

HONDA 2021 PILOT Cylinder AF Test

Tested Model: HONDA PILOT 2021

Function Description:

This function determines the lean failure, rich failure, or normal combustion in each cylinder by varying the air-fuel ratio and counting the misfire occurrences. Criteria are as follows:

Lean failure: More than 25 misfires occur when the air-fuel ratio is 0.9.

Rich failure: No misfires occur when the air-fuel ratio is 0.7.

Normal: Neither of the above cases occurs.

Supported Equipment:

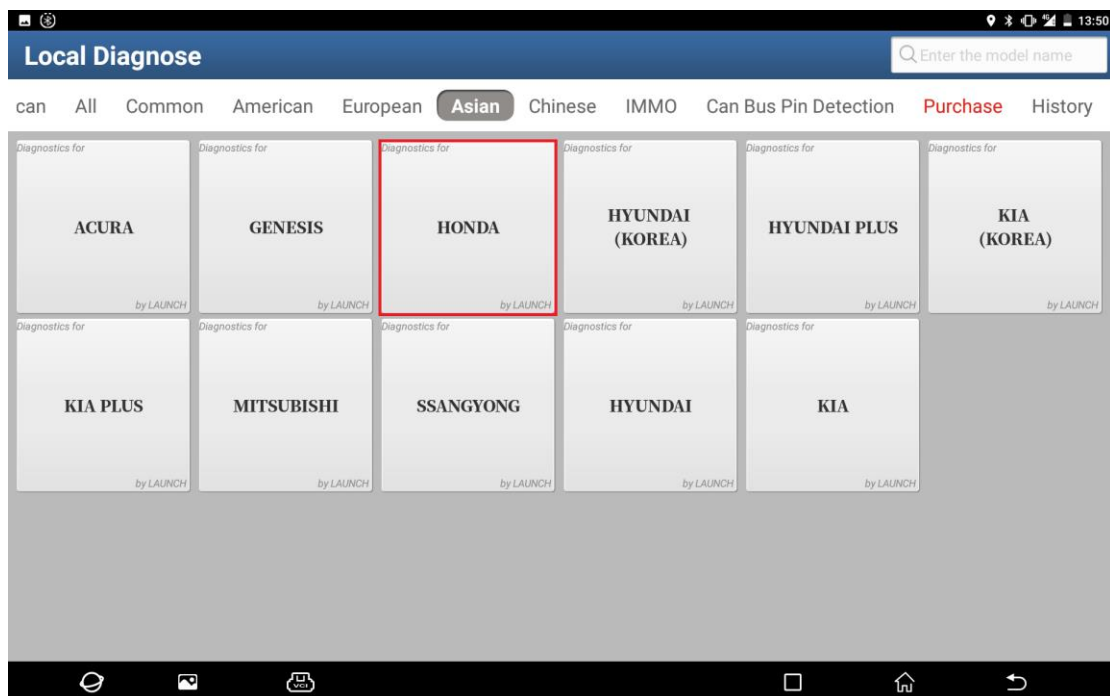
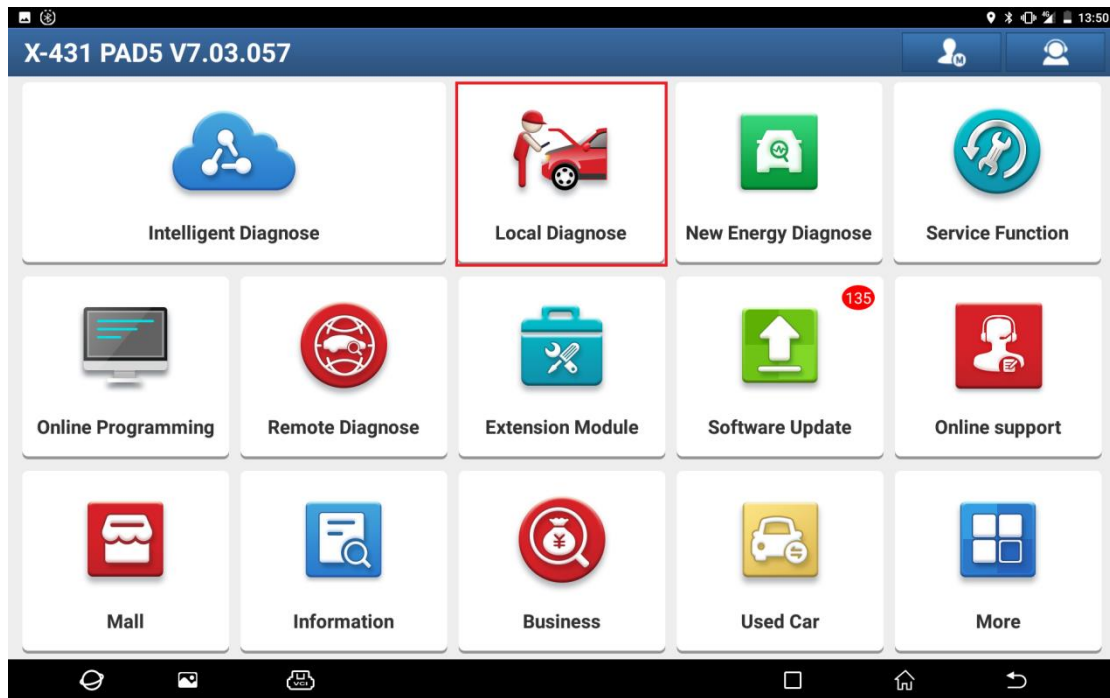
Launch PRO or PAD series comprehensive diagnostic equipment

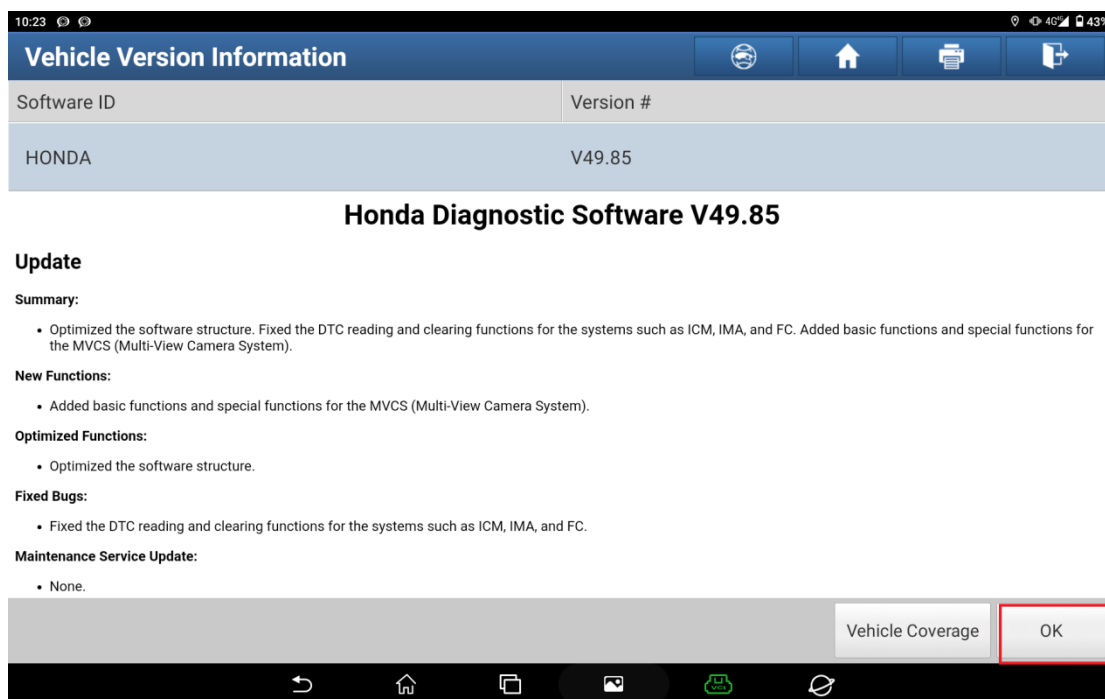
Execution Conditions:

- Connector connected, ignition switch ON, engine OFF
- In N or P gear
- Engine coolant temperature: Above 88°C

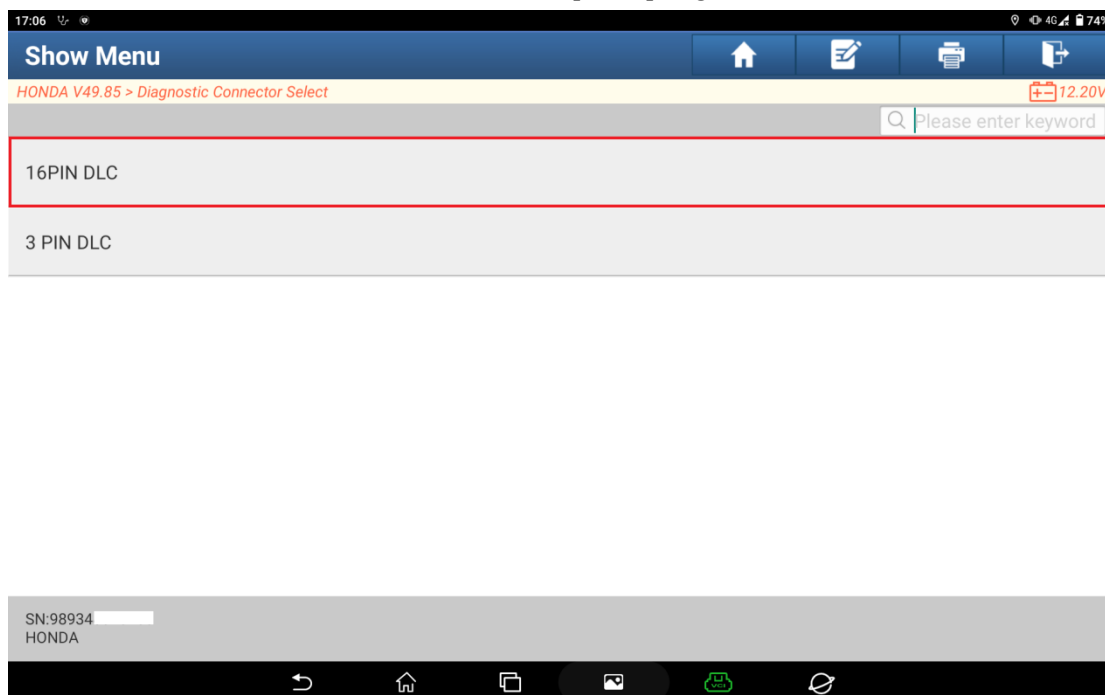
Procedure:

1. On a PAD 5, choose [Local Diagnose], and then choose [HONDA] for testing.



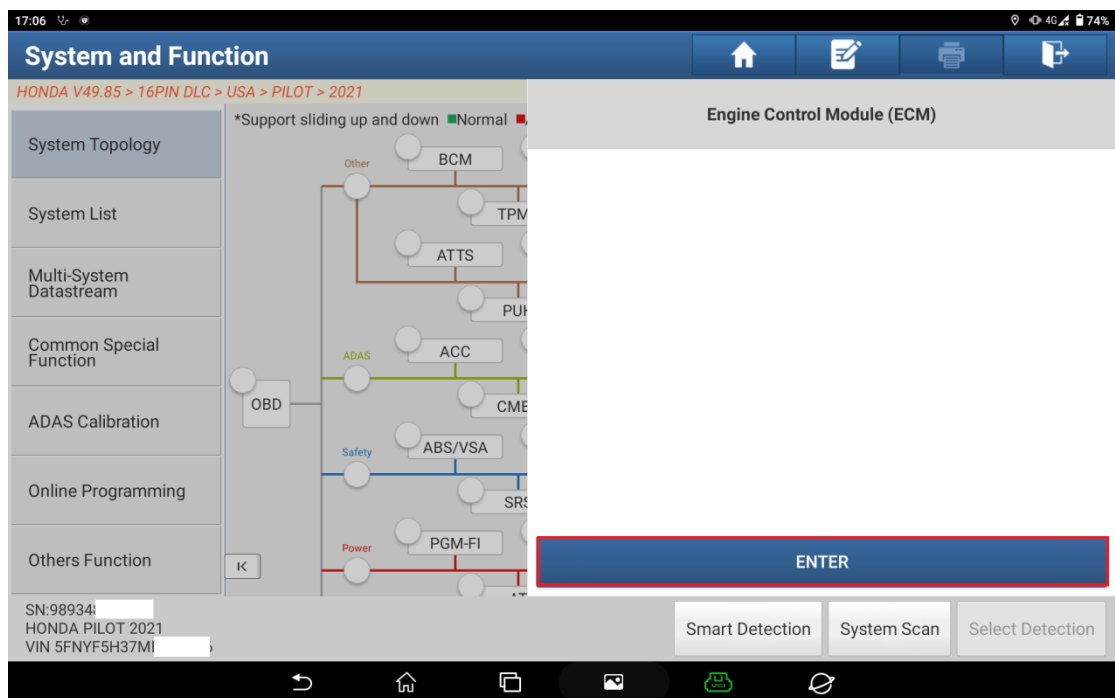


2. Click [16PIN DLC], and then choose the region to automatically identify the vehicle model. For this test, choose the [USA] region.

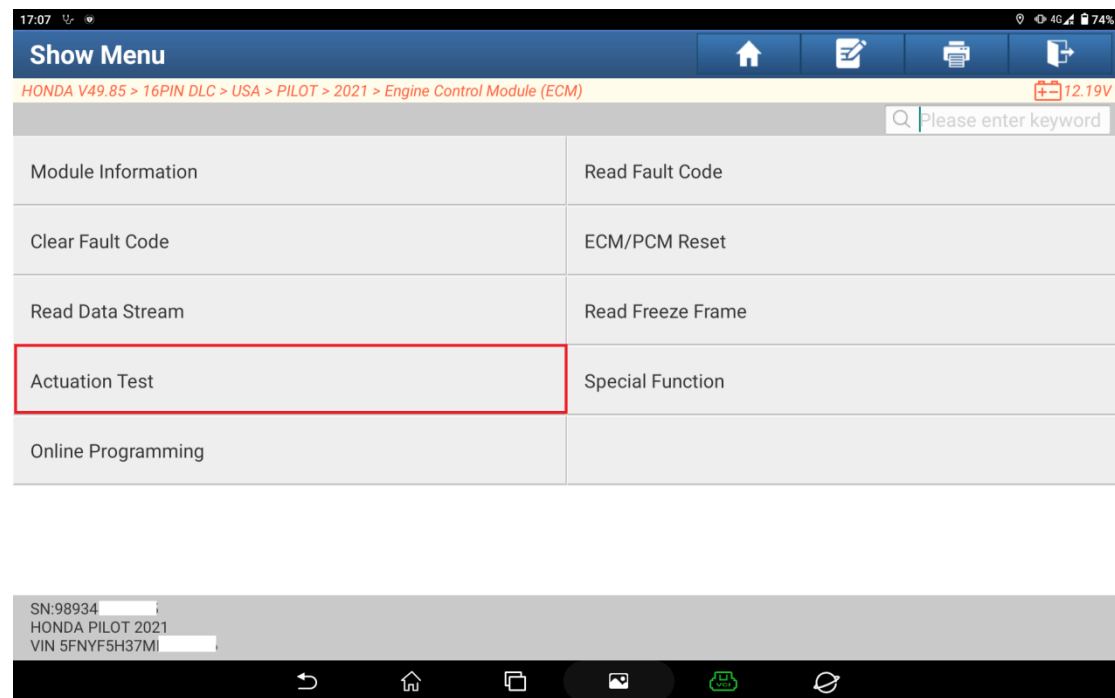




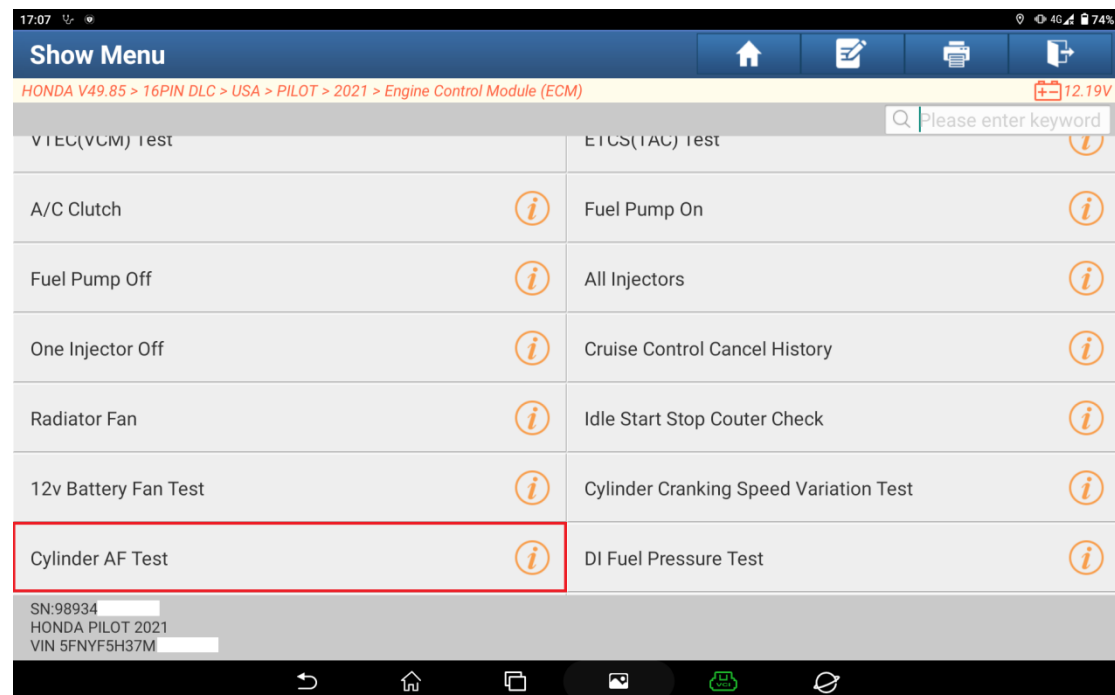
3. Choose the ECM (Engine Control Module) and click "ENTER".



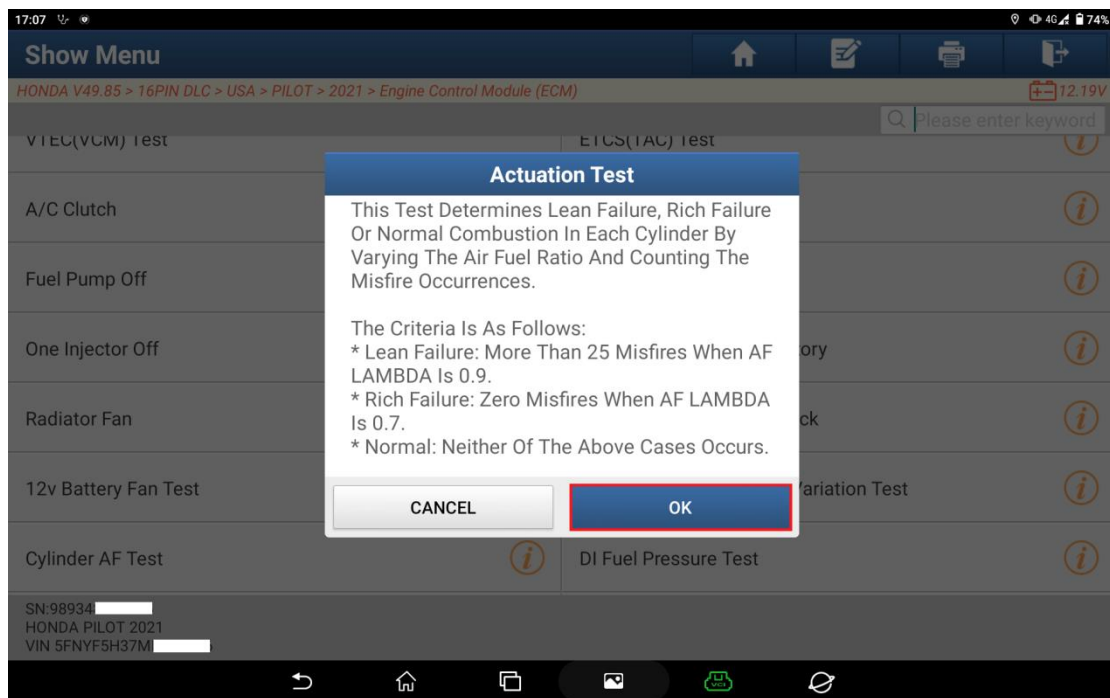
4. Choose [Actuation Test].



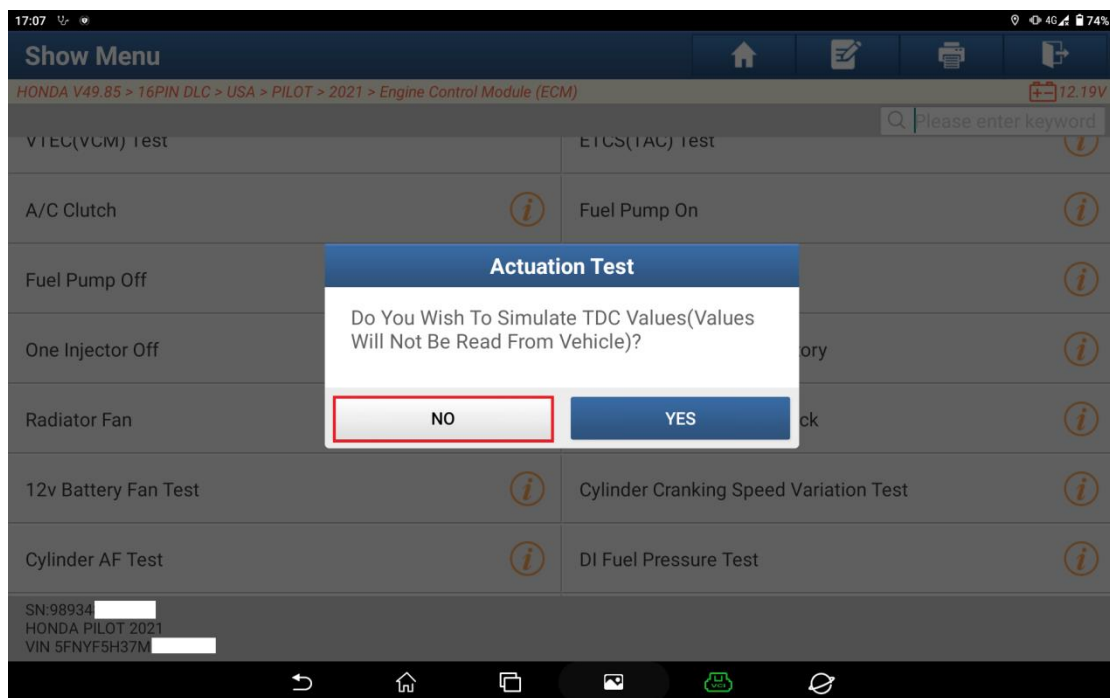
5. Choose [Cylinder AF Test].



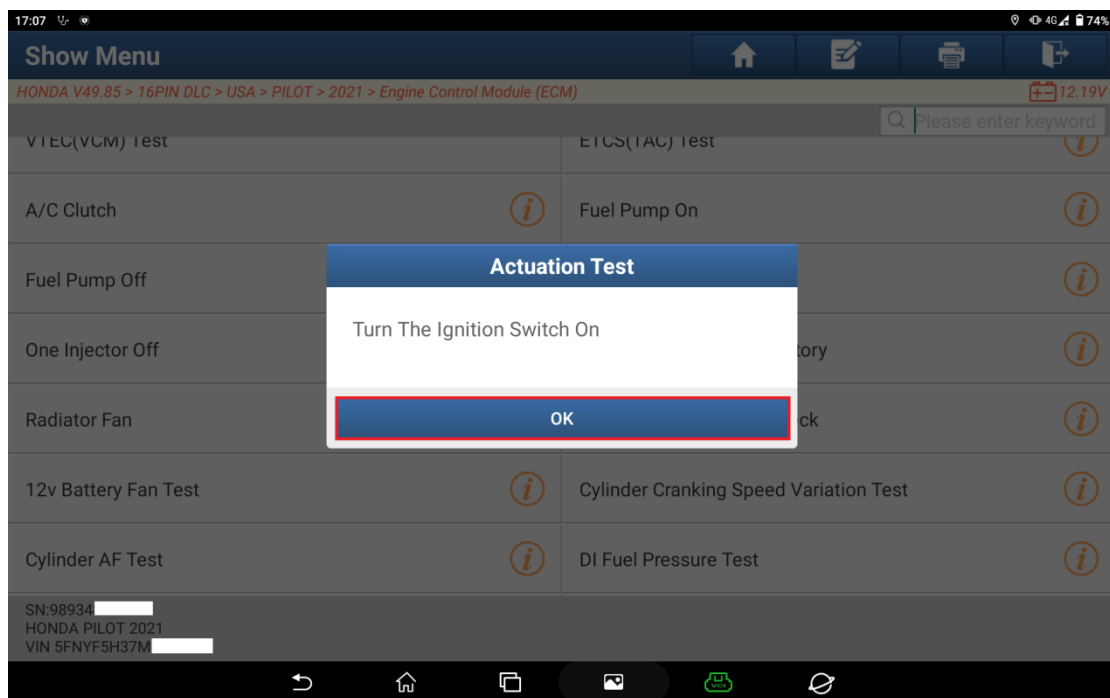
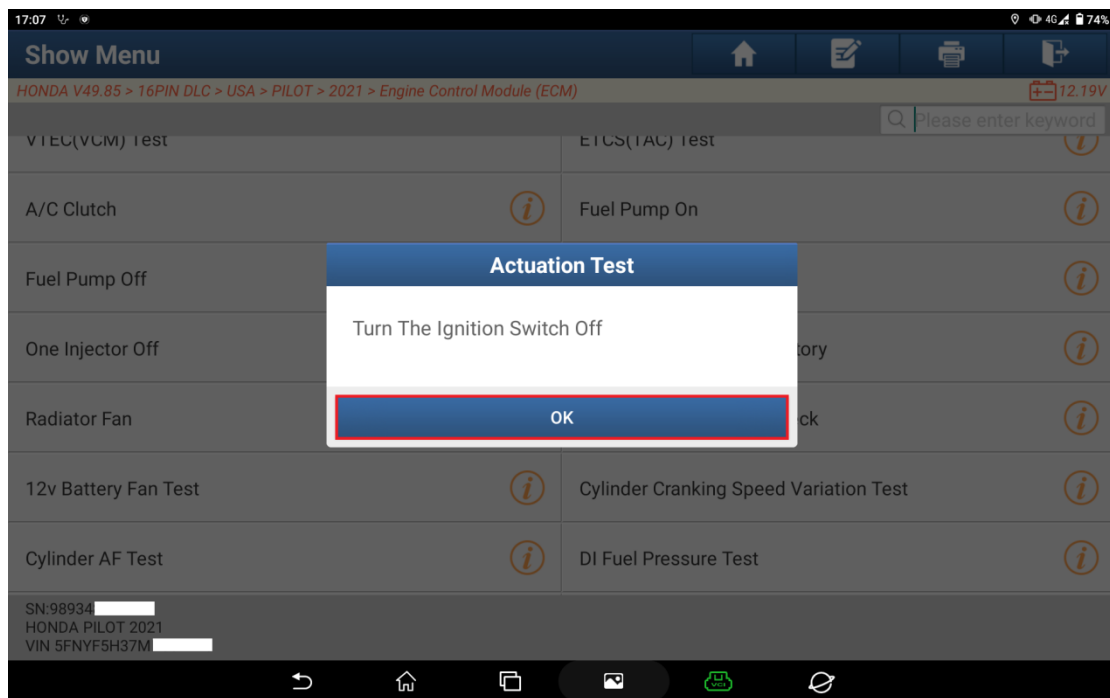
6. View the function description and choose "OK".



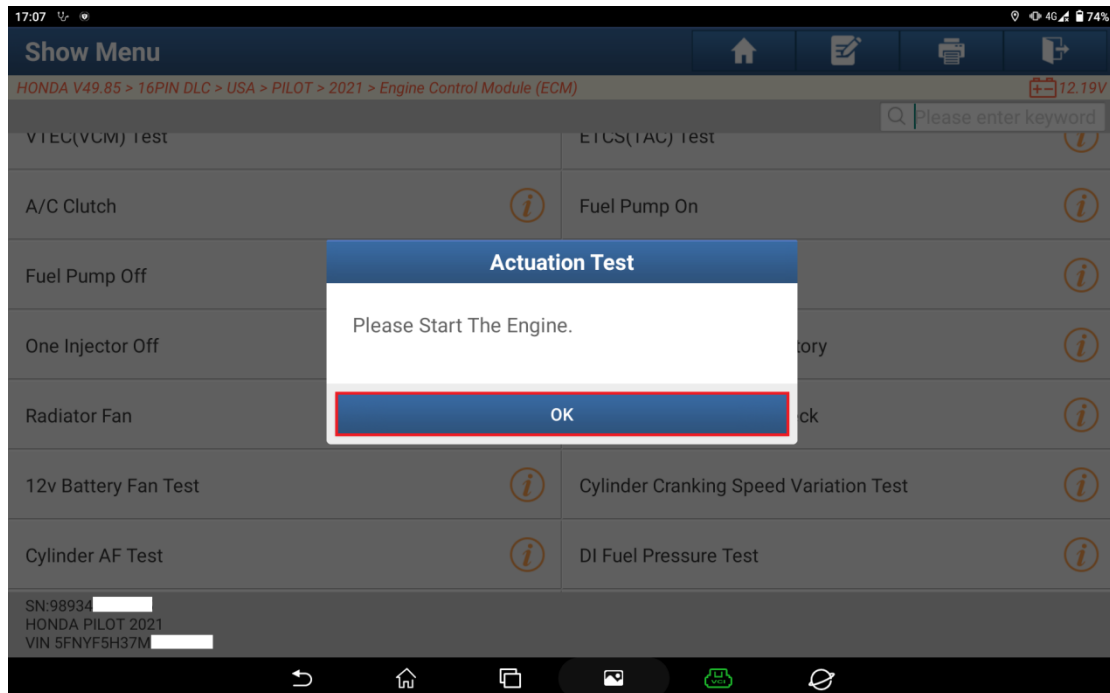
7. Choose whether to simulate based on requirements. For this test, choose "NO".



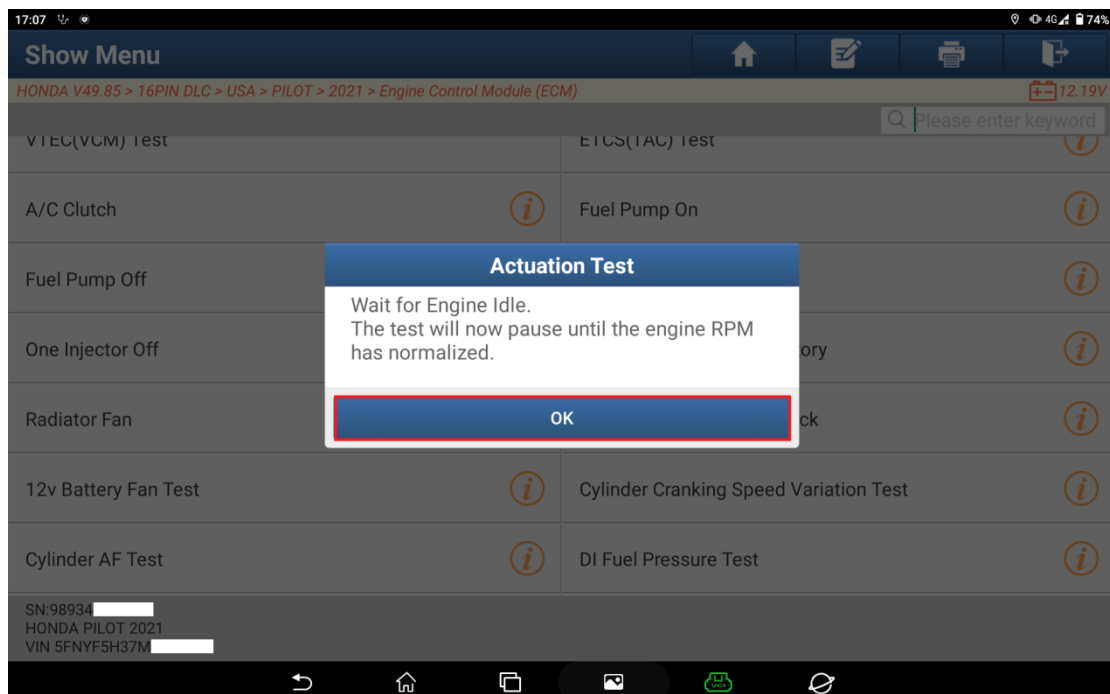
8. Follow the prompts to turn off the ignition switch and then turn it back on.

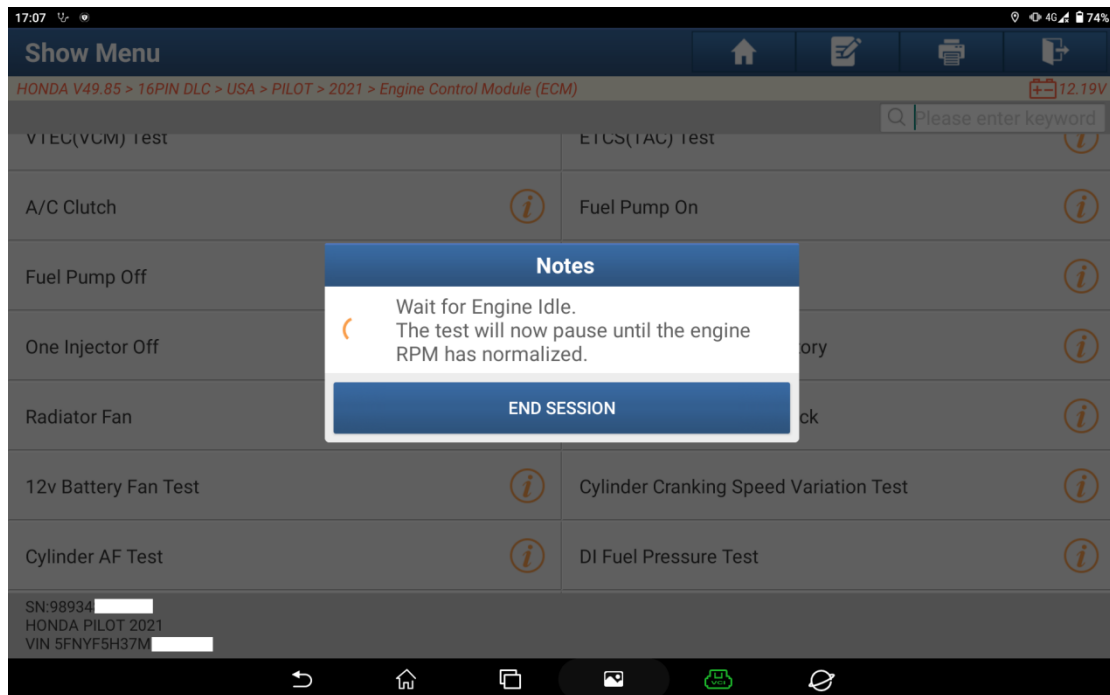


9. Verify that the vehicle is in N or P gear and the engine coolant temperature is above 88°C. If the temperature is insufficient, start the engine and let it warm up. After starting the engine, choose "OK".

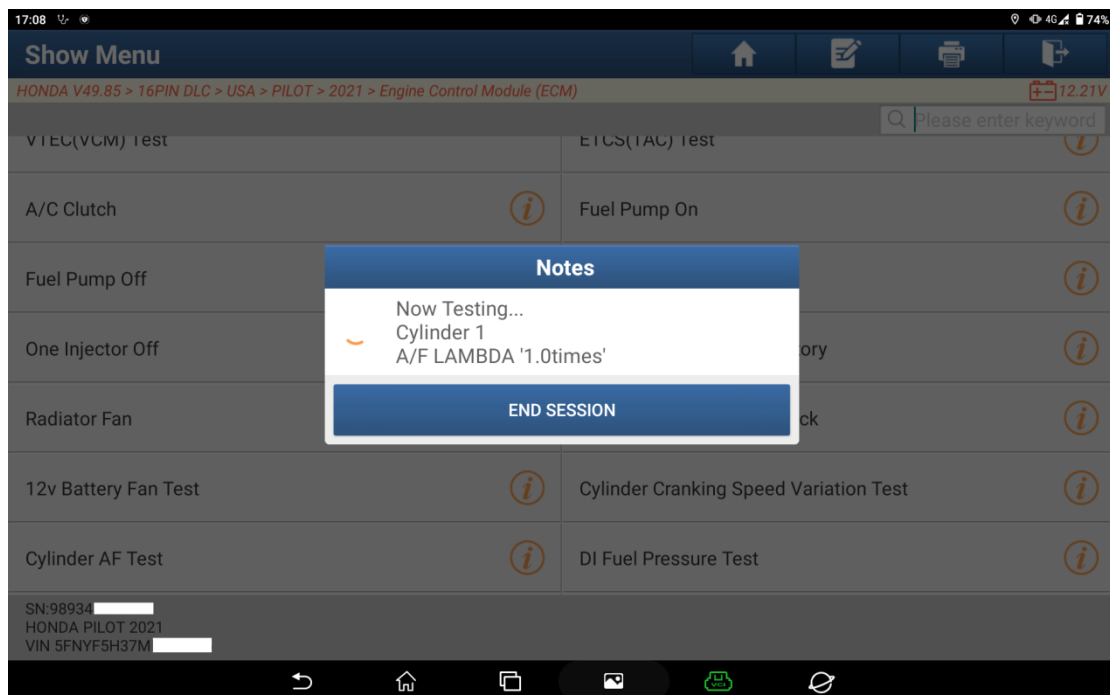


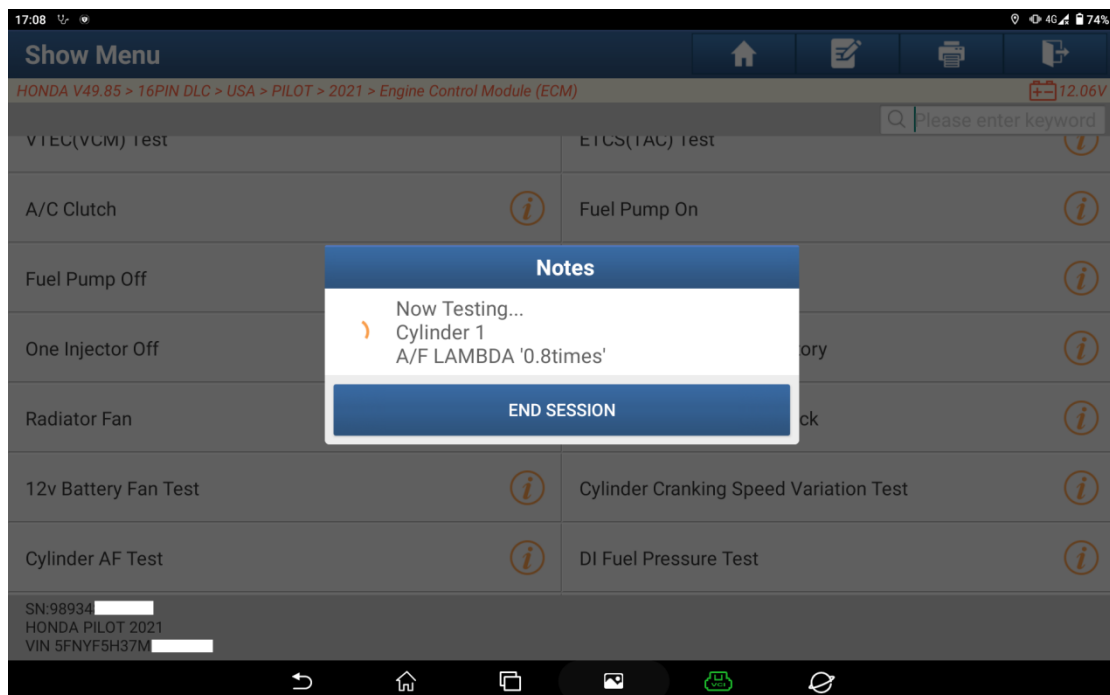
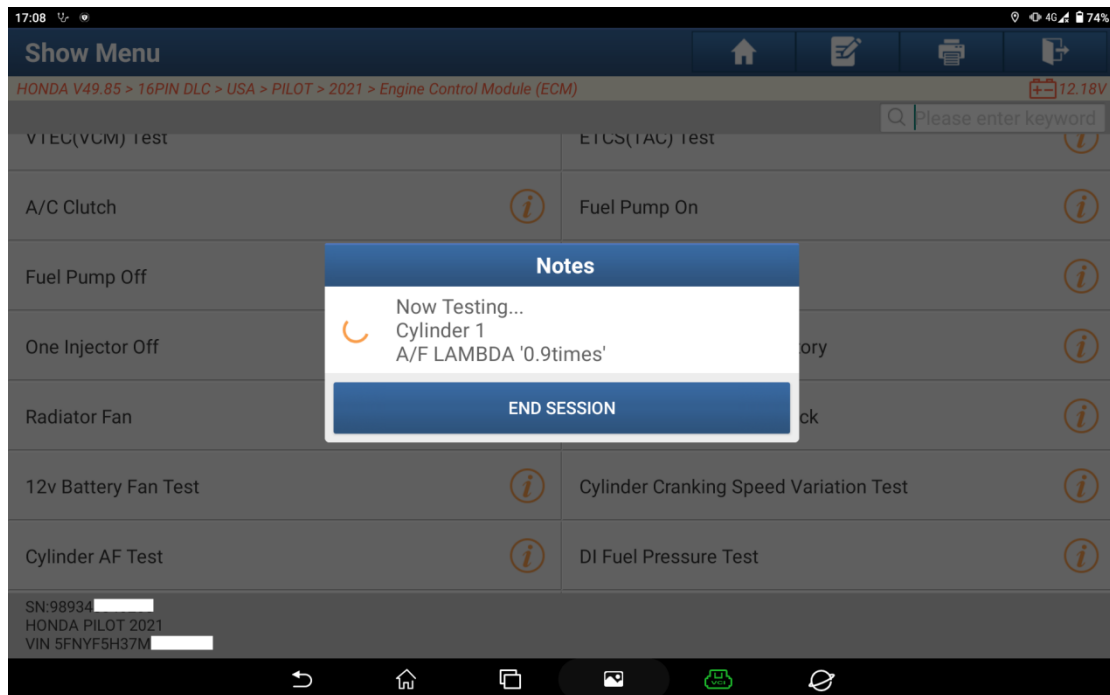
10. Click "OK", and then wait for the engine idle speed to stabilize (about 30 seconds).

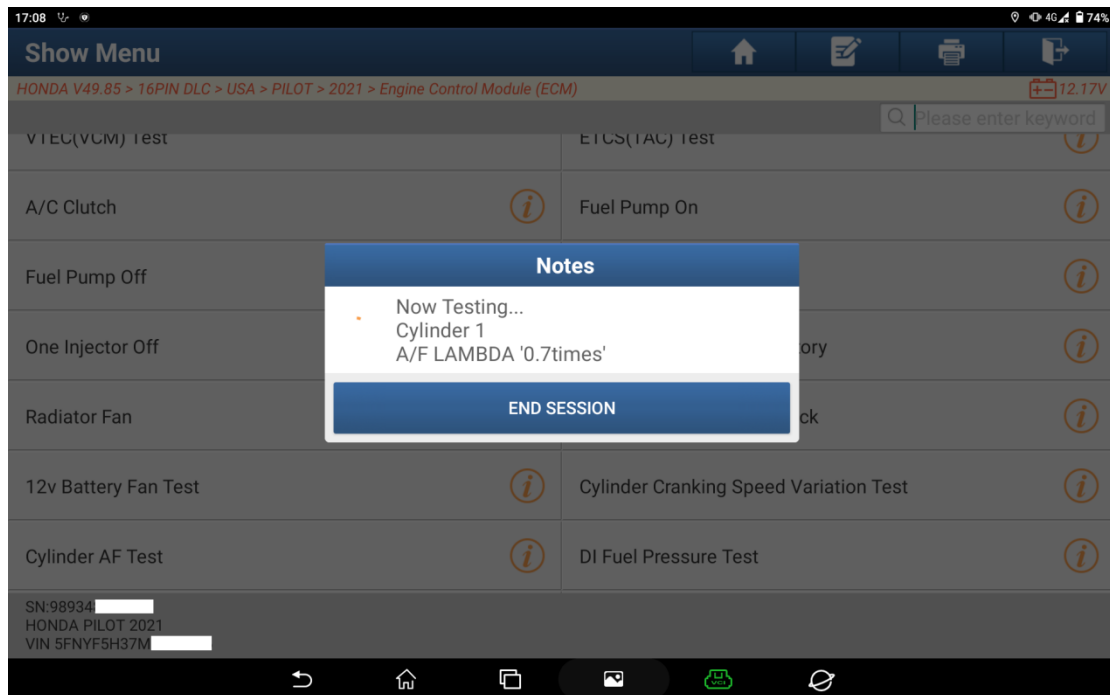




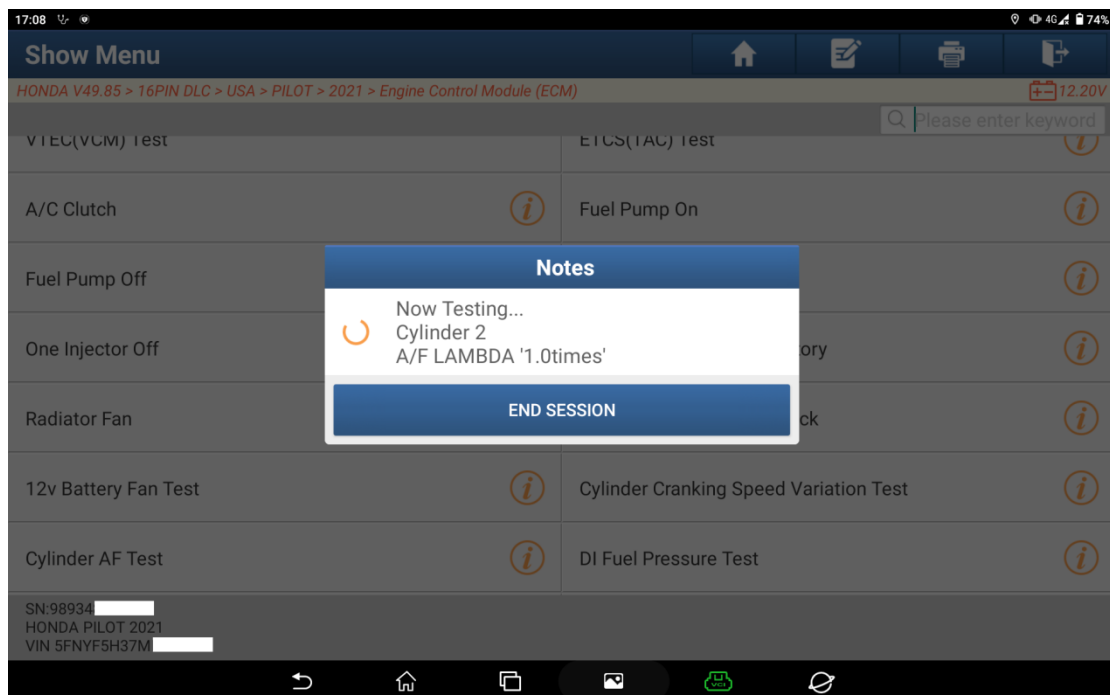
11. Testing misfire counts for cylinder 1 at air-fuel ratios of 1.0, 0.9, 0.8, and 0.7...Please wait.

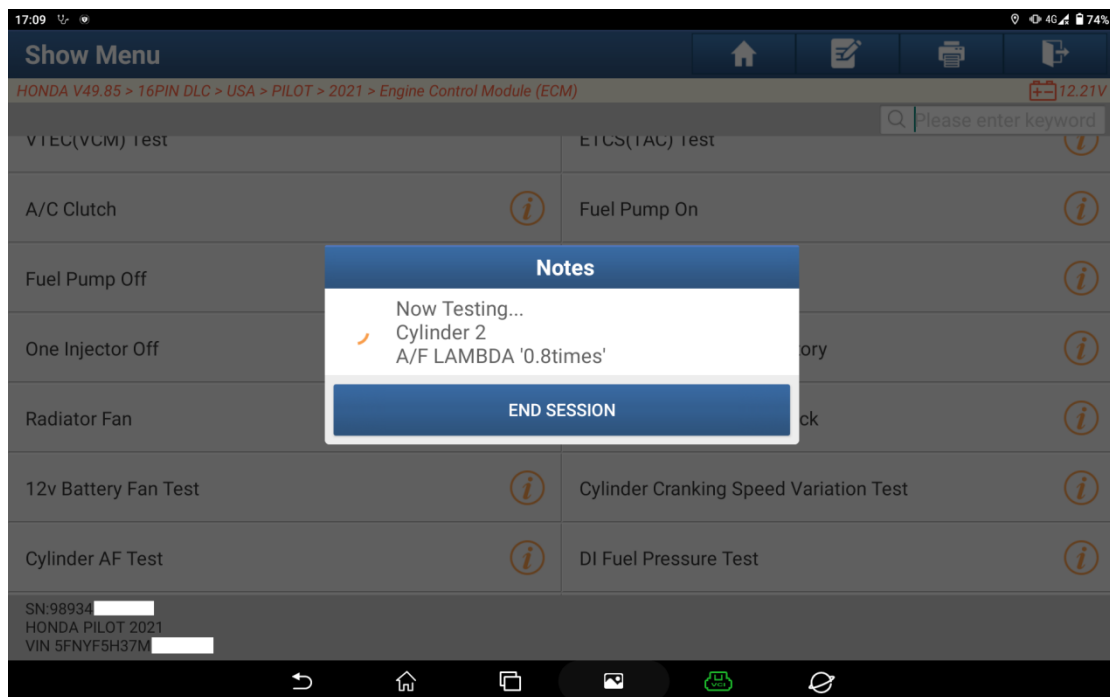
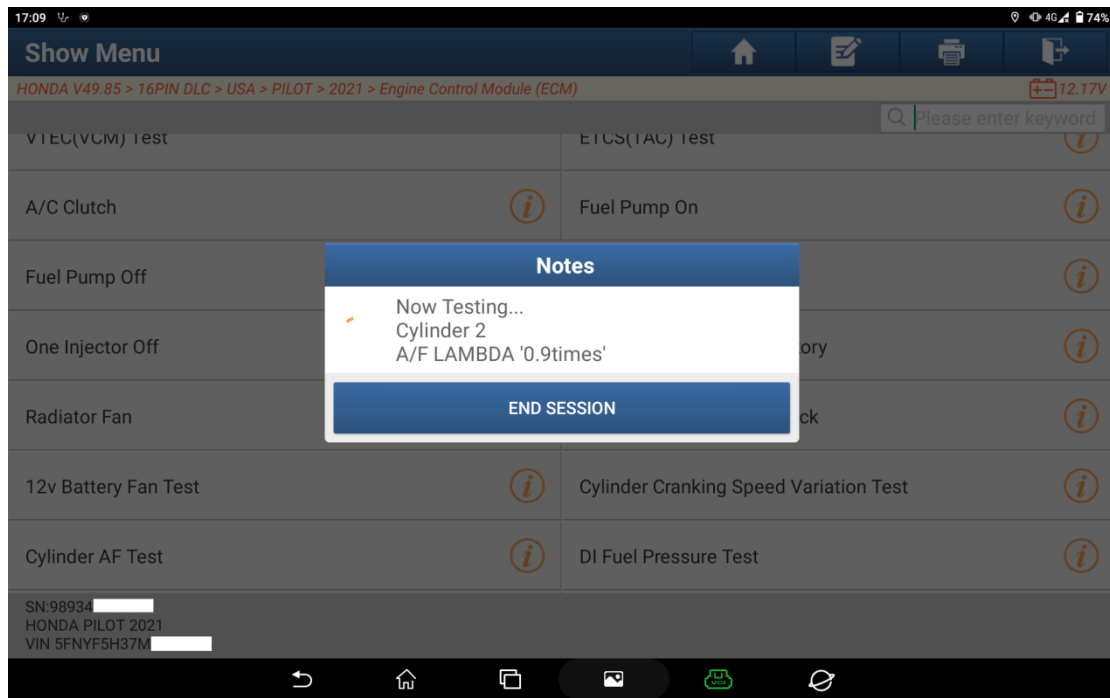


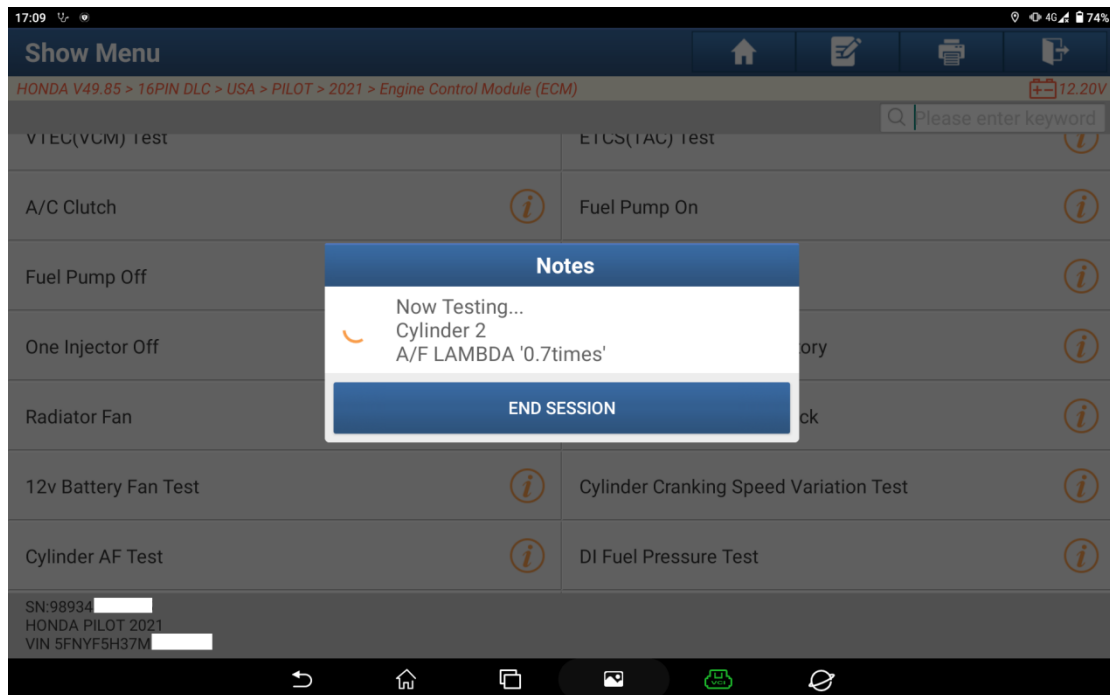




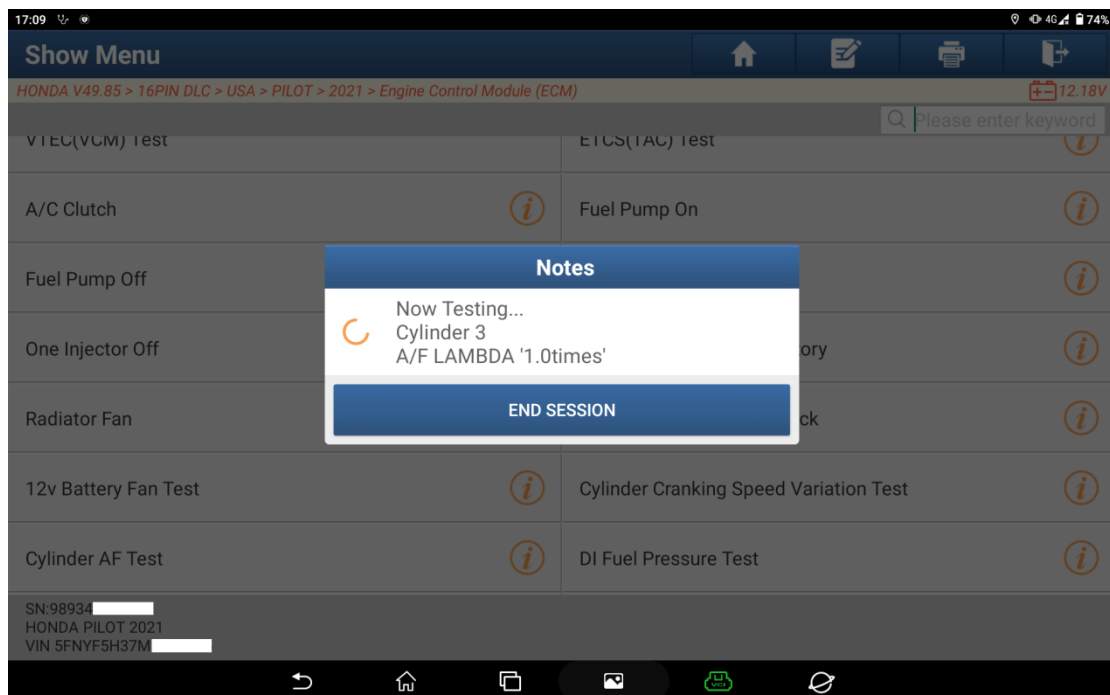
12. Testing misfire counts for cylinder 2 at air-fuel ratios of 1.0, 0.9, 0.8, and 0.7...Please wait.

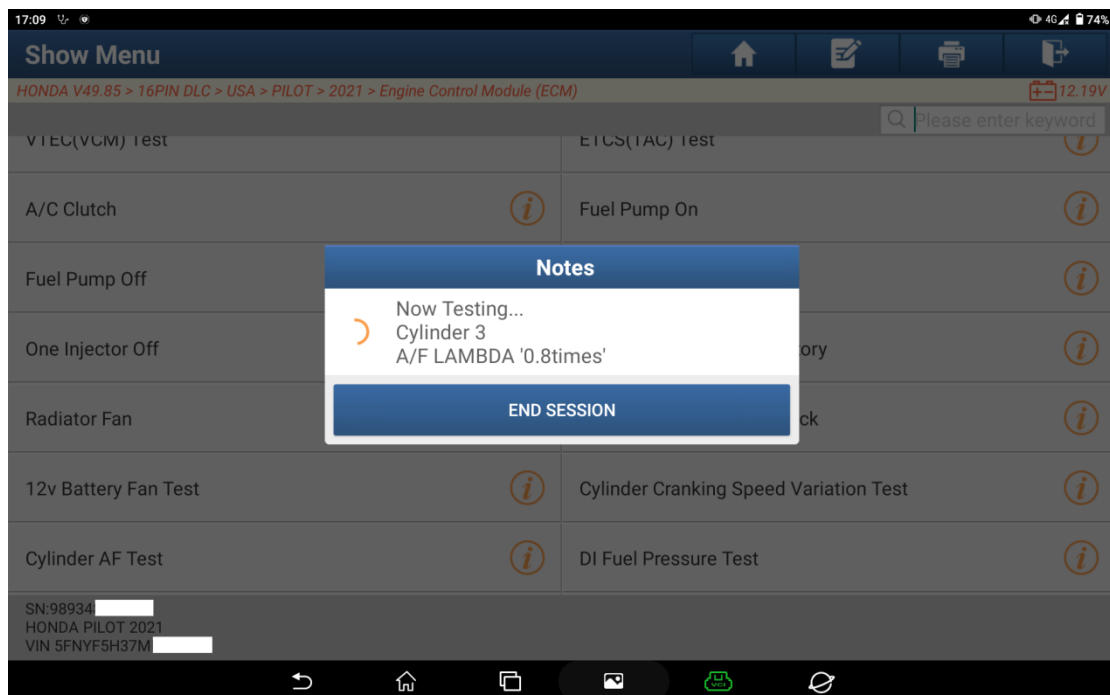
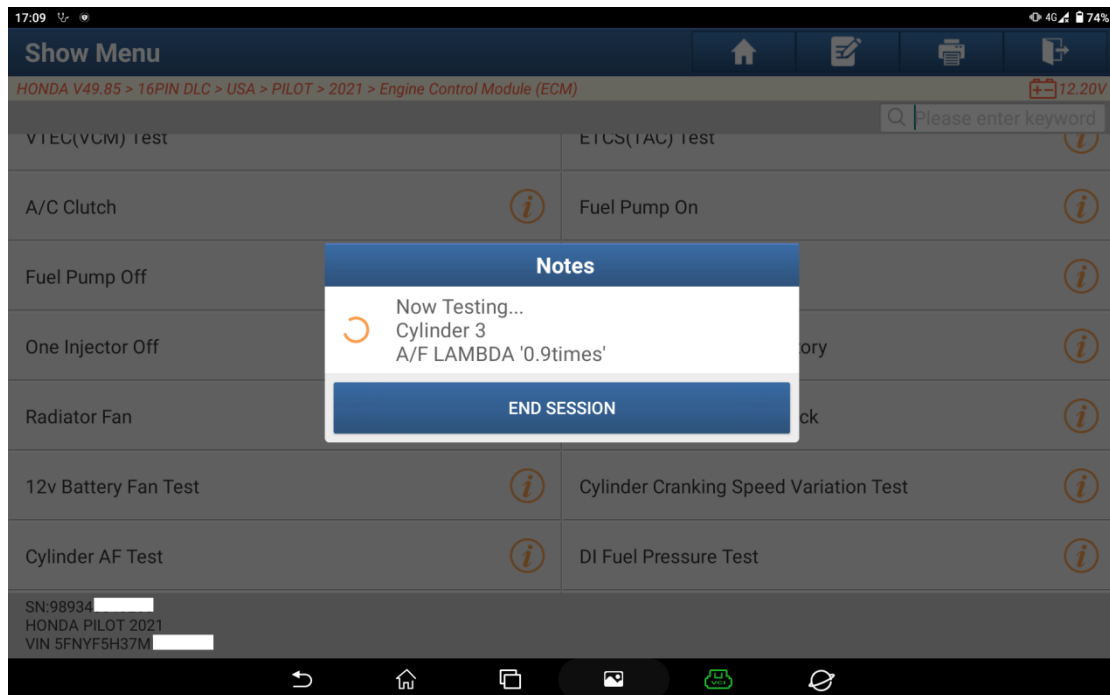


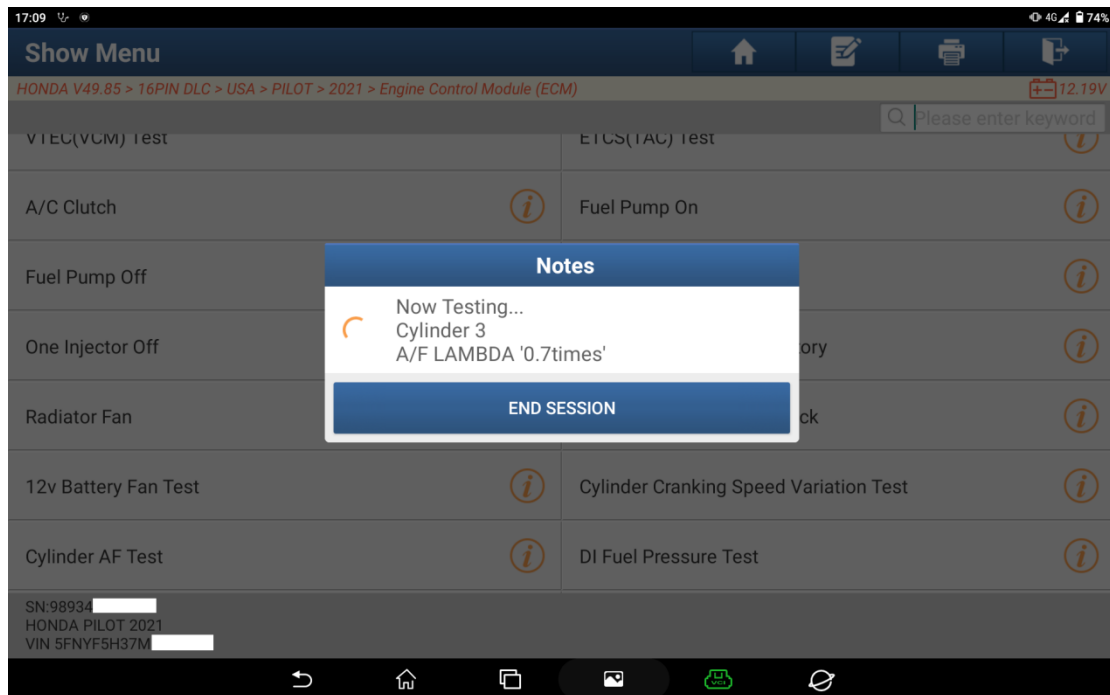




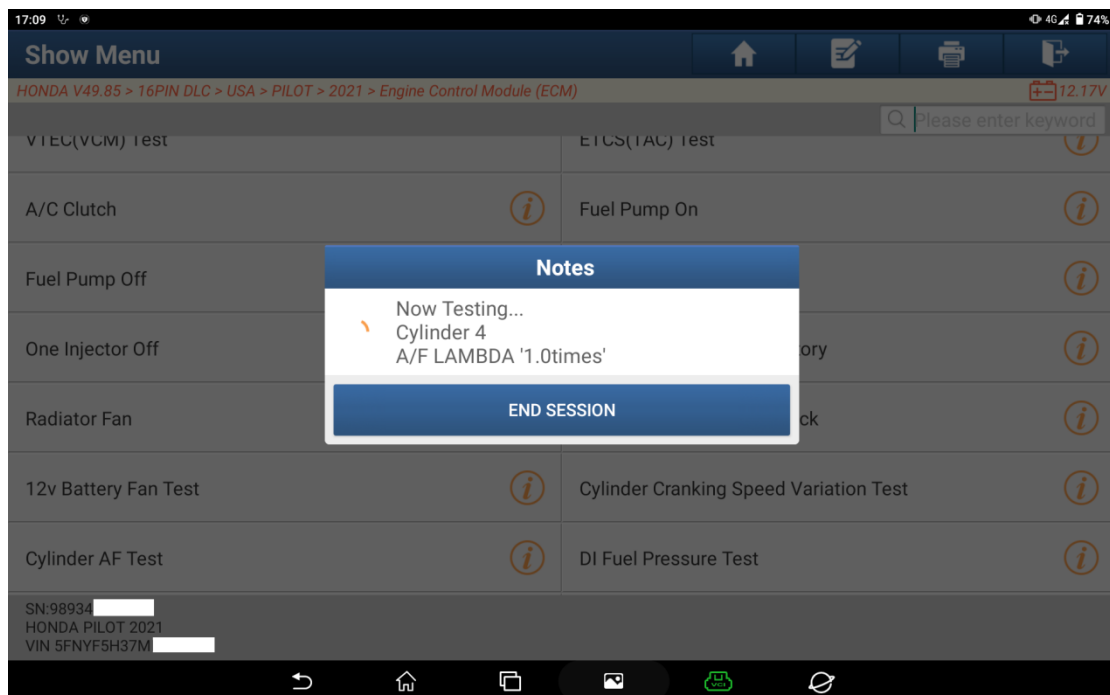
13. Testing misfire counts for cylinder 3 at air-fuel ratios of 1.0, 0.9, 0.8, and 0.7...Please wait.

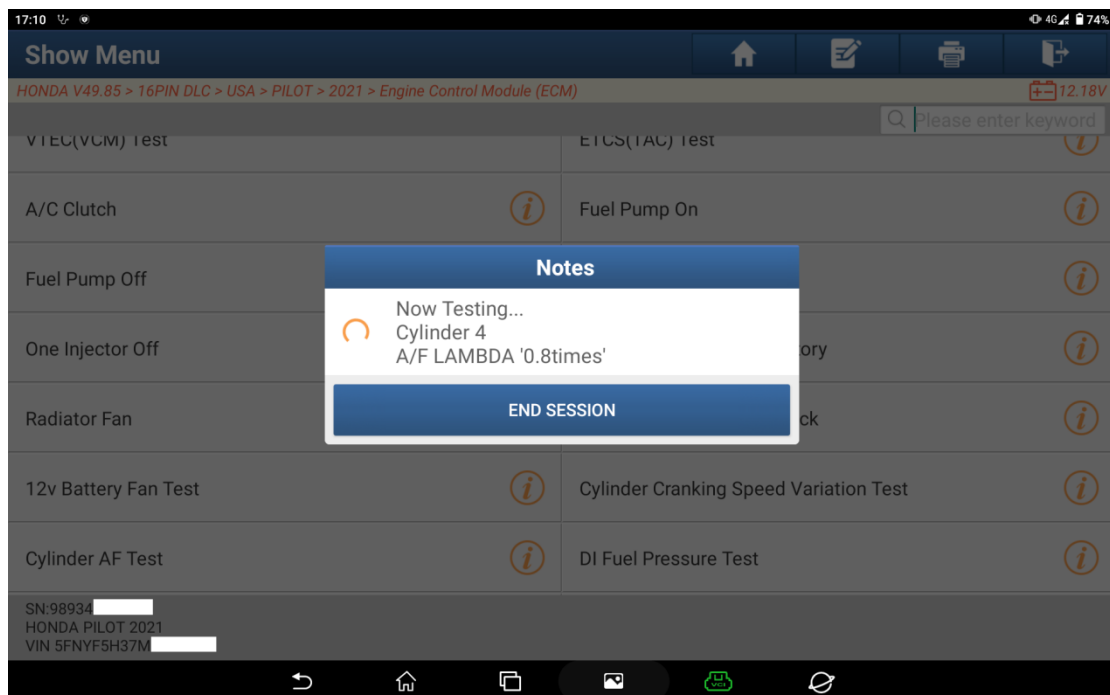
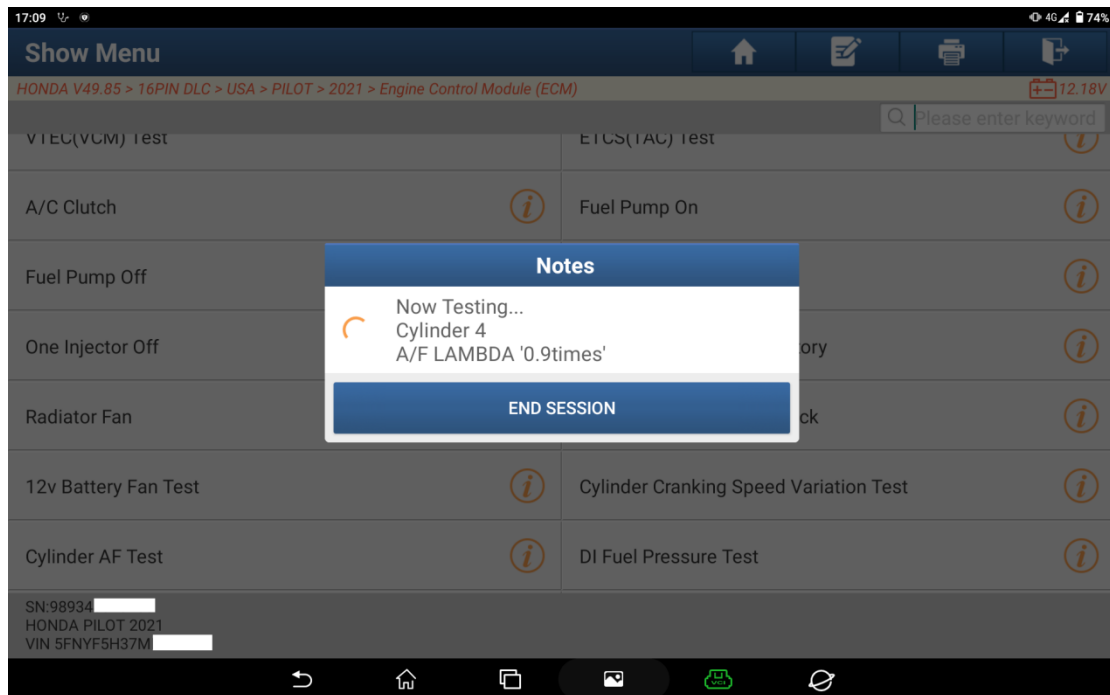


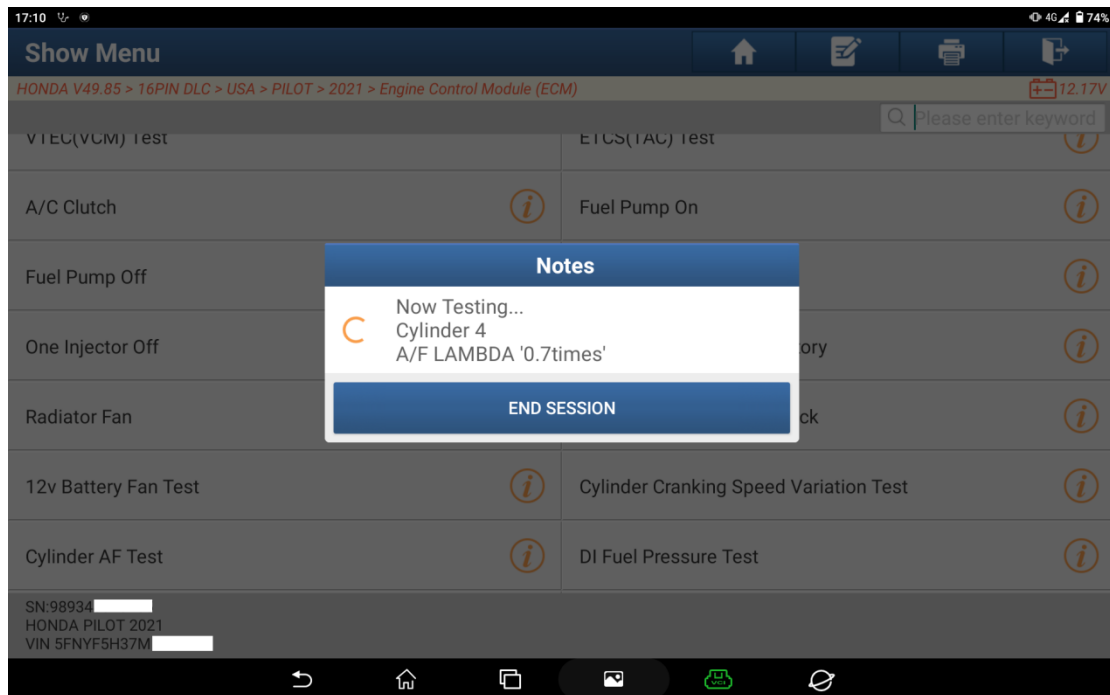




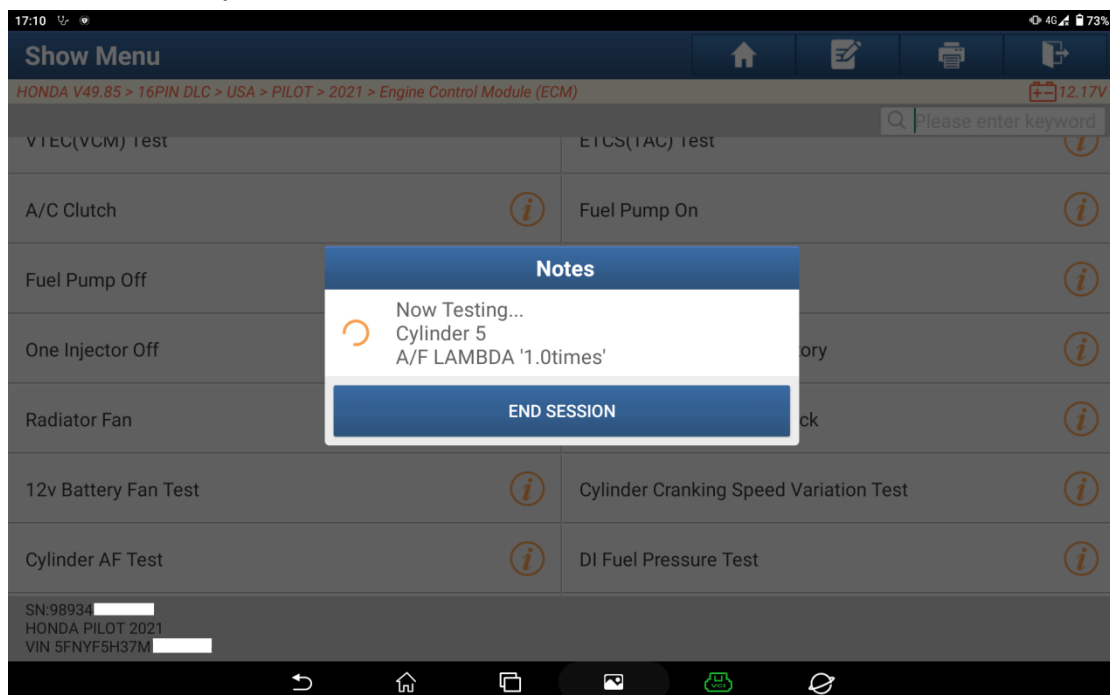
14. Testing misfire counts for cylinder 4 at air-fuel ratios of 1.0, 0.9, 0.8, and 0.7...Please wait.

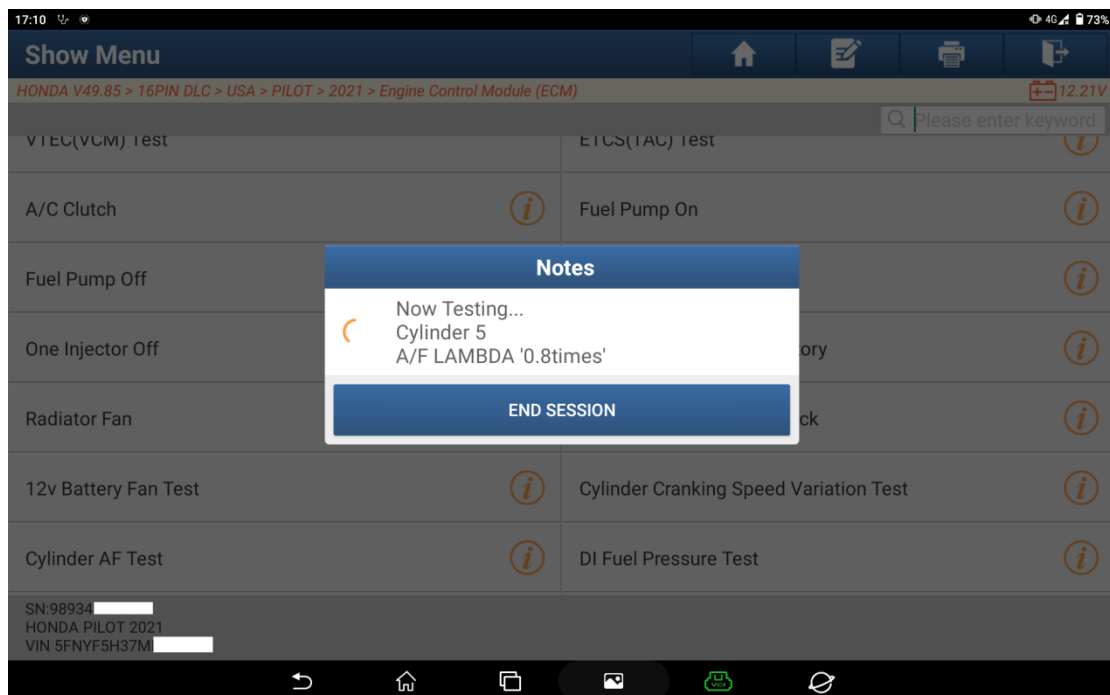
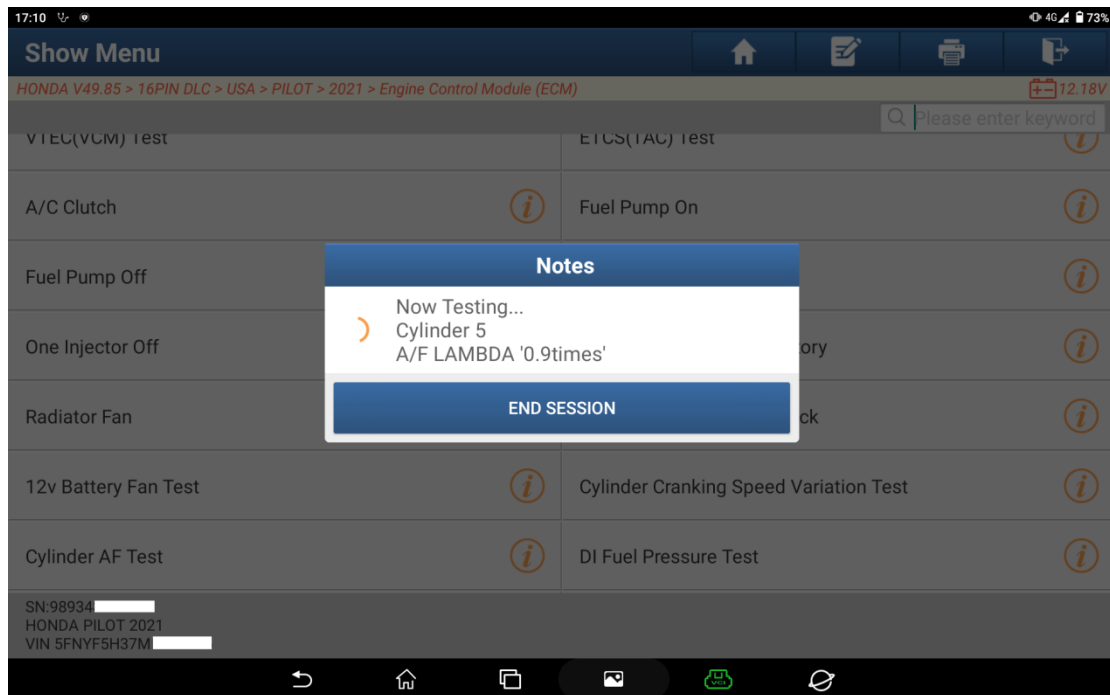


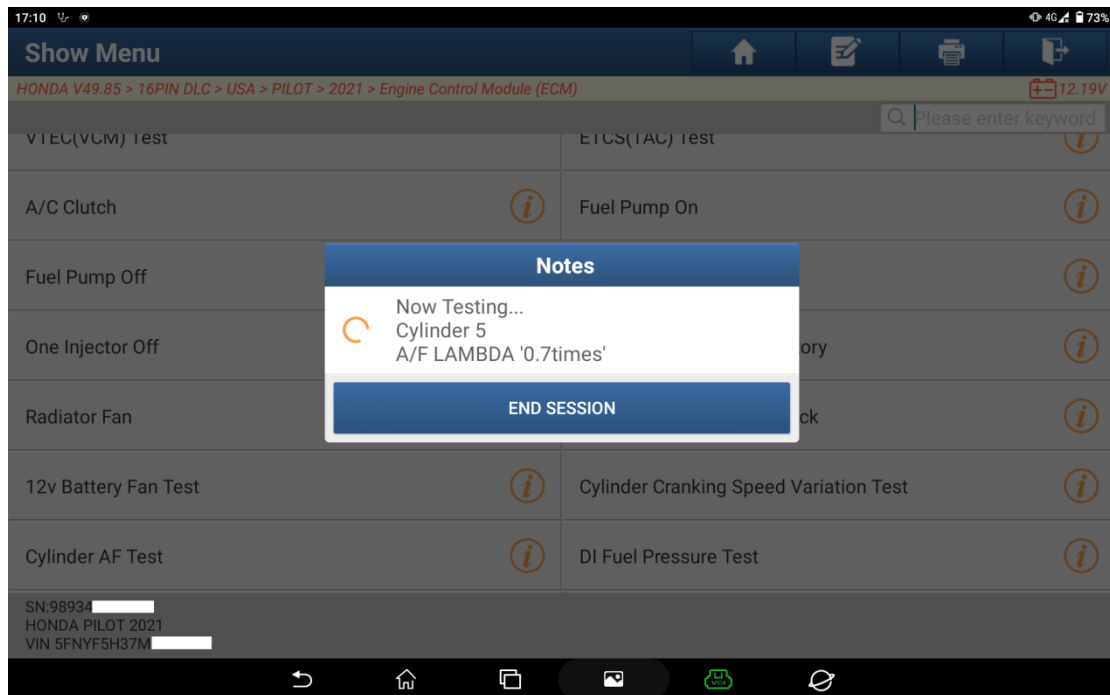




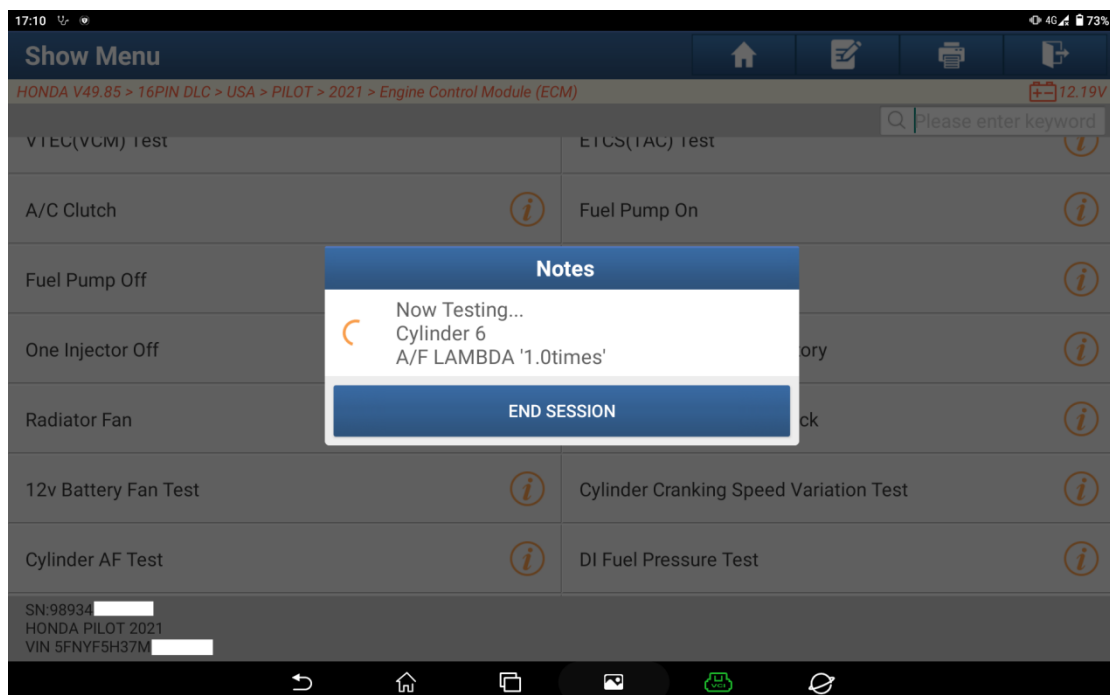
15. Testing misfire counts for cylinder 5 at air-fuel ratios of 1.0, 0.9, 0.8, and 0.7...Please wait. If the vehicle has a 4-cylinder engine, testing for cylinders 5 and 6 is not required.

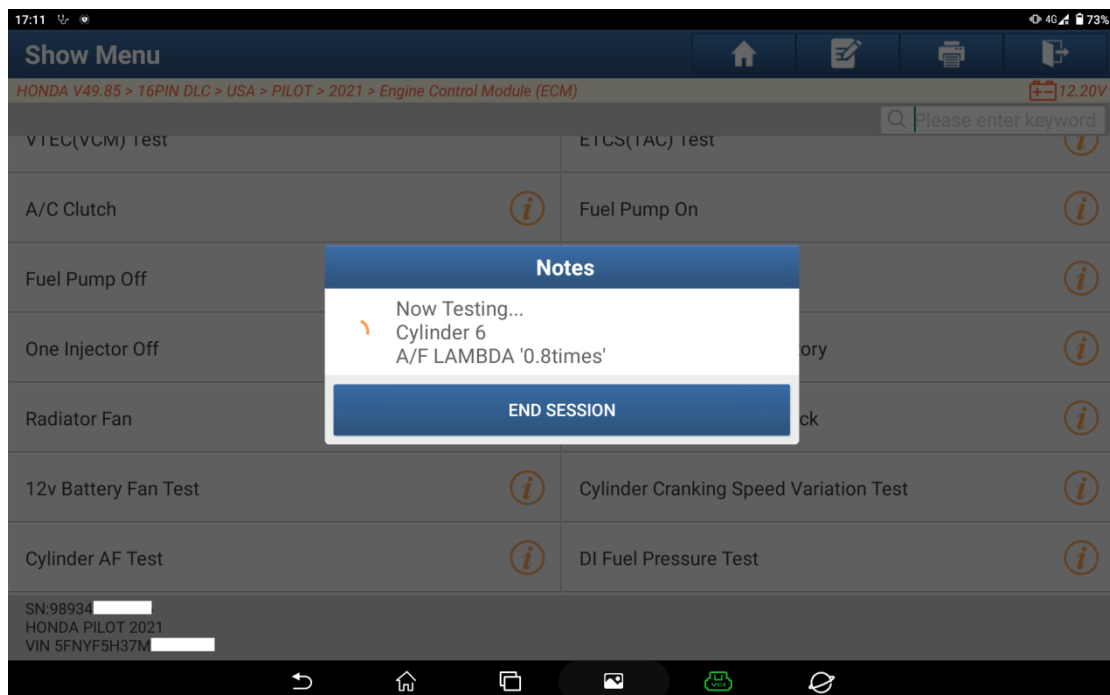
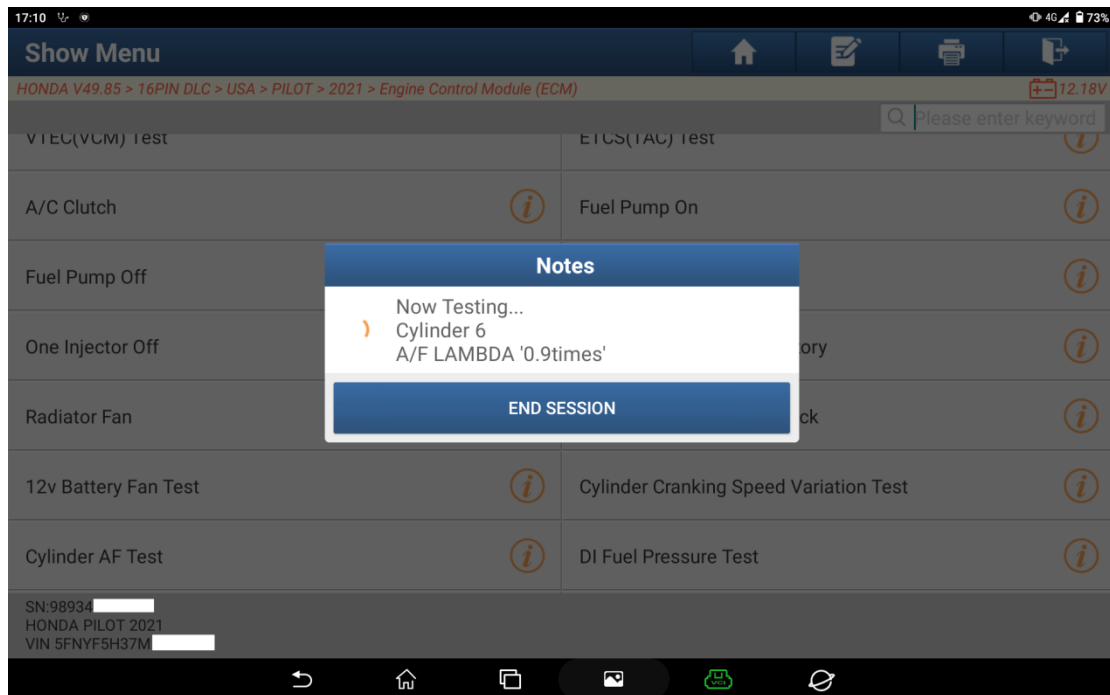


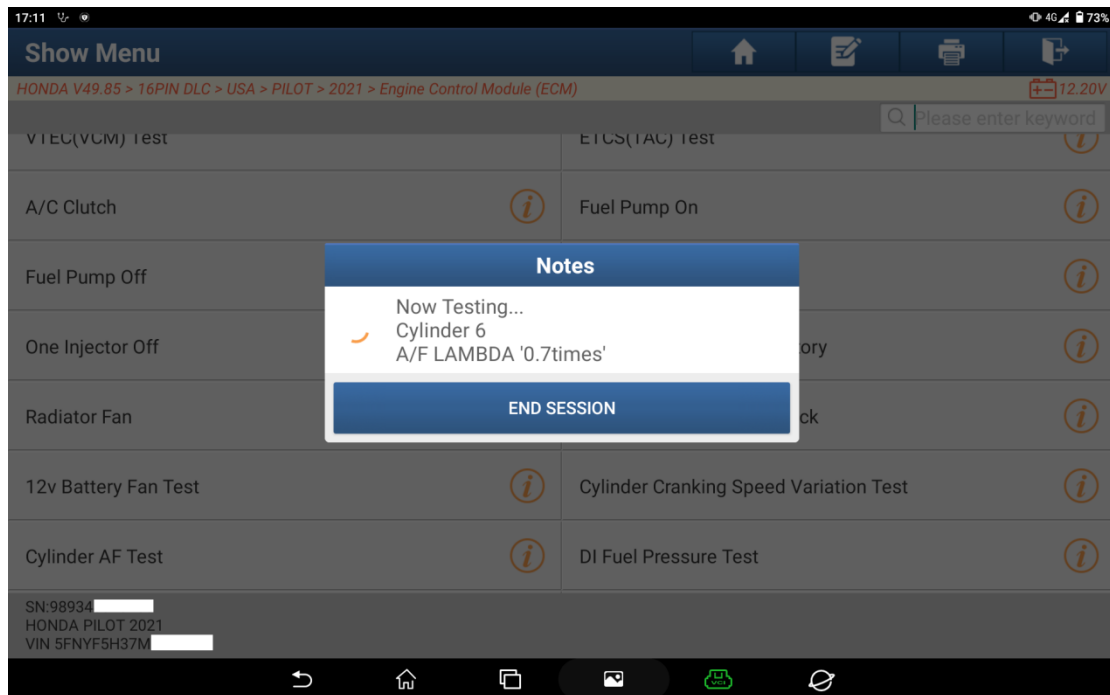




16. Testing misfire counts for cylinder 6 at air-fuel ratios of 1.0, 0.9, 0.8, and 0.7...Please wait.



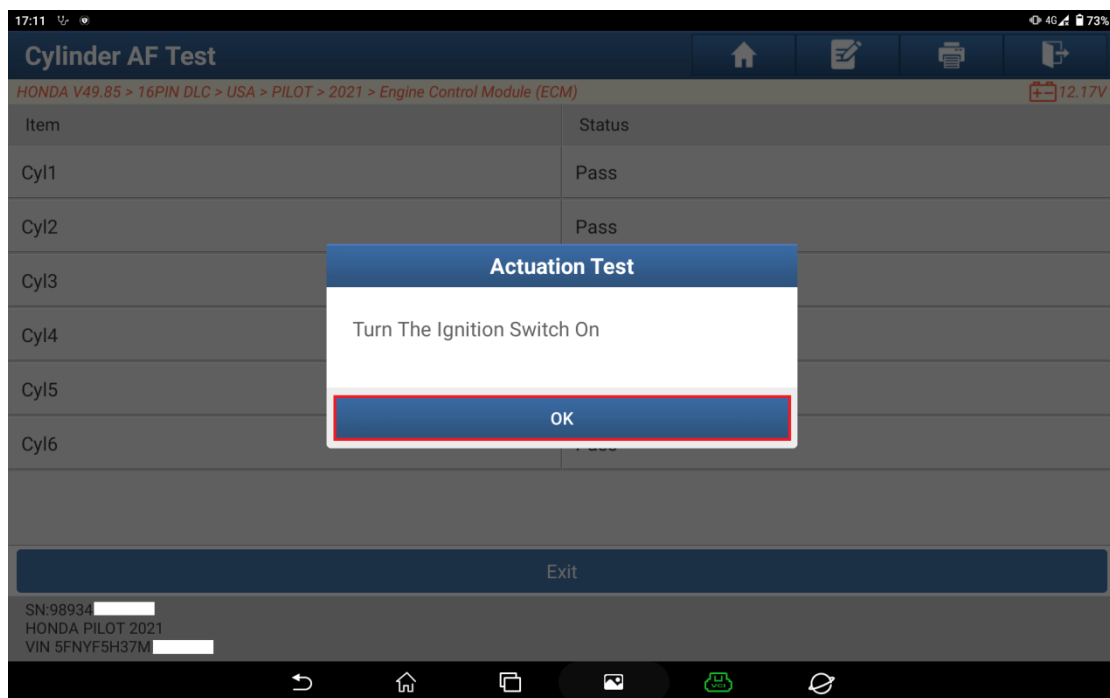
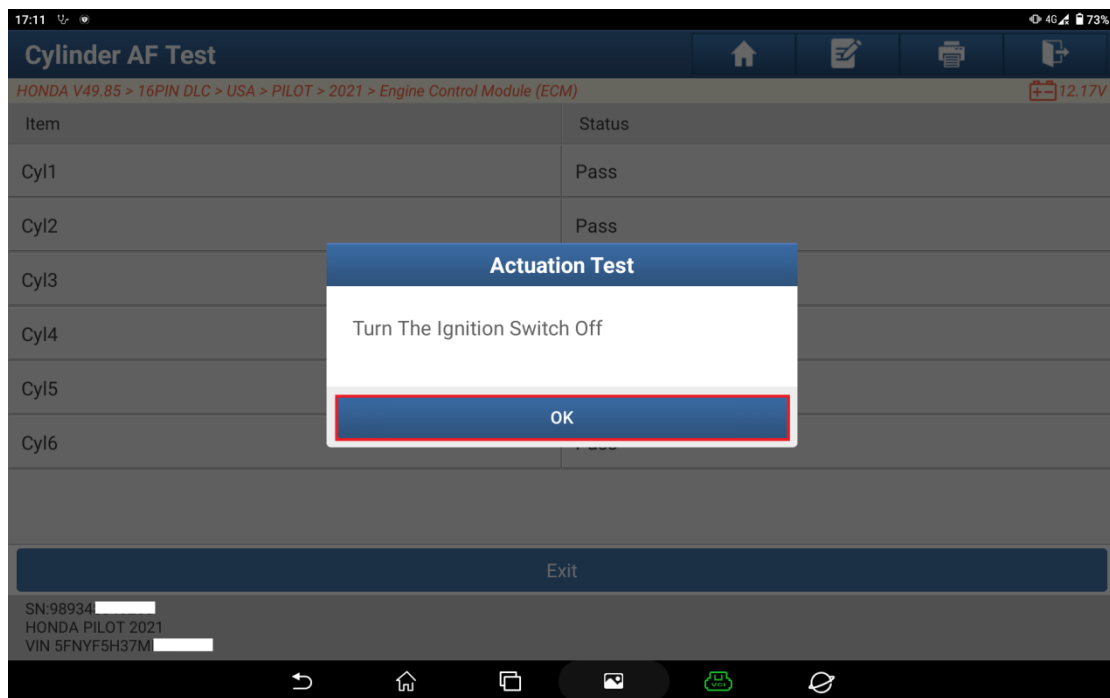




17. Test results are displayed. All cylinders are normal. Choose "Exit" to end the function.



18. Follow the prompts to turn off the ignition switch and then turn it back on.



Statement:

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