8205U–01

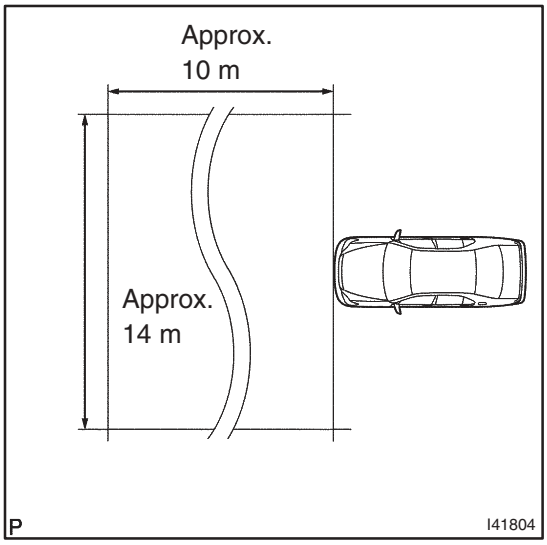
ADJUSTMENT

CAUTION:

- **Exposure to radio frequency emissons is hazardous to your health.**
- **It is hazardous to your health to be within 20 cm (7.9 in.) of the device's radio frequency aperture.**

NOTICE:

This device complies with the Federal Communications Commissio's radio frequency emission regulations.



1. ADJUST MILLIMETER WAVE RADAR SENSOR ASSY

NOTICE:

- **Perform measurements on a level surface.**
- **Make sure that no large pieces of metal are within a 10 m (32.81 ft) × 14 m (45.93 ft) area in front of the vehicle. If possible, the surrounding area should also be free of large metal objects.**

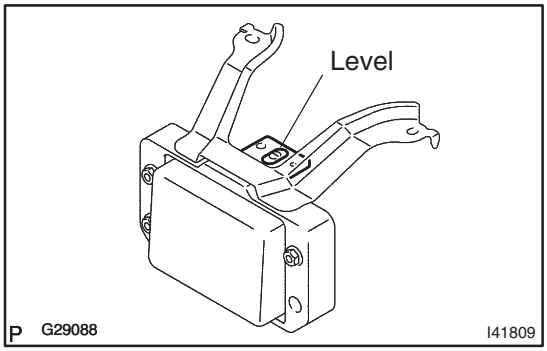
(a) Before adjusting the radar beam axis, prepare the vehicle as follows.

(1) Check the tire pressure and adjust it if necessary (see Pub. No. RM1049E, page 28–1).

(2) Remove all excess weight from the vehicle (luggage, heavy objects, etc.).

(b) w/ Air suspension:

Adjust the vehicle's height to the standard height (see Pub. No. RM1049E, page 28–1).



(c) Check and adjust the vertical direction of the radar sensor.

(1) Remove oil and foreign matter from the radar sensor's level rack.

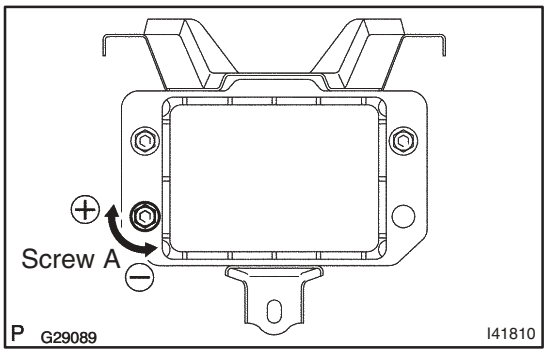
(2) Set a level on the radar sensor's level rack.

(3) Check that the level's air bubble is within the red frame.

OK: Level's air bubble is within red frame.

If the bubble is not within the red frame, proceed to step (4).

If the bubble is within the red frame, proceed to step (d).



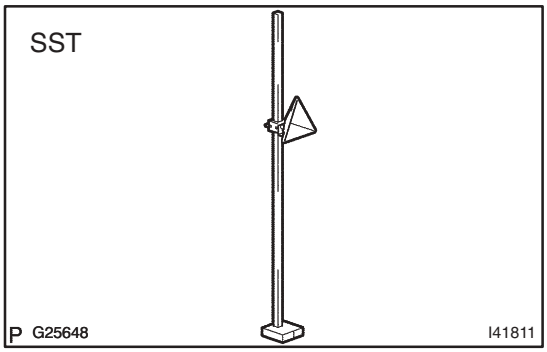
(4) Using a hexagon wrench, adjust screw A until the level's air bubble is within the red frame.

HINT:

The adjustable range within the red frame is ±0.2°

Adjustment procedure:

Adjustment Direction	Adjustment Procedure	Adjustment Angle
Vertical adjustment	• Upward direction: Turn screw A to the positive (+) side. • Downward direction: Turn screw A to the negative (–) side.	Approx. 0.67° per turn



(d) Adjust the reflector's height.

(1) Adjust the reflector so that the center of the SST reflector is the same height as the radar sensor.

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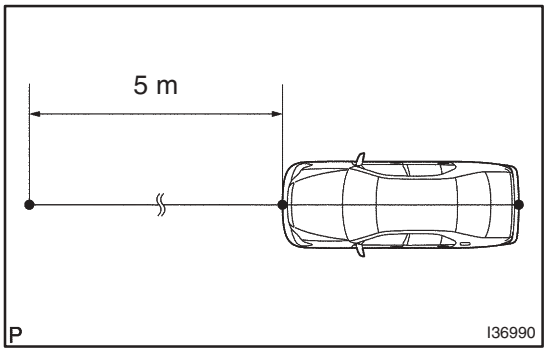


(e) Position the reflector.

HINT:

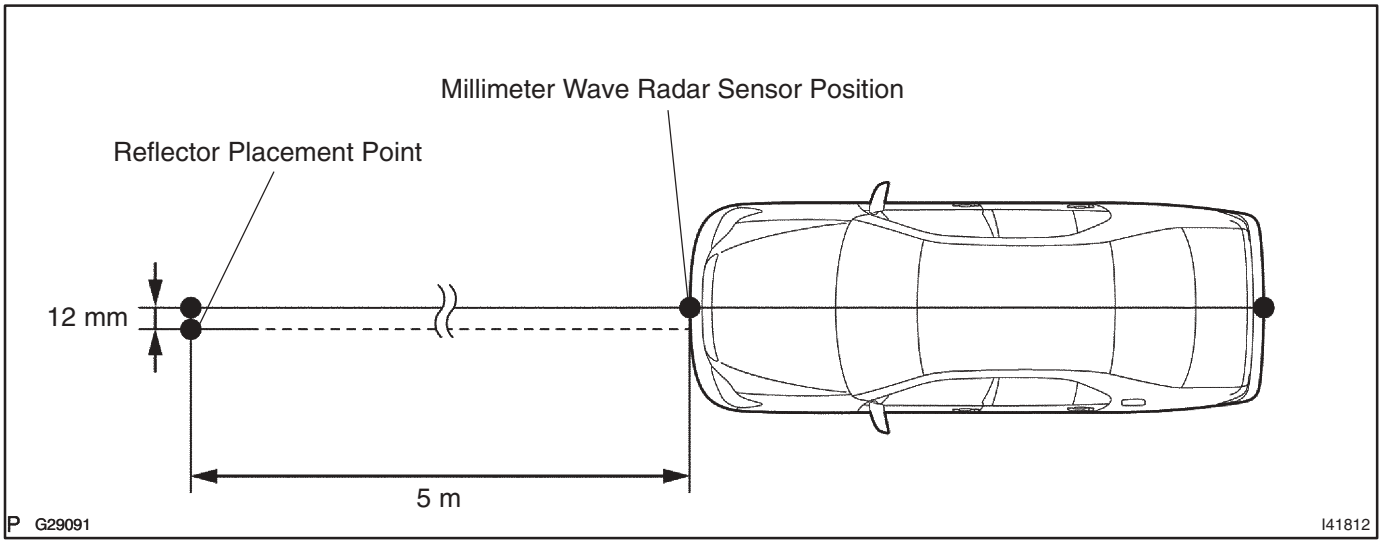
Prepare a 10 m (32.81 ft) string, a string with a sharp–pointed weight (plumb bob), and a 5 m (16.41 ft) tape measure.

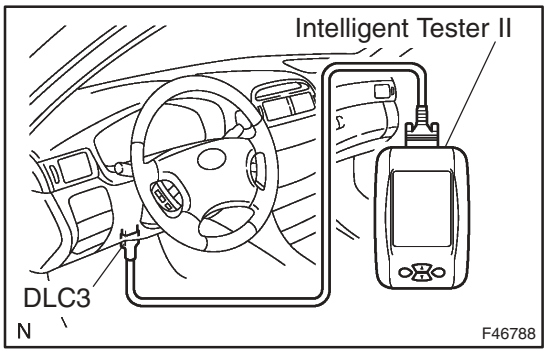
(1) Hang the string (with plumb bob) from the center of the vehicle rear's emblem. Mark the vehicle rear's center point on the ground. Repeat for the front of the vehicle.

(2) Set one end of the 10 m (32.81 ft)string on the vehicle rear's center point. Run the string over the vehicle front's center point to a position 5 m (16.41 ft) beyond the vehicle front's center point, as shown in the illustration. Mark the 5 m (16.41 ft) position.

(3) Measure 12 mm (0.47 in.) to the left of the 5 m (16.41 ft) position. Place the reflector at that position.

NOTICE:
Perform the operation as precisely as possible.

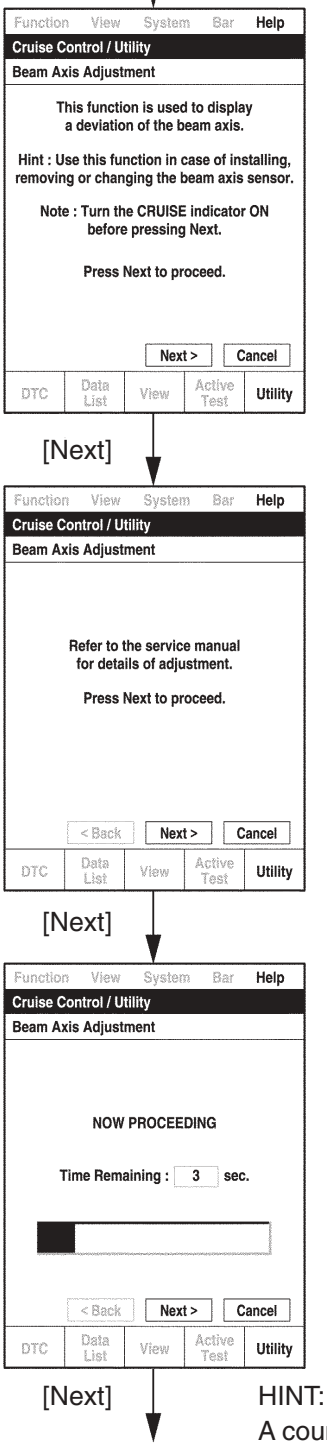




(f) Adjust the radar beam axis.
(1) Connect the intelligent tester II to the DLC3.
(2) Turn the ignition switch ON and turn the intelligent tester II ON.
(3) Enter the following menus: Enter / Body / Cruise Control / Utility.

Tester Menu Flow

From Tester Menu



HINT:
A countdown from 10 to 0 seconds will occur.

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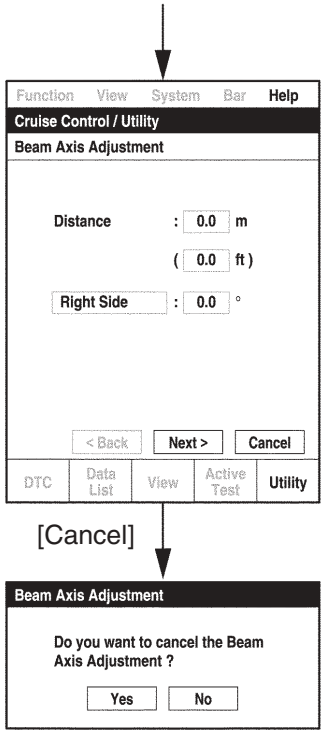
Confirm that the current distance (reference value) is approximately 5 m (16.41 ft).

HINT:
If the distance is 0 m (0 ft), the sensor cannot detect the target. Reconfirm that there is no metal in the specified area in front of the vehicle (see step (1)).



[Cancel]

While using the intelligent tester II's beam axis adjustment mode, the actual direction and angle of the radar sensor may be different from the intelligent tester II's data. In such a case, the deviation is displayed on the combination meter's multi–information display.

Distance:
A value between 0.0 and 6.3 is indicated. Adjust the radar beam axis so that the value is between 4.0 and 6.0.

Right Side (Left Side):
A value between 0.0 and 6.3 is indicated.

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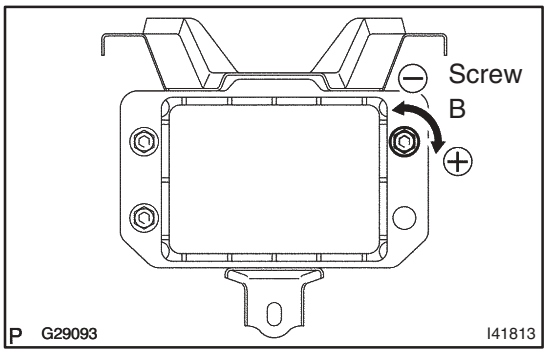


(g) Check and adjust the horizontal direction of the radar sensor.

(1) Check that the divergence of the radar beam axis is 0°.

Standard: 0° (Both right and left)

If the axis is not as specified, proceed to step (2).

If the axis is as specified, proceed to step (h).

(2) Using a hexagon wrench, adjust screw B until the divergence of the radar beam axis is 0°.

HINT:

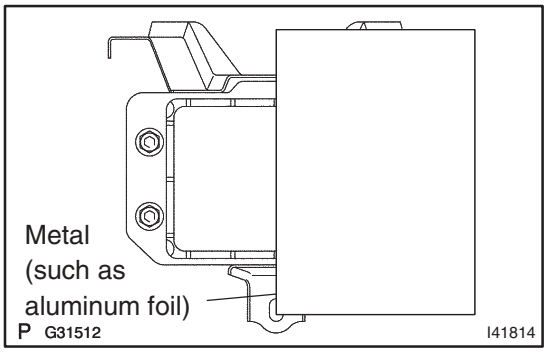
If "Left Side: 0.6°" is displayed, the divergence is 0.6° to the left. Turn the screw approximately 3 times to the positive (+) side.

Adjustment procedure:

Adjustment Direction	Adjustment Procedure	Adjustment Angle
Horizontal adjustment	• Right direction: Turn screw B to the positive (+) side • Left direction: Turn screw B to the negative (–) side	Approx. 0.21° per turn

HINT:

If the value does not change to 0°, it is possible that the sensor is not aiming at the reflector. Reconfirm that there are no reflective materials in the surroundings.



(h) Reset the radar sensor's driving learning values.

(1) Prepare a type of metal that can block radio waves, such as aluminum foil. Cover the radar sensor's right half with the metal for 10 seconds.

NOTICE:

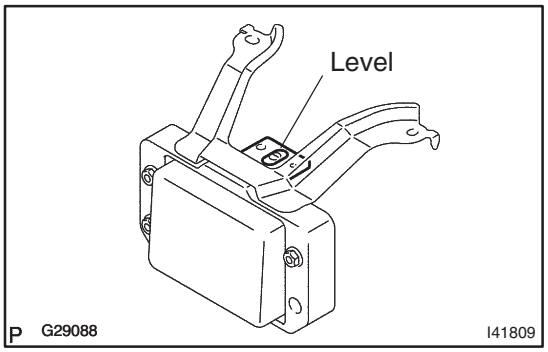
Be sure to keep the reflector in place. Make sure that there is nothing between the sensor's left half and the reflector.

HINT:

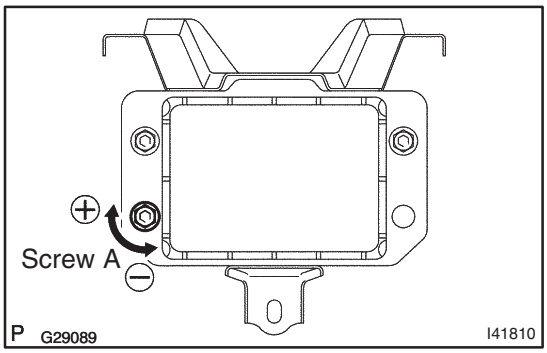
When the reset is complete, the buzzer will sound for 10 seconds.

(2) Disconnect the intelligent tester II from the DLC3.

(i) Recheck and readjust the vertical direction of the radar sensor.



(1) Set a level on the radar sensor's level rack.



(2) Check that the level's air bubble is within the red frame.

OK: Level's air bubble is within red frame.

If the bubble is not within the red frame, proceed to step (3).

(3) Using a hexagon wrench, adjust screw A until the level's air bubble is within the red frame.

HINT:

The adjustable range within the red frame is $\pm 0.2°$.

Adjustment procedure:

Adjustment Direction	Adjustment Procedure	Adjustment Angle
Vertical adjustment	• Upward direction: Turn screw A to the positive (+) side • Downward direction: Turn screw A to the negative (–) side	Approx. 0.67° per turn