

COMPRESSOR INSTALLATION INSTRUCTIONS

WARNING: This compressor may be under pressure. To avoid possible injury, wear eye protection and slowly unscrew shipping caps or plate to release pressure. If equipped with a switch port plug, do not remove the snap ring until pressure has been released.

Servicing a mobile climate control system is a complicated process requiring specialty tools and access to technical information. If you are not familiar with the following processes and procedures, it is advisable to seek the expertise of a qualified professional technician. Make sure you follow all Federal, State and Local Regulations with respect to the handling and disposal of chemicals and refrigerant. Proper A/C performance is dependent on all systems performing correctly. Typically, compressor failure is a symptom of a deficiency with the A/C, cooling or electrical systems within a vehicle. Make certain that the engine cooling system is at peak operation, and that the cooling fan / fan clutch is operating properly. Worn belts, idlers and tensioners can cause poor cooling system performance due to belt slippage. Low voltage at the A/C clutch assembly can cause premature compressor failure.

A Clean A/C System is Imperative:

When a compressor fails, tiny internal particles mix with oil and spread throughout the entire system. This contaminated oil, as well as moisture and other corrosives must be removed to avoid premature failure of the replacement compressor. Clean the entire system thoroughly with an effective cleaning agent such as TEMP Select or Dura II flush solvent and/or replace contaminated parts. Air alone does not remove contaminants. Two methods used today are effective in removing oil and contaminants: (1) liquid cleaning with an effective cleaning agent and (2) closed loop power cleaning using a refrigerant. Newer condenser designs are difficult, if not impossible to thoroughly clean, and in many cases must be replaced on vehicles later than 2000 model year.

Replace the Filter Drier or Accumulator:

Filter Driers and Accumulators contain a desiccant material. This material is designed to absorb the moisture that has seeped into the A/C system. Moisture in an A/C system can form corrosive contaminants that will cause rapid system failure. It is very important to remove all moisture from the A/C system before charging.

Replace the Refrigerant Control Devices:

The orifice tube is a control and filter device for accumulator systems, and should always be replaced to ensure proper refrigerant and oil flow through the system. The thermal expansion valve is the control device for systems using a receiver/drier. It should be examined and replaced, if found to be contaminated.

Lubrication:

The only moving component in the A/C system is the compressor, and adequate lubrication is critical. If oil or refrigerant charges are incorrect, internal damage to the compressor will occur! If uncertain about the proper lubricant type or amount, refer to the specific vehicle application on www.4s.com, the under hood decal, or an O.E. service manual. This compressor may contain shipping lubricant. Be sure to drain any oil and add the correct type and amount of lubricant per specific system specifications. To assure compressor lubrication, install half the required system oil in the compressor suction port side. This may require turning the compressor shaft as the oil is installed. The remaining amount of required system oil should be installed in the accumulator or low side of the system. To insure that the front seal is lubricated and does not leak, after the oil is installed, the compressor must be placed or held with the front seal down for 1 to 3 minutes, to allow oil to coat the seal. If this seal is not lubricated before installation, refrigerant may leak. Always rotate the compressor shaft at least 10 revolutions after the hoses are connected and prior to starting the engine. This will pump the excess liquid lubricant out of the compressor cylinders and into the system.

Proper Evacuation:

The A/C system must be free of moisture and air to work properly. Removing the air and moisture with an A/C system vacuum pump for forty-five minutes to an hour is necessary to deliver proper long lasting A/C performance.

COMPRESSOR INSTALLATION INSTRUCTIONS

Use only the recommended Refrigerant Type and Amount:

Only R12, R134a or R1234yf can be used to maintain proper system performance. The correct amount of charge is critical for system efficiency and durability, because the refrigerant carries the lubricant through the system. Specifications can be found by looking up the specific vehicle application on www.4s.com, the under hood decal or an O.E. service manual.

Clutch:

Clutch coil voltage should be within one volt of system operating voltage. Anything less weakens the magnetic force of the clutch allowing slippage, increased heat, and failure. Clutch air gap (between hub and pulley) is important and should be checked before installation to assure no changes have occurred during shipping and handling. Ask your suppliers for air gap specifications.

Verify the Repair:

Use an electronic leak detector or fluorescent dye to check for leaks. A leak will cause system failure. When repairs are finished, ensure that the job is done right the first time by doing temperature drop testing.