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Service Category: Brake	Section: Brake Control/Dynamic Control System	
Model Year: 2008	Model: ES350	Doc ID: RM000000XIK018X
Title: BRAKE CONTROL: VEHICLE STABILITY CONTROL SYSTEM: C1210/36: Zero Point Calibration of Yaw Rate Sensor Undone (2008 ES350)		

DTC	C1210/36	Zero Point Calibration of Yaw Rate Sensor Undone
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DTC	C1336/39	Zero Point Calibration of Acceleration Sensor Undone
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## DESCRIPTION

The skid control ECU receives signals from the yaw rate and acceleration sensor via the CAN communication system.

The yaw rate sensor has the built in acceleration sensor and detects the vehicle's condition using 2 circuits (GL1, GL2). If there is trouble in the bus lines between the yaw rate and acceleration sensor and the CAN communication system, the DTCs U0123/62 (yaw rate sensor communication trouble) and U0124/95 (acceleration sensor communication trouble) are output.

The DTCs are also output when the calibration has not been completed.

DTC CODE	DTC DETECTION CONDITION	TROUBLE AREA
C1210/36	Zero point calibration of yaw rate sensor undone.	<ul style="list-style-type: none"> <li>Brake actuator assembly (Skid control ECU)</li> <li>Yaw rate and acceleration sensor</li> <li>Zero point calibration undone (Perform zero point calibration and check DTC. If DTC is not output again, the sensor is normal)</li> </ul>
C1336/39	When either of the following is detected: <ol style="list-style-type: none"> <li>The vehicle runs in the normal mode with zero point calibration undone.</li> <li>After the zero point has been obtained, the zero point voltage of the sensor is not between 2.38 and 2.62 V.</li> </ol>	<ul style="list-style-type: none"> <li>Brake actuator assembly (Skid control ECU)</li> <li>Yaw rate and acceleration sensor</li> <li>Zero point calibration undone (Perform zero point calibration and check DTC. If DTC is not output again, the sensor is normal)</li> </ul>

## INSPECTION PROCEDURE

### NOTICE:


When replacing the brake actuator assembly, perform zero point calibration  .

### HINT:

When U0123/62, U0124/95 or U0126/63 is output along with C1210/36 or C1336/39, inspect and repair trouble areas indicated by U0123/62, U0124/95 or U0126/63 first.

## PROCEDURE

### 1. PERFORM ZERO POINT CALIBRATION OF YAW RATE AND ACCELERATION SENSOR


(a) Perform zero point calibration of the yaw rate and acceleration sensor  .

#### NEXT



### 2. RECONFIRM DTC

(a) Turn the engine switch off.

(b) Clear the DTC  .

(c) Turn the engine switch on (IG).

(d) Check if the same DTCs are recorded  .

Result:

CONDITION	PROCEED TO
DTCs (C1210/36 and/or C1336/39) are output	A
DTCs (C1210/36 and/or C1336/39) are not output	B

#### HINT:

- The DTCs are recorded because zero point calibration has not been completed.
- End the procedure as the same DTCs are not recorded after completion of zero point calibration.

**B**  END

**A**



### 3. CHECK YAW RATE AND ACCELERATION SENSOR INSTALLATION

(a) Turn the engine switch off.

(b) Check that the yaw rate and acceleration sensor has been installed properly  .

OK:

The sensor should be tightened to the specified torque.

The sensor should not be tilted.

**NG**  INSTALL YAW RATE AND ACCELERATION SENSOR  
CORRECTLY

**OK**  REPLACE BRAKE ACTUATOR ASSEMBLY

