

# MIL ON With DTC(s) P1C8449 and/or P300449 in Freezing Temperatures

**Service Category** Vehicle Interior

**Section** Meter/Gauge/Display

**Market** USA and Mexico

Toyota Supports  
ASE Certification 

## Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2019 - 2023	ES300H	
2018 - 2023	LC500H, LS500H	
2022 - 2024	NX350H	
2022 - 2023	NX450H+	
2023	RX350H	
2019 - 2023	UX250H	

### REVISION NOTICE

November 17, 2023 Rev1:

- The Required Tools & Equipment section has been updated.
- Any previous printed versions of this bulletin should be discarded.

## Introduction

Some 2018 – 2024 model year Lexus vehicles may exhibit a hybrid system warning lamp occurring in below-freezing temperatures (below 32°F or 0°C). After performing a Health Check, one or both of the following Diagnostic Trouble Codes (DTCs) may be present:

- P1C8449 – (High Voltage Power Resource Circuit Short during Ready ON)
- P300449 – (High Voltage Power Resource Circuit Short during Pre-Charge)

Follow the Repair Procedure in this bulletin to address this condition.

## MIL ON With DTC(s) P1C8449 and/or P300449 in Freezing Temperatures

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### Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL	PLANT	DRIVETRAIN	BATTERY TYPE	PRODUCTION CHANGE EFFECTIVE VIN
ES 300h	TMMK	2WD	Li-ion	58A#A1C1#RU037320
			Ni-MH	58AB21B1#RU014295
LC 500h	Motomachi		Li-ion	JTH#Y5AY#NA002251
LS 500h	Tahara		Li-ion	JTH#Y#FF#N5019661
		AWD	Li-ion	JTH#Y#GF#N5002109
NX 350h	TMMC			2T2#KCEZ#RC018287
NX 450h+	TMK			JTJ#KCEZ#R2016674
				JTJ#KCFZ#N2002674
RX 350h	TMMC	2T2BBMCA#PC014424		
UX 250h	TMK	2WD	Ni-MH	JTH#6JBH#P2156736
		AWD	Ni-MH	JTH#9JBH#P2070210

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### Warranty Information

#### For USA Market

OP CODE	DESCRIPTION	MODEL	TIME	OFF	T1	T2
EL2310	R & R Hybrid Vehicle Relay Assembly	ES 300H	1.0	G92Z0-#####*	8A	02
		LC 500h	3.1			
		LS 500h	3.3			
		NX 350h	1.0			
		UX 250h	1.1			

\*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF for the vehicle being repaired by searching for the parts 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.
- 2020 – 2023 model year ES 300h, 2018 – 2023 model year LC 500h, 2018 – 2023 model year LS 500h, 2022 – 2024 model year NX 350h, and 2020 – 2023 model year UX 250h vehicles equipped with a California Certified Emission Control System that are registered and operated in California or any state that adopts California emission warranty — California Emission Long-Term Defect Warranty is in effect for 7 years or 70,000 miles from the vehicle's in-service date, whichever occurs first. (Please reference Policy 4.7, and/or the Owner's Warranty & Maintenance Guide for additional information.)

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### Warranty Information (continued)

#### For USA Market (continued)

OP CODE	DESCRIPTION	MODEL	TIME	OFF	T1	T2
EL2312	R & R Hybrid Vehicle Relay Assembly	NX 450h+	2.4	G3850-#####*	8A	02
		RX 350h	0.7	G3860-#####*		

\*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF for the vehicle being repaired by searching for the parts in the Electronic Parts Catalog using the VIN filter.

#### **APPLICABLE WARRANTY**

- This repair is covered under the Lexus Powertrain Warranty. This warranty is in effect for 72 months or 70,000 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.
- For 2022 – 2023 NX 450h+\* vehicles equipped with a California Certified Emission Control System that are registered and operated in California or any state that adopts California emission warranty - Partial Zero Emission Vehicle (PZEV) Emission Warranty Coverage is in effect for 15 years or 150,000 miles, from the vehicle's in-service date, whichever occurs first. (Please reference Warranty Policy Bulletin POL21-03, Warranty Policy 4.7, and/or the Owner's Warranty & Maintenance Guide for additional information.)

\*PZEV coverage only applies if the MIL is illuminated.

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### Warranty Information (continued)

#### For Mexico Market

OP CODE	DESCRIPTION	MODEL	TIME	OFF	T1	T2
EL2310	R & R Hybrid Vehicle Relay Assembly	ES 300h	1.0	G92Z0-#####*	8A	02
		LC 500h	3.1			
		LS 500h	3.3			
		NX 350h	1.0			
		UX 250h	1.1			
EL2312		NX 450h+	2.4	G3850-#####*		
		RX 350h	0.7	G3860-#####*		

\*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF for the vehicle being repaired by searching for the parts 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 80,000 kilometers, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

### Parts Information

#### For USA and Mexico Markets

PART NUMBER	PART NAME	QTY
G92Z0-33041 – G92Z0-47100	Block Assy, HV Battery Junction	1
G92Z0-33051 – G92Z0-47110		1
G3850-48010	Box Assy, Traction Battery Device, No. 1	1
G3860-42010	Box Assy, Traction Battery Device, No. 2	1
G92Z0-47050	Block Assy, HV Battery Junction	1

## MIL ON With DTC(s) P1C8449 and/or P300449 in Freezing Temperatures

### Required Tools & Equipment

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Battery Diagnostic Tool*	<a href="#">DCA-8000P T</a>	1
Insulated Glove Set, Rubber With Leather Protectors*	<a href="#">01413-00072</a> (Medium)	
	<a href="#">01413-00073</a> (Large)	
	<a href="#">01413-00074</a> (Extra Large)	

\*Essential SST.

#### CAUTION

**ALWAYS inspect the insulated gloves before use for cracks, ruptures, tears, pinholes, or damage. Do NOT wear if damaged.**

#### NOTE

Additional SSTs may be ordered by calling 1-800-933-8335 (USA) or 01-800-504-5330 (Mexico).

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.
- GTS+ software version 2023.03.002.02 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787 (USA) or 01-55-50103041 (Mexico).
- 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.

## MIL ON With DTC(s) P1C8449 and/or P300449 in Freezing Temperatures

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### Repair Procedure

1. Confirm the condition exists.  
Does the vehicle exhibit a hybrid system warning lamp in below-freezing temperatures (below 32°F or 0°C) with DTC(s) P1C8449 and/or DTC P300449 present?
  - **YES** — Continue to step 2.
  - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
  
2. Is the VIN BEFORE the one listed in the Production Change Information table?
  - **YES** — Continue to step 3.
  - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
  
3. Refer to the appropriate Repair Manual to gain access to the HV battery junction block/traction battery device.  
Refer to TIS, applicable model and model year Repair Manual:
  - [2019 – 2021](#) / [2022](#) / [2023](#) ES 300h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Removal”*
  - [2021](#) / [2022](#) / [2023](#) ES 300h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly (for Lithium-ion Battery): Removal”*
  - [2018 – 2023](#) LC 500h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “8GR-FXS (Hybrid / Battery Control): HV Relay Assembly: Removal”*
  - [2018](#) / [2019 – 2020](#) / [2021](#) / [2022](#) / [2023](#) LS 500h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “8GR-FXS (Hybrid / Battery Control): HV Relay Assembly: Removal”*
  - [2022 – 2024](#) NX 350h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Removal”*
  - [2022 – 2023](#) NX 450h+:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Removal”*
  - [2023](#) RX 350h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly (for THS-HEV Model): Removal”*

## MIL ON With DTC(s) P1C8449 and/or P300449 in Freezing Temperatures

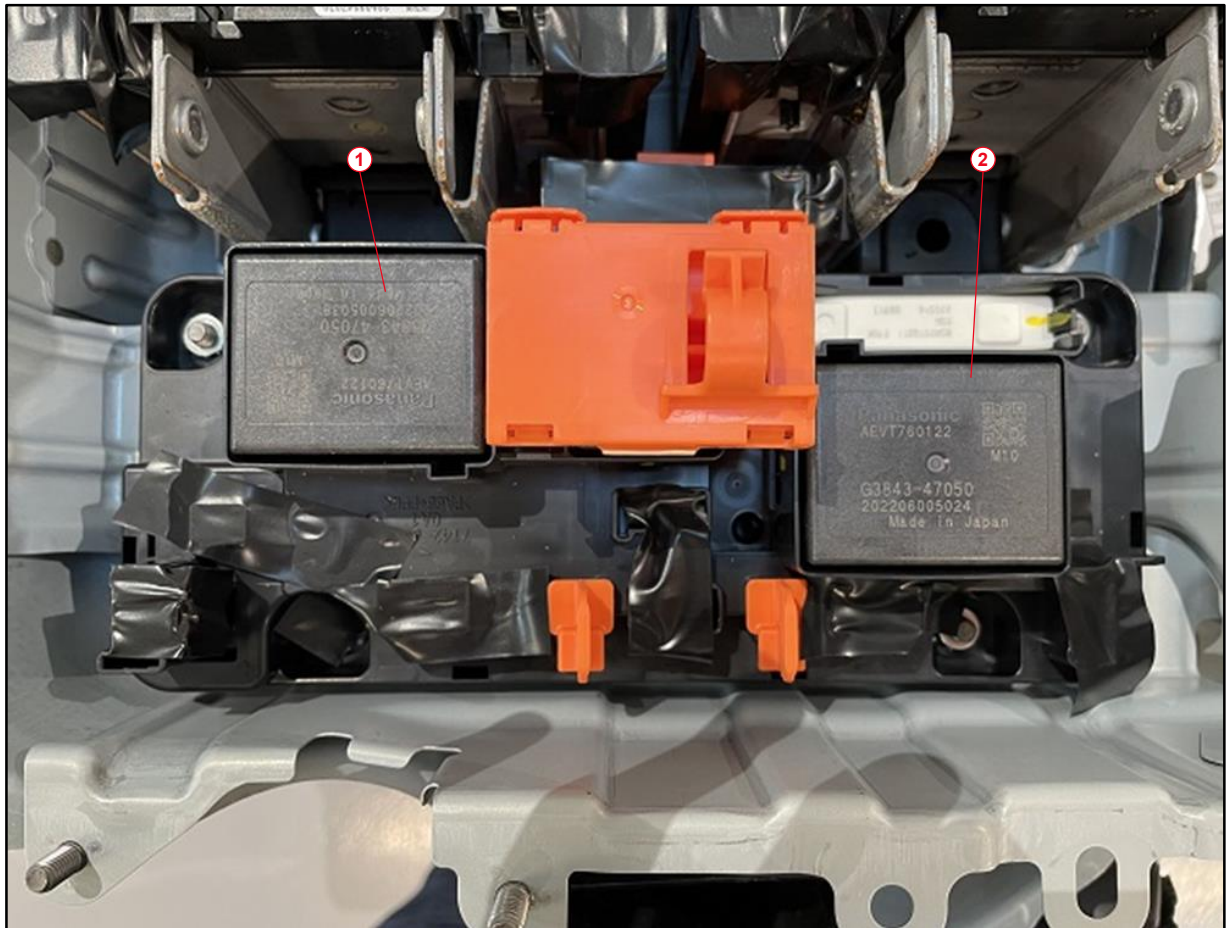
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### Repair Procedure (continued)

- [2019 – 2022](#) / [2023](#) UX 250h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Removal”*

4. Perform an inspection of the SMRB and SMRG internal relays.

**Figure 1. Example of an HV Battery Junction Block (SMR)**



<b>1</b>	<b>SMRB Relay</b>
<b>2</b>	<b>SMRG Relay</b>

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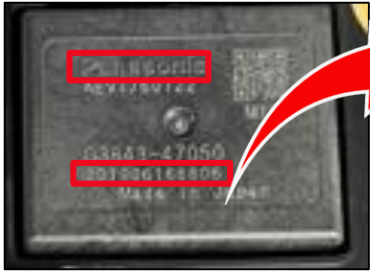
### Repair Procedure (continued)

A. Are the relays labeled Panasonic?

See Figure 2 for an example of a relay labeled Panasonic.

- **YES** — Inspect the relay date code for the countermeasure date and go to step 5.
- **NO** — Continue to substep B.

**Figure 2. Example of a Panasonic Relay**



Panasonic Relay Date Code:  
**YYYYMM #####**  
 The countermeasure date for the Panasonic relay is **July 2021**.

MONTH	CODE
Jan.	01
Feb	02
Mar	03
Apr	04
May	05
Jun	06
Jul	07
Aug	08
Sep	09
Oct	10
Nov	11
Dec	12

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### Repair Procedure (continued)

B. Are the relays labeled Denso?

See Figure 3 for an example of a relay labeled Denso.

- **YES** — Inspect the relay date code for the countermeasure date and continue to step 5.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

**Figure 3. Example of a Denso Relay**



Denso Relay Date Code: **MMYYDD**  
 The countermeasure date for the Denso relay is **December 23, 2022.**

MONTH	CODE
Jan.	01
Feb	02
Mar	03
Apr	04
May	05
Jun	06
Jul	07
Aug	08
Sep	09
Oct	10
Nov	11
Dec	12

YEAR	CODE
2018	B
2019	C
2020	D
2021	E
2022	F
2023	G

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### Repair Procedure (continued)

5. Were the relays produced BEFORE the countermeasure date listed in step 4?
  - **YES** — Continue to step 6.
  - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
  
6. Install the NEW HV battery junction block/traction battery device.  
Refer to TIS, applicable model and model year Repair Manual:
  - [2019 – 2023](#) ES 300h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Installation”*
  - [2021 – 2023](#) ES 300h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly (for Lithium-ion Battery): Installation”*
  - [2018 – 2023](#) LC 500h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “8GR-FXS (Hybrid / Battery Control): HV Relay Assembly: Installation”*
  - [2018 – 2023](#) LS 500h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “8GR-FXS (Hybrid / Battery Control): HV Relay Assembly: Installation”*
  - [2022 – 2024](#) NX 350h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Installation”*
  - [2022 – 2023](#) NX 450h+:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Installation”*
  - [2023](#) RX 350h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly (for THS-HEV Model): Installation”*
  - [2019 – 2023](#) UX 250h:  
*Engine/Hybrid System – Hybrid/Battery Control System – “Hybrid / Battery Control: HV Relay Assembly: Installation”*
  
7. Clear ANY DTCs and test-drive the vehicle to confirm the condition is no longer present.