

## Contents

<b>24 - Mixture preparation - injection</b>	<b>1</b>
<b>1 Safety precautions and rules for cleanliness</b>	<b>1</b>
1.1 General notes on self-diagnosis	1
1.2 Safety precautions when working on the fuel system	2
1.3 Safety precautions when working on the injection and ignition system	3
1.4 Safety precautions when working on vehicles with start/stop system	3
1.5 Safety precautions when using testers and measuring instruments during a road test	4
1.6 Rules for cleanliness when working on fuel supply system and injection system	4
1.7 Important: Required procedure prior to opening high-pressure injection system	5
1.8 Checking for leaks in the fuel system	6
1.9 Checking vacuum system	6
<b>2 Injection system</b>	<b>8</b>
2.1 Test data	8
2.2 Overview of fitting locations	8
<b>3 Air cleaner</b>	<b>15</b>
3.1 Air cleaner - exploded view	15
3.2 Removing and installing air filter element	16
3.3 Removing and installing air cleaner housing	18
<b>4 Intake manifold, fuel rail and injectors</b>	<b>19</b>
4.1 Intake manifold (top section) - exploded view	19
4.2 Removing and installing intake air temperature sender G42 / intake manifold pressure sender G71	21
4.3 Removing and installing throttle valve module J338	22
4.4 Removing and installing intake manifold (top section)	23
4.5 Intake manifold (bottom section), fuel rail and injectors - exploded view	25
4.6 Removing and installing intake manifold (bottom section) with fuel rail	27
4.7 Removing and installing injectors	29
4.8 Removing and installing fuel pressure sender G247	34
4.9 Checking fuel pressure and residual pressure (up to high-pressure pump)	34
<b>5 High-pressure pump</b>	<b>39</b>
5.1 High-pressure pump - exploded view	39
5.2 Removing and installing high-pressure pump	40
5.3 Removing and installing high-pressure pipe	41
<b>6 Lambda probes</b>	<b>44</b>
6.1 Lambda probes - overview	44
6.2 Removing and installing Lambda probe G39 with Lambda probe heater Z19	45
6.3 Removing and installing Lambda probe after catalytic converter G130 with Lambda probe 1 heater after catalytic converter Z29	46
<b>7 Engine control unit</b>	<b>49</b>
7.1 Wiring and component check with isolator boxes VAS 6606	49
7.2 Removing and installing engine control unit J623	50
<b>28 - Ignition system</b>	<b>54</b>
<b>1 General notes and safety precautions</b>	<b>54</b>
1.1 General notes on ignition system	54
1.2 Safety precautions when working on the injection and ignition system	54
1.3 Safety precautions when working on vehicles with start/stop system	55
1.4 Safety precautions when using testers and measuring instruments during a road test	55
<b>2 Servicing ignition system</b>	<b>56</b>
2.1 Test data	56
2.2 Ignition system - exploded view	56
2.3 Removing and installing ignition coils	57



2.4	Removing and installing knock sensors G61 / G66 .....	58
2.5	Removing and installing Hall senders G40 / G300 .....	59
2.6	Removing and installing engine speed sender G28 .....	60