

# Parameter Identification (PID)

(Source: 2003/2004 Ford Factory Service Manual)

## Description

The Parameter Identification (PID) mode allows access to powertrain control module (PCM) information. This includes analog and digital signal inputs and outputs along with calculated values and system status. There are two types of PID lists available and both are used throughout this manual. The first is the Generic (J1979) OBDII PID list. This is a standard set of PIDs for all manufacturers all scan tools must be able to access. The second is a Ford specific (J2190) list which can be accessed by an adequate scan tool. When accessing any of these PIDs, the values will be continuously updated. The Generic or Ford PID list provides definitions and values in appropriate units. For more information, refer to the Society of Automotive Engineers (SAE) J2205 document.

## Generic OBD II PID List

"X" in the "Freeze Frame" column denotes both a mode 1 and mode 2 PID (real time and freeze frame).

Freeze Frame	Acronym	Description	Measurement Units
	AIR	Secondary Air Status	ON/OFF
	CCNT	Continuous DTC Counter	Unitless
X	ECT	Engine Coolant Temperature	DEGREES
X	FUEL SYS1	Fuel System Feedback Control Status-Bank 1	OL/CL/OL DRIVE <sup>a</sup> / OL FAULT/ CL FAULT
X	FUEL SYS2	Fuel System Feedback Control Status-Bank 2	OL/CL/OL DRIVE <sup>a</sup> /OL FAULT/ CL FAULT
	IAT	Intake Air Temp	DEGREES
X	LOAD <sup>b</sup>	Calculated Engine Load	Percent
X	LONG FT1	Current BANK 1 fuel trim adjustment (kamref1) from stoichiometry which is considered LONG TERM.	Percent
X	LONG FT2	Current BANK 2 fuel trim adjustment (kamref2) from stoichiometry which is considered LONG TERM.	Percent
	MAF	Mass Air Flow Rate	GM/SEC-LB/ MIN
	O2S11	Bank 1 Upstream Oxygen Sensor (11)	VOLTS
	O2S12	Bank 1 Downstream Oxygen Sensor (12)	VOLTS
	O2S21	Bank 2 Upstream Oxygen Sensor (21)	VOLTS
	O2S22	Bank 2 Downstream Oxygen Sensor (22)	VOLTS
	OBD SUP	On-Board Diagnostic System	Cal. OBD II 50 States OBD II OBD I and OBD II OBD I None
	PTO	Power Take-Off Status	ON/OFF
X	RPM	Revolutions Per Minute	RPM
X	SHRT FT1	Current BANK fuel trim adjustment (lambse1) from stoichiometry which is considered SHORT TERM.	Percent
	SHRT FT11	Current BANK fuel trim adjustment (lambse1) from	Percent

	<sup>1</sup>	stoichiometry which is considered SHORT TERM.	
	SHRT FT12 <sup>2</sup>	Current BANK 1 fuel trim adjustment (lambse1) from stoichiometry which is considered SHORT TERM.	Percent
X	SHRT FT2	Current BANK 2 fuel trim adjustment (lambse1) from stoichiometry which is considered SHORT TERM.	Percent
X	SHRT FT21 <sup>3</sup>	Current BANK 2 fuel trim adjustment (lambse1) from stoichiometry which is considered SHORT TERM.	Percent
X	SHRT FT22 <sup>4</sup>	Current BANK 2 fuel trim adjustment (lambse1) from stoichiometry which is considered SHORT TERM.	Percent
	SPARKADV	Spark Advance Cylinder No. 1	DEGREES
	TP	Throttle Position	Percent
X	VSS	Vehicle Speed Sensor	MPH-KM/H

<sup>a</sup> OL = Open loop, have not satisfied conditions for closed loop.

<sup>b</sup> Percent engine load adjusted for atmospheric pressure.

<sup>1</sup> Individual oxygen sensor fuel trim adjustment is not supported.

<sup>2</sup> Individual oxygen sensor fuel trim adjustment is not supported.

<sup>3</sup> Individual oxygen sensor fuel trim adjustment is not supported.

<sup>4</sup> Individual oxygen sensor fuel trim adjustment is not supported.

- CL = Closed loop using O2S(s) as feedback for fuel control.
- OL DRIVE = Open loop due to driving conditions (heavy accel).
- OL FAULT = Open loop due to fault with all upstream O2S sensors.
- CL FAULT = Closed loop fuel control, but fault with one upstream O2S sensor on dual bank vehicles.

## Ford PID List

Acronym	PID #	Description	Ford Units
4X4L	1101 b2	Requested 4 Wheel Drive Input	ON/OFF
ACCS	1101 b0	Air Conditioning Cycling Switch Input	ON/OFF
ACP	1102 b0	A/C Head Pressure Switch Input	OPEN/CLOSED
ACP V	1638	A/C Head Pressure Switch Input	VOLTS
APP	1340	Accelerator Pedal Position	VOLTS
AIR	1104 b4	Secondary AIR Pump Control	ON/OFF
AIRM	110C b1	Secondary AIR Pump Monitor	ON/OFF
BARO	1127	Barometric Pressure (may be software determined)	Hz
BPP/BOO	1101 b1	Brake Pedal Position/Brake On-Off Switch Input	ON/OFF
CAMDCR	16CF	Commanded Duty Cycle for VCT Solenoid	%
CAMERRR	16CE	VCT Error in Crankshaft Degrees	DEGREES
CAS GND	16CO	PCM Case Ground	VOLTS
CCS	1105 b7	Coast Clutch Solenoid Control	ON/OFF
CHT	1624	Cylinder Head Temperature Input	DEGREES
CHT V	1685	Cylinder Head Temperature Input	VOLTS
CMPFM	1107 b0	Camshaft Position Sensor Fault Mode	YES/NO
CPP/PNP	1101 b3	Clutch Pedal/Park Neutral Position Switch Input	ON/OFF
DPFEGR	114E	Differential Pressure Feedback EGR Input	VOLTS
ECT	1139	Engine Coolant Temperature Input	DEGREES

ECT V	114D	Engine Coolant Temperature Input	VOLTS
EFTA	168E	Engine Fuel Temperature - Bank 1 Input	DEGREES
EFTA V	168D	Engine Fuel Temperature - Bank 1 Input	VOLTS
EFTB	169O	Engine Fuel Temperature - Bank 2 Input	DEGREES
EFTB V	168F	Engine Fuel Temperature - Bank 2 Input	VOLTS
EGRBARO	1680	Enable Baro Read (instead of EGR pressure)	YES/NO
EGRMC1	16D2 bo	EGR Motor Control Output Command	ON/OFF
EGRMC2	16D2 b1	EGR Motor Control Output Command	ON/OFF
EGRMC3	16D2 b2	EGR Motor Control Output Command	ON/OFF
EGRMC4	16D2 b3	EGR Motor Control Output Command	ON/OFF
EGRMDS	098E	Electric EGR Motor Commanded In Steps	Steps
EGRVR	113C	EGR Valve Vacuum Control	%
EOT	1310	Engine Oil Temperature Sensor Input	DEGREES
EOT V	16AF	Engine Oil Temperature Sensor Input	VOLTS
EOTF	16A9	Engine Oil Temperature Fault Detection	YES/NO
EPC	11C0	Transmission Line Pressure Control	PSI
EPC V	11B2	Transmission Line Pressure Control	VOLTS
EVAPCPF	162F b2	Evaporative Emissions Canister Purge Fault	YES/NO
EVAPCV	1167	Evaporative Emissions Canister Purge Vent Control	%
EVAPCVF	1630 b3	Evaporative Emissions Canister Purge Vent Fault	YES/NO
EVAPPDC	1166	Evaporative Emissions Canister Purge Control	%
EVAPPF	1627	Evaporative Purge Flow Input	VOLTS
EVAPVMA	1636	Evaporative Vapor Management Valve Internal Circuit Monitor	VOLTS
FANDC	091F	Variable Speed Fan Duty Cycle	%
FANVARF	1630 b5	Variable Speed Fan Output Fault	YES/NO
FANSS	099F	Variable Speed Fan RPM	RPM
FANSSM	099C b15	Variable Speed Fan Hall Sensor Input	HIGH/LOW
FF	16AB	Flex Fuel Sensor Input	%
FLI	16C1	Fuel Level Indicator Input	%
FLI V	16BF	Fuel Level Indicator Input	VOLTS
FP M	1673	Fuel Pump Secondary Monitor	%
FPF	162E b6	Fuel Pump Output Fault	YES/NO
FPM	110C b0	Fuel Pump Secondary Monitor	ON/OFF
FRP	168C	Engine Injector Pressure Input	PSI
FRP V	168B	Engine Injector Pressure Input	VOLTS
FSVF	1691 b1	Engine Fuel Solenoid Valve Fault	YES/NO
FSVM	1691 b2	Engine Fuel Solenoid Valve Secondary Monitor	ON/OFF
FTP	1687	Fuel Tank Pressure Input	in.H2O
FTP V	1639	Fuel Tank Pressure Input	VOLTS
FUELPW1	1141	Injector Pulse Width Bank 1	MILLISECONDS
FUELPW2	1142	Injector Pulse Width Bank 2	MILLISECONDS

GEAR	11B3	Transmission Gear Status	GEAR
GENF	0927 b2	Generator Output Fault Detection	YES/NO
GENFDC	16E8	Generator Field Control Output	%
GFS	0939	Generator Field Signal Monitor	%
HFC	1103 b3	High Speed Fan Control	ON/OFF
HFCF	162F b1	High Speed Fan Control Fault	YES/NO
HTR11	1631 b0	Bank 1 Upstream O2S Heater Control	ON/OFF
HTR11F	1631 b4	Bank 1 Upstream O2S Heater Circuit Fault	ON/OFF
HTR12	1631 b1	Bank 1 Downstream O2S Heater Control	ON/OFF
HTR12F	1631 b5	Bank 1 Downstream O2S Heater Circuit Fault	ON/OFF
HTR21	1631 b2	Bank 2 Upstream O2S Heater Control	ON/OFF
HTR21F	1631 b6	Bank 1 Downstream O2S Heater Circuit Fault	ON/OFF
HTR22	1631 b3	Bank 2 Downstream O2S Heater Control	ON/OFF
HTR22F	1631 b7	Bank 1 Downstream O2S Heater Circuit Fault	ON/OFF
HTRX1	1102 b1/6	O2S Upstream Heater Control	ON/OFF
HTRX2	1102 b2/7	O2S Downstream Heater Control	ON/OFF
IAC	1153	Idle Air Control	%
IAT	1123	Intake Air Temperature Input	DEGREES
IAT V	114A	Intake Air Temperature Input	VOLTS
IAT2	16A8	Intake Air Temperature Sensor 2 Input	DEGREES
IAT2 V	16A7	Intake Air Temperature Sensor 2 Input	VOLTS
IMRC	1103 b4	Intake Manifold Runner Control	ON/OFF
IMRC F	162F b6	Intake Manifold Runner Control Fault	YES/NO
IMRCM	1634	Intake Manifold Runner Control Monitor Input Bank 1	VOLTS
IMRCM2	1635	Intake Manifold Runner Control Monitor Input Bank 2	VOLTS
IMSC	1103 b4	Intake Manifold Swirl Control	ON/OFF
IMSC F	162F b6	Intake Manifold Swirl Control Fault	YES/NO
IMTV	1684	Intake Manifold Tuning Valve Control	%
IMTVF	162F b5	Intake Manifold Tuning Valve Fault	YES/NO
INJ1F-8F	162D b0-7	Fuel Injector Primary Fault (Cylinders 1 thru 8)	YES/NO
INJ9F-10F	16EA b0-1	Fuel Injector Primary Fault (Cylinders 9 and 10)	YES/NO
KS1 V	16E6	Knock Sensor Input Bank 1	VOLTS
KS2 V	16E7	Knock Sensor Input Bank 2	VOLTS
LFC	1103 b2	Low Speed Fan Control	ON/OFF
LFCF	162F b0	Low Speed Fan Control Fault	YES/NO
LONGFT1	1156	Long Term Fuel Trim Bank 1	%
LONGFT2	1157	Long Term Fuel Trim Bank 2	%
MAF	1671	Mass Airflow Rate Input	GM/S
MAF V	1177	Mass Airflow Rate Input	VOLTS
MAF V	1633	Mass Airflow Rate Input (Before FMEM substitutions)	VOLTS
MAP	1452	Intake Manifold Absolute Pressure	Hz

MAP V	900	Intake Manifold Absolute Pressure (Analog)	VOLTS
MFC	0967 b10	Medium Speed Fan Control	ON/OFF
MFCF	0967 b11	Medium Speed Fan Control Fault	YES/NO
MIL	1103 b5	Malfunction Indicator Lamp Control	ON/OFF
MP LRN	16DD b0	Misfire Wheel Profile Learned in KAM	YES/NO
OCTADJ	1102 b3	Octane Adjust Status	OPEN/CLOSED
OCTADJS	16EF b0	Octane Adjust Software Status	RETARD/NO RETARD
O2S11	1173	Bank 1 Upstream O2S Input	VOLTS
O2S12	1174	Bank 1 Downstream O2S Input	VOLTS
O2S21	1175	Bank 2 Upstream O2S Input	VOLTS
O2S22	1176	Bank 2 Downstream O2S Input	VOLTS
OSS	11B5	Output Shaft Speed	RPM
PIP	1102 b4	Profile Ignition Pickup Input	ON/OFF
PSP	1101 b7	Power Steering Pressure Switch Input	HIGH/LOW
PSP V	1626	Power Steering Pressure Input	VOLTS
PSP V	1625	Power Steering Pressure Input	VOLTS
PTO	160D b5	Power Take Off Status Input	ON/OFF
RCAM	16CD	VCT Solenoid Commanded in Crank Shaft Degrees	DEGREES
REV	1697 b0	Transmission Reverse Switch Input	ON/OFF
RPM	1165	Engine Speed Based Upon CKP Input	RPM
SCB	0964 b0	Supercharger Bypass Control	ON/OFF
SCBF	0964 b1	Supercharger Bypass Control Fault	YES/NO
SCCS	A216	Speed Control Input Switch	VOLTS
SCICP	0964 b2	Supercharger Intercooler Pump Control	ON/OFF
SCICPF	0964 b3	Supercharger Intercooler Pump Control Fault	YES/NO
SHRTFT1	1158	Short Term Fuel Trim	%
SHRTFT2	1159	Short Term Fuel Trim	%
SIL	160D b6	Shift Indicator Light	ON/OFF
SPARKADV	116B	Spark Advance Desired	DEGREES
SS1	1105 b4	Shift Solenoid 1 Control	ON/OFF
SS2	1105 b5	Shift Solenoid 2 Control	ON/OFF
SS3	1105 b6	Shift Solenoid 3 Control	ON/OFF
TCC	11B0	Torque Converter Clutch Control	%
TCCA	110E b7	Torque Converter Clutch Control Internal Circuit Monitor	ON/OFF
TCIL	1104 b2	Transmission Control Indicator Lamp Clutch Control Status	ON/OFF
TCS	1101 b4	Transmission Clutch Converter Control Switch Input	ON/OFF
TFT	1674	Transmission Fluid Temperature Input	DEGREES
TFT V	11BD	Transmission Fluid Temperature Input	VOLTS
TIREREV	16F0	Active Tire Size	REVS/MILE
THTRC	0965	Thermostat Heater Control	%
TMAP	0945	Thermal Manifold Absolute Pressure	kPa

TP MODE	1125	Throttle Position Mode	C/T, P/T, WOT
TP V	1154	Throttle Position Input	VOLTS
TPB	1629	Secondary Throttle Position Input	VOLTS
TPREL	1169	Lowest Steady TP Voltage Since Engine Start (RATCH)	VOLTS
TR	11B6	Transmission Selector Position Input Status	POSITION
TR V	1151	Transmission Selector Position Input Status	VOLTS
TR D	16B5	Transmission Selector Position Input Status (Digital)	BINARY
TSS/ISS	11B4	Turbine Shaft Speed/Input Shaft Speed	RPM
VCTA	16B1 b6	VCT Control Circuit Monitor	ON/OFF
VCTENA	16B1 b5	Conditions Correct to Enable VCT	YES/NO
VFCD	091F	Variable Speed Fan Duty Cycle	%
VFCF	1630 b5	Variable Speed Fan Output Fault	YES/NO
VPWR	1172	Vehicle Power Voltage	VOLTS
VREF	1155	Vehicle Reference Voltage	VOLTS
WAC	1104 b0	A/C Clutch Command	ON/OFF
WACF	162E b5	WOT A/C Primary Circuit Fault	YES/NO

**Note:** PID MP LRN must be set to YES before the Misfire Monitor will be enabled.