

Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000RPZZ
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 - 12/2018]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: OPERATION CHECK; 2016 - 2018 MY Prius [11/2015 - 12/2018]		

OPERATION CHECK

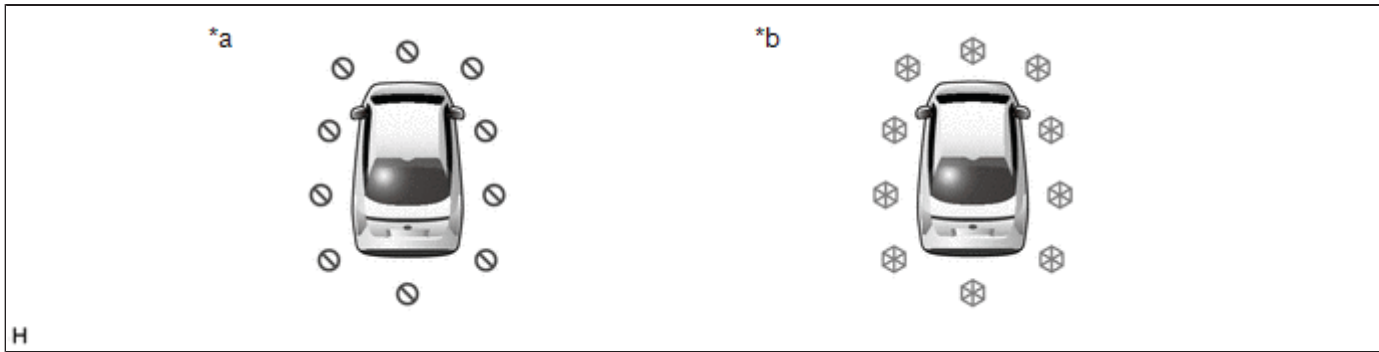
Self-diagnosis System

- (a) If the clearance warning ECU assembly detects that an ultrasonic sensor is malfunctioning, a malfunction indication is displayed on the meter circuit plate.

MALFUNCTIONING ITEM	DETECTION CONDITION	WARNING MESSAGE (MULTI-INFORMATION DISPLAY)	MALFUNCTION INDICATION (METER CIRCUIT PLATE)	BUZZER SOUNDING (NO. 1 CLEARANCE WARNING BUZZER AND NO. 2 CLEARANCE WARNING BUZZER)	SUSPECTED AREA
Frozen indication	<ul style="list-style-type: none"> The ultrasonic sensor is covered with foreign matter, such as mud or snow The ultrasonic sensor is frozen 	Clean Parking Assist Sensor	○	○	<ul style="list-style-type: none"> If a frozen indication is displayed, proceed to "Sensor Frozen Indication (Dirty or Frozen)" Click here INFO Check if any foreign matter is attached to the ultrasonic sensors and their surrounding areas Click here INFO If there is no foreign matter attached to the ultrasonic

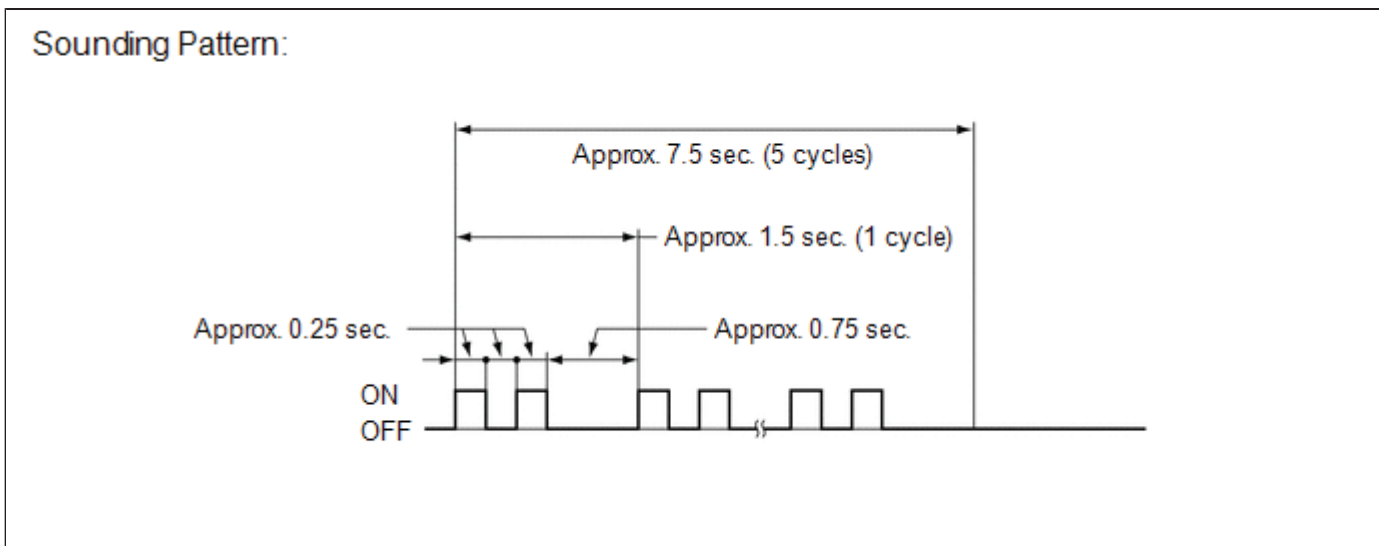
					sensors and their surrounding areas, check for DTCs Click here INFO
Open circuit indication	<ul style="list-style-type: none"> There is an open circuit between the clearance warning ECU assembly and the ultrasonic sensor The ultrasonic sensor is malfunctioning 	Parking Assist Malfunction	○	○	Check for DTCs Click here INFO

(1) Malfunction Indication (Meter Circuit Plate)



*a	Open circuit indication	*b	Frozen indication
----	-------------------------	----	-------------------

(2) Buzzer Sounding (No. 1 Clearance Warning Buzzer and No. 2 Clearance Warning Buzzer)



HINT:

Buzzer sounding is stopped after approximately 7.5 seconds elapsed.

DETECTION RANGE MEASUREMENT AND DISPLAY INSPECTION

NOTICE:

Perform the following measurement and inspection with a shift state other than park (P) selected. Be sure to apply the parking brake and depress the brake pedal firmly to prevent the vehicle from moving.

- (a) Turn the power switch on (READY).
- (b) Turn the intuitive parking assist system on.
- (c) Detection range measurement:
 - (1) Move the shift state according to the table below.

Measurement Area	Shift State
Front Corner	Other than park (P)
Front Center	Other than park (P) or reverse (R)
Front Side	Other than park (P)
Rear Corner	Reverse (R)
Rear Center	
Rear Side	Other than park (P)

- (2) Move a 60 mm (2.4 in.) diameter pole near each sensor to measure its detection range. When measuring the longest-range detection of the front center sonar and the rear center sonar, use a wall or equivalent.

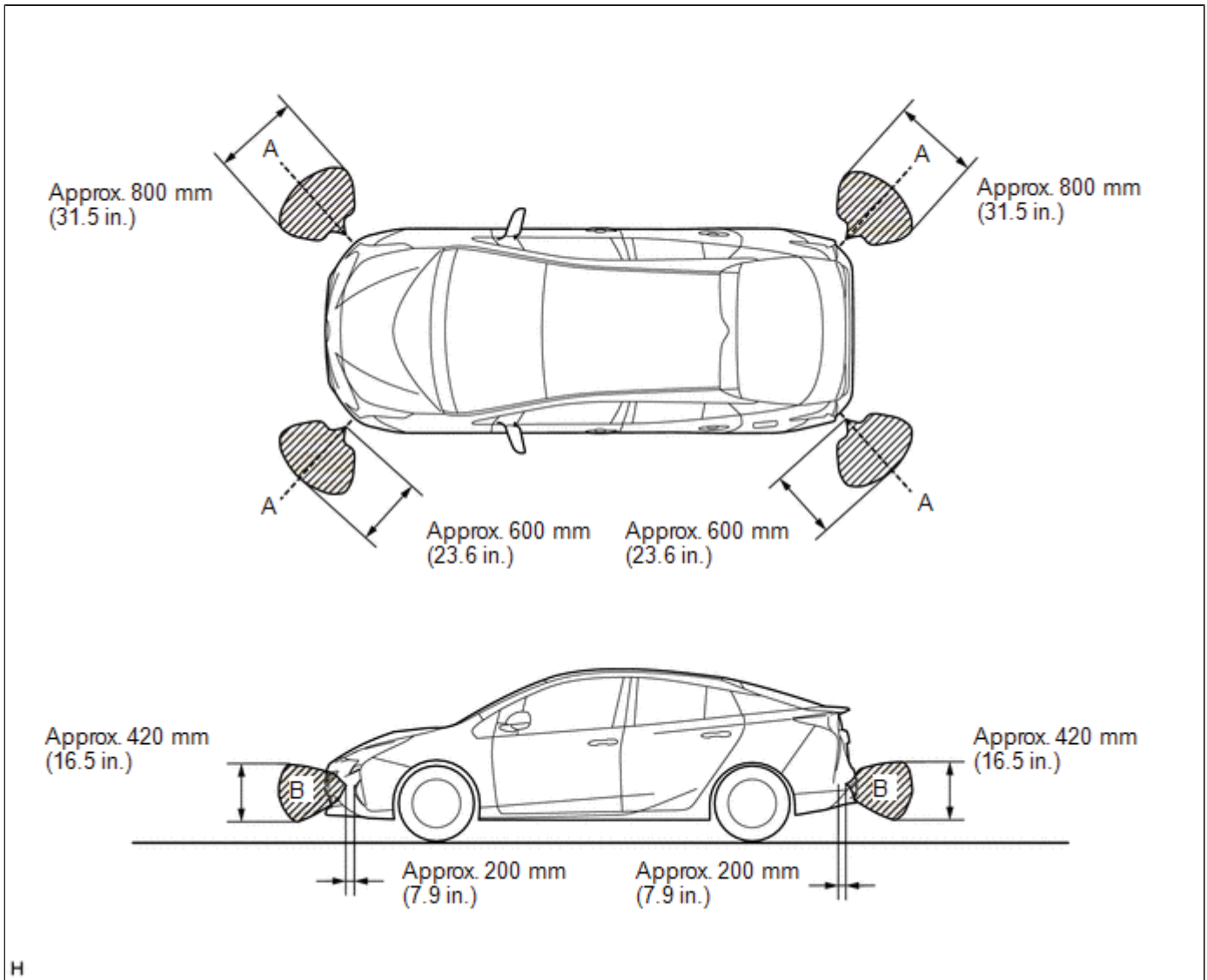
NOTICE:

These detection ranges are applicable when positioning the 60 mm (2.4 in.) diameter pole parallel or perpendicular to the ground. The detection range varies depending on the measuring method and type of obstacle (such as walls).

HINT:

Have an assistant move the pole.

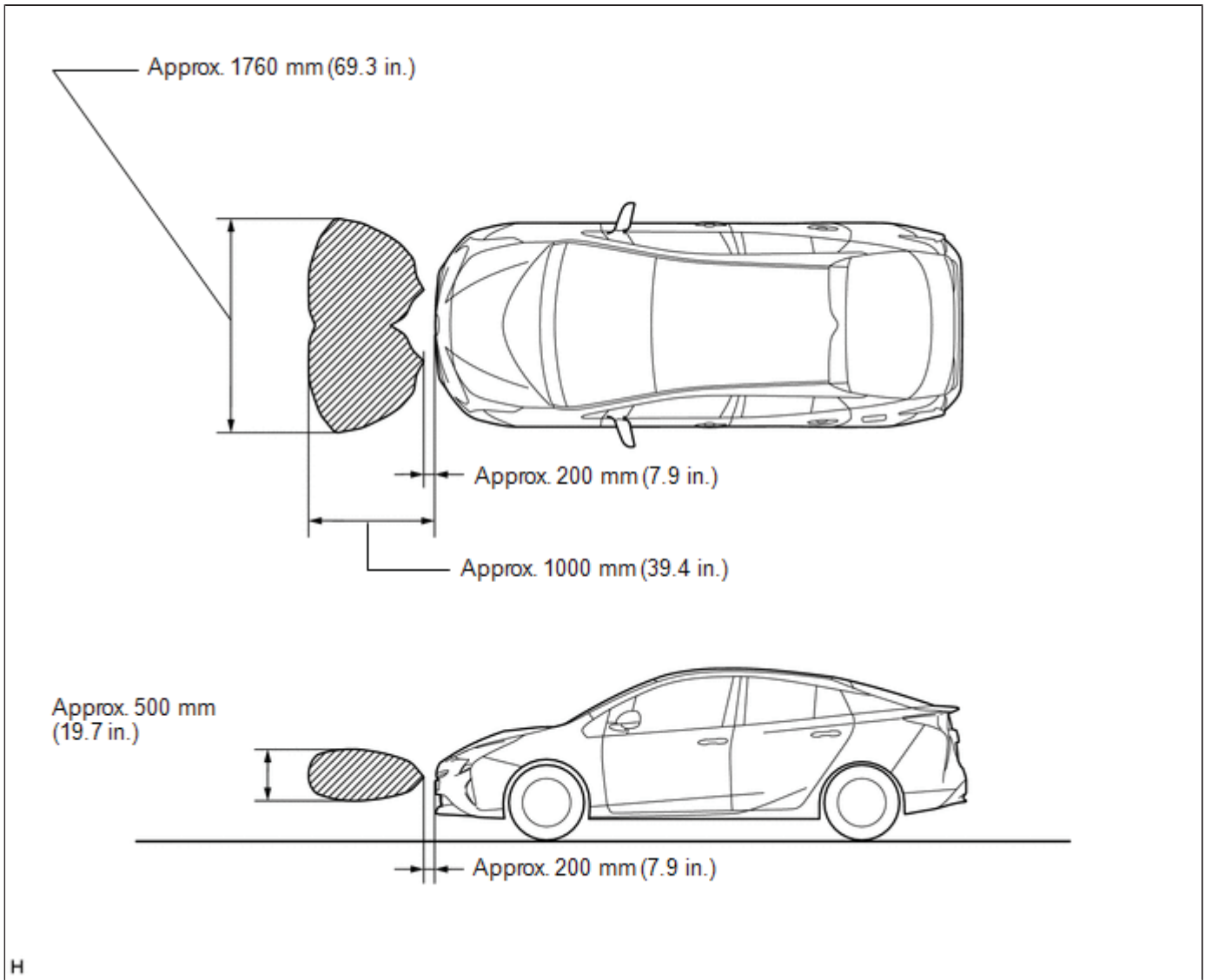
Corner Sonar Detection Range



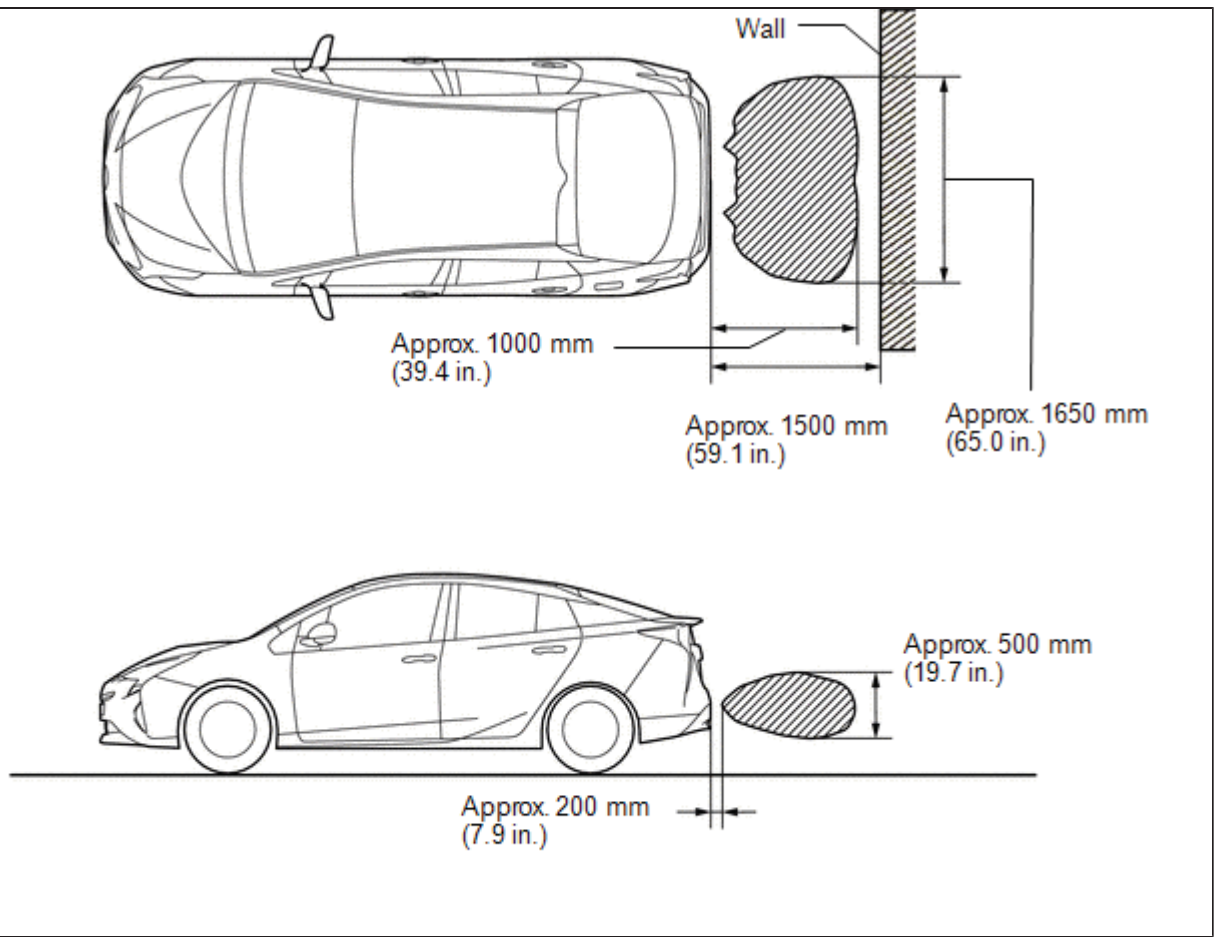
NOTICE:

The ultrasonic sensor side view detection range (hatched area labeled (B)) represents the cross section of the top view detection range (A). The hatched area (B) does not represent the entire side view detection range.

Front Center Sonar Detection Range

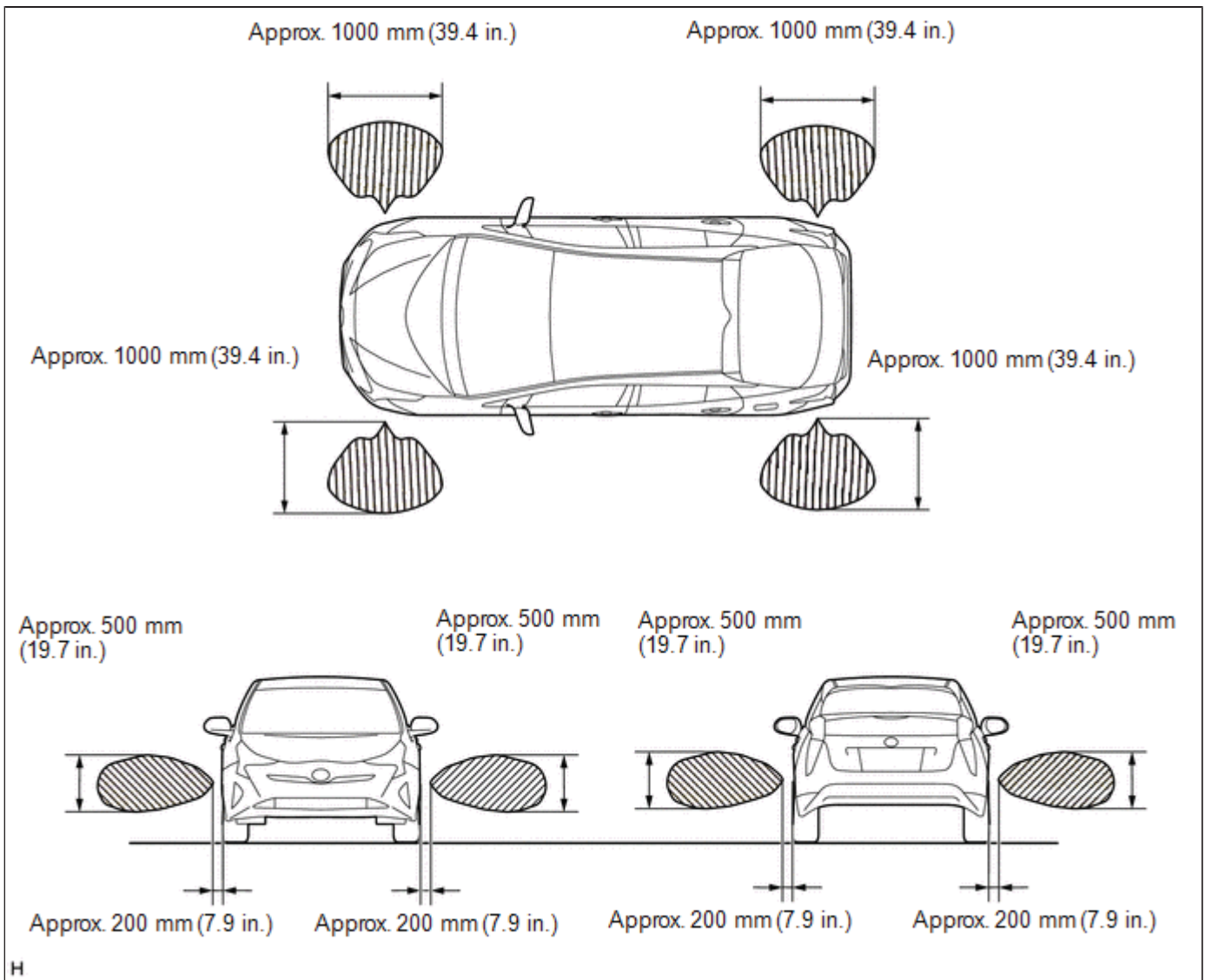


Rear Center Sonar Detection Range



H

Side Sonar Detection Range



(d) Front corner sonar display and buzzer operation check

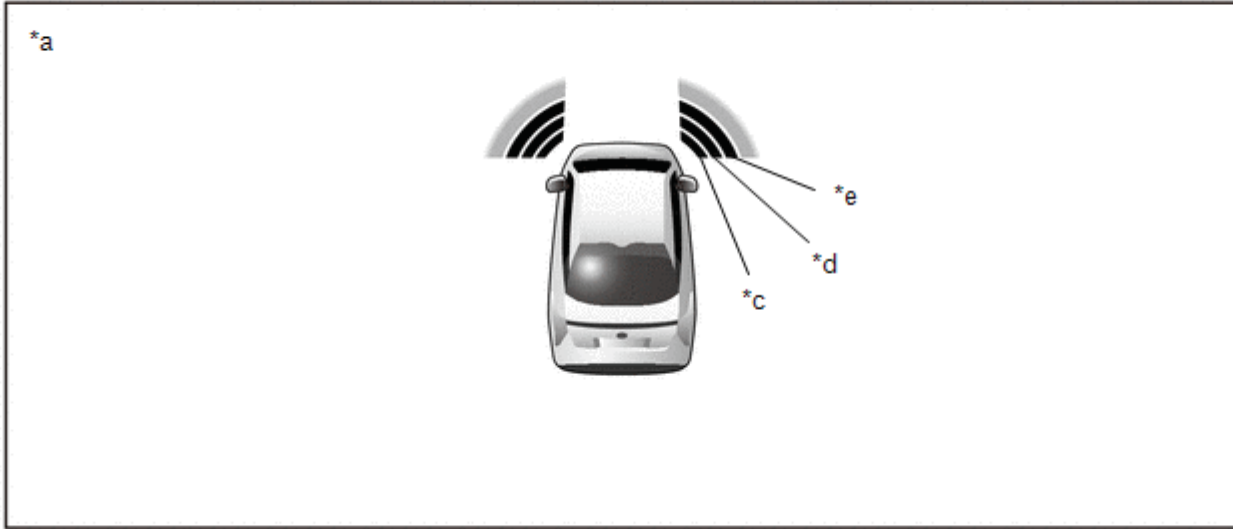
- (1) When the ultrasonic sensors (front corner sonar) have detected an obstacle, check the displays and check that the buzzer sounds.

Operation Condition

POWER SWITCH	INTUITIVE PARKING ASSIST SYSTEM	SHIFT STATE	VEHICLE SPEED
On (Ready)	On	Other than park (P)	Less than approximately 10 km/h (6 mph) if speed is increasing

*b

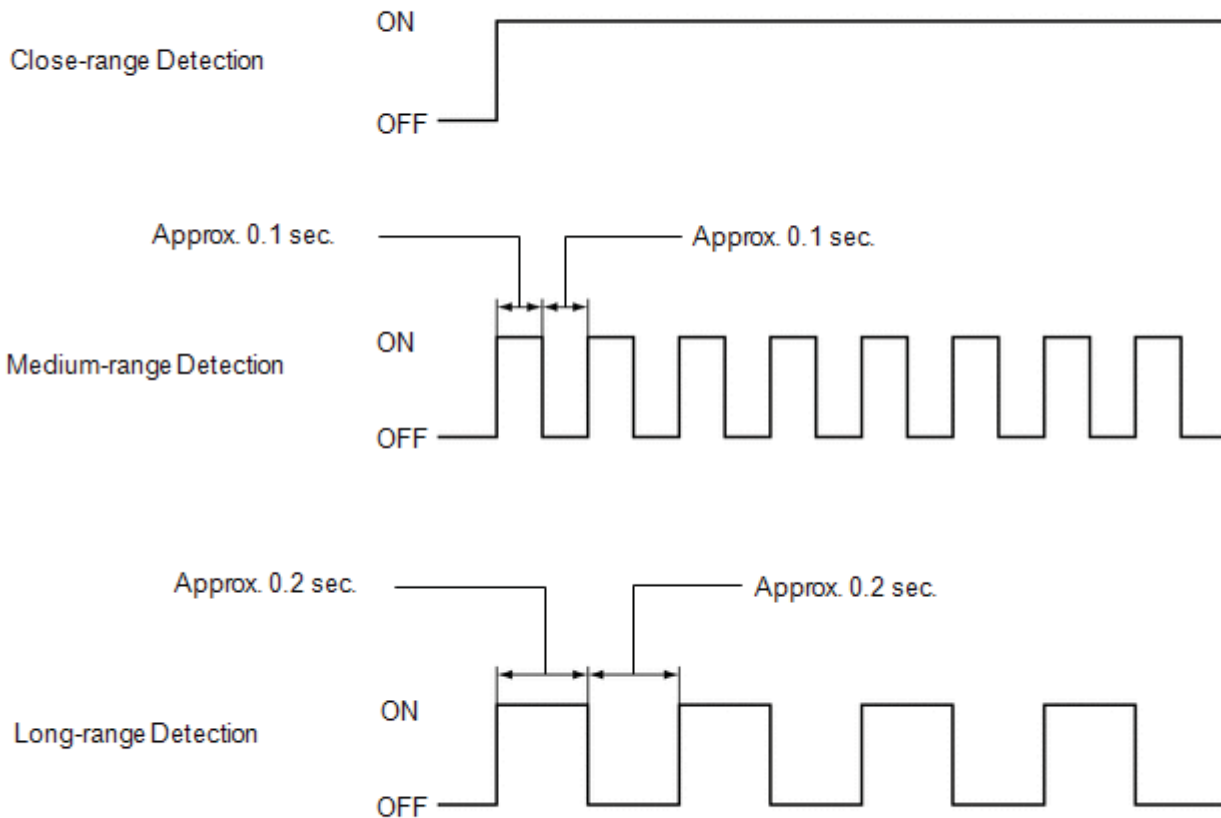
*a



H

*a	Multi-information Display	*b	Example (Front Corner Sonar)
*c	Close-range Detection	*d	Medium-range Detection
*e	Long-range Detection	-	-

Buzzer Sounding:



Standard:

Multi-information Display and Buzzer

DETECTION RANGE	DURING JUDGMENT	OBSTACLE
Close-range detection Within approx. 350 +/- 40 mm (13.8 +/- 1.57 in.)	Buzzer: Sounds continuously Number of bars displayed: 1 (blinking)	60 mm (2.4 in.) diameter pole
Medium-range detection From approx. 350 +/- 40 to 450 +/- 50 mm (13.8 +/- 1.57 to 17.7 +/- 1.97 in.)	Buzzer: Sounds intermittently (ON: 0.1 sec. / OFF: 0.1 sec.) Number of bars displayed: 2 (illuminated)	60 mm (2.4 in.) diameter pole
Long-range detection From approx. 450 +/- 50 to 600 +/- 60 mm (17.7 +/- 1.97 to 23.6 +/- 2.36 in.)	Buzzer: Sounds intermittently (ON: 0.2 sec. / OFF: 0.2 sec.) Number of bars displayed: 3 (illuminated)	60 mm (2.4 in.) diameter pole

HINT:

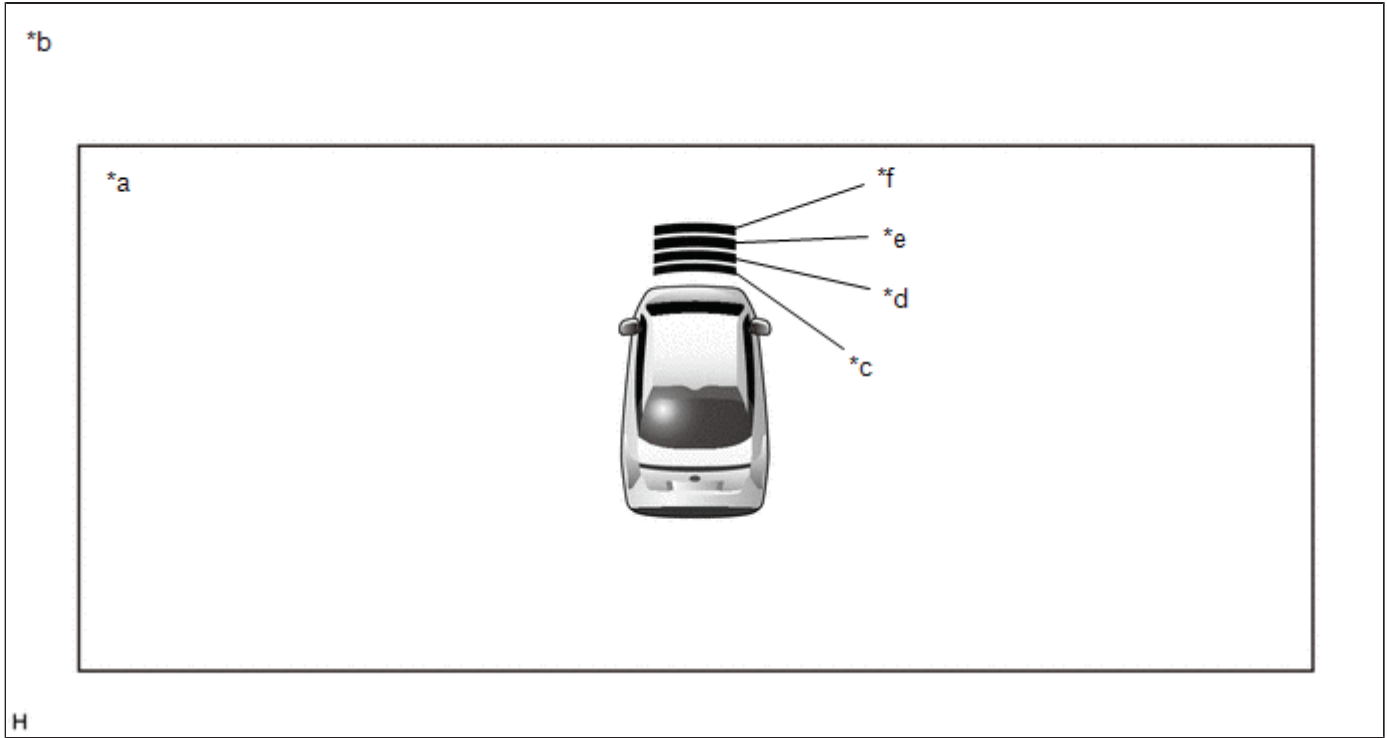
Ultrasonic waves are used to measure the detection range; however, the detection range may vary depending on the ambient temperature.

(e) Front center sonar display and buzzer operation check

(1) When the ultrasonic sensors (front center sonar) have detected an obstacle, check the display and check that the buzzer sounds.

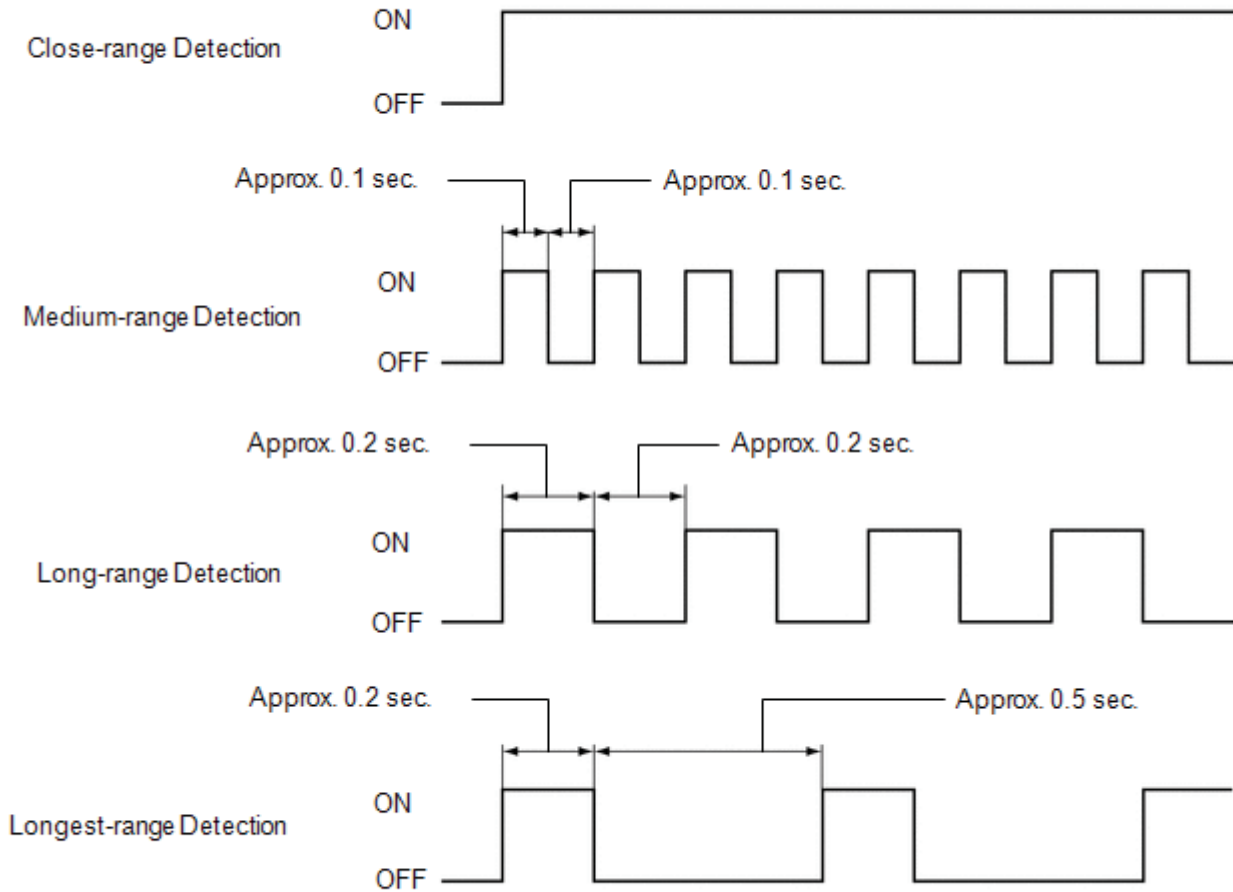
Operation Condition

POWER SWITCH	INTUITIVE PARKING ASSIST SYSTEM	SHIFT STATE	VEHICLE SPEED
On (Ready)	On	Other than park (P) or reverse (R)	Less than approximately 10 km/h (6 mph) if speed is increasing



*a	Multi-information Display	*b	Example (Front Center Sonar)
*c	Close-range Detection	*d	Medium-range Detection
*e	Long-range Detection	*f	Longest-range Detection

Buzzer Sounding:



Standard:

Multi-information Display and Buzzer

DETECTION RANGE	DURING DETECTION	OBSTACLE
Close-range detection Within approx. 350 +/- 40 mm (13.8 +/- 1.57 in.)	Buzzer: Sounds continuously Number of bars displayed: 1 (blinking)	60 mm (2.4 in.) diameter pole
Medium-range detection From approx. 350 +/- 40 to 450 +/- 50 mm (13.8 +/- 1.57 to 17.7 +/- 1.97 in.)	Buzzer: Sounds intermittently (ON: 0.1 sec. / OFF: 0.1 sec.) Number of bars displayed: 2 (illuminated)	60 mm (2.4 in.) diameter pole
Long-range detection From approx. 450 +/- 50 to 600 +/- 60 mm (17.7 +/- 1.97 to 23.6 +/- 2.36 in.)	Buzzer: Sounds intermittently (ON: 0.2 sec. / OFF: 0.2 sec.) Number of bars displayed: 3 (illuminated)	60 mm (2.4 in.) diameter pole
Longest-range detection From approx. 600 +/- 60 to 1000 +/- 100 mm (23.6 +/- 2.36 to 39.4 +/- 3.94 in.)	Buzzer: Sounds intermittently (ON: 0.2 sec. / OFF: 0.5 sec.) Number of bars displayed: 4 (illuminated)	Wall

HINT:

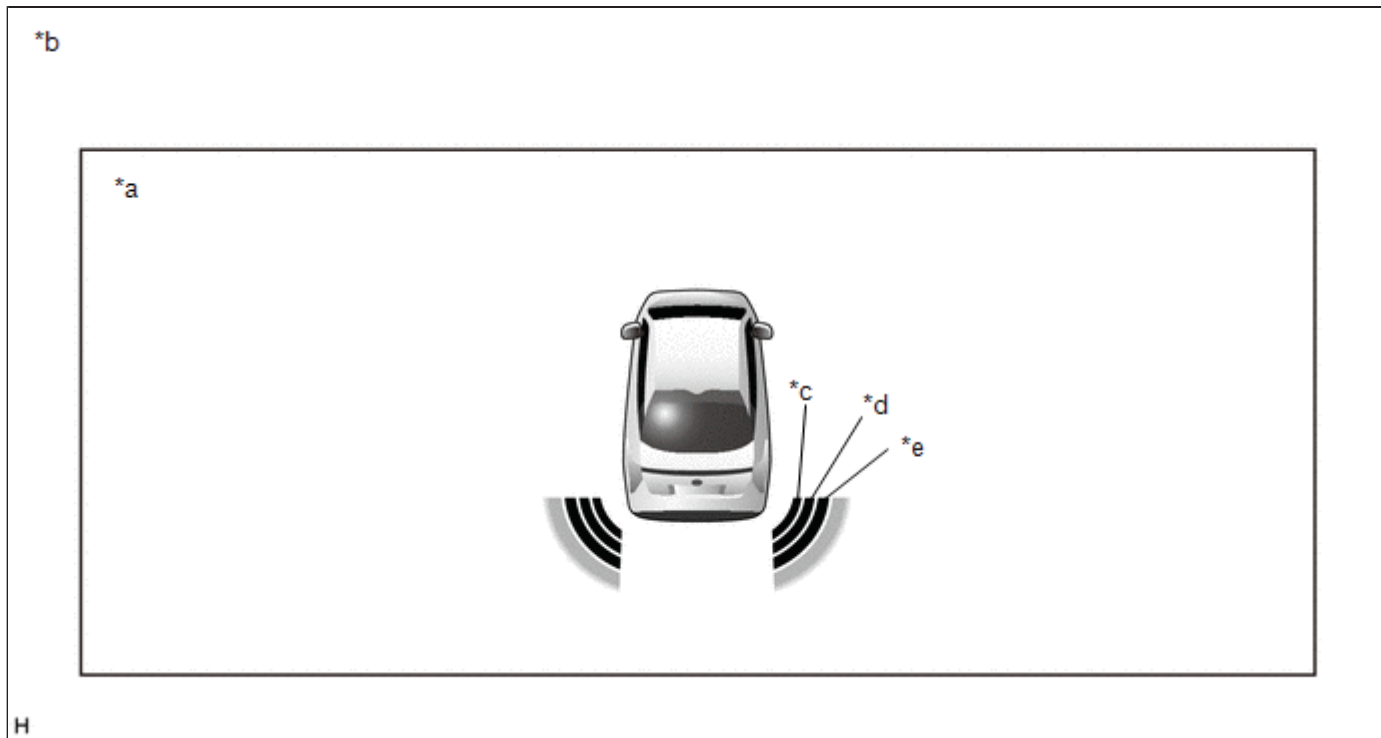
Ultrasonic waves are used to measure the detection range; however, the detection range may vary depending on the ambient temperature.

(f) Rear corner sonar display and buzzer operation check

(1) When the ultrasonic sensors (rear corner sonar) have detected an obstacle, check the display and check that the buzzer sounds.

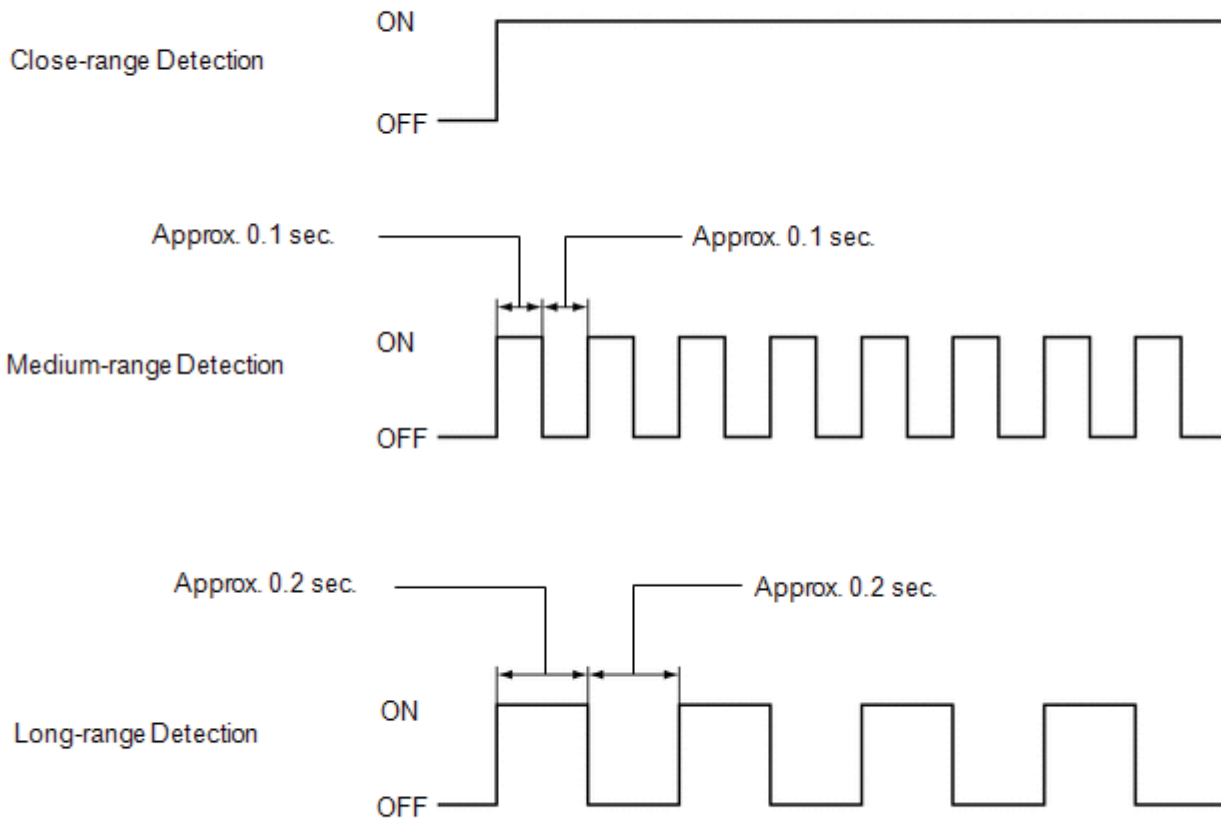
Operation Condition

POWER SWITCH	INTUITIVE PARKING ASSIST SYSTEM	SHIFT STATE	VEHICLE SPEED
On (Ready)	On	Reverse (R)	Less than approximately 10 km/h (6 mph) if speed is increasing



^{*a}	Multi-information Display	^{*b}	Example (Rear Corner Sonar)
^{*c}	Close-range Detection	^{*d}	Medium-range Detection
^{*e}	Long-range Detection	-	-

Buzzer Sounding:



Standard:

Multi-information Display and Buzzer

DETECTION RANGE	DURING JUDGMENT	OBSTACLE
Close-range detection Within approx. 350 +/- 40 mm (13.8 +/- 1.57 in.)	Buzzer: Sounds continuously Number of bars displayed: 1 (blinking)	60 mm (2.4 in.) diameter pole
Medium-range detection From approx. 350 +/- 40 to 450 +/- 50 mm (13.8 +/- 1.57 to 17.7 +/- 1.97 in.)	Buzzer: Sounds intermittently (ON: 0.1 sec. / OFF: 0.1 sec.) Number of bars displayed: 2 (illuminated)	60 mm (2.4 in.) diameter pole
Long-range detection From approx. 450 +/- 50 to 600 +/- 60 mm (17.7 +/- 1.97 to 23.6 +/- 2.36 in.)	Buzzer: Sounds intermittently (ON: 0.2 sec. / OFF: 0.2 sec.) Number of bars displayed: 3 (illuminated)	60 mm (2.4 in.) diameter pole

HINT:

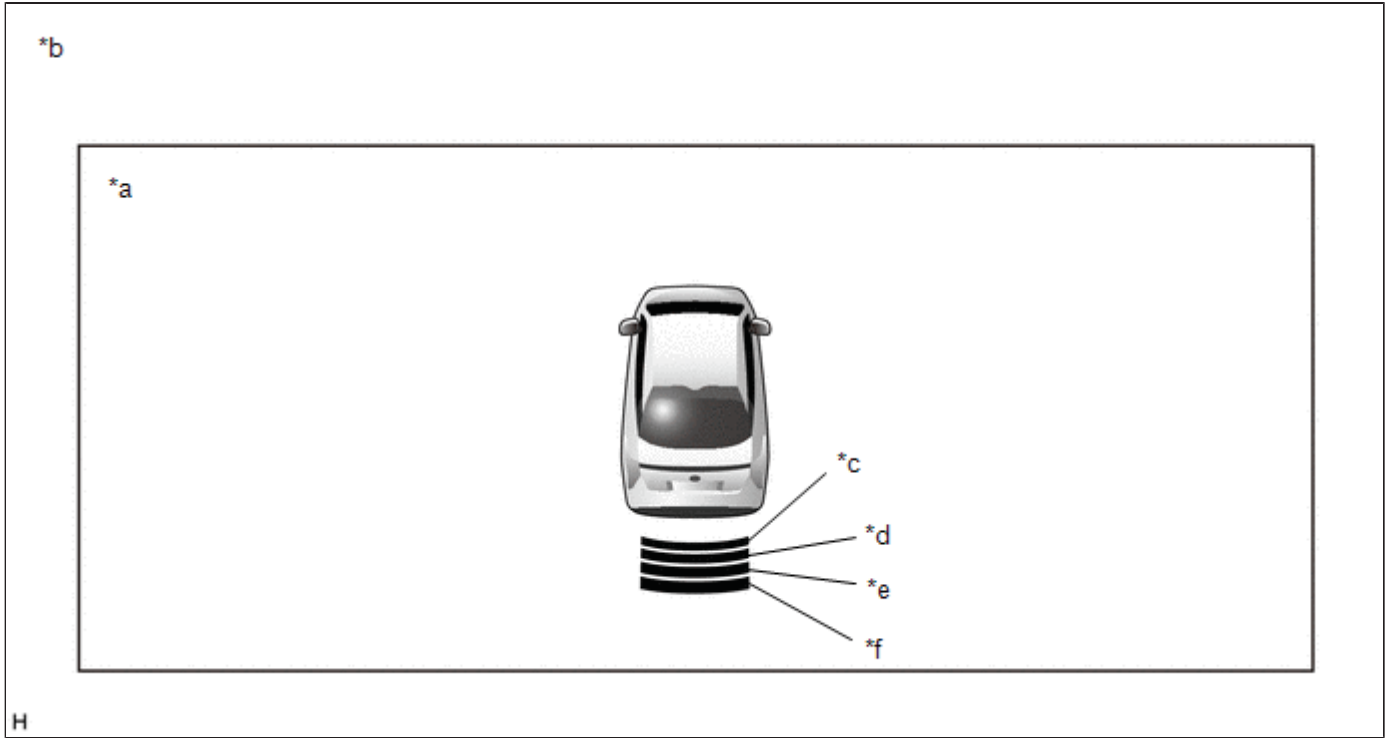
Ultrasonic waves are used to measure the detection range; however, the detection range may vary depending on the ambient temperature.

(g) Rear center sonar display and buzzer operation check

- (1) When the ultrasonic sensors (rear center sonar) have detected an obstacle, check the display and check that the buzzer sounds.

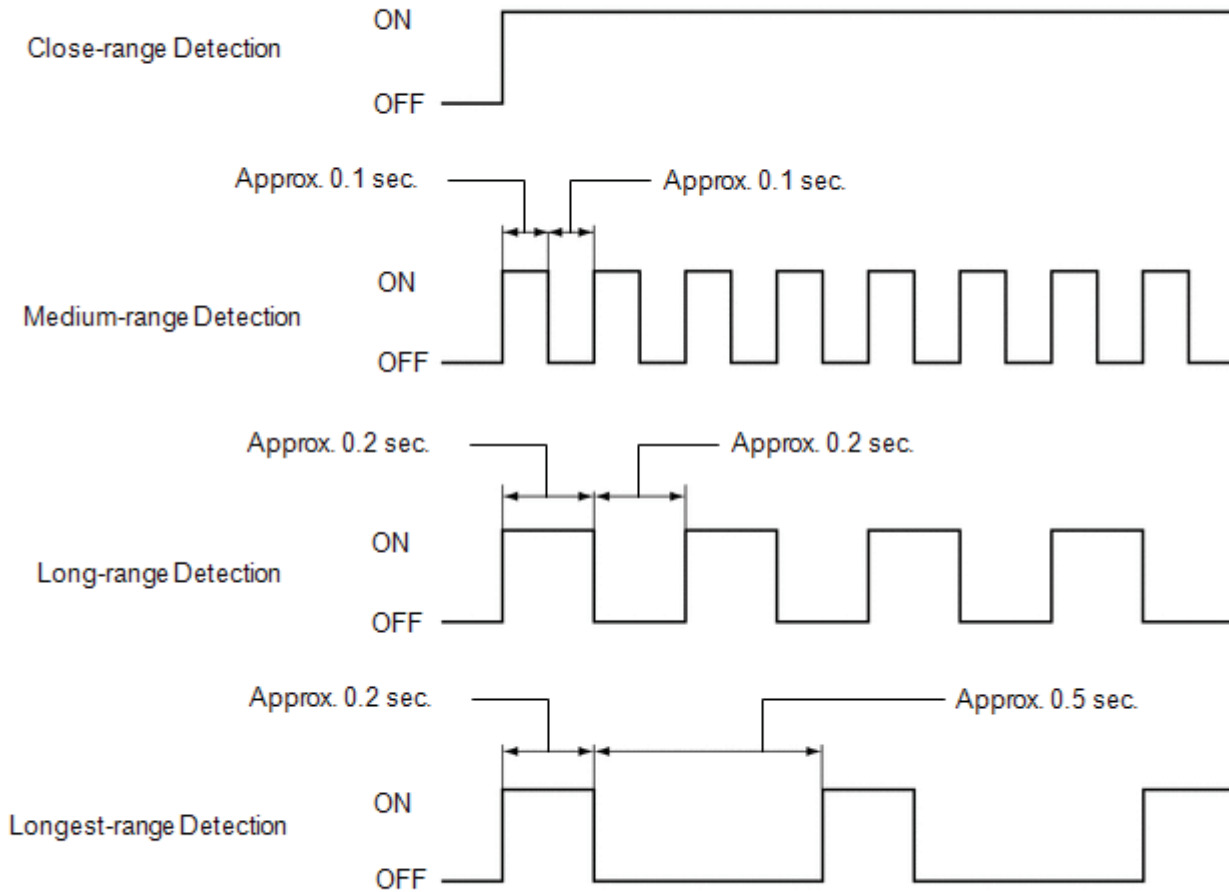
Operation Condition

POWER SWITCH	INTUITIVE PARKING ASSIST SYSTEM	SHIFT STATE	VEHICLE SPEED
On (Ready)	On	Reverse (R)	Less than approximately 10 km/h (6 mph) if speed is increasing



*a	Multi-information Display	*b	Example (Rear Center Sonar)
*c	Close-range Detection	*d	Medium-range Detection
*e	Long-range Detection	*f	Longest-range Detection

Buzzer Sounding:



Standard:

Multi-information Display and Buzzer

DETECTION RANGE	DURING DETECTION	OBSTACLE
Close-range detection Within approx. 350 +/- 40 mm (13.8 +/- 1.57 in.)	Buzzer: Sounds continuously Number of bars displayed: 1 (blinking)	60 mm (2.4 in.) diameter pole
Medium-range detection From approx. 350 +/- 40 to 450 +/- 50 mm (13.8 +/- 1.57 to 17.7 +/- 1.97 in.)	Buzzer: Sounds intermittently (ON: 0.1 sec. / OFF: 0.1 sec.) Number of bars displayed: 2 (illuminated)	60 mm (2.4 in.) diameter pole
Long-range detection From approx. 450 +/- 50 to 600 +/- 60 mm (17.7 +/- 1.97 to 23.6 +/- 2.36 in.)	Buzzer: Sounds intermittently (ON: 0.2 sec. / OFF: 0.2 sec.) Number of bars displayed: 3 (illuminated)	60 mm (2.4 in.) diameter pole
Longest-range detection From approx. 600 +/- 60 to 1500 +/- 150 mm (23.6 +/- 2.36 to 59.1 +/- 5.91 in.)	Buzzer: Sounds intermittently (ON: 0.2 sec. / OFF: 0.5 sec.) Number of bars displayed: 4 (illuminated)	Wall

HINT:

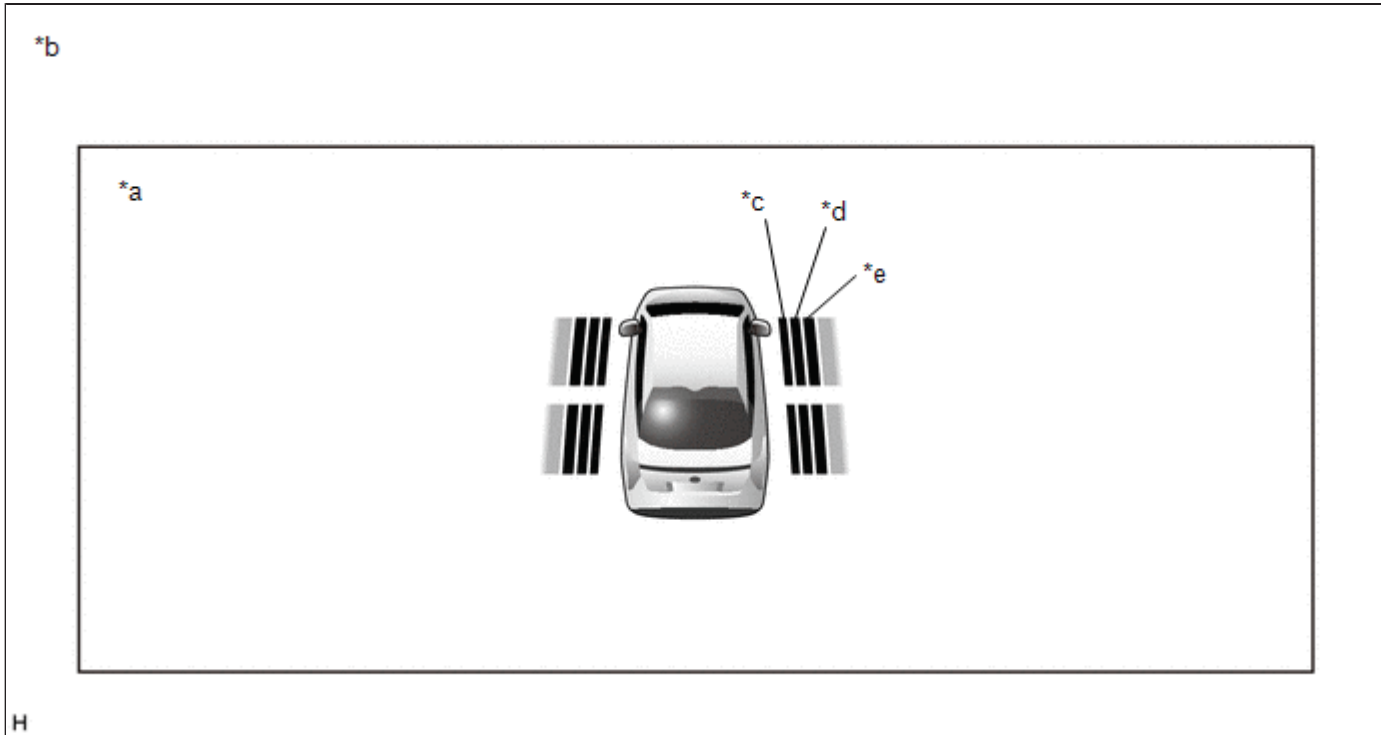
Ultrasonic waves are used to measure the detection range; however, the detection range may vary depending on the ambient temperature.

(h) Side sonar display and buzzer operation check

(1) When the ultrasonic sensors (side sonar) have detected an obstacle, check the display and check that the buzzer sounds.

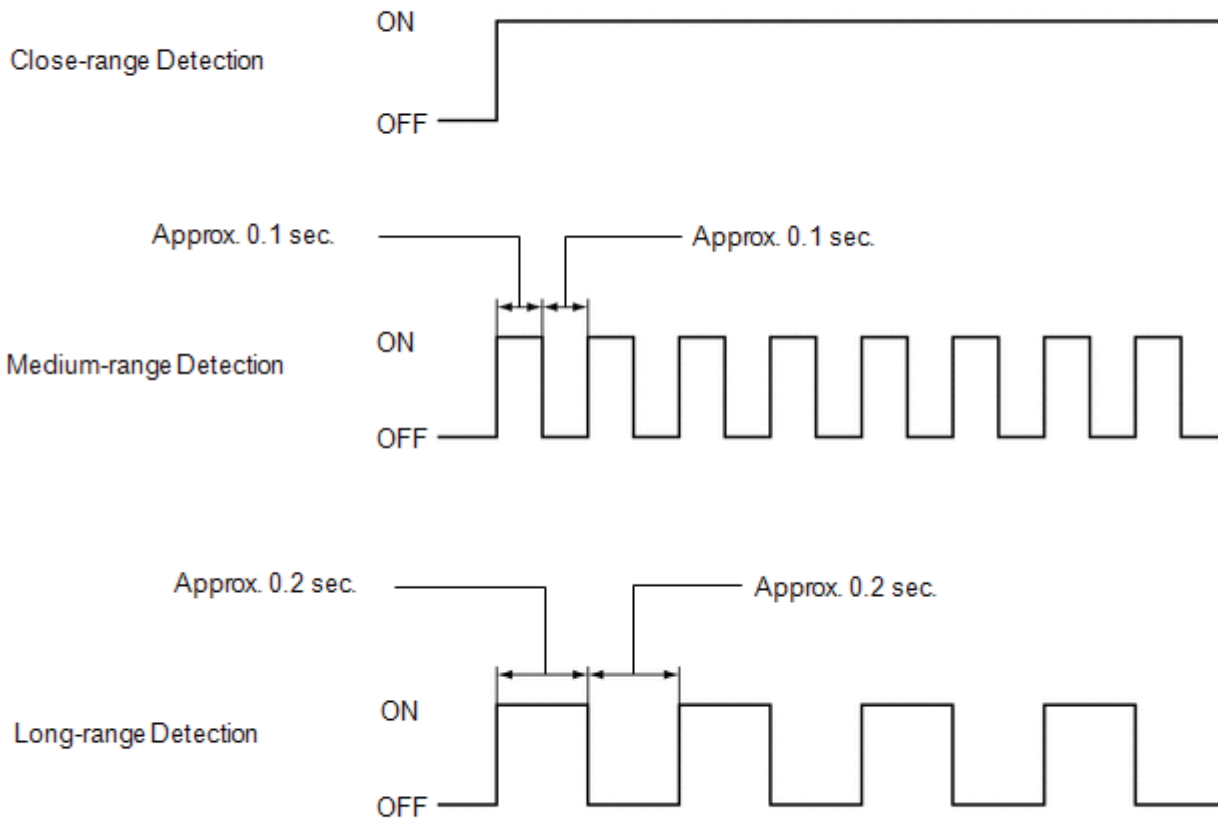
Operation Condition

POWER SWITCH	INTUITIVE PARKING ASSIST SYSTEM	SHIFT STATE	VEHICLE SPEED	STEERING ANGLE
On (Ready)	On	Other than park (P)	Less than approximately 10 km/h (6 mph) if speed is increasing	Steering wheel turned 90° or more



*a	Multi-information Display	*b	Example (Side Sonar)
*c	Close-range Detection	*d	Medium-range Detection
*e	Long-range Detection	-	-

Buzzer Sounding:



Standard:

Multi-information Display and Buzzer

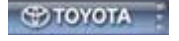
DETECTION RANGE	DURING JUDGMENT	OBSTACLE
Close-range detection Within approx. 300 +/- 150 mm (11.8 +/- 5.91 in.)	Buzzer: Sounds continuously Number of bars displayed: 1 (blinking)	60 mm (2.4 in.) diameter pole
Medium-range detection From approx. 300 +/- 150 to 700 +/- 150 mm (11.8 +/- 5.91 to 27.6 +/- 5.91 in.)	Buzzer: Sounds intermittently (ON: 0.1 sec. / OFF: 0.1 sec.) Number of bars displayed: 2 (illuminated)	60 mm (2.4 in.) diameter pole
Long-range detection From approx. 700 +/- 150 to 1000 +/- 150 mm (27.6 +/- 5.91 to 39.4 +/- 5.91 in.)	Buzzer: Sounds intermittently (ON: 0.2 sec. / OFF: 0.2 sec.) Number of bars displayed: 3 (illuminated)	60 mm (2.4 in.) diameter pole

HINT:

- Ultrasonic waves are used to measure the detection range; however, the detection range may vary depending on the ambient temperature.
- The vehicle must move forward or backward a certain distance in order for the side sonar to determine whether there is an obstruction alongside the vehicle.*

*: For the system description of the side sonar display and buzzer, refer to System Discription.

Click here [INFO](#)



Last Modified: 01-14-2019

6.8:8.0.48

Doc ID: RM100000000SXEQ

Model Year Start: 2016

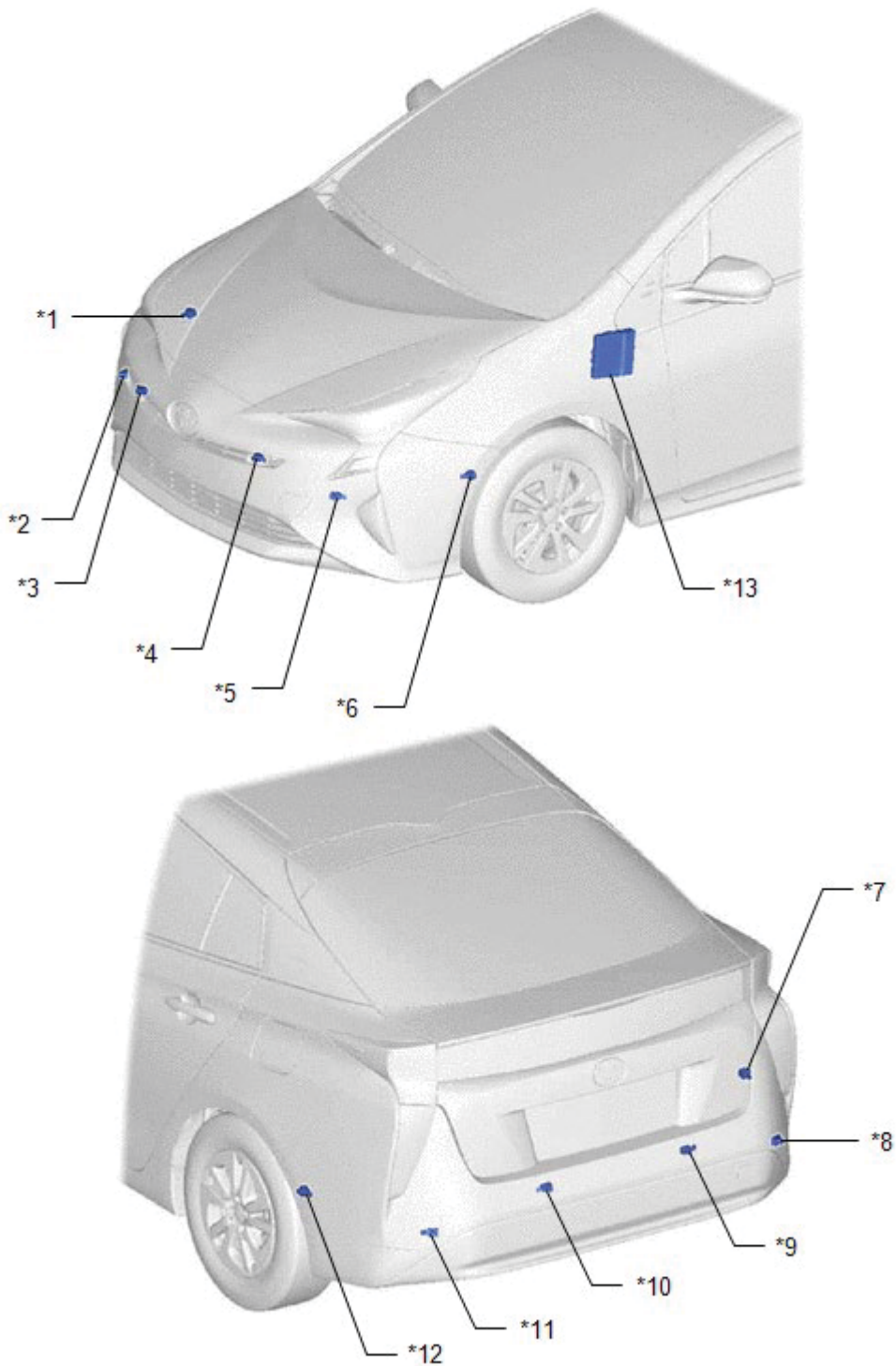
Model: Prius

Prod Date Range: [11/2015 -]

Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: PARTS LOCATION; 2016 - 2019 MY Prius [11/2015 -]

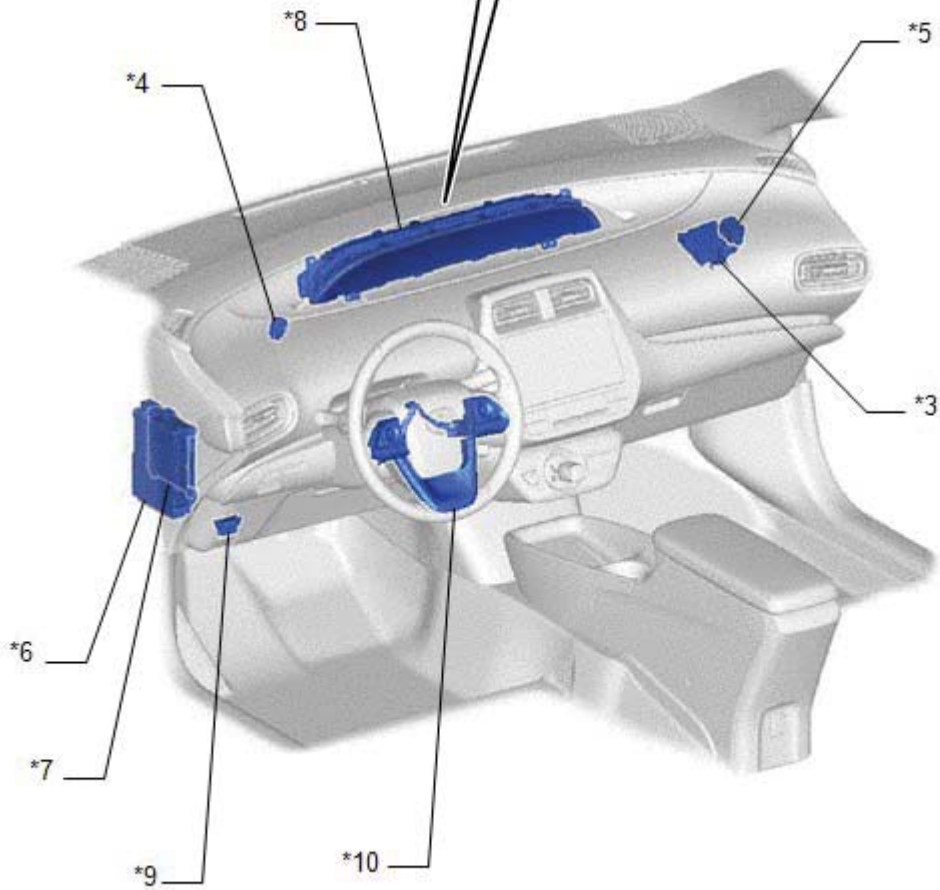
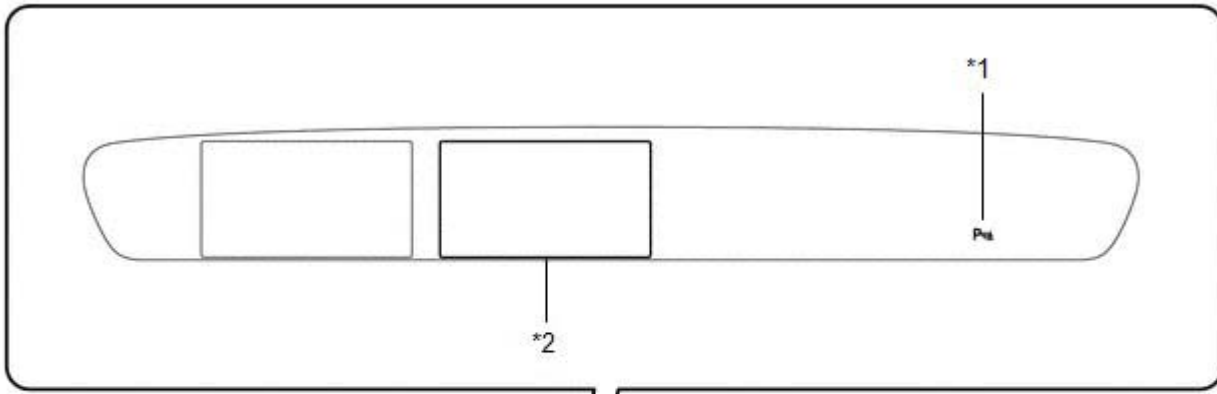
PARTS LOCATION

ILLUSTRATION



*1	FRONT SIDE ULTRASONIC SENSOR RH	*2	FRONT CORNER ULTRASONIC SENSOR RH
*3	FRONT CENTER ULTRASONIC SENSOR RH	*4	FRONT CENTER ULTRASONIC SENSOR LH
*5	FRONT CORNER ULTRASONIC SENSOR LH	*6	FRONT SIDE ULTRASONIC SENSOR LH
*7	REAR SIDE ULTRASONIC SENSOR RH	*8	REAR CORNER ULTRASONIC SENSOR RH
*9	REAR CENTER ULTRASONIC SENSOR RH	*10	REAR CENTER ULTRASONIC SENSOR LH
*11	REAR CORNER ULTRASONIC SENSOR LH	*12	REAR SIDE ULTRASONIC SENSOR LH
*13	HYBRID VEHICLE CONTROL ECU	-	-

ILLUSTRATION



H

*1	CLEARANCE SONAR INDICATOR	*2	MULTI-INFORMATION DISPLAY
*3	CLEARANCE WARNING ECU ASSEMBLY	*4	NO. 1 CLEARANCE WARNING BUZZER
*5	NO. 2 CLEARANCE WARNING BUZZER	*6	INSTRUMENT PANEL JUNCTION BLOCK ASSEMBLY - ECU-IG1 NO. 4 FUSE
*7	MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)	*8	COMBINATION METER ASSEMBLY - METER CIRCUIT PLATE
*9	DLC3	*10	STEERING PAD SWITCH ASSEMBLY




Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000SXEP
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 - 12/2018]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: PRECAUTION; 2016 - 2018 MY Prius [11/2015 - 12/2018]		

PRECAUTION

PRECAUTION FOR DISCONNECTING CABLE FROM NEGATIVE AUXILIARY BATTERY TERMINAL

NOTICE:

When disconnecting the cable from the negative (-) auxiliary battery terminal, initialize the following systems after the cable is reconnected.

SYSTEM NAME	SEE PROCEDURE
Lane Departure Alert System (w/ Steering Control System)	
Intelligent Clearance Sonar System	
Simple Advanced Parking Guidance System	
Pre-collision System	
Power Door Lock Control System	

PRECAUTIONS FOR INTUITIVE PARKING ASSIST SYSTEM

(a) Under the following conditions, the detection function may not function properly:

- (1) A sensor is covered with foreign matter, such as mud or snow (detection function returns to normal when the sensor is cleaned).
- (2) A sensor is frozen (detection function returns to normal when the temperature of the sensor rises).
- (3) A hand is blocking a sensor.

HINT:

- In very cold weather where a malfunction display appears, the sensor may not be able to detect obstacles.
 - If the malfunction display appears, visually check the sensor first. If the sensor is free of foreign matter but the malfunction display remains, the sensor may be malfunctioning.
- (b) The system may improperly detect obstacles to the side of the vehicle in the following conditions:
- (1) When scanning of the side detection area is incomplete.
 - (2) When someone or something enters the side detection area.
- (c) The detection range may be affected by the following conditions:
- (1) A sensor is covered with foreign matter, such as mud or snow.
 - (2) The vehicle is in an excessively hot or excessively cold area.
- (d) Under the following conditions, a detection error may occur:
- (1) Driving in tall grass, on a bumpy road, an unpaved road or on a metal cover (grating), such as those used for drainage ditches.
 - (2) Ultrasonic waves are received from the horn or parking sonar system of another vehicle, a motorcycle engine, or the air brakes of a large vehicle.
 - (3) It is raining heavily or the sensor is sprayed with water.
 - (4) The vehicle is tilted at a steep angle.
 - (5) The vehicle is equipped with a fender pole or a wireless antenna mechanism.

- (6) A sensor is covered with foreign matter, such as mud or snow.
 - (7) The vehicle is moving forward or backward towards high curbs or objects that are perpendicular to the ground.
 - (8) A sensor is sprayed with high pressure water or steam.
 - (9) A towing hitch is mounted on the vehicle.
 - (10) A detected object such as a vehicle, person or animal exits the detection area of either the front or rear side sensor.
- (e) The sensors cannot detect the following objects:
- (1) Thin objects, such as wires and ropes
 - (2) Materials that absorb ultrasonic waves, such as cotton or snow.
 - (3) Objects with sharp edges
 - (4) Short objects
 - (5) Objects that are tall and protrude toward the vehicle above the detection range of the sensors.
- (f) Other notices:
- (1) The sensors cannot detect objects directly under the bumper. (A sensor may detect low objects and thin poles, and then lose track of them.)
 - (2) Be aware that the detection range of this system is limited. In certain conditions, some objects may not be detected. Always make sure to check all around the vehicle when driving or parking.
 - (3) The sensors may not be able to detect obstacles that are too close to the sensors.
 - (4) The sensors may not be able to detect obstacles if the sensors have been dropped or subjected to a strong impact.



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000SXEV
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: PROBLEM SYMPTOMS TABLE; 2016 - 2019 MY Prius [11/2015 -]		

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.
- When an open circuit or frozen indication is displayed by the self-check function, check for DTCs and troubleshoot according to each inspection procedure.

General

SYMPTOM	SUSPECTED AREA	LINK
System does not operate at all	Proceed to "Clearance Warning ECU Power Source Circuit"	INFO
	CAN communication system	INFO INFO
	Clearance warning ECU assembly	INFO INFO
System cannot be turned off	CAN communication system	INFO INFO
	Clearance warning ECU assembly	INFO INFO

Sonar Function

SYMPTOM	SUSPECTED AREA	LINK
Sensor frozen indication (dirty or frozen)	Proceed to "Sensor Frozen Indication (Dirty or Frozen)"	INFO
Meter circuit plate (shift position indicator) operates normally, but detection operates when park (P) has been selected, or detection does not operate when a shift state other than park (P) has been selected (front sonar).	CAN communication system	INFO INFO
	Clearance warning ECU assembly	INFO INFO
Meter circuit plate (shift position indicator) operates normally, but detection operates when a shift state other than reverse (R) has been selected, or does not operate with reverse (R)	CAN communication system	INFO INFO

selected (rear sonar)	Clearance warning ECU assembly	INFO INFO
Meter circuit plate (speedometer) operates normally, but detection does not operate when vehicle speed meets operation condition, or detection operates when vehicle speed does not meet operation condition (front sonar)	CAN communication system	INFO INFO
	Clearance warning ECU assembly	INFO INFO

Buzzer Function

SYMPTOM	SUSPECTED AREA	LINK
Sonar detection operation is normal but buzzer operation is intermittent	Check that the temporary mute function is not operating	-
	Proceed to "Clearance Warning Buzzer Circuit"	INFO
	Clearance warning ECU assembly	INFO INFO

Display Function

SYMPTOM	SUSPECTED AREA	LINK
Detection operation is normal but clearance sonar indicator does not illuminate	CAN communication system	INFO INFO
	Meter circuit plate (LED): Perform Active Test (Indicat. Clearance Sonar LCD)	INFO INFO INFO INFO
	Meter circuit plate	INFO
	Clearance warning ECU assembly	INFO INFO
Detection operation is normal but sonar displays do not appear on multi-information display	CAN communication system	INFO INFO
	Meter circuit plate	INFO
	Clearance warning ECU assembly	INFO INFO



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6JI
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: Sensor Frozen Indication (Dirty or Frozen); 2016 - 2019 MY Prius [11/2015 -]		

Sensor Frozen Indication (Dirty or Frozen)

DESCRIPTION

When the ultrasonic sensor is dirty or frozen, "Clean Parking Assist Sensor" is displayed on the multi-information display in the meter circuit plate.

PROCEDURE

1. CHECK FOR DTC

(a) Clear the DTCs.

Click here [INFO](#)

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Clear DTCs

(b) Check for DTCs.

Click here [INFO](#)

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Trouble Codes

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

B  **GO TO DIAGNOSTIC TROUBLE CODE CHART** [INFO](#) [INFO](#)

A



2. READ VALUE USING TECHSTREAM

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch on (IG).

(c) Turn the Techstream on.

(d) Enter the following menus: Body Electrical / Advanced Parking Guidance/ICS/Intuitive P/A / Data List.

(e) According to the display on the Techstream, read the Data List.

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Rr Right Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Right Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Left Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Left Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Right Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Right Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Left Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Left Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record	If the DTCs are cleared, history record will be cleared

			history	
Fr Right Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Left Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Right Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Left Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Data List

TESTER DISPLAY
Rr Right Freezed History
Rr Right Center Freezed History
Rr Left Center Freezed History
Rr Left Freezed History
Fr Right Freezed History
Fr Right Center Freezed History
Fr Left Center Freezed History
Fr Left Freezed History
Fr Right Side Freezed History
Fr Left Side Freezed History

Rr Right Side Freezed History
Rr Left Side Freezed History

If the DTCs are cleared, history record will be cleared

RESULT	PROCEED TO
Sensor frozen history displays "Not Rec"	A
Sensor frozen history displays "Recorded"	B

B  **GO TO STEP 4**

A



3.	CLEAN ULTRASONIC SENSORS
-----------	---------------------------------

(a) Ensure that the ultrasonic sensors are not dirty or frozen.

NEXT



4.	CLEAR THE DTC
-----------	----------------------

(a) Clear the DTCs.

Click here [NFC](#)

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Clear DTCs

NEXT



5.	READ VALUE USING TECHSTREAM
-----------	------------------------------------

- (a) Connect the Techstream to the DLC3.
- (b) Turn the power switch on (IG).
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Advanced Parking Guidance/ICS/Intuitive P/A / Data List.
- (e) According to the display on the Techstream, read the Data List.

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Rr Right Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Right Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Left Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Left Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Right Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Right Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Left Center Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared

Fr Left Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Right Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Fr Left Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Right Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared
Rr Left Side Freezed History	Ultrasonic sensor frozen history	Not Rec or Recorded	Not Rec: No record history Recorded: Record history	If the DTCs are cleared, history record will be cleared

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Data List

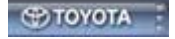
TESTER DISPLAY
Rr Right Freezed History
Rr Right Center Freezed History
Rr Left Center Freezed History
Rr Left Freezed History
Fr Right Freezed History
Fr Right Center Freezed History
Fr Left Center Freezed History
Fr Left Freezed History

Fr Right Side Freezed History
Fr Left Side Freezed History
Rr Right Side Freezed History
Rr Left Side Freezed History

RESULT	PROCEED TO
Sensor frozen history displays "Not Rec"	A
Sensor frozen history displays "Recorded"	B

A ► END

B ► REPLACE ULTRASONIC SENSOR



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000SXES
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: SYSTEM DESCRIPTION; 2016 - 2019 MY Prius [11/2015 -]		

SYSTEM DESCRIPTION

GENERAL

- (a) This system uses ultrasonic sensors to detect any obstacles at the corners and the rear of the vehicle. The system then informs the driver of the distance between the sensors and an obstacle as well as their positions by indicating them on the multi-information display (on the meter circuit plate) and by sounding a buzzer.

FUNCTION OF COMPONENTS

COMPONENT	FUNCTION
<ul style="list-style-type: none"> ● Front Side Ultrasonic Sensor (LH/RH) ● Front Center Ultrasonic Sensor (LH/RH) ● Front Corner Ultrasonic Sensor (LH/RH) ● Rear Side Ultrasonic Sensor (LH/RH) ● Rear Center Ultrasonic Sensor (LH/RH) ● Rear Corner Ultrasonic Sensor (LH/RH) 	Detects the distance between the vehicle and an obstacle
<ul style="list-style-type: none"> ● No. 1 Clearance Warning Buzzer ● No. 2 Clearance Warning Buzzer 	Sounds to inform the driver according to the distance to an obstacle
Multi-information Display (on Combination Meter Assembly)	<ul style="list-style-type: none"> ● Displays the location of an obstacle and the approximate distance between the vehicle and the obstacle ● Displays a malfunction of the ultrasonic sensor to inform the driver
Clearance Sonar Indicator (on Meter Circuit Plate)	Illuminates to inform the driver while the intuitive parking assist system power is on (the power switch is on (IG) and the intuitive parking assist system is on)
Meter Circuit Plate	<ul style="list-style-type: none"> ● Transmits the ON/OFF signal to the clearance warning ECU assembly ● Transmits the vehicle speed signal to the clearance warning ECU assembly
Steering Pad Switch Assembly - Multi-information Switch	Enables, disables or cuts off the operation of the intuitive parking assist system by transmitting the switch operation signal to the meter circuit plate

Clearance Warning ECU Assembly	<ul style="list-style-type: none"> Judges the approximate distance between the vehicle and an obstacle based on the signals from the ultrasonic sensors and sends it to the multi-information display Judges the approximate distance between the vehicle and an obstacle based on the signals from the ultrasonic sensors and sounds the buzzer
Main Body ECU (Multiplex Network Body ECU)	Transmits the destination information to the clearance warning ECU assembly
Hybrid Vehicle Control ECU	Transmits the shift position signal to the clearance warning ECU assembly

OPERATION EXPLANATION

(a) The operating conditions of each ultrasonic sensor differ according to the installation position as shown in the table below.

INSTALLATION POSITION	OPERATING CONDITION
Front Corner	<ul style="list-style-type: none"> Power switch is on (READY). Intuitive parking assist system is on. A shift state other than park (P) has been selected. Vehicle speed is less than approximately 10 km/h (6 mph).
Front Center	<ul style="list-style-type: none"> Power switch is on (READY). Intuitive parking assist system is on. A shift state other than park (P) or reverse (R) has been selected. Vehicle speed is less than approximately 10 km/h (6 mph).
Front Side	<ul style="list-style-type: none"> Power switch is on (READY). Intuitive parking assist system is on. A shift state other than park (P) has been selected. Steering wheel is turned approximately 90° or more. Vehicle speed is less than approximately 10 km/h (6 mph).
Rear Corner	<ul style="list-style-type: none"> Power switch is on (READY). Intuitive parking assist system is on. Reverse (R) has been selected. Vehicle speed is less than approximately 10 km/h (6 mph).
Rear Center	
Rear Side	<ul style="list-style-type: none"> Power switch is on (READY). Intuitive parking assist system is on. A shift state other than park (P) has been selected. Steering wheel is turned approximately 90° or more. Vehicle speed is less than approximately 10 km/h (6 mph).

When the system operates, the clearance warning ECU assembly transmits ultrasonic waves from the ultrasonic sensors. If these waves encounter an obstacle within one or more of the sensors ranges, the waves are reflected back to the sensors, which transmit them to the clearance warning ECU assembly.

Based on this information, the clearance warning ECU assembly sends signals to the meter circuit plate, the No. 1 clearance warning buzzer and the No. 2 clearance warning buzzer. The approximate distance between the vehicle and the obstacle is then indicated, and the buzzer sounds.

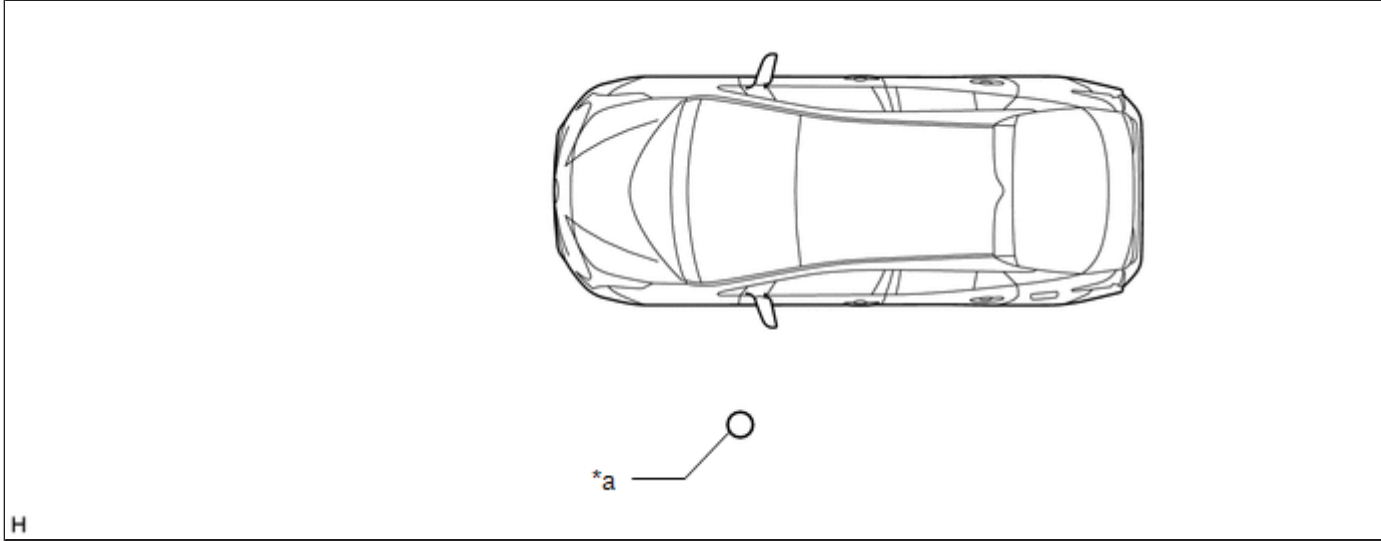
HINT:

Refer to Detection Range Measurement and Display Inspection.

Click here [INFO](#) [INFO](#)

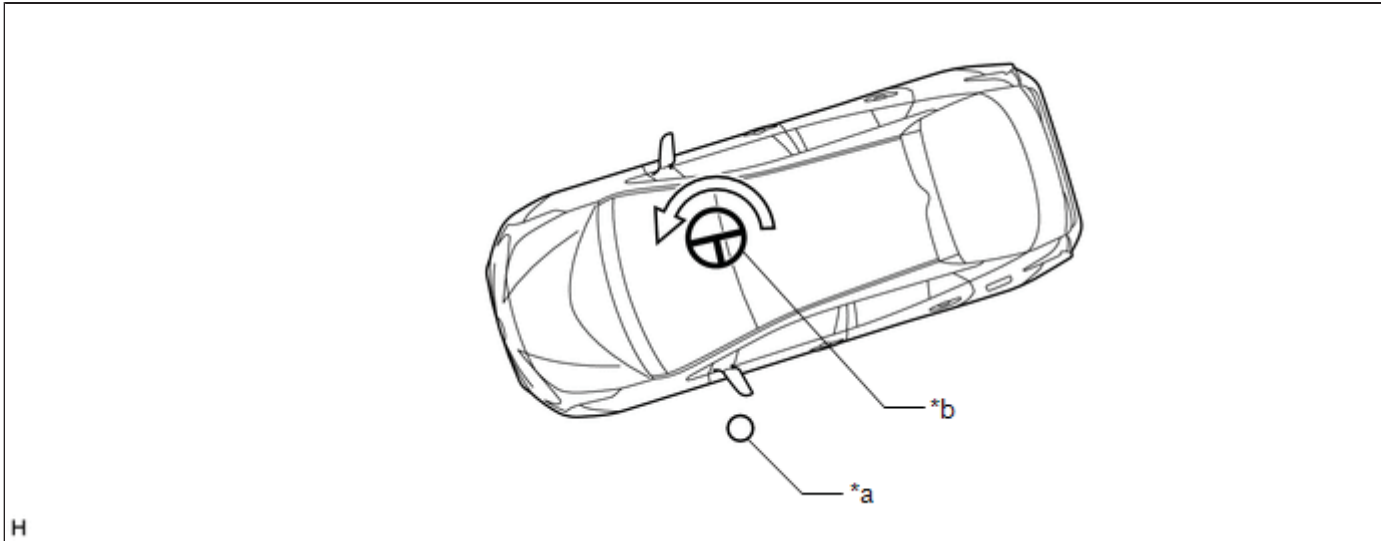
(b) Side sonar display and buzzer system description

(1) When the ultrasonic sensors (side sonar) detect an obstacle, the distance between the obstacle and the vehicle is calculated and it is determined if the obstacle is in the path of the vehicle.



*a	60 mm (2.4 in.) diameter pole	-	-
----	-------------------------------	---	---

(2) If the obstacle is determined to be in the path of the vehicle, notifications are displayed and the buzzer sounds.



*a	60 mm (2.4 in.) diameter pole	*b	Steering wheel turned 90° or more
----	-------------------------------	----	-----------------------------------

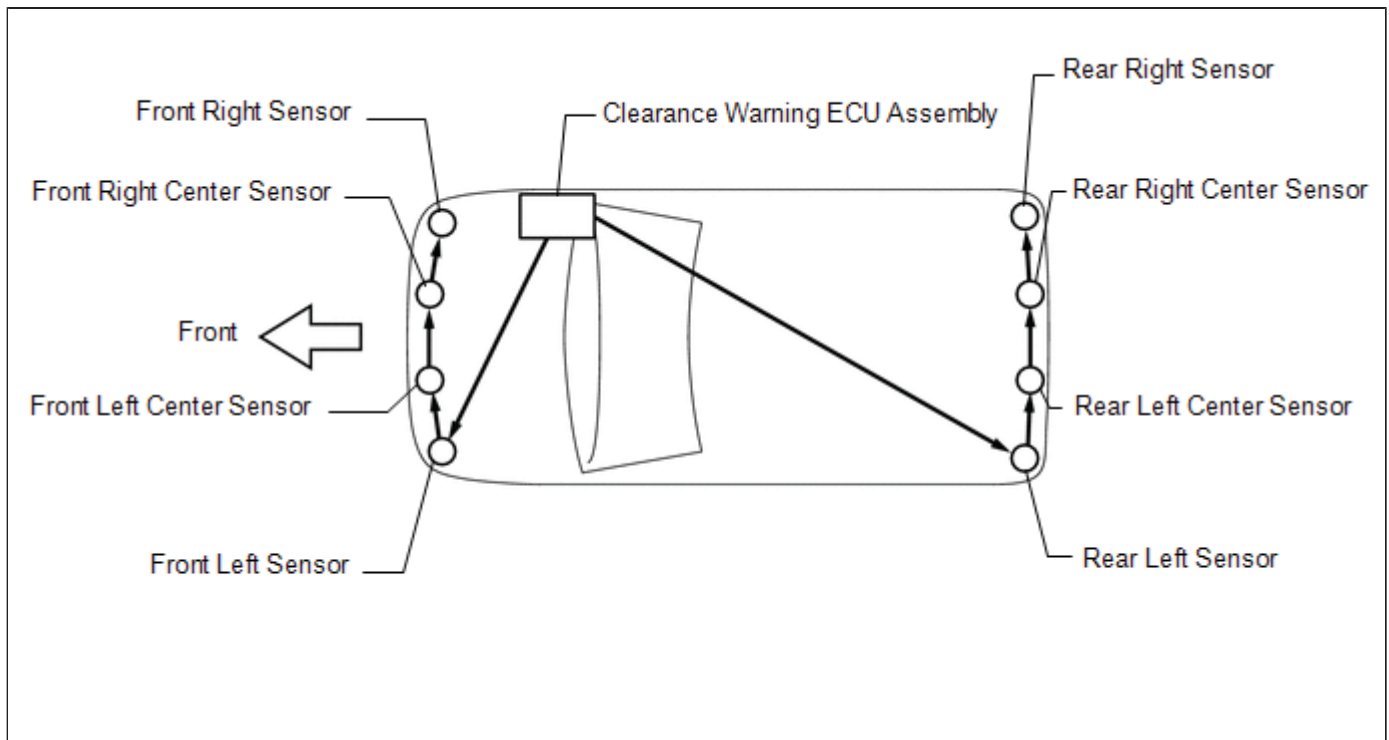
COMMUNICATION SIGNALS OF COMPONENTS

HINT:

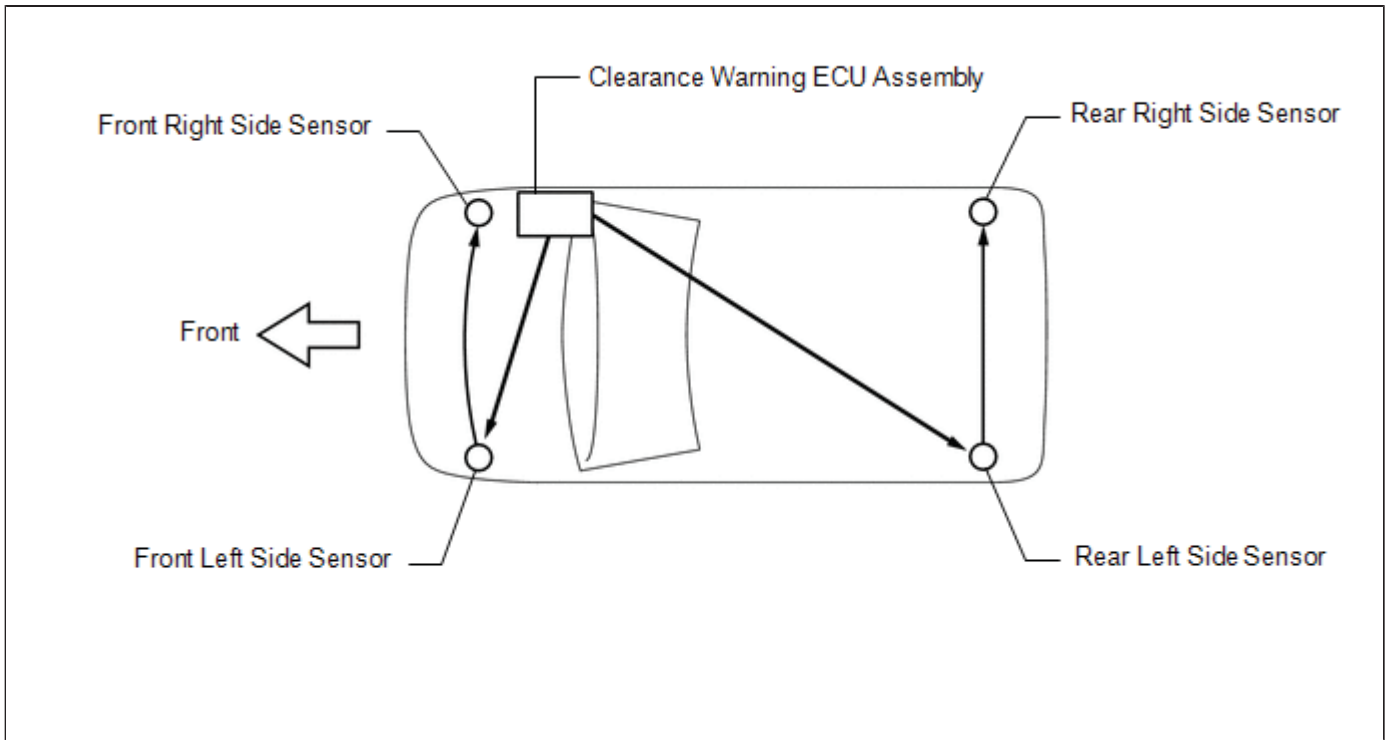
- Allocation refers to the process of the clearance warning ECU assembly setting aside IDs for the sensors.
- The vehicle has the sensors arranged in 2 groups. There is a front series and a rear series. The sensors are connected in a "daisy chain".

(a) Initialization mode (except Front Side Ultrasonic Sensor and Rear Side Ultrasonic Sensor):

An ID is allocated to each sensor and sensor diagnosis is performed.



- (1) When the initial check is operating (the power switch is on (IG) and the intuitive parking assist system is on), the clearance warning ECU assembly provides power to the first sensors in each series (front left sensor and rear left sensor).
 - (2) After the power is supplied, the front left sensor and rear left sensor enter standby mode to receive an ID from the ECU. When a certain amount of time has elapsed, the ECU sends an ID allocation signal to these sensors.
 - (3) The front left sensor and rear left sensors receive the ID allocation signal from the ECU and perform self-diagnosis. When the sensor self-diagnosis is complete, the ECU sends an ID allocation confirmation signal to the sensors.
 - (4) After the ID allocation confirmation is performed, the ECU provides power to the second sensors in each series (front left center sensor and rear left center sensor) via the first sensors. In the same manner as the first sensors, the second sensors enter standby mode. When a certain amount of time has elapsed, the ECU sends an ID allocation signal to the second sensors.
 - (5) The above operation will be repeated until an ID is allocated to the last sensor (front right sensor or rear right sensor). Initialization ends when ID allocation to all ultrasonic sensors is completed.
- (b) Initialization mode (for Front Side Ultrasonic Sensor and Rear Side Ultrasonic Sensor):
An ID is allocated to each sensor and sensor diagnosis is performed.



- (1) When the initial check is operating (the power switch is on (IG) and the intuitive parking assist system is on), the clearance warning ECU assembly provides power to the first sensors in each series (front left side sensor and rear left side sensor).
- (2) After the power is supplied, the front left side sensor and rear left side sensor enter standby mode to receive an ID from the ECU. When a certain amount of time has elapsed, the ECU sends an ID allocation signal to these sensors.
- (3) The front left side sensor and rear left side sensors receive the ID allocation signal from the ECU and perform self-diagnosis. When the sensor self-diagnosis is complete, the ECU sends an ID allocation confirmation signal to the sensors.
- (4) After the ID allocation confirmation is performed, the ECU provides power to the second sensors in each series (front right side sensor and rear right side sensor) via the first sensors. In the same manner as the first sensors, the second sensors enter standby mode. When a certain amount of time has elapsed, the ECU sends an ID allocation signal to the second sensors. Initialization ends when ID allocation to all ultrasonic sensors is complete.

(c) Detection mode:

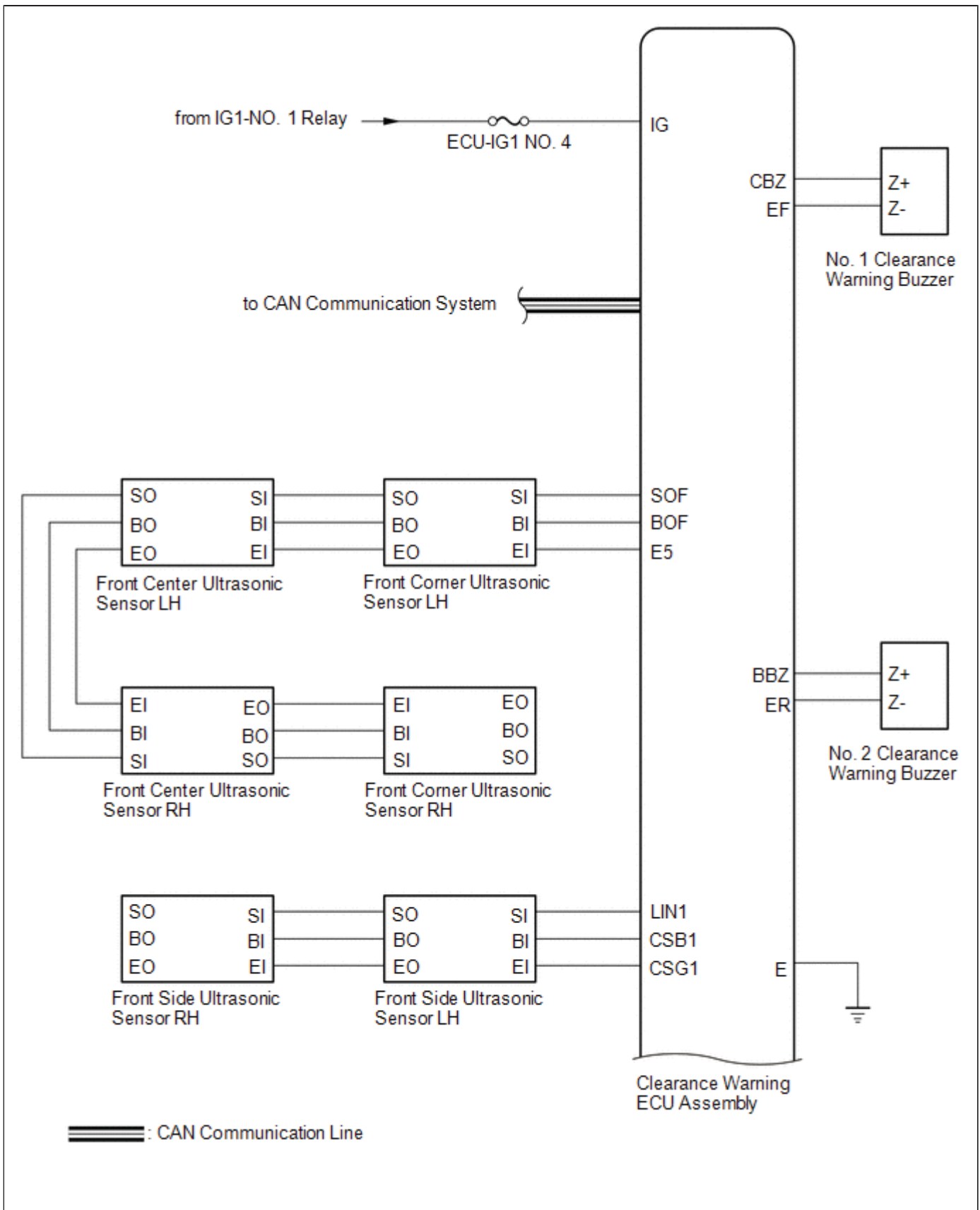
After initialization mode is completed, the system switches to detection mode. In detection mode, the clearance warning ECU assembly sends information request signals and sensor activation signals to the ultrasonic sensors and receives detection result signals from the sensors.

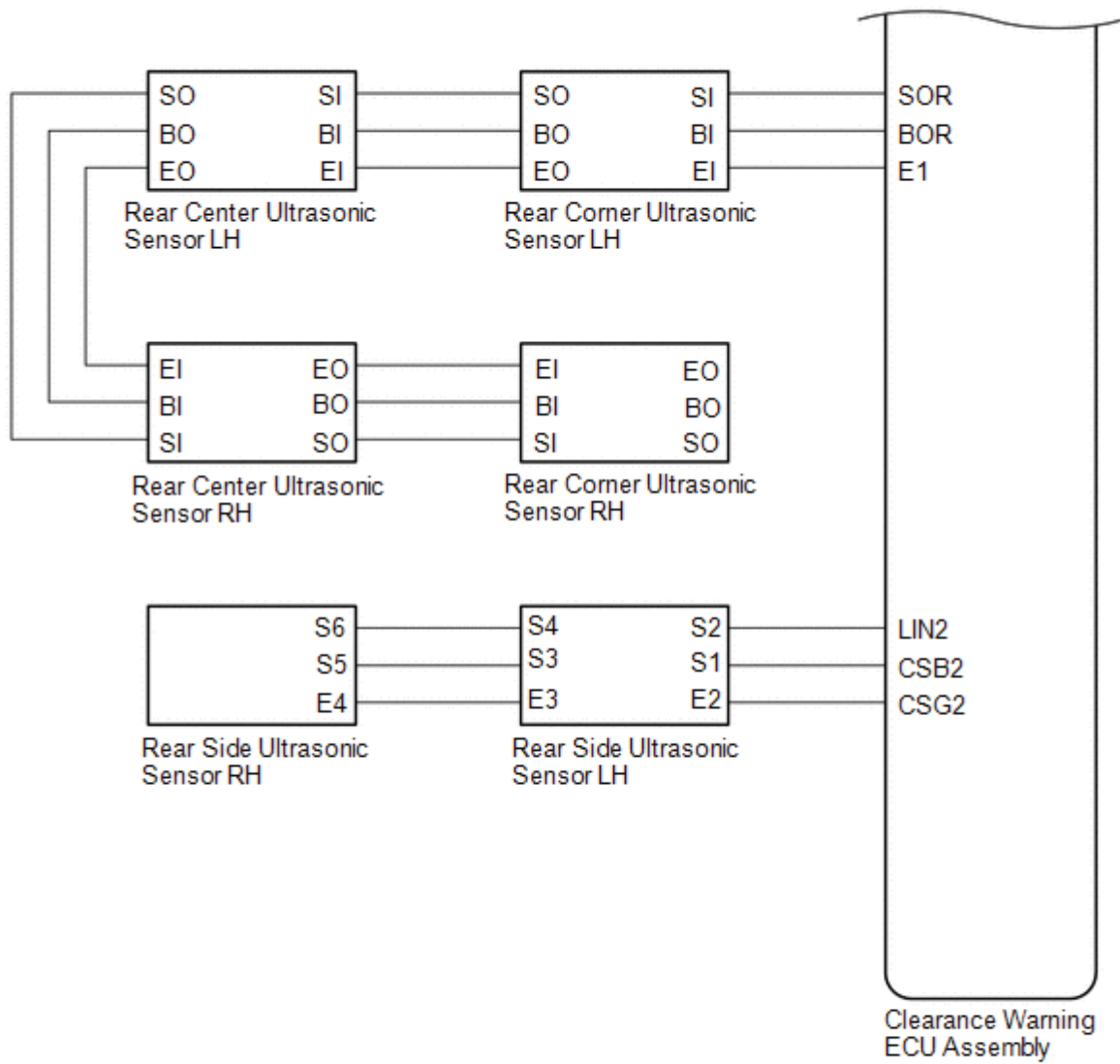
- (1) The ECU regularly sends ID signals, information request signals, and sensor activation signals to each ultrasonic sensor according to the communication schedule.
- (2) When a certain amount of time has elapsed (sensor detection operation is completed), the ECU sends an ID signal to the sensor to receive a detection result signal.
- (3) The ultrasonic sensor sends a detection result signal or detection information signal to the ECU.
- (4) The above operation is performed repeatedly for each ultrasonic sensor.

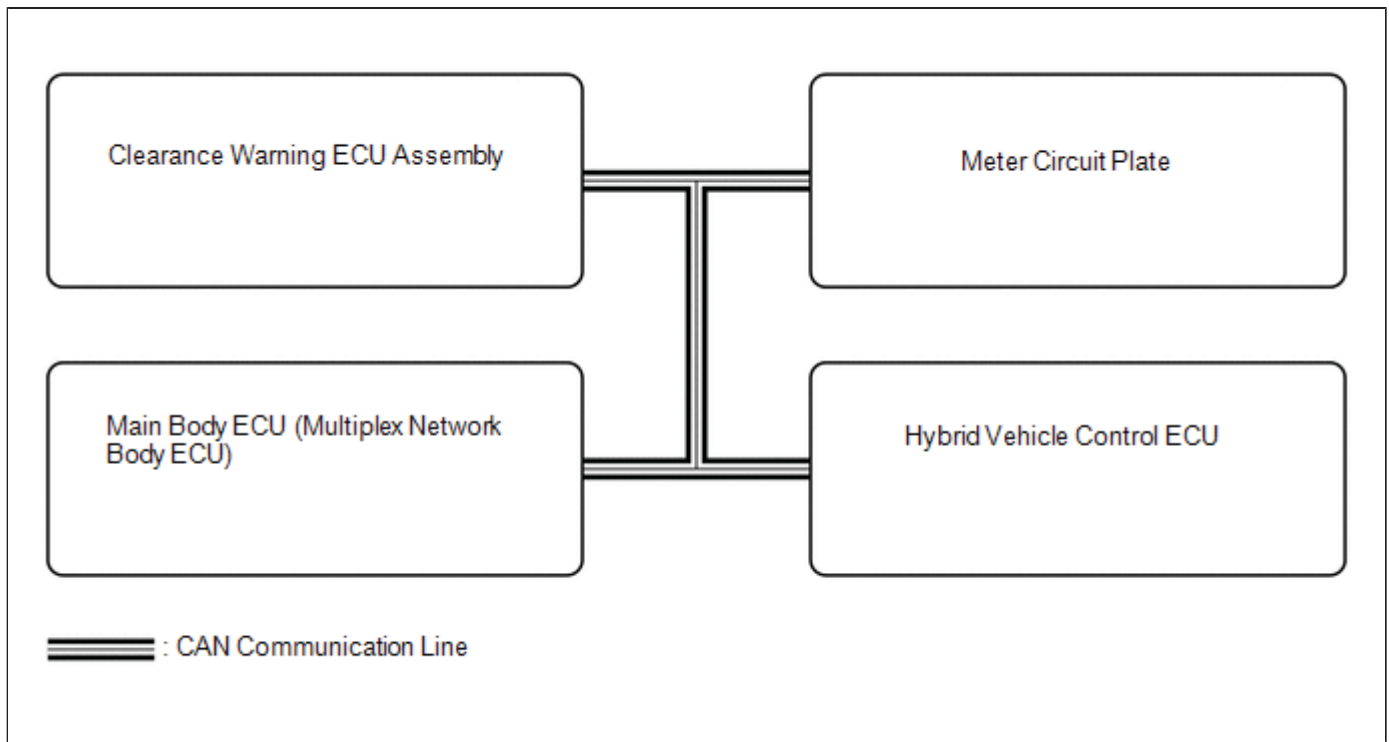


Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000SXER
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 - 12/2018]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: SYSTEM DIAGRAM; 2016 - 2018 MY Prius [11/2015 - 12/2018]		

[SYSTEM DIAGRAM](#)

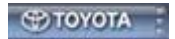






Communication Table

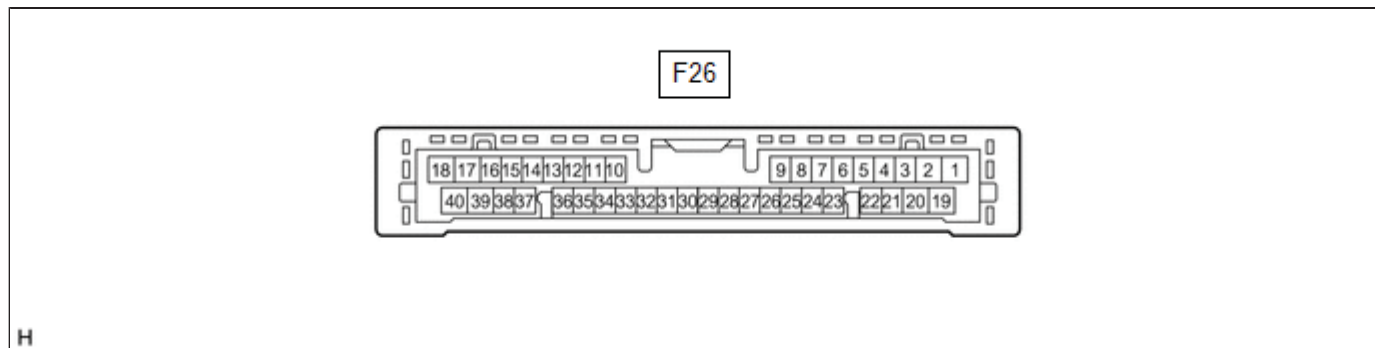
SENDER	RECEIVER	SIGNAL	LINE
Main Body ECU (Multiplex Network Body ECU)	Clearance Warning ECU Assembly	Destination information signal	CAN Communication Line
Hybrid Vehicle Control ECU	Clearance Warning ECU Assembly	Shift position signal	CAN Communication Line
Meter Circuit Plate	Clearance Warning ECU Assembly	Vehicle speed signal	CAN Communication Line
Clearance Warning ECU Assembly	Meter Circuit Plate	<ul style="list-style-type: none"> • Sonar information signal • Clearance sonar indicator illumination request signal 	CAN Communication Line



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000SXEW
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 - 12/2018]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: TERMINALS OF ECU; 2016 - 2018 MY Prius [11/2015 - 12/2018]		

TERMINALS OF ECU

CLEARANCE WARNING ECU ASSEMBLY



(a) Disconnect the F26 clearance warning ECU assembly connector.

(b) Measure the voltage and resistance on the wire harness side connector according to the value(s) in the table below.

TERMINAL NO. (SYMBOL)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
F26-1 (IG) - F26-30 (E)	L - W-B	IG power source signal	Power switch off	Below 1 V
			Power switch on (IG)	11 to 14 V
F26-30 (E) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

(c) Reconnect the F26 clearance warning ECU assembly connector.

(d) Measure the voltage and check for pulses according to the value(s) in the table below.

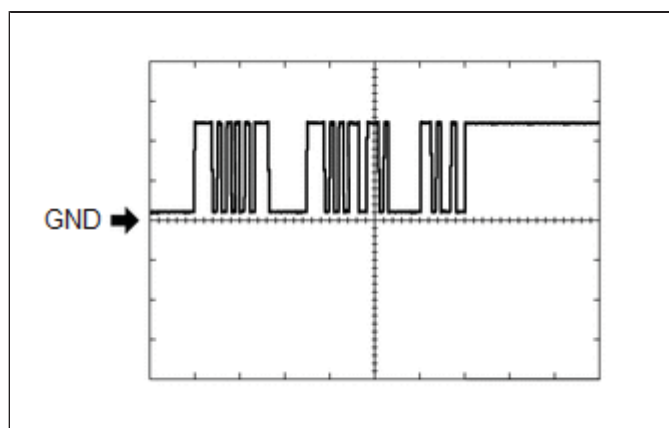
TERMINAL NO. (SYMBOL)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
F26-2 (CSB1) - F26-30 (E)	V - W-B	Power source for front side sensor circuit	Power switch off	Below 1 V
			<ul style="list-style-type: none"> Power switch on (IG) Intuitive parking assist system on 	11 to 14 V
F26-4 (BOF) - F26-30 (E)	BE - W-B	Power source for front sensor circuit	Power switch off	Below 1 V
			<ul style="list-style-type: none"> Power switch on (IG) Intuitive parking assist system on 	11 to 14 V
F26-5 (CSG1) - F26-30 (E)	V - W-B	Ground for front side clearance sonar	Always	Below 1 V
F26-6 (E5) - F26-30 (E)	GR - W-B	Ground for front clearance sonar	Always	Below 1 V

F26-7 (LIN1) - F26-30 (E)	B - W-B	Front side sensor communication signal (Front side clearance sonar sensor)	<ul style="list-style-type: none"> Power switch on (READY) Intuitive parking assist system on Other than park (P) has been selected Vehicle speed is less than approximately 10 km/h (6 mph) 	Pulse generation (Refer to waveform 3)
F26-8 (SOF) - F26-30 (E)	G - W-B	Front sensor communication signal (Front clearance sonar sensor)	<ul style="list-style-type: none"> Power switch on (READY) Intuitive parking assist system on Reverse (R) has been selected Vehicle speed is less than approximately 10 km/h (6 mph) 	Pulse generation (Refer to waveform 1)
F26-13 (EF) - F26-30 (E)	P - W-B	Ground for clearance warning buzzer	Always	Below 1 V
F26-14 (CBZ) - F26-13 (EF)	SB - P	Clearance warning buzzer signal	Buzzer sounding	Pulse generation (Refer to waveform 2)
F26-15 (BBZ) - F26-16 (ER)	L - B	Clearance warning buzzer signal	Buzzer sounding	Pulse generation (Refer to waveform 2)
F26-16 (ER) - F26-30 (E)	B - W-B	Ground for clearance warning buzzer	Always	Below 1 V
F26-21 (CSB2) - F26-30 (E)	L - W-B	Power source for rear side sensor circuit	Power switch off	Below 1 V
			<ul style="list-style-type: none"> Power switch on (IG) Intuitive parking assist system on 	11 to 14 V
F26-22 (BOR) - F26-30 (E)	LG - W-B	Power source for rear sensor circuit	Power switch off	Below 1 V
			<ul style="list-style-type: none"> Power switch on (IG) Intuitive parking assist system on 	11 to 14 V
F26-23 (E1) - F26-30 (E)	SB - W-B	Ground for rear clearance sonar	Always	Below 1 V
F26-24 (SOR) - F26-30 (E)	P - W-B	Rear sensor communication signal (Rear clearance sonar sensor)	<ul style="list-style-type: none"> Power switch on (READY) Intuitive parking assist system on Reverse (R) has been selected Vehicle speed is less than approximately 10 km/h (6 mph) 	Pulse generation (Refer to waveform 1)

			mph)	
F26-25 (CSG2) - F26-30 (E)	BE - W- B	Ground for rear side clearance sonar	Always	Below 1 V
F26-26 (LIN2) - F26-30 (E)	R - W-B	Rear side sensor communication signal (Rear side clearance sonar sensor)	<ul style="list-style-type: none"> • Power switch on (READY) • Intuitive parking assist system on • Other than park (P) has been selected • Vehicle speed is less than approximately 10 km/h (6 mph) 	Pulse generation (Refer to waveform 3)

(e) Using an oscilloscope, check waveform 1.

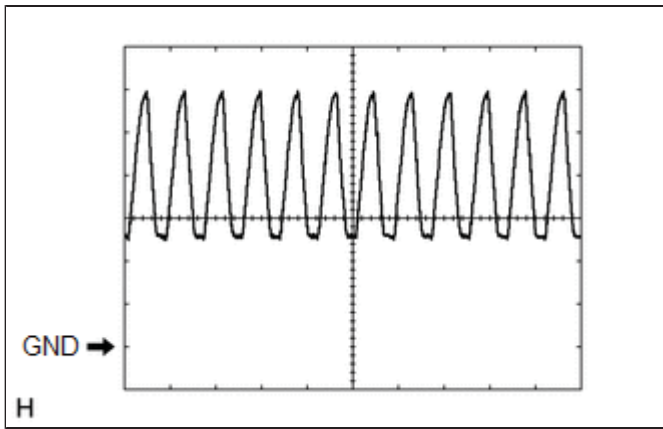
(1) Waveform 1 (Reference)



ITEM	CONTENT
Measurement terminal	<ul style="list-style-type: none"> • F26-8 (SOF) - F26-30 (E) • F26-24 (SOR) - F26-30 (E)
Measurement setting	5 V/DIV., 1 ms./DIV.
Condition	<ul style="list-style-type: none"> • Power switch on (READY) • Intuitive parking assist system on • Reverse (R) has been selected • Vehicle speed is less than approximately 10 km/h (6 mph)

(f) Using an oscilloscope, check waveform 2.

(1) Waveform 2 (Reference)



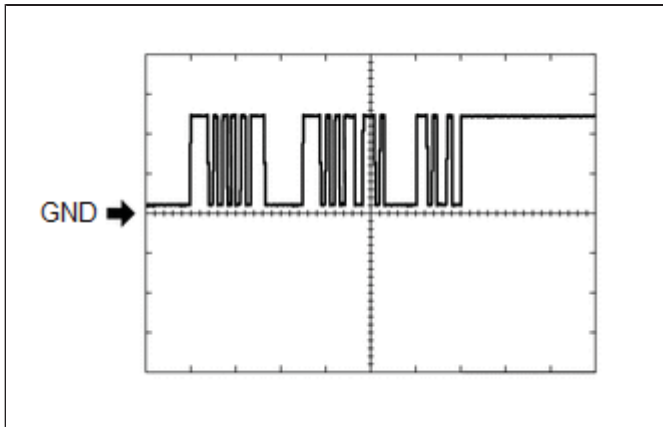
ITEM	CONTENT
Measurement terminal	<ul style="list-style-type: none"> • F26-14 (CBZ) - F26-13 (EF) • F26-15 (BBZ) - F26-16 (ER)
Measurement setting	2 V/DIV., 500 μ s./DIV.
Condition	Buzzer sounding

HINT:

The amplitude of the waveform changes according to the set volume.

(g) Using an oscilloscope, check waveform 3.

(1) Waveform 3 (Reference)



ITEM	CONTENT
Measurement terminal	<ul style="list-style-type: none"> • F26-7 (LIN1) - F26-30 (E) • F26-26 (LIN2) - F26-30 (E)
Measurement setting	5 V/DIV., 1 ms./DIV.
Condition	<ul style="list-style-type: none"> • Power switch on (READY) • Intuitive parking assist system on • Other than park (P) has been selected • Vehicle speed is less than approximately 10 km/h (6 mph)



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000SXFB
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: U0073,U0155; Control Module Communication Bus "A" Off; 2016 - 2019 MY Prius [11/2015 -]		

DTC	U0073	Control Module Communication Bus "A" Off
------------	--------------	---

DTC	U0155	Lost Communication with Instrument Panel Cluster (IPC) Control Module
------------	--------------	--

DESCRIPTION

These DTCs are stored when the clearance warning ECU assembly cannot receive and recognize several signals via the CAN communication line.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA
U0073	Control Module Communication Bus "A" Off	Control module communication bus off	CAN communication system
U0155	Lost Communication with Instrument Panel Cluster (IPC) Control Module	Lost communication with the meter circuit plate	CAN communication system

HINT:

When 2 or more DTCs starting with "U" are output simultaneously, inspect the connectors and wire harnesses of each ECU.

PROCEDURE

1.	CHECK DTC OUTPUT
-----------	-------------------------

(a) Clear the DTCs

Click here [INFO](#)

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Clear DTCs

(b) Check for CAN communication system DTCs

Click here [INFO](#)

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Trouble Codes

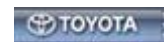
RESULT	PROCEED TO
CAN communication system DTCs are output	A

No CAN communication system DTCs are output

B

A ► GO TO CAN COMMUNICATION SYSTEM [INFO](#) [INFO](#) [INFO](#) [INFO](#)

B ► USE SIMULATION METHOD TO CHECK [INFO](#) [INFO](#) [INFO](#) [INFO](#)



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000SXFC
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: INTUITIVE PARKING ASSIST SYSTEM: U1000; CAN Communication Failure (Message Registry); 2016 - 2019 MY Prius [11/2015 -]		

DTC	U1000	CAN Communication Failure (Message Registry)
------------	--------------	---

DESCRIPTION

If DTC U1000 is stored frequently, duplicate the conditions that cause the problem symptoms and perform the inspection again even if the DTC is not output when rechecking for DTCs.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA
U1000	CAN Communication Failure (Message Registry)	ECU malfunction	Clearance warning ECU assembly

PROCEDURE

1.	CHECK FOR DTC
-----------	----------------------

(a) Clear the DTCs.

Click here [INFO](#)

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Clear DTCs

(b) Check for DTCs.

Click here [INFO](#)

Body Electrical > Advanced Parking Guidance/ICS/Intuitive P/A > Trouble Codes

OK:

DTC U1000 is not output.

HINT:

- If DTC U1000 is not output after clearing the DTCs, an intermittent CAN communication circuit malfunction is suspected.
- If DTC U1000 is output frequently, replace the clearance warning ECU assembly, even though the DTC was not output when rechecking for DTCs.

Click here [INFO](#) [INFO](#)

OK ► **USE SIMULATION METHOD TO CHECK** [INFO](#) [INFO](#) [INFO](#) [INFO](#)

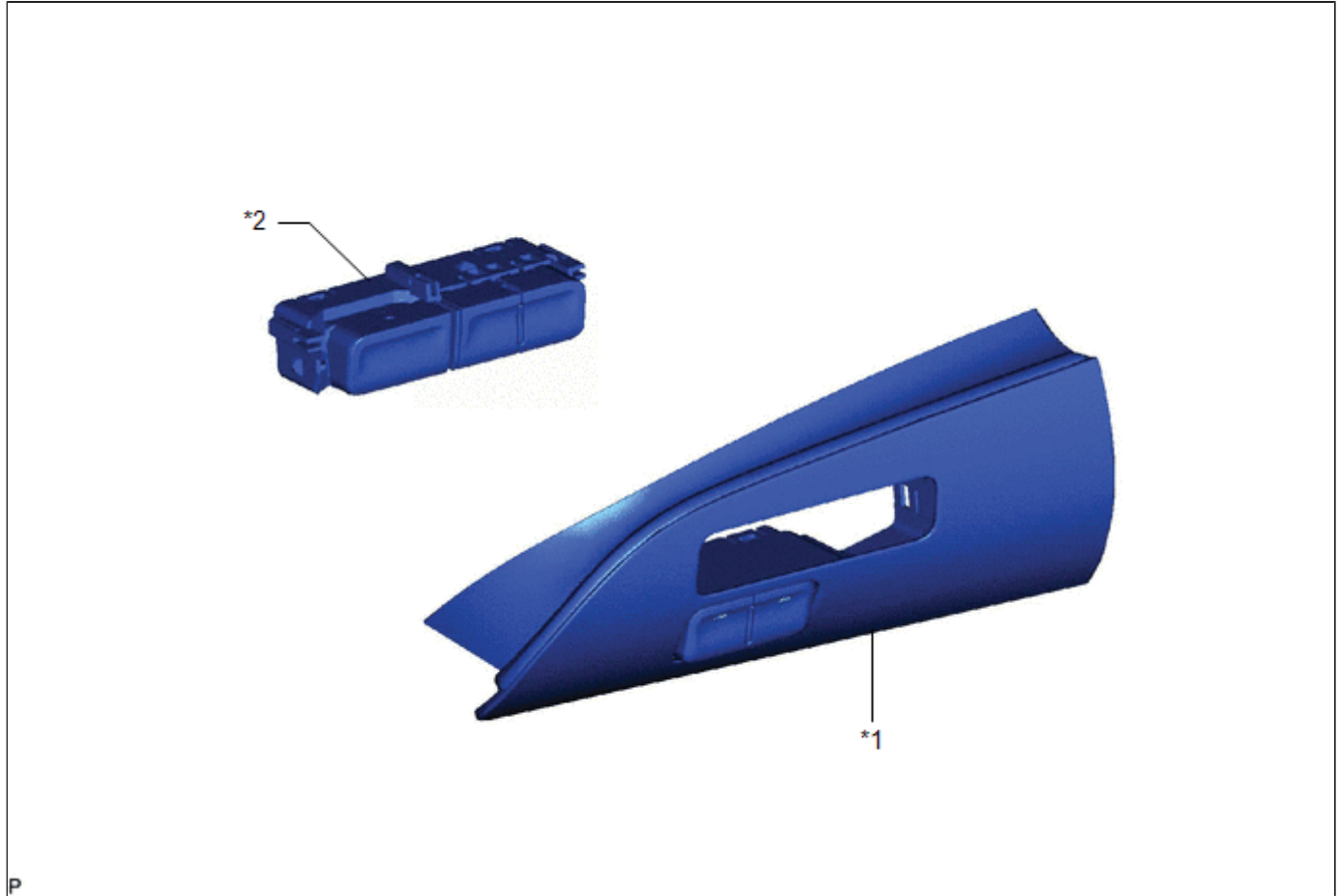
NG ► **REPLACE CLEARANCE WARNING ECU ASSEMBLY** [INFO](#) [INFO](#)
[INFO](#) [INFO](#)



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6KN
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: PARKING ASSIST MAIN SWITCH: COMPONENTS; 2016 - 2019 MY Prius [11/2015 -]		

COMPONENTS

ILLUSTRATION



*1	INSTRUMENT CLUSTER FINISH PANEL GARNISH ASSEMBLY	*2	S-APGS SWITCH (COMBINATION SWITCH ASSEMBLY)
----	--	----	---



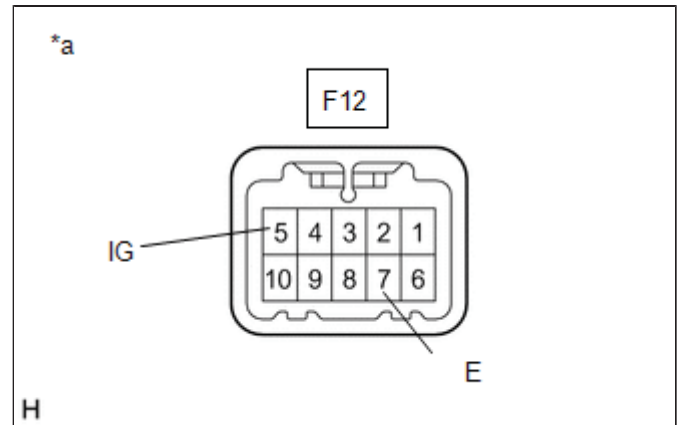
Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6KP
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: PARKING ASSIST MAIN SWITCH: INSPECTION; 2016 - 2019 MY Prius [11/2015 -]		

INSPECTION

PROCEDURE

1. INSPECT S-APGS SWITCH (COMBINATION SWITCH ASSEMBLY)

- (a) Make sure that there is no looseness in the locking part and the connecting part of the connector.



*a	Component without harness connected (S-APGS Switch (Combination Switch Assembly))
----	---

- (b) Disconnect the S-APGS switch (combination switch assembly) connector.
(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(F12\)](#)

[Click Connector\(F12\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F12-5 (IG) - F12-7(E)	Switch pushed	Below 50 Ω
F12-5 (IG) - F12-7(E)	Switch not pushed	10 kΩ or higher

If the result is not as specified, replace the S-APGS switch (combination switch assembly).

- (d) Check that the switch illumination illuminates.

- (1) Apply auxiliary battery voltage to the S-APGS switch (combination switch assembly) and check that the switch illumination illuminates.

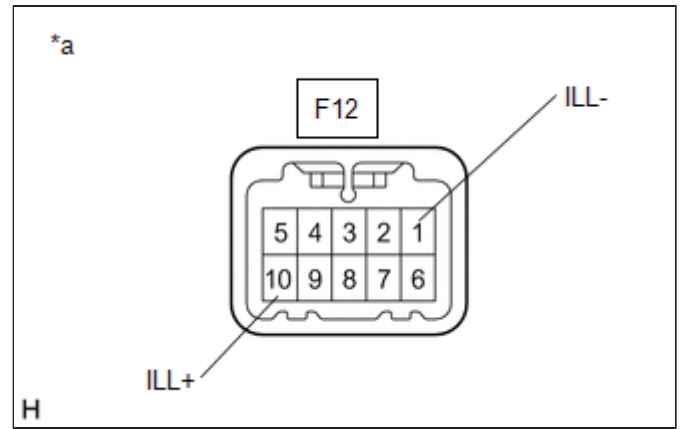
OK:

[Click Location & Routing\(F12\)](#)

[Click Connector\(F12\)](#)

TESTER CONNECTION	SPECIFIED CONDITION
Auxiliary battery positive (+) - F12-10(ILL+)	Illuminates
Auxiliary battery negative (-) - F12-1(ILL-)	Illuminates

If the result is not as specified, replace the S-APGS switch (combination switch assembly).



*a	Component without harness connected (S-APGS Switch (Combination Switch Assembly))
----	---



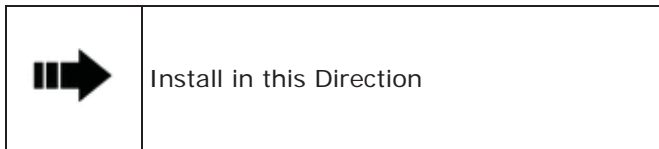
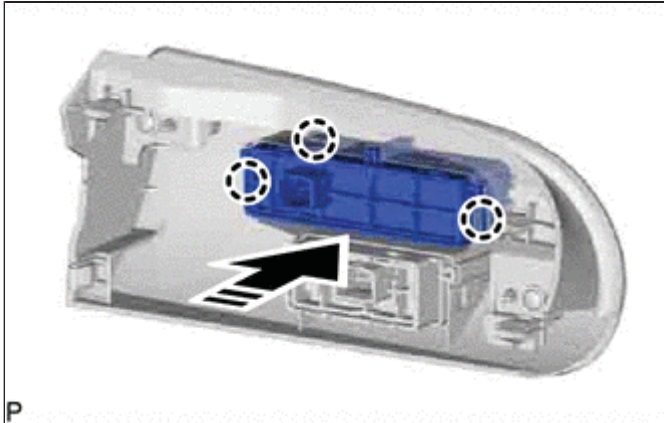
Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6KQ
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: PARKING ASSIST MAIN SWITCH: INSTALLATION; 2016 - 2019 MY Prius [11/2015 -]		

INSTALLATION

PROCEDURE

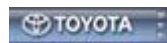
1. INSTALL S-APGS SWITCH (COMBINATION SWITCH ASSEMBLY)

(a) Engage the 3 claws to install the S-APGS switch (combination switch assembly) as shown in the illustration.



2. INSTALL INSTRUMENT CLUSTER FINISH PANEL GARNISH ASSEMBLY

Click here [INFO](#) [INFO](#)



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6KO
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: PARKING ASSIST MAIN SWITCH: REMOVAL; 2016 - 2019 MY Prius [11/2015 -]		

REMOVAL

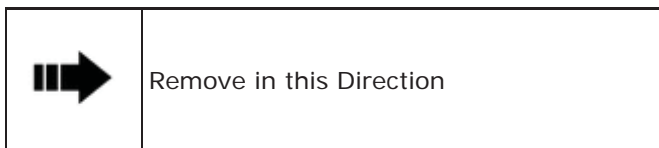
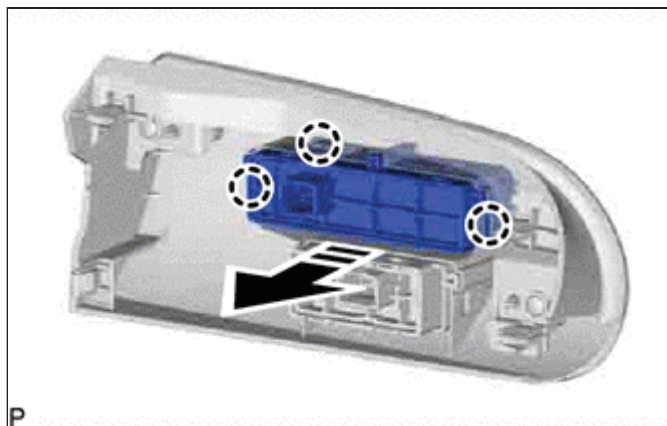
PROCEDURE

1. REMOVE INSTRUMENT CLUSTER FINISH PANEL GARNISH ASSEMBLY

Click here [INFO](#) [INFO](#) [INFO](#)

2. REMOVE S-APGS SWITCH (COMBINATION SWITCH ASSEMBLY)

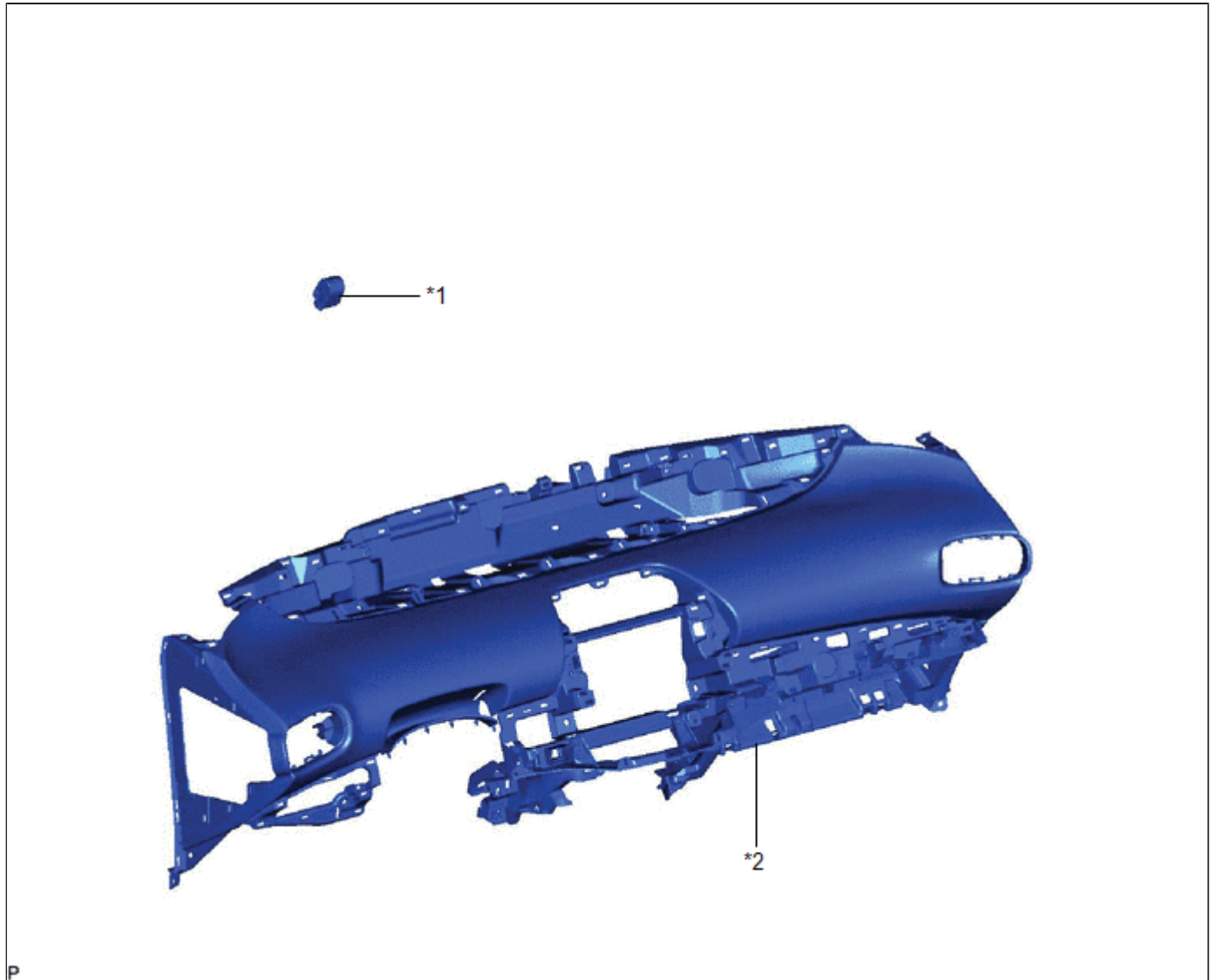
(a) Disengage the 3 claws to remove the S-APGS switch (combination switch assembly) as shown in the illustration.



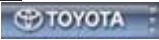
Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6KR
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: REAR CROSSING TRAFFIC ALERT BUZZER: COMPONENTS; 2016 - 2019 MY Prius [11/2015 -]		

COMPONENTS

ILLUSTRATION



*1	BLIND SPOT MONITOR BUZZER	*2	LOWER INSTRUMENT PANEL SUB-ASSEMBLY
----	---------------------------	----	-------------------------------------



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6KT
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 -]
Title: PARK ASSIST / MONITORING: REAR CROSSING TRAFFIC ALERT BUZZER: INSTALLATION; 2016 - 2019 MY Prius [11/2015 -]		

[INSTALLATION](#)

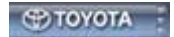
[PROCEDURE](#)

1. INSTALL BLIND SPOT MONITOR BUZZER

- (a) Connect the connector.
- (b) Engage the clamp to install the blind spot monitor buzzer.

2. INSTALL LOWER INSTRUMENT PANEL SUB-ASSEMBLY

Click here [INFO](#) [INFO](#)



Last Modified: 01-14-2019	6.8:8.0.48	Doc ID: RM100000000T6KS
Model Year Start: 2016	Model: Prius	Prod Date Range: [11/2015 - 12/2018]
Title: PARK ASSIST / MONITORING: REAR CROSSING TRAFFIC ALERT BUZZER: REMOVAL; 2016 - 2018 MY Prius [11/2015 - 12/2018]		

REMOVAL

CAUTION / NOTICE / HINT

The necessary procedures (adjustment, calibration, initialization, or registration) that must be performed after parts are removed and installed, or replaced during blind spot monitor buzzer removal/installation are shown below.

Necessary Procedures After Parts Removed/Installed/Replaced

REPLACED PART OR PERFORMED PROCEDURE	NECESSARY PROCEDURE	EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	LINK
Disconnect cable from negative auxiliary battery terminal	Memorize steering angle neutral point	Lane departure alert system (w/ Steering Control)	INFO
		Intelligent clearance sonar system*1	
		Simple advanced parking guidance system*1	
		Pre-collision system	
	Initialize back door lock	Power door lock control system	INFO

*1: When performing learning using the Techstream.

Click here [INFO](#)

CAUTION:

Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing.



Click here [INFO](#)

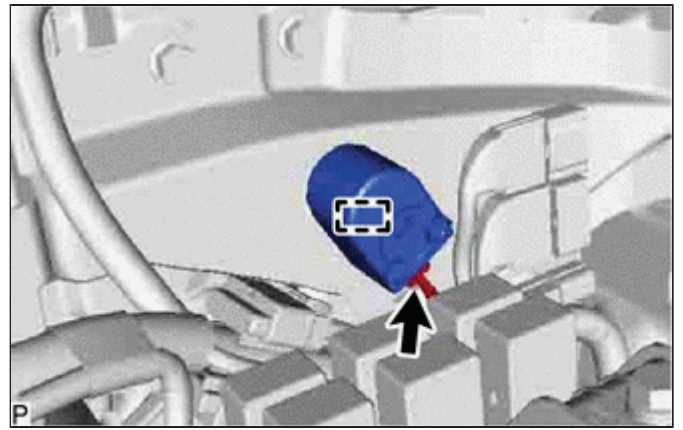
PROCEDURE

1. REMOVE LOWER INSTRUMENT PANEL SUB-ASSEMBLY

Click here [INFO](#) [INFO](#)

2. REMOVE BLIND SPOT MONITOR BUZZER

(a) Using a clip remover, disengage the clamp.



(b) Disconnect the connector to remove the blind spot monitor buzzer.

