





INSTRUCTIONS FOR A/C COMPRESSOR INSTALLATION

Observe the following safety measures

- Airbags (attention)
- No smoking
- Use eye protection
- Work in a well-aired area
- Use protective equipment (gloves)
- Pump out coolant before making repairs

Follow all local regulations

A/C output is dependent on proper functioning of all its parts. Make sure the motor's cooling system and the fan work properly. Worn out belts and pulleys can reduce the output of the cooling system. Low voltage on the compressor coil may cause its premature failure.

Make sure the oil and coolant are not polluted.

Tip!

When replacing the compressor, make sure it is precisely placed and firmly fastened. Tightening it too much may create cracks in the aluminium block of the compressor and result in subsequent leaking of coolant.

Replacement of Filter Dehydrator

All filter dehydrators and wipers contain a desiccative material absorbing any humidity contained in the A/C system. **These** must be replaced with new ones during any intervention in the cooling system (replacement of the compressor). Doing so is vital for removing all humidity from the A/C system before filling and thus for the manufacturer to provide a warranty. Not doing so voids the warranty for the compressor.

Inspection or Replacement of Injection Valves and Nozzles

During any intervention in the A/C system, check that the injection valve or nozzle did not become polluted. If so, they must be cleaned or replaced with new ones to ensure proper functioning of the system.

Cleaning the A/C System

Should the compressor malfunction, small particles may be released and enter the entire system via the oil. Such contaminated oil as well as any resulting humidity and corrosion must be removed to prevent premature failure of a new compressor (i.e. it is necessary to clean the entire system by flushing with an effective solvent or to replace the contaminated parts). There are two methods of cleaning:

1) Flushing with an Effective Solvent

Flushing is done using Dura Flush II or another, non-petroleum flushing solvent on a similar basis designed specifically for use in A/C systems.

Powerful closed loop flushing systems using solvents recommended by the manufacturer of the machine serve as an effective method of cleaning the components of A/C systems. This method of cleaning is used by several major OE operators of service centres.

2) Closing the System and Cleaning via Coolant

Lubrication

The only moving part of the A/C system is the compressor. It is therefore necessary to provide it sufficient lubrication. The use of an insufficient amount or unsuitable type of oil or coolant may lead to irreversibly damaging the compressor. For the proper type and amount, follow the compressor's label or the manufacturer's recommendations.

You can ensure proper lubrication of the compressor by pouring half the required amount of oil into the compressor and the remainder into the low-pressure portion of the A/C system.

Compressors for A/C R134a are delivered with an oil filling; compressors for transport refrigeration R404A are delivered without oil.

Use Only the Recommended Amount and Type of Coolant

Using the correct amount of filling is crucial for the efficiency and durability of the system, since the coolant transports the lubricant throughout the entire cooling system.

Dual A/C systems require a sufficient amount of coolant and oil; check based on information about the vehicle.

Compressor Rotation

Before starting and turning on the A/C, it is necessary to rotate the shaft of the compressor several times to push out any excess oil from the compressor's cylinders into the system.

Clutch

Voltage delivered to the coil should be +/- 1 V from the nominal voltage of the vehicle to prevent the clutch from slipping, overheating and thus failing.

After Repair

Check the leak-tightness of the system after replacement using an electronic detector.

Procedure for Checking Compressor Oil

Before connecting a new compressor, check the amount of oil in the compressor that the system requires. Proceed as described below:

EXAMPLE

A – B =

Amount of oil removed from new compressor

A (New compressor) = 120 cc B (What remains in the old compressor) = 50 cc Amount of oil removed from new compressor = 70 cc