

Component Procedures: Hose/Line HVAC

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Component Procedures: Hose/Line HVAC

Parts and Labor (itype_189)

Parts

Qualifier	Part #	Name	Price	Note
AC Hoses > Discharge	55036291	Ac Hoses	0.00	Order By Description.
AC Hoses > Suction	55036295AB	Ac Hoses	177.00	Order By Description.

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Replace	AC Hoses > Dryer to Evaporator	B	0.9	0.5
Replace	AC Hoses > Suction Hose	B	0.9	0.5
Replace	AC Hoses > Suction/Discharge Hose	B	0.5	0.2

A/C Refrigerant Lines (Article 2046441)

SYSTEM DESCRIPTION

Refrigerant Line

The

refrigerant lines

and hoses are used to carry the

refrigerant

between the various

air conditioning

system components. A barrier hose design with a nylon tube inner hose liner is used for the R-134a air conditioning system on this vehicle. This nylon liner helps to further contain the R-134a refrigerant, which has a smaller molecular structure than R-12 refrigerant. The ends of the refrigerant hoses are made from lightweight aluminum or steel, and use braze-less fittings.

Any kinks or sharp bends in the refrigerant plumbing will reduce the capacity of the entire air conditioning system. Kinks and sharp bends reduce the flow of refrigerant in the system. A good rule for the flexible hose refrigerant lines is to keep the radius of all bends at least ten times the diameter of the hose. In addition, the flexible hose refrigerant lines should be routed so they are at least

80 millimeters (3 inches)

from the exhaust manifold.

High pressures are produced in the refrigerant system when the air conditioning compressor

is operating. Extreme care must be exercised to make sure that each of the refrigerant system connections is pressure-tight and leak free. It is a good practice to inspect all flexible hose refrigerant lines at least once a year to make sure they are in good condition and properly routed.

The refrigerant lines and hoses are coupled with other components of the HVAC

system with peanut- block style fittings. A status seal type flat steel gasket with a captured compressible O-ring, is used to mate plumbing lines with A/C components to ensure the integrity of the refrigerant system.

The refrigerant lines and hoses cannot be repaired and, if faulty or damaged, they must be replaced.

Low Pressure Gauge Hose

The low pressure hose (Blue with Black stripe) attaches to the suction service port

. This port is located on the compressor manifold, directly over the suction port of the compressor.

High Pressure Gauge Hose

The high pressure hose (Red with Black stripe) attaches to the discharge service port. This port is located on the

liquid line

between the

condenser

and the

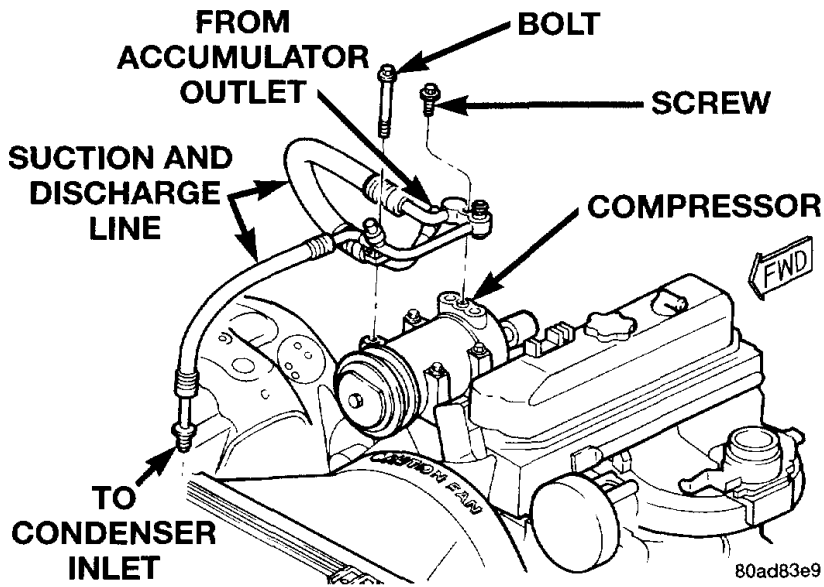
evaporator

, near the front of the engine compartment.

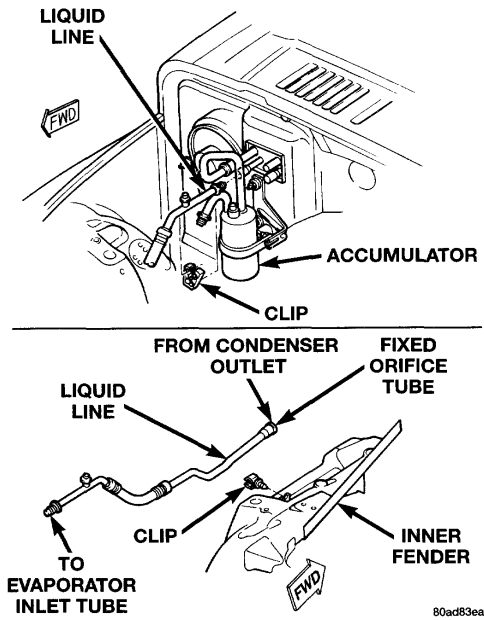
Recovery/Recycling/Evacuation/Charging Hose

The center manifold hose (Yellow, or White, with Black stripe) is used to recover, evacuate, and charge the refrigerant system. When the low or high pressure valves on the manifold gauge set are opened, the refrigerant in the system will escape through this hose.

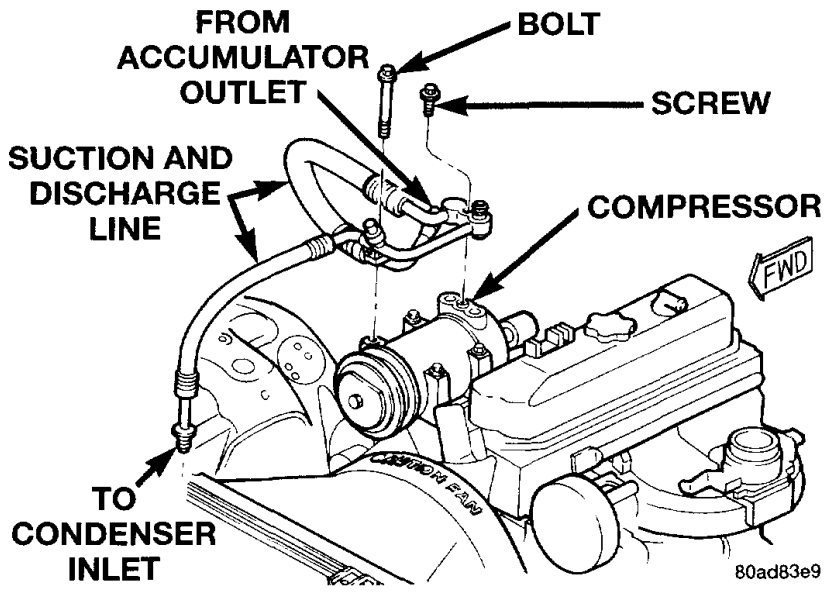
A/C Discharge Hose/Line (Article 2049212)



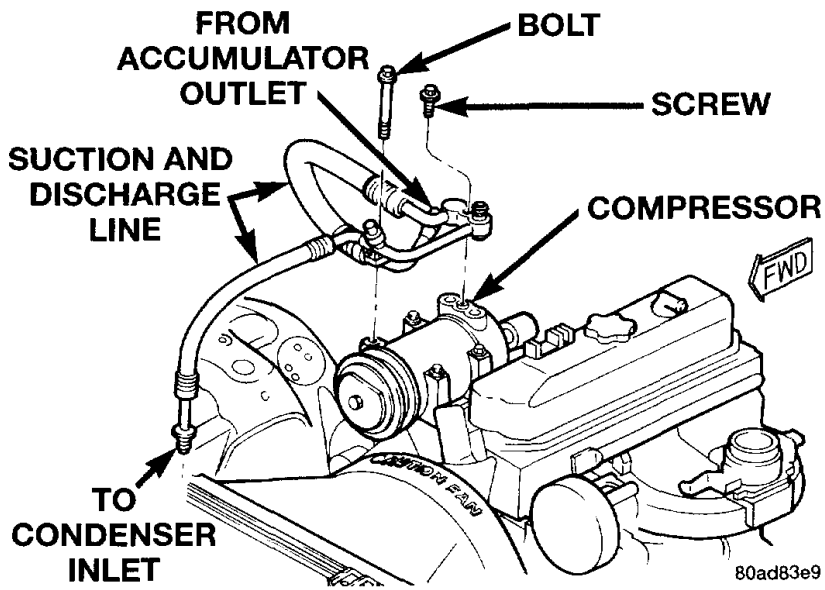
A/C Liquid Hose/Line (Article 2049213)



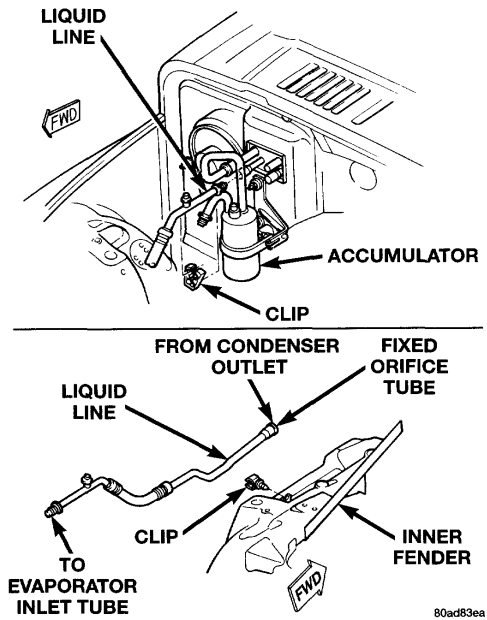
A/C Suction Hose/Line (Article 2049214)



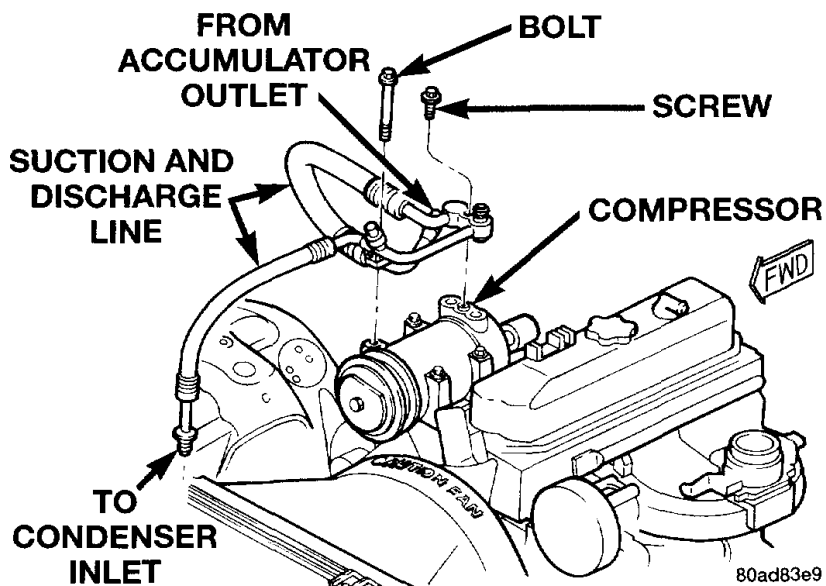
A/C Discharge Hose/Line Replacement (Article 2045387)



A/C Liquid Hose/Line Replacement (Article 2046407)



A/C Suction Hose/Line Replacement (Article 2038843)



A/C Discharge Hose/Line (Article 2049238)

Tighten the suction and discharge line manifold to the compressor mounting screw to 22 Nm (200 in. lbs.)
 Tighten bolt that secures the discharge line support bracket to the compressor to 28 Nm (21 ft. lbs.)

A/C Suction Hose/Line (Article 2049240)

Tighten the suction and discharge line manifold to the

compressor

mounting screw to

22 Nm (200 in. lbs.)

Tighten bolt that secures the discharge line support bracket to the compressor to

28 Nm (21 ft. lbs.)

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