Service Action
Code: 97H1

Subject	**Vehicle Software Update to Level 3.2.12**

Document History

Date	Summary
04/30/2024	Original publication

Affected Vehicles

Country	Beginning Model Year	Ending Model Year	Vehicle	Vehicle Count
USA	2021	2021	ID4	298

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.

- ✓ *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.*

About this Service Action

Volkswagen is providing a software update for certain 2021 model year Volkswagen ID.4 vehicles in order to bring the vehicle's software level up to 3.2.12. This will make it possible for these vehicles to receive future over-the-air (OTA) software updates.

Code Visibility

On or about April 30, 2024, the campaign code will be applied to affected vehicles.

Owner Notification

Owner notification will take place in May 2024. An owner letter example is included in this bulletin for your reference.

Campaign Expiration Date

This campaign expires on ***April 30, 2029.*** Work must be performed on or before this date to be eligible for payment. Keep this expiration date in mind when scheduling customers for this action. If a customer wishes to have this work performed after the expiration date, your normal parts and labor cost associated with this work will apply.

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>.

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

The labor times listed here may differ from the labor operations and labor times listed in ELSA.

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	97H1
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. Loaner/rental coverage cannot be claimed under this action. However, loaner/rental may be covered under the current loaner/mobility program. Please refer to the Volkswagen Warranty Policy and Procedures Manual for loaner claims information and reimbursement details.
Criteria I.D.	01, 02 or 03

LABOR		
Labor Op	**Time Units**	**Description**
0150 00 10	SEE ELSA	GFF/Guided functions *(setup + battery charger)*
2706 02 99	25 TU per bus sleep	Perform up to three bus sleep procedures
0121 00 04	SEE ELSA	Test drive
0150 00 60	Time stated on diagnostic protocol(s)	GFF/Guided functions *(flash + GFF functions)*

NOTE: If the software update and related GFF work is performed on more than one diagnostic session, the multiple GFF logs can be added together.

Ensure the GFF logs are added together correctly. For example, two logs from the same diagnostic session are not allowed.

Claims and GFF logs may be audited to ensure that the actual GFF log time is being claimed.

<MONTH YEAR>

<CUSTOMER NAME>
<CUSTOMER ADDRESS>
<CUSTOMER CITY STATE ZIPCODE>

This notice applies to your vehicle: <MODEL YEAR> <BRAND> <CARLINE>, <VIN>

Subject: Service Action 97H1 - Vehicle Software Update to Level 3.2.12

Dear Volkswagen Owner,

As part of Volkswagen's ongoing commitment to customer satisfaction, we are informing you of our decision to conduct a service action on certain 2021 model year Volkswagen ID.4 vehicles. Our records show that you are the owner of a vehicle affected by this action.

About this Service Action

Volkswagen is providing a software update for certain 2021 model year Volkswagen ID.4 vehicles in order to bring the vehicle's software level up to 3.2.12. This will make it possible for these vehicles to receive future over-the-air (OTA) software updates. This software update will take your authorized Volkswagen dealer up to three hours to complete and will be performed for you free of charge. Please keep in mind that your dealer may need additional time for the preparation of the work, as well as to accommodate their daily workshop schedule.

What should you do?

Please contact your authorized Volkswagen dealer without delay to schedule this work. To set up an appointment online, please visit www.vw.com/find-a-dealer.
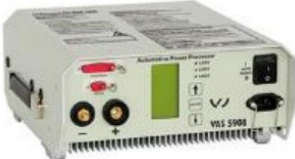
Additional Information

- This service action will be available for you free of charge **only until April 30, 2029.** If you wish to have this work performed after that date, your dealer's normal costs associated with this repair will apply.

- 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 your authorized Volkswagen dealer fails or is unable to complete this work free of charge within a reasonable time, if you have changed your address or sold the vehicle, or if you should have any questions about this communication, please reach out to us using your preferred method of communication at www.vw.com/contact or by calling us at 800-893-5298.

- 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 Customer Protection

Required Tools

	Battery Tester/Charger -VAS5908-		Diagnostic Tester -VAS6150D- (or higher)
	Diagnostics Interface W-LAN -VAS6154A- (or *newer* equivalent)		USB Module -VAS6154/4A- (included with -VAS6154A-) (or *newer* equivalent)

Repair Instruction

Section A - Check for Previous Repair

> **ⓘ TIP**
>
> If Campaign Completion label is present, no further work is required.

- 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.

> **⚠ CRITICAL REPAIR STEP**
>
> 🛑 **STOP!** 🛑
>
> If multiple software update Campaign/Actions are open, they must be performed in order of the Start date <arrow 3>. The oldest should be performed first.

- **All Safety Recalls must be completed prior to completing this campaign.**

- **Vehicles assigned Criteria 03:**
    - Proceed to Section B

- **Vehicles assigned Criteria 01 or 02:**
    - Proceed to Section C

Section B – Restore OTA Functionality (Criteria 03 ONLY)

> ⓘ **NOTE**
>
> When connecting the charger to the battery, connect the positive cable to the positive charging terminal for 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.

- Open the hood.
- Open the battery cover.
- Attach the battery charger.
- Connect the VAS6150X/VAS6160X Diagnostic Tester to the vehicle.
- Start the ODIS program.
- In diagnostic address 8124, select the test plan, "8124 – Reset over-the-air update warning."
- Follow the test plan instructions to restore OTA functionality.
- Activate bus sleep:
  - Remove battery charger.
  - Remove diagnostic interface from vehicle.
  - Close all doors and hood.
  - Lock vehicle with remote and leave vehicle locked for at least five minutes.
  - Switch on ignition.
  - Reconnect diagnostic interface.
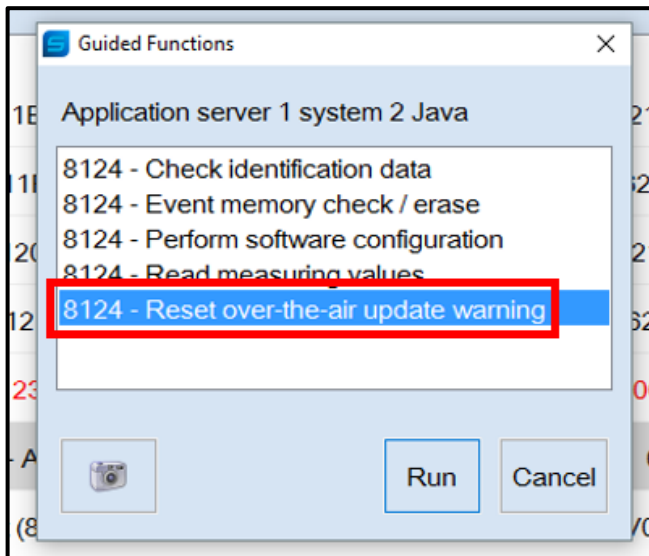
Proceed to Section C

Section C – Perform SVM Update (All Vehicles)

ⓘ 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 "Current ODIS Service Version" circular found in Elsa2Go Service References.

- ✓ **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.

- ✓ **The VAS Diagnostics Interface MUST ONLY be connected to the tester with a USB cable.**

  - Performing a software update using a Bluetooth or WiFi 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 or WiFi.

⚠ 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!

ⓘ 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.

> ⚠ **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.

> ⚠ **NOTE**
> - All campaign software updates must be completed during a single, standalone ODIS Diagnostic Session. You must fully complete this campaign and send all logs before beginning any other campaigns or operations.
> - If there are any ODIS "Hot-Fix" patches installed, they must be removed from the scan tool before beginning this operation. ODIS "Hot-Fix" patches may affect the update process.

Before starting the software update, the following conditions must be met:

- ODIS Service version MUST be completely up to date.

- ODIS Feedback must be set up correctly:
    - See communication: Offboard Diagnostic Information System Service (ODIS Service), Number: **VOS-22-06** / Subject: Dedicated Email Server Configuration & Feedback Settings / Date: Feb. 1, 2022

- Dealership's internet firewall settings must meet the specified requirements.
    - See communication: Diagnostic Device Hardware & Windows®, Number: **VHW-22-15** / Subject: VAS Diagnostic Device Firewall Settings / Date: December 19, 2022

- ODIS user must have SFD access.
    - See communication: Offboard Diagnostic Information System Service (ODIS Service), Number: **VOS-21-08** / Subject: ODIS Login – SFD Functions / Date: Mar. 11, 2021

- ODIS user must have GRP access.
    - See communication: Offboard Diagnostic Information System Service (ODIS Service), Number: **VOS-24-35** / Subject: ODIS log in Procedure for Group Retail Portal (GRP) / Date: Mar. 27, 2024

- Windows Power Options must be set according to the ODIS tester setup directions:
    - See communication: Diagnostic Device Hardware & Windows®, Number: **VHW-22-13** / Subject: Change Power Options in Windows® 10 / Date: Nov. 1, 2022
    - The "Device Power Management" sections from the VAS 6150X Diagnostic Laptop – Unpacking and Setup Instructions can also be referenced.

- Only one key can be in the vehicle when performing this software flash.

- The vehicle key's battery must be ok.

- Any additional keys must be a minimum of 20 meters away from the vehicle.

- The car MUST NOT be hooked up to a high-voltage charger.

- If the work steps have to be interrupted for any reason, the best stopping point is at one of the bus sleep steps.

⚠ CRITICAL REPAIR STEP

🛑 **STOP!** 🛑

Before starting programming, it is essential to perform the following actions for the -VAS5908- battery charger.

The battery charger's default setting will switch the charger off automatically after a period of time. To prevent this, the following must be carried out.

Switch it OFF and then ON again each time the charger is connected.

The battery charger's display must have switched off before it's restarted.

The charging time can be changed in the charger's settings menu (access code = 6161). Refer to the owner's manual for further information. DO NOT change any settings that will damage the charger or the vehicle.

- Connect battery charger -VAS5908-.

- When connecting the charger to the battery, connect the positive cable to the positive charging terminal for 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.

ⓘ NOTE

If the customer is enrolled in Car-Net and they have the myVW app downloaded on their phone, they may receive several notifications during the update process.

⚠ CRITICAL REPAIR STEP

🛑 **STOP!** 🛑

- Check for pre-existing faults.
- Diagnosis and repair of pre-existing conditions are not covered under this action.

> **① NOTE**
>
> - The service interval display may be reset by the software configuration. The current service interval must be read out first and rechecked in Step 7 *after* the software updates are complete.
> - It is also possible that the service interval could be reset on a previous service visit if a software configuration was carried out on the vehicle. Therefore, the service interval should be compared to the vehicle's service records. If there is a discrepancy, the service interval values will have to be adjusted accordingly.
> - Service interval adaptation channels:
>   - $0548 (distance driven since the last inspection)
>   - $0549 (time since the last inspection)

- Using Operating mode "OBD", check 005F adaptation channels $0548 and $0549 for the current service interval settings (OBD > DA 005F > *Adaptations*).
- Record the current values.

Adaptation/parameter	RDID	Current value	Input	Unit
[LO]_FIX_Maximum_time_to_next_time_based_service_event		365		d
˅ Inspection, distance driven since the last inspection	$0548			
[LO]_FIX_Set_mileage_since_last_mileage_based_service_event		12,500		km
˅ Inspection, time since the last inspection	$0549			
[LO]_FIX_Set_time_since_last_time_based_service_event		325		d

005F - Information electronics 1 (UDS / ISOTP / 10A035842J / 0561 / H20 / EV_MUICASSAFEPart / 00100   DTC Memory

Filter: inspect

Accept Restore   Reset all

005F - ANP

TIP: Enter "inspect" in the Filter field <arrow> and both adaptation channels will be shown.

Step 1 – Perform Software Update SVM

> ### ⚠ CRITICAL REPAIR STEP
>
> ### 🛑 STOP! 🛑
>
> DO NOT start the flash and leave the vehicle unattended overnight, or for long periods of time. Doing so can cause irreparable damage to control units or lead to inaccurate log times. Requests for additional GFF time and/or damage to control units caused by the flash running overnight will be denied.

> ### ① NOTE
>
> Flashing times will vary. The time it takes to complete the software updates is dependent on several factors, including the workshops internet download speed.

> ### ① NOTE
>
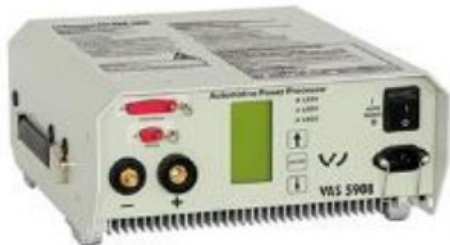> Only one key can be in the vehicle when performing this software flash.
>
> The vehicle key's battery must be ok.
>
> Any additional keys must be a minimum of 20 meters away from the vehicle.
>
> The car MUST NOT be hooked up to a high-voltage charger.
>
> The seat belt must NOT be inserted into the buckle.
>
> The driver door must be open.

> ### ① NOTE
>
> The battery charger may shut off automatically after several hours due to a default setting. Each time the battery charger is reconnected, it must be turned OFF and then back ON to reset the charging start time.

- Turn battery charger OFF, then back ON.
- Connect battery charger.
- **Cycle the ignition OFF, then back ON.**

- 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>.
- Turn the hazards on.
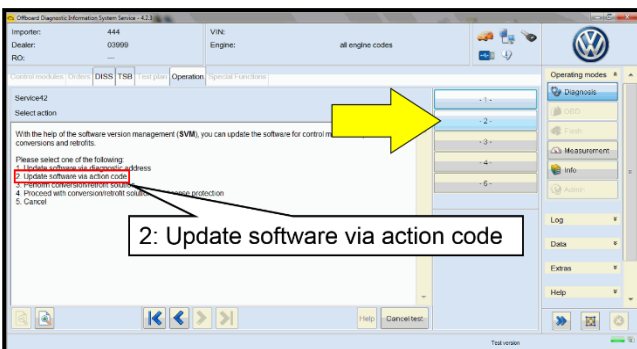
⚠ CRITICAL REPAIR STEP

🛑 **STOP!** 🛑

If any of the modules being updated are offline, the communication issue must be addressed prior to starting this software update.
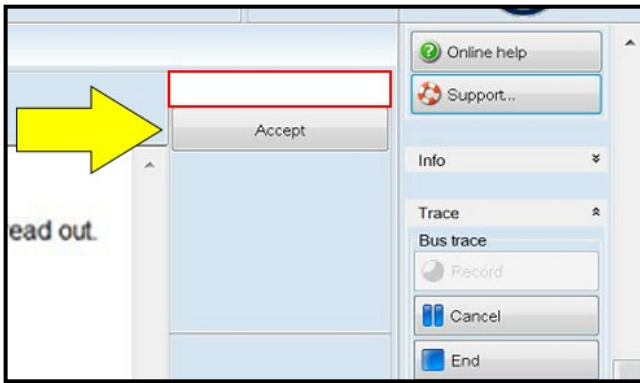
Diagnosis and repair of pre-existing conditions are not covered under this action.
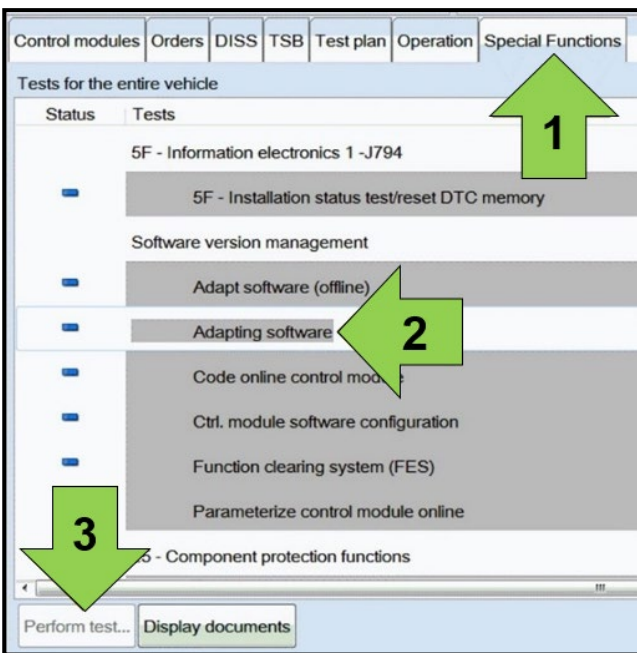
- Once the GFF scan is complete, select "Special functions" <arrow 1>, then "Adapting software" <arrow 2>, then select "Perform test" <arrow 3>.

- Select the correct option to "Update software via action code".

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

SVM code
4D80

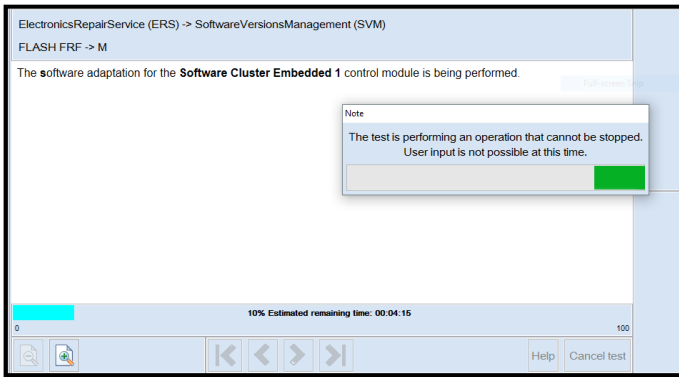- Select "Accept" <arrow> and follow the on screen prompts.

> **(!) NOTE**
>
> Do not unplug the sound generator.
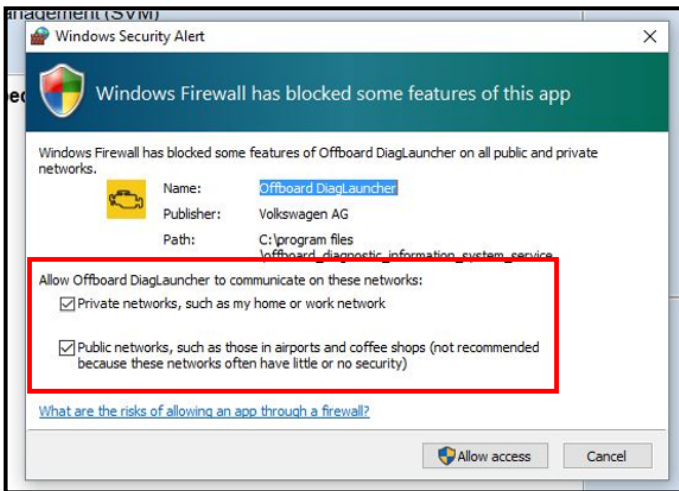
> **(!) NOTE**
>
> If the Windows Firewall popup appears, ALL network options should be checked. Failure to do so could cause the update to fail.

ElectronicsRepairService (ERS) -> SoftwareVersionsManagement (SVM)

FLASH FRF -> M

The software adaptation for the **Software Cluster Embedded 1** control module is being performed.

Note

The test is performing an operation that cannot be stopped.
User input is not possible at this time.

10% Estimated remaining time: 00:04:15

0   100

Help   Cancel test

⚠ CRITICAL REPAIR STEP

🛑 **STOP!** 🛑

The initial update may take several minutes to start.

Multiple control modules are updated during this procedure. Some modules will take a while to be updated. **DO NOT** cancel the update procedure, turn the ignition off, remove the battery charger, or interrupt the update procedure in any way. Doing so could cause irreparable damage to control units, which is NOT covered under this action.

ⓘ NOTE

In-vehicle messages and warnings stating the HV battery state of charge is at 0% may occur during this software update process. This is normal.

Error: 12V power supply. Safely park the vehicle! See owner's manual.

ⓘ NOTE

If the progress bar for the first update stops briefly at **6%** (it may also appear that the progress bar stops at 10% briefly, then quickly goes to the end), there may be a firewall issue.

ⓘ **NOTE**
If error code ERP0215 occurs:
Cause:
On at least one control unit, the operating conditions for the measure are not fulfilled (for example, incorrect SW part number/HW part number/hardware/software):
Possible Corrections:
Manually identify the affected control module(s), or start a new GFF session and repeat SVM 4D80.
Perform a bus sleep or reset the control module, then repeat SVM 4D80.

ⓘ **NOTE**
If error code ERP0225E occurs:
Cause:
The measure cannot be carried out because of missing control unit data. Often not all necessary control units are "identified" or "reachable".
Possible Corrections:
If a module cannot be manually identified: - Switch off ignition   - Send diagnostic protocol online   - Disconnect diagnostic interface from vehicle   - Restart ODIS   - Remove the fuse for the module that had the failure for 10 seconds   - Reinstall the fuse   - Perform a bus sleep   - Start a NEW GFF session   - Identify the module   - Repeat SVM 4D80

ⓘ **NOTE**
If a message appears stating that the communication path cannot be changed to DoIP: - Send the diagnostic protocol online   - Cancel the test plan   - Turn the ignition OFF   - Disconnect the diagnostic head from the vehicle AND the diagnostic tester for a few minutes   - Restart ODIS   - Reconnect diagnostic head to vehicle and diagnostic tester   - Repeat SVM 4D80

> ⓘ **NOTE**
>
> **If a message appears stating that there was a malfunction with the USB interface, the "readiness code not reset", or similar message:**
>
> | | |
> |---|---|
> | ElectronicsRepairService (ERS) -> SoftwareVersionsManagement (SVM)
STATUS->

Software adaptation for the **Electric drive** system was again **not** performed successfully and is being aborted.

The following malfunction has occurred:
/ / / / / / USB | ElectronicsRepairService (ERS) -> SoftwareVersionsManagement (SVM)
FLASH FRF -> M

Rectify the following erroneous flash preconditions:
1. Readiness code not reset
2.
3.

Continue with the button <Complete/Continue>.
Complete/Next |
>
> - Send the diagnostic protocol online
> - Cancel the test plan
> - Turn the ignition OFF
> - Disconnect diagnostic interface from vehicle
> - Restart ODIS
> - Perform a bus sleep
> - Reconnect diagnostic head to vehicle and diagnostic tester
> - Start a NEW GFF session
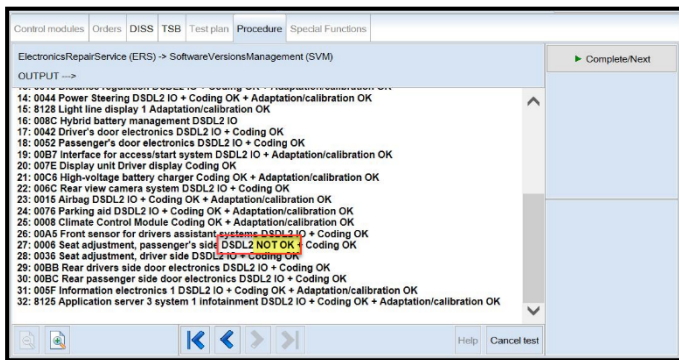> - Repeat SVM 4D80

> ⓘ **NOTE**
>
> If errors occur and the information provided in these instructions does not resolve the concern, please create a TAC WEB ticket for further direction.

> ⓘ **NOTE**
>
> **If the flash ends with a generic error:**
> - Switch off ignition
> - Send diagnostic protocol online
> - Disconnect diagnostic interface from vehicle
> - Restart ODIS
> - Remove the fuse for the module that had the failure for 10 seconds
> - Reinstall the fuse
> - Perform a bus sleep
> - Start a NEW GFF session
> - Identify the module
> - Repeat SVM 4D80

| Control modules | Orders | DISS | TSB | Test plan | Procedure | Special Functions |

ElectronicsRepairService (ERS) -> SoftwareVersionsManagement (SVM)

OUTPUT -->

▶ Complete/Next

14: 0016 Distance regulation DSDL2 IO + Coding OK + Adaptation/calibration OK
14: 0044 Power Steering DSDL2 IO + Coding OK + Adaptation/calibration OK
15: 8128 Light line display 1 Adaptation/calibration OK
16: 008C Hybrid battery management DSDL2 IO
17: 0042 Driver's door electronics DSDL2 IO + Coding OK
18: 0052 Passenger's door electronics DSDL2 IO + Coding OK
19: 00B7 Interface for access/start system DSDL2 IO + Adaptation/calibration OK
20: 007E Display unit Driver display Coding OK
21: 00C6 High-voltage battery charger Coding OK + Adaptation/calibration OK
22: 006C Rear view camera system DSDL2 IO + Coding OK
23: 0015 Airbag DSDL2 IO + Coding OK + Adaptation/calibration OK
24: 0076 Parking aid DSDL2 IO + Coding OK + Adaptation/calibration OK
25: 0008 Climate Control Module Coding OK + Adaptation/calibration OK
26: 00A5 Front sensor for drivers assistant systems DSDL2 IO + Coding OK
27: 0006 Seat adjustment, passenger's side DSDL2 NOT OK + Coding OK
28: 0036 Seat adjustment, driver side DSDL2 IO + Coding OK
29: 00BB Rear drivers side door electronics DSDL2 IO + Coding OK
30: 00BC Rear passenger side door electronics DSDL2 IO + Coding OK
31: 005F Information electronics 1 DSDL2 IO + Coding OK + Adaptation/calibration OK
32: 8125 Application server 3 system 1 infotainment DSDL2 IO + Coding OK + Adaptation/calibration OK

Help   Cancel test

- Pay attention to the status report of the control module updates.

- Any module stating NOT OK will have to be updated again.

- Selecting "Complete/Next" will begin another attempt to update the control module.

- It may take more than one attempt to update every control module.

- Do not end the diagnostic session

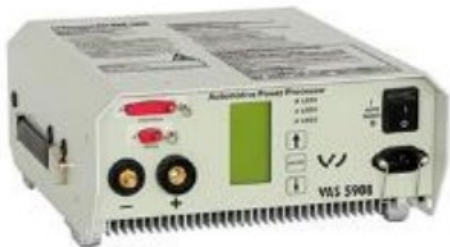- **DO NOT proceed to the next SVM update until SVM 4D80 has 100% completed successfully.**

Proceed to Step 2 for performing vehicle bus sleep.

Step 2 – Perform Bus Sleep Procedure

- Carry out the following steps in the specified sequence to put the vehicle in a bus sleep.

- Switch off the ignition.

- Turn off the hazards.

- Remove diagnosis interface from the vehicle diagnosis connection.

- Remove battery charger from the 12V battery.

- Close front and rear lid as well as all doors.

- Lock vehicle.

- Move vehicle key (remote control) at least 20 meters away from the vehicle.

- Wait at least 15 minutes until the vehicle is in bus silence.

- Then unlock vehicle again.

- Connect and switch on battery charger.

- Insert diagnosis interface on vehicle diagnosis connection.

- Switch on the ignition.

- Place a vehicle key (remote control) in the center console on the reader coil.

Proceed to Step 3 for performing software configuration via SVM.

Step 3 – Perform Software Configuration via SVM

- Turn battery charger OFF, then back ON.

- Connect battery charger.

- Turn the hazards on.

- Confirm that scan tool is communicating with the diagnostic head by USB <Green Arrow>.

    o 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 the correct option to "Update software via action code".
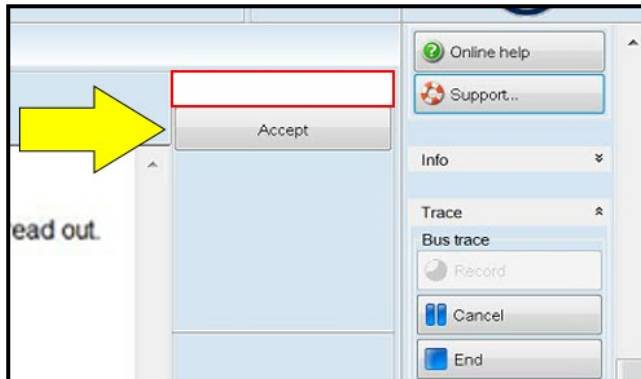
- Enter the corrective action code (SVM code) as listed below.

SVM code
4C6F

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

- Pay attention to the status report of the control module updates.

- Any module stating NOT OK will have to be updated again.

- Selecting "Complete/Next" will begin another attempt to update the control module.

- Do not end the diagnostic session.
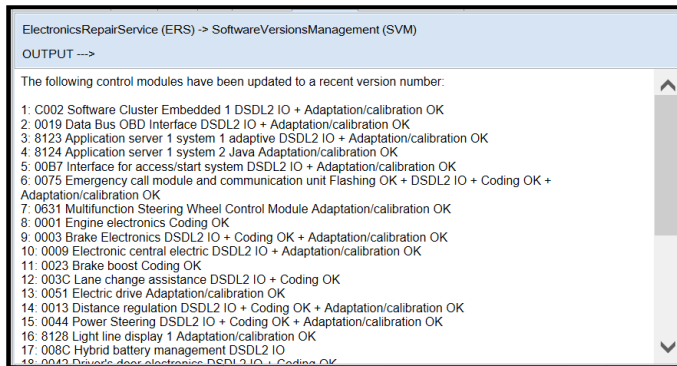
Proceed to Step 4 for performing Bus Sleep Procedure

Step 4 – Perform Bus Sleep Procedure

- Carry out the following steps in the specified sequence to put the vehicle in a bus sleep.

- Switch off the ignition.

- Turn off the hazards.

- Remove diagnosis interface from the vehicle diagnosis connection.

- Remove battery charger from the 12V battery.

- Close front and rear lid as well as all doors.

- Lock vehicle.

- Move vehicle key (remote control) at least 20 meters away from the vehicle.

- Wait at least 15 minutes until the vehicle is in bus silence.

- Then unlock vehicle again.

- Connect and switch on battery charger.

- Insert diagnosis interface on vehicle diagnosis connection.

- Switch on the ignition.

- Place a vehicle key (remote control) in the center console on the reader coil.

Proceed to Step 5 for performing Learn VKMS Test Plan via GFF

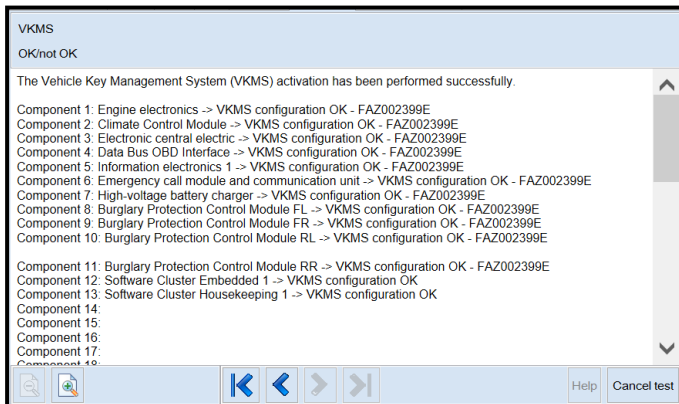## Step 5 – Perform VKMS Adaptation Test Plan
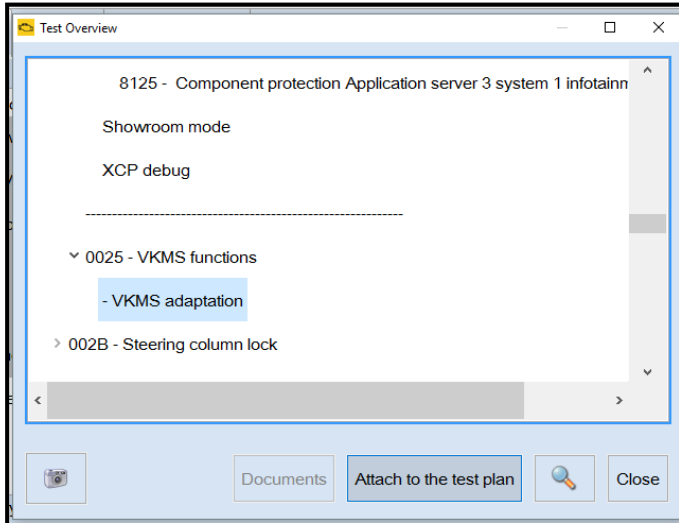
- Perform 0025 Immobilizer **"VKMS Adaptation"** test plan.

> **ⓘ TIP**
>
> After selecting "Self Test," use the search function and enter "VKMS" to aid in finding the test plan.

- Follow the on-screen prompts.
- Pay close attention to all steps outlined in the test plan and follow them exactly as described.
- Do not end the diagnostic session.

- Ensure each component shows the VKMS configuration is OK.
- If any component does not complete the VKMS adaptation, repeat the test plan.

Proceed to Step 6 for performing manual basic settings

Step 6 – Perform Manual Basic Settings and Adjust Temperature Setting (if necessary)
NOTE: this step is required for ALL vehicles

With the software update the basic settings of the steering angle sender -G85- and the end stops (soft stop) of the electric window lifter might be lost.

- Perform manual basic settings of steering angle sender -G85-:
    - Create drive readiness.
    - Turn steering wheel completely to the left and hold in the end position for 3 seconds.
    - Turn steering wheel completely to the right and hold in the end position for 3 seconds.
    - Return steering wheel to straight-ahead position.
    - Yellow steering light in cluster should go out.
- Adapt end stops (soft stop) of the electric window lifter for all windows:
    - Lower window completely. Release the switch. Hold window switch in the down position, at the second detent for 3 seconds.
    - Raise window completely. Release the switch. Hold window switch in the up position, at the second detent for 3 seconds.
- This software update may change the temperature units from Fahrenheit to Celsius. The setting can be changed in the infotainment display by going to *Settings > Unit Setting*s. This setting should be adjusted based on customer preference.
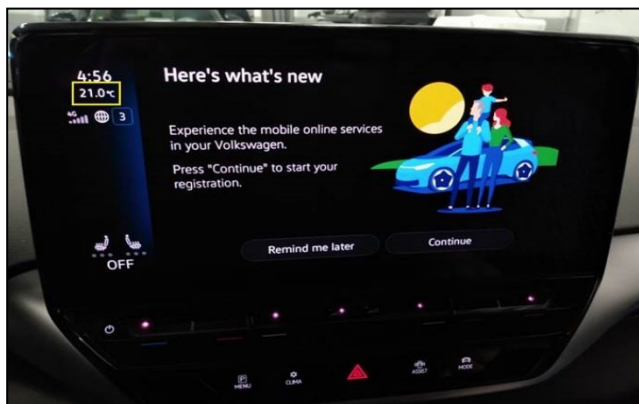

Proceed to Step 7 for Adjusting Service Interval

Step 7 – Adjusting Service Interval (if necessary)

> ⓘ **NOTE**
>
> - The service interval display may be reset by the software configuration. The current service interval should have been read out at the beginning of this repair.
> - It is also possible that the service interval could be reset on a previous service visit if a software configuration was carried out on the vehicle. Therefore, the service interval should be compared to the vehicle's service records. If there is a discrepancy, the service interval values will have to be adjusted accordingly.
> - Service interval adaptation channels:
>   - $0548 (distance driven since the last inspection)
>   - $0549 (time since the last inspection)
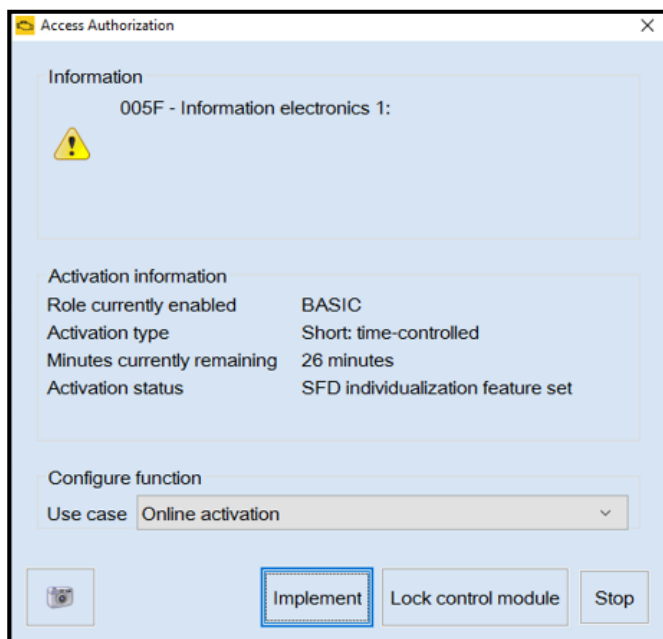
- From the OBD menu, go to: OBD > DA 005F > *Access authorization*.
- Select "Implement" and then enter ODIS login/password if prompted (to unlock SFD).
- Select "stop" to close the window.

- Using Operating mode "OBD", check 005F adaptation channels $0548 and $0549 for the current service interval settings (OBD > DA 005F > *Adaptations*).
- If the values are the same as the previously recorded values, no change is necessary.
- If the values have changed, enter the correct values as needed.
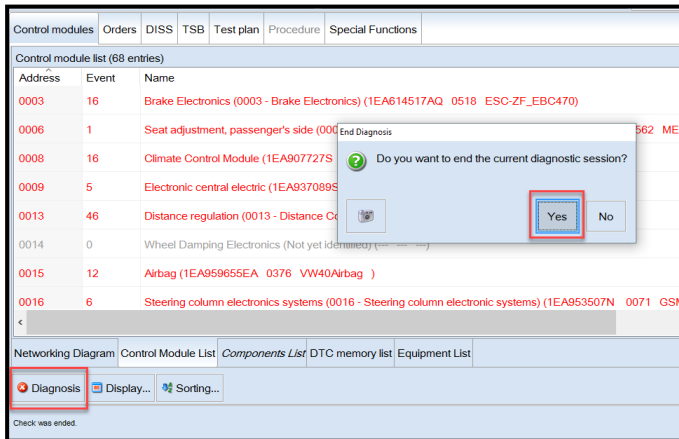

TIP: Enter "inspect" in the Filter field <arrow> and both adaptation channels will be shown.

Proceed to Step 8 for performing GFF test plans for faults created by the flash process

Step 8 – Perform GFF Test Plans For All Faults Created by the Flash Process
NOTE: this step is required for ALL vehicles

- Exit Diagnosis and select "Yes" to end the diagnostic session.
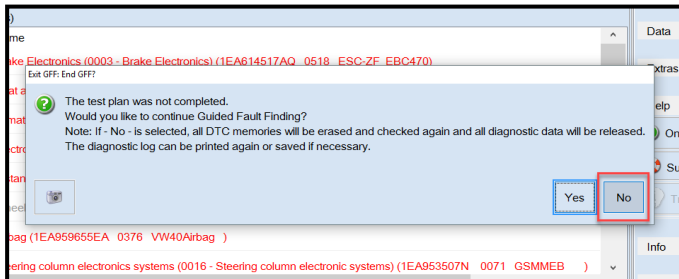
- When prompted to continue Guided Fault Finding, select "NO".
- GFF will be exited and faults will be erased.

- Static faults created by the flash process will remain.
- When prompted, select "YES" to populate new test plans.

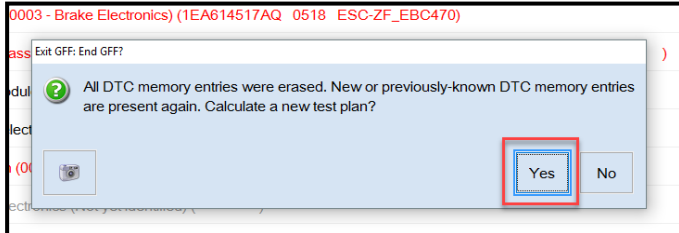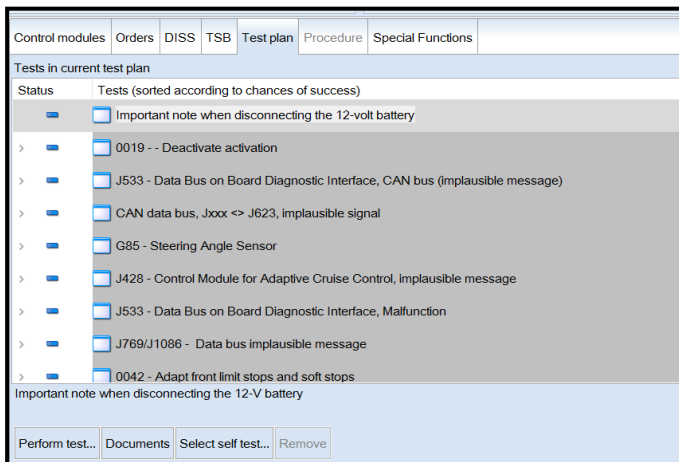| Control modules	Orders	DISS	TSB	Test plan	Procedure	Special Functions

Tests in current test plan

Status	Tests (sorted according to chances of success)
▬	☐ Important note when disconnecting the 12-volt battery
❯ ▬	☐ 0019 - - Deactivate activation
❯ ▬	☐ J533 - Data Bus on Board Diagnostic Interface, CAN bus (implausible message)
❯ ▬	☐ CAN data bus, Jxxx <> J623, implausible signal
❯ ▬	☐ G85 - Steering Angle Sensor
❯ ▬	☐ J428 - Control Module for Adaptive Cruise Control, implausible message
❯ ▬	☐ J533 - Data Bus on Board Diagnostic Interface, Malfunction
❯ ▬	☐ J769/J1086 - Data bus implausible message
❯ ▬	☐ 0042 - Adapt front limit stops and soft stops

Important note when disconnecting the 12-V battery

Perform test...	Documents	Select self test...	Remove

- Work through all test plans for faults created by the flash process.

- Reference any applicable TSBs that address "ghost" faults.

- Pay close attention to all steps outlined in the test plans and follow them exactly as described.

- Exit GFF and send diagnostic protocol online.

ⓘ **NOTE**

Driver assist systems will not require re-calibration due to this software update.

⚠ **CRITICAL REPAIR STEP**

🛑 **STOP!** 🛑

Perform a test drive above 20 mph/35 kph to calibrate the three-phase drive -VX54-.

When performing this road test, the vehicle will momentarily lose acceleration when the three-phase drive -VX54- calibrates. Ensure the road test is performed in a safe manner.

ⓘ **NOTE**

Static faults may store in various control modules during the flash.

The ID Light may not operate as designed after the flash.

It may be necessary to perform the following in order to clear the faults and restore the ID Light operation:

- Drive the vehicle a short distance (around the parking lot, for example).
- Perform a bus sleep.

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).