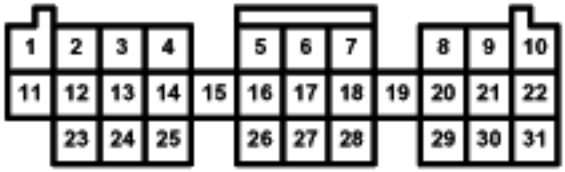
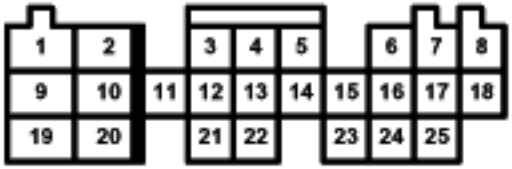



wire side of female terminals

**ECM Inputs and Outputs at Connector C (31P)**

NOTE: Standard battery voltage is 12 V.

| Terminal number | Wire color | Terminal name | Description | Signal |
|---|---|---|---|---|
| 16 | WHT | PHO2S (PRIMARY HEATED OXYGEN SENSOR, SENSOR 1) | Detects primary heated oxygen sensor (sensor 1) signal | With throttle fully opened from idle with fully, warmed up engine: above 0.6 V<br>With throttle quickly closed: below 0.4 V |
| 17 | GRN/RED | MAP (MANIFOLD ABSOLUTE PRESSURE SENSOR) | Detects MAP sensor signal | With ignition switch ON (II): about 3 V<br>At idle: about 1.0 V<br>(depending on engine speed) |
| 18 | GRN/YEL | SG2 (SENSOR GROUND) | Sensor ground | Less than 1.0 V at all times |
| 19 | YEL/RED | VCC1 (SENSOR VOLTAGE) | Power source to MAP sensor | With ignition switch ON (II): about 5 V<br>With ignition switch OFF: about 0 V |
| 20 | GRN | TDC1P (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) A P SIDE) | Detects CMP (TDC) sensor A | With engine running: pulses |
| 21 | RED | TDC1M (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) A M SIDE) | Ground for CMP (TDC) sensor A | |
| 22 | RED/BLU | KS (KNOCK SENSOR) | Detects knock sensor signal | With engine knocking: pulses |
| 24 | WHT/BLK | ECS (AIR PUMP ELECTRIC CURRENT SENSOR) | Detects air pump electric current sensor signal | With ignition switch ON (II): 0.5 V<br>With air pump working: about 2 – 5 V |
| 25 | RED/YEL | IAT (INTAKE AIR TEMPERATURE SENSOR) | Detects IAT sensor signal | With ignition switch ON (II): about 0.1 – 4.8 V<br>(depending on intake air temperature) |
| 26 | RED/WHT | ECT (ENGINE COOLANT TEMPERATURE SENSOR) | Detects ECT sensor signal | With ignition switch ON (II): about 0.1 – 4.8 V<br>(depending on engine coolant temperature) |
| 27 | RED/BLK | TPS (THROTTLE POSITION SENSOR) | Detects TP sensor signal | With throttle fully open: about 4.8 V<br>With throttle fully closed: about 0.3 V |
| 28 | YEL/BLU | VCC2 (SENSOR VOLTAGE) | Provides sensor voltage | With ignition switch ON (II): about 5 V<br>With ignition switch OFF: about 0 V |
| 29 | YEL | TDC2P (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) B P SIDE) | Detects CMP (TDC) sensor B | With engine running: pulses |
| 30 | BLK | TDC2M (CAMSHAFT POSITION (CMP) SENSOR (TOP DEAD CENTER (TDC) SENSOR) B M SIDE) | Ground for CMP (TDC) sensor B | |

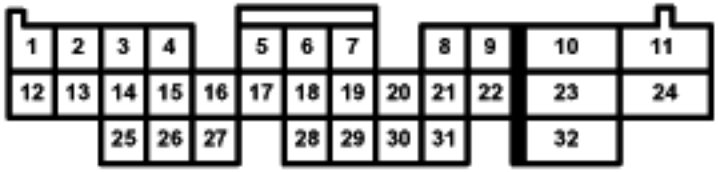



wire side of female terminals

## ECM Inputs and Outputs at Connector B (25P)

NOTE: Standard battery voltage is 12 V.

| Terminal number | Wire color | Terminal name | Description | Signal |
|---|---|---|---|---|
| 1 | YEL/BLK | IGP1 (POWER SOURCE) | Power source for ECM control circuit | With ignition switch ON (II): battery voltage<br>With ignition switch OFF: about 0 V |
| 2 | BLK | PG1 (POWER GROUND) | Ground for ECM control circuit | Less than 1.0 V at all times |
| 3 | RED | INJ2 (No. 2 INJECTOR) | Drives No. 2 injector | With ignition switch ON (II): battery voltage |
| 4 | BLU | INJ3 (No. 3 INJECTOR) | Drives No. 3 injector | With engine running: duty controlled |
| 5 | YEL | INJ4 (No. 4 INJECTOR) | Drives No. 4 injector | |
| 9 | YEL/BLK | IGP2 (POWER SOURCE) | Power source for ECM control circuit | With ignition switch ON (II): battery voltage<br>With ignition switch OFF: about 0 V |
| 10 | BLK | PG2 (POWER GROUND) | Ground for ECM control circuit | Less than 1.0 V at all times |
| 11 | BRN | INJ1 (No.1 INJECTOR) | Drives No.1 injector | With ignition switch ON (II): battery voltage<br>With engine running: duty controlled |
| 12 | GRN/YEL | VTS<br>(VTEC SOLENOID VALVE) | Drives VTEC solenoid valve | With engine at low rpm: about 0 V<br>With engine at high rpm: battery voltage |
| 20 | BRN/YEL | LG1 (LOGIC GROUND) | Ground for ECM control circuit | Less than 1.0 V at all times |
| 21 | WHT/RED | VBU (VOLTAGE BACK UP) | Power source for ECM control circuit<br>Power source for DTC memory | Battery voltage at all times |
| 22 | BRN/YEL | LG2 (LOGIC GROUND) | Ground for ECM control circuit | Less than 1.0 V at all times |
| 23 | BLK/RED | IACV<br>(IDLE AIR CONTROL VALVE) | Drives IAC valve | With engine running: duty controlled |

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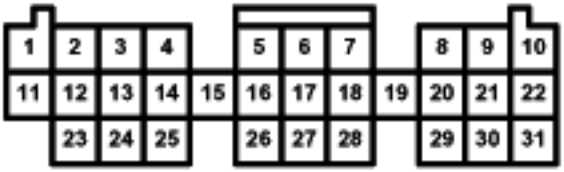
## ECM Inputs and Outputs at Connector A (32P)

NOTE: Standard battery voltage is 12 V.

| Terminal number | Wire color | Terminal name | Description | Signal |
|---|---|---|---|---|
| 1 | YEL/GRN | MTRTW | Sends ECT signal to ECT gauge | With ignition switch ON (II): duty controlled |
| 2 | RED | SAVS (AIR CONTROL VALVE VACUUM CONTROL SOLENOID VALVE) | Drives air control valve vacuum control solenoid valve | With ignition switch ON (II): battery voltage<br>With air pump working: about 0 V |
| 3 | ORN | 2WBS (EVAP BYPASS SOLENOID VALVE) | Drives EVAP bypass solenoid valve | With ignition switch ON (II): battery voltage |
| 4 | LT GRN/WHT | VSV (EVAP CANISTER VENT SHUT VALVE) | Drives EVAP canister vent shut valve | With ignition switch ON (II): battery voltage |
| 6 | RED/YEL | PCS (EVAP CANISTER PURGE VALVE) | Drives EVAP canister purge valve | With engine running, engine coolant, below 149 °F (65 °C): battery voltage<br>With engine running, engine coolant, above 149 °F (65 °C): duty controlled |
| 9 | BLU/WHT | VSS (VEHICLE SPEED SENSOR (VSS) INPUT SIGNAL) | Sends vehicle speed sensor (VSS) signal | Depending on vehicle speed: pulses |
| 10 | BRN | SCS (SERVICE CHECK SIGNAL) | Detects service check connector signal (the signal causing a DTC indication) | With the service check signal shorted with the HDS: about 0 V<br>With the service check signal opened: about 5 V or battery voltage |
| 12 | PNK | IMOLMP (IMMOBILIZER INDICATOR LIGHT) | Drives immobilizer indicator | With immobilizer indicator turned ON: about 0 V<br>With immobilizer indicator turned OFF: battery voltage |
| 13 | PNK/BLU | IMOEN (IMMOBILIZER ENABLE SIGNAL) | Sends immobilizer enable signal | |
| 15 | GRN/YEL | IMOFLR (IMMOBILIZER FUEL PUMP RELAY) | Drives fuel pump relay | 0 V for 2 seconds after turning ignition switch ON (II), then battery voltage |
| 17 | RED | ACC (A/C CLUTCH RELAY) | Drives A/C clutch relay | With compressor ON: about 0 V<br>With compressor OFF: battery voltage |

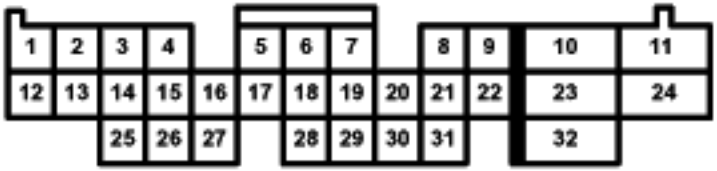



wire side of female terminals

## ECM Inputs and Outputs at Connector C (31P)

NOTE: Standard battery voltage is 12 V.

| Terminal number | Wire color | Terminal name | Description | Signal |
|---|---|---|---|---|
| 1 | BLK/WHT | PO2SHTC (PRIMARY HEATED OXYGEN SENSOR HEATER CONTROL) | Drives primary heated oxygen sensor heater | With ignition switch ON (II): battery voltage<br>With fully warmed up engine running: duty controlled |
| 2 | WHT/GRN | ALTC (ALTERNATOR CONTROL) | Sends alternator control signal | With fully warmed up engine running: about 8 V<br>With engine running at low electrical load: about 0 V |
| 4 | WHT | IGPLS1 (No. 1 IGNITION COIL PULSE) | Drives No. 1 ignition coil | With ignition switch ON (II): 0 V<br>With engine running: pulses |
| 5 | WHT/RED | ALTF (ALTERNATOR FR SIGNAL) | Detects alternator FR signal | With fully warmed up engine running: 0 V – battery voltage (depending on electrical load) |
| 7 | GRN/WHT | SG1 (SENSOR GROUND) | Ground for MAP sensor | Less than 1.0 V at all times |
| 8 | BLU | CKPP (CKP SENSOR P SIDE) | Detects CKP sensor | With engine running: pulses |
| 9 | WHT | CKPM (CKP SENSOR M SIDE) | Ground for CKP sensor | |
| 10 | BLU/BLK | VTM (VTEC OIL PRESSURE SWITCH SIGNAL) | Detects VTEC oil pressure switch signal | With engine at low engine speed: about 0 V<br>With engine at high engine speed (vehicle running): battery voltage |
| 11 | BLK/WHT | SO2SHTC (SECONDARY HEATED OXYGEN SENSOR HEATER CONTROL) | Drives secondary heated oxygen sensor heater | With ignition switch ON (II): battery voltage<br>With fully warmed up engine running: duty controlled |
| 12 | WHT/GRN | IGPLS2 (No. 2 IGNITION COIL PULSE) | Drives No. 2 ignition coil | With ignition switch ON (II): 0 V<br>With engine running: pulses |
| 13 | WHT/BLK | IGPLS3 (No. 3 IGNITION COIL PULSE) | Drives No. 3 ignition coil | |
| 14 | WHT/BLU | IGPLS4 (No. 4 IGNITION COIL PULSE) | Drives No. 4 ignition coil | |
| 15 | WHT/RED | SHO2S (SECONDARY HEATED OXYGEN SENSOR, SENSOR 2) | Detects secondary heated oxygen sensor (sensor 2) signal | With throttle fully opened from idle with fully, warmed up engine: above 0.6 V<br>With throttle quickly closed: below 0.4 V |

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## ECM Inputs and Outputs at Connector A (32P)

NOTE: Standard battery voltage is 12 V.

| Terminal number | Wire color | Terminal name | Description | Signal |
|---|---|---|---|---|
| 18 | GRN/ORN | MIL (MALFUNCTION INDICATOR LAMP) | Drives MIL | With MIL turned ON: about 0 V<br>With MIL turned OFF: battery voltage |
| 19 | BLU | NEP (ENGINE SPEED PULSE) | Outputs engine speed pulse | With engine running: pulses |
| 20 | GRN | FANC (RADIATOR FAN CONTROL) | Drives radiator fan relay | With radiator fan running: about 0 V<br>With radiator fan stopped: battery voltage |
| 21 | GRY | K-LINE | Sends and receives scan tool signal | With ignition switch ON (II): battery voltage |
| 24 | BLU/ORN | STS (STARTER SWITCH SIGNAL) | Detects starter switch signal | With starter switch ON (III): battery voltage<br>With starter switch OFF: about 0 V |
| 25 | RED/BLU | IMOCO (IMMOBILIZER CODE) | Detects immobilizer signal | |
| 26 | BLU/BLK | EPSLD (ELECTRICAL P/S LOAD DETECT) | Detects P/S load signal | With steering wheel at full lock: battery voltage momentarily<br>With steering wheel stationary: about 0 V |
| 27 | BLU/RED | ACS (A/C SWITCH SIGNAL) | Detects A/C switch signal | With A/C switch ON: about 0 V<br>With A/C switch OFF: about 5 V |
| 28 | BLU | APR (AIR PUMP RELAY) | Drives air pump relay | With ignition switch ON (II): about 0 V<br>With air pump working: battery voltage |
| 29 | LT GRN | PTANK (FUEL TANK PRESSURE (FTP) SENSOR) | Detects fuel tank pressure (FTP) sensor signal | With ignition switch ON (II) and fuel fill cap: opened: about 2.5 V |
| 30 | GRN/RED | ELD | Detects ELD signal | With parking lights turned on at idle: about 2.5 – 3.5 V<br>With high beam headlights turned on at idle: about 1.5 – 2.5 V |
| 32 | WHT/BLK | BKSW (BRAKE PEDAL POSITION SWITCH) | Detects brake pedal position switch signal | With brake pedal released: about 0 V<br>With brake pedal pressed: battery voltage |