UPDATE Technical Bulletin

July 19, 2018

23X1 UPDATE – ECM Software Update (FED_EMS)

NOTE:

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

NOTE:

Required DMS Wording/Programming Text (SAGA claim comments):

23X1 UPDATE – ECM Software Update (FED_EMS)

Model(s)	Year	Engine Code	Trans. Code
Atlas	2018	3.6L (CDVC)	ALL

REVISION HISTORY		
Revision	**Date**	**Purpose**
1	July 19, 2018	Original publication

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Condition

This update has been proactively released to prevent DTCs P0442, P0456, P0457, P0496, P2407 and or P2450 Stored in ECM Fault Memory.

DTC	Description
P0442	EVAP Emission Contr. Sys.(Small Leak) Leak Detected
P0456	EVAP Emission Contr. Sys. (very small Leak) Leak Detected
P0457	Evaporative Emission System Leak Detected (fuel cap loose/off)
P0496	EVAP System High Purge Flow
P2407	Evaporative Emission System Leak Detection Pump Sense Circuit Intermittent/Erratic
P2450	Evaporative Emission System Switching Valve Performance/Stuck Open

This UPDATE is in effect until removed.

Vehicle must meet all of the following criteria:

- Procedure is valid only for vehicles that show the **23X1** code in Elsa, Campaign/Action Information screen *on the day of repair*.

- If the vehicle is sold it must be within the Federal Emissions Warranty.

- Procedure must be performed within the allotted time frame stated in this UPDATE.

- Procedure must be performed on applicable vehicles in dealer inventory prior to sale.

Technical Background

Current Engine Control Module software does not properly operate the Leak Detection Pump heater circuit. This can allow moisture to collect within the pump and influence EVAP system measurements, which leads to erroneous EVAP fault codes stored in the ECM memory.

Production Solution

Corrected Engine Control Module software starting CW23/18 with VIN: CA_JC578172.

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Service

NOTE:

- *Elsa is the only valid inquiry/verification source. Check Elsa <u>on the day this vehicle UPDATE will be performed</u> to verify vehicle eligibility for the UPDATE. Status must show "open". Attach an Elsa printout showing the "open" status to the repair order.*

- *If this UPDATE appears to have already been performed but the code still shows open in Elsa, contact Warranty before proceeding further. Another dealer may have recently performed this UPDATE but not yet entered a claim for it in the system.*

- *Elsa may also show additional open action(s); if so, inform your customer - this work can be done while the vehicle is in for this UPDATE.*

- *Contact the Warranty Helpline (U.S.) or the Warranty Campaign Specialist (Canada) if you have any questions.*

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

EXAMPLE

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

ℹ **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

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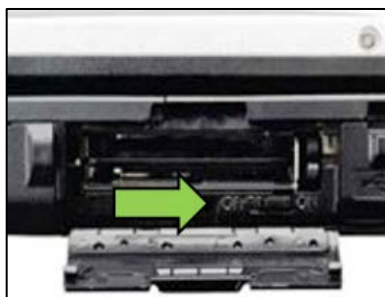
SVM Update Instructions

⚠ NOTE

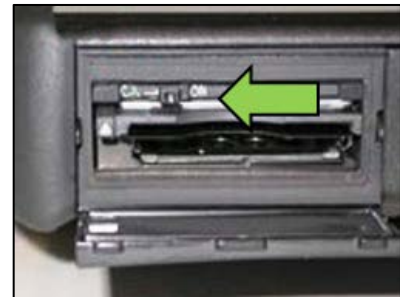**Prior to launching the VAS Diagnostic Tester and starting an update, ensure the following conditions are met;**

✓ **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)

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> ⓘ **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, 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.

> ① **NOTE**
>
> 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.
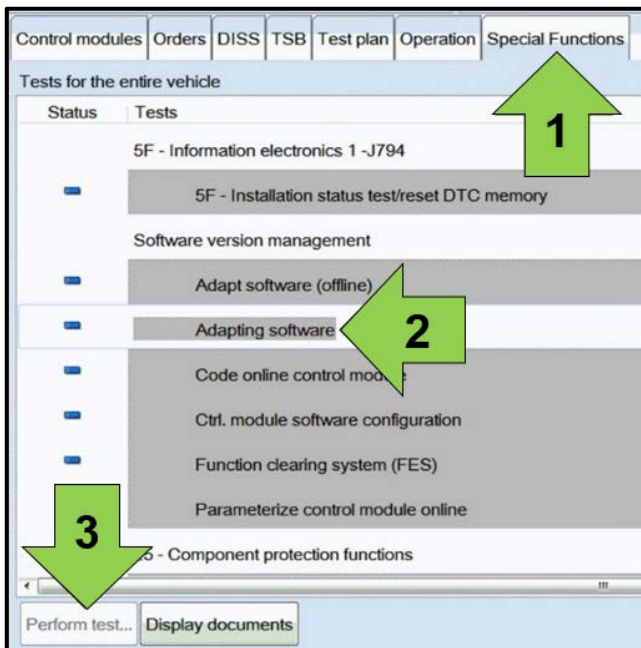
- Confirm that scan tool is communicating with the diagnostic head by USB <Green Arrow>.
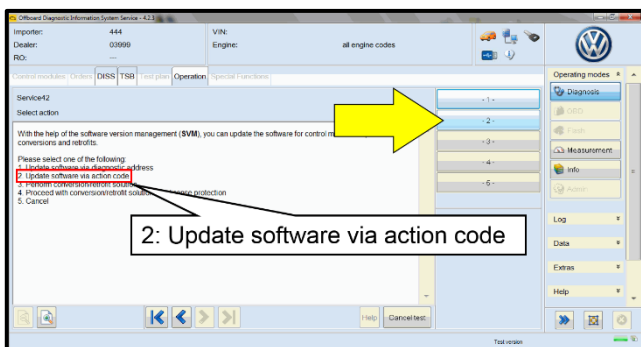 - If the Bluetooth symbol is shown <Red Arrow> then disconnect the diagnostic head from the vehicle and reconnect the USB cable to the diagnostic head and then reattach to the vehicle.

- Upon ODIS startup, verify the "Diagnosis" operating mode is selected <as shown>.
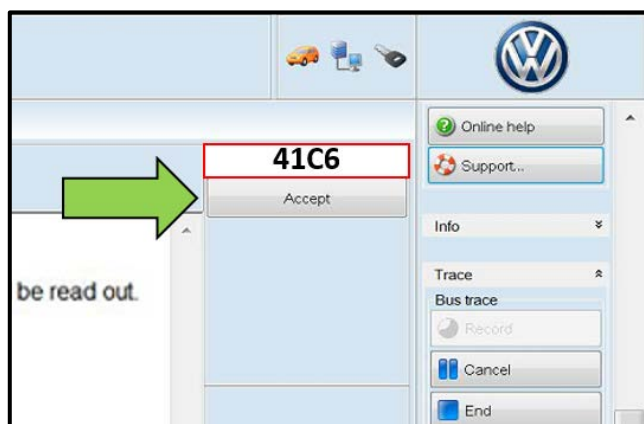
- Once the GFF scan is complete, select "Special functions" <arrow 1>, then "Adapting software" <arrow 2>, then select "Perform test" <arrow 3>.

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

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

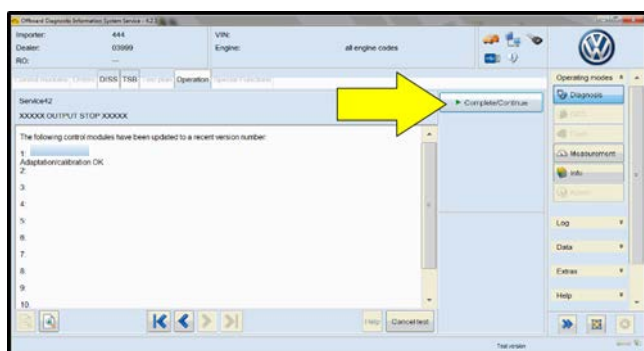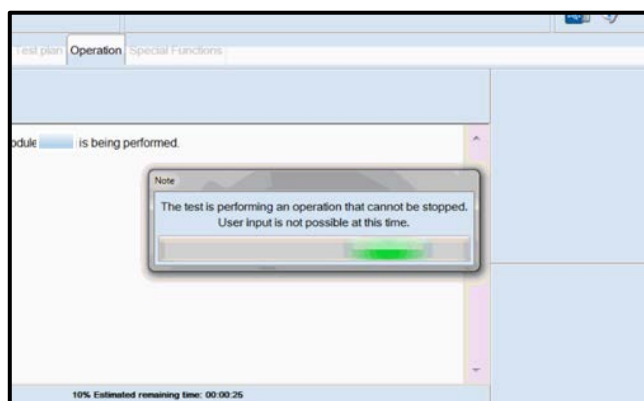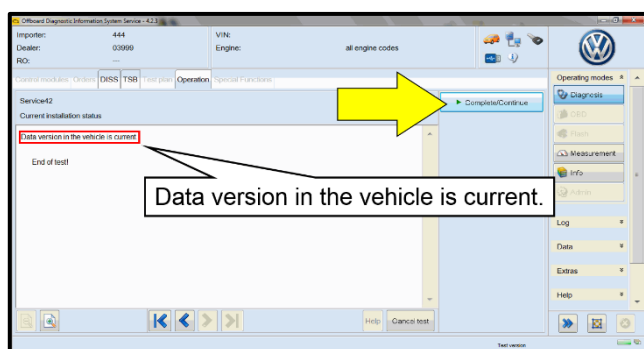| SVM code |
|:---:|
| **41C6** |

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

- During the flash, this screen appears during the update process.

ℹ **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.
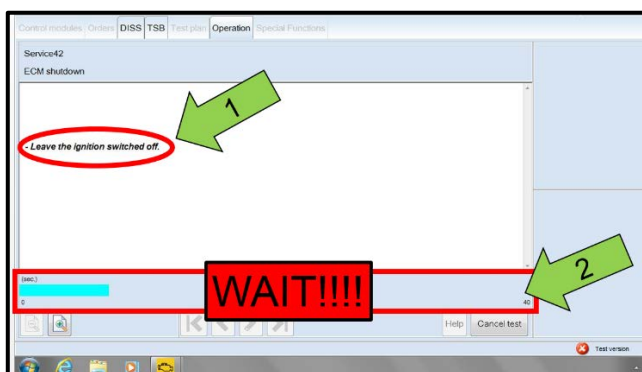

- Select Complete/Continue <arrow> after each operation is completed.

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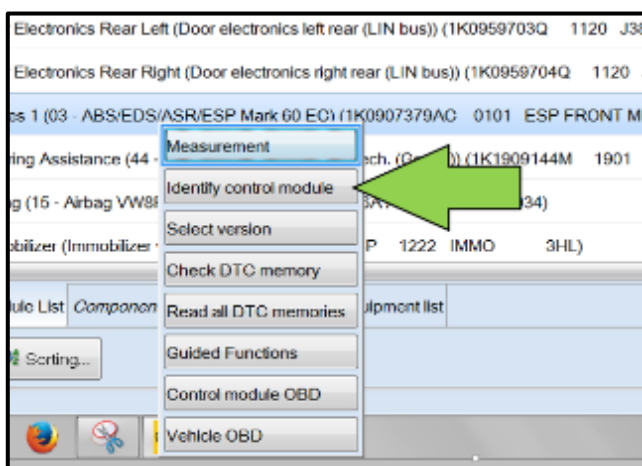
- Select "Complete/Continue" <arrow>.
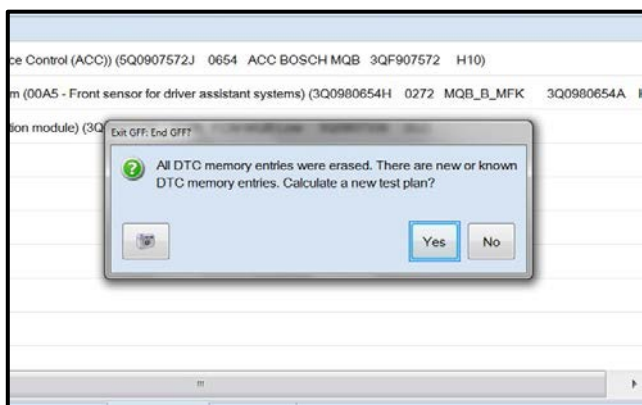

Data version in the vehicle is current.

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.

Repair is complete.

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Warranty

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

Claim Entry Instructions

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

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

- ✓ U.S. dealers: Submit request via WISE under the *Campaigns/Update/Recall Closure* option.
- ✓ Canada dealers: Upload the repair order [signed by customer] to Volkswagen WIN/Operations/Campaign Closure.

Service Number	23X1
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
	Update ECM software. Labor operation: 2470 25 99 Time stated on Diagnostic Protocol Max 50 T.U.

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Required Tools

	Battery Tester/Charger - GRX3000VAS- (or equivalent)		Diagnostic Tester -VAS6150X/VAS6160- (or equivalent)

Additional Information

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

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UPDATE FACT SHEET – UPDATE Code 23X1

Dear Volkswagen Customer,

Today we performed UPDATE code 23X1 on your vehicle. This UPDATE installs new engine control module software, and was performed for you free of charge.

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

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

Thank you for driving a Volkswagen!