85 Outlet valve front left

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ABS 1
   Unidentified Error
1
   ABS Hydro aggregate
   Throttle Valve Signal
3
    Ignition Time Error
    Rear left speed sensor faulty or ABS inlet valve
    Right rear speed sensor faulty or ABS inlet valve
   Right front speed sensor faulty or ABS inlet valve
   Left front speed sensor faulty or ABS inlet valve
   Rear left ABS valve faulty
8
   Rear right ABS valve faulty
10 Front right ABS valve faulty
11 Front left ABS valve faulty
12 Gearbox intervention
13 Idle speed RPM increasing
14 Valve relay fault
15 ABS Back-delivery pump fault
   Throttle valve reduction
16
17 Front left wheel sensor
18 Front left wheel sensor
19 Accumulator pressure limit
20 Front left wheel sensor or EGS intervention error
21 Front left wheel sensor or ABS/ASC control unit defect
22 Speed signal sensor faulty
23 Equipment error (Automatic/Manual)
   Incorrect gear wheel on one of the four wheels
   Line interruption brake light switch
27 Idle speed feed back 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
   Wheel sensor rear left or inlet valve rear right
52
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
   Inlet valve front right
83 Inlet valve rear left
84 Inlet valve rear right
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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)
     Activation
 96 Actuator test
 97 ASC intake valve / Steering angle sensor
 98 Separate valve
 99 Electromagnetic switch over valve
 100 Electromagnetic switch over valve
 103 Brake light switch
 104 Steering angle sensor
 105 Brake light switch
 106 Lateral acceleration sensor
  107 RPM sensor (Gradient)
 113 ABS/ASC feed back pump
 115 ABS/ASC control unit internal error
 118 Electromagnetic or mechanical influence on the wheel speed signals
 120 Power supply voltage too high (>18V)
 129 ABS/ASC Main relay circuit faulty
 130 Power supply fault at the magnetic valves
 131 Wrong current at magnetic valves
 133 Power supply > too high
 145 CAN chip in the ABS/ASC control unit
 146 CAN Error
 147 CAN Error engine intervention
148 CAN Error engine speed (RPM)
 149 CAN Error DME/DDE connection
 150 CAN Error EGS
 151 Coding Error
 152 DSC button
 161 RPM sensor
 162 RPM Signal
 163 Lateral acceleration sensor
  164 Lateral acceleration sensor
 165 Pressure sensor 1
 166 Pressure sensor 2
 167 Pressure sensors
 168 Pressure sensors power supply
 177 Pre charge pump
 178 Pre charge pump
 180 Steering angle sensor (signal 1)
 181 Steering angle sensor (identification)
 182 Steering angle sensor (CAN)
 183 Steering angle sensor (internal)
 184 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 t
+ he 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, chec
+ k wheel bearing clearance, pulse wheels, rotational speed sensor (visual check for damag
 e and dirt) 39 to the DME
  4 Sensor fault rear left - Check the size of tyres on all rims, check wheel bearing clea
 rance, 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 clea
 rance, 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 cle
+ arance, 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 cle
+ arance, 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 u + nit to Pin 5 of the ABS hydraulic aggregate. If no fault is found, erase the stored faul
+ t 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
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86 Outlet valve front right

- 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 fa
- + ult 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 hydraul + ic aggregates for correct seating and corrosion. Check the wire from Pin 22 of the ABS/A
- + SC 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 hydrauli
- + c aggregates for correct seating and corrosion. Check the wire from Pin 19 of the ABS/AS + C unit to Pin 1 of the ABS hydraulic aggregate. If no fault is found, erase the stored f
- ault 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. Ch + eck magnetic valve for visible damage and corrosion, if damaged replace the magnetic val
- 13 Plunger valve fault Check supply voltage on the magnetic valve is 12v. Check magnet
- + ic 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-dia
- + gnosing. 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 corros
- + ion. Check ABS hydraulic aggregates earth connection and earth connection and function o
- f pump motor.
- 16 ASC+T storage load valve fault Check function of magnetic valve plunger on hydrauli
- c 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 rela
- y and that master relay and valve are functioning properly.
- 20 Wheel sensor/inlet valve front right Check connection between valve and master rela
- + y and that master relay and valve are functioning properly.
- 24 Wheel sensor/outlet valve front right Check connection between valve and master rel
- + ay 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 senso
- r 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 i
- + f necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor p
- ossibly 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 i
- + f necessary. Pulse wheel may have incorrect number of teeth or rotational speed sensor p
- + ossibly 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 have incorrect number of teeth or rotational speed sensor
- + possibly defective.

- 113 Rotational speed information front left Check plug and socket connections of rotat + ional speed sensor. Check air-gap between rotational speed sensor and pulse wheel and re + duce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed se + nsor possibly defective.
- 114 Rotational speed information front right Check plug and socket connections of rota + tional speed sensor. Check air-gap between rotational speed sensor and pulse wheel and r + educe if necessary. Pulse wheel may have incorrect number of teeth or rotational speed s
- + ensor possibly defective.
- 116 Rotational speed information rear left Check plug and socket connections of rotati + onal speed sensor. Check air-gap between rotational speed sensor and pulse wheel and red
- + uce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed sen + sor possibly defective.
- 120 Rotational speed information rear right Check plug and socket connections of rotat + ional speed sensor. Check air-qap between rotational speed sensor and pulse wheel and re
- + duce if necessary. Pulse wheel may have incorrect number of teeth or rotational speed se + nsor possibly defective.
 - 129 DME connection faulty
 - 130 Throttle valve potentiometer
- 132 Pedal travel sensor Check for sensor defect short circuits and/or interruption to + power supply
 - 133 Valve power supply voltage too high
 - 136 Fault in brake hydraulic system Check for leaks or air in brake hydraulic system.
 - 145 Failure in pump power supply Check lines to the ABS control unit and pump motor re
- + lay. Check ABS master relay for short circuit and/or interruption to power supply. Fault + may result from one or all of the above conditions.
 - 146 Coding fault
 - 148 Motor temperature over CAN Bus
 - 152 Hydraulic pedal travel sensor Check brake system for leaks and/or air in system. C
- + heck pedal travel sensor for intermittent contact.
- 161 Outlet valve front left or front left RPM sensor Check inlet and outlet valve conn + ections for tightness. Ensure that rotational speed sensors have not been mixed up and i
- + f necessary, replace outlet valve.
- 162 Outlet valve front right or front right RPM sensor Check inlet and outlet valve co + nnections 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 connec + tions 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 conn + ections for tightness. Ensure that rotational speed sensors have not been mixed up and i
- + f 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

- 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
- 5dAO 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

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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
5ell 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
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
5e59 Coding error
5e5B Switch pressed longer than 10 seconds or faulty
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5e5D Brake fluid level switch

5e5E Brake light switch