

BLIND SPOT MONITORING (BSM) RADAR TEST

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Note

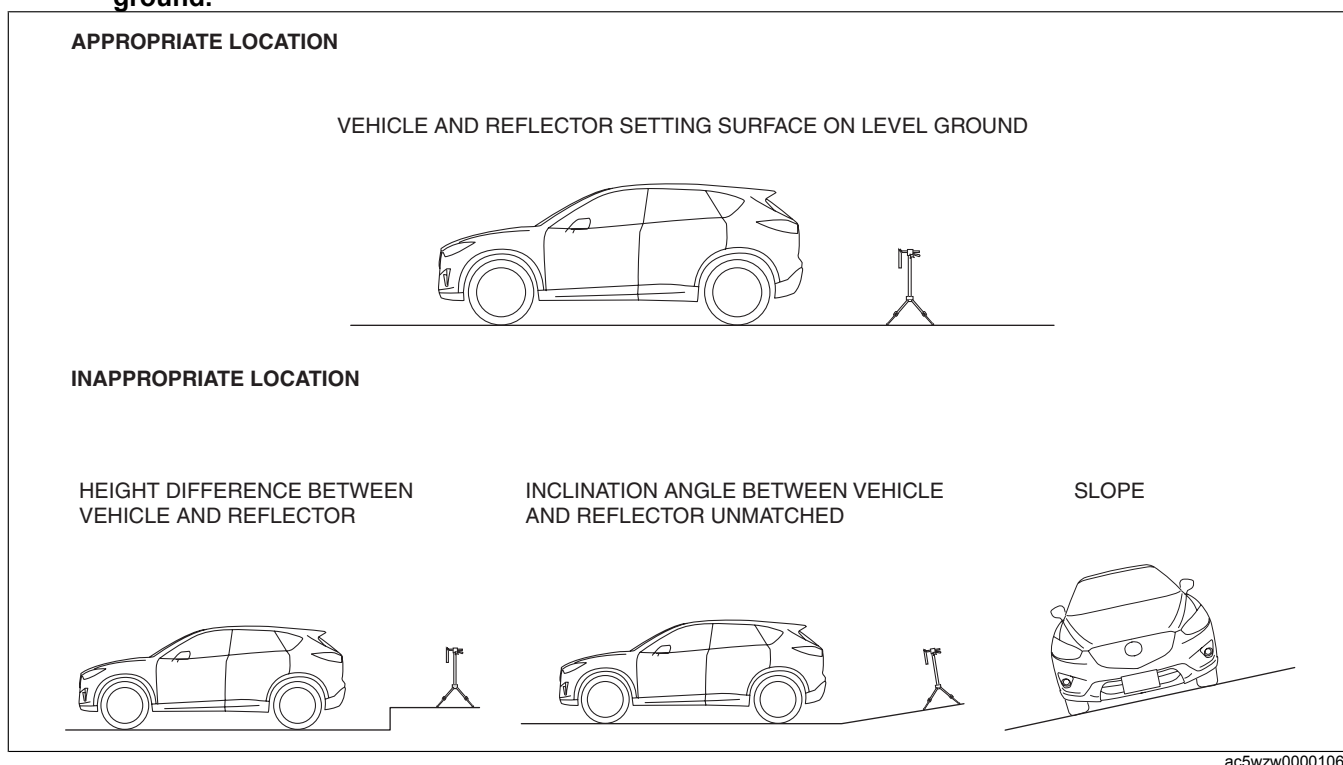
- The BSM radar test stores the radar angles in the BSM control module based on the forced emission of radar at a SST (reflector) and performing aiming based on the induced tolerance with the radar as it is currently installed and reflected from the SST (reflector).
- Perform the BSM radar test when replacing the BSM control module, BSM bracket, or the rear bumper.
- As there are two BSM control modules, one each on the left and right, radar aiming is performed for each side.
- The BSM radar test cannot be performed correctly if obstructions which interfere with radar emission are stuck on the BSM control modules or the rear bumper. Perform the following procedure before performing the radar test.
 - Verify that there is no water, mud, soiling, sticker adhesion, or repairs done using putty application on the surface of the rear bumper, and that there is no mud, soiling or scratches on the BSM control modules.

Radar test procedure

1. Empty the vehicle by having all occupants leave the vehicle and remove all the cargo except for the spare tire, jack and tools equipped on the vehicle.
2. Adjust the air pressure of each tire to the specified value. (See WHEEL AND TIRE SPECIFICATION.)
3. Move the vehicle to level ground.

Caution

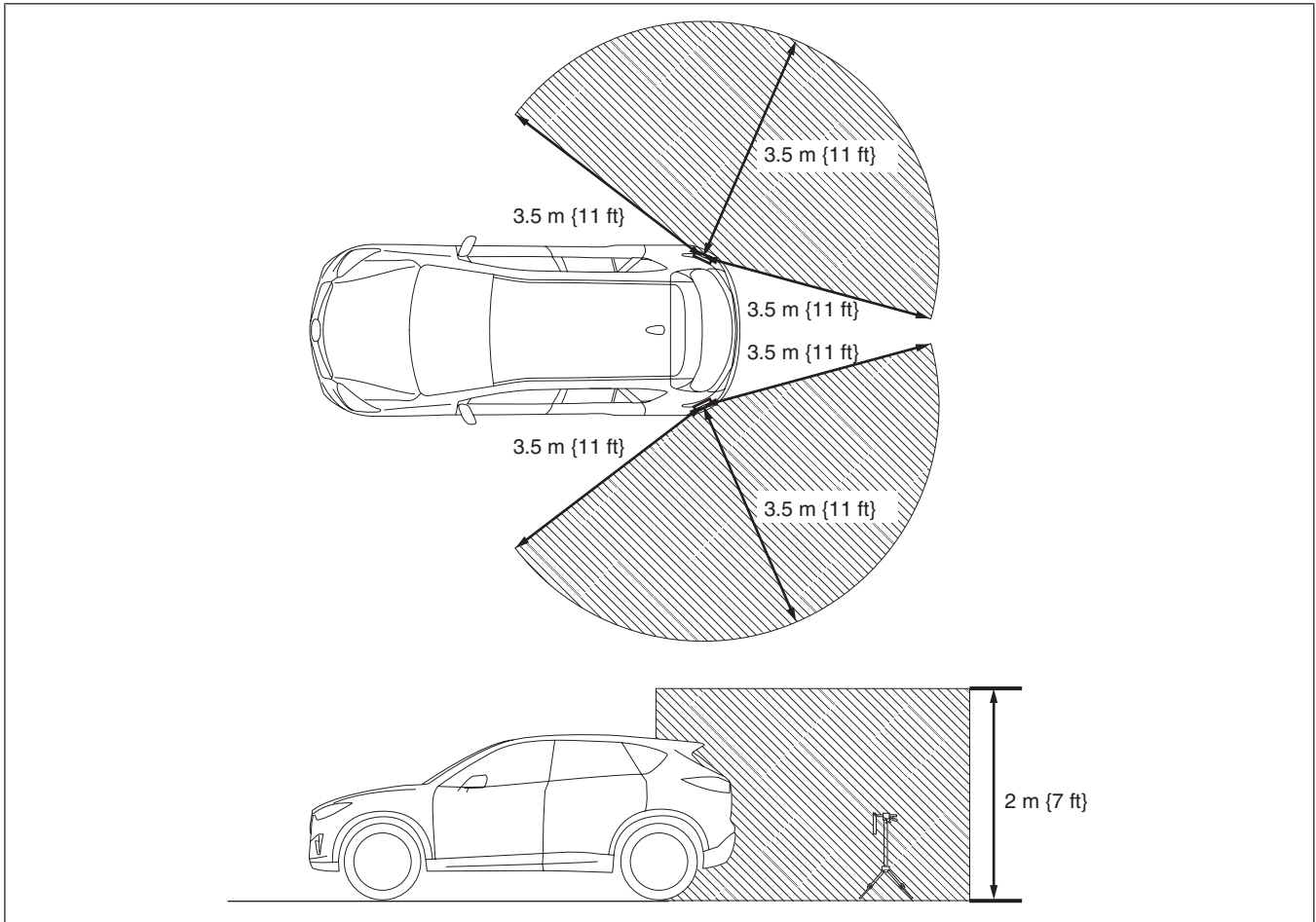
- If the setting surface height and angle between the vehicle and the SST (reflector) differs, a correct radar test cannot be done. Perform the radar test with the vehicle and SST (reflector) set on level ground.



4. Verify that there are no obstructions which interfere with radar emissions such as metal objects in the radar emission area shown in the figure.

Caution

- If the radar test is performed in the shaded area shown in the figure with obstructions such as covered drain gutters in the floor or other metal reflective objects, it could result in the radar test not being performed correctly. Move all obstructions out of the area, and when performing the radar test, do not have personnel standing in the area.



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5. Using the M-MDS, perform a DTC inspection of the BSM control modules and verify that no DTCs are displayed. (See DTC INSPECTION [BLIND SPOT MONITORING (BSM)].)

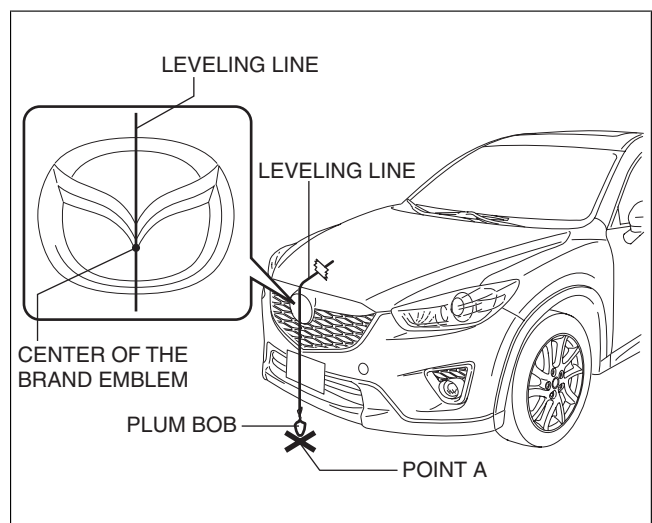
Note

- If any DTCs are displayed, perform malfunction repair referring to the applicable DTC troubleshooting. (See DTC TABLE [BLIND SPOT MONITORING (BSM)].)

6. Adjust the SST (plum-bob) so that it is aligned with the center of the brand emblem, determine the center position at the front of the vehicle, and mark the center position (point A) on the floor surface.

Note

- The center of the brand emblem indicates the center position of the vehicle.

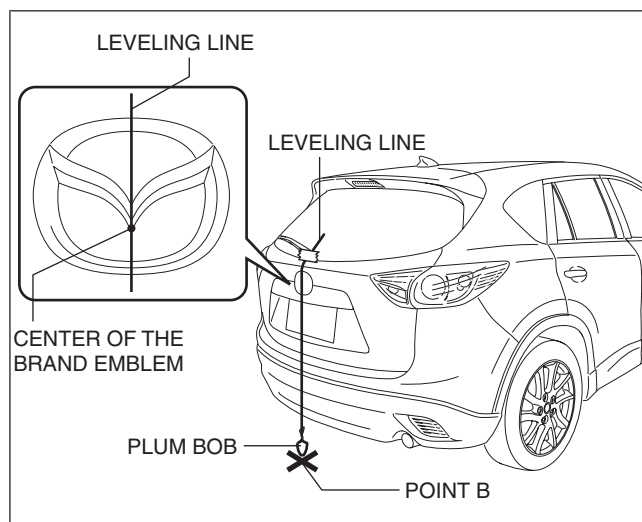


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7. Adjust the SST (plum-bob) so that it is aligned with the center of the brand emblem, determine the center position at the rear of the vehicle, and mark the center position (point B) on the floor surface.

Note

- The center of the brand emblem indicates the center position of the vehicle.

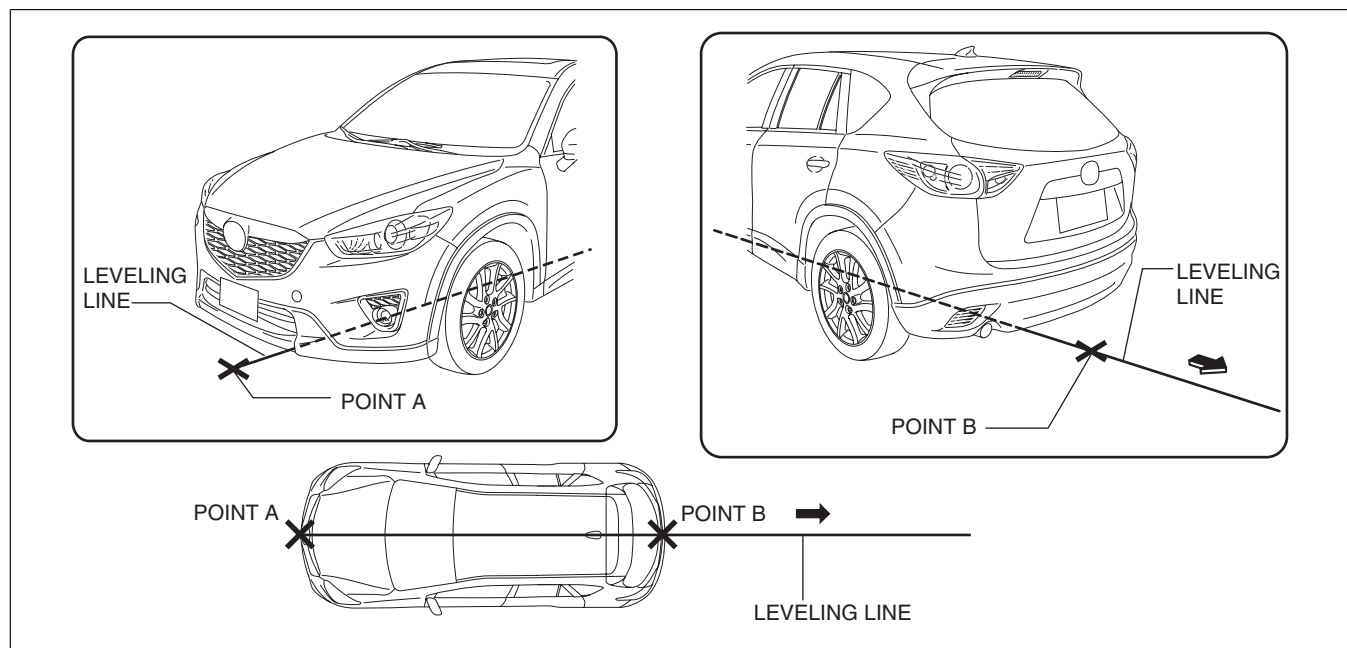


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8. Secure the end of the leveling line over point A.

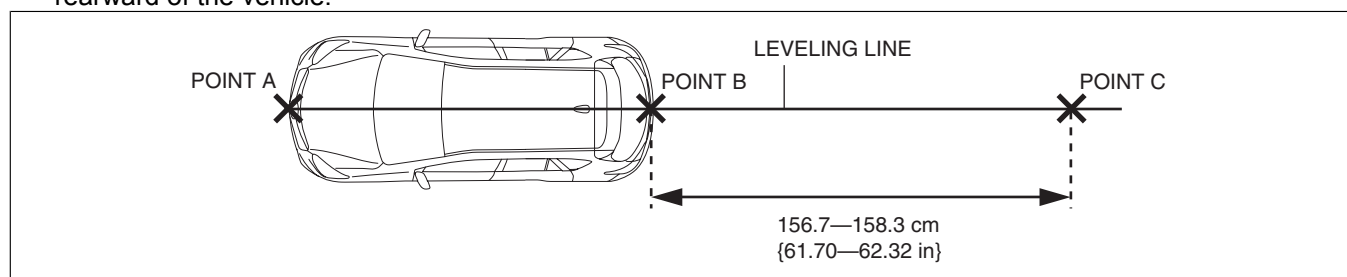
Note

- Use a commercially-available leveling line.



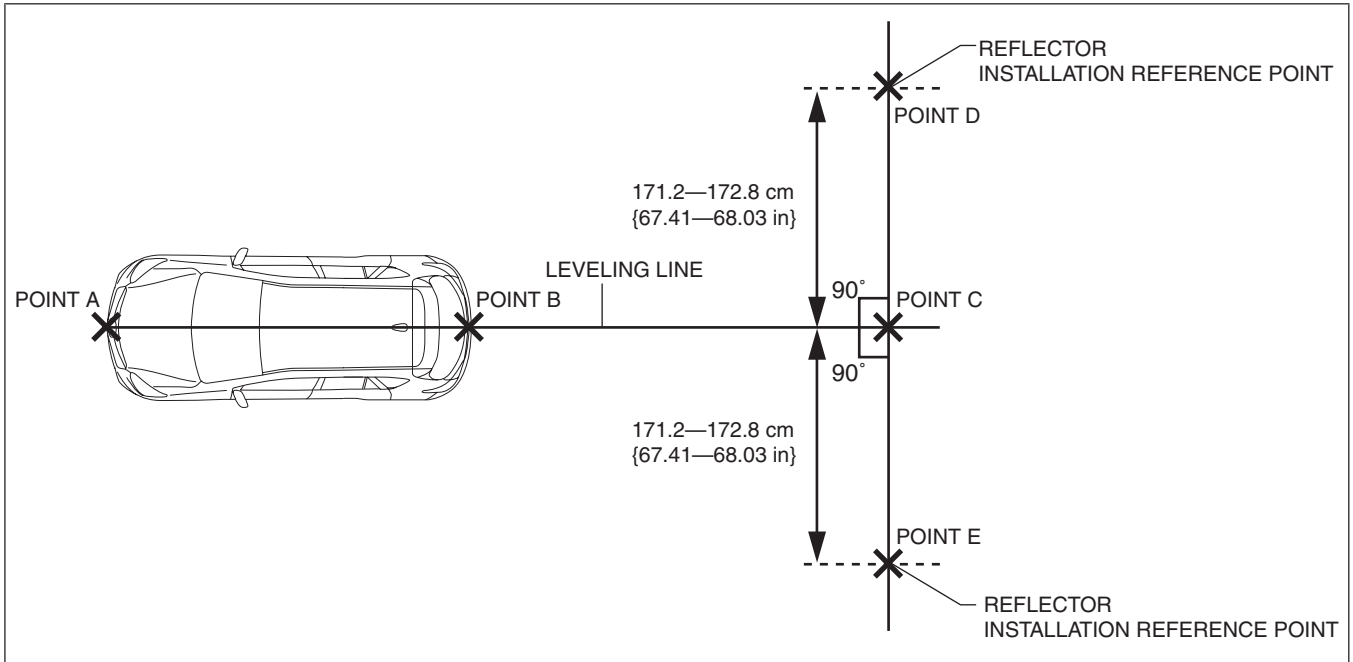
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9. Pull the unsecured end of the leveling line over the vehicle and to the rear and adjust it so that it passes over point B.
10. Mark the line (position C) within the range of **156.7—158.3 cm {61.70—62.32 in}** from point B and in the direction rearward of the vehicle.



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11. Mark the points (points D and E) (SST (reflector) installation reference points) **171.2—172.8 cm {67.41—68.03 in}** from point C on the line which runs perpendicular to the vehicle center line (SST (reflector) installation reference point).

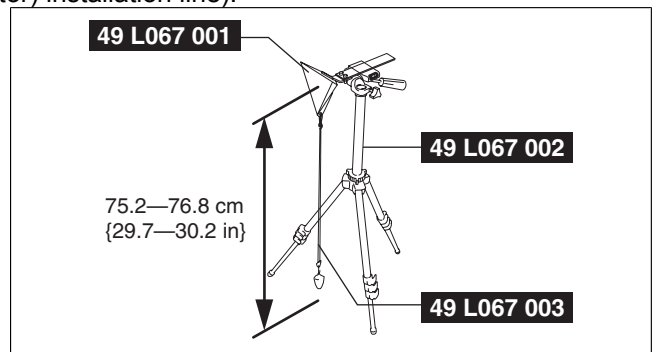


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12. Pull the connected points D, C and E lines (SST (reflector) installation line).

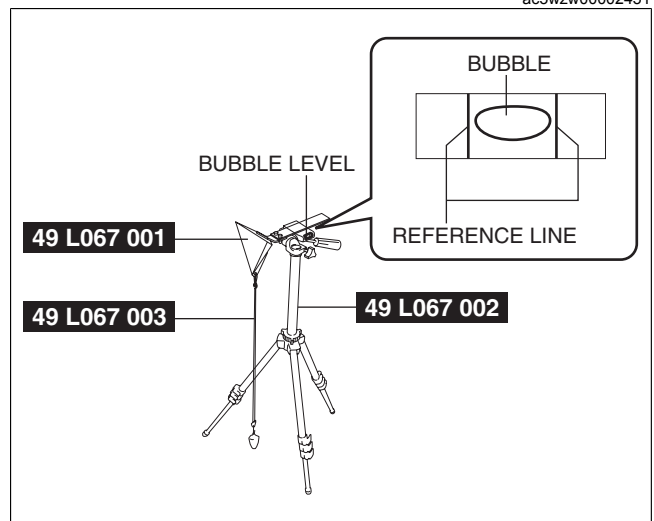
13. Install the SST (reflector and plum bob) to the SST (tripod).

14. Adjust so that the height of the SST (reflector) from the floor surface is **75.2—76.8 cm {29.7—30.2 in}**.



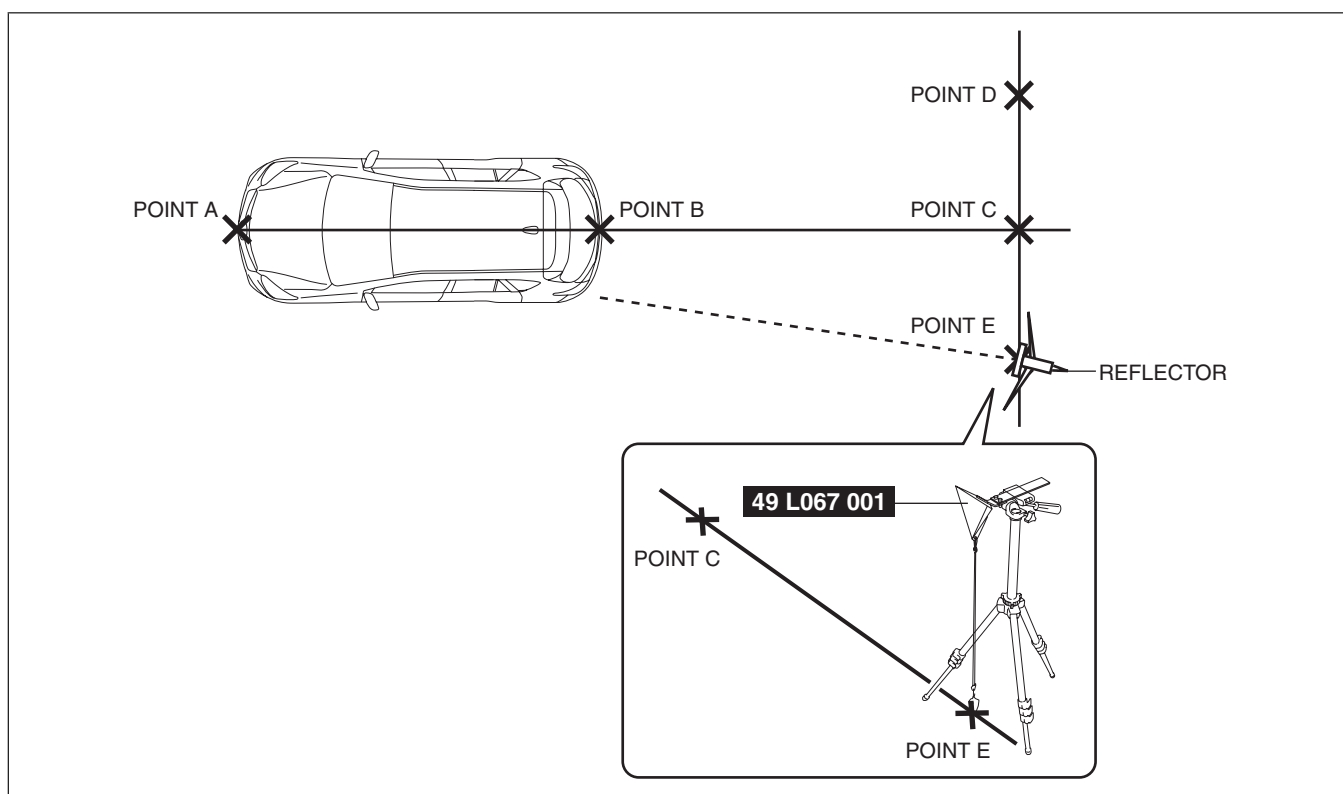
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15. Level the SST (reflector) by adjusting the leveling bubble on the SST (tripod) so that it is centered on the bubble reference line.



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16. Align point D or point E with the end of the SST (plum bomb).



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17. Adjust the reflecting surface of the SST (reflector) so that it faces the radar emission surface (near a rear bumper corner) of BSM control module.
18. Perform the radar test using the M-MDS.
19. Connect the M-MDS to the DLC-2.
20. After vehicle identification, the following can be selected from the M-MDS initialization screen.
 1. "Electrical"
 2. "BSM Radar Test"
21. Select either the left or right rear BSM control module and perform the radar test according to the instructions on the M-MDS screen.
22. Verify the M-MDS display.
 - If "TEST PASSED" is displayed
 - Radar test is completed
 - If "TEST FAILED" is displayed
 - Perform an inspection according to the following table.

Step	Inspection	Action	
1	VERIFY REFLECTOR POSITION • Verify if the reflector installation position is correct. • Is the reflector set in the correct position?	Yes	Go to the next step.
		No	Set the reflector in the correct position and perform the BSM radar test.
2	INSPECT REAR BUMPER • Remove the rear bumper. (See REAR BUMPER REMOVAL/INSTALLATION.) • Perform the BSM radar test. • Is "Procedure completed correctly." displayed?	Yes	Replace the rear bumper and perform the BSM radar test. (See REAR BUMPER REMOVAL/INSTALLATION.)
		No	Go to the next step.
3	VERIFY IF BSM CONTROL MODULE OR BSM BRACKET IS MIS-INSTALLED AND IF THERE IS DISTORTION TO VEHICLE INSTALLATION SURFACE • Verify whether a BSM control module or BSM bracket has been mis-installed, and if there is distortion to the vehicle installation surface. • Is there poor installation or distortion?	Yes	Repair or replace the malfunctioning part and perform the BSM radar test.
		No	Go to the next step.
4	RE-PERFORM THE BSM RADAR TEST • Perform the BSM radar test. • Repeat the M-MDS operation for the BSM radar test 2 or 3 times (Steps 22 to 23). • Is "Procedure completed correctly." displayed?	Yes	BSM radar test is completed.
		No	Replace the BSM control module.