Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000028VRH
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: C1AF287; Ultrasonic Sensor (Rear Right Side) Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

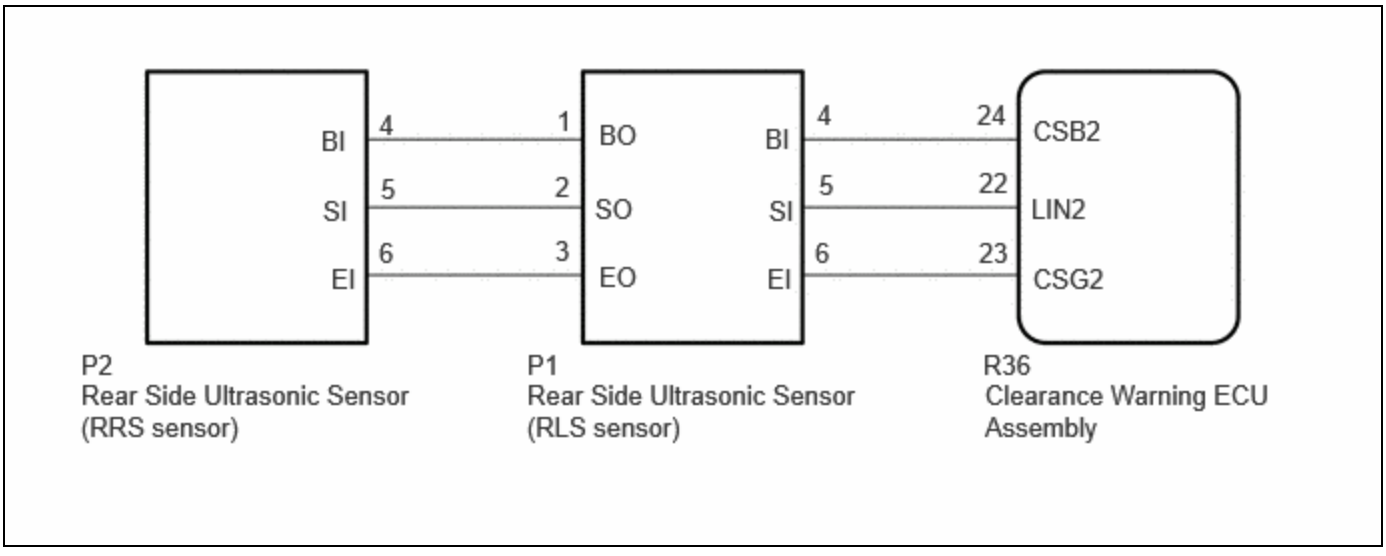
DTC	**C1AF287**	**Ultrasonic Sensor (Rear Right Side) Missing Message**

DESCRIPTION

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

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C1AF287	Ultrasonic Sensor (Rear Right Side) Missing Message	Rear side ultrasonic sensor (RRS sensor) lost communication	• Rear side ultrasonic sensor (RRS sensor) • Harness or connector • Clearance warning ECU assembly	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 C1AF196 is output at the same time, check C1AF196 first.

Click here INFO

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
C1AF287 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
C1AF287 is output	C
None of the above conditions are met	D

A ▶ **USE SIMULATION METHOD TO CHECK**

B ▶ **GO TO DTC (C1AF187)**

D ▶ **GO TO DTC CHART**

Click here INFO

C ▼

8.	**CHECK HARNESS AND CONNECTOR (REAR SIDE ULTRASONIC SENSOR [RLS SENSOR] - REAR SIDE ULTRASONIC SENSOR [RRS SENSOR])**

Pre-procedure1

(a) Disconnect the P1 rear side ultrasonic sensor (RLS sensor) connector.

(b) Disconnect the P2 rear side ultrasonic sensor (RRS sensor) connector.

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(P1,P2)
Click Connector(P1)
Click Connector(P2)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
P1-1 (BO) - P2-4 (BI)	Always	Below 1 Ω	Ω
P1-2 (SO) - P2-5 (SI)	Always	Below 1 Ω	Ω
P1-3 (EO) - P2-6 (EI)	Always	Below 1 Ω	Ω

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
P1-1 (BO) or P2-4 (BI) - Body ground	Always	10 kΩ or higher	kΩ
P1-2 (SO) or P2-5 (SI) - Body ground	Always	10 kΩ or higher	kΩ
P1-3 (EO) or P2-6 (EI) - Body ground	Always	10 kΩ or higher	kΩ

Post-procedure1

(d) None

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK
▼

9.	**REPLACE REAR SIDE ULTRASONIC SENSOR (RRS SENSOR)**

(a) Replace the rear side ultrasonic sensor (RRS 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**

(a) Clear the DTCs.

Body Electrical > Clearance Warning > Clear DTCs

NEXT
▼

11.	**CHECK FOR DTC**

(a) Check for DTCs.

Body Electrical > Clearance Warning > Trouble Codes

RESULT	PROCEED TO
DTCs are not output	A
C1AF287 is output	B
None of the above conditions are met	C

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

B ▶ **REPLACE CLEARANCE WARNING ECU ASSEMBLY**

C ▶ **GO TO DTC CHART**

Click here INFO