ADJUSTMENT

CAUTION:

- **Do not stare at the luminous portion of the laser during adjustment. The intensity of the laser light is low, but it may result in vision loss.**
- **If the operation is not carried out as specified, there may be a risk of exposure to hazardous radiation.**

HINT:

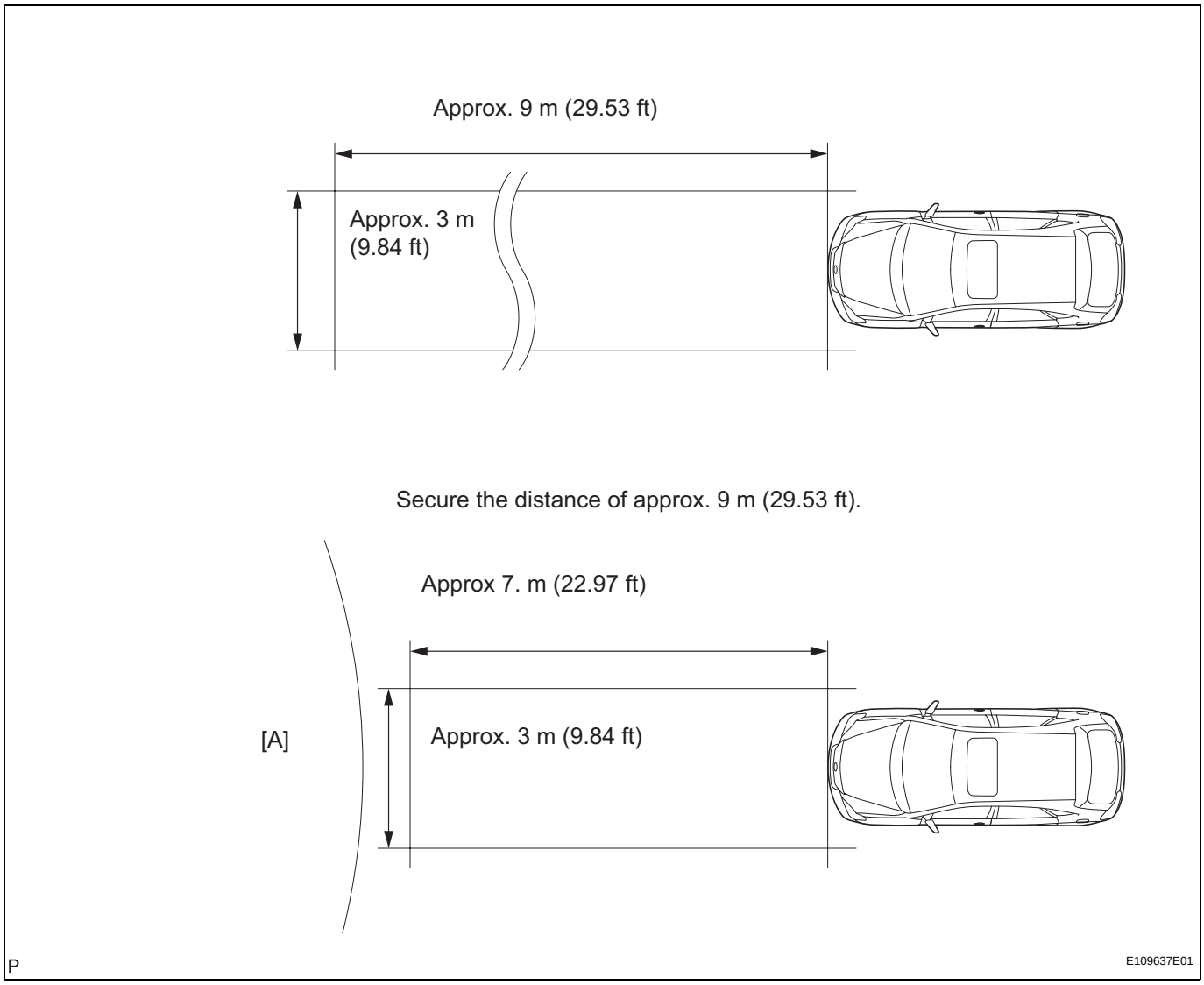
- There is a limitation on laser beam axis adjustment.
- Since the laser sensor is installed in the bumper reinforcement, it is important that the laser sensor, bumper reinforcement, and other related parts are installed properly.
- When the sensor is removed from the vehicle for trouble diagnosis or repair, it is necessary to adjust the laser beam axis after the operation.

1. ADJUST LASER SENSOR

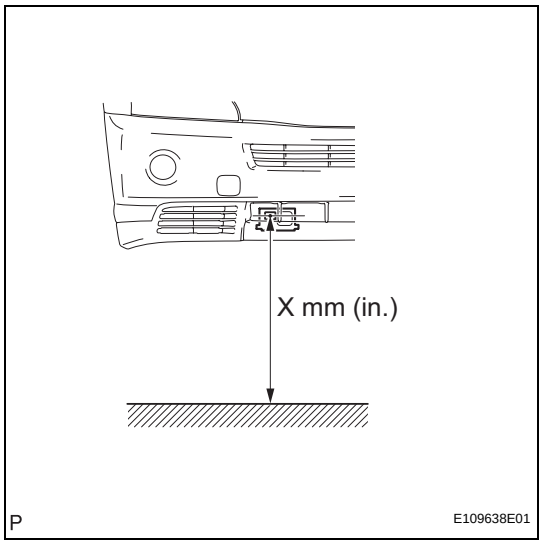
NOTICE:

- **Perform measurement indoors on a vehicle at least 9 m (29.53 ft) from the wall. When performing adjustment outdoors, make sure that it is not raining or snowing.**
- **Check that there are no reflective materials on the ground surface or in the surrounding area.**

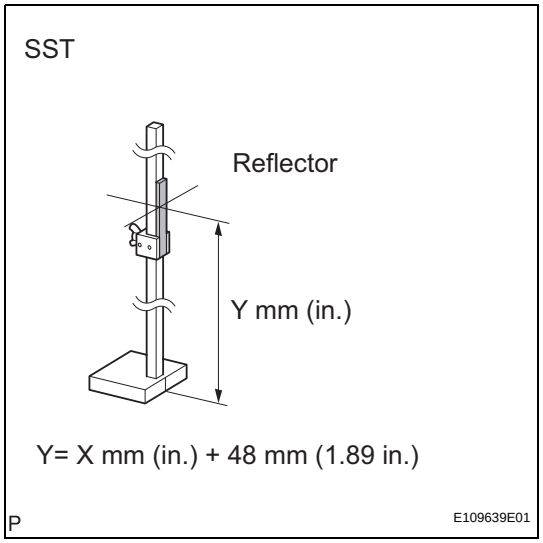
- **If it is impossible to secure a distance of approximately 9 m (29.53 ft) in front of the vehicle, be sure to secure at least 7 m (22.97 ft) from the vehicle, and cover the area marked [A] with a black cloth. If not covered with a black cloth, the laser sensor may detect something other than the target and adjustment cannot be done properly.**



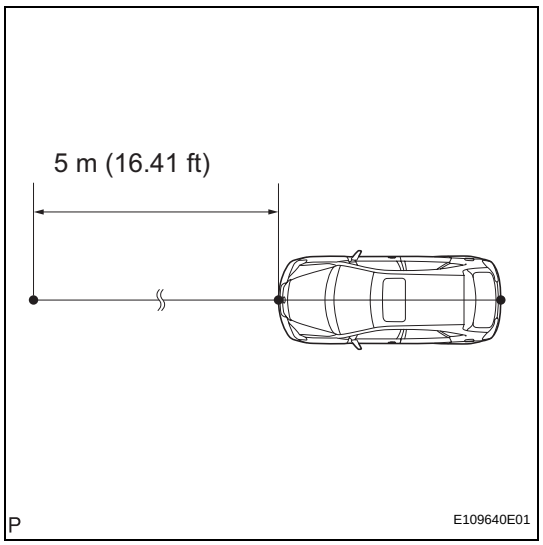
(a) Preparation for adjusting the laser beam axis
  (1) Adjust the tire pressure properly.
  (See page TW-1)
  (2) Unload any excess items from the vehicle such as from the trunk.
  (3) Clean the light-luminous and light-receiving portions of the laser sensor.
  (4) Prepare a 10 m (32.81 ft) string, a string with a sharp-pointed weight (plumb bob), and a 5 m (16.41 ft) tape measure.



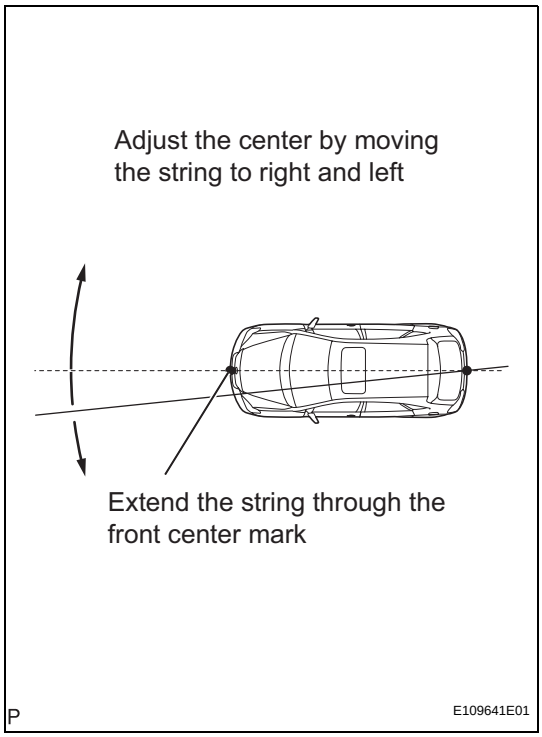
(b) Reflector (SST) placement
(1) Measure the height from the ground to the center of the laser luminous portion.



(2) Adjust the center height of the reflector 48 mm (1.89 in.) higher than the center of the luminous portion.
SST 09870-60000 (09870-60010, 09870-60020)
NOTICE:
Adjust the height as precisely as possible.



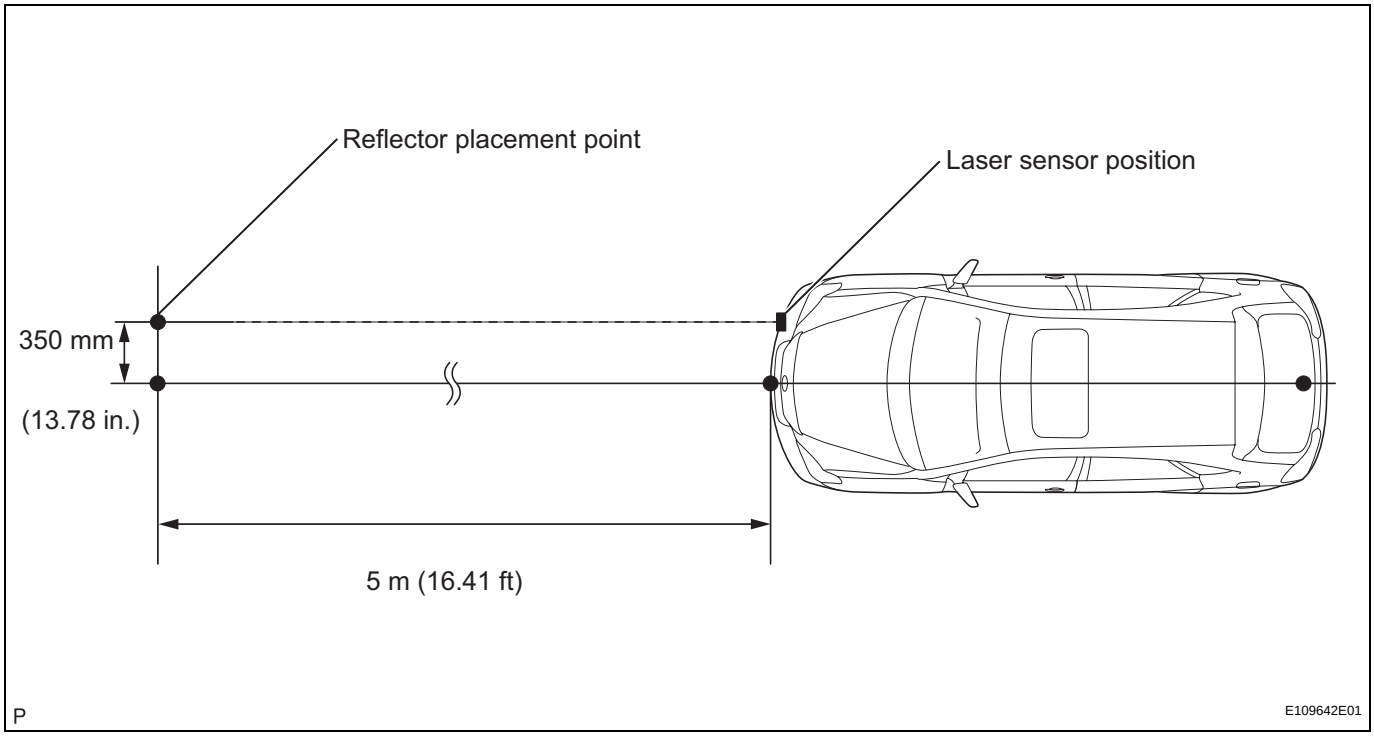
(3) From the center (center of the emblem) of the front and rear bumpers, hang down the string with the plumb bob and mark the center points (both front and rear) of the vehicle on the ground serface.



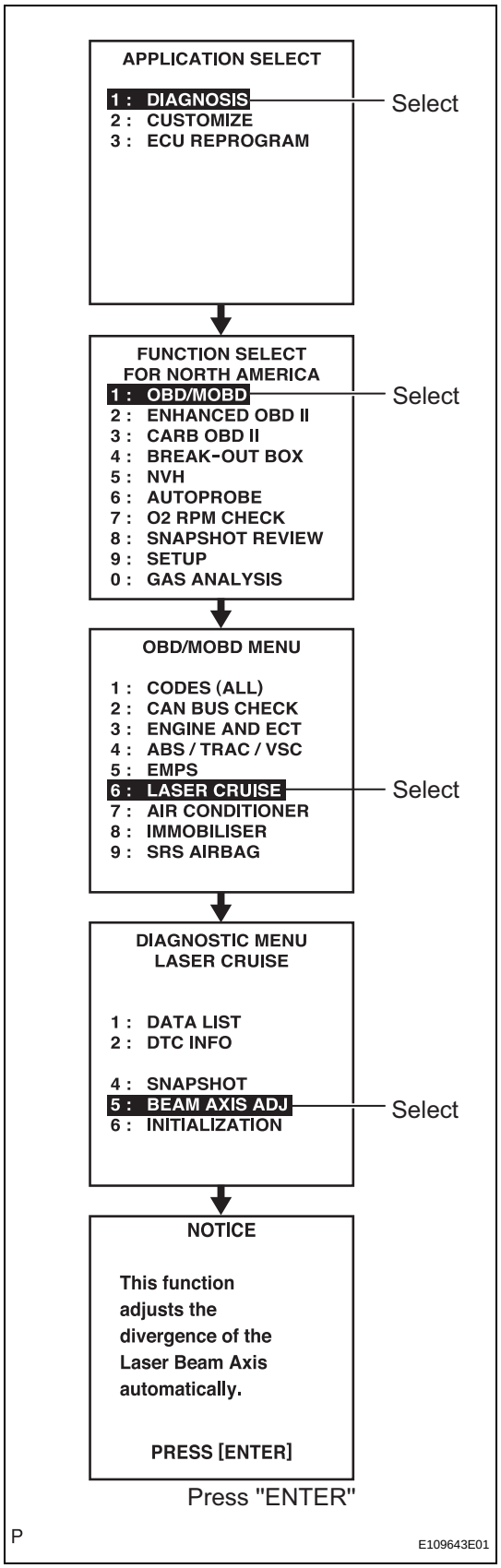
(4) Extend the 10m (32.81 ft) string from the rear center mark forward through the front center mark. Make a mark 5 m (16.41 ft) forward of the front marked point.
HINT:
Fix one end of the string to the center mark and move the other end right and left at a point 5 m (16.41 ft) from the front of the vehicle center mark intersect.

(5) From the 5 m (16.41 ft) marked position, measure 350 mm (13.78 in.) to the right and place the reflector there.
NOTICE:
Perform the operation as precisely as possible.

CC



(c) Adjust the laser beam axis
(1) Turn the ignition switch to the ON position.
(2) Push the cruise control main switch button on.
(3) Connect the intelligent tester to the DLC3, and turn the power on.



(4) Operate by following the screen menu and select "BEAM AXIS ADJUST" of "LASER CRUISE", then press the "ENTER" key.
HINT:
- Pressing the "ENTER" key will make the ECM transfer to BEAM AXIS ADJUSTMENT MODE.
- The buzzer sounds for 1 second after transfer.

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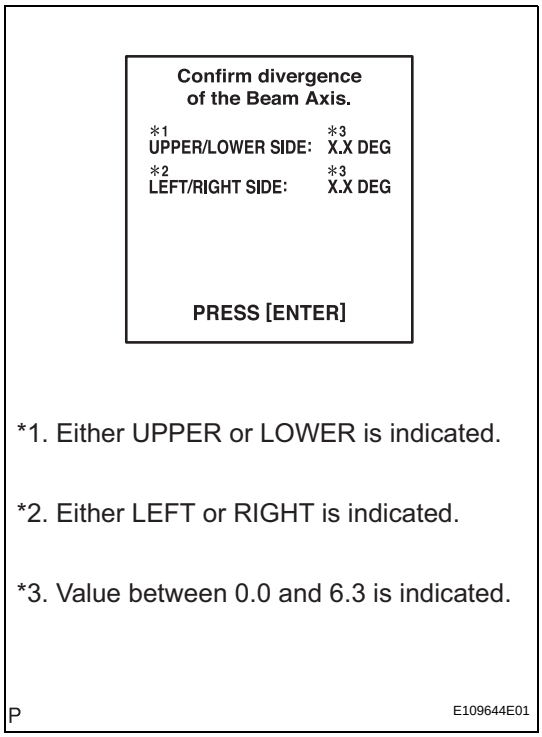

(5) Confirm the current value of the laser beam. (The default reading is 6.3° when the reflector position is out of range.)

(6) Move the reflector either right or left by 100 mm (3.94 in.) and check that the value changes.
NOTICE:
When the values do not change, it is possible that the direction of the laser sensor is greatly off target, and that the laser sensor is aiming at something different. Check the installation condition of the laser sensor.

(7) Return the reflector to the original position and read the current angle.
Standard

Display	Angle
UPPER/LOWER SIDE	Below 2°
RIGHT/LEFT SIDE	Below 4°

HINT:
When the values displayed on the screen are normal, the values should be within the above standard value ranges. If any value is out of this range, check the installation condition of the bumper reinforcement, etc. as it cannot be adjusted automatically.

(8) Turn the headlight dimmer switch to the TAIL position.

(9) Beam axis adjustment will be performed automatically.

(10) When the adjustment is completed, the UPPER/LOWER SIDE and RIGHT/LEFT SIDE indicators show 0° and the system beeps for 10 seconds. During this time, UPPER and LOWER flash alternately on the screen, and LEFT and RIGHT also flash alternately.
NOTICE:
Adjustment values are calculated and then stored in the laser sensor. The system is not controlled mechanically, and therefore the same value as before is displayed to adjust the beam axis.