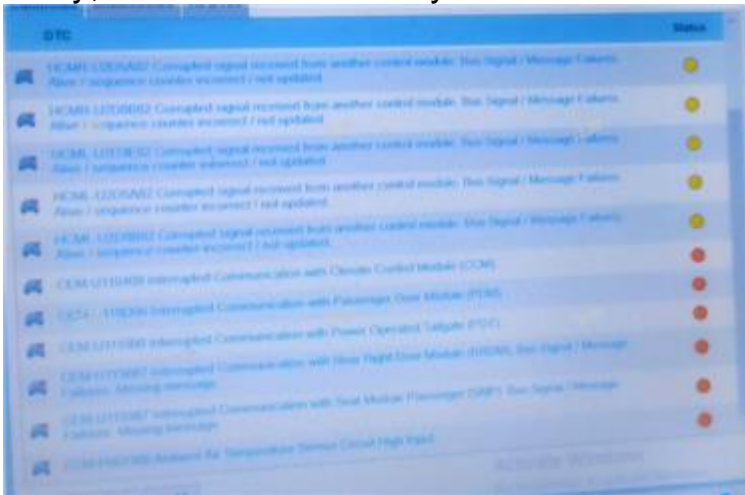


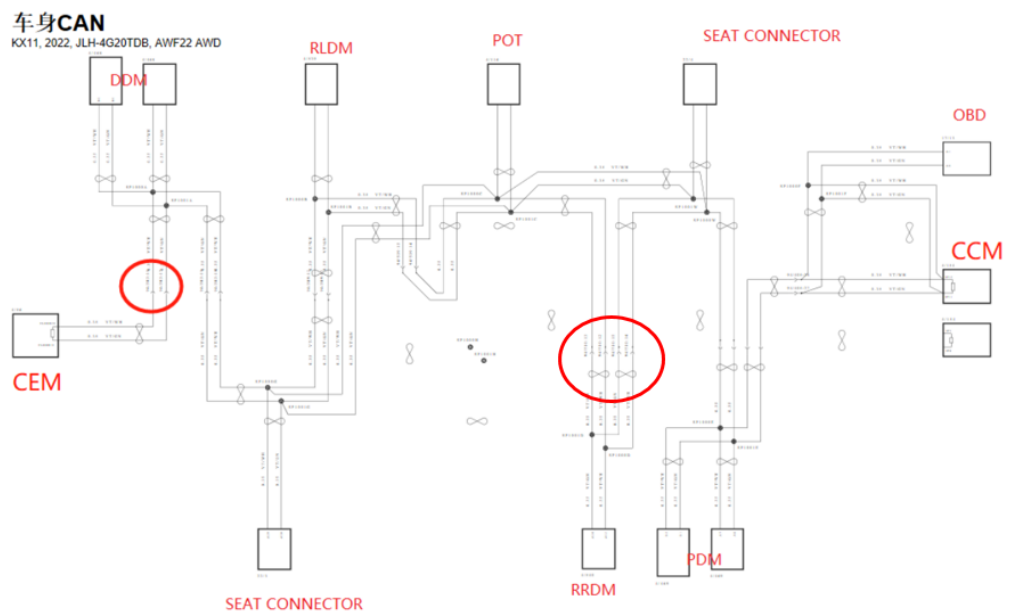
## ■ Fault symptom

One customer reported that the air conditioner does not cool and can only blow warm air. The electric tailgate does not work and cannot be opened by remote. However, when the workshop inspected the vehicle, they found that the air conditioner was working normally, but the electric tailgate was faulty, and there were many fault codes in the system. As attached:



## ■ Fault diagnosis process

1. According to the circuit diagram, the air conditioning control module CCS, POT and CEM are on a same Body-CAN network.



Let the W/S check the CAN system. The W/S measured the resistance between 44/116 POT PIN 18 and PIN19 ( CAN-H and CAN-L ) ,it was 123  $\Omega$ . Measured the CAN-H voltage was 1.36v and the CAN-L voltage was 1.4v. found that CAN system was abnormal.

2. For further inspection, Let W/S disconnect the connector of 94/503 male and female side, and measure the resistance between pins 16 and 17 (to CEM) from the 94/503 male plug, then got 120 ohm resistance. However, the resistance between the sockets corresponding to 16/17 of 94/503 female terminal was 88K  $\Omega$ , indicating that there was an open circuit between 94/503 and CCM. The circuit needed to be further checked.



3. From the circuit diagram, it was planned to measure the resistance of the CAN system from 94/509 pin 14 and 15 to determine which part of harness has an open circuit. When the W/S found the 94/509 plug-in, it found that the plug-in was loose and disconnected. Which caused the CAN system was abnormal.



4. Plug and tighten the plug-in again. Problem solving.

### ■ **Fault analysis**

The open circuit of 94/509 plug leads to abnormal resistance of CAN system, which affects CCS /POT functions.

### ■ **Fault solution**

Plug and tighten the plug-in 94/509 again. Problem solving.

### ■ **Quality inspection & repair confirmation**

After the repair, W/S should carry out quality inspection and confirmation work , the key points are as following :

1. Check and confirm that the components removed during maintenance have been reassembled in place;
2. Make a driving test, check and confirm that the fault will not recur and the vehicle functions are normal.