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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: SMART KEY SYSTEM (for Entry Function): OPERATION CHECK; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

OPERATION CHECK

CHECK CUSTOMIZE PARAMETERS

NOTICE:

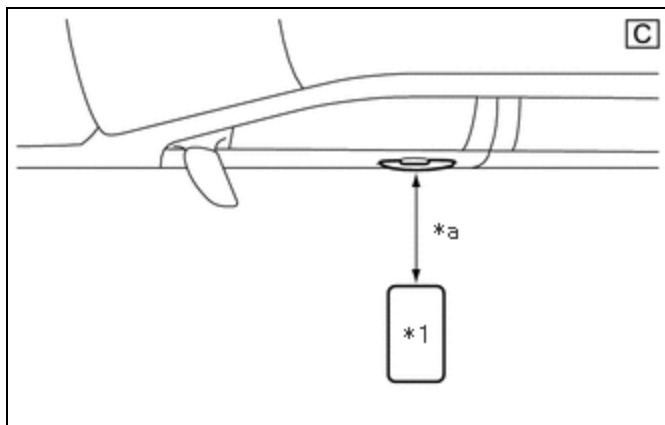
The operation check below is based on the non-customized initial condition of the vehicle.

Click here [INFO](#)

CHECK THE ENTRY UNLOCK FUNCTION

(a) Check the entry unlock function.

- (1) Perform a wireless lock door operation to lock the door, touch the unlock sensor built into the backside of the front door outside handle assembly of the driver door while carrying the electrical key transmitter sub-assembly and check that the door unlocks.
- (2) Inspect the entry unlock detection area. Hold the electrical key transmitter sub-assembly at the same height as the door outside handle assembly and approximately 0.7 to 1 m (2.30 to 3.28 ft.) from the vehicle as shown in the illustration and check that the LED (red) of the electrical key transmitter sub-assembly blinks.



*1	Electrical Key Transmitter Sub-assembly
*a	0.7 to 1 m (2.30 to 3.28 ft.)

The illustrations shown are examples only.

- (3) With the system in unlock standby mode, grasp the front door outside handle assembly (for driver door) and check that the door unlocks.

HINT:

- The system is in unlock standby mode when the electrical key transmitter sub-assembly is in the detection area and the key ID code sent by the electrical key transmitter sub-assembly matches the key ID code stored by the certification ECU (smart key ECU assembly).
- Communication may not be possible if the electrical key transmitter sub-assembly is within 0.2 m (0.656 ft.) of the door outside handle assembly.
- Inspect the front passenger door using the same procedure.*
*: w/ Front Passenger Door Entry Function

- (4) Check the unlock response sensitivity. With the system in unlock standby mode, touch the area shown in the illustration and check that the door unlocks.

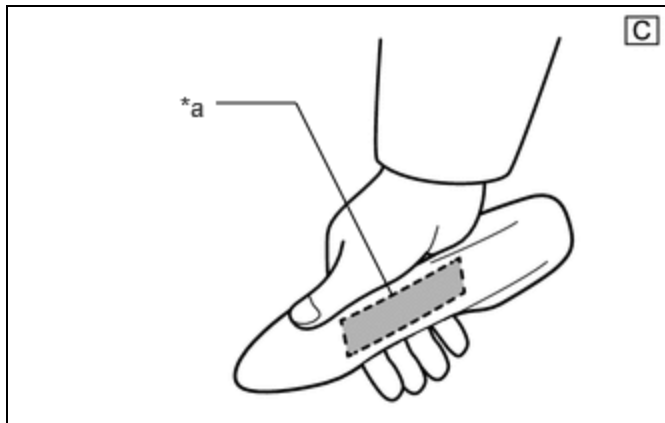
NOTICE:

If the sensor is touched too quickly or released too slowly, the sensor may not react and the door will not unlock.

HINT:

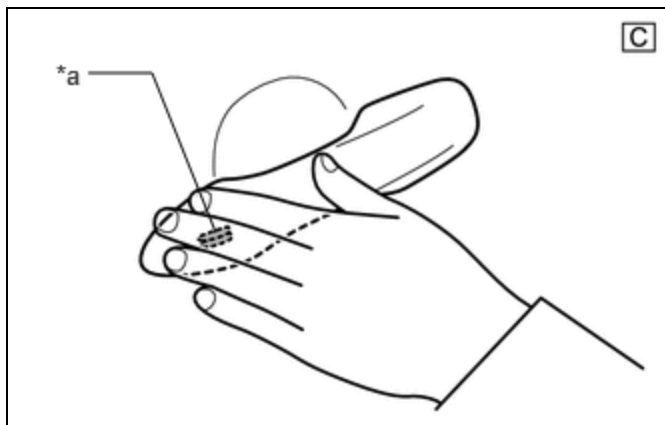
Inspect the front passenger door using the same procedure.*

*: w/ Front Passenger Door Entry Function



*a	Unlock Sensor (Backside)
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The illustrations shown are examples only.

CHECK THE ENTRY LOCK FUNCTION

*a	Lock Sensor
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The illustrations shown are examples only.

(a) Check the entry lock function.

NOTICE:

If the electrical key transmitter sub-assembly is in the vehicle but outside the detection area (on the instrument panel, in the glove box, on the floor) and a door lock operation is performed, the key lock-in prevention function will not operate and the electrical key transmitter sub-assembly will be locked inside the vehicle.

(1) With the door closed and unlocked, touch the lock sensor of the front door outside handle assembly of the driver door while carrying the electrical key transmitter sub-assembly and check that the door locks.

HINT:

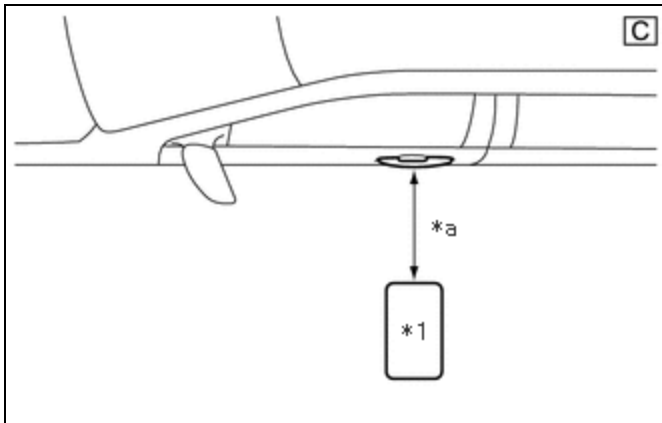
- If the door does not lock even when touching the lock sensor, touch it with your palm.
 - Inspect the front passenger door using the same procedure.*
- *: w/ Front Passenger Door Entry Function

- (2) Inspect the entry lock operating range. Hold the electrical key transmitter sub-assembly approximately 0.1 m (0.328 ft.) below the bottom edge of the door glass and approximately 0.3 m (0.984 ft.) from the vehicle as shown in the illustration, touch the lock sensor and check that the door locks.

HINT:

- If the door does not lock even when touching the lock sensor, touch it with your palm.
- As communication may not be possible if the electrical key transmitter sub-assembly is within 0.2 m (0.656 ft.) of the front door outside handle assembly, the door may not lock if the lock sensor is touched with the same hand that is carrying the electrical key transmitter sub-assembly, etc.
- If the key lock-in prevention function buzzer sounds, radio waves from the indoor electrical key antenna may be leaking from the vehicle.
- Inspect the front passenger door using the same procedure.*
- The entry lock function cannot be operated more than 3 times consecutively.

*: w/ Front Passenger Door Entry Function



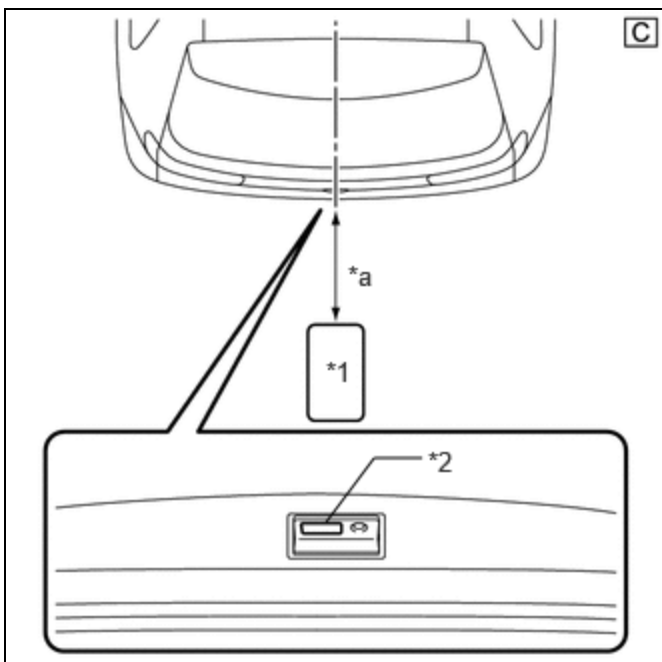
*1	Electrical Key Transmitter Sub-assembly
*a	Approximately 0.3 m (0.984 ft.)

The illustrations shown are examples only.

CHECK ENTRY BACK DOOR OPEN FUNCTION (w/ Front Passenger Door Entry Function)

- (a) Check the entry back door open function.

- (1) With the back door closed and locked, press the open switch of the back door opener switch assembly while carrying the electrical key transmitter sub-assembly and check that the back door opens.



*1	Electrical Key Transmitter Sub-assembly
*2	Back Door Opener Switch Assembly (Open Switch)
*a	0.7 to 1 m (2.30 to 3.28 ft.)

The illustrations shown are examples only.

- (2) Inspect the entry back door open operating range. Hold the electrical key transmitter sub-assembly at the same height as the rear bumper upper surface and approximately 0.7 to 1 m (2.30 to 3.28 ft.) from the vehicle as shown in the illustration, press the open switch of the back door opener switch assembly and check that the back door opens.

HINT:

Communication may not be possible if the electrical key transmitter sub-assembly is within 0.2 m (0.656 ft.) of rear bumper.

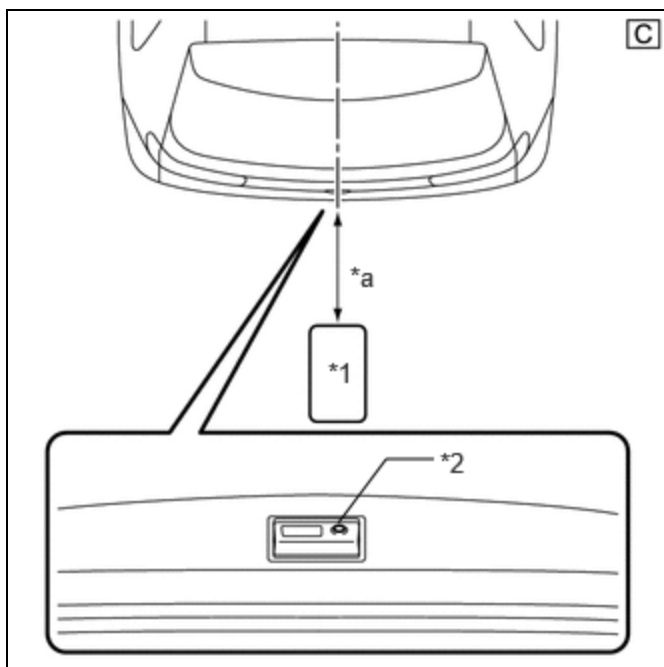
CHECK ENTRY BACK DOOR LOCK FUNCTION (w/ Front Passenger Door Entry Function)

- (a) Check the entry back door lock function.

NOTICE:

If the electrical key transmitter sub-assembly is in the vehicle but outside the detection area (on the instrument panel, in the glove box or on the floor) and a back door lock operation is performed, the key lock-in prevention function will not operate and the electrical key transmitter sub-assembly will be locked inside the vehicle.

- (1) With the back door closed and unlocked, press the lock switch of the back door opener switch assembly while carrying the electrical key transmitter sub-assembly outside of the vehicle and check that the back door locks.
- (2) Inspect the entry back door lock operating range. Hold the electrical key transmitter sub-assembly at the same height as the rear bumper upper surface and approximately 0.3 m (0.984 ft.) from the vehicle as shown in the illustration, press the lock switch of the back door opener switch assembly and check that the back door locks.



*1	Electrical Key Transmitter Sub-assembly
*2	Back Door Opener Switch Assembly (Lock Switch)

*a	Approximately 0.3 m (0.984 ft.)
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The illustrations shown are examples only.

HINT:

- Communication may not be possible if the electrical key transmitter sub-assembly is within 0.2 m (0.656 ft.) of the rear bumper.
- If the key lock-in prevention function buzzer sounds, radio waves from the indoor electrical key antenna may be leaking from the vehicle.
- The entry lock function cannot be operated more than 3 times consecutively.

CHECK PUSH-BUTTON START FUNCTION

Click here [INFO](#)

CHECK KEY LOCK-IN PREVENTION FUNCTION (VEHICLE INTERIOR)

NOTICE:

In order to prevent the electrical key transmitter sub-assembly from being locked inside the vehicle, perform this inspection with the window of a door open.

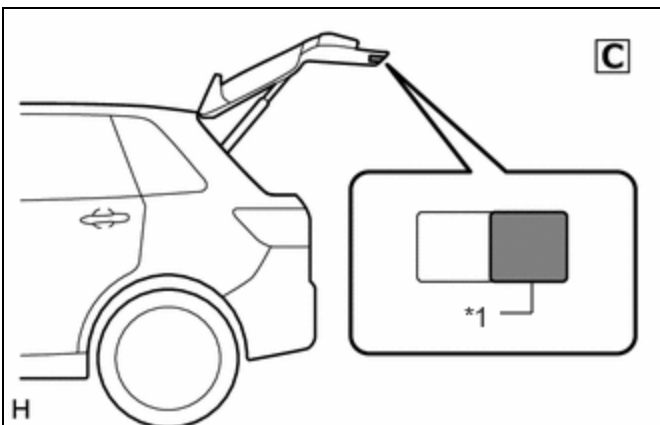
- (a) Check the key lock-in prevention function (vehicle interior).
- (1) Turn the ignition switch off.
 - (2) Place the electrical key transmitter sub-assembly on a front, rear seat or luggage room floor.
 - (3) Close all of the doors and make sure they are unlocked.
 - (4) Touch a door lock sensor and check that the doors do not lock and the key lock-in prevention function buzzer (external) sounds for approximately 5 seconds.

CHECK POWER BACK DOOR CLOSE AND LOCK FUNCTION (w/ Power Back Door System)

- (a) With the back door open, press the door control switch assembly while carrying the electrical key transmitter sub-assembly outside of the vehicle and check that the back door closes automatically and then locks.

HINT:

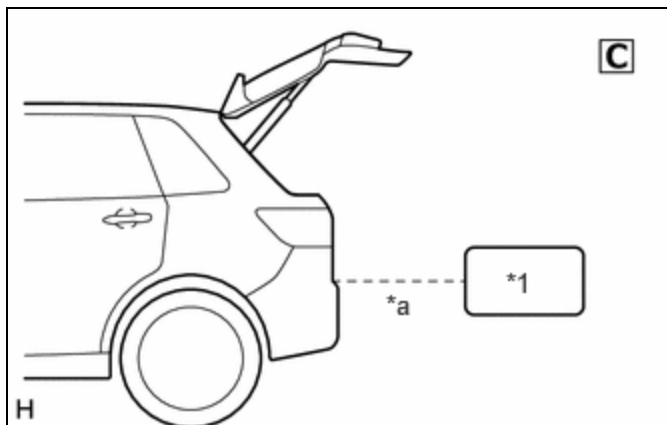
If the door control switch assembly is pressed by a hand which is also holding the electrical key transmitter sub-assembly, the electrical key transmitter sub-assembly may not be detected as in the exterior detection area and the power back door close and lock function may not operate.



*1	Door Control Switch Assembly
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The illustrations shown are examples only.

- (b) Inspect the power back door close and lock operating range. Hold the electrical key transmitter sub-assembly at the same height as the rear bumper upper surface and approximately 0.7 to 1 m (2.30 to 3.28 ft.) from the vehicle as shown in the illustration, press the door control switch and check that the back door closes automatically and then locks.



*1	Electrical Key Transmitter Sub-assembly
*a	0.7 to 1 m (2.30 to 3.28 ft.)

The illustrations shown are examples only.

CHECK POWER BACK DOOR RESERVATION LOCK FUNCTION (w/ Power Back Door System)

- (a) Check that the doors lock after the back door is closed, while carrying the electrical key transmitter sub-assembly, when the lock sensor is operated during the back door closing operation via the power back door function.

CHECK ANSWER-BACK FUNCTION

- (a) Check the answer-back function (hazard warning light flashing and buzzer sounding).

ENTRY OPERATION	HAZARD WARNING LIGHT	WIRELESS BUZZER
Entry Lock	Flashes once	Sounds once
Entry Unlock	Flashes twice	Sounds twice

CHECK TRANSMITTER BATTERY SAVING MODE FUNCTION

Click here [INFO](#)

CHECK ENTRY CANCEL FUNCTION

Click here [INFO](#)

KEY DIAGNOSTIC MODE (Using GTS)

HINT:

- With key diagnostic mode, it is possible to check if the electrical key transmitter sub-assembly is operating properly with the selected electrical key antenna and within the selected detection area by the sounding of the wireless buzzer.
- If the buzzer sounds with [CH1] displayed but not with [CH2], the electrical key transmitter sub-assembly cannot be detected by channel 2 due to a malfunction, such as wave interference.

- (a) Enter the following menus: Body Electrical / Smart Key / Utility / Communication Check(Key Diag Mode).

Body Electrical > Smart Key > Utility

TESTER DISPLAY
Communication Check(Key Diag Mode)

(b) Inspect the appropriate item according to the following table.

TESTER DISPLAY	INSPECTION ITEM
[CH1/CH2] Overhead + Driver Side*1	Front door outside handle assembly (electrical key antenna) (for driver door)
[CH1] Overhead + Driver Side*1	
[CH2] Overhead + Driver Side*1	
[CH1/CH2] Overhead + Passenger Side*2	Front door outside handle assembly (electrical key antenna) (for front passenger door)*10
[CH1] Overhead + Passenger Side*2	
[CH2] Overhead + Passenger Side*2	
[CH1/CH2] Overhead + Driver Side Rear*3	-
[CH1] Overhead + Driver Side Rear*3	
[CH2] Overhead + Driver Side Rear*3	
[CH1/CH2] Overhead + Passenger Side Rear*4	-
[CH1] Overhead + Passenger Side Rear*4	
[CH2] Overhead + Passenger Side Rear*4	
[CH1/CH2] Overhead + Front Room*5	No. 1 indoor electrical key antenna assembly (front floor)
[CH1] Overhead + Front Room*5	
[CH2] Overhead + Front Room*5	
[CH1/CH2] Overhead + Rear Room*6	-
[CH1] Overhead + Rear Room*6	
[CH2] Overhead + Rear Room*6	
[CH1/CH2] Luggage (inside)+ Luggage (inside)*7	No. 2 indoor electrical key antenna assembly (rear floor)
[CH1] Luggage (inside)+ Luggage (inside)*7	
[CH2] Luggage (inside)+ Luggage (inside)*7	
[CH1/CH2] Luggage+ Luggage (inside)*8	Electrical key antenna (outside luggage compartment)*10
[CH1] Luggage+ Luggage (inside)*8	
[CH2] Luggage+ Luggage (inside)*8	
[CH1/CH2] Immobiliser Amp*9	Amplifier (power switch)
[CH1] Immobiliser Amp*9	
[CH2] Immobiliser Amp*9	

*10: w/ Front Passenger Door Entry Function

- [CH1]: Channel 1 is set.
- [CH2]: Channel 2 is set.
- [CH1/CH2]: Channel 1 and 2 switch automatically at a specific interval*11.

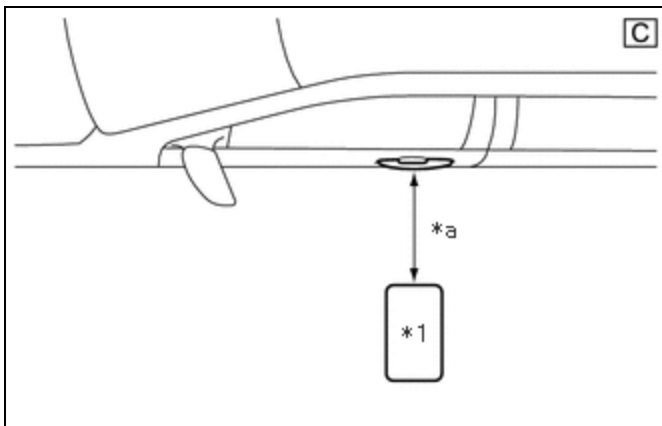
*11: If the electrical key transmitter sub-assembly is detected with either channel 1 or 2, the buzzer sounds.

(c) Bring the electrical key transmitter sub-assembly near the selected electrical key antenna and check that the wireless buzzer sounds.

(d) *1: Front door outside handle assembly (for driver door)

HINT:

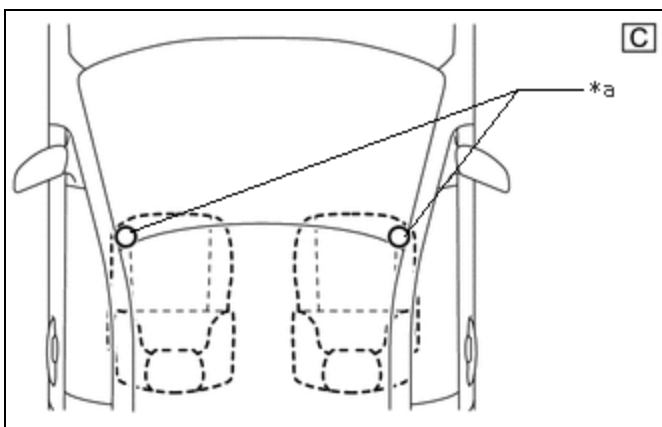
- Hold the electrical key transmitter sub-assembly at the same height as the front door outside handle assembly in the position shown in the illustration.
- *2: Perform the same inspection for the front passenger door.*10
*10: w/ Front Passenger Door Entry Function



*1	Electrical Key Transmitter Sub-assembly
*a	0.7 to 1 m (2.30 to 3.28 ft.)

The illustrations shown are examples only.

(e) *5: No. 1 indoor electrical key antenna assembly (front floor)



*a	Electrical Key Transmitter Sub-assembly Inspection Point
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The illustrations shown are examples only.

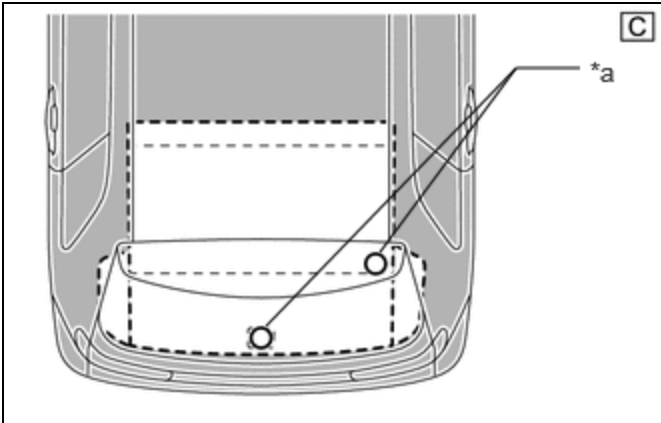
HINT:

Place the electrical key transmitter sub-assembly on the front seat cushion of the driver seat or front passenger seat.

(f) *7: No. 2 indoor electrical key antenna assembly (rear floor)

HINT:

Place the electrical key transmitter sub-assembly on the luggage room floor.



*a	Electrical Key Transmitter Sub-assembly Inspection Point
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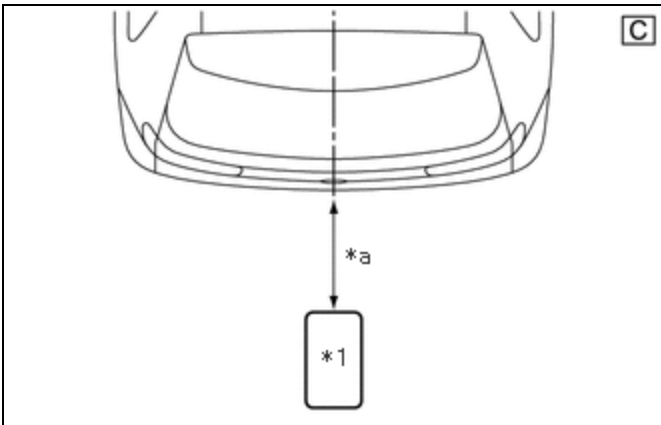
The illustrations shown are examples only.

(g) w/ Front Passenger Door Entry Function:

*8: Electrical key antenna outside luggage compartment)

HINT:

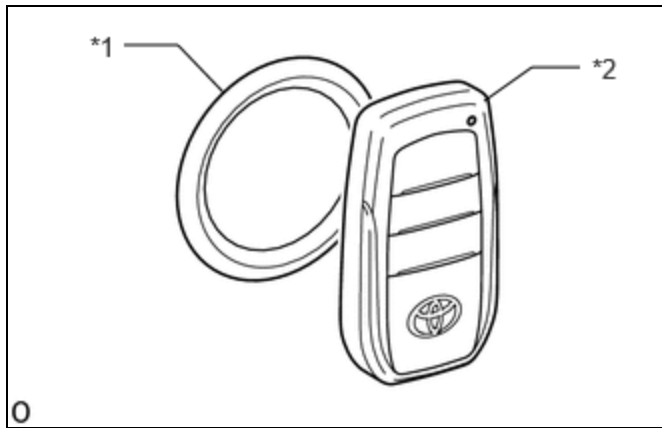
Hold the electrical key transmitter sub-assembly at the same height as the rear bumper upper surface and align it with the center of the rear of the vehicle as shown in the illustration.



*1	Electrical Key Transmitter Sub-assembly
*a	0.7 to 1 m (2.30 to 3.28 ft.)

The illustrations shown are examples only.

(h) *9: Amplifier (power switch)



*1	Power Switch
*2	Electrical Key Transmitter Sub-assembly

The illustrations shown are examples only.

HINT:

While facing the logo side of the electrical key transmitter sub-assembly toward the power switch, hold the transmitter near the power switch.

