

## CHECK CAN BUS LINE (RHD)

### CIRCUIT DESCRIPTION

When any DTC for the CAN communication system is output, first measure the resistance between the terminals of the DLC3 to specify the trouble area, and check that there is no short in the CAN main bus line, between the CAN bus lines, to +B, or to GND.

**RHD:** Cruise Control ECU

- CANH: D29 (8) → LG (\*2) → IC5 (16) → LG (\*2) → J45 (1) → P-CAN J/C (1) → J46 (1) → LG → D1 DLC3 (6)
- CANL: D29 (9) → L (\*2) → IC5 (15) → L (\*2) → J45 (2) → P-CAN J/C (2) → J46 (2) → L → D1 DLC3 (14)

**Engine and ECT ECU**

- CANH: E4 (25) → R → IC6 (6) → R → J47 (1) → P-CAN J/C (1) → J42 (1) → BR → A24 (7) → CANH
- CANL: E4 (24) → W → IC6 (17) → W → J47 (2) → P-CAN J/C (2) → J42 (2) → Y → A24 (8) → CANL

**Y1 Yaw Rate Sensor**

- CANH: 3 → BR → J35 (1) → D-CAN J/C (1) → J34 (1) → B → J43 (1) → W-B → Gateway ECU (G1 17) → CA1H
- CANL: 2 → Y → J35 (2) → D-CAN J/C (2) → J34 (2) → W → J43 (2) → W-B → Gateway ECU (G1 18) → CA1L

**S18 Steering Sensor**

- CANH: 10 → LG → J37 (1) → D-CAN J/C (1) → J39 (1) → L → Gateway ECU (G1 18) → CA1L
- CANL: 9 → L → J37 (2) → D-CAN J/C (2) → J39 (2) → L → Gateway ECU (G1 18) → CA1L

**Skid Control ECU with Actuator**

- CANH: S48 (11) → BR → IH5 (7) → BR → J40 (1) → D-CAN J/C (1) → J38 (1) → B (\*1) → IG3 (19) → W-B → Gateway ECU (G1 18) → CA1L
- CANL: S48 (25) → Y → IH5 (16) → Y → J40 (2) → D-CAN J/C (2) → J38 (2) → W (\*1) → IG3 (20) → W-B → Gateway ECU (G1 18) → CA1L

**Television Camera ECU**

- CANH: T24 (8) → LG (\*1) → J51 (1) → LAG-CAN J/C (1) → J52 (1) → B (\*1) → W-B → Gateway ECU (G1 18) → CA1L
- CANL: T24 (7) → L (\*1) → J51 (2) → LAG-CAN J/C (2) → J52 (2) → W (\*1) → W-B → Gateway ECU (G1 18) → CA1L

**B-W Battery/Water Pump**

- 1 → DA → OBD → DF → 12 → B-L

**D-J/B Alternator**

- 1 → D-J/B → ALT → 12 → B-L

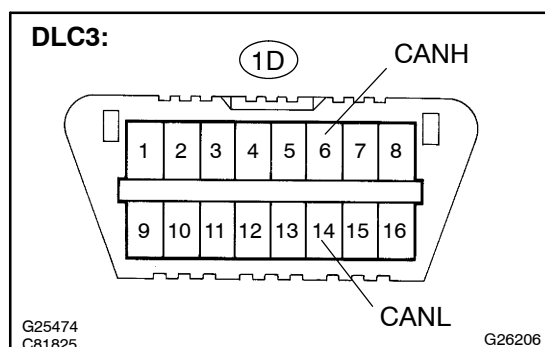
**Battery**

- Grounded at IH

**\*1: w/ LEXUS Navigation System**  
**\*2 w/ Dynamic Laser Cruise Control**  
**\*3: w/ Electronic Modulated Air Suspension**

## INSPECTION PROCEDURE

|          |                                                                                         |
|----------|-----------------------------------------------------------------------------------------|
| <b>1</b> | <b>CHECK CAN BUS LINE(MAIN BUS LINE FOR DISCONNECTION, BUS LINES FOR SHORT CIRCUIT)</b> |
|----------|-----------------------------------------------------------------------------------------|



- (a) Turn the ignition switch to the LOCK position.  
 (b) Measure the resistance according to the value(s) in the table below.

**Standard:**

| Tester connection          | Condition           | Specified value                                       | Result |
|----------------------------|---------------------|-------------------------------------------------------|--------|
| D1-6 (CANH) - D1-14 (CANL) | Ignition Switch OFF | 54 to 69 $\Omega$                                     | OK     |
| D1-6 (CANH) - D1-14 (CANL) | Ignition Switch OFF | 69 $\Omega$ or more<br>(w/o LEX-US Navigation System) | NG-A   |
| D1-6 (CANH) - D1-14 (CANL) | Ignition Switch OFF | 69 $\Omega$ or more<br>(w/ LEX-US Navigation System)  | NG-B   |
| D1-6 (CANH) - D1-14 (CANL) | Ignition Switch OFF | 54 $\Omega$ or less<br>(w/o LEX-US Navigation System) | NG-C   |
| D1-6 (CANH) - D1-14 (CANL) | Ignition Switch OFF | 54 $\Omega$ or less<br>(w/ LEX-US Navigation System)  | NG-D   |

**NG-A**

**CHECK CAN MAIN BUS LINE FOR DISCONNECTION (RHD, W/O LEXUS NAVIGATION SYSTEM) (SEE PAGE 05-3468)**

**NG-B**

**CHECK CAN MAIN BUS LINE FOR DISCONNECTION (RHD, W/ LEXUS NAVIGATION SYSTEM) (SEE PAGE 05-3518)**

**NG-C**

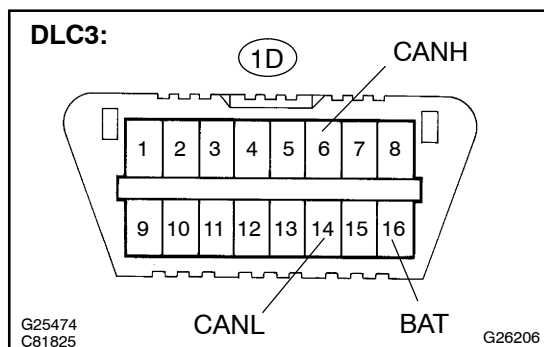
**CHECK CAN BUS LINES FOR SHORT CIRCUIT (RHD, W/O LEXUS NAVIGATION SYSTEM) (SEE PAGE 05-3471)**

**NG-D**

**CHECK CAN BUS LINES FOR SHORT CIRCUIT (RHD, W/ LEXUS NAVIGATION SYSTEM) (SEE PAGE 05-3522)**

OK

## 2 CHECK CAN BUS LINE FOR SHORT TO +B



- (a) Measure the resistance according to the value(s) in the table below.

### Standard:

| Tester connection             | Condition           | Specified value |
|-------------------------------|---------------------|-----------------|
| D1-6 (CANH) -<br>D1-16 (BAT)  | Ignition Switch OFF | 1 MΩ or more    |
| D1-14 (CANL) -<br>D1-16 (BAT) | Ignition Switch OFF | 1 MΩ or more    |

### HINT:

- NG-A: w/o LEXUS Navigation System.
- NG-B: .w/ LEXUS Navigation System.

**NG-A**

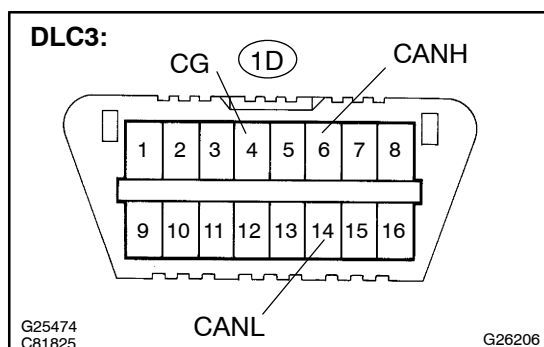
**CHECK CAN BUS LINE FOR SHORT TO +B  
(RHD, W/O LEXUS NAVIGATION SYSTEM)  
(SEE PAGE 05-3487)**

**NG-B**

**CHECK CAN BUS LINE FOR SHORT TO +B  
(RHD, W/ LEXUS NAVIGATION SYSTEM)  
(SEE PAGE 05-3542)**

**OK**

## 3 CHECK CAN BUS LINE FOR SHORT TO GND



- (a) Measure the resistance according to the value(s) in the table below.

### Standard:

| Tester connection           | Condition           | Specified value |
|-----------------------------|---------------------|-----------------|
| D1-4 (CG) -<br>D1-6 (CANH)  | Ignition Switch OFF | 1 kΩ or more    |
| D1-4 (CG) -<br>D1-14 (CANL) | Ignition Switch OFF | 1 kΩ or more    |

### HINT:

- NG-A: w/o LEXUS Navigation System.
- NG-B: w/ LEXUS Navigation System.

**NG-A**

**CHECK CAN BUS LINE FOR SHORT TO GND  
(RHD, W/O LEXUS NAVIGATION SYSTEM)  
(SEE PAGE 05-3502)**

**NG-B**

**CHECK CAN BUS LINE FOR SHORT TO GND  
(RHD, W/ LEXUS NAVIGATION SYSTEM)  
(SEE PAGE 05-3560)**

**OK**

**HOW TO PROCEED WITH TROUBLESHOOTING (SEE PAGE 05-3306)**