



Safety Recall

Code: 69L2

Subject	Steering Wheel Clock Spring
Release Date	December 10, 2015
Affected Vehicles	U.S.A. & CANADA: Certain 2010-2014 Model Year Volkswagen vehicles <i>Check Campaigns/Actions screen in Elsa on the day of repair to verify that a VIN qualifies for repair under this action. Elsa is the <u>only</u> valid campaign inquiry & verification source.</i> ✓ <i>Campaign status must show "open."</i> ✓ <i>If Elsa shows other open action(s), inform your customer so that the work can also be completed at the same time the vehicle is in the workshop for this campaign.</i>
Problem Description	Hair or other fibers may contaminate the airbag clock spring (a spiral wound, flat cable that keeps the airbag powered while the steering wheel is being turned). This contamination may tear the cable and result in a loss of electrical connection to the driver's frontal airbag. A loss of electrical connection to the driver's frontal airbag will prevent the airbag from deploying in the event of a vehicle crash, increasing the risk of injury.
Precautions	If the airbag light in the vehicle comes on or if the airbag light is currently on, customers are advised to contact the nearest Volkswagen dealer or qualified workshop to have the vehicle inspected/repaired <u>without delay</u> . Customers are advised to see the vehicle Owner's Manual for more information about the airbag system.
Corrective Action	To help correct this defect, dealers will: • Install a protective cover over the steering wheel clock spring if the vehicle does not have an airbag light on, -OR- • Install a new steering wheel clock spring if the vehicle has an airbag light on (and diagnosis confirms the steering wheel clock spring requires replacement). Please note: Other conditions <i>unrelated</i> to a faulty steering wheel clock spring may cause the airbag light to come on. These conditions may require repairs that are needed for proper diagnosis of the underlying condition. Any repairs that are (1) necessary for proper diagnosis of these other conditions or (2) required to bring the vehicle's airbag system up to factory specifications are not covered by this safety recall.
Parts Information	<u>Clock spring covers</u> will be allocated prior to campaign launch via Targeted Allocation. See the Campaign Data Sheet for information about Completion Factor/Replacement Rate for targeted allocation calculations. If you have any questions about targeted allocation please contact the Parts Specialists at 800-767-6552. <u>Clock springs</u> will remain on upper order limits. If additional parts are needed for critical cases, please contact vwoaupperorderlimits@vw.com.
Code Visibility	On or about December 10, 2015, affected vehicles will be listed on the Inventory Vehicle Open Campaign Action report under My Dealership Reports (found on www.vwvhub.com & OMD Web). A list will not be posted for dealers who do not have any affected vehicles. On or about December 10, 2015, this campaign code will show <u>open</u> on affected vehicles in Elsa. On or about December 10, 2015, affected vehicles will be identified as <u>REPAIR NEEDED</u> with this campaign code in the VIN Lookup tool at www.vw.com and on the NHTSA VIN lookup tool at www.safercar.gov.

Owner Notification

Owner notification will take place on or about January 12, 2016. Owner letter examples are included in this bulletin for your reference.

Additional Information

Please alert everyone in your dealership about this action, including Sales, Service, Parts and Accounting personnel. Contact Warranty if you have any questions.

IMPORTANT REMINDER ON VEHICLES AFFECTED BY SAFETY & COMPLIANCE RECALLS

New Vehicles in Dealer Inventory: It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by this notification under a sale or lease until the defect or noncompliance is remedied. By law, dealers must correct, prior to delivery for sale or lease, any vehicle that fails to comply with an applicable Federal Motor Vehicle Safety Standard or that contains a defect relating to motor vehicle safety.

Pre-Owned Vehicles in Dealer Inventory: Dealers should not deliver any pre-owned vehicles in their inventory which are involved in a safety or compliance recall until the defect has been remedied.

Dealers must ensure that every affected inventory vehicle has this campaign completed before delivery to consumers.

Fill out and affix Campaign Completion Label (CAMP 010 000) after work is complete.

Labels can be ordered at no cost via the Compliance Label Ordering portal at www.vwhub.com.

Claim Entry Instructions

After campaign 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:

- ✓ 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	69L2																																	
Damage Code	0099																																	
Parts Vendor Code	WWO																																	
Claim Type	Sold vehicle: 7 10 Unsold vehicle: 7 90																																	
Causal Indicator	Mark <u>Clock Spring Cover</u> or <u>Steering Wheel Clock Spring</u> as causal part*																																	
Vehicle Wash/Loaner	Do not claim wash/loaner under this action																																	
Criteria I.D.	01																																	
	Install Clock Spring Cover Labor operation: 6955 23 99 30 T.U. <table border="1"><thead><tr><th>Quantity</th><th>Part Number</th><th>Description</th></tr></thead><tbody><tr><td>1.00</td><td>5K0953259*</td><td>Clock Spring Cover</td></tr></tbody></table> -OR- Replace Steering Wheel Clock Spring Labor operation: 6955 19 99 90 T.U. and Labor operation: 6955 25 99 Time stated on diagnostic protocol (maximum 30 T.U.s) <table border="1"><thead><tr><th>Quantity</th><th>Part Number</th><th>Description</th></tr></thead><tbody><tr><td>1.00</td><td>5K0953569AL*</td><td>Steering Wheel Clock Spring</td></tr><tr><td>1.00</td><td>N 90799102</td><td>Steering Wheel Bolt</td></tr></tbody></table> -OR- <table border="1"><tbody><tr><td>1.00</td><td>5K0953569AK*</td><td>Steering Wheel Clock Spring</td></tr><tr><td>1.00</td><td>N 90799102</td><td>Steering Wheel Bolt</td></tr></tbody></table> -OR- <table border="1"><tbody><tr><td>1.00</td><td>5K0953569AS*</td><td>Steering Wheel Clock Spring</td></tr><tr><td>1.00</td><td>N 90799102</td><td>Steering Wheel Bolt</td></tr></tbody></table> -OR- <table border="1"><tbody><tr><td>1.00</td><td>5K0953569AR*</td><td>Steering Wheel Clock Spring</td></tr><tr><td>1.00</td><td>N 90799102</td><td>Steering Wheel Bolt</td></tr></tbody></table>	Quantity	Part Number	Description	1.00	5K0953259*	Clock Spring Cover	Quantity	Part Number	Description	1.00	5K0953569AL*	Steering Wheel Clock Spring	1.00	N 90799102	Steering Wheel Bolt	1.00	5K0953569AK*	Steering Wheel Clock Spring	1.00	N 90799102	Steering Wheel Bolt	1.00	5K0953569AS*	Steering Wheel Clock Spring	1.00	N 90799102	Steering Wheel Bolt	1.00	5K0953569AR*	Steering Wheel Clock Spring	1.00	N 90799102	Steering Wheel Bolt
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Customer Letter Example (USA)

NHTSA: 15V483

**Subject: Safety Recall 69L2 – Steering Wheel Clock Spring
Certain 2010-2014 Model Year Volkswagen Vehicles**

Dear Volkswagen Owner,

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. Volkswagen has decided that a defect, which relates to motor vehicle safety, exists in certain 2010-2014 model year Volkswagen vehicles. Our records show that you are the owner of a vehicle affected by this action.

What is the issue?

Hair or other fibers may contaminate the airbag clock spring (a spiral wound, flat cable that keeps the airbag powered while the steering wheel is being turned). This contamination may tear the cable and result in a loss of electrical connection to the driver's frontal airbag. A loss of electrical connection to the driver's frontal airbag will prevent the airbag from deploying in the event of a vehicle crash, increasing the risk of injury.

What will we do?

To help correct this defect, your authorized Volkswagen dealer will:

- Install a protective cover over the steering wheel clock spring if the vehicle does not have an airbag light on,

-OR-

- Install a new steering wheel clock spring if the vehicle has an airbag light on (and diagnosis confirms the steering wheel clock spring requires replacement).

The recall repair can take up to two hours to complete, and will be performed for you free of charge.

Please note: Other conditions *unrelated* to a faulty steering wheel clock spring may cause the airbag light to come on. These conditions may require repairs that are needed for proper diagnosis of the underlying condition. Any repairs that are (1) necessary for proper diagnosis of these other conditions or (2) required to bring the vehicle's airbag system up to factory specifications are not covered by this safety recall.

What should you do?

Please contact your authorized Volkswagen dealer to schedule this recall repair without delay. Please keep in mind that your dealer may need additional time for the preparation of the repair, as well as to accommodate their daily workshop schedule.

Precautions you should take

If the airbag light in your vehicle comes on or if the airbag light is currently on, contact your nearest Volkswagen dealer or qualified workshop to have the vehicle inspected/repairs without delay. Please see your Owner's Manual for more information about the airbag system.

Lease vehicles and address changes

If you are the lessor and registered owner of the vehicle identified in this action, the law requires you to forward this letter immediately via first-class mail to the lessee within ten (10) days of receipt. If you have changed your address or sold the vehicle, please fill out the enclosed prepaid Owner Reply card and mail it to us so we can update our records.

Reimbursement of Expenses

If you have previously paid for repairs relating to the condition described in this letter, please refer to the enclosed form that explains how to request reimbursement.

Can we assist you further?

If your authorized Volkswagen dealer fails or is unable to complete this work free of charge within a reasonable time, or if you should have any questions about this communication, please don't hesitate to contact Customer CARE, Monday through Friday from 8AM to 6PM (local time) by phone at 800-893-5298. You are also welcome to e-mail or chat through the "Contact Us" page <http://www.vw.com/contact/>.

Checking your vehicle for open Recalls and Service Campaigns

To check your vehicle's eligibility for repair under this or any other recall/service campaign, please click on the **Look Up Recalls** link at www.vw.com and enter your Vehicle Identification Number (VIN) into the **Recall/Service Campaign Lookup** tool. As always, if you have any questions or if you need additional assistance, please contact Customer CARE or your authorized Volkswagen dealer.

If you still cannot obtain satisfaction, you may file a complaint with: The Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153); or go to <http://www.safercar.gov>.

We apologize for any inconvenience this matter may cause; however we are taking this action to help ensure your safety and continued satisfaction with your vehicle. Thank you for driving a Volkswagen!

Sincerely,

Volkswagen Customer Protection

Customer Letter Example (CANADA)

**Subject: Safety Recall 69L2 – Steering Wheel Clock Spring
Certain 2010-2014 Model Year Volkswagen Vehicles**

Dear Volkswagen Owner,

This notice is sent to you in accordance with the requirements of the Motor Vehicle Safety Act. Volkswagen has decided that a defect, which relates to motor vehicle safety, exists in certain 2010-2014 model year Volkswagen vehicles. Our records show that you are the owner of a vehicle affected by this action.

What is the issue? Hair or other fibers may contaminate the airbag clock spring (a spiral wound, flat cable that keeps the airbag powered while the steering wheel is being turned). This contamination may tear the cable and result in a loss of electrical connection to the driver's frontal airbag. A loss of electrical connection to the driver's frontal airbag will prevent the airbag from deploying in the event of a vehicle crash, increasing the risk of injury.

What will we do? To help correct this defect, your authorized Volkswagen dealer will:

- Install a protective cover over the steering wheel clock spring if the vehicle does not have an airbag light on,

-OR-

- Install a new steering wheel clock spring if the vehicle has an airbag light on (and diagnosis confirms the steering wheel clock spring requires replacement).

The recall repair can take up to two hours to complete, and will be performed for you free of charge.

Please note: Other conditions *unrelated* to a faulty steering wheel clock spring may cause the airbag light to come on. These conditions may require repairs that are needed for proper diagnosis of the underlying condition. Any repairs that are (1) necessary for proper diagnosis of these other conditions or (2) required to bring the vehicle's airbag system up to factory specifications are not covered by this safety recall.

What should you do? Please contact your authorized Volkswagen dealer to schedule this recall repair without delay. Please keep in mind that your dealer may need additional time for the preparation of the repair, as well as to accommodate their daily workshop schedule.

Precautions you should take If the airbag light in your vehicle comes on or if the airbag light is currently on, contact your nearest Volkswagen dealer or qualified workshop to have the vehicle inspected/repaired without delay. Please see your Owner's Manual for more information about the airbag system.

Lease vehicles and address changes If you are the lessor and registered owner of the vehicle identified in this action, the law requires you to forward this letter immediately via first-class mail to the lessee within ten (10) days of receipt. If you have changed your address or sold the vehicle, please fill out the enclosed prepaid Owner Reply card and mail it to us so we can update our records.

Reimbursement of Expenses If you have previously paid for repairs relating to the condition described in this letter, please refer to the enclosed form that explains how to request reimbursement.

Can we assist you further? If your authorized Volkswagen dealer fails or is unable to complete this work free of charge within a reasonable time, please call or write to:

Volkswagen Canada
Attn: Customer Relations (69L2)
PO Box 842, Stn. A
Windsor, ON N9A 6P2
1-800-822-8987
www.vw.ca

We apologize for any inconvenience this matter may cause; however we are taking this action to help ensure your safety and continued satisfaction with your vehicle. Thank you for driving a Volkswagen!

Sincerely,

Volkswagen Customer Protection

ATTENTION!

Damages resulting from improper repair or failure to follow these work instructions are the dealer's responsibility and are not eligible for reimbursement under this action.

Required Parts

<u>Quantity</u>	<u>Part Number</u>	<u>Part Description</u>
1	5K0 953 259	Clock Spring Cover

-OR-

1	5K0 953 569 AL	Steering Wheel Clock Spring (See ETKA for correct suffix)
1	5K0 953 569 AK	
1	5K0 953 569 AS	
1	5K0 953 569 AR	
1	N 907 991 02	Steering Wheel Bolt

Required Tools



- VAS6150C – Diagnostic Tester (or equivalent)



- 3409 – Trim Removal Wedge (or equivalent)



- VAG1331 – Torque Wrench, 5-50Nm

Work Procedure

TIP

If Campaign Completion label is present, no further work is required.

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



<u>DTC memory entry</u>	
Number:	Driver airbag igniter Resistance too high (B10001B)
Error type 2:	active/static
Symptom:	9437211
Status:	10001001
Standard ambient conditions:	Date: 5/18/15
	Time: 10:24:12 PM
	Mileage: 11075
	Priority: 2
	Frequency counter: 1
	Elimination counter / driving cycle: 255

<u>DTC memory entry</u>	
Number:	Driver side airbag igniter (VAG00588)
Error type 1:	Upper limit exceeded
Error type 2:	static
Standard ambient conditions:	Date: 7/24/15
	Time: 5:25:08 PM
	Mileage: 26299
	Priority: 2
	Frequency counter: 1
	Elimination counter / driving cycle: -1

Section B – Inspect Airbag Light Condition

- With the ignition switched ON, check the current status of the airbag warning light.
- If the airbag warning light is OFF, **Proceed to Section C – Clock Spring Cover Installation.**
- If the airbag warning light is illuminated, connect the VAS6150C (or equivalent) to the vehicle and perform a Guided Fault Finding (GFF) scan.
- Determine the cause of the airbag warning light.
- If the airbag system faults include “Driver airbag igniter Resistance too high (B10001B)” or “Driver side airbag igniter (VAG00588) Upper limit exceeded” <as shown>, the clock spring **MUST** be replaced. Leave the VAS tester connected to the vehicle and **Proceed to Section D – Clock Spring Replacement**
- If the airbag system faults are unrelated to the driver airbag igniter circuit, additional diagnosis is required outside of this action. Clock spring replacement is not necessary. **Proceed to Section C – Clock Spring Cover Installation.**

NOTE

Airbag system diagnosis and/or repairs unrelated to the clock spring replacement are **NOT COVERED** under this action.



Section C – Clock Spring Cover Installation

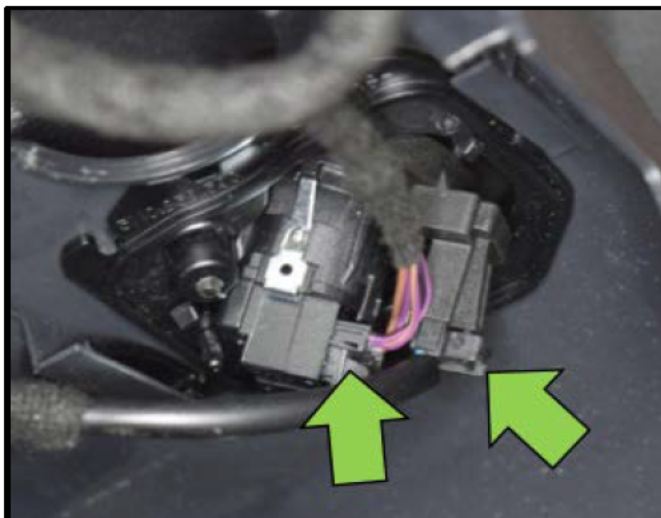
- Switch the ignition ON so the steering column lock is released.
- Turn the steering wheel to the 3 o'clock position <as shown>.
- Insert trim removal wedge 3409 (or equivalent) between the upper and lower steering column trim <arrow> and gently pry the trim pieces apart.
- The upper steering column trim will release from the lower section.
- Turn the steering wheel to the 9 o'clock position, then repeat the previous step to separate the upper steering column trim.
- Tilt the upper steering column trim toward the instrument cluster <arrows> to provide access to the steering wheel clock spring.
- Remove the mounting screw <circle>.



- Turn the steering wheel to the 3 o'clock position <as shown>.
- Remove the mounting screw <circle>.

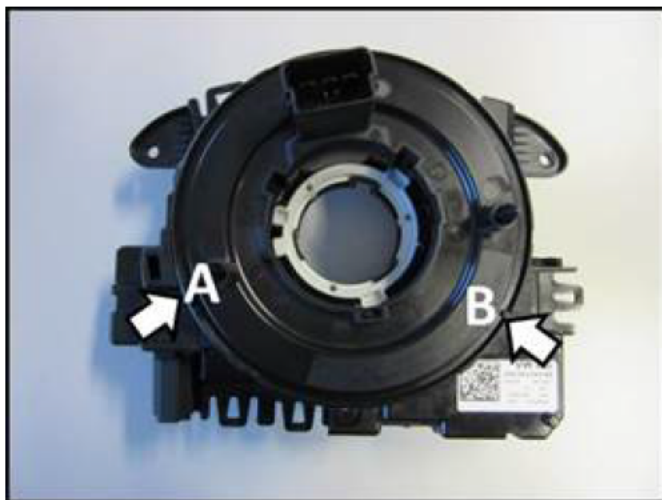


- Remove the mounting screw <circle> from the underside of the lower steering column trim.
- Remove the lower steering column trim.



TIP

On some vehicles equipped with KESSY, it will also be necessary to disconnect the wiring harness connectors <arrows> from the Start/Stop switch or the reader coil on the lower steering column trim.



NOTE

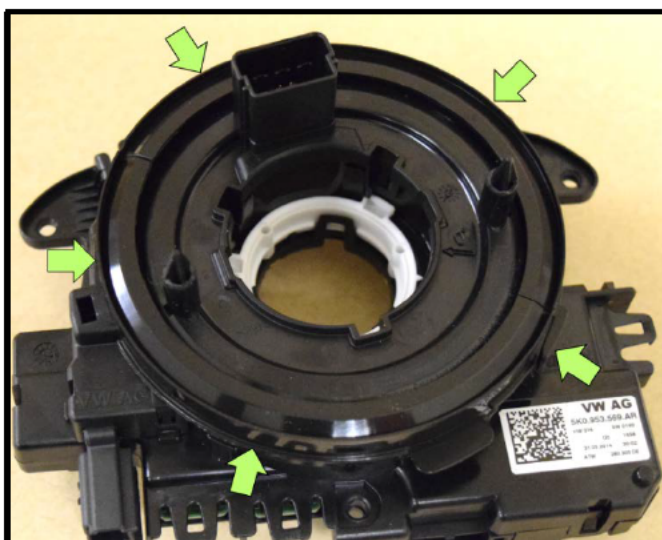
For picture clarity, some of the photos in the following steps were taken with the clock spring removed from the vehicle.

During these steps it is NOT necessary to remove the airbag, steering wheel, or clock spring from the vehicle unless otherwise directed.

- <Position A> indicates the 8 o'clock position.
- <Position B> indicates the 4 o'clock position.
- Inspect the part number on the clock spring label <as shown>.
- If the part number suffix is "AL, AK, AS, or AR", the clock spring cover MUST NOT be installed. Reassemble the steering column trim and **Proceed to Section E**
- If the part number suffix is **NOT** "AL, AK, AS, or AR" – **proceed to the next step**.

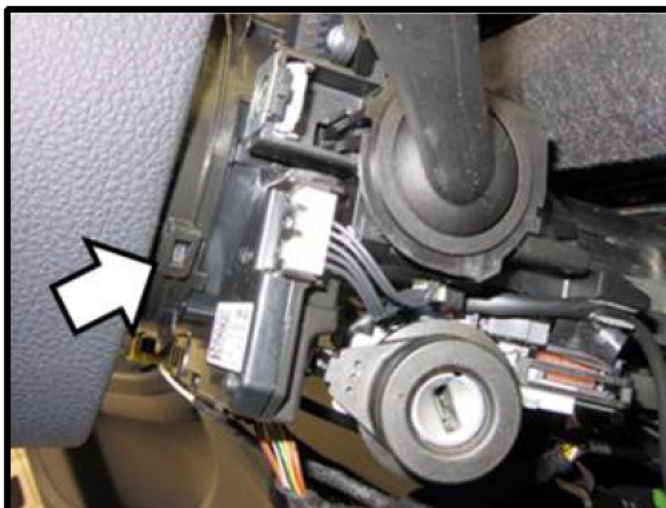


- Open and install the clock spring cover, P/N: 5K0953259 over the clock spring as shown <arrows>.

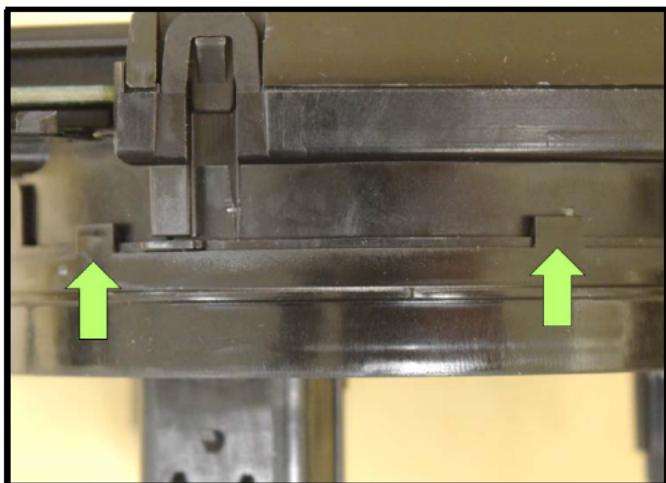




- During installation, the cut-out in the clock spring cover should line up with roughly the 8 o'clock position on the clock spring itself <arrow>.



- During installation, the clasp on the clock spring cover should line up with roughly the 4 o'clock position on the clock spring itself <arrow>.



- Once installed, verify the locking tabs on the clock spring cover are securely fastened over the rear edge of the clock spring itself as shown <arrows>.

NOTE

The clock spring cover is fastened to the clock spring using five locking tabs. Only the top two locking tabs are pictured here.

- Turn the steering wheel from side to side and inspect for any noise from the newly installed clock spring cover.
- Reinstall the steering column trim, any electrical connectors that were removed, and the steering column trim mounting screws.
- Gently tighten the steering column trim mounting screws.

Work Complete – Proceed to Section E

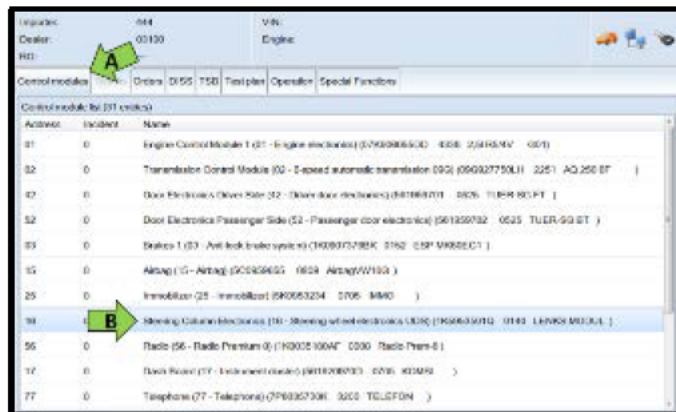
Section D – Clock Spring Replacement

⚠ WARNING

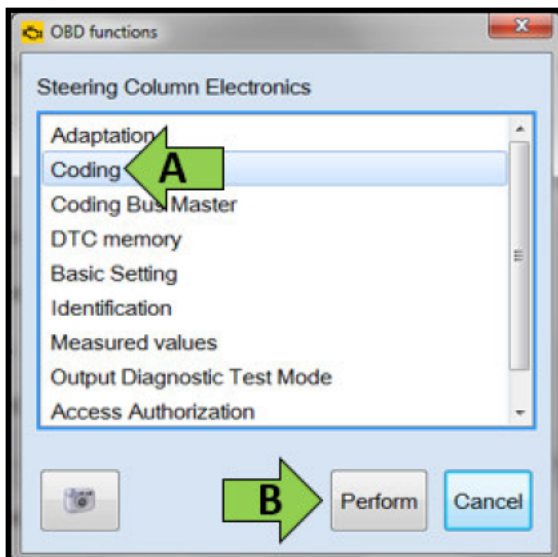
Risk of Injury. Refer to “Warnings and Safety Precautions”, found in Appendix A at the end of this document.

! NOTE

- The clock spring replacement steps should ONLY be followed if diagnosis identified the clock spring as the root cause of an airbag warning light.
- After replacing the clock spring, it is NOT NECESSARY to install a clock spring cover.



- In ODIS, select the “Control modules” tab <arrow A>.
- Right click on “Steering Column Electronics” <arrow B>.
- When displayed, select “Control module OBD” from the drop down menu.



- Select “Coding” <arrow A>
- Select “Perform” <arrow B>.

Importer: 444 VIN: [REDACTED]
 Dealer: 03100 Engine: CBTA 2.5 L Motoronic / 125kW
 RO: [REDACTED]

Control modules Results Orders DiSS TSB Test plan Operation Special Functions

15 - Steering Column Electronics (UDS / ISOTP / 1K5953501Q / 0140 / 014 / EV_VW360SteerWheelUDS) Coding  

System ID: LENKS.MODULE

Parameter name	Current value	Entry
[LQ_01 Lenkwinkelsteuersensor im SMLS (cp_aws)	Installed	
[LQ_16 Multifunktionssteuergerät, Blinkerpro MFG (cp_mfg_mfg_master)	not active	
[LQ_17 Multifunktionssteuergerät, Blinkerpro SMLS (cp_mfg_smls_master)	not active	
[LQ_04 Zündschlüsselabzugssperre (cp_automat)	Installed	
[LQ_02 Heckschleibenwischer (cp_heckwischer)	not installed	
[LQ_06 Taster für Fahrerassistenzsysteme (cp_tas)	not installed	
[LQ_03 MFA-Tasten im Wischerhebel (cp_mfa)	not installed	
[LQ_20 Multifunktionslenkrad LIN2.0 VW (cp_mf_lin_2_0_vw)	Installed	

- Select “Coding” from the menu <arrow A>.
- Press the forward arrow <arrow B>.

Importer: 444 VIN: [REDACTED]
 Dealer: 03100 Engine: CBTA 2.5 L Motoronic / 125kW
 RO: [REDACTED]

Control modules Results Orders DiSS TSB Test plan Operation Special Functions

16 - Steering Column Electronics (UDS / ISOTP / 1K5953501Q / 0140 / 014 / EV_VW360SteerWheelUDS) Adaptation 

System ID: LENKS.MODULE

Parameter name	Current value	Entry
[LQ_01 Lenkwinkelsteuersensor im SMLS (cp_aws)	Installed	
[LQ_16 Multifunktionssteuergerät, Blinkerpro MFG (cp_mfg_mfg_master)	not active	
[LQ_17 Multifunktionssteuergerät, Blinkerpro SMLS (cp_mfg_smls_master)	not active	
[LQ_04 Zündschlüsselabzugssperre (cp_automat)	Installed	
[LQ_02 Heckschleibenwischer (cp_heckwischer)	not installed	
[LQ_06 Taster für Fahrerassistenzsysteme (cp_tas)	not installed	
[LQ_03 MFA-Tasten im Wischerhebel (cp_mfa)	not installed	
[LQ_20 Multifunktionslenkrad LIN2.0 VW (cp_mf_lin_2_0_vw)	Installed	

Filter: [REDACTED]

Apply Restore **Binary coding** 

- Select “Binary Coding” <arrow>.

Importer: 444 VIN: [REDACTED]
 Dealer: 03100 Engine: CBTA 2.5 L Motoronic / 125kW
 RO: [REDACTED]

Control modules Results Orders DiSS TSB Test plan Operation Special Functions

16 - Steering Column Electronics (UDS / ISOTP / 1K5953501Q / 0140 / 014 / EV_VW360SteerWheelUDS)

System ID: LENKS.MODULE

Byte no.	Current hex value	Current binary value	Hex input	Binary input
0	09	00001001		
1	8A	10001010		
2	14	00010100		
3	00	00000000		
4	00	00000000		

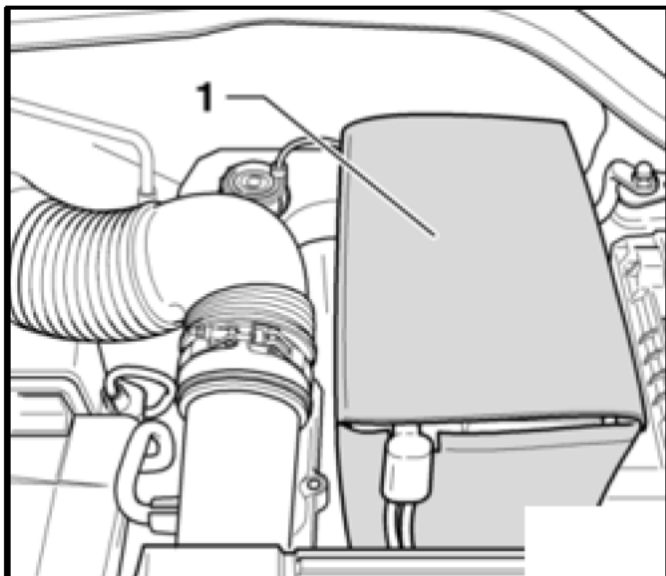
Check digit: [REDACTED]

Apply Restore Plain text coding

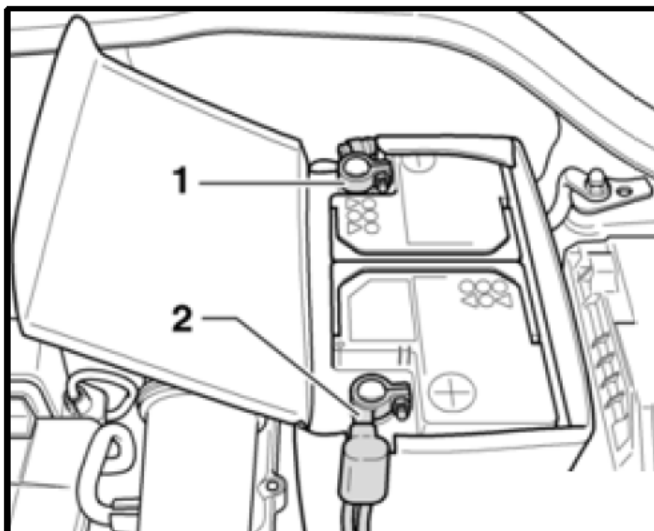
- Record each Byte number and the corresponding hex value <as shown>.
- These values will need to be manually entered in the steering wheel electronics after the clock spring is replaced.

NOTE

The steering wheel electronics coding will vary between vehicles. DO NOT use the coding values shown here, or values recorded from a different vehicle.



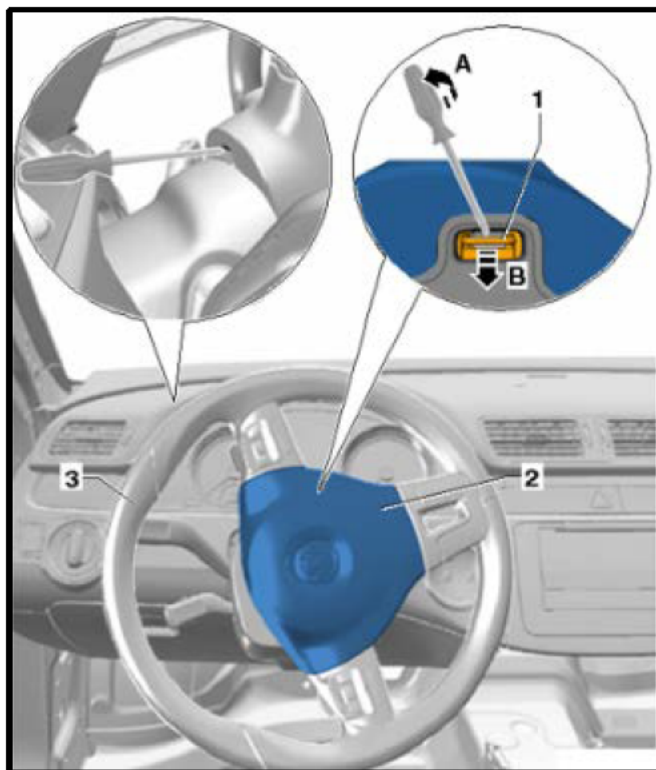
- Switch the ignition on.
- Open the hood.
- Open the cover on the battery jacket <1>.



- Disconnect and isolate the negative battery cable <1>.

**NOTE**

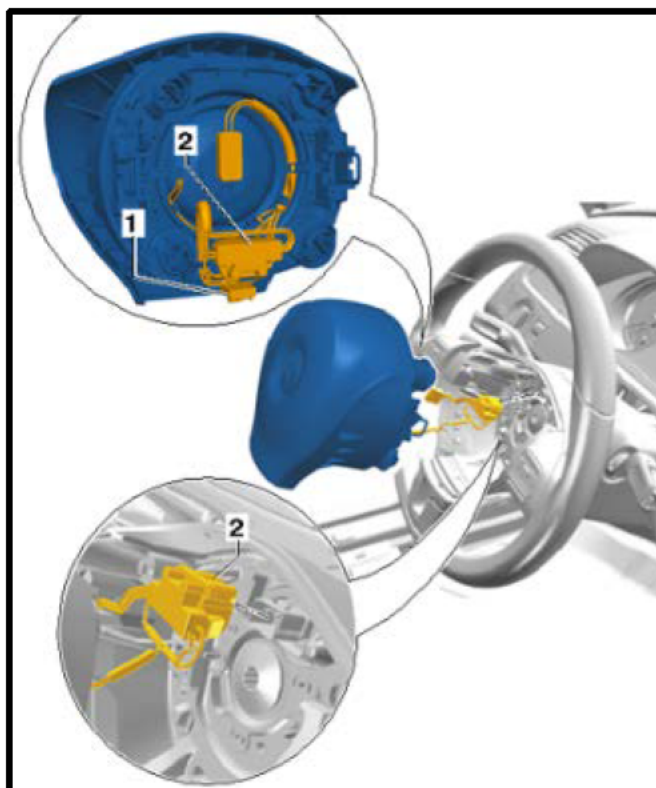
It is not necessary to remove the positive battery cable <2> during this procedure.

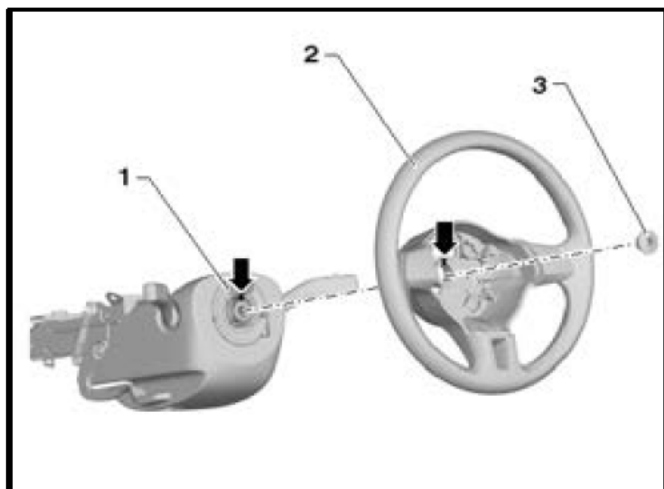


NOTE

The screwdriver mentioned in the following should be about 175mm long and have a blade width of 7mm.

- Move the steering wheel to the lowest position.
- Adjust the steering wheel depth (reach) so it is in the fully extended position.
- Turn the steering wheel to the point illustrated <as shown>.
- Insert a screwdriver toward the driver door <arrow A>.
- Use the screwdriver to release the airbag unit locking mechanism <1> as shown <direction of arrow B> on the right side of the steering wheel.
- Turn the steering wheel 180°, repeat the steps above, and release the airbag unit locking mechanism on the left side of the steering wheel.
- Turn the steering wheel back to its centered position.
- Loosen the airbag unit from the steering wheel.
- Release the connector lock and disconnect the airbag connector <2>.
- Release the connector lock and disconnect the connector <1> (vehicles equipped with a multifunction steering wheel ONLY).
- Connect the airbag connector <2> with the wiring harness to the back of the airbag unit.

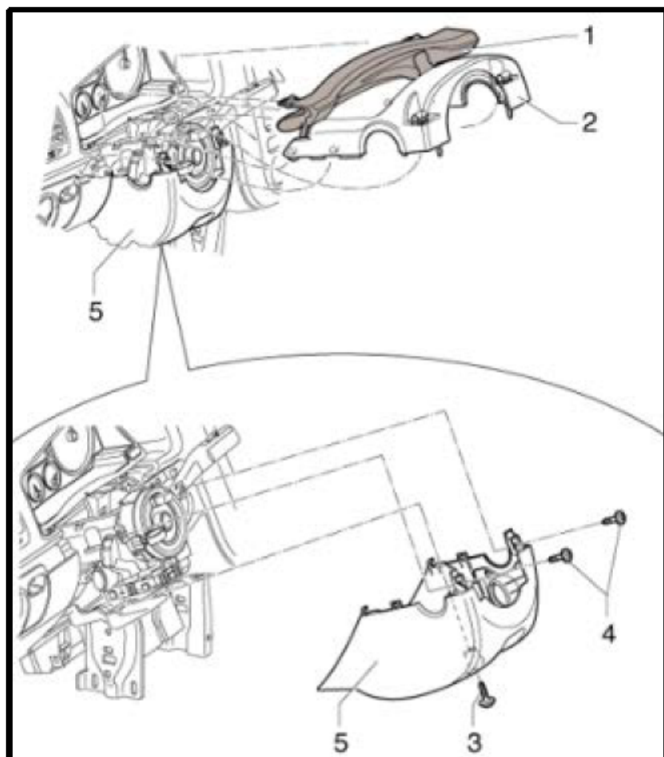




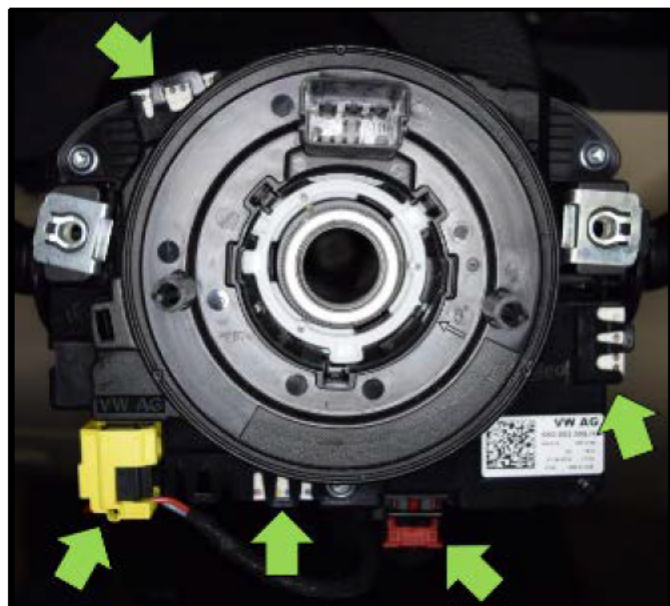
- Turn the steering wheel to the center position (front wheels in straight ahead direction).
- Remove the mounting bolt <3>.
- Remove the steering wheel <2> from the steering column hub <1>.

NOTE

To ensure the steering wheel is reinstalled in the correct orientation, mark the steering wheel and steering column shaft using a scribe or punch prior to removing the steering wheel.



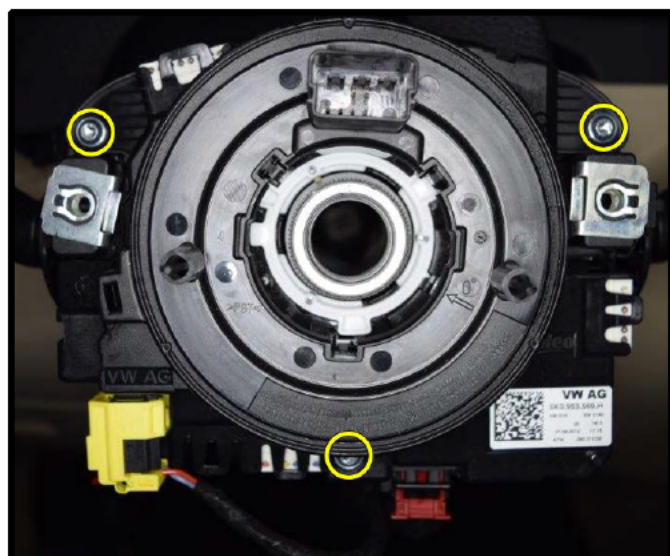
- Remove the cover <1> and the steering column trim <2>.
- Remove the mounting bolts <3 and 4>.
- Remove the lower steering column trim <5> from mounts.



- Disconnect all electrical connectors <arrows> from the clock spring.

TIP

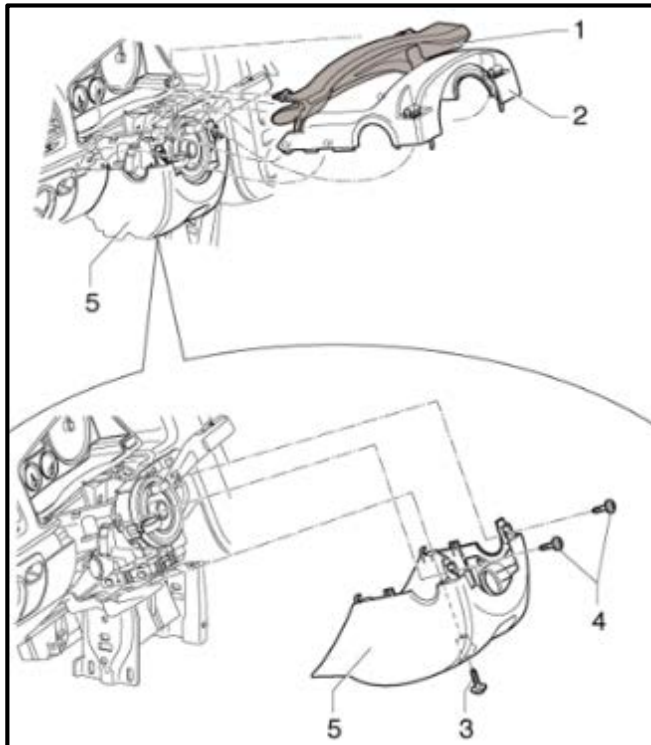
The number of connectors attached to the clock spring will vary based on vehicle model and trim level. Verify all electrical connectors have been removed prior to proceeding to the next step.



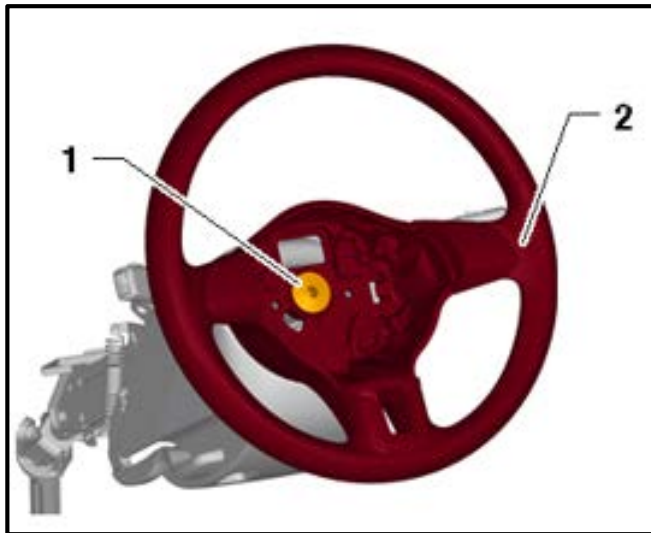
- Remove the clock spring mounting screws <circles>.
- Remove the clock spring.



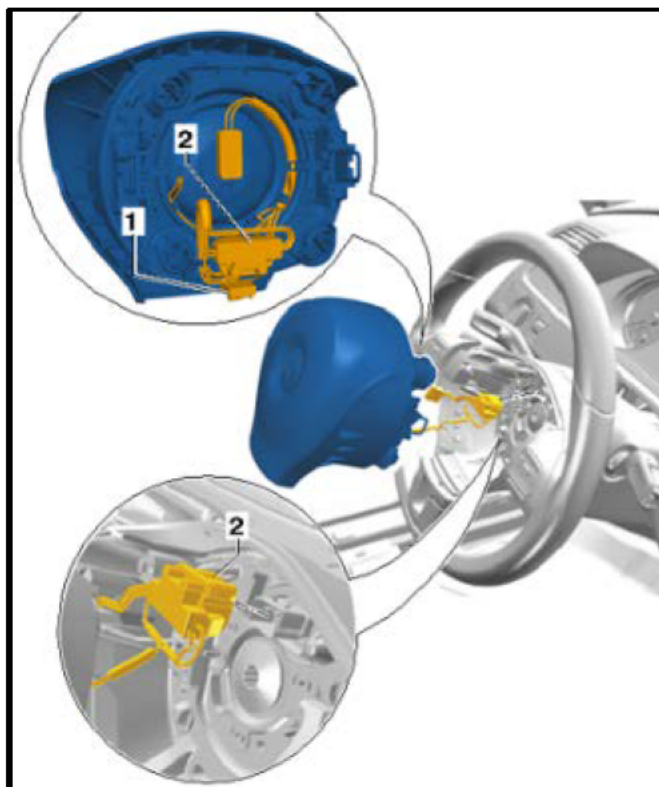
- Reference the ETKA parts catalog by VIN to determine the correct replacement clock spring part number.
- Install the replacement clock spring and new mounting screws.
- Reconnect all electrical connectors to the replacement clock spring.



- Reinstall the upper and lower steering column trim pieces <2 and 5>.
- If necessary, reinstall the electrical connectors onto the Start/Stop switch.
- Reinstall and gently tighten the mounting screws <3 and 4>.



- Remove the red locking key from the front of the new clock spring.
- Reinstall the steering wheel <2> onto the steering column shaft.
- Verify the alignment mark on the steering wheel and on the steering column shaft align – remove and readjust the steering wheel if necessary.
- Install a replacement mounting screw <1>, P/N: N90799102 and torque to **30Nm+90° turn**.



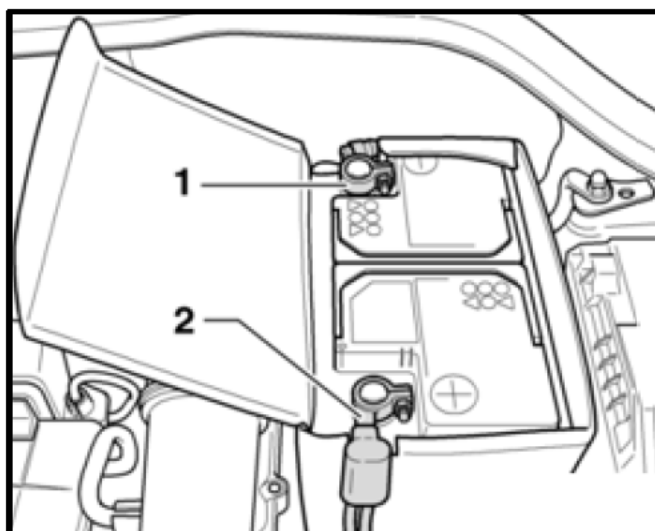
- Reconnect the airbag wiring harness <2> to the connector on the clock spring until it clicks into place.
- Reconnect the wiring harness <1> to the connector on the clock spring (vehicles equipped with a multifunction steering wheel ONLY).
- Push the airbag unit into the steering wheel.
- Gently pull on the airbag unit to make sure it is locked securely inside the steering wheel on the left and right sides.

NOTE

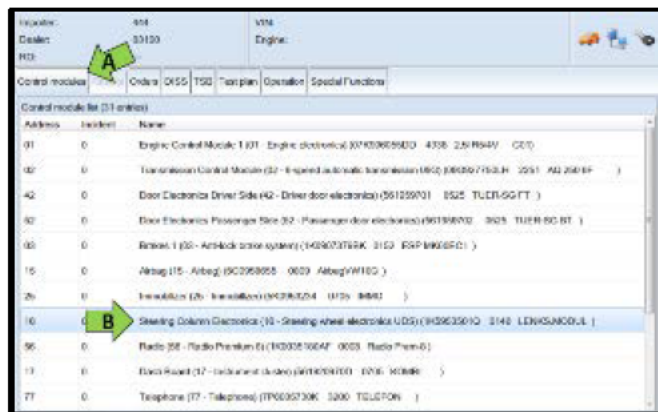
- The connectors on the airbag MUST be fully installed and engage audibly when pushed into place.
- During installation of the airbag unit, the wiring harness must not be caught between the airbag unit and the steering wheel.

WARNING

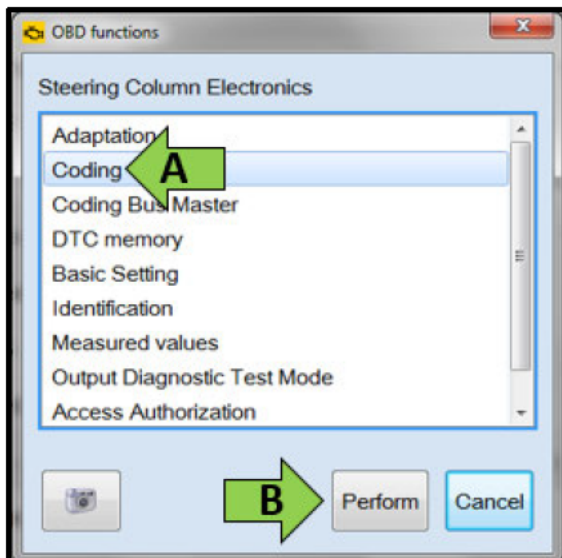
- The ignition must be switched ON when reconnecting the battery. If pyrotechnic components (i.e. airbag, seatbelt tensioner) are not repaired correctly, they may deploy unintentionally after reconnecting the battery.
- There MUST NOT be anyone inside the vehicle when reconnecting the battery.



- Reconnect the negative battery cable <1>.
- Close the battery jacket cover.



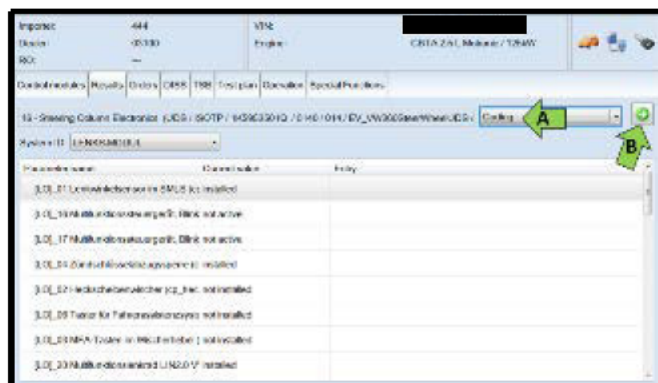
- Reconnect the VAS tester to the vehicle.
- Perform a complete GFF scan.
- Select the “Control modules” tab <arrow A>.
- Right click on “Steering Column Electronics” <arrow B>.
- When displayed, select “Control module OBD” from the drop down menu.



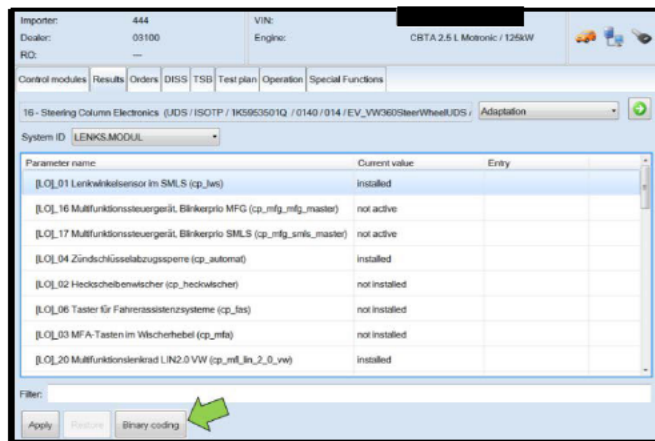
- Select “Coding” <arrow A>
- Select “Perform” <arrow B>.

TIP

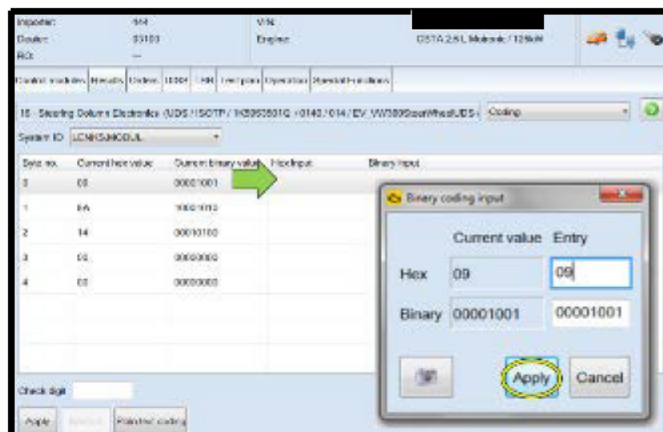
The coding procedure for the steering column electronics can also be performed via the online coding function.



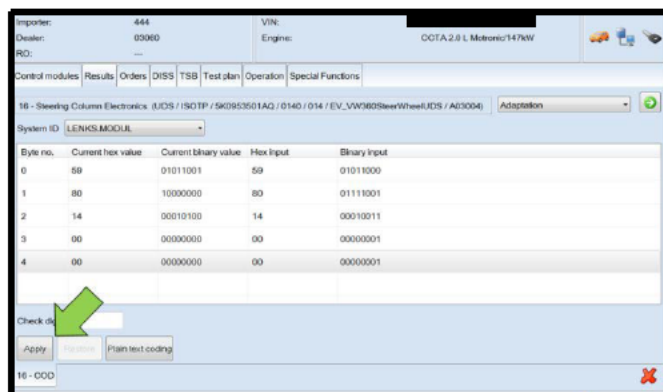
- Select “Coding” from the menu <arrow A>.
- Press the forward arrow <arrow B>.



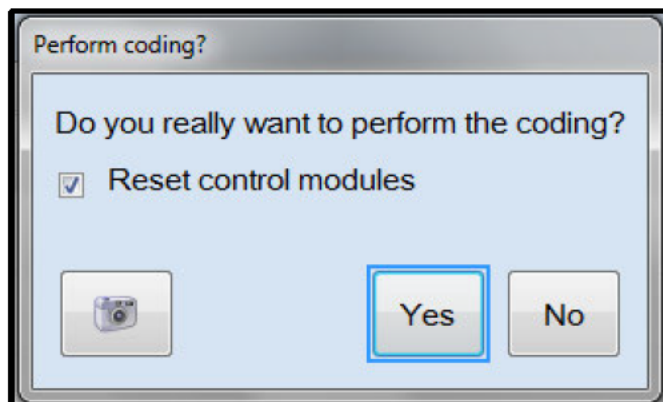
- Select “Binary coding” <arrow>.



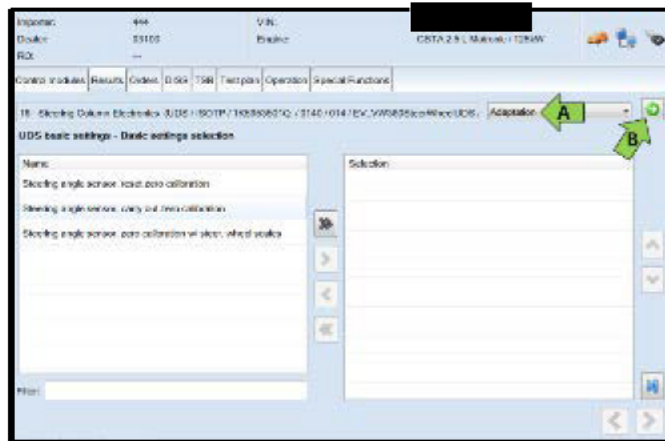
- Click in the “Hex input” column in the “Byte no. 0” line where shown <arrow>.
- When the “Binary coding input” box appears, enter the “Hex” value that was recorded previously, the select “Apply” <circle>.
- Repeat these steps for each line of the binary coding.



- Once the necessary Hex values have been changed, select “Apply” <arrow>.



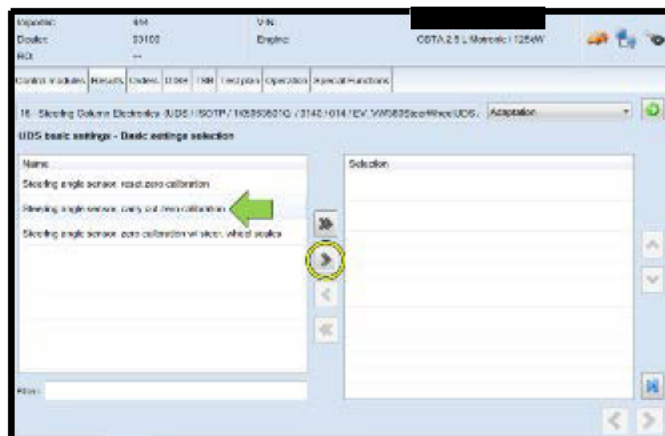
- When prompted, select “Yes” <as shown>.
- Follow the on-screen directions to complete the coding of the steering wheel electronics.



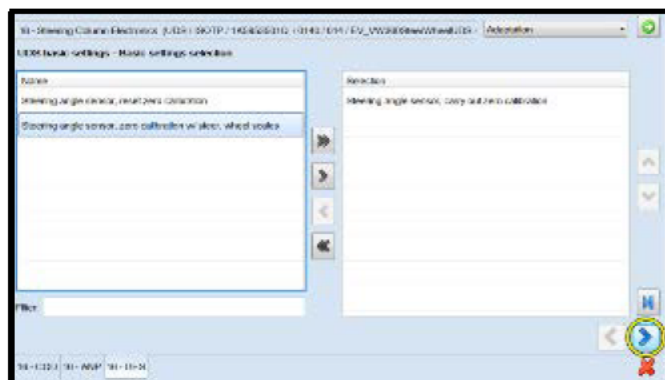
TIP

Before attempting the GFF test plan for steering angle sensor basic settings, start the vehicle and turn the steering wheel from lock to lock (full-left to full-right), then back to center. In most cases this will perform the basic settings. If necessary, proceed with the test plan illustrated below.

- Select "Basic Settings" from the menu <arrow A>.
- Press the forward arrow <arrow B>.



- Select "Steering angle sensor, carry out zero calibration".
- Press the arrow button <circle>.



- Press the forward arrow <circle>.
- Follow the on-screen directions to perform basic settings of the steering angle sensor.

- Clear all DTCs.
- Reset all customer convenience settings (i.e. one-touch windows, clock, etc.).

Work Complete – Proceed to Section E

Section E – Campaign Completion Label and Parts Return/Disposal

Install Campaign Completion Label

- Open the hood.

Fill out and affix Campaign Completion Label, part number CAMP 010 000, next to the vehicle emission control information label.



TIP

Ensure Campaign Completion Label does not cover any existing label(s).

- Close the hood.

Parts Return/Disposal

Properly destroy or dispose of removed parts in accordance with all state and local requirements, unless otherwise indicated and/or requested through the Warranty Parts Shipping Portal (WPSP) for U.S. and SAGA for Canada.

ALL WORK IS COMPLETE

Appendix A – Warning and Safety Precautions

Battery Safety Precautions

Recognizing and Preventing Risks.

Batteries present risks. Read the warnings on the battery label, in the owner's manual and in ELSA to prevent these risks.

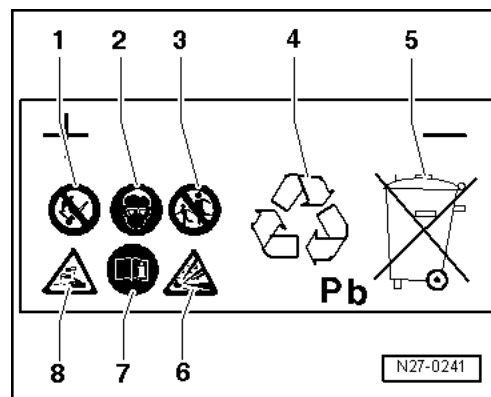


WARNING

- Personnel instructed in protection, such as a trainee or apprentice, may only perform work on vehicle batteries under the supervision of technical personnel such as a master automotive mechanic or a master automotive electrician.
- Acid has strong corrosive properties. If batteries are handled inappropriately, there is a risk that personal injury may result from exposure to harmful electrolyte influences. Therefore, suitable remedies for acid damage must be kept readily available. For example, soap solution is a suitable material.
- If electrolyte drips out from the battery, skin can be burned by acid or the vehicle may be affected by acid erosion and corrosion. It is a possibility that safety-related vehicle components can be damaged
- When charging and when resting after charging, explosive gas is present. In extreme cases, if the battery is handled inappropriately, the emitted gases may cause the battery to explode.
- Batteries whose visual indicators are bright yellow must be replaced. They may not be tested or charged and jump starting may not be used. There is a risk of explosion during testing, charging or jump starting.
- Generating sparks by sanding, welding, separating work and open flame, for example, smoking in vicinity of the battery, is prohibited. Producing sparks through electrostatic discharge must also be avoided. Always touch the vehicle body before touching the battery.
- Only perform battery procedures in suitable and well-ventilated locations.

Battery Safety Label

1. When working in the area of batteries, fire, sparks, open flame and smoking are prohibited. Avoid sparks when working with cables and electrical devices, and from electrostatic discharge. Avoid short circuits. For this reason, tools should not be rested on the battery.
2. Wear protective eyewear when working on the battery.
3. Always keep acid and batteries out of the reach of children.



The repair information in this document is intended for use only by skilled technicians who have the proper tools, equipment and training to correctly and safely maintain your vehicle. These procedures are not intended to be attempted by "do-it-yourselfers," and you should not assume this document applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Volkswagen dealer. ©2015 Volkswagen Group of America, Inc. and Volkswagen Canada. All Rights Reserved.

4. Disposal: old batteries require special disposal. They may only be disposed of at a suitable collection facility and only in consideration of legal regulations.
5. Do not dispose of old batteries in household waste.
6. When handling batteries, there is a risk of explosion. Battery charging produces a highly explosive gas mixture.
7. Always observe notes on battery in ELSA "Electrical Equipment - General Information" and in the Owner's Manual.
8. Danger of burns: battery acid is severely corrosive, therefore protective gloves and eye wear must be worn when working on the battery. The battery must not be tipped because acid may spill from the ventilation openings.

Battery Post/Terminal



Caution

In order to prevent damage to the battery terminals and battery posts, observe the following

- Never use force to attach the battery terminals by hand.
- Do not apply grease to battery posts.
- The battery terminal clamps should be mounted so that the battery terminal sits flush with the clamp or protrudes out of it.
- After tightening the battery terminal clamps to the specified torque, the threaded connections must not be tightened again.

Working on Airbag System



WARNING

When working on the airbag system (pyrotechnic components, Airbag Control Module -J234-, wiring), the ground cable must be disconnected with the ignition switched on.

Exceptions: On vehicles with a battery in the passenger compartment, the ignition must be switched off.

- Then cover the negative terminal.
- After disconnecting the battery, a wait time of 10 seconds is required.
- The battery must be connected with the ignition switched on.
- There must be no one inside the vehicle when connecting the battery.

Make sure in this case to keep oneself away from the airbag deployment and belt tensioner zones.

If the ignition is not switched on after reconnecting the battery (the indicator lamps in the instrument cluster do not illuminate), the ignition (key/button) may only be switched on while sitting in the driver's seat in the rearmost position.

General Safety Precautions when Working on Airbag, Belt Tensioner and Battery Cut-Out Units (Pyrotechnic Components)



WARNING

- Pyrotechnic components always contain chemicals, which turn into an expanding gas when detonated. There is also additional stored gas available for discharge.
- This gas is contained under high pressure and is stored in a pressurized gas container.
- An electric/mechanical igniter ignites the pyrotechnic components.
- Testing, assembly, and repair work may only be performed by qualified personnel.
- There is no change interval for airbag units.
- Never test with a test light, volt meter or ohm meter.
- The pyrotechnic components may be checked only when they are installed and with a Volkswagen approved vehicle diagnosis, testing and information system.
- When working on pyrotechnic components and on the Airbag control module, the battery ground cable must be disconnected when the ignition is switched on. Then cover the negative terminal.
- Wait for 10 seconds after disconnecting the battery.
- The ignition must be SWITCHED ON when connecting the battery. Nobody should be inside the vehicle with doing this. Exception: Vehicles with a battery inside the passenger compartment. Stay away from the airbags and the safety belts.
- If the ignition is not turned on after reconnecting the battery ("the indicator lamps in the instrument cluster do not come on") then keep your face and arms away from the steering wheel when turning on the ignition for the first time.
- Wash hands after touching ignited restraint system pyrotechnic components.
- Pyrotechnic components may not be opened nor repaired; always use new parts (risk of injury).
- Pyrotechnic components that have fallen onto a hard surface or show signs of damage must not be installed in vehicle.
- Before handling pyrotechnic components of the restraint system, for example, before disconnecting the electrical harness connector, the relevant person must discharge static

electricity. Touching grounded metal parts, for example, touching the door striker, will discharge the static electricity.

- Pyrotechnic components should be installed immediately upon removal from shipping package.
- If the work must be stopped for a while, put the pyrotechnic component back into its shipping package.
- Do not leave the pyrotechnic component out unattended.
- Do not use any grease or cleaning solutions on pyrotechnic components.
- Pyrotechnic components must not be exposed to temperatures over 100 °C (212 °F), even for a short time.

Driver and Passenger Airbag, Special Notes



WARNING

- When removed, store the driver and passenger airbag units so that the padded side faces upward.