# Why Dirty Evaporators Hinder A/C

# **Performance**

An evaporator is usually located inside the passenger compartment in your vehicle. Some vehicles, that have rear air, contain two evaporators: one will be located in the dashboard of your car, while the other one will be located at the rear of the vehicle. The primary function of the evaporator is to remove heat from inside the vehicle.

## **Evaporator Facing Passenger Cabin**





### **Evaporator Facing Blower Motor**









During the process of the heat exchange, the evaporator removes the heat and moisture out of the air inside of the vehicle, which leads to moisture condensation on the outside of the evaporator and evaporator fins. This is more noticeable on a humid day when a puddle of water is formed underneath the car, on the passenger's side. It is originating from the moisture flowing from the face of the evaporator and exiting the vehicle via a drain tube.

Over time and with the use of the vehicle, dust and other particulates will get on or into the fins of the evaporator. This will be made worse if animals are transported in the vehicles, such as pets or a K9 units, or if the driver or passengers smoke. Remember that the blower motor blows the air across the evaporator fins, so particles will be pushed into the evaporator from behind and may not be visible. Particles mix with the moisture and can cause bacteria, mold, and fungi. These generate a smell and can also block the fins, lowering the performance of the heat exchanger.

Law Enforcement K9 units and people who transport pets also experience a large reduction of efficiency of the cooling system. This is due to the animal hair being blown into the evaporator and clogging the evaporator fins. When an evaporator gets to this point, the best advice is to replaced.

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