



MCM112 175, 200, 225HP NA V6 outboard kit INSTALL INSTRUCTIONS



The following procedure details installation of this kit onto a Mercury 175, 200 or 225HP NA 3.4L V6 outboard engine.

MoTeC**Kit Components:**

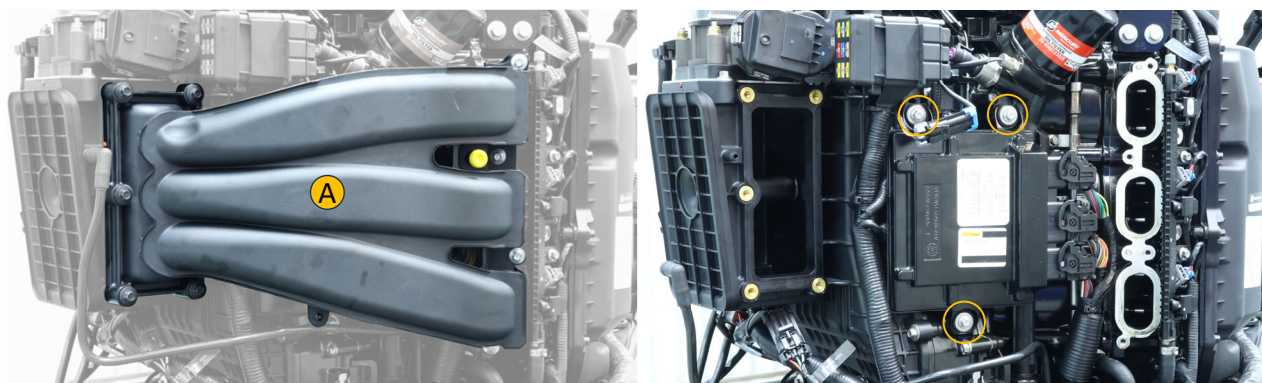
1. MCM112 ECU
2. Expansion loom
3. 3 x 6.5mm mounting bushes
4. 3 x Mounting grommets
5. Knock sensor
6. Knock sensor extension loom
7. M6 x 40mm S/S bolt
8. M6 S/S Flat Washer
9. Knock sensor mounting spacer

MoTeC**Tools required:**

- 8 mm hex socket
- 10 mm hex socket
- Ratchet
- Ratchet extension
- Universal joint
- Torque wrench

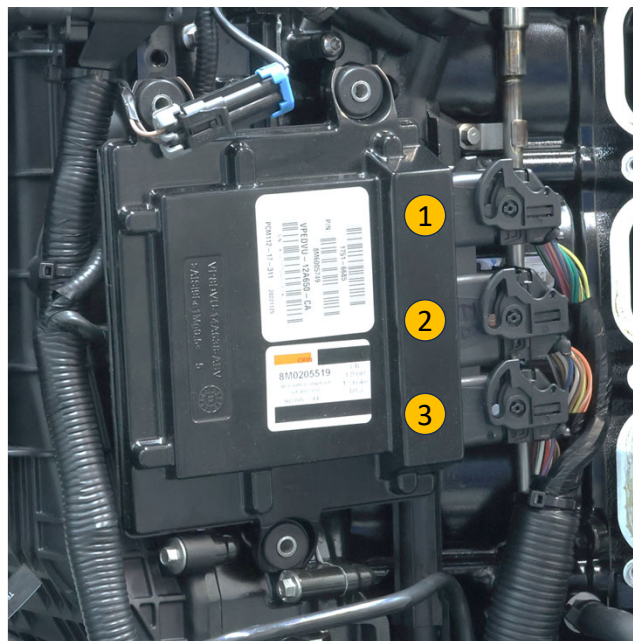
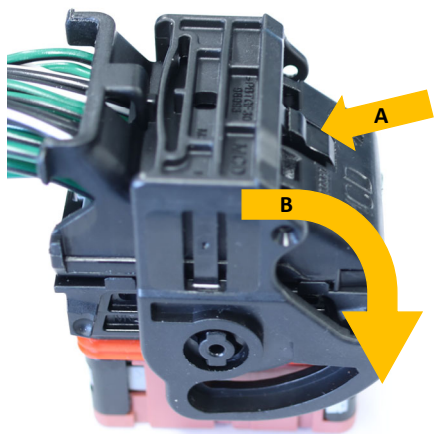
Adhesives:

- Loctite 243 (blue) or equivalent.



Remove OE ECU.

1. Remove the engine cowl as per the instructions under the access panel.
2. Ensure Ignition key and battery isolator are switched OFF.
3. To gain access to the OE ECU, remove Port side intake manifold **A**. Refer to Mercury service manual for procedure.
4. Remove the 3 x ECU mounting bolts & washers (Circled).

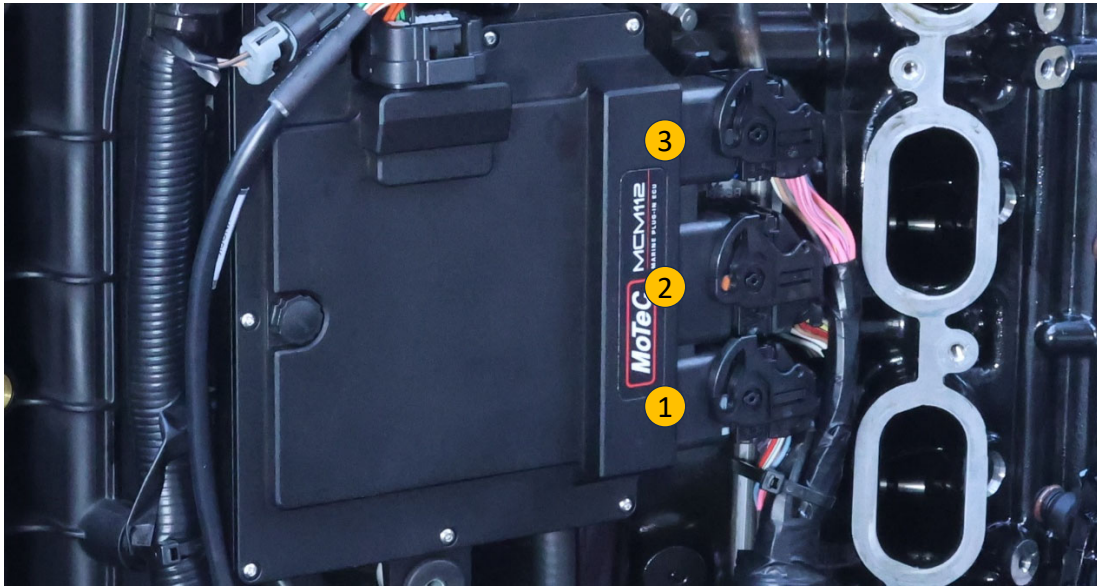


5. To remove the 3 connectors, press the lever lock **A** then rotate the lever **B** downwards.
6. Remove the 3 connectors in the order shown.

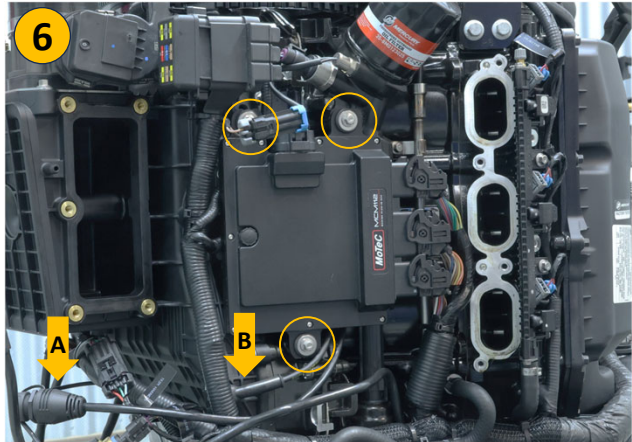
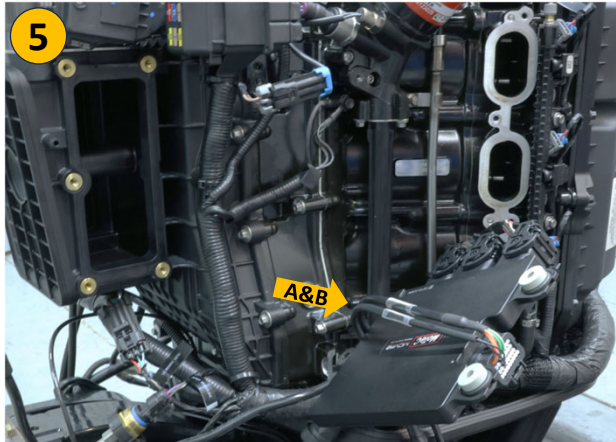
MoTeC**MCM112 ECU fitting.**

1. Fit the Expansion loom to the ECU connector.
2. Fit the 3 x MoTeC bushings into the grommets of the ECU in the direction shown above.

NOTE: The MoTeC bushings must be inserted as shown above to avoid damage to the ECU.



3. Fit the 3 wiring connectors in the order shown.
4. Ensure the levers lock in place.



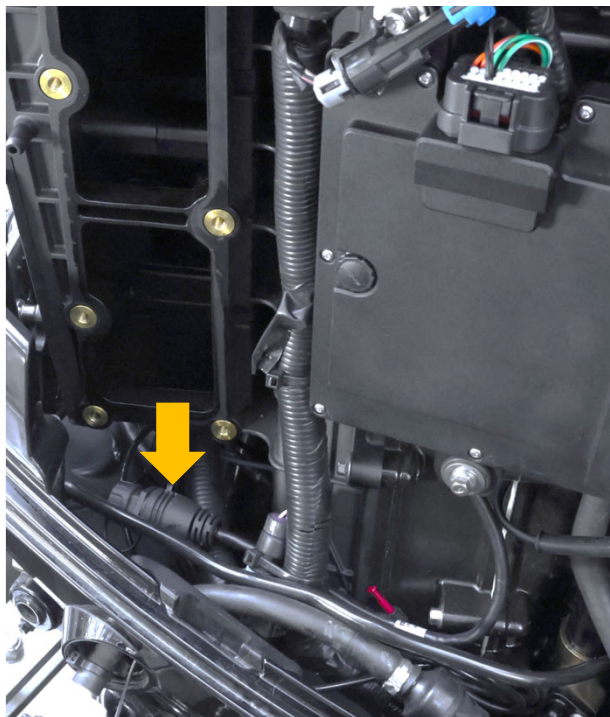
5. Route the

- Ethernet cable **A**
- knock sensor cable **B**

Behind the MCM112 ECU.

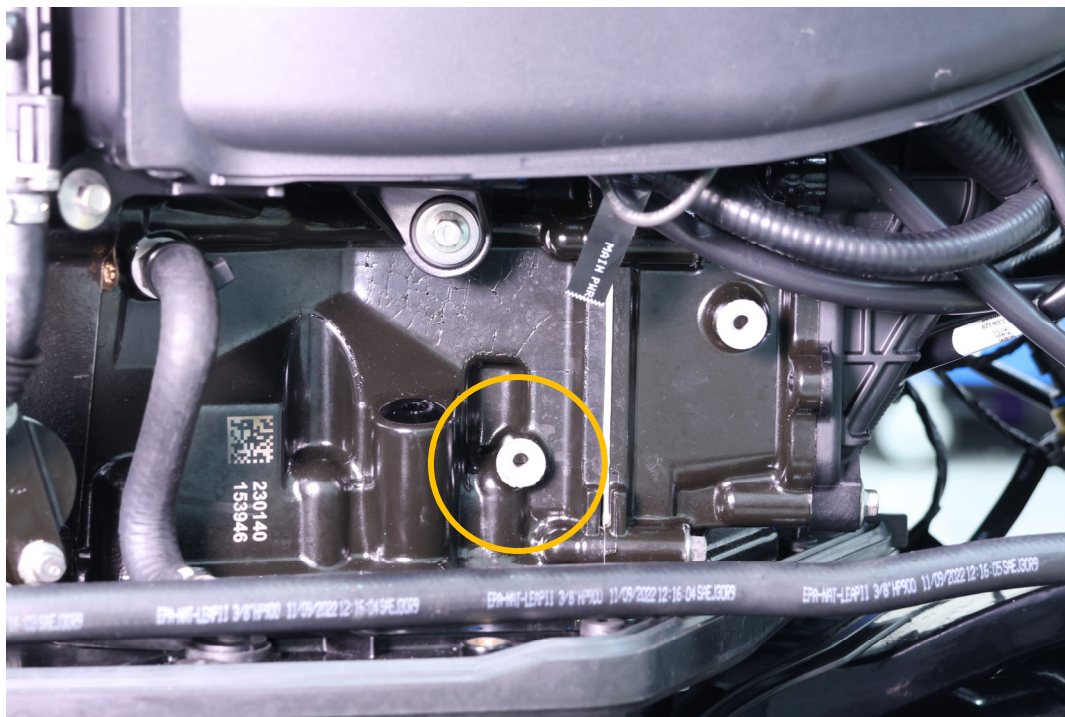
6. Install the 3 x ECU mounting bolts (apply Loctite) & washers (Circled).
Torque the bolts to 5Nm.

NOTE: Ensure the wiring loom does not impede the ECU mounts from contacting the engine block correctly.



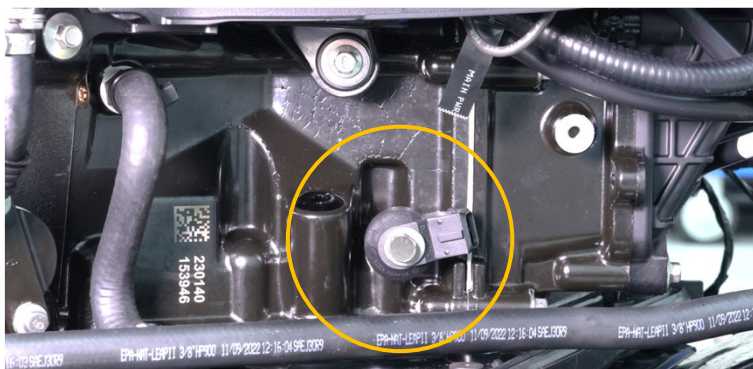
7. Position the ethernet cable as shown within the engine cowl.

NOTE: An ethernet extension cable can be positioned through the engine rigging tube to the helm for tuning within the vessel.

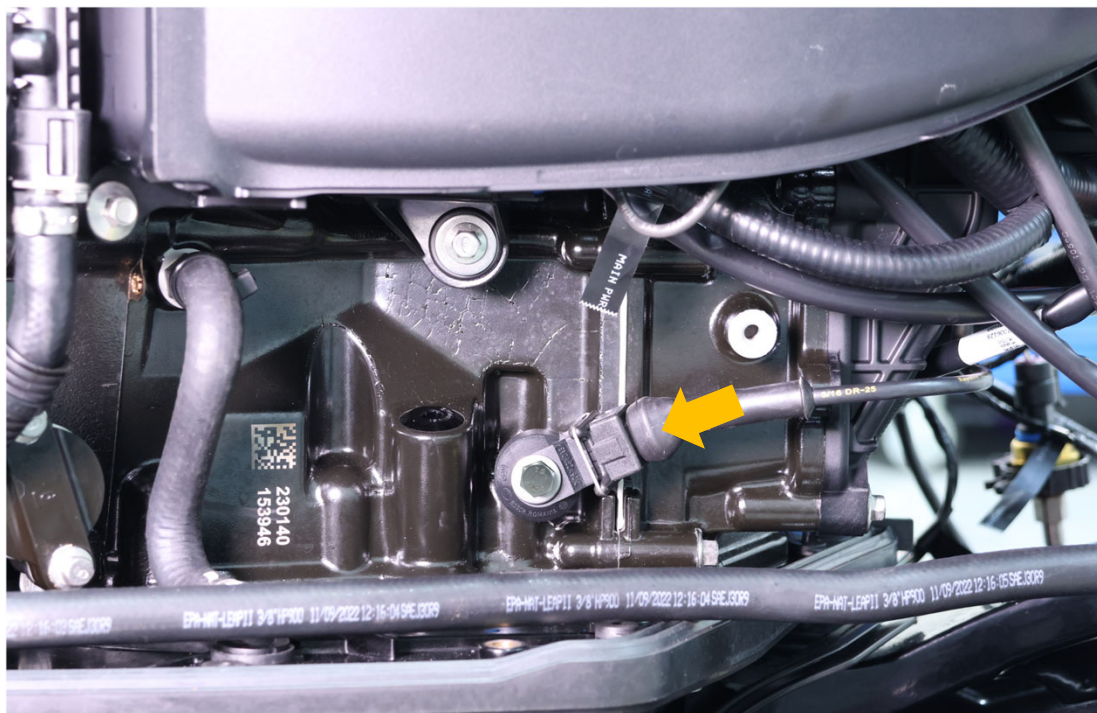


Knock sensor fitting.

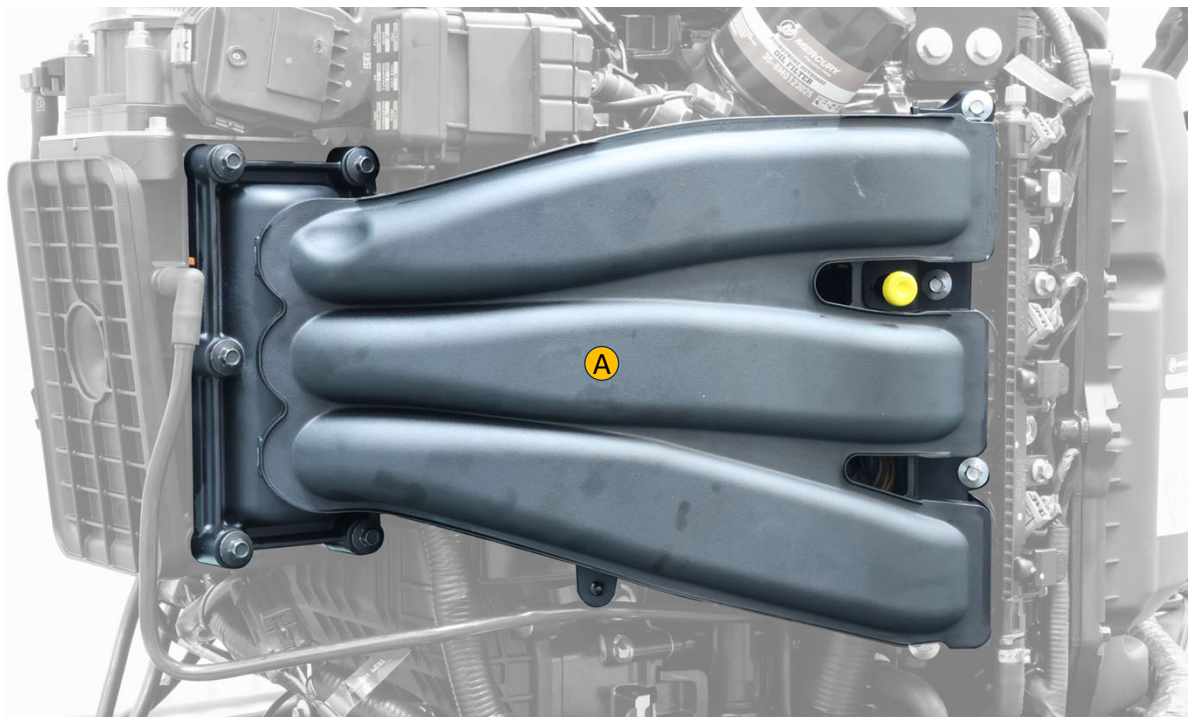
1. Locate the threaded boss on the Starboard side of cylinder block, as shown.



2. Fit the knock sensor to the threaded boss using:
 - M6 x 40mm S/S bolt (Loctite applied)
 - Knock sensor mounting spacer
 - M6 S/S Flat Washer
3. Position the wiring connection as shown above, torque the bolt to 7 Nm.



4. Connect the knock sensor extension loom to the expansion loom.
5. Connect the knock sensor extension loom to the knock sensor.
6. Tie the extension loom to the OE wiring harness.



7. Re fit the Port side intake manifold **A**. Refer to Mercury service manual for procedure.

Reinstall the engine cowl as per the instructions under the access panel.

Your kit installation is complete.

NOTE:

- MoTeC has made every effort to ensure that the start file gives safe and reliable operation of the engine, it is the responsibility of the kit installer to ensure the engine tune is verified on the individual engine.