

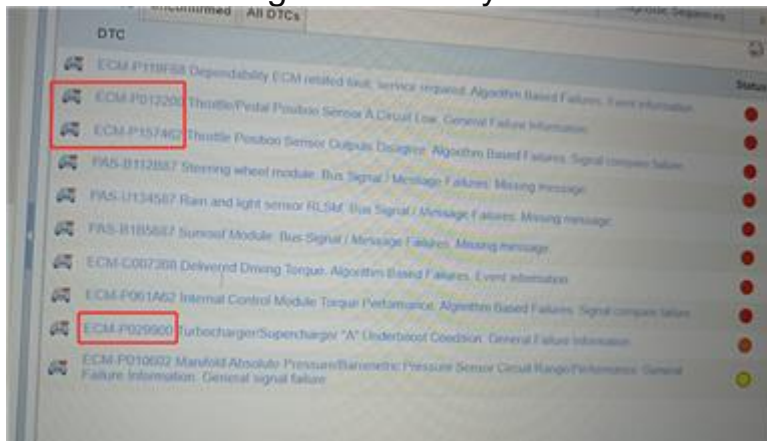
■ Fault symptom

Customer reported that Engine fault indicator light alarm while normal driving. W/S checked and found ECM reported multiple fault codes.



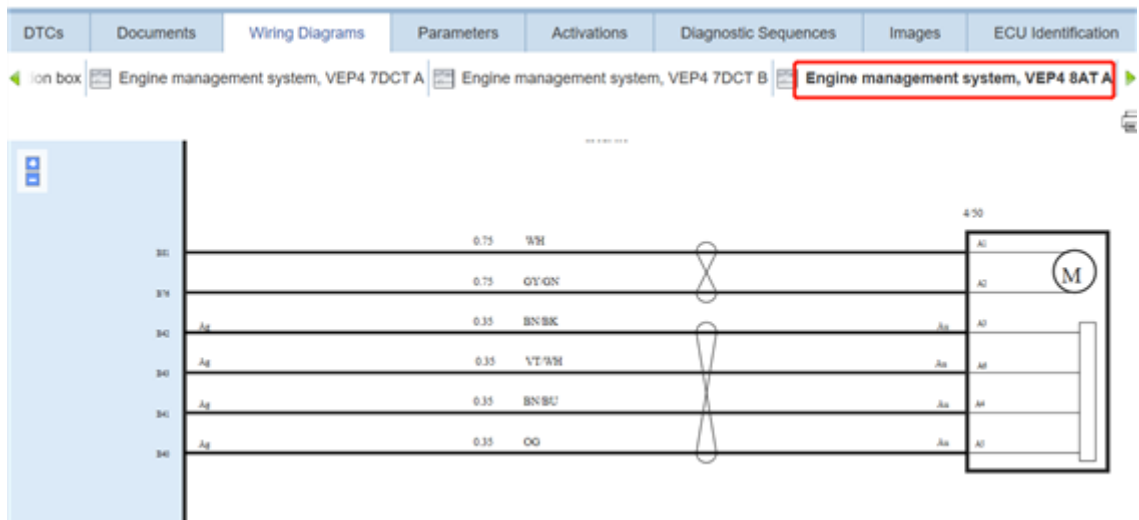
■ Fault diagnosis process

1. Upon inspection, it was found that the mileage of the car was only 982km. The customer did not do any modification in this vehicle.
2. W/S Connected GLDS to check and found that multiple fault codes related to the engine control system as follows:

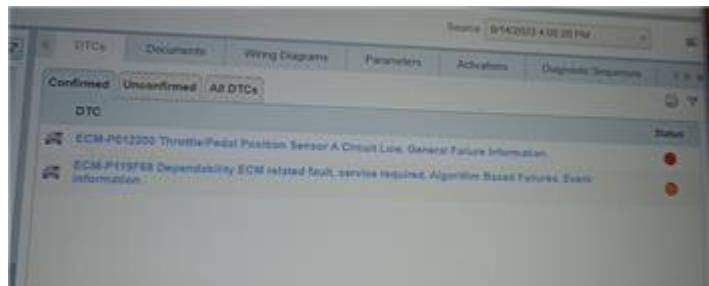


3. It could be thought that there might be abnormal on throttle components or its wiring circuit through above fault codes. Further inspected fuses, throttle connector, and ECM connector, but did not find any abnormalities.

W/S measured the continuity of the circuit from the connector of the throttle valve to the corresponding pin of the ECM one by one, No open circuit was found for each wire.



4. After removing the throttle valve for inspection, no foreign objects were found to be stuck. After replacing the throttle components and testing the vehicle, it was found that the fault codes reappeared, as shown in the following figure:



5. Focusing on checking the engine harness from the throttle connector to ECM, it was found that the wire from ECM connector -pin B43 was grounded to the body when shaking the engine harness. Further inspection along the wiring harness found that the engine wiring harness was crushed by a fixed bracket near it, causing short ground to the body.



■ Fault analysis

The engine wiring harness was crushed and damaged by a fixed bracket near it, causing short ground to the body, which causing abnormal throttle signal and ECM malfunction.

■ **Fault solution**

Replace this engine wiring harness to solve the problem.

■ **Quality inspection & repair confirmation**

Recheck again and confirm problem is solved.