

# Troubleshooting Precautions

## ABS Indicator Light:

The ABS indicator light comes on for three seconds and then goes off when the control unit detects no problem during the initial diagnosis right after the engine starts. The ABS indicator light comes on, and the ABS control unit memorizes the diagnostic trouble code (DTC) under certain conditions.

- The parking brake is applied for more than 30 seconds while the vehicle is being driven. (DTC 2-1)
- The vehicle loses traction when starting from a stuck condition on a muddy, snowy, or sandy road. (DTC 4-1, 4-2, 4-4, 4-8)
- The vehicle loses traction, and the front wheels spin for more than one minute when starting from a stuck condition on a muddy, snowy, or sandy road. (DTC 4-8)
- Tire adhesion is lost due to excessive cornering speed. (DTC 5, 5-4, 5-8)
- The vehicle is interfered by strong radio waves (noise), for example, illegal radio, etc. (DTC 8-2)

NOTE: If there is any trouble in the system, the ABS indicator light comes on during driving.

## Diagnostic Trouble Code (DTC):

- When the control unit detects a problem and the ABS indicator light comes on, the control unit memorizes the DTC.
- The control unit has three memory registers. When a problem occurs, the control unit stores the DTC in the first memory register.
- The most recent DTC is indicated first, and the oldest DTC is indicated last.
- The DTCs are erased from the control unit when the ABS control unit +B2 power supply or connector is disconnected.
- The control unit's memory can be erased by disconnecting the ABS 2, 3 fuse for more than three seconds.

## Self-diagnosis:

- There are two self-diagnoses described below.
  - ① Initial diagnosis: Performed right after the engine starts until the ABS indicator light goes off.
  - ② Regular diagnosis: Continuously performed (under some conditions) after the ABS indicator light goes off until the engine stops.
- The CPU (central processing unit) controls the following when it detects a problem during self-diagnosis:
  - ① Turns the ABS indicator light ON.
  - ② Turns the front and rear fail-safe relays off.
  - ③ Stops the ABS control.
  - ④ Stops the ABS pump.
  - ⑤ After the DTC is stored in the control unit, the CPU stops self-diagnosis.

**Troubleshooting:**

- When two or three DTCs are stored in the control unit, perform troubleshooting for the DTC that appears first.
- When a customer's reported problem cannot be verified on the vehicle, ask the customer about the conditions when the ABS indicator light came ON, and test-drive the vehicle under those conditions, if possible. When the ABS indicator light does not come ON during the test, check for loose terminals and check by shaking the harnesses and connectors while following the flowchart.
- After the repair is completed, perform the ABS function test or test-drive the vehicle, and check that the ABS indicator light does not come ON again during the test.