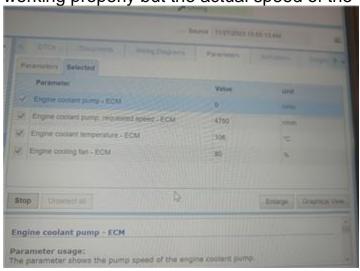
■ Fault symptom

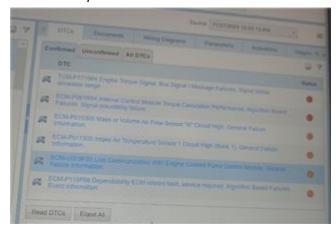
A KX11 vehicle had an engine overheating fault during PDI.

■ Fault diagnosis process

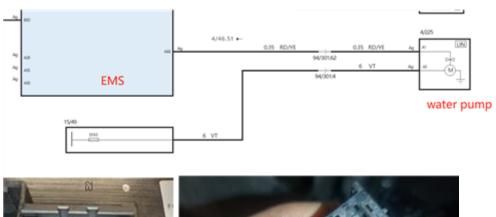
1. Upon inspection, it was found that the engine was not experiencing false overheating, but rather actual overheating. The technician checked the data stream of the EMS such as the actual speed of the water pump, target speed of the water pump, cooling fan speed, and coolant temperature data stream, and discovered that the fan is working properly but the actual speed of the water pump is 0.



2. Read the fault codes and find that the water pump related fault codes U019F00, ECM lost communicate with coolant pump module



3. Check the circuit diagram related to the water pump. Firstly, check the fuse EF60 found OK. Secondly, check the wiring from the fuse to water pump. During checking, it was found that there were traces of water ingress and oxidation inside the connector of the fuse box.





- 4. The W/S technician cleaned and retested the oxidized and corroded plug-in and tested the car but the fault reappeared.
- 5. Suspected that there was a problem with the water pump itself. Replaced the water pump for testing and resolved the issue. To avoid the risk of future faults, the W/S also replaced front engine compartment wiring harness which connectors was corroded and oxidized.

■ Fault analysis

Water pump malfunction and front engine compartment wiring harness connectors corroded and oxidized

■ Fault solution

Replace the water pump and front engine compartment wiring harness.

■ Quality inspection & repair confirmation

Recheck again and confirm problem is solved.