

	GROUP Electrical	MODEL Optima Hybrid (TF HEV) ≥ 2011MY
	NUMBER PS237	DATE February 2013
 		
SUBJECT: FORCE-STARTING OPTIMA HYBRID ENGINE USING GDS		

If you encounter an Optima Hybrid with a no-start condition, check if the “READY” lamp is flashing in the cluster and verify the hybrid battery State of Charge (SOC) ranges from 15% to 20%. If these conditions are present, a technician may use GDS to “force start” the engine and resolve the concern.

Using GDS, try to start the engine using the **Engine On** test in the **S/W Management** tab under the **HCU System**

If this procedure fails, start the engine by following these steps:

1. Configure GDS using the **Vin Auto Detect Function**.
2. Click on **All System Modules**.
3. Click on the **Fault Code Searching** button at the bottom of the screen.
4. Check for codes and record all (both active and historical) using the screen capture button (camera icon in the upper right corner of the window).
5. Clear all codes and wait for the confirmation screen.
6. Click on the **HCU System**.
7. Click on **Engine ON Test**. If the vehicle starts, hold the brake pedal down and apply throttle to rapidly charge the HEV battery to 50% SOC.
8. If codes P0C17 or P1C76 were present in step 4, perform the resolver calibration.
9. Click on the **S/W Management** tab and **MCU System**. Proceed to perform the drive motor resolver and HSG resolver recalibration procedure.
10. Test drive vehicle and recheck for codes in all systems. If any are present, use DTC troubleshooter on KGIS to diagnose any additional problems.

NOTE: If the “force start” procedure results in the engine cranking for approximately 5 seconds and then stopping, there may be an engine-side fault that must be repaired first.