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1.2.2.2 Safety measures for maintenance of electric vehicle

1. **Insulating protective articles**
   a. Insulating protective clothing
   b. Insulated shoes.
   c. Safety goggles
   d. Insulated gloves.
   e. Protective mask.

⚠ **Warning:**

- **Maintenance personnel must wear insulating protective articles before operation.**

2. **Insulating tools**
   a. Insulating foot pad
   b. Insulating tool kit

⚠ **Warning:**

- **Maintenance personnel must wear insulating protective articles before operation.**

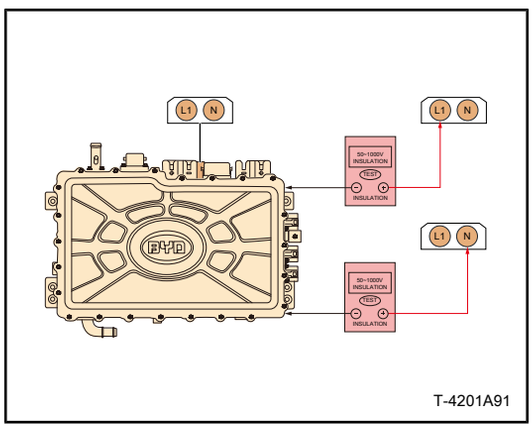
3. **Maintenance site**
   a. High-voltage warning sign
   b. Carbon dioxide fire extinguisher
   c. Warning line
   d. Special ground wire for maintenance station

⚠ **Warning:**

- **Take isolation measures prior to maintenance, adopt warning lines for isolation, and set up high-voltage warning signs to warn irrelevant personnel to stay away from the maintenance area and avoid safety accidents.**
- **Before repairing any high-voltage equipment, connect the ground wire for the vehicle body to the ground wire of the special maintenance station for electric vehicles.**
- **Keep the working environment clean, well-ventilated and away from liquids and inflammables.**

3.1.8.4 Insulation detection for charging and distribution assembly

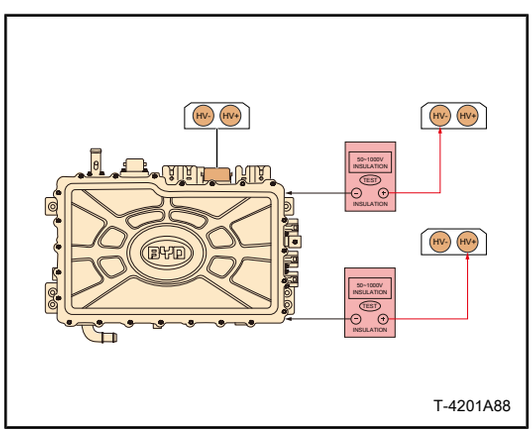
1. **Disable the high voltage power.** Refer to: High voltage power disable and enable
2. **Remove all high voltage wiring harness at the charging and distribution assembly end.** Refer to: Charging and distribution assembly
3. **Check the insulation resistance of charging and distribution assembly.**



a. According to the following conditions, measure the insulation resistance of the integrated AC/DC charging vehicle socket sub-assembly ports L1 and N at the charging and distribution assembly end to the housing respectively with an insulation meter.

Standard value:

Port	Detected voltage	Detection time	Insulation resistance
L1 ~ housing	DC1000V	10s	Above 2MΩ
N ~ housing			



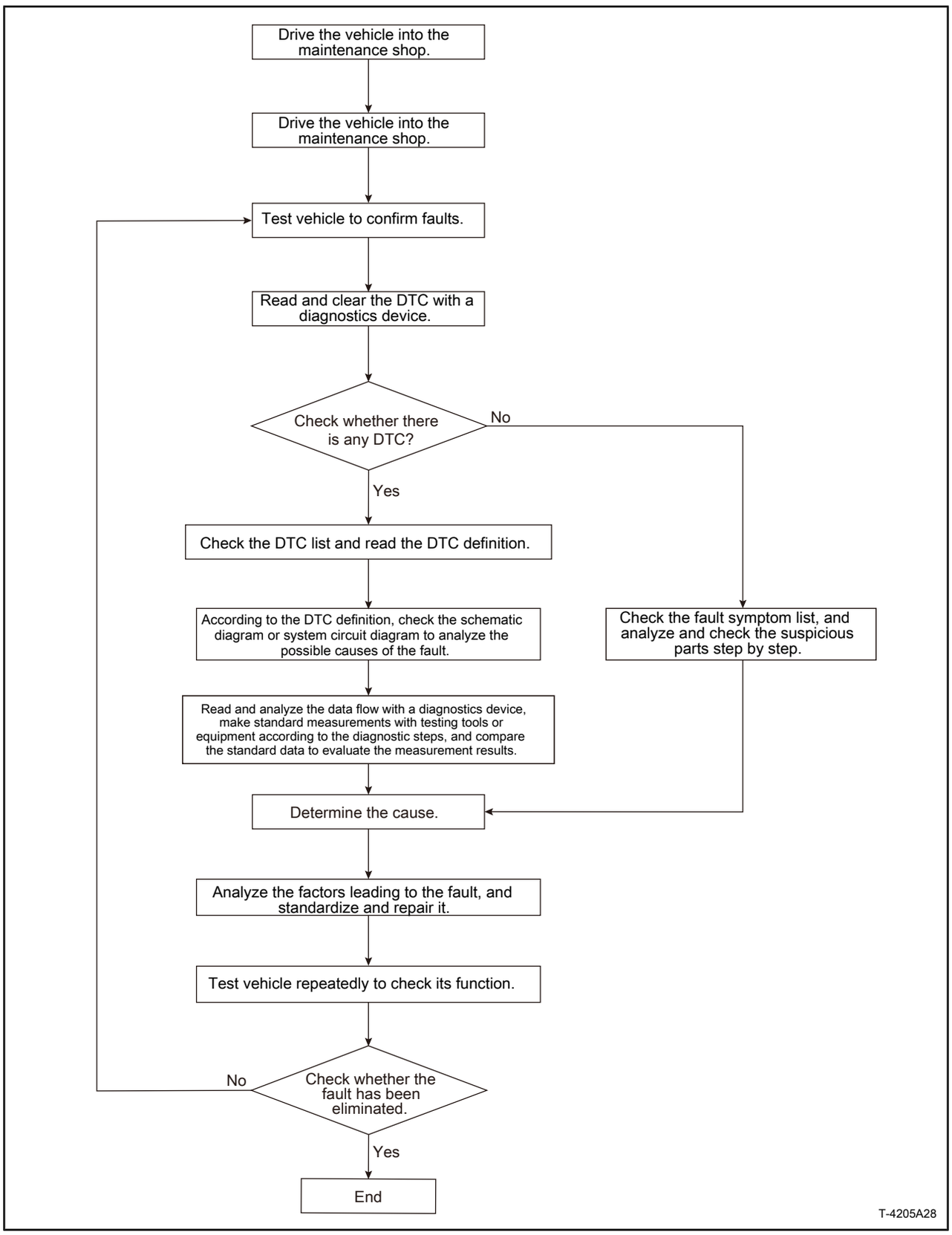
b. According to the following conditions, measure the insulation resistance of the HV distribution wiring harness sub-assembly ports HV+ and HV- at the charging and distribution assembly end to the housing respectively with an insulation meter.

Standard value:

Port	Detected voltage	Detection time	Insulation resistance
HV+ ~ housing	DC1000V	10s	Above 2MΩ
HV- ~ housing			

3.5.7 DTC diagnosis and operation

3.5.7.1 Basic process of troubleshooting

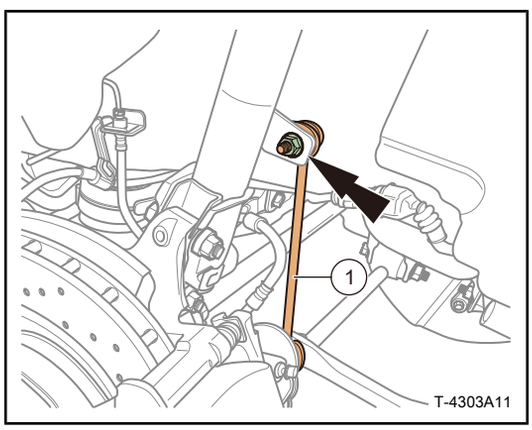


e. Remove one fixing bolt C and nut, and move away the front control arm assembly.

Tip:

- Use a wrench to fix the bolt to prevent it from rotating with the nut.

Torque: 180 N•m



f. Remove one fixing nut and move away the rear stabiliser bar tie rod ①.

Tip:

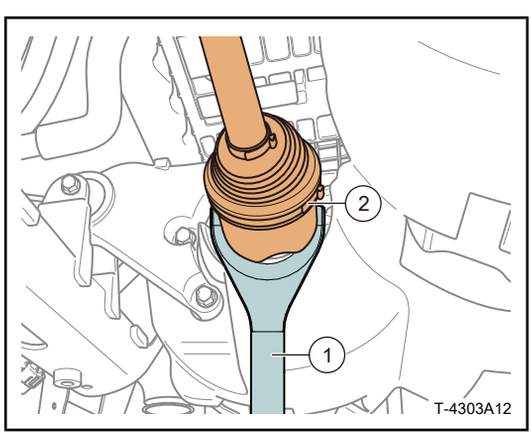
- Fix the ball joint with an Allen wrench to prevent it from rotating with the nut.

Torque: 90 N•m

g. Move the rear steering knuckle outward, and take out the outer CV joint spline of the rear drive half shaft assembly from the rear steering knuckle.

Caution:

- If necessary, tap the threaded end face of the outer CV joint using a rubber hammer to knock out the outer CV joint.
- Avoid using a metal hammer; otherwise, deformation of threads and the spline will be caused due to impact.



h. Use a special tool ① to pry out the rear drive half shaft assembly ②.

Caution:

- Do not directly pull the half shaft with force. Be careful when using a special tool to avoid damaging the oil seal.
- Never make the drive half shaft be in a natural drooping state during maintenance.
- Check the wear of the half shaft spline, and replace the drive half shaft assembly if the half shaft spline is seriously worn.
- Check the spring retainer ring and replace it if damaged.
- Plug the differential oil seal to prevent dust or foreign matters from entering the transmission.

Special tool: removal tool for rear motor half shaft

4.7.7.10 DTC diagnosis: U100004, U007300

DTC description

DTC	Fault description	Fault setting condition	Possible cause
U100004 U007300	Fault of CAN bus	The vehicle CAN bus communication, configuration information or circuit is faulty.	1. ESC net CAN communication line failure 2. Other system faults in ESC net CAN communication

Diagnostic steps

Step 1	Read DTC

a. Read and clear the DTC. Refer to: DTC reading and clearing
b. Perform the test drive for functional inspection.
c. Check if the fault code exists.

No — Diagnose it as an occasional fault, and check whether the corresponding connector is loose or damaged, and whether the wiring harness terminal is corroded.

Yes

Step 2	Perform module scanning

a. Use VDS to perform module scanning of the vehicle, and then select the ESC net.
b. Check the failure module related to the ESC net.
c. Check whether there is any DTC?

Yes — View the DTC list of the related system for troubleshooting.

No

Step 3	Check the ESC CAN bus voltage

a. Start the vehicle.
b. Measure the waveform of the ESC CAN bus with an oscilloscope.

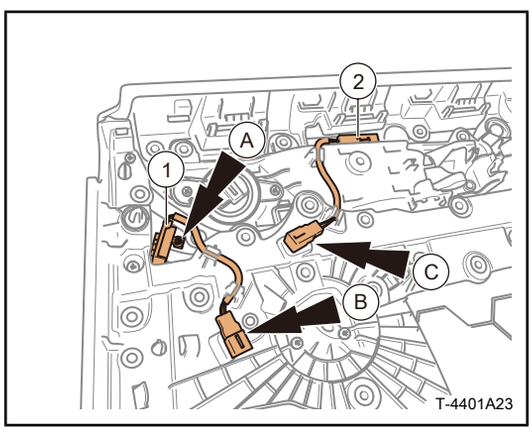
5.1.9.20 Rear door ambient light assembly

Tip:

- This manual takes the removal and installation of the rear left door ambient light assembly as an example. For the removal and installation of the rear right door ambient light assembly, please refer to the left side.

Removal procedures

1. **Remove the rear left door shield assembly.** Refer to: Rear door shield assembly
2. **Remove the rear door ambient light assembly**

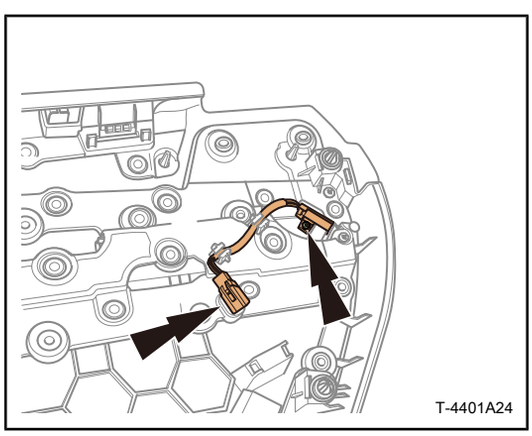


a. Remove one fixing screw A, disengage the connector clip B, and pull out the rear left door ambient light assembly (front) ①.

Tip:

- Replace the light base only.

b. Disengage the connector clip C of the rear left door handle ambient light, press the clip tongue of the ambient light, and remove the rear left door handle ambient light ②.



c. Remove one fixing screw, disengage the connector clip, and pull out the rear left door ambient light assembly (rear).

Tip:

- Replace the light base only.

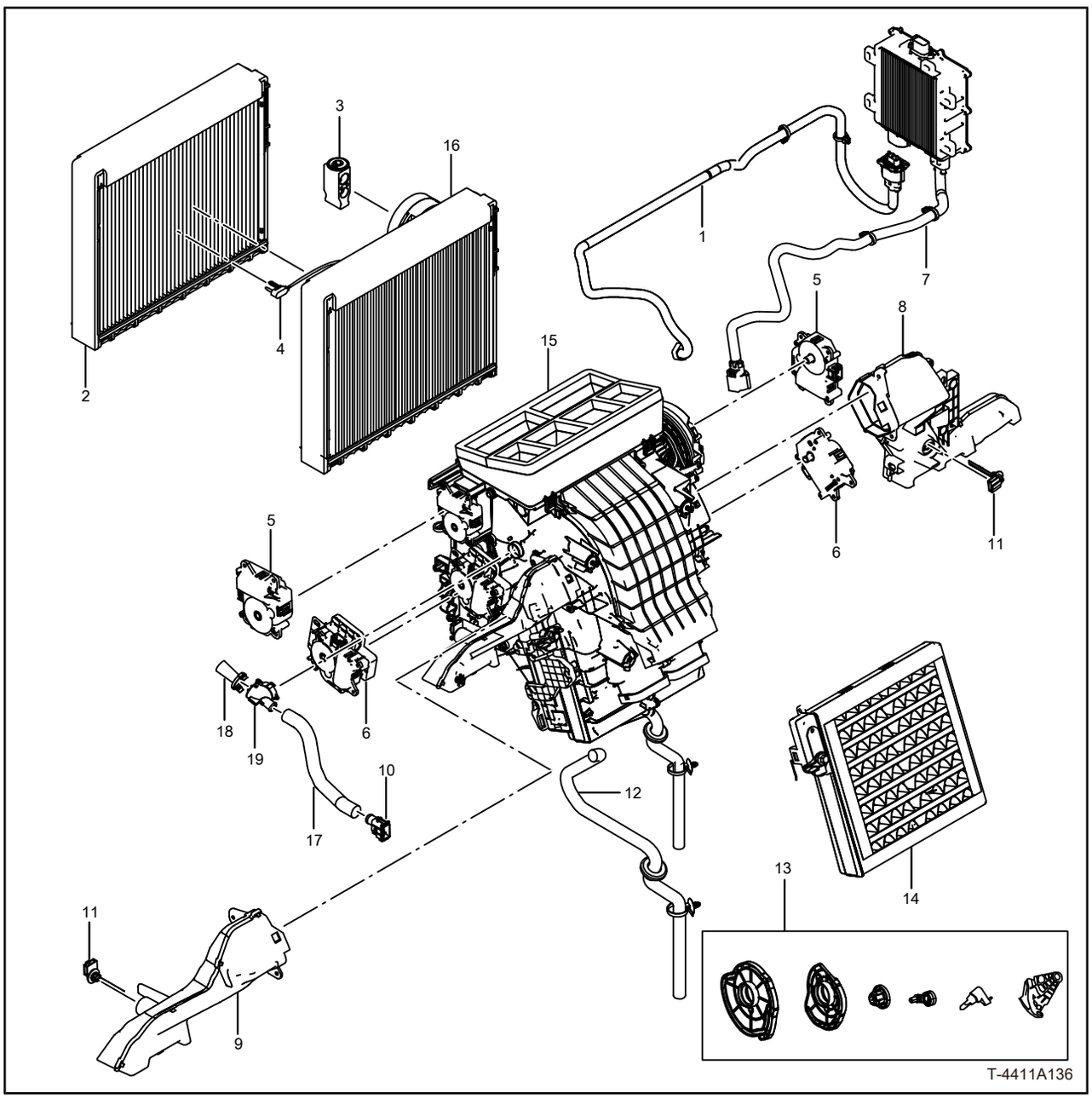
Installation procedures

1. **Install the rear left door ambient light assembly in an order reverse to its removal and pay attention to the following:**
   a. After installation, check that the rear door ambient lights can work properly.

5.10.5 Exploded view of components

5.10.5.1 Exploded view of components

Evaporator housing assembly

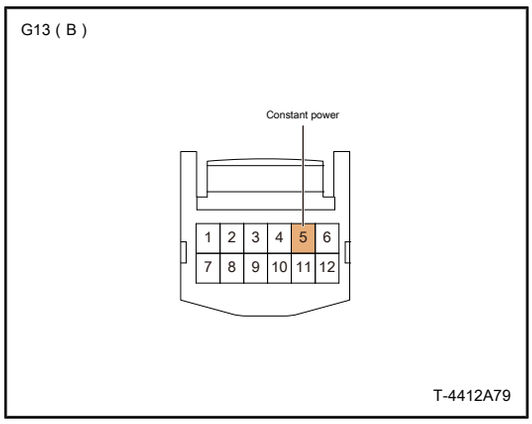


1	Front evaporator housing wiring harness assembly		11	Passage temperature sensor
2	Evaporator core assembly		12	Dripping pipe
3	Thermal expansion valve		13	Connecting rod assembly
4	Evaporator temperature sensor		14	PTC air heater assembly
5	Mode motor		15	Evaporator housing assembly

5.10.6 Common fault diagnosis and operation

5.10.6.1 Symptom list

Symptom	Possible cause	Recommended maintenance method
All A/C system functions fail	1. Fault of integrated vehicle body controller power circuit	Repair the power supply circuit of integrated vehicle body controller according to the circuit diagram.
	2. Damage of integrated vehicle body controller	Replace the integrated vehicle body controller. Refer to: Integrated vehicle body controller
	3. CAN communication fault	Repair the CAN communication system.
	4. Fault of wiring harness or connector	Check the wiring harness and connectors according to the circuit diagram.
Only cooling system fails (blower works normally)	1. Compressor fuse blown	Replace the compressor fuse
	2 Fault of electric compressor	Replace the electric compressor assembly. Refer to: Electric compressor assembly
	3. Pressure sensor fault	Replace the pressure sensor. Refer to: Pressure sensor
	4. CAN communication fault	Repair the CAN communication system.
	5. Fault of wiring harness or connector	Check the wiring harness and connectors according to the circuit diagram.
Cooling system works abnormally (actual temperature deviates from preset temperature)	1. Fault of various sensors (interior and exterior temperature sensors, passage temperature sensors)	Replace the damaged sensor.
	2. Damage of integrated vehicle body controller	Replace the integrated vehicle body controller. Refer to: Integrated vehicle body controller
	3. Fault of wiring harness or connector	Check the wiring harness and connectors according to the circuit diagram.
Blower does not work	1. Blower fuse of blower	Replace the blower fuse.
	2. Blower fault	Replace the blower. Refer to: Blower
	3. Fault of blower speed regulation	Replace the blower speed



Voltage:

Terminal No.	Terminal No.	Standard value
G13(B)(5)	GND	11~14V

d. Check whether the result is normal?

No — Replace the power supply and GND wiring harness.

Yes

Step 6	Check clock spring.

a. Replace the clock spring with a new one.
b. Check whether the result is normal?

Yes — Troubleshooting.

No

Step 7	Check the multimedia function switch on the steering wheel

a. Replace the multimedia function switch on the steering wheel with a new one.
b. Check whether the result is normal?

Yes — Troubleshooting.

No

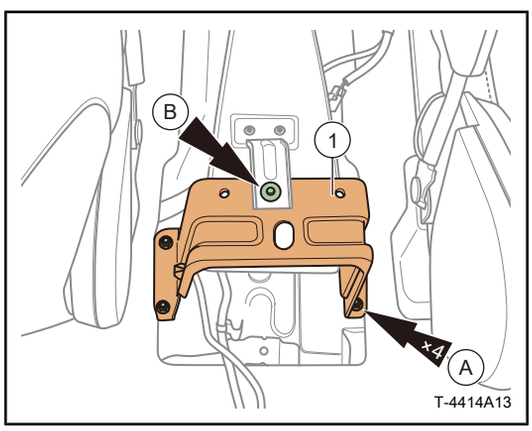
Step 8	Check the multimedia player

a. Replace the multimedia player assembly with a new one.
b. Restore the vehicle, clear all module fault codes, and perform the test drive for functional inspection.
c. Check whether the result is normal?

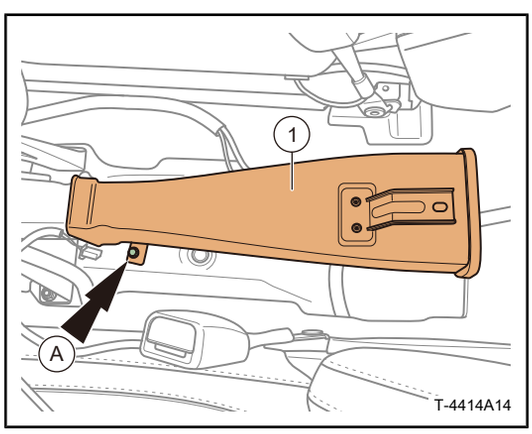
5.13.7.9 SRS ECM

Removal procedures

1. **Remove the engine trimming panel assembly.** Refer to: Engine trimming panel assembly
2. **Disconnect the cathode of the 12V battery (starter Fe battery).** Refer to: Disconnect the cathode of the 12V battery (starter Fe battery)
3. **Remove the rear trimming panel assembly of auxiliary dashboard.** Refer to: Rear trimming panel assembly of auxiliary dashboard
4. **Remove the gearshift control mechanism cover assembly.** Refer to: Gearshift control mechanism cover assembly
5. **Remove the gearshift control mechanism assembly.** Refer to: Gearshift control mechanism assembly
6. **Remove the auxiliary dashboard body assembly.** Refer to: Auxiliary dashboard body assembly
7. **Remove the SRS ECU**



a. Remove the four fixing nuts A and one snap fastener B, disengage the wiring harness fixing clip, and remove the rear mounting bracket assembly ① of auxiliary dashboard.
Torque: 10 N•m

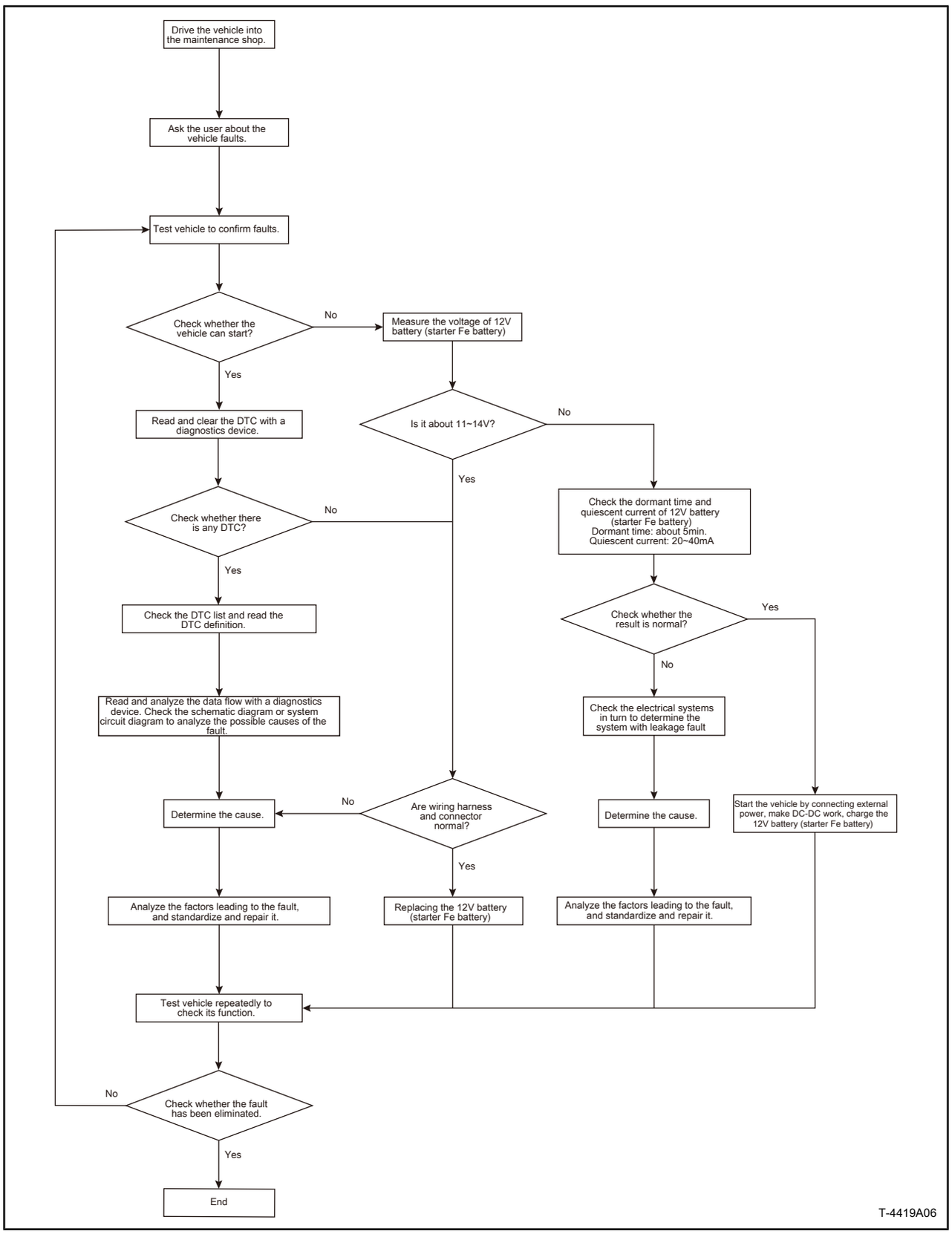


b. Remove one fixing nut A, and take off the rear-row face level air duct assembly III ①.
Torque: 6 N•m.

5.18.4 DTC diagnosis and operation

5.18.4.1 Basic process of troubleshooting

Basic process of troubleshooting for 12V battery (starter Fe battery)



6.1.7.9 DTC diagnosis: U200B87

DTC description

DTC	Fault description	Possible cause
U200B87	Fault in communication with DCU_FR (front right door control ECU)	1. Fault of front right door control ECU
		2. Fault of front left door control ECU

Diagnostic steps

Step 1	Read DTC

a. Read and clear the DTC. Refer to: DTC reading and clearing
b. Perform the test drive for functional inspection.
c. Check if the fault code exists.

No — Diagnose it as an occasional fault, and check whether the corresponding connector is loose or damaged, and whether the wiring harness terminal is corroded.

Yes

Step 2	Check the communication status of the front right door control ECU

a. Use VDS to check whether it can communicate with the front right door control ECU.

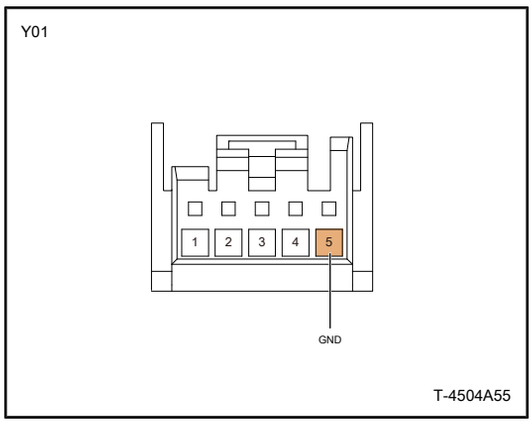
No — Go to Step 4.

Yes

Step 3	Check the working condition of the front right door control ECU

a. Start the vehicle.
b. Check whether the front right door light and right side mirror work normally.
c. Check whether the result is normal?

Yes — Go to Step 8.



Resistance:

Terminal No.	Terminal No.	Standard value
Y01(5)	GND	Below 1Ω

b. Check whether the result is normal?

No — Repair or replace the GND wiring harness of power boot lid closing switch.

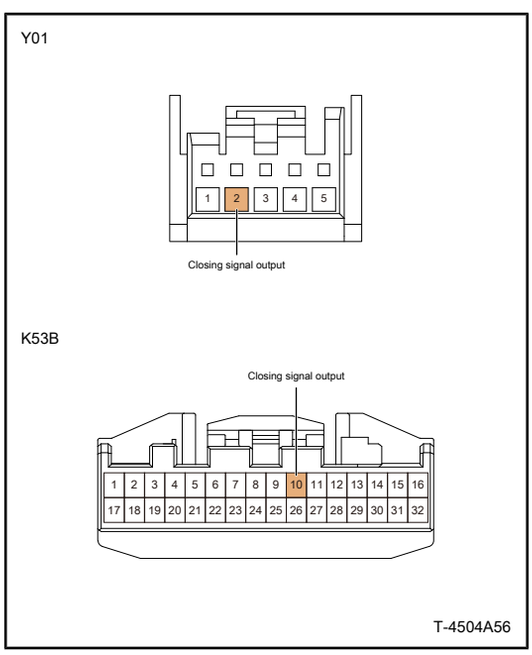
Yes

Step 4	**Check the closing signal output wiring harness of power boot lid closing switch**

a. Measure the resistance between the terminal 2 of Y01 and terminal 10 of K53B with a digital multimeter.

Resistance:

Terminal No.	Terminal No.	Standard value
Y01(2)	K53B(10)	Below 1Ω



b. Check whether the result is normal?

No — Repair or replace the closing signal output wiring harness of power boot lid closing switch.