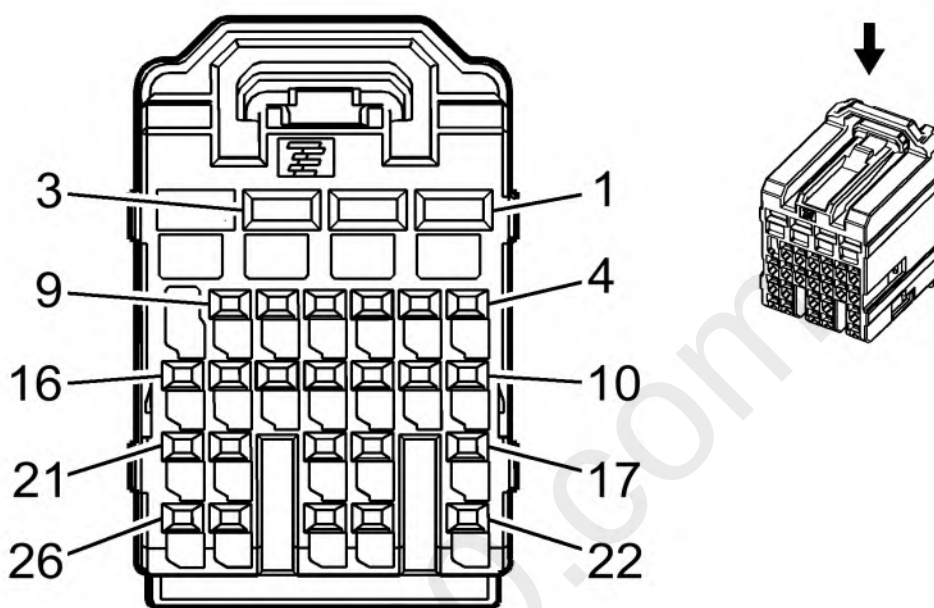


2018 ELECTRICAL**Wiring Systems And Power Management - Component Locator - Component Connector
End Views (K9 - K29F) - Equinox & Terrain****COMPONENT CONNECTOR END VIEWS****K9 BODY CONTROL MODULE X7****Connector Part Information**

- Harness Type: Body
- OEM Connector: 13576036
- Service Connector: 13576036
- Description: 26-Way F 0.64, 2.8 Series (GY)

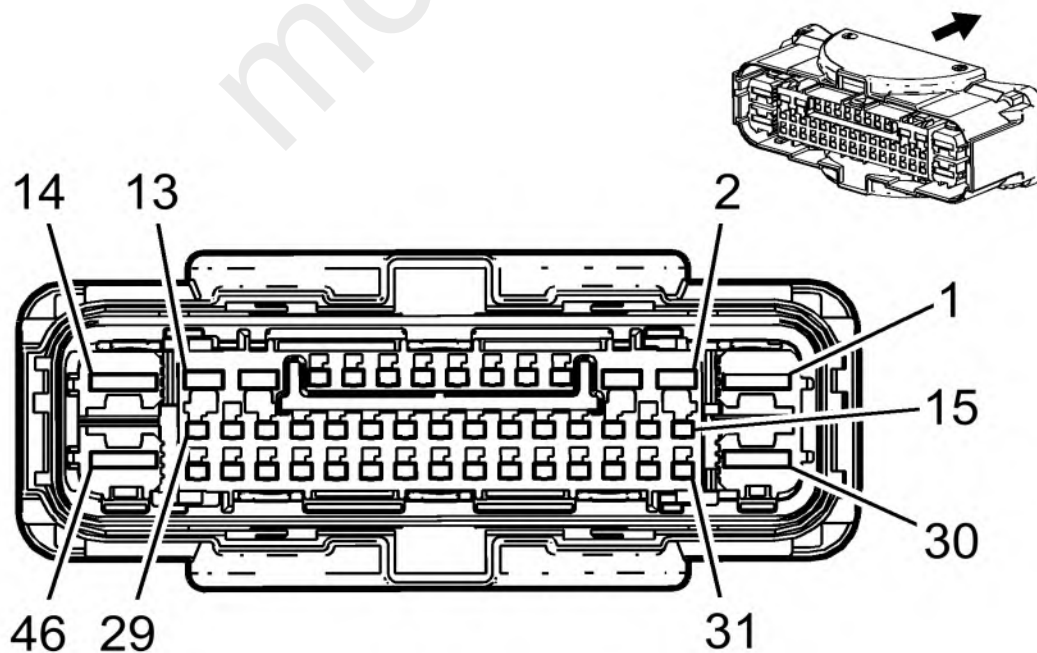
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13582297	J-35616-64B (LT BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available
II	19366999	J-35616-35 (VT)	J-38125-553	8100-4443	Sumitomo 22	E	A

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	II	-
2	0.5	GN/WH	1324	Backup Lamp Control	II	-
3	0.5	WH/BN	6815	Inadvertent Power Control	II	-
4	-	-	-	Not Occupied	-	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.35	BU/WH	1334	Left Rear Turn Signal Lamp Control	I	-
6	0.13	VT/BK	7553	Park Lock Solenoid Control	I	-
7	0.35	GN/GY	737	Rear Compartment Lid Lamp Control	I	-
8	0.35	BU/VT	1335	Right Rear Turn Signal Lamp Control	I	-
9	0.35	YE	6817	LED Backlight Dimming Control	I	-
10 - 12	-	-	-	Not Occupied	-	-
13	0.13	WH/VT	5905	Key Capture/Column Lock Shift Position Signal	I	-
14 - 15	-	-	-	Not Occupied	-	-
16	0.13	VT/BU	3263	Logistic Mode Relay Open Control	I	-KL9
17	0.5	WH/BU	3691	Trailer Brake Apply Signal	I	V92
18	-	-	-	Not Occupied	-	-
19	0.13	GY	156	Courtesy Lamp Switch Signal	I	-
20	-	-	-	Not Occupied	-	-
21	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	I	-
22	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	-
23	0.35	GN	5060	Low Speed GMLAN Serial Data	I	-
24	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	I	-
25 - 26	-	-	-	Not Occupied	-	-

K17 ELECTRONIC BRAKE CONTROL MODULE



Connector Part Information

- Harness Type: Body
- OEM Connector: 13582922

- Service Connector: 19333357
- Description: 46-Way F 1.2, 2.8, 5.8 Series, Sealed (BK)

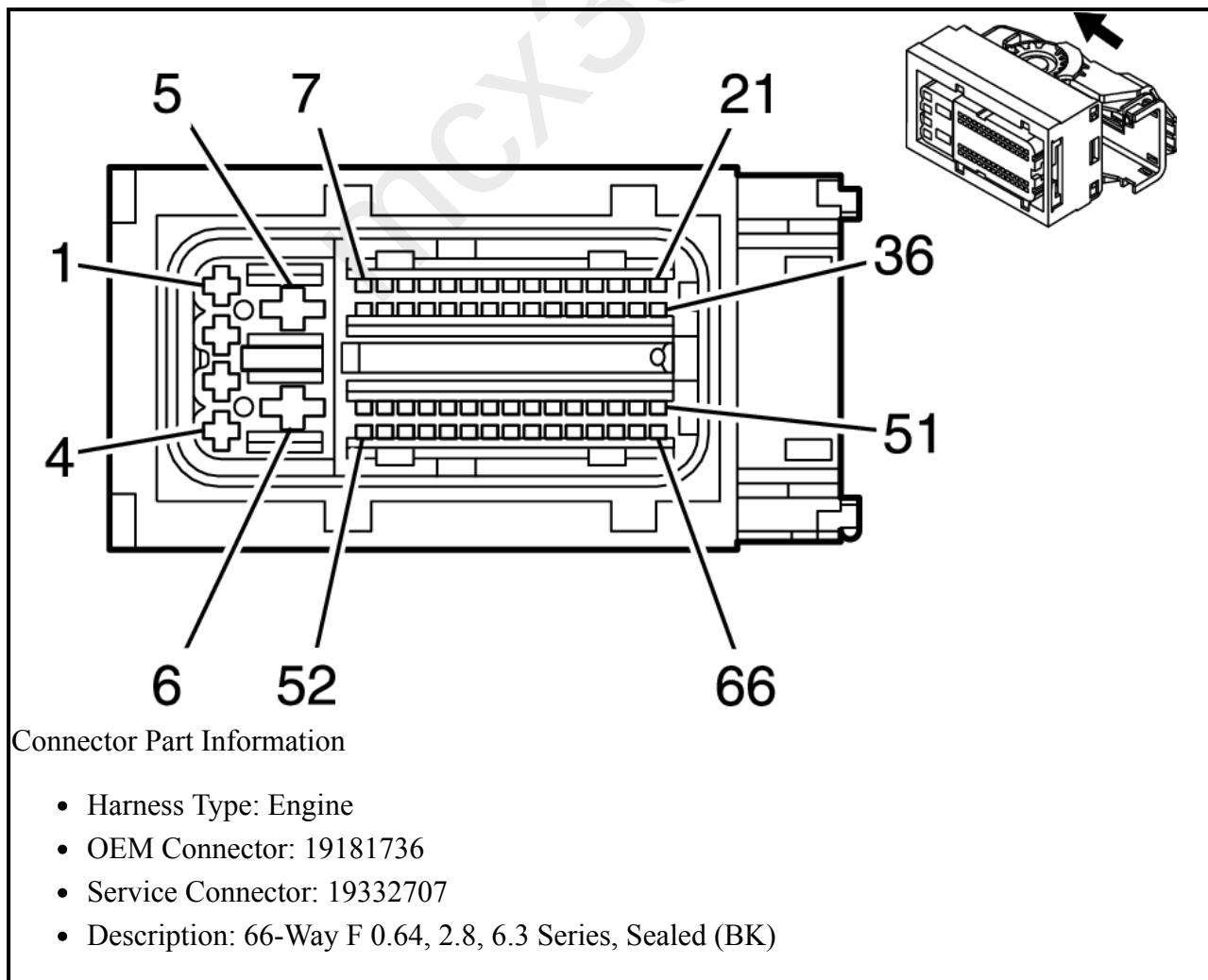
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300444	J-35616-16 (LT GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
II	19330700	J-35616-35 (VT)	J-38125-22	Not Available	Not Available	Not Available	Not Available
III	19369189	J-35616-40 (BU)	J-38125-22	Not Available	Not Available	Not Available	Not Available

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD/VT	340	Battery Positive Voltage	III	-
2	2.5	GN/VT	1988	Park Brake Motor Apply Right Rear Control	II	-
3	2.5	GY	4368	Park Brake Motor Low Reference Right Rear	II	-
4	0.35	YE	872	Wheel Speed Sensor Signal Right Front	I	-
5	0.35	GY/BN	7065	Wheel Speed Sensor Control Right Front	I	-
6	0.35	BU	884	Wheel Speed Sensor Signal Left Rear	I	-
7	0.35	GY/BK	7127	Wheel Speed Sensor Control Left Rear	I	-
8	0.35	GY	830	Wheel Speed Sensor Signal Left Front	I	-
9	0.35	GY/WH	7064	Wheel Speed Sensor Control Left Front	I	-
10	0.35	VT	882	Wheel Speed Sensor Signal Right Rear	I	-
11	0.35	GY/YE	7128	Wheel Speed Sensor Control Right Rear	I	-
12	2.5	GY/BK	4369	Park Brake Motor Low Reference Left Rear	II	-
13	2.5	WH	2001	Park Brake Motor Apply Left Rear Control	II	-
14	4	BK	1450	Ground	III	-
15 - 16	-	-	-	Not Occupied	-	-
17	0.35	YE	1492	Park Brake Switch Supply Voltage	I	-
18	0.35	GY/RD	7684	Park Brake Apply Switch Voltage Reference	I	-
19	0.35	BU/VT	1134	Park Brake Switch Signal	I	-
20	0.35	GN/GY	333	Brake Fluid Level Sensor Signal	I	-
21 - 22	-	-	-	Not Occupied	-	-
23	0.35	BU/BK	6108	Park Brake Release Switch Signal	I	-
24	0.35	BN	6107	Park Brake Apply Switch Signal	I	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.35	YE/RD	7683	Park Brake Release Switch Voltage Reference	I	-
26 - 31	-	-	-	Not Occupied	-	-
32	0.35	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	-
33	0.35	WH	6106	High Speed GMLAN Serial Data (-) 2	I	-
34	-	-	-	Not Occupied	-	-
35	0.35	WH/BU	5986	Serial Data Communication Enable	I	-
36 - 37	-	-	-	Not Occupied	-	-
38	0.35	YE/RD	6031	Brake Vacuum Sensor 5V Reference	I	-
39	0.35	YE/VT	6030	Brake Vacuum Sensor Signal	I	-
40	0.35	BK/YE	6032	Brake Vacuum Sensor Low Reference	I	-
41	0.35	BU	2500	High Speed GMLAN Serial Data (+) 1	I	-
42	0.35	BU	2500	High Speed GMLAN Serial Data (+) 1	I	-
43	0.35	WH	2501	High Speed GMLAN Serial Data (-) 1	I	-
44	0.35	WH	2501	High Speed GMLAN Serial Data (-) 1	I	-
45 - 46	-	-	-	Not Occupied	-	-

K20 ENGINE CONTROL MODULE X1 (LH7)



Terminal Part Information

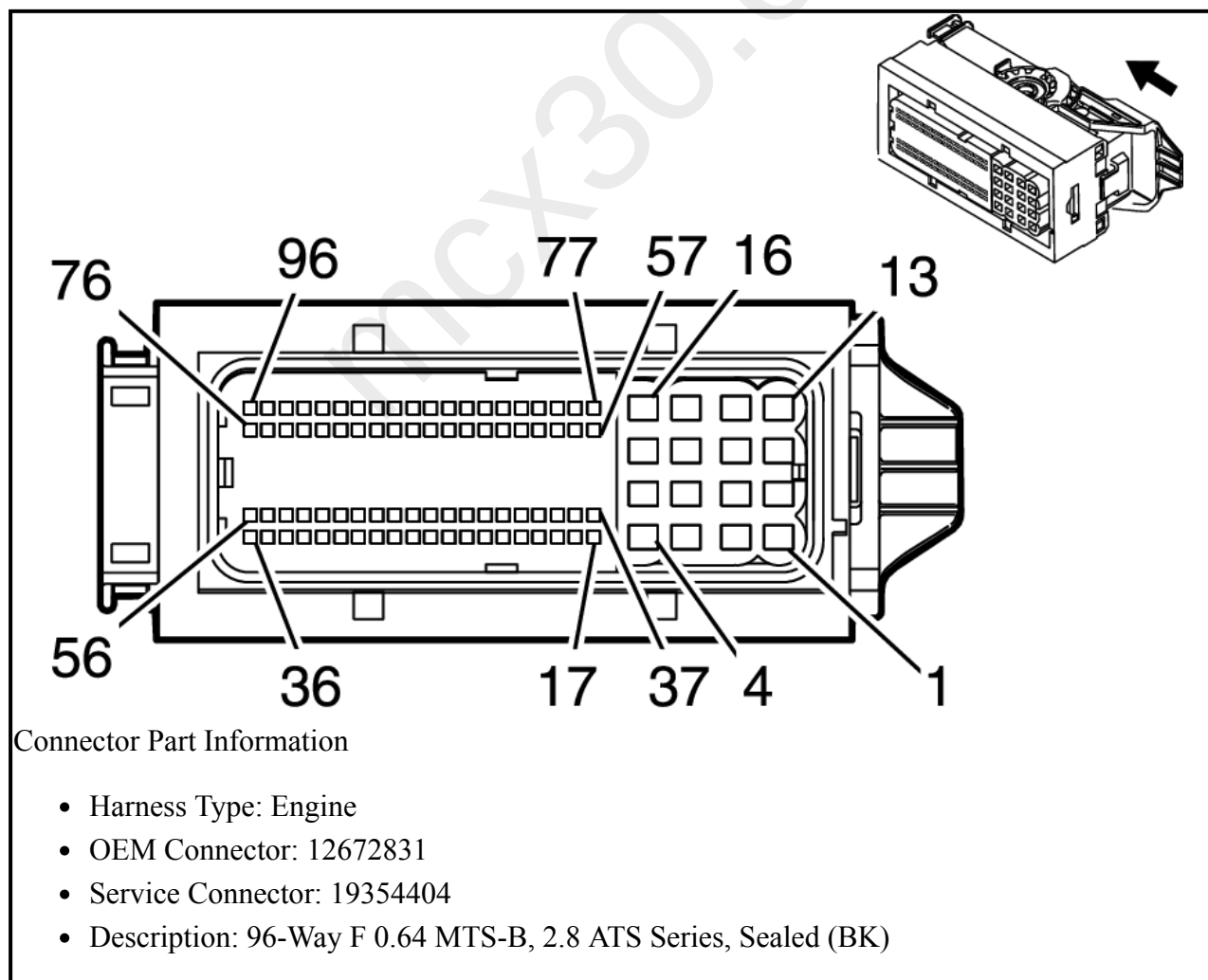
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579752	J-35616-4A (PU)	J-38125-36	4-964286-1	Lear 16	E	1
II	13579752	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13584448	J-35616-64B (LT BU)	J-38125-12A	1719532-5	Lear 7	H	H
IV	13584530	J-35616-4A (PU)	J-38125-36	4-964273-1	Yazaki 15	C	5
V	19369848	J-35616-64B (LT BU)	J-38125-12A	1719532-5	Lear 7	H	H

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	IV	LH7
2	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	LH7
3	1	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	LH7
4	1	RD/WH	140	Battery Positive Voltage	I	LH7
5	6	BN/BU	104	Glow Plug Control	V	LH7
6	6	BK/WH	451	Signal Ground	V	LH7
7	0.5	VT/YE	5985	Accessory Wakeup Serial Data	IV	LH7
8	0.5	GY	8000	Blunt Cut	III	LH7
9	0.5	GY	8001	Blunt Cut	IV	LH7
10	0.35	YE	5530	Hood Open Switch Signal	III	KL9+LH7
11	0.5	GY	8002	Blunt Cut	IV	LH7
12	0.5	GY	8003	Blunt Cut	IV	LH7
13	0.35	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	IV	LH7
14	0.35	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	III	LH7
15	0.35	GN/WH	1162	Accelerator Pedal Position Signal 2	IV	LH7
16	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference 2	IV	LH7
17	0.35	WH/BK	2366	Cooling Fan Control Relay Speed Signal	IV	LH7
18	0.35	BN/WH	419	Check Engine Indicator Control	III	LH7
19	0.35	GN/BN	507	Wait To Start Indicator Control	III	LH7
20	0.5	GY	8004	Blunt Cut	IV	LH7
21	0.5	YE	2928	Fuel Metering Valve High Control	IV	LH7
22	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	IV	LH7
23	0.35	WH/BU	6311	Cruise/ETC/TCC Brake Signal	IV	LH7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	III	-
25	0.5	GN/WH	492	Mass Air Flow Sensor Signal	III	-
26	0.5	GY	8005	Blunt Cut	IV	LH7
27	0.35	BK/BU	1271	Accelerator Pedal Position Low Reference 1	IV	LH7
28	0.35	YE/WH	1161	Accelerator Pedal Position Signal 1	IV	LH7
29	0.5	GY	8006	Blunt Cut	IV	LH7
30	0.5	GY	8007	Blunt Cut	III	LH7
31	0.5	GY	8008	Blunt Cut	IV	LH7
32	0.5	GY	8009	Blunt Cut	IV	LH7
33	0.35	WH/GY	459	A/C Compressor Clutch Relay Control	IV	LH7
34	0.5	GY	8010	Blunt Cut	IV	LH7
35	0.5	GY	2022	Coolant Pump Control	IV	LH7
36	0.5	BN/BK	2929	Fuel Metering Valve Low Control	III	-
37	0.5	WH	7494	High Speed GMLAN Serial Data (-) 3	IV	EPH+LH7 -KL9
	0.5	GY	7494	High Speed GMLAN Serial Data (-) 3	III	
38	0.5	GY	8011	Blunt Cut	III	LH7
39	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	IV	LH7+NDE
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	-
41	0.5	GY	8012	Blunt Cut	IV	LH7
42	0.5	GY	8013	Blunt Cut	IV	LH7
43	0.35	BK/YE	5382	Brake Position Sensor Low Reference	III	LH7
44	0.35	WH/RD	5381	Brake Position Sensor 5V Reference	IV	LH7
45	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	IV	LH7
46	0.35	BN/RD	2700	A/C Pressure Sensor 5V Reference	III	LH7
47	0.35	GN	380	A/C Refrigerant Pressure Sensor Signal	IV	LH7
48	0.35	BK/GN	580	Engine Control Sensors Low Reference (2)	IV	LH7
49	0.35	GY/BK	3865	Heater Loop Auxiliary Pump Relay Control	III	LH7
50	0.35	GN/GY	465	Fuel Pump Primary Relay Control	IV	LH7
51	0.35	YE	5991	Powertrain Relay Coil Control	III	LH7
52	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+) 3	IV	EPH+LH7 -KL9 KL9+LVL/LH7/LWW-EPH
	0.5	GY	7493	High Speed GMLAN Serial Data (+) 3	III	
	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+) 3	III	
53	0.5	GY	8014	Blunt Cut	III	LH7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
54	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	III	LH7+NDE
55	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	-
56	0.5	GY	8015	Blunt Cut	IV	LH7
57	0.5	GY	8016	Blunt Cut	IV	LH7
58	0.35	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	IV	KL9/VTI/EPH+LH7
59	0.35	WH/GN	5380	Brake Position Sensor Signal	IV	LH7
60	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	III	-
61	0.5	GY	8017	Blunt Cut	IV	LH7
62	0.5	GY	8018	Blunt Cut	IV	LH7
63	0.5	GY	8019	Blunt Cut	IV	LH7
64	0.5	WH/GY	4578	Surge Accumulator Solenoid Low Side Control	IV	KL9+LH7
65	0.5	GY	8020	Blunt Cut	III	LH7
66	0.35	YE/BK	625	Starter Enable Relay Control	IV	KL9+LH7

K20 ENGINE CONTROL MODULE X2 (LH7)



Terminal Part Information

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Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579752	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13584448	J-35616-64B (LT BU)	J-38125-12A	1719532-5	Lear 7	H	H
III	13584530	J-35616-4A (PU)	J-38125-36	4-964273-1	Yazaki 15	C	5
IV	13584530	J-35616-4A (PU)	J-38125-36	4-964273-1	Yazaki 15	E	1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	IV	LH7
2	1.5	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	IV	LH7
3	1.5	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	IV	LH7
4	1.5	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	IV	LH7
5	1.5	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	IV	LH7
6	1.5	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	IV	LH7
7	1.5	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	IV	LH7
8	1.5	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	IV	LH7
9 - 11	-	-	-	Not Occupied	-	-
12	0.5	GN	3919	Piston Cooling Oil Pressure Signal	I	LH7
13	2.5	GY/BN	1582	Glow Plug Control 2	III	LH7
14	2.5	GY/YE	1584	Glow Plug Control 4	III	LH7
15	2.5	GY/GN	1583	Glow Plug Control 3	III	LH7
16	2.5	GY/BU	1581	Glow Plug Control 1	III	LH7
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	II	LH7
18	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	-
19	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	II	LH7
20	0.5	GY	9000	Blunt Cut	II	LH7
21	0.5	GY	9001	Blunt Cut	II	LH7
22	0.5	GY	9002	Blunt Cut	II	LH7
23	0.5	GY/RD	5928	Variable Nozzle Turbo Position Sensor 5V Reference	II	LH7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	VT/YE	5947	Variable Nozzle Turbo Position Sensor Signal	II	-
25	0.5	BK/BN	5929	Variable Nozzle Turbo Position Sensor Low Reference	II	LH7
26	0.5	BN	7348	Induction Air Temperature Sensor 2 Signal	II	-
27	0.5	GY	9003	Blunt Cut	II	LH7
28	0.5	GN/VT	2032	Coolant Temperature Sensor Signal	II	LH7
29	0.5	GY	9004	Blunt Cut	II	LH7
30	0.5	BU	410	Engine Coolant Temperature Sensor Signal	II	LH7
31	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	II	-
32	0.5	GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	II	-
33	0.5	GY	37	Engine Metal Temperature Sensor Signal	II	LH7
34	0.5	BN	25	Charge Indicator Control	II	-
35	0.5	WH/BK	5931	Variable Nozzle Turbo Solenoid Low Signal	II	LH7
36	0.5	GY/BU	5930	Variable Nozzle Turbo Solenoid High Signal	II	LH7
37	0.5	GY	9005	Blunt Cut	II	LH7
38	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	II	-
39	0.5	GY	9006	Blunt Cut	II	LH7
40	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	II	LH7
41	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	LH7
42	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	II	LH7
43	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	II	-
44	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	II	LH7
45	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	-
46	0.5	GY	9007	Blunt Cut	II	LH7
47	0.5	GY	9008	Blunt Cut	II	LH7
48	0.5	BK/BU	6813	Coolant Temperature Sensor 2 Low Reference	II	-
49	0.5	GY	9009	Blunt Cut	II	LH7
50	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	II	-
51	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	II	LH7
52	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	II	LH7
53	0.5	GY	3721	Engine Metal Temperature Low Reference	II	LH7

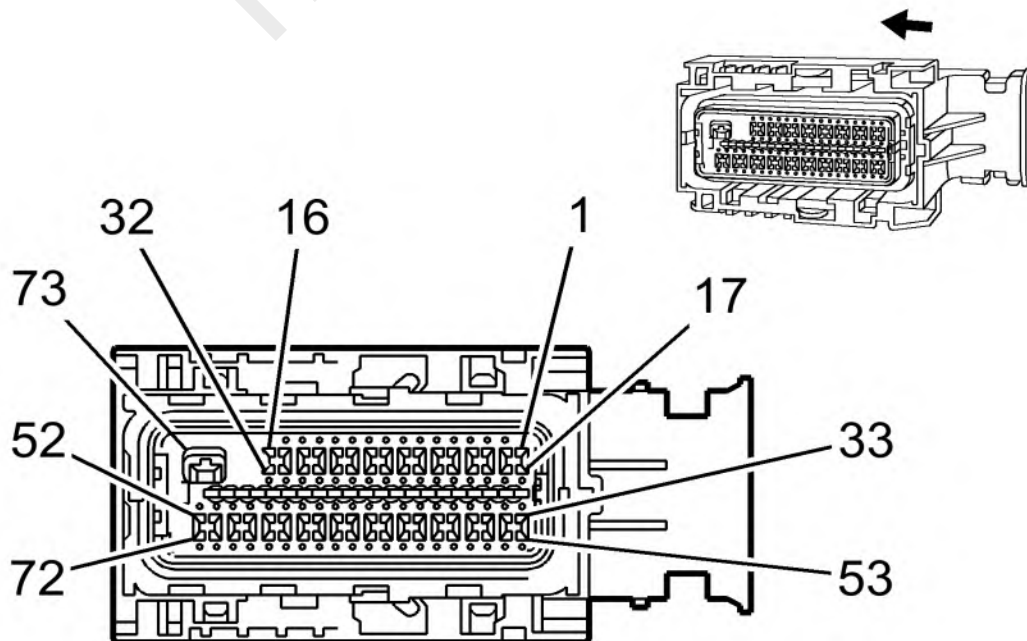
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
54	0.5	GN/GY	7316	Variable Swirl Valve PWM Control Signal	II	LH7
55	0.5	GY	9010	Blunt Cut	II	LH7
56	0.5	GY	9011	Blunt Cut	II	LH7
57	0.5	BK/BN	2753	Exhaust Gas Recirculation Sensor Low Reference	II	-
58	0.5	BN/WH	5763	Exhaust Gas Recirculation Valve Sensor Signal	II	-
59	0.5	BU/RD	5047	Exhaust Gas Recirculation 5V Reference 1	II	LH7
60	0.5	GY	9012	Blunt Cut	II	LH7
61	0.5	GY	9013	Blunt Cut	II	LH7
62	0.5	GY	9014	Blunt Cut	II	LH7
63	0.5	GY	9015	Blunt Cut	II	LH7
64	0.5	GY	9016	Blunt Cut	II	LH7
65	0.5	GY	9017	Blunt Cut	II	LH7
66	0.5	GY/VT	7368	Variable Swirl and Actuator Position Signal	II	LH7
67	0.5	GY	23	Generator Field Duty Cycle Signal	II	-
68	0.5	GY	9018	Blunt Cut	II	LH7
69	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	II	LH7
70	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Motor Low Signal	II	-
71	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve Motor High Signal	II	LH7
72	0.5	GY	9019	Blunt Cut	II	LH7
73	0.5	GY	9020	Blunt Cut	II	LH7
74	0.5	BU/WH	3608	High Speed Mass Air Flow Sensor Control	II	-
75	0.5	BU	179	Oil Pump Command Signal	II	LH7
76	0.5	BK/YE	2834	Fuel Rail Pressure Solenoid Low Reference	II	LH7
77	0.5	GY	9021	Blunt Cut	II	LH7
78	0.5	GY	9022	Blunt Cut	II	LH7
79	0.5	GY	9023	Blunt Cut	II	LH7
80	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	II	LH7
81	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	LH7
82	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	-
83	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	II	LH7
84	0.5	GN	6271	Crankshaft 60X Sensor Signal	II	LH7
85	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	II	-
86	0.5	BN/GN	1174	Oil Level Switch Signal	II	-
87	0.5	GY	3045	Variable Swirl Actuator Diagnostic Signal	II	LH7
88	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	LH7

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	33467-0003	Delphi 23	H	H
II	19330179	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	3100	DEF Dosing Valve Low Control	II	-
2 - 5	-	-	-	Not Occupied	-	-
6	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	II	LH7
7	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	II	LH7
8	0.35	BK/GN	580	Engine Control Sensors Low Reference (2)	I	LH7
9	-	-	-	Not Occupied	-	-
10	0.5	BK/BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	II	LH7
11	-	-	-	Not Occupied	-	-
12	0.5	BK/GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	II	-
13	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	II	LH7
14	0.5	BU/WH	5277	Exhaust Gas Temperature Sensor 1	II	LH7
15	0.5	BN	3099	DEF Dosing Valve High Control	II	-
16 - 18	-	-	-	Not Occupied	-	-
19	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	II	LH7
20	0.5	YE/GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	II	LH7
21	-	-	-	Not Occupied	-	-
22	0.35	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	LH7
23	-	-	-	Not Occupied	-	-
24	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	II	LH7
25	-	-	-	Not Occupied	-	-
26	0.5	GY/GN	5378	Exhaust Gas Temperature Sensor 3	II	LH7
27	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	II	LH7
28	0.5	BU/GN	5377	Exhaust Gas Temperature Sensor 2	II	LH7
29	-	-	-	Not Occupied	-	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	0.5	YE/BU	1497	Crankcase Ventilation (Blowby) Heater Control Signal	II	LH7
31	-	-	-	Not Occupied	-	-
32	0.5	BN/GY	4008	Humidity Sensor Signal	II	LH7
33	0.35	BK/YE	6032	Brake Vacuum Sensor Low Reference	I	KL9+LH7
34	0.35	YE/VT	6030	Brake Vacuum Sensor Signal	I	KL9+LH7
35	0.35	YE/RD	6031	Brake Vacuum Sensor 5V Reference	I	KL9+LH7
36	0.35	GY	4109	Driver Mode Switch 5V Reference	I	F48/EPH+LH7
37	0.35	WH/VT	4108	Driver Mode Switch Signal	I	F48/EPH+LH7
38 - 42	-	-	-	Not Occupied	-	-
43	0.35	GN/BU	3889	DEF Power Module Relay Control	I	LH7+NDE
44	0.35	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	I	NKC+LH7
45	0.35	BU	3017	Fuel Heater Relay Control 1	I	LH7
46 - 49	-	-	-	Not Occupied	-	-
50	0.5	WH/RD	6054	Exhaust Pressure Sensor 5V Reference 1	II	LH7
51	0.5	BU	6053	Exhaust Pressure Sensor Signal 1	II	LH7
52	0.5	BK/YE	6055	Exhaust Pressure Sensor Low Reference 1	II	LH7
53 - 56	-	-	-	Not Occupied	-	-

K20 ENGINE CONTROL MODULE X1 (LTG)



- Harness Type: Engine
- OEM Connector: 12615654
- Service Connector: 13574782
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

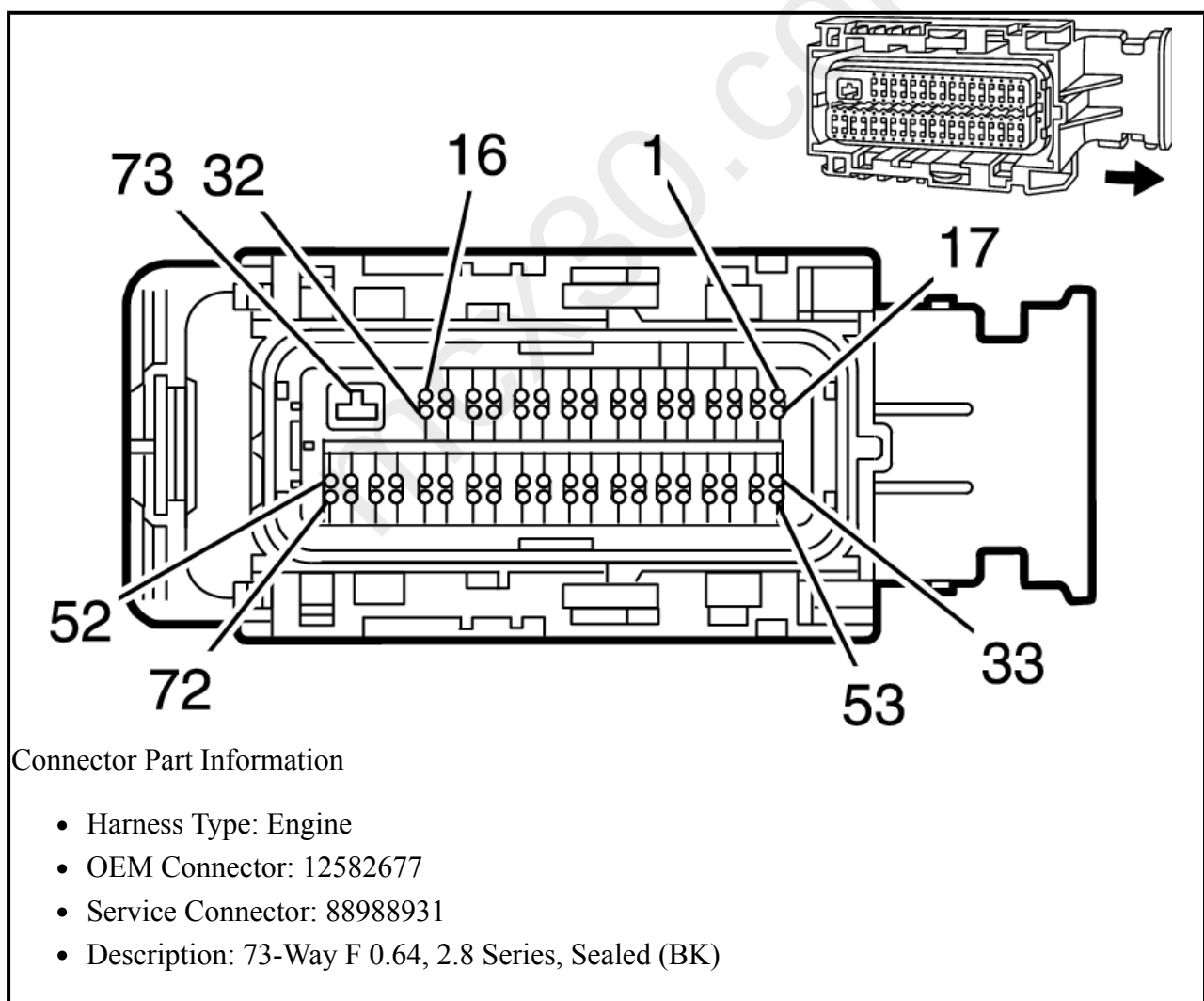
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	2	5
II	19330179	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
III	19331615	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	-	-	-	Not Occupied	-	-
5	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	III	EPH+LTG/LYX
6	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	II	EPH+LTG/LYX
7	0.35	WH	7494	High Speed GMLAN Serial Data (-) 3	II	-
8	0.35	BU/BK	7493	High Speed GMLAN Serial Data (+) 3	II	-
9	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	LTG+M3H/M3D
10	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	LTG+M3H/M3D
11	0.35	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	LTG
12	0.35	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	LTG
13	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	LTG
14	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	LTG
15	0.5	RD/WH	140	Battery Positive Voltage	II	LTG
16	0.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	LTG
17	0.35	YE	5530	Hood Open Switch Signal	II	KL9+LTG
18	0.5	GY/RD	3053	Turbo Intake Pressure Sensor High Reference Bank 1	II	LTG
19 - 22	-	-	-	Not Occupied	-	-
23	0.5	BK/GY	3927	IMS Mode Switch Low Reference	II	LTG+M3D
24	-	-	-	Not Occupied	-	-
25	0.35	BK/YE	5382	Brake Position Sensor Low Reference	II	LTG
26	-	-	-	Not Occupied	-	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	LTG
28	0.35	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	LTG
29 - 31	-	-	-	Not Occupied	-	-
32	0.35	YE/VT	6030	Brake Vacuum Sensor Signal	II	KL9+LTG
33	0.35	GN/WH	1162	Accelerator Pedal Position Signal 2	II	LTG
34	0.5	GN/WH	492	Mass Air Flow Sensor Signal	II	LTG
35 - 36	-	-	-	Not Occupied	-	-
37	0.35	BN/RD	2700	A/C Pressure Sensor 5V Reference	II	LTG
38	0.35	GY	4109	Driver Mode Switch 5V Reference	II	LTG+F48/EPH
39	0.5	YE/BU	4171	5V Reference	II	LTG+M3D
40	-	-	-	Not Occupied	-	-
41	0.35	WH/RD	5381	Brake Position Sensor 5V Reference	II	-
42 - 43	-	-	-	Not Occupied	-	-
44	0.35	YE/BK	625	Starter Enable Relay Control	II	KL9+LTG
45	0.35	YE/WH	1161	Accelerator Pedal Position Signal 1	II	LTG
46	-	-	-	Not Occupied	-	-
47	0.35	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	II	LTG
48	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	II	LTG
49	-	-	-	Not Occupied	-	-
50	0.35	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	LTG
51	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	LTG
52	0.35	WH/BK	2366	Cooling Fan Control Relay Speed Signal	II	LTG
53	-	-	-	Not Occupied	-	-
54	0.35	WH/GY	459	A/C Compressor Clutch Relay Control	II	LTG
55 - 56	-	-	-	Not Occupied	-	-
57	0.35	GN	380	A/C Refrigerant Pressure Sensor Signal	II	LTG
58	0.35	WH/VT	4108	Driver Mode Switch Signal	II	LTG+F48/EPH
59	0.5	WH/BU	5726	Ignition Mode Switch Mode Control Backup	II	LTG+M3D
60	0.5	BN/GY	4008	Humidity Sensor Signal	II	LTG
61	0.35	WH/GN	5380	Brake Position Sensor Signal	II	LTG

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
62 - 63	-	-	-	Not Occupied	-	-
64	0.35	GY	5660	Fuel Pump Controller Data Out Signal	II	LTG
65	0.35	WH	1310	EVAP Canister Vent Solenoid Control	II	LTG+NTB/NUB
66	0.35	GY	5127	After Boil Heater Relay Control	II	LTG+MAH/MBC/MCX
67	0.35	YE	5991	Powertrain Relay Coil Control	II	LTG
68 - 69	-	-	-	Not Occupied	-	-
70	0.35	YE/VT	4325	Starter Pinion Solenoid Relay Control	II	KL9+LTG
71	0.35	BN/WH	419	Check Engine Indicator Control	II	LTG+NTB/NUB
72	-	-	-	Not Occupied	-	-
73	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	LTG

K20 ENGINE CONTROL MODULE X2 (LTG)



Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp

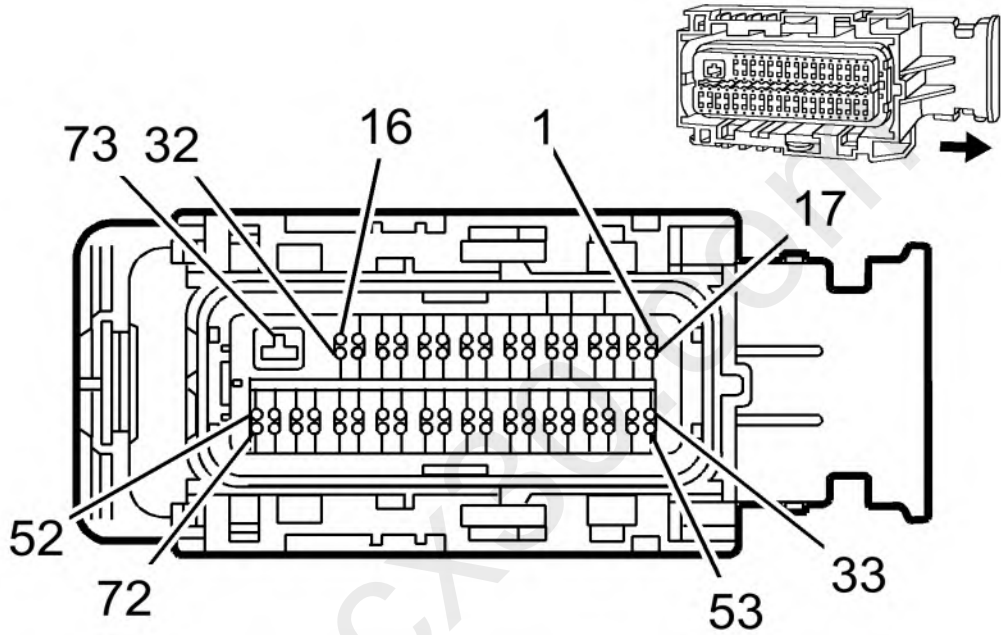
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	2	5
II	19330179	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	BU	410	Engine Coolant Temperature Sensor Signal	II	LTG
3	-	-	-	Not Occupied	-	-
4	0.35	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	II	LTG
5	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	LTG
6	0.5	GY/YE	5297	Camshaft Position Exhaust Sensor Control 1	II	LTG
7	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	II	LTG
8 - 11	-	-	-	Not Occupied	-	-
12	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	II	-
13	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	II	LTG
14	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	II	LTG
15	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	II	LTG
16 - 19	-	-	-	Not Occupied	-	-
20	0.35	BU/WH	7446	Fuel Line Pressure Sensor Signal	II	LTG
21	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	II	LTG
22	0.5	BK/GY	5296	Camshaft Position Exhaust Sensor Low Reference 1	II	LTG
23	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	II	LTG
24 - 27	-	-	-	Not Occupied	-	-
28	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	-
29	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	LTG
30	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	II	LTG
31	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	II	LTG
32	0.5	GN	3060	Turbo Bypass Solenoid Control Bank 1	II	LTG
33	-	-	-	Not Occupied	-	-
34	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	II	LTG
35	-	-	-	Not Occupied	-	-
36	0.5	BK/VT	6754	Cam Phaser X Low Reference	II	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
37	0.5	BK/BN	6753	Cam Phaser W Low Reference	II	LTG
38	0.5	VT/BK	5273	Camshaft Position Exhaust Sensor 1	II	LTG
39	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	LTG
40	0.5	GN	6271	Crankshaft 60X Sensor Signal	II	LTG
41	-	-	-	Not Occupied	-	-
42	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	II	LTG+NKC
43	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	II	-
44	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	LTG
45	0.5	GN/BU	2123	Ignition Control 3	II	LTG
46	0.5	BU/VT	2121	Ignition Control 1	II	LTG
47	-	-	-	Not Occupied	-	-
48	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	LTG
49	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	LTG
50	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	LTG
51	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	LTG
52	0.5	YE	581	Throttle Actuator Control Open	II	LTG
53	-	-	-	Not Occupied	-	-
54	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	II	LTG
55	-	-	-	Not Occupied	-	-
56	0.5	GY/BU	5282	Camshaft Phaser Exhaust Solenoid 1	II	LTG
57	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	II	-
58 - 59	-	-	-	Not Occupied	-	-
60	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	II	LTG
61 - 62	-	-	-	Not Occupied	-	-
63	0.5	BN/YE	258	Waste Gate Solenoid Control	II	-
64	0.5	BU	179	Oil Pump Command Signal	II	LTG
65	0.5	BU/WH	2122	Ignition Control 2	II	LTG
66	0.5	YE/BU	2124	Ignition Control 4	II	LTG
67	-	-	-	Not Occupied	-	-
68	0.75	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	LTG

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
69	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	LTG
70	0.75	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	LTG
71	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	LTG
72	0.5	BN/WH	582	Throttle Actuator Control Close	II	LTG
73	2	BK/WH	151	Signal Ground	I	LTG

K20 ENGINE CONTROL MODULE X3 (LTG)



Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582678
- Service Connector: 88988372
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY 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	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	2	5
II	19330179	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

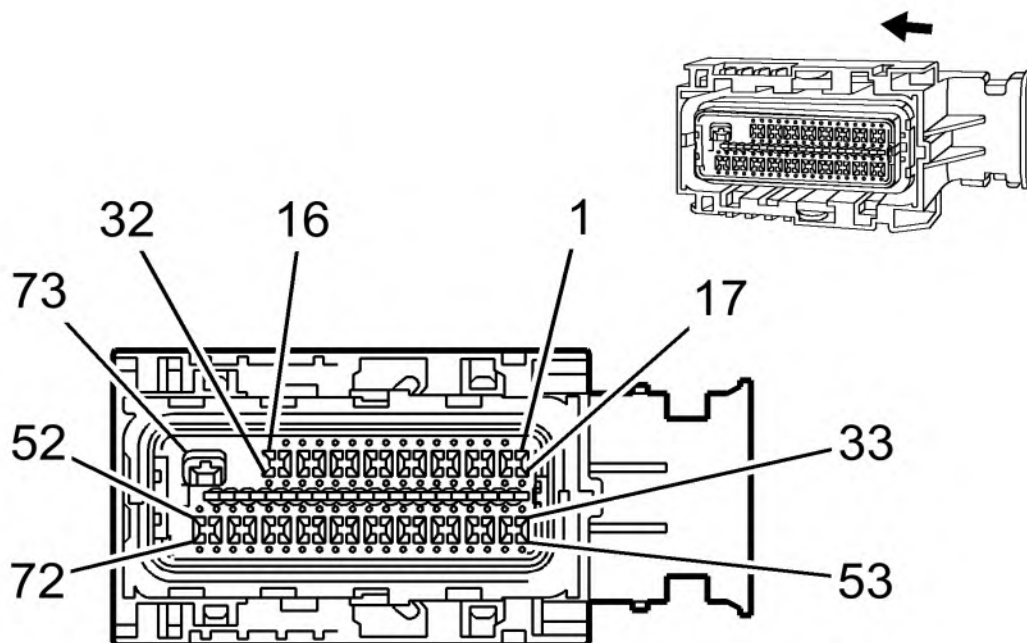
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
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Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	II	LTG
2 - 3	-	-	-	Not Occupied	-	-
4	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	II	LTG
5	-	-	-	Not Occupied	-	-
6	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	II	-
7	-	-	-	Not Occupied	-	-
8	0.35	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	LTG+NTB/NUB
9 - 13	-	-	-	Not Occupied	-	-
14	0.5	GY/RD	7331	Pre Throttle Air Temp and Press (TMAP) 5V Reference	II	LTG
15	0.35	YE/RD	6031	Brake Vacuum Sensor 5V Reference	I	KL9+LTG
16	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	LTG
17	-	-	-	Not Occupied	-	-
18	0.5	BN	25	Charge Indicator Control	II	LTG
19	0.5	GY	23	Generator Field Duty Cycle Signal	II	-
20	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	II	LTG
21	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	LTG
22	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	II	LTG
23 - 29	-	-	-	Not Occupied	-	-
30	0.5	BK/VT	7332	Pre Throttle Air Temp and Press (TMAP) Low Reference	II	LTG
31 - 34	-	-	-	Not Occupied	-	-
35	0.5	GN	6935	Heated Oxygen Sensor Current Adjust Signal	II	LTG
36	0.5	YE/GY	6936	Heated Oxygen Sensor Collector Signal	II	LTG
37	0.5	BN/WH	6933	Heated Oxygen Sensor Current Pump Signal	II	LTG
38	0.5	BN	6934	Heated Oxygen Sensor Ground	II	LTG
39	-	-	-	Not Occupied	-	-
40	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	LTG
41	0.5	BN/GN	1174	Oil Level Switch Signal	II	-
42	-	-	-	Not Occupied	-	-
43	0.35	BU/VT	1589	Primary Fuel Level Sensor Signal	I	LTG
44	0.35	BU/WH	1937	Secondary Fuel Level Sensor Signal	I	F48+LTG
45	-	-	-	Not Occupied	-	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
46	0.5	VT/BU	7330	Pre Throttle Air Temp and Press (TMAP) Air Pressure Signal	II	LTG
47	0.5	WH/BU	7329	Pre-Throttle Air Temp and Press (TMAP) Temperature Signal	II	LTG
48	0.5	YE	3054	Turbo Intake Pressure Sensor Signal Bank 1	II	LTG
49 - 51	-	-	-	Not Occupied	-	-
52	0.5	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	II	LTG
53 - 54	-	-	-	Not Occupied	-	-
55	0.35	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	I	-
56 - 58	-	-	-	Not Occupied	-	-
59	0.5	BK/GY	2303	Knock Sensor Low Reference 2	II	LTG
60	0.5	WH/GY	1876	Knock Sensor Signal 2	II	LTG
61	0.5	BK/YE	1716	Knock Sensor Low Reference 1	II	LTG
62	0.5	VT/GY	496	Knock Sensor Signal 1	II	LTG
63 - 67	-	-	-	Not Occupied	-	-
68	0.35	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	LTG+NTB/NUB
69 - 71	-	-	-	Not Occupied	-	-
72	0.5	YE	7301	High Pressure Fuel Pump Actuator High - Control	II	LTG
73	2	BK/WH	151	Signal Ground	I	LTG

K20 ENGINE CONTROL MODULE X1 (LYX)





Connector Part Information

- Harness Type: Engine
- OEM Connector: 12615654
- Service Connector: 13574782
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK 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	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	2	5
II	19330179	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	19331615	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

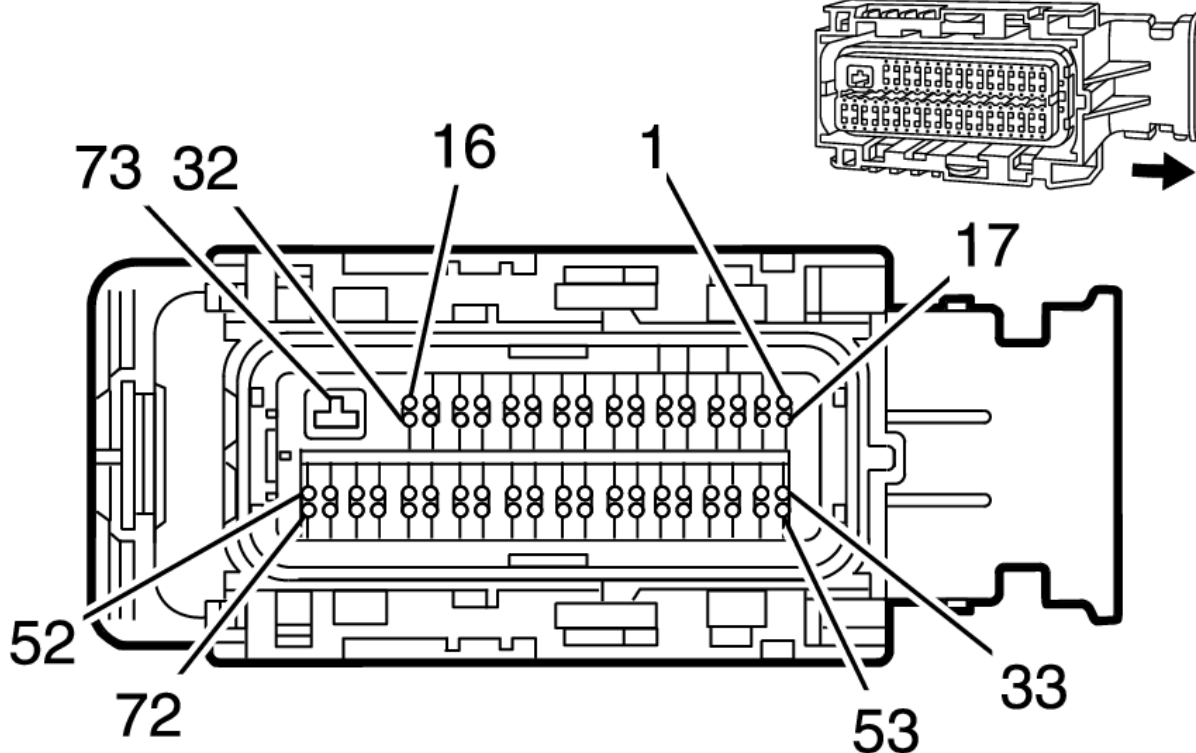
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	-	-	-	Not Occupied	-	-
5	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	III	EPH+LTG/LYX
6	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	III	EPH+LTG/LYX
7	0.35	WH	7494	High Speed GMLAN Serial Data (-) 3	II	-
8	0.35	BU/BK	7493	High Speed GMLAN Serial Data (+) 3	II	-
9	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	-
10	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
11	0.35	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	LYX
12	0.35	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	LYX
13	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	-
14	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	-
15	0.5	RD/WH	140	Battery Positive Voltage	III	LYX
16	0.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	III	LYX
17	0.35	YE	5530	Hood Open Switch Signal	II	KL9+LYX
18	0.5	GY/RD	3053	Turbo Intake Pressure Sensor High Reference Bank 1	II	LYX
19 - 24	-	-	-	Not Occupied	-	-
25	0.35	BK/YE	5382	Brake Position Sensor Low Reference	II	LYX
26	-	-	-	Not Occupied	-	-
27	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	LYX
28	0.35	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	LYX
29 - 31	-	-	-	Not Occupied	-	-
32	0.35	YE/VT	6030	Brake Vacuum Sensor Signal	II	KL9+LYX
33	0.35	GN/WH	1162	Accelerator Pedal Position Signal 2	II	LYX
34	0.5	GN/WH	492	Mass Air Flow Sensor Signal	III	LYX
35 - 36	-	-	-	Not Occupied	-	-
37	0.35	BN/RD	2700	A/C Pressure Sensor 5V Reference	II	LYX
38	0.35	GY	4109	Driver Mode Switch 5V Reference	II	LYX+F48/EPH
39 - 40	-	-	-	Not Occupied	-	-
41	0.35	WH/RD	5381	Brake Position Sensor 5V Reference	II	LYX
42 - 43	-	-	-	Not Occupied	-	-
44	0.35	YE/BK	625	Starter Enable Relay Control	II	-
45	0.35	YE/WH	1161	Accelerator Pedal Position Signal 1	II	LYX
46	-	-	-	Not Occupied	-	-
47	0.35	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	II	LYX
48	0.5	WH/BU	6289	Induction Air Temperature Sensor Signal	III	LYX

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
49	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	III	-
50	0.35	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	LYX
51	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	III	LYX
52	0.35	WH/BK	2366	Cooling Fan Control Relay Speed Signal	II	LYX
53	-	-	-	Not Occupied	-	-
54	0.35	WH/GY	459	A/C Compressor Clutch Relay Control	II	LYX
55 - 56	-	-	-	Not Occupied	-	-
57	0.35	GN	380	A/C Refrigerant Pressure Sensor Signal	II	LYX
58	0.35	WH/VT	4108	Driver Mode Switch Signal	II	LYX+F48/EPH
59	-	-	-	Not Occupied	-	-
60	0.5	BN/GY	4008	Humidity Sensor Signal	II	LYX
61	0.35	WH/GN	5380	Brake Position Sensor Signal	II	LYX
62 - 63	-	-	-	Not Occupied	-	-
64	0.35	GY	5660	Fuel Pump Controller Data Out Signal	II	LYX
65	0.35	WH	1310	EVAP Canister Vent Solenoid Control	II	LYX+NTB/NUB
66	0.35	GY	5127	After Boil Heater Relay Control	II	LYX+MAH/MBC/MCX
67	0.35	YE	5991	Powertrain Relay Coil Control	II	LYX
68 - 69	-	-	-	Not Occupied	-	-
70	0.35	YE/VT	4325	Starter Pinion Solenoid Relay Control	II	-
71	0.35	BN/WH	419	Check Engine Indicator Control	II	LYX+NTB/NUB
72	-	-	-	Not Occupied	-	-
73	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	-

K20 ENGINE CONTROL MODULE X2 (LYX)





Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582677
- Service Connector: 88988931
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	2	5
II	19330179	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

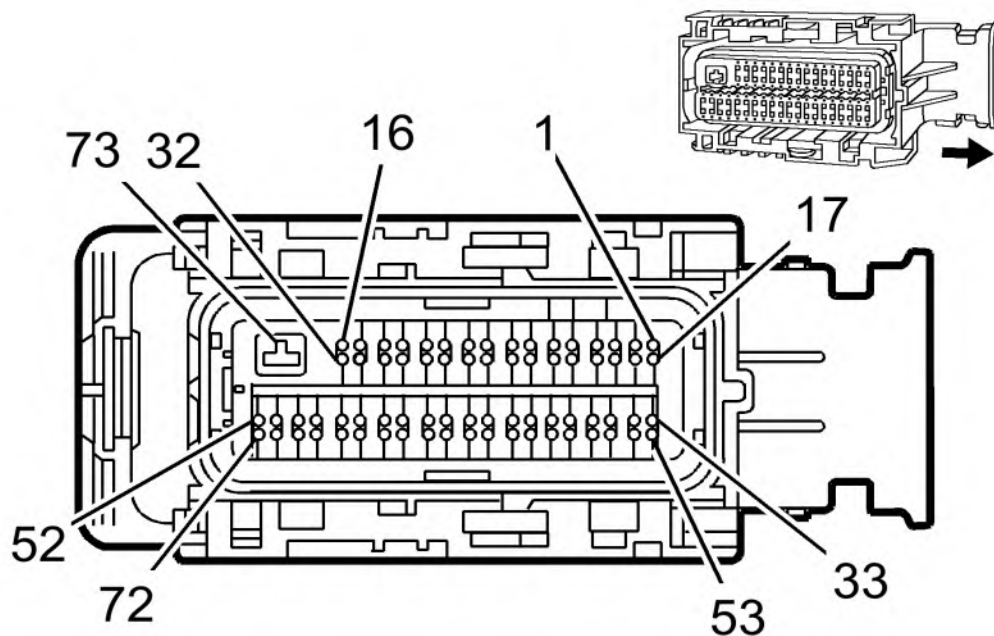
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	-	-	-	Not Occupied	-	-
2	0.5	BU	410	Engine Coolant Temperature Sensor Signal	II	LYX
3	-	-	-	Not Occupied	-	-
4	0.35	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	II	-
5	0.5	BK/VT	7331	Pre Throttle Air Temp and Press (TMAP) 5V Reference	II	LYX
6	0.5	GY/YE	5297	Camshaft Position Exhaust Sensor Control 1	II	LYX
7	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	II	LYX
8 - 11	-	-	-	Not Occupied	-	-
12	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	II	-
13	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	II	-

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	II	LYX
15	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	II	-
16 - 19	-	-	-	Not Occupied	-	-
20	0.35	BU/WH	7446	Fuel Line Pressure Sensor Signal	II	-
21	0.5	GY/RD	7332	Pre Throttle Air Temp and Press (TMAP) Low Reference	II	LYX
22	0.5	BK/GY	5296	Camshaft Position Exhaust Sensor Low Reference 1	II	LYX
23	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	II	LYX
24 - 27	-	-	-	Not Occupied	-	-
28	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	-
29	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	-
30	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	II	LYX
31	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	II	-
32	0.5	GN	3060	Turbo Bypass Solenoid Control Bank 1	II	LYX
33	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	II	LYX
34	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	II	-
35	-	-	-	Not Occupied	-	-
36	0.5	BK/VT	6754	Cam Phaser X Low Reference	II	LYX
37	0.5	BK/BN	6753	Cam Phaser W Low Reference	II	-
38	0.5	VT/BK	5273	Camshaft Position Exhaust Sensor 1	II	-
39	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	LYX
40	0.5	GN	6271	Crankshaft 60X Sensor Signal	II	-
41	-	-	-	Not Occupied	-	-
42	0.35	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	II	-
43	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	II	LYX
44	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	-
45	0.5	GN/BU	2123	Ignition Control 3	II	-
46	0.5	BU/VT	2121	Ignition Control 1	II	LYX
47	-	-	-	Not Occupied	-	-
48	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	-
49	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	LYX
50	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	LYX

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
51	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	-
52	0.5	YE	581	Throttle Actuator Control Open	II	LYX
53	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	II	-
54	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	II	-
55	-	-	-	Not Occupied	-	-
56	0.5	GY/BU	5282	Camshaft Phaser Exhaust Solenoid 1	II	LYX
57	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	II	-
58 - 59	-	-	-	Not Occupied	-	-
60	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	II	-
61	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	II	LYX
62	-	-	-	Not Occupied	-	-
63	0.5	BN/YE	258	Waste Gate Solenoid Control	II	-
64	0.5	BU	179	Oil Pump Command Signal	II	-
65	0.5	BU/WH	2122	Ignition Control 2	II	LYX
66	0.5	YE/BU	2124	Ignition Control 4	II	LYX
67	-	-	-	Not Occupied	-	-
68	0.75	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	LYX
69	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	LYX
70	0.75	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	-
71	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	-
72	0.5	BN/WH	582	Throttle Actuator Control Close	II	-
73	2	BK/WH	151	Signal Ground	I	LYX

K20 ENGINE CONTROL MODULE X3 (LYX)





Connector Part Information

- Harness Type: Engine
- OEM Connector: 12582678
- Service Connector: 88988372
- Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

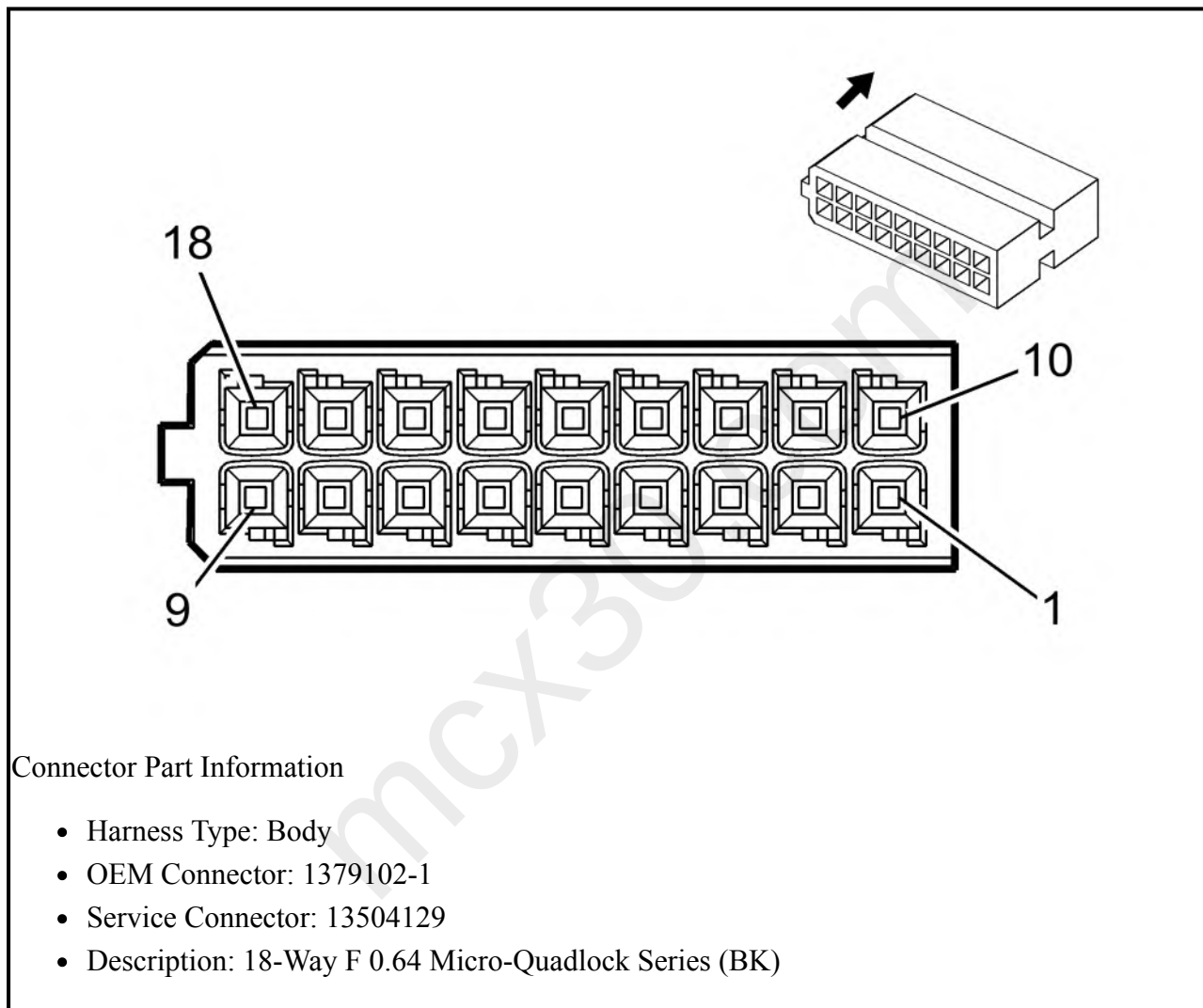
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	2	5
II	19330179	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	-	-	-	Not Occupied	-	-
4	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	II	LYX
5	-	-	-	Not Occupied	-	-
6	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	II	LYX
7	-	-	-	Not Occupied	-	-
8	0.35	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	II	LYX+NTB/NUB
9 - 13	-	-	-	Not Occupied	-	-
14	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	II	LYX
15	0.35	YE/RD	6031	Brake Vacuum Sensor 5V Reference	II	KL9+LYX
16	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	LYX

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
17	0.5	WH/GY	4578	Surge Accumulator Solenoid Low Side Control	II	KL9+LYX-M3D-M3H-M3U
18	0.5	BN	25	Charge Indicator Control	II	LYX
19	0.5	GY	23	Generator Field Duty Cycle Signal	II	LYX
20	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	II	LYX
21	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	LYX
22	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	II	LYX
23 - 29	-	-	-	Not Occupied	-	-
30	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor Low Reference	II	LYX
31 - 32	-	-	-	Not Occupied	-	-
33	0.5	YE/GN	4321	Park Phaser Lock Control	II	LYX
34 - 39	-	-	-	Not Occupied	-	-
40	0.5	VT/BU	7330	Pre Throttle Air Temp and Press (TMAP) Air Pressure Signal	II	LYX
41 - 42	-	-	-	Not Occupied	-	-
43	0.35	BU/VT	1589	Primary Fuel Level Sensor Signal	II	LYX
44	0.35	BU/WH	1937	Secondary Fuel Level Sensor Signal	II	F48+LYX
45	-	-	-	Not Occupied	-	-
46	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	II	LYX
47	0.5	WH/BU	7329	Pre-Throttle Air Temp and Press (TMAP) Temperature Signal	II	LYX
48	0.5	YE	3054	Turbo Intake Pressure Sensor Signal Bank 1	II	LYX
49 - 51	-	-	-	Not Occupied	-	-
52	0.5	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	II	LYX
53 - 54	-	-	-	Not Occupied	-	-
55	0.35	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	II	-
56 - 58	-	-	-	Not Occupied	-	-
59	0.5	BK/GY	2303	Knock Sensor Low Reference 2	II	LYX
60	0.5	WH/GY	1876	Knock Sensor Signal 2	II	LYX
61	0.5	BK/YE	1716	Knock Sensor Low Reference 1	II	LYX
62	0.5	VT/GY	496	Knock Sensor Signal 1	II	LYX

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
63 - 67	-	-	-	Not Occupied	-	-
68	0.35	BU/WH	890	Fuel Tank Pressure Sensor Signal	II	LYX+NTB/NUB
69 - 71	-	-	-	Not Occupied	-	-
72	0.5	YE	7301	High Pressure Fuel Pump Actuator High - Control	II	LYX
73	2	BK/WH	151	Signal Ground	I	LYX

K26 HEADLAMP CONTROL MODULE (TR7)



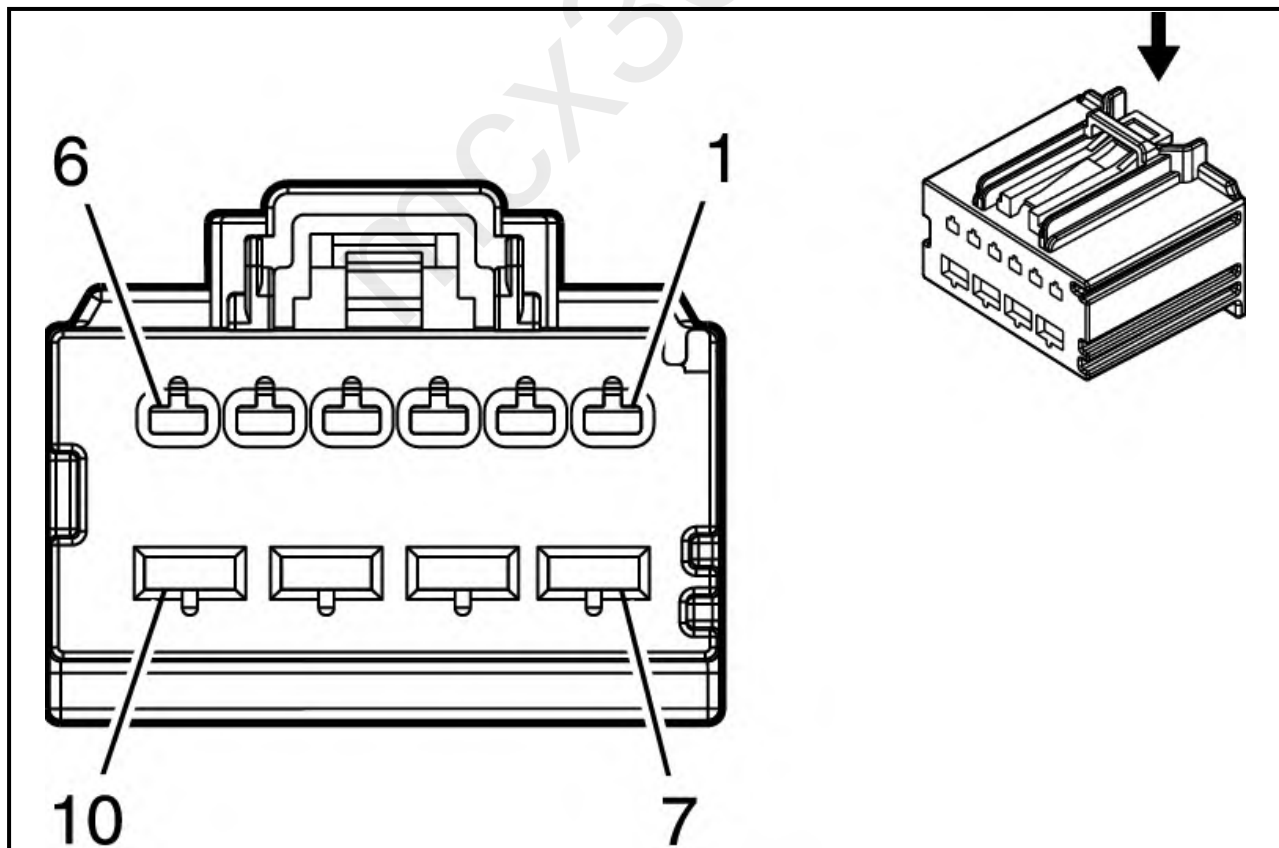
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579993	J-35616-64B (LT BU)	J-38125-12A	144969-1	Lear 25	E	2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1050	Ground	I	T4L+TR7
2	0.35	WH/RD	2165	Automatic Level Control Position Sensor 5V Reference	I	T4L+TR7
3	0.35	BK/BN	2185	Automatic Level Control Position Sensor Low Reference	I	T4L+TR7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	T4L+TR7
5	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	T4L+TR7
6	0.35	BN	2184	Automatic Level Control Position Sensor Signal	I	T4L+TR7
7	0.35	WH/BU	5986	Serial Data Communication Enable	I	T4L+TR7
8 - 9	-	-	-	Not Occupied	-	-
10	0.35	RD/VT	1242	Battery Positive Voltage	I	-
11	0.35	WH/RD	7524	Front Axle Level Sensor 5V Reference	I	T4L+TR7
12	0.35	BK/GY	7526	Front Axle Level Sensor Low Reference	I	T4L+TR7
13	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	T4L+TR7
14	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	T4L+TR7
15	0.35	BN/WH	7525	Front Axle Level Sensor Signal	I	T4L+TR7
16	-	-	-	Not Occupied	-	-
17	0.35	GN/WH	7530	Local Interconnect Network Serial Data Bus 8	I	T4L+TR7
18	0.35	GN/BN	7529	Local Interconnect Network Serial Data Bus 7	I	T4L+TR7

K29F SEAT HEATING CONTROL MODULE - FRONT X1 (KA1)



Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 31372-1000
- Service Connector: Service by Harness - See Part Catalog

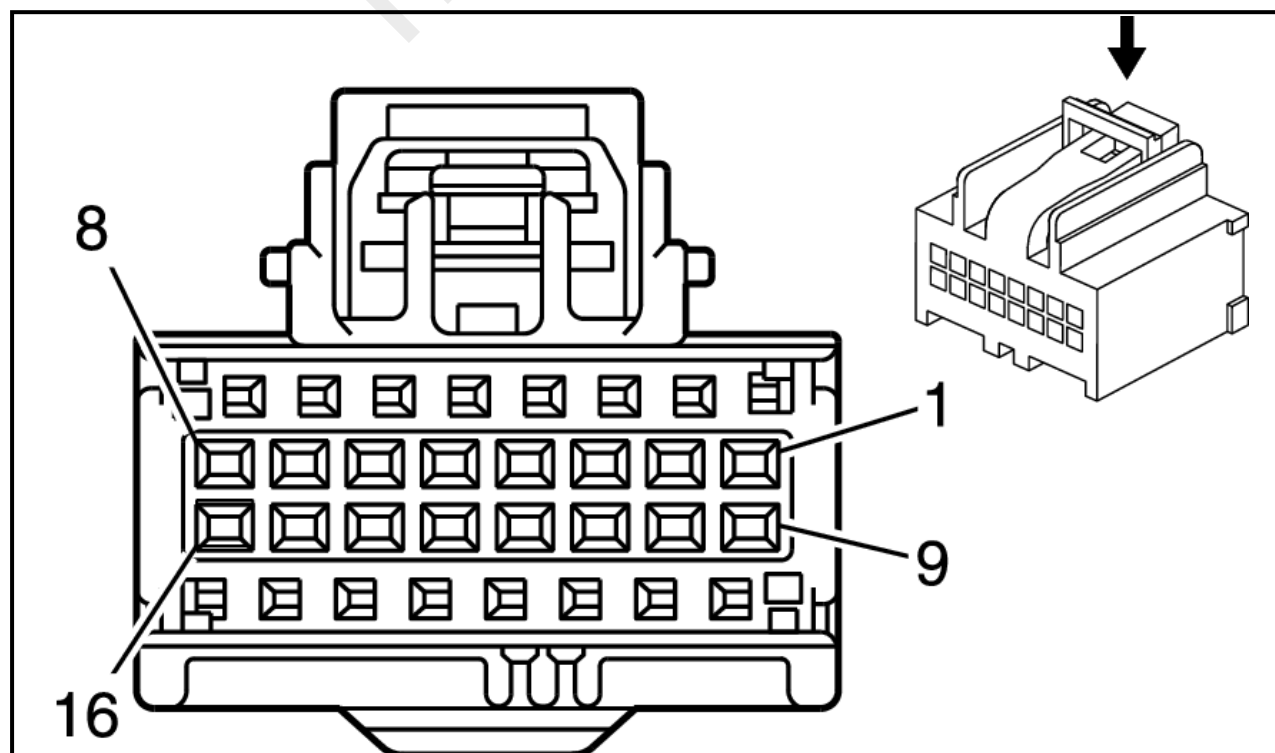
- Description: 10-Way F 1.5, 2.8 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BN	2481	Passenger Heated Back Element Control	I	-
2	0.75	BN/BU	2479	Passenger Heated Seat Element Control	I	-
3	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	-
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	-
5	0.75	BN	2432	Driver Heated Back Element Control	I	-
6	0.75	BN/VT	2077	Driver Heated Seat Element Control	I	-
7	0.5	RD/WH	4740	Battery Positive Voltage	II	-
8	1 2.5	BK BK	1950 1950	Ground Ground	II II	KA1+AG2/AT9/KU1/KU3 KA1-AT9-AG2-KU3-ADT
9	-	-	-	Not Occupied	-	-
10	0.5	RD/GY	1740	Battery Positive Voltage	II	-

K29F SEAT HEATING CONTROL MODULE - FRONT X2 (KA1)



Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 7283-9076-30
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 0.64 Kaizen Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/YE	2080	Driver Heated Seat NTC Low Reference	I	-
2	0.35	BK/GY	2435	Passenger Heated Seat NTC Low Reference	I	-
3	0.35	BU	2425	Driver Heated Back NTC Signal	I	-
4	0.75	WH/BU	2436	Passenger Heated Back NTC Signal	I	-
5	0.35	WH/GY	2434	Passenger Heated Seat NTC Signal	I	-
6	0.35	YE/GY	2079	Driver Heated Seat NTC Signal	I	-
7	-	-	-	Not Occupied	-	-
8	0.35	GN/BU	6133	Local Interconnect Network Serial Data Bus 2	I	-
9	0.35	GN/VT	5906	Driver Seat Vent Motor Control 1	I	-
10	0.35	VT/WH	5908	Passenger Seat Vent Motor Control 1	I	-
11	0.35	BK/VT	2426	Driver Heated Back NTC Low Reference	I	-
12	0.75	BK/GN	2482	Passenger Heated Back NTC Low Reference	I	-
13 - 16	-	-	-	Not Occupied	-	-