Adaptors Overview and Data Parameters

February 2013

ZEESCGB234A3 Rev. T

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To the Reader

While every effort has been made to ensure that the information contained in this manual is correct, complete and up-to date, the right to change any part of this document at any time without prior notice is reserved.

Warning:
Before installing, maintaining or operating this unit, please read this manual carefully, paying extra attention to the safety warnings and precautions.

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1 Adaptors Overview

1. **Attach the test adaptor —** Select the adaptor for the vehicle under test and attach it to the data cable using the two captive screws.
2. **Connect the test adaptor to the vehicle —** Use the specific vehicle connector information displayed. The adaptor fits into the connector only in one way.

Table 1-1 Adaptors & Cables

Manufacturer	Adaptor/Cable	Part Number
Alfa/Fiat/Lancia	AFL-1 Adaptor	MT2500-81
	PSA-1 Adaptor	MT2500-59
	PSA-2 Adaptor with the S-11 Key	MT2500-60 3677-01
	DL-16 Adaptor with the S-4 Key or the S-50 Key or the S-61 Key	MT2500-68, Figure 1-1 3672-01 EAP0234E05A EAP0234E10A
	Battery Power Cable	3621-01
	Battery Power Cable	EAX0048E11A
BMW	BM-1B Adaptor	MT2500-74
	DL-16 Adaptor with the S-28 Key or the S-39 Key (7 Series 2003)	MT2500-68, Figure 1-1 3769-001 EAP0234E15A
Citroën	PSA-1 Adaptor	MT2500-59
	PSA-2 Adaptor with the S-11 Key or the S-33 Key	MT2500-60 3677 3783-0001
	DL-16 Adaptor with the S-34 Key or the S-50 Key or the S-61 Key (S-4 Key, S/W V3 only)	MT2500-68, Figure 1-1 3784-0001 EAP0234E05A EAP0234E10A 3672-01
	Battery Power Cable	3621-01

Table 1-1 Adaptors & Cables

Manufacturer	Adaptor/Cable	Part Number
EOBD	DL-16 Adaptor with the S-7 Key or the S-44 key	MT2500-68, Figure 1-1 3655-01 EAP0234E50A
	CAN-1 Adaptor (EU)	EAA0281E77C
	CAN-1 Adaptor (USA)	MT2500-83A
	CAN-1A Adaptor (Australia)	EAA0281E77D
	CAN-1B Adaptor (Universal)	EAA0281E77E
	OBD-II (USA) with the K-2A or the K-20 key	MT2500-46 5078-0202 EAP0234E45A
Ford	Ford-3 Adaptor	MT2500-67
	Power Adaptor	MT2500-91
	DL-16 Adaptor with the S-2A Key or the S-7 Key or the S-43 Key	MT2500-68, Figure 1-1 EAP0234E00A 3655-01 EAP0234E40A
	GA-1 Adaptor	MT2500-45
Honda	DL-16 Adaptor with the S-7 Key or the S-46 Key (Honda SRS)	MT2500-68, Figure 1-1 3655-01 EAP0234E60A
	HON-1 Adaptor	MT2500-77
Land Rover	MULTI-4 Adaptor	MT2500-21
	ROV-1	MT2500-71
	Power Adaptor	MT2500-91
	DL-16 Adaptor with the S-25 Key	MT2500-68, Figure 1-1 3745-01

Table 1-1 Adaptors & Cables

Manufacturer	Adaptor/Cable	Part Number
Mercedes	MB-1 Adaptor with the S-20 Key or the S-21 Key	MT2500-62 3693-01 3694-01
	MB-2 with the Battery Power Cable	MT2500-72 3621-01
	DL-14 Adaptor	MT2500-73
	DL-16 Adaptor with the S-4 Key or the S-17 Key or the S-34 Key	MT2500-68, Figure 1-1 3672-01 3692-01 3784-0001
	2.5 mm Adaptor Cable	6004E9312-98
	PSA-2 Adaptor with the S-11 Key or the S-33 Key	MT2500-60 3677 3783-0001
MG/Rover	MULTI-4 Adaptor	MT2500-21
	ROV-1	MT2500-71
	Power Adaptor	MT2500-91
	DL-16 Adaptor with the S-25 Key	MT2500-68, Figure 1-1 3745-01
Nissan	DL-16 Adaptor with the S-7 Key	MT2500-68, Figure 1-1 3655-01
	DL-16 Adaptor with the S-45 Key	MT2500-68, Figure 1-1 EAP0234E55A
	NISS-2 Adaptor	MT2500-58
Opel/Vauxhall	OPEL/VAUXHALL-2	MT2500-66
	DL-16 Adaptor with the S-26 Key or the S-27 Key or the S-32 Key (ABS + Airbag) or the S-47 Key	MT2500-68, Figure 1-1 3752-001 3768-0001 3778-0001 EAP0234E70A
Peugeot	PSA-1 Adaptor	MT2500-59
	PSA-2 Adaptor with the S-11 Key or the S-33 Key	MT2500-60 3677 3783-0001
	DL-16 Adaptor with the S-34 Key or the S-50 Key or the S-61 Key (S-4 Key, S/W V3 only)	MT2500-68, Figure 1-1 3784-0001 EAP0234E05A EAP0234E10A 3672-01
	Battery Power Cable	3621-01

Table 1-1 Adaptors & Cables

Manufacturer	Adaptor/Cable	Part Number
Renault	RENAULT-1 Adaptor	MT2500-64
	REN-2 Adaptor	MT2500-76
	DL-16 Adaptor with the S-26 Key	MT2500-68, Figure 1-1 3752-001
Toyota	DL-16 Adaptor with the S-7 Key	MT2500-68, Figure 1-1 3655-01
	TOY-1	MT2500-50
	TOY-2	MT2500-52
VAG	VW-1 Adaptor	MT2500-56
	SKODA-1A Adaptor	MT2500-61
	LT-1 Adaptor	P/N: 6004E9314-17
	DL-16 Adaptor with the S-7 Key or the S-40 Key	MT2500-68, Figure 1-1 3655-01 EAP0234E20A
	DL-14 Adaptor with the S-40 Key (S/W V5, for LT)	MT2500-73 EAP0234E20A
Volvo	DL-16 Adaptor with the S-7 Key or the CAN-!B Adaptor	MT2500-68, Figure 1-1 3655-01 EAA0281E77E

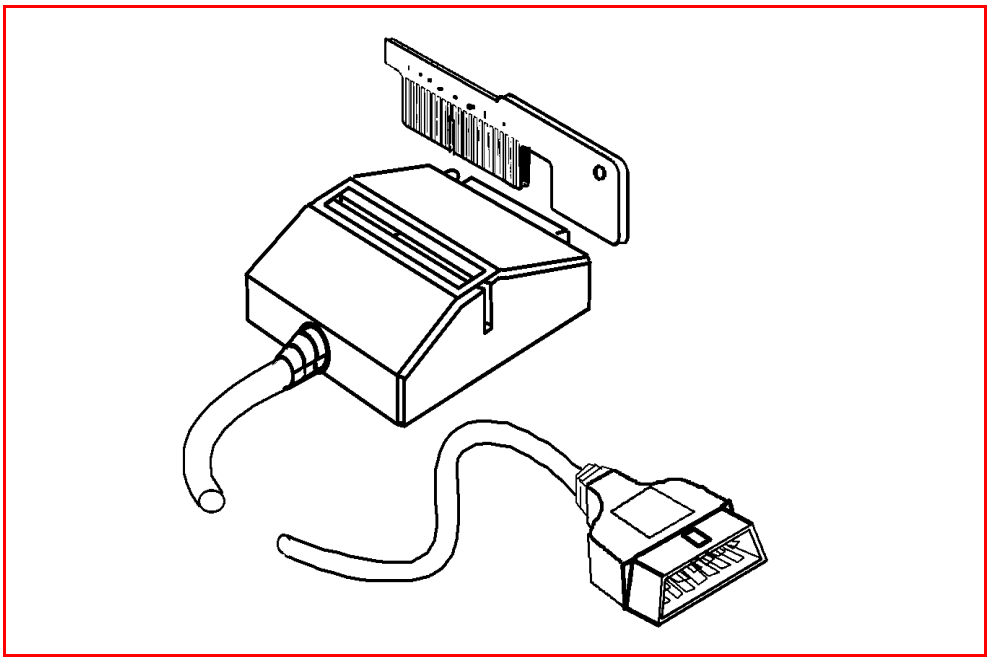

Figure 1-1 DL-16 Adaptor, MT2500-68

Caution:
Do NOT connect the DL-16 to a 24 V version OBD socket. This might damage the unit.

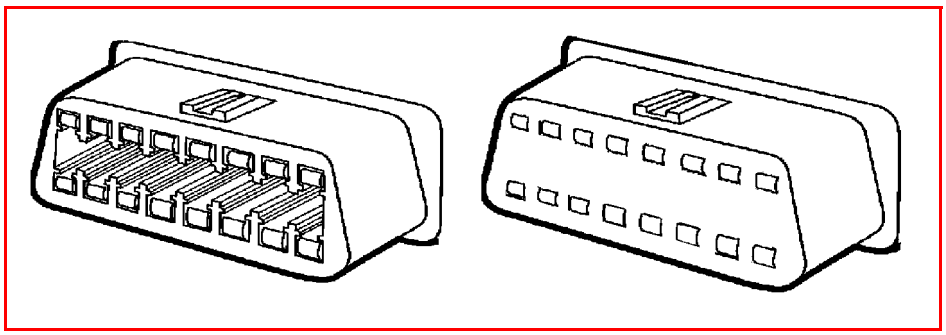

Figure 1-2 OBD Sockets 12 V (Left) and 24 V (Right)

2 Abbreviations

The following abbreviations and terms are used in the fault code definitions displayed on the screen or used in manufacturers literature:

Table 2-1 Abbreviations

Abbreviation	Description
1BL	One Barrel Carburettor
2BL	Two Barrel Carburettor
4MATIC	Automatically controlled four-wheel drive
A/C	Air Conditioning
A/T	Automatic Transmission
AAC	Automatic Air Conditioning
AAM	All Activity Module
AB	Air-bag
ABS	Anti-lock Brake System
ACRS	Automatic Child Seat Recognition
ADM	Automatic Dimming Mirror, inside rear view
ADS	Automatic Damping System, electronic suspension
AIR	Secondary air injection
AP	Accelerator Pedal
APP	Accelerator Pedal Position
APS	Auto Pilot System
AS	Antenna System
ASC	Anti-spin Control
ASD	Automatic Slip Differential, limited-slip
ASR	Acceleration Slip Regulation, traction control
ATA	Anti-Theft Alarm
BA	Backup Assist
BARO	Barometric pressure
BCAPC	Barometric Charge Air Pressure Compensation
BDC	Bottom Dead Centre

Table 2-1 Abbreviations

Abbreviation	Description
BM	Base Module, also called General Module (GM) or Controller Area Network (CAN) Bus Module
BPC	Barometric Pressure Compensation
C/C	Cruise Control
CA	Cooling Assist
CAN	Controller Area Network
CARB	Carburettor
CAT	Catalytic Converter
CCM	Combination Control Module
CDC	Compact Disc Changer
CF	Convenience Feature
CFI	Central Fuel Injection
CKA	Crankshaft Angle
CKP	Crankshaft Position
CL	Central Locking
CMP	Camshaft Position
CNS	Communication and Navigation System
CPI	Central Point Injection
CST	Cabriolet Soft Top
CTEL	Cellular Telephone
CTP	Closed Throttle Position
CTU	Central Triggering Unit
CVH	Compound Valve Angle Head
DA	Drivers Air Bag
DAS	Drive Authorization System
DDE	Diesel engine management
DI	Distributor Ignition
DM	Diagnostic Module
DME	Engine Management
DOHC	Double Overhead Camshaft
DP	Drivers Pretensioner
DSA	Drivers Side Air-bag
DSC	Dynamic Stability Control

Table 2-1 Abbreviations

Abbreviation	Description
DSL	Diesel Engine
DSV	Drive authorization Shut-off Valve
DTC	Diagnostic Trouble Code
DWA	Anti-theft System
EA	Electronic Accelerator
EBR	Electronic Braking Regulation
ECL	Engine Coolant Level
ECT	Engine Coolant Temperature
ECU	Electronic Control Unit
EDC	Electronic Diesel Control
EDR	Electronic Diesel Regulation
EDS	Electronic Diesel System
EDS	Pressure Regulator
EEC	Electronic Engine Control
EFI	Electronic Fuel Injection
EGR	Exhaust Gas Recirculation
EGS	Electronic Transmission
EI	Electronic Ignition, Distributorless
EL	Exterior Lighting
EML	Electronic Throttle
EMS	Electronic Throttle
EMSC	Electric Mirror and Steering Column, heated and adjustment
EPC	Electronic Power Control
ERIC	Electronically Regulated & Carburation Ignition System
ESA	Electric Seat Adjustment
ESC	Electric Steering Column adjustment
ESCM	Engine Systems Control Module, also called MAS
ESP	Electronic Stability Control, (traction control)
ETC	Electronic Transmission Control
ETC	Electronic Throttle Control
ETR	Emergency Tensioning Retractor, supplemental restraints
ETS	Electronic Traction System
EVAP	Evaporative emission control system

Table 2-1 Abbreviations

Abbreviation	Description
EWS	Anti-theft System
FAN	Cooling Fan or Fanfare Horns
FFS	Frame Floor System
FI	Fuel Injection
FL	Front Left, (Wheel)
FOM	Folding Outside Mirrors
FP	Fuel Pump
FR	Front Right, (Wheel)
GIM	Governor Impulse Method
GM	General Module, also called Base Module (BM)
HCS	High Compression Swirl
HCS	Headlamp Cleaning System
HFM	Hot Film engine Management system
HFM-SFI	HFM with Sequential Fuel Injection
HFS	Hands Free System
HHT	Hand Held Tester
HM	Heated Mirrors
HORN	Horn signal system
HS	Heated Seats
IAT	Intake Air Temperature
IC	Instrument Cluster
IDC	In-Dash Controller
IFI	In-line Fuel Injection
IL	Interior Lighting
IMRC	Intake Manifold Running Control
IR	Infrared
IRM	Inside Rear view Mirror
ISC	Idle Speed Control
KS	Knock Sensor
KSS	Knock Sensor System
L4	4-Cylinder Line Engine
LCP	Lower Control Panel
LH	Lambda Hot wire mass airflow system

Table 2-1 Abbreviations

Abbreviation	Description
LH-SFI	LH with Sequential Fuel Injection
LHS	Left Hand Steering
LOC	Low Compression
LS	Loudspeaker System
M/T	Manual Transmission
MAF	Mass Air Flow
MAP	Manifold Absolute Pressure
MAS	Motor Aggregate Systems
ME	Mercedes Electronic control system
MEMS	Modular Engine Management System
ME-SFI	ME with Sequential Fuel Injection
MFI	Multiple Fuel Injection
MIL	Malfunction Indicator Lamp
MPI	Multi-Point Injection
MSC	Mirror, Steering Column, electric heated and adjustable
MSR	Engine Drag Torque Control
MV	Magnetic Valve(s)
MVA	Manifold Vacuum Assist
MWH	Main Wiring Harness
NS	Networked Systems, CAN
O2S	Oxygen Sensor
OBD	On-Board Diagnostics
OC	Oxidation Catalytic Converter
OCP	Overhead Control Panel
OHC	Overhead Camshaft
OHV	Overhead Valves
ORM	Outside Rear view Mirror
OSB	Orthopaedic Seat Backrest
PA	Passenger Air-bag
PCM	Power Train Control Module
PGMFI	Programmable Fuel Injection
PL	Power Locking system
PMP	Partial intake Manifold Pre-heater

Table 2-1 Abbreviations

Abbreviation	Description
PNP	Park Neutral Position
PP	Passenger Pretensioner
PS	Power Steering
PSA	Passenger Side Air-bag
PSE	Pneumatic System Equipment
PTE	Pent roof, high Torque and low Emission
PTS	Park-Tronic System
PW	Power Windows
PWM	Pulse Width Modulation
RB	Roll Bar
RCL	Remote Central Locking
RD	Radio
REST	Residual Engine heat utilization
RH	Retractable Hardtop
RHR	Retractable rear Head Restraints
RHS	Right Hand Steering
RL	Rear Left, (Wheel)
RPM	Engine speed, Revolutions Per Minute
RR	Rear Right, (Wheel)
RST	Roadster Soft Top
RTG	Retractable Trunk lid Grip
RTR	Remote Trunk Release
RWD	Rear Window Defroster
SAD	Side Air-bag Driver
SAI	Secondary Air Intake
SAP	Side Air-bag Passenger
SBE	Seat Belt Extender
SEFI	Sequential Electronic Fuel Injection
SFI	Sequential Fuel Injection
SLO	Starter Lock Out
SOHC	Single Overhead Camshaft
SOR	Seat Occupied Recognition
SPS	Speed-sensitive Power Steering

Table 2-1 Abbreviations

Abbreviation	Description
SR	Sliding Roof
SRS	Supplemental Restraint System
SVS	Service Vehicle Soon
T4	4-Cylinder Transverse Engine
T6	6-Cylinder Transverse Engine
TB	Throttle Body
TC	Throttle Control
TC	Transfer Case
TC	Traction Control
T-CARB	Turbo Carburettor
TCM	Transmission Control Module
TD	Time Division, speed signal
TDC	Top Dead Centre
T-DSL	Turbo Diesel Engine
TIC	Transistorized Ignition Control
T-MPI	Turbo Multi Point Injection
TN	Time Notification, speed signal from ignition module
TPC	Tyre Pressure Control
TPS	Throttle Position Sensor
TRAP	Trap Oxidiser, Diesel emission controls
TWC	Three-Way Catalytic Converter
V6	6-Cylinder V-Engine
VAF	Volume Air Flow
VSS	Vehicle Speed Signal
VV	Variable Venturi Carburettor
VVC	Variable Valve Control
WK	Torque Convertor Clutch
WOT	Wide Open Throttle
WS	Wiper System
ZSR	Ignition Current Monitoring

Note:
*Before the vehicle is identified, press **N** for Help and scroll to get a list of all of the abbreviations used in the particular manufacturer/software.*

3 Data Parameters

3.1 Introduction

The ECU provides two basic kinds of parameters: digital (or discrete) and analogue.

- **Digital** (Discrete) parameters can be only in one of two states, such as On or Off, Open or Closed, Yes or No, etc. Switches and solenoids provide discrete parameters on the ECU data list.
- **Analogue** parameters are quantities displayed as a measured value in the appropriate units. Voltage, pressure, temperature, time and speed parameters are examples of analogue values.

Refer to the tables below for more information concerning the units of measurement used.

If the letter “X” is shown in/after data parameter title, a software counter applied to that particular parameter, e.g. COIL X, where X is a number such as 1, 2, 3, etc.

All data parameters are listed alphabetically.

Note:
Some Data Parameters maybe incorrect until the engine is running, for example IDLE LOAD, FULL LOAD, etc.

Table 3-1 Discrete Parameters, States

States	Description
ACTIVE/INACTIVE	A device or feature is active or not
ENABLE/DISABLE	A device or feature is enabled or not
HIGH/LOW	A device or function or signal is operating either in high or low mode
OK/NOT OK	A device or parameter is either OK or NOT OK
ON/OFF	A device is either switched ON or OFF
OPEN/CLSD	A device is either open or closed, Solenoid Valves, etc.
PETROL/GAS	Engine is running on petrol or gas

Table 3-1 Discrete Parameters, States

States	Description
RICH/LEAN MINIMUM/ CENTRE/ MAXIMUM	Air/Fuel mixture is either rich or lean. CENTRE is used when the O_2 Sensor is cold but this state can also be seen when the mixture is changing from lean to rich or vice versa. MINIMUM means a extremely lean mixture and MAXIMUM means a extremely rich mixture.
YES/NO	A device or function or signal is either present or not

Table 3-2 Analogue Parameters, Units of measurement

Units	Description
%	ECU calculated percentage or duty cycle based from the various sensors and actuators. e.g. Duty Cycle, a reading of 0 % indicates that a device is fully de-energised to cut off a function and a reading of 100 % indicates that the device is fully energised to allow the maximum use of that function. Or vice versa.
°	ECU calculated Angular Measurement in degrees based from the various sensors. Can be the output for Ignition Advance, Injection Begin and others.
°C, °F	Temperature Measurement in degrees Celsius and/or degrees Fahrenheit
A, mA	Electrical Measurement Current (Amperes)
bar, mbar, kPa, “Hg, psi	Pressure Measurements as calculated by the ECU from the various pressure/vacuum sensors
mg/Stroke	Quantity per stroke, can be for cylinder or Fuel Pump
mm^3/Stroke	Volume per stroke, can be for cylinder or Fuel Pump
mph, km/h	ECU calculated Speed Measurements based from the various sensors
Nm, lb.-ft	ECU calculated Torque Measurement
rpm	ECU calculated Engine Speed Measurements based from the various sensors
s, ms, h	Time Measurements
Step	Setting for a stepper motor
V, mV	Electrical Measurement Voltage (Volts)
Ω, kΩ	Electrical Measurement Resistance (Ohms)

3.2 Data Parameters List

3.2.1 Numerical

 # OF KEYS STORED IN MODULE
Indicates the number of valid ignition keys programmed into the system.

(ASR/ESP-STATUS)ABS/ASR_MODE
Indicates the status of the ASR/ESP-ABS mode.

(ASR/ESP-STATUS)ASR
Indicates the status of the ASR/ESP

(ASR/ESP-STATUS)CRUISE CONTROL MODE
Indicates the status of the ASR/ESP-Cruise Control mode.

1ST GEAR
Indicates whether the Transmission is in 1st gear.

1ST/RV.GEAR
Indicates whether 1st or Reverse Gear is selected.

2ND GEAR
Indicates whether 2nd Gear is selected.

2ND INPUT CIRCUIT 50
2nd input circuit 50.

2ND LAST ALARM ACTIVATION
Alarm source of the 2nd last ATA activation.

3RD GEAR
Indicates whether 3rd Gear is selected.

3RD LAST ALARM ACTIVATION
Alarm source of the 3rd last ATA activation.

4TH GEAR
Indicates whether 4th Gear is selected.

4TH LAST ALARM ACTIVATION
Alarm source of the 4th last ATA activation.

4WD CLUTCH DC
Indicates the amount of transfer case clutch lockup commanded by the GEM module. When the front and rear axles rotate at the same speed, 4WD Clutch DC(%) should display 0 to 2 %.

4WD CLUTCH PWM
Indicates whether the GEM module is controlling the transfer case clutch using pulse width modulation (PWM). ON means that the GEM is using PWM.

4WD ELECTRIC CLUTCH
Indicates whether the 4-Wheel Drive Electric Clutch is on or off.

4WD FRONT T-CASE SHAFT SPEED
Displays the speeds in mph of the front transfer case drive shafts. Using the speeds of these two shafts, the GEM module calculates the amount of wheel slippage between the front and rear axles. The amount of wheel slippage determines how much the GEM module applies the 4WD clutch.

4WD HIGH OUT STATE
Indicates the GEM command status to run the transfer case in 4WD High Mode. When the system functions properly, ON means the transfer case is running in 4WD High Mode.

4WD LOW OUT STATE
Indicates the GEM command status to run the transfer case in 4WD Low Mode. When the system functions properly, ON means the transfer case is running in 4WD Low Mode.

4WD PLATE POWER
Indicates whether the 4-Wheel Drive Electric Clutch is receiving power.

4WD REAR T-CASE SHAFT SPEED
Displays the speeds in mph of the rear transfer case drive shafts. Using the speeds of these two shafts, the GEM module calculates the amount of wheel slippage between the front and rear axles. The amount of wheel slippage determines how much the GEM module applies the 4WD clutch.

4WD TRANSFER CONTACT PLATE X
Indicates whether the 4-Wheel Drive Clutch plates are open or closed.

5TH GEAR
Indicates if 5th Gear has been selected.

5TH LAST ALARM ACTIVATION
Alarm source of the 5th last ATA activation.

6TH GEAR
Indicates whether 6th Gear is selected.

91 RON TABLE IN USE
This parameter gives the Research Octane Number (RON) table values and is used by the ECU to determine the ignition timing characteristics.

95 RON TABLE IN USE
This parameter gives the Research Octane Number (RON) table values and is used by the ECU to determine the ignition timing characteristics.

3.2.2 A

A ACT.MODE
Indicates the status of the “A” Actuator Mode.

A/C ACTIVE
This parameter indicates the position of the air conditioning cycle switch. ON means that the A/C switch on the instrument panel has been turned on or that the ECU has commanded the A/C system to turn on. In some cases, the A/C compressor may not turn on even though the switch is closed. Several other switch or sensor signals may prevent the ECU from engaging the A/C compressor clutch.

A/C AUTHOR.
Indicates the status of the Airco Authorisation.

A/C BLEND DOOR POSITION
Indicates the status of the A/C Blend Door Position switch.

A/C BLOWER MOTOR OUTPUT RLY
Indicates the status of the A/C Blower Motor Output Relay.

A/C BLOWER MOTOR SPEED X
Displays the specified A/C Blower Motor speed.

A/C BUTTON ECU-N22:RESPONSE
Response from component N22 (AAC pushbutton control module).

A/C CLUTCH
This parameter is a feedback signal from the A/C compressor clutch or relay. When it is ON, the clutch is engaged, when it is OFF, the clutch is disengaged. The ECU uses this signal primarily to control the idle speed.

A/C COMPRESSOR
Indicates the status of the A/C compressor.

A/C COMPRESSOR SIGNAL
Indicates the status of the A/C compressor signal. ON is displayed when the air conditioning compressor signal is activated.

A/C COMPRESSOR TEMP
Displays the A/C Compressor Temperature.

A/C CONTROL SWITCH CLOSED
Indicates ON when the A/C cycling switch is closed and OFF when the switch is open. The PCM uses this information to adjust engine speed.

A/C CUTOFF
This parameter indicates that the ECU has commanded the A/C compressor to interrupt its operation. i.e. when wide open throttle is indicated the ECU will suspend the A/C compressor operation.

A/C ENABLE
This parameter indicates whether or not the ECU allows the A/C to be used or not.

A/C EVAPORATOR TEMP
Displays the A/C Evaporator temperature.

A/C HEAD PRES SENS
Displays the voltage from the A/C Pressure sensor/switch. This is the main pressure in the A/C system.

A/C MODE DOOR POSITION
Indicates the status of the A/C Mode Door Position switch. The door valves are used to control the cold/warm air mixture to get the selected temperature.

A/C PERFORM
Indicates the Performance of the Airco system.

A/C PRESENT
This parameter indicates that the ECU has detected whether or not an A/C system is present.

A/C PRESS.
Indicates the Airco Pressure.

A/C PRESSURE SWITCH FAN HIGH
This parameter indicates whether or not the Air-conditioning pressure switch has commanded the Cooling fans on high speed.

A/C PRESSURE SWITCH FAN LOW
This parameter indicates whether or not the Air-conditioning pressure switch has commanded the Cooling fans on low speed.

A/C PRSW
Displays the status of the A/C Pressure switch. The PCM will then turn on the high speed cooling fan and may also use the signal to control idle speed and the A/C clutch.

A/C REFRIGERANT MON STATUS
OBD monitor information, A/C Refrigerant Monitor is either supported or not supported, or ready or not ready.

A/C RELAY
This parameter indicates whether the ECU has turned the A/C relay ON or OFF.

A/C REQUEST
This parameter indicates whether or not the ECU issued a request to turn the A/C on.

A/C SWITCH
This parameter informs the ECU whether the A/C switch is in the ON or OFF position.

A/C-COMPR SHUTOFF:HIGH LOAD
AC compressor shut off because of high engine load.

A/T
This parameter indicates if an Automatic Transmission is fitted or not.

A/T FAIL SIGNAL
Indicates the status of the automatic transmission failure signal.

A/T IDLE SPD
Indicates the Automatic Transmission Idle Speed.

A/T INPUT SPEED
This parameter indicates the in-going rpm of the ATM.

A/T OIL TEMPERATURE
Either the ECU or the Scanner calculates an Automatic Transmission Oil temperature from the A/T Oil Temperature sensor signal.

A/T OUTPUT SPEED
This parameter indicates the out-going rpm of the ATM.

A/T POSITION SWITCH
The Park/Neutral Position switch (AT SWITCH) indicates whether the automatic transmission is in park or neutral or in one of the drive ranges. The display should indicate:

P-N– if the transmission is in either park or neutral.

-R-DL if the transmission is in any forward gear or reverse.

A/T PRESENT
This parameter indicates that the ECU has detected whether or not an Automatic Transmission system is present.

A/T SIGNAL
This parameter displays if the ECU recognises whether an automatic gearbox is fitted.

A/T SWITCH
The A/T Switch indicates whether an automatic transmission is in park or neutral, or in one of the drive ranges. The display should read:

P-N– if the transmission is in either park or neutral.

-R-DL if the transmission is in any forward gear or reverse.

A/T SWITCH POSITION
The Park/Neutral Position switch (AT SWITCH) indicates whether the automatic transmission is in park or neutral or in one of the drive ranges. The display should indicate:

P-N– if the transmission is in either park or neutral.

-R-DL if the transmission is in any forward gear or reverse.

ABS ACTIVE
Indicates whether the ABS system is active or not.

ABS DATA
Indicates whether ABS data is present or not.

ABS FUNCTION
Indicates the status of the ABS Function.

ABS LAMP
Indicates the status of the ABS Lamp.

ABS MODULATE
Indicates the status of the ABS Modulate switch.

ABS MOTOR RELAY
Indicates the status of the ABS motor relay.

ABS OPERATION FRONT LEFT
Indicates the status of the ABS operation on the front left wheel.

ABS OPERATION FRONT RIGHT
Indicates the status of the ABS operation on the front right wheel.

ABS OPERATION REAR LEFT
Indicates the status of the ABS operation on the rear left wheel.

ABS OPERATION REAR RIGHT
Indicates the status of the ABS operation on the rear right wheel.

ABS PRESENT
This parameter indicates that the ECU has detected whether or not an ABS system is present.

ABS PRESSURE
Displays the ABS Pressure value. Note, the reading will oscillate between the actual value and the minimum (0000) and maximum (FFFF) values.

ABS PUMP RELAY
Indicates the status of the ABS pump relay.

ABS PUMP RLY
Indicates the status of the ABS Pump Relay.

ABS RLY CMD
Indicates the status of the ABS Relay Command.

ABS VALVE CONTROL RLY
Indicates whether the ABS Valve Control is on or off.

ABS WARN INDICATOR STATE
Indicates the status of the ABS Warning light.

ABS WARNING LIGHT
Indicates the status of the ABS warning light.

ABS. INT. MANIF. PRESS. DI1 or DI2
Displays intake manifold absolute pressure reading in mbar, is used by the ECU for making camshaft timing adjustments on DI1 or DI2 systems and for detecting EGR flow (if equipped).

ABS. INTAKE MANIFOLD PRESSURE
Displays intake manifold absolute pressure reading in mbar, is used by the ECU for making camshaft timing adjustments and for detecting EGR flow (if equipped).

ABS.TORQUE AT WHEELS (ACTUAL)
This parameter indicates the actual ABS Torque at the wheels.

ABSOLUTE PRESSURE SENSOR
Indicates the status of the absolute pressure sensor.

ABSOLUTE THROTTLE POSITION
Indicates the throttle position as a percentage. See THROTTLE POSITION (TPS) for more information.

ABSORBED POWER AIRCO COMPR
Indicates the Absorbed Power from the Airco Compressor.

ABS-SOL FL
Indicates the status of the ABS Front Left Solenoid.

ABS-SOL FR
Indicates the status of the ABS Front Right Solenoid.

ACCEL
Displays the vehicle acceleration in metres per second.

ACCEL ENRICH
This parameter indicates whether or not Acceleration Enrichment is activated.

ACCEL. PEDAL POS. LEARN VALUE
Indicates the position of the accelerator pedal sensor learn value as a percentage.

ACCEL. PEDAL POSITION SENSOR
Indicates the position of the accelerator pedal sensor as a percentage.

ACCEL. X-X
Displays the quantity of fuel that is injected per cylinder stroke combination (where X is the cylinder number) under the present operating conditions, in relation to the throttle position sensor during acceleration.

ACCEL.PEDAL POS. SENSOR SUPPLY
Indicates the Pedal Position Sensor supply in volts.

ACCEL.PEDAL POS.(CALCULATED)
Indicates the Calculated Accelerator Pedal Position.

ACCEL.PEDAL POS.(FULL LOAD)
Indicates the Full Load Accelerator Pedal Position.

ACCEL.PEDAL POS.(NO LOAD)
Indicates the No Load Accelerator Pedal Position.

ACCEL.PEDAL POSITION SENSOR
This parameter indicates the actual throttle pedal position calculated by the ECU.

ACCEL.PEDAL POSITION SENSOR X
Displays the voltage from the Accelerator Pedal Position Sensors.

ACCEL.PEDAL POSITION(IDLE)
Indicates the Idle speed Accelerator Pedal Position.

ACCEL.PEDAL SNS-B37 SIGN.1
B37 (Accelerator pedal sensor) Signal 1(V).

ACCEL.PEDAL SNS-B37 SIGN.2
B37 (Accelerator pedal sensor) Signal 2(V).

ACCELERATE AND SET-S40/4s3A
S40s3 (Accelerate and Set) / S40/4s3 (Accelerate and Set).

ACCELERATE&SET-S40s3
S40s3 (Accelerate and Set).

ACCELERATED IDLE REQUEST
Indicates whether or not an Accelerated Idle has been requested.

ACCELERATION # X SW INP STATUS
Indicates the status of the Acceleration Input switch.

ACCELERATION AFTER DECELERATION
No information available at this time.

ACCELERATION ENRICHMENT
This parameter indicates whether or not Acceleration Enrichment is activated.

ACCELERATION PHASE
This parameter is displayed on some carburetted engines. YES means that the ECU has commanded a rich mixture for high-power operation. It is equivalent to power valve operation in a carburettor. NO should be displayed during idle, deceleration and normal cruising.

ACCELERATION SENSOR
Indicates the position of the accelerator pedal sensor in volts.

ACCELERATOR PEDAL
Indicates the position of the accelerator pedal as a percentage.

ACCELERATOR PEDAL DELAY
Indicates the position of the accelerator pedal delay as a percentage.

ACCELERATOR PEDAL OUTPUT
This parameter indicates the throttle pedal position sensor output voltage.

ACCELERATOR PEDAL POSITION
This parameter indicates the actual throttle pedal position calculated by the ECU.

ACCELERATOR PEDAL POSITION(IDLE)
Indicates the Idle Accelerator Pedal Position.

ACCELERATOR PEDAL SENSOR SUPPLY
This parameter indicates the throttle pedal position sensor supply voltage.

ACCESSORIES
Indicates the status of the Accessories switch. (See Accessory Relay below).

ACCESSORY DLY DRIVER OUTPUT
Indicates the status of accessory delay output, usually about one second after the key is switched to the first position before any accessories are activated, i.e. a one second delay before the radio comes on.

ACCESSORY RLY
Indicates the status of the retained Accessory Power Relay. In a properly functioning system, ON means the relay contacts are closed, allowing some accessories to be turned on after the ignition key has been turned to the OFF position.

ACL PED
Indicates the Accelerator Pedal sensor position as a voltage.

ACL PED REL
Indicates the relative Accelerator Pedal sensor position as a voltage.

ACQUISIT&ACT.ECU:FL:COMM
CAN communication with control module SAM-FL.

ACQUISIT&ACT.ECU:FL:SWCAN
Control module SAM-FL is in the single-wire mode.

ACQUISIT&ACT.ECU:FR:COMM
CAN communication with control module SAM-FR.

ACQUISIT&ACT.ECU:FR:SWCAN
Control module SAM-FR is in the single-wire mode.

ACQUISIT&ACT.ECU:FRONT:COMM
CAN communication with control module SAM-F.

ACQUISIT&ACT.ECU:FRONT:SWCAN
Control module SAM-F is in the single-wire mode.

ACT ADVANCE
This parameter indicates the actual ignition advance in degrees.

ACT FUEL
This parameter indicates the actual pressure of the injected fuel in bar.

ACT.ADV. PUMP
This parameter indicates the actual advance of the injection pump in degrees.

ACT.AIRFLOW
This parameter indicates the actual amount of air currently being drawn into the engine.

ACT.FAN
This parameter indicates the actual cooling fan speed.

ACT.FAN SPD
This parameter indicates the actual cooling fan speed.

ACT.FUEL QTY
This parameter indicates the actual fuel quantity injected every stroke.

ACT.INJ BGN
This parameter indicates the actual injection begin (advance) controlled by the ECU. The reading is in degrees of crank angle can + for BTDC or - for ATDC.

ACT.PRES
This parameter indicates the actual fuel pressure.

ACTIVATION DOWNGRADED MODE
Indicates the status of the Activation Downgrade Mode.

ACTIVATION POWER-CONSUMERS
Indicates the status of the Activation Power-consumers.

ACTIVE BODY CTRL SPORT SW
N72s20 (ABC SPORT switch).

ACTUAL ADVANCE PUMP
Indicates the actual advance of the injection pump in degrees.

ACTUAL AIR FLOW
Indicates the actual amount of air currently being drawn into the engine.

ACTUAL CALCULATION TIME
Current Calculation Time.

ACTUAL EGR LIFTING SENDER
Displays the EGR lifting sender position in mm.

ACTUAL ENGINE SPEED
Indicates the actual engine speed in 1/min.

ACTUAL FAN
Indicates the actual cooling fan speed as a percentage.

ACTUAL FAN SPEED
Indicates the actual cooling fan speed as a percentage.

ACTUAL FUEL AMOUNT
Indicates the actual fuel amount injected every stroke.

ACTUAL FUEL PRESSURE
Indicates the actual fuel pressure.

ACTUAL GEAR
Displays the actual selected gear, P, N, D, R, 1, 2, 3, 4 or 5.

ACTUAL INJ
Displays the actual fuel injected at the start of delivery in milligrams per stroke.

ACTUAL INJECT.QTY. PER STROKE
Displays the actual fuel quantity injected per stroke.

ACTUAL INJECTION BEGIN
Indicates the actual injection begin (advance) controlled by the ECU. The reading is in degrees of crank angle can + for BTDC or - for ATDC.

ACTUAL INTAKE AIR PRESSURE
Displays the actual air intake pressure in mbar.

ACTUAL PRESSURE DISTRIB.PIPE
Displays the actual pressure in the distribution pipe.

ACTUAL ROTOR
Indicates the actual rotor position in millimetres.

ACTUAL ROTOR POSITION
Indicates the actual rotor position.

ACTUAL SLIDE VALVE ACTUATOR
Displays the slide valve actuator position in mm.

ACTUAL VACUUM
Indicates the actual Vacuum measured.

ACTUAL VALUE POT.METER M16/X R X
Indicates the actual position of the M16 potentiometers as a percentage. Used on drive-by-wire systems. See explanation ACTUAL VALUE POT.METER below for more information.

ACTUAL VALUE POT.METER POWER FAULT
Indicates if there is a power fault on the Actual Valve POT.METER.

ACTUAL VALUE POT.METER VOLTAGE
The HFM system does not use a drive by wire electronic throttle actuator. Instead, it uses a mechanical throttle linkage linked to an electronic actuator located at the throttle body. The actuator has an integral clutch mechanism that overrides the mechanical linkage under certain conditions. The system is used to control idle, cruise control and Accelerator Slip Regulation controlled by the EA/CC/ ISC module. The voltage range varies depending on operating conditions.

ACTUAT.MODE
Indicates the status of the Actuator mode.

ACTUATOR
Indicates the status of the actuator.

ACTUATOR ACT.VALUE POT.METER RX
This drive by wire system has no mechanical throttle linkage. An electronic actuator controls the throttle valve under different operating conditions to regulate idle speed, cruise control operation, driving on the basis of accelerator position, traction control (Acceleration Slip Regulation), Electronic Stability Program (ESP) and emergency running. The position of the accelerator pedal is detected by two potentiometers that transmit input signals to the

ECU. Based on these signals, the ECU in turn controls the electronic throttle actuator. One potentiometer is in the pedal value sensor and the other one is in the electronic actuator. The potentiometer in the electronic throttle actuator supplies a reference value for a plausibility check. In an emergency, if one potentiometer fails, the system switches over to the second one. A quick plausibility check is to add both actuator signal readings (R1 and R2 or SIGNAL 1 and SIGNAL 2) together at various throttle positions. They should always add up the same value, usually between 4.5 to 4.9 V.

ACTUATOR DE-ENERGIZED
Indicates whether the actuator is de-energised or not.

ACTUATOR OUTPUT VALUE
Is the count value of the stepper motor type electronic throttle actuator.

ACTUATOR RELAY
Indicates the status of the actuator relay.

ACTUATOR RELAY CONTROL
Indicates the status of the Actuator Relay Control.

ACTUATOR SIGNAL X
This drive by wire system has no mechanical throttle linkage. An electronic actuator controls the throttle valve under different operating conditions to regulate idle speed, cruise control operation, driving on the basis of accelerator position, traction control (Acceleration Slip Regulation), Electronic Stability Program (ESP) and emergency running. The position of the accelerator pedal is detected by two potentiometers that transmit input signals to the ECU. Based on these signals, the ECU in turn controls the electronic throttle actuator. One potentiometer is in the pedal value sensor and the other one is in the electronic actuator. The potentiometer in the electronic throttle actuator supplies a reference value for a plausibility check. In an emergency, if one potentiometer fails, the system switches over to the second one. A quick plausibility check is to add both actuator signal readings (R1 and R2 or SIGNAL 1 and SIGNAL 2) together at various throttle positions. They should always add up the same value, usually between 4.5 to 4.9 V.

ADAPT LOWER ELECTRICAL STOP
This parameter indicates the voltage of the lower adaptive throttle valve electrical stop.

ADAPT LOWER MECHANICAL STOP
This parameter indicates the voltage of the lower adaptive throttle valve mechanical stop.

ADAPT. RANGE X GEAR, X000-X000 (rpm)
Indicates if the engine and transmission controls are adapting together for specific conditions.

ADAPTATION
The Adaptation value represents the operation and long-term correction of the fuel metering on a fuel-injected engine. The Adaptation value indicates whether the ECU is commanding a rich or a lean mixture.

ADAPTATION ACCEL PED POS
This parameter indicates the adaptive accelerator pedal position in degrees.

ADAPTATION BOOST PRESSURE
Indicates the state of the boost pressure adaptation.

ADAPTATION CELL
For some vehicles, Adaptation is divided into a number of cells. The cells are arranged in a theoretical grid, five high and five wide. Width represents engine speed from low to high. Any combination of engine load and speed will fit into one of the cells in the theoretical grid. The ADAPTATION CELL parameter indicates which cell the engine is operating in at the moment.

ADAPTATION CELL CONTINU
The Adaptation Cell Continue carries out the mixture correction at idle or partial load conditions, but only if the O_2 Integrator has deviated for an extended period of time from the ideal air/fuel ratio and the full load enrichment is ON.

ADAPTATION FILTER
Indicates the state of the filter adaptation.

ADAPTATION FUEL PRESSURE
Indicates the state of the fuel pressure adaptation.

ADAPTATION IGNITION
Indicates the state of the ignition adaptation.

ADAPTATION INJECTOR X
Indicates the state of the injector adaptation.

ADAPTATION LOAD
Indicates the state of the load adaptation.

ADAPTATION MAP
Indicates the state of the map adaptation.

ADAPTATION MIXTURE(ADD)
This parameter represents the operation and short term correction to the fuel mixture. ADD means adding or subtracting equal amounts of fuel to every fuel block cell regardless of the pre-programmed base injection pulse value. It works very effectively for idle mixture related problems, but its effect is minimal at the higher engine speeds. For example, vacuum leaks greatly affect fuel mixture at idle but become less severe at higher rpm. The important distinction here is that the amount of fuel correction is not dependent upon the original base in each fuel memory cell.

ADAPTATION MIXTURE(MUL)
This parameter represents the operation and short term correction to the fuel mixture. MUL means multiplying or taking the pre-programmed cell base value and multiplying that number by either a correction factor or percent. Here, the correction amount increased or decreased in each memory block cell is dependent on each cell's base injection pulse. This form of adaptation is required to compensate for fuel control type problems that get worse with increased engine speed.

ADAPTATION POSITION X
This parameter indicates the specified Adaptation Position if the engine is adapting for specific conditions.

ADAPTATION PUMP
Indicates the state of the pump adaptation.

ADAPTATION STATUS
This parameter indicates the Adaptation Status if the engine is adapting for specific conditions.

ADAPTATION THROTTLE ADJUSTER
This parameter displays the current throttle adjuster mode and can display idling or part throttle.

ADAPTATION THROTTLE VALVE
This parameter indicates the adaptive throttle valve position in degrees.

ADAPTATION TORQUE
Displays the adaptation torque.

ADAPTATION TORQUE DEVIATION
Displays the adaptation torque deviation.

ADAPTATION VALUE CANP VALVE X
This parameter indicates the specified CANP Adaptation Valve value if the engine is adapting for specific conditions.

ADAPTATION VALUE O2
This parameter is the learning value for the O_2 Sensor when the engine is idling.

ADAPTATION VALVE X
This parameter indicates the specified Adaptation Valve angle if the engine is adapting for specific conditions.

ADAPTATION WASTE GATE
The ADAPTATION WASTEGATE is a learned parameter and measured in steps.

ADDITIONAL COOLANT PUMP
This parameter indicates the status of the Additional Coolant Pump.

ADDITIVE AMOUNT
Indicates the amount of additive supplied in grams.

ADDITIVE MINIMUM LEVEL REACHED
Indicates that the minimum level for the additive is reached. (i.e. Less than 0.2 litres).

ADJ.MOTOR,VERTICAL-A67m1
A67m1 (Vertical adjustment motor).

ADJUST. CAMSHAFT TIMING SOLENOID
Camshaft timing is adjustable and indicates the state of the camshaft timing solenoid. When the display reads ON, the solenoid is energized and when the display reads OFF it is not. With the solenoid activated camshaft timing is advanced and the display reads ON or OFF at different speeds. Reads OFF in the full retard position and ON in the full advance position. Solenoid should be OFF at speeds below 2000 rpm, ON at speeds between 2000 rpm and 4300 rpm and OFF at speeds over 4300 rpm.

ADR ACTIVE
Indicates whether the ADR system is active or not.

ADR RPM ADJUSTMENT
Indicates whether the ADR rpm adjustment is on or off.

ADVANCE
This parameter indicates the output signal applied by the ECU to the injection begin advance valve.

ADVANCE INDUCTANCE TIME
Indicates the Timing Advance Inductance Time.

ADVANCE SOL.VALVE COMMAND
Indicates the status of the Timing Advance Solenoid Valve Command.

ADVANCE SOL.VALVE OUTPUT
Indicates the Timing Advance Solenoid Valve Output.

ADVANCE(ACTUAL)
Indicates the Actual Timing Advance.

ADVANCE(DESIRED)
Indicates the Desired Timing Advance.

AFTERGLOW
This is the indication when the glow system is in afterglow or not.

AFTER-SALES
No information available at this time.

AFTER-START ENRICHMENT
Indicates if the ECU is providing a rich fuel mixture after a cold start. The display reads ON with fuel enrichment at cold start, then switches to OFF once the engine warms up.

AIR CHARGE
AIR CHARGE temperature (ACT) supplied to the PCM by the intake air temperature sensor. The ACT is a thermistor typically installed in the air cleaner. A 5-volt reference signal is applied to the ACT. As

temperature increases, sensor resistance decreases, providing the AIR CHARGE voltage signal to the PCM. The PCM converts ACT voltage signals to temperature readings.

AIR CLEANER PRESS.SNS,L.BANK
B28/4 (Pressure sensor downstream of air cleaner, left cylinder bank) (hPa).

AIR CLEANER PRESS.SNS,R.BANK
B28/5 (Pressure sensor downstream of air cleaner, right cylinder bank) (hPa).

AIR CONDITIONING
Indicates the status of the air conditioning system.

AIR CONTROL SOLENOID
Indicates the status of the Air Control Solenoid.

AIR DIFFUSER ABOVE
This parameter indicates the status of the upper Air Diffuser.

AIR DIFFUSER BELOW
This parameter indicates the status of the lower Air Diffuser.

AIR DIFFUSER MIDDLE
This parameter indicates the status of the middle Air Diffuser.

AIR DISTR.ACT.MOTOR,UP/DOWN
M16/22 (Up/down air distribution actuator motor) (%).

AIR DISTRIBUTION SWITCH
This parameter indicated the state of the Air Distribution switch.

AIR DISTRIBUTION VALVE
This parameter indicates the position of the Air Distribution valve.

AIR DIVERT VALVE
This parameter reads ON when the air divert solenoid is ON and air bypass voltage is low and OFF when the solenoid is off and air bypass voltage is high. The solenoid controls a vacuum signal to the air divert valve. When the air divert system is activated, air is routed upstream.

AIR FLAP SWITCHOVER ANGLE
Indicates the opening of the air flap in degrees.

AIR FLOW LOOP DIFFERENCE
Indicates the Air Flow Loop Difference.

AIR FLOW SENSOR SUPPLY
Indicates the Air Flow Sensor supply voltage.

AIR FLOW SUPPLY
This parameter is the actual voltage being read by the airflow sensor. This voltage is used by the ECU to calculate the amount of air being drawn into the engine.

AIR FLOW(ACTUAL)
Indicates the Actual Air Flow.

AIR FLOW(DESIRED)
Indicates the Desired Air Flow.

AIR FLOW(ESTIMATED)
Indicates the Estimated Air Flow.

AIR FUEL RATIO
On some 1987 and later fuel-injected vehicles, the ECU calculates the desired air-fuel ratio during closed-loop operation. This is not a measured value, but the calculated value that the ECU wants to be delivered based on its sensor input signals. A lower number indicates a rich air-fuel ratio commanded for engine start-up. A higher number indicates a leaner ratio.

AIR LOGIC CHAIN
Indicates the status of the air logic chain.

AIR MASS
The ECU generates this parameter based on the input signal from the mass airflow sensor. The reading indicates the mass of the intake air charge as kilograms per hour, (kg/h) or in milligrams per stroke, (mg/S). Normal idle values vary by system and by engine.

AIR PUMP
Indicates the state of the secondary air pump. The display reads YES or ON when the pump is activated and reads NO or OFF when the pump is off. Secondary air is pumped into exhaust system to reduce emissions under certain operating conditions. On HFM systems the pump should be on (YES) when engine temperature is below 4 °C, (40 °F).

AIR PUMP ACTIVATION
Indicates the status of the air pump.

AIR PUMP RELAY
Indicates the status of the Air Pump Relay. When the relay is on the secondary air pump is active.

AIR PUMP SWITCHOVER VALVE
Indicates whether the air pump switch-over valve is open or closed.

AIR PUMP SWITCHOVER VALVE, LEFT
Indicates whether the left air pump switch-over valve is open or closed.

AIR PUMP SWITCHOVER VALVE, RIGHT
Indicates whether the right air pump switch-over valve is open or closed.

AIR SUCTION TEST
Indicates whether the air suction test has passed or failed.

AIR SUSP AT ACCURATE TRIM
No information available at this time.

AIR SUSP INHIBIT SW
Indicates position of air suspension inhibit switch, ON/OFF.

AIR TEMPERATURE
Indicates the Air Temperature.

AIR TEMPERATURE SENSOR
Indicates the Air Temperature Sensor voltage.

AIR TEMPERATURE TURBO
Indicates the temperature of the air when leaving the turbocharger.

AIR TEMPERATURE:CORRECTED
Indicates the Corrected Air Temperature.

AIR/FUEL O2 SENSOR DATA
Indicates if there is valid data coming from the air/fuel oxygen sensor.

AIR/FUEL RATIO TEST BANK X
Indicates whether the air/fuel ratio test has passed or failed.

AIR/FUEL RATIO(BK1-SNSX)
Indicates the Air/Fuel Ratio from Bank 1 Sensor x, where x = 1 or 2.

AIR-BAG
Indicates the status of the Air-bag lamp.

AIRBAG CHIME
Indicates whether the Airbag Chime is switched on or off.

AIRBAG DEPLOYM.STATUS,DRIVER
Indicates the Drivers Airbag Deployment status.

AIRBAG LOCKING BY KEY,PASS.
Indicates whether the Airbag Locking by key has Passed or not.

AIRBAG LOCKING TYPE,PASS.
Indicates whether the Airbag Locking Type has Passed or not.

AIRBAG WARNING LAMP & CHIME
Indicates the status of the Airbag Warning Lamp and Chime.

AIRBAG:COMM
CAN communication with control module Airbag.

AIRBAG:CRASH SIGNAL
Crash signal from control module Airbag in the crash memory.

AIRBAG:SWCAN
Control module Airbag is in the single-wire mode.

AIRCO
Air conditioning.

AIRCO AUTHORISATION
Indicates the status of the Airco Authorisation.

AIRCO COMPRESSOR
This parameter indicates whether the ECU has turned the A/C compressor ON or OFF.

AIRCO COMPRESSOR CLUTCH
This parameter is a feedback signal from the A/C compressor clutch or relay. When it is ON, the clutch is engaged, when it is OFF, the clutch is disengaged. The ECU uses this signal primarily to control the idle speed.

AIRCO COMPRESSOR RELAY
Indicates the status of the Airco Compressor Relay.

AIRCO COMPRESSOR STATUS
This parameter indicates the status of the A/C Compressor.

AIRCO COMPRESSOR-A9:[%]
On/off ratio of component A9 (AC compressor) (%).

AIRCO CUT-OFF
This parameter indicates that the ECU has commanded the A/C compressor to interrupt its operation. i.e. when wide open throttle is indicated the ECU will suspend the A/C compressor operation.

AIRCO CUT-OFF DURING ACCELERATION
Indicates that the ECU has commanded the A/C compressor to interrupt its operation during acceleration. The ECU will suspend the A/C compressor operation.

AIRCO CUT-OFF DURING OVER REVVING
Indicates that the ECU has commanded the A/C compressor to interrupt its operation during over revving. The ECU will suspend the A/C compressor operation.

AIRCO ECU BUTTON-N22:COMM
CAN communication with control module N22 (AAC pushbutton control module).

AIRCO ECU,REAR-N22/4:COMM
CAN communication with control module N22/4 (Rear air conditioning control module).

AIRCO ECU-N19:AIRCO REQ.
AC request from component N19 (Air conditioning control module).

AIRCO ENABLE
This parameter indicates whether or not the ECU allows the A/C to be used or not.

AIRCO HEAT EXCH.TEMP SNS,RL
B10/9 (Left rear air conditioning heat exchanger temperature sensor) (°C).

AIRCO HEAT EXCH.TEMP SNS,RR
B10/10 (Right rear air conditioning heat exchanger temperature sensor) (°C).

AIRCO INFO SWITCH
Indicates the position of the Airco Information Switch.

AIRCO INFORMATION SWITCH
Indicates the status of the Airco Information Switch.

AIRCO LOAD SWITCH
Indicates the position of the Air-Conditioning Load Switch. ON means that the A/C system has been turned on and is under load.

AIRCO MODE
This parameter displays if the air-conditioning system is set in the HIGH or LOW mode.

AIRCO MODE/REAR HEATER SWITCH
This parameter indicates the status of the A/C Mode rear heater switch.

AIRCO PRESENT
This parameter indicates that the ECU has detected whether or not an A/C system is present.

AIRCO PRESSURE
This parameter indicates the pressure from the A/C Pressure Sensor.

AIRCO PRESSURE PWM
Displays the current pressure in the A/C system under present operating conditions. If the A/C Pressure goes too high or too low the A/C system will be switched off.

AIRCO PRESSURE SENSOR
This parameter indicates the voltage from the A/C Pressure Sensor.

AIRCO PREVENTION CONTROL
Indicates the status of the Airco Prevention Control.

AIRCO READINESS
This parameter checks if the A/C system is ready to be used, if A/C is fitted and no defects are found in the system, the reading will be YES, if the vehicle does not have A/C fitted or a fault in the system or wiring is found, the reading will be NO.

AIRCO RELAY
This parameter indicates whether the ECU has turned the A/C relay ON or OFF.

AIRCO REQUEST
This parameter indicates whether or not the ECU issued a request to turn the A/C on.

AIRCO SOLENOID
Indicates the status of the Air-Conditioning Solenoid.

AIRCO SWITCH
This parameter informs the ECU whether the A/C switch is in the ON or OFF position.

AIRCO SWITCH ON
This parameter informs the ECU whether the A/C switch is ON.

AIRCO SWITCH-OFF REQUEST
This parameter is an ECU command signal for the A/C system. When it is on, the ECU will force the A/C system to disengage operation.

AIRCO/FAN CONTROL STRATEGY
Indicates the status of the Airco/Fan Control Strategy.

AIRCO-COMPR/FAN CONTROL
Indicates the status of the Airco Compressor Fan Control.

AIRCONDITIONING
Air conditioning.

AIRCONDITIONING ACTIVE
Indicates the position of the air conditioning cycle switch. ON means that the A/C switch on the instrument panel has been turned on or that the ECU has commanded the A/C system to turn on. In some cases, the A/C compressor may not turn on even though the switch is closed. Several other switch or sensor signals may prevent the ECU from engaging the A/C compressor clutch.

AIRCONDITIONING MONITOR
Indicates the status of the air-conditioning monitor.

AIRCONDITIONING SIGNAL
Indicates whether an air-condition signal is present or not.

AIRCONDITIONING:REAR:COMM
CAN communication with control module REAR AC.

AIRCONDITIONING:REAR:SWCAN
Control module REAR AC is in the single-wire mode.

AIRFLOW
This parameter indicates the amount of air currently being drawn into the engine.

AIRFLOW SENSOR
This parameter indicates the voltage from the Airflow Sensor.

AIRFLOW SENSOR GROUND
This parameter indicates whether the ECU has determined that a fault has occurred on the Airflow Sensor ground wire.

AIRFLOW SENSOR X BANK X
Indicates the voltage of the airflow sensor x on bank x.

ALARM
Alarm.

ALARM SIGNAL HORN-H3
H3 (Alarm signal horn).

ALARM SIGNAL TO ECU E-CALL
Alarm signal to control module E-call.

ALARM:ACTIVATION X
Alarm activation, where X = 2 to 10.

ALARM:LAST ACTIVATION
Last alarm activation.

ALL ACTIVITY MODULE:CAN MSG
CAN message from control module AAM regarding low beam status.

ALTERNATOR DEFECT
This parameter indicates if a fault or defect has occurred in the alternator.

ALTERNATOR LOAD
This parameter displays the current alternator load.

ALTERNATOR OK
This parameter shows whether the ECU has recognised a charging voltage, if the reading is YES, then Adaptation (adaptive learn) can take place. If the reading is NO, then the ECU will not re-learn any values.

ALTITUDE ADAPTATION FACTOR
This parameter displays the correction factor for altitude and is applied to air intake and lambda values when driving in mountainous terrain.

ALTITUDE FACTOR
Displays the altitude correction factor as a percentage.

AMBIENT AIR TEMP(UNFILTERED)
Displays the Unfiltered Ambient Temperature.

AMBIENT LIGHT,SENSOR VALUE
Sensor value of ambient light (%).

AMBIENT PRESSURE
The ECU calculates the ambient pressure based on the input signal from the Barometric Pressure (BARO) Sensor.

AMBIENT TEMP SNSR
Displays the voltage from the ambient temperature sensor.

AMBIENT TEMP.DISPLAY:SNS
B14 (Ambient temperature display temperature sensor) (°C).

AMBIENT TEMPERATURE
This parameter displays the ambient temperature outside the vehicle.

AMOUNT BEFORE FUEL PUMP
This parameter indicates the amount of fuel before the fuel pump.

ANCILLARY DESIRED ENGINE SPEED
No information available at this time.

ANGLE VEH.-TARGET DETECTED
Angle of vehicle to target object detected (Grad).

ANTI-CYCLIC ADAPTATION X
Indicates the Anti-cyclic Adaptation, where x = 1, 2 or 3.

ANTI-PERCOLAT.RELAY COMMAND
Indicates the status of the Anti-percolation Relay Command.

ANTI-ROLL&VARIO ROOF:COMM
CAN communication with control module RVC.

ANTI-SKID
Indicates whether an Anti-Skid system in present or not.

ANTI-SKID DISABLE SWITCH
Indicates the status of the Anti-Skid Disable Switch.

ANTI-THEFT
This parameter indicates that the anti-theft device built into the ECU is active (ON) or inactive (OFF). When the Anti-theft device is active the engine should not start.

ANTI-THEFT DEVICE
This parameter indicates that the anti-theft device built into the ECU is active (ON) or inactive (OFF). When the Anti-theft device is active the engine should not start.

ANTI-THEFT SYSTEM:ARMED
ATA armed.

ANTI-THFT ALARM C.CONSOLE
S62/8 (ATA centre console compartment switch).

ANTI-THFT ALARM STATUS INDIC
S97/6e3 (ATA status indicator).

APP CAL POSITION
Displays the Calculated Accelerator Pedal position in percentage.

ARMREST COMP.LIGHT
E36 (Armrest storage compartment lighting).

ARMREST COMP.LIGHT:ACT.POWER
Current power of component E36 (Armrest storage compartment lighting) (mA).

ASC DISABLED
This parameter indicates whether the Anti Spin Control is disabled or not.

ASC INTERVENT
This parameter indicates that the Anti Spin Control is required to be activated for the current driving conditions.

ASC PRESENT
This parameter indicates that the Anti Spin Control system is installed.

ASC REQUEST ACKNOWLEDGE
This parameter is a request acknowledgement from the ECU for the Anti Spin Control system to be activated.

ASC STATUS
Indicates whether the Anti Spin Control system is active or inactive.

ASC TORQUE DECREASE
This parameter indicates that the Anti Spin Control system is reducing the torque.

ASC TORQUE DECREASE REQUEST
This parameter is a request from the ECU for the Anti Spin Control system to reduce the torque.

ASC TORQUE INCREASE
This parameter indicates that the Anti Spin Control system is increasing the torque.

ASC,REQ.TORQUE RAISE AT WHEELS
This parameter is a request from the ECU for the Anti Spin Control system to increase the torque at the wheels.

ASC,REQ.TORQUE REDUCT.AT WHEELS
This parameter is a request from the ECU for the Anti Spin Control system to reduce the torque at the wheels.

ASC/DSC SWITCH
This parameter indicates the position of the Anti Spin Control (ASC) or Dynamic Stability Control (DSC) switch.

ASR ACTIVE
Indicates whether the ASR system is active.

ASR PRESENT
This parameter indicates that the ECU has detected whether or not an ASR is present.

ASR/MSR REQUEST
Indicates that the engine is reaching the torque value requested by the ASR/MSR device.

ASR/TC DISABLE SWITCH
Indicates whether or not the ASR/TC disable switch is pressed.

ATA HOOD SW
S62 (ATA hood switch).

ATF COUNTER
Condition counter for Automatic Transmission Fluid calculated from the number of starts/time, etc.

ATF TEMPERATURE
Automatic transmission fluid temperature is an analogue parameter supplied to the ECU by the automatic transmission fluid temperature sensor. The automatic transmission fluid temperature sensor is a thermistor installed in the automatic transmission fluid. At low temperatures the resistance is high and a high voltage signal is

produced. As temperature increases, sensor resistance decreases, providing a decreasing automatic transmission fluid voltage signal to the ECU. This parameter can also be displayed as a voltage.

ATF TEMPERATURE HIGH
Indicates if the automatic transmission fluid temperature is too high.

AUC FUNCTION
This parameter indicates whether the AUC (Automatic Recirculation Control) Function is active or not.

AUC SENSOR
This parameter indicates the voltage from the AUC (Automatic Recirculation Control) Sensor.

AUDIO SYSTEM SIGNAL
Indicates the status of the Audio System signal.

AUDIO VOLUME - SW
Indicates the status of the audio volume decrease control steering wheel switch.

AUDIO VOLUME + SW
Indicates the status of the audio volume increase control steering wheel switch.

AUTO RIDE CTRL STATUS
No information available at this time.

AUTO SWITCH
This parameter indicates the status of the automatic air conditioning switch.

AUTOM.LOWERING SW:FRONT RI.
Switch for automatic lowering at front right.

AUTOM.MIRROR DIMMING BLOCKED
Automatic mirror dimming inhibited.

AUTOMATIC AIRCO:COMM
CAN communication with control module AAC.

AUTOMATIC AIRCO:SWCAN
Control module AAC is in the single-wire mode.

AUTOMATIC BLOWER
This parameter indicates whether the Automatic Blower is ON or OFF.

AUTOMATIC DRIVING LAMPS
Automatic driving lamps.

AUTOMATIC LOWERING SW:FL
Switch for automatic lowering at front left.

AUTOMATIC TRAMSMISSION
Indicates whether an Automatic Transmission system is present or not.

AUTOMATIC TRANSMISSION VALVE X
Indicates the status of the specified transmission valve.

AUXILIARY HEAT REQUESTED
This parameter indicates if Auxiliary Heat is requested or not.

AUXILIARY HEATER REQUESTED
This parameter indicates whether an auxiliary heater is ON or OFF.

AVERAGE SHORT TERM MIXTURE CORR.
This parameter indicates the Average Short Term Mixture Correction.

AXLE RATE
No information available at this time.

3.2.3 B

B ACT.MODE
Indicates the status of the “B” Actuator Mode.

BACK PRESSURE VALVE MOTOR
This parameter indicates the Back Pressure Valve motor duty cycle as a percentage.

BACKUP LAMP SWITCH
Indicates whether the backup (reversing) lamp switch is either on or off.

BAND SW
Indicates the status of the Radio Band switch.

BANK X CRANKSHAFT SEGM.X ADAPT
This parameter measures the amount of ignition advance or retard required to compensate for ignition misfire. The acceleration of the crankshaft is checked by firing the relevant cylinder in the specified cylinder bank, the respective acceleration (change in rotation speed) of the cylinders is then compared with each other. The misfire detection functions across the entire engine speed range above 15 % of engine load.

BANK X-Y
BANK X-Y refers to cylinder bank 1 or cylinder bank 2 respectively and Y refers to actual cylinder number.

BARO
This parameter indicates the Barometric pressure in mbar or bar as calculated by the ECU from the voltage supplied by the Barometric Pressure Sensor. Some systems do not have a BARO sensor, but the ECU calculates it by sampling the MAP sensor voltage signal with the ignition key on and the engine off, just before cranking. This parameter can also indicate the voltage read by the ECU from the Barometric Pressure Sensor.

BARO PRES SENS
The PCM calculates a barometric pressure reading from the barometric pressure (BARO) sensor frequency signal. In some PCMs the readings can also be displayed as a frequency measurement in Hz.

BAROMETRIC PRESSURE
This parameter indicates the Barometric pressure in mbar or bar as calculated by the ECU from the voltage supplied by the Barometric Pressure Sensor. Some systems do not have a BARO sensor, but the ECU calculates it by sampling the MAP sensor voltage signal with the ignition key on and the engine off, just before cranking. This parameter can also indicate the voltage read by the ECU from the Barometric Pressure Sensor.

BAROMETRIC PRESSURE SENSOR
This parameter indicates the voltage from the Barometric Pressure Sensor.

BAS DIAPHRAGM TRAVEL SNS
A7/7b1 (BAS diaphragm travel sensor) (mm).

BAS RELEASE SW,NC CONTACT
Component A7/7s1 (BAS release switch), NC contact.

BAS RELEASE SW,NO CONTACT
Component A7/7s1 (BAS release switch), NO contact.

BASE VALUE THROTTLE POS SENSOR
This parameter indicates the stored base value for the throttle value potentiometer position when throttle valve is fully closed. The value is determined when base settings are activated with throttle closed.

BASIC INJECTION DURATION
Displays the length of time in milliseconds (ms) that the ECU commands the fuel injectors to remain on. Normal range is approximately 3 to 5 ms at idle.

BATT
This parameter indicates the voltage of the vehicle's battery measured by the ECU. The ECU uses this voltage to correct several output signals. It is used for controlling the injection time, idle speed control and ignition coil loading times.

BATTERY
This parameter indicates the voltage of the vehicle's battery measured by the ECU. The ECU uses this voltage to correct several output signals. It is used for controlling the injection time, idle speed control and ignition coil loading times.

BATTERY SAVER DRIVER
Indicates the GEM command status for the battery saver relay solenoid. When the system functions properly, ON means the contacts of the relay are closed.

BATTERY VOLTAGE TOO LOW
Indicates if the battery voltages is too low.

BELTMINDER STATUS,DRIVER
Indicates the Drivers Seatbelt Minder status.

BELTMINDER STATUS,PASSENGER
Indicates Passenger Seatbelt Minder status.

BLENDING AIR FLAP POS.SNS
M16/8b1 (Blending air flap position sensor).

BLOCK IDENTITY
This parameter is found on older vehicles. The O_2 Block Learn Multiplier number represents the operation and long-term correction of the fuel metering on a fuel-injected engine. The block learn number indicates whether the ECU is commanding a rich or a lean mixture.

BLOWER
This parameter indicates the Blower signal as a percentage.

BLOWER CONTROL
This parameter indicates the Blower Control voltage.

BLOWER LOCK ROTOR
Indicates the status of the Blower Lock Rotor.

BLOWER MOTOR
Indicates whether the blower motor is on or off.

BLOWER POTENTIOMETER
This parameter displays the position of the Blower Potentiometer as a percentage.

BLOWER REGULATION
This parameter indicates the Blower Regulation.

BLOWER,INTERIOR TEMP.SNS
Blower of interior temperature sensor.

BODY ACCEL.SENSOR,FL-B24/3
B24/3 (Left front body acceleration sensor) (mV).

BODY ACCEL.SENSOR,FR-B24/4
B24/4 (right front body acceleration sensor) (mV).

BODY ACCEL.SENSOR,REAR LEFT
B24/5 (Left rear body acceleration sensor) (V).

BODY ACCEL.SENSOR,REAR RIGHT
B24/6 (right rear body acceleration sensor) (mV).

BOILER RELAY COMMAND
Indicates the status of the Boiler Relay command.

BOOST
This parameter displays the current boost pressure in the intake manifold under present operating conditions. Value is an absolute pressure or it may indicate a percentage of the maximum boost pressure.

BOOST COMMAND
Displays the current pressure in the intake manifold under present operating conditions. Value is in bar and will be an absolute pressure.

BOOST COR
Indicates the state of the boost adaptation.

BOOST PRESS.LOOP DIFFERENCE
Indicates the Boost Pressure loop Difference.

BOOST PRESSURE
This parameter displays the current pressure in the intake manifold under present operating conditions. Value is in millibars and will be an absolute pressure.

BOOST PRESSURE ACTUATOR
Displays the position of the boost pressure actuator as a percentage.

BOOST PRESSURE CONTROL
Indicates whether the boost pressure control is on or off.

BOOST PRESSURE(DESIRED)
This parameter is the calculated desired boost pressure in mbar.

BOOST PRESSURE:SPECIFIED
Specified boost pressure (hPa).

BOOST SENSOR SUPPLY
This parameter displays the actual input voltage signal from the boost pressure sensor.

BRACKET
Displays the resistance of the Airbag mounting bracket to ground.

BRAKE AND ABS LAMP STATE
Indicates the status of the Brake and ABS Lamp.

BRAKE FLUID INDICATOR SW-S11
S11 (Brake fluid indicator switch).

BRAKE FLUID LEVEL LOW
Indicates whether the Brake Fluid Level is low.

BRAKE FLUID PRESSURE
Indicates the Brake Fluid Pressure.

BRAKE LAMP
Indicates the status of the Brake Lamp.

BRAKE LAMP SWITCH
Indicates the status of the Brake Lamp Switch.

BRAKE LAMP SWITCH VIA CAN
Indicates whether the parking brake lamp switch (via the CAN bus) is on or off.

BRAKE LIGHT
This parameter indicates that the ECU has detected if the brake pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

BRAKE LIGHT SW
S9/1 (Stop lamp switch).

BRAKE LIGHT SW OUTPUT ECU
Stop lamp switch output at control unit A7/3n1 (SBC control module).

BRAKE LIGHT SW,NC CONTACT
Component S9/1 (Stop lamp switch), NC contact.

BRAKE LIGHT SW,NO CONTACT
Component S9/1 (Stop lamp switch), NO contact.

BRAKE LIGHT SWITCH
This parameter indicates that the ECU has detected that the brake light switch is closed or open.

BRAKE ON OFF
Indicates OFF when the brakes are not applied and ON when the brakes are applied.

BRAKE OPERATED
Indicates if the brake pedal has been pressed.

BRAKE PAD SENSOR,FL-S10/1
S10/1 (Left front brake pad contact sensor).

BRAKE PAD SENSOR,FR-S10/2
S10/2 (Right front brake pad contact sensor).

BRAKE PAD WEAR SW OK
Indicates the status of the Brake Pad wear switch.

BRAKE PADS WORN
Indicates whether the Brake Pads are worn.

BRAKE PEDAL
This parameter indicates that the ECU has detected if the brake pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

BRAKE PEDAL POS/BRAKE SW
Indicates the status of the Brake Pedal Position switch.

BRAKE PEDAL PRESSED
This parameter indicates that the ECU has detected that the brake pedal has been pressed.

BRAKE PEDAL PRESSURE
Indicates the pressure exerted by the driver measured by the relative sensor on the ABS ECU.

BRAKE PEDAL REDUNDANT
Indicates whether the Brake Pedal is Redundant or not.

BRAKE PEDAL SW
Reads OFF when the brakes are not applied and ON when the brakes are applied. BOO = BRAKE ON/OFF Switch.

BRAKE PEDAL TRAVEL
Indicates the Brake Pedal Travel.

BRAKE PRESSURE APPLIED
Indicates whether the Brake Pressure Sensor is on or off. Used on diesel vehicles only.

BRAKE PRESSURE TRANSDUCER MAIN
Indicates the status of the Main Brake Pressure transducer.

BRAKE PRESSURE TRANSDUCER REDUNDANT
Indicates the status of the Redundant Brake Pressure transducer.

BRAKE SIGNAL
This parameter indicates whether there is a signal from the Brake Switch. When the parameter displays ON, the brake pedal is pressed and the Brake Switch is giving a signal. When it displays OFF, the brake pedal is released and the Brake Switch is not giving a signal.

BRAKE SW
This parameter indicates that the ECU has detected if the brake pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

BRAKE SW.INFORMATION(CAN)
Indicates the status of the Brake Information Switch on a CAN system.

BRAKE SWITCH
This parameter indicates that the ECU has detected if the brake pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

BRAKE SWITCH 1
This parameter indicates that the ECU has detected if the brake pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

BRAKE SWITCH X INFORMATION
Indicates the status of the Brake Information Switch x, where x = 1 or 2.

BRAKE SWITCH 2
This brake switch backup signal indicates that the ECU has detected by a second switch if the brake pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

BRAKE SWITCH:CLOSING WIRE
Indicates the status of the Brake Switch Closing wire.

BRAKE SWITCH:CLOSURE
Indicates whether the Brake Switch is Closed or not.

BRAKE TEST SWITCH
BRAKE TEST SWITCH is a back-up to the brake switch. Depending on the wiring used in the vehicle the two parameters (BRAKE SWITCH) should be equal or the exact opposite of each other.

BRAKE TORQUE
Brake torque (Nm).

BRAKE WARNING IND INPUT
Indicates the status of the Brake Warning Indicator input.

BRAKE WARNING LAMP DRIVER OUTPUT
Indicates the status of the brake lamp.

BRAKE WARNING LMP SHORT GND
Indicates that the brake warning light is shorted to ground.

BRAKES PR.
Indicates the Brake Pressure.

BRAKING PRESSURE
This parameter indicates the brake pressure.

BRIEF SELF-ADAPTATION
Indicates whether or not the ECU is attempting to compensate for tolerances in the mixture by means of long term adaptation, or long term fuel trim (LTFT) adjustments. The display only reads ON when the ECU is making brief LTFT adjustments.

BUTTON FANFARE HORNS-S110s5
S110s5 (Fanfare horns pushbutton).

BUTTON FOR HORNS-S110/111s5
S110s5 or S111s5 (pushbutton for fanfare horns).

BUTTON INSTANT HEAT
Instant heat pushbutton.

BUTTON INSTANT VENTILATION
Instant ventilation pushbutton.

BUTTON INTERIOR LIGHT:FL
Pushbutton for left front interior light.

BUTTON INTERIOR LIGHT:FR
Pushbutton for right front interior light.

BUTTON INTERIOR LIGHT:RL
Pushbutton for left rear interior light.

BUTTON INTERIOR LIGHT:RR
Pushbutton for right rear interior light.

BUTTON SYST.SELECTION&VCS
S110s2 (System selection and VCS pushbutton).

BUTTONS '+' & '-' -S111s1
S111s1 (pushbutton + and -, setting specific functions and volume control).

BUTTONS MULTIF.STEERINGWHL,R
S111 (right multi function steering wheel pushbutton group).

BUZZER SIGN.TO INSTR.CLUSTER
Buzzer signal to control module A1 (Instrument cluster).

3.2.4 C

C/C ERROR
Indicates that a error has occurred in the Cruise Control System.

C/C PRESENT
This parameter indicates that the ECU has detected whether or not Cruise Control is present.

C/C SHUTOFF BY FUNCTION PROC
Cruise control shut off by function processor.

C/C SHUTOFF:BY BACK-UP ECU
Cruise control shut off by back-up processor.

C/C SHUTOFF:FUNC.PROCESSOR
Cruise control shut off by function processor.

C/C STUTOFF BY BACK-UP PROC
Cruise control shut off by back-up processor.

C/C SW, STEERING COLUMN MOD
Cruise control switch Steering column module.

C/C SWITCH:ACCELERATE
Cruise control switch 'accelerate'.

C/C SWITCH:DECELERATE
Cruise control switch 'decelerate'.

C/C SWITCH:OFF
Cruise control switch 'off'.

C/C SWITCH:STORE
Cruise control switch 'store'.

CAL THR POS
Displays the Calibrated Throttle position as a percentage.

CALC ENGINE LOAD
Is calculated by the PCM based on engine speed (rpm), number of cylinders, airflow and cylinder air charge compared to the theoretical air charge that occurs at standard PCM temperature and pressure (volumetric efficiency). The resulting ratio — called engine load — is expressed as a percentage. A normal load at idle is between 20 and

40 %. During normal driving, load will be less than 80 %. On supercharged vehicles, or under hard acceleration in cold temperatures or high barometric pressure, load can exceed 100 %. CALC LOAD is the calculated load value from the ECU.

CALCULATED ENGINE SPEED
This parameter displays the calculated engine speed in rpm.

CALIBR PEDAL
This parameter indicates if the calibration of the throttle valve has been done correctly.

CALIBRATED THROTTLE POSITION
Displays the Calibrated Throttle position as a percentage.

CALIBRATION RESULT
Indicates the result of the system calibration.

CAM ADJ
This parameter indicates that the ECU has activated the camshaft timing adjustments.

CAM/CRANKSHAFT SYNCHRON.
Indicates the status of the Cam/Crankshaft Synchronisation.

CAMSHAFT
This parameter indicates whether or not the ECU has commanded the Camshaft Relay ON or OFF. It is used to change the timing of the inlet camshaft.

CAMSHAFT ADJUSTER MODE
This parameter indicates that the ECU has activated the camshaft timing adjustments.

CAMSHAFT ADJUSTMENT
The ECU uses this signal to the variable camshaft timing solenoid. If the display reads ON, the ECU is energizing the solenoid to advance camshaft timing. Typically, the display reads OFF at idle and switches on at 2000 rpm on M119.XXX and M120.XXX engines and 4000 rpm for all other engines.

CAMSHAFT ADJUSTMENT VALVE, LEFT
Indicates whether the left camshaft adjustment valve is on or off.

CAMSHAFT ADJUSTMENT VALVE, RIGHT
Indicates whether the right camshaft adjustment valve is on or off.

CAMSHAFT ADVANCE
This parameter displays the amount of camshaft adjustment commanded by the ECU, when active.

CAMSHAFT BANK X
This parameter displays the Camshaft position in degrees for the various cylinder banks.

CAMSHAFT CONTROL
Indicates the status of the camshaft control system.

CAMSHAFT CONTROL LOGIC CHAIN
Indicates whether the camshaft control logic chain is active or not active.

CAMSHAFT HALL-EFFECT SENSOR
Indicates the state of the signal from camshaft position (CMP) sensor. The reading switches between 55 and AA depending on whether Hall-effect signal is High or Low. The value should be constantly switching whenever the engine is running and the frequency of the switching increases and decreases in proportion to engine speed. Be aware, readings may be outside the normal range when the engine is cranking.

CAMSHAFT HALL-SNS,LEFT BANK
B6/2 (camshaft Hall sensor, left bank of cylinders).

CAMSHAFT HALL-SNS,RIGHT.BANK
B6/3 (camshaft Hall sensor, right bank of cylinders).

CAMSHAFT OFFSET
Indicates the Camshaft Offset.

CAMSHAFT OFFSET CONTROL
Indicates the status of the Camshaft Offset Control.

CAMSHAFT POSITION
This parameter displays the Camshaft position in degrees.

CAMSHAFT POSITION BANK X
This parameter displays the Camshaft position in degrees for the various cylinder banks.

CAMSHAFT POSITION,FRONT CYL
Indicates the Camshaft Position for the front cylinder bank.

CAMSHAFT POSITION,REAR CYL
Indicates the Camshaft Position for the rear cylinder bank.

CAMSHAFT REF. MARK SIGNAL
Indicates whether the camshaft reference mark signal is on or off.

CAMSHAFT SIGNAL, LEFT BANK
Indicates whether there is a camshaft signal from the left bank.

CAMSHAFT SIGNAL, RIGHT BANK
Indicates whether there is a camshaft signal from the right bank.

CAMSHAFT SOLENOID
The ECU uses this signal to the variable camshaft timing solenoid. If the display reads ON, the ECU is energizing the solenoid to advance camshaft timing. Typically, the display reads OFF at idle and switches on at 2000 rpm on M119.XXX and M120.XXX engines and 4000 rpm for all other engines.

CAMSHAFT SPEED
Indicates the Camshaft Speed.

CAMSHAFT TIMING
The ECU uses this signal to the variable camshaft timing solenoid. If the display reads ON, the ECU is energizing the solenoid to advance camshaft timing. Typically, the display reads OFF at idle and switches on at 2000 rpm on M119.XXX and M120.XXX engines and 4000 rpm for all other engines.

CAN DATA EXCHANGE
Indicates whether the CAN bus data exchange signal is active or not active. The CAN bus is a broadcast type of bus. This means that all modules “hear” all transmissions. There is no way to send a message to just a specific module; all modules pick up all traffic. However, CAN hardware provides local filtering so each module reacts only to data whose identifiers are stored in its acceptance list. This very high frequency transmission requires a “Twisted Pair” of wires to address EMI concerns. Two wires also ensure communication if one wire is damaged and provide the ability to recognize a CAN circuit fault.

CAN RECEPTION FROM ABS/ASR/ETS/ESP
Indicates if the CAN is receiving data from the ABS, ASR, ETS, and ESP modules.

CAN RECEPTION FROM AIR CONDITIONING
Indicates if the CAN is receiving data from the air conditioning (AC) module.

CAN RECEPTION FROM ASR
Indicates if the CAN is receiving data from the acceleration slip regulation (ASR) module.

CAN RECEPTION FROM CREWBUS (IC)
Indicates if the CAN is receiving data from the crew bus IC module.

CAN RECEPTION FROM DAS
Indicates if the CAN is receiving data from the DAS module.

CAN RECEPTION FROM DI X
Indicates if the CAN is receiving data from distributor ignition modules 1 or 2 (DI1 or DI2).

CAN RECEPTION FROM EA/CC/ISC
Indicates whether the CAN is receiving data from the electronic accelerator, cruise control and idle speed control modules.

CAN RECEPTION FROM EIS
Indicates if the CAN is receiving data from the EIS module.

CAN RECEPTION FROM ETC
Indicates if the CAN is receiving data from the ETC module.

CAN RECEPTION FROM HFM-SFI
Indicates if the CAN is receiving data from the HFM-SFI module.

CAN RECEPTION FROM LH X-SFI
Indicates if the CAN is receiving data from the LH 1-SFI or LH 2-SFI modules.

CAN RECEPTION FROM LH-SFI
Indicates if the CAN is receiving data from the LH-SFI module.

CAN RECEPTION FROM SCM
Indicates if the CAN is receiving data from the SCM module.

CAN SIGN AIRBAG MALF.LAMP
CAN bus signal: A1e15 (airbag malfunction indicator and warning lamp).

CAN SIGN AIRBAG SW-OFF,LAMP
CAN bus signal: A1e56 (AIRBAG OFF indicator lamp).

CAN SIGN PASS.SEAT OCCUPIED
CAN bus signal: Seat occupied recognition on front passenger seat.

CAN SIGN:CHILD SEAT IN FRONT
CAN bus signal: Child seat is recognized on front passenger seat.

CAN SIGNAL VEHICLE SPEED
CAN signal ‘Vehicle speed limit’.

CAN SIGNAL:ACCELERATE&SET
CAN signal ‘Accelerate and Set’.

CAN SIGNAL:DECELERATE&SET
CAN signal ‘Decelerate and Set’.

CAN SIGNAL:RESUME
CAN signal ‘Resume’.

CAN SIGNAL:SWITCH OFF C/C
CAN signal ‘Switch off cruise control’.

CAN TRANSMISSION FROM CC/ISC
Indicates whether the CAN is transmitting data from the cruise control and idle speed control modules.

CAN TRANSMISSION FROM DI X
Indicates whether the CAN is transmitting data from the distributor ignition (DI1 and DI2) modules.

CAN TRANSMISSION FROM EA/CC/ISC
Indicates whether the CAN is transmitting data from the electronic accelerator, cruise control and idle speed control modules.

CAN TRANSMISSION FROM ISC
Indicates whether the CAN is transmitting data from the idle speed control module.

CAN TRANSMISSION FROM LH X-SFI
Indicates whether the CAN is transmitting data from the sequential fuel injection (LH 1-SFI or LH 2-SFI) modules.

CAN.PURGE
This parameter indicates if the Canister Purge valve has been activated or not. ON or OFF. Also, this parameter can indicate the percentage of the canister purge flow. The duty cycle controlled solenoids in these systems are used to activate purging and turned off to block purging.

CANISTER BLEED CONTROL
Indicates the status of the Canister bleed control.

CANISTER PURGE CHARGE
This parameter indicates the percentage of canister purge flow. The duty cycle solenoids in these systems are turned on to activate purging and turned off to block purging.

CANISTER PURGE DUTY CYCLE
This parameter indicates the percentage of the canister purge flow. The duty cycle controlled solenoids in these systems are used to activate purging and turned off to block purging.

CANISTER PURGE FLUSH
This parameter indicates the percentage of canister purge flushed from the charcoal canister back into the engine for re-burn.

CANISTER PURGE MODE
This parameter displays the operating mode of the canister purge valve.

CANISTER PURGE SOLENOID
This parameter indicates the operation of the Canister Purge Solenoid as a percentage.

CANISTER PURGE SYSTEM MODE
This parameter indicates that the canister purge system (CANP) has been set to charge mode.

CANISTER PURGE TO CHARGE
This parameter displays that the canister purge valve (CANP) has been set to charge mode.

CANISTER PURGE TO CLOSE
This parameter displays that the canister purge valve (CANP) has been set closed.

CANISTER PURGE TO MINIMUM
This parameter displays that the canister purge valve (CANP) has been set to a minimum pulse width to stop sudden mixture changes so to increase driveability.

CANISTER PURGE VALVE
This parameter indicates if the Canister Purge Valve has been activated or not. ON or OFF.

CANISTER PURGE VALVE DUTY CYCLE
Indicates the duty cycle of the ECU controlled canister purge valve. The pulse width modulated solenoid is energized to activate purging and switched off to prevent purging. A reading of 0 % indicates purging is being prevented and a reading of 100 % indicates the

solenoid is fully energized for maximum purging. When purge is activated, duty cycle should gradually increase. This prevents rapidly dumping vapours in to the intake charge, which would momentarily create an overly rich mixture.

CANISTER PURGE VALVE ON CHARGE
This parameter displays that the canister purge valve (CANP) has been set to check mode. This will calculate the fuel content of the fumes coming from the canister, by measuring the effect the fumes have on the Lambda signal.

CANISTER PURGE VALVE ON MIN MODE
This parameter displays that the canister purge valve (CANP) has been set to a minimum pulse width to stop sudden mixture changes so to increase driveability.

CANISTER PURGE VALVE STATUS
Indicates the status of the Canister Purge Valve.

CANISTER PURGE VLV ON NORMAL MODE
This parameter displays that the canister purge valve (CANP) is operating normally.

CANISTER SOL.VALVE CONTROL
Indicates the status of the Canister Solenoid Valve Control.

CANISTER SOL.VALVE STATUS
Indicates the status of the Canister Solenoid Valve.

CANISTER VLV OPENING(DESIRED)
Indicates the Desired canister Valve Opening.

CANP
The canister purge (CANP) valve regulates the flow of fuel vapours from Emission Control Parameters the evaporation canister to the fuel system. This parameter indicates the status of the canister purge valve. When the engine is at operating temperature, the solenoid is active and purging can occur. When the engine is at idle or below operating temperature, the solenoid is inactive.

CANP OK
This parameter indicates that the canister purge valve (CANP) is operating normally.

CAPACITOR 1
Indicates the status of Capacitor 1.

CARGO SET ALARM SW
Indicates the status of the Cargo weight Set Alarm switch.

CAT DIAGNOSE
Indicates the status of the Cat Diagnose.

CAT DIAGNOSE:DONE
Indicates whether the Cat Diagnose is done or not.

CAT DIAGNOSE:IN PROGRESS
Indicates whether the Cat Diagnose is in progress or not.

CAT DIAGNOSE:OBD
Indicates whether the Cat Diagnose is in OBD mode or not.

CAT DIAGNOSE:REQUEST
Indicates whether the Cat Diagnose has been requested or not.

CAT PRESENT
This parameter indicates if there is a Catalytic Converter fitted or not.

CAT PROTECTION ENRICHM.BANK X
Indicates the status of the Cat Protection Enrichment for bank x, where x = 1 or 2.

CAT_MON_RDY
Catalyst Monitor is either ready or not. YES means the monitor is READY.

CATALYST CONVERTER WARMUP
This parameter indicates that ECU is allowing extra fuel into the Catalytic Converter so cat warm-up is speeded-up. Warm-up is achieved by retarding the ignition point to AFTER TDC and enriching the mixture.

CATALYST EFFICIENCY
This parameter indicates the efficiency of the Catalytic Converter by measuring the O_2 Sensors.

CATALYST MON STATUS
OBD monitor information, Catalytic Convertor Monitor, is either supported or not supported, or ready or not ready.

CATALYST PRESENT
This parameter indicates if there is a Catalytic Converter fitted or not.

CATALYST SELECTED
Indicates whether the system configuration is designed to operate with or without a catalytic converter. Display should read YES on all European models.

CATALYST STATUS
This parameter displays the status of the Catalytic Converter, it can be normal or degraded.

CATALYST TEMP AFTER CAT
Indicates the Catalyst Temperature after the cat.

CATALYST TEMP BEFORE CAT
Indicates the Catalyst Temperature before the cat.

CATALYST TEMPERATURE
This parameter indicates the temperature of the Catalytic Converter.

CATALYST TEST STATUS
This parameter displays the test status of the Catalytic Converter, it can be complete or incomplete.

CATALYST WARMUP
This parameter indicates that ECU is allowing extra fuel into the Catalytic Converter so cat warm-up is speeded-up. Warm-up is achieved by retarding the ignition point to AFTER TDC and enriching the mixture.

CATALYTIC CONVERTER HEATER
Indicates whether the catalytic converter heater is on or off.

CAUSE ALARM ACTUATION
Cause of ATA actuation.

CC ACCELERATION
Indicates whether the Cruise Control System is in the acceleration mode or not.

CC DECELERATION
Indicates whether the Cruise Control System is in the deceleration mode or not.

CCW SHIFT MOTOR DRIVER OUTPUT
Indicates the GEM command status for the counter clockwise (CCW) shift motor relays. When the system functions properly, ON means the solenoid of the relay is energised, closing the relay contacts. These relays control the directional rotation of the shift motor inside the transfer case.

CENTER AXLE HALL PWR
Indicates whether the GEM module is sending the transfer case Hall effect switches reference voltage.

CENTRAL GATEWAY ECU
CGW, N93 (Central gateway control module).

CENTRAL GATEWAY:COMM
CAN communication with control module CGW.

CENTRAL GATEWAY:SWCAN
Control module CGW is in the single-wire mode.

CENTRAL LOC SW
Indicates the status of the Central Locking switch.

CENTRAL LOCK/UNLOC SW
Indicates the status of the central locking/unlocking switch.

CENTRAL LOCKING
Central locking.

CENTRAL LOCKING SW-S21s10
S21s10 (Central locking switch).

CENTRAL LOCKING:RELOCKED
Re-locking of central locking carried out.

CENTRAL UNLOCK SW
Indicates the status of the Central Unlocking switch.

CH.SEAT RECOG.AIRB-OFF LAMP
E16 (Child seat recognition airbag off indicator lamp).

CHARGE AIR TEMP.SENSOR-B17/8
B17/8 (Charge air temperature sensor) (°C).

CHARGE PRESS.CTRL TRANSD[%]
Y31/5 (Charge pressure control vacuum transducer), On/off ratio (%).

CHARGE TIME COIL
Indicates the time taken (ms) to charge the ignition coil(s) prior to letting the spark plug ignite.

CHARGE TIME COIL CYL X+X
Indicates the Charge Time for Coils x-x, where x = 1, 2, 3 or 4.

CHARGE TIME COIL CYLINDER X
Indicates the Charge Time for Coils Cylinder x, where x = 1, 2, 3, 4, 5 or 6.

CHECK ENG LIGHT
This parameter displays whether the Check Engine Light is illuminated. If Check Engine Light is ON then the ECU may substitute some data parameters for default values.

CHECK LIGHT
This parameter indicates if the Malfunction Indication Light has been turned ON or OFF by the ECU. The ECU turns this light on when for some reason the quality of the exhaust gasses no longer can be guaranteed.

CHECK LIGHT GLOW PLUG
This parameter indicates the status of the glow plug dashboard warning lamp.

CHIMEREQ
Indicates the GEM command status for the warning chime. In a properly functioning system, the Scanner displays ON when the chimes sound. The GEM module relies on inputs from the door switches, door key cylinder, headlight switch and seatbelt buckle to determine when to ring the chime alarm.

CHTIL FAULT
Indicates whether the Cylinder Head Temperature indicator lamp has a fault.

CIRCUIT 15 HFM-SFI
Indicates the state of the 15 HFM-SFI starter circuit. The display should read ON when the starter is engaged during cranking and OFF after engine starts.

CIRCUIT 15C
Circuit 15C.

CIRCUIT 30 F2/F3/F4
Indicates the state of the 30 F2/F3/F4 starter circuit. The display should read ON when the starter is engaged during cranking and OFF after engine starts.

CIRCUIT 30 LH X-SFI UNFUSED
Indicates the state of the 30 LH (1 or 2)-SFI UNFUSED starter circuit. The display should read ON when the starter is engaged during cranking and OFF after engine starts.

CIRCUIT 50
Circuit 50.

CIRCUIT 50 INPUT
Indicates the input state (on or off) of the starter circuit 50.

CIRCUIT 50 OUTPUT
Indicates the output state (on or off) of the starter circuit 50.

CIRCUIT XX
Indicates the state of the starter circuit, where X can be 15, 30 or 50. The display should read ON when the starter is engaged during cranking and OFF after engine starts.

CIRCULATION PUMP-A31/1m1
A31/1m1 (circulation pump).

CIRCULATION PUMP-A6m1
A6m1 (circulation pump).

CIRCULATION VALVE LEFT
This parameter indicates the operation of the Left Circulation Valve as a percentage.

CIRCULATION VALVE RIGHT
This parameter indicates the operation of the Right Circulation Valve as a percentage.

CITY/SPORT BUTTON PRESSED
Indicates whether or not the CITY/SPORT button has been pressed.

CL.DOOR SW
CL signal contact in front passenger door.

CL.SW:DRVR
CL signal contact in driver door.

CL.SW:TAIL
CL signal contact in tailgate.

CLIMAT CONTROL
This parameter indicates the status of the Climatic Control system.

CLIMATE CONTROL A/C
Indicates the status of the A/C Climate Control switch.

CLIMATE CONTROL SW STATUS
Indicates the status of the Climate Control switch.

CLNT PUMP RELAY
This parameter indicates if the ECU has switched on or off the coolant pump relay.

CLUTCH CLOSED POSITION
Indicates the position of the clutch actuator self-calibrated by the ECU in mm.

CLUTCH CONV.RPM DIFFER(CURR)
Displays the current clutch converter speed (rpm) difference.

CLUTCH CONV.RPM DIFFER(NOM.)
Displays the nominal clutch converter speed (rpm) difference.

CLUTCH CONVERTER
Indicates whether the Clutch Converter is active or inactive, used on automatic transmission systems.

CLUTCH CONVERTER CLOSED
Indicates whether the clutch converter is closed or not.

CLUTCH CONVERTER DUTY CYCLE
Displays the clutch converter duty cycle as a percentage.

CLUTCH CONVERTER OPEN
Indicates whether the clutch converter is open or not.

CLUTCH CONVERTER OPEN REQUEST
Indicates whether there is a clutch converter open request or not.

CLUTCH CONVERTER PRESS(NOM.)
Displays the nominal clutch converter pressure.

CLUTCH CONVERTER SLIPPING
Indicates whether the clutch converter is slipping or not.

CLUTCH CONVERTER STATUS
Indicates the clutch converter status.

CLUTCH DEPRESSED
Indicates the state of the clutch switch input to the ECU. The display should read ON whenever the clutch pedal is depressed and reads OFF when clutch pedal is not depressed.

CLUTCH DISK SPEED
Indicates the rotation speed of the clutch disk in rpm.

CLUTCH GRIP POINT
Indicates whether the clutch grip point has been reached or not.

CLUTCH INCORRECT CLOSED COUNT
Error counter on Selespeed gearboxes.

CLUTCH OPERATED
Indicates whether the clutch has been operated or not using the signal from the clutch switch.

CLUTCH OVERSPEED COUNT
Error counter concerning overspeed on Selespeed gearboxes.

CLUTCH PEDAL POS/TRANSMISSION CTRL SW
Indicates the status of the Clutch Pedal Position or the Transmission Control switch.

CLUTCH PEDAL POSITION
Indicates the Clutch Pedal Position.

CLUTCH PEDAL SWITCH
Indicates the status of the Clutch Pedal Switch.

CLUTCH POSITION
This parameter indicates the position of the Clutch Pedal.

CLUTCH PRESSED
This parameter indicates that the ECU has detected that the clutch pedal has been pressed.

CLUTCH PRESSURE PLATE REF
Indicates the position of the clutch actuator set by the ECU in mm.

CLUTCH PRESSURE PLATE TRAVEL
Indicates the position of the clutch actuator mm.

CLUTCH SPEED
This parameter indicates the speed of the Clutch plates in rpm.

CLUTCH SW
This parameter indicates that the ECU has detected if the clutch pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

CLUTCH SWITCH
This parameter indicates that the ECU has detected if the clutch pedal has been pressed. This parameter frequently only functions when Cruise Control is present. Also it can be used on diesel vehicles.

CLUTCH SWITCH OPERATED
Indicates whether the clutch switch has been operated. YES means the clutch has been depressed.

CLUTCH TEMPERATURE
Indicates the calculated temperature of the disk. Selespeed gearboxes calculate this temperature using Engine temperature.

CLUTCH TOO CLOSED COUNT
Error counter on Selespeed gearboxes.

CLUTCH TORQUE
Displays the clutch torque in Nm.

CLUTCH TRANSMISSION INDEX
Indicates the clutch transmission index.

CLUTCH/PARK NTRL POS SW
The park/neutral Position switch (P/N SWITCH) is a discrete parameter that indicates whether an automatic transmission is in park or neutral or in one of the drive ranges. The display should read:

P-N— if the transmission is in either park or neutral.

-R-DL if the transmission is in any forward gear or reverse.

CMD GEAR (USE IN DRIVE)
Displays the commanded gear position on vehicles with electronic transmissions. It is derived from the state of the shift solenoids, not from gearshift lever position.

CMPR COMP MON_RDY
Comprehensive Component Monitor is either ready or not. YES means the monitor is ready.

CO ADJUST
Displays the CO Adjustment value in steps. Before adjustment, make sure that the engine is idling and at the correct operating temperature. See CO CODING below for more information.

CO CODING
The Scanner checks the switch condition of the idle CO Coding plug connection. This plug is only connected for CO adjustment to increase the CO value to a measurable range. Observe the idle CO adjustment regulations in the Service Instructions. Check that the engine is in good condition and is at idle and fully warmed-up. Always refer to the manufacturer's Service Manuals before making any adjustments.

CO CORR
This parameter indicates the actual position of the CO idle correction. This correction can only be electronically adjusted with a tester. Zero means no influence on the idle CO. A negative value means a leaner mixture, a positive value means a richer mixture.

CO FUEL
Displays the CO fuel corrected value in steps. Before the idle CO Adjustment, check the operating parameters which could affect the injection timing, i.e. Battery Voltage, Intake Manifold Pressure, Coolant Temperature and Engine Speed in accordance with the fast check list and correct faults if required.

CO POTENTIOMETER
Displays the voltage from the CO potentiometer.

CO TRIM
This parameter indicates the actual position of the CO idle correction potentiometer. Zero means no influence on the idle CO. A negative value means a leaner mixture, a positive value means a richer mixture.

CO TRIMMER
Indicates the actual voltage read from the CO idle correction potentiometer. A low value means a leaner mixture, a high value means a richer mixture.

CO TRIMMER(step)
Indicates the actual position of the CO idle correction potentiometer. Zero means no influence on the idle CO. A negative value means a leaner mixture, a positive value means a richer mixture.

CO2 SETTING VALUE
Value of CO_2 setting.

COAST CLUTCH SOL FAULT
Indicates the presence of a fault in the coast clutch solenoid circuit. YES means a fault is present.

COAST CLUTCH SOL PRES
Displays the signal being sent to the coast clutch solenoid in mA. The activated solenoid allows engine braking in third gear when fourth gear is disabled by the transmission control switch.

COAST CLUTCH SOL PRIM CKT MON
Stands for coast clutch solenoid actual state. It represents a feedback signal to the PCM showing the status of the coast clutch solenoid. When the system functions properly, both the COAST CL SOL and CCSA parameters should simultaneously display ON or OFF. When the solenoid is activated, the engine can brake in third gear when the fourth gear is disabled by the transmission control switch.

COAST CLUTCH SOL TIMING PRES
Indicates the PCM command status for the coast clutch solenoid. ON means the coast clutch solenoid is activated. The activated solenoid allows engine braking in third gear when fourth gear is disabled by the transmission control switch. The clutch is pressure controlled by in/decreasing the pressure, thus making the clutch active or not.

CODE CHANGING INITIALISED
This parameter indicates that the code changing function has been initialised.

CODE PROGRAMMED
Indicates whether the Code has been programmed or not.

COIL CHARGE TIME
This parameter displays the time taken (ms) to charge the ignition coil(s) prior to letting the spark plug ignite.

COIL FAULT COUNTER TX/X CYL. X/X
Displays the numerical fault counters for the ignition coils. This is an ECU input used for monitoring coil output.

COIL SPARK DURAT. TX/X CYL. X/X
Represents the spark line duration, or burn time, in milliseconds from the ignition coils. With the engine running at idle, readings between 0.8 and 1.5 ms are normal for 111 engines and readings between 1.5 and 1.9 ms are normal for all other engines.

COIL SPARK VOLTAGE TX/X CYL. X/X
Represents the primary coil spark line, or burn time, voltage from the ignition coils. Normal range for most engines running at idle is from 34 to 37 V. With a 111 engine running at idle the normal range is from 38 to 42 V.

COIL X
This parameter displays the time (ms) taken to charge the ignition coil(s) prior to letting the spark plug ignite.

COLD ADVANCE SOL
Is applicable for diesel vehicles only and displays the status of the Injection Cold Advance Solenoid.

COLD ST ADV
Indicates the extra injection advance for cold start.

COLD START ADVANCE
Indicates the extra injection advance for cold start.

COMAND OR AUDIO:COMM
CAN communication with control module COMAND or AUDIO.

COMBUSTION AIR BLOWER:CORR.
Correction factor of combustion air blower.

COMBUSTION AIR BLOWER-A6m2
A6m2 (combustion air blower).

COMBUSTION TIME CYL. X
Represents the spark line duration, or burn time, in milliseconds for each cylinder. Normal range for an engine running at idle is 1.5 to 1.9 ms.

COMFORT&SPORTS SW-N72/1s3
N72/1s3 (Comfort and sports switch).

COMMON RAIL PRESS.(DESIRED)
Indicates the Desired Common Rail Pressure.

COMMON RAIL PRESSURE(ACTUAL)
Indicates the Actual Common Rail Pressure.

COMMUNICATION ERROR
This parameter indicates that an error has occurred in the CAN bus Communication system.

COMMUNICATION FAILED
This parameter indicates that the CAN bus Communication system has failed.

COMPAR.ROW TRACK,PROC.X
Hash comparison row of special track, processor X, where X = 1 or 2.

COMPLETED OBDII TRIP
A trip is a complete ignition on, engine run, ignition off cycle that tests all components and systems on an OBD-II vehicle. This parameter indicates whether or not a trip has occurred.

COMPONENT SIREN+BATT ARMED
Component H3/1 (Alarm signal siren with additional battery) armed.

COMPREHENSIVE COMPONENTS MONITOR
No information available at this time.

COMPRESSOR CLUTCH
Shows the status of the A/C compressor clutch.

COMPRESSOR COMMAND
Indicates the status of the Compressor Command.

COMPRESSOR EFFICIENCY FACTOR
Is an ECU calculated factor of supercharger efficiency. Typically, the display should read greater than 1.3 when driving in third gear at 3500 rpm under full load.

CONN.IMPACT INFORMATION
Indicates the status of the Impact Connection Information.

CONN.INSTR.PANEL->INJECTION
Indicates the status of the Instrument Panel and Injection connections.

CONN.TYPE HT W.SCREEN->INJEC
Indicates the status of the Heated Wind screen and Injection Connection Type.

CONN.TYPE INJECTION->AIRCO
Indicates the status of the Injection and Airco Connection Type.

CONN.TYPE VEHICLE SPEED
Indicates the status of the Vehicle Speed Connection Type.

CONNECTION CABLES
Connection cables.

CONNECTION INJECTION <->ABS
Indicates the status of the Injection and ABS Connection.

CONNECTION INJECTION->AIRCO
Indicates the status of the Injection and Airco Connection.

CONNECTION LPG->INJECTION
Indicates the status of the LPG and Injection Connection.

CONTINUOUS DTC COUNTER
Displays the number of KAM or “soft” codes that have set in the specified system. The number changes each time a new code is set.

CONTROL ENABLED
Indicates whether the control is enabled or not.

CONTROL FACTOR ISC
This parameter displays the Idle Stabilising Control, control factor.

CONTROL GLOW PLUG RELAY
This parameter indicates the status of the glow plug relay. When the ignition is switched on, the glow plug relay is activated and the glow plugs are turned on. If the ignition switch is not turned to the start position, the ECU deactivates the glow plug relay after a few seconds and the glow plugs are turned off.

CONTROL MODULE LEARNED
Indicates whether the ECU has learned all of the calibration variables and stored them in memory.

CONTROL MOTOR POSITION
This parameter indicates the position of the control motor in steps.

CONTROL RELAY
Indicates whether or not the ECU has commanded the main power control relay ON or OFF.

CONTROL REQ.TO TRANSMISSION
Control request to transmission.

CONTROL REQUEST TO ENGINE
Control request to engine.

CONTROL SWITCH(USA)
S40s5 (Control contact [USA]).

CONTROL SW-S40s5
S40s5 (Control contact).

CONVENIENCE FEATURE
Convenience feature.

CONVENIENCE RELAY:FOR SEATS
Convenience relay for seats.

CONVENIENCE RELAY:WIND.&ROOF
Convenience relay for windows and roof.

CONVERTED ENGINE TORQUE
Displays the converted engine torque in Nm, used on automatic transmission systems.

CONVERTED TORQUE
Displays the converted torque in Nm used on automatic transmission systems.

COOL.FAN OUTP.DEMAND CLIMATE CTRL
Indicates whether or not the ECU is commanding the cooling fan to turn on based on the climate control system engaging the A/C compressor. The display reads ON when the ECU is enabling the fan and the compressor is engaged and OFF when the fan is switched off and the compressor is disengaged.

COOLANT
Coolant temperature is an analogue parameter supplied to the ECU by the engine Coolant Temperature Sensor (CTS). The CTS is a thermistor installed in the engine coolant passages. At low temperatures the resistance is high and a high voltage signal is produced. As temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU. This parameter can also be displayed as a voltage.

COOLANT LVL INDICATOR SW-S41
S41 (Coolant level indicator switch).

COOLANT PUMP RELAY
Indicates whether or not the ECU has commanded the coolant pump relay ON or OFF.

COOLANT TEMP.:CORRECTED
Indicates the Corrected Coolant Temperature.

COOLANT TEMPERATURE
The coolant temperature is an analogue parameter supplied to the ECU by the engine Coolant Temperature Sensor (CTS). The CTS is a thermistor installed in the engine coolant passages. At low temperatures the resistance is high and a high voltage signal is produced. As temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU. This parameter can also be displayed as a voltage

COOLANT TEMPERATURE ADC
Displays the ADC coolant temperature.

COOLANT TEMPERATURE SENSOR
Indicates the Coolant Temperature Sensor voltage.

COOLANT TEMPERATURE SWITCH
Indicates the current state of the Coolant Temperature Switch.

COOLANT TEMPERATURE TOO LOW
Indicates whether the coolant temperature is too low.

COOLANT TEMPERATURE(ADC)
Coolant temperature (ADC) (V).

COOLANT VALVE LEFT
This parameter indicates the status of the Left Coolant Valve, ON or OFF.

COOLANT VALVE ON
This parameter indicates the length of time (ms) that the Coolant Valve is activated.

COOLANT VALVE RIGHT
This parameter indicates the status of the Right Coolant Valve, ON or OFF.

COOLING CIRCUIT DEGAS VALVE
Indicates the status of the Cooling Circuit De-gas Valve.

COOLING CIRCUIT PRESSURE
Indicates the Cooling Circuit Pressure.

COOLING FAN OUTPUT DEMAND ENGINE
Indicates whether or not the ECU is commanding the cooling fan to turn on based on engine temperature. The display reads ON when the ECU is enabling the fan and OFF when the ECU switches the fan off.

COOLING RELAY
This parameter indicates if the cooling relay is activated or not. This relay activates the cooling fan.

COR FASE INJ
This parameter indicates the advance of the injection. This is a corrected injection by the ECU. And is possible for every injector.

COR LOAD
This parameter indicates the corrected load, this is corrected by the ECU due to the actual circumstance where the engine is running-on.

COR MAIN INJ
This parameter indicates the advance of the injection. This is a corrected injection by the ECU. And is possible for all injectors.

CORR INJ X
This parameters indicates the correction quantity for the specified injector by the ECU.

CORR PUMP
This is the corrected injection advance due to the actual circumstance of the engine.

CORR.IDLE SPEED CONTROL
Indicates the status of the Corrected Idle Speed Control.

CORR.INJECTION AMOUNT,CYL. X
Indicates the Corrected Injection Amount for Cylinder x, where x = 1, 2, 3 or 4.

CORRECTED INT.MANIFOLD PRESS
Displays the corrected manifold absolute pressure reading in mbar, which is used by the ECU for making camshaft timing adjustments and for detecting EGR flow (if equipped).

CORRECTION INJECTOR X
Indicates the correction quantity for the specified injector by the ECU.

CR. CTRL SHUT-OFF BRAKES APPLIED
Represents the signal from the brake switch to override and disengage cruise control. With the cruise control engaged, the display should read OFF while driving and ON whenever the brake pedal is depressed. When the display reads ON, brake pedal depressed, cruise control operation should be suspended.

CR.CONTR./SPEED LIMITER FLAG BYTE
Indicates the status of the cruise control speed limiter flag byte.

CRANK TIME(SEC)
Displays the engine cranking time in seconds.

CRANKING
Indicates whether the engine is cranking.

CRANKSHAFT MAGNETIC CODING
Indicates whether the crankshaft magnetic coding sensors are on or off.

CRANKSHAFT POS SENSOR SEGMENT X
This parameter measures the amount of ignition advance or retard required to compensate for ignition misfire. The acceleration of the crankshaft is checked by firing the relevant cylinder, the respective acceleration (change in rotation speed) of the cylinders is then compared with each other. The misfire detection functions across the entire engine speed range above 15 % of engine load.

CRANKSHAFT POS SENSOR SYNCHRON
This parameter displays the amount of teeth on the crankshaft sender wheel until the hall sensor on the camshaft switches the polarity of the sensor from positive (+) to negative (-). This is so the ECU knows the difference between compression stroke and exhaust stroke.

CRANKSHAFT POS/HALL SENSOR SYNCHR
This parameter returns the position of the Hall Sensor offset against the zero adjustment in crank angle degrees.

CRANKSHAFT SEGMENT ORDER
Indicates whether the crankshaft segment order sensors are on or off.

CRASH OUTPUT TO TELE-AID ECU
Digital crash output to control module A35/8 (TELE AID control module).

CRASH SIGNAL
Crash signal.

CRASH SIGNAL FROM AIRBAG ECU
Crash signal from airbag control module.

CRASH SIGNAL FROM ECU AIRBAG
Direct crash signal from control module Airbag.

CRASHOUTP.TO TELE-AID:CODING
Digital crash output to control module A35/8 (TELE AID control module) - coding.

CRNKSHAFT CNTR SMTH RUNN.MEAS.WINDOW
Indicates whether or not the crankshaft counter is within the smooth running measurement window.

CRUISE CONTROL
This parameter indicates whether the vehicle has a Cruise Control System installed.

CRUISE CONTROL ACCELERATION
This parameter indicates whether the Cruise Control System is in the acceleration mode or not.

CRUISE CONTROL ACTIVE
This parameter indicates whether the Cruise Control System is active or not.

CRUISE CONTROL DECELERATION
This parameter indicates whether the Cruise Control System is in the deceleration mode or not.

CRUISE CONTROL ENGAGED
Indicates the status of the cruise control system. The display reads ON when cruise control is engaged and OFF when disengaged.

CRUISE CONTROL LEVER POSITION VARIABLE
Indicates the status of the cruise control lever position.

CRUISE CONTROL LEVER SIGNAL IMPLAUSIBLE
Indicates the status of the cruise control lever signal.

CRUISE CONTROL LIGHT
This parameter indicates the status of the Cruise Control Light.

CRUISE CONTROL OFF
Indicates the status of the cruise control off position. The display reads YES when cruise control is off and NO when running/inactive.

CRUISE CONTROL RELEASE
This parameter indicates whether the Cruise Control system is released or not.

CRUISE CONTROL RESTART
Indicates the status of the cruise control restart. The display reads YES when cruise control is running/active and NO when not running/ inactive.

CRUISE CONTROL RESUME
This parameter indicates whether the Cruise Control Resume is ON or OFF.

CRUISE CONTROL SET
This parameter indicates whether the Cruise Control Set is ON or OFF.

CRUISE CONTROL SET AND ACCELERATE
Indicates the status of the cruise control set and accelerate.

CRUISE CONTROL SET AND DECELERATE
Indicates the status of the cruise control set and decelerate.

CRUISE CONTROL SHUT OFF FLAG BYTE
Indicates the status of cruise control system shut-off byte flag. Note that this is a shut-off function, so the display reads OFF when cruise control is engaged and ON when disengaged.

CRUISE CONTROL SHUT-OFF FUNCTION
Indicates the status of cruise control system shut-off function. Note that this is a shut-off function, so the display reads OFF when cruise control is engaged and ON when disengaged.

CRUISE CONTROL SHUT-OFF SAFETY
Indicates the status of the cruise control safety switch in the electronic accelerator actuator. The ECU connects to the safety switch in the electronic accelerator actuator. Normal operation sends

a positive signal to ECU. If throttle opening is more than the position specified and cruise control is not engaged, the switch sends a ground signal to the ECU, which turns off fuel injection. Injection switches on once engine speed is below 1200 rpm.

CRUISE CONTROL STALK VOLTAGE
Indicates the Cruise Control Stalk Voltage.

CRUISE CONTROL SWITCH
This parameter indicates whether the Cruise Control Switch is ON or OFF.

CRUISE CONTROL SWITCH X
Indicates the status of the cruise control switch. Depending on the system there can be variations such as CRUISE CONTROL SWITCH A or B and CRUISE CONTROL SWITCH ACCELERATE/ DECELERATE the status can be NO/YES or ON/OFF.

CRUISE CONTROL SWITCH:OFF
Cruise control switch ‘off’.

CRUISE CONTROL SWITCH:ON
Cruise control switched ‘on’.

CRUISE CONTROL SWITCH:STORE
Cruise control switch ‘store’.

CRUISE CONTROL TIP SWITCH
Indicates the status of the Cruise Control Tip Switch.

CRUISE CONTROL TIP-DOWN
This parameter displays whether the automatic transmission shift lever is shifted into tip-down mode or not. The cruise control tip-down mode gives the driver the possibility to shift down manually when using cruise control. This parameter will only display ON when the shift lever is continuously held in the tip-down position.

CRUISE CONTROL TIP-UP
This parameter displays whether the automatic transmission shift lever is shifted into tip-up mode or not. The cruise control tip-up mode gives the driver the possibility to shift up manually when using cruise control. This parameter will only display ON when the shift lever is continuously held in the tip-up position.

CRUISE CONTROL/SPEED LIMITER
Indicates the status of the Cruise Control Speed Limiter.

CRUISE CONTROL:DEACTIVATION
Indicates the status of the Deactivation of the Cruise Control System.

CRUISE CONTROL:OPERATION
Indicates the status of the Operation of the Cruise Control System.

CRUISE CTRL SW.W/SPD LIMIT
S40/4 (CC switch with variable speed limiter).

CRUISE CTRL SWITCH(USA)-S40
S40 (CC switch [USA]).

CRUISE CTRL/SPEED LIMITER SW
Indicates the status of the Cruise Control Speed Limiter Switch.

CRUISE SW
Indicates the position of the Cruise Control Switch, if fitted. Various positions of the control switch will be indicated by the displayed voltage.

CSO, IDLE F.TRIM CYL. X-X, LEFT
Indicate the idle fuel trim values in milliseconds for each cylinder group in the left cylinder bank.

CSO, IDLE F.TRIM CYL. X-X, RIGHT
Indicate the idle fuel trim values in milliseconds for each cylinder group in the right cylinder bank.

CTP (IDLE)
Indicates the status of the closed throttle position (CTP) switch at idle.

CTP (IDLE) ADJUSTMENT VALUE
Indicates the status of the closed throttle position (CTP) switch at idle adjustment.

CTP (IDLE) CONTACT
Indicates the status of the closed throttle position (CTP) switch at idle.

CTP (IDLE) INCREASE
Indicates the status of the closed throttle position (CTP) switch at increased idle.

CTP (IDLE) INFORMATION
Indicates the status of the closed throttle position (CTP) information switch.

CTP (IDLE) LONG-TERM ADAPT. VALUES
Indicates the status of the closed throttle position (CTP) switch during the long-term adaptation.

CTP (IDLE) RECOGNITION
Indicates the status of the closed throttle position (CTP) switch at idle recognition.

CTP (IDLE) SWITCH S29/3
Indicates the status of the closed throttle position (CTP) switch S29/ 3.

CTP RECOGNITION SWITCH M16/ X
Indicates the status of the closed throttle position (CTP) recognition switch M16/ X, where X can be 1 or 2.

CTRL SUSPENSION
This parameter indicates if the active suspension is on or off.

CTRL UNIT:SYSTEM STATUS
System status of control unit A7/3n1 (SBC control module).

CUR ADV. PUMP
This is the actual advance of the injection pump.

CUR AIRFLOW
Either the ECU or the Scanner calculates a current airflow value from the airflow sensor signal.

CUR FAN
This parameter indicates the Current Fan Speed.

CUR FAN SP
This parameter indicates the Current Fan Speed.

CUR INJ BEGIN
This parameter indicates the amount of fuel injection advance currently applied by the ECU in crankshaft degrees. This parameter applies to diesel engine vehicles only.

CUR ROTOR POS.
This parameter indicates the actual rotor position.

CURRENT AIRFLOW
Either the ECU or the Scanner calculates a current airflow value from the Airflow Sensor signal.

CURRENT CONSUMPTION IAC
This value indicates the amount of current used by the IAC (Idle Air Control) valve.

CURRENT INJECTION BEGIN
This parameter indicates the amount of fuel injection advance currently applied by the ECU in crankshaft degrees. This parameter applies to diesel engine vehicles only.

CURRENT KEY -?-
Current key.

CURTAIN SIDE AIRBAG,DRIVER
Indicates the status of the Drivers Curtain Side Airbag.

CURTAIN SIDE AIRBAG,PASS.
Indicates the status of the Passengers Curtain Side Airbag.

CUSHION,PRESS:LATERAL L.SEAT
Pressure in inflatable cushion for lateral support of left seat (mbar).

CUSHION,PRESS:LATERAL R.SEAT
Pressure in inflatable cushion for lateral support of right seat (mbar).

CUSHION,PRESS:LUMBAR L.SEAT
Pressure in bottom inflatable cushion, in lumbar region of left seat (mbar).

CUSHION,PRESS:LUMBAR R.SEAT
Pressure in bottom inflatable cushion, in lumbar region of right seat (mbar).

CUT GLOW RELAY
This indicator shows that the glow relay is cut off and glowing has stopped.

CVT TRANSMISSION OIL TEMP
This parameter indicates the temperature of the CVT Transmission Oil. It can also be the voltage from the CVT Transmission Oil temperature sensor.

CYL HD TEMP
Indicates Cylinder Head Temperature in voltage. The higher the voltage, the lower the temperature.

CYL HEAD TEMP
OBD Monitor, this parameter displays the Cylinder Head Temperature.

CYL HEAD TEMP INDICATOR LMP
Indicates the status of the Cylinder Head Temperature Indicator Lamp.

CYLINDER 1 RECOGNITION
Indicates the status of the Cylinder 1 Recognition.

CYLINDER 1 RECONDITION
Indicates the status of the Cylinder 1 Recondition.

CYLINDER SHUT-OFF X
Indicates whether or not fuel injector operation has been suspended to reduce fuel consumption during cruise. The display reads OFF when fuel injection is suspended and ON during normal fuel injection operation.

CYLINDER X FUEL TRIM
Indicate the fuel trim values for the specific cylinders 1 to 6.

CYLINDER X RECOGNITION
Indicates the specific cylinder recognition status for cylinders 1 to 6.

CYLINDER X SPECIFIC SPEED
Indicates the specific speed for cylinders 1 to 6.

3.2.5 D

DAS AND DSV MODULES ARE MATCHED
Indicates if the drive authorization system (DAS) or anti-theft system and the engine control unit (ECU) have correctly identified each other at start-up. YES is displayed if the modules identify each other and NO if they do not.

DAS AND ECM COMPATIBLE
Indicates if the drive authorization system (DAS) or anti-theft system and the engine control unit (ECU) have correctly identified each other at start-up. YES is displayed if the modules identify each other and NO if they do not.

DAS AND ENGINE CNTRL. MOD. COMPATIBLE
Indicates if the drive authorization system (DAS) or anti-theft system and the engine control unit (ECU) have correctly identified each other at start-up. YES is displayed if the modules identify each other and NO if they do not.

DAS CONTROL MODULES
Indicates the status of the drive authorization system (DAS) or anti-theft system.

DATA INVAL.
Indicates whether the Data received is Invalid or not.

DATA VALID
Indicates whether the Data received is Valid or not.

DATE OF MANUFACTURE
Date of manufacture.

DAY PRODUCTION NUMBER
Day production number.

DAYTIME RUNNING LMP
Indicates if the Daylight running lamps are ON or OFF. This parameter only applies to countries where Daylight running lamps are required.

DC ADVANCE SOL.VALVE CONTROL
Indicates the Advance Solenoid Valve Control Duty Cycle.

DC CANISTER BLEED SOL.VALVE
Indicates the Canister Bleed Solenoid Valve Duty Cycle.

DC CANISTER PURGE VALVE
Indicates the Canister Purge Valve Duty Cycle.

DC COOLING CIRC.BYPASS VALVE
Indicates the Cooling Circuit By-pass Valve Duty Cycle.

DC DOWNSTREAM O2 SENSOR HEATER
This parameter indicates the duty cycle of the downstream O_2 Sensor heater.

DC EGR SOLENOID VALVE
Indicates the EGR Solenoid Valve Duty Cycle.

DC FUEL AMOUNT CONTROL
Indicates the Fuel Amount Control Duty Cycle.

DC RAIL PRESSURE CTRL VALVE
Indicates the Rail Pressure Control Valve Duty Cycle.

DC SECONDARY PRESS VALVE
This parameter displays the DC Secondary Pressure Valve position as a percentage.

DC START OF DELIVERY VALVE
This parameter indicates the duty cycle of the start of delivery valve.

DC SWIRL LEVEL CTRL SOL.VLV
Indicates the Swirl level Control Solenoid Valve Duty Cycle.

DC THROTTLE CTRL SOL.VALVE
Indicates the Throttle Control Solenoid Valve Duty Cycle.

DC UPSTREAM O2 SENSOR HEATER
This parameter indicates the duty cycle of the upstream O_2 Sensor heater.

DEACT PLUNGER
This parameter indicates if the 3rd plunger is deactivated or not.

DEACTIVATE 3RD PLUNGER
Indicates if the 3rd plunger is deactivated or not.

DEACTIVATE PLUNGER
Indicates whether or not the ECU has commanded the plunger to deactivate or not.

DEACTIVATING ABS/ASC
This parameter indicates that the ABS/ASC (Anti-Spin Control) has been deactivated.

DECEL ENLEAN
This parameter indicates if the mixture is en-lean by deceleration or not.

DECEL FUEL C/OFF
When throttle position, MAP and rpm reach minimum values recorded in the ECU, the ECU shuts off fuel completely during deceleration. DECEL FUEL C/OFF should read YES when the ECU issues the cut-off command; NO at all other times.

DECEL. X-X
Displays the quantity of fuel that is injected per cylinder stroke combination (X-X) under the present operating conditions, in relation to the throttle position sensor during deceleration.

DECELERATE AND SET-S40/4s2
S40s2 (Decelerate and Set)/ S40/4s2 (Decelerate and Set).

DECELERATE&SET-S40s2
S40s2 (Decelerate and Set).

DECELERATION ENLEANMENT
This parameter indicates if the mixture is en-lean by deceleration or not.

DECELERATION SHUT-OFF
Indicates if the ECU has temporarily shut off fuel injection during deceleration to reduce emissions.

DECKLID DISARM/UNLOCK
Displays the status of the driver-operated door unlock switches. ON means the switch contacts are closed.

DECKLID/HATCH AJAR SW
Indicates the status of the Deck lid/Hatch ajar switch.

DECODE LOBE
No information available at this time.

DECODE ROTOR
No information available at this time.

DEFOG FLAP MOTOR
This parameter displays the position of the Defog Flap Servomotor as a percentage.

DEFOG SWITCH
This parameter indicates the status of the De-fog Switch.

DEFROST SWITCH
This parameter indicates the status of the Defrost Switch.

DEFROSTER SW,R.WINDOW-S21s9
S21s9 (Rear window defroster switch).

DELAY (DOWNSHIFT)
Relates to the automatic transmission system. Delay indicates the engine speed before a downshift is applied.

DELAY (UPSHIFT)
Relates to the automatic transmission system. Delay indicates the engine speed before an up-shift is applied.

DELAY EV-
No information available at this time.

DELAY EV+
No information available at this time.

DELIVERED FUEL PRESSURE
Either the ECU or the Scanner calculates the pressure of the fuel that is delivered to the high pressure pump. This is not the pressure of the fuel that is injected.

DELV. FUEL
Either the ECU or the Scanner calculates the pressure of the fuel that is delivered to the high pressure pump. This is not the pressure of the fuel that is injected.

DEMANDED PEDAL OUTPUT
This parameter indicates the demanded pedal output by the driver.

DEMANDED PEDAL ROTATION
This parameter indicates the demanded pedal rotation by the driver.

DEMANDED PEDAL SENSOR SUPPLY
This parameter indicates the demanded pedal sensor supply voltage by the driver.

DEMANDED START OF INJECTION
Displays the demanded start of injection.

DEPHASER VALVE STATUS,FR BNK
Indicates the status of the Front Bank De-phaser Valve.

DEPHASER VALVE STATUS,RR BNK
Indicates the status of the Rear Bank De-phaser Valve.

DES ADVANCE
This parameter indicates the desired injection advance off the fuel pump.

DES FAN SPD
This parameter indicates the desired cooling fan speed.

DES FUEL
This parameter indicates the desired injected fuel pressure.

DES. SPEED CONTROL MOTOR
This parameter indicates the desired motor control speed in steps per second.

DES.DUTY CYCLE CLUTCH SOLENOID
This parameter indicates the desired duty cycle of the clutch solenoid.

DES.POSITION CONTROL MOTOR
This parameter indicates the desired motor control position in steps.

DESIRED GEAR
Relates to the automatic transmission system. The desired gear indicates the correct gear selected for the driving conditions.

DESIRED IDLE
DESIRED IDLE is the measurement of idle speed that the ECU is trying to maintain. This analogue parameter is available on many modern systems. On some vehicles, DESIRED IDLE does not become active until the engine has run for 5 seconds. If there is a large difference between actual idle and DESIRED IDLE rpm readings, the ECU may have reached its control limit without being able to control the idle speed. This may be due to a basic mechanical or electrical problem with the engine.

DESIRED IDLE SPEED
This parameter is the idle speed that the ECU is trying to maintain. If there is a large difference between actual idle and desired rpm readings, the ECU may have reached its control limit without being able to control the idle speed. This may be due to a basic mechanical or electrical problem with the engine.

DESIRED IDLE(RPM)
Displays the desired engine idle speed as requested by the ECU.

DESIRED IGN SPARK TIMING
Indicates the total spark advance or retard being commanded by the PCM, including base timing.

DETONATION CHECK
Indicates whether or not the Detonation Check is active.

DIAGN MOD TANK-LEAKAGE REED-SW
Indicates the status of the Diagnostic Module Tank-leakage Reed Switch.

DIAGN TANK-LEAKAGE (DMTL) PUMP
Indicates the status of the Diagnostic Module Tank-leakage Pump.

DIAGNOSE GLOW TIME RELAY
Indicates the status of the Glow Time relay under Diagnosis.

DIESEL FILTER HEATING
Indicates whether or not the Diesel Filter Heating is on.

DIESEL SOLENOID VALVE
Indicates the status of the Diesel Solenoid Valve.

DIESEL TANK CAP
Indicates that the ECU has detected whether or not the Diesel Tank Cap is present.

DIFFE PRES FEEDBK EXH RECIRC
Indicates the exhaust pressure. The differential pressure feedback EGR (DPFE) sensors convert a varying exhaust pressure signal into a proportional analogue voltage signal to the PCM. The PCM uses this signal to compute optimum EGR flow. Differential Pressure Feedback EGR (DPFE) systems control EGR flow rate by monitoring pressure drop across a remotely located sharp-edged orifice.

DISPLAY CLOCK
Indicates whether a Clock is present or not.

DISPLAY MODE:DISTRONIC
Display switched to DTR.

DISPLAY SW
Indicates the status of the display switch.

DISTANCE SINCE DTCS CLEARED
Indicates the distance travelled since the diagnostic trouble codes have been cleared.

DISTANCE TO EMPTY SW
Indicates the status of the distance to fuel tank empty switch.

DISTANCE TO TARGET OBJECT
Distance to target object (m).

DISTANCE TRAVELLED WHILE MIL IS ON
Indicates the distance travelled while the MIL is on.

DISTANCE WITH MALF.LAMP ON
Indicates the Distance travelled with the MIL Lamp on.

DISTANCE:SPECIFIED
Specified distance (m).

DISTRONIC ACTIVATED:ACTUAL
Current DTR control activation.

DISTRONIC DISTANCE POTMETER
N72r1 (DTR distance potentiometer) (%).

DISTRONIC DISTANCE WARN.SW
S46/8s1 (DTR distance warning function switch).

DISTRONIC SWITCHED ON
DTR switched on.

DISTRONIC SWITCH-N72s9
N72s9 (DTR switch).

DIVERT AIR SWITCHOVER VALVE
Y101 (Divert air switch over valve).

DOME LAMP,FRONT-N70e1
N70e1 (Front dome lamp).

DOME LAMP:REAR LEFT-E15/8
E15/8 (Left rear dome lamp).

DOME LAMP:REAR RIGHT-E15/9
E15/9 (Right rear dome lamp).

DOME LIGHT,ON/OFF SW-N70s4
N70s4 (Dome light ON and OFF switch).

DOME&READING LAMP W/DELAY,L
E15/2 (Dome lamp with time delay and front reading lamp)- Left.

DOME&READING LAMP W/DELAY,R
E15/2 (Dome lamp with time delay and front reading lamp)- Right.

DOOR AJAR WARNING LAMP
Indicates the GEM command status for the door ajar lamps. When the system functions properly, ON means the door ajar lamps are lit.

DOOR CONTACT,ON/OFF SW.
N70s3 (Door contact ON and OFF switch).

DOOR CTRL MOD,RL:COMM
CAN communication with control module DCM-RL.

DOOR CTRL MOD,RL:SWCAN
Control module DCM-RL is in the single-wire mode.

DOOR CTRL MOD,RR:COMM
CAN communication with control module DCM-RR.

DOOR CTRL MOD,RR:SWCAN
Control module DCM-RR is in the single-wire mode.

DOOR DRIVER
Driver’s door.

DOOR ECU FL:COMM
CAN communication with control module DCM-FL.

DOOR ECU FL:SWCAN
Control module DCM-FL is in the single-wire mode.

DOOR ECU FR:COMM
CAN communication with control module DCM-FR.

DOOR ECU FR:SWCAN
Control module DCM-FR is in the single-wire mode.

DOOR ECU, FL-N69/X:COMM
CAN communication with control module N69/X (Left front door control module), where X = 1, 2 or 3.

DOOR ENTRY/EXIT LAMP:FL
E17/3 (Left front door entry/exit lamp).

DOOR ENTRY/EXIT LAMP:RL
E17/5 (Left rear door entry/exit lamp).

DOOR ENTRY/EXIT LAMP:RR
E17/6 (Right rear door entry/exit lamp).

DOOR SW:FL
S17/3 (Left front door contact switch).

DOOR SW:FR
S17/4 (Right front door contact switch).

DOOR SW:RL
S17/5 (Left rear door contact switch).

DOOR SW:RR
S17/6 (Right rear door contact switch).

DOOR:RL
Left rear door.

DOOR:RR
Right rear door.

DOORS UNLOCK STATE
Indicates the GEM command status for the door unlock solenoids. ON means the GEM module has commanded the solenoids to energise.

DOUBLE LOOP ADAPTATION
Indicates the Double Loop Adaptation.

DOUBLE RICHNESS LOOP
Indicates the status of the Double Richness Loop.

DOWNSHIFT
Relates to the automatic transmission system. Indicates whether or not a downshift has been applied.

DOWNSTREAM O2 SENSOR
This parameter indicates the actual voltage from the downstream O_2 Sensor.

DR.ACT.VAL.POTM.IMPLAUS.T.THR.VALUE
Indicates whether the fly-by-wire throttle adjuster signal is implausible or not.

DRIVE ACTUATOR
Indicates the status of the drive actuator.

DRIVE ACTUATOR ACTUAL VAL.POT.M.
Indicates the actual value of the drive actuator potentiometer.

DRIVE AUTH. RCL & ECM COMPATIBLE
Indicates whether the remote controller locking (RCL) system and the engine control unit (ECU) correctly identified each other. The display reads YES if the modules are properly coded. Coding cannot be erased, so swapping modules for testing cannot be done unless a matched pair is used.

DRIVE AUTHORIZ.IMMOBOLIZER
Indicates the status of the authorised driver immobiliser.

DRIVE AUTHORIZATION STATUS
Status of drive authorization.

DRIVE CYCLE PERFORMED
Indicates if a drive cycle is performed or not. The ECU will NOT set some EOBD trouble codes until a drive cycle is completed.

DRIVE POSITION
Relates to the automatic transmission system. Indicates whether the shift lever is in the drive position or not.

DRIVE POSITION DETECTED
Relates to the automatic transmission system. Indicates whether the system has detected that shift lever is in the drive position or not.

DRIVER AIRBAG
Displays the resistance between the two contacts of the specified Airbag.

DRIVER DOOR AJAR SW
Indicates the PATS command status for the specified door-ajar sensor. When the system functions properly, YES means the door is ajar.

DRIVER DOOR CONTACT SWITCH
Indicates the status of the drivers door contact switch.

DRIVER DOOR LOCK
Indicates the status of the Drivers Door Lock switch.

DRIVER DOOR UNLOCK DISARM SW
Displays the status of the driver-operated door unlock switches. ON means the switch contacts are closed.

DRIVER HEATER SENS
Displays the voltage from the heated drivers seat sensor.

DRIVER OPERATED 4WD SW
Displays the status of the driver-operated 4WD switch. This switch is an input to the GEM module, which controls transfer case operation.

DRIVER POWER WINDOW MTR CURRENT
Displays the amount of current flowing through the front window motor during use.

DRIVER POWER WINDOW PEAK CURRENT
Displays the maximum amount of current drawn by the front window motor after use.

DRIVER PRETENSIONER
Displays the resistance of the specified shoulder belt pre-tensioner circuit.

DRIVER SEAT BELT
Indicates if the left front seat belt buckle is latched.

DRIVER SIDE AIRBAG
Displays the resistance between the two contacts of the specified Airbag.

DRIVER WINDOW DOWN
Indicates the PATS command status for the windows unlock solenoids. YES means the PATS module has commanded the solenoids to energise.

DRIVER'S AIRBAG
Indicates that the ECU has detected whether or not a Drivers Airbag is present.

DRIVER'S AIRBAG 2ND STAGE
Indicates that the ECU has detected whether or not a Drivers Airbag with 2^{nd} stage ignition is present.

DRIVER'S DOOR
Indicates the drivers door is open or closed.

DRIVER'S KNEE GUARD
Indicates that the ECU has detected whether or not a Drivers Knee Guard is present.

DRIVING LIGHT,(REAR)FOGLIGHT
Driving light, fog-light, rear fog-light.

DRIVING LIGHT,FOGLIGHT
Driving light, fog-light.

DRIVING LIGHTS
Driving lights.

DRV.BELT RESTR.SW.FL-CODING
Driver seat belt buckle with switch S68/3 (Left front seatbelt buckle restraint systems switch) - coding.

DRV.BUCKLE RESTRAINT SW.FR
Seat belt buckle for driver with switch S68/4 (Right front seatbelt buckle restraint systems switch).

DTC WHICH CAUSED FREEZE FRAME
Displays the diagnostic trouble code which caused a freeze fame.

DUTY CYCLE BOOST
Displays the current pressure in the intake manifold under present operating conditions. Value is in bars and will be an absolute pressure. DUTY CYCLE BOOST displays the boost pulse ratio in percent.

DUTY CYCLE BYPASS VALVE
Indicates the By-pass Valve Duty Cycle.

DUTY CYCLE CANISTER PURGE
This parameter indicates the duty cycle of the ECU controlled canister purge solenoid. The pulse width modulated solenoid is energized to activate purging and switched off to prevent purging. When purge is activated, duty cycle should gradually increase. This prevents rapidly dumping vapours in to the intake charge, which would momentarily create an overly rich mixture.

DUTY CYCLE CANISTER PURGE VALVE
This parameter indicates the percentage of canister purge flow. The duty cycle solenoids in these systems are turned on to activate purging and turned off to block purging.

DUTY CYCLE CLUTCH ADJUSTER
This parameter indicates the Clutch Adjuster duty cycle as a percentage.

DUTY CYCLE EGR VALVE
This parameter displays the duty cycle for the Exhaust Gas Recirculating (EGR) valve. Exhaust gasses can be added to the intake air (to cool combustion temperatures thus reducing the formation of NOx). The EGR valve open/close rate depends on engine type (Petrol/Diesel) and the operating conditions of the engine.

DUTY CYCLE FAN CONTROL VALVE
This parameter displays the duty-cycle of the electric ventilator, a lower percentage means the ventilator is blowing lightly.

DUTY CYCLE GLOW ELEMENT
On-off ratio of the glow element (%).

DUTY CYCLE HEATER BOOSTER
On / off ratio of heater booster (%).

DUTY CYCLE IDLE ADAPTATION
Indicates the Idle Adaptation Duty Cycle.

DUTY CYCLE IDLE SPEED
Indicates the Idle Speed Duty Cycle.

DUTY CYCLE PRESS CTRL VLV
This parameter displays the duty cycle for the pressure control valve.

DUTY CYCLE PRESSURE CONTROL
Indicates the Pressure Control Duty Cycle.

DUTY CYCLE PURGE CONTROL
On/off ration of purge control (%).

DUTY CYCLE THROTTLE ADJUSTER
This parameter displays the duty cycle for the throttle adjuster valve.

DUTY CYCLE WASTE GATE VALVE
This parameter displays the duty cycle of the turbo waste gate actuator valve. This action governs the turbo output (manifold) pressure.

DWELL
This is the actual Dwell sent by the ECU.

DWELL AVERAGE
This parameter indicates the Average Dwell sent by the ECU.

DWELL TIME, CYLINDER X
Displays the dwell timing for the specified cylinder in seconds.

DYN.LUMBAR SUPPORT SW:ACTD
Switch S103s1 (Dynamic lumbar support adjustment switch) operated.

3.2.6 E

EASY ENTRY/EXIT ON/OFF SW
S59/1s3 (Easy entry/exit ON and OFF switch).

EBD WARNING LIGHT
Indicates whether or not the EBD warning light is lit. When lit the Electronic Braking Corrector is faulty.

ECM ENABLED HEATER BOOSTER
Enable for heater booster from engine control module.

ECM IDENTIFIED
Indicates whether the drive authorization system (DAS) and engine control module (ECM) have correctly identified each other. The display reads YES if the modules identify each other and NO if they do not. The modules are coded together and the code cannot be erased.

ECM IDLE LOAD SWITCH
This parameter indicates the status of the ECM idle load switch.

ECM IDLE SPEED CONTROL STATUS
This parameter indicates the status of the ECM idle speed control.

ECM LOCKED
Indicates whether the ECM is locked. If the display reads YES, the DAS and ECM have not identified each other, therefore the engine is prevented from starting.

ECT OPERATING TEMPERATURE
Indicates the status of the engine coolant sensor, and that the engine is at operation temperature.

ECT SENSOR
Indicates the voltage of the engine coolant sensor.

ECT VALUE RANGE
Indicates the status of the engine coolant sensor.

ECU EL.IGN.SW:START MESS.
EIS control module receives the start message of the key.

ECU LOCKED
Indicates whether the ECU has been locked.

ECU LOCKED AFTER IMPACT
Indicates whether the ECU has been locked after an impact.

ECU LOCKED BY TOOL
Indicates whether the ECU has been locked by the Scantool.

ECU MATCHED
Indicates whether the ECU is Matched or not.

ECU PROGRAMMED
This parameter displays if the ECU has been programmed or not.

ECU REAR-N22/6:COMM
CAN communication with control module N22/6 (Rear control module).

ECU STATUS
Displays the current status of the ABS ECU. If ABS data parameters are scanned while the vehicle is stationary the ECU STATUS will display 2, this is a full diagnostic mode and the ABS system is disabled. If however the system is scanned whilst the vehicle is moving (over 5 MPH) the ECU STATUS will be 1, which will allow the ABS to remain fully operational whilst displaying data.

ECU SUPPLY,MANY DROP-OUTS
Indicates the number of ECU Supply Drop-outs.

ECU UNLOCKD
Indicates whether the ECU has been unlocked.

ECU VEH.POWER:SHUTOFF USERS
Vehicle power supply control module: Shut off all consumers.

ECU VOLTAGE LOW
Indicates that the supply voltage to the ECU is low.

ECU:VOLTAGE SUPPLY
Voltage supply at control module (V).

EDS CUT-OFF
This parameter indicates if the EDS fuel cut off is switched ON or OFF.

EFFECT. COOL. FAN OUTPUT. DUTY CYCLE
Displays the effective output of the cooling fan. The display shows the duty cycle of the cooling fan, which is controlled by the ECU.

EFFECTIVE FAN CAPACITY,RATIO
Fan capacity, effective (on/off ratio) (%).

EFFECTIVE FAN OUTPUT ON/OFF RATIO
Displays the effective output of the cooling fan on/off ratio.

EGR
This parameter displays the duty cycle for the Exhaust Gas Recirculating (EGR) valve. Exhaust gasses can be added to the intake air (to cool combustion temperatures thus reducing the formation of NOx, but at the same time the volumetric efficiency of the engine is not reduced very much. That is an advantage of EGR). EGR valve open/close rate depends on operating conditions of the engine.

EGR ACTIVATION
Indicates the status of the exhaust gas Recirculation (EGR) system.

EGR ADAPTATION POSITION
This parameter is the adaptive position of the EGR valve, calculated by the ECU in voltage.

EGR ADAPTATION STATUS
This parameter is the adaptation status of the EGR valve, OK or ERROR.

EGR COLD ENGINE
This parameter displays the duty cycle for the Exhaust Gas Recirculating (EGR) valve when the engine is cold.

EGR DC VACUUM REGULATOR
Displays the duty cycle of the EGR Vacuum Regulator.

EGR DESIRED AIR FLOW
This parameter displays the desired amount of air drawn into the engine under the present operating conditions. Values are in milligrams per cylinder stroke. The value is only valid while the EGR is active.

EGR DUTY CYCLE
This parameter displays the duty cycle for the Exhaust Gas Recirculating (EGR) valve. Exhaust gasses can be added to the intake air (to cool combustion temperatures thus reducing the formation of NOx). EGR valve open/close rate depends on operating conditions of the engine.

EGR DUTY CYCLE DEMAND
Displays the demanded EGR duty cycle as a percentage.

EGR ERROR
Indicates the percentage of the EGR error.

EGR LOGIC CHAIN
Indicates the status of the exhaust gas Recirculation (EGR) system.

EGR MON STATUS
OBD monitor information, Exhaust Gas Recirculation System is either supported or not supported, or ready or not ready.

EGR OFFSET,FIRST PROGRAMMING
Indicates the EGR Offset First Programming.

EGR POSITION SENSOR
Indicates the voltage from the EGR Position sensor.

EGR PULSE RATIO
Indicates the EGR Pulse Ration.

EGR SOLENOID VALVE CONTROL
Indicates the status of the EGR Solenoid Valve Control.

EGR SYSTEM
Indicates whether or not the ECU has commanded the EGR system ON or OFF.

EGR TEMPERATURE
This parameter is a feedback signal from a temperature sensor in the EGR passage.

EGR VALVE
Indicates the percentage commanded to open the exhaust gas Recirculation valve by the ECU.

EGR VALVE POSITION RECOPY
Indicates the EGR Valve Position Re-copy.

EGR VALVE POSITION SENSOR
Indicates the voltage from the EGR Valve Position sensor.

EGR VALVE POSITION(ACTUAL)
Indicates the Actual EGR Valve Position.

EGR VALVE POSITION(DESIRED)
Indicates the Desired EGR Valve Position.

EGR VALVE POSITION(REPEAT)
Indicates the Repeated EGR Valve Position.

EGR VLV POS.RECOPY LOOP DIFF
Indicates the Re-copied Loop Difference of the EGR Valve Position.

EGR X
This parameter indicates the percentage of Exhaust Gas Recirculation flow. EGR valve open/close rate depends on engine type (Petrol/Diesel) and operating conditions of the engine.

EGR_MON_RDY
Exhaust Gas Recirculation System Monitor (EGR SYS) is either ready or not. YES means the monitor is ready.

EL.BRAKEFORCE DISTR.FUNCTION
Indicates the status of Electrical Brake force Distribution Function.

EL.IGN.SW.ECU ACTIVATED
Control module EIS is activated.

EL.IGN.SW.ECU:COMM
CAN communication with control module EIS.

EL.IGN.SW.ECU:INITIALIZED
Control module EIS initialised.

EL.IGN.SW.ECU:KEY INS,PROC.X
Key inserted in control module EIS., Processor X, where x = 1 or 2.

EL.IGN.SW.ECU:KEY INSERTED
Key inserted in control module EIS.

EL.IGN.SW.ECU:PERSONALISED
Control module EIS is personalised.

EL.IGN.SW.ECU:SWCAN
Control module EIS is in the single-wire mode.

EL.IGN.SW.ECU:TEST COUNTER
Test counter of control module EIS.

EL.IGN.SW:ACTIVATED
EIS is activated.

EL.IGN.SW:PERSONALISED
EIS is personalised.

EL.IGN.SW:TURN ENABLE ISSUED
EIS: Turn enable issued.

EL.IGNITION SW.ECU-N73:COMM
Communication with control module N73 (EIS control module).

EL.SEAT ADJ.,FL:COMM
CAN communication with control module ESA-FL.

EL.SEAT ADJ.,FL:SWCAN
Control module ESA-FL is in the single-wire mode.

EL.SEAT ADJ.,FR:COMM
CAN communication with control module ESA-FR.

EL.SEAT ADJ.,FR:SWCAN
Control module ESA-FR is in the single-wire mode.

EL.SEAT ADJUSTM.,REAR:COMM
CAN communication with control module Electric seat adjustment rear.

EL.STEER.LOCK ACTIVATED
Control module ESL is activated.

EL.STEER.LOCK KEY/KEYTRACK X
ESL: Key or key track X, where x = 1 to 8.

EL.STEER.LOCK START:ENABLED
ESL: Start enable

EL.STEER.LOCK:ECU PROT.REMV
The transport protection of control module ESL is detached.

EL.STEER.LOCK:INIT.
Control module ESL is initialised.

EL.STEER.LOCK:PERSONALISED
Control module ESL is personalised.

ELEC PRES CONT TRANS SHIFT
Displays transmission line pressure, which is regulated by the electronic pressure control (EPC) solenoid.

ELEC PRES CONT TRANS SHIFT CMDA
Indicates the status of the electronic pressure control (EPC) solenoid command.

ELECTR.IGN.SW:INITIALISED
EIS is initialised.

ELECTRIC AIR PUMP
Indicates the state of the electric air pump, on or off.

ELECTRIC COOLING FAN
Indicates the state of the electric cooling fan.

ELECTRIC POWER STEERING PRESENT
Indicates that the ECU has detected whether or not a electric power steering system is present.

ELECTRIC STOP SOL.VALVE
Indicates the status of the Electric Stop Solenoid Valve.

ELECTRICAL LOAD SIGNAL
Indicates the status of the electrical load signal.

ELECTROMAGNETIC CLUTCH A9K1
Indicates whether the electromagnetic clutch has operated. YES means the clutch has been depressed.

ELECTRONIC THROTTLE CONTROL DATA
Indicates the status of the electronic throttle control data.

ELECTRONIC TRANSMISSION PRESENT
This parameter indicates that the Electronic Transmission system is installed.

EMER.BRAKING ASSIST FUNCTION
Indicates the status of the Emergency Braking Assist Function.

EMERG.OFF CKT AIRCO-COMPR.
Emergency off circuit of AC compressor.

EMERGENCY:OFF
Emergency off.

ENG LOAD
This parameter is calculated by the ECU. It is based on engine speed, number of cylinders and manifold airflow. A high value indicates a heavy load and a low value indicates a light load.

ENG OIL TEMP
Monitors engine oil temperature.

ENG RPM LIMIT
Indicates that the ECU is operating with the engine rev limiter active. This will limit the engine rpm to about 4000 rpm and could indicate that the ECU is running in Limited Operation Strategy (LOS or Limp Home Mode) this enables the ECU to automatically supply substitute values when sensor failure occurs, so a sensor can fail and not necessarily affect driveability. Reading should normally read NO.

ENG RUN
This parameter displays the total amount of time that the engine has run. The value is expressed in hours.

ENG.COMPR.-A6m2:POWER FACTOR
Power factor of component A6m2 (combustion air blower) (%).

ENG.POWER LIMITED BY AIRCO REQUEST
This parameter displays whether the ECU has detected that the A/C has been requested. If so, the ECU will have limited engine power.

ENGAGEMENT POSITION
Indicates the position of the gearbox engagement fork in mm.

ENGINE AIR FLOW
Indicates the Engine Airflow.

ENGINE AT NORMAL OPER.TEMP
Indicates whether the Engine is at Normal Operating temperature or not.

ENGINE BRAKE TORQUE
Is an ECU calculated engine torque displayed in Nm. Display varies according to engine load.

ENGINE CONTROL MODULE IDENTIFIED
Indicates whether the drive authorization system (DAS) and engine control module (ECM) have correctly identified each other. The display reads YES if the modules identify each other and NO if they do not. The modules are coded together and the code cannot be erased.

ENGINE CONTROL MODULE INTERLOCKED
Indicates whether the ECM is interlocked. If the display reads YES, the DAS and ECM have identified each other, therefore the engine can be started.

ENGINE CONTROL MODULE LOCKED
Indicates whether the ECM is locked. If the display reads YES, the DAS and ECM have not identified each other, therefore the engine is prevented from starting.

ENGINE COOLANT
Coolant temperature is an analogue parameter supplied to the ECU by the engine Coolant Temperature Sensor (CTS). The CTS is a thermistor installed in the engine coolant passages. At low temperatures the resistance is high and a high voltage signal is produced. As temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU. This parameter can also be displayed as a voltage.

ENGINE COOLANT LEVEL
Displays the Engine Coolant Level.

ENGINE COOLANT TEMP
Coolant temperature supplied to the PCM by the engine coolant temperature (ECT) sensor. The ECT is a thermistor installed in the engine coolant passages. As temperature increases, sensor resistance decreases, providing the coolant voltage signal to the PCM. The PCM converts ECT voltage signals to temperature readings.

ENGINE CRANKING
This parameter indicates that the engine is cranking.

ENGINE DRAG TORQUE
Displays the engine drag torque in Nm.

ENGINE ECU:CRASH SIGNAL
Crash signal from control module Engine management in the crash memory.

ENGINE FAN ERROR DETECTED
Engine fan fault detected.

ENGINE LOAD
This parameter is calculated by the ECU. It is based on engine speed, number of cylinders and manifold airflow. A high value indicates a heavy load and a low value indicates a light load.

ENGINE MISFIRE MON STATUS
Indicates whether or not a misfire has occurred. Crankshaft acceleration is measured for each cylinder firing event. If the acceleration drops below a specified threshold, a misfire is deemed to have occurred.

ENGINE MOUNT
This parameter indicates that status of the engine mount, it can be set to either Hard or Soft.

ENGINE OFF
This parameter indicates if the engine is off.

ENGINE OIL LEVEL
Indicates if there is or is not enough engine oil in the crankcase.

ENGINE OIL TEMPERATURE
Displays the engine oil temperature and is based on the input signal of the engine oil temperature sensor.

ENGINE OIL TEMPERATURE SWITCH
Indicates the current state of the Engine Oil Temperature Switch. ON indicates that the switch is returning a high oil temperature reading.

ENGINE RPM
RPM is the measurement of engine speed and is always shown at the left on the top line of the display. RPM is computed internally by the PCM, based on reference pulses from the ignition system or a crankshaft sensor.

ENGINE RUNNING
1) This parameter displays the total amount of time that the engine has run, the value is expressed in hours.

2) Indicates if the engine is running.

ENGINE SPEED
Engine Speed (RPM) is the measurement of engine speed. RPM is computed internally by the ECU, based on pulses from the ignition system or an engine speed sensor.

ENGINE SPEED CAN
This parameter displays the engine speed (rpm) as transmitted down the CAN bus.

ENGINE SPEED DETECTED
Related to the engine speed limiter system. Indicates whether or not the engine speed has been detected.

ENGINE SPEED ERROR
This parameter indicates the an error between the actual engine and the engine speed as calculated by the ECU.

ENGINE SPEED LIMITER
Indicates if the ECU is limiting engine speed. The display should read OFF under normal operating conditions. ON indicates the ECU is taking preventive measures to avoid internal damage. To protect the engine, torque converter and power-train, the ECU limits engine speed under specific operating conditions by leaning the air-fuel mixture, cutting off fuel delivery, or retarding ignition timing.

ENGINE SPEED PULSE
Indicates that the ECU is receiving an engine rpm pulse from the rpm pick-up.

ENGINE SPEED(DESIRED)
This parameter indicates the desired engine speed as calculated by the ECU.

ENGINE STABILITY X
Indicates that each cylinder (where X = the cylinder number) in the engine is running stable and not misfiring.

ENGINE START
This parameter displays if it is allowed to start the engine. It will indicate NO if the Anti-theft device does not allow the engine to start.

ENGINE START CONTROL
Indicates the status of the engine start control.

ENGINE START TEMPERATURE
Displays what the engine coolant temperature was when the engine was started. This resets with each key cycle.

ENGINE STARTUP ALLOWED
Indicates if it is allowed to start the engine.

ENGINE STATUS
Indicates the Engine Status.

ENGINE STOP
This parameter indicates that the engine has stopped.

ENGINE TEMP
Indicates the Engine Temperature.

ENGINE TEMPERATURE AT START
Temperature at engine start (°C).

ENGINE TORQUE
1) This parameter indicates the torque developed by the engine.

2) Indicates the actual percentage of the maximum engine torque.

ENGINE TORQUE CTRL FUNCTION
Indicates the status of the Torque Control Function.

ENGINE TORQUE LOSS
This parameter indicates the engine torque loss.

ENGINE TORQUE MAX
This parameter indicates the maximum torque of the engine calculated by the ECU.

ENGINE/AC ELECTRIC SUCTION FAN
Indicates the status of the engine / AC suction fan.

ENVIRONMENT CONDITIONS OK
Indicates whether the Environmental Conditions are OK or not.

EQUIVALENCE RATIO BX - SX
Indicates the equivalence ratio for bank x oxygen sensor x.

ERROR COUNTER CYL X
Fault counter of cylinder X, where x = 1 to 12.

ERROR DELETE COUNTER
Indicates how many times the trouble codes have been cleared in this ECU.

ERROR INTERLOCK HT.BOOSTER
Status of fault interlock of heater booster.

ERROR PRESENT
Indicates whether there is an Error Present.

ERROR SAVED
Indicates whether or not an error has been saved in the ECU memory.

ERROR TIME
This parameter displays the time in hours which an error has been active. The time is maintained by the ECU only when the ignition key is turned on.

ERRORS DURING TRANSMISSION
Indicates whether any Errors occurred During Transmission.

ESP OFF-SWITCH-N72/1s1
N72/1s1 (ESP OFF switch).

ETC LEARN COUNTER
This signal is used by the ECU to set the Electronic Throttle Control adjuster position when in limp home mode.

ETC LIMP HOME MODE
This signal is used by the ECU to set the Electronic Throttle Control adjuster position when in limp home mode.

ETS
Indicates if the electronic traction system is present or not.

ETS INTERVENTION
Indicates if the electronic traction system is engaged. The display reads ON or YES when the electronic traction system is engaged and OFF or NO when disengaged.

ETS LEVEL
Indicates the status of the electronic traction system.

EVAC VALVE
In the Throttle Valve Adjuster, there are two solenoids that control the pressure working against the diaphragm in the throttle valve adjuster. The ventilating valve is connected to the atmosphere, i.e. when activated, the TVA valve lifter is propelled outwards by the force of the spring. The evacuating valve is pressurised by vacuum from the intake manifold, i.e. when activated, the TVA valve lifter is propelled inwards against the force of the spring. The Scanner displays the switch condition of the valve, either ON or OFF.

EVAP CANISTER VENT SOL DC
Shows the command voltage at the canister vent solenoid.

EVAP DC
OBD monitor information, Evaporative System Monitor is either supported or not supported, or ready or not ready.

EVAP EMISSION CAN PURGE FAULT
Indicates if the PCM detects a fault in the canister purge solenoid circuit. YES means a fault is present.

EVAP EMISSION CAN PURGE VENT FLT
Indicates if the PCM detects a fault in the canister vent solenoid circuit. YES means a fault is present.

EVAP EMISSION CAN VENT
Indicates if the Canister Vent solenoid is on or off.

EVAP EMISSION CANISTER PURGE
The canister purge (CANP) valve regulates the flow of fuel vapours from the EVAP canister to the intake manifold. This digital parameter indicates the on/off status of the canister purge solenoid. When the engine is at operating temperature, the solenoid turns ON, the canister purge valve opens and purging occurs. When the engine is at idle or below operating temperature, the solenoid turns OFF, the valve closes and purging stops.

EVAP SYSTEM VAPOUR PRESSURE
Indicates the evaporative system vapour pressure.

EVAP VACUUM SWITCHING VALVE
Indicates the status of the evaporative system switching valve.

EVAP_MON_RDY
Evaporative Emission System Monitor (EVAP SYS) is either ready or not. YES means the monitor is ready.

EVAPORATIVE SYSTEM MON STATUS
OBD monitor information, Evaporative System Monitor is either supported or not supported, or ready or not ready.

EVAPORATOR
This parameter indicates the status of the evaporator sensor.

EVAPORATOR TEMPERATURE
This parameter indicates the evaporator temperature.

EXH BACK PRES ACTUAL
Displays the actual Exhaust Back Pressure as a voltage.

EXH BACK PRES DC
Indicates the Exhaust Back-pressure duty cycle as a percentage.

EXH BACK PRES(FILTERED)
Displays the exhaust back-pressure.

EXH GAS RECIRC
Displays the duty cycle for the Exhaust Gas Recirculating (EGR) valve. Exhaust gasses can be added to the intake air (to cool combustion temperatures thus reducing the formation of NOx, but at the same time the volumetric efficiency of the engine is not reduced very much. That is an advantage of EGR). EGR valve open/close rate depends on operating conditions of the engine.

EXH GAS RECIRC FAULT VAC SOL
Indicates whether the PCM has detected a fault in the EGR vacuum solenoid circuit.

EXH GAS RECIRC FLT VENT SOL
Indicates whether the PCM has detected a fault in the EGR vent solenoid circuit. YES means a fault is present.

EXH GAS RECIRC VAC SOL
Displays the state of a normally closed solenoid that regulates vacuum to the EGR valve with a variable duty cycle. ON indicates that the solenoid is enabled; OFF indicates that it is disabled (turned off).

EXH GAS RECIRC VALV POS
Displays the voltage signal sent to the PCM by the EGR valve position sensor. The signal indicates the position of the EGR valve pintle. A low reading indicates low EGR flow, while a high reading indicates high EGR flow.

EXH GAS RECIRC VENT SOL
Shows the status of the EGR vent solenoid. ON means the vent solenoid is on, bleeding off vacuum to the EGR valve, causing the valve to close.

EXH GAS RECIRC-ENABLE BARO
Indicates whether the EGR pressure sensor is on or off.

EXHAUS GAS RECIRC VALV POS
Displays the Exhaust Gas Recirculation Valve position in millimetres (mm).

EXHAUST ADAPTATION
This parameter indicates the Exhaust Adaptation if the engine is adapting for specific conditions.

EXHAUST CAMSHAFT
This parameter displays the actual position of the exhaust camshaft in degrees.

EXHAUST CODE
The ECU displays the emissions type it is programmed for. US complies with the US emissions levels. ECE complies with the EEC emissions levels.

EXHAUST CODING
The ECU displays the emissions type it is programmed for. US complies with the US emissions levels. ECE complies with the EEC emissions levels.

EXHAUST DIFFERENTIAL PRESS.
Indicates the Exhaust Differential Pressure.

EXHAUST FLAP
This parameter shows the state of the exhaust flap, which is positioned on one side of the exhaust system between the three-way catalyst (TWC) and the rear muffler. The display reads ON when the ECU is commanding the valve, which is vacuum operated, to close and OFF when the valve is open.

EXHAUST GAS RECIRCULATION X
This parameter indicates the percentage of Exhaust Gas Recirculation flow. EGR valve open/close rate depends on engine type (Petrol/Diesel) and operating conditions of the engine.

EXHAUST GAS TEMPERATURE
This parameter indicates the exhaust-gas temperature.

EXHAUST OXYGEN
Indicates whether the Exhaust is rich or lean.

EXHAUST TEMP.3-WAY CAT MODEL
Exhaust temperature with TWC model (°C).

EXHAUST TEMPERATURE LEFT
ECU calculated exhaust gas temperatures for the left cylinder bank based on multiple input signals.

EXHAUST TEMPERATURE RIGHT
ECU calculated exhaust gas temperatures for the right cylinder bank based on multiple input signals.

EXT.MIRROR ADJ.SELECT SW,L/R
N72s8 (Left or right exterior mirror adjustment selector switch).

EXTER.MIRROR FOLD IN/OUT SW
N72s19 (Exterior mirror fold-in or fold-out switch).

EXTERIOR MIRROR ADJ.SWITCH
N72s7 (Exterior mirror adjustment switch).

EXTERNAL CRASH SENSOR
Indicates the external crash senor voltage.

EXTERNAL ERRORS
External faults.

EXTERNAL TEMP
Indicates the external temperature.

EXTERNAL TEMP SENS(FILTERED)
Indicates the filtered external temperature.

EXTERNAL TEMP SENS(UNFILTERED)
Indicates the unfiltered external temperature.

EZS:ECU TRANSP.PROT.REMV
The transport protection of control module EZS is detached.

EZS:INITIALISED
Control module EZS initialised.

EZS:KEY INSERTED
Key inserted in control module EZS.

EZS:PERSONALISED
Control module EZS is personalised.

3.2.7 F

F.FIRED HTR SW:P-OFF BUTTON
S46 (STH switch) Operating status of P off pushbutton.

F.TANK PRESS.DIFF.(ADC)(USA)
Fuel tank pressure difference (ADC)((USA)) (V).

FAIL SAFE FUNCTION X
Indicates the status of the specified fail safe function.

FAN
This parameter displays the duty-cycle of the electric ventilator. A lower percentage means the ventilator is blowing lightly. A higher value means the ventilator is blowing hard.

FAN CAPACITY
Fan capacity, effective (on/off ratio) (%).

FAN CAPACITY REQUESTED BY A/C
Indicates the amount of the fan capacity used, as requested by the a/c system.

FAN CAPACITY REQUESTED BY ENGINE
Indicates the amount of the fan capacity used, as requested by the engine.

FAN CAPACITY, EFFECTIVE
Indicates the amount of the effective fan capacity used.

FAN CAPACITY,AIRCO REQUEST
Fan capacity request by air conditioning (%).

FAN CAPACITY,ENGINE REQUEST
Fan capacity request by engine (%).

FAN CONTROL X
Indicates the status of the Fan Control, where x = 1, 2 or 3.

FAN CONTROL(ENGINE RUNNING)
Indicates the status of the Fan Control when the engine is running.

FAN HIGH SPEED
This parameter displays if the cooling fan(s) high speed is ON or OFF.

FAN LOW SPEED
This parameter displays if the cooling fan(s) low speed is ON or OFF.

FAN MIDDLE SPEED
This parameter displays if the cooling fan(s) middle speed is ON or OFF.

FAN OUTPUT REQUEST AC
Indicates that the air conditioning system (ECU) has requested a fan output.

FAN OUTPUT REQUEST ENGINE
Indicates that the engine (ECU) has requested a fan output.

FAN PRESENT
This parameter indicates that the fan is installed.

FAN RELAY
Indicates whether or not the ECU has commanded the cooling fan relay ON or OFF.

FAN RELAY CONTROL:HIGH SPEED
Indicates the status of the High Speed Fan Control Relay.

FAN RELAY CONTROL:LOW SPEED
Indicates the status of the Low Speed Fan Control Relay.

FAN REQUEST
This parameter indicates that the ECU has requested the fan to be activated.

FAN SECONDARY CKT MON
The PCM monitors the fan side of the CCRM (or IRCM) to determine whether the fan has been successfully commanded on or off by the PCM. ON indicates high input voltage; OFF indicates low input voltage.

FAN SPEED
Indicates the current Fan speed.

FAN SPEED(ACTUAL)
Indicates the actual Fan speed.

FAN SPEED(DESIRED)
Indicates the desired Fan speed.

FAST IDLE
This parameter indicates if the ECU has given a signal to increase the idle speed.

FAULT COUNTER SMOOTH RUNNING CYL. X
Indicates the specified cylinder fault counter for the smooth running engine operation.

FILTER VALUE
Indicates the filter value (displayed as %) applied to the complete geometry, calculated in relation to the state of the road.

FLAME SENSOR FLAME DETECTION
Flame sensor-Flame detection.

FLEX FUEL OFF
Displays the Dual Fuel “OFF” parameter (Petrol/Gas) or (Petrol/Alcohol) as a percentage. Usually indicates if the mixture sensor is not giving reliable data.

FLEX FUEL SENS-FREQ
Displays the Dual Fuel parameter (Petrol/Gas) as a frequency measurement in Hz.

FLOW INDUCTANCE TIME
Indicates the Flow Inductance Time.

FLOW MODIF.
This parameter indicates if the Flow Modification Throttle is active or not.

FLOW MODIFICATION THROTTLE
Indicates if the Flow Modification Throttle is active or not.

FLYWHEEL ADAPTATION
This parameter indicates the status of the flywheel adaptation.

FLYWHEEL SIGNAL(ENG.RUNNING)
Indicates the status of the Flywheel Signal with the engine running.

FOG LAMP,RIGHT-E5/2
E5/2 (Right fog lamp).

FOG SW STATUS
Indicates the status of the fog light(s) switch.

FOGLAMP SWITCH,REAR-S97/6s2
S97/6s2 (Fog-lamps, rear fog-lamp switch).

FOOTWELL FLAP MOTOR
This parameter indicates the footwell flap motor position.

FOOTWELL SWITCH
This parameter indicates the footwell switch position.

FORCED IDLE
Indicates whether a Forced Idle speed setting has occurred.

FOUND TRANSMISSION VERSION
Detected transmission version.

FREQ.ENABLE SIGN.HEAT.BOOST.
Frequency of enable signal for heater booster from engine control module.

FRONT AIRBAG PASS.,LOCKED
Indicates the status of the Locked Passenger Front Airbag.

FRONT AIRBAG(PASS.)IMPEDANCE
Indicates the Impedance of the Passenger Front Airbag.

FRONT AIRBAG,DRIVER
Indicates the status of the Driver Front Airbag.

FRONT AIRBAG,PASSENGER
Indicates the status of the Passenger Front Airbag.

FRONT AIRBG(DRIVER)IMPEDANCE
Indicates the Impedance of the Drivers Front Airbag.

FRONT AREA LIGHT,SNS VALUE
Sensor value of front area light (%).

FRONT AXLE BRAKE PRESSURE
This parameter indicates the Front Axle Brake pressure.

FRONT AXLE SPEED
Indicates the speed of the front axle based on input signals to the ECU from the wheel speed sensors.

FRONT INLET SOLENOID
Indicates the status of the front ABS inlet solenoid.

FRONT LEFT PRETENSIONER
Indicates that the ECU has detected whether or not a Front Left Pretensioner is present.

FRONT LEFT SIDE AIRBAG
Indicates that the ECU has detected whether or not a Front Left Side Airbag is present.

FRONT MAX. SENSOR CALIBRATION
Indicates the preset maximum limit value for the front sensor when calibrating (displayed as %).

FRONT MIN. SENSOR CALIBRATION
Indicates the preset minimum limit value for the front sensor when calibrating (displayed as %).

FRONT OUTLET SOLENOID
Indicates the status of the front ABS outlet solenoid.

FRONT PRETENSIONERS
Indicates the status of the Front Pretensioner.

FRONT RIGHT PRETENSIONER
Indicates that the ECU has detected whether or not a Front Right Pretensioner is present.

FRONT RIGHT SIDE AIRBAG
Indicates that the ECU has detected whether or not a Front Right Side Airbag is present.

FRONT SENSOR
Indicates the position measured by the front sensor (displayed as %).

FRONT SENSOR CALIBRATION
Indicates the voltage from front sensor during calibration.

FRONT SENSOR POSITION
Indicates the position measured by the front sensor in volts.

FRONT THORAX S-AIRBAG,DRIVER
Indicates the status of the Driver Front Thorax Side Airbag.

FRONT THORAX S-AIRBAG,PASS.
Indicates the status of the Passenger Front Thorax Side Airbag.

FTRIM X
These parameters indicate the self-learning parameters.

FUEL
This parameter indicates which fuel type is being used.

FUEL ADAPTATION
This parameter indicates whether the fuel adaptive sensor is ON or OFF.

FUEL ADAPTATION IDLE LOAD X
Indicates the Long-term fuel adaptation learnt by the ECU for idle load. Where X can be 1 or 2 (bank).

FUEL ADAPTATION PARTIAL LOAD X
Indicates the Long-term fuel adaptation learnt by the ECU for partial load. Where X can be 1 or 2 (bank).

FUEL ADAPTATION X
Indicates the Long-term fuel adaptation learnt by the ECU. Where X can be 1 or 2 (bank).

FUEL AMOUNT
This parameter displays the quantity of fuel that has been injected under the present operating conditions. Value is in milligrams per cylinder stroke.

FUEL AMOUNT ADAPTATION X
Indicates the Fuel Amount Adaptation x, where x = 1 or 2.

FUEL AMOUNT CONTROLLER
Indicates the status of the Fuel Amount Controller.

FUEL AMOUNT DELAY X
Indicates the Fuel Amount Delay x, where x = 1 or 2.

FUEL AMOUNT IDLE
Indicates the amount of fuel injected each stroke when idling. Can be (mg/STROKE) or (mm3/STROKE)

FUEL AMOUNT ROTOR CONTROL
Indicates the status of the Fuel Amount Rotor Control.

FUEL AMOUNT(DESIRED,IDLE)
Indicates the Desired Fuel Amount at Idle.

FUEL CANISTER PRESSURE DIFF.
Indicates fuel canister pressure difference. The range can be displayed as a voltage or as a pressure reading in mbar.

FUEL CIRC.DIAGNOSE:IN PROGR.
Indicates the status of the Fuel Circuit Diagnose when Programming.

FUEL CIRC.DIAGNOSE:OBD DIAG.
Indicates the status of the Fuel Circuit Diagnose when in OBD Diagnostics.

FUEL CIRC.DIAGNOSE:REQUEST
Indicates the status of the Fuel Circuit Diagnose Request.

FUEL CONS. PER DRIVING CYCLE
Indicates the fuel consumption per OBD drive cycle.

FUEL CONSUMPTION
This parameter displays the fuel consumption (as calculated by the ECU).

FUEL CONSUMPTION ISC
This parameter displays the calculated fuel usage adaptation by Idle Stabilisation Control unit.

FUEL CONSUMPTION PER HOUR
Indicates the fuel consumption in litres per hour.

FUEL COOLING
This parameter indicates the percentage that the fuel is cooled.

FUEL CORR
This parameter displays the corrected injected fuel pressure calculated by the ECU.

FUEL CUTOFF
This parameter indicates if the fuel is cut-off or not (during over-revving, deceleration and/or overrun condition).

FUEL CUT-OFF SOLENOID
Indicates the status of the Fuel Cut-off Solenoid.

FUEL DOOR SW
Indicates the status of the fuel tank (opening) door switch.

FUEL FEEDBACK STATUS
This parameter indicates whether the fuel feedback relay is ON or OFF.

FUEL FIRED HTR:REMOTE:COMM
CAN communication with control module A6/1 (STH radio remote control receiver).

FUEL HEATER
This parameter indicates the fuel heater temperature.

FUEL LEVEL
Indicates the amount of Fuel in the Fuel Tank.

FUEL LEVEL INPUT
Indicates the status of the fuel level input.

FUEL LEVEL SENSOR
Indicates the Fuel level Sensor voltage.

FUEL LEVEL STATUS
Indicates if the fuel level is Low or Normal. When Low certain checks are no longer performed by the ECU (in particular Ignition Failure).

FUEL LOW
This parameter indicates if the fuel is low or not.

FUEL PRES
This parameter indicates the duty cycle used by the ECU to control the fuel pressure regulator. Can also be the actual fuel pressure reading.

FUEL PRESS. REGULATOR CURRENT
Indicates the current (mA) flowing through the fuel pressure regulator.

FUEL PRESSURE
This parameter indicates the duty cycle used by the ECU to control the fuel pressure regulator. Can also be the actual fuel pressure reading.

FUEL PRESSURE CONTROL VALVE
Indicates status of the fuel pressure control valve.

FUEL PRESSURE REGULATION
1) This parameter indicates the fuel pressure regulation in bar.

2) Indicates the duty cycle used by the ECU to control the fuel pressure regulator.

FUEL PRESSURE SENSOR
Indicates the voltage from the Fuel Pressure Sensor.

FUEL PRESSURE(ACTUAL)
Indicates the actual fuel pressure.

FUEL PRESSURE(DESIRED)
Indicates the Desired Fuel Pressure.

FUEL PRS REG
1) This parameter indicates the fuel pressure regulation in bar.

2) Indicates the duty cycle used by the ECU to control the fuel pressure regulator.

FUEL PST
Indicates the fuel preset value.

FUEL PUMP
This parameter indicates if the fuel pump is activated or not.

FUEL PUMP MON
Indicates whether the fuel pump has turned on or off in response to a command from the PCM.

FUEL PUMP OUT FAULT
Indicates whether the PCM has detected a fault in the fuel pump circuit. YES means a fault is present.

FUEL PUMP RELAY
Indicates whether the ECU has turned the fuel pump relay ON or OFF.

FUEL PUMP RELAY COMMAND
Indicates the status of the Fuel Pump Relay Command.

FUEL PUMP TYPE
Indicates the Fuel Pump Type.

FUEL QUANT
This parameter indicates the actual fuel quantity injected every stroke.

FUEL QUANTITY
This parameter indicates the actual fuel quantity (mg/Stroke) injected every stroke.

FUEL QUANTITY SENSOR
This parameter indicates the voltage from fuel quantity sensor as the fuel is injected every stroke.

FUEL RAIL PRES SENS(PSI)
Fuel rail pressure calculated from sensor voltage in pounds per square inch. (PSI = Bar x 14.7).

FUEL RAIL PRES SENS(V)
Indicates the Fuel Rail pressure sensor voltage.

FUEL RAIL PRESSURE
This parameter indicates the actual fuel pressure in bar.

FUEL RAIL TEMPERATURE
Indicates the Fuel Rail Temperature.

FUEL SELECT SW
Indicates the status of the Fuel Select switch.

FUEL SOL VALV
Indicates the status of the Fuel Solenoid Valve. If a fault occurs, FSV FAULT will indicate YES.

FUEL SOL VALV FAULT
Indicates the status of the Fuel Solenoid Valve. If a fault occurs, FSV FAULT will indicate YES.

FUEL SOL VALV MON
Indicates the status of the Fuel Solenoid Valve. If a fault occurs, FSV FAULT will indicate YES.

FUEL SYSTEM MON STATUS
Fuel System Monitor (FUEL SYS). Monitors the adaptive fuel control system and determines when a learned value exceeds a specified threshold. Inputs from the ECT, IAT and MAF or MAP sensors are required to enable this monitor.

FUEL SYSTEM X
Indicates the status of the fuel system.

FUEL TANK CAP
Indicates if the fuel tank cap is properly installed. The display reads OK if the cap is correctly installed.

FUEL TANK LEVEL
Indicates if there is the proper amount of fuel in the fuel tank to run an evaporative emissions (EVAP) test.

FUEL TANK LEVEL SENSOR
Displays the voltage from the Fuel Tank Sensor.

FUEL TANK PRES
Displays signal voltage from the fuel tank pressure sensor. The Evaporative Emissions Monitor requires input from this sensor. With the gas cap removed, signal voltage should be between 2.4 and 2.8 V. During the evaporative emissions test, expect voltage to decrease while the PCM applies vacuum to the fuel tank.

FUEL TANK PRESS. DIFF. ADC
Indicates the results of the ADC-ECU performed fuel tank leak test, which is part of the OBD-II monitoring system. The fuel tank pressure test uses an internal fuel tank pressure sensor.

FUEL TANK PRESS.DIFF.
Fuel tank pressure difference (hPa).

FUEL TANK PRESS.DIFF.(ADC)
Fuel tank pressure difference (ADC) (V).

FUEL TANK PRESS.DIFF.(USA)
Fuel tank pressure difference (USA) (hPa).

FUEL TANK PRESSURE DIFFERENCE
Indicates the results of an ECU performed fuel tank leak test, which is part of the OBD-II monitoring system. The fuel tank pressure test uses an internal fuel tank pressure sensor.

FUEL TANK VENTILATION
Indicates the status of the Fuel Tank Vent valve.

FUEL TANK VENTILATION VALVE
Indicates the status of the Fuel Tank Ventilation valve.

FUEL TEMP
Fuel temperature is an analogue parameter supplied to the ECU by the Fuel Temperature Sensor (FTS). The FTS is a thermistor installed in the fuel delivery line or on the fuel pump/injection pump. As temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU.

FUEL TEMPERATURE
The fuel temperature is an analogue parameter supplied to the ECU by the Fuel Temperature Sensor (FTS). The FTS is a thermistor installed in the fuel delivery line or on the fuel pump/injection pump. As the temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU.

FUEL TEMPERATURE SENSOR
The fuel temperature is an analogue parameter supplied to the ECU by the Fuel Temperature Sensor (FTS). The FTS is a thermistor installed in the fuel delivery line or on the fuel pump/injection pump. As the temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU.

FUEL TRIM (IDLE LOAD) X
These fuel trim values represent the long term correction to the fuel injection pulse width when the engine is idling. This value is learned by the ECU and used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim (FTRIM) is changed.

FUEL TRIM X(PART LOAD)
These fuel trim values represent the long term correction to the fuel injection pulse width when the engine is under partial load. This value is learned by the ECU and is used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim is changed.

FUEL USAGE(CUMULATIVE)
Displays the calculated cumulative fuel usage.

FUEL_MON_RDY
Fuel System Monitor (FUEL SYS) is either ready or not. YES means the monitor is ready.

FUEL_TA
Displays the engine fuel temperature sensor voltage for fuel banks A.

FUEL_TB
Displays the engine fuel temperature sensor voltage for fuel banks B.

FUELFED HTR:COMM
CAN communication with control module STH.

FUELFED HTR:SWCAN
Control module STH is in the single-wire mode.

FUELPUMP DC (MODE)
Indicates whether the PCM has detected a fault in the fuel pump circuit. YES means a fault is present.

FULL LOAD
This parameter indicates if the ECU has detected (based upon throttle and or pedal position sensors) that the engine is running with a wide open throttle.

FULL LOAD DETECTION
Indicates whether the full load detection circuit is active or not active.

FULL LOAD ENRICHMENT
Indicates the Full Load Enrichment.

FULL LOAD SWITCH
This parameters indicates the position of the throttle switch at full load. CLOSED indicates that the throttle is held fully open. OPEN indicates that the throttle is either in the idle or partially open position.

FULL POS SW
This parameter indicates the position of the TPS, open or closed.

FULL THROTTLE RECOGNITION
Indicates if the full throttle recognition switch is closed or open. YES means that the throttle is wide open.

FUNCTION FAULT
Indicates if a functional problem exists with a specific component or system.

FUNCTION SOFTWARE DATE
Programming date of function software.

FUNCTION SW.STEER.WHL RV/LV
Indicates the status of the Steering Wheel Function Switch for the left and right valves.

3.2.8 G

GAIN EV-
No information available at this time.

GAIN EV+
No information available at this time.

GAS
This parameter indicates the gas pressure.

GAS CUTOFF
Indicates whether or not the Gas Cut-off is activated. The Gas Cut-off is activated when driving on petrol.

GAS PRESSURE
Indicates the pressure in the cylinder (bottle).

GAS RELAY
Indicates whether or not the Gas relay is activated. This relay is active when driving on Gas and supplies current to the Gas Injectors.

GEAR
This parameter shows the position of the shift lever of the transmission.

GEAR 1 ACTIVE
This parameter indicates that first gear is engaged, yes or no.

GEAR BRAKE BELT
No information available at this time.

GEAR DECREASE (-) REQUEST
Indicates whether or not the driver requested a lower gear.

GEAR I/O
Displays the commanded gear input/output on vehicles with electronic transmissions. It is derived from the state of the shift solenoids, not from gearshift lever position.

GEAR INCREASE (+) REQUEST
Indicates whether or not the driver requested a higher gear.

GEAR P/N
This parameter indicates if the transmission is in Park or Neutral.

GEAR POSITION
This parameter shows the position of the shift lever of the automatic transmission.

GEAR RATIO
Displays the commanded gear ratio on vehicles with electronic transmissions. It is derived from the state of the shift solenoids, not from gearshift lever position.

GEAR REDUCTION NOT PLAUSIBLE
This parameter indicates that the gear reduction is not plausible.

GEAR S X
This parameter indicates if this gear (1, 2, 3 or 4) is active or not.

GEAR SPEED X
Indicates the specified gear speed.

GEAR VALVE X
This parameter indicates if the gear valve (1 to 6) in the automatic transmission is open or closed.

GEAR X STOP
Indicates whether the specified gear has stopped or not.

GEARBOX INPUT
Indicates the rpm measured at the gearbox input.

GEARBOX OIL TEMPERATURE
Indicates the Gearbox Oil Temperature or the Gearbox Oil Temperature sensor voltage.

GEARBOX OUTPUT
Indicates the rpm measured at the gearbox output.

GENERATOR LOAD
This parameter indicates the current load on the generator (alternator) and is expressed as a percentage.

GEOMETRY AFTER FILTER
Indicates the vehicle geometry after filtering the road imperfections (displayed as % rad).

GEOMETRY PRIOR TO FILTER
Indicates the vehicle geometry prior to filtering the road imperfections (displayed as % rad).

GLOVE COMP.ILLIMINATION+SW
E13/2 (Glove compartment illumination with switch).

GLOW LAMP
This parameter indicates whether or not the ECU has commanded the Glow Light ON or OFF.

GLOW LIGHT
This parameter indicates whether or not the ECU has commanded the Glow Light ON or OFF.

GLOW PIN UNIT,FLAME MONITOR
A6r4 (Glow pin unit flame monitor).

GLOW PIN-A6r2
A6r2 (glow pin).

GLOW PLUG COIL DC
Indicates the Glow Plug Coil ON Time duty cycle, for diesel vehicles.

GLOW PLUG COIL DC(%)
Displays the duty cycle of the glow plug coil as a percentage.

GLOW PLUG COIL ON TIME
Displays the duty cycle of the Glow plug coil ON time as a percentage.

GLOW PLUG CURRENT LT BANK
Displays the actual current drawn by the left bank glow plugs for a diesel vehicle.

GLOW PLUG CURRENT RT BANK
Displays the actual current drawn by the right bank glow plugs for a diesel vehicle.

GLOW PLUG DIAGNOSE
Indicates the status of the Glow Plug Diagnostic system. When the ignition is switched on, the glow plug relay is energized and the glow plug diagnostics is activated.

GLOW PLUG LMP
Indicates the status of the Glow Plug Lamp (indicator lamp on the dashboard) control, for diesel vehicles.

GLOW PLUG LMP ON TIME
Displays the time that the Glow Plug Lamp (start system/glow system indicator lamp) is active for diesel vehicles, time in seconds.

GLOW PLUG OUT
Indicates the Glow Plug Lamp output, for diesel vehicles.

GLOW RELAY
This parameter indicates whether or not the ECU has commanded the Glow Relay ON or OFF.

GLOW RELAY FAULT
This parameter indicates whether or not the ECU has detected a fault in the Glow Relay.

GLOW SYSTEM
This parameter indicates whether or not the ECU has commanded the Glow system ON or OFF. On modern diesels the Glow system stays active for some time when the engine is running. The time the Glow system is active depends on the engine coolant temperature.

GLOW TIME
This parameter displays the time that the Glow plug start system is active.

GLOW TIME INDICATOR
Indicates the status of the Glow Time Indicator.

GLOW TIME RELAY
Indicates the status of the Glow Time Relay.

GLOWPLUG
Indicates the status of the Glow Plug, for diesel vehicles.

3.2.9 H

HALL REFERENCE SIGNAL
This parameter indicates the position of the reference signal (missing teeth) in the hall sensor window.

HALL-SENSOR
This parameter returns the position of the Hall Sensor offset against the zero adjustment in crank angle degrees.

HAND BRAKE
This parameter indicates if the handbrake is activated or not.

HANDBRAKE SWITCH
This parameter indicates whether the Handbrake Switch is ON or OFF.

HASH CALCULATION STATE
Hash Calculation State.

HASH-INDEX 4BYTES
HASH - Index 4 Bytes.

HAZARD SWITCH
Indicates the status of the hazard warning light(s) switch.

HAZARD WARN.LIGHT SYST.SW
S6/5s1 (Hazard warning light system switch).

HAZARD WARNING SYST.SWITCH
N72/1s5 (Hazard warning system switch).

HEAD LAMP DIMMER SW
Indicates the status of the Headlamp switches.

HEAD LAMP SW STATUS
Indicates the status of the Headlamp switches.

HEAD RESTRAINTS SW-N72/1s4
N72/1s4 (Rear head restraints switch).

HEADLAMP CLEANING SYS.PUMP
M5/2 (HCS pump).

HEADLAMP CLEANING SYSTEM SW
S1s1 (HCS [SRA] switch).

HEADLAMP FLASH/HIGH BEAM SW
S4s2 (Headlamp flasher and high beam switch).

HEADLAMP IN
Indicates whether the Headlamp(s) is on or off.

HEADLAMP INCL.BY ECU
Headlamp inclination angle to be set by control module Fault code %1% exists in %2% ?(mRad).

HEADLAMP RANGE ADJ.ECU-N71
Control unit N71 (Headlamp range adjustment control module).

HEAT EXCHANGER
This parameter indicates the status of the Heat Exchanger.

HEAT EXCHANGER LEFT
This parameter indicates the status of the Left Heat Exchanger.

HEAT EXCHANGER RIGHT
This parameter indicates the status of the Right Heat Exchanger.

HEAT EXCHANGER TEMPERATURE
This parameter indicates the Temperature of the Heat Exchanger.

HEAT.O2 SNS BEF.CAT,RESIST.
Indicates the resistance of the Heated O_2 Sensor before the Cat.

HEATED CATALYSATOR
Heating TWC.

HEATED CATALYST MON STATUS
Indicates the status of Heated Catalyst Monitor.

HEATED EXHAUST GAS O2 SNSR
The Heated Exhaust Gas Oxygen (HEGO) sensors or O_2 Sensors are the primary sensors that indicate whether the engine is running rich or lean. The O_2 Sensors must be hot and the PCM must be in closed loop before the PCM will respond to the sensor signal. EEC-IV V-type engines have separate O_2 Sensors for the left and right banks, while EEC-IV transverse mounted engines have separate sensors for front and rear.

HEATED SEAT SW,FL STAGE X
S51/1 (Left front HS [SIH] switch)-STAGE X, where x = 1 or 2.

HEATED SEAT SW,FR STAGE X
S51/2 (Right front HS [SIH] switch)-STAGE X, where x = 1 or 2.

HEATED STEER.WHEEL:COMM
CAN communication with control module Heated steering wheel.

HEATED STEER.WHEEL:SWCAN
Control module Heated steering wheel is in the single-wire mode.

HEATED WINDSCREEN
Indicates the status of the Heated Windscreen, on or off.

HEATER BOOSTER FUNCTION
Function 'Heater booster'.

HEATER BOOSTER PRECOND.OK
Heater booster preconditions met.

HEATER BOOSTER RELAY,STAGE X
K16/2 (Heater booster relay, stage X, where x = 1 or 2).

HEATER BOOSTER RELAY-K16/1
K16/1 (Heater booster relay).

HEATER CORE A OUT STATUS
Indicates the output status of the Heater Core A.

HEATER CORE B OUT STATUS
Indicates the output status of the Heater Core B.

HEATER FAN SWITCH
Indicates the status of the heater fan switch.

HEATER POWER
No information available at this time.

HEATING PERIOD
Heating period (min).

HEATING TWC
Heating TWC.

HEATING WATER CIRC.PUMP
M13 (Heating water circulation pump).

HEATING/VENTIL.SELECTOR SW
Status of 'heating or ventilation' selector switch.

HEIGHT ADJ.MOTOR,UP/DOWN
M20m2 (Height adjustment up/down motor).

HFM VOLTAGE
Indicates the voltage required to maintain a 160 °C temperature in the heated circuit of the mass air flow sensor. Normal ranges vary between systems.

HFM-SFI
Indicates whether the HFM-SFI system is installed or not.

HFM-SFI VOLTAGE
Indicates the HFM-SFI system voltage.

HI ENG TEMP
Indicates the High Engine Temperature.

HI FAN PRIM CKT MON
Shows the actual state of the commanded output to the fan.

HI SPD FAN OUT FAULT
Indicates if the PCM detects a fault with the high speed cooling fan circuit.

HI SPEED FAN CTRL
Displays the state of the high speed fan control on vehicles with multiple fan speed control.

HI SPEED FAN MON
Indicates whether the PCM has commanded the fan to run at high speed. When the system functions properly, ON means the fan is running at high speed.

HIGH BEAM SW
Indicates the status of the Headlamp switches.

HIGH BEAM SW STATUS
Indicates the status of the headlamp switches.

HIGH BEAM,RIGHT-E2e1
Component E2e1 (Right high beam) in module E2 (Right front headlamp unit).

HIGH FAN RELAY
Indicates whether or not the ECU has commanded the high speed cooling fan relay ON or OFF.

HIGH PRESS
Indicates the High Pressure.

HIGH PRESSURE PUMP CONTROL
Indicates the status of the High Pressure pump Control.

HIGHEST GEAR
Related to the automatic transmission and cruise control systems. Indicates whether or not the highest gear has been selected for the current driving conditions.

HO2S XX
Indicates the state of the heater for the bank 1 or bank 2 upstream or downstream O_2 Sensors. HO2Sxx(A) indicates the current in Amps being supplied to the heaters.

HO2S_MON_RDY
Oxygen Sensor Monitors (O2 SENSOR & O2 HEATER) are either ready or not. YES means the monitor is ready.

HOLD GEAR
Is a cruise control input that indicates if the ECU is maintaining a transmission range during hill climbing or other high-load condition. Display reads ON when a specific gear is being held in and OFF during normal driving conditions.

HOOD AJAR SW
Indicates the status of the Hood/Bonnet ajar switch.

HORN IN SW
Indicates the status of the Horn switch.

HOT FILM MASS AIR FLOW SENSOR
Indicates the voltage required to maintain a 160 °C temperature in the heated circuit of the mass air flow sensor. Normal ranges vary between systems.

HOT FILM VOLTAGE
Indicates the voltage required to maintain a 160 °C temperature in the heated circuit of the mass air flow sensor. Normal ranges vary between systems.

HOT START VALVE
This valve allows easier hot start conditions by increasing the fuel pressure on hot start only, this analogue parameter will only show “ON” if the engine temperature is above 100 to 105 °C.

HOT WIRE AIR MASS
Is an ECU calculation of the mass of the intake air charge in kilograms per hour (kg/h) based on the input of the hot film mass airflow sensor. Normal hot idle values vary depending on engine. In general, readings from 15 to 30 kg/h are normal for a hot engine running at idle with all accessories switched off.

HT O2 SNS AFTER CAT,RESIST.
Indicates the resistance of the Heated O_2 Sensor after the Cat.

HT WATER CIRC.PUMP:ACT.POWER
Current power of component M13. (Heating water circulation pump) (A).

HTR/HTR BOOSTER ECU:PWR REQ
Request on power on line to component A6n1. (Stationary heater and heater booster control module).

HYDRAULIC OIL TEMPERATURE
Indicates the Hydraulic Oil Temperature, used in automatic transmission systems.

HYDRAULIC PRESSURE
This parameter indicates the Hydraulic Pressure.

HYDRAULIC PUMP
This parameter indicates the status of the Hydraulic Pump.

HYDRAULIC PUMP MTR
Indicates whether the ABS Pump Monitor is on or off.

HYDRAULIC PUMP RELAY
Indicates the status of the hydraulic pump relay.

HYDRAULIC SW STATUS
Indicates the status of the hydraulic switch.

3.2.10 I

IAC
This parameter indicates the relative load from the idle air control routine. It does not always equal the actual Duty Cycle used by the ECU to command the idle air bypass valve.

IAC ADAPTATION
This parameter is displayed on some 1989 and later fuel-injected engines, it indicates the minimum idle air control (IAC) motor position that the ECU has learned. The IAC ADAPTATION count represents the minimum IAC position stored in ECU memory.

IAC ADAPTATION IN P-N POSITION
The Idle Air Control Adaptation value represents the long term correction to the opening of the IAC valve, which controls the engines idle speed. This value is learned by the ECU and sometimes there are different values for the gearbox in Neutral or Drive.

IAC ADAPTATION IN R-D POSITION
The Idle Air Control Adaptation value represents the long term correction to the opening of the IAC valve, which controls the engines idle speed. This value is learned by the ECU and sometimes there are different values for the gearbox in Neutral or Drive.

IAC ADAPTATION SLOPE
Indicates what the ECU wants the idle air control (IAC) motor position to be. The IAC INTEGRATOR or IDLE AIR CONTROL reading shows what the IAC motor position is. The IAC ADAPTATION SLOPE reading shows what it should be.

IAC ADAPTATION WITH AIRCO
The Idle Air Control Adaptation value represents the long term correction to the opening of the IAC valve, which controls the engines idle speed. This value is learned by the ECU and sometimes there are different values for the Air Conditioning system.

IAC ADAPTATION X
The Idle Air Control Adaptation value represents the long term correction to the opening of the IAC valve, which controls the engines idle speed. This value is learned by the ECU.

IAC INTEGRATOR
The Idle Air Control Integrator (IAC) parameters represent the correction to the opening of the IAC valve, which controls the engine idle speed.

IAC PWM
This parameter indicates the Duty cycle used by the ECU to control the idle air bypass valve, thereby controlling the idle speed of the engine.

IAC(step)
This parameter indicates the current position of the Idle Air Control stepper motor.

ICE BUTTON PRESSED
Indicates whether or not the ICE button is pressed.

ID TRANSPONDER KEY X
Transponder key X identified, where x = 1 to 8.

IDEL SPEED DETECTION
Idle speed detection.

IDLE ADAPTATION
This parameter represents the operation and short term correction to the fuel mixture when the engine is running at idle.

IDLE AIR
This parameter indicates the amount of air currently being drawn into the engine at idle.

IDLE AIR CONTROL
This parameter displays the idle air control system valve duty cycle.

IDLE AIR CONTROL ENABLE
Indicates the state of ECU control for the idle air control (IAC) motor coil. When IDLE AIR CONTROL ENABLE is YES the ECU is controlling IAC valve movement. When the reading is NO, the ECU is not controlling the IAC motor. The IDLE AIR CONTROL count reading will be the last position to which the ECU moved it.

IDLE AIR CONTROLLER
This parameter indicates the current position of the Idle Air Control stepper motor.

IDLE AIR CONTROLLER PWM
Indicates the Duty cycle used by the ECU to control the idle air bypass valve, thereby controlling the idle speed of the engine.

IDLE AIR CONTROLLER(step)
Indicates the current position of the Idle Air Control stepper motor.

IDLE AIR CTRL
Displays the idle air control system valve as a percentage.

IDLE AIR CTRL OUT FAULT
Indicates whether a fault exists in the idle air control system.

IDLE CO
This parameter indicates the voltage read by the ECU from Idle CO adjust potentiometer.

IDLE CO (SENSOR)
This parameter indicates the voltage read by the ECU from Idle CO adjust potentiometer.

IDLE CORRECTED
Indicates if the ECU has corrected the idle control system, for the given operating circumstances.

IDLE CTRL
This parameter indicates the current position of the throttle stop. The throttle stop is used to control the idle speed on many Mono-point injection engines.

IDLE FTRIM X
These fuel trim values represent the long term correction to the fuel injection pulse width when the engine is idling. This value is learned by the ECU and used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim (FTRIM) is changed.

IDLE FUEL QTY
This parameter indicates the amount of fuel injected when the engine is running idle.

IDLE FUEL TRIM ADAPT. LEFT
Fuel trim values represent the long term correction to the fuel injection pulse width (left bank) when the engine is idling. This value is learned by the ECU and used to correct small differences between engines and engine wear. When the short term correction is outside the window defined in the ECU's memory, the long term fuel trim is changed.

IDLE FUEL TRIM ADAPT. RIGHT
Fuel trim values represent the long term correction to the fuel injection pulse width (right bank) when the engine is idling. This value is learned by the ECU and used to correct small differences between engines and engine wear. When the short term correction is outside the window defined in the ECU's memory, the long term fuel trim is changed.

IDLE FUEL TRIM CYL. X
Fuel trim values represent the long term correction to the fuel injection pulse width for the specified cylinder when the engine is idling. This value is learned by the ECU and used to correct small differences between engines and engine wear. When the short term correction is outside the window defined in the ECU's memory, the long term fuel trim is changed.

IDLE INCREASE
This parameter indicates if the ECU has given a signal to increase the idle speed.

IDLE INJ QNT
This parameter displays the amount of fuel injected under idle engine speed conditions.

IDLE LOAD
This parameter indicates if the ECU has detected (based upon throttle and or pedal position sensors) that the engine is running idle.

IDLE LOAD DETECTED
Indicates if the ECU has detected (based upon throttle and or pedal position sensors) that the engine is running idle.

IDLE LOAD SWITCH
This parameter indicates the status of the Idle Load Switch.

IDLE SPEED
Indicates the output command to the idle air bypass solenoid. The Idle Speed solenoid is a current controlled device used to control the amount of air that bypasses the throttle at idle and thus the idle speed. A lower number indicates the valve is open for a shorter period, providing less idle air.

IDLE SPEED ADAPTATION
This parameter displays the Idle Speed Adaptation in rpm.

IDLE SPEED CONTROL
1) This parameter indicates the amount of air that bypasses the throttle at idle. The motor that drives the IAC valve returns a value of 0 to 255 to the ECU, the ECU then converts this value into an air flow value as a percentage of the total air flow.

2) This parameter indicates the current position of the throttle stop. The throttle stop is used to control the idle speed on many Monopoint injection engines.

IDLE SPEED CONTROL LOAD
This parameter indicates the actual load of the idle speed control.

IDLE SPEED CONTROL POSITION
This parameter returns the Idle Speed Control valve position.

IDLE SPEED CONTROL RANGE
This parameter indicates the range of the idle speed control.

IDLE SPEED CONTROL VALVE
Indicates the state of ECU control for the idle air control (IAC) motor. When ON, the ECU is controlling IAC valve movement. When the reading is OFF, the ECU is not controlling the IAC motor.

IDLE SPEED CORRECTION
Displays the correction rpm of the idle control system. It indicates the amount of idle correction the ECU is commanding.

IDLE SPEED CORRECTION(D)
Indicates if the ECU is correcting the Idle Control System, when the transmission is in Drive.

IDLE SPEED CORRECTION(P/N)
Indicates if the ECU is correcting the Idle Control System, when the transmission is in Park/Neutral.

IDLE SPEED DETECTION
Indicates whether the idle speed detection is on or off.

IDLE SPEED DEVIATION
When the ECU is applying the learned idle values this parameter displays the difference between this value and the actual idle value.

IDLE SPEED INCREASE
Indicates whether the idle speed has increased or not.

IDLE SPEED RECOGNITION
Indicates whether the idle speed recognition is on or off.

IDLE SPEED SWITCH
This parameter indicates if idle switch is closed or open. On older Motronics there is no throttle position sensor but only an idle and a wide open throttle switch. Idle speed control on these engines is not regulated by the ECU.

IDLE SPEED TORQUE CONTROL
This parameter indicates the idle speed torque control.

IDLE SPEED(ADJUSTED)
Indicates the Actual Idle Speed.

IDLE SPEED(DESIRED)
This Idle Speed measurement is the desired engine idle speed as opposed to the actual engine idle speed.

IDLE SPEED(DESIRED)(D)
Indicates the Desired Idle Speed when the transmission is in Drive.

IDLE SPEED(DESIRED)(P/N)
Indicates the Desired Idle Speed when the transmission is in Park/ Neutral.

IDLE SPEED(DIFFERENCE)
Indicates the Difference in the Idle Speed.

IDLE SPEED(OFFSET)
Indicates the Idle Speed Offset.

IDLE SPEED:STABLE
Idle speed stable.

IDLE SW
This parameter indicates if the idle switch is closed or open. On older Motronics there is no throttle position sensor but only an idle and a wide open throttle switch.

IDLE SWITCH
This parameter indicates if the idle switch is closed or open. On older Motronics there is no throttle position sensor but only an idle and a wide open throttle switch.

IDLE TRACKING SENS
Indicates the Idle Tracking Sensor is on or off, for diesel vehicles.

IDLE VALIDATION STATUS
Indicates the Idle Speed Validation status.

IGN ADJ SIGNAL
This parameter indicates if the ECU is adjusting the ignition or not. Indicates ACTIVE or NOT ACTIVE.

IGN ADV
This parameter displays the actual firing moment of the ignition. The reading indicates degrees of crank angle that can be + for BTDC or - for ATDC.

IGN CORR
This parameter displays the ignition correction which can be changed using the ignition correction function from the Functional Tests Menu. A positive reading indicates a retard ignition, a negative reading means more ignition advance.

IGN RETARD BY DIGITAL ISC
This parameter indicates the amount of ignition advance removed by the ECU when digital Idle Speed Control (ISC) commands it. Timing is retarded from the optimum advance for existing speed and load. It indicates the amount of advance that has been taken away.

IGN RETARD BY KNOCK CONTROL
This parameter indicates the amount of ignition advance removed by the ECU when the knock sensor senses knock. Timing is retarded from the optimum advance for existing speed and load. It indicates the amount of advance that has been taken away.

IGN RETARD BY KNOCK CONTROL X
Indicates the amount of correction per cylinder to avoid knock. The reading is in degrees of crank angle.

IGN RETARD BY KNOCK CTRL(CYL X)
This parameter indicates the amount of ignition advance removed by the ECU when the knock sensor senses knock. Timing is retarded from the optimum advance for existing speed and load. It indicates the amount of advance that has been taken away.

IGN RETARD BY KNOCK(ALL CYL)
This parameter indicates the amount of ignition advance removed by the ECU when the knock sensor senses knock. Timing is retarded from the optimum advance for existing speed and load. It indicates the amount of advance that has been taken away.

IGN RETARD BY TCS-ECU
This parameter indicates the amount of ignition advance to be removed by the ECU using the Traction Control System (only with engine cold conditions) restrictions. Timing is retarded from the optimum advance for existing speed and load. It indicates the amount of advance that has been taken away.

IGN RETARD W/O KNOCK & W/O ISC
This parameter indicates the amount of ignition advance commanded by the ECU, before any retardation by the knock sensor or Idle Speed Control has been removed.

IGN RETARD WITH KNOCK & ISC
This parameter indicates the amount of ignition advance actually applied to the engine after any retardation by the knock sensor or Idle Speed Control has been removed.

IGN TIME
IGN TIME(ms) is an output parameter from the ECU that indicates the total ignition time.

IGN.KEY POS: 'H0'(AUX)
Key in position 'H0' (auxiliary contact).

IGN.KEY POS: 'H0'(AUX) PROC.X
Key in position 'H0' (auxiliary contact). Processor x, where x = 1 or 2.

IGN.KEY POSITION:IGN.LOCK
Key in ignition lock.

IGN.SQUIB KNEEBAG,DRIVER:CKT
Ignition circuit with ignition squib R12/25 (Driver knee-bag ignition squib).

IGN.SQUIB PRET.,RL:IGN.CKT
Ignition circuit with ignition squib R12/6 (Left rear ETR ignition squib).

IGN.SQUIB PRET.,RR:IGN.CKT
Ignition circuit with ignition squib R12/7 (Right rear ETR ignition squib).

IGN.SQUIB PRETENSIONER,DRIVR
Ignition circuit with ignition squib R12/1 (Driver ETR ignition squib).

IGN.SQUIB PRETENSIONER,PASS
Ignition circuit with ignition squib R12/2 (Front passenger ETR ignition squib).

IGN.SQUIB SIDE AIRBAG,FL:CKT
Ignition circuit with ignition squib R12/20 (Left front side airbag ignition squib).

IGN.SQUIB SIDE AIRBAG,FR:CKT
Ignition circuit with ignition squib R12/21 (Right front side airbag ignition squib).

IGN.SQUIB SIDE AIRBAG,RL:CKT
Ignition circuit with ignition squib R12/11 (Left rear side airbag ignition squib).

IGN.SQUIB SIDE AIRBAG,RR:CKT
Ignition circuit with ignition squib R12/12 (Right rear side airbag ignition squib).

IGN.SQUIB WINDOW AIRBAG,RL
Ignition circuit with ignition squib R12/22 (Left rear window airbag ignition squib).

IGN.SQUIB WINDOW AIRBAG,RR
Ignition circuit with ignition squib R12/23 (Right rear window airbag ignition squib).

IGN.SQUIB X AIRBAG,DRV:CKT
Ignition circuit with ignition squib R12/13 (Driver airbag ignition squib X, where x = 1 or 2).

IGN.SQUIB X AIRBAG,PASS.:CKT
Ignition circuit with ignition squib R12/4 (Front passenger airbag ignition squib X, where x = 1 or 2).

IGNITION ADV REDUCTION
This parameter displays whether the ignition timing reduction system is active or not.

IGNITION ADV(CALCULATED)
This parameter indicates the amount of ignition advance before other factors are removed by the ECU.

IGNITION ADVANCE
This parameter displays the actual firing moment of the ignition. The reading indicates degrees of crank angle that can be + for BTDC or - for ATDC.

IGNITION ADVANCE OFF
This parameter indicates the amount of ignition advance actually applied to the engine after any retardation by the knock sensor or idle speed control has been removed.

IGNITION ADVANCE(DESIRED)
This parameter indicates the amount of ignition advance desired by the ECU.

IGNITION ANGLE
Ignition angle (°KW).

IGNITION ANGLE RETARDATION
Displays the ignition retardation angle.

IGNITION CYLINDER X
This parameter displays the Ignition Cylinder timing in degrees for the specified cylinder.

IGNITION DWELL TIME
Indicates the Ignition Dwell Time.

IGNITION FAULT COUNTER CYL. X
Displays the number of OBD ignition Misfire faults detected per cylinder.

IGNITION FEEDBACK
This parameter indicates whether the ECU has determined that a fault has occurred in the ignition feedback signal.

IGNITION KEY IN
Indicates that the ignition key is in the ignition switch (slot).

IGNITION ON
Indicates whether the Ignition is On.

IGNITION 'ON' COUNTER
This parameter indicates the number of times that the ignition has been switched on.

IGNITION POS SW
Indicates the current position of the ignition switch.

IGNITION PULSE
This parameter displays the Ignition Pulse time in milliseconds (ms).

IGNITION REQUEST
This parameter indicates that the ECU has requested an ignition pulse.

IGNITION RETARD
This parameter indicates how much the ignition is retarded in degrees.

IGNITION STATUS
Indicates whether the ECU is receiving ignition switch voltage. When the ignition is switched on and the engine off, YES (active) should be displayed.

IGNITION SW
Indicates the status of the ignition switch.

IGNITION SW ACC POS
Indicates the current position of the ignition switch. IGNITION SW ACC POS_ON means the switch is in the accessory position, first key position.

IGNITION SW OFF/LOCK POS
Indicates the current position of the ignition switch. OFF/LOCK_POS means the switch is in the off and lock position.

IGNITION SW RUN POS
Indicates the current position of the ignition switch. RUN_POS_ON means the switch is in the run position.

IGNITION SW RUN/START POS
Indicates the current position of the ignition switch.

IGNITION SW START POS
Indicates the current position of the ignition switch. START_POS_ON means the switch is in the cranking position.

IGNITION SW STATE
Indicates the status of the ignition switch.

IGNITION SWITCH
This parameter indicates whether the ignition switch is either ON or OFF.

IGNITION SWITCH ON
Indicates whether the Ignition Switch is On.

IGNITION VOLTAGE CYL. X
Displays the primary coil spark line, or burn time, voltage per cylinder. Normal range is 34 to 37 V on a hot engine running at idle.

IGNITION/INJECTION CUT-OFF
Indicates whether the ECU is restricting the ignition or the injection system. When the ignition is switched on and the engine off, NO (inactive) should be displayed. If the ECU is restricting the systems then YES is displayed.

IGNITION/INJECTION FAULT
Indicates whether the ECU has detected a fault in the Ignition or Injection System.

ILLUM ENTRY RLY CKT
Indicates the presence of a request to turn on the illuminated entry lamps. A request to light the entry lamps may come from any one of the door ajar switches and a special driver door handle switch whose contacts close when the handle is lifted.

IMMOBILISER
This parameter indicates that the Immobiliser device built into the ECU is active (ON) or inactive (OFF). When the immobiliser device is active the engine should not start.

IMMOBILISER ENABLE
This parameter indicates that the EWS Anti-theft System is enabled.

IMMOBILISER FUNCTION
Indicates the status of the on-board Immobiliser System. When the ignition is switched on and the engine off, YES should be displayed. If the immobiliser function is not programmed into the ECU, NO should be displayed.

IMMOBILISER OK
This parameter indicates that the EWS Anti-theft System is OK.

IMMOBILISER PRESENT
This parameter indicates that the EWS Anti-theft System is present.

IMMOBILISER SIGNAL
This parameter indicates whether the immobiliser circuit is ON or OFF.

IMMOBILISER STATUS
This parameter indicates the EWS Anti-theft System status.

IMMOBILISER, CODE CHANGING INIT.
This parameter indicates that the immobiliser device has started code changing. When the immobiliser device is active the engine should not start.

IMMOBILISER, COMMUNICATION ERROR
This parameter indicates that a communication error has occurred in the immobiliser system.

IMMOBILISER, COMMUNICATION FAILED
This parameter indicates that a communication failure has occurred in the immobiliser system.

IMPACT DETECTED
Indicates whether an Impact has been detected or not.

IMPACT SENSOR HW VERSION
Displays the Impact Sensor Hardware Version number.

IMPACT SENSOR SW VERSION
Displays the Impact Sensor Software Version number.

IN CAR TEMP
Displays the Internal Vehicle Temperature.

IN GEAR
Indication that the ECU has detected that the (automatic) transmission is in gear or in neutral/(park).

INCREASE IN ENGINE SPECIFIED TORQUE
Indicates whether or not there is an increase in the specified engine torque.

INCREASED IDLE
This parameter displays whether the ECU has detected the A/C or another system is active. If so, the ECU will increase the idle speed to compensate.

INCREASED IDLE SPEED
Indicates whether an Increase in Idle Speed has occurred.

INCREASED IDLE SPEED WITH A/C ON
This parameter displays if the ECU has detected that the A/C has been switched on. If so, the ECU will increase the idle speed to keep the engine idling normally.

INCREMENTAL SNS
Incremental sensor of component Is a %4% solenoid valve connected at %1% control unit %2% - %3%? (Half Steps).

INDICATED ENGINE TORQUE
Is an ECU calculated engine torque in Nm. Display varies according to engine load.

INERTIA FUEL SHUT-OFF
Indicates whether the inertia fuel shut-off is on or off, this is part of the immobiliser circuit.

INERTIA REELS/PRETENS.,REAR
Indicates the status of the Rear Inertia Reels and Pretensioner.

INFLAT.CUSHION:SHOULDER
Pressure in bottom inflatable cushion, in shoulder region (mbar).

INFO SW
Indicates the status of the information switch.

INJ ADJ
This parameter display the difference of fuel injected in milligrams per stroke between the mentioned cylinder and the average fuel injected.

INJ ADV
This parameter displays the duty cycle of the valve controlling the amount of fuel flowing from the lift pump to the injection timing piston, thus controlling the injection timing.

INJ BANK X
This parameter indicates the length of time (ms) the ECU commands the fuel injectors to turn on in milliseconds. A high pulse indicates more on-time and a richer mixture. A low pulse indicates less on-time and a leaner mixture. There are no definite specifications for injector pulse times, but the reading should change as engine speed and/or load changes.

INJ BEGIN
This parameter indicates the injection begin (advance) controlled by the ECU. The reading is in degrees of crank angle can + for BTDC or - for ATDC.

INJ CTRL PRES
Displays the Injector Control pressure.

INJ CTRL PRES ACTUAL
Indicates the Injection Control Pressure as a voltage.

INJ CTRL PRESS DC
Indicates the Injection Control Pressure duty cycle for diesel vehicles.

INJ CTRL PRESS DC (%)
Displays the duty cycle of Injector Control pressure as a percentage.

INJ DIFFERENCE CYL X TO Y
These parameters display the difference of fuel injected in milligrams per stroke between the mentioned cylinders.

INJ PULSE
This parameter indicates the length of time (ms) the ECU commands the fuel injectors to turn on in milliseconds. A high pulse indicates more on-time and a richer mixture. A low pulse indicates less on-time and a leaner mixture. There are no definite specifications for injector pulse times, but the reading should change as engine speed and/or load changes.

INJ PULSE WIDTH-BANK X
The injector pulse width is the length of time in milliseconds (ms) that the PCM commands the fuel injectors to turn on. These parameters are displayed for multi-port fuel injection systems. On Electronic Fuel Injection (EFI) systems, the PCM simultaneously pulses half of the fuel injectors at a time. INJ PW1(ms) refers to those injectors installed in bank 1 and INJ PW2(ms) refers to the injectors installed in bank 2. Depending on the engine, banks 1 and 2 may be staggered.

INJ PULSE WIDTH-SINGLE BK
Indicates the length of time that the PCM commands the fuel injectors to turn on in milliseconds (ms). A high pulse indicates more on-time and a richer mixture. A low pulse indicates less on-time and

a leaner mixture. There are no definite specifications for injector pulse, but the reading should change as engine speed and load change.

INJ PUMP (rpm)
Either the ECU or the Scanner calculates an Injection Pump rpm from the Injection Pump rpm sensor signal. This parameter is only found on diesel engines.

INJ PW
This parameter indicates the length of time (ms) that the ECU commands for the fuel injectors to turn on when full sequential injection is in operation. (Not in limp home mode). Only the injection pulse width for cylinder number 1 is shown.

INJ SHORT CKT
Indication that the ECU has detected that the injector is cut-short to ground.

INJ SMOKE
This parameter display the maximum quantity of fuel that can be injected under the present operating conditions with regards to the stated operating condition. Values are in milligrams per cylinder stroke.

INJ X OUT FAULT
Indicate whether the PCM has detected a fault, such as an open or short, in the injector circuit. YES means a fault is present.

INJ X+X
These parameters display the difference of fuel injected per stroke between the mentioned cylinders.

INJ.VALVE SHUTOFF,LEFT
Status of injection valve shut off: (Left).

INJ.VALVE SHUTOFF,RIGHT
Status of injection valve shut off: (Right).

INJECTION
This parameter indicates the amount of fuel injected into the engine by the fuel injection pump for each stroke.

INJECTION ADVANCE
1) This parameter displays the duty cycle of the valve controlling the amount of diesel flowing from the lift pump to the injection timing piston, thus controlling the injection timing.

2) This parameter indicates the output signal applied by the ECU to the injection begin advance valve.

INJECTION AMOUNT
This parameter indicates the amount of fuel currently injected.

INJECTION AMOUNT (IDLE)
This parameter indicates the amount of fuel currently injected at idle speed.

INJECTION AMOUNT (MAX)
This parameter indicates the maximum possible amount of fuel to be injected.

INJECTION AMOUNT(ACTUAL)
Indicates the Actual Injection Amount.

INJECTION AMOUNT(DESIRED)
This parameter indicates the desired amount of fuel which has to be injected.

INJECTION AMOUNT(DRIVER)
This parameter displays the maximum quantity of fuel that can be injected under the present operating conditions with regards to the stated operating condition. Values are in milligrams per cylinder stroke.

INJECTION AMOUNT(MSR)
This parameter displays the maximum quantity of fuel that can be injected under the present operating conditions with regards to the stated operating condition. Values are in milligrams per cylinder stroke.

INJECTION AMOUNT(SMOKE)
This parameter displays the maximum quantity of fuel that can be injected under the present operating conditions with regards to the stated operating condition. Values are in milligrams per cylinder stroke.

INJECTION AMOUNT(TCS)
This parameter displays the maximum quantity of fuel that can be injected under the present operating conditions with regards to the stated operating condition. Values are in milligrams per cylinder stroke.

INJECTION AMOUNT(TORQUE)
This parameter displays the maximum quantity of fuel that can be injected under the present operating conditions with regards to the stated operating condition. Values are in milligrams per cylinder stroke.

INJECTION BEGIN
This parameter indicates the actual injection begin (advance) controlled by the ECU. The figure in degrees of crank angle can + for BTDC or - for ATDC.

INJECTION CUT-OFF
Indicates the Injection Cut-off.

INJECTION DURATION CORRECTION
Is the additional time that the ECU is commanding the fuel injectors on to compensate for natural flow rate inconsistencies. As injectors open and close they induce pressure waves in the fuel lines that cause flow rate inconsistencies. An adaptation factor correlated to engine speed and injector duration is used to compensate. Under normal conditions the correction should be less than 25 %.

INJECTION DURATION LEFT
Displays the length of time in milliseconds (ms) that the ECU is commanding the indicated fuel injectors to turn on, or open. Display varies by engine, speed and load.

INJECTION DURATION RIGHT
Displays the length of time in milliseconds (ms) that the ECU is commanding the indicated fuel injectors to turn on, or open. Display varies by engine, speed and load.

INJECTION LONG-TERM ADAPTATION
Indicates the specified injection system status.

INJECTION PULSE
This parameter indicates the length of time (ms) the ECU commands the fuel injectors to turn on in milliseconds. A high pulse indicates more on-time and a richer mixture. A low pulse indicates less on-time and a leaner mixture. There are no definite specifications for injector pulse times, but the reading should change as engine speed and/or load changes.

INJECTION PUMP SPEED
This parameter displays the injection pump speed.

INJECTION SHORT-TERM ADAPTATION
Indicates the specified injection system status.

INJECTION SHUT-OFF CYLINDER X
Indicates whether the fuel injection has been shut-off or not to the specified cylinder.

INJECTION SYSTEM
Indicates the specified injection system status.

INJECTION TIME
This parameter indicates the length of time that the ECU commands the fuel injectors to turn on in milliseconds (ms). A high pulse indicates a richer mixture. A low pulse indicates a leaner mixture. There are no definite specifications for injector pulse, but the reading should change as engine speed and load change.

INJECTION TIME X
These parameters display the length of time in milliseconds (ms) that the ECU is commanding the indicated fuel injectors to turn on, or open. The readings will vary depending on the engine speed and engine load.

INJECTION TIME(AVERAGE)
This parameter indicates the average amount of fuel injected. A high pulse indicates a richer mixture. A low pulse indicates a leaner mixture. There are no definite specifications for injector pulse, but the reading should change as engine speed and load change.

INJECTION TIME, CYLINDER X
Displays the length of time in milliseconds (ms) that the ECU is commanding the indicated fuel injectors to turn on, or open. Display varies by engine, speed and load.

INJECTION TIME, LEFT
Injection time, left (ms).

INJECTION TIME, LEFT BANK
Displays the length of time in milliseconds (ms) that the ECU is commanding the indicated fuel injectors to turn on, or open for the left bank. Display varies by engine, speed and load.

INJECTION TIME, RIGHT
Injection time, right (ms).

INJECTION TIME, RIGHT BANK
Displays the length of time in milliseconds (ms) that the ECU is commanding the indicated fuel injectors to turn on, or open for the right bank. Display varies by engine, speed and load.

INJECTION TIMING
This parameter indicates the timing of the injection system.

INJECTION VALVE
Indicates the status of the injection valve.

INJECTION WARN.LIGHT(MAJOR)
Indicates the status of the Major Injection Warning Light.

INJECTION WARNING LIGHT
Indicates the status of the Injection Warning Light.

INJECTOR ACTIVATION
Indicates the specified injection system status.

INJECTOR REGULATION
Indicates that the ECU is allowing the injection pulse to be XX % of the maximum injection pulse available.

INJECTOR X
This parameter indicates the voltage being used to drive the injectors.

INLET ADAPTATION
This parameter indicates the Inlet Adaptation if the engine is adapting for specific conditions.

INLET CAMSHAFT
This parameter displays the actual position of the inlet camshaft in degrees.

INPUT PIN 56a MAIN BEAM
Input Terminal 56a- Main beam.

INPUT PIN 56b LOW BEAM
Input Terminal 56b- Low beam.

INPUT PIN 58:LIC.PLATE LIGHT
Input Terminal 58- License plate lights.

INS OFF-SWITCH-N72s21
N72s21 (INS OFF switch).

INSIDE TEMPERATURE
This parameter displays the temperature inside the vehicle.

INSTANT HEAT BUTTON:STATUS
S46 (STH switch) Operating status of instant heat pushbutton.

INSTR.PAN.+SERV.INT.:COMM
CAN communication with control module ICM.

INSTR.PAN.+SERV.INT.:SWCAN
Control module ICM is in the single-wire mode.

INSTRUMENT CLUSTER-A1:COMM
CAN communication with control module A1 (Instrument cluster).

INSTRUMENT CLUSTER-A1:HOURS
Time signalled by component A1 (Instrument cluster): hours (h).

INSTRUMENT CLUSTER-A1:MIN.
Time signalled by component A1 (Instrument cluster): minutes (min).

INTAKE AIR
Intake Air temperature is an analogue parameter supplied to the ECU by the Intake Air Temperature Sensor (IATS). The IATS is a thermistor installed in the intake manifold. At low temperatures the resistance is high and a high voltage signal is produced. As temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU.

INTAKE AIR PRESSURE
This parameter indicates the intake air pressure.

INTAKE AIR TEMP
INTAKE AIR temperature (IAT) is supplied to the PCM by the intake air temperature sensor. The IAT is a thermistor typically installed in the air cleaner. As temperature increases, sensor resistance decreases, providing the INTAKE AIR voltage signal to the PCM. The PCM converts IAT voltage signals to temperature readings.

INTAKE AIR TEMP. AT MANIFOLD
Indicates the intake Air Temperature at the Manifold.

INTAKE AIR TEMP. AT SENSOR
Indicates the intake Air Temperature at the Sensor.

INTAKE AIR TEMPERATURE
Intake Air Temperature is an analogue parameter supplied to the ECU by the Intake Air Temperature Sensor (IATS). The IATS is a thermistor installed in the intake manifold. At low temperatures the resistance is high and a high voltage signal is produced. As temperature increases, sensor resistance decreases, providing a decreasing coolant voltage signal to the ECU.

INTAKE AIR TEMPERATURE ADC
Displays the ADC intake air temperature.

INTAKE AIR TEMPERATURE SENSOR
Indicates the Intake Air Temperature Sensor voltage.

INTAKE AIR TEMPERATURE(ADC)
Intake air temperature (ADC) (V).

INTAKE AIR(DESIRED)
This parameter indicates the desired intake air pressure.

INTAKE CTRL VACUUM SWITCHING VALVE X
Indicates the status of the specified intake control vacuum switching valve.

INTAKE MANIF RUN CONT BK X
Indicates the status of the intake manifold runner control valve. ON means the valve is open. Normally this valve is closed when the engine speed is below 3000 rpm.

INTAKE MANIF RUN CONT FAULT
Indicates whether the is a fault with the Intake Manifold Run valve.

INTAKE MANIF RUNNER CMD OPEN
Indicates whether the Intake Manifold Run valve command is open or closed.

INTAKE MANIF TUNING VALV
Displays the duty cycle for the intake manifold communication control as a percentage.

INTAKE MANIFOLD ABS.PRESSURE
Displays a manifold absolute pressure reading in mbar, is used by the ECU for making camshaft timing adjustments and for detecting EGR flow (if equipped).

INTAKE MANIFOLD PRESS.(ADC)
Intake manifold pressure (ADC) (V).

INTAKE MANIFOLD PRESSURE
Intake manifold pressure (hPa).

INTAKE MANIFOLD PRESSURE
This parameter displays intake manifold vacuum as a percentage, so the ECU can use the figure in calculations to determine engine load.

INTAKE MANIFOLD SW.-OVER VALVE
Displays the state of the resonance flap of the air induction system. The display reads OFF, flap closed, with the engine running at low speeds and ON, flap open, with the engine running at high speeds.

INTAKE MANIFOLD VALVE
This parameter displays intake manifold vacuum, so that the ECU can use the value in calculations to determine engine load.

INTAKE PIPE
This parameter indicates the status of the Intake Pipe.

INTEGR.
The INTEGR. represents the short term correction to the fuel injection pulse width. It indicates whether the ECU is commanding a rich or lean mixture.

INTERFACE INJECTION->A/T
Indicates the status of the Interface Injection for an Automatic Transmission System.

INTERIOR ACTIVE TEMP 2
No information available at this time.

INTERIOR CENTR.LOCK SW,CLS
S6/5s3 (Interior CL close and ATA function display switch).

INTERIOR CENTR.LOCK SW,OPEN
S6/5s2 (Interior CL open switch).

INTERIOR CENTR.LOCK&ATA-SW
N72/1s6 (Interior central locking and ATA function display switch).

INTERIOR LIGHTING SWITCH
Pushbutton in component S139s1 (Interior lighting switch) for switching rear interior lights on and off.

INTERIOR MIRROR:HOR.POS.
Horizontal interior mirror position.

INTERIOR MIRROR:VERT.POS
Vertical interior mirror position.

INTERIOR MOTION/TOWING SNS
ATA interior motion / towing sensor.

INTERIOR PROT.&SOFT TOP OPEN
Interior protection when soft top open.

INTERIOR TEMP.SNS FAN MOTOR
N70m1 (In-car temperature sensor fan motor).

INTERIOR TEMPERATURE
Interior temperature (°C).

INTERIOR/TOWING SNS:PULSE
Pulse signal from interior motion / towing sensor.

INTERNAL ERRORS
Internal faults.

INTERVENTION ELECTR TRANSMISS
This parameter indicates the Electronic Transmission is active.

IONIC SIGN.SPARK PL.a CYL.X
Ionic current signal at spark plug a of cylinder X, where x = 1 to 12.

ISC
The Idle Speed Control Pulse (ISC) Width modulation value represents the amount of opening of the ISC valve, which controls the engine idle speed. When the engine is cold and running higher rpm's this value will be high. During warm-up the value should slowly decrease.

ISC ADAPT
The Idle Speed Control Adaptation value represents the long term correction to the opening of the ISC valve, which controls the engines idle speed. This value is learned by the ECU and sometimes there are different values when the gearbox is in Neutral or Drive.

ISOFIX FUNCTION
Indicates the status of the ISO fix Function.

3.2.11 K

KEY CMD:LAST FUNCTION CODE
Last analysed function code of key command.

KEY CMD:LAST SIGN.RECEIVED
Signal type of key command last received.

KEY DATA ARE BEING ENTERED
Key data are being entered.

KEY IN IGNITION
Indicates if the key is in the ignition switch.

KEY MONITORING
Key monitoring.

KEY MONITORING WAS ACTIVE.
Key monitoring was active.

KEY OR KEY TRACK:ACTUAL
Current key or key track.

KEY OR KEY TRACK:LAST USED
Key or key track last used.

KEY POS.:ENG.START(CKT 50)
Key in 'Engine start' position (circuit 50).

KEY POS:START(CKT 50) PROC.X
Key in 'Engine start' position (circuit 50), Processor X, where x = 1 or 2.

KEY PROGRAMMED
This parameter displays if a electronic key is programmed or not.

KEY RECEIVES START MESSAGE
Key receives start message.

KEY X,COMPARISON Y, PROC Z
Key track X, comparison row Y, processor Z, where x, y and z = 1, 2, 3 or 4.

KEY(X)
These parameters indicate the position of the cruise control switch. Positions can be (I), (O) or (R).

KEY/KEY TRACK:2ND LAST USED
Second last key or key track used.

KEY/KEYTRACK X
Key or key track X, where x = 1 to 8.

KEYLESS GO ECU-N69/5:COMM
CAN communication with control module N69/5 (Keyless Go control module).

KEYLESS GO:COMM
CAN communication with control module Keyless Go.

KEYLESS GO:SWCAN
Control module Keyless Go is in the single-wire mode.

KEYWORD X
Keyword X, where x = 1 or 2.

KICKDOWN
Indicates whether or not Kickdown function is active.

KICKDOWN RECOGNITION
Kickdown recognition.

KICKDOWN SWITCH
This parameter displays whether the accelerator pedal is fully pressed and that the automatic transmission has detected a kick-down request.

KICKDOWN SWITCH 1
This parameter displays whether the accelerator pedal is fully pressed and that the automatic transmission has detected a kick-down request.

KICKDOWN SWITCH 2
This kickdown switch backup signal indicates that the ECU has detected by a second switch that the accelerator pedal is fully pressed and that the automatic transmission has really detected a kick-down request.

KICKDOWN SWITCH OPERATED
Indicates whether the kickdown switch has been operated or not.

KICKDOWN SWITCH VOLTAGE
Indicates the kick-down switch voltage. Used on automatic transmission systems.

KM READING:EL.IGN.SW.ECU
Kilometer reading (EIS) (km).

KNOCK ADAPTATION
This parameter indicates the Knock Adaptation if the engine is adapting for specific conditions.

KNOCK ADJ
The KNOCK ADJUST will adjust the knock angle value usually when the engine is idling.

KNOCK CELL
Displays the request preset of the knock control, the knock control is designated a cell, usually approximately half way, (approx. cell 10). But if a different grade of fuel or incorrect heat range spark plugs are fitted and the engine knocks, the knock cell position (number) will alter to compensate for the change. On hard acceleration, the value should change between 0 and 16.

KNOCK CONTROL
KNOCK CONTROL will indicate YES if the knock module within the ECU is ready and active. It will indicate NO when the knock module is inactive, usually when the engine is idling.

KNOCK CONTROL ACTIVE
Indicates whether the knock control, ignition spark retard, system is active in preventing engine detonation. The reading is based on the ECU input signal from the knock sensor (KS). The display reads ON when the ECU is retarding spark to prevent detonation and reads OFF when no detonation is detected.

KNOCK CONTROL ADAPTATION
This parameter indicates the Knock Control Adaptation if the engine is adapting for specific conditions.

KNOCK CONTROL APPROVAL
Indicates whether the ECU is allowing knock control, ignition spark retard, to prevent engine detonation when all the predetermined conditions are met. The display reads YES when conditions are met and the ECU is allowing spark retard to prevent detonation and reads NO when conditions to enable knock control have not been met and the ECU is not adjusting spark timing to control detected detonation.

KNOCK CONTROL ENABLE
Indicates whether the knock control is enabled or not.

KNOCK CONTROL LEFT
Indicates whether the left knock control, ignition spark retard, system is active in preventing engine detonation. The reading is based on the ECU input signal from the knock sensor (KS). The display reads ON when the ECU is retarding spark to prevent detonation and reads OFF when no detonation is detected.

KNOCK CONTROL RIGHT
Indicates whether the right knock control, ignition spark retard, system is active in preventing engine detonation. The reading is based on the ECU input signal from the knock sensor (KS). The display reads ON when the ECU is retarding spark to prevent detonation and reads OFF when no detonation is detected.

KNOCK CYLINDER X
This parameter indicates the voltage read by the ECU when the knock sensor senses knock on the indicated cylinder.

KNOCK IGNITION ANGLE CYL. X
Indicates the amount of spark advance, in degrees, removed by the ECU when the knock sensor (KS) senses detonation. Timing is retarded from the optimal advance for existing speed and load.

Knock ignition angle does not indicate that timing is retarded after top dead centre. Rather, it indicates the number of degrees of advance subtracted per cylinder until detonation stops.

KNOCK IGNITION ANGLE,CYL.X
Knock ignition angle of cylinder X (°KW), where x = 1 to 12.

KNOCK PULSES
Indicates the amount of times the ECU has detected a voltage from the Knock Sensor. With the engine at idle and at normal working temperature this value should not change.

KNOCK RTD X
This parameter displays the amount of correction per cylinder to avoid knock. The reading is in degrees of crank angle.

KNOCK SENSOR
This parameter indicates the voltage read by the ECU when the knock sensor senses knock on the indicated cylinder.

KNOCK SENSOR CYLINDER X
This parameter indicates the voltage read by the ECU when the knock sensor senses knock on the indicated cylinder.

KNOCK SENSOR ENABL:L.BANK
Enabling of knock sensor system for left bank of cylinders.

KNOCK SENSOR ENABL:RI.BANK
Enabling of knock sensor system for right bank of cylinders.

KNOCK SENSOR SIGNAL BANK 1
Indicates the Knock Sensor Signal for Bank 1.

KNOCK SENSOR,FL-A29/1
A29/1 (Front knock sensor (left side of engine)) (V).

KNOCK SENSOR,FR-A30/1
A30/1 (Front knock sensor (right side of engine)) (V).

KNOCK SENSOR,REAR LEFT-A29/2
A29/2 (Rear knock sensor (left side of engine)) (V).

KNOCK SENSOR,RL-A29/2
A29/2 (Rear knock sensor (left side of engine)) (V).

KNOCK SENSOR,RR-A30/2
A30/2 (Rear knock sensor (right side of engine)) (V).

KNOCK SIGNAL
Indicates whether the ECU has received a signal from the Knock Control System.

KNOCK SNS SYST,L.BANK:ENABLE
Enabling of knock sensor system for left bank of cylinders.

KNOCK SNS,FRONT LEFT-A29/1
A29/1 (Front knock sensor (left side of engine)) (V).

KNOCK SNS,FRONT RIGHT-A30/1
A30/1 (Front knock sensor (right side of engine)) (V).

KNOCK SNS,REAR RIGHT-A30/2
A30/2 (Rear knock sensor (right side of engine)) (V).

KNOCK SYST,RIGHT BANK:ENABLE
Enabling of knock sensor system for right bank of cylinders.

KNOCK VALUE
This parameter indicates the status of the Knock Value.

KNOWLEDGE BASE DATE
Programming date of the knowledge base.

3.2.12 L

L.BUTTONS MULTIF.STEER WHEEL
S110 (left multi-function steering wheel pushbutton group).

LACK OF FUEL
This parameter indicates if there is a lack of fuel or not.

LAMBDA ADAPTATION FLAG BYTE
Indicates the status of the lambda adaptation flag byte.

LAMBDA CONTROL ACTIVE
Indicates that the lambda circuit is ready to measure the oxygen content in the exhaust.

LAMBDA CONTROL FLAG BYTE
Indicates the status of the lambda control flag byte.

LAMBDA CTRL,AFTER CAT,LEFT
Lambda control, after TWC left.

LAMBDA CTRL,AFTER CAT,RIGHT
Lambda control, after TWC right.

LAMBDA CTRL,BEFORE CAT,LEFT
Lambda control, before TWC left.

LAMBDA CTRL,BEFORE CAT,RIGHT
Lambda control, before TWC right.

LAMBDA VALUE BANK X
This parameter indicates the Lambda (O_2) valve for the specified cylinder bank.

LAMBDA, UPSTREAM CAT, CYL X
Indicates that the lambda circuit is ready to measure the oxygen content in the exhaust from the Upstream CAT for the specified cylinder.

LAMBDA, UPSTREAM CAT, LEFT
Indicates that the lambda circuit is ready to measure the oxygen content in the exhaust from the Upstream CAT for the left cylinder bank.

LAMBDA, UPSTREAM CAT, RIGHT
Indicates that the lambda circuit is ready to measure the oxygen content in the exhaust from the Upstream CAT for the right cylinder bank.

LAMP NEU TOW LAMP OUT STATUS
Indicates the GEM command status for the Neutral Tow Indicator Lamp. When the system functions properly, ON means the Lamp is lit.

LAMP OUTPUT
Lamp output (W).

LAST ALARM ACTIVATION:SOURCE
Alarm source of the last ATA activation.

LAST CALCULATION TIME
Last Calculation Time.

LATERAL ACCEL.SNS,DRIVER
Indicates the Driver Lateral Acceleration Signal.

LATERAL ACCEL.SNS,PASSENGER
Indicates the Passenger Lateral Acceleration Signal.

LATERAL ACCELERATION
Indicates the Lateral Acceleration to which the vehicle is subjected to, in m/sec^2.

LATERAL ACCELERATION ANGLE
Indicates the Lateral Acceleration Angle.

LATERAL ACCELERATION SENSOR
B24/12 (ABC lateral acceleration sensor) (V).

LE ACTUATOR ACT.VALUE POT.MTR R X
Indicates the signal provided to the ECU by the electronic actuator control potentiometer sensors (R1 and R2). This is a drive by wire system without mechanical throttle linkage. An electronic actuator controls the throttle valve under different operating conditions to regulate idle speed, cruise control operation, driving on the basis of accelerator position, traction control (Acceleration Slip Regulation), Electronic Stability Program (ESP) and emergency running. Accelerator pedal position is detected by two potentiometers that transmit input signals to the ECU. Based on these signals, the ECU controls the throttle actuator. One potentiometer is the pedal value sensor and the other is the electronic actuator. The throttle actuator supplies a reference value for a plausibility check. If one potentiometer fails, the system switches over to the other one. A quick check is to add both readings (R1 and R2) together at various throttle positions. They should add up the same value, between 4.5 to 4.9 V.

LEAK BACK ADAPTIVE VALUE
Indicates the status of the Leak Back Adaptive value.

LEAN/RICH RESPONSE TIME
Is the lean to rich response time, or rise time, of the oxygen sensor (O2S) in milliseconds. The display reflects quality of the O2S feedback signal to the ECU and how well the ECU is correcting for changes in the air/fuel mixture. In general, the lower the reading, the faster the ECU is responding.

LEAR THROTTLE VALVE ACT.
Self-adaptation:M16/6 (throttle valve actuator) (°DK)

LEARN DELAY TIME:LEFT BANK
Self adaptation of delay time, left bank of cylinders(s).

LEARN DELAY TIME:RIGHT BANK
Self adaptation of delay time, right bank of cylinders(s).

LEARN ENABLED
Self-adaptation enabled.

LEARN IDLE:LEFT BANK
Self adaptation in idle speed range, left bank of cylinders (ms).

LEARN IDLE:RIGHT BANK
Self adaptation in idle speed range, right bank of cylinders (ms).

LEARN LOWER PART.LOAD:L.BNK
Self-adaptation in lower partial-load range, left bank of cylinders.

LEARN LOWER PART.LOAD:RI.BNK
Self-adaptation in lower partial-load range, right bank of cylinders.

LEARN UPPER PART.LOAD:L.BANK
Self-adaptation in upper partial-load range, left bank of cylinders.

LEARN UPPER PART.LOAD:RI.BNK
Self-adaptation in upper partial-load range, right bank of cylinders.

LEARN VALUE AIR MASS IDLE
This parameter represents the learnt value correction of the mass air flow.

LEARN VALUE CANISTER PURGE SYSTEM
This parameter displays the learnt canister purge system value, this value is an internal calculating factor and can be ignored.

LEARN VALUE CANISTER PURGE VLV
This parameter displays the learnt canister purge valve value, this value is an internal calculating factor and can be ignored.

LEARN VALUE DUTY CYCLE ISC
This parameter is the learning value for the duty cycle of the idle speed control.

LEARN VALUE DUTY CYCLE ISC(MUL)
This parameter is the learning value for the duty cycle of the idle speed control. MUL means multiplying or taking the pre-programmed cell base value and multiplying that number by either a correction factor or percent.

LEARN VALUE IDLE AIR CONTROL
This parameter returns the current learnt idle air control value.

LEARN VALUE IDLE SPEED CONTROL
This parameter returns the current learnt idle speed control value.

LEARN VALUE KICKDOWN
This parameter is the learning value for the kick down of the automatic transmission.

LEARN VALUE MIXTURE
This parameter represents the operation and long term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture.

LEARN VALUE MIXTURE CORRECTION
This parameter represents the operation and short term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture.

LEARN VALUE MIXTURE(CANP ACT)
This parameter represents the operation and short term correction of the fuel delivery when the canister purge system is active.

LEARN VALUE O2 SENSOR X
This parameter is the learning value for the O_2 Sensor when the engine is idling.

LEARN VALUE O2 X
This parameter is the learning value for the O_2 Sensor when the engine is idling.

LEARN VALUE O2(WIDE OPEN THR)
This parameter is the learning value for the O_2 Sensor when the engine is operating at wide open throttle.

LEARN VALUE THROTTLE POS.SENSOR
This parameter is the learning value for the throttle position sensor.

LEARN VALUE THROTTLE VALVE STOP
Indicates the amount of ECU correction, or learned value, for throttle stop position as a percentage. Each time the throttle closes it must return to a set tolerance of the previous voltage. If it varies more than the tolerance, the ECU then learns a new closed throttle position. Typically, readings should be low. Higher readings indicate the ECU is actively making adjustments in order to maintain the correct idle speed.

LEARN, LEFT BANK
Self-adjustment, left cylinder bank.

LEARN, RIGHT BANK
Self-adjustment, right cylinder bank.

LEARNED:THROTTLE VLV STOP
Throttle valve stop learned.

LED L.SEAT HTR SW,STAGE X
LED in 'Left seat heater' switch, stage X, where x = 1 or 2.

LED RI.SEAT HTR SW,STAGE X
LED in 'Right seat heater' switch, stage X, where x = 1 or 2.

LED:REAR WIPE/WASH SW-S78
LED in switch S78 (Rear window wipe/wash switch).

LEFT FRONT ABS INLET/OUTLET VLV STATE
Indicates the state of the individual INPUT or OUTPUT ABS valves for the left front wheel. Valves should be OFF unless the ABS system is operating under extreme braking.

LEFT FRONT VSS
Indicates the input signal voltage provided to the ECU by the left front wheel speed sensor. Display should increase and decrease in proportion to the rotational speed of the wheel. LF SPEED is the actual speed.

LEFT FRONT WHEEL SPEED
Indicates the speed signals sent by the Left Front wheel sensor to the ECU.

LEFT REAR ABS INLET VLV STATE
Indicates the state of the individual INPUT or OUTPUT ABS valves for the left rear wheel. Valves should be OFF unless the ABS system is operating under extreme braking.

LEFT REAR DOOR AJAR
Indicates whether the Left Rear door switch contacts are open or closed. OFF means the door is shut and the contacts of the switch are closed.

LEFT REAR VSS
Indicates the input signal voltage provided to the ECU by the left rear wheel speed sensor. Display should increase and decrease in proportion to the rotational speed of the wheel. LR SPEED is the actual speed.

LEFT REAR WHEEL SPEED
Indicates the speed signals sent by the Left Rear wheel sensor to the ECU.

LEFT SIDE IMPACT SENSOR
Indicates that the ECU has detected whether or not a Left Side Impact Sensor is present.

LEFT T/A CTRL VALVE OUT STATUS
Indicates the status of the Left Traction Assist valve output.

LEFT TEMP.BUTTON `???`
Left temperature button '???'.

LEFT TURN SIGNAL SW
Indicates the status of the left turn indicator switch.

LEVEL CONTROL SWITCH-N72/1s2
N72/1s2 (Level control switch).

LEVEL SETTING SWITCH-N72s18
N72s18 (Level setting switch).

LEVEL SNS,FL
B22/8 (Left front level sensor) (V).

LEVEL SNS,FL:SIGN.X
Signal X of component B22/8 (Left front level sensor) (V), where x = 1 or 2.

LEVEL SNS,FL:SIGNAL
Signal from component B22/8 (Left front level sensor) (V).

LEVEL SNS,FL:STORED OFFSET
Stored offset of component B22/8 (Left front level sensor) (V).

LEVEL SNS,FR,B22/9
B22/9 (Right front level sensor) (V).

LEVEL SNS,FR,B22/9:SIGN.X
Signal X of component B22/9 (Right front level sensor) (V), where x = 1 or 2.

LEVEL SNS,R.AXLE:SIGN.X
Signal X of component B22/3 (Rear axle level sensor) (V), where x = 1 or 2.

LEVEL SNS,R.LEFT
B22/7 (Left rear level sensor) (V).

LEVEL SNS,R.LEFT:SIGNAL
Signal from component B22/7 (Left rear level sensor) (V).

LEVEL SNS,RL:STORED OFFSET
Stored offset of component B22/7 (Left rear level sensor) (V).

LEVEL SNS,RR,B22/10
B22/10 (Right rear level sensor) (V).

LEVER POSITION ACCELERATE
Indicates the status of the specified cruise control lever position.

LEVER POSITION DECELERATE
Indicates the status of the specified cruise control lever position.

LEVER POSITION OFF
Indicates the status of the specified cruise control lever position.

LF DOOR AJAR
Indicates whether the Left Front door switch contacts are open or closed. OFF means the door is shut and the contacts of the switch are closed.

LF WINDOW DN
Indicates the GEM command status for the left front window to roll down. If the system functions properly, YES means the window is rolling down.

LF_PWRWNDW
The left front window has the one-touch down feature. ENABLE means that this feature should be currently rolling the window down.

LFTRIM IDLE
These fuel trim values represent the long term correction to the fuel injection pulse width when the engine is at idle. This value is learned by the ECU and is used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim (LFTRIM) is changed.

LFTRIM P/T
These fuel trim values represent the long term correction to the fuel injection pulse width when the engine is under partial load. This value is learned by the ECU and is used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim (LFTRIM) is changed.

LH-SFI REF. RESISTOR
Indicates the SFI reference resistor installed. The resistor changes the fuel injection and ignition maps in the ECU. Up to 7 resistors with different calibrations may be activated by relocating plugs in a housing with an integral resistance matrix. This allows adapting ignition timing to compensate for different fuel types (RON 91 or 95).

LIGHT ON AT TIME OF IMPACT
Indicates whether the Light was On or Off at the time of Impact.

LIGHT SENSOR NIGHT(ON)/DAY(OFF)
Indicates the status of the Light Sensor, at Night it should be (ON) and during the Day it should be (OFF).

LIGHT SW-S4s3,POS.AUTOM.
Switch S4s3 (Light switch) in position 'Auto' (automatic).

LIGHT SW-S4s3:M.BEAM FLASHER
Switch S4s3 (Light switch) in position 'Headlight flasher'.

LIMIT INJ QNT
This parameter displays the maximum amount of fuel that can be injected under the present operating conditions.

LIMIT INJECTION AMOUNT
This parameter displays the maximum amount of fuel that can be injected under the present operating conditions.

LIMITED EGR CONTROL
No information available at this time.

LIMITED EGR SMOKE
No information available at this time.

LIMITED OPERATION
Limited Operation Strategy (LOS or limp home mode) can automatically supply substitute values when sensor failure occurs, so a sensor can fail and not necessarily affect driveability. Reading should normally read NO.

LIMITED OPERATION ADAPTATION
Limited Operation Strategy (LOS or limp home mode) can automatically supply substitute values when sensor failure occurs, so a sensor can fail and not necessarily affect driveability.

LIMP-HOME
Indicates whether the limp-home mode is on or off.

LO FAN PRIM CKT MON
Shows the actual state of the commanded output to the fan.

LOAD
Is an ECU calculated engine load displayed as a percentage. The ECU determines engine load based on RPM, number of cylinders, airflow and cylinder air charge. Input sensor readings are compared to a theoretical air charge that occurs at standard temperature and pressure (volumetric efficiency). The resulting ratio, or engine load, is expressed as a percentage. On an engine running at idle under a normal load, the reading should be between 20 to 40 %. Load should always be lower than 80 %.

LOAD CORRECTION FACTOR
Is an ECU calculated engine torque correction factor. Readings vary according to engine load

LOAD PARTICLE EMISS.FILTER
Indicates the status of the Load Particle Emission Filter.

LOAD SIGNAL
This parameter indicates the voltage from the Load Sensor.

LOAD X
Indication of engine load expressed in fuel injection time. The amount of injected fuel is an indication of engine load.

LOCK-UP SOLENOID
This parameter indicates whether or not the ECU has commanded the lock-up solenoid YES or NO.

LONG TERM FUEL TRIM-BANK X
The long-term fuel trim (LFTRIM) values represent the operation and long-term correction of the fuel-metering for a fuel-injected engine. The LFTRIM value indicates whether the PCM is commanding a rich or a lean mixture.

LONG TERM MIXTURE ADAPT(ADD)
This parameter represents the operation and long term correction to the fuel mixture. ADD means adding or subtracting equal amounts of fuel to every fuel block cell regardless of the pre-programmed base injection pulse value. It works very effectively for idle mixture related problems, but its effect is minimal at the higher engine speeds. For

example, vacuum leaks greatly affect fuel mixture at idle but become less severe at higher rpm. The important distinction here is that the amount of fuel correction is not dependent upon the original base in each fuel memory cell.

LONG TERM MIXTURE ADAPT(MUL)
This parameter represents the operation and long term correction to the fuel mixture. MUL means multiplying or taking the pre-programmed cell base value and multiplying that number by either a correction factor or percent. Here, the correction amount increased or decreased in each memory block cell is dependent on each cell's base injection pulse. This form of adaptation is required to compensate for fuel control type problems that get worse with increased engine speed.

LONGITUD.MOT,FORW/BACK
M20m1 (Longitudinal adjustment forward/back motor).

LONGITUDINAL ACCEL.SENSOR
B24/14 (ABC longitudinal acceleration sensor) (V).

LOOP DIFFERENCE RAIL PRESS.
Indicates the Loop Difference in the Common Rail Pressure.

LOOP STATUS
Indicates whether the engine is operating in open or closed loop.

LOOP X
Indicate whether the PCM is operating the engine in open or closed loop. During warm-up, the reading should be OPEN. When the engine reaches normal operating temperature and the PCM responds to O_2 Sensor voltage, the reading should be CLSD.

LOW BEAM
Low beam.

LOW BEAM SW
Indicates the status of the Headlamp switches.

LOW BEAM SW-ON+NORM.VOLTAGE
Switch low beam on with normally clocked voltage.

LOW BEAM SW-ON+REDU.V.(CND)
Switch low beam on with reduced clocked voltage. (Canada).

LOW BEAM,LEFT
Left low beam.

LOW BEAM,LEFT-E1e2
Component E1e2 (Left low beam) in module E1 (Left front headlamp unit).

LOW BEAM,RIGHT
Right low beam.

LOW ENGTEMP
Indicates whether the Engine Temperature is Low.

LOW FAN RELAY
Indicates whether or not the ECU has commanded the low speed cooling fan relay ON or OFF.

LOW PRESS
Indicates whether the Pressure is Low.

LOW SPD FAN OUT FAULT
Indicates if the PCM detects a fault with the low speed cooling fan circuit.

LOW SPD FUEL PUMP FAULT
Indicates whether the low speed fuel pump has a fault.

LOW SPEED FAN CTRL
Displays the state of the low-speed fan control on vehicles with multiple fan speed control.

LOW VOLTAGE
Indicates whether the battery voltage is low, causing the ECU to behave erratically.

LOWER CTRL PANEL:COMM
CAN communication with control module LCP.

LOWER CTRL PANEL:SWCAN
Control module LCP is in the single-wire mode.

LOWER P.LOAD F.TRIM CYL. X-X, LEFT
Represents the operation and short term correction of the fuel delivery for the specified cylinders and load range for the left cylinder bank. It indicates whether the ECU is commanding a rich or lean mixture.

LOWER P.LOAD F.TRIM CYL. X-X, RIGHT
Represents the operation and short term correction of the fuel delivery for the specified cylinders and load range for the right cylinder bank. It indicates whether the ECU is commanding a rich or lean mixture.

LOWER PART LOAD F.TRIM LEFT BANK
Represents the operation and short term correction of the fuel delivery and load range for the left cylinder bank. It indicates whether the ECU is commanding a rich or lean mixture.

LOWER PART LOAD F.TRIM RIGHT BANK
Represents the operation and short term correction of the fuel delivery and load range for the right cylinder bank. It indicates whether the ECU is commanding a rich or lean mixture.

LOWER/UPPER CTRL PANEL:COMM
CAN communication with control module UBF/OBF.

LOWER/UPPER CTRL PANEL:SWCAN
Control module UBF/OBF is in the single-wire mode.

LOWEST GEAR
Related to the automatic transmission and cruise control systems. Indicates whether or not the lowest gear has been selected for the current driving conditions.

LOWEST IDLE THROT POS
Indicates the most recent throttle position (TP) sensor voltage reading at closed throttle. This parameter is updated each time the throttle is fully closed.

LPG MODE -> PETROL MODE
Indicates whether LPG Mode is being changed to Petrol Mode or not.

LPG MODE REQUEST
Indicates whether an LPG Mode has been requested or not.

LPG MODE SWITCHING CONDITION
Indicates the status of the LPG Mode Switching Condition.

LPG READY
Indicates whether LPG is ready or not.

LPG TANK EMPTY
Indicates whether the LPG Tank is empty or not.

LR/REAR AXLE (RA) SPEED
Indicates the speed of the rear axle based on input signals to the ECU from the wheel speed sensors.

LRN STATUS
Indicates the Learn Status.

LUMBAR SUPP.ADJ.SW:DOWN
Switch S103s3 (Lumbar support adjustment switch) is pressed in 'Down' position.

LUMBAR SUPP.ADJ.SW:UP
Switch S103s3 (Lumbar support adjustment switch) is pressed in 'Up' position.

LUMBAR SUPP.SW:DEFLATE
Switch S103s3 (Lumbar support adjustment switch) is pressed in 'Deflate' position.

LUMBAR SUPP.SW:INFLATE
Switch S104s3 (Lumbar support adjustment switch) is pressed in 'Inflate' position.

LWS CHANGE OVER VALVE
This parameter indicates the status of the LWS Change Over Valve in the heat storage system, used to heat a cold engine.

LWS LOCK VALVE
This parameter indicates the status of the LWS Lock Valve in the heat storage system, used to heat a cold engine.

LWS TEMPERATURE
This parameter indicates the temperature of heat storage system, used to heat a cold engine.

3.2.13 M

MAF
Indicates the amount of air measured by the manifold airflow sensor in volts.

MAGN. CLUTCH ELEC. THROTTLE CTRL
Indicates the current used in Amps by the magnetic clutch of the electronic throttle control.

MAIN BRAKE PEDAL
Indicates the status of the Main Brake Pedal.

MAIN BRAKE SWITCH
Indicates the status of the Main Brake Switch.

MAIN FUEL AMOUNT
Indicates the fuel amount of the Main Injection per stroke.

MAIN INJ
This parameter indicates the length of time (ms) of the Main injection. Used on diesel engines that also have a Pilot injection.

MAIN INJECTION
Indicates the length of time (ms) of the Main injection. Used on diesel engines that also have a Pilot injection.

MAIN INJECTION AMOUNT
This parameter indicates the amount of fuel injected of the Main injection.

MAIN INJECTION BEGIN
Indicates the injection begin of the main injection controlled by the ECU. The reading is in degrees of crank angle can + for BTDC or - for ATDC.

MAIN INJECTION TIME
This parameter indicates the length of time (ms) of the Main injection. Used on diesel engines that also have a Pilot injection.

MAIN RELAY
Indicates whether or not the ECU has commanded the main power control relay ON or OFF.

MAIN RELAY CONTROL
Indicates the status of the Main Relay Control.

MAIN ROAD
Is used to calculate average km/litre (miles/gallon) for Main Road driving conditions.

MAIN START
This parameter indicates the injection begin of the main injection controlled by the ECU. The reading is in degrees of crank angle can + for BTDC or - for ATDC.

MAIN-INJECTION ADVANCE
Indicates the Main Injection Advance.

MAINTAINING GEAR
Related to the automatic transmission and cruise control systems. Indicates whether or not the system is maintaining correct gear for the current driving conditions.

MAJOR ERROR
Indicates whether a major error has occurred.

MALF INDICATE LMP OUT FAULT
Indicates whether there is a fault in MIL circuit, e.g. MIL bulb blown, etc.

MALFUNCTION INDICATOR LAMP
Indication of the Malfunction Indication Light (MIL) being switched ON or OFF by the ECU.

MALFUNCTION INDICATOR LIGHT
This parameter indicates if the Malfunction Indication Light (MIL) has been turned ON or OFF by the ECU. The ECU turns this light on when for some reason the quality of the exhaust gasses no longer can be guaranteed.

MANIFOLD
Indicates the length of the Inlet Manifold.

MANIFOLD ABSOLUTE PRESSURE
The manifold absolute pressure (MAP) sensor outputs a frequency signal relative to intake manifold vacuum. The MAP sensor frequency increases as vacuum decreases.

MANIFOLD AIR PRESSURE
The manifold absolute pressure (MAP) sensor provides an analogue voltage parameter that varies with manifold pressure. The voltage signal can range from 0 to 5.12 V. The voltage is low when the absolute pressure is low and is high when the absolute pressure is high. Either the ECU or the Scanner calculates a manifold absolute pressure reading from the MAP sensor voltage signal.

MANIFOLD AIR PRESSURE DIFF
Displays intake manifold air pressure difference and is used for adjusting camshaft timing and detecting EGR flow.

MANIFOLD GAUGE PRES
Displays the Manifold Gauge pressure.

MANIFOLD VALVE
Indicates whether or not the ECU has commanded the valve in the intake manifold ON or OFF. This manifold valve can change between short and long intake.

MANIFOLD VALVE X
These valves positions determine the length of the intake manifold, position is determined by the ECU and is dependent on throttle position and load conditions.

MANUAL POSITION SWITCH (MP X)
Indicates whether the manual position switch is On or Off.

MANUAL SWITCH
Indicates whether the manual switch is On or Off.

MAP X
This parameter indicates the absolute pressure inside the intake manifold as calculated by the ECU. With the engine off the MAP reading should be very near to barometric pressure. When the engine is running with the throttle closed it is a low reading. When the throttle is opened the reading should increase. On turbo-charged engines the reading can rise above the barometric pressure under load conditions. These parameters can also indicate the voltage read by the ECU from the MAP sensor(s).

MASS AIR FLOW
This parameter displays the amount of air flowing into the engine. Value is in milligrams per second.

MASS AIR FLOW ISC TRIM
This parameter indicates the amount of air that bypasses the throttle at idle. The motor that drives the IAC valve returns a value of 0 to 255 to the ECU, the ECU then converts this value into an air flow value as a percentage of the total air flow.

MASS AIR FLOW RATE
Displays the MAF sensor output in volts. On EEC-V cars, this parameter also displays a PCM-calculated value in grams per second, based on the MAF sensor output.

MASS AIR FLOW SENSOR
This parameter is the actual voltage being read by the Mass Air Flow (MAF) sensor. This voltage is used by the ECU to calculate the maximum amount of air being drawn into the engine.

MASS AIR FLOW TRIM
This parameter displays the amount of extra air mass required to keep the engine idle speed correct when a change in load occurs, e.g. When the air conditioning or other systems are switched on.

MASS AIR FLOW(DESIRED)
This parameter displays the maximum quantity of air that should be drawn into the engine, under the present operating conditions. Value is in grams per second.

MASS AIR FLOW(IDLE)
This parameter displays the maximum quantity of air that should be drawn into the engine at idle, under the present operating conditions. Value is in grams per second.

MASS AIR FLOW(REQUIRED)(IDLE)
Indicates the amount of idle air required by the ECU for the current engine idle conditions. This parameter applies to diesel engine vehicles only.

MASS FUEL DESIRED
Displays the Mass Fuel Desired, in milligrams per stroke.

MAX ACCEL.
Indicates the Maximum Acceleration.

MAX DOUBLE LOOP ADAPT.(LEAN)
Indicates the Lean Maximum Double Loop Adaptation.

MAX DOUBLE LOOP ADAPT.(RICH)
Indicates the Rich Maximum Double Loop Adaptation.

MAX FUEL QTY
This parameter indicates the maximum fuel quantity that can be injected every stroke. This maximum is used to prevent the engine from smoking.

MAX FUEL TIME
This parameter displays the maximum amount of fuel that can be injected under present operating conditions.

MAX PED POS
This parameter displays the maximum pedal position calculated by the ECU from the TPS.

MAX QUANT OFFSET
Displays the programmable offset maximum quantity of fuel that can be injected under the present operating conditions. Value is in percentage.

MAX THR ADJ OK
This signal is used by the ECU to determine the throttle valve adjuster maximum stop position and is used for start up and basic idle.

MAX THR OK
This signal is used by the ECU to determine the throttle valve adjuster maximum stop position and is used for start up and basic idle.

MAX THROT POS
Indicates the maximum Accelerator Pedal sensor position as a voltage.

MAX TPS OK
This signal is used by the ECU to determine the throttle valve adjuster maximum stop position and is used for start up and basic idle.

MAX. INDICATED ENGINE TORQUE
Displays the ECU calculated maximum engine torque in Nm.

MAX. RPM
This parameter displays the highest rpm reached when the engine is over revved.

MAX.ABSOLUTE TORQUE AT WHEELS
This parameter indicates the maximum absolute torque at the wheels.

MAXIMUM AMOUNT
This parameter indicates the maximum fuel quantity that can be injected every stroke. This maximum is used to prevent the engine from smoking.

MAXIMUM AVERAGE PERIOD
Indicates the Maximum Average Period.

MAXIMUM FUEL AMOUNT
This parameter indicates the maximum fuel quantity that can be injected every stroke. This maximum is used to prevent the engine from smoking.

MAXIMUM FUEL COMPENSATION
Displays the maximum permissible calculated fuel usage in percentage.

MAXIMUM PEDAL POSITION
This parameter indicates the maximum pedal position.

MAXIMUM RPM
Displays the highest rpm reached when the engine is over revved.

MAXIMUM TORQUE
This parameter indicates the maximum torque of the ATM calculated by the ECU.

MAXIMUM VALUE CLUTCH HOLDING
Indicates the maximum clutch holding value.

MB OBJECTNR OF FUNCTION S/W
MB object number of function software.

MB OBJECTNR,KNOWLEDGE BASE
MB object number of the knowledge base.

MEASURED START OF INJECTION
Displays the measured start of injection.

MEM SW
Indicates the status of the MEM switch.

METERING PUMP:PERIOD
Period of metering pump (ms).

MICROSWITCH S27/6
Indicates whether the micro-switch S27/6 is on or off.

MIL
This parameter indicates if the Malfunction Indication Light has been turned ON or OFF by the ECU. The ECU turns this light on when for some reason the quality of the exhaust gasses no longer can be guaranteed.

MILE/KM METER FAULT LED ON
Indicates whether the Miles/km Meter Fault LED is On or Off.

MIN THR ADJ OK
This signal is used by the ECU to determine the throttle valve adjuster minimum stop position and is used for start up and basic idle.

MIN THR OK
This signal is used by the ECU to determine the throttle valve adjuster minimum stop position and is used for start up and basic idle.

MIN TPS OK
This signal is used by the ECU to determine the throttle valve adjuster minimum stop position and is used for start up and basic idle.

MIN. INDICATED ENGINE TORQUE
Displays the ECU calculated minimum engine torque in Nm.

MINIMUM # OF KEYS STORED IN MODULE
Indicates the number of valid ignition keys programmed into the system.

MINIMUM ENGINE TORQUE
Displays the minimum engine torque.

MINIMUM VALUE CLUTCH HOLDING
Indicates the minimum clutch holding value.

MIRROR HEATER
Mirror heater.

MISF.RECOGN. SH-OFF THRESHLD
Is the specified threshold that a misfire must surpass before it is considered a misfire. Crankshaft acceleration is measured for each cylinder-firing event. If acceleration drops below a specified threshold, a misfire occurred.

MISFIRE COUNT CYLINDER X
This parameter is only active if a misfire occurs. The displayed value is the actual rpm drop for each individual cylinder, which must drop below the shut-off threshold before it registers.

MISFIRE CYLINDER X
This parameter is only active if a misfire occurs. The displayed value is the actual rpm drop for each individual cylinder, which must drop below the shut-off threshold before it registers.

MISFIRE DETECTION
This parameter indicates if is misfire is detected or not.

MISFIRE DIAGNOSE:IN PROGRESS
Indicates the status of the Misfire Diagnose is in progress.

MISFIRE DIAGNOSE:OBD
Indicates the status of the Misfire Diagnose is in OBD mode.

MISFIRE FAULT COUNTER CYLINDER X
Represents the number of times a particular cylinder has registered a misfire. To register a misfire, the rpm of the cylinder must fall below the shut-off threshold.

MISFIRE OBD LIGHT CONTROL
Indicates the status of the Misfire OBD Light Control.

MISFIRE_MON_RDY
Misfire Monitor (MISFIRE) is either ready or not. YES means the monitor is ready.

MISFIRES PER 200 REV'S(CYL X)
This parameter indicates the number of misfires detected for the stated cylinder per 200 crankshaft revolutions. (Vehicle must be driven).

MISFIRING
Indicates whether misfiring has been detected or not.

MIXTURE
This parameter indicates the general rich or lean condition of the exhaust gas as measured by the Lambda (O_2) Sensor. The O_2 Sensor must be hot and the ECU must be in closed loop control before this value is reliable.

MIXTURE ADAPTATION
This parameter represents the operation and short term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture.

MIXTURE CONTROL VALUE
This parameter indicates the status of the mixture control valve.

MIXTURE CORRECTION
This parameter represents the operation and short term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture.

MIXTURE REG.STATUS AFTER CAT
Indicates the mixture Regulation Status after the Cat.

MIXTURE REG.STATUS BEF.CAT
Indicates the Mixture Regulation Status before the Cat.

MODULAR MANIFOLD
Indicates whether or not the ECU has commanded the Modular Manifold Relay On or Off.

MODULE BOX BLOWER MOTOR M2/2
Indicates whether the module box blower motor is on or off.

MODULE BOX TEMPERATURE
Indicates the internal temperature of the module box.

MONITORING CIRC.50,2 INPUTS
Monitoring of circuit 50 over 2 inputs.

MOON ROOF AJAR
Indicates that the moon roof is ajar.

MOTOR ELECTR. START:ENABLED
ME motor electronics: Start enable.

MOTORISED THR.:CLOSED
Indicates whether the Motorised Throttle is closed or not.

MOTORISED THR.:DEFECT MODE
Indicates whether the Motorised Throttle is in Defect Mode or not.

MOTORISED THR.:DESIRED POS.
Indicates whether the Motorised Throttle is in the Desired Position.

MOTORISED THR.:DUTY CYCLE
Indicates the Motorised Throttle Duty Cycle.

MOTORISED THR.:LOWER LIMIT
Indicates the Motorised Throttle Lower Limit.

MOTORISED THR.:OPEN
Indicates whether the Motorised Throttle is Open or not.

MOTORISED THR.:UPPER LIMIT
Indicates the Motorised Throttle Upper Limit.

MOTORISED THROTTLE
Indicates the status of the Motorised Throttle.

MOTORISED THROTTLE ANGLE
Indicates the Motorised Throttle Angle.

MOTORWAY
Is used to calculate average km/litre (miles/gallon) for Motorway driving conditions.

MOUNTAIN
Is used to calculate average km/litre (miles/gallon) for Mountain driving conditions.

MSR INTERVENTION
This parameter indicates the ECU has commanded the Engine Drag Torque Control (MRS) to be activated.

MSR REQUEST ACKNOWLEDGE
This parameter indicates the ECU has commanded the Engine Drag Torque Control (MRS) request to be acknowledged.

MSR TORQUE INCREASE REQUEST
This parameter indicates the ECU has commanded the Engine Drag Torque Control (MRS) to increase the torque.

MULTICONTOUR BACK CU,FL:COMM
CAN communication with control module N32/15 (Left front multi contour back-rest control module).

MULTICONTOUR BACK CU,FR:COMM
CAN communication with control module N32/16 (Right front multi contour back-rest control module).

MULTICONTOUR BACK CU,R:COMM
CAN communication with control module N32/14 (Rear multi contour back-rests control module).

MULTIPLE COMBUST MISF. EMISS. LIM.
Indicates whether the specified misfire monitoring programmes are running or not.

MULTIPLE COMBUST MISF. I/M PROGR.
Indicates whether the specified misfire monitoring programmes are running or not.

MULTIPLE COMBUST MISF. TWC PROT.
Indicates whether the specified misfire monitoring programmes are running or not.

MULTIPLE IGN. MISF. TWC PROTECT.
Indicates whether the specified misfire monitoring programmes are running or not.

MULTIPLE IGN. MISFIRE EMISS. LIM.
Indicates whether the specified misfire monitoring programmes are running or not.

MULTIPLE IGN. MISFIRE I/M PROGR.
Indicates whether the specified misfire monitoring programmes are running or not.

MULTIPLE MAP ADJUSTMENT ACTIVE
Indicates whether multiple MAP adjustment system is active or not active.

3.2.14 N

N POSITION
Indicates whether the gear selector lever is in Neutral Position or not.

NATIONAL VERSION
National version.

NET ENG TORQUE
Displays the actual torque output after reductions (flywheel torque).

NEUT IN TOW FUNC
Indicates whether the transfer case has been placed into the Neutral Tow Mode by the GEM module. ENABLE means the Tow Mode is in effect. This Mode permits the vehicle to be towed without damaging the transfer case, transmission or driveline.

NEUT SAFETY SW IN
Displays the status of the neutral safety switch. ACTIVE means the switch contacts are closed.

NEUT/DRV SW
The Neutral/Drive switch is a discrete parameter that indicates whether an automatic transmission is in park or neutral or in one of the drive ranges. The display should read:

P-N— If the transmission is in either park or neutral.

-R-DL If the transmission is in any forward gear or reverse.

NEUTRAL ENGAGEMENT FAIL COUNT
Error counter on Selespeed gearboxes.

NEUTRAL POSITION STOP
Indicates the status of the neutral position stop switch.

NEUTRAL SELECTION FAIL COUNT
Error counter on Selespeed gearboxes.

NO DISENGAGEMENT COUNT
Error counter on Selespeed gearboxes.

No REMOTE CTRL,LAST RECEIVD
Number of remote control key last received.

NO SHIFT
Indicates the status of the “No Shift” position switch.

NO. OF COMPLETED OBDII TRIPS
Indicates how many trip cycles have occurred.

NO. OVERREVS
This parameter displays the number of times the engine has been over-revved.

NOMINAL AIR MASS
Most port fuel injection engines have an airflow sensor to measure the mass, or weight, of air entering the engine. The airflow sensor delivers a signal that indicates the mass airflow in grams per second at any given instant. The ECU uses the signal from the airflow sensor and other sensors to determine the air-fuel ratio needed by the engine and the amount of fuel to be injected.

NOMINAL ENGINE SPEED
Is the engine speed that the ECU is trying to maintain. If there is a large difference between actual speed and desired rpm readings, the ECU may have reached its control limit without being able to control the engine speed. This may be due to a basic mechanical or electrical problem with the engine.

NOMINAL FUEL RACK TRAVEL
Displays the measurement that the ECU is trying to maintain. If there is a large difference between actual measurements and desired readings, the ECU may have reached its control limit without being able to control the engine. This may be due to a basic mechanical or electrical problem with the engine.

NOMINAL INJ. TIM. ADV. TRAVEL
Displays the measurement that the ECU is trying to maintain. If there is a large difference between actual measurements and desired readings, the ECU may have reached its control limit without being able to control the engine. This may be due to a basic mechanical or electrical problem with the engine.

NOMINAL MANIFOLD ABSOL. PRESS.
Displays the nominal manifold absolute pressure that the ECU is trying to maintain.

NOMINAL PRESSURE DISTRIB. PIPE
Displays the measurement that the ECU is trying to maintain. If there is a large difference between actual measurements and desired readings, the ECU may have reached its control limit without being able to control the engine. This may be due to a basic mechanical or electrical problem with the engine.

NOMINAL SLIDE VALVE ACTUATOR
Displays the measurement that the ECU is trying to maintain. If there is a large difference between actual measurements and desired readings, the ECU may have reached its control limit without being able to control the engine. This may be due to a basic mechanical or electrical problem with the engine.

NOMINAL START OF INJECTION
Displays the measurement that the ECU is trying to maintain. If there is a large difference between actual measurements and desired readings, the ECU may have reached its control limit without being able to control the engine. This may be due to a basic mechanical or electrical problem with the engine.

NOMINAL VEHICLE SPEED
Displays the nominal vehicle speed.

NON ETC LIMP HOME MODE
Indicates the status of the Non Electronic Throttle Control in Limp Home Mode.

NORMAL ENGINE OPERATION
Indicates the status of the Normal Engine Operation Sensor.

NOZZLE LIFT
This parameter indicates the status of the Nozzle Lift Sensor which is fitted on one of the injectors to have an injection timing feedback signal.

NOZZLE LIFT SENSOR
This parameter indicates the voltage from the Nozzle Lift Sensor.

NR OF WARM-UPS SINCE DTCS CLEARED
Indicates the number of engine warm-ups since the diagnostic trouble codes have been cleared.

NUMBER ACTIVE THERMOPLUNGERS
Indicates the Number of Active Thermo plungers.

NUMBER OF ENGINE STARTS
Number of engine starts.

NUMBER OF STARTS WITH NON-LOCKED ECM
Is the number of engine starts since the ECU was installed. An ECU locks after a certain number of starts, which prevents it from being used on another vehicle.

NUMBER OVERREVS
Displays the number of times the engine has been over-revved.

3.2.15 O

O2 ACTIVE
This parameter indicates whether the lambda regulation part of the ECU is active or not (open/closed loop), this depends on the lambda sensor temperature and operating conditions of the engine. Under full load conditions the ECU goes into open loop.

O2 ADAPT
This parameter indicates the adaptation of the O_2 Sensors.

O2 ADAPTATION
The O_2 Adaptation is a learned value that represents the operation and long-term correction of the fuel metering on a fuel-injected engine. The learned value indicates whether the ECU is commanding a rich or a lean mixture under the present operating conditions.

O2 ADAPTATION & ACTUAL(BANK X)
This parameter indicates the adaptation of the O_2 Sensors and the actual cylinder bank.

O2 ADAPTATION CELL
For some vehicles, O_2 Adaptation is divided into 25 cells, numbered from 0 to 24. The cells are arranged in a theoretical grid, five high and five wide. Width represents engine speed from low to high. Any combination of engine load and speed will fit into one of the cells in the theoretical grid. The O2 ADAPTATION CELL parameter indicates which cell the engine is operating in at the moment.

O2 ADAPTATION CELL CONTINU
The O_2 Adaptation Cell Continue carries out the mixture correction at idle or partial load conditions, but only if the O_2 Integrator has deviated for an extended period of time from the ideal air/fuel ratio and the full load enrichment is ON.

O2 ADAPTATION ENABLE
Indicates whether the ECU is learning the long term memory for O_2 correction. If the reading is OFF, the ECU is not able to carry out changes in the long term memory correction, this reading is also temperature dependant and will read OFF until a normal operating temperature of approximately 80 °C has been reached. If the display continually reads OFF, a malfunction is present.

O2 ADAPTATION(CANP ACTIVATED)
This parameter indicates the adaptation of the O_2 Sensors with the canister purge system activated.

O2 ADAPTATION(IDLE LOAD) X
The O_2 Adaptation (Idle Load) is a learned value that represents the operation and long-term correction of the fuel metering on a fuel-injected engine at idle load. The learned value indicates whether the ECU is commanding a rich or a lean mixture under the present operating conditions.

O2 ADAPTATION(PART LOAD) X
The O_2 Adaptation (Partial Load) is a learned value that represents the operation and long-term correction of the fuel metering on a fuel-injected engine at partial load. The learned value indicates whether the ECU is commanding a rich or a lean mixture under the present operating conditions.

O2 BANK X
The O_2 Sensor is the primary sensor that indicates whether the engine is running rich or lean. O2 BANK1 and O2 BANK2 refer to cylinder bank 1 or cylinder bank 2 respectively.

O2 CNTRL INIT.ADAPT.LRND IDLE SPEED
Indicates whether or not the O_2 control is adapting the learned initial idle speed setting.

O2 CNTRL INIT.ADAPT.LRND LOW.P.LOAD
Indicates whether or not the O_2 control is adapting the learned initial lower partial load setting.

O2 CNTRL INIT.ADAPT.LRND UPP.P.LOAD
Indicates whether or not the O_2 control is adapting the learned initial upper partial load setting.

O2 CONTROL
This parameter indicates if the O_2 Sensor is controlled by the ECU or not, the parameter indicates ON when engine is running and OFF when the engine is off.

O2 CONTROL AFTER TWC
Displays the state of the oxygen sensor (O2S) control circuit after the TWC. ON indicates the circuit is energised and OFF indicates it is not energised.

O2 CONTROL BEFORE TWC
Displays the state of the oxygen sensor (O2S) control circuit before the TWC. ON indicates the circuit is energised and OFF indicates it is not energised.

O2 CONTROL DOWNSTREAM CAT, CYL X
Displays the state of the downstream oxygen sensor (O2S) circuits for each cylinder. ON indicates the circuit is energised and OFF indicates it is not energised.

O2 CONTROL READY
This parameter indicates that the lambda circuit is ready to reliably measure the O_2 content in the exhaust and is at operating temperature.

O2 CONTROL READY(BANK 1 AFTER CAT)
This parameter indicates the O_2 Sensor voltage for the first cylinder bank after the catalytic converter.

O2 CONTROL READY(BK 1 BEFORE CAT)
This parameter indicates the O_2 Sensor voltage for the first cylinder bank before the catalytic converter.

O2 CONTROL UPSTREAM CAT, CYL X
Displays the state of the upstream oxygen sensor (O2S) circuits for each cylinder. ON indicates the circuit is energised and OFF indicates it is not energised.

O2 CONTROL, DOWNSTREAM CAT, LEFT
Displays the state of the downstream oxygen sensor (O2S) circuits for the group of cylinders in the left bank. ON indicates the circuit it is energised and OFF indicates is not energised.

O2 CONTROL, DOWNSTREAM CAT, RIGHT
Displays the state of the downstream oxygen sensor (O2S) circuits for the group of cylinders in the right bank. ON indicates the circuit is energised and OFF indicates is not energised.

O2 CONTROL, UPSTREAM CAT, LEFT
Displays the state of the up oxygen sensor (O2S) circuits for the group of cylinders in the left bank. ON indicates the circuit is energised and OFF indicates it is not energised.

O2 CONTROL, UPSTREAM CAT, RIGHT
Displays the state of the upstream oxygen sensor (O2S) circuits for the group of cylinders in the right bank. ON indicates the circuit is energised and OFF indicates it is not energised.

O2 CONTROL:AFTER KAT,LEFT
Lambda control, after TWC left.

O2 CONTROL:AFTER KAT,RIGHT
Lambda control, after TWC right.

O2 CONTROL:BEFORE KAT,LEFT
Lambda control, before TWC left.

O2 CONTROL:BEFORE KAT,RIGHT
Lambda control, before TWC right.

O2 CROSSCOUNTS
When the engine is warmed up and running in closed loop, the O_2 Sensor voltage changes constantly. CROSSCOUNTS indicates the number of times that the O_2 Sensor voltage crossed from the lean region to the rich region. A counter in the ECU records the number of times the O_2 Sensor voltage crosses between rich and lean. The CROSSCOUNT reading is the number of voltage crossovers within the last second. The CROSSCOUNT reading indicates how well the O_2 Sensor is responding to changes in fuel metering and exhaust oxygen content. The reading does not indicate how good or bad the sensor is. It simply shows that the sensor can vary its voltage in response to exhaust oxygen content.

O2 FRONT READY
This parameter indicates if the ECU is in closed loop for the specified Sensor.

O2 FRONT X
These parameters indicate the actual voltage from the O_2 Sensor(s) before the Catalytic Converter.

O2 HEATER
This parameter indicates if the ECU has commanded the heater for the specified O_2 Sensor ON or OFF.

O2 HEATER FRONT
This parameter indicates if the ECU has commanded the heater for the specified O_2 Sensor ON or OFF.

O2 HEATER REAR
This parameter indicates if the ECU has commanded the heater for the specified O_2 Sensor.

O2 INTEGRATOR
This parameter represents the operation and short term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture.

O2 INTEGRATOR X
Indicates the operation of the short term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture. A negative value means the ECU has commanded a temporary lean mixture correction. A positive value means the ECU has commanded a temporary rich mixture correction.

O2 LOOP
This parameter indicates whether the lambda regulation part of the ECU is active or not (open/closed loop), this depends on the lambda sensor temperature and operating conditions of the engine.

O2 LOOP CLOSED
This parameter indicates if the O_2 Sensor is in closed loop or not.

O2 READY
This parameter indicates that the lambda circuit is ready to reliably measure the O_2 content in the exhaust.

O2 REAR
This parameter indicates the general rich or lean condition of the exhaust-gas measured by the O_2 Sensor after the catalytic converter.

O2 REAR PRESENT
Indicates if the specified O_2 Sensor is present.

O2 REAR READY
This parameter indicates if the ECU is in closed loop for the O_2 Sensor after the Catalytic Converter.

O2 REGULATION
This parameter indicates the percentage of the regulation of the O_2 Sensor.

O2 REGULATION ACTIVE
This parameter indicates if the regulation of the O_2 Sensor is active.

O2 S X MIXTURE
Indicates whether the mixture is RICH or LEAN for Cylinder Banks 1 and 2.

O2 SENS BANK X UPSTR/DWNSTR
The O_2 Sensors are the primary sensors that indicate whether the engine is running rich or lean. A high signal indicates a rich exhaust; a low signal indicates a lean exhaust. Some EEC-V equipped cars have additional O_2 Sensors mounted below each catalyst. Ford calls these downstream sensors catalyst monitor sensors (CMS). This means that EEC-V equipped vehicles can have four O_2 Sensors:

O2S11 — The upstream sensor for bank 1

O2S12 — The downstream sensor for bank 1

O2S21 — The upstream sensor for bank 2

O2S22 — The downstream sensor for bank 2.

O2 SENSOR
The exhaust gas Oxygen (O_2) Sensor is the primary sensor that indicates whether the engine is running lean or rich. The O_2 Sensor must be hot and the ECU must be in closed loop before it will respond to the sensor signal.

O2 SENSOR AFTER CAT
This parameter indicates the O_2 Sensor voltage after the catalytic converter.

O2 SENSOR AFTER CAT LEAN
This parameter indicates the O_2 Sensor voltage after the catalytic converter when the engine is running a lean mixture.

O2 SENSOR AFTER CAT RICH
This parameter indicates the O_2 Sensor voltage after the catalytic converter when the engine is running a rich mixture.

O2 SENSOR AFTER CAT X
The exhaust gas Oxygen (O_2) Sensor after the Catalyst is used to check the functioning of the Catalyst Converter. The O_2 Sensor must be hot and the ECU must be in closed loop before it will respond to the sensor signal.

O2 SENSOR AFTER CAT(RAW)
This parameter indicates the raw O_2 Sensor voltage after the catalytic converter.

O2 SENSOR AFTER CAT,STATUS
Indicates the status of the O_2 Sensor after the Cat.

O2 SENSOR AFTER CAT:ACTIVITY
Indicates the status of the O_2 Sensor Activity after the Cat.

O2 SENSOR BEFORE CAT
This parameter indicates the O_2 Sensor voltage before the catalytic converter.

O2 SENSOR BEFORE CAT LEAN
This parameter indicates the O_2 Sensor voltage before the catalytic converter when the engine is running a lean mixture.

O2 SENSOR BEFORE CAT RICH
This parameter indicates the O_2 Sensor voltage before the catalytic converter when the engine is running a rich mixture.

O2 SENSOR BEFORE CAT X
The exhaust gas Oxygen (O_2) Sensor is the primary sensor that indicates whether the engine is running lean or rich. A high signal usually indicates a rich mixture and a low signal usually indicates a lean mixture. The O_2 Sensor must be hot and the ECU must be in closed loop before it will respond to the sensor signal.

O2 SENSOR BEFORE CAT(RAW)
This parameter indicates the raw O_2 Sensor voltage before the catalytic converter.

O2 SENSOR DOWNSTREAM
This parameter indicates the actual voltage from the downstream O_2 Sensor.

O2 SENSOR FEEDBACK
This parameter indicates the O_2 Sensor feedback voltage.

O2 SENSOR FUEL TRIM BANK X SNS X
Indicates the percentage fuel trim for bank x oxygen sensor x.

O2 SENSOR HEATER
This parameter indicates if the ECU has commanded the heater for the specified O_2 Sensor ON or OFF.

O2 SENSOR HEATER AFTER CAT
This parameter indicates if the ECU has commanded the heater for the O_2 Sensor after the Catalytic Converter, ON or OFF.

O2 SENSOR HEATER BEFORE CAT
This parameter indicates if the ECU has commanded the heater for the O_2 Sensor before the Catalytic Converter, ON or OFF.

O2 SENSOR HEATER DOWNSTREAM TWC
Indicates the status of the O_2 Sensor downstream heater.

O2 SENSOR HEATER MON STATUS
OBD monitors information, O2 HEATER is either supported or not supported, or ready or not ready.

O2 SENSOR INTEGRATOR
This parameter represents the operation and short term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture.

O2 SENSOR LOOP
This parameter indicates whether the ECU is operating the engine in open or closed loop. During warm-up, the reading should be OPEN. When the engine reaches normal operating temperature and the ECU responds to O_2 Sensor voltage, the reading should be CLOSED. Some failure conditions (many associated with trouble codes) will cause the ECU to return to open-loop operation. Additionally, some vehicles may normally return to open-loop operation at idle. This is usually because the O_2 Sensor cools off at idle, and the ECU returns to open loop. The closed-loop operation can be restored by accelerating off idle to warm-up the sensor.

O2 SENSOR MON STATUS
OBD monitors information, O2 SENSOR is either supported or not supported, or ready or not ready.

O2 SENSOR READY
This parameter indicates if the ECU is in closed loop.

O2 SENSOR STATUS
This parameter indicates the status of the O_2 Sensor, it can be normal or degraded.

O2 SENSOR VOLTAGE AFTER TWC
Displays the O_2 Sensor voltage from the specified sensor.

O2 SENSOR X
This parameter indicates the voltage of the O_2 Sensor.

O2 SENSOR X IDLE
This parameter indicates the specified O_2 Sensor voltage at idle.

O2 SENSOR X PART LOAD
This parameter indicates the specified O_2 Sensor voltage partial load.

O2 SENSOR X UPSTREAM
This parameter indicates the actual voltage from the specified upstream O_2 Sensor.

O2 SENSOR, DOWNSTREAM CAT, CYL X
Displays the O_2 Sensor voltage from the specified sensor.

O2 SENSOR, DOWNSTREAM CAT, LEFT
Displays the O_2 Sensor voltage from the specified sensor.

O2 SENSOR, DOWNSTREAM CAT, RIGHT
Displays the O_2 Sensor voltage from the specified sensor.

O2 SENSOR, UPSTREAM CAT, CYL X
Displays the O_2 Sensor voltage from the specified sensor.

O2 SENSOR, UPSTREAM CAT, LEFT
Displays the O_2 Sensor voltage from the specified sensor.

O2 SENSOR, UPSTREAM CAT, RIGHT
Displays the O_2 Sensor voltage from the specified sensor.

O2 SNS AFTER CAT,RAPID CORR.
Indicates the status of the O_2 Sensor after the Cat during a Rapid Correction.

O2 SNS BEF.CAT DIAGN:DONE
Indicates the status of the O_2 Sensor before the Cat when Diagnose is done.

O2 SNS BEF.CAT DIAGN:IN PROG
Indicates the status of the O_2 Sensor before the Cat when Diagnose is in progress.

O2 SNS BEF.CAT DIAGN:REQUEST
Indicates the status of the O_2 Sensor before the Cat when Diagnose is Requested.

O2 STATUS
This parameter indicates the general rich or lean condition of the exhaust gas as measured by the Lambda (O_2) Sensor.

O2 X
The exhaust gas Oxygen (O_2) Sensor is the primary sensor that indicates whether the engine is running lean or rich. A high signal usually indicates a rich mixture and a low signal usually indicates a lean mixture. The O_2 Sensor must be hot and the ECU must be in closed loop before it will respond to the sensor signal.

O2 X INTEGR
This parameters indicates the operation of the short term correction of the fuel delivery. It indicates whether the ECU is commanding a rich or lean mixture. A negative value means the ECU has commanded a temporary lean mixture correction. A positive value means the ECU has commanded a temporary rich mixture correction.

O2 X PRESENT
This parameters indicate if the specified O_2 Sensors are present.

O2 X READY
This parameter indicates if the ECU is in closed loop for the specified sensor.

O2 X REAR
This parameter indicates the actual voltage from the O_2 Sensor(s) after the Catalytic Converter.

O2LOOP STATUS
Indicates whether the vehicle is operating in open or closed loop. It is similar to the OPEN/CLSD LOOP but provides more information about the cause of the open- or closed-loop condition. The readings are as follows:

CL— Normal closed loop

CL FLT — One O2S is not switching and the PCM is using the other one for feedback

OL — Normal open loop

OL DRV — Open loop because of driver action or other special circumstances

OL FLT — Open loop with O2S problem or primary side coil failure.

O2LOOP X
Indicate whether the PCM is operating the engine in open or closed loop. During warm-up, the reading should be OPEN. When the engine reaches normal operating temperature and the PCM responds to O_2 Sensor voltage, the reading should be CLSD.

O2S (LAMBDA) CONTROL
Is the short-term fuel metering correction based on O2S input. Lambda control determines the injection time in order to maintain a Stoichiometric (14.7:1), or 1.0 Lambda, air-fuel ratio. Zero is the base setting, no correction. Positive readings indicate increased injector duration to correct a lean condition and negative readings indicate reduced on time to correct a rich condition.

O2S (LAMBDA) CONTROL APPROVED
Shows if the system is in closed loop and the ECU is responding to oxygen sensor (O2S) feedback signals. The display reads YES in closed loop and NO in open loop.

O2S (LAMBDA) CONTROL BEFORE TWC
Represents the specified short-term fuel metering correction required to maintain a Stoichiometric (14.7:1), or 1.0 Lambda, air-fuel ratio.

O2S (LAMBDA) CTRL BEF. TWC RIGHT
Represents the specified short-term fuel metering correction required to maintain a Stoichiometric (14.7:1), or 1.0 Lambda, air-fuel ratio.

O2S (LAMBDA) CTRL BEFORE TWC LEFT
Represents the specified short-term fuel metering correction required to maintain a Stoichiometric (14.7:1), or 1.0 Lambda, air-fuel ratio.

O2S (LAMBDA) CTRL CTP (IDLE) MEAN
This is the average short-term fuel metering correction required at idle to maintain a Stoichiometric (14.7:1), or 1.0 Lambda, air-fuel ratio. The display shows the correction factor as a percentage of total injector on time.

O2S (LAMBDA) CTRL PART. LOAD MEAN
Represents the average Lambda short-term fuel correction required at partial load to maintain a Stoichiometric (14.7:1), or 1.0 Lambda, air-fuel ratio. The display shows the correction factor as a percentage of total injector on time.

O2S CONT.SHIFT MILEAGE COUNTER
This is a count of the mileage driven since the oxygen sensor was replaced. When the elapsed mileage reaches the O2S replacement interval, the ECU turns on a warning lamp on the dash. The counter must be reset when the O2S is replaced.

O2S DOWNSTRHEATER CTRL
Indicates the status of the O_2 Downstream Heater Control.

O2S HTR BK 1 UPSTR/DWNSTR FAULT
Indicates whether the PCM detects a fault in the O2S heater circuit. YES means a fault is present. The two-digit numbers following HTR XX in the parameter name refer to the following heater positions:

11 Bank 1 Upstream O2S

12 Bank 1 Downstream O2S

21 Bank 2 Upstream O2S

22 Bank 2 Downstream O2S

O2S HTR BK X UPSTR/DWNSTR CKT MON
Indicates the state of the heater for the bank 1 or bank 2 upstream or downstream O_2 Sensors. ON means the PCM is commanding the heater ON.

O2S UPSTRHEATER CTRL
Indicates the status of the O_2 Upstream Heater Control.

O2S_MON_RDY
Oxygen Sensor Monitors (O2 SENSOR & O2 HEATER) are either ready or not. YES means the monitor is ready.

O2-SNS,LEFT,AFTER CAT-G3/5
Component G3/5 (Left O_2 sensor, after TWC [KAT]) is operational.

O2-SNS,LEFT,BEFORE CAT-G3/3
G3/3 (Left O_2 sensor, before TWC [KAT]), Signal (V).

O2-SNS,RIGHT,AFTER CAT-G3/6
Component G3/6 (Right O_2 sensor, after TWC [KAT]) is operational.

O2-SNS1,LEFT-G3/3:SIGNAL
G3/3 (Left O_2 sensor, before TWC [KAT]),Signal (V).

O2-SNS1,RIGHT-G3/4:SIGNAL
G3/4 (Right O_2 sensor, before TWC [KAT]),Signal (V).

O2-SNS2,L-G3/5 OPERATIONAL
Component G3/5 (Left O_2 sensor, after TWC [KAT]) is operational.

O2-SNS2,L-G3/5:SIGNAL
G3/5 (Left O_2 sensor, after TWC [KAT]),Signal (V).

O2-SNS2,R-G3/6:OPERATIONAL
Component G3/6 (Right O_2 sensor, after TWC [KAT]) is operational.

O2-SNS2,RIGHT-G3/6:SIGNAL
G3/6 (Right O_2 sensor, after TWC [KAT]),Signal (V).

O2-SNS-RIGHT,BEFORE CAT-G3/4
G3/4 (Right O_2 sensor, before TWC [KAT]),Signal (V).

OBD CONTINUOUS DTC COUNTER
Displays the number of OBD related KAM or “soft” codes that have set. The number changes each time a new code is set.

OBD DATA
Indicates whether OBD data is present or not.

OBD LIGHT REQUEST(A/T)
Indicates the status of the OBD light requested by the Automatic Transmission system.

OBD LOAD
Is calculated by the PCM based on engine speed (rpm), number of cylinders, airflow and cylinder air charge compared to the theoretical air charge that occurs at standard PCM temperature and pressure (volumetric efficiency). The resulting ratio — called engine load — is expressed as a percentage. A normal load at idle is between 20 and 40 %. During normal driving, load will be less than 80 %. On supercharged vehicles, or under hard acceleration in cold temperatures or high barometric pressure, load can exceed 100 %. OBD LOAD is the calculated load value from the ECU.

OBD MON
Indicates the status of the OBD Monitor.

OBD WARNING LIGHT CONTROL
Indicates the status of the OBD Warning Light Control.

OCS MODULE ERROR,FRONT PASS.
Indicates the status of the Generic Occupant Classification Sensor (OCS) Module Fault for the Front Passenger side.

OCS SENSOR ERROR,FRONT PASS.
Indicates the status of the Occupant Classification Sensor (OCS) Sensing Element Fault for the Front Passenger Side.

OCS SNS MOUNTING ERROR,PASS.
Indicates the Occupant Classification Sensor Mounting Fault for the Front Passenger side status.

OCS SYSTEM,CONTINUOUS ERROR
Indicates the Continuous Occupant Classification System Fault status.

OCS SYSTEM,FRONT PASSENGER
Indicates the status of the Front Passenger Occupant Classification System.

OCTANE ADJ CTRL
The octane adjust shorting bar is used to retard spark. This parameter should read ON when the shorting bar is removed and OFF at all other times. Removing the shorting bar from the octane adjust connector will retard spark approx. 3 °.

OCTANE NUMBER
Displays the Octane Number of the fuel. Used on older vehicles.

ODO. PROGRAMMED
Indicates whether the Odometer has been programmed or not.

ODOMETER
Indicates the status of the Odometer.

ODOMETER FULL
Indicates the status of the Odometer.

OFF-S40s4
S40s4 (Off).

OFF-S40s4 OFF-S40/4s4
S40s4 (Off)/ S40/4s4 (Off).

OIL CHANGE WARNING
Indicates whether the Oil Change Warning Light is On or Off.

OIL LEVEL
Displays the current oil level.

OIL LEVEL (IDLE)
Oil level (Engine at idle speed) (mm).

OIL LEVEL SWITCH
Indicates the status of the oil level switch.

OIL LIFE(REMAINING)
Indicates the Remaining Oil Life before an oil change is required.

OIL PRES LIGHT
This parameter displays whether the oil pressure warning light on the instrument panel is either ON or OFF.

OIL PRESSURE
This parameter indicates whether or not the Engine Oil Pressure is OK.

OIL PRESSURE LIGHT
This parameter displays whether the oil pressure warning light on the instrument panel is either ON or OFF.

OIL PRESSURE SWITCH
Indicates the status of the Oil Pressure Switch.

OIL QUALITY
Oil quality.

OIL TEMPERATURE
This parameter indicates the actual engine oil temperature.

ON/OFF SW.
Indicates the status of the On/Off switch.

ON-BOARD DIAGNOSTICS
Indicates the status of the On-Board Diagnostic system.

OPEN/CLOSED O2 SENSOR LOOP
Indicates whether the ECU is operating the engine in open or closed loop. During warm-up, the reading should be OPEN. When the engine reaches normal operating temperature and the ECU responds to O_2 Sensor voltage, the reading should be CLSD.

OPEN/CLSD LOOP
Indicates whether the PCM is operating the engine in open or closed loop. During warm-up, the reading should be OPEN. When the engine reaches normal operating temperature and the PCM responds to O_2 Sensor voltage, the reading should be CLSD.

OPER.TIME INJECTION VALVE
This parameter indicates the operation time (ms) of the injection valve.

OPERATING ACTUAL RPM
Displays the actual RPM that the ECU is trying to maintain.

OPERATING IN LPG MODE
Indicates whether the engine is Operating in LPG Mode.

OPERATING IN PETROL MODE
Indicates whether the engine is Operating in Petrol Mode.

OPERATING MODE ENGINE
This parameter returns the current operating mode of the engine system.

OPERATING NOMINAL RPM
Displays the nominal RPM that the ECU is trying to maintain.

OPERATING STRATEGY
No information available at this time.

OPERATING VOLTAGE BULB
Bulb operating voltage (V).

ORTHOP.SEAT BACK,FL:COMM
CAN communication with control module OSB-FL.

ORTHOP.SEAT BACK,FL:SWCAN
Control module OSB-FL is in the single-wire mode.

ORTHOP.SEAT BACK,FR:COMM
CAN communication with control module OSB-FR.

ORTHOP.SEAT BACK,FR:SWCAN
Control module OSB-FR is in the single-wire mode.

ORTHOP.SEAT BACK,R:COMM
CAN communication with control module OSB-R.

ORTHOP.SEAT BACK,R:SWCAN
Control module OSB-R is in the single-wire mode.

OUT OF ENGAGEMENT COUNT
Error counter on Selespeed gearboxes.

OUT OF SELECTION COUNT
Error counter on Selespeed gearboxes.

OUTPUT CIRC.50 OVER CAN BUS
Output of circuit 50 over the CAN data-bus.

OUTPUT CIRCUIT:15R
Output 'Circuit 15R'.

OUTPUT CIRCUIT:15R PROC.1
Output 'Circuit 15R', Processor X, where x = 1 or 2.

OUTPUT DEMAND DUTY CYCLE
Displays the duty cycle of the ECU output to the engine cooling fan. The display is only active when the fan is operating, readings vary with fan speed and cooling demand

OUTPUT PIN 15R
Output voltage at terminal 15R.

OUTPUT PIN 30 SWITCHED
Output voltage at terminal 30:SWITCHED.

OUTPUT RELAYS MAIN BEAM
Output Relays Main beam.

OUTPUT SHAFT SPEED
Displays the engine output shaft speed in rpm.

OUTPUT VOLTAGE -?-
Output voltage (V).

OUTPUT,CIRCUIT 15
Output 'Circuit 15'.

OUTPUT,CIRCUIT 15 PROC.X
Output 'Circuit 15', Processor X, where x = 1 or 2.

OUTPUT,CIRCUIT 50
Output 'Circuit 50'.

OUTSIDE TEMPERATURE
This parameter displays the ambient temperature outside the vehicle.

OVER SPEED WARNING
Indicates the presence of a higher-than-normal wheel speed sensor signal. ENABLE means one or more wheels have exceeded maximum vehicle speed or a speed sensor circuit has shorted.

OVER SPEED WARNING CHIME
Indicates the status of the Over Speed Warning Chime.

OVER TEMPERATURE TIME
Indicates the total time length of the Over temperature condition in minutes or seconds.

OVERBOOST
Indicates if the Over boost strategy is On or Off.

OVERHEAD CTRL PANEL ECU:COMM
CAN communication with control module N70 (Overhead control panel control module).

OVER-RPM
Indicates whether the engine has been Over-revved or not.

OVERRUN
This parameter displays that the ECU outputs the current engine operating condition as overrun.

OVERRUN FUEL CUTOFF
This parameter displays whether the ECU is activating a fuel-cut-off function during an engine overrun situation.

OVERRUN FUEL CUT-OFF
Indicates if the fuel is cut-off or not, during overrun conditions.

OVERTEMP.WARNING LIGHT
Indicates the status of the Over Temperature Warning Light.

OVERTEMP/UNDERVOLT.RAIN SNS
Over-temperature or under voltage at component B38 (Rain sensor).

OXYGEN SENSOR BANK X SNSR X
Displays the specified O_2 Sensor voltage for the specified cylinder bank.

3.2.16 P

P/N RECOGNIZED
Displays status of the Park/Neutral position (PNP) switch signal to ECU.

P/N SWITCH
The Park/Neutral Position switch (AT SWITCH) is a discrete parameter that indicates whether the automatic transmission is in park or neutral or in one of the drive ranges. The display should indicate:

P-N– if the transmission is in either park or neutral.

-R-DL if the transmission is in any forward gear or reverse.

P/S PRESS(HIGH)
Some vehicles have a pressure switch in the power steering system that closes under high pressure. This parameter should read YES when the steering wheel is turned right or left to full lock. It should read NO at all other times. If it does not change between NO and YES as the wheel is turned through its full range, there may be a problem with the switch or other component in the power steering system.

PANIC ALARM SW
Indicates the status of the Panic Alarm switch.

PARAMETER SET
Parameter set.

PARAMETERISED HEADLIGHT TYPE
Parameterised headlight type.

PARAMETERISED REST PERIOD
Parameterised rest period (s).

PARAMETERISED WASH TIME
Parameterised wash time (ms).

PARK BRAKE APPLIED
Indicates whether the Parking Brake (Hand-brake) has been applied.

PARK BRAKE STATUS
Indicates the status of the Parking Brake (Hand-brake).

PARK LAMP SW
Indicates the status of the driver-operated Park Lamp Switch. ON means the Park Lamp switch contacts are closed.

PARK/NEUTRAL POSITION
The park/neutral switch is a discrete parameter that indicates whether an automatic transmission is in park or neutral, or in one of the drive ranges. The display should read:

P-N if the transmission is in either park or neutral.

-R-DL if the transmission is in any forward gear or reverse.

PARK/NEUTRAL SWITCH
The Park/Neutral Position switch (AT SWITCH) is a discrete parameter that indicates whether the automatic transmission is in park or neutral or in one of the drive ranges. The display should indicate:

P-N– if the transmission is in either park or neutral.

-R-DL if the transmission is in any forward gear or reverse.

PARKING BRAKE
Indicates if the Parking Brake is On or Off.

PARKING BRAKE INDICATOR SW
S12 (Parking brake indicator switch).

PARKING LAMP:LEFT
Left parking lamp.

PARKING LAMP:RIGHT
Right parking lamp.

PARKTRONIC ECU-N62:COMM
CAN communication with control module N62 (PTS control module).

PARKTRONIC OFF-SWITCH-N72s13
N72s13 (PTS OFF switch).

PARKTRONIC OFF-SW-N72/1s7
N72/1s8 (PTS OFF switch).

PARKTRONIC:COMM
CAN communication with control module PTS.

PARKTRONIC:SWCAN
Control module PTS is in the single-wire mode.

PART FTRIM X
These fuel trim values represent the long term correction to the fuel injection pulse width when the engine is under partial load. This value is learned by the ECU and is used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim (FTRIM) is changed.

PART INDEX
No information available at this time.

PART LOAD
This parameter indicates that the ECU has determined that the engine is currently at part load and is used during some adaptive learning processes.

PART LOAD DETECTED
This parameter indicates that the ECU has determined that the engine is currently at part load and is used during some adaptive learning processes.

PART LOAD FUEL TRIM ADAPTAT. LEFT
Represents the operation and short term correction of the fuel delivery for the specified cylinders and load range. It indicates whether the ECU is commanding a rich or lean mixture for partial load conditions.

PART LOAD FUEL TRIM ADAPTAT. RIGHT
Represents the operation and short term correction of the fuel delivery for the specified cylinders and load range. It indicates whether the ECU is commanding a rich or lean mixture for partial load conditions.

PART LOAD FUEL TRIM X
These fuel trim values represent the long term correction to the fuel injection pulse width when the engine is under partial load. This value is learned by the ECU and is used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim (FTRIM) is changed.

PARTIAL LOAD ADVANCE SOL
Indicates that the ECU has determined that the engine is currently at part load and is used during some adaptive learning processes.

PAS ELECTROPUMP RELAY
Indicates the status of the Pas Electro-pump Relay.

PASS.BUCKLE RESTRAINT SW.FL
Front passenger seat belt buckle with switch S68/3 (Left front seatbelt buckle restraint systems switch).

PASS.RESTRAINT SW.FR-CODING
Front passenger seat belt buckle with switch S68/4 (Right front seatbelt buckle restraint systems switch) - coding.

PASS/CHILD SEAT OCCUP:CODING
Seat occupied and child seat recognition in front passenger seat - coding.

PASSENGER AIRBAG
1. Displays the resistance between the two contacts of the specified Airbag.

2. Indicates that the ECU has detected whether or not a Passenger Airbag is present.

PASSENGER AIRBAG 2ND STAGE
Indicates that the ECU has detected whether or not a Passenger Airbag with 2^{nd} stage ignition is present.

PASSENGER DOOR
Passenger door.

PASSENGER DOOR AJAR
Indicates the PATS command status for the specified door-ajar sensor. When the system functions properly, YES means the door is ajar.

PASSENGER DOOR LOCK
Indicates the status of the Passenger Door Lock switch.

PASSENGER DOOR UNLOCK
Indicates the status of the Passenger Door Un-lock switch.

PASSENGER HEATER SENSE
Displays the Passenger Seat Heater sensor voltage.

PASSENGER INHIBIT FUNCTION
Indicates that the ECU has detected whether or not the Inhibit function for the Passenger Airbag is present.

PASSENGER PRETENSIONER
Displays the resistance of the specified shoulder belt pre-tensioner circuit.

PASSENGER RIGHT FRONT UNLOCK SW
Displays the status of the driver-operated door unlock switches. ON means the switch contacts are closed.

PASSENGER SIDE AIRBAG
Displays the resistance between the two contacts of the specified Airbag.

PATS ANTI-SCAN FUNCTION
Indicates whether the Anti-scan function is enabled or disabled.

PCM ID STATUS STORED
Indicates whether the PCM identification has been stored in the memory of the PATS system.

PCM VERIFY OK
Indicates whether the PCM identification has been verified by the PATS system.

PEDAL LOAD
Indicates the Pedal Load.

PEDAL LOAD(TRACK X)
Indicates the Pedal Load on Track x, where x = 1 or 2.

PEDAL NO LOAD PROGRAMMING
Indicates the status of the Pedal No Load Programming.

PEDAL OPERATED
This parameter indicates the state of the throttle pedal on some engines. YES indicates that the throttle pedal is being pressed. NO indicates that the throttle pedal is not being pressed.

PEDAL POS X
This parameter indicates the actual throttle pedal position calculated by the ECU.

PEDAL POS.SENSOR(TRACK X)
Indicates the Pedal Position Sensor voltage on Track x, where x = 1 or 2.

PEDAL POSITION
This parameter indicates the actual throttle pedal position calculated by the ECU.

PEDAL POSITION SENSOR X
Indicates the Pedal Position Sensor x in volts, where x = 1 or 2.

PEDAL POSITION(ACTUAL)
Indicates the Actual Pedal Position.

PEDAL VALUE
Displays the ECU input signal from the pedal position sensor in volts.

PEDAL VALUE SENSOR SIGNAL X
Displays the ECU input signals from the pedal position and electronic throttle actuator sensors. The display should read between 0.2 and 0.5 V at idle. This is a drive by wire system with no mechanical throttle linkage.

PEDAL VALUE SNSR REF.POT.MTR R X
Displays the ECU input signals from the pedal position and electronic throttle actuator sensors. The display should read between 0.2 and 0.5 V at idle. This is a drive by wire system with no mechanical throttle linkage.

PETROL MODE -> LPG MODE
Indicates whether the engine is in Petrol or LPG Mode.

PETROL RELAY
Indicates whether or not the Petrol relay is activated. This relay is active when driving on Petrol and supplies current to the Petrol Injectors.

PFSC
Indicates exhaust pressure. The pressure feedback EGR (PFE) sensor convert a varying exhaust pressure signal into a proportional analogue voltage signal to the PCM. The PCM uses this signal to compute optimum EGR flow. Pressure feedback EGR (PFE) systems control EGR flow rate by monitoring pressure drop across a remotely located sharp-edged orifice.

PHASE BANK X
This parameter indicates the position of the camshaft in Bank 1or 2.

PHASE HALL
This parameter indicates the position of the Hall sensor.

PHASE THROTTLE LEARN
This parameter indicates the state of the Throttle Learn procedure.

PHASE VARIATOR
Indicates whether or not the ECU has commanded the Phase Variator Relay On or Off. It is used to change the timing of the inlet camshaft.

PHONE CALL BUTTONS-S111s3
S111s3 (Accept/terminate phone call pushbutton).

PHONE SW
Indicates the status of the Phone Switch.

PHONE TRANSCEIVER ACTIVE
Indicates whether the Phone Transceiver is active or not.

PHONIC WHEEL LEARN
This parameter indicates the state of the Phonic Wheel Learn procedure.

PILOT INJ
This parameter indicates the length of time (ms) of the Pilot injection.

PILOT INJECTION
Indicates the length of time (ms) of the Pilot injection.

PILOT INJECTION BEGIN
This parameter indicates the beginning of the Pilot injection.

PILOT INJECTION TIME
Indicates the Pilot Injection time.

PILOT START
This parameter indicates the injection begin of the pilot injection controlled by the ECU. The value is in degrees of crank angle and can be + for BTDC or - for ATDC.

PLUNGER TRAVEL SNS,FL-B22/X
B22/X (Left front plunger travel sensor) (mm).

PNEUM.EQUIPM.:COMM
CAN communication with control module PSE.

PNEUM.EQUIPM.:SWCAN
Control module PSE is in the single-wire mode.

PNEUMATIC EQUIPM.ECU:COMM
CAN communication with control module A37 (PSE control module (combined)).

P-OFF BUTTON,STATUS
Operating status of pushbutton 'P-OFF'.

PORT DEACTIVATION POS.SENSOR
Indicates the Port Deactivation Position Sensor voltage.

POS.HEIGHT ADJ.MOTOR,UP/DOWN
Position M20m2 (Height adjustment up/down motor).

POS.LONGITUD.MOT,FORW/BACK
Position M20m1 (Longitudinal adjustment forward/back motor).

POS.STEER.COLUMN,DR.POS.SW
Position M20s1 (Steering column driving position micro-switch).

POSITIONING RANGE EXCEEDED
Indicates whether or not the positioning range has been exceeded.

POST-START ENRICHMENT
Indicates whether or not post-start enrichment is activated.

POST-START ENRICHMENT
Post-start enrichment.

POTM. REAR TEMP. SUPPLY
This parameter indicates the voltage of potentiometer of the rear temperature supply.

POWER ENRICH
This parameter is displayed on some fuel-injected engines. POWER ENRICH (YES) means that the ECU has commanded a rich mixture for high-power operation.

POWER MANAG
Indicates the status of the Power Management system.

POWER RELAY
Indicates whether or not the ECU has commanded the main power control relay ON or OFF.

POWER RLY
Indicates whether the power relay is on or off.

POWER STEER LOAD PRESENT
Indicates whether the power steering pressure switch is on or off.

POWER STEER PRES SENSOR
Indicates the Power Steering Pressure in volts. The voltage should vary when the steering wheel is turned right or left to full lock.

POWER STEERING
Displays the voltage from the Power Steering Sensor. With the steering wheel fixed in a straight-ahead position, the reading should be approximately 0 V and when it is turned to its stop position (in either direction) it should be approximately 5 V.

POWER STEERING CURRENT > 40 AMP
This parameter indicates if the Electrical steering current absorption is greater than 40 A and therefore there is mechanical effort required.

POWER STEERING FAULT
Indicates that fault has occurred in the power steering system.

POWER STEERING PRESSURE SW
Indicates the status of Power Steering Switch.

POWER STEERING RELAY
Indicates the status of the Power Steering relay.

POWER STEERING SIGNAL
Indicates the power steering signal.

POWER SUPPLY ECU
This parameter indicates the power supply of the ECU.

POWER SUPPLY INJECTION PUMP
This parameter displays the actual voltage on the fuel pump.

POWER SUPPLY REFRIGERANT SNS
Indicates the Refrigerant Power Supply Sensor voltage.

POWER SUPPLY RELAY
Indicates the status of the (ECU) Power Supply Relay.

POWER SUPPLY RETURN PUMP
This parameter displays the actual voltage on the abs return pump.

POWER SUPPLY SENSORS
Indicates the (ECU) Power Supply Sensors voltage.

POWER TAKE OFF (PTO) STATUS
Indicates the power take-off status.

PREHEATER LIGHT
Indicates whether the Preheater Light is On or Off.

PRE-HEATER RELAY
Indicates whether the ECU is operating the manifold pre-heater relay. During warm-up, the reading should be ON. When the engine reaches normal operating temperature the ECU switches off the relay, the reading should be OFF.

PRE-HEATING
This parameter indicates whether the ECU is operating the manifold pre-heater relay. During warm-up, the reading should be ON. When the engine reaches normal operating temperature the ECU switches off the relay, the reading should be OFF.

PREHEATING LIGHT
Indicates whether the Preheating Light is On or Off.

PREHEATING/ERROR WARN.LIGHT
Indicates whether the Preheating/Error Warning Light is On or Off.

PRE-INJ BEGIN
This parameter displays the actual commencement of injection that the ECU commands.

PRE-INJECTION
This parameter displays the amount of time that fuel is injected or the volume of fuel injected during the pre-injection.

PRE-INJECTION ADVANCE
Indicates the Pre-Injection Advance.

PRE-INJECTION AMOUNT
Indicates the amount of fuel is injected or the volume of fuel injected during the pre-injection.

PRE-INJECTION TIME
Indicates the amount of time that fuel is injected during the pre-injection.

PRE-POST HEATING INFORMATION
Indicates the Pre-Post Heating Information.

PRE-POST HEATING RELAY
Indicates the status of the Pre-Post Heating Relay.

PRE-POSTHEATING CONTROL
Indicates the status of the Pre-Post Heating Control.

PRES SENSOR
This parameter indicates the voltage from the Pressure Sensor.

PRESET VOLTAGE FOR CO2
Preset voltage for CO_2 setting.

PRESS.INFLAT.CUSHION:LATERAL
Pressure in inflatable cushion for lateral support (hPa).

PRESS.INFLAT.CUSHION:LUMBAR
Pressure in bottom inflatable cushion, in lumbar region (hPa).

PRESSED POS
Indicates the pressed Position.

PRESSURE CONTROL VALVE
This parameter indicates the duty cycle of the pressure control valve of the fuel pump in percentage.

PRESSURE REGULATOR X CURRENT
Indicates the current (mA) flowing through the specified regulator.

PRESSURE SENSOR
This parameter indicates the voltage from the Pressure Sensor.

PRESSURE SNS UPSTREAM-B28/6
B28/6 (Pressure sensor upstream of pressure sensor) (hPa).

PRETENSIONER CUT-IN
This parameter indicates that the pretensioner has been activated.

PRETENSIONER(DRIVER)IMPED.
Indicates the Driver Pretensioner Impedance.

PRETENSIONER(PASS.)IMPEDANCE
Indicates the Passenger Pretensioner Impedance.

PRE-THROTTLE VALVE
Displays the amount of pre-set throttle movement set by the ECU, prior to the engine starting. The command signal is issued by the ECU for the throttle position motor.

PRIM CRASH SENS #X GND RES
Indicates the resistance of the crash sensors in ohms. CRASH SN1 refers to sensor number 1 and CRASH SN2 refers to sensor 2.

PRIMARY PULLEY SPEED
Indication the rotation speed (rpm) of the primary pulley.

PRODUCTION DAY
Production day.

PRODUCTION MONTH
Production month.

PRODUCTION YEAR
Production year.

PROGRAM SWITCH - X
This parameter indicates which program the automatic transmission system is currently running. Where X can be:

A: Automatic Mode.

E: Economic Mode.

M: Manual Mode.

S: Sports Mode.

S/M: Sport/Manual Mode.

PROGRAMM.CYL X-X,RECOG CYL1
Indicates the Programming of Cylinder x--x for cylinder 1, where x-x = cylinders 1-4 or cylinders 2-3.

PROGRAMMER SERIAL NUMBER
Serial number of tester used to program the function software.

PROGRAMMING LOW FREQUENCY
Indicates the Low frequency Programming.

PROGRAMMING MISFIRE CYL X-X
Indicates whether a Programming Misfire has occurred for Cylinder x-x, where x-x = 1-4 or 2-3.

PROGRAMMING THROTTLE LIMITS
Indicates the programming Throttle Limits.

PROM IDENTITY
This parameter is the identification number of the programmable read-only memory (PROM) installed in the ECU. PROM IDENTITY may be a 2-, 3-, 4- or 5-digit number, depending on vehicle year and model. Check the PROM ID against the manufacturer's specifications to determine if the correct one is installed. Some service manuals for late-model vehicles refer to the PROM as the MEMCAL because it contains both memory and calibration functions.

PTC HTR BOOSTER,V-MON:X
Voltage monitoring of PTC heater booster, stage X, where x = 1, 2 or 3.

PULLEY RATIO
Indicates the revolution ratio between the primary and secondary pulley.

PUMP MEMORY
Indicates the status of the Pump Memory.

PUMP MOTOR
Indicates if the Pump Motor is On or Off.

PUMP MOTOR CONTROL
Indicates the status of the Pump Motor Control.

PUMP MTR STATUS
Indicates the actual state of the ABS pressure pump. During normal operation PMPSTAT will be OFF and occasionally ON as the system is charged.

PUMP RELAY
Indicates the hydraulic pump relay status.

PUMP SPEED(RPM)
Indicates the speed (rpm) of the fuel injection pump. This parameter applies to diesel engine vehicles only.

PURGE CONTROL
Indicates whether the purge control valve is on or off.

PURGE CONTROL VALVE ON/OFF RATIO
Indicates the purge control valve on/off ratio.

PURGE FACTOR F X
Displays the percentage opening of the specified purge valve.

PURGE FLOW SENS
Indicates exhaust pressure. The pressure feedback EGR (PFE) sensor convert a varying exhaust pressure signal into a proportional analogue voltage signal to the PCM. The PCM uses this signal to compute optimum EGR flow. Pressure feedback EGR (PFE) systems control EGR flow rate by monitoring pressure drop across a remotely located sharp-edged orifice.

PURGE VALVE
The canister purge (CANP) valve regulates the flow of fuel vapours from the EVAP canister to the intake manifold. This parameter indicates the status of the canister purge valve.

PURGE VALVE ON-OFF RATIO/DUTY CYCLE
Displays the duty cycle of the purge valve, which is the amount of on time the ECU is commanding.

PURGING
Displays the status of the evaporative emissions (EVAP) purge valve. The display reads ON with the valve open and purge activated and OFF with the valve closed and purge deactivated. When the display reads ON, the PURGE VALVE ON-OFF RATIO/DUTY CYCLE parameter should be displaying a value.

PWM DC
Displays the PWM Duty Cycle as a percentage.

PWR FACTOR COMBUST.AIR BLOWR
Power factor of combustion air blower (%).

PWR SUPP.TRANSMITT.KEY:OFF
Coil for energy supply of transmitter key is switched off.

PWR SUPPLY:RESTRAINT SYS.ECU
Voltage supply at control unit N2/7 (restraint systems control module).

3.2.17 Q

QTY ACCEL PED
This parameter displays the maximum quantity of fuel that can be injected under present operating conditions with regards to the throttle position sensor.

3.2.18 R

R.ACQUISIT&ACT.ECU:COMM
CAN communication with control module REAR SAM.

R.ACQUISIT&ACT.ECU:SWCAN
Control module REAR SAM is in the single-wire mode.

R.DOOR WIPER MOTOR REL
M6/4k1 (Rear door wiper motor relay).

R.SEAT INCL.MOTOR:HALL SNS
Hall sensor of component M18/1m2 (Rear seat cushion inclination raise/lower motor).

R.SEAT MOTOR,FORW/BACK:HALL
Hall sensor of component M18/1m1 (Rear seat adjustment forward/ back motor).

RADIATOR COOLANT TEMPERATURE
Indicates the Radiator Coolant Temperature.

RADIATOR TEMPERATURE
This parameter displays the actual voltage or temperature from the coolant temperature sensor mounted at the exit of the radiator.

RADIATOR TEMPERATURE SENSOR
Indicates the Radiator Temperature Sensor voltage.

RADIO:COMM
CAN communication with control module A2 (Radio).

RADIO:LAST COMMAND RECEIVED
Last radio command received.

RAIL PRESSURE SETTING
Indicates the common Rail Pressure Setting.

RAIN SENSOR-B38 INIT.TO REQ
Component B38 (Rain sensor) is initialized to request.

RAIN SENSOR-B38 STATUS
B38 (Rain sensor) Status.

RANGE OF KEY DETECTION
Detection range of key.

R-CALIBRATE
This parameter indicates if the throttle valve needs to be recalibrated.

R-CALIBRATION
This parameter indicates if the throttle valve needs to be recalibrated.

RCM:COMM
CAN communication with control module RCM.

READ.TEST
Indicates the status of the Read Test.

READINESS O2 SENSOR AFTER CAT
This parameter indicates the readiness state of the O_2 Sensor after the Catalytic Converter. OBD monitor.

READINESS O2 SENSOR BEFORE CAT
This parameter indicates the readiness state of the O_2 Sensor before the Catalytic Converter. OBD monitor.

READING LAMP,LEFT-A67e1
A67e1 (Left reading lamp).

READING LAMP,RIGHT-A67e2
A67e2 (Right reading lamp).

READING LIGHT SWITCH,LEFT
N70s6 (Left reading light switch).

READING LIGHT SWITCH,RIGHT
N70s7 (Right reading light switch).

REAR A/C REFRIG.SHUTOFF VLV
Y67 (Rear air conditioning refrigerant shut off valve).

REAR AIRCO EVAP TEMP SENSOR
B10/11 (Rear air conditioning evaporator temperature sensor) (°C).

REAR AXLE BRAKE PRESSURE
This parameter indicates the Rear Axle brake pressure.

REAR AXLE SPEED
Indicates the speed of the rear axle based on input signals to the ECU from the wheel speed sensors.

REAR BLIND SWITCH-N72/1s9
N72/1s9 (Rear blind switch).

REAR COMPARTMENT FLAP MOTOR
This parameter indicates the status of the rear compartment flap motor.

REAR DEFROST RLY CKT
Indicates the GEM command status for the rear window defroster relay. ON means the GEM is commanding the relay solenoid to energise, closing the relay contacts.

REAR DEFROST SW
Indicates the status of the driver-operated rear window defroster switch. ON means the rear defroster switch contacts are closed.

REAR HEATER MODE
This parameter is a feedback signal from the Heated Rear Screen switch.

REAR INLET SOLENOID
Indicates the status of the rear ABS inlet solenoid.

REAR LEFT PRETENSIONER
Indicates that the ECU has detected whether or not a Rear Left Pretensioner is present.

REAR MAX. SENSOR CALIBRATION
Indicates the preset maximum limit value for the rear sensor when calibrating (displayed as %).

REAR MIN. SENSOR CALIBRATION
Indicates the preset minimum limit value for the rear sensor when calibrating (displayed as %).

REAR MOTOR FBK
Displays the ABS Rear Motor Feedback current in Amps. If the ABS control is active, the values displayed will be in the range of 0 to 20 A.

REAR OUTLET SOLENOID
Indicates the status of the rear ABS outlet solenoid.

REAR PRESENT
This parameter indicates if the O_2 Sensor after the Catalytic Converter is present.

REAR RIGHT PRETENSIONER
Indicates that the ECU has detected whether or not a Rear Right Pretensioner is present.

REAR SENSOR
Indicates the position measured by the rear sensor (displayed as %).

REAR SENSOR CALIBRATION
Indicates the voltage from rear sensor during calibration.

REAR SENSOR POSITION
Indicates the position measured by the rear sensor in volts.

REAR SOLENOID COMMAND
Indicates the status of the ABS Rear Solenoid Command.

REAR WASHER SW
Indicates the GEM command status for the rear window washer. When the system functions properly, ON means the washer should be applying fluid to the rear window.

REAR WHEEL SPEED
Indicates the speed signals sent by the Rear wheel sensors to the ECU.

REAR WINDOW DEFROSTER LAMP
S21e2 (Rear window defroster indicator lamp).

REAR WINDOW ELEC DEFROST IN
Indicates the GEM command status for the rear window defroster relay. ON means the GEM is commanding the relay solenoid to energise, closing the relay contacts.

REAR WINDOW HEATER RELAY
This parameter indicates the status of the Rear Window Heater Relay.

REAR WINDOW HEATER SWITCH
This parameter indicates the status of the Rear Window Heater Switch.

REAR WINDOW WIPE/WASH SW-S78
S78 (Rear window wipe/wash switch).

REAR WIPER DOWN SW
Indicates the GEM command status to move the rear wiper arm down or up. When the system functions properly, REAR WIPERDN_ON means the rear wiper should be moving down to its home position.

REAR WIPER MODE
Indicates the position of the driver-operated rear windshield wiper switch. The GEM module uses this information to control the wiper and washer relays.

REAR WIPER PARK SENSE
Indicates whether the rear windshield wiper is in the PARK position. YES means the wiper is in the PARK position.

REAR WIPER SW
Indicates the GEM command status for the rear window wiper. When the system functions properly, ON means the rear wiper should be moving.

REAR WIPER UP SW
Indicates the GEM command status to move the rear wiper arm down or up. When the system functions properly, REAR WIPERUP_ON means the rear wiper should be moving up.

RECEIVER DETECTED VALID DATA
The receiver detects valid data.

RECEIVER FOUND LEARNED DATA
The receiver detects learned data.

RECIRCULATED AIR FLAP POSITION
Indicates the opening of the air flap as a percentage. The air flap controls supercharger boost and the signal is pulse-width modulated. At 0 % the air flap is fully open and at 100 % it is completely closed. At 11 to 99 % boost control is in part load range; and at 10 % or less the air flap is open.

RECIRCULATION FLAP MOTOR
This parameter indicates the position/duty cycle of the Recirculation Flap Motor as a percentage. It can also be displayed as Left and/or Right Recirculation Flap Motor.

RECIRCULATION SWITCH
This parameter indicates the status of the Recirculation Switch.

RED.POWER
Indicates the Reduced Power.

REDUC.FACTOR VENT/HEATING
Reduction factor of ventilation duration to heating duration.

REDUCED TORQUE
This parameter displays the actual torque output after reductions (flywheel torque). Torque reductions are made by retarding the ignition point or by briefly switching off the fuel injectors.

REDUCTION ENGINE POWER
Indicates whether a Reduction in Engine Power has occurred.

REDUCTION IN ENG. SPECIFIED TORQUE
Indicates whether or not there is a reduction in the specified engine torque.

REFERENCE EXHAUST CAMSHAFT
This parameter indicates the position of the reference Exhaust Camshaft in degrees.

REFERENCE INLET CAMSHAFT
This parameter indicates the position of the reference Inlet Camshaft in degrees.

REFERENCE PART LOAD ADAPTATION
This parameter is found on older vehicles. The O_2 Block Learn Multiplier number represents the operation and long-term correction of the fuel metering on a fuel-injected engine. The block learn number indicates whether the ECU is commanding a rich or a lean mixture.

REFERENCE POT.METER M16/1RX
Displays the ECU input signal voltage from the pedal position and electronic throttle actuator sensors.

REFERENCE RESISTOR
Indicates the value of the reference resistor used for determining the internal fuel injection and ignition maps of the ECU. Up to 7 resistors with different calibrations can be activated by relocating plugs in a housing with an integral resistance matrix. This permits adapting ignition-timing characteristics for different fuel types. The RON (Research Octane Number) is the anti-knock quality of fuel. The higher the number, the greater the resistance to knocking. Ignition timing can be retarded from 4 to 6 degrees (depending on whether using 91 or 98 RON).

REFERENCE RESISTOR VOLTAGE
Indicates the value of the reference resistor voltage used for determining the internal fuel injection and ignition maps of the ECU.

REFRIG.PRESS&TEMP.SNS:PRESS.
B12/2 (Refrigerant pressure and temperature sensor) Pressure value (bar).

REFRIG.PRESS&TEMP.SNS:TEMP.
B12/2 (Refrigerant pressure and temperature sensor) Temperature value (°C).

REFRIGERANT PRESSURE
Indicates the Refrigerant Pressure.

REFRIGERANT PRESSURE SNS-B12
B12 (Refrigerant pressure sensor) (bar).

REFRIGERANT TEMP.SNS-B12/1
B12/1 (Refrigerant temperature sensor) (°C).

REL.CKT 58:LIC.PLATE LIGHTS
F1k5 (Circuit 58 relay)- License plate lights.

REL.HEAT HIGH
This parameter displays whether the coolant or air temperature are above the set temperatures and is used by the glow plug start system.

REL.HEAT LOW
This parameter displays whether the coolant or air temperature are above the set temperatures and is used by the glow plug start system.

RELATIVE AIR MASS
This parameter indicates the relative air mass in percentage.

RELATIVE AIR MASS BK X
This parameter indicates the relative air mass as a percentage for the specified cylinder bank.

RELAY 9-F2k9 PIN 15
F2k9 (Relay 9) (Terminal 15).

RELAY BLOWER MOTOR-F1k21
F1k21 (Blower motor relay).

RELAY CENTR.LOCK,ALL-F1k20
F1k20 (Central locking relay, lock all doors).

RELAY CENTR.LOCK,L.DOOR&FUEL
F1k24 (Central locking relay, left door and fuel filler flap unlock).

RELAY CENTR.LOCK,R&R DOORS
F1k23 (Central locking relay, unlock right door and rear doors).

RELAY CENTR.LOCK,TAIL-F1k15
F1k15 (Central locking relay, unlock tailgate).

RELAY CIRCUIT 15-F1k12
F1k12 (Circuit 15 relay).

RELAY CIRCULATION PUMP-F1k19
F1k19 (Circulation pump relay).

RELAY CKT 58L:PARKING LAMP:L
F1k13 (Circuit 58L relay)- Left parking lamp.

RELAY CKT 58R:PARKING LAMP:R
F1k9 (Circuit 58R relay)- Right parking lamp.

RELAY ENG.FAN,STAGE 1-F1k26
F1k26 (Engine fan stage 1 relay).

RELAY FOG LAMP-F1k30
F1k30 (Fog lamp relay).

RELAY FOGLAMP,REAR-F1k29
F1k29 (Rear fog-lamp relay).

RELAY HEATED EXTERIOR MIRROR
F1k1 (Heated exterior mirror relay).

RELAY HEATER HIGH
This parameter displays whether the coolant or air temperature are above the set temperatures and is used by the glow plug start system.

RELAY HEATER LOW
This parameter displays whether the coolant or air temperature are above the set temperatures and is used by the glow plug start system.

RELAY LOW BEAM-F1k22
F1k22 (Low beam relay).

RELAY POWER WINDOW:FR.LEFT
F1k18 (Left front power window relay).

RELAY POWER WINDOW:FR.RIGHT
F1k16 (Right front power window relay).

RELAY THERMOPLUNGER X
Indicates the status of the Thermoplunger Relay, where x = 1 or 2.

RELAY TURN SIGN.LIGHTS,LEFT
F1k4 (Left turn signal lights relay).

RELAY TURN SIGN.LIGHTS,RIGHT
F1k7 (Right turn signal lights relay).

RELAY WASHER PUMP,REAR-F1k27
F1k27 (Rear door washer pump relay).

RELAY WIPER MTR:FRONT-F1k17
F1k17 (Front wiper motor relay).

RELEASD POS
Indicates the Released Position.

REMAINING OIL LIFE
Indicates the status of the Remaining Oil life, before an oil change is required.

REMOTE CTRL KEY X LEARNED
Remote control key X learned, where x = 2 to 8.

REMOTE CTRL KEY X SYNCHR.
Remote control key X synchronized, where x = 2 to 8.

REMOTE TRUNK LID RELEASE SW
N72s15 (Remote trunk lid release switch).

REMOTE UNL.SIGN.,ECU E-CALL
Remote unlocking signal from control module E-call.

REQ FUEL QTY
This parameter displays the maximum quantity of fuel that can be injected under present operating conditions.

REQ MAP
Either the ECU or the Scanner calculates a desired Manifold Absolute Pressure value. This Requested MAP value is mainly related to the engine load.

REQ ROTOR POS.
This parameter indicates the requested rotor position.

REQ.ADV. PUMP
This parameter indicates the requested advance of the injection pump in degrees.

REQ.AIRFLOW
This parameter indicates the amount of airflow requested by the ECU. The ECU uses this parameter and the parameter ACT. AIRFLOW to control the amount of air taken in by the engine.

REQ.BOOST
This parameter indicates the requested pressure in the intake manifold.

REQ.FAN
This parameter indicates the requested cooling fan speed.

REQ.FAN SPD
This parameter indicates the requested cooling fan speed.

REQ.FUEL QTY
This parameter indicates the quantity of fuel requested by the driver (by pressing the accelerator pedal).

REQ.IDLE (RPM)
Either the ECU or the Scanner calculates a requested idle rpm value. The idle rpm value is approximately the value of the required idle rpm. This is controlled by the idle speed control.

REQ.INJ BEGIN
This parameter indicates the requested injection begin (advance) controlled by the ECU. The value is in degrees of crank angle and can be + for BTDC or - for ATDC.

REQ.PRES
This parameter indicates the requested fuel pressure.

REQ.SW-OVER LINE HEAT/VENTIL
Request on switch over line 'heating or ventilation'.

REQUEST AIRCO BLOWER
This parameter indicates the requested airco blower speed.

REQUEST BLOWER POWER:ON LINE
Request on blower power on line.

REQUEST FAN CAPACITY BY A/C
Fan capacity request by air conditioning (%).

REQUEST FAN CAPACITY BY ENG
Fan capacity request by engine (%).

REQUEST SW-ON INT.BLOWER
Switch-on request to interior blower from stationary heater.

REQUEST WIPE:INTERMITTENT
Request for intermittent wipe.

REQUEST. FUEL AMOUNT
This parameter indicates the quantity of fuel requested by the driver (by pressing the accelerator pedal).

REQUESTED 4X4 IN LOW
Indicates whether the 4-Wheel Drive Transmission system is in low gear.

REQUESTED ADVANCE PUMP
This parameter indicates the requested advance of the injection pump.

REQUESTED AIRFLOW
This parameter indicates the amount of airflow requested by the ECU. The ECU uses this parameter and the parameter AIRFLOW to control the amount of air taken in by the engine.

REQUESTED AMOUNT
This parameter indicates the quantity of fuel requested by the driver (by pressing the accelerator pedal).

REQUESTED BOOST PRESSURE
Indicates the requested pressure in the intake manifold.

REQUESTED EXHAUST CAMSHAFT
This parameter indicates the Requested Exhaust Camshaft position in degrees.

REQUESTED FAN
Indicates the requested cooling fan duty cycle.

REQUESTED FAN SPEED
Indicates the requested fan speed.

REQUESTED FAN SPEED:HIGH
Indicates the status of the Requested High Fan Speed.

REQUESTED FAN SPEED:LOW
Indicates the status of the Requested Low Fan Speed.

REQUESTED FUEL AMOUNT
Indicates the amount of fuel requested by the driver (by pressing the accelerator pedal).

REQUESTED FUEL PRESSURE
Indicates the requested fuel pressure.

REQUESTED IDLE
Either the ECU or the Scanner calculates a requested idle rpm value. The idle rpm value is approximately the value of the required idle rpm. This is controlled by the idle speed control.

REQUESTED INJECTION BEGIN
This parameter indicates the requested injection begin (advance) controlled by the ECU. The value is in degrees of crank angle and can be + for BTDC or - for ATDC.

REQUESTED INLET CAMSHAFT
This parameter indicates the Requested Inlet Camshaft position in degrees.

REQUESTED MAP
Either the ECU or the Scanner calculates a desired Manifold Absolute Pressure value. This Requested MAP value is mainly related to the engine load.

REQUESTED QUANTITY
This parameter displays the Requested Quantity of fuel that has to be injected for the current operating conditions and is stored in the ECU from the previous operating conditions. Value is in milligrams per cylinder stroke.

REQUESTED REAR TEMPERATURE
This parameter indicates the requested rear temperature.

REQUESTED ROTOR
Indicates the requested position for the rotor.

REQUESTED ROTOR POSITION
This parameter indicates the requested rotor position.

REQUESTED TEMPERATURE
This parameter indicates the Requested Temperature of the Catalytic Converter.

REQUESTED TEMPERATURE LEFT
This parameter indicates the Requested Temperature of the left Catalytic Converter.

REQUESTED TEMPERATURE REAR
This parameter indicates the Requested Temperature of the rear Catalytic Converter.

REQUESTED TEMPERATURE RIGHT
This parameter indicates the Requested Temperature of the right Catalytic Converter.

REQUESTED THROTTLE VALVE
This parameter indicates the Requested Throttle Valve position in degrees.

REQUESTED TORQUE
Indicates the torque requested by the ECU in Nm.

REQUESTED TORQUE AT WHEELS
This parameter indicates the requested torque at the wheels.

REQUESTED VACUUM
This parameter indicates the requested vacuum.

REQUIRED AIR FLOW
Indicates the amount of airflow required by the ECU. The ECU uses this parameter and the parameter AIRFLOW to control the amount of air taken in by the engine.

REQUIRED AMOUNT(IDLE)
Indicates the amount of idle air required by the ECU for the current engine idle conditions. This parameter applies to diesel engine vehicles only.

REQUIRED IDLE COMPENSATION
This measurement is the required idle compensation (rpm) as opposed to the actual idle (rpm).

REQUIRED IDLE SPEED
Indicates the required idle speed.

REQUIRED INJECTION AMOUNT
Indicates the required injection amount.

REQUIRED INJECTION BEGIN
Indicates the required injection begin.

REQUIRED MAP PRESSURE
Either the ECU or the Scanner calculates a desired Manifold Absolute Pressure value. This Required MAP value is mainly related to the engine load.

REQUIRED SPEED
Indicates the Cruise Control speed requested by the ECU in MPH or KM/H.

RESET ALARM SW
Indicates the status of the Reset Alarm switch.

RESET SW
Indicates the status of the Reset switch.

REST BUTTON
Rest button.

RESTRAINT SYS.ECU:PWR.SUPPLY
Control module N2/7 (restraint systems control module) (circuit 15R): No voltage when voltage present at circuit 15.

RESULT BANK X
This parameter indicates the result of bank 1 or 2, (OK or NOT OK).

RESULT OF KEY CHECK
Result of key check.

RESUME FROM MEMORY-S40/4s1
S40s1 (Resume from memory)/ S40/4s1 (Resume from memory).

RETARDED IGNITION POINT
This value displays the amount of ignition timing retard that is required to enable smooth gear changes on an automatic transmission system.

RETURN PUMP
This parameter indicates if the return pump is on or off.

RETURN PUMP FEEDBACK
Indicates the status of the Return Pump Feedback.

RETURN PUMP RELAY COMMAND
This parameter indicates the status of the Return Pump Relay Command.

REVERS.GEAR
Indicates whether Reverse Gear has been selected or not.

REVERSE CHIME
Indicates the status of the Reversing Chime.

REVERSE GEAR
Reverse gear.

REVERSE GEAR ENGAGEMENT FAIL COUNT
Error counter on Selespeed gearboxes.

REVERSE GEAR SELECTION FAIL COUNT
Error counter on Selespeed gearboxes.

REVERSE GEAR STOP
Indicates the status of the reverse gear stop switch.

REVERSE INFORMATION
Indicates the status of the Reverse Information switch.

REVERSE LIGHT
Indicates whether the reversing light is on or off.

REVERSE SELECT SW
Indicates whether the gear selector is in reverse. ON means the gear selector is in reverse.

REVERSE,MANUAL TRANSM.ONLY
Reverse gear (Only valid for manual transmission).

REVERSING LAMP SWITCH-S16/2
S16/2 (Reversing lamp switch).

RF DOOR AJAR
Indicates whether the Right Front door switch contacts are open or closed. OFF means the door is shut and the contacts of the switch are closed.

RI ACTUATOR ACT.VALUE POT.MTR RX
Displays the ECU input signal voltage from the pedal position and electronic throttle actuator sensors.

RICHNESS ADAPTATION
Indicates the Richness Adaptation.

RICHNESS ADAPTATION(IDLE)
Indicates the Richness Adaptation at Idle.

RICHNESS CORRECTION VALUE
Indicates the Richness Correction Value.

RICHNESS FACTOR(AVERAGE),BK X
Indicates the Average Richness Factor for Bank x, where X = Bank 1 or Bank 2.

RICHNESS LOOP VIA SNS BF.CAT
Indicates the Richness Loop from the Sensor Before the Cat.

RICHNESS REG.AFTE.CAT,STATUS
Indicates the status of the Richness Regulation After the Cat.

RICHNESS REG.BEF.CAT,STATUS
Indicates the status of the Richness Regulation Before the Cat.

RICHNESS REG.STATUS AFTER CAT
Indicates the Richness Regulation Status after the Cat.

RICHNESS REG.STATUS BEF.CAT
Indicates the Richness Regulation Status before the Cat.

RICHNESS REGULATION
Indicates the Richness Regulation.

RICHNESS,RAPID CORRECTION
Indicates the Richness Rapid Correction.

RIGHT FRONT ABS INLET VLV STATE
Indicates the state of the individual INPUT or OUTPUT ABS valves for the right front wheel. Valves should be OFF unless the ABS system is operating under extreme braking.

RIGHT FRONT VSS
Indicates the input signal voltage provided to the ECU by the right front wheel speed sensor. Display should increase and decrease in proportion to the rotational speed of the wheel. RF SPEED is the actual speed.

RIGHT FRONT WHEEL SPEED
Indicates the speed signals sent by the Right Front wheel sensor to the ECU.

RIGHT REAR ABS INLET VLV STATE
Indicates the state of the individual INPUT or OUTPUT ABS valves for the right rear wheel. Valves should be OFF unless the ABS system is operating under extreme braking.

RIGHT REAR LOCK
Indicates whether the Right Rear Wheel is locked.

RIGHT REAR VSS
Indicates the input signal voltage provided to the ECU by the right rear wheel speed sensor. Display should increase and decrease in proportion to the rotational speed of the wheel. RR SPEED is the actual speed.

RIGHT REAR WHEEL SPEED
Indicates the speed signals sent by the Rear Right wheel sensor to the ECU.

RIGHT REAR/SLIDE DOOR AJAR
Indicates whether Rear/Right Sliding door switch contacts are open or closed. OFF means the door is shut and the contacts of the switch are closed.

RIGHT SIDE IMPACT SENSOR
Indicates that the ECU has detected whether or not a Right Side Impact Sensor is present.

RIGHT T/A CTRL VALV OUT STATUS
Indicates the status of the Right Traction Assist valve output.

RIGHT T/A CTRL VALVE OUT STATUS
Indicates the output status of the right traction assist control valve.

RIGHT TEMP.BUTTON '???'
Right temperature button '???'.

RIGHT TURN
Indicates the status of the right turn indicator switch.

ROBOTISED TRANSMISSION
Indicates the status of the Robotised Transmission.

ROLLOVER BAR SWITCH-N72s17
N72s17 (Roll-over bar switch).

RON CODING
The Research Octane Number (RON) represents the anti-knock quality of fuel. The higher the RON, the greater the resistance to knocking. This parameter displays the RON Coding type for which the ECU is programmed.

RON CORRECTION
Indicates the ECU ignition timing adjustment for different octane fuels. The research octane number (RON) represents the anti-knock quality of fuel. The higher the RON, the greater the resistance to knocking. Depending on the system, ignition timing may retard 4 to 6 degrees to compensate for the fuel being used.

RON INDEX
This is the value of the reference resistor used for determining the internal fuel injection and ignition maps of the ECU. The research octane number (RON) is the anti-knock quality of fuel. The higher the RON, the greater the resistance to knocking. Depending on the system, ignition timing is retarded 4 to 6 degrees to compensate for the RON of the fuel being used.

ROOF MOTORS:ENABLE
Enabling of roof motors.

ROOF OPERATING MOD:COMM
CAN communication with control module OCP.

ROOF OPERATING MOD:SWCAN
Control module OCP is in the single-wire mode.

ROOF VERSION
Roof version.

ROT.SLAVED
Indicates whether the Rotor has been Slaved or not.

ROTATION SENSOR (YAW)
Displays the Yaw Rotation Sensor value. Note, the reading will oscillate between the actual value and the minimum (0000) and maximum (FFFF) values.

ROTATION SPEED
This parameter indicates the rotation speed of the steering wheel.

ROTOR ERROR
Indicates whether a Rotor position error has occurred.

ROTOR POSITION
This parameter indicates the actual rotor position.

ROTOR POSITION(ACTUAL)
Indicates the actual Rotor position.

ROTOR POSITION(DESIRED)
Indicates the desired Rotor position.

RPM
RPM is the measurement of engine speed and is always shown at the left on the top line of the display. RPM is computed internally by the ECU, based on pulses from the ignition system or a engine speed sensor.

RPM IN
This parameter displays the actual RPM going into the (automatic) gearbox.

RPM OUT
This parameter displays the actual RPM coming out of the (automatic) gearbox.

RPM STABIL.
Indicates the status of the RPM Stability.

RPM TOO LOW FOR EGR
This parameter indicates that the engine speed is too low for the EGR valve to operate.

RPMDES
Displays the desired engine speed as requested by the ECU.

RTD SIGNAL A/T INACTIVE
This parameter displays automatic transmission (A/T) retard signal. With vehicle stationary and signal inactive (YES), A/T has R selected and with the signal active (NO), A/T has 2, 3, D, P or N selected. With vehicle moving (above 10 MPH or 14 KM/H) and signal inactive (YES), ignition timing retardation for A/T downshift is selected and with signal active (NO), ignition timing retardation for A/T up-shift is selected.

RUN LOSS VALVE
This parameter indicates the status of the Run Loss Valve.

3.2.19 S

SAFETY ACCEL.AND BRAKE PEDAL
Indicates the status of the Safety Accelerator and Brake Pedal.

SAFETY CONTACT C/C SW
Safety contact for 'Cruise control' switch.

SAFETY CONTACT SWITCH X
Indicates the state of the safety contacts in the electronic accelerator actuator. The display normally reads OFF and ON when the safety contacts are closed. The ECU is connected to safety switch contacts in the electronic accelerator actuator or the cruise control/Idle speed control actuator. During normal operation, the switch sends a positive signal to the ECU. If the throttle opens more than the position specified by the accelerator pedal and the cruise control is not engaged, the switch sends a ground signal to the ECU. In response, the ECU switches the fuel injectors off. Injection switches back on when engine speed drops below 1200 rpm.

SAFETY FUEL SHUT-OFF
Indicates the status of the safety fuel shut-off switch.

SAFETY MODE
Indicates whether Safety Mode is active or not.

SAFETY RELAY
Indicates the status of the Safety Relay.

SAM ECU,FL-N10/6:COMM
CAN communication with control module N10/6 (Left front SAM control module).

SAM ECU,FR-N10/7:COMM
CAN communication with control module N10/7 (Right front SAM control module).

SAM ECU,REAR-N10/8:COMM
CAN communication with control module N10/8 (Rear SAM control module)

SAVED ERROR
Indicates whether an Error has been saved or not.

SCM:COMM
CAN communication with control module SCM.

SCM:SWCAN
Control module SCM is in the single-wire mode.

SCROLL BUTTON,FORWARD/BACK
S110s1 (Scroll forward/back pushbutton).

SEAT ADJ.ECU,FL-N32/1:COMM
CAN communication with control module N32/1 (Left front seat adjustment control module with memory).

SEAT BELT LAMP CKT
Shows the GEM command status to the dash-mounted seat belt lamp indicator. ON means the GEM has commanded the lamp to light.

SEAT HEATER RELAY,STAGE X,L
K59 (Seat heater stage X relay)-Left, where x = 1 or 2.

SEAT HEATER RELAY,STAGE X,R
K59 (Seat heater stage X relay)-Right, where x = 1 or 2.

SEAT TRACK POS.STATUS,DRIVER
Indicates the Drivers Seat Track Position status.

SEAT TRACK POS.STATUS,PASS.
Indicates the Passenger Seat Track Position status.

SEAT TRACK POSITION STATUS
Indicates the Seat Track Position Status.

SEATBELT
Indicates the status of the Seatbelt Lamp.

SEATBELT BUCKLE SW,R.RIGHT
S68/12 (Right rear seatbelt buckle and seatbelt wear convenience switch).

SEATBELT BUCKLE SW,REAR LEFT
S68/11 (Left rear seatbelt buckle and seatbelt wear convenience switch).

SEC AIR BYPASS SOL MON
Indicates ON when the air bypass solenoid is ON and air bypass voltage is low and OFF when the solenoid is off and air bypass voltage is high. The solenoid controls a vacuum signal to the air bypass valve. When the air bypass system is activated, air is directed to the catalyst or an upstream-downstream valve; when the system is deactivated, air is blocked from the catalyst or routed to atmosphere.

SEC AIR DIVERT SOL MON
Indicates ON when the Air Diverter solenoid is ON and air bypass voltage is low and OFF when the solenoid is off and air bypass voltage is high. The solenoid controls a vacuum signal to the air diverter valve. When the air diverter system is activated, air is routed upstream.

SEC AIR RELAY
Indicates the status of the Secondary Air relay.

SECAIR_MON_RDY
Secondary Air System Monitor (AIR) is either ready or not. YES means the monitor is ready.

SECONDARY AIR DIVERT
Indicates the status of the Secondary Air Divert Solenoid/Relay.

SECONDARY AIR FAULT INDICATOR
Indicates whether the PCM has detected a fault in the AIR BYPASS or AIR DIVERT circuits. ON means a fault is present.

SECONDARY AIR INJECTION
Indicates the status of the secondary air injection.

SECONDARY AIR MASS
This parameter indicates the amount of air of the secondary air pump.

SECONDARY AIR MON
Indicates whether the air monitor is off or on.

SECONDARY AIR MON STATUS
OBD monitor information. Secondary Air Monitor is either supported or not supported, or ready or not ready.

SECONDARY AIR PUMP
This parameter indicates the status of the Secondary Air Pump.

SECONDARY AIR VALVE
This parameter indicates the status of the Secondary Air Valve.

SECONDARY BRAKE PEDAL
Indicates the status of the Secondary Brake Pedal.

SECONDARY BRAKE SWITCH
Indicates the status of the Secondary Brake Switch.

SECONDARY PRESSURE
Indicates the pressure of the secondary pulley control.

SECONDARY PULLEY SPEED
Indication the rotation speed of the secondary pulley.

SECURITY LINK
This parameter indicates the status of the security link.

SEED CODE NOT LEARNED
This parameter indicates that the seed code has not been learned.

SEGMENT DISPLAY SWITCHED ON
Segment display switched on.

SELECT. IN OVERTEMPERATURE COUNT
Error counter on Selespeed gearboxes.

SELECT/MODE SW
Indicates the status of the Select/Mode switch.

SELECTED GEAR
This parameter indicates in which gear the transmission is in.

SELECTION POSITION
Indicates the position of the gearbox shaft in mm.

SELECTOR LEVER POSITION
Indicates the gear selector lever position (PN/R/D1). The display shows the selected range position, not the current gear that the transmission is operating in.

SELECTOR LEVER POSITION
Selector lever position.

SELF-ADAPT. CTP (IDLE) LEFT
Displays the closed throttle position (idle) fuel correction for the left cylinder bank the ECU is commanding to maintain a 14.7:1, or 1.0 Lambda, air-fuel ratio. The display is the adjustment made in addition to basic injector on time.

SELF-ADAPT. CTP (IDLE) RIGHT
Displays the closed throttle position (idle) fuel correction for the right cylinder bank the ECU is commanding to maintain a 14.7:1, or 1.0 Lambda, air-fuel ratio. The display is the adjustment made in addition to basic injector on time.

SELF-ADAPT. DELAY TIME LEFT
Displays the left cylinder bank adaptation for injector delay time. Delay time is supplementary injection duration based on battery voltage. Injector duration varies according to battery voltage and there can be substantial time lag before the injector opens completely, especially during cold starts or with a partially discharged

battery. The display represents the supplementary injector on time in (ms) that is being added to the base duration to compensate for this effect on the left cylinder bank.

SELF-ADAPT. DELAY TIME RIGHT
Displays the right cylinder bank adaptation for injector delay time. Delay time is supplementary injection duration based on battery voltage. Injector duration varies according to battery voltage and there can be substantial time lag before the injector opens completely, especially during cold starts or with a partially discharged battery. The display represents the supplementary injector on time in (ms) that is being added to the base duration to compensate for this effect on the right cylinder bank.

SELF-ADAPT. PART. LOAD FACTOR LEFT
Displays the lower partial load self-adaptation factor for the left cylinder bank.

SELF-ADAPT. PART. LOAD FACTOR RIGHT
Displays the lower partial load self-adaptation factor for the right cylinder bank.

SELF-ADAPT.DELAY TIME:X.BNK
Self adaptation of delay time, X bank of cylinders(s), where x = Left or Right.

SELF-ADAPT.IDLE RANGE:L.BNK
Self adaptation in idle speed range, left bank of cylinders (ms).

SELF-ADAPT.IDLE:RIGHT BANK
Self adaptation in idle speed range, right bank of cylinders (ms).

SELF-ADAPTATION
Indicates whether or not the ECU is attempting to compensate for tolerances in the mixture by means of long term adaptation, or long term fuel trim (LTFT) adjustments. The display only reads ON when the ECU is making LTFT adjustments.

SELF-ADAPTATION CTP (IDLE)
Displays the closed throttle position (CTP) at idle, fuel correction factor that the ECU is commanding to maintain a 14.7:1, or 1.0 Lambda, air-fuel ratio. The display for most systems is in kilograms per hour (kg/h) with zero being the base point.

SELF-ADAPTATION DELAY TIME
Is the adaptation for injector delay time, which is supplementary injection duration based on battery voltage. Injector duration varies according to battery voltage. There can be substantial time lag before the injector opens completely, especially during cold starts or with a partially discharged battery. The display is the supplementary injector time added to the base duration to compensate.

SELF-ADAPTATION ENABLED
Self-adaptation enabled.

SELF-ADAPTATION LOWER PART. LOAD
Lower partial load self-adaptation factor is one of three factors the ECU uses to make long-term fuel trim (LTFT) corrections to maintain a 14.7:1, or 1.0 Lambda, air-fuel ratio.

SELF-ADAPTATION PARTIAL LOAD
Displays the lower partial load self-adaptation factor, which is one of three factors the ECU uses to make long-term fuel trim (LTFT) corrections to maintain a 14.7:1, or 1.0 Lambda, air-fuel ratio.

SELF-ADAPTATION UPPER PART. LOAD
Indicates the upper partial load self-adaptation factor, which is one of three factors that the ECU uses to make long-term fuel trim (LTFT) corrections to maintain a 14.7:1, or 1.0 Lambda, air-fuel ratio. On the display, a 1.0 reading is the base point.

SELF-ADJUSTMENT LEFT BANK
Indicates the status of the self adjustment for the left cylinder bank.

SELF-ADJUSTMENT RIGHT BANK
Indicates the status of the self adjustment for the right cylinder bank.

SENSITIZATION FACTOR
Is the amount of correction the ECU is making to filter out vibration and prevent setting false misfire codes.

SENSOR GEAR ADAPTATION ENDED
Indicates whether or not the ECU is adjusting the sensitivity of misfire detection.

SENSOR REF
This parameter indicates the voltage of the reference signal as measured by the ECU.

SENSOR REFERENCE
This parameter indicates the voltage of the Reference Sensor.

SENSOR ROTOR ADAPTATION LEARNED
Indicates whether or not the rotor sensor adaptation has been learned.

SENSOR SUPPLY A
Indicates the main Sensor Power Supply in Volts.

SENSOR SUPPLY B
Indicates the back-up Sensor Power Supply in Volts.

SENSOTRONIC ECU:STATUS
Speed status of control unit A7/3n1 (SBC control module).

SEQUENTRONIC BRAKE VALVE
Indicates the status of the sequentronic brake valve.

SEQUENTRONIC CLUTCH VALVE
Indicates the status of the sequentronic clutch valve.

SEQUENTRONIC CONTROL VALVE(1,3,5)
Indicates the status of the specified sequentronic control valve.

SEQUENTRONIC CTRL VALVE(R,2,4,6)
Indicates the status of the specified sequentronic control valve.

SERIAL NR TESTER,KNOWL.BASE:
Serial number of tester used to program the knowledge base.

SERIAL NR:EL.IGN.SW.ECU
Serial number EIS.

SERIAL NR:EL.STEER.LOCK
Serial number ESL.

SERIAL NUMBER
Serial number.

SERVICE
Indicates whether the Service Internal is set in days (D) or in months (M).

SERVICE ATF OIL
This parameter indicates that the automatic transmission fluid and filter should be changed.

SERVICE BRAKES:OPERATED
Service brakes operated.

SERVICE IDLE ADJUST STATUS
Indicates whether the idle is being adjusted by PCM for diesel vehicles.

SET ALARM SW
Indicates the status of the Set Alarm switch.

SET LOW SW-ON TEMP OF HEATER
Set temperature below which the heater booster is switched on.

SET RESUME
Satellite Navigation System Parameter, indicating whether the system has been programmed to Set Resume.

SET TEMPERATURE
Displays the Set Temperature as a percentage.

SET&OFF
Satellite Navigation System Parameter, indicating whether the system has been programmed to Set and Off.

SETUP SW
Indicates the status of the Set-up switch.

SFTRIM
These fuel trim values represent the short term correction to the fuel injection pulse width when the engine is idling. This value is learned by the ECU and used to correct small differences between engines and engine wear. When the short term correction (O_2 Integrator) is outside the window defined in the ECU's memory, the long term fuel trim (LFTRIM) is changed.

SFTRIM ACTIVE
This parameter indicates whether the SFTRIM (Short Term Fuel Trim) is active or not.

SHFT PNT DISPLACEM PEDAL VAL.
Indicates the status of the shift point displacement inconjuction with the accelerator pedal position used on automatic transmission systems.

SHFT PNT DISPLACEM(CAT HEATING)
Indicates the status of the shift point displacement during the cat warm-up period used on automatic transmission systems.

SHFT PNT DISPLACEM(DOWNSHIFT)
Indicates the status of the shift point displacement during a down-shift used on automatic transmission systems.

SHIFT ABORT
Indicates the status of the gear shift control used in automatic transmission systems.

SHIFT APPROVED
Indicates the status of the gear shift control used in automatic transmission systems.

SHIFT DOUBLE
Indicates the status of the gear shift control used in automatic transmission systems.

SHIFT FREQUENCY
Indicates the status of the gear shift control used in automatic transmission systems.

SHIFT GATE POSITION
Indicates the status of the shift gate position switch.

SHIFT GATE X-X
Indicates the status of the shift gate. Where X can be 1-2, 3-4, 5-6, N-R

SHIFT LEVER
This parameter displays the position of the shift lever of an automatic transmission system. Usual values are Drive, Neutral, Park and Reverse. Some automatic transmission systems also display numbers.

SHIFT LEVER IN GEAR
This parameter indicates that the shift lever is in gear.

SHIFT LEVER POSITION
This parameter displays the position of the shift lever of an automatic transmission system. Usual values are Drive, Neutral, Park and Reverse. Some automatic transmission systems also display numbers.

SHIFT LEVER SWITCH
This parameter displays the position of the shift lever switch of an automatic transmission system. Usual values are Drive, Neutral, Park and Reverse. Some automatic transmission systems also display numbers.

SHIFT LEVER SWITCH X
Indicates the status of the Shift Lever Switch, where X can be A, B, C, L, PA.

SHIFT LINE EVALUATION
Indicates the status of the gear shift control used in automatic transmission systems.

SHIFT LOCK
Shift lock.

SHIFT PNT DISPLACEM.(UPSHIFT)
Indicates the status of the shift point displacement during an up-shift used on automatic transmission systems.

SHIFT POINT DISPLACEMENT
Indicates the status of the shift point displacement used on automatic transmission systems.

SHIFT POINT SHIFT
Indicates the transmission shift point variability.

SHIFT PROGRAM
This parameter displays which program the automatic transmission system is running. Usual values are Sport, Economic or Manual. Other values can also occur.

SHIFT PROGRAM STATUS
Indicates the status of the shift program used on automatic transmission systems.

SHIFT SOL X PRIM CKT MON HIGH A
Indicate the status of the shift solenoids 1, 2 and 3 to the PCM. When the solenoid circuits and PCM function properly, the PCM command parameter, such as ShiftSol1 and the feedback parameter, such as ShiftSol1A, should simultaneously display ON or OFF.

SHIFT SOLENOID X COMMANDED ON
Indicates the PCM command status for the 1, 2 and 3 shift solenoids. ON means the PCM has commanded the shift solenoid to energise.

SHIFT SOLENOID X FAULT
Indicates the presence of a fault in a shift solenoid circuit. YES means a fault is present.

SHIFT VALVE 1/2/3/4/5
Indicates the status of the gear shift control valve used in automatic transmission systems.

SHIFT VALVE FLAG
Indicates the status of the gear shift control valve flag used in automatic transmission systems.

SHIFT VALVE X-X (CURRENT)
Indicates the current status of the gear shift control valve used in automatic transmission systems. Where X can be 1-2, 3-4, 5-6.

SHIFT VALVE X-X (NOMINAL)
Indicates the nominal status of the gear shift control valve used in automatic transmission systems. Where X can be 1-2, 3-4, 5-6.

SHORT TERM FUEL TRIM-BK X
The short-term fuel (ST FUEL) numbers represent the operation and short-term correction of the fuel-metering for a fuel-injected engine. It indicates whether the PCM is commanding a rich or a lean mixture.

SHORT TERM MIXTURE ADAPT(AVERAGE)
This parameter indicates the average short term mixture adaptation.

SHOULDER AREA ADJ.SW:DEFLATE
Switch S108s4 (Shoulder area adjustment switch) is pressed in 'Deflate' position.

SHOULDER AREA ADJ.SW:DOWN
Switch S108s4 (Shoulder area adjustment switch) operated down.

SHOULDER AREA ADJ.SW:INFLATE
Switch S108s4 (Shoulder area adjustment switch) is pressed in 'Inflate' position.

SHOULDER AREA ADJ.SW:UP
Switch S108s4 (Shoulder area adjustment switch) operated up.

SHUT OFF USERS W/ PRIOR.X.
Vehicle power supply control module: Shut off all consumers with priority X, where x = 1 or 2.

SHUTOFF VALVE
This parameter displays the duty-cycle of the fuel shut-off valve. The value is usually displayed as a percentage. The higher the value, the more the shut-off valve is closed.

SIDE CHEEKS ADJ.SW:DEFLATE
Switch S103s2 (Side cheeks adjustment switch) is pressed in 'Deflate' position.

SIDE CHEEKS ADJ.SW:INFLATE
Switch S104s2 (Side cheeks adjustment switch) is pressed in 'Inflate' position.

SIDE LAMP
Side lamp.

SIDE LAMP, FOGLAMP
Side lamp, fog-lamp.

SIDE LAMP,(REAR)FOGLAMP
Side lamp, fog-lamp, rear fog-lamp.

SIDE MARKER LAMP USA,FR-E6/2
E6/2 (Right front side marker lamp USA).

SIGNAL TO HAZARD WARN LIGHT
Signal to hazard warning light.

SIGNAL:INTERIOR/TOWING SNS
Signal from interior motion / towing sensor.

SIMULATION FULL LOAD
The ECU uses the throttle valve potentiometer signal to calculate a simulation for the throttle valve switch “idle” and “full load” contacts. The Motronics ECU requires this information for idle air control, full load enrichment and O_2 Sensor control cut off.

SIMULATION IDLE LOAD
The ECU uses the throttle valve potentiometer signal to calculate a simulation for the throttle valve switch “idle” and “full load” contacts. The Motronics ECU requires this information for idle air control, full load enrichment and O_2 Sensor control cut off.

SIMULATION IDLE LOAD SWITCH
Indicates whether the Simulated Idle Load Position Switch is ON or OFF.

SIMULATION PART LOAD SWITCH
Indicates whether the Simulated Partial Load Position Switch is ON or OFF.

SIREN
Signal horn.

SIREN+BATT:BATT
Battery of component H3/1 (Alarm signal siren with additional battery).

SLIDE VALVE SENSOR
This voltage feedback signal is used by the ECU to determine the injection pump governor position and directly effects the amount of fuel injected.

SLIP INDICATOR LAMP
Indicates the status of the slip indicator lamp.

SLOT POSITION
This parameter indicates the slot position.

SMOOTH RUNNING DAMAGE LIMIT VALUE
Indicates the smooth running damage limit value as calculated by the ECU.

SMOOTH RUNNING DAMAGE VALUE
Indicates the smooth running damage value as calculated by the ECU.

SMOOTH RUNNING OF CYL. X
Indicates the engine speed signal provided to the ECU in rpm by the various knock sensors (KS) for the specified cylinder.

SMOOTH RUNNING SHUT OFF THRESHOLD
Indicates the status of the smooth running shut-off threshold valve.

SMOOTH RUNNING VALUE ENGINE X
This parameter indicates that each cylinder (where X = the cylinder number) in the engine is running stable and not misfiring.

SMTH RUNN.AVERAGE VAL.CYL. X
Indicates the average engine speed signal provided to the ECU in rpm by the various knock sensors (KS) for the specified cylinder.

SNOW SWITCH
Indication that the ECU has detected that the snow switch on the ATM is activated.

SNSR GEAR ADAPT. MEAN VALUES SEG. "A to E"
Indicates the correction the ECU is making to filter out vibrations and prevent setting false misfire codes. The crankshaft sensor gear adaptation mean value reflects the addition of a supplementary correction factor designed to compensate for phase error in the crankshaft sensor. This information is used to compute actual ignition timing. Each segment represents the duration between each new ignition cycle. Ignition, injection and engine speed derived from segment duration are recalculated for each segment.

SOL.OPEN
Indicates whether the Solenoid is open or not.

SOL.SLAVED
Indicates whether the Solenoid has been Slaved or not.

SOLAR SENSOR
This parameter indicates the output voltage of the Solar Sensor.

SOLAR SENSOR LEFT
This parameter indicates the output voltage of the Left Solar Sensor.

SOLAR SENSOR RIGHT
This parameter indicates the output voltage of the Right Solar Sensor.

SOLENOID RELAY
This parameter indicates the status of the solenoid valve relay.

SOLENOID SHIFT LOCK
Indicates the status of the Solenoid Shift Lock, it can be either ON or OFF.

SOLENOID SUPPLY
This parameter indicates the voltage of the solenoid valve supply.

SOLENOID VALVE X
This parameter indicates the status of the specified solenoid valve.

SOUND SYSTEM:COMM
CAN communication with control module SOUND sound system.

SOUND SYSTEM:SWCAN
Control module SOUND sound system is in the single-wire mode.

SP.DEV.BT. FR/RR AXLES TOO HIGH
Shows if the ECU is receiving input signals indicating too much deviation between the speed of the front and rear axles. The display reads YES if speed deviation is too high and reads NO at all other times. Traction control activates when YES displays.

SPARE KEY PROGRAMMING
Indicates whether the Spare Key recognition function is enabled or disabled.

SPD INCOHER
Indicates whether the Speed is incoherent or not.

SPD INVALID
Indicates whether the Speed is invalid or not.

SPEC.VAL.HALL SNSR PED.VAL.SNSR X
No information available at this time.

SPEC.VEH.MULTIF.ECU:COMM
CAN communication with control module SVMCM.

SPEC.VEH.MULTIF.ECU:SWCAN
Control module SVMCM is in the single-wire mode.

SPEC.VEH.MULTIF.ECU:COMM
CAN communication with control module Special vehicle multi function control module (SVMCM).

SPECIFIED BOOST PRESS(hPa)
Specified boost pressure (hPa).

SPECIFIED ENGINE SPEED
Indicates whether or not the specified engine speed has been reached. Used in automatic transmission and cruise control systems.

SPEED CONTROL OPERATION MODE
Indicates the status of the cruise control option and informs the PCM of the current state of the main cruise control switch. (SP/ACC = Resume/Accelerate).

SPEED CONTROL SWITCH
Displays the Speed Control Switch input voltage.

SPEED CONTROL SWITCH MON
Indicates the status of the Speed Control switch monitor.

SPEED CONTROL:DEACTIVATION
Indicates whether the Speed Control has been deactivated or not.

SPEED CONTROL:OPERATION
Indicates whether the Speed Control is in operation or not.

SPEED DEPENDENT WIPER FUNCTION
Indicates the status of the windshield wiper mode that makes wiper motion vehicle speed sensitive. When the system functions properly, ENABLE means wiping motion speed increases and decreases with vehicle speed.

SPEED IN CRUISE CONTROL RANGE
Indicates whether the vehicle speed is cruise control range or not.

SPEED INDEX
Indicates the Speed index.

SPEED LIMITATION
Indicates the actual Speed Limitation.

SPEED LIMITER
Indicates the status of the Speed Limiter.

SPEED LIMITER SWITCH
Indicates the status of the Speed Limiter Switch.

SPEED SIGNAL
Is the vehicle speed sensor (VSS) input signal to the ECU.

SPEED TRANSMISSION OUTPUT
This parameter indicates the speed of transmission output shaft.

SPILL VALVE RELAY
Indicates whether the Spill Valve Relay is ON or OFF.

SPORT SWITCH
Indication that the ECU has detected that the sport-switch on the ATM is activated.

STABLE RPM EGR
No information available at this time.

STALL.TEST
Indicates the status of the Stall Test.

STALLED
Indicates whether the engine is stalled or not.

STANDING&PARKING LAMP,RIGHT
Component E2e3 (Right standing and parking lamp) in module E2 (Right front headlamp unit).

START APPROVAL
Shows if the ECU will allow starting based on input from the anti-theft system.

START ATTEMPT MADE WITH DAS LOCKED
Indicates whether an attempt to start the engine was made with the drive authorization system (DAS) or anti-theft system locked. The display normally reads NO and only reads YES if there was a start attempt with the DAS or anti-theft system locked.

START ATTEMPT W.IMPLAUS. INPUT SIGN
Indicates whether an attempt to start the engine was made with the anti-theft system locked. The display normally reads NO and only reads YES if there was a start attempt with the anti-theft system locked.

START AUTHORIZATION
Indicates whether the drive authorization system (DAS) or anti-theft system and the engine control module (ECU) have correctly identified each other. The display reads YES at start-up if the modules correctly identify each other. A NO reading indicates the modules cannot identify each other and starting is disabled.

START COMPENSATION
Indicates the percentage of fuel injection compensation that the ECU will apply for starting. This parameter applies to diesel engine vehicles only.

START ENABLE
Start enable.

START ENABLED
Indicates whether the anti-theft system and the engine control module (ECU) have correctly identified each other. The start enabled reads YES/ON at start-up if the modules correctly identify each other. A NO/OFF reading indicates the modules cannot identify each other and starting is disabled.

START ENLEANMENT
On many fuel-injected engines, the ECU responds to engine cranking with a wide-open throttle by commanding a clear flood mode. This mode provides a very lean air-fuel mixture to help clear a flooded engine. On the Scanner, START ENLEANMENT should read YES under these cranking conditions. If it does not, the ECU may not be getting an accurate TPS signal or there may be a problem with the clear flood program in the ECU.

START LOCK-OUT CONTACT
Indicates the status of the starter lock-out contact.

START MODULE AUTOMATIC
Indicates the status of the automatic starter module.

START OF DELIVERY
This parameter displays the commencement of injection point that the ECU commands and the amount of fuel.

START OF DELIVERY VALVE
This parameter displays the duty cycle of the valve controlling the amount of diesel flowing from the lift pump to the injection timing piston, thus controlling injection timing and the amount of fuel.

START RELEASE
Indicates the status of the start release switch.

START SYNCHRONISATION
This parameter indicates the start synchronisation.

STARTER CONTROL
Indicates whether the anti-theft system and the engine control module (ECU) have correctly identified each other. The display reads YES/ON at start-up if the modules correctly identify each other. A NO/OFF reading indicates the modules cannot identify each other and starting is disabled.

STARTER CONTROL
Starter control.

STARTER ENGAGED
This parameter indicates that the starter has been engaged.

STARTER LOCK-OUT OUTPUT
Indicates whether the anti-theft system and the engine control module (ECU) have correctly identified each other. The display reads YES/ON at start-up if the modules correctly identify each other. A NO/OFF reading indicates the modules cannot identify each other and starting is disabled.

STARTER LOCK-OUT REED CONTACT
Indicates whether the anti-theft system and the engine control module (ECU) have correctly identified each other. The display reads YES/ON at start-up if the modules correctly identify each other. A NO/OFF reading indicates the modules cannot identify each other and starting is disabled.

STARTER LOCK-OUT RELAY
Indicates the status of the starter lock-out relay.

STARTER LOCK-OUT STATUS
Indicates whether the anti-theft system and the engine control module (ECU) have correctly identified each other. The display reads YES/ON at start-up if the modules correctly identify each other. A NO/OFF reading indicates the modules cannot identify each other and starting is disabled.

STARTER SIGNAL CIRCUIT 50
Indicates the state of circuit 50, which is the starter circuit. The display reads ON when the starter is cranking, then switch to OFF after engine starts.

STAT.HEATER/-BOOSTER FP
Y23 (Stationary heater or heater booster fuel metering pump).

STAT.HEATER/-BOOSTER FP:TIME
Period of component Y23 (Stationary heater or heater booster fuel metering pump) (ms).

STAT.TARGET OBJECT:DETECTED
Stationary target object detected.

STATIONARY HEATER:ACTIVE
Stationary heater active.

STATIONARY HEATER:HEAT MODE
Stationary heater in heating mode.

STATIONARY HEATER:VENT.MODE
Stationary heater in ventilation mode.

STATUS CAN DATABUS
Status of the CAN data-bus.

STATUS DRIVE AUTHORIZATION
Status of drive authorization.

STATUS ENGINE OIL LEVEL
Indicates the status of the Engine Oil level sensor.

STATUS FLAME DETECTION:FLAME
Status of flame detection: flame.

STATUS FUEL COOLING
This parameter indicates the percentage that the fuel is cooled.

STATUS IMMOBILIZER PROGRAM.
Indicates the status of the Immobiliser Program.

STATUS INJ.VLV SHUTTOF LEFT
Status of injection valve shut off: (Left).

STATUS INJ.VLV SHUTTOF RIGHT
Status of injection valve shut off: (Right).

STATUS RECEIVER
Status of receiver.

STATUS SW
Indicates the status of the Status Switch.

STATUS VEHICLE BLOWER SWITCH
Status of vehicle blower switch.

STATUS WARNING LAMP
Status of warning lamp.

STEERING ANGLE
This parameter indicates the position of the steering wheel.

STEERING ANGLE SENSOR
Steering angle sensor.

STEERING ANGLE SNS:CODINGERR
Steering angle sensor has coding error.

STEERING ANGLE SNS:OVERFLOW
Steering angle sensor has overflow.

STEERING COLUMN ADJ.SWITCH
S59/1s1 (Steering column adjustment raise/lower, forward/back switch).

STEERING COLUMN MOD-N80:COMM
CAN communication with control module N80 (Steering column module).

STEERING COLUMN,DRIVE POS.SW
M20s1 (Steering column driving position micro-switch).

STEERING DIRECTION
Steering direction.

STEERING SENSOR ALIGNED
Indicates whether or not the Steering Angle Sensor is factory-aligned.

STEERING TYPE CODING
Steering type coding in control modules N2/7 (restraint systems control module) and N73 (EIS control module).

STEERING WHEEL ANGLE
Displays the Steering Wheel angle.

STEERING WHEEL DOWN-SHIFT SW
This parameter indicates the status of the steering wheel down-shift switch.

STEERING WHEEL HEATER SW OFF
S59/1s2 (Steering wheel heater switch) “OFF”.

STEERING WHEEL HEATER SW ON
S59/1s2 (Steering wheel heater switch) “ON”.

STEERING WHEEL HTR [AMPERE]
Current consumption of component R22/4 (Steering wheel heater).

STEERING WHEEL SWITCH -
This parameter indicates the position of steering wheel switch, negative.

STEERING WHEEL SWITCH +
This parameter indicates the position of the steering wheel switch, positive.

STEERING WHEEL UP-SHIFT SWITCH
This parameter indicates the status of the steering wheel up-shift switch.

STEP MOTOR
The stepper motor position parameter indicates the number of steps the ECU has determined as correct for the present engine temperature. The stepper motor position must be initially set when the engine is at full operating temperature to between 25 and 35 steps.

STEPPER MOTOR POSITION
The stepper position parameter indicates the number of steps the ECU has determined as correct for the present engine temperature. The stepper motor position must be initially set when the engine is at full operating temperature to between 25 and 35 steps.

STOP INFORMATION VOLTAGE
Indicates the Stop Information voltage.

STOP LAMP SWITCH
Indicates the state of the brake light switch. The display reads ON if the brake light switch circuit is closed, brake lights on and OFF when the circuit is open.

STORAGE COMPARTM.SW-S85 CLSD
S85 (Stowage compartments switch) (closed).

STORAGE COMPARTM.SW-S85 OPEN
S85 (Stowage compartments switch) (open).

STORED BTN INSTANT HEAT CLSD
Stored: 'Instant heat' pushbutton CLOSED.

STORED:TELESTART`OFF`RECV
Stored: Off signal from the Telestart receiver received.

STORED:TELESTART`ON`RECV
Stored: On signal from the Telestart receiver received.

SUM ADDITIVE AMOUNT
Indicates the Sum Additive Amount.

SUM MISFIRES
This parameter indicates the total amount of misfires.

SUN LOAD TEMP SENSE
Displays the voltage from the Sun Load Temperature sensor.

SUPERCHARGER CLUTCH
Indicates the state of the supercharger clutch. The display reads ON if the supercharger clutch is engaged to increase boost and OFF when the clutch is disengaged.

SUPERCHARGER EFFICIENCY FACTOR
Indicates the ECU calculated supercharger efficiency factor and reflects supercharger performance. Display readings vary with speed and load. Typically, if driving in third gear at 3500 rpm under full load, reading should be greater than 1.3.

SUPPLY HELD
Indicates whether the ECU Supply is Held or not.

SUPPLY RELAY
This parameter indicates the status of the supply relay.

SUPPLY RELAY CONTROL
Indicates the status of the Control Relay Supply.

SUPPLY VOLTAGE
Supply voltage (V).

SUPPLY VOLTAGE ASK SENSOR
Displays the power supply voltage for the ASK sensors.

SUPPLY VOLTAGE TERMINAL 15
Displays the power supply voltage for terminal 15 starter circuit.

SUPPLY VOLTAGE TERMINAL 30
Displays the power supply voltage for terminal 30 starter circuit.

SUPPLY VOLTAGE TRANSM. SENSORS
Displays the power supply voltage for the transmission sensors.

SUPPLY VOLTAGE VALVES
Displays the power supply voltage for the valves.

SVS LAMP
Indicates the status of the Service Vehicle Soon Lamp.

SW DYNAMIC STABILITY CTRL (DSC)
This parameter indicates the status of the Dynamic Stability Control (DSC) switch.

SWIRL CONTROL
Displays the current duty cycle of the swirl control valve. The swirl control determines the length of the intake manifold, position is determined by the ECU and is depending on throttle position and load conditions. This parameter applies to diesel vehicles only.

SWIRL PLATE POSITION SWITCH
Indicates the status of the Swirl Plate Position Switch.

SWITCH.BATT
This parameter indicates the voltage when the ignition key is switched on.

SWITCHED BATTERY
This parameter indicates the voltage when the ignition key is switched on.

SWITCHED POWER SUPPLY ECU
Indicates the ECU Switched Power Supply voltage

SW-ON HEADLIGHT RANGE ADJ.M
Switching on headlight range adjustment input.

SWTCHD SYS
Displays the status of the System Voltage.

SYNCHRONISATION
This parameter indicates the start synchronisation.

SYNCHRONISATION STATUS
Indicates the Synchronisation Status.

SYS VOLT OK
Displays the status of the System Voltage.

SYSTEM
Displays the status of the System Voltage.

SYSTEM CALIBRATION PERFORMED
Indicates whether a system calibration has been performed or not.

SYSTEM INFORMATION
System information.

SYSTEM OK
Indicates whether the System is OK or not.

SYSTEM PRESSURE
This parameter displays the system pressure or the voltage from the system pressure sensor.

SYSTEM SELECT BUTTON-S110s3
S110s3 (System select pushbutton).

3.2.20 T

T/A DISABLE SW
Indicates the status of the traction assist disable switch.

T/A OFF INDICATE LAMP
Indicates the status of the traction assist off indicator lamp.

TACH FREQ
This is the engine speed (RPM) signal displayed as a frequency signal, values in Hz. See description for RPM for more information.

TAIL GATE OR HOOD SW
Indicates the status of the Tail-gate or Hood switch.

TAIL/HTCH AJAR
Indicates whether Tail/Hatch door switch contacts are open or closed. OFF means the door is shut and the contacts of the switch are closed.

TAILGATE
Tailgate.

TANK FILL LEVEL
Indicates if there is the proper amount of fuel in the fuel tank to run an evaporative emissions (EVAP) test.

TANK LEAK SWITCH
This parameter indicates the status of the fuel Tank Leak Switch.

TANK PRESSURE
This parameter indicates the pressure inside the fuel tank.

TANK PRESSURE DIFFERENCE
Indicates the results of an ECU performed fuel tank leak test, which is part of the OBD-II monitoring system. The fuel tank pressure test uses an internal fuel tank pressure sensor.

TANK VENTILATION
This parameter indicates the status of the fuel tank ventilation.

TARGET OBJECT DETECTED
Target object detected.

TARGET:REL.SPEED DETECTED
Relative speed of target object detected.

TC ACTIVE
Indicates whether the Traction Control System is active on or not.

TC SW
Indicates the status of the Traction Control switch.

TC WARN LAMP
Indicates the status of the Traction Control warning lamp.

TCC SOL
Indicates the PCM command status for the torque converter clutch solenoid. When the system functions properly, ON means the torque converter clutch solenoid is energised, fully locking the converter.

TCS MODULATE
Displays the Traction Control modulated voltage.

TCS OPERATION SIGNAL
Indicates the status of the traction control operation signal.

TCS STATUS
This parameter is a feedback signal from the Traction Control System (TCS) switch.

TCS SWITCH
This parameter indicates if the TCS switch is ON or OFF.

TELE-AID/E-CALL:COMM
CAN communication with control module TELE AID or E-Call.

TELE-AID/E-CALL:SWCAN
Control module TELE AID or E-Call is in the single-wire mode.

TELESTART RECEIVER SIGN:OFF
Off signal from the Telestart receiver.

TELESTART:# LRN TRANSMITTERS
Telestart receiver: Number of learned transmitters.

TEMP MAX FUEL
This parameter indicates the temporary maximum fuel quantity that can be injected every stroke.

TEMP SENSOR
This parameter displays the output voltage of the Temperature Sensor.

TEMP.AT ENGINE START(°C)
Temperature at engine start (°C).

TEMP.CONDITION CYCLE(COMPL.)
Indicates the status of the Completion of the Temperature Condition Cycle.

TEMP.CONDITION CYCLE(START)
Indicates the status of the Start of the Temperature Condition Cycle.

TEMPERATURE REDUCTION
No information available at this time.

TEMPERATURE SENSOR
Temperature is an analogue parameter supplied to the ECU by the Temperature Sensor. The Temperature Sensor is a thermistor installed in the fluid passages. At low temperatures the resistance is high and a high voltage signal is produced. As temperature increases, sensor resistance decreases, providing a decreasing voltage signal to the ECU.

TEMPOMAT SWITCH
Indicates the state of the cruise control switch. The display reads ON when the indicated cruise control switch is energized and OFF if it is not.

TEMPOR. MAXIMUM FUEL AMOUNT
Indicates the temporary maximum fuel quantity that can be injected every stroke.

TEMPOR.MAX FUEL AMOUNT
This parameter indicates the temporary maximum fuel quantity that can be injected every stroke. This maximum is used to prevent the engine from smoking.

TESTER SUPPLIED CO CORRECTION
Indicates the actual position of the CO idle correction. This correction can only be electronically adjusted with a tester. Zero means no influence on the idle CO. A negative value means a leaner mixture, a positive value means a richer mixture.

TESTER SUPPLIED IGNITION CORR.
Displays the ignition correction which can be changed using the ignition correction function from the Functional Tests Menu. A positive reading indicates a retard ignition, a negative reading means more ignition advance.

THEOR.FUEL AMOUNT
Theoretical fuel amount required, as calculated by the ECU from the engine speed (RPM) and MAP sensors, etc.

THERMOPLUNGER MANAGEMENT
Indicates whether the Thermoplunger Management system is active or not.

THERMOSTARTER LIGHT
This parameter indicates whether or not the ECU has commanded the Thermostarter Light ON or OFF.

THERMOSTARTER RELAY
This parameter indicates whether or not the ECU has commanded the Thermostarter Relay ON or OFF.

THERMOSTAT
This parameter indicates the status of the Thermostat.

THR
This parameter indicates that the ECU has detected that the throttle valve is closed or open and is used in conjunction with other parameters when the ECU is applying learned idle values.

THR # X
This parameter indicates the position of the throttle valve on bank one or two.

THR ABSOLUTE
This parameter indicates the actual opening of the throttle in degrees and is calculated by the ECU.

THR ADJ SENSOR,MAX LRN OK/EXEC
This parameter displays the current state of the learning process for the TPS maximum position stop.

THR ADJ SENSOR,MIN LRN OK/EXEC
This parameter displays the current state of the learning process for the TPS minimum position stop.

THR ADJ/TPS BALANCE OK/EXEC
This parameter indicates if the signal from the Throttle Position Sensor is equalized to the signal from the Throttle Stop Position Sensor. (The ECU recognizes both different signals as being the same).

THR ANGLE
This parameter is calculated by the ECU from the Throttle Position Sensor voltage. It indicates the amount of throttle opening.

THR LEARN
This parameter indicates whether or not the Throttle Learn procedure was successful.

THR POS
This parameter is calculated by the ECU from the Throttle Position Sensor voltage. It indicates the amount of throttle opening in a percentage.

THR RELATIVE
This parameter indicates the opening of the throttle in degrees relative to the closed position and is calculated by the ECU.

THR VALVE
This parameter indicates the position of the throttle valve as a voltage.

THR VALVE CLSD
This parameter indicates that the ECU has detected that the throttle valve is closed or open and is used in conjunction with other parameters when the ECU is applying learned idle values.

THR VALVE X
This parameter indicates the relative position of the throttle valve commanded by the ECU.

THROTTLE ABSOLUTE
Indicates the actual opening of the throttle in degrees and is calculated by the ECU.

THROTTLE ADAPT
This parameter displays if the ECU is adapting the Throttle Position.

THROTTLE ADJUSTER
This parameter displays the angle the throttle returns to when the accelerator is released.

THROTTLE ADJUSTER MODE
This parameter indicates if the throttle adjusting mode is in idle, part or full load.

THROTTLE ERROR RECOVERY
Indicates the state of the Throttle Error Recovery procedure.

THROTTLE LEARN
Indicates whether or not the Throttle Learn procedure was successful.

THROTTLE POS SENSOR ADAPTATION
Indicates if the ECU is adapting the throttle position sensor.

THROTTLE POS SNS
The Throttle Position Sensor (TPS) produces a voltage signal proportional to the throttle position. The signal tells the ECU how wide the throttle is open.

THROTTLE POS SNS(LIM.OPERATION)
This signal is used by the ECU to set the throttle valve adjuster voltage when in limp home mode.

THROTTLE POS(TRACK X)(ACTUAL)
Indicates the Actual Throttle Position Track, where x = 1 or 2.

THROTTLE POS.FOR CONTROL
Indicates the status of the Throttle Position Control.

THROTTLE POSITION
The throttle position (TP) sensor produces a voltage signal proportional to the throttle position. The signal tells the PCM how wide the throttle is open: low voltage at closed throttle and high voltage at wide-open throttle. The full range of the TP voltage readings available to the PCM is 0 to approximately 5.1 V. A typical TP voltage range might be approximately 0.5 V at idle to 4.5 V at wide-open throttle.

THROTTLE POSITION LOAD
This parameter indicates the throttle position when the engine is under load.

THROTTLE POSITION SENSOR
The Throttle Position Sensor (TPS) produces a voltage signal proportional to the throttle position. The signal tells the ECU how wide the throttle is open.

THROTTLE POSITION SENSOR X
Displays the voltage from the Throttle Position Sensors.

THROTTLE POSITION(ACTUAL)
Indicates the Actual Throttle Position.

THROTTLE POSITION(FULL LOAD)
Indicates the Throttle Position under Full Load conditions.

THROTTLE POSITION(IDLE LOAD)
Indicates the Throttle Position under Idle Load conditions.

THROTTLE RELATIVE
Indicates the opening of the throttle in degrees relative to the closed position and is calculated by the ECU.

THROTTLE VALVE
This parameter indicates the relative position of the Throttle Valve commanded by the ECU.

THROTTLE VALVE ACTUATOR SIGN. X
Indicates throttle opening angle in volts based on the input signal of the throttle valve actuator signals. Readings vary with throttle opening.

THROTTLE VALVE ADAPTATION
This parameter displays if the ECU is adapting the throttle Valve position.

THROTTLE VALVE ADJUSTER
This parameter displays the angle the throttle returns to when the accelerator is released.

THROTTLE VALVE ADJUSTER(LIMP)
The throttle valve adjuster produces a voltage signal proportional to the throttle position. The signal tells the ECU how wide the throttle is open when in limp home mode.

THROTTLE VALVE ADJUSTER(MAX)
The throttle valve adjuster produces a voltage signal proportional to the maximum throttle position.

THROTTLE VALVE ADJUSTER(MIN)
The throttle valve adjuster produces a voltage signal proportional to the minimum throttle position.

THROTTLE VALVE ANGLE
Indicates the throttle opening angle in degrees based on the input signal of the throttle valve potentiometer. Readings vary with throttle opening.

THROTTLE VALVE CLOSED
This parameter indicates weather the Throttle Valve is closed or not.

THROTTLE VALVE CONTROL
This parameter is a command signal issued by the ECU for the Throttle Valve Control.

THROTTLE VALVE POS.(CALC.)
Indicates the Calculated Throttle Valve Position.

THROTTLE VALVE POSITION
Indicates the throttle valve position in degrees based on the input signal of the throttle valve potentiometer. Readings vary with throttle opening.

THROTTLE VALVE POSITION SNS X
This parameter indicates the voltage read by the ECU from the Throttle Position Sensor(s). This signal tells the ECU how wide the throttle is open. The voltage for throttle closed varies with different type of Throttle Position Sensors and different type of ECU. Most Throttle Position Sensors produce a low signal when the throttle is closed and a high signal when the throttle is open.

THROTTLE VALVE POSITION SWITCH
This parameter indicates the status of the throttle valve position switch, it is either ON or OFF.

THROTTLE VALVE POSITION X
This parameter indicates the voltage read by the ECU from the Throttle Position Sensor(s). This signal tells the ECU how wide the throttle is open. The voltage for throttle closed varies with different type of Throttle Position Sensors and different type of ECU. Most Throttle Position Sensors produce a low signal when the throttle is closed and a high signal when the throttle is open.

THROTTLE VALVE POSITION(IDLE)
This parameter indicates the throttle valve position at idle.

THROTTLE VALVE POSITION(MAX)
This parameter indicates the maximum throttle valve position.

THROTTLE VALVE POSITION(MIN)
This parameter indicates the minimum throttle valve position.

THROTTLE VALVE POSITION(V)
The throttle position sensor (TPS) produces a voltage signal proportional to the throttle position. The signal tells the ECU how wide the throttle is open.

THROTTLE VALVE PWM
This parameter is a command signal issued by the ECU for the Throttle Position Motor.

THROTTLE VALVE RELAY
Indicates the status of the throttle valve relay.

THROTTLE VALVE STATUS
Indicates the Throttle Valve status.

THROTTLE VALVE STOP LEARNED
Indicates whether or not the ECU has gone through the correct learn procedure for the throttle valve stop setting and has adjusted the idle accordingly. The display reads YES if the ECU completed the throttle valve stop learn procedure and successfully adjusted the idle speed. A reading of NO indicates the ECU has not successfully executed the throttle stop learn procedure.

THROTTLE VALVE(DESIRED)
This parameter indicates the desired throttle valve position.

THROTTLE VLV ACT.-SIGNAL X
M16/6 (throttle valve actuator) Signal X (V), where x = 1 or 2.

THROTTLE VLV ACTUATOR SIGN. X
M16/6 (throttle valve actuator) Signal X (V), where x = 1 or 2.

THROTTLE VLV POS(LIM.OPERATION)
This parameter indicates the throttle valve position in limp home mode.

THROTTLE X
This parameter indicates the relative position of the throttle and is calculated by the ECU from the voltage(s) of the Throttle Position Sensor(s) (potentiometer(s)).

THROTTLE&PEDAL DEFECT MODE X
Indicates the status of the Throttle and Pedal Mode x, where x = 0 to 3.

TIME SINCE START
Is a clock that displays the elapsed time of engine running since the last start. The timer resets with each key cycle.

TIP-DOWN
This parameter displays whether the automatic transmission shift lever is shifted into tip-down mode or not. The tip-down mode of the automatic transmission gives the driver the possibility to shift down manually. This parameter will only display ON when the shift lever is continuously held in the tip-down position.

TIP-UP
This parameter displays whether the automatic transmission shift lever is shifted into tip-up mode or not. The tip-up mode of the automatic transmission gives the driver the possibility to shift up manually. This parameter will only display ON when the shift lever is continuously held in the tip-up position.

TIRE PRESS.MON.ECU-N88:COMM
CAN communication with control module N88 (Tire pressure monitor control module).

TIRE PRESSURE CTRL:COMM
CAN communication with control module TPC.

TIRE PRESSURE CTRL:SWCAN
Control module TPC is in the single-wire mode.

TIRE REVOLUTIONS(RPM)
Displays the wheel speed in revolution per minute (RPM).

TORQ CONV CLUTCH DC COMD
Displays duty cycle percentage of the torque converter clutch (TCC) pulse-width-modulated lockup solenoid.

TORQ CONV CLUTCH OUT FAULT
Indicates the presence of a fault in the torque converter clutch circuit. YES means a fault is present.

TORQ CONV CLUTCH OUT MON
Displays the Torque Converter Clutch output monitor as a voltage.

TORQ CONV CLUTCH PRIM CKT MONA
Displays the Torque Converter Clutch primary circuit output monitor as a voltage.

TORQ CONV MOD ACTUAL(RPM)
Stands for Torque Converter Clutch — actual state. It represents a feedback signal to the PCM indicating the status of the torque converter clutch. When the system functions properly, both the TCC SOL and TCCA parameters should simultaneously display ON or OFF. Can also be displayed as a voltage.

TORQUE
This parameter indicates the total torque.

TORQUE CONTROL
If pre-ignition occurs during a gear change, this parameter signals the ECU to decrease the engine torque by retarding timing using the torque control switch.

TORQUE CONVERTER
Indicates state of Torque Convertor control.

TORQUE CORR. VALUE DURING SHIFT
Displays the calculated torque correction value during a gear change.

TORQUE INCREASE
Torque increase (Nm).

TORQUE LOSS
This parameter indicates the total torque loss.

TORQUE LOSS AT WHEELS
This parameter indicates the total torque loss at the wheels in the ABS system.

TORQUE REDUC
If pre-ignition occurs during a gear change, this parameter signals the ECU to decrease the engine torque by retarding timing.

TORQUE REDUCTION
Torque reduction (Nm).

TORQUE REDUCTION:GEAR CHANGE
Indicates the Torque Reduction during a gear change on an automatic transmission system.

TORQUE SWITCH
This parameter indicates the position of the torque control switch.

TOTAL MISFIRE
Displays the total number of Misfires that have occurred.

TOTAL SOLENOID VALVE CURRENT
Indicates the total current (mA) flowing through the solenoid.

TOWN,AVERGE
Indicates the average km/litre (miles/gallon) for city/town driving conditions.

TP MODE
Is internally calculated by the PCM, based on the throttle position sensor voltage signal. At idle or during deceleration this parameter should read C/T (closed throttle). At cruise or during moderate acceleration this parameter should read P/T (part throttle). At de-choke on crank, A/C cut-out, or during maximum acceleration this parameter should read WOT (wide-open throttle).

TPS BALANCE OK
This parameter indicates if the signal from the Throttle Position Sensor is equalized to the signal from the Throttle Stop Position Sensor. (The ECU recognizes both signals as being the same).

TPS X
This parameter indicates the voltage read by the ECU from the Throttle Position Sensor(s). This signal tells the ECU how wide the throttle is open. The voltage for throttle closed varies with different type of throttle position sensors and different type of ECU. Most throttle position sensors produce a low signal when the throttle is closed and a high signal when the throttle is open.

TPS, MAX LEARN OK/EXECUTED
This parameter displays the current state of the learning process for the TPS maximum position stop.

TPS, MIN LEARN OK/EXECUTED
This parameter displays the current state of the learning process for the TPS minimum position stop.

TRACTION ASSIST AVAILABLE
Indicates the PCM command status of the Traction Assist system. ON means the PCM has activated the system.

TRACTION CONTROL
Indicates whether or not Traction Control is installed.

TRACTION CONTROL DISABLE SWITCH
Indicates the status of the Traction Control Disable Switch.

TRACTION CONTROL WARNING LAMP
Indicates the status of the traction control warning lamp.

TRAILER RECOG.SW:TR.DETECTED
X58s1 (Trailer recognition micro-switch)-Trailer detected.

TRAILER RECOGN.ECU:COMM
CAN communication with control module N28/1 (Trailer recognition control module).

TRAILER RECOGNITION:SWCAN
Control module AHE is in the single-wire mode.

TRAJECTORY CONTROL FUNCTION
Indicates the status of Trajectory Control Function.

TRANS CLUTCH INTERLOCK SW
Indicates the status of the normally open driver-operated clutch pedal switch. ACTIVE means the switch contacts have closed.

TRANS CTRL IND LMP OUT FAULT
Indicates whether or not a fault has occurred in the Transmission Control Indicator Lamp circuit.

TRANS CTRL IND LMP STATUS
Reads ON and an indicator lamp is lit when “Overdrive Cancel” is requested.

TRANS CTRL SW
Indicates whether the Transmission Control Switch is on or off.

TRANS FLUID TEMP
Displays the voltage signal from the transmission fluid temperature (TFT) sensor to the PCM. A low voltage indicates a high fluid temperature; a high voltage indicates a low fluid temperature.

TRANS OUT SHAFT SPD(RPM)
Is calculated by the PCM based on the voltage signal from the output shaft speed (OSS) sensor. The output shaft speed (OSS) sensor is a magnetic pick-up located on the rear of the transmission case, on the drivers side.

TRANS RANGE SENS ANALOG
Indicates the current position of the gear shift lever. Parameter states can be: PARK, REV, NEUT, O/D, DRIVE, MAN1 and MAN2.

TRANS RANGE SENS GEAR POS
Indicates the status of the Transmission Range Gear Sensor position.

TRANS XFER CW SHIFT MTR
Indicates the GEM command status for the clockwise (CW) shift motor relays. When the system functions properly, ON means the solenoid of the relay is energised, closing the relay contacts. These relays control the directional rotation of the shift motor inside the transfer case.

TRANSAXLE RATIO LEARNED
Indicates whether the Trans-Axle (front wheel drive gearbox) Relearn is on or off.

TRANSM. OVERLOAD PROTEC. SWITCH
Shows whether or not the ECU is operating the automatic transmission in an overload protection mode. The display normally reads OFF and reads ON if transmission overload protection mode is active. In overload mode the ECU disables the torque converter clutch and overdrive.

TRANSM.PRESELECT TIME:HOURS
Transmitted preselect time: hours (h).

TRANSMISSION
This parameter indicates that the ECU has detected whether an Automatic (AT) or a Manual (MT) transmission system is installed.

TRANSMISSION CODING
This parameter is used to inform the ECU of the type of transmission fitted to the vehicle. OPEN for manual transmission and CLSD for automatic transmission.

TRANSMISSION OIL TEMP ERROR
This parameter indicates that there is an error in the transmission oil temperature.

TRANSMISSION OIL TEMP SWITCH
Indicates the current state of the automatic transmission oil temperature switch. ON indicates that the switch is returning a high oil temperature reading.

TRANSMISSION OIL TEMPERATURE
Indicates the transmission oil temperature.

TRANSMISSION OVERLOAD PROTECTION
Shows whether or not the ECU is operating the automatic transmission in an overload protection mode. The display normally reads OFF and reads ON if transmission overload protection mode is active. In overload mode the ECU disables the torque converter clutch and overdrive.

TRANSMISSION PROTECTION
Shows whether or not the ECU is operating the automatic transmission in protected mode. The display normally reads OFF and reads ON if transmission protection mode is active. In overload mode the ECU disables the torque converter clutch and overdrive.

TRANSMISSION PROTECTION
Transmission protection.

TRANSMISSION SHIFT DELAY
Indicates if the ECU shift delay program is active. The display reads OFF during normal operation and ON if the ECU is delaying upshifts to more rapidly heat up the catalytic converter after a cold engine start.

TRANSMISSION UPSHIFT DELAY
Indicates if the ECU up-shift delay program is active. The display reads OFF during normal operation and ON if the ECU is delaying upshifts to more rapidly heat up the catalytic converter after a cold engine start.

TRANSMITTED TIME:MINUTES
Transmitted preselect time: minutes (min).

TRANSP.PROT.EL.IGN.ECU:RMVD
The transport protection of control module EIS is detached.

TRANSPONDER KEY X BLOCKED
Transponder key X irrevocably blocked, where x = 1 to 8.

TRANSPONDER:INTERLOCKED
Transponder interlocked.

TRANSPONDER:LEARNED
Transponder learned.

TRANSPORT PROTECTION REMOVED
Transport protection is removed.

TRANSVERSE ACCELERATION
This parameter indicates the transverse acceleration.

TRIP RESET BUTT
Indicates the status of the Trip Reset Button.

TRIP SINCE ERASING FAULT
Indicates the number of trips since a specified fault code was erased.

TRIPMETER
Indicates whether the Trip meter is active or not.

TRN RANGE
Displays a voltage reading that indicates the position of the transmission shift lever.

TROUBLE CODE STORED IN MEMORY
This parameter displays that the self diagnostic system has detected a fault, even if no trouble codes are stored in the fault code memory.

TRUNK / HATCH AJAR
Indicates the PATS command status for the specified door-ajar sensor. When the system functions properly, YES means the door is ajar.

TRUNK EYESW
S88/3 (Trunk lid power locking eye micro-switch).

TRUNK LID:OPEN
Trunk lid opened.

TRUNK RELEASE IN SW
Indicates the status of the trunk/boot release switch.

TS OFF-SWITCH-N72s22
N72s22 (TS OFF switch).

TS/IMS SWITCH-N72/1s7
N72/1s7 (TS/IMS switch).

TURBINE SPEED
Displays the speed of the transmission Turbine shaft in rpm.

TURBINE SPEED SENS(RPM)
Displays data for the speed of the transmission turbine shaft.

TURBO POSITION(DESIRED)
Indicates the Desired Turbo Position.

TURBO POSITION(REPEAT)
Indicates the Repeated Turbo position.

TURN SIGNAL LAMP,RIGHT-E2e5
Component E2e5 (Right turn signal lamp) in module E2 (Right front headlamp unit).

TURN SIGNAL SWITCH,L&R-S4s1
S4s1 (Left and right turn signal switch).

TWC FUNCTION CHAIN
Indicates the status of the three way catalyst (TWC) function chain.

TWC HEATING
Indicates the status of the three way catalyst (TWC) heater.

TWC HEATING AT IDLE
Indicates the state of the three-way catalyst (TWC) heating circuit at idle. Reads OFF during normal operation and ON at a cold start-up or during prolonged idle.

TWC TEMPERATURE FROM OBD 2
Displays the ECU calculated temperature of the three-way catalyst (TWC) for OBD II vehicles.

TWO-TONE SIGNAL SYSTEM-H1
H1 (Two-tone signal system).

TYPE OF DRIVING
Indicates the Type of Driving style and is used to calculate average km/litre (miles/gallon) for particular driving conditions.

TYRE TYPE
Indicates the type and size of the tyres.

3.2.21 U

UNDERVOLTAGE SHUTOFF LIMIT
Under voltage shut off threshold (V).

UNLOCK CONVERTOR FOR TC
Indicates the PCM command status for the torque converter clutch. When the system functions properly, ON means the torque converter clutch solenoid is energised, fully unlocking the converter. Because when the traction control is operating, no traction via the torque converter clutch is required.

UNLOCKING AFTER CRASH:DONE
Unlocking of CL after a crash completed in full.

UPPER CONTROL PANEL:COMM
CAN communication with control module UCP.

UPPER CONTROL PANEL:SWCAN
Control module UCP is in the single-wire mode.

UPPER CTRL PANEL ECU:COMM
CAN communication with control module N72/1 (Upper control panel control module).

UPPER PART LOAD F.TRIM LEFT BANK
Represents the operation and short term correction of the fuel delivery and load range for the left cylinder bank. It indicates whether the ECU is commanding a rich or lean mixture.

UPPER PART LOAD F.TRIM RIGHT BANK
Represents the operation and short term correction of the fuel delivery and load range for the right cylinder bank. It indicates whether the ECU is commanding a rich or lean mixture.

UPSHIFT
Relates to the automatic transmission system. Indicates whether or not an upshift has been applied.

UPSHIFT DELAY 2ND GEAR
Indicates whether or not the ECU shift delay program for second gear is active. Display normally reads OFF. Reads ON if the ECU is holding the transmission in second gear to more rapidly heat up the catalytic converter after cold engine start.

UPSHIFT DELAY X
Indicates if the ECU up-shift delay program is active. The display reads OFF during normal operation and ON if the ECU is delaying upshifts to more rapidly heat up the catalytic converter after a cold engine start.

UPSHIFT RETARD
Relates to the automatic transmission system. Indicates whether or not the upshift is being retarded.

UP-SHIFTING
This parameter indicates that the automatic transmission is up-shifting.

UPSTREAM O2 SENSOR
This parameter indicates the actual voltage from the upstream O_2 Sensor.

UPSTREAM O2 SNS SWITCHING TIME
This parameter indicates the actual switching time (s) from the upstream O_2 Sensor.

3.2.22 V

V BATT
Battery voltage (V).

VALVE REL CMD
Indicates the status of the ABS Valve Relay Command.

VALVE REL FBK
Indicates the status of the ABS Valve Relay Feedback.

VALVE RELAY
Indicates if the ECU has commanded the Valve Relay On or Off.

VALVE RELAY ACTIVE
Indicates whether or not the Valve Relay is active.

VANOS
This parameter indicates whether the VANOS (Variable Camshaft) System is operating.

VAPOUR PRESSURE
Indicates the vapour pressure in mmHg.

VARIABLE INTAKE SYSTEM BALANCE
This parameter indicates the confirmation that the Variable Intake System (VIS) balance valve has operated. The VIS valve operates at different engine speeds depending on the throttle position. The feedback state should copy the drive state.

VARIABLE INTAKE SYSTEM FEEDBACK
This parameter indicates the feedback confirmation that the Variable Intake System (VIS) balance valve has operated. The VIS valve operates at different engine speeds depending on the throttle position. The feedback state should copy the drive state.

VARIABLE POWER STEERING
Indicates the status of the Variable Power Steering system.

VARIABLE SPEED LIMIT
Variable speed limit [km/h].

VARIABLE SPEED-S40s6
S40s6 (Variable speed)/ S40/4s6 (Variable speed).

VARIABLE VALVE TIMING CTRL BANK X
Indicates the status of the variable valve timing control for the specified bank.

VARIANT NUMBER(KNOWL.BASE)
Variant number of the knowledge base.

VARIO ROOF CLOSED SW,RIGHT
S69/1 (Vario roof closed limit switch (right lug)).

VARIO ROOF SWITCH-N72s16
N72s16 (Vario roof switch).

VCS SWITCH-S93/2
S93/2 (VCS switch).

VEH SPEED
Vehicle speed is the measurement provided by the Vehicle Speed Sensor (VSS) pulses to the ECU or it is measured by another system and sent via the Can-Bus.

VEH SPEED_GEM
Displays the vehicle speed sensor (VSS) signal being supplied to the GEM module in mph.

VEH.SPEED INDICATOR:FLASHES
Vehicle speed indication flashes.

VEH.SPEED,FL AXLE(KM/H)
Vehicle speed left front axle (km/h).

VEH.SPEED,RL AXLE(KM/H)
Vehicle speed left rear axle (km/h).

VEHICLE ACCELERATION
Indicates the Acceleration of the vehicle.

VEHICLE DATA CODING
Vehicle data coding in control modules N2/7 (restraint systems control module) and N73 (EIS control module).

VEHICLE LEVEL:FRONT
Vehicle level at front (mm).

VEHICLE LEVEL:FRONT LEFT
Left front vehicle level (mm).

VEHICLE LEVEL:FRONT RIGHT
Right front vehicle level (mm).

VEHICLE LEVEL:REAR
Rear vehicle level (mm).

VEHICLE LEVEL:REAR LEFT
Vehicle level at rear left (mm).

VEHICLE LEVEL:REAR RIGHT
Vehicle level at rear right (mm).

VEHICLE LOCKED WITH DAS
Indicates whether the drive authorization system (DAS) and the engine control module (ECU) have correctly identified each other. The display reads YES at start-up if the modules correctly identify each other and NO if they do not.

VEHICLE REFERENCE VOLTAGE
On some vehicles, the Scanner will display the reference voltage on which system sensors operate. The PCM monitors this voltage and provides the parameter on the data stream. The nominal reference voltage is 5.0 V, but it may vary by a few tenths of a volt, depending on system calibration and charging system voltage.

VEHICLE SPEED
Vehicle speed is the measurement provided by the Vehicle Speed Sensor(s) (VSS) pulses to the ECU or it is measured by another system and sent via the Can-Bus.

VEHICLE SPEED CONTROL
Indicates the status of the Vehicle Speed control form the cruise control system.

VEHICLE SPEED DETECTED
Indicates the vehicle speed has been detected based on the vehicle speed sensors (VSS) input signal to the ECU.

VEHICLE SPEED FRONT AXLE
Indicates the speed of the front axle based on input signals to the ECU from the wheel speed sensors.

VEHICLE SPEED PST
Displays the Vehicle Speed Pre-Setting.

VEHICLE SPEED PULSE
Indicates YES when the ECU has received a pulse from the Vehicle Speed Sensor and NO when there is no sensor signal.

VEHICLE SPEED REAR AXLE
Indicates the speed of the rear axle based on input signals to the ECU from the wheel speed sensors.

VEHICLE SPEED SENSOR
Indicates the voltage from the Vehicle Speed Sensor.

VEHICLE SPEED SET
Displays the Vehicle Speed Setting.

VEHICLE SPEED SIGNAL (VSS)
Indicates the vehicle speed based on the vehicle speed sensors (VSS) input signals to the ECU.

VEHICLE SPEED TEST
Indicates the status of the vehicle speed test.

VEHICLE SPEED TO CAN
Vehicle speed to CAN (km/h).

VEHICLE SPEED(CRUISE CTRL)
Indicates the Vehicle Speed from the cruise control system.

VEHICLE SPEED:AXLE REAR LEFT
Vehicle speed left rear axle (km/h).

VENT VALVE
This parameter should read ON when the engine is running in closed loop and above idle speed, and OFF at all other times.

VENTILATION FLAP MOTOR
This parameter indicates the status of the Ventilation Flap Motor.

VENTILATION SWITCH
This parameter indicates the status of the Ventilation Switch.

VERSION OF ECU EL.IGN.SW.ECU
Version of control module EIS.

VMIN NOT MAINTAINED
Indicates if the charging system is maintaining the minimum required voltage. The display reads NO during normal operation and reads YES when charging system output falls below the minimum voltage requirement.

VOLTAGE AT PIN X
Voltage at terminal X (V), where x = 15, 30 or 56.

VOLTAGE LEVEL CO2 SETTING
Voltage level of CO_2 setting.

VOLTAGE:TOO LOW,OFFSET
Under voltage offset (V).

VOLUME FUEL DESIRED
Displays the Volume Fuel Desired in cubic millimetres (mm^3).

3.2.23 W

WAITING
Satellite Navigation System Parameter, indicating whether the system is waiting or not.

WAKE-UP ALL ACTIVITY MOD
Wake-up cable to control module AAM.

WARM UP CAT
This parameter indicates if the ECU is operating in warm up Catalytic Converter mode or not. Warm up is achieved by retarding the ignition point to AFTER TDC and enriching the mixture.

WARM-UP
Indicates whether or not the ECU is operating the engine in warm-up mode following a cold start. The display reads OFF during normal driving with a warm engine and reads ON from a cold start with engine in warm-up mode.

WARN. SIGNAL INSTR. PANEL: REFUEL
This parameter indicates if the fuel is low or not.

WARN.LAMP(ODOMETER):COOLANT
Indicates whether the Odometer Warning Coolant Lamp Level is On or Off.

WARN.LAMP(ODOMETER):LEVEL X
Indicates whether the Odometer Warning Lamp Level x is On or Off, where x = 1 or 2.

WASH FLUID LVL
Displays the Windscreen washer fluid level.

WASHER FLUID LEVEL SW-S42
S42 (Windshield washer fluid level indicator switch).

WASHER PUMP RLY CKT
Indicates the GEM command status to the washer pump relay. When the system functions properly, ON means the GEM module has energised the relay solenoid, closing the relay contacts.

WASHER PUMP SW
Indicates the status of the driver-operated washer pump switch. ON means the switch contacts are closed.

WASTEGATE
This parameter indicates the duty cycle output by the ECU to the Waste Gate control valve. This action governs the turbo output pressure. The Waste Gate Actuator on the turbo charger is connected by a hose to the pressure side of the turbo, there is a control valve in this hose. When this valve is closed (reading 0 %) the turbo pressure is limited to the pressure of the Waste Gate actuator on the Turbo-charger. When the valve is opened part of the pressure in the hose is blown-off.

WATER IN FUEL FILTER
Indicates whether or not there is water in the fuel filter.

WATER PUMP:ACTIVE
Water pump active.

WATER TEMPERATURE
Indicates the Water (Coolant) Temperature.

WHEEL SPEED LEFT FRONT
This parameter indicates the speed of the Left Front Wheel from the Vehicle Wheel Speed Sensor.

WHEEL SPEED LEFT REAR
This parameter indicates the speed of the Left Rear Wheel from the Vehicle Wheel Speed Sensor.

WHEEL SPEED RIGHT FRONT
This parameter indicates the speed of the Right Front Wheel from the Vehicle Wheel Speed Sensor.

WHEEL SPEED RIGHT REAR
This parameter indicates the speed of the Right Rear Wheel from the Vehicle Wheel Speed Sensor.

WHEEL SPEED TO CAN
Wheel speed to CAN (1/min).

WINDOW WASHER FLUID PUMP
M5/1 (Windshield washer fluid pump).

WINDOW WASHER PUMP:ACT.POWER
Current power of component M5/1 (Windshield washer fluid pump) (A).

WINDOW&LEFT AIRBAG SNS-A53/1
A53/1 (Left side airbag and window airbag sensor).

WINDOW&RIGHT AIRBAG SENSOR
A54/1 (Right side airbag and window airbag sensor).

WINDOW:FRONT LEFT
Left front window.

WINDOW:FRONT RIGHT
Right front window.

WINDSHIELD WASHER SYSTEM SW
S4s4 (Windshield washer system switch).

WIPE SWITCH-S4s5
S4s5 (Wipe switch).

WIPER 2 SPEED RLY
Displays the status of the two-speed (high) wiper relay. When the system functions properly, ON means the relay contacts are closed, allowing the wipers to operate at high speed.

WIPER CTRL MODE SELECTED
Indicates the position of the driver-operated front windshield wiper switch. The GEM module uses this information to control the wiper and washer relays.

WIPER PARK HEATER RELAY
K40/2kA (Wiper park heater relay).

WIPER RELAY STAGE 1&2
K40/2kG (Wiper stage 1 and 2 relay).

WIPER RELAY-K40/2kH,ON&OFF
K40/2kH (Wiper On and Off relay).

WIPER RUN RLY DRIVER STATE
Indicates the GEM command status to the wiper run relay. When the system functions properly, ON means the GEM module has energised the relay solenoid, closing the relay contacts.

WIPERPK-PK
Displays the windshield intermittent delay.

WIRING = DRIVER
Indicates whether or not the wiring loom is for a Driver's Airbag only.

WIRING = DRIVER + PASSENGER
Indicates whether or not the wiring loom is for a Driver and Passenger Airbag.

WOT (FULL LOAD)
Indicates the state of the wide-open throttle (WOT) switch under full load. The display reads OFF during normal driving and reads ON with throttle at wide open under full load acceleration.

WOT A/C CLUTCH OUTPUT FAULT
Indicates whether or not a fault has occurred in the WOT circuitry.

WOT A/C RLY STATUS
Indicates whether or not the wide-open-throttle (WOT) A/C cut-off has been activated. ON indicates that the A/C has been switched off.

WOT SW
This parameter indicates if the wide open throttle switch is closed or open. On older Motronics there is no throttle position sensor but only an idle and a wide open throttle switch. CLSD means that the throttle is wide open.

3.2.24 X

X GEAR DOWN
Indicates the amount speed/torque as a percentage before a downshift gear change (X) is initiated, used in automatic transmission systems.

X GEAR ENGAGEMENT FAIL COUNT
Error counter on Selespeed gearboxes. Where X can be, 1st, 2nd, 3rd, 4th, 5th or 6th gear.

X GEAR SELECTION FAIL COUNT
Error counter on Selespeed gearboxes. Where X can be, 1st, 2nd, 3rd, 4th, 5th or 6th gear.

X GEAR UP
Indicates the amount speed/torque as a percentage before an up-shift gear change (X) is initiated, used in automatic transmission systems.

X START ENABLED
Start enable issued by processor, where x = 1 or 2.

XENON LAMPS
Indicates the voltage used to drive the Xenon lamps.

xX PROGAMMD
Satellite Navigation System Parameter, indicating whether the system has been programmed. Where x = Program number 1, 2 or 3.

3.2.25 Y

Y CONTROL
This parameter indicates the duty cycle of the Yaw Control as a percentage.

Y CONTROL LEFT
This parameter indicates the duty cycle of the Left Yaw Control as a percentage.

Y CONTROL RIGHT
This parameter indicates the duty cycle of the Right Yaw Control as a percentage.

YAW
Indicates the alterations in vehicle position in degrees.

YAW RATE SENS X IN
Indicates the status of the Yaw control sensor(s).

3.2.26 Z

ZERO POSITION ADJUSTMENT
Zero position adjustment.