

C1115 WHEEL SENSOR

Description

When the sensor rotor rotates, the magnetic field changes. It converts the magnetic field changes to current signals (rectangular wave) and transmits them to the ABS actuator and electric unit (control unit).

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1115	ABS SENSOR [ABNORMAL SIGNAL]	Miss-match between the 4 wheel speed sensor signals.	Harness or connector not a possible cause. Other possible causes tire radius (due to wrong size or pressure) interference.

DTC CONFIRMATION PROCEDURE

- 1).Start the engine and drive the vehicle at 30 km/h (19 MPH) or more for approximately 1 minute.
- 2).Perform ABS actuator and electric unit (control unit) self-diagnosis.
- 3).Is DTC "C1115" detected?
 YES >> Proceed to diagnosis procedure.
 NO >> INSPECTION END

Diagnosis Procedure

- 1).CHECK TIRE
 - A).Check air pressure, wear, and size.
 - B).Is the inspection result normal?
 YES >> GO TO 2.
 NO >> Repair or replace damaged parts.

2).CHECK SENSOR AND SENSOR ROTOR

A).Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair wheel sensor mount or replace sensor rotor. Then perform the self-diagnosis.

3).CHECK CONNECTOR

A).Turn the ignition switch OFF.

B).Disconnect ABS actuator and electric unit (control unit) connector.

C).Disconnect wheel sensor connector.

D).Check terminal to see if it is deformed, disconnected, loose, etc.

E).Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace damaged parts.

4).CHECK WHEEL SENSOR HARNESS

A).Check the continuity between ABS actuator and electric unit (control unit) harness connector and wheel sensor harness connector. (Also check continuity when steering wheel is turned right and left and when sensor harness inside the wheel house is moved.)

B).Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace damaged parts.

5).CHECK WHEEL SENSOR POWER SUPPLY CIRCUIT

A).Connect ABS actuator and electric unit (control unit) connector.

B).Turn the ignition switch ON.

C).Check the voltage between wheel sensor harness connector and ground.

D).Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace damaged parts.

6).CHECK DATA MONITOR

A).Turn the ignition switch OFF.

B).Connect each wheel sensor connector.

C).Check wheel sensor signal.

D).Is the inspection result normal?

YES >> Replace ABS actuator and electric unit (control unit).

NO >> Repair or replace damaged parts.

Component Inspection

- 1).CHECK DATA MONITOR
 - A).On "DATA MONITOR", select "FR LH SENSOR", "FR RH SENSOR", "RR LH SENSOR", and "RR RH SENSOR",and check the vehicle speed.
 - B).Is the inspection result normal?
 - YES >> INSPECTION END
 - NO >> Proceed to diagnosis procedure.

Special Repair Requirement

- 1).ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION, CALIBRATION OF YAW RATE/SIDE/DECEL G SENSOR AND CALIBRATION OF PRESSURE SENSOR.
- 2).After removing/replacing an ABS actuator and electric unit (control unit), be sure to perform the following procedure.