

2010 ELECTRICAL

Wiring Systems and Power Management - Component Locator - Component Connector End Views - G24 To K108 - Equinox & Terrain

COMPONENT CONNECTOR END VIEWS - G24 TO K108

G24 WINDSHIELD WASHER PUMP

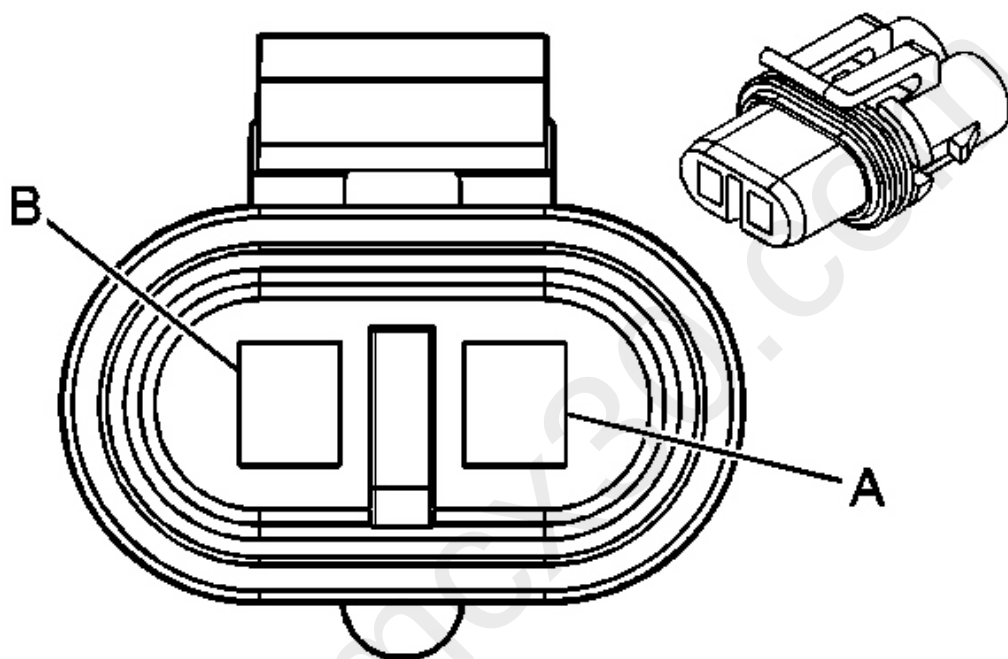


Fig. 1: G24 Windshield Washer Pump
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Forward Lamp
- OEM Connector: 12020599
- Service Connector: 12102664
- Description: 2-Way F Metri-Pack 280 Series (BK)

Terminal Part Information

- Terminated Lead: Pending
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-4A (PU)
- Terminal/Tray: 12077411/2
- Core/Insulation Crimp: 2/5

G24 Windshield Washer Pump

Pin	Wire	Circuit	Function
A	0.8 OG	228	Windshield Washer Pump Control
B	0.8 D-GN	392	Rear Window Washer Pump Control

K8 BLOWER MOTOR CONTROL MODULE X1

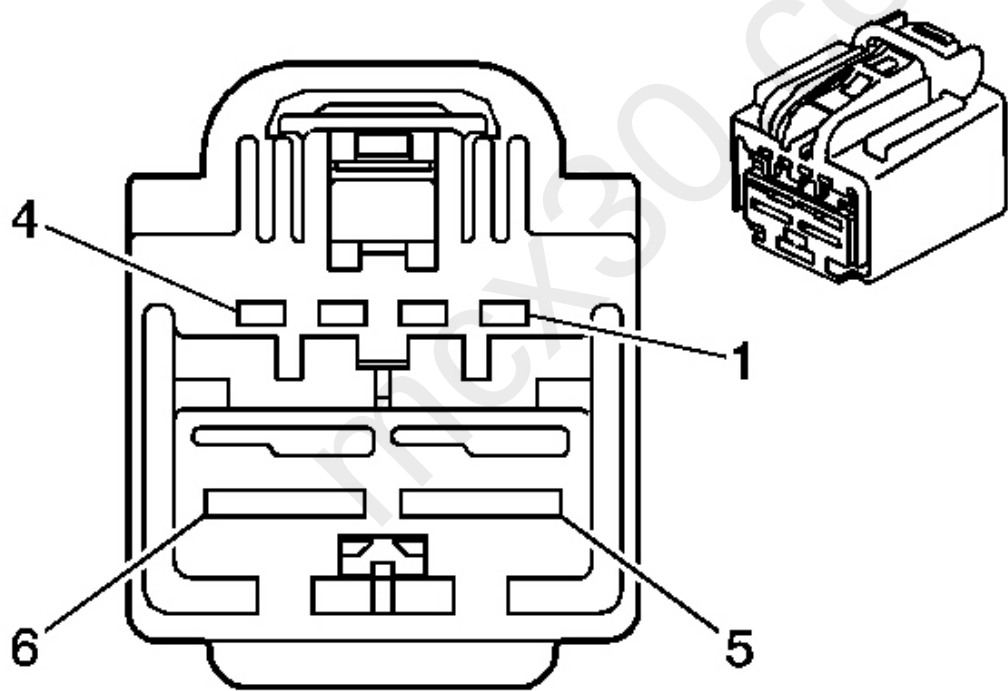


Fig. 2: K8 Blower Motor Control Module X1
Courtesy of GENERAL MOTORS CORP.

- Harness: Instrument Panel
- OEM Connector: 7283-9749-30
- Service Connector: 88988512
- Description: 6-Way F YESC Kaizen Series (BK)

Terminal Part Information

- Pins: 3
- Terminated Lead: 13575479
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-2A (GY)
- Terminal/Tray: 12191812/19
- Core/Insulation Crimp: E/C

- Pins: 5, 6
- Terminated Lead: 13575289
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-42 (RD)
- Terminal/Tray: 7116-4122-02/10
- Core/Insulation Crimp: D/G

K8 Blower Motor Control Module X1

Pin	Wire	Circuit	Function
1-2	-	-	Not Used
3	0.35 GY/BK	754	Blower Motor Speed Control
4	-	-	Not Used
5	5 BK	1550	Ground
6	5 RD/BK	542	Battery Positive Voltage

K8 BLOWER MOTOR CONTROL MODULE X2

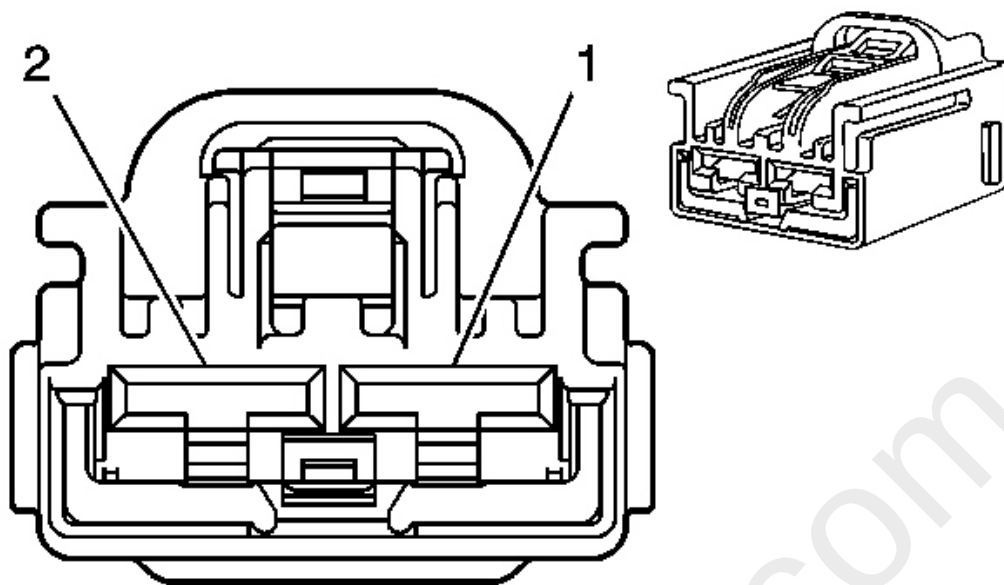


Fig. 3: K8 Blower Motor Control Module X2
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: 7283-6458-40
- Service Connector: 88988507
- Description: 2-Way F Receptacle 6.3 Series (L-GY)

Terminal Part Information

- Terminated Lead: 13575289
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-42 (RD)
- Terminal/Tray: 7116-4122-02/10
- Core/Insulation Crimp: D/G

K8 Blower Motor Control Module X2

Pin	Wire	Circuit	Function
1	5 PU	65	Blower Motor Supply Voltage
2	5 OG	5987	Low Reference

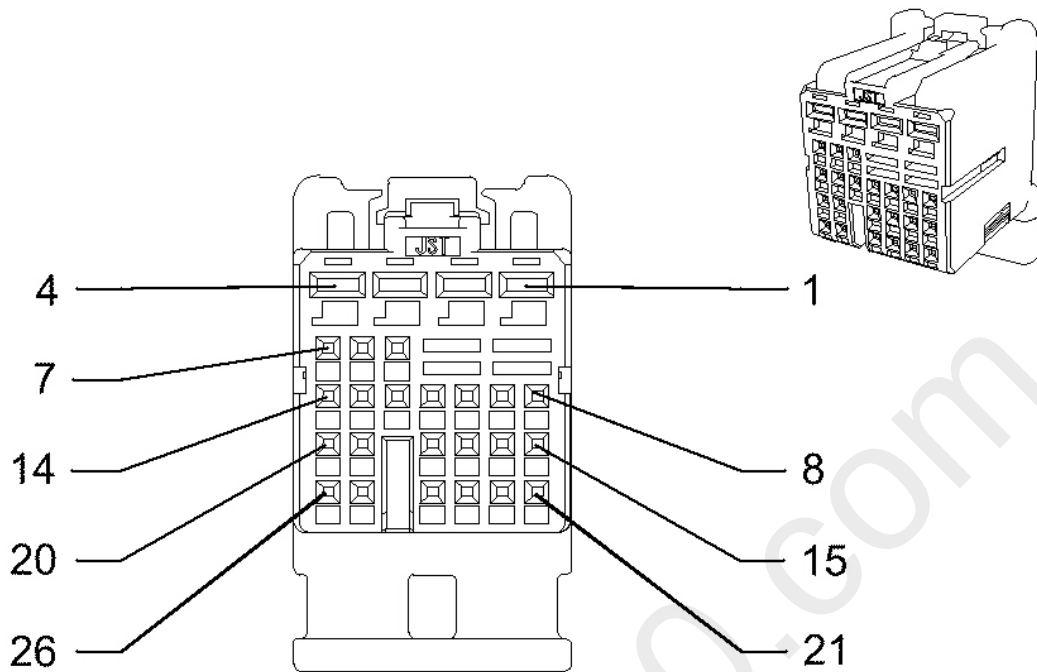
K9 BODY CONTROL MODULE X1

Fig. 4: K9 Body Control Module X1
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: HIT2PB-26-3B-S
- Service Connector: 13317829
- Description: 26-Way F 64 Series (WH)

Terminal Part Information

- Pins: 6, 7, 11, 13, 14, 16, 19, 21-26
- Terminated Lead: 13575869
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SNAC3-A021T-M0.64/20
- Core/Insulation Crimp: J/J
- Pins: 1-4

- Terminated Lead: 13575871
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A061T-M2.8/20
- Core/Insulation Crimp: Pins 1, 2 - C/A
- Core/Insulation Crimp: Pins 3, 4 - E/A

K9 Body Control Module X1

Pin	Wire	Circuit	Function
1	1 BK/WH	651	Ground
2	1 RD/WH	2540	Battery Positive Voltage
3	0.8 RD/WH	2740	Battery Positive Voltage
4	0.8 RD/WH	2240	Battery Positive Voltage
5	-	-	Not Used
6	0.35 YE	143	Accessory Voltage
7	0.35 YE	5005	Low Reference
8-10	-	-	Not Used
11	0.35 D-GN	306	Headlamp Switch Headlamps Off Signal/Automatic Headlamp Low Control
12	-	-	Not Used
13	0.35 L-BU/BK	1688	5-Volt Reference
14	0.35 OG	192	Front Fog Lamp Switch Signal/Fog Lamps Enable (T96)
15	-	-	Not Used
16	0.35 WH	103	Headlamp Switch Headlamps On Signal
17-18	-	-	Not Used
19	0.35 BN	5360	Low Reference
20	-	-	Not Used
21	0.35 GY	728	Security Indicator Control
22	0.35 L-BU	13	Headlamp Switch Park Lamps Signal
23	0.35 PU	7558	Accent Lamps Control
24	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
25	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
26	0.35 PK/WH	3272	RCDLR Data Transmit

K9 BODY CONTROL MODULE X2

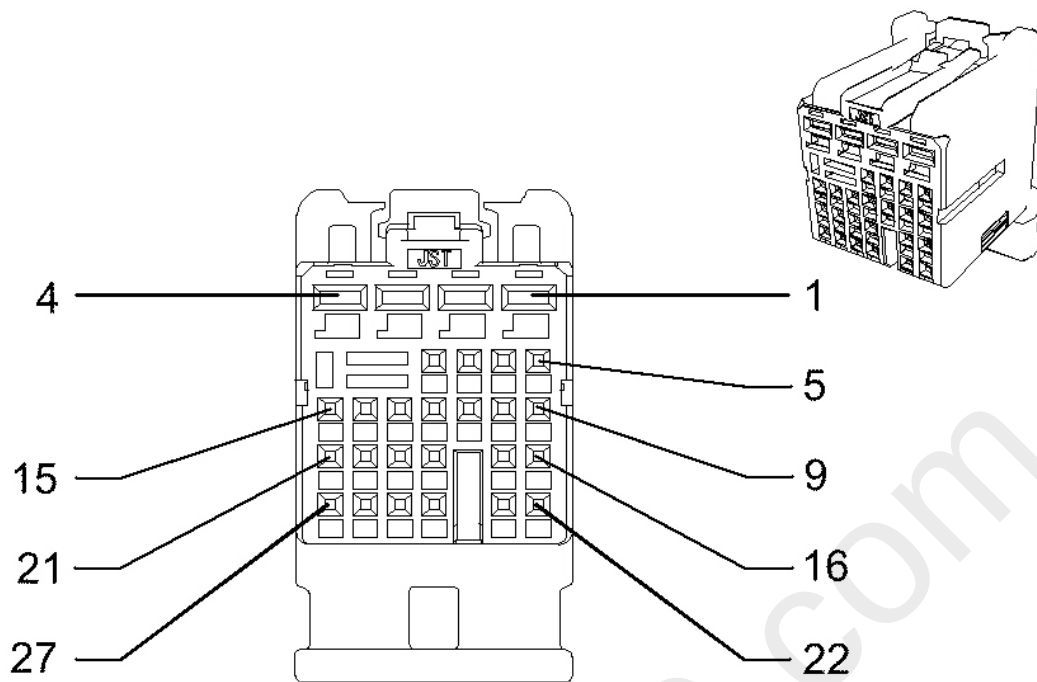


Fig. 5: K9 Body Control Module X2
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: HIT2PB-27-3C-LE
- Service Connector: 13576637
- Description: 27-Way F 64 Series (L-BU)

Terminal Part Information

- Pins: 5-16, 18, 19, 21-27
- Terminated Lead: 13575869
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SNAC3-A021T-M0.64/20
- Core/Insulation Crimp: J/J
- Pins: 4
- Terminated Lead: Pending

- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A081T-M2.8/20
- Core/Insulation Crimp: A/D
- Pins: 1-3
- Terminated Lead: 13575871
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A061T-M2.8/20
- Core/Insulation Crimp: Pins 1, 3 - E/A
- Core/Insulation Crimp: Pin 2 - C/A

K9 Body Control Module X2

Pin	Wire	Circuit	Function
1	0.8 RD/WH	2140	Battery Positive Voltage
2	1 BK/WH	651	Ground
3	0.8 RD/WH	2940	Battery Positive Voltage
4	3 RD/WH	4040	Battery Positive Voltage
5	0.5 GY	157	Courtesy Lamp Control
6	0.35 GY	5697	Child Security Indicator Control
7	0.35 YE	5361	Brake Pedal Position Sensor Signal
8	0.5 YE	6817	LED Backlight Dimming Control
9	0.35 D-GN	44	Instrument Panel Lamps Dimmer Switch Signal
10	0.35 WH	278	Ambient Light Sensor Signal
11	0.35 PU	5526	Tap Up/Tap Down Switch Signal
12	0.35 GY	391	Rear Window Wiper Switch Signal
13	0.35 WH	5359	5-Volt Reference
14	0.35 L-BU	1788	Traction Control Switch Signal
15	0.35 OG/BK	781	Driver Door Lock Switch Unlock Signal
16	0.35 L-BU/WH	3275	RCDLR Ground
17	-	-	Not Used
18	0.35 L-BU	3265	Child Security Switch Signal
19	0.35 PK/BK	780	Driver Door Lock Switch Lock Signal
20	-	-	Not Used
21	0.35 GY	6135	Local Interconnect Network 4
22	0.35 D-GN	5060	Low Speed GMLAN Serial Data
23	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
24	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +

25	0.35 L-GN	3274	RCDLR Power
26	0.35 WH	111	Hazard Switch Signal
27	0.35 GY	3273	RCDLR Data Receive

K9 BODY CONTROL MODULE X3

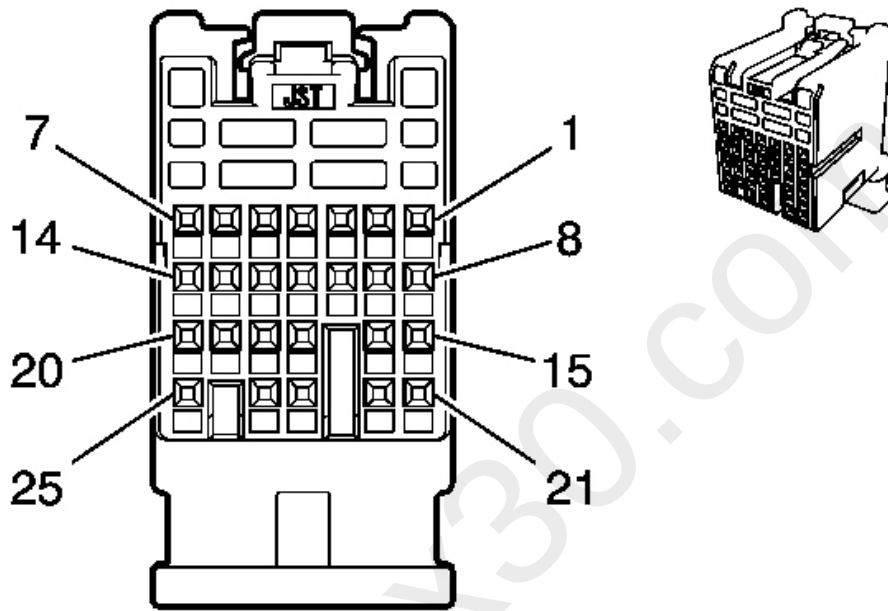


Fig. 6: K9 Body Control Module X3
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: HIT2PB-25-3A-LM
- Service Connector: 13317833
- Description: 25-Way F 64 Series (L-GN)

Terminal Part Information

- Terminated Lead: 13575869
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)

- Terminal/Tray: SNAC3-A021T-M0.64/20
- Core/Insulation Crimp: J/J

K9 Body Control Module X3

Pin	Wire	Circuit	Function
1	0.35 D-GN/WH	3277	Immobilizer Ground
2	0.35 L-BU	7533	Local Interconnect Network 11
3	0.35 PK/BK	3276	Theft Deterrent Module Power
4	0.35 PK	1444	12-Volt Reference
5	0.35 BN	4	Accessory Voltage
6	0.35 PK	3	Ignition Voltage
7	0.35 TN/WH	816	A/T Shift Lock Solenoid Supply Voltage
8	0.35 L-GN	6818	Steering Wheel Control Switch Signal (UK3)
9	0.35 GY	1884	Cruise Control Switch Signal
10	0.35 TN/BK	6009	Low Reference
11	0.35 YE	525	Headlamp Dimmer Switch Low Beam Signal
12	0.35 D-GN	663	Hazard Switch Left Turn Signal
13	0.35 L-BU	1714	Windshield Wiper Switch Low Signal
14	-	-	Not Used
15	0.35 PK	1020	Ignition Voltage
16	-	-	Not Used
17	0.35 YE	307	Headlamp Switch Flash to Pass Signal
18	0.35 D-GN	1329	Horn Fuse Supply Voltage
19	-	-	Not Used
20	0.35 L-GN	1715	Windshield Wiper Switch High Signal
21	-	-	Not Used
22	0.35 WH/BK	1073	5-Volt Reference
23	-	-	Not Used
24	0.35 TN	664	Hazard Switch Turn Right Signal
25	0.35 PK	94	Windshield Washer Switch Signal

K9 BODY CONTROL MODULE X4

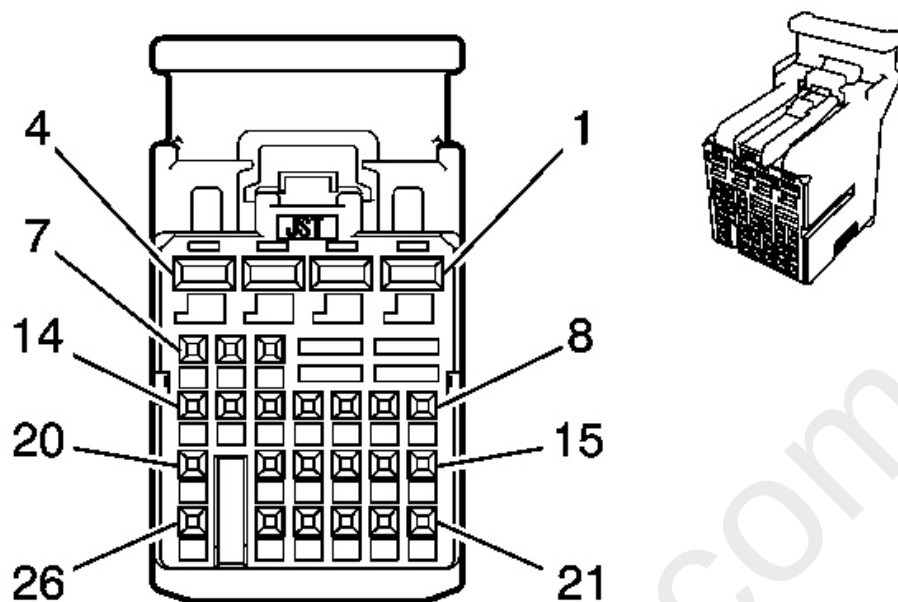


Fig. 7: K9 Body Control Module X4
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM Connector: HIT2PB-26-2D-K
- Service Connector: 13317830
- Description: 26-Way F 64 Series (BK)

Terminal Part Information

- Pins: 5-18, 20-24, 26
- Terminated Lead: 13575869
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SNAC3-A021T-M0.64/20
- Core/Insulation Crimp: J/J
- Pins: 1-4
- Terminated Lead: 13575871

- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A061T-M2.8/20
- Core/Insulation Crimp: Pins 1, 3 - C/A
- Core/Insulation Crimp: Pins 2, 4 - E/A

K9 Body Control Module X4

Pin	Wire	Circuit	Function
1	1 TN/WH	312	Right Headlamp Low Beam Supply Voltage
2	0.8 YE	712	Left Headlamp Low Beam Supply Voltage
3	1 D-BU/WH	1315	Right Front Turn Signal Lamp Supply Voltage
4	0.8 D-GN/WH	1335	Right Rear Turn Signal Lamp Supply Voltage
5	0.5 BN/WH	309	Right Park Lamp Supply Voltage
6	0.5 PU	709	Left Park Lamp Supply Voltage
7	0.5 BN	2509	Left Rear Park Lamps Supply Voltage
8	0.35 D-GN	5706	5-Volt Reference (without TB5)
9	0.35 YE	7546	Logistics Relay Control (EXP)
10	0.35 YE	5420	Rear Wiper Relay Control
11	0.35 WH	5065	Center High Mounted Stop Lamp (CHMSL) Control
12	0.5 PK	70	RAP Relay Switch Supply Voltage
13	0.35 D-GN/RD	6846	Rear License Lamp Control
14	0.35 OG	2268	Washer Fluid Pump Relay Control
15	0.35 YE	5199	Ignition Voltage
16	0.35 GY	91	Wiper Relay Control
17	0.5 YE	196	Windshield Wiper Motor Park Switch Signal
18	0.5 WH	5075	Current Sensor Signal
19	-	-	Not Used
20	0.5 RD/WH	2340	Battery Positive Voltage
21	0.5 PK	5076	Current Sensor Voltage
22	0.5 D-BU	5985	Serial Data Wake-Up Signal
23	0.35 L-BU	5986	Serial Data Communication Enable
24	0.35 PK/BK	109	Hood Ajar Switch Signal (BTV)
25	-	-	Not Used
26	0.5 BK	50	Ground

K9 BODY CONTROL MODULE X5

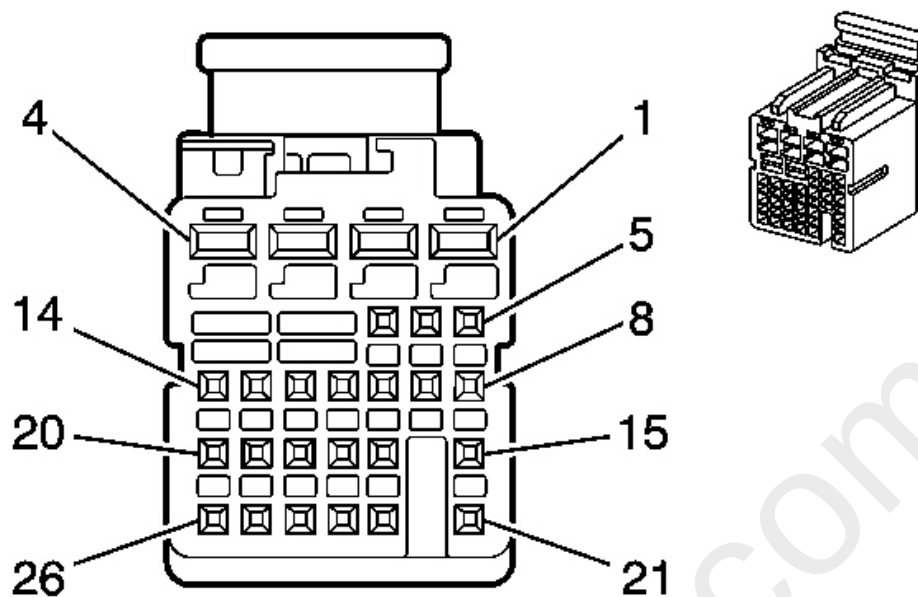


Fig. 8: K9 Body Control Module X5
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM Connector: HIT2PB-26-2E-N
- Service Connector: 13317831
- Description: 26-Way F 64 Series (TN)

Terminal Part Information

- Pins: 5-8, 10-12, 17-21, 24
- Terminated Lead: 13575869
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SNAC3-A021T-M0.64/20
- Core/Insulation Crimp: J/J
- Pins: 1-4
- Terminated Lead: 13575871

- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A061T-M2.8/20
- Core/Insulation Crimp: Pins 1, 3, 4 - E/A
- Core/Insulation Crimp: Pin 2 - C/A

K9 Body Control Module X5

Pin	Wire	Circuit	Function
1	0.8 YE/BK	1334	Left Rear Turn Signal Lamp Supply Voltage
2	1 L-BU/WH	1314	Left Front Turn Signal Lamp Supply Voltage
3	0.8 RD/WH	3840	Battery Positive Voltage
4	0.8 RD/WH	3440	Battery Positive Voltage
5	0.35 L-GN/BK	3267	Child Security Door Latch Relay Control
6	0.5 BN	5077	Low Reference
7	0.5 BN	2609	Park Lamps Supply Voltage
8	0.35 OG	5186	Left Trailer Turn Signal Lamp Control (V92)
9	-	-	Not Used
10	0.35 D-GN/WH	1317	Fog Lamp Relay Control (T96)
11	0.35 L-GN	2270	Rear Window Washer Relay Control
12	0.35 L-BU/WH	6311	Brake Pedal Switch Signal
13-16	-	-	Not Used
17	0.35 YE	5187	Right Trailer Turn Signal Lamp Control (V92)
18	0.5 TN/WH	1969	Headlamp High Beam Relay Control
19	0.35 TN	28	Horn Relay Control
20	0.35 YE	5704	5-Volt Reference (without TB5)
21	0.35 D-BU	45	Park Lamp Supply Voltage/Marker Lamp Supply Voltage
22-23	-	-	Not Used
24	0.5 TN	860	Front Windshield Wiper Switch High Signal
25-26	-	-	Not Used

K9 BODY CONTROL MODULE X6

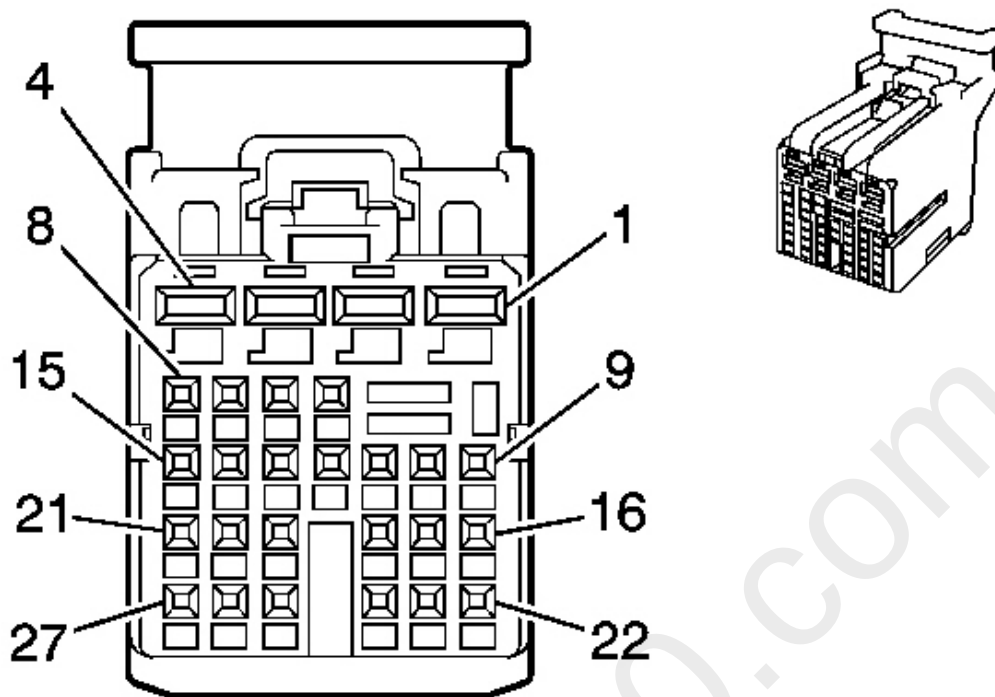


Fig. 9: K9 Body Control Module X6
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM Connector: HIT2PB-27-2F-PK
- Service Connector: 13317828
- Description: 27-Way F 64 Series (PK)

Terminal Part Information

- Pins: 5, 9, 10, 12, 15, 16, 24, 25
- Terminated Lead: 13575869
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SNAC3-A021T-M0.64/20
- Core/Insulation Crimp: J/J

- Pins: 2, 3
- Terminated Lead: Pending
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A081T-M2.8/20
- Core/Insulation Crimp: A/D
- Pins: 1, 4
- Terminated Lead: 13575871
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A061T-M2.8/20
- Core/Insulation Crimp: Pin 1 - E/A
- Core/Insulation Crimp: Pin 4 - C/A

K9 Body Control Module X6

Pin	Wire	Circuit	Function
1	0.8 GY	5911	Driver Door Lock Motor Lock Control
2	2 TN	294	Door Lock Actuator Unlock Control
3	2 BK	750	Ground
4	1 D-GN	3271	Door Latch Control
5	0.35 PK/BK	1303	Liftgate Ajar Switch Signal (without TB5)
6-8	-	-	Not Used
9	0.35 D-BU	6133	Local Interconnect Network 2
10	0.35 D-GN	6134	Local Interconnect Network 3
11	-	-	Not Used
12	0.5 L-BU	1134	Park Brake Switch Signal
13-14	-	-	Not Used
15	0.35 GY	5797	Liftgate Open/Close Switch Signal - Rear (without TB5)
16	0.35 BN	6132	Local Interconnect Network 1 (CF5)
17-23	-	-	Not Used
24	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
25	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
26-27	-	-	Not Used

K9 BODY CONTROL MODULE X7

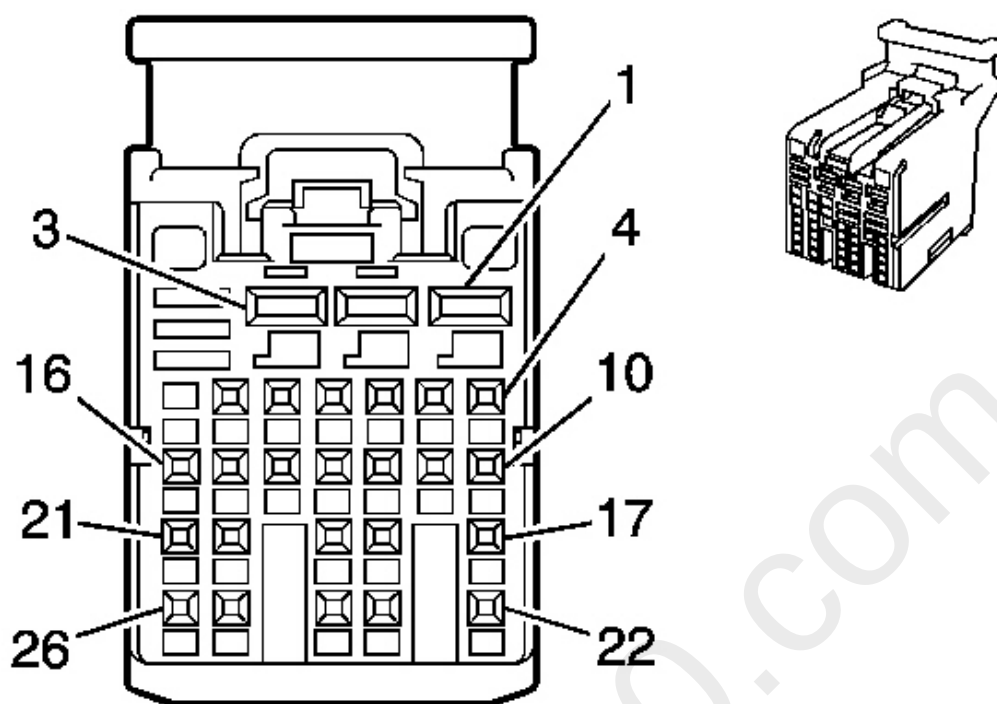


Fig. 10: K9 Body Control Module X7
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM Connector: HIT2PB-26-2G-H
- Service Connector: 13317832
- Description: 26-Way F 64 Series (GY)

Terminal Part Information

- Pins: 1-3
- Terminated Lead: Pending
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: SNAC-A061T-M2.8/20
- Core/Insulation Crimp: E/A

- Pins: 9, 12, 16, 18, 19, 22-24
- Terminated Lead: 13575869
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SNAC3-A021T-M0.64/20
- Core/Insulation Crimp: J/J

K9 Body Control Module X7

Pin	Wire	Circuit	Function
1	0.8 GY	157	Courtesy Lamp Control (TSQ)
2	0.8 OG	6815	Inadvertent Power Supply Voltage
3	0.8 L-GN	24	Backup Lamp Supply Voltage
4-8	-	-	Not Used
9	0.35 YE	6817	LED Backlight Dimming Control
10-11	-	-	Not Used
12	0.35 BN/WH	3269	Left Rear Door Ajar Switch Signal
13-15	-	-	Not Used
16	0.35 YE/BK	9231	Logistics Relay Control (EXP)
17	-	-	Not Used
18	0.35 GY/BK	3268	Right Rear Door Ajar Switch Signal
19	0.35 WH	156	Courtesy Lamp Switch Signal
20-21	-	-	Not Used
22	0.35 PK	7557	Lamp Illumination (TSQ or TSP)
23	0.35 D-GN	5060	Low Speed GMLAN Serial Data
24	0.35 PU	328	Interior Lamp Defeat Switch Signal
25-26	-	-	Not Used

K17 ELECTRONIC BRAKE CONTROL MODULE

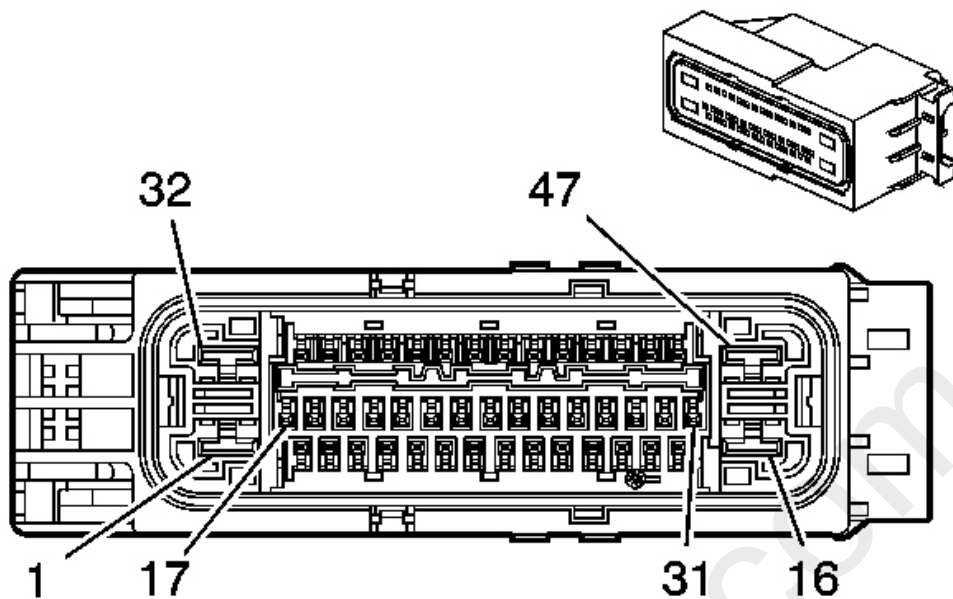


Fig. 11: K17 Electronic Brake Control Module
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM: 8-1355628-8
- Service: 19115598
- Description: 47-Way F, Sealed (BK)

Terminal Part Information

- Pins: 1, 16
- Terminated Lead: Service by Connector Assembly - 8-1355628-8
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Connector Assembly - 8-1355628-8
- Core/Insulation Crimp: Not Available
- Pins: 32
- Terminated Lead: 13576390

- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-42 (RD)
- Terminal/Tray: 7116-4140-02/10
- Core/Insulation Crimp: E/5
- Pins: 3, 8, 11-14, 17, 20, 22, 26, 27, 33-37, 39, 41-43, 45, 46
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 638551-1/16
- Core/Insulation Crimp: Pins 3, 8, 11-14, 17, 20, 22 - J/J
- Core/Insulation Crimp: Pins 26, 27, 33-37, 39, 41-43, 45, 46 - K/K

K17 Electronic Brake Control Module

Pin	Wire	Circuit	Function
1	3 RD/BK	442	Battery Positive Voltage
2	-	-	Not Used
3	0.35 D-GN/WH	817	Vehicle Speed Signal
4-7	-	-	Not Used
8	0.35 L-BU	5986	Serial Data Communication Enable
9-10	-	-	Not Used
11	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
12	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
13	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
14	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
15	-	-	Not Used
16	5 BK	350	Ground
17	0.35 D-BU	6105	High Speed GMLAN Serial Data +
18-19	-	-	Not Used
20	0.35 L-BU	6106	High Speed GMLAN Serial Data -
21	-	-	Not Used
22	0.35 D-GN	2087	Steering Wheel Position Sensor 5V Reference
23-25	-	-	Not Used
26	0.5 GY	6031	5-Volt Reference
27	0.5 YE/BK	6032	Low Reference
28-31	-	-	Not Used
32	0.8 RD/BK	1042	Battery Positive Voltage
33	0.5 TN	833	Right Front Wheel Speed Sensor Low Reference
34	0.5 D-GN	872	Right Front Wheel Speed Sensor Signal

35	0.5 BN	6305	Vacuum Pump Relay Control
36	0.5 TN	884	Left Rear Wheel Speed Sensor Signal
37	0.5 OG	885	Left Rear Wheel Speed Sensor Low Reference
38	-	-	Not Used
39	0.5 PU	333	Brake Fluid Level Sensor Signal
40	-	-	Not Used
41	0.5 OG	6030	Brake Booster Vacuum Sensor Signal
42	0.5 WH	883	Right Rear Wheel Speed Sensor Low Reference
43	0.5 BN	882	Right Rear Wheel Speed Sensor Signal
44	-	-	Not Used
45	0.5 L-BU	830	Left Front Wheel Speed Sensor Signal
46	0.5 YE	873	Left Front Wheel Speed Sensor Low Reference
47	-	-	Not Used

K20 ENGINE CONTROL MODULE X1 (LAF)

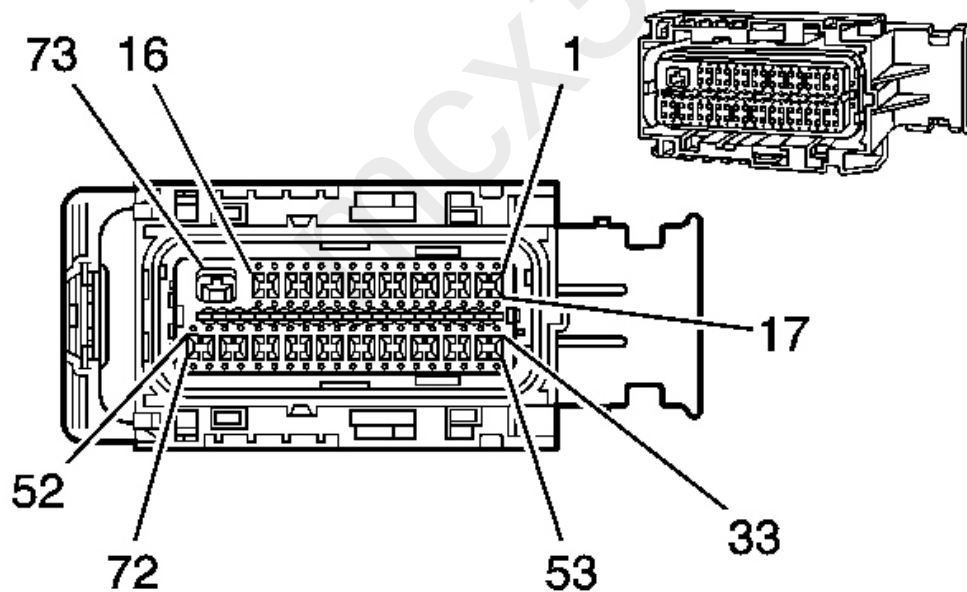


Fig. 12: K20 Engine Control Module X1 (LAF)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Engine
- OEM: 34566-2593
- Service: 13574782
- Description: 73-Way F MX123 Series, Sealed (Connector-BK; TPA-BU)

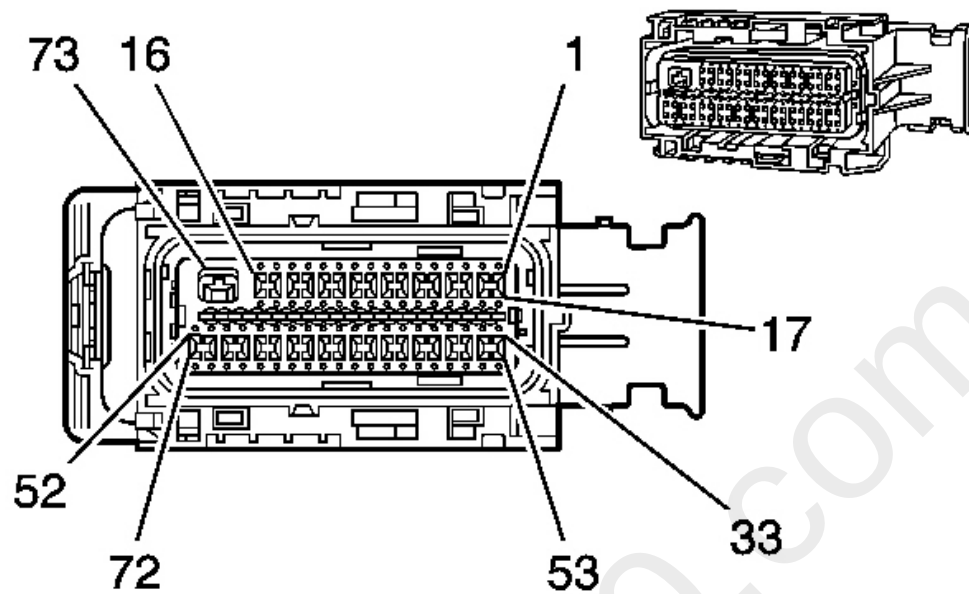
Terminal Part Information

- Pins: 73
- Terminated Lead: Pending
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-4A (PU)
- Terminal/Tray: 7116-4151-02/9
- Core/Insulation Crimp: C/1
- Pins: 39, 40
- Terminated Lead: 13575810
- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0003/23
- Core/Insulation Crimp: H/H
- Pins: 6, 9, 10, 14, 15, 21, 22, 25-27, 30, 32-34, 42, 44, 46, 51-53, 57, 59, 62, 63, 66, 70, 72
- Terminated Lead: Pending
- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: Pin: 6, 9, 10, 14, 15, 21, 22, 25-27, 30, 32-34, 42, 44, 46, 51-53, 57, 59, 63, 66, 70, 72 - J/J
- Core/Insulation Crimp: Pin 62 - K/K

K20 Engine Control Module X1 (LAF)

Pin	Wire	Circuit	Function
1-5	-	-	Not Available
6	0.5 OG/BK	380	A/C Refrigerant Pressure Sensor Signal
7-8	-	-	Not Available
9	0.5 D-GN	890	Fuel Tank Pressure Sensor Signal
10	0.5 GY	2709	5-Volt 1 Reference
11-13	-	-	Not Available
14	0.5 WH/BK	1164	5-Volt 4 Reference

15	0.5 D-BU	1161	APP Sensor 1 Signal
16-20	-	-	Not Available
21	0.5 GY	2700	5-Volt 1 Reference
22	0.5 TN	5514	Low Reference
23-24	-	-	Not Available
25	0.5 D-BU	1936	Fuel Level Sensor Signal
26	0.5 BN/WH	6281	Sensor Low Reference
27	0.5 L-BU	1937	Fuel Level Sensor Signal - Secondary
28-29	-	-	Not Available
30	0.5 BN	1271	Low Reference
31	-	-	Not Available
32	0.5 D-GN/WH	459	A/C Compressor Clutch Relay Control
33	0.5 TN	1274	5-Volt 3 Reference
34	0.5 L-BU	1162	APP Sensor 2 Signal
35-38	-	-	Not Available
39	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
40	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
41	-	-	Not Available
42	0.5 D-BU	473	High Speed Cooling Fan Relay Control
43	-	-	Not Available
44	0.5 D-GN/WH	465	Fuel Pump Relay Control
45	-	-	Not Available
46	0.5 BN/WH	419	MIL Control
47-50	-	-	Not Available
51	0.5 PK	439	Ignition Voltage
52	0.5 RD/WH	440	Battery Positive Voltage
53	0.5 PU	1272	Low Reference
54-56	-	-	Not Available
57	0.5 L-BU/WH	6311	Brake Pedal Switch Signal
58	-	-	Not Available
59	0.5 D-GN	335	Low Speed Cooling Fan Relay Control
60-61	-	-	Not Available
62	0.8 PK/BK	5291	Ignition Voltage
63	0.5 PU/WH	6386	Starter Relay Control
64-65	-	-	Not Available
66	0.5 WH	1310	EVAP Canister Vent Solenoid Control
67-69	-	-	Not Available
70	0.5 D-BU	5985	Serial Data Wake-Up Signal
71	-	-	Not Available
72	0.5 YE	5991	Powertrain Relay Control
73	1 PK/BK	5290	Ignition Voltage

K20 ENGINE CONTROL MODULE X1 (LF1)**Fig. 13: K20 Engine Control Module X1 (LF1)**

Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Engine
- OEM: 34566-1873
- Service: 13574782
- Description: 73-Way F MX123 Series, Sealed (Connector-BK; TPA-BU)

Terminal Part Information

- Pins: 73
- Terminated Lead: Pending
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 7116-4152-02/9
- Core/Insulation Crimp: 2/5

- Pins: 39, 40
- Terminated Lead: 13575810
- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0003/23
- Core/Insulation Crimp: H/H
- Pins: 4-6, 9, 10, 14, 15, 20-22, 25-27, 30, 32-34, 38, 42, 44, 46, 51-53, 57, 59, 62, 63, 66, 67, 70, 72
- Terminated Lead: Pending
- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: Pins 4-6, 9, 10, 14, 15, 20-22, 25-27, 30, 32-34, 38, 42, 44, 46, 51-53, 57, 59, 63, 66, 70, 72 - J/J
- Core/Insulation Crimp: Pins 62, 67 - K/K

K20 Engine Control Module X1 (LF1)

Pin	Wire	Circuit	Function
1-3	-	-	Not Available
4	0.5 YE/WH	3200	Throttle Position Sensor Signal
5	0.5 GY/WH	3201	5-Volt 1 Reference
6	0.5 OG/BK	380	A/C Refrigerant Pressure Sensor Signal
7-8	-	-	Not Available
9	0.5 D-GN	890	Fuel Tank Pressure Sensor Signal
10	0.5 GY	2709	5-Volt 1 Reference
11-13	-	-	Not Available
14	0.5 WH/BK	1164	5-Volt 4 Reference
15	0.5 D-BU	1161	APP Sensor 1 Signal
16-19	-	-	Not Available
20	0.5 TN/WH	3202	Low Reference
21	0.5 GY	2700	5-Volt 1 Reference
22	0.5 TN	5514	Low Reference
23-24	-	-	Not Available
25	0.5 D-BU	1936	Fuel Level Sensor Signal
26	0.5 BN/WH	6281	Sensor Low Reference
27	0.5 L-BU	1937	Fuel Level Sensor Signal - Secondary
28-29	-	-	Not Available
30	0.5 BN	1271	Low Reference
31	-	-	Not Available

32	0.5 D-GN/WH	459	A/C Compressor Clutch Relay Control
33	0.5 TN	1274	5-Volt 3 Reference
34	0.5 L-BU	1162	APP Sensor 2 Signal
35-38	-	-	Not Available
39	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
40	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
41	-	-	Not Available
42	0.5 D-BU	473	High Speed Cooling Fan Relay Control
43	-	-	Not Available
44	0.5 D-GN/WH	465	Fuel Pump Relay Control
45	-	-	Not Available
46	0.5 BN/WH	419	MIL Control
47-50	-	-	Not Available
51	0.5 PK	439	Ignition Voltage
52	0.5 RD/WH	440	Battery Positive Voltage
53	0.5 PU	1272	Low Reference
54-56	-	-	Not Available
57	0.5 L-BU/WH	6311	Brake Pedal Switch Signal
58	-	-	Not Available
59	0.5 D-GN	335	Low Speed Cooling Fan Relay Control
60-61	-	-	Not Available
62	0.8 PK/BK	5291	Ignition Voltage
63	0.5 PU/WH	6386	Starter Relay Control
64-65	-	-	Not Available
66	0.5 WH	1310	EVAP Canister Vent Solenoid Control
67	0.8 PK/BK	5292	Ignition Voltage
68-69	-	-	Not Available
70	0.5 D-BU	5985	Serial Data Wake-Up Signal
71	-	-	Not Available
72	0.5 YE	5991	Powertrain Relay Control
73	2 PK/BK	5290	Ignition Voltage

K20 ENGINE CONTROL MODULE X2 (LAF)

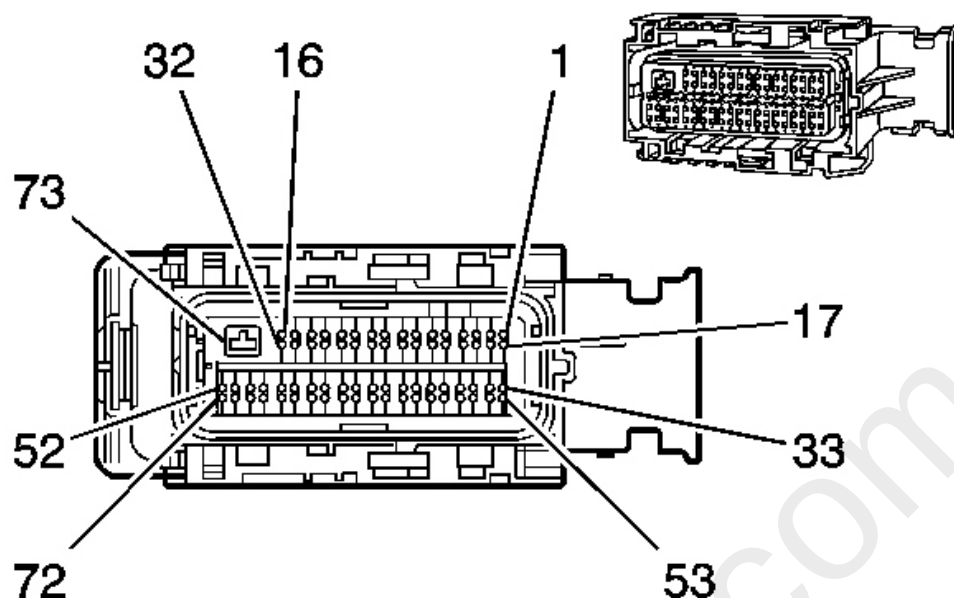


Fig. 14: K20 Engine Control Module X2 (LAF)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Engine
- OEM: 34566-2583
- Service: 88988931
- Description: 73-Way F 64 2.8 Series, Sealed (Connector-BK; TPA-BK)

Terminal Part Information

- Pins: 3, 10, 12, 14, 16, 18, 19, 26, 28, 32-36, 39, 41-44, 49, 50-56, 58, 63, 69
- Terminated Lead: Pending
- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: J/J
- Pins: 73
- Terminated Lead: Pending

- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 7116-4152-02/9
- Core/Insulation Crimp: 2/5

K20 Engine Control Module X2 (LAF)

Pin	Wire	Circuit	Function
1-2	-	-	Not Available
3	0.5 TN	808	Low Reference
4-9	-	-	Not Available
10	0.5 PU/WH	3110	HO2S Reference Voltage (Bank 1 Sensor 1)
11	-	-	Not Available
12	0.5 PU	3120	HO2S High Signal (Bank 1 Sensor 2)
13	-	-	Not Available
14	0.5 GY	2093	5-Volt 2 Reference
15	-	-	Not Available
16	0.5 BN	582	TAC Motor Control - 2
17	-	-	Not Available
18	0.5 GY	598	5-Volt 1 Reference
19	0.5 YE	2918	FRP Sensor Signal
20-25	-	-	Not Available
26	0.5 TN/WH	3111	HO2S Low Reference (Bank 1 Sensor 1)
27	-	-	Not Available
28	0.5 TN/WH	3121	HO2S Low Signal (Bank 1 Sensor 2)
29-31	-	-	Not Available
32	0.5 YE	581	TAC Motor Control - 1
33	0.5 D-GN	485	TP Sensor 1 Signal
34	0.5 GY	2701	5-Volt 4 Reference
35	0.5 PU	486	TP Sensor 2 Signal
36	0.5 D-BU	496	Knock Sensor (KS) 1 Signal
37-38	-	-	Not Available
39	0.5 L-GN/BK	3633	Noise Cancellation (LAF with VQN)
40	-	-	Not Available
41	0.5 GY/WH	3113	HO2S Heater Low Control (Bank 1 Sensor 1)
42	0.5 GY/WH	3122	HO2S Heater Low Control (Bank 2 Sensor 1)
43	0.5 L-GN	432	MAP Sensor Signal
44	0.5 GY	2704	5-Volt 3 Reference
45-48	-	-	Not Available
49	0.5 L-BU	6289	Intake Air Temperature Sensor Signal
50	0.5 PK/WH	2092	Fuel Economy Mode Switch Signal
51	0.5 D-GN/WH	428	EVAP Canister Purge Solenoid Control

52	0.5 YE	492	MAF Sensor Signal
53	0.5 BN	25	Charge Indicator Control/Charge Indicator Signal
54	0.5 TN	2752	Low Reference
55	0.5 GY	23	Generator Field Duty Cycle Signal
56	0.5 GY	1716	Knock Sensor (KS) 1 Signal
57	-	-	Not Available
58	0.5 D-GN	6307	Clutch Start Neutral Start Signal (MH7 or MHC)
59-62	-	-	Not Available
63	0.5 OG/BK	469	Low Reference
64-68	-	-	Not Available
69	0.5 TN	2760	Low Reference
70-72	-	-	Not Available
73	2 BK/WH	451	Ground

K20 ENGINE CONTROL MODULE X2 (LF1)

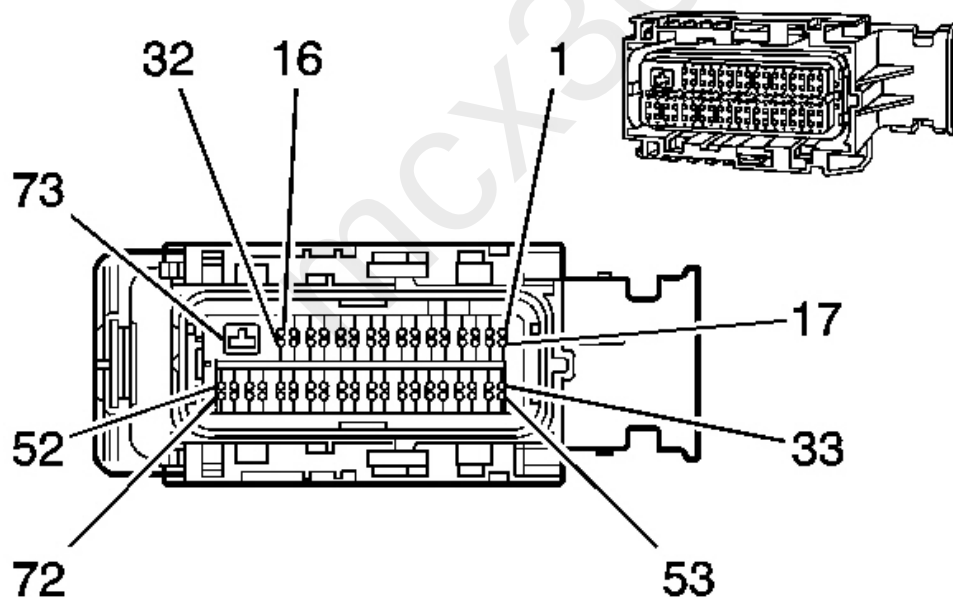


Fig. 15: K20 Engine Control Module X2 (LF1)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Engine
- OEM: 34566-2273
- Service: 88988931
- Description: 73-Way F 64 2.8 Series, Sealed (Connector-BK; TPA-BU)

Terminal Part Information

- Pins: 3, 10-14, 16, 18, 19, 26-29, 32-37, 41-44, 49-58, 61-63, 69
- Terminated Lead: Pending
- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: J/J
- Pins: 73
- Terminated Lead: Pending
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 7116-4152-02/9
- Core/Insulation Crimp: 2/5

K20 Engine Control Module X2 (LF1)

Pin	Wire	Circuit	Function
1-2	-	-	Not Available
3	0.5 TN	808	Low Reference
4-9	-	-	Not Available
10	0.5 PU/WH	3110	HO2S Reference Voltage (Bank 1 Sensor 1)
11	0.5 PU/WH	3210	HO2S Reference Voltage (Bank 2 Sensor 1)
12	0.5 PU	3120	HO2S High Signal (Bank 1 Sensor 2)
13	0.5 PU	3220	HO2S High Signal (Bank 2 Sensor 2)
14	0.5 GY	2093	5-Volt 2 Reference
15	-	-	Not Available
16	0.5 BN	582	TAC Motor Control - 2
17	-	-	Not Available
18	0.5 GY	598	5-Volt 1 Reference
19	0.5 YE	2918	FRP Sensor Signal
20-25	-	-	Not Available
26	0.5 TN/WH	3111	HO2S Low Reference (Bank 1 Sensor 1)
27	0.5 TN/WH	3211	HO2S Low Reference (Bank 2 Sensor 1)
28	0.5 TN/WH	3121	HO2S Low Signal (Bank 1 Sensor 2)

29	0.5 TN	3221	HO2S Low Signal (Bank 2 Sensor 2)
30-31	-	-	Not Available
32	0.5 YE	581	TAC Motor Control - 1
33	0.5 D-GN	485	TP Sensor 1 Signal
34	0.5 GY	2701	5-Volt 4 Reference
35	0.5 PU	486	TP Sensor 2 Signal
36	0.5 D-BU	496	Knock Sensor (KS) 1 Signal
37	0.5 L-BU	1876	Knock Sensor (KS) 2 Signal
38-40	-	-	Not Available
41	0.5 GY/WH	3113	HO2S Heater Low Control (Bank 1 Sensor 1)
42	0.5 GY/WH	3122	HO2S Heater Low Control (Bank 2 Sensor 1)
43	0.5 L-GN	432	MAP Sensor Signal
44	0.5 GY	2704	5-Volt 3 Reference
45-48	-	-	Not Available
49	0.5 L-BU	6289	Intake Air Temperature Sensor Signal
50	0.5 PK/WH	2092	Fuel Economy Mode Switch Signal
51	0.5 D-GN/WH	428	EVAP Canister Purge Solenoid Control
52	0.5 YE	492	MAF Sensor Signal
53	0.5 BN	25	Charge Indicator Control/Charge Indicator Signal
54	0.5 TN	2752	Low Reference
55	0.5 GY	23	Generator Field Duty Cycle Signal
56	0.5 GY	1716	Knock Sensor (KS) 1 Signal
57	0.5 GY	2303	Knock Sensor (KS) 2 Signal
58	0.5 D-GN	6307	Clutch Start Neutral Start Signal
59-60	-	-	Not Available
61	0.5 L-GN	3212	HO2S Heater Low Control (Bank 2 Sensor 1]
62	0.5 OG/WH	3223	HO2S Heater Low Control (Bank 2 Sensor 2)
63	0.5 OG/BK	469	Low Reference
64-68	-	-	Not Available
69	0.5 TN	2760	Low Reference
70-72	-	-	Not Available
73	2 BK/WH	451	Ground

K20 ENGINE CONTROL MODULE X3 (LAF)

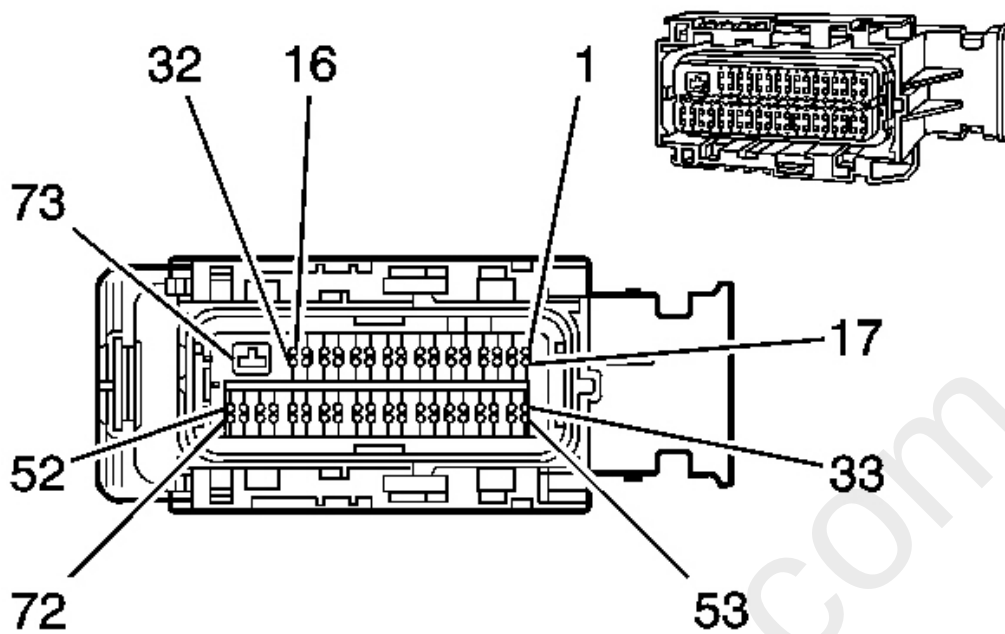


Fig. 16: K20 Engine Control Module X3 (LAF)

Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Engine
- OEM: 34566-1913
- Service: 88988372
- Description: 73-Way F 64 2.8 Series, Sealed (Connector-BK; TPA-GY)

Terminal Part Information

- Pins: 73
- Terminated Lead: Pending
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 7116-4152-02/9
- Core/Insulation Crimp: 2/5
- Pins: 8-10, 16, 24-35, 39, 40, 46, 48, 50, 52-55, 59, 60, 66, 68, 70, 72
- Terminated Lead: Pending

- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: Pins 8-10, 16, 24-35, 39, 40, 53-55, 59, 60 - J/J
- Core/Insulation Crimp: Pins 46, 48, 50, 52, 66, 68, 70, 72 - K/K

K20 Engine Control Module X3 (LAF)

Pin	Wire	Circuit	Function
1-7	-	-	Not Available
8	0.5 YE	410	ECT Sensor Signal
9	0.5 TN/BK	231	Oil Pressure Switch Signal
10	0.5 PU/WH	6270	5-Volt 2 Reference
11-15	-	-	Not Available
16	0.5 YE	7301	High Pressure Fuel Pump Actuator High Control
17-23	-	-	Not Available
24	0.5 TN	2761	Low Reference
25	0.5 GY/BK	6272	Low Reference
26	0.5 WH/BK	6271	Crankshaft Position Sensor Signal
27	0.5 OG/WH	2122	IC 2 Control
28	0.5 D-GN/WH	2124	IC 4 Control
29	0.5 L-BU	2123	IC 3 Control
30	0.5 PU	2121	IC 1 Control
31	0.5 BN	2129	Low Reference
32	0.5 PU	7300	High Pressure Fuel Pump Actuator Low Control
33	0.5 OG	5275	Camshaft Position (CMP) Sensor - Intake Bank 1 Signal
34	0.5 D-BU	5300	5-Volt 1 Reference
35	0.5 D-GN	5273	Camshaft Position (CMP) Sensor - Exhaust Bank 1 Signal
36-38	-	-	Not Available
39	0.5 PK/BK	6395	Cam Phaser Control
40	0.5 WH/BK	6396	Cam Phaser Control
41-45	-	-	Not Available
46	0.75 D-BU	4802	Fuel Injector 2 Control
47	-	-	Not Available
48	0.75 L-GN	4803	Fuel Injector 3 Control
49	-	-	Not Available
50	0.75 L-BU	4804	Fuel Injector 4 Control
51	-	-	Not Available

52	0.75 BN	4801	Fuel Injector 1 Control
53	0.5 TN	5301	Low Reference
54	0.5 YE/BK	5297	5-Volt 1 Reference
55	0.5 GY	5296	Low Reference
56-58	-	-	Not Available
59	0.5 BN	6753	Low Reference
60	0.5 BN/WH	6754	Low Reference
61-65	-	-	Not Available
66	0.75 D-BU/WH	4902	Fuel Injector 2 Control
67	-	-	Not Available
68	0.75 L-GN/PU	4903	Fuel Injector 3 Control
69	-	-	Not Available
70	0.75 L-BU/WH	4904	Fuel Injector 4 Control
71	-	-	Not Available
72	0.75 BN/WH	4901	Fuel Injector 1 Control
73	2 BK/WH	451	Ground

K20 ENGINE CONTROL MODULE X3 (LF1)

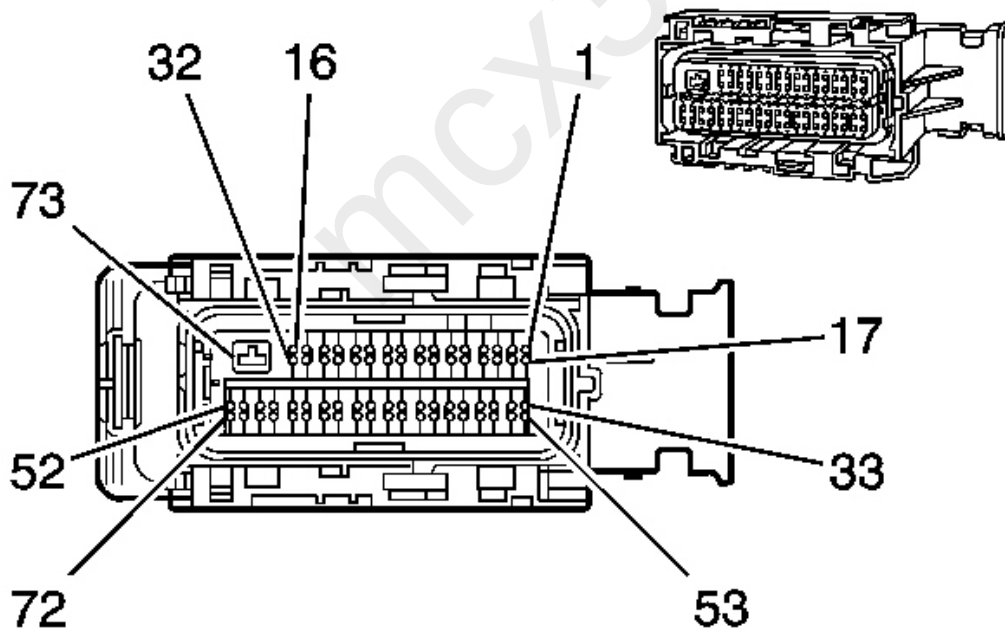


Fig. 17: K20 Engine Control Module X3 (LF1)

Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Engine
- OEM: 34566-1813
- Service: 88988372
- Description: 73-Way F 64 2.8 Series, Sealed (Connector-BK; TPA-GY)

Terminal Part Information

- Pins: 73
- Terminated Lead: Pending
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 7116-4152-02/9
- Core/Insulation Crimp: 2/5
- Pins: 8-10, 13-16, 23-42, 46-48, 50-62, 66-68, 70-72
- Terminated Lead: Pending
- Release Tool: J-38125-213
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 33467-0005/23
- Core/Insulation Crimp: Pins 8-10, 13-16, 23-42, 53-62 - J/J
- Core/Insulation Crimp: Pins 46-48, 50-52, 66-68, 70-72 - K/K

K20 Engine Control Module X3 (LF1)

Pin	Wire	Circuit	Function
1-7	-	-	Not Available
8	0.5 YE	410	ECT Sensor Signal
9	0.5 TN/BK	231	Oil Pressure Switch Signal
10	0.5 PU/WH	6270	5-Volt 2 Reference
11-12	-	-	Not Available
13	0.5 L-BU/WH	2126	IC 6 Control
14	0.5 D-GN	2125	IC 5 Control
15	0.5 BN/WH	2130	Low Reference
16	0.5 YE	7301	High Pressure Fuel Pump Actuator High Control
17-22	-	-	Not Available
23	0.5 TN	407	Low Reference
24	0.5 TN	476	Low Reference
25	0.5 GY/BK	6272	Low Reference

26	0.5 WH/BK	6271	Crankshaft Position Sensor Signal
27	0.5 D-GN/WH	2124	IC 4 Control
28	0.5 L-BU	2123	IC 3 Control
29	0.5 OG/WH	2122	IC 2 Control
30	0.5 PU	2121	IC 1 Control
31	0.5 BN	2129	Low Reference
32	0.5 PU	7300	High Pressure Fuel Pump Actuator Low Control
33	0.5 OG	5275	Camshaft Position (CMP) Sensor - Intake Bank 1 Signal
34	0.5 D-BU	5300	5-Volt 1 Reference
35	0.5 D-GN	5273	Camshaft Position (CMP) Sensor - Exhaust Bank 1 Signal
36	0.5 YE	5276	Camshaft Position (CMP) Sensor - Intake Bank 2 Signal
37	0.5 L-BU	5302	5-Volt 1 Reference
38	0.5 PU	5274	Camshaft Position (CMP) Sensor - Exhaust Bank 2 Signal
39	0.5 PK/BK	6395	Cam Phaser Control
40	0.5 WH/BK	6396	Cam Phaser Control
41	0.5 TN/BK	6397	Cam Phaser Control
42	0.5 GY/BK	6394	Cam Phaser Control
43-45	-	-	Not Available
46	0.75 L-BU	4804	Fuel Injector 4 Control
47	0.75 WH/D-GN	4805	Fuel Injector 5 Control
48	0.75 D-BU	4802	Fuel Injector 2 Control
49	-	-	Not Available
50	0.75 L-GN	4803	Fuel Injector 3 Control
51	0.75 PU	4806	Fuel Injector 6 Control
52	0.75 BN	4801	Fuel Injector 1 Control
53	0.5 TN	5301	Low Reference
54	0.5 YE/BK	5297	5-Volt 1 Reference
55	0.5 GY	5296	Low Reference
56	0.5 BN/WH	5303	Low Reference
57	0.5 L-GN	5298	5-Volt 1 Reference
58	0.5 BN	5299	Low Reference
59	0.5 BN	6753	Low Reference
60	0.5 BN/WH	6754	Low Reference
61	0.5 D-BU	6755	Low Reference
62	0.5 D-BU/WH	6756	Low Reference
63-65	-	-	Not Available
66	0.75 L-BU/WH	4904	Fuel Injector 4 Control

67	0.75 L-GN/WH	4905	Fuel Injector 5 Control
68	0.75 L-BU/WH	4902	Fuel Injector 2 Control
69	-	-	Not Available
70	0.75 L-GN/PU	4903	Fuel Injector 3 Control
71	0.75 PU/WH	4906	Fuel Injector 6 Control
72	0.75 BN/WH	4901	Fuel Injector 1 Control
73	2 BK/WH	451	Ground

K27 FUEL PUMP CONTROL MODULE

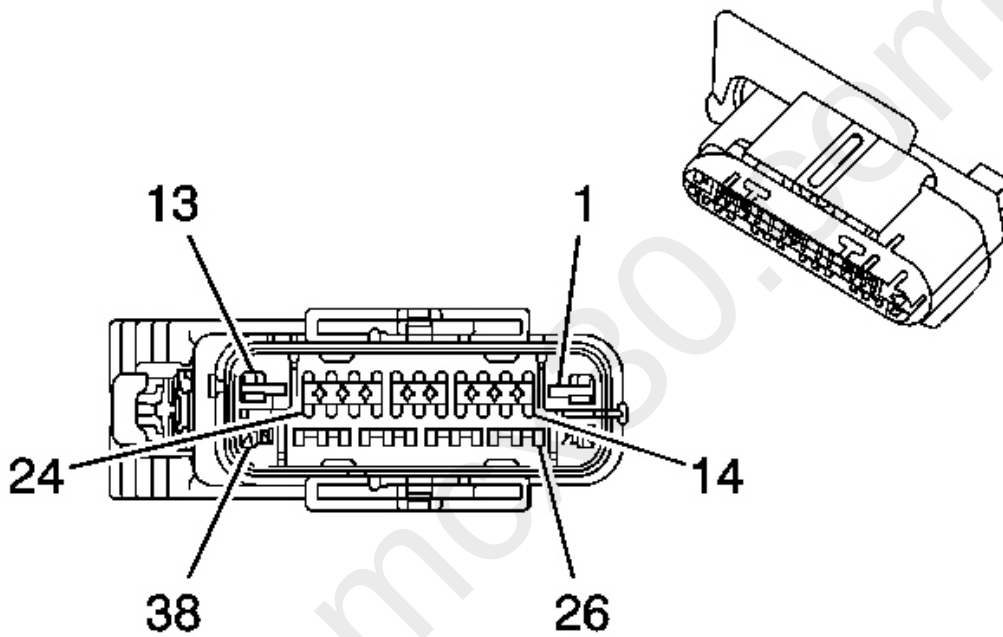


Fig. 18: K27 Fuel Pump Control Module
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM: 88988965
- Service: 13574909
- Description: 38-Way F USCAR 2.8 Series, Sealed (BK)

Terminal Part Information

- Pins: 5, 6, 8, 10, 17, 18, 20-24
- Terminated Lead: Pending
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAITS-A03T-M064/14
- Core/Insulation Crimp: 9/9
- Pins: 1, 25
- Terminated Lead: 13575404
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-4A (PU)
- Terminal/Tray: 15304719/19
- Core/Insulation Crimp: 2/5
- Pins: 13, 38
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-4A (PU)
- Terminal/Tray: 15304720/19
- Core/Insulation Crimp: 4/5

K27 Fuel Pump Control Module

Pin	Wire	Circuit	Function
1	1 RD/WH	2640	Battery Positive Voltage
2-4	-	-	Not Used
5	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
6	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
7	-	-	Not Used
8	0.35 L-BU	5986	Serial Data Communication Enable
9	-	-	Not Used
10	0.35 PU	7446	Fuel Pressure Sensor Signal
11-12	-	-	Not Used
13	2 GY	120	Fuel Pump Supply Voltage
14-16	-	-	Not Used
17	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
18	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
19	-	-	Not Used
20	0.35 D-GN/WH	465	Fuel Pump Relay Control
21	0.5 PK	1739	Ignition Voltage
22	0.35 BN	7445	5-Volt Reference

23	0.35 GY	7447	Low Reference
24	0.35 BARE	7444	Drain Wire
25	1 BK	2550	Ground
26-37	-	-	Not Used
38	2 PK	1580	Fuel Pump Motor Low Reference

K29 SEAT HEATING CONTROL MODULE X1 (KA1 WITHOUT LTZ OR SLT)

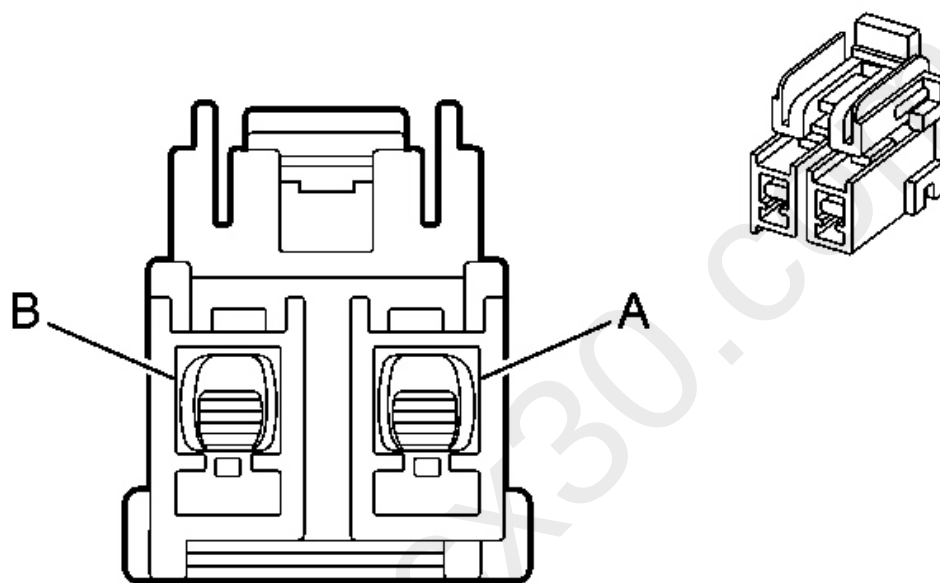


Fig. 19: K29 Seat Heating Control Module X1 (KA1 without LTZ or SLT)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Seat Cushion
- OEM Connector: 13527997
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F Metri-Pack 280 Series (BK)

Terminal Part Information

- Terminated Lead: Pending

- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-4A (PU)
- Terminal/Tray: 12110842/4
- Core/Insulation Crimp: C/A

K29 Seat Heating Control Module X1 (KA1 without LTZ or SLT)

Pin	Wire	Circuit	Function
A	1 BK	750	Ground
B	1 RD/WH	5140	Battery Positive Voltage

K29 SEAT HEATING CONTROL MODULE X1 (SPO ACCESSORY)

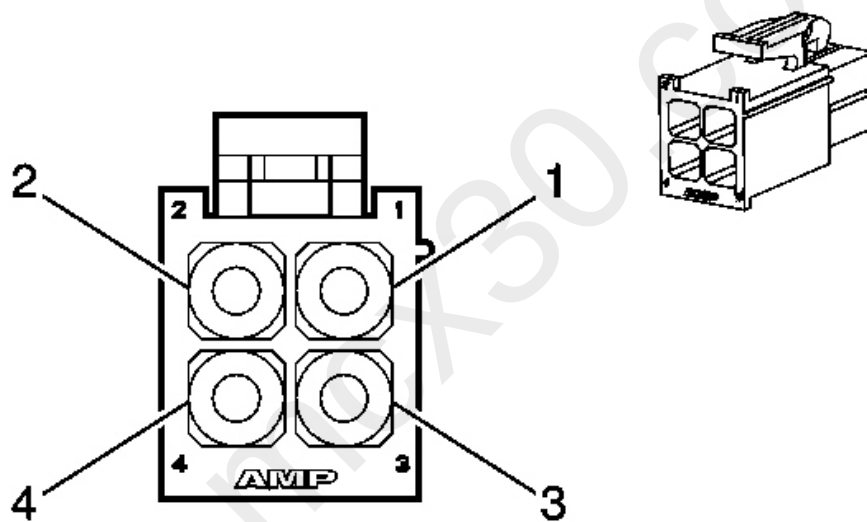


Fig. 20: K29 Seat Heating Control Module X1 (SPO Accessory)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness Type: SPO Seat Heating Extension
- OEM Connector: 172338-1
- Service Connector: Pending

- Description: 4-Way F Mini-Universal MATE-N-LOK (NA)

Terminal Part Information

- Terminated Lead: Service by Connector Assembly - 172338-1
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Connector Assembly - 172338-1
- Core/Insulation Crimp: Not Available

K29 Seat Heating Control Module X1 (SPO Accessory)

Pin	Wire	Circuit	Function
1	0.8 RD	-	Driver Heated Seat Cushion Element Supply Voltage
2	0.8 D-BU	-	Driver Heated Seat Back Element Control
3	0.8 GY	-	Driver Heated Seat Cushion Temperature Sensor Signal
4	0.8 GY	-	Driver Heated Seat Cushion Temperature Sensor Low Reference

K29 SEAT HEATING CONTROL MODULE X2 (KA1 WITHOUT LTZ OR SLT)

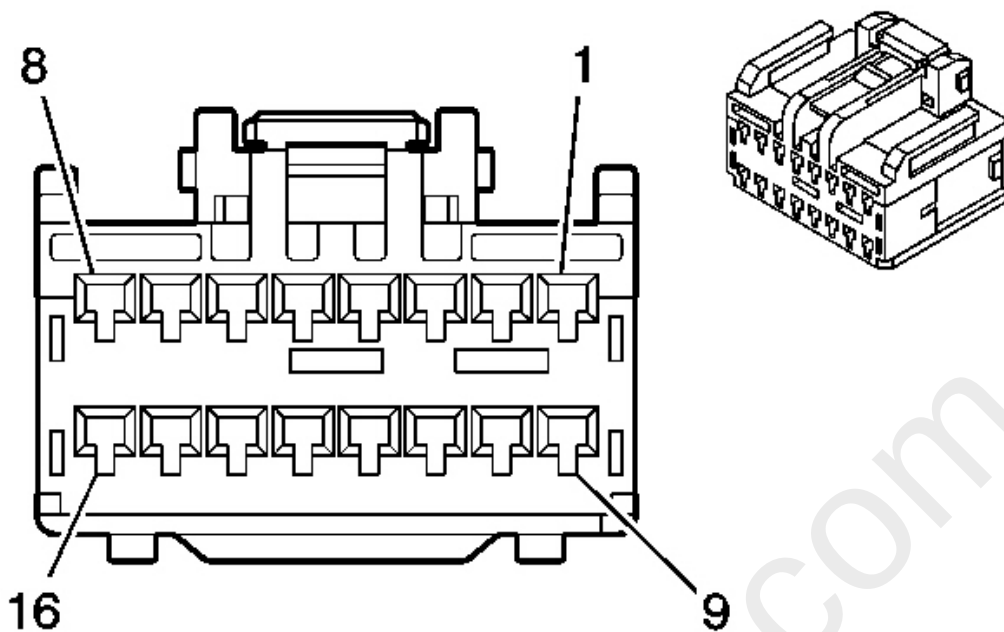


Fig. 21: K29 Seat Heating Control Module X2 (KA1 without LTZ or SLT)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Seat Cushion
- OEM Connector: 6098-4611
- Service Connector: 15134091
- Description: 16-Way F 1.5 Series (BK)

Terminal Part Information

- Pins: 1-3, 5
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-2A (GY)
- Terminal/Tray: 8240-0128/22
- Core/Insulation Crimp: C/A
- Pins: 13, 14
- Terminated Lead: 13575855

- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-2A (GY)
- Terminal/Tray: 8240-0127/22
- Core/Insulation Crimp: E/C

K29 Seat Heating Control Module X2 (KA1 without LTZ or SLT)

Pin	Wire	Circuit	Function
1	0.8 PU	2424	Driver Heated Seat Back Element Control
2	0.8 L-BU	2433	Passenger Heated Seat Back Element Control
3	0.8 PK	2077	Heated Seat Cushion Element Supply Voltage
4	-	-	Not Used
5	0.8 D-BU	2479	Passenger Heated Seat Element Supply Voltage
6-12	-	-	Not Used
13	0.35 YE	2080	Driver Heated Seat Cushion Temperature Sensor Low Reference
14	0.35 PK	2435	Passenger Heated Seat Cushion Temperature Sensor Low Reference
15-16	-	-	Not Used

K29 SEAT HEATING CONTROL MODULE X3 (KA1 WITHOUT LTZ OR SLT)

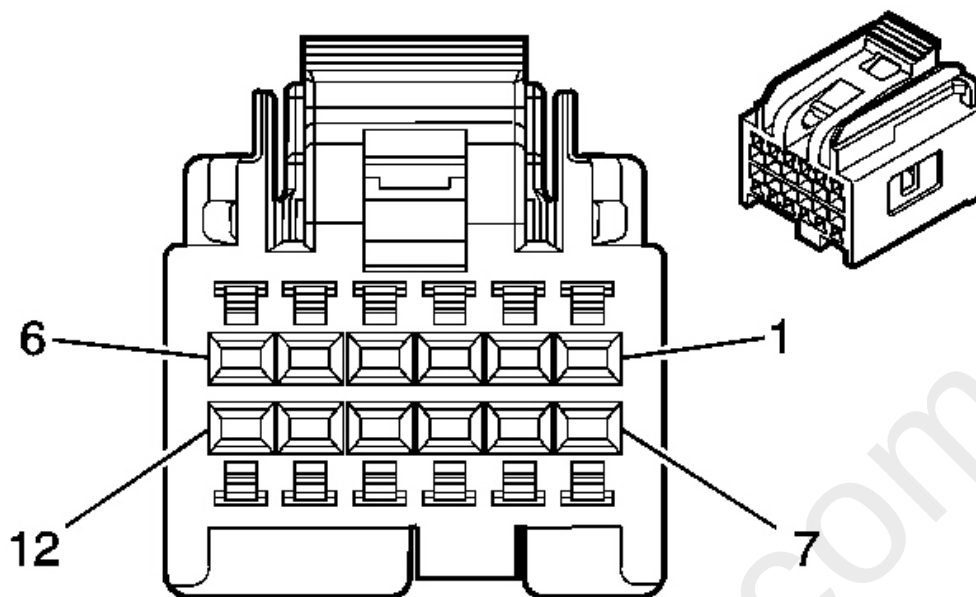


Fig. 22: K29 Seat Heating Control Module X3 (KA1 without LTZ or SLT)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Seat Cushion
- OEM Connector: 31410-1120
- Service Connector: 89047364
- Description: 12-Way F 64 Series, Sealed (BK)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K29 Seat Heating Control Module X3 (KA1)

Pin	Wire	Circuit	Function
1-2	-	-	Not Used

3	0.35 YE/BK	2079	Heated Seat Cushion Temperature Sensor Signal
4	0.35 GY	2434	Passenger Heated Seat Cushion Temperature Sensor Signal
5-10	-	-	Not Used
11	0.35 D-GN	5060	Low Speed GMLAN Serial Data
12	-	-	Not Used

K29 SEAT HEATING CONTROL MODULE X3 (SPO ACCESSORY)

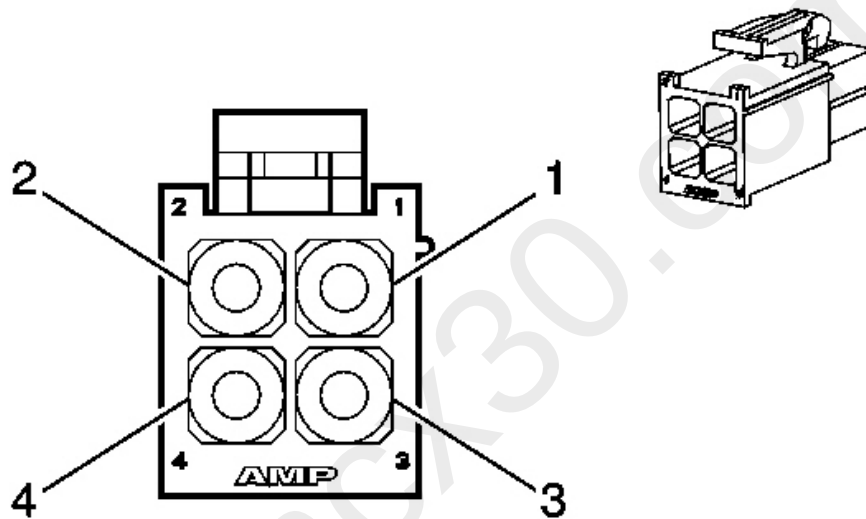


Fig. 23: K29 Seat Heating Control Module X3 (SPO Accessory)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness Type: SPO Seat Heating Extension
- OEM Connector: 172338-1
- Service Connector: Pending
- Description: 4-Way F Mini-Universal MATE-N-LOK (NA)

Terminal Part Information

- Terminated Lead: Service by Connector Assembly - 172338-1
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Connector Assembly - 172338-1
- Core/Insulation Crimp: Not Available

K29 Seat Heating Control Module X3 (SPO Accessory)

Pin	Wire	Circuit	Function
1	0.8 RD	-	Heated Seat Cushion Element Supply Voltage
2	0.8 D-BU	-	Passenger Heated Seat Back Element Control
3	0.8 GY	-	Heated Seat Cushion Temperature Sensor Signal
4	0.8 GY	-	Passenger Heated Seat Cushion Temperature Sensor Low Reference

K29 SEAT HEATING CONTROL MODULE X4 (SPO ACCESSORY)

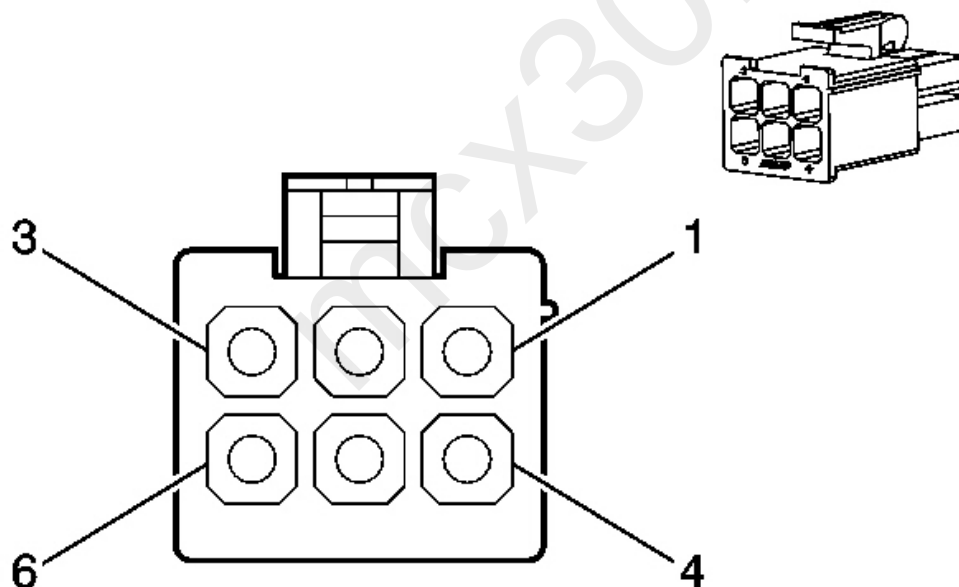


Fig. 24: K29 Seat Heating Control Module X4 (SPO Accessory)
 Courtesy of GENERAL MOTORS CORP.

- Harness Type: SPO Seat Heating Power Extension
- OEM Connector: 172339-1
- Service Connector: Pending
- Description: 6-Way F Mini-Universal MATE-N-LOK (NA)

Terminal Part Information

- Terminated Lead: Service by Connector Assembly - 172339-1
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Connector Assembly - 172339-1
- Core/Insulation Crimp: Not Available

K29 Seat Heating Control Module X4 (SPO Accessory)

Pin	Wire	Circuit	Function
1	-	-	Not Used
2	0.8 OG	-	Retained Accessory Power Fuse Supply Voltage
3	0.8 RD	-	Retained Accessory Power Fuse Supply Voltage
4	0.8 BK	-	Ground
5	0.8 BK	-	Ground
6	0.8 RD	-	Retained Accessory Power Fuse Supply Voltage

K29 SEAT HEATING CONTROL MODULE X5 (SPO ACCESSORY)

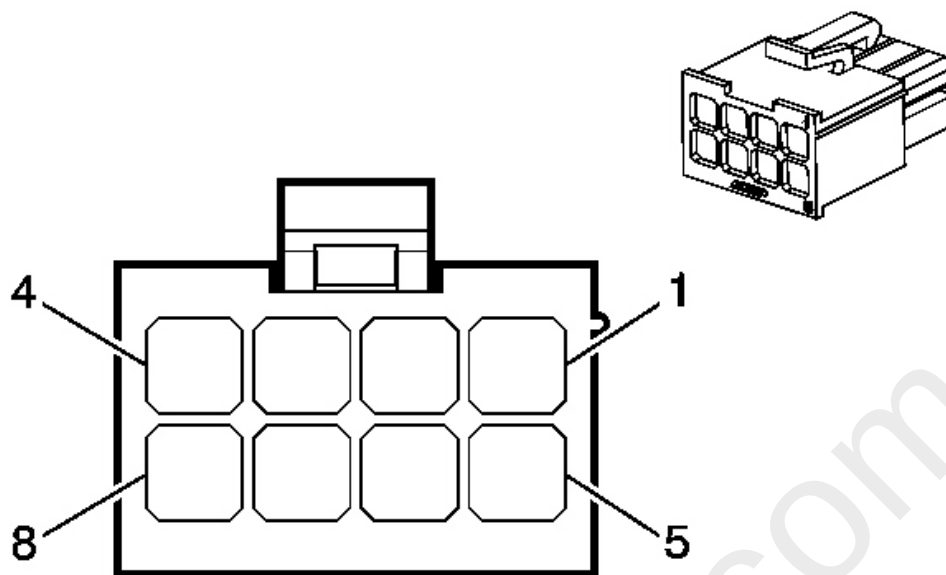


Fig. 25: K29 Seat Heating Control Module X5 (SPO Accessory)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness Type: SPO Seat Heating Switch Extension
- OEM Connector: 770579-1
- Service Connector: Pending
- Description: 8-Way F Mini-Universal MATE-N-LOK (NA)

Terminal Part Information

- Terminated Lead: Service by Connector Assembly - 770579-1
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Connector Assembly - 770579-1
- Core/Insulation Crimp: Not Available

K29 Seat Heating Control Module X5 (SPO Accessory)

Pin	Wire	Circuit	Function
1	0.35 BN	-	Heated Seat Indicator Supply Voltage

2	0.35 RD	-	Driver Heated Seat Switch Signal
3	0.35 OG	-	Driver Heated Seat High Indicator Control
4	0.35 YE	-	Driver Heated Seat Low Indicator Control
5	-	-	Not Used
6	0.35 D-BU	-	Passenger Heated Seat Switch Signal
7	0.35 PU	-	Passenger Heated Seat High Indicator Control
8	0.35 GY	-	Passenger Heated Seat Low Indicator Control

K33 HVAC CONTROL MODULE X1 (C68)

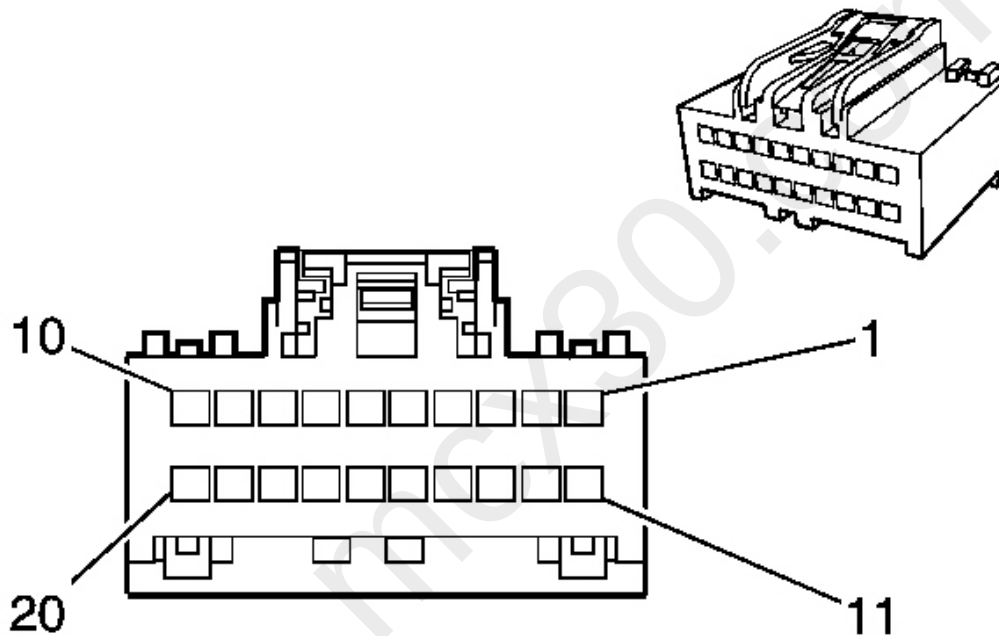


Fig. 26: K33 HVAC Control Module X1 (C68)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: 31410-1203
- Service Connector: 13317839
- Description: 20-Way F USCAR 64 Series (GN)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K33 HVAC Control Module X1 (C68)

Pin	Wire	Circuit	Function
1-3	-	-	Not Used
4	0.35 D-GN	734	Inside Air Temperature Control Signal
5-6	-	-	Not Used
7	0.35 BN	6102	Low reference
8-12	-	-	Not Used
13	0.35 PU	1783	Twilight Sentinel Delay Signal
14-17	-	-	Not Used
18	0.35 TN	520	Lower Right Air Temperature Sensor Signal
19-20	-	-	Not Used

K33 HVAC CONTROL MODULE X2

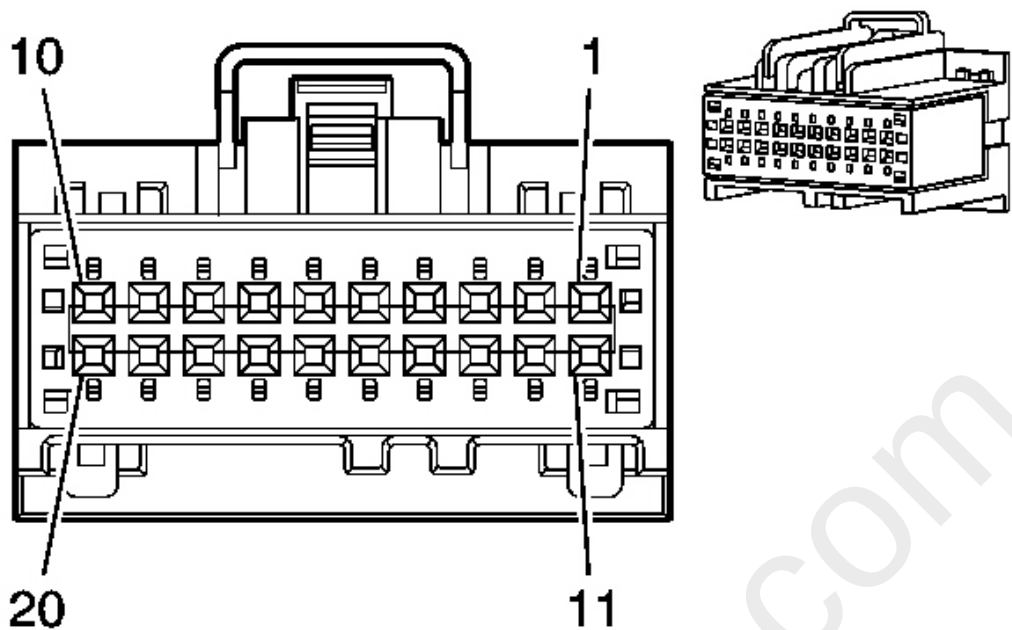


Fig. 27: K33 HVAC Control Module X2
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: 31410-1202
- Service Connector: 15126709
- Description: 20-Way F 64 Series, Sealed (BN)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: Pins 2, 4, 9, 15, 18, 19 - P/P
- Core/Insulation Crimp: Pins 1, 8 - Not Available

K33 HVAC Control Module X2

Pin	Wire	Circuit	Function
-----	------	---------	----------

1	0.8 RD/WH	3340	Battery Positive Voltage
2	0.35 D-GN	5060	Low Speed GMLAN Serial Data
3	-	-	Not Used
4	0.35 YE	7531	Local Interconnect Network 9
5-7	-	-	Not Used
8	0.8 BK	1550	Ground
9	0.35 PK	539	Ignition Voltage
10-14	-	-	Not Used
15	0.35 GY/BK	754	Blower Motor Speed Control
16-17	-	-	Not Used
18	0.35 YE	1791	Low Reference
19	0.35 WH	193	Rear Defog Relay Control
20	-	-	Not Used

K33 HVAC CONTROL MODULE X3

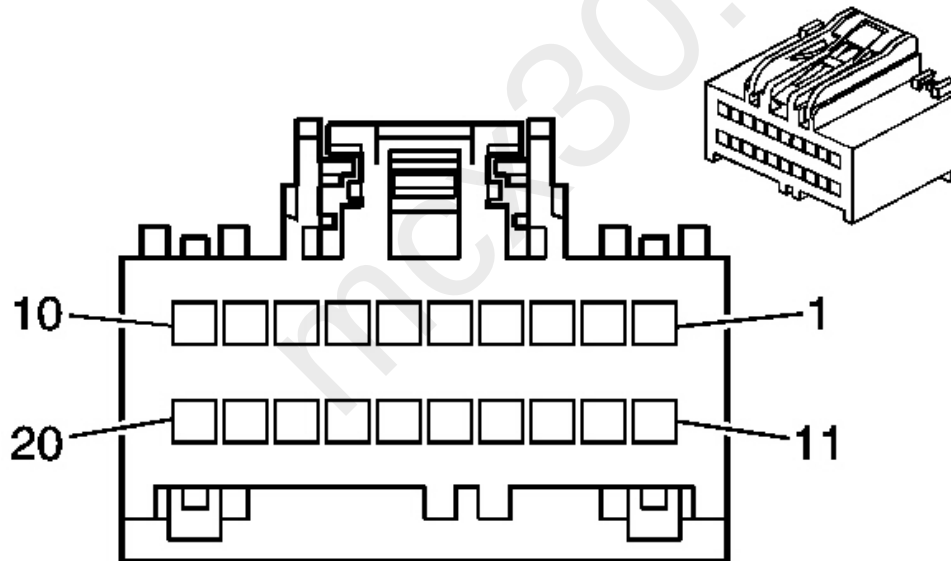


Fig. 28: K33 HVAC Control Module X3
 Courtesy of GENERAL MOTORS CORP.

- Harness: Instrument Panel
- OEM Connector: 31410-1200
- Service Connector: 15126711
- Description: 20-Way F 64 Series, Sealed (BK)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K33 HVAC Control Module X3

Pin	Wire	Circuit	Function
1	0.35 TN	517	Upper Right Air Temperature Sensor Signal (C68)
2	0.35 TN	2273	Mode Door Control
3	0.35 WH	119	Mode Door Control
4	0.35 L-GN	2275	Mode Door Position Signal
5	-	-	Not Used
6	0.35 D-GN	1614	Recirculation Door Control
7	0.35 TN/BK	2274	Recirculation Door Control Circuit
8	0.35 PU	1838	Recirculation Door Position Signal
9	0.35 BK/WH	551	Low Reference
10	0.35 GY	598	5-Volt Reference
11	0.35 D-BU	1199	Auxiliary Air Temperature Door Position Signal
12	0.35 L-BU	1316	Air Temperature Door Control
13	0.35 L-BU	733	Left Air Temperature Door Control
14-19	-	-	Not Used
20	0.35 WH	2622	EVAP Core Temperature Sensor Signal

K36 INFLATABLE RESTRAINT SENSING AND DIAGNOSTIC MODULE X1

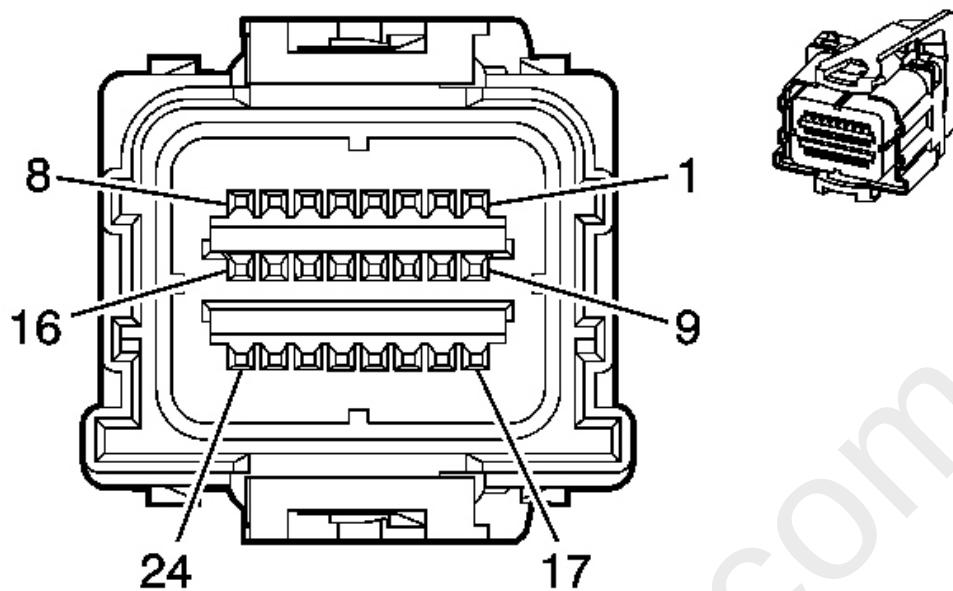


Fig. 29: K36 Inflatable Restraint Sensing and Diagnostic Module X1
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM: 776773-9
- Service: 13317834
- Description: 24-Way F, Sealed (YE)

Terminal Part Information

- Terminated Lead: Service by Harness - See Part Catalog
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Harness - See Part Catalog
- Core/Insulation Crimp: Not Available

K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Wire	Circuit	Function
			Steering Wheel Module - Stage 2 - High

1	0.35 WH	3023	Control
2	0.35 PK	3022	Steering Wheel Module - Stage 2 - Low Control
3	0.35 BN	3020	Steering Wheel Module - Stage 1 - Low Control
4	0.35 TN	3021	Steering Wheel Module - Stage 1 - High Control
5	0.35 YE	3025	I/P Module - Stage 1 - High Control
6	0.35 OG	3024	I/P Module - Stage 1 - Low Control
7	0.35 PU	3026	I/P Module - Stage 2 - Low Control
8	0.35 GY	3027	I/P Module - Stage 2 - High Control
9	0.5 RD/WH	4440	Battery Positive Voltage
10	0.35 PU	5234	Front Passenger Seat Belt Indicator Control
11	0.35 D-BU	2307	Passenger Air Bag On Indicator Control
12	0.35 D-GN	2308	Passenger Air Bag Off Indicator Control
13-14	-	-	Not Available
15	0.35 D-GN	5060	Low Speed GMLAN Serial Data
16	-	-	Not Available
17	0.35 PK	1139	Ignition Voltage
18	-	-	Not Available
19	0.5 BK/WH	1651	Ground
20-24	-	-	Not Available

K36 INFLATABLE RESTRAINT SENSING AND DIAGNOSTIC MODULE X2

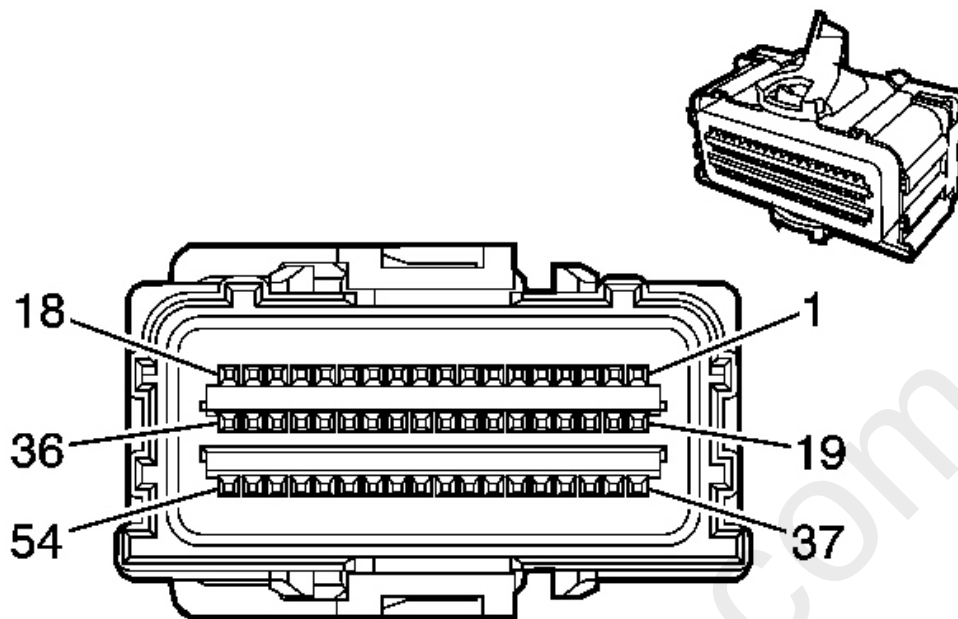


Fig. 30: K36 Inflatable Restraint Sensing and Diagnostic Module X2
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM: 2035023-9
- Service: 13316188
- Description: 54-Way F, Sealed (YE)

Terminal Part Information

- Terminated Lead: 13575864
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03GF-M064/27
- Core/Insulation Crimp: P/P

K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Wire	Circuit	Function
1-8	-	-	Not Available

9	0.35 L-BU	3481	Driver Seat Belt Anchor Pretensioner +
10	0.35 D-GN	3482	Driver Seat Belt Anchor Pretensioner -
11	0.35 D-GN/WH	3480	Passenger Seat Belt Anchor Pretensioner -
12	0.35 BN	3479	Passenger Seat Belt Anchor Pretensioner +
13	0.35 L-BU	3068	Side Air Bag +
14	0.35 L-GN/BK	3069	Side Air Bag -
15	0.35 TN/BK	3067	Side Air Bag -
16	0.35 PU	3066	Side Air Bag +
17	0.5 PU/WH	5019	Roof Rail Module - Left - High Control
18	0.5 PK	5020	Roof Rail Module - Left - Low Control
19	0.35 WH	2132	Side Impact Sensing Module - Left - Signal
20	0.35 PU/WH	6628	Low Reference
21	0.35 GY/BK	6621	Low Reference
22	0.35 D-GN/WH	6620	Left Middle Side Impact Sensing Module Signal
23	0.35 YE	354	Front End Sensor - Left - Signal
24	0.35 TN/OG	5045	Low Reference
25	0.35 GY	5600	Low Reference
26	0.35 D-GN	1409	Front End Sensor - Right - Signal
27	0.35 D-GN	2134	Side Impact Sensing Module - Right - Signal
28	0.35 WH/BK	6629	Low Reference
29	0.35 L-GN/WH	6625	Low Reference
30	0.35 L-BU/BK	6624	Right Middle Side Impact Sensing Module Signal
31-36	-	-	Not Available
37	0.5 TN/WH	3477	Driver Seat Belt Retractor Pretensioner +
38	0.5 PK/BK	3478	Driver Seat Belt Retractor Pretensioner -
39	0.5 PK	3476	Passenger Seat Belt Retractor Pretensioner -
40	0.5 L-GN	3475	Passenger Seat Belt Retractor Pretensioner +
41	0.35 TN/WH	238	Seat Belt Switch - Left
42	-	-	Not Available
43	0.35 D-BU	1363	Seat Belt Switch - Left - Low Reference
44	0.35 L-BU	1361	Seat Belt Switch - Right - Low Reference
45	0.35 OG	1362	Seat Belt Switch - Right - Signal
46-52	-	-	Not Available
53	0.5 YE/BK	5021	Roof Rail Module - Right - High Control
54	0.5 WH/BK	5022	Roof Rail Module - Right - Low Control

K39 LIFTGATE CONTROL MODULE X1 (TB5)

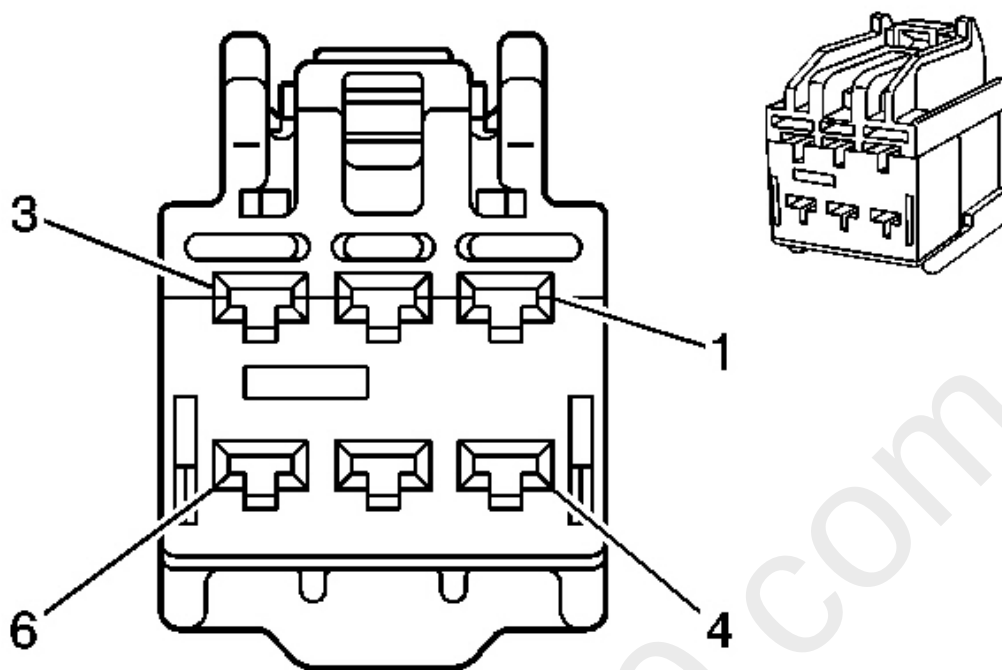


Fig. 31: K39 Liftgate Control Module X1 (TB5)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Liftgate
- OEM Connector: 6098-4607
- Service Connector: 88988497
- Description: 6-Way F (BK)

Terminal Part Information

- Pin: 5
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 8100-4443/22
- Core/Insulation Crimp: E/A
- Pins: 1, 2, 4

- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 8100-4444/22
- Core/Insulation Crimp: 2/A
- Pins: 3, 6
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 8100-4445/22
- Core/Insulation Crimp: F/D

K39 Liftgate Control Module X1 (TB5)

Pin	Wire	Circuit	Function
1	1 BN	5790	Liftgate Latch Motor Open Control
2	1 D-BU	5791	Liftgate Latch Motor Close Control
3	3 RD/WH	1540	Battery Positive Voltage
4	1 RD/WH	840	Battery Positive Voltage
5	0.5 BARE	3016	Drain Wire
6	3 BK	2550	Ground

K39 LIFTGATE CONTROL MODULE X2 (TB5)

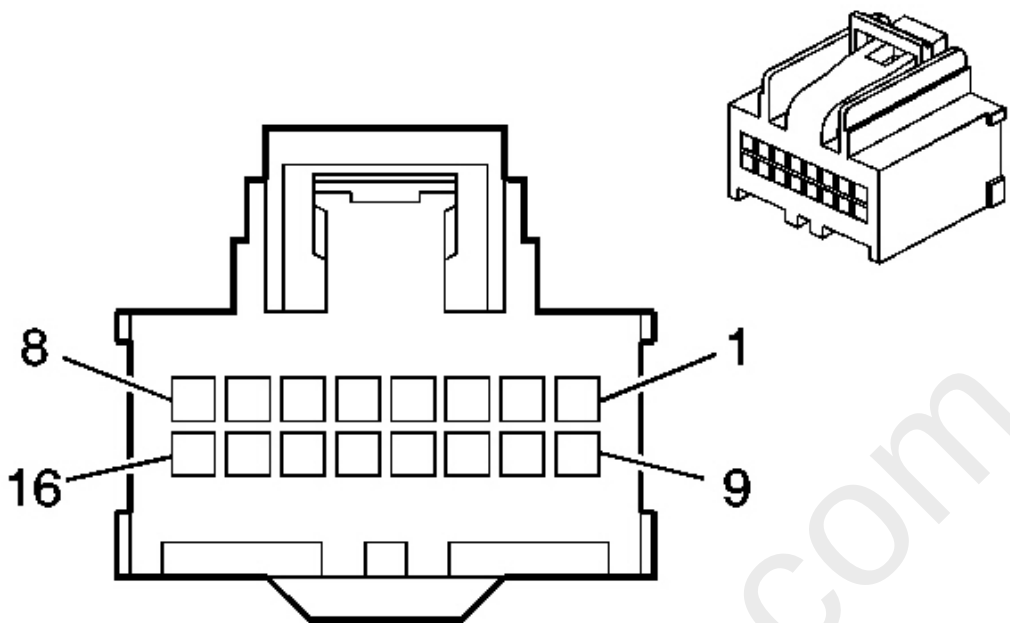


Fig. 32: K39 Liftgate Control Module X2 (TB5)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Liftgate
- OEM Connector: 7283-9076-30
- Service Connector: 15136073
- Description: 16-Way F Kaizen 64 Series (BK)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K39 Liftgate Control Module X2 (TB5)

Pin	Wire	Circuit	Function
1	0.35 D-GN	6112	Liftgate On/Off Switch Signal

2	-	-	Not Used
3	0.35 D-GN	3033	Liftgate Latch Sector Switch Signal
4	0.35 D-GN	5512	Liftgate Latch Sector Switch Signal
5	0.35 PK/BK	6000	Liftgate Latch Ratchet Switch Signal
6	0.35 GY	7000	Liftgate Latch Pawl Switch Signal
7	0.35 D-GN	5060	Low Speed GMLAN Serial Data
8	0.35 WH/BK	6126	Liftgate Side Upper Sensor Signal
9-11	-	-	Not Used
12	0.35 GY/BK	6113	Rear Liftgate Open/Close Switch Signal
13	-	-	Not Used
14	0.35 GY	5797	Liftgate Open/Close Switch Signal-Rear
15	-	-	Not Used
16	0.35 PU/WH	5801	Low Reference

K39 LIFTGATE CONTROL MODULE X3 (TB5)

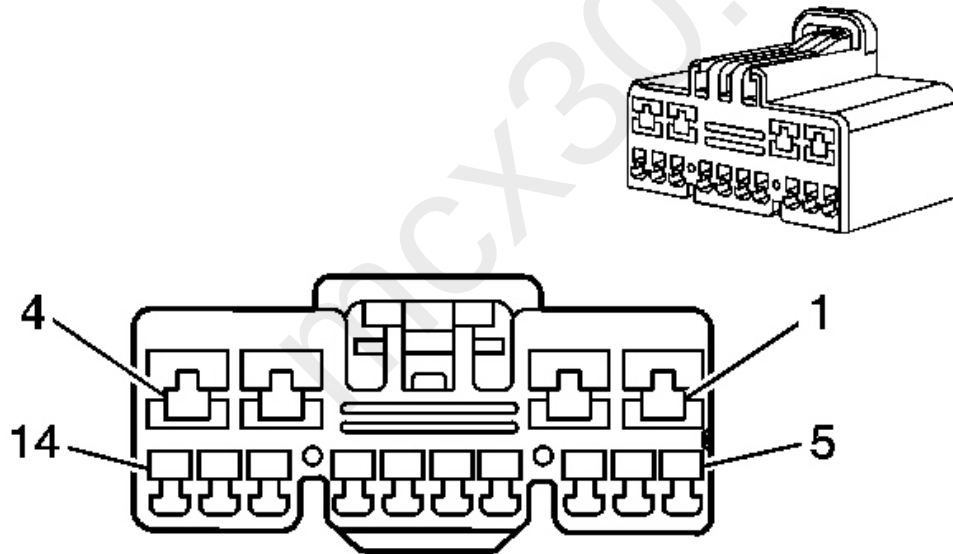


Fig. 33: K39 Liftgate Control Module X3 (TB5)
 Courtesy of GENERAL MOTORS CORP.

- Harness: Liftgate
- OEM Connector: 7283-8398-40
- Service Connector: 19179972
- Description: 14-Way F 64 2.8 YESC Series (L-GY)

Terminal Part Information

- Pins: 1, 2
- Terminated Lead: Pending
- Release Tool: 12094430
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 7116-4112-02/9
- Core/Insulation Crimp: C/D
- Pin: 6
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 7116-4720-02/14
- Core/Insulation Crimp: J/J

K39 Liftgate Control Module X3 (TB5)

Pin	Wire	Circuit	Function
1	3 WH	5798	Liftgate Motor Open Control
2	3 BN/WH	5799	Liftgate Motor Close Control
3-5	-	-	Not Used
6	0.5 BARE	701	Ground Distribution Drain Wire
7-14	-	-	Not Used

K40 SEAT MEMORY CONTROL MODULE X1 (LTZ OR SLT)

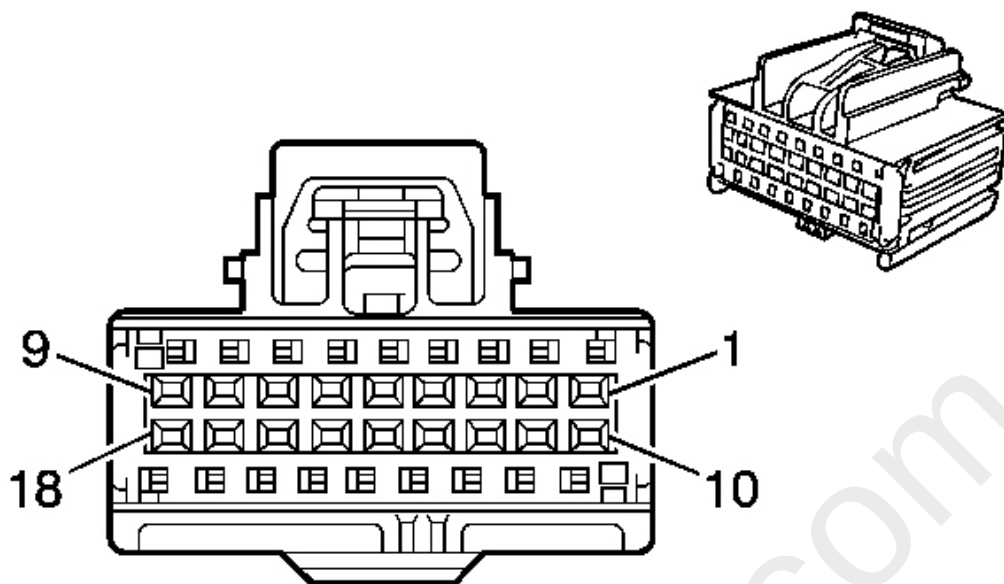


Fig. 34: K40 Seat Memory Control Module X1 (LTZ or SLT)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Seat Cushion
- OEM Connector: 7283-4544-30
- Service Connector: 89047360
- Description: 18-Way F 0.64 Kaizen Series (BK)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K40 Seat Memory Control Module X1 (LTZ or SLT)

Pin	Wire	Circuit	Function
1	-	-	Not Used
2	0.5 D-GN	1518	Power Seat Front Vertical Up Switch Signal

3	0.5 YE	1519	Power Seat Rear Vertical Up Switch Signal
4	0.5 L-BU	1521	Power Seat Rear Vertical Down Switch Signal
5-6	-	-	Not Used
7	0.5 GY/BK	1269	Power Seat Recline Forward Switch Signal
8	0.5 D-GN/WH	1270	Power Seat Recline Rearward Switch Signal
9-10	-	-	Not Used
11	0.35 WH	7530	Local Interconnect Network 8
12	0.5 D-BU	1520	Power Seat Front Vertical Down Switch Signal
13	0.5 OG/WH	3298	Seat Recline Position Signal
14	-	-	Not Used
15	0.5 D-GN	569	Horizontal Seat Motor Position Sensor Signal
16	0.5 TN	568	Rear Vertical Seat Motor Position Sensor Signal
17	0.5 BN/WH	557	Front Vertical Seat Motor Position Sensor Signal
18	0.5 WH/BK	570	Driver Seat Recline Motor Position Sensor Signal

K40 SEAT MEMORY CONTROL MODULE X2 (LTZ OR SLT)

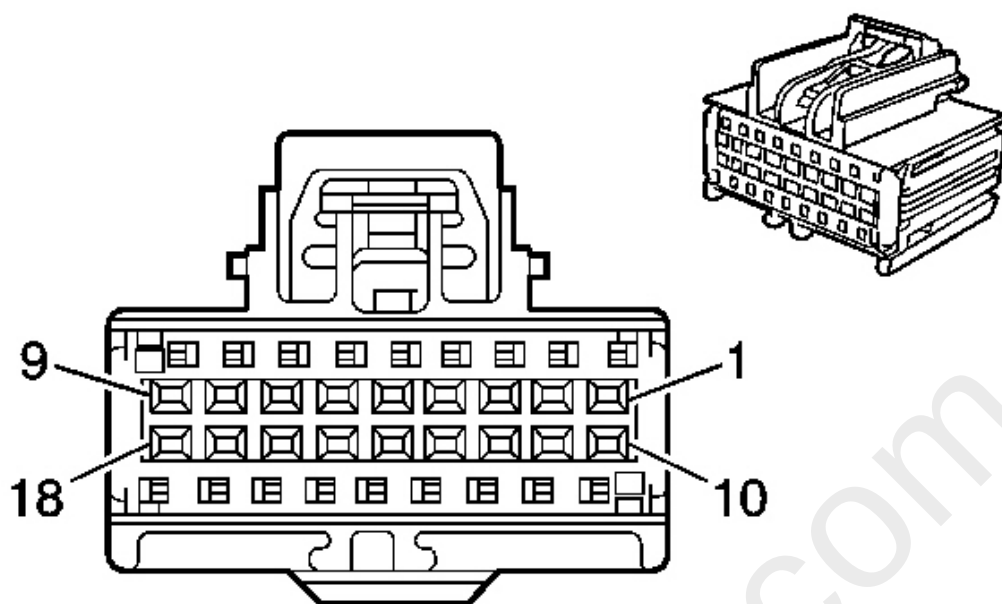


Fig. 35: K40 Seat Memory Control Module X2 (LTZ or SLT)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Seat Cushion
- OEM Connector: 7283-4548-60
- Service Connector: 89047361
- Description: 18-Way F 0.64 Kaizen Series (GN)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K40 Seat Memory Control Module X2 (LTZ or SLT)

Pin	Wire	Circuit	Function
1	0.5 TN	1522	Power Seat Horizontal Forward Switch Signal

2-3	-	-	Not Used
4	0.35 OG	614	Memory Set Switch Signal
5-6	-	-	Not Used
7	0.35 GY	2434	Passenger Heated Seat Cushion Temperature Sensor Signal (KA1)
8-10	-	-	Not Used
11	0.5 L-GN	1523	Power Seat Horizontal Rearward Switch Signal
12-13	-	-	Not Used
14	0.35 WH	615	Memory 1 Switch Signal
15	-	-	Not Used
16	0.35 YE/BK	2079	Heated Seat Cushion Temperature Sensor Signal (KA1)
17	-	-	Not Used
18	0.35 D-GN	5060	Low Speed GMLAN Serial Data

K40 SEAT MEMORY CONTROL MODULE X3 (KA1 WITH LTZ OR SLT)

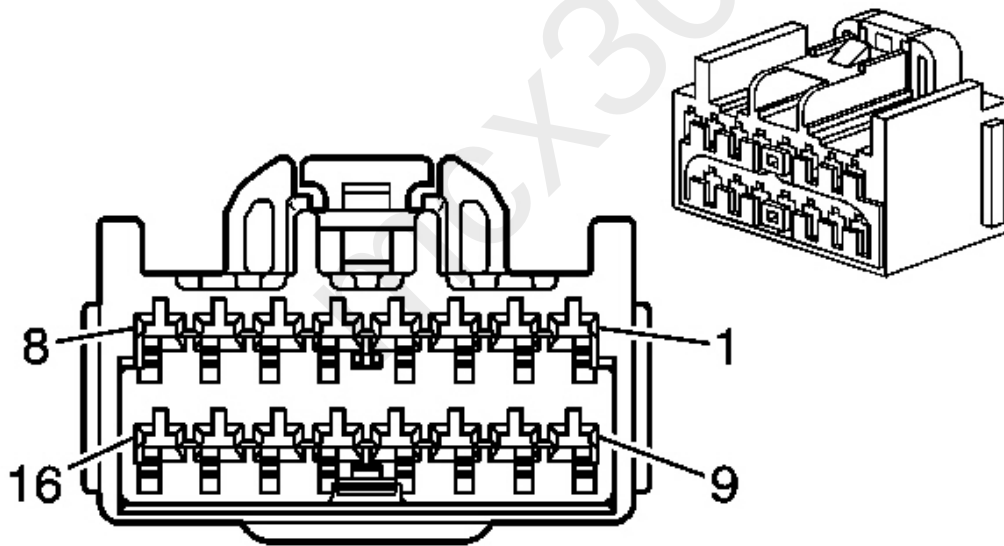


Fig. 36: K40 Seat Memory Control Module X3 (KA1 with LTZ or SLT)
 Courtesy of GENERAL MOTORS CORP.

- Harness: Driver Seat Cushion
- OEM Connector: 6098-4611
- Service Connector: 15134091
- Description: 16-Way F 1.5 Series (BK)

Terminal Part Information

- Pins: 1, 12
- Terminated Lead: 13575855
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-2A (GY)
- Terminal/Tray: 8240-0127/22
- Core/Insulation Crimp: E/C
- Pins: 4, 6, 10, 11
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-2A (GY)
- Terminal/Tray: 8240-0128/22
- Core/Insulation Crimp: C/A

K40 Seat Memory Control Module X3 (KA1 with LTZ or SLT)

Pin	Wire	Circuit	Function
1	0.35 PK	2435	Passenger Heated Seat Cushion Temperature Sensor Low Reference
2-3	-	-	Not Used
4	0.8 L-BU	2433	Passenger Heated Seat Back Element Control
5	-	-	Not Used
6	0.8 PU	2424	Driver Heated Seat Back Element Control
7-9	-	-	Not Used
10	0.8 D-BU	2479	Passenger Heated Seat Element Supply Voltage
11	0.8 PK	2077	Heated Seat Cushion Element Supply Voltage
12	0.35 YE	2080	Driver Heated Seat Cushion Temperature Sensor Low Reference
13-16	-	-	Not Used

K40 SEAT MEMORY CONTROL MODULE X4 (LTZ OR SLT)

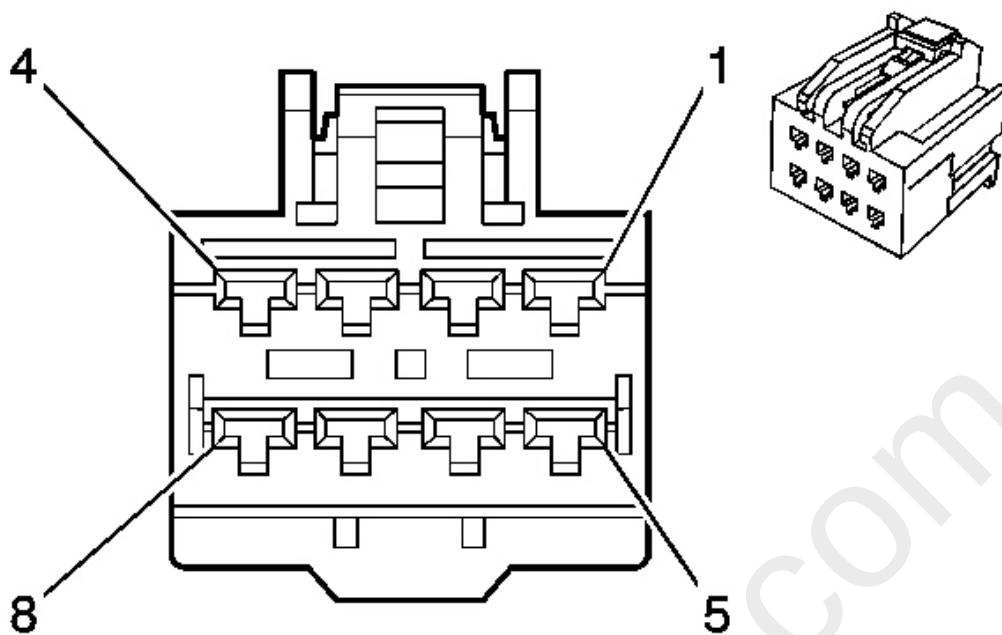


Fig. 37: K40 Seat Memory Control Module X4 (LTZ or SLT)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Seat Cushion
- OEM Connector: 6098-4798
- Service Connector: 19115652
- Description: 8-Way F 2.8 Series (BK)

Terminal Part Information

- Pins: 2
- Terminated Lead: 13575576
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 8100-4443/22
- Core/Insulation Crimp: E/A
- Pins: 1
- Terminated Lead: Pending

- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 8100-4444/22
- Core/Insulation Crimp: 2/A
- Pins: 5-8
- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 8100-4445/22
- Core/Insulation Crimp: F/D

K40 Seat Memory Control Module X4 (LTZ or SLT)

Pin	Wire	Circuit	Function
1	1 RD/WH	5140	Battery Positive Voltage
2	0.35 D-BU/WH	5978	Low Reference
3-4	-	-	Not Used
5	3 RD/BK	1342	Battery Positive Voltage
6	3 BK	750	Ground
7	3 D-GN	286	Driver Seat Front Vertical Motor Up Control
8	3 D-BU	287	Driver Seat Front Vertical Motor Down Control

K40 SEAT MEMORY CONTROL MODULE X5 (LTZ OR SLT)

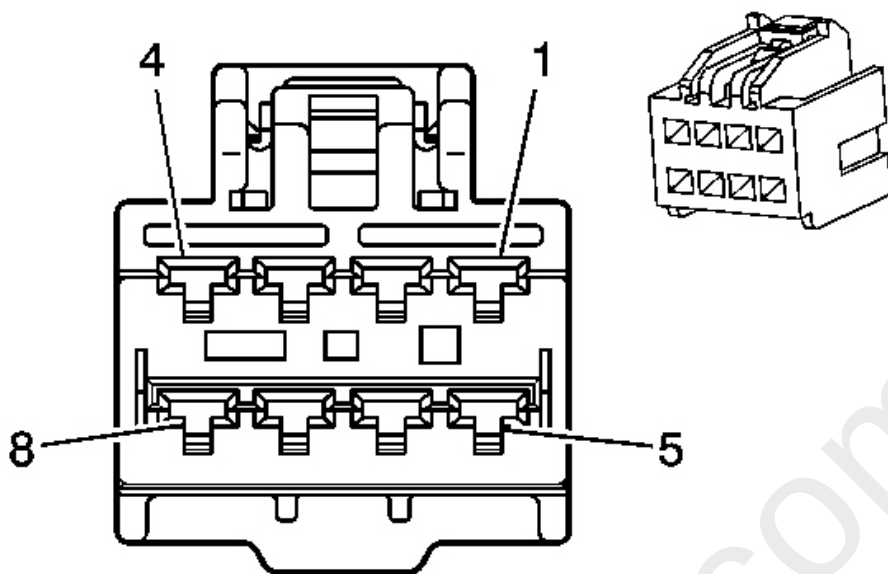


Fig. 38: K40 Seat Memory Control Module X5 (LTZ or SLT)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Seat Cushion
- OEM Connector: 6098-4713
- Service Connector: 88988652
- Description: 8-Way F 2.8 Series (BK)

Terminal Part Information

- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-35 (VT)
- Terminal/Tray: 8100-4445/22
- Core/Insulation Crimp: F/D

K40 Seat Memory Control Module X5 (LTZ or SLT)

Pin	Wire	Circuit	Function
			Driver Seat Horizontal Motor Rearward

1	3 L-GN	284	Control
2	3 TN	285	Driver Seat Horizontal Motor Forward Control
3	3 L-BU	283	Driver Seat Rear Vertical Motor Down Control
4	3 YE	282	Driver Seat Rear Vertical Motor Up Control
5	3 L-GN	276	Driver Seat Recline Motor Forward Control
6	3 L-BU	277	Driver Seat Recline Motor Rearward Control
7-8	-	-	Not Used

K41 PARKING ASSIST CONTROL MODULE X1 (UD7)

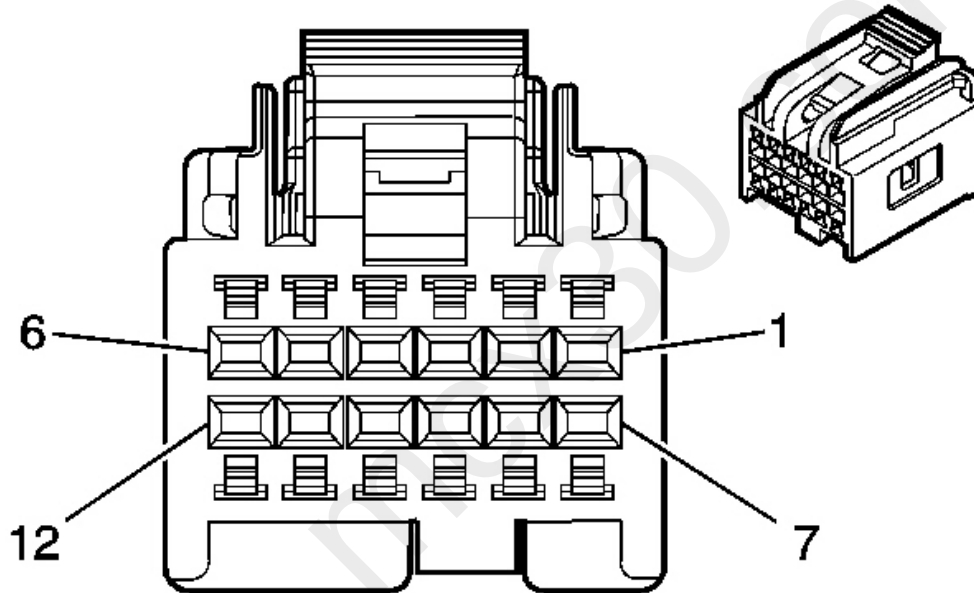


Fig. 39: K41 Parking Assist Control Module X1 (UD7)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM Connector: 31410-1120
- Service Connector: 89047364

- Description: 12-Way F 64 Series, Sealed (BK)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K41 Parking Assist Control Module X1 (UD7)

Pin	Wire	Circuit	Function
1	0.35 RD/WH	3140	Battery Positive Voltage
2	0.35 WH	2370	Telltale Assembly Supply Voltage
3	-	-	Not Used
4	0.35 OG	2371	Left Amber Indicator Control
5	-	-	Not Used
6	0.35 D-GN	5060	Low Speed GMLAN Serial Data
7	0.5 BK	2550	Ground
8	-	-	Not Used
9	0.35 D-BU	2372	Center Amber Indicator Control
10	0.35 GY	2373	Red Indicator Control
11-12	-	-	Not Used

K41 PARKING ASSIST CONTROL MODULE X2 (UD7)

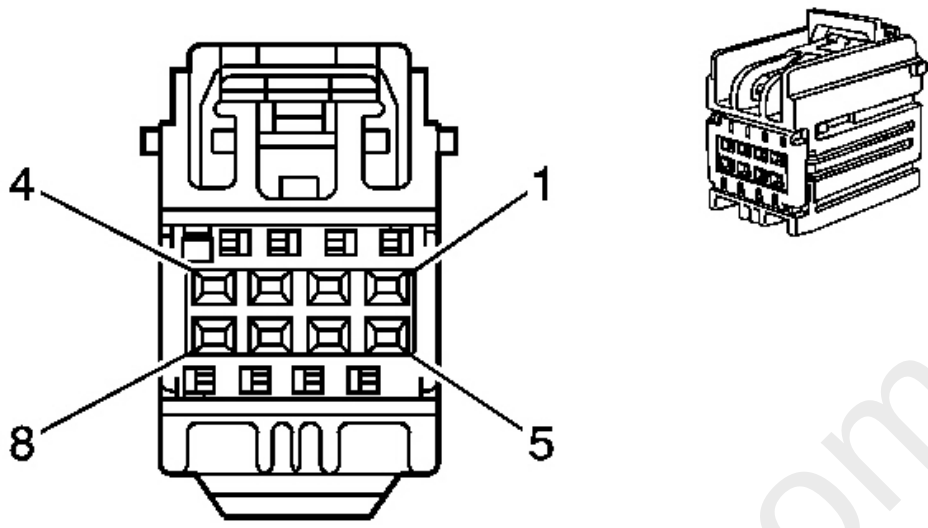


Fig. 40: K41 Parking Assist Control Module X2 (UD7)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Body
- OEM Connector: 7283-9029-40
- Service Connector: 19115653
- Description: 8-Way F YESC Kaizen Series (L-GY)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K41 Parking Assist Control Module X2 (UD7)

Pin	Wire	Circuit	Function
1	0.35 PU	2378	Right Rear Corner Object Sensor Signal

2	0.35 D-GN	2377	Right Rear Middle Object Sensor Signal
3	0.35 OG	2376	Left Rear Middle Object Sensor Signal
4	0.35 D-BU	2374	Object Sensor Supply Voltage
5	0.35 YE	2375	Left Rear Corner Object Sensor Signal
6-7	-	-	Not Used
8	0.35 GY	2379	Object Sensor Low Reference

K43 POWER STEERING CONTROL MODULE X1 (LAF)

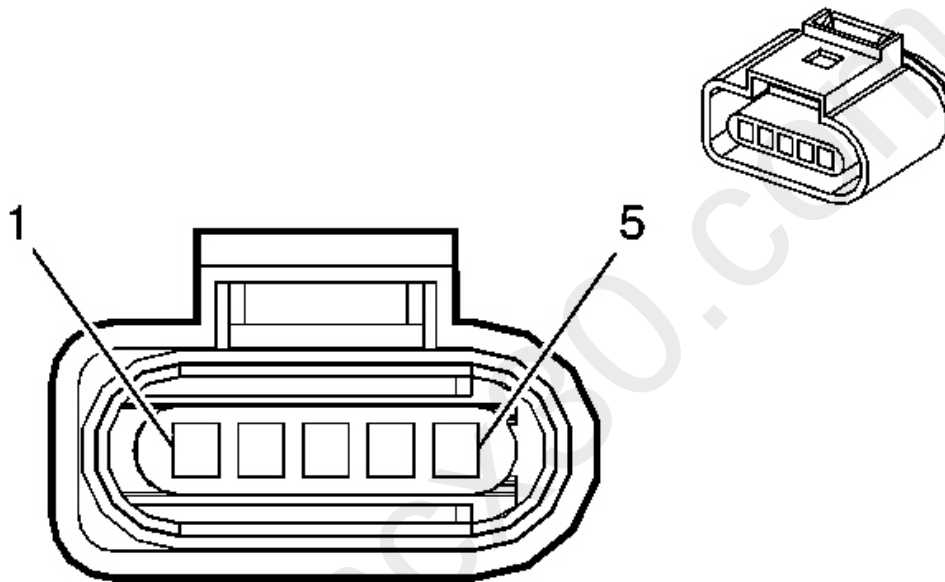


Fig. 41: K43 Power Steering Control Module X1 (LAF)
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Engine
- OEM: 42123000
- Service: 13574906
- Description: 5-Way F, Sealed (BK)

Terminal Part Information

- Terminated Lead: Pending
- Release Tool: J-38125-560
- Diagnostic Test Probe: J-35616-14 (GN)
- Terminal/Tray: 4-969005-1/16
- Core/Insulation Crimp: E/1

K43 Power Steering Control Module X1 (LAF)

Pin	Wire	Circuit	Function
1	0.35 L-BU	5986	Serial Data Communication Enable
2	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
3	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus +
4	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
5	0.35 TN	2501	High Speed GMLAN Serial Data Bus -

K43 POWER STEERING CONTROL MODULE X2 (LAF)

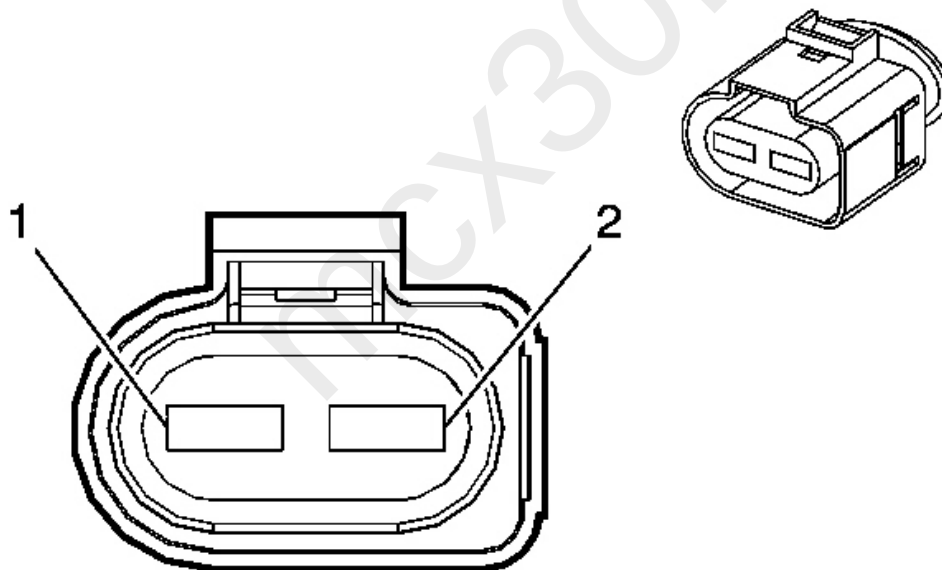


Fig. 42: K43 Power Steering Control Module X2 (LAF)
 Courtesy of GENERAL MOTORS CORP.

- Harness: EPS
- OEM: 12782937
- Service: Service by Harness - See Part Catalog
- Description: 2-Way F, Sealed (BK)

Terminal Part Information

- Terminated Lead: Service by Connector Assembly - 12782937
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Connector Assembly - 12782937
- Core/Insulation Crimp: Not Available

K43 Power Steering Control Module X2 (LAF)

Pin	Wire	Circuit	Function
1	13 BK	850	Ground
2	13 RD/BK	42	Battery Positive Voltage

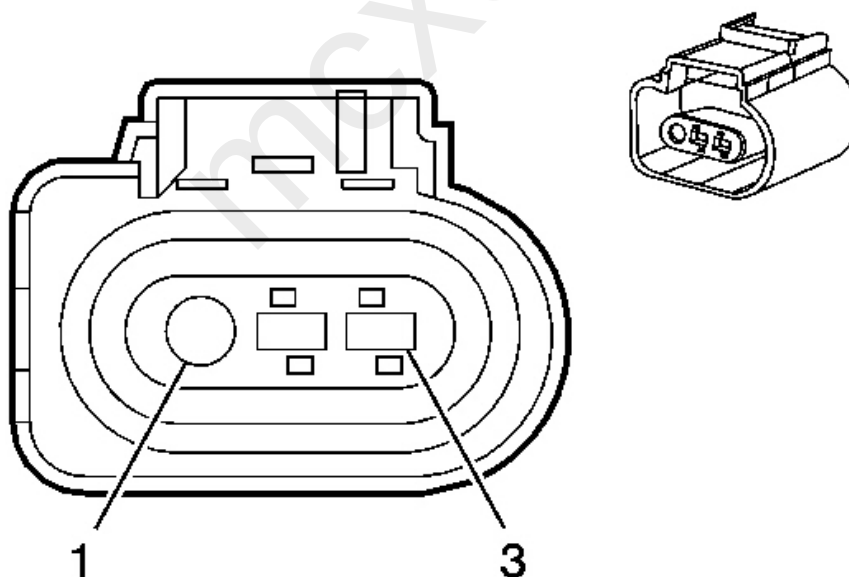
K43 POWER STEERING CONTROL MODULE X3 (LAF)

Fig. 43: K43 Power Steering Control Module X3 (LAF)

Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: EPS
- OEM: 2-1563453-1
- Service: Service by Harness - See Part Catalog
- Description: 3-Way F, Sealed (BK)

Terminal Part Information

- Terminated Lead: Service by Connector Assembly - 2-1563453-1
- Release Tool: Not Available
- Diagnostic Test Probe: Pending
- Terminal/Tray: Service by Connector Assembly - 2-1563453-1
- Core/Insulation Crimp: Not Available

K43 Power Steering Control Module X3 (LAF)

Pin	Wire	Circuit	Function
1	-	-	Not Used
2	0.5 D-GN	-	Power Steering Shaft Torque Sensor Signal
3	0.5 BN	-	Power Steering Shaft Torque Sensor Return

K47 REAR DIFFERENTIAL CLUTCH CONTROL MODULE (F46)

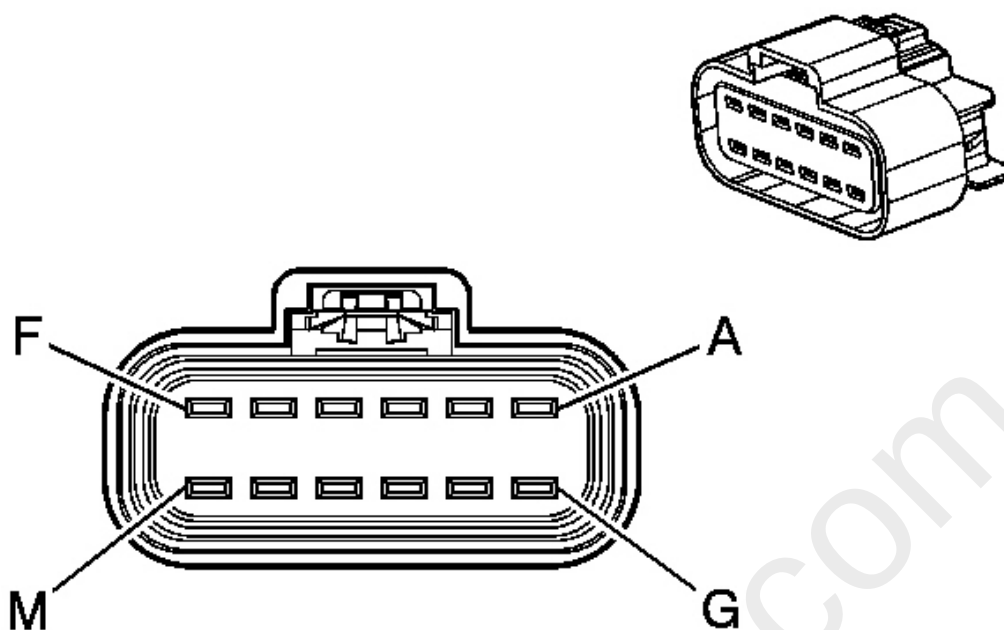


Fig. 44: K47 Rear Differential Clutch Control Module (F46)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Chassis
- OEM Connector: 19153740
- Service Connector: 13504588
- Description: 12-Way F GT 150 Series, Sealed (BK)

Terminal Part Information

- Terminated Lead: Pending
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-2A (GY)
- Terminal/Tray: 12191819/8
- Core/Insulation Crimp: E/A

K47 Rear Differential Clutch Control Module (F46)

Pin	Wire	Circuit	Function
A	0.35 L-BU	5986	Serial Data Communication Enable

B	0.35 L-BU	6106	High Speed GMLAN Serial Data (2) -
C	0.35 L-BU	6106	High Speed GMLAN Serial Data (2) -
D	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
E	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
F	0.5 BK	2550	Ground
G	0.5 RD/BK	1542	Battery Positive Voltage
H	0.35 D-BU	6105	High Speed GMLAN Serial Data +
J	0.35 D-BU	6105	High Speed GMLAN Serial Data +
K	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus+
L	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus+
M	-	-	Not Used

K73 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE X1 (UE1)

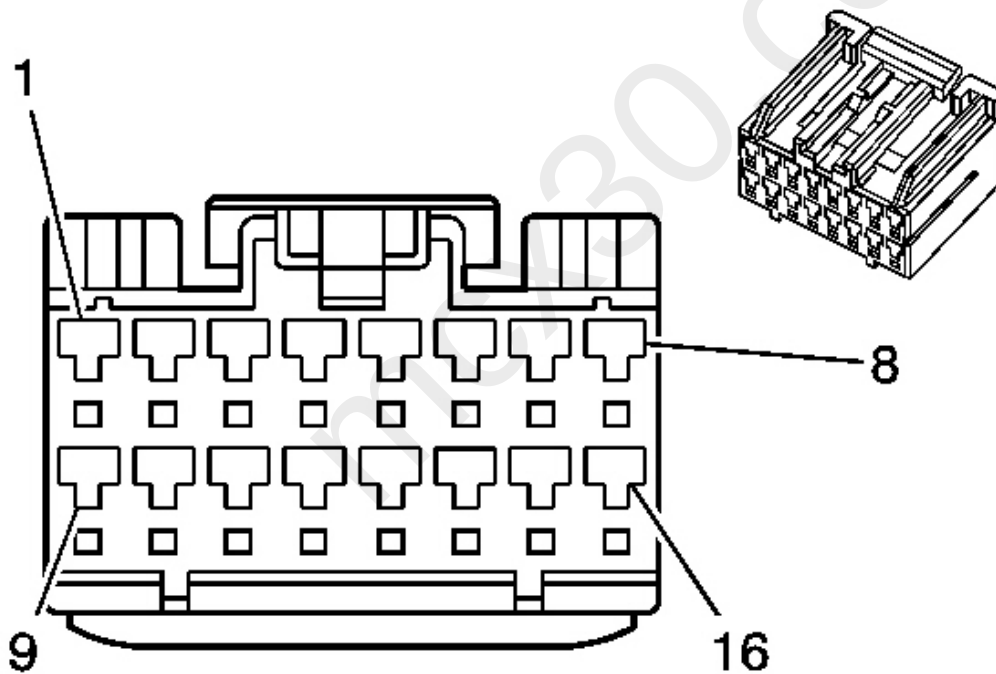


Fig. 45: K73 Telematics Communication Interface Control Module X1 (UE1)
 Courtesy of GENERAL MOTORS CORP.

- Harness: Instrument Panel
- OEM Connector: 917981-1
- Service Connector: 15306351
- Description: 16-Way F 040/070 Hybrid Series (WH)

Terminal Part Information

- Terminated Lead: Pending
- Release Tool: 12180559
- Diagnostic Test Probe: J-35616-16 (L-GN)
- Terminal/Tray: 15445905/23
- Core/Insulation Crimp: J/J

K73 Telematics Communication Interface Control Module X1 (UE1)

Pin	Wire	Circuit	Function
1	0.35 D-GN	5060	Low Speed GMLAN Serial Data
2	0.35 BN/WH	2517	Keypad Red LED Signal
3	0.35 YE/BK	2516	Keypad Green LED Signal
4-5	-	-	Not Used
6	0.35 L-GN/BK	2515	Keypad Supply Voltage
7	0.35 BK/WH	1551	Ground
8-9	-	-	Not Used
10	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus+
11	0.35 D-GN/WH	2514	Keypad Signal
12	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
13-14	-	-	Not Used
15	0.5 RD/WH	5340	Battery Positive Voltage
16	-	-	Not Used

K73 TELEMATICS COMMUNICATION INTERFACE CONTROL MODULE X2 (UE1)

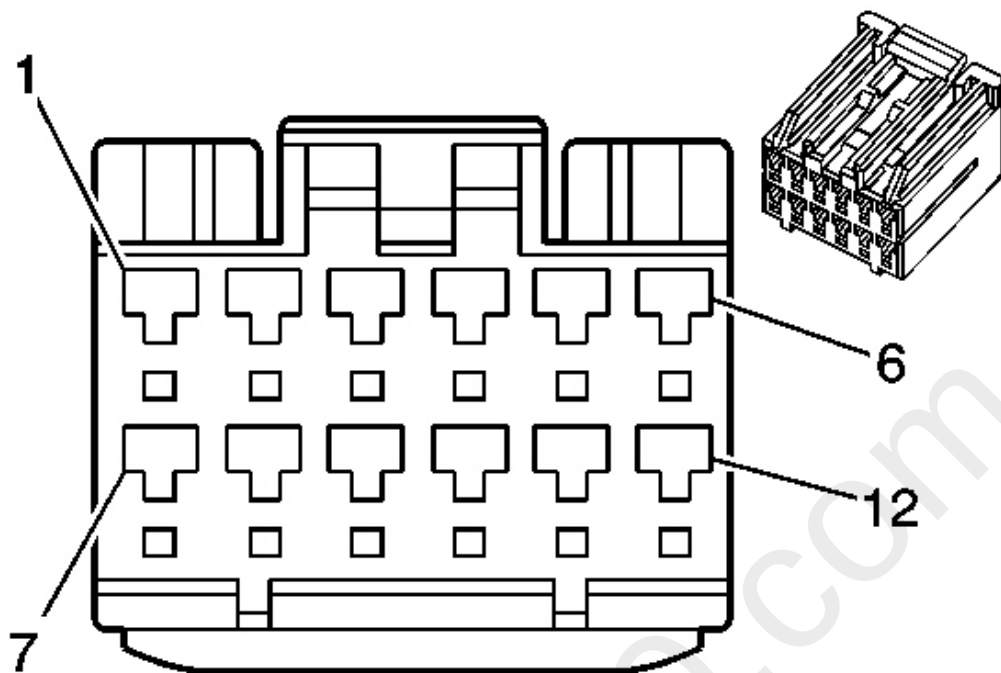


Fig. 46: K73 Telematics Communication Interface Control Module X2 (UE1)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: 917975-1
- Service Connector: 88952886
- Description: 12-Way F 040/070 Hybrid Series (WH)

Terminal Part Information

- Terminated Lead: Pending
- Release Tool: 12180559
- Diagnostic Test Probe: J-35616-16 (L-GN)
- Terminal/Tray: 15445905/23
- Core/Insulation Crimp: J/J

K73 Telematics Communication Interface Control Module X2 (UE1)

Pin	Wire	Circuit	Function
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1	0.35 D-BU	658	Cellular Telephone Voice Signal
2	0.35 L-BU/BK	659	Cellular Telephone Voice Low Reference
3	0.35 TN/BK	2500	High Speed GMLAN Serial Data Bus+
4	0.35 TN	2501	High Speed GMLAN Serial Data Bus -
5	0.35 BARE	1792	Drain Wire (UYS or PCJ)
6	0.35 PK	5149	Microphone Signal + (UYS or PCJ)
7	-	-	Not Used
8	0.35 BARE	1782	Drain Wire
9	0.35 GY	655	Cellular Microphone Signal
10	0.35 BARE	654	Cellular Microphone Low Reference
11	-	-	Not Used
12	0.35 PK/BK	5152	Microphone Signal - (UYS or PCJ)

K77 REMOTE CONTROL DOOR LOCK RECEIVER

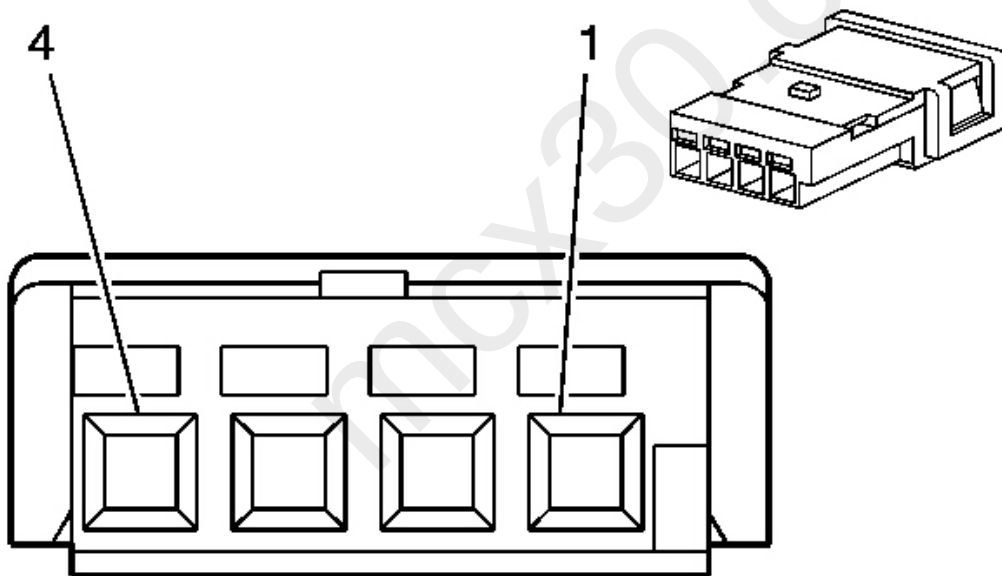


Fig. 47: K77 Remote Control Door Lock Receiver
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Headliner
- OEM Connector: 968943-1

- Service Connector: 13316143
- Description: 4-Way F 64 MQS Series (BK)

Terminal Part Information

- Terminated Lead: Pending
- Release Tool: 12094429
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: 928999-5/15
- Core/Insulation Crimp: H/H

K77 Remote Control Door Lock Receiver

Pin	Wire	Circuit	Function
1	0.35 L-BU/WH	3275	RCDLR Ground
2	0.35 GY	3273	RCDLR Data Receive
3	0.35 PK/WH	3272	RCDLR Data Transmit
4	0.35 L-GN	3274	RCDLR Power

K85 PASSENGER PRESENCE DETECTION MODULE

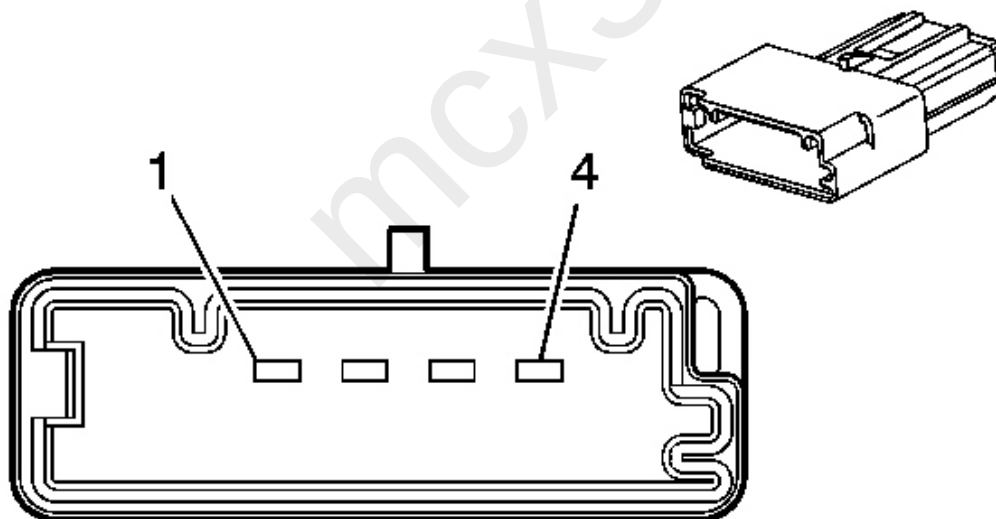


Fig. 48: K85 Passenger Presence Detection Module
 Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Passenger Seat Cushion
- OEM Connector: 6098-5519
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way M Low Profile 1.5 Series (BK)

Terminal Part Information

- Terminated Lead: 13575750
- Release Tool: 15315247
- Diagnostic Test Probe: J-35616-3 (GY)
- Terminal/Tray: 15304702/19
- Core/Insulation Crimp: E/C

K85 Passenger Presence Detection Module

Pin	Wire	Circuit	Function
1	-	-	Not Used
2	0.35 D-GN	5060	Low Speed GMLAN Serial Data
3	0.35 RD/WH	2040	Battery Positive Voltage
4	0.35 BK/WH	1651	Ground

K96L MIRROR CONTROL MODULE - LEFT (LTZ OR SLT)

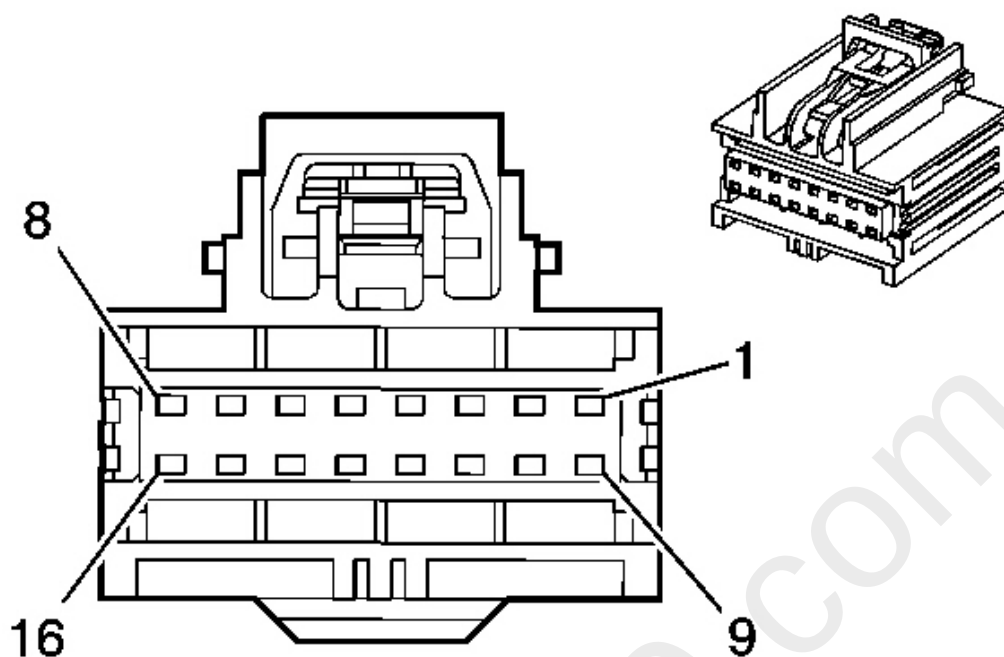


Fig. 49: K96L Mirror Control Module - Left (LTZ or SLT)
Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Driver Door Trim
- OEM Connector: 7283-9077-40
- Service Connector: 13504589
- Description: 16-Way F Kaizen 64 Series (L-GY)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K96L Mirror Control Module - Left (LTZ or SLT)

Pin	Wire	Circuit	Function

1	0.5 RD/WH	1940	Battery Positive Voltage
2-3	-	-	Not Used
4	0.5 GY	786	Driver Mirror Horizontal Position Sensor Signal
5	0.5 D-BU	672	5-Volt Reference
6	0.5 BN	673	Low Reference
7	0.35 D-BU/WH	3390	Outside Rearview Mirror Up/Down Control
8	-	-	Not Used
9	0.5 D-BU/WH	6160	Left Mirror Horizontal Position Control
10	0.5 D-GN/WH	6159	Left Mirror Horizontal Position Control
11	0.5 WH	7197	Outside Right Mirror Drive Motor Common
12	0.35 WH	7530	Local Interconnect Network 8
13	0.5 D-GN	784	Driver Mirror Vertical Position Sensor Signal
14	-	-	Not Used
15	0.5 BK	750	Ground
16	0.35 D-BU/WH	3390	Outside Rearview Mirror Up/Down Control

K108 ACTIVE NOISE CANCELLATION MODULE (VQN)

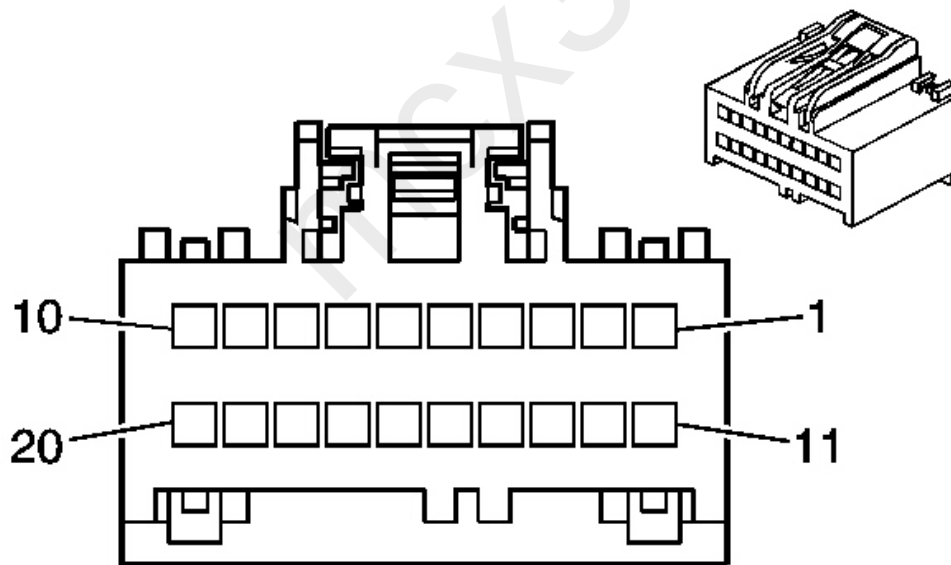


Fig. 50: K108 Active Noise Cancellation Module (VQN)

Courtesy of GENERAL MOTORS CORP.

Connector Part Information

- Harness: Instrument Panel
- OEM Connector: 31410-1200
- Service Connector: 15126711
- Description: 20-Way F 64 Series, Sealed (BK)

Terminal Part Information

- Terminated Lead: 13575866
- Release Tool: J-38125-215A
- Diagnostic Test Probe: J-35616-64B (L-BU)
- Terminal/Tray: SAIT-A03T-M064/14
- Core/Insulation Crimp: P/P

K108 Active Noise Cancellation Module (VQN)

Pin	Wire	Circuit	Function
1	0.35 RD/WH	4340	Battery Positive Voltage
2	0.35 WH	7066	Remote Enable
3	-	-	Not Used
4	0.35 PU	5747	Radio Amplifier Sense Signal
5	0.5 L-GN/BK	3633	Replicated Cam Frequency Out
6	0.35 WH	824	Audio Diagnostic Signal
7	0.5 L-BU	3006	Noise Reduction Microphone #2 Signal
8	0.5 PK	3007	Noise Reduction Microphone #3 Signal
9	0.35 BN/WH	9100	Noise Cancellation Reference - Rear
10	0.35 D-BU	9102	Noise Cancellation Reference - Front
11	0.5 BK/WH	1551	Ground
12	0.35 BARE	9104	Shield
13-16	-	-	Not Used
17	0.5 L-BU/BK	3009	Noise Reduction Microphone #2 Return
18	0.5 PK/BK	3010	Noise Reduction Microphone #3 Return
19	0.35 BN	9101	Noise Cancellation Signal - Rear
20	0.35 TN	9103	Noise Cancellation Signal - Front