

UPDATE Technical Bulletin



November 11 2016

91P3 UPDATE – Adaptive Cruise Control (NVLW)

NOTE:

- Perform this UPDATE on all applicable vehicles within the NEW VEHICLE LIMITED WARRANTY.
- It is MANDATORY to perform UPDATES on all applicable vehicles in dealer inventory PRIOR TO RETAIL SALE.
- Inform customers that this UPDATE will be available free of charge as long as their vehicle is within the Warranty parameters outlined in this UPDATE.

NOTE:

Required DMS Wording//Text: (line item, customer concern description on repair order):

91P3 UPDATE – Adaptive Cruise Control (NVLW)

Model(s)	Year	Engine Code	Trans. Code
Golf, Golf Sportwagen, GTI	2017	All	All

REVISION HISTORY		
Revision	Date	Purpose
2	November 11, 2016	Saga claiming instructions updated
1	November 9, 2016	Original publication

Condition

This update has been proactively released to prevent improper function of the Adaptive Cruise Control System. Due to falsely transmitted production parameters from the supplier, the radar sensor of the affected vehicles may not have been installed correctly and may not function as intended.

This UPDATE is in effect until removed.

Vehicle must meet all of the following criteria:

- Procedure is valid only for vehicles that show the 91P3 code in Elsa, Campaign/Action Information screen *on the day of repair*.
- If the vehicle is sold it must be within the New Vehicle Limited Warranty.
- Procedure must be performed within the allotted time frame stated in this UPDATE.
- Procedure must be performed on applicable vehicles in dealer inventory prior to sale.



Technical Background

The Adaptive Cruise Control Radar Sensor may have been installed and/or calibrated incorrectly at the factory, and may not function as intended.

Production Solution

Inspect, align, and calibrate the Adaptive Cruise Control Radar Sensor.

Service

NOTE:

- *Elsa is the only valid inquiry/verification source. Check Elsa on the day this vehicle UPDATE will be performed to verify vehicle eligibility for the UPDATE. Status must show “open”. Attach an Elsa printout showing the “open” status to the repair order.*
- *If this UPDATE appears to have already been performed but the code still shows open in Elsa, contact Warranty before proceeding further. Another dealer may have recently performed this UPDATE but not yet entered a claim for it in the system.*
- *Elsa may also show additional open action(s); if so, inform your customer - this work can be done while the vehicle is in for this UPDATE.*
- *Contact the Warranty Helpline (U.S.) or the Warranty Campaign Specialist (Canada) if you have any questions.*

Applicable Criteria ID (s)	Campaign/Action Status
01	Open

EXAMPLE

Section A – Check for Previous Repair

- Enter the VIN in Elsa and proceed to the “Campaign/Action” screen

TIP

On the date of repair, print this screen and keep a copy with the repair order

- Ensure that the Status is “Open”
<arrow 2>
- Note the Applicable Criteria ID
<arrow 1> for use in determining the correct work to be done and corresponding parts associated.

Proceed to Section B



Work Procedure

Section B – Adaptive Cruise Control Radar Sensor Inspection/Calibration

NOTE

- Before adjusting the adaptive cruise control (ACC), check the sensor and its mounts and attachments for damage, external influences and secure fit. Repair any damaged components.
- Prior to adjusting the adaptive cruise control (ACC), check the event memory and correct any malfunctions.
- The ACC control module “adjustment angle measured value” shows whether the sensor is misaligned.
- The ACC adjustment may only be set using a VW/Audi-approved wheel alignment device and adjustment equipment.
- Before driving the vehicle onto the alignment stand, make sure there is enough space between the vehicle and the -VAS6430-. The distance between the -VAS6430/3- OR -VAS6430/10- and the sensor must be $120\text{ cm} \pm 2.5\text{ cm}$.
- If the -VAS6430/3- OR -VAS6430/10- is positioned on the calibration beam during the adjustment process, the -VAS6430/1- settings must always be checked after adjustments are made (for example, bubble levels, individual toe settings at the calibration beam, etc.).
- Before beginning the adjustment, check the DTC memory and correct any malfunctions present.

The adjustment procedure is described here for using the -VAS6430/1-.

Follow this sequence for adjusting:

- Establish a distance of $120\text{ cm} \pm 2.5\text{ cm}$ between the centrally positioned -VAS6430/3- and the sensor in the air grille.
- Attach the -VAS6430/3- OR -VAS6430/10- in the center of the calibration beam,
- Adjust the Distance Regulation Control Module -J428-.
- Do not perform the steps under “Calibration procedure without a previous axle alignment” if an axle alignment has already been performed.

Calibration Procedure without Previous Axle Alignment:

- Select the ACC calibration button on the wheel alignment computer.
- Follow the test requirements for an axle alignment.
- Drive the vehicle onto the vehicle alignment platform.
- Connect the battery charger.
- Connect the Vehicle Diagnostic Tester. (Guide the diagnostic cable through the open window.)



NOTE

- During the adjustment procedure, make sure all the vehicle doors remain closed and the vehicle exterior lamps are switched off.

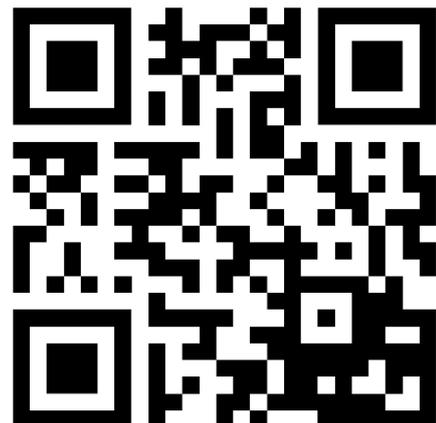


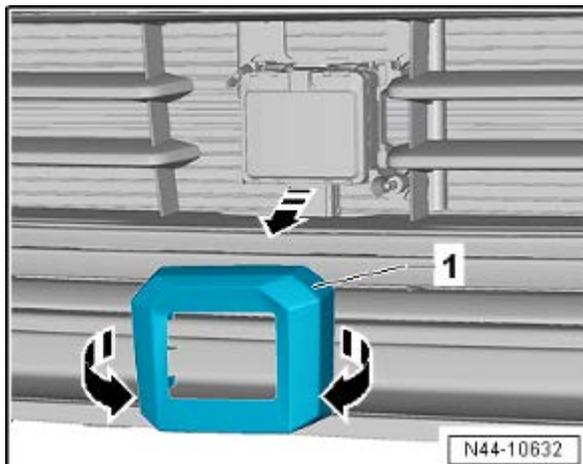
- Position the front wheels so they are straight.
- Install the quick-action clamps (or equivalent) onto the rear wheels.
- Install the measurement sensors on the rear wheels.
- Perform a wheel run-out compensation on the rear wheels.



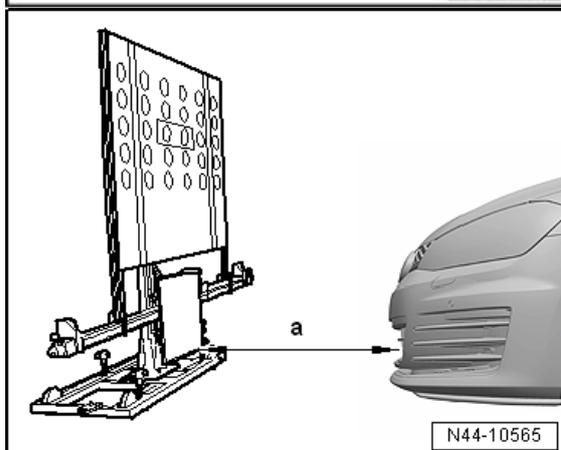
For more information on performing an alignment check and a wheel run-out compensation, refer to your wheel alignment computer tutorial sections, or visit the website of the manufacturer of your particular machine listed below:

- Hunter:
<http://www.hunter.com/oem/volkswagen-audi>
- John Bean:
<http://www.johnbean.com/docs.asp>

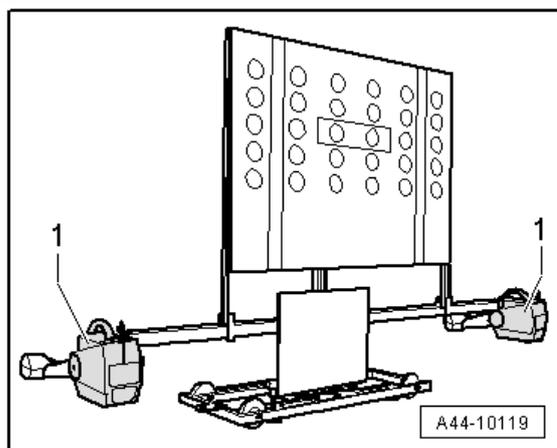




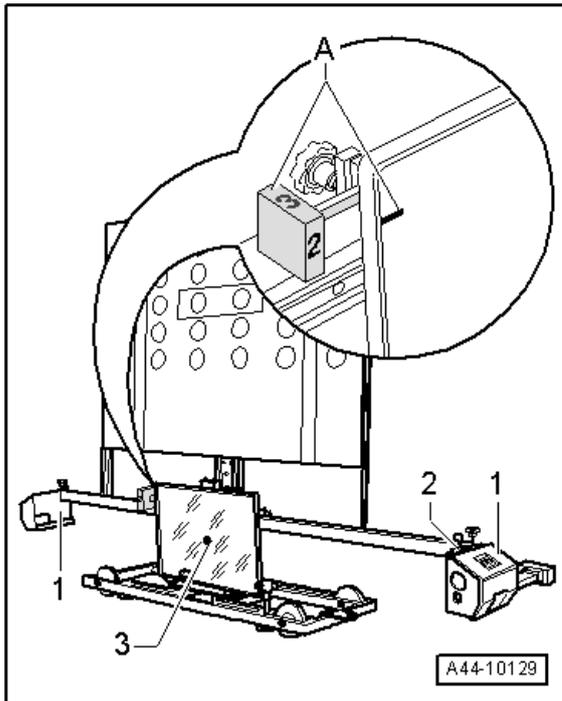
- Remove the trim <1> from the Adaptive Cruise Control Radar Sensor.
- Remove any dirt that may be on the sensor lens.



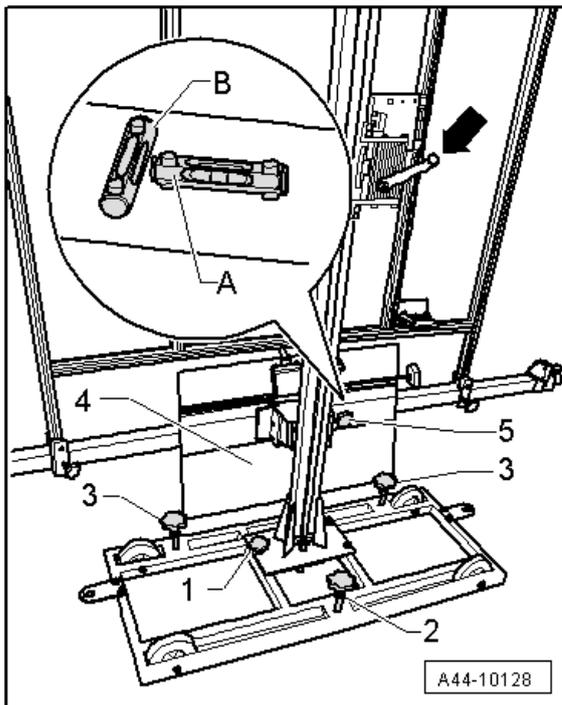
- Position the -VAS6430/1- at a distance <a> from the centrally positioned -VAS6430/3- OR -VAS6430/10- in the center and parallel with respect to the Distance Regulation Control Module -J428-.
- <a>= 120 cm \pm 2.5 cm



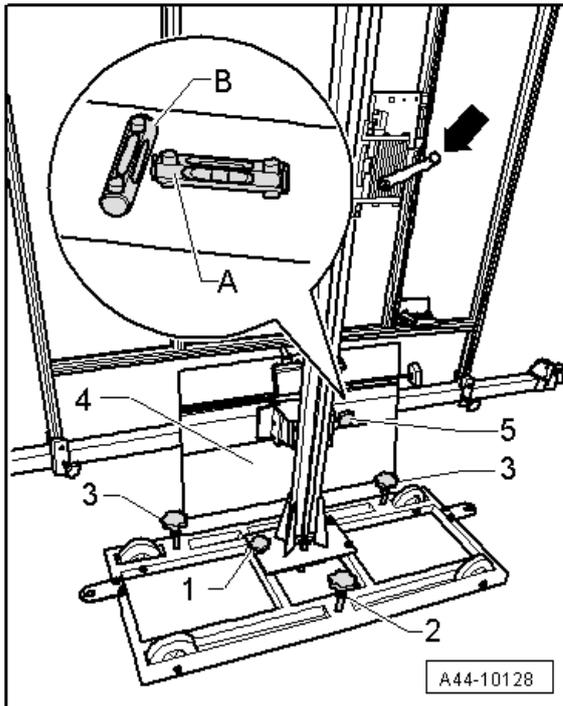
- Position the front wheel measuring sensors <1> on the calibration beam.



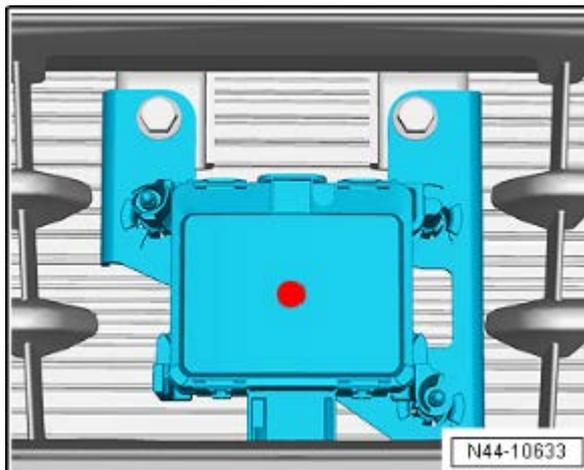
- In area <A>, bring item <2> on the rotary knob into alignment with the marking on the mirror (number 2 on the rotary knob must face the vehicle).



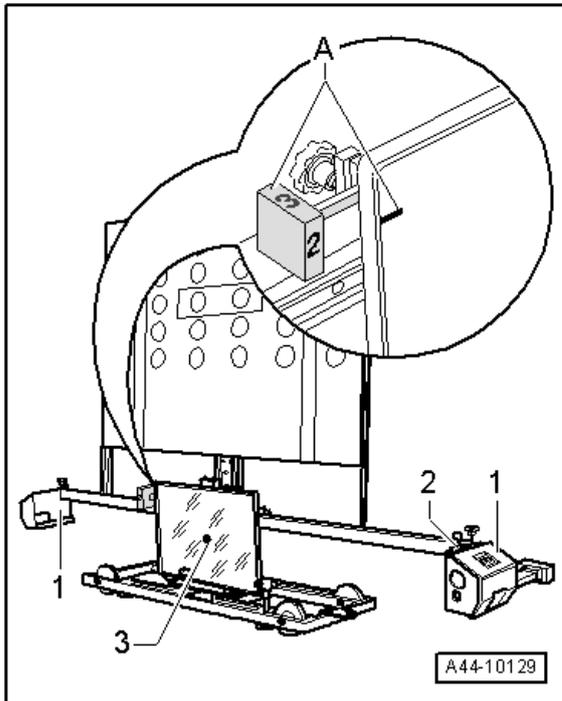
- Level the bubble levels <A and B> on the -VAS6430/3- using the adjusting screws <1, 2 and 3>.
- Adjust the mirror <4> via the crank <arrow> so that the laser beam is in the center of the sensor lens.
- Using the laser beam on the -VAS6430/3- OR -VAS6430/10-, check to see if the bubble level is level and then activate the laser beam and verify that it is located in the center of the sensor lens.



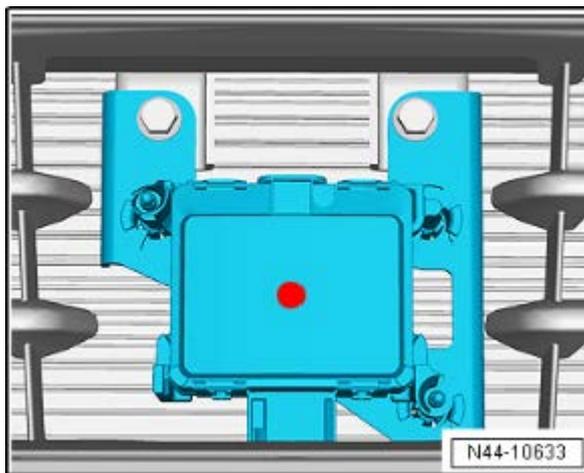
- Turn the precision adjustment screw <5> until the display on the wheel alignment computer is located within the tolerance range.



- Position the ACC Reflector Mirror -VAS6430/3- OR -VAS6430/10- so that the laser beam is in the center of the sensor. Adjust up and down, and side to side as necessary to verify positioning.

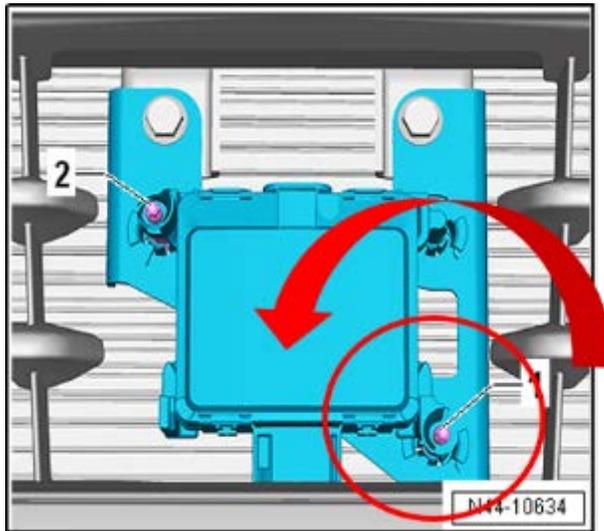


- Verify that the bubble levels <2> of the measurement sensor <1> are level, and that position of the rotary knob <A> is displaying position 2 towards the vehicle.



! NOTE

If the laser beam does not meet the center of the sensor lens, the -VAS6430/3- OR -VAS6430/10- must be aligned again.



- Switch the ignition Off
- Turn the lower right screw **counter-clockwise** 4 (four) complete turns.

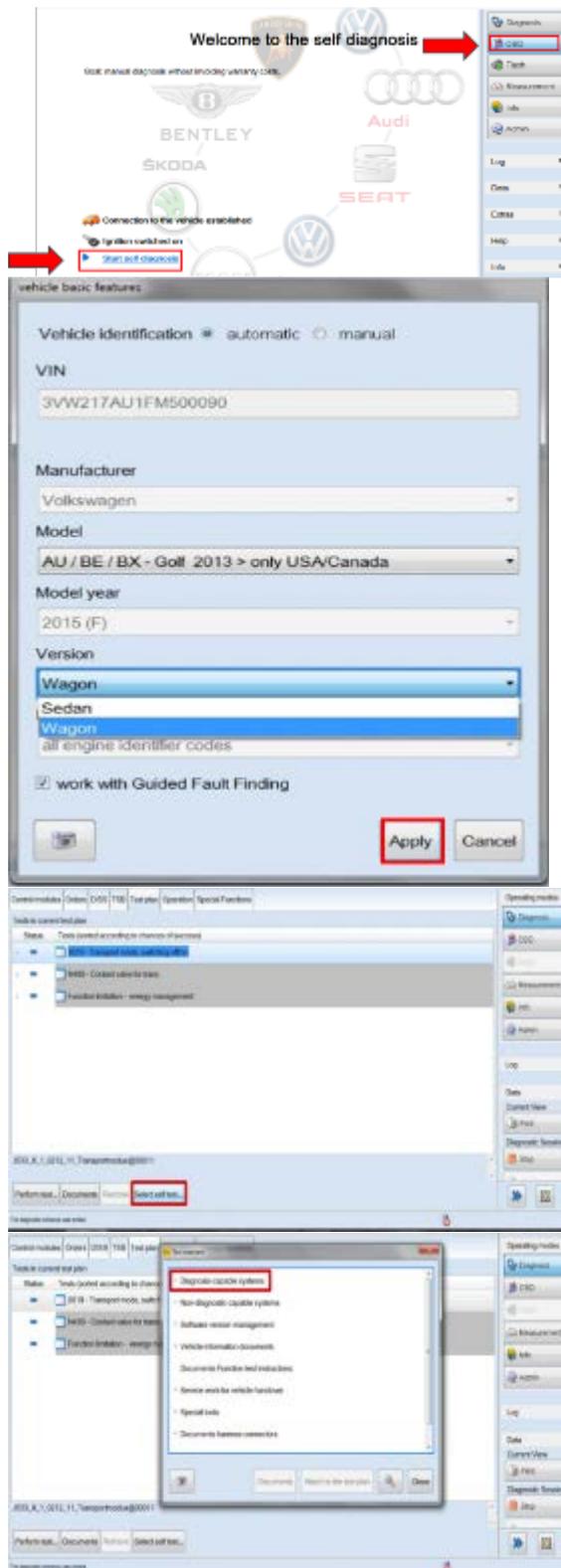
Use a flexible screwdriver, or other applicable 3.5mm hex head socket or driver tool.

NOTE

- This step only provides a baseline adjustment. The additional steps contained in this document will outline verification and/or further adjustment of the sensor if necessary and the auto calibration of the ACC Sensor.
- It may be necessary to adjust and validate the measurements of the ACC sensor more than one time.

- The additional procedure takes place with the Offboard Diagnostic Information System Vehicle Diagnostic Tester -VAS6150A-.
- Follow the instructions on the screen to perform the adjustment.

- Plug in the VAS PC connector to the vehicle.
- Switch on the ignition.
- Open Offboard Diagnostic Information System Service.



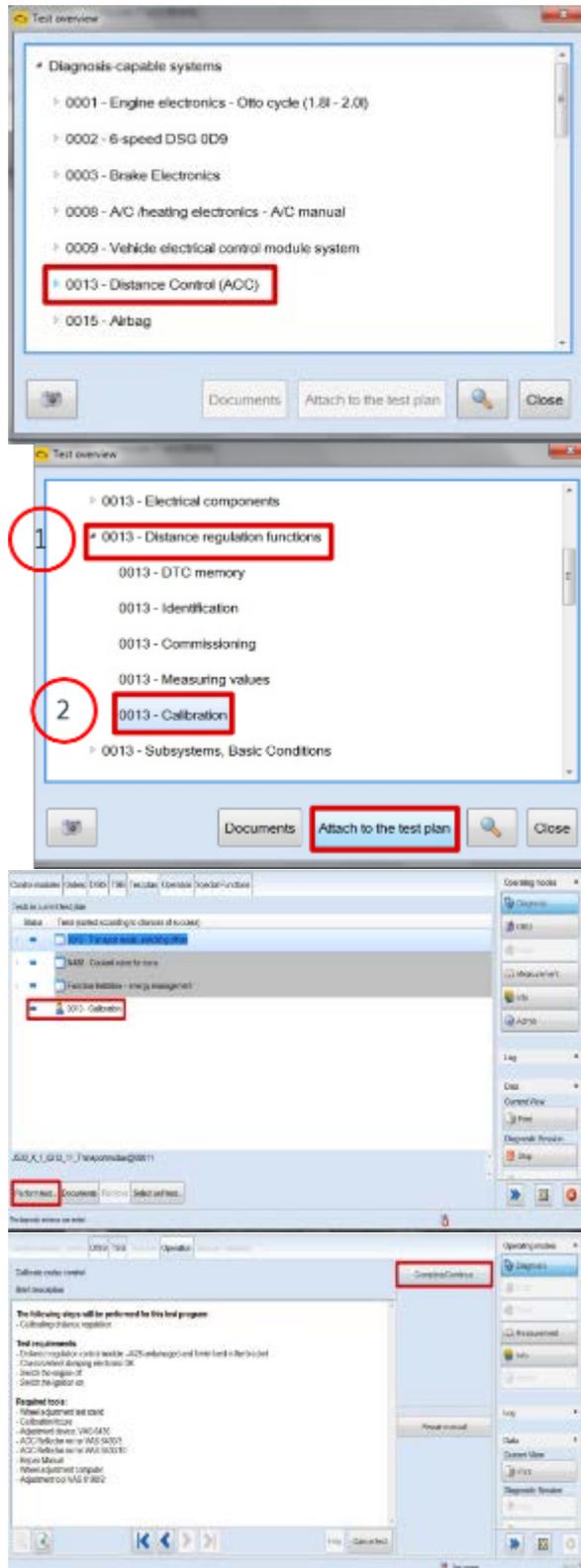
- Select “Diagnosis”.
- Select “start self-diagnosis”.

Vehicle identification:

- Choose the correct options and the version of the vehicle, sedan or wagon.
- Select “Apply”.

- Select “Self Test...”.

- Select “diagnosis-capable systems”.

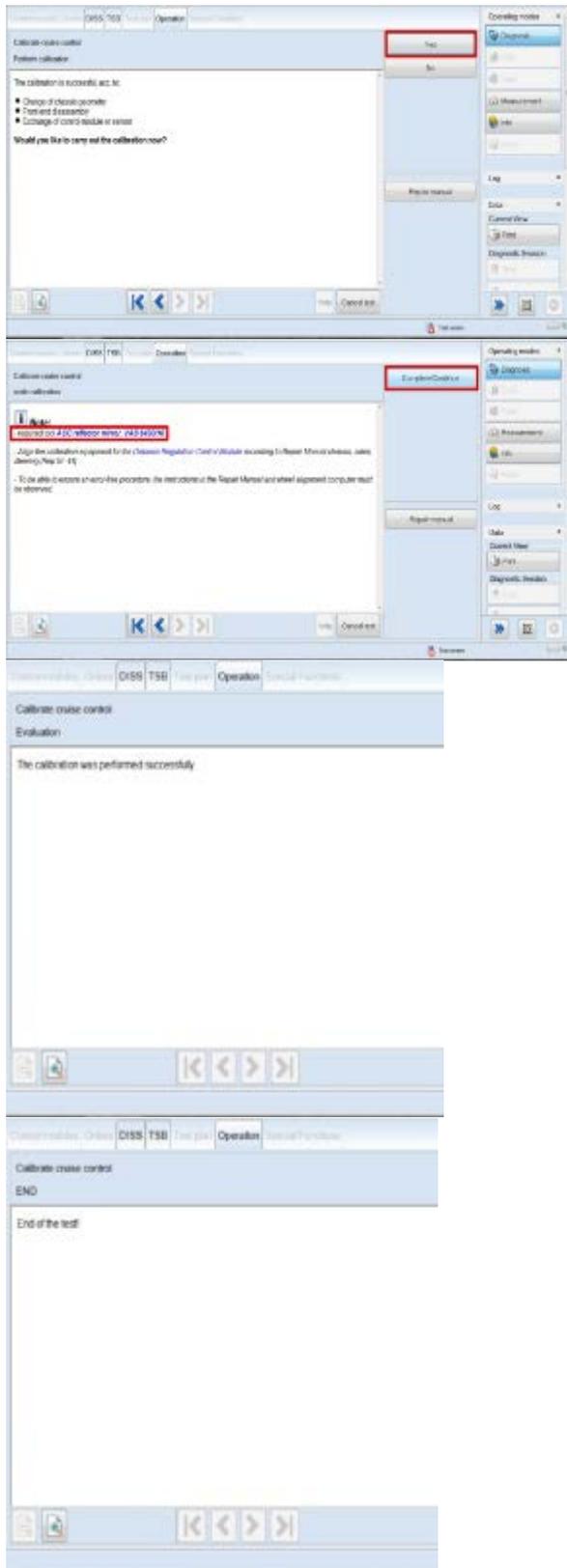


- Select “0013 – Distance Control (ACC)”.

- Select “0013 – Distance regulation functions”.
- Select “0013 – Calibration”.
- Select “Attach to the test plan”.

- Select “0013 – Calibration”.
- Select “Perform test...”.

- Select “Complete/Continue”.

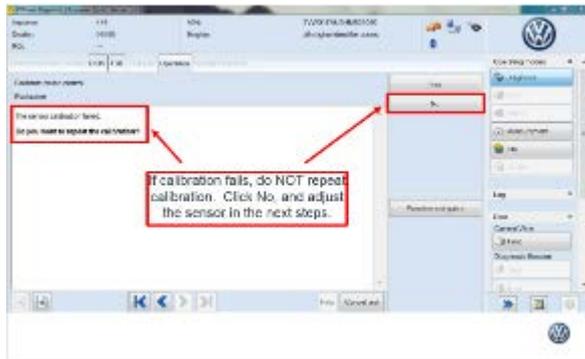


- Select “Yes” to begin the Adaptive Cruise Control auto calibration procedure.

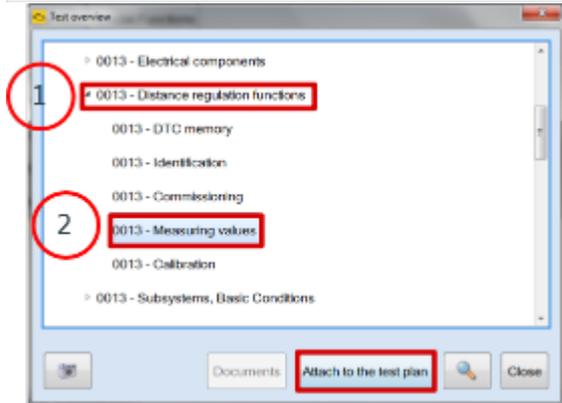
NOTE

ODIS will request the use of the -VAS6430/10- reflector mirror. The -VAS6430/3- reflector mirror in position #2 will also work for this procedure. Either tool is acceptable for use.

- Select “Complete/Continue”.
- Select “Complete/Continue” if the message “The calibration was performed successfully” is displayed.
- Select “Complete/Continue”.
- If the ACC Sensor successfully calibrates, this is the end of the adjustment and calibration. Proceed to page 16 of this document and reinstall the ACC cover and remove the rear wheel quick-action clamps.
- Only continue to the next steps if the ACC Auto calibration fails, or the system is in need of further measurement or adjustment.

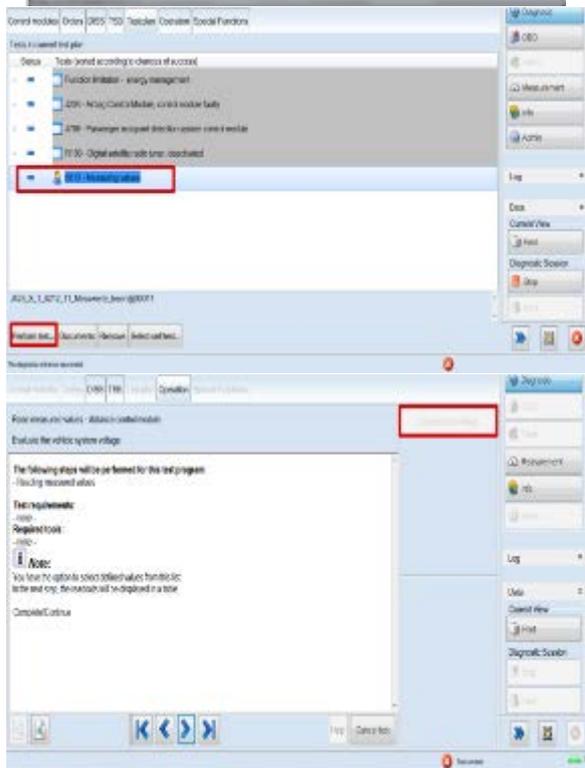


- If calibration fails, do not repeat calibration. Select “No”, and adjust the sensor in the next steps.



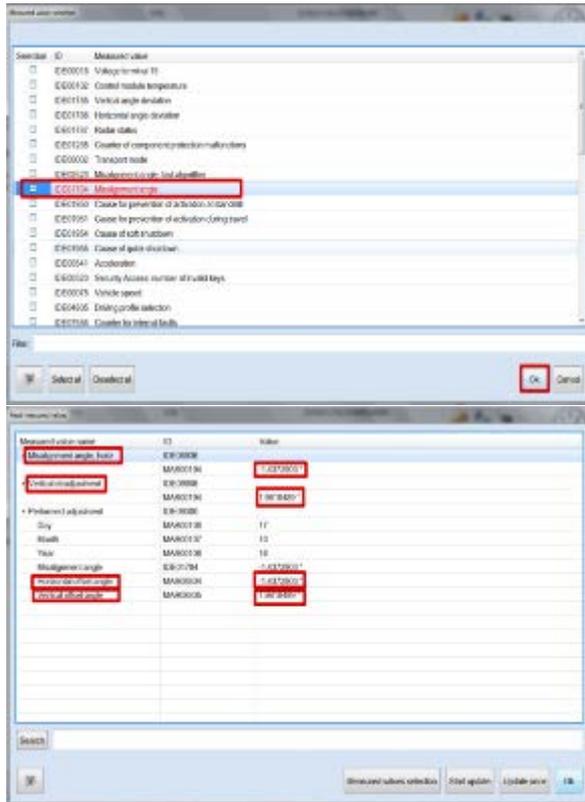
If the ACC Auto calibration fails and further adjustment is required:

- Select “0013 – Distance regulation functions”.
- Select “0013 – Measuring values”.
- Select “Attach to the test plan”.

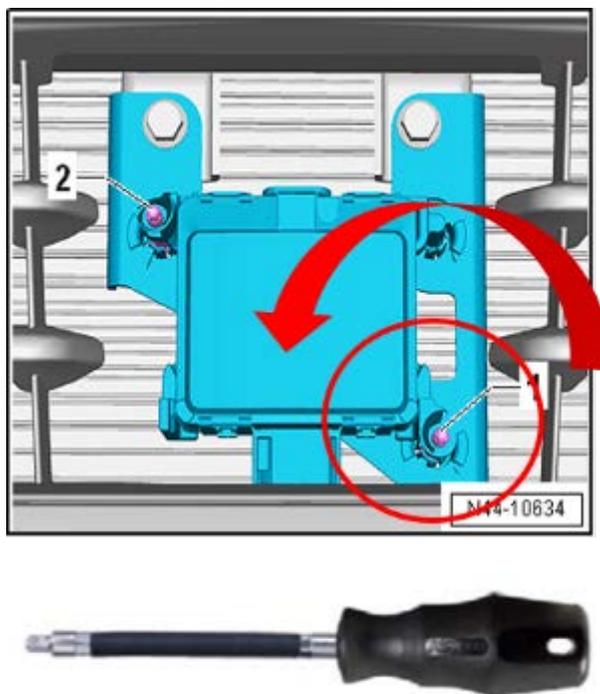


- Select “0013 – Measuring values”.
- Select “Perform test...”.

- Select “Complete/Continue”.



- Select the following from the Measurement values selection table:
 - **Misalignment angle, horiz**
 - **Vertical deadadjustment**
 - **Performed adjustment**
-
- Check the Misalignment angle, horiz Value in Range Between: **-1.0 to 1.0**
 - Check the Vertical deadadjustment value, In Range Between: **0.0 to 4.0.**
 - Check Horizontal offset value, in Range between: **-1.0 to 1.0**
 - Check the Vertical offset angle value, In Range between: **0.0 to 4.0**
 - If a value is not in range, continue to the ACC Adjustment Procedure listed in the next steps until all values are in range, then run the ACC Auto calibration again.



ACC Sensor Adjustment Procedure:

Switch the ignition Off

- In case Horizontal deadadjustment value is lower than -1.0: Turn 1 time the upper left screw <2> clockwise using the 3.5mm driver.
- In case Horizontal deadadjustment value is higher than 1.0: Turn 1 time the upper left screw <2> counter clockwise using the 3.5mm driver.
- In case Vertical deadadjustment value is lower than 0.0: Turn 1 time the lower right screw <1> counter clockwise using the 3.5mm driver.
- In case Vertical deadadjustment value is higher than 4.0: Turn 1 time the lower right screw <1> clockwise using the 3.5mm driver.
- Switch the ignition On.



NOTE

If additional adjustments are required after the adjustment, follow the procedure listed in the next three steps to quickly navigate back to the Measuring values screen and 0013 Calibration screen.

TIP

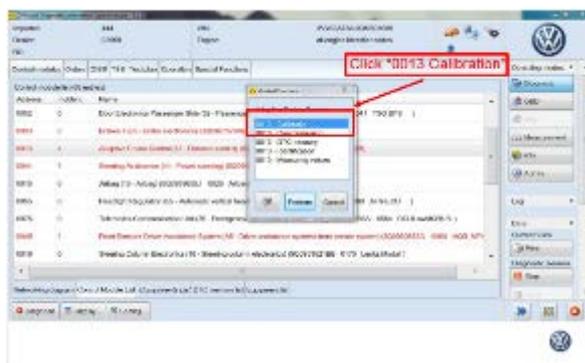
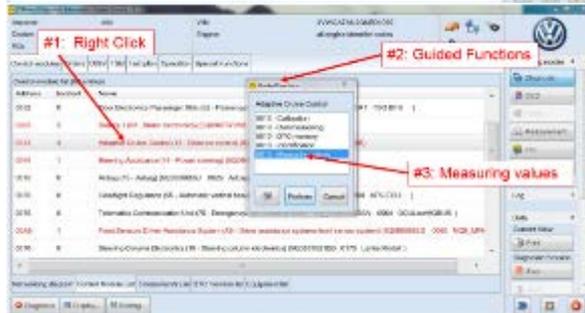
Select "Diagnosis" from the ODIS home screen. Proceed to the next step for a shortcut to the Measuring values screen.

TIP

- Right-Click on "0013 Adaptive Cruise Control".
- When the next drop down menu appears, select "Guided Functions".
- Select "Measuring values" from the Guided Functions drop down box.
- Follow the previous steps to perform the Measurement values in this document to read and adjust the Measuring values readings. Continue measurement/adjustment until the values are within the listed specifications.

TIP

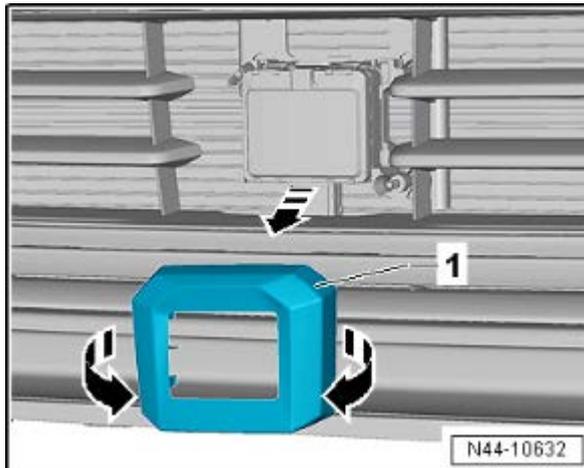
- When all Measuring values are within specification, run the "0013 Calibration" routine to verify that the ACC Sensor has accepted the adjustments.
- Select "0013 Calibration" from the Guided Functions menu to initiate the Auto Calibration procedure.
- Repeat all the above procedures as necessary until the ACC Sensor successfully completes the 0013 Calibration routine.





To Complete the Test:

- Click “Control modules”
- Click “X Diagnosis”
- Click “Yes”
- End of test
- Make sure that the ACC DTC memory is erased. Send the Diagnostic protocol online.
- Reinstall the ACC radar sensor cover <1>.



- Remove the quick-action clamps (or equivalent) from the rear wheels.
- The calibration procedure is now complete.

UPDATE Technical Bulletin



Warranty

Claim Entry Procedure	Enter your claim immediately upon completion of the UPDATE. Claims will only be paid for vehicles that show this UPDATE code open in Elsa on the day of repair. To help ensure prompt and proper payment, attach the screen print to the repair order.
Claim Help	<u>U.S. dealers</u> - Contact the Warranty Helpline toll-free at 1-866-306-8447 for help with claim entry. <u>Canadian dealers</u> - Contact your Warranty Campaign Specialist. For contact information, please proceed to "ServiceNet – Warranty/Contact Information/Campaigns – "Warranty Campaign Specialist."
Required Customer Notification	Ensure customers are aware of all work performed on the vehicle by recording the information on the repair order. Attach a copy of the <i>Vehicle UPDATE Fact Sheet</i> to the customer's copy of the repair order and take the time to explain this UPDATE to your customer.

UPDATE Technical Bulletin



Claim Entry Instructions

After UPDATE has been completed, enter claim as soon as possible to help prevent work from being duplicated elsewhere. Attach the Elsa screen print showing action open on the day of repair to the repair order.

If customer refused campaign work or vehicle is out of the specified warranty parameter for this Update:

- ✓ U.S. dealers: Submit request via WISE under the *Campaigns/Update/Recall Closure* option.
- ✓ Canada dealers: Fax repair order to Warranty at (905) 428-4811.

Service Number	91P3
Damage Code	0099
Parts Vendor Code	WWO
Claim Type	Sold vehicle: 7 10 Unsold vehicle: 7 90
Causal Indicator	Mark Labor as causal part
Vehicle Wash/Loaner	Do not claim wash/loaner under this action
Criteria I.D.	01
	Inspect, align, and calibrate the Adaptive Cruise Control Radar Sensor. Labor operation 9163 23 99 50 TU -AND- Labor operation: 9163 24 99 Time stated on diagnostic protocol (up to 10 TU)



Required Tools



ACC Adjustment Device -VAS6430-



Setting Device - Basic Set -VAS6430/1- or
Setting Device - Basic Set -VAS6430/1A-



ACC Reflector Mirror - Audi -VAS6430/3-
OR
ACC Reflector Mirror - Audi -VAS6430/10-



Wheel Alignment Computer



-VAS6150A- Vehicle Diagnostic Tester



Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check Elsa for the most current version of this document.

UPDATE Technical Bulletin



UPDATE FACT SHEET – UPDATE Code 91P3

Dear Volkswagen Customer,

Today we performed UPDATE code 91P3 on your vehicle. This UPDATE was to inspect and recalibrate the Adaptive Cruise Control Radar Sensor, and was performed for you free of charge.

Volkswagen periodically makes updates like this available in order to ensure our customer's continued satisfaction with the quality of their Volkswagen vehicles.

We at Volkswagen are committed to providing our customers with reliable, quality products that are a pleasure to drive and own. If you should ever have any questions or vehicle concerns, your authorized Volkswagen dealer will be pleased to assist you.

Thank you for driving a Volkswagen!