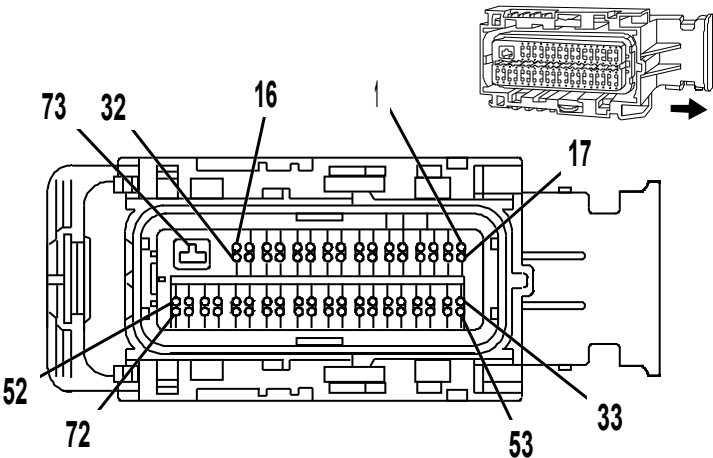


2012 GMC Truck Sierra 1500 4WD V8-5.3L

Engine Control Module (ECM) X1 (L20, L9H, LC9 or LMG)



Connector Part Information

- Harness Type: Engine
- OEM Connector: 13616079
- Service Connector: 88988931
- Description: 73-Way F Receptacle 0.64 2.8 Series Sealed (BK)

Terminal Part Information

- Pins: 1, 12, 13, 16, 17, 23, 24, 29-34, 36, 50, 51, 56-59, 68, 70, 71
  - Terminated Lead: Not Available
  - Release Tool: J-38125-213
  - Diagnostic Test Probe: J-35616-64B (L-BU)
  - Terminal/Tray: 33467-0003/23
  - Core/Insulation Crimp: H/H
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- Pins: 2, 3, 9-11, 18, 20, 26– 28, 37, 38, 41, 42, 47, 49, 52, 54, 61, 63-65, 69, 71, 72
  - Terminated Lead: Not Available
  - Release Tool: J-38125-213
  - Diagnostic Test Probe: J-35616-64B (L-BU)
  - Terminal/Tray: 33467-0005/23
  - Core/Insulation Crimp: J/J
- 
- Pin: 73
  - Terminated Lead: 13576375
  - Release Tool: J-38125-11A
  - Diagnostic Test Probe: J-35616-35 (VT)
  - Terminal/Tray: 7116-4152-02/9
  - Core/Insulation Crimp: A/5

| Pin | Wire          | Circuit | Function                    |
|-----|---------------|---------|-----------------------------|
| 1   | 0.35<br>OG/BK | 1786    | Park/Neutral Signal         |
| 2   | 0.5<br>GY/BK  | 1694    | 4WD Low Signal<br>(NQG)     |
| 3   | 0.5<br>TN/WH  | 1695    | Axle Switch Signal<br>(NQG) |
| 4–8 | —             | —       | Not Used                    |

| Pin   | Wire         | Circuit | Function                                            |
|-------|--------------|---------|-----------------------------------------------------|
| 9     | 0.5 L-BU/WH  | 6311    | Brake Switch Signal                                 |
| 10    | 0.5 PU/WH    | 1668    | H02S High Signal Bank 1 Sensor 2                    |
| 11    | 0.5 TN/WH    | 1669    | H02S Low Signal Bank 1 Sensor 2                     |
| 12    | 0.35 OG/BK   | 380     | A/C Refrigerant Pressure Sensor Signal (CJ2 or C67) |
| 13    | 0.35 TN      | 5514    | Low Reference (CJ2 or C67)                          |
| 14–15 | —            | —       | Not Used                                            |
| 16    | 0.35 PU      | 1589    | Fuel Level Sensor Signal – Primary                  |
| 17    | 0.35 D-BU/WH | 473     | High Speed Cooling Fan Relay Control                |
| 18    | 0.5 D-BU     | 5985    | Accessory Wakeup Serial Data                        |
| 19    | 0.5 PK       | 439     | Ignition 1 Voltage                                  |
| 20    | 0.5 RD/WH    | 440     | Battery Positive Voltage                            |
| 21–22 | —            | —       | Not Used                                            |
| 23    | 0.35 PU      | 1272    | Low Reference                                       |
| 24    | 0.35 D-GN    | 890     | Fuel Tank Pressure Sensor Signal                    |
| 25    | —            | —       | Not Used                                            |
| 26    | 0.5 YE       | 5361    | Brake Apply Sensor Signal                           |
| 27    | 0.5 TN/BK    | 2501    | High Speed GMLAN Serial Data Bus (–)                |

| Pin   | Wire         | Circuit | Function                               |
|-------|--------------|---------|----------------------------------------|
| 28    | 0.5 TN/BK    | 2500    | High Speed GMLAN Serial Data Bus (+)   |
| 29    | 0.35 D-BU    | 1161    | APP Sensor 1 Signal                    |
| 30    | 0.35 BN      | 1271    | Low Reference                          |
| 31    | 0.35 TN/BK   | 6049    | Low Reference                          |
| 32    | 0.35 L-BU    | 1162    | APP Sensor 2 Signal                    |
| 33    | 0.35 GY      | 2709    | 5-Volt Reference 1                     |
| 34    | 0.35 GY/WH   | 2700    | 5-Volt Reference 1                     |
| 35    | 0.5 TN       | 2760    | Low Reference                          |
| 36    | 0.35 TN      | 1274    | 5-Volt Reference 1                     |
| 37    | 0.5 TN/BK    | 472     | IAT Sensor Signal                      |
| 38    | 0.5 TN       | 2760    | Low Reference                          |
| 39–40 | —            | —       | Not Used                               |
| 41    | 0.5 YE       | 492     | MAF Sensor Signal                      |
| 42    | 0.5 BN       | 5360    | Brake Apply Sensor Low Reference       |
| 43–46 | —            | —       | Not Used                               |
| 47    | 0.5 PK/BK    | 1339    | Ignition 1 Voltage                     |
| 48    | —            | —       | Not Used                               |
| 49    | 0.5 TN       | 1671    | H02S Low Signal Bank 2 Sensor 2        |
| 50    | 0.35 D-GN/WH | 465     | Fuel Pump Control Module Enable Signal |

| Pin       | Wire             | Circuit | Function                                               |
|-----------|------------------|---------|--------------------------------------------------------|
| 51        | —                | —       | Not Used                                               |
| 52        | 0.5<br>YE/BK     | 625     | Starter Enable Relay<br>Control                        |
| 53        | —                | —       | Not Used                                               |
| 54        | 0.5 WH           | 5359    | Brake Apply Sensor<br>Supply Voltage                   |
| 55        | —                | —       | Not Used                                               |
| 56        | 0.35<br>WH/BK    | 1164    | 5-Volt Reference 2                                     |
| 57        | —                | —       | Not Used                                               |
| 58        | 0.35 D-<br>GN    | 335     | Low Speed Cooling<br>Fan Relay Control                 |
| 59        | 0.35 YE          | 5991    | Powertrain Relay<br>Coil Control                       |
| 60        | —                | —       | Not Used                                               |
| 61        | 0.5 WH           | 1310    | EVAP Canister<br>Venst Solenoid<br>Control             |
| 62        | —                | —       | Not Used                                               |
| 63        | 0.35 D-<br>GN/WH | 459     | A/C Compressor<br>Clutch Relay Control<br>(CJ2 or C67) |
| 64        | 0.5<br>OG/WH     | 3223    | H02S Heater Low<br>Control Bank 2<br>Sensor 2          |
| 65        | 0.5<br>GY/WH     | 3122    | H02S Heater Low<br>Control Bank 1<br>Sensor 2          |
| 66–<br>67 | —                | —       | Not Used                                               |
| 68        | 0.35<br>BN/WH    | 419     | MIL Control                                            |

| Pin | Wire            | Circuit | Function                                                              |
|-----|-----------------|---------|-----------------------------------------------------------------------|
| 69  | 0.5 PU          | 1670    | H02S High Signal<br>Bank 2 Sensor 2                                   |
| 70  | —               | —       | Not Used                                                              |
| 71  | 0.35<br>OG/BK   | 6399    | Replicated TOS<br>Signal (except 31<br>Series without NQF<br>or NQG)  |
|     | 0.5<br>PU/WH    | 821     | Vehicle Speed<br>Sensor (VSS) High<br>Signal (MYC with<br>NQG or NQH) |
| 72  | 0.5 L-<br>GN/BK | 822     | Vehicle Speed<br>Sensor (VSS) Low<br>Signal (MYC with<br>NQG or NQH)  |
| 73  | 3 BK/WH         | 451     | Ground                                                                |

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