



## Contents

<b>01 - Self-diagnosis</b> .....	<b>1</b>
<b>1 Self-diagnosis function, ITT Mark 04 GI</b> .....	<b>1</b>
1.1 Self-diagnosis function, ITT Mark 04 GI .....	1
1.2 Function .....	1
1.3 Arrangement of ABS ITT Mark 04 GI .....	2
1.4 Technical data of self-diagnosis .....	2
1.5 Safety precautions and fundamental points regarding fault finding .....	3
1.6 Fault finding with fault reader V.A.G 1551 or tester VAS 5051 on ABS, ITT Mark 04 GI (flow chart) .....	3
<b>2 Electrical/electronic components and fitting locations</b> .....	<b>5</b>
2.1 Electrical/electronic components and fitting locations .....	5
<b>3 Faults displayed by warning lamps K47 and K118</b> .....	<b>10</b>
3.1 Faults displayed by warning lamps K47 and K118 .....	10
<b>4 Performing self diagnosis</b> .....	<b>11</b>
4.1 Performing self diagnosis .....	11
4.2 Test prerequisites for self-diagnosis .....	11
4.3 Safety precautions .....	11
4.4 Connecting fault reader V.A.G 1551 and selecting functions .....	11
4.5 Connecting Vehicle Diagnosis, Testing and Information System VAS 5051 and selecting ABS control unit .....	14
4.6 List of selectable functions .....	15
4.7 Interrogating fault memory .....	15
4.8 Automatic test sequence .....	16
4.9 Fault table .....	16
4.10 Erasing fault memory, ending output .....	22
4.11 Coding control unit .....	23
4.12 Read measured value block .....	24
4.13 Final control diagnosis .....	27
<b>5 Electrical check of ABS ITT Mark 04 GI</b> .....	<b>34</b>
5.1 Electrical check of ABS ITT Mark 04 GI .....	34
5.2 Test prerequisites .....	35
5.3 Multi-pin connector with contact assignment .....	36
5.4 Test table .....	38
<b>6 Self-diagnosis function ITT Mark 20 GI and ITT Mark 20 IE</b> .....	<b>44</b>
6.1 Self-diagnosis function ITT Mark 20 GI and ITT Mark 20 IE .....	44
6.2 Function .....	44
6.3 Distinguishing features of ABS ITT Mark 20 GI / ITT Mark 20IE and ABS/EDL ITT Mark 20 GI / ITT Mark 20 IE .....	45
6.4 Technical data of self-diagnosis .....	47
6.5 Safety precautions and fundamental points regarding fault finding .....	47
6.6 Fault finding with fault reader V.A.G 1551 or tester VAS 5051 on ABS and ABS/EDL, ITT Mark 20 GI and ITT Mark 20 IE (flow chart) .....	48
<b>7 Electrical/electronic components and fitting locations</b> .....	<b>49</b>
7.1 Electrical/electronic components and fitting locations .....	49
<b>8 Faults displayed by warning lamps K47 and K118</b> .....	<b>57</b>
8.1 Faults displayed by warning lamps K47 and K118 .....	57
<b>9 Performing self diagnosis</b> .....	<b>59</b>
9.1 Performing self diagnosis .....	59
9.2 Test prerequisites for self-diagnosis .....	59
9.3 Safety precautions .....	60
9.4 Connecting fault reader V.A.G 1551 and selecting function .....	60
9.5 Connecting Vehicle Diagnosis, Testing and Information System VAS 5051 and selecting engine electronics control unit .....	63



9.6	List of selectable functions	64
9.7	Interrogating fault memory	64
9.8	Fault table	65
9.9	Erasing fault memory, ending output	71
9.10	Coding control unit	72
9.11	Read measured value block	73
9.12	Initiating basic setting	76
<b>10</b>	<b>Electrical check of ABS, ABS/EDL ITT Mark 20 GI and ITT Mark 20 IE</b>	<b>81</b>
10.1	Electrical check of ABS, ABS/EDL ITT Mark 20 GI and ITT Mark 20 IE	81
10.2	Test prerequisites	82
10.3	Multi-pin connector with contact assignment	83
10.4	Test table	84
<b>11</b>	<b>ITT Mark 30 IE self-diagnosis function</b>	<b>91</b>
11.1	ITT Mark 30 IE self-diagnosis function	91
11.2	Function	91
11.3	Distinguishing features of ABS ITT Mark 30 IE	92
11.4	Technical data of self-diagnosis	93
11.5	Safety precautions and fundamental points regarding fault finding	93
11.6	Fault finding with fault reader V.A.G 1551 or with tester VAS 5051 on ABS, ITT Mark 30 IE (flow chart)	94
<b>12</b>	<b>Electrical/electronic components and fitting locations</b>	<b>95</b>
12.1	Electrical/electronic components and fitting locations	95
<b>13</b>	<b>Faults displayed by warning lamps K47 and K118</b>	<b>100</b>
13.1	Faults displayed by warning lamps K47 and K118	100
<b>14</b>	<b>Performing self diagnosis</b>	<b>101</b>
14.1	Performing self diagnosis	101
14.2	Test prerequisites for self-diagnosis	101
14.3	Safety precautions	101
14.4	Connecting fault reader V.A.G 1551 and selecting function	101
14.5	Connecting Vehicle Diagnosis, Testing and Information System VAS 5051 and selecting engine electronics control unit	104
14.6	List of selectable functions	105
14.7	Interrogating fault memory	105
14.8	Fault table	106
14.9	Erasing fault memory, ending output	112
14.10	Coding control unit	113
14.11	Read measured value block	115
<b>15</b>	<b>Electrical check of ABS ITT Mark 30 IE</b>	<b>119</b>
15.1	Electrical check of ABS ITT Mark 30 IE	119
15.2	Test prerequisites	120
15.3	Multi-pin connector with contact assignment	121
15.4	Test table	123
<b>16</b>	<b>Function of self-diagnosis, ABS/EDL/TCS/ESP ITT Mark 20 IE</b>	<b>130</b>
16.1	Function of self-diagnosis, ABS/EDL/TCS/ESP ITT Mark 20 IE	130
16.2	Function	130
16.3	Allocation of ABS/EDL/TCS/ESP ITT MARK 20 IE	131
16.4	Self-diagnosis technical data	132
16.5	Safety precautions and fundamental points regarding fault finding	132
16.6	Fault finding with fault reader V.A.G 1551 or tester VAS 5051 on ABS/EDL/TCS/ESP ITT Mark 20 IE (flow chart)	133
<b>17</b>	<b>Electrical/electronic components and fitting locations</b>	<b>134</b>
17.1	Electrical/electronic components and fitting locations	134
<b>18</b>	<b>Faults displayed by warning lamps K 47, K118 and K155</b>	<b>145</b>
18.1	Faults displayed by warning lamps K 47, K118 and K155	145
<b>19</b>	<b>Performing self diagnosis</b>	<b>147</b>
19.1	Performing self diagnosis	147



19.2	Test prerequisites for self-diagnosis . . . . .	147
19.3	Safety precautions . . . . .	147
19.4	Connecting fault reader V.A.G 1551 and selecting function . . . . .	147
19.5	Connecting Vehicle Diagnosis, Testing and Information System VAS 5051 and selecting ABS control unit . . . . .	150
19.6	List of selectable functions . . . . .	150
19.7	Interrogating fault memory . . . . .	151
19.8	Fault table . . . . .	152
19.9	Erasing fault memory, ending output . . . . .	163
19.10	Coding control unit . . . . .	164
19.11	Read measured value block . . . . .	165
19.12	Initiating basic setting . . . . .	171
19.13	Login procedure . . . . .	177
<b>20</b>	<b>Electrical check of ABS/EDL/TCS/ESP ITT Mark 20 IE . . . . .</b>	<b>179</b>
20.1	Electrical check of ABS/EDL/TCS/ESP ITT Mark 20 IE . . . . .	179
20.2	Test prerequisites . . . . .	179
20.3	Multi-pin connector with contact assignment . . . . .	180
20.4	Test table (test steps 1 - 16) . . . . .	183
20.5	Test table (test steps 17 - 28) . . . . .	190
<b>21</b>	<b>Definitions . . . . .</b>	<b>199</b>
21.1	Definitions . . . . .	199