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FILE: Engines-Fuel Systems
Engine Electrical-Cooling
(POWER PLANT-Engines)

No. 1-10-82 Sept. 8, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: The pushrods in some 1981-82 Jeep 258 CID six-cylinder engines built prior to May 1982, may disengage from the rocker arms causing noise, backfire, or a miss.

CORRECTION: Install the following replacement 0.070 inch longer pushrods as outlined in the appropriate Jeep Technical Service Manual if any of the original pushrods become disengaged or bent. The original pushrods are 9.640 to 9.660-inches long. The replacement pushrods, part number 3242395, are 9.710 to 9.730-inches long.

NOTE: The original (shorter) pushrods, part number 3227329, are still recommended for use in 1980 and prior Jeep 258 CID six-cylinder engines.

PARTS:

Description	Quantity	Part Number	Group
ROD, Valve Push	12	3242395	1.095

S.R.T. INFORMATION: Consult the T.I.C. manual and appropriate S.R.T. manual.

DEALER REIMBURSEMENT: Reimbursable within the provisions of the applicable warranty.

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FILE: POWER PLANT - Engines

No. 81-4 May 12, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: Engine knock may recur on some 1980-81 Jeep four-cylinder engines even after carbon buildup has been removed with Jeep Carburetor and Combustion Area Cleaner.

CORRECTION: On 1980 engines, install a thicker head gasket and install a shim between each rocker arm ball and retaining nut. On 1981 engines, install a thicker head gasket and replace the original push rods with the longer 1982 four-cylinder push rods.

NOTE: The use of rocker ball shims on 1980 engines or longer push rods on 1981 engines are needed to compensate for the increased thickness of the replacement head gasket.

PARTS:

Description	Quantity	Part Number	Group
GASKET KIT, Cylinder Head (Includes Shims)	1	8130478	1.061
ROD, Valve Push (Use on 1981 engine with thicker head gasket)	8	8134133	1.095

WARRANTY ELIGIBILITY: Not affected

SSO INFORMATION: Not Affected.

PROCEDURE:

1. Remove the cylinder head as outlined in Chapter 1B of the 1980-81 Jeep Technical Service Manuals.
2. Remove all carbon deposits from the cylinder head combustion chamber and the top of each piston.
3. Position the thicker head gasket on the block and install the cylinder head as outlined in Chapter 1B of the 1980-81 Jeep Technical Service Manuals.
4. On 1980 engines, install a shim between each rocker arm ball and retaining nut.
5. On 1981 engines, install the longer replacement 1982 push rods.
6. Complete cylinder head installation as outlined in Chapter 1B of the 1980-81 Jeep Technical Service Manuals.

82-050-A/J

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Diagnosis and Repair Bulletin

Subject: Six-Cylinder Engine Cylinder Head Cover	Application: 1981 Jeep Vehicles With Six-Cylinder Engine	File: POWER PLANT Engines No. 81-3 June 30, 1981

The cylinder head covers for 1981 Jeep six-cylinder engines have been revised to improve sealing at the cylinder head. The revised covers entered production in January of this year and have improved thermal stability and an 0.030-inch increase in the height of the outboard step on the cover flange sealing surface. The revised covers can be identified by the three, small pointed projections located on the front edge of the oil filler cap boss. These identifying projections are in addition to the year/month build date chart located on the top, inner surface of each cover.

Service correction of a cylinder head cover oil leak condition on a 1981 Jeep six-cylinder engine built after January 1981, involves resealing the cover using the procedure outlined in this bulletin. On six-cylinder engines built prior to January, correction also involves replacing the original cylinder head cover with a revised cover.

Description	Quantity	Part No.	Group
COVER, Cylinder Head (Revised)	1	3237808	1.068
PRIMER (G.E.)	1	8130453	1.068
SEALER, Gasket-In-A-Tube	1	8993317	15.260
SEAL, Cylinder Head Cover-to-Attaching Stud	2	3237837	1.068
FABRIC CLEANER	1	8990968	15.050
NUT, Locking	2	4006926	1.068

PROCEDURE

(1) Disconnect battery negative cable.

(2) Remove air cleaner and PCV molded hose.

(3) Disconnect distributor vacuum advance hose at distributor.

(4) Disconnect fuel line at fuel pump. Rotate line as necessary to provide cylinder head cover removal/installation clearance.

(5) Remove PCV valve from cylinder head cover grommet and disconnect PCV shut-off valve vacuum hose, if equipped.

(6) Remove vacuum switch and bracket assembly from cylinder head cover.

(7) Remove diverter valve and bracket assembly.

(8) Remove all necessary vacuum and air hoses to provide cylinder head cover removal/installation clearance.

NOTE: *Tag hoses for assembly reference.*

(9) Remove cylinder head cover retaining nuts.

(10) Detach cover from cylinder head by breaking silicone seal using putty knife or razor blade. Do not attempt to pry cover upward until seal has been completely broken.

(11) Rotate cylinder head cover to left and remove cover.

(12) Inspect cylinder head cover to determine if cover was manufactured prior to January or is revised model as follows:

(a) If cover has three small pointed projections on front edge of oil filler cap boss and year/month build date chart on cover inner surface indicates cover was manufactured during or after January (Fig. 1), proceed to step (13).

(b) If cover does not have identifying projections and build chart indicates cover was manufactured prior to January (Fig. 1), obtain revised cover, and proceed to step (14).

	MONTH											
YEAR	J	F	M	A	M	J	J	A	S	O	N	D
80	●	●	●	●	●	●	●	●	●	●	●	●
81	●											
82												

Fig. 1 Cylinder Head Cover Build Date Code Chart

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(13) If cover is to be resealed only, remove old sealer from cover flange sealing surface and inspect cover. Replace cover if cracked or damaged in any way.

(14) Transfer PCV valve grommet and oil filler cap from old cover to replacement cover.

(15) Remove old sealer from cover sealing surface of cylinder head and clean surface using AMC Fabric Cleaner, or equivalent. Remove all residue from sealing surface using clean, dry cloth.

(16) Apply General Electric SS4004 primer, or equivalent, to cover sealing surface of cylinder head. Allow 10 — 15 minutes for primer to set-up.

CAUTION: *The following step involves the application of Gasket-In-A-Tube silicone sealer. For an effective repair, it is required that the sealer be no more than twelve months old at time of use. Before using the sealer, check the date code stamped on the crimped seam at the tube bottom or on the sealer carton. The two-character letter code can be deciphered using the Sealer Date Code Chart (Fig. 2).*

First Character is **Year** of Manufacture	Second Character is **Month** of Manufacture
K — 1980	A — January
A — 1981	B — February
B — 1982	C — March
C — 1983	D — April
D — 1984	E — May
E — 1985	F — June
F — 1986	G — July
G — 1987	H — August
H — 1988	J — September
J — 1989	K — October
K — 1990	M — November
	N — December

Fig. 2 Sealer Date Code Chart

(17) Apply 1/8-inch diameter bead of Gasket-In-A-Tube, or equivalent silicone sealer to sealing surfaces of cylinder head and cylinder head cover. Allow approximately five minutes for sealer to set-up.

CAUTION: *Avoid any time delay between sealer set-up and cover installation. The sealer can become tack-free in 10 to 15 minutes which will reduce its adhesive qualities.*

(18) Install replacement seals on cylinder head cover attaching studs. Be sure studs are clean before installing seals.

(19) Install cylinder head cover on cylinder head as soon as primer and sealer have set-up. Do not allow sealer to contact valve train or other components to avoid smearing sealer.

(20) Install and tighten cylinder head cover nuts to 28-inch-pounds (3 N·m) torque.

NOTE: *If the cover nuts are not the locking-type, replace them with locking nuts, part number 4006926.*

(21) Install diverter valve and bracket assembly on cover.

(22) Install vacuum switch and bracket assembly on cover.

(23) Install PCV valve in cylinder head cover grommet and connect PCV shut off valve hose, if equipped.

(24) Install all vacuum and air hoses that were removed for cover removal/installation clearance.

(25) Connect fuel line and distributor vacuum advance hose.

(26) Install air cleaner and molded PCV hose.

(27) Connect PCV hose to PCV valve.

(28) Connect battery negative cable.

(29) Check and adjust engine oil level if necessary.

NOTE: *It is recommended that the sealer be allowed to cure for approximately one-to-two hours before starting the engine.*

The following standard servicing operations and work times will apply.

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
COVER, ENGINE CYLINDER HEAD — RESEAL ..... Material allowance is $2.60	1.072	1011	6-Cyl.		1.4		G
COVER, ENGINE CYLINDER HEAD — REPLACE ..... Material allowance is $2.60	1.068	1012	6-Cyl.		1.3		G

81-096-01A/J

Diagnosis and Repair Bulletin

Subject: Carbon Knock	Application: 1980-81 Jeep Vehicles with Four-, Six-, or Eight-Cylinder Engine	File: POWER PLANT Engines No.81-2 Feb. 19, 1981

The four-, six-, and eight-cylinder engines used in 1980-81 Jeep vehicles may develop a knock caused by carbon buildup on the pistons and combustion chambers. Carbon knock is more likely to occur on high mileage engines but may also occur on low mileage engines depending on the type of driving involved. Carbon knock is not sensitive to engine loading and is most noticeable when the engine is not under load. Carbon knock may be loudest when the engine is cold and may continue after the engine warms up.

Service correction involves removing carbon buildup using Jeep Carburetor and Combustion Area Cleaner, or equivalent, if the knock is not sensitive to engine load.

The following part may be required.

Description	Quantity	Part No.	Group
CLEANER, Carburetor and Combustion Area	Case of 12	8993813	15.410

PROCEDURE

(1) Remove air cleaner top.

(2) Operate engine until it is at normal operating temperature.

(3) Operate engine at fast idle speed and spray cleaner directly into carburetor venturi until container is empty.

(4) Stop engine when container is empty and allow cleaner to penetrate carbon for five minutes.

(5) Start engine and open and close throttle rapidly for two minutes.

(6) Install air cleaner top.

The following standard servicing operation and work time will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
COMBUSTION CHAMBERS, CYLINDER HEAD — CLEAN.....	1.059	1117	All	0.3	0.3		G

81-039-01A/J

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Diagnosis and Repair Bulletin

Subject: Engine Noise Diagnosis	Application: 1981 Jeep CJ Models With Four-Cylinder Engine	File: POWER PLANT — Engines No. 81-1 Nov. 27, 1980

The four-cylinder engines used in 1981 Jeep CJ models generally produce a higher level of operating noise than 1981 six-cylinder engines. This is due to design differences that primarily affect operating clearances. For example, cold engine piston slap or knock that ceases after a few minutes of operation is normal on 1981 Jeep four-cylinder engines.

Because some engine operating noise is normal, it is important that this fact be taken into consideration when diagnosing suspected engine noise. Some known sources of abnormal engine noise are: excessive piston-to-cylinder wall clearance, excessive connecting rod bearing clearance, carbon buildup on pistons, loose or improperly seated camshaft/crankshaft sprockets, and loose torque converter-to-drive plate attaching bolts.

Service correction of a four-cylinder noise condition should be performed only after the noise has been determined to be abnormal, and the source of the noise pinpointed through careful diagnosis. Refer to the diagnosis procedures in this bulletin.

The following parts are available and may be required.

Description	Quantity	Part No.	Group
PISTON (+0.005)	4	8133509	1.143
RING SET, Piston (Engine) (+0.005)	4	8133531	1.146
BEARING, Connecting Rod (Including Upper and Lower) (-0.001)	4	8133438	1.138
BEARING, Connecting Rod (Including Upper and Lower) (-0.002)	4	8133439	1.138
SPROCKET, Crankshaft	1	8132270	1.132
SPROCKET, Camshaft	1	8132271	1.134

Connecting Rod Bearing/Torque Converter Bolt Noise

Connecting rod bearing noise (knock) caused by excessive bearing clearance is generally noticeable when the engine is not under load. Loose torque converter bolts can also produce a noise similar to connecting rod bearings with excessive clearance.

However, converter bolt noise is generally more noticeable when the transmission is in Neutral and engine is operating at fast idle speed. This noise may, or may not be noticeable when the transmission is in gear and the engine at idle speed.

(1) If noise is most noticeable with transmission in Neutral and after throttle is opened and closed rapidly several times, check for loose torque converter bolts. Remove any loose bolts, apply Loctite 271, or equivalent, and install and tighten bolts to 40 foot-pounds (54 N·m) torque.

(2) If noise is most noticeable with transmission in gear and engine under load, check connecting rod bearing clearance. If clearance is excessive, 0.001 or 0.002 inch undersize bearings may be installed. Refer to 1981 Jeep Technical Service Manual for procedure.

Piston Slap/Carbon Knock

Piston slap caused by excessive piston-to-cylinder wall clearance occurs in both low and high mileage engines. Carbon knock is more likely to occur on high mileage engines but may also occur on low mileage engines. Carbon knock is not sensitive to engine loading and is most noticeable when the engine is not under load. Carbon knock may be loudest when the engine is cold and may continue even after the engine warms up.

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NOTE: *Cold engine piston slap that ceases after a few minutes operating time is normal on 1980-81 four-cylinder engines.*

(1) If noise is not sensitive to engine load, clean engine piston tops and combustion chambers with AMC Combustion Chamber cleaner, or equivalent.

(2) If noise ceases after using combustion chamber cleaner, return automobile to owner.

(3) If noise does not cease, check piston-to-cylinder wall clearance. If clearance is excessive, pistons may be knurled to provide desired clearance. However, if knurling service is not readily available, 0.005-inch oversize piston and ring sets may be installed to obtain desired clearance. Refer to 1981 Jeep Technical Service Manual for piston servicing procedures.

NOTE: *Piston-to-wall clearance should be 0.0027-0.0033-inches (0.0635-0.0838 mm). Measure piston diameter at the pin centerline 1-3/16-inches below the piston pin (on the piston skirt). Measure the cylinder bore at a point 2-1/4-inches below the top of the bore. Cylinder taper should be no more than 0.001-inch (0.0508 mm).*

Camshaft/Crankshaft Sprocket Noise

Loose or incorrectly seated camshaft/crankshaft sprockets are generally most noticeable when the engine is warm. Sprocket noise is sensitive to engine speed but not load. Sprocket noise is also evident at warm idle and sounds similar to a loose timing chain.

(1) Remove accessory drive belts and position sound detection tool on timing pointer to verify noise.

(2) If sprocket noise is detected, repair or replace camshaft/crankshaft sprockets. Refer to 1981 Jeep Technical Service Manual for sprocket servicing procedures.

The following standard servicing operation and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
PISTON — KNURL	1.143	1131	4-Cyl.				P
One					0.3		
Two					0.6		
Three					0.9		
Four					1.2		

81-017-01A/J

Jeep

Diagnosis and Repair Bulletin

Subject: Air Conditioning Back Idler Pulley Noise	Application: 1981 California Jeep Cherokee, Wagoneer and Truck Models Built Prior to VIN 1JTNA25N5BT015502 Equipped with Six-Cylinder Engine and Air Conditioning	File: POWER PLANT Cooling System No. 81-3 Mar. 16, 1981

On some 1981 California Jeep Cherokee, Wagoneer, and Truck models built prior to VIN 1JTNA25N5BT015502 and equipped with a six-cylinder engine and air conditioning, the air conditioning back idler pulley or the pulley attaching components may have been installed or assembled incorrectly. This condition could result in a chirp noise from the idler pulley assembly during vehicle acceleration, or whenever engine speed is increased rapidly.

Service correction involves inspecting the back idler pulley components to determine if they have or have not been properly assembled and assembling the pulley components correctly if necessary.

PROCEDURE

(1) Inspect idler pulley attaching bolt and note if lock washer has or has not been installed between bolt head and idler pulley dust cover (see illustration).

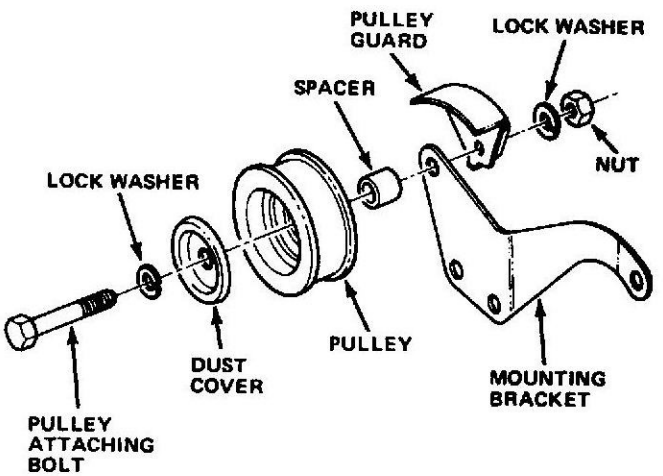
(2) Loosen alternator adjusting bolt and release tension on serpentine drive belt.

(3) Remove nut and lockwasher from idler pulley attaching bolt and remove bolt and pulley components as assembly.

(4) Carefully disassemble idler pulley components and inspect as follows:

(a) Check to see if flat washer was incorrectly installed between idler pulley dust cover and idler pulley. Discard flat washer if a washer was installed.

(b) Check for idler pulley being installed in reverse position. Deepest counterbore in pulley hub should be facing forward (see illustration). Correct pulley position if necessary.



Air Conditioning Back Idler Pulley Assembly

(5) Assemble idler pulley, dust cover, spacer, and pulley attaching bolt and lock washer. Refer to illustration for correct assembly sequence. Be sure pulley is correctly positioned and that lockwasher is installed on pulley attaching bolt.

(6) Position idler pulley assembly on mounting bracket and install lockwasher and nut on pulley attaching bolt. Tighten nut to 36 foot-pounds (49 N·m) torque.

(7) Adjust serpentine belt tension to 140-160 pounds (623-712 Newtons) force and tighten alternator adjusting bolt to 18 foot-pounds (24 N·m) torque.

The following operation and standard work time will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
PULLEY, AIR CONDITIONING BACK IDLER — R & R.....	13.421	13137	6-Cyl.		0.2		G

Jeep

Diagnosis and Repair Bulletin

Subject: Serpentine Drive Belt	Application: 1981 California Jeep Vehicles with Six-Cylinder Engine, Power Steering, Air Conditioning and 55 or 63-Amp Alternator	File: POWER PLANT Cooling Systems No.81-1 Feb. 20, 1981

Some 1981 California Jeep vehicles with six-cylinder engine, power steering, air conditioning and a 55 or 63 amp alternator may be equipped with a serpentine drive belt that cannot be adjusted to the proper tension.

Service correction involves replacing the sepentine drive belt with the following replacement belt and adjusting the new belt to the proper tension as described in this bulletin.

The following part is required and available:

Description	Quantity	Part No.	Group
BELT, Serpentine Drive	1	3241096	2.015

PROCEDURE

(1) Loosen alternator pivot and adjusting bolts.

(2) Loosen power steering pump adjusting bolts.

(3) Place power steering pump in full down position.

(4) Place alternator adjusting bracket in full up position and finger-tighten alternator pivot and adjusting bolts.

(5) Remove backside idler and shield.

(6) Remove original serpentine drive belt.

(7) Install replacement serpentine drive belt. Be sure belt is seated in all pulleys.

(8) Install backside idler and shield.

(9) Position power steering pump so that clearance of 1.2-inches exists between upper corner of steering pump and flat area on underside of air pump and tighten pump adjusting bolts to 30 foot-pounds (41 N.m) torque.

(10) Adjust serpentine belt tension by adjusting alternator position. Use 1/2-inch square drive hole in alternator mounting bracket to move alternator and adjust belt to correct tension. Tighten alternator pivot and adjusting bolts to 28 foot-pounds (38 N.m) torque when adjustment is completed.

The standard servicing operations and work times published in the current SSO manual are not affected by this bulletin.

81-057-02A/J

Jeep

Diagnosis and Repair Bulletin

Subject: Six-Cylinder Engine Block Heater	Application: 1981 Jeep Six-Cylinder Engines Equipped With Engine Block Heater and Built Prior to Engine Build Date Code 011C01	File: POWER PLANT Cooling No. 81-2 Dec. 15, 1980

On some 1981 Jeep six-cylinder engines equipped with an engine block heater and built prior to engine build date code 011C01, the block heater O-ring seal may not contact the block properly and allow coolant to leak past the seal. This condition is due to variations in engine block wall thickness which may cause heater installation depth to be too great.

Service correction involves checking engine block wall thickness and installing a spacer between the block heater and engine block surface if necessary.

The following part is available and required.

Description	Quantity	Part No.	Group
SPACER, Engine Block Heater	1	8133736	15.145

PROCEDURE

WARNING: *Do not attempt to drain coolant from the engine or radiator while the cooling system is hot and under pressure. Hot coolant can cause serious burns.*

(1) Drain coolant from engine.

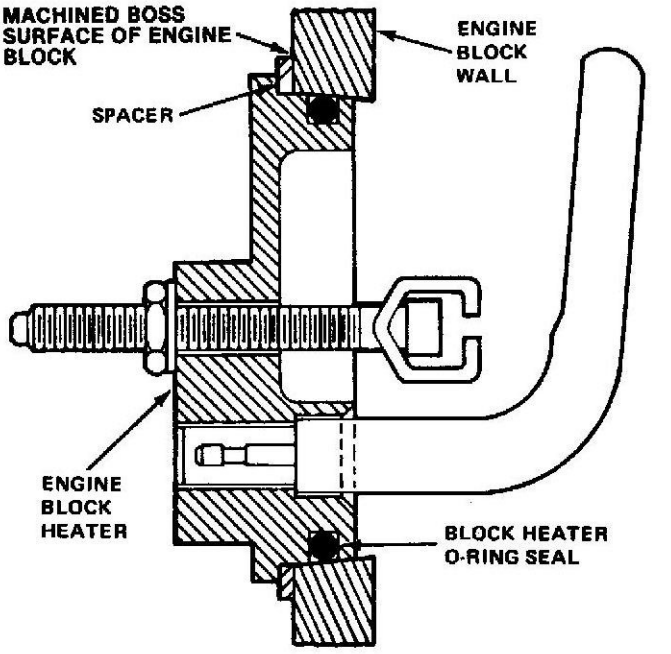
NOTE: *Do not waste reusable coolant. If the solution is clean and is being drained for service purposes only, drain the coolant into a clean container for reuse.*

(2) Disconnect electrical cord from block heater.

(3) Remove block heater from engine block.

(4) Measure thickness of engine block wall at horizontal center of machined boss. If wall thickness is less than 0.36 inch, it will be necessary to install a spacer on engine block heater (see illustration).

NOTE: *The machined boss surface of the block varies from top to bottom. Be sure to measure wall thickness at horizontal center of machined boss surface.*



Engine Block Heater (Compression Nut-type) and Spacer Installation

(5) Check block heater O-ring seal for damage.

(6) Install block heater and spacer assembly, if required, in engine block.

CAUTION: *Use care when tightening the block heater attaching parts. Improper tightening may damage the O-ring seal or allow the heater to loosen resulting in coolant loss and possible engine damage.*

(7) Tighten T-bolt type heater fastener to 20 inch-pounds (2.3 N.m) torque. Tighten compression nut-type heater fastener to 10 foot-pounds (14 N.m) torque.

(8) Connect electrical cord to block heater.

(9) Fill cooling system with coolant drained previously.

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The following standard servicing operation and work time will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
SPACER, ENGINE BLOCK HEATER — INSTALL	15.200	15147	6-Cyl.		0.4		G

81-021-02A/J

Jeep

Diagnosis and Repair Bulletin

Subject: New Voltage Regulator Tester	Application: 1975-81 Jeep Vehicles	File: POWER PLANT — Engine Electrical No. 81-1 June 11, 1981

A new voltage tester that will verify the condition of voltage regulators used with 10-SI series Delco, K1 series Bosch, Motorcraft, and 8-AL series Motorola alternators is now available through the amserv program under code number OT 60884. Because the new tester is capable of simulating the field, stator, battery, ground, and indicator light circuits, the tester is able to perform a complete check on all of the regulator operating modes.

The new tester should be used to verify voltage regulator condition before replacement or to verify the condition of a replacement regulator before installation. Also, when using the tester to diagnose a suspected voltage regulator malfunction, be sure to follow the test procedures outlined in the instruction manual supplied with each tester.

The standard servicing operations and work times as published in the current SSO manual are not affected by this bulletin.

81-095-03A/J

Jeep

Diagnosis and Repair Bulletin

Subject: Catalytic Converter Heat Shield	Application: 1981 California Six-Cylinder Cherokee and Wagoneer Models Built Prior to VIN 1JCNE15N7BT033109	File: POWER PLANT Fuel and Exhaust System No. 81-3 March 19, 1981

1981 California six-cylinder Cherokee and Wagoneer models built prior to VIN 1JCNE15N7BT033109 were equipped with a secondary catalytic converter heat shield in addition to the shield welded to the vehicle underbody. On occasion, the secondary shield clamped to the converter may contact the underbody or converter causing a rattling-type noise to occur. If inspection indicates that the secondary shield is contacting the underbody or converter, the shield may be removed to correct this noise condition.

NOTE: *The secondary shield was phased out of production in December, 1980, and is not used on 1981 California six-cylinder Cherokee and Wagoneer models built after VIN 1JCNE15N7BT033109.*

PROCEDURE

(1) Raise vehicle.

(2) Remove exhaust pipe clamps that attach secondary heat shield to catalytic converter. Shield is positioned over top of converter.

(3) Remove and discard secondary heat shield.

(4) Install exhaust pipe clamps.

(5) Lower vehicle.

The following standard servicing operation and work time will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
SHIELD, CATALYTIC CONVERTER SECONDARY HEAT — REMOVE.....	4.190	4443	6-Cyl.		0.2		M

81-069-04J

Jeep

Diagnosis and Repair Bulletin

Subject: Heated Intake Manifold Diagnosis	Application: 1981 Jeep Vehicles with Six-Cylinder Engine	File: POWER PLANT Fuel and Exhaust No. 81-2 Jan. 12, 1981

This bulletin is being issued to provide additional information which supplements the 1981 Jeep Technical Service Manual.

The intake manifold on 1981 Jeep vehicles has an electric heater located in the plenum chamber below the carburetor. The heater improves fuel vaporization by preventing fuel condensation during engine warmup and also shortens choke operation. When engine coolant reaches operating temperature, the heater shuts off and coolant flowing through the manifold then aids fuel vaporization. When checking coolant flow, electrical circuits, and intake manifold heater operation, use the diagnosis procedure provided in this bulletin.

The following parts may be required and are available:

Description	Quantity	Part No.	Group
HEATER, Intake Manifold		3238718	1.067
PLUG, Intake Manifold	1	4200413	1.067
O-RING, Intake Manifold Heater	1	4200431	1.067
GASKET, Intake Manifold Heater	1	3238909	1.067
RELAY, Intake Manifold Heater	1	3239095	
MANIFOLD, Intake	1	8133011	1.067
GASKET, Intake Manifold-to-Cylinder Head	1	3237775	1.067
SWITCH ASSEMBLY, Intake Manifold Heater Switch (Calif.)	1	3239126	1.067
SWITCH ASSEMBLY, Intake Manifold Heater Switch (49 State)	1	3239065	1.067
SENDING UNIT, Oil Pressure	1	3212004	3.605

DIAGNOSIS PROCEDURE

Intake Manifold Heater Diagnosis

(1) Inspect intake manifold heater wiring for damage and repair wiring if necessary.

(2) Inspect connections at intake manifold heater, manifold heater relay, water temperature sending unit, and oil pressure sending unit. Repair connections if necessary.

(3) Test for presence of battery voltage at manifold heater wire (12 gauge orange) with engine running. Voltage should not be present at this wire when engine is not running.

(4) Start engine and test for battery voltage at manifold heater wire. With engine coolant temperature below 80°F (room temperature), battery voltage should be present at manifold heater wire.

(5) When coolant temperature reaches 160°F, coolant temperature switch should open and break circuit between relay and intake manifold heater. Battery voltage should not be present at orange heater wire at this point.

(6) Test for battery voltage at dark blue with tracer wire at oil pressure sending unit with engine running. This is feed wire for manifold heater relay.

(7) With engine running and at operating temperature, disconnect light green with tracer wire from coolant switch and ground this wire to complete circuit for manifold heater relay. Battery voltage should now be present at orange wire lead at intake manifold heater.

(8) If intake manifold heater is found to be inoperative after thorough testing, replace intake manifold heater, heater gasket, and O-ring. Tighten intake manifold heater attaching screws to 7 foot-pounds (9 N·m) torque.

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NOTE: *The intake manifold must be removed to gain access to the intake manifold heater. Refer to page 1B-42 of 1981 Jeep Technical Service Manual for manifold replacement procedure. In addition, the intake manifold heater must have no more than one entire pin missing or heat output will be marginal.*

Intake Manifold Coolant Passage Diagnosis

(1) Install 12-inch length of 5/8-inch inside diameter heater hose on intake manifold inlet nipple. Then insert funnel in hose. Funnel must have minimum outlet size of 3/8-inch inside diameter.

(2) Disconnect heater inlet hose from rear fitting on intake manifold.

(3) Fill container with 1/2 gallon of water.

(4) Begin pouring water into funnel and time water flow through manifold when water starts flowing down funnel.

(5) Continue pouring water into funnel until container is empty, then continue timing water flow until funnel is empty.

(6) If water flows through intake manifold coolant passage in 25 seconds or less, coolant flow is correct and passage is not restricted.

(7) If water takes longer than 25 seconds to flow through intake manifold, check manifold inlet for casting flash or other restrictions, correct as necessary, and proceed to next step.

(8) Check length of pipe plugs in intake manifold coolant passages. Plugs must not be so excessive in length that coolant flow is restricted. Replace plugs if length is excessive.

NOTE: *Do not waste reusable coolant. If the coolant is acceptable for reuse, drain the coolant into a clean container.*

(9) If intake manifold coolant passages are restricted and cannot be cleared, replace intake manifold. Refer to replacement procedure on page 1B-42 of 1981 Jeep Technical Service Manual.

The following standard servicing operations and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
HEATER, INTAKE MANIFOLD — TEST ... Includes testing intake manifold heater relay	3.830	4221	6 Cyl.		0.2		G
Coolant flow, intake manifold — Check for Restriction	1.066	A			0.1		G

81-018-04A/J

Jeep

Diagnosis and Repair Bulletin

Subject: Altitude Performance Adjustments	Application: 1981 Jeep Vehicles	File: POWER PLANT Fuel and Exhaust No. 81-1 Dec. 12, 1980

This bulletin is being issued to outline the altitude performance adjustments for 1981 Jeep vehicles required under a newly established Federal standard. The adjustments will improve driveability performance as well as emissions performance at altitudes other than that for which the vehicles were designed.

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 8130450, 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 owner 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, should be advanced 5°. The engine idle speeds should be reset according to the procedures outlined in the 1981 Jeep Technical Service Manual. After performing these adjustments, fill out and attach emission control label, part number EF8130446, to the engine compartment dash panel.

These adjustments apply to all 1981 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 CJ models with six-cylinder engine and manual transmission originally sold for operation at altitudes **above** 4,000 feet that are being operated below 4,000 feet, the fuel metering rods should be adjusted one full turn clockwise (richer) and the engine idle speeds reset as specified on the original vehicle emission control label or in the 1981 Jeep Technical Service Manual. After performing these adjustments, fill out and attach emission control label, part number EF8130448, to the engine compartment dash panel.

These adjustments apply **only** to 1981 CJ models with six-cylinder engine and manual transmission 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.

81-129-04A/J

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Diagnosis and Repair Bulletin

Subject: SR4 Four-Speed Manual Transmission Vent	Application: 1980-81 CJ and Scrambler Models With SR4 Four-Speed Manual Transmission	File: CHASSIS — Clutch - Manual Transmission No. 81-1 June 15, 1981

On some 1980-81 CJ and Scrambler models equipped with an SR4 four-speed manual transmission built prior to March 1981, a small amount of transmission lubricant may occasionally escape from the transmission vent located in the transmission adapter. This condition occurs primarily during cold weather warmup and may be caused by the normal increase in working pressure within the transmission during operation.

If inspection indicates that a small amount of lubricant occasionally escapes from the vent, service correction involves drilling a 1/16-inch diameter auxiliary vent hole in the transmission top cover.

PROCEDURE

(1) Remove transmission and transfer case shift lever knobs.

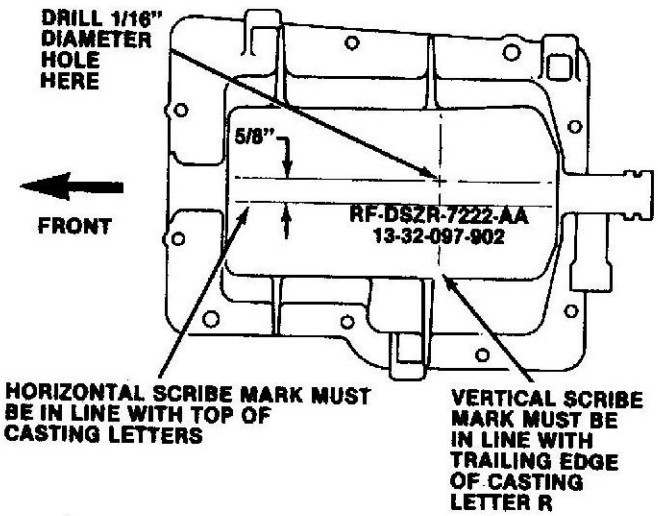
(2) Remove floor carpeting, if equipped.

(3) Remove screws attaching transmission access cover to floorpan and remove access cover and shift lever boots as assembly.

(4) Clean transmission top cover surface thoroughly.

(5) Locate, mark, and centerpunch position of additional vent hole in transmission top cover (see illustration). Scribe vertical mark in line with trailing edge of letter R on casting and be sure horizontal mark is scribed 5/8-inch upward from **top edge** of casting letters as shown in illustration.

NOTE: *It is important that the vent hole be located as accurately as possible. Use an accurate steel rule and a sharp scriber only to locate and mark hole position.*



Locating Auxiliary Vent Hole In SR4 Transmission Top Cover

(6) Apply generous coating of grease to 1/16-inch diameter drill bit (to contain chips) and carefully drill vent hole in transmission top cover. Clean chips from cover after drilling vent hole.

CAUTION: *There is only a small clearance between the shift fork retainer and the cover. Do not allow the drill bit to contact the retainer when the bit penetrates the cover.*

(7) Install transmission access cover and shift lever boots.

(8) Install floor carpeting, if equipped.

(9) Install shift knobs on transmission and transfer case shift levers.

(10) Check and adjust transmission lubricant level if necessary.

The following standard servicing operation and work time will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
COVER, TRANSMISSION TOP — ADD AUXILIARY VENT HOLE With carpet — Add	6.009	7717	CJ	0.3 0.1	0.3 0.1		G

81-097-06A/J

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PRODUCT RECALL CAMPAIGN
Diagnosis and Repair Bulletin No. 2-03-82

Subject: [illegible] SAFETY [illegible] Throttle [illegible]rol Rod [illegible] Improperly [illegible] SCN-589

Date: July 13, 1981

Application: 1981 Jeep CJ7, Cherokee, Wagoneer & Truck

File: CHASSIS-Auto Trans

This is a Type "S" Campaign involving safety related elements. A copy of the owner notification is shown in Figure 2.

On some 1981 Jeep CJ7, Cherokee, Wagoneer and Truck models with six-cylinder engines and automatic transmissions, the automatic transmission throttle control rod spring and spring hitch pin may be improperly installed causing the throttle to close slower than expected. This condition could result in longer stopping distances or higher than normal braking effort.

Vehicles affected by this campaign are:

CJ7 models built between VIN 1JCCE87A7BT000010 and 1JCCE87E8BT020494; Cherokee and Wagoneer models built between VIN 1JCCE17C0BT000021 and 1JCCE17D9BT019806; and Truck models built between VIN 1JTCE26N8BT000034 and 1JTCA26NXBT018529

Service correction involves inspecting and correcting throttle control rod spring and hitch pin position, if necessary, and checking the throttle linkage operation.

Detroit will provide you with a VIN list of involved vehicles. Campaign procedures apply to all dealers. On all undelivered campaign-involved vehicles, the campaign action must be performed before the vehicles are sold or otherwise put in service.

INSPECTION AND REPAIR PROCEDURE

(1) Open hood and inspect throttle control rod spring position.

(2) If spring is attached to bellcrank and to hitch pin, as shown in Figure 1, spring is correctly installed. Proceed to Step (4).

(3) If spring is incorrectly attached at either the bellcrank or the hitch pin, correct, as shown in Figure 1, and check throttle linkage operation.

(4) Place yellow paint mark on bellcrank to indicate completion of campaign inspection/repair procedure.

(5) Close hood and return vehicle to owner.

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The following standard work times will apply:

Operation Description	Alpha Service Code for Claim	Model	Year and Time -81-	Skill Level
SPRING & HITCH PIN, THROTTLE CONTROL ROD - INSPECT/RELOCATE Includes drive-in/ drive-out time	A	6-cyl	0.2	G

CLAIM HANDLING

The dealer will be required to complete a Campaign Notice and Claim Form (AM 4251) for each vehicle serviced. Upon completion, submit the CCD copy of the form to CCD in Milwaukee.

Based on the alpha box checked, the dealer will automatically be credited on the mid or end-of-month memorandum of warranty transactions (code 40) referencing the claim number on the form. The single credit shown will include Drive-in/Drive-out and corresponding labor costs.

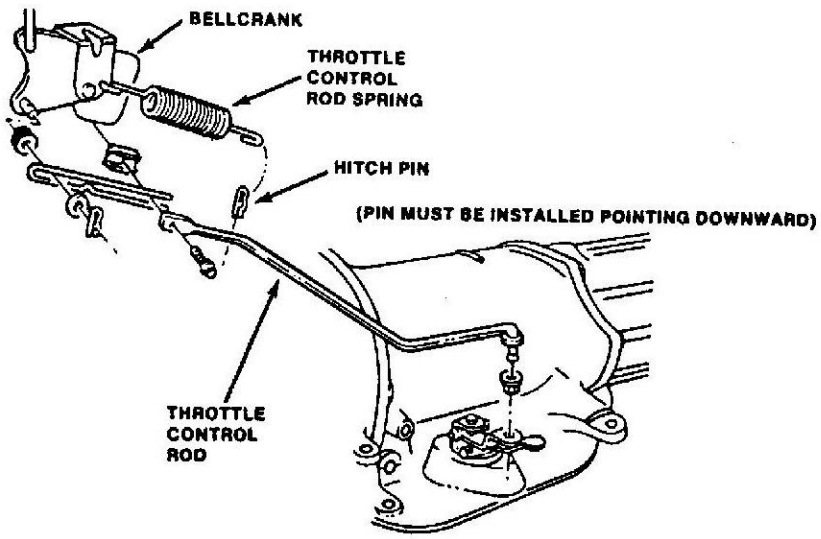

Figure 1 - Throttle Control Rod Spring Position

Campaign No: 8102

NHTSA No: 81V-015

American Motors Sales Corporation
American Center
27777 Franklin Road
Southfield Michigan 48034

Dear Jeep Vehicle Owner:

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 certain 1981 Jeep vehicles equipped with a six-cylinder engine and an automatic transmission. Your vehicle may have an improperly installed transmission throttle control rod spring.

An improperly installed transmission throttle control rod spring could cause the throttle to close more slowly than expected. If you experience a slower-than-normal return to idle, this may be a warning of the spring condition and could cause longer-than-normal braking distance leading to a possible vehicle crash. If you experience a slow return to idle speed, exercise extreme caution in driving and take your vehicle to your dealer for service as soon as possible.

Please contact your Jeep dealer now to arrange an appointment to assure that each end of the spring is correctly positioned. Please present the enclosed form to your dealer when you tender your vehicle for service. He will complete the form after servicing your vehicle and will give you a copy for your records. This correction usually requires no more than one-half hour and will be performed at no charge to you.

If you no longer own the vehicle described, or you have moved, please complete the change of address or ownership form attached to the back of the enclosed form and return it to us so that we may update our records accordingly.

If your dealer does not perform this service on your mutually arranged appointment date or within five days thereafter and without charge, please contact the local Zone Office (listed in your Owner's Manual) or American Motors Sales Corporation, Owner Relations, 14250 Plymouth Road, Detroit, Michigan 48232, Telephone (313) 493-2341. If you are unable to obtain this campaign service within a reasonable time or without charge, you may contact the National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington D.C. 20590 or call the toll free Auto Safety Hotline at 800-426-9393 (Washington D.C. area residents may call 426-0123).

We regret any inconvenience this may cause you; however, we have taken this action in the interest of your safety and your continued satisfaction with our products. We again wish to thank you for your continued confidence in purchasing our AMC products and may you have many happy miles of pleasant motoring. If we can be of any further service to you, please feel free to contact your local AMC dealer.

D. M. Semann
General Manager-Service

Enclosure

Figure 2 - Owner Notification

Jeep

Diagnosis and Repair Bulletin

Subject: Torque Converter Turbine Hub and Transmission Input Shaft Splines	Application: 1981 Jeep CJ Models with Four-Cylinder Engine and Model 904 Automatic Transmission	File: CHASSIS Automatic Transmission No. 81-2 Feb. 27, 1981

This bulletin is being issued as a supplement to the automatic transmission diagnosis section in Chapter 2C or the 1981 Jeep Technical Service Manual. The information in this bulletin provides an additional possible cause for diagnosis of a vehicle that will not move forward or in reverse.

On some 1981 Jeep CJ models with a four-cylinder engine and model 904 automatic transmission, the torque converter turbine hub and transmission input shaft splines may not engage properly and become damaged. If spline damage is severe enough, the vehicle may not move. In December, 1980, a new transmission input shaft with longer splines was phased into production and is now available for service (see illustration). The new shaft provides increased spline contact to ensure proper input shaft-to-converter hub spline engagement.

Service correction involves: Verifying the condition using the diagnosis procedure provided in this bulletin, replacing the torque converter, installing the new longer spline input shaft, replacing the oil pump bushing and seal if diagnosis indicates this is necessary, and replacing the transmission fluid and filter. The oil cooler, cooler lines, oil pan, and oil pan magnet must also be flushed and cleaned if diagnosis indicates that repairs are necessary.

The following parts are available and may be required:

Description	Quantity	Part No.	Group
CONVERTER, Torque	1	3234274	16.030
SHAFT, Input	1	8133780	16.405
SEAL, Oil Pump	1	8122838	16.380
BUSHING, Oil Pump	1	8120854	16.380
GASKET, Oil Pan	1	8120983	16.315
FILTER, Oil	1	8123042	16.345

DIAGNOSIS PROCEDURE

(1) Verify condition. Refer to preliminary diagnosis in automatic transmission diagnosis and test procedures section of 1981 Jeep Technical Service Manual and check conditions causing "will not move in forward or reverse" that do not require transmission removal.

(2) Check for broken or disconnected gearshaft linkage components.

(3) Verify that vehicle will not move forward or in reverse and that condition occurs in **all** gear ranges. If automobile will move in any one gear range, condition is not result of spline damage.

(4) Remove converter housing inspection cover. Check for broken or missing converter or drive plate bolts, and check for broken drive plate. Repair as necessary.

(5) Perform hydraulic pressures tests 1, 2, and 3 as outlined in 1981 Jeep Technical Service Manual. If pressures are within specifications in Hydraulic Pressure Test Diagnosis and Specifications Charts, proceed to Transmission Repair Procedure.

TRANSMISSION REPAIR PROCEDURE

(1) Remove transmission and torque converter as outlined in Technical Service Manual.

(2) Remove oil pan attaching bolts and remove oil pan.

(3) Remove oil filter.

(4) Loosen front band lock nut and tighten front band adjusting screw.

(5) Remove oil pump attaching screws and remove pump using tool J-7004-3 and Slide Hammer J-6585-1.

(6) Loosen front band adjusting screw and remove band strut and front band.

(7) Remove input shaft and front and rear clutch assemblies.

(8) Lift front clutch upward and off rear clutch retainer.

(9) Remove input shaft snap ring.

(10) Remove input shaft from rear clutch using arbor press.

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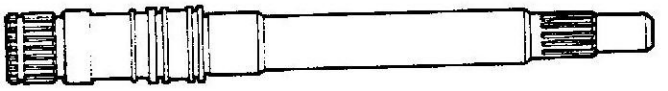
(11) Install replacement seal rings on replacement input shaft. Be sure shaft is new-type with longer spline (see illustration).

NOTE: *The input shaft front seal ring is made of teflon and the rear seal ring of cast iron.*



OLD SHORT SPLINE INPUT SHAFT

NEW LONG SPLINE INPUT SHAFT

Transmission Input Shaft Comparison — Model 904 (4-Cylinder)

(12) Install replacement input shaft in rear clutch retainer using arbor press.

(13) Install replacement snap ring on input shaft.

(14) Align front clutch inner splines and position front clutch assembly on rear clutch.

NOTE: *Be sure the front clutch plate splines are fully engaged in the rear clutch hub.*

(15) Coat number 3 selective thrust washer with petroleum jelly and install washer on output shaft.

(16) Align rear clutch inner splines.

(17) Install clutch assemblies in transmission case. Install assemblies using circular turning motion and be sure to engage rear clutch splines with splines of front annulus gear.

NOTE: *Be sure the front clutch drive lugs are fully engaged in the driving shell slots.*

(18) Install front band on front clutch assembly.

(19) Install front band strut.

(20) Tighten front band adjusting screw just enough to hold band and linkage in place.

(21) Inspect oil pump bushing. If bushing is worn or scored, replace bushing and oil pump seal as outlined in Technical Service Manual.

(22) Install thrust washer on reaction shaft support hub.

(23) Thread two Pilot Stud Tools J-3387-2 into oil pump opening in case.

(24) Install replacement oil pump gasket over pilot studs.

(25) Install replacement rubber seal ring in groove on outer flange of pump housing. Be sure seal is not twisted.

(26) Coat pump housing seal ring with petroleum jelly.

(27) Install pump assembly in case. Tap pump assembly lightly with rawhide mallet to seat asembly if necessary.

(28) Install replacement seals on oil pump attaching bolts.

(29) Install four oil pump attaching bolts. Tighten bolts finger-tight only.

(30) Remove pilot studs and install remaining oil pump bolts finger-tight only.

(31) Rotate input and output shafts. Shafts must not bind. Correct any bind as necessary.

(32) Tighten all oil pump attaching bolts evenly to 175 inch-pounds (20 N·m) torque.

NOTE: *After pump installation, check input shaft end play as outlined in the Technical Service Manual.*

(33) Clean oil pan, oil pan gasket surface, case gasket surface, and oil pan magnet.

(34) Install replacement oil filter.

(35) Install replacement oil pan gasket and install oil pan. Tighten oil pan bolts to 150 inch-pounds (17 N·m) torque.

(36) Adjust front band as outlined in Technical Service Manual.

(37) Flush oil cooler and cooler lines as outlined in Technical Service Manual.

(38) Install replacement torque converter.

(39) Install transmission as outlined in Technical Service Manual.

The following standard servicing operations and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
TRANSMISSION — R & R..... Includes transmission and transfer case removal as assembly		16200	CJ-7		1.7		G
Input Shaft — Replace.....	36.405	Z			0.6		G
Pump Bushing and Seal — Replace	36.382	AA			0.2		G

81-055-16A/J

Jeep®

FILE: Axles-Suspension-Brakes-Steering (CHASSIS - Transfer Case/Quadra-Trac)

No. 3-04-82 Mar. 8, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: Transfer case shift lever rattles or makes a buzzing noise in some 1980-82 CJ and Scrambler models.

CORRECTION: Install a flat washer and rubber bumper on the transfer case shift lever ball-end (see illustration).

PARTS:

Description	Quantity	Part Number	Group
WASHER, Flat	1	G131016	17.814
BUMPER, Rubber	1	637936	35.300

WARRANTY ELIGIBILITY: Reimbursable within the provisions of the applicable warranty.

SSO INFORMATION:

Operation Description	Cost Code	Operation Number	Model	Year and Time -80-	-81-	-82-	Skill Level
LEVER, TRANSFER CASE SHIFT - MODIFY	18.135	18019	CJ	0.2	0.2	0.2	G

PROCEDURE:

1. Raise the vehicle.
2. Remove the shifter shaft nut and slide the shifter shaft out of the shift lever.
3. Lift the shift lever upward and out of the shift control link.
4. Install the flat washer and rubber bumper on the ball-end of the shift lever (see illustration). Be sure the flat washer is seated against the shoulder at the ball-end of the shift lever.

(continued)

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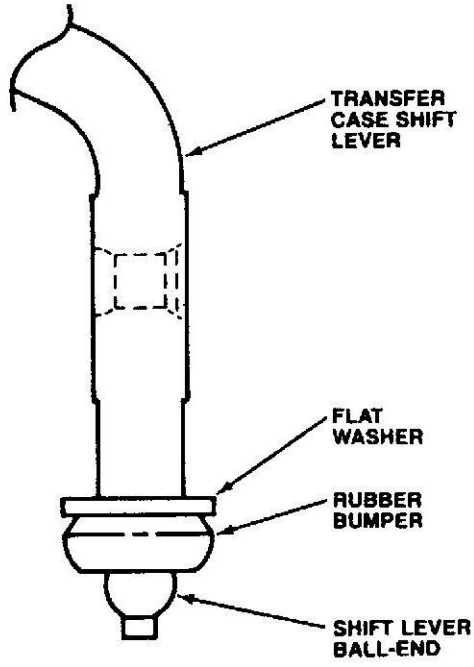
5. Seat the shift lever firmly in the shift control link. Reinsert the shifter shaft into the shift lever and front output bearing cap and install the shifter shaft nut.

6. Lower the vehicle.



Installing Washer and Bumper On Shift Lever Ball-End

82-057-J

Jeep

Diagnosis and Repair Bulletin

Subject: Chirp Noise Caused by Transfer Case Input Gear Thrust Bearing Race or Front Output Shaft Thrust Bearing Races

Application: 1981 Jeep Cherokee, Wagoneer, and Truck Models with Model 219 Quadra-Trac Transfer Case Built Prior to June 5, 1981.

File: CHASSIS — Transfer Case/ Quadra-Trac

No. 81-2 Oct. 5, 1981

Some 1981 Jeep Cherokee, Wagoneer and Truck models equipped with a model 219 Quadra-Trac transfer case built prior to June 5, 1981, may develop a repetitive chirp noise that occurs in the 30-55 mph speed range. This noise may be caused by a rough or chipped surface on the transfer case input gear thrust bearing race or on one or both of the front output shaft thrust bearing races.

Service correction involves checking the transfer case build date, verifying the chirp noise condition, and replacing the input gear thrust bearing and race and front output shaft thrust bearing(s) and race(s) if necessary.

The following parts may be required.

Description	Quantity	Part No.	Group
BEARING KIT, Input Thrust	1	8130875	18.812
BEARING ASSEMBLY, Front Output	2	8130819	18.840

PROCEDURE

(1) Check transfer case build date stamped on identification tag attached to rear case.

(a) If transfer case was built on or prior to June 5, 1981, proceed to step (2).

(b) If transfer case was built on or after June 5, 1981, and owner described some type of noise, further diagnosis will be required. Refer to 1981 Jeep Technical Service Manual.

(2) Road test vehicle to verify chirp noise condition in 30-55 mph speed range.

(a) If repetitive chirp noise is not evident, return vehicle to owner.

(b) If repetitive chirp noise occurs, proceed to next step.

(3) Remove and disassemble transfer case as outlined in 1981 Jeep Technical Service Manual.

(4) Inspect condition of input gear thrust bearing race. If either surface or race is rough, chipped, cracked, pitted, or damaged in any way, discard thrust bearing and race and install replacement thrust bearing and race, 8130875.

(5) Inspect front output shaft thrust bearings and races. If either surface of front or rear thrust bearing race is rough, chipped, cracked, pitted, or damaged in any way, discard thrust bearing(s) and race(s) and install replacement thrust bearing(s) and race(s), 8130819.

(6) Assemble and install transfer case as outlined in 1981 Jeep Technical Service Manual.

(7) Check transfer case operation to verify noise correction.

The following standard servicing operations and work times will apply.

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
ROAD TEST (C)		**0717**			**0.3**		**G**
INPUT GEAR/FRONT OUTPUT SHAFT THRUST BEARING(S) AND RACE(S) — REPLACE		**18501**	**Cke-Wag-Trk**				**G**
			8-Cyl.		**3.3**		
			6-Cyl.		**3.7**		
Input gear	**18.230**						
Front output shaft	**18.366**						

81-116-018A/J

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Diagnosis and Repair Bulletin

Subject: Transfer Case Output Shaft Seal Leak Diagnosis	Application: 1980-81 Jeep Vehicles Equipped with Model 219 Quadra-Trac Transfer Case	File: CHASSIS Transfer Case/Quadra-Trac No. 81-1 Feb. 23, 1981

On some 1980-81 Jeep vehicles with a model 219 Quadra-Trac transfer case built prior to 10-28-80, the adhesive tape strip on the vent chamber seal may separate from the seal and block the rear retainer vent passage. If the vent passage becomes blocked, pressure buildup within the transfer case could cause lubricant to leak from one or both output shaft seals and be incorrectly diagnosed as a seal problem. Model 219 transfer cases built on or after 10-28-80 have a new self adhering vent chamber seal that does not require an adhesive tape strip.

Service diagnosis and correction of a leak condition involves first checking the transfer case build date, replacing the vent chamber seal if necessary, and replacing one or both output shaft seals if diagnosis indicates this is necessary.

The following parts are available and required:

Description	Quantity	Part No.	Group
SEAL, Vent Chamber	1	8133743	18.000
SEAL, Front and Rear Output	AR	8130808	18.000

PROCEDURE

Vent Chamber and Rear Output Shaft Seal Replacement

(1) Raise vehicle on hoist.

(2) Remove transfer case fill and drain plugs and drain lubricant from transfer case.

(3) Mark rear propeller shaft and transfer case yoke for assembly alignment reference.

(4) Disconnect rear propeller shaft at transfer case yoke and secure shaft to underside of vehicle.

(5) Remove and discard transfer case rear yoke nut and seal washer. Use tool J-8614-01 to hold yoke while removing nut.

(6) Remove rear yoke using tools J-8614-01, 02, 03, if necessary.

(7) Remove speedometer cable and adapter from rear retainer. Discard adapter seal, it is not reusable.

(8) Mark rear retainer and rear case half for assembly alignment reference and remove rear retainer bolts and retainer. Tap retainer with rawhide or plastic mallet to loosen and pry retainer from case using slots in retainer only.

(9) Remove vent chamber seal from retainer interior and clean seal mating surface in retainer thoroughly. Clean mating surfaces of retainer and rear case and dry both surfaces thoroughly.

(10) If diagnosis indicated that rear output seal (in retainer) was leaking, remove seal and clean seal bore in rear retainer thoroughly.

(11) Coat outer edge of replacement output seal with silicone sealer and install seal in retainer using tool J-29162.

(12) Install replacement vent chamber seal. Remove seal adhesive protector strip and position seal over vent hole inside retainer. Be sure hole in seal is aligned with hole in retainer and that length of vent seal is parallel with front face of retainer.

(13) Coat retainer mating surface of rear case with silicone sealer.

(14) Align rear retainer and rear case reference marks and install retainer on case.

(15) Install and tighten retainer attaching bolts to 23 foot-pounds (31 N.m) torque.

(16) Install rear yoke, replacement yoke seal washer, and replacement nut. Tighten nut to 120 foot-pounds (163 N.m) torque.

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CAUTION: *Do not attempt to reuse the original yoke nut. This nut is a self locking design and should not be reused.*

(17) Install replacement speedometer adapter seal and install speedometer driven gear assembly in transfer case.

NOTE: *Do not reuse the adapter O-ring seal, it is designed to swell in service to provide improved sealing qualities and could be cut or torn if reuse is attempted.*

(18) Install and tighten transfer case drain plug to 18 foot-pounds (24 N.m) torque.

(19) Align and connect rear propeller shaft to yoke using assembly alignment reference marks. Tighten clamp strap bolts to 15 foot-pounds (20 N.m) torque.

NOTE: *If diagnosis indicated that the front output shaft seal was leaking, proceed to Front Output Shaft Seal Replacement.*

(20) Fill transfer case to edge of fill plug opening with 10W30 motor oil, API grade SF or SE.

(21) Install and tighten transfer case fill plug to 18 foot-pounds (24 N.m).

(22) Lower Vehicle.

Front Output Shaft Seal Replacement

(1) Mark front propeller shaft and transfer case yoke for assembly alignment reference.

(2) Disconnect front propeller shaft from yoke and secure shaft to underside of vehicle.

(3) Remove and discard transfer case front yoke nut and seal washer. Use tool J-8614-01 to hold yoke while removing nut.

(4) Remove transfer case front yoke using tools J-8614-01, 02, 03, if necessary.

(5) Remove front output shaft seal. Clean seal bore thoroughly.

(6) Coat replacement front output seal outer surface with silicone sealer.

(7) Install replacement output seal in front case bore using tool J-29162.

(8) Install front yoke, replacement yoke seal washer, and replacement yoke nut. Tighten yoke nut to 120 foot-pounds (163 N.m) torque.

CAUTION: *Do not attempt to reuse the original yoke nut. It is a self-locking design and should not be reused.*

(9) Align and connect front propeller shaft to yoke using assembly reference marks. Tighten clamp strap bolts to 15 foot-pounds (20 N.m) torque.

(10) Fill transfer case to edge of fill plug hole with 10W30 motor oil, API grade SE or SF.

(11) Install and tighten fill plug to 18 foot-pounds (24 N.m) torque.

(12) Lower vehicle.

The following standard servicing operations and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
SEAL, VENT CHAMBER — REPLACE .... Includes rear bearing retainer R & R and rear output shaft replacement if necessary	18.436	18009	Cke-Wag -Trk	0.8	0.8		G
SEAL, FRONT OUTPUT SHAFT — REPLACE	18.218	18007	Cke-Wag -Trk	0.6	0.6		G

81-046-18A/J

Diagnosis and Repair Bulletin

Subject: Parking Brake Lever to Equalizer Cable May Contact Transfer Case	Application: 1981 Cherokee, Wagoneer, and Truck Models With Six-Cylinder Engine and Automatic Transmission	File: CHASSIS Brakes – Wheels – Tires No. 81-1 July 20, 1981

On some 1981 Cherokee, Wagoneer, and Truck models with six-cylinder engine and automatic transmission, the threaded end of the parking brake lever to equalizer cable may contact the transfer case.

Service correction involves inspecting and shortening the threaded end of the cable by approximately 1/2-inch if necessary. This inspection should be performed during any normal service visit.

PROCEDURE

(1) Raise and support vehicle.

(2) Inspect threaded end of parking brake lever to equalizer cable (see illustration).

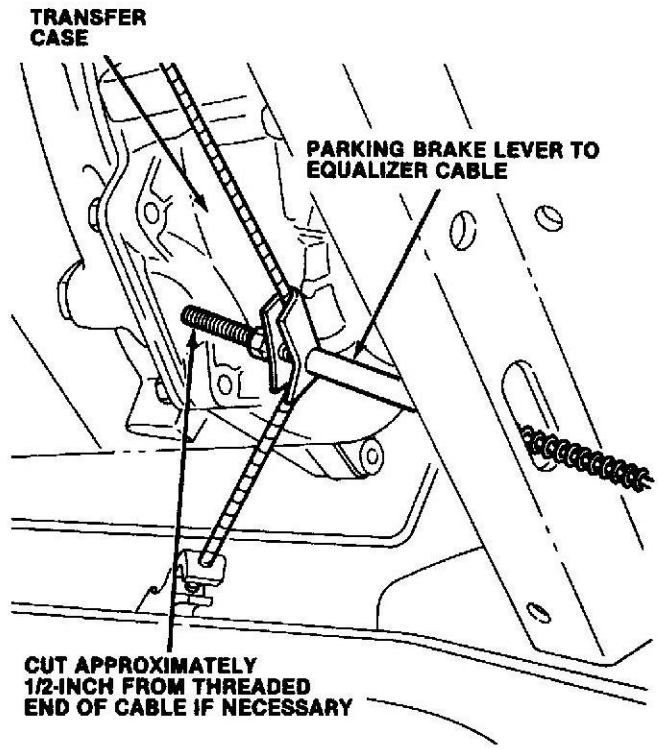
  (a) If there is at least 1/2-inch clearance between cable threaded end and transfer case, lower and return vehicle to owner.

  (b) If cable threaded end is contacting transfer case or there is insufficient clearance, proceed to step (3).

(3) Cut approximately 1/2-inch from threaded end of cable, using hacksaw or bolt cutter only (see illustration).

CAUTION: *Do not use an acetylene torch to shorten the cable threaded end as the cable or transfer case aluminum housing could be damaged. Use a hacksaw or bolt cutter only.*

(4) Remove supports and lower vehicle.



Parking Brake Lever to Equalizer Cable Inspection/Modification

The following standard servicing operation and work time will apply.

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
CABLE, PARKING BRAKE LEVER TO EQUALIZER — MODIFY	8.053	8183	Cke-Wag-Trk		0.1		G

81-104-08J

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FILE: Windshield-Windows-Body Hardware (BODY-Body General)

No. 5-03-82 Oct. 8, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: Revisions made to certain parts has improved the operation of the lock button and latch on CJ models with metal doors and remote door handles. If the door handle or lock button in the metal doors of 1981-82 CJ models require service or become difficult to operate, use the following procedure to determine proper servicing.

CORRECTION: Inspect and repair the door lock button and latch mechanism as outlined in the Procedure portion of this bulletin.

PARTS: The following parts may be required.

Description	Quantity	Part Number	Group
LATCH ASSEMBLY, Front Door	1		23.050
Left		5758177	
Right		5758176	
ROD AND BUSHING ASSEMBLY, Outside Door Handle	1 (per door)	5758179	23.074
CLIP, Lock Button Pivot Pin Retaining	1 (per door)	4007207	23.055

S.R.T. INFORMATION:

Operation Description	T.I.C.	Operation Number	S.R.T.
CO. FRONT DOOR LATCH AND ROD AND BUSHING ASSEMBLIES - INSPECT	5-224	5999	
One door			0.1
Both doors			0.2
SO. FRONT DOOR LATCH - REPLACE	5-121	5999	
One door			0.3
Both doors			0.5

(continued)

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Operation Description	T.I.C.	Operation Number	S.R.T.
SO. ROD AND BUSHING ASSEMBLY, OUTSIDE DOOR HANDLE - REPLACE	5-130	5999	
One door			0.1
Both doors			0.2
CO. CLIP, LOCK BUTTON PIVOT PIN RETAINING - INSTALL	5-130	5999	
One door			0.2
Both doors			0.3

DEALER REIMBURSEMENT: Reimbursable within the provisions of the applicable warranty.

PROCEDURE:

1. Remove the front door window regulator handle, door pull strap, and lower trim panel.

2. Inspect the latch assembly and control rods, and the J-shaped outside door handle rod and bushing.

   a. Replace the latch assembly if damaged or if the nylon spacer between the lock and release levers, as shown in Figure 1, is damaged or missing.

   b. If the latch control rod is bent or binding, it must be replaced. Do not attempt to straighten it.

   c. Inspect the J-shaped outside door handle rod and bushing assembly. If it is bent or damaged, it must also be replaced. The rod must be equipped with a solid-type bushing as shown in Figure 2.

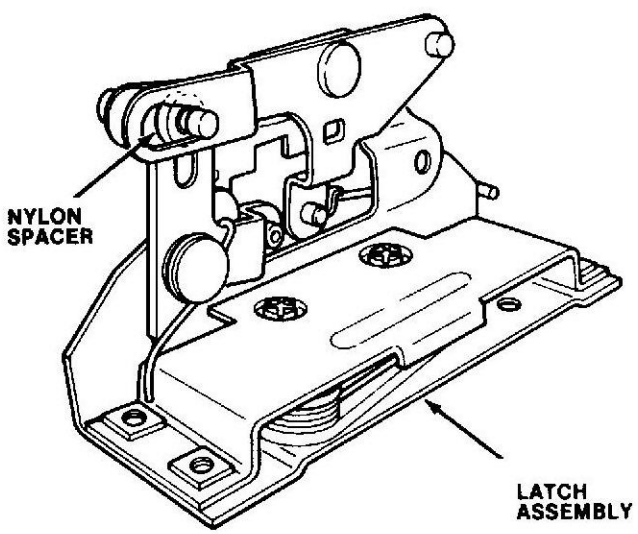

Fig. 1 — Latch Assembly Inspection

3. Install any necessary replacement components as indicated in the previous inspection step. Refer to the appropriate Jeep Technical Service Manual for procedures.

4. Lubricate the latch mechanism and the outside door handle rod and bushing with Lubriplate or an equivalent lubricant.

5. Roll the front door window down.

6. Remove the remote control handle attaching screw and rock the handle out of the door.

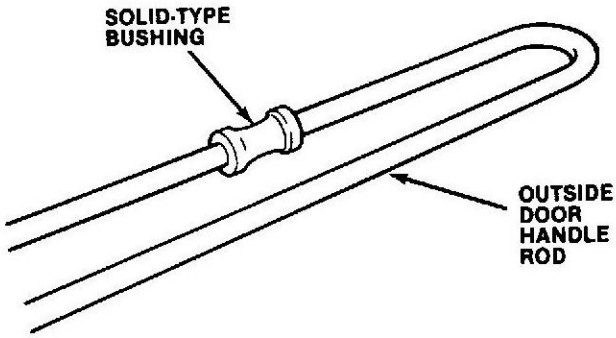

Fig. 2 — Outside Door Handle Rod and Bushing Inspection

7. Install retaining clip, part number 4007207, over the remote control handle lock button pivot pin and pin boss (Fig. 3). Be sure the clip notch is fully seated on the plastic pin and pin boss.

8. Install the remote control handle in the door and install the handle retaining screw.

9. Install the door lower trim panel, door pull strap, and window regulator handle if not already installed.

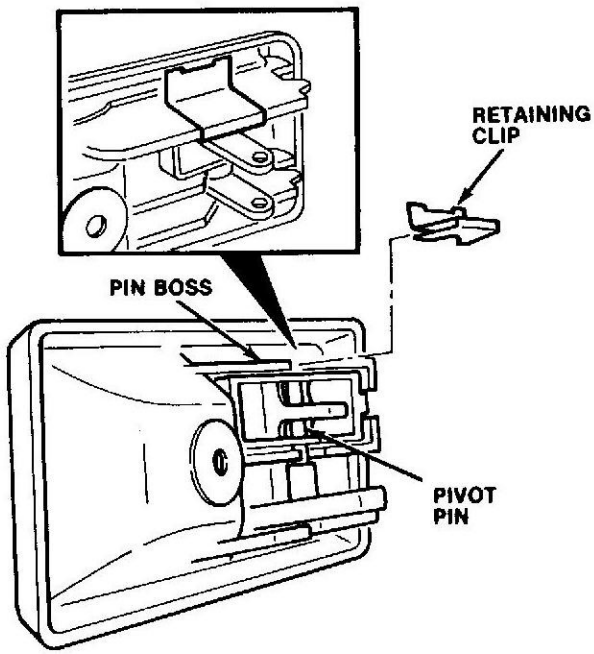

Fig. 3 — Lock Button Pivot Pin Retaining Clip Installation

82-091-J

Jeep®

FILE: Windshield-Windows-Body Hardware (BODY - Body General)

No. 5-02-82 Sept. 10, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: Discoloration or peeling of the finish coat on wood side rails installed on some 1981-82 Scrambler and Sportside Truck models.

CORRECTION: Strip and refinish both wood side rails as outlined in this bulletin.

PARTS: Not affected.

S.R.T. INFORMATION:

Operation Description	T.I.C.	Operation Number	S.R.T.
CO. WOOD SIDE RAILS - REFINISH BOTH Material allowance for paint, sandpaper, stripping agents, sealer and bleach is $20.00 for both sides	9-350	5999	5.1

DEALER REMIBURSEMENT: Reimbursable within the provisions of the applicable warranty.

PROCEDURE:

1. Remove the side rails from the vehicle.
2. Strip the original finish from the rails using a quality chemical stripping agent such as Savogran, BIX, Zip-Strip, or an equivalent varnish remover.
3. Sand the side rail surfaces with medium grit sandpaper to smooth the surfaces and remove all traces of the old finish.
4. Wash the side rails with a 50/50 solution of household bleach and water to remove and prevent mildew formation. Allow the rails to dry thoroughly after washing.
5. Apply one or two coats of wood sealer to the side rails and allow the sealer to dry thoroughly.
6. Repaint the decorative grooves in the side rails with an air dry-type enamel. Have the owner select paint color if necessary.
7. Apply a minimum of two coats of an exterior grade polyurethane or marine spar varnish to the side rails. Be sure to follow the manufacturer's instructions for varnish application.
8. Install the side rails when the varnish coats have dried thoroughly.

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FILE: Windshield-Windows -Body Hardware (BODY - Body General)

No. 5-01-82 Feb. 15, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: Power windows on some 1980-82 Wagoneer, Cherokee, and Truck models may make a scraping, clicking sound when operated or may not open completely. This may be due to the door glass bottom channel becoming cocked on the glass and catching on the regulator arm.

CORRECTION: Install a polypropylene wedge at each end of the door glass bottom channel to prevent cocking.

PARTS:

Part Description	Quantity	Part Number	Group
WEDGE, Door Glass Bottom Channel	AR	5762644	25.030

WARRANTY ELIGIBILITY: Reimbursable within the provisions of the applicable warranty.

SSO INFORMATION:

Operation Description	Cost Code	Operation Number	Model	Year and Time 80 -81- 82			Skill Level
CHANNEL, FRONT OR REAR DOOR GLASS BOTTOM-INSTALL WEDGES....		25045	Wag-Cke-Trk				G
One door.....				0.8	0.8	0.8	
Each additional door - Add.....				0.7	0.7	0.7	
Replace bottom channel - Add....				0.2	0.2	0.2	
Front	25.030						
Rear	25.032						

PROCEDURE:

1. Remove the door glass and bottom channel as outlined in chapter 3J of the 1980-82 Jeep Technical Service Manuals.

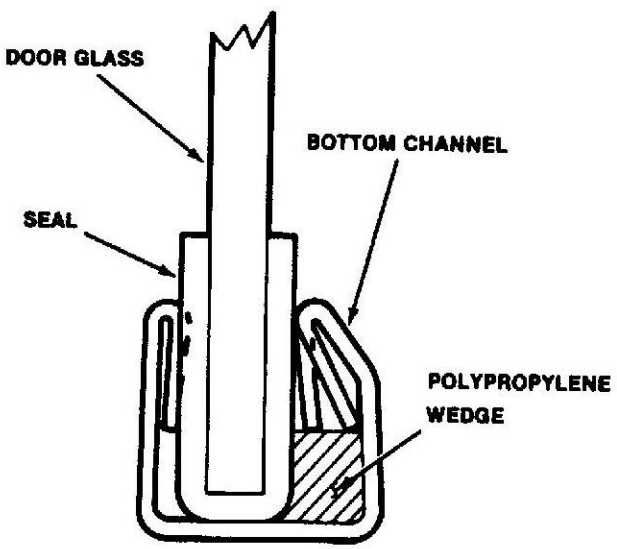
2. Inspect the bottom channel. Replace the channel if bent, distorted, or otherwise damaged.

3. Position the sides of the bottom channel parallel to the door glass and install a polypropylene wedge at each end of the channel. Position the wedges between the side of the channel and the seal and press the wedges to the bottom of the channel as shown in the illustration.

4. Install the door glass and bottom channel as outlined in chapter 3J of the 1980-82 Jeep Technical Service Manuals.

   Caution: Be sure that the division and glass side channels are securely attached to the door. The bottom channel can contact the regulator if either of these channels are loose.

5. Verify proper power window operation.



Installing Wedges in Bottom Channel

Jeep

Diagnosis and Repair Bulletin

Subject: Improved Method For Retaining Electrically Operated Tailgate Glass In Lower Channel

Application: 1979-81 Cherokee and Wagoneer Models With 5/32-Inch Thick Electrically Operated Tailgate Glass

File: BODY — Body General

No. 81-3 July 3, 1981

This bulletin supercedes Diagnosis and Repair Bulletin Number 9-01, filed under BODY — Body General, and dated May 15, 1979. Discard all copies of bulletin 9-01 and replace it with this current bulletin.

On some 1979-81 Cherokee and Wagoneer models equipped with electrically operated tailgate glass, the tailgate glass may separate from the channel. This bulletin provides an improved method of retaining the glass in the channel.

Service correction involves inspecting the tailgate glass assembly, replacing any damaged components if necessary, installing a double coated foam tape sealer to retain the glass in the channel, and installing a stop bumper and bracket at each side of the lower channel.

The following parts are required and will be available the week of July 27, 1981. Do not order parts before this date.

Description	Quantity	Part No.	Group
CHANNEL, Tailgate Glass, Lower	1	5455959	25.033
SEALER, Tailgate Glass	1	8130418	25.033
BRACKET, Stop	2	959614	25.054
BUMPER, Rubber Stop	2	968734	40.088
SCREW, 10-24 x 1/2" Pan Head	2	G0159920	17.598
SCREW, 1/4-20 x 3/4" Flat Head	4	G0156253	17.586
NUT, 10-24	2	G0271166	17.412

PROCEDURE

(1) Remove tailgate glass. Refer to appropriate Jeep Technical Service Manual for procedure.

(2) Inspect tailgate glass operating components. Replace any components that are bent or damaged.

(3) Clean lower portion of tailgate glass using isopropyl alcohol.

CAUTION: *If the vehicle is equipped with a rear window defogger, do not wipe or rub the defogger grid and do not allow the window cleaning agent to contact the grid.*

(4) Cut two 53-1/2-inch long strips of sealer from roll. Place one strip of sealer over the other (with adhesive sides together) to form one double thickness strip of sealer that is 53-1/2 inches in length.

(5) Position tailgate glass so bottom edge of glass faces upward. Support opposite edge of glass on cushioned surface to avoid damaging glass.

(6) Remove silicone treated liner from one side of double thickness sealer strip.

(7) Center sealer strip over bottom edge of tailgate glass. Starting at one end, install sealer along entire length of glass. Be sure to keep sealer centered on edge of glass during installation.

(8) Remove silicone treated liner from opposite side of sealer strip and install channel on bottom edge of tailgate glass. Press or tap channel into position carefully. Be sure channel is fully seated before continuing.

(9) Drill two 1/4-inch mounting holes for stop bumper brackets at each lower corner of tailgate inner panel as follows:

(a) Position right side template on driver side lower corner of tailgate inner panel (Fig. 1). Align template edges with bottom and side of tailgate inner panel, and tape template in place. Mark hole locations indicated on template using centerpunch and remove template.

(b) Turn template around and position left side template on passenger side lower corner of tailgate inner panel. Align template edges with bottom and side of tailgate inner panel and tape template in place. Mark hole locations indicated on template using centerpunch and remove template.

(c) Drill two 1/4-inch holes at each lower corner of tailgate at locations marked with centerpunch.

(d) Remove metal chips generated by drilling operations using magnet.

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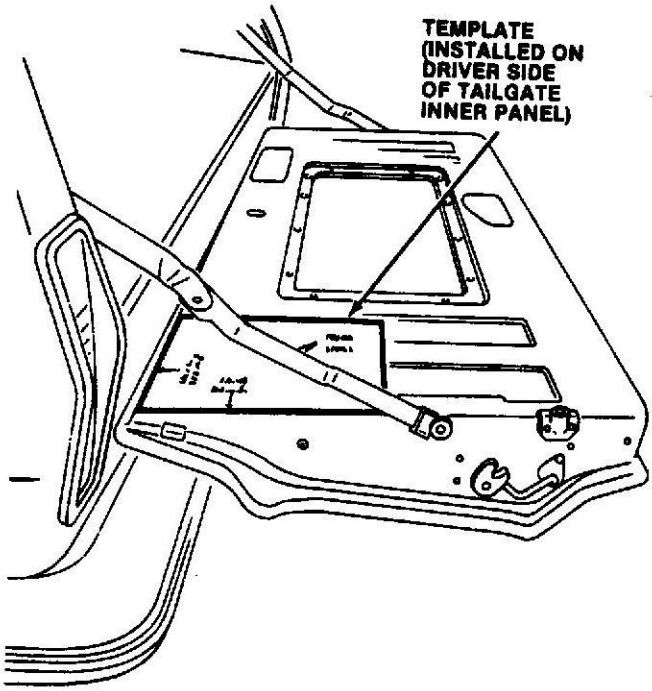

Fig. 1 Positioning Template on Tailgate Inner Panel

(10) Install rubber bumpers on stop brackets (Fig. 2). Use 10-24 x 3/4-inch pan head screws and nuts to attach bumpers to brackets.

NOTE: *The stop bracket may have a rubber or plastic insert in the screw slot at the top of the bracket. Remove and discard this insert before installing the rubber stop bumper.*

(11) Install one bumper and bracket assembly at each lower corner of tailgate inner panel (Fig. 2). Work through the tailgate access panel opening to install brackets and secure brackets to panel using 1/4-20 flat head screws.

(12) Loosen original tailgate glass center stop, move stop to lowest position, and tighten stop.

(13) Install tailgate glass but do not install access or trim panel at this time. Refer to appropriate Jeep Technical Service Manual for glass installation procedure.

(14) Lower tailgate glass and verify proper channel-to-stop-bumper contact. Reposition rubber bumpers as necessary to obtain proper contact.

(15) Install tailgate access and trim panels.

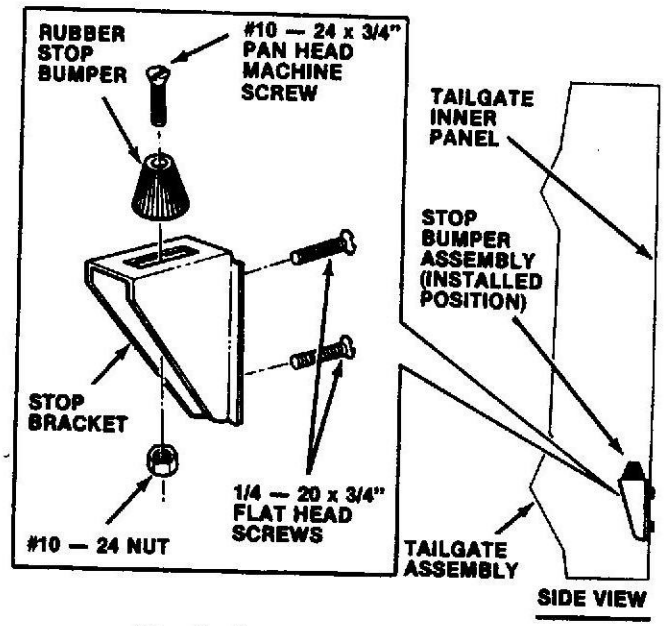

Fig. 2 Stop Bumper Installation

The following standard servicing operation and work time will apply.

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				79	80	81	
STOP BUMPER Assembly, TAILGATE GLASS — INSTALL.....	25.033	25157	Cke—Wag	0.5	0.5	0.5	G

81-089-BSJ

ALIGN WITH BOTTOM
EDGE OF TAILGATE
INNER PANEL
ALIGN WITH
SIDE EDGE OF
TAILGATE INNER
PANEL
CENTERPUNCH
AND DRILL 1/4"
DIAMETER HOLES
HERE
RIGHT SIDE
TEMPLATE

CENTERPUNCH
AND DRILL 1/4"
DIAMETER HOLES
HERE
ALIGN WITH SIDE
EDGE OF TAILGATE
INNER PANEL
ALIGN WITH BOTTOM
EDGE OF TAILGATE
LEFT SIDE
TEMPLATE

Jeep

Diagnosis and Repair Bulletin

Subject: 1981 Jeep Anti-Corrosion Program	Application: All 1981 Jeep Vehicles	File: BODY Body General No. 81-2 April 29, 1981

The Jeep Corporation Anti-Corrosion Program has been improved and expanded for all 1981 Jeep vehicles. The program is performed entirely at the factory and features increased use of one and two-sided galvanized panels, electrostatically applied enamel primers, and additional petroleum base waxes that are black, amber, or gray in color depending on application.

The types of corrosion protection used on the various body components are outlined in the Corrosion Protection Chart at the end of this bulletin. As changes or improvements in the corrosion protection program occur, updated information will be published in bulletins or service letters.

If it becomes necessary to repair or replace a body panel on any 1981 Jeep vehicle, the panel area affected must be coated with protective materials in order to maintain corrosion protection.

Service protection of a repaired or replaced panel involves the application of brushable Galvicon Coating and Jeep aerosol spray-type rustproofing material. Whenever holes are drilled or heat has been applied to a panel, the protective materials are removed. Galvicon Coating must be applied to the panel inner surface and Jeep Rustproofing applied over the Galvicon Coating. Jeep Rustproofing should also be applied whenever the factory rustproofing material has been removed for any reason.

The following parts are available and required:

Description	Quantity	Part No.	Group
COATING, GALVICON (1 quart)	AR	8130436	30.030
RUSTPROOFING (11 oz. aerosol con-			

(2) Clean inner surface of panel using DuPont Prep-Sol, Ditzler Acrylic Clean, or equivalent, and allow surface to dry.

(3) Apply two or three coats of Galvicon Coating over heated or drilled areas of panel inner surface as follows:

(a) Stir Galvicon Coating thoroughly.

(b) Brush first coat of Galvicon over heated or drilled areas of panel inner surface. Extend coating at least three inches beyond heated or drilled areas of panel.

(c) Allow first coat of Galvicon to become tacky then apply second coat. Be sure second coat also extends at least three inches beyond heated or drilled areas of panel.

(d) If third coat of Galvicon is necessary, allow second coat to become tacky before applying third coat.

(4) Allow final coat of Galvicon to become tacky before proceeding.

(5) Shake rustproofing aerosol container to mix contents thoroughly.

(6) Hold aerosol container 10-to-14 inches from panel inner surface area to be coated and spray panel inner surface until desired coverage is achieved.

NOTE: *Apply the rustproofing material in a coating that is thick enough to cover the panel repair area completely. Metal and Galvicon Coating must not show through the rustproofing coating.*

CORROSION PROTECTION CHART

Component	Model	Protection
Grille Face Panel	Cke-Wag-Trk	One side galvanized, enamel primer
Fender	Cke-Wag-Trk	One side galvanized, enamel primer
Fender	CJ-Scrambler	One side galvanized, enamel primer
Hood	Cke-Wag-Trk	Enamel primer
Hood	CJ-Scrambler	Enamel primer
Cowl	Cke-Wag-Trk	One side galvanized, enamel primer
Cowl	CJ-Scrambler	Enamel primer
Front Door Hinge Pillars	Cke-Wag-Trk	Enamel primer, petroleum base wax
Front Door	Cke-Wag-Trk	One side galvanized, enamel primer, petroleum base wax
Front Door	CJ-Scrambler	Enamel primer
Rear Door	Cke-Wag	One side galvanized, enamel primer, petroleum base wax
Pillars	Cke-Wag-Trk	Enamel primer, petroleum base wax
Roof Panel	Cke-Wag	Enamel primer
Drip Rail	Cke-Wag	One side galvanized, enamel primer
Floor Pan	Cke-Wag-Trk	Enamel primer
Floor Pan	CJ-Scrambler	One side galvanized, enamel primer
Rocker Panel	Cke-Wag-Trk	Two side galvanized, enamel primer, aluminized wax
Quarter Panel	Cke-Wag-Trk	One side galvanized, enamel primer, petroleum base wax
Quarter Panel	CJ-Scrambler	Enamel primer
Rear Wheel House	Cke-Wag	One side galvanized, enamel primer
Rear Wheel House	CJ-Scrambler	Enamel primer, petroleum base wax
Rear Quarter Extension	Cke-Wag	Two side galvanized, enamel primer
Tailgate	Cke-Wag-Trk	One side galvanized, enamel primer, petroleum base wax
Tailgate	CJ-Scrambler	One side galvanized, enamel primer
Box Front Panel	Trk	Two side galvanized, enamel primer
Box Side Panel	Trk	Two side galvanized, enamel primer
Box Floor Panel	Trk	Two side galvanized, enamel primer

81-081-BSJ

Jeep

Diagnosis and Repair Bulletin

Subject: New Inside and Outside Door Handles	Application: 1981 CJ-7 Models with Metal Doors	File: BODY Body General No. 81-1 Jan. 23, 1981

New design inside and outside door handles have been phased into production of the metal doors used on 1981 CJ-7 models. A new design door striker and striker mounting bracket are also used (see illustration).

When servicing 1981 models equipped with metal doors that have the new design door handles, refer to the service procedures provided in this bulletin.

PROCEDURE

Outside Door Handle

Removal

(1) Remove door handle assist and window regulator handle.

(2) Remove door trim panel and watershield paper from door.

(3) Remove door lock cover attaching screws.

(4) Disconnect lock-to-handle rod from outside door handle.

(5) Close window completely, release spring on each outside door handle lock and tap locks upward.

(6) Remove window door glass from regulator.

(7) Remove division channel by removing adjusting screws.

(8) Remove window glass from door.

(9) Remove outer weatherstrip from door.

(10) Remove locks from outer door handle using needlenose pliers and remove handle from door.

Installation

(1) Install outside door handle and slide handle locks into door handle from top.

(2) Tap locks downward lightly to tighten handle.

(3) Install lock-to-handle rod and lock pin.

(4) Install outer weatherstrip on top of door.

(5) Position window glass in door.

(6) Install divider bar and adjusting screws.

(7) Attach window glass to regulator.

(8) Install door lock cover.

(9) Install watershield paper and door trim panel.

(10) Install window regulator handle.

(11) Install door handle assist.

DOOR LOCK CYLINDER

Removal

(1) Remove door trim panel and watershield paper.

(2) Remove door latch cover screws and remove cover.

(3) Remove retaining clip and remove lock-to-cylinder rod.

(4) Remove lock cylinder spring retainer and remove lock cylinder and gasket.

Installation

(1) Install gasket and lock cylinder in door.

(2) Install lock cylinder spring retainer and install lock-to-cylinder rod and clip.

(3) Install door latch cover and cover screws.

(4) Install watershield paper and door trim panel.

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Door Lock Cylinder Coding

A lock cylinder service kit is available which includes an uncoded cylinder, housing, and dust cover. Whenever lock cylinder replacement is required, the uncoded service cylinder can be coded to match the existing key. Refer to the key coding procedure in the 1981 Jeep Technical Service Manual.

Door Latch and Remote Control Rod

(1) Remove door trim panel and watershield paper.

(2) Remove latch cover.

(3) Disconnect remote control rod and lock-to-handle rod from latch.

(4) Connect lock-to-cylinder rod to latch.

(5) Install latch cover and tighten cover screws.

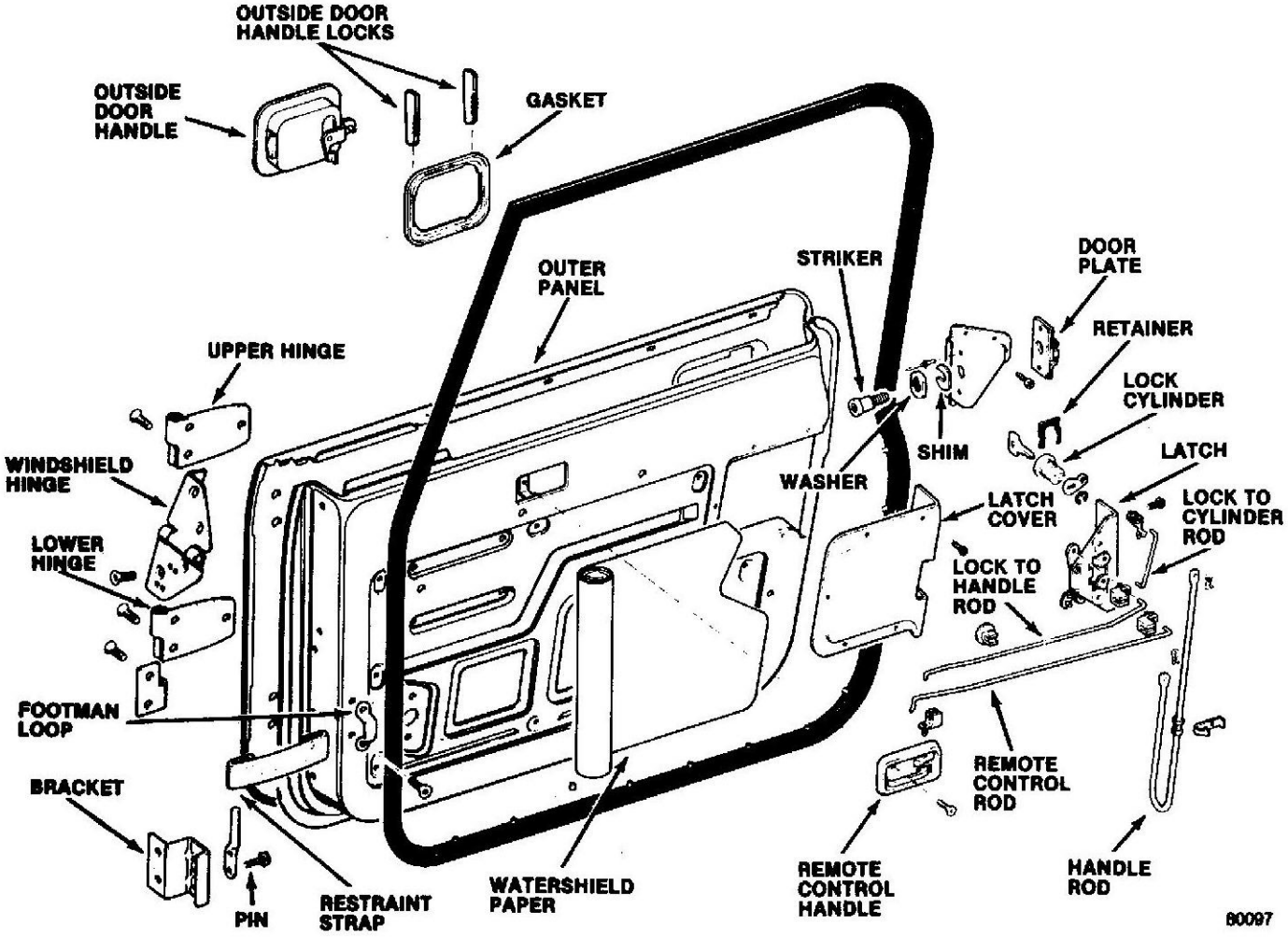
(6) Install watershield paper and door trim panel.

Striker Adjustment

The door striker is fully adjustable and can be moved up, down, in, or out, or shimmed forward or rearward to align the door.

The door striker should be adjusted so that the door does not bind, provides secure retention, and provides proper door movement when the door is opened and closed.

WARNING: *It is possible to adjust the striker so far inward that the door closes tightly but does not lock completely. In this case, only the safety catch may be engaged.*



CJ-7 Metal Door Assembly (Type II)

The following standard servicing operations and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
HANDLE, DOOR OUTSIDE — REPLACE	23.074	28142	87		0.5		G
HANDLE, DOOR INSIDE — REPLACE	23.058	28174	87		0.3		G
LATCH ASSEMBLY, DOOR — REPLACE	23.050	28144	87		0.3		G
CYLINDER, DOOR LOCK — REPLACE	23.081	23080	87		0.3		G
STRIKER, DOOR LOCK — REMOVE AND REPLACE Includes Adjustment	23.087	23040	87		0.2		G

81-033-BSJ

Jeep®

FILE: Body/Chassis Electrical (BODY - Body Electrical)

No. 8-05-82 Sept. 10, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: Oil pressure gauge needle flutters during engine operation on some 1979-82 CJ and Scrambler models.

CORRECTION: Install the improved gauge that was phased into production on February 24, 1982. The improved gauges are date coded beginning with code B201 (2-1-82).

PARTS:

Description	Quantity	Part Number	Group
GAUGE, Oil Pressure	1	5750279	3.605

S.R.T. INFORMATION:

Operation Description	T.I.C.	Operation Number	S.R.T.
CO. GAUGE, OIL PRESSURE REPLACE	8-352	8999	0.3

DEALER REIMBURSEMENT: Reimbursable within the provisions of the applicable warranty.

PROCEDURE:

1. Remove the original oil pressure gauge as outlined in Chapter 1L of the appropriate Jeep Technical Service Manual.

2. Obtain a replacement oil pressure gauge and check the gauge date code before installation to be sure it is one of the improved gauges. The code must be B201 (2-01-82) or later.

   NOTE: Code letter B indicates the month, such as B for February, C for March, or D for April. The first number indicates the year, which in this case is 1982. The last two numbers represent the day of the month. For example, code C217 would represent March 17, 1982 and code D208 would represent April 8, 1982. Letter I is not used as a code letter.

3. Install the replacement oil pressure gauge as outlined in Chapter 1L of the appropriate Jeep Technical Service Manual.

82-064-J

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Diagnosis and Repair Bulletin

Subject: Air Control Cable Operation	Application: 1978-81 CJ-5 and CJ-7 Models	File: BODY Heater — Air Conditioning No. 81-1 April 13, 1981

In November, 1980, a new cowl fresh air intake duct assembly was phased into production of 1981 CJ models. The new duct assembly provides improved air control cable and intake duct vent operation and can also be used on all 1978-81 CJ-5 and CJ-7 models.

If service diagnosis indicates that a bind in the fresh air intake duct linkage caused the air control cable to bind or break due to excessive cable operating effort, the new fresh air duct assembly should be installed along with a replacement air control cable if necessary.

The following part is available and may be required:

Description	Quantity	Part No.	Group
DUCT ASSEMBLY, Fresh Air Intake	1	5758809	22.020

PROCEDURE

Removal

(1) Disconnect battery negative cable.

(2) Drain two quarts of coolant from radiator into clean container.

(3) Disconnect heater hoses at heater housing.

(4) Remove heater housing drain hose.

(5) On models with air conditioning, remove screws attaching evaporator housing to instrument panel. Move housing away from panel and disconnect wires at air conditioning control switches.

(6) Remove screw attaching heater motor housing to bracket.

(7) Remove nuts that attach heater housing to engine compartment side of dash panel.

(8) Disconnect speedometer cable.

(9) Remove glove box.

(10) Tilt heater housing back, pull housing rearward, and lower housing.

(11) Disconnect heater control cables.

(12) Remove defroster duct and tube assembly.

(13) Remove fresh air intake panel from cowl.

(14) Remove fresh air intake duct assembly from cowl.

Installation

(1) Install defroster duct and tube assembly.

(2) Raise and secure windshield.

(3) Install replacement fresh air intake duct assembly.

(4) Install fresh air intake panel on cowl.

(5) Connect heater control cables.

(6) Position heater housing assembly on dash panel.

(7) Install nuts attaching heater housing to dash panel.

(8) Install glove box.

(9) Connect speedometer cable.

(10) Install screw attaching heater housing to bracket.

(11) On models with air conditioning, connect wires to air conditioning control switches and install evaporator housing on instrument panel.

(12) Connect drain tube to heater housing.

(13) Connect heater hoses.

(14) Refill radiator.

(15) Connect battery negative cable.

The standard servicing operations and work times published in the appropriate SSO manual are not affected by this bulletin.

81-060-13J

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Jeep®

FILE: Paint-Corrosion Protection-Decals-Misc. (BODY - Instrument Panels-Seat Assemblies)
No. 9-02-82 Mar. 16, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: The odometer on some 1981-82 Wagoneer, Cherokee, and Truck models may generate a high-pitched squeaking noise that occurs only occasionally and at any speed.

CORRECTION: Remove the speedometer/odometer assembly and lubricate the forward pivot bearing area of the odometer drive gear with Dielectric Compound, 8126688 (see illustration).

PARTS:

Description	Quantity	Part Number	Group
DIELECTRIC COMPOUND	AR	8126688	3.038

WARRANTY ELIGIBILITY: Reimbursable within the provisions of the applicable warranty.

SSO INFORMATION:

Description	Cost Code	Operation Number	Model	Year and Time -80-	-81-	-82-	Skill Level
GEAR, ODOMETER DRIVE-LUBRICATE	3.505	3493	Wag-Cke-Trk		0.6	0.6	G

PROCEDURE:

1. Remove the speedometer/odometer assembly as outlined in Chapter 3C of the 1981-82 Jeep Technical Service Manuals.

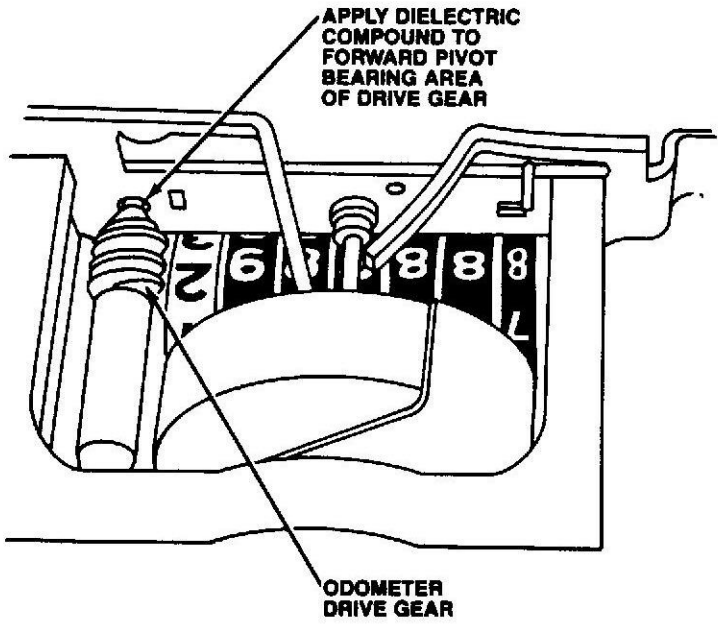
2. Apply Dielectric Compound to the forward pivot bearing area of the odometer drive gear as follows: Rotate the odometer driven gear rearward slightly, lift the drive gear upward in its retaining slot, and work the compound into the pivot bearing area (see illustration)

   NOTE: The odometer drive gear forward pivot bearing area should also be lubricated on a replacement speedometer/odometer assembly before it is installed.

(continued)

3. Clean the odometer numeral wheels and speedometer face plate of any traces of compound.

4. Install the speedometer/odometer assembly as outlined in Chapter 3C of the 1981-82 Jeep Technical Service Manuals.



Odometer Drive Gear Lubrication

82-056-A/J

Diagnosis and Repair Bulletin

Subject: Driver's Side Front Seat Abrasion	Application: 1981 CJ-7 Models With Padded Roll Bar and Shoulder Belt System	File: BODY Instrument Panels - Seat Assemblies No. 81-2 July 15, 1981

On some 1981 CJ-7 models equipped with a padded roll bar and a shoulder belt system, the rear edge of the driver side front seat back may contact the roll bar padding when the seat is in the full rearward position. This could result in seat back cover abrasion.

Service correction involves removing a section of the roll bar padding material and installing additional spacers at the rear of the driver side front seat if necessary.

The following parts are available and may be required.

Description	Quantity	Part No.	Group
SPACER (3/8" Thick), Cushion Frame-to-Seat Adjuster Slide	2	5455277	29.105
BOLT, Cushion Frame-to-Seat Adjuster Slide (Torx-Head)	2	4004927	29.105

PROCEDURE

(1) Move driver seat forward and disconnect storage bag lower strap, if equipped.

(2) Remove padding cover from roll bar tube at rear of driver side seat back.

(3) Remove 3-inch x 11-inch section of padding material from contact area using razor blade or sharp knife (Fig. 1).

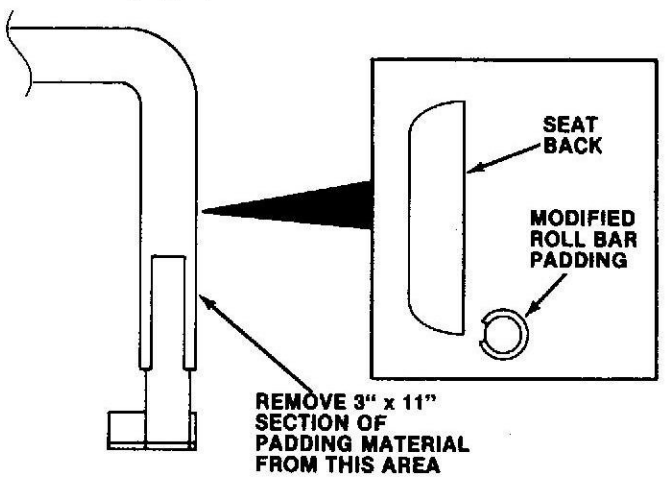


Fig. 1 Roll Bar Padding Modification

(4) Install padding cover on roll bar tube.

(5) Move driver seat fully rearward and check for seat-to-roll bar padding contact.

(a) If contact is now eliminated, install storage bag and return vehicle to owner.

(b) If contact still exists, proceed to step (6).

(6) Remove Torx-head bolts that attach rear of seat adjuster slides to seat cushion frame and remove original spacer (Fig. 2). Retain original spacers but discard bolts.

(7) Raise rear of seat and install original spacer plus additional 3/8-inch thick spacer between each seat adjuster slide and seat cushion frame (Fig. 2).

(8) Lower seat and install longer replacement Torx-head cushion frame-to-seat adjuster slide bolts. Tighten bolts securely. Be sure spacers are properly positioned before tightening bolts.

(9) Connect storage bag lower strap.

(10) Verify correction of seat back-to-roll bar padding contact condition.

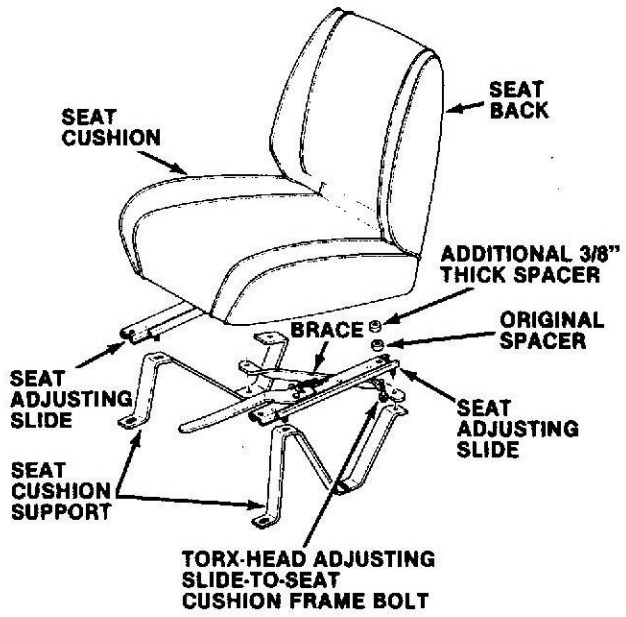


Fig. 2 Installing Additional Seal Cushion Frame to Adjusting Slide Spacers

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The following standard servicing operations and times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
PADDING, ROLL BAR COVER — MODIFY	35.261	29057	CJ-7		0.1		G
SPACERS, FRONT SEAT ADJUSTER SLIDE TO CUSHION FRAME — INSTALL	29.131	29049	CJ-7		0.2		G

81-096-BSJ

Jeep

PRODUCT RECALL CAMPAIGN
Diagnosis and Repair Bulletin No. 81-1

Subject:

CJBELT (Type "S" Campaign)
Incorrect Rear Seat Belts May Have Been Installed

SCN-525

Date: March 24, 1981

Application: Jeep 1981 CJ5 & CJ7
Body Instrument Panels
File: and Seat Assemblies

This is a Type "S" Campaign subject to all campaign procedures and involving safety related elements.

Some 1981 Jeep CJ5 and CJ7 models built between VIN's 1JCCM85EXBT006568 and 1JCBM85A7BT023742 may have been equipped with incorrect rear seat belts. The belts may have tongue-ends only instead of a tongue-end and a buckle-end.

Service correction involves inspecting and replacing the rear seat belts if incorrect belts were installed.

The following parts may be required:

Description	Quantity	Part Number	Group
BELT, Rear Seat With Buckle	AR	8130513	27.290

The zone will provide a VIN List for each dealer with any vehicles involved. However, the campaign procedures apply to all dealers. On all undelivered, campaign involved vehicles, the correction must be made before the vehicle is sold or otherwise put in service.

Campaign parts can now be ordered, only as necessary, from your Zone Parts Distribution Center. Because campaign parts supplies are limited, replacement parts are not to be ordered for dealer stock.

PROCEDURE

(1) Inspect rear seat belts. Two inboard belts should have buckle-ends and two outboard belts should have tongue-ends.

  (a) If vehicle is equipped with correct belts, return vehicle to owner.
  (b) If vehicle is equipped with incorrect belts, proceed to step (2).

(2) Remove shoulder bolts and washers that attach rear inside seat belts to floorpan and remove and discard belts.

(3) Position replacement rear seat belts in vehicle.

(4) Install washers and shoulder bolts that attach belts to floorpan. Tighten bolts to 30 foot-pounds (41 N.m) torque.

The following standard servicing operation and work time will apply:

Operation Description	Alpha Service Code for Claim	Model	Year & Time -81-	Skill Level
BELTS, REAR SEAT - INSPECT (Includes drive-in/drive-out)	A	83-93	0.2	G
BELTS, REAR SEAT - REPLACE ONE (Includes inspection & drive-in/ drive-out)	B		0.3	G
BELTS, REAR SEAT - REPLACE TWO (Includes inspection & drive-in/ drive-out)	C		0.3	G

CLAIM HANDLING & CAMPAIGN REPORTING

Owners of record will be mailed the AMC and Jeep combined Product Recall Campaign Notice and Claim Form. This form is to be used in place of a warranty claim and a campaign reporting card.

This Product Recall Campaign Notice and Claim Form is a six-part form that is pre-printed with the customer's name and address and the campaign name and number. The entire form will be mailed to the owner of record along with a cover letter (see Fig. 1) outlining the defect and instructions to present the complete form to the dealer at the time the vehicle is serviced.

The six copies are:

Cover Sheet: Contains instructions for the owner and shows the dealer where to imprint his dealer plate (see Fig. 1).

CCD Copy: To be submitted to CCD for campaign reporting and crediting.

Factory Copy: To be used as a packing copy for returnable parts when required.

Dealer Accounting/Dealer Service/Owner File Copy: This copy is for the dealer file.

Customer Copy: To be given to the customer as a record of the campaign service performed.

Reply Card: To be used by the owner if ownership or address has changed.

Upon presentation of this form by an owner, the dealer should:

- Imprint the combined notice and claim form in the upper right hand corner with his dealer plate and remove the cover sheet.
- Complete the header information boxes.
- Have the owner sign the form on the owner signature line.
- Perform the required campaign service as outlined in the DRB.

- Complete the form by entering the R.O. date, mileage and placing an X in the appropriate alpha code box indicating the campaign service which was performed. (The alpha code, which takes the place of the cost code and operation number, can be found on page 2 of this DRB.) A sample claim is shown in Fig. 2.

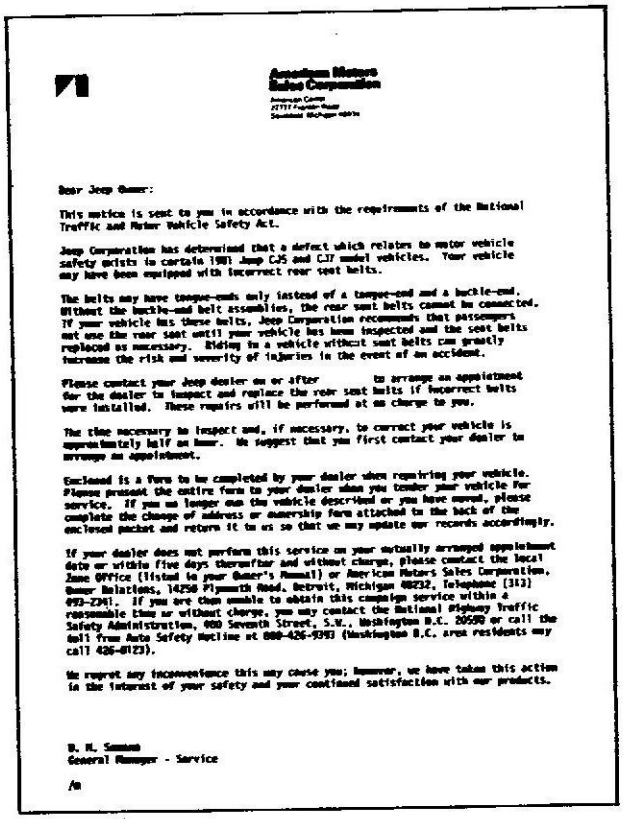
- Sign the form in the area provided and mail the CCD copy to CCD in Milwaukee.

In the event the owner misplaces or neglects to bring in the campaign notice and claim form, the dealer must use a blank AMC and Jeep Campaign Notice and Claim Form (AM 4251). Should you need forms, they are available from your Zone Service Department.

Before providing campaign services for a vehicle where the owner fails to present the campaign notice and claim form, the dealer must check the Vehicle Identification Number (VIN) against his Campaign VIN List or the total campaign VIN range contained in the Campaign DRB to ensure the vehicle is eligible to receive campaign services.

When using a blank form, be sure to enter the owner's name and address, VIN, Zone PDC and Dealer Code, campaign name or number, date of compliance and dealer's signature in the areas provided and X the appropriate service box as outlined in the Diagnosis and Repair Bulletin.

Based on the alpha box checked, the dealer will automatically be credited on the mid or end-of-month memorandum of warranty transactions (code 40) referencing the claim number on the form. The single credit shown will include Drive-in/Drive-out, corresponding labor, parts cost and applicable parts mark-up.



Dear Jeep Owner:

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 certain 1981 Jeep CJ5 and CJ7 model vehicles. Your vehicle may have been equipped with incorrect rear seat belts.

The belts may have tongue-ends only instead of a tongue-end and a buckle-end. Without the buckle-end belt assemblies, the rear seat belts cannot be connected. If your vehicle has these belts, Jeep Corporation recommends that passengers not use the rear seat until your vehicle has been inspected and the seat belts replaced as necessary. Riding in a vehicle without seat belts can greatly increase the risk and severity of injuries in the event of an accident.

Please contact your Jeep dealer on or after to arrange an appointment for the dealer to inspect and replace the rear seat belts if incorrect belts were installed. These repairs will be performed at no charge to you.

The time necessary to inspect and, if necessary, to correct your vehicle is approximately half an hour. We suggest that you first contact your dealer to arrange an appointment.

Enclosed is a form to be completed by your dealer when repairing your vehicle. Please present the entire form to your dealer when you tender your vehicle for service. If you no longer own the vehicle described or you have moved, please complete the change of address or ownership form attached to the back of the enclosed packet and return it to us so that we may update our records accordingly.

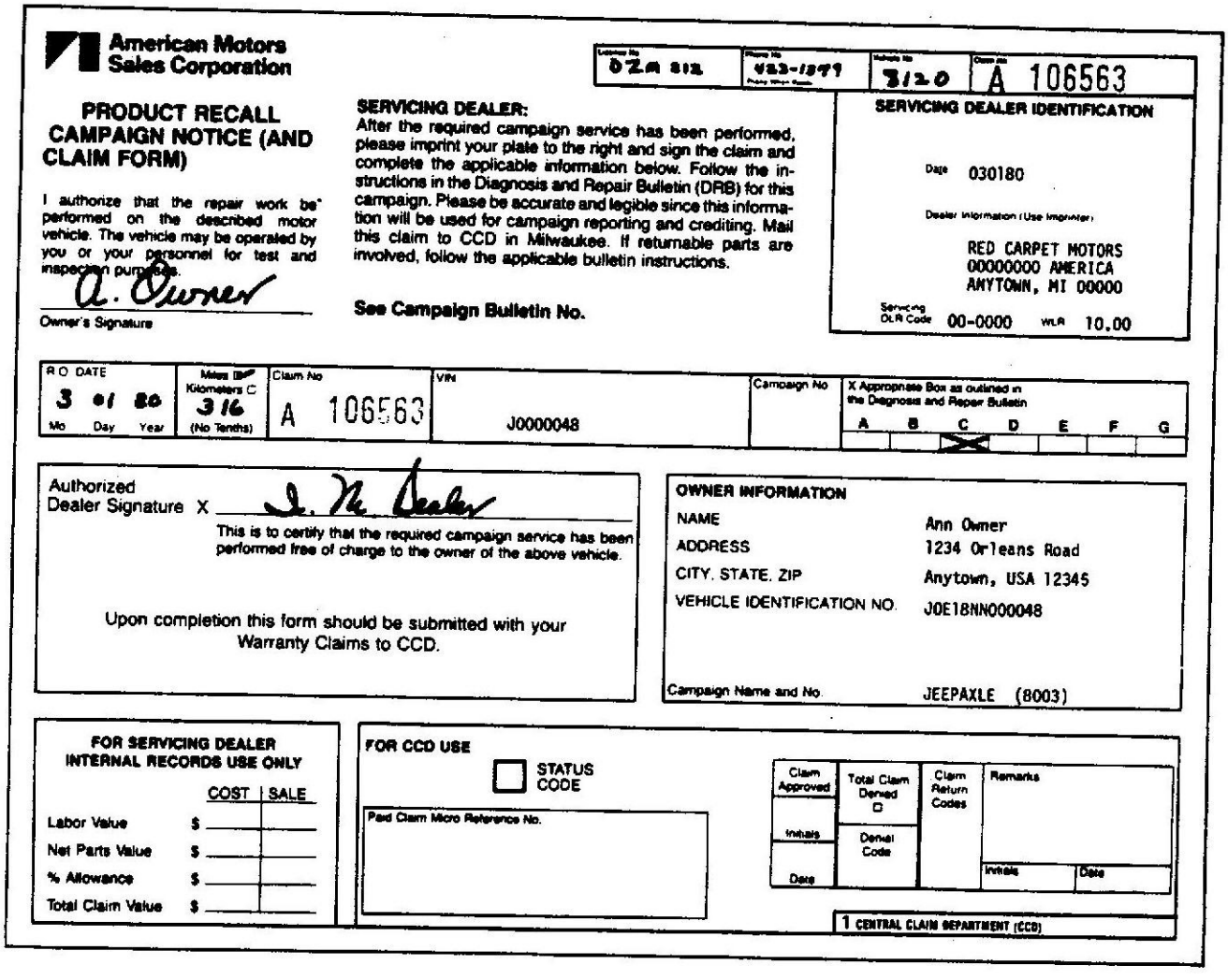
If your dealer does not perform this service on your mutually arranged appointment date or within five days thereafter and without charge, please contact the local Zone Office (listed in your Owner's Manual) or American Motors Sales Corporation, Owner Relations, 14250 Plymouth Road, Detroit, Michigan 48232, Telephone (313) 493-2341. If you are then unable to obtain this campaign service within a reasonable time or without charge, you may contact the National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington D.C. 20590 or call the toll free Auto Safety Hotline at 800-426-9393 (Washington D.C. area residents may call 426-0123).

We regret any inconvenience this may cause you; however, we have taken this action in the interest of your safety and your continued satisfaction with our products.

R. H. Samson
General Manager - Service

/m

Figure 1
Owner Notice



American Motors Sales Corporation

PRODUCT RECALL CAMPAIGN NOTICE (AND CLAIM FORM)

I authorize that the repair work be performed on the described motor vehicle. The vehicle may be operated by you or your personnel for test and inspection purposes.

A. Owner
Owner's Signature

SERVICING DEALER:
After the required campaign service has been performed, please imprint your plate to the right and sign the claim and complete the applicable information below. Follow the instructions in the Diagnosis and Repair Bulletin (DRB) for this campaign. Please be accurate and legible since this information will be used for campaign reporting and crediting. Mail this claim to CCD in Milwaukee. If returnable parts are involved, follow the applicable bulletin instructions.

See Campaign Bulletin No.

DZM 812	423-1977	3120	A 106563

SERVICING DEALER IDENTIFICATION

Date 030180

Dealer Information (Use Imprinter)

RED CARPET MOTORS
00000000 AMERICA
AMYTOWN, MI 00000

Servicing DLR Code 00-0000 WLR 10.00

RO DATE	Miles / Kilometers C	Claim No	VIN	Campaign No	X Appropriate Box as outlined in the Diagnosis and Repair Bulletin
3 01 80 (Mo Day Year)	316 (No Tenths)	A 106563	J0000048		A B C X D E F G

Authorized Dealer Signature X J. M. Dealer

This is to certify that the required campaign service has been performed free of charge to the owner of the above vehicle.

Upon completion this form should be submitted with your Warranty Claims to CCD.

OWNER INFORMATION

NAME	Ann Owner
ADDRESS	1234 Orleans Road
CITY, STATE, ZIP	Anytown, USA 12345
VEHICLE IDENTIFICATION NO.	J0E18NN000048
Campaign Name and No.	JEEPAXLE (8003)

FOR SERVICING DEALER INTERNAL RECORDS USE ONLY

	COST	SALE
Labor Value	$	
Net Parts Value	$	
% Allowance	$	
Total Claim Value	$	

FOR CCD USE

STATUS CODE

Paid Claim Micro Reference No.

Claim Approved	Total Claim Denied $	Claim Return Codes	Remarks
Initials	Denial Code		Initials / Date
Date			

1 CENTRAL CLAIM DEPARTMENT (CCD)

Figure 2
Sample Completed Combined Product Recall
Campaign Notice and Claim Form

Jeep®

FILE: Paint-Corrosion-Protection-Decals-Misc. (BODY - Headlining - Ext. Decals and Overlays)
No. 9-03-82 June 16, 1982

TECHNICAL BULLETIN

PROBLEM AND APPLICATION: Hardtop inner panel (headliner) touches hardtop outer panel on some 1981-82 Scrambler models causing a buzz or flutter noise.

CORRECTION: Drill four 1/4-inch diameter holes in the hardtop inner panel (see illustration), spray an expandable foam, part number 8130438, between the two panels to prevent touching, and install button plugs in the drilled holes afterward.

PARTS:

Description	Quantity	Part Number	Group
TOUCH-N-FOAM	1	8130438	30.051
PLUGS, Button	4	8134258	28.608

WARRANTY ELIGIBILITY: Not affected.

Operation Description	Cost Code	Operation Number	Model	Year and Time -80-	-81-	-82-	Skill Level
HARDTOP - REPAIR Material allowance for foam is $2.40	28.412	28167	88		0.2	0.2	G

PROCEDURE:

1. Locate, mark, and drill four 1/4-inch diameter holes in the hardtop inner panel (headliner). Refer to the illustration for hole locations.

   CAUTION: Be very careful to avoid drilling through the outer panel when drilling holes in the inner panel.

82-063-J

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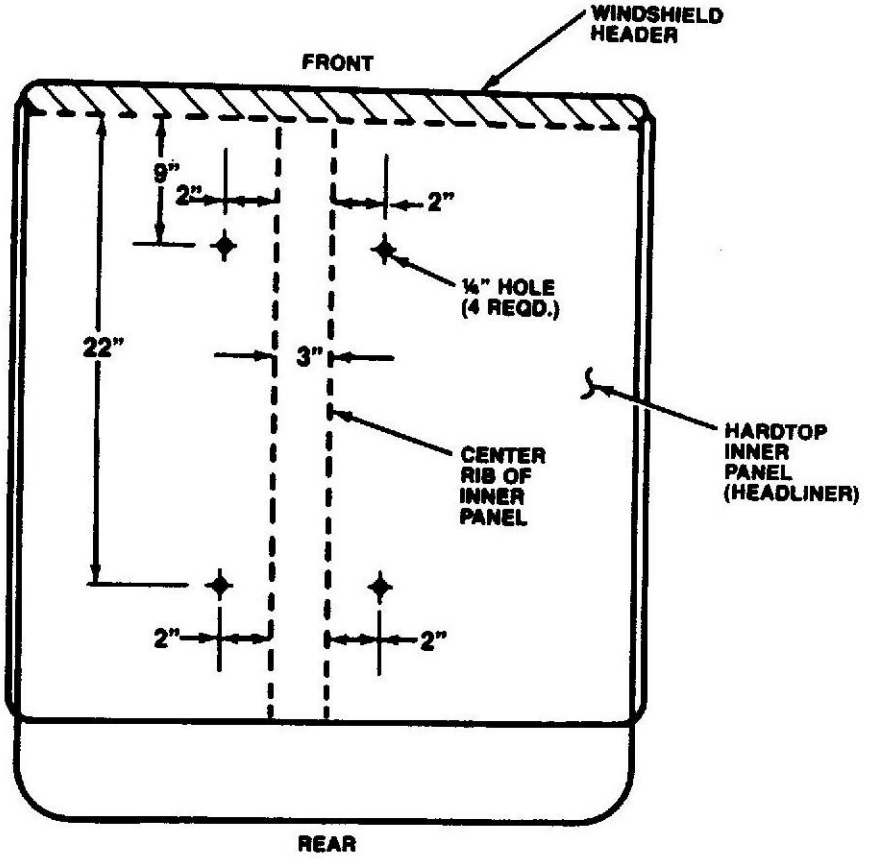
2. Attach a three inch long section of 1/4 inch O.D. hose to the hose on the Touch-N-Foam can.

3. Insert the 1/4-inch O.D. hose into each hole drilled in the inner panel and spray foam into each hole for 45 seconds.

4. Install the button plugs in the drilled holes.

5. Allow the foam to cure 12 hours.



Spray Foam Hole Locations in Hardtop Inner Panel (Headliner) — Viewed From Passenger Compartment

Jeep

Diagnosis and Repair Bulletin

Subject: Hardtop Squeak Caused By Access Cover Position

Application: 1981 Jeep Scrambler Models Build Prior to VIN 1JXXXXXXXXX070034 Equipped With Hardtop

File: BODY — Headlining - Hardtop Enclosure - Exterior Decals and Overlays

No. 81-1 Aug. 10, 1981

On some 1981 Jeep Scrambler models built prior to VIN 1JXXXXXXXXX070034 and equipped with a hardtop, one or both of the hardtop access covers may contact the body side panels and cause a squeak noise.

Service correction involves moving one or both access covers upward to eliminate cover-to-body side panel contact if necessary.

PROCEDURE

(1) Inspect left and right side access covers to determine if one or both covers are contacting body side panels.

(2) Remove screws that attach access cover(s) to hardtop and remove cover(s) (see illustration).

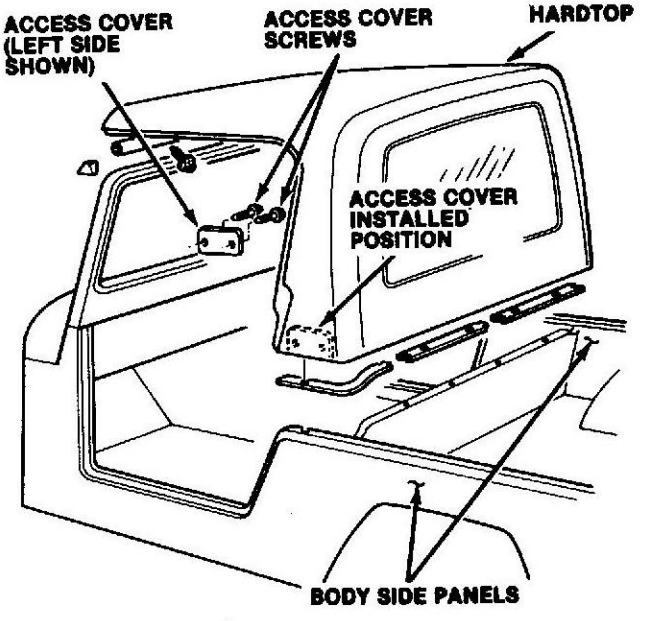
NOTE: *Attaching bolts are not used nor needed to anchor the hardtop sides to the body on Scrambler models. If it is discovered that bolts have been installed at the hardtop sides after removing the access covers, these bolts must be removed.*

(3) Using pencil, mark position of new access cover attaching screw holes 0.350-inch (9 mm) **above** existing screw holes.

(4) Drill new access cover attaching screw holes to maximum depth of 1/2-inch using 0.136-inch (3 mm) diameter drill.

CAUTION: *Do not allow the drill to penetrate any more than 1/2-inch in depth.*

(5) Install access cover(s) in new location.



Access Cover Location

The following standard servicing operation and work time will apply.

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
COVER, HARDTOP ACCESS — RELOCATE ONE OR BOTH	28.390	28101	88		0.1		G

81-106-BSJ

Jeep

Diagnosis and Repair Bulletin

Subject: Sun Roof Glass Frame Seal	Application: 1980-81 Cherokee, Wagoneer and Truck Models With Manual Sun Roof	File: BODY Headlining — Hardtop Enclosure — Exterior Decals and Overlays No. 81-2 March 2, 1981

A new sun roof glass frame seal for the pop-up sun roof used on 1980-81 Cherokee, Wagoneer, and Truck models has been released for production and service use. The new seal has an improved configuration for increased compression and sealing ability and entered production on January 5, of this year.

If it becomes necessary to replace the sun roof glass frame seal on a 1980-81 Cherokee, Wagoneer, or Truck model pop-up sun roof, the new seal should be used.

The following part is available and may be required:

Description	Quantity	Part No.	Group
SEAL, Sun Roof Glass Frame	1	8133809	28.811

PROCEDURE

Removal

(1) Remove glass assembly.

(2) Apply 3M Release Agent, or equivalent, to seal and allow several minutes for penetration.

(3) Apply second application of release agent to seal and allow several minutes for adhesive bond to soften.

(4) Remove seal from frame.

(5) Remove all adhesive residue from frame using 3M General Purpose Adhesive Remover, or equivalent.

Installation

(1) Apply thin bead of 3M Super Weatherstrip Adhesive, or equivalent, in frame channel.

(2) Position and install replacement seal in channel.

(3) Apply thin film of petroleum jelly to seal and glass contact surfaces.

(4) Install glass assembly.

The following standard service operation and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
SEAL, SUN ROOF GLASS TO FRAME — REPLACE.....	28.417	15.375	Cke, Wag., Trk.	0.4	0.4		G

81-065-BSJ

Diagnosis and Repair Bulletin

Subject: Hardtop Rear Window Water Leaks	Application: 1981 Jeep Scrambler Models With Hardtop	File: BODY — Metal Repair — Painting — Water Leaks/Wind Noise No. 81-5 Oct. 2, 1981

Some 1981 Jeep Scrambler models with a hardtop may develop water leaks around the hardtop rear window.

Service correction involves installing the following new weatherstrip to correct a water leak condition.

The following part may be required:

Description	Quantity	Part No.	Group
WEATHERSTRIP, Hardtop Rear Window	1	5761760	28.587

PROCEDURE

(1) Verify and pinpoint water leak using procedures outlined in Chapter 3A of 1981 Jeep Technical Service Manual.

(2) Remove hardtop rear window glass from weatherstrip by gently pushing against corner of glass from inside vehicle until glass begins to separate from weatherstrip. Complete glass removal by carefully pulling glass outward until completely free of weatherstrip.

(3) Remove old weatherstrip from hardtop rear window opening. Discard old weatherstrip.

(4) Remove old sealer and any other residue from edges of glass and rear window opening.

(5) Install new weatherstrip in rear window opening with aid of helper. Be sure weatherstrip locking seam faces rear of vehicle.

(6) Prepare and apply solution of liquid detergent and water to glass channel portion of new weatherstrip.

(7) Install rear window glass in new weatherstrip. Start one end of glass into weatherstrip channel and work remaining portion of glass into weatherstrip channel using wood or plastic tool.

(8) Close weatherstrip locking seam using wood or plastic tool. Start at corners and sides first; then close top and bottom seams.

(9) Water test rear window to verify water leak correction.

(10) Clean rear window glass and surrounding area.

The following standard servicing operation and work time will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
WEATHERSTRIP, REAR WINDOW GLASS — REPLACE	25.028	25121	88		0.6		G

81-117-BSJ

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Jeep

Diagnosis and Repair Bulletin

Subject: 1981 Phase-Out/1982 Phase-In Program Paint Information	Application: 1981 Jeep Vehicles	File: BODY – Metal Repair - Painting - Water Leaks/Wind Noise No. 81-4 July 30, 1981

As part of the 1981 Phase-Out/1982 Phase-In Program, six new 1982 colors may be used on 1981 Jeep vehicles. They are:

1982 Paint Code	Color
2A	Mist Silver Metallic
2B	Sun Yellow
2C	Slate Blue Metallic
2D	Deep Night Blue
2H	Topaz Gold Metallic
2J	Jamaican Beige

NOTE: *Some intermix formulas are marked N/A because they were not available at time of publication. Contact your local paint jobber for information not contained herein.*

MIST SILVER METALLIC ENAMEL

DITZLER DAR 3466	
Mixing Code	1 Quart Setting
DMR 450	6
DMR 414	32
DMR 431	242
DMR 433	642
DXR 495	662
DMR 499	1002

MIST SILVER METALLIC ENAMEL

SHERWIN-WILLIAMS 35-32385	
Mixing Code	1 Quart Setting
F5W-80	3.6
F5L-68	7.2
F5T-92	12.1
V6V-175	57.0
F5S-69	901.0

MIST SILVER METALLIC LACQUER

DITZLER DDL 3466	
Mixing Code	1 Quart Setting
DMA 311	10
DMA 346	20
DMA 321	30
DMA 312	120
DMA 323	300
DMA 310	980

MIST SILVER METALLIC LACQUER

SHERWIN-WILLIAMS 34-32385	
Mixing Code	1 Quart Setting
L4L-315	1.1
L4M-321	3.2
L4W-301	6.4
L4L-305	9.6
L4S-316	124.0
L4S-350	368.0
T1C-324	878.0

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SUN YELLOW ENAMEL

DITZLER	
Mixing Code	1 Quart Setting
N/A	

SUN YELLOW ENAMEL

SHERWIN-WILLIAMS 35-32257	
Mixing Code	1 Quart Setting
F5B-81	1.7
F5E-84	21.4
F5Y-89	112.0
F5Y-93	445.0
V6V-175	490.0
F5W-80	979.0

SUN YELLOW LACQUER

DITZLER DDL 3467	
Mixing Code	1 Quart Setting
DMA 346	26
DMA 356	76
DMA 314	126
DMA 382	636
DMA 311	1056

SUN YELLOW LACQUER

SHERWIN-WILLIAMS 34-32257	
Mixing Code	1 Quart Setting
L4R-304	6.1
L4W-301	440.0
L4Y-303	924.0

SLATE BLUE MATALLIC ENAMEL

DITZLER DAR 3468	
Mixing Code	1 Quart Setting
DMR 401	80
DMR 490	180
DMR 433	384
DMR 414	814
DXR 495	834
DMR 499	1034

SLATE BLUE METALLIC ENAMEL

SHERWIN-WILLIAMS 35-32283	
Mixing Code	1 Quart Setting
F5R-100	28.6
F5W-80	64.7
F5L-68	169.0
F5B-81	317.0
V6V-175	362.0
F5S-74	905.0

SLATE BLUE METALLIC LACQUER

DITZLER DDL 3468	
Mixing Code	1 Quart Setting
DMA 357	4
DMA 375	27
DMA 311	66
DMA 358	140
DMA 321	292
DMA 386	820
DMA 310	990

SLATE BLUE METALLIC LACQUER

SHERWIN-WILLIAMS 34-32283	
Mixing Code	1 Quart Setting
L4M-318	29.4
L4W-301	98.4
L4L-309	176.2
L4B-302	296.0
L4S-316	590.0
T1C-324	884.0

DEEP NIGHT BLUE ENAMEL

DITZLER DAR 3469	
Mixing Code	1 Quart Setting
DMR 401	36
DMR 490	202
DMR 450	582
DXR 495	602
DMR 415	1022

DEEP NIGHT BLUE ENAMEL

SHERWIN-WILLIAMS 35-32251	
Mixing Code	1 Quart Setting
F5R-100	17.6
F5W-80	43.4
F5B-81	155.0
F5Y-72	284.0
V6V-175	329.0
F5L-94	915.0

DEEP NIGHT BLUE LACQUER

DITZLER	
Mixing Code	1 Quart Setting
N/A	

DEEP NIGHT BLUE LACQUER

SHERWIN-WILLIAMS 34-32251	
Mixing Code	1 Quart Setting
L4W-301	27.5
L5B-320	60.8
L4Y-334	270.0
L4L-313	892.0

TOPAZ GOLD METALLIC ENAMEL

DITZLER DAR 3471	
Mixing Code	1 Quart Setting
DMR 482	280
DMR 476	750
DXR 495	770
DMR 433	1030

TOPAZ GOLD METALLIC ENAMEL

SHERWIN-WILLIAMS 35-32386	
Mixing Code	1 Quart Setting
F5B-81	5.1
F5E-84	35.6
F5N-76	87.0
F5S-101	138.0
F5Y-72	494.0
V6V-175	539.0
F5S-74	911.0

TOPAZ GOLD METALLIC LACQUER

DITZLER DDL 3471	
Mixing Code	1 Quart Setting
DMA 311	4
DMA 386	18
DMA 383	124
DMA 312	318
DMA 384	720
DMA 310	980

TOPAZ GOLD METALLIC LACQUER

SHERWIN-WILLIAMS 34-32386	
Mixing Code	1 Quart Setting
L4W-301	3.5
L4B-302	8.2
L4E-306	58.9
L4S-316	117.9
L4S-335	212.1
T1C-324	448.0
L4Y-334	884.0

JAMAICAN BEIGE ENAMEL

DITZLER DAR 3472	
Mixing Code	1 Quart Setting
DMR 490	6
DMR 476	70
DMR 486	250
DMR 400	760
DXR 495	780
DMR 499	1220

JAMAICAN BEIGE ENAMEL

SHERWIN-WILLIAMS 35-32243	
Mixing Code	1 Quart Setting
F5B-81	13.4
F5E-99	29.6
F5Y-93	148.0
V6V-175	193.0
F5W-80	1000.0

JAMAICAN BEIGE LACQUER

DITZLER DDL 3472	
Mixing Code	1 Quart Setting
DMA 392	15
DMA 346	69
DMA 393	289
DMA 311	1049
DMA 310	1099

JAMAICAN BEIGE LACQUER

SHERWIN-WILLIAMS 34-32243	
Mixing Code	1 Quart Setting
L4B-320	6.6
L4R-304	17.0
L4Y-303	166.0
L4W-301	944.0

81-110-BSA/J

Jeep

Diagnosis and Repair Bulletin

Subject: Paint Peeling Off Road Wheels	Application: 1981 Jeep Vehicles Built Between VIN 1JXXXXXXX XX015701 and VIN 1JXXXXXXX XX042000, and Equipped With Painted-White Road Wheels	File: BODY Metal Repair - Painting - Water Leaks/Wind Noise No. 81-3 June 12, 1981

On some 1981 Jeep vehicles built between VIN 1JXXX-XXXXXX015701 and VIN 1JXXXXXXXXX042000, and equipped with painted-white road wheels (paint code A1 — snow white), the white paint may not adhere properly and begin peeling off the wheels. This condition may occur on one or on all of the vehicle road wheels.

Service correction involves sand blasting to remove the original enamel paint and primer and applying a new coat of epoxy primer and acrylic enamel color coat to the wheel.

The required epoxy primer and white acrylic enamel paint (code A1) code numbers for each manufacturer are as follows:

Manufacturer	Paint Type	Code Number
DuPont	Color Coat	5213
	Epoxy Primer	825S
	Activator	826S
Ditzler	Color Coat	DAR 2265
	Epoxy Primer	DP 40
	Activator	DP 401
Sherwin-Williams	Color Coat	J3-3679

PROCEDURE

(1) Raise and support vehicle.

(2) Remove all five wheels from vehicle.

(3) Mark size and location of wheel balance weights on tire using grease pencil.

(4) Remove wheel balance weights from wheels. Tag weights for installation reference.

(5) Using sand blasting equipment, remove all paint and primer from **both** sides of each wheel.

(6) Inspect wheels to make sure all traces of paint and primer has been removed. Only bare metal should be visible. Clean wheels thoroughly to remove all sand blasting residue.

(8) Apply Ditzler Metal Prep 79 (DX-579), or equivalent to **both** sides of wheels according to manufacturer's instructions.

(9) Mask both sides of tire carefully to avoid paint adhering to tire.

(10) Mix epoxy primer and activator according to manufacturers instructions and apply to **both** sides of wheels.

(11) Mix Acrylic enamel color coat according to manufacturers instructions.

(12) Apply enamel color coat to **both** sides of wheels and allow to air dry.

(13) Remove masking material from tire surfaces.

(14) Install wheel balance weights at marked locations.

(15) Install wheels on vehicle.

(16) Remove supports and lower vehicle.

The following standard servicing operations and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
BASIC PAINT — PREPARATION		**21701**			**0.4**		**G**
WHEELS, SET OF FIVE — STRIP AND PAINT ..... Material allowance $24.50	**21.835**	**21713**			**4.4**		**G**

American Motors Sales Corporation 81-082-08J

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Jeep

Diagnosis and Repair Bulletin

Subject: Water Leak or Wind Noise Recommended Sealing Products.	Application: All 1980-81 Jeep Vehicles	File: BODY Metal Repair — Painting — Water Leaks/Wind Noise No. 81-2 Jan. 21, 1981

Some 1981 vehicles may exhibit some water leak and wind noise problems. Locating the leak can be accomplished by following the test procedures described in chapter 3A of the Technical Service Manual.

The following chart describes some of these typical water leak and wind noise areas and recommended products which can be used to seal these areas.

Water Leak or Wind Noise Recommended Sealing Products

	Spot Weld Burn Holes	Interior Heater Plenum Chamber	Body Joints and Seams	Floor Pan Plug Holes	Weld Nut and Screw Holes	Drip Rails	Windshield Structurally Sound	Between Butyl Tape and Glass	Between Glass and Weatherstrip	Between Weatherstrip and Body Panel
3M Products										
Brushable Seam Sealer	●		●	●	●					
Joint and Seam Sealer		●	●		●					
All-Around Auto Body Sealant			●	●	●					
Drip Check Sealer					●	●				
Strip Calk	●		●	●	●					
Auto Bedding and Glazing Compound										●
Windshield Sealer									●	
Windo-Weld Resealant							●	●		
Kent Industries Products										
Quik Leak Check	●	●	●		●	●				
Seal-a-Seam			●	●						
Silver Seal						●				
Wet/Dry Resealant							●	●		
Leak Seal							●			
Glass Mastic									●	●
Liquid Rubber								●		
Bedding and Glazing Compound										●

81-036-BSA/J

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Jeep

Diagnosis and Repair Bulletin

Subject: Paint Information	Application: 1981 Jeep Vehicles	File: BODY Metal Repair- Painting-Water Leaks/ Wind Noise No. 81-1 Oct. 24, 1980

Attached is the 1981 Dupont color chart. Color names and code numbers are included in each chart. This bulletin is being sent to all Jeep dealers in limited quantities. If additional quantities are required, contact your Field Service Manager or District Service Manager.

81-014-21A/J

DUPONT
AUTOMOTIVE
REFINISH
PRODUCTS

1981 COLORS

AMERICAN MOTORS CORPORATION

CONCORD • EAGLE
SPIRIT • JEEP

EXTERIOR COLORS

Usage	Mfr. Code and Color	LUCITE® CODE	CENTARI® CODE	DULUX® CODE
	P1			
S	Black			
E	Black			
C	Black			
J	Black	99	99	93-005
	8C			
S	Quicksilver Met.			
E	Quicksilver Met.			
C	Quicksilver Met.	45104	45104	45104
	9B			
S	Olympic White			
E	Olympic White			
C	Olympic White			
J	Olympic White	45701	45701	45701
	OD			
S	Medium Blue Met.			
E	Medium Blue Met.			
C	Medium Blue Met.	B8083	B8083	B8083
	OK			
S	Cameo Tan			
E	Cameo Tan			
C	Cameo Tan			
J	Cameo Tan	B8086	B8086	B8086
	OL			
S	Medium Brown Met.			
E	Medium Brown Met.			
C	Medium Brown Met.	B8087	B8087	B8087

Usage	Mfr. Code and Color	LUCITE® CODE	CENTARI® CODE	DULUX® CODE
	OM			
S	Dark Brown Met.			
E	Dark Brown Met.			
C	Dark Brown Met.			
J	Dark Brown Met.	B8088	B8088	B8088
	1A			
J	Montana Blue	C8190	C8190	C8190
	1B			
S	Moonlight Blue			
E	Moonlight Blue			
C	Moonlight Blue			
J	Moonlight Blue	C8191	C8191	C8191
	1C			
S	Sherwood Green Met.			
E	Sherwood Green Met.			
C	Sherwood Green Met.			
J	Sherwood Green Met.	C8192	C8192	C8192
	1D			
S	Autumn Gold			
E	Autumn Gold			
C	Autumn Gold			
J	Autumn Gold	C8193	C8193	C8193
	1E			
S	Copper Brown Met.			
E	Copper Brown Met.			
C	Copper Brown Met.			
J	Copper Brown Met.	C8194	C8194	C8194

Usage	Mfr. Code and Color	LUCITE® CODE	CENTARI® CODE	DULUX® CODE
	1H			
J	Chestnut Brown Met.	C8195	C8195	C8195
	1J			
S	Vintage Red Met.			
E	Vintage Red Met.			
C	Vintage Red Met.			
J	Vintage Red Met.	C8196	C8196	C8196
	1K			
S	Deep Maroon Met.			
E	Deep Maroon Met.			
C	Deep Maroon Met.			
J	Deep Maroon Met.	C8197	C8197	C8197
	1L			
S	Steel Gray Met.			
E	Steel Gray Met.			
C	Steel Gray Met.			
J	Steel Gray Met.	C8198	C8198	C8198
	1M			
S	Oriental Red			
E	Oriental Red			
C	Oriental Red			
J	Oriental Red	C8199	C8199	C8199

AMERICAN MOTORS CORPORATION

PRIOR YEARS COLOR INFORMATION

1978

Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code	Mfr. Paint Code	Color	Lucite* Code	Centari* Code	Dulux* Code
P1	Black	99	99	93-005	7K	Midnight Blue Met.	44193	44193	44193
G7	Alpine White	43499	43499	43499	7L	Loden Green Met.	44194	44194	44194
6D	Sand Tan	44111	44111	44111	7M	Golden Ginger Met.	44195	44195	44195
6P	Firecracker Red	44116	44116	44116	7W	Captain Blue Met.	44197	44197	44197
6R	Brilliant Blue	44117	44117	44117	7Z	Sun Orange	44199	44199	44199
6V	Sunshine Yellow	44119	44119	44119	8A	Khaki	45103	45103	45103
7B	Mocha Brown Met.	44191	44191	44191	8B	British Bronze Met.	45102	45102	45102
7C	Autumn Red Met.	44793	44793	44793	8C	Quicksilver Met.	45104	45104	45104
7D	Powder Blue	44192	44192	44192	8D	Claret Met.	45100	45100	45100

1979

Mfr. Paint Code	Color	Usage	Lucite* Code	Centari* Code	Dulux* Code	Mfr. Paint Code	Color	Usage	Lucite* Code	Centari* Code	Dulux* Code
P1	Black	S-C-P-J	99	99	93-005	9J	Arrowhead Silver Met.	J	45706	45706	45706
6P	Firecracker Red	S-C-P-J	44116	44116	44116	9K	Sable Brown Met.	S-C-P-J	45707	45707	45707
8A	Khaki	S-C-P	45103	45103	45103	9L	Saxon Yellow	S-C-P-J	45708	–	45708
8B	British Bronze Met.	S-C-P	45102	45102	45102	9M	Starboard Blue Met.	S-C-P	45709	45709	45709
8C	Quick Silver Met.	S-C-P	45104	45104	45104	9N	Morocco Buff	S-C-P-J	45710	45710	45710
9A	Alpaca Brown Met.	S-C-P-J	45700	45700	45700	9P	Bordeaux Met.	S-C-P-J	45711	45711	45711
9B	Olympic White	S-C-P-J	45701	45701	45701	9T	Ensign Blue	J	45713	45713	45713
9C	Russet Met.	S-C-P-J	45702	45702	45702	9W	Mandarin Orange	J	45714	45714	45714
9E	Wedgwood Blue	S-C-P-J	45704	45704	45704	9Z	Misty Beige Met. CC/CC	P	45850	45850	–
9H	Cumberland Green Met.	S-C-P-J	45705	45705	45705						

1980

Mfr. Paint Code	Color	Usage	Lucite* Code	Centari* Code	Dulux* Code	Mfr. Paint Code	Color	Usage	Lucite* Code	Centari* Code	Dulux* Code
P1	Black	S-E-P-C-J	99	99	99	0D	Med. Blue Met.	S-E-P-C	B8083	B8083	B8083
8C	Quick Silver Met.	S-E-P-C	45104	45104	45104	0E	Dk. Green Met.	C-J	B8084	B8084	B8084
9A	Alpaca Brown Met.	J	45700	45700	45700	0H	Navy Blue	S-E-P-C-J	B8085	B8085	B8085
9B	Olympic White	S-E-P-C-J	45701	45701	45701	0J	Teal Blue	J	B8091	B8091	B8091
9C	Russet Met.	S-E-P-C-J	45702	45702	45702	0K	Cameo Tan	S-E-P-C-J	B8086	B8086	B8086
9L	Saxon Yellow	S-E-P-C-J	45708	45708	45708	0L	Med. Brown Met.	S-E-P-C	B8087	B8087	B8087
9P	Bordeaux Met.	S-E-P-C-J	45711	45711	45711	0M	Dk. Brown Met.	S-E-P-C-J	B8088	B8088	B8088
9Z	Misty Beige Met. C/C	P	45850	45850	–	0P	Cardinal Red	S-E-P-C-J	B8089	B8089	B8089
0B	Smoke Gray Met.	C-J	B8081	B8081	B8081	0R	Caramel	S-E-P-J	B8090	B8090	B8090
0C	Cameo Blue	S-E-P-C	B8082	B8082	B8082						

KEY S–Spirit, C–Concord, P–Pacer, J–Jeep

INTERIOR COLORS

C8040 Beige P3 S.G.

C8182 Wine P10 S.G.

45715 Blue R8 S.G.

99 Black R50 S.G.

C8183 Med. Brown P8 Flat

C8184 Nutmeg P12 S.G.

4428 Black R27 Flat

1981 AMERICAN MOTORS STRIPING COLORS

MFR. PAINT CODE	COLOR	STOCK NUMBER
P38	Nutmeg	C8185
P84	Red Gold	B8095
R40	Black	99
R80	Blue	43688

Jeep

Diagnosis and Repair Bulletin

Subject: Interior Wind Noises	Application: 1980-81 Cherokee, Wagoneer and Truck Models	File: BODY Metal Repair- Paint-Water Leaks/Wind Noise No. 80-3 Oct. 9, 1980

Some 1980-81 Cherokee, Wagoneer, and Truck models may develop an interior wind noise or air leak that may be the result of air entering the vehicle in the following areas:

- Front Door Division Channel
- Intersection of Cowl-A-Pillar-Instrument Panel
- Holes in Inner Cowl Panels

Service correction involves performing the repair procedures outlined in this bulletin at each of these areas.

The following parts are available and required:

Description	Quantity	Part No.	Group
BUTTON, Plug	3	4001716	27.038
TOUCH-N-FOAM	AR	8130438	30.051
GASKET-IN-A-TUBE	AR	8993317	15.260

PROCEDURE

Front Door Division Channel

Noise from this area can be isolated by using a stethoscope placed along the rolled edge of the division channel inside the vehicle during road testing.

(1) Insert small flat blade screwdriver in gap between rolled section and flat section of front door division channel. Insert blade at top and bottom (Fig. 1), and open gap slightly to allow application of sealer.

(2) Apply black silicone sealer, Gasket-In-A-Tube, or equivalent, along gap in division channel.

(3) Remove screwdriver.

(4) Wipe off excess sealer.

NOTE: *Steps (1) through (4) are to be performed on both the inside and outside surfaces of the division channel.*

(5) Repeat sealant application on opposite front door division channel.

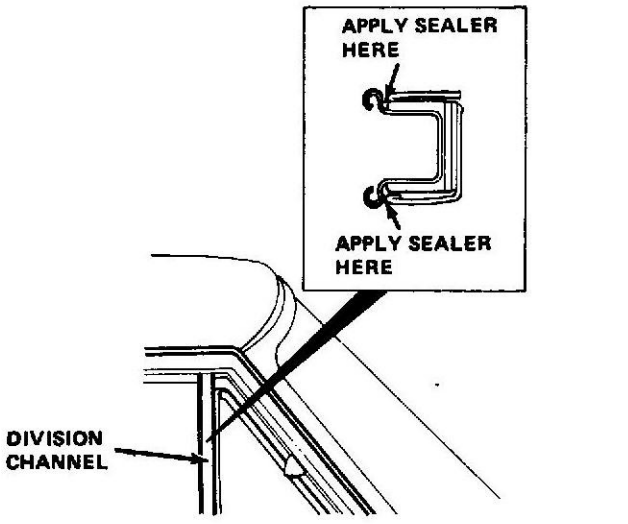

Fig. 1

Intersection of Cowl-A-Pillar-Instrument Panel

An air leak at this area can be detected from inside the vehicle using a stethoscope placed at the lower corner of the windshield at both A-pillars during a road test. In severe cases, an air leak can be detected by placing a hand in the windshield lower corner area to feel the air flow.

(1) Raise hood.

(2) Using grease pencil, place mark on both outer cowl panels 1-inch below horizontal flange and 5/8-inch outboard of vertical flange (Fig. 2).

(3) Centerpunch and drill 1/2-inch diameter hole in each panel at marked locations.

(4) Shake Touch-N-Foam container and install nozzle and tubing on container.

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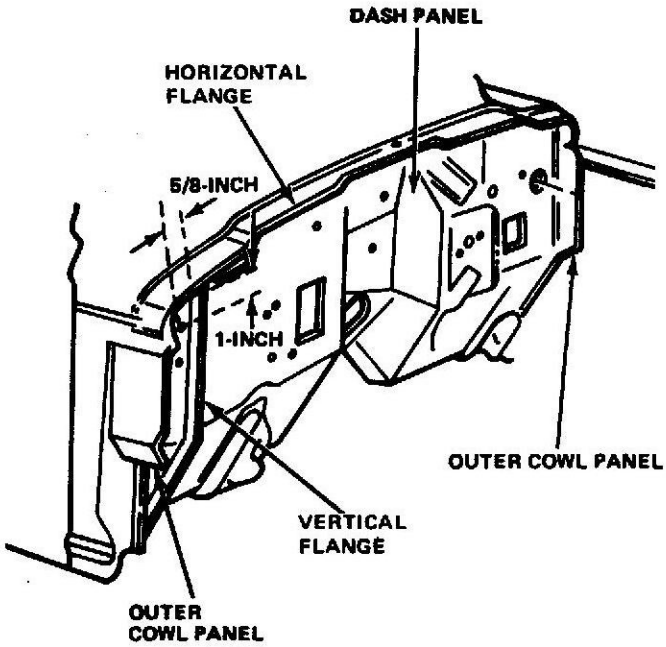

Fig. 2

(5) Turn Touch-N-Foam container upside down and make trial application of foam on section of cardboard or newspaper.

(6) Insert container tube into holes drilled in cowl panels until container tube contacts A-Pillar.

(7) Pull tubing out approximately 1-inch, aim for A-Pillar, and press and hold nozzle for 8 to 10 seconds.

(8) Release container nozzle. Allow few seconds for foam to stop flowing from container tube before removing tube.

(9) Repeat steps (6) through (8) on opposite outer cowl panel.

NOTE: *Uncured foam may be removed from painted surfaces by carefully wiping the area with lacquer thinner or an equivalent solvent.*

(10) Install button plugs in holes drilled in outer cowl panels.

(11) Close hood.

(12) Allow foam to cure for 1-1/2 hours; then road test vehicle to verify noise correction.

(13) Remove excess sealer that may appear in lower corner of windshield weatherstrip after foam has cured. Use razor blade or similar tool to remove excess sealer.

Holes in Inner Cowl Panels

The inner cowl panel holes may produce a draft on the driver and passenger's legs rather than an actual wind noise. This condition can be detected by a visual inspection.

(1) Open driver's side door and view inner cowl panel through upper hinge pocket in area where instrument panel lower attaching bolt is located (Fig. 3).

(2) Locate weld nut hole in cowl panel that is approximately 3-inches above and 1/2-inch to rear of instrument panel lower attaching bolt (Fig. 3).

(3) Plug weld nut hole using 3M Strip-Caulk or equivalent.

(4) Plug 1/2-inch hole in inner cowl panel located above parking brake assembly. Plug hole using button plug (Fig. 3).

(5) Repeat steps (1) through (3) on passenger side inner cowl panel.

NOTE: *The passenger side inner cowl panel has only one hole in it.*

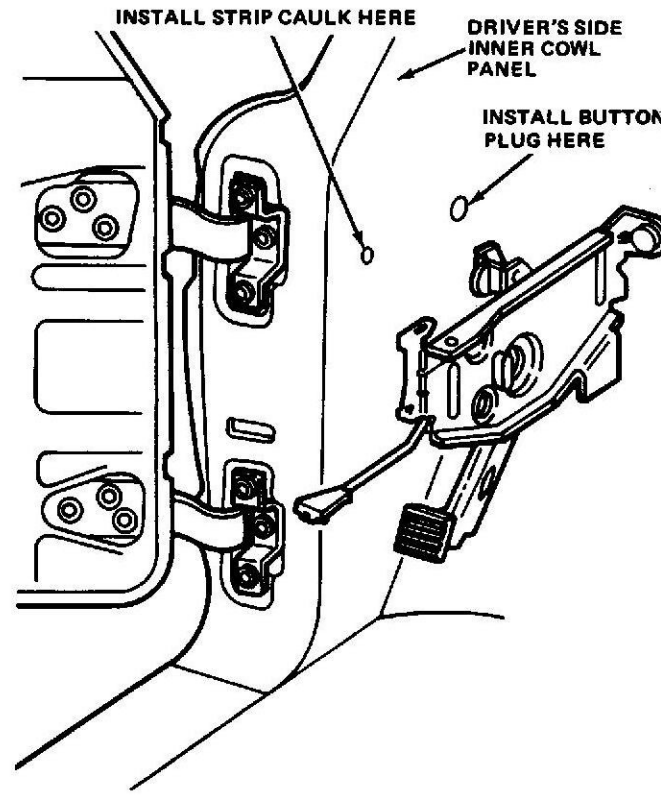

Fig. 3

The following standard servicing operations and work times will apply:

OPERATION DESCRIPTION	COST CODE	OPERATION NUMBER	MODEL	YEAR AND TIME			SKILL LEVEL
				80	81	82	
CHANNEL, FRONT DOOR DIVISION — SEAL ..... Both ..... Material allowance is $0.70	23.118	25011	10-20	0.2			G
PANELS, COWL SIDE — SEAL	20.155	20121	10-20	0.2			G
COWL-A-PILLAR-INSTRUMENT PANEL INTERSECTION — SEAL..... Material allowance is $2.39	20.195	20135	10-20	0.2			G

80-149-BSJ

Jeep

Service Technical Letter

File: Service General
No.81-18 Aug. 24, 1981

Subject	Information
Revision to Diagnosis and Repair Bulletin Number 81-1, New Voltage Regulator Tester, Dated June 11, 1981, Filed Under POWER PLANT - Engine Electrical.	The amserv tool number used for the new voltage regulator tester has been revised. The revised tool number for the voltage regulator tester is AMOT ET-401. Tool number OT60884 is a general number for the tester adapter harnesses. Refer to your new amserv catalog for specific harness numbers. Please note this revision on your copies of the subject bulletin.

Service Technical Letter

File: Service General
No. 81-17 July 17, 1981

Subject	Information
Oil Pump Release (Relief) Valve Plunger - Six-Cylinder Oil Pump-Revision to Service Technical Letter 81-15 Dated May 19, 1981	The diameter of release (relief) valve plunger, part number 3241676, described in Service Technical Letter 81-15 has been changed. The new diameter for this plunger is 0.575 - 0.576 inches. Please note this change in your copies of Service Technical Letter 81-15.
Fabric Top Kit Components - 1981 Scrambler Moedls Built Between VIN 1JXXXXXXXXX040711 And VIN 1JXXXXXXXXX063179 Equipped With Fabric Top And Fabric Doors.	The fabric top kits supplied with some of the subject 1981 Scrambler models may have contained incorrect components. These kits may have included the horizontal support rod sockets used with metal door installations, instead of the combination horizontal support rod bracket/door seal assemblies that are required on models with fabric doors. These components are identified in the instruction sheets supplied with every top kit. If horizontal support rod sockets, part numbers 5754693 left side and 5754694 right side have been installed, they should be replaced with the combination horizontal support rod bracket/door seal assemblies, part numbers 5458874 right side and 5458875 left side.

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Service Technical Letter

File: Service General
No.81-16 June 15, 1981

Subject	Information
Plastic Front Frame Crossmember Cover Attachment - 1981 CJ Models	Because the holddown chain hooks used for shipping could damage the plastic front frame crossmember cover if the cover is fully attached, the two cover rear attaching screws are not installed during production. Instead, these screws are placed in the vehicle glove box and are to be installed at the dealership during pre-delivery.
Delco Air Conditioning Compressor Mainshaft Rotating Torque Specification - 1981 Jeep Vehicles	NOTE: The following specification applies only when the compressor is off, not under load, and when there is no pressure in the system. The mainshaft rotating torque for Delco air conditioning compressors used on 1981 Jeep vehicles should not exceed 10 foot-pounds (14 N.m) torque. This torque should be checked after overhaul to verify correct repair and before replacing any Delco compressor suspected of a seized condition. In addition, before checking mainshaft rotating torque, it is important that the mainshaft be rotated approximately two complete revolutions to be sure of an accurate torque reading.

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Service Technical Letter

File: Service General
No. 81-15 May 19, 1981

Subject	Information
Oil Pump Release Valve Plunger - 1981 Six-Cylinder Oil Pump	Two different diameter release valve plungers are used in 1981 six-cylinder oil pumps. Release valve plunger, part number 3188661, is 0.560 - 0.561-inches in diameter and release valve plunger, part number 3241676, is 0.570 - 0.571 inches in diameter. If it becomes necessary to replace the release valve plunger in a 1981 six-cylinder oil pump, be sure to install the correct diameter plunger.

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Service Technical Letter

File: Service General
No. 81-14 May 8, 1981

Subject	Information
Revision to 1981 Six-Cylinder PCV Valve Specifications	The flow rate specifications for 1981 six-cylinder PCV valves have been revised. Please change the PCV valve flow rate information for six-cylinder engines on page 1J-80 of your 1981 Jeep Technical Service Manual and page 103 of the 1981 Jeep Service Specifications Handbook to read as follows:

Engine Manifold Vacuum in Hg. (kPa)	Air Flow CFM (Liters/Second)	
	High Limit	Low
16 (54)	0.2 (0.094)	0.0 (0.0)
11 (37)	2.0 (0.943	0.9 (0.424)
5 (17)	2.5 (1.18)	1.5 (0.708)

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Diagnosis and Repair Bulletin

Subject: New Model Information	Application: 1981 Jeep Scrambler	File: Service General No. 81-13 April 23, 1981

GENERAL

This bulletin is being issued as a supplement to the 1981 Jeep Technical Service Manual and provides general data, specifications, power train combinations, optional equipment availability, and servicing procedures unique to the new 1981 Model 88 Jeep Scrambler.

BODY/POWERTRAIN STANDARD FEATURES

The Scrambler is a 103.5-inch wheelbase, half-cab, sport/utility vehicle with a truck-type cargo box at the rear. Four body versions are available which are: a base model with open top configuration, a fabric top model with metal doors (Fig. 1), a fabric top model with fabric doors, and a hardtop model with metal doors (Fig.2).

Fig. 1 Scrambler Model 88 — Hardtop with Metal Doors

Fig. 2 Scrambler Model 88 — Fabric Top with Metal Doors

The standard powertrain for Scrambler models is the 151 CID four-cylinder engine, SR4 four-speed manual transmission, 3.54 ratio axles (49-State) or 3.73 ratio Axles (California), and the model 300 transfer case. A six-cylinder engine, model 904 or 999 automatic transmission, different ratio axles, and a Trac-Lok rear axle differential are all available as options. Refer to the Powertrain Combination Chart in this bulletin for standard and optional powertrain combinations.

The Scrambler frame utilizes new one-piece side rails and an additional crossmember at the rear of the vehicle for increased strength and frame stiffness. The extended one-piece body side panels are flanged for increased strength and stiffness also. In addition, the truck-type cargo box features symmetrical interior wheel well housings for maximization of cargo space.

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A half-cab back panel, steering damper and stabilizer bar, three-inch diameter roll bar, and tailgate mounted swing-away spare tire are all standard equipment on Scrambler models. The roll bar is painted to match body color. The spare tire mount is similar to the swing-away unit used on current CJ models (Fig. 2). However, a different upper hinge and latch reinforcement is required for the tire mount to accomodate the cargo box corner inner panel that is unique to Scrambler models.

OPTIONAL EQUIPMENT

A full range of optional equipment is available on Scrambler models. These include cargo box wood side rails, high-back bucket seats, air conditioning, AM/FM stereo radio, tachometer and clock, two trim options which are the SR and SL sport trim packages, a chrome or painted rear step bumper, floor carpeting, power steering and brakes, free-wheeling hubs, a cold climate group, optional wheel and tire combinations, and an optional soft top or molded fiberglass hard top with metal doors. Refer to the Powertrain Combination Chart in this bulletin for optional engine/transmission/axle combinations.

FUEL SYSTEM

The Scrambler fuel tank is similar to the unit used on current CJ-7 models and is rear mounted in the vehicle as is the fuel filler opening. The standard Scrambler fuel tank capacity is 15 gallons. The remainder of the Scrambler fuel system components are similar to those used in current CJ models.

BRAKES

The brake system and components used on Scrambler models are the same as used on 1981 CJ-7 models. Refer to the 1981 Jeep Technical Service Manual for all servicing procedures.

ENGINES

Two engines are available in Scrambler models. These are the 151 CID four-cylinder engine which is the standard engine and an optional 258 CID six-cylinder engine. These are the same engines used in current 1981 CJ models. The emission control systems and components used with these engines are also the same as used in current CJ models. Refer to the 1981 Jeep Technical Service Manual for four- and six-cylinder engine servicing procedures.

TRANSMISSION/TRANSFER CASE

The model 300 part-time, four-wheel drive transfer case is used in all Scrambler models. The SR4 four-speed manual transmission is the standard equipment transmission for all four-cylinder Scrambler models with the model 904 automatic transmission available as an option. Scrambler models equipped with the optional six-cylinder engine will use either the T-176 or SR4 four-speed manual transmissions or the optional model 999 automatic transmission. All transfer case and transmission models available in the 1981 Scrambler are the same as those used in current 1981 CJ models. Refer to the 1981 Jeep Technical Service Manual for all servicing procedures.

AXLES/FRONT HUBS

Scrambler models are equipped with the same Dana model 30 front axle and AMC/Jeep rear axle that are used on 1981 CJ-5 and CJ-7 models. Refer to the Powertrain Combination Chart for standard and optional ratios and to the 1981 Jeep Technical Service Manual for all Axle servicing procedures.

WHEELS/TIRES

The standard wheel/tire combination for Scrambler models consists of a 15 x 5.5 steel road wheel and H78-15 polyester bias-ply tires. Styled steel wheels are available as an option along with a number of different tire sizes and types including radial tires. Refer to the Tire Inflation Pressure Chart in this bulletin for available tire/wheel sizes and recommended inflation pressures.

SERVICE PROCEDURES

This bulletin provides the service procedures that are unique to 1981 Scrambler models. Refer to the 1981 Jeep Technical Service Manual for all other specifications and service procedures.

Fabric Top Installation

This procedure outlines the method for installing a new fabric top on Scrambler models that were not originally equipped with a fabric top (open body configuration). The procedure applies to models with metal or fabric doors. On models that will be equipped with fabric doors, refer to the Fabric Door Installation procedure that follows this procedure.

(1) Position windshield as shown in figure 3.

(2) Align and center fabric top front former on top-front surface of windshield frame (Fig. 4). Be sure forward edge of former is flush with forward edge of windshield frame.

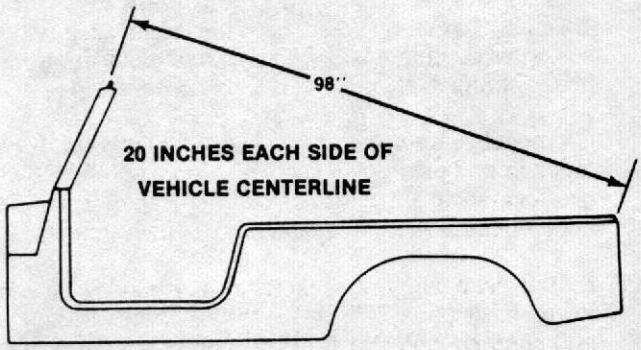


Fig. 3 Positioning Windshield

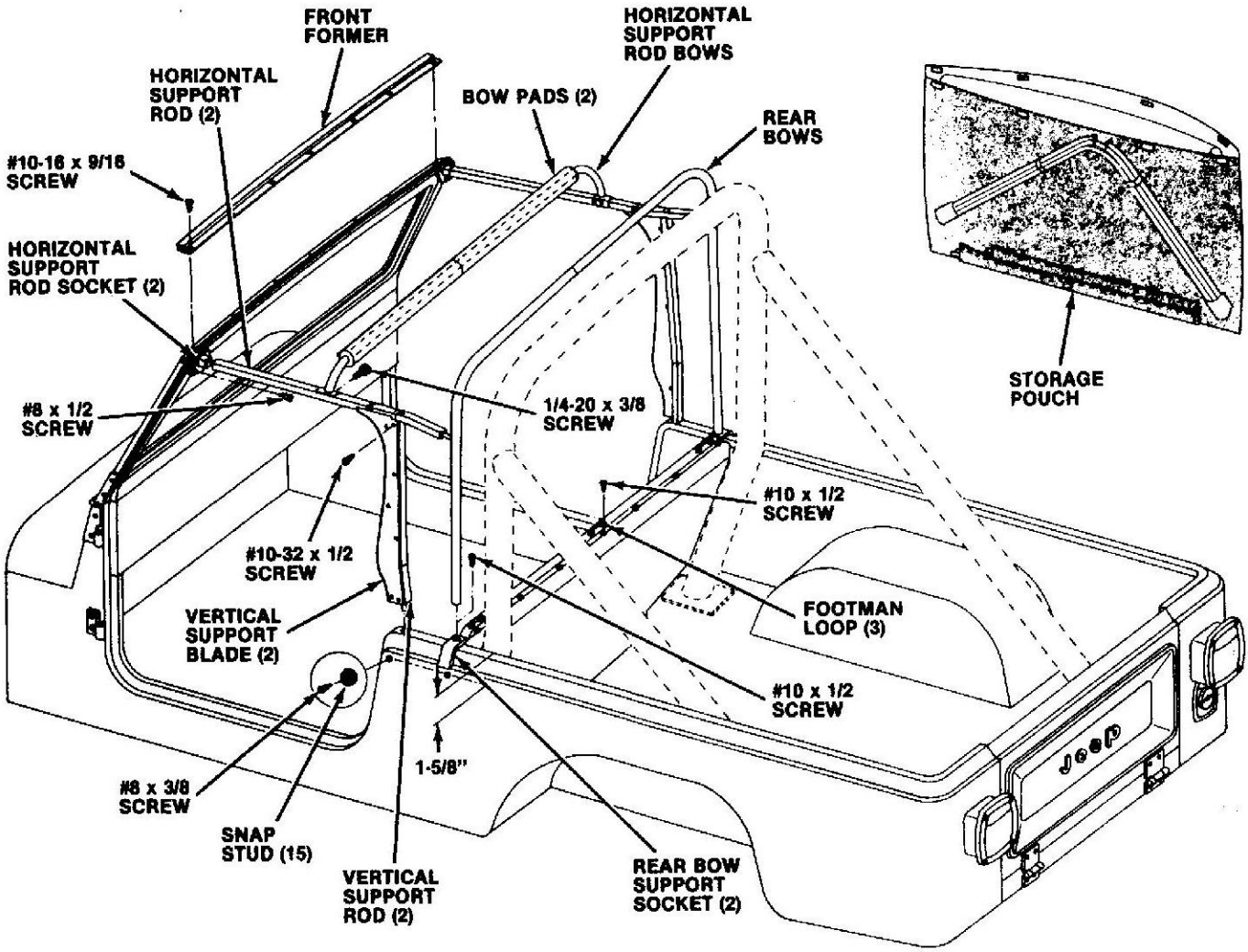


Fig. 4 Fabric Top Frame Components

(3) Using front former as guide, centerpunch and drill seven 1/8-inch diameter holes in windshield frame for front former attaching screws.

(4) Install and tighten front former attaching screws to 19 inch-pounds (2 N·m) torque.

(5) Install horizontal support rod sockets at upper left and right corners of windshield frame (Fig. 5). Use sockets as guides and centerpunch and drill three 1/8-inch diameter holes in windshield frame for socket attaching screws. Attach sockets to frame using Number 10 x 1/2 self-tapping screws.

(6) On models with metal doors (only), enlarge 1/4-inch holes in body sides for vertical support rods. Holes are located in top edge of body side panel behind door opening. Enlarge holes to 3/8-inch diameter.

(7) Install rear support sockets on body sides at cab lower back panel (Fig. 4). Use brackets as guides and centerpunch and drill 5/32-inch diameter holes in body sides for support socket attaching screws. Attach sockets to each side of body using number 10 x 1/2 self-tapping screws.

(8) Position one footman loop on top center of back panel. Using loop as guide, centerpunch and drill 5/32-inch diameter hole in panel and attach loop to panel using number 10 x 1/2 self-tapping screws (Fig. 4).

(9) Attach storage bag (Fig. 5) to footman loop just installed. Mark and drill holes for remaining footman loops. Attach loops to back panel and attach storage bag to loops.

NOTE: *The storage bag is designed to contain the fabric top plus all of the top support hardware.*

(10) Assemble and install rear bow halves in bow support sockets.

(11) Install bow pads on horizontal support bow rod halves and assemble both rods (Fig. 4).

(12) Install vertical support blades on vertical support rods (Fig. 4).

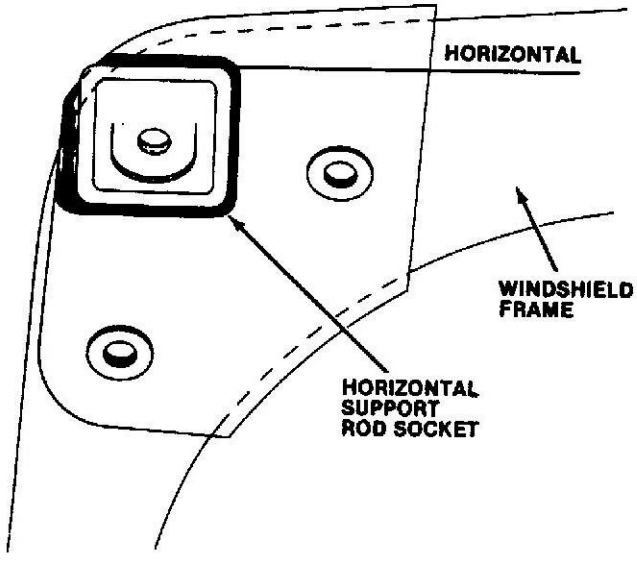


Fig. 5 Positioning Horizontal Support Rod Socket on Windshield Frame

(13) Install horizontal support rods and attach vertical support blades to horizontal support rods. Be sure rods are also seated in rear bow (Fig. 4).

(14) Attach horizontal support rod bows to horizontal support rods using 1/4 x 20 screws.

(15) Close doors and adjust vertical blades. Position blades so they are 3/8-inch away from inside of door frame.

(16) Install vinyl tape on horizontal support rods (Fig.6). Wrap 3-inch length of tape around each rod at point where vertical blade tab contacts rod.

(17) Position fabric top across bows and attach top to rear bow using snap fasteners.

(18) Remove horizontal support rods, insert rods through sleeves at each side of top, and install rods.

(19) Attach forward edge of fabric top to front former.

(20) Install fabric top snap studs in body sides. Starting at corner, stretch top, mark snap stud locations, and centerpunch and drill 1/8-inch diameter holes for studs. Attach snap studs using number 8 x 3/8 self-tapping screws. Tighten screws to 12 inch-pounds (1 N·m) torque and attach top to snap studs.

(21) Install fabric top snap studs in back panel. Stretch top over panel, mark stud locations, and centerpunch and drill 1/8-inch diameter holes for studs. Attach snap studs using number 8 x 3/8 self-tapping screws. Tighten screws to 12 inch-pounds (1 N·m) torque and attach top to snap studs.

(22) Install fabric top snap studs at windshield corners. Stretch top over corners, mark stud locations and centerpunch and drill 1/8-inch diameter holes for studs. Attach snap studs using number 3 x 3/8 self-tapping screws. Tighten screws to 12 inch-pounds (1 N·m) torque and attach top to snap studs.

(23) Check fabric top fit. If fit is incorrect check bow and support dimensions to be sure correct components were supplied in kit (Fig. 7). Correct and adjust fit if necessary.

(24) On models that will be equipped with fabric doors, refer to Fabric Door Installation procedure.

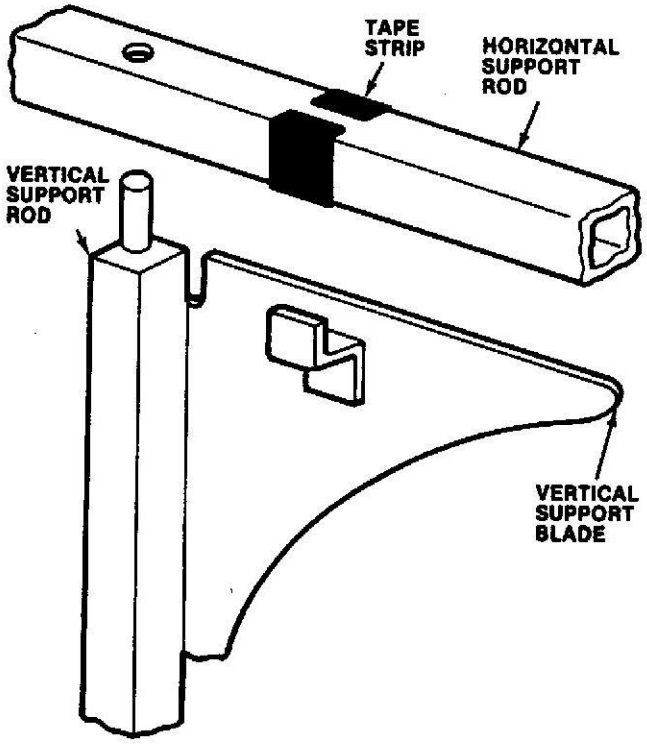


Fig. 6 Vinyl Tape Installation

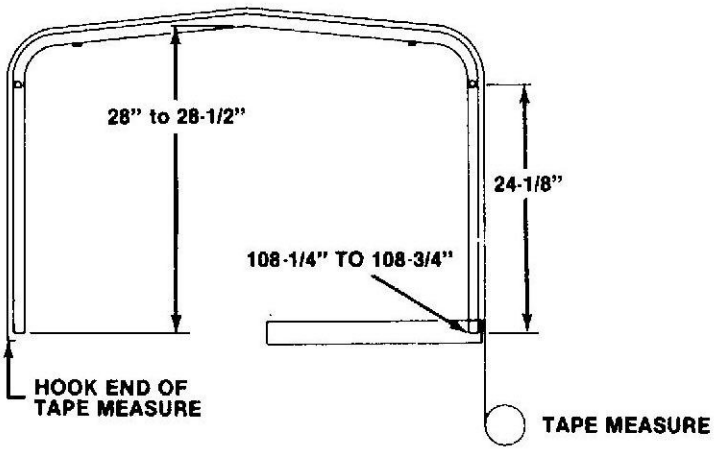
Fabric Door Installation

(1) Remove plastic plugs from door lower hinge mounting holes in body.

(2) Attach door lower hinges to body.

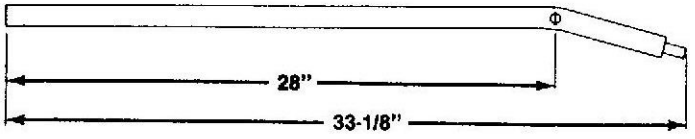
(3) Position door at 90° angle to body (full open position) and insert door frame hooks into door hinges. Be sure hooks are fully seated in hinges.

NOTE: *It is very important that the door frame hooks be installed all the way down into the body hinges. If not fully installed, the door handle may strike the top above the latch striker plate.*

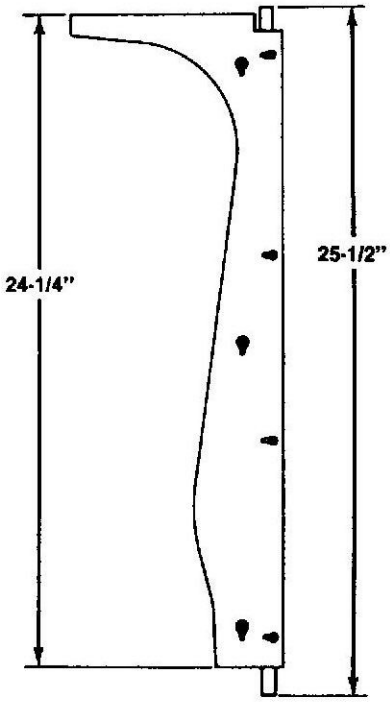


Rear Bow

Measure perimeter by running tape measure around outside of bow. Also measure height of bow to underside of crown.



Horizontal-Support-Rods



Vertical-Support-Rods

Measure total length of rod.

Fig. 7 Bow and Support Rod Dimensions

(4) Assemble door handles (Fig. 8). Place 5/8 flat washer over outside handle shaft and insert shaft through hole in door. Inside handle has cavity for torsion spring. Left door spring is metal color. Right door spring is purple color. Insert applicable spring into each inside door handle (end of spring with long tang inserted first). Position inside handle so it mates with hexagonal end of outside handle shaft. Rotate handles slightly until spring tang enters small slot at top of mounting plate hole. Rotate handles forward and compress together. Secure handles with number 8 x 1-3/8 self-tapping screw. Repeat procedure for opposite door handle.

NOTE: *If handles bind or do not rotate freely, loosen screw slightly.*

(5) Install black vinyl covers on door window zipper pulls.

(6) Position black vinyl door trim on diagonal rod adjacent to door lower window.

Fabric Door Adjustment

(1) Unzip door window and close and latch door.

(2) Identify improper fitting areas by standing outside vehicle and looking through open door window.

(3) Upon locating improper fit areas, start at lower forward area of door and carefully spring door frame as required to eliminate poor fit areas. Work toward upper rear corner of door when springing frame. Upper forward corner of door must contract door seal before door latch engages.

(4) Top front corner of door may be adjusted by grasping door frame in area of top hinge and springing upper forward corner inward.

(5) Repeat door frame springing process until desired fit is achieved.

Door Handle Adjustment

Handles that do not rotate far enough rearward to latch behind the vertical support rod can be adjusted as follows:

(1) Disassemble handle.

(2) Cut small amount of plastic from front side of inside handle tang. This allows handle to rotate further rearward and latch behind vertical rod.

(3) Reassemble handle.

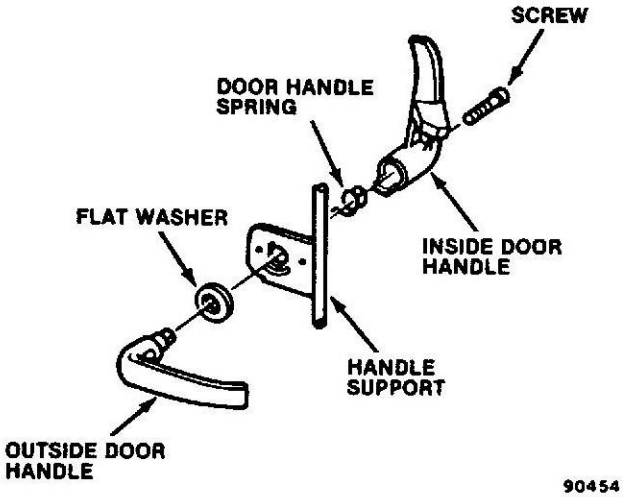


Fig. 8 Fabric Door Handle Assembly

Cab Back Panel Removal/Installation

(1) Move both seats forward.

(2) Remove storage bag, if equipped with fabric top.

(3) Remove back panel attaching bolts and removal panel (Fig. 9).

(4) Remove sealing material from back panel-to-cargo box contact surfaces.

(5) Apply new sealing material to cargo box contact surfaces of back panel. Use a silicone-type caulk or sealant to seal these surfaces.

(6) Install back panel and panel attaching bolts.

(7) Install storage bag, if equipped with fabric top.

(8) Return seats to original positions.

Roll Bar Removal/Installation

(1) Remove wood side rails from both sides of cargo box, if equipped.

(2) Remove roll bar attaching bolts.

(3) Remove roll bar from vehicle using chain hoist or with aid of helper.

(4) Position and install roll bar in cargo box. Use chain hoist or helper to raise and install roll bar.

(5) Install and tighten roll bar attaching bolts to 25 foot-pounds (34 N·m) torque.

(6) Install wood side rails, if equipped.

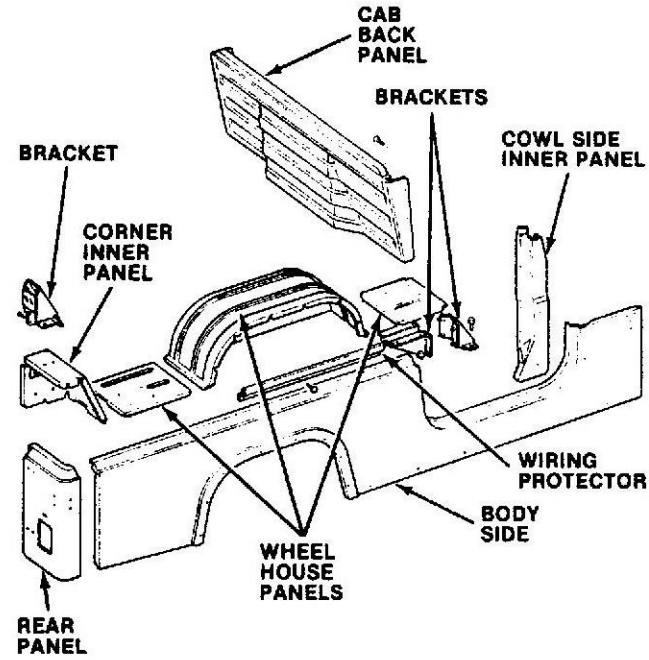


Fig. 9 Cab Back Panel

Hardtop Removal/Installation

(1) Remove screws attaching top to windshield.

(2) Remove bolts attaching top to cab back panel.

(3) Remove top with aid of helper.

NOTE: *If the top is to be removed from the vehicle or stored for any length of time, place a protective covering over the top.*

(4) Position top on vehicle with aid of helper.

(5) Align top attaching bolt and screw holes and install attaching bolts and screws.

Hardtop Repair

Holes, cracks or breaks in the hardtop can be repaired as outlined in Chapter 3L of the 1981 Jeep Technical Service Manual.

Metal Doors

The metal doors used on Scrambler models are similar to the doors used on current 1981 CJ models and are equipped with the new remote-type inside and outside door handles (Fig. 10). The door glass, channels, and window regulator mechanism are the same as used in current CJ models (Fig. 11). The door handle, lock, and striker service procedures are outlined in this bulletin. Refer to the 1981 Jeep Technical Service Manual for all other door service and adjustment procedures.

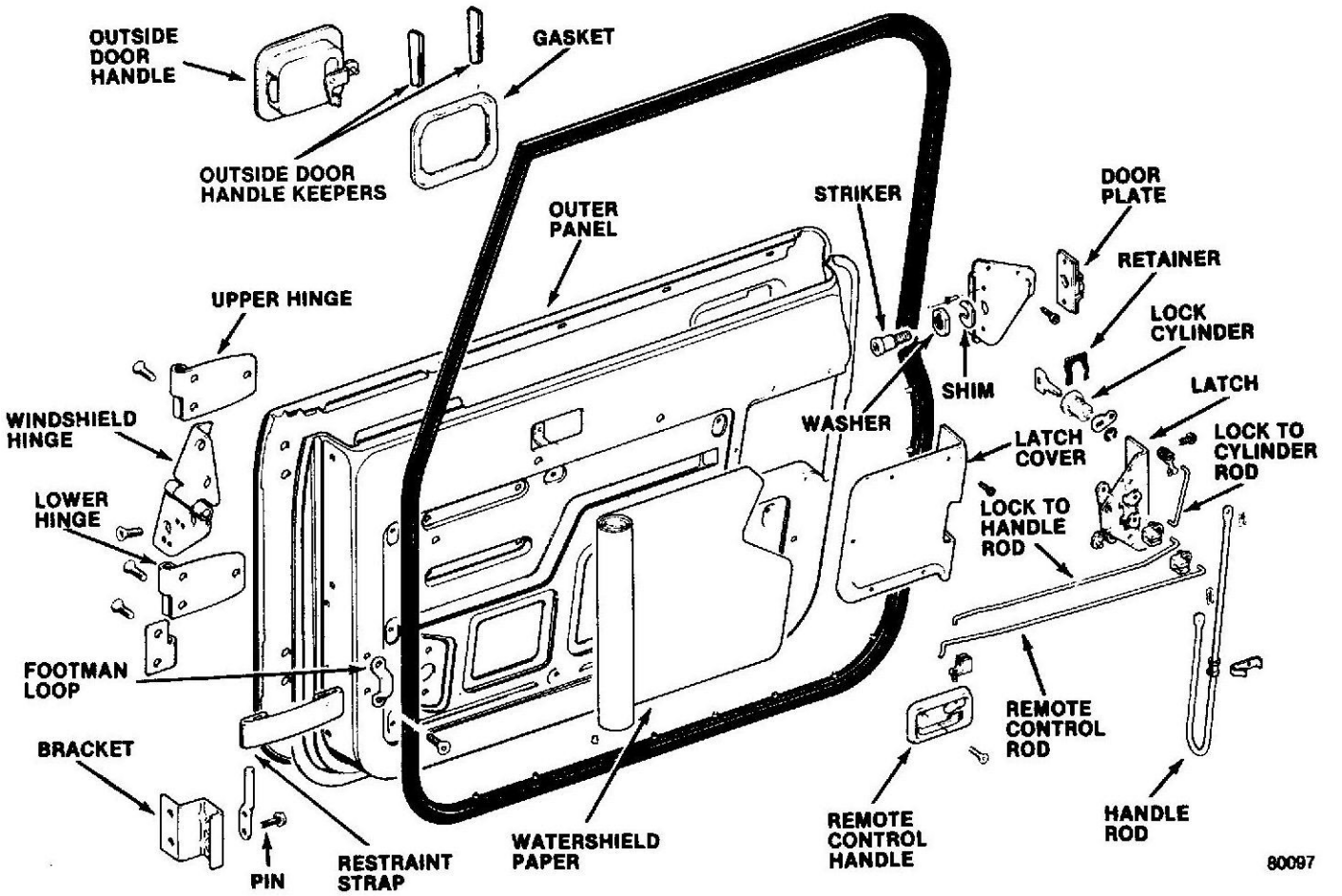


Fig. 10 Metal Door Assembly

Outside Door Handle

Removal

(1) Remove door handle assist and window regulator handle (Fig. 10).

(2) Remove door trim panel and watershield paper from door.

(3) Remove door lock cover attaching screws.

(4) Disconnect lock-to-handle rod from outside door handle.

(5) Close window completely, release spring on each outside door handle keepers and tap keepers upward.

(6) Remove window door glass from regulator (Fig. 11).

(7) Remove division channel by removing adjusting screws.

(8) Remove window glass from door.

(9) Remove outer weatherstrip from door.

(10) Remove locks from outer door handle using needle-nose pliers and remove handle from door.

Installation

(1) Install outside door handle and slide handle keeper into door handle from top.

(2) Tap keepers downward lightly to tighten handle.

(3) Install lock-to-handle rod and lock pin (Fig.10).

(4) Install outer weatherstrip on top of door.

(5) Position window glass in door (Fig. 11).

(6) Install divider bar and adjusting screws.

(7) Attach window glass to regulator.

(8) Install door lock cover.

(9) Install watershield paper and door trim panel.

(10) Install window regulator handle.

(11) Install door handle assist.

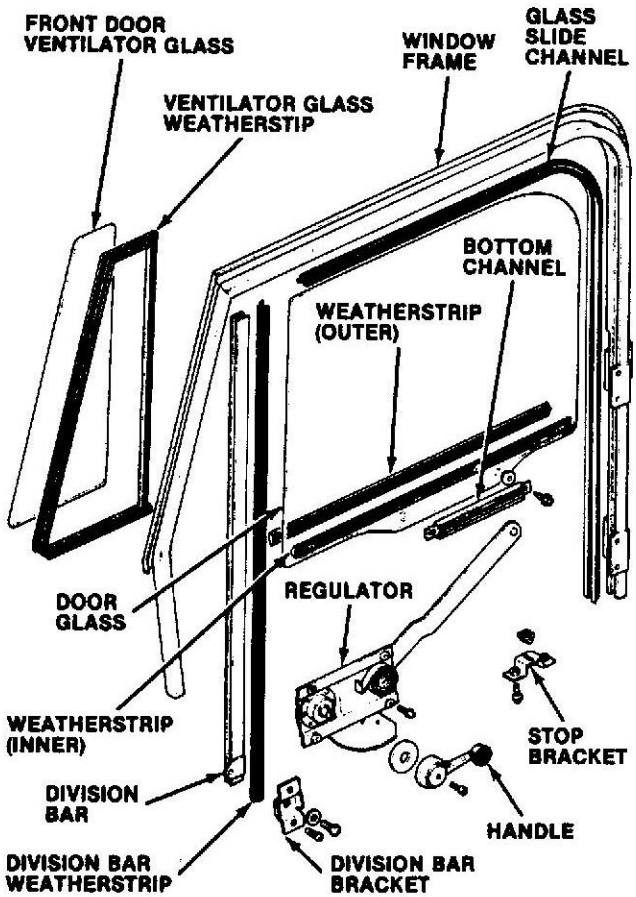


Fig. 11 Metal Door Glass, Channel, and Frame Assembly

Door Lock Cylinder

Removal

(1) Remove door trim panel and watershield paper.

(2) Remove door latch cover screws and remove cover.

(3) Remove retaining clip and remove lock-to-cylinder rod (Fig. 10).

(4) Remove lock cylinder spring retainer and remove lock cylinder.

Installation

(1) Install lock cylinder in door.

(2) Install lock cylinder spring retainer and install lock-to-cylinder rod and clip (Fig. 10).

(3) Install door latch cover and cover screws.

(4) Install watershield paper and door trim panel.

Door Lock Cylinder Coding

A lock cylinder service kit is available which includes an uncoded cylinder, housing, and dust cover. Whenever lock cylinder replacement is required, the uncoded service cylinder can be coded to match the existing key. Refer to the key coding procedure in the 1981 Jeep Technical Service Manual.

Door Latch and Remote Control Rod

(1) Remove door trim panel and watershield paper.

(2) Remove latch cover.

(3) Disconnect remove control rod and lock-to-handle rod from latch (Fig. 10).

(4) Connect lock-to-cylinder rod to latch.

(5) Install latch cover and tighten cover screws.

(6) Install watershield paper and door trim panel.

Striker Adjustment

The door striker is fully adjustable and can be moved up, down, in, or out, or shimmed forward or rearward to align the door (Fig. 10). The door striker should be adjusted so that the door does not bind, provides secure retention, and provides proper door movement when the door is opened and closed.

WARNING: *It is possible to adjust the striker so far inward that the door closes tightly but does not lock completely. In this case, only the safety catch may be engaged.*

Wood Side Rails/Step Bumper/Spare Tire Mount

The wood side rails, step bumper, and spare tire mount are all serviceable components (Fig. 12). The step bumper is attached to frame brackets. The side rails are attached to the body sides and cargo box, and the spare tire mount is attached to the cargo box rear panels (Fig. 12). To service these components, simply remove the necessary attaching bolts and remove the component from the vehicle.

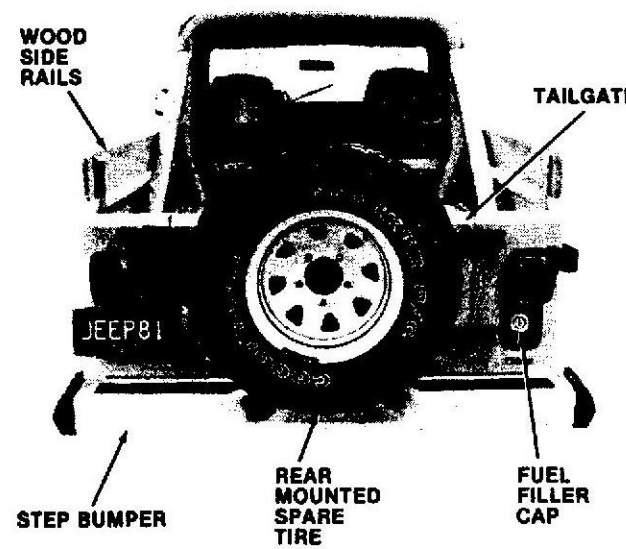


Fig. 12 Wood Side Rails, Step Bumper, and Spare Tire Mounting

SPECIFICATIONS

1981 Scrambler Tire Inflation Pressure Chart

Model	GVW Rating		Tire Size	Load Range	Normal Load ①				Maximum Load ②				Wheel Size
					Sustained Driving Over 65 MPH (105 Km/h)		Under 65 MPH (105 Km/h)		Sustained Driving Over 65 MPH (105 Km/h)		Under 65 MPH (105 Km/h)		
	lbs.	kg.			Front	Rear	Front	Rear	Front	Rear	Front	Rear	
88	4150		H78-15	B	24	24	20	20	24 •	28 •	20	24	15 x 5.5
			L78-15	B	24	24	20	20	24 •	24 •	20	20	15 x 7
			9-15LT	B	20	25	20	20	30 •	35 •	30	30	15 x 7
			P235/75R15	SL*	30	30	20	20	30 •	35 •	20	25	15 x 7
			H78-15	D	24	24	20	20	24 •	28 •	20	24	15 x 5.5
			L78-15	C	24	24	20	20	24 •	24 •	20	20	15 x 7

NOTE: *Inflate tires while cold and before driving. Do not reduce tire pressure if tires are warm.*

• Speed Limited to 74 MPH (119 Km/h).

① Normal Load: Frequently selected accessories plus driver and passenger.

② Maximum Load: Gross Vehicle Weight Rating (GVWR).

* SL is approximate metric tire equivalent of load range B.

1981 Scrambler Powertrain Combination Chart

	49-State Vehicle			California Vehicle			High Altitude Vehicle			Brakes (In.)		Axle Model	
Engine	Transmission	Transfer Case	Axle Ratio	Transmission	Transfer Case	Axle Ratio	Transmission	Transfer Case	Axle Ratio	Front	Rear	Front	Rear
151 CID 4-Cylinder	SR4 4-Speed	Model 300	3.54 (std.) 3.73 (opt.)	SR4 4-Speed	Model 300	3.73 (std.)	SR4 4-Speed	Model 300	3.73 (std.)	11.75 Inch Disc (all)	10 x 1.75 Inch Drum (all)	Model 30 Open End (all)	AMC/ Jeep (all)
	904 automatic	Model 300	3.73 (std.)	904 automatic	Model 300	3.73 (std.)	904 automatic	Model 300	3.73 (std.)				
258 CID 6-Cylinder	T-176 or SR4 4-Speed	Model 300	2.73 (std.) 3.31 (opt.)	T-176 or SR4 4-Speed	Model 300	2.73 (std.) 3.31 (opt.)	T-176 or SR4 4-Speed	Model 300	3.31 (std.)				
	999 automatic	Model 300	2.73 (std.) 3.31 (opt.)	999 automatic	Model 300	2.73 (std.) 3.31 (opt.)	999 automatic	Model 300	3.31 (std.)				

General Dimensions (Inches)

Wheelbase 103.5

Tread Width:

- Front 51.5
- Rear 50.0
- Front (w/7" styled wheel) 53.5
- Rear (w/7" styled wheel) 52.0

Body Width (max.) 59.9

Body Width-Overall 68.6

Body Width-Overall (w/enclosure) 69.9

Length-Overall 177.3

(Includes standard rear mount spare tire)

Height-Overall 67.6

Height-Overall (w/hardtop) 70.5

Ground Clearance:

- Front Axle 8.7
- Rear Axle 7.6

81-079-SGJ

Jeep

Service Technical Letter

File: Service General
No.81-12 April 6,1981

Subject	Information
Additions to 1981 Four-Cylinder Engine Identification Codes	Three additional identification codes for 1981 four-cylinder engines have been phased into production as a running change. Please change the three-character letter code information on page 1B-1 of your 1981 Jeep Technical Service Manual and page 31 of the 1981 Jeep Service Specifications handbook to read as follows: CJ Four-Cylinder Engine Codes WCP, WFM - 49S, Man. Trans., WO/AC WCT, WFP - 49S, Auto. Trans., WO/AC WCU - Calif., Man. Trans., WO/AC WCW, WFS - Calif., Auto. Trans., WO/AC

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Service Technical Letter

File: Service General
No. 81-11 March 27,1981

Subject	Information
Correction To Automatic Transmission Stall Speed Specifications Chart In 1981 Jeep Technical Service Manual and 1981 Jeep Service Specifications Handbook	The Stall Speed Specifications Chart on page 2C-19 of the 1981 Jeep Technical Service Manual and page 126 of the 1981 Jeep Service Specifications Handbook are incorrect. Please correct these charts to read as follows:

Engine	Transmission Model	Engine RPM
151 (2.5 Liter)	904 (CJ-7)	2050-2350
258/304	999 (CJ-7)	1850-2150
258	727 (Cke-Wag-Trk)	1950-2250
360	727 (Cke-Wag-Trk)	1700-2000

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Service Technical Letter

File: Service General
No.81-10 March 20,1981

Subject	Information
Revision to Part Number In DRB 81-1, Transfer Case Output Shaft Seal Leak Diagnosis, Dated February 23, 1981, and Filed Under CHASSIS - Transfer Case/ Quadra-Trac	The part number for the front and rear output seal listed in the subject bulletin has been revised. The new part number for this seal is 8133432. Please note this change in your copies of the subject bulletin.
Oil Return Channel Access Hole Plug Service - 1980-81 Jeep Model 219 Quadra-Trac Transfer Case	A rear bearing oil return channel access hole has been added to the rear case on 1980-81 model 219 transfer cases as a running change. A rubber plug, part number 8131617, is used to seal the access hole. When servicing the rear case on a 1980-81 Model 219 transfer case, the rubber plug which is located in the upper side portion of the rear case should also be inspected. If the plug has become loose, damaged, or will not seal properly, a replacement plug should be installed. In addition, if the rear case is replaced, be sure to install a plug as the replacement case may not have a plug installed.

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Service Technical Letter

File: Service General
No. 81-9 Feb. 26, 1981

Subject	Information
Revision to Diagnosis and Repair Bulletin No. 81-1, Engine Noise Diagnosis, Dated November 27, 1980, Filed Under POWER PLANT - Engines	The part numbers for the piston and piston ring set has been revised. The part numbers should be as follows: Description — Qty. — Part No. — Group PISTON (+0.005) — 4 — 8133160 — 1.143 RING SET, Piston (Engine) (+0.005) — 4 — 8133161 — 1.146 Please note this revision on your copies of the subject bulletin.
Oil Leak From Distributor Base - 1980-81 Four-Cylinder Engines	When diagnosing the cause of an oil leak at the rear of a 1980-81 four-cylinder engine, be sure to check the condition of the distributor base gasket. If the gasket is damaged, oil may travel from the distributor base to the rear of the block, where is could be misdiagnosed as a rear main seal leak. If inspection reveals that the distributor base gasket is damaged, replace the gasket with an O-ring seal, part number 8130451, which is available for service use.

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Service Technical Letter

File: Service General
No. 81-8 Feb.19, 1981

Subject	Information
Windshield Wipers Inoperative On Low and Intermittent Speeds - 1980-81 Cherokee, Wagoneer and Truck Models - Addition to Windshield Wiper Service Diagnosis, Page 3T-11 In 1980-81 Jeep Technical Service Manuals	When checking for loose connections and ground circuit continuity, be sure to check for a poor ground between the windshield wiper switch and dash panel. To correct this condition, remove the switch and install a 7/16 I.D. star washer, G178551, between the switch and dash panel to improve the ground.
Correction to Clutch Aligning Tool Number - 1980 Jeep Technical Service Manual Supplement and 1980-81 Jeep Technical Service Manuals	The clutch aligning tool number for four-, six-, and eight-cylinder engines in the 1980 Jeep Technical Service Manual Supplement and 1980-81 Jeep Technical Service Manuals is incorrect. The correct number for this tool is J-5824-01. Please note this correction in Chapter 2A of the 1980 Jeep Technical Service Manual Supplement and 1980-81 Jeep Technical Service Manuals.

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Service Technical Letter

File: Service General
No. 81-7 Feb. 12, 1981

Subject	Information
Correction to Carburetor Numbers and Usage - 1981 Jeep CJ Models With Four-Cylinder Engine	The numbers and usage for Model 2SE carburetors listed in the Specifications Chart on page 1J-30 of the 1981 Jeep Technical Service Manual and page 97 of the 1981 Jeep Specifications Handbook are incorrect. Carburetor number 17081790 is used on 49-State CJ-7 models with automatic transmission. Carburetor number 17081791 is used on 49-State CJ-5 and CJ-7 models with manual transmission. Please note these corrections in your 1981 Jeep Technical Service Manual and Service Specifications Handbook.

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Service Technical Letter

File: Service General
No. 81-6 Jan. 23, 1981

Subject	Information
Water Leaks Caused By Dealer Installed Radio Antenna - 1981 Jeep Vehicles	Some 1981 Jeep vehicles may have water leaking into the passenger compartment through holes made for radio antenna installation. This is a result of water being routed along the antenna lead-in cable and entering the compartment through the dash panel which may not be sealed by grommets or other suitable sealers. When installing an antenna, be sure a grommet is used where the antenna cable goes through the dash panel and be sure the cable is properly seated in the grommet hole.
Power Steering Pressure Test Gauge Adapter Set Tool Number Revision	The pressure and return port fittings on 1980-81 Jeep power steering pumps and gears have metric threads. In order to connect the pressure test gauge J-21567 to these fittings, it will be necessary to use Adapter Set J-5176-20. Please note this information in Chapter 2L of your 1980 and 1981 Jeep Technical Service Manuals.
Correction to 1980-81 Cherokee and Wagoneer Fuel Tank Capacity Specification Charts	The fuel tank capacity for all 1980-81 Cherokee and Wagoneer models is 20.5 gallons (77.6 liters). Please note this change in the Fuel Tank Specifications Charts on page 1J-10 of the 1980 Jeep Technical Service Manual, page 1J-11 of the 1981 Jeep Technical Service Manual, page 88 of the 1980 Jeep Service Specifications Handbook, and page 90 of the 1981 Jeep Service Specifications Handbook.

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Service Technical Letter (cont'd)

Subject	Information
Correction to 1980 Jeep Four-Cylinder Engine Piston Fit Information	The following information should be used when fitting pistons in 1980 Jeep four cylinder engines: Measure the cylinder bore at a point 2-1/4 inches from the top of the bore. Measure the piston diameter at a point perpendicular to the piston pin and 1-13/16 inches from the top surface of the piston. Please note these corrections on pages 26 and 30 of the 1980 Jeep Technical Service Manual Supplement.
Short Oil Pump Attaching Screw Torque Specification Revision - 1981 6-Cylinder Engines	The torque specification for the short oil pump attaching screw used on 1981 6-Cylinder engines has been revised as follows: USA (Foot/Pounds) — Metric (Nm) Service Set-To Torque: 17 Service In-Use Recheck Torque: 12-20 Service Set-To Torque: 23 Service In-Use Recheck Torque: 16-27 Please note this revision in your 1981 AMC Technical Service Manual and 1981 AMC Specifications Handbook.

Jeep

Service Technical Letter

File: Service General
NO. 81-5 Dec. 3, 1980

Subject	Information
1981 Jeep Six-Cylinder Engine Water Pump and Tempatrol Fan Drive Assembly Usage	The water pump and Tempatrol fan drive assembly used on 1981 Jeep California six-cylinder engines with serpentine belt drive are different from those used on 49-State engines. Before servicing the cooling system on a six-cylinder engine, please note the following Caution which appears on pages 1C-10 and 1C-11 of the 1981 Jeep Technical Service Manual. CAUTION: 1981 six-cylinder engines (California) with a serpentine (single) drive belt have a reverse rotating water pump and viscous (Tempatrol) fan drive assembly. The components are identified by the words "REVERSE" stamped on the cover of the viscous drive and inner side of the fan, and "REV" cast into the water pump body. Do not install components that are intended for non-serpentine drive belts.

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Service Technical Letter

File: Service General
No. 81-4 Nov. 10, 1980

Subject	Information
1981 6-cylinder Main Bearing Capscrew Torque Specification Revision	The 1981 6-cylinder main bearing capscrew torque specification has been revised as follows: U.S.A. (Foot-pounds) — Service Set-To Torque: 65; Service In-Use Recheck Torque: 65-70 Metric (N·m) — Service Set-To Torque: 88; Service In-Use Recheck Torque: 88-95 Please note this revision in your 1981 Jeep Technical Service Manual and 1981 Jeep Specifications handbook.
Reverse Gear Selector Pivot Pin Service — 1980-81 SR4 Four-Speed Manual Transmission	If it is necessary to service a 1980-81 SR4 four-speed manual transmission for a gear jump-out or damaged gear condition, the reverse gear selector pivot pin should be replaced in addition to any other damaged components. The pin, which is threaded into the transmission case and serves as the reverse lever pivot, may have become bent or damaged by the conditions described and should be replaced to ensure proper shifting.
Fuel Feedback Modules Damaged By Incorrect Battery Cable Connection — 1980-81 Jeep Vehicles Equipped With Fuel Feedback System	It is important that the battery cables are connected to the battery positive-to-positive and negative-to-negative to prevent damaging the fuel feedback module. Reverse polarity may damage the alternator diodes and radios also.

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Service Technical Letter

File: Service General
No. 81-3 Oct. 21, 1980

Subject	Information
Front Wheel Alignment Specifications for 1981 CJ Models	The front wheel alignment specifications for 1981 CJ models have been revised. The revised specifications are as follows: Front Wheel Alignment Specifications Caster +6° (+1°) Camber +1½° (+½°) Toe-In 3/64 to 3/32 inch Turning Angle 31° to 32° Please note these changes in the 1981 Jeep Service Specifications Handbook and in the Front Alignment Specifications Chart on page 2M-6 of your 1981 Jeep Technical Service Manual.

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Service Technical Letter

File: Service General
No.81-2 Oct. 10, 1980

Subject	Information
Stationary Center Armrest — 1981 Cherokee-Wagoneer-Truck Models	The center armrest in 1981 Cherokee, Wagoneer, and Truck models is not movable. The armrest is designed to remain in a fixed horizontal position and should not be altered in an attempt to make it movable.

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Service Technical Letter

File: Service General
No. 81-1 Sept. 10, 1980

Subject	Information
Valve Train Noise — 1981 Six-Cylinder Engines Built Prior to Engine Code 008C01	Some 1981 six-cylinder engines built prior to engine code 008C01 may develop valve train noise caused by contact between the rocker arm(s) and valve spring retainer(s). Service correction involves measuring valve tip projection above the spring retainer on all valves, and replacing retainers and locks if valve tip projection is not within specifications. If any valve tip projects less than 0.010 inch above the retainer, the original retainer and locks must be replaced with valve spring retainer, part number 3237482, and retainer locks, part number 3180458 (2 required). If all valve tips project 0.010 inch or more above the retainers, further diagnosis will be necessary.