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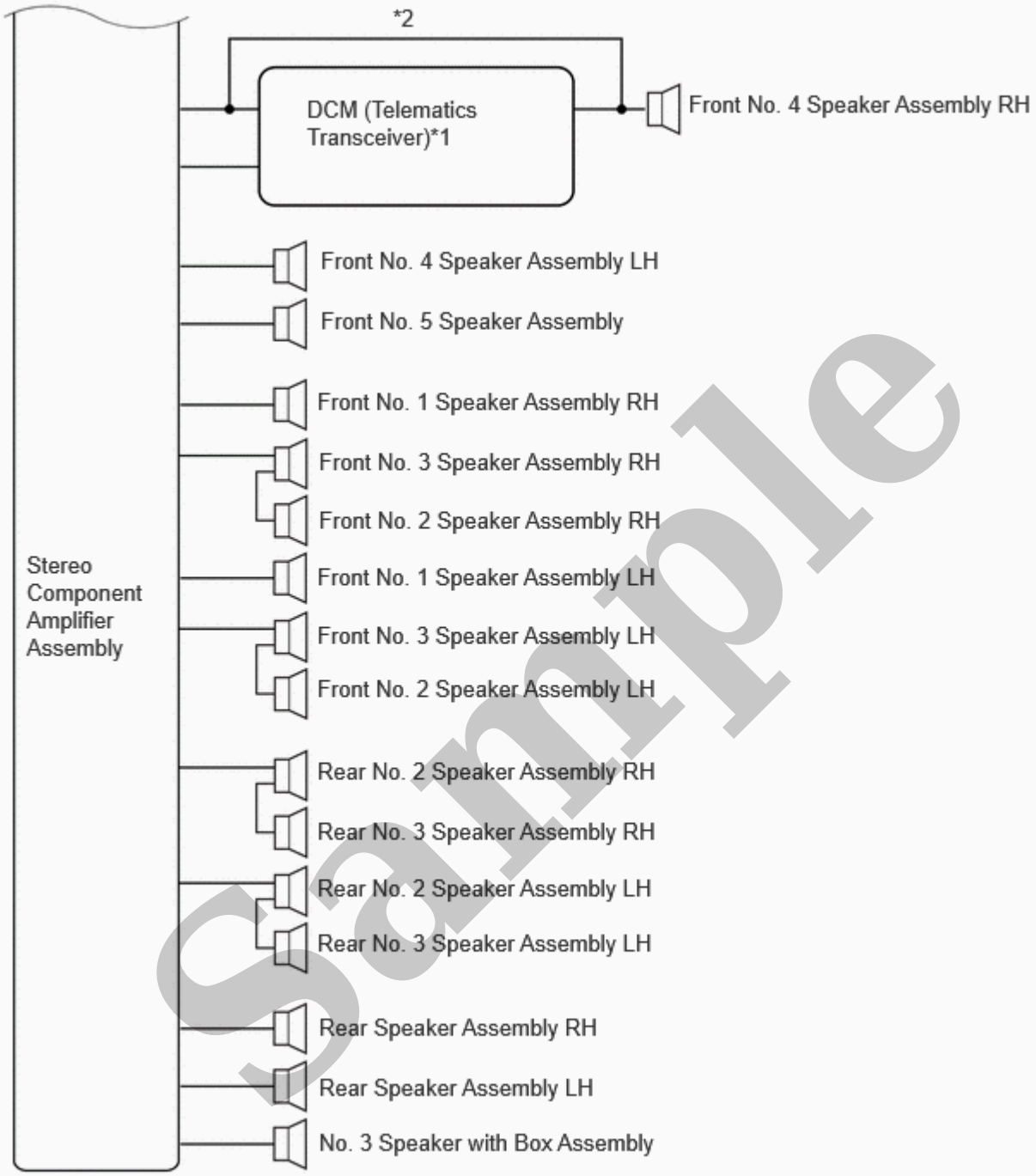
1992 LEXUS SC OEM Service and Repair Workshop Manual

Go to manual page

for 21 Speakers:



*1: w/ Manual (SOS) Switch

*2: w/o Manual (SOS) Switch

(a) Check that condensation is not likely to occur in the cabin and that the temperature is not -20°C (-4°F) or lower, or 65°C (149°F) or higher.

HINT:

- A humid cabin and a rapid change in temperature may lead to condensation. Condensation in the cabin may cause a short circuit.
- The audio and visual system may not operate normally when the temperature is -20°C (-4°F) or lower, or 65°C (149°F) or higher.

NEXT

5.	CHECK AUDIO AND VISUAL SYSTEM

(a) Refer to Check System Normal Condition.

Click here INFO

RESULT	PROCEED TO
Symptom is not normal operation.	A
Symptom is normal operation.	B

B ▶ **END**

A

6.	CHECK CAN COMMUNICATION SYSTEM

(a) Using the GTS, select "Communication Bus Check" and check that all ECUs and sensors connected to the CAN communication system are displayed on the screen.

Click here INFO

CAN Bus Check

RESULT	PROCEED TO
CAN DTCs are not output.	A
CAN DTCs are output.	B

B ▶ **GO TO CAN COMMUNICATION SYSTEM**

A

7.	CHECK FOR DTC

HINT:

Using the GTS, check for DTCs.

(b) If vehicle control history (RoB) is output, record it.

RESULT	PROCEED TO
Vehicle control history (RoB) is not output	A
Vehicle control history (RoB) is output	B

B ▶ **GO TO VEHICLE CONTROL HISTORY (RoB)**

A ▼

9.	PROBLEM SYMPTOMS TABLE

(a) Refer to Problem Symptoms Table.

Click here INFO

RESULT	PROCEED TO
Fault is not listed in Problem Symptoms Table.	A
Fault is listed in Problem Symptoms Table.	B

B ▶ **GO TO STEP 11**

A ▼

10.	PERFORM TROUBLESHOOTING BASED ON PROBLEM SYMPTOM

(a) Refer to DIAGNOSIS SYSTEM

Click here INFO

(b) Refer to Terminals of ECU.

Click here INFO

NEXT ▼

11.	ADJUST, REPAIR OR REPLACE AS NECESSARY

NEXT ▼

12.	PERFORM CONFIRMATION TEST

Last Modified: 10-07-2024	6.11:8.1.0	**Doc ID:** RM100000002H919
Model Year Start: 2024	**Model:** GX550	**Prod Date Range:** [12/2023 -]
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM: OPERATION CHECK; 2024 MY GX550 [12/2023 -]		

OPERATION CHECK

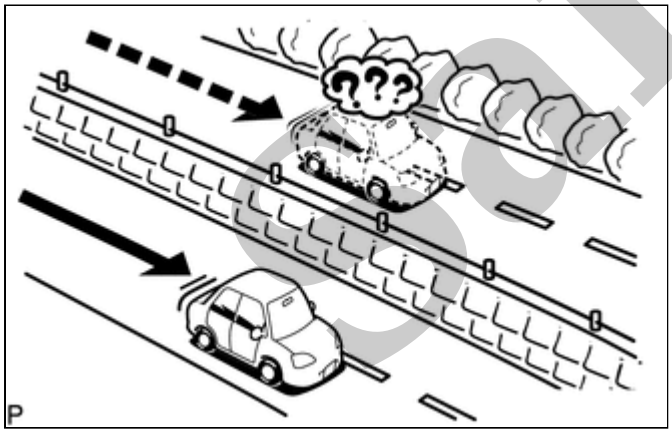
CHECK NAVIGATION SYSTEM NORMAL CONDITION (w/ Navigation Function)

(a) If the cause of a symptom is any of the following, the corresponding symptom is normal; it is not due to a malfunction.

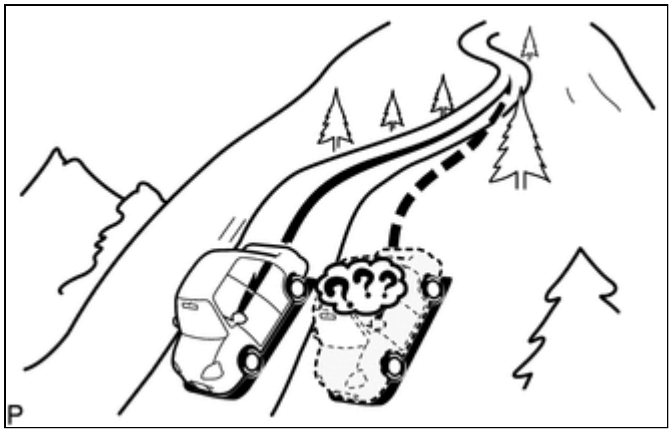
SYMPTOM	ANSWER
A longer route than expected is chosen.	Depending on the road conditions, the navigation ECU may determine that a longer route is quicker.
Even when distance priority is high, the shortest route is not shown.	Some routes may not be advised due to safety concerns.
When the vehicle is put into motion immediately after the engine starts, the navigation system deviates from the correct position.	If the vehicle starts before the navigation system activates, the system may not react.
When driving on certain types of roads, especially new roads, the vehicle position deviates from the correct position.	When the vehicle is driving on new roads not available on the internal memory, the system attempts to match it to another nearby road, causing the position mark to deviate.
Route guidance uses roads with congestion	If the congestion is short, congested road avoidance will not be performed.
Some specific areas of the map are not displayed	Urban map areas without data will not be displayed.

(b) The following symptoms are not malfunctions, but may occur due to margin of error in the GNSS, gyro sensor, speed sensor or navigation system.

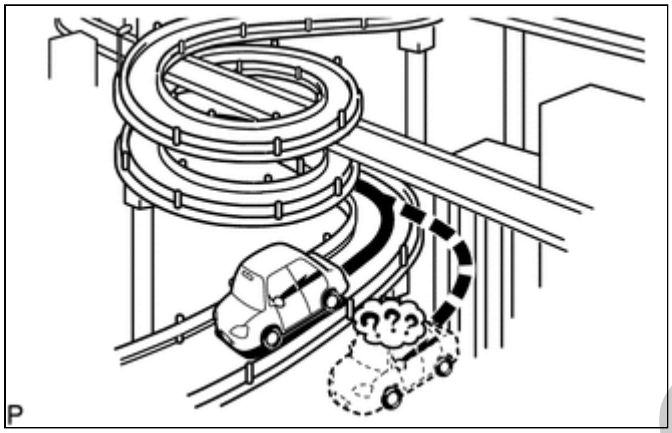
(1) The current position mark may be displayed on a nearby parallel road.



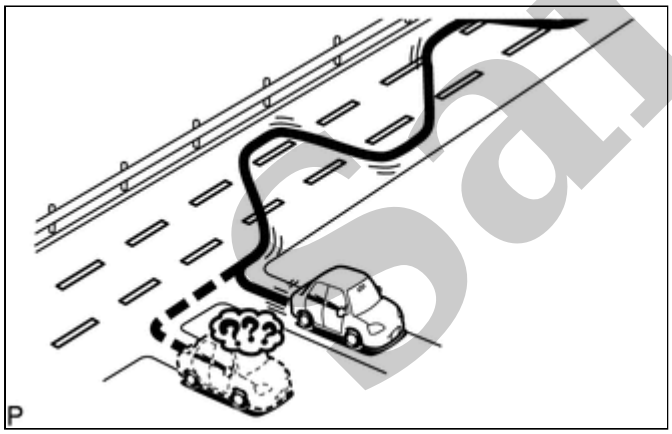
(2) Immediately after a fork in the road, the current vehicle position mark may be displayed on the wrong road.



(6) When the vehicle makes a continuous turn (e.g. 360, 720, 1080 degrees), the current vehicle position mark may deviate from the correct position.



(7) When the vehicle moves erratically, such as constant lane changes, the current vehicle position mark may deviate from the correct position.



(8) When the ignition switch is turned to ACC or ON and the vehicle is turned on a turntable before parking, the current vehicle position mark may not indicate the correct direction. The same will occur when the vehicle comes out of the parking garage.

- The "SPCheck ON" button is grayed out and cannot be pressed when the audio source is off.

(b) Enter diagnostic mode.

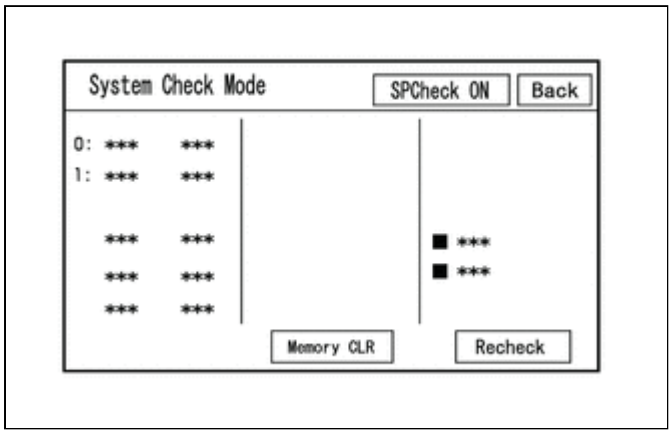
(1) Start diagnosis and display the "Service Menu" screen.

(2) Select "Failure Diagnosis" on the "Service Menu" screen to display the failure diagnosis screen.

(3) Select "System Check" of the failure diagnosis screen to display the system check mode screen.

(c) Speaker check

(1) Select "SPCheck ON" from the "System Check Mode" screen.



(2) Sound can be heard from the speakers around the vehicle in order beginning from the speaker on the front side.

HINT:

- "SPCheck OFF" is displayed during the speaker check.
- Sound can be heard from the speakers around the vehicle in order beginning from the speaker on the front side.
- The sounding order during speaker check cannot be adjusted.
- More than one speaker may sound simultaneously depending on the speaker wiring.
- If sound is not output from a speaker, check the wire harness between the stereo component amplifier assembly and each speaker for a malfunction.

(3) Sound stops when any of the following conditions are met:

- "SPCheck OFF" is selected.
- Audio mode is turned off.
- The screen is changed to another screen.
- Diagnostic mode is turned off.
- The ignition switch is turned off.

CHECK PANEL & STEERING SWITCH

HINT:

For enter diagnostic mode and screen transition, refer to INFO

(a) Enter diagnostic mode.

(1) Enter diagnostic mode.

(2) Select "Failure Diagnosis" from the "Service Menu" screen.

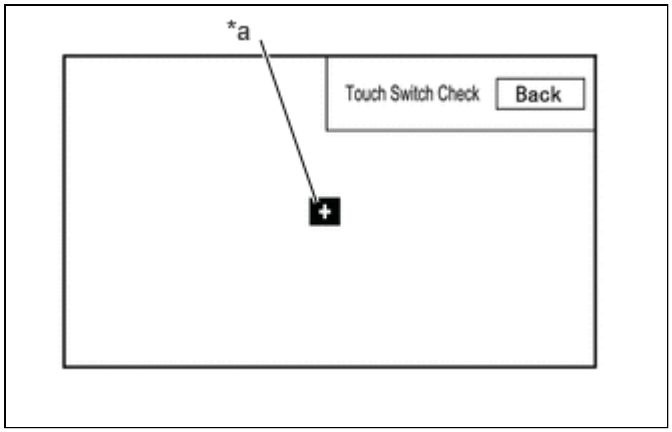
(3) Select "Panel&Steering Switch" on the "Function Check/Setting I" screen to display the "Panel&Steering Switch Check Mode" screen.

(b) Panel & Steering Switch Check Mode

(1) Operate each switch and check that the switch conditions are correctly displayed.

Screen Description

DISPLAY	CONTENT
*a: Switch condition	"Pushed" is displayed when any switch is pushed.



*a	"+" mark

(1) Touch the display anywhere in the open area to perform the check when the "Touch Switch Check" screen is displayed.

OK:
A "+" mark is displayed where the display is touched.

HINT:

- The "+" mark remains on the display even after your finger is removed.
- If the result of the touch switch check is abnormal, it can be suspected that the multi-display assembly is malfunctioning.

CHECK MICROPHONE

HINT:

For enter diagnostic mode and screen transition, refer to INFO

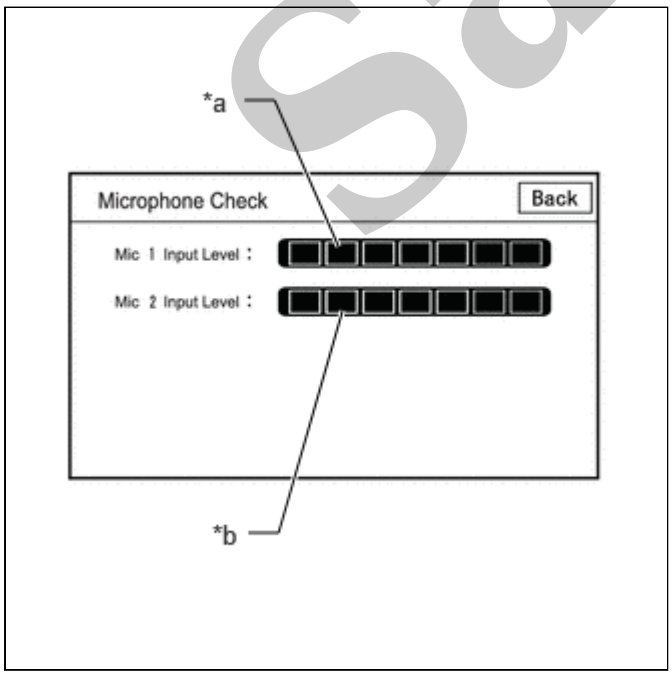
(a) Enter diagnostic mode.

(1) Enter diagnostic mode.

(2) Select "Function Check/Setting" from the "Service Menu" screen.

(3) Select "Microphone Check" on the "Function Check/Setting I" screen to display the microphone check screen.

(b) Microphone Check



Screen Description

DISPLAY	CONTENT		
			• When "searching" notification is received from the GNSS receiver
Status	Displays reception status of the satellites used to determine vehicle position	OK (3D)	3-dimensional location method is being used.
		OK (2D)	2-dimensional location method is being used.
		NG	Location data cannot be used.
		error	Reception error has occurred.
		-	Any other state.
Measurement ratio	Displays the ratio of satellites performing measurements	3D	The ratio of satellites performing 3D positioning is displayed.
		2D	The ratio of satellites performing 2D positioning is displayed.
		NG	The ratio of satellites not performing measurement is displayed.
Date	Date/time information obtained from GNSS signals is displayed in Greenwich Mean Time (GMT).		
Position	Latitude and longitude information on current position is displayed.		

***b: SPD**

DISPLAY	CONTENT	SIGNAL INPUT TERMINAL
Pulse Count	Displays the accumulated number of input pulses beginning when this screen is displayed	Terminal SPD of the radio and display receiver assembly
Speed	Displays vehicle speed	

***c: Sensor Signal**

DISPLAY	CONTENT	NOTE
Gyro Voltage	Displays the output voltage of the gyro sensor	-
0 point Voltage	Displays the zero-point voltage of the gyro sensor	-
Relative bearing	Displays the output angle of the gyro sensor	The amount of change in bearing angle (degrees) after the system sensor check screen is displayed (clockwise: "+", counterclockwise: "-").

***d: Reset**

DISPLAY	CONTENT
Reset	When this switch is pressed and held for 3 seconds or more, the values for the display items of SPD signal and gyro sensor signal are reset and display "0".

***e: Gyro/Distance correction study situation**

DISPLAY	CONTENT
Gyro/Distance correction study situation	Displays learning status of Gyro/Distance correction

HINT:

- This screen is updated once per second.
- When the vehicle speed calculated from the GNSS signal differs from the SPD signal, DTC B228231 is stored.

Click here INFO

Screen Description

DISPLAY	CONTENT	SIGNAL INPUT TERMINAL
Battery	Battery voltage is displayed.	Terminal +B1 of the radio and display receiver assembly
IG	Ignition switch ON/OFF state is displayed.	Terminal IG of the radio and display receiver assembly
PKB	Parking brake ON/OFF state is displayed.	Terminal PKB of the radio and display receiver assembly
REV	Reverse signal ON/OFF state is displayed.	Terminal REVD of the radio and display receiver assembly
SPEED	Vehicle speed is displayed in km/h.	Terminal SPD of the radio and display receiver assembly
TAIL	Tail signal (light control switch) ON/OFF state is displayed.	Terminal ILL+ of the radio and display receiver assembly
ADIM/TCAN	Brightness state DIM (with) / BRIGHT (without) is displayed.	Input via CAN communication
USB	Displays the USB current (mA)	Terminal USV1 of the radio and display receiver assembly

HINT:

- This screen is updated once per second.
- If vehicle signals other than ADIM/TCAN are abnormal, inspect each terminal and wire harness.
- If vehicle signal ADIM/TCAN is abnormal, it can be judged that the CAN communication system is malfunctioning.

Click here INFO

HINT:

For enter diagnostic mode and screen transition, refer to INFO

CHECK HANDS-FREE VOICE QUALITY AND VOLUME SETTING

(a) Enter diagnostic mode.

(1) Enter diagnostic mode.

(2) Select "Function Check/Setting" from the "Service Menu" screen.

(3) Select "HF Voice Quality Setting" on the "Function Check/Setting I" screen to display the "Hands-Free Voice Quality Setting" screen.

(b) Hands-Free Voice Quality Setting

Hands-Free Voice Quality Setting Screen Display Contents: