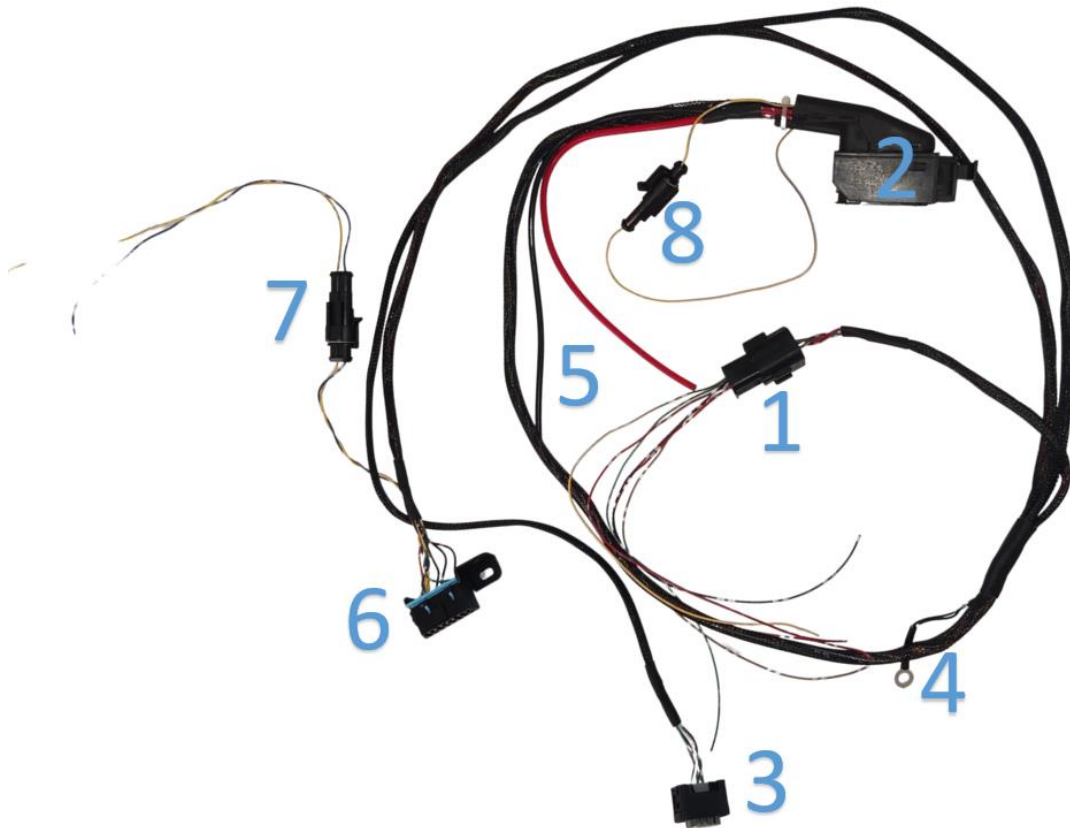




Installation Instructions – BMW M57/47N Stand Alone Harness

The wiring loom supplied has 7 connectors:

1. Plug for the Body Loom
2. ECU Connector
3. Throttle Pedal
4. Earth Ring
5. ECU supply & Ground
6. OBD II Connector (For diagnostic purposes)
7. CANbus connection
8. Fuel pump relay connector



Body Loom Connection



The wires used to connect to the body loom are shown in Table 1. These must be securely connected through the appropriate protection as shown in Table 1.

Table 1: Body Loom Connections

Body Loom Connector	Wire Colour	Connection	
Pin 1	Constant 12v	Yellow/Black	5A Fused
Pin 2	Ignition 12v	Red/Black	5A Fused
Pin 3	RPM	Green	Output to standard rpm gauge
Pin 4	Oil Pressure Lamp	Red	Connect to +12v through bulb
Pin 5	Brake switch NO	Black	Connection to brake switch or controller (if fitted)
Pin 6	Brake switch NC	Brown	Connection to brake switch or controller (if fitted)

- Pin 1 is a constant 12 volt supply from the car battery, this must supply power after the ignition is turned off. This should be fused to 5 Amps.
- Pin 2 is an ignition 12 volt and should be fused to 5 Amps.
- Pin 3 is an output RPM signal from the ECU.
- Pin 4 is an output from the loom to power an oil pressure lamp, this lights if the engine suffers a significant loss in oil pressure. Note, this may not work on all engines so we recommend checking that it works. If it doesn't, we recommend fitting an aftermarket oil pressure gauge

Pins 5 and 6 are optional brake switches. These may be useful if fitting cruise control or if fitting an automatic transmission. The logic that these follow is:

	Brake pedal not operated	Brake pedal operated
Status, brake-light switch (NC)	Closed	Open
Status of brake-light test switch (NO)	Open	Closed

Additionally, when closed, the brake-light switch connects to earth (B-), the brake-light test switch connects to B+ (+12v).

Bosch Engine ECU Connection

This connector connects directly to the Engine ECU as shown in the picture below.

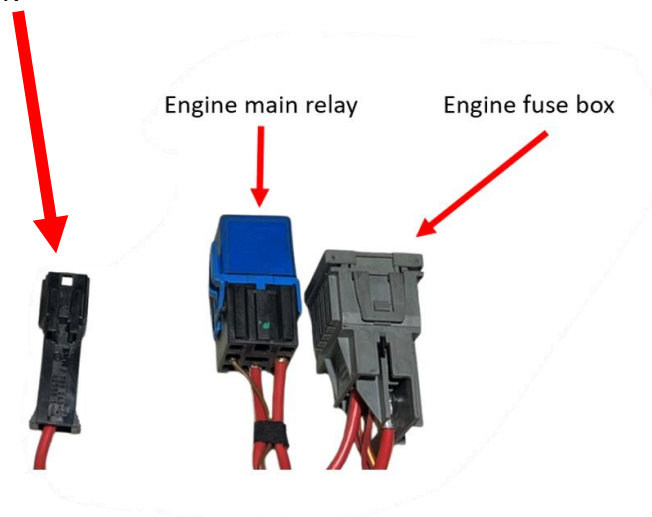


ECU Power

M57N engines

The free length **RED cable** at ECU connector must be connected to the **thick red/blue cable** exiting the engine harness. This feed is supplied by the blue DDE main relay built into the engine harness.

Additionally, the feed into the main relay is usually a single thick red/white wire, this should be connected to +12v:

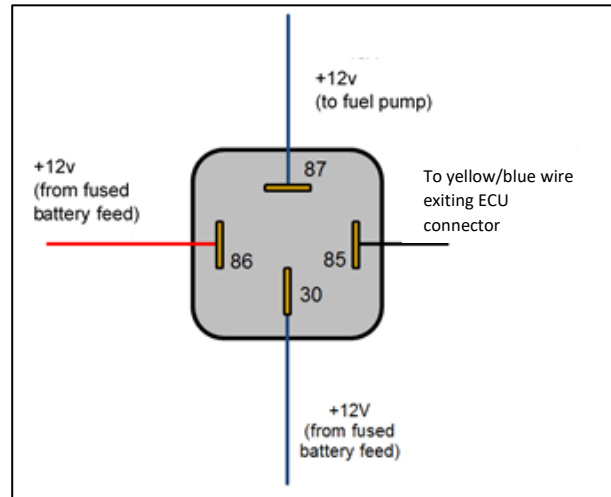
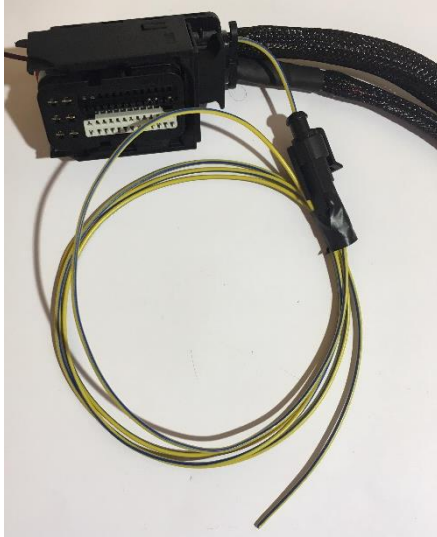


M57N2 engines

See final pages of this guide.

Fuel Pump

The Yellow/Blue wire provides fuel pump control. It is an ECU switched earth for a Fuel Pump Relay which in turn powers the fuel pump. Connect constant fused 12v to the '86' pin and the '85' to the yellow/blue wire.

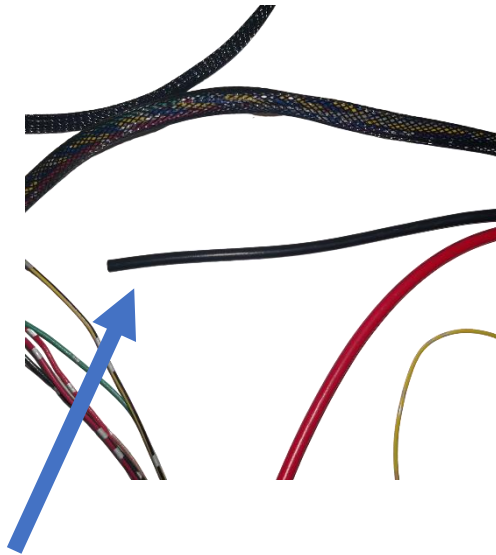


Throttle Pedal Connection

This connector connects directly to the Throttle Pedal as shown in the picture below.



Earth



The free length of black wire exiting the main ECU connector should be connected to ground. This **MUST** be a secure and strong connection to ground to avoid problems later on. The ground terminal must be clean of rust, paint and dirt to ensure a solid ground connection is made.



Ground Black Ring Terminal

This ring terminal should be attached to a constant ground e.g. Battery (-) Terminal. This **MUST** be a secure and strong connection to ground. The ground terminal must be clean of rust, paint and dirt to ensure a solid ground connection is made.



OBD II Connector

The OBD port is used for diagnostics and should be located inside the vehicle. It does not need to be connected to anything for the loom to function.

The 2 pin connector provides an optional connection to the engine CAN Bus.

Pin 1	Yellow - CAN High
Pin 2	Green or blue - CAN Low



If you have any queries with the installation, please don't hesitate to contact us.



E60 TU2 Engine

A6011 Engine plug – connections needed

1. (Black) Starter motor signal
2. (Red/Blue) Main relay supply to ECU
3. (Red/Blue) Main relay supply to ECU
4. (Red/Blue) Main relay supply to ECU
5. Not required
6. (Red/white) Spare output from main relay
7. (Green) Main relay supply to MAF
8. Not required
9. Not required
10. Not required
11. Not required
12. Not required

Instructions:

- Connect pins 2, 3 & 4 to the main feed into the standalone harness which supplied the ECU with power.
- Connect your vehicle starter motor signal to pin 1.
- Connect the spare main relay feed (pin 6) to the MAF supply (pin 7)



Engine harness feed Engine main relay Engine fuse box





E70 TU2 Engine

A6011 Engine plug – connections needed

1. (Red/Blue) Main relay supply to ECU
2. (Black) Starter motor signal
3. (Red/Blue) Main relay supply to ECU
4. (Red/Blue) Main relay supply to ECU
5. (Green) Main relay supply to MAF
6. Not required
7. Not required
8. Not required
9. Not required
10. Not required
11. (Red/white) Spare output from main relay
12. Not required

Instructions:

- Connect pins 1, 3 & 4 to the main feed into the standalone harness which supplied the ECU with power
- Connect your vehicle starter motor signal to pin 2
- Connect the spare main relay feed (pin 11) to the MAF supply (pin 5)

