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2001 LEXUS LS OEM Service and Repair Workshop Manual

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| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|------------------------|
| E55-10 (CAVH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| E55-11 (CAVL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

PARKING ASSIST ECU (w/o Parking Assist Monitor System)

Refer to Terminals of ECU.

- w/ Panoramic View Monitor System: Click here
- w/ Multi-terrain Monitor System: Click here
 - (a) Disconnect the cable from the negative (-) battery terminal.
 - (b) Disconnect the parking assist ECU connector.
 - (c) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|--|-------------------------|
| E72-12 (CANH) - E72-13 (CANL) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| E72-12 (CANH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E72-13 (CANL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E72-12 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| E72-13 (CANL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \ k\Omega$ or higher |

FORWARD RECOGNITION CAMERA

Refer to Terminals of ECU.

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the forward recognition camera connector.
- (c) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|---|--|---|------------------------|
| B7-4 (CA2H) - B7-3 (CA2L) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 108 to 132 Ω |
| B7-4 (CA2H) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| B7-3 (CA2L) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| B7-4 (CA2H) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| B7-3 (CA2L) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| B7-10 (CA3H) - B7-9 (CA3L) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 108 to 132 Ω |
| B7-10 (CA3H) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| B7-9 (CA3L) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| B7-10 (CA3H) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| B7-9 (CA3L) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

FRONT SIDE RADAR SENSOR (A)(w/ Front Side Radar Sensor System)

Refer to Terminals of ECU.

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the front side radar sensor (A) connector.
- (c) Measure the resistance according to the value(s) in the table below.

NETWORKING: CAN COMMUNICATION SYSTEM: TERMINALS OF ECU; 2024 MY GX550 [12/2023 -

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| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|-------------------------|
| E69-17 (R1) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E69-18 (R2) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E69-17 (R1) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \ k\Omega$ or higher |
| E69-18 (R2) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \ k\Omega$ or higher |

BLIND SPOT MONITOR SENSOR LH (B)

Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the blind spot monitor sensor LH (B) connector.
- (c) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|--|-------------------------|
| K8-3 (CA1P) - K8-2 (CA1N) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| K8-3 (CA1P) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| K8-2 (CA1N) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| K8-3 (CA1P) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \ k\Omega$ or higher |
| K8-2 (CA1N) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \ k\Omega$ or higher |

REAR TELEVISION CAMERA ASSEMBLY (w/ Parking Assist Monitor System)

Refer to Terminals of ECU.

Click here

(a) Disconnect the cable from the negative (-) battery terminal.

(b) Disconnect the rear television camera assembly connector.

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NETWORKING: CAN COMMUNICATION SYSTEM: TERMINALS OF ECU; 2024 MY GX550 [12/2023 -

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| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|------------------------|
| C99-20 (CANH) - C99-21 (CANL) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| C99-20 (CANH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| C99-21 (CANL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| C99-20 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| C99-21 (CANL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

ECM

Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the ECM connector.
- (c) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

Bus 2 Main Lines

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|---|--|---|-------------------------------|
| A2-18 (CANH) - A2-17 (CANL) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 108 to 132 Ω |
| A2-18 (CANH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| A2-17 (CANL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| A2-18 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \text{ k}\Omega$ or higher |

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| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|------------------------|
| E15-13 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| E15-14 (CANL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

STEREO COMPONENT EQUALIZER ASSEMBLY

Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the stereo component equalizer assembly connector.



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

Standard Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|------------------------|
| L15-1 (CANH) - L15-15 (CANL) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| L15-1 (CANH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| L15-15 (CANL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| L15-1 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| L15-15 (CANL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

DCM (TELEMATICS TRANSCEIVER) (w/ Telematics System)

Refer to Terminals of ECU.

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the DCM (telematics transceiver) connector.
- (c) Measure the resistance according to the value(s) in the table below.

NETWORKING: CAN COMMUNICATION SYSTEM: TERMINALS OF ECU; 2024 MY GX550 [12/2023 -

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| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|------------------------|
| E117-5 (CANH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E117-6 (CANL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E117-5 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| E117-6 (CANL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

COMBINATION METER ASSEMBLY

Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the combination meter assembly connector.
- (c) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|---|--|---|------------------------|
| E5-31 (CANH) - E5-14 (CANL) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 108 to 132 Ω |
| E5-31 (CANH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E5-14 (CANL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E5-31 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| E5-14 (CANL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

STEERING SENSOR

Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the steering sensor connector.

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(to Airbag ECU Assembly)

Standard Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|--|------------------------|
| E41-26 (CAFH) - E41-27 (CAFL) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| E41-26 (CAFH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E41-27 (CAFL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E41-26 (CAFH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| E41-27 (CAFL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 kΩ or higher |

BRAKE ACTUATOR ASSEMBLY (SKID CONTROL ECU)

Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the brake actuator assembly (skid control ECU) connector.
- (c) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

Bus 4 Branch Lines

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|-------------------------------|
| A25-27 (CANH) - A25-43 (CANL) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| A25-27 (CANH) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| A25-43 (CANL) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| A25-27 (CANH) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| A25-43 (CANL) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \text{ k}\Omega$ or higher |

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Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the position control ECU assembly LH (for Front Seat) connector.
- (c) Measure the resistance according to the value(s) in the table below.



Stanuaru Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|------------------------|
| a41-13 (CANP) - a41-14 (CANN) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| a41-13 (CANP) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| a41-14 (CANN) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| a41-13 (CANP) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| a41-14 (CANN) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)

Refer to Terminals of ECU.

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the certification ECU (smart key ECU assembly) connector.
- (c) Measure the resistance according to the value(s) in the table below.



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| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|---|---|------------------------|
| a20-14 (CANN) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |

MULTIPLEX TILT AND TELESCOPIC ECU (w/ Power Tilt and Power Telexcopic Steering System)

Refer to Terminals of ECU.

Click here

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the multiplex tilt and telescopic ECU connector.
- (c) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

| TERMINAL NO. (SYMBOL) | TERMINAL DESCRIPTION | CONDITION | SPECIFIED CONDITION |
|--|--|---|-------------------------|
| E56-3 (CANP) - E56-11 (CANN) | HIGH-level CAN bus line - LOW- level CAN bus line | Cable disconnected from negative (-) battery terminal | 54 to 69 Ω |
| E56-3 (CANP) - Body ground | HIGH-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E56-11 (CANN) - Body ground | LOW-level CAN bus line - Body ground | Cable disconnected from negative (-) battery terminal | 200 Ω or higher |
| E56-3 (CANP) - Positive (+) battery terminal | HIGH-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | 6 k Ω or higher |
| E56-11 (CANN) - Positive (+) battery terminal | LOW-level CAN bus line - Positive (+) battery terminal | Cable disconnected from negative (-) battery terminal | $6 \ k\Omega$ or higher |

MULTIPLEX NETWORK DOOR ECU

Refer to Terminals of ECU.

- (a) Disconnect the cable from the negative (-) battery terminal.
- (b) Disconnect the multiplex network door ECU connector.
- (c) Measure the resistance according to the value(s) in the table below.