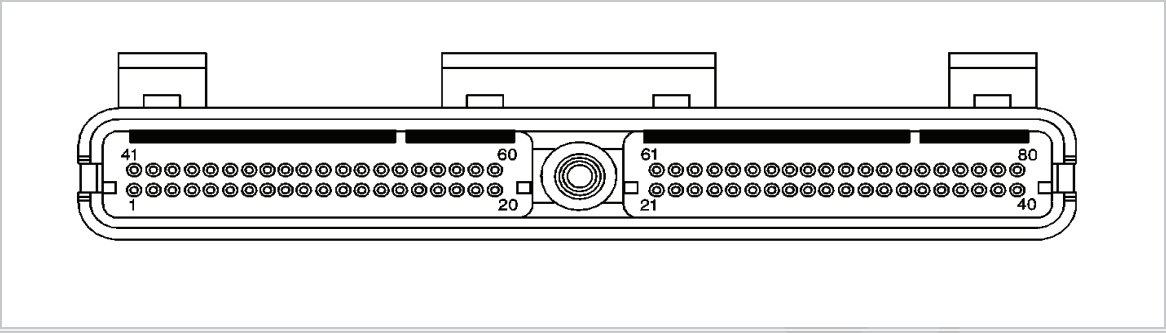
Listed is the common pcm connector layout for the 1999-2003 LS1/LS6 and Vortec 4.8, 5.3 and 6.0L V8 with the 9354896 or 12200411 pcm. Wiring color substitutions that are used on my harnesses are mark in parenthesis.

NOTE: The pcm pinouts for the 1997-98 can be found at http://www.chevythunder.com/199798_ls1_pcm_pinouts.htm

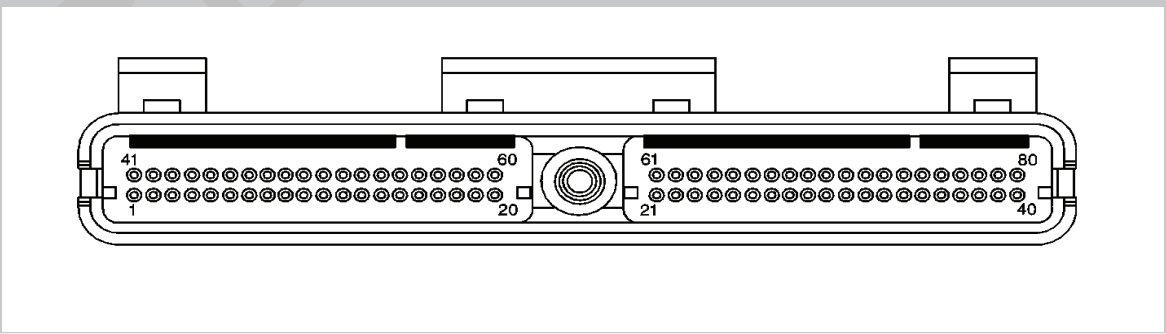


Connector Part Information	• PCM Connector C1 Assembly 12191489 • TPA (BLU) 12176408 • Connector Cover 12191108		
Pin	Wire Color	Circuit No.	Function
1	BLK	451	PCM Ground
2	LT GRN	1867	12 Volt Reference CKP pin “C”
3	PNK/BLK	1746	Fuel Injector 3 Control
4	LT GRN/BLK	1745	Fuel Injector 2 Control
5-7	--	--	Not Used
8	GRA	596	5 Volt Reference TPS pin “A”
9-10	--	--	Not Used
11	LT BLU	1876	KS [2] Signal Rear Sensor pin “B” (Red or Org.)
12	DK BLU/WHT	1869	CKP Sensor Signal Pin “A” (Blu/Blk or Blu/Wht or Blk/Wht)
13-16	--	--	Not Used
17	DK BLU	1225	Transmission Fluid Press. Sw. Signal B 4L60E Pin “R”
18	RED	1226	Transmission Fluid Press. Sw. Signal C 4L60E Pin “P”
19	PNK	439	Ignition 1 Voltage Fuse #1- 15 amp
20	ORN	340	Battery Positive Voltage
21	YEL/BLK	1868	Low Reference CKP pin “B” (Yel/Blk or Yel)
22	--	--	Not Used
23	GRA	720	Low Reference Fuel Level sensor factory only

24	--	--	Not Used
25	TAN	1671	HO2S Low Signal [Bank 2 Sensor 2] R.R. post-cat
26	TAN	1667	HO2S Low Signal [Bank 2 Sensor 1] R.F. pre-cat
27	--	--	Not Used
28	TAN/WHT	1669	HO2S Low Signal [Bank 1 Sensor X] L.R. Post cat
29	TAN/WHT	1653	HO2S Low Signal [Bank 1 Sensor 1] L.F. pre-cat
30-31	--	--	Not Used
32	GRY	48	CPP Switch Signal manual transmission
33	PPL	420	TCC Brake Switch Signal 4L60E signal from brake switch
34	ORN/BLK	434	Neutral Safety Switch Signal 4L60E signal from gear sw.
35	--	--	Not Used
36	BLK	1744	Fuel Injector 1 Control
37	YEL/BLK	846	Fuel Injector 6 Control
38-39	--	--	Not Used
40	BLK	451	Ground
41	--	--	Not Used
42	DK GRN	335	Low Speed Cooling Fan Relay Control L.H. Primary fan
43	RED/BLK	877	Fuel Injector 7 Control
44	LT BLU/BLK	844	Fuel Injector 4 Control
45	GRA	474	5 Volt Reference (A/C Refrigerant Pressure Sensor) OPT
46	GRA	474	5 Volt Reference (Fuel Tank Pressure Sensor) factory only
47	--	--	Not Used
48	GRA	416	5 Volt Reference (MAP Sensor) pin “C”
49-50	--	--	Not Used
51	DK BLU	496	KS [1] Signal Front Sensor (Org. or Blu) pin “A”.
52	--	--	Not Used
53	BLK	407	Low Reference (Transmission Temp. Sensor) 4L60E pin “M”
54	BLK	407	Low Reference (MAP Sensor Ground) pin “A” (Blk. Or Org/Blk.)
55	--	--	Not Used
56	--	--	Not Used
57	ORN	340	Battery Positive Voltage
58	DK GRN	1049	ECM/PCM/VCM Class 2 Serial Data DLC term. “2”

59	--	--	Not Used
60	BLK	452	Low Reference TPS pin “b” (tan or tan/blk.)
61	PNK/BLK	632	Low Reference (Camshaft Position Sensor) pin “B”
62-64	--	--	Not Used
65	PPL	1670	HO2S High Signal [Bank 2 Sensor 2] R.R. post-cat
66	PPL	1666	HO2S High Signal [Bank 2 Sensor 1] R.F. pre-cat
67	--	--	Not Used
68	PPL/WHT	1668	HO2S High Signal [Bank 1 Sensor X] L.R. post-cat
69	PPL/WHT	1665	HO2S High Signal [Bank 1 Sensor 1] L.F. pre-cat
70	BRN	1174	Oil Level Switch Signal
71-72	--	--	Not Used
73	BRN/WHT	633	CMP Sensor Signal pin “A”
74	YEL	410	ECT Sensor Signal pin “B”
75	--	--	Not Used
76	BLK/WHT	845	Fuel Injector 5 Control
77	DK BLU/WHT	878	Fuel Injector 8 Control
78	--	--	Not Used
79	GRA or WHT	587 or 687	Skip Shift Solenoid Control (M/T) or 3-2 Shift Solenoid Control (A/T) 4L60E pin “S”
80	BLK	407	Low Reference ECT pin “A”

1.1.1.1 PCM Connector C2 (RED)



Connector Part Information	• PCM Connector C2 Assembly 12191488 • TPA (RED) 12176410

		• Connector Cover 12191108	
Pin	Wire Color	Circuit No.	Function
1	BLK	451	Ground
2	BRN	418	TCC Solenoid - Output – PWM 4L60E pin “U”
3	--	--	Not Used
4	PNK/BLK	429	Air Injection Reaction Solenoid Relay - Coil - Control
5	--	--	Not Used
6	RED/BLK	1228	PC Solenoid Valve High Control (Sol. A) 4L60E pin “C”
7	--	--	Not Used
8	LT BLU/WHT	1229	PC Solenoid Valve Low Control (Sol. A) 4L60E pin “D”
9	DK GRN/WHT	465	Fuel Pump Relay Control [Primary]
10	WHT	121	Engine Speed Signal Tachometer and/or Electronic brake Control Module
11-12	--	--	Not Used
13	WHT	85	Cruise Control Engage Signal OPT.
14	RED/BLK	380	A/C Refrigerant Pressure Sensor Signal OPT.
15	RED	225	Generator Turn ON Signal CS130D &DA alternator only
16	--	--	Not Used
17	DK GRN/WHT	762	A/C Request Signal To PCM to activate AC clutch relay (factory only)
18	DK GRN	59	A/C Compressor Clutch Supply Voltage To PCM for AC load-idle control
19	--	--	Not Used
20	LT GRN/BLK	822	VSS Low Signal (Yel)
21	PPL/WHT	821	VSS High Signal (Ppl)
22-23	--	--	Not Used
24	DK BLU	417	TP Sensor Signal pin “C”
25	TAN	472	IAT Sensor Signal pin “B”
26	PPL	2121	IC 1 Control
27	RED or ORG	2127	IC 7 Control
28	LT	2126	IC 6 Control

	BLU/WHT		
29	DK GRN/WHT	2124	IC 4 Control
30	DK BLU	229	Fuel Enable Control- Vehicle Antitheft System (VATS)- Factory Only
31	YEL	492	MAF Sensor Signal pin “A”
32	LT GRN	432	MAP Sensor Signal pin “B”
33	DK BLU	473	High Speed Cooling Fan Relay Control R.H secondary fan
34	DK GRN/WHT	428	EVAP Canister Purge Solenoid Control
35	--	--	Not Used
36	BRN	436	AIR Pump Relay Control
37	DK GRN	83	Cruise Control Inhibit Signal OPT.
38	--	--	Not Used
39	RED/BLK	631	12 Volt Reference Camshaft position CMP pin “C”
40	BLK	451	Ground
41	--	--	Not Used
42	TAN/BLK	422	TCC Solenoid Valve Control 4L60E pin “T”
43	DK GRN/WHT	459	A/C Clutch Relay Control Factory only
44	LT GRN	1652	Reverse Lock Out Solenoid Control T56 manual only
45	WHT	1310	EVAP Canister Vent Solenoid Control
46	BRN/WHT	419	MIL Control
47	YEL/BLK	1223	2 - 3 Shift Solenoid Valve Control 4L60E pin “B”
48	LT GRN	1222	1 - 2 Shift Solenoid Valve Control 4L60E pin “A”
49	--	--	Not Used
50	DK GRN/WHT	817	VSS Signal To electronic speedometer and cruise control module- 4K pulse per mile output
51	YEL/BLK	1227	TFT Sensor Signal 4L60E pin “L”
52	--	--	Not Used
53	GRA/BLK	1687	Ignition Retard Signal-Electronic brake control module only (factory)
54	PPL	1589	Fuel Level Sensor Signal- Factory only
55-56	--	--	Not Used
57	PPL or BLK	719	Low Reference IAT pin “A” (Blk.)
58-	--	--	Not Used

59			
60	BRN	2129	Low Reference – ignition coil 1-3-5-7
61	BRN/WHT	2130	Low Reference- ignition coil 2-4-6-8
62	--	--	Not Used
63	PNK	1224	Transmission Fluid Pressure Switch Signal A 4L60E pin “N”
64	DK GRN	890	Fuel Tank Pressure Sensor Signal Factory only
65	--	--	Not Used
66	PPL/WHT	2128	IC 8 Control
67	RED/WHT	2122	IC 2 Control (Red/Wht or Org/Blk)
68	DK GRN	2125	IC 5 Control
69	LT BLU	2123	IC 3 Control
70-75	--	--	Not Used
76	LT GRN/WHT	1749	IAC Coil B High Control pin “B”
77	LT GRN/BLK	444	IAC Coil B Low Control pin “A”
78	LT BLU/BLK	1748	IAC Coil A Low Control pin “C”
79	LT BLU/WHT	1747	IAC Coil A High Control pin “D”
80	--	--	Not Used

66.1 Custom Harness Fan Controls

The harness comes standard with the dual fan set up and the control temperatures are set to factory specifications unless specified by the purchaser. Ultimately, the purchaser is responsible for selecting the proper temperatures that are at least above the thermostat opening temperature. Under no circumstance will the set temperature will be modified to above the HIGHEST factory setting. The seller will not be held liable under any circumstance for non factory temperature settings requested by the purchaser.

NOTE: The computer controls the fan on temperature based on the perceived output from the sensor. A faulty or sub standard sensor will affect fan on at a specific temperarture. Use quality name brand parts for you engine.

The normal fan temperatures for the typical Gen III engine:
FAN 1 (Primary) ON: 108C 226F OFF: 104C 219F
FAN 2 (Secondary) ON: 112C 233F OFF: 108.5C 227F

NOTE: If just using one fan, use the primary fan connection and tape off the secondary fan connector and secure form damage. The computer will not set a trouble code unless you remove the relay.

Before starting the engine for the first time, you must verify the condition of the electric fan motors. A shorted fan winding will blow the fuse immediately, while an open winding in the motor results in the fan not coming on. Typically, the ohmmeter will show around 20-25 ohms between fan terminals. Anything less increases the chance of over current condition and blowing the fuse, anything higher than 30 ohms plus will affect the fan performance. A reading of infinity is an open winding. Also a bad bearing or bent shaft that prevents the blades from spinning freely and with no wobble must be replaced. Make sure the hub to blade nut is tight. These have a left hand thread, which means turning the nut counterclockwise tightens the nut. Be sure to insure you have a good solid ground to the fans.

Use a properly calibrated gauge, or even a hand held scanner that allows you to monitor temperature while the engine is running. The primary fan should come on a its selected or preset temperature, Since the computer uses the ECT (in the