



## Contents

<b>00 - Technical data</b>	<b>1</b>
<b>1 Safety information</b>	<b>1</b>
1.1 Safety precautions during work on fuel system	1
1.2 Safety precautions when working on vehicles with start/stop system	1
1.3 Safety precautions when using testing and measuring instruments during a road test	2
1.4 Safety precautions when working on the cooling system	2
1.5 Safety precautions for working on vehicles with auxiliary/supplementary heater	2
<b>2 General information</b>	<b>4</b>
2.1 Type plates	4
2.2 Starting conditions for auxiliary/supplementary heater	5
2.3 Rules for cleanliness when working on auxiliary/supplementary heater and fuel system	5
<b>3 Repair notes</b>	<b>6</b>
3.1 Rules for cleanliness	6
3.2 General information	6
3.3 General repair instructions	7
3.4 Contact corrosion	7
3.5 Nuts and bolts	7
3.6 Routing and attachment of lines	7
<b>4 Hazard classification of high-voltage system</b>	<b>9</b>
<b>82 - Supplementary heating</b>	<b>10</b>
<b>1 Overview of fitting locations – auxiliary/supplementary heater</b>	<b>10</b>
1.1 Overview of fitting locations – components not located in passenger compartment	10
<b>2 Auxiliary/supplementary heater</b>	<b>11</b>
2.1 Overview of fitting locations – auxiliary/supplementary heater	11
2.2 Assembly overview – auxiliary/supplementary heater, interior	12
2.3 Assembly overview – attachments of auxiliary/supplementary heater	14
2.4 Removing and installing auxiliary/supplementary heater	15
2.5 Removing and installing air intake silencer	18
2.6 Removing and installing recirculation pump V55	19
2.7 Removing and installing exhaust system	20
2.8 Removing and installing cover	21
2.9 Dismantling and assembling auxiliary/supplementary heater	22
2.10 Removing and installing glow plug with flame monitoring Q8	23
2.11 Removing and installing temperature sensor G18 and overheating sensor G189	24
2.12 Removing and installing auxiliary heater control unit J364	25
2.13 Removing and installing combustion air blower 2 V385	25
2.14 Pin assignment of auxiliary/supplementary heater	25
<b>3 Coolant circuit with auxiliary/supplementary heater</b>	<b>27</b>
3.1 Connection diagram – coolant hoses	27
3.2 Removing and installing heater coolant shut-off valve N279	29
<b>4 Fuel supply</b>	<b>31</b>
4.1 Checking fuel delivery rate	31
4.2 Removing and installing metering pump V54	32
<b>5 Regulation of auxiliary/supplementary heater</b>	<b>34</b>
<b>6 Other controlling and regulating components</b>	<b>35</b>
6.1 Removing and installing ambient temperature sensor G17	35
6.2 Removing and installing remote control receiver for auxiliary coolant heater R149	35
<b>7 Auxiliary air heater</b>	<b>37</b>
7.1 Assembly overview – auxiliary air heater	37
7.2 Removing and installing auxiliary air heater	39



7.3	Removing and installing air intake silencer .....	44
7.4	Assembly overview – attachments of auxiliary/supplementary heater .....	44
7.5	Removing and installing exhaust system .....	45
7.6	Removing and dismantling auxiliary air heater bracket .....	46
7.7	Removing and installing auxiliary air heater control unit J604 .....	47
7.8	Removing and installing housing .....	48
7.9	Removing and installing burner .....	50
7.10	Removing and installing glow plug for heater Q9 .....	51
7.11	Removing and installing flame monitor G64 and overheating sensor G189 / temperature sensor for air outlet on auxiliary air heater G966 (combination sensor) .....	52
7.12	Removing and installing combustion air blower 2 V385 .....	54
7.13	Removing and installing heat exchanger .....	54
7.14	Removing and installing temperature sensor G18 .....	57
<b>8</b>	<b>Fuel supply to auxiliary air heater .....</b>	<b>58</b>
8.1	Removing and installing metering pump 2 V386 .....	58
8.2	Checking fuel delivery rate .....	59
<b>9</b>	<b>Operating and display unit .....</b>	<b>61</b>
9.1	Principle of auxiliary air heater operation .....	61
9.2	Function of auxiliary air heater operating and display unit E407 or roof display unit J702 ..	63
9.3	Removing and installing operating and display unit for auxiliary air heater .....	64
<b>10</b>	<b>Other control and regulating components of auxiliary air heater .....</b>	<b>66</b>
10.1	Function description of remote control .....	66