

C1113, C1145, C1146 YAW RATE/SIDE/DECEL G SENSOR

Description

Yaw rate/side/decel G sensor detects yaw rate/side/decel G affecting the vehicle, and transmits the data to the ABS actuator and electric unit (control unit) as an analog voltage signal.

DTC DETECTION LOGIC

DTC	Display item	Malfunction detected condition	Possible cause
C1113	G SENSOR	Yaw rate/side/decel G sensor is malfunctioning, or signal line of yaw rate/side/decel G sensor is open or shorted.	<ul style="list-style-type: none"> • Harness or connector • ABS actuator and electric unit (control unit) • Yaw rate/side/decel G sensor • Electrical interference • Vehicle driven on AWD rolling road
C1145	YAW RATE SENSOR		
C1146	SIDE G-SEN CIRCUIT		

DTC CONFIRMATION PROCEDURE

1).DTC REPRODUCTION PROCEDURE

- A).Turn the ignition switch ON.
- B).Perform ABS actuator and electric unit (control unit) self-diagnosis.
- C).Is DTC "C1113", "C1145" or "C1146" detected?
 - YES >> Proceed to diagnosis procedure.
 - NO >> INSPECTION END

Diagnosis Procedure

CAUTION:

- Sudden turns (such as spin turns, acceleration turns), drifting, etc. may cause yaw rate/side/decel G sensor circuit indicate a malfunction. However this is not a malfunction if normal operation can be resumed after restarting engine.
- When on a turntable, such as at a parking structure entrance, or when on a moving object with engine running, the VDC OFF indicator lamp might turn on and self-diagnosis using the CONSULT-III yaw rate sensor system malfunction might be displayed, but in this case there is no malfunction with yaw rate/side/decel G sensor circuit. As soon as the vehicle leaves the turntable or moving object, restart the engine to return the system to normal.

1).CHECK CONNECTOR

- A).Turn the ignition switch OFF.
- B).Disconnect ABS actuator and electric unit (control unit) connector.
- C).Disconnect yaw rate/side/decel G sensor connector.
- D).Check terminal for deformation, disconnection, looseness, etc.
- E).Is the inspection result normal?
YES >> GO TO 2.
NO >> Replace or repair damaged parts.

2).CHECK YAW RATE/SIDE/DECEL G SENSOR POWER SUPPLY CIRCUIT

- A).Turn the ignition switch ON.
- B).Check the voltage between yaw rate/side/decel G sensor harness connector and ground.
- C).Turn the ignition switch OFF.
- D).Check the voltage between yaw rate/side/decel G sensor harness connector and ground.
- E).Is the inspection result normal?
YES >> GO TO 3.
NO >> Repair or replace damaged parts.

3).CHECK YAW RATE/SIDE/DECEL G SENSOR GROUND CIRCUIT

- A).Check the continuity between yaw rate/side/decel G sensor harness connector and ground.
- B).Is the inspection result normal?
YES >> GO TO 4.
NO >> Repair or replace damaged parts.

4).CHECK YAW RATE/SIDE/DECEL G SENSOR HARNESS

- A).Check the continuity between yaw rate/side/decel G sensor harness connector and ABS actuator and electric unit (control unit) harness connector.

- B).Is the inspection result normal?
 - YES >> GO TO 5.
 - NO >> Repair or replace damaged parts.

5).CHECK YAW RATE/SIDE/DECEL G SENSOR

- A).Check yaw rate/side/decel G sensor signal. Is the inspection result normal?
 - YES >> Replace ABS actuator and electric unit (control unit).
 - NO >> Replace yaw rate/side/decel G sensor.

Component Inspection

1).CHECK DATA MONITOR

- A).Select "YAW RATE SEN", "SIDE G-SENSOR" and "DECEL G-SEN", in "DATA MONITOR" and check yaw rate/side/decel G sensor signal.
- 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