



| Pin | ECU Pin          | Function                               | Pin       | ECU Pin    | Function                              |
|-----|------------------|----------------------------------------|-----------|------------|---------------------------------------|
| A1  | +14V             | Main power from Main EFI Relay         | B47       | nc         |                                       |
| A2  | +14V             | Main power from Main EFI Relay         | B48       | nc         |                                       |
| A3  | +12V BATT        | Battery 12V                            | B49       | Aux 4      | VVT Control Bank 2 Exhaust            |
| A4  | nc               |                                        | B50       | +14V       | VVT B2E Solenoid +14V                 |
| A5  | nc               |                                        | B51       | Aux 2      | VVT Control Bank 2 Intake             |
| A6  | nc               |                                        | B52       | +14V       | VVT B2I Solenoid +14V                 |
| A7  | Aux 6            | FC - Fuel Pump - Circuit Opening Relay | B53       | nc         |                                       |
| A8  | DI6              | Speed Sensor                           | B54       | nc         |                                       |
| A9  | nc               |                                        | B55       | Aux 3      | VVT Control Bank 1 Exhaust            |
| A10 | nc               |                                        | B56       | +14V       | VVT B1E Solenoid +14V                 |
| A11 | nc               |                                        | B57       | Aux 1      | VVT Control Bank 1 Intake             |
| A12 | nc               |                                        | B58       | +14V       | VVT B1I Solenoid +14V                 |
| A13 | nc               |                                        | B59       | Aux 12     | FPR - Fuel Pump Hi/Low Speed          |
| A14 | nc               |                                        | B60       | nc         |                                       |
| A15 | Aux 5            | Tachometer output                      | B61       | nc         |                                       |
| A16 | nc               |                                        | B62       | DI 7       | Start Signal via Park/Neutral Switch  |
| A17 | nc               |                                        | B63       | nc         |                                       |
| A18 | nc               |                                        | B64       | nc         |                                       |
| A19 | nc               |                                        | B65       | nc         |                                       |
| A20 | +12V BATT        | Battery 12V                            | B66       | DI 4       | VVT Position Bank 2 Exhaust           |
| A21 | nc               |                                        | B67       | DI 2       | VVT Position Bank 2 Intake            |
| A22 | nc               |                                        | B68       | DI 3       | VVT Position Bank 1 Exhaust           |
| A23 | nc               |                                        | B69       | Trig 2     | VVT Position Bank 1 Intake            |
| A24 | Aux 13           | Check Engine Light                     | B70       | nc         |                                       |
| A25 | nc               |                                        | B71       | AN Temp 4  | MAF Sensor IAT                        |
| A26 | nc               |                                        | B72       | AN Volt 3  | MAF Sensor Signal                     |
| A27 | nc               |                                        | B73       | Ground     | MAF Sensor Ground                     |
| A28 | IGNSW            | Connects to Pin A44 MREL               | B74       | Ground     | MAF Sensor Ground                     |
| A29 | nc               |                                        | B75       | nc         |                                       |
| A30 | nc               |                                        | B76       | nc         |                                       |
| A31 | DI1              | Electric Load Sensing for Idle Up      | B77       | nc         |                                       |
| A32 | Ground           | Ground                                 | B78       | Ground     | Ground                                |
| A33 | nc               |                                        | B79       | AN Temp 3  | ECT Coolant Temp Sensor               |
| A34 | nc               |                                        | B80       | nc         |                                       |
| A35 | DI 5             | Brake Switch Input                     | B81       | Ground     | Ground                                |
| A36 | nc               |                                        | B82       | nc         |                                       |
| A37 | nc               |                                        | B83       | Injector 6 | Injection                             |
| A38 | nc               |                                        | B84       | Injector 4 | Injection                             |
| A39 | nc               |                                        | B85       | Injector 2 | Injection                             |
| A40 | AN Volt 8        | Cruise Control Input                   | B86       | Ground     | AFR Sensor 1 Bank 1 Ground            |
| A41 | CAN2 H           | CAN 2 H                                | B87       | nc         |                                       |
| A42 | nc               |                                        | B88       | nc         |                                       |
| A43 | nc               |                                        | B89       | Ground     | VVT Sensor B2E Ground                 |
| A44 | MREL             | Connects to Pin A28 IGNSW              | B90       | Ground     | VVT Sensor B2I Ground                 |
| A45 | nc               |                                        | B91       | Ground     | VVT Sensor B1E Ground                 |
| A46 | nc               |                                        | B92       | Ground     | VVT Sensor B1I Ground                 |
| A47 | nc               |                                        | B93       | AN Volt 1  | AFR Sensor 1 Bank 1 Signal            |
| A48 | DI 7             | Start Signal Input                     | B94       | Ground     | Knock Sensor Ground                   |
| A49 | CAN2 L           | CAN 2 L                                | B95       | Knock 1    | Knock Sensor 1                        |
| A50 | nc               |                                        | B96       | +5V        | TPS 5V Ref                            |
| A51 | nc               |                                        | B97       | Ground     | TPS sensor Ground                     |
| A52 | nc               |                                        | B98       | AN Volt 6  | TPS (Main)                            |
| A53 | nc               |                                        | B99       | AN Volt 7  | TPS (Sub)                             |
| A54 | nc               |                                        | B100      | nc         |                                       |
| A55 | AN Volt 4        | APS Main                               | B101      | nc         |                                       |
| A56 | AN Volt 5        | APS Sub                                | B102      | nc         |                                       |
| A57 | +5v              | 5V Ref for APS                         | B103      | nc         |                                       |
| A58 | +5v              | 5V Ref for APS                         | B104      | Ground     | Ground                                |
| A59 | Ground           | Ground for APS                         | B105      | nc         |                                       |
| A60 | Ground           | Ground for APS                         | B106      | nc         |                                       |
|     |                  |                                        | B107      | Aux 11     | ACIS intake manifold VSV              |
| B1  | nc               |                                        | B108      | Aux 7      | Purge VSV                             |
| B2  | nc               |                                        | B109      | Ground     | AFR Sensor 1 Bank 2 Ground            |
| B3  | nc               |                                        | B110      | Trig 1     | Crankshaft Position Sensor NE+        |
| B4  | nc               |                                        | B111      | Ground     | Crankshaft Position Sensor Ground NE- |
| B5  | nc               |                                        | B112      | +5V        |                                       |
| B6  | nc               |                                        | B113      | +5V        |                                       |
| B7  | nc               |                                        | B114      | +5V        |                                       |
| B8  | nc               |                                        | B115      | +5V        |                                       |
| B9  | nc               |                                        | B116      | Ground     | AFR Sensor 1 Bank 1 Shield            |
| B10 | nc               |                                        | B117      | Ground     | Knock Sensor Ground                   |
| B11 | nc               |                                        | B118      | Knock 2    | Knock Sensor 2                        |
| B12 | nc               |                                        | B119      | Ground     | AFR Sensor 1 Bank 2 Shield            |
| B13 | nc               |                                        | B120      | AN Volt 2  | AFR Sensor 1 Bank 2 Signal            |
| B14 | nc               |                                        | B121      | nc         |                                       |
| B15 | nc               |                                        | B122      | nc         |                                       |
| B16 | nc               |                                        | B123      | nc         |                                       |
| B17 | nc               |                                        | B124      | nc         |                                       |
| B18 | Aux 10           | E-Throttle Motor M -                   | B125      | nc         |                                       |
| B19 | Aux 9            | E-Throttle Motor M +                   | B126      | nc         |                                       |
| B20 | Ground           | Ground                                 |           |            |                                       |
| B21 | Ground           | Ground                                 | Onboard   | AN Volt 11 | Lambda 2/Wideband O2 Input            |
| B22 | Ground           | Ground                                 | Onboard   | AN Volt 12 | Lambda 1/Wideband O2 Input            |
| B23 | Ground           | Ground                                 | Onboard   | Aux 15     | Lambda 2 on/off                       |
| B24 | nc               |                                        | Onboard   | Aux 16     | Lambda 1 on/off                       |
| B25 | nc               |                                        | Onboard   | AN Volt 10 | Onboard MAP sensor                    |
| B26 | nc               |                                        |           |            |                                       |
| B27 | nc               |                                        | Expansion | Ground     |                                       |
| B28 | nc               |                                        | Expansion | +5V        |                                       |
| B29 | nc               |                                        | Expansion | AN Volt 1  |                                       |
| B30 | nc               |                                        | Expansion | AN Volt 2  |                                       |
| B31 | Ignition 7 (Aux) | Alternator Control (RLO)               | Expansion | Ground     |                                       |
| B32 | Ignition 8 (Aux) | Alternator Control (ALT)               | Expansion | +5V        |                                       |
| B33 | nc               |                                        | Expansion | AN Temp 1  |                                       |
| B34 | nc               |                                        | Expansion | AN Temp 2  |                                       |
| B35 | Ignition 6       | Ignition                               | Expansion | AN Volt 9  |                                       |
| B36 | Ignition 5       | Ignition                               | Expansion | DI8        |                                       |
| B37 | Ignition 4       | Ignition                               | Expansion | +12V       |                                       |
| B38 | Ignition 3       | Ignition                               | Expansion | DI9        |                                       |
| B39 | Ignition 2       | Ignition                               | Expansion | DI10       |                                       |
| B40 | Ignition 1       | Ignition                               | Expansion | Ground     |                                       |
| B41 | Ground           | Shielding for pins 18 & 19 Ground      | Expansion | Aux8       |                                       |
| B42 | nc               |                                        | Expansion | Aux14      |                                       |
| B43 | Injector 5       | Injection                              | Expansion | +12V       |                                       |
| B44 | Injector 3       | Injection                              | Expansion | CAN1L      |                                       |
| B45 | Injector 1       | Injection                              | Expansion | CAN1H      |                                       |
| B46 | Ground           | Ground                                 | Expansion | Ground     |                                       |