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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: C1AF187; Ultrasonic Sensor (Rear Left Side) Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

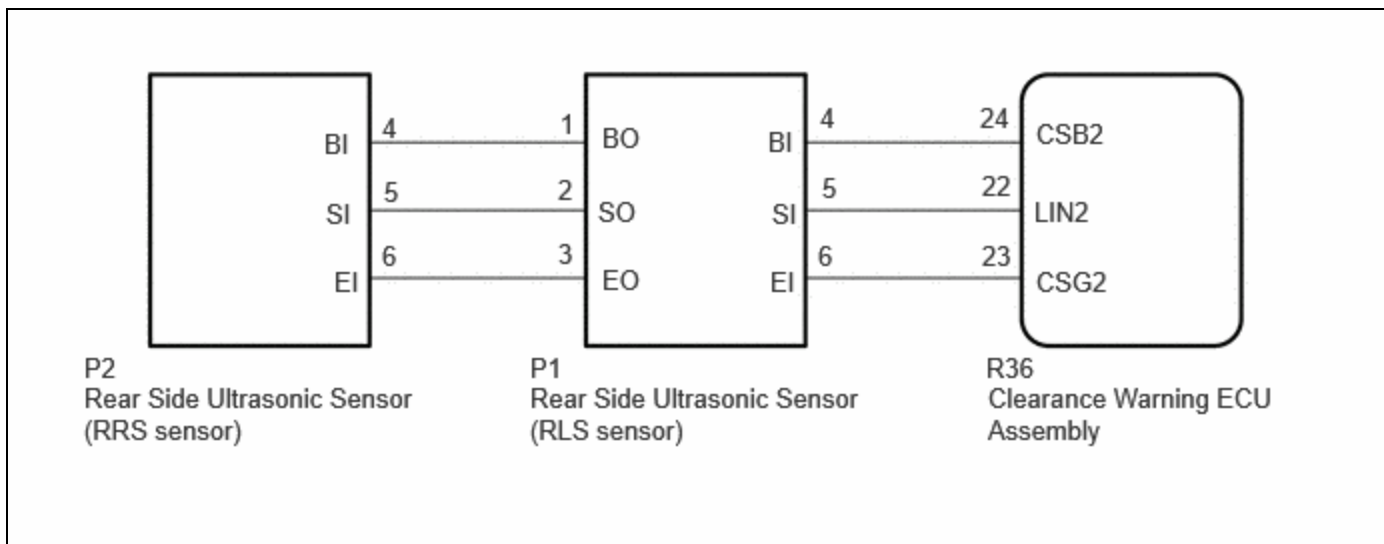
DTC	C1AF187	Ultrasonic Sensor (Rear Left Side) Missing Message
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DESCRIPTION

This DTC is output when an open circuit or short occurs in the communication line between a rear side ultrasonic sensor (RLS sensor) and the clearance warning ECU assembly connector or when a malfunction occurs in a rear side ultrasonic sensor (RLS sensor) on the rear.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C1AF187	Ultrasonic Sensor (Rear Left Side) Missing Message	Rear side ultrasonic sensor (RLS sensor) lost communication	<ul style="list-style-type: none"> Rear side ultrasonic sensor (RLS sensor) Harness or connector Clearance warning ECU assembly 	Clearance Warning	A

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- Perform registration after replacing and installing the ultrasonic sensor or clearance warning ECU assembly.

[Click here](#) INFO

- If a DTC is detected again after the repair, turn the ignition switch to ON and turn the intuitive parking assist system on, and then clear the DTC.

PROCEDURE

1. VEHICLE CONDITION AND WORK DETAILS CHECK

(a) Check the vehicle condition and work details.

RESULT	PROCEED TO
The clearance warning ECU assembly or ultrasonic sensor has not been replaced	A
The clearance warning ECU assembly or ultrasonic sensor has been replaced	B

B  **GO TO CALIBRATION**

A



2. CHECK CONNECTOR CONNECTION CONDITION (ULTRASONIC SENSOR)

(a) Check that the connector is properly connected to the rear side ultrasonic sensor.

NEXT



3. CLEAR DTC

(a) Clear the DTCs.

Body Electrical > Clearance Warning > Clear DTCs

NEXT



4. CHECK FOR DTC

(a) Check for DTCs.

Body Electrical > Clearance Warning > Trouble Codes

RESULT	PROCEED TO
DTCs are not output	A
C1AF187 is output	B
None of the above conditions are met	C

A ► **END (CONNECTOR CONNECTION MALFUNCTION)**

C ► **GO TO DTC CHART**

Click here [INFO](#)

B



5. CHECK CONNECTOR CONNECTION CONDITION (CLEARANCE WARNING ECU ASSEMBLY)

(a) Check that the connector is properly connected to the clearance warning ECU assembly.

NEXT



6. CLEAR DTC

(a) Clear the DTCs.

Body Electrical > Clearance Warning > Clear DTCs

NEXT



7. CHECK FOR DTC

(a) Check for DTCs.

Body Electrical > Clearance Warning > Trouble Codes

RESULT	PROCEED TO
DTCs are not output	A
C1AF187 and C1AF287 are output	B
C1AF187 is output	C

A ► **USE SIMULATION METHOD TO CHECK**

C ► **GO TO STEP 9**

B



8.	CHECK HARNESS AND CONNECTOR (CLEARANCE WARNING ECU ASSEMBLY - REAR SIDE ULTRASONIC SENSOR [RLS SENSOR])
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Pre-procedure1

- (a) Disconnect the R36 clearance warning ECU assembly connector.
- (b) Disconnect the P1 rear side ultrasonic sensor (RLS sensor) connector.

Procedure1

- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(R36,P1\)](#)

[Click Connector\(R36\)](#)

[Click Connector\(P1\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
R36-24 (CSB2) - P1-4 (BI)	Always	Below 1 Ω	Ω
R36-22 (LIN2) - P1-5 (SI)	Always	Below 1 Ω	Ω
R36-23 (CSG2) - P1-6 (EI)	Always	Below 1 Ω	Ω
R36-24 (CSB2) or P1-4 (BI) - Body ground	Always	10 k Ω or higher	k Ω
R36-22 (LIN2) or P1-5 (SI) - Body ground	Always	10 k Ω or higher	k Ω
R36-23 (CSG2) or P1-6 (EI) - Body ground	Always	10 k Ω or higher	k Ω

Post-procedure1

(d) None

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK



9.	REPLACE REAR SIDE ULTRASONIC SENSOR (RLS SENSOR)
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(a) Replace the rear side ultrasonic sensor (RLS sensor) with a known good one.

HINT:

- Click here [INFO](#)
- All of the sensors are interchangeable. To confirm whether a sensor is functioning normally, switch it with a known good sensor from the other end of the vehicle.

NEXT



10.	CLEAR DTC
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(a) Clear the DTCs.

Body Electrical > Clearance Warning > Clear DTCs

NEXT



11.	CHECK FOR DTC
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(a) Check for DTCs.

Body Electrical > Clearance Warning > Trouble Codes

RESULT	PROCEED TO
DTCs are not output	A
C1AF187 is output	B
None of the above conditions are met	C

A ▶ END (REAR SIDE ULTRASONIC SENSOR [RLS SENSOR] WAS DEFECTIVE)

B ▶ REPLACE CLEARANCE WARNING ECU ASSEMBLY

C ▶ GO TO DTC CHART

Click here [INFO](#)

