Subject
# Blind Spot Monitor Sensor Angle Confirmation

Market
USA

Service Category
Audio/Visual/Telematics

Section
Park Assist/Monitoring

Applicability
All Models with BSM

## APPLICABLE VEHICLES

| | | | |
|---|---|---|---|
| 2018-2020 | Camry | 2017-2020 | Highlander |
| 2018-2020 | Tundra | 2018-2020 | Sienna |
| 2016-2020 | Avalon HV | 2020 | Corolla HV |
| 2020 | Mirai | 2016-2020 | Land Cruiser |
| 2019-2020 | Corolla Hatchback | 2018-2020 | Sequoia |
| 2016-2020 | RAV4 HV | 2016-2020 | Avalon |
| 2016-2020 | RAV4 | 2017-2018 | iM |
| 2017-2019 | Yaris | 2018-2020 | Tacoma |
| 2017-2020 | Prius Prime | 2016-2020 | Prius C |
| 2017-2020 | Highlander HV | 2018-2020 | Camry HV |
| 2017-2020 | Corolla | | |

## CONDITION

The blind spot monitor (BSM) sensor angle inspection is used to confirm that the BSM sensor is within the specified angle before performing axis beam adjustment.

When used in conjunction with the repair manual, these BSM tips leverage SSTs and readily available tools to support sensor angle confirmation in varying shop environments.

## RECOMMENDATIONS

**Vertical Angle Check –** Confirming the BSM sensors vertical angle is the first step to ensure correct sensor position.

Notice: Before beginning BSM sensor angle inspection, complete all pre-work as stated in the applicable repair manual.

1. Remove the rear bumper cover to access BSM sensors.

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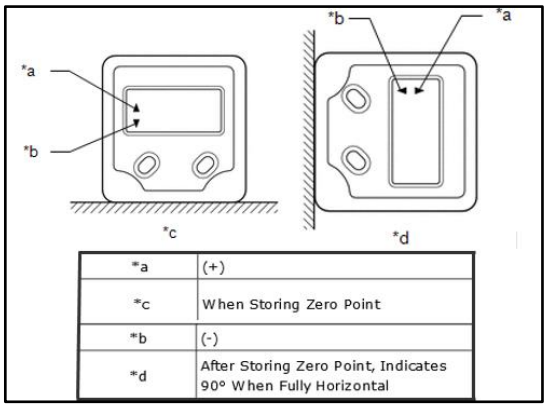
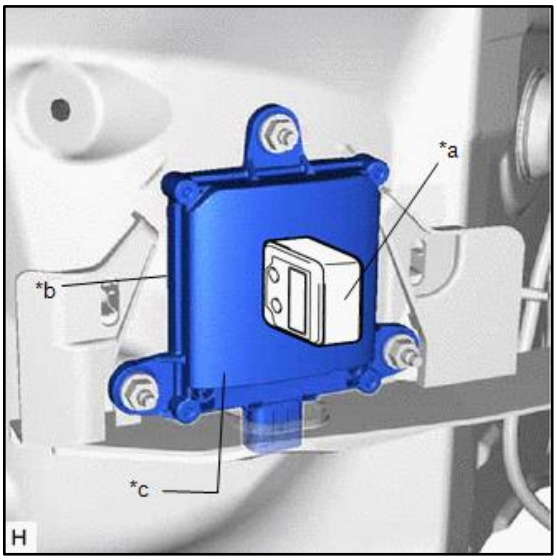
## RECOMMENDATIONS

2. Place the digital angle gauge from the SST kit (PN 00816-00103) on a level surface and perform zero-point adjustment.




| | |
|---|---|
| *a | (+) |
| *c | When Storing Zero Point |
| *b | (-) |
| *d | After Storing Zero Point, Indicates 90° When Fully Horizontal |

3. Set the digital angle gauge to the outward facing surface of the blind spot monitor sensor.





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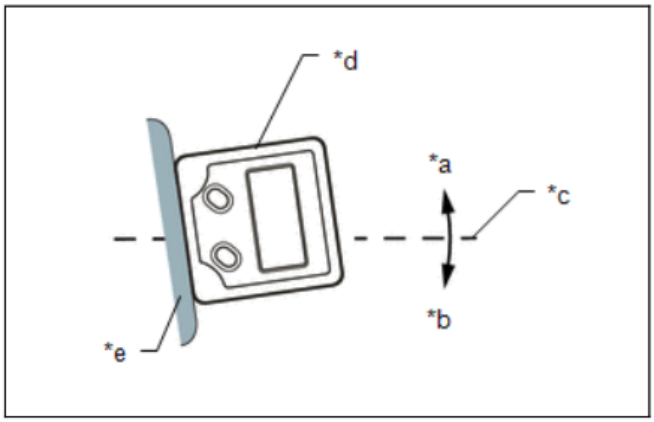
## RECOMMENDATIONS

4. Confirm the vertical angle of the blind spot monitor sensor is as specified in the Repair Manual.




| | |
|---|---|
| *a | (+) |
| *b | (-) |
| *c | Horizontal Line |
| *d | Digital Angle Gauge |
| *e | Outward Facing Surface |

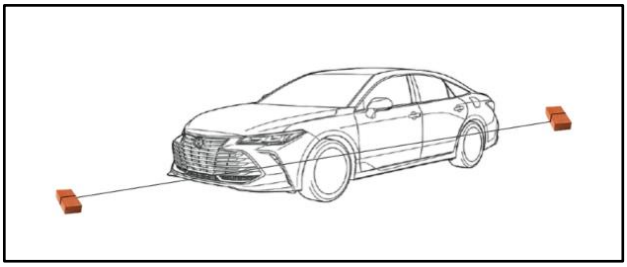
**Horizonal Angle Check –** Confirming the BSM sensors horizontal (“y”) angle is the second step to ensure correct sensor position.

Hint: **Method A** is recommended if using the paper template method to place the reflector. **Method B** is recommended if using a perpendicular line to place the reflector **or** if the vehicle body structure or brackets interfere with the use of a plumb bob.

**A. Measure the “y” value with the vehicle centerline.**

1. Mark the vehicle centerline.

   Hint: For help marking the vehicle center line, refer to Tech Tip T-TT-0503-18 or applicable Repair Manual.



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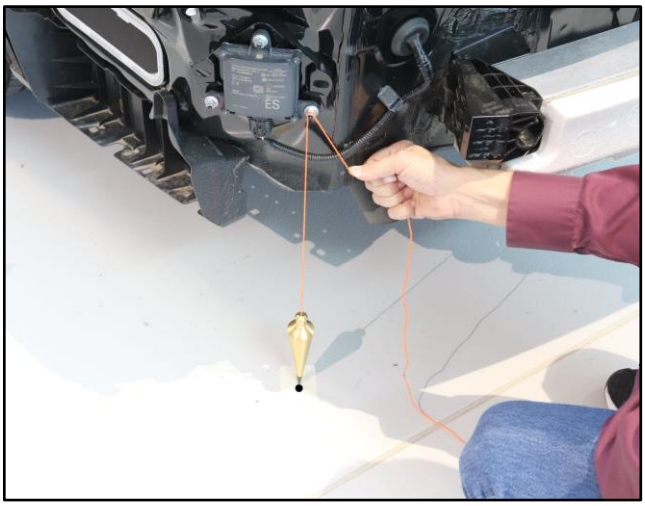
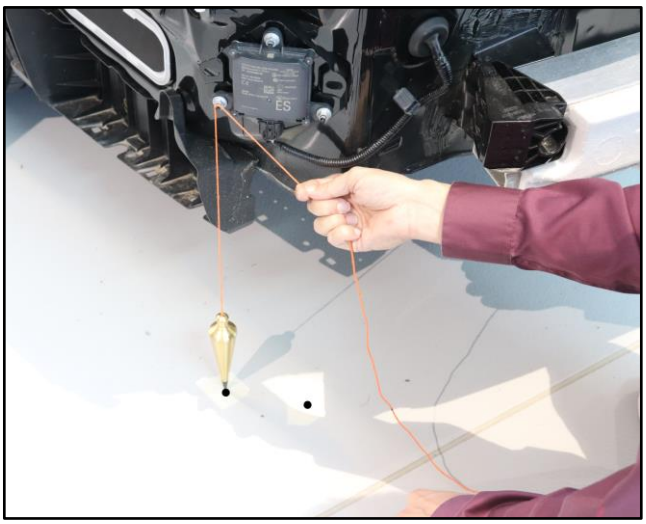
## RECOMMENDATIONS

2. Using a plumb bob, mark the **inner** most mounting stud location on the floor.



3. Using a plumb bob, mark the **outer** most mounting stud location on the floor.







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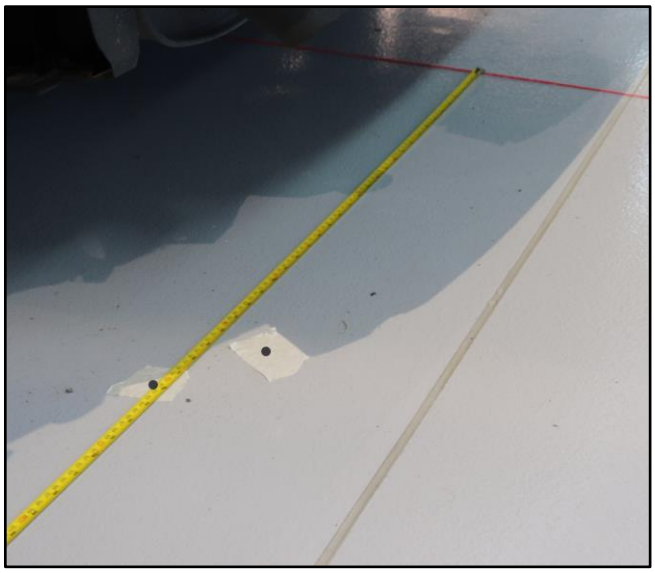
## RECOMMENDATIONS

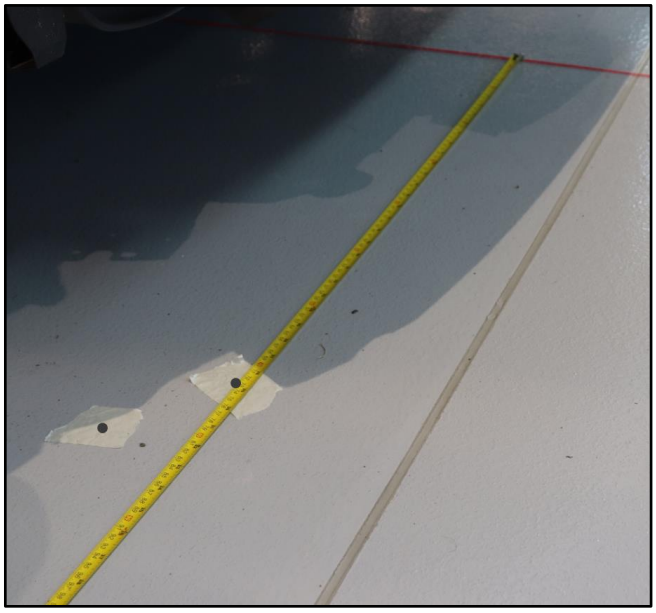
4. Determine **distance A** by measuring from the **outer** most mark to the vehicle centerline.

   Hint: Hold tape measure as level and square to the center line as possible.



5. Determine **distance B** by measuring from the **inner** most mark to the vehicle centerline.

   Hint: Hold tape measure as level and square to the center line as possible.



6. Determine the “y” value by using the formula **(distance A – distance B = “y” value)**.

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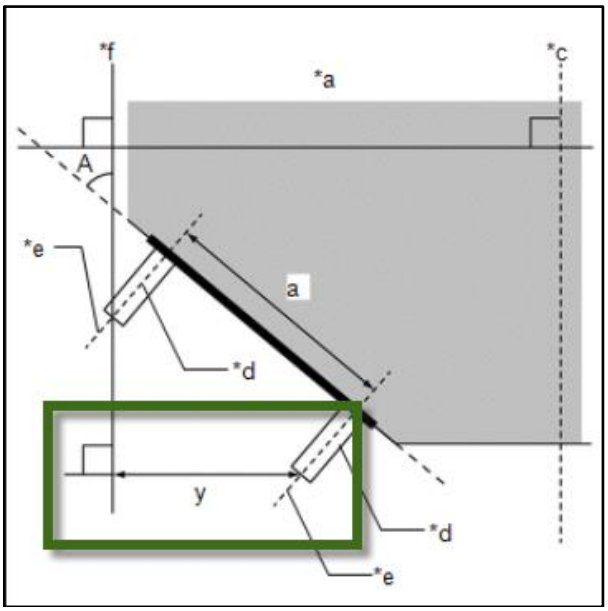
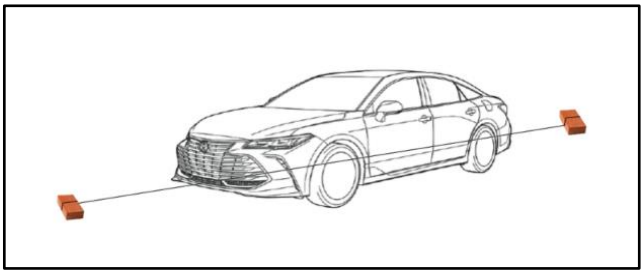
7. Confirm that the measured “y” value is as specified in the repair manual.




### B. Measuring the “y” value with a 90 degree laser.

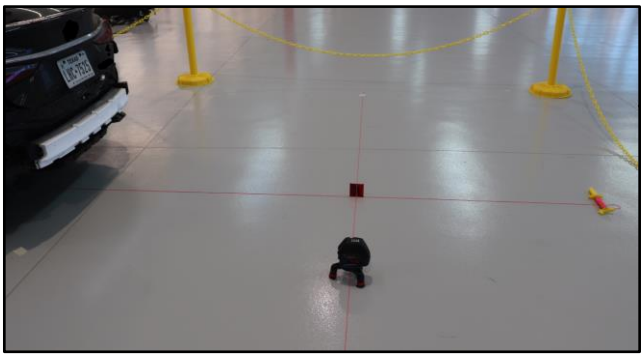
1. Mark the vehicle centerline.

   Hint: For help marking the vehicle center line, refer to Tech Tip T-TT-0503-18 or applicable Repair Manual.



2. Mark the perpendicular line.

   Hint: For help marking the perpendicular line, refer to Tech Tip T-TT-0503-18 or applicable Repair Manual.



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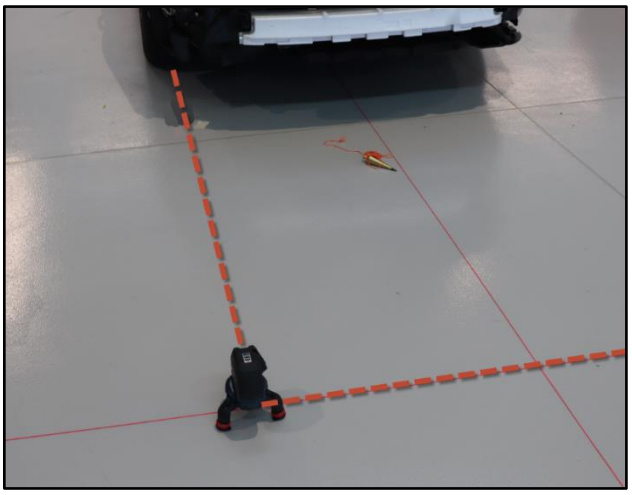
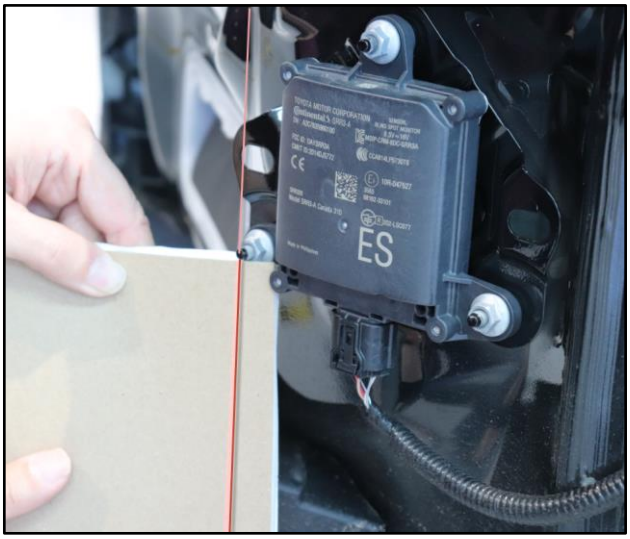
## RECOMMENDATIONS

3. Create the “target line” by using the 90 degree laser from the SST kit (PN 00816-00103).

   Hint: For help marking the “target line,” refer to the perpendicular line section in Tech Tip T-TT-0503-18 (L-TT-0245-18).



4. Align the laser so one beam is aligned with the perpendicular line, the other beam is aligned with the outer most sensor mount stud.





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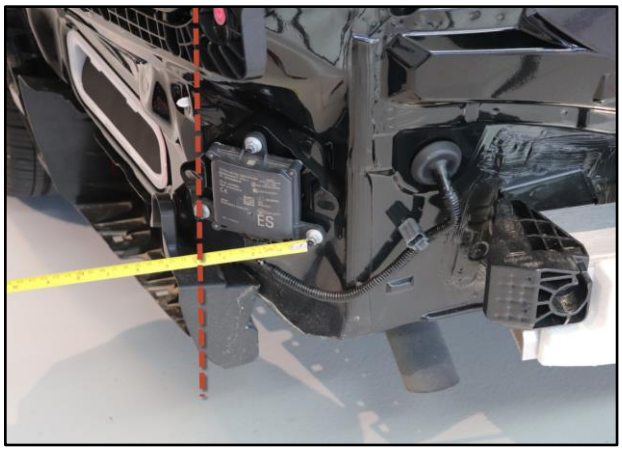
## RECOMMENDATIONS

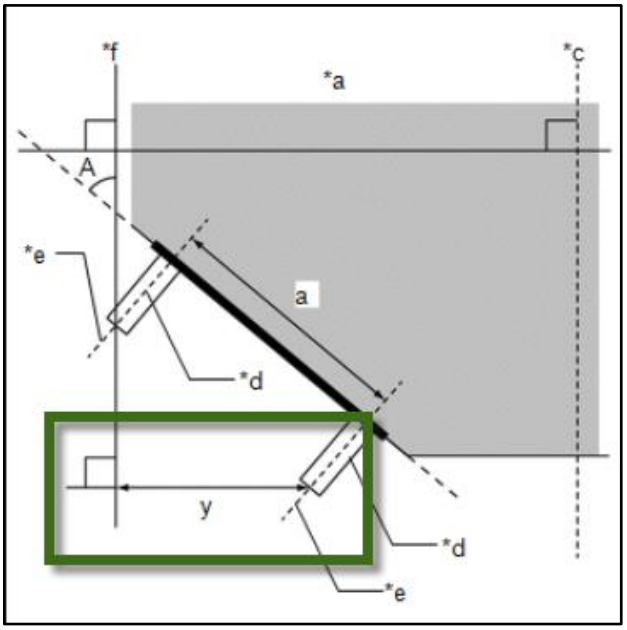
5. Measure from inner stud (away from the center of the vehicle) to the laser line mark on the tape measure.

   Notice: This measurement is the “y” value.

   Hint: Hold the measuring tool as level and square to the centerline as possible.



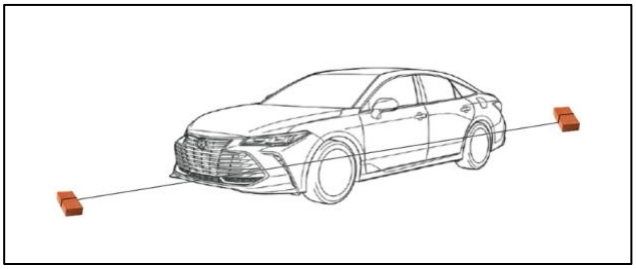
6. Confirm that the measured “y” value is as specified in the Repair Manual.




**C. Measure the “y” value with a parallel line.**

1. Mark the vehicle centerline.

   Hint: For help marking vehicle center line, refer to Tech Tip T-TT-0503-18 (L-TT-0245-18) or applicable Repair Manual.



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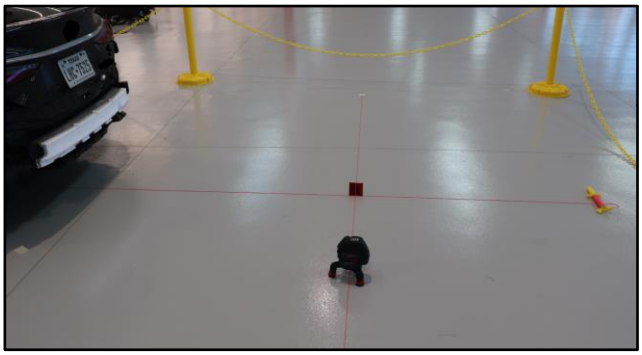
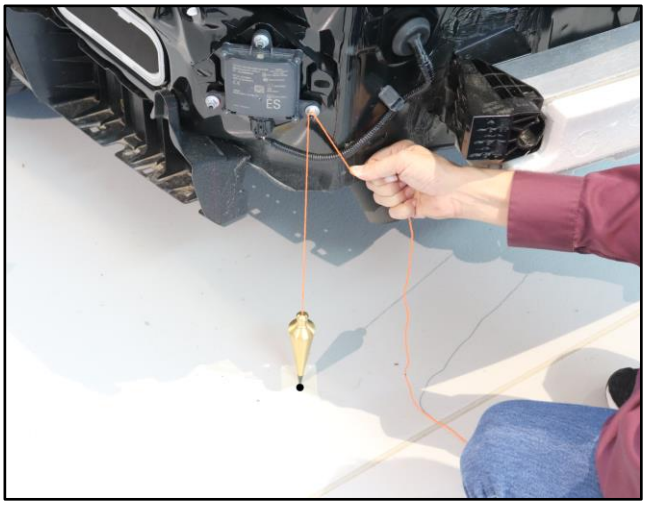
2. Mark the perpendicular line.

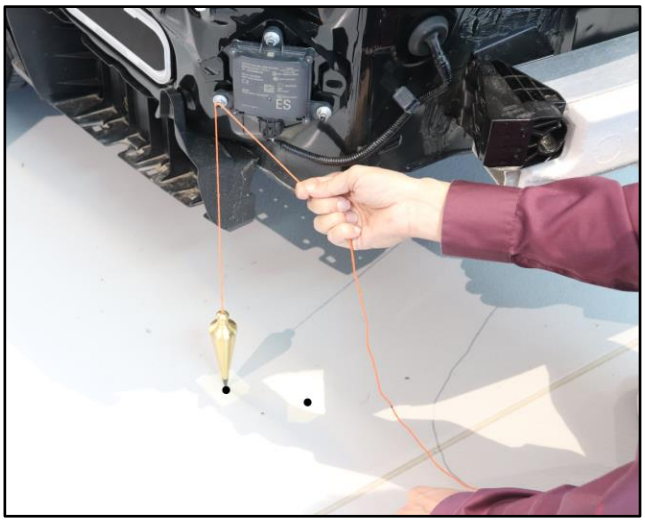
   Hint: For help marking the perpendicular line, refer to Tech Tip T-TT-0503-18 or applicable Repair Manual.



3. Using a plumb bob, mark the inner most mounting stud location on the floor.



4. Using a plumb bob, mark the outer most mounting stud location on the floor.



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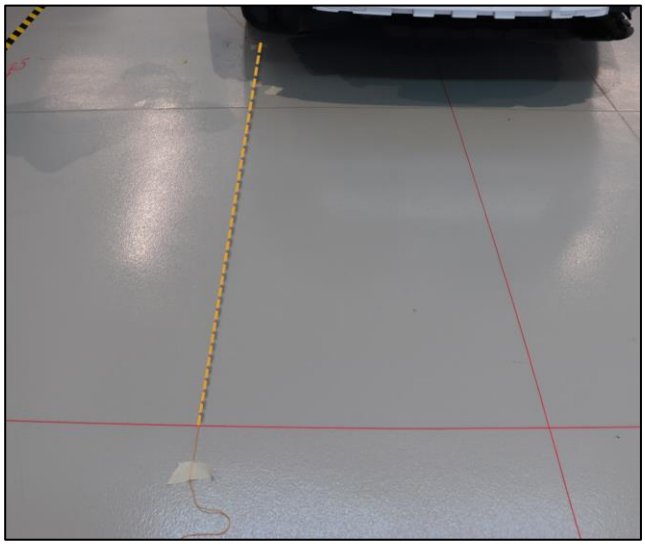
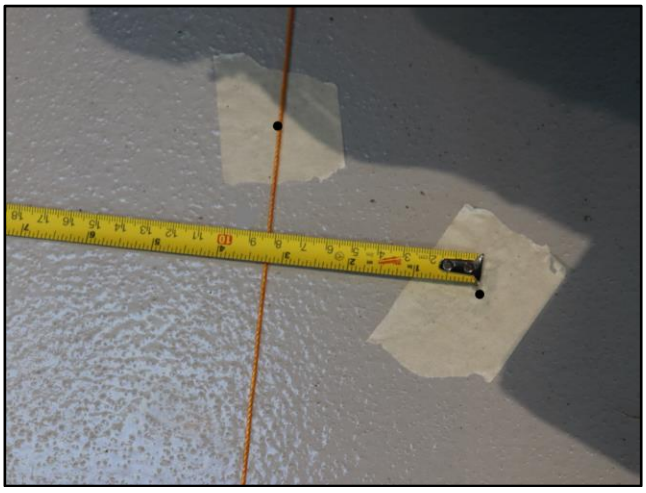
5. Create the “target line” from the perpendicular line to the outermost mounting stud location.

   Hint: For help marking the “target line,” refer to the perpendicular line section in Tech Tip T-TT-0503-18 (L-TT-0245-18).



6. Measure the distance from the innermost mark to the target line.

   Notice: This measurement is the “y” value.







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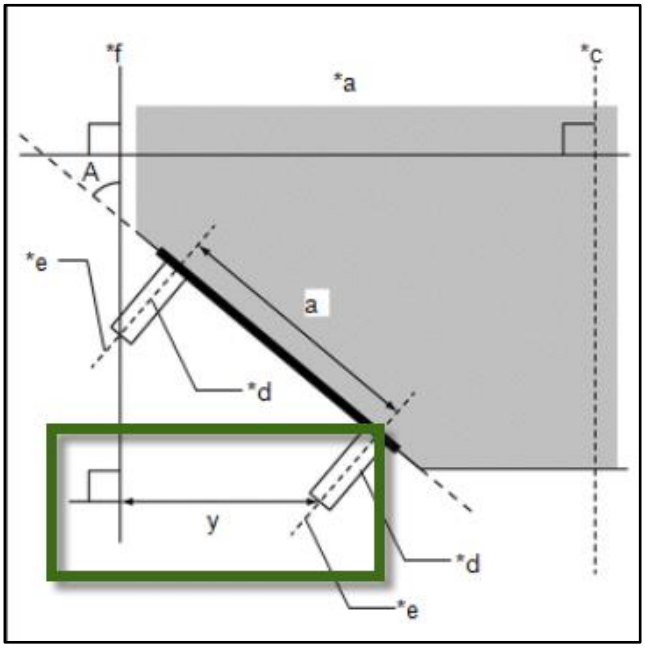
7. Confirm that the measured “y” value is as specified in the Repair Manual.




## LINK REFERENCES

This Tech Tip does not contain any link references





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