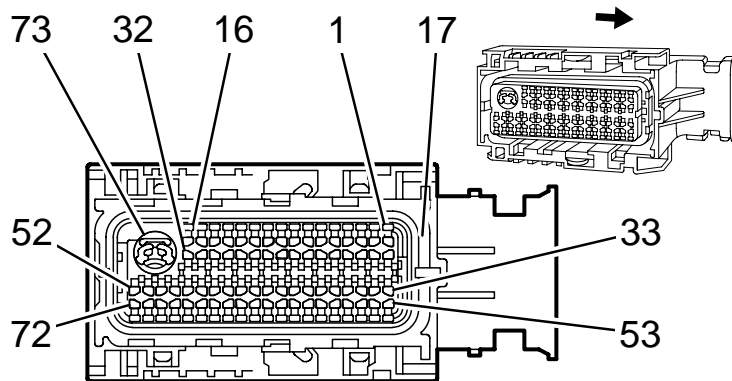




K20 Engine Control Module X1



Connector Part Information

- Harness Type: Engine
- OEM Connector: 34566-0303
- Service Connector: 13574782
- Description: 73-Way F 0.64 2.8 Series, Sealed (BK with BU Terminal Position Assurance Lock)

Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray | Core Crimp | Insulation Crimp |
|------------------|-----------------|-----------------------|-----------------------|------------------|---------------|---------------|------------------|
| I | 13575575 | J-35616-64B (L-BU) | J-38125-213 | 33467-0005 | 23 | J | J |
| II | 13575575 | J-35616-64B (L-BU) | J-38125-213 | 33467-0005 | 23 | K | K |
| III | 13575291 | Pending | Pending | Not Available | Not Available | Not Available | Not Available |

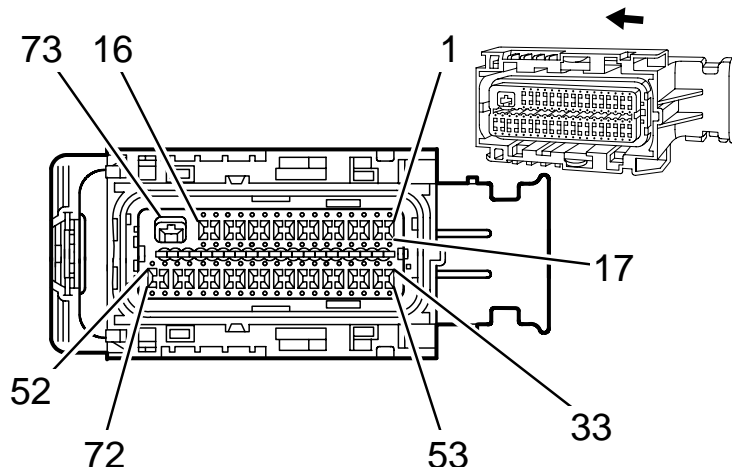
K20 Engine Control Module X1

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-------|------|-------|---------|--|------------------|--------|
| 1-5 | - | - | - | Not Occupied | - | - |
| 6 | 0.5 | GN | 380 | A/C Refrigerant Pressure Sensor Signal | I | — |
| 7-8 | - | - | - | Not Occupied | - | - |
| 9 | 0.5 | BU/WH | 890 | Fuel Tank Pressure Sensor Signal | I | — |
| 10 | 0.5 | YE/RD | 2709 | 5-Volt Reference 1 | I | — |
| 11-13 | - | - | - | Not Occupied | - | - |
| 14 | 0.5 | WH/RD | 1164 | 5-Volt Reference 4 | I | — |
| 15 | 0.5 | YE/WH | 1161 | Accelerator Pedal Position Signal (1) | I | — |
| 16-20 | - | - | - | Not Occupied | - | - |
| 21 | 0.5 | BN/RD | 2700 | 5-Volt Reference 1 | I | — |
| 22 | 0.5 | BK/BN | 5514 | Low Reference | I | — |
| 23-24 | - | - | - | Not Occupied | - | - |
| 25 | 0.5 | BU/VT | 1589 | Primary Fuel Level Sensor Signal | I | — |
| 26 | 0.5 | BK/GN | 6281 | Low Reference | I | — |
| 27-29 | - | - | - | Not Occupied | - | - |
| 30 | 0.5 | BK/BU | 1271 | Low Reference | I | — |
| 31 | - | - | - | Not Occupied | - | - |
| 32 | 0.5 | WH/GY | 459 | A/C Compressor Clutch Relay Control | I | — |
| 33 | 0.5 | BN/RD | 1274 | 5-Volt Reference 3 | I | — |
| 34 | 0.5 | GN/WH | 1162 | Accelerator Pedal Position Signal (2) | I | — |
| 35-38 | - | - | - | Not Occupied | - | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-----------|--------------|----------------|--------------|---|------------------|------------|
| 39 | 0.5 | BU | 2500 | High Speed GMLAN Serial Data (+) (1) | I | — |
| 40 | 0.5 | WH | 2501 | High Speed GMLAN Serial Data (-) (1) | I | — |
| 41 | - | - | - | Not Occupied | - | - |
| 42 | 0.5 | GN/VT | 335 | Low Speed Cooling Fan Relay Control | I | — |
| 43 | - | - | - | Not Occupied | - | - |
| 44 | 0.5 | GN/GY | 465 | Fuel Pump Primary Relay Control | I | — |
| 45 | - | - | - | Not Occupied | - | - |
| 46 | 0.5 | BN/WH | 419 | Check Engine Indicator Control | I | — |
| 47 | 0.5 0.5 | RD GY/RD | 5359 6109 | Brake Apply Sensor Supply Voltage Clutch Apply Sensor Voltage Reference | I | MH8 MZ0 |
| 48 | 0.5 0.5 | YE YE | 5361 6111 | Brake Apply Sensor Signal Clutch Apply Sensor Signal | I | MH8 MZ0 |
| 49- 50 | - | - | - | Not Occupied | - | - |
| 51 | 0.75 0.75 | VT/BK GY/BU | 3 7380 | Run/Crank Ignition 1 Voltage Strap Driver Seat Belt Tensioner Low Control | - | MH8 MZ0 |
| 52 | 0.75 | VT/BK | 3 | Run/Crank Ignition 1 Voltage | - | — |
| 53 | 0.5 | BK/VT | 1272 | Low Reference | I | — |
| 54- 56 | - | - | - | Not Occupied | - | - |
| 57 | 0.5 | WH/BU | 3611 | Cruise/ETC/TCC Brake Signal | I | — |
| 58 | - | - | - | Not Occupied | - | - |
| 59 | 0.5 | GN/VT | 335 | Low Speed Cooling Fan Relay Control | I | — |
| 60- 61 | - | - | - | Not Occupied | - | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-------|------------|-------------|--------------|---|------------------|------------|
| 62 | 0.75 | VT/BU | 5291 | Powertrain Main Relay Fused Supply (2) | - | — |
| 63 | 0.5 | YE | 447 | Starter Relay Coil Control | I | — |
| 64-65 | - | - | - | Not Occupied | - | - |
| 66 | 0.75 | WH | 1310 | EVAP Canister Vent Solenoid Control | - | — |
| 67 | - | - | - | Not Occupied | - | - |
| 68 | 0.5 0.5 | GY BK/GY | 5360 6110 | Brake Apply Sensor Low Reference Clutch Apply Sensor Low Reference | I | MH8 MZ0 |
| 69 | - | - | - | Not Occupied | - | - |
| 70 | 0.5 | VT/YE | 5985 | Accessory Wakeup Serial Data | - | — |
| 71 | - | - | - | Not Occupied | - | - |
| 72 | 0.5 | BN/WH | 5069 | Engine Main Relay Coil Control | - | — |
| 73 | 1.5 | VT/BU | 5290 | Ignition 1 Voltage | III | — |

K20 Engine Control Module X2



Connector Part Information

- Harness Type: Engine
- OEM Connector: 34566-0103
- Service Connector: 13577391
- Description: 73-Way F Sealed (BK) with (BK) case

Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray | Core Crimp | Insulation Crimp |
|------------------|-----------------|-----------------------|-----------------------|------------------|---------------|---------------|------------------|
| I | 13575575 | J-35616-64B (L-BU) | J-38125-213 | 33467-0005 | 23 | J | J |
| II | 13575291 | Pending | Pending | Not Available | Not Available | Not Available | Not Available |

K20 Engine Control Module X2

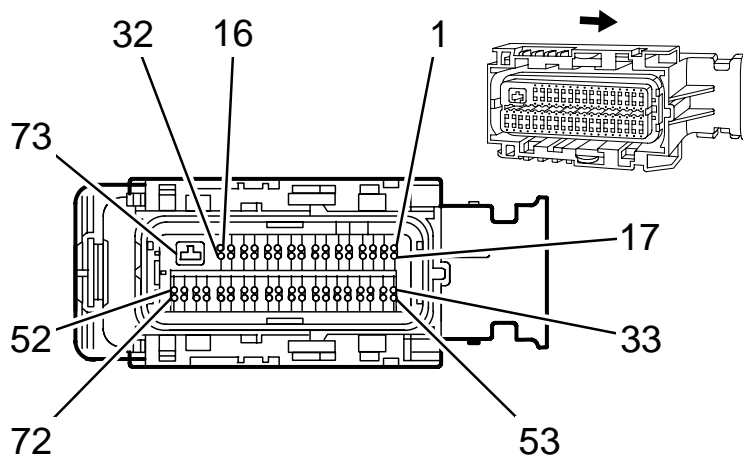
| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-----|------|-------|---------|--------------|------------------|--------|
| 1-2 | - | - | - | Not Occupied | - | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-------|------|-------|---------|--|------------------|--------|
| 3 | 0.5 | BU/WH | 2918 | Fuel Rail Pressure Sensor Signal | I | — |
| 4 | - | - | - | Not Occupied | - | - |
| 5 | 0.5 | YE/BN | 3604 | Output Speed Sensor 5 Volt Reference | I | MZO |
| 6-7 | - | - | - | Not Occupied | - | - |
| 8 | 0.5 | GY/BU | 6358 | Output Speed Signal | I | MZO |
| 9 | - | - | - | Not Occupied | - | - |
| 10 | 0.5 | VT/GY | 3110 | Heated Oxygen Sensor High Signal Bank 1 Sensor (1) | I | — |
| 11 | - | - | - | Not Occupied | - | - |
| 12 | 0.5 | VT/BU | 3120 | Heated Oxygen Sensor High Signal Bank 1 Sensor (2) | I | — |
| 13-15 | - | - | - | Not Occupied | - | - |
| 16 | 0.5 | GY/BK | 561 | Throttle Relaxer Motor Low Reference | I | — |
| 17 | - | - | - | Not Occupied | - | - |
| 18 | 0.5 | BN/RD | 2917 | Fuel Rail Pressure Sensor (5) Volt Reference | I | — |
| 19 | 0.5 | BK/GN | 2919 | Fuel Rail Pressure Sensor Low Reference | I | — |
| 20 | - | - | - | Not Occupied | - | - |
| 21 | 0.5 | WH/VT | 6356 | Output Speed Low Signal | I | MZO |
| 22 | - | - | - | Not Occupied | - | - |
| 23 | 0.5 | GY/BK | 6316 | Engine Reverse Gear Switch Signal | I | MZO |
| 24-25 | - | - | - | Not Occupied | - | - |
| 26 | 0.5 | WH/BK | 3111 | Heated Oxygen Sensor Low Signal Bank 1 Sensor (1) | I | — |
| 27 | - | - | - | Not Occupied | - | - |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-------|------|--------|---------|---|------------------|--------|
| 28 | 0.5 | WH/YE | 3121 | Heated Oxygen Sensor Low Signal Bank 1 Sensor (2) | I | — |
| 29–31 | - | - | - | Not Occupied | - | - |
| 32 | 0.5 | WH | 560 | Throttle Relaxer Motor Supply Voltage | I | — |
| 33 | - | - | - | Not Occupied | - | - |
| 34 | 0.5 | BN/RD | 2701 | 5-Volt Reference 4 | I | — |
| 35 | - | - | - | Not Occupied | - | - |
| 36 | 0.5 | VT/GY | 496 | Knock Sensor Signal (1) | I | — |
| 37–40 | - | - | - | Not Occupied | - | - |
| 41 | 0.5 | GY/WH | 3113 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor (1) | I | — |
| 42 | 0.5 | GY/WH | 3122 | Heated Oxygen Sensor Heater Low Control Bank 1 Sensor (2) | I | — |
| 43 | 0.5 | BK/GN | 432 | Manifold Absolute Pressure Sensor Signal | I | — |
| 44 | 0.5 | GY/RD | 2704 | 5-Volt Reference 3 | I | — |
| 45–48 | - | - | - | Not Occupied | - | - |
| 49 | 0.5 | WH/BU | 6289 | Induction Air Temperature Sensor Signal | I | — |
| 50 | - | - | - | Not Occupied | - | - |
| 51 | 0.5 | BK/GY | 428 | EVAP Canister Purge Solenoid Control | I | — |
| 52 | 0.5 | GN/WH | 492 | Mass Air Flow Sensor Signal | I | — |
| 53 | 0.5 | BN | 25 | Charge Indicator Control | I | — |
| 54 | 0.5 | BK//BN | 2752 | Low Reference | I | — |
| 55 | 0.5 | GY | 23 | Generator Field Duty Cycle Signal | I | — |
| 56 | 0.5 | WH/GY | 1876 | Knock Sensor Signal (2) | I | — |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-------|------|------------|---------|--------------------------------------|------------------|--------|
| 57 | - | - | - | Not Occupied | - | - |
| 58 | 0.5 | WH/GY | 1786 | Transmission Park/Neutral Signal (1) | I | MH8 |
| 59–62 | - | - | - | Not Occupied | - | - |
| 63 | 0.5 | - GN/WH | 469 | Low Reference | - | — |
| 64–68 | - | - | - | Not Occupied | - | - |
| 69 | 0.5 | BK/VT | 2760 | Low Reference | - | — |
| 70 | 0.5 | BN/GN | 485 | Throttle Position Sensor Signal (1) | - | — |
| 71–72 | - | - | - | Not Occupied | - | - |
| 73 | 1.5 | BK | 450 | Signal Ground | II | — |

K20 Engine Control Module X3



Connector Part Information

- Harness Type: Forward Lamp
- OEM Connector: 34566-0203
- Service Connector: 88988372
- Description: 73-Way F MX123 34566 Series (BK with GY Terminal Position Assurance Lock)

Terminal Part Information

| Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray | Core Crimp | Insulation Crimp |
|------------------|-----------------|-----------------------|-----------------------|------------------|---------------|---------------|------------------|
| I | 13575575 | J-35616-64B (L-BU) | J-38125-213 | 33467-0005 | 23 | J | J |
| II | 13575575 | J-35616-64B (L-BU) | J-38125-213 | 33467-0005 | 23 | K | K |
| III | 13575291 | Pending | Pending | Not Available | Not Available | Not Available | Not Available |

K20 Engine Control Module X3

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-------|------|-------|---------|---|------------------|--------|
| 1-7 | - | - | - | Not Occupied | - | - |
| 8 | 0.5 | BU | 410 | Engine Coolant Temperature Sensor Signal | I | — |
| 9 | 0.5 | YE/BU | 231 | Oil Pressure Switch Signal | I | — |
| 10 | 0.5 | VT/BU | 6270 | Crankshaft 60X Sensor Voltage | I | — |
| 11-15 | - | - | - | Not Occupied | - | - |
| 16 | 0.75 | YE | 7301 | High Pressure Fuel Pump Actuator High – Control | II | — |
| 17-23 | - | - | - | Not Occupied | - | - |
| 24 | 0.5 | BK/BN | 2761 | Low Reference | I | — |
| 25 | 0.5 | GN | 6271 | Crankshaft 60X Sensor Signal | I | — |
| 26 | 0.5 | BK/VT | 6272 | Crankshaft 60X Sensor Low Reference | I | — |
| 27 | 0.5 | BU/WH | 2122 | Ignition Control (2) | I | — |
| 28 | 0.5 | YE/BU | 2124 | Ignition Control (4) | I | — |
| 29 | 0.5 | GN/BU | 2123 | Ignition Control (3) | I | — |
| 30 | 0.5 | BU/VT | 2121 | Ignition Control (1) | I | — |
| 31 | 0.5 | BK/GY | 453 | Ignition Control Low Reference | I | — |
| 32 | 0.75 | VT/BK | 7300 | High Pressure Fuel Pump Actuator Low – Control | II | — |
| 33 | 0.5 | YE/WH | 5275 | Camshaft Position Intake Sensor (1) | I | — |
| 34 | 0.5 | GY/BU | 5300 | 5-Volt Reference 1 | I | — |
| 35 | 0.5 | VT/BK | 5273 | Camshaft Position Exhaust Sensor (1) | I | — |
| 36-38 | - | - | - | Not Occupied | - | - |
| 39 | 0.5 | GY/BU | 5284 | Camshaft Phaser Intake Solenoid (1) | I | — |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|-------|------|-------|---------|--------------------------------------|------------------|--------|
| 40 | 0.5 | GY/YE | 5282 | Camshaft Phaser Exhaust Solenoid (1) | I | — |
| 41–45 | - | - | - | Not Occupied | - | - |
| 46 | 0.75 | BN/YE | 844 | Fuel Injector Control (4) | II | — |
| 47 | - | - | - | Not Occupied | - | - |
| 48 | 0.75 | YE/WH | 1745 | Fuel Injector Control (2) | II | — |
| 49 | - | - | - | Not Occupied | - | - |
| 50 | 0.75 | BN/VT | 1746 | Fuel Injector Control (3) | II | — |
| 51 | - | - | - | Not Occupied | - | - |
| 52 | 0.75 | BN/VT | 1744 | Fuel Injector Control (1) | II | — |
| 53 | 0.5 | BK/GN | 5301 | Low Reference | - | — |
| 54 | 0.5 | YE/BK | 5297 | 5-Volt Reference 1 | - | — |
| 55 | 0.5 | BK/GY | 5296 | Low Reference | - | — |
| 56–58 | - | - | - | Not Occupied | - | - |
| 59 | 0.5 | VT/BN | 6753 | Low Reference | - | — |
| 60 | 0.5 | GY/BU | 6754 | Low Reference | - | — |
| 61–65 | - | - | - | Not Occupied | - | - |
| 66 | 0.75 | BU/GY | 5425 | Fuel Injector Supply Voltage (4) | II | — |
| 67 | - | - | - | Not Occupied | - | - |
| 68 | 0.75 | BU/YE | 5422 | Fuel Injector Supply Voltage (2) | II | — |
| 69 | - | - | - | Not Occupied | - | - |
| 70 | 0.75 | BU/GN | 5423 | Fuel Injector Supply Voltage (3) | - | — |
| 71 | - | - | - | Not Occupied | - | - |
| 72 | 0.75 | BU/WH | 5421 | Fuel Injector Supply Voltage (1) | - | — |

| Pin | Size | Color | Circuit | Function | Terminal Type ID | Option |
|------------|-------------|--------------|----------------|-----------------|-------------------------|---------------|
| 73 | 1.5 | BK | 450 | Signal Ground | III | — |