## CERTAIN 2016 MODEL YEAR C-MAX HYBRID VEHICLES — POWERTRAIN CONTROL MODULE PROGRAMMING

#### **OVERVIEW**

The Powertrain Control Module (PCM) calibration does not match the specific vehicle configuration and, therefore, does not match the vehicle certification. Dealers are to retrieve the PCM part number through As-Built and carry out the PCM Programmable Module Installation (PMI) using the Integrated Diagnostic Software (IDS).

#### SERVICE PROCEDURE

#### **Powertrain Control Module Programming**

**NOTE**: Program appropriate vehicle modules before performing diagnostics and clear all Diagnostic Trouble Codes (DTCs) after programming. For DTCs generated after programming, follow normal diagnostic service procedures.

- 1. Connect a battery charger to the 12V battery.
- 2. Connect the IDS to the vehicle. Select "Start New Session" and then select "All other". Click the tick mark. Continue until the *new* session is complete.
- 3. Select the Tool Box tab and then select "Module Programming". Click the tick mark.
- 4. Select "As-built" and then select "PCM". Click the tick mark.
- When asked if you are here to obtain PCM part numbers or restore the PCM's configuration data, select "Part Numbers".
- 6. Allow the IDS to look on the network for the required file. Click the tick mark to continue.
- 7. Click "Confirm" to confirm the file was successfully downloaded.
- 8. Select "Programmable Module Installation" and then select "PCM". Click the tick mark.
- 9. Allow the IDS to look on the network for the required calibration file. Click the tick mark to continue.

**NOTE**: Calibration files may also be obtained at www.motorcraftservice.com.

- 10. Follow the IDS on-screen instructions to complete the programming procedure.
- 11. Disconnect the battery charger from the 12V battery once the programming has completed.

### **Important Information For Module Programming**

**NOTE**: When programming or reprogramming a module, use the following basic checks to ensure programming completes without errors.

- Make sure the battery is fully charged before carrying out the programming steps and connect IDS/scan tool to a power source.
- Inspect Vehicle Communication Module (VCM) and cables for any damage. Make sure scan tool connections are not interrupted during programming.
- A hardwired internet connection is strongly recommended.
- Turn off all unnecessary accessories (radio, heated/cooled seats, head lamps, interior lamps, HVAC system, etc.) and close doors.
- Disconnect/depower any aftermarket accessories (remote start, alarm, power inverter, CB radio, etc.).
- · Follow all scan tool on-screen instructions carefully.
- Disable IDS/scan tool sleep mode, screensaver, hibernation modes.
- Create all sessions Key On Engine Off (KOEO). Starting the vehicle before creating a session will
  cause errors within the programming inhale process.

# Recovering a module when programming has resulted in a blank module: <u>NEVER</u> DELETE THE ORIGINAL SESSION!

- 1. Obtain the original IDS that was used when the programming error occurred during Module Reprogramming (MR) or Programmable Module Installation (PMI).
- 2. Disconnect the VCM from the data link connector (DLC) and the IDS.
- 3. Reconnect the VCM to IDS and then connect to the DLC. Once reconnected, the VCM icon should appear in the corner of the IDS screen. If it does not, troubleshoot the IDS to VCM connection.
- 4. Locate the ORIGINAL vehicle session when programming failed. This should be the last session used in most cases. If not, use the session created on the date that the programming failed.

**NOTE:** If the original session is not listed in the previous session list, click the "Recycle Bin" icon at the lower right of the previous session screen. This loads any deleted sessions and allows you to look through them. Double-click the session to restore it.

- 5. Once the session is loaded, the failed process should resume automatically.
- 6. If programming does not resume automatically, proceed to the Module Programming menu and select the previously attempted process, PMI or MR.
- 7. Follow all on-screen prompts/instructions.
- 8. Near the end of programming, the IDS prompts you to select certain parameters. It is important to make a selection for ALL parameters listed. If the correct selection is already highlighted, you must still choose that selection before clicking the "Tick" mark to complete the configuration.
- 9. The last screen on the IDS may list additional steps required to complete the programming process. Make sure all applicable steps listed on the screen are followed in order.