DIB9P–01

DTC	C1568 / 68	Lock Holder Deviation Detection

CIRCUIT DESCRIPTION

The VGRS actuator contains a lock mechanism that mechanically locks the DC motor so the motor will not rotate if a failure occurs or when the engine is not running. The VGRS ECU supplies current to the lock solenoid to release the lock lever for VGRS operation.
When the VGRS ECU detect a malfunction in the lock holder, it turns the warning light on and records the DTC.

DTC No.	DTC Detecting Condition	Trouble Area
C1568/68	The system detects a malfunction in the actuator lock system.	• VGRS actuator

INSPECTION PROCEDURE

HINT:
Determine the trouble area by checking the motor revolution angle sensor signal with hand–held tester. When not using hand–held tester, go to step 2.

1	**Observe the data for MTR REV ANG U, V, W on the hand–held tester.**

PREPARATION:

(a) Connect the hand–held tester to DLC3.
(b) Turn the ignition switch ON. (Engine stop)
(c) Turn the steering wheel to the right and left.
(d) Using the hand–held tester, display the data list.

CHECK:

Check the motor revolution angle sensor signal when slowly turning the steering wheel referring to the data list.

OK:

A, B or C as shown below

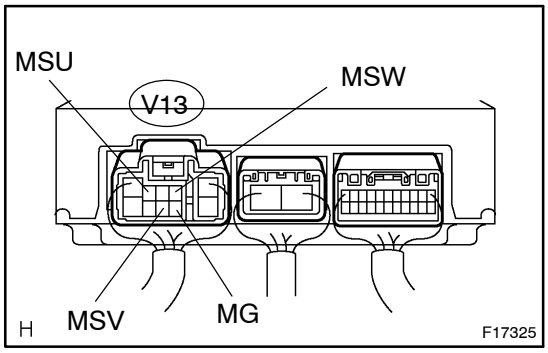
	A		B		C	
	turn to left	turn to right	turn to left	turn to right	turn to left	turn to right
MTR REV ANG U	High	High	High	High	High	High
MTR REV ANG V	Low	Low	Low	Low	High	Low
MTR REV ANG W	Low	Low	Low	High	Low	Low

NG → **Replace VGRS actuator.**

OK →

Perform VGRS system calibration (See page DI–634).

2	Check the voltage motor revolution angle sensor signal.



PREPARATION:

Turn the ignition switch ON (Engine stop).

CHECK:

Measure the voltage between terminals at the VGRS ECU while slowly turning the steering wheel.

OK:

A, B or C as shown below

	A		B		C	
	turn to left	turn to right	turn to left	turn to right	turn to left	turn to right
MSU (V13–4) – MG (V13–7)	Above 3.5 V	Above 3.5 V	Above 3.5 V	Above 3.5 V	Above 3.5 V	Above 3.5 V
MSV (V13–8) – MG (V13–7)	Below 1 V	Below 1 V	Below 1 V	Below 1 V	Above 3.5 V	Below 1 V
MSW (V13–2) – MG (V13–7)	Below 1 V	Below 1 V	Below 1 V	Above 3.5 V	Below 1 V	Below 1 V

NG → **Replace VGRS actuator.**

OK →

PerformVGRS system calibration (See page DI–634).