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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: ADVANCED DRIVER ASSISTANCE SYSTEM: FRONT SIDE RADAR SENSOR: TARGET ADJUSTMENT(TRIANGLE TARGET); 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

TARGET ADJUSTMENT(TRIANGLE TARGET)

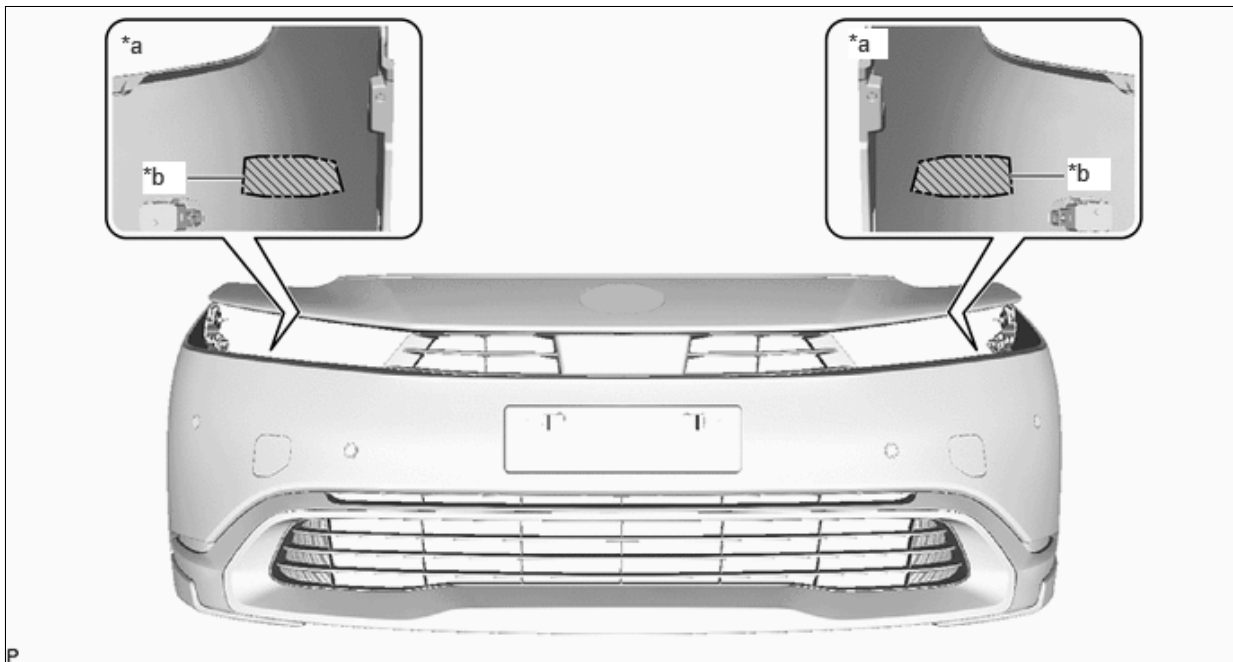
PROCEDURE


1. PERFORM FRONT SIDE RADAR BEAM AXIS CONFIRMATION

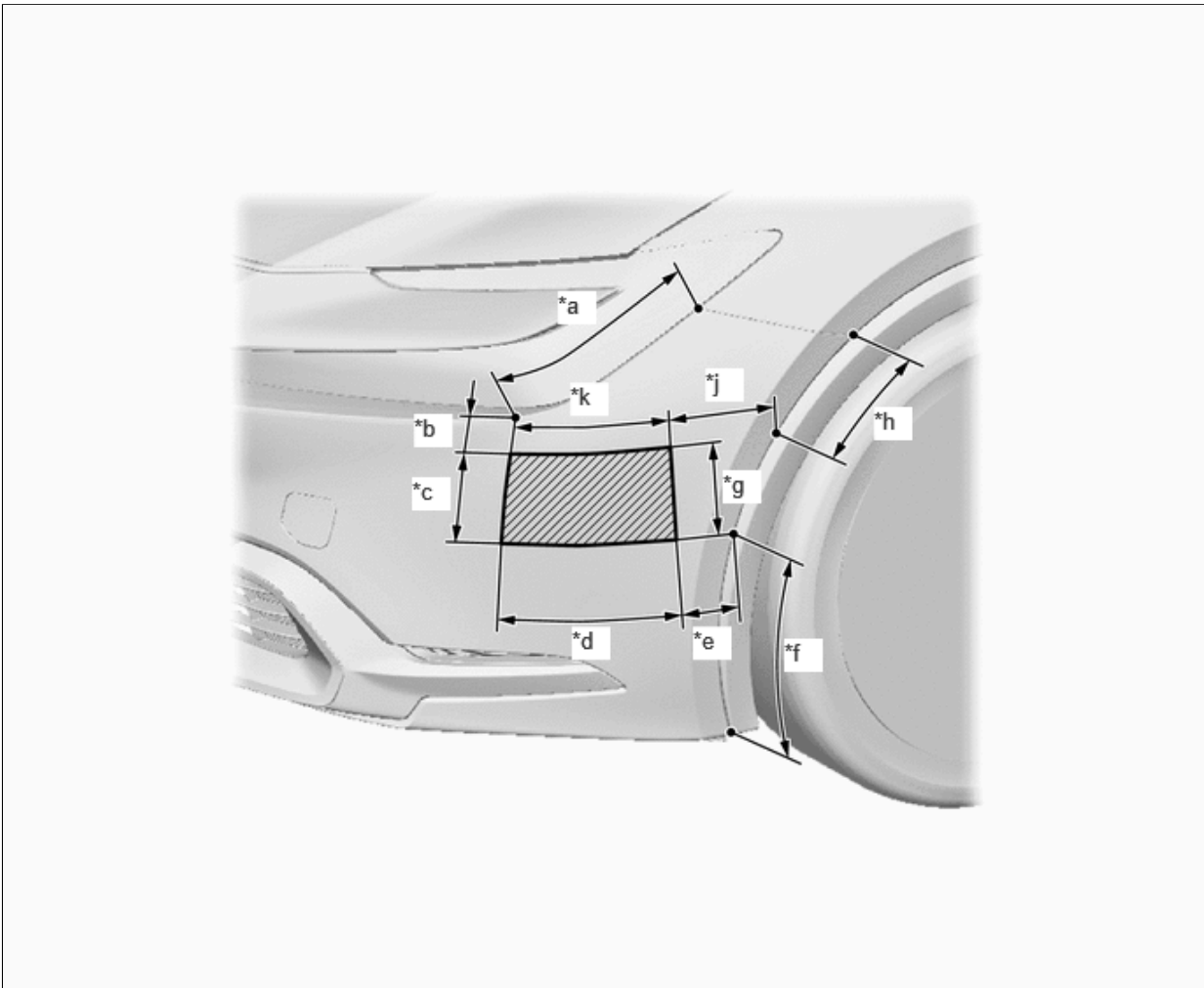
NOTICE:


If body repair has been performed at a radio wave transmission area of the front bumper cover, make sure to perform "Check Reflection Power".

Click here [INFO](#)



*a	Bumper Rear Side	*b	Scribed Line
	Radio Wave Transmission Area	-	-

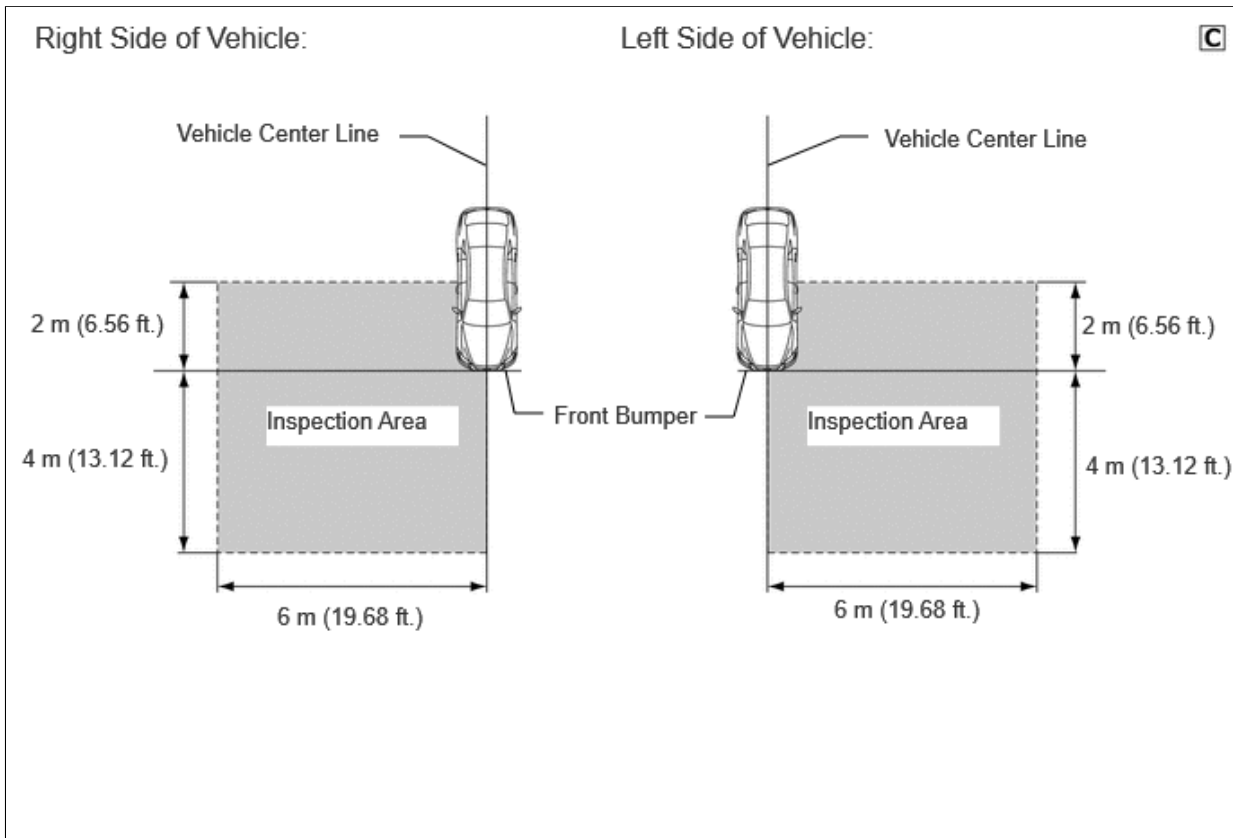


*a	282 mm (11.10 in.)	*b	48 mm (1.89 in.)
*c	122 mm (4.80 in.)	*d	224 mm (8.82 in.)
*e	79 mm (3.11 in.)	*f	291 mm (11.46 in.)
*g	122 mm (4.80 in.)	*h	156 mm (6.14 in.)
*j	146 mm (5.75 in.)	*k	206 mm (8.11 in.)
	Radio Wave Transmission Area	-	-

HINT:

The front side radar beam axis confirmation is performed to confirm whether the sensor's beam axis is correct, and to adjust the beam axis by using a reflector.

- (a) When performing the front side radar beam axis confirmation, move the vehicle to a place where the space shown in the illustration can be secured.



NOTICE:

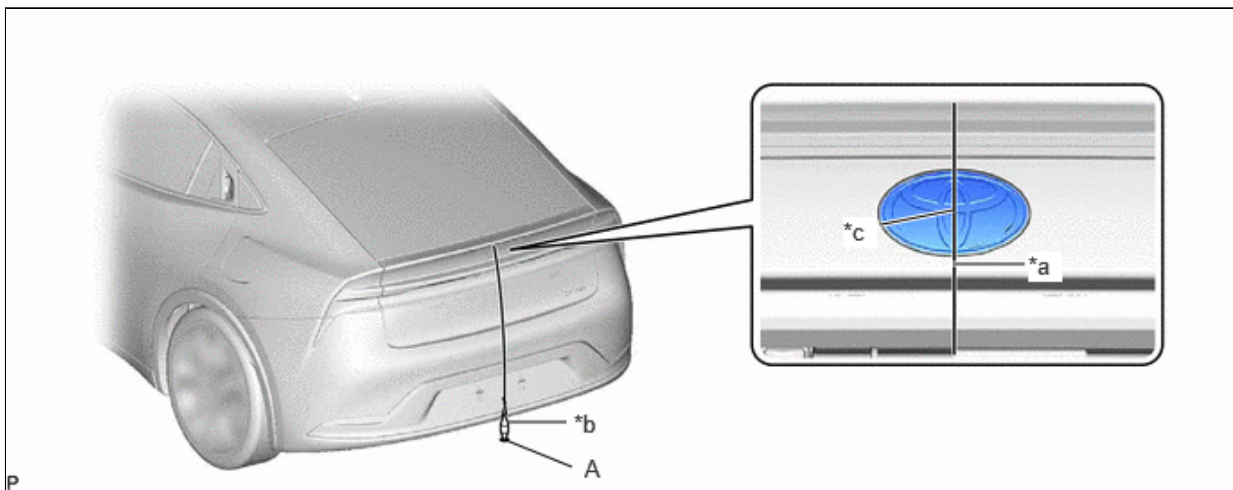
- Perform this inspection on level ground.
- Make sure that there are no metal objects around the vehicle or on the ground.
- Unload the vehicle before beginning the inspection.
- Confirm that the tire pressure is correct before beginning the inspection.

Click here [INFO](#)

- Do not place any objects other than the reflector (such as a large metallic object) in the inspection area or allow people to enter the inspection area (W 6 m [19.68 ft.] x L 6 m [19.68 ft.] x H 3 m [9.84 ft.]) shown in the illustration.

(b) Place the reflector.

- (1) Hang a weight with a pointed tip from the center of the rear emblem, and mark the rear center point of the vehicle (point A) on the ground.

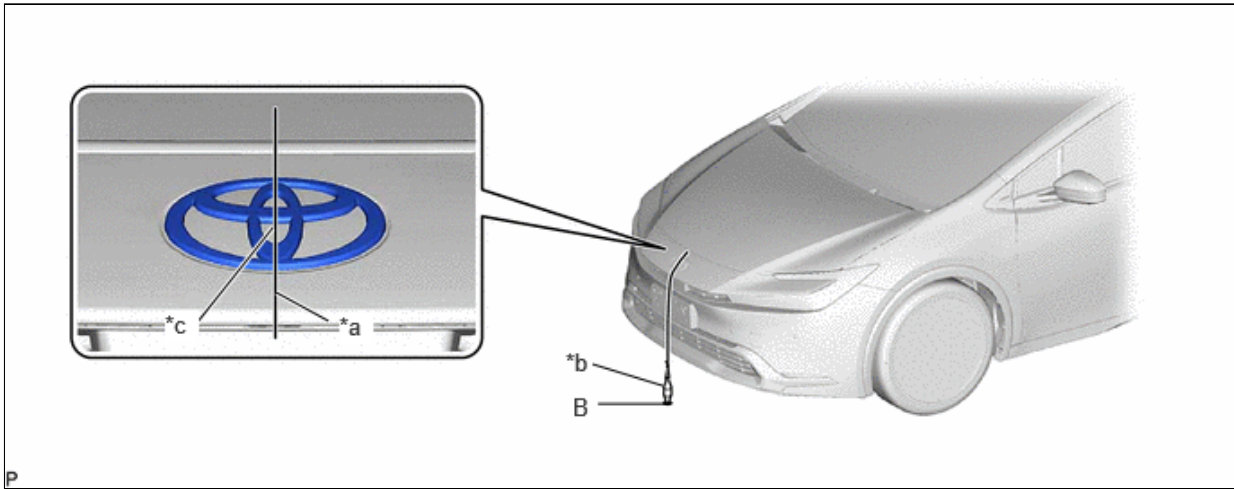


*a	String	*b	Weight
*c	Center	-	-

HINT:

Lightly flick the string with your fingers several times to confirm that the string is perpendicular to the ground.

(2) Hang a weight with a pointed tip from the center of the radiator grille (or front panel) emblem, and mark the front center point of the vehicle (point B) on the ground.



*a	String	*b	Weight
*c	Center	-	-

HINT:

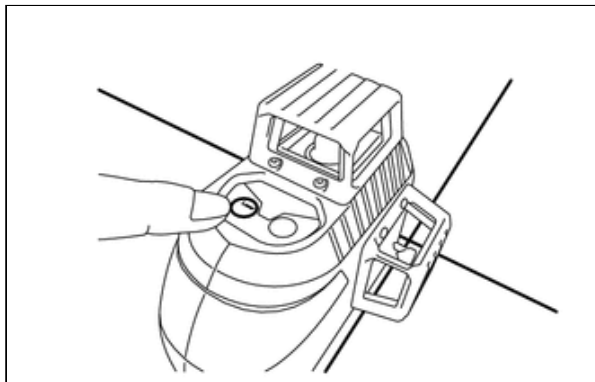
Lightly flick the string with your fingers several times to confirm that the string is perpendicular to the ground.

(3) When using a laser line marker:

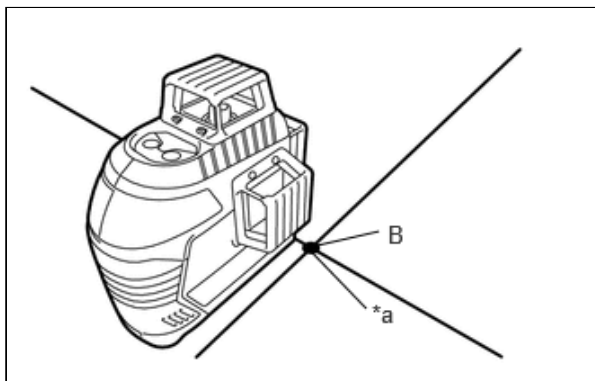
NOTICE:

Do not look directly into the laser beam.

1. Press the laser mode button on the laser line marker to activate the laser line emitters.

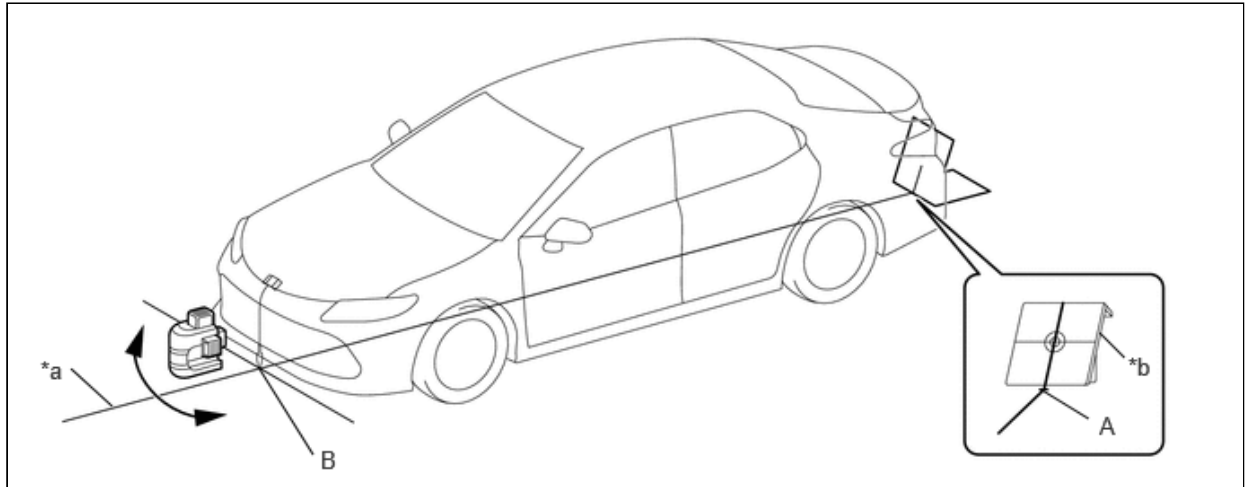


2. Align the laser beam ground marking point (cross portion) with point B.



*a	Ground Marking Point (Cross Portion)
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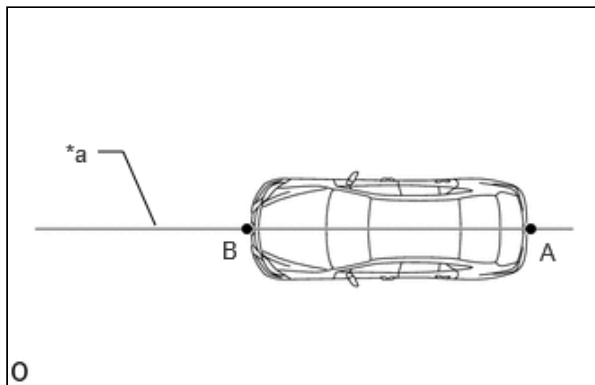
3. Align the center of the target panel with point A, and set the target panel so that it faces forward.



*a	Center Line	*b	Target Panel
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4. Adjust the position of the laser line marker so that the laser beam is aligned with the center line of the target panel.

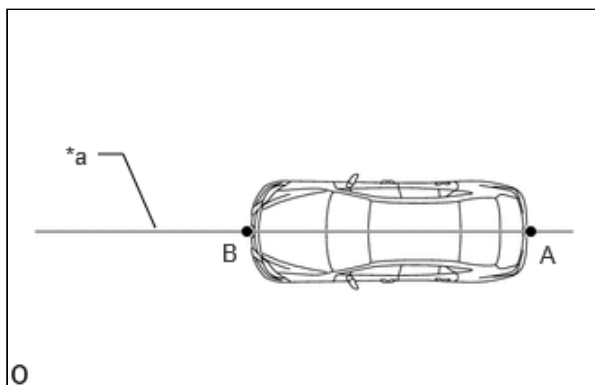
5. Using a laser marker, create a vehicle center line that connects point A and point B.



*a	Vehicle Center Line
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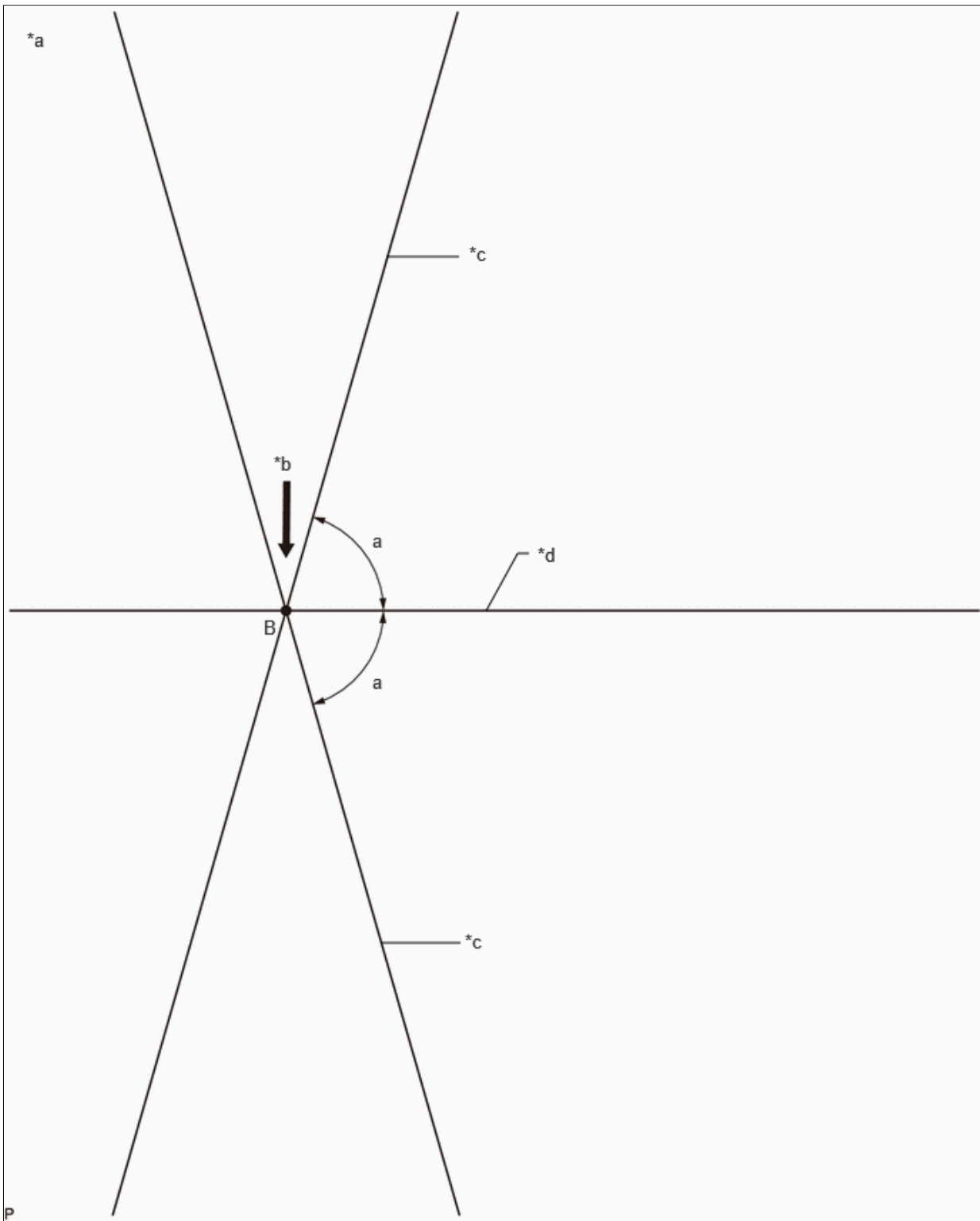
(4) When not using a laser line marker:

1. Draw a vehicle center line so that it passes through mark A and B (front and rear center points).



*a	Vehicle Center Line
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(5) Enlarge and print out the poster shown in the illustration.

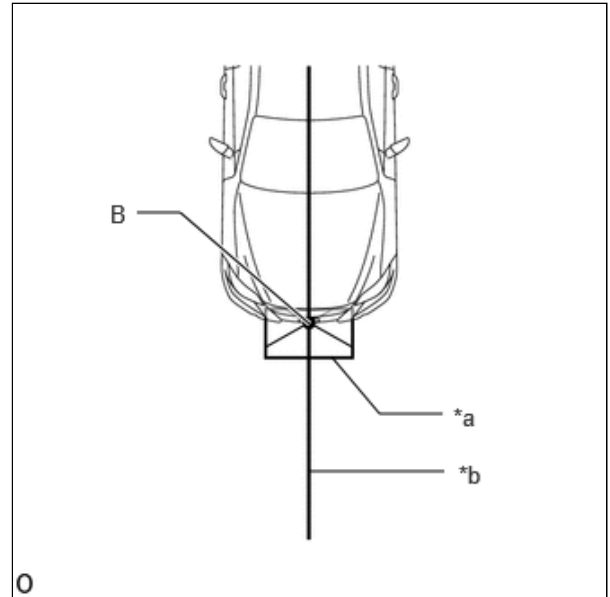


*a	Poster	*b	Edge of Front Bumper
*c	Line C	*d	Vehicle Center Line

Standard:

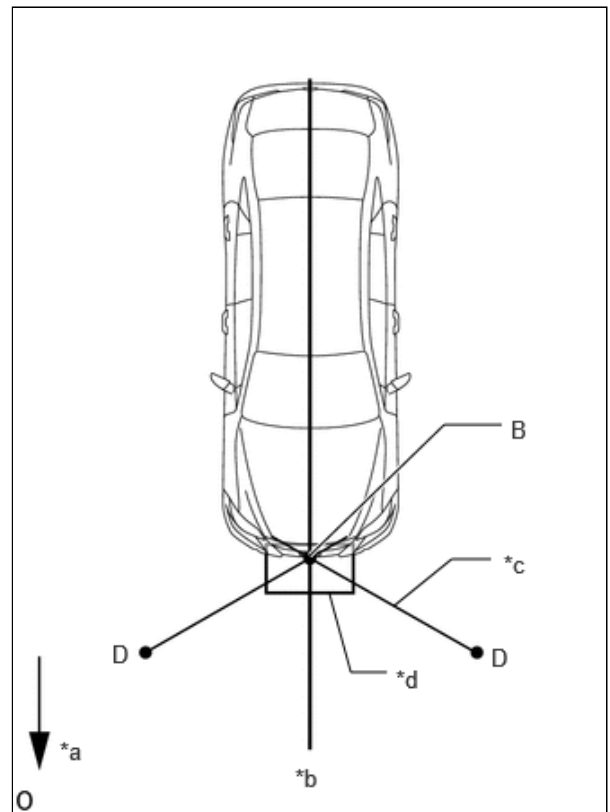
PART	ANGLE
a	74°

(6) Attach the printed poster to the floor with the vehicle center line aligned with point B as shown in the illustration.



*a	Poster
*b	Vehicle Center Line

(7) Align a piece of string with line C and mark point D at a distance of 3088 mm (10.13 ft.) from point B.



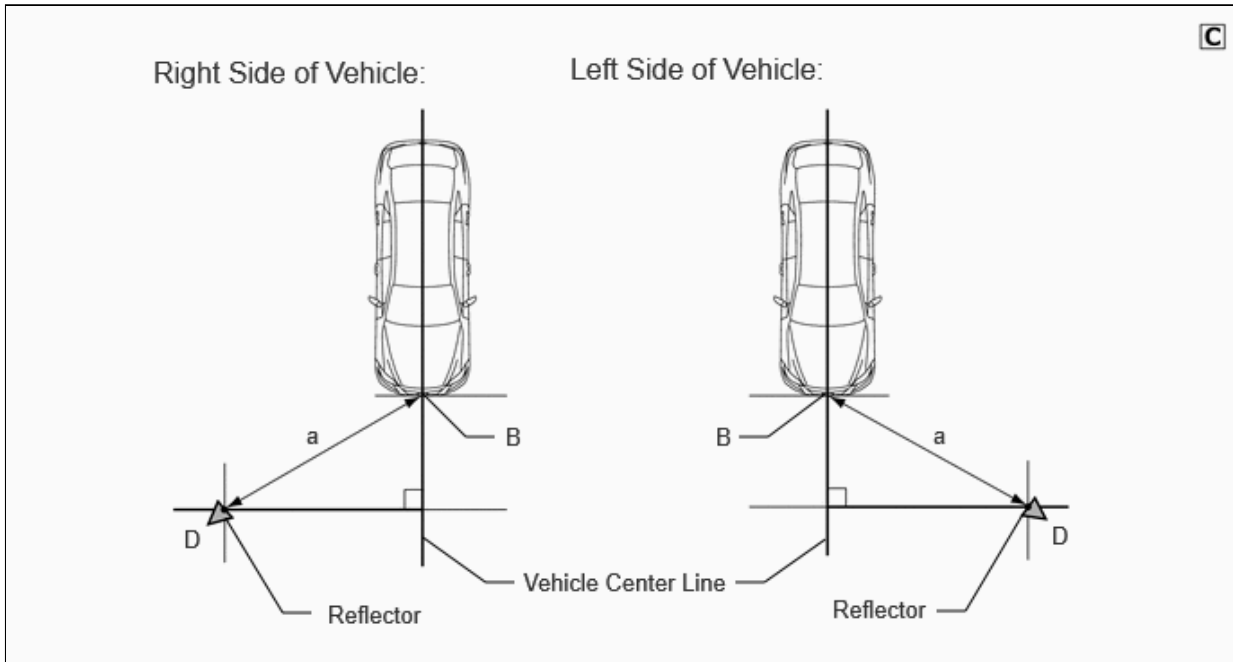
*a	Vehicle Front
*b	Vehicle Center Line
*c	String
*d	Poster

(8) Set the reflector at the point D shown in the illustration below.

SST: 09870-60000

09870-60010

SST: 09870-60040

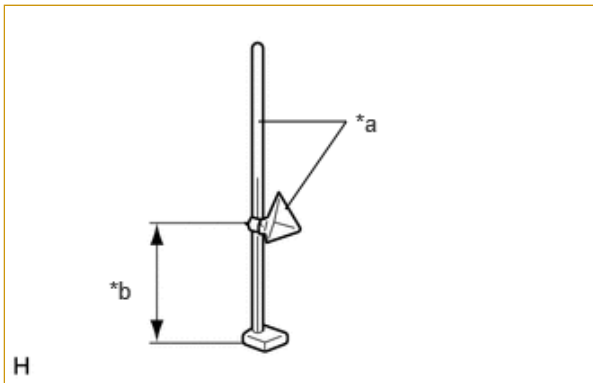


Standard:

PART	LENGTH
a	3088 mm (10.13 ft.)

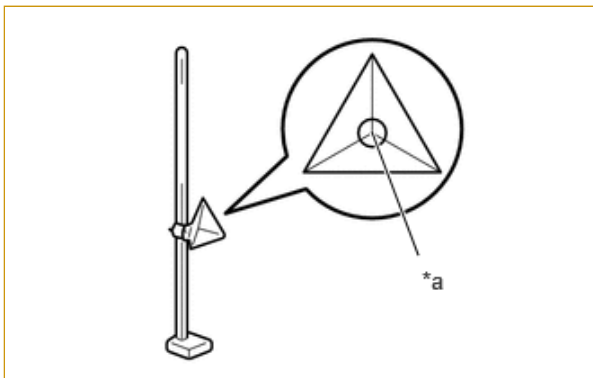
NOTICE:

- Set the reflector so that its center is 551 mm (1.81 ft.) above the ground.

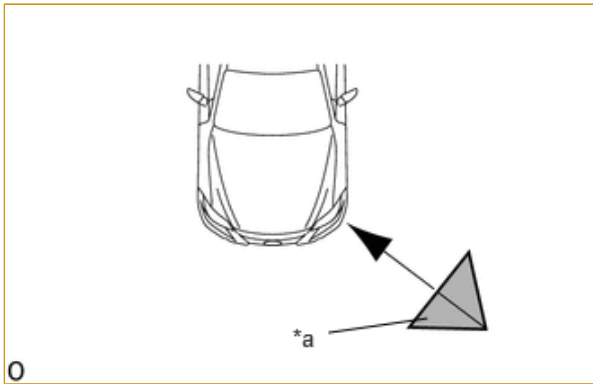


*a	SST (reflector)
*b	551 mm (1.81 ft.)

- The center of the triangular pyramid is the reference point for the setting position and angle.



*a Center of Triangular Pyramid



*a SST (reflector)

(c) Perform the front side radar beam axis display.

- (1) Turn the ignition switch off.
- (2) Connect the GTS to the DLC3.
- (3) Turn the ignition switch ON and turn the front side radar system on.
- (4) Turn the GTS on.
- (5) Enter the following menus: Body Electrical / Front Side Radar "A" or Front Side Radar "B" / Utility / Front Side Radar "A" Beam Axis Display or Front Side Radar "B" Beam Axis Display.

HINT:

The "A" is on the LH side and the "B" is on the RH side.

Body Electrical > Front Side Radar "A" > Utility

TESTER DISPLAY
Front Side Radar "A" Beam Axis Display

Body Electrical > Front Side Radar "B" > Utility

TESTER DISPLAY
Front Side Radar "B" Beam Axis Display

- (6) Confirm the conditions displayed on the screen, and then press "Next".
- (7) Perform the procedure in accordance with the instructions on the screen.
- (8) Check the results displayed for the front side radar beam axis display.

Allowable Range:

ITEM	FRONT SIDE RADAR SENSOR ("A")	FRONT SIDE RADAR SENSOR ("B")
Angle	-4.1 to +4.1°	-4.1 to +4.1°

HINT:

If the displayed results are outside the permissible range, the following are possible causes. Therefore, implement countermeasures, check the front side radar beam axis and perform the procedure again.

POSSIBLE CAUSES	COUNTERMEASURE
Incorrect SST (reflector) position	Check the position of SST (reflector) and checking space and perform the procedure again

POSSIBLE CAUSES	COUNTERMEASURE
A metallic object is located in the vicinity of the checking space	Check the position of SST (reflector) and checking space and perform the procedure again
The front side radar sensor installation is abnormal	Check the installation condition of the front side radar sensor Click here INFO

(9) Enter the following menus: Body Electrical / Front Side Radar "A" or Front Side Radar "B" / Utility / Front Side Radar "A" Beam Axis Adjustment or Front Side Radar "B" Beam Axis Adjustment.

HINT:

The "A" is on the LH side and the "B" is on the RH side.

Body Electrical > Front Side Radar "A" > Utility

TESTER DISPLAY
Front Side Radar "A" Beam Axis Adjustment

Body Electrical > Front Side Radar "B" > Utility

TESTER DISPLAY
Front Side Radar "B" Beam Axis Adjustment

(10) Confirm the conditions displayed on the screen, and then press "Next".

(11) In accordance with the screen, perform Front Side Radar "A" Beam Axis Adjustment' or Front Side Radar "B" Beam Axis Adjustment'.

HINT:

- If the result of the front side radar beam axis display is within the specified range, then this adjustment has corrected the value to normal.
- "Reflector Reflection Power" is displayed after completing the front side radar beam axis adjustment, but is unnecessary if body repairs have not been performed at the radio wave transmission area of the front bumper cover.

(d) After the beam axis adjustment is completed, check the "Radio Wave Irradiation Condition" of the millimeter wave radar sensor assembly.

HINT:

When performing the beam axis alignment, temporarily disable operation of the millimeter wave radar sensor assembly to prevent exposure to radio waves from the millimeter wave radar sensor assembly. For this reason, it is necessary to check that the millimeter wave radar sensor assembly is operational after completing beam axis alignment.

(1) Enter the following menus: Body Electrical / Front Radar Sensor / Data List / Radio Wave Irradiation Condition.

Body Electrical > Front Radar Sensor > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Radio Wave Irradiation Condition	Status of radio wave irradiation	Under Radio Wave Irradiation or Under Radio Wave Stopping	Under Radio Wave Irradiation: Radio wave irradiation status displayed Under Radio Wave Stopping: Radio wave irradiation stopped status displayed	-

Body Electrical > Front Radar Sensor > Data List

TESTER DISPLAY
Radio Wave Irradiation Condition

Standard:

The value of the Data List item is displayed as "Under Radio Wave Irradiation".

(2) When the value is "Under Radio Wave Stopping":

1. Enter the following menus: Body Electrical / Front Radar Sensor / Utility / Radio Wave Irradiation Stop Mode Cancellation.

Body Electrical > Front Radar Sensor > Utility

TESTER DISPLAY
Radio Wave Irradiation Stop Mode Cancellation

(e) After beam axis adjustment completes, clear the following system vehicle control history entries.

(1) Clear vehicle control history (Front Side Radar Sensor System).

Click here [INFO](#)

(2) Clear vehicle control history (Front Camera System).

Click here [INFO](#)

