

HVAC Servo Motor Malfunction

Service Category Vehicle Interior

Section Heating/Air Conditioning

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2017 - 2019	Land Cruiser	

Introduction

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

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

Additionally, some vehicles may store one or more of the following HVAC servo 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 (Driver Side Lower Air Mix)
- B1448 – Passenger Side Face Servo Motor Circuit
- B1449 – Rear Air Outlet Damper 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 Side)

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

HVAC Servo Motor Malfunction

Production Change Information

This bulletin applies to vehicles produced **AFTER** the Production Change Effective VIN shown below.

MODEL	FRAME TYPE	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE VIN
Land Cruiser	URJ200L	4WD	JTMCY7AJ#H4059943

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
AC2019	Air Conditioning Amplifier Reprogramming	0.5	88650-#####*	72	41

*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF 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 Toyota Basic Warranty. This warranty is in effect for 36 months or 36,000 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 for more information regarding J2534 reprogramming.

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Battery Diagnostic Tool*	DCA-8000P I	1

*Essential SST.

NOTE

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

HVAC Servo Motor Malfunction

Calibration Information

MODEL YEAR	MODEL	CALIBRATION ID	
		PREVIOUS	NEW
2017 – 2019	Land Cruiser	8865060Q2201 8865060Q2101 8865060Q1001	8865060W0001

Repair Procedure

1. Confirm one or more of the following conditions are present:

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

Does the vehicle exhibit ANY of the conditions listed above?

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

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 (Driver Side Lower Air Mix).
- B1448 – Passenger Side Face Servo Motor Circuit.
- B1449 – Rear Air Outlet Damper 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 Side).

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.

HVAC Servo Motor Malfunction

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 [T-SB-0134-16](#), *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.