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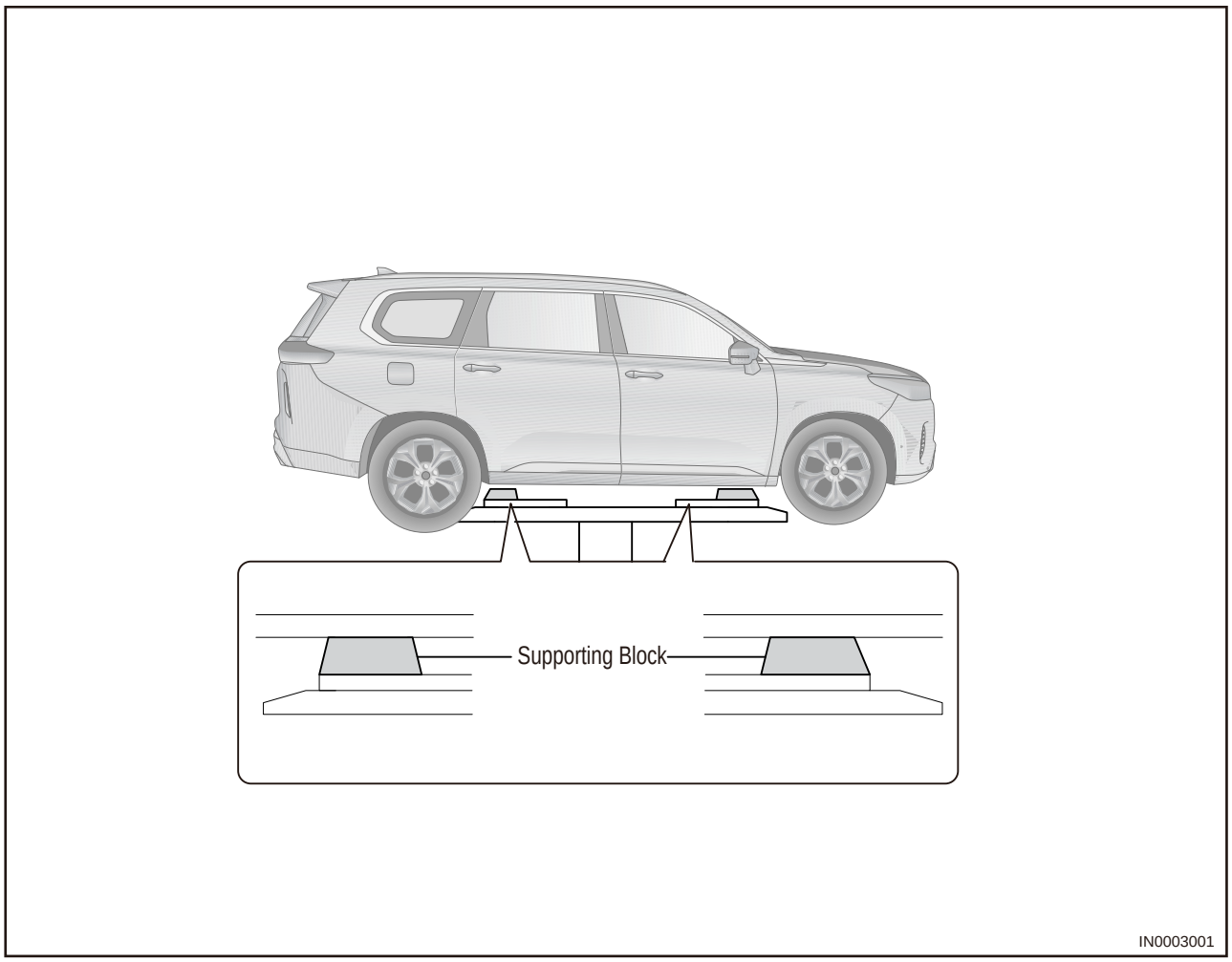


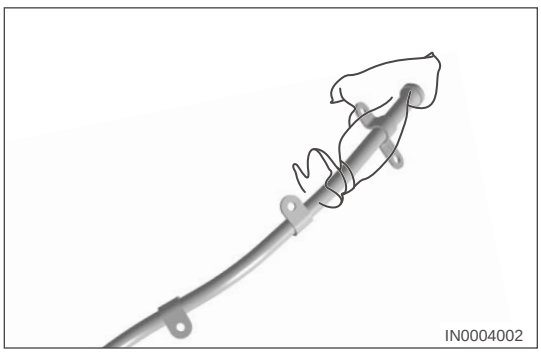
3 Service Operation

(1) How to use fasteners

- Using incorrect fasteners may cause damage to components. Injury and death may occur without observing the instructions below.
- Reference values of fasteners and torque specifications in this service manual use metric unit.
- Recycling all fasteners (nuts, bolts, etc.) during maintenance and service operation is important for assembly.

(2) Remove parts

When repairing malfunction, try to determine the cause. Before starting work, parts or sub-assemblies that have to be removed and replaced should be confirmed first. After removing parts, block all holes and ports to prevent foreign objects from entering.



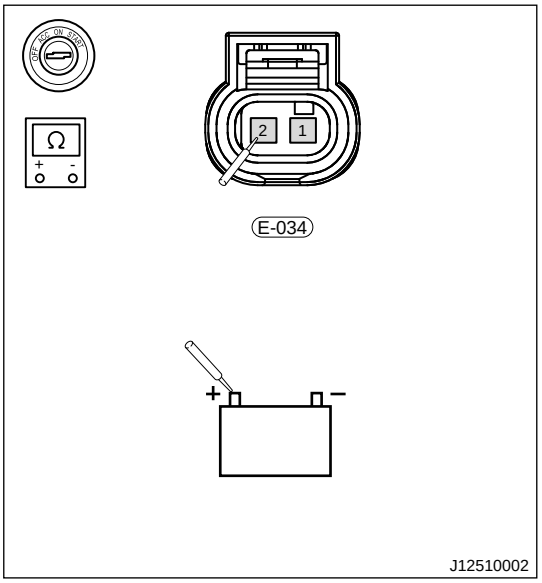
(3) Disassemble components

If disassembly procedures are complicated and multiple parts need to be disassembled, make sure that disassembly methods won't affect the performance or appearance of parts. Identify each part for assembly.

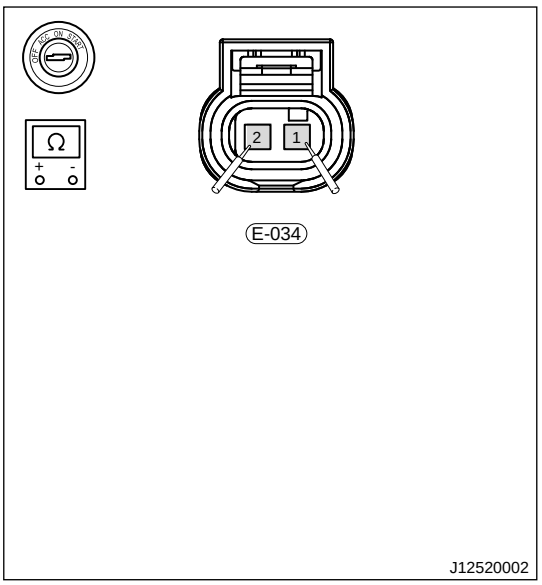
(4) Installation check

DTC	DTC Definition	Detection Condition	Possible Cause	Maintenance Advice
P137000	DECOS Oil Passage Pressure Sensor Relative Pressure Too Low	The relative pressure of pressure sensor is lower than the fault threshold	1. Oil passage is leakage 2. Insufficient fuel 3. Check valve is damaged 4. Low pressure oil pump is damaged	• Check for leakage in oil passage • Check if fuel is insufficient • Check if the check valve is damaged • Check low pressure oil pump for damage
P137100	DECOS Oil Passage Pressure Sensor Relative Pressure Too High	The low pressure fuel rail pressure signal is higher than the upper threshold	1. Relief valve is blocked 2. Low pressure oil pump is damaged	• Check whether the relief valve of low pressure oil passage is blocked • Check low pressure oil pump for damage
P025D00	Fuel Pump Module "A" Control Circuit High	Hardware circuit self-diagnostic	1. Low pressure oil pump control circuit short to power supply 2. Short to power supply in low pressure oil pump pin corresponding to ECM	• Check whether the actuator terminal is short to the power supply • Check whether the actuator pin corresponding to ECM is short to the power supply
P025A00	Fuel Pump Module "A" Control Circuit Open	Hardware circuit self-diagnostic	1. Low pressure oil pump control circuit is open 2. Open circuit in low pressure oil pump pin corresponding to ECM	• Check if actuator terminal is open • Check whether the actuator pin corresponding to ECM terminal is open
P008A00	DECOS Low Pressure Oil Passage Pressure Too Low	The low pressure fuel rail pressure is lower than the expected value	1. Oil passage is leakage 2. Insufficient fuel 3. Check valve is damaged 4. Low pressure oil pump is damaged	• Check for leakage in oil passage • Check if fuel is insufficient • Check if the check valve is damaged • Check low pressure oil pump for damage
P008B00	Low Pressure Fuel System Pressure - Too High	The low pressure fuel rail pressure is higher than the expected value	1. Low pressure oil pump is damaged 2. Relief valve is blocked	• Check whether the damage of low pressure oil pump is normal • Check relief valve for blockage or abnormal operation
P016F00	DECOS Low Pressure Oil Passage PWM Control Deviation Too Large	Control deviation exceeds the maximum	1. Relief valve is blocked 2. Low pressure oil pump is damaged	• Check whether the relief valve of low pressure oil passage is blocked • Check low pressure oil pump for damage

(d) Using ohm band of multimeter, connect black probe to battery positive terminal, measure resistances of coolant temperature sensor 2 E-034 (1, 2) with red probe respectively. Check if circuit is short to power supply.



(e) Using ohm band of multimeter, measure the resistances of coolant temperature sensor 2 E-034 (1, 2) with red and black probes respectively. Check if circuits are shorted to each other.

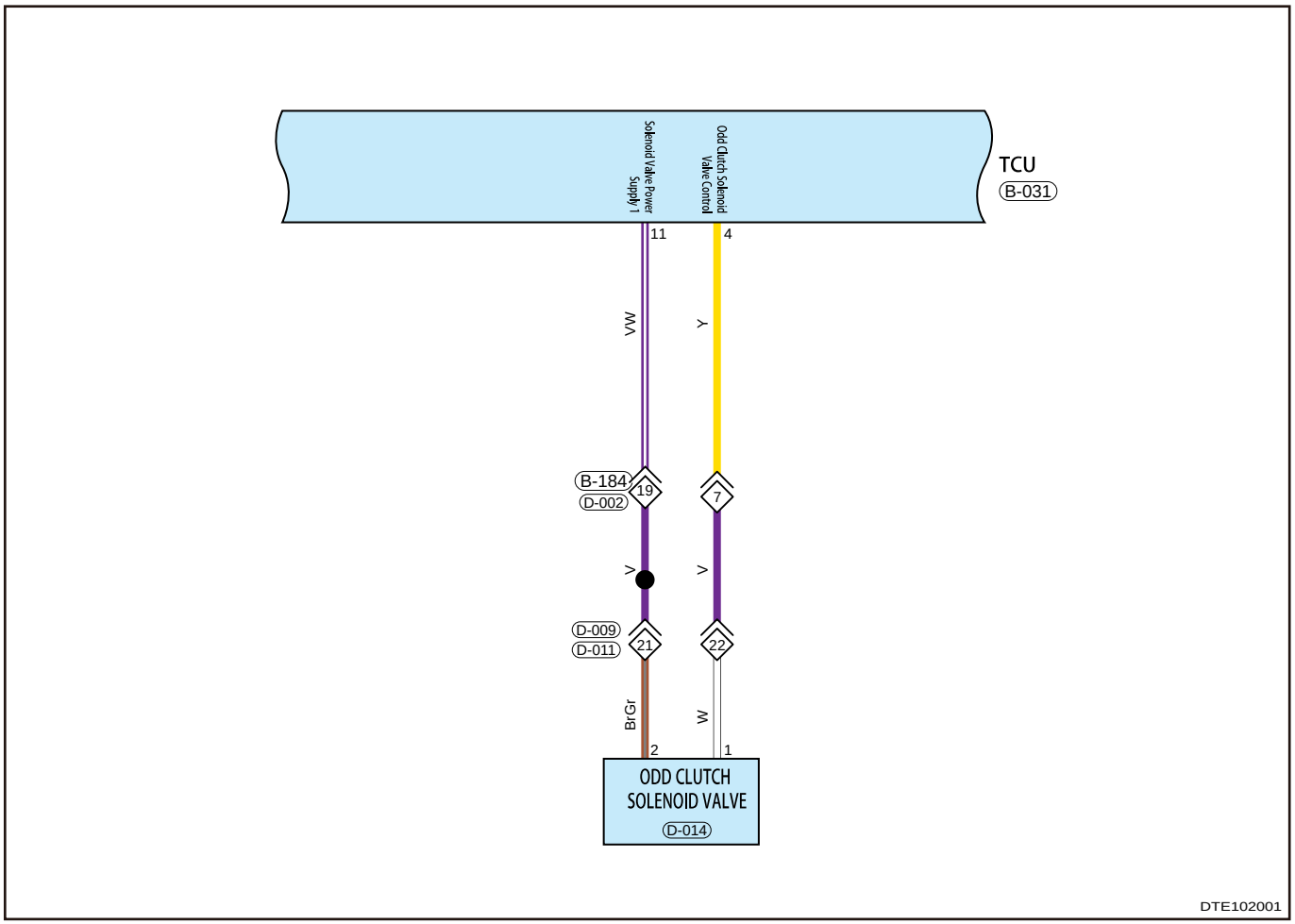


NG → **Check and repair circuit.**

OK

4	**Check whether there is contact resistance in coolant sensor 2 circuit**

Circuit Diagram



■ DTC Confirmation Procedure

Confirm that battery voltage is not less than 12 V before performing the following procedures.

- Turn ENGINE START STOP switch to ON.
- Connect diagnostic tester (the latest software) to Data Link Connector (DLC).
- Confirm that malfunction is current, and carry out diagnostic test and repair procedures.
- If DTC cannot be cleared, malfunction is current.
- Only use a digital multimeter to measure voltage of electronic system.
- Refer to any Technical Bulletin that may apply to this malfunction.
- Visually check the related wire harness.
- Check and clean all Transmission Control Unit (TCU) ground related to latest DTC.
- If multiple trouble codes were set, use circuit diagrams and look for any common ground circuit or power supply circuit applied to DTC.

Hint:
When performing circuit diagnosis and test, always refer to the circuit diagram for specific circuit and component information.

1	**Check battery**

(a) Turn ENGINE START STOP switch to OFF.
(b) Using a multimeter, measure voltage between positive and negative battery terminals.

NG	**Replace battery**

■ Follow the following process to perform diagnostic tester self-learning after replacing transmission body

(1) The vehicle is powered on, shift lever is in P and the vehicle is stationary.

(2) Use a diagnostic tester to activate "Reset Memory" function (Routine $31 01 04 05) and get a positive response.

(3) Use a diagnostic tester to activate "Read Transmission Storage Data" (Routine $31 01 04 06 01) and get a positive response.

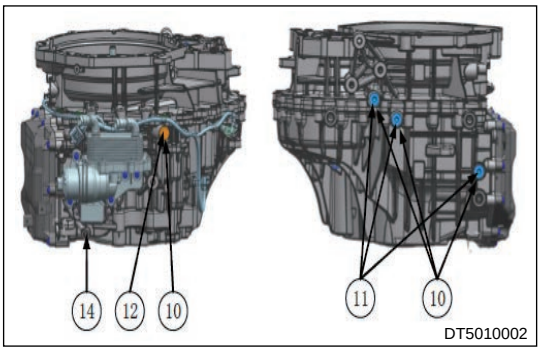
(4) The vehicle is powered off and wait for 10 seconds.

(5) Replacement is complete.

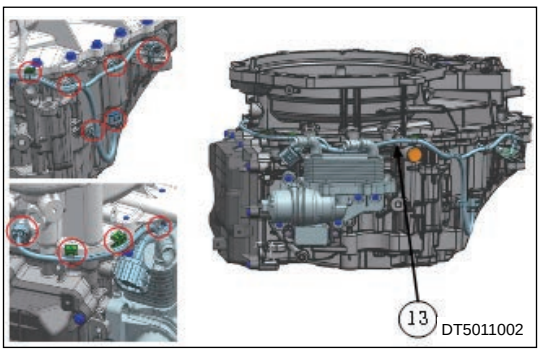
4.11 Transmission Assembly Disassembly

■ Disassembly

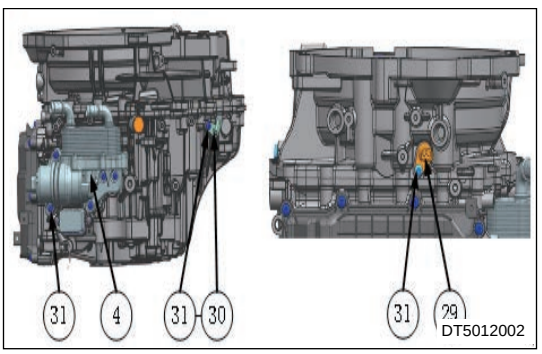
(1) Place transmission assembly steadily. Remove breather plug (14) and filler plug (12), oil plug gasket (10), and then remove 3 inner hexagon oil plugs (11) and 3 oil plug gaskets (10). Drain transmission oil.



(2) Remove connectors and clips as shown in illustration below, and then remove three-in-one wire harness (13).



(3) Remove 5 filter cooling module fixing bolts (31) and filter cooling module assembly (4); remove fixing bolts (31) and output speed sensor (30) & clutch temperature speed sensor (29).



6.6 Rear Wheel Toe-in

(1) Incorrect rear wheel toe-in will cause wheel pull and abnormal tire wear. Check and adjust rear wheel toe-in as necessary.

If rear wheel toe-in is not within the tolerance due to other reasons, adjust eccentric adjusting bolt and eccentric adjusting shim between tie rod assembly and rear sub frame welding assembly to return the toe-in to specified value.

If rear wheel toe-in is not as specified, check rear suspension and wheels for damage or deformation. Replace damaged or deformed components as necessary.

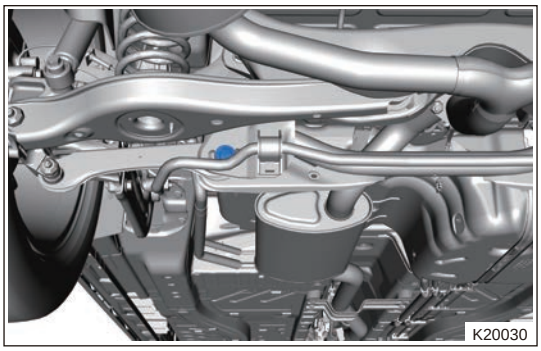
Specified Value for Rear Wheel Toe-in:

Items	Parameter
Rear Wheel Toe-in	10′ ±6′

■ Adjustment

(1) Make adjusting preparation for wheel alignment according to requirement of tester.

(2) Loosen the coupling bolts (21# socket wrench) between tie rod assembly and rear sub frame welding assembly, be careful that eccentric adjusting shim does not detach from groove.



(3) Rotate the eccentric adjusting bolt and eccentric adjusting sleeve to adjust rear wheel toe-in to specified value.

(4) Tighten the coupling bolts (21# socket wrench) between tie rod assembly and rear sub frame welding assembly to specified torque after adjustment (adjusting method of left and right wheels is the same).

Tightening torque： 130 ± 10 N•m

NG → **Replace EPB switch**

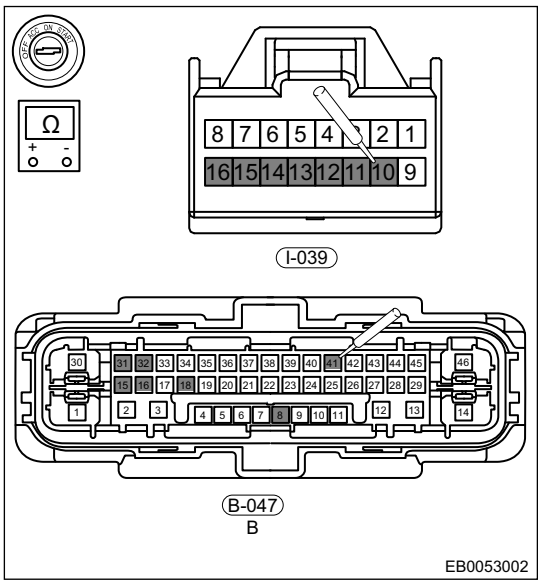
OK ↓

3	Check related wire harness and connector

(a) Turn ENGINE START STOP switch to OFF.
(b) Disconnect the negative battery cable.
(c) Disconnect the EPB switch connector I-039.
(d) Disconnect the ESP control module assembly B-047.
(e) Check if related wire harnesses are worn, pinched or broken.
(f) Check if related connector terminals are loose, broken, bent or corrosive.
(g) Using a digital multimeter, measure ESP control module assembly connector B-047 (8, 15, 16, 18, 31, 32 and 41) and EPB switch connector I-039 (10, 11, 12, 13, 14, 15 and 16) according to table below.

Standard Resistance

Multimeter Connection	Detection Condition	Specified Condition
B-047 (32) - I-039 (13)	Always	⩽ 1 Ω
B-047 (15) - I-039 (14)	Always	⩽ 1 Ω
B-047 (16) - I-039 (10)	Always	⩽ 1 Ω
B-047 (31) - I-039 (16)	Always	⩽ 1 Ω
B-047 (18) - I-039 (15)	Always	⩽ 1 Ω
B-047 (8) - I-039 (11)	Always	⩽ 1 Ω
B-047 (41) - I-039 (12)	Always	⩽ 1 Ω



NG → **Repair or replace wire harness and connector between rear left wheel speed sensor and ESP (iEPB) control module assembly**

OK

6	Reconfirm DTCs

(a) Use diagnostic tester to clear DTCs.

(b) Start the engine.

(c) Drive vehicle at 40 km/h or above, and read ESP (iEPB) control module assembly DTC again with diagnostic tester.

(d) Check if the same DTCs are still output.

OK → **System operates normally**

NG → **Replace ESP (iEPB) control module assembly**

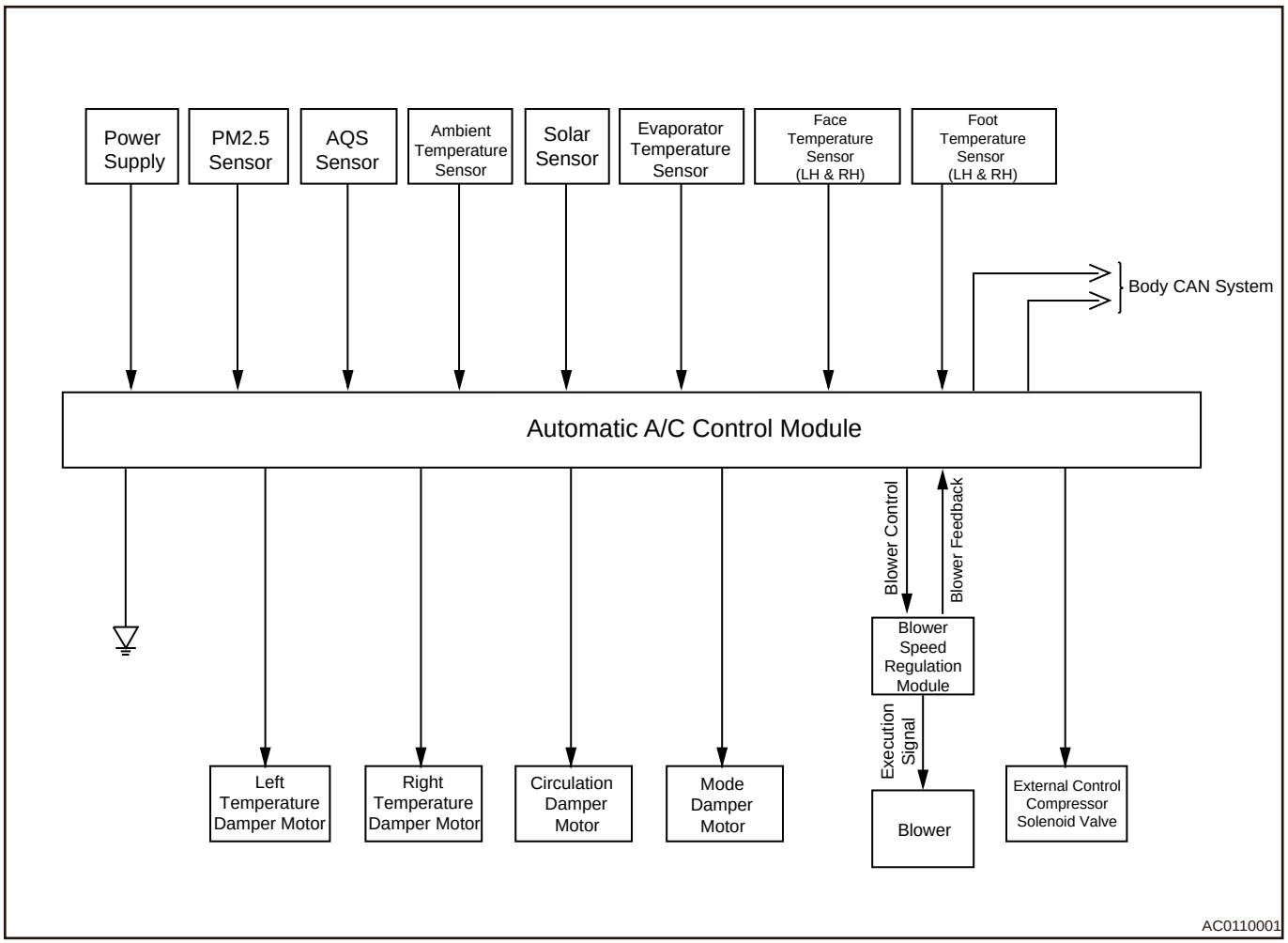
■ **Rear right wheel speed sensor fault**

Description

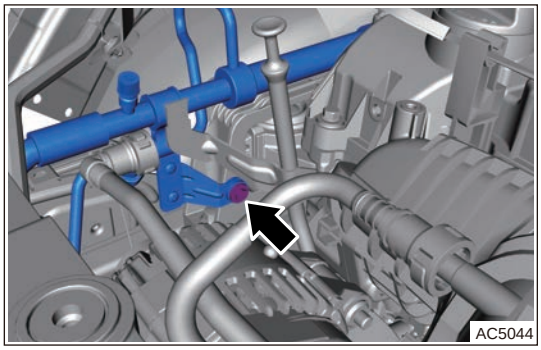
DTC	DTC Definition
C003A-00	Wheel-speed Sensor, Rear Right-General Fault
C003A-09	Rear Right Wheel Speed Sensor Component Fault
C003A-11	Rear Right Wheel Speed Sensor Power Supply Circuit Short to Ground
C003A-12	Rear Right Wheel Speed Sensor Signal Circuit Short to Power Supply
C003A-13	Rear Right Wheel Speed Sensor: Signal Circuit Short to Ground or Open; Power Supply Circuit Open
C003A-29	Rear Right Wheel Speed Sensor Signal Failure (Out of Range, Lost, Interfered or Discontinuous)
C003A-37	Rear Right Wheel Speed Sensor Signal Out of Range
C003B-08	Rear Right Wheel Speed Sensor: Wrong Direction

Circuit diagram

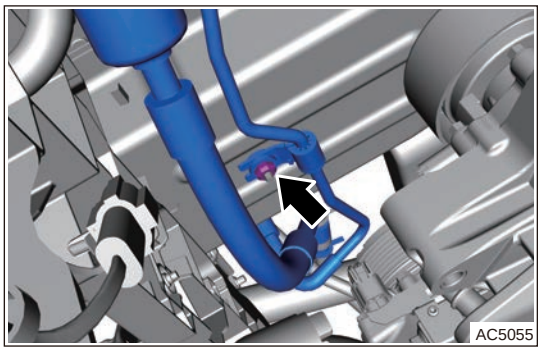
2.3 System Schematic Diagram



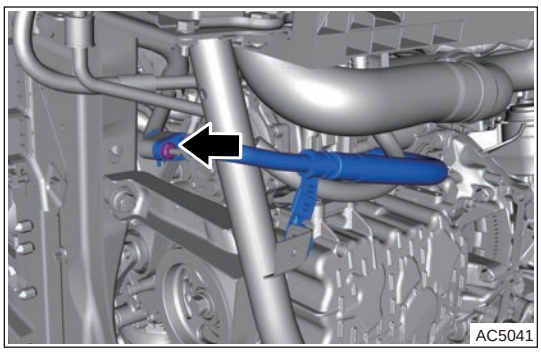
(10) Remove fixing bolts from A/C coaxial line assembly.



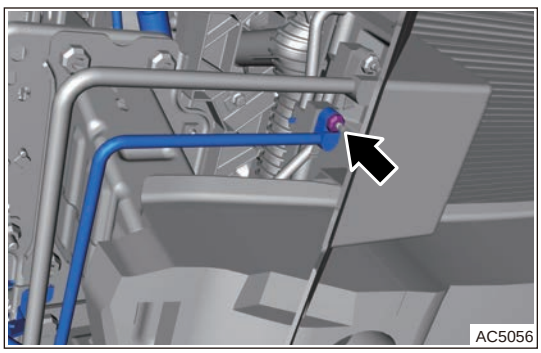
(11) Remove fixing nuts from A/C coaxial line assembly.



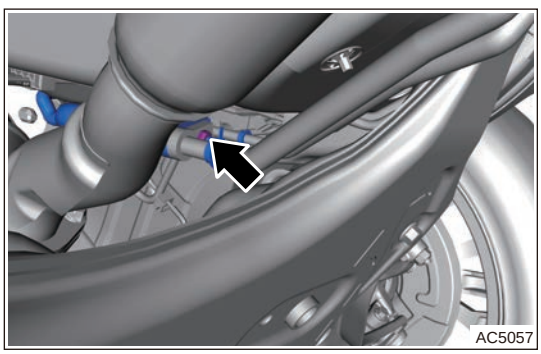
(12) Remove fixing nut between evaporator - compressor line assembly and A/C coaxial line assembly.



(13) Remove fixing nut between A/C coaxial line assembly and condenser.



(14) Remove fixing nut between A/C coaxial line assembly and condenser to rear evaporator line assembly Ⅰ.



Use circuit diagram as a guide to perform the following inspection procedures:

(a) Use 2 Ω resistance to substitute airbag or tensioner indicated by DTC.

(b) Connect wire harness connector on the end of airbag module.

(c) Connect the battery and diagnostic tester and read the previous DTC.

NG	**Replace damaged airbag or tensioner.**
OK	**Inspection. Refer to "Airbag system malfunction repair completion inspection".**

2	Check for short circuit between 2 cables

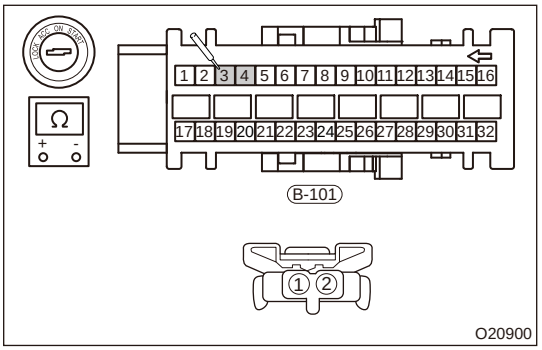
Use circuit diagram as a guide to perform the following inspection procedures:

(a) Turn ENGINE START STOP switch to "OFF", disconnect the negative battery cable and wait for at least 90 seconds.

(b) Replace front passenger frontal airbag with a new one, connect the negative battery cable, turn ENGINE START STOP switch to "ON", and use diagnostic tester to read DTCs to observe if DTC exists. If exists, it indicates that there is no problem in front passenger frontal airbag resistance, and a further inspection is needed.

(c) Disconnect airbag module connector B-101 and driver airbag connector.

(d) Using ohm band of multimeter, check the continuity between B-101 (A4) and driver airbag (2), B-101 (A3) and driver airbag (1) separately.



Standard Condition

Multimeter Connection	Condition	Resistance
B-101 (A4) - Driver airbag (2)	ENGINE START STOP switch "OFF"	⩽ 1 Ω
B-101 (A3) - Driver airbag (1)	ENGINE START STOP switch "OFF"	⩽ 1 Ω

NG	**Repair or replace opened wire harness or connector.**
OK	**Inspection. Refer to "Airbag system malfunction repair completion inspection".**

■ Airbag Configured Fault

DTC	DTC Definition
B0001-95	Driver/Left Front Airbag Squib Configured Fault
B0010-95	Passenger/Right Front Airbag Squib Configured Fault
B0020-95	Driver/Left Side Airbag Squib Configured Fault
B0021-95	Driver/Left Curtain Airbag Squib Configured Fault
B0028-95	Passenger/Right Side Airbag Squib Configured Fault

11.6 FATIGUE MONITORING

1 Warnings and Precautions

1.1 Precautions

In order to avoid dangerous operation and damage to the vehicle, always follow the instructions below before repair.

(1) Be sure to wear necessary safety equipment to prevent accidents, when removing fatigue monitoring camera.

(2) Appropriate force should be applied when removing fatigue monitoring camera. Be careful not to operate roughly.

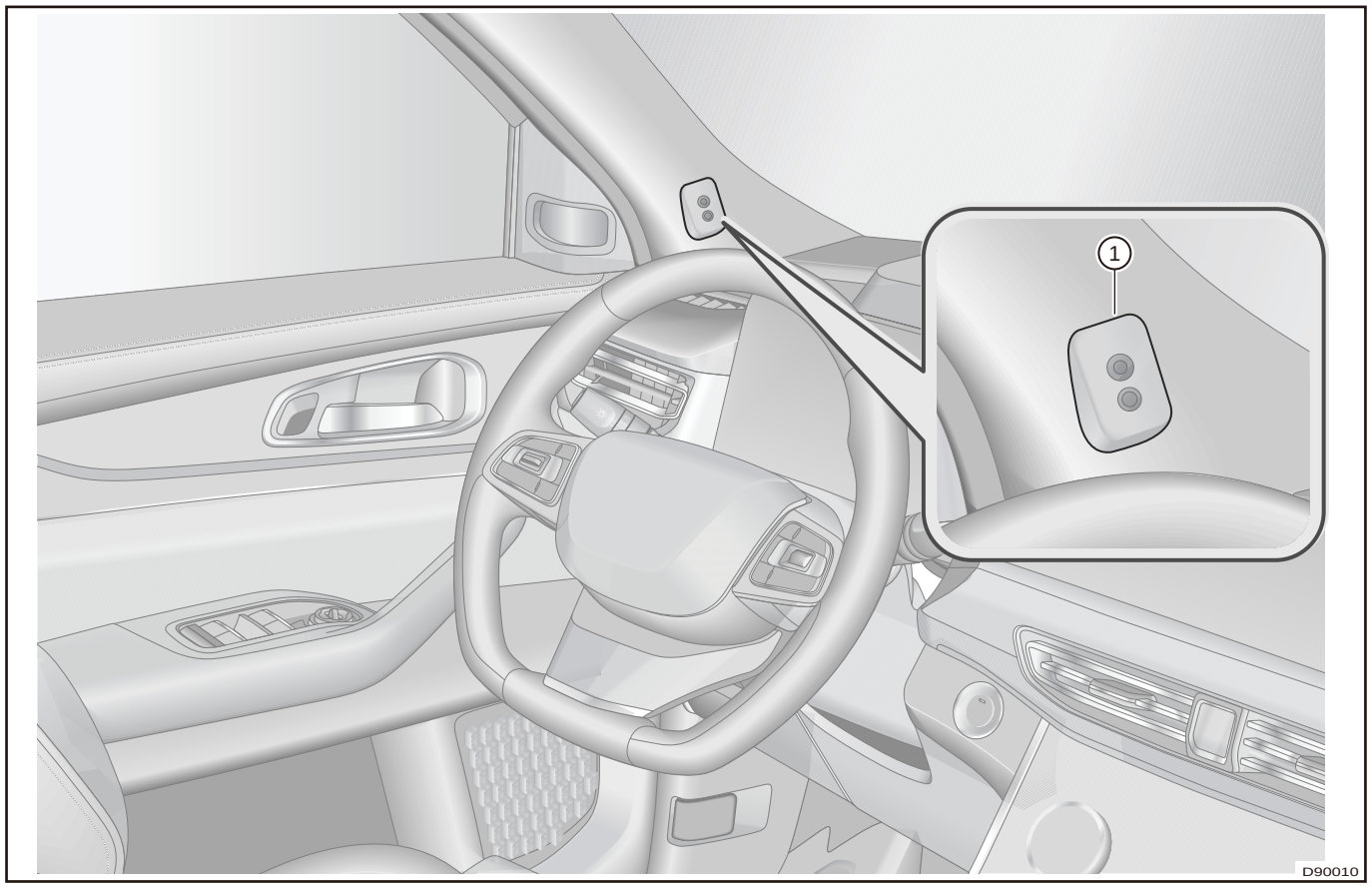
(3) Try to prevent interior and body paint surface from being scratched when removing fatigue monitoring camera.

2 System Overview

2.1 System Description

The fatigue monitoring system monitors driver’s physiological image response through the camera, and relies on Baidu Vision AI capabilities. When driver’s fatigue and dangerous driving state are found, it uses a series of reminders to keep driver’s attention in driving state. Avoid danger caused by fatigue driving.

2.2 System Components Diagram



1	Face Recognition Camera