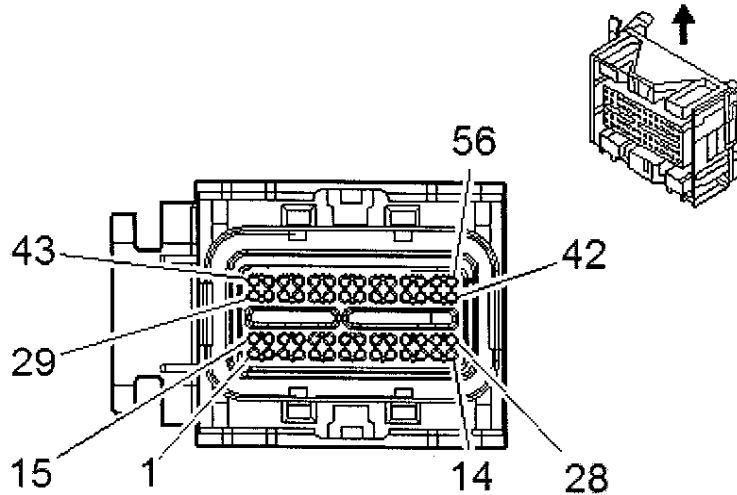


**K20 Engine Control Module X1 (L20, L96, or LC8)**



**Connector Part Information**

- Harness Type: Engine
- OEM Connector: 13510837
- Service Connector: 88988373
- Description: 56-Way F 0.64 Series, Sealed (BU with BU Terminal Position Assurance)

**Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

**K20 Engine Control Module X1 (L20, L96, or LC8)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	L-BU	1162		I	—

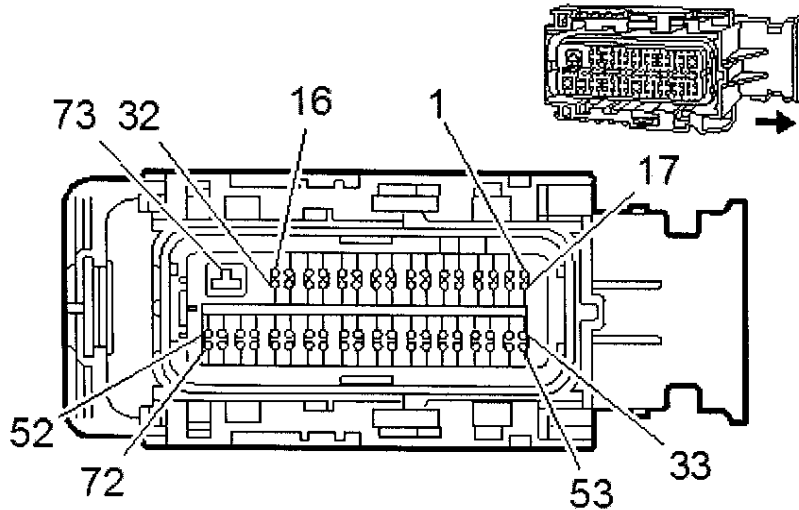
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Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
				Accelerator Pedal Position Signal (2)		
3	0.8	YE	492	Mass Air Flow Sensor Signal	I	—
4 - 7	—	—	—	Not Occupied	—	—
8	0.8	L-BU	7564	Humidity Sensor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	D-BU	1161	Accelerator Pedal Position Signal (1)	I	—
11	0.8	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
12	0.8	OG/BK	380	A/C Refrigerant Pressure Sensor Signal	I	—
13	0.8	TN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.5	TN	1274	Accelerator Pedal Position 5 Volt Reference (2)	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	D-BU	5985	Accessory Wakeup Serial Data	I	—
19	0.5	PK	439	Run/Crank Ignition 1 Voltage	I	—
20	0.5	RD/WH	440	Battery Positive Voltage	I	—
21 - 23	—	—	—	Not Occupied	—	—
24	0.5	WH/BK	1164	Accelerator Pedal Position 5 Volt Reference (1)	I	—
25	0.8	GY/WH	3201	Throttle Inlet Absolute Pressure Sensor 5 Volt Reference	I	—
26	0.8	GY	2700	A/C Pressure Sensor 5 Volt Reference	I	—
27	0.5	YE/BK	625	Starter Enable Relay Control	I	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.5	D-GN/WH	465	Fuel Pump Primary Relay Control	I	—
29	0.5	TN/BK	2500	High Speed GMLAN Serial Data (+) (1)	I	—
30	0.5	PU	1272	Accelerator Pedal Position Low Reference (2)	I	—
31	0.8	TN	2760	Intake Air Temperature Sensor Low Reference	I	—
32	0.8	L-BU/BK	6813	Coolant Temperature Sensor 2 Low Reference	I	—
33	0.5	L-BU/WH	6311	Cruise/ETC/TCC Brake Signal	I	—
34	0.5	OG/BK	1786	Transmission Park/Neutral Signal (1)	I	—
35 - 37	—	—	—	Not Occupied	—	—
38	0.5	BN	1271	Accelerator Pedal Position Low Reference (1)	I	—
39	—	—	—	Not Occupied	—	—
40	0.5	YE	5991	Powertrain Relay Coil Control	I	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	TN	2501	High Speed GMLAN Serial Data (-) (1)	I	—
44	—	—	—	Not Occupied	—	—
45	0.8	TN/WH	472	Intake Air Temperature Sensor Signal	I	—
46	0.8	L-GN	2032	Coolant Temperature Sensor Signal	I	—
47	0.5	OG	225	Generator Turn On Signal	I	—
48 - 49	—	—	—	Not Occupied	—	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
50	0.5 0.5	YE/BK D- GN/WH	1827 817	Vehicle Speed Signal	I	— —
51	—	—	—	Not Occupied	—	—
52	0.5	BN/WH	419	Check Engine Indicator Control	I	—
53	0.5	D- GN/WH	459	A/C Compressor Clutch Relay Control	I	—
54 - 55	—	—	—	Not Occupied	—	—
56	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—

**K20 Engine Control Module X2 (L20, L96, or LC8)**



**Connector Part Information**

- Harness Type: Engine
- OEM Connector: 15499466
- Service Connector: 88988931
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

**Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-35 (VT)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

**K20 Engine Control Module X2 (L20, L96, or LC8)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option

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Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	PU	2121	Ignition Control (1)	I	—
2	0.5	TN	1744	Fuel Injector Control (1)	I	—
3	0.5	D- BU/WH	878	Fuel Injector Control (8)	I	—
4	0.5	OG/BK	877	Fuel Injector Control (7)	I	—
5	0.5	L- GN/BK	1745	Fuel Injector Control (2)	I	—
6	0.5	YE/BK	846	Fuel Injector Control (6)	I	—
7	0.5	TN/WH	845	Fuel Injector Control (5)	I	—
8	0.5	L-BU/BK	844	Fuel Injector Control (4)	I	—
9	0.5	PK/BK	1746	Fuel Injector Control (3)	I	—
10	—	—	—	Not Occupied	—	—
11	0.8	PU	5284	Camshaft Phaser Intake Solenoid (1)	I	—
12 - 14	—	—	—	Not Occupied	—	—
15	0.5	YE	581	Throttle Actuator Control Open	I	—
16	0.5	BN	582	Throttle Actuator Control Close	I	—
17	0.8	PU/WH	2128	Ignition Control (8)	I	—
18	0.8	D- GN/WH	2124	Ignition Control (4)	I	—
19	0.8	BN/WH	2130	Ignition Control Low Reference Bank 2	I	—
20	0.8	GY/BK	6272	Crankshaft 60X Sensor Low Reference	I	—
21 - 23	—	—	—	Not Occupied	—	—
24	0.8	BN	6266	Camshaft CAM W Ground	I	—
25	0.8	BK	2755	Oil Pressure Sensor Low Reference	I	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26 - 27	—	—	—	Not Occupied	—	—
28	0.8	PK	1339	Run/Crank Ignition 1 Voltage	I	—
29	0.8	TN	2199	Camshaft Phaser Solenoid Low Reference	I	—
30 - 32	—	—	—	Not Occupied	—	—
33	0.8	OG	2127	Ignition Control (7)	I	—
34	0.8	D-GN	2125	Ignition Control (5)	I	—
35	0.8	BN	2129	Ignition Control Low Reference Bank 1	I	—
36	0.8	PU/WH	6270	Crankshaft 60X Sensor 5 Volt Reference	I	—
37 - 39	—	—	—	Not Occupied	—	—
40	0.8	D-BU	6259	Camshaft CAM W Control	I	—
41	0.8	GY	2705	Oil Pressure Sensor 5 Volt Reference	I	—
42	—	—	—	Not Occupied	—	—
43	0.5	GY	2701	Throttle Position Sensor 5 Volt Reference	I	—
44	0.5	TN	2752	Throttle Position Sensor Low Reference	I	—
45	0.5	D-GN	485	Throttle Position Sensor Signal (1)	I	—
46	—	—	—	Not Occupied	—	—
47	0.8	TN	1664	Heated Oxygen Sensor Low Signal Bank 1 Sensor (1)	I	—
48	0.8	TN	1667	Heated Oxygen Sensor Low Signal Bank 2 Sensor (1)	I	—
49	0.8	GY	1716	Knock Sensor Low Reference (1)	I	—
50	0.8	GY	2303	Knock Sensor Low Reference (2)	I	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
51	—	—	—	Not Occupied	—	—
52	0.8	L-GN	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor (1)	I	—
53	0.8	OG/WH	2122	Ignition Control (2)	I	—
54	0.8	L-BU/WH	2126	Ignition Control (6)	I	—
55	0.8	L-BU	2123	Ignition Control (3)	I	—
56	0.8	WH/BK	6271	Crankshaft 60X Sensor Signal	I	—
57 - 59	—	—	—	Not Occupied	—	—
60	0.8	D-BU/WH	6265	Camshaft CAM W Signal	I	—
61	0.8	TN/WH	331	Oil Pressure Sensor Signal	I	—
62 - 66	—	—	—	Not Occupied	—	—
67	0.8	PU/WH	1665	Heated Oxygen Sensor High Signal Bank 1 Sensor (1)	I	—
68	0.8	PU	1666	Heated Oxygen Sensor High Signal Bank 2 Sensor (1)	I	—
69	0.8	D-BU	496	Knock Sensor Signal (1)	I	—
70	0.8	L-BU	1876	Knock Sensor Signal (2)	I	—
71	—	—	—	Not Occupied	—	—
72	0.8	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor (1)	I	—
73	3	BK/WH	1551	Signal Ground	II	—