

## Tech Tips

TT 44-13-04

Date: November 22, 2013

2012-2015 All Models - Steering Wheel Off Center

April 3, 2015: Update to Model/Year Applicability.

This Tech Tip was established to explain the influence the adjustable steering column tilt position has on the steering wheel being off center and to provide information on checking for steering wheel off center.

#### Influence of the Steering Column Tilt Position

Due to the design of the adjustable steering column, a level steering wheel can vary up to 2.4 degrees in total from the level position depending on the tilt adjustment of the steering column. In the full up steering column tilt position, the steering wheel is set approximately 1.2 degrees off center to the right and accordingly, 1.2 degrees to the left in the full down tilt position. When the steering column is in the center tilt position the steering wheel is level.

### When checking if the steering wheel is level (centered), make sure that the steering column adjustment is in the center tilt position.

If the steering wheel is off center when the steering column is in the center tilt position, perform vehicle four wheel alignment to correct the steering wheel level position. See TT 44 13 03 – Four Wheel Alignments.

I Note:

**<u>DO NOT</u>** remove the steering wheel from the steering column to correct steering wheel off center.

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# **Service Information**

Please note that in some cases while driving the tilt of the road surface (road crown) will cause the steering wheel to be slightly off center. Also note that while the vehicle is stationary the steering wheel can appear to be off center because of the shape of the instrument panel. Below are some important tips on how to check steering wheel off center.

- Steering wheel off center should only be checked after driving straight ahead for at least 10ft on a flat surface
- Steering wheel off center should only be checked sitting in the driver's seat looking directly at the steering wheel. If the wheel appears to be off center, use an object (cardboard) to block the instrument panel and recheck.
- If steering wheel only appear slightly off center, always get a second opinion before performing any adjustments
- If available use a steering wheel level (Figure 1) to determine if the steering wheel is off center. See steps below.

#### Using Steering Wheel Level to Check for Steering Wheel is Off Center

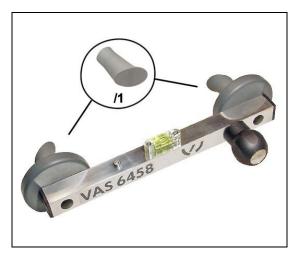


Figure 1

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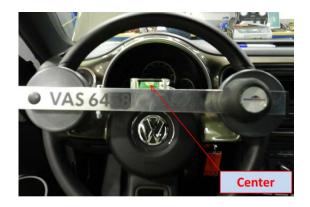


Figure 2

- Check that the front wheels are straight ahead
- Mount the steering wheel level VAS 6458 or similar tool to the steering wheel
- Slowly turn the steering wheel to the position when the level indicator (bubble) is centered.





- Place a piece of masking tape on the steering wheel trim and on the steering column trim and use a marker (Sharpie) to draw a line across the two pieces of tape. Ensure that the level indicator is still centered when the line is drawn.
- The steering wheel is level when the two lines are together. These lines now provide a reference point to determine how much the steering wheel is off center.

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Figure 4

 Remove the level and then drive the car in a straight line on a flat surface for 10ft with both hands on the steering wheel. Stop the car and while holding the steering wheel in place make a dashed line on the masking tape on the steering column trim to line up with the line on the steering wheel trim. The distance between the dashed line and the solid line is how much the steering wheel is off center.

### i Tip:

The reference lines can also show how much the steering wheel is off center due to road crown. When driving straight on the right crown of a road the reference line on the steering wheel trim will be to the left of the line on the steering column trim and vice versa when driving on the left crown

### Note:

PID 4485 is to be used for claims regarding the Steering wheel being off center.

PID 4810 is only to be used for claims related to steering wheel damages or Defects.

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