

## PROBLEM SYMPTOMS TABLE

### HINT:

- Use the table below to help determine the cause of the problem symptom. 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.

### Active torque control 4WD system

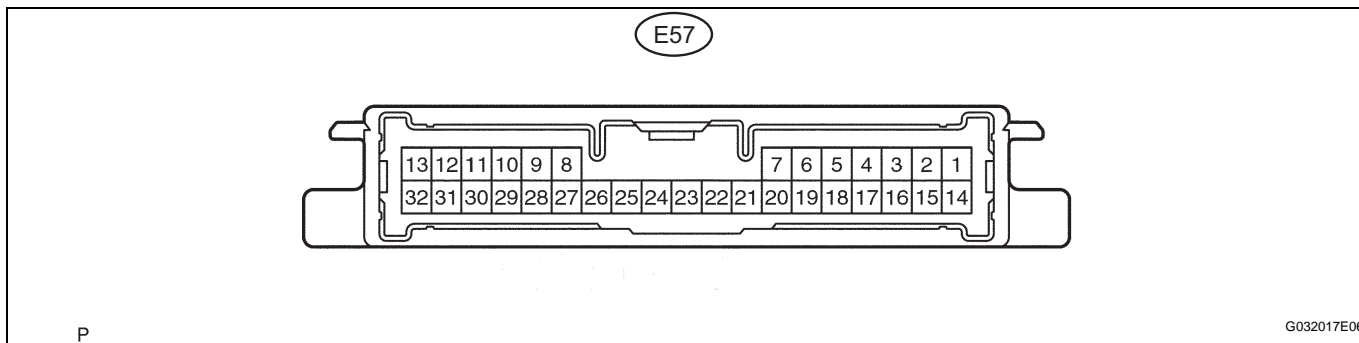
| Symptom   | Suspected area                  | See page              |
|---|---------------------------------|-----------------------|
| Phenomenon of tight-corner braking*   | 1.Steering angle sensor circuit | <a href="#">TF-27</a> |
|   | 2.Linear solenoid circuit       | <a href="#">TF-30</a> |
|   | 3.4WD control ECU               |                       |
| 4WD indicator light remains ON  | 4WD indicator light circuit     | <a href="#">TF-36</a> |
| 4WD indicator light does not come ON  | 4WD indicator light circuit     | <a href="#">TF-40</a> |
| The system is in the DTC output mode although terminals TC and CG of the DLC3 are not short circuited     | 1.TC and CG terminal circuit    | <a href="#">TF-42</a> |
|   | 2.4WD indicator light circuit   |                       |
| The system is not in the DTC output mode although terminals TC and CG of the DLC3 are not short circuited | 1.TC and CG terminal circuit    | <a href="#">TF-42</a> |
|   | 2.4WD indicator light circuit   |                       |

### HINT:

\*:When driving 4WD mode, the vehicle is hard to turn, as if the brakes were applied, due to the rotational difference between the front and rear tires while turning.

# TERMINALS OF ECU

## 1. CHECK 4WD CONTROL ECU



P

G032017E06

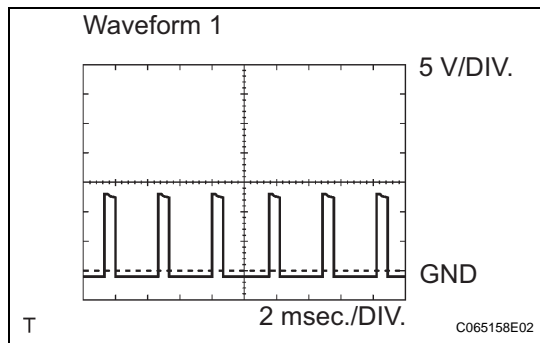
(a) Measure the voltage and resistance of the connector.

| Symbols (Terminal No.)        | Wiring Color      | Terminal Description       | Condition               | Specified Condition               |
|-------------------------------|-------------------|----------------------------|-------------------------|-----------------------------------|
| CANH (E57-14) - CANL (E57-16) | P - W             | CAN communication          | Ignition switch OFF     | 54 to 69 Ω                        |
| GND (E57-23) - Body ground    | W-B - Body ground | Ground                     | Always                  | Below 1 Ω                         |
| 4WDL (E57-7) - Body ground    | R - W-B           | Ground                     | 4WD lock mode switch ON | Below 1 Ω                         |
| IG1 (E57-11) - GND (E57-23)   | L - W-B           | Power source voltage       | Ignition switch ON      | 10 to 14 V                        |
| SLC+ (E57-13) - SLC- (E57-32) | W - B             | 4WD linear solenoid signal | Ignition switch ON      | Pulse generation (See waveform 1) |
| BSLC (E57-9) - GND (E57-23)   | R - W-B           | Power source voltage       | Ignition switch ON      | 10 to 14 V                        |

If the result is not as specified, the 4WD control ECU may have a malfunction.

(b) Using an oscilloscope, check the waveform 1.

### Waveform 1 (Reference)



C065158E02

| Symbols (Terminal No.) | Content                         |
|------------------------|---------------------------------|
| Tool setting           | 5 V/DIV., 2 msec. / DIV.        |
| Vehicle condition      | Engine stop, ignition switch ON |