VCDS FSI Engine Group and Block Listing (Rev 1.0).

Group	Block 1	Block 2	Block 3	Block 4
001	Engine speed (G28)	Coolant Temperature (G62)	Lamba Control	Conditions For Basic Settings.
003	Engine Speed (G28)	Air Mass Flow	Throttle Valve Value range: 0.0...100.0 %	Ignition Angle
004	Engine Speed (G28)	Voltage Terminal 30 (12.0 - 15.0 V)	Coolant Temperature (G62) Engine Outflow	Air Intake Temperature (G42)
005	Engine Speed (G28)	Engine Load Note: % is inverted. 0% = 100%, 100% = 0%	Vehicle Speed (Kms/Hr)	Operating State
006	Engine Speed (G28)	Engine Load Note: % is inverted. 0% = 100%, 100% = 0%	Air Intake Temperature (G42)	Altitude Correction
007	Engine Speed (G28)	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% = 100%	Coolant Temperature (G62) Engine Outflow	Operating State
008	Brake Switch Status: Inactive/Active	Voltage Terminal 30 (12.0 to 15.0 V)	Intake Manifold Pressure (G71)	Unused Block
010	Engine Speed (G28)	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% =	Throttle Valve Value range: 0.0 to 100.0 %	Ignition Angle

		100%		
011	Engine Speed	Coolant Temperature (G62) Engine Outflow	Air intake Temperature (G42)	Ignition angle
014	Engine Speed (G28)	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% = 100%	Total Misfire Count	Misfire Detection Activated/Disabled
015	Cylinder 1 Misfire Count	Cylinder 2 Misfire Count	Cylinder 3 Misfire Count	Misfire Detection Activated/Disabled
016	Cylinder 4 Misfire count	Misfire Detection Activated/Disabled	Unused Block	Unused Block
018	Lower Engine Speed Threshold	Upper Engine Speed Threshold	Lower Load Threshold	Upper Load Threshold
020	Cylinder 1 Ignition Angle Retardation	Cylinder 2 Ignition Angle Retardation	Cylinder 3 Ignition Angle Retardation	Cylinder 4 Ignition Angle Retardation
022	Engine Speed (G28)	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% = 100%	Cylinder 1 Ignition Angle Retardation	Cylinder 2 Ignition Angle Retardation
023	Engine Speed (G28)	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% = 100%	Cylinder 3 Ignition Angle Retardation	Cylinder 4 Ignition Angle Retardation

026	Cylinder 1 Knock Sensor Voltage	Cylinder 2 Knock Sensor Voltage	Cylinder 3 Knock Sensor Voltage	Cylinder 4 Knock Sensor Voltage
028	Engine Speed (G28)	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% = 100%	Coolant Temperature (G62) Engine Outflow	Knock Sensor Test Result
031	Lambda Sensor 1 (Pre Cat) Pre Cat Control Voltage (Actual)	Lambda Sensor 1 (Pre Cat) Control Voltage (Setpoint)	Unused Block	Unused Block
032	Lambda Sensor 1 (Pre Cat) Idle (Sum) Note: Learning Values	Lambda Sensor 1 (Pre Cat) Partial Load (Product)	Unused Block	Unused Block
033	Lambda Sensor 1 (Pre Cat) (Pre Cat)	Lambda Sensor 1 (Pre Cat) Pre Cat Voltage	Unused Block	Unused Block
034	Engine Speed (G28)	Cat Temperature	Lambda Sensor 1 (Pre Cat) Period Dynamic Value	Lambda Sensor 1 (Pre Cat) Ageing Test Status
036	Lambda Sensor 2 (Post Cat) (Post Cat) Voltage	Lambda Sensor 2 (Post Cat) (Post Cat) Readiness	Unused Block	Unused Block
037	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% = 100%	Lambda Sensor 2 (Post Cat) (Post Cast) Voltage	Lambda Sensor 2 (Post Cat) (Post Cat) Delta Lamba	Lambda Sensor 2 (Post Cat) (Post Cat) Test Result

041	Lambda Control Sensor 1 (Pre Cat) Heating Internal Resistance	Lambda Control Sensor 1 (Pre Cat) Heating Value range: Heater S1 ON Heater S1 OFF	Lambda Sensor 2 (Post Cat) Heating Internal Resistance	Lambda Sensor 2 (Post Cat) Heating Value range: Heater S2 ON Heater S2 OFF
043	Engine Load Note: % is the inverse of actual, ie 100% = 0%, 0% = 100%	Cat Temperature	Lambda Sensor 2 (Post Cat) (Post Cat) Voltage	Lambda Sensor 2 (Post Cat) (post Cat) Ageing Test Status
046	Engine Speed (G28)	Cat Temperature	Conversion	Conversion Test Test ON/Test OFF
050	Engine Speed (G28) (Actual)	Engine Speed (G28) (Setpoint)	Climate Request (A/C) ON/OFF	A/C Compressor ON/OFF
051	Engine Speed (G28) (Actual)	Engine Speed (G28) (Setpoint)	Gear Intervention (Automatics Only)	Voltage Terminal 30 12.0...15.0 V
053	Engine Speed (G28) (Engine Speed Control Alternator Load)	Engine Speed Control (Alternator Load) Engine Speed Setpoint	Voltage Terminal 30 (12.0...15.0 V)	Generator Load Value range: 0.0...100.0 %
054	Engine Speed (G28) (Engine Speed Control Idle Speed Actuator Switch)	Engine Operating State	Accelerator Pedal Position	Throttle Valve Angle

055	Engine Speed (G28) (Engine Speed Control Idle Stabilisation)	Idle Speed Controller	Idle Speed Controller (Learning Value)	Operating State
056	Engine Speed (G28) (Engine Speed Control Idle Stabilisation)	Engine Speed (Setpoint)	Idle Speed Controller	Operating State
057	Engine Speed (G28) (Engine Speed Control Idle Stabilisation, A/C Compressor)	Engine Speed (Setpoint)	A/C Compressor ON/OFF	Compressor Load
060	Throttle Valve Angle (G187) (Engine Speed Control Throttle Valve)	Throttle Valve Angle (G188) (Engine Speed Control Throttle Valve)	Learning Step Counter	Adaptation Status
061	Engine Speed (G28) (Engine Speed Control)	Voltage Terminal 30) (12.0...15.0 V)	Throttle Valve Angle	Operating State
062	Throttle Valve Angle (G187) (Engine Speed Control, E-Gas System, LPG/LNG)	Throttle Valve Angle (G188)	Throttle Pedal Position Sensor 1 (Pre Cat) (G79)	Throttle Pedal Position Sensor 2 (Post Cat) (G185)
064	Throttle Valve (Adaptation) Potentiometer 1	Throttle Valve (Adaptation) Potentiometer 2	Emergency Air Gap Potentiometer 1 Setpoint	Emergency Air Gap Potentiometer 2 Setpoint
066	Vehicle Speed Actual	Cruise Control State	Vehicle Speed (Setpoint)	Switch Position (Stalk)

070	Tank Vent Valve State (Fuel Tank Vent)	Lambda Regular Deviation	Idle Air Control Valve Deviation	Test Result
074	Minimum Position Potentiometer (G212) (EGR)	Maximum Position Potentiometer (G212) (EGR)	Control Potentiometer (G212) (EGR)	Adaptation Status (EGR)
075	6.6% Lambda	0.80 (No Unit)	Mass Air Flow Exhaust Recirculation	Test Result (EGR)
076	760 Minimum RPM	24.1 % Load	0.8 %,Lambda 76,4	11.7 %,Lambda
077	-2 mbar Pressure	1.000 Lambda Factor	0 mbar Pressure	Base Value 1

086	Readiness Code:s 0 = Ready 1 = Not Ready xxxxxxx? = Cat. xxxxxx?x = Cat. Heating xxxxx?xx = Fuel Tank Vent Valve xxxx?xxx = Secondary Air System xxx?xxxx = Air Con xx?xxxxx = Lambda Sensor(s) xxxxxx = Lambda Sensor Heating xxxxxxx = Exhaust Gas Recirculation	Readiness Code:s 0 = Ready 1 = Not Ready xxxxxxx? = Cat. Bank 1 & Bank 3 xxxxxx?x = Cat. Bank 2 & Bank 4 xxxxx?xx = Leak diagnostic pump xxxx?xxx = Tank ventilation valve xxx?xxxx = Lambda Sensor Heating Bank 1 Sensor 1 (Pre Cat) xx?xxxxx = Lambda Sensor Heating bank 1 Sensor 2 (Post Cat) x?xxxxxx = Lambda Sensor heating bank 2 Sensor 1 (Pre Cat) ? xxxxxxx =Lambda Sensor heating bank 2 Sensor 2 (Post Cat)	Readiness Code:s 0xxxxxx? = Bank 1 Sensor 1 (Pre Cat) 0xxxxx?x = Bank 1 Sensor 2 (Post Cat) el. 0xxxx?xx = Bank 1 Sensor 1 (Pre Cat) (delta lambda shift) 0xxx?xxx = Bank 1 Sensor 2 (Post Cat) (Sensor ageing) 0xx?xxxx = Bank 1 Sensor 1 (Pre Cat) (period) 0x?xxxxx = Secondary Air System Bank 1 0?xxxxxx = Secondary Air System Bank 2	Readiness Code:s 000xxxx? = Bank 2 Sensor 1 (Pre Cat) el. ; 000xxx?x = Bank 2 Sensor 2 (Post Cat) el. 000xx?xx = Bank 2 Sensor 1 (Pre Cat) (delta lambda shift) 000x?xxx = Bank 2 Sensor 2 (Post Cat) (Sensor ageing) 000?xxxx = Bank 2 Sensor 1 (Pre Cat) (period)

087	Readiness Code:s xxxxxxx? = Cat. xxxxxx?x = Cat. Heater xxxxx?xx = Fuel Tank Ventilation System xxxx?xxx = Secondary Air System xxx?xxxx = Air Conditioning xx?xxxxx = Lambda Sensor(s) x?xxxxxx = Lambda Sensor Heater ?xxxxxxx = Exhausts Gas Recirculation	Readiness Code:s xxxxxxx? = Cat. Bank 1 & bank 3 xxxxxx?x = Cat. bank 2 & bank 4 xxxxx?xx = Leak Detection Pump xxxx?xxx = Tank Vent Valve xxx?xxxx = Lambda Heater Bank 1 Sensor 1 (Pre Cat) xx?xxxxx = Lambda Heater Bank 1 Sensor 2 (Post Cat) x?xxxxxx = Lambda heater Bank 2 Sensor 1 (Pre Cat) ?xxxxxxx = Lambda heater Bank 2 Sensor 2 (Post Cat)	Readiness Code:s 0xxxxxx? = Bank 1 Sensor 1 (Pre Cat) el. 0xxxxx?x = Bank 1 Sensor 2 (Post Cat) el. 0xxxx?xx = Bank 1 Sensor 1 (Pre Cat) (delta-lambda) 0xxx?xxx = Bank 1 Sensor 2 (Post Cat) (Sensor ageing) 0xx?xxxx = Bank 1 Sensor 1 (Pre Cat) (period) 0x?xxxxx = Secondary Air System Bank 1 0?xxxxxx = Secondary Air System Bank 2	Readiness Code:s 000xxxx? = Bank 2 Sensor 1 (Pre Cat) el. 000xxx?x = Bank 2 Sensor 2 (Post Cat) el. 000xx?xx = Bank 2 Sensor 1 (Pre Cat) (delta-lambda) 000x?xxx = Bank 2 Sensor 2 (Post Cat) (Sensor ageing) 000?xxxx = Bank 2 Sensor 1 (Pre Cat) (period)

088	Cycle Flags, Value Range: 0 = complete 1 = incomplete xxxxxxx? = Output-camshaft bank 2 xxxxxx?x = Output-camshaft bank 1 xxxxx?xx = Input-camshaft bank 2 xxxx?xxx = Input-camshaft bank 1 xxx?xxxx = Knock Sensor 4 xx?xxxxx = Knock Sensor 3 x?xxxxxx = Knock Sensor 2 (Post Cat) ?xxxxxxx = Knock Sensor 1 (Pre Cat)	Cycle Flags, Value Range: 0 = complete 1 = incomplete xxxxxxx? = Brake light switch xxxxxx?x = Clutch switch xxxxx?xx = Idle control xxxx?xxx = Engine speed xxx?xxxx = Idle switch xx?xxxxx = Coolant temperature Sensor x?xxxxxx = Throttle valve potentiometer ?xxxxxxx = Air mass flow	Cycle Flags, Value Range: 0 = complete 1 = incomplete xxxx?000 = Thermostat (USA only) xxx?x000 = Boost pressure control xx?xx000 = CC controller x?xxx000 = Lambda adaptation B2 (Sum of TRA and FRA) ?xxxx000 = Lambda adaptation B1 (Sum of TRA and FRA)	Unused Block.

089	On Board Diagnostics Km driven with EML Setpoint: 0 km	On Board Diagnostics Empty Tank Status Value range: OK/Low	Unused Block	
091	Intake Camshaft Continuous Adjustment: Engine speed,(G28)	Intake Camshaft Continuous Adjustment: Engine Load Value Range: 0.0 to 100.0 %	Intake Camshaft Continuous Adjustment: Adjustment Angle: Actual	Intake Camshaft Continuous Adjustment: Adjustment Angle: Setpoint
093	Intake Camshaft Adaptation Angle Engine speed (G28)	Intake Camshaft Adaptation Angle Engine Load Value Range: 0.0 to 100.0 %	Intake Camshaft Adaptation Angle Phasing	Unused Block

094	Intake Camshaft Continuous Adjustment: Engine speed,(G28)	Intake Camshaft Continuous Adjustment Angle Setpoint: 20.0 to 28.0 °KW	Intake Camshaft Continuous Adjustment: Test Result Value Range: Test On Test Off System OK System Not OK Setpoint: System OK	Unused Block

100	Readiness Code: Value Range: 0 = complete 1 = incomplete xxxxxxx? = Cat. xxxxxx?x = Cat. Heater xxxxx?xx = Tank Vent xxxx?xxx = Secondary Air System xxx?xxxx = Air Con xx?xxxxx = Lambda Sensor x?xxxxxx = Lambda Sensor Heater ?xxxxxxx = Exhaust Gas Recirculation	Readiness Code: Coolant Temperature (G62) Value Range: -48.0 to +143.0°C Setpoint (Warm): 80.0...110.0 °C	Readiness Code: Time Since Engine Start	Readiness Code: OBD Status xxxx--x1 = Warm Up Cycle Not Recognised xxxx--1x = Warm Up Cycle Detected xxx1--xx = Error Detected xx1x--xx = Drive Cycle Complete x1xx--xx = Drive Cycle Detected 1xxx--xx = EML Active
101	Injection Engine Speed (G28)	Injection Engine Load Value range: 0.0 to 100.0 %	Injection Injection Time	Injection Air Mass Flow Meter, (G70
102	Injection Engine Speed (G28)	Injection Coolant,Temperature (G62) Value range: -48.0 to +143.0 °C Setpoint: (Warm): 80.0 to 110.0 °C	Injection Air Intake Temperature (G42) Value range: -48.0 to +143.0 °C	Injection Injection Time

105	Cylinder Deactivation Engine Speed (G28)	Cylinder Deactivation Engine Load Value range: 0.0 to 100.0 %	Cylinder Deactivation Coolant Temperature (G62) Value Range: -40.5 to +135.0 °C Setpoint: 80.0 to 110.0 °C	Cylinder Deactivation Status Value range: Active Inactive
107	Lambda Control Engine Speed (G28)	Lambda Control Bank 1 Value Range: -25.0 to +25.0 %	Unused Block	Lambda Control Result Value range: Test OFF Test ON System OK System Not OK Setpoint: System OK
110	Load/Full Load Enrichment Engine Speed (G28)	Load/Full Load Enrichment Coolant,Temperature (G62) Value range: -48.0 to +143.0 °C Setpoint (Warm) 80.0 to 110.0 °C	Load/Full Load Enrichment Injection Time	Load/Full Load Enrichment Throttle Valve Angle Value Range: 0.0 to 100.0 %
112	Exhaust Gas Temperature Temperature Bank 1	Exhaust Gas Temperature Enrichment Factor Bank 1	Unused Block	Unused Block
113	Load/Full Load Enrichment Engine Speed (G28)	Load/Full Load Enrichment Engine Load Value Range: 0.0 to 100.0 %	Load/Full Load Enrichment Throttle Valve Angle Value Range: 0.0 to 100.0 %	Load/Full Load Enrichment Pressure,(Atmospheric)

122	Gear Safe Engine Speed (G28)	Gear Safe Engine Torque (Setpoint)	Gear Safe Engine Torque (Actual)	Gear Safe Status Value range: Engine Override No Override
125	CAN-Data Bus Drivetrain Transmission Controller	CAN-Data Bus Drivetrain ABS Controller (J104) Value Range: ABS 1/ABS 0 Setpoint: ABS 1	CAN-Data Bus Drivetrain Instrument Cluster (J285) Value range: Combi 1/Combi 0 Setpoint: Combi 1	CAN-Data Bus Drivetrain Climatronic (J255) Value range: Clima 1/Clima 0
130	Coolant Temperatures & Mapped Cooling Control Engine Outlet (G62): Actual	Coolant Temperatures & Mapped Cooling Control Radiator Outlet (G83): Actual	Coolant Temperatures & Mapped Cooling Control Thermostat Opening State Value Range: 0.0 to 100.0 %	Coolant Temperatures & Mapped Cooling Control Fan Overrun: Value Range: ON/OFF
131	Coolant Temperatures & Mapped Cooling Control Engine Outlet: (G62) Actual	Coolant Temperatures & Mapped Cooling Control Engine Outlet: (G62) Setpoint	Coolant Temperatures & Mapped Cooling Control Radiator Outlet (G83): Actual	Coolant Temperatures & Mapped Cooling Control Thermostat Opening State Value Range: 0.0 to 100.0 %

132	Coolant Temperatures & Mapped Cooling Control Engine Outlet: (G62) Setpoint	Coolant Temperatures & Mapped Cooling Control Radiator Temperature Drop. (Engine Outlet G62 to Radiator Outlet G83)	Coolant Temperatures & Mapped Cooling Control Heating Flow Potentiometer Value range: 0.0 to 100.0 %	Coolant Temperatures & Mapped Cooling Control Cooling System Status 1xxxxxxx = Hot Climate Code x1xxxxxx = Auxiliary Water Pump Active xx1xxxxx = Fan Level 1 On xxx1xxxx = Fan Level 2 On xxxx1xxx = Control Deviation: 0 => Setpoint, 1 = < Setpoint Xxxxx1x = Fan Control Active Xxxxxx1x = Thermostat Control Active Xxxxxxx1 = Errors Present
134	Temperatures Oil (G9)	Temperatures Ambient (G17)	Temperatures Air Intake (G42) Value range: -48.0 to +143.0 °C	Temperatures Coolant Engine Outlet (G62) Value range: -48.0...+143.0 °C Setpoint: 80.0 to 110.0 °C

135	Fan Controller Coolant Temperature Radiator Outlet (G83)	Fan Controller Fan Level 1 Value range: 0.0 to 100.0 %	Fan Controller Fan Level 2 Value range: 0.0 to 100.0 %	Fan Controller Overrun Value range: ON OFF
137	Unused Block	Aircon Controller Compressor Requests Value range: Compressor. ON Compressor OFF	Unused Block	Unused Block
140	Fuel Rail Pressure Regulating Valve Valve,Value range: 0.0 to 100.0 %	Fuel Rail Pressure Regulating Valve Rail Pressure,(Setpoint) Value range: 0.0 to 120.0 bar	Fuel Rail Pressure Regulating Valv Rail Pressure,(Actual) Value range: 0.0 to 120.0 bar	Fuel Rail Pressure Regulating Valve System Pressure Test Value Range: Test OFF Test ON Fuel System OK Fuel System Not OK Setpoint: Syst. OK

141	Fuel Rail Supply System Pressure Regulating Valve	Fuel Rail Supply System Rail Pressure (Setpoint)	Fuel Rail Supply System Rail Pressure (Actual)	Fuel Rail Supply System System Status 0 = Start 10 = Normal 30 = Limp Home/Start 31 = Limp Home/Error (DSKV) 32 = Limp Home/Error (MSVE) 33 = Limp Home/Error (DSKV & MSVE) 34 = Limp Home/Ubat (>= UBMSVMX) 35 = Limp Home/B_Airbag 36 = Limp Home/Error (HDR) 37 = Limp Home/Error (ASVE) 100 = Initial Fuelling 110 = Pressure Reduction
142	Lower Manifold Flaps Position (Bank 1) Fraction Flaps Raised (Actual) Value Range: 0.0 to 100.0%	Lower Manifold Inlet Flaps Position (Bank 1) Fraction Flaps Raised (Setpoint) Value Range: 0.0 to 100.0%	Lower Manifold Inlet Flaps Position (Bank 1) Potentiometer Offset Voltage	Lower Manifold Inlet Flaps Position (Bank 1) Flaps Adaptation Status Value range: ADP Run ADP OK ERROR Setpoint : ADP OK

145	Exhaust Gas Temperature (Setpoint)	Exhaust Gas Temperature (Actual)	Unused Block	Unused Block
146	Lambda Control (NOx Catalyst Storage) Exhaust,Mass Flow	Lambda Control (NOx Catalyst Storage) Cat Temperature	Lambda Control (NOx Catalyst Storage) Conversion	Lambda Control (NOx Catalyst Storage) Conversion Test Value Range: Test ON Test OFF System OK System Not OK Setpoint: System OK
148	NOx Catalyst Storage Vehicle Speed Setpoint (Desulphurisation): Must reach at least 105.0 KM/H once.	NOx Catalyst Storage Cat Temperature Setpoint (Desulphurisation): At least 630.0 °C	NOx Catalyst Storage Lambda (Actual) NOx Sensor Setpoint: 0.95 to 1.05	NOx Catalyst Storage Desulphurisation Status Value range: Active Inactive OK Not OK
150	NOx Sensor Operating Mode Injection Xx-xxxx1 = Homogeneous Xx-xxx1x = Homogeneous Lean Xx-xx1xx = Homogeneous Layer Xx-x1xxx = Layer	NOx Sensor Cat. Temperature	Unused Block	Unused Block

	Xx-1xxxx = Layer Cat. Heating X1-xxxxx = Homogeneous Split 1x-xxxxx = Homogeneous Anti Knock			
151	NOx Sensor Heater Supply,Voltage Setpoint: 12.0 to 15.0 V	Unused Block	NOx Sensor Heater Duty Cycle	Unused Block
152	Ox Sensor Offset Lambda (Actual) NOx Sensor	Ox Sensor Offset NOx (Actual)	Ox Sensor Offset NOx (Offset)	Ox Sensor Offset Result Value range: Test ON Test OFF System OK System Not OK Setpoint: System ok
167	Overrun Adjustment Lambda Sensors Oxygen Percentage	Overrun Adjustment Lambda Sensors Diagnostic Overrun Counter Setpoint: 0 to 255	Overrun Adjustment Lambda Sensors NOx (Offset)	Overrun Adjustment Lambda Sensors Ox Sensor Offset Result Value range: Test ON Test OFF System OK System Not OK Setpoint: System ok

247	Vehicle Speed	Cat. Temperature		Desulfurization Status