

Generic PID Definitions

All generic parameter identification data (PID) listed was verified on actual vehicles to guarantee accuracy. PID Definitions were obtained from reliable sources and are accurate at time of printing. It is possible that some newer vehicles may contain data different from that listed. Always refer to vehicle service manual for manufacturer specific PIDs.

The PID list is organized in alphabetical order — the same way the scan tool does. Remember, always refer to a vehicle service manual for detailed diagnostic procedures when troubleshooting incorrect PID values.

Types of Data Parameters

INPUT:These data parameters are obtained from sensor circuit outputs. Sensor circuit outputs are inputs to vehicle's PCM. For example, if Oxygen Sensor circuit was generating a 400mV signal, then scan tool would read O2S (v) 0.40.

OUTPUT:These data parameters are outputs or commands that come directly from computer module(s). For example; the ignition spark advance is controlled by PCM, on most vehicles, monitoring this PID shows spark output from PCM. The scan tool would display IGN ADV(°) 10.

CALCULATED:These data parameters are calculated after analyzing various inputs to

VALUE the vehicle's computer module(s). For example, the engine load. The PCM calculates this from sensor inputs and displays it in a percentage.

PCM VALUE:Is information that is stored in the computer module(s)' memory and determined to be useful to service technician. An example of this is TROUBLE CODE value, the DTC that caused a freeze frame capture.

- ✓ **NOTE:** Several different causes can have the same parameter indication. For information on diagnostics consult vehicle service manuals.

DATA PARAMETER LIST

ABS FRP (0 - 65,5350 kPa) or (0 - 9505.5 psi)

Absolute Fuel Rail Pressure is the fuel pressure at the engine in respect to atmospheric pressure.

ABS LOAD (0 - 100%)

Absolute Load Value is the normalized value of air mass per intake stroke in percentage.

ABSLT TPS (0 - 100%)

Absolute Throttle Position represents normalized distance the throttle is opened.

ACC POS D,E or F (0 - 100%)

Accelerator Pedal Position represents normalized distance the gas pedal is pressed.

BARO PRESS (0 - 255 kPa) or (0 - 36.9 psi)

Barometric Pressure is usually received from a dedicated barometer, manifold absolute pressure sensor, and other inputs during certain modes of driving.

- ✓ The Baro Press may not exhibit the same value as weather services, which measure barometric pressure at sea level.

CALC LOAD (0 - 100%)

Calculated LOAD Value indicates the normalized load value on the engine.

CAT TEMPxy (- 40 – 6513.5°C) or (- 40 – 9999.9°F)

Catalyst Temperature displays the catalyst substrate temperature for a **Bank x** catalyst (if used by control module strategy for OBD monitoring) or displays the **Bank x Sensor y** catalyst temperature sensor.

ment and deceleration enrichment.

OPEN2: The PCM is operating in Open Loop control strategy due to detected system fault. Certain actuator or sensor faults will cause module to use an open loop strategy.

CLSD1: Closed Loop control is current storage being used by module, but a fault with at least one O2 sensor has been detected. The control system may be using single O2 for fuel control calculations.

IAT TEMP (- 40 – 215°C) or (- 40 – 419°F)

Intake Air Temperature is a measure of intake air temperature to determine correct air/fuel ratios and spark timing operations.

IGN ADV (- 64 – 63.5°)

Ignition Timing Advance for cylinder is a signal of how much spark advance to add to base engine timing (expressed in crankshaft degrees).

LT FL FTRM (-100 – 99.22%)

Long Term Fuel Trim Bank is the fuel mixture adjustment. The mixture can range, with mid-point being 0.

- ✓ Positive reading indicates module commanded a long-term rich mixture correction in response to a lean operating condition. A negative reading indicates module has commanded a long-term lean mixture in response to a rich operating condition.

MAF (0 – 655.35 g/s) or (0 – 86.5 lb/min)

Mass Air Flow Rate indicates the mass of air entering engine.

MAP (0 – 255 kPa) or (Hg)

Intake Manifold Absolute Pressure displays manifold pressure.

MIL DIST (0 – 65,535 km) or (0 – 40,722 miles)

Distance Traveled while Malfunction Indicator Lamp is Active is a counter that displays distance traveled since the MIL “or Check Engine or Service Engine Soon” light came on.

MIL STAT (ON or OFF)

Monitor Status Data Trouble Code state that module is commanding Malfunction Indicator Lamp to be on if problem exists.

MIL TIME (0 – 65,535 min) or (0 – 1092.25Hrs)

Distance Since Monitor Status Data Trouble Code is the distance traveled since the MIL “or Check Engine or Service Engine Soon” light came on.

O2Sxy (0 – 1.275V)

Oxygen Sensor Output Voltage is the voltage generated from the oxygen sensor to increase and decrease the amount of exhaust gas.

O2Sxy (- 128 – 127.996mA)

Oxygen Sensor Output Amp is used for linear or wide ratio oxygen sensors to increase and decrease the amount of exhaust gas

OBD2 STAT (CA, OBDI, US, NONE, EU and/or JA)

On Board Diagnostic shows what vehicle was made for.

CA - Indicates test vehicle meets California on board diagnostic ARB requirements

OBD I - Indicates test vehicle does not meet OBDII requirements.

US - Indicates test vehicle meets Federal EPA requirements.

NONE - Indicates test vehicle is not on board diagnostic compliant.

EU - Indicates test vehicle meets European on board diagnostic requirement.

JA - Indicates test vehicle meets Japanese on board diagnostic requirement.

OUTSID AIR (- 40 – 215°C) or (- 40 – 419°F)

Outside Air Temperature gives temperature outside.

PTO STATUS (OFF or ON)

Power Take Off Status allows module to keep track of Power at Take-Off.

REL FRP (0 – 5177.27 kPa) or (0 – 750. psi)

Relative Fuel Rail Pressure (Vacuum) is the fuel rail pressure at engine.

REL TPS (0 – 100%)

Relative Throttle Position is the normalized relative throttle position.

SECOND AIR (AIR_STAT: UPS, DNS or OFF)

Commanded Secondary Air Status is on newer vehicles and actuators to control pollution control.

UPS - UP STREAM module is demanding that secondary air be added at exhaust manifolds

DNS - DOWN STREAM module is demanding secondary air be added at catalytic converter

OFF - Module is demanding no secondary air to be added.

ST FTRMxy (- 100 – 99.22%)

Short-term Fuel Trim Bank calculated value represents the short-term relation of fuel metering on a fuel-injected engine.

- Short-term Fuel Trim calculated value that has a positive percentage is a rich fuel trim and if a negative percentage is present the fuel trim is lean.

ST FLTRMx (- 100 – 99.2%)

Short-term Fuel Trim value represents the short-term relation of fuel metering on a fuel-injected engine.

- Short-term Fuel Trim value with a positive percentage is a rich fuel trim and if a negative percentage is present the fuel trim is lean.

THR POS (0 – 100%)

Absolute Throttle Position is the position the throttle is located. The more the throttle is closed the less percent shown.

THROT CMD (0 – 100%)

Commanded Throttle Actuator Control is the position of the throttle. If throttle is closed the percent will be 0 and if wide open 100%.

TRIPS SNC CLR (0 – 255)

Number of warm-ups since diagnostic trouble codes cleared. Warm-up is when temperature of coolant rises to at least 22°C (40°F) from engine starting and reaching a minimum temperature of 70°C (160°F). In a diesel engine, the minimum temperature is 60°C (140°F).

- If there is more than 255 that the engine warms up the TRIPS SNC CLR will remain at 255.

TROUB CODE (0000 – FFFF)

Trouble Code Parameter will give the diagnostic trouble code that caused a freeze frame capture. This information is helpful in diagnosing the cause of a driveability. If no freeze frame data has been captured, this PID will be zero.

VEH SPEED (0 – 255 K/h) or (0 – 158 mph)

Vehicle Speed shows the speed the vehicle is going.

VPWR (0 - 65.535V)

Control Module Voltage is the power input to the control module.

- Vehicles using a 42V battery may utilize multiple voltages of different systems. Therefore, the VPWR value may be significantly different than the battery.