TDI / AEM Emissions Service Action – USA ONLY

Code: 23Z3

Repair Available – <u>Emissions Service Action 23Z3 / Improved Post-AEM Engine Control Module Software (AEM-C)</u>

This notice is for:			
	✓ Dealer Principal	✓ Service Manager	✓ Warranty Administrator
	✓ General Manager	✓ Parts Manager	✓ Technicians
	✓ Sales Managers	✓ Service Consultant	

Date: December 20, 2018

IMPORTANT!

Emissions Service Action 23Z3 (AEM-C) ONLY Applies to Vehicles that have received the AEM

- **Dealers <u>MUST</u> provide a copy of the attached customer letter to each customer who presents their vehicle for repair under Emissions Service Action 23Z3.**

- **Emissions Service Action 23Z3 (AEM-C) <u>only</u> applies to vehicles that have received the Approved Emissions Modification (AEM).**

- **The AEM must be completed BEFORE performing the Emissions Service Action 23Z3 (AEM-C) software update.**

- **Emissions Service Action 23Z3 (AEM-C) software update MUST explicitly be elected by the customer and be clearly marked on the repair order <u>PRIOR</u> to commencing the software update.**

- **If a vehicle has not received the AEM, Emissions Service Action 23Z3 (AEM-C) does not apply.**

Issue: Vehicles that have received the AEM inject an inadequate amount of Diesel Exhaust Fluid (DEF) after driving at high speeds (typically over 80 miles per hour) for 15 minutes or longer. This 15-minute period need not be continuous and may accumulate over multiple, consecutive trips. The Malfunction Indicator Light (MIL) and/or the DEF lamp on the instrument panel may come on due to this problem.

This condition can activate the "200 miles to no restart" countdown timer, and when the timer reaches 0 miles the vehicle will not restart.

Repair:
- REPAIR AVAILABLE – December 20, 2018
- Repair instructions available in ELSA/ServiceNet
- Install updated ECM software
- Check daily campaign open inventory report or OMD for affected vehicles in inventory
- Repair every affected inventory vehicle <u>before delivery to consumers</u>.

Parts Department: No parts needed; software update only

Notes:
- Vehicles: Certain 2012 – 2014 MY Volkswagen Passat 2.0L TDI Gen 2
- Schedule owner repairs immediately
- Owner mailing – December 5, 2018

-END OF MESSAGE-

Ensure all dealership personnel are aware of this notice so they are able to address customer questions. Contact Warranty if you require additional assistance. Direct press inquiries to Volkswagen Public Relations.

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: Upload the repair order [signed by customer] to Volkswagen WIN/Operations/Campaign Closure.

Service Number	23Z3
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
	Check/Updated ECM software present, no further work required Labor operation: 0183 00 99 10 T.U. **-OR-** Update ECM software. Labor operation: 2360 25 99 40 T.U.

This notice applies to your vehicle: <VIN>

Subject: Emissions Service Action 23Z3
2012-2014 Model Year Volkswagen Passat 2.0L TDI Vehicles

Dear Volkswagen Owner,

You should have recently received a notice identifying a problem with the Approved Emissions Modification (AEM) that was previously approved for your vehicle. This notice is to inform you that we have identified a solution to this problem (an "AEM Correction").

What is the issue?	We determined that 2012-2014 model year Volkswagen Passat 2.0L TDIs that received the AEM inject an inadequate amount of Diesel Exhaust Fluid (DEF) under certain conditions.

- This issue may occur after driving at high speeds (typically over 80 miles per hour) for 15 minutes or longer.

- This 15 minute period need not be continuous and may accumulate over multiple consecutive trips.

- This issue causes a Malfunction Indicator Light (MIL) (the dashboard warning lights) to illuminate.

- If a vehicle that has received the AEM continues to be driven with this MIL illuminated, the vehicle may enter into a 200 mile countdown until it will not restart.

What will we do?	We developed a software calibration update to correct this issue.

- This software change does not change any vehicle attributes, such as fuel economy or DEF consumption, and the software update does not affect your vehicle's warranty.

- The software calibration update will be available free of charge.

- The update will take less than one hour to complete and will not impact the drivability or other features of your vehicle.

- 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.

What should you do?	If you already received an AEM, you have two options:

- **Option 1:** At your convenience, you may contact your nearest authorized Volkswagen dealer and arrange for an appointment to receive the software upgrade at no cost to you.

- **Option 2:** When you visit your Volkswagen service department for any reason, including a MIL caused by this issue, the dealer can update the software with your approval.

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 the AEM and an AEM Correction during the same appointment.

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 you should have any questions about this communication, please don't hesitate to 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.

We apologize for any inconvenience this matter may cause; however we are taking this action to help ensure your vehicle continues to meet and exceed your expectations.

Sincerely,

Volkswagen Group of America, Inc.

Campaign Work Procedure _____

<table>
<tr><td colspan="2" style="text-align:center; color:red;">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.</td></tr>
</table>

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</td>
</tr>
</table>

Campaign Work Procedure   23Z3 Emission Recall

<table>
<tr><td colspan="2">① NOTE</td></tr>
<tr><td>

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.

</td></tr>
</table>

Required Tools

<table>
<tr>
<td></td>
<td>Battery Tester/Charger
- GRX3000VAS-
(or equivalent)</td>
<td></td>
<td>Diagnostic Tester
-VAS6150X/VAS6160-
(or equivalent)</td>
</tr>
</table>

Repair Instruction

Section A - Check for Previous Repair

- Enter the VIN in Elsa and proceed to the "Campaign/Action" screen.

ℹ️ 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.

  Proceed to Section B.

Section B – Repair Procedure

ⓘ 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)
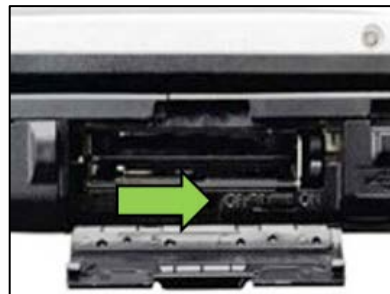
VAS 6150B
(Right side behind WIRELESS door)
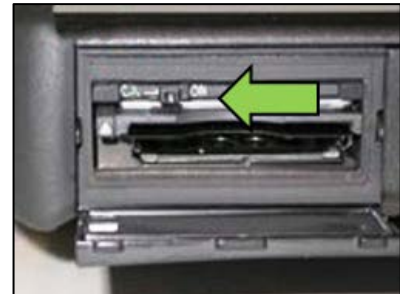
VAS 6150C/D
(Left side behind SC/EX door)

ⓘ **TIP**

To Update-Programming using SVM, review and follow instructions in Technical Bulletin 2014603: *Software Version Management (SVM) Operating Instructions.*

The SVM Process must be completed in its entirety so the database receives the update confirmation response. A warranty claim may not be reimbursed if there is no confirmation response to support the claim.

- Open the hood.

- Open the battery cover.

- Switch the ignition on.

- Apply the parking brake.

- Switch off all consumers (headlights, heated seats, climate control, radio, 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.

- Press the unlock door button <arrow>, and 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>.
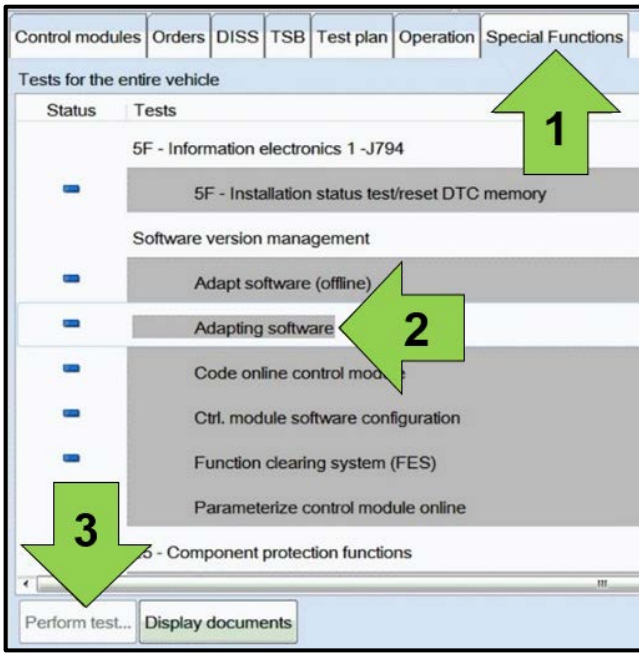
- Once the GFF scan is complete, select "Special functions" <arrow 1>, then "Adapting software" <arrow 2>, then select "Perform test" <arrow 3>.

2: Update software via action code
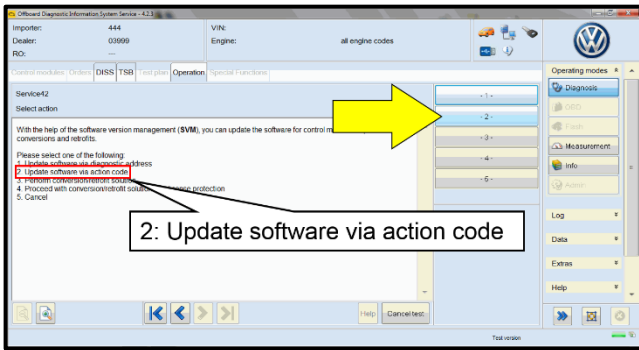
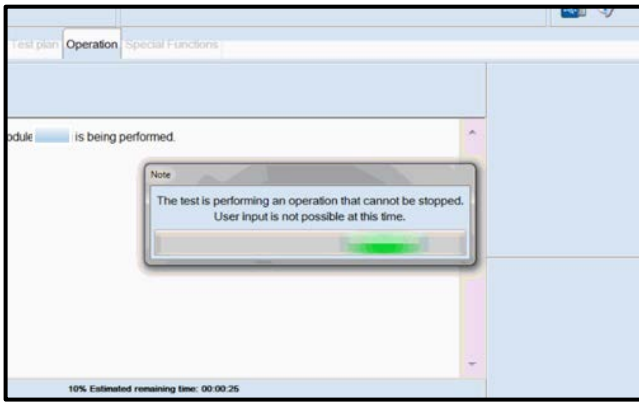- Select option 2 to "Update software via action code".
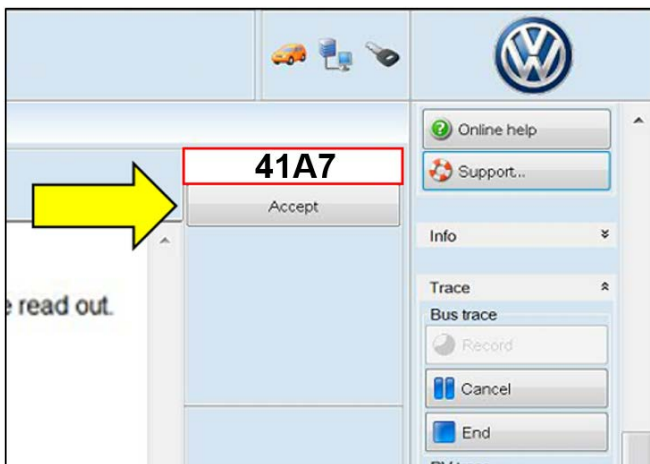
① NOTE

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
41A7

- Select "Accept" <arrow> and follow the on screen prompts.

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. ©2018 Volkswagen Group of America, Inc. All Rights Reserved.

- During the flash, this screen appears when each of the following operations are performed:
  - Flashing and Parameterization.
  - Adaptation/Calibration.
  - Coding
- User input is not possible during these operations.
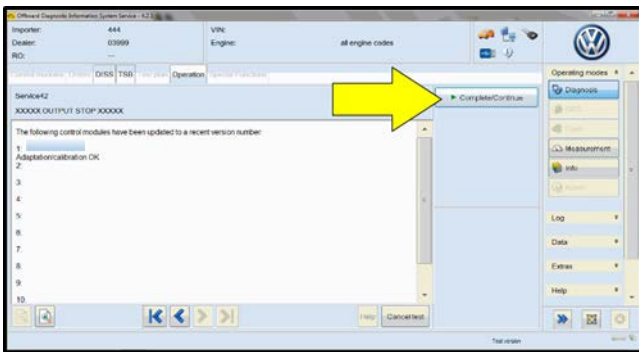
- Select Complete/Continue <arrow> after each operation is completed.


Data version in the vehicle is current.
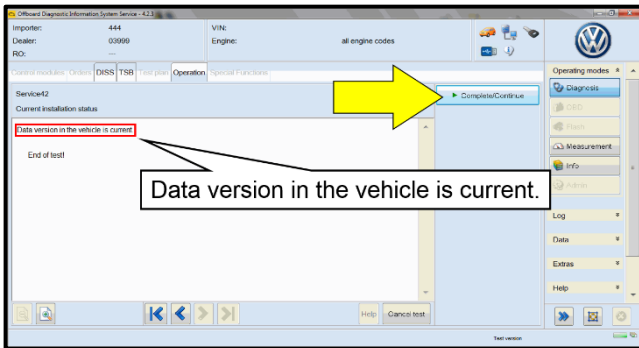
- When the SVM update is complete a confirmation message is displayed <as shown>.
- Select "Complete/Continue" <arrow>.
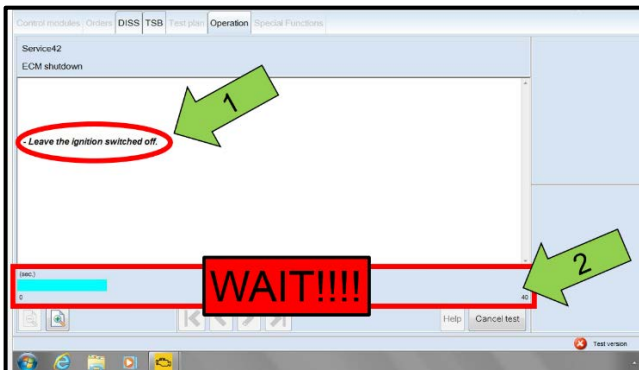
WAIT!!!!

> **① 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.
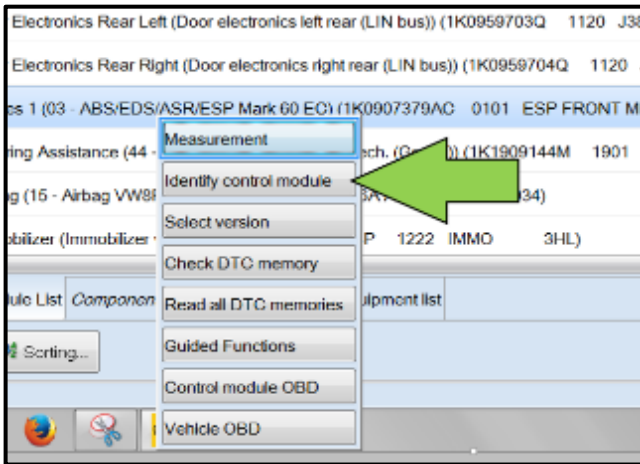
- After the software update is completed and before sending the GFF Log Online:
    - o Select the "Control Module" tab.
    - o Scroll down and right click on the module that was updated (01XX).
    - o Select "Identify Control Module" <arrow> and select the ECM.
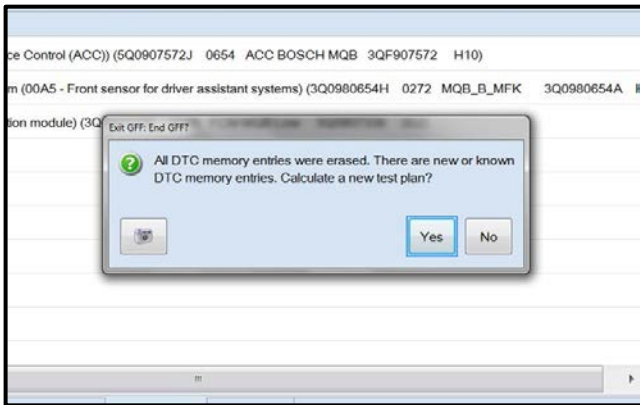
- Exit GFF and send diagnostic protocol online when prompted.

⚠ **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.
- Turn off the hazard lamps.
- 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 IS COMPLETE.**