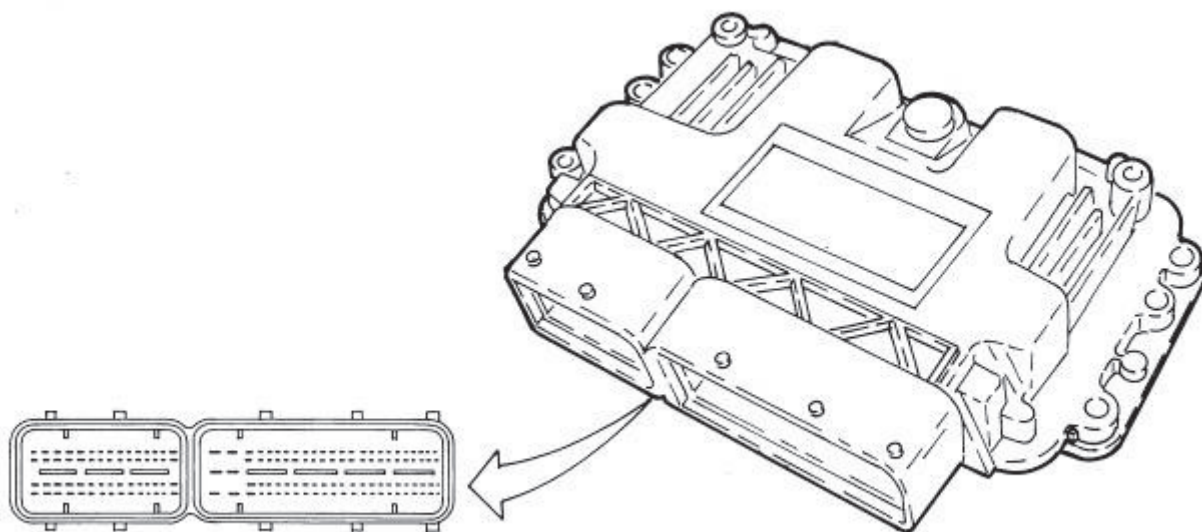


Electrical connections



Engine Control Hub Pin out

Note: all pins are listed, including any not effectively used, or not used for Fiat Bravo applications.

60-pin engine side connector

- | | |
|---|---|
| Pin 1 Control (-) Lambda probe heater downstream of catalyser | Pin 21 Turbo pressure sensor signal |
| Pin 2 Control (-) cylinder 3 injector | Pin 22 Motorised throttle potentiometer TPS2 signal |
| Pin 3 Control (-) canister electrovalve | Pin 23 N.C. |
| Pin 4 Control (-) cylinder 2 injector | Pin 24 Intake air temperature |
| Pin 5 Control (-) dump valve | Pin 25 Intake air pressure signal |
| Pin 6 CNG injector not used | Pin 26 N.C. |
| Pin 7 CNG injector not used | Pin 27 oil level switch not used |
| Pin 8 CNG injector not used | Pin 28 Timing sensor ground reference |
| Pin 9 Turbo pressure and air temperature/pressure sensor 5V power supply | Pin 29 Engine temperature sensor ground reference |
| Pin 10 Motorised throttle potentiometer 5V power supply | Pin 30 Exhaust gas temperature sensor ground not used |
| Pin 11 Timing sensor 5V power supply | Pin 31 Cylinder 1 ignition coil command |
| Pin 12 Timing sensor signal | Pin 32 CNG rail temperature sensor signal not used |
| Pin 13 Motorised throttle potentiometer ground reference | Pin 33 Exhaust gas temperature signal not used |
| Pin 14 Engine oil temperature reference ground not used | Pin 34 Engine oil temperature signal not used |
| Pin 15 Alternator terminal (D+) not used | Pin 35 Engine oil pressure switch |
| Pin 16 Control (-) Lambda probe heater downstream of catalyser | Pin 36 Pinging sensor ground |
| Pin 17 Control (-) cylinder 1 injector | Pin 37 Revs sensor (-) |
| Pin 18 Control (-) waste gate not used | Pin 38 Revs sensor (+) |
| Pin 19 Control (-) cylinder 4 injector | Pin 39 N.C. |
| Pin 20 CNG injector not used | Pin 40 N.C. |
| | Pin 41 N.C. |
| | Pin 42 Motorised throttle potentiometer "TPS1" signal |



Pin 43 Engine temperature signal
Pin 44 Turbo pressure and air temperature and pressure sensor reference ground
Pin 45 N.C.
Pin 46 Cylinder 3 ignition coil command
Pin 47 Cylinder 4 ignition coil command
Pin 48 Cylinder 2 ignition coil command
Pin 49 Throttle servo motor power supply (+)
Pin 50 Throttle servo motor power supply (-)
Pin 51 Pinging sensor signal
Pin 52 Reference ground Lambda probe upstream of catalyser

94-pin vehicle side connector

Pin 1 Engine system ground on battery negative
Pin 2 Engine system ground on battery negative
Pin 3 Power supply positive 12V from F17 10A
Pin 4 Engine system ground on battery negative
Pin 5 Power supply positive 12V from F17 10A
Pin 6 Power supply positive 12V from F16 7,5A
Pin 7 Linear pressure sensor reference ground
Pin 8 Starter control relay LSD **not used**
Pin 9 N.C.
Pin 10 N.C.
Pin 11 Conditioner compressor relay command
Pin 12 Engine cool. fan relay command (speed 2)
Pin 13 Engine cool. fan relay command (speed 1 or single speed)
Pin 14 Engine cool. fan relay command (speed 3 or PWM)
Pin 19 Control (-) turbo pressure waste-gate electrovalve
Pin 27 Accelerator pedal potentiometer "POT 2" 5V power supply
Pin 28 Linear pressure sensor 5V power supply
Pin 29 Accelerator pedal potentiometer "POT 2" reference ground
Pin 30 Accelerator pedal potentiometer "POT 1" reference ground
Pin 31 Starter control relay HSD **not used**
Pin 32 N.C.
Pin 33 Alternator L terminal D + **not used**
Pin 34 N.C.
Pin 35 N.C.
Pin 36 N.C.
Pin 37 N.C.
Pin 38 N.C.
Pin 39 N.C.
Pin 40 N.C.
Pin 41 N.C.
Pin 42 N.C.
Pin 43 N.C.
Pin 44 N.C.
Pin 45 N.C.

Pin 53 Reference ground Lambda probe downstream of catalyser
Pin 54 Reference ground Lambda probe downstream of catalyser
Pin 55 Signal from Lambda probe upstream of catalyser
Pin 56 N.C.
Pin 57 Alternator terminal F **not used**
Pin 58 CNG rail pressure sensor **not used**
Pin 59 Oil condition sensor **not used**
Pin 60 N.C.

Pin 46 N.C.
Pin 47 N.C.
Pin 48 N.C.
Pin 49 Accelerator pedal potentiometer "POT 1" 5V power supply
Pin 50 N.C.
Pin 51 N.C.
Pin 52 N.C.
Pin 53 CAN protection ground **not used**
Pin 54 CNG petrol selector switch **not used**
Pin 55 Accelerator pedal potentiometer "POT 2" potentiometer signal
Pin 56 N.C.
Pin 57 Linear pressure sensor signal
Pin 58 N.C.
Pin 59 G force sensor **not used**
Pin 60 Vehicle speed sensor **not used**
Pin 61 "Resume" signal from cruise control stick
Pin 62 N.C.
Pin 63 Clutch pedal switch signal
Pin 64 Conditioner enable command
Pin 65 N.C.
Pin 66 CAN-L network (transit) **not used**
Pin 67 CAN-H network (transit) **not used**
Pin 68 Fuel pump relay command
Pin 70 Power supply positive F18 10A
Pin 71 MIL warning light command
Pin 72 Engine control system main relay command
Pin 73 CNG pressure valve (shut-off) **not used**
Pin 74 N.C.
Pin 75 CNG tank valve **not used**
Pin 76 Accessories key switch **not used**
Pin 77 CNG tank pressure sensor **not used**
Pin 78 N.C.
Pin 79 Accelerator pedal potentiometer "POT 1" potentiometer signal
Pin 80 Clutch potentiometer **not used**
Pin 81 N.C.
Pin 82 Stop light switch signal
Pin 83 N.C.



Pin 84 "+" signal from cruise control stick
Pin 85 "ON/OFF" signal from cruise control stick
Pin 86 "-" signal from cruise control stick
Pin 87 Stop light switch signal
Pin 88 CAN network terminal C-CAN-L
Pin 89 CAN C-CAN-H network

Pin 90 Fiat Code W line **not used**
Pin 91 K line
Pin 92 N.C.
Pin 93 N.C.
Pin 94 Engine revs signal **not used**

