



MCM112 200, 250, 300HP NA V8 outboard kit INSTALL INSTRUCTIONS



The following procedure details installation of this kit onto a Mercury 200, 250 or 300HP NA V8 outboard engine.

MoTeC**Kit Components:**

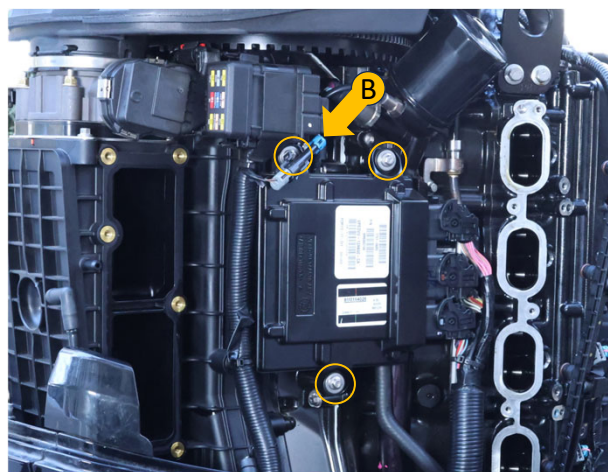
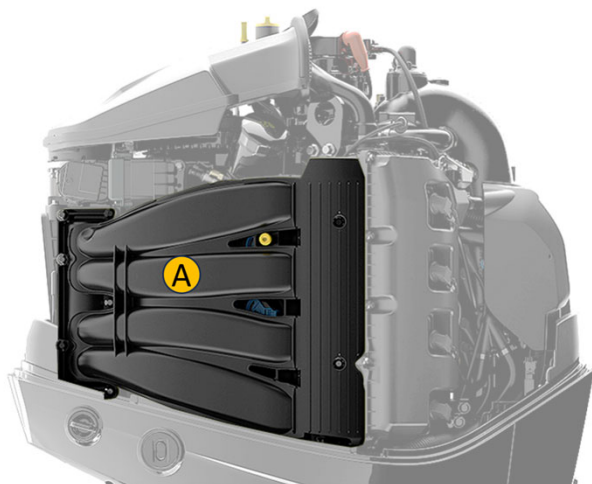
1. MCM112 ECU
2. Expansion loom
3. 3 x 6.5mm mounting bushes
4. 3 x Mounting grommets
5. Knock sensor
6. M8 x 30mm S/S bolt

MoTeC**Tools required:**

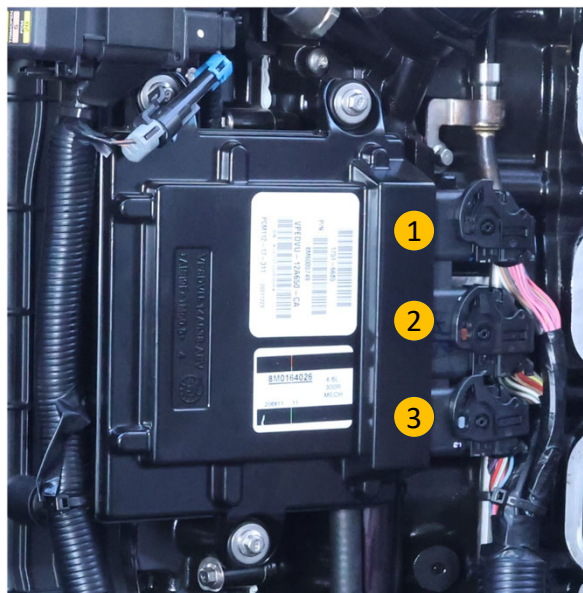
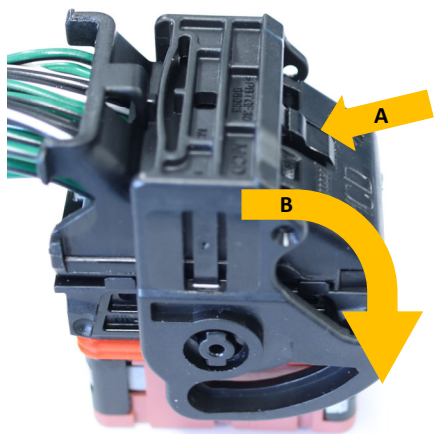
- 8 mm hex socket
- 13 mm hex socket
- Ratchet
- Ratchet extension
- Universal joint
- Torque wrench
- M8 x 1.25mm Tap set
- 6.8mm drill bit
- Power drill

Adhesives:

- Loctite 243 (blue) or equivalent.



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. Unclip wiring connector **B**.
5. Remove the 3 x ECU mounting bolts & washers (Circled).



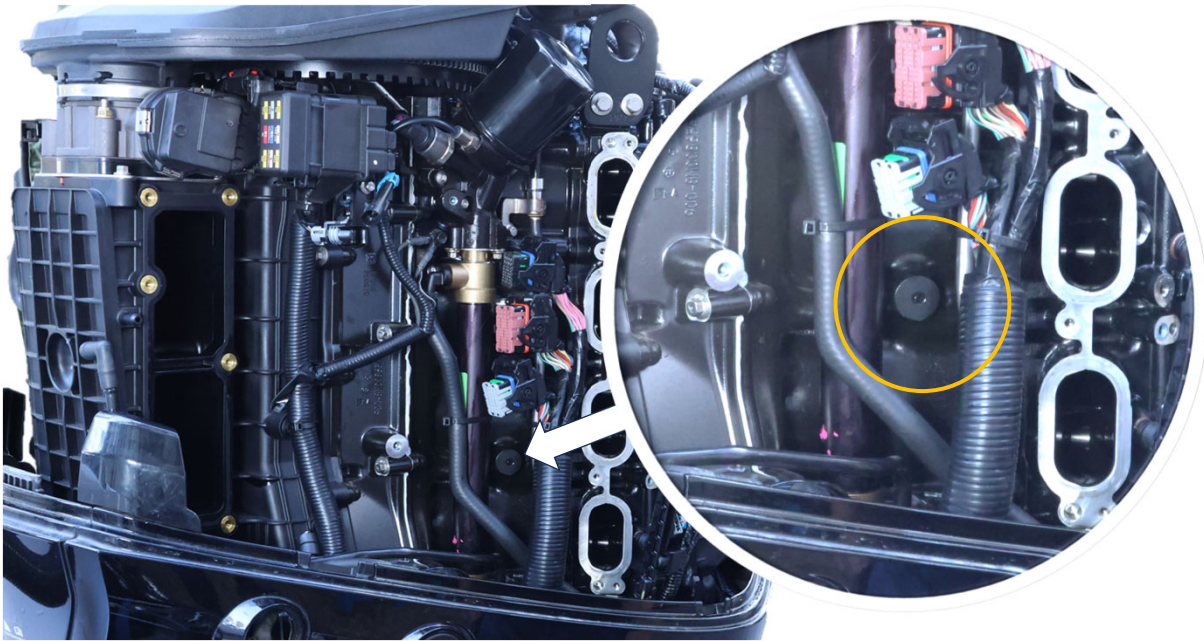
1. To remove the 3 connectors, press the lever lock **A** then rotate the lever **B** downwards.
2. Remove the 3 connectors in the order shown.

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

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

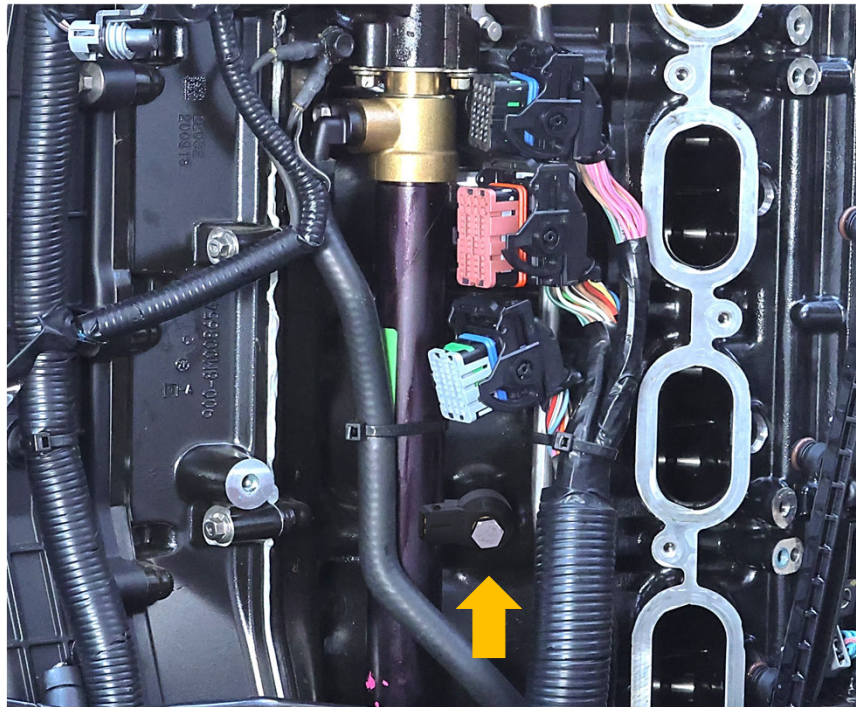
3. The MCM112 ECU assembly is now ready to fit.

MoTeC**Knock sensor fitting.**

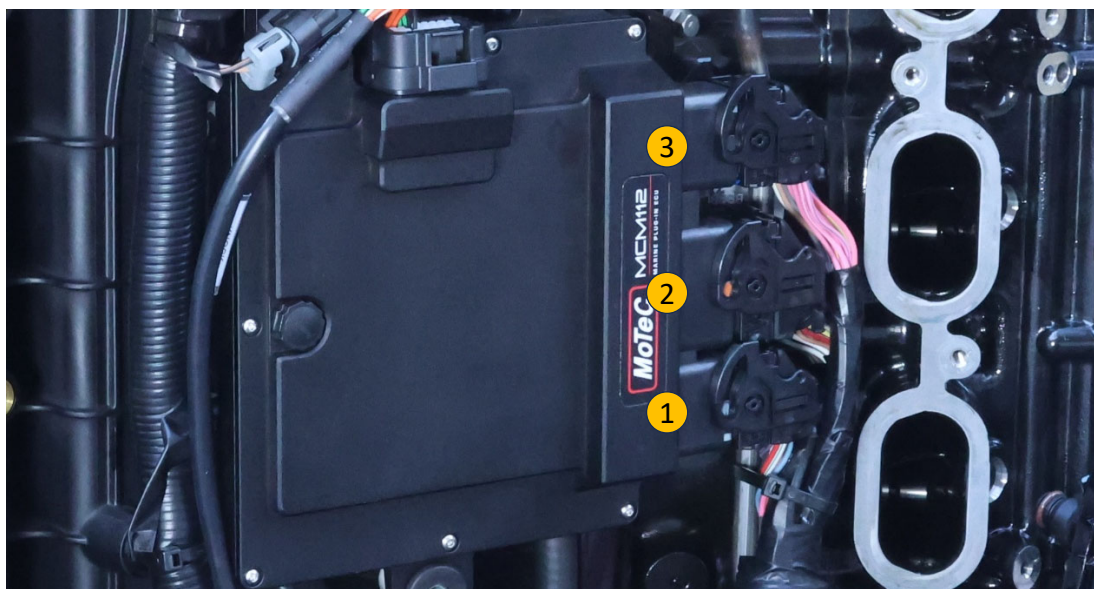
1. Locate the boss on the cylinder block as shown.
2. On some models the boss is not equipped with a thread, if not proceed with step 3.
3. Drill and tap an 8 x 1.25mm thread into the boss.

NOTE:

- The drilling and tapping procedure should only be performed by a suitably trained technician.
- Threaded hole depth must be MIN 15mm. MAX 20mm.
- The use of a bottoming tap to finish the thread is recommended.

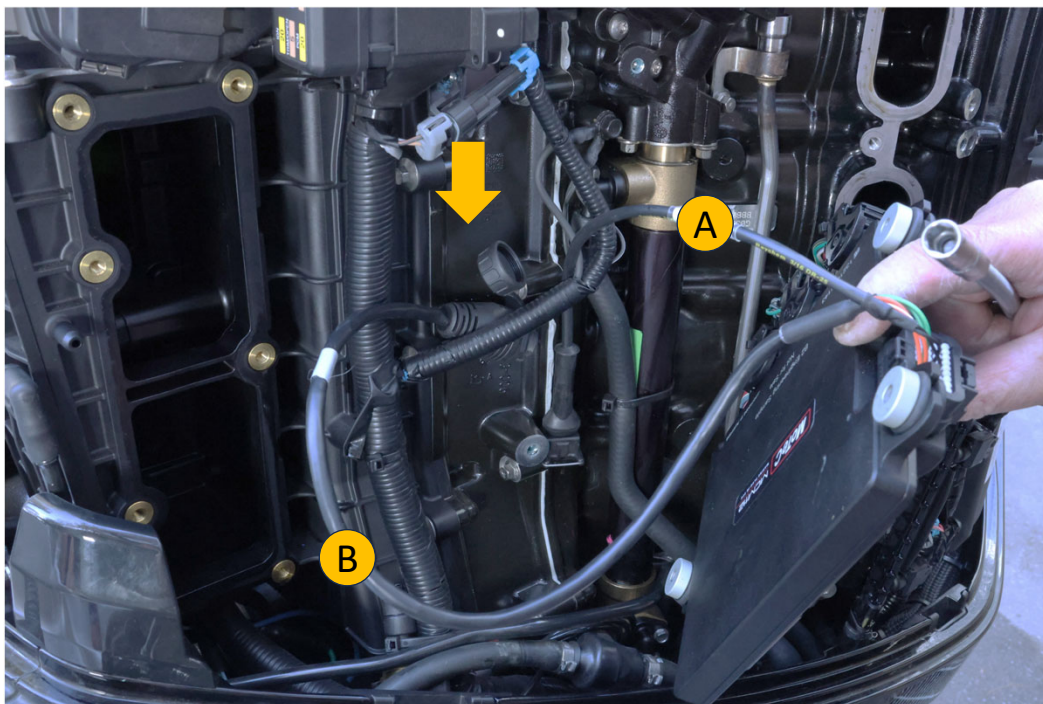


4. Fit the knock sensor to the threaded boss using the M8 x 30mm bolt from the kit with Loctite applied.
5. Position the wiring connection as shown above, torque the bolt to 18Nm.



MCM112 ECU fitting.

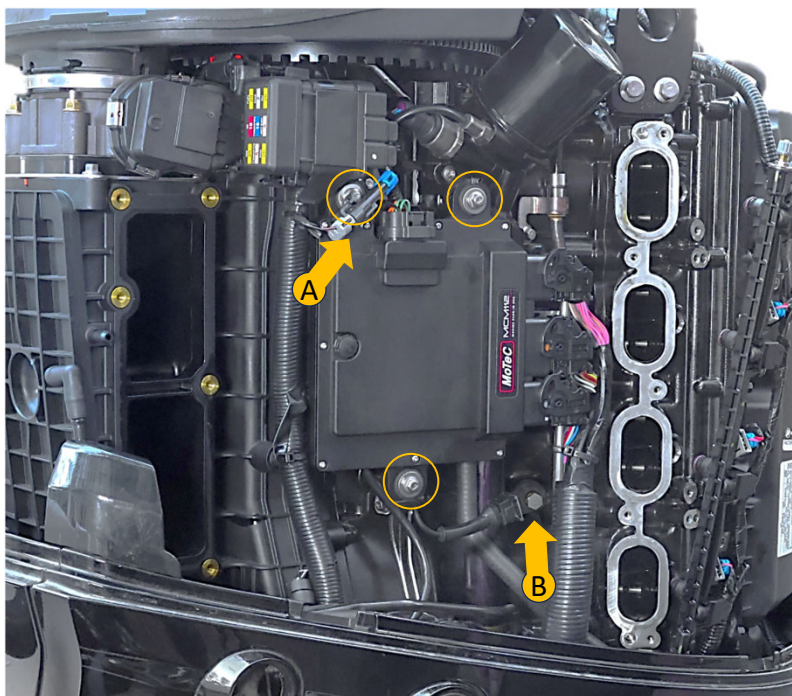
1. Fit the 3 wiring connectors in the order shown.
2. Ensure the levers lock in place.



3. Route the

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

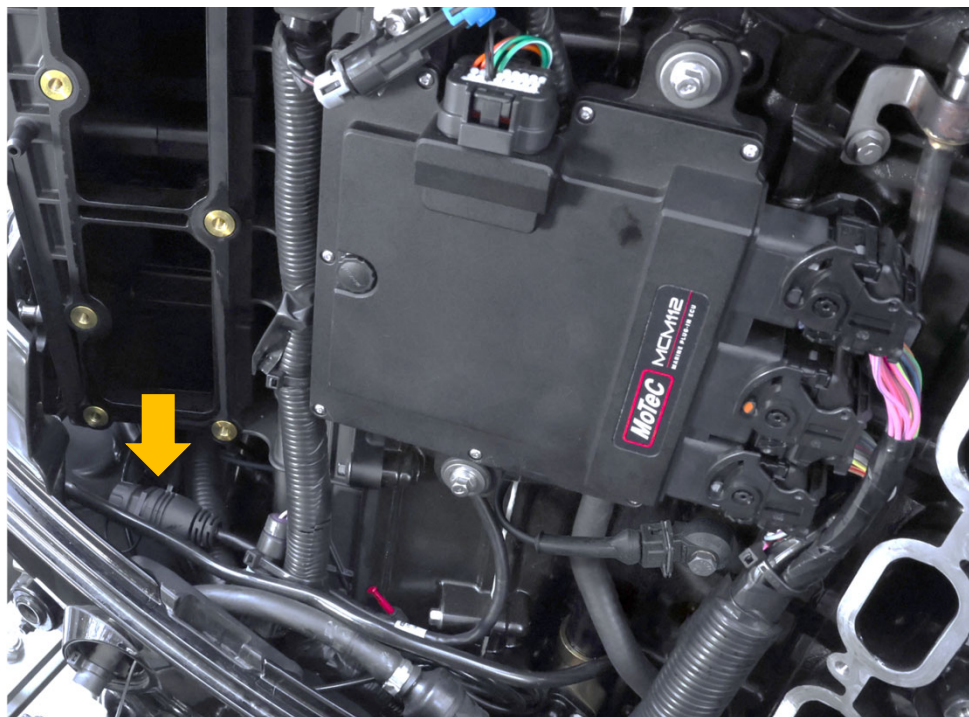
Behind the OE loom as shown.



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

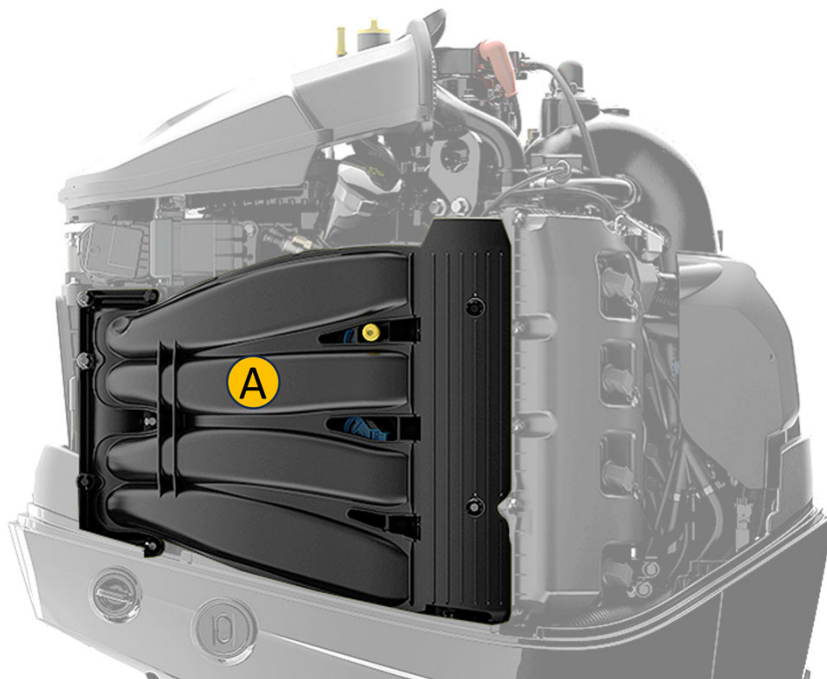
NOTE: Ensure the wiring loom does not impede the ECU mounts from contacting the engine block correctly.

5. Connect wiring connector **A**.
6. Connect the knock sensor connector to the knock sensor **B**.



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.



1. Re fit the Port side intake manifold **A**. Refer to Mercury service manual for procedure.
2. Reinstall the engine cowl as per the instructions under the access panel.

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.