

<b>Last Modified:</b> 12-04-2024	6.11:8.1.0	<b>Doc ID:</b> RM100000028VQZ
<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: C1AE287; Ultrasonic Sensor (Front Left Center) Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

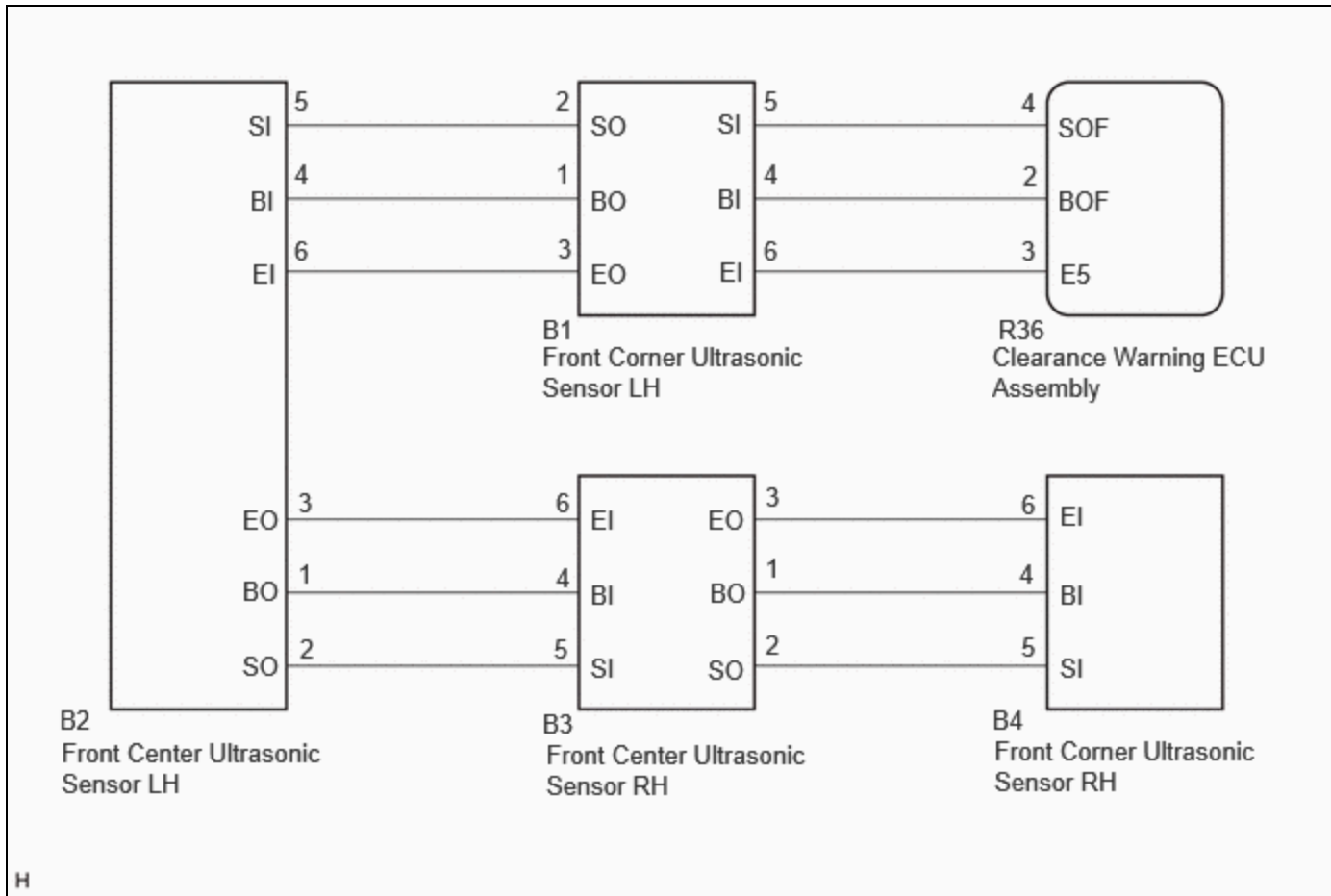
<b>DTC</b>	<b>C1AE287</b>	<b>Ultrasonic Sensor (Front Left Center) Missing Message</b>
------------	----------------	--

## DESCRIPTION

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

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C1AE287	Ultrasonic Sensor (Front Left Center) Missing Message	Front center ultrasonic sensor LH lost communication	<ul style="list-style-type: none"> <li>• Front center ultrasonic sensor LH</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 C1AE196 is output at the same time, check C1AE196 first.

[Click here](#) INFO

## PROCEDURE

<b>1.</b>	<b>CHECK DTC</b>
-----------	------------------

(a) If DTC C1AE196 is output, perform troubleshooting for DTC C1AE196 first.

### Body Electrical > Clearance Warning > Trouble Codes

RESULT	PROCEED TO
C1AE196 is not output	A
C1AE196 is output	B

**B** ▶ [GO TO C1AE196](#)

**A**



<b>2.</b>	<b>VEHICLE CONDITION AND WORK DETAILS CHECK</b>
-----------	---

(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**



<b>3.</b>	<b>CHECK CONNECTOR CONNECTION CONDITION (ULTRASONIC SENSOR)</b>
-----------	---

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

**NEXT**



<b>4.</b>	<b>CLEAR DTC</b>
-----------	------------------

(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
C1AE287 is not output	A
C1AE287 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 DTC OUTPUT**

(a) Check for DTCs.

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

RESULT	PROCEED TO
DTCs are not output	A
C1AE187, C1AE287, C1AE387 and C1AE487 are output	B
C1AE287, C1AE387 and C1AE487 are output	C
C1AE387 and C1AE487 are output	D
C1AE487 is output	E
Only C1AE287 is output	F

**A ▶ USE SIMULATION METHOD TO CHECK**

**B ▶ GO TO CORRESPONDING FLOWCHART (INTUITIVE PARKING ASSIST SYSTEM (C1AE187))**

**D ▶ GO TO CORRESPONDING FLOWCHART (INTUITIVE PARKING ASSIST SYSTEM (C1AE387))**

**E ▶ GO TO CORRESPONDING FLOWCHART (INTUITIVE PARKING ASSIST SYSTEM (C1AE487))**

**F ▶ GO TO STEP 10**

**C**



<b>9.</b>	<b>CHECK WIRE HARNESS AND CONNECTOR (FRONT CENTER ULTRASONIC SENSOR LH - FRONT CORNER ULTRASONIC SENSOR LH)</b>
-----------	---

Pre-procedure1

- (a) Disconnect the B1 front corner ultrasonic sensor LH connector.
- (b) Disconnect the B2 front center ultrasonic sensor LH connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(B1,B2\)](#)

[Click Connector\(B1\)](#)

[Click Connector\(B2\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
B1-1 (BO) - B2-4 (BI)	Always	Below 1 $\Omega$	$\Omega$
B1-2 (SO) - B2-5 (SI)	Always	Below 1 $\Omega$	$\Omega$
B1-3 (EO) - B2-6 (EI)	Always	Below 1 $\Omega$	$\Omega$
B1-1 (BO) or B2-4 (BI) - Body ground	Always	10 k $\Omega$ or higher	k $\Omega$
B1-2 (SO) or B2-5 (SI) - Body ground	Always	10 k $\Omega$ or higher	k $\Omega$
B1-3 (EO) or B2-6 (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 FRONT CENTER ULTRASONIC SENSOR LH**

(a) Replace the front center ultrasonic sensor LH with a new or normally functioning one.

**HINT:**

- Click here [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**

<b>12.</b>	<b>CHECK FOR DTC</b>
------------	----------------------

(a) Check for DTCs.

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

RESULT	PROCEED TO
DTCs are not output	A
C1AE287 is output	B

**A** ▶ **END (FRONT CENTER ULTRASONIC SENSOR LH WAS DEFECTIVE)**

**B** ▶ **REPLACE CLEARANCE WARNING ECU ASSEMBLY**

