



Removal and installation instructions

Air conditioning system

Before spare parts are removed or installed, check that the connections, fastening material and other installation-related characteristics are identical.

When replacing the components, always use new O-rings suitable for the refrigerant.

The compressor oil has a strongly hygroscopic effect so keep the system closed if possible and/or fill the oil into the system shortly before the refrigerant circuit is closed.

Before installation, O-rings and seals must be lubricated using refrigerant oil or special lubricants (e.g. Sil Lube, part no.:

8FX 351 214-041) to make installation easier. No other greases or silicone spray may be used as otherwise the new refrigerant will become soiled immediately.

Every time the refrigerant circuit is opened the dryer has to be replaced due to its strongly hygroscopic effect. If the dryer or accumulator is not renewed regularly the filter cushion can fall apart, leading to the silicate particles being distributed throughout the system and causing serious damage.

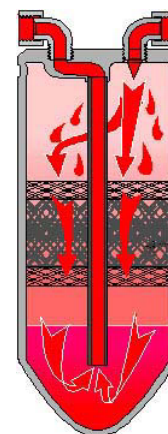
The system connections should never remain open for a longer period; they must be closed immediately using caps or stoppers. Otherwise humidity would enter the system with the air.

To prevent connection leads and components from becoming damaged, always use two keys for loosening and fastening the connections.

When routing tubes and cables, make sure that they cannot become damaged by vehicle edges or other movable components.



O-ring set



Filter-dryer



When replacing an air conditioning system component, make sure the system has the correct oil filling quantity. Oil must be refilled or drained if necessary.

Before the system is refilled, use a vacuum manometer to check that the system is airtight. Then the system must be evacuated sufficiently (for approx. 30 minutes) to make sure that all humidity has been removed from the system.

After the quantity of refrigerant prescribed by the vehicle manufacturer has been filled, the system must be checked for perfect function and air-tightness (electronic leak detector). At the same time the high and low pressure values must be monitored using manometers and compared with the prescribed values.

Compare the air-flow output temperature at the central nozzle with values prescribed by the manufacturer.

After the service connections have been fitted with protective caps, the servicing date must be clearly marked on a service label which is then attached to the front cross-member.

Instructions for the installation of air conditioning compressors

Make sure that all soiling and foreign particles have been removed from the refrigerant circuit. To do this, the system must be flushed before installation. Depending on the degree of soiling, the refrigerant R134a can be used or a special flushing solution such as the one in the *Behr Hella Service* range.

Compressors, dryers (accumulators) and expansion valves or orifice tubes cannot be flushed. Since system soiling (abrasion, chips) must always be assumed or at least cannot be excluded in the case of a compressor fault, it is absolutely essential that the system is flushed when this component is replaced. Make sure that no residual flushing solution remains in the system. Dry the refrigerant circuit with nitrogen if necessary.

Replace the filter dryer or accumulator and the expansion valve or orifice tube.



Manometer



Electronic leak detector



PAO-Oil 68



Since one and the same compressor can sometimes be used for different vehicles or systems, it is essential to check and/or correct the oil filling quantity and viscosity according to the manufacturer's specifications before installing the compressor. All the oil must be drained and collected for this purpose. Then the compressor must be refilled with the oil filling quantity (system oil quantity) prescribed by the vehicle manufacturer.

To ensure the oil is evenly distributed, the compressor has to be spun 10 x by hand before installation.

When mounting the drive belt make sure that this is aligned correctly. Some compressors have been designed for so-called "multiple applications". This means that they can be installed in various different vehicles. There is 100 % correlation with the "old part" except for the number of grooves on the magnetic clutch.

Once the compressor has been installed and the refrigerant circuit refilled, the engine must be started and the compressor operated at idling for a few minutes.

Having evacuated the refrigerant circuit according to the instructions, refill the circuit with the prescribed refrigerant filling quantity. Only R134a may be used as a refrigerant for the compressor.

All the products illustrated and many more besides can be found in the *Behr Hella Service* parts range.