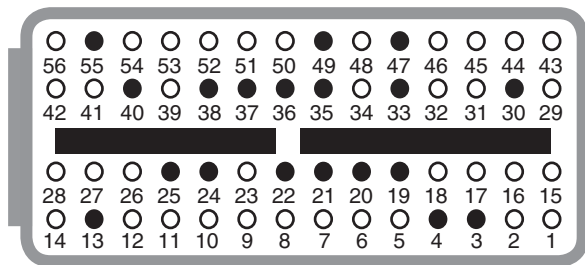


J-1 ECM Connector Identification (1 of 2 J-1)

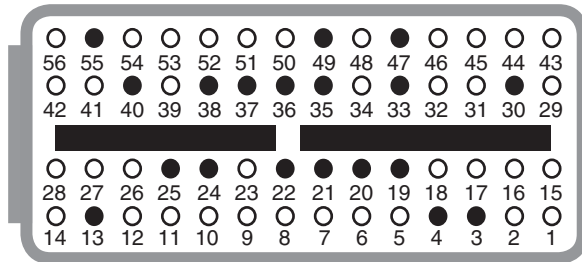


ECM 56 WAY OUTPUT CONNECTOR

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|-------------------------------------|
| J1-1 | | | CRANK REQUEST * |
| J1-2 | | | N/A |
| J1-3 | 759 | TAN/WHT | PERFECT PASS ENABLE |
| J1-4 | 941 | YEL | SLAVE ENGINE SELECT |
| J1-5 | | | N/A |
| J1-6 | | | N/A |
| J1-7 | | | EMERGENCY STOP * |
| J1-8 | | | N/A |
| J1-9 | | | LOW REFERENCE - FUEL LEVEL SENSOR * |
| J1-10 | | | N/A |
| J1-11 | | | TROLL MODE * |
| J1-12 | | | MALFUNCTION INDICATOR LAMP * |
| J1-13 | 465 | GRN/WHT | FUEL PUMP ENABLE |
| J1-14 | | | N/A |
| J1-15 | | | N/A |
| J1-16 | | | N/A |
| J1-17 | | | GOVERNOR MODE * |
| J1-18 | | | BOOT MODE * |
| J1-19 | 969A | PURPLE | IGNITION FEED |
| J1-20 | 440C | ORN | BATTERY FEED |
| J1-21 | 751 | PNK/BLU | CRUISE INCREMENT UP / ACCELERATE |
| J1-22 | 752 | PNK/WHT | CRUISE SET |
| J1-23 | | | N/A |
| J1-24 | 921B | GRY | PULLUP FOR TACH |
| J1-25 | 921A | GRY | TACHOMETER |
| J1-26 | | TAN | STARTER CONTROL HS * |
| J1-27 | | | N/A |
| J1-28 | | | N/A |
| J1-29 | | | N/A |
| J1-30 | 753A | LT GRN | CRUISE/SYNC ON/OFF |
| J1-31 | | | SENSOR RETURN - VSS ANALOG * |
| J1-32 | | | 5V REFERENCE - VSS ANALOG * |

* Typically not used on this engine package

J-1 ECM Connector Identification (2 of 2 J-1)

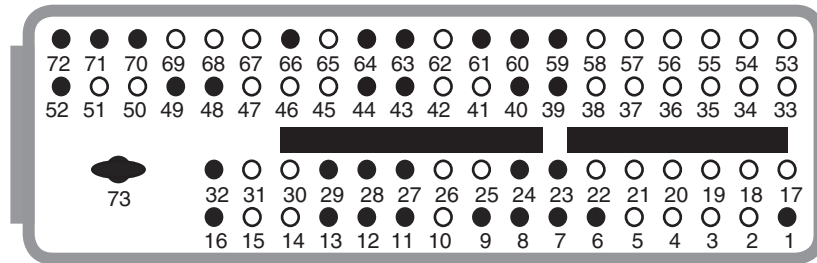


ECM 56 WAY OUTPUT CONNECTOR

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|---------------------------------------|
| J1-33 | 691 | GRY | 5V REFERENCE - PEDAL POSITION #1 |
| J1-34 | | | 5V REFERENCE - FUEL PRESSURE SENSOR * |
| J1-35 | 692 | GRY | 5V REFERENCE - PEDAL POSITION #2 |
| J1-36 | 693 | BLK/WHT | LOW REFERENCE - PEDAL POSITION #1 |
| J1-37 | 694 | BLK/WHT | LOW REFERENCE - PEDAL POSITION #2 |
| J1-38 | 906A | YLW/BLK | LOAD ANTICIPATE 1 (IN GEAR) |
| J1-39 | | | N/A |
| J1-40 | 441 | BLK/RED | MEFI SYSTEM RELAY ENABLE |
| J1-41 | | | CHECK GAUGE LAMP * |
| J1-42 | | | N/A |
| J1-43 | | | N/A |
| J1-44 | | | FUEL LEVEL SENSOR * |
| J1-45 | 753B | | FUEL LEVEL SENSOR #2 * |
| J1-46 | | | VSS ANALOG * |
| J1-47 | 695 | BLU | PEDAL POSITION SENSOR 1 |
| J1-48 | | | FUEL PRESSURE SENSOR * |
| J1-49 | 696 | GRN | PEDAL POSITION SENSOR 2 |
| J1-50 | | | FUEL TEMPERATURE SENSOR * |
| J1-51 | | | GENERAL WARNING 1 LAMP * |
| J1-52 | | | GENERAL WARNING 2 LAMP * |
| J1-53 | | | SPEED BASED OUTPUT * |
| J1-54 | | | BUZZER * |
| J1-55 | 754 | LT GRN/BLK | CRUISE STATUS LAMP |
| J1-56 | | | STARTER CONTROL LS * |

* Typically not used on this engine package

J-2 ECM Connector Identification (1 of 3 J-2)

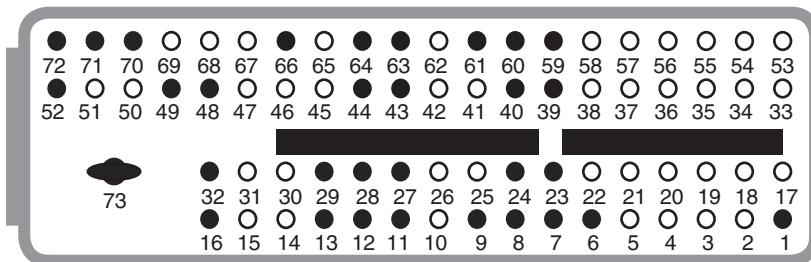


ECM 73 WAY OUTPUT CONNECTOR

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|------------------------------------------|
| J2-1 | 423 | WHT | EST A |
| J2-2 | | | OXYGEN SENSOR A1 LO * |
| J2-3 | | | OXYGEN SENSOR A1 HI * |
| J2-4 | | | OXYGEN SENSOR A2 HI * |
| J2-5 | | | OXYGEN SENSOR A2 LO * |
| J2-6 | 496 | WHT | KNOCK SENSOR FLAT RESPONSE#2 |
| J2-7 | 494 | BLK | KNOCK SENSOR RETURN #2 |
| J2-8 | 497 | WHT | KNOCK SENSOR-FLAT RESPONSE |
| J2-9 | 495 | BLK | KNOCK SENSOR RETURN |
| J2-10 | | | KNOCK SENSOR SHIELD * |
| J2-11 | 581 | YLW | ETC MOTOR OPEN: IAC1 PWM |
| J2-12 | 582 | BRN | ETC MOTOR CLOSE: IAC2 PWM |
| J2-13 | 439B | PNK/BLK | IGNITION 1 VOLTAGE |
| J2-14 | | | CAM PHASE CONTROL W * |
| J2-15 | | | CAM PHASE CONTROL Y * |
| J2-16 | 472 | LT BLU | FUEL INJECTOR H (CYLINDER 2) |
| J2-17 | | | EST B * |
| J2-18 | | | EST G * |
| J2-19 | | | EST RETURN #2 * |
| J2-20 | | | SENSOR RETURN - CAMX * |
| J2-21 | | | SENSOR RETURN - CAMY * |
| J2-22 | | | SENSOR RETURN - CAMZ * |
| J2-23 | 813 | BLK/WHT | LOW REFERENCE - CAM SENSOR (DISTRIBUTOR) |
| J2-24 | 814 | BLK/WHT | LOW REFERENCE - ENGINE OIL PRESSURE |
| J2-25 | | | LOW REFERENCE - LEGR SENSOR * |
| J2-26 | | | KNOCK SENSOR SHIELD #2 * |
| J2-27 | 815 | BLK/WHT | LOW REFERENCE - CRANK SENSOR |
| J2-28 | 439C | PNK/BLK | IGNITION 1 VOLTAGE |
| J2-29 | 683 | BLK/WHT | LOW REFERENCE - THROTTLE POSITION SENSOR |
| J2-30 | | | CAM PHASE RETURN X * |
| J2-31 | | | LEGR / CAM PHASE RETURN Z * |
| J2-32 | 473 | LT GRN/BLK | FUEL INJECTOR D (CYLINDER 3) |

* Typically not used on this engine package

J-2 ECM Connector Identification (2 of 3 J-2)

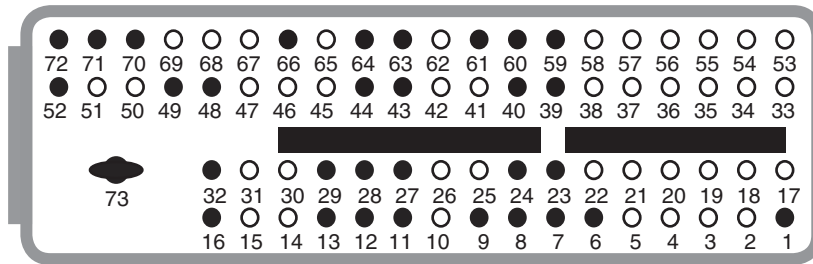


ECM 73 WAY OUTPUT CONNECTOR

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|---------------------------------------------------|
| J2-33 | | | EST C * |
| J2-34 | | | EST F * |
| J2-35 | | | EST RETURN * |
| J2-36 | | | 5V REFERENCE - CAMX (CAMB, CAM 4X) * |
| J2-37 | | | 5V REFERENCE - CAMY (CAMC, CAM 4X2) * |
| J2-38 | | | 5V REFERENCE - CAMZ (CAMD, CAM 4X3) * |
| J2-39 | 413 | GRY | 5V REFERENCE - CAM SENSOR (DISTRIBUTOR) |
| J2-40 | 414 | GRY | 5V REFERENCE - ENGINE OIL PRESSURE |
| J2-41 | | | 5V REFERENCE - LINEAR EGR POSITION * |
| J2-42 | | | SENSOR RETURN - INDUCTION AIR * |
| J2-43 | 415 | GRY | 5V REFERENCE - CRANK SENSOR |
| J2-44 | 682 | GRY | 5V REFERENCE - THROTTLE POSITION SENSOR |
| J2-45 | | | SENSOR RETURN - ENGINE OIL TEMP * |
| J2-46 | | | CAM PHASE RETURN W * |
| J2-47 | | | CAM PHASE RETURN Y * |
| J2-48 | 478 | LT BLU/RED | FUEL INJECTOR B (CYLINDER 8) |
| J2-49 | 475 | LT GRN/WHT | FUEL INJECTOR F (CYLINDER 5) |
| J2-50 | | | CAM PHASE CONTROL X * |
| J2-51 | | | LEGR: CAM PHASE CONTROL Z * |
| J2-52 | 476 | LT BLU/WHT | FUEL INJECTOR E (CYLINDER 6) |
| J2-53 | | | EST D * |
| J2-54 | | | EST E * |
| J2-55 | | | EST H * |
| J2-56 | | | CAMX SENSOR (CAMB, CAM 4X) * |
| J2-57 | | | CAMY SENSOR (CAMC, CAM 4X2) * |
| J2-58 | | | CAMZ SENSOR (CAMD, CAM 4X3) * |
| J2-59 | 633 | BRN/WHT | CAM SENSOR SIGNAL (DISTRIBUTOR) (CAMA, CAM 8XPWP) |
| J2-60 | 901 | LT BLU/RED | ENGINE OIL PRESSURE SENSOR SIGNAL |
| J2-61 | 756 | PNK | DASH |
| J2-62 | | | INDUCTION AIR TEMPERATURE (OR MAT) SENSOR * |
| J2-63 | 1869 | DK BLU/WHT | CRANK SENSOR |
| J2-64 | 684 | DK GRN | THROTTLE POSITION SENSOR #1 |

* Typically not used on this engine package

J-2 ECM Connector Identification (3 of 3 J-2)

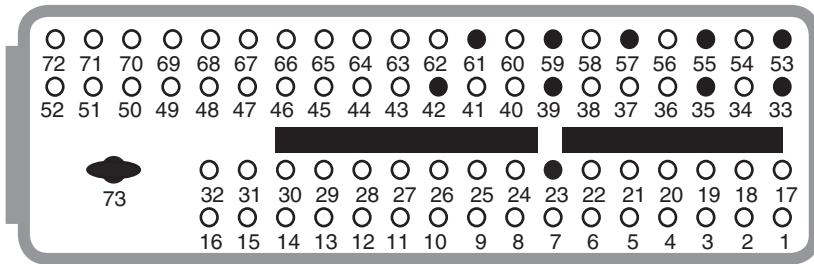


**J-2 (Continued)
ECM 73 WAY OUTPUT CONNECTOR**

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|---------------------------------|
| J2-65 | | | ENGINE OIL TEMPERATURE SENSOR * |
| J2-66 | 687 | DK BLU | THROTTLE POSITION SENSOR #2 |
| J2-67 | | | HIGH SPEED MASS AIR FLOW * |
| J2-68 | | | OXYGEN SENSOR A1 HEATER * |
| J2-69 | | | OXYGEN SENSOR A2 HEATER * |
| J2-70 | 477 | GRN/RED | FUEL INJECTOR G |
| J2-71 | 474 | LT BLU/BRN | FUEL INJECTOR C |
| J2-72 | 471 | GRN | FUEL INJECTOR A |
| J2-73 | 450A | BLK | POWER GROUND |

* Typically not used on this engine package

J-3 ECM Connector Identification (1 of 3 J-3)

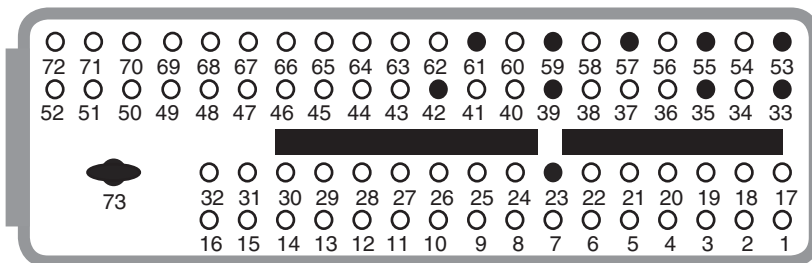


ECM 73 WAY OUTPUT CONNECTOR

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|--------------------------------------------|
| J3-1 | | | CAT TEMPERATURE SENSOR A * |
| J3-2 | | | CAT TEMPERATURE SENSOR B * |
| J3-3 | | | OXYGEN SENSOR B1 LO * |
| J3-4 | | | OXYGEN SENSOR B1 HI * |
| J3-5 | | | OXYGEN SENSOR B2 HI * |
| J3-6 | | | OXYGEN SENSOR B2 LO * |
| J3-7 | | | N/A |
| J3-8 | | | LOW OIL LEVEL LAMP * |
| J3-9 | | | N/A |
| J3-10 | | | CYLINDER DEACTIVATE C * |
| J3-11 | | | CYLINDER DEACTIVATE A * |
| J3-12 | | | GOVENOR PWM OUTPUT (NON-ETC GOVENOR) * |
| J3-13 | | | TRANSMISSION UP-SHIFT * |
| J3-14 | | | N/A |
| J3-15 | | | OXYGEN SENSOR B1 HEATER * |
| J3-16 | | | TROLL MODE LAMP * |
| J3-17 | | | N/A |
| J3-18 | | | ENGINE OIL LEVEL LOW SENSOR * |
| J3-19 | | | SENSOR RETURN - CAT TEMP SENSOR A * |
| J3-20 | | | SENSOR RETURN - CAT TEMP SENSOR B * |
| J3-21 | | | SENSOR RETURN - VARIABLE GOVENOR * |
| J3-22 | | | N/A |
| J3-23 | 816 | BLK/WHT | LOW REFERENCE - MANIFOLD ABSOLUTE PRESSURE |
| J3-24 | | | AUX ANALOG RETURN * |
| J3-25 | | | SENSOR RETURN - GENERAL WARNING 2 * |
| J3-26 | | | SENSOR RETURN - GENERAL WARNING 1 * |
| J3-27 | | | N/A |
| J3-28 | | | SENSOR RETURN - DIGITAL VSS * |
| J3-29 | | | N/A |
| J3-30 | | | N/A |
| J3-31 | | | N/A |
| J3-32 | | | N/A |

* Typically not used on this engine package

J-3 ECM Connector Identification (2 of 3 J-3)

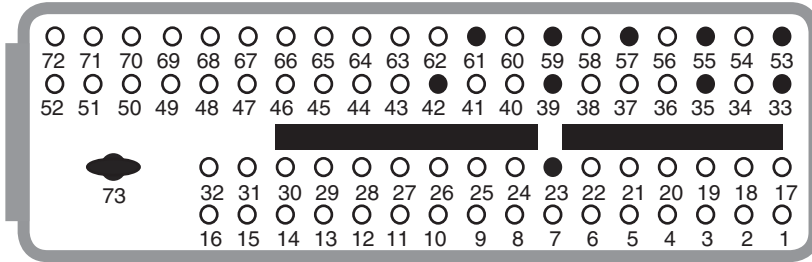


ECM 73 WAY OUTPUT CONNECTOR

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|---------------------------------------------------------------------|
| J3-33 | 804A | WHT/BLK | CAN BUS LO TERMINATED (TO DASH & DLC) |
| J3-34 | | | N/A |
| J3-35 | 817 | BLK/WHT | LOW REFERENCE - ENGINE COOLANT TEMP SENSOR |
| J3-36 | | | N/A |
| J3-37 | | | 5V REFERENCE - VARIABLE GOVERNOR * |
| J3-38 | | | N/A |
| J3-39 | 416 | GRY | 5V REFERENCE - MANIFOLD ABSOLUTE PRESSURE |
| J3-40 | | | 5V REFERENCE - AUX ANALOG * |
| J3-41 | | | 5V REFERENCE - GENERAL WARNING 2 * |
| J3-42 | 417 | GRY | 5V REFERENCE - GENERAL WARNING 1 (TRANSMISSION OVER TEMP SENSOR) |
| J3-43 | | | N/A |
| J3-44 | | | 5V REFERENCE - DIGITAL VSS * |
| J3-45 | | | LOAD ANTICIPATE 2 * |
| J3-46 | | | SHIFT INTERRUPT / TRANSMISSION LOCK LOW * |
| J3-47 | | | N/A |
| J3-48 | | | CONTROL CANISTER PURGE * |
| J3-49 | | | N/A |
| J3-50 | | | OXYGEN SENSOR B2 HEATER * |
| J3-51 | | | N/A |
| J3-52 | | | N/A |
| J3-53 | 803A | WHT/RED | CAN BUS HI TERMINATED (GOES TO DLC-C & DASH K) |
| J3-54 | | | N/A |
| J3-55 | 410 | YLW | ENGINE COOLANT TEMPERATURE SENSOR SIGNAL |
| J3-56 | | | N/A |
| J3-57 | 755 | LT GRN/WHT | VARIABLE GOVERNOR (TO DASH-E) |
| J3-58 | | | N/A |
| J3-59 | 432 | LT GRN | MANIFOLD ABSOLUTE PRESSURE SENSOR SIGNAL |
| J3-60 | | | AUX ANALOG INPUT * |
| J3-61 | 933 | TAN/BLK | GENERAL WARNING 1 (TO TRANS TEMP SENSOR SIGNAL) |
| J3-62 | | | GENERAL WARNING 2 * |
| J3-63 | | | N/A |
| J3-64 | 757 | GRN/RED | DIGITAL VSS (TO DASH-N) |

* Typically not used on this engine package

J-3 ECM Connector Identification (3 of 3 J-3)



ECM 73 WAY OUTPUT CONNECTOR

| ECM PIN NUMBER | CKT(WIRE) NUMBER | CKT (WIRE) COLOR | CIRCUIT DESCRIPTION |
|----------------|------------------|------------------|------------------------------|
| J3-65 | | | ENGINE OIL PRESSURE SWITCH * |
| J3-66 | | | VR VSS FREQ HI * |
| J3-67 | | | VR VSS FREQ LO * |
| J3-68 | | | CYLINDER DEACTIVATE B * |
| J3-69 | | | CYLINDER DEACTIVATE D * |
| J3-70 | | | N/A |
| J3-71 | | | N/A |
| J3-72 | | | N/A |
| J3-73 | 450B | BLK | POWER GROUND #2 |

* Typically not used on this engine package