

Contents

01 - Self-diagnosis	1
1 Self-diagnosis	1
1.1 Self-diagnosis	1
1.2 Technical data of self-diagnosis	1
1.3 Safety precautions	1
1.4 Connecting fault reader V.A.G 1551	2
2 Interrogating and erasing fault memory	4
2.1 Interrogating and erasing fault memory	4
2.2 Flash codes and text output of FEI and KE III Jetronic control units	5
2.3 Fault table	6
3 Final control diagnosis	9
3.1 Final control diagnosis	9
3.2 Preparing differential pressure regulator for current measurement	10
3.3 Implementing final control diagnosis	11
4 Checking wiring of diagnostic connectors	13
4.1 Checking wiring of diagnostic connectors	13
4.2 Checking power supply for "black" diagnostic connector	14
4.3 Checking wiring between "white" diagnostic connector and KE III Jetronic/FEI control unit	14
25 - Mixture preparation, Injection	16
1 Servicing KE III Jetronic injection system	16
1.1 Servicing KE III Jetronic injection system	16
1.2 Safety precautions	16
1.3 Rules for cleanliness	16
1.4 Technical data	17
1.5 Exploded view of fitting locations	18
1.6 Exploded view of upper part of intake manifold	22
1.7 Exploded view of lower part of intake manifold	26
1.8 Wiring and component check using test box V.A.G 1598 A	29
1.9 Replacing KE III Jetronic control unit	31
1.10 Checking power supply for KE III Jetronic control unit	33
1.11 Checking fuel-pump relay -J17 and actuation	35
1.12 Checking cold start valve -N17	40
1.13 Checking idling-speed stabilisation valve -N71	45
1.14 Checking elevation sender -F96	49
1.15 Checking and adjusting idling switch -F60 and full throttle switch -F81	52
1.16 Vehicles with manual gearbox	53
1.17 Vehicles with automatic gearbox	57
1.18 Checking throttle valve potentiometer -G69 - vehicles with automatic gearbox	61
1.19 Matching automaticgearboxcontrol unit and throttle valve potentiometer -G69	63
1.20 Checking air-flow meter potentiometer -G19	64
1.21 Checking pressure regulator -N73	71
1.22 Basic setting of throttle valve	73
1.23 Checking intake system for leaks (unmetered air)	74
2 Servicing fuel system	75
2.1 Servicing fuel system	75
2.2 Exploded view of fuel distributor	76
2.3 Checking idling speed, CO content and ignition point	80
2.4 Vehicles with catalytic converter and Lambda probe	83
2.5 Vehicles with no catalytic converter and Lambda probe	86
2.6 Connecting remote control V.A.G 1348/3A with adapter lead V.A.G 1348/3-2	88
2.7 Connecting pressure gauge V.A.G 1318 with test adapter 1318/4	89
2.8 Checking system pressure, differential pressure and holding pressure	90

2.9	Checking injectors (injection quantity comparison measurement)	94
2.10	Checking air-shrouded injectors and inserts for leaks	97
2.11	Removing and installing injectors	98
2.12	Removing and installing injector insert	100
2.13	Checking adjusting lever and control plunger	101
2.14	Checking and adjusting rest position and idle motion of sensor plate	102
2.15	Basic setting of adjusting lever	104
2.16	Adjusting stop bolt for control plunger	105
2.17	Checking cold acceleration enrichment	106
2.18	Checking overrun shutoff and operation of idling-speed switch	109
3	Checking Lambda control	111
3.1	Checking Lambda control	111
3.2	Checking Lambda probe -G39 and Lambda control	111
3.3	Checking Lambda probe heater -Z19	113
3.4	Removing and installing Lambda probe	116
4	Checking fuel tank breather system	117
4.1	Checking fuel tank breather system	117
4.2	Checking activated charcoal filter solenoid valve -N80	117
5	Checking additional signals	122
5.1	Checking additional signals	122
5.2	Checking air-conditioner compressor signal	122
5.3	Checking engine-speed signal	123
5.4	Checking vehicle-speed signal - vehicles for Sweden only	124
5.5	Checking gear signal	126
6	Vacuum diagram	127
6.1	Vacuum diagram	127
28 - Ignition system	129	
1	Checking ignition system	129
1.1	Checking ignition system	129
1.2	Safety precautions	129
1.3	Adjustment data, spark plugs	129
1.4	Servicing ignition system	130
1.5	Basic setting of ignition distributor	134
1.6	Checking ignition transformer -N152	136
1.7	Checking output stage for ignition transformer	138
1.8	Checking coolant temperature sender -G62	142
1.9	Replacing FEI control unit	145
1.10	Checking power supply for FEI control unit	147
1.11	Checking knock sensor	149
1.12	Checking Hall sender -G40	151