

## Contents

<b>00</b>	<b>Technical data</b> .....	<b>1</b>
1	<b>Safety precautions</b> .....	<b>1</b>
1.1	Safety precautions when working on vehicles with high-voltage system .....	1
1.2	Safety precautions when working in the vicinity of high-voltage components .....	2
1.3	Safety precautions when working on vehicles with start/stop system .....	2
1.4	Safety precautions when working on the fuel system .....	2
1.5	Safety precautions when using testers and measuring instruments during a road test .....	3
1.6	Safety precautions when working on the cooling system .....	3
1.7	Safety precautions when working on vehicles with auxiliary/supplementary heater .....	3
2	<b>General notes</b> .....	<b>5</b>
2.1	Type plates .....	5
2.2	Notes on operation of auxiliary/supplementary heater on vehicles with diesel engine .....	5
2.3	Notes on operation of auxiliary/supplementary heater with biofuel .....	6
2.4	Starting conditions for auxiliary/supplementary heater .....	6
2.5	Rules for cleanliness when working on the auxiliary/supplementary heater and fuel system .....	6
3	<b>Repair instructions</b> .....	<b>8</b>
3.1	Rules for cleanliness .....	8
3.2	General notes .....	8
3.3	General repair instructions .....	8
3.4	Contact corrosion .....	9
3.5	Checking heating output .....	10
3.6	Routing and attaching pipes, hoses and wiring .....	10
3.7	Use of impact wrenches .....	10
3.8	Identification plates .....	11
<b>82</b>	<b>Auxiliary heating</b> .....	<b>12</b>
1	<b>Overview of fitting locations - auxiliary/supplementary heater</b> .....	<b>12</b>
1.1	Overview of fitting locations - auxiliary/supplementary heater, all vehicles .....	12
1.2	Overview of fitting locations - auxiliary/supplementary heater, additional components on vehicles with high-voltage system .....	14
2	<b>Auxiliary/supplementary heater</b> .....	<b>16</b>
2.1	Exploded view - attachments for auxiliary/supplementary heater .....	16
2.2	Exploded view - components inside auxiliary/supplementary heater .....	20
2.3	Removing and installing auxiliary/supplementary heater .....	22
2.4	Removing and installing bracket for auxiliary/supplementary heater .....	41
2.5	Dismantling and assembling auxiliary/supplementary heater .....	43
2.6	Removing and installing air intake silencer .....	55
2.7	Removing and installing circulation pump V55 .....	57
2.8	Removing and installing silencer with bracket .....	60
2.9	Removing and installing temperature sensor G18 and temperature sensor 2 for supplementary and auxiliary heating G587 .....	62
2.10	Pin assignment for auxiliary/supplementary heater .....	64
3	<b>Coolant circuit with auxiliary/supplementary heater</b> .....	<b>66</b>
3.1	Connection diagram - coolant hoses .....	66
3.2	Exploded view - coolant shut-off valve .....	78
3.3	Removing and installing heater coolant shut-off valve .....	78
4	<b>Fuel supply system</b> .....	<b>85</b>
4.1	Overview of fitting locations - fuel supply system .....	85
4.2	Fuel take-off from fuel tank .....	89
4.3	Routing of fuel line to auxiliary/supplementary heater .....	95
4.4	Checking CO <sub>2</sub> content in exhaust gas of auxiliary/supplementary heater .....	96
4.5	Checking fuel delivery rate .....	99



4.6	Removing and installing metering pump V54 .....	104
<b>5</b>	<b>Auxiliary/supplementary heater control .....</b>	<b>106</b>
5.1	Switching auxiliary/supplementary heater and auxiliary ventilation on and off .....	106
<b>6</b>	<b>Further control components .....</b>	<b>107</b>
6.1	Removing and installing ambient temperature sensor .....	107
6.2	Removing and installing remote control receiver for auxiliary heater R64 .....	107
6.3	Functional description of remote control for auxiliary/supplementary heater .....	107
6.4	Renewing battery of remote control for auxiliary/supplementary heater .....	108
6.5	Adapting remote control for auxiliary heater .....	108