

## 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 using testers and measuring instruments during a road test	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 working on the injection system	4
1.6 Reducing pressure in high-pressure section of injection system	5
1.7 Checking fuel system for leaks	6
<b>2 Vacuum system</b>	<b>7</b>
2.1 Connection diagram - vacuum system	7
2.2 Checking vacuum system	8
2.3 Removing and installing vacuum unit for actuating intake manifold flaps	9
<b>3 Injection system</b>	<b>15</b>
3.1 Test data	15
3.2 Overview of fitting locations	15
3.3 Exploded view - air cleaner	26
3.4 Removing and installing engine cover panels	27
3.5 Removing and installing air filter element	27
3.6 Removing and installing air cleaner housing	28
3.7 Intake manifold (bottom section), fuel rail, injector - exploded view	30
3.8 Removing and installing intake air temperature sender G42 / intake manifold pressure sender G71	34
3.9 Removing and installing throttle valve module J338	34
3.10 Removing and installing regulating flap control unit J808	36
3.11 Removing and installing intake manifold (bottom section) with fuel rail	36
3.12 Removing and installing injectors	40
3.13 Checking fuel pressure and residual pressure (up to high-pressure pump)	43
3.14 Exploded view - high-pressure pump	46
3.15 Removing and installing high-pressure pipe	48
3.16 Removing and installing high-pressure pump	50
3.17 Overview - Lambda probes	53
3.18 Removing and installing Lambda probes G39 / G108 / G130 / G131	54
<b>4 Engine control unit</b>	<b>57</b>
4.1 Wiring and component check with test box V.A.G 1598/42	57
4.2 Removing and installing engine control unit J623	59
<b>28 - Ignition system</b>	<b>62</b>
<b>1 General notes and safety precautions</b>	<b>62</b>
1.1 General notes on ignition system	62
1.2 Safety precautions when using testers and measuring instruments during a road test	62
1.3 Safety precautions when working on the injection and ignition system	62
<b>2 Servicing ignition system</b>	<b>64</b>
2.1 Test data	64
2.2 Exploded view - ignition system	64
2.3 Removing and installing ignition coils with output stages	65
2.4 Removing and installing knock sensors G61 / G66	67
2.5 Removing and installing Hall senders G40 / G163	68
2.6 Removing and installing engine speed sender G28	68