This file contains information transposed from the BMW Car Club of Bulgaria forum site (Errors and omissions excluded) –

## ABS 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unidentified Error</td>
</tr>
<tr>
<td>1</td>
<td>ABS Hydro aggregate</td>
</tr>
<tr>
<td>2</td>
<td>Throttle Valve Signal</td>
</tr>
<tr>
<td>3</td>
<td>Ignition Time Error</td>
</tr>
<tr>
<td>4</td>
<td>Rear left speed sensor faulty or ABS inlet valve</td>
</tr>
<tr>
<td>5</td>
<td>Right rear speed sensor faulty or ABS inlet valve</td>
</tr>
<tr>
<td>6</td>
<td>Right front speed sensor faulty or ABS inlet valve</td>
</tr>
<tr>
<td>7</td>
<td>Left front speed sensor faulty or ABS inlet valve</td>
</tr>
<tr>
<td>8</td>
<td>Rear left ABS valve faulty</td>
</tr>
<tr>
<td>9</td>
<td>Rear right ABS valve faulty</td>
</tr>
<tr>
<td>10</td>
<td>Front right ABS valve faulty</td>
</tr>
<tr>
<td>11</td>
<td>Front left ABS valve faulty</td>
</tr>
<tr>
<td>12</td>
<td>Gearbox intervention</td>
</tr>
<tr>
<td>13</td>
<td>Idle speed RPM increasing</td>
</tr>
<tr>
<td>14</td>
<td>Valve relay fault</td>
</tr>
<tr>
<td>15</td>
<td>ABS Back-delivery pump fault</td>
</tr>
<tr>
<td>16</td>
<td>Throttle valve reduction</td>
</tr>
<tr>
<td>17</td>
<td>Front left wheel sensor</td>
</tr>
<tr>
<td>18</td>
<td>Front left wheel sensor</td>
</tr>
<tr>
<td>19</td>
<td>Accumulator pressure limit</td>
</tr>
<tr>
<td>20</td>
<td>Front left wheel sensor or EGS intervention error</td>
</tr>
<tr>
<td>21</td>
<td>Front left wheel sensor or ABS/ASC control unit defect</td>
</tr>
<tr>
<td>22</td>
<td>Speed signal sensor faulty</td>
</tr>
<tr>
<td>23</td>
<td>Equipment error (Automatic/Manual)</td>
</tr>
<tr>
<td>24</td>
<td>Incorrect gear wheel on one of the four wheels</td>
</tr>
</tbody>
</table>
25  Line interruption – brake light switch
27  Idle speed feedback signal
30  Left rear wheel speed sensor cable
31  Right rear wheel speed sensor cable
32  Right front wheel speed sensor cable
33  Left front (E38/E39) or Right (E46) wheel speed sensor cable
34  Wheel sensor, front right or ASC switch over valve
35  Brake fluid level signal error
36  Front right wheel sensor or ignition signal error
37  Front right wheel sensor or ABS/ASC Control unit internal error
38  Gas valve adjustment error
39  Servo motor electrical error
40  Gas valve potentiometer error
41  Steering angle error
47  Fault, outlet valve, rear left
48  Fault, outlet valve, rear right
49  Wheel sensor, rear left or outlet valve front right
50  Wheel sensor, rear left or outlet valve front left
51  Fault, inlet valve, rear left
52  Wheel sensor rear left or inlet valve rear right
53  Wheel sensor rear left or inlet valve front right
54  Fault, inlet valve, front left
55  Fault, ASC shutoff valve
56  CAN Error (short circuit)
57  Throttle valve signal from the DME faulty
58  CAN Error (Open circuit to DME)
59  Fault, ASC shutoff valve
60  Signal, terminal 30 faulty
61 Central blocking
62 Max. ABD adjustment time
63 Processor fault in the control unit
64 Continuous control due to undefined signal interference
65 Wheel sensor rear right or bad feedback signal
66 Wheel sensor rear right or wheel speed sensor power supply
67 CAN Error
68 Wheel sensor rear right
69 Wheel sensor rear right
75 ASC indicator lamp
81 Inlet valve front left
82 Inlet valve front right
83 Inlet valve rear left
84 Inlet valve rear right
85 Outlet valve front left
86 Outlet valve front right
87 Outlet valve rear left
88 Outlet valve rear right
89 Power supply too low
90 Time limitation: passive switching
91 CAN Error
92 Pressure sensor (pre charging pump)
94 RPM sensor (Test)
95 Activation
96 Actuator test
97 ASC intake valve / Steering angle sensor
98 Separate valve
99 Electromagnetic switch over valve
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Electromagnetic switch over valve</td>
</tr>
<tr>
<td>103</td>
<td>Brake light switch</td>
</tr>
<tr>
<td>104</td>
<td>Steering angle sensor</td>
</tr>
<tr>
<td>105</td>
<td>Brake light switch</td>
</tr>
<tr>
<td>106</td>
<td>Lateral acceleration sensor</td>
</tr>
<tr>
<td>107</td>
<td>RPM sensor (Gradient)</td>
</tr>
<tr>
<td>113</td>
<td>ABS/ASC feed back pump</td>
</tr>
<tr>
<td>115</td>
<td>ABS/ASC control unit internal error</td>
</tr>
<tr>
<td>118</td>
<td>Electromagnetic or mechanical influence on the wheel speed signals</td>
</tr>
<tr>
<td>120</td>
<td>Power supply voltage too high (&gt;18V)</td>
</tr>
<tr>
<td>129</td>
<td>ABS/ASC Main relay circuit faulty</td>
</tr>
<tr>
<td>130</td>
<td>Power supply fault at the magnetic valves</td>
</tr>
<tr>
<td>131</td>
<td>Wrong current at magnetic valves</td>
</tr>
<tr>
<td>133</td>
<td>Power supply &gt; too high</td>
</tr>
<tr>
<td>145</td>
<td>CAN chip in the ABS/ASC control unit</td>
</tr>
<tr>
<td>146</td>
<td>CAN Error</td>
</tr>
<tr>
<td>147</td>
<td>CAN Error – engine intervention</td>
</tr>
<tr>
<td>148</td>
<td>CAN Error – engine speed (RPM)</td>
</tr>
<tr>
<td>149</td>
<td>CAN Error – DME/DDE connection</td>
</tr>
<tr>
<td>150</td>
<td>CAN Error – EGS</td>
</tr>
<tr>
<td>151</td>
<td>Coding Error</td>
</tr>
<tr>
<td>152</td>
<td>DSC button</td>
</tr>
<tr>
<td>161</td>
<td>RPM sensor</td>
</tr>
<tr>
<td>162</td>
<td>RPM Signal</td>
</tr>
<tr>
<td>163</td>
<td>Lateral acceleration sensor</td>
</tr>
<tr>
<td>164</td>
<td>Lateral acceleration sensor</td>
</tr>
<tr>
<td>165</td>
<td>Pressure sensor 1</td>
</tr>
<tr>
<td>166</td>
<td>Pressure sensor 2</td>
</tr>
</tbody>
</table>
Pressure sensors
Pressure sensors power supply
Pre charge pump
Pre charge pump
Steering angle sensor (signal 1)
Steering angle sensor (identification)
Steering angle sensor (CAN)
Steering angle sensor (internal)
Steering angle sensor (offset)

ABS 2

0  Unidentified error – erase the error memory

2  EML interface fault – Check the connecting lines from Pins 6, 8 & 14 of the EML. If the fault cannot be located, reset the error memory and run an EGS Diagnostic check.

3  DME interface fault – Check control line Pin Check the size of tyres on all rims, check wheel bearing clearance, pulse wheels, rotational speed sensor (visual check for damage and dirt) 39 to the DME

4  Sensor fault rear left – Check the size of tyres on all rims, check wheel bearing clearance, pulse wheels, rotational speed sensor (visual check for damage and dirt)

5  Sensor fault rear right – Check the size of tyres on all rims, check wheel bearing clearance, pulse wheels, rotational speed sensor (visual check for damage and dirt)

6  Sensor fault front right – Check the size of tyres on all rims, check wheel bearing clearance, pulse wheels, rotational speed sensor (visual check for damage and dirt)

7  Sensor fault front left – Check the size of tyres on all rims, check wheel bearing clearance, pulse wheels, rotational speed sensor (visual check for damage and dirt)

8  ABS valve fault rear left – Check the plug and socket connection on the ABS hydraulic aggregates for correct seating and corrosion. Check the wire from Pin 2 of the ABS/ASC unit to Pin 5 of the ABS hydraulic aggregate. If no fault is found, erase the stored fault codes and re-diagnose. If fault reoccurs replace the control unit.
9 ABS valve fault rear right – Check the plug and socket connection on the ABS hydraulic aggregates for correct seating and corrosion. Check the wire from Pin 36 of the ABS/ASC unit to Pin 7 of the ABS hydraulic aggregate. If no fault is found, erase the stored fault codes and re-diagnose. If fault reoccurs replace the control unit.

10 ABS valve fault front right – Check the plug and socket connection on the ABS hydraulic aggregates for correct seating and corrosion. Check the wire from Pin 22 of the ABS/ASC unit to Pin 3 of the ABS hydraulic aggregate. If no fault is found, erase the stored fault codes and re-diagnose. If fault reoccurs replace the control unit.

11 ABS valve fault front left – Check the plug and socket connection on the ABS hydraulic aggregates for correct seating and corrosion. Check the wire from Pin 19 of the ABS/ASC unit to Pin 1 of the ABS hydraulic aggregate. If no fault is found, erase the stored fault codes and re-diagnose. If fault reoccurs replace the control unit.

12 Plunger valve fault rear left – Check supply voltage on the magnetic valve is 12v. Check magnetic valve for visible damage and corrosion, if damaged replace the magnetic valve.

13 Plunger valve fault – Check supply voltage on the magnetic valve is 12v. Check magnetic valve for visible damage and corrosion, if damaged replace the magnetic valve.

14 ABS valve relay fault - Reset the fault code and test drive the vehicle before re-diagnosing. If fault code resets check the valve relay for correct seating and contacts for corrosion. Check relay operation by switching ignition on and off to ensure relay pulls in and check supply voltage at valve relay.

15 Rear feed pump fault - Check engine relay for correct seating and contacts for corrosion. Check ABS hydraulic aggregates earth connection and earth connection and function of pump motor.

16 ASC+T storage load valve fault – Check function of magnetic valve plunger on hydraulic aggregate.

17 Wheel sensor front/Inlet valve front left – Check connection between valve and master relay and that master relay and valve are functioning properly.

18 Wheel sensor outlet/valve front left - Check connection between valve and master relay and that master relay and valve are functioning properly.

20 Wheel sensor/inlet valve front right - Check connection between valve and master relay and that master relay and valve are functioning properly.

24 Wheel sensor/outlet valve front right - Check connection between valve and master relay and that master relay and valve are functioning properly.

33 Wheel sensor/Inlet valve rear left - Check connection between valve and master relay and that master relay and valve are functioning properly.

34 Wheel sensor/outlet valve rear left - Check connection between valve and master relay and that master relay and valve are functioning properly.
36  Inlet valve rear right
37  Front right wheel speed sensor
40  Rear output valve function
49  Power supply to magnetic valves
50  Throttle valve mechanical defect
56  ASC separate valve function faulty
65  ASC computer faulty
66  DME RPM signal faulty
68  Control unit defect – Replace ABS control unit
72  Internal fault – Replace ABS control unit
81  Rotational speed sensor front left - Check connection between rotational speed sensor and control unit for short circuits or a broken connection
82  Rotational speed sensor front right - Check connection between rotational speed sensor and control unit for short circuits or a broken connection
84  Rotational speed sensor rear left - Check connection between rotational speed sensor and control unit for short circuits or a broken connection
88  Rotational speed sensor rear right - Check connection between rotational speed sensor and control unit for short circuits or a broken connection
97  Rotational speed signal front left – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor possibly defective.
98  Rotational speed signal front right – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor possibly defective.
100 Rotational speed signal rear left – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor possibly defective.
104 Rotational speed signal rear right – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may
Rotational speed information front left – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor possibly defective.

Rotational speed information front right – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor possibly defective.

Rotational speed information rear left – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor possibly defective.

Rotational speed information rear right – Check plug and socket connections of rotational speed sensor. Check air-gap between rotational speed sensor and pulse wheel and reduce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor possibly defective.

DME connection faulty
Throttle valve potentiometer
Pedal travel sensor - Check for sensor defect short circuits and/or interruption to power supply
Valve power supply voltage too high
Fault in brake hydraulic system – Check for leaks or air in brake hydraulic system.
Failure in pump power supply – Check lines to the ABS control unit and pump motor relay. Check ABS master relay for short circuit and/or interruption to power supply. Fault may result from one or all of the above conditions.
Coding fault
Motor temperature over CAN Bus
Hydraulic pedal travel sensor – Check brake system for leaks and/or air in system. Check pedal travel sensor for intermittent contact.
Outlet valve front left or front left RPM sensor – Check inlet and outlet valve connections for tightness. Ensure that rotational speed sensors have not been mixed up and if necessary, replace outlet valve.
Outlet valve front right or front right RPM sensor – Check inlet and outlet valve connections for tightness. Ensure that rotational speed
sensors have not been mixed up and if necessary, replace outlet valve.

164 Outlet valve rear left or rear left RPM sensor – Check inlet and outlet valve connections for tightness. Ensure that rotational speed sensors have not been mixed up and if necessary, replace outlet valve.

168 Outlet valve rear right or rear right RPM sensor – Check inlet and outlet valve connections for tightness. Ensure that rotational speed sensors have not been mixed up and if necessary, replace outlet valve.

177 Fault valve load circuit fuse – Check ABS circuit fuses and relay

184 CAN Error

193 DME ignition signal faulty

255 Accumulator fault – Replace control unit.

**ABS3**

5d90 Left front wheel speed sensor; accident recognition

5d91 Left front wheel speed sensor; extrapolation

5d92 Left front wheel speed sensor; periodical control

5d93 Left front wheel speed sensor; accident recognition

5d94 Left front wheel speed sensor; long term control

5dA0 Right front wheel speed sensor; accident recognition

5dA1 Right front wheel speed sensor; Extrapolation

5dA2 Right front wheel speed sensor; periodical control

5dA3 Right front wheel speed sensor; accident recognition

5dA4 Right front wheel speed sensor; long term control

5dB0 Left rear wheel speed sensor; accident recognition

5dB1 Left rear wheel speed sensor; extrapolation

5dB2 Left rear wheel speed sensor; periodical control

5dB3 Left rear wheel speed sensor; accident recognition

5dB4 Left rear wheel speed sensor; long term control
5dC0  Right rear wheel speed sensor; accident recognition
5dC1  Right rear wheel speed sensor; extrapolation
5dC2  Right rear wheel speed sensor; periodical control
5dC3  Right rear wheel speed sensor; accident recognition
5dC4  Right rear wheel speed sensor; long term control
5dF0  Pump engine
5dF2  Internal error Valve/ECU Hardware error, ROM/RAM check
5dF4  Power Supply < 9 volts
5dF5  Control unit internal error
5dF7  Power supply > 18 volts
5e00  Tyre test active
5e01  Tyre test timeout
5e02  Tyre test gyration sensor justification error
5e03  Tyre test gyration sensor error
5e04  Tyre test lateral acceleration sensor error
5e05  Tyre test lateral acceleration sensor error and gyration sensor
5e06  Tyre test gyration sensor wrong construction
5e07  Tyre test lateral acceleration sensor error and gyration sensor wrong construction
5e08  Tyre test steering wheel sensor error
5e11  Internal error CAN Controller
5e14  CAN Timeout DME/DDE
5e15  CAN Timeout EGS
5e16  CAN Timeout Instrument Cluster
5e18  CAN DME/DDE message faulty
5e19  CAN DME/DDE
5e1A  CAN DME/DDE Signal Error
5e1E  CAN Timeout LWS
5e1F  Steering wheel sensor; not initialized
5e59  Coding error
5e5B  Switch pressed longer than 10 seconds or faulty
5e5D  Brake fluid level switch
5e5E  Brake light switch
5e20  Pressure sensor 1 accident recognition
5e21  Pressure sensor 2 accident recognition
5e24  Pressure sensors not plausible; pressure sensor 1 / 2 not plausible
5e26  Sensor power supply
5e2F  Temperature sensor
5e30  Lateral acceleration sensor accident recognition
5e32  Lateral acceleration signal not plausible
5e38  Wheel speed sensor accident recognition
5e3C  Wheel speed not plausible
5e40  Lateral acceleration signal not plausible, offset
5e43  Lateral acceleration internal error
5e4E  DSC sensor offset check
5e4F  Long time regulation DSC