





If you are reading codes from specific BMW modules, you may find you get a code. Most of BMW diagnostic softwares like DIS, INPA, EDIABAS, IBUS, CANBUS, CARSOFT, give an error code but no or limited explanation.

If you don't recognise the codes, this list will help you. The code reader or diagnostic tool will ask the module for any stored codes, and it will receive a number in hex format.

Hex format is a hexadecimal number, used by computers to count in base 16, so there are 16 numbers before "10", instead of our ten. The extra numbers are A,B,C,D,E and F. 0-10 in hex is 1,2,3,4,5,6,7,8,9,A,B,C,D,E,F,10, but Hex's 10 is Decimal's 15.

**To search for your code, follow the list below, or press ctrl+f to search within this page.**

will jump you to the correct section.

All codes from DDE4 onwards are listed as the HEX value. All codes before that here are decimal

## BMW DME M1.1, M1.2, and M1.3

The BMW DME M1.1 (and similar, 1.2 and 1.3) is an early Bosch Motronic ECU, used on all of the 6 Cylinder BMWs up until 1990, and a few more after that.

M1.1 and M1.3 was used on the M20, M30 and M40 engines, whilst M1.2 was used on the S38 and M70, which are the early E34 M5 engines and the early V12s.

# **BMW DME M1.7, M1.7.1, M1.7.2, M3.1 and M3.3**

The Motronic 1.7 and subfamilies, and the M3 and its variants are the next generation of BMW ECUs. The M1.7 was used on the M40, M42 and M70, the M1.7.1

was used solely for the S70, used in the BMW 850CSi. M1.7.2 was used for the M42 and M43 4 Cylinders. The M3.1 is a 6cyl ECU, used on the early M50 24v engines without VANOS. The M3.3 family were used to run the later 3.8 litre S38b38, the S50 3.0 M3, and the M60 V8s. M3.3.1 included VANOS control, and is used on M50 engines with VANOS, introduced to the E34 and E36 in 1992.

## **BMW MS40**

MS40 was a new ECU for BMW, manufactured by Siemens instead of the previous Bosch Motronics. BMW split the M50 24v engines and used Siemens for some of the 2.0 litres, and Bosch continued on with the 2.5l.

MS40.0 is a rare ECU used on non VANOS 2.0l, and MS40.1 introduced VANOS control.

## **MS41, MS42 and MS43**

The next generation Siemens MS ECUs introduced many of the OBD2 features. This includes Catalytic Converter monitoring and Long / Short term Fueling and Ignition Adaptation. The MS41 was used on the M52 series of engines, MS42 on the M52TU series, and MS43 on the M43 4 Cylinders.

The OBD2 P codes fault protocol was not activated in European markets on this group, as currently it was not required by law.

## **MSS50**

The MSS50 is a special ECU designed solely for the European E36 M3 3.2. Designed by Siemens, it integrates full Vanos control for both Intake and Exhaust Cams inside a single ECU, unlike the previous M3.3 which required a separate VNC Vanos Controller

## **MSS52 and MSS54**

The MSS52 is an M Power ECU designed to run the E39 M5, the Z8 Roadster, and also the Wiesmann Roadsters. The MSS54 is used on the E46 M3 and on some Z3Ms. The system uses an Electronic Throttle to accurately control Air intake instead of the more common Cable throttles used on earlier vehicles

## **DME M5.2 and M5.2.1**

DME M5.2 and M5.2.1 are Bosch ECUs, used on the M44 4cyl engine, and the M62 V8, and the M72 V12

## **BMS43 and BMS46**

The Bosch BMS46 is a Hybrid ECU, created from a joint effort with Siemens, and is used in later M43 engines used in the Z3 and E46 series.

## **DME 7.2**

The Bosch DME 7.2, also known as ME7.2, can be found on a number of V8 Petrol engines, used in the 5 and 7 Series amongst others. It uses Torque modeling to control the engine torque output depending on Throttle Pedal Position.

## **DME 9**

DME 9 or ME9 is used on Valvetronic BMW engines. Valvetronic removes the need for a throttle butterfly, passing air control directly onto fully controllable valves.

## **DDE 1**

The first series of Diesel engines used the DDE1 control unit, and was found in the M21 powered E30 324d and td, and the E28 524d and 524td. It also found its way into a few rare Lincoln Continentals.

## **DDE 2 and DDE 2.1**

DDE stands for Digital Diesel Electronics, and these were used on BMW's Diesel engines. DDE2 is used on M41 and M51 engines. DDE 2.1 uses an updated Air Mass Meter with an Internal Air Temperature Sensor, whilst DDE2 has a separate sensor in the manifold.

## **DDE 2.2**

This is an Updated version of the previous DDE 2.1, and was introduced in 1995. This system was used on the M51TU engines.

## **DDE 3**

DDE 3 is the BMW name for the ECUs used on the M47 range on Diesel engines, also known as the Bosch EDC15. These are 4 Cylinder diesels, used in the E46 320d, and uses Common Rail Injection. Common Rail systems use a high pressure fuel rail with diesel injectors, as opposed to the mechanical injection systems, or the PD (Pumpe Düse) system where each injector also acts as a high pressure pump.

## **DDE 4 and DDE 4.1**

DDE4 is another Common Rail system, using the EDC15 range of Bosch ECUs. DDE4 is seen in the M57 range of 6 Cylinder engines, from 2.5 to 3.0l displacement, and the DDE4.1 was used in a twin Master / Slave arrangement in the M67 V8 diesels, with each ECU controlling one bank of the engine.

# DDE 5, DDE 6, DDE 6.2 and DDE 6.3

DDE5 is another update to the M57 and M67 diesel engine control range. DDE5 is a second generation Common rail system with Rail pressures increasing from 1350bar in DDE4 to an amazing 1600bar, and is also known as Bosch EDC16, and complies with the European EU3 emissions standard. DDE 6 is used on M57 and M67 engines from 2005, using the same 1600 bar Common Rail System, and now meeting the European EU4 emissions standard.

## Body Modules

### ABS 1 Teves

The first BMW ABS system, This was a 3 channel system, controlling braking to the front wheels, and a single line for both rear wheels. The wheel speed info could be passed via data lines to traction control systems, which could determine if the vehicle speed signal given from the rear driven axle did not match with the front wheel speed signals and request torque reduction intervention from the ASC (Anti Skid Control) throttle body.

### ABS 2 Teves

The updated version of BMW's ABS system, this was more advanced. Improvements include a 4 channel system for independent rear wheel braking, which allowed a more active ASC system. With individual braking, not only could a torque reduction be requested via the ASC secondary throttle body, but independent wheel braking could be used to control individual wheel slip as part of a stability program.

### ABS 3 / DSC

The ABS 3 system added yet more features to the previous systems, such as individual wheel speed comparison over long terms. Gathering the wheel rotation data, and comparing it is accurate enough to identify differences in tyre tread wear, but its main use was as part of a tyre pressure monitoring system. Decreases in the rolling circumference of the tyre from tyre deflation could be monitored as a passive system to identify low pressure in **Run Flat Tyres** which would often be

hard to notice otherwise.

## BMW Code Database

### DME M1.1, M1.2 and M1.3

#### Decimal

- 1 DME Fault
- 3 Fuel Pump Relay EKP
- 4 Idle Speed Controller
- 5 EVAP Canister Valve
- 6 Air Flow Sensor
- 7 Air Flow Sensor
- 8 “CHECK ENGINE” Light
- 10 Lambda Regulation
- 12 Lambda Sensor
- 15 “CHECK ENGINE” Light Failure
- 16 Injectors Cyl 1,3,5
- 17 Injectors Cyl 2,4,6
- 22 Idle Speed Controller
- 23 Lambda Sensor Heating, or Aux Air Pump Relay
- 28 Lambda Sensor
- 29 Vehicle Speed Sensor (VSS)
- 32 Injectors 2/4
- 33 Solenoid Valve Kickdown (Automatic Transmission)
- 37 System Voltage
- 38 ASC/DWA (EML Vehicles)
- 40 AirCon Compressor
- 43 Idle Speed Setting – CO Adjustor
- 44 Inlet Air Temperature Sensor
- 45 Coolant Temperature Sensor
- 50 Engine Torque Regulation (EML)
- 51 Ignition Angle Regulation (EML)
- 52 Idle Speed Switch
- 53 Wide Open Throttle (WOT) Switch
- 54 Torque Converter Lockup Clutch
- 55 Ignition System
- 100 DME Control Unit Final Stage
- 101 DME Plausibility – Engine Inoperable
- 252 DME Control Unit
- 255 DME Control Unit -Internal Error
- **DME M1.7, M1.7.1, M1.7.2, M3.1 and M3.3**

#### Decimal

- 1 Fuel Pump Relay or RPM Signal
- 2 Idle-Speed Controller
- 3 Injectors (4cyl-1,3; 6/8cyl-1,5; 12cyl 2,4,6 or 8,10,12)

- 4 Injectors (DME 3.3.1 Cyl 4,6)
- 5 Injectors (DME 3.3.1 Cyl 3,5)
- 6 Injectors- General
- 7 VANOS Relay or Injector cyl6 (DME 1.7.2)
- 8 “CHECK ENGINE” Light Failure
- 12 TPS or Lambda Sensor (M3.3.1)
- 13 Lambda Probe
- 15 Knock Sensor 1 (DME 1.7/DME 3.1)or Ignition Fault (DME 1.7.2)
- 16 Ignition System or Cam/Crank Position Sensor
- 17 Cam Position Sensor
- 18 DISA Valve (DME 1.7.2)
- 19 Electric Fan Output Stage
- 20 Cruise Control
- 22 Ignition Fault Cyl 7
- 23 Ignition Fault Cyl 4 or 6
- 24 Ignition Fault Cyl 4 or 6
- 25 Ignition Fault Cyl 1 or 5
- 26 Voltage Supply
- 29 Idle Speed Controller
- 31 Injector on Cyl 3 or 5
- 32 Injectors (4cyl 2/4; 6cyl 2/6; 8cyl 8/2; 12cyl 1,3,5 or 7,9,11)
- 33 Injector on Cyl 1 or 3
- 35 Injector on Cyl 2
- 36 EVAP Canister Valve
- 37 Lambda Heater Relay
- 38 Lambda Heater Relay
- 41 Air Flow Sensor
- 42 Speed Signal or Knock Sensor 2 (DME 1.7.x or 3.3.1)
- 46 Electric Fan
- 48 AirCon Compressor Shut Off Relay
- 49 Injector on Cyl 2
- 50 Ignition Fault on Cyl 1 or 3
- 51 Ignition Fault on Cyl 2 or 8
- 52 Ignition Fault on Cyl 5 or 3
- 54 Voltage Supply
- 55 Ignition (Final Stage)
- 62 Signal (EML)
- 63 Torque Converter Lockup Clutch
- 64 EGS/DME Connection Error
- 65 AirCon Compressor
- 66 Theft Warning System (DWA)
- 67 Crank Position Sensor or Knock Sensor 4 (DME 3.3)
- 68 Knock Sensor 3
- 69 Knock Sensor 2
- 70 Lambda Sensor (DME 1.7.x or 3.1) or Knock Sensor 1
- 73 Vehicle Speed Signal (VSS) or TPS
- 76 Idle Speed Setting – CO Adjustor
- 77 Intake Air Temperature Sensor
- 78 Coolant Temperature Sensor
- 81 Theft Warning System (DWA)
- 82 MSR Engine Torque Regulation or AirCon Compressor (1.7.2)
- 83 ASC (EML)

- 85 AirCon Compressor Relay
- 100 Amplifier 1 in DME Control Unit
- 101 Amplifier 2 in DME Control Unit
- 150 Knock Sensor 1
- 151 Knock Sensor 2
- 152 Knock Control
- 153 Knock Control Voltage
- 200 DME Control Unit
- 201 Lambda Regulation
- 202 Control unit
- 203 Ignition system or Lambda Sensor
- 204 Idle Speed (EML)
- 205 Ignition Timing Intervention
- 206 Knock Control Test Pulse/Control Modules
- 207 Knock Control Regulated Voltage
- 210 CAN Interface
- 220 EWS 2 Immobilisation
- 252 EVAP Canister Valve
- 255 Control Unit -Internal error
- 333 Control Unit -Internal error
- **MS40**

### Decimal

- 1 Ignition Fault Cylinder 1
- 2 Ignition Fault Cylinder 3
- 3 Ignition Fault Cylinder 5
- 5 Injector Fault Cylinder 6
- 6 Injector Fault Cylinder 4
- 8 Park/Neutral Switch
- 9 AirCon Compressor
- 10 AirCon Pressure Switch
- 12 Vehicle Speed Signal
- 14 EGS/DME Connection Error
- 15 EWS
- 22 Injector Fault Cylinder 3
- 23 Injector Fault Cylinder 1
- 24 AirCon Compressor
- 25 Vanos
- 27 Idle Speed Controller
- 29 Ignition Fault Cylinder 2
- 30 Ignition Fault Cylinder 4
- 31 Ignition Fault Cylinder 6
- 33 Injector Fault Cylinder 5
- 49 Power Supply Control Unit
- 50 Injector Fault Cylinder 2
- 51 Tank Ventilation
- 52 Fuel Pump
- 53 Lambda Sensor Heater
- 62 Ignition Signal Resistor
- 63 Knock Sensor Fault Bank 2
- 64 Knock Sensor Fault Bank 1



- 68 Air Flow Sensor (HFM)
- 75 Lambda Sensor Voltage
- 77 TPS
- 79 Cam Position Sensor
- 81 Coolant Temperature Sensor
- 84 Camshaft Sensor
- 85 Intake Air Temperature Sensor
- 97 Tank Ventilation Valve
- 98 Idle Speed Controller
- 99 Lambda Regulation
- 100 Control Unit Fault
- 200 Lambda Sensor Control
- 201 Idle Speed Controller
- 203 TPS
- 204 Ignition Signal Resistor
- 206 Vanos Mechanical Fault
- 207 Vehicle Speed Signal VSS
- 209 EWS Intervention
- **MS41, MS42 and MS43**

### Decimal

- 1 Ignition coil Cyl 2
- 2 Ignition coil Cyl 4
- 3 Ignition coil Cyl 6
- 5 Fuel injector Cyl 2
- 6 Fuel injector Cyl 1
- 8 Air Flow Meter (HFM)
- 10 Coolant Temperature Sensor
- 11 Tank Pressure Sensor (EVAP System) or Radiator Outlet Temp (MS43)
- 12 TPS or Plausibility – Maximum Coolant Temp (MS43)
- 13 Plausibility- Radiator Outlet Temp
- 14 Intake Air Temperature Sensor
- 15 Plausibility – Cut Out Time
- 16 AirCon Compressor – PWM Signal or Plausibility Intake Air Temp (MS43)
- 17 Plausibility – Engine Coolant Temp
- 18 EWS Signal or Camshaft Sensor (MS43)
- 19 Activation VANOS Inlet Valve or Exhaust Valve (MS43)
- 20 “CHECK ENGINE” Light Failure
- 21 VANOS -Electrical Fault or Activation VANOS Inlet Valve (MS43)
- 22 Fuel Injector Cyl 3
- 23 Fuel Injector Cyl 6
- 24 Fuel Injector Cyl 4
- 25 Lambda Sensor Heater -Bank 1
- 27 Idle Control Valve – Malfunction
- 29 Ignition Coil Cyl 1
- 30 Ignition Coil Cyl 3
- 31 Ignition Coil Cyl 5
- 33 Fuel Injector Cyl 5
- 35 Aux. Air Injection System Relay
- 36 DME Main Relay
- 37 DME Main Relay : Delay

- 38 Clutch Switch -Plausibility
- 39 Brake Light Switch or Brake Light Test Switch
- 40 Brake Light Switch or Pedal Value Signal
- 42 Multi Function Steering Wheel- Plausibility
- 43 Multi Function Steering Wheel: Button
- 45 Multi Function Steering Wheel: Port
- 47 Temp Sensor -Downstream of Pre-Cat or Torque Limitation Level 1 (MS43)
- 48 DME Control Unit -Self Test 1
- 49 DME Control Unit or Torque Monitoring Level 2 (MS43)
- 50 EVAP Control Valve or Response Monitoring Level 2 (MS43)
- 51 Shut-off Valve -Charcoal Filter or Request Control Unit Reset (MS43)
- 52 Solenoid Valve -Exhaust Flap
- 53 Idle Speed Actuator
- 55 Lambda Sensor Heater -Bank 2
- 56 Ignition Current Feedback Resistor – Open Circuit
- 57 Knock sensor -Bank 1
- 58 DME Control Unit -Self Test 2
- 59 Knock Sensor -Bank 2
- 61 Lambda Sensor Heater -Bank 2 Post Cat
- 62 Aux. Air Injection System -Switching Valve
- 63 DME Control Unit or Ambient Temp Signal via CAN (MS43)
- 64 Plausibility – Ambient Temperature
- 65 Camshaft Position Sensor (Inlet MS43)
- 66 DME Control Unit
- 67 DME Control Unit
- 68 Tank Venting Valve
- 69 Fuel Pump Relay
- 70 DME Control Unit
- 71 DME Control Unit
- 72 DME Control Unit
- 74 AirCon Compressor Relay
- 75 Lambda Sensor Voltage -Bank 1
- 76 Lambda Sensor Voltage -Bank 2
- 77 Lambda Sensor Voltage -Bank 1 Post Cat
- 78 Lambda Sensor Voltage -Bank 2 Post Cat
- 79 Lambda Sensor Heater -Bank 1 Post Cat
- 80 ABS/ASC interface
- 81 MSR Signal -Active too Long
- 82 ABS/ASC Interface -Advance Adjustment
- 83 Crankshaft Sensor
- 90 Exhaust Temperature Pre Cat Conv – Bank 1
- 91 Exhaust Temperature Pre Cat Conv – Bank 2
- 92 Exhaust Temperature Post Cat Conv -Bank 1
- 93 Exhaust Temperature Post Cat Conv -Bank 2
- 94 Auxiliary Air -Air Mass Flow Sensor
- 95 Auxiliary Air Valve or Auxiliary Air Hose Blocked
- 96 Auxiliary Air Pump – Function
- 97 Auxiliary Air -Flow Rate too Low
- 98 Auxiliary Air -Flow Rate too High
- 99 Auxiliary Air Valve Jammed Open
- 100 DME Control Unit -Self-Test Failed
- 103 VANOS Error -Inlet Camshaft

- 104 VANOS Error -Exhaust Camshaft
- 105 VANOS Error -Position Inlet Camshaft
- 106 VANOS Error -Position Exhaust Camshaft
- 109 Throttle Valve Plausibility
- 110 Pedal Sensor Value Potentiometer 1
- 111 Pedal Sensor Value Potentiometer 2
- 112 TPS Potentiometer 1
- 113 TPS Potentiometer 2
- 114 Throttle Valve Final Stage
- 115 Reference Voltage -Voltage Regulator 1 or Throttle Pedal Adaptation (MS43)
- 116 Reference Voltage -Voltage Regulator 2
- 117 Plausibility -Pedal Position Sensor 1/2
- 118 Plausibility -TPS 1/2 or TPS1/Airflow Plausibility (MS43)
- 119 Throttle Valve Sensor -Mechanical Error or TPS2/Airflow Plausibility (MS43)
- 120 Plausibility Pedal Sensor or TPS
- 122 Engine Oil Temperature
- 123 Map Cooling Thermostat Control
- 124 Activation DISA Solenoid
- 125 Activation Electric Fan
- 126 Activation Tank Leak Pump Solenoid
- 127 Activation Pump Solenoid
- 128 DME/EWS Communication
- 129 CAN Signal SMG 1
- 130 CAN Signal ASC -Timeout
- 131 CAN Signal Instrument Cluster -Timeout
- 132 CAN Signal Instrument Cluster -Timeout
- 133 CAN Signal ASC -Timeout
- 134 SMG Intervention -Plausibility
- 135 Throttle Valve Re-Adaptation Required
- 136 Throttle Valve -Spring Test and Limp-home Position Failed
- 137 CAN Signal -Steering Angle Sensor
- 139 CAN Signal -Tank Level Sensor
- 140 Tank Leak Pump Solenoid – Reed Switch Open or Output Stage (MS43)
- 141 Tank Leak Pump Solenoid – Reed Switch Stuck Closed or Tank Level Sensor (MS43)
- 142 Tank Leak Pump Solenoid – Reed Switch Stuck Open or DMTL Module (MS43)
- 143 Tank Ventilation or Tank Leakage (MS43)
- 144 Fuel System – Large Leak Recognised
- 145 Fuel System – Small Leak Recognised
- 146 EVAP System Leak Detected (Small Leak) or Pedal Sensor Supply Voltage Pot 1 (MS43)
- 147 Pedal Position Sensor Potentiometer Supply Channel 1 (Pot 2 MS43)
- 149 Air Flow Sensor or Pedal Value Sensor Mismatch
- 150 Lambda Post Cat Bank 1 Max Limit
- 151 Lambda Post Cat Bank 2 Max Limit
- 152 Lambda Post Cat Bank 1 Min Limit
- 153 Lambda Pre Cat Bank 2 Max Limit
- 154 Lambda Pre Cat Bank 2 Min Limit
- 155 Lambda Pre Cat Bank 2 No Signal
- 156 Lambda Pre Cat Bank 1 No Signal
- 157 Lambda Post Cat Bank 1 Min Limit
- 159 Lambda Post Cat Bank 2 Max Limit
- 160 Lambda Post Cat Bank 2 (MS41) or Throttle Valve Stuck
- 161 Throttle Valve – Stuck

- 162 Throttle Valve -Control Deviation
- 168 Pedal Position Sensor Pot Supply 1 or MAP Cooling Thermostat Jammed (MS43)
- 169 Throttle Valve Output Stage Cut off after Fault
- 170 DME Control Unit -Self Test Failed
- 171 Plausibility – Throttle Valve
- 172 Pedal Sensor Potentiometer 1/2 Short Circuit
- 173 TPS Potentiometer 1/2 Short Circuit
- 174 Throttle Valve Potentiometer 1/2 Adaptation
- 175 Pedal Sensor 1 Adaptation
- 176 Pedal Sensor 2 Adaptation
- 186 Voltage Post Cat Bank 1
- 187 Voltage Post Cat Bank 2
- 188 Voltage Pre Cat Bank 1
- 189 Voltage Pre Cat Bank 2
- 190 EVAP -Reed Switch Open or Voltage Post Cat Bank 1 (MS43)
- 191 EVAP -Reed Switch Closed or Voltage Post Cat Bank 2 (MS43)
- 192 EVAP -Reed Switch Open
- 193 EVAP -Check Hoses
- 194 EVAP -Large Leak Detected
- 195 EVAP -Small Leak Detected
- 196 EVAP -Electrical Valve from LDP Pump or Barometric Pressure Sensor (MS43)
- 197 EVAP -Barometric Pressure Sensor
- 198 Cat Efficiency during Start -Bank 1
- 199 Cat Efficiency during Start -Bank 2
- 200 Lambda Regulation Bank 1 Pre Cat
- 201 Lambda Regulation Bank 2 Pre Cat
- 202 Lambda Regulation Bank 1 Post Cat
- 203 Lambda Regulation Bank 2 Post cat
- 204 Idle Control System -Idle speed not plausible
- 208 EWS -RPM Signal Error
- 209 EWS -Message Error
- 210 Ignition Feedback Resistor (ZSR)
- 211 Idle Speed Actuator -Mechanical
- 212 VANOS Bank 1 -Mechanical
- 214 Vehicle Speed Signal (VSS)
- 215 Lambda Sensor Bank 1 or ASC/MSR/EML -Interface not plausible
- 216 Lambda Sensor Bank 2 or EGS Position Signal
- 217 CAN bus error -EGS Signal not present
- 218 CAN module -Warning
- 219 CAN module -CAN Offline
- 220 Lambda Voltage Range Bank 1 Sensor 1
- 221 Lambda Voltage Range Bank 2 Sensor 1
- 222 Low Coolant Temperature or Lambda Sensor Control (MS43)
- 223 Lambda Sensor Switching Bank 1 Sensor 2
- 224 Lambda Sensor Switching Bank 2 Sensor 2
- 225 Cat Efficiency Bank 1
- 226 Cat Efficiency Bank 2
- 227 Mixture Deviation Bank 1
- 228 Mixture Deviation Bank 2
- 229 Lambda Sensor Switching Bank 1
- 230 Lambda Sensor Switching Bank 2
- 231 Lambda Sensor Switching Bank 1 Pre Cat

- 232 Lambda Sensor Switching Bank 2 Pre Cat
- 233 Catalytic Converter Overall Efficiency Bank 1
- 234 Catalytic Converter Overall Efficiency Bank 2
- 235 Lambda Heater Bank 1 Post Cat or Pre Cat Signal (MS43)
- 236 Lambda Heater Bank 2 Post Cat or Pre Cat Signal (MS43)
- 238 Misfire Cyl 1
- 239 Misfire Cyl 2
- 240 Misfire Cyl 3
- 241 Misfire Cyl 4
- 242 Misfire Cyl 5
- 243 Misfire Cyl 6
- 244 Crankshaft Interval Timing
- 245 Aux Air Injection System Bank 1
- 246 Aux Air Injection System Bank 2
- 247 Aux Air Injection System -Incorrect Flow Detected
- 248 Pre Cat Converter Efficiency -Bank 1
- 249 Pre Cat Converter Efficiency -Bank 2
- 250 Tank Venting Valve -Function
- 251 Tank Ventilation Diagnosis Error
- 252 Tank Ventilation System Vacuum
- 253 Activated Charcoal Filter Shut-off Valve Stuck Shut
- 254 Tank Ventilation System -Large Air Leak
- 255 Tank Ventilation System -Valve Stuck Open
- **DME MSS50**

### Decimal

- 1 Fuel Pump Relay
- 2 Idle Speed Actuator- Closing Coil
- 3 Fuel Injector Cyl 1
- 4 Fuel Injector Cyl 3
- 5 Fuel Injector Cyl 2
- 7 Intake Cam Position Sensor
- 8 Fault Lamp (MIL)
- 9 Ignition Current- Bank 2
- 10 Exhaust Cam Position Sensor
- 12 Lambda Sensor 1
- 13 Lambda Sensor 2
- 15 Ignition Current- Bank 1
- 19 Aux. Air Pump Relay
- 21 VANOS Retard Valve- Exhaust
- 22 VANOS Advance Valve- Exhaust
- 23 Ignition Coil- Cyl 2
- 24 Ignition Coil- Cyl 3
- 25 Ignition Coil- Cyl 1
- 29 Idle Speed Actuator- Opening Coil
- 31 Fuel Injector Cyl 5
- 32 Fuel Injector Cyl 6
- 33 Fuel Injector Cyl 4
- 36 Tank Vent Valve
- 37 Lambda Sensor Heater Relay
- 41 Mass Air Flow Sensor

- 42 Road Speed Signal VSS
- 44 Oil Level Sensor
- 46 Fuel Consumption Signal ti
- 47 Engine Speed Signal TD
- 48 AirCon Compressor Relay
- 50 Ignition Coil- Cyl 4
- 51 Ignition Coil- Cyl 6
- 52 Ignition Coil- Cyl 5
- 53 Electric Fan Relay
- 54 Vehicle System Voltage
- 48 AirCon Compressor Relay
- 67 VANOS Advance Valve- Intake
- 68 Knock Sensor 3
- 69 Knock Sensor 2
- 70 Knock Sensor 1
- 72 VANOS Retard Valve- Intake
- 73 Throttle Position Sensor TPS
- 77 Intake Air Temperature Sensor
- 78 Engine Coolant Temperature Sensor
- 80 Gear Recognition Switch
- 82 Starter Motor Solenoid
- 86 CAN: Signal Missing
- 66 EWS Signal Faulty
- 130 EWS Signal
- 136 Idle Speed Control Valve
- 137 CAN Protocol Fault
- 138 CAN Timeout Message 1
- 139 CAN Timeout Message 2
- 140 CAN Timeout Message 3
- 144 Lambda Sensor Control Limit- Bank 1
- 145 Lambda Sensor Control Limit- Bank 2
- 150 MSS50 Control Module Fault- Memory Test RAM Master
- 151 MSS50 Control Module Fault- Driver Fault
- 152 MSS50 Control Module Fault- Internal Communication Fault Master
- 155 MSS50 Control Module Fault- Fault Memory Master
- 156 MSS50 Control Module Fault- Fault Memory Slave
- 157 MSS50 Control Module Fault- Memory Test RAM Slave
- 158 MSS50 Control Module Fault- Internal Communication Fault Slave)
- 159 Internal SG Fault- Knock Conditioning 1
- 160 Internal SG Fault- Knock Conditioning 2
- 161 Internal SG Fault- Knock Conditioning 3
- 162 Camshaft Synchronisation
- 163 MSS50 Control Module Fault- Internal
- **DME MSS52 and MSS54**

### Decimal

- 1 Fuel Pump Relay
- 2 Idle Speed Actuator- Closing Coil
- 3 Fuel Injector Cyl 1
- 4 Fuel Injector Cyl 3
- 5 Fuel Injector Cyl 2

- 7 Intake Cam Position Sensor Bank 1
- 8 Intake Cam Position Sensor Bank 2
- 9 Knock Sensor- Cyl 1-2
- 10 Exhaust Cam Position Sensor Bank 1
- 11 Exhaust Cam Position Sensor Bank 2
- 12 Lambda Sensor Signal- Pre Cat Bank 2
- 13 Lambda Sensor Signal- Pre Cat Bank 1
- 14 DMTL Heating
- 15 Camshaft Sensor Bank 1 Synchronisation
- 16 Crankshaft Sensor
- 19 Aux Air Pump Relay
- 20 Starter Relay
- 21 VANOS Retard Valve- Exhaust Bank 1
- 22 VANOS Advance Valve- Exhaust Bank 1
- 23 Ignition Coil- Cyl 2
- 24 Ignition Coil- Cyl 3
- 25 Ignition Coil- Cyl 1
- 26 Ignition Coil- Cyl 8
- 27 DMTL Changeover Valve
- 29 Idle Speed Control Valve NC Coil
- 30 Internal DME Fault
- 31 Fuel Injector Cyl 5
- 32 Fuel Injector Cyl 6
- 33 Fuel Injector Cyl 4
- 34 Fuel Injector Cyl 7
- 35 Fuel Injector Cyl 8
- 36 Tank Vent Valve
- 37 Lambda Sensor Heater Pre Cat Bank 1
- 38 Lambda Sensor Heater Pre Cat Bank 2
- 39 Lambda Sensor Heater Post Cat Bank 1
- 40 Lambda Sensor Heater Post Cat Bank 2
- 41 Mass Air Flow Sensor Right
- 42 Road Speed Signal
- 43 Temperature Sensor Signal- Radiator Outlet
- 44 Oil Level Sensor Signal
- 45 Electronic Throttle Motor MDK
- 47 Engine Speed Signal TD
- 48 AirCon Control Module
- 49 Internal Index 95
- 50 Ignition Coil- Cyl 4
- 51 Ignition Coil- Cyl 6
- 52 Ignition Coil- Cyl 5
- 53 Electric Fan
- 54 System Voltage Main Relay
- 55 Ignition Coil- Cyl 7
- 57 Mass Air Flow Sensor Left
- 58 Sensor Voltage Supply
- 59 Sensor Voltage Supply
- 60 Throttle Pedal Position Sensor 1
- 61 Throttle Pedal Position Sensor 2
- 63 Aux Air Valve
- 65 Throttle and Electric Throttle Actuator Potentiometer

- 66 DME-EWS Communication
- 67 VANOS Advance Valve- Inlet Bank 1
- 69 Knock Sensor Cyl 3-4
- 70 Knock Sensor Cyl 7-8
- 71 Knock Sensor Cyl 5-6
- 72 VANOS Retard Valve- Inlet Bank 1
- 73 Mass Air Flow Sensor Implausible
- 74 VANOS Advance Valve- Inlet Bank 2
- 75 VANOS Retard Valve- Inlet Bank 2
- 76 Ambient Air Pressure Sensor (DME Internal)
- 77 Intake Air Temperature Sensor
- 78 Engine Coolant Temperature Sensor
- 79 Exhaust Gas Temperature Sensor
- 80 Switch Chain Frictional Connection
- 81 Multifunction Steering Wheel(E39)/Steering Column Lever(Z8)
- 83 VANOS Advance Valve- Exhaust Bank 2
- 84 VANOS Advance Valve- Exhaust Bank 2
- 85 Throttle Position Sensor
- 86 CAN Bus Signal
- 87 Lambda Sensor Post Cat Bank 1
- 88 Lambda Sensor Post Cat Bank 2
- 89 Internal DME Fault
- 92 Lambda Sensor Post Cat Bank 1 Voltage Monitoring
- 93 Lambda Sensor Post Cat Bank 2 Voltage Monitoring
- 99 Internal DME Fault
- 100 Tyre Pressure Front Left
- 101 Tyre Pressure Front Right
- 102 Tyre Pressure Rear Right
- 103 Tyre Pressure Rear Left
- 105 Engine Coolant Temperature Implausible
- 106 Brake Light Switch
- 107 Electronic Throttle Self Test
- 108 Oil Circuit Changeover Valve Left
- 109 Oil Circuit Changeover Valve Right
- 110 Function Light Switch Vehicle Dynamics
- 111 Throttle Pedal Position Sensor Comparison
- 112 Throttle Pedal Position Sensor Comparison
- 113 Inlet VANOS Bank 2 Function
- 114 Exhaust VANOS Bank 2 Function
- 115 Control Module Temperature or Tyre Pressure Control Button
- 116 Servotronic Valve
- 117 Servotronic- Road speed Signal
- 118 Electronic Throttle Potentiometer Bank 1
- 119 Electronic Throttle Potentiometer Bank 2
- 120 Electronic Throttle Potentiometer Comparison
- 121 Electronic Throttle Both Potentiometers Faulty
- 122 DME Internal Processor Check
- 125 Oil Level Sensor Lamp
- 126 Electric Fuel Pump Crash Deactivation
- 127 DMTL Module
- 128 Deviation Idle Speed
- 129 Cat Protection Function- Empty Tank or Low Fuel



- 130 EWS 3.3 Anti Tampering Protection
- 131 DSC Intervention Implausible
- 132 CAN Timeout DSC
- 133 CAN Timeout Steering Angle Sensor
- 134 CAN Timeout Instrument Cluster
- 135 Road Speed Signal
- 136 Idle Speed Control Function
- 139 Interruption Cruise Control Operation
- 140 Knock Control Deactivated/Knock Protection
- 141 Tank Fill Level Implausible
- 143 E-box Fan
- 144 Lambda Sensor Control Bank 1
- 145 Lambda Sensor Control Bank 2
- 149 Fuel Level
- 150 DME Memory Fault
- 151 Internal DME Fault
- 155 Saving Adaptation Values not Possible
- 156 Saving Adaptation Values not Possible
- 157 DME Memory Fault
- 158 Reset DME Over Speed
- 159 Internal DME Fault Knock Control
- 160 Internal DME Fault Knock Control
- 161 Internal DME Fault Knock Control
- 162 Camshaft Sensor Bank 2 Synchronisation
- 163 Reset DME Over Speed
- 170 Aux Air Quantity too Low
- 171 Aux Air Valve Jammed
- 172 VANOS Admission Pressure Pump
- 173 Continuous Signal Starter Switch
- 174 Fuel System Diagnosis Bank 1
- 175 Fuel System Diagnosis Bank 2
- 176 Abort Tank Leak Diagnosis due to Moisture
- 178 Catalytic Converter Efficiency Bank 1
- 179 Catalytic Converter Efficiency Bank 2
- 180 Tank Leak Detected
- 181 Fuel Filler Cap Open
- 182 Internal DME Fault
- 183 Internal DME Fault
- 184 Inlet VANOS Bank 1 Function
- 185 Exhaust VANOS Bank 1 Function
- 194 Electronic Throttle Limp Mode from Cruise Control
- 195 Deviation Setpoint Torque from Actual Torque
- 196 Misfire Cyl 1 with Cyl Cutout
- 197 Misfire Cyl 2 with Cyl Cutout
- 198 Misfire Cyl 3 with Cyl Cutout
- 199 Misfire Cyl 4 with Cyl Cutout
- 200 Misfire Cyl 5 with Cyl Cutout
- 201 Misfire Cyl 6 with Cyl Cutout
- 202 Misfire Cyl 7 with Cyl Cutout
- 203 Misfire Cyl 8 with Cyl Cutout
- 204 Misfire Multiple Cylinders with Cyl Cutout
- 205 Misfire Cyl 1 without Cyl Cutout

- 206 Misfire Cyl 2 without Cyl Cutout
- 207 Misfire Cyl 3 without Cyl Cutout
- 208 Misfire Cyl 4 without Cyl Cutout
- 209 Misfire Cyl 5 without Cyl Cutout
- 210 Misfire Cyl 6 without Cyl Cutout
- 211 Misfire Cyl 7 without Cyl Cutout
- 212 Misfire Cyl 8 without Cyl Cutout
- 213 Misfire Multiple Cylinders without Cyl Cutout
- 214 Lambda Sensor Pre Cat Bank 1 Period Duration
- 215 Lambda Sensor Pre Cat Bank 2 Period Duration
- 216 Lambda Sensor Pre Cat Bank 1 Flip Time
- 217 Lambda Sensor Pre Cat Bank 2 Flip Time
- 218 Lambda Sensor Pre Cat Bank 1 Signal Excursion
- 219 Lambda Sensor Pre Cat Bank 2 Signal Excursion
- 220 DME Internal Processor Check
- 228 Electronic Throttle Limit Violation
- 230 Electronic Throttle Setpoint/Actual Value Deviation
- 231 DME Internal Processor Check
- 232 Tank Vent Valve Function Check
- 247 VANOS Pressure Accumulator Valve
- **DME M5.2 and M5.2.1**

### Decimal

- 1 Activation -Solenoid Valve, Leakage Diagnosis Pump
- 2 Activation -Solenoid Valve, Fuel System Changeover
- 3 Leakage Diagnosis Pump
- 4 Lambda Sensor Heater Post Cat Bank 2
- 5 Lambda Sensor Heater Pre Cat Bank 2
- 6 CAN Instrument Cluster
- 7 Engine Coolant Temperature -Radiator
- 8 Misfire from Low Fuel
- 10 Lambda Sensor Pre Cat Bank 1 Sensor 1
- 12 Lambda Sensor Post Cat Bank 1 Sensor 2
- 13 Lambda Sensor Heater Pre Cat -No Signal Bank 1 Sensor 1
- 14 Lambda Sensor Heater Post Cat
- 15 Lambda Sensor Switching TP Pre Cat Bank 1 Sensor 1
- 16 Lambda Sensor Switching Pre Cat Bank 1
- 17 Lambda Sensor Switching Post Cat Bank 1 Sensor 2
- 18 Lambda Sensor Pre Cat Bank 2
- 19 CAN Communication with Heated Catalyst (EKAT)
- 20 Lambda Sensor Post Cat Bank 2
- 21 Lambda Sensor Switching TP Pre Cat Bank 2
- 22 Lambda Sensor Switching Duty Cycle Pre Cat Bank 2
- 23 Lambda Sensor Switching Post Cat Bank 2
- 24 AirCon Compressor Function
- 25 Multiplicative Mixture Adaptation Part Load Bank 2,
- 26 Multiplicative Mixture Adaptation Part Load Bank 1
- 27 Additive Mixture Adaptation Idle Bank 1
- 28 Additive Mixture Adaptation Idle Bank 1
- 29 Switching Solenoid for Aux Air Injection Control Circuit Bank 1
- 30 Additive Mixture Adaptation Idle Bank 1

- 31 Additive Mixture Adaptation Idle Bank 1
- 32 Idle Speed Control
- 33 Camshaft Inlet Bank 1
- 34 Camshaft Inlet Bank 2
- 35 Additive Mixture Adaptation Idle Bank 2
- 36 Additive Mixture Adaptation Idle Bank 2
- 39 EWS Immobiliser
- 40 Cat Efficiency Bank 1
- 42 EKAT -Heater Disconnected Cat 1
- 43 EKAT -Operating Condition Switch Cat 1
- 44 EKAT -Power Cat 1
- 45 Cat Efficiency Bank 2
- 46 EKAT -Heater Disconnected Cat 2
- 47 EKAT -Operating Condition Switch Cat 2
- 48 EKAT -Power Cat 2
- 50 Misfire Cyl 1
- 51 Misfire Cyl 2
- 52 Misfire Cyl 3
- 53 Misfire Cyl 4
- 54 Misfire Cyl 5
- 55 Misfire Cyl 6
- 56 Misfire Cyl 7
- 57 Misfire Cyl 8
- 58 Misfire Cyl 9
- 59 Misfire Cyl 10
- 60 Misfire Cyl 11
- 61 Misfire Cyl 12
- 62 Misfiring in Various Cyls
- 63 Misfiring with Cylinder Cutout Cyl 1
- 64 Misfiring with Cylinder Cutout Cyl 2
- 65 Misfiring with Cylinder Cutout Cyl 3
- 66 Misfiring with Cylinder Cutout Cyl 4
- 67 Misfiring with Cylinder Cutout Cyl 5
- 68 Misfiring with Cylinder Cutout Cyl 6
- 69 Misfiring with Cylinder Cutout Cyl 7
- 70 Misfiring with Cylinder Cutout Cyl 8
- 71 Misfiring with Cylinder Cutout Cyl 9
- 72 Misfiring with Cylinder Cutout Cyl 10
- 73 Misfiring with Cylinder Cutout Cyl 11
- 74 Misfiring with Cylinder Cutout Cyl 12
- 75 Misfiring in Various Cyls
- 77 Switching Solenoid for Aux Air Injection Control Circuit Bank 2
- 78 Crankshaft Sensor
- 79 Activation Aux Air Pump Bank 2
- 80 Aux Air Pump Function
- 81 EKAT Battery Temperature Sensor 1
- 82 EKAT Battery Temperature Sensor 2
- 83 EKAT Comparison Battery voltages of Power Switches Plausibility
- 84 Activation Aux Air Pump Bank 2
- 85 Activation Aux Air Pump Bank 1
- 91 Activation Tank Venting Valve Bank 2
- 93 Tank Venting System Function

- 94 Tank Venting System Large Leak
- 97 Tank Venting System Small Leak
- 98 Activation Tank Venting Valve
- 99 Tank Venting System -Pressure Sensor/Switch Range/Performance
- 101 DME Internal RAM
- 102 DME Internal RAM
- 103 DME EPROM
- 104 Fault Memory Error
- 105 Internal Control Module -RAM/ROM Error
- 107 DME Relay Voltage Supply
- 108 Voltage Supply B+
- 108 Battery Voltage
- 111 Crankshaft Position Signal
- 112 Camshaft Position Signal
- 113 Camshaft Position Signal Bank 1
- 114 Camshaft Position Signal Bank 2
- 115 Air Flow Meter HFM Signal
- 117 TPS Sensor/Switch 'A' Circuit
- 118 TPS Signal 1
- 119 TPS Signal 2
- 120 Vehicle Speed Signal VSS
- 121 Air Flow Meter HFM Load Measurement
- 123 Coolant Temperature Signal
- 124 Intake Air Temperature Signal
- 125 Output Temperature Signal
- 130 Lambda Sensor Pre Cat
- 131 Throttle Valve Stuck
- 132 Activation Throttle Valve
- 133 Activation Throttle Valve
- 134 Tank Level Switch
- 135 Specified Engine Torque -EGS Intervention
- 136 Throttle Valve
- 138 Compressor Intervention
- 139 Activation Map Cooling
- 140 Engine Torque -Bank Comparison
- 141 Dynamic Stability Control DSC Intervention
- 143 Engine Torque Control MSR Intervention
- 144 Automatic Stability Control ASC Intervention
- 147 Map Cooling Function
- 148 EWS Interface
- 149 Inlet Camshaft Setting, Bank 2
- 150 Fuel Injector Cyl 1
- 151 Fuel Injector Cyl 2
- 152 Fuel Injector Cyl 3
- 153 Fuel Injector Cyl 4
- 154 Fuel Injector Cyl 5
- 155 Fuel Injector Cyl 6
- 156 Fuel Injector Cyl 7
- 157 Fuel Injector Cyl 8
- 158 Fuel Injector Cyl 9
- 159 Fuel Injector Cyl 10
- 160 Fuel Injector Cyl 11

- 161 Fuel Injector Cyl 12
- 163 Fuel Pump Relay EKP
- 165 “CHECK ENGINE” Warning Lamp
- 167 Fuel Pump Relay EKP
- 168 Idle Speed Control Valve -Opening
- 169 Idle Speed Control Valve -Closing
- 170 AirCon Compressor Control
- 174 Camshaft Control Bank 1
- 175 DISA Control Circuit Electrical
- 178 Camshaft Control Bank 2
- 179 AirCon Compressor Control Bank 2
- 183 EVAP Emission System Leak Detected (Small)
- 184 Leakage Diagnostic Pump Clamped Hose
- 188 Emissions Warning Lamp, Bank 2(US)
- 189 Inlet Camshaft Bank 1
- 203 Ignition Circuit Monitoring
- 204 EWS Rolling Code Storage
- 208 Aux Air Injection System
- 210 Knock Sensor 1
- 211 Knock Sensor 2
- 212 Knock Sensor 3
- 213 Knock Sensor 4
- 214 CAN Interface -Version No.
- 215 CAN Interface DME Timeout
- 216 CAN Interface DSC Timeout
- 217 CAN Interface EML Timeout
- 220 Knock Control
- 222 Knock Control Bank 1
- 225 EKAT Power Switch Temperature Sensor Plausibility
- 226 Heated Catalyst Comparison Battery Voltage of Power Switches Plausibility
- 228 Automatic Start -Output Stage 2
- 233 Automatic Start -Output Stage
- 234 Automatic Start -Input
- 236 CAN Interface EGS Timeout
- 237 Automatic Start Module
- 250 Aux Air Injection System Bank 1
- 253 Coolant Fan Final Stage
- 500 EKAT Module
- **BMS43 and BMS46**

### Decimal

- 1 Fuel Pump Relay
- 2 Idle Speed Controller
- 3 Injector Cylinder 2
- 4 Injector Cylinder 4
- 12 TPS
- 14 Air Flow Meter HFM
- 15 Knock Sensor 1
- 16 Camshaft Sensor
- 18 Unknown Failure or Stall
- 24 Ignition Cylinder 3

- 25 Ignition Cylinder 1
- 29 Idle Speed Controller
- 31 Injector Cylinder 3
- 32 Injector Cylinder 1
- 36 Tank Ventilation
- 37 Lambda Sensor Heater Relay
- 41 Air Flow Meter HFM
- 42 Knock Sensor 1
- 44 Camshaft sensor
- 46 Electric Fan Relay
- 48 AirCon Compressor Shut Off Relay
- 51 Ignition Cylinder 4
- 52 Ignition Cylinder 2
- 54 DME Power Supply
- 59 DME Power Supply
- 67 Crankshaft Sensor
- 68 Crankshaft Sensor
- 70 Lambda Sensor
- 71 Lambda Sensor
- 73 Vehicle Speed Signal
- 74 RPM Signal TD
- 76 Idle CO Potentiometer
- 77 Inlet Air Temperature Sensor
- 78 Coolant Temperature Sensor
- 81 DWA / EWS
- 83 AirCon Signal
- 85 AirCon Compressor Relay
- 86 AirCon Switch
- 87 DLC Connector
- 100 Ignition Cylinder 1
- 101 Ignition Cylinder 2
- 102 Ignition Cylinder 3
- 103 Ignition Cylinder 4
- 104 Injector Cylinder 1
- 105 Injector Cylinder 2
- 106 Injector Cylinder 3
- 107 Injector Cylinder 4
- 108 Electric Ventilator
- 110 AirCon Compressor
- 111 Fuel Pump
- 112 Air Inlet Regulator Valve
- 113 EVAP Solenoid Valve
- 114 Outlet Valve
- 115 Coolant Temperature Sensor
- 117 Idle Speed Controller
- 118 Lambda Sensor Heating Pre Cat
- 119 TPS
- 120 Air Mass Meter HFM
- 121 Inlet Air Temperature Sensor
- 122 Coolant Temperature Sensor
- 123 Coolant Temperature Sensor
- 124 Battery Voltage

- 125 Lambda Sensor Pre Cat
- 126 CAN Signal ASC
- 127 CAN Signal ASC
- 128 CAN Signal EGS
- 129 CAN Signal EGS
- 130 CAN Signal Instrument Cluster
- 131 Vehicle Speed Signal VSS
- 132 Air Mass Meter HFM -Reference Voltage
- 133 TPS Reference Voltage
- 135 Camshaft Sensor
- 136 Crankshaft sensor
- 137 Knock Sensor 1
- 138 Knock Sensor 2
- 139 Lambda Sensor Post Cat
- 140 DWA /EWS
- 141 Lambda Regulation
- 142 Knock Regulation
- 143 DME Control Unit
- 144 EWS Manipulation
- 145 Misfire / Detonation Cylinder 1
- 146 Misfire / Detonation Cylinder 2
- 147 Misfire / Detonation Cylinder 3
- 148 Misfire / Detonation Cylinder 4
- 149 Aux. Air Pump Valve
- 150 Aux. Air Pump
- 151 Aux. Air Pump -Plausibility
- 152 Aux. Air Pump -Test Error
- 153 Lambda Sensor Heating Post Cat
- 155 Misfire Detected -Various Cylinders
- 156 Misfire / Detonation Cylinder 1
- 157 Misfire / Detonation Cylinder 2
- 158 Misfire / Detonation Cylinder 3
- 159 Misfire / Detonation Cylinder 4
- 160 Misfire Detected -Various Cylinders
- 165 Catalytic Converter
- 166 Lambda Sensor Pre Cat
- 169 Lambda Sensor 1 Heating Pre Cat
- 170 Lambda Sensor 2 Heating Pre Cat
- 171 Fuel Supply / Mixture Control
- 200 DME Control Unit
- 201 Lambda Regulation
- 202 DME Control unit
- 203 Ignition System
- 204 Idle Speed RPM
- 206 Knock Regulation
- 216 CAN Signal ASC
- 220 EWS No Signal
- 236 CAN Signal EGS
- **DME 7.2**

**Decimal**

- 1 Leak Diagnosis Pump
- 2 DMTL Output Stage Solenoid Valve
- 3 Lambda Sensors Pre Cat Swapped
- 4 Lambda Sensor Heater Post Cat Bank 2
- 5 Lambda Sensor Heater Pre Cat Bank 2
- 10 Lambda Sensor Pre Cat Bank 1 Signal
- 12 Lambda Sensor Post Cat Bank 1 Signal
- 13 Lambda Sensor Heater Pre Cat Bank 1
- 14 Lambda Sensor Heater Post Cat Bank 1
- 15 Lambda Sensor Timing Pre Cat Bank 1 (TP)
- 16 Lambda Sensor Timing Pre Cat Bank 1 (TV)
- 17 Lambda Sensor Timing Pre Cat Bank 1
- 18 Lambda Sensor Pre Cat Bank 2 Signal
- 20 Lambda Sensor Post Cat Bank 2 Signal
- 21 Lambda Sensor Timing Pre Cat Bank 2 (TP)
- 22 Lambda Sensor Timing Pre Cat Bank 2 (TV)
- 23 Lambda Sensor Timing Post Cat Bank 2
- 24 Multiplicative Adaptation Bank 1 Control Limit Reached
- 25 Multiplicative Adaptation Bank 2 Control Limit Reached
- 26 Multiplicative Adaptation Bank 1 Control Limit Reached
- 27 Multiplicative Adaptation Bank 2 Control Limit Reached
- 28 Additive Adaptation Bank 1 Control Limit Reached
- 29 Additive Adaptation Bank 2 Control Limit Reached
- 30 Short Term Additive Adaptation Bank 1 Control Limit Reached
- 31 Short Term Additive Adaptation Bank 2 Control Limit Reached
- 32 Idle Speed Control
- 33 Inlet Camshaft Control Bank 1
- 34 Inlet Camshaft Control Bank 2
- 39 EWS 3.3 Anti Tampering Protection
- 40 Catalytic Converter Efficiency Bank 1
- 45 Catalytic Converter Efficiency Bank 2
- 50 Misfire Detection Cyl 1
- 51 Misfire Detection Cyl 5
- 52 Misfire Detection Cyl 4
- 53 Misfire Detection Cyl 8
- 54 Misfire Detection Cyl 6
- 55 Misfire Detection Cyl 3
- 56 Misfire Detection Cyl 7
- 57 Misfire Detection Cyl 2
- 62 Misfire at Multiple Cylinders
- 80 Aux Air System Bank 1
- 81 Aux Air System Bank 2
- 82 Aux Air System Valve
- 84 Aux Air Pump Relay
- 85 Aux Air System Valve
- 93 Tank Venting System
- 98 Tank Vent Valve
- 101 Torque Monitoring
- 102 Multifunction Steering Wheel Signal
- 103 Control Unit Monitoring
- 104 Clutch Switch Signal
- 105 Control Unit Fault (RAM)



- 106 Brake Switch Signal
- 107 Control Unit Fault (ROM)
- 108 Reset DME / Voltage Supply
- 109 Battery Voltage
- 110 Torque Monitoring
- 111 Crankshaft Sensor Signal
- 112 Crankshaft Sensor Signal
- 113 Camshaft Position Sensor Bank 1
- 114 Camshaft Position Sensor Bank 2
- 115 Mass Air Flow Sensor Signal
- 117 Throttle Potentiometer Signal
- 118 Throttle Potentiometer 1 Signal
- 119 Throttle Potentiometer 2 Signal
- 120 Vehicle Speed Signal
- 121 CAN Signal Wheel Speed
- 122 Ambient Temperature Signal
- 123 Engine Coolant Temperature Sensor
- 124 Intake Air Temperature Sensor
- 125 Radiator Outlet Temperature Sensor
- 127 TxD Plausibility
- 130 Throttle Actuator
- 131 Throttle Actuator Jammed
- 132 Throttle Actuator Activation
- 133 Throttle Actuator Spring Check
- 134 Throttle Actuator Adaptation Lower Stop
- 135 Throttle Potentiometer Booster Adjustment
- 136 Throttle Emergency Operation Point
- 139 Thermostat Jammed
- 140 Map Cooling Thermostat Activation
- 141 Electric Fan Activation
- 142 Exhaust Flap Activation
- 148 Interface DME-EWS
- 150 Fuel Injector Activation Cyl 1
- 151 Fuel Injector Activation Cyl 5
- 152 Fuel Injector Activation Cyl 4
- 153 Fuel Injector Activation Cyl 8
- 154 Fuel Injector Activation Cyl 6
- 155 Fuel Injector Activation Cyl 3
- 156 Fuel Injector Activation Cyl 7
- 157 Fuel Injector Activation Cyl 2
- 163 Throttle Mass Air Flow Adjustment Diagnosis
- 164 Ambient Pressure Sensor
- 165 Inlet VANOS Bank 1
- 166 Inlet VANOS Bank 2
- 167 Electric Fuel Pump EKP Relay
- 168 MIL Fault Lamp
- 170 AirCon Compressor Control
- 182 Tank Leakage Detection Minor Leak
- 183 Tank Leakage Detection
- 184 Tank Leakage Detection Blocked Line
- 185 Tank Leakage Diagnosis Pump
- 186 DMTL Pump Motor

- 187 DMTL Minimal Leak (0.5mm)
- 188 DMTL Minor Leak (1.0mm)
- 189 DMTL Module
- 201 DMTL Heating
- 204 EWS 3.3 Random Code Storage
- 210 Knock Sensor Signal 1
- 211 Knock Sensor Signal 2
- 212 Knock Sensor Signal 3
- 213 Knock Sensor Signal 4
- 214 Knock Control Zero Test
- 215 Knock Control Offset
- 216 Knock Control Test Pulse
- 219 CAN Timeout TCU
- 220 CAN Timeout (EGS/AGS)
- 221 CAN Timeout ASC/DSC
- 222 CAN Timeout Instrument Cluster
- 223 CAN Timeout ACC
- 224 MSR Intervention Plausibility
- 225 ACC Intervention Plausibility
- 226 Tank Fill Level Plausibility
- 229 Pedal Travel Sensor Comparison
- 230 Pedal Travel Sensor Signal
- 231 Pedal Travel Sensor Signal Potentiometer 1
- 232 Pedal Travel Sensor Signal Potentiometer 2
- 233 Automatic Start Activation
- 234 Ignition Lock Signal (T50)
- 236 Intake Flap Activation
- 237 Automatic Start Activation
- **ME 9**

### Hexadecimal

- 2712 DMTL Solenoid Valve Activation
- 2713 Lambda Sensors Pre Cat Swapped
- 2714 Lambda Sensor Heater Post Cat Bank 2
- 2715 Lambda Sensor Heater Pre Cat Bank 2
- 2716 Lambda Sensor Heater Post Cat Bank 1
- 2717 Lambda Sensor Heater Post Cat Bank 2
- 2718 Crankshaft Sensor Reference
- 2719 Crankshaft Sensor Period
- 271A Lambda Sensor Pre Cat Bank 1- Signal
- 271C Lambda Sensor Post Cat Bank 1- Signal
- 271D Lambda Sensor Heater Pre Cat Bank 1
- 271E Lambda Sensor Heater Post Cat Bank 1
- 271F Lambda Sensor Timing Period
- 2720 Lambda Sensor Timing Switching Time
- 2721 Lambda Sensor Timing Post Cat Bank 1
- 2722 Lambda Sensor Pre Cat Bank 2- Signal
- 2724 Lambda Sensor Post Cat Bank 2- Signal
- 2725 Lambda Sensor Timing Bank 2- Period
- 2726 Lambda Sensor Timing Bank 2- Switching Time
- 2727 Lambda Sensor Timing Post Cat Bank 2

- 272A Multiplicative Adaptation Bank 1- Control Limit Reached
- 272B Multiplicative Adaptation Bank 2- Control Limit Reached
- 272C Additive Adaptation Bank 1- Control Limit Reached
- 272D Additive Adaptation Bank 2- Control Limit Reached
- 2731 Inlet Camshaft Control
- 2734 Throttle Valve Potentiometer 1- Signal Implausible to Mass Air Flow Sensor
- 2735 Throttle Valve Potentiometer 2- Signal Implausible to Mass Air Flow Sensor
- 2737 EWS 3.3 Anti Tampering Protection
- 2738 Catalytic Converter Efficiency Bank 1
- 2739 Catalytic Converter Efficiency Bank 1
- 273A Catalytic Converter Efficiency Bank 2
- 273D Catalytic Converter Efficiency Bank 2
- 2740 Pedal Position Sensor 1- Voltage Supply
- 2741 Pedal Position Sensor 2- Voltage Supply
- 2742 Misfire Detection Cyl 1
- 2743 Misfire Detection Cyl 3 (4cyl) or 5 (6 cyl)
- 2744 Misfire Detection Cyl 4 (4cyl) or 3 (6 cyl)
- 2745 Misfire Detection Cyl 2 (4cyl) or 6 (6 cyl)
- 2746 Misfire Detection Cyl 2
- 2747 Misfire Detection Cyl 4
- 274E Misfire Detection All Cyls
- 2750 Throttle Position Controller- Jammed Briefly
- 2751 Throttle Position Controller- Jammed Permanently
- 2752 Throttle Position Controller- Jamming
- 2753 Ignition Coil Cyl 1
- 2754 Ignition Coil Cyl 3 (4cyl) or 5 (6 cyl)
- 2755 Ignition Coil Cyl 4 (4cyl) or 3 (6 cyl)
- 2756 Ignition Coil Cyl 2 (4cyl) or 6 (6 cyl)
- 2757 Ignition Coil Cyl 2
- 2758 Ignition Coil Cyl 4
- 2760 Aux Air System Bank 1
- 2761 Aux Air System Bank 2
- 2764 Aux Air Pump Relay
- 2765 Solenoid Valve- Aux Air- Activation
- 2766 Inlet Camshaft Sensor- Signal Duration
- 2767 Exhaust Camshaft Sensor- Signal Duration
- 2768 Inlet Camshaft Sensor- Phase Position
- 2769 Throttle Actuator Spring Test
- 276C Exhaust Camshaft Sensor- Phase Position
- 276D Tank Venting System
- 2770 Aux Air Mass Air Flow Sensor
- 2772 Tank Vent Valve Output Stage
- 2774 CAN Message- Engine Shutdown Time
- 2775 Engine Torque Monitoring Level 2
- 2776 Multifunction Steering Wheel Interface
- 2777 DME Self Test: Monitoring AD Converter
- 2778 Clutch Switch
- 2779 DME Self Test RAM
- 277A Brake Light Switch
- 277B DME Self Test ROM
- 277C DME Self Test RESET
- 277D Battery Voltage

- 277E Engine Torque Monitoring Level 1
- 277F Crankshaft Sensor Speed
- 2780 Crankshaft Sensor Reference
- 2781 Camshaft Sensor Intake
- 2782 Camshaft Sensor Exhaust
- 2783 Mass Air Flow Sensor
- 2786 Throttle Valve Potentiometer 1
- 2787 Throttle Valve Potentiometer 2
- 2788 Vehicle Speed
- 2789 Rough Running Detection
- 278A Ambient Temperature Sensor
- 278B Engine Coolant Temperature Sensor
- 278C Intake Air Temperature Sensor
- 278D Radiator Outlet Temperature Sensor
- 278E Differential Pressure Sensor- Intake Manifold
- 278F Alternator – Under-Excitation
- 2790 Radiator Outlet Temperature
- 2791 Throttle Adaptation Required
- 2792 Throttle Actuator Position Monitoring
- 2793 Throttle Actuator Control Range
- 2794 Throttle Actuator Activation
- 2795 Throttle Actuator Spring Test
- 2796 Throttle Actuator Test Lower Stop
- 2797 Throttle Actuator Booster Adjustment
- 2798 Throttle Actuator Emergency Operating Point
- 2799 Throttle Actuator Adaptation Aborted Environmental Conditions
- 279A Throttle Actuator Relearn Abort
- 279B Map Cooling Thermostat Mechanism
- 279C Map Cooling Thermostat Output Stage
- 279D Electric Fan Output Stage
- 279E Exhaust Flap Output Stage
- 27A0 E-Box Fan Activation
- 27A1 Throttle- Starting Test
- 27A4 Interface DME-EWS
- 27A5 Throttle Adaptation
- 27A6 Fuel Injector Cyl 1
- 27A7 Fuel Injector Cyl 3 (4cyl or 5 (6cyl)
- 27A8 Fuel Injector Cyl 4 (4cyl or 3 (6cyl)
- 27A9 Fuel Injector Cyl 2 (4cyl or 6 (6cyl)
- 27AA Fuel Injector Cyl 2
- 27AB Fuel Injector Cyl 4
- 27B2 Brake Light Switch- Signal
- 27B3 Throttle – Mass Air Flow Adjustment Plausibility
- 27B4 Ambient Pressure Sensor
- 27B5 Inlet Camshaft Control Output Stage
- 27B7 Fuel Pump Relay Output Stage
- 27B8 Differential Pressure Sensor Intake Manifold Plausibility
- 27B9 Lambda Sensor Pre Cat Bank 1- Voltage Excursion
- 27BA Lambda Sensor Pre Cat Bank 2- Voltage Excursion
- 27BB Exhaust Camshaft Control
- 27BD Exhaust Camshaft Control Output Stage
- 27C1 All Camshaft Sensors Failed

- 27C2 AirCon Compressor Control Output Stage
- 27C3 Oil Level Sensor
- 27C4 Main Relay
- 27C5 Brake Light Test Switch- Signal
- 27C7 Main Relay Switching Time
- 27CA DMTL Pump Motor- Activation
- 27CC DMTL Leakage
- 27CD DMTL Module Failure
- 27CE Load Monitoring
- 27CF Firing Cyl 1
- 27D0 Firing Cyl 5
- 27D1 Firing Cyl 3
- 27D2 Firing Cyl 6
- 27D3 Firing Cyl 2
- 27D4 Firing Cyl 4
- 27D6 Idle Speed Control Valve- Activation – Position Closed
- 27D7 Idle Speed Control Valve- Activation – Position Open
- 27D9 DMTL Heater- Activation
- 27DA Alternator BSD Fault
- 27DB Accelerator and Brake Pedals- Signal
- 27DC EWS 3.3 Random Code Storage
- 27DD Engine Coolant Temp Sensor- Gradient
- 27DE Engine Coolant Temp Sensor- Signal
- 27DF Engine Coolant Temp Sensor- Signal Constant
- 27E0 Crank Position Sensor- Segment Timing
- 27E1 Pedal Travel Sensor Monitoring
- 27E2 Knock Sensor 1
- 27E3 Knock Sensor 2
- 27E6 Knock Control Zero Test
- 27E7 Knock Control Offset
- 27E8 Knock Control Test Pulse
- 27EB CAN message EGS
- 27EC CAN message EGS
- 27ED CAN message ASC/DSC
- 27EE CAN message Instrument Cluster
- 27F2 Tank Fill Level
- 27F3 CAN message Valvetronic Control Unit
- 27F7 Pedal Travel Sensor Potentiometer 1
- 27F8 Pedal Travel Sensor Potentiometer 2
- 27FB Radiator Shutter
- 2800 CAN message Instrument Cluster
- 2804 Cruise Control Request
- 2805 Cruise Control Switch Signal
- 2806 Cruise Control Data Transmission
- 2807 Throttle Position Sensor Implausible- 1 vs. 2
- 2808 Throttle Position Sensor Implausible- Ratio
- 2809 CAN message Instrument Cluster
- 280B CAN message DSC
- 280C CAN message DSC
- 280D CAN message Steering Angle Sensor
- 280E CAN message SMG
- 280F CAN message DSC

- 2811 Local CAN Communication Error
- 2812 Oil Temperature
- 2813 DME Monitoring Group A
- 2814 DME Monitoring Group B
- 2815 DME Monitoring Group C
- 2816 DME Monitoring Speed Sensor or ECU Fault
- 281A CAN No Message TxU
- 281C BSD Interface Signal
- 281D BSD Signal
- 281E DISA Intake System Output Stage
- 2823 Lambda Sensor Heater Pre Cat Bank 1
- 2824 Lambda Sensor Heater Pre Cat Bank 2
- 2825 Lambda Sensor Timing Bank 1
- 2826 Lambda Sensor Timing Bank 2
- 282F CAN Communication Fault
- 2830 DME Self Test Checksum
- 2831 DME Self Test Processor Monitoring
- 283A Oil Condition Sensor
- 283D PT-CAN Communication Error
- 283E Variable Valve Gear Output Stage Enable Line
- 283F Oil Pressure Switch Implausibility
- 2850 Variable Valve Gear Guide Sensor
- 2852 Variable Valve Gear Reference Sensor
- 2854 Variable Valve Gear Plausibility Sensor
- 2856 Variable Valve Gear Voltage Supply
- 2858 Variable Valve Gear Adaptation Function
- 285A Variable Valve Gear Servomotor Monitoring
- 285C Variable Valve Gear CAN Communication
- 285E Variable Valve Gear Control Unit Internal Fault
- 2860 Variable Valve Gear Servomotor Output Stage
- 2862 Variable Valve Gear Voltage Supply Power Output Stage
- 2865 Variable Valve Gear Torque Limitation- Limp Mode
- 2866 Variable Valve Gear Adaptation Needed
- 2867 Variable Valve Gear Overload
- 286A DME Self Test- Knock Sensor Module
- 286B DME Self Test- Multiple Output Module
- 2882 Fuel Trim Bank 1
- 2883 Fuel Trim Bank 2
- 2892 Misfiring
- 2893 Control Module Temperature
- 2894 Control Module Fault
- 2895 Crankshaft Sensor- Signal
- 2896 Inlet Camshaft Sensor- Signal
- 2897 Exhaust Camshaft Sensor- Signal
- 2898 Lambda Sensor Post Cat- Bank 1 Signal
- 2899 Lambda Sensor Post Cat- Bank 2 Signal
- 289A Lambda Sensor Heater Pre Cat- Bank 1 Function
- 289B Lambda Sensor Heater Pre Cat- Bank 2 Function
- 289C Lambda Sensor Heater Post Cat- Bank 1 Function
- 289D Lambda Sensor Heater Post Cat- Bank 2 Function
- 289E Lambda Sensor Pre Cat Bank 1
- 289F Lambda Sensor Pre Cat Bank 2

- 28A1 Cruise Control -Monitoring
- 28A2 Air Flow -Monitoring
- 28A4 Engine Speed -Monitoring
- 28A5 Pedal Position Sensor -Monitoring
- 28AA Idle Control -Monitoring
- 28AB External Torque Request -Monitoring
- 28AC Specified Torque -Monitoring
- 28AD Actual Torque -Monitoring
- 28B1 Speed Limitation -Monitoring
- 28B2 Speed Limitation -Reset
- 28B3 Throttle -Continuous Adaptation
- 28B4 Button -Driving Dynamics Control
- 28B5 Sound Flap -Signal
- 28B6 Inlet Camshaft -Mechanical
- 28B8 Exhaust Camshaft -Mechanical
- 28BA Inlet Camshaft -Stiff
- 28BC Exhaust Camshaft -Stiff
- 28BD Inlet Camshaft Sensor -Locking
- 28BE Exhaust Camshaft Sensor -Locking
- 28C1 Lambda Sensor Pre Cat Bank 1
- 28C2 Lambda Sensor Pre Cat Bank 2
- 28C3 Lambda Sensor Heater Pre Cat Bank 1 Function
- 28C4 Lambda Sensor Heater Pre Cat Bank 2 Function
- 28C5 Lambda Sensor Post Cat Bank 1 System Check
- 28C6 Lambda Sensor Post Cat Bank 2 System Check
- 28CA Ozone Conversion- Too Low
- 28CB Ozone Sensor 2
- 28CC Ozone Sensor 1
- 28CF Fuel Pump- Emergency Shutoff
- 28D0 Fuel Pump- Monitoring
- 28D6 Process Error- Coding
- 28D7 Alternator Communication
- 28D8 RAM Backup
- 28DB Variable Valve Gear Minimum Lift Adaptation Exceeded
- 28DD Air Mass System
- 28E6 Evaluation Module Lambda Sensor Bank 1 On-board Diagnosis
- 28E7 Evaluation Module Lambda Sensor Bank 2 On-board Diagnosis
- 28E8 Lambda Sensor Bank 1 Trim Control
- 28E9 Lambda Sensor Bank 2 Trim Control
- 28EA Lambda Sensor Post Cat Bank 1 Signal
- 28EB Lambda Sensor Post Cat Bank 2 Signal
- 28EC Lambda Sensor Post Cat Bank 1 Signal at Full Load
- 28ED Lambda Sensor Post Cat Bank 2 Signal at Full Load
- 28F0 Lambda Sensor Post Cat Bank 1 System Check
- 28F1 Lambda Sensor Post Cat Bank 2 System Check
- 28F2 Lambda Sensor Bank 1 Trim Control
- 28F3 Lambda Sensor Bank 2 Trim Control
- 28F4 Lambda Sensor Pre Cat Bank 1 Cold Test
- 28F5 Lambda Sensor Pre Cat Bank 2 Cold Test
- 28F6 Lambda Sensor Post Cat Bank 1 Cold Test
- 28F7 Lambda Sensor Post Cat Bank 2 Cold Test
- 28F9 Rough Running- Segment Time Measurement

- 28FA CAN Torque for Switching Phase
- 28FB Active Cruise Control (ACC)
- 28FF DME Self Test
- 2900 DME Self Test
- 2960 Lambda Sensor Pre Cat Bank 1
- 2961 Lambda Sensor Pre Cat Bank 2
- 2962 Lambda Sensor Pre Cat Bank 1 Dynamics
- 2963 Lambda Sensor Pre Cat Bank 2 Dynamics
- 2964 Lambda Sensor Pre Cat Bank 1 Ceramic Temperature
- 2965 Lambda Sensor Pre Cat Bank 2 Ceramic Temperature
- 2966 Lambda Sensor Pre Cat Bank 1 Signal
- 2967 Lambda Sensor Pre Cat Bank 2 Signal
- 296A Lambda Sensors Pre Cat Swapped
- 296B Lambda Sensors Post Cat Swapped
- 2972 Jet Pump for Brake Servo
- 2973 Lambda Sensor Pre Cat Bank 1 Lines
- 2974 Lambda Sensor Pre Cat Bank 2 Lines
- 2986 Lambda Sensor Pre Cat Bank 1 System Check
- 2987 Lambda Sensor Pre Cat Bank 2 System Check
- 2988 Lambda Sensor Pre Cat Bank 1 System Check
- 2989 Lambda Sensor Pre Cat Bank 2 System Check
- 299A CAN Fault Management EGS
- 299B Battery Sensor
- 299C Battery Sensor
- 299D Battery Sensor
- 299E Lambda Sensor Post Cat Bank 1 Signal
- 299F Lambda Sensor Post Cat Bank 1 Signal
- 29A0 Lambda Sensor Post Cat Bank 2 Signal
- 29A1 Lambda Sensor Post Cat Bank 2 Signal
- 29A2 Lambda Sensor Pre Cat Bank 2 Signal
- 29A3 Lambda Sensor Pre Cat Bank 2 Signal
- 29A4 Lambda Sensor Heater Pre Cat Bank 1 Activation
- 29A5 Lambda Sensor Heater Pre Cat Bank 2 Activation
- 29A6 Lambda Sensor Pre Cat Bank 1 Signal
- 29A7 Lambda Sensor Pre Cat Bank 1 Signal
- 29A8 Power Management Vehicle Electrical System
- 29A9 Power Management Battery
- 29AB Torque Request via CAN
- 29AE Tank Cap
- 29B5 Aux Air System
- 29B6 Cylinder Cutout
- 29CC Misfire Several Cylinders
- 29CD Misfire Cyl 1
- 29CE Misfire Cyl 2
- 29CF Misfire Cyl 3
- 29D0 Misfire Cyl 4
- 29DD Rough Running Detection
- 29E5 Mixture Adaptation 1 Air Density Upper Speed Range
- 29E6 Mixture Adaptation 2 Air Density Upper Speed Range
- 29E7 Mixture Adaptation 1 Air Leak
- 29E8 Mixture Adaptation 2 Air Leak
- 29ED Mixture Adaptation 1 Air Density Lower Speed Range



- 29EE Mixture Adaptation 2 Air Density Lower Speed Range
- 29F4 Catalytic Converter Efficiency 1
- 29FE Aux Air System
- 29FF Aux Air System
- 2A03 Aux Air Pump Relay
- 2A19 Tank Venting Valve
- 2A59 Valvetronic Eccentric Shaft Sensor 1
- 2A5B Valvetronic Eccentric Shaft Sensor 1
- 2A5D Valvetronic Eccentric Shaft Sensor 1
- 2A5F Valvetronic Eccentric Shaft Sensor 1
- 2A61 Valvetronic Adaptation 1
- 2A63 Valvetronic Servomotor 1
- 2A67 Valvetronic Internal Fault
- 2A69 Valvetronic Voltage Supply Servomotor 1
- 2A6B Valvetronic Power Limitation Servomotor
- 2A6C Valvetronic Adaptation
- 2A6D Valvetronic Electrical Overload Protection 1
- 2A6F Valvetronic Minimum Lift Exceeded
- 2A70 Valvetronic Servomotor
- 2A71 Valvetronic Relief Relay
- 2A80 Inlet VANOS Activation 1
- 2A83 Inlet VANOS 1
- 2A85 Exhaust VANOS Activation 1
- 2A88 Exhaust VANOS 1
- 2B5C Crankshaft Sensor
- 2B5D Crankshaft Sensor
- 2B62 Camshaft Sensor 1 Inlet
- 2B63 Camshaft Sensor 2 Exhaust
- 2B66 Camshaft Sensor
- 2B70 Variable Intake System
- 2B7F Idle Speed Control
- 2B80 Idle Speed Control
- 2B8A Control Module- Internal Fault Knock Control
- 2B8B Control Module- Internal Fault Knock Control
- 2B8C Control Module- Internal Fault Knock Control
- 2B98 Control Module- Internal Fault RAM
- 2B99 Control Module- Internal Fault RAM
- 2B9A Control Module- Internal Fault RAM
- 2B9B Control Module- Internal Fault ROM
- 2B9C Control Module- Internal Fault Reset
- 2BA7 Engine Torque too High
- 2C24 Lambda Sensors Pre Cat Swapped
- 2C45 Lambda Sensor Pre Cat 1
- 2C46 Lambda Sensor Pre Cat 2
- 2C6A Lambda Sensor Post Cat Swapped
- 2C6D Lambda Sensor Post Cat 1 Timing
- 2C6E Lambda Sensor Post Cat 2 Timing
- 2C6F Lambda Sensor Post Cat 1
- 2C70 Lambda Sensor Post Cat 2
- 2C71 Lambda Sensor Post Cat 1
- 2C72 Lambda Sensor Post Cat 2
- 2C9C Lambda Sensor Heater Pre Cat 1

- 2C9D Lambda Sensor Heater Pre Cat 2
- 2CA0 Lambda Sensor Heater Pre Cat 1
- 2CA1 Lambda Sensor Heater Pre Cat 2
- 2CA2 Lambda Sensor Heater Pre Cat 1
- 2CA3 Lambda Sensor Heater Pre Cat 2
- 2CA8 Lambda Sensor Heater Post Cat 1
- 2CA9 Lambda Sensor Heater Post Cat 2
- 2CEF Throttle Valve Actuator
- 2CF0 Throttle Valve Actuator
- 2CF1 Throttle Valve Actuator
- 2CF8 Throttle Valve Potentiometer
- 2CF9 Throttle Valve Potentiometer 1
- 2CFA Throttle Valve Potentiometer 2
- 2CFF Throttle Valve Actuator
- 2D00 Throttle Valve Actuator
- 2D01 Throttle Valve Actuator
- 2D02 Throttle Valve Actuator
- 2D03 Throttle Valve Actuator
- 2D04 Throttle Valve Actuator
- 2D05 Throttle Valve Actuator
- 2D08 Throttle Actuator
- 2D0F Mass Air Flow Sensor Signal
- 2D19 Accelerator Pedal Module
- 2D1A Accelerator Pedal Module
- 2D1B Accelerator Pedal Module Signal 1
- 2D1C Accelerator Pedal Module Signal 2
- 2D28 Intake Manifold Pressure Sensor Signal
- 2D29 Intake Manifold Pressure Sensor Plausibility
- 2D6E Control Module Internal Fault Torque Monitoring
- 2D6F Load Sensor Monitoring
- 2D70 Control Module Internal Fault
- 2D71 Control Module Internal Fault
- 2D72 Control Module Internal Fault
- 2D73 Fuel Pressure Sensor
- 2D74 Fuel Pressure Sensor
- 2D75 Crankshaft Sensor
- 2D76 Accelerator Pedal Module
- 2E24 Ignition Coil Cyl 1
- 2E25 Ignition Coil Cyl 2
- 2E26 Ignition Coil Cyl 3
- 2E27 Ignition Coil Cyl 4
- 2E30 Fuel Injector Cyl 1
- 2E31 Fuel Injector Cyl 2
- 2E32 Fuel Injector Cyl 3
- 2E33 Fuel Injector Cyl 4
- 2E68 Knock Sensor Signal 1
- 2E69 Knock Sensor Signal 2
- 2E95 Generator
- 2E97 Generator
- 2EE0 Engine Coolant Temperature Sensor Signal
- 2EEA Radiator Outlet Temperature Sensor Signal
- 2EF4 Map Thermostat Mechanism Jammed

- 2EF5 Map Thermostat Activation
- 2EFE Electric fan
- 2F08 Intake Air Temperature Sensor Signal
- 2F12 AirCon Compressor Relay
- 2F17 Engine Oil Temperature too High
- 2F44 EWS Intervention
- 2F45 EWS Data Line
- 2F46 EWS Calibration
- 2F4E Road Speed Signal
- 2F62 Brake Light Switch
- 2F67 Clutch Switch
- 2F76 Control Module Internal Fault Ambient Pressure Sensor
- 2F85 Control module Internal fault Internal Temperature Sensor
- 2F8A Power Supply
- 2F94 Fuel Pump Relay Activation
- 2F99 External Temperature Sensor Plausibility
- 2F9E Oil Level Sensor
- 2FA3 Coding Error
- **DDE 1**

### Decimal

- 1 RPM Sensor
- 2 Fuel Temperature Sensor
- 3 Coolant Temperature Sensor
- 4 Pedal Position Sensor
- 5 Boost Pressure Sensor
- 6 TPS
- 7 Boost Pressure Regulator
- 8 Air Mass Meter
- 10 Speed Regulator
- 11 DDE Error
- 12 Inlet Air Temperature Sensor
- 13 RPM Signal
- 14 Injection Phasing Sensor
- 15 Exhaust Gas Recirculation
- 16 Injection Phasing Regulator
- 17 Brake Light Test Switch
- 36 Coolant Level Sensor
- **DDE 2 and DDE 2.1**

### Decimal

- 1 Injection Pump Mass Positioner
- 3 Shut off Valve
- 5 Injection Start Sensor Cyl4
- 6 Glow Plug Timing Control
- 8 Exhaust Gas Recirculation
- 10 Injection Phasing Control Deviation
- 15 Voltage Supply DDE
- 20 Cruise Control Switch

- 21 Injection Pump Position Potentiometer
- 28 Clutch switch
- 29 Vehicle Speed Signal
- 31 Brake Switch
- 35 Fuel Temperature Sensor
- 36 Fuel Filter Water Trap
- 37 Pedal Position Sensor
- 41 Glow Plug Timing Control
- 45 DWA Immobiliser
- 47 RPM Sensor
- 52 Charge Air Temperature Sensor
- 53 Coolant Temperature Sensor
- 54 Boost Pressure Sensor
- 56 DDE Internal Fault
- 58 DDE Output Stage Error
- 59 Boost Pressure Deviation
- **DDE 2.2**

### Decimal

- 01 Delivery Controller Deviation
- 03 Shut off Valve
- 04 Glow Plug Indicator Lamp)
- 05 Needle Motion Sensor
- 06 Exhaust Gas Recirculation Deviation
- 07 Exhaust Gas Recirculation
- 08 Glow Plug Timing Control
- 09 DDE Error
- 10 Injection Phasing Control Deviation
- 11 DDE Error
- 15 DDE Power Supply -Main Relay
- 16 Voltage Supply B+
- 20 Cruise Control Operation
- 21 DDE Error
- 23 AirCon Signal
- 25 Pedal Position Sensor
- 26 Brake Light Switch or Brake Light Test Switch
- 28 Auto Gearbox Selector Switch
- 29 Vehicle Speed Signal
- 30 EGR Switch
- 31 Brake Light Test Switch
- 32 Multifunction Steering Wheel Cruise Control
- 35 Fuel Temperature Sensor
- 36 Oil Temperature Sensor
- 37 Pedal Position Sensor
- 38 Air Flow Meter HFM
- 42 ADS
- 44 AirCon Switch
- 45 DWA Signal
- 46 DDE Error
- 47 RPM Sensor
- 49 Signal to Instrument Cluster

- 52 Intake Air Temperature Sensor
- 53 Coolant Temperature Sensor
- 54 Boost Pressure Sensor
- 56 Injection Pump Position Sensor
- 58 Injection Quantity
- 59 Boost Pressure Control
- 60 DDE Power Supply
- 63 Cruise Control Adjustment
- 64 DDE Error
- 66 Fuel Supply
- 67 Air Supply Deviation
- 100 Cruise Control Adjustment Fault
- 101 Boost Pressure Control Deviation
- 102 DDE Error
- 103 DDE Error
- 104 DDE Error
- 105 DDE Error
- 106 DDE Output Stage
- 108 Variant Coding
- 109 Variant Coding
- 110 AirCon Poor Operation
- 111 EEPROM checksum Injection Pump Adaptation
- 112 CAN Error – EGS Control Unit
- 113 CAN Error – ASC Control Unit
- 114 CAN Error – Instrument Cluster
- **DDE 3**

### Hexadecimal

- 01 Fuel Quantity Regulator
- 03 Shut off Valve
- 05 Needle Motion Sensor
- 06 Exhaust Gas Recirculation Deviation
- 08 Glow system
- 0A Delivery Control Deviation
- 10 DDE Power Supply
- 11 DDE Low Voltage
- 12 DDE Voltage Supply
- 13 DDE Main Relay
- 1A Brake Light Switch or Brake Light Test Switch
- 1B Electric Auxiliary Heater
- 1C Clutch Switch
- 1D Vehicle Speed Signal
- 20 Cruise Control Operation
- 23 Fuel Temperature Sensor
- 24 Oil Temperature Sensor
- 25 Pedal Position Sensor
- 26 Air Flow Meter HFM
- 2D EWS
- 2E Injection Pump RPM Sensor
- 2F Crankshaft Sensor
- 34 Temperature Sensor

- 35 Coolant Temperature Sensor
- 36 Boost Pressure Sensor
- 40 DDE Error
- 41 Solenoid Shut off Valve
- 42 DDE Error -EEPROM or Coding
- 43 Injection Pump Control Unit
- 44 Solenoid Valve
- 45 DDE Error -CAN Control
- 46 Injection Pump Signal
- 47 RPM Sensor Synchronicity
- 48 Fuel Injection Regulation
- 49 RPM Sensor Injection Pump
- 50 Boost Actuator
- 52 ECU Ventilator Fault
- 56 Coolant Fan Fault
- 64 DDE Error
- 65 Boost Pressure Regulation
- 6B Atmospheric Pressure Sensor
- 72 CAN BUS
- 73 RPM Sensor Injection Pump
- 74 Air Flow Meter Signal
- 75 Alternator Load Signal
- 77 Ambient Temperature Sensor
- 78 Air Flow Meter Signal
- 85 Coolant Fan Fault
- **DDE 4 and DDE 4.1**

### Hexadecimal

- 0100 Air Flow Sensor HFM
- 0105 Atmospheric Pressure Sensor
- 0110 Intake Air Temperature Sensor
- 0115 Coolant Temperature Sensor
- 0120 Pedal Position Sensor 1
- 0190 Rail Pressure Sensor
- 0200 Injector Cylinder 1
- 0201 Injector Cylinder 5
- 0202 Injector Cylinder 3
- 0203 Injector Cylinder 6
- 0204 Injector Cylinder 2
- 0205 Injector Cylinder 4
- 0220 Pedal Position Sensor 2
- 0235 Boost Pressure Sensor
- 0335 Crankshaft RPM
- 03E6 Exhaust Gas Recirculation Regulation
- 0400 Exhaust Gas Recirculation
- 0404 Exhaust Gas Recirculation 2
- 0480 Electric ECU Fan
- 0500 Vehicle Speed Sensor Signal
- 0560 Internal Reference Voltage
- 0600 DDE Error CAN Controller
- 0605 DDE Error

- 1190 Rail Pressure Regulation
- 1195 Rail Pressure Sensor
- 1250 Delivery Pump Relay
- 1255 Delivery Pump Pressure Sensor
- 1260 Delivery Pump Control System
- 1470 Boost Pressure Regulation
- 1612 DME Incorrectly Coded
- 1613 MAP Control
- 1640 DDE Error EEPROM or Coding
- 1A04 Aux. Heater
- 1DF0 Engine Stall
- 1DF5 EWS – Timeout
- 1E00 CAN Communication to ASC
- 1E05 Vehicle Speed Sensor
- 1E25 RPM Regulation
- 1E30 Boost Pressure Regulation or Actuator
- 1E31 Boost Pressure Regulation
- 1E35 Error During Switch off
- 1E40 A/D Converter
- 1E45 Capacitor Voltage 1 for Cyl 1, 2, 3
- 1E50 Capacitor Voltage 2 for Cyl 4, 5, 6
- 1E55 RPM Control
- 1E60 Power Supply Pedal Sensor 1
- 1430 Boost Pressure or Actuator
- 2800 DDE Power Supply
- 3000 Brake Light or Brake Light Test Switch
- 3005 Voltage Supply KL15
- 3505 Glow Plug System
- 3506 Glow Plug System 2
- 3510 DDE Main Relay
- 3515 AirCon Power Output
- 3520 Engine Boost Actuation
- 3565 High Pressure Pump
- 3580 High Pressure Pump Shut Off Valve
- 3596 Brake Light Switch
- 3600 Atmospheric Pressure Sensor
- 3605 Air Flow Meter HFM 1 or 2
- 3610 Exhaust Gas Recirculation System
- 3615 Exhaust Gas Recirculation System -Regulation
- 3620 Air Flow Meter HFM Signal
- **DDE 5, DDE 6, DDE 6.2 and DDE 6.3**

### Hexadecimal

- 3E90 Crankshaft RPM – No Signal
- 3E91 Crankshaft RPM – Wrong Signal
- 3E95 Intake air Temperature Sensor
- 3EA0 Crankshaft Position Sensor
- 3EA1 Crankshaft Position Sensor
- 3EA5 Intake air Temperature Sensor
- 3EA6 Intake air Temperature Sensor
- 3EB0 RPM Calculation

- 3EB5 Air flow Sensor 2
- 3EB6 Air flow Sensor 2
- 3EC0 Camshaft Sensor – No Signal
- 3EC1 Camshaft Sensor – Wrong Signal
- 3EC7 Camshaft Sensor
- 3ED0 Camshaft Sensor – No Signal
- 3ED1 Camshaft Sensor – Wrong Signal
- 3ED5 Air Flow Sensor 2
- 3ED6 Air Flow Sensor 2
- 3EDC Variant Coding
- 3EDD Variant Coding
- 3EE0 Coolant Temperature Sensor -Short Circuit to B+ or Open
- 3EE1 Coolant Temperature Sensor -Short Circuit to B-
- 3EE2 Coolant Temperature Sensor
- 3EE3 Coolant Temperature Sensor
- 3EE5 Air Mass Flow Sensor 2
- 3EE6 Air Mass Flow Sensor 2
- 3EE7 Air Mass Flow Sensor 2
- 3EED Power Management Closed Circuit Current
- 3EF3 Coolant Temperature Sensor not Plausible
- 3EF5 Intake Air Temperature Sensor 2 (HFM Reference Signal)
- 3EF6 Intake Air Temperature Sensor 2 (HFM Reference Signal)
- 3EF7 Intake Air Temperature Sensor 2 (HFM Reference Signal)
- 3EFB Thermal Oil Level Sensor
- 3EFC Thermal Oil Level Sensor
- 3EFD Thermal Oil Level Sensor
- 3F00 Boost Pressure Sensor -Short circuit to B+
- 3F01 Boost Pressure Sensor -Short circuit to B- or Open
- 3F02 Boost Pressure Sensor
- 3F03 Boost Pressure Sensor -Plausibility
- 3F05 MIL OFF
- 3F10 Pedal Position Sensor 1
- 3F11 Pedal Position Sensor 1 – Short circuit to B-
- 3F13 Pedal Position Sensor 1 – Potentiometer Plausibility
- 3F15 MIL ON
- 3F20 Pedal Position Sensor 2
- 3F21 Pedal Position Sensor 2 – Short Circuit to B-
- 3F23 Pedal Position Sensor 2 – Potentiometer Plausibility
- 3F25 Input Air Flow Control
- 3F30 Rail Pressure Sensor – Short Circuit to B+
- 3F31 Rail Pressure Sensor – Short Circuit to B-
- 3F35 Input Air Flow Control at Idle Speed
- 3F40 Rail Pressure Sensor – Max for Compensation
- 3F41 Rail Pressure Sensor – Min for Compensation
- 3F47 Brake Light or Brake Light Test Switch
- 3F48 Brake Light or Brake Light Test Switch
- 3F50 Vehicle Speed Signal – Too High
- 3F51 Vehicle Speed Signal
- 3F52 Vehicle Speed Signal
- 3F53 Vehicle Speed Signal
- 3F60 Pedal Position Sensor Ref. VSS
- 3F62 Vehicle Speed Signal from CAN



- 3F67 Filling Pressure Modulator 2
- 3F70 Intake Air Temperature Sensor
- 3F71 Intake Air Temperature Sensor
- 3F72 Intake Air Temperature Sensor
- 3F77 Boost Pressure Modulator 1
- 3F82 Ambient Temp Sensor
- 3F87 Boost Pressure Modulator 2
- 3F97 Boost Pressure Modulator 1
- 3FB0 Air Flow Meter – Signal too High or Short circuit to B+
- 3FB1 Air Flow Meter – Signal too Low or Short circuit to B-
- 3FB5 Control Master/Slave
- 3FB6 Control Master/Slave
- 3FB7 Control Unit – Internal Master
- 3FC0 Air Flow Meter – Deviation too High at Idle Speed
- 3FD0 Air Flow Meter – Deviation too High
- 3FE0 Air Flow Meter
- 3FE1 Air Flow Meter
- 3FF0 Air Flow Meter
- 3FF1 Air Flow Meter
- 4000 Fuel Temperature Sensor
- 4001 Fuel Temperature Sensor
- 4010 Exhaust Gas Pressure Sensor -Short Circuit to B+
- 4011 Exhaust Gas Pressure Sensor -Short Circuit to B-
- 4020 EGT -Short Circuit to B+
- 4021 EGT -Short Circuit to B-
- 4030 EGT Before Cat -Short Circuit to B+
- 4031 EGT Before Cat -Short Circuit to B-
- 4032 Exhaust Gas Pressure Sensor
- 4060 Atmospheric Pressure Sensor DDE-Short Circuit to B+
- 4061 Atmospheric Pressure Sensor DDE-Short Circuit to B-
- 4062 Atmospheric Pressure Sensor DDE
- 4063 Atmospheric Pressure Sensor DDE-Plausibility Ref. Boost
- 4072 Automatic Gearbox Switch Signal
- 4080 Brake Light or Brake Light Test Switch
- 4082 Brake Light or Brake Light Test Switch
- 4083 Brake Light or Brake Light Test Switch
- 40A1 Alternator Signal
- 40E0 Alternator
- 4100 AirCon Power Output
- 4101 AirCon Power Output
- 4102 AirCon Power Output
- 4103 AirCon Power Output
- 4108 Control Master/Slave
- 410C Swirl Flap Actuator
- 4117 Control Master/Slave
- 4118 Control Master/Slave
- 4120 DDE Main Relay is Switching too Late or too Early
- 4121 DDE Main Relay is Switching too Late or too Early
- 4125 Power Supply
- 4126 Power Supply
- 4130 Swirlflaps – Short Circuit to B+
- 4135 Power Supply

- 4136 Power Supply
- 4140 Swirlflap
- 4141 Swirlflaps – Short Circuit to B-
- 4145 Power Supply
- 4146 Power Supply
- 4152 Swirlflaps – Open Circuit
- 4153 Swirlflaps – Plausibility, Overtemp of Output Stage
- 4155 Exhaust Flap Actuator
- 4156 Exhaust Flap Actuator
- 4157 Exhaust Flap Actuator
- 4158 Exhaust Flap Actuator
- 4160 Raise Pressure Pump – Short Circuit to B+
- 4161 Raise Pressure Pump – Short Circuit to B-
- 4162 Raise Pressure Pump – Activation Interrupted
- 4163 Raise Pressure Pump – Plausibility, Overtemp of Output Stage
- 4165 DPF -Flow Resistance too High
- 4166 DPF -Flow Resistance too Low
- 4175 Exhaust Gas Temp Sensor before DPF
- 4180 Boost Pressure Actuator – Short Circuit to B+
- 4185 Exhaust Gas Temp Sensor before Cat
- 4186 Exhaust Gas Temp Sensor before Cat
- 4188 Exhaust Gas Temp Sensor before Cat
- 4190 Boost Pressure Actuator
- 4191 Boost Pressure Actuator – Short Circuit to B-
- 419A Atmospheric Pressure Sensor DDE
- 419B Atmospheric Pressure Sensor DDE
- 41A0 Boost Pressure Actuator
- 41A1 Boost Pressure Actuator – Adjustment
- 41A2 Boost Pressure Actuator – Open Circuit
- 41A3 Boost Pressure Actuator – Plausibility, Overtemp of Output Stage
- 41A6 Message CBS Reset
- 41A7 Message CBS Reset
- 41AA Boost Pressure Sensor
- 41AB Boost Pressure Sensor
- 41B0 Exhaust Gas Recirculation -Short Circuit to B+
- 41B5 Transmission Fluid Temperature Sensor
- 41BA Exhaust Backpressure Sensor
- 41BB Exhaust Backpressure Sensor
- 41C0 Activation -Fan
- 41C1 Activation -Fan- Short Circuit to B-
- 41C2 Activation -Fan- Activation Interrupted
- 41C3 Activation -Fan- Plausibility, Overtemp of Output Stage
- 41CD Exhaust Backpressure Sensor – Plausibility
- 41D0 Exhaust Gas Recirculation Regulation
- 41D1 Exhaust Gas Recirculation -Short Circuit to B-
- 41D5 Lambda Sensor Bias -Short Circuit to B+
- 41D6 Lambda Sensor Bias -Short Circuit to B-
- 41D7 Lambda Sensor Bias -Open Circuit
- 41E0 Exhaust Gas Recirculation Regulation
- 41E2 Exhaust Gas Recirculation – Open Circuit
- 41E3 Exhaust Gas Recirculation -Plausibility, Overtemp of Output Stage
- 41E5 Lambda Sensor -Short Circuit to B+

- 41E6 Lambda Sensor -Short Circuit to B-
- 41E7 Lambda Sensor -Open Circuit
- 41F0 Electric Ventilator – Short Circuit to B+
- 41F1 Electric Ventilator – Short Circuit to B-
- 41F2 Electric Ventilator – Activation Interrupted
- 41F3 Electric Ventilator – Plausibility, Overtemp of Output Stage
- 41F5 Lambda Sensor Virtual Earth -Short Circuit to B+
- 41F6 Lambda Sensor Virtual Earth -Short Circuit to B-
- 41F7 Lambda Sensor Virtual Earth -Open Circuit
- 4203 Glow Module Communication
- 4205 Lambda Sensor Heating -Short Circuit to B+
- 4206 Lambda Sensor Heating -Short Circuit to B-
- 4207 Lambda Sensor Heating
- 420B EGR in Regen Mode
- 4211 Glow Plug Cyl 1 – Short Circuit to B+
- 4212 Glow Plug Cyl 1 – Activation Interrupted
- 4213 Glow Plug Cyl 1 – Plausibility, Overtemp of Output Stage
- 4217 Lambda Sensor
- 4221 Glow Plug Cyl 2 – Short Circuit to B+
- 4222 Glow Plug Cyl 2 – Activation Interrupted
- 4223 Glow Plug Cyl 2 – Plausibility, Overtemp of Output Stage
- 4225 Lambda Sensor -Signal
- 4226 Lambda Sensor -Signal too Low
- 422A EGR in Regen Mode
- 4231 Glow Plug Cyl 3 – Short Circuit to B+
- 4232 Glow Plug Cyl 3 – Activation Interrupted
- 4233 Glow Plug Cyl 3 – Plausibility, Overtemp of Output Stage
- 4235 Control Unit Internal 21
- 4236 Control Unit Internal 21
- 4241 Glow Plug Cyl 4 – Short Circuit to B+
- 4242 Glow Plug Cyl 4 – Activation Interrupted
- 4243 Glow Plug Cyl 4 – Plausibility, Overtemp of Output Stage
- 4245 Control Unit Internal 22
- 4246 Control Unit Internal 22
- 4251 Glow Plug Cyl 5 – Short Circuit to B+
- 4252 Glow Plug Cyl 5 – Activation Interrupted
- 4253 Glow Plug Cyl 5 – Plausibility, Overtemp of Output Stage
- 4258 Control Unit Internal 23
- 425D Accelerator Pedal Potentiometer Plausibility
- 4261 Glow Plug Cyl 6 – Short Circuit to B+
- 4262 Glow Plug Cyl 6 – Activation Interrupted
- 4263 Glow Plug Cyl 6 – Plausibility, Overtemp of Output Stage
- 4267 Lambda Sensor Shunt Detection
- 4271 Glow Plug Cyl 7 – Short Circuit to B+
- 4272 Glow Plug Cyl 7 – Activation Interrupted
- 4273 Glow Plug Cyl 7 – Plausibility, Overtemp of Output Stage
- 4275 Lambda Sensor Heater
- 4276 Lambda Sensor Heater
- 4281 Glow Plug Cyl 8 – Short Circuit to B+
- 4282 Glow Plug Cyl 8 – Activation Interrupted
- 4283 Glow Plug Cyl 8 – Plausibility, Overtemp of Output Stage
- 4288 Lambda Sensor Heater

- 428B Boost Pressure Control of Large Turbo Control Deviation
- 4293 Control Unit Internal Error 16
- 4296 Lambda Sensor
- 4298 Lambda Sensor
- 429A Boost Pressure Control of Large Turbo Control Deviation
- 42B5 RPM Control
- 42C0 Oil Pressure Indicator Lamp – Short Circuit to B+
- 42C1 Oil Pressure Indicator Lamp – Short Circuit to B-
- 42C2 Oil Pressure Indicator Lamp – Activation interrupted
- 42C3 Oil Pressure Indicator Lamp – Plausibility, Overtemp of Output Stage
- 42D5 Injector Cylinder 7
- 42D6 Injector Cylinder 7
- 42D7 Injector Cylinder 7
- 42D8 Injector Cylinder 7
- 42E2 Changeover Rail Pressure Control
- 42F2 Changeover Rail Pressure Control
- 42F5 Injector Cylinder 8
- 42F6 Injector Cylinder 8
- 42F7 Injector Cylinder 8
- 42F8 Injector Cylinder 8
- 4302 Quantity Regulation Valve – Activation interrupted
- 4303 Quantity Regulation Valve – Plausibility, Overtemp of Output Stage
- 4310 Quantity Regulation Valve – Short Circuit to B+
- 4321 Quantity Regulation Valve – Short Circuit to B-
- 4332 Rail Pressure Regulation Valve – Activation Interrupted
- 4333 Rail Pressure Regulation Valve – Plausibility, Overtemp of Output Stage
- 4340 Rail Pressure Regulation Valve – Short Circuit to B+
- 4351 Rail Pressure Regulation Valve – Short Circuit to B-
- 4360 Rail Pressure Regulation Valve – Current Regulation
- 4361 Rail Pressure Regulation Valve – Current Regulation
- 4362 Rail Pressure Regulation Valve – Current Regulation
- 4373 Air Flow Mass not Plausible
- 4378 Rail Pressure Regulation Valve – Defect
- 4382 Rail Pressure Valve Position Test
- 4390 Boost Air Temperature Sensor – Short Circuit to B+
- 4391 Boost Air Temperature Sensor – Short Circuit to B-
- 4392 Boost Air Temperature Sensor
- 4397 Position Test Volume Adjust Valve
- 43A0 Start-block Relay
- 43A1 Start-block Relay
- 43A2 Start-block Relay
- 43A3 Start-block Relay
- 43C0 Throttle Valve Actuator -Short Circuit to B+
- 43D1 Throttle Valve Actuator -Short Circuit to B-
- 43E2 Throttle Valve Actuator -Open Circuit
- 43E3 Throttle Valve Actuator -Plausibility, Overtemp of Output Stage
- 43F0 Electrical Aux Heater – Short Circuit to B+
- 43F1 Electrical Aux Heater – Short Circuit to B-
- 43F2 Electrical Aux Heater – Activation Interrupted
- 43F3 Electrical Aux Heater – Plausibility, Overtemp of Output Stage
- 4403 Control Unit Internal Error 17
- 4410 Injector Cylinder 1- Activation

- 4411 Injector Cylinder 1- Activation
- 4412 Injector Cylinder 1- Activation
- 4413 Injector Cylinder 1- Activation
- 4417 Control Master/Slave
- 441C Injector Cylinder 1 – Earth Side Activation or Open Circuit
- 4420 Injector Cylinder 2- Activation
- 4421 Injector Cylinder 2- Activation
- 4422 Injector Cylinder 2- Activation
- 4423 Injector Cylinder 2- Activation
- 4428 Control Master/Slave
- 442C Injector Cylinder 2 – Earth Side Activation or Open Circuit
- 4430 Injector Cylinder 3- Activation
- 4431 Injector Cylinder 3- Activation
- 4432 Injector Cylinder 3- Activation
- 4433 Injector Cylinder 3- Activation
- 4438 Control Master/Slave
- 443C Injector Cylinder 3 – Earth Side Activation or Open Circuit
- 4440 Injector Cylinder 4- Activation
- 4441 Injector Cylinder 4- Activation
- 4442 Injector Cylinder 4- Activation
- 4443 Injector Cylinder 4- Activation
- 444C Injector Cylinder 4 – Earth Side Activation or Open Circuit
- 4450 Injector Cylinder 5- Activation
- 4451 Injector Cylinder 5- Activation
- 4452 Injector Cylinder 5- Activation
- 4453 Injector Cylinder 5- Activation
- 445C Injector Cylinder 5 – Earth Side Activation or Open Circuit
- 4460 Injector Cylinder 6- Activation
- 4461 Injector Cylinder 6- Activation
- 4462 Injector Cylinder 6- Activation
- 4463 Injector Cylinder 6- Activation
- 446C Injector Cylinder 6 – Earth Side Activation or Open Circuit
- 4473 Control Unit Internal Error 18
- 4480 Control Unit Internal Error 19
- 4491 Control Unit Internal Error 20
- 44A0 Injectors: Activation Cylinder. 1, 2, 3
- 44A1 Injectors: Activation Cylinder. 1, 2, 3
- 44A3 Injectors: Activation Cylinder. 1, 2, 3
- 44AC Injectors: Activation Cylinder. 1, 2, 3
- 44B0 Injectors: Activation Cylinder. 1, 2, 3
- 44B1 Injectors: Activation Cylinder. 4, 5, 6
- 44B3 Injectors: Activation Cylinder. 4, 5, 6
- 44BC Injectors: Activation Cylinder. 4, 5, 6
- 44C0 Number of Requested Injections Limited
- 44C1 Number of Requested Injections Limited
- 44C2 Number of Requested Injections Limited
- 44D0 Alternator
- 44D2 Alternator
- 44D3 Alternator
- 44E2 Alternator
- 44E3 Alternator
- 44F0 Rail Pressure not Plausible

- 4500 Exhaust Gas Recirculation- Deviation
- 4501 Exhaust Gas Recirculation- Negative Deviation or Air Mass too High
- 4506 Exhaust Gas Recirculation- Deviation
- 4507 Exhaust Gas Recirculation- Positive Deviation or Air Mass too Low
- 4512 Thermal Oil Level Sensor
- 4513 Thermal Oil Level Sensor
- 4521 Boost Pressure Actuator – Regulation Pressure too High
- 452A DPF System
- 4530 Boost Pressure Actuator – Regulation Pressure too Low
- 4536 Power Management
- 453B PT Can Bus
- 453C PT Can Bus
- 453D PT Can Bus
- 4541 Thermal Oil Level Sensor
- 454B Private CAN bus(master)
- 454C Private CAN bus(master)
- 454D Private CAN bus(master)
- 4550 Boost Pressure Modulation 2
- 4560 Rail Pressure Sensor – Plausibility -Pressure too Low
- 4570 Rail Pressure not Plausible
- 4580 Rail Pressure Sensor – Plausibility -Pressure too High
- 4587 Fuel Filter
- 4590 Rail Pressure not Plausible
- 45A0 Rail Pressure Sensor – Plausibility -Pressure too High
- 45A5 Boost Air Temp Sensor 2- Signal
- 45A6 Boost Air Temp Sensor 2- Signal
- 45C0 Rail Pressure not Plausible
- 45E3 Control Master/Slave
- 45F2 Control Master/Slave
- 45F3 Control Master/Slave
- 4600 Rail Pressure Sensor – Plausibility -Pressure too Low
- 4605 DPF System
- 4610 Rail Pressure not Plausible
- 4618 DPF -Plausibility -Pressure Reference
- 4620 Rail Pressure Sensor – Plausibility -Pressure too High
- 4628 DPF System
- 4630 Rail Pressure not Plausible
- 4640 Rail Pressure not Plausible
- 4645 EGR Controller
- 4650 Rail Pressure not Plausible
- 4656 Control Unit Internal 24
- 4660 Power Supply
- 4661 Power Supply
- 4665 DPF Bank 1
- 4666 DPF Bank 1
- 4667 DPF Bank 1
- 4670 Power Supply 1 – Short Circuit to B+
- 4671 Power Supply 1 – Short Circuit to B-
- 4677 Throttle Valve Actuator
- 4680 Power Supply 2 – Short Circuit to B+
- 4681 Power Supply 2 – Short Circuit to B-
- 4687 Throttle Valve Actuator

- 4690 Power Supply
- 4691 Power Supply
- 4697 Throttle Valve Actuator
- 46A0 Control Unit Internal Error 1
- 46A1 Control Unit Internal Error 1
- 46A2 Control Unit Internal Error 1
- 46A3 Control Unit Internal Error 1
- 46A7 Swirl Flap Actuator
- 46B0 Control Unit Internal Error 2
- 46B1 Control Unit Internal Error 2
- 46B2 Control Unit Internal Error 2
- 46B3 Control Unit Internal Error 2
- 46B7 Swirl Flap Actuator
- 46C0 Control Unit Internal Error 3
- 46C1 Control Unit Internal Error 3
- 46C2 Control Unit Internal Error 3
- 46C3 Control Unit Internal Error 3
- 46C7 Swirl Flap Actuator
- 46D0 Control Unit Internal Error 4
- 46D1 Control Unit Internal Error 4
- 46D2 Control Unit Internal Error 4
- 46D3 Control Unit Internal Error 4
- 46D5 Compressor Bypass Activation
- 46D6 Compressor Bypass Activation
- 46D7 Compressor Bypass Activation
- 46D8 Compressor Bypass Activation
- 46E0 Control Unit Internal Error 5
- 46E1 Control Unit Internal Error 5
- 46E2 Control Unit Internal Error 5
- 46E3 Control Unit Internal Error 5
- 46E5 Wastegate Valve Activation
- 46E6 Wastegate Valve Activation
- 46F0 Control Unit Internal Error 6
- 46F1 Control Unit Internal Error 6
- 46F2 Control Unit Internal Error 6
- 46F3 Control Unit Internal Error 6
- 4700 Control Unit Internal Error 7
- 4701 Control Unit Internal Error 7
- 4702 Control Unit Internal Error 7
- 4703 Control Unit Internal Error 7
- 4707 Wastegate Valve Activation
- 4708 Wastegate Valve Activation
- 4710 Control Unit Internal Error 8
- 4711 Control Unit Internal Error 8
- 4712 Control Unit Internal Error 8
- 4713 Control Unit Internal Error 8
- 4720 Control Unit Internal Error 9
- 4721 Control Unit Internal Error 9
- 4722 Control Unit Internal Error 9
- 4723 Control Unit Internal Error 9
- 4730 Quantity Regulation Current Regulation
- 4731 Quantity Regulation Current Regulation

- 4732 Quantity Regulation Current Regulation
- 4740 Control Unit Internal Error 11
- 4747 Injectors – Amplifier Adjustment(control unit internal)
- 4750 Control Unit Internal Error 12
- 4753 Control Unit Internal Error 12
- 475A Exhaust Backpressure Sensor- Bank 2
- 475B Exhaust Backpressure Sensor- Bank 2
- 4763 Control Unit Internal Error 13
- 4765 Injector Cyl 1 – Activation
- 4766 Injector Cyl 1 – Activation
- 4767 Injector Cyl 1 – Activation
- 4768 Injector Cyl 1 – Activation
- 476A Injector Cyl 4/5/6 Buffer Voltage Measurement(control unit internal)
- 476B Injector Cyl 4/5/6 Buffer Voltage Measurement(control unit internal)
- 4770 Control Unit Internal Error 14
- 4771 Control Unit Internal Error 14
- 4772 Control Unit Internal Error 14
- 4773 Control Unit Internal Error 14
- 477C Injectors Activation Duration(control unit internal)
- 4780 Control Unit Internal Error 15
- 4781 Control Unit Internal Error 15
- 4782 Control Unit Internal Error 15
- 4783 Control Unit Internal Error 15
- 4785 Injector Cyl 2 – Activation
- 4786 Injector Cyl 2 – Activation
- 4787 Injector Cyl 2 – Activation
- 4788 Injector Cyl 2 – Activation
- 478C Injector Activation Duration(control unit internal)
- 4792 Monitoring Master/Slave
- 4793 Monitoring Master/Slave
- 4795 Injector Cyl 3 – Activation
- 4796 Injector Cyl 3 – Activation
- 4797 Injector Cyl 3 – Activation
- 4798 Injector Cyl 3 – Activation
- 47A5 Injector Cyl 4 – Activation
- 47A6 Injector Cyl 4 – Activation
- 47A7 Injector Cyl 4 – Activation
- 47A8 Injector Cyl 4 – Activation
- 47AB Private CAN Bus(Slave)
- 47AC Private CAN Bus(Slave)
- 47AD Private CAN Bus(Slave)
- 47B5 Injector Cyl 5 – Activation
- 47B6 Injector Cyl 5 – Activation
- 47B7 Injector Cyl 5 – Activation
- 47B8 Injector Cyl 5 – Activation
- 47BB Power Train CAN Bus(Slave)
- 47BC Power Train CAN Bus(Slave)
- 47BD Power Train CAN Bus(Slave)
- 47C5 Injector Cyl 6 – Activation
- 47C6 Injector Cyl 6 – Activation
- 47C7 Injector Cyl 6 – Activation
- 47C8 Injector Cyl 6 – Activation



- 47D5 Injector Cyl 7 – Activation
- 47D6 Injector Cyl 7 – Activation
- 47D7 Injector Cyl 7 – Activation
- 47D8 Injector Cyl 7 – Activation
- 47E5 Injector Cyl 8 – Activation
- 47E6 Injector Cyl 8 – Activation
- 47E7 Injector Cyl 8 – Activation
- 47E8 Injector Cyl 8 – Activation
- 4803 Torque Control ACC
- 480A DPF -Bank 1
- 4810 Torque Control ACC
- 481A DPF -Bank 1
- 4830 Intake Air Temperature Sensor
- 4831 Intake Air Temperature Sensor
- 483D Throttle Actuator
- 4841 Exhaust Gas Recirculation Regulation 2
- 484A Accelerator Pedal Potentiometer -Signal
- 4850 Exhaust Gas Recirculation Regulation 2
- 4857 Swirl Flap Actuator
- 4863 Vehicle Speed Regulation
- 4867 Swirl Flap Actuator
- 486D Control Unit Software Fault
- 4877 Swirl Flap Actuator
- 487A Lambda Sensor Bank 2 – Bias Voltage
- 487B Lambda Sensor Bank 2 – Bias Voltage
- 487C Lambda Sensor Bank 2 – Bias Voltage
- 4887 Swirl Flap Actuator
- 488A Lambda Sensor Bank 2 – Pump Current
- 488B Lambda Sensor Bank 2 – Pump Current
- 488C Lambda Sensor Bank 2 – Pump Current
- 4896 Swirl Flap Actuator
- 489A Lambda Sensor Bank 2 – Virtual Ground
- 489B Lambda Sensor Bank 2 – Virtual Ground
- 489C Lambda Sensor Bank 2 – Virtual Ground
- 48A2 CAN Communication with ASC
- 48A3 CAN Communication with ASC
- 48B2 CAN Communication with ASC
- 48B3 CAN Communication with ASC
- 48B5 Injectors Voltage Measurement(control unit internal)
- 48B6 Injectors Voltage Measurement(control unit internal)
- 48B7 Injectors Voltage Measurement(control unit internal)
- 48BC Lambda Sensor Bank 2
- 48C2 CAN Communication with EGS
- 48C5 Injectors Voltage Measurement(control unit internal)
- 48C6 Injectors Voltage Measurement(control unit internal)
- 48C7 Injectors Voltage Measurement(control unit internal)
- 48CA Lambda Sensor Bank 2
- 48CB Lambda Sensor Bank 2
- 48D2 CAN Communication with Instrument Cluster
- 48D3 CAN Communication with Instrument Cluster
- 48DA Control Unit Internal 25
- 48DB Control Unit Internal 25

- 48EA Control Unit Internal 26
- 48EB Control Unit Internal 26
- 48F2 CAN BUS Hardware
- 48F3 CAN BUS Hardware
- 48F7 Injectors Wiring Loom
- 48FD Control Unit Internal 27
- 4900 DSC Torque Intervention
- 4907 Injectors Selector Switch(control unit internal)
- 490B Control Unit Internal 28
- 4912 CAN BUS Hardware Defect in Operation
- 4913 CAN BUS Hardware Fault in Initialisation
- 4917 Injectors Charge Switch(control unit internal)
- 4920 Transmission Link
- 4925 Throttle Valve Actuator 2 Activation
- 492A Lambda Sensor Bank 2 Heater
- 492B Lambda Sensor Bank 2 Heater
- 4936 Throttle Valve Actuator 2 Activation
- 493D Lambda Sensor Bank 2
- 4947 Throttle Valve Actuator 2 Activation
- 4948 Throttle Valve Actuator 2 Activation
- 494D Lambda Sensor Bank 2
- 4957 Throttle Valve Actuator 2
- 495A Exhaust Temp Sensor before DPF Bank 2
- 495B Exhaust Temp Sensor before DPF Bank 2
- 4967 Throttle Valve Actuator 2
- 496A DPF Bank 2
- 497A DPF Bank 2
- 4991 Message : Instrument Cluster
- 4992 Message : Instrument Cluster
- 4997 Throttle Valve Actuator 2
- 49A2 Message : Ambient Temperature
- 49B0 Message : Torque Request
- 49C0 Message : Torque Request
- 49D2 Message : Torque Request
- 49E0 Message : Torque Request
- 49E7 Throttle Actuator
- 49F2 Message : Vehicle Speed
- 49F3 Message : Vehicle Speed
- 4A02 Terminal 15
- 4A03 Terminal 15
- 4A07 Alternator
- 4A08 Alternator
- 4A10 BSD Interface
- 4A13 BSD Interface
- 4A15 Alternator
- 4A17 Alternator
- 4A18 Alternator
- 4A22 Boost Air Pressure Actuator 2 Activation
- 4A23 Boost Air Pressure Actuator 2 Activation
- 4A25 Intelligent Battery Sensor
- 4A27 Intelligent Battery Sensor
- 4A28 Intelligent Battery Sensor

- 4A30 Multifunction Steering Wheel- Toggle Bit
- 4A31 Multifunction Steering Wheel- Frequency Counter
- 4A32 Multifunction Steering Wheel- No Signal
- 4A33 Multifunction Steering Wheel- Signal not Plausible
- 4A35 Intelligent Battery Sensor
- 4A37 Intelligent Battery Sensor
- 4A38 Intelligent Battery Sensor
- 4A41 EWS Interface
- 4A42 EWS Interface
- 4A43 EWS Interface
- 4A45 Intelligent Battery Sensor
- 4A47 Intelligent Battery Sensor
- 4A48 Intelligent Battery Sensor
- 4A50 EWS Code Storage
- 4A51 EWS Code Storage
- 4A56 Power Management Battery
- 4A58 Power Management Battery
- 4A60 EWS Manipulation
- 4A61 EWS Manipulation
- 4A62 EWS Manipulation
- 4A63 EWS Manipulation
- 4A65 Power Management Vehicle Electrical System
- 4A66 Power Management Vehicle Electrical System
- 4A67 Power Management Vehicle Electrical System
- 4A70 Reference Values Incorrect
- 4A80 Intake Air Hose
- 4AA2 CAN Communication with EGS
- 4AA3 CAN Communication with EGS
- 4AB0 Electrical Aux Heater
- 4AD5 Zero Quantity Adaptation Injector 1
- 4AD6 Zero Quantity Adaptation Injector 1
- 4AE0 E-Box Ventilator -Short circuit to B+
- 4AE1 E-Box Ventilator -Short circuit to B-
- 4AE2 E-Box Ventilator -Activation Interrupted
- 4AE3 E-Box Ventilator -Plausibility, Overtemp of Output Stage
- 4AE5 Zero Quantity Adaptation Injector 2
- 4AE6 Zero Quantity Adaptation Injector 2
- 4AF0 Control Unit Temperature Sensor
- 4AF1 Control Unit Temperature Sensor
- 4AF5 Zero Quantity Adaptation Injector 3
- 4AF6 Zero Quantity Adaptation Injector 3
- 4B00 Control Unit Temperature
- 4B05 Zero Quantity Adaptation Injector 4
- 4B06 Zero Quantity Adaptation Injector 4
- 4B10 Smooth Running Regulation -Correction Quantity too High
- 4B11 Smooth Running Regulation -Correction Quantity too Low
- 4B15 Zero Quantity Adaptation Injector 5
- 4B16 Zero Quantity Adaptation Injector 5
- 4B20 Electro ventilator -Blocked
- 4B22 Electro Ventilator
- 4B25 Zero Quantity Adaptation Injector 6
- 4B26 Zero Quantity Adaptation Injector 6

- 4B35 Oil Sensor
- 4B36 Oil Sensor
- 4B37 Oil Sensor
- 4B38 Oil Sensor
- 4B45 Injector Cyl 1 Energy Consumption Measurement
- 4B50 Quantity Compensation
- 4B55 Injector Cyl 2 Energy Consumption Measurement
- 4B60 Quantity Compensation
- 4B65 Injector Cyl 3 Energy Consumption Measurement
- 4B75 Injector Cyl 4 Energy Consumption Measurement
- 4B80 Rail Pressure not Plausible
- 4B85 Injector Cyl 5 Energy Consumption Measurement
- 4B90 Rail Pressure Control at Engine Start
- 4B95 Injector Cyl 6 Energy Consumption Measurement
- 4BA0 Intake Air Temperature Sensor -Signal too High or Short
- 4BA1 Intake Air Temperature Sensor -Signal too Low
- 4BB0 Air Flow Sensor Power Supply
- 4BB1 Air Flow Sensor Power Supply
- 4BB5 Air Flow Meter -Signal too Low
- 4BB6 Air Flow Meter -Signal too High
- 4BC0 Air Flow Meter -Signal too Low
- 4BC1 Air Flow Meter -Signal too High
- 4BC2 Air Flow Meter -Short Circuit
- 4BC5 Intake Air Temperature Sensor
- 4BC6 Intake Air Temperature Sensor
- 4BC7 Intake Air Temperature Sensor
- 4BD2 ARS Torque Request
- 4BD5 Engine Support
- 4BD6 Engine Support
- 4BD7 Engine Support
- 4BD8 Engine Support
- 4BE2 Message : Transmission data
- 4BE7 Message : Transmission data 2
- 4BF2 Message : Air Conditioning
- 4BF7 Message : Range
- 4C00 Message : Cruise Control
- 4C01 Message : Cruise Control
- 4C02 Message : Cruise Control
- 4C06 Message : ARS Status
- 4C07 Message : ARS Status
- 4C12 Message : DSC Status
- 4C15 Message : Terminal 15
- 4C16 Message : Terminal 15
- 4C17 Message : Terminal 15
- 4C20 Message : DSC Torque
- 4C21 Message : DSC Torque
- 4C22 Message : DSC Torque
- 4C23 Message : DSC Torque
- 4C27 Message : Vehicle Speed
- 4C28 Message : Vehicle Speed
- 4C45 Injector Cyl 7 Energy Consumption Measurement
- 4C55 Injector Cyl 8 Energy Consumption Measurement

- 4C65 Zero Quantity Adaptation Injector 7
- 4C66 Zero Quantity Adaptation Injector 7
- 4C75 Supply Voltage Air Mass Flow Sensor 2
- 4C76 Supply Voltage Air Mass Flow Sensor 2
- 4C95 Zero Quantity Adaptation Injector 8
- 4C96 Zero Quantity Adaptation Injector 8
- 4CA2 Message : Power Management
- 4CB2 Message : Power Management
- 4CB3 Message : Power Management
- 4CF3 DPF -Plausibility -Exhaust Gas Pressure
- 4D00 Exhaust Backpressure Sensor Bank 1
- 4D03 Exhaust Backpressure Sensor Bank 1
- 4D25 Exhaust Temp Sensor before Catalytic Converter Bank 2
- 4D26 Exhaust Temp Sensor before Catalytic Converter Bank 2
- 4D45 Exhaust Temp Sensor before DPF Bank 2
- 4D46 Exhaust Temp Sensor before DPF Bank 2
- 4D56 DPF Bank 2
- 4D65 DPF System
- 4D75 DPF System
- 4D81 Boost Pressure Actuator 2 Activation
- 4D98 Exhaust Backpressure Sensor Bank 2
- 4DA3 Boost Pressure Control
- 4DA5 Exhaust Backpressure Sensor Bank 2
- 4DA8 Exhaust Backpressure Sensor Bank 2
- 4DB0 EGR Controller 2 Activation
- 4DC1 EGR Controller 2 Activation
- 4DD2 EGR Controller 2 Activation
- 4DD3 EGR Controller 2 Activation
- 4DD5 Exhaust Temp Sensor before DPF Bank 2
- 4DE0 Monitoring Master/Slave – Private CAN
- 4DE1 Monitoring Master/Slave – Private CAN
- 4DE3 Monitoring Master/Slave – Private CAN
- 4DF0 Message : Transmission Torque
- 4DF1 Message : Transmission Torque
- 4DF2 Message : Transmission Torque
- 4DF3 Message : Transmission Torque
- 4DF5 Exhaust Temp Sensor before DPF Bank 2
- 7073 Automatic Gearbox Switch Signal
- CD87 CAN Bus Communication Error
- CD8B CAN Bus -Control Module has Left the Bus

## • **Body Modules**

### **ABS 1**

#### **Decimal**

- 1 ABS Hydraulic Unit
- 2 TPS

- 3 Ignition Timing Error
- 4 Rear Left Speed Sensor or ABS Inlet Valve
- 5 Rear Right Speed Sensor or ABS Inlet Valve
- 6 Front Right Speed Sensor or ABS Inlet Valve
- 7 Front Left Speed Sensor or ABS Inlet Valve
- 8 Rear Left ABS Valve
- 9 Rear Right ABS Valve
- 10 Front Right ABS Valve
- 11 Front Left ABS Valve
- 12 EGS Intervention
- 13 Idle Speed RPM Increasing
- 14 Valve Relay Fault
- 15 ABS Delivery Pump Fault
- 16 Throttle Valve Reduction
- 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 ECU Fault
- 22 Speed Sensor Signal
- 23 Equipment ERROR (Automatic/Manual)
- 24 Incorrect Pulse Generator
- 25 Brake Light Switch
- 27 Idle Speed 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 Front Right Wheel Sensor or ASC Switch Over Valve
- 35 Brake Fluid Level Signal
- 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 Sensor Error
- 47 Outlet Valve – Rear Left
- 48 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 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 Inlet Valve – Front Left
- 55 ASC Shutoff Valve
- 56 CAN ERROR (Short Circuit)
- 57 Throttle Valve Signal from DME
- 58 CAN ERROR (Open Circuit)
- 59 ASC Shutoff Valve
- 60 Signal Fault – Pin 30
- 61 Central Wheel-Blocking
- 62 Max Anti Blocking Adjustment Time

- 63 Processor Fault ECU
- 64 Continuous Control due to Undefined Signal Interference
- 65 Wheel Sensor – Rear Right or 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
- 70 Error 70
- 75 ASC Indication 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 Low
- 90 TimeOut – Passive Switching
- 91 CAN ERROR
- 92 Pressure Sensor Pre Charge Pump
- 94 RPM Sensor (Test)
- 95 Activation
- 96 Actuator Test
- 97 ASC Intake Valve / Steering Angle Sensor
- 98 Separate Valve
- 99 Electro Magnetic Switch Over Valve
- 100 Electro Magnetic 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 Interference -Wheel Speed Signals
- 120 Power Supply too High (> 18V)
- 129 ABS/ASC Main Relay Circuit
- 130 Power Supply – Solenoid Valves
- 131 Wrong Current – Solenoid 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**

### Decimal

- 2 EML Interface Fault
- 3 DME Interface Fault
- 4 Sensor Fault Rear Left
- 5 Sensor Fault Rear Right
- 6 Sensor Fault Front Right
- 7 Sensor Fault Front Left
- 8 ABS Valve Fault Rear Left
- 9 ABS Valve Fault Rear Right
- 10 ABS Valve Fault Front Right
- 11 ABS Valve Fault Front Left
- 12 Solenoid Valve Fault Rear Left
- 13 Solenoid Valve Fault
- 14 ABS Valve Relay Fault
- 15 Rear Feed Pump Fault
- 16 ASC+T Storage Valve Fault
- 17 Wheel Sensor / Inlet Valve Front Left
- 18 Wheel Sensor / Outlet Valve Front Left
- 20 Wheel Sensor / Inlet Valve Front Right
- 24 Wheel Sensor / Outlet Valve Front Right
- 33 Wheel Sensor / Inlet Valve Rear Left
- 34 Wheel Sensor / Outlet Valve Rear Left
- 36 Inlet Valve Rear Right
- 37 Front Right Wheel Speed Sensor
- 40 Rear Output Valve
- 49 Power Supply Solenoids
- 50 Throttle Valve Mechanical Fault
- 56 ASC Separator Valve Fault
- 65 ASC Computer Fault
- 66 DME RPM signal Fault
- 68 Control Unit Defect
- 72 Internal Fault
- 81 Speed Sensor Front Left Connection
- 82 Speed Sensor Front Right Connection
- 84 Speed Sensor Rear Left Connection
- 88 Speed Sensor Rear Right Connection
- 97 Speed Signal Front Left



- 98 Speed Signal Front Right
- 100 Speed Signal Rear Left
- 104 Speed Signal Rear Right
- 113 Speed Information Front Left
- 114 Speed Information Front Right
- 116 Speed Information Rear Left
- 120 Speed Information Rear Right
- 129 DME Connection
- 130 TPS
- 132 Brake Pedal Travel Sensor
- 133 Valve Power Supply too High
- 136 Brake Hydraulics -Quality
- 145 Hydro Pump Failure
- 146 Coding Faulty
- 148 Motor Temperature over CAN bus
- 152 Brake Pedal Travel Sensor -Hydraulics
- 161 Outlet Valve Front Left or Front Left Wheel Sensor
- 162 Outlet Valve Front Right or Front Right Wheel Sensor
- 164 Rear Left Output Valve or Rear Left Wheel Sensor
- 168 Rear Right Output Valve or Rear Right Wheel Sensor
- 177 Valve Power Failure
- 184 CAN ERROR
- 193 DME Ignition Signal
- 255 Accumulator Fault
- **ABS 3**

### Hexadecimal

- 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 Motor
- 5DF2 Internal Error, Valve/ECU Hardware Error, ROM/RAM Check

- 5DF4 Power Supply too Low
- 5DF5 Control Unit Internal Error
- 5DF7 Power Supply too High
- 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 Fault
- 5E07 Tyre Test Lateral Acceleration Sensor Error and Gyration Sensor Fault
- 5E08 Tyre Test Steering Angle 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
- 5E19 CAN DME/DDE Torque Reduction Not Possible
- 5E1A CAN DME/DDE Signal Error
- 5E1E CAN Timeout LWS
- 5E1F Steering Angle Sensor – not Initialised
- 5E59 Coding Error
- 5E5B Switch Pressed Longer than 10s 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 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