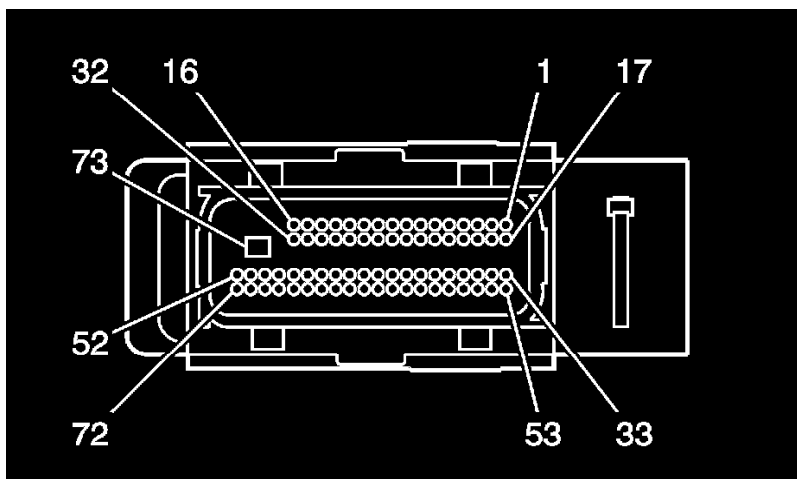


Vehicle: Connector Views Engine Control Module

Component Connector End Views

Engine Control Module (ECM) X1 (Gas)



Connector Part Information

OEM: 15499466

Service: 88988931

Description: 73-Way F Receptacle 0.64 2.8 Series Sealed (BK)

Terminal Part Information

Pins: 1, 13, 24, 30, 32, 50, 57

Pins: 5-6, 8, 18, 21, 25, 27, 39, 41-42, 47, 49, 54, 65-67 (4.3L)

Pins: 12, 16, 23, 29, 31, 33-34, 36, 51, 56, 59, 63, 68, 70-71 (4.8L/5.3 L/6.0L/6.2L)

Terminal/Tray: 33467-0003/23

Core/Insulation Crimp: H/H

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

Pins: 2-3, 9-10, 19-20, 37, 70, 72

Pins: 15-17, 26, 35, 43-44, 55, 58 (4.3L)

Pins: 11, 18, 27-28, 38, 41, 47, 49, 52, 61, 64-65, 69, 71 (4.8L/5.3 L/6.0L/6.2L)

Terminal/Tray: 33467-0005/23

Core/Insulation Crimp: J/J

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

Pins: 73 (4.3L)

Terminal/Tray: See Terminal Repair Kit

Core/Insulation Crimp: See Terminal Repair Kit

Release Tool/Test Probe: See Terminal Repair Kit

Pins: 73 (4.8L/5.3 L/6.0L/6.2L)

Terminal/Tray: 7116-4152-02/9

Core/Insulation Crimp: A/5

Release Tool/Test Probe: 12094430/J-35616-35 (VT)

Engine Control Module (ECM) X1 (Gas)			
Pin	Wire	Circuit	Function
1	0.35 D-BU	1161	APP Sensor 1 Signal (4.3L)
	0.35 OG/BK	1786	Park/Neutral Signal (4.8L/5.3L/6.0L/6.2L)
2	0.5 PU	1670	HO2S High Signal Bank 2 Sensor 2 (4.3L)
	0.5 GY/BK	1694	4WD Low Signal (4.8L/5.3L/6.0L/6.2L+NQG/NP2)
3	0.5 D-BU	5985	Accessory Wakeup Serial Data (4.3L)
	0.5 TN/WH	1695	Axle Switch Signal (4.8L/5.3L/6.0L/6.2L +NQG/NP2)
4	-	-	Not Used
5	0.35 D-GN	335	Low Speed Cooling Fan Relay Control (4.3L)
6	0.35 D-GN/WH	465	Fuel Pump Relay Control - Primary (4.3L)
7	-	-	Not Used
8	0.35 TN	514	Low Reference (4.3L +CJ2/C67)
9	0.5 TN/WH	1669	HO2S Low Signal Bank 1 Sensor 2 (4.3L)
	0.5 L-BU/WH	6311	Brake Switch Signal (4.8L/5.3L/6.0L/6.2L)
10	0.5 TN	1671	HO2S Low Signal Bank 2 Sensor 2 (4.3L)
	0.5 PU/WH	1668	HO2S High Signal Bank 1 Sensor 2 (4.8L/5.3L/6.0L/6.2L)
11	0.5 TN/WH	1669	HO2S Low Signal Bank 1 Sensor 2 (4.8L/5.3L/6.0L/6.2L)
12	0.35 OG/BK	380	A/C Refrigerant Pressure Sensor Signal (4.8L/5.3L/6.0L/6.2L +CJ2/C67)
13	0.35 YE	5991	Powertrain Relay Coil Control (4.3L)
	0.35 TN	5514	Low Reference (4.8L/5.3L/6.0L/6.2L +CJ2/C67)
14	-	-	Not Used
15	0.5 GY/WH	3122	HO2S Heater Low Control Bank 1 Sensor 2 (4.3L)
16	0.5 OG/WH	3223	HO2S Heater Low Control bank 1 Sensor 2 (4.3L)
	0.35 PU	1589	Fuel Level Sensor Signal - Primary (4.8L/5.3L/6.0L/6.2L)
17	0.5 PU/WH	1668	Ho2S High Signal Bank 1 Sensor 2 (4.3L)
	0.35 D-BU/WH	473	High Speed Cooling Fan Relay Control (4.8L/5.3L/6.0L/6.2L -LY6)
18	0.35 L-BU	1162	APP Sensor 2 Signal (4.3L)
	0.5 D-BU	5985	Accessory Wakeup Serial Data (4.8L/5.3L/6.0L/6.2L)
19	0.5 PK	439	Ignition 1 Voltage
20	0.5 RD/WH	440	Battery Positive Voltage
21	0.35 PU	1272	Low Reference (4.3L)
22	-	-	Not Used
23	0.35 PU	1272	Low Reference (4.8L/5.3L/6.0L/6.2L)
24	0.35 TN/BK	6049	Low Reference (4.3L)
	0.35 D-GN	890	Fuel Tank Pressure Sensor Signal (4.8L/5.3L/6.0L/6.2L)
25	0.35 OG/BK	380	A/C Refrigerant Pressure Sensor Signal (4.3L + CJ2/C67)
26	0.5 GY/BK	1694	4WD Low Signal (4.3L +NQG/NP2)
27	0.35 BN/WH	419	MIL Control (4.3L)
	0.5 TN/BK	2501	High Speed GMLAN Serial Data Bus- (4.8L/5.3L/6.0L/6.2L)
28	0.5 TN/BK	2500	High Speed GMLAN Serial Data Bus+ (4.8L/5.3L/6.0L/6.2L)
29	0.35 D-BU	1161	APP Sensor 1 Signal (4.8L/5.3L/6.0L/6.2L)
30	0.35 D-GN/WH	459	A/C Compressor Clutch Relay Control (4.3L +C67/Cj2)

Engine Control Module (ECM) X1 (Gas) (Pin 1 To 30)

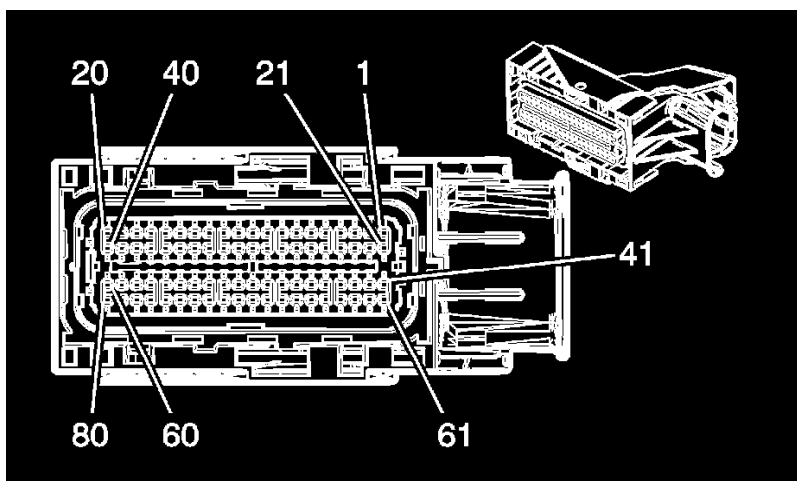
Engine Control Module (ECM) X1 (Gas)			
Pin	Wire	Circuit	Function
	0.35 BN	1271	Low Reference (4.8L/5.3L/6.0L/6.2L)
31	0.35 TN/BK	6049	Low Reference (4.8L/5.3L/6.0L/6.2L)
32	0.35 YE/BK	625	Starter Relay Coil Control (4.3L)
	0.35 L-BU	1162	APP Sensor 2 Signal (4.8L/5.3L/6.0L/6.2L)
33	0.35 GY	2709	5-Volt Reference 1 (4.8L/5.3L/6.0L/6.2L)
34	0.35 GY/WH	2700	5-Volt Reference 1 (4.8L/5.3L/6.0L/6.2L)
35	0.5 TN	2760	Low Reference (4.8L/5.3L/6.0L/6.2L)
36	0.35 TN	1274	5-Volt Reference 1 (4.8L/5.3L/6.0L/6.2L)
37	0.5 YE	492	MAF Sensor Signal (4.3L)
	0.5 TN/BK	472	IAT Sensor Signal (4.8L/5.3L/6.0L/6.2L)
38	0.5 TN	2760	Low Reference (4.8L/5.3L/6.0L/6.2L)
39	0.35 PU	1589	Fuel Level Sensor Signal - Primary (4.3L)
40	-	-	Not Used
41	0.35 BN	1271	Low Reference (4.3L)
	0.5 YE	492	MAF Sensor Signal (4.8L/5.3L/6.0L/6.2L)
42	0.35 D-GN	890	Fuel Tank Pressure Sensor Signal (4.3L)
43	0.5 TN/BK	2500	High Speed GMLAN Serial Data Bus+ (4.3L)
44	0.5 TN	2501	High Speed GMLAN Serial Data Bus- (4.3L)
45-46	-	-	Not Used
47	0.35 WH/BK	1164	5-Volt Reference 2
	0.5 PK/BK	1339	Ignition 1 Voltage (4.8L/5.3L/6.0L/6.2L)
48	-	-	Not Used
49	0.35 D-BU	473	High Speed Cooling Fan Relay Control (4.3L)
	0.5 TN	1671	JO2S Low Signal Bank 2 Sensor 2 (4.8L/5.3L/6.0L/6.2L)
50	0.35 YE/BK	1827	Vehicle Speed Signal (4.3L)
	0.35 D-GN/WH	465	Fuel Pump Relay Control - Primary (LMG/LY6/LC9)
	0.35 D-GN/WH	465	Fuel System Control Module Signal Fuel Pump Relay Control - Primary (4.3L/5.3L/6.0L/6.2L - LMG/LY6/LC9)
51	0.35 TN	1465	Fuel Pump Relay Control - Secondary (LY6)
52	0.5 YE/BK	625	Starter Enable Relay Control (4.8L/5.3L/6.0L/6.2L)
53	-	-	Not Used
54	0.35 OG/BK	6399	Replicated TOS Signal (4.3L)
55	0.5 L-BU/WH	6311	TCC Brake Signal (4.3L)
56	0.35 WH/BK	1164	5-Volt Reference 2
57	0.35 OG/BK	1786	Park/Neutral Signal (4.3L)
	0.35 YE/BK	1827	Vehicle Speed Signal (4.8L/5.3L/6.0L/6.2L)
58	0.5 TN	472	IAT Sensor Signal (4.3L)
	0.35 D-GN	335	Low Speed Cooling Fan Relay Control (4.8L/5.3L/6.0L/6.2L -LY6)
59	0.35 YE	5991	Powertrain Relay Coil Control (4.8L/5.3L/6.0L/6.2L)
60	-	-	Not Used
61	0.5 WH	1310	EVAP Canister Vent Solenoid Control (4.8L/5.3L/6.0L/6.2L)
62	-	-	Not Used
63	0.35 D-GN/WH	459	A/C Compressor Clutch Relay Control (4.8L/5.3L/6.0L/6.2L +CJ2/C67)
64	0.5 OG/WH	3223	HO2S Heater Low Control Bank 2 Sensor 2 (4.8L/5.3L/6.0L/6.2L)

Engine Control Module (ECM) X1 (Gas) (Pin 31 To 64)

Engine Control Module (ECM) X1 (Gas)			
Pin	Wire	Circuit	Function
65	0.35 GY	2700	5-Volt Reference 1 (4.3L)
	0.5 GY/WH	3122	HO2S Heater Low Control Bank 2 Sensor 1 (4.8L/5.3L/6.0L/6.2L)
66	0.35 GY	2709	5-Volt Reference 1 (4.3L)
67	0.35 TN	1274	5-Volt Reference 1 (4.3L)
68	0.35 BN/WH	419	MIL Control (4.8L/5.3L/6.0L/6.2L)
69	0.5 PU	1970	HO2S High Signal Bank 2 Sensor 2 (4.8L/5.3L/6.0L/6.2L)
70	0.5 WH	1310	EVAP Canister Vent Solenoid Control (4.3L)
	0.35 L-BU	1937	Secondary Fuel Level Sensor Signal (LY6)
71	0.35 OG/BK	6399	Replicated TOS Signal (4.8L/5.3L/6.0L/6.2L -31 Series -NQF/NQG/NP2)
	0.5 PU/WH	821	VSS High Signal (6.0L +20/30 Series +NQF/NQG/NP2)
72	0.5 TN/WH	1695	Axle Switch Signal (4.3L +NQG/NP2)
	0.5 L-GN/BK	822	VSS Low Signal (6.0L +20/30 Series +NQF/NQG/NP2)
73	0.5 PK	1339	Ignition 1 Voltage (4.3L)
	3 BK/WH	451	Ground (4.8L/5.3L/6.0L/6.2L)

Engine Control Module (ECM) X1 (Gas) (Pin 65 To 73)

Engine Control Module (ECM) X2 (4.8L/5.3L/6.0L/6.2L)



Connector Part Information

OEM: 13511426
 Service: 19115670
 Description: 80-Way F Receptacle 0.64 2.8 Sealed (GY)

Terminal Part Information

Pins: 2-3, 16, 34, 35, 41, 43, 44, 50, 52-53, 58, 63-66, 68-69
 Terminal/Tray: 33467-0003/23
 Core/Insulation Crimp: H/H
 Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)
 Pins: 5-6, 8, 12-13, 17-22, 32-33, 37-40, 56-57, 59-61, 70-79, 26-27, 29-30
 Terminal/Tray: 33467-0005/23
 Core/Insulation Crimp: Pins 5-6, 8, 12-13, 17-22, 32, 33, 37-40, 56-57, 59-61, 70-79 - J/J
 Core/Insulation Crimp: Pins 26-27, 29-30 - K/K
 Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)

Engine Control Module (ECM) X2 (4.8L/5.3L/6.0L/6.2L)			
Pin	Wire	Circuit	Function
1	-	-	Not Used
2	0.35 PU/WH	6270	5-Volt Reference 2
3	0.35 GY	2701	5-Volt Reference 2
4	-	-	Not Used
5	0.5 BN	582	TAC Motor Control - 2
6	0.5 YE	581	TAC Motor Control - 1
7	-	-	Not Used
8	0.5 D-GN/WH	428	EVAP Canister Purge Solenoid Control
9	0.5 GY	5493	Cylinder Shutoff Solenoid Control (3) (-4.8L)
10	0.5 D-BU	5491	Cylinder Shutoff Solenoid Control (1) (-4.8L)
11	0.5 OG	5494	Cylinder Shutoff Solenoid Control (4) (-4.8L)
12	0.5 GY/WH	3113	HO2S Heater Low Control - Bank 1 Sensor 1
13	0.5 L-GN	3212	HO2S Heater Low Control - Bank 2 Sensor 1
14	0.5 L-GN/BK	5492	Cylinder Shutoff Solenoid Control (2) (-4.8L)
15	-	-	Not Used
16	0.35 PU	5284	Camshaft Actuator Solenoid Control (6.0L/6.2L)
17	0.5 D-BU/WH	878	Fuel Injector 8 Control
18	0.5 TN/WH	845	Fuel Injector 5 Control
19	0.5 YE/BK	846	Fuel Injector 6 Control
20	0.5 TN	1744	Fuel Injector 1 Control
21	0.5 YE	410	ECT Sensor Signal
22	0.5 TN	2761	Low Reference
23-25	-	-	Not Used
26	0.8 D-BU	496	KS 1 Signal
27	0.8 GY	1716	KS 1 Signal
28	-	-	Not Used
29	0.8 L-BU	1876	KS 2 Signal
30	0.8 GY	2303	KS 2 Signal
31	-	-	Not Used
32	0.5 GY	23	Generator Field Duty Cycle Signal
33	0.5 BN	1174	Oil Level Switch Signal
34	0.35 BK	2755	Low Reference
35	0.35 TN	2752	Low Reference
36	-	-	Not Used
37	0.5 L-GN/BK	1745	Fuel Injector 2 Control
38	0.5 PK/BK	1746	Fuel Injector 3 Control
39	0.5 L-BU/BK	844	Fuel Injector 4 Control
40	0.5 OG/BK	877	Fuel Injector 7 Control
41	0.35 GY	2705	5-Volt Reference 1
42	-	-	Not Used
43	0.35 GY	2704	5-Volt Reference 1
44	0.35 D-BU	6259	5-Volt Reference 1
45-49	-	-	Not Used

Engine Control Module (ECM) X2 (4.8L/5.3L/6.0L/6.2L) (Pin 1 To 49)

Engine Control Module (ECM) X2 (4.8L/5.3L/6.0L/6.2L)			
Pin	Wire	Circuit	Function
50	0.35 TN/WH	331	Oil Pressure Sensor Signal
51	-	-	Not Used
52	0.35 TN	2199	Low Reference (6.0L/6.2L)
53	0.35 OG/BK	469	Low Reference
54-55	-	-	Not Used
56	0.5 TN	1664	HO2S Low Signal - Bank 1 Sensor 1
57	0.5 PU/WH	1665	HO2S High Signal - Bank 1 Sensor 1
58	0.35 L-GN	432	MAP Sensor Signal
59	0.5 PU	1666	HO2S High Signal - Bank 2 Sensor 1
60	0.5 TN	1667	HO2S Low Signal - Bank 2 Sensor 1
61	0.5 BN	25	Charge Indicator Signal
62	-	-	Not Used
63	0.35 PU	486	TP Sensor 2 Signal
64	0.35 D-BU/WH	6265	CMP Sensor Signal
65	0.35 D-GN	485	TP Sensor 1 Signal
66	0.35 BN	6266	Low Reference
67	-	-	Not Used
68	0.35 WH/BK	6271	CKP Sensor Signal
69	0.35 GY/BK	6272	Low Reference
70	0.5 PU	2121	IC 1 Control
71	0.5 PU/WH	2128	IC 8 Control
72	0.5 OG	2127	IC 7 Control
73	0.5 OG/WH	2122	IC 2 Control
74	0.5 L-BU/WH	2126	IC 6 Control
75	0.5 D-GN	2125	IC 5 Control
76	0.5 D-GN/WH	2124	IC 4 Control
77	0.5 L-BU	2123	IC 3 Control
78	0.5 BN	2129	Low Reference
79	0.5 BN/WH	2130	Low Reference
80	-	-	Not Used

Engine Control Module (ECM) X2 (4.8L/5.3L/6.0L/6.2L) (Pin 50 To 80)