

Parameter Identification (PID)

The Parameter Identification (PID) mode allows access to certain data values, analog and digital inputs and outputs, calculated values, and system status information. Throughout the manual, there will be references to PID values. PID Data Monitor and Record can be accessed from the Rotunda New Generation Star (NGS) Tester 007-00500 (or equivalent) through the Diagnostic Data Link menu.

Selecting Parameter Identification (PID)

Connect the NGS Tester to the DLC under the dash. Turn off accessories. If vehicle is equipped with an auxiliary powertrain control (rpm control), it must be turned off to perform self tests.

- Perform the necessary vehicle preparation and visual inspection. Refer to [Quick Test Operation](#).
- SELECT CORRECT VEHICLE, YEAR and MODEL.
- Select DIAGNOSTIC DATA LINK.
- Select PCM — POWERTRAIN CONTROL MODULE.
- Select PID/DATA MONITOR AND RECORD.
- Turn key on or start vehicle.
- Follow operating instructions from the menu.
- Select the PIDs, press START to begin monitoring.

Parameter Identification (PID) List

Acronym	Description	Measurement Units
4x4L	4x4 Low Switch	ON/OFF
ACCS	Air Conditioning Clutch Status	ON/OFF
AP	Accel Pedal Position Sensor	Volts
ARPMDES	Ancillary Engine Speed Desired	RPM
BARO	Barometric Pressure Sensor	PSI
BARO V	Barometric Pressure Sensor Actual	Volts
BPP_BOO	Brake ON/OFF Switch	ON/OFF
BPA/SW	Brake Pressure Applied	ON/OFF
CCS	Coast Clutch Solenoid	ON/OFF
CCSF	Coast Clutch Solenoid Fault	ON/OFF
CCP/PNP	Clutch Pedal Position/Park Neutral Position Switch	ON/OFF
CPP/TCS	Clutch Pedal Position/TCS	ON/OFF
CRUISE	Cruise Control Mode (Driving)	ON/STNDBY/TAPUP/TAPDN
DTC CNT	Diagnostic Trouble Code Count	DTC No.
EBP	Exhaust Back Pressure	PSI (Absolute)
EBP V	Exhaust Back Pressure Actual	Volts
EOT	Engine Oil Temperature	Degrees C (F)
EOT_V	Engine Oil Temperature Voltage	Volts
EPC*	Electronic Pressure Control	PSI
EPC V	Electronic Pressure Control Actual	Volts

EPR	Exhaust Pressure Regulator	Percent
FLI	Fuel Level Input	Percent
FLI V	Fuel Level Input Actual (Voltage)	Volts
FP	Fuel Pump Control	Duty Cycle (100% = On)
FUEL PW	Fuel Pulse Width	Milliseconds
GEAR	Transmission Gear 4R100 Only (Driving)	Trans. Gear
GPC	Glow Plug Control Duty Cycle	Percent
GPC TM	Glow Plug Control Time	Seconds
GPL TM	Glow Plug Lamp Time	Seconds
GPML	Glow Plug Monitoring Left Bank	Amp
GPMR	Glow Plug Monitoring Right Bank	Amp
IAT*	Intake Air Temperature	Degrees
IAT V	Intake Air Temperature Actual	Volts
ICP	Injector Control Pressure Sensor	PSI
ICP V	Injection Control Pressure Actual	Volts
IPR	Injector Control Pressure Regulator	Percent
IVS	Idle Validation Switch	ON/OFF
MAP	Manifold Absolute Pressure Sensor	PSI (Absolute)
MAP_Hz	Manifold Absolute Pressure Frequency	Hertz
MAP_V	Manifold Absolute Pressure Actual	Volts
MAT	Manifold Air Temperature	Degrees
MAT V	Manifold Air Temperature Actual (Voltage)	Volts
MFDES	Mass Fuel Desired	Milligrams
MGP	Manifold Gauge Pressure	PSI
MIL	Malfunction Indicator Light	ON/OFF
OSS	Transmission Output Shaft Speed	RPM
PBA	Parking Brake Applied	ON/OFF
PERDEL 1	Percent Delta Cylinder #1 (Misfire Data)	Percent
PERDEL 2	Percent Delta Cylinder #2 (Misfire Data)	Percent
PERDEL 3	Percent Delta Cylinder #3 (Misfire Data)	Percent
PERDEL 4	Percent Delta Cylinder #4 (Misfire Data)	Percent
PERDEL 5	Percent Delta Cylinder #5 (Misfire Data)	Percent
PERDEL 6	Percent Delta Cylinder #6 (Misfire Data)	Percent
PERDEL 7	Percent Delta Cylinder #7 (Misfire Data)	Percent
PERDEL 8	Percent Delta Cylinder #8 (Misfire Data)	Percent
RPM	Engine Speed	RPM
SCCS	Speed Control Command Switch	Volts
SCCS M	Speed Control Command Switch Mode	Mode
SS1	Shift Solenoid No. 1 — 4R100 Only	ON/OFF
SS2	Shift Solenoid No. 2 — 4R100 Only	ON/OFF
SS1F	Shift Solenoid #1 Output Fault	ON/OFF
SS2F	Shift Solenoid #2 Output Fault	ON/OFF
SS3	Shift Solenoid #3 Commanded ON	ON/OFF

SS3F	Shift Solenoid #3 Output Fault	ON/OFF
TCC	Torque Converter Clutch	ON/OFF/Percent
TCCA	Torque Converter Clutch Primary Circuit Monitor	ON/OFF
TCCF	Torque Converter Clutch Output Fault Detected	ON/OFF
TCCMACT	Torque Converter Modulator Actual	ON/OFF
TCCMCMC	Torque Converter Modulator Commanded	ON/OFF
TCIL	Transmission Control Indicator Lamp	ON/OFF
TCILF	Transmission Control Indicator Lamp Out Fault	ON/OFF
TFT	Transmission Fluid Temperature	Degrees
TFT V*	Transmission Fluid Temperature Sensor Actual	Volts
TRANRAT	Transmission Ratio	Ratio
TORQUE	Engine Torque	Lb/Ft
TPREL	Low Idle Throttle Position	V
TR	Transmission Range Sensor Position	PARK, REV, NTRL, OD, DRIVE, MAN2, MAN1
TR D	Transmission Range Sensor Digital Signal	O's/1's
TR V	Transmission Ranger Sensor Actual	Volts
TSS/ISS	Transmission Turbine Input Speed Sensor	RPM
VFDES	Volume Fuel Desired	Cubic Millimeters
VPWR	Vehicle Power Supply	Volts
VREF	Vehicle Reference Voltage	Volts
VS SET	Vehicle Speed Setting	MPH
VSS	Vehicle Speed Sensor	MPH
WGC	Wastegate Control	Duty Cycle

* Designates PIDs that show PCM calculated values during fault.

NGS TESTER — DRIVER-OPERATED CONTROLS CHECK

PID	Operator's Setting	NGS Tester Reading	EEC Pin	Voltage	Pinpoint Test
AP	Foot OFF of Accelerator	Approx. 0.6V	89	Approx. 0.6V	DE
	Foot ON at WOT	Approx. 3.8 V		Approx. 3.8V	
IVS	Foot OFF of Accelerator	OFF	5	0V	FE
	Foot ON Accelerator	ON		B+	
BOO	Foot ON Service Brake	ON	92	B+	FD
	Foot OFF Service Brake	OFF		0V	
BPA	Foot ON Service Brake	ON	31	0V	FB
	Foot OFF Service Brake	OFF		B+	
CPP/TCS	(M5OD) Clutch Depressed	ON	29	0V	FC
	Foot OFF Clutch Pedal	OFF		B+	
PBA	Parking Brake ON	ON	4	0V	FF

	Parking Brake OFF	OFF		B+	
CPP/TCS	(4R100) Key On: Push CNCL (Latch) Push CNCL (VF Latch)	OFF ON OFF	29	0V B+ 0 V	*
TR	(4R100) PRNDL in P PRNDL in R PRNDL in N PRNDL in OD PRNDL in OD with OD Cancel Light ON PRNDL in L2 PRNDL in L1	PARK REV NTRL OD DRIVE MAN2 MAN1	64		*
TCIL	(4R100) After Key ON Push OD Cancel (Latch) Push OD Cancel (Unlatch)	OFF ON OFF	79	0V B+ 0V	*
SCCS M	(Speed Control) After Key ON Speed Control OFF Speed Control ON SET/ACCEL COAST RESUME	OPEN OFF ON SET AC COAST RESUME	61	6.6V 0V B+ 2.8V 0.8V 4.7V	FG
CRUISE OFF	(Speed Control/When Driving Only) OFF ON SET/ACCEL (After Pressing) COAST (After Pressing)	OFF STNDBY Tap Up (Active) Tap Down (Active)	61	0V B+ 2.8V 0.8V	FG
4x4L 4x4L (Cont'd)	(Transfer Case Shifter) 4x4H or 2H 4x4L	OFF ON	14 0 V	B+	FH
ACCS	(A/C Controls) MAX/NORM AC or MIX/DEF with A/C Clutch ON Floor or Vent or A/C Clutch OFF	ON OFF	41	B+ 0 V	FA

* Refer to the Powertrain Group in the Workshop Manual.

