

# HVAC Servo Motor Malfunction

**Service Category** Vehicle Interior

**Section** Heating/Air Conditioning

**Market** USA

Lexus Supports  
ASE Certification 

## Applicability

| YEAR(S)     | MODEL(S)                                                           | ADDITIONAL INFORMATION |
|-------------|--------------------------------------------------------------------|------------------------|
| 2017 - 2019 | GS F, GS350, GS450H,<br>IS300, IS350, LX570, RC F,<br>RC300, RC350 |                        |
| 2017        | GS200T, IS200T, RC200T                                             |                        |

## Introduction

Some 2017 – 2019 model year Lexus vehicles may exhibit one or more of the following conditions:

- Uneven temperature or air flow between the vents
- Little or no air flow from the vent(s)
- Improper MODE control function

Some vehicles may also exhibit one or more of the following Diagnostic Trouble Codes (DTCs):

- B1441 – Air Mix Damper Control Servo Motor Circuit (Front Passenger Side Lower Air Mix)
- B1442 – Air Inlet Damper Control Servo Motor Circuit
- B1443 – Air Outlet Damper Control Servo Motor Circuit
- B1445 – Passenger Side Cool Air Bypass Damper Control
- B1446 – Air Mix Damper Control Servo Motor Circuit (Driver Side Lower Air Mix)
- B1447 – Rear Air Mix Damper Control Servo Motor Circuit
- B1448 – Passenger Side Face Servo Motor Circuit
- B1449 – Rear Air Outlet Damper Control Servo Motor Circuit
- B1453 – Driver Side Air Outlet Damper COOL Control Servo Motor Circuit
- B1454 – Passenger Side Air Outlet Damper COOL Control Servo Motor Circuit
- B1455 – Driver Side Air Outlet Damper FOOT/DEF Control Servo Motor Circuit
- B1457 – Driver Side Air Outlet Damper Control Servo Motor Circuit
- B1458 – Passenger Side Air Outlet Damper Control Servo Motor Circuit
- B1486 – Driver Side Air Outlet Damper Control Servo Motor Circuit
- B1488 – Rear Air Mix Damper Control Servo Motor Circuit (Front Passenger)

Follow the Repair Procedure in this bulletin to address these conditions.

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### Production Change Information

This bulletin applies to the following vehicles:

- 2017 – 2019 IS200t, IS300, and IS350 vehicles produced **AFTER** the Production Change Effective VINs shown below.
- 2017 – 2019 RC200t, RC300, and RC350 vehicles produced **AFTER** the Production Change Effective VINs shown below.
- 2017 – 2019 RC F vehicles produced **AFTER** the Production Change Effective VIN shown below.
- 2017 – 2019 GS200t and GS350 vehicles produced **AFTER** the Production Change Effective VINs shown below.
- 2017 – 2019 GS450h vehicles produced **AFTER** the Production Change Effective VIN shown below.
- 2017 – 2019 GS F vehicles produced **AFTER** the Production Change Effective VIN shown below.
- 2017 – 2019 LX570 vehicles produced **AFTER** the Production Change Effective VIN shown below.

| MODEL  | DRIVETRAIN | FRAME TYPE | PRODUCTION CHANGE EFFECTIVE VIN |
|--------|------------|------------|---------------------------------|
| IS200t | 2WD        | ASE30L     | JTHBA1D2#H5056884               |
| IS300  | AWD        | GSE37L     | JTHCM1D2#H5024594               |
| IS350  | 2WD        | GSE31L     | JTHBE1D2#H5030855               |
|        | AWD        | GSE36L     | JTHCE1D2#H5014302               |
| RC200t | 2WD        | ASC10L     | JTHHA5BC#H5006941               |
| RC350  |            | GSC10L     | JTHHE5BC#H5017147               |
|        | RC300      | AWD        | GSC15L                          |
| GSC16L |            |            | JTHSM5BC#H5003560               |
| RC F   | 2WD        | USC10L     | JTHHP5BC#H5006678               |
| GS200t |            | ARL10L     | JTHBA1BL#HA005701               |
| GS350  |            | GRL12L     | JTHBZ1BL#HA011922               |
|        |            | AWD        | GRL16L                          |
| GS450h | 2WD        | GWL10L     | JTHBS1BL#HA002388               |
| GS F   |            | URL10L     | JTHBP1BL#HA002488               |
| LX570  | 4WD        | URJ201L    | JTJHY7AX#H4249886               |

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### Warranty Information

| OP CODE | DESCRIPTION                              | TIME | OFP          | T1 | T2 |
|---------|------------------------------------------|------|--------------|----|----|
| AC1922  | Air Conditioning Amplifier Reprogramming | 0.5  | 88650-#####* | 72 | 41 |

\*Warranty claim MUST be submitted with the correct 10-digit OFP. Choose the correct OFP for the vehicle being repaired by searching Air Conditioning, Amplifier (88650) in the Electronic Parts Catalog using the VIN filter.

#### APPLICABLE WARRANTY

- This repair is covered under the Lexus Basic Warranty. This warranty is in effect for 48 months or 50,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

### Required Tools & Equipment

| REQUIRED EQUIPMENT            | SUPPLIER | PART NUMBER  | QTY |
|-------------------------------|----------|--------------|-----|
| Techstream ADVi*              | ADE      | TSADVUNIT    | 1   |
| Techstream 2.0                |          | TS2UNIT      |     |
| Techstream Lite               |          | TSLITEPDLR01 |     |
| Techstream Lite (Green Cable) |          | TSLP2DLR01   |     |

\*Essential SST.

#### NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 15.00.028 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- Use Techstream or an approved J2534 interface to perform flash reprogramming updates. Visit [techinfo.toyota.com](http://techinfo.toyota.com) for more information regarding J2534 reprogramming.

| SPECIAL SERVICE TOOLS (SST) | PART NUMBER                 | QTY |
|-----------------------------|-----------------------------|-----|
| Battery Diagnostic Tool     | <a href="#">DCA-8000P T</a> | 1   |

\*Essential SST.

#### NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

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### Calibration Information

| MODEL        | MODEL YEAR  | CALIBRATION ID |                              |
|--------------|-------------|----------------|------------------------------|
|              |             | PREVIOUS       | NEW                          |
| IS           | 2017        | 886505340301   | <a href="#">886505379001</a> |
|              | 2018 – 2019 | 886502443301   | <a href="#">886505387001</a> |
| RC           | 2017        | 886505340301   | <a href="#">886505379001</a> |
|              | 2018 – 2019 | 886502443301   | <a href="#">886505387001</a> |
| RC F         | 2017        | 886505340301   | <a href="#">886505379001</a> |
|              | 2018 – 2019 | 886502443301   | <a href="#">886505387001</a> |
| GS           | 2017 – 2019 | 886503AM1000   | <a href="#">886503F39001</a> |
|              |             | 886503A52002   |                              |
| GS HV        | 2017        | 886503AL3000   | <a href="#">886503FA2001</a> |
|              |             | 886503A39002   |                              |
|              | 2018 – 2019 | 886503AL3101   | <a href="#">886503F62001</a> |
| GS F         | 2017 – 2019 | 886503AM1000   | <a href="#">886503F39001</a> |
|              |             | 886503A52002   |                              |
| LX           | 2017        | 8865060Q2201   | <a href="#">8865060W0001</a> |
|              |             | 8865060Q2101   |                              |
| 8865060Q1001 |             |                |                              |
|              | 2018 – 2019 | 8865060Q2301   | <a href="#">8865060X2001</a> |

### Repair Procedure

1. Confirm the vehicle exhibits one or more of the following conditions:
  - Uneven temperature or air flow between the vents.
  - Little or no air flow from vent(s).
  - Improper MODE control function.

Does the vehicle exhibit ANY of the above listed conditions?

- **YES** — Go to step 3.
- **NO** — Continue to step 2.

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### Repair Procedure (continued)

2. Using Techstream, check for the following stored DTCs:
  - B1441 – Air Mix Damper Control Servo Motor Circuit (Front Passenger Side Lower Air Mix).
  - B1442 – Air Inlet Damper Control Servo Motor Circuit.
  - B1443 – Air Outlet Damper Control Servo Motor Circuit.
  - B1445 – Passenger Side Cool Air Bypass Damper Control.
  - B1446 – Air Mix Damper Control Servo Motor Circuit (Driver Side Lower Air Mix).
  - B1447 – Rear Air Mix Damper Control Servo Motor Circuit.
  - B1448 – Passenger Side Face Servo Motor Circuit.
  - B1449 – Rear Air Outlet Damper Control Servo Motor Circuit.
  - B1453 – Driver Side Air Outlet Damper COOL Control Servo Motor Circuit.
  - B1454 – Passenger Side Air Outlet Damper COOL Control Servo Motor Circuit.
  - B1455 – Driver Side Air Outlet Damper FOOT/DEF Control Servo Motor Circuit.
  - B1457 – Driver Side Air Outlet Damper Control Servo Motor Circuit.
  - B1458 – Passenger Side Air Outlet Damper Control Servo Motor Circuit.
  - B1486 – Driver Side Air Outlet Damper Control Servo Motor Circuit.
  - B1488 – Rear Air Mix Damper Control Servo Motor Circuit (Front Passenger).

Are ANY of the DTCs listed above present?

- **YES** — Continue to step 3.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

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### Repair Procedure (continued)

3. Flash reprogram the air conditioning amplifier assembly.

**NOTE**

The air conditioning amplifier flash reprogram is only performed one time if the air conditioning amplifier has NOT been flash reprogrammed previously.

Follow the procedure outlined in Service Bulletin [L-SB-0001-18](#), *Techstream ECU Flash Reprogramming Procedure* and flash the air conditioning amplifier with the NEW calibration file update.

**NOTICE**

- **Damage to the air conditioning amplifier may occur if the correct battery charge mode setting is NOT used.**
- **Power Supply Mode is used to maintain battery voltage at 13.5V while flash reprogramming.**
- **For details on how to use the DCA-8000 battery diagnostic tool, refer to the [DCA-8000 Instruction Manual](#) located at *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.**

4. Confirm the condition(s) is (are) no longer present.
  - A. Does the vehicle exhibit ANY of the conditions listed in step 1?
    - **YES** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
    - **NO** — Continue to sub-step B.
  - B. Using Techstream, check for ANY stored DTCs.  
Are ANY of the DTCs in step 2 present?
    - **YES** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
    - **NO** — The repair is complete.