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Model Year Start: 2013	Model: Land Cruiser	Prod Date Range: [01/2012 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: VEHICLE STABILITY CONTROL SYSTEM: CALIBRATION; 2013 MY Land Cruiser [01/2012 -]		

CALIBRATION

1. DESCRIPTION

- (a) After replacing VSC-related components, clearing and reading the sensor calibration data and system information is necessary.
- (b) Follow the chart to perform calibration.

REPLACEMENT/ADJUSTMENT PART	NECESSARY OPERATION
Skid Control ECU (Master Cylinder Solenoid)	<ol style="list-style-type: none"> 1. Clearing zero point calibration data 2. Yaw rate and acceleration sensor zero point calibration
Yaw Rate Sensor Assembly	<ol style="list-style-type: none"> 1. Clearing zero point calibration data 2. Yaw rate and acceleration sensor zero point calibration

2. PERFORM YAW RATE AND ACCELERATION SENSOR ZERO POINT CALIBRATION AND SYSTEM INFORMATION (WHETHER VGRS IS EQUIPPED) (When Using Techstream)

NOTICE:

- While obtaining the zero points, keep the vehicle stationary and do not vibrate, tilt, move, or shake it (do not start the engine).
- Be sure to perform this procedure on a level surface (with an inclination of less than 1%).

- (a) Clear the zero point calibration and system information data.

- (1) Turn the engine switch off.
- (2) Check that the steering wheel is centered.
- (3) Check that the shift lever is in P.
- (4) Connect the Techstream to the DLC3.
- (5) Turn the engine switch on (IG).
- (6) Turn the Techstream on.
- (7) Enter the following menus: Chassis / ABS/VSC/TRAC / Utility / Reset Memory.
- (8) Select the skid control ECU (master cylinder solenoid) to clear the zero point calibration data using the Techstream.
- (9) Turn the engine switch off.

- (b) Perform zero point calibration of the yaw rate and acceleration sensor and store the system information.

- (1) Turn the engine switch off.
- (2) Check that the steering wheel is centered.
- (3) Check that the shift lever is in P.

NOTICE:

- DTCs C1210 (Zero Point Calibration of Yaw Rate Sensor Undone) and C1336 (Zero Point Calibration of Acceleration Sensor Undone) are stored if the shift lever is not in P.
- If a DTC is output that indicates zero point calibration is incomplete, repeat the procedure starting at the step for clearing the zero point calibration data and system information.

- (4) Connect the Techstream to the DLC3.
- (5) Turn the engine switch on (IG).
- (6) Turn the Techstream on.
- (7) Enter the following menus: Chassis / ABS/VSC/TRAC / Utility / Test Mode.
- (8) Keep the vehicle stationary on a level surface for 5 seconds or more.
- (9) Check that the slip indicator light comes on for several seconds and then blinks in the test mode pattern (0.125 seconds on and 0.125 seconds off).

HINT:

- If the slip indicator light does not blink, perform zero point calibration again.
- The zero point calibration is performed only once after the system enters test mode.
- Calibration cannot be performed again until the stored data is cleared.

- (10) Turn the engine switch off and disconnect the Techstream.

- (c) Check if DTC C120A (ECU Initial Setting Incomplete) is output.

HINT:

If DTC C120A is not output, calibration was performed successfully.

3. PERFORM YAW RATE AND ACCELERATION SENSOR ZERO POINT CALIBRATION AND SYSTEM INFORMATION (WHETHER VGRS IS EQUIPPED) (When Using SST Check Wire)

NOTICE:

- While obtaining the zero points, keep the vehicle stationary and do not vibrate, tilt, move, or shake it (do not start the engine).
- Be sure to perform this procedure on a level surface (with an inclination of less than 1%).

- (a) Clear the zero point calibration and system information data.

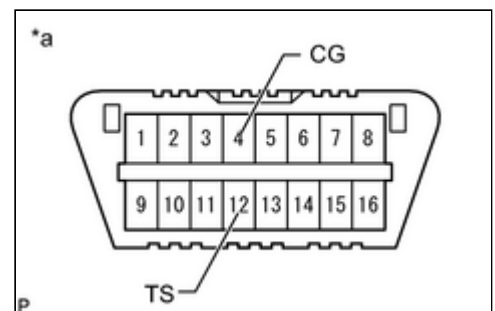
- (1) Turn the engine switch off.
- (2) Check that the steering wheel is centered.
- (3) Check that the shift lever is in P.
- (4) Turn the engine switch on (IG).

- (5) Using SST, connect and disconnect terminals 12 (TS) and 4 (CG) of the DLC3 4 times or more within 8 seconds.

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Text in Illustration

*a	Front view of DLC3
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- (6) Check that the slip indicator light comes on.

- (b) Perform zero point calibration of the yaw rate and acceleration sensor and store the system information.

- (1) Turn the engine switch off.
- (2) Check that the steering wheel is centered.
- (3) Check that the shift lever is in P.

NOTICE:

- DTCs 36 (Zero Point Calibration of Yaw Rate Sensor Undone) and 98 (Zero Point Calibration of Acceleration Sensor Undone) are stored if the shift lever is not in P.

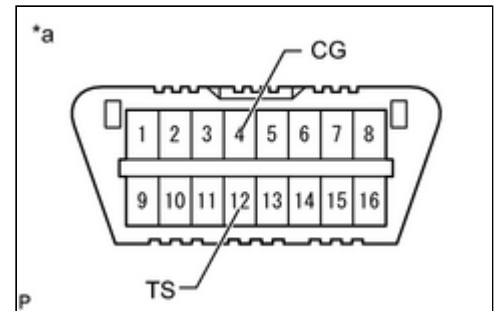
- If a DTC is output that indicates zero point calibration is incomplete, repeat the procedure starting at the step for clearing the zero point calibration data and system information.

(4) Using SST, connect terminals 12 (TS) and 4 (CG) of the DLC3.

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Text in Illustration

*a	Front view of DLC3
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(5) Turn the engine switch on (IG).

(6) Keep the vehicle stationary on a level surface for 5 seconds or more.

(7) Check that the slip indicator light comes on for several seconds and then blinks in the test mode pattern (0.125 seconds on and 0.125 seconds off).

HINT:

- If the slip indicator light does not blink, perform zero point calibration again.
- The zero point calibration is performed only once after the system enters test mode.
- Calibration cannot be performed again until the stored data is cleared.

(8) Turn the engine switch off and disconnect SST from the DLC3.

(c) Check if DTC 13 (ECU Initial Setting Incomplete) is output.

HINT:

If DTC 13 is not output, calibration was performed successfully.

