

MODEL ALL**Note:**

- This document should be considered as supplement to the DAS function check "Refrigerant circuit test". Only perform repair or replacement work on the refrigerant circuit if the DAS test of the refrigerant circuit was not successful and you received corresponding instructions during the DAS function check "Refrigerant circuit test".
- Before replacing a part, **always** determine the exact quantity of refrigerant in the refrigerant circuit.
Filling in too little fluid may cause poor air conditioning system performance. If there is not enough refrigerant in the refrigerant circuit, a part must only be replaced if the torque limiter is broken!
If the refrigerant circuit is insufficiently filled and the limiter is not damaged, then the leak test (Test 6 "Refrigeration circuit leak") is to be conducted based on the "Technology Guide - Vehicle A/C", and the system filled up and then checked.

The refrigeration circuit contains too little refrigerant if the level has dropped to below 80 % of the standardized filling quantity. Too little refrigerant can also cause the air conditioning system to shut off or malfunction.

Remedy:

- 1 Refrigerant compressor has an electrical fault (control valve):
i **Note** : If the DAS function check "Refrigerant circuit test" reveals that the refrigerant circuit was not underfilled or overfilled (see above for explanation): only replace the refrigerant compressor.
- 2 If the torque limiter (limiter) on the refrigerant compressor is broken: (for fast diagnosis refer to Technology Guide for Automotive Air Conditioning - Knowledge base - Explanation on refrigerant compressor shaft) the generator freewheel should be checked, because the limiter may also intervene if the generator freewheel is defective (refrigerant compressor rotates).
The oil is to be checked for contamination (color dark gray - black).
Replace all refrigerant circuit components. Despite the use of modern purging methods it is impossible to be certain that there are no remaining particles in the system that may cause consequential damage
- 3 System clogged:
Note: Use DAS function check "Refrigerant circuit test" to check whether refrigerant circuit has been underfilled or overfilled (see above for explanation):

Complaint:

Refrigerant circuit of air conditioning system not working or performance insufficient

Cause:

There are several possible causes:

- Defective refrigerant compressor (for remedy see point 1 or 2)
- System clogged (for remedy see point 3)

Replace all refrigerant circuit components. In spite of using modern purging methods it is impossible to be certain that there are no remaining particles in the system that may cause consequential damage.

Always drain the fluid from the new refrigerant compressor before installing.

For a complete refill of the air conditioning system, always ensure that the correct quantity of refrigeration oil and refrigerant is filled in. Check whether individual components are to be replaced, or the entire refrigerant circuit.

A leak test must always be performed after the refrigeration circuit has been replaced and prior to filling with refrigerant.