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|-------------------------------------|------------|-----------------------------------|--|
| Release Date | 06/23/2020 | Technical Service Bulletin | |
| 91X4 UPDATE | | |  Audi |
| MMI Software Update – (NVLW) | | | |

Applicable Vehicles

| Country | Beginning Model Year | Ending Model Year | Vehicle |
|---------|----------------------|-------------------|---------|
| USA | 2019 | 2020 | A6 |
| USA | 2019 | 2020 | A7 |
| USA | 2019 | 2019 | E-TRON |
| USA | 2019 | 2020 | Q3 |
| USA | 2020 | 2020 | Q7 |
| USA | 2019 | 2020 | Q8 |
| CAN | 2019 | 2020 | A6 |
| CAN | 2019 | 2020 | A7 |
| CAN | 2019 | 2019 | E-TRON |
| CAN | 2019 | 2020 | Q3 |
| CAN | 2020 | 2020 | Q7 |
| CAN | 2019 | 2020 | Q8 |

Revision History

| Revision | Date | Purpose |
|----------|------------|---|
| 1 | 05/28/2020 | Original publication |
| 2 | 06/23/2020 | Added claiming instructions in the event the update has to be performed using the Red Engineering Menu (REM). |
| | | Updated work instructions. |
| | | Removed A8 models from applicable vehicles. |


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Technical Background

| This Update has been proactively released to prevent the following condition(s) from occurring in the vehicle: | |
|--|---|
| Criteria | Technical Background |
| ALL | <p>The infotainment system privacy setting “Allow data transmission” may, in unfavorable circumstances, change without user intervention. As a result, the vehicle sends data although this function was previously deactivated manually.</p> <p>The software also includes the following technical measures:</p> <ul style="list-style-type: none"> • Performance enhancement for rear view camera display • Increased stability of SMS service • Performance enhancement for eCS route guidance on Audi e-tron (eCS = e-tron Charging Service) • Wi-Fi configuration “GPS detection via navigation unit” • Performance enhancement of external amplifier for multimedia system • Remedy for function impairments of the MMI system • Performance enhancement for multimedia system display units <p>The following topics for the infotainment system are also addressed:</p> <ul style="list-style-type: none"> • MIB2+ “Both screens blue” • MIB2+ “Intersection detail map missing in HUD” • MIB2+ “Navigation information frozen in HUD” • MIB2+ “Navigation out of operation or initialized up to 11%” • MIB2+ “Traffic sign recognition currently unavailable” • MIB2+ “Not functioning sporadically” • MIB2+ “Button for driving assistance system without function” • MIB2+ “Shortcuts in lower display without station logo” • MIB2+ navigation “Stored addresses and last destinations deleted” • Sound: “Bang & Olufsen unauthorized event memory entries in premium sound system (B&O)” |

Remedy

| Criteria | Remedy |
|----------|-------------------------------------|
| ALL | Update infotainment system software |

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This Update is in effect until removed.

Vehicle must meet all of the following criteria:

- Procedure is valid only for vehicles that show the **91X4** code in the Elsa Campaign/Action Information screen on the day of repair.
- Vehicle must be within the New Vehicle Limited Warranty.
- Procedure must be performed within the allotted time frame stated in this Technical Service Bulletin.
- Procedure must be performed on applicable vehicles in dealer inventory prior to sale.

Service

NOTE:

- Elsa is the only valid inquiry/verification source. Check Elsa on the day this vehicle UPDATE will be performed 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 ← 2 | Open ← 1 |

EXAMPLE

| Campaign/Action | Start | Designation |
|-----------------|------------|--------------|
| ← 3 | 2015-11-10 | W-SERV_ACT - |
| | 2018-12-13 | RECALL - |
| | 2017-05-16 | A-RECALL - |

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.

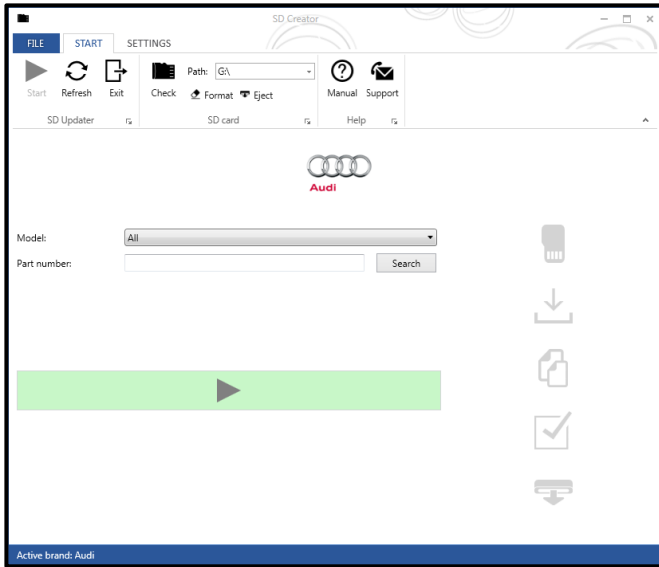
- Confirm the Campaign/Action is open <arrow 1>. If the status is closed, no further work is required.
- Note the Applicable Criteria ID <arrow 2> for use in determining the correct work to be done and corresponding parts associated.

CRITICAL REPAIR STEP



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 action.**

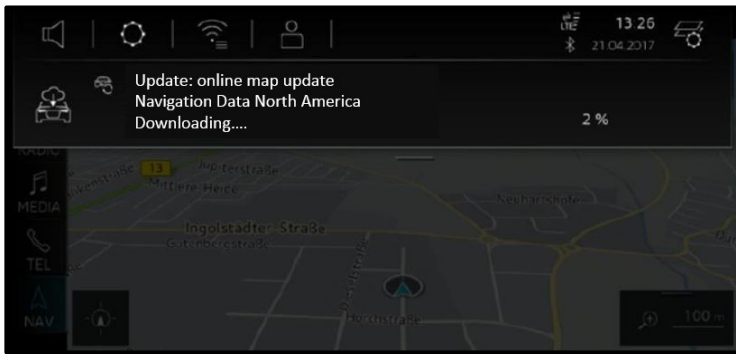


- A SD Card will need to be created using the SD Creator program. Refer to the chart below to create the correct card based on VIN criteria.
- Reference the latest version of TSB 2047812 for additional information on the use of the SD Creator program.

| Criteria | SD Card Part Number |
|-----------------|----------------------------|
| 03 | 4K0.906.961.H |
| 06 | 4K0.906.961.G |
| 09 | 4K0.906.961.F |
| 10 | 4K0.906.961.J |

NOTE

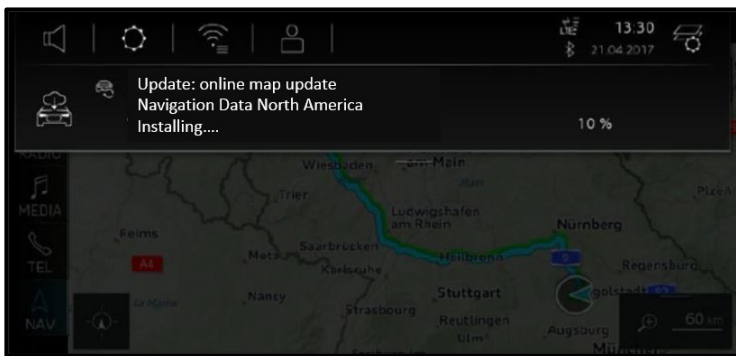
Before performing the software update, please deactivate the “Automatic online map update” function on the MMI in the “Settings” > “System update” menu. This function must be re-activated at the end of the update.



NOTE

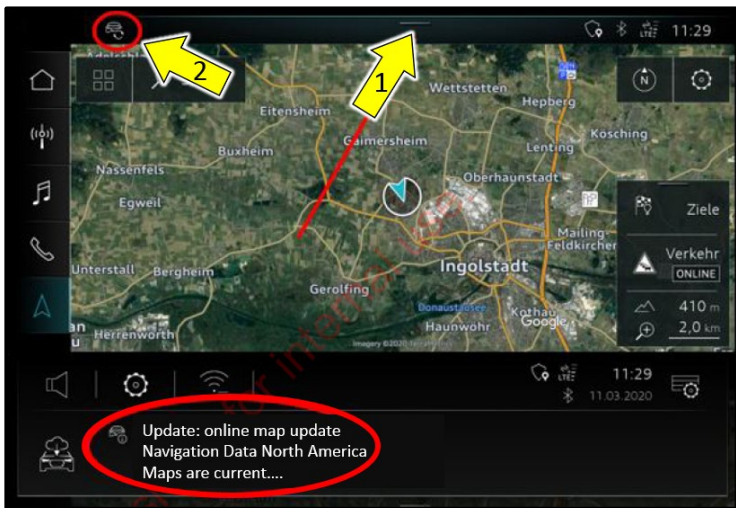
If the infotainment system happens to be in a navigation data download mode (“Downloading...,” as shown), please interrupt this by activating the slider for privacy mode (Home > Settings > Privacy settings > Activate privacy).

Please ensure that you deactivate privacy mode again after the software update is complete.



NOTE

If the navigation database update is already being installed (“Installing...,” as shown), please wait and ensure that the installation is fully complete before continuing with the 91X4 software update.




NOTE

If a navigation database update is already complete, it is very important to confirm this manually in the notifications center of the MMI.

To do so, pull the notification center downwards <arrow 1> and confirm the completion (“Maps are current...,” as shown).

The 91X4 software update can only be started when the icon at the top left <arrow 2> is no longer visible.

If there was no icon at the top left beforehand, no further confirmations are required.


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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.
- ✓ **Flash process through “Audi Flashing” not Guided Fault Finding (GFF).**
 - DO NOT USE Guided Fault Finding (GFF) to perform this flash. Using GFF will cause the flash to take longer. Requests for additional time will not be considered.
- ✓ **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.

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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.

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.

- Open the hood.
- Open the battery cover.
- Attach the GRX3000VAS Tester/Charger (or equivalent) to the vehicle battery or underhood charging posts.

NOTE

When connecting the charger directly 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.

- Switch on the hazard warning lights.

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.

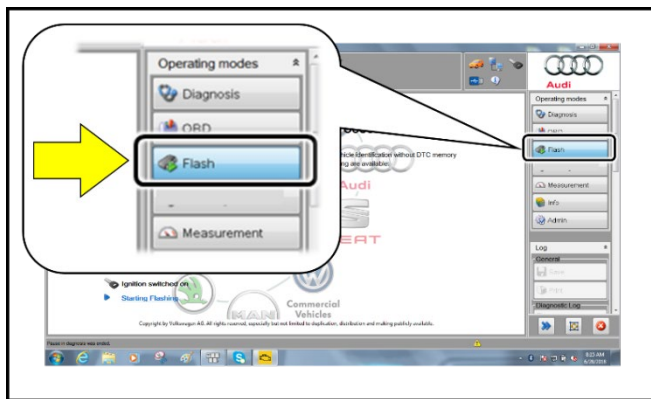
- Connect the VAS6150X/VAS6160X Diagnostic Tester to the vehicle.
- Start the ODIS program.

91X4 UPDATE

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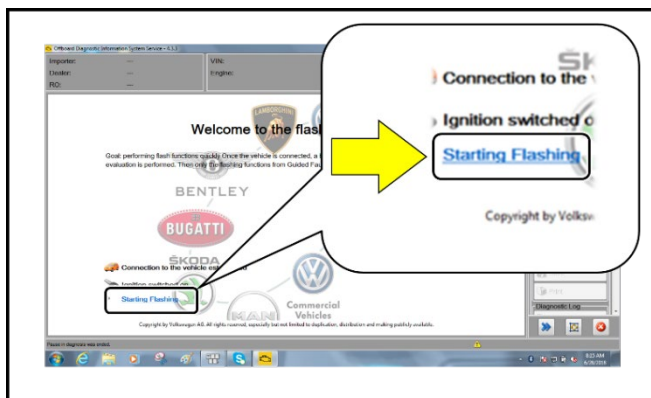
- Confirm that scan tool is communicating with the diagnostic head by USB cable.
 - If the Bluetooth or WiFi symbol is shown, then disconnect the diagnostic head from the vehicle and reconnect the USB cable to the diagnostic head and then reattach to the vehicle.



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

NOTE

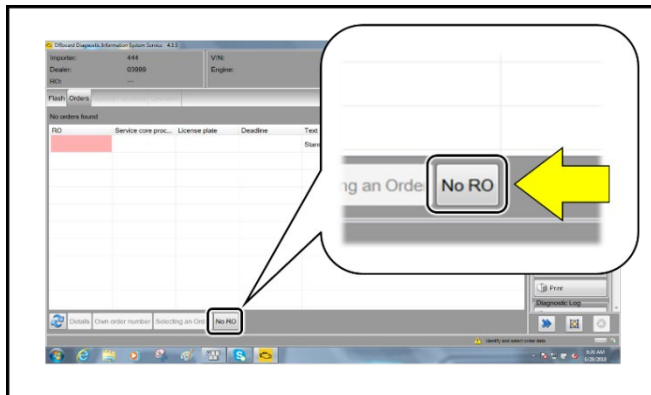
Operating mode “Flash” must be used. Performing this software update using “Diagnosis” (Guided Fault Finding) could result in non-payment of the claim.



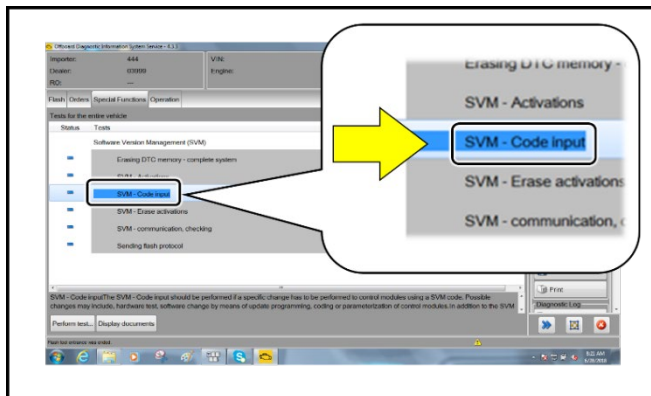
- Select “Starting Flashing” and follow the on-screen prompts.

91X4 UPDATE

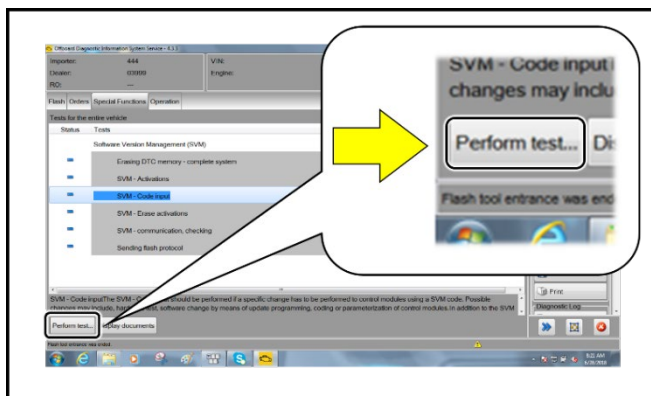
MMI Software Update – (NVLW)



- Select "No RO".



- Highlight "SVM – Code Input".



- Select "Perform test".

NOTE

Using Bluetooth or WiFi 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

91X4A864

- Select “Accept” <arrow>.
- Follow the on-screen prompts and insert the SD card in the SD card reader when prompted.



| Criteria | SD Card |
|----------|---------------|
| 03 | 4K0.906.961.H |
| 06 | 4K0.906.961.G |
| 09 | 4K0.906.961.F |
| 10 | 4K0.906.961.J |

TIP

The Flash test plan may indicate a different SD card part # is needed.

Attempt the flash with the SD card listed in this circular first. If the attempt fails via the SVM test plan, attempt the flash again via the REM using the SD card listed in this circular.

If the flash fails after both attempts, only then should the flash be attempted with the SD card listed in the test plan.

NOTE

In the event that errors occur during the update, refer to the instructions in Appendix A.

91X4 UPDATE

MMI Software Update – (NVLW)



NOTE

In the event the update cancels, perform the update via the red engineering menu by touching the screen with two fingers in the top right corner

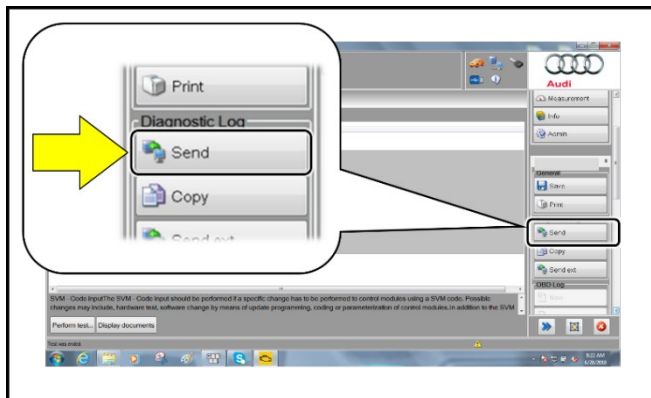
Use the volume control to navigate the red engineering menu (left and right for scrolling, push to select)

Select "Update" and the source of the update medium.

All control units to be updated are shown, scroll all the way down and start the update.

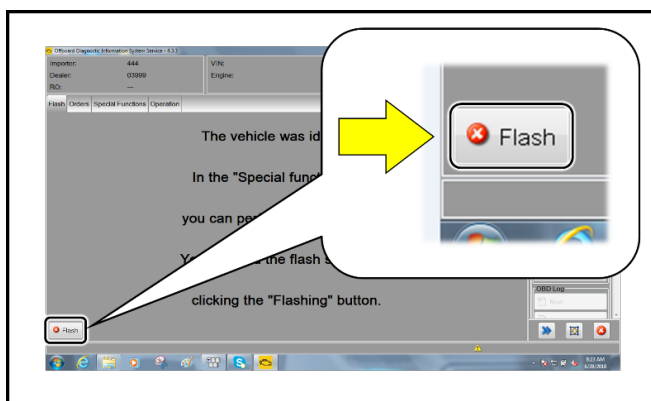
IMPORTANT!

After the manual successful update perform the SVM code again so that the ODIS tester can make the necessary configuration and report the new vehicle configuration to the SVM server.



- After receiving confirmation that the flash completed successfully, select "Send" <arrow> to send the diagnostic protocol online.

- Follow the on-screen prompts.




- Click "Flash" <arrow> to exit the flash session.

TIP

Various event memory entries may be generated after the flashing procedure on some vehicles. Put the vehicle in a corresponding bus sleep mode after performing the update in order to clear the faults.

To put the vehicle in bus sleep mode, disconnect the diagnostic tester, remove the key from the vehicle and lock the vehicle with the remote for 5 minutes.


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Warranty

| | | | |
|---|--|------------------------------------|--|
| 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 <u>open on the day of repair</u> to the repair order. | | | |
| If customer refused campaign work or vehicle is out of the specified warranty parameter for this Update: | | | |
| <ul style="list-style-type: none"> ✓ <u>U.S. dealers:</u> Submit the request through Audi Warranty Online under the <u>Campaigns/Update</u> option. ✓ <u>Canada dealers:</u> Upload the repair order to Audi WIN/Operations/Campaign Closure. | | | |
| Service Number | 91X4 | | |
| 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. | 03 or 06 or 09 or 10 | | |
| LABOR | | | |
| | Labor Op | Time Units | Description |
| | 2706 89 50 | 10 | Connect battery charger |
| | 9196 25 99 | Time stated on diagnostic protocol | Update infotainment control module software |
| | <i>Add ONLY if update had to be completed using the Red Engineering Menu: (NOTE: GFF logs may be requested for review)</i> | | |
| | 9196 26 99 | 40 | Complete update using the Red Engineering Menu |

Additional Actions Some of the affected vehicles may be involved in additional Actions. Please check your Elsa Campaign/Action Information screen so that any *additional required work can be done simultaneously*.



Verifying Vehicle Eligibility To verify vehicle eligibility for this Update, *always* check the Elsa Campaign/Action Information screen. The Elsa system is the *only* binding inquiry and verification system; other systems are not valid and *may result in non-payment* of a claim.

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Help for Claim Entry For questions regarding claim entry, contact Audi Warranty.


Required Customer Notification Inform your customer in writing by recording on the Repair Order any and all work that was conducted on the vehicle, including any and all updates completed under this Update.

Required Special Tools

| | | | |
|---|---|--|--|
|  | <p>Battery Tester/Charger</p> <p>- GRX3000VAS-</p> <p>(or equivalent)</p> |  | <p>Diagnostic Tester</p> <p>-VAS6150X/VAS6160X-</p> <p>(or equivalent)</p> |
|---|---|--|--|

Additional Information

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

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Appendix A

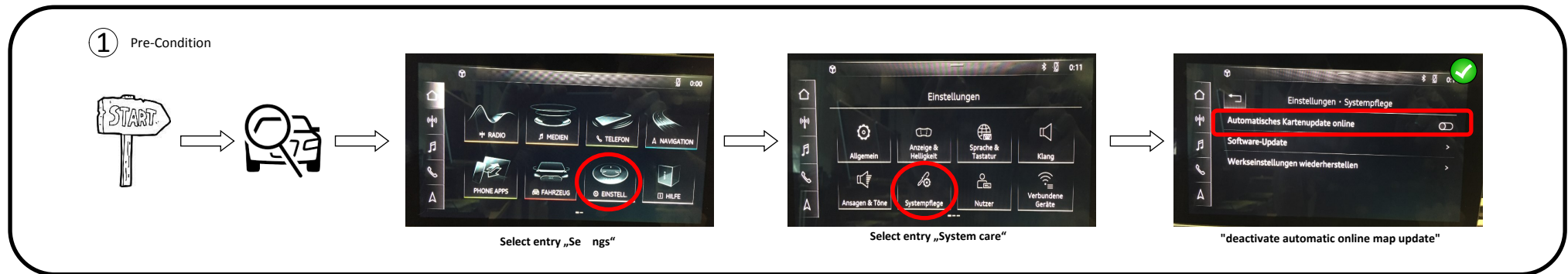


MMI Update Anleitung

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| Page 6: | | Error Case 128: zFAS_Var_C_CL0205... |
| Page 7: | | Error Case 137: HwR.Res.ER |

MMI SD-Card Update Pre-Condition / Information



Inside REM (Red Engineering Menu) only use the LSR (Volume knob) to navigate through the options

Left / Right = Scroll up / down
Press = select

After Reset / Powering off / Disconnect Power cable or any other action within the REM which leads to a restart of the Main Unit, the Update will restart automatically

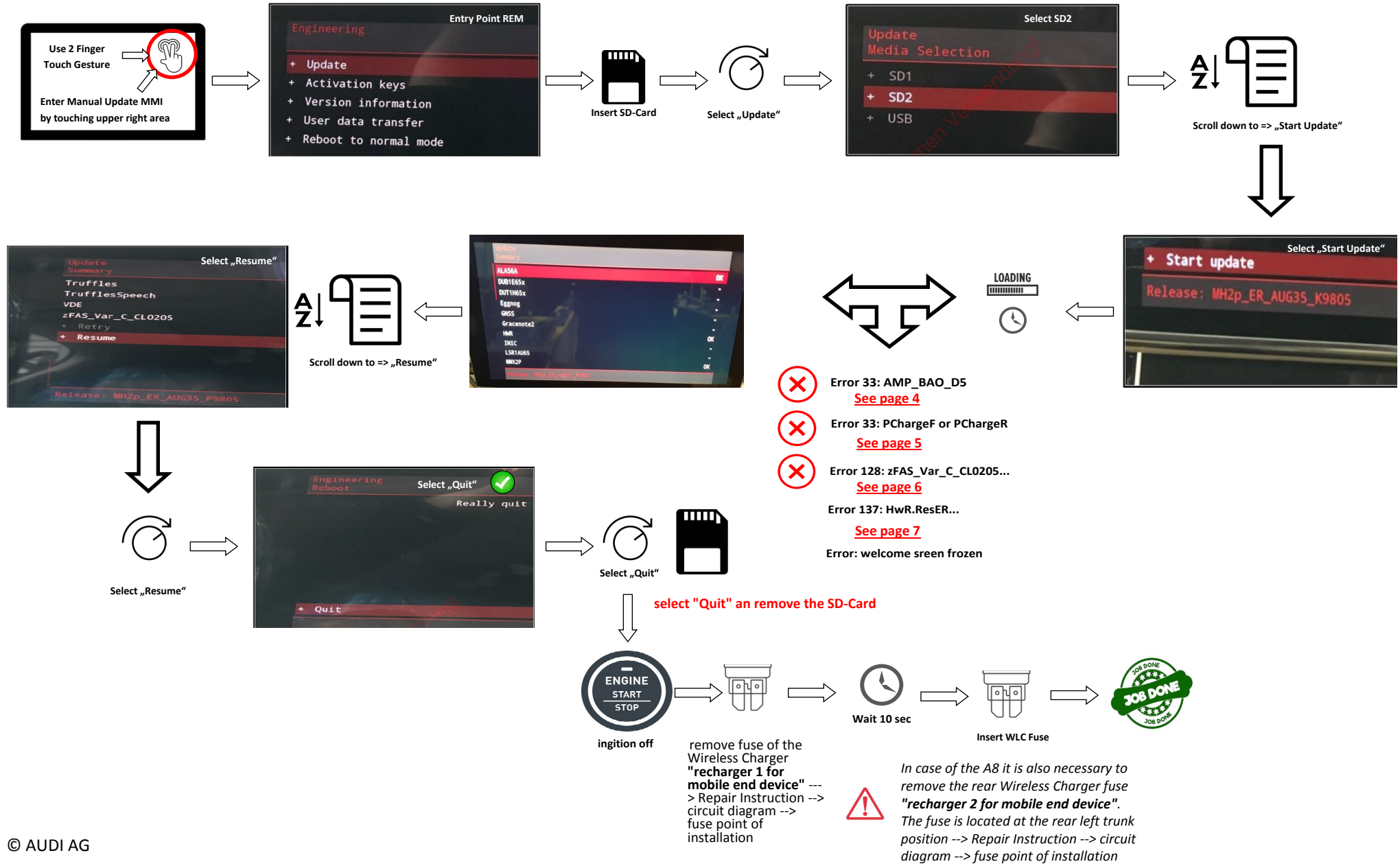
Error Message after insert SD-Card within Main-Menu will occur. To prevent this issue, please insert the SD-Card after entered the REM Menu (REM)

The result information at the "Update summary" step (OK, NOK, n/a) is not important and can be ignored

MMI SD-Card Update




② Update Process (Manual)



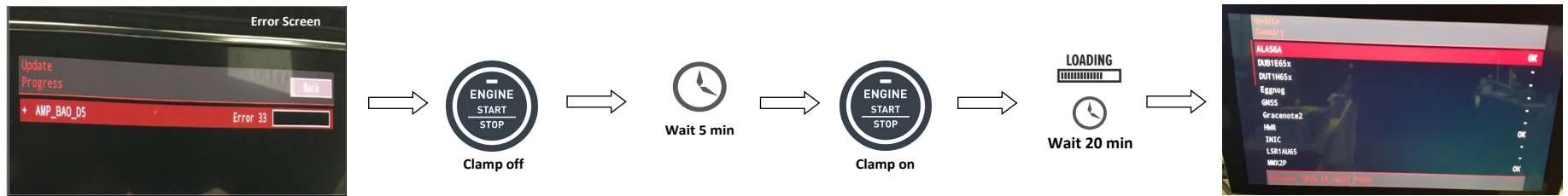
Error Case 33: AMP_BAO_D5




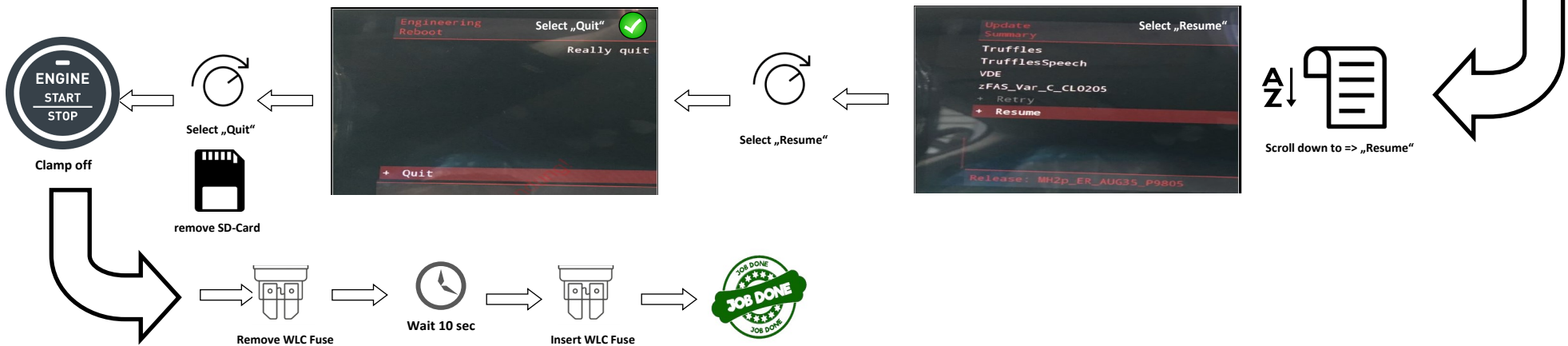


Error 33: AMP_BAO_D5

Step by Step Description



 Error 33: AMP_BAO_D5



remove fuse of the Wireless Charger "recharger 1 for mobile end device" ---


> Repair Instruction --> circuit diagram --> fuse point of installation



In case of the A8 it is also necessary to remove the rear Wireless Charger fuse "recharger 2 for mobile end device". The fuse is located at the rear left trunk position --> Repair Instruction --> circuit diagram --> fuse point of installation

Error Case 33: PChargeF (front) or PChargeR (rear)






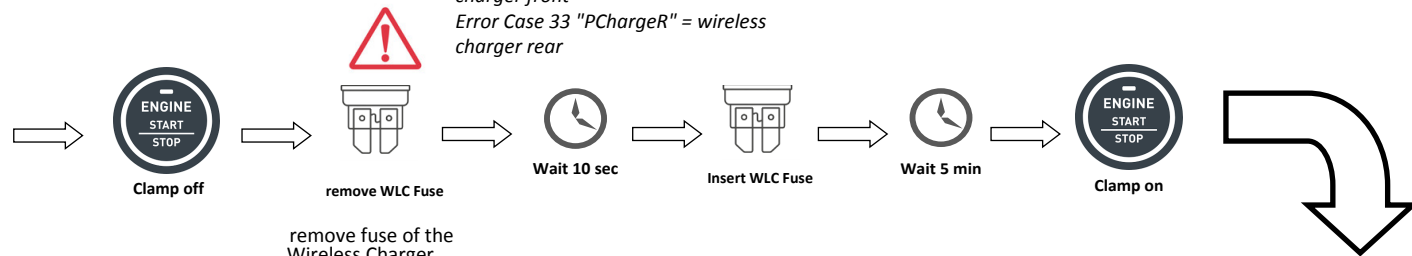
Error 33: PChargeF or PChargeR

Step by Step Description

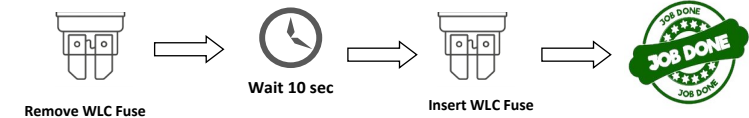
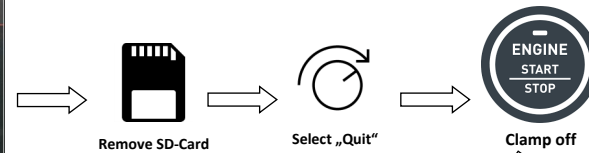
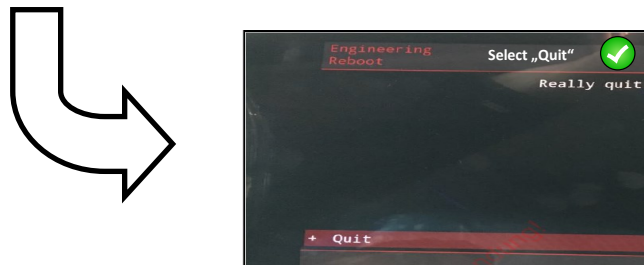
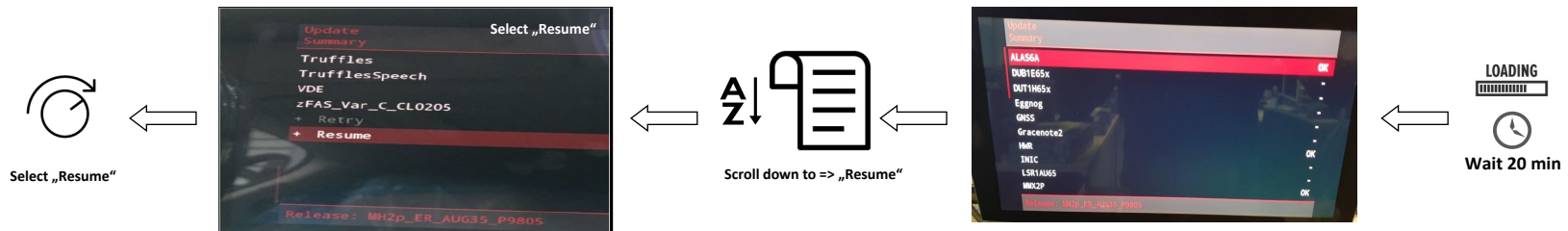


 Error 33: PChargeF or PChargeR

Error Case 33 "PChargeF" = wireless charger front
 Error Case 33 "PChargeR" = wireless charger rear



remove fuse of the Wireless Charger "recharger 1 for mobile end device" ---




remove fuse of the Wireless Charger "recharger 1 for mobile end device" ---



In case of the A8 it is also necessary to remove the rear Wireless Charger fuse "recharger 2 for mobile end device". The fuse is located at the rear left trunk position --> Repair Instruction --> circuit diagram --> fuse point of installation


Error Case 137: HwR.ResER



 **Error Case 137: HwR.ResER**
Step by Step Description



Error Case 137: HwR.ResER

 The update medium has not been completely copied and / or there is a functional defect within the SD card!

Repair: Please generate or order a new SD card (max. 32 gb) include the software and continue the update with the new Sd card.

