

Nissens Technical Tips

CLIMATE SYSTEM

NISSENS' ADVICE: CHECK THE RADIATOR WHEN SERVICING THE A/C SYSTEM

At present, more than 90% of new cars are equipped with an air conditioning system, and a professional service of this circuit, including replacement of components, is offered by an increasing number of garages. The construction of new cars is very complex, not leaving much space in the engine chamber, which makes the repair more complicated. Disassembly of one part may force the mechanic to dismount another adjacent part. In some cars, replacement of the A/C condenser is not possible without disassembly of the radiator and vice versa.

Based on a typical passenger car, we would like to draw your attention to problems which may occur during replacement of the condenser. We will show that it is worth checking the radiator and engine cooling system when servicing the A/C system. We will not describe the exact procedure nor list all steps of the work, but want to draw your attention to important aspects that may increase the service quality of the garage.

A good example is a Renault Scenic 2002, with gasoline engine 1.6i, which was handed over to a professional garage specialized in cooling systems, due to a problem with a perforated condenser. Disassembling the condenser in this car is no problem: you only have to unscrew the front bumper parts to uncover the cooling set (photo 1). Then the A/C connection and four bolts are dismantled, and we take out the condenser (photo 2).

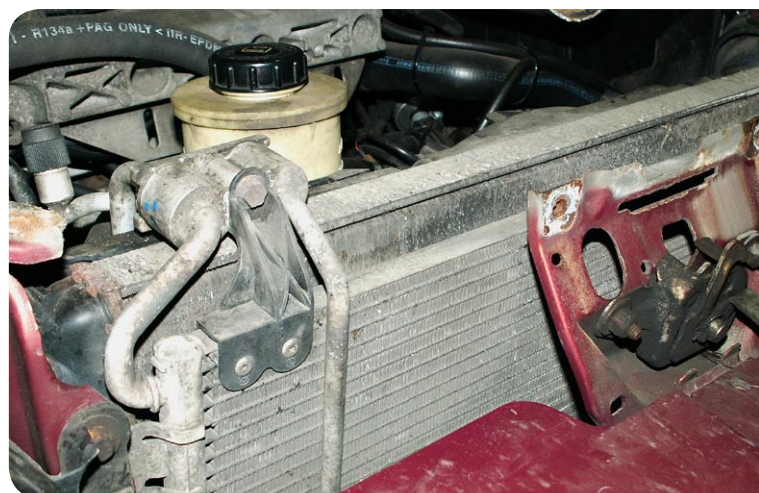


Photo 1



Photo 2

We then examine the radiator starting from the bottom. Often we may discover leakages and sludge on it (photo 3). Seeing that the initial leakages are insignificant, they may not be discovered by the driver. In this case - after acceptance by the client of course - we replace the radiator by a new one and thus prevent a potential failure of the old radiator. If we do not pay attention to the radiator when

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replacing the condenser, the customer may have another problem after some time. After assembly of the condenser, the access to the radiator is closed (photo 1), so another disassembly of the condenser would mean additional expenses (work and gases). When examining the radiator, the mechanic must check the condition of other connected parts, such as connections, flexible hoses, tubes etc. It is a good idea to ask the user for how long the A/C system has not been working.

If the problem has existed for a long time and the system has thus been open to the ambient air, the dryer must be replaced. After examining parts and circuits, we mount a new radiator (Nissens' ref. 63896A), and a new condenser (Nissens' ref. 94572 – photo 4).

We check the tightness of the A/C system, and if it is ok, we pump the gas. It is necessary to fill the correct volume of gas and the proper type of oil (e.g. according to Nissens' A/C brochure). Finally, we check that the circuits in the assembled car function properly, to avoid unpleasant surprises (in connection with the radiator), and we hand back the car to the owner.

Summing up – to act professionally, in connection with repairs of A/C systems, the radiator must be checked, too. The engine cooling system - contrary to the A/C system - is only serviced in rare instances, mostly if the radiator breaks down. But the customer will most likely accept the cost of a new radiator - if he is told that he will thus protect himself from sudden failure on the road.

*Nissens A/S, Automotive Division,
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Photo 3

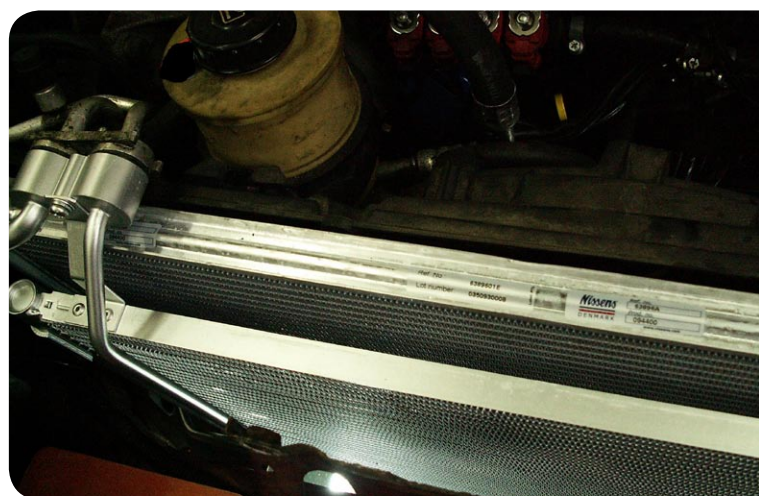


Photo 4