

SECTION 3B

EEC Engine Supplement — Car

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SECTION 3B

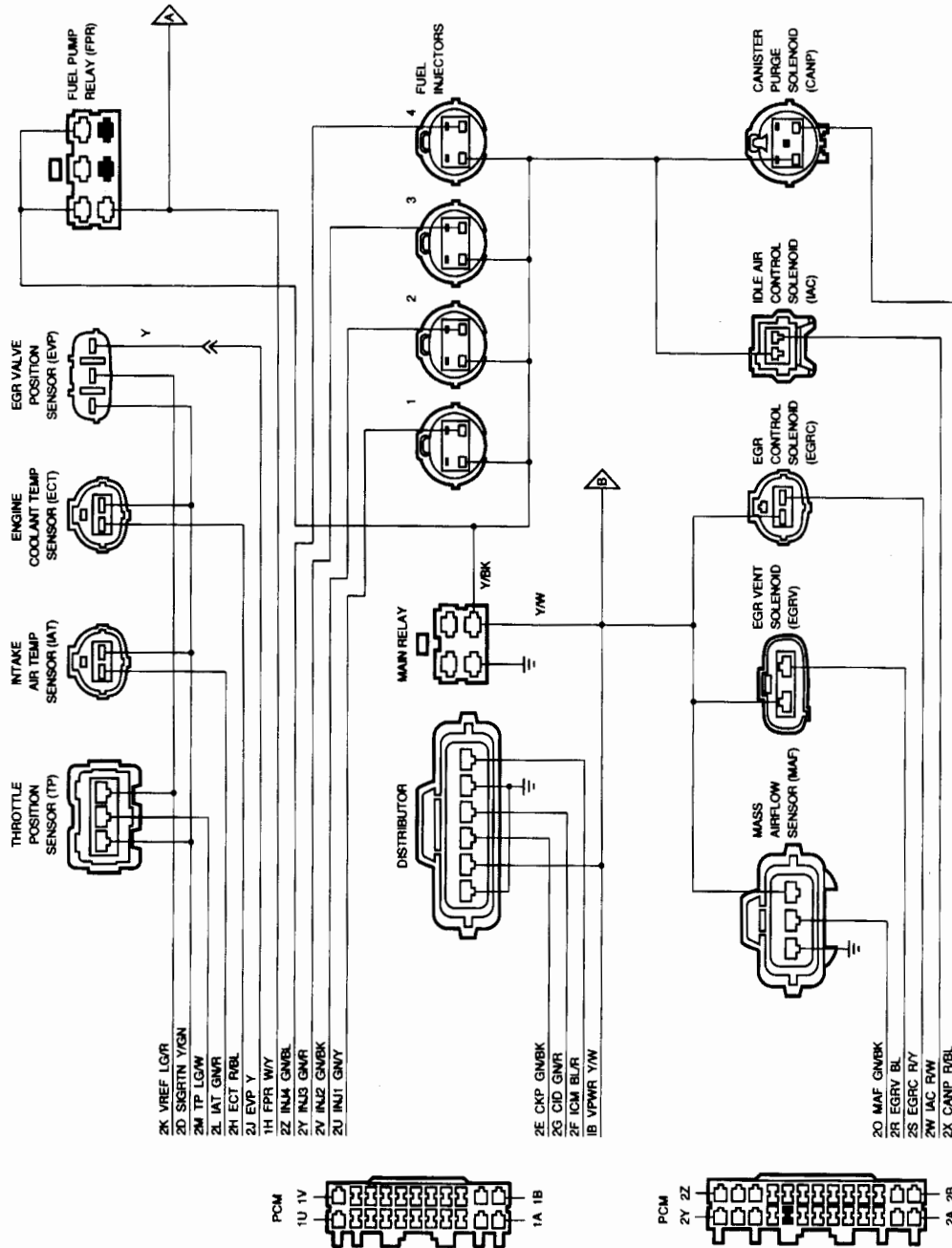
EEC Engine Supplement — Car

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1.3L Electrical Schematics

Engine Electrical Schematic

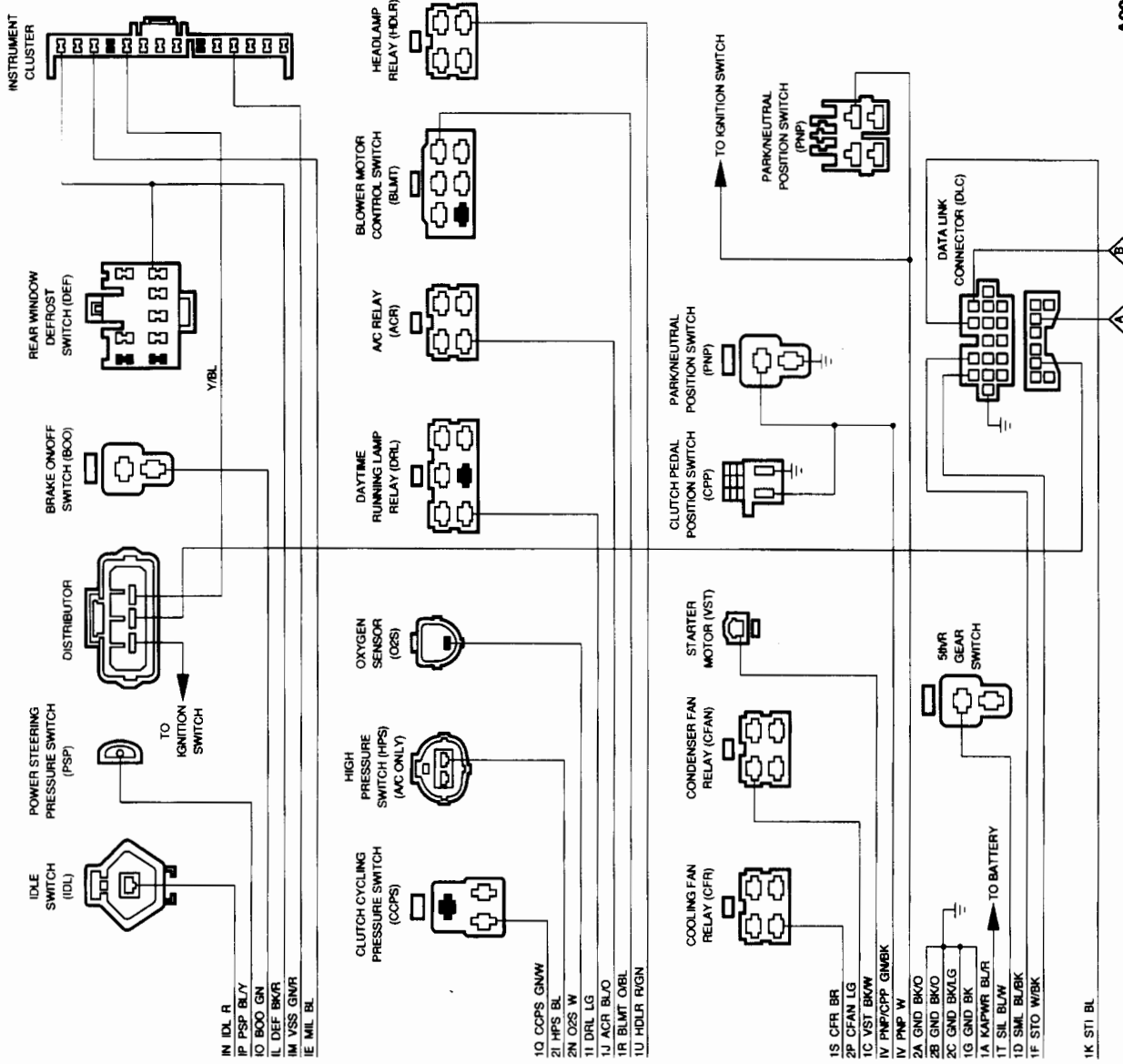


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1.3L Electrical Schematics

Engine Electrical Schematic (continued)

A20518-B



1.3L Electrical Schematics

Powertrain Control Module (PCM) Connector Pin Usage

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
1A	1	BL/R	Keep Alive Power	KAPWR
1B	37,57	Y/W	Vehicle Power	VPWR
1C	5	BK/W	Vehicle Start	VST
1D	38	BL/BK	Switch Monitor Lamp	SML
1E	15	BL	Malfunction Indicator Lamp	MIL
1F	17	W/BK	Self Test Output	STO
1G	36	BK	Ground (MTX Only)	GND
1H	55	W/Y	Fuel Pump Relay	FPR
1I	35	LG	Daytime Running Lamp Relay (Canada Only)	DRL
1J	54	BL/O	A/C Relay (A/C Only)	ACR
1K	48	BL	Self Test Input	STI
1L	42	BK/R	Rear Window Defroster Switch	DEF
1M	21	GN/R	Vehicle Speed Sensor (In Instrument Cluster)	VSS
1N	18	R	Idle Switch	IDL
1O	2	GN	Brake ON/OFF Switch	BOO
1P	19	BL/Y	Power Steering Pressure Switch (5-Door ATX Only)	PSP
1Q	10	GN/W	Clutch Cycling Pressure Switch (A/C Only)	CCPS
1R	22	O/BL	Blower Motor Switch	BLMT
1S	23	BR	Cooling Fan Relay	CFR
1T	30	BL/W	Shift Indicator Lamp (MTX Only)	SIL
1U	28	R/GN	Headlamp Relay	HDLR
1V	43	GN/BK	Park/Neutral Position Switch/Clutch Pedal Position Switch (MTX Only)	PNP/CPP
1V	43	W	Park/Neutral Position Switch (ATX Only)	PNP
2A	39,40,44,60	BK/O	Ground	GND
2B	20	BK/O	Ground	GND
2C	16	BK/LG	Ground	GND
2D	46, 49	Y/GN	Signal Return	SIGRTN
2E	56	GN/BK	Crankshaft Position Sensor (In Distributor)	CKP
2F	3	BL/R	Ignition Control Module (In Distributor)	ICM
2G	24	GN/R	Cylinder Identification Sensor (In Distributor)	CID
2H	51	R/BL	Engine Coolant Temperature Sensor	ECT
2I	50	BL	High Pressure Switch (A/C Only)	HPS
2J	6	Y	EGR Valve Position Sensor	EVP
2K	26	LG/R	Reference Voltage	VREF
2L	27	GN/R	Intake Air Temperature Sensor	IAT
2M	47	LG/W	Throttle Position Sensor	TP
2N	29	W	Oxygen Sensor	O2S

(Continued)

1.3L Electrical Schematics

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
2O	25	GN/BK	Mass Air Flow Sensor	MAF
2P	45	LG	Condenser Fan Relay (A/C Only)	CFAN
2Q	7	—	NOT USED	—
2R	13	BL	EGR Vent Solenoid	EGRV
2S	53	R/Y	EGR Control Solenoid	EGRC
2T	11	—	NOT USED	—
2U	58	GN/Y	Injector # 1	INJ1
2V	59	GN/BK	Injector # 2	INJ2
2W	41	R/W	Idle Air Control Solenoid	IAC
2X	31	R/BL	Canister Purge Solenoid	CANP
2Y	33	GN/R	Injector # 3	INJ3
2Z	8	GN/BL	Injector # 4	INJ4

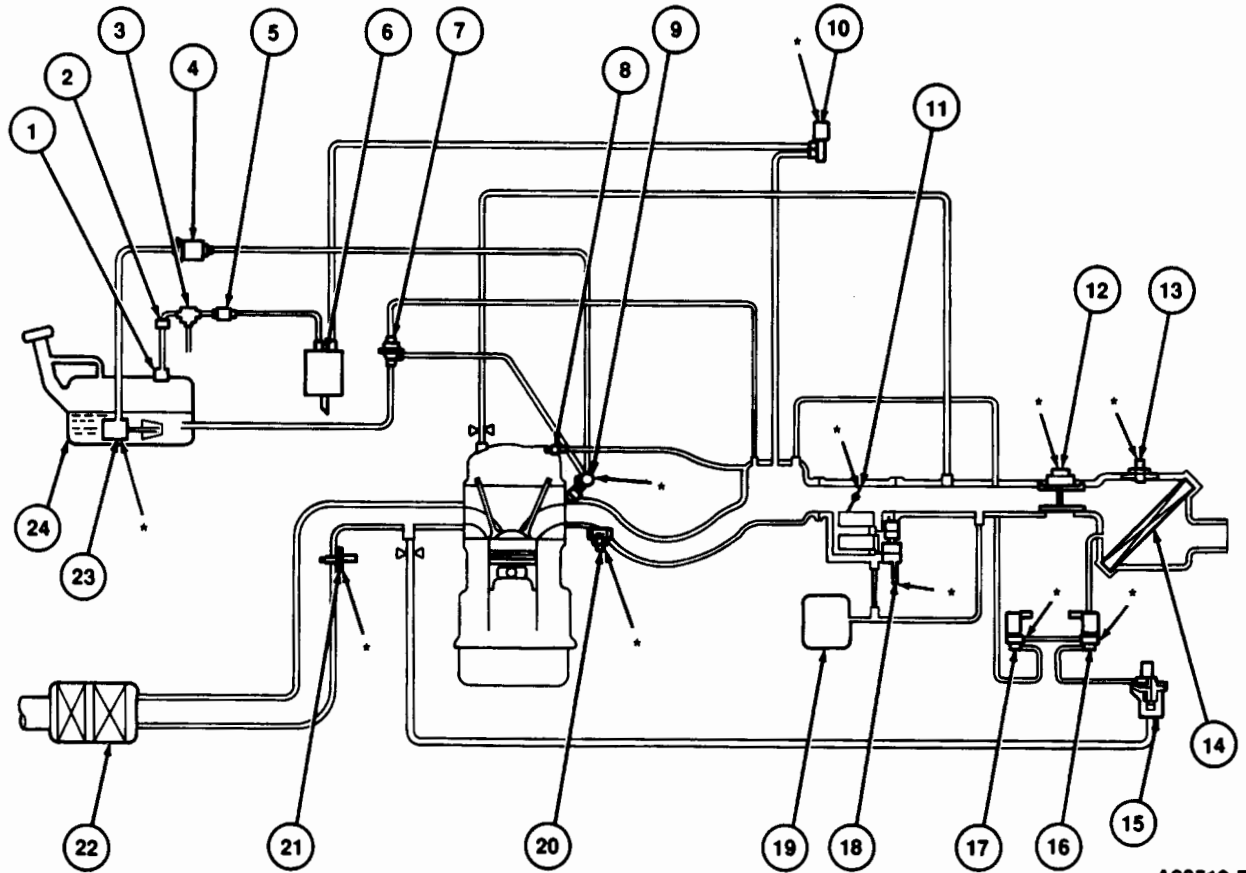
Quick Test Codes and Code Definitions

PCM Diagnostic Trouble Code	Diagnostic Trouble Code Definition
03	Cylinder Identification (CID) Sensor
04	Crankshaft Position Sensor (CKP)
06	Vehicle Speed Sensor (VSS)
08	Mass Air Flow (MAF) Sensor
09	Engine Coolant Temperature (ECT) Sensor
10	Intake Air Temperature (IAT) Sensor
12	Throttle Position (TP) Sensor
14	Barometric Pressure (BARO) Sensor
15	Oxygen Sensor (O2S) Voltage Below 0.55V
16	EGR Valve Position (EVP) Sensor
17	Oxygen Sensor (O2S) Voltage Does Not Change
"STO LO" always ON	Not able to initiate diagnostic test mode
"STILO" always ON and no codes (Blank Super STAR II screen)	Pass Code

1.3L Fuel/Vacuum/Electrical Schematics

Mechanical Emission Related Systems

Schematic Diagram



A20519-B

*: To PCM.

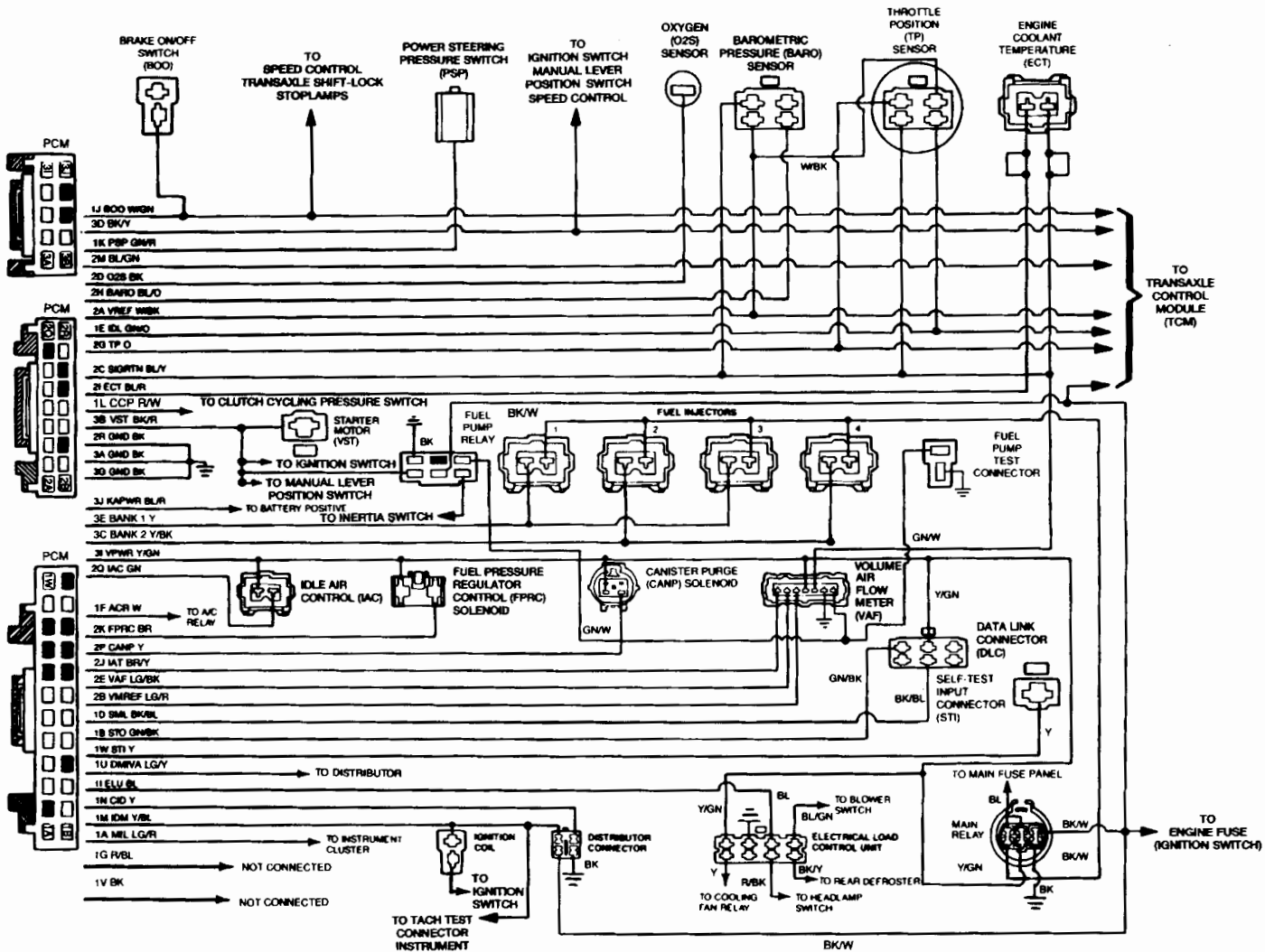
1.3L Fuel/Vacuum/Electrical Schematics

Component Identification

Item	Base Part Number	Description	System
1	9B593	Rollover / Vent Valve (5-Door Only)	Evaporative Emission
2	9B963	Vapor Separator (3-Door Only)	Evaporative Emission
3	9B593	Rollover / Vent Valve (3-Door Only)	Evaporative Emission
4	9155	Fuel Filter	Fuel Delivery
5	9576	Two-Way Check Valve	Evaporative Emission
6	9D653	Carbon Canister	Evaporative Emission
7	9C968	Fuel Pressure Regulator	Fuel Delivery
8	6A666	PCV Valve	Positive Crankcase Ventilation
9	9F593	Fuel Injector (4)	Fuel Delivery & PCM
10	9C915	Canister Purge Solenoid	Evaporative Emission & PCM
11	9989	Throttle Position Sensor	Inlet Air Control & PCM
12	12B579	Mass Air Flow Sensor	PCM
13	12B579	Intake Air Temperature Sensor	Inlet Air Control & PCM
14	9600	Air Cleaner	Inlet Air Control
15	9F489	EGR Control Valve	Exhaust Gas Recirculation
16	9B981	EGR Vent Solenoid	Exhaust Gas Recirculation & PCM
17	9B981	EGR Vacuum Solenoid	Exhaust Gas Recirculation & PCM
18	9B289	Idle Air Control Bypass Air (IAC BPA) Valve	Bypass Air Control & PCM
19	9F763	Resonance Chamber	Inlet Air Control
20	12A648	Engine Coolant Temperature Sensor	PCM
21	9F472	Oxygen Sensor	Catalyst and Exhaust & PCM
22	5E212	Three Way Catalytic Converter	Catalyst and Exhaust
23	9350	Fuel Pump and Inlet Screen	Fuel Delivery & PCM
24	9002	Fuel Tank	Fuel Delivery

1.6L Non-Turbo Electrical Schematics

4EAT Engine Electrical Schematic

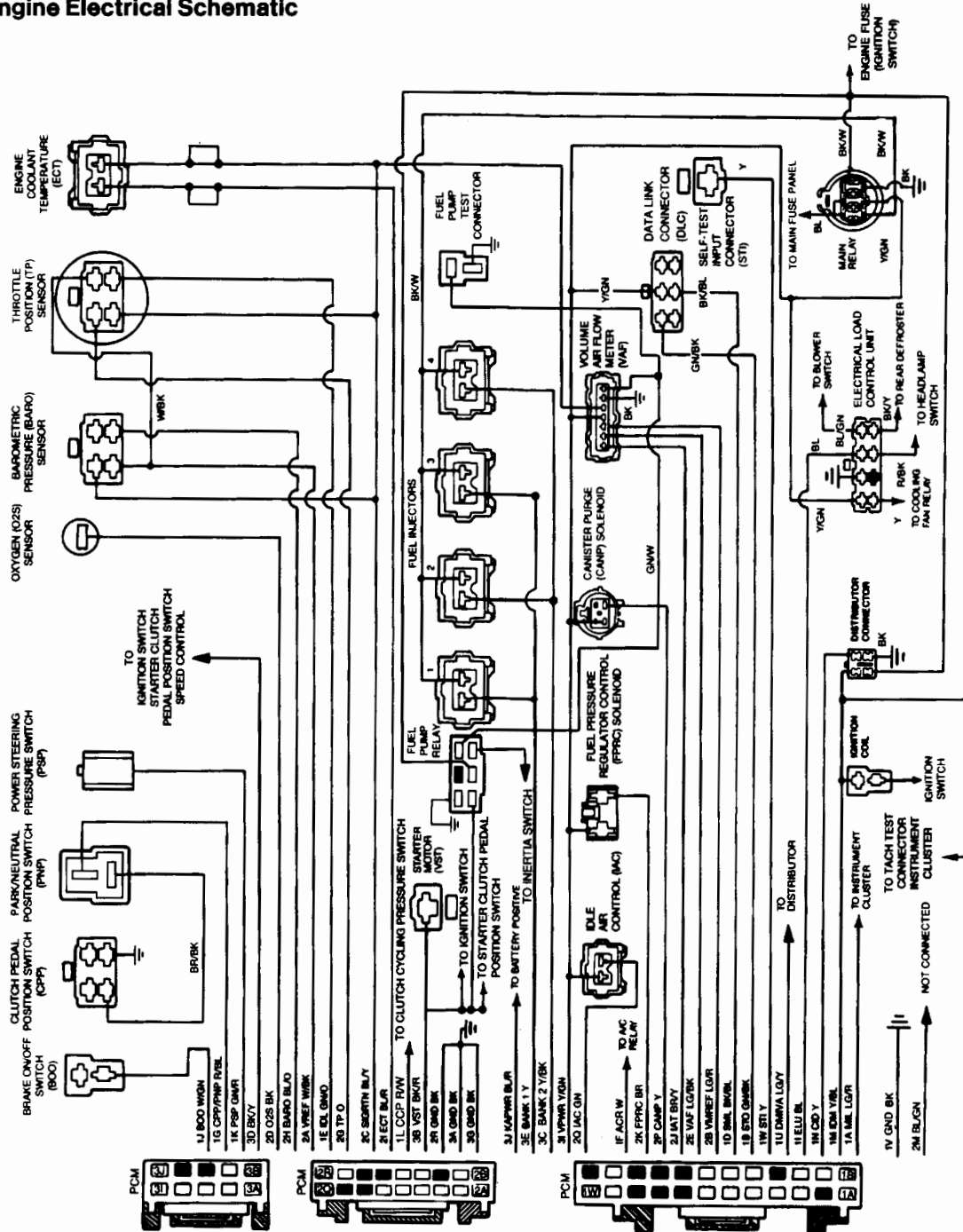


A15149-G

1.6L Non-Turbo Electrical Schematics

MTX Engine Electrical Schematic

A15150-H



1.6L Non-Turbo Electrical Schematics

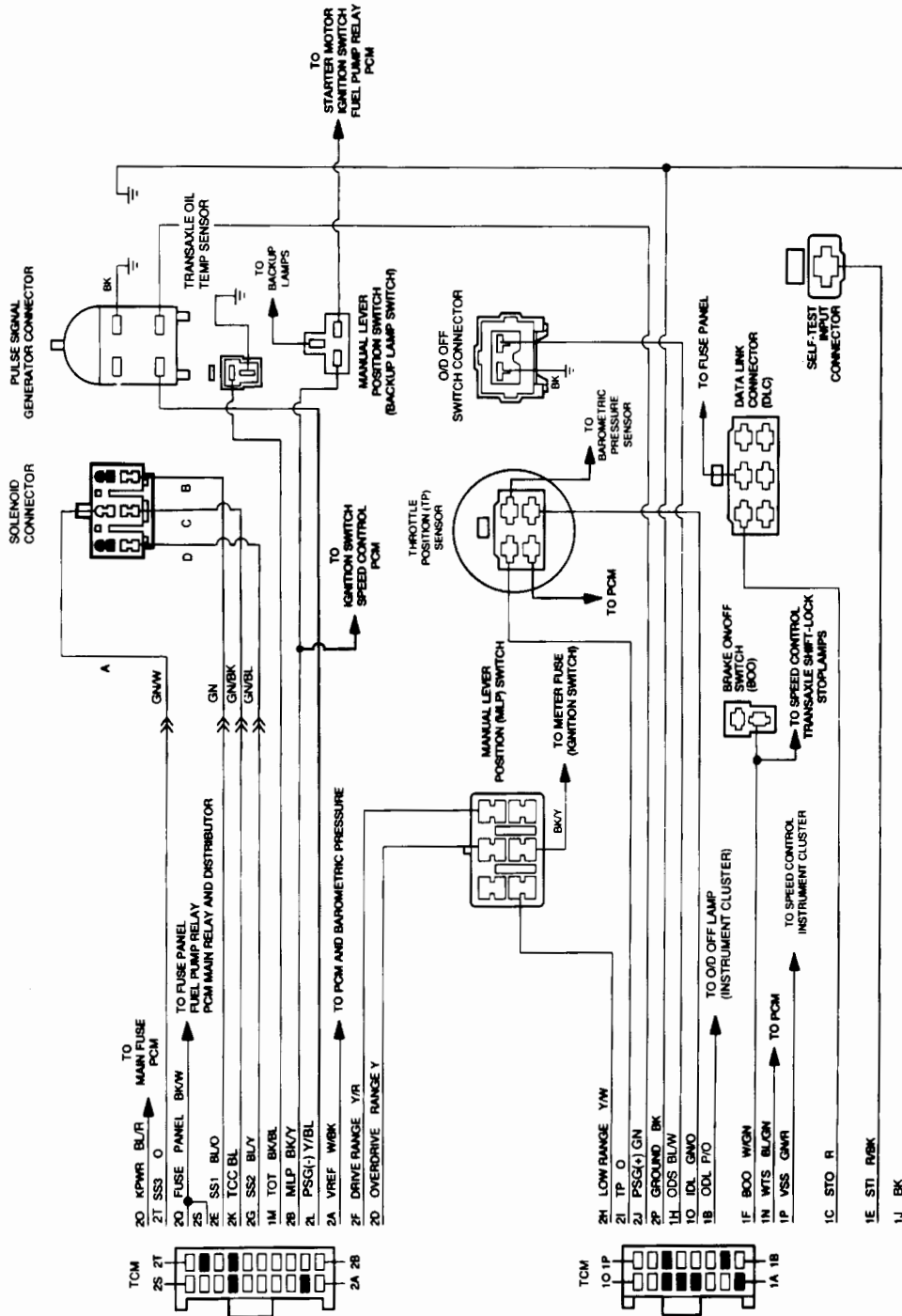
Powertrain Control Module (PCM) Connector Pin Usage

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
1A	51	LG/R	MIL	MIL
1B	17	GN/BK	Self Test Output	STO
1D	38	BK/BL	Switch Monitor Lamp	SML
1E	28	GN/O	Idle Switch	IDL
1F	30	W	A/C Relay	ACR
1G	8	R/BL	Park / Neutral Position Switch (MTX)	PNP
1I	24	BL	Electrical Load Control Unit	ELU
1J	3	W/GN	Brake ON/OFF Switch	BOO
1K	19	GN/R	Power Steering Pressure Switch	PSP
1L	14	R/W	Clutch Cycling Pressure Switch	CCP
1M	6	Y/BL	Ignition Diagnostic Monitor	IDM
1N	34	Y	Cylinder Identification Sensor	CID
1U	36	LG/Y	Distributor Mounted Ignition Module With Vacuum Advance	DMIVA
1V	44	BK	Ground (MTX)	GND
1W	48	Y	Self Test Input	STI
2A	26	W/BK	Reference Voltage	VREF
2B	18	LG/R	Volume Air Flow Reference	VMREF
2C	46	BL/Y	Signal Return	SIGRTN
2D	29	BK	Oxygen Sensor	O2S
2E	43	LG/BK	Volume Air Flow Signal	VAF
2G	47	O	Throttle Position Sensor	TP
2H	45	BL/O	Barometric Pressure Sensor	BARO
2I	7	BL/R	Engine Coolant Temperature Sensor	ECT
2J	25	BR/Y	Intake Air Temperature Sensor	IAT
2K	31	BR	Fuel Pressure Regulator Control Solenoid	FPRC
2M	52	BL/GN	Water Temperature Switch (ATX)	WTS
2P	32	Y	Canister Purge Solenoid	CANP
2Q	41	GN	Idle Air Control	IAC
2R	49	BK	Ground	GND
3A	20	BK	Ground	GND
3B	5	BK/R	Vehicle Start	VST
3C	59	Y/BK	Fuel Injectors 2 and 4	BANK 2
3D	2	BK/Y	Manual Lever Position Switch (4EAT) / Starter Clutch Pedal Position Switch (MTX)	MLP / SCPP
3E	58	Y	Fuel Injectors 1 and 3	BANK 1
3G	40	BK	Ground	GND
3I	37	Y/GN	Vehicle Power	VPWR
3J	1	BL/R	Keep Alive Power	KAPWR

1.6L Non-Turbo Electrical Schematics

4EAT Transaxle Control Module (TCM) Electrical Schematic

A15151-F



1.6L Non-Turbo Electrical Schematics

4EAT Transaxle Control Module (TCM) Connector Pin Usage

Module Pin	Wire Color	Application	Abbrev.
1B	P/O	O/D OFF Lamp	ODL
1C	R	Self Test Output	STO
1E	R/BK	Self Test Input	STI
1F	W/GN	Brake ON/OFF Switch	BOO
1H	BL/W	O/D OFF Switch	ODS
1J	BK	Ground	GND
1M	BK/BL	Trans. Oil Temperature Switch	TOT
1N	BL/GN	Water Temp. Switch	WTS
1O	GN/O	Idle Switch	IDL
1P	GN/R	Vehicle Speed Sensor	VSS
2A	W/BK	Vehicle Reference	VREF
2B	BK/Y	Manual Lever Position Switch	MLP
2D	Y	Overdrive Range (Selector Lever)	MLPOD
2E	BL/O	1-2 Shift Solenoid (Shift Solenoid # 1)	SS1
2F	Y/R	Drive Range (Selector Lever)	MLPD
2G	BL/Y	2-3 Shift Solenoid (Shift Solenoid # 2)	SS2
2H	Y/W	Low Range (Selector Lever)	MLPL
2I	O	Throttle Position Sensor	TP
2J	GN	Pulse Signal Generator (+)	PSG(+)
2K	BL	Torque Converter Clutch Control Solenoid	TCCC
2L	Y/BL	Pulse Signal Generator (-)	PSG(-)
2O	BL/R	Keep Alive Power	KAPWR
2P	BK	Ground	GND
2Q	BK/W	Battery	BAT
2S	BK/W	Battery	BAT
2T	O	3-4 Shift Solenoid (Shift Solenoid # 3)	SS3

1.6L Non-Turbo Electrical Schematics

Quick Test Codes and Code Definitions

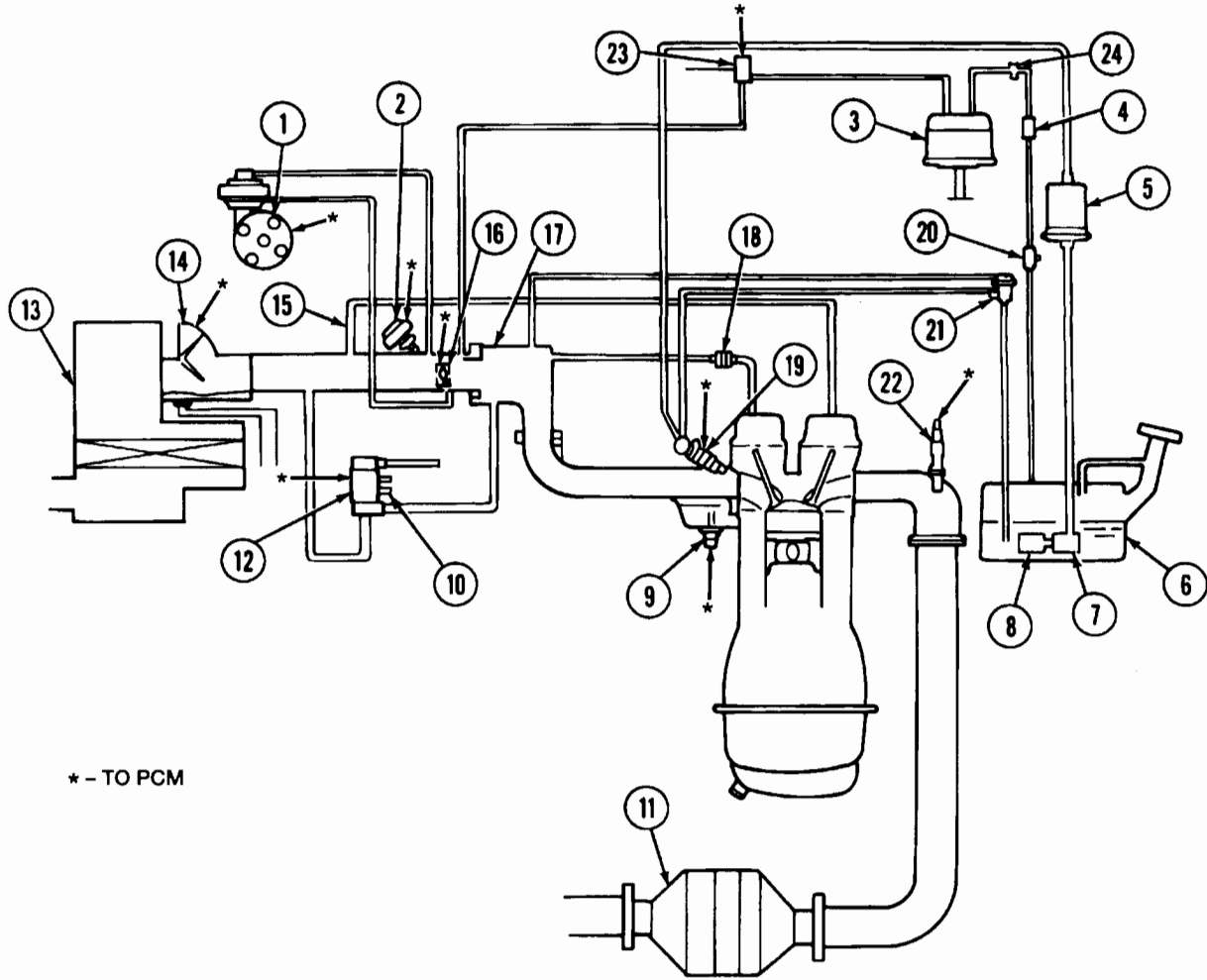
PCM Diagnostic Trouble Code	Diagnostic Trouble Code Definition
01	Ignition Diagnostic Monitor (IDM)
03	Cylinder Identification (CID) Sensor
08	Volume Air Flow (VAF) Meter
09	Engine Coolant Temperature (ECT) Sensor
10	Intake Air Temperature (IAT) Sensor
12	Throttle Position (TP) Sensor
14	Barometric Pressure (BARO) Sensor
15	Oxygen Sensor (O2S) - voltage always below 0.55V (Lean)
17	Oxygen Sensor (O2S) - voltage has not changed 30 sec. after the engine exceeds 1,500 RPM
25	Fuel Pressure Regulator Control (FPRC) Solenoid
26	Canister Purge (CANP) Solenoid
34	Idle Air Control (IAC) Solenoid
"STOLO" always ON	Not able to initiate diagnostic test mode
"STILO" always ON and no codes (Blank Super STAR II screen)	Pass Code

TCM Diagnostic Trouble Code	Diagnostic Trouble Code Definition
06	Vehicle Speed Sensor (VSS)
12	Throttle Position (TP) Sensor
55	Pulse Signal Generator (PSG)
60	1-2 Shift Solenoid (SS1)
61	2-3 Shift Solenoid (SS2)
62	3-4 Shift Solenoid (SS3)
63	Torque Converter Clutch Control (TCCC) Solenoid

1.6L Non-Turbo Fuel/Vacuum/Electrical Schematics

Mechanical Emission Related Systems

Schematic Diagram



A14756-B

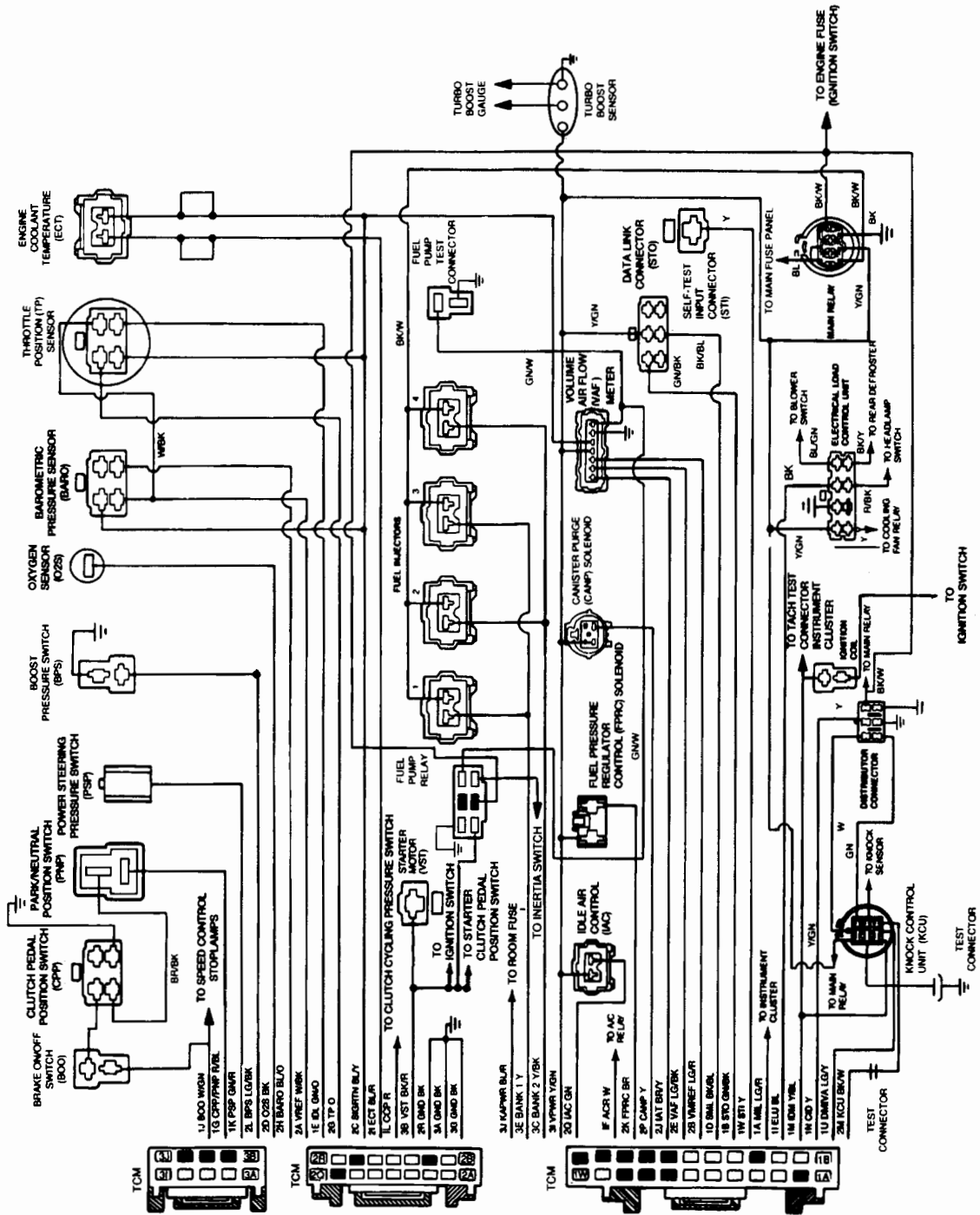
1.6L Non-Turbo Fuel/Vacuum/Electrical Schematics

Component Identification

Item	Base Part Number	Description	System
1	12127	Distributor	PCM
2	9B549	Dashpot	Inlet Air Control & PCM
3	9D653	Carbon Canister	Evaporative Emission
4	9576	Two-Way Check Valve	Evaporative Emission
5	9155	Fuel Filter (Outlet)	Fuel Delivery
6	9002	Fuel Tank	Fuel Delivery
7	9350	Fuel Pump (In Tank)	Fuel Delivery
8	9155	Fuel Filter	Fuel Delivery
9	12A648	Engine Coolant Temperature Sensor	PCM
10	19549	Engine Coolant	Bypass Air Control
11	5E212	Three Way Catalytic Converter	Catalyst and Exhaust
12	9B289	Idle Air Control Bypass Air (IAC BPA) Valve	Bypass Air Control
13	9600	Air Cleaner	Inlet Air Control
14	12B529	Volume Air Flow Meter (VAF)	Inlet Air Control & PCM
15	—	Orifice	Inlet Air Control
16	9989	Throttle Position Sensor	Inlet Air Control & PCM
17	9429	Intake Manifold	Inlet Air Control
18	6A666	PCV Valve	Positive Crankcase Ventilation
19	9F593	Fuel Injector (4)	Fuel Delivery & PCM
20	9B593	Rollover / Vent Valve	Evaporative Emission
21	9C968	Fuel Pressure Regulator	Fuel Delivery
22	9F472	Oxygen Sensor	Catalyst and Exhaust & PCM
23	9C915	Canister Purge Solenoid	Evaporative Emission & PCM
24	9F323	Restrictor	Evaporative Emission

1.6L Turbo Electrical Schematics

Engine Electrical Schematic



A14757-I

1.6L Turbo Electrical Schematics

Powertrain Control Module (PCM) Connector Pin Usage

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
1A	51	LG/R	MIL	MIL
1B	17	GN/BK	Self Test Output	STO
1D	38	BK/BL	Switch Monitor Lamp	SML
1E	28	GN/O	Idle Switch	IDL
1F	30	W	A/C Relay	ACR
1G	8	R/BL	Park/Neutral Position Switch/Starter Clutch Pedal Position Switch	PNP/SCPP
1I	24	BK	Electrical Load Control Unit	ELU
1J	3	W/GN	Brake ON/OFF Switch	BOO
1K	19	GN/R	Power Steering Pressure Switch	PSP
1L	14	R	Clutch Cycling Pressure Switch	CCP
1M	6	Y/BL	Ignition Diagnostic Monitor	IDM
1N	34	Y	Cylinder Identification Sensor	CID
1U	36	LG/Y	Distributor Mounted Ignition Module With Vacuum Advance	DMIVA
1W	48	Y	Self Test Input	STI
2A	26	W/BK	Reference Voltage	VREF
2B	18	LG/R	Volume Air Flow Reference	VMREF
2C	46	BL/Y	Signal Return	SIGRTN
2D	29	BK	Oxygen Sensor	O2S
2E	43	LG/BK	Volume Air Flow Signal	VAF
2G	47	O	Throttle Position Sensor	TP
2H	45	BL/O	Barometric Pressure Sensor	BARO
2I	7	BL/R	Engine Coolant Temperature Sensor	ECT
2J	25	BR/Y	Intake Air Temperature Sensor	IAT
2K	31	BR	Fuel Pressure Regulator Control Solenoid	FPRC
2L	12	LG/BK	Boost Pressure Switch	BPS
2M	52	BK/W	Knock Control Unit	KCU
2P	32	Y	Canister Purge Solenoid	CANP
2Q	41	GN	Idle Air Control	IAC
2R	49	BK	Ground	GND
3A	20	BK	Ground	GND
3B	5	BK/R	Vehicle Start	VST
3C	59	Y/BK	Fuel Injectors 2 and 4	BANK 2
3E	58	Y	Fuel Injectors 1 and 3	BANK 1
3G	40	BK	Ground	GND
3I	37	Y/GN	Vehicle Power	VPWR
3J	1	BL/R	Keep Alive Power	KAPWR

1.6L Turbo Electrical Schematics

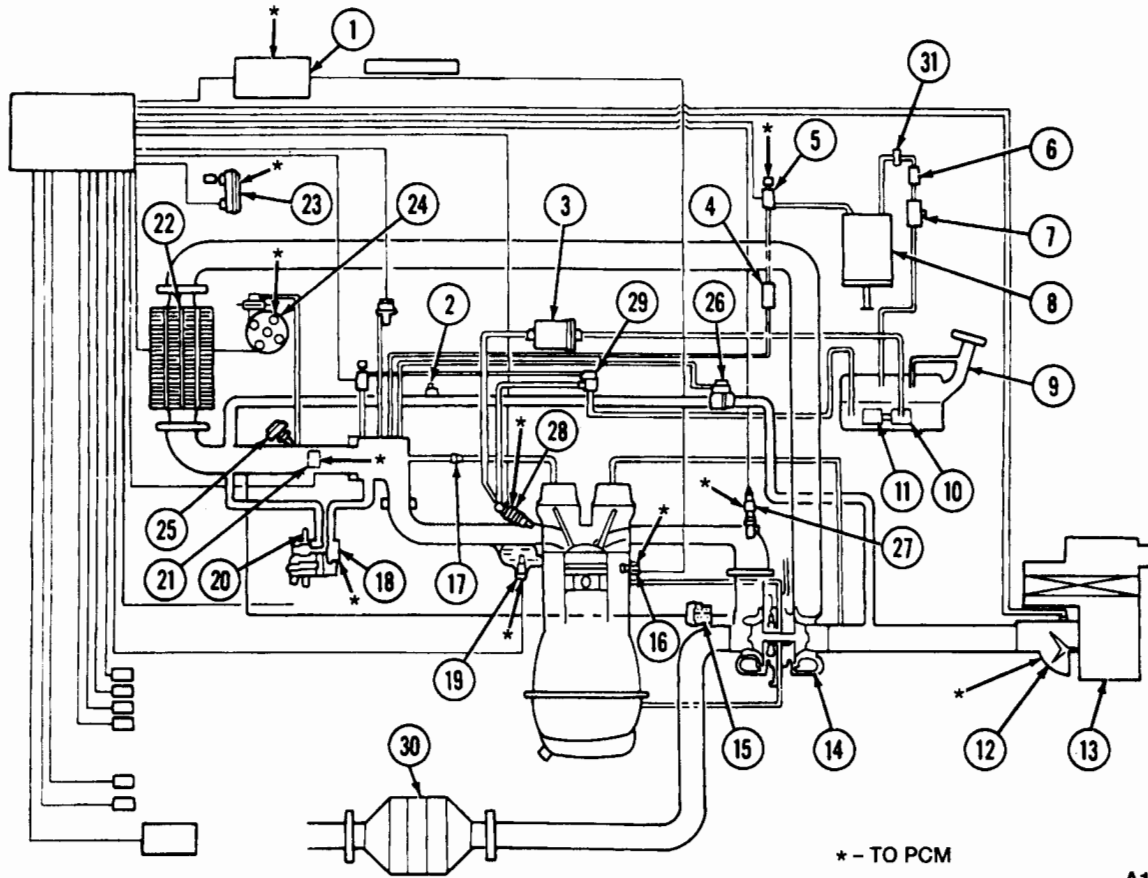
Quick Test Codes and Code Definitions

Diagnostic Trouble Code	Diagnostic Trouble Code Definition
01	Ignition Diagnostic Monitor (IDM)
03	Cylinder Identification (CID) Sensor
08	Volume Air Flow (VAF) Meter
09	Engine Coolant Temperature (ECT) Sensor
10	Intake Air Temperature (IAT) Sensor
12	Throttle Position (TP) Sensor
14	Barometric Pressure (BARO) Sensor
15	Oxygen Sensor (O2S) - voltage always below 0.55V (Lean)
17	Oxygen Sensor (O2S) - voltage has not changed 30 sec. after the engine exceeds 1,500 RPM
25	Fuel Pressure Regulator Control (FPRC) Solenoid
26	Canister Purge (CANP) Solenoid
34	Idle Air Control (IAC) Solenoid
"STOLO" always ON	Not able to initiate diagnostic test mode
"STILO" always ON and no codes (Blank Super STAR II screen)	Pass Code

1.6L Turbo Fuel/Vacuum/Electrical Schematics

Mechanical Emission Related Systems

Schematic Diagram



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1.6L Turbo Fuel/Vacuum/Electrical Schematics

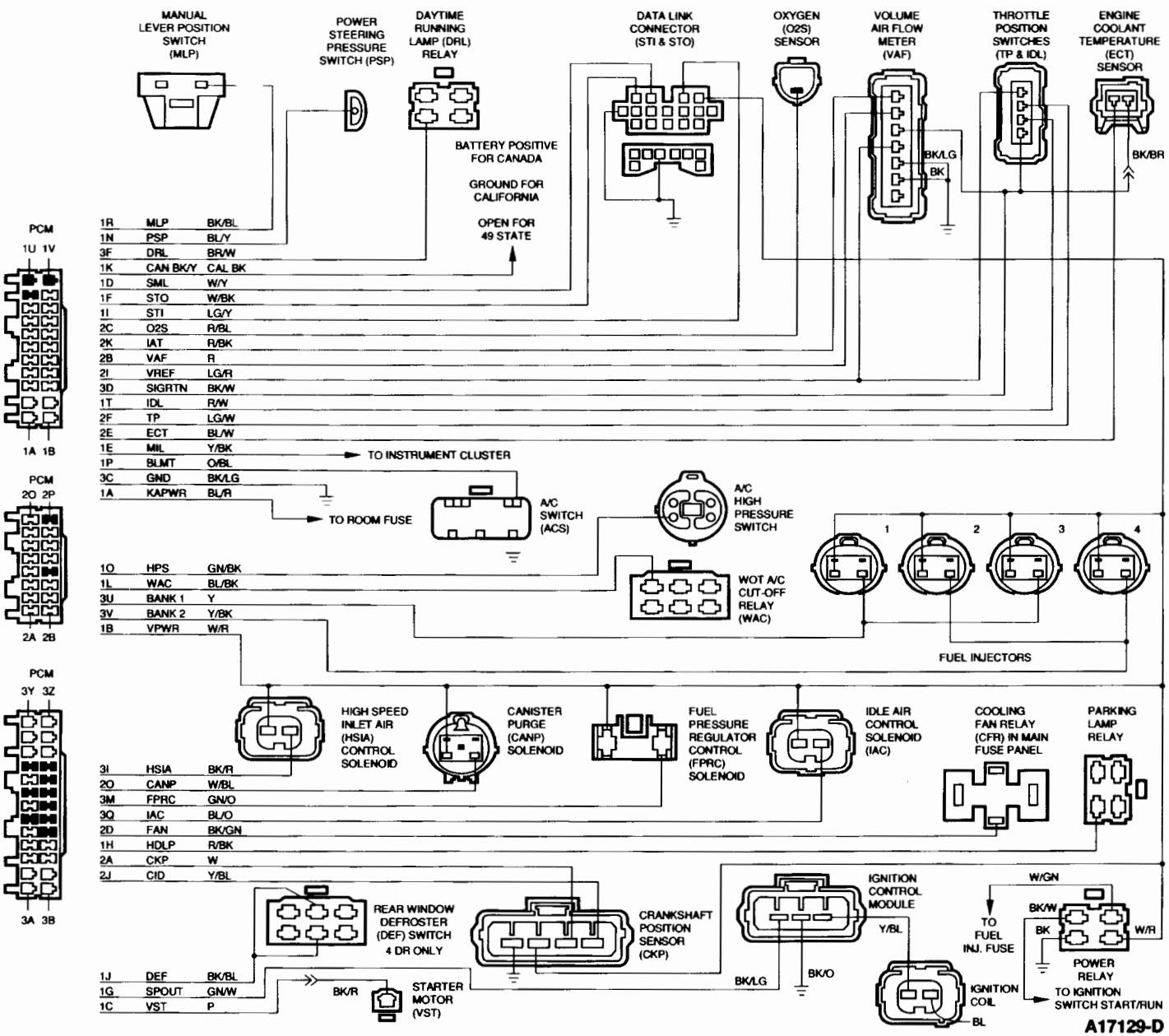
Component Identification

Item	Base Part Number	Description	System
1	—	Knock Control Unit	Turbocharger & PCM
2	—	Orifice	Bypass Air Control
3	9155	Fuel Filter (Outlet)	Fuel Delivery
4	—	Check Valve	Evaporative Emission
5	9C915	Canister Purge Solenoid	Evaporative Emission & PCM
6	9576	Two-Way Check Valve	Evaporative Emission
7	9B593	Rollover / Vent Valve	Evaporative Emission
8	9D653	Carbon Canister	Evaporative Emission
9	9002	Fuel Tank	Fuel Delivery
10	9350	Fuel Pump (In Tank)	Fuel Delivery
11	9155	Fuel Filter	Fuel Delivery
12	12B529	Volume Air Flow Meter	Inlet Air Control & PCM
13	9600	Air Cleaner	Inlet Air Control
14	9G438	Turbocharger (Water Cooled)	Turbocharger
15	—	Wastegate Valve	Turbocharger
16	12A699	Knock Sensor	Turbocharger & PCM
17	6A666	PCV Valve	Positive Crankcase Ventilation
18	9B289	IAC Valve	Bypass Air Control & PCM
19	12A648	Engine Coolant Temperature Sensor	PCM
20	19549	Engine Coolant	Bypass Air Control
21	9989	Throttle Position Sensor	Inlet Air Control & PCM
22	9F464	Charge Air Cooler	Turbocharger
23	12A650	Barometric Pressure Sensor	PCM
24	12127	Distributor	PCM
25	9B549	Dashpot	Inlet Air Control
26	9B289	Bypass Air Valve	Bypass Air Control
27	9F472	Oxygen Sensor	Catalyst and Exhaust & PCM
28	9F593	Fuel Injector (4)	Fuel Delivery & PCM
29	9C968	Fuel Pressure Regulator	Fuel Delivery
30	5E212	Three Way Catalytic Converter	Catalyst and Exhaust
31	—	Restrictor	Evaporative Emission

1.8L Electrical Schematics

NOTE: The transaxle control module is integrated with the powertrain control module on 1.8L 4EAT vehicles.

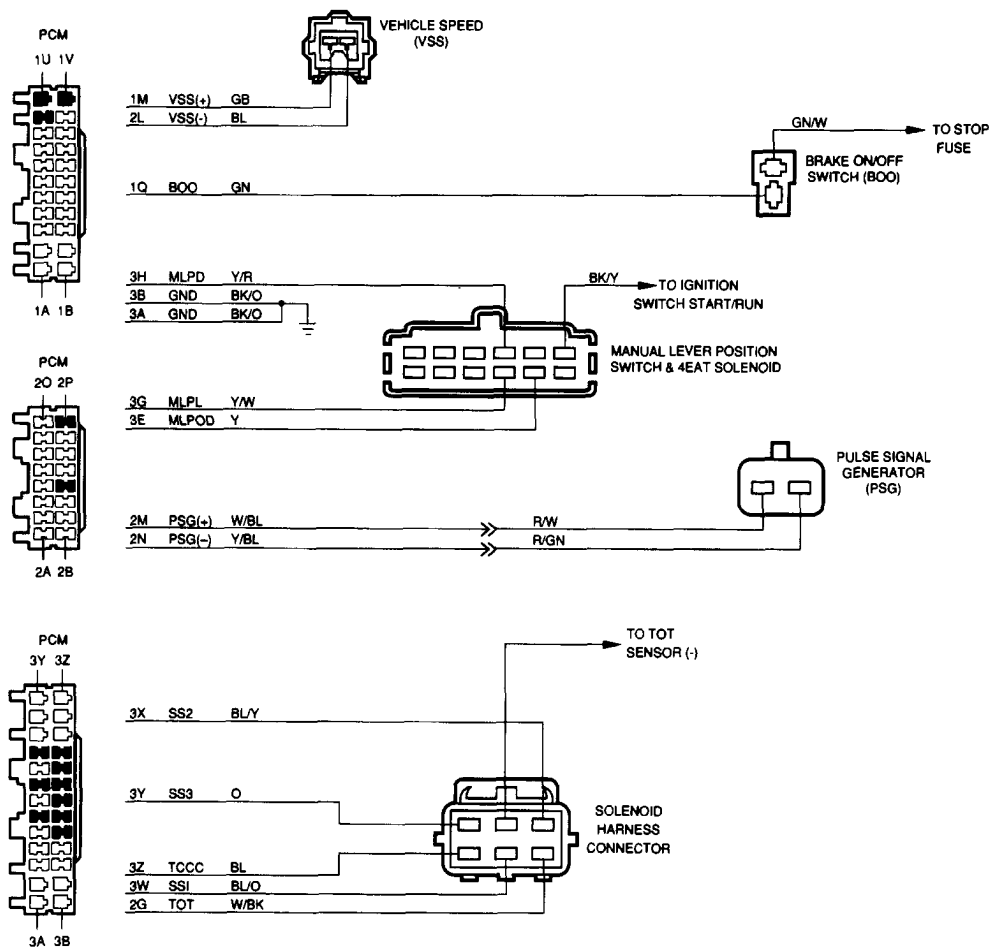
4EAT Engine Electrical Schematic



A17129-D

1.8L Electrical Schematics

4EAT Engine Electrical Schematic (Continued)



A17130-C

1.8L Electrical Schematics

Powertrain Control Module (PCM) Connector Pin Usage (4EAT)

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
1A	1	BL/R	Keep Alive Power	KAPWR
1B	37, 57	W/R	Vehicle Power	VPWR
1C	5	P	Vehicle Start	VST
1D	38	W/Y	Switch Monitor Lamp	SML
1E	51	Y/BK	Malfunction Indicator Lamp	MIL
1F	17	W/BK	Self Test Output	STO
1G	36	GN/W	Ignition Control Module	ICM
1H	32	R/BK	Headlamp Switch	HDLP
1I	48	LG/Y	Self Test Input	STI
1J	34	BK/BL	Rear Window Defroster Switch	DEF
1K	19	BK, BK/Y	Ground (Calif), Vehicle Power (Can), Open (49 States)	GND (CAL), VPWR (CAN)
1L	10	BL/BK	A/C Relay	ACR
1M	3	GN	Vehicle Speed Sensor (+)	VSS+
1N	24	BL/Y	Power Steering Pressure Switch	PSP
1O	41	GN/BK	High Pressure Switch	HPS
1P	22	O/BL	Blower Motor Control Switch	BLMT
1Q	2	GN	Brake ON/OFF Switch	BOO
1R	30	BK/BL	Manual Lever Position Switch	MLP
1T	18	R/W	Idle Switch	IDL
2A	45	W	Crankshaft Position Sensor	CKP
2B	44	R	Volume Air Flow Sensor	VAF
2C	29	R/BL	Oxygen Sensor	O2S
2D	43	BK/GN	Cooling Fan Switch	CFS
2E	7	BL/W	Engine Coolant Temperature Sensor	ECT
2F	47	LG/W	Throttle Position Sensor	TP
2G	50	W/BK	Transaxle Oil Temperature Sensor	TOT
2I	26	LG/R	Reference Voltage	VREF
2J	27	Y/BL	Cylinder Identification Sensor	CID
2K	25	R/BK	Intake Air Temperature Sensor	IAT
2L	28	BL	Vehicle Speed Sensor (-)	VSS-
2M	23	W/BL	Pulse Signal Generator (+)	PSG+
2N	—	Y/BL	Pulse Signal Generator (-)	PSG-
2O	31	W/BL	Canister Purge Solenoid	CANP
3A	40, 60	BK/O	Ground	GND
3B	20	BK/O	Ground	GND

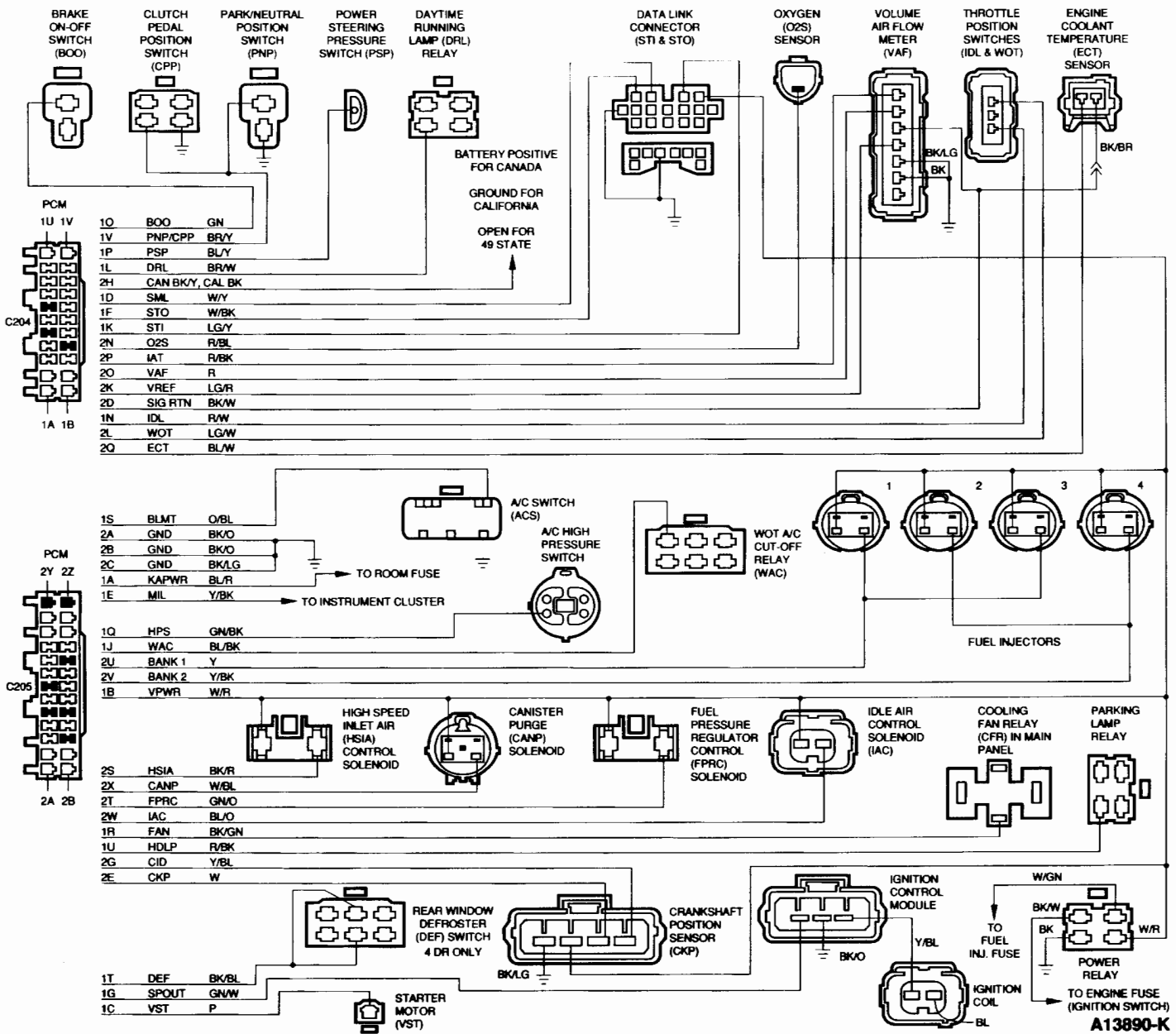
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1.8L Electrical Schematics

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
3C	49	BK/LG	Ground	GND
3D	—	BK/W	Signal Return	SIGRTN
3E	46	Y	Overdrive Range (Selector Lever)	MLPOD
3F	16	BR/W	Daytime Running Lamp Relay (Canada Only)	DRL
3G	6	Y/W	Low Range (Selector Lever)	MLPL
3H	4	Y/R	Drive Range (Selector Lever)	MLPD
3I	42	BK/R	High Speed Inlet Air Control Solenoid	HSIA
3M	21A	GN/O	Fuel Pressure Regulator Control Solenoid	FPRC
3Q	21B	BL/O	Intake Air Control Solenoid	IAC
3U	58	Y	Fuel Injectors 1 and 3	BANK1
3V	59	Y/BK	Fuel Injectors 2 and 4	BANK2
3W	12	BL/O	1-2 Shift Solenoid (Shift Solenoid #1)	SS1
3X	13	BL/Y	2-3 Shift Solenoid (Shift Solenoid #2)	SS2
3Y	14	O	3-4 Shift Solenoid (Shift Solenoid #3)	SS3
3Z	15	BL	Torque Converter Clutch Control Solenoid	TCCC

1.8L Electrical Schematics

MTX Engine Electrical Schematic



A13890-K

1.8L Electrical Schematics

Powertrain Control Module (PCM) Connector Pin Usage (MTX)

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
1A	1	BL/R	Keep Alive Power	KAPWR
1B	37, 57	W/R	Vehicle Power	VPWR
1C	5	P	Vehicle Start	VST
1D	38	W/Y	Switch Monitor Lamp	SML
1E	15	Y/BK	Malfunction Indicator Lamp	MIL
1F	17	W/BK	Self Test Output	STO
1G	36	GN/W	Spark Output	SPOUT
1J	54	BL/BK	WOT A/C Cut-Off Relay	WAC
1K	48	LG/Y	Self Test Input	STI
1L	42	BR/W	Daytime Running Lamp Relay (Canada Only)	DRL
1N	18	R/W	Idle Switch	IDL
1O	2	GN	Brake ON/OFF Switch	BOO
1P	19	BL/Y	Power Steering Pressure Switch	PSP
1Q	10	GN/BK	High Pressure Switch	HPS
1R	22	BK/GN	Engine Cooling Fan	FAN
1S	23	O/BL	Blower Motor Control Switch	BLMT
1T	30	BK/BL	Rear Window Defroster Switch	DEF
1U	28	R/BK	Headlamp Switch	HDLP
1V	43	BR/Y	Park/Neutral Position Switch/Clutch Pedal Position Switch	PNP/CPP
2A	39, 40, 44, 60	BK/O	Ground	GND
2B	20	BK/O	Ground	GND
2C	16	BK/LG	Ground	GND
2D	46, 49	BK/W	Signal Return	SIGRTN
2E	56	W	Crankshaft Position Sensor	CKP
2G	24	Y/BL	Cylinder Identification Sensor	CID
2H	51	BK/Y	Vehicle Power (Canada Only)	VPWR (CAN)
2H	51	BK	Ground (California Only)	GND (CAL)
2K	26	LG/R	Reference Voltage	VREF
2L	27	LG/W	Wide Open Throttle Switch	WOT
2N	29	R/BL	Oxygen Sensor	O2S
2O	25	R	Volume Air Flow Meter	VAF
2P	45	R/BK	Intake Air Temperature Sensor	IAT
2Q	7	BL/W	Engine Coolant Temperature Sensor	ECT
2S	53	BK/R	High Speed Inlet Air Control Solenoid	HSIA
2T	11	GN/O	Fuel Pressure Regulator Control Solenoid	FPRC
2U	58	Y	Fuel Injectors 1 and 3	BANK 1

(Continued)

1.8L Electrical Schematics

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
2V	59	Y/BK	Fuel Injectors 2 and 4	BANK2
2W	41	BL/O	Idle Air Control Solenoid	IAC
2X	31	W/BL	Canister Purge Solenoid	CANP

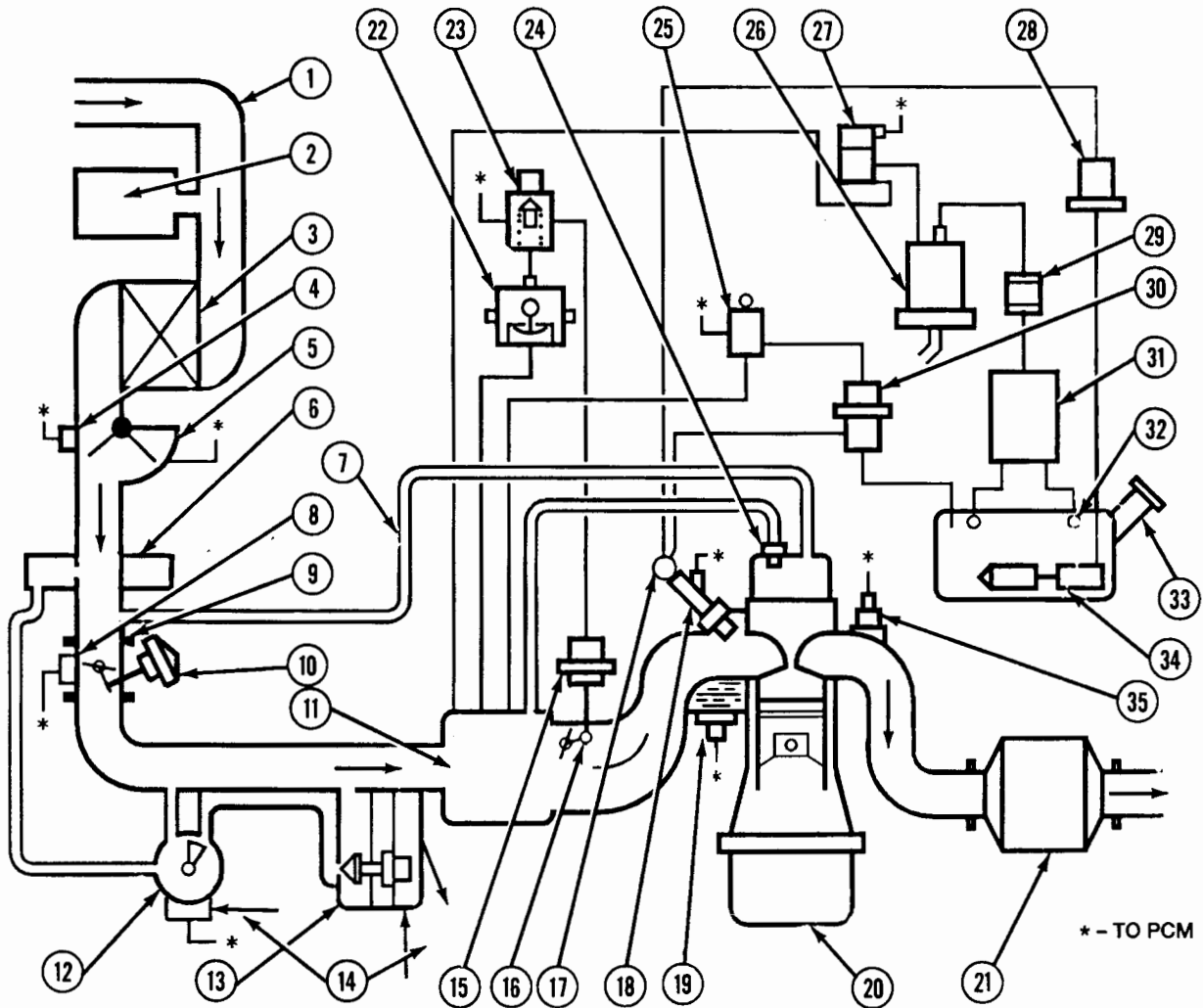
Quick Test Codes and Code Definitions

Diagnostic Trouble Code	Diagnostic Trouble Code Definition
02	Crankshaft Position Sensor (CKP)
03	Cylinder Identification (CID) Sensor
06	Vehicle Speed Sensor (VSS)
08	Volume Air Flow (VAF) Signal
09	Engine Coolant Temperature (ECT) Sensor
10	Intake Air Temperature (IAT) Sensor
12	Throttle Position (TP) Sensor
14	Barometric Pressure (BARO) Sensor
15	Oxygen Sensor (O2S) - voltage always below 0.55V
17	Oxygen Sensor (O2S) - voltage does not change
25	Fuel Pressure Regulator Control (FPRC) Solenoid
26	Canister Purge (CANP) Solenoid
34	Idle Air Control (IAC) Solenoid
41	High Speed Inlet Air (HSIA) Control Solenoid
55	Pulse Signal Generator (PSG)
60	1-2 Shift Solenoid (SS1)
61	2-3 Shift Solenoid (SS2)
62	3-4 Shift Solenoid (SS3)
63	Torque Converter Clutch Control (TCCC) Solenoid
"STOLO" always ON	Not able to initiate diagnostic test mode
"STILO" always ON and no codes (Blank Super STAR II screen)	Pass Code

1.8L Fuel/Vacuum/Electrical Schematics

Mechanical Emission Related Systems

Schematic Diagram



CA13894-E

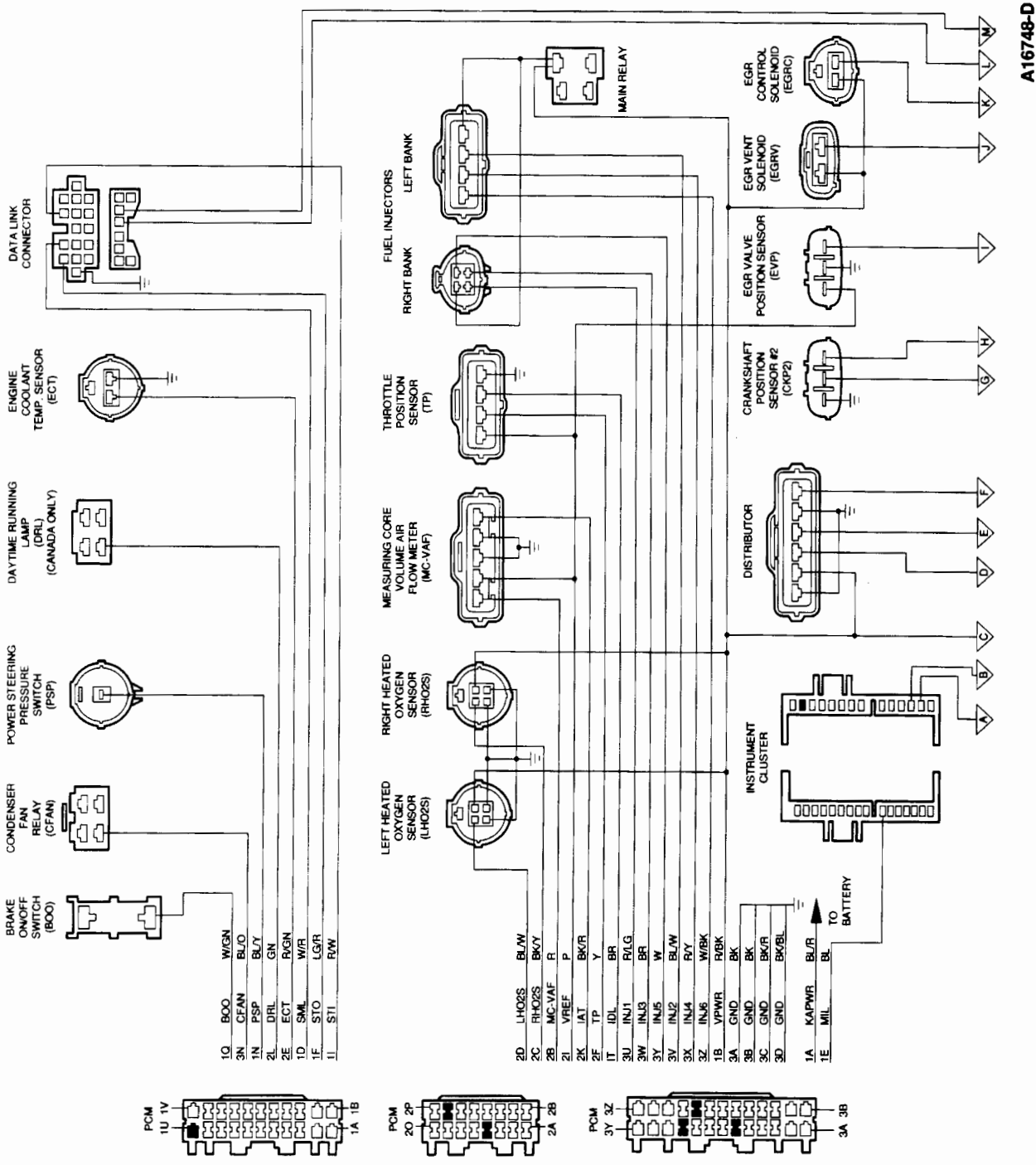
1.8L Fuel/Vacuum/Electrical Schematics

Component Identification

Item	Base Part Number	Description	System
1	9C675A	Air Inlet Duct	Inlet Air Control
2	9F763	Resonance Chamber	Inlet Air Control
3	9600	Air Cleaner	Inlet Air Control
4	12B529	Intake Air Temperature Sensor	Inlet Air Control & PCM
5	12B529	Volume Air Flow Meter	Inlet Air Control & PCM
6	9F763	Resonance Chamber	Inlet Air Control
7	6A664	Fresh Air Supply Hose	Positive Crankcase Ventilation
8	9989	Throttle Position Sensor	Inlet Air Control & PCM
9	9C981	Throttle Body	Inlet Air Control
10	9B549	Dashpot	Inlet Air Control
11	9424	Intake Manifold	Inlet Air Control
12	9B289	Idle Air Control Valve	Inlet Air Control & PCM
13	9B289	Bypass Air Control Valve	Bypass Air Control
14	19549	Engine Coolant	Bypass Air Control
15	—	Shutter Valve Actuator	Inlet Air Control
16	—	Shutter Valve	Inlet Air Control
17	9D280	Fuel Rail	Fuel Delivery
18	9F593	Fuel Injector (4)	Fuel Delivery & PCM
19	12A648	Engine Coolant Temperature Sensor	PCM
20	6007	Engine	—
21	5E212	Three Way Catalytic Converter	Catalyst and Exhaust
22	9E453	Vacuum Reservoir	Inlet Air Control
23	—	High Speed Inlet Air Control Solenoid	Inlet Air Control & PCM
24	6A666	PCV Valve	Positive Crankcase Ventilation
25	9D278	Fuel Pressure Regulator Control Solenoid	Fuel Delivery & PCM
26	9D653	Carbon Canister	Evaporative Emission
27	9C915	Canister Purge Solenoid	Evaporative Emission & PCM
28	9155	Fuel Filter	Fuel Delivery
29	9576	Two-Way Check Valve	Evaporative Emission
30	9C968	Fuel Pressure Regulator	Fuel Delivery
31	9B963	Vapor Separator	Evaporative Emission
32	9B593	Rollover/Vent Valves	Evaporative Emission
33	9002	Fuel Tank	Fuel Delivery
34	9350	Fuel Pump and Inlet Screen	Fuel Delivery
35	9F472	Oxygen Sensor	Catalyst and Exhaust & PCM

2.5L Electrical Schematics

4EAT Engine Electrical Schematic

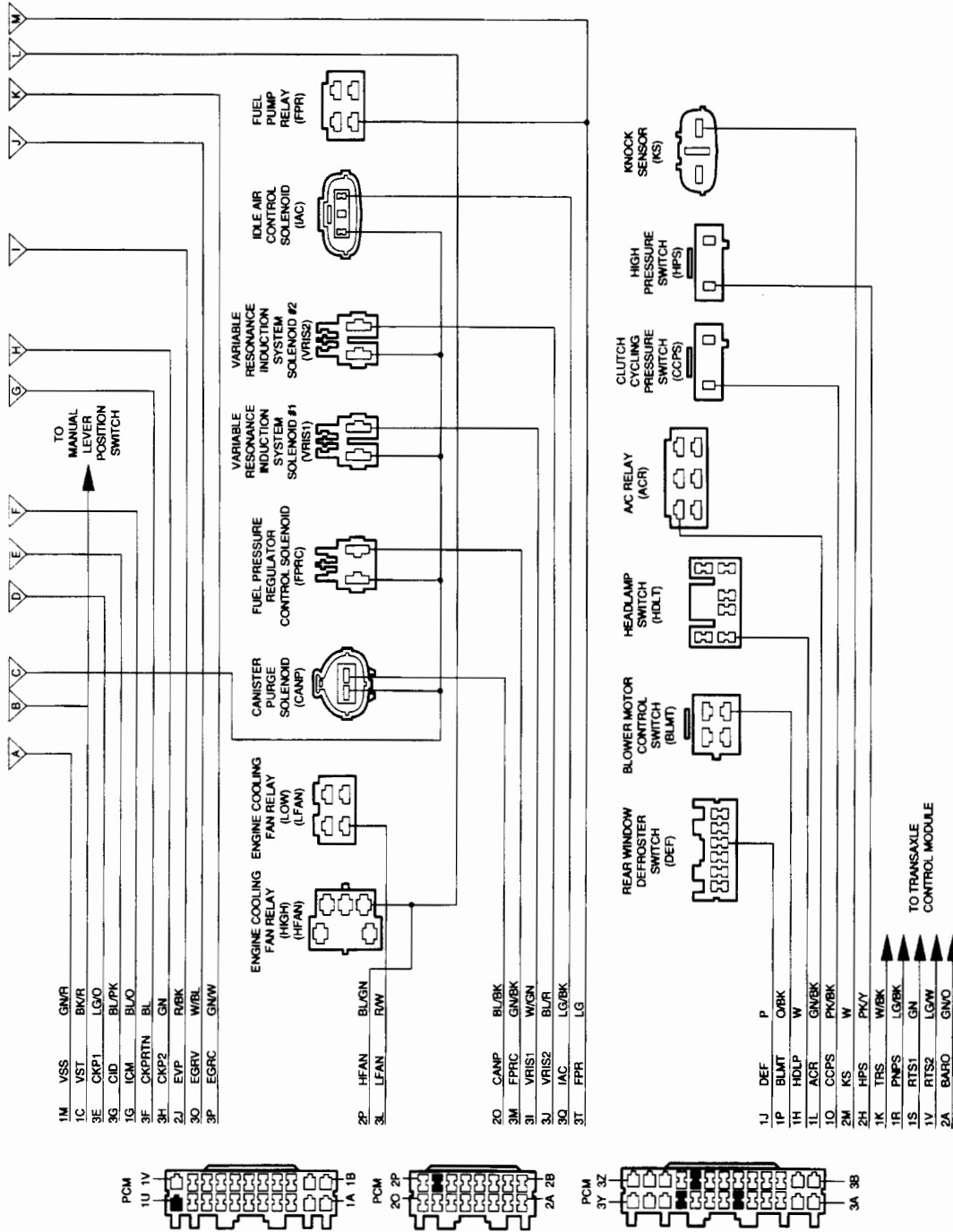


A16748-D

2.5L Electrical Schematics

4EAT Engine Electrical Schematic (Continued)

A16749-D



2.5L Electrical Schematics

Powertrain Control Module (PCM) Connector Pin Usage (4EAT)

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
1A	1	BL/R	Keep Alive Power	KAPWR
1B	37, 57	R/BK	Vehicle Power	VPWR
1C	5	BK/R	Vehicle Start	VST
1D	38	W/R	Switch Monitor Lamp	SML
1E	51	BL	Malfunction Indicator Lamp	MIL
1F	17	LG/R	Self Test Output	STO
1G	36	BL/O	Ignition Control Module	ICM
1H	32	W	Headlamp Switch	HDLP
1I	48	R/W	Self Test Input	STI
1J	34	P	Rear Window Defroster Switch	DEF
1K	19	W/BK	Torque Reduce / Engine Coolant Temperature Signal (To TCM)	TRS
1L	10	GN/BK	A/C Relay	ACR
1M	3	GN/R	Vehicle Speed Sensor	VSS
1N	24	BL/Y	Power Steering Pressure Switch	PSP
1O	41	PK/BK	Clutch Cycling Pressure Switch	CCPS
1P	22	O/BK	Blower Motor Control Switch	BLMT
1Q	2	W/GN	Brake ON/OFF Switch	BOO
1R	30	LG/BK	Park / Neutral Position Signal	PNPS
1S	8	GN	Reduce Torque Signal # 1 (From TCM)	RTS1
1T	18	BR	Idle Switch	IDL
1V	11	LG/W	Reduce Torque Signal #2 (From TCM)	RTS2
2A	45	GN/O	Barometric Pressure Sensor Signal	BARO
2B	44	R	Measuring Core Volume Air Flow Sensor	MC-VAF
2C	29	BK/Y	Right Heated Oxygen Sensor	RHO2S
2D	43	BL/W	Left Heated Oxygen Sensor	LHO2S
2E	7	R/GN	Engine Coolant Temperature Sensor	ECT
2F	47	Y	Throttle Position Sensor	TP
2H	9	PK/Y	High Pressure Switch	HPS
2I	26	P	Reference Voltage	VREF
2J	27	R/BK	EGR Valve Position Sensor	EVP
2K	25	BK/R	Intake Air Temperature Sensor	IAT
2L	28	GN	Daytime Running Lamp (Canada Only)	DRL
2M	23	W	Knock Sensor	KS
2O	31	BL/BK	Canister Purge Solenoid	CANP
2P	54	BL/GN	High Cooling Fan Relay	HFAN
3A	40, 60	BK	Ground	GND
3B	20	BK	Ground	GND
3C	49	BK/R	Ground	GND

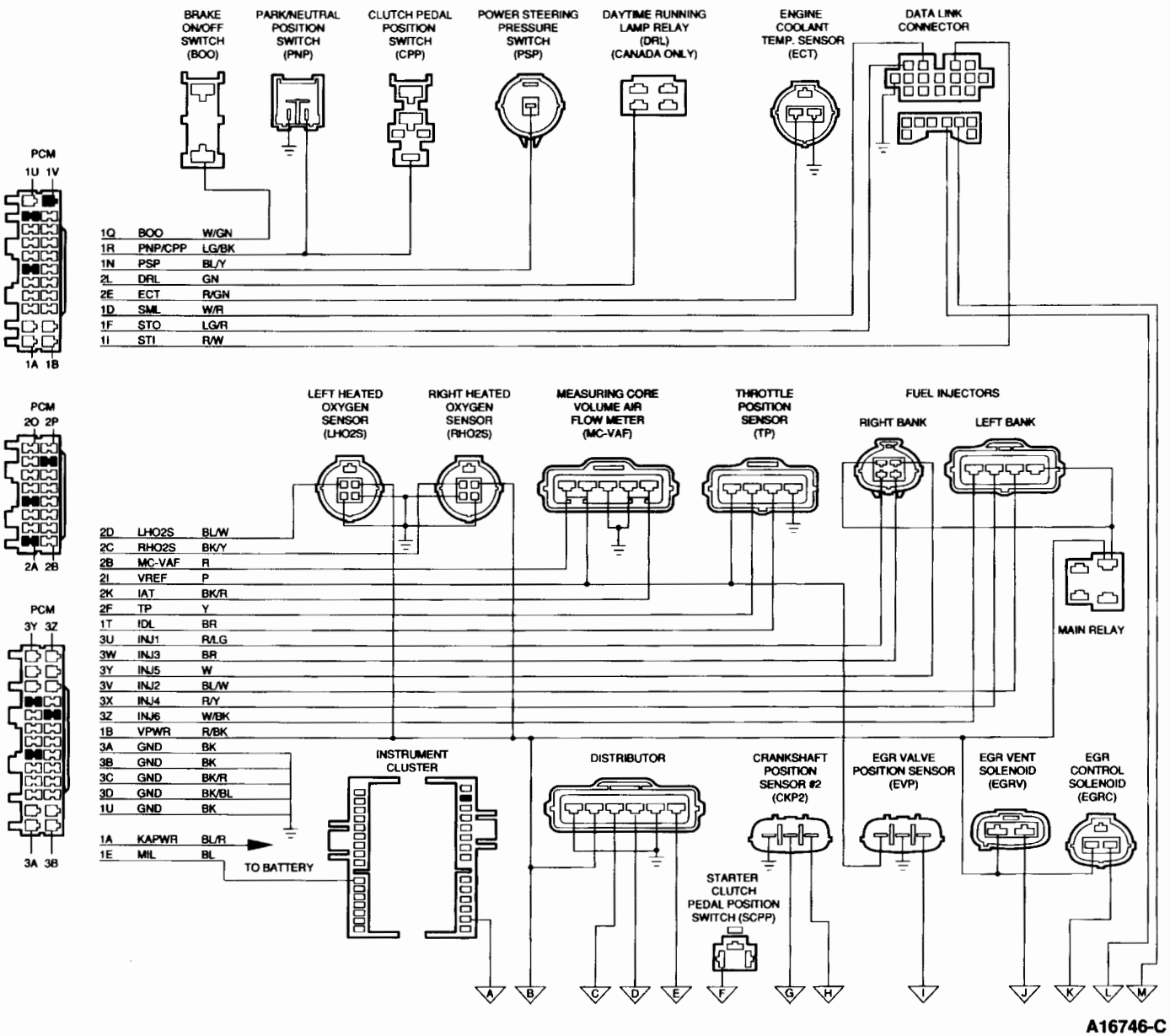
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2.5L Electrical Schematics

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
3D	46	BK/BL	Ground	GND
3E	56	LG/O	Crankshaft Position Sensor # 1	CKP1
3F	16	BL	Crankshaft Position Signal Return	CKPRTN
3G	6	BL/PK	Cylinder Identification Sensor	CID
3H	4	GN	Crankshaft Position Sensor # 2	CKP2
3I	42	W/GN	Variable Resonance Induction System Solenoid # 1	VRIS1
3J	35	BL/R	Variable Resonance Induction System Solenoid # 2	VRIS2
3L	55	R/W	Low Cooling Fan Relay	LFAN
3M	21A	GN/BK	Fuel Pressure Regulator Control Solenoid	FPRC
3N	53A	BL/O	Condenser Fan Relay	CFAN
3O	33A	W/BL	EGR Vent Solenoid	EGRV
3P	52A	GN/W	EGR Control Solenoid	EGRC
3Q	21B	LG/BK	Idle Air Control Solenoid	IAC
3T	52B	LG	Fuel Pump Relay	FPR
3U	58	R/LG	Injector # 1	INJ1
3V	59	BL/W	Injector # 2	INJ2
3W	12	BR	Injector # 3	INJ3
3X	13	R/Y	Injector # 4	INJ4
3Y	14	W	Injector # 5	INJ5
3Z	15	W/BK	Injector # 6	INJ6

2.5L Electrical Schematics

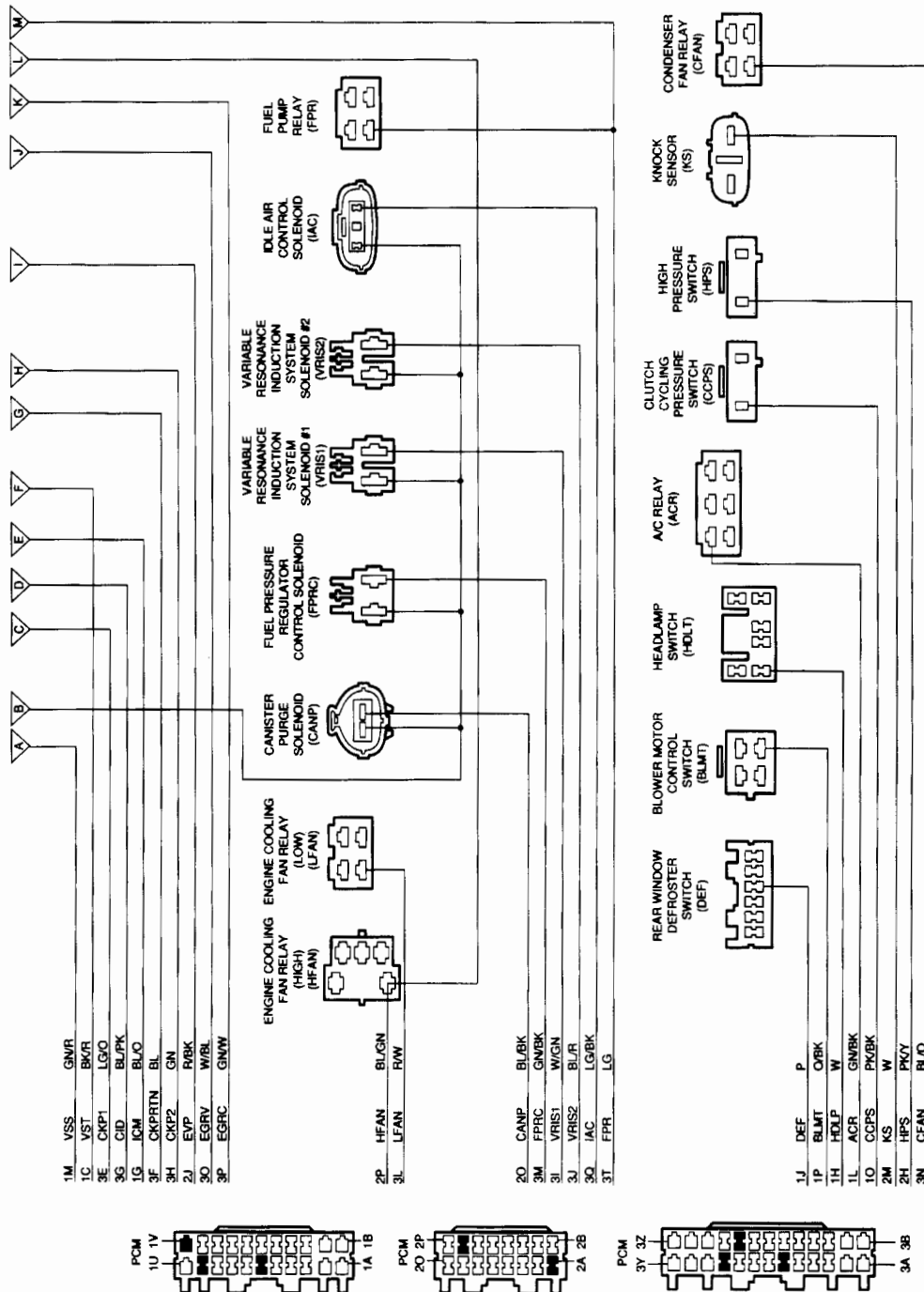
MTX Engine Electrical Schematic



A16746-C

2.5L Electrical Schematics

MTX Engine Electrical Schematic (Continued)



A16747-D

2.5L Electrical Schematics

Powertrain Control Module (PCM) Connector Pin Usage (MTX)

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
1A	1	BL/R	Keep Alive Power	KAPWR
1B	37, 57	R/BK	Vehicle Power	VPWR
1C	5	BK/R	Vehicle Start	VST
1D	38	W/R	Switch Monitor Lamp	SML
1E	51	BL	Malfunction Indicator Lamp	MIL
1F	17	LG/R	Self Test Output	STO
1G	36	BL/O	Ignition Control Module	ICM
1H	32	W	Headlamp Switch	HDLP
1I	48	R/W	Self Test Input	STI
1J	34	P	Rear Window Defroster Switch	DEF
1L	10	GN/BK	A/C Relay	ACR
1M	3	GN/R	Vehicle Speed Sensor	VSS
1N	24	BL/Y	Power Steering Pressure Switch	PSP
1O	41	PK/BK	Clutch Cycling Pressure Switch	CCPS
1P	22	O/BK	Blower Motor Control Switch	BLMT
1Q	2	W/GN	Brake ON/OFF Switch	BOO
1R	30	LG/BK	Park Neutral Position Switch / Clutch Pedal Position Switch	PNP/CPP
1T	18	BR	Idle Switch	IDL
1U	39	BK	Ground (MTX)	GND
2B	44	R	Measuring Core Volume Air Flow Sensor	MC-VAF
2C	29	BK/Y	Right Heated Oxygen Sensor	RHO2S
2D	43	BL/W	Left Heated Oxygen Sensor	LHO2S
2E	7	R/GN	Engine Coolant Temperature Sensor	ECT
2F	47	Y	Throttle Position Sensor	TP
2H	9	PK/Y	High Pressure Switch	HPS
2I	26	P	Reference Voltage	VREF
2J	27	R/BK	EGR Valve Position Sensor	EVP
2K	25	BK/R	Intake Air Temperature Sensor	IAT
2L	28	GN	Daytime Running Lamp (Canada Only)	DRL
2M	23	W	Knock Sensor	KS
2O	31	BL/BK	Canister Purge Solenoid	CANP
2P	54	BL/GN	High Cooling Fan Relay	HFAN
3A	40, 60	BK	Ground	GND
3B	20	BK	Ground	GND
3C	49	BK/R	Ground	GND
3D	46	BK/BL	Ground	GND
3E	56	LG/O	Crankshaft Position Sensor # 1	CKP 1
3F	16	BL	Crankshaft Position Signal Return	CKPRTN

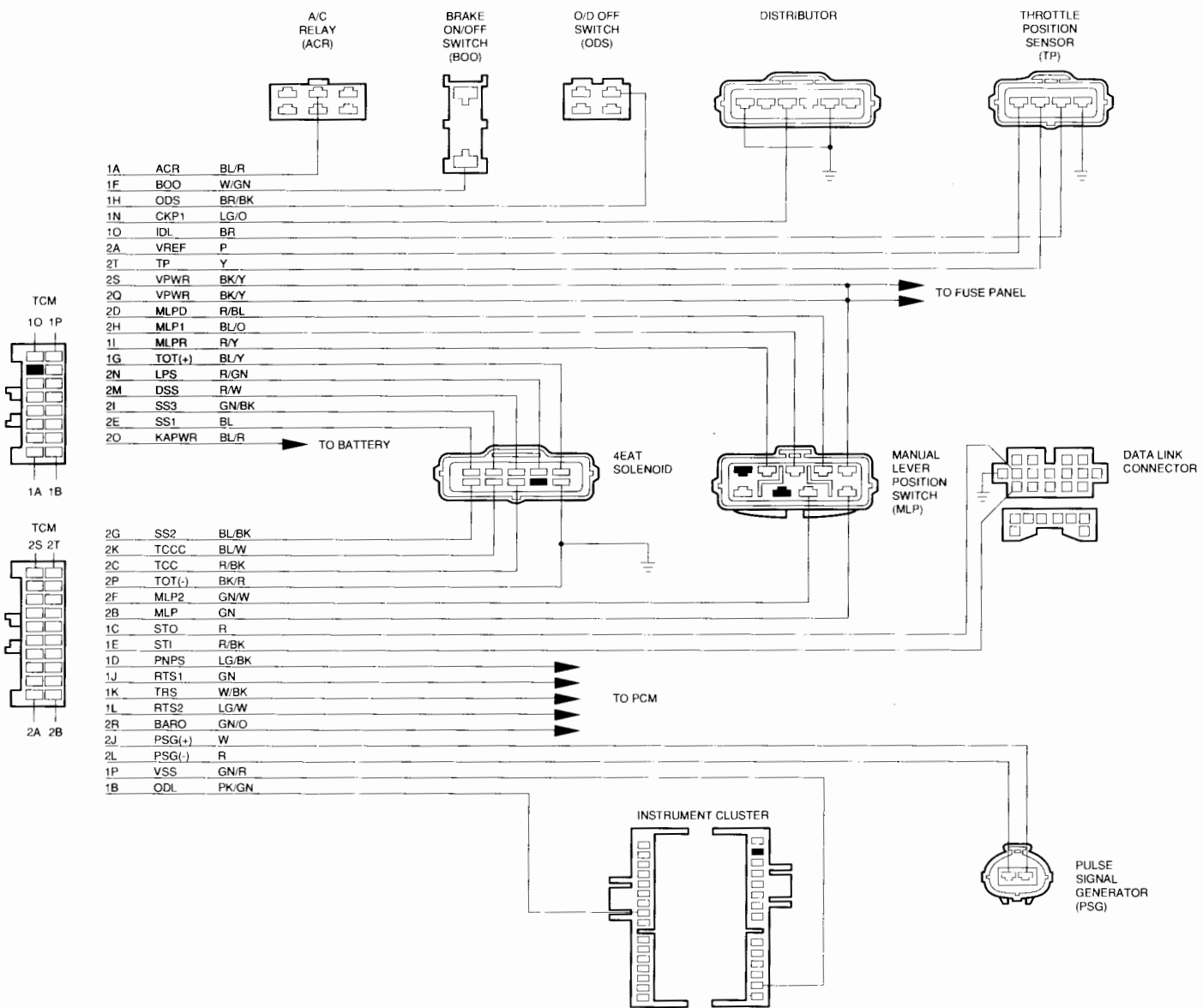
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2.5L Electrical Schematics

PCM Pin	Breakout Box Pin	Wire Color	Application	Abbrev.
3G	6	BL/PK	Cylinder Identification Sensor	CID
3H	4	GN	Crankshaft Position Sensor #2	CKP2
3I	42	W/GN	Variable Resonance Induction System Solenoid # 1	VRIS1
3J	35	BL/R	Variable Resonance Induction System Solenoid #2	VRIS2
3L	55	R/W	Low Cooling Fan Relay	LFAN
3M	21A	GN/BK	Fuel Pressure Regulator Control Solenoid	FPRC
3N	53A	BL/O	Condenser Fan Relay	CFAN
3O	33A	W/BL	EGR Vent Solenoid	EGRV
3P	52A	GN/W	EGR Control Solenoid	EGRC
3Q	21B	LG/BK	Idle Air Control Solenoid	IAC
3T	52B	LG	Fuel Pump Relay	FPR
3U	58	R/LG	Injector # 1	INJ1
3V	59	BL/W	Injector #2	INJ2
3W	12	BR	Injector #3	INJ3
3X	13	R/Y	Injector # 4	INJ4
3Y	14	W	Injector #5	INJ5
3Z	15	W/BK	Injector #6	INJ6

2.5L Electrical Schematics

4EAT Transaxle Control Module (TCM) Electrical Schematic



A16750-D

2.5L Electrical Schematics

4EAT Transaxle Control Module (TCM) Connector Pin Usage

Module Pin	Wire Color	Application	Abbrev.
1A	BL/R	A/C Relay	ACR
1B	PK/GN	Overdrive OFF Light	ODL
1C	R	Self Test Output	STO
1D	LG/BK	Park / Neutral Position Signal	PNPS
1E	R/BK	Self Test Input	STI
1F	W/GN	Brake ON/OFF Switch	BOO
1G	BL/Y	Transaxle Oil Temperature Sensor (+)	TOT (+)
1H	BR/BK	Overdrive OFF Switch	ODS
1I	R/Y	Reverse Range (Selector Lever)	MLPR
1J	GN	Reduce Torque Signal # 1 (To PCM)	RTS1
1K	W/BK	Torque Reduce / Engine Coolant Temperature Signal (From PCM)	TRS
1L	LG/W	Reduce Torque Signal # 2 (To PCM)	RTS2
1N	LG/O	Crankshaft Position Sensor # 1	CKP1
1O	BR	Idle Switch	IDL
1P	GN/R	Vehicle Speed Sensor	VSS
2A	P	Reference Voltage	VREF
2B	GN	Manual Lever Position Switch	MLP
2C	R/BK	Torque Converter Clutch Solenoid	TCC
2D	R/BL	Drive Range (Selector Lever)	MLPD
2E	BL	1-2 Shift Solenoid (Shift Solenoid # 1)	SS1
2F	GN/W	Second Range (Selector Lever)	MLP2
2G	BL/BK	2-3 Shift Solenoid (Shift Solenoid # 2)	SS2
2H	BL/O	First Range (Selector Lever)	MLP1
2I	GN/BK	3-4 Shift Solenoid (Shift Solenoid # 3)	SS3
2J	W	Pulse Signal Generator (+)	PSG+
2K	BL/W	Torque Converter Clutch Control Solenoid	TCCC
2L	R	Pulse Signal Generator (-)	PSG-
2M	R/W	Downshift Solenoid	DSS
2N	R/GN	Line Pressure Solenoid	LPS
2O	BL/R	Keep Alive Power	KAPWR
2P	BK/R	Transaxle Oil Temperature Sensor (-)	TOT (-)
2Q	BK/Y	Vehicle Power	VPWR
2R	GN/O	Barometric Pressure Sensor	BARO
2S	BK/Y	Vehicle Power	VPWR
2T	Y	Throttle Position Sensor	TP

2.5L Electrical Schematics

Quick Test Codes and Code Definitions

PCM Diagnostic Trouble Code	Diagnostic Trouble Code Definition
02	Crankshaft Position Sensor #2 (CKP2)
03	Cylinder Identification (CID) Sensor
04	Crankshaft Position Sensor #1 (CKP1)
05	Knock Sensor (KS)
08	Measuring Core Volume Air Flow (MC-VAF) Sensor
09	Engine Coolant Temperature (ECT) Sensor
10	Intake Air Temperature (IAT) Sensor
12	Throttle Position (TP) Sensor
14	Barometric Pressure (BARO) Sensor
15	Left Heated Oxygen Sensor (LHO2S) - voltage always below 0.55V
16	EGR Valve Position (EVP) Sensor
17	Left Heated Oxygen Sensor (LHO2S) - voltage does not change
23	Right Heated Oxygen Sensor (RHO2S) - voltage always below 0.55V
24	Right Heated Oxygen Sensor (RHO2S) - voltage does not change
25	Fuel Pressure Regulator Control (FPRC) Solenoid
26	Canister Purge (CANP) Solenoid
28	EGR Control (EGRC) Solenoid
29	EGR Vent (EGRV) Solenoid
34	Idle Air Control (IAC) Solenoid
41	Variable Resonance Induction System (VRIS) Solenoid #1
46	Variable Resonance Induction System (VRIS) Solenoid #2
67	Low Cooling Fan (LFAN) Relay
69	Cooling Fan Engine Coolant Temperature (ECTF) Sensor
"STO LO" always ON	Not able to initiate diagnostic test mode
"STO LO" always ON and no codes (Blank Super STAR II screen)	Pass Code

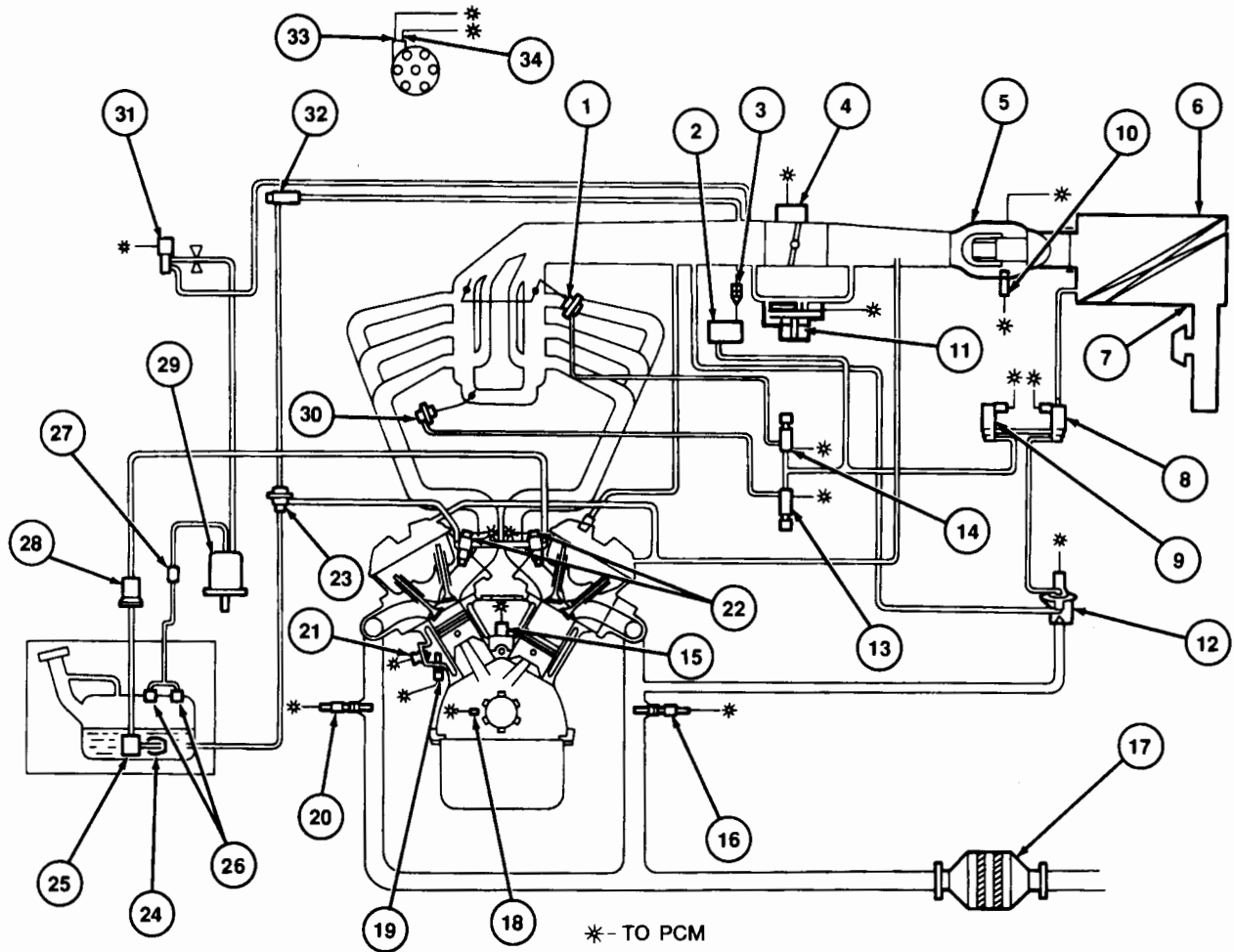
2.5L Electrical Schematics

TCM Diagnostic Trouble Code	Diagnostic Trouble Code Definition
01	Crankshaft Position Sensor # 1 (CKP1)
06	Vehicle Speed Sensor (VSS)
12	Throttle Position (TP) Sensor
14	Barometric Pressure (BARO) Sensor
55	Pulse Signal Generator (PSG)
56	Transaxle Oil Temperature (TOT) Sensor
57	Reduce Torque Signal # 1 (RTS1) (To PCM)
58	Reduce Torque Signal # 2 (RTS2) (To PCM)
59	Torque Reduce/Engine Coolant Temperature Signal (TRS) (From PCM)
60	1-2 Shift Solenoid (SS1)
61	2-3 Shift Solenoid (SS2)
62	3-4 Shift Solenoid (SS3)
63	Torque Converter Clutch Control (TCCC) Solenoid
64	Downshift Solenoid (DSS)
65	Torque Converter Clutch (TCC) Solenoid
66	Line Pressure Solenoid (LPS)

2.5L Fuel/Vacuum/Electrical Schematics

Mechanical Emission Related Systems

Schematic Diagram



A16514-B

2.5L Fuel/Vacuum/Electrical Schematics

Component Identification

Item	Base Part Number	Description	System
1	----	Shutter Valve	Inlet Air Control
2	9E453	Vacuum Reservoir	Exhaust Gas Recirculation
3	----	Check Valve	Exhaust Gas Recirculation
4	9989	Throttle Position Sensor	Inlet Air Control & PCM
5	----	Measuring Core Volume Air Flow Sensor	Inlet Air Control & PCM
6	9600	Air Cleaner	Inlet Air Control
7	9C675A	Air Inlet Duct	Inlet Air Control
8	9B981	EGR Vent Solenoid	Exhaust Gas Recirculation & PCM
9	9B981	EGR Control Solenoid	Exhaust Gas Recirculation & PCM
10	12B529	Intake Air Temperature Sensor	Inlet Air Control & PCM
11	9B289	Idle Air Control Valve	Bypass Air Control
12	9F489	EGR Valve	Exhaust Gas Recirculation
13	----	Variable Resonance Induction System Solenoid #1	Inlet Air Control
14	----	Variable Resonance Induction System Solenoid #2	Inlet Air Control
15	12A699	Knock Sensor	PCM
16	9F472	Right Heated Oxygen Sensor	Catalyst and Exhaust & PCM
17	5E212	Three Way Catalytic Converter	Catalyst and Exhaust & PCM
18	----	Crankshaft Position Sensor #2 (at Crankshaft Pulley)	PCM
19	12A648	Cooling Fan Engine Coolant Temperature Sensor	PCM
20	9F472	Left Heated Oxygen Sensor	Catalyst and Exhaust & PCM
21	12A648	Engine Coolant Temperature Sensor	PCM
22	9F593	Fuel Injectors (6)	Fuel Delivery
23	9C968	Fuel Pressure Regulator	Fuel Delivery
24	9155	Fuel Filter Low Pressure Side	Fuel Delivery
25	9350	Fuel Pump	Fuel Delivery
26	9B593	Rollover / Vent Valves	Evaporative Emission
27	9C968	Two-Way Check Valve	Evaporative Emission
28	9155	Fuel Filter High Pressure Side	Fuel Delivery
29	9D653	Carbon Canister	Evaporative Emission
30	----	Shutter Valve	Inlet Air Control
31	9C915	Canister Purge Solenoid	Evaporative Emission & PCM
32	9D278	Fuel Pressure Regulator Control Solenoid	Fuel Delivery & PCM
33	6C315	Crankshaft Position Sensor (In Distributor)	Ignition System & PCM
34	12126	Cylinder Identification Sensor (In Distributor)	Ignition System & PCM