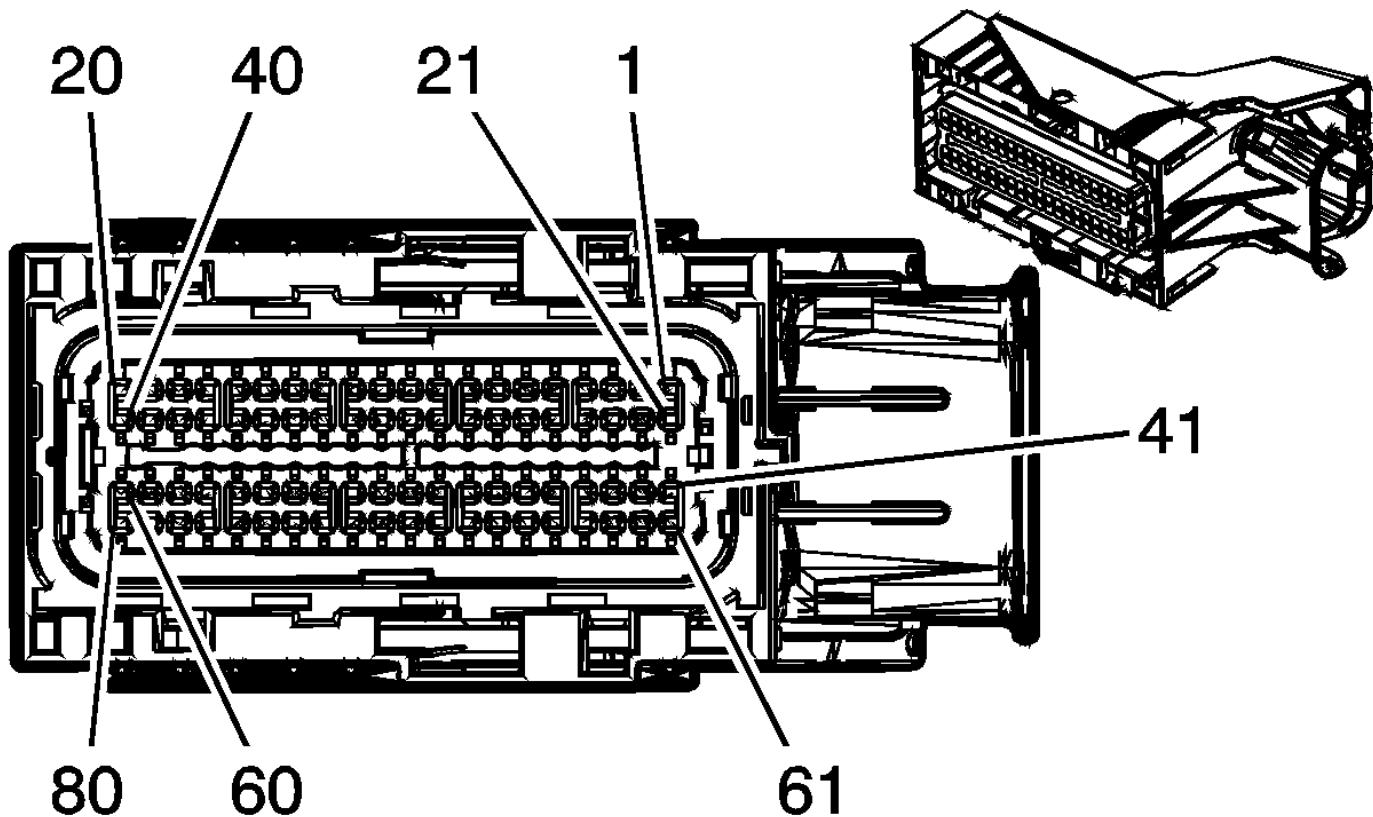


## ENGINE CONTROL MODULE (ECM) X...

ENGINE CONTROL MODULE (ECM) X2 (LS3 OR LS7) (WIRING SYSTEMS AND POWER MANAGEMENT)

Document ID#  
2328531

### Engine Control Module (ECM) X2 (LS3 or LS7)



#### Connector Part Information

- OEM: 34566-4503 (LS3/LS7 with MM6/MZ6)
- OEM: 34566-4603 (LS3 with MYC)
- Service: See Catalog
- Description: 80-Way F MX123 Harness Connector Assembly, Sealed (GY)

#### Terminal Part Information

- Pins: 2, 3, 5, 6, 8, 11–13, 17–24, 26, 27, 29, 30, 32, 34, 35, 37–41, 43, 44, 50, 53, 56–60, 61, 63–66, 68–79
- Terminal/Tray: 33467-0003/23
- Core/Insulation Crimp: Pins 2, 3, 21–24, 26, 27, 29, 30, 32, 34, 35, 41, 43, 44, 50, 53, 58, 61, 63–66, 68, 69 – H/H
- Core/Insulation Crimp: Pins 5, 6, 8, 11–13, 17–20, 37–40, 56, 57, 59, 60, 70–79 – See Terminal Repair Kit
- Release Tool/Test Probe: J-38125-213/J-35616-64B (L-BU)

### Engine Control Module (ECM) X2 (LS3 or LS7)

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

|       |              |      |  |
|-------|--------------|------|--|
| 1     | —            | —    | Not Used   |
| 2     | 0.35 PU/WH   | 6270 | 5-Volt Reference 2                                       |
| 3     | 0.35 L-BU/BK | 1688 | 5-Volt Reference 2                                       |
| 4     | —            | —    | Not Used   |
| 5     | 0.5 BN       | 582  | Throttle Actuator Control (TAC) Motor Control - 2        |
| 6     | 0.5 YE       | 581  | Throttle Actuator Control (TAC) Motor Control - 1        |
| 7     | —            | —    | Not Used   |
| 8     | 0.5 D-GN/WH  | 428  | EVAP Canister Purge Solenoid Valve Control               |
| 9-10  | —            | —    | Not Used   |
| 11    | 0.5 L-GN     | 1652 | Reverse Lockout Solenoid Control (MM6/MZ6/MN6)           |
| 12    | 0.5 GY/WH    | 3113 | HO2S Heater Low Control Bank 1 Sensor 1                  |
| 13    | 0.5 L-GN     | 3212 | HO2S Heater Low Control Bank 2 Sensor 1                  |
| 14-16 | —            | —    | Not Used   |
| 17    | 0.5 D-BU/WH  | 878  | Fuel Injector 8 Control                                  |
| 18    | 0.5 TN/WH    | 845  | Fuel Injector 5 Control                                  |
| 19    | 0.5 YE/BK    | 846  | Fuel Injector 6 Control                                  |
| 20    | 0.5 TN       | 1744 | Fuel Injector 1 Control                                  |
| 21    | 0.35 YE      | 410  | Engine Coolant Temperature Sensor Signal                 |
| 22    | 0.35 TN      | 2761 | Low Reference  |
| 23    | 0.35 TN/WH   | 585  | Transmission Fluid Temperature (TFT) Sensor Signal (MN6) |
| 24    | 0.35 OG/BK   | 586  | Low Reference (MN6)                                      |
| 25    | —            | —    | Not Used   |
|       |              |      |  |

|       |             |      |  |
|-------|-------------|------|--|
| 26    | 0.35 D-BU   | 496  | Knock Sensor 1 Signal                        |
| 27    | 0.35 GY     | 1716 | Knock Sensor 1 Signal                        |
| 28    | —           | —    | Not Used                                     |
| 29    | 0.35 L-BU   | 1876 | Knock Sensor 2 Signal                        |
| 30    | 0.35 GY     | 2303 | Knock Sensor 2 Signal                        |
| 31    | —           | —    | Not Used                                     |
| 32    | 0.35 GY     | 23   | Generator Field Duty Cycle Signal            |
| 33    | 0.35 BN     | 1174 | Oil Pressure Switch Signal (LS3 without Z52) |
| 34    | 0.35 BK     | 2755 | Low Reference                                |
| 35    | 0.35 TN/WH  | 1704 | Low Reference                                |
| 36    | —           | —    | Not Used                                     |
| 37    | 0.5 L-GN/BK | 1745 | Fuel Injector 2 Control                      |
| 38    | 0.5 PK/BK   | 1746 | Fuel Injector 3 Control                      |
| 39    | 0.5 L-BU/BK | 844  | Fuel Injector 4 Control                      |
| 40    | 0.5 OG/BK   | 877  | Fuel Injector 7 Control                      |
| 41    | 0.35 GY     | 2705 | 5-Volt Reference 1                           |
| 42    | —           | —    | Not Used                                     |
| 43    | 0.5 GY      | 2704 | 5-Volt Reference 1                           |
|       | 0.35 GY     | 2704 | 5-Volt Reference 1 (LS7)                     |
| 44    | 0.35 D-BU   | 6259 | 5-Volt Reference 1                           |
| 45-49 | —           | —    | Not Used                                     |
| 50    | 0.35 TN/WH  | 331  | Oil Pressure Sensor Signal                   |
|       |             |      |  |

|       |              |      |  |
|-------|--------------|------|--|
| 51-52 | —            | —    | Not Used                                       |
| 53    | 0.5 OG/BK    | 469  | Low Reference (LS3)                            |
|       | 0.35 OG/BK   | 469  | Low Reference (LS7)                            |
| 54-55 | —            | —    | Not Used                                       |
| 56    | 0.5 TN       | 1664 | HO2S Low Signal Bank 1 Sensor 1                |
| 57    | 0.5 PU/WH    | 1665 | HO2S High Signal Bank 1 Sensor 1               |
| 58    | 0.35 L-GN    | 432  | Manifold Absolute Pressure (MAP) Sensor Signal |
| 59    | 0.5 PU       | 1666 | HO2S High Signal Bank 2 Sensor 1               |
| 60    | 0.5 TN       | 1667 | HO2S Low Signal Bank 2 Sensor 1                |
| 61    | 0.35 OG      | 225  | <a href="#">Generator</a> Turn On Signal       |
| 62    | —            | —    | Not Used                                       |
| 63    | 0.35 PU      | 486  | Throttle Position Sensor 2 Signal              |
| 64    | 0.35 D-BU/WH | 6265 | Camshaft Position Sensor (CMP) Signal          |
| 65    | 0.35 D-GN    | 485  | Throttle Position Sensor 1 Signal              |
| 66    | 0.35 BN      | 6266 | Low Reference                                  |
| 67    | —            | —    | Not Used                                       |
| 68    | 0.35 WH/BK   | 6271 | Crankshaft Position Sensor Signal              |
| 69    | 0.35 GY/BK   | 6272 | Low Reference                                  |
| 70    | 0.5 PU       | 2121 | IC 1 Control                                   |
| 71    | 0.5 PU/WH    | 2128 | IC 8 Control                                   |
| 72    | 0.5 OG       | 2127 | IC 7 Control                                   |
| 73    | 0.5 OG/WH    | 2122 | IC 2 Control                                   |
|       |              |      |  |

|    |             |      |               |
|----|-------------|------|---------------|
| 74 | 0.5 L-BU/WH | 2126 | IC 6 Control  |
| 75 | 0.5 D-GN    | 2125 | IC 5 Control  |
| 76 | 0.5 D-GN/WH | 2124 | IC 4 Control  |
| 77 | 0.5 L-BU    | 2123 | IC 3 Control  |
| 78 | 0.5 BN      | 2129 | Low Reference |
| 79 | 0.5 BN/WH   | 2130 | Low Reference |
| 80 | —           | —    | Not Used      |

"Portions of materials contained herein have been reprinted with permission of General Motors Corporation, Service and Parts Operations" License Agreement #0410810.

Copyright 2007 - 2012 Service Repair Solutions, Inc.