

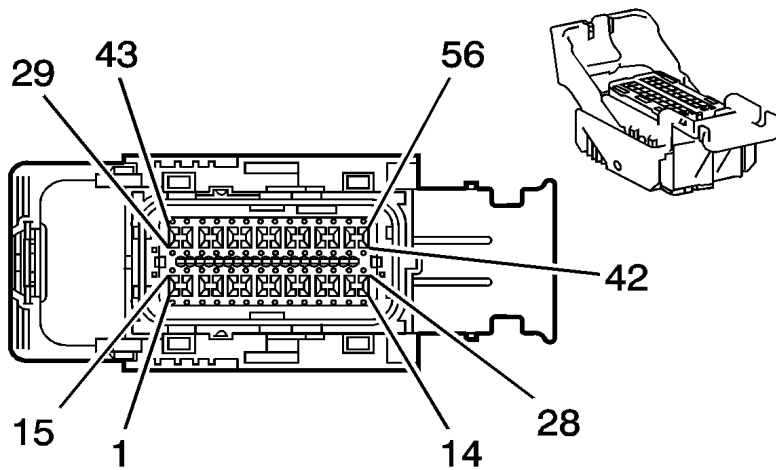
Engine Control Module Connector End Views

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

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

Connector 3: [Engine Control Module \(ECM\) C3](#)

Engine Control Module (ECM) C1



Connector Part Information

- OEM: 13510837 (Early Production) / 13574282 (Late Production)
- Service: 88988373
- Description: 56-Way F Receptacle 0.64 Series Sealed (BU) (Early Production) / 33-Way F Sealed (BU) (Late Production)

Terminal Part Information

- Pins: 1-2, 4, 9, 12-13, 16, 18, 20-22, 24-25, 30, 33-37, 39-40, 44, 47-49, 53, 55-56
- Terminal/Tray: 33467-0003/23
- Core/Insulation Crimp: H/H
- Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)

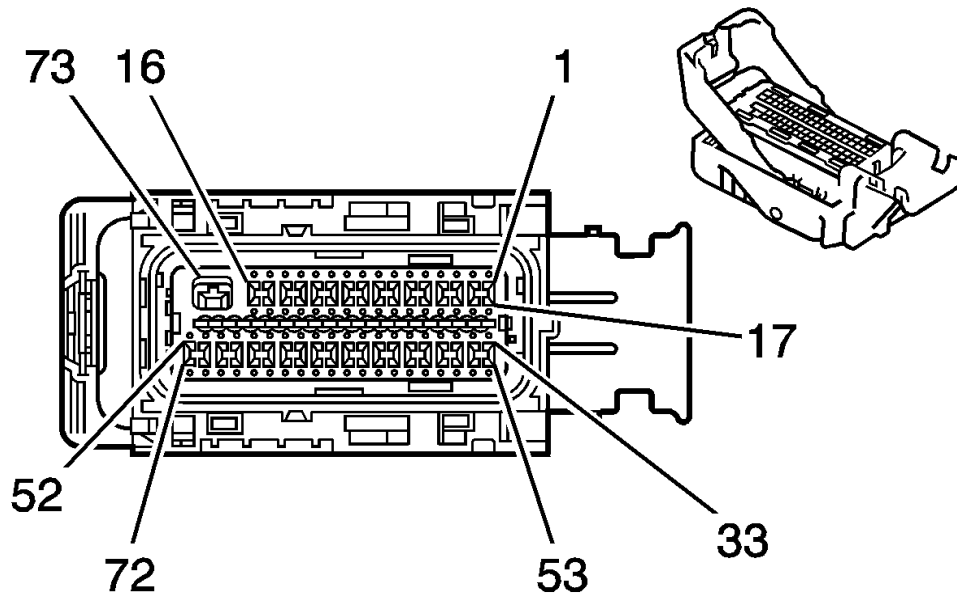
- Pins: 7, 19
- Terminal/Tray: 33467-0005/23

- Core/Insulation Crimp: J/J
- Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)

<u>Engine Control Module (ECM) C1</u>	Wire Color	Circuit No.	Function
Pin			
1	PU	806	Crank Voltage
2	PU	420	TCC Brake Switch/Cruise Control Release Signal
3	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
4	GY/BK	1694	4WD Low Signal
5-6	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
7	L-BU	1320	CHMSL Supply Voltage (K34)
8	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
9	BK	2759	Low Reference
10-11	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
12	BN/WH	419	MIL Control
13	D- GN/WH	465	Fuel Pump Relay Control
14-15	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
16	D-GN	1049	Class 2 Serial Data
17	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
18	PK	1020	Ignition 0 Voltage
19	PK	439	Ignition 1 Voltage
20	OG	240	Battery Positive Voltage
21	GY/BK	87	Cruise Control Resume/Accel Switch Signal (K34)
22	D-BU	84	Cruise Control Set/Coast Switch Signal (K34)

23	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
24	YE/BK	1827	Vehicle Speed Signal
25	WH	121	Engine Speed Signal
26-29	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
30	GY	397	Cruise Control On Switch Signal (K34)
31-32	--	--	Not Used
33	WH/BK	1164	5-Volt Reference
34	GY	2709	5-Volt Reference
35	TN	1274	5-Volt Reference
36	BN	1271	Low Reference
37	PU	1272	Low Reference
38	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
39	D-GN/WH	817	Vehicle Speed Signal
40	YE	5991	Powertrain Relay Coil Control
41-43	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
44	PU	1589	Fuel Level Sensor Signal
45	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
46	--	--	Not Used
47	D-BU	1161	APP Sensor 1 Signal
48	D-GN	890	Fuel Tank Pressure Sensor
49	L-BU	1162	App Sensor 2 Signal
50-52	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
53	D-GN/WH	459	A/C Compressor Clutch Relay Control
54	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
55	WH	1310	EVAP Canister Vent Solenoid Control

Engine Control Module (ECM) C2



Connector Part Information

- OEM: 15499466 (Early Production) / 13574286 (Late Production)
- Service: 88988931
- Description: 73-Way F Receptacle 0.64 2.8 Series Sealed (BK) (Early Production) / 48-Way F Receptacle 0.64 Series Sealed (BK) (Late Production)

Terminal Part Information

- Pins: 1-5, 11-13, 16-19, 32-35, 42, 48-49, 52-55, 62, 67-72
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: J/J
- Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)
- Pins: 6-9, 23-24, 27, 29, 39-40, 43-44, 59-60, 63-64, 66
- Terminal/Tray: 33467-0003/23
- Core/Insulation Crimp: H/H
- Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)
- Pins: 73

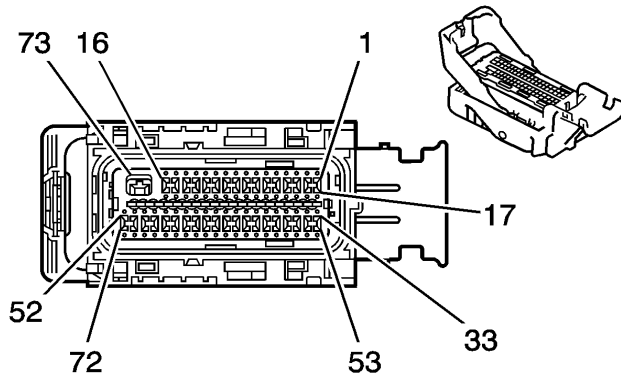
- Terminal/Tray: See Terminal Repair Kit
- Core/Insulation Crimp: See Terminal Repair Kit
- Release Tool/Test Probe: See Terminal Repair Kit

<u>Engine Control Module (ECM) C2</u>	Wire Color	Circuit No.	Function
Pin			
1	PU	2121	IC 1 Control
2	TN	1664	HO2S Low Signal - Bank 1 Sensor 1
3	PU/WH	1665	HO2S High Signal - Bank 1 Sensor 1
4	PU/WH	1668	HO2S High Signal - Bank 1 Sensor 2
5	TN/WH	1669	HO2S Low Signal - Bank 1 Sensor 2
6	L-BU	1876	KS 2 Signal
7	GY	2303	KS 2 Signal
8	D-BU	496	KS 1 Signal
9	GY	1716	KS 1 Signal
10	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
11	YE	581	TAC Motor Control 1
12	BN	582	TAC Motor Control 2
13	PK	839	Ignition 1 Voltage
14-15	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
16	PK/BK	1746	Fuel Injector 3 Control
17	PU/WH	2128	IC 8 Control
18	D-GN/WH	2124	IC 4 Control
19	BN/WH	2130	Low Reference
20-22	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
23	BN/WH	633	Low Reference (Early Production)
	PK/BK	632	Low Reference (Late Production)

24	BK	2755	Low Reference
25-26	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
27	D-BU/WH	1869	Low Reference (Early Production)
	YE/BK	1868	Low Reference (Late Production)
28	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
29	BK/WH	1704	Low Reference
30-31	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
32	L-GN/BK	1745	Fuel Injector 2 Control
33	RD	2127	IC 7 Control
34	D-GN	2125	IC 5 Control
35	BN	2129	Low Reference
36-38	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
39	RD	631	12-Volt Reference
40	GY	2705	5-Volt Reference
41	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
42	BK	2760	Low Reference
43	L-GN	1867	12-Volt Reference
44	L-BU/BK	1688	5-Volt Reference
45-47	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
48	D-BU/WH	878	Fuel Injector 8 Control
49	BK/WH	845	Fuel Injector 5 Control
50-51	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
52	YE/BK	846	Fuel Injector 6 Control
53	RD/WH	2122	IC 2 Control
54	L-BU/WH	2126	IC 6 Control
55	L-BU	2123	IC 3 Control
56-58	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)

59	PK/BK	632	CMP Sensor Signal (Early Production)
	BN/WH	633	CMP Sensor Signal (Late Production)
60	TN/WH	332	Oil Pressure Sensor Signal
61	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
62	TN	472	IAT Sensor Signal
63	YE/BK	1868	CKP Sensor Signal (Early Production)
	D-BU/WH	1869	CKP Sensor Signal (Late Production)
64	D-GN	485	TP Sensor 1 Signal
65	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
66	PU	486	TP Sensor 2 Signal
67	YE	492	MAF Sensor Signal
68	BK/WH	3113	HO2S Heater Low Control - Bank 1 Sensor 1
69	BN	2391	HO2S Heater Low Control - Bank 1 Sensor 2
70	L-BU/BK	844	Fuel Injector 4 Control
71	RD/BK	877	Fuel Injector 7 Control
72	BK	1744	Fuel Injector 1 Control
73	BK	450	Ground

Engine Control Module (ECM) C3



Connector Part Information

- OEM: 15497996 (Early Production) / 13574284 (Late Production)
- Service: 88988372
- Description: 73-Way F Receptacle 0.64 2.8 Series Sealed (GY) (Early Production) / 32-Way F Sealed (GY) (Late Production)

Terminal Part Information

- Pins: 3-6, 15, 48, 50
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: J/J
- Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)
- Pins: 7, 12, 17, 21, 23, 28-29, 33, 35, 37, 39, 44, 47, 49, 53, 55, 57, 59, 64, 66
- Terminal/Tray: 33467-0003/23
- Core/Insulation Crimp: H/H
- Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)

<u>Engine Control Module (ECM) C3</u>	Wire Color	Circuit No.	Function
Pin			
1-2	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
3	TN	1667	HO2S Low Signal - Bank 2 Sensor 1
4	PU	1666	HO2S High Signal - Bank 2 Sensor

			1
5	PU	1670	HO2S High Signal - Bank 2 Sensor 2
6	TN	1671	HO2S Low Signal - Bank 2 Sensor 2
7	PU	5428	Generator Regulator Control
8-9	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
10-11	--	--	Not Used
12	TN/BK	464	Delivered Torque Signal
13-14	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
15	L-GN	3212	HO2S Heater Low Control - Bank 2 Sensor 1
16	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
17	OG/BK	463	Requested Torque Signal
18-20	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
21	BK	2751	Low Reference
22	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
23	OG/BK	469	Low Reference
24-27	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
28	GY	2365	Low Reference
29	GY	23	Generator Field Duty Cycle Signal
30-32	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
33	TN	2501	High Speed GMLAN Serial Data Bus -
34	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
35	BK	2761	Low Reference
36	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)

37	GY	2700	5-Volt Reference
38	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
39	GY	2704	5-Volt Reference
40-43	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
44	GY	597	5-Volt Reference
45-46	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
47	OG/BK	1786	PNP Switch Signal
48	D-GN/WH	428	EVAP Canister Purge Solenoid Control
49	WH/BK	2366	Cooling Fan Clutch Control
50	RD/WH	3223	HO2S Heater Low Control - Bank 2 Sensor 2
51-52	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
53	TN/WH	2500	High Speed GMLAN Serial Data Bus +
54	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
55	YE	410	ECT Sensor Signal
56	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
57	RD/BK	380	A/C Refrigerant Pressure Sensor
58	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
59	L-GN	432	MAP Sensor Signal
60-63	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
64	D-BU	2364	Cooling Fan Speed Signal
65	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
66	YE	400	Signal High - Front
67	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)

68-69	--	--	Not Used
70-72	--	--	Not Used (Early Production)
	--	--	Not Available (Late Production)
73	--	--	Not Used
