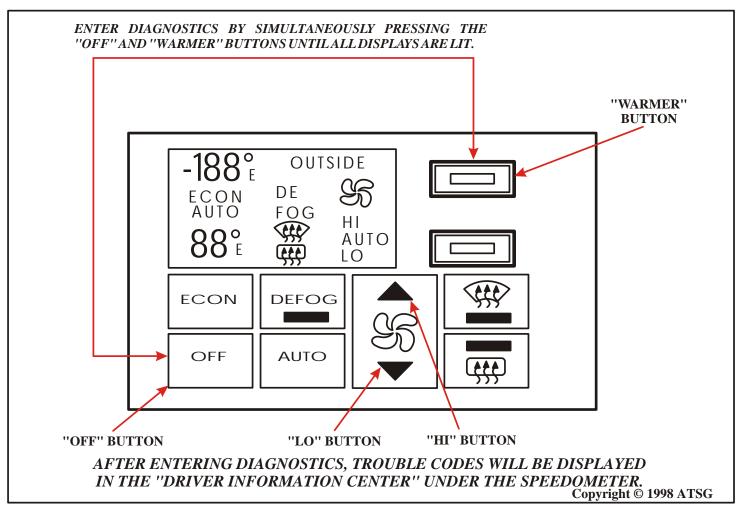


CADILLAC 4T80-E

ON BOARD DIAGNOSTIC PROCEDURE

To enter the On Board Diagnostic system on the Cadillacs equipped with the THM 4T80-E transaxle, press the "Off" and "Warmer" buttons simultaneously on the Climate Control Center as shown in Figure 1. Refer to the flow chart in Figure 3 for 1993-1996 models and flow chart in Figure 4 for 1996-1998 models. The reason for the overlap is that we have seen OBD II and Non OBD II vehicles in the 1996 model year. Refer to Figure 2 for the explaination of the status light display when in the On Board Diagnostics.

Refer to Figures 5, 6, and 7 for 1993-1996 Diagnostic Codes. Refer to Figures 8, 9, and 10 for 1996-1998 OBD II Diagnostic Codes.





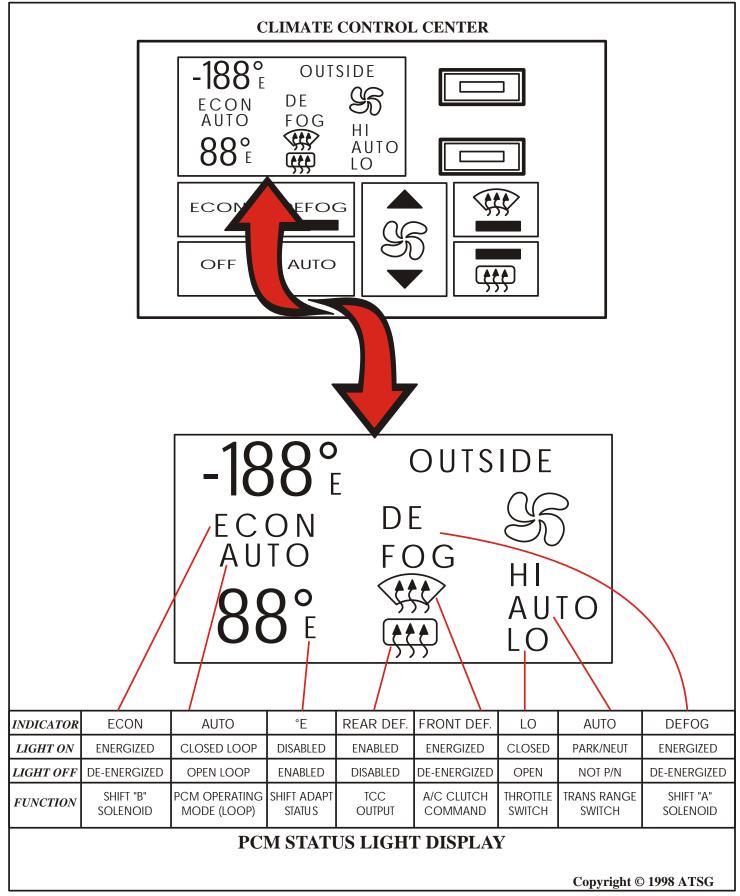
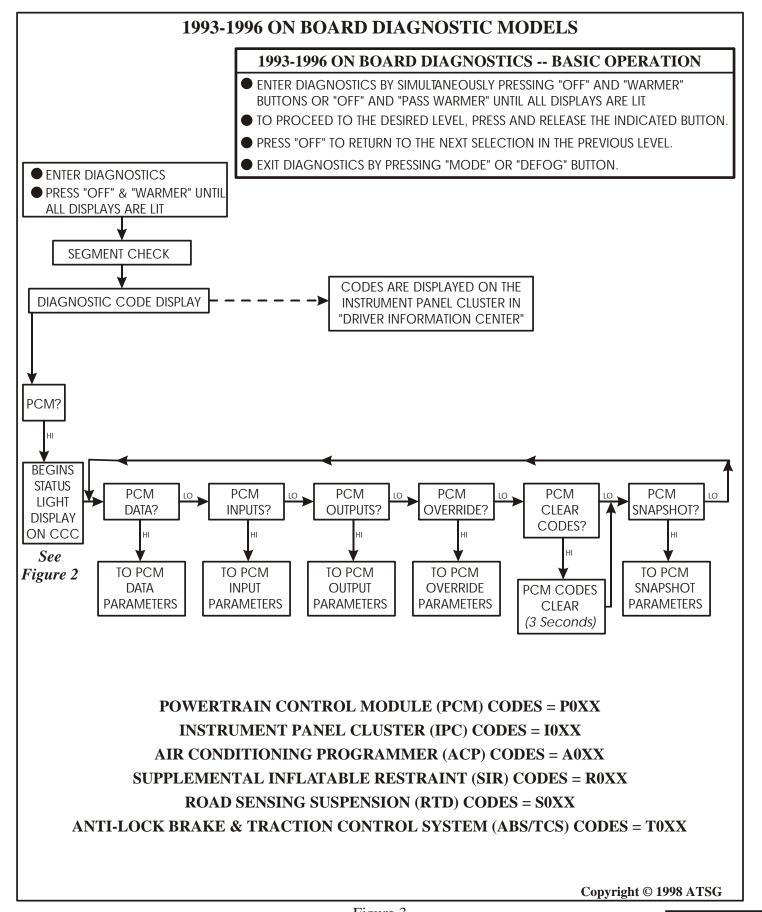


Figure 2

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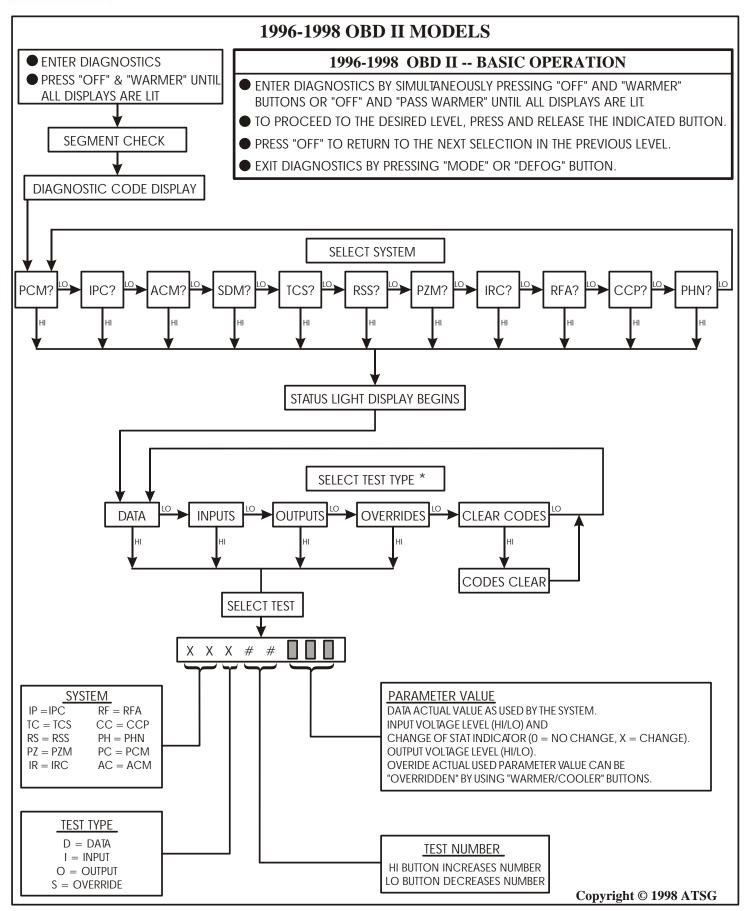


Figure 4
AUTOMATIC TRANSMISSION SERVICE GROUP



1993-1996 POWERTRAIN CONTROL MODULE (PCM) DIAGNOSTIC CODES

CODE	DESCRIPTION	\neg	CODE	DESCRIPTION
$\overline{}$		+		
P012	No 4X Reference Signal From Ignition		P058	PASS Key ® Fuel Enable Problem
P013	Control Module Rear Heated Oxygen Sensor Not Ready		P059	Open Transaxle Temperature Sensor Circuit
P014	Shorted Engine Coolant Temperature Sensor		P060	Cruise Control, Transaxle Not In Drive
P015	Open Engine Coolant Temperature Sensor		P061	Cruise Control, Vent Solenoid Problem
P016	Generator Voltage Out Of Range (EVAP, EGR,		P062	Cruise Control, Vacuum Solenoid Problem
1 010	CRUISE, TCC Transaxle Pressure Control,		P063	Set vs Vehicle Speed Difference
	Long Term Fuel Trim)		P064	Vehicle Acceleration Too High (Cruise)
P017	Front Heated Oxygen Sensor Not Ready		P065	Cruise Control Servo Position Sensor Failure
P019	Shorted Fuel Pump Circuit		P066	Cruise Control, Engine RPM Too High
P020	Open Fuel Pump Circuit		P067	Set/Coast Or Resume/Accel Input Shorted
P021	Shorted Throttle Position Sensor		P068	Cruise Control Servo Position Out Of Range
P022	Open Throttle Position Sensor		P069	Traction Control Active While In Cruise
P023	Ignition Control Circuit Problem		P070	Intermittent Throttle Position Sensor
P024	Vehicle Speed Sensor Circuit Problem		P071	Intermittent Manifold Absolute Pressure Sensor
P025	24X Reference Signal Low		P073	Intermittent Engine Coolant Temp Sensor
P026	Shorted Throttle Position Switch Circuit		P074	Intermittent Intake Air Temperature Sensor
P027	Open Throttle Position Switch Circuit		P075	Vehicle Speed Sensor Signal Interrupt
P028	Transaxle Pressure Switch Circuit Problem		P076	Transaxle EPC Solenoid Circuit Malfunction
P029	Transaxle Shift "B" Solenoid Problem		P080	TP Sensor/Idle Learn Not Complete
	(1st, 3rd, 4th Gear)		P081	CAM To 4X Reference Correlation Problem
P030	Idle Speed Control RPM Out Of Range		P083	24X Reference Signal High
P031	Shorted Manifold Absolute Pressure Sensor		P085	Idle Throttle Angle Too High
P032	Open Manifold Absolute Pressure Sensor		P086	Undefined Gear Ratio
P033	Cruise Brake Switch Input Circuit Problem		P088	Torque Converter Clutch Not Disengaging
P034	Manifold Absolute Pressure Sensor Signal High		P089	Long Shift And Maximum Adapt
P035	Ignition Ground Voltage Out Of Range		P090	TCC Brake Switch Input Circuit Problem
P036	EGR Valve Pintle Position Out Of Range		P091	Transaxle Range Switch Problem (Cruise)
P037	Shorted Intake Air Temperature Sensor		P092	Heated Winshield Request Problem
P038	Open Intake Air Temperature Sensor		P093	Traction Control System PWM Link Failure
P039	Torque Converter Clutch Engagement Problem		P094	Transaxle Shift "A" Solenoid Problem
P040	Power Steering Pressure Switch Open		P095	Engine Stall Detected
P041	No Cam Reference Signal From Igntion Module		P096	Torque Converter Overstress
P042	Front Heated Oxygen Sensor Lean Exh. Signal		P097	P/N To D/R At High Throttle Angle
P043	Front Heated Oxygen Sensor Rich Exh. Signal		P099	Cruise Control Servo Applied, Not In Cruise
P044	Rear Heated Oxygen Sensor Lean Exh. Signal		P102	Shorted Brake Booster Vacuum Sensor
P045	Rear Heated Oxygen Sensor Rich Exh. Signal		P103	Open Brake Booster Vacuum Sensor
P046	Left To Right Bank Fueling Difference		P105	Brake Booster Vacuum Too Low
P047	PCM/BCM Data Link Problem		P106	Stop Lamp Switch Input Circuit Problem
P048	EGR System Malfunction		P107	PCM/BCM Data Link Problem
P051	PROM Checksum Mismatch		P108	PROM Checksum Mismatch
P052	PCM Keep Alive Memory Reset		P109	PCM Keep Alive Memory Reset
P053	4X Reference Signal Interrupt From Ign. Module		P110	Generator L - Terminal Circuit Problem
P055	Closed Throttle Angle Out Of Range		P112	Total EEPROM Failure
	(TPS Learn)		P117	Shift "A"/Shift "B" Circuit, Open/Shorted
P056	Transaxle Input Speed Sensor Circuit Problem		P131	Active Knock Sensor Failure
P057	Shorted Transaxle Temperature Sensor Circuit		P132	Knock Sensor Circuitry Failure
		\perp	P137	Loss Of ABS/TCS Data

Figure 5



CADILLAC 4T80-E 1993-1996 MODELS INSTRUMENT PANEL CLUSTER (IPC) DIAGNOSTIC CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
1022	Dimming Potentiometer Problem	1039	CCR Or RTD System Problem
1032	Loss Of ABS/TCS Data Communication	1041	Battery Voltage Low
1033	Loss Of SIR Data Comunication	1042	Battery Voltage High
1034	Loss Of PCM Data Comunication	1052	IPC Loss Of Memory
1037	Loss Of ACP Data Comunication	1056	IPC EEPROM Error

AIR CONDITIONING PROGRAMMER (ACP) DIAGNOSTIC CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
A010 A011 A012 A013 A015 A037 A040	Outside Air Temperature Sensor Circuit High Side Temperature Sensor Circuit Low Side Temperature Sensor Circuit Inside Air Temperature Sensor Circuit Sunload Sensor Circuit Loss Of IPC Data Air Mix Door Circuit Problem	A046 A047 A048 A049 A050 A052	Low Refrigerant Charge Low Refrigerant Charge Low Refrigerant Pressure High Side Temperature Too High AC Coolant Temperature Too High Keep Alive Memory Error

SUPPLEMENTAL INFLATABLE RESTRAINT (SIR) DIAGNOSTIC CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
R014	Dual Pole Arming Sensor Disconnected	R036	Passengers Loop Energy Reserve Feed Open
R015	Passengers Initiator Circuit Resistance High	R042	Loop Energy Reserve Voltage Low
R016	Passengers Initiator Circuit Resistance Low	R043	Drivers Source Feed Low
R017	Passengers Initiator Circuit Open	R044	Passengers Source Feed Low
R018	Discriminating Sensor Interconnect Open	R051	Frontal Crash Detected
R019	Passengers Initiator Circuit Voltage High	R052	Data Area Full
R021	Drivers Initiator Circuit Resistance High	R053	Drivers Sense Resistance Low/High
R022	Drivers Initiator Circuit Resistance Low	R054	Passengers Sense Resistance Low/High
R023	Drivers Initiator Circuit Voltage High	R061	SIR Indicator Redundant Or Circuit Failure
R024	Initiator Circuit Voltage Low	R062	SIR Indicator Redundant Or Circuit Failure
R025	Initiator Circuit Voltage Short To Ignition	R071	Internal DERM Fault
R026	Drivers Initiator Circuit Open	R081	Drivers Ignition Diode Open
R028	Current Sink Or Source Failure	R082	Passengers Ignition Diode Open
R031	Drivers Loop Energy Reserve Feed Open	R083	(History) Drivers Reserve Diode Shorted
R034	Dual Pole Arming Sensor Feed Open	R084	(History) Passengers Reserve Diode Shorted
R035	Discriminating Sensor Open Or Missing		

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CADILLAC 4T80-E 1993-1996 MODELS ROAD SENSING SUSPENSION (RTD) DIAGNOSTIC CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
S010	LF Damper Solenoid Short To Battery Voltage	S060	LF Position Sensor Fault
S011	LF Damper Solenoid Short To Ground/Open	S061	RF Position Sensor Fault
S015	RF Damper Solenoid Short To Battery Voltage	S062	LR Position Sensor Fault
S016	RF Damper Solenoid Short To Ground/Open	S063	RR Position Sensor Fault
S020	LR Damper Solenoid Short To Battery Voltage	S064	LF Position Sensor Overcurrent
S021	LR Damper Solenoid Short To Ground/Open	S065	RF Position Sensor Overcurrent
S025	RR Damper Solenoid Short To Battery Voltage	S066	LR Position Sensor Overcurrent
S026	RR Damper Solenoid Short To Ground/Open	S067	RR Position Sensor Overcurrent
S030	Speed Sensitive Steering Solenoid Fault	S070	LF Accelerometer Fault
S035	ELC Compressor Short To Battery Voltage	S071	RF Accelerometer Fault
S036	ELC Compressor Short To Ground/Open	S072	LR Accelerometer Fault
S037	ELC Exhaust Valve Short To Battery Voltage	S073	RR Accelerometer Fault
S038	ELC Exhaust Valve Short To Ground/Open	S074	LF Accelerometer Overcurrent
S043	Speed Signal Fault	S075	RF Accelerometer Overcurrent
S044	Lift/Dive Signal Fault	S076	LR Accelerometer Overcurrent
S050	RSS Module Fault	S077	RR Accelerometer Overcurrent
S055	RSS Resistor Module Short To Ground/Open		

ANTI-LOCK BRAKE & TRACTION CONTROL SYSTEM (ABS/TCS) DIAGNOSTIC CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
T021	RF Wheel Speed Sensor Fault	T041	RF ABS Valve Solenoid Fault
T022	RF Wheel Speed Sensor Frequency Error	T044	RF TCS Pilot Valve Fault
T023	RF Wheel Speed Sensor Continuity Fault	T045	LF ABS Valve Solenoid Fault
T025	LF Wheel Speed Sensor Fault	T048	LF TCS Pilot Valve Fault
T026	LF Wheel Speed Sensor Frequency Error	T051	RR ABS Valve Solenoid Fault
T027	LF Wheel Speed Sensor Continuity Fault	T055	LR TCS Pilot Valve Fault
T028	Wheel Speed Sensor Frequency Error	T061	Pump Motor Or Relay Fault
T031	RR Wheel Speed Sensor Fault	T063	Valve Relay Fault
T032	RR Wheel Speed Sensor Frequency Error	T067	Brake Light Switch Fault (TCS Equipped Only)
T033	RR Wheel Speed Sensor Continuity Fault	T071	Electronic Brake & Traction Control
T035	LR Wheel Speed Sensor Fault		(EBTCM/EBCM) Internal Fault
T036	LR Wheel Speed Sensor Frequency Error	T072	Serial Data Link Fault
T037	LR Wheel Speed Sensor Continuity Fault	T073	PCM - EBTCM/EBCM, PWM Signal Fault
		T083	Low Brake Fluid Level

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19	1996-1998 POWERTRAIN CONTROL MODULE (PCM) OBDII DIAGNOSTIC CODES						
CODE	DESCRIPTION	CODE		DESCRIPTION			
P0101	Mass Air Flow System Performance	P015	3	Heated Oxygen Sensor Slow Response			
P0102	Mass Air Flow Sensor Circuit Low Frequency	D045	,	Bank 2, Sensor 1 (Front)			
P0103	Mass Air Flow Sensor Circuit High Frequency	P015	4	Heated Oxygen Sensor Insufficient Activity			
P0105	MAP Sensor Circuit Insufficient Activity	P015	5	Bank 2, Sensor 1 (Front) Heated Oxygen Sensor Heater Circuit			
P0106	MAP Sensor Circuit System Performance	1 1013	5	Bank 2, Sensor 1 (Front)			
P0107	MAP Sensor Circuit Low Voltage	P017	1	Fuel Trim System Lean Bank 1			
P0108	MAP Sensor Circuit High Voltage	P017	2	Fuel Trim System Rich Bank 1			
P0111	Intake Air Temp Sensor Circuit Performance	P017	4	Fuel Trim System Lean Bank 2			
P0112	Intake Air Temp Sensor Circuit Low Voltage	P017	5	Fuel Trim System Rich Bank 2			
P0113	Intake Air Temp Sensor Circuit High Voltage	P020)1	Injector No. 1 Control Circuit			
P0116	Engine Coolant Temp Sensor Circuit Perf.	P020)2	Injector No. 2 Control Circuit			
P0117	Engine Coolant Temp Sensor Low Voltage	P020	3	Injector No. 3 Control Circuit			
P0118	Engine Coolant Temp Sensor High Voltage	P020	4	Injector No. 4 Control Circuit			
P0120	Throttle Position Sensor System Performance	P020		Injector No. 5 Control Circuit			
P0121	TPS Circuit Insufficient Activity	P020		Injector No. 6 Control Circuit			
P0122	Throttle Position Sensor Circuit Low Voltage	P020)7	Injector No. 7 Control Circuit			
P0123	Throttle Position Sensor Circuit High Voltage	P020		Injector No. 8 Control Circuit			
P0125	Engine Coolant Temp Excessive Time To	P021		Transaxle Fluid Overtemperature			
	Closed Loop Fuel Control	P023		Fuel Pump Feedback Circuit Low Voltage			
P0131	Heated Oxygen Sensor Low Voltage	P023		Fuel Pump Feedback Circuit High Voltage			
P0132	Bank 1, Sensor 1 (Rear)	P030		Engine Misfire Detected			
P0132	Heated Oxygen Sensor High Voltage Bank 1, Sensor 1 (Rear)	P032		Ignition Control Module			
P0133	Heated Oxygen Sensor Slow Response			4X Reference Circuit No Frequency			
	Bank 1, Sensor 1 (Rear)	P032		Knock Sensor Module Circuit			
P0134	Heated Oxygen Sensor Insufficient Activity	P032		Knock Sensor Circuit Excessive Spark Retard			
D012E	Bank 1, Sensor 1 (Rear)	P032		Knock Sensor Circuit Low Voltage			
P0135	Heated Oxygen Sensor Heater Circuit Bank 1, Sensor 1 (Rear)	P034	0	Ignition Control Module			
P0137	Heated Oxygen Sensor Low Voltage	D03	71	Cam Reference Circuit No Frequency			
	Bank 1, Sensor 2 (Pre-Converter)	P037	'1	Ignition Control Module 24X Reference Circuit Too Many Pulses			
P0138	Heated Oxygen Sensor High Voltage	P037	2	Ignition Control Module 24X Reference			
D0120	Bank 1, Sensor 2 (Pre-Converter)		_	Circuit Missing Pulses			
P0139	Heated Oxygen Sensor Slow Response Bank 1, Sensor 2 (Pre-Converter)	P040)1	Exhaust Gas Recirculation (EGR) System			
P0140	Heated Oxygen Sensor Insufficient Activity	P040)4	EGR System Performance			
	Bank 1, Sensor 2 (Pre-Converter)	P040		EGR Sensor Circuit Voltage Out Of Range			
P0141	Heated Oxygen Sensor Heater Circuit	P042		Three Way Catalyst Low Efficiency			
D0143	Bank 1, Sensor 2 (Pre-Converter)	P044		Evaporative System No Flow During Purge			
P0143	Heated Oxygen Sensor Low Voltage Bank 1, Sensor 3 (Post-Converter)	P050		Vehicle Speed Sensor Circuit Low Input			
P0144	Heated Oxygen Sensor High Voltage	P050		Vehicle Speed Sensor Circuit Intermittent			
	Bank 1, Sensor 3 (Post-Converter)	P050		Idle Speed Low			
P0146	Heated Oxygen Sensor Insufficient Activity	P050)7	Idle Speed High			
DO1 47	Bank 1, Sensor 3 (Post-Converter)	P055	0	Power Steering Pressure Swit. Circuit Low Volt.			
P0147	Heated Oxygen Sensor Heater Circuit	P056	0	System Voltage Low			
P0151	Bank 1, Sensor 3 (Post-Converter) Heated Oxygen Sensor Low Voltage	P056	3	System Voltage High			
' ' ' ' '	Bank 2, Sensor 1 (Front)	P060)1	PCM Memory			
P0152	Heated Oxygen Sensor High Voltage	P060)2	PCM Not Programmed			
	Bank 2, Sensor 1 (Front)	P060	3	PCM Memory Reset			
		P060	16	PCM Internal Communication Interrupted			



19	1996-1998 POWERTRAIN CONTROL MODULE (PCM) OBDII DIAGNOSTIC CODES						
CODE	DESCRIPTION	CODE	DESCRIPTION				
P0711	Transaxle Fluid Temperature Sensor Circuit Range/Performance	P1370	Ignition Control Module 4X Reference Circuit, Too Many Pulses				
P0712 P0713	TFT Sensor Circuit Low Input TFT Sensor Circuit High Input	P1371	Ignition Control Module 4X Reference Circuit, Too Few Pulses				
P0716 P0717	Input Speed Sensor Circuit Intermittent Input Speed Sensor Circuit Low Input	P1375	Ignition Control Module 24X Reference Circuit, High Voltage				
P0719	Brake Switch Circuit Low Input	P1376					
P0724	Brake Switch Circuit High Input	P1377	Ignition Ground Circuit Ignition Control Module Cam Pulse To				
P0730	Incorrect Gear Ratio	1 13//	4X Reference Circuit, Pulse Comparison				
P0741	TCC System - Stuck OFF	P1380	EBTCM DTC Detected				
P0742	TCC System - Stuck ON	1 1300	Rough Road Data Unusable				
P0748	Pressure Control Solenoid Circuit Electrical	P1381	Misfire Detected No EBTCM/PCM Serial Data				
P0751	1-2 Shift Solenoid Valve - Performance	P1404	EGR Valve Pintle Stuck Open				
P0753	1-2 Shift Solenoid Circuit - Electrical	P1406	EGR Valve Pintle Position Circuit				
P0756	2-3 Shift Solenoid Valve - Performance	P1441	Evaporator System Flow During Non-Purge				
P0758	2-3 Shift Solenoid Circuit - Electrical	P1508	Idle Air Control System, Low RPM				
P1106	MAP Sensor Circuit Intermittent High Voltage	P1509	Idle Air Control System, High RPM				
P1107	MAP Sensor Circuit Intermittent Low Voltage	P1520	Gear Indicator System				
P1108	BARO To MAP Signal Circuit	P1524	Throttle Position Sensor Learned Closed				
D1111	Comparison Too High	1	Throttle Angle Degrees Out Of Range				
P1111	Intake Air Temperature Sensor Circuit Intermittent High Voltage	P1526	Throttle Position Sensor Learn Not Complete				
P1112	Intake Air Temperature Sensor Circuit	P1527	Transaxle Range/Pressure Switch Comparison				
	Intermittent Low Voltage	P1554	Cruise Engaged Circuit High Voltage				
P1114	Engine Coolant Temperature Sensor Circuit	P1560	Cruise Control System, Transaxle Not In Drive				
P1115	Intermittent Low Voltage	P1564	Cruise Control System, Acceleration Too High				
Pillo	Engine Coolant Temperature Sensor Circuit Intermittent High Voltage	P1566	Cruise Control System, Engine RPM Too High				
P1121	TPS Circuit Intermittent High Voltage	P1570	Cruise Control System, Traction Control Active				
P1122	TPS Circuit Intermittent Low Voltage	P1571	Traction Control System,				
P1133	Heated Oxygen Sensor Insufficient Switching		PWM Circuit No Frequency				
	Bank 1, Sensor 1 (Rear)	P1574	EBTCM System, Stop Lamp Switch				
P1134	Heated Oxygen Sensor Transition Time Ratio		Circuit Voltage High				
	Bank 1, Sensor 1 (Rear)	P1575	Extended Travel Brake Switch High Voltage				
P1139	Heated Oxygen Sensor Insufficient Switching	P1576	Brake Booster Vacuum Sensor, High Voltage				
D44 + 0	Bank 1, Sensor 2 (Pre-Converter)	P1577	Brake Booster Vacuum Sensor, Low Voltage				
P1140	Heated Oxygen Sensor Transition Time Ratio	P1578	Brake Booster Vacuum Sensor, Low Vacuum				
D44=0	Bank 1, Sensor 2 (Pre-Converter)	P1579	P/N To D/R At High Throttle Angle				
P1153	Heated Oxygen Sensor Insufficient Switching	P1599	Engine Stall Or Near Stall Detected				
D445.4	Bank 2, Sensor 1 (Front)	P1602	Loss Of EBTCM Serial Data				
P1154	Heated Oxygen Sensor Transition Time Ratio	P1604	Loss Of IPC Serial Data				
D1050	Bank 2, Sensor 1 (Front)	P1605	Loss Of HVAC Serial Data				
P1258	Engine Metal Overtemperature Protection	P1610	Loss Of PZM Serial Data				
P1320	Ignition Control Module 4X Reference	P1611	Loss Of CVRTD Serial Data				
P1323	Circuit No Pulses Ignition Control Module 4X Reference	P1621	PCM Memory Performance				
1020	Circuit Low Frequency	P1626	Theft Deterent System, Fuel Enable Circuit				
P1350	Ignition Control System	P1630	Theft Deterent System, PCM In Learn Mode				
		P1631	Theft Deterent System, Password Incorrect				
		P1632	Theft Deterent System, Fuel Disabled				



1996-1998 POWERTRAIN CONTROL MODULE (PCM) OBDII DIAGNOSTIC CODES

CODE	DESCRIPTION	CODE	DESCRIPTION
P1633	Ignition Supplement Power Circuit Low Voltage		
P1634	Ignition 1 Power Circuit Low Voltage		
P1640	Driver 1 Input High Voltage		
P1641	Malfunction Indicator Lamp Control Circuit		
P1642	Vehicle Speed Output Circuit		
P1644	Delivered Torque Output Circuit		
P1645	EVAP Solenoid Output Circuit		
P1650	Driver 2 Input High Voltage		
P1652	Lift/Dive Output Circuit		
P1654	Cruise Disable Output Circuit		
P1660	Cooling Fan Control Circuits		
P1810	Transaxle Fluid Pressure Manual Valve		
D1011	Position Switch Circuit Malfunction		
P1811	Maximum Adapt and Long Shift		
P1814	Torque Converter Overstress		
P1860	TCC/PWM Solenoid Circuit, Electrical		Copyright © 1998 ATSG

Figure 10