

HEATING AND AIR CONDITIONING

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SERVICE PROCEDURES

REFRIGERANT OIL LEVEL

When an air conditioning system is assembled at the factory, all components except the compressor are refrigerant oil free. After the refrigerant system has been charged and operated, the refrigerant oil in the compressor is dispersed throughout the refrigerant system. The accumulator, evaporator, condenser, and compressor will each retain a significant amount of the needed refrigerant oil.

It is important to have the correct amount of oil in the refrigerant system. This ensures proper lubrication of the compressor. Too little oil will result in damage to the compressor. Too much oil will reduce the cooling capacity of the air conditioning system.

It will not be necessary to check the oil level in the compressor or to add oil, unless there has been an oil loss. An oil loss may occur due to a rupture or leak from a refrigerant line, a connector fitting, a component, or a component seal. If a leak occurs, add 30 milliliters (1 fluid ounce) of refrigerant oil to the refrigerant system after the repair has been made. Refrigerant oil loss will be evident at the leak point by the presence of a wet, shiny surface around the leak.

Refrigerant oil must be added when a accumulator, evaporator coil, or condenser are replaced. See the Refrigerant Oil Capacities chart. When a compressor is replaced, the refrigerant oil must be drained from the old compressor and measured. Drain all of the refrigerant oil from the new compressor, then fill the new compressor with the same amount of refrigerant oil that was drained out of the old compressor.

Refrigerant Oil Capacities		
Component	ml	fl oz
A/C System	170	5.75
Accumulator	110.6	3.75
Condenser	6.5	0.22
Evaporator	62.7	2.12
Compressor	drain and measure the oil from the old compressor - see text.	

REFRIGERANT RECOVERY

WARNING: REVIEW THE WARNINGS AND CAUTIONS IN THE GENERAL INFORMATION SECTION NEAR THE FRONT OF THIS GROUP BEFORE RECOVERING REFRIGERANT.

A R-134a refrigerant recovery/recycling/charging station that meets SAE Standard J2210 must be used to recover the refrigerant from an R-134a refrigerant system. Refer to the operating instructions supplied by the equipment manufacturer for the proper care and use of this equipment.

REFRIGERANT SYSTEM CHARGE

WARNING: REVIEW THE WARNINGS AND CAUTIONS IN THE FRONT OF THIS GROUP BEFORE CHARGING THE REFRIGERANT SYSTEM.

After the refrigerant system has been tested for leaks and evacuated, a refrigerant charge can be injected into the system. See Refrigerant Charge Capacity for the proper amount of the refrigerant charge.

SERVICE PROCEDURES (Continued)

A R-134a refrigerant recovery/recycling/charging station that meets SAE Standard J2210 must be used to charge the refrigerant system with R-134a refrigerant. Refer to the operating instructions supplied by the equipment manufacturer for proper care and use of this equipment.

REFRIGERANT CHARGE CAPACITY

The R-134a refrigerant system charge capacity for this vehicle is 0.680 kilograms (1.50 pounds/24 ounces).

PARTIAL CHARGE METHOD**WARNING: REVIEW THE WARNINGS AND CAUTIONS IN THE FRONT OF THIS GROUP BEFORE CHARGING THE REFRIGERANT SYSTEM.**

The partial charge method is used to add a partial charge to a refrigerant system that is low on refrigerant. To perform this procedure the evaporator inlet and outlet tube temperatures are measured. The temperature difference is measured with a temperature meter with one or two clamp-on thermocouple probes. The difference between the evaporator inlet and outlet tube temperatures will determine the amount of refrigerant needed.

Before adding a partial refrigerant charge, check for refrigerant system leaks. See Refrigerant System Leaks in this group for the procedures. If a leak is found, make the necessary repairs before attempting a full or partial refrigerant charge.

(1) Attach a manifold gauge set to the refrigerant system service ports.

(2) Attach the two clamp-on thermocouple probes to the inlet and outlet tubes of the evaporator coil.

a. If a single thermocouple probe is used, attach the probe to the evaporator inlet tube just before the collar of the refrigerant line connector fitting. The probe must make contact with the bottom surface of the evaporator inlet tube.

b. If dual thermocouple probes are used, attach probe 1 to the evaporator inlet tube, and probe 2 to the evaporator outlet tube. Attach both probes to the evaporator tubes just before the collar of the refrigerant line connector fittings. The probes must make contact with the bottom surfaces of the evaporator inlet and outlet tubes.

(3) Open all of the windows or doors of the passenger compartment.

(4) Set the A/C button on the heater-A/C controls to the on position, the temperature control knob in the full cool position, select the Recirculation Mode, and place the blower motor switch in the highest speed position.

(5) Start the engine and hold the engine idle speed at 1,000 rpm. Allow the engine to warm up to normal operating temperature.

(6) The compressor clutch may cycle, depending upon ambient temperature, humidity, and the refrigerant system charge level. If the compressor clutch cycles, unplug the wire harness connector from the low pressure cycling clutch switch on the accumulator. Install a jumper wire between the two cavities of the switch wire harness connector.

(7) Hold the engine idle speed at 1,000 rpm.

(8) Allow three to five minutes for the refrigerant system to stabilize, then record the temperatures of the evaporator inlet and outlet tubes.

a. If a single probe is used, record the temperature of the evaporator inlet tube. Then remove the probe from the inlet tube and attach it to the evaporator outlet tube just before the collar of the refrigerant line connector fitting. The probe must make contact with the bottom surface of the evaporator outlet tube. Allow the thermocouple and meter time to stabilize, then record the temperature of the evaporator outlet tube. Subtract the inlet tube temperature reading from the outlet tube temperature reading.

b. If dual probes are used, record the temperatures of both the evaporator inlet and outlet tubes. Then subtract the inlet tube temperature reading from the outlet tube temperature reading.

(9) If the measured temperature differential is higher than 22° C to 26° C (40° F to 47° F), add 0.4 kilograms (14 ounces) of refrigerant.

(10) Allow three to five minutes for the refrigerant system to stabilize, then take a second set of thermocouple measurements. Record the temperature difference to determine if an additional charge is required.

(11) Record the compressor discharge pressure. If the reading is higher than the pressure shown in the Compressor Discharge Pressure chart (Fig. 1), the system could be overcharged. If the reading is equal to, or lower, than the pressure shown in the chart, continue with this procedure.

(12) **EXAMPLE:** The ambient temperature is 21° C (70° F). The evaporator inlet tube temperature is 12° C (54° F) and the evaporator outlet tube temperature is 10° C (50° F). Subtract the inlet tube temperature from the outlet tube temperature. The difference is -2° C (-4° F). With a -2° C (-4° F) temperature differential at 21° C (70° F) ambient temperature, the system is fully charged.

(13) Add enough refrigerant to bring the refrigerant system up to a full charge.

(14) Remove the jumper wire from the low pressure cycling clutch switch wire harness connector and plug the connector back into the switch.

SERVICE PROCEDURES (Continued)

Ambient Temperature	16°C (60°F)	21°C (70°F)	27°C (80°F)	32°C (90°F)	38°C (100°F)	43°C (110°F)
Compressor Discharge Pressure	1515 kPa (220 psi)	1655 kPa (240 psi)	1790 kPa (260 psi)	2070 kPa (300 psi)	2345 kPa (340 psi)	2690 kPa (390 psi)

Fig. 1 Compressor Discharge Pressure

REFRIGERANT SYSTEM EVACUATE

WARNING: REVIEW THE WARNINGS AND CAUTIONS IN THE GENERAL INFORMATION SECTION NEAR THE FRONT OF THIS GROUP BEFORE EVACUATING THE SYSTEM.

If the refrigerant system has been open to the atmosphere, it must be evacuated before the system can be charged. If moisture and air enters the system and becomes mixed with the refrigerant, the compressor head pressure will rise above acceptable operating levels. This will reduce the performance of the air conditioner and damage the compressor. Evacuating the refrigerant system will remove the air and boil the moisture out of the system at near room temperature. To evacuate the refrigerant system, use the following procedure:

(1) Connect a R-134a refrigerant recovery/recycling/charging station that meets SAE Standard J2210 and a manifold gauge set to the refrigerant system of the vehicle.

(2) Open the low and high side valves and start the charging station vacuum pump. When the suction gauge reads 88 kPa (26 in. Hg.) vacuum or greater, close all of the valves and turn off the vacuum pump.

(a) If the refrigerant system fails to reach the specified vacuum, the system has a leak that must be corrected. See Refrigerant System Leaks in the Diagnosis and Testing section of this group for the procedures.

(b) If the refrigerant system maintains the specified vacuum for five minutes, restart the vacuum pump, open the suction and discharge valves and evacuate the system for an additional ten minutes.

(3) Close all of the valves, and turn off the charging station vacuum pump.

(4) The refrigerant system is now ready to be charged with R-134a refrigerant. See Refrigerant System Charge in the Service Procedures section of this group.

REMOVAL AND INSTALLATION

ACCUMULATOR

WARNING: REVIEW THE WARNINGS AND CAUTIONS IN THE FRONT OF THIS GROUP BEFORE PERFORMING THE FOLLOWING OPERATION.

REMOVAL

(1) Disconnect and isolate the battery negative cable.

(2) Recover the refrigerant from the refrigerant system. See Refrigerant Recovery in this group for the procedures.

(3) Disconnect the low pressure switch. Located next to the fresh air inlet tube.

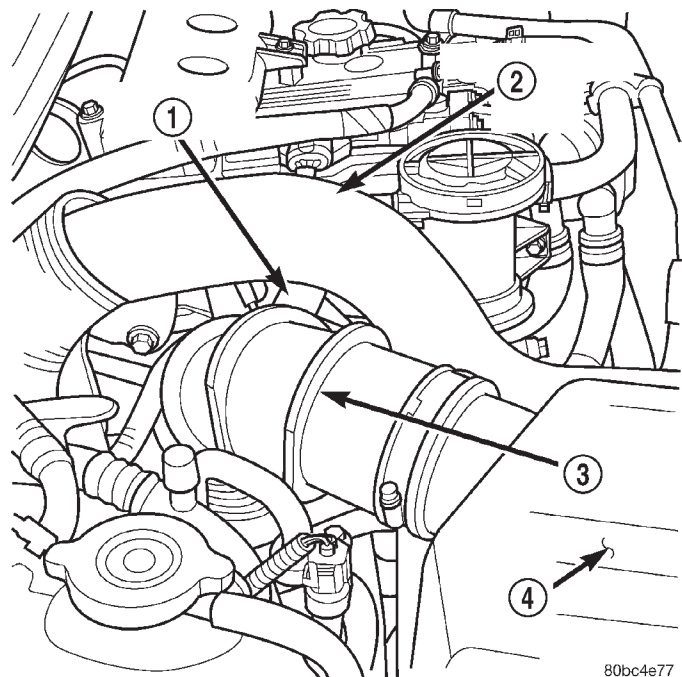


Fig. 2 Accumulator Position & Orientation

- 1 - BREATHER HOSE
- 2 - INTERCOOLER INLET HOSE
- 3 - FRESH AIR INLET TUBE
- 4 - AIR FILTER COVER

REMOVAL AND INSTALLATION (Continued)

(4) Remove the low side refrigerant line retaining nut from the top of the accumulator. Remove the line from the accumulator.

(5) Remove the low side refrigerant line retaining nut from the bulkhead. Remove the line from the evaporator outlet tube.

(6) Cover the refrigerant line openings to prevent contamination.

(7) Loosen the accumulator retaining clamp screw until the accumulator can be removed from the vehicle.

(8) Remove the accumulator from the vehicle.

(9) Remove the low pressure switch from the accumulator for reuse.

INSTALLATION

CAUTION: If the accumulator is replaced, add 120 milliliters (4 fluid ounces) of refrigerant oil to the refrigerant system. Use only refrigerant oil of the type recommended for the compressor in the vehicle.

CAUTION: Accumulator must remain sealed from the atmosphere until it is installed in the vehicle. This will prevent moisture from collecting in the accumulator.

(1) Install the low pressure switch on the accumulator. Torque the switch to 18 N·m (159 in. lbs.).

(2) Install the accumulator in the retaining clamp. Do not tighten at this time.

(3) Install the low side refrigerant line on the evaporator coil outlet tube. Torque the retaining nut to 28 N·m (21 ft. lbs.). Be certain the sealing o-rings are well lubricated with PAG oil and free of tears.

(4) Install the low side refrigerant line on top of the accumulator. Torque the retaining nut to 28 N·m (21 ft. lbs.). Be certain the sealing o-rings are well lubricated with PAG oil and free of tears.

(5) Position the accumulator and refrigerant lines in their original position. Tighten the accumulator retaining clamp screw to 5 N·m (45 in. lbs.).

(6) Connect the low pressure switch electrical connector.

(7) Connect the negative battery cable.

(8) Evacuate and charge the refrigerant system. See Refrigerant System Service Procedures in this group for the procedure.

COMPRESSOR 3.1L DIESEL

REMOVAL

(1) Disconnect the negative battery cable.

(2) Recover the refrigerant from the refrigerant system. Refer to Refrigerant Recovery in the Service Procedures section of this group.

(3) Remove the accessory drive belt from the compressor clutch. Refer to Accessory Drive Belt in Group 7, Cooling System for the procedure.

(4) Raise the vehicle on the hoist.

(5) Remove the front splash shield.

(6) Remove the (2) refrigerant line retaining bolts from the compressor (Fig. 3). Remove both lines from the compressor and cover all openings.

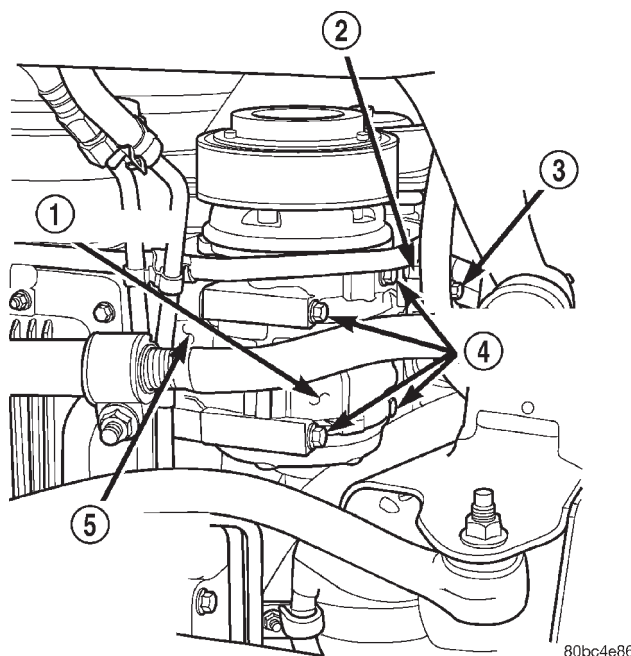


Fig. 3 Compressor Position & Orientation

- 1 – A/C COMPRESSOR
- 2 – COMPRESSOR CLUTCH ELECTRICAL CONNECTOR
- 3 – REFRIGERANT LINE RETAINING BOLT (1 OF 2)
- 4 – COMPRESSOR RETAINING BOLTS
- 5 – A/C COMPRESSOR MOUNTING BRACKET

(7) Disconnect the compressor electrical connector (Fig. 3).

(8) Remove the (4) compressor mounting bolts and remove the compressor from the vehicle.

INSTALLATION

CAUTION: Check the oil level before installing the new compressor. See refrigerant oil level in this group for the procedure.

REMOVAL AND INSTALLATION (Continued)

(1) Lift the compressor into position and install the (4) mounting bolts (Fig. 4). Torque the bolts to 41 N·m (30 ft. lbs.).

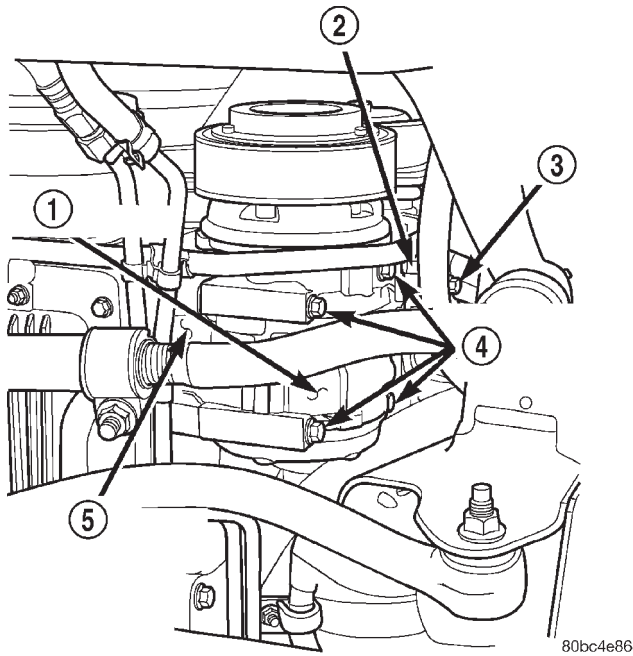


Fig. 4 Compressor Position & Orientation

- 1 - A/C COMPRESSOR
- 2 - COMPRESSOR CLUTCH ELECTRICAL CONNECTOR
- 3 - REFRIGERANT LINE RETAINING BOLT (1 OF 2)
- 4 - COMPRESSOR RETAINING BOLTS
- 5 - A/C COMPRESSOR MOUNTING BRACKET

(2) Connect the compressor electrical connector (Fig. 4).

(3) Install both refrigerant lines on the compressor (Fig. 4). Make certain the sealing O-rings are free of tears and well lubricated with R-134a refrigerant oil. Torque the line retaining bolts to 22 N·m (200 in. lbs.).

(4) Install the front splash shield.

(5) Lower the vehicle from the hoist

(6) Install the accessory drive belt on the compressor clutch. Refer to Accessory Drive Belt in Group 7, Cooling System for the procedure.

(7) Charge the refrigerant system. Refer to Refrigerant System Charge under Service Procedures in this group for the procedure.

(8) Connect the negative battery cable

COMPRESSOR CLUTCH

The refrigerant system can remain fully-charged during compressor clutch, pulley, or coil replacement. The compressor clutch can be serviced in the vehicle.

REMOVAL

(1) Disconnect and isolate the battery negative cable.

(2) Remove the serpentine drive belt. Refer to Group 7 - Cooling System for the procedures.

(3) Remove the bolt that secures the compressor clutch to the compressor shaft (Fig. 5). A band-type oil filter wrench may be used to secure the clutch during bolt removal.

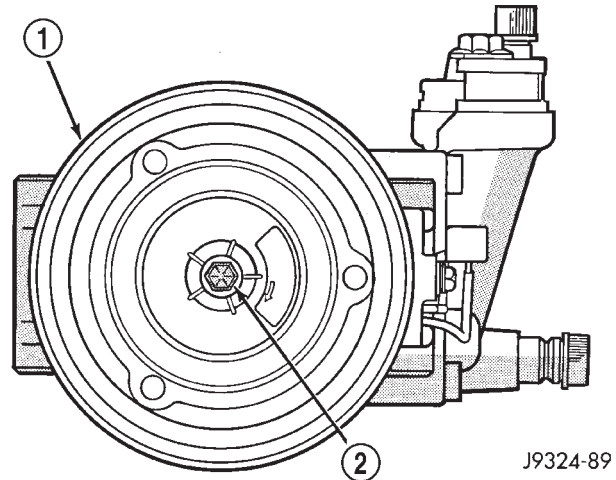


Fig. 5 Compressor Shaft Bolt

- 1 - COMPRESSOR CLUTCH PLATE
- 2 - COMPRESSOR SHAFT BOLT

(4) Tap the clutch plate with a plastic mallet to release it from the splines on the compressor shaft. Remove the clutch plate and shim(s) from the compressor shaft (Fig. 6).

CAUTION: Do not pry between the clutch plate assembly and the pulley to remove it from the compressor shaft. Prying may damage the clutch plate assembly.

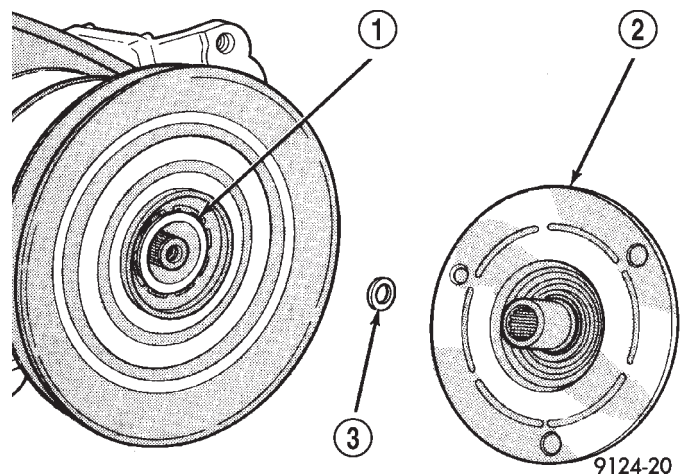


Fig. 6 Clutch Plate and Shim

- 1 - COMPRESSOR SHAFT
- 2 - CLUTCH PLATE
- 3 - CLUTCH PLATE SHIM

REMOVAL AND INSTALLATION (Continued)

(5) Remove the external snap ring that secures the compressor clutch pulley to the nose of the compressor front housing with snap ring pliers (Special Tool C-4574) and slide the pulley assembly off of the compressor (Fig. 7).

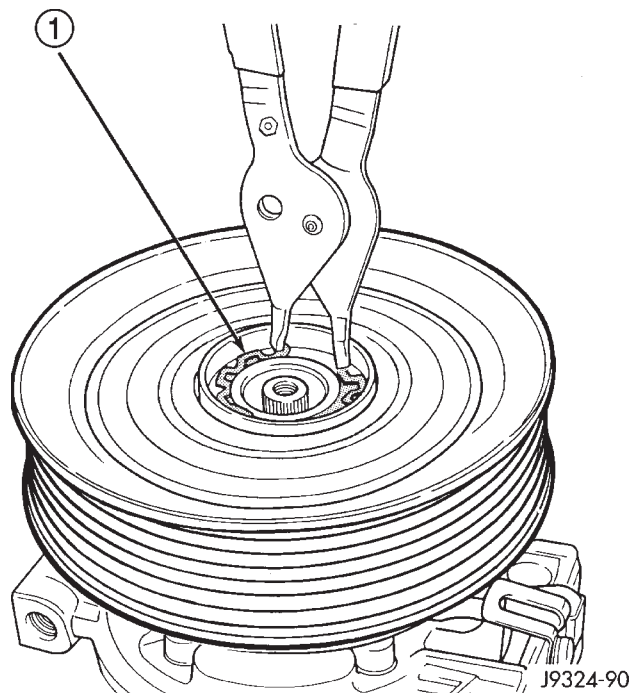


Fig. 7 Pulley Snap Ring

1 - SNAP RING

(6) Remove the screw and retainer from the clutch coil lead wire harness on the compressor front housing.

(7) Remove the external snap ring that secures the compressor clutch coil to the nose of the compressor front housing with snap ring pliers and slide the coil assembly off of the compressor (Fig. 8).

INSPECTION

Examine the friction surfaces of the clutch pulley and the clutch plate for wear. The pulley and plate should be replaced if there is excessive wear or scoring.

If the friction surfaces are oily, inspect the shaft and nose area of the compressor for refrigerant oil. Remove the felt wick from around the shaft inside the nose of the compressor front housing. If the felt is saturated with refrigerant oil, the compressor shaft seal is leaking and the compressor must be replaced.

Check the clutch pulley bearing for roughness or excessive leakage of grease. Replace the bearing, if required.

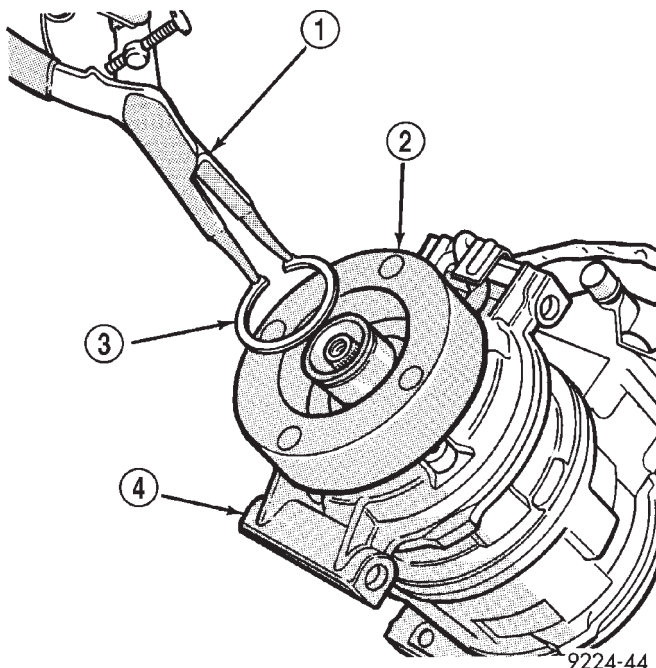


Fig. 8 Clutch Coil Snap Ring

1 - SNAP RING PLIERS
2 - CLUTCH COIL
3 - SNAP RING
4 - COMPRESSOR

INSTALLATION

(1) Align the dowel pin on the back of the clutch field coil with the hole in the compressor front housing and press the field coil into place over the nose of the compressor.

(2) Install the clutch coil lead wire harness retaining clip on the compressor front housing and tighten the retaining screw.

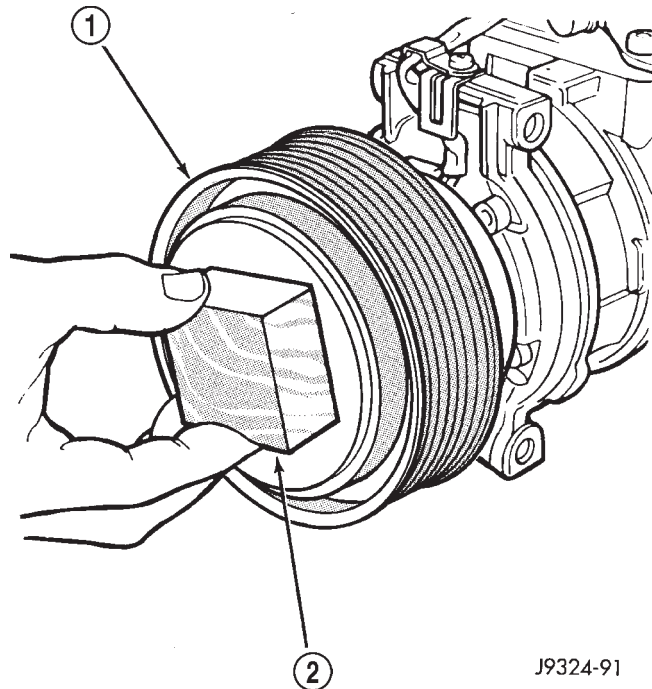
(3) Install the clutch field coil and snap ring with snap ring pliers (Special Tool C-4574). The bevel side of the snap ring must be facing outward. Also, both eyelets of the snap ring must be to the right or left of the pin on the compressor. Press in on the snap ring to be certain that it is properly seated in the groove.

CAUTION: If the snap ring is not fully seated in the groove it will vibrate out, resulting in a clutch failure and severe damage to the front housing of the compressor.

(4) Install the pulley assembly onto the compressor. If necessary, place a block of wood on the friction surface and tap gently with a hammer (Fig. 9).

CAUTION: Do not mar the pulley friction surface.

REMOVAL AND INSTALLATION (Continued)

**Fig. 9 Pulley Assembly Install**

- 1 – PULLEY ASSEMBLY
2 – WOOD BLOCK

(5) Install the pulley assembly retaining snap ring (bevel side outward) with snap ring pliers (Special Tool C-4574). Press in on the snap ring to be certain that it is properly seated in the groove.

(6) If the original clutch plate assembly and pulley assembly are to be reused, the old shim(s) can be used. If not, place a stack of shim(s) equal to the old shim(s) on the shaft against the shoulder.

(7) Install the clutch plate assembly onto the shaft.

(8) With the clutch plate assembly tight against the shim(s), measure the air gap between the clutch plate and the pulley face with feeler gauges. The air gap should be between 0.35 to 0.65 millimeter (0.014 to 0.026 inch). If the proper air gap is not obtained, add or subtract shims as needed until the desired air gap is obtained.

(9) Install the compressor shaft bolt. Tighten the bolt to 13 N·m (115 in. lbs.).

NOTE: The shims may compress after tightening the shaft bolt. Check the air gap in four or more places to verify the air gap is still correct. Spin the pulley before performing a final check of the air gap.

(10) Reverse the remaining removal procedures to complete the installation.

CLUTCH BREAK-IN

After a new compressor clutch has been installed, cycle the compressor clutch approximately twenty times (five seconds on, then five seconds off). During this procedure, set the heater-A/C control in the Recirculation Mode, the A/C button in the on position, the blower motor switch in the highest speed position, and the engine speed at 1500 to 2000 rpm. This procedure (burnishing) will seat the opposing friction surfaces and provide a higher compressor clutch torque capability.

CONDENSER

The cooling module assembly includes the radiator, charge air cooler (intercooler) and the A/C condenser. To replace any one of these components, the entire assembly must be removed from the vehicle and then disassembled. Refer to Group 7, Cooling System - Cooling Module removal and installation procedure for replacement of the A/C condenser.

DISCHARGE LINE - L. H. D. DIESEL**REMOVAL**

- (1) Disconnect the negative battery cable.
- (2) Recover the refrigerant system. Refer to Service Procedures in this group for the procedure.
- (3) Remove both headlamps from the vehicle. Refer to group 8L, Lamps for the procedure.
- (4) Disconnect the A/C pressure transducer electrical connector.
- (5) Remove the front fascia from the vehicle. Refer to group 13, Frame and Bumpers for the procedure.
- (6) Remove the refrigerant line retaining fastener from the condenser inlet fitting. Remove the line and cap the condenser inlet tube to prevent contamination of the system.
- (7) Raise the vehicle on a hoist.
- (8) Remove the front splash shield.
- (9) Remove the refrigerant line retaining fastener from the compressor outlet fitting. Remove the line and cap the compressor outlet opening to prevent contamination of the system.
- (10) Unclip and remove the discharge line from the vehicle.

INSTALLATION

- (1) Carefully position the discharge line in the vehicle.
- (2) Remove the cap and install the discharge line on the compressor. Be certain the sealing o-ring is well lubricated with PAG oil and free of tears. Torque the retaining fastener to 28 N·m (21 ft. lbs.).
- (3) Install the front splash shield.
- (4) Lower the vehicle on the hoist.

REMOVAL AND INSTALLATION (Continued)

(5) Remove the cap and install the discharge line on the condenser. Be certain the sealing o-ring is well lubricated with PAG oil and free of tears. Torque the retaining fastener to 28 N·m (21 ft. lbs.).

(6) Install the front fascia on the vehicle. Refer to group 13, Frame and Bumpers for the procedure.

(7) Install both headlamps in the vehicle. Refer to group 8L, Lamps for the procedure.

(8) Connect the A/C pressure transducer electrical connector.

(9) Evacuate and charge the refrigerant system. Refer to Service Procedures in this group for the procedures.

(10) Check the refrigerant system for any leaks.

(11) Connect the negative battery cable.

LIQUID LINE - L. H. D. DIESEL

REMOVAL

(1) Disconnect the negative battery cable.

(2) Recover the refrigerant system. Refer to Service Procedures in this group for the procedure.

(3) Remove the refrigerant line retaining fastener from the evaporator inlet tube fitting. Remove the line and cap the evaporator inlet tube to prevent contamination of the system.

(4) Remove the fresh air intake hose from the vehicle (Fig. 10).

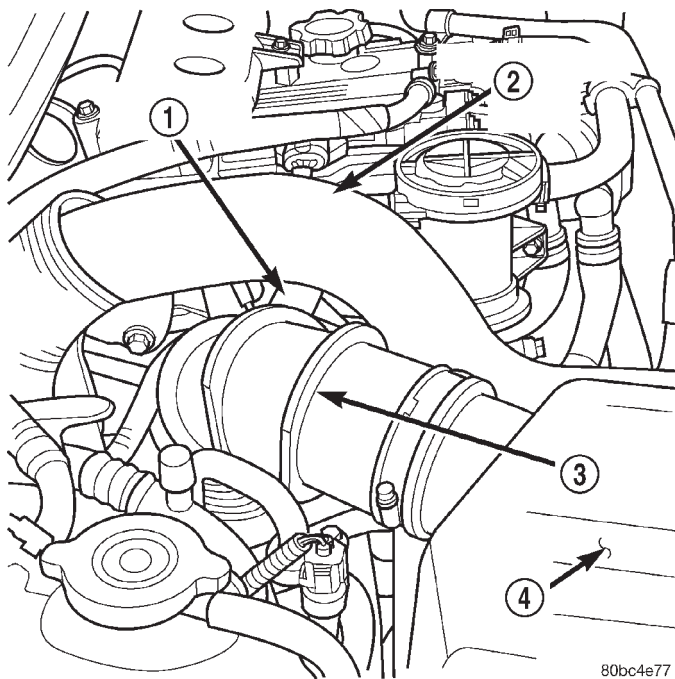


Fig. 10 Fresh Air Intake Hose

- 1 - BREATHER HOSE
- 2 - INTERCOOLER INLET HOSE
- 3 - FRESH AIR INLET TUBE
- 4 - AIR FILTER COVER

(5) Remove both headlamps from the vehicle. Refer to group 8L, Lamps for the procedure.

(6) Remove the front fascia from the vehicle. Refer to group 13, Frame and Bumpers for the procedure.

(7) Remove the refrigerant line retaining fastener from the condenser outlet tube fitting. Remove the line and cap the condenser outlet tube to prevent contamination of the system.

(8) Remove the liquid line from the vehicle.

INSTALLATION

(1) Carefully position the liquid line in the vehicle.

(2) Remove the cap and install the liquid line on the condenser. Be certain the sealing o-ring is well lubricated with PAG oil and free of tears. Torque the retaining fastener to 28 N·m (21 ft. lbs.).

(3) Install the front fascia on the vehicle. Refer to group 13, Frame and Bumpers for the procedure.

(4) Install both headlamps in the vehicle. Refer to group 8L, Lamps for the procedure.

(5) Remove the cap and install the liquid line on the evaporator. Be certain the sealing o-ring is well lubricated with PAG oil and free of tears. Torque the retaining fastener to 28 N·m (21 ft. lbs.).

(6) Install the fresh air intake hose on the vehicle.

(7) Evacuate and charge the refrigerant system. Refer to Service Procedures in this group for the procedures.

(8) Check the refrigerant system for any leaks.

(9) Connect the negative battery cable.

SUCTION LINE - L. H. D. DIESEL

REMOVAL

(1) Disconnect the negative battery cable.

(2) Recover the refrigerant system. Refer to Service Procedures in this group for the procedure.

(3) Remove the refrigerant line retaining fastener from the accumulator outlet fitting. Remove the line and cap the accumulator outlet opening to prevent contamination of the system.

(4) Remove the refrigerant line support bracket bolt from the cylinder head cap (Fig. 11).

(5) Cut the wire harness retaining tie-straps from the suction line. Located on the left side of the engine assembly.

(6) Raise the vehicle on a hoist.

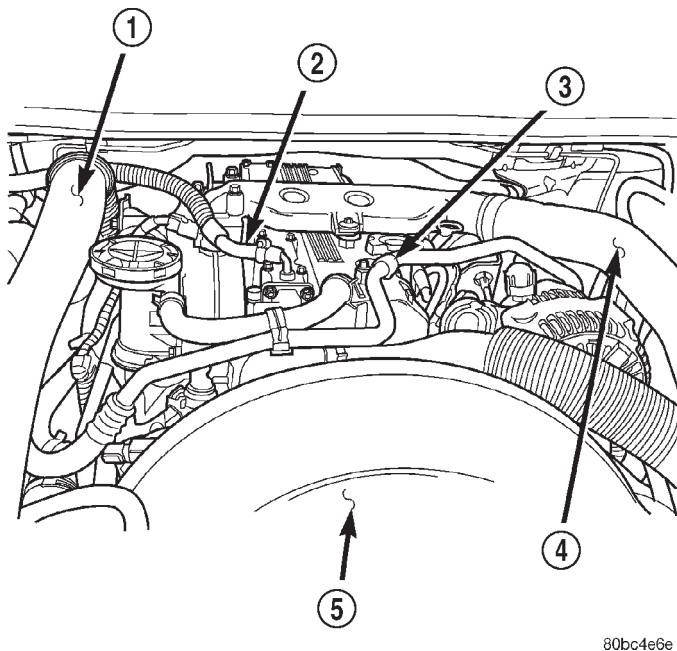
(7) Remove the front splash shield.

(8) Remove the refrigerant line retaining fastener from the compressor inlet fitting. Remove the line and cap the compressor outlet tube to prevent contamination of the system.

(9) Lower the vehicle on the hoist.

(10) Unclip and remove the suction line from the vehicle.

REMOVAL AND INSTALLATION (Continued)



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Fig. 11 Refrigerant Line Support Bracket

- 1 – INTERCOOLER INLET HOSE
- 2 – COOLANT RECOVERY HOSE
- 3 – REFRIGERANT LINE SUPPORT BRACKET
- 4 – INTERCOOLER OUTLET HOSE
- 5 – FAN SHROUD

INSTALLATION

- (1) Carefully position the suction line in the vehicle.
- (2) Raise the vehicle on a hoist.
- (3) Remove the cap and install the suction line on the compressor. Be certain the sealing o-ring is well

lubricated with PAG oil and free of tears. Torque the retaining fastener to 28 N·m (21 ft. lbs.).

(4) Install the front splash shield.

(5) Lower the vehicle on the hoist.

(6) Position and install the refrigerant line support bracket bolt on the cylinder head cap. Torque the bolt to 20 N·m (177 in. lbs.).

(7) Remove the cap and install the suction line on the accumulator. Be certain the sealing o-ring is well lubricated with PAG oil and free of tears. Torque the retaining fastener to 28 N·m (21 ft. lbs.).

(8) Install the tie-straps retaining the wire harness on the suction line.

(9) Evacuate and charge the refrigerant system. Refer to Service Procedures in this group for the procedures.

(10) Connect the negative battery cable.

SPECIFICATIONS**TORQUE SPECIFICATIONS****DESCRIPTION****TORQUE****Compressor Mounting Bolts**

Bolts (4) 41 N·m (30 ft. lbs.)

Refrigerant Lines to Compressor

Bolts 22 N·m (200 in. lbs.)

Refrigerant Lines to Condenser / Evaporator

Bolt 28 N·m (21 ft. lbs.)

