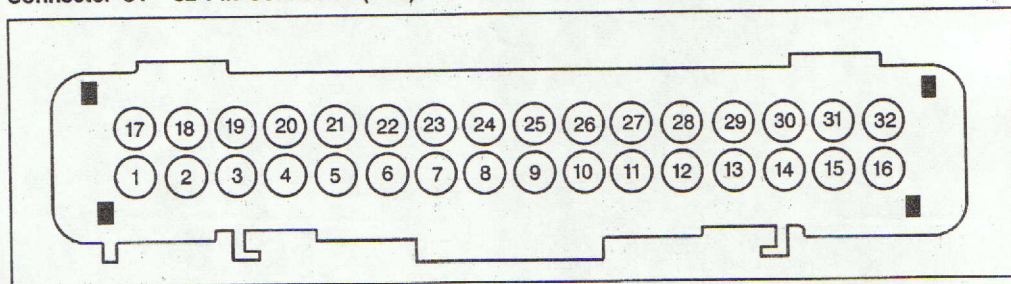


Component Locator

Engine Controls Connector End Views

Connector C1 - 32 Pin Connector (Red)

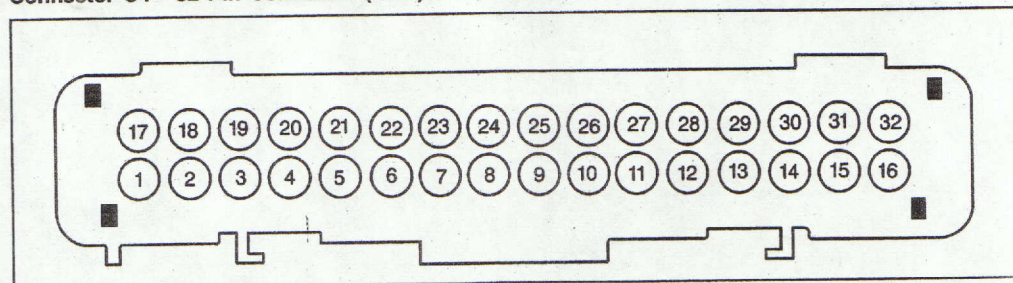


20329

Connector C1 32 Pin Connector (Red)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted to Voltage (*) Refer to <i>Electrical Diagnosis</i>			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
1	Yel	573	Crankshaft Position Sensor Signal	CKP C	P0335, P0336	Misfire diagnostic inoperative
2	Blk/Wht	451	PCM Ground	Engine Ground	—	Engine cranks but will not start.
3	Blk	1744	Injector #1 Control	Injector #1 A	P0200 (3) P1222	Rough idle, Engine miss
4	Lt Blu/Blk	844	Injector #4 Control	Injector #4 A	P0200 (3) P1222	Rough idle, Engine miss
5	Yel/Blk	846	Injector #6 Control	Injector #6 A	P0200 (3) P1222	Rough idle, Engine miss
6	Red/Blk	877	Injector #7 Control	Injector #7 A	P0200 (3) P1222	Rough idle, Engine miss
7	Dk Grn/Wht	465	FP Relay Control	FP Relay 85	—	Long Crank Time Before Engine Starts
8	—	—	—	—	—	—
9	Gry	435	EGR Vacuum Control signal solenoid valve	EGR Solenoid B	P0400 P0403 (3)	Detonation, Stall, Rough Idle, And Poor Performance
10	Dk Blu	473	Secondary Cooling fan relay control	Fan Relay 86	P1642 (3)	Inoperative Cooling Fan or Fan ON At All Times
11	Dk Grn	335	Primary cooling Fan relay Control. (not used with VO8 option)	Fan Relay 86	P1641 (3)	Inoperative Cooling Fan or Fan ON At All Times
12	—	—	—	—	—	—
13	Wht	121	Engine Speed Output Signal	—	P1643 (3)	Tach Inoperative
14	Brn	436	AIR Pump Relay Control	AIR Pump Relay C1	P0412 (3)	AIR Pump Inoperative or ON At All Times.
15	—	—	—	—	—	—
16	—	—	—	—	—	—
17	—	—	—	—	—	—

Connector C1 32 Pin Connector (Red)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted to Voltage (*) Refer to <i>Electrical Diagnosis</i>			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
18	Blk/Wht	451	PCM Ground	Engine Ground	—	Engine cranks but will not start.
19	Lt Grn/Blk	1745	Injector #2 Control	Injector #2 A	P0200 (3) P1222	Rough idle, Engine miss
20	Blk/Wht	845	Injector #5 Control	Injector #5 A	P0200 (3) P1222	Rough idle, Engine miss
21	Pnk/Blk	1746	Injector #3 Control	Injector #3 A	P0200 (3) P1222	Rough idle, Engine miss
22	Dk Blu/Wht	878	Injector #8 Control	Injector #8 A	P0200 (3) P1222	Rough idle, Engine miss
23	Orn/Blk	463	Traction Control System Spark Retard Request	C3-B	—	Poor Performance EBTM DTC 74
24	—	—	—	—	—	—
25	Blu	229	Fuel Enable Signal	*	P1626	Engine Cranks But Will Not Start
26	—	—	—	—	—	—
27	—	—	—	—	—	—
28	—	—	—	—	—	—
29	—	—	—	—	—	—
30	—	—	—	—	—	—
31	Ppl	401	VSS Signal Low	VSS A	P0500 P0502 P0503 P1652 (1)	Inoperative Speedometer, Inoperative Cruise Control, Radio Volume will not increase with vehicle Speed. Transmission Restricted to second Gear.
32	Yel	400	VSS Signal High	VSS B	P0500 P0502 P0503 P1652 (1)	Inoperative Speedometer, Inoperative Cruise Control, Radio Volume will not increase with vehicle Speed. Transmission Restricted to second Gear.

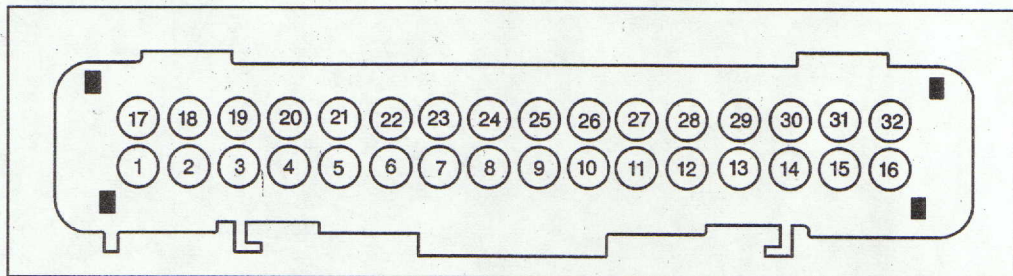
Connector C4 - 32 Pin Connector (Blue)



20329

PCM Connector C4 (Blue)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted to Voltage (*) Refer to Electrical Diagnosis			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
1	Blk/Wht	451	PCM Ground	Engine Block	—	Engine Cranks But Will Not Start
2	Lt Blu/Wht	1229	Transmission Pressure Control Solenoid Low	Transmission D	P0748 (3)	Harsh Transmission Shifts
3	Pnk	539	PCM Ignition Positive Voltage	*	—	Engine Cranks But Will Not Start
4	—	—	—	—	—	—
5	—	—	—	—	—	—
6	Brn	418	Transmission TCC PWM Solenoid	Transmission U	—	TCC Inoperative
7	Ppl	1807	Serial Data (Class 2)	DLC 2	—	No Scan Tool Communications
8	Dk Grn/Wht	459	A/C Clutch Control	A/C Clutch Relay D7	P1545 P1539	A/C Clutch Inoperative, A/C on At All Times
9	Brn/Wht	419	MIL Control	*	P1661	MIL On All Times or MIL Inoperative
10	Dk Grn/Wht	428	EVAP Canister Purge Solenoid Valve Control	EVAP Canister Purge Solenoid Valve B	P0443 P0441	Purge Inoperative or Purge On At All Times (3)
11	Tan/Blk	422	Transmission TCC Solenoid	Transmission T	—	TCC Inoperative or On At All Times
12	Red/Blk	380	A/C Refrigerant Pressure Sensor Signal	A/C Refrigerant Pressure Sensor C	P0530	A/C Inoperative
13	—	—	—	—	—	—
14	—	—	—	—	—	—
15	—	—	—	—	—	—
16	Pnk	1439	Change Oil Lamp Control	Change oil lamp	P1663	Light ON at all times or light OFF at all times.
17	—	—	—	—	—	—
18	—	—	—	—	—	—
19	—	—	—	—	—	—
20	—	—	—	—	—	—

PCM Connector C3 (Clear or Gray)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted to Voltage (*) Refer to <i>Electrical Diagnosis</i>			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
15	Orn/Blk	434	PNP Switch	PNP Switch B	—	Poor Fuel Economy, Stall, Incorrect Idle
16	Red/Blk	1228	Transmission Pressure Control Solenoid	Transmission C	P0748 (3)	Harsh Transmission Shift
17	Tan/Wht	1669	Bank 1 (Left Rear) HO2S #2 Low	HO2S A	P0140 (1)	—
18	Ppl/Wht	1668	Bank 1 (Left Rear) HO2S #2 High	HO2S B	P0137 P0138 P0140	—
19	Tan/Wht	1653	Bank 1 (Left Front) HO2S #1 Low	HO2S A	P0134 (1)	Rough Idle, Lean Exhaust, Poor Performance and Poor Fuel Economy
20	Ppl/Wht	1665	Bank 1 (Left Front) HO2S #1 High	HO2S B	P0131 (2) P0132 (4) P0134 (1)	Rough Idle, Lean Exhaust, Poor Performance and Poor Fuel Economy
21	Tan	472	IAT Sensor Signal	IAT B	P0112 (2) P0113 (1) P1111 (2) P1112 (1)	Poor Fuel Economy
22	Dk Blu	417	TP Sensor Signal	TP Sensor C	P0121 P0122 (4) P0123 (3) P1121 (3) P1122 (4)	High Idle, Lack of Power, Harsh Transmission Shifts
23	Lt Gm	432	MAP Sensor Signal	MAP B	P0106 P0107 (3) P0108 (4) P1107 (3)	Modified Shift Patterns
24	—	—	—	—	—	—
25	Yel	410	ECT Sensor Signal	ECT B	P0117 (2) P0118 (1) P0125 P1114 (2) P1115 (1)	Exhaust Odor, Rough Idle, Poor Fuel Economy, TCC Apply Cold
26	—	—	—	—	—	—
27	—	—	—	—	—	—
28	Pnk	1224	Transmission Range Signal A	Transmission N	P1810 (3)	No TCC, Harsh Shift
29	Dk Blu	1225	Transmission Range Signal B	Transmission R	P1810 (3)	No TCC, Harsh Shift
30	Red	1226	Transmission Range C	Transmission P	P1810 (3)	No TCC, Harsh Shift
31	—	—	—	—	—	—
32	Blk/Whit	451	PCM Ground	Engine Block	—	Engine Cranks But Will Not Start

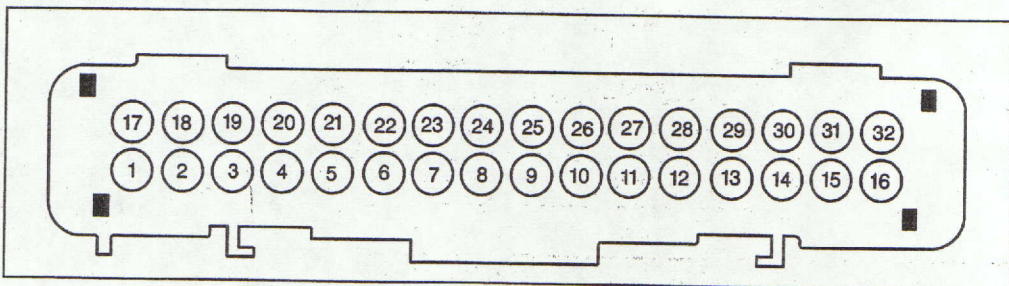
Connector C3 - 32 Pin Connector
 (Clear or Gray)


20329

PCM Connector C3 (Clear or Gray)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted to Voltage (*) Refer to <i>Electrical Diagnosis</i>			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
1	Lt Blu/Wht	1747	IAC Coil A High	IAC D	P0506 P0507 P1508 P1509	Incorrect Idle, Surge, Stall
2	Lt Blu/Blk	1748	IAC Coil A Low	IAC C	P0506 P0507 P1508 P1509	Incorrect Idle, Surge, Stall
3	Tan	1671	Bank 2 (Right Rear) HO2S #2 Low	HO2S A	—	—
4	Ppl	1670	Bank 2 (Right Rear) HO2S #2 High	HO2S B	—	—
5	Lt Grn/Blk	444	IAC Coil B Low	IAC A	P0506 P0507 P1508 P1509	Incorrect Idle, Surge, Stall
6	Lt Grn/Wht	1749	IAC Coil B High	IAC B	P0506 P0507 P1508 P1509	Incorrect Idle, Surge, Stall
7	Tan	1667	Bank 2 (Right Front) HO2S #2 Low	HO2S A	P0154 (1)	Rough Idle, Lean Exhaust, Poor Performance and Poor Fuel Economy
8	Ppl	1666	Bank 2 (Right Front) HO2S #2 High	HO2S B	P0151 (2) P0152 (4)	Rough Idle, Lean Exhaust, Poor Performance and Poor Fuel Economy
9	—	—	—	—	—	—
10	—	—	—	—	—	—
11	—	—	—	—	—	—
12	—	—	—	—	—	—
13	—	—	—	—	—	—
14	Ppl	420	Brake Switch Signal	Brake Switch A	P0703 (3,4)	No TCC

PCM Connector C2 (Black)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted To Voltage * Refer To Electrical Diagnosis			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
17	—	—	—	—	—	—
18	—	—	—	—	—	—
19	Yel	492	MAF Sensor Signal	MAF A	P0100 P0101 P0102 (2) P0103	Engine Stall, Hesitation When Malfunction Occurs
20	Ppl/Wht	430	High Resolution Signal	Test Connector B Distributor B	P1372 (3,4)	Engine Surge, Lack of Power
21	Dk Grn	59	A/C Clutch Status	A/C clutch relay C7 A/C clutch B	P1539 (4) P1546 (1)	A/C Inoperative
22	Tan/Wht	585	TCC Fluid Temperature Switch Signal (5.7 Only)	TCC fluid temperature sensor	—	Modified transmission shift patterns
23	Ppl	1986	EVAP Vacuum Switch	EVAP Vacuum Switch B	P0441 P1441	—
24	—	—	—	—	—	—
25	—	—	—	—	—	—
26	Om/Blk	495	PSP Switch signal	PSP A	—	Stalling, unstable idle
27	Brn	1174	Engine oil level sensor signal	Oil level sensor B	—	Incorrect low oil lamp operation.
28	Gry	416	5 Volt reference	TP sensor A A/C refrigerant pressure sensor B	P0123 (3)	High Idle, Lack of Performance
29	Gry	474	5 Volt reference	MAP sensor C	P0107 (3) P0530 (3)	A/C Inoperative
30	Pnk	539	PCM Ignition Positive Voltage	—	—	Engine Cranks But Will Not Start
31	Om	440	PCM Battery Positive Voltage	—	—	—
32	—	—	—	—	—	—

Connector C2 - 32 Pin Connector (Black)



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PCM Connector C2 (Black)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted To Voltage * Refer To Electrical Diagnosis			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
1	Dk Blue	214	A/C Request Signal	A/C Pressure cycling switch B	—	A/C Inoperative (1) A/C ON at all times
2	Red/Blk	453	Low Resolution Signal	Test Connector A Distributor A	P1371 (3)	Engine Cranks But Will Not Start
3	Pnk/Blk	632	Distributor Reference Low Signal	Test Connector D Distributor D	—	Engine Cranks But Will Not Start (1)
4	—	—	—	—	—	—
5	Wht	423	Ignition Control	Ignition Coil Module "B"	P1351 (1,4) P1361 (2)	Engine Cranks But Will Not Start
6	Blk	452	Sensor Ground	IAT A, TP sensor B Trans M,	P0118 (1) P0122 (1) P1118 (1) P0713 (1)	Lack of Power, Rough Idle, High Idle and TCC May Not Apply Properly
7	Lt Grn	1222	Transmission 1-2 Shift Solenoid control	Trans A	P0753 (3,4)	Second and Third Gear, or Forth Gear Only
8	Dk Grn/Wht	817	VSS Output	Cruise module and I/P	P1652 (3,4)	Speedometer Inoperative Cruise Inoperative
9	—	—	—	—	—	—
10	—	—	—	—	—	—
11	Brn/Wht	1173	Low Oil Lamp Control	*	P1653	Low Oil Lamp ON at all times or OFF at all times
12	Yel/Blk	1223	Transmission 2-3 Shift Solenoid control	Trans B	P0758 (3,4)	Second or Third Gear Only, No TCC Apply
13	Brn	687	Transmission 3-2 Shift Solenoid control	Transmission S	P0785 (3,4)	Harsh 3-2 Downshift, Third Gear Only
14	Red	631	Distributor Ignition Feed	Test Connector C Distributor C	—	Engine Cranks But Will Not Start
15	Orn	440	PCM Battery Positive Voltage	*	*	Engine Cranks But Will Not Start (3)
16	Ppl	455	Sensor Ground	MAP A ECT A	P0113 (1) P0108 (1) P0530 (1)	Poor Performance, A/C Inoperative

PCM Connector C4 (Blue)			(1) Open Circuit (2) Grounded Circuit (3) Open/Grounded Circuit (4) Shorted to Voltage (*) Refer to <i>Electrical Diagnosis</i>			
Pin	Wire Color	Circuit No.	Function	Component Connector Cavity	DTC(s) Affected	Possible Symptoms From a Faulty Circuit
21	Lt Blu	1876	Bank 1 (Left) KS Signal	Left Knock Sensor	P0327 (3)	Lack of performance and/or detonation
22	Dk Blu	496	Bank 2 (Right) KS Signal	Right Knock Sensor	P0332 (3)	Lack of performance and/or detonation
23	—	—	—	—	—	—
24	—	—	—	—	—	—
25	—	—	—	—	—	—
26	—	—	—	—	—	—
27	—	—	—	—	—	—
28	Yel/Blk	1227	Transmission Fluid Temperature Sensor Signal	Transmission L	P0712 P0713	Early or Delayed Transmission Shifts
29	—	—	—	—	—	—
30	Tan	800	Serial Data (UART)	—	—	—
31	—	—	—	—	—	—
32	—	—	—	—	—	—

Engine Controls Component Location

Name	Location	8A Cell 201 Figure:	Connector End View	Group No.
A/C Compressor Clutch Relay	Underhood electrical Center	—	—	—
A/C Cycling Switch	RH rear of the engine compartment, attached to the A/C accumulator	—	—	—
A/C Refrigerant Pressure Sensor	In high pressure line, below coolant reservoir	12	—	—
Bank #1, Left Front Heated Oxygen Sensor (HO2S)	Lower LH side of the Engine, Forward of the Three-way Catalytic Converter (TWC)	—	—	—
Bank #1, Left Rear Heated Oxygen Sensor (HO2S)	Lower RH side of the Engine, Rear of the Three-way Catalytic Converter (TWC)	—	—	—
Bank #2, Right Front Heated Oxygen Sensor (HO2S)	Lower RH side of the Engine, Forward of the Three-way Catalytic Converter (TWC)	—	—	—
Bank #2, Right Rear Heated Oxygen Sensor (HO2S)	Lower RH side of the Engine, Rear of the Three-way Catalytic Converter (TWC)	—	—	—
Crankshaft (CKP) Position Sensor	Lower right side of the Engine, in the Front Engine Cover	—	—	—
Data Link Connector (DLC)	Below LH side of the I/P, right of the Steering Column	22	—	—
Distributor	Front of the Engine behind the Engine Coolant Pump	12	—	—
Engine Coolant Temperature (ECT) Sensor	Lower front of the Engine, mounted to the Coolant Pump	16	—	—
Engine Oil level Sensor	LH side of the Engine Oil pan	—	—	—