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2010 LEXUS RX OEM Service and Repair Workshop Manual

[Go to manual page](#)

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
RR Door Courtesy Switch Status	Rear door courtesy light switch RH signal	Close or Open	Close: Rear door RH closed Open: Rear door RH open	-
RL Door Courtesy Switch Status	Rear door courtesy light switch LH signal	Close or Open	Close: Rear door LH closed Open: Rear door LH open	-
Back Door Courtesy Switch Status	Back door courtesy light switch signal	Close or Open	Close: Back door closed Open: Back door open	-
Hood Courtesy Switch Status	Engine hood courtesy switch	Close or Open	Close: Engine hood closed Open: Engine hood open	-
Glass Breakage Sensor	-	-	-	Although the item is displayed on the GTS, it is not applicable to this vehicle.
IGR Power	Ignition switch ON signal	OFF or ON	OFF: Ignition switch off or ACC ON: Ignition switch ON	-
Panic Function	Setting of customize setting "Panic Function"	Disable or Enable	Customize setting displayed	-
Warning by Horn Function	Setting of customize setting "Warning by Horn Function"	Disable or Enable	Customize setting displayed	-

Body Electrical > Back Door > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Courtesy Switch	Back door courtesy light switch signal	Lock or Unlock	Close: Back door closed Open: Back door open	-

ACTIVE TEST

HINT:

Using the GTS to perform Active Tests allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive functional inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. Data List information can be displayed while performing Active Tests.

(a) Perform the Active Test according to the display on the GTS.

Body Electrical > Main Body > Active Test

TESTER DISPLAY	MEASUREMENT ITEM	CONTROL RANGE	DIAGNOSTIC NOTE
Vehicle Horn	Vehicle horns	OFF/ON	-
Security Horn	Security horn assembly	OFF/ON	-

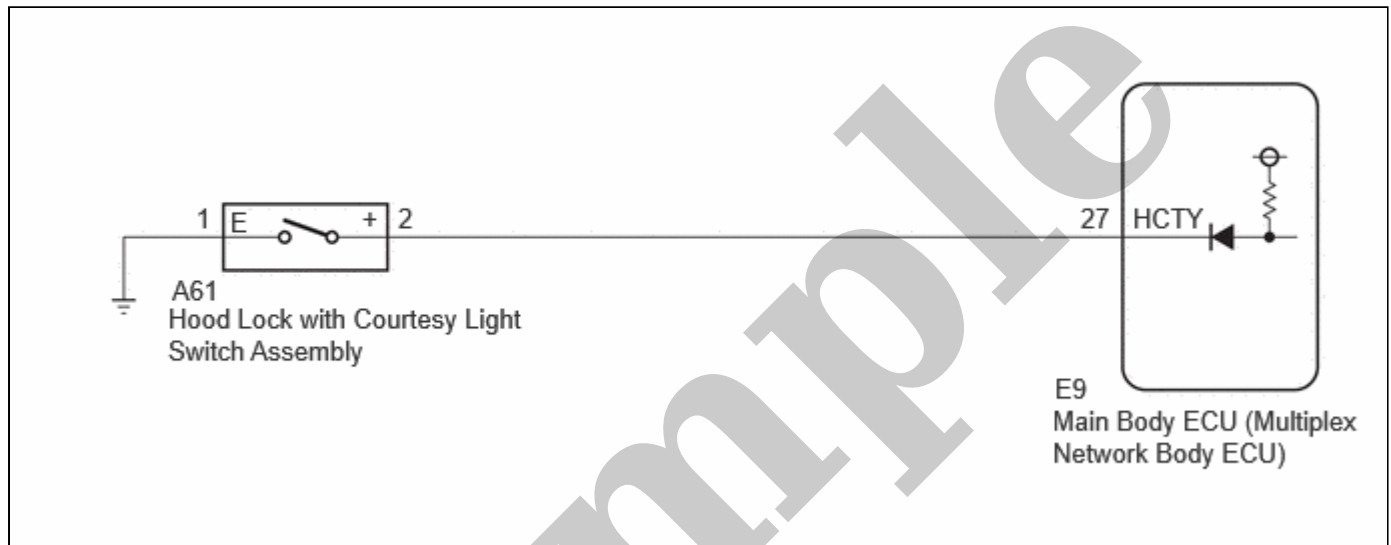
Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HB3D
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: THEFT DETERRENT SYSTEM: Engine Hood Courtesy Switch Circuit; 2024 MY GX550 [12/2023 -]		

Engine Hood Courtesy Switch Circuit

DESCRIPTION

The engine hood courtesy switch is built into the hood lock assembly. This switch turns on when the engine hood is closed and turns off when the engine hood is opened.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

Before replacing the main body ECU (multiplex network body ECU), refer to Registration.

Click here [INFO](#)

PROCEDURE

1. READ VALUE USING GTS

(a) Read the Data List according to the display on the GTS.

Body Electrical > Main Body > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Hood Courtesy Switch Status	Engine hood courtesy switch	Close or Open	Close: Engine hood closed Open: Engine hood open	-

OK:

The GTS display changes correctly in response to the hood lock with courtesy light switch assembly status.

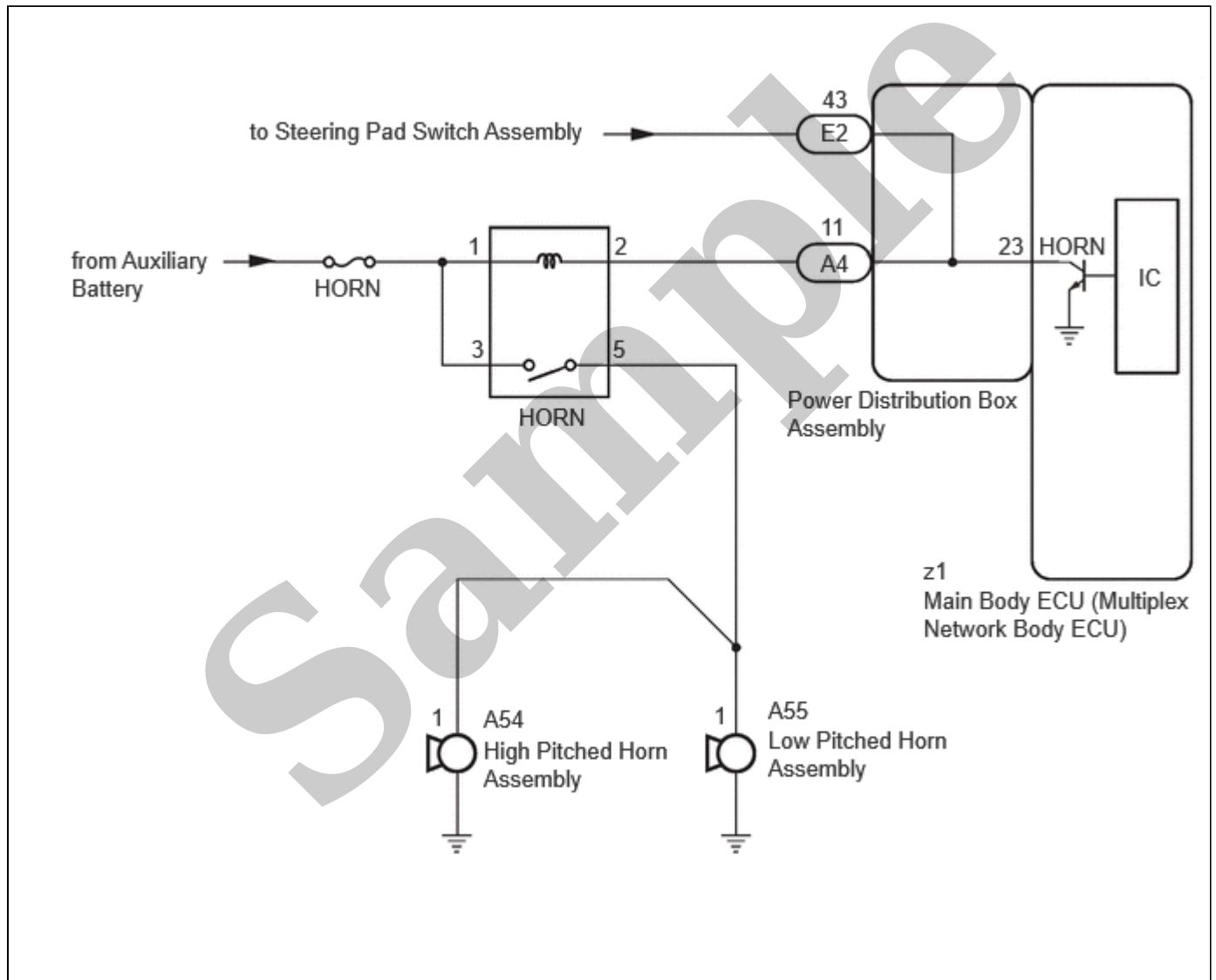
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Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: THEFT DETERRENT SYSTEM: Horn Circuit; 2024 MY GX550 [12/2023 -]		

Horn Circuit

DESCRIPTION

When the theft deterrent system is switched from the armed state to the alarm sounding state, the main body ECU (multiplex network body ECU) transmits a signal to cause the horn to sound at intervals of 0.4 seconds.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- Before replacing the main body ECU (multiplex network body ECU), refer to Registration.

Click here [INFO](#)

- Inspect the fuses for circuits related to this system before performing the following procedure.

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A4-11 - z1-23 (HORN)	Always	Below 1 Ω
E2-43 - z1-23 (HORN)	Always	Below 1 Ω

OK ► REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)

NG ► REPLACE POWER DISTRIBUTION BOX ASSEMBLY

Sample

(a) Perform the Active Test according to the display on the GTS.

Body Electrical > Main Body > Active Test

TESTER DISPLAY	MEASUREMENT ITEM	CONTROL RANGE	DIAGNOSTIC NOTE
Security Horn	Security horn assembly	OFF/ON	-

Body Electrical > Main Body > Active Test

TESTER DISPLAY
Security Horn

OK:

The security horn assembly sounds and stops correctly when operated through the GTS.

OK ▶ REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)



2. INSPECT SECURITY HORN ASSEMBLY

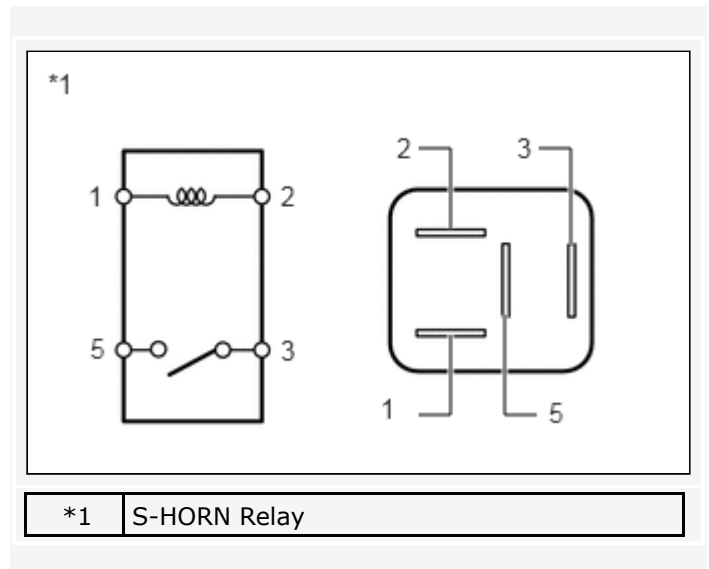
Click here [INFO](#)

NG ▶ REPLACE SECURITY HORN ASSEMBLY



3. INSPECT S-HORN RELAY

(a) Remove the S-HORN relay from the No. 2 engine room relay block and No. 2 junction block assembly.



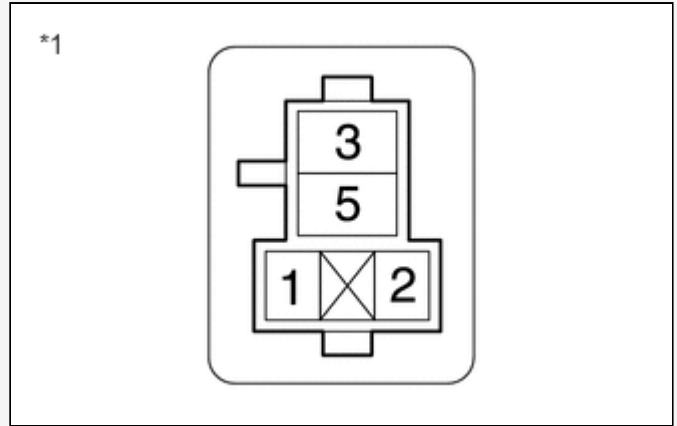
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
S-HORN relay holder terminal 1 - Body ground	Ignition switch off	11 to 14 V
S-HORN relay holder terminal 5 - Body ground	Ignition switch off	11 to 14 V



*1 No. 2 Engine Room Relay Block and No. 2 Junction Block Assembly

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK
▼

6. CHECK HARNESS AND CONNECTOR (S-HORN RELAY - SECURITY HORN ASSEMBLY)

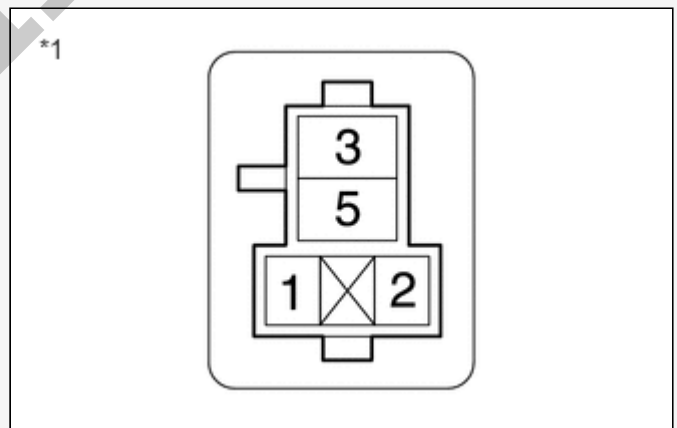
(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

[Click Location & Routing\(A56\).](#)
[Click Connector\(A56\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
S-HORN relay holder terminal 3 - A56-1 (B)	Always	Below 1 Ω
S-HORN relay holder terminal 3 or A56-1 (B) - Other terminals and body ground	Always	10 kΩ or higher



*1 No. 2 Engine Room Relay Block and No. 2 Junction Block Assembly

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK
▼

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HB3N
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: WIPER / WASHER: WASHER LEVEL WARNING SWITCH: ON-VEHICLE INSPECTION; 2024 MY GX550 [12/2023 -]		

ON-VEHICLE INSPECTION

PROCEDURE

1. INSPECT LEVEL WARNING SWITCH ASSEMBLY

(a) Measure resistance

(1) Add washer fluid to the washer jar with the level warning switch assembly installed to the washer jar.

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

Standard Resistance:



[Click Location & Routing\(A59\)](#)
[Click Connector\(A59\)](#)

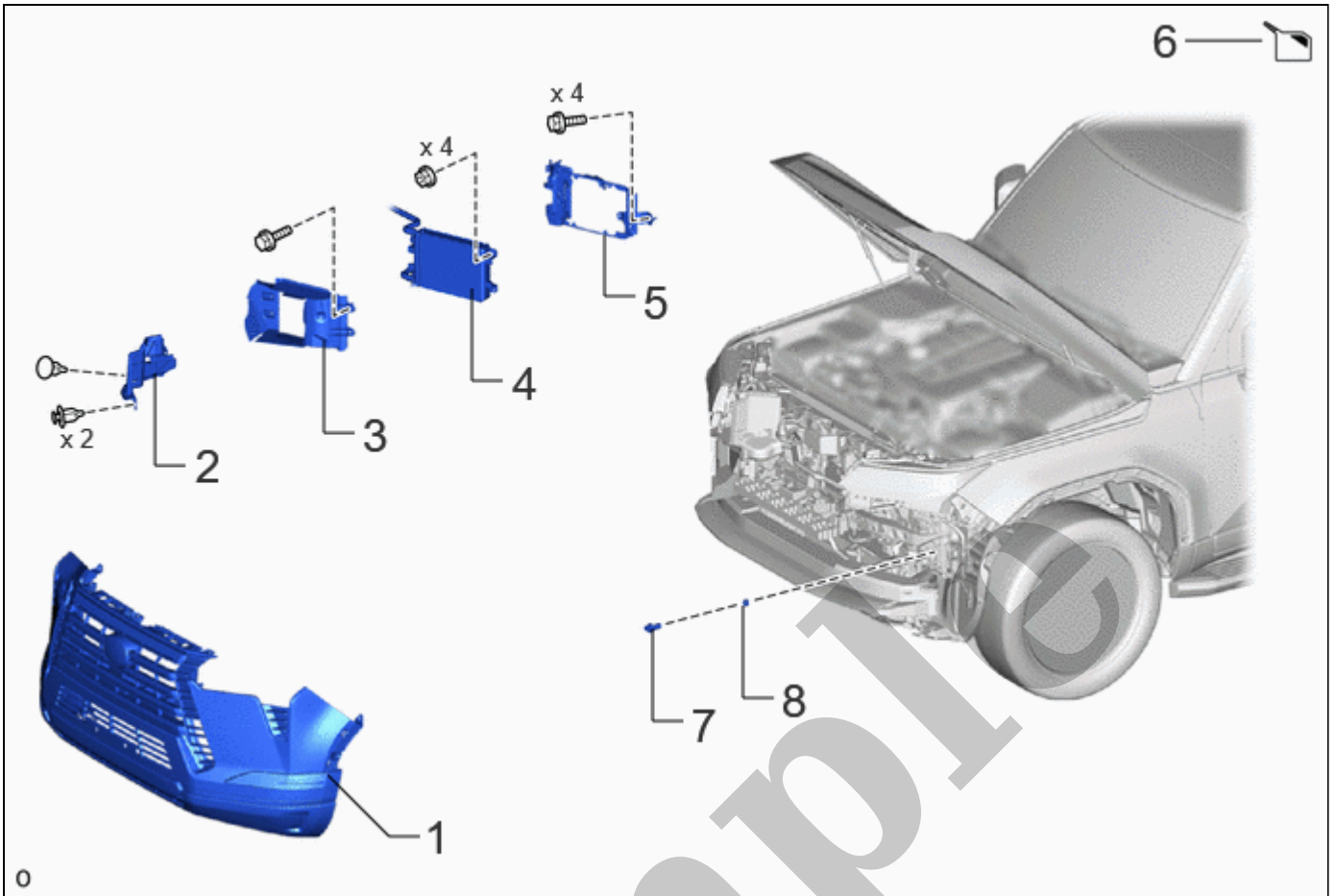
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A59-1 (S) - A59-2 (E)	Fluid volume is 600 to 800 cc (36.7 to 48.8 cu. in.) or more*	10 kΩ or higher
A59-1 (S) - A59-2 (E)	Fluid volume is 600 to 800 cc (36.7 to 48.8 cu. in.) or less*	Below 1 Ω

HINT:

- Perform checks by reducing the amount of washer fluid.
- *: The level warning switch assembly activates when the washer fluid is 600 to 800 cc or less according to the vehicle condition (vehicle stability, etc.).

The diagram shows a cross-section of the Level Warning Switch Assembly (A59). It features a central vertical component with two terminals labeled '1' and '2'. To the left, a terminal is labeled 'E', and to the right, a terminal is labeled 'S'. A label '*a' is positioned at the top left of the assembly.

*a	Component without harness connected (Level Warning Switch Assembly)
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PROCEDURE		PART NAME CODE			
1	FRONT BUMPER ASSEMBLY	-	-	-	-
2	NO. 1 RADIATOR AIR GUIDE LH	16595B	-	-	-
3	NO. 1 SUB-RADIATOR DUCT LH	165D1B	-	-	-
4	NO. 2 INTERCOOLER COOLING RADIATOR ASSEMBLY	16550B	-	-	-
5	NO. 2 RADIATOR BRACKET	16583	-	-	-
6	DRAIN WINDSHIELD WASHER FLUID	-	-	INFO	-
7	LEVEL WARNING SWITCH ASSEMBLY	85397	-	-	-
8	FRONT WASHER PACKING	85319D	-	-	-

PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 RADIATOR AIR GUIDE LH

Click here [INFO](#)

3. REMOVE NO. 1 SUB-RADIATOR DUCT LH

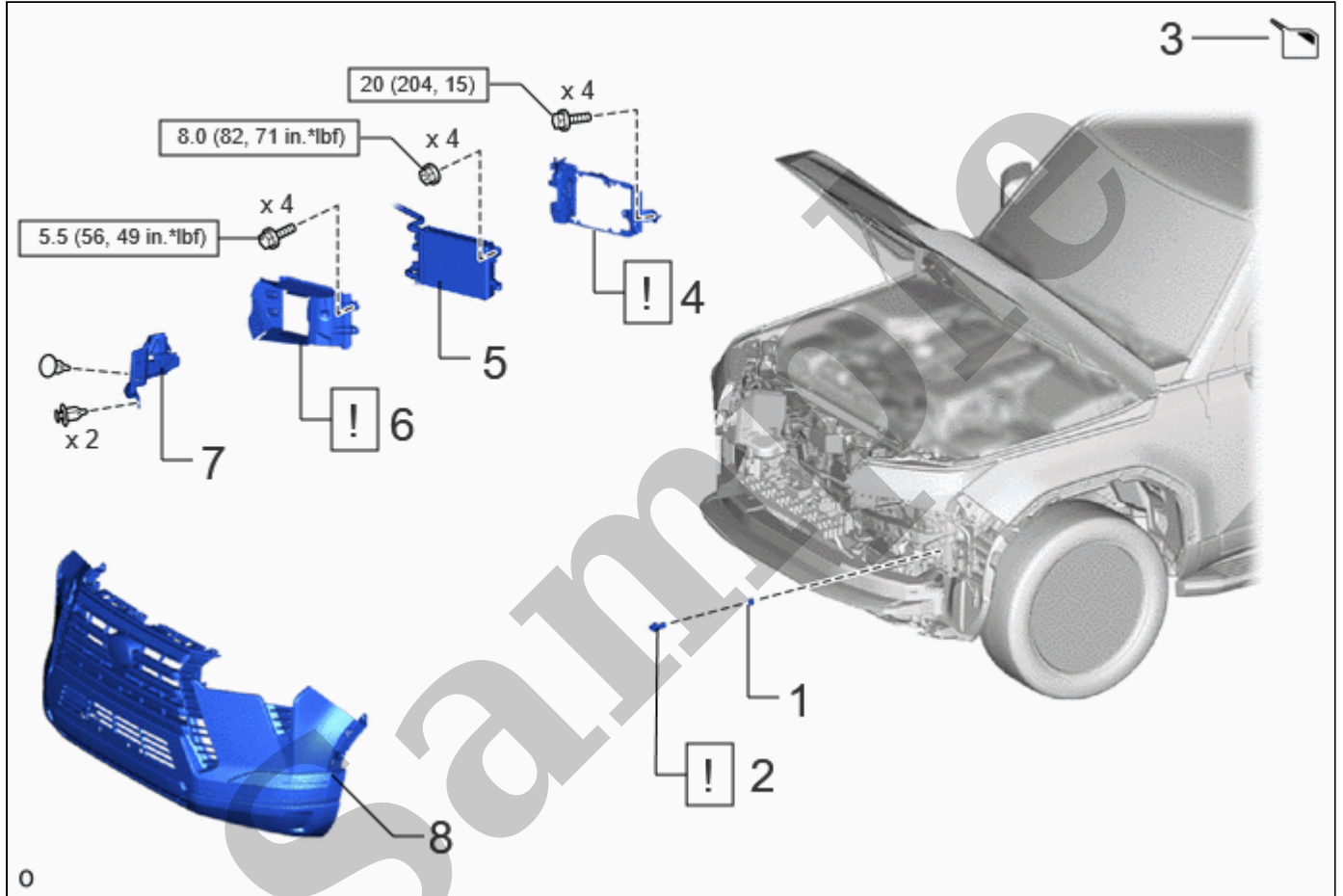
Click here [INFO](#)

Last Modified: 10-07-2024	6.11:8.1.0	Doc ID: RM100000002HB3P
Model Year Start: 2024	Model: GX550	Prod Date Range: [12/2023 -]
Title: WIPER / WASHER: WASHER LEVEL WARNING SWITCH: INSTALLATION; 2024 MY GX550 [12/2023 -]		

INSTALLATION

CAUTION / NOTICE / HINT

COMPONENTS (INSTALLATION)



PROCEDURE		PART NAME CODE			
1	FRONT WASHER PACKING	85319D	-	-	-
2	LEVEL WARNING SWITCH ASSEMBLY	85397	INFO	-	-
3	ADD WASHER FLUID	-	-	INFO	-
4	NO. 2 RADIATOR BRACKET	16583	INFO	-	-
5	NO. 2 INTERCOOLER COOLING RADIATOR ASSEMBLY	16550B	-	-	-
6	NO. 1 SUB-RADIATOR DUCT LH	165D1B	INFO	-	-
7	NO. 1 RADIATOR AIR GUIDE LH	16595B	-	-	-
8	FRONT BUMPER ASSEMBLY	-	-	-	-