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2023 Lexus RX Service Manual

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Standard Voltage:



[Click Location & Routing\(G48\).](#)
[Click Connector\(G48\).](#)

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION	RESULT
G48-2 (LCB+) - G48-1 (LGND)	Ignition switch ON	7.5 to 8.5 V	V

Post-procedure1
(d) None

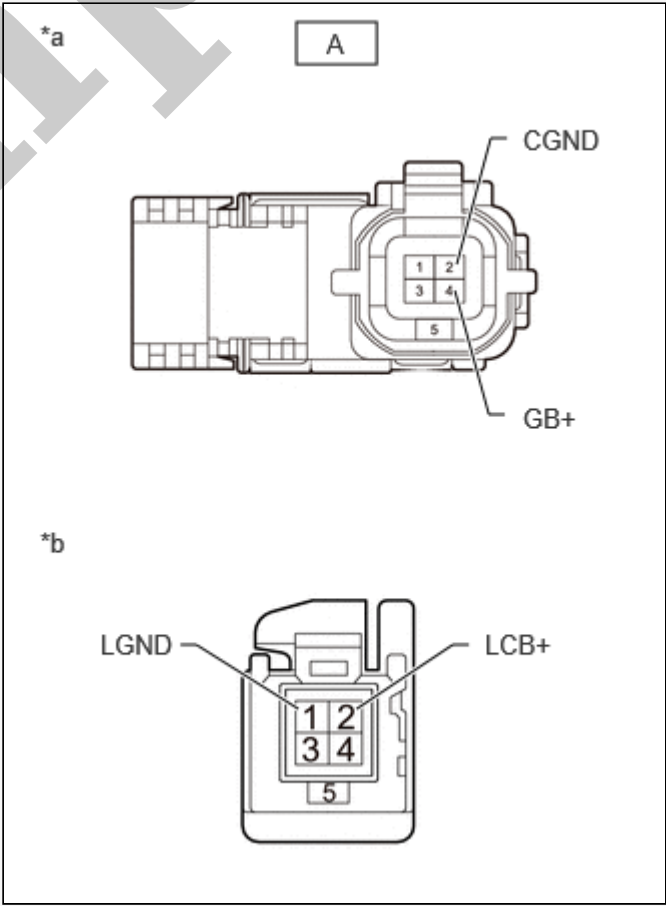
NG **REPLACE PARKING ASSIST ECU**



3. INSPECT OUTER MIRROR RETRACTOR LH

Pre-procedure1

- (a) Disconnect the side television camera assembly LH connector.



*a	Front view of wire harness connector (to Side Television Camera Assembly LH)
*b	Component without harness connected

RESULT	PROCEED TO
C168F11 is not output	A
C168F11 is output	B

- A

▶

END (SIDE TELEVISION CAMERA ASSEMBLY LH WAS DEFECTIVE)
- B

▶

REPLACE PARKING ASSIST ECU

[Click here](#) 

PROCEDURE

1. CHECK FOR DTCs

(a) Using the GTS, check for DTCs and proceed to the respective link below.

Chassis > Circumference Monitoring Camera Control Module > Trouble Codes

RESULT	PROCEED TO
C169D87 and any DTCs in the table below are output	A
Only C169D87 is output	B

SYSTEM	RELEVANT DTC	
Circumference Monitoring Camera Control Module	C162287	Rear Camera Image Signal Missing Message
Circumference Monitoring Camera Control Module	C168187	Front Camera Image Signal Missing Message
Circumference Monitoring Camera Control Module	C168E87	Side Camera (Left) Image Signal Missing Message

A  **PROCEED TO THE RESPECTIVE PROCEDURE**

B



2. CHECK HARNESS AND CONNECTOR (PARKING ASSIST ECU - OUTER REAR VIEW MIRROR ASSEMBLY RH)

Pre-procedure1

- (a) Disconnect the E168 parking assist ECU connector.
- (b) Disconnect the G25 outer rear view mirror assembly RH connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(E168,G25\).](#)

[Click Connector\(E168\).](#)

[Click Connector\(G25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
E168-1 (RCB+) - G25-2 (RCB+)	Always	Below 1 Ω	Ω
E168-3 (RCV+) - G25-4 (RCV+)	Always	Below 1 Ω	Ω
E168-4 (RCV-) - G25-3 (RCV-)	Always	Below 1 Ω	Ω
E168-2 (RGND) - G25-1 (RGND)	Always	Below 1 Ω	Ω
E168-5 (SGND) - G25-5 (SGND)	Always	Below 1 Ω	Ω
E168-1 (RCB+) or G25-2 (RCB+) - Body ground	Always	10 k Ω or higher	k Ω

OK

**4. CHECK PARKING ASSIST ECU (RCB+, RGND)**

Pre-procedure1

(a) Disconnect the G25 outer rear view mirror assembly RH connector.

Procedure1

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

Standard Resistance:

[Click Location & Routing\(G25\).](#)[Click Connector\(G25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
G25-1 (RGND) - Body ground	Always	Below 1 Ω	Ω

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

Standard Voltage:

[Click Location & Routing\(G25\).](#)[Click Connector\(G25\).](#)

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION	RESULT
G25-2 (RCB+) - G25-1 (RGND)	Ignition switch ON	7.5 to 8.5 V	V

Post-procedure1

(d) None

NG **REPLACE PARKING ASSIST ECU**

OK

**5. INSPECT OUTER MIRROR RETRACTOR RH**

Pre-procedure1

(a) Disconnect the side television camera assembly RH connector.

OK**6. REPLACE SIDE TELEVISION CAMERA ASSEMBLY RH****HINT:**[Click here](#)**INFO****NEXT****7. CLEAR DTC**

(a) Clear the DTCs.

Chassis > Circumference Monitoring Camera Control Module > Clear DTCs**NEXT****8. CHECK FOR DTC**

(a) Check for DTCs.

Chassis > Circumference Monitoring Camera Control Module > Trouble Codes

RESULT	PROCEED TO
C169D87 is not output	A
C169D87 is output	B

A ► END (SIDE TELEVISION CAMERA ASSEMBLY RH WAS DEFECTIVE)**B ► REPLACE PARKING ASSIST ECU**

1. CHECK HARNESS AND CONNECTOR (PARKING ASSIST ECU - OUTER REAR VIEW MIRROR ASSEMBLY RH)

Pre-procedure1

- (a) Disconnect the E168 parking assist ECU connector.
- (b) Disconnect the G25 outer rear view mirror assembly RH connector.

Procedure1

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

Standard Resistance:

[Click Location & Routing\(E168,G25\).](#)[Click Connector\(E168\).](#)[Click Connector\(G25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
E168-1 (RCB+) - G25-2 (RCB+)	Always	Below 1 Ω	Ω
E168-2 (RGND) - G25-1 (RGND)	Always	Below 1 Ω	Ω
E168-1 (RCB+) or G25-2 (RCB+) - Body ground	Always	10 k Ω or higher	k Ω
E168-2 (RGND) or G25-1 (RGND) - Body ground	Always	10 k Ω or higher	k Ω

Post-procedure1

- (d) None

NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR**OK****2. CHECK PARKING ASSIST ECU (RCB+, RGND)**

Pre-procedure1

- (a) Disconnect the G25 outer rear view mirror assembly LH connector.

Procedure1

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

Standard Resistance:

[Click Location & Routing\(G25\).](#)[Click Connector\(G25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
G25-1 (RGND) - Body ground	Always	Below 1 Ω	Ω

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

(Outer Rear View Mirror Assembly RH)

(b) Disconnect the outer rear view mirror assembly RH connector.

Procedure1

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
2 (RCB+) - B-4 (GB+)	Always	Below 1 Ω	Ω
1 (RGND) - B-2 (CGND)	Always	Below 1 Ω	Ω
2 (RCB+) or B-4 (GB+) - Body ground	Always	10 k Ω or higher	k Ω
1 (RGND) or B-2 (CGND) - Body ground	Always	10 k Ω or higher	k Ω

Post-procedure1

(d) None

NG▶REPLACE OUTER MIRROR RETRACTOR RH



4. REPLACE SIDE TELEVISION CAMERA ASSEMBLY RH

HINT:

Click here [INFO](#)



5. CLEAR DTC

(a) Clear the DTCs.

Chassis > Circumference Monitoring Camera Control Module > Clear DTCs



6. CHECK FOR DTC

(a) Check for DTCs.

Chassis > Circumference Monitoring Camera Control Module > Trouble Codes

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002H6L7
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: PARK ASSIST / MONITORING: PANORAMIC VIEW MONITOR SYSTEM: U010087,U012687,U012987,U013187,U014087,U015587,U016387,U019887,U111087,U114F87; Lost Communication with ECM/PCM "A" Missing Message; 2024 MY GX550 [12/2023 -]		

DTC	U010087	Lost Communication with ECM/PCM "A" Missing Message
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DTC	U012687	Lost Communication with Steering Angle Sensor Module Missing Message
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DTC	U012987	Lost Communication with Brake System Control Module "A" Missing Message
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DTC	U013187	Lost Communication with Power Steering Control Module Missing Message
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DTC	U014087	Lost Communication with Body Control Module Missing Message
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DTC	U015587	Lost Communication with Instrument Panel Cluster (IPC) Control Module Missing Message
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DTC	U016387	Lost Communication with Navigation Control Module Missing Message
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DTC	U019887	Lost Communication with Telematic Control Module "A" Missing Message
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DTC	U111087	Lost Communication with Clearance Sonar Module Missing Message
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DTC	U114F87	Lost Communication with Power Integration Module Missing Message
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DESCRIPTION

These DTCs are stored if there is a malfunction in the CAN communication system connected to the parking assist ECU.

HINT:

If CAN communication system DTCs are stored, they may also be stored in other systems.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
U010087	Lost Communication with ECM/PCM "A" Missing Message	Lost communication with ECM	CAN communication system	Circumference Monitoring Camera Control Module	B
U012687	Lost Communication with Steering Angle Sensor Module Missing Message	Lost communication with steering sensor	CAN communication system	Circumference Monitoring Camera Control Module	B
U012987	Lost Communication with Brake System Control Module "A" Missing Message	Lost communication with skid Control ECU	CAN communication system	Circumference Monitoring Camera Control Module	B
U013187	Lost Communication with Power Steering Control Module Missing Message	Lost communication with power steering ECU	CAN communication system	Circumference Monitoring Camera Control Module	B
U014087	Lost Communication with Body Control Module Missing Message	Lost communication with main body ECU (multiplex network body ECU)	CAN communication system	Circumference Monitoring Camera Control Module	B

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002H6L9
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: PARK ASSIST / MONITORING: PANORAMIC VIEW MONITOR SYSTEM: "CHK" message(s) are displayed on the SIGNAL CHECK screen.; 2024 MY GX550 [12/2023 -]		

"CHK" message(s) are displayed on the SIGNAL CHECK screen.

DESCRIPTION

On the SIGNAL CHECK screen, it is possible to check if the signals sent to the parking assist ECU are normal.

Click here [INFO](#)

HINT:

- On the SIGNAL CHECK screen, "OK" (blue) is displayed for items with a normal inspection result or input state.
- On the SIGNAL CHECK screen, "CHK" (red) is displayed for items with an abnormal inspection result or input state.
- Displayed items may differ depending on vehicle specifications.

ITEM	SIGNAL INPUT METHOD	DETAIL	DTC OUTPUT WHEN ABNORMAL RESULT IS DISPLAYED	SIGNAL RECEIVER
CAN	CAN communication	CAN communication signal	DTC is output	Related ECUs
CAMERA SW	Vehicle wire harness	Panoramic view monitor switch signal input state	DTC is not output	Panoramic view monitor main switch (No. 2 combination switch assembly)
SHIFT	Vehicle wire harness	Shift position switch signal	DTC is not output	Park/neutral position switch assembly

WIRING DIAGRAM

