TOYOTA
SERVICE BULLETIN
Group: 07 No.: 03 Date: May, 17

**Model:** **LandCruiser UZJ200, URJ202 & VDJ200**

# Subject: Corrections to Repair Manual RM19U1E

Please ensure these pages are distributed to all relevant staff for their information; and a copy made available for future reference, with the above repair manual.

| Section | Title | Paragraph |
|---|---|---|
| VARIABLE GEAR RATIO STEERING | VARIABLE GEAR RATIO STEERING SYSTEM | TEST MODE PROCEDURE (2011/09-2012/01) |
| | | TEST MODE PROCEDURE (2012/01- ) |

The revised pages listed above are attached.

(The corrected parts are indicated by arrows.)

This bulletin does not cause the Flat Rate Manual to be changed

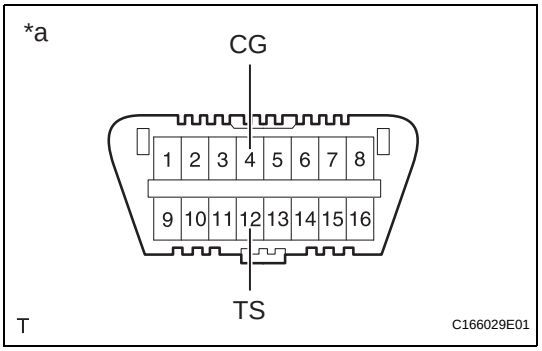
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VG

- When the mode is switched from test mode to normal mode, all the test mode DTCs will be cleared.

(a) Procedure to enter Test Mode (using GTS)
  (1) Turn the engine switch off.
  (2) Connect the GTS to the DLC3.
  (3) Turn the engine switch on (IG).
  (4) Turn the GTS on.
  (5) Enter the following menus: Chassis / VGRS / Utility / Signal Check.

(b) Procedure to enter Test Mode (using SST check wire)
  (1) Turn the engine switch off.
  (2) Using SST, connect terminals 12 (TS) and 4 (CG) of the DLC3.
  **SST 09843-18040**




**Text in Illustration**

| | |
|---|---|
| *a | Front view of DLC3 |

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

(c) Check the Test Mode display.
  (1) Check that "VGRS Test Mode" is displayed on the multi-information display when the system enters Test Mode.

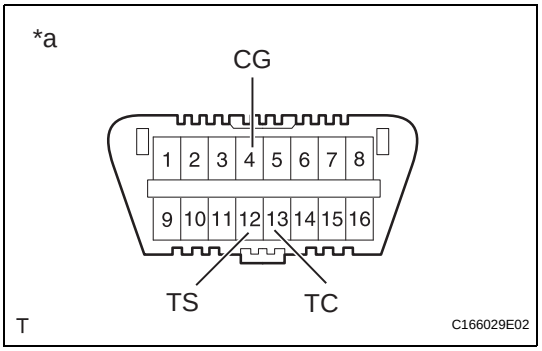
(d) Check the steering sensor signal and motor rotation signal.
  (1) Start the engine.
  (2) Rotate the steering wheel slowly from lock to lock.
  HINT:
  - The state of the master warning light does not change.
  - When the steering signal is confirmed to be normal, the test mode DTC C15C4/68 is cleared.
  - When the steering sensor zero point calibration is performed and the motor rotation signal is confirmed to be normal, the test mode DTC C15C5/69 is cleared.

(e) Read Test Mode DTCs (using GTS)
  (1) Read the test mode DTCs by following the prompts on the GTS screen.

(f) Read Test Mode DTCs (using SST check wire)
  **NOTICE:**
  **Perform these procedures with the vehicle stopped.**
  (1) Turn the engine switch off.

[Corrected]

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(2) Using SST, connect terminals 12 (TS), 13 (TC) and 4 (CG) of the DLC3.
**SST 09843-18040**
**Text in Illustration**

| | |
|---|---|
| *a | Front view of DLC3 |

(3) Turn the engine switch on (IG).
(4) Read the 2-digit test mode DTCs from the multi-information display.

(g) Clear Test Mode DTCs (using GTS)
(1) After completing test mode, disconnect the GTS and turn the engine switch off.

(h) Clear Test Mode DTCs (using SST check wire)
(1) Turn the engine switch off.
(2) Disconnect SST from the DLC3.
**SST 09843-18040**
(3) Turn the engine switch on (IG).
HINT:
If the engine switch is turned on (IG) with terminals 12 (TS) and 4 (CG) connected, the system remains in test mode.

[Corrected]

**2. TEST MODE DTC**

(a) If a trouble code is displayed during the DTC check, check the circuit indicated by the DTC. For details of each code, proceed to the DTC chart.

| DTC Code | Detection Item | Trouble Area | Proceed to |
|---|---|---|---|
| C15C4/68 | A steering signal indicating a tire angle of 36° or more (to the left or right) is input after entering test mode* | • Steering angle sensor<br>• Harness or connector<br>• Steering control ECU | VG-33 |
| C15C5/69 | A steering signal indicating a motor rotation angle of 36° or more (to the left or right) is input after entering test mode* | • Harness or connector<br>• Steering actuator<br>• Steering control ECU | VG-44 |

HINT:
*: A tire angle of 36° and a motor rotation angle of 36° correspond to the steering wheel angle. The amount of change in tire angle and motor rotation angle is from when the mode is changed to test mode.

# PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

**Variable Gear Ratio Steering System**

| Symptom | Suspected Area | See page |
|---|---|---|
| Steering wheel is off-center | Steering wheel is off-center or deviates from neutral position | VG-65 |

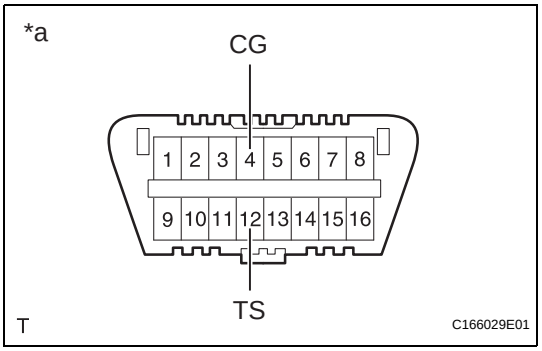
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VG

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  (1) Turn the engine switch off.
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  (5) Enter the following menus: Chassis / VGRS / Utility / Signal Check.

(b) Procedure to enter Test Mode (using SST check wire)
  (1) Turn the engine switch off.
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| *a | Front view of DLC3 |

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

(c) Check the Test Mode display.
  (1) Check that "VGRS Test Mode" is displayed on the multi-information display when the system enters Test Mode.

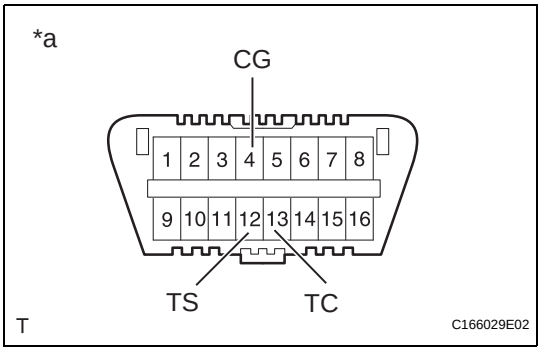
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(e) Read Test Mode DTCs (using GTS)
  (1) Read the test mode DTCs by following the prompts on the GTS screen.

(f) Read Test Mode DTCs (using SST check wire)
  **NOTICE:**
  **Perform these procedures with the vehicle stopped.**
  (1) Turn the engine switch off.

[Corrected]

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**SST 09843-18040**
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| | |
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| *a | Front view of DLC3 |

(3) Turn the engine switch on (IG).
(4) Read the 2-digit test mode DTCs from the multi-information display.

(g) Clear Test Mode DTCs (using GTS)
(1) After completing test mode, disconnect the GTS and turn the engine switch off.

(h) Clear Test Mode DTCs (using SST check wire)
(1) Turn the engine switch off.
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**SST 09843-18040**
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| C15C5/69 | A steering signal indicating a motor rotation angle of 36° or more (to the left or right) is input after entering test mode* | • Harness or connector<br>• Steering actuator<br>• Steering control ECU | VG-43 |

HINT:
*: A tire angle of 36° and a motor rotation angle of 36° correspond to the steering wheel angle. The amount of change in tire angle and motor rotation angle is from when the mode is changed to test mode.

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**Variable Gear Ratio Steering System**

| Symptom | Suspected Area | See page |
|---|---|---|
| Steering wheel is off-center | Steering wheel is off-center or deviates from neutral position | VG-64 |

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