

# **M05-P1 Harness**

## **Products that can use this harness**

- Mercury and Mercury2

## **History**

- This old style Level 1 harness was part of the economy series for Mercury and some people still prefer them today to save on expenses. The harness contains all ECU connections from the 12 Way Connector for most engine combinations.
- It has Crank TDC and CAM Home signals which is required for Full Sequential features.
- It also has the 2x Cam sensor inputs for 2 VVTI cams in loop control.

## **Design Points to take Notice of.**

- Crank and the 3 Cam sensor wires are enclosed in one shield. They share common power and earth wires. If you use this harness where the sensors is apart you may need to splice in a separate shielded wire for the other sensors. Connect the shields together for interference protection on the spliced section.
- TPS, Air and Water sensors also share a shielded wire. Take the shielded part as close to the sensors as possible. They share common earth wires. Solder these connections and insulate them properly.
- All the input wires are shielded and is earthed on the ECU side with the small black lead that must be connected to the ECU earth. Never connect a shield on the engine or chassis of the car.

## **Wire Names and connections on this harness:**

### ***Crank*** (Shielded) contains:

- Crank Sensor (Green)
- Cam Home Sensor (Yellow)
- Cam1 Sensor (Red)
- Cam2 Sensor (Blue)
- +12V Ignition (White)
- Earth (Black)

### ***Map*** (Shielded)

- Map Sensor (Blue)
- +5V (Red)
- Earth (Black)

### ***Engine*** (Shielded)

- Water Temperature Sensor (Green)
- Air Temperature Sensor (Yellow)
- TPS Sensor (Blue)
- +5V (Red)
- Earth (Black)
- Earth (White)

### ***Lambda*** (Shielded)

- Lambda Sensor (Red)
- Earth (Blue)

Ignition Power (Orange)

TPS Output signal for TCU or other systems (Yellow)

Earth Wire for Screens and sensors (Black)

See the design drawing for thickness and lengths of wires. See the connection drawings in the specific product manual on how to connect the harness to each item it was designed for.

***NB! Wires that are not connected must be isolated to prevent shorts or interference.***