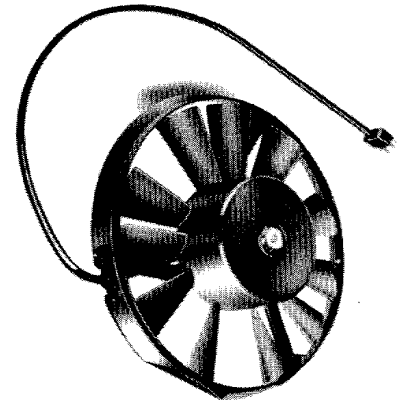




Condenser fans

General

To guarantee correct liquefaction of the coolant in the condenser or sufficient engine cooling, an additional or more powerful condenser fan is usually installed in vehicles with air-conditioning systems. Existing fans may also be replaced by more powerful ones.



Function

Condenser fans are mounted as extractor fans (in the direction of motion behind the condenser) or as pressure fans (in the direction of motion in front of the condenser). They are controlled by pressure or temperature switches or by a control unit. The fact that a higher air flow passes by the condenser or the engine cooler when the fan is in operation guarantees that the coolant is optimally liquefied or the engine is sufficiently cooled in any operation condition of the vehicle.

Effects of failure

A defective condenser fan may have the following consequences:

- Poor cooling capacity
- Frequent on/off switching of the compressor
- Loud noise when the fan is running
- Increasing engine temperature (in the case of a combined fan)

Possible causes for failure or damage:

- Contact fault at the electrical connections
- Short-circuit/contact fault in the electric motor of the fan
- Defective bearing
- Impeller broken due to material fatigue or accident



Trouble-shooting

The following tests should be carried out to locate the fault:

- Visual inspection for damage
- Acoustic check for running noise
- Check electrical connections for correct fit and contact
- Check power supply
- Read error memory (if possible)

When trouble-shooting, it should be taken into account that the fan is controlled by a pressure or temperature switch or by a control unit.