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2007 LEXUS RX OEM Service and Repair Workshop Manual

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RESULT	PROCEED TO
C173112 is output	A
C173112 is not output	B

Post-procedure1

(c) Turn the ignition switch off.

A ▶ REPLACE ABSORBER CONTROL ECU

B ▶ USE SIMULATION METHOD TO CHECK

4. CHECK HARNESS AND CONNECTOR (POWER SUPPLY - ABSORBER CONTROL ECU)

Pre-procedure1

(a) Disconnect the K25 absorber control ECU connector.

(b) Disconnect the A front absorber control actuator RH (front shock absorber assembly RH) connector.

Procedure1

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

Standard Voltage:



[Click Location & Routing\(K25\).](#)

[Click Connector\(K25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K25-5 (FAR+) - Body ground	Always	Below 1.5 V	V
K25-6 (FAR-) - Body ground	Always	Below 1.5 V	V

Post-procedure1

(d) Connect the A front absorber control actuator RH (front shock absorber assembly RH) connector.

(e) Connect the K25 absorber control ECU connector.

OK ▶ REPLACE FRONT SHOCK ABSORBER ASSEMBLY RH

NG



5. CHECK HARNESS AND CONNECTOR (POWER SUPPLY - ABSORBER CONTROL ECU)

Pre-procedure1

(a) Disconnect the K25 absorber control ECU connector.

(b) Disconnect the A42 front speed sensor RH connector.

Procedure1

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

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HAMS
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: SUSPENSION CONTROL: ADAPTIVE VARIABLE SUSPENSION SYSTEM: C173114; Front Right Damping Force Control Actuator Circuit Circuit Short to Ground or Open; 2024 MY GX550 [12/2023 -]		

DTC	C173114	Front Right Damping Force Control Actuator Circuit Circuit Short to Ground or Open
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DESCRIPTION

The front absorber control actuator RH (front shock absorber assembly RH) switches the damping force of the absorber based on an output signal from the absorber control ECU.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C173114	Front Right Damping Force Control Actuator Circuit Circuit Short to Ground or Open	Either condition is met: - An open circuit is detected between the front absorber control actuator RH (front shock absorber assembly RH) and absorber control ECU. - A short circuit is detected between the front absorber control actuator RH (front shock absorber assembly RH) and absorber control ECU.	- Front absorber control actuator RH (front shock absorber assembly RH) - Wire harness or connector - Front speed sensor RH - Absorber control ECU	Adaptive Variable Suspension System	A

WIRING DIAGRAM

Refer to DTC C173112.

Click here [INFO](#)

PROCEDURE

1.	INSPECT FRONT ABSORBER CONTROL ACTUATOR RH (FRONT SHOCK ABSORBER ASSEMBLY RH)
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HINT:

Click here [INFO](#)

NG  REPLACE FRONT SHOCK ABSORBER ASSEMBLY RH



Pre-procedure1

(a) Turn the ignition switch to ON.

Procedure1

(b) Check for DTCs.

RESULT	PROCEED TO
C173114 is output	A
C173114 is not output	B

Post-procedure1

(c) Turn the ignition switch off.

A ► REPLACE ABSORBER CONTROL ECU

B ► USE SIMULATION METHOD TO CHECK

5. CHECK HARNESS AND CONNECTOR (FRONT SPEED SENSOR RH - ABSORBER CONTROL ECU)

Pre-procedure1

(a) Disconnect the K25 absorber control ECU connector.

(b) Disconnect the A42 front speed sensor RH connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(K25,A42\).](#)

[Click Connector\(K25\).](#)

[Click Connector\(A42\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K25-5 (FAR+) - A42-4 (FAR+)	Always	Below 1 Ω	Ω
K25-6 (FAR-) - A42-8 (FAR-)	Always	Below 1 Ω	Ω
K25-5 (FAR+) or A42-4 (FAR+) - Body ground	Always	10 k Ω or higher	k Ω
K25-6 (FAR-) or A42-8 (FAR-) - Body ground	Always	10 k Ω or higher	k Ω

Post-procedure1

(d) Connect the A42 front speed sensor RH connector.

(e) Connect the K25 absorber control ECU connector.

OK ► REPLACE FRONT SPEED SENSOR RH

NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR

Pre-procedure1

(a) Disconnect the K25 absorber control ECU connector.

Procedure1

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

Standard Voltage:



[Click Location & Routing\(K25\).](#)

[Click Connector\(K25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K25-2 (FAL+) - Body ground	Always	Below 1.5 V	V
K25-3 (FAL-) - Body ground	Always	Below 1.5 V	V

Post-procedure1

(c) Connect the K25 absorber control ECU connector.

NG ► **GO TO STEP 4**

OK



2. CLEAR DTC

Pre-procedure1

(a) None

Procedure1

(b) Clear the DTCs.

Post-procedure1

(c) Turn the ignition switch off.

NEXT



3. CHECK DTC

Pre-procedure1

(a) Turn the ignition switch to ON.

Procedure1

(b) Check for DTCs.

Standard Voltage:

[Click Location & Routing\(K25\).](#)[Click Connector\(K25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K25-2 (FAL+) - Body ground	Always	Below 1.5 V	V
K25-3 (FAL-) - Body ground	Always	Below 1.5 V	V

Post-procedure1

(d) Connect the A43 front speed sensor LH connector.

(e) Connect the K25 absorber control ECU connector.

OK ► **REPLACE FRONT SPEED SENSOR LH****NG** ► **REPAIR OR REPLACE HARNESS OR CONNECTOR**

2. CHECK HARNESS AND CONNECTOR (FRONT ABSORBER CONTROL ACTUATOR LH (FRONT SHOCK ABSORBER ASSEMBLY LH) - ABSORBER CONTROL ECU)

Pre-procedure1

- (a) Disconnect the K25 absorber control ECU connector.
- (b) Disconnect the B front absorber control actuator LH (front shock absorber assembly LH) connector.

Procedure1

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

Standard Resistance:

[Click Location & Routing\(K25\).](#)[Click Connector\(K25\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K25-2 (FAL+) - B-1 (FAL+)	Always	Below 1 Ω	Ω
K25-3 (FAL-) - B-5 (FAL-)	Always	Below 1 Ω	Ω
K25-2 (FAL+) or B-1 (FAL+) - Body ground	Always	10 k Ω or higher	k Ω
K25-3 (FAL-) or B-5 (FAL-) - Body ground	Always	10 k Ω or higher	k Ω

Post-procedure1

- (d) Connect the B front absorber control actuator LH (front shock absorber assembly LH) connector.
- (e) Connect the K25 absorber control ECU connector.

NG **GO TO STEP 5****OK**
3. CLEAR DTC

Pre-procedure1

- (a) None

Procedure1

- (b) Clear the DTCs.

Post-procedure1

- (c) Turn the ignition switch off.

NEXT
4. CHECK DTC

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HAMV
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: SUSPENSION CONTROL: ADAPTIVE VARIABLE SUSPENSION SYSTEM: C173312; Rear Right Damping Force Control Actuator Circuit Circuit Short to Battery; 2024 MY GX550 [12/2023 -]		

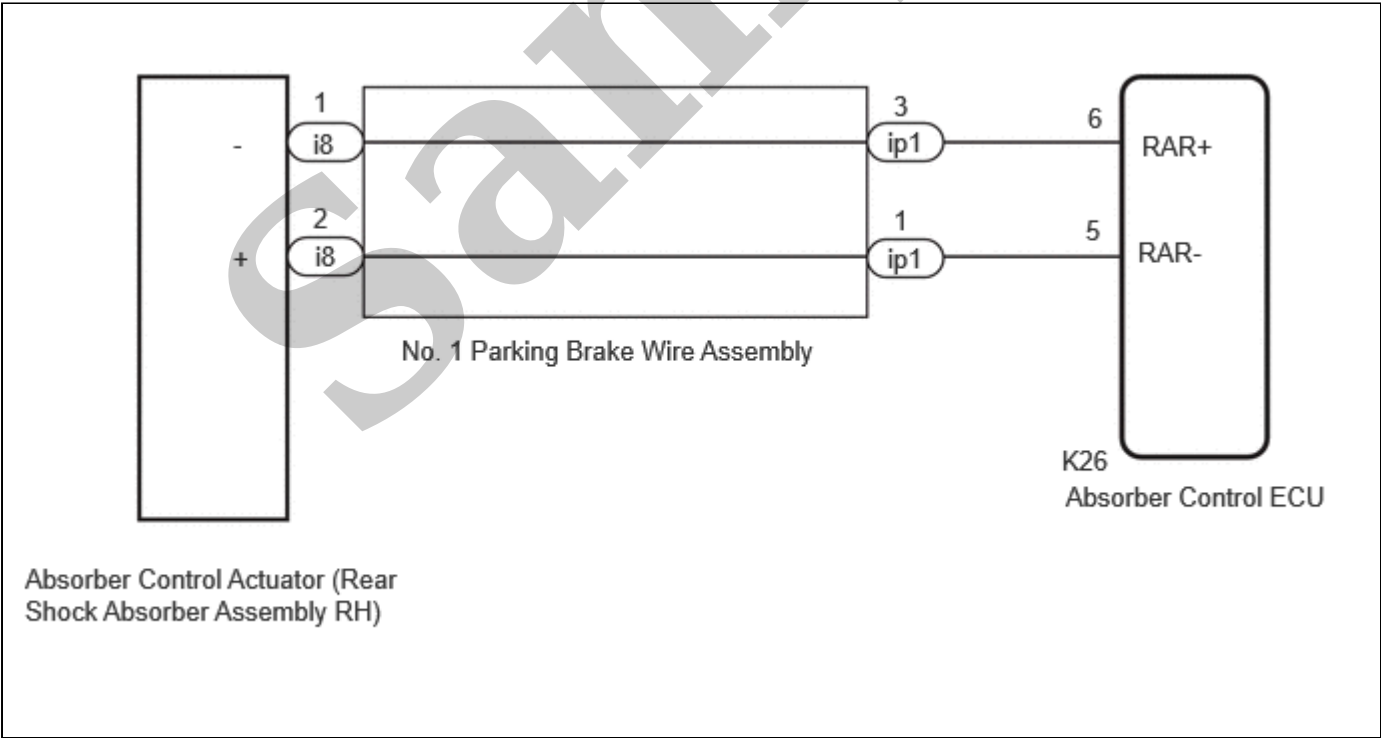
DTC	C173312	Rear Right Damping Force Control Actuator Circuit Circuit Short to Battery
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DESCRIPTION

The rear absorber control actuator RH (rear shock absorber assembly RH) switches the damping force of the absorber based on an output signal from the absorber control ECU.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C173312	Rear Right Damping Force Control Actuator Circuit Circuit Short to Battery	A short with the power source circuit is detected	• Rear absorber control actuator RH (rear shock absorber assembly RH) • Wire harness or connector • No. 1 parking brake wire assembly • Absorber control ECU	Adaptive Variable Suspension System	A

WIRING DIAGRAM



PROCEDURE

1.	CHECK HARNESS AND CONNECTOR (POWER SUPPLY - ABSORBER CONTROL ECU)
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RESULT	PROCEED TO
C173312 is output	A
C173312 is not output	B

Post-procedure1

(c) Turn the ignition switch off.

A ► REPLACE ABSORBER CONTROL ECU

B ► USE SIMULATION METHOD TO CHECK

4. CHECK HARNESS AND CONNECTOR (POWER SUPPLY - ABSORBER CONTROL ECU)

Pre-procedure1

(a) Disconnect the K26 absorber control ECU connector.

(b) Disconnect the i8 rear absorber control actuator RH (rear shock absorber assembly RH) connector.

Procedure1

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

Standard Voltage:



[Click Location & Routing\(K26\).](#)

[Click Connector\(K26\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K26-6 (RAR+) - Body ground	Always	Below 1.5 V	V
K26-5 (RAR-) - Body ground	Always	Below 1.5 V	V

Post-procedure1

(d) Connect the i8 rear absorber control actuator RH (rear shock absorber assembly RH) connector.

(e) Connect the K26 absorber control ECU connector.

OK ► REPLACE REAR SHOCK ABSORBER ASSEMBLY RH

NG



5. CHECK HARNESS AND CONNECTOR (POWER SUPPLY - ABSORBER CONTROL ECU)

Pre-procedure1

(a) Disconnect the K26 absorber control ECU connector.

(b) Disconnect the ip1 No. 1 parking brake wire assembly connector.

Procedure1

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

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HAMW
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: SUSPENSION CONTROL: ADAPTIVE VARIABLE SUSPENSION SYSTEM: C173314; Rear Right Damping Force Control Actuator Circuit Circuit Short to Ground or Open; 2024 MY GX550 [12/2023 -]		

DTC	C173314	Rear Right Damping Force Control Actuator Circuit Circuit Short to Ground or Open
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DESCRIPTION

The rear absorber control actuator RH (rear shock absorber assembly RH) switches the damping force of the absorber based on an output signal from the absorber control ECU.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C173314	Rear Right Damping Force Control Actuator Circuit Circuit Short to Ground or Open	Either condition is met: - An open circuit is detected between the rear absorber control actuator RH (rear shock absorber assembly RH) and absorber control ECU. - A short circuit is detected between the rear absorber control actuator RH (rear shock absorber assembly RH) and absorber control ECU.	- Rear absorber control actuator RH (rear shock absorber assembly RH) - Wire harness or connector - No. 1 parking brake wire assembly - Absorber control ECU	Adaptive Variable Suspension System	A

WIRING DIAGRAM

Refer to DTC C173312.

Click here [INFO](#)

PROCEDURE

1.	INSPECT REAR ABSORBER CONTROL ACTUATOR RH (REAR SHOCK ABSORBER ASSEMBLY RH)
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HINT:

Click here [INFO](#)

NG  REPLACE REAR SHOCK ABSORBER ASSEMBLY RH

