

## Parameter Identification (PID)

### Description

The PID mode allows access to powertrain control module (PCM) information. This includes analog and digital signal inputs and outputs along with calculated values and the system status. There are two types of PID lists available and both are used throughout this manual. The first is the generic (J1979) OBD PID list. This is a standard set of PIDs that all scan tools must be able to access. The second is a Ford-specific (J2190) list which can be accessed by an appropriate scan tool. When accessing any of these PIDs, the values are 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) document J2205.

### Generic OBD PID List

An 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
X	AAT	Ambient Air Temperature	Degrees
X	AIR	Secondary Air Status	On/Off
X	APP_D	Accelerator Pedal Position D	%
X	APP_E	Accelerator Pedal Position E	%
X	APP_F	Accelerator Pedal Position F	%
X	CATEMP11	Catalyst Temperature Bank 1, Sensor 1	Degrees
X	CATEMP12	Catalyst Temperature Bank 1, Sensor 2	Degrees
X	CATEMP21	Catalyst Temperature Bank 2, Sensor 1	Degrees
X	CATEMP22	Catalyst Temperature Bank 2, Sensor 2	Degrees
	CLR_DST	Distance since codes cleared	Km
	CCNT	Continuous DTC Counter	Unitless
X	ECT	Engine Coolant Temperature	Degrees
X	EGR_PCT	Commanded EGR	%
X	EGR_ERR	EGR Error	%
X	EVAP_PCT	Commanded Evaporative Purge	%
X	EVAP_VP	Evaporative System Vapor Pressure	Pa
X	EQ_RAT	Commanded Equivalence Ratio	Unit
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 Temperature	Degrees
X	LOAD <sup>b</sup>	Calculated Engine Load	%
X	LOAD_ABS	Absolute Load Value	%
X	LONGFT1	Current Bank 1 Fuel Trim Adjustment (kamref1) From Stoichiometry Which Is Considered Long Term	%
X	LONGFT2	Current Bank 2 Fuel Trim Adjustment (kamref2) From Stoichiometry Which Is Considered Long Term	%
X	MAF	Mass Air Flow Rate	gm/s-lb/min

	MIL_DIST	Distance traveled with MIL on	Kilometer
X	O2S11	Bank 1 Upstream Oxygen Sensor (11)	Volts
X	O2S12	Bank 1 Downstream Oxygen Sensor (12)	Volts
X	O2S13	Bank 1 Downstream Oxygen Sensor (13)	Volts
X	O2S21	Bank 2 Upstream Oxygen Sensor (21)	Volts
X	O2S22	Bank 2 Downstream Oxygen Sensor (22)	Volts
X	O2S23	Bank 2 Downstream Oxygen Sensor (23)	Volts
	OBDSUP	On Board Diagnostic System	OBD II OBD I OBD Combination of or None
X	PTO	Power Take-Off Status	On/Off
X	RPM	Revolutions per Minute	RPM
X	RUNTM	Run time	Seconds
X	SHRTFT1	Current Bank Fuel Trim Adjustment (lambse1) From Stoichiometry Which Is Considered Short Term	%
X	SHRTFT2	Current Bank 2 Fuel Trim Adjustment (lambse1) From Stoichiometry Which Is Considered Short Term	%
X	SPARKADV	Spark Advance Requested	Degrees
X	SPARK_ACT	Spark Advance Actual	Degrees
X	TAC_PCT	Commanded Throttle Actuator	%
X	TP	Throttle Position	%
X	TP_R	Relative Throttle Position	%
	WARM_UPS	Number of warm ups since codes cleared	Units
X	VSS	Vehicle Speed Sensor	km/h-mph

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

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

CL = Closed loop using HO2S(s) as feedback for fuel control.

OL DRIVE = Open loop due to driving conditions (heavy acceleration).

OL FAULT = Open loop due to fault with all upstream HO2S sensors.

CL FAULT = Closed loop fuel control, but fault with one upstream HO2S sensor on dual bank vehicles.

## Ford PID List

**Note:** This is not a complete list of Ford PIDs available. This is a list of Ford PIDs in this manual.

Acronym	Description	Ford Units
ACCS	Air Conditioning Cycling Switch Input	On/Off
ACP	A/C Pressure Transducer Sensor	Volts/Pressure
ACP_PRESS	A/C Pressure Transducer Sensor	Volts/Pressure
AIR	Secondary AIR Pump Control	On/Off
AIRF	Secondary AIR Fault Indicator	Yes/No
AIRM	Secondary AIR Pump Monitor	On/Off
APP	Accelerator Pedal Position	Percent
APP1	Accelerator Pedal Position 1	Volts
APP2	Accelerator Pedal Position 2	Volts

APP3	Accelerator Pedal Position 3	Volts
APP_MAXDIFF	Maximum Difference between APP1 and APP2	Degrees
APP_MODE	Accelerator Pedal Position Mode	Pedal position
AXLE	Axle Ratio	Ratio
B+	Battery Voltage	Volts
BARO	Barometric Pressure Sensor	Frequency/Pressure
BOO	Brake Pedal Position (BPP) Switch	On/Off
BOO1	Brake Pedal Position (BPP) Switch	On/Off
BOO2	Brake Pedal Switch (BPS)	On/Off
BPA	Brake Pressure Applied (BPA)	On/Off
BPP/BOO	Brake Pedal Position (BPP) Switch	On/Off
CAT_EVAL	Catalyst Evaluated	Yes/No
CCS	Coast Clutch Solenoid Control	On/Off
CHT	Cylinder Head Temperature Input	Volt/Degrees F
CLRDIST	Distance Since DTCs Cleared	Miles
CLRWRMUP	Number of Warm-ups Since DTCs Cleared	Count
CPP_BOT	Clutch Pedal At or Near Bottom of Travel	Yes/No
CMP_F	Camshaft Position Sensor Fault Mode	Yes/No
CPP	Clutch Pedal Position Switch Input	On/Off
CPP/PNP	Clutch Pedal Position/Park Neutral Position Switch Input	Neutral/Drive
DECHOKE	Crank Fueling Disabled	Yes/No
DPFEGR	Differential Pressure Feedback EGR Input	Volts
DRIVECNT	Number of Successful Ignition Cycles and Engine Starts	Count
DTCCNT	Total Number of Fault Codes	Count
ECT	Engine Coolant Temperature Input	Volts/Degrees F
EGRMC1F	EGR Motor Control	Yes/No
EGRMC2F	EGR Motor Control	Yes/No
EGRMC3F	EGR Motor Control	Yes/No
EGRMC4F	EGR Motor Control	Yes/No
EGRMDSD	Electric EGR Motor Commanded in Steps	On/Off
EGRPCT	Commanded EGR	Percent
EGRVR	EGR Valve Vacuum Control	Percent
EGR_EVAL	EGR Evaluated	Yes/No
EGR_STEP	EGR Valve Motor Position	Position
EONV_RDY	EVAP Monitor Test Ready At Next Ignition Off	Ready/Not Ready
EOT	Engine Oil Temperature Sensor Input	Volts/Degrees F
EOT_F	Engine Oil Temperature Sensor Fault	Fault/No Fault
EPC	Electronic Pressure Control	kPa/PSI
EPC V	Electronic Pressure Control	Volts
ETC_ACT	Electronic Throttle Control Actual	Degrees
ETC_DSD	Electronic Throttle Control Desired	Degrees
ETC_TRIM	Electronic Throttle Control Trim	Degrees
EVAP020C	Evaporative Emissions Monitor	Yes/No
EVAP020D	Evaporative Emissions Monitor	Allow/Disallow
EVAP020R	Evaporative Emissions Monitor	Ready/Not Ready
EVAPCP	Evaporative Emissions Canister Purge Fault	Percent/On/Off

	Evaporative Emissions Canister Purge Vent Control	Percent/On/Off
EVAPCV_F	Evaporative Emissions Canister Purge Vent Fault	Yes/No
EVAPPDC	Evaporative Emissions Canister Purge Solenoid Duty Cycle	Frequency / Percent
EVAPSOAK	Evaporative Emissions Monitor Soak Conditions are Met	Yes/No
EVAPSTA	Evaporative Emissions Monitor Completed Cycle	Status
EVAP_EVAL	Evaporative Emissions Monitor Evaluated	Yes/No
EVMV	Electronic Vapor Management Valve Commanded Current	Current
FAN	Engine cooling fan operation	On/Off
FANDC	Variable Speed Fan Duty Cycle	Percent
FANSS	Fan Speed Sensor Signal	RPM
FANVAR	Variable Speed Fan Output	Percent
FANVAR_F	Variable Speed Fan Output Fault	Fault/No Fault
FCIL	Fuel Cap Indicator Light	On/Off
FLI	Fuel Level Indicator Input	Percent
FP	Fuel Pump Duty Cycle	Percent
FPM	Fuel Pump Secondary Monitor	Percent/On/Off
FRP	Fuel Rail Pressure Input	Volts/Pressure
FRP_DSD	Fuel Rail Pressure Desired	Pressure
FRT	Fuel Rail Temperature	Degrees F/Volts
FTP	Fuel Tank Pressure Input	Volts/Pressure
FTP_H2O	Fuel Tank Pressure Input	Pressure
FUELPW1	Injector Pulse Width Bank 1	Time
FUELPW2	Injector Pulse Width Bank 2	Time
FUELSYS	Fuel System Status	Open/Closed Loop
GEAR	Transmission Gear Status	Gear
GENCMD	Generator Command	Percent
GENMON	Generator Field Signal Monitor	Percent
HFC	High Speed Fan Control	On/Off
HTR11	Bank 1 Sensor 1 HO2S Heater Control	On/Off
HTR11F	Bank 1 Sensor 1 HO2S Heater Circuit Fault	Yes/No
HTR12	Bank 1 Sensor 2 HO2S Heater Control	On/Off
HTR12F	Bank 1 Sensor 2 HO2S Heater Circuit Fault	Yes/No
HTR13	Bank 1 Sensor 3 HO2S Heater Control	On/Off
HTR21	Bank 2 Sensor 1 HO2S Heater Control	On/Off
HTR21F	Bank 2 Sensor 1 HO2S Heater Circuit Fault	Yes/No
HTR22	Bank 2 Sensor 2 HO2S Heater Control	On/Off
HTR22F	Bank 2 Sensor 2 HO2S Heater Circuit Fault	Yes/No
HTRCM11	Bank 1 Sensor 1 O2S Heater Circuit Current	Current
HTRCM12	Bank 1 Sensor 2 O2S Heater Circuit Current	Current
HTRCM21	Bank 2 Sensor 1 O2S Heater Circuit Current	Current
HTRCM22	Bank 2 Sensor 2 O2S Heater Circuit Current	Current
HTRX1	HO2S Sensor 1 (Upstream) Heater Control	On/Off
HTRX2	HO2S Sensor 2 (Downstream) Heater Control	On/Off
HO2S11	Bank 1 Sensor 1 HO2S Input	Volts
HO2S12	Bank 1 Sensor 2 HO2S Input	Volts
HO2S13	Bank 1 Sensor 3 HO2S Input	Volts

	Bank 2 Sensor 1 HO2S Input	Volts
HO2S22	Bank 2 Sensor 2 HO2S Input	Volts
IAC	Idle Air Control	Percent
IAT	Intake Air Temperature Input	Degrees F/Volts
IAT2	Intake Air Temperature Sensor 2 Input	Degrees F/Volts
IGN_R/S	Ignition Switch Run/Start	On/Off
IMRC	Intake Manifold Runner Control	On/Off
IMRC_F	Intake Manifold Runner Control Fault	Yes/No
IMRC1M	Intake Manifold Runner Control Monitor Input Bank 1	Volts
IMRCM	Intake Manifold Runner Control Monitor Input	Volts
IMTV	Intake Manifold Tuning Valve Control	Percent
INJ1F-8F	Fuel Injector Primary Fault (Cylinders 1-8)	Yes/No
INJ9F-10F	Fuel Injector Primary Fault (Cylinders 9 and 10)	Yes/No
INJPWR_M	Injectors Circuit Voltage Monitor	Volts
ISS_SRC	Intermediate Shaft Speed	Frequency/RPM
KNOCK1	Knock Sensor 1 Signal	Count
KNOCK2	Knock Sensor 2 Signal	Count
LFC	Low Speed Fan Control	On/Off
LOAD	Calculated Engine Load	Percent
LONGFT1	Long Term Fuel Trim Bank 1	Percent
LONGFT2	Long Term Fuel Trim Bank 2	Percent
MAF	Mass Airflow Rate Input	Frequency/Volts/Mass Flow
MAP	Intake Manifold Absolute Pressure	Frequency/Volts/ Pressure
MIL	Malfunction Indicator Lamp Control	On/Off
MIL_DIS	Distance Since MIL was Activated	Miles
MISFIRE	Misfire Status	Yes/No
MP_LRN	Learned Misfire Correction Profile	Yes/No
NM	Number of Misfires	Count
O2BANK1	Bank 1 O2S Status	Rich/Lean
O2BANK2	Bank 2 O2S Status	Rich/Lean
O2S11	Bank 1 Sensor 1 O2S Input	Volts
O2S11_CUR	Bank 1 Sensor 1 Current	Current
O2S11_IMPED	O2S11 Sensor Impedance	Volts
O2S12	Bank 1 Sensor 2 O2S Input	Volts
O2S21	Bank 2 Sensor 1 O2S Input	Volts
O2S21_CUR	Bank 2 Sensor 1 Current	Current
O2S21_IMPED	O2S21 Sensor Impedance	Volts
O2S22	Bank 2 Sensor 2 O2S Input	Volts
O2S_EVAL	Oxygen Sensor Circuits Evaluated	Yes/No
O2SHTR_EVAL	Oxygen Sensor Heater Circuits Evaluated	Yes/No
OD_CANCL	Overdrive Cancel Function	On/Off
OSS	Output Shaft Speed	RPM
OSS_SRC	Output Shaft Speed	RPM
OTS_STAT	One Touch Integrated Start System Status	Enabled/Disabled
PATSENABL	Passive Anti-Theft System Status	Enabled/Disabled

PCVHC	Positive Crankcase Ventilation Heater Control	Percent
PSP	Power Steering Pressure Switch Input	High/Low
PSP	Power Steering Pressure Input	Volts
PSP_V	Power Steering Pressure Input	Volts
PTO	Power Take Off Status Input	On/Off
PTOLOAD	Power Take Off Engage Input	Yes/No
PTOIR_V	Power Take Off RPM Select Input	Volts
PTOIL	Power Take Off Indicator Lamp Output	On/Off
RPM	Engine Speed Based Upon CKP Input	RPM
RPMDSD	RPM Desired	RPM
REV_SW	Transmission Reverse Switch Input	On/Off
SCBC	Supercharger Bypass Control	On/Off
SHRTFT	Short Term Fuel Trim	Percent
SHRTFT1	Short Term Fuel Trim Bank 1	Percent
SHRTFT2	Short Term Fuel Trim Bank 2	Percent
SPARKADV	Spark Advance Desired	Degrees
SPKDUR_1-8	Spark Duration (Cylinders 1-8)	Time
SSA/SS1	Shift Solenoid 1 Control	On/Off
SSB/SS2	Shift Solenoid 2 Control	On/Off
SSC/SS3	Shift Solenoid 3 Control	On/Off
SSD/SS4	Shift Solenoid 4 Control	On/Off
STRT_RLY	Starter Relay	Enabled/Disabled
SYNC	CMP and CKP Synchronized	Yes/No
TCC	Torque Converter Clutch Control	Percent
TCIL	Transmission Control Indicator Lamp Clutch Control Status	On/Off
TCS	Transmission Control Switch (TCS)	Depressed/Not Depressed
TCSS	Transfer Case Speed Sensor	MPH
TFT	Transmission Fluid Temperature Input	Volts/Degrees F
TFTV	Transmission Fluid Temperature Input	Volts
TORQUE	Net Torque Into Torque Converter	Torque
TP	Throttle Position Input	Volts
TPCT	Lowest Closed Throttle Voltage	Volts
TP_MAXDIFF	Maximum Angle Difference between TP1 and TP2	Degrees
TP1	Throttle Position 1 Voltage	Volts
TP2	Throttle Position 2 Voltage	Volts
TQ_CNTRL	Torque Fuel/Spark Limiting Status	Text
TR	Transmission Selector Position Input Status	Position
TR1	Transmission Range Sensor 1	Open/Closed
TR2	Transmission Range Sensor 2	Open/Closed
TR3	Transmission Range Sensor 3	Open/Closed
TR4	Transmission Range Sensor 4	Open/Closed
TR V	Transmission Selector Position Input Status	Volts
TR D	Transmission Selector Position Input Status (Digital)	Binary
TRIP_CNT	OBD II Trips Completed	Count
TSS	Turbine Shaft Speed	RPM
TSS_SRC	Unfiltered Turbine Shaft Speed	RPM

	Variable Cam Timing Advance	Degrees
VCTADV2	Variable Cam Timing Advance 2	Degrees
VCTADVERR	Variable Cam Timing Advance Error	Degrees
VCTADVERR2	Variable Cam Timing Advance 2 Error	Degrees
VCTDC	Variable Cam Timing Advance Duty Cycle	Percent
VCTDC2	Variable Cam Timing Advance Duty Cycle	Percent
VCTSYS	Variable Cam Timing System Status	Open/Closed
VPWR	Vehicle Power Voltage	Volts
VREF	Vehicle Reference Voltage	Volts
VSS	Vehicle Speed	Speed
WAC/ACCR	A/C Clutch Command	On/Off
WAC_F	WOT A/C Primary Circuit Fault	Yes/No

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