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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: C1AE987; Ultrasonic Sensor (Rear Right Corner) Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

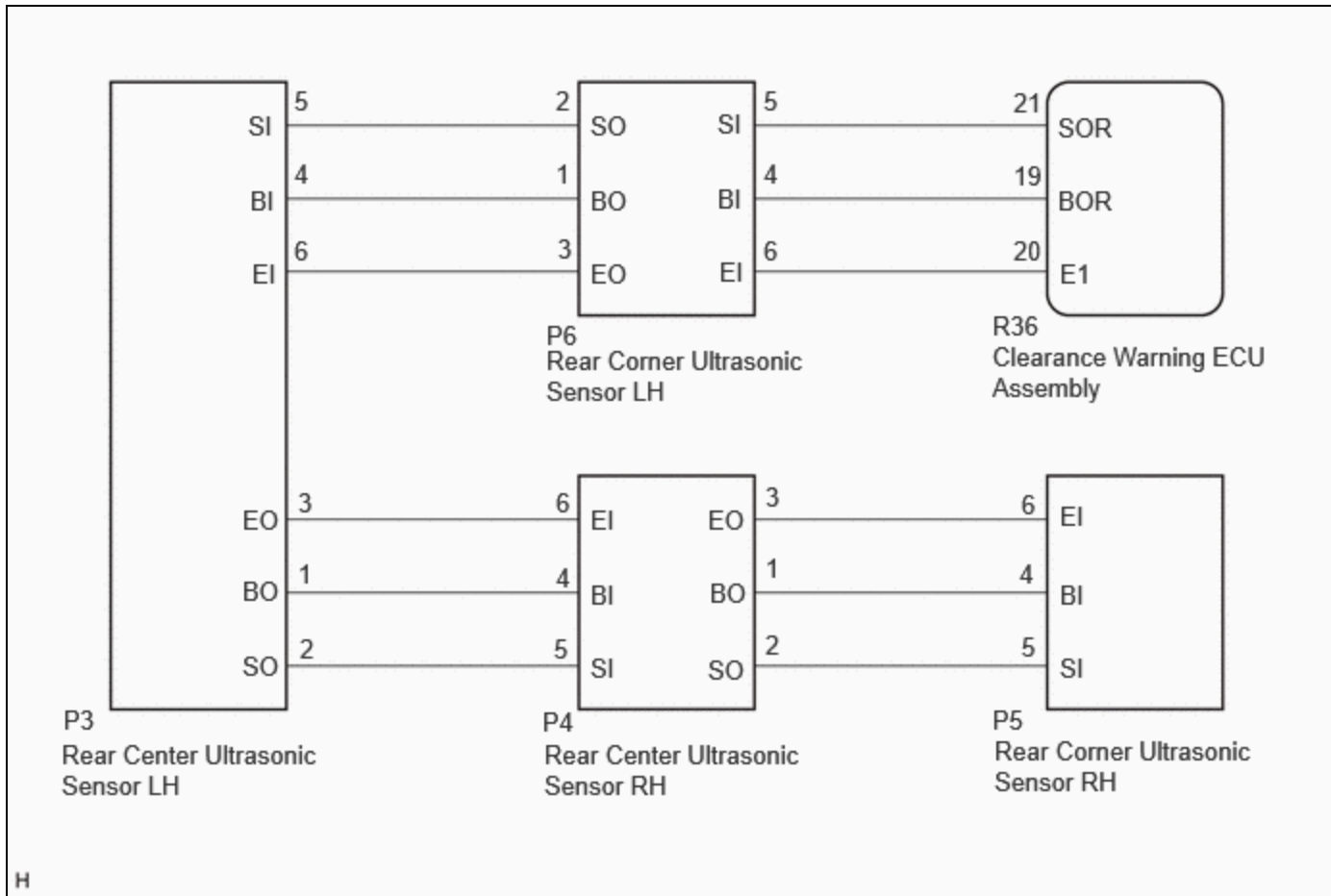
<b>DTC</b>	<b>C1AE987</b>	<b>Ultrasonic Sensor (Rear Right Corner) Missing Message</b>
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## DESCRIPTION

This DTC is stored when an open circuit or short occurs in the communication line between the rear corner ultrasonic sensor RH and the rear center ultrasonic sensor RH, or when a malfunction occurs in the rear corner ultrasonic sensor RH.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C1AE987	Ultrasonic Sensor (Rear Right Corner) Missing Message	Rear corner ultrasonic sensor RH lost communication	<ul style="list-style-type: none"> <li>Rear corner ultrasonic sensor RH</li> <li>Harness or connector</li> <li>Clearance warning ECU assembly</li> </ul>	Clearance Warning	B

## 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.
- If C1AE896 is output at the same time, check C1AE896 first.

[Click here](#) INFO

## PROCEDURE

<b>1.</b>	<b>CHECK DTC</b>
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(a) If DTC C1AE896 is output, perform troubleshooting for DTC C1AE896 first.

### Body Electrical > Clearance Warning > Trouble Codes

RESULT	PROCEED TO
C1AE896 is not output	A
C1AE896 is output	B

**B ▶ GO TO C1AE896****A****2. 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****3. CHECK CONNECTOR CONNECTION CONDITION (ULTRASONIC SENSOR)**

(a) Check that the connector is properly connected to the rear corner ultrasonic sensor and rear center ultrasonic sensor.

**NEXT****4. CLEAR DTC**

(a) Clear the DTCs.

**Body Electrical > Clearance Warning > Clear DTCs****NEXT**

**5. CHECK FOR DTC**

(a) Check for DTCs.

**Body Electrical > Clearance Warning > Trouble Codes**

RESULT	PROCEED TO
C1AE987 is not output	A
C1AE987 is output	B

**A ▶ END (CONNECTOR CONNECTION MALFUNCTION)****B****6. CHECK CONNECTOR CONNECTION CONDITION (CLEARANCE WARNING ECU ASSEMBLY)**

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

**NEXT****7. CLEAR DTC**

(a) Clear the DTCs.

**Body Electrical > Clearance Warning > Clear DTCs****NEXT****8. CHECK FOR DTC**

(a) Check for DTCs.

**Body Electrical > Clearance Warning > Trouble Codes**

RESULT	PROCEED TO
DTCs are not output	A
C1AE687, C1AE787, C1AE887 and C1AE987 are output	B
C1AE787, C1AE887 and C1AE987 are output	C
C1AE887 and C1AE987 are output	D
C1AE987 is output	E

**A** ► **USE SIMULATION METHOD TO CHECK**

**B** ► **GO TO CORRESPONDING FLOWCHART (INTUITIVE PARKING ASSIST SYSTEM (C1AE687))**

**C** ► **GO TO CORRESPONDING FLOWCHART (INTUITIVE PARKING ASSIST SYSTEM (C1AE787))**

**D** ► **GO TO CORRESPONDING FLOWCHART (INTUITIVE PARKING ASSIST SYSTEM (C1AE887))**

**E**



<b>9.</b>	<b>CHECK WIRE HARNESS AND CONNECTOR (REAR CENTER ULTRASONIC SENSOR RH - REAR CORNER ULTRASONIC SENSOR RH)</b>
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Pre-procedure1

- (a) Disconnect the P4 rear center ultrasonic sensor RH connector.
- (b) Disconnect the P5 rear corner ultrasonic sensor RH connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(P4,P5\)](#)

[Click Connector\(P4\)](#)

[Click Connector\(P5\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
P4-1 (BO) - P5-4 (BI)	Always	Below 1 $\Omega$	$\Omega$
P4-2 (SO) - P5-5 (SI)	Always	Below 1 $\Omega$	$\Omega$
P4-3 (EO) - P5-6 (EI)	Always	Below 1 $\Omega$	$\Omega$
P4-1 (BO) or P5-4 (BI) - Body ground	Always	10 k $\Omega$ or higher	k $\Omega$
P4-2 (SO) or P5-5 (SI) - Body ground	Always	10 k $\Omega$ or higher	k $\Omega$
P4-3 (EO) or P5-6 (EI) - Body ground	Always	10 k $\Omega$ or higher	k $\Omega$

Post-procedure1

(d) None

**NG**  **REPAIR OR REPLACE WIRE HARNESS OR CONNECTOR**

**OK**



**10. REPLACE REAR CORNER ULTRASONIC SENSOR RH**

(a) Replace the rear corner ultrasonic sensor RH with a new or normally functioning one.

**HINT:**

- Click here 
- To check if the ultrasonic sensor is functioning correctly, replace it with another ultrasonic sensor.

**NEXT**



**11. CLEAR DTC**

(a) Clear the DTCs.

**Body Electrical > Clearance Warning > Clear DTCs**

**NEXT**



**12. CHECK FOR DTC**

(a) Check for DTCs.

**Body Electrical > Clearance Warning > Trouble Codes**

RESULT	PROCEED TO
DTCs are not output	A
C1AE987 is output	B

**A ▶ END (REAR CORNER ULTRASONIC SENSOR RH WAS DEFECTIVE)**

**B ▶ REPLACE CLEARANCE WARNING ECU ASSEMBLY**

