



AEM-C Emissions Service Action- USA

Code: 23AK

Subject 3.0L TDI Engine Gen 2.1 & 2.2 SUV Approved Emissions Modification-Correction (AEM-C)

Release Date January 07, 2020

Affected Vehicles

Country	Beginning Model Year	Ending Model Year	Vehicle
USA	2013	2016	TOUAREG

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 only valid campaign inquiry & verification source.

- ✓ Campaign status must show "open."
- ✓ 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.

Problem Description

Volkswagen is releasing a software calibration update to the Approved Emissions Modification (AEM). This software calibration will include the following changes to the vehicles' emissions control and on-board diagnostics (OBD) software: (1) It will correct an issue that is causing the "check engine" light to falsely illuminate under certain driving conditions, which has resulted in replacement of the diesel oxidation catalyst (DOC) for certain customers; (2) It will reduce the likelihood of experiencing an engine shudder that could occur during certain warm-up driving conditions; and (3) It will improve OBD monitoring of vehicle emissions systems and otherwise improve the software used by your vehicle.

Corrective Action

Update the engine control module (ECM) software calibration.

IMPORTANT!

This AEM-C ONLY applies to vehicles that have already received the AEM

- **This AEM-C MUST explicitly be elected by the customer and be clearly marked on the repair order PRIOR to commencing the update.**
- **This AEM-C only applies to vehicles that have received the Approved Emissions Modification (AEM).**
- **Dealers MUST provide a copy of the attached customer letter to each customer who presents their vehicle for repair under this AEM-C.**
- **If a vehicle has not yet received the AEM, this AEM-C does not apply.**

Parts Information

Software update only; no parts needed.

Code Visibility

On or about January 07, 2020, affected vehicles will be listed on the Inventory Vehicle Open Campaign Action report under My Dealership Reports (found on www.vw.com & OMD Web). A list will not be posted for dealers who do not have any affected vehicles.

On or about January 07, 2020, this campaign code will show open on affected vehicles in Elsa.

On or about January 07, 2020, affected vehicles will be identified with this campaign code in the VIN Lookup tool at www.vw.com.

Owner Notification

Owner notification will take place in December 2019. An owner letter example is 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.

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.vw.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.

Service Number	23AK
Damage Code	0099
Parts Vendor Code	WWO
Claim Type	Sold vehicle: 7 10 Unsold vehicle: 7 90
Causal Indicator	Mark labor as causal
Vehicle Wash/Loaner	Do not claim wash/loaner under this action
Criteria I.D.	01 or 02
	Connect battery charger. Labor operation: 2706 89 50 10 T.U. --AND-- Update engine control module software Labor operation: 2360 25 99 Time stated on diagnostic protocol (Up to 50 TU)

Customer Letter Example (United States)

**Subject: Service Action 23AK
3.0L TDI Engine Gen 2.1 & 2.2 SUV – Approved Emissions Modification Correction (AEM-C)
2013-2016 MY Volkswagen Touareg with 3.0L TDI Engine (Generation 2.1 & 2.2)**

Dear Volkswagen Owner,

As part of Volkswagen's ongoing commitment to customer satisfaction, we are informing you of our decision to conduct an emissions service action on 2013-2016 model year Volkswagen Touareg 3.0L TDI engine (Generation 2.1 & 2.2) vehicles that received an Approved Emission Modification or that will eventually receive the Approved Emissions Modification, pursuant to the terms of Volkswagen's Second Partial Consent Decree with the Environmental Protection Agency, Department of Justice, California Air Resources Board and California Attorney General. Our records show that you are the owner of a vehicle affected by this action.

Information about this Approved Emissions Modification – Correction (AEM-C)

- Volkswagen is releasing a software calibration update to the Approved Emissions Modification (AEM). This software calibration will include the following changes to the vehicles' emissions control and on-board diagnostics (OBD) software: (1) It will correct an issue that is causing the "check engine" light to falsely illuminate under certain driving conditions, which has resulted in replacement of the diesel oxidation catalyst (DOC) for certain customers; (2) It will reduce the likelihood of experiencing an engine shudder that may occur during certain warm-up driving conditions; and (3) It will improve OBD monitoring of vehicle emissions systems and otherwise improve the software used by your vehicle.
- Updates in this service action will not adversely impact your vehicle's drivability, fuel economy, or warranty coverage.
- Updates will take up about an hour to complete, and will be performed for you free of charge.
- Volkswagen will provide you a loaner vehicle. You may also request alternate transportation during this update.

What should you do?

If you elect to receive these updates, please contact your authorized Volkswagen dealer as soon as possible to schedule this service. 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.

For your convenience, you can also visit www.vw.com/find-a-dealer and click on the "Find a Dealer" link to locate a dealer near you and schedule this service.

Before you receive these updates, you will be required to provide written authorization to the Volkswagen dealer.

This service action is voluntary. However, if you previously received an Approved Emissions Modification and elect not to receive these updates to your vehicle, it may cause issues with your OBD system and require a trip to an authorized Volkswagen dealer to address.

If you already received an AEM and elect to receive these updates, you have two options:

- **Option 1:** At your convenience, you may contact your nearest authorized Volkswagen dealer and arrange for an appointment to receive this service action update at no cost to you with your written authorization.
- **Option 2:** When you visit your Volkswagen service department for any reason, including a MIL caused by this issue, the dealer can update your vehicle with your written authorization.

Additionally, if you chose to receive an AEM, but have not yet received it, please contact your nearest authorized Volkswagen dealer for an appointment. The dealer will provide both the AEM and this AEM Correction during the same appointment with your written authorization.

Lease vehicles and address changes

If you are the lessor and registered owner of the vehicle identified in this action, please 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.

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 contact Customer CARE, Monday through Friday 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 visit www.vw.com/owners/recalls and enter your Vehicle Identification Number (VIN) into the Recall/Service Campaign Lookup tool.

Important Deadlines for Eligible Owners and Eligible Lessees in the Volkswagen 3.0L Diesel Emissions Settlement Program

If you are an Eligible Owner or Eligible Lessee in the Volkswagen 3.0L Diesel Emissions Settlement Program, the deadline to complete your settlement claim (including submission of all required documentation) is December 31, 2019. Please visit www.vwcourtsettlement.com or call 1-844-98-CLAIM for more information.

We apologize for any inconvenience this matter may cause; however we are taking this action to help ensure your vehicle continues to meet your expectations and the requirements of Volkswagen's Consent Decree with the United States and California.

Sincerely,

Volkswagen of America

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. ©2020 Volkswagen Group of America, Inc. and Volkswagen Canada. All Rights Reserved.

NOTE

- 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.
- Diagnosis and repair of pre-existing conditions in the vehicle are not covered under this action.

Required Tools



Battery Tester/Charger
- GRX3000VAS-
(or equivalent)



Diagnostic Tester
-VAS6150X/VAS6160X-
(or equivalent)

Repair Instruction

Section A - Check for Previous Repair

Applicable criteria ID(s)	Campaign/Action Status
01 ← 2	Open ← 1

EXAMPLE

- 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.

- Confirm the Campaign/Action is open <arrow 1>. If the status is closed, no further work is required.
- Note the Applicable Criteria ID <arrow 2> for use in determining the correct work to be done and corresponding parts associated.
- **All safety recalls must be completed prior to completing this Action.**

Proceed to Section B.

Section B – Engine Control Module Software Update

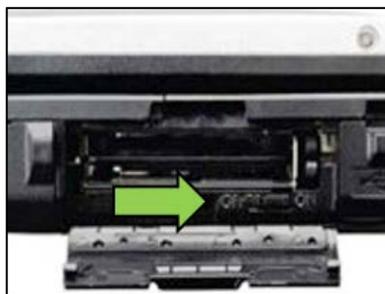
NOTE

Prior to launching the VAS Diagnostic Tester and starting an update, ensure the following conditions are met;

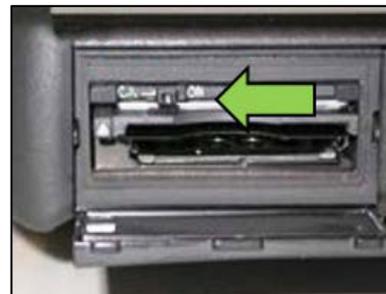
- ✓ **The ODIS software is completely up to date.**
 - Refer to the “Alerts” section on ServiceNet home page for the current ODIS version.
- ✓ **The battery charger is connected to the vehicle battery and remains connected for the duration of the software update.**
 - Battery voltage must remain above 12.5 volts for the duration of the software update. Failure to do so may cause the update to fail, which could result in damage to the control module. Control modules damaged by insufficient voltage will not be covered.
- ✓ **The screen saver and power saving settings are off.**
 - Failure to do so may result in the tester entering power save mode during the software update, which could result in damage to the control module.
- ✓ **The VAS Diagnostic Tester is plugged in using the supplied power adapters.**
 - Under no circumstances should the tester be used on battery power alone during the software update. Failure to do so may result in the tester powering off during the update, which could result in damage to the control module.
- ✓ **If using a Bluetooth transmitter head, it is connected to the tester with a USB cable.**
 - Performing a software update using a Bluetooth connection increases the risk of losing connection during the update, which could result in damage to the control module. It also greatly increases the time required to perform the update. Requests for additional time or parts will be denied if the GFF log shows the update was performed using Bluetooth.
- ✓ **The Bluetooth function of the scan tool is physically switched off <see pictures below>.**



VAS 6150 & VAS 6150A
(Front panel behind handle)



VAS 6150B
(Right side behind WIRELESS door)



VAS 6150C/D
(Left side behind SC/EX door)

⚠ WARNING

Radiator Fan(s) may cycle ON high speed during the Update Process! There is a serious risk that personal injury may result if contact is made with spinning fan blades. Keep hands and all objects away from Radiator Fan(s) during Update Process!



- Open the hood.
- Open the battery cover.
- Switch the ignition on.
- Apply the parking brake.
- Switch off all consumers (headlights, heated seats, climate control, etc.).
- Connect the VAS6150X/VAS6160X Diagnostic Tester to the vehicle.
- Start the ODIS program.
- Attach the GRX3000VAS Tester/Charger (or equivalent) to the vehicle battery.

ⓘ NOTE

Vehicles with Battery Monitoring Control Module -J367- and/or an EFB Battery:

When connecting the charger to the battery, connect the positive cable to the positive terminal of the battery and connect the negative cable to the grounding lug on the chassis. DO NOT connect the ground cable directly to negative terminal of the battery.

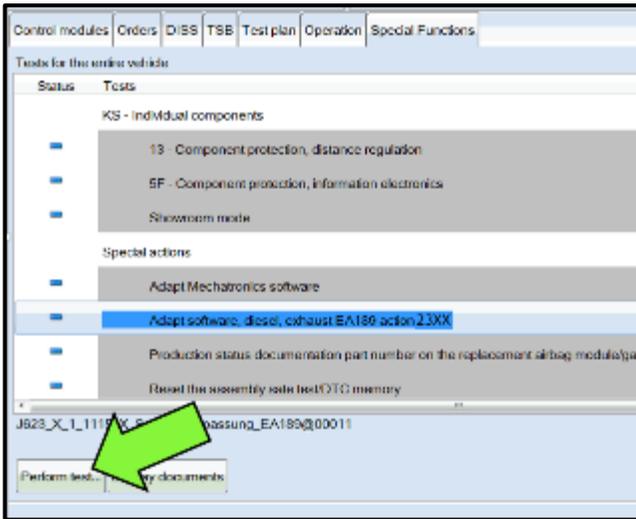
- Turn the hazards on.

⚠ CAUTION

The procedure may cancel itself if the hazard warning lights are not switched on. The hazard warning lights prevent the system from switching to bus sleep mode during the update.



- Confirm that scan tool is communicating with the diagnostic head by USB <Green Arrow>.
 - If the Bluetooth symbol is shown <Red Arrow> then disconnect the diagnostic head from the vehicle and reconnect the USB cable to the diagnostic head and then reattach to the vehicle.
- Upon ODIS startup, verify the “Diagnosis” operating mode is selected <as shown>.



NOTE

RISK of Scan Tool Damage!

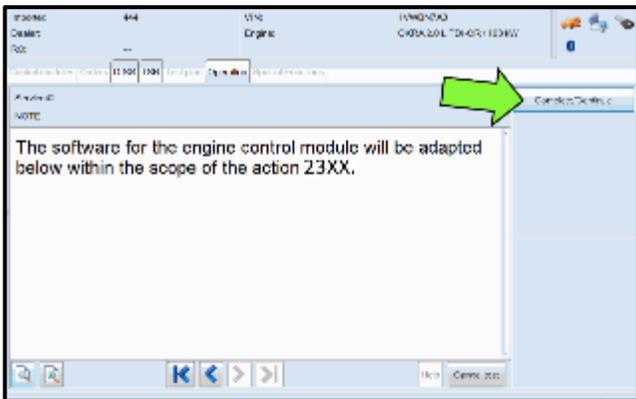
Do not leave the scan tool on the windshield during the flash process, as it is possible that the windshield wipers may cycle.

- Once the GFF scan is complete, select “Special functions”.
- Select the test plan “**Adapt software, diesel, exhaust EA189 action 23XX**” <as shown>.
- Select “Perform test” <arrow>.

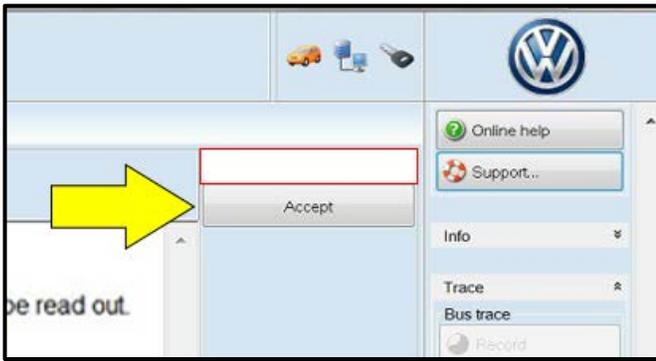
NOTE

RISK of Improper Repair!

- **DO NOT SELECT** the normal test plan for “Adapting Software”.
- **ONLY SELECT** the test plan “**Adapt software, diesel, exhaust EA189 action 23XX**” to perform this repair.



- Select “Complete/Continue” <arrow> after the control module adaptation, action 23XX note appears.



NOTE

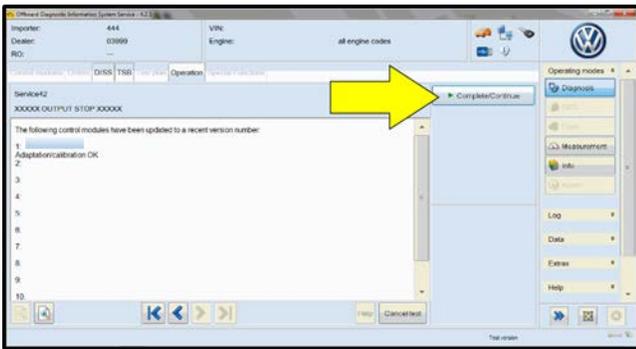
Using Bluetooth for this action is PROHIBITED!

Damage caused to electronic components (e.g. ECM, TCM, etc.) during the SVM flash process is not covered.

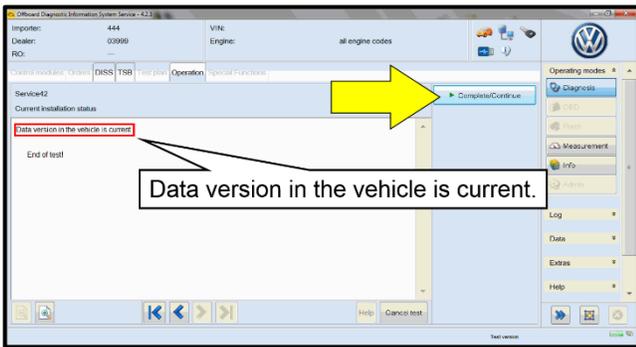
- Enter the corrective action code (SVM code) as listed below.

SVM Code
4391

- Select “Accept” <arrow> and follow the on screen prompts.
- Select Complete/Continue <arrow> after each operation is completed.

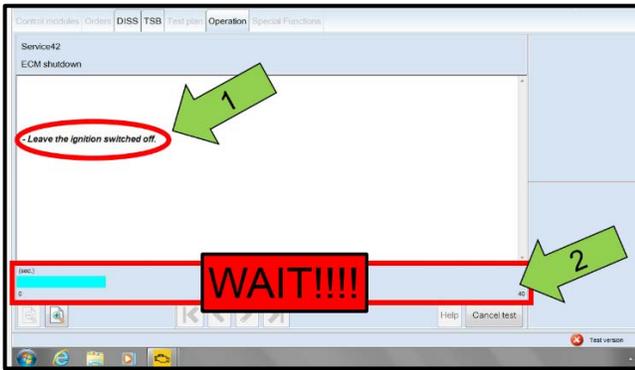


- When the SVM update is complete a confirmation message is displayed <as shown>.
- Select “Complete/Continue” <arrow>.



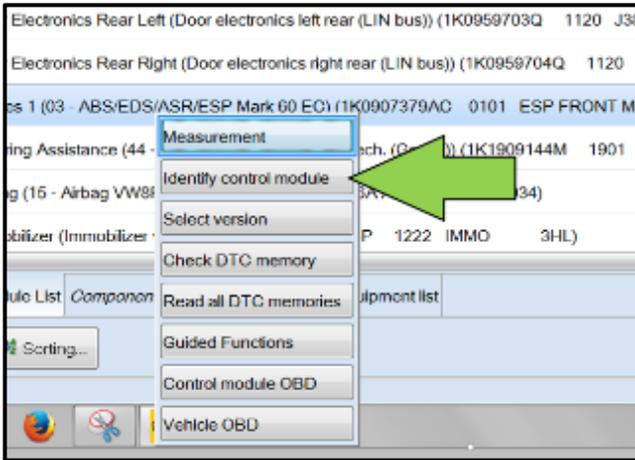
TIP

If the software in the vehicle is already current, a message will appear indicating this. If this occurs, complete the ODIS test plan and send the diagnostic protocol online.

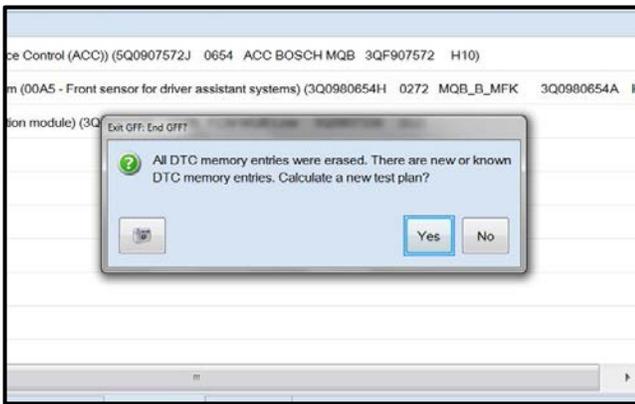


NOTE

- It is **IMPERATIVE** that **ALL** of the ignition cycle on/off delay requests are fulfilled in their entirety during this flash process <arrow 1>.
- Failing to wait for the ignition on/off timing cycle to complete (progress bar and countdown timer <arrow 2>) before cycling the ignition on/off **MAY** damage a control module.
- Damage to control modules as a result of failing to wait the specified time displayed by the progress bar and countdown timer <arrow 2> are **NOT** covered under this action.



- After the software update is completed and before sending the GFF Log Online:
 - Select the “Control Module” tab.
 - Scroll down and right click on the module that was updated (0001).
 - Select “Identify Control Module” <arrow>.



- Exit GFF and send diagnostic protocol online when prompted.

NOTE

Static communication faults may store in various control modules during the flash. These faults can only be cleared by following one of these steps:

- Drive the vehicle a short distance (around the parking lot, for example).
- After selecting “Yes”, turn the ignition off for 30 seconds, turn it back on and repeat the GFF exit program.
- Clear faults using OBD (an additional key cycle may also be required).

- Release the parking brake.
- Disconnect the VAS tester.
- Switch off and disconnect the battery charger.
- Reinstall the battery cover.

Proceed to Section C.

Section C – Campaign Completion Label

- 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).

- **All Work Complete.**