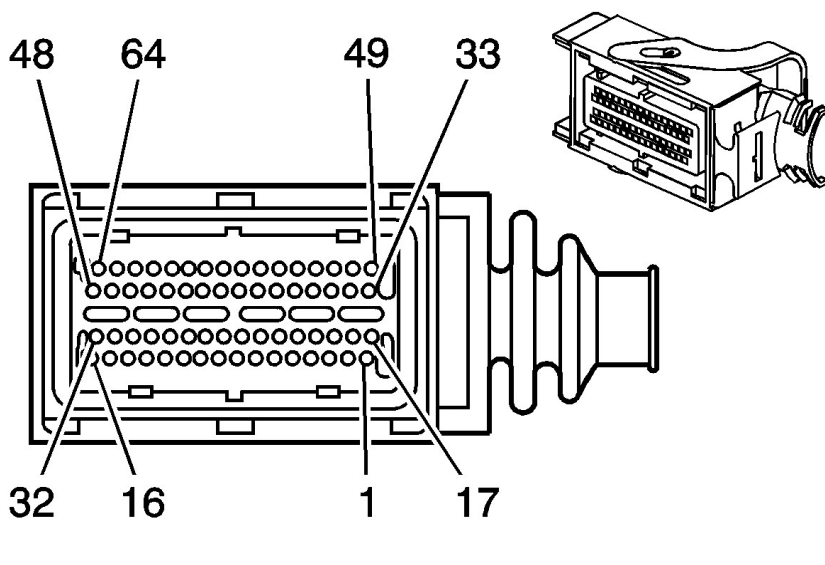


Engine Control Module Connector End Views

Table 1: [Engine Control Module \(ECM\) C1](#)

Table 2: [Engine Control Module \(ECM\) C2](#)

[Engine Control Module \(ECM\) C1](#)



Connector Part Information

- OEM: 1928403513
- Service: 15306245
- Description: 64-Way F (BK)

Terminal Part Information

- Pins: 1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 25, 26, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 62, 63, 64
- Terminal/Tray: 1928498016/17
- Core/Insulation Crimp: N/N
- Release Tool/Test Probe: J-38125-560/J-35616-64B (L-BU)

Engine Control Module (ECM) C1

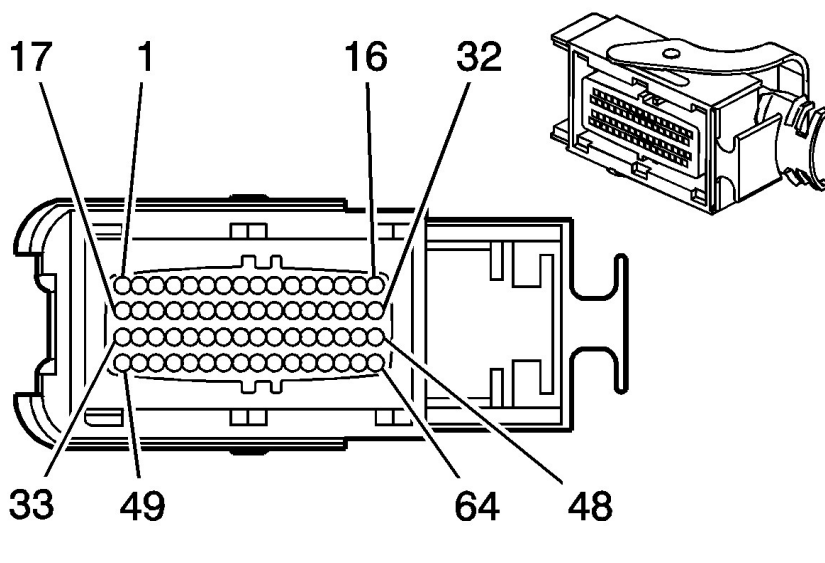
Pin	Wire Color	Circuit No.	Function
1	TN	407	Low Reference
2	OG	5280	HO2S Input Pump Current – Bank 2 Sensor 1
3	L-GN	5278	HO2S Input Pump Current – Bank 1 Sensor 1
4	OG	5275	CMP Sensor Signal – Intake Bank 1
5	GY	605	5-Volt Reference A
6	—	—	Not Used
7	TN	470	Low Reference
8	PU	486	TP Sensor 2 Signal
9	D-GN/WH	2124	IC 4 Control
10	WH/BK	5039	CKP Sensor High
11	—	—	Not Used
12	OG/BK	5272	CMP Actuator Solenoid Control – Intake Bank 2
13	L-GN	5282	CMP Actuator Solenoid Control – Exhaust Bank 1
14	—	—	Not Used
15	TN	582	TAC Motor Control – 2
16	GY/WH	3113	HO2S Heater Low Control – Bank 1 Sensor 1
17	GY	1716	Low Reference

Pin	Wire Color	Circuit No.	Function
18	TN	1667	HO2S Low Signal – Bank 2 Sensor 1
19	PU/WH	1665	HO2S High Signal – Bank 1 Sensor 1
20	D-GN	5273	CMP Sensor Signal – Exhaust Bank 1
21	GY	23	Generator Field Duty Cycle Signal
22	—	—	Not Used
23	YE	410	ECT Sensor Signal
24	—	—	Not Used
25	L-BU/WH	2126	IC 6 Control
26	OG/WH	2122	IC 2 Control
27–28	—	—	Not Used
29	PK	5284	CMP Actuator Solenoid Control – Intake Bank 1
30	WH/BK	5283	CMP Actuator Solenoid Control – Exhaust Bank 2
31	YE	581	TAC Motor Control – 1
32	L-GN	3212	HO2S Heater Low Control – Bank 2 Sensor 1
33	D-BU	496	Knock Sensor 1 Signal
34	PU	1666	HO2S High Signal – Bank 2 Sensor 1
35	WH	5279	HO2S Pump Current – Bank 1 Sensor 1
36	PU	5274	CMP Sensor Signal – Exhaust Bank 2

Pin	Wire Color	Circuit No.	Function
37	BN	1174	Oil Level Switch Signal
38	D-GN/WH	357	Oil Temperature Sensor Signal
39	TN	2752	Low Reference
40	TN/BK	231	Oil Pressure Switch Signal
41	D-GN	2125	IC 5 Control
42	PU	2121	IC 1 Control
43	OG	225	Generator Turn On Signal
44	D-BU/BK	5041	IMRC Solenoid Control
45	D-BU/BK	844	Fuel Injector 4 Control
46	PK/BK	1746	Fuel Injector 3 Control
47	TN/WH	845	Fuel Injector 5 Control
48	L-GN/WH	428	EVAP Canister Purge Solenoid Control
49	GY/BK	1798	Drain Wire
50	L-BU	1876	Knock Sensor 2 Signal
51	PU/WH	5281	HO2S Pump Current – Bank 2 Sensor 1
52	TN	1664	HO2S Low Signal – Bank 1 Sensor 1
53	YE	5276	CMP Sensor Signal – Intake Bank 2
54	GY	2701	5-Volt Reference C

Pin	Wire Color	Circuit No.	Function
55	D-GN	485	TP Sensor 1 Signal
56	OG/BK	5266	BARO Sensor Signal
57	GY	705	5-Volt Reference B
58	L-BU	2123	IC 3 Control
59	PU/WH	5024	CKP Sensor Low
60-61	—	—	Not Used
62	L-GN/BK	1745	Fuel Injector 2 Control
63	TN	1744	Fuel Injector 1 Control
64	YE/BK	846	Fuel Injector 6 Control

Engine Control Module (ECM) C2



Connector Part Information

- OEM: 1928403386
- Service: 88956567
- Description: 64-Way F (BK)

Terminal Part Information

- Pins: 1, 2, 3, 17, 18, 23, 25, 26, 33, 39, 53, 55, 4, 5, 7, 8, 9, 10, 11, 12, 15, 19, 20, 22, 24, 27, 29, 31, 32, 35, 36, 37, 40, 41, 42, 43, 44, 47, 48, 49, 50, 52, 56, 57, 58, 59, 60, 61, 63, 64
- Terminal/Tray: 1928498016/17
- Core/Insulation Crimp: Pins 1, 2, 3, 17, 18, 23, 25, 26, 33, 39, 53, 55 – See Terminal Repair Kit
- Core/Insulation Crimp: Pins 4, 5, 7, 8, 9, 10, 11, 12, 15, 19, 20, 22, 24, 27, 29, 31, 32, 35, 36, 37, 40, 41, 42, 43, 44, 47, 48, 49, 50, 52, 56, 57, 58, 59, 60, 61, 63, 64 – N/N
- Release Tool/Test Probe: J-38125-560/J-35616-64B (L-BU)

Engine Control Module (ECM) C2

Pin	Wire Color	Circuit No.	Function
1	PK/BK	5290	Ignition 1 Voltage

Pin	Wire Color	Circuit No.	Function
2	GY/WH	3122	HO2S Heater Low Control – Bank 1 Sensor 2
3	PK	239	Ignition 1 Voltage
4	D-BU	473	High Speed Cooling Fan Relay Control
5	WH	121	Engine Speed Signal
6	—	—	Not Used
7	WH/BK	1164	5-Volt Reference A
8	PU	1272	Low Reference
9	OG/BK	380	A/C Refrigerant Pressure Sensor Signal
10	OG	5371	BAS Relay Coil Supply Voltage
11	TN	472	IAT Sensor Signal
12	D-GN	890	Fuel Tank Pressure Sensor Signal
13–14	—	—	Not Used
15	OG/BK	463	Requested Torque Signal
16	—	—	Not Used
17	PK/BK	5290	Ignition 1 Voltage
18	OG/WH	3223	HO2S Heater Low Control – Bank 2 Sensor 2
19	D-GN/WH	465	Fuel Pump Relay Control
20	D-GN	335	Low Speed Cooling Fan Relay Control

Pin	Wire Color	Circuit No.	Function
21	—	—	Not Used
22	BN	818	Vehicle Speed Signal
23	WH	2500	High Speed GMLAN Serial Data Bus+ (M82)
24	BN	5069	MAIN Relay Control
25	TN	452	Low Reference
26	TN	2760	Low Reference
27	L-BU	1937	Fuel Level Sensor Signal – Secondary
28	—	—	Not Used
29	PU/WH	1668	HO2S High Signal – Bank 1 Sensor 2
30	—	—	Not Used
31	YE	5	Crank Voltage
32	OG/BK	1786	Park/Neutral Signal (M82)
33	WH	1310	EVAP Canister Vent Solenoid Control
34	—	—	Not Used
35	YE	447	Starter Relay Coil Control
36	RD/WH	1440	Battery Positive Voltage
37	TN/BK	464	Delivered Torque Signal
38	—	—	Not Used

Pin	Wire Color	Circuit No.	Function
39	GY	596	5-Volt Reference A
40	BN	1271	Low Reference
41	TN	1671	HO2S Low Signal – Bank 2 Sensor 2
42	D-BU	1936	Fuel Level Sensor Signal – Primary
43	YE	492	MAF Sensor Signal
44	L-BU	1162	APP Sensor 2 Signal
45–46	—	—	Not Used
47	YE/BK	5270	Engine Drag Control Signal
48	PU	1807	Class 2 Serial Data
49	D-GN/WH	459	A/C Compressor Clutch Relay Control
50	BN/WH	419	MIL Control
51	—	—	Not Used
52	PU	5128	Auxiliary Cooling Fan Relay Control
53	BN/WH	379	CPP Switch Signal
54	—	—	Not Used
55	D-GN	2501	High Speed GMLAN Serial Data Bus– (MV1)
56	TN	1274	5-Volt Reference C
57	TN/WH	1669	HO2S Low Signal – Bank 1 Sensor 2

Pin	Wire Color	Circuit No.	Function
58	YE	343	Accessory Voltage
59	GY	1884	Cruise Control Switch Signal
60	D-BU	1161	APP Sensor Signal 1
61	PU	1670	HO2S High Signal – Bank 2 Sensor 2
62	—	—	Not Used
63	GY	847	Extended Travel Brake Switch Signal
64	YE	400	Signal High - Front/VSS High Signal/OSS High Signal