

# **Evaporator** Removal and Installation Instructions

Prior to the installation of this DENSO First Time Fit® evaporator, you must read these instructions completely.

#### **Definition of Terms**

**△WARNING:** Describes precautions that should be observed in order to prevent injury or

death to the user during installation.

**ACAUTION:** Describes precautions that should be observed in order to prevent damage

to the vehicle or its components, which may occur during installation if

sufficient care is not taken.

**NOTE:** Provides additional information that facilitates installation work.

## **General Service Information and Requirements**

△CAUTION: Only trained personnel who have a thorough knowledge of automotive air conditioning systems, the proper tools and an appropriate workspace should perform repairs to a vehicle air conditioning system. In addition, only personnel trained in an approved refrigerant handling program may recover refrigerant from and charge refrigerant to an automotive air conditioning system.

**NOTE:** DENSO strongly recommends the replacement of the receiver drier or accumulator when the A/C system has been opened and exposed to atmospheric conditions during the repair process.

#### **REQUIRED TOOLS:**

Safety Goggles
Assorted Hand Tools
Refrigerant Recovery Machine for specific type refrigerant
Charging Station / A/C Manifold Gauge Set for specific type refrigerant
Vacuum Pump for specific type refrigerant
Electronic Leak Detector
Torque Wrench
Refrigerant Identifier

#### SAFETY PRECAUTIONS

**AWARNING:** It has been determined that mixtures of R134a and air can result in combustion when exposed to an ignition source. Shop air should not be used for leak checking.

Follow the following precautions whenever working on the A/C system. Injury or death may occur if these specific precautions are not followed:

- · Always wear safety goggles.
- · Avoid skin contact with refrigerant or refrigerant oil.
- · Work in a well-ventilated area.
- · Never release refrigerant into the atmosphere.
- Never expose refrigerant containers to direct heat or temperature in excess of 125 °F.
- Never expose refrigerant to an open flame.

**NOTE:** Do not remove protective caps from the evaporator until it is ready to install.

### **Evaporator Removal**

The information below explains the necessary procedures and tools to remove and install an evaporator.

**NOTE:** For more detailed instructions, please refer to the manufacturer's vehicle service manual. Bolts, where specified, must be torqued to the proper specification. If torque is not specified please refer to the vehicle manufacturer's service manual.

- 1. Use a refrigerant identifier to verify the type of refrigerant in the system.
- Connect the appropriate refrigerant charging station to the A/C system and recover any refrigerant in the system.
- 3. Disconnect the refrigerant lines from the evaporator.
- 4. Remove the evaporator from the vehicle.

**NOTE:** Save plastic clips, grommets, cushioning, brackets, spacers, bushings and hardware as they will be needed to install the replacement evaporator.

## **Evaporator Installation**

**NOTE:** DENSO strongly recommends the replacement of the receiver drier or accumulator when the A/C system has been opened and exposed to atmospheric conditions during the repair process.

- 1. Install the evaporator into the vehicle.
- 2. Remove and discard any caps covering the evaporator inlet and outlet openings.
- 3. Using the proper refrigerant oil, lubricate and install new O-rings onto the tubes/ hoses. O-rings are different, depending on refrigerant. Do not mix types. Refer to the manufacturer's source manual for proper refrigerant oil
- 4. Reinstall refrigerant lines as follows:
  - a. Assemble the refrigerant lines to the evaporator, then install the bolts securing the lines to the evaporator, or hand tighten the tube fittings.
  - b. Tighten the bolts to specifications or tighten the fittings to specifications. Use two wrenches to prevent damaging the lines.
  - c. After completely finishing the installation, reinstall all parts that were temporarily removed.
  - d. Proceed with evacuation and recharging steps.

**NOTE:** To verify there are no leaks and to eliminate moisture from the system, evacuate the system for a minimum of 30 minutes. Wait 5 minutes after evacuation, then check for leaks before charging the system to factory specifications.