joint with electrical tape.

(12) Connect capacitor, connect push-on connectors to coil terminals and connect coil feed wire to male bullet connector on new sensor harness (Fig. 5).

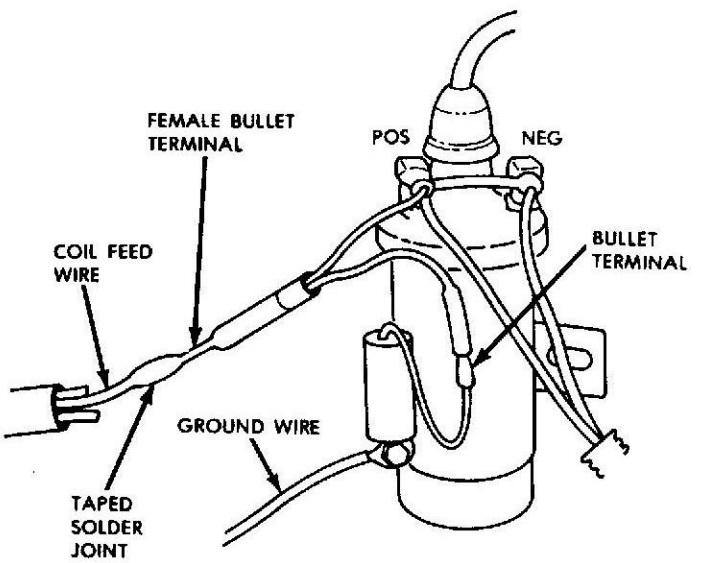


Fig. 5 Sensor Harness With Ignition Coil Spade Terminals

(13) Attach capacitor and sensor harness ground wire to coil bracket.

(14) Connect 4-wire connector and plug-in ground terminal to control unit.

NOTE: *Be sure wires are routed away from spark plug wires and are secured so as not to contact drive belts or pulleys.*

(15) Fill unused 4-wire connector with Gasket-in-a-Tube Sealer, part number 8993317, or equivalent.

Push-On Type Coil Terminals

(1) Disconnect wires from coil terminals and capacitor.

(2) Connect male bullet terminal of sensor harness into female bullet connector of capacitor wire (Fig. 6).

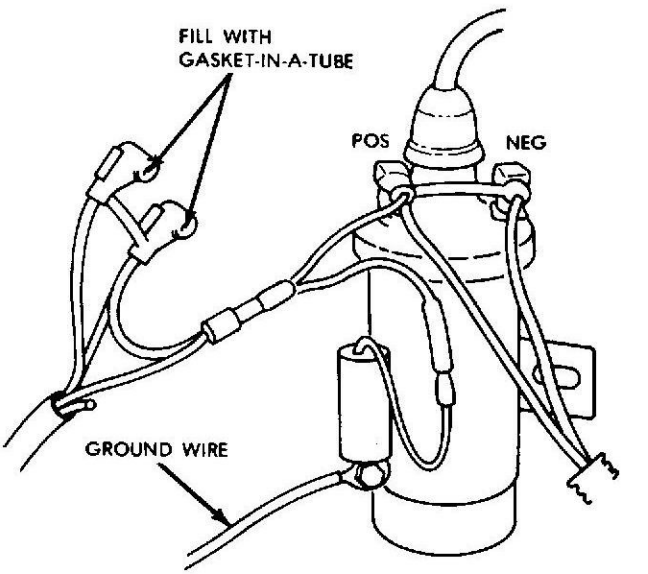


Fig. 6 Sensor Harness With Ignition Coil Push-On Terminals

(3) Connect sensor harness push-on connectors to coil terminals.

(4) Disconnect 4-wire and single wire connector from control unit.

(5) Connect 4-wire and single wire connector of new sensor harness to control unit.

(6) Connect ground wire of new sensor harness to coil bracket.

NOTE: *Be sure wires are routed away from spark plug wires and are secured so as not to contact drive belts or pulleys.*

(7) Fill disconnected 4-wire connector and coil positive lead with Gasket-in-a-Tube, part number 8993317, or equivalent.

(3)

The following standard servicing operations and work times apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				75	76	77	
KIT, BID SENSOR — INSTALL	3.026	3165	All				G
WITH SPADE COIL TERMINALS.....		A		0.4	0.4	—	
WITH PUSH-ON TERMINALS.....		B		—	0.3	0.3	

Diagnosis and Repair Bulletin

No. 7-04

April 21, 1977

Subject: Off-Road Driving Lamp Kit - Installation and Aiming Procedures

Application: 1977 J-10 Truck Models With Golden Eagle Trim Package

File: Group 3.000 Electrical

This bulletin is being issued to provide the necessary instructions for installing and aiming the off-road driving lamp kit used on J-10 truck models with the Golden Eagle trim package.

The following off-road driving lamp kit will be shipped directly from the manufacturer to the dealer for installation on the vehicle.

Description	Quantity	Part No.	Group
Kit, Off-Road Driving Lamp	1	8997207	15.162

Each kit contains:

Description	Qty.	Description	Qty.
Lamp, 12 volt with Cover	2	- Bushing, Strain Relief	2
Kit, Wiring Consisting of:	1	- Switch, Rocker	1
		- Bracket, Switch	1
- Wire, Black - 6 inches	1	- Screw, Bracket	2
- Wire, Red - 18 inches	1	- Connector, 3-Way Butt	1
- Wire, Brown - 12 inches	1	- Tie, Cable	6
		- Holder, Fuse	1
- Wire, Yellow - 6 inches	1	- Fuse, 20 AMP	1
- Wire, Yellow - 25 feet	1	- Terminal, Spade Female	1
		- Instruction Sheet	1

NOTE: *For missing or damaged items contact the kit manufacturer direct:*

CIBIE Lights - EFPE Company
33195 Harper Street
St. Clair Shores, Michigan 48082

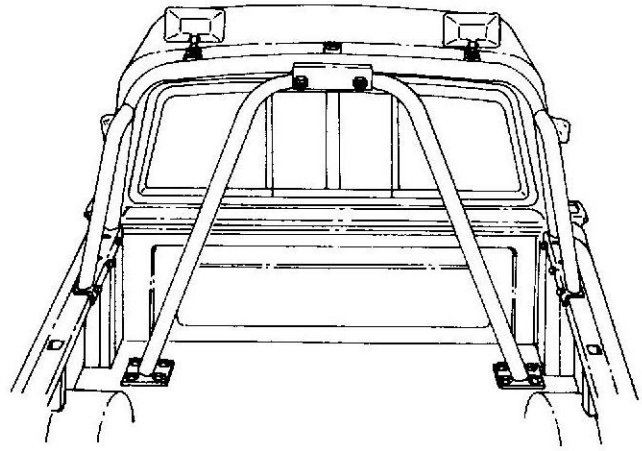


Fig. 1 Off-Road Driving Lamp Kit (Installed)

PROCEDURE

Installation

(1) Position driving lamps on roll bar mounting brackets and tighten nuts (Fig. 1).

(2) Attach end of 25 ft. yellow wire (terminal end) to a snake wire.

NOTE: *A suitable snake wire can be fabricated by joining the ends of 3 or 4 lengths of welding rod together.*

(3) Insert snake wire (with yellow wire attached) into bottom left corner of pick-up box and feed through stake box section and into roll bar. Continue snaking wire through roll bar until end of wire reaches access hole in underside of roll bar at right hand lamp (Fig. 2).

(4) Remove snake wire and attach terminal end of yellow wire to right hand lamp.

(5) Insert bushing in right hand access hole of roll bar.

(6) Pull a loop of wire from left hand access hole in roll bar.

(7) Cut wire loop and strip ¼ inch of insulation from each end (Fig. 3).

(OVER)

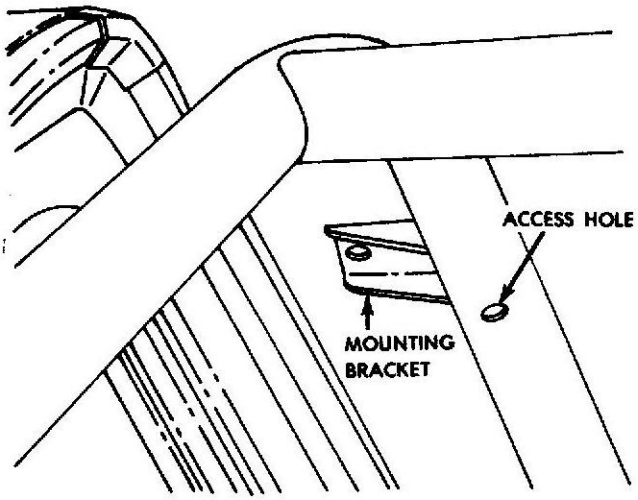


Fig. 2 Roll Bar Access Hole (L. H. Shown)

(8) Connect terminal end of 6 inch yellow wire to left hand lamp.

(9) Strip ¼ inch of insulation from other end of 6 inch yellow wire.

(10) Insert both ends of yellow wire from roll bar and 6 inch yellow wire from lamp into 3-way butt connector and crimp securely.

(11) Puch 3-way connector and wires into left hand access hole in roll bar.

(12) Insert strain relief bushing into left hand access hole.

(13) Route yellow wire extending from pick-up box along inner side of left frame rail to engine compartment.

(14) Route wire up dash panel (firewall) and through heater vacuum control hose grommet into passenger compartment.

(15) Drill a ½ inch diameter hole in lower instrument panel 2-½ - to - 3 inches left of fresh air vent knob.

(16) Install fuse holder (Fig. 4).

(17) Drill two 1/8 inch holes under instrument panel, below fuse holder. Use rocker switch as template.

NOTE: *On vehicles equipped with air conditioning locate switch holes left of discharge duct.*

(18) Install rocker switch (Fig. 4).

(19) Attach one end of 12 inch brown wire to positive (+) terminal of rocker switch. Attach other end to straight side terminal of fuse holder.

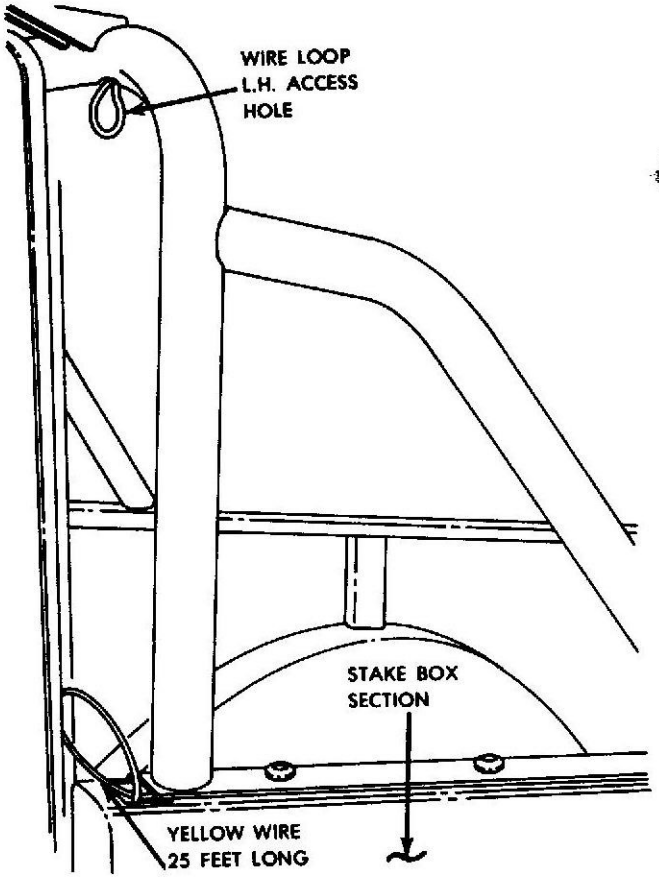


Fig. 3 Roll Bar Wire Routing

(20) Attach one end of 6 inch black wire to negative (-) terminal of rocker switch. Attach other end to steering column collar trim screw or other suitable ground.

(21) Route yellow wire from lamps to rocker switch and cut off excess.

(22) Strip ¼ inch of insulation from yellow wire, install female spade terminal and crimp.

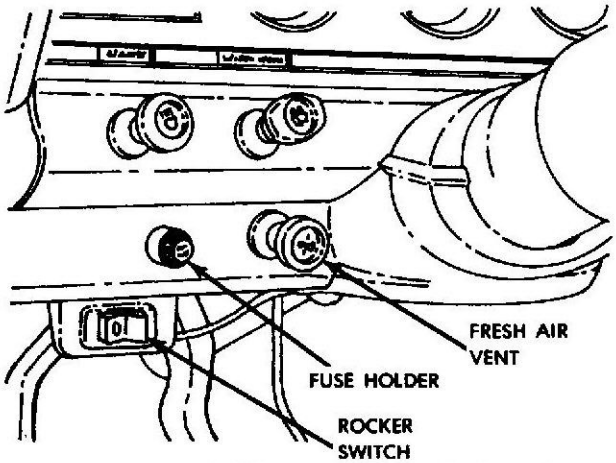


Fig. 4 Fuse Holder and Switch Location

(23) Attach female spade terminal to remaining terminal on rocker switch.

(24) Attach one end of 18 inch long red wire to fuse block terminal above "transmission kickdown" fuse. Attach other end to center terminal of fuse holder.

(25) Secure all loose wire using cable ties.

(26) Install 20 amp fuse in fuse holder, remove lamp covers and check lamp operation.

NOTE: *Lamps are switched through ignition switch and will only operate when ignition switch is in on position.*

Aiming Lamps

(1) Position vehicle on a flat level surface, facing and approximately 25 feet from a wall.

(2) Remove lamp covers.

(3) Loosen lamp attaching bolts. Turn ignition switch and lamp switch on, adjust beams as follows:

(a) Horizontal distance between light beams on wall should be same as distance between lamps on roll bar.

(b) Vertical height of light beams on wall should be 1 inch less than installed height of lamps on roll bar.

(4) Tighten lamp attaching bolts.

(5) Turn off ignition switch and lamp switch.

(6) Install lamp covers.

NOTE: *On vehicles sold in California the fuse must be removed from the fuse holder for street use.*

The following standard servicing operations and work times apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
LAMPS, OFF-ROAD DRIVING— INSTALL..... Includes aiming lamps	**15.162**	**15.659**	**TRK**	**1.0**	—	—	**G**

Revised

Diagnosis and Repair Bulletin

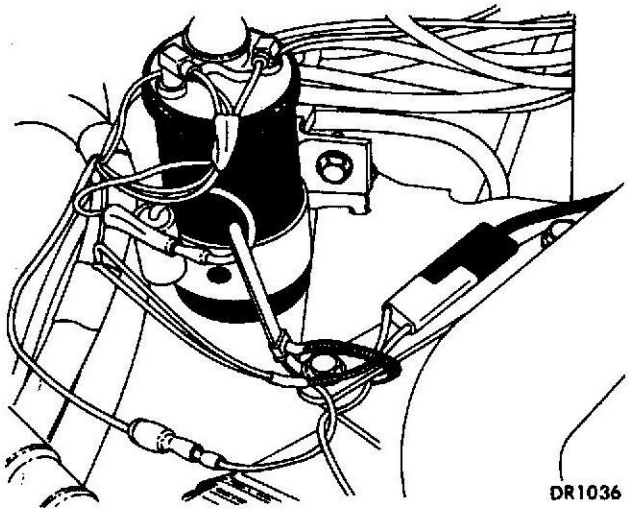
No. 7-03

March 11, 1977

Subject: Distributor Sensor Wire Routing	Application: All 1977 Models	File: Group 3.000

This bulletin is being revised to correct the illustration of distributor sensor wire routing for six-cylinder engine applications. Remove and discard DRB 7-03, Group 3.000, dated February 17, 1977 and insert this revised bulletin in your DRB binder.

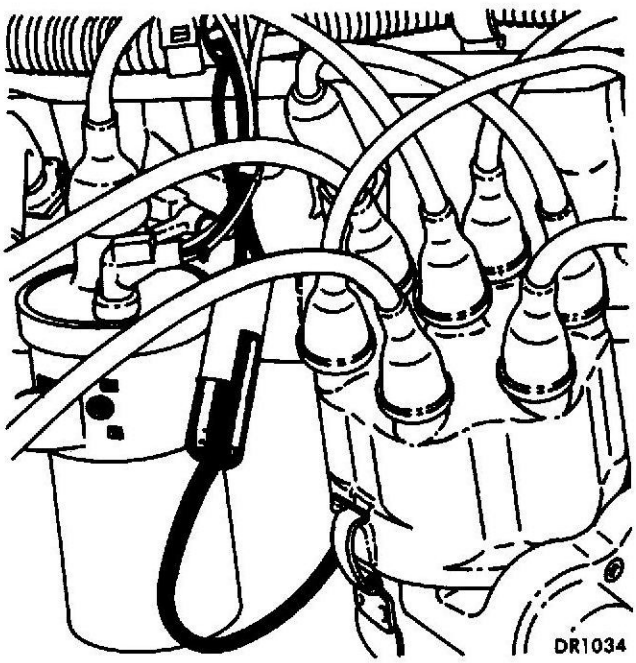
Some engines may be sensitive to the routing of the distributor sensor wires. If they are routed near the high-voltage coil wire or spark plug wires, the electromagnetic field surrounding those high-voltage wires could possibly generate an occasional disruption of the normal operation of the ignition system.



V-8 Distributor Sensor Wire Routing

NOTE: On V-8 models without air conditioning route sensor wire away from coil wire and plug wires.

Before attempting any other diagnosis or repair for ignition system problems, check the sensor wire routing and, if necessary, reroute it. The following illustrations show the most desirable routing for each engine. These routings should be followed whenever the ignition system is being serviced.



Six-Cylinder Distributor Sensor Wire Routing

American Motors Sales Corporation
Service Engineering Dept. • 14250 Plymouth Rd. • Detroit, Mich. 48232
Additional copies of this bulletin are available through your zone office.

Jeep

Diagnosis and Repair Bulletin

No. 7-02

February 8, 1977

Subject: Engine Continues to Run After Ignition Switch is Turned Off—Caused by Alternator Feedback

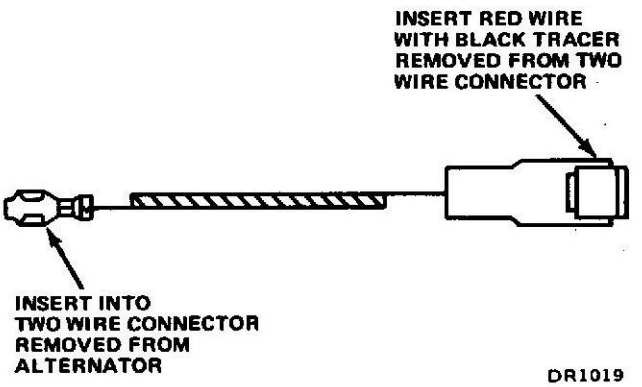
Application: 1976 and 1977 CJ Models With Six-Cylinder Engine and Delco Alternator Built Prior to J7XXXXX038559

File: Group 3.000

On some of the subject 1976 and 1977 CJ models with six-cylinder engines and Delco alternators the engine may continue to run after the ignition switch is turned off. This condition may be caused by alternator feedback.

Service correction involves disconnecting the lead from the No. 1 terminal of the alternator and installing the following jumper wire between the disconnected lead and the No. 1 terminal of the alternator.

Description	Quantity	Part No.	Group
Wire, Jumper	1	8128393	3.130



Jumper Wire

PROCEDURE

(1) Disconnect two wire connector from No. 1 terminal of alternator.

(2) Remove black wire with red tracer from connector.

(3) Insert black wire with red tracer into female terminal of jumper wire assembly (see illustration).

NOTE: *It may be necessary to bend the locking barb of the terminal so it will engage securely in the jumper wire terminal.*

(4) Insert male terminal of jumper wire into alternator two wire connector.

NOTE: *Be sure male terminal of jumper wire is inserted securely into two wire connector.*

(5) Connect two wire connector to No. 1 terminal of alternator.

(6) Tape or tie jumper wire assembly to main harness to prevent chaffing against engine.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
WIRE, JUMPER—INSTALL.	3.227	3033	83,84,93	0.2	0.2	—	6

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Diagnosis and Repair Bulletin

No. 7-01

December 27, 1976

Subject:
Distributor Cap Holddown Clip Replacement

Application:
1975, 1976 and 1977—All Models

File:
Group: 3.000
Electrical

It is no longer necessary to install a new distributor as a means of repair when the distributor cap holddown clips are damaged and cannot be re-formed. Replacement holddown clips are now available and can be easily installed on the distributor, in the vehicle. In most cases the clips can be replaced without moving the distributor, except for the rear clip on eight-cylinder models.

The following parts will be required as necessary.

NOTE: *Parts will be available from your Parts Distribution Center the week of January 19, 1977. Do not order parts before this date.*

Description	Quantity	Part No.	Group
Clip, Distributor Cap Holddown Six-Cylinder	As Required	8128421	3.030
Clip, Distributor Cap Holddown Eight-Cylinder	As Required	8128420	3.030

PROCEDURE

(1) Remove distributor cap, rotor and dust cover.

(2) Spread rolled over portion of clip using a pair of needlenose pliers. Remove clip from retaining bracket.

NOTE: *On eight-cylinder distributor it may be necessary to also use a screwdriver to aid in spreading the clip open.*

(3) On eight-cylinder distributors—if rear clip is being replaced:
(a) Loosen distributor holddown bolt.
(b) Disconnect sensor connector.
(c) Disconnect vacuum hose.
(d) Rotate distributor sufficiently to gain access to rear clip.

(4) Install replacement clip(s) on retaining bracket(s).

NOTE: *It may be necessary to open clip slightly to slide it on to retaining bracket.*

(5) Close clip around retaining bracket using a pair of needlenose pliers.

NOTE: *If bracket is bent during clip replacement, re-form bracket.*

(6) Install dust cap, rotor and distributor cap.

(7) On eight-cylinder distributors proceed as follows:
(a) Rotate distributor back to its original position.
(b) Connect sensor connector.
(c) Check timing and adjust to specifications.
(d) Tighten distributor holddown bolt.
(e) Connect vacuum hose.

The following Standard Servicing Operations and work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				75	76	77	
CLIP, DISTRIBUTOR CAP HOLDDOWN — REPLACE	**3.030**	**3009**					**6**
One or both			**6 Cyl.**	**0.2**	**0.2**	**0.2**	
Front Clip			**8 Cyl.**	**0.2**	**0.2**	**0.2**	
Rear and/or front clip			**8 Cyl.**	**0.3**	**0.3**	**0.3**	

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Additional copies of this bulletin are available through your zone office.

Diagnosis and Repair Bulletin

Subject: Altitude Performance Adjustments	Application: 1968-80 Jeep Vehicles	File: POWER PLANT — Fuel and Exhaust No. 80-7 Nov. 10, 1981

This bulletin is being issued to outline the altitude performance adjustments for 1968-80 Jeep vehicles required under a newly established Federal standard. The adjustments are intended to improve driveability performance as well as emissions performance at altitudes other than that for which the vehicles were originally certified.

Any Jeep vehicle that has been so adjusted must have a unique emission control information label installed. These unique labels are available in a kit, part number 3242106 from the following facility:

American Motors Corporation
Distribution Services
37200 Amrhein Road
Livonia, Michigan 48150

The adjustment procedures and unique labels must be made available at no cost to independent repair facilities and the general public. A notification is also provided in current owners manuals to make customers aware of these adjustments.

ADJUSTMENT PROCEDURES

On Jeep vehicles originally sold for operation at altitudes **below** 4,000 feet that are being operated above 4,000 feet, the ignition timing, as shown on the vehicle emission control label located in the engine compartment or specified in the appropriate Jeep Technical Service manual should be advanced 5° (not to exceed 15° total advance). The engine idle speed should be reset according to the procedures and idle speed specification outlined in the appropriate Jeep Technical Service Manual for the year of vehicle being serviced.

After performing these adjustments, attach emission control label, part number EF 8130457, to the engine compartment dash panel. Do not attach the label to any component that can be readily removed from the vehicle.

These adjustments apply to all 1968-80 Jeep vehicles that were sold for principal use at altitudes below 4,000 feet. Refer to the vehicle emission control label in the engine compartment to identify these vehicles.

On 1968-80 Jeep vehicles originally sold for operation at altitudes **above** 4,000 feet that are being operated below 4,000 feet, the ignition timing, as shown on the vehicle emission control label located in the engine compartment or specified in the apropriate Jeep Technical Service Manual should be retarded 5°. The engine idle speed should be reset according to the procedures and idle speed specifications outlined in the appropriate Jeep Technical Service Manual for the year of the vehicle being serviced. After performing these adjustments, attach emission control label, part number EF 8130458, to the engine compartment dash panel. Do not attach the label to any component that can be readily removed from the vehicle.

These adjustments apply only to 1968-80 Jeep vehicles that were sold for principal use at altitudes above 4,000 feet. Refer to the vehicle emission control label in the engine compartment to identify these vehicles.

81-114-04A/J

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Jeep

PRODUCT RECALL CAMPAIGN
Diagnosis and Repair Bulletin No. Below

Subject: **BACSENS CAMPAIGN (Type E Product Recall Campaign): Exhaust Gas Recirculating (EGR) Back-Pressure Sensor Replacement and Adjustment of Idle Mixture Setting (Lean Idle Drop Specification Change to 50 RPM for all Six-Cylinder Engines)**

Date: **October 22, 1979**
Application: **1974-1979 Jeep Vehicles (See Application Chart Below)**
File: **(See Chart Below)**

JEEP APPLICATION CHART

1974	1975	1976	1976	1977	1978	1979
California	California	49-State	California	California	California	California
360 CID	258 CID	232 CID	258 CID	258 CID	304 CID	304 CID
	304 CID	258 CID	304 CID	304 CID		
	306 CID	304 CID	360 CID			
	401 CID		401 CID			

FILING INSTRUCTIONS

Model Year	Group No.	TB/DRB No.
1974-1975	4.000	TB-8
1976	4.000	TB-4
1977	4.000	TB-02
1978	Power Plant, Fuel & Exhaust Systems	DRB 8-09
1979	Power Plant, Fuel & Exhaust Systems	DRB 9-06

This is a Type E Campaign, subject to campaign procedures and involving emission-related elements which may result in non-compliance with Federal or State emissions requirements. The combined owner notification and correction reporting card for this campaign is shown in Figure 1.

The zone will provide a VIN list for each dealer with any vehicles involved. However, the campaign procedures apply to all dealers. BACSENS Campaign Kits will be at the Zone PDC's the week of October 22, 1979.

Parts can be ordered, as needed, on or after October 24, 1979.

Some 1974-1979 Jeep vehicles have defective exhaust gas recirculation (EGR) back-pressure sensor valves. (Refer to Jeep Application Chart for model year and engine displacement.) Service correction involves replacing the EGR back-pressure sensor with a newly designed sensor (regardless of sensor's present condition), performing an idle mixture adjustment on all 6-cylinder engines, and affixing a Campaign Label (8-cylinder) or a combined Campaign and 6-cylinder Lean Idle Drop Emissions Control Information Label. This service is to be performed on all vehicles, regardless of mileage returning for the recall repair.

NOTE: *THE LEAN DROP SPECIFICATION DIFFERS FROM THE SPECIFICATION IN THE SERVICE MANUAL AND ON THE EMISSIONS LABEL (6-CYLINDER ONLY). A LEAN IDLE DROP OF 50 RPM IS TO BE USED.*

NOTE: *If any portion of the EGR system has been altered or made inoperative, the vehicle is still eligible for a free replacement back-pressure sensor and 6-cylinder vehicles are also eligible for an idle mixture adjustment. Additional parts and/or labor required to make an altered system operational will be on a customer-pay basis only. If you encounter this situation, make sure customer consent is obtained before proceeding with repairs.*

The 6-cylinder kit contains a new EGR back-pressure sensor, gaskets and a combined Campaign and Lean Idle Drop Emissions Control Information Label and blue idle screw mixture limiter cap(s). The 8-cylinder kit, contains a new EGR back-pressure sensor, gaskets and a Campaign Label.

The following kits will be required:

Kit	Sensor	Year	Engine Carb.	Model	Transmission
8130500	8129586	1976	Cal. 258, IV	CJ	M, A
8130502	8129588	1976	N/Wide 258, All	CJ	A
			N/Wide 258, All	CJ	M
			N/Wide 232, IV	CJ	M
8130505	8130392	1975	Cal. 360, 4V	J-Series	A
			Cal. 401, 4V	J-Series	A
		1976	N/Wide 304, 2V	CJ	M
			Cal. 304, 2V	CJ	A
			Cal. 360, 4V	J-Series	M4
			Cal. 360, 4V	J-Series	A
			Cal. 401, 4V	J-Series	A
8130506	8130393	1976	N/Wide 304, 2V	CJ	A
8130508	8130395	1976	Cal. 304, 2V	CJ	M3
		1977	Cal. 304, 2V	CJ	M3
		1978	Cal. 304, 2V	CJ	M3
		1979	Cal. 304, 2V	CJ	M3
8130507	8130396	1976	Cal. 304, 2V	CJ	A

BACSEN'S REPAIR PROCEDURE

1) Remove air cleaner.
2) Remove vacuum lines from exhaust back-pressure sensor and EGR valve.
3) Remove EGR valve, back-pressure sensor, restrictor plate (if applicable), and gaskets.
4) Manually pull EGR valve pintle off seat to ensure freedom of movement. If EGR valve pintle moves freely, proceed to step (5).
If EGR valve pintle does not move freely, clean pintle area. If pintle does not move freely after cleaning, replace EGR valve and proceed to step (6).
5) Clean EGR valve mounting surface.
6) Clean manifold, restrictor plate (if applicable), and all mating surfaces.
7) Using new gaskets, install restrictor plate (if applicable), new back-pressure sensor, and EGR valve. Tighten attaching nuts to 13 foot-pounds (17 N.m) torque.
8) Connect vacuum lines to back-pressure and EGR valve (See Figure 2-A & 2-b).

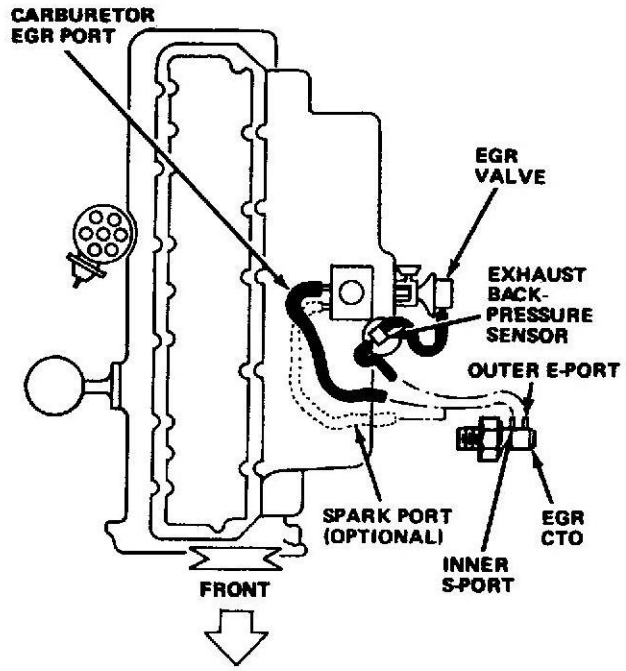
NOTE: *Vacuum line from CTO switch must be connected to back-pressure sensor nipple that has .030-inch restrictor.*

9) Install air cleaner.
10) Start engine and verify EGR valve operation (Refer to appropriate Technical Service Manual for EGR checking procedure).
11) On 8-cylinder vehicles, affix campaign label beside present underhood maintenance label (See Figure 2-b).

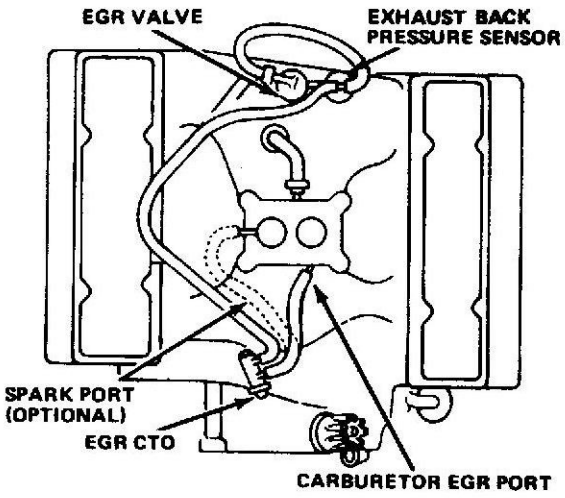
NOTE: *Type campaign number 795 and dealer code number on campaign label before affixing to vehicle. Apply clear film overlay to label.*

12) On 6-cylinder vehicles:
    a) Readjust idle mixture setting by idle drop method (new specification is 50 RPM on all 6-cylinder engines). Refer to appropriate Technical Service Manual for idle drop procedure.
    b) Install blue limiter cap(s) after 6-cylinder idle mixture adjustment.
    c) Affix combined Campaign Label and 6-Cylinder Lean Idle Drop Emissions Control Information Label beside present underhood maintenance label (See Figure 2-a).

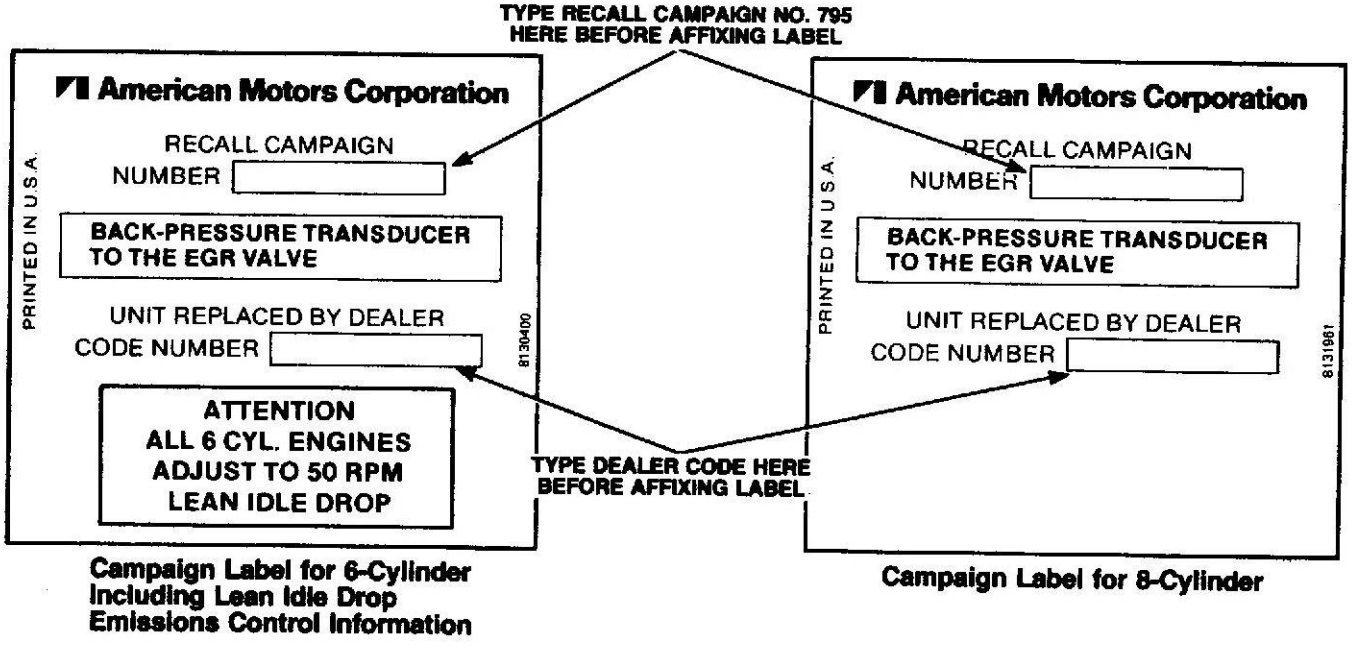
NOTE: *Type campaign number 795 and dealer code number on campaign label before affixing to vehicle. Apply clear film overlay to label.*



Vacuum Hose Routing for 6-Cylinder 42014



Vacuum Hose Routing for 8-Cylinder AJ41263



Campaign Label for 6-Cylinder Including Lean Idle Drop Emissions Control Information

Fig. 2-a

Campaign Label for 8-Cylinder

Fig. 2-b

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME						SKILL LEVEL
				74	75	76	77	78	79	
SENSOR EGR BACK-PRESSURE	**4.690**	**4.295**	**6-cyl**		**.4**	**.4**	**.4**			
Replace (BACSENS Campaign)			**8-cyl**	**.3**	**.3**	**.3**	**.3**	**.3**	**.3**	
Includes idle mixture adjustment on 6-cylinder and replace EGR valve if required										

Condition Code (Defect Code): 56

Several vehicles may be listed on a single warranty claim, reference Warranty Administration Manual, Section 7, Product Recall Campaigns.

The EGR Back-Pressure Sensor that is removed and replaced is a returnable part and must be tagged and returned with your regular claim material shipment.

Complete and mail the reporting half of the notification card (Figure 1) for each vehicle as soon as campaign service is complete.

CAUTION: *On multiple vehicle claims, do not delay any claim so that CCD will receive it beyond the time outlined in the Warranty Administration Manual.*

NOTE: *All 1977 and prior model Jeep vehicle warranty claims are eligible for a 25% parts mark-up. All 1978 and subsequent Jeep vehicle warranty claims are eligible for a 30% parts mark-up. See Warranty Bulletin 79-08 (A/J) dated 9/1/79 for details.*

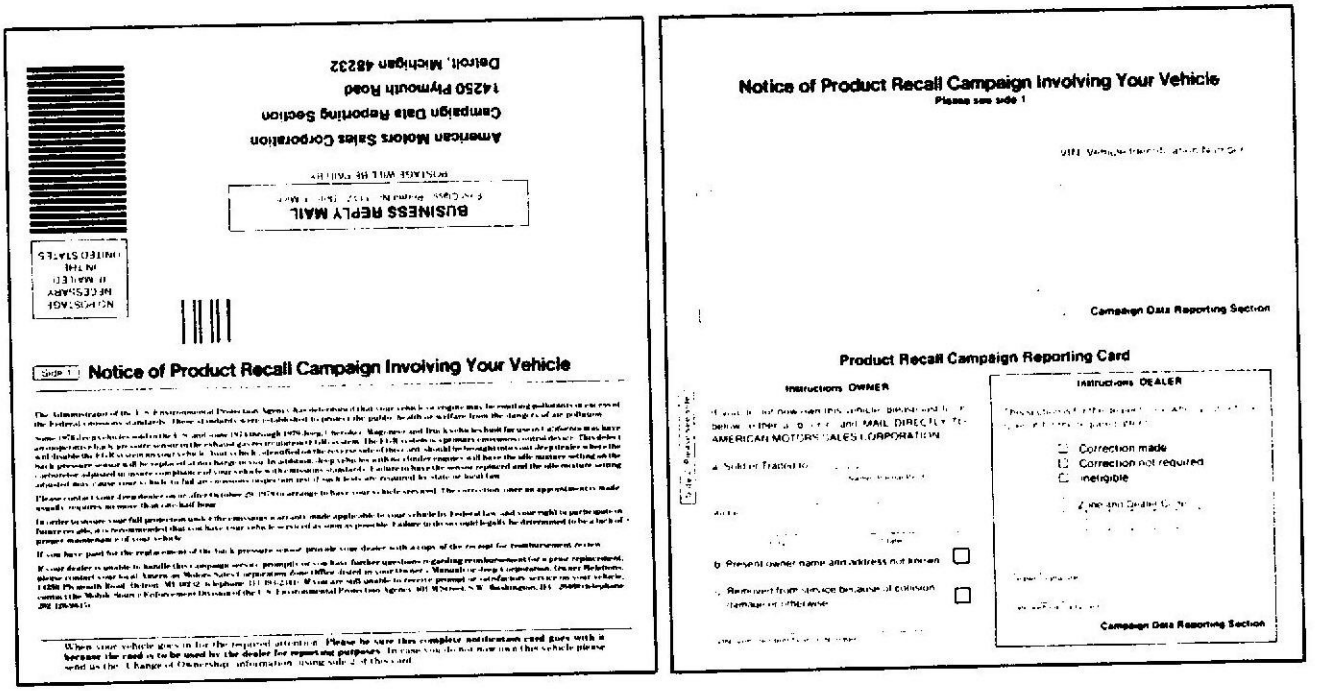


Fig. 1 - Owner Notification and Correction Reporting Card

Jeep

Diagnosis and Repair Bulletin

Subject: Rough or High Engine Idle Speed or Dieseling When Warm Engine is Shut Off	Application: 1976-78 Cherokee, Wagoneer, or Truck Models Equipped with 360 or 401 CID Engine and 4V Carburetor	File: POWER PLANT Fuel and Exhaust Systems No. 8-08 June 19, 1979

Some of the subject vehicles may have a rough idle, high idle speed, or may diesel when shut off after the engine reaches normal operating temperature. These conditions may be the result of worn accelerator pump linkage or the secondary throttle plates not closing completely.

Service correction involves replacing the accelerator pump link and installing a secondary throttle plate helper spring.

The following parts are required and will be available after August 6, 1979. Do not order parts before this date.

Description	Quantity	Part No.	Group No.
KIT, Secondary Throttle Repair	1	8132560	4.001
Kit Contents:			
SPRING, Secondary Helper	1		
WASHER, Spring	1		
LINK, Accelerator Pump	1		
RETAINER	1		

PROCEDURE

(1) Allow throttle to return to closed position.

NOTE: *The fast idle screw should not contact the fast idle cam and the throttle solenoid should not be energized.*

(2) Observe position of notch in accelerator pump arm. Measure distance between notch and index mark cast in air horn (see illustration). Record this dimension.

(3) Remove nylon nut from accelerator pump link.

(4) Remove accelerator pump link-to-throttle lever retainer.

(5) Remove accelerator pump link.

(6) Install new accelerator pump link into lower forward hole of throttle lever (see illustration).

NOTE: *There are two types of throttle levers in use, a two-hole and a three-hole lever. The lower, forward hole is the only hole used on Jeep applications.*

(7) Install new accelerator pump link-to-throttle lever retainer.

(8) Install nylon nut on accelerator pump link. Adjust nut until notch in accelerator pump arm is in position recorded in step (2).

NOTE: *If the nylon nut on the accelerator pump appeared to have been tampered with prior to removal, refer to the Metering Rod Carrier Stroke Adjustment in the applicable Technical Service Manual to correctly position nylon nut.*

(9) Remove air horn cover screw located above primary throttle shaft on accelerator pump side of carburetor. Install washer on screw and start screw in hole. Hook one end of helper spring around screw and tighten screw (see illustration).

(10) Hook other end of helper spring between secondary throttle link rod retainer and primary linkage (see illustration).

CAUTION: *Prior to starting engine check the carburetor linkage for proper operation and be sure secondary throttle plates are closing completely.*

(11) Spray choke and linkage cleaner (8993549) on both ends of secondary shaft to clean shaft.

(12) Hold choke open and operate carburetor linkage to wide open throttle position several times to ensure proper operation.

(13) Adjust curb idle speed.

(OVER)

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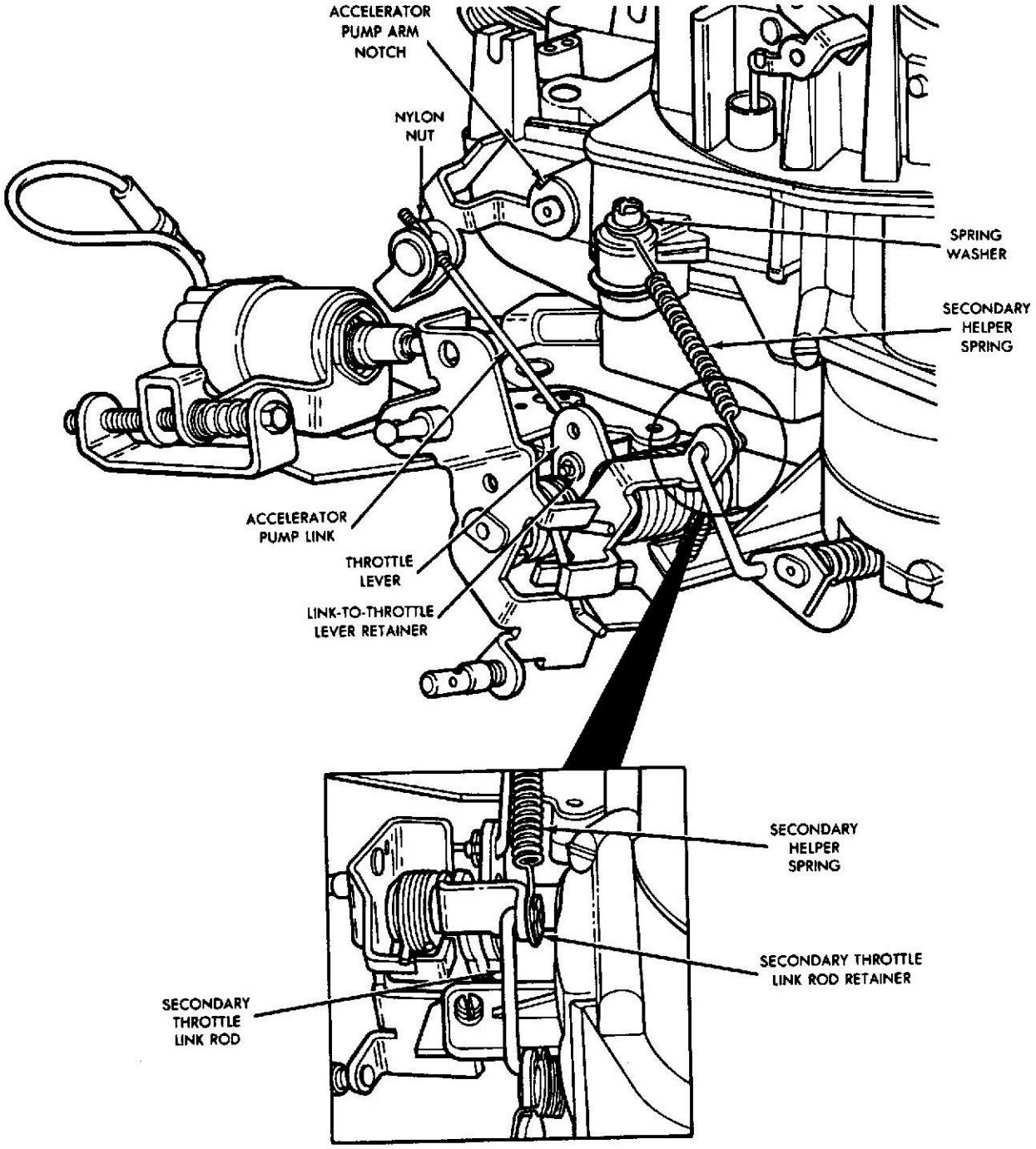

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
KIT, CARBURETOR — INSTALL	4.006	4039	WAG-CKE-TRK	0.3	0.3	0.3	G

9-090-04 J

Jeep

Diagnosis and Repair Bulletin

Subject: Gas Tank Sending Unit	Application: 1975-1978 Cherokee and Wagoneer	File: POWER PLANT Fuel and Exhaust System Group 4.000 No. 8-06 May 9, 1978

The fuel gauge in some 1975-1978 Cherokees and Wagoneers may indicate 3/4 full when the tank is known to be full. This condition may be the result of inaccuracy in the fuel tank sending unit.

Service correction involves removing the fuel tank from the vehicle, removing the sending unit from the fuel tank, and reshaping the sending unit lever arm to correspond with the attached template.

Before proceeding to the repair procedure, verify the accuracy of the fuel gauge by using the DARS Charts on page 1L-8, Volume 1 of the 1978 Technical Service Manual. If the tests indicate inaccuracy in the sending unit, proceed to the repair procedure. If the tests indicate inaccuracy in the fuel gauge, refer to the appropriate model/year Technical Service Manual for the correct replacement procedure.

NOTE: *The procedures found in the DARS Charts on page 1L-8 of the 1978 Technical Service Manual are applicable to 1975-1978 vehicles.*

REPAIR PROCEDURES

(1) Remove fuel tank, as described in appropriate Technical Service Manual.

(2) Remove sending unit.

(3) Check sending unit with an ohmmeter for continuity through resistor for normal resistance change as lever is moved through its full arc of travel.
(a) If sending unit is electrically faulty, replace it.
(b) If sending unit is electrically sound, proceed to step (4).

(4) Reshape sending unit lever to attached template.

(5) Install sending unit in tank.

(6) Install fuel tank as described in appropriate Technical Service Manual.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
SENDING UNIT, FUEL TANK — DIAGNOSIS	**3.614**	**4197**	**CKE-WAG**	**0.2**	**0.2**	**0.2**	**G**
Sending Unit, — Remove, Adjust, and Install . . . . With Skid Plate — ADD	**3.614**	**A**	**CKE-WAG**	**0.9** **0.3**	**0.9** **0.3**	**0.9** **0.3**	**G**
Sending Unit, — Replace . . . . . . With Skid Plate — ADD	**3.614**	**B**	**CKE-WAG**	**0.9** **0.3**	**0.9** **0.3**	**0.9** **0.3**	**G**
NOTE: *Combination A and B cannot be used together. Both include drain, R&R and refill fuel tank as required*							

8-069-04J

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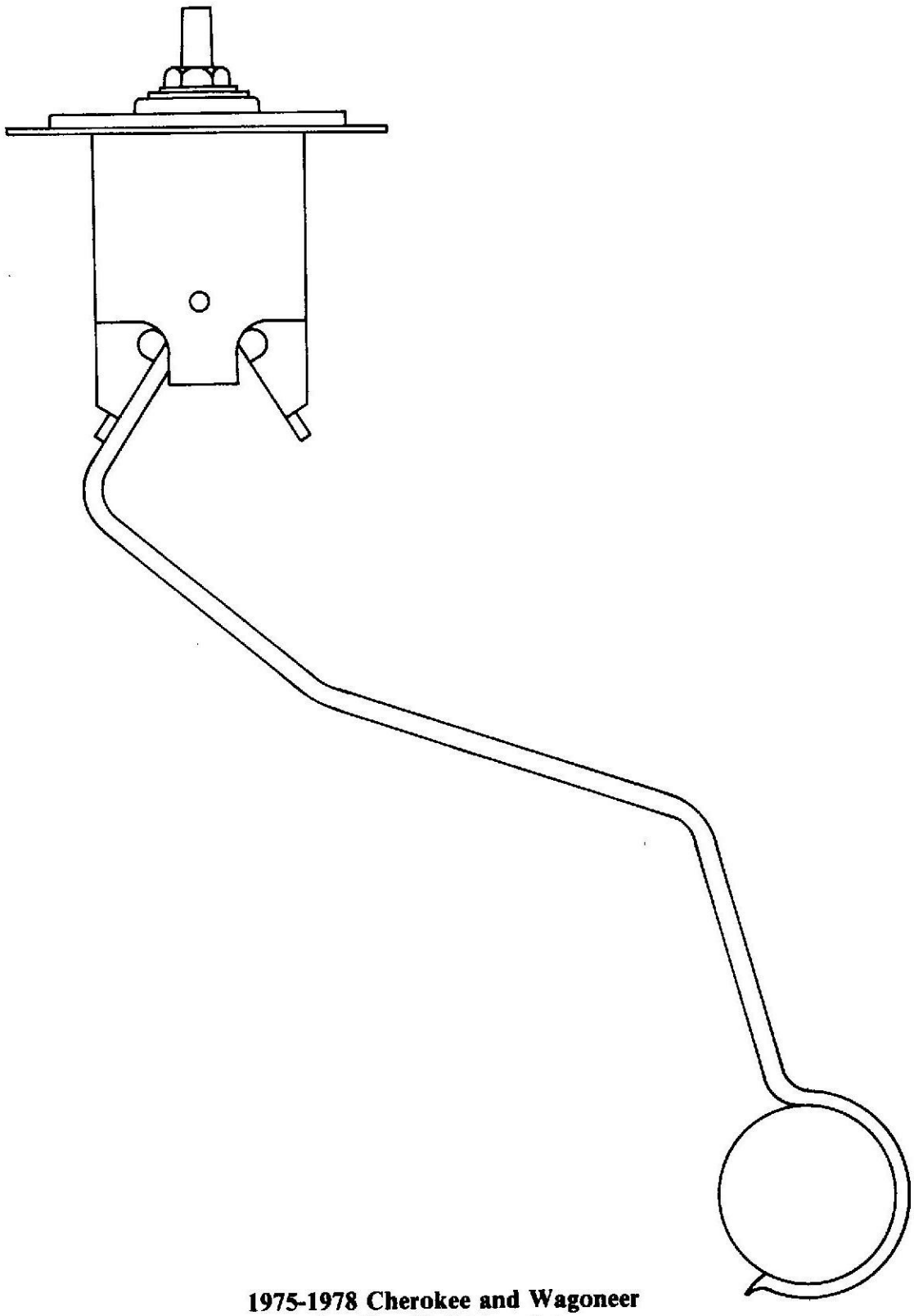

1975-1978 Cherokee and Wagoneer
Sending Unit Template

Jeep

Diagnosis and Repair Bulletin

Subject: Emission Components	Application: All 1976-1978 Jeep Models	File: POWER PLANT Fuel and Exhaust Systems Group 4.000 No. 8-07 April 23, 1979

The following charts reflect emission components using the information found on the "Vehicle Emission Control Information Label" located in the engine compartment. These charts identify the latest emission control devices used on the applicable models. Correct part numbers are also identified for certain devices with multiple applications.

To use the charts:

(a) Select the chart with the correct model year heading (i.e., 1978 Jeep, etc.)

(b) Locate the model in the first column of the chart.

(c) Open the hood and find "Vehicle Emission Control Information Label" (V.E.C.I.L.) or Jeep Heavy-Duty Emission Control Label. Record the following information for use in the second column on the chart.

- Engine CID
- Engine Family
- Evaporative Family (1978 CJ models only) or carburetor type (Jeep Heavy Duty)

(d) Determine from the V.E.C.I.L. the certification area (i.e., 49S = 49 State, Alt = High Altitude, Cal = California). Use this information to locate the correct box in the third column on the chart.

(e) Determine what transmission the vehicle has and use this information to select the correct box in the fourth column of the chart.

(f) The above information aligns across the chart. The remainder of the information should be used to check the vehicle for correct component application.

LEGEND

Vehicle Emission Control Information Label (VECIL)
Engine CID
Engine Family
Evaporative Family (1978 models only)

Jeep Heavy-Duty Application
Engine CID
Carburetor Type:
1V (One Venturi)
2V (Two Venturi)
4V (Four Venturi)

● = On All Models Specified
— = Not Applicable

V.E.C.I.L. = Vehicle Emission Control Information Label

Area = (49S = 49 State, Alt = High Altitude, Cal = California)

Trans. = Transmission Type
Man = 3- or 4-speed Manual
M4 = 4-Speed Manual
M3 = 3-Speed Manual
A = Automatic

Carburetor Number = Number on Tag Attached to Carburetor

Distributor Number = Number on Tag Attached to Distributor

EGR Valve Number = Number on Face of Diaphragm Housing

EGR Code = Number or Letter Adjacent to Valve Number

EGR CTO Temp = Nominal Temperature at Which CTO Switches

115°F Valve = Part Number 3228288; Optional with 3225912

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160° F Valve = Part Number 3228894; Optional with 3226361, 3229449

AG = Air Guard

Cat. Conv. = Catalytic Converter

TVS = Thermal Vacuum Switch

SVV = Solenoid Vacuum Valve

PCV = Positive Crankcase Ventilation

TAC Type = Thermostatically Controlled Air Cleaner
V = Vacuum
M = Mechanical

Spark CTO Type
160° F Valve = Standard Switch, Part Number 3216448; Optional with 3229450
220° F Valve = Heavy-Duty Switch, Part Number 5358881

Spark CTO Temp. = Nominal Temperature at which CTO Switch Starts to Open

NLV = Nonlinear Valve

TCS = Transmission Controlled Spark

CVTC = Carburetor Vented to Canister

FTVC = Fuel Tank Vapor Control

TS = Throttle Solenoid

EC = Electric Choke

DP = Dashpot

TM = Throttle Modulator

(1) = + Pre-Catalytic Converter

(2) = Nominal Temperature for EGR CTO Switches

(3) = EGR Back-Pressure Transducer 3229120; Orifice Plate 3233536

(4) = Nominal Temperature for Spark CTO Switches

(5) = Delay Valve

(6) = Anti-diesel Solenoid in PCV Line

(7) = Warm-up + Pellet type

(8) = Delay Valve in Vacuum Line Between Manifold Vacuum and Diverter Valve

(9) = Optional Switch 5358880 Used on Heavy-Duty Cooling Package

(10) = Special Air Pump Pulley and Diverter

(11) = Includes Vacuum Check Valve

1978 JEEP

Model	VECIL	Area	Trans	Carb. Number	Dist. Number	EGR Valve Number	EGR Code	EGR CTO Temp (2)	AG	Cat. Conv.	PCV	TAC Type	Spark CTO Temp (4)	TCS	CVTC	FTVC	TS	EC	DP	TM
CJ5, 7	232 I-T E-I-T	49S	M3	7230	3232434	3230189	R	115°F	•	—	•	V	160°F	—	•	•	•	—	—	—
CJ5, 7	232 I-TC E-I-T	ALT	M3	7231	3232434	3230183	K	115°F	•	•	•	V	160°F	—	•	•	—	—	—	—
CJ5, 7	258 I-T E-I-T	49S	MAN 3.54 Axle	7230	3232434	3230184	L	115°F	•	—	•	V	160°F	—	•	•	•	—	—	—
CJ5, 7	258 I-T E-I-T	49S	MAN 4.09 Axle	7230	3232434	3230179	F	115°F	•	—	•	V	160°F	—	•	•	•	—	—	—
CJ, 7	258 I-T E-I-T	49S	A	7228	3232434	3230179	F	115°F	•	—	•	V	160°F	—	•	•	—	—	—	—
CJ5, 7	258 I-TC E-I-T	ALT	MAN	7231	3232434	3230191	T	115°F	•	•	•	V	160°F	•	•	•	—	—	—	—
CJ5, 7	258 I-TC E-I-T	CAL	MAN	7230	3232434	3230189	R	115°F	•	•	•	V	—	—	•	•	•	—	—	—

1978 JEEP Cont'd.

Model	VECIL	Area	Trans	Carb. Number	Dist Number	EGR Valve Number	EGR Code	EGR CTO Temp (2)	AG	Cat Conv.	PCV	TAC Type	Spark CTO Temp (4)	TCS	CVTC	FTVC	TS	EC	DP	TM
CJ, 7	258 I-TC E-1-T	CAL	A	7201	3232434	3230175	B	115°F	•	•	•	V	160°F	•	•	•	•	—	—	—
CJ5, 7	304 II-T E-4-T	49S	M3 (3.54 Axle)	8DM2	3231340	3230192	U	115°F	•	•	•	V	—	—	•	•	—	—	—	—
CJ5, 7	304 II-T E-4-T	49S	M3 (4.09 Axle)	8DM2	3231340	3230188	Q	115°F	•	•	•	V	—	—	•	•	—	—	—	—
CJ, 7	304 II-T E-4-T	49S	A	8DA2J	3230443	3230189	R	115°F	•	•	•	V	—	—	•	•	•	—	—	—
CJ5,7	304 II-T E-4-T	ALT	M3	8DM2A	3231340	3230194	W	115°F	•	•	•	V	160°F	—	•	•	—	•	—	—
CJ, 7	304 II-T E-4-T	ALT	A	8DA2A	3230443	3230191	T	115°F	•	•	•	V	160°F	•	•	•	•	•	—	—
CJ5, 7	304 II-TC c/o E-4-T	CAL	M3	8DM2C	3231340	3223980 (1)	Red	115°F	•	•	•	V	—	•	•	•	—	•	•	—
CJ, 7	304 II-T E-4-T	CAL	A	8DA2JC	3231340	3230839	Z	115°F	•	•	•	V	160°F (3)	•	•	•	•	•	—	—
Cherokee Truck	258 I-HD 2V	49S	MAN & A	8107	3232434	3218739	Blue	160°F	—	—	•	V	160°F (3)	—	—	—	—	—	—	—
Cherokee Truck	360 III-HD 2V	49S	MAN	8RHA2C	3230443	3219052 (5)	None	160°F	•	—	•	V	160°F (3)	—	—	—	—	—	—	•
Cherokee Wagoneer Truck	360 III-HD 2V	49S	A	6RHA2	3231341	3219052 (5)	None	160°F	•	—	•	V	160°F (3)	—	—	—	•	—	—	—
Cherokee Wagoneer Truck	360 III-HD 2V	CAL	A	8RHA2C	3233174	3233596	AH	115°F	•	•	•	V	220°F	—	•	•	•	—	—	—
Cherokee Truck	360 III-HD 4V	49S	M4	6THM4	3230443	3219052 (5)	None	160°F	•	—	•	V	160°F (3)	—	—	—	—	—	—	•
Cherokee Wagoneer Truck	360 III-HD 4V	49S	A	6THA4	3231341	3219052 (5)	None	160°F	•	—	•	V	160°F (3)	—	—	—	•	—	—	—
Cherokee Wagoneer Truck	401 III-HD 4V	49S	A	6THA4	3231341	3219052 (5)	None	160°F	•	—	•	V	160°F (3)	—	—	—	•	—	—	—

1977 JEEP

Model	VECIL	Area	Trans	Carb Number	Dist Number	EGR Valve Number	EGR Code	EGR CTO Temp. (2)	AG	Cat Conv	PCV	TAC Type	Spark CTO Temp. (4)	TCS	CVTC	FTVC	TS	EC	DP	TM
CJ5, 7	232 I-T	49S	M3 (3.54 Axle)	7154	3229719	3230184	L	115°F	•	—	•	M	160°F	—	•	•	•	—	—	—
CJ5, 7	232 I-T	49S	M3 (4.09 Axle)	7154	3229719	3230179	F	115°F	•	—	•	M	160°F	—	•	•	•	—	—	—
CJ5, 7	232 I-TC	ALT	M3	7110	3229719	3230183	K	115°F	•	•	•	M	160°F	—	•	•	—	—	—	—
CJ5, 7	258 I-T	49S	MAN (3.54 Axle)	7154	3229719	3230184	L	115°F	•	—	•	M	160°F	—	•	•	•	—	—	—
CJ5, 7	258 I-T	49S	MAN (4.09 Axle)	7154	3229719	3230179	F	115°F	•	—	•	M	160°F	—	•	•	•	—	—	—
CJ, 7	258 I-T	49S	A	7151	3239719	3230190	S	115°F	•	—	•	M	160°F	—	•	•	—	—	—	—
CJ, 7	258 I-TC	ALT	A	7111	3229719	3230192	U	115°F	•	•	•	M	160°F	•	•	•	—	—	—	—
CJ5, 7	258 I-TC	CAL	MAN	7154	3229719	3230186	N	115°F	•	•	•	M	160°F	—	•	•	•	—	—	—
CJ, 7	258 I-TC	CAL	A (3.54 Axle)	7153	3229719	3230186	N	115°F	•	•	•	M	160°F	•	•	•	•	—	—	—
CJ, 7	258 I-TC	CAL	A (4.09 Axle)	7153	3229719	3230846	AD	115°F	•	•	•	M	160°F	•	•	•	•	—	—	—
CJ5, 7	304 II-T	49S	M3	6DM2	3228264	3230188	Q	115°F	•	•	•	V	—	—	—	—	•	—	—	•
CJ, 7	304 II-T	49S	A	6DA2J	3228263	3230193	V	115°F	•	•	•	V	—	—	—	—	•	•	—	—

1977 JEEP Cont'd.

Model	VECIL	Area	Trans	Carb. Number	Dist. Number	EGR Valve Number	EGR Code	EGR CTO Temp (2)	AG	Cat. Conv.	PCV	TAC Type	Spark CTO Temp (4)	TCS	CVTC	FTVC	TS	EC	DP	TM
CJ5, 7	304 II-T	ALT	M3	7DM2A	3228264	3230194	W	115°F	•	•	•	V	160°F	—	—	•	—	•	—	—
CJ, 7	304 II-T	ALT	A	7DA2A	3228263	3230191	T	115°F	•	•	•	V	160°F	•	—	•	•	•	—	—
CJ5, 7	304 II-TC c/o	CAL	M3	6DM2J	3228264	3223980 **	Red	115°F	•	•	•	V	160°F	•	—	•	—	—	•	—
CJ, 7	304 II-T	CAL	A	6DA2J	3228264	3230186	N	115°F	•	•	•	V	160°F	•	—	•	•	—	—	—
Cherokee Truck	258 I-HD 2V	49S	MAN & A	B107	3229719	3218739	Blue	160°F	—	—	•	M	160°F (3)	—	—	—	—	—	—	—
Cherokee Truck	360 III-HD 2V	49S	MAN	6RHM2	3228263	3219052	None	160°F	•	—	•	V	160°F (3)	—	—	—	—	—	—	•
Cherokee Wagoneer Truck	360 III-HD 2V	49S	A	6RHA2	3228265	3219052	None	160°F	•	—	•	V	160°F (3)	—	—	—	•	—	—	—
Cherokee Truck	360 III-HD 4V	49S	M4	6THM4	3228263	3210952 (1)	None	160°F	•	—	•	V	160°F (3)	—	—	—	•	—	—	•
Cherokee Wagoneer Truck	360 III-HD 4V	49S	A	6THA4	3228265	3219052 (1)	None	160°F	•	—	•	V	160°F	—	—	—	•	—	—	—
Cherokee Wagoneer Truck	401 III-HD 4V	49S	A	6THA4	3228265	3219052 (1)	None	160°F	•	—	•	V	160°F	—	—	—	—	—	—	—
Cherokee Truck	360 IV-HD 4V	CAL	M4	6THM4	3228263	3230261	Y	160°F	•	•	•	V	160°F	—	•	•	—	—	—	•
Cherokee Wagoneer Truck	360 IV-HD 4V	CAL	A	6THA4C	3228265	3230261	Y	160°F	•	•	•	V	160°F	—	•	•	—	—	—	•
Cherokee Wagoneer Truck	401 IV-HD 4V	CAL	A	6THA4C	3228265	3230261	Y	160°F	•	•	•	V	160°F	—	•	•	—	—	—	•

** Orifice Plate 3225145 / Back Pressure Transducer 3229120

1976 JEEP

Model	VECIL	Area	Trans	Carb Number	Dist. Number	EGR Valve Number	EGR Code	Back Pressure Transducer	EGR CTO Temp (2)	AG	Cat Conv	PCV	TAC Type	Spark CTO Temp (4)	TCS	DV	FTVC	TS	EC	TM
CJ5 7	232 I-T	49S	M3	7109	3227331	3223980	Red	3228838 Orifice Plate 3225242	115°F	—	—	•	M	—	—	—	•	—	—	—
CJ5 7	258 I-T	49S	MAN	7109	3227331	3223980	Red	3228838 Orifice Plate 3225242	115°F	—	—	•	M	—	—	—	•	—	—	—
CJ5 7	258 I-TC	CAL	MAN	7084	3227331	3223980	Red	3228836 Orifice Plate 3226657	115°F	•	•	•	M	—	—	—	•	—	—	—
CJ7	258 I-T	49S	A	7083	3227331	3223980	Red	3228838 Orifice Plate 3225144	115°F	—	—	•	M	—	—	—	•	—	—	—
CJ7	258 I-TC	CAL	A	7085	3227331	3223980	Red	3228836 Orifice Plate 3225956	115°F	•	•	•	M	160°F	•	—	•	•	—	—
CJ5, 7	304 II-T	49S	M3	6DM2	3228264	3223980	Red	3229117 Orifice Plate 3228338	115°F	•	•	•	V	—	—	—	•	—	—	—
CJ7	304 II-T	49S	A	6DA2J	3228263	3223980	Red	3229118 Orifice Plate 3225145	115°F	•	•	•	V	—	—	—	•	•	—	—
CJ5, 7	304 II-TC	CAL	M3	6DM2J	3228264	3223980	Red	3229120 Orifice Plate 3225956	115°F	•	•	•	V	160°F	•	—	•	—	—	—

1976 JEEP Cont'd.

Model	VECI L	Area	Trans	Carb Number	Dist Number	EGR Valve Number	EGR Code	Back Pressure Transducer	EGR CTO Temp ①	AG	Cat Conv	PCV	TAC Type	Spark CTO Temp ①	TCS	DV	FTVC	TS	EC	TM
CJ7	304 II-T	CAL	A	6DA2J	3228264	3223980	Red	3229119 Orifice Plate 3225956	115°F	•	•	•	V	160°F	•	—	•	•	—	—
Cherokee Truck	258 I-HD 1V	49S	MAN	7088	3227331	3228739	Blue	—	160°F	—	—	•	M	160°F	—	—	—	–	–	—
Cherokee Truck	258 I-HD 1V	49S	A	7088	3227331	3228739	Blue	—	160°F	—	—	•	M	160°F	—	—	—	–	–	—
Cherokee Truck	360 III HD 2V	49S	MAN	6RHM2	3228263	3229052	None	—	160°F	•	—	•	V	160°F	—	—	—	–	–	•
Cherokee Wagoneer Truck	360 III-HD 2V	49S	A	6RHA2	3228265	3229052	None	—	160°F	•	—	•	V	160°F	—	—	—	•	–	—
Cherokee Truck	360 III HD 4V	49S	MAN	6THM4	3228263	3229052	None	—	160°F	•	—	•	V	160°F	—	•	—	–	–	•
Cherokee Wagoneer Truck	360 III-HD 4V	49S	A	6THA4	3228265	3229052	None	—	160°F	•	—	•	V	160°F	—	•	—	•	–	—
Cherokee Truck	360 III-HD 4V	CAL	MAN	6THM4	3228265	3223981	Yellow	3223407	160°F	•	—	•	V	160°F	—	•	•	–	–	•
Cherokee Wagoneer Truck	360 III-HD 4V	CAL	A	6THA4C	3228265	3223981	Yellow	3223407	160°F	•	—	•	V	160°F	—	•	•	–	–	•
Cherokee Wagoneer Truck	401 III-HD 4V	49S	A	6THA4	3228265	3225952	None	—	160°F	•	—	•	V	160°F	—	•	—	•	–	—
Cherokee Wagoneer Truck	401 III-HD 4V	CAL	A	6THA4	3228265	3225951	Black	3223407	160°F	•	—	•	V	160°F	—	•	•	•	–	—

9-009-04A J

Diagnosis and Repair Bulletin

Subject: Slow Fuel Fill	Application: 1974, 1975, 1976 and 1977 Wagoneer and Cherokee Models	File: Group 4.000 Fuel No. 7-01 February 6, 1978

A new faster fuel fill system has been developed for use on the above vehicles. The system is available in kit form as a service replacement. Three kits are available; one for 1974 Nationwide and 1974, 1975, and 1976 California models, one for 1975, 1976, and 1977 Nationwide models, and one for 1977 California models.

Description	Quantity	Part No.	Group	Application
Kit, Fuel Filler	1	8129295	—	1974 (Nationwide) 1974, 1975, 1976 (California)
Kit, Fuel Filler	1	8129294	—	1975, 1976, and 1977 (Nationwide)
Kit, Fuel Filler	1	8129296	—	1977 (California)

Parts for this bulletin will not be available until February 13, 1978. Do not order parts before this date.

Each kit contains the following components:

Description	Quantity	Part No.	Kit Application
Filler, Fuel Tank	1	5358650	8129294
Filler, Fuel Tank	1	5358670	8129295
Filler, Fuel Tank	1	5358671	8129296
Gasket, Filler	1	936433	All
Screw 10-16 x 1/2"	6	8120054	All
Grommet, Fuel Filler Tube	1	5358648	All
Screw, 10-16 x 3/4"	3	8120056	All
Plate, Filler Hose	1	929831	All
Hose, Filler Tube-to-Extension	1	5358649	All
Clamp, Hose	1	3203077	All
Clamp, Hose	1	3203079	All
Cap, Gas	1	5358207	All
Reinforcement, Filler Neck	1	5461119	All

PROCEDURE

(1) Remove gas cap.

(2) Remove filler neck-to-body panel screws.

(3) Lower tailgate.

(4) Remove left rear quarter trim panel.

(5) Remove radio speaker, if equipped.

(6) Disconnect fuel vent hose at filler neck.

(7) Raise vehicle.

(8) Loosen filler hose-to-filler tube hose clamp and separate connection.

CAUTION: *Be careful of gasoline in filler tube.*

(9) Push filler neck assembly inside vehicle.

(10) Remove filler tube attaching nut and bolt at rear tube bracket.

(11) Remove filler tube attaching nut at shock absorber stud.

(OVER)

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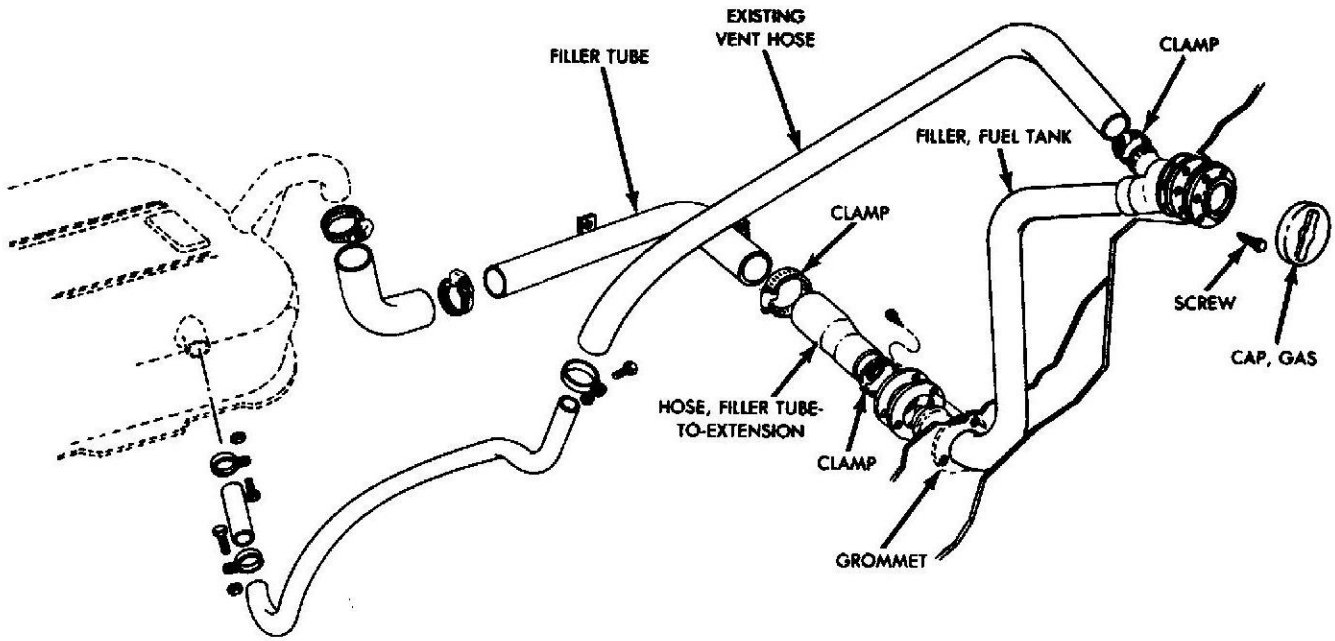

Fuel Filler Kit Installation

(12) Remove filler tube-to-fuel tank inlet hose clamp.

(13) Remove filler tube.

NOTE: *Filler tube can be removed towards front of the vehicle. It is not necessary to remove the spare tire.*

(14) Cut 2 1/2 inches off of filler neck end of the filler tube (see illustration).

(15) Lower vehicle.

(16) Remove filler neck assembly from inside of vehicle.

(17) Position flange gasket on filler assembly and insert the filler assembly through the body opening.

NOTE: *The filler flange and gasket, when correctly installed are on the exterior of the body panel (see illustration).*

(18) Raise vehicle.

(19) Slide lower filler tube gasket on filler and align reinforcement ring with three holes in the gasket.

(20) Mark hole locations on inner body panel (see illustration).

NOTE: *Position holes in filler gasket and reinforcement for best access.*

(21) Punch three holes (for No. 10 screw) in inner body panel using an awl or other suitable tool.

(22) Connect filler tube and insert in to hose at fuel tank end.

(23) Position filler tube bracket on shock absorber stud and loosely install nut.

(24) Position filler tube bracket on fuel filler end and loosely install bolt and nut.

(25) Position filler hose and clamps on filler and filler tube. Tighten hose clamps.

(26) Tighten reinforcement ring and gasket attaching screws.

(27) Tighten filler tube attaching nut at shock absorber stud.

(28) Tighten clamp at filler tube to fuel tank filler hose, and install rear filler tube attaching bolt and nut at bracket.

(29) Lower vehicle.

(30) Tighten filler neck screws at body panel.

(31) Install vent hose on filler neck and tighten hose clamp (see illustration).

(32) Install radio speaker, if equipped.

(33) Install left rear quarter trim panel.

(34) Close tailgate.

(35) Install gas cap.

The following operation and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME				SKILL LEVEL
				74	75	76	77	
KIT, FUEL FILLER — INSTALL	**4.141**	**4227**	**WAG-CKE**	**0.6**	**0.6**	**0.6**	**0.6**	**G**

7-081-04J

Diagnosis and Repair Bulletin

Subject: Improved Procedures for Clutch Overcenter Spring and Clutch Pedal Replacement	Application: 1977-79 CJ Models	File: CHASSIS Clutch - Manual Transmission Group 6.000 No. 9-02 July 18, 1979

Improved procedures for replacing the clutch overcenter spring and clutch pedal on CJ Models have been developed. They supersede the procedures outlined in the 1977-79 Jeep Technical Service Manuals. The new procedures are as follows:

PROCEDURES

Clutch Overcenter Spring Replacement

(1) Remove windshield washer hose grommet from engine compartment side of dash panel (see illustration).

(2) Feed 3-foot long double strand of mechanics wire through grommet hole. Wrap wire around end of clutch pedal overcenter spring and feed wire back out of grommet hole. Twist ends of wire together securely to form loop.

(3) Insert 2 x 4 board through looped end of wire. Position second 2 x 4 board against dash panel to pry against.

CAUTION: *Be sure the 2 x 4 boards do not contact any of the brakelines during overcenter spring removal or installation.*

(4) Position bottom end of 2 x 4 board inserted in looped end of wire against 2 x 4 on dash panel and pull back on board to release clutch overcenter spring from clutch pedal.

(5) Disconnect overcenter spring from brake pedal support bracket (under instrument panel).

(6) Connect replacement overcenter spring to brake pedal support bracket.

(7) Install mechanics wire on overcenter spring and position spring on lower portion of clutch pedal.

(8) Pull 2 x 4 board (with wire wrapped around it) forward until overcenter spring slides into and seats in pedal slot.

NOTE: *As the spring is pulled forward, it will ride along the pedal edge until it seats in the pedal slot.*

(9) Remove boards and mechanics wire.

(10) Install windshield washer hose grommet in dash panel.

(11) Check and adjust clutch pedal free play if necessary.

Clutch Pedal Replacement

(1) Disconnect clutch pedal push rod at bellcrank.

(2) Disconnect battery negative cable.

(3) Remove fuse panel attaching screws and remove fuse panel.

(4) Remove windshield washer hose grommet from dash panel (see illustration).

(5) Feed 3-foot long double strand of mechanics wire through windshield washer grommet hole. Wrap wire around end of clutch overcenter spring and feed wire back out through grommet hole. Twist wire ends together securely to form loop.

(6) Insert 2 x 4 board through looped end of wire. Position second 2 x 4 board against dash panel to pry against.

CAUTION: *Be sure the 2 x 4 boards do not contact any of the brakelines during overcenter spring removal.*

(7) Position bottom end of 2 x 4 board inserted in looped end of wire against 2 x 4 on dash panel and pull back on board to release clutch overcenter spring from clutch pedal.

(8) Remove snap ring on end of pedal shaft and remove clutch pedal from shaft.

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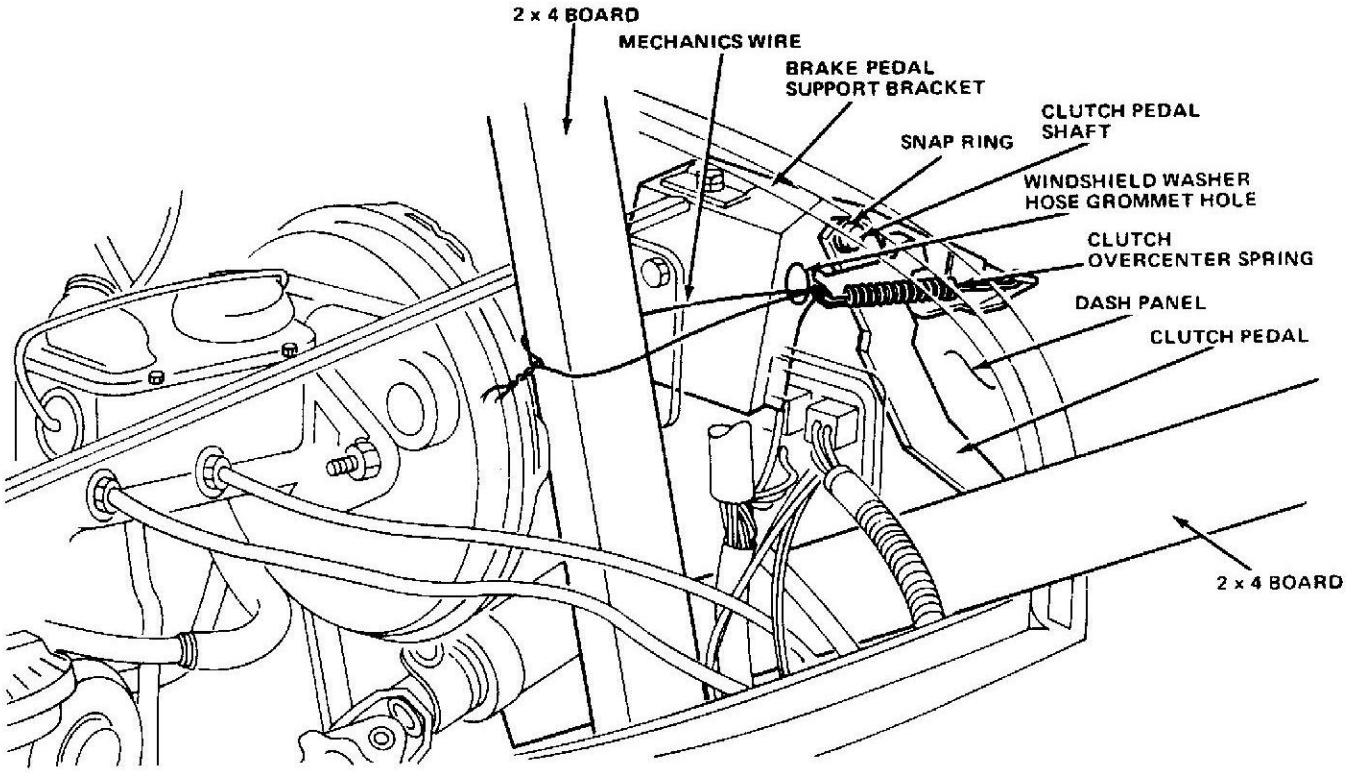

CLUTCH OVERCENTER SPRING INSTALLATION

(9) Install replacement clutch pedal on shaft and install snap ring.

(10) Install fuse panel.

(11) Connect clutch pedal push rod to bellcrank.

(12) Position overcenter spring-end on brake pedal support bracket.

(13) Pull forward on 2 x 4 board until overcenter spring slides into and seats in pedal slot.

NOTE: *As the spring is pulled forward, it will ride along the pedal edge and snap into the pedal slot.*

(14) Remove mechanics wire and 2 x 4 boards.

(15) Install windshield washer hose grommet in dash panel.

(16) Connect battery negative cable.

(17) Check and adjust clutch pedal free play if necessary.

The following operations and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
PEDAL, CLUTCH—REPLACE.	5.135	5006	83-93	.4	.4	.4	G
SPRING, CLUTCH OVERCENTER—REPLACE	5.973	5010	83-93	.3	.3	.3	G

9-100-05J

Jeep

PRODUCT RECALL CAMPAIGN
Diagnosis and Repair Bulletin No. 8-02

Subject:

TRANLUB Campaign (Type S Product Recall Campaign) Three Speed Transmission Adapter Plate Seal May Be Improperly Seated.

Date: **April 11, 1978**

Application: **1976, 1977, and 1978 CJ-5, CJ-6, and CJ-7 Models as Specified Below**

File: **CHASSIS Clutch - Manual Transmission**

This is a Type S Campaign, subject to all campaign procedures and involving safety-related elements. Copies of the combined owner notification and correction reporting cards for this campaign are shown in Figure 4 and Figure 5.

1976, 1977, and 1978 CJ-5, CJ-6, and CJ-7 Jeep vehicles equipped with a 3-speed transmission may have been built with the transmission adapter plate seal improperly seated. This condition could allow the gradual transfer of lubricant from the transmission to the transfer case. If lubricant transfer takes place the transmission could eventually become damaged and inoperative.

Vehicles involved include 1976 CJ models between VINs J6F93FH000015 and J6F93AH102513, 1977 CJ models between VINs J7F83AA000008 and J7F93AA128208, and 1978 CJ models between VINs J8F83AH000071 and J8F93AA064933.

Vehicles built before April, 1977 will require a transfer case lubricant level inspection. If the inspection indicates that four or more ounces of excess lubricant are present in the transfer case, seal replacement is required. Proceed to the TRANSMISSION OIL LEVEL INSPECTION PROCEDURE.

Vehicles built from April 1, 1977 through December 16, 1977 require mandatory transmission adapter plate seal and spacer replacement. THESE VEHICLES DO NOT REQUIRE INSPECTION; proceed to the **TRANSMISSION ADAPTER PLATE SEAL REPLACEMENT PROCEDURE.**

The following parts may be required:

Description	Qty.	Part Number	Group	Dealer Net
Seal, Transmission Adapter Plate	1	5358980	6.053-2	1.29 ea.
Spacer	1	5359069	6.053-20	.15 ea.
Gasket, transfer case to transmission	1	5358840	18.001-3	.21 ea.

The Zone will provide a VIN list and an initial supply of parts for each dealer with any vehicles involved. However, the campaign procedures apply to all dealers. On any undelivered, campaign-involved vehicle, the correction must be made before the vehicle is sold or otherwise put into service.

Additional parts can be ordered, as needed, on or after May 22, 1978.

TRANSMISSION OIL LEVEL INSPECTION PROCEDURE

(1) Obtain a paper cup and remove lip so excess transfer case lubricant can be caught when fill plug is removed.

(2) Remove transfer case fill plug and catch all excess oil that flows out filler hole (see fig. 1). Pour excess oil into measuring cup graduated in ounces.

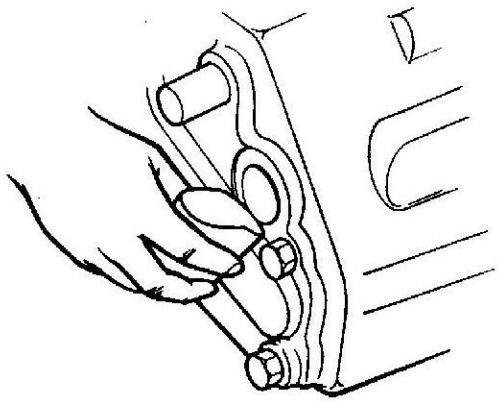

Fig. 1 Collecting Excess Lubricant with Paper Cup.

NOTE: *In the event that a graduated cup is not available, the inside cavity of Installer Tool J-26852 can be used to measure the lubricant (see fig. 2).*

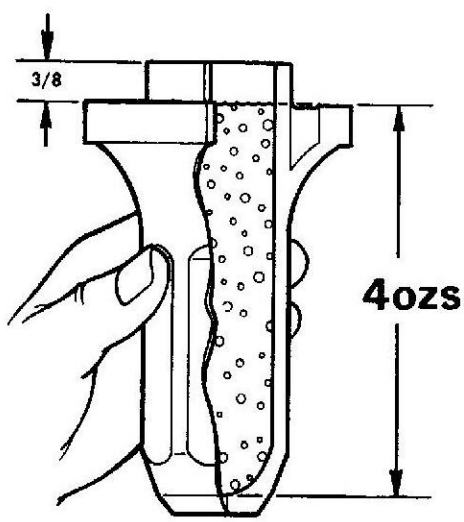

Fig. 2 Using Tool J-26852 to Measure Lubricant.

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(3) If excess lubricant exceeds four ounces, transmission adapter plate seal replacement is necessary. Refer to the **Transmission Adapter Plate Seal Replacement Procedure** in this Diagnosis and Repair Bulletin.

(4) If excess lubricant is less than four ounces, adapter plate seal is properly positioned. Install fill plug.

(5) Remove transmission fill plug and check lubricant level. Correct lubricant level if necessary.

(6) Install transmission fill plug.

(7) Apply a daub of white paint above transmission fill plug to identify campaign completion.

TRANSMISSION ADAPTER PLATE SEAL REPLACEMENT PROCEDURE

(1) Remove shift lever knob, trim ring, and boot from transmission and transfer case shift levers.

(2) Remove floor covering (if equipped) and remove transmission access cover from floorpan.

(3) Place transmission lever in first gear position and firmly secure it using rope or equivalent material.

NOTE: *The shift lever must be secured as described to prevent the rear bearing retainer from moving outward when the transfer case mainshift gear locknut is removed. If the rear bearing retainer is allowed to move outward the internal transmission parts may separate. If the internal parts separate, the transmission will have to be removed for reassembly.*

(4) Raise vehicle.

NOTE: *A visual inspection of the transmission and transfer case should be made. If oil leakage is evident, the cause of leakage must be eliminated.*

(5) Drain transfer case and transmission lubricant.

(6) Disconnect torque reaction bracket from crossmember.

(7) Position support stand under clutch housing to support engine and transmission.

(8) Remove rear crossmember.

(9) Disconnect front and rear propeller shaft yokes and mark for assembly reference.

(10) Disconnect speedometer cable at transfer case.

(11) Remove bolts attaching transfer case to transmission and remove transfer case. Remove transfer case gasket.

NOTE: *One transfer case attaching bolt must be removed from the front end of the case. This bolt is located at the bottom right corner of the transmission.*

(12) Remove transfer case mainshaft gear, washer, and locknut.

(13) Remove adapter plate seal from rear bearing adapter.

(14) If oil slinger is found behind seal, remove it.

(15) Clean oil from transmission adapter plate and rear bearing adapter.

(16) Inspect transfer case mainshaft gear sealing surface for smooth finish to assure seal lip seating. Replace the gear if the sealing surface is not smooth.

(17) Inspect inside diameter of rear bearing adapter for smooth surface to assure proper sealing between adapter bore and seal housing. Replace the rear bearing adapter if the inside diameter surface is not smooth.

(18) Install spacer in place of oil slinger, if originally equipped with oil slinger.

NOTE: *If the transmission did not originally have an oil slinger, a spacer must not be installed.*

(19) Coat adapter plate seal lip with gear lubricant.

(20) Slide seal onto Installer Tool J-26852.

NOTE: *The adapter plate seal is stamped FRONT and REAR on the seal housing. When the seal is correctly positioned on the seal installer, the side marked REAR is against the seal driving surface of the installer. (see Fig. 3)*

NOTE: *Seal Installer Tool J-26852 must be used to install the adapter plate seal to assure proper alignment and sealing.*

(21) Slide transfer case mainshaft gear onto mainshaft. Apply hand pressure against gear and check clearance between forward surface of transfer case mainshaft gear and rear face of adapter plate seal. Clearance should be no less than .050" at any point between seal housing and mainshaft gear. If clearance is less than .050" use Installer Tool J-26852 to reseat adapter plate seal and repeat clearance check.

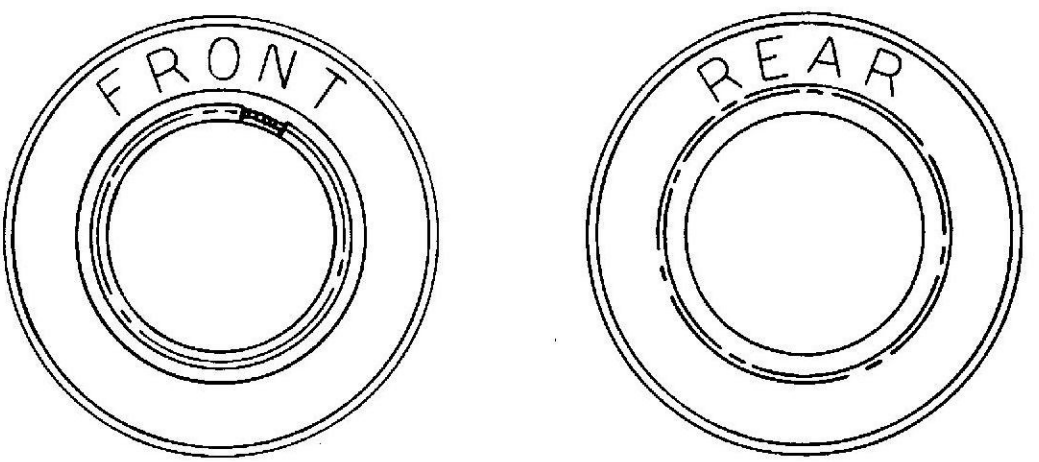


Fig. 3 Adapter Plate Seal.

(22) Install transmission mainshaft washer and locknut. Tighten nut to 150 foot pounds torque (205 newton meters).

(23) Install transmission-to-transfer case gasket on transmission.

(24) Shift transfer case to 4L position.

(25) Install one 3/8 - 16 x 4-inch dowel pin on each side of transmission to assist in guiding transfer case into place during installation.

(26) Install and position transfer case on dowel pins.

(27) Rotate transfer case output shaft (by turning yoke) until mainshaft gear on transmission engages rear output shaft gear in transfer case. Slide transfer case forward until case seats against transmission.

CAUTION: *Be sure the transfer case is flush against the transmission. Severe damage to the transfer case will result if the attaching bolts are tightened while the transfer case is in a bind or is cocked.*

(28) Install two transfer case tightening bolts but do not tighten completely.

(29) Remove dowel pins and install remaining transfer case attaching bolts. Tighten all bolts to 30 foot pounds torque (22 newton meters).

(30) Connect speedometer driven gear to transfer case.

(31) Connect front and rear propeller shafts to transfer case.

(32) Connect torque reaction bracket.

(33) Fill transmission and transfer case with SAE 80W-90 gear lubricant (API-G14). Fill each unit to bottom of fill plug hole.

(34) Apply a daub of yellow paint above transmission fill plug to identify campaign completion.

(35) Lower vehicle and remove rope or equivalent material securing shift lever.

(36) Install transmission plate on floorpan. Install floor covering, if equipped.

(37) Install boots, trim rings and shift knobs.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WRC	OPERATION NO.	MODEL	YEAR & TIME 76	77	78	SKILL LEVEL
TRANLUB CAMPAIGN LUBRICANT LEVEL – Inspect	6.613	6033	83-84-93	.2	.2	–	G
Seal, Adapter Plate – Replace	6.614	A	83-84-93	1.2	1.2	–	G
SEAL, ADAPTER PLATE – Replace	6.615	6035	83-84-93	–	1.2	1.2	G
Applicable Defect Code: 56 - Product Recall Campaign							

CLAIM HANDLING

Several vehicles may be listed on a single warranty claim, reference Warranty Administration Manual, Section 7, Product Recall Campaigns. The transmission adapter plate seal and oil slinger that is removed and replaced is a returnable part and must be tagged and returned with your regular claim material shipment.

Complete and mail the reporting half of of the notification card (Figs. 4 and 5) for each vehicle as soon as campaign service is complete.

CAUTION: *On multiple-vehicle claims, do not delay any claim so that we will receive it beyond the time limit outlined in the WAM.*

(See Reverse Side)

Side 1

Notice of Product Recall Campaign Involving Your Vehicle

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Jeep Corporation has determined that a defect which relates to motor vehicle safety exists in some 1976, 1977 and 1978 CJ-5, CJ-6 and CJ-7 vehicles equipped with three-speed manual transmissions. A condition that allows a gradual displacement of lubricant from the transmission to the transfer case may exist in some of the vehicles. Your vehicle, identified on the reverse side of this card, should be inspected by your Jeep dealer. Any necessary corrections will be performed by your dealer at no charge to you.

Lubricant in the transmission may be displaced during normal vehicle operation. A low lubricant condition could cause the transmission to become damaged or inoperative and could lead to a loss of vehicle control and a crash without any prior warning.

If your transmission becomes difficult to shift, it may be a warning that the lubricant level is low and should be checked and refilled, if necessary. However, you may have no prior warning of lubricant displacement and should avoid driving at prolonged highway speeds until your vehicle has been inspected and repaired, if necessary, by your dealer. Your dealer will have the necessary parts and will be prepared to make repairs by May 22, 1978. The correction usually requires no more than ninety minutes and in many cases will require less than thirty minutes.

If your dealer should be unable to handle this campaign service promptly after May 22,1978, please contact the local Zone Office (listed in your Owner's Manual) or Jeep Corporation, Owner Relations, 14250 Plymouth Road, Detroit, Michigan 48232 (telephone 313-493-2341). If you are unable to obtain this campaign service without charge and within 60 days after your tender of the vehicle to your dealer any time following May 22, 1978, you may contact the Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590.

When your vehicle goes in for the required attention: **Please be sure this complete notification card goes with it because the card is to be used by the dealer for reporting purposes.** In case you do not now own this vehicle please send us the "Change of Ownership" information, using side 2 of this card.

Product Recall Campaign Reporting Card

Side 2. Please see side 1

Instructions: OWNER

If you do not now own this vehicle, please just fill in below (either a, b, or c) and MAIL DIRECTLY TO AMERICAN MOTORS SALES CORPORATION.

a. Sold or Traded to: _____
Name (Please Print)

_____
Address

_____
City State

b. Present owner name and address not known ☐

c. Removed from service because of collision damage or otherwise ☐

_____
VIN (Vehicle Identification Number)

Instructions: DEALER

This section is for the dealer to use when your vehicle goes in for the required attention

☐ Correction made
☐ Correction not required

Zone and Dealer Code

_____
Dealer Signature

_____
Date Vehicle Serviced

Campaign Data Reporting Section

Fig. 4 Owner Notification and Correction Reporting Card for all 1976 Vehicles and 1977 Vehicles Built Before April 1977.

Product Recall Campaign Reporting Card

Side 2 Please see side 1

Instructions: OWNER

If you do not now own this vehicle, please just fill in below (either a, b, or c) and MAIL DIRECTLY TO AMERICAN MOTORS SALES CORPORATION

a. Sold or Traded to: _____
Name (Please Print)

_____
Address

_____
City State

b. Present owner name and address not known ☐

c. Removed from service because of collision damage or otherwise ☐

_____
VIN (Vehicle Identification Number

Instructions: DEALER

This section is for the dealer to use when your vehicle goes in for the required attention

☐ Correction made

Zone and Dealer Code

_____
Dealer Signature

_____
Date Vehicle Serviced

Campaign Data Reporting Section

Fig. 5 Correction Reporting Card for 1977 and 1978 Vehicles Built from April 1, 1977 through December 16, 1977.

Jeep

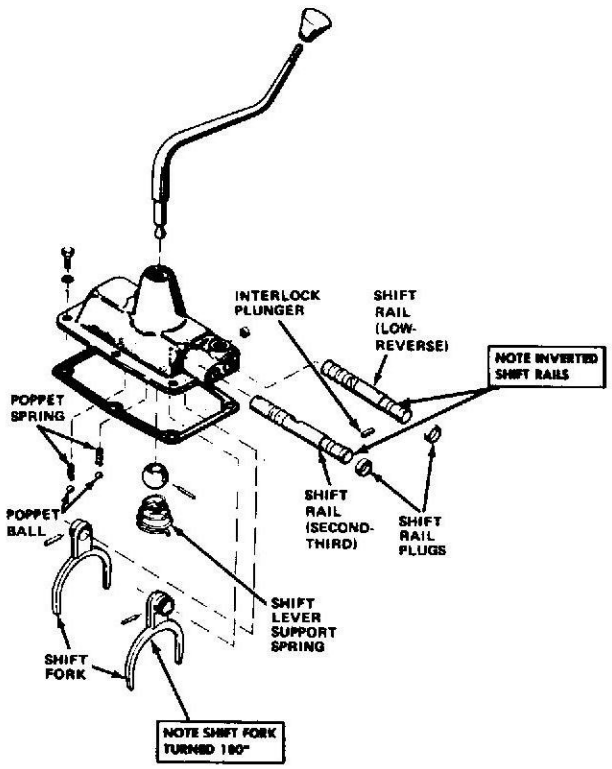
Diagnosis and Repair Bulletin

Subject: Manual Transmission Model T-15A Shift Control Housing Technical Service Manual Correction	Application: 1973 through 1978 Jeep Technical Service Manuals	File: CHASSIS Clutch - Manual Transmission Group 6.000 **No. 8-01** March 6, 1978

This bulletin is being issued to correct an error in the illustration of the shift control housing used on Model T-15A manual transmissions.

The Technical Service Manual, page number, and illustration (Fig.) numbers are listed below. Also included is a corrected illustration.

Technical Service Manual	Page	Illustration (Fig.) Number
1973	6-5	Fig. 22
1974	6-8	Fig. 6-24
1975	6-8	Fig. 6-24
1976	6-17	Fig. 6-34
1977	6-17	Fig. 6-34
1978 Vol. 2	2B-18	Fig. 2B-35



8-045-06J

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Diagnosis and Repair Bulletin

Subject: Fluid Overflow From Automatic Transmission Fill Tube or Vent Tube Caused by Overfill or Vent Tube Restriction	Application: 1977-79 Jeep Models with Automatic Transmission	File: CHASSIS Automatic Trans. Group 7.000 No. 9-02 April 30, 1979

On some 1977-79 Jeep models with automatic transmission, fluid may overflow from the transmission fill tube or vent tube.

Service correction involves verifying the overflow condition, inspecting the vent tube for restrictions, checking the fluid level and calibrating the transmission dipstick if necessary.

PROCEDURE

(1) Inspect transmission fill tube and vent tube for evidence of fluid overflow.

(a) If tubes do not have evidence of overflow, return vehicle to owner.

(b) If tubes exhibit evidence of overflow, proceed to next step.

(2) Check transmission vent tube for restriction by inserting length of stiff wire into tube.

(a) If tube is restricted, repair as necessary and return vehicle to owner.

(b) If tube is not restricted, proceed to next step.

(3) Check transmission fluid level as outlined in appropriate Jeep Technical Service Manual. If fluid level is incorrect, adjust to proper level and road test vehicle with owner.

(a) If overflow does not occur during road test, return vehicle to owner.

(b) If overflow does occur during road test, proceed to step (4).

NOTE: *If an overflow condition occurs only when towing a trailer, the road test must be conducted with the trailer in tow.*

(4) Raise vehicle on hoist. Loosen vacuum modulator adapter retainer bolt. Pull modulator outward approximately 1/2 to 1-inch and drain one pint of fluid from transmission. Seat modulator and tighten modulator attaching bolt after draining fluid. Lower vehicle and road test to verify correction.

(5) Check fluid level again and file new mark on transmission dipstick at adjusted fluid level.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
OVERFLOW, AUTOMATIC TRANSMISSION—DIAGNOSE AND CORRECT	**16.022**	**16205**		**0.8**	**0.8**	**0.8**	**G**

9-063-17J

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Diagnosis and Repair Bulletin

Subject: Automatic Transmission Vacuum Modulator Testing Procedure	Application: All 1974-1978 Jeep Models With Automatic Transmission	File: CHASSIS Automatic Transmission Group 6.000 No. 8-03 April 21, 1978

A new procedure has been developed for bench testing automatic transmission vacuum modulators. This information is supplemental to the procedures in Volume 2, page 2C-59 of the 1978 Technical Service Manual, but also applies to 1974-1977 vehicles.

If transmission operating characteristics, pressure tests or other diagnostic work indicates that a modulator may not be operating properly, use the results of the following tests to determine the condition of the modulator.

PROCEDURE

(1) Apply vacuum to modulator and observe plunger travel. Refer to Vacuum Modulator Movement Specifications Chart for vehicle model year, transmission model and vacuum readings, for approximate beginning and ending of modulator plunger travel.

NOTE: *The transmission serial number is stamped on a metal plate attached to the right side of the transmission case. The serial number must be included in any communication involving parts ordering or requests for transmission information.*

YEAR	TRANSMISSION MODEL						
	JC	JH	JJ	JK	JM	JR	JS
1974	•	16/21	16/21	16/21	16/21	16/21	•
1975	•	16/21	16/21	16/21	16/21	16/21	•
1976	16/21	•	•	16/21	12/16	12/16	16/21
1977	16/21	•	•	16/21	12/16	12/16	16/21
1978	16/21	•	•	16/21	12/16	12/16	16/21

B/E — B — Approximate Vacuum at Which Beginning of Plunger Movement Should Occur; E — Approximate Vacuum at Which Ending of Plunger Movement Should Occur

All vacuum readings are in inches HG

• Not Applicable

Fig. 1 Vacuum Modulator Movement Specifications Chart

(2) Measure distance of plunger travel with maximum vacuum applied. Distance from plunger to edge of cylinder should measure approximately 5/8 inch (see Fig. 2).

NOTE: *Maximum applied vacuum should remain constant for at least 30 seconds. If modulator will not hold vacuum as required, replace the modulator.*

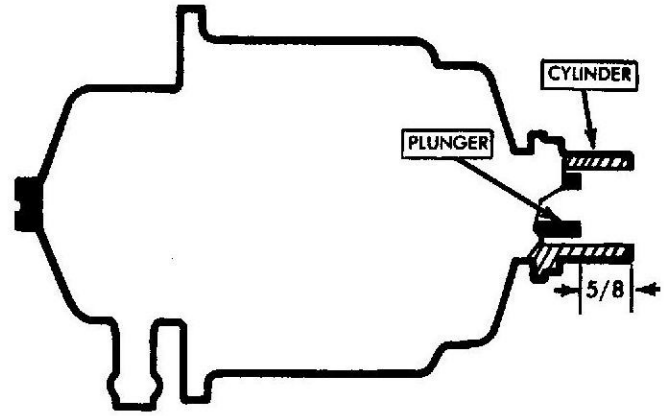

Fig. 2 Vacuum Modulator

(3) Disconnect vacuum source from modulator.

(4) Roll lower half of the main housing of modulator on a flat surface and observe concentricity of plunger cylinder to housing. If plunger cylinder is concentric and plunger is free, modulator is acceptable.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
VACUUM MODULATOR — TEST	16.260	6272		0.1	0.1	0.1	G

8-060-17J

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Jeep

Diagnosis and Repair Bulletin

Subject: Gear Shift Knob Replacement	Application: 1976-1978 Jeep Models With Automatic Transmission	File: CHASSIS Automatic Transmission Group 7.000 No. 8-02 March 28, 1978

When a shift lever knob is in need of replacement on a 1976-1978 Jeep model with automatic transmission, it is no longer necessary to replace the shift lever and knob as an assembly.

NOTE: *Replacement shift lever knob can also be used on 1973-1975 Jeep Models with automatic transmission.*

The following part is available and required:

Description	Quantity	Part No.	Group
Knob, Shift Lever	1	3216462	7.030

PROCEDURE

(1) Using a punch and hammer, drive out shift lever retaining pin and remove shift lever from steering column.

(2) Place shift lever in vice equipped with padded jaws.

(3) Using a hammer and chisle, drive off shift lever knob.

(4) Using a plastic mallet, install replacement shift lever knob.

(5) Attach shift lever to steering column with retaining pin.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
KNOB, GEAR SHIFT LEVER — REPLACE	**7.030**	**7022**		**.2**	**.2**	**.2**	**G**

8-043-BSA/J

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Jeep

Diagnosis and Repair Bulletin

No. 7-01

April 21, 1977

Subject: Improved Forward Clutch Apply Piston Center Seal

Application: All 1977 Models With Automatic Transmission

File: Group 6.000 Automatic Transmission

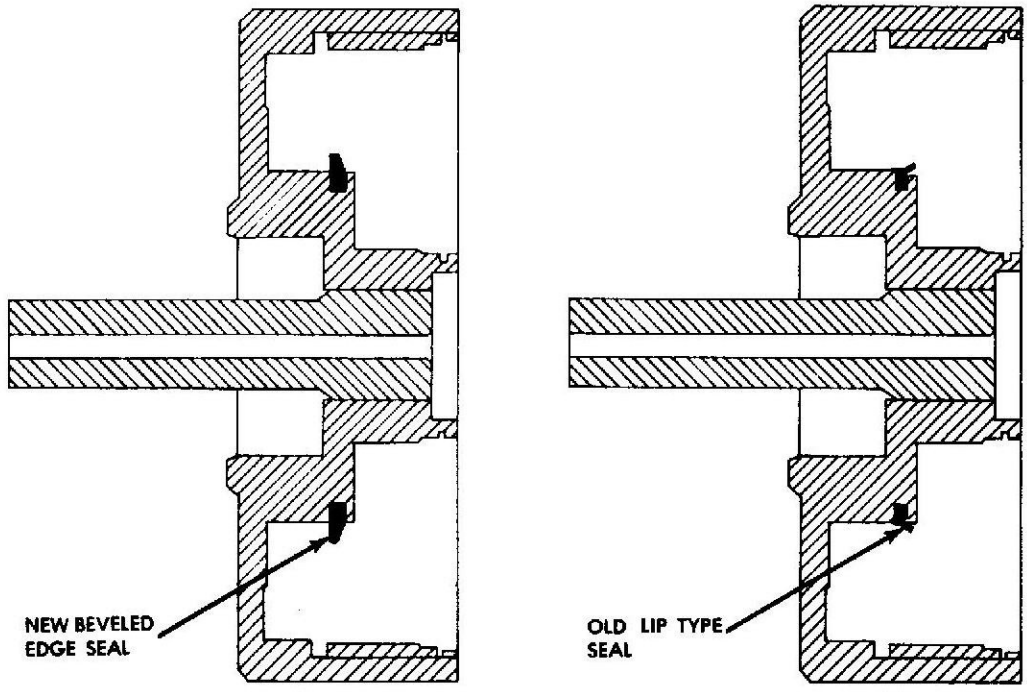
An improved forward clutch apply piston center seal is presently being used in all 1977 built automatic transmissions. This new seal has a beveled edge and is interchangeable with the old lip type seal in transmissions built prior to 1977. The old lip type seal is not interchangeable with the new beveled edge seal and should not be used in transmissions built in 1977 (see illustration).

Therefore, when transmission repairs are necessary it is important that the transmission build date be determined to assure that the proper kits are ordered. To determine the build date of a transmission, locate the transmission serial number stamped on a metal tag attached to the right side of the transmission. The first two digits of the serial number denote the year the transmission was built. The following chart should be used when ordering repair kits for the transmission.

Description	Application		Quantity	Part No.	Group
	1977	Prior			
Kit, Forward Clutch	X		1	8128656	6.595
		X	1	8623917	6.595
Kit, Overhaul Repair	X		1	8128525	6.501
		X	1	8625967	6.501

Servicing procedures for removal and installation of the forward clutch apply piston center seal remains as outlined in the appropriate Technical Service Manual. When installing the new beveled edge seal in a 1977 model transmission be sure that the beveled edge of the seal is facing upward. This information, or reference to this bulletin, should be noted on page 7-46 of your 1977 Technical Service Manual.

The Standard Servicing Operations and work time as published in the current SSO Manual are not affected by this bulletin.



Forward Clutch Apply Piston Center Seal

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Jeep.

Diagnosis and Repair Bulletin

Subject: Improved Stick-Slip Correction Procedure	Application: 1973-79 Jeep Vehicles With Quadra-Trac Transfer Case	File: CHASSIS Transfer Case/ Quadra-Trac No. 9-01 Jan. 12, 1981

This bulletin supercedes Technical Bulletins Number 2, 7600 Series, Number 5, 7500 Series, Number 6, 7400 Series, and Number 13, 7300 Series, Group 18.000, dated February 9, 1976. Remove and destroy these bulletins and replace them with this current bulletin.

The Quadra-Trac transfer case in some 1973-79 Jeep vehicles may develop a low frequency pulsating grunting, or rasping noise that occurs when cornering at slow speed or when parking the vehicle. This noise may occur if the Quadra-Trac differential brake cones tend to stick then release suddenly or release at different torque values. This condition is referred to as stick-slip.

To counteract this condition, a new Quadra-Trac lubricant has been developed to correct stick-slip. When the new lubricant is used, a transfer case remote vent kit must also be installed. Because water adversely affects performance of the new lubricant, the vent kit must be used to prevent water entry and lubricant contamination.

Service correction involves checking tire pressures, sizes, and types, draining and refilling the transfer case with the following new lubricant, and installing a remote vent kit on the transfer case if required.

NOTE: *The new Quadra-Trac lubricant is intended for use in vehicles exhibiting stick-slip. For vehicles that do not exhibit stick-slip, the current Quadra-Trac lubricant, part number 5358652, remains the normal replacement lubricant.*

The following parts are available and required.

Description	Quantity	Part No.	Group
LUBRICANT, Quadra-Trac	AR	8130444	18.500
STRAP, Tie	AR	3223227	3.165
KIT, Vent	1	8130445	18.500
Kit Contents:			
Vent Tube	1		
Vent Tube Clip	4		
Vent Tube Fitting	1		
Vent Tube Hose	1		

PROCEDURE

(1) Inspect vehicle tires. Tires must all be same size, type, make, and tread design. Correct if necessary.

(2) Check and correct tire inflation pressures if necessary. All tires must be inflated to recommended pressures and not vary by more than 1/2 to 1 psi (3.45 to 6.895 kPa).

(3) Raise hood and raise vehicle on hoist.

(4) Check transfer case lubricant level. If level is low, inspect for leaks and correct as necessary.

(5) Inspect transfer case vent. If transfer case is equipped with remote vent tube that is routed into engine compartment, proceed to step (8). If transfer case does not have remote vent tube, proceed to steps (6) and (7) for vent kit installation.

(6) On CJ models, install remote vent kit as follows:

(a) Clean vent area and remove and discard original vent tube fitting.

(b) Apply silicone sealant to threads of replacement vent tube fitting and install fitting on transfer case.

(c) Cover straight end of vent tube with tape.

(d) Insert straight end of vent tube upward above crossmember and to rear of transfer case. Rotate curved end of tube upward and position it between dash panel and engine. Remove tape from straight end of tube.

(e) Cut and connect four-inch length of vent tube hose to vent tube fitting and vent tube.

CAUTION: *The hose must be securely connected to the fitting and tube to prevent water from entering the transfer case and contaminating the lubricant.*

(f) Secure lower (straight) end of vent tube to Quadra-Trac Emergency Drive vacuum tube using S-clip provided in kit and proceed to step (8).

(7) On Cherokee, Wagoneer, and Truck models, install remote vent kit as follows:

(a) Clean vent area and remove and discard original vent tube fitting.

(b) Apply silicone sealant to threads of replacement vent tube fitting and install fitting on transfer case.

(c) Lower vehicle.

(d) Cover straight end of vent tube with tape.

(e) Insert straight end of vent tube downward between engine and dash panel. Position lower (straight) end of tube to rear of transfer case and upper (curved) end next to vacuum modulator vacuum tube.

(f) Secure upper curved end of vent tube to vacuum modulator vacuum line using tie strap.

(g) Close hood and raise vehicle.

(h) Cut and connect four-inch length of vent hose to vent tube fitting and vent tube.

CAUTION: *The hose must be securely connected to the fitting and tube to prevent water from entering the transfer case and contaminating the lubricant.*

(i) Secure vent tube to transmission filler tube and Quadra-Trac Emergency Drive vacuum tube using tie straps and proceed to step (8).

(8) Position drain pan under transfer case, remove drain and fill plugs from transfer case and allow unit to drain completely. If transfer case is equipped with reduction unit, loosen reduction unit attaching bolts, pull unit forward and allow lubricant to drain from reduction unit.

(9) Install and tighten transfer case drain plug to 20 foot-pounds (27 N·m) torque. If equipped with reduction unit, seat unit in transfer case and tighten reduction unit attaching bolts. Tighten 3/8-16 bolts 20 foot-pounds (27 N·m) torque. Tighten 5/16-18 bolts to 9 foot-pounds (12 N·m) torque.

(10) Fill transfer case and reduction unit, if equipped, with new Quadra-Trac lubricant. Transfer case requires two quarts (1.9 liters) of lubricant. Reduction unit requires one pint, if equipped.

NOTE: *Shake the Quadra-Trac lubricant container vigorously before filling the transfer case. It is important that the lubricant be mixed thoroughly before use.*

(11) Install and tighten transfer case fill plug to 20 foot-pounds (27 N·m) torque.

(12) Lower vehicle.

(13) On CJ models, secure upper (curved) end of vent tube to vacuum modulator vacuum tube using tie strap and close hood.

(14) Drive vehicle in circles both clockwise and counterclockwise for approximately 15 minutes to circulate lubricant throughout transfer case.

CAUTION: *Do not turn to or hold the steering wheel at the stop position when driving the vehicle in circles.*

The following standard servicing operations and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME	SKILL LEVEL
				1973-1979	
STICK-SLIP, QUADRA-TRAC — CORRECT Includes lubricant change and 15 minute driving time	18.670	18395	Cke-Wag Trk-CJ-7	0.6	G
With reduction unit — Add				0.2	
Vent Kit — Install	18.670	A		0.3	G

9-122-18J

Jeep

Diagnosis and Repair Bulletin

Subject: Quadra-Trac With Reduction Unit - Disengages From High Range	Application: 1977 and 1978 Jeep Vehicles With Quadra-Trac and Reduction Unit	File: CHASSIS Transfer Case/ Quadra-Trac Group 18.000 No. 8-01 May 16, 1978

Some 1977 and 1978 Jeep vehicles equipped with Quadra-Trac and the optional low range unit may occasionally disengage from high range. This can be caused by improperly shifting the low range unit from low range to high range or by a worn or otherwise substandard direct drive sleeve.

Service correction involves verifying that the proper shifting procedure as described in the Owner's Manual has been used. If the shifting procedures used are correct and the Quadra-Trac disengages from high range, inspect the reduction unit direct drive sleeve. If necessary, replace the direct drive sleeve.

NOTE: *To insure that a new direct drive sleeve will improve the condition, compare it with Fig. 1.*

The following parts are available and required:

Description	Quantity	Part No.	Group
Sleeve, Direct Drive	1	8122689	18.615-17
Ring, Power Takeoff Cover to Transfer Case Cover Sealing	1	8122406	18.515-3
Gasket, Reduction Unit to Power Takeoff Housing	1	8122707	18.610-9

PROCEDURE

(1) Remove reduction unit as described in appropriate Technical Service Manual.

(2) Remove power takeoff cover.

(3) Position 11/16 inch, 1/2 inch drive deep well socket in vise and clamp securely. Allow two inches of socket to extend beyond top of vise.

(4) Mount reduction unit on socket. Be sure socket enters bore of sun gear (Fig. 2). Reduction unit should be supported by socket.

(5) Move reduction unit control lever rearward to high range position.

(6) Remove snap ring and spacer from mainshaft (Fig. 3).

(7) Lift reduction unit housing upward and off gear train (Fig. 4).

(8) Slide direct drive sleeve off main shaft.

NOTE: *To insure that the new direct drive sleeve will improve the condition compare it with Fig. 1.*

(9) Install direct drive sleeve.

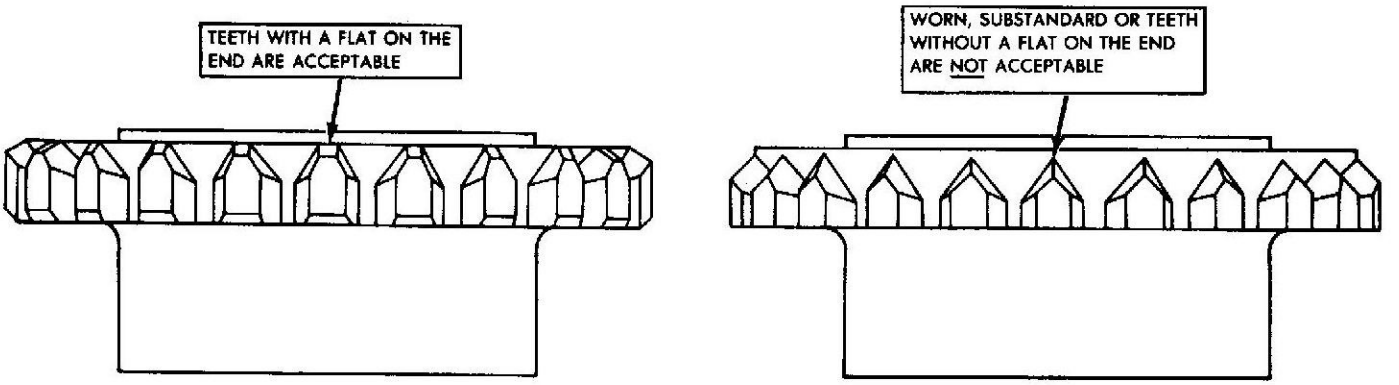

Fig. 1 Direct Drive Sleeve

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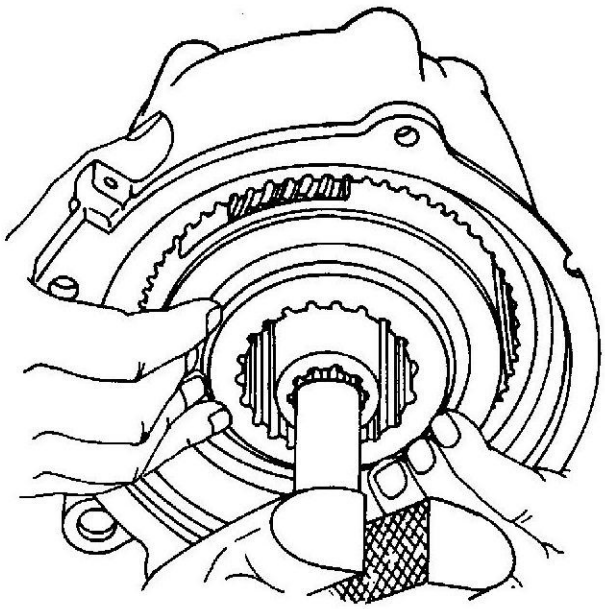

Fig. 2 Mounting Reduction Unit on Socket

(10) Align splines on assembled parts and install housing. Be sure housing is seated firmly against direct drive sleeve.

(11) Install rear spacer and snap ring. Be sure snap ring is fully seated in snap ring groove.

NOTE: *The snap ring is a select fit component which is available in seven different sizes and used to maintain 0.004-to 0.009 inch clearance between the spacer and snap ring. Snap rings can be found in the current Parts Catalog, Group 18.615-2.*

(12) Install power takeoff cover and gasket. Tighten cover attaching bolts to 20 foot-pounds (27 N·m) torque.

(13) Remove assembled unit from support socket.

(14) Install reduction unit as described in appropriate Technical Service Manual.

(15) Check fluid level of Quadra-Trac and reduction unit and fill with Jeep Quadra-Trac Lube (PN 8997212).

(16) Road test vehicle to insure proper reduction unit operation.

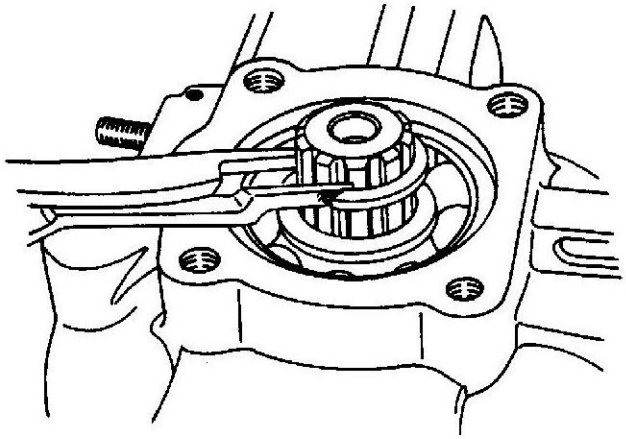

Fig. 3 Main Shaft Snap Ring Removal - Installation

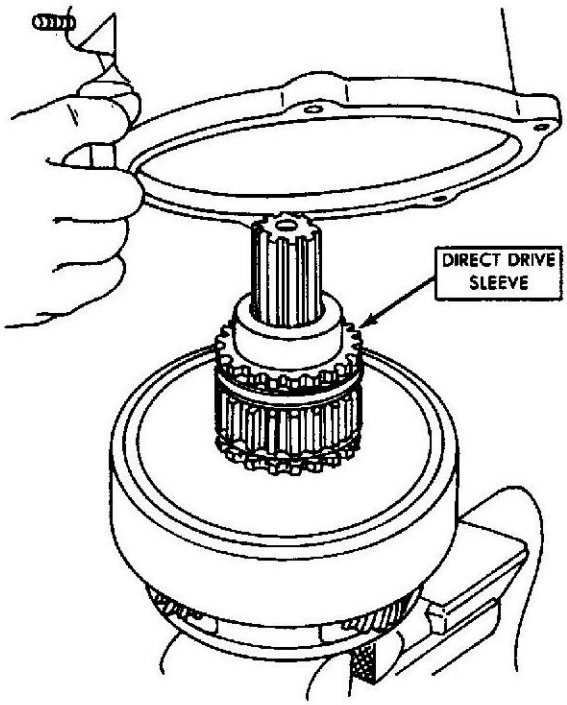

Fig. 4 Housing Removal - Installation

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78		
REDUCTION UNIT, GEAR SLEEVE REPLACE	**18.735**	**18353**		**0.7**	**0.7**		**G**

8-067-18J

Diagnosis and Repair Bulletin

Subject: Quadra-Trac Drive Chain Replacement	Application: 1973 through 1977 Wagoneer, Cherokee and Truck Models and 1976 and 1977 CJ-7 Models With Quadra-Trac Transfer Case	File: Group 18.000 No. 7-01 September 8, 1977

This bulletin is being issued to provide additional information on replacement of the Quadra-Trac drive chain. When the drive chain is to be replaced, it is important that the Quadra-Trac unit be thoroughly cleaned and the component parts inspected for excessive wear. Abrasive contamination or worn components parts can result in excessive drive chain wear. Therefore, when replacing the drive chain the Quadra-Trac unit must be removed from the vehicle, disassembled and all parts thoroughly cleaned and inspected for damage or excessive wear.

The following information is to be used as a guide for the cleaning and inspection of the components of the Quadra-Trac unit. For removal, disassembly, and installation procedures refer to the applicable Technical Service Manual.

CLEANING

After disassembling the Quadra-Trac and reduction unit (if equipped), **wash all parts thoroughly** in clean solvent. Be sure all lubricant, foreign matter, and metal particles are removed from each part. Keep side gears, brake cones, preload springs, and thrust washers together as matched sets. Dry all parts (except bearings) with compressed air. Bearings should be allowed to air dry.

INSPECTION

All parts should be thoroughly inspected for excessive wear or damage. Worn or damaged parts should be replaced. The following standards have been established and are to be used in determining the serviceability of the component parts.

- **Drive Sprocket** — A polished wear pattern on the sprocket teeth is normal. However, deep ridges and valleys on the teeth indicate excessive wear and replacement is required. Bearing surfaces should be polished and smooth. Pitting, galling, scoring or flat spots indicate excessive wear and replacement is required. Drive sprockets with chipped teeth or cracks must be replaced.

- **Case Sprocket** — Tapered clutch and pinion gear thrust surfaces will be highly polished and may have small smooth score marks or original machining marks. These are considered normal. Replacement is required if rough score marks, nicks, gouges, cracks, burrs, chipped teeth, or excessive wear is indicated.

Pinion mate shaft bore may be polished. Shaft should fit tightly in bores. Replacement is required if bores are elongated or enlarged.

Pinion shaft lockpin must fit tightly in case bore. Replacement is required if case bore is elongated or enlarged or if lockpin is collapsed or otherwise damaged.

- **End Caps** — Bearing and end thrust surfaces must be polished and smooth. Pitting, galling, scoring, or flat spots indicate excessive wear and replacement is required.

- **Needle Bearings** — Rollers must be secure in cage. Bearing should rotate smoothly. Rotation drag, high spots, chipping, scoring, galling, pitting, or discoloration indicate excessive wear and replacement is required.

- **Thrust Washers** — Surfaces should be flat and smooth. Light scratches or a circular wear pattern are considered as normal and replacement is not required. If surfaces are warped, galled, or worn, replacement is required.

- **Pinion Shaft** — Shaft must be smooth, round, and straight and must fit tightly into case bore. A polished wear pattern is considered normal and no replacement is required. Galling, scoring, or metal pickup indicate excessive wear and replacement is required.

- **Side Gears and Pinions** — Teeth must have a smooth uniform contact pattern. Thrust surfaces and splines may be highly polished or have slight tarnished spots. These are considered normal and replacement is not required. Replacement is required if teeth are chipped or cracked; if thrust surfaces or splines are galled or show measurable wear.

- **Brake Cones** — Spiral tapered braking surfaces will be polished. Very small, smooth score marks or original machining marks are considered normal and replacement is not required. Rough score marks, rolling or mushrooming of spirals are considered excessive wear and replacement is required.

- **Preload Springs** — Springs should be dished approximately ¼ inch and smooth. Light scratches or a circular wear pattern are considered normal. Warping, galling, or flatness is considered excessive wear and replacement is required.

Remember, before replacing the Quadra-Trac drive chain it is imperative that the unit be disassembled and all parts thoroughly cleaned and inspected.

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Jeep

Diagnosis and Repair Bulletin

Subject: Rear Axle Housing Cover Service	Application: 1977-79 CJ Models	File: CHASSIS Axles-Propeller Shaft No. 9-02 May 15, 1979

When performing a service operation that requires removal of the rear axle housing cover, the cover should be aligned prior to installing it.

Servicing involves inspecting the cover to determine whether it extends below the bottom edge of the axle housing and either repositioning or grinding the cover as required.

PROCEDURE

(1) Position rear axle housing cover on axle housing with attaching bolts loosely installed.

(2) Inspect rear axle cover for alignment as follows:

(a) If cover does not extend beyond bottom edge of rear axle housing, no realignment is required. Proceed to step (5).

(b) If cover extends beyond bottom edge of rear axle housing, realign cover by moving it upward. If movement aligns cover, mark position for installation and proceed to step (5).

(3) Remove attaching bolts and rotate axle cover on axle housing. Inspect bottom edge of axle housing, as cover is rotated, to determine if cover no longer extends beyond housing.

(a) If rotating eliminates condition, mark cover position for installation and proceed to step (5).

(b) If rotating cover does not eliminate condition, scribe area of cover that extends below bottom edge of axle housing.

(4) Remove cover and grind scribed area off cover using bench grinder. Remove all sharp edges from cover with file after grinding.

(5) Clean axle housing and housing cover mating surfaces throughly. Apply a thin bead of Jeep Gasket-in-a-Tube or equivalent silicone sealer to housing and cover, or install a replacement gasket. Install and tighten cover bolts to 20 ft. lbs. (27 N•m) torque.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
COVER, REAR AXLE — MODIFY	9.007	9051	83-93	0.1	0.1	0.1	G

9-073-09J

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Diagnosis and Repair Bulletin

Subject: Lubrication — Double Cardan Universal Joint	Application: All 1976-1978 Models (Except CJ Models With Manual Transmission)	File: CHASSIS Axles - Propeller Shafts Group 9.000 No. 8-01 April 10, 1978

This bulletin is being released to emphasize the importance of properly lubricating the front propeller shaft double cardan universal joint. Failure to lubricate this universal joint at the intervals outlined in the Mechanical Maintenance Schedule may result in accelerated wear. Lubrication of the double cardan universal joint on Wagoneer, Cherokee, and Truck models should occur every 15,000 miles under normal service and 5,000 miles or 5 months under heavy duty service. On CJ-7 models, lubrication should occur every 5,000 miles under normal service and every 3,000 miles or 3 months under heavy duty service.

The double cardan universal joint is located at the transfer case end of the front propeller shaft. The construction which allows the double cardan joint to operate smoothly also makes proper lubrication of its components very important. The lubrication fittings are located in the spiders of the universal joints and in the ball socket yoke (see figure 1).

It will be necessary to obtain an Alemite lubrication adapter, model number 6783, or equivalent to perform the following procedure.

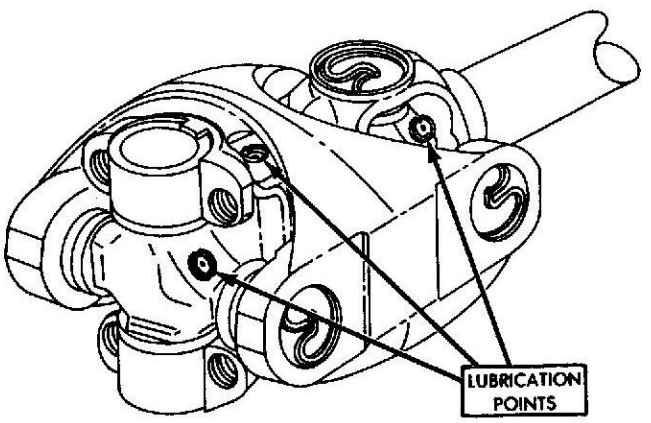

Fig. 1 Double Cardan Universal Joint

PROCEDURE

(1) Raise vehicle and support so that front wheels are free to turn.

(2) Mark propeller shaft yoke and transfer case output shaft yoke for assembly alignment reference.

(3) Disconnect front propeller shaft at transfer case.

(4) Push on propeller shaft until slip yoke at axle end of shaft is fully collapsed.

(5) Rotate propeller shaft and flex universal joints until lubrication fitting for front universal joint spider is accessible.

(6) Lubricate spider until grease just begins to appear around bearing cap seals.

(7) Repeat steps (5) and (6) for rear universal joint spider.

(8) Rotate propeller shaft and flex universal joints until lubrication fitting for ball socket is accessible.

(9) Lubricate ball socket until grease appears at vent hole located on rear of ball socket yoke.

(10) Position propeller shaft and connect to transfer case.

(11) Remove grease squeezed out of slip yoke vent hole at axle end of propeller shaft.

(12) Lubricate propeller shaft slip yoke until grease appears at vent hole.

(13) Lower vehicle.

The Standard Servicing Operations and work times as published in the current SSO Manual are not affected by this bulletin.

8-033-09J

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Jeep

Diagnosis and Repair Bulletin

No. 7-01

February 10, 1977

Subject: Front Propeller Shaft May Contact Starter Motor During Severe Off-Road Operation

Application: 1977 Cherokee and Truck Models With Six-Cylinder Engine and Cherokee, Wagoneer and Truck Models With V-8 Engine

File: Group 9.000 Axles - Propeller Shafts

On some of the subject vehicles, the front propeller shaft may come in contact with the forward end of the starter motor during severe off-road operation. This condition is caused by excessive front axle windup which allows the propeller shaft to overtravel resulting in possible damage to the starter motor, or propeller shaft, or both.

Service correction, on a complaint basis, involves the following:

- Six-cylinder models — installing an additional front **axle** windup bumper spacer part number 941411 and **locknut** part number **4487549**. It may be also necessary to reverse the position of the starter motor brush cover band retaining screw.
- V-8 models — if front axle windup bumper spacer is missing install windup bumper spacer, part number 940304. It may also be necessary to cut off the end of the starter motor brush cover band retaining screw.

Description	Quantity	Part No.	Group
Spacer, Windup Bumper - Six-Cylinder	1	941411	9.304
Spacer, Windup Bumper - V-8	1	940304	9.304
Locknut, 3/8-16	1	4487549	9.304

PROCEDURE

Six-Cylinder Models

(1) Disconnect battery negative cable.

(2) Remove front axle windup bumper retaining locknut and washer and remove bumper and existing spacer. Discard locknut and washer.

(3) Install existing spacer and ¼-inch thick spacer on windup bumper.

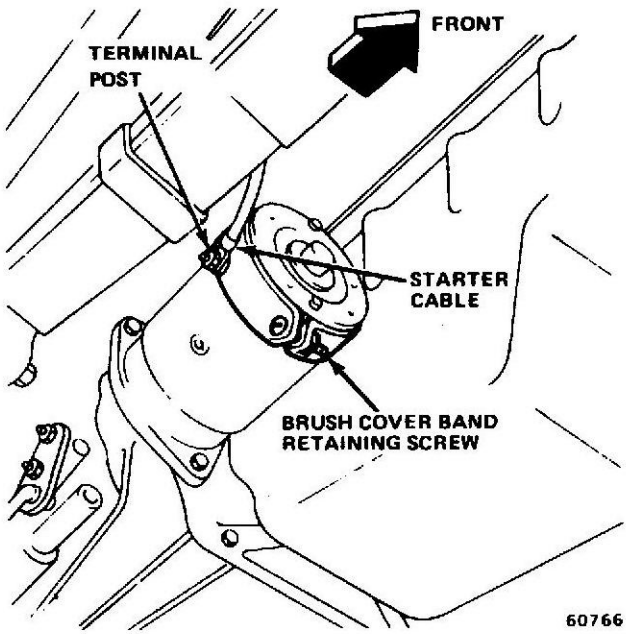
(4) Mount assembled windup bumper and spacers on frame bracket and install replacement locknut. Tighten locknut to 24 foot-pounds torque.

(5) Inspect position of starter motor brush cover band retaining screw.

(a) If screw head is facing away from engine as shown in illustration, proceed to step (6).

(b) If screw head is facing toward engine, remove and reposition screw as shown in illustration.

(6) Connect battery negative cable.



Brush Cover Band Retaining Screw Location — Six Cylinder Models

V-8 Models

(1) Remove front axle windup bumper retaining nut and washer and remove bumper.

(2) Install ½-inch thick spacer on windup bumper.

(3) Mount assembled windup bumper and spacer on frame bracket and install washer and nut. Tighten locknut to 24 foot-pounds torque.

(OVER)

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The following standard servicing operations and work times apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
SPACER, FRONT AXLE HOUSING WIND-UP BUMPER—INSTALL **Includes reposition starter motor brush cover band retaining screw—six-cylinder...**	17.086	11123	CKE, WAG, TRK	0.2	–	–	M

Jeep

SERVICE TECHNICAL BULLETIN

No. TB 1 6

7700 Series
7600 Series

Group: 9.000
Date: September 28, 1976

Subject: Front Axle Application 1976 and 1977 Cherokee and J-10 Truck Models

1976 Cherokees and J-10 trucks were equipped with a 0.38 inch thick tube wall front axle as standard equipment. A heavier, 0.50 inch thick tube wall axle was used whenever these vehicles were ordered with the wide wheel option.

For 1977, early model J-10 trucks without the wide wheel option will still be equipped with the 0.38 inch thick tube wall front axle. However late model J-10 trucks will have the heavier 0.50 inch thick tube wall whether or not they are ordered with the wide wheel option.

Remember, wide wheels are not recommended for use on vehicles with the thinner tube axle. If an owner does install wide wheels on one of these vehicles, make sure you do not install a snow plow.

In order to identify which vehicles have the heavier 0.50 inch thick tube wall axle, check the metal tag attached to the differential housing. The heavier tube wall axles will have numbers 5355015 or 5356607 stamped on the tag.

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Jeep

Diagnosis and Repair Bulletin

Subject: Brakedrum and Rotor Repair vs Replacement	Application: All 1976-79 Jeep Vehicles	File: CHASSIS Brakes-Wheels-Tires (Group 8.000) No. 9-01 February 20, 1979

It is not necessary to replace drums or rotors if the braking surface is rusted or lightly scored, and within dimensional specifications. Instead of replacement, restore surface finish maintaining dimensions within allowable tolerances by using a brake lathe. Replacement is necessary only if drums or rotors have hard spots or machining would cause the part to exceed specified limits.

Because drum and rotor tolerances must be accurate to ensure proper brake operation, correct service procedures are very important. The specifications and procedures for drum and rotor service are as follows.

ROTOR SERVICE

Rotor Inspection

(1) Raise and support front of vehicle.

(2) Remove front wheels.

(3) Remove caliper (do not disconnect brakeline).

(4) Inspect rotor braking surfaces. If surfaces are only lightly rusted or scored, proceed to step (5). If surfaces are severely scored, cracked, chipped, excessively worn, or have hard spots (a series of shiny or dark colored spots), replace rotor.

(5) If rotor surfaces are only lightly scaled, rusted or scored, remove rotor, bearings and seal from rotor. Clean rotor hub bearing surfaces and mount rotor in brake lathe. Clean surfaces using flat sanding discs while rotor is turning in lathe.

(6) Remove rotor from lathe.

(7) Check rotor thickness at center of lining contact area. Thickness must be larger than minimum (replacement) specification and provide sufficient stock for refinishing if necessary. If rotor is within limits, proceed to next step. If rotor is less than minimum thickness specification or refinishing would leave it below minimum thickness specification, replace rotor.

(8) Install bearings and seal in rotor.

(9) Install rotor on steering spindle and check runout and thickness variation. Refer to Rotor Specifications.

Rotor Measurement

(1) Measure rotor lateral (face) runout.

(a) Mount dial indicator on support stand or steering spindle.

(b) Position indicator stylus so it contacts center of rotor lining contact area and zero indicator.

(c) Turn rotor 360 degrees and note indicator reading. Runout must not exceed limit stated in Rotor Specifications.

(d) Refinish rotor if runout exceeds stated limit. Replace rotor if runout is so severe that machining would cause rotor to fall below minimum (replacement) thickness specification. Refer to Rotor Specifications.

(e) If runout is within limits, proceed to step (2).

NOTE: *Excessive lateral runout will cause rotor wobble resulting in chatter, vibration, and pedal pulsation.*

(2) Measure rotor thickness variation.

(a) Measure variation using micrometer or two dial indicators.

(b) Take readings at four or more equally spaced points around rotor circumference and one inch (25 mm) inward from outer edge of rotor.

(c) Thickness variation, from point-to-point, must not vary by more than limit stated in Rotor Specifications.

(d) Refinish rotor if thickness variation exceeds stated limit. Replace rotor if machining will not correct variation or if machining would cause rotor to fall below minimum thickness specification.

NOTE: *Excessive thickness variation will cause pedal pulsation and vibration when the brakes are applied.*

(OVER)

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Rotor Refinishing

Rotor refinishing should only be performed using equipment that will machine both of the rotor surfaces simultaneously (machining one side at a time can produce a tapered rotor). The correct surface finish is 15 to 80 microinches for CJ models; 20 to 60 microinches for Cherokee, Wagoneer, and Truck models and must not have tool marks (grooves) after machining.

NOTE: *If a rotor is glazed or highly polished, sanding the rotor may not produce the required rotor finish. It may be necessary to turn the rotor to meet the finish requirements.*

To ensure a correct surface finish, follow the lathe manufacturer's recommendations for feed and speed and either sharpen or replace dull cutting tool bits before machining rotor.

(1) Remove rotor from steering spindle.

(2) Remove bearings and seal from rotor and clean bearing surfaces in rotor hub thoroughly.

(3) Mount rotor in lathe according to manufacturer's instructions and install anti-chatter band.

(4) Sharpen or replace cutting tool bits as necessary.

(5) Machine rotor as necessary and according to lathe manufacturer's instructions only. Make two cuts if required and do not remove more than 0.007 inch (0.18 mm) at a time.

CAUTION: *Do not attempt to refinish rotor if machining would cause the part to fall below the minimum (replacement) thickness specification for that rotor. Refer to Rotor Specifications.*

NOTE: *If one disc brake assembly requires a new set of shoes, the shoes on the other assembly must be replaced to ensure even braking.*

ROTOR SPECIFICATIONS

1979 Models

Rotor Diameter:
CJ. . . . . 11.7 in. (29.7 cm)
Cke, Wag, J-10 Trk. . . . . 12.0 in. (30.48 cm)
J-20 Trk. . . . . 12.5 in. (31.75 cm)

Rotor Hub to Bore Runout (All). 0.010 in. (0.254 mm)

Rotor Lateral Runout (All). . . . 0.005 in. (0.12 mm)

Rotor Minimum (Replacement) Thickness:
CJ. . . . . 0.815 in. (20.7 mm)
Cke, Wag, Trk. . . . . 1.215 in. (30.86 mm)

Rotor Thickness Variation (All). 0.001 in. (0.02 mm)

1978 Models

Rotor Diameter:
CJ. . . . . 11.7 in. (29.7 cm)
Cke, Wag, J-10 Trk . . . . . 12.0 in. (30.48 cm)
J-20 Trk . . . . . 12.5 in. (31.75 cm)

Rotor Hub to Bore Runout (All). 0.010 in. (0.254 mm)

Rotor Lateral Runout (All). . . . . 0.005 in. (0.12 mm)

Rotor Minimum (Replacement) Thickness:
CJ. . . . . 1.120 in. (28.45 mm)
Cke, Wag, Trk. . . . . 1.215 in. (30.86 mm)

Rotor Thickness Variation (All). 0.001 in. (0.02 mm)

1977 Models

Rotor Diameter:
CJ. . . . . 11.7 in. (29.7 cm)
Cke, Wag, J-10 Trk. . . . . 12.0 in. (30.48 cm)
J-20 Trk. . . . . 12.5 in. (31.75 cm)

Rotor Hub Bore Runout (All). .0.010 in. (0.254 mm)

Rotor Lateral Runout (All). . . . 0.003 in. (0.076 mm)

Rotor Minimum (Replacement)
Thickness (All). . . . . 1.125 in. (28.5 mm)

Rotor Thickness Variation (All). 0.0005 in. (0.013 mm)

1976 Models

Rotor Diameter:
Cke, Wag, J-10 Trk. . . . . 12.0 in. (30.48 cm)

Rotor Hub Bore Runout (All). . . 0.010 in. (0.254 cm)

Rotor Lateral Runout (All). . . . . 0.003 in. (0.076 mm)

Rotor Minimum (Replacement) Thickness
(All). . . . . 1.125 in. (28.5 mm)

Rotor Thickness Variation (All) 0.0005 in. (0.013 mm)

BRAKEDRUM SERVICE

Inspection and Measurement

(1) Raise and support vehicle.

(2) Remove wheels.

(3) Remove brakedrums.

(4) Clean drums using soap and water solution. If drums are grease or oil contaminated, clean drums with alcohol before cleaning with soap and water.

(5) Inspect drums for cracks, severe scoring, distortion, or hard spots (a series of shiny or dark colored spots on contact surface). Replace drums that exhibit these conditions. If drums appear in good condition, proceed to next step.

(6) Refer to Brakedrum Specifications then measure drum inside diameter. If diameter is within limits and refinishing would not create an oversize condition, proceed to next step. If diameter exceeds limits or if drum needs refinishing but would exceed allowable size limits after machining, replace drum.

(7) Mount drum in lathe according to lathe manufacturer's instructions.

(8) Mount dial indicator on lathe so indicator stylus contacts lining surface of drum; zero dial indicator.

(9) Measure drum radial runout.
(a) Rotate drum 360 degrees and observe readings.
(b) Move indicator stylus until readings have been taken across entire contact surface of drum.
(c) Drum runout must not exceed 0.005 inch (0.12 mm) total indicator reading at any point. Also note if indicator readings increase or decrease greatly as stylus is moved across drum surface. Large changes may indicate tapered or bell-mouthed drum.

(10) If drum is within limits and does not need refinishing, install drum. If drum is not within limits or is lightly scored, refinish drum. Refer to Brakedrum Refinishing.

Brakedrum Refinishing

(1) Sharpen or replace cutting tool bit if necessary.

(2) Install anti-chatter band on drum.

(3) Machine drum according to lathe manufacturer recommendations for feed and speed. Do not remove more than 0.010 inch (0.25 mm) of stock during any cut.

(4) Check drum radial runout again after completing machining operations.

NOTE: *When brake shoes are replaced on one wheel, they must also be replaced on the opposite wheel.*

BRAKEDRUM SPECIFICATIONS

1979 Models

Maximum Drum Diameter:
CJ. . . . . 10.060 in. (25.5 cm)
Cke, Wag, Trk. . . . . 11.060 in. (28.09 cm)
J-20 Trk. . . . . 12.060 in. (30.6 cm)
Maximum Drum Radial Runout. 0.005 in. (0.12 mm)

1978 Models

Maximum Drum Diameter:
CJ. . . . . 10.060 in. (25.5 cm)
Cke, Wag, Trk. . . . . 11.060 in. (28.09 cm)
J-20. . . . . 12.060 in. (30.6 cm)
Maximum Drum Radial Runout. 0.005 in. (0.12 mm)

1977 Models

Maximum Drum Diameter:
CJ. . . . . 10.060 in. (25.5 cm)
Cke, Wag, Trk. . . . . 11.060 in. (28.09 cm)
J-20 Trk. . . . . 12.060 in. (30.6 cm)
Maximum Drum Radial Runout. 0.007 in. (0.18 mm)

1976 Models

Maximum Drum Diameter:
CJ. . . . . 10.060 in. (25.5 cm)
Cke, Wag, Trk. . . . . 11.060 in. (28.09 cm)
J-20. . . . . 12.060 in. (30.6 cm)
Maximum Drum Radial Runout. 0.007 in. (0.18 mm)

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME				SKILL LEVEL
				76	77	78	79	
SHOE SET, FRONT (DISC BRAKE)—REPLACE	**8.152**	**8060**		**0.5**	**0.5**	**0.5**	**0.5**	**G**
Disc Assembly—Clean.....		**A**		**0.1**	**0.1**	**0.1**	**0.1**	**G**
Disc Assembly—Resurface.....(One)	**8.163**	**B**		**0.5**	**0.5**	**0.5**	**0.5**	**P**
(Both) Includes clean, inspect and repack wheel bearings. Material allowance for bearing lubricant is $0.30.	**8.163**			**1.0**	**1.0**	**1.0**	**1.0**	**P**
NOTE: *Refer to the appropriate combinations listed for operation Brake Shoes, Four Wheels*—Replace (8050) as they apply.								
BRAKE SHOES, TWO WHEELS (REAR)—REPLACE..... Includes adjust parking brake.	**8.202**	**8020**		**0.8**	**0.8**	**0.8**	**0.8**	**G**
Brake Drum—Reface.....Both	**8.222**	**A**		**0.3**	**0.3**	**0.3**	**0.3**	**P**
Rear Wheel Bearings—Repack (Full Floating Rear Axle)..... Material allowance for bearing lubricant is $0.30.	**9.073**	**B**		**0.4**	**0.4**	**0.4**	**0.4**	**G**
NOTE: *Refer to the appropriate combinations listed for Operation Brake Shoes, Four Wheels—Replace (8000)(8050) as they apply.*								
BRAKE SHOES, (DRUM BRAKE) TWO WHEELS (FRONT)—REPLACE.....	**8.102**	**8010**	**83-93**	**0.7**	**0.7**			**G**
Front Wheel Bearings—Repack..... Remove, wash, inspect, repack, install new seals and adjust. Material allowance for bearing lubricant is $0.30.	**8.909**	**A**		**0.4**	**0.4**			**G**
Drum—Reface—Both.....	**8.127**	**B**		**0.3**	**0.3**			**P**

9-036-08A/J

Jeep

Diagnosis and Repair Bulletin

No. 7-01

February 10, 1977

Subject: Possible Brake Drag—Caused by Brake Pedal Not Returning Fully When Released	Application: 1976 and 1977 CJ Models Equipped With Manual Drum Brakes and Manual Transmission Built Prior to VIN J7XXXXX042579	File: Group 8.000

On some of the subject CJ models a possible brake drag may occur and is caused by the brake pedal not returning fully when released. This condition may be the result of the brake pedal rubbing against the steering column and keeping the master cylinder push rod from returning far enough to relieve all the pressure in the brake system.

Service correction involves loosening the steering column attaching hardware and repositioning the column to obtain clearance between the brake pedal and ignition switch.

PROCEDURE

(1) Loosen bolts attaching steering column mounting bracket to instrument panel.

(2) Loosen bolts attaching upper and lower halves of the toeboard plate.

(3) Pull steering column upward, maintain upward pressure and tighten bolts attaching steering column mounting bracket to instrument panel. Tighten bolts to 20 foot-pounds torque.

CAUTION: *Bolts attaching column mounting bracket to the instrument panel must be tightened to the specified torque so the column mounting bracket capsules will breakaway under impact, as designed.*

(4) Tighten toeboard plate bolts to 15 foot-pounds torque.

(5) Check brake pedal-to-ignition switch clearance. Readjust steering column if necessary.

The following operation and standard work time will apply.

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
STEERING COLUMN—REPOSITION	**10.956**	**10227**	**83-93**	**0.1**	**0.1**	**—**	**G**

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Diagnosis and Repair Bulletin

Subject: Power Steering Gear Repair vs Replacement	Application: All 1977-79 Jeep Vehicles Equipped with Power Steering	File: CHASSIS Steering and Suspension (1977 Group 10.000) Revised No. 9-01 January 16, 1979

This bulletin is being revised to correct the information in step (D) under "1977 Jeep Technical Service Manual" and step (E) under "1979 Jeep Technical Service Manual." Please remove and discard DRB No. 9-01, Power Steering Gear Repair vs. Replacement, dated November 20, 1978.

The Warranty Administration Manual states that partial or complete overhaul of an assembly shall take precedence over replacement of that assembly; except when the sum total of replacement parts and labor costs (at RFC values) to repair the assembly would amount to 80 percent or more of the sum total parts and labor costs (at RFC values) to replace the assembly.

The appropriate Jeep Technical Service Manuals state that adjustment of the steering gear must be done with the gear assembly removed from the vehicle.

On the other hand, the Standard Servicing Operations Manual (SSO) has an operation and time for steering gear adjustment performed with the gear assembly on the vehicle.

In order to make the Jeep Technical Service Manuals and the Standard Servicing Operations Manual correct and to create continuity requires several changes. After these changes have been made, dealers should have less difficulty complying with requirements of the Warranty Administration Manual. The following procedural changes to the 1977-79 Jeep Technical Service Manuals are necessary. Also, note the changes in the Standard Servicing Operations Manual.

I. 1977 JEEP TECHNICAL SERVICE MANUAL

A. On page 11-47 of the SERVICE DIAGNOSIS CHART under the heading "CONDITION" and after subtitle "POOR RETURN OF STEERING WHEEL TO CENTER," add step (11).

Possible Cause	Correction
(11) Kink in Return Hose	(11) Replace Return Hose

B. On page 11-57 under subtitle "ASSEMBLY - STEERING GEAR HOUSING COMPONENTS," step (12) should be changed to read: Install end plug in rack piston. Tighten end plug to 75 foot-pounds (102 N•m) torque.

C. On page 11-58 under the subtitle "WORMSHAFT BEARING PRELOAD," step (3) should be changed to read: Measure counterclockwise one-half inch (13mm) from first index mark and remark housing. Refer to Figure 1 below.

D. On page 11-58 under the subtitle "PITMAN SHAFT OVERCENTER DRAG TORQUE," step (1) should be changed to read: Loosen locknut, turn pitman shaft adjuster screw (counterclockwise) until fully extended, then turn it back (clockwise) one full turn. Step (7) should be changed to read: Tighten pitman shaft adjusting screw locknut to 20 foot-pounds (27 N•m) torque after adjusting overcenter drag torque.

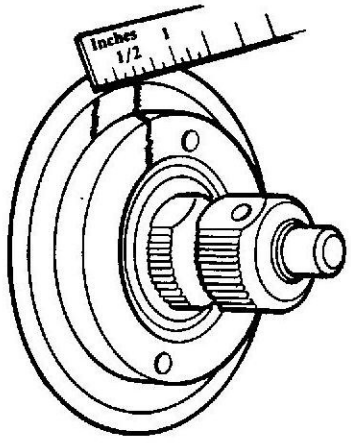

Fig. 1 Indexing Gear Housing

II. 1978 JEEP TECHNICAL SERVICE MANUAL

A. On page 2L-8 of the SERVICE DIAGNOSIS CHART under the heading "CONDITION," add step (11) to subtitle "POOR RETURN OF STEERING WHEEL TO CENTER."

(OVER)

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Possible Cause	Correction
(11) Kink in Return Hose	(11) Replace Return Hose

B. On page 2L-12, fig. 2L-7, View A, the information referring to the ball plug should read as shown in fig. 2.

C. On page 2L-32 under subtitle "STEERING GEAR ASSEMBLY AND ADJUSTMENT," step (19) should be changed to read: Install end plug in rack piston. Tighten end plug to 75 foot-pounds (102 N • m) torque.

D. On page 2L-34 under the subtitle "WORM BEARING PRELOAD," step (3) should be changed to read: Measure counterclockwise one-half inch (13mm) from first index mark and remark housing. (Refer to fig. 1.)

E. On page 2L-34 under subtitle "PITMAN SHAFT OVERCENTER DRAG TORQUE," step (1) one should be changed to read: Loosen locknut, turn pitman shaft adjuster screw (counterclockwise) until fully extended, then turn it back (clockwise) one full turn. Step (7) should be changed to read: Tighten pitman shaft adjusting screw locknut to 20 foot-pounds (27 N•m) torque after adjusting overcenter drag torque (fig. 2H-115).

III. 1979 JEEP TECHNICAL SERVICE MANUAL

A. On page 2L-8 of the SERVICE DIAGNOSIS CHART under the heading "CONDITION," add step (11) to subtitle "POOR RETURN OF STEERING WHEEL TO CENTER." Step (11) will read as follows:

Possible Cause	Correction
(11) Kink in Return Hose	(11) Replace Hose

B. On page 2L-12, figure 2L-7, View A, the information referring to the ball plug should read as shown in fig. 2.

Seat ball in housing with blunt-nosed punch. Spray ball area with Loctite solvent No. 75559, then dry with compressed air. Cover ball with Loctite adhesive 290. Let adhesive cure approximately two hours and reinstall housing in vehicle.

C. On page 2L-32 under the subtitle "STEERING GEAR ASSEMBLY AND ADJUSTMENT," step (19) should be changed to read: Install end plug in rack piston. Tighten end plug to 75 foot-pounds (102 N • m) torque.

D. On page 2L-34 under the subtitle "WORM BEARING PRELOAD," step (3) should be changed to read: Measure counterclockwise one-half inch (13mm) from first index mark and remark housing. Refer to Figure 1.

E. On page 2L-35 under the subtitle "PITMAN SHAFT OVERCENTER DRAG TORQUE," step (1) should be changed to read: Loosen locknut, turn pitman shaft adjuster screw (counterclockwise) until fully extended, then turn it back (clockwise) one full turn. Step (7) should be changed to read: Tighten pitman shaft adjusting screw locknut to 20 foot-pounds (27 N•m) torque after adjusting overcenter drag torque.

IV. STANDARD SERVICING OPERATIONS MANUAL

In the October 9, 1978, printing at the bottom of page 2-08-5 is the operation description GEAR, POWER STEERING — ADJUST (ON-VEHICLE) with operation number 10290. DO NOT USE THIS OPERATION NUMBER.

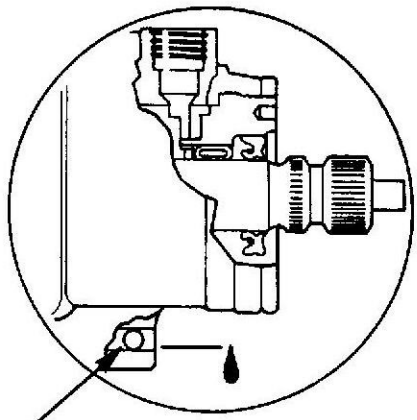

Fig. 2 Revised Steering Gear Leak Diagnosis and Corrective Action (View A)

The following operation and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
GEAR ASSEMBLY, POWER STEERING — R & R	**10.500**	**10310**	**WAG-CKE-TRK 83-93**	**0.6**	**0.6**	**0.6**	**G**
				0.8	**0.8**	**0.8**	
With snow plow — Add				**0.1**	**0.1**	**0.1**	
Gear assembly — Adjust	**10.959**	**A**		**0.2**	**0.2**	**0.2**	**G**
Gear assembly — Replace	**10.501**	**B**		**0.1**	**0.1**	**0.1**	**G**
Gear assembly — Overhaul	**10.502**	**C**		**1.2**	**1.2**	**1.2**	**G**
Adjuster Plug — Replace	**10.555**	**D**		**0.3**	**0.3**	**0.3**	**G**
Valve Body assembly — Replace	**10.615**	**E**		**0.5**	**0.5**	**0.5**	**G**
NOTE: *Combinations D and E include adjustment. Use combination C only as a separate operation.*							

9-008-10A/JC

Jeep

Diagnosis and Repair Bulletin

Subject: Rivnut Replacement	Application: 1977-1978 CJ Models Equipped With Front Stabilizer Bar	File: CHASSIS Steering and Suspension Group 10.000 No. 8-03 August 25, 1978

A procedure has been developed to replace loose or damaged Rivnuts used on 1977-1978 CJ Models equipped with a front stabilizer bar.

Service correction involves removing the Rivnut and installing a 3/8" x 1-1/2" SAE Grade 8 bolt and hardened nut.

The following parts are available through local jobbers. The quantities listed are required for each Rivnut replaced.

Description	Quantity	Part No.	Group
3/8" x 1-1/2" SAE Grade 8 Bolt	1	—	—
3/8" x 1" O.D. Flat Washer	2	—	—
3/8" Lock Washer	1	—	—
3/8" Hardened Nut	1	—	—

PROCEDURE

(1) Remove front stabilizer bar support bracket bolts and pull stabilizer bar and bracket away from frame (see Fig. 1).

(2) Using a cold chisel and hammer, remove head of damaged Rivnut by chiseling horizontally along bottom of frame rail.

NOTE: *When replacing the Rivnut closest to the front of the vehicle, partically remove the front stabilizer bar support bracket spacer by tapping it with a punch toward the center of the vehicle (see Fig. 1).*

(3) Run mechanics wire up through hole where Rivnut was located and out through elliptical hole located on top of frame approximately 3" rearward of Rivnut hole (see Fig. 2).

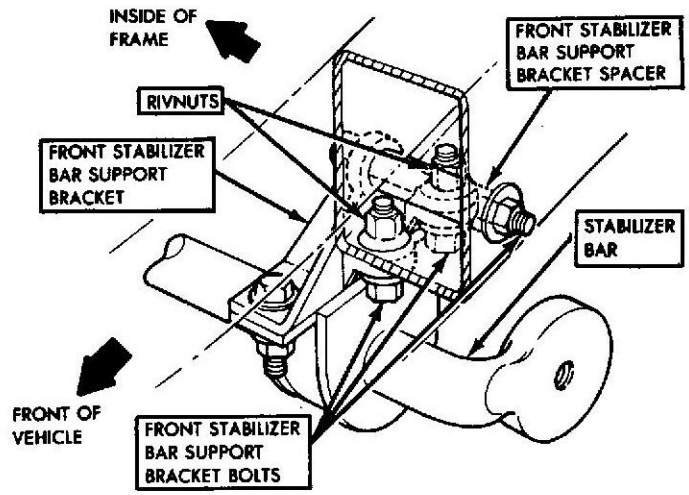

Fig. 1

(4) Attach a 3/8" x 1-1/2" SAE grade 8 bolt with a 3/8" x 1" O.D. flat washer to wire and pull shank of bolt through hole (see Fig. 2).

NOTE: *Leave wire attached to the bolt shank to help pull the bolt through the front stabilizer bar support bracket during installation.*

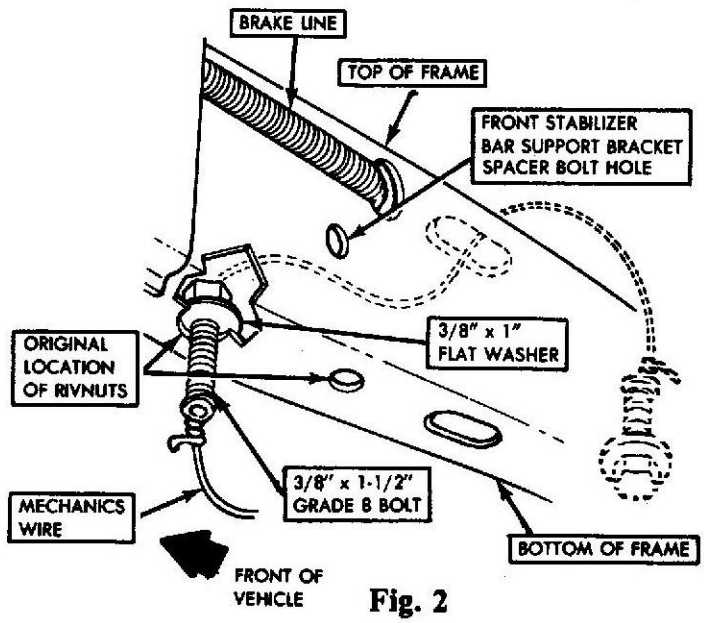

Fig. 2

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(5) Place a 3/8" x 1" O.D. flat washer in spot faced area of stabilizer bar support bolt hole in bracket and slide support bracket over exposed threaded area of bolt. Use wire which was attached to shank of bolt to help pull bolt through stabilizer support bracket. Install a 3/8" lock washer and hardened nut (see Fig. 3).

(6) Tighten nut to 3 ft./lbs. (41 Newton-meters) torque.

NOTE: *If bolt turns during tightening use a 1/2" crowfoot adapter on the torque wrench and hold the shank of bolt with a small pair of locking pliers.*

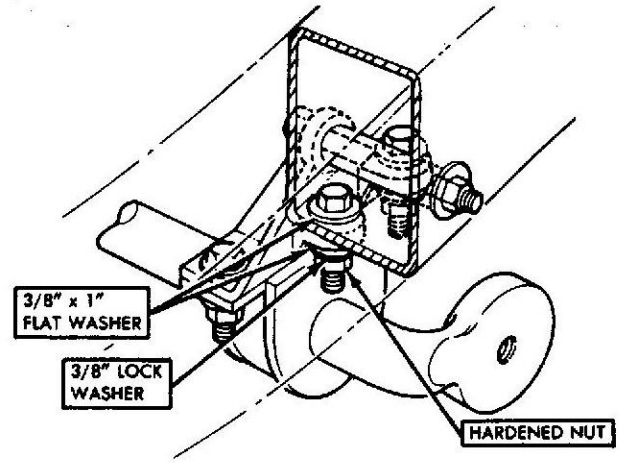

Fig. 3

The following operation and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME 77	78		SKILL LEVEL
RIVNUT, STABILIZER BAR	**10.260**	**10189**	**83-93**				**G**
One or Two – Replace				**0.5**	**0.5**		
Three – Add				**0.1**	**0.1**		
All – Add				**0.1**	**0.1**		

8-103-10J

Jeep

Diagnosis and Repair Bulletin

Subject: Sport Steering Wheel Skirt Replacement	Application: 1977-1978 Jeep Vehicles Equipped With Sport Steering Wheel	File: CHASSIS Steering, Suspension No. 8-02 July, 10, 1978

A replacement procedure has been developed for the sport steering wheel skirt used on 1977-1978 vehicles equipped with the sport steering wheel option.

The sport steering wheel skirt is available through the current Parts Catalog under Group No. 10.283-1 and can be installed as follows:

PROCEDURE

(1) Disconnect battery negative cable.

(2) Remove center horn button by lifting it up and pulling it out.

(3) Remove steering wheel nut and washer.

NOTE: *Check for alignment marks on steering shaft and steering wheel. Paint alignment marks on shaft and wheel if none are present.*

(4) Remove three horn button receiver retaining screws, remove receiver and plate. Use steering wheel puller J-21232 to remove steering wheel.

CAUTION: *Do not hammer on the end of the shaft. Hammering could shear or loosen the plastic retainers which maintain rigidity of the energy-absorbing feature of the column.*

(5) Remove steering wheel skirt by removing three retaining screws that hold center horn button receiver insulator.

(6) Color coat replacement skirt following procedures outlined in 1978 Jeep Technical Service Manual, Metal Repair and Painting, Page 3B-3, Volume 3.

(7) Install new skirt with three retaining screws that hold center horn button receiver insulator.

(8) Align steering shaft and steering wheel marks, and install wheel on shaft.

(9) Install plate, horn button receiver and bushing with three screws.

NOTE: *The horn button receiver cup has a notch cut in it which must be indexed to the 12 o'clock position when installing.*

(10) Install washer and nut and tighten nut to 25 foot pounds (34 N/M) torque.

CAUTION: *If for any reason a new steering shaft nut must be used, inspect and identify the shaft nut thread-type before installing the replacement nut. Metric shafts have an identifying groove in the shaft steering wheel splines and Metric nuts are color-coded blue for identification.*

(11) Install center-type horn button by indexing projection on rubber retaining ring with notch in cup and pushing cup down to engage ring.

(12) Connect battery negative cable.

(13) Reset clock if equipped.

The following operation and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78		
SKIRT, STEERING WHEEL, SPORT — REPLACE	**10.280**	**10251**		**0.3**	**0.3**		**M**

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Diagnosis and Repair Bulletin

No. 7-01

March 21, 1977

Subject: Momentary Delay in Power Steering Assist During Cold Start-Up	Application: All 1975, 1976 and 1977 Models With Power Steering	File: Group 10.000

Some owners of 1975, 1976 and 1977 Jeep vehicles equipped with power steering may complain of a momentary delay in power steering assist during cold start-up and drive-away. The owner may report that the condition occurs when making a right turn and when the ambient temperature is between 25 to 45 degrees Fahrenheit.

Service correction, on a complaint basis, involves replacing the valve body O-rings and seal rings using the following kit. This kit contains green colored seal rings which are the only ones that should be used.

NOTE: *Do not use old repair kit 3204833 containing white or tan colored seal rings. These rings do not provide an adequate seal.*

Description	Quantity	Part No.	Group
Kit, Power Steering Gear Valve Ring and Seal	1	8127720	10.625

PROCEDURE

(1) Remove steering gear as outlined in appropriate Technical Service Manual.

(2) Place steering gear assembly in a vise equipped with protective jaws.

(3) Remove adjuster plug locknut.

(4) Remove adjuster plug using Spanner Tool J-7624.

(5) Remove valve body assembly by pulling straight up on stub shaft.

(6) Carefully cut and remove seal rings and O-rings from valve body.

(7) Install replacement O-rings in oil ring grooves and lubricate with power steering fluid.

(8) Lubricate replacement seal rings with power steering fluid and install in oil ring grooves over O-rings.

NOTE: *The teflon seal rings may be slightly distorted. this condition is normal and straightening is not required. The seal rings will straighten themselves during operation of the steering gear.*

CAUTION: *Before installing valve body be sure stub shaft-to-worm gear O-ring is properly positioned. Replace O-ring if damaged.*

(9) Align notch in lower edge of valve body with drive pin in pinion shaft and install valve body in housing.

NOTE: *Be sure drive lugs on pinion shaft engage fully into slots in stub shaft cap. When valve body is correctly installed, fluid return hole in housing will be visable. If hole is not visable, pinion shaft is not seated, spool valve locating pins are misaligned or valve body stub shaft locating pins are misaligned. Correct as necessary.*

CAUTION: *Do not press on stub shaft to seat valve body. Press directly on valve body only.*

(10) Install adjuster plug in housing using Spanner Tool J-7624. Tighten plug until fully bottomed in housing.

(11) Adjust thrust bearing preload as follows:

(a) Using spanner hole in adjuster plug for reference, mark plug and housing.

(b) Measure back counterclockwise 3/16 to 1/4 inch from spanner hole reference mark and make a second mark on housing.

(c) Back adjuster plug off to second mark.

(12) Install adjuster plug locknut and tighten to approximately 80 foot-pounds torque.

(13) Install steering gear as outlined in appropriate Technical Service Manual.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				75	76	77	
SEALS, STEERING GEAR VALVE BODY – REPLACE ..... Includes R & R Steering Gear.	10.615	10.345	83-93	1.2	1.2	1.2	6
			WAG-CKE -TRK	1.0	1.0	1.0	6
With snow plow — Add.....				0.1	0.1	0.1	6

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Diagnosis and Repair Bulletin

Subject: Transmission Shift Cover Contacting Floorpan	Application: 1976, 1977, and 1978 Cherokee and Truck Models With 4-Speed Transmission	File: BODY Body General No. 8-01 December 16,1977

The transmission shift tower may contact the floorpan on the subject vehicles causing a noise similar to gear rattle to be transmitted into the passenger compartment. This interference problem will normally occur where the tower portion of the shift cover extends through the opening provided in the floorpan for the shift lever.

Service correction involves providing clearance between the shift tower and floorpan by removing a piece of the floorpan at the contact point.

NOTE: *Before proceeding with any transmission repairs involving a rattling type noise on the subject vehicles, it is advised that the vehicle be inspected for the described interference problem.*

PROCEDURE

(1) Using large screwdriver, disengage shift lever boot retainers from floorpan.

(2) Slide boot up shift lever.

(3) Check tower and floorpan for actual contact or for signs of contact such as chipped paint or shiny metal.

(4) If contact between floorpan and tower is not evident proceed with diagnostic procedures to isolate cause of noise. If contact is evident proceed to step (5).

(5) Remove a piece of floorpan large enough to provide a one inch (1″) clearance between floorpan and tower. Cutting operations may be done using an air chisel or by drilling a series of closely spaced holes and cutting with a sharp cold chisel (Fig. 1).

(6) Slide shift lever boot down into position and secure to floorpan with retainers.

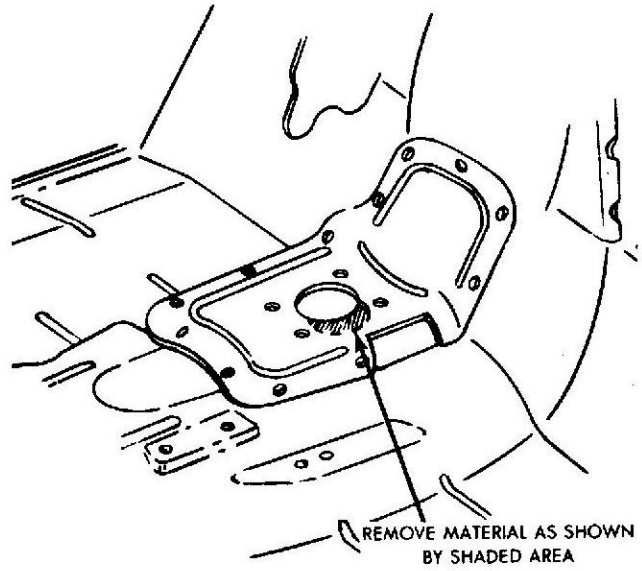

Fig. 1

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
FOUR-SPEED TRANSMISSION TO FLOORPAN CLEARANCE INSPECT . . .	**20.005**	**20.125**	**CKE-TRK**	**0.1**	**0.1**	**0.1**	**G**
Cut floorpan to provide clearance	**20.005**	**A**		**0.1**	**0.1**	**0.1**	**G**

8-025-BSJ

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Jeep

Diagnosis and Repair Bulletin

No. 7-06

April 6, 1977

Subject: Body-to-Rear Wheelhouse Strainer Pulled Loose	Application: 1976 and 1977 CJ-7 Models With Hardtop Enclosure	File: Body Section

On some 1976 and 1977 CJ-7 models with a hardtop enclosure the body-to-rear wheelhouse strainer may pull loose from the body panel.

Service correction involves removing and rewelding the strainer, repairing the body sheet metal, and painting as necessary.

PROCEDURE

(1) Disconnect battery negative cable.

(2) Remove seat belt retractor.

(3) Remove drivers seat and track assembly.

(4) Loosen wiring harness from body stays and move it aside.

(5) Fold back carpet, if equipped.

(6) Loosen roll bar, if equipped, and slide rearward to gain access to strainer-to-wheelhouse spot welds.

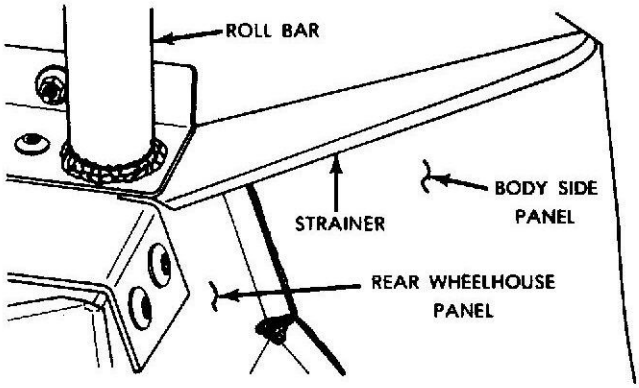
(7) Remove strainer by chiseling welds from wheelhouse panel and body side panel.

(8) Grind welds from body side panel and strainer. Straighten body side panel and strainer as required.

(9) Position strainer on outer body side panel and weld in place.

NOTE: *Make sure outer body panel is flat and straight.*

(10) Spot weld strainer to wheelhouse panel.



Body-to-Rear Wheelhouse Strainer

(11) Spot prime and color coat body side panel, strainer, and wheelhouse panel as necessary.

(12) Tighten wiring harness to body stays.

(13) Slide roll bar forward, if equipped, and tighten bolts to 25 foot-pounds torque.

(14) Reposition carpet, if equipped.

(15) Install drivers seat and track assembly. Tighten nuts and bolts to 15 foot-pounds torque.

(16) Install seat belt retractor. Tighten bolts to 45 foot-pounds torque.

(17) Connect battery negative cable.

The following operation and standard work times will apply.

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
STRAINER, BODY-TO-REAR WHEELHOUSE — REWELD ..... **Does not include spot prime and color coat. Refer to Paint Section of appropriate SSO manual.**	**20.125**	**20073**	**93**	**1.6**	**1.6**	—	**G**

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Jeep

Diagnosis and Repair Bulletin

No. 7-05

February 24, 1977

Subject: Water Leak Around Liftgate Hinges — Caused by Loose Hinges

Application: 1977 CJ-7 Models With Hardtop Enclosure — Built Prior to VIN J7XXXXX053859

File: Body Section

Some owners of 1977 CJ-7 models may complain of water leaks around the liftgate hinges. This condition may be caused by the hardtop portion of the liftgate hinges being loose. The hinges may be loose as a result of the screws bottoming against the tapping plate preventing them from fitting properly against the top.

Service correction involves removing the hinge-to-top attaching screws and installing the following shims between the hinge and the top.

Description	Quantity	Part No.	Group
Shim, Liftgate	2	8128568	28.572

PROCEDURE

(1) Remove hinge-to-top attaching screws.

(2) Position shims between hinge and top.

(3) Install screws.

(4) Check Liftgate operation.

The following operation and standard work time will apply.

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
SHIM, LIFTGATE HINGE — INSTALL.....	31.031	23335	93	0.2	—	—	M

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Jeep

SERVICE
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No. TB 2 — 7700 Series
11 — 7600 Series

Group: Body Section
Date: November 4, 1976

Subject: Seized or Binding Windshield, Door, or Tailgate Hinges—Caused by Rust or Corrosion—1976 and 1977 CJ-5 and CJ-7 Models Built Prior to VIN J7XXXXX014510

Windshield, door, or tailgate hinges on some of the subject vehicles may bind or become seized due to rust or corrosion as a result of the hinges not being properly lubricated during scheduled maintenance services.

To eliminate this condition improved hinges are being installed in production. The new windshield hinges are zinc phosphate coated and have an oil hole for improve lubrication. On CJ-7 models the tailgate and door hinges have a stainless steel hinge pin. The tailgate hinges also have an oil hole for improved lubrication.

When hinge replacement is necessary, on vehicles built prior to J7XXXXX014510, order the appropriate parts. The following parts will be available from your Parts Distribution Center the week of November 29, 1976. **Do not order parts before this date.**

Description	Model	Quantity	Part No.	Group
Hinge, Windshield — R.H.	CJ-5 (w/o Metal Encl.) CJ-7	1	5462424	25.005
Hinge, Windshield — L.H.	CJ-5 (w/o Metal Encl.) CJ-7	1	5462425	25.005
Hinge, Windshield — R.H.	CJ-5 (w/Metal Encl.)	1	5462426	25.005
Hinge, Windshield — L.H.	CJ-5 (w/Metal Encl.)	1	5462427	25.005
Hinge, Tailgate — L.H. & R.H.	CJ-7	1	5462416	23.006
Hinge, Door — R.H.	CJ-7	1	5462412	23.015
Hinge, Door — L.H.	CJ-7	1	5462413	23.015

NOTE: *Windshield, door and tailgate hinges should be lubricated with Lubriplate Part Number 5555 (or equivalent) every 15,000 miles for normal driving and every 5,000 for heavy duty driving.*

PROCEDURES

Windshield Hinge Replacement—CJ-5 and CJ-7

(1) Remove hinge(s) attaching screws using Torx Bit Tool J-25359.

(2) Clean replacement hinge(s) in suitable solvent and dry with compressed air.

(3) Color coat replacement hinge(s) to match body using Jeep exterior spray paint.

(4) Lubricate replacement hinge(s) with Lubriplate part number 5555, or equivalent.

(5) Position replacement hinge(s) on windshield frame and body and install attaching screw using Torx Bit Tool J-25359.

Tailgate Hinge Replacement CJ-7

(1) Remove hinge attaching screws using Torx Bit Tool J-25359.

(2) Clean replacement hinge(s) in suitable solvent and dry with compressed air.

(3) Color coat replacement hinge(s) to match body using Jeep exterior spray paint.

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(4) Lubricate replacement hinge(s) with Lubriplate part number 5555, or equivalent.

(5) Position replacement hinge(s) on body and tailgate and install attaching screws using Torx Bit Tool J-25359.

Door Hinge Replacement—CJ-7

(1) Mark outline of existing hinge(s) on body and door with a wax pencil.

(2) Remove hinge-to-body and hinge-to-door screws using Torx Bit Tool J-25359 and remove hinge(s).

NOTE: *Upper hinge is part of windshield hinge assembly. Be sure to support windshield frame before removing hinge and check alignment after installation.*

(3) Clean replacement hinge(s) in suitable solvent and dry with compressed air.

(4) Color coat replacement hinge(s) to match body using Jeep exterior spray paint.

(5) Lubricate replacement hinge(s) with Lubriplate part number 5555, or equivalent.

(6) Position replacement hinge(s) on door, align with wax pencil outline and install screws using Torx Bit Tool J-25359.

(7) Position replacement hinge(s) on body, align with wax pencil outline and install screws using Torx Bit Tool J-25359.

(8) Check door alignment. Adjust as necessary.

The Standard Servicing Operations and work times as published in the current SSO Manual are not affected by this bulletin.

Jeep

Diagnosis and Repair Bulletin

Subject: Moisture Entering Parking and Front Directional Signal Lamp Assembly	Application: 1976-80 CJ Models	File: BODY Body Electrical No. 80-2 Dec. 7, 1979

Some 1976-80 CJ models may have moisture entering the parking and front directional signal lamp assembly through the wire harness entrance into the upper side of the lamp housing.

Service correction involves repositioning the lamp housing and replacing the lens gasket or the lamp assembly if necessary.

The following parts are available if required:

Description	Quantity	Part No.	Group
LAMP, Assembly Parking and Front Directional Signal	AR	5461340	3.292
GASKET, Directional Lamp Mounting and Parking	AR	991400	3.292

PROCEDURE

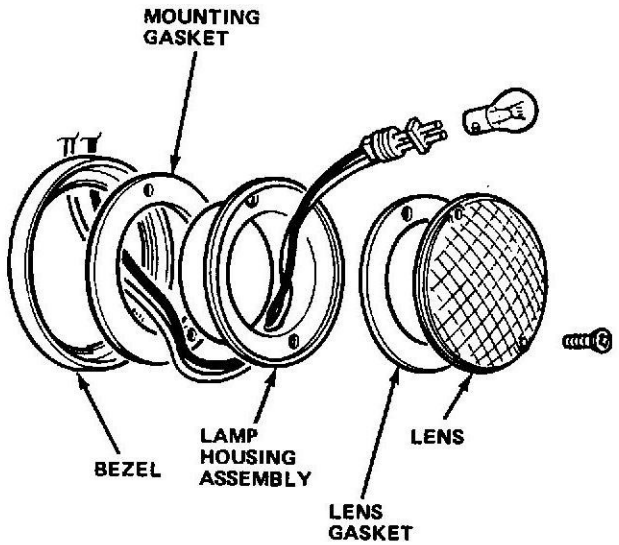
(1) Remove park and turn signal lamp assemblies from grille panel and inspect mounting gasket for any distortion. Replace gasket if distorted.

(2) Inspect internal bulb sockets for corrosion.

(a) If corrosion is not present, then continue procedure on existing assemblies.

(b) If corrosion is present, obtain replacement lamp and continue procedure.

(3) Apply chassis lubricant or dielectric compound, 8127445, to bulb socket to prevent corrosion.



Lamp Assembly and Gaskets

(4) Remove two screws that attach lens and gasket to lamp housing. Separate lens from lamp housing and gasket. Rotate housing and gaskets 180° so wires exit from bottom of housing and assemble lens to housing (see illustration).

(5) Install assembly (with new mounting gasket if required) to grille panel being careful not to strip screws.

NOTE: *Use locally procured oversized mounting screws if required.*

The following operations and standard work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME 76-80	SKILL LEVEL
LAMP ASSEMBLIES, PARK AND FRONT DIRECTIONAL SIGNAL— INSPECT AND/OR REPOSITION	3.292	3403	CJ	0.1	G
Replace (One or both)	3.292	A	CJ	0.1	G

80-032-BSA

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Diagnosis and Repair Bulletin

Subject: Tailgate Glass Defogger Wire Repair	Application: 1977-79 Wagoneer and Cherokee with Tailgate Glass Repair	File: BODY Body Electrical No. 9-01 June 7, 1979

If during a tailgate glass repair or during a tailgate glass defogger repair, if either the feed or ground wire for the defogger is found to be broken or chafed adjacent to the tailgate glass lower channel, it can be repaired.

Service correction involves removing any excess tailgate glass-to-channel sealer that would interfere with the correct routing of the feed or ground wire(s), soldering the broken wire, covering the soldering joint with heat shrinkable tubing and securing the repaired wire(s) to the lower glass channel with a nylon strap.

The following parts are available and required:

Description	Quantity	Part No.	Group No.
KIT, Rear Window Defogger	1	8129876	3.774

PROCEDURE

(1) Remove tailgate glass and channel assembly as outlined in appropriate Jeep Technical Service Manual.

(2) If wire(s) requiring repair is not broken, remove nylon strap and cut wire(s) adjacent to tailgate glass lower channel (see fig. 1).

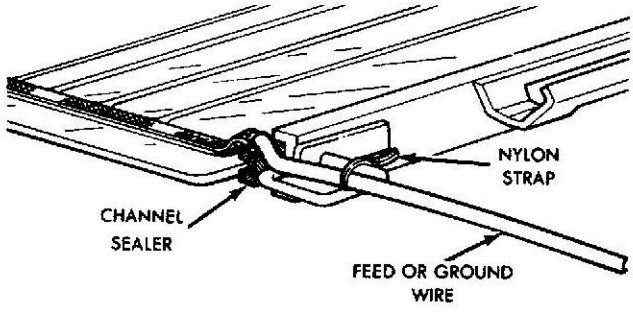

Fig. 1 Defogger Wire Interference

(3) Remove any excess channel sealer that protrudes from end of channel (see fig. 2).

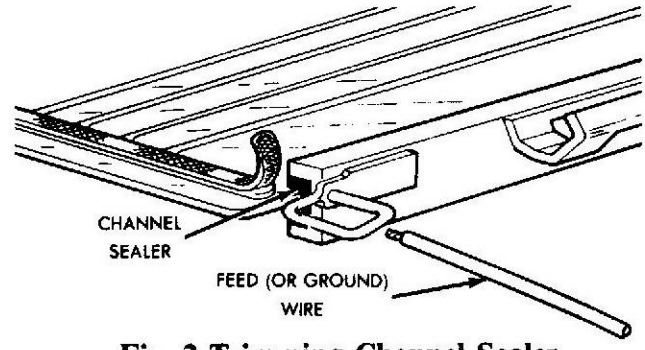

Fig. 2 Trimming Channel Sealer

(4) Clean both ends of wire(s) where cut or broken.

(5) Trim insulation from feed or ground wire(s) to expose approximately 1/4 inch of bare wire.

(6) Slide heat shrinkable tubing over feed or ground wire(s).

NOTE: *Use 60/40 solder or equivalent such as Eutec Rod 157B for this solder joint.*

(7) Solder feed or ground wire(s) to braided strap keeping joint as small as possible. Be sure solder joint is as close as possible to glass.

(8) Slide heat shrinkable tubing over the solder joint(s) (see fig. 3).

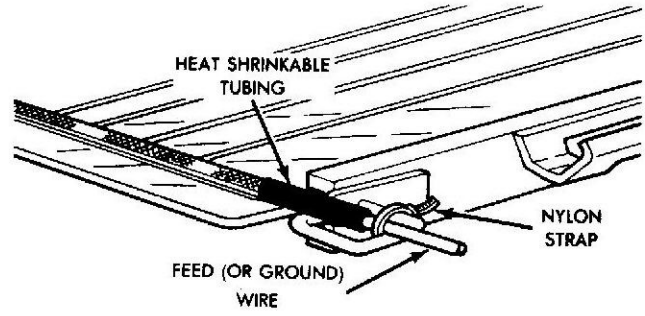

Fig. 3 Tailgate Glass With Defogger Wire In Position

(9) Shrink tubing with low heat soldering gun.

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(10) Secure feed or ground wire(s) with nylon strap to inside of square loop located on channel.

(11) Install tailgate glass and channel assembly as outlined in appropriate Technical Service Manual.

The following operation and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
GLASS, TAILGATE — R & R	**25.127**	**25150**	**WAG-CKE**	**0.4**	**0.4**	**0.4**	**G**
Replace	**25.127**	**A**		**0.1**	**0.1**	**0.1**	**G**
Wire, Defogger — Repair							
One side	**3.807**	**B**		**0.1**	**0.1**	**0.1**	**G**

9-086-BSJ

Diagnosis and Repair Bulletin

Subject: Windshield Wiper Motor Disassembly and Assembly Procedure Supplementary Technical Service Manual Information	Application: 1974,1975, 1976, 1977, and 1978 Jeep Wagoneer, Cherokee, and Truck Models	File: BODY Body Electrical Group 3.000 No. 8-06 March 31, 1978

This bulletin is being issued to supplement the listed model-year Technical Service Manual procedures pertaining to windshield wiper motor disassembly and assembly. The supplementary information includes the following:

(1) An additional Troubleshooting in Vehicle diagnosis procedure for worn-out wiper motor gears.

(2) Wiper motor disassembly and assembly which includes wiper motor gear replacement.

(3) Standard Servicing Operations update.

DIAGNOSIS PROCEDURE

When the windshield wiper motor gear wear-out is suspected, check under the dash at the motor to insure the linkage is properly attached. If the linkage is intact, turn the ignition to the *on* position, then turn the wiper motor on and listen for the noise of the motor running. If the wiper motor runs, but does not move the linkage, gear replacement is the recommended repair. If the wiper motor does not run, refer to the Troubleshooting Procedures in the appropriate Technical Service Manual.

The following parts are listed and available through the Parts Catalog; however, the current supply of Drive Gear Kits is exhausted. Do not order parts until after March 27, 1978.

Description	Quantity	Part No.	Group
Drive Gear Kit	1	941916	22.031

DISASSEMBLY AND ASSEMBLY PROCEDURE

(1) Disconnect battery ground cable.

(2) Manually place the wiper arms in Park position on windshield.

(3) Disconnect wiper drive link from crank under instrument panel.

(4) Disconnect motor wires at motor under hood.

(OVER)

(5) Remove wiper motor-to-dash panel mounting screws and remove motor.

(6) Clamp crank arm in vise and loosen crank arm retaining nut, remove nut and arm from motor.

(7) Remove seal cap, retaining clip, and end plate washer.

(8) Punch out gear box cover retaining rivets and remove cover and gear train.

NOTE: *Mark ground strap location for reassembly.*

(9) Repack cover with a waterproof grease, part number 8991416 or equivalent.

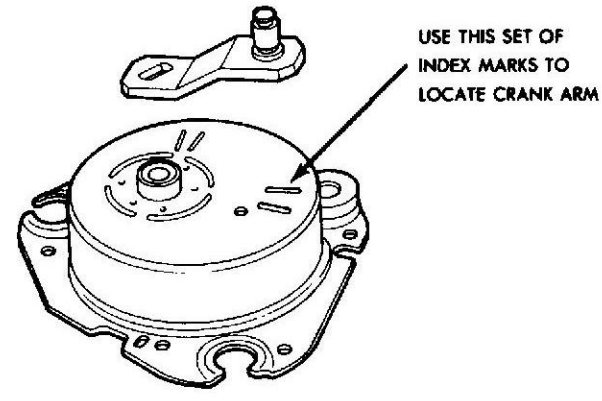
(10) Install gear and pinion over terminal board shaft.

(11) Install gear and shaft in gear train cover.

(12) Install washer and retaining clip.

(13) Install seal cap and crank arm on shaft. Do not secure arm.

(14) Make sure motor linkage is in Park position. Line crank arm up with the identification marks on cover (see illustration).



CRANK ARM ALIGNMENT

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(15) Place gear train cover over dowel pins and secure cover. Be sure cover is located properly over locating dowel pins.

(16) Clamp crank arm in vise and secure crank arm nut.

(17) Position motor on dash panel and install mounting screws.

(18) Connect motor wires to motor.

(19) Connect wiper drive link to motor crank.

(20) Connect battery ground wire.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME					SKILL LEVEL
				74	75	76	77	78	
MOTOR, WINDSHIELD WIPER– R & R	**22.027**	**22010**	**WAG-CKE-TRK**	.3	.3	.3	.3	.3	G
Gear Set — Replace.....		B		.3	.3	.3	.3	.3	G

8-035-BSJ

Diagnosis and Repair Bulletin

Subject: Electric Tailgate Window Regulator Pinion Gear Shaft Loose	Application: 1974, 1975, 1976, 1977 and 1978 Wagoneer and Cherokee Models With Electric Tailgate Window	File: BODY Body Electrical (1977 and Prior Group 3.000) No. 8-04 October 13, 1977

If the electrically operated tailgate window, on one of the above vehicles, is inoperative and the problem is caused as a result of a loose pinion gear shaft on the window regulator, it is no longer necessary to replace the window regulator.

Effective repairs can be made, providing the gear teeth are not damaged, by restaking and welding the pinion gear shaft in accordance with the following procedure.

PROCEDURE

(1) Lower tailgate window.

(2) Open tailgate.

(3) Remove tailgate carpet and access cover.

(4) Remove retainers attaching regulator arms to channel.

(5) Disengage regulator arm pins from channel.

(6) Support window glass in raised position.

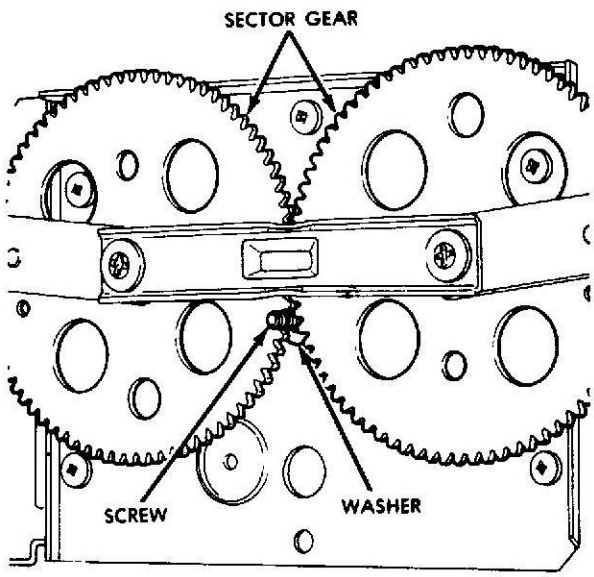

Fig. 1 Locking Electric Operated Window Regulator Gears

WARNING: *Regulator spring tension MUST be retained before removing motor and drive unit from regulator.*

(7) Install a 1/4 inch by 1 inch screw, with flat washer, between the sector gear teeth (Fig. 1).

(8) Remove motor attaching screws and slide motor from under regulator.

(9) Remove regulator attaching screw and regulator. If attaching screws are not accessible, proceed as follows:
(a) Grasp regulator arm as far outboard as possible.
(b) Push downward on arm until sector gear holes align with attaching screw.
(c) Hold regulator arm down and insert screw between sector gear teeth.
(d) Remove regulator attaching screws and regulator.

(10) Clean regulator in solvent and dry with compressed air.

(11) Wire brush area around pinion gear shaft.

(12) Stake pinion gear shaft in position.

(13) Tack weld pinion gear shaft in three places (Fig. 2).

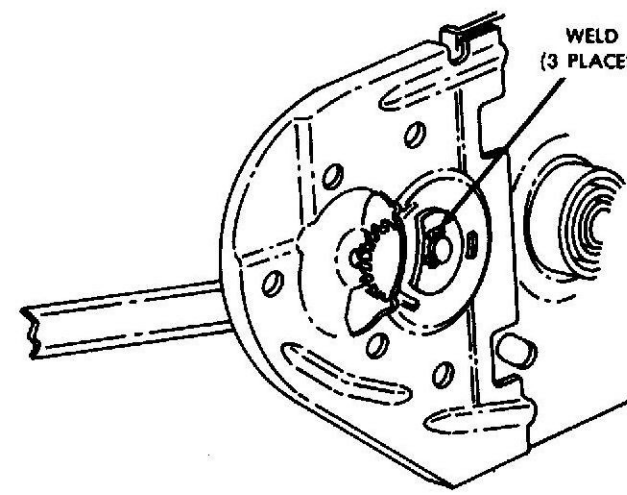

Fig. 2 Pinion Gear Shaft Weldment

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(14) Clean welded area using a wire brush.

(15) Paint welded area using black AMC/Jeep spray paint, part number 8990636, or equivalent.

(16) Lubricate regulator pinion gears and sector gears with Lubriplate Multi-Purpose grease, or equivalent.

(17) Install regulator in tailgate.

(18) Install regulator motor.

(19) Remove screw from between sector gear teeth.

(20) Engage regulator arm pins to channel.

(21) Install retainers attaching regulator arm to channel.

(22) Install tailgate window.

(23) Install tailgate access cover and carpet.

(24) Close tailgate.

(25) Raise tailgate window and check for proper operation.

The following operations and standard work times will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME					SKILL LEVEL
				74	75	76	77	78	
REGULATOR, ELECTRICAL TAILGATE WINDOW — REPAIR	**23.306**	**23393**	**WAG-CKE**	**0.8**	**0.8**	**0.8**	**0.8**	0.8	**G**

8-006-BSJ

Jeep

Diagnosis and Repair Bulletin

Subject: Broken Electrical Connector—Tailgate Window Motor	Application: 1974, 1975, 1976, 1977, and 1978 Wagoneer and Cherokee Models With Electrically Operated Tailgate Window	File: BODY Body Electrical (1977 and Prior Group 3.000) No. 8-03 October 13, 1977

If the electrically operated tailgate window, on one of the above vehicles, is inoperative and the problem is caused as a result of a broken electrical connector on the motor, it is no longer necessary to replace the motor.

Effective repairs can be made by cutting the female connector from the wires, installing two quick connect terminals and filling the connector cavity on the motor with a sealer. The following parts will be required.

Description	Quantity	Part No.	Group
Sealer Gasket-in-a-Tube	AR	8993317	15.260
Terminal 1/4 Inch Quick Connect	2	—	—

PROCEDURE

(1) Lower tailgate window.

(2) Open tailgate.

(3) Remove tailgate carpet and access cover.

(4) Raise tailgate window, using safety switch.

(5) Loosen window regulator screw.

(6) Remove motor from window regulator.

(7) Disconnect female connector from motor.

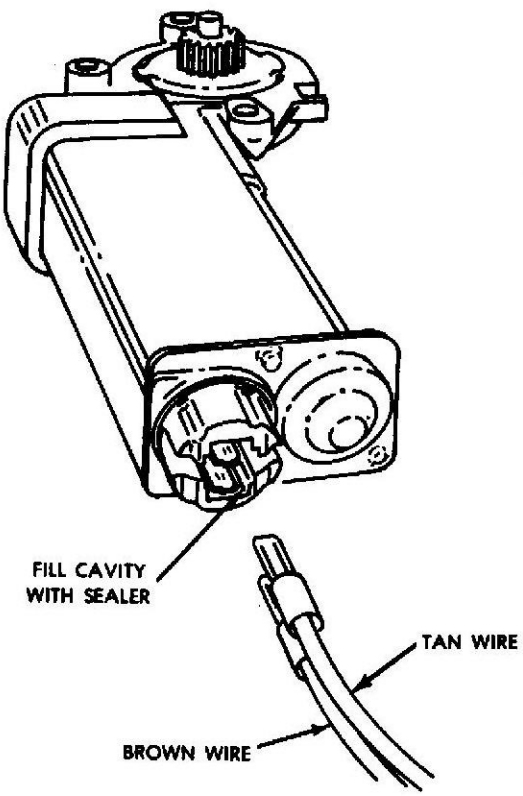
(8) Cut off wires at female connector.

(9) Strip ends of both wires.

(10) Attach 1/4 inch quick connect female terminal to each wire.

(11) Connect tan wire to upper motor terminal (see illustration).

(12) Connect brown wire to lower motor terminal (see illustration).



Electric Tailgate Window Motor

(13) Fill motor connector cavity with Gasket-in-a-Tube Sealer, part number 8993317, or equivalent (see illustration).

(14) Install motor on window regulator.

(15) Tighten window regulator screw.

(16) Install tailgate access cover and carpet.

(17) Lower tailgate window, using safety switch.

(18) Close tailgate.

(19) Check tailgate window for proper operation.

(OVER)

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The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME					SKILL LEVEL
				74	75	76	77	78	
MOTOR, TAILGATE WINDOW — REPAIR	**23.310**	**23391**	**WAG-CKE**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**G**

7-083-BSJ

Diagnosis and Repair Bulletin

Subject: Cracked Headlamp Bulb	Application: 1977 and 1978 CJ-5 and CJ-7 Models Built Between VINs J7XXXXX108715 and J8XXXXX013665	File: BODY Body Electrical (1977 Group Body Section) No. 8-01 September 27, 1977

If a sealed beam headlamp unit is reported to be cracked on a CJ-5 or CJ-7, built between the above VINs check to be sure that the lamp was positioned in the shell properly. When replacing the unit, make sure that the shell lances align properly with the bosses on the lamp. If an interference between one of the shell lances and the lamp bosses is encountered, correct the condition as outlined in the following procedure.

PROCEDURE

(1) Remove headlamp door.

(2) Remove headlamp retaining ring.

(3) Remove and discard cracked bulb.

(4) Position replacement bulb in shell and check for proper alignment.

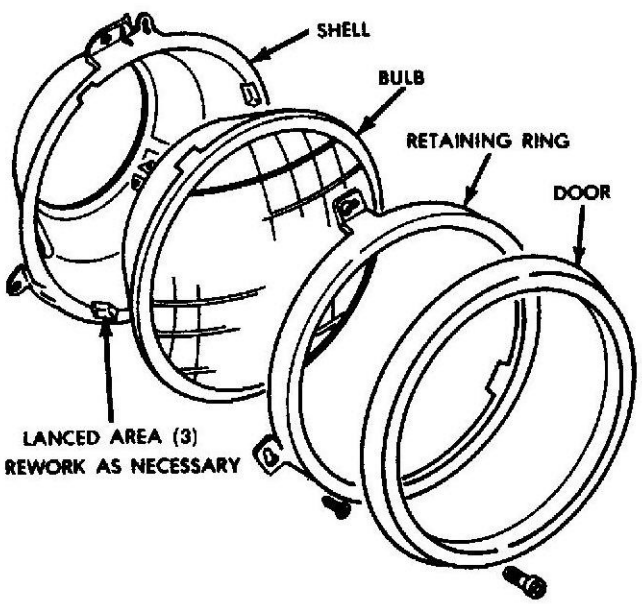
(5) File lanced area of shell that interferes with bosses of bulb (see illustration).

(6) Install headlamp bulb.

(7) Install headlamp retaining ring.

(8) Aim headlamp(s).

(9) Install headlamp door.



The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
SHELL, HEADLAMP — REWORK	**3.245**	**3373**	**83-93**	**0.2**	**0.2**	—	**M**
Both Headlamps — Add				**0.1**	**0.1**	—	
Includes aiming headlamps							

8-002-BSJ

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Jeep

Diagnosis and Repair Bulletin

No. 7-04

April 21, 1977

Subject: Off-Road Driving Lamp Kit - Installation and Aiming Procedures	Application: 1977 J-10 Truck Models With Golden Eagle Trim Package	File: Group 3.000 Electrical

This bulletin is being issued to provide the necessary instructions for installing and aiming the off-road driving lamp kit used on J-10 truck models with the Golden Eagle trim package.

The following off-road driving lamp kit will be shipped directly from the manufacturer to the dealer for installation on the vehicle.

Description	Quantity	Part No.	Group
Kit, Off-Road Driving Lamp	1	8997207	15.162

Each kit contains:

Description	Qty.	Description	Qty.
Lamp, 12 volt with Cover	2	- Bushing, Strain Relief	2
Kit, Wiring Consisting of:	1	- Switch, Rocker	1
		- Bracket, Switch	1
- Wire, Black - 6 inches	1	- Screw, Bracket	2
- Wire, Red - 18 inches	1	- Connector, 3-Way Butt	1
- Wire, Brown - 12 inches	1	- Tie, Cable	6
		- Holder, Fuse	1
- Wire, Yellow - 6 inches	1	- Fuse, 20 AMP	1
- Wire, Yellow - 25 feet	1	- Terminal, Spade Female	1
		- Instruction Sheet	1

NOTE: *For missing or damaged items contact the kit manufacturer direct:*

CIBIE Lights - EFPE Company
33195 Harper Street
St. Clair Shores, Michigan 48082

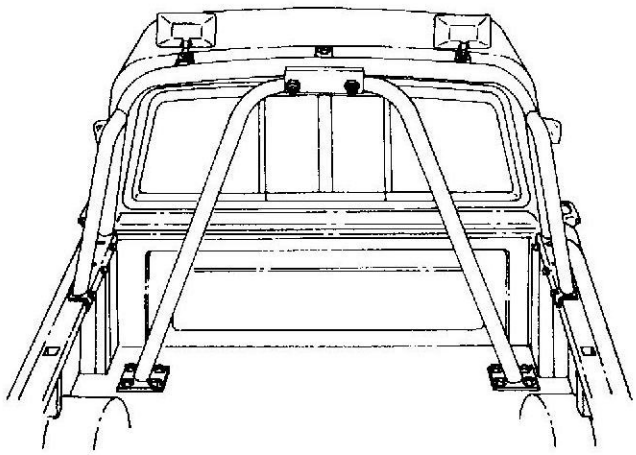

Fig. 1 Off-Road Driving Lamp Kit (Installed)

PROCEDURE

Installation

(1) Position driving lamps on roll bar mounting brackets and tighten nuts (Fig. 1).

(2) Attach end of 25 ft. yellow wire (terminal end) to a snake wire.

NOTE: *A suitable snake wire can be fabricated by joining the ends of 3 or 4 lengths of welding rod together.*

(3) Insert snake wire (with yellow wire attached) into bottom left corner of pick-up box and feed through stake box section and into roll bar. Continue snaking wire through roll bar until end of wire reaches access hole in underside of roll bar at right hand lamp (Fig. 2).

(4) Remove snake wire and attach terminal end of yellow wire to right hand lamp.

(5) Insert bushing in right hand access hole of roll bar.

(6) Pull a loop of wire from left hand access hole in roll bar.

(7) Cut wire loop and strip ¼ inch of insulation from each end (Fig. 3).

(OVER)

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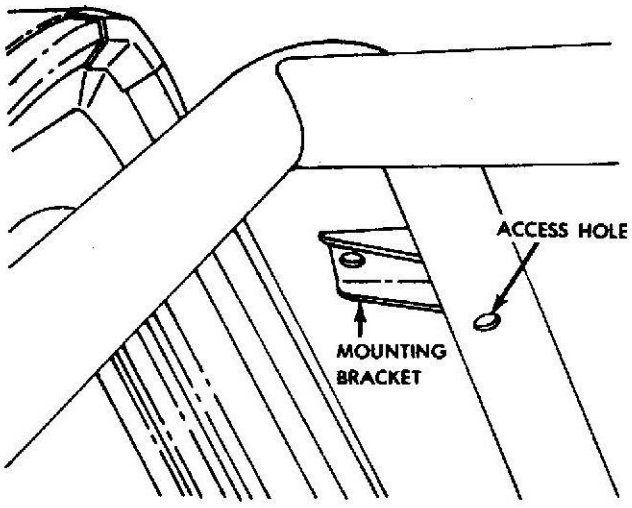

Fig. 2 Roll Bar Access Hole (L. H. Shown)

(8) Connect terminal end of 6 inch yellow wire to left hand lamp.

(9) Strip ¼ inch of insulation from other end of 6 inch yellow wire.

(10) Insert both ends of yellow wire from roll bar and 6 inch yellow wire from lamp into 3-way butt connector and crimp securely.

(11) Puch 3-way connector and wires into left hand access hole in roll bar.

(12) Insert strain relief bushing into left hand access hole.

(13) Route yellow wire extending from pick-up box along inner side of left frame rail to engine compartment.

(14) Route wire up dash panel (firewall) and through heater vacuum control hose grommet into passenger compartment.

(15) Drill a ½ inch diameter hole in lower instrument panel 2-½ - to - 3 inches left of fresh air vent knob.

(16) Install fuse holder (Fig. 4).

(17) Drill two 1/8 inch holes under instrument panel, below fuse holder. Use rocker switch as template.

NOTE: *On vehicles equipped with air conditioning locate switch holes left of discharge duct.*

(18) Install rocker switch (Fig. 4).

(19) Attach one end of 12 inch brown wire to positive (+) terminal of rocker switch. Attach other end to straight side terminal of fuse holder.

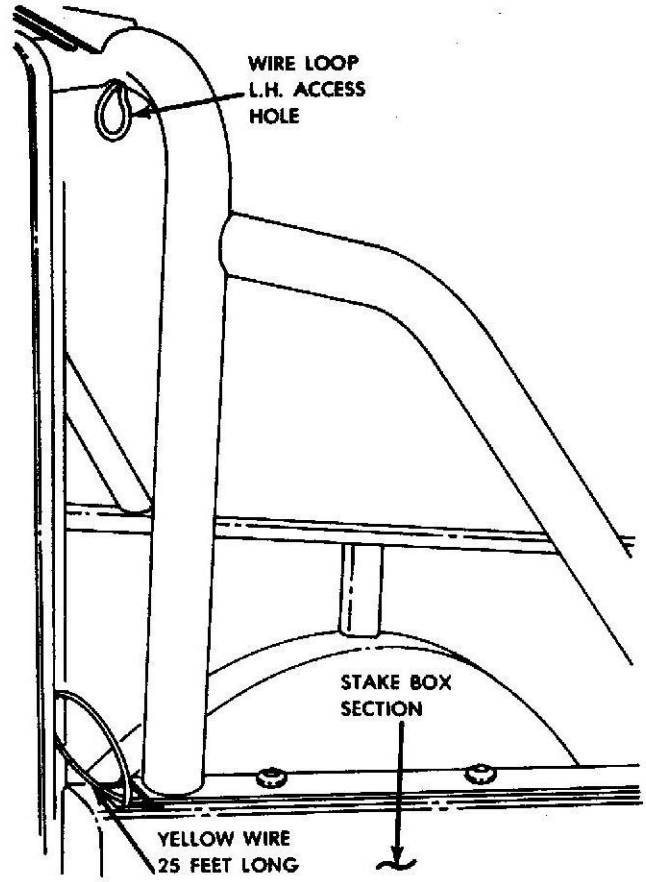

Fig. 3 Roll Bar Wire Routing

(20) Attach one end of 6 inch black wire to negative (-) terminal of rocker switch. Attach other end to steering column collar trim screw or other suitable ground.

(21) Route yellow wire from lamps to rocker switch and cut off excess.

(22) Strip ¼ inch of insulation from yellow wire, install female spade terminal and crimp.

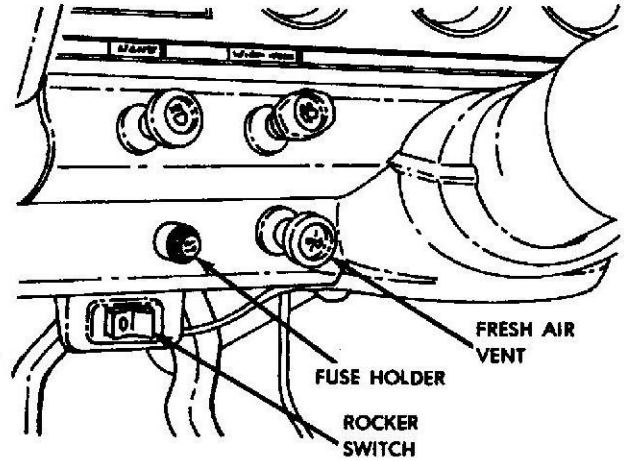

Fig. 4 Fuse Holder and Switch Location

(23) Attach female spade terminal to remaining terminal on rocker switch.

(24) Attach one end of 18 inch long red wire to fuse block terminal above "transmission kickdown" fuse. Attach other end to center terminal of fuse holder.

(25) Secure all loose wire using cable ties.

(26) Install 20 amp fuse in fuse holder, remove lamp covers and check lamp operation.

NOTE: *Lamps are switched through ignition switch and will only operate when ignition switch is in on position.*

Aiming Lamps

(1) Position vehicle on a flat level surface, facing and approximately 25 feet from a wall.

(2) Remove lamp covers.

(3) Loosen lamp attaching bolts. Turn ignition switch and lamp switch on, adjust beams as follows:

(a) Horizontal distance between light beams on wall should be same as distance between lamps on roll bar.

(b) Vertical height of light beams on wall should be 1 inch less than installed height of lamps on roll bar.

(4) Tighten lamp attaching bolts.

(5) Turn off ignition switch and lamp switch.

(6) Install lamp covers.

NOTE: *On vehicles sold in California the fuse must be removed from the fuse holder for street use.*

The following standard servicing operations and work times apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78	79	
LAMPS, OFF-ROAD DRIVING—INSTALL..... Includes aiming lamps	15.162	15.659	TRK	1.0	—	—	G

Jeep.

Diagnosis and Repair Bulletin

Revised
No. 7-01
January 14, 1977

Subject:
Citizens Band (CB) Mobile Radio and Antenna Diagnosis Procedures

Application:
1976 and 1977 Models

File: Group 15.000

Warranty Reporting Codes have recently been assigned to cover the Standard Servicing Operations of this bulletin. This bulletin is being revised to include the WRC information. Remove and discard DRB 7-03, dated December 23, 1976, File: Service General and file this revised bulletin in Group 15.000 of your 1977 DRB binder.

This bulletin is to provide information for the diagnosis of citizens band mobile radios and antennas.

CB RADIO INSTALLATION INFORMATION

There are many different manufacturers of CB radios, always use manufacturers instructions when installing a CB radio. However, the following general information should be helpful for a good trouble free installation.

- A CB radio should not be located in direct line with heater duct, it must have sufficient circulating air to prevent heat build-up.
- CB radios require a current supply of at least 1.5 amperes and a minimum of 12 volts. Maximum voltage should not exceed 16 volts (for circuitry protection). The power supply should be taken from a source that has voltage available with the key in the accessory position.
- When splicing leads, be sure to solder connections. If the power supply lead must cross an alternator lead, cross the alternator lead at a right angle.
- Do not use wire smaller than 18 gauge stranded copper wire. Never use solid wire.
- Current protection for the radio is an in-line 2 ampere fuse. Do not bypass the in-line fuse.
- Some CB radios do not have a ground wire and must be grounded through the mounting bracket. Do not use coaxial cable shielding for radio chassis ground. An extra ground wire is recommended to prevent loss of ground due to a loose mounting bracket or a poor antenna ground.

WARNING: ***Do not key (operate) the microphone until the antenna has been connected to the radio.***

CB ANTENNA INSTALLATION INFORMATION

Receiving and transmitting range of a CB radio is affected by the antenna height. The higher the antenna, the longer the range. The following rules apply generally to the various types of antennas available.

- A top loaded antenna may provide a greater range but is more susceptible to damage. If a loading coil is broken, it is the same as operating without an antenna and may seriously damage the radio.
- The use of twin antennas should be avoided unless they are installed at their designed separation. Twin antennas designed to operate at an 8 foot separation will result in reduced performance if mounted at a 5 foot separation. When installing twin antennas, the coaxial cable to each antenna must be of equal length.
- Be sure the antenna base has a good ground. This is necessary to shield the antenna from vehicle induced noise interference. For magnetic base antennas, the coaxial cable shielding provides the ground through the radio chassis. If the antenna has a threaded base, coat the threads of the adapter or mast with a silicone electrical grease. AMC part number 8127445 (or equivalent). Antennas should be installed as vertically as possible.
- A CB antenna cannot be tested the same as an AM or FM antenna. Most CB antennas have a shunt to ground. Due to the costly equipment necessary to check a CB antenna, it is suggested that a known good antenna be used as a check against a suspected defective antenna.
- Do not allow the coaxial cable to become crushed. Route cable underneath scuff plates rather than under the carpet.

USING A VSWR (VOLTAGE STANDING WAVE RATIO) METER

When installing a radio or antenna, a VSWR meter must be used. If the antenna is relocated on the vehicle, a VSWR check should be performed.

VSWR is a measurement of the magnetic fields which reflect back into the antenna, this causes an increase in the VSWR reading. Besides limiting the range of the transmitter, this also causes a heat build-up which can damage the transmitter circuitry. A perfect VSWR reading is 1.0. Any reading between 1.0 and 1.5 is excellent. A reading above 2 is excessive and may require antenna relocation or height adjustment. VSWR readings can vary depending upon atmospheric conditions. VSWR can also vary with respect to surrounding objects that affect reflection or conductivity.

(over)

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upon atmospheric conditions. VSWR can also vary with respect to surrounding objects that affect reflection or conductivity.

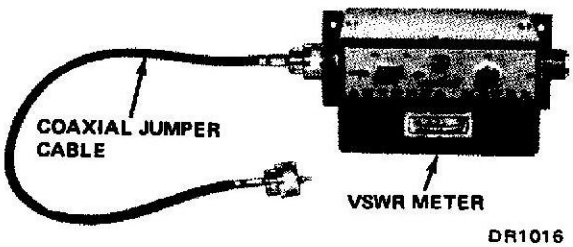
TUNING THE ANTENNA

Use of a VSWR meter is required and a 50 ohm dummy load is recommended.

The antenna wavelength should be adjusted for each channel for peak performance. As this is impractical, a channel near the middle of the 23 channels is selected for optimum performance (this is also adequate for the remaining channels). If the majority of transmitting is on one particular channel, the antenna should be adjusted for that channel. Trim the antenna as follows:

(1) Disconnect coaxial cable from radio.

(2) Connect a jumper coaxial cable from radio to TXWR connection on VSWR meter (Refer to illustration). Jumper should not exceed 18 inches.



Voltage Standing Wave Ratio Meter

(3) Connect a 50 ohm dummy load to VSWR meter antenna connection. Radio will not transmit with a dummy load.

(4) Turn radio on and turn selector to channel 12.

(5) Move VSWR switch to forward position and key mike. Calibrate meter to "set" position while keying mike. As soon as meter is calibrated to "set" position, release mike key.

(6) Move VSWR switch to reverse position and key mike again. Observe meter and release key, needle should barely move. If meter indicates more than .01 VSWR, there is a problem in jumper harness or meter.

(7) Remove dummy load and connect antenna cable to VSWR meter.

CAUTION: *Do not talk into mike while making VSWR readings.*

(8) Move VSWR switch to forward position and recalibrate meter. Move VSWR switch to reverse position and read meter. Meter should indicate 1.5 or less. If reading is 1.5 or less, remove VSWR meter, connect antenna cable to radio and installation is complete. If a reading greater than 1.5 is indicated, recheck cable connections including antenna mount. A reading of 2 is not harmful and could be due to climatic conditions. Move vehicle to a different location and retest.

NOTE: *Although you are not talking while checking VSWR, a carrier signal is being transmitted which can wipe out another persons transmission. Try to pick a time when the channel is not in use to check VSWR.*

(9) If ground and cable connections are good, antenna must be adjusted up or down to achieve a VSWR of 1.5 or less. Some antennas have a ball which may be moved up or down the mast or mast may be moved up or down in the mounting base. A socket head screw is used to secure ball or mast in position.

(10) To determine if an antenna should be moved up or down, use a VSWR meter:

(a) Turn to channel 23, calibrate meter, and record reading.

(b) Turn to channel 1, calibrate meter, and record reading. Compare two readings.

(c) If VSWR is best at channel 1, shorten the antenna. If VSWR is best at channel 23, lengthen antenna.

(11) Move antenna or ball in proper direction 1/8 inch at a time until lowest VSWR reading is obtained. Each time antenna length is changed, the VSWR meter must be recalibrated.

NOTE: *VSWR meter can only be calibrated in forward position.*

When checking VSWR on different channels, meter must be recalibrated for each channel.

(12) If VSWR reading cannot be brought below 2, try moving antenna to another location (an inch or two may be enough). If another antenna is tried, previous antenna must be removed as closeness of two antennas has a great effect even if one antenna is not connected.

RADIO DIAGNOSIS
(Refer to Troubleshooting Guide)

(1) Obtain information from owner on complaint. Visually inspect antenna and cable for damage.

(2) Turn radio on. Dial light must light. If no light, check for voltage at power supply.

(3) Disconnect antenna from radio. Connect VSWR meter to radio. Connect 50 ohm dummy load to VSWR meter or reconnect antenna to VSWR meter.

WARNING: *If a defective antenna is suspected, make transmission time extremely short when checking VSWR.*

(4) Key mike. If needle on VSWR meter does not move (meter switch in forward position), radio is defective and must be removed for service. Wiggle mike cord while keying mike to be sure problem is not in mike cord.

RADIO AND ANTENNA TROUBLE SHOOTING GUIDE

CONDITION	POSSIBLE CAUSE	CORRECTION
Radio does not transmit or receive	1. Power supply open	1. Check fuse and point of supply
	2. Chassis not grounded	2. Add ground wire, check mount connections, ground wire termination
	3. Fuse blown	3. Check for proper size fuse (2 amp)
	4. Volume control knob fully counterclockwise	4. Read operating instructions
Dial lights—little or no noise from speaker	1. Antenna system disconnected	1. Check all connections. Install test antenna and recheck
	2. Squelch knob too far clockwise	2. Read operating instructions
	3. Object broken or lodged in external (PA) speaker	3. Remove object
Cannot transmit	1. Defective antenna	1. Install test antenna and retest
	2. Damaged antenna cable	2. Repair or replace cable. Check cable routing
	3. Defective microphone	3. If microphone is not detachable—remove radio for service. Install test microphone if mike is detachable
	4. Panel meter shows no movement	4. Remove radio for service
	5. PA-CB switch in PA	5. Move switch to CB position
Dial light does not light—Radio functions normally	1. Defective bulb	1. Replace bulb
Can receive but cuts in and out. Dial lights flickers.	1. Poor connection to power supply	1. Check fuse connection. Wiggle wires. Splices may require resoldering. Wires may require rerouting
Receiving only very nearby stations	1. Poor antenna match	1. Check VSWR. Check for corroded antenna lead
	2. Defective radio	2. Check with known good radio connected to original antenna
S-meter moves	1. Squelch turned up too high	1. Read operating instructions
	2. Defective speaker	2. Remove radio for service
Does not transmit, receiver does not cut out when mike is keyed	1. Damaged mike or mike cord	1. If mike cord is not detachable, remove radio for service If detachable—replace mike
Transmits a carrier but no modulation	1. Defective mike	1. Replace mike
One or more channels not operating	1. Dirty channel selector switch	1. Remove radio from chassis, spray switch with TV switch cleaner
	2. Crystals or oscillator defective	2. Remove radio for service
Fuse blows when transmitting	1. Defective radio	1. Remove radio for service
	2. Radio not grounded and antenna has lost its ground	2. Add ground wire to radio chassis. Tighten antenna mount
Squeal when transmitting	1. Loose wire in mike or cord	1. Repair mike or remove radio for service
	2. Improper use of power mike	2. Use less power

(5) Attempt radio contact with another unit. If VSWR meter did not show any problem but reception or transmission is unsatisfactory, install a known good test antenna and check radio operation.

NOTE: *Do not test VSWR with two antennas close to each other as it affects VSWR even if one antenna is not connected.*

(6) If operation is still unsatisfactory—replace radio or antenna or both as required.

Microphone Replacement—Kraco Model Radios

Kraco radios have a microphone which is attached to the radio with a quick disconnect coupling. If depressing the mike button (key) has no effect or if wiggling the cord causes intermittent transmission, this is a sign of a microphone or mike cord problem.
(1) Disconnect mike assembly from radio.
(2) Install replacement mike assembly.
(3) Test radio operation by making contact with another radio operator.

PROCEDURE

Radio R & R

(1) Disconnect antenna at radio.

(2) Remove original radio. If radio disconnects at fuse connection, tape fuse to a location where it cannot short out.

(3) Fill out radio repair tag completely and attach it to the radio.

NOTE: *If possible, ship radio back to repair facility in its original container. Refer to Guarantee Administration Manual for authorized service outlet addresses or to the card included with new radio.*

(4) Install replacement radio.
(5) Connect VSWR meter between radio and antenna and check and adjust VSWR to 1.5 or less on channel 12 or on channel most used by owner.
(6) Remove VSWR meter and connect antenna to radio.

Antenna R & R

(1) Remove defective antenna and replace with new antenna. Route antenna cable away from areas where it will be stepped on, pinched or constantly flexed. Where cable is routed through doors or hatches be sure there is sufficient soft rubber stripping to encompass the cable without crushing it.

(2) Apply a good electrical grease such as part number 8127445, to all connections that are screwed together on the antenna.

(3) Check VSWR of new antenna and trim to channel 12 or channel most often used by owner.

(4) Remove VSWR meter and connect antenna to radio.

CHECKING FOR SHORTED OR OPEN COAXIAL CABLE

An ohmmeter with a capability of reading 1 ohm or less is required.

Test For Short

(1) Disconnect the cable at each end.

(2) Calibrate the ohmmeter.

(3) Touch one ohmmeter prod to the coaxial center terminal and the other prod to the vehicle body. If the ohmmeter shows any continuity, the cable is shorted and must be repaired or replaced.

Test for Open

(1) Disconnect cable at each end.
(2) Calibrate ohmmeter.
(3) Connect one ohmmeter prod to each end of the cable at the center terminal. The ohmmeter should indicate 1 ohm or less. If no reading is obtained, the cable is open and must be replaced. If more than one ohm is indicated, check for corrosion or damaged cable.

The following standard servicing operations and work times apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
CB RADIO AND/OR ANTENNA—CHECK		**3007**		**0.1**	**0.1**	—	**G**
Radio—Replace	**15.315**	**A**		**0.2**	**0.2**	—	**G**
Antenna—Replace	**15.025**	**B**		**0.3**	**0.3**	—	**G**
Radio and Antenna—Replace	—	**C**		**0.4**	**0.4**	—	**G**
Microphone (Kraco)—Replace	**15.315**	**D**		**0.1**	**0.1**	—	**G**
NOTE: Do not use combination D in conjunction with combination A or C.							

Jeep

SERVICE
TECHNICAL BULLETIN

No. TB 1 — 7700 Series
4 — 7600 Series

Group: 13.000
Date: November 3, 1976

Subject: **Air Conditioning System Not Cooling—Caused by Obstruction in Suction Hose—Late 1976 Models and Early 1977 Models Built Prior to VIN J7XXXXX015089—Equipped With Air Conditioning**

The air conditioning system on some late model 1976 and early model 1977 Jeep vehicles may not cool properly because of a rubber shipping plug in the suction hose. The plug should have been removed before the suction hose was attached to the evaporator. If the suction hose is obstructed and you check the system pressure, your gauges will indicate a low suction (low side) pressure and a high head (high side) pressure.

To correct this condition, disconnect the suction hose from the evaporator and remove the rubber shipping plug.

PROCEDURE

(1) Discharge system (refer to appropriate Technical Service Manual).

(2) Lower evaporator assembly.

(3) Disconnect suction hose from evaporator.

(4) Check inside of hose for obstruction using a piece of wire.

NOTE: *Be sure to check the hose carefully as rubber shipping plug may have been forced into hose as much as six inches from connector.*

(5) Remove plug from hose.

(6) Connect suction hose to evaporator.

(7) Charge system (refer to appropriate Technical Service Manual).

(8) Check air conditioning operation.

The following standard servicing operation and work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
PLUG, SUCTION HOSE—REMOVE	**13.440**	**13119**		**0.3**	**—**	**—**	**6**

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Jeep

Diagnosis and Repair Bulletin

Subject: Seat Cover Button Replacement	Application: 1977 and 1978 Jeep Models With Seat Cover Buttons	File: BODY Instrument Panels - Seat Assemblies No. 8-01 April 25, 1978

In the event that a seat button has been pulled from a seat cover, it is not necessary to replace the seat cover when only a seat button and retainer are required. The seat buttons can be found in Group 29.367-1 and the retainers in Group 29.367-2 of the current Parts Catalog. The procedures for replacing seat cover buttons are as follows:

SEAT BUTTON REPLACEMENT PROCEDURES

CJ-5 and CJ-7 Individual Seat Back and Wagoneer Seat Back-Bench Seat

(1) Remove front seat per appropriate Technical Service Manual.

(2) Remove hog rings from bottom of trim to loosen seat cover.

(3) Pull loose cover forward.

(4) Starting at bottom edge of seat cover, slide seat button retainer up into position between cover and seat. Push button stem through seat cover hole and seat button retainer.

(5) Pull loose cover back to installed position and install hog rings.

(6) Install front seat per appropriate Technical Service Manual.

Cherokee - Truck Individual Front Seat Back

(1) Unzip front seat back zipper to loosen cover.

(2) Pull loose cover forward.

(3) Starting at bottom edge of seat cover, slide seat button retainer up into position between seat cover and seat. Push button stem through seat cover and seat button retainer.

(4) Pull seat cover back to installed position and close zipper.

Wagoneer - Cherokee Rear Seat Back

(1) Fold rear seat back down.

(2) Remove necessary hog rings from bottom edge of seat cover to allow positioning of seat button retainer.

(3) Slide seat button retainer into position and insert seat button stem through seat cover and retainer.

(4) Pull seat cover back to installed position and install hog rings.

(5) Return seat back to upright position.

Truck Seat Back - Bench Seat

(1) Remove seat back.

(2) Remove necessary hog rings from bottom edge of seat cover to allow positioning of seat button retainer.

(3) Slide seat button retainer into position and insert seat button stem through seat cover and retainer.

(4) Pull seat cover back to installed position and install hog rings.

(5) Install seat back.

Truck Seat Cushion - Bench Seat

(1) Remove seat per appropriate Technical Service Manual.

(2) Remove necessary hog rings from rear edge of seat cover to allow positioning of seat cover and retainer.

(3) Slide seat button retainer into position and insert seat button stem through seat cover and retainer.

(4) Pull seat cover back to installed position and install hog rings.

(5) Install seat per appropriate Technical Service Manual.

(OVER)

American Motors Sales Corporation
Service Engineering Department • 14250 Plymouth Road • Detroit, Michigan 48232
Additional copies of this bulletin are available through your zone office.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				77	78		
BUTTON, SEAT TRIM — INSTALL	**29.367**	**29037**	**CJ-15**	.3	.3		**G**
Each Back Panel — Front			**16-17**	.2	.2		
			25-45-46	.3	.3		
Each Back Panel — Rear			**15-16-17-18**	.3	.3		
			25-45-46	.4	.4		
Each Seat Cushion			**25-45-46**	.3	.3		

8-059-BSA/J

Jeep

Diagnosis and Repair Bulletin

Subject: Cracks or Tears in Door Exterior Sheet Metal	Application: 1976 and 1977 CJ-7 Models With Hardtop Enclosure	File: BODY SECTION No. 7-07 October 24, 1977

A crack or tear in the door exterior sheet metal, below the fixed ventilator window, may develop on 1976 and 1977 CJ-7 models with hardtop enclosures. This condition may be caused by broken welds on the inner and outer door panel flanges.

Service correction on a complaint basis involves disassembling the door, rewelding the flanges and refinishing the door sheet metal as necessary.

PROCEDURE

(1) Remove door assist handle.

(2) Remove window regulator handle.

(3) Remove door trim panel and water dam paper.

(4) Lower door glass.

(5) Remove regulator arm guide.

(6) Remove inner and outer glass weatherstrips.

(7) Remove division bar attaching screws.

(8) Remove door glass channel (felt). Pry channel out at forward leading edge using a pick or other pointed tool. Pull channel out and back toward rear curved radius of window frame; then lift channel straight up and out of door.

(9) Remove division bar. Tap bar rearward using a rubber mallet. Pull back inner lower edge of weatherstrip to allow clearance of division bar bracket.

(10) Remove weatherstrip (felt channel) from division bar.

(11) Remove door window glass.

(12) Remove fixed ventilator window assembly as follows:

(a) Insert a pointed tool between weatherstrip and upper forward corner of door frame.

(b) Force tool downward until window assembly separates from door frame.

(c) Slide window assembly rearward past door panel flanges. Pull outward and downward to remove.

(13) Align and clamp inner and outer door panel flanges.

(14) Tack weld flanges together.

(15) Drill two 1/4 inch holes partially through outer flange.

(16) Weld drilled holes and original spot welds.

NOTE: *Drilled holes should be welded as shallow as possible to avoid distortion of flanges.*

(17) Repair cracked or torn door outer sheet metal as follows:

(a) Tack weld crack or tear. Space welds 1/2 inch apart, over entire length. Flatten tack welds using a body spoon and hammer.

(b) Weld entire length of crack or tear. Use a body spoon and hammer to relieve distortion.

(c) Grind welded area using a body grinder with a 24 grit sanding disc.

NOTE: *Grind welded surface lightly, heavy or excessive grinding may impair weld strength.*

(18) Strip paint back to original contour using a body grinder with 24 grit sanding disc.

(19) Apply body filler to affected area, fill all depressions and flow filler to original contour.

NOTE: *Mix body filler and hardener according to manufacturers instructions.*

(OVER)

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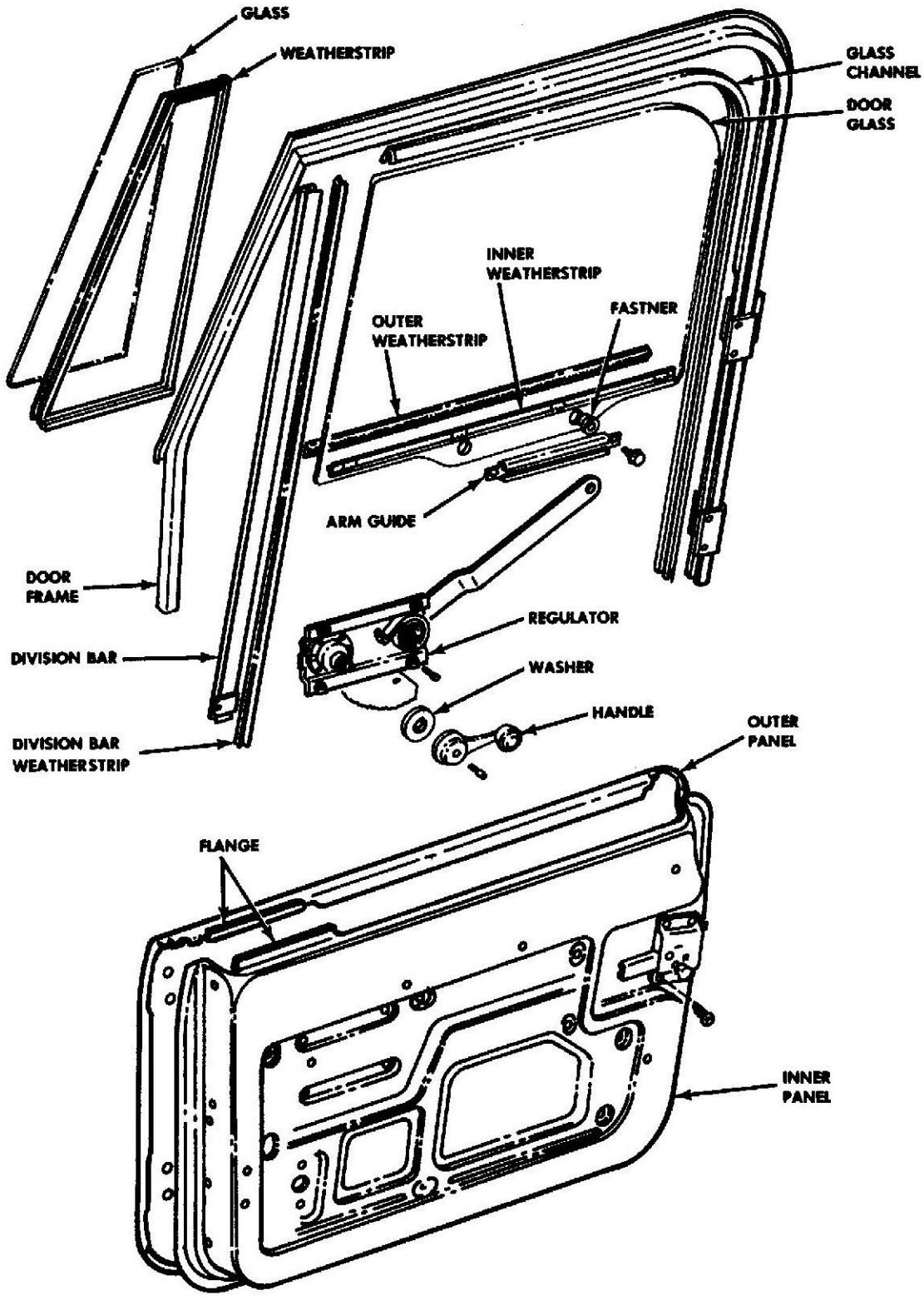


CJ-7 Front Door

(20) Grind affected area using a body grinder with a 50 grit disc. Grinder should be operated at low speed.

(21) Sand filler to contour using 40 or 60 grit sandpaper on a hand file board. Sand outer areas gradually working to center.

(22) Finish-sand area using 80 grit sandpaper on a hand file board.

(23) Featheredge paint break line around affected area using 180 grit sandpaper.

(24) Finish-sand area using 220 or 240 grit sandpaper.

(25) Wash door with a mild detergent and water. Rinse thoroughly.

(26) Clean painted area with DuPont Prep-Sol Wax and Grease Remover, or equivalent.

(27) Prepare affected area using DuPont Metal Conditioner, or equivalent.

(28) Mask perimeter of outer door panel.

(29) Mix primer-surfacer according to manufacturer's instructions.

(30) Paint affected area. Allow a slight overlap onto original paint.

(31) Remove masking.

(32) Wet sand primed surface using 220 grit, then 400 grit sandpaper.

(33) Clean entire door with a mild detergent and water. Rinse thoroughly and dry with a soft cloth.

(34) Mask perimeter of outer door panel.

(35) Clean surface with wax and grease remover.

(36) Mix paint, DuPont Centari acrylic enamel or equivalent, according to manufacturer's instructions.

(37) Spray one medium wet coat (at 65 lbs. gun pressure) followed by a full wet coat. Compare paint match with adjacent body panels.

(a) If paint is too light, reduce air pressure to 35 lbs. (darkens color) and apply mist coats as necessary.

(b) If paint is too dark, increase air pressure to 75 lbs. (lightens color) and apply several dust coats holding spray gun about 18 inches from surface.

NOTE: *Do not allow paint to flash or set-up between coats as an orange peel or rough surface will result.*

(38) Remove masking after paint has become tacky and allow paint to dry.

(39) Apply a light coating of Silicon Lubricant, part number 8992881 or equivalent, to fixed ventilator window weatherstrip to ease installation.

NOTE: *It will be necessary to seat front edge of weatherstrip into door frame; then seat the glass into the weatherstrip.*

(40) Install fixed ventilator window in door. Slide window over door panel flanges and into door frame. Apply pressure to upper rear of window until weatherseal is bottomed in door frame.

(41) Install door window glass.

(42) Install division bar.

NOTE: *Be careful during installation that division bar bracket does not tear inner edge of window weatherstrip.*

(43) Install division bar weatherstrip (felt channel).

NOTE: *If weatherstrip binds, raise door glass as high as possible and slip lower end of weatherstrip out of division bar and attach to lower edge of door glass. Lower glass until upper edge of weatherstrip is aligned with upper edge of division bar.*

(44) Install division bar attaching screws.

(45) Install door glass channel. Raise door glass and attach end of channel to glass. Lower glass and position upper portion of channel.

(46) Install inner and outer glass weatherstrips.

(47) Install regulator arm guide to door glass.

(48) Install water dam paper and trim panel.

(49) Install window regulator handle.

(50) Install door assist handle.

(51) Raise door glass.

(52) Clean windows.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
DOOR, HARDTOP ENCLOSURE—REPAIR	**23.001**	**23007**	**93**	**3.0**	**3.0**	**—**	**G**
Paint and Material Allowance $3.75							

7-070-BSJ

NOTE: *In accordance with the Warranty Administration Manual "All paint repairs during the new vehicle warranty period require prior work approval by the zone service representative".*

Diagnosis and Repair Bulletin

No. 7-04

January 13, 1977

Subject:	Application:	File:
Whitco Top Loose at Front Former—Caused by Insufficient Stitching at Front Edge of Top or Screws Loose in Front Former	1976-1977 CJ Models Built Prior to VIN J7XXXXX035464	Body Section

On some of the subject vehicles equipped with a Whitco fabric top one or both of the following conditions may occur.

- The front edge of the fabric top may twist out of the front former. This condition is caused by insufficient stitching of the fabric to the top front rail.
- The screws attaching the front former to the windshield may become loose. This condition is caused by improper screws being used to attach the former.

Service correction, on a complaint basis, involves one or both of the following:

- Removing the top and stitching the fabric to the top front rail in two additional locations.
- Removing the improper screws and installing the proper size screws or, if holes are damaged drilling new holes in the former and installing larger screws.

The following screws may be required for attaching the front former to the windshield frame. Order screw part number G162003 if screw holes are not distorted. If screw holes are distorted order screw part number 4004710.

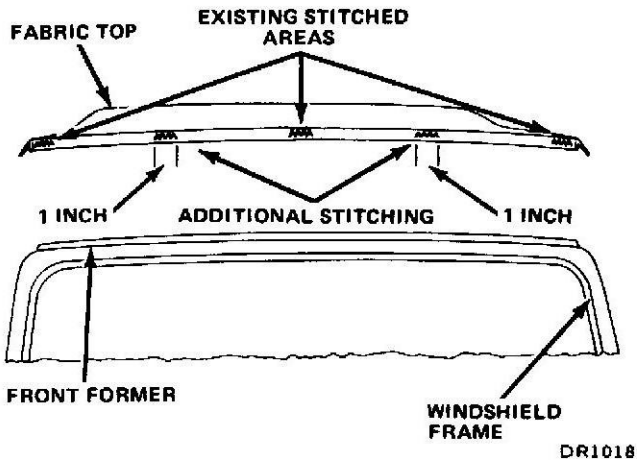
Description	Quantity	Part No.	Group
Screw, Self-tapping No. 12-11 x 1/2 inch	As Required	G162003	17.660
Screw, Self-drilling No. 10-16 x 9/16 inch	7	4004710	26.077

PROCEDURE

Fabric Repair

(1) Remove top.

(2) Stitch fabric to top front rail at two additional locations as shown in illustration.



(3) Inspect front former attaching screws, if loose proceed to Front Former Repair Procedure.

(4) Install top.

Front Former Repair

(1) Remove front edge of top from front former.

(2) Remove front former-to-windshield frame attaching screws and front former.

(3) Check screw holes in windshield frame.

(a) If screw holes are not distorted, ream holes using a No. 20 drill bit.

(b) If screw holes are distorted, measure 1 inch from each existing hole and drill a new hole using a No. 7 drill bit.

(4) Position front former on windshield frame.

(5) Install front former-to-windshield frame screws.

(a) If existing holes were enlarged, use No. 12-11 x 1/2 inch self-tapping screws.

(b) If new holes were drilled, use No. 10-16 x 9/16 inch self-drilling screws.

(6) Install front edge of top in front former.

(over)

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The following Standard Servicing Operations and work times will apply.

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION	MODEL	YEAR AND TIME			SKILL LEVEL
				76	77	78	
FORMER, TOP – INSPECT	**28.230**	**28501**	**83-93**	**0.1**	**0.1**	–	**M**
Former – Repair, Enlarge or Relocate Screw Holes			**A**	**0.2**	**0.2**	–	**M**

Diagnosis and Repair Bulletin

No. 7-03

December 21, 1976

Subject: Rear Headlining Sag

Application: 1976 and 1977 Wagoneer and Cherokee Models

File: Body Section

Some owners of 1976 and 1977 Wagoneers and Cherokees may complain of a sag in the rear headlining. This condition is caused by the headlining not fully seating into the retainer mouldings.

Service correction, on a complaint basis, involves repositioning the headlining in the retainer mouldings and installing two coat hooks for additional support. The following parts, as applicable, will be required.

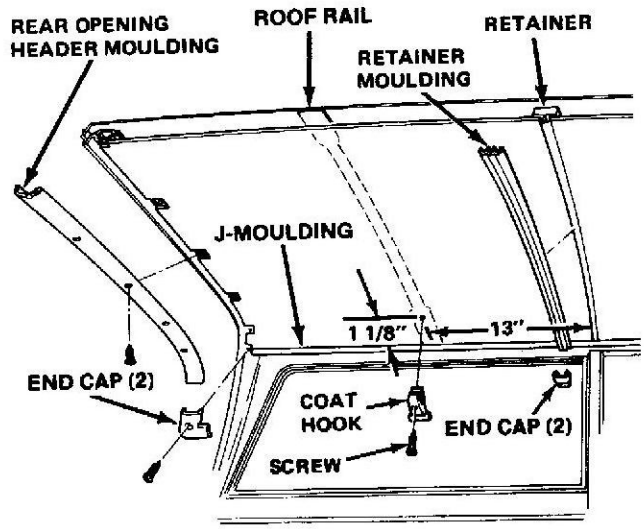
Description	Quantity	Part No.	Group
Screw, Tapping	2	4002099	29.010
Hook, Coat	2	3678791 (Black)	27.130
	2	3675832 (Blue)	27.130
	2	5455151 (Buff)	27.130
	2	3675833 (Green)	27.130

PROCEDURE

(1) Remove rear opening header end caps and moulding (see illustration).

(2) Remove headlining retainer moulding by grasping center and pulling downward.

(3) Position headlining in J-mouldings. Allow 1/8 inch gap between forward edge of rear headlining and retainer.



Correcting Rear Headlining Sag

(4) Install rear opening header moulding and end caps.

(5) Measure back 13 inches from headlining retainer and up 1-1/8 inches from bottom of J-moulding on both sides and mark position on headlining.

(6) Install headlining retainer moulding.

(7) Drill a 7/64-inch hole 1-inch deep on both sides at positions marked in step (5). Drill through headlining and into roof rail.

CAUTION: *Do not exceed 1 inch depth as damage to the outer roof panel could result.*

(8) Position coat hooks and install tapping screws. Do not overtighten.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	WARRANTY REPORTING CODE	OPERATION NUMBER	MODEL	YEAR AND TIME 76	77	78	SKILL LEVEL
HEADLINING, REAR – REPOSITION AND INSTALL COAT HOOKS	**29.015**	**29123**	**Wag.-Cke.**	**0.4**	**0.4**	**—**	**6**

American Motors Sales Corporation

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Additional copies of this bulletin are available through your zone office.

Jeep

SERVICE TECHNICAL BULLETIN

No. TB 1 — 7700 Series

Group: Body Section
Date: September 28, 1976

Subject: Paint Information—All 1977 Jeep Vehicles

Attached are Ditzler and DuPont color charts for all 1977 Paint colors. Color names and code numbers are included in each chart.

If additional information is required, contact your Zone Service Manager, Service Representative, or use the toll-free Dealer TEKLINE.

Attachments (2)

Service Publications Department, American Motors Sales Corporation
14250 Plymouth Road • Detroit, Michigan 48232

1977 AMERICAN MOTORS CORPORATION

GREMLIN • HORNET
MATADOR • PACER
JEEP

DU PONT

AUTOMOTIVE REFINISH COLORS

Mfr. Code and Color	LUCITE® CODE	CENTARI® CODE	DULUX® CODE
G7 Alpine White	43499L	43499A	43499D
J2 Brandywine Met.	43510LM	43510AW	43510DM
P1 Black	99L	99A	93-005
6D Sand Tan	44111L	44111A	44111D
6J Silver Frost Met.	44113L	44113A	44113D
6P Firecracker Red	44116LM	44116AW	44116DW
6R Brilliant Blue	44117LH	44117AH	44117D
6V Sunshine Yellow	44119LH	44119AH	44119D
7B Mocha Brown Met.	44191LH	44191AM	44191DM
7C Autumn Red Met.	44793LW	44793AW	44793DM
7D Powder Blue	44192LH	44192AH	44192DH
7K Midnight Blue Met.	44193LM	44193AH	44193DH
7L Loden Green Met.	44194LH	44194AH	44194DH
7M Golden Ginger Met.	44195LH	44195AH	44195DM
7P Lime Green	44196LM	44196AH	44196DH
7W Captain Blue Met.	44197LH	44197AH	44197DH
7Y Tawny Orange	44198LH	44198A	44198DH
7Z Sun Orange	44199LH	44199AH	44199DH

INTERIOR COLORS

43611L	White	Flat	43610L	Tan	Flat	43612LH	Berry	Flat	43608LH	Blue	Flat
99L	Black	Flat	44807LH	Dk. Tan	Flat						

AMERICAN MOTORS CORPORATION

PRIOR YEARS COLOR INFORMATION

1974

Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code	Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code
A1	Snow White	5213L	5213A	5213D	F8	Medium Tan Met.	42849LH	42849AH	42849DH
D7	Trans Am Red	5408LM	5408AW	5408DH	F9	Copper Met.	42850LM	42850AW	42850DH
E1A	Diamond Blue Met.	5586L	5586A	5586D	G1	Light Green Met.	42851L	42851A	42851D
E6	Fawn Beige	5519L	5519A	5519D	G2	Medium Green Met.	42852LH	42852AM	42852DH
E9	Mellow Yellow	5522LM	5522AW	5522D	G3	Dark Green Met.	42853LH	42853AH	42853DH
F2	Maxie Blue	5524L	5524AM	5524DH	G4	Plum Met.	42854LM	42854AW	42854DM
F4	Daisy Yellow	5526LH	5526AM	5526DH	G5	Warm Silver Met.	42855L	42855A	42855D
F5	Vineyard Maroon Met.	5570LM	5570AW	5570DM	G6	Orange	42856LH	42856AH	42856DH
F6	Medium Blue Met.	42847LH	42847AH	42847DH	P1	Black	99L	99A	93-005
F7	Dark Blue Met.	42848LH	42848AH	42848DH					

1975

Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code	Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code
D7	Trans. Am. Red	5408LM	5408AW	5408DH	H4	Dark Cocoa Met.	43503LH	43503AW	43503DH
E6	Fawn Beige	5519L	5519A	5519D	H5	Green Apple	43504L	43504AH	43504DH
E9	Mellow Yellow	5522LM	5522AW	5522D	H6	Golden Jade Met.	43505LH	43505AM	43505DH
F9	Copper Met.	42850LM	42850AW	42850DH	H7	Aztec Copper Met.	43506LH	43506AM	43506DM
G3	Dark Green Met.	42853LM	42853AH	42853DH	H8	Autumn Red Met.	43507LM	43507AW	43507DM
G6	Sienna Orange	42856LH	42856AH	42856DH	H9	Silver Dawn Met.	43508L	43508A	43508D
G7	Alpine White	43499L	43499A	43499D	J2	Brandywine Met.	43510LM	43510AW	43510DM
G8	Pastel Blue	43500L	43500A	43500D	J7	Ivory Green	43533L	43533A	43533DH
G9	Medium Blue Met.	43501L	43501A	43501D	J8	Caramel Tan	43534LH	43534A	43534D
H1	Deep Blue Met.	43525L	43525A	43525D	P1	Black	99L	99A	93-005

1976

Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code	Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code
G6	Sienna Orange	42856LH	42856AH	42856DH	6C	Evergreen Met.	44110LH	44110AH	44110DH
G7	Alpine White	43499L	43499A	43499D	6D	Sand Tan	44111L	44111A	44111D
G9	Medium Blue Met.	43501L	43501A	43501D	6E	Burnished Bronze Met.	44112LH	44112AH	44112DH
H4	Dark Cocoa Met.	43503LH	43503AW	43503DH	6J	Silver Frost Met.	44113L	44113A	44113D
H6	Golden Jade Met.	43505LH	43505AM	43505DH	6K	Limefire Met.	44114LM	44114AM	44114DM
H7	Aztec Copper Met.	43506LH	43506AM	43506DM	6P	Firecracker Red	44116LM	44116AW	44116DW
H8	Autumn Red Met.	43507LM	43507AW	43507DM	6R	Brilliant Blue	44117LH	44117AH	44117D
J2	Brandywine Met.	43510LM	43510AW	43510DM	6T	Nautical Blue Met.	44118LW	44118AH	44118DH
P1	Black	99L	99A	93-005	6V	Sunshine Yellow	44119LH	44119AH	44119D
6A	Marine Aqua Met.	44108LH	44108AH	44108DH	7P	Lime Green	44196LM	44196AH	44196DH
6B	Seaspray Green	44109L	44109A	44109DH					

1977 BACK PANEL & SIDE STRIPES COLORS (GREMLIN X)

Mfg. Paint Code	Color	Stock Number	Mfr. Paint Code	Color	Stock Number
P1	Black	99L	75R91	Gold	43669LH
G7	White	43499L	77R32	Berry	44806LM

AMERICAN MOTORS CORPORATE COLORS

70R80	Red	44236LH	70R82	Blue	43009LH
70R81	White	55769L	P1	Black	99L

INDEX
No. 16

Ditzler Automotive Finishes PPG INDUSTRIES

1977 AMERICAN MOTORS
GREMLIN - HORNET - MATADOR
PACER - JEEP

SPECIFY: DDL For DURACRYL® acrylic lacquer • DAR For DELSTAR® acrylic enamel • DQE For DITZCO® alkyd enamel

Paint Code & Price Codes DDL	DAR	DQE	Paint Code & Price Codes DDL	DAR	DQE	Paint Code & Price Codes DDL	DAR	DQE	Paint Code & Price Codes DDL	DAR	DQE
*G7 2702 Alpine White	—	—	D *6P 2824 Firecracker Red	K	—	7D 2896 Powder Blue	—	—	7P 2900 Lime Green	K	Y
*J1 33160 Pewter Gray Poly	—	—	*6R 2825 Brilliant Blue	H	—	*7K 2897 Midnight Blue Poly	—	—	7W 2901 Captain Blue Poly	—	—
SC J2 2714 Brandywine Poly	SC	SC	D *6V 2827 Sunshine Yellow	SC	—	*7L 2898 Loden Green Poly	—	—	*7Y 2902 Tawny Orange	—	—
*6D 2820 Sand Tan	—	—	D *7B 2895 Mocha Brown Poly	SC	—	D 7M 2899 Golden Ginger Poly	H	—	SC 7Z 2903 Sun Orange	—	—
6J 2822 Silver Frost Poly	—	—	D *7C 2992 Autumn Red Poly	K	Y	*P1 9000, 9300 Classic Black					

*Also a Jeep color
•Jeep color only

Bumper Insert (Between Bumper and Radiator)
73R58 Satin Gray
33075

ENGINE ENAMEL
73-R-87 Blue 14688

	PAINT CODE
Trunk Spatter	70-R82
Finish-Gray	70-R80
70R25-DS1768	70-R81
	P-1

AMERICAN MOTORS CORPORATE COLORS

COLOR NAME	DITZLER CODE
Corporate Blue	14083
Corporate Red	71865
Corporate White	0887
Corporate Black	9000

BACK PANEL — GREMLIN X

PAINT CODE	COLOR NAME	DITZLER CODE
P1	Black	9000
G7	White	2702
75-R-91	Gold	24150
77-R-32	Berry	72214

PLASTIC GRILLE COLORS

PAINT CODE	COLOR NAME	DITZLER CODE	VINYL UCV CODE
70-R7	Black (Semi Gloss)	9399	120

Balance of colors are exterior body colors

1977 JEEP FLEET COLORS

PAINT CODE	COLOR NAME	DITZLER CODE
FA	Transport Yellow	80020
FB	Omaha Orange	60281
FC	Federal Gray (G.S.A. Gray Spec - 16440)	31817
FE	Forest Green	44586
FH	Olive Drab (Spec X-24087)	42955

1977 JEEP VINYL ROOF COLORS AND ROOF COLORS (TEXTURED)

COLOR NAME	UCV NUMBER	DITZLER CODE
Black	120	9405 \ Reduce with DX-1507
White	2-130	0845 / Texture Additive
Levi Blue	2-176	
Levi Tan	2-214	

1976-77 JEEP CHEROKEE WAGON EXTERIOR COLOR 75-R100J FLAT BLACK - 9425

HOOD SCOPE AND BLACKOUT AREAS - Low Gloss Black 9381
73-R-45 Argent Gray
33023 (Splash Panel)

ACCENT COLORS

PAINT CODE	COLOR NAME	DITZLER CODE
75-R-77	Tan Poly "Touring Pkg"	24100
74-R-24	Copper "Cassini"	24007
71-R-76	Bright Silver	DQE-8568
75-R-83	"Jeep" Gas Cap Argent	DQE 8568

AMC - 1977 VINYL ROOF COLORS

COLOR NAME	UCV NUMBER
Black	120
White	2-383
Dark Blue	2-178
Brown	2-477
Buff	2-290
Tan	2-413
Dark Red	2-202

1977 JEEP

IN TWO-TONE COMBINATIONS THE FIRST TWO DIGITS INDICATE THE UPPER COLOR, THE NEXT TWO DIGITS THE LOWER COLOR.

(OVER)

1977 AMERICAN MOTORS INTERIOR COLOR INFORMATION

LOW GLOSS OR FLAT COLORS

Used on: Instrument panel, console area, etc.

PAINT CODE	COLOR NAME	DITZLER DIA NUMBER	*VINYL UCV NUMBER
75-R5 (Metal) 75-R29 (Plastic)	White	0894	2-175
73-R27 (Metal) 75-R23 (Plastic)	Black	9399	120
75-R2 (Metal) 75-R26 (Plastic)	Blue	14736	2-144
75-R4 (Metal) 75-R28 (Plastic)	Tan	24055	2-214
75-R45 (Metal) 75-R51 (Plastic)	Berry (Maroon)	50937	2-202
76-R46 76-R47	Dark Tan (Used on Instrument Panel and Speaker Grill of the Pacer)	24331	2-478

*Above colors must be oversprayed with UCV-69.

SEMI-GLOSS OR MEDIUM GLOSS COLORS

Used on: Body shell interior parts, such as garnish mouldings, lower steering column, etc.

PAINT CODE	COLOR NAME		DITZLER DIA NUMBER	VINYL UCV NUMBER
75-P9	White		W8100	183
72-R50	Black		9391	120
75-R6	Blue	(Dark Blue)	14808	2-268
		(Light Blue)		2-453
75-R8	Tan	(Dark Tan)	24135	2-425
		(Light Tan)		2-205
75-R46	Berry (Maroon)	Crimson (Pacer)	50938	2-202
		Strap Blue		2-103
		Strap Brown		2-257
		Strap Berry		2-202
		Strap Black		120
		Strap White		183

JEEP — INTERIOR COLORS

COLOR NAME	DITZLER DIA CODE	VINYL UCV NUMBER
Black	9390	120
White	0894	183
Blue	14736 (Levi Blue)	2-144
Tan	24055	2-417
Berry (Maroon)	50937	2-202

Jeep

Service Technical Letter

File: Service General
No. 9-10 July 24, 1979

Subject	Information
Replacement of Watershield Paper—1977-79 Cherokee-Wagoneer-Truck Models	In some instances when removing the door trim panel and watershield paper, the paper becomes damaged and must be replaced to prevent water leaks. Watershield paper and adhesive will be available as a replacement part after August 20, 1979. Do not order parts before this date. Part numbers are as follows:

Description	Qty.	Part No.	Group
Paper, Watershield Rear Door, Left	1	5464553	23.012
Paper, Watershield Rear Door, Right	1	5464554	23.012
Paper, Watershield Front Door,Left	1	5464555	23.012
Paper, Watershield Front Door, Right	1	5464556	23.012
Adhesive (Quantity Sufficient for One Door)	1	3624805	23.012

The Standard Servicing Operations and work times as published in the current SSO Manual are not affected by this bulletin.

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Jeep

Service Technical Letter

OF INTEREST TO:

- ☐ Dealer Principal
- ☒ Service Manager
- ☒ Service Writer
- ☒ Mechanic

File: Service General

No. 9-06 March 30, 1979

Subject	Information
Frozen Door Handle Pushbutton Repair — 1978-79 Cherokee, Wagoneer, and Truck Models	Ice may accumulate on the outside door handle pushbutton on the subject vehicles making it inoperative. The following outlines the service correction for this condition. Thaw any ice that has accumulated on the push-button mechanism. Depress the button and spray a liberal amount of WD-40 penetrating lubricant, or equivalent, past the button using the small plastic spray tube. Repeat the operation on all door pushbuttons and allow 15 minutes to dry. After drying, repeat the above procedure using AMC/Jeep Silicone Lubricant (8993542) or equivalent.
Bronze Tone Tint Damage - CJ-7 Golden Eagle	CAUTION: If an aftermarket heated grid rear window defogger is installed on a bronze tone rear window, it will cause damage to the tint of the glass. Such installations are not approved.
Tire Size Capacity of Rear Swing-Out Spare Tire Carrier — 1976-79 CJ-5 and CJ-7 Models	Tires larger than the 9-15 LT Tracker must not be mounted on the swing-out spare tire carriers. The carrier may be damaged if larger than specified tires are installed.

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Service Technical Letter

OF INTEREST TO:		File: Service General
☐ Dealer Principal	☒ Service Writer	
☒ Service Manager	☒ Mechanic	No. 9-05 March 3, 1979

Subject	Information
Compression Pressure Specification Update — 1977-79 Six- and Eight-Cylinder Engines	The compression pressure specifications for 1977-79 six- and eight-cylinder engines have been updated. The pressure specifications for both six- and eight-cylinder engines are now 120 to 150 psi with a maximum allowable pressure variation between cylinders of 30 psi. The updated specifications should be noted in the 1977-79 Jeep Technical Service Manuals.
Roof Rack Moan — 1979 Wagoneer and Cherokee Models	A roof rack moan may be produced by the front end rail of the roof rack. The moaning noise can be eliminated by positioning the front end rail over the center stanchion with the large diameter of the end rail toward the front of the vehicle. NOTE: The roof rack moan is very similar to an axle noise. Be sure not to misdiagnose the noise.

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Service Technical Letter

OF INTEREST TO:

- ☐ Dealer Principal
- ☒ Service Manager
- ☒ Service Writer
- ☒ Mechanic

File: Service General

No. 9-03 November 16, 1978

Subject	Information
Automatic Transmission Clutch and Band Application Chart	The chart used in the 1976 through 1979 Jeep Technical Service Manuals is incomplete. The chart should have shown that the Lo Clutch Roller is also applied in 2-range first gear. Correct the chart by inserting the necessary indicator dot as shown in the illustration.
Service Technical Letter No. 9-02, dated October 2, 1978 - All 1979 Jeep Models - Starter Solenoid With Blade Terminals	Eliminate the subject and information in the subject Service Technical Letter regarding blade-type starter solenoid terminals. Jeep vehicles have stud-type starter solenoid terminals only.

CLUTCH - BAND APPLICATION

	P	R	N	D			2		1
				1	2	3	1	2	
FORWARD CLUTCH				●	●	●	●	●	●
DIRECT CLUTCH		●				●			
FRONT BAND								●	
INTERMEDIATE CLUTCH					●	◉		●	
INTERMEDIATE ROLLER					●			●	
REAR BAND		●							●
LO CLUTCH ROLLER				●			●		●

◉ ON BUT NO EFFECT

Place dot here.

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Jeep

Service Technical Letter

OF INTEREST TO:		File: Service General
☐ Dealer Principal	☒ Service Writer	
☒ Service Manager	☒ Mechanic	No. 8-05 June 23, 1978

Subject	Information
Canvas Top Installation - CJ-7 Models Which Previously Had a Factory Installed Hardtop and Roll-bar	Prior to installing a canvas top on a CJ-7 model that has had a factory installed hardtop and a rollbar, check the hole in the top-center of the rollbar for burrs. This hole is drilled in the rollbar for use in attaching the rubber bumper used on CJ-7 models that have the hardtop option. Remove the burrs as necessary to eliminate the possibility of contact with the canvas top material.
Brake Master Cylinder Push Rod Retainer - 1977-1978 CJ Models With Manual Disc Brakes	Master cylinder push rod retainers are available as an individual part (part number 8129287, group 8.054). It is not necessary to order a master cylinder push rod to obtain a push rod retainer.
Batteries in CJ Models Built After May 16, 1978	CJ models built after May 16, 1978 have a nylon strap around the battery and battery tray. This strap is installed for transportation tie-down only. It may be left on or removed, but is not a necessary part after the vehicle has reached its original destination.
Valve Train Noise - V-8 Engines	On some V-8 engines, the valve rocker arm may contact the spring retainer if the keepers sink too far into the retainer. To validate this condition remove the retainer and inspect the bottom surface for flaring. However; the presence of tooling marks on the retainer surface will not affect the operation or the durability of the retainer.

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Service Technical Letter (cont'd)

Subject	Information
Engine Oil Filters - All CJ Models Equipped With 6-Cylinder Engines	The short engine oil filter, part number 8993146 (4.25" long), must be used on CJ models equipped with a 6-cylinder engine. If the long engine filter is used, part number 8991072 (5.44" long), it is then possible for the oil filter to contact the engine support bracket or frame rail under extreme torque loads. This may result in damage to the oil filter causing a loss of oil and possible engine damage.
1978 Jeep Technical Service Manual, Volume I Correction - Model 2100 - 2V Carburetor	A typographical error exists in the Model 2100 Carburetor Specifications chart on page 1J-51, Volume I, of the 1978 Jeep Technical Service Manual. The dimensions given under the heading Float Level (Dry) setting are 0.555 inch with the OK Range given as 0.493 to 0.617 inch. The Float Level (Dry) setting should be 0.500 inch and the OK Range should read 0.484 to 0.516.
1978, 6-Cylinder Engine Exhaust Manifold - Two Center Lower Attaching Holes May Not Line Up With Cylinder Head Holes	If a 1978, 6-cylinder exhaust manifold is received as a replacement part (part number 8125075) and the two center holes do not line up with the cylinder head holes, enlarge the holes with a 29/64 inch drill.

Jeep.

Service Technical Letter

OF INTEREST TO:			
☐	Dealer Principal	☒	Service Writer
☒	Service Manager	☒	Mechanic

File: Service General

No. 8-02 November 18, 1977

Subject	Information
Typographical Error - 1977 Technical Service Manual, page 7-50 and 1978 Technical Service Manual, page 2C-53	The dimensional thickness of the direct clutch flat steel plates, referenced in the note immediately following step (9) should be changed from 0.0195 to 0.0915.
Battery Post Contamination - All Models	The battery posts on some low mileage vehicles or service batteries may develop a condition, referred to as "black post". If a no-start condition is encountered, or when a new battery is put into service, clean the battery posts with a cylindrical wire brush and apply a thin coat of grease.
Correction of Rear Wheel Cylinder Diameter - 1976 Technical Service Manual, page 9-41 and 1977 Technical Service Manual, page 9-47.	The rear wheel cylinder dimension for CJ models listed in the "Brake Size and Application Chart" is incorrect. Please change this dimension from 15/16 inch to 7/8 inch.

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Service Technical Letter

OF INTEREST TO:

- ☐ Dealer Principal
- ☐ Service Writer
- ☐ Service Manager
- ☐ Mechanic

File: Service General

No. 7-08 July 19, 1977

Subject	Information
Replacement Parts For Off-Road Driving Lamp Kit - 1977 J-10 Truck Models With Golden Eagle Trim Package.	Reference: DRB 7-04, Group 3.000 dated April 21, 1977. Part numbers have been assigned to the components of the off-road driving lamp kit (Parts Catalog Information Bulletin, dated April 1977, Group 3.246) Repair or replacement parts should be ordered in the normal manner from your Parts Distribution Center.
Automatic Transmission-to-Quadra-Trac Installation - All Models With Automatic Transmission and Quadra-Trac.	During the 1977 model year production three different methods were used to seal the Quadra-Trac unit to the transmission. 1. One gasket without a sealer. 2. Two gaskets coated with Permatex No. 3. 3. Loctite sealer (No. 504) without a gasket. Regardless of model year or method originally used, when installing the Quadra-Trac unit use one gasket part number 998315 and coat both sides with Permatex No. 3.
Possible Gear Clash in Second and Third Gear - Caused by Worn Inserts in Synchronizer - 1977 CJ Model With T-150 Transmission - Built Between VIN J7XXXXX106233 and VIN J7XXXXX109229.	On some of the subject vehicles a gear clash (grinding noise) between second and third gear may be encountered. This condition may be caused as a result of the inserts in the second-third synchronizer being worn and may not occur until after 4,000-to-6,000 miles of use. Service correction, in complaint cases, involves removing the transmission, removing the second-third synchronizer, and installing new inserts. Refer to your 1977 Technical Service Manual, Section 6, Manual Transmission, for servicing procedures.

American Motors Sales Corporation

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Service Technical Letter (cont'd)

Subject	Information
Quadra-Trac Front Cover-to-Case Gasket - All Models With Quadra-Trac.	The Quadra-Trac front cover-to-case gasket (square rubber seal ring) is no longer being used in production. The gasket has been replaced by a sealant compound. The gasket groove in the front cover has also been eliminated. When installing the front case cover, with or without machine groove, do not install a gasket. Apply a 1/16 inch bead of sealant compound (Gasket-in-a-Tube, part number 8993317) around the gasket surface of the cover.

Jeep

Service Technical Letter No. 7-07

OF INTEREST TO:		File: Service General
☐ Dealer Principal	☒ Service Writer	Date: May 19, 1977
☒ Service Manager	☒ Mechanic	

Subject	Information
Vibrations - Mechanical and Audible - All Jeep Vehicles	Vibrations are usually either mechanical (felt in seat, steering wheel, etc.) or audible (heard, seems to completely surround the observer). Occasionally, a vehicle will have mechanical and audible vibrations. Whenever either situation exists and your normal diagnostic efforts, such as visual inspection for damaged components, tire/wheel/prop shaft runout and balance, etc., have not revealed the cause, call your local zone service office for supplemental diagnostic assistance before making any major component changes or repairs.
Crankshaft Pilot Bushing - All Models	All service replacement engines, short blocks, and replacement crankshafts are shipped with a sleeve in the end of the crankshaft. This sleeve is for use on all automatic transmission applications. A 7/8 inch and 5/8 inch long bushing is also shipped loose with each engine, short block and crankshaft. On applications with a Borg Warner manual transmission, remove the existing sleeve from the crankshaft and install the 7/8 inch long bushing. On applications with a T150 manual transmission remove the existing sleeve from the crankshaft and install the 5/8 inch long bushing.
Cruise Command Control Regulators All 1977 Models Equipped With Cruise Command	When a problem with the Cruise Command Control system is encountered, before replacing the regulator, apply the diagnosis guide on pages 3-94 and 3-95 of your 1977 Technical Service Manual. (Over)

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Service Technical Letter (cont'd)

Subject	Information
Front Exhaust Pipe-to-Exhaust Manifold Attaching Nuts - All 1977 Models	The hex nuts, part number 5351688 (six-cylinder and V-8), used to attach the front exhaust pipe to the exhaust manifold have a locking feature which is destroyed when the nuts are removed. Whenever the nuts are removed for any reason, new nuts must be installed to assure proper torque retention.
Painted Bumpers - 1977 Cherokee and Truck Models	The painted bumper sections on some 1977 model vehicles may peel due to a dechroming process at the factory. When this condition is encountered replace the affected section(s).
Golden Eagle Intermix Paint Formulas - 1977 CJ and Truck Models With Golden Eagle Trim Package	We erred. The intermix paint formula listed in Service Technical Letter No. 7-05, dated April 7, 1977 incorrectly listed the code number of the red intermix as DMA 333 it should have been DMA383. The following charts list the Ditzler and DuPont intermix paint formulas for the paint Color Code 7E Oak Leaf Brown.

Ditzler Code No. DDL24443 (Lacquer)

Color	Code No.	Pint	Quart	Gallon
White	DMA311	10.0	20.0	80.0
Black	DMA358	79.0	158.0	632.0
Yellow	DMA329	112.0	224.0	896.0
Red	DMA383	184.0	368.0	1,472.0
Yellow	DMA384	524.0	1,048.0	4,192.0

DuPont Code No. 45101LH (Lacquer)

Color	Code No.	Pint	Quart	Gallon
Yellow	452L	7.5	14.5	58.0
White	401L	25.0	49.5	199.0
Black	406L	65.0	129.0	517.5
Pon Orange	438L	119.0	237.0	949.0
Binder-A	460L	294.5	588.0	2,352.0
Balancer-A	480L	436.5	872.5	3,489.0

Ditzler Code No. DAR24443 (Acryllic Enamel)

Color	Code No.	Pint	Quart	Gallon
White	DMR401	-	10.0	40.0
Black	DMR490	-	250.0	1,000.0
Red	DMR477	-	732.0	2,928.0
Yellow	DMR486	-	944.0	3,776.0
Katalyst	DMR495	-	964.0	3,856.0
Clear	DMR499	-	1,050.0	4,200.0

DuPont Code No. 45101A (Acryllic Enamel)

Color	Code No.	Pint	Quart	Gallon
Drier	758S	-	45.0	180.0
Green	741A	-	57.5	231.0
Moly Orange	733A	-	103.5	415.0
Yellow	732A	-	230.5	923.0
H.S. Black	705A	-	900.5	3,602.5

Wheel Color - Gold - Ditzler Code No. 23674

Jeep

Diagnosis and Repair Bulletin

No. 7-06

April 21, 1977

Subject: Golden Eagle Trim Package

Application: 1977 J-10 Truck Model

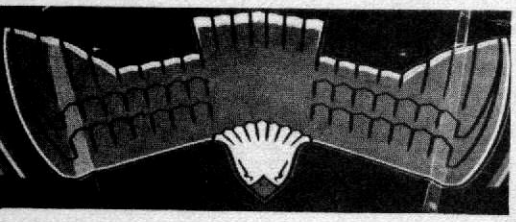
File: Service General

The new Golden Eagle trim package previously introduced for the 1977 CJ-5 and CJ-7 models is now available for the 1977 J-10 truck model. This new trim package includes:

- Special Oakleaf Brown exterior color
- Chrome front bumper
- Cherokee grille
- Special decals
- Unique Golden Eagle striping
- Rear step bumper
- Pick-up box mounted rollbar
- Tubular steel grille (brush) guard
- 8-inch spoked steel wheels, painted gold
- 10-15 Tracker A-T tires
- Tan vinyl bucket seats with armrest
- Cigar lighter
- Full carpeting
- Tan sports steering wheel
- Engine-turned instrument panel overlay
- Off-road driving lamps - rollbar mounted

The off-road driving lamps will be shipped separately and are to be installed by the dealer. Installation and adjustment procedures are included with the lamps. A Diagnosis and Repair Bulletin covering the installation and adjustment procedure will also be issued.

All other servicing procedures remain as outlined in your 1977 Technical Service Manual. The Oakleaf Brown paint is an acrylic enamel and the paint code number is 7E. Paint intermix formulas are available from your local DuPont or Ditzler supplier. In the event your local supplier has not received the intermix formula, refer to Service Technical Letter 7-05, File: Service General, dated April 6, 1977.



American Motors Sales Corporation

Service Engineering Dept. • 14250 Plymouth Rd. • Detroit, Mich. 48232

Additional copies of this bulletin are available through your zone office.

Jeep

Service Technical Letter

No. 7-05

OF INTEREST TO:

- ☐ Dealer Principal
- ☒ Service Writer
- ☒ Service Manager
- ☒ Mechanic

File: Service General

Date: April 7, 1977

Subject	Information
Wheel Lug Studs Off Center in Rear Axle Shaft Flange - 1976 and 1977 Wagoneer and Cherokee Models	A few rear axle shafts have the wheel lug stud holes drilled slightly off-center in the flange. This condition can cause what appears to be excessive tire/wheel/drum runout. Field fix is to replace rear axle shaft.
Quadra-Trac Chain Tension Measurement	When measuring chain tension, it is imperative that the shoulder of the tool touches the machined surface that surrounds the hole in the case. In some instances, the hole in the case is not threaded deeply enough to permit correct installation of the tool if only "hand-tightening" is used. In such cases, use a 1/4-18 NPT (National Taper Pipe Thread) tap and thread the case about 1 to 1-1/2 turns deeper. Coat the tap with grease to capture any aluminum chips that are generated. In addition, be sure that the park brakes are off, that the transmission and reduction unit are in neutral and that all four wheels are free to turn (not resting on floor, hoist, etc.).
Golden Eagle Intermix Paint Formula 1977 CJ Models With Oak Leaf Brown, Code 7E	The intermix paint formula for Oak Leaf Brown, Code 7E, is available to Ditzler jobbers through their warehouse or by the salesmen. However, if you cannot obtain the paint from a Ditzler dealer, give him the following codes and intermix formula. INTERMIX PAINT FORMULA Color: Oak Leaf Brown Color Code No. 7E Ditzler Code No. DDL24443

Color	Ditzler Code No.	Parts Per		
		Pint	Quart	Gallon
White	DMA311	10	20	80
Black	DMA358	79	158	632
Yellow	DMA329	112	224	896
Red	DMA333	184	368	1,472
Yellow	DMA384	524	1,048	4,192

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Jeep

Service Technical Letter

No. 7-04

OF INTEREST TO:

- [X] Dealer Principal
- [X] Service Manager
- [X] Service Writer
- [X] Mechanic

File: Service General

Date: March 17, 1977

Subject	Information
Cooling System Thermostat Revision	A 195 degree thermostat has been substituted for use in all applications requiring a 205 degree thermostat. The 195 degree thermostat does not affect defroster performance and is in compliance with the National Traffic and Motor Vehicle Safety Act.
Rear Seat Retaining Strap - 1977 Wagoneer and Cherokee Models	On vehicles where the rear seat retaining strap is not used regularly it may be necessary to pre-stretch the strap before using. To stretch the strap simply grasp the end firmly with both hands and pull steadily.
Relubable Propeller Shaft Slip-joints and Spiders - 1977 CJ Models	The lubrication interval for the propeller shaft slip-joints and spiders on 1977 CJ models should be every 5,000 miles for vehicles in normal use and every 3,000 miles for vehicles in heavy duty use. Use AMC/Jeep All Purpose Lubricant (Lithium base) or equivalent. This change should be noted on page B-7 of your 1977 Jeep Technical Service Manual.

American Motors Sales Corporation
Service Engineering Dept. • 14250 Plymouth Rd. • Detroit, Mich. 48232
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Jeep

Diagnosis and Repair Bulletin

No. 7-03

March 10, 1977

Subject: New Golden Eagle Trim Package	Application: 1977 CJ-5 and CJ-7 Models	File: Service General

A new body trim package, the Golden Eagle, has been introduced for the 1977 CJ-5 and CJ-7 models. This new trim package includes:

- Special Oakleaf Brown exterior color
- Special decals
- Unique Golden Eagle striping
- Tan Levi's soft top
- Tan Levi's interior front bucket seats
- Rear bench seat
- Full carpeting
- 8-inch spoked steel wheels, painted gold
- 9-15 Tracker A-T tires
- Flared fenders
- Black rocker panel mouldings
- Rear mounted spare tire with lock (swing-out on CJ-7)
- Convenience group
- Decor group
- Roll bar
- Clock and tachometer

Servicing procedures remain as outlined in your 1977 Technical Service Manual. The Oakleaf Brown paint is an acrylic enamel and the paint code number is 7E. Paint intermix formulas are available from your local DuPont or Ditzler supplier.

American Motors Sales Corporation

Service Engineering Dept. • 14250 Plymouth Rd. • Detroit, Mich. 48232

Additional copies of this bulletin are available through your zone office.

Jeep

Service Technical Letter

No. 7-02

OF INTEREST TO:

- [X] **Dealer Principal**
- [X] **Service Writer**
- [X] **Service Manager**
- [X] **Mechanic**

File: Service General

Date: December 23, 1976

Subject	Information
Improved Design Batteries - All 1977 Models	All 1977 Jeep vehicles are presently being equipped with an improved design battery. These new batteries have less antimony in the grid material and the mudrests in the bottom of the cells have been lowered, resulting in a potentially longer lasting battery. To achieve the potential long life of these batteries, it is necessary that the negative battery cable be disconnected on all vehicles in stock.
Revised Procedure for Storage and Protection of New Vehicles	As a result of the improved battery, and disconnecting the cable as mentioned above, it is no longer necessary to start and run vehicles in storage every 15 days as specified in Section 8 of the Warranty Administration Manual.
Warn Lock-O-Matic Hub Installation 1977 Cherokee and J-10 Truck Models Built Between VINs J7XXXXX021438 and J7XXXXX031794	On some of the subject vehicles the tapped hole in the end of the axle shaft for attaching the body assembly of the Warn hub was omitted. If hubs are to be installed on one of these vehicles and it does not have a tapped hole in the end of the axle shaft it will be necessary to replace the axle shaft. Do not attempt to drill and tap the axle shaft.
Touch-up Spray Paint Identification	If the color coded cap of an aerosol can of touch-up spray paint is misplaced or lost the paint color can be identified by the 4 digit number on the bottom of the can. This 4 digit number is the last 4 digits of the paint color part number. To locate the paint color, simply add 899 in front of the 4 digits on the bottom of the can and look up the part number. Example: the 4 digit number on the can is 2788, add 899 and look up part number 8992788 (Trans-AM Red). (over)

American Motors Sales Corporation
Service Engineering Dept. • 14250 Plymouth Rd. • Detroit, Mich. 48232
Additional copies of this letter are available through your zone office.

Service Technical Letter (cont'd)

Subject	Information
Jeep Vehicles With Snow Plow/Winch Overheating at Highway Speeds	The snow plow blade/winch blocks the air flow in the radiator and the tempatrol does not receive the proper heat input to activate the fan. To correct this condition disconnect the tempatrol bi-metal spring and turn it counterclockwise approximately 90 degrees to provide positive fan engagement. Reconnect the bi-metal spring when the plow blade/winch is not on the vehicle.

American Motors Sales Corporation
14250 Plymouth Road
Detroit, Michigan 48232

August 31, 1976

To All Jeep Dealers

Subject: Product Servicing Information

FILE UNDER: Service General 77-1 in 7700 Series and 76-6 in 7600 Series Jeep TB Binders

This letter contains Jeep vehicle servicing information about selected items that can be covered in condensed form. Six copies are provided. Be sure your service manager gets two copies (he should file them under Service General in his 7700 Series and 7600 Series Jeep TB binders) and that all your service and sales people are aware of its contents.

Technical bulletins with complete servicing procedures and SSO information will continue as the standard method of conveying information about items requiring more thorough coverage.

AUTOMATIC TRANSMISSION - MANUAL SHAFT HEX NUT - EARLY 1977 MODELS WITH AUTOMATIC TRANSMISSION

Some early 1977 vehicles with automatic transmissions have a 3/8-16 inch hex nut (P/N G124829) attaching the detent lever to the manual shaft instead of the specified metric M10 x 1.5 hex nut (P/N G11500424). Transmissions using the 3/8-16 hex nut are identified by a letter "E" painted on the case near the manual shaft.

REAR AXLE AND BRAKE APPLICATION - EARLY CHEROKEE, WAGONEER AND TRUCK MODELS

Some early 1977 Cherokee, Wagoneer and Truck models were built with 1976 rear axles and brakes. Vehicles so equipped can be identified by one of the following part numbers stamped on a metal tag attached to the differential housing cover.

PART NUMBERS

5356008	5356014	5356018	5356051
5356010	5356017	5356050	5356053

Sincerely,

Curtis E. Todd

Curtis E. Todd
Manager, Diagnosis & Repair Procedures

CET:rcg