



**Technical Service
Information Bulletin**

May 27, 2005

Title:
**DIAGNOSTIC GUIDE FOR REAR SEAT
ENTERTAINMENT SYSTEMS**

Models:
'03 - '05 GX 470, '04 - '05 RX 330

**ELECTRICAL
EL008-05**

Introduction This diagnostic guide is being provided as an aide in diagnosing the Lexus factory installed Rear Seat Entertainment (RSE) systems. This guide is intended only as a supplement to the diagnostics already available in the Repair Manual.

- Applicable Vehicles**
- **2003 - 2005** model year **GX 470** vehicles equipped with the Lexus factory installed **Rear Seat Entertainment system.**
 - **2004 - 2005** model year **RX 330** vehicles equipped with the Lexus factory installed **Rear Seat Entertainment system.**

**Warranty
Information**

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
N/A	Not Applicable to Warranty	–	–	–	–

NOTE:

On GX 470 vehicles, the remote is required to turn on the Rear Seat Entertainment display; it does not automatically turn on when inserting a DVD into the DVD player. If the display will not turn on when using the remote, it is necessary to enter the diagnostic mode on the navigation display or audio head unit, which will turn on the Rear Seat Entertainment display.

**Diagnostic
Procedure
(Vehicles
w/Navigation)**

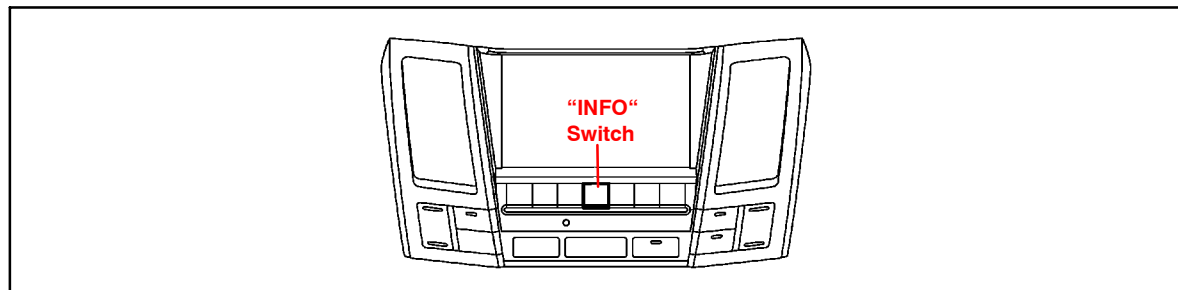
Entering Diagnostic Mode RSE (vehicles with navigation)

Method No. 1: Diagnosis start-up by the light control switch.

Vehicle speed should be 0 mph (0 km/h).

1. Turn the ignition switch to "ACC" or "ON".
2. While pressing the "INFO" switch on the radio receiver assembly, turn the light control switch from:

OFF to TAIL to OFF to TAIL to OFF to TAIL to OFF

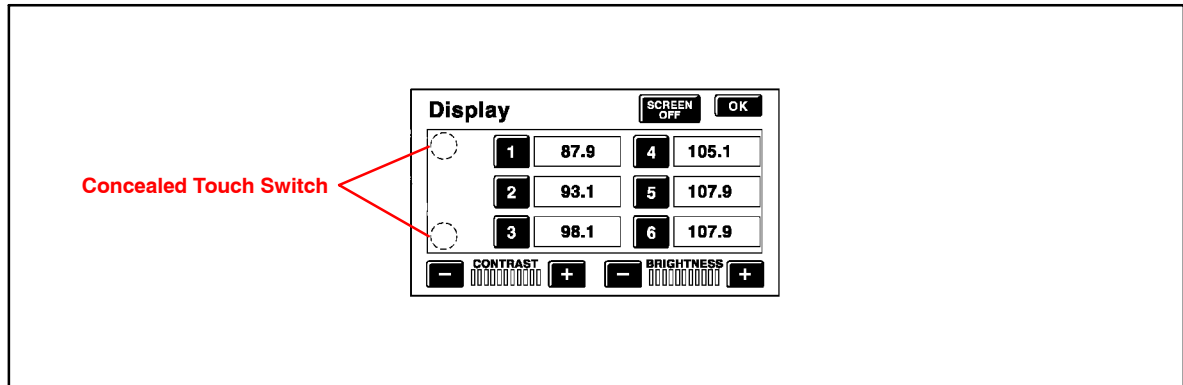


Diagnostic Procedure (Vehicles w/Navigation)
(Continued)

Method No. 2: Diagnosis start-up by the touch switch.

Vehicle speed should be 0 mph (0 km/h).

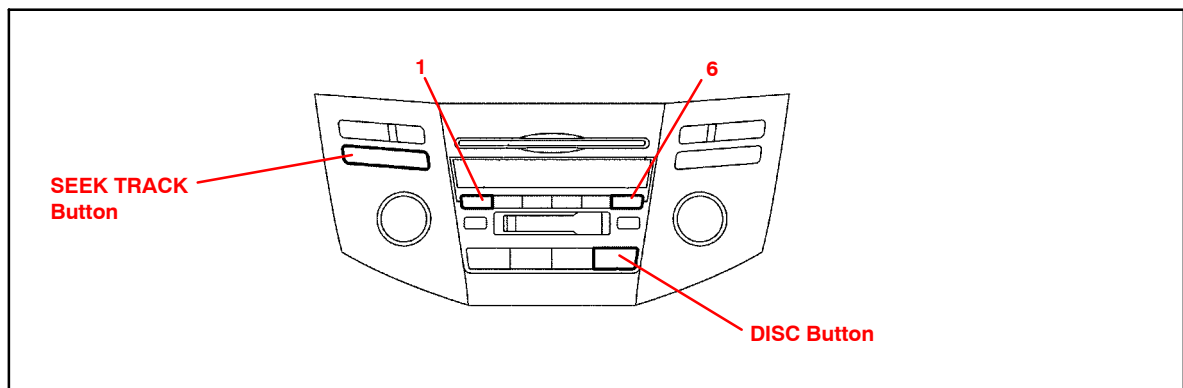
1. Apply the parking brake.
2. Turn the ignition switch to “ACC” or “ON”.
3. Activate the screen adjustment screen.
4. Alternately touch the upper and lower bottom parts of the left end of the screen 3 times (refer to the following illustration).



Diagnostic Procedure (Vehicles without Navigation)

Entering Diagnostic Mode RSE (vehicles without navigation)

1. Turn ignition switch to “ACC” or “ON”.
2. Apply the parking brake.
3. While pressing and holding buttons “1” and “6,” press the “DISC” button 3 times.

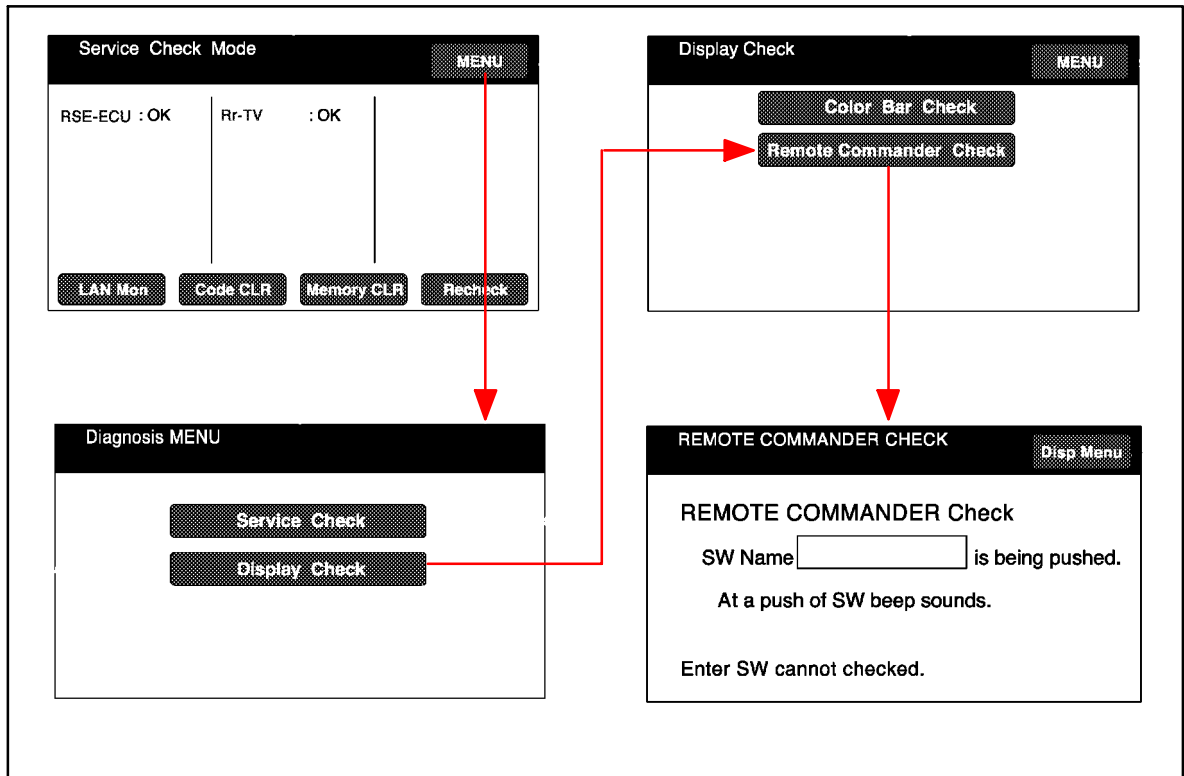


HINT:

These procedures are a quick method to check for power (V) to rear seat display/RSE ECU and operational status.

Remote Commander Check

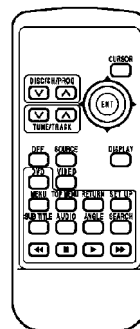
The remote commander check is useful to ascertain that the remote controller switches are operational. The selected button will display on the screen under “SW Name”.



HINT:

On vehicles equipped with NON-INTEGRATED display/DVD player, the remote is the only way to turn ON the RSE display. This is a quick method to check remote commander operation.

GX 470 Remote battery should be greater than 3.0 V. If the display does NOT turn ON, replace the battery and confirm remote operation.



Repair Procedure

Rear screen does NOT turn ON using the remote control (source button).

1. Enter diagnostic mode on navigation display or audio head unit (vehicles without navigation).

Rear display turns ON.

OK

NG

Rear display does NOT turn ON. Go to step 6.

Go to step 2.

2. Check remote commander operation.

OK

NG

Go to step 3.

Go to step 4.

3. Check remote control battery voltage.

MODEL	BATTERY VOLTAGE	ACTION	GO TO
Highlander & Sienna	More than 1.5 Volts	Replace remote control	OK
	Less than 1.5 Volts	Replace battery	NG
Sequoia & Tundra	More than 3.0 Volts	Replace remote control	OK
	Less than 3.0 Volts	Replace battery	NG

OK

NG

Go to step 2.

Go to step 4.

4. Check that rear display turns ON when pressing the "SOURCE" button on the remote.

OK

NG

Go to step 6.

Confirm all functions before returning to the customer. Go to step 5.

**Repair
Procedure**
(Continued)

5. Confirm the diagnostic codes for the RSE ECU and display from the rear screen.
If a component shows "EXCH," replace the component.

OK

NG

Go to step 6.

If all show "OK," go to step 7.

6. Check the power, ground, and TX+, TX- wiring between the RSE ECU and the display. Perform the following check without disconnecting any connectors.
- Using the EWD, check the resistance of the wires between the DVD player ground terminal or integrated DVD player/RSE display and chassis ground. The resistance of the wires should be below 1 Ω .
Refer to the Technical Information System (TIS): applicable model year Wiring Diagrams.
 - Check the resistance of the wires between the RSE ECU ground terminal and chassis ground. The resistance of the wires should be below 1 Ω .
 - Check the voltage on the power terminals on the DVD player and the RSE ECU. Voltage should be **greater than** 12 V.
 - Check the voltage between terminals TX+ and chassis ground and TX- and chassis ground at both the RSE ECU and the DVD player. Voltage should be between 2.0 V and 3.0 V.

OK

NG

Repair the wiring harness.

Go to step 7.

7. Check the diagnostic mode on the navigation display or radio head unit.

OK

NG

If RSE ECU says "NCON" or "CHEK," go to step 8.

If the RSE ECU says "OK," replace display assembly.

Repair Procedure
(Continued)

8. Check the wiring between the RSE ECU and radio head unit.
 - A. Disconnect the RSE ECU connector and the radio and player connector.
 - B. Check the resistance of the wires between the RSE ECU and the radio/player. The resistance of the wires should be below 1Ω.
 - C. Check the resistance of the wires between the RSE ECU and the radio/player to ground. The resistance of the wires should be 10 kΩ or higher.

OK

NG

Repair or replace the wiring harness.

Replace the RSE ECU.

Sound is heard but the DVD movie is NOT shown on the rear display (source screen is displayed).

1. Connect an external video source to the video/audio jacks and press the video button.

OK

NG

If NO picture is displayed, replace the RSE ECU.

If picture is displayed, go to step 2.

2. Check the wiring between the DVD player and the RSE ECU.
Vehicles with Integrated or NON-integrated DVD Player/RSE Display:

- A. Disconnect the DVD player connector and the RSE ECU.
- B. Check the resistance of the wires between the DVD player and the RSE ECU. The resistance of the wires should be below 1Ω.
- C. Check the resistance of the wires between the DVD player and the RSE ECU to ground. The resistance of the wires should be 10 kΩ or higher.

OK

NG

Repair or replace the wiring harness.

Replace the DVD player.

**Repair
Procedure**
(Continued)

Video but no sound is heard in the audio system when playing a DVD movie in the DVD player (audio system works normally in other modes).

NOTE:

- Sound cannot be heard through the audio system when using the external input jacks.
- The DVD movie sound through the audio system is normally much lower in volume than the CD/AM/FM/Tape modes.

1. Press the "DISC" button on the radio/player unit. If CDs are loaded, then you may have to press the "DISC" button twice to listen to the DVD through the audio system.

OK

NG

**Go to step 3 if it does NOT change to AUX.
Go to step 2 if it changes to AUX but there is no sound.**

DONE. Explain the operation to the customer.

2. Verify that the head phones work properly.

OK

NG

Replace the RSE ECU.

Go to step 5.

3. Check the diagnostic codes in the navigation display or radio.

OK

NG

If the RSE ECU says "NCON" or "CHEK," go to step 4.

If the RSE says "OK," go to step 2.

**Repair
Procedure**
(Continued)

4. Check the TX+/TX- wiring between the RSE ECU and the radio.
 - A. Disconnect the RSE ECU and the radio connector.
 - B. Check the resistance of the wires between the RSE ECU and radio.
The resistance of the wires should be below 1Ω.
 - C. Check the resistance of the wires between the RSE ECU and radio to ground.
The resistance of the wires should be 10 kΩ or higher.

OK**NG****Repair or replace the wiring harness.****Replace the RSE ECU.**

5. Check the right and left audio channels between the RSE ECU and the radio.
 - A. Disconnect the RSE ECU and the radio connector.
 - B. Check the resistance of the wires between the RSE ECU and radio.
The resistance of the wires should be below 1Ω.
 - C. Check the resistance of the wires between the RSE ECU and radio to ground.
The resistance of the wires should be 10 kΩ or higher.

OK**NG****Repair or replace the wiring harness.****Replace the radio.**