



SUBJECT: Standard Operating Procedures: Hybrid Electric Vehicles (HEV)

PRINT A COPY OF THIS GAS MESSAGE AND PROVIDE TO STATION MANAGER, OWNER AND ALL INSPECTORS.

To complete an OBD II inspection on a Hybrid Electric Vehicle (HEV), the engine does not need to be running in order to complete a valid inspection.

READ BELOW!

During an OBD inspection on a non- HEV, the GAS unit must receive an RPM signal through the DLC in order to complete the KOER (Key On Engine Running) portion of the test. However, the software modifies the inspection procedure and does not require the RPM reading on identified HEVs.

When an inspection is started on an HEV, the inspector MUST ensure the vehicle is correctly identified by using the selections provided by the GAS unit.

Certain HEVs will have the word HYBRID in their description if the vehicle has more than one model, for example: CIVIC HYBRID versus CIVIC.

Vehicles models that are only hybrid such as INSIGHT, PRIUS, or VOLT may not have the word HYBRID in their description. Select the appropriate model and fuel type.

Background:

- HEVs operate on batteries but also have a gasoline-powered engine to charge the batteries when needed. While solely operating on batteries there is no RPM.
- When the battery needs charging, the engine starts automatically. At that point, there will be an RPM reading.
- When the vehicle is not under load, the vehicle is being powered ONLY by the battery, resulting in no RPM signal. As a result, there will be NO RPM for the GAS to read like it would in a non-HEVs. Therefore, the software in the GAS has been programmed to not need RPM during the inspection of an HEV.
- HEVs include the BMW i3 REX, Chevrolet Volt, Ford CMAX, Honda Insight, and Toyota Prius. There are also many other gasoline powered vehicles that offer a hybrid version such as Honda Civic, Hyundai Sonata, Saturn Vue, Toyota Camry, etc.

Proper test procedure for HEVs only:

- STEP 1:** Prior to starting the OBD II test, GCAF recommends that you CORRECTLY identify the HEV by Year, Make, Model, engine, and fuel type.
- STEP 2:** When prompted by the GAS unit to start the engine, turn the ignition key to the RUN position as usual. If the engine starts, continue with the OBD II test sequence as prompted by the GAS unit. If the engine does not start, follow the prompts provided by the GAS unit to continue without RPM. IT IS NOT necessary OR ADVISED to depress the accelerator to increase RPM of the engine to keep the engine running during the inspection. The software will continue when the inspector follows the provided prompts.
- STEP 3:** If the GAS prompts for increasing the RPM between 1200 and 1500, follow the directions provided on the screen to CONTINUE, DO NOT depress the accelerator to increase RPM as it is not required OR ADVISED on an HEV.
- STEP 4:** Follow the prompts to continue to the fuel cap check and complete the inspection process.

If you have any questions, contact GCAF Station Assistance at 1.800.449.2471, option #2, via email at industry@cleanairforce.com, or via live chat, which is available at www.cleanairforce.com.

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