

No or insufficient cooling output, permanently or occasionally/ defective refrigerant line

Topic number	LI83.00-P-047480
Version	1
Design group	83.00 General
Date	07-29-2009
Validity	Passenger car model series with air conditioning
Reason for change	

Complaint:

No or insufficient cooling output, permanently or occasionally/ defective refrigerant line.

Cause:

Refrigerant line (engine-side low-pressure line, from compressor to connecting point upstream of expansion valve) whose inner coating comes loose in the flexible section of the hose, causing constriction.

Attachments	
File	Designation
Ansicht Innen.jpg	Inside view of damaged part

Remedy:

Air conditioning system may not be evacuated before test steps 1. - 3., this could affect the test result.

1. Start engine, activate air conditioning on control panel (max. cold, blower setting 3), medium engine speed.
2. Connect pressure gauge to high and low-pressure side.
3. Check whether the refrigerant compressor is delivering refrigerant (limiter on belt pulley turns or pressure builds up in refrigeration circuit): If the refrigerant compressor is not delivering refrigerant, eliminate this fault. If the refrigerant compressor builds up pressure,
4. Read off the high and low-pressure values from the pressure gauges after approx. 5 minutes.

If the installation space does not permit reliable temperature measurement using an infrared thermometer, continue with 6:

5. If the low pressure is noticeably high (> approx. 60psi) and the evaporator temperature is significantly too high at the same time (> approx. 50 °F) use an infrared thermometer to check the engine-side low-pressure line against the refrigerant flow direction (from compressor to connecting point upstream of expansion valve). If there is a noticeable temperature drop in the line (Delta > 45 °F),
6. Disassemble the engine-side low-pressure line (from compressor to connecting point upstream of expansion valve) and
7. Use an endoscope or the procedure described in the attachment to check the line for clear passage (checking for clear passage using welding wire or similar is not permissible as this can damage the inner hose and cannot detect peeling anyway).

8. Replace the line if you detect any constriction. Refer to EPCNet for applicable part number.

Attachments	
File	Designation
Durchgangsprüfung Leitung .pdf	Visual inspection of intake line for clear passage

Symptoms
Body / Air conditioning / Air conditioning / Insufficient cooling output /
Body / Temperature differences / Air conditioning / Air conditioning /
Body / Air conditioning / Air conditioning / Windows fogged /
Temperature control not sensitive enough / Body / Air conditioning / Air conditioning /
Body / Air conditioning / Noise / Air conditioning /

Parts							
Part number	ES1	ES2	Designation	Quantity	Note	EPC	Non-EPC
			Infrared laser thermometer	1	Can be ordered directly from the manufacturer at www.waeco.com . Waeco item number: 8885100062		X
			High-tech UV and endoscope lamp	1	Can be ordered directly from the manufacturer at www.waeco.com . Waeco item number: TP-9354		X

Work units				
Op. no.	Operation text	Time	Damage code	Note
			83496 F7	