

AEM-C Emissions Service Action - USA

Code: 23Z9



Subject	3.0L TDI Engine Gen 2.1 SUV – Approved Emissions Modification - Correction (AEM-C)								
Release Date	January 07, 2020								
Affected Vehicles	<table border="1"><thead><tr><th>Country</th><th>Beginning Model Year</th><th>Ending Model Year</th><th>Vehicle</th></tr></thead><tbody><tr><td>USA</td><td>2013</td><td>2015</td><td>Q7</td></tr></tbody></table> <p><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></p> <ul style="list-style-type: none">✓ 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.	Country	Beginning Model Year	Ending Model Year	Vehicle	USA	2013	2015	Q7
Country	Beginning Model Year	Ending Model Year	Vehicle						
USA	2013	2015	Q7						
Problem Description	Audi 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	<ul style="list-style-type: none">• This AEM-C MUST explicitly be elected by the customer and be clearly marked on the repair order <u>PRIOR</u> to commencing the update.• This AEM-C <u>only</u> applies to vehicles that have received the Approved Emissions Modification (AEM).• Dealers <u>MUST</u> 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.accessaudi.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.audiusa.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 <u>before delivery to consumers</u> .								

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 Audi dealer. ©2020 Audi of America, Inc. All Rights Reserved.

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 the request through Audi Warranty Online under the Campaigns/Update option.

Service Number	23Z9
Damage Code	0099
Parts Vendor Code	002
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
	Connect battery charger. Labor operation: 2706 89 50 10 T.U. --AND-- Connect vehicle diagnostic tester, perform software update for control unit. Labor operation: 2360 25 99 Time stated on diagnostic protocol

Customer Letter Example (United States)

**Subject: Service Action 23Z9
3.0L TDI Engine Gen 2.1 SUV – Approved Emissions Modification Correction (AEM-C)
2013-2015 MY Audi Q7 with 3.0L TDI Engine (Generation 2.1)**

Dear Audi Owner,

As part of Audi's ongoing commitment to customer satisfaction, we are informing you of our decision to conduct a service action on 2013-2015 model year Audi Q7 3.0L TDI engine (Generation 2.1) vehicles that received an Approved Emission Modification, or that will eventually receive the Approved Emissions Modification, pursuant to the terms of Audi'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)

- Audi 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.
- 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.
- Audi 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 Audi 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.audiusa.com 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 Audi 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 Audi 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 Audi 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 Audi 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 Audi 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 Audi dealer fails or is unable to complete this work free of charge within a reasonable time, please contact Audi Customer Experience at 1-800-253-2834 or via our "Contact Us" page at www.audiusa.com.

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 the **Recall/Service Campaign Lookup** tool at www.audiusa.com and enter your Vehicle Identification Number (VIN).

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

If you are an Eligible Owner or Eligible Lessee in the Audi 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 Audi's Consent Decree with the United States and California.

Sincerely,



Audi of America

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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

 <p>Battery Tester/Charger - GRX3000VAS- (or equivalent)</p>	 <p>Diagnostic Tester -VAS6150X/VAS6160X- (or equivalent)</p>
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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 Service Action.**

Proceed to Section B.

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Section B – Engine Control Module Software Update

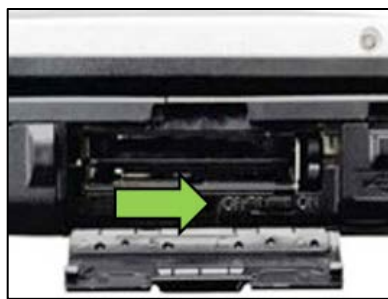
NOTE

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
(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.
- Access the battery charging posts.
- 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 charging posts.

ⓘ 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.

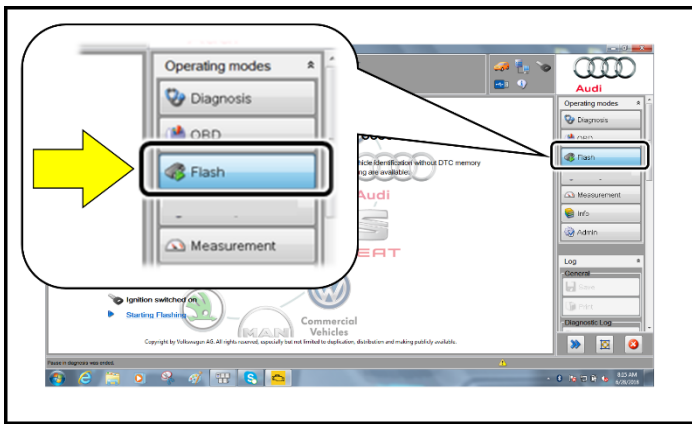
- Turn the hazards on.

⚠ 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.

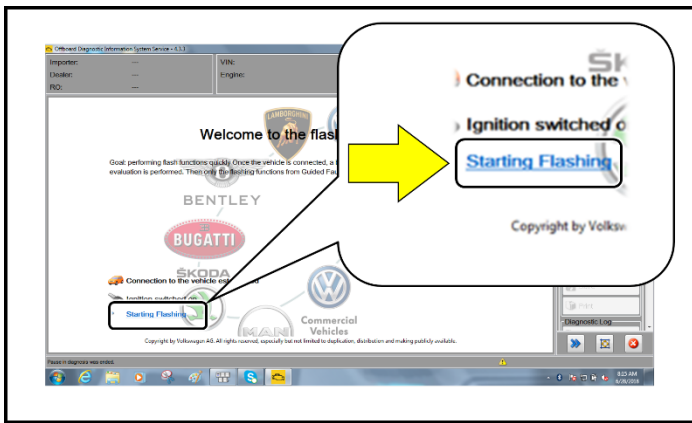


- Confirm that scan tool is communicating with the diagnostic head by USB cable.
 - If the Bluetooth or WiFi symbol is shown, then disconnect the diagnostic head from the vehicle and reconnect the USB cable to the diagnostic head and then reattach to the vehicle.

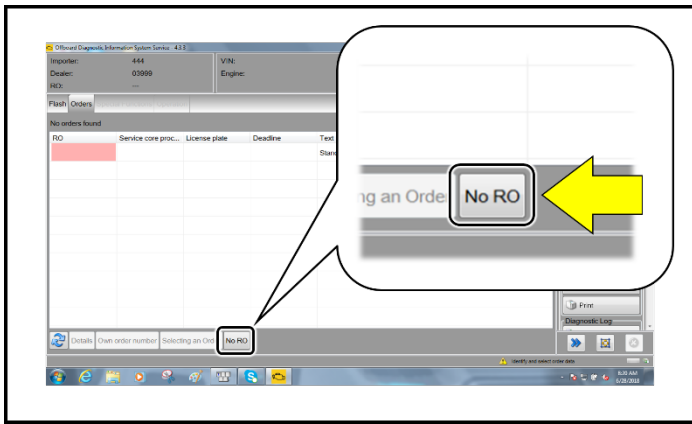


- From the home screen of the scan tool highlight “Flash” <1>.
- Follow the on-screen prompts.

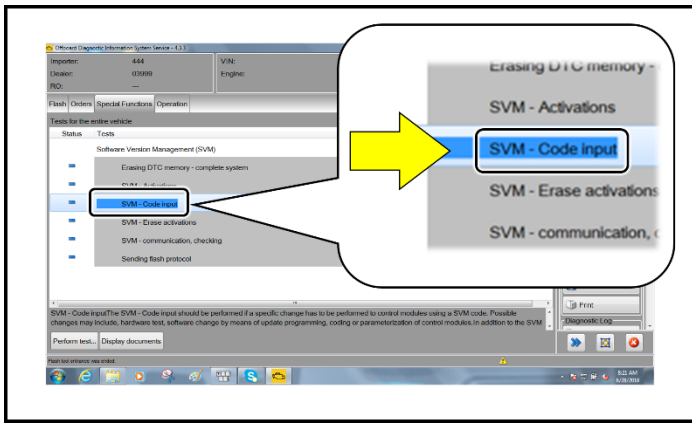
NOTE
Operating mode “Flash” must be used.



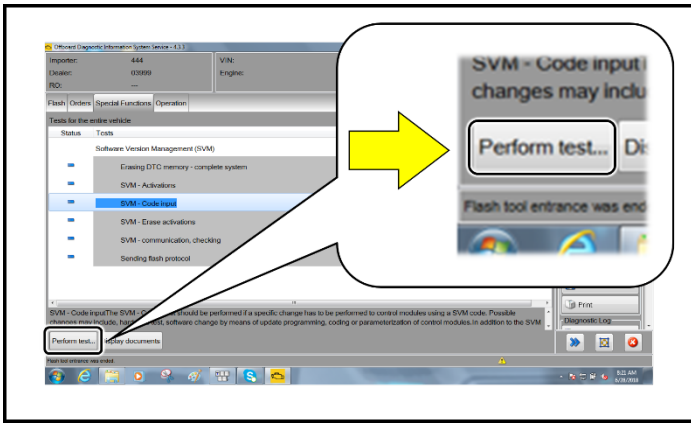
- Select “Starting Flashing” and follow the on-screen prompts.



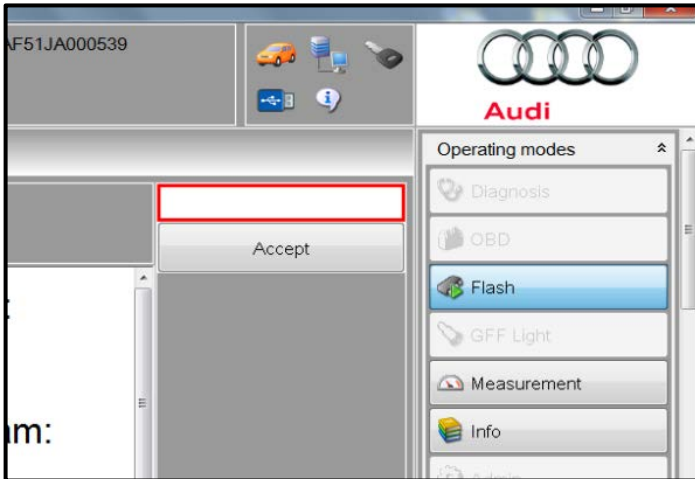
- Select “No RO”.



- Highlight “SVM – Code Input”.



- Select "Perform test".

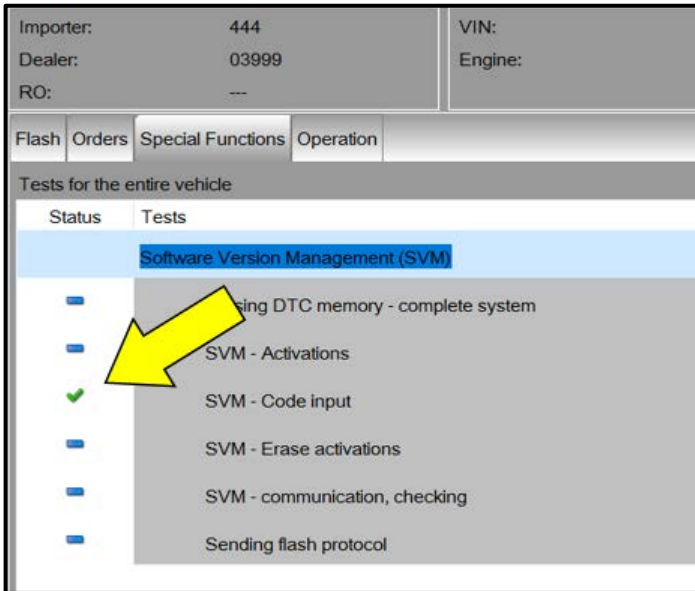


NOTE
Using Bluetooth for this action is PROHIBITED!
 Damage caused to electronic components (e.g. ECM, TCM, etc.) during the SVM update process is not covered.

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

SVM code
23Z9A404

- Select "Accept".
- Follow the on-screen prompts.



NOTE
STOP! STOP!
 This extra ignition cycle step must be followed, otherwise faults stored during the update may not be cleared upon exiting the Flash program.

- After receiving confirmation that the update completed successfully (green check mark <arrow>, the ignition must be turned off for 60 seconds and then turned back on.

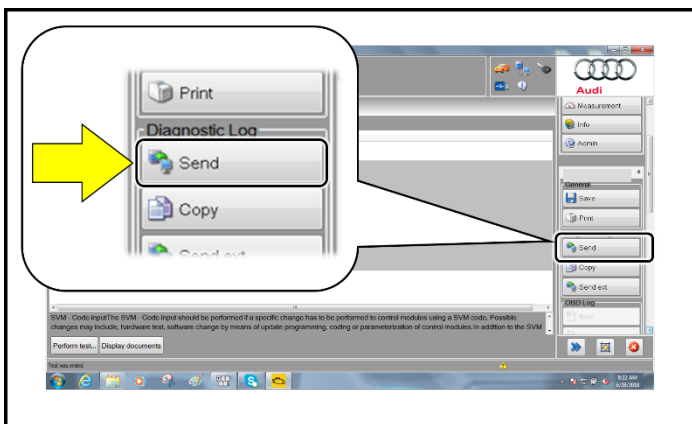
NOTE

The update may fail if the following pre-requisites are not met:

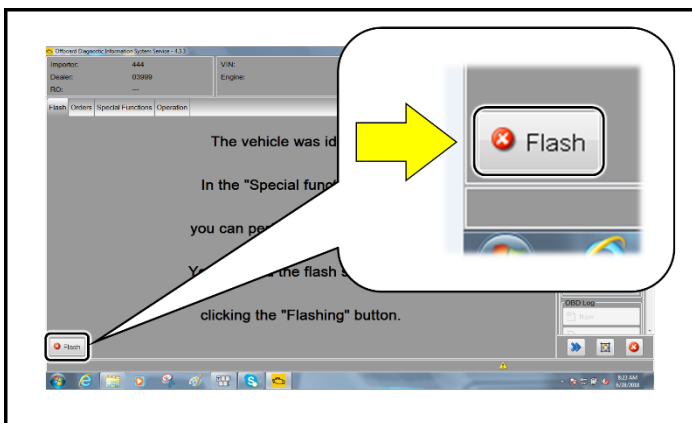
- Hazards not on during flash
- Battery voltage too low or insufficient charger used
- ODIS version too low
- Not using Audi Flash to perform the update
- Incorrect diagnostic head used

If the update fails and one of the above pre-requisites was not met:

- Use a different tester that has been freshly rebooted. Prior to retrying the update make sure that you have a charger attached and the battery voltage is at least 12.5V. ODIS must have the latest brand version. **ONLY** use VAS6154 or VAS5055 diagnostic heads. Hazard flashers turned on. Bluetooth turned off. Then reboot the engine control module by removing the power supply fuses. Using Audi Flashing operating mode. Once the prerequisites are set, retry the update again.
- Additional time to complete the flash due to pre-requisites not being met will not be covered by this campaign.



- After receiving confirmation that the flash completed successfully, select “Send” to send the diagnostic protocol online.
- Follow the on-screen prompts.



- Click “Flash” to exit the flash session.
- **Proceed to Section C.**

Section C – Campaign Stamp

I certify that this campaign has been performed in strict accordance with the applicable Audi repair procedure.

SAGA Code: _____

Technician: _____

Date: _____

Item#: AUD4927ENG

OR

Je certifie que cette campagne de rappel a été exécutée suivant les strictes directives de réparation d'Audi

Code de SAGA: _____

Technicien: _____

Date: _____

Item # AUD4927FRE

- Once the campaign has been completed, the technician should stamp the repair order.
- Stamps are available for ordering through the Compliance Label Ordering Portal (item# AUD4927ENG or AUD4927FRE).
- **Proceed to Section D**

Section D – 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.**