#### **Technical Service Bulletin**

### 93P1 UPDATE

# Software Update for Control Units - (NVLW)



#### **Applicable Vehicles**

Country	Beginning Model Year	Ending Model Year	Vehicle Vehicle Vehicle	
USA	2019	2019	E-TRON QUATTRO	
CAN	2019	2019	E-TRON QUATTRO	

Revision History			
Revision	Date	Purpose	
1	June 23, 2022	Original publication	

# **Condition/Technical Background**

This Update ha	This Update has been proactively released to prevent the following condition(s) from occurring in the vehicle:			
Criteria	Technical Background			
02, 03 and 05	Various control units on certain Audi e-tron vehicles are running outdated software versions, which have to be updated to ensure that they can continue to be updated in the future.			

# Remedy

Criteria	Remedy	
02, 03 and 05	Update control module software	

This Update is in effect until removed.

Vehicle must meet all of the following criteria:

- Procedure is valid only for vehicles that show the **93P1** 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.

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#### **Technical Service Bulletin**

#### 93P1 UPDATE

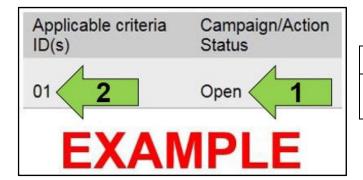
# **Software Update for Control Units – (NVLW)**

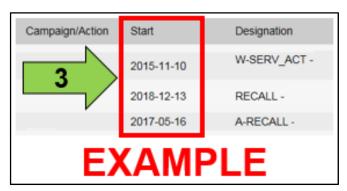


### **Service**

#### 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.





• 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.

- 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.



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.

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# **Software Update for Control Units – (NVLW)**



- All Safety Recalls must be completed prior to completing this campaign.
- See Section A for Criteria 02 Repairs
- See Section B for Criteria 03 Repairs
- See Section C for Criteria 05 Repairs





All vehicles are assigned criteria 02, 03 and 05. Each flash must be carried out on a separate ODIS Flash session.

Each flash must be done in the order of criteria 02, 03 then 05.

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# Software Update for Control Units - (NVLW)



### General SVM Procedure Notes for all Repairs



# U 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.



As a best practice, customer presets should be documented prior to performing any update in the event these settings are lost during the update.

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### **Technical Service Bulletin**

#### 93P1 UPDATE

# Software Update for Control Units - (NVLW)





# U 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!

# i 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.

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#### **Technical Service Bulletin**

#### 93P1 UPDATE

# **Software Update for Control Units – (NVLW)**



### Section A - Criteria 02 Repair Instructions

- Criteria 02 repair overview:
  - Communication path = CAN
  - Update module via Flash
  - Activate bus sleep mode
- Open the hood.
- Open the battery cover.
- Attach a battery charger <u>capable of</u> <u>minimum 90 Amp continuous supply</u> to the vehicle's 12V battery or underhood charging posts.



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.

## **A** 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.
- 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.



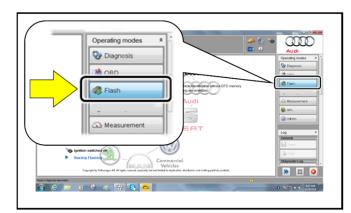
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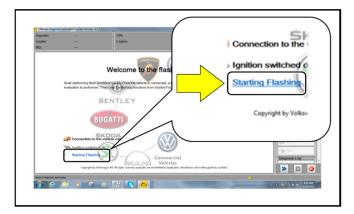




- From the home screen of the scan tool highlight "Flash" <1>.
- Follow the on-screen prompts.

# ① 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 onscreen prompts.



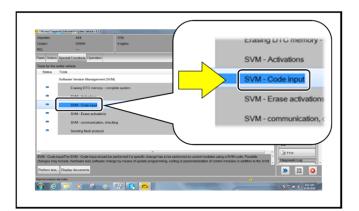
Select "No RO".

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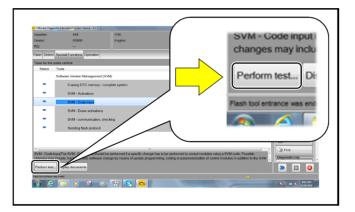
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• Highlight "SVM – Code Input".



• Select "Perform test".

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#### **Technical Service Bulletin**

#### 93P1 UPDATE

# **Software Update for Control Units – (NVLW)**

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# U 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.

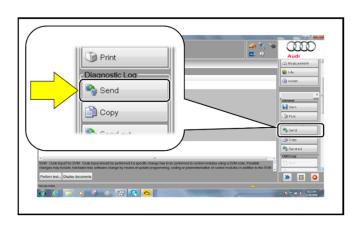


- Select "Accept" <arrow>.
- Follow the on-screen prompts.



During the flashing procedure, you will be prompted to switch terminal 15 off/on multiple times. Each time you are given this prompt, check whether it is really necessary to manually switch the ignition off/on or whether the vehicle has already switched the ignition on or off by itself.

When updating the BMC or BJB, you may be prompted to repeat the flashing procedure. In this case, please follow the instructions on the tester.



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

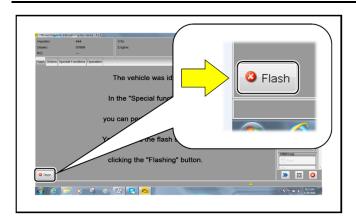
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### **Technical Service Bulletin**

### 93P1 UPDATE

# **Software Update for Control Units – (NVLW)**





- 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 approximately 15 seconds.
- Click "Flash" <arrow> to exit the flash session.

# ① NOTE

If, after performing the update, one or more events are stored in the event memory, first check whether they are incorrect event memory entries. A corresponding message will be shown when you try to work through the entry. You do not have to work through incorrect event memory entries.

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#### 93P1 UPDATE

# **Software Update for Control Units – (NVLW)**



### Section B - Criteria 03 Repair Instructions



### A CRITICAL REPAIR STEP



Do not attempt the Criteria 03 flash until the Criteria 02 flash is successfully completed.

- Criteria 03 repair overview:
  - Communication path = CAN
  - Parking brake = OFF
  - Update module via Flash
  - Perform parking brake basic settings (if necessary)
- Open the hood.
- Access the battery charging posts.
- Switch the ignition on.
- RELEASE THE PARKING BRAKE.
- Switch off all consumers (headlights, heated seats, climate control, etc.).
- Attach a battery charger capable of minimum 90 Amp continuous supply to the vehicle's 12V battery or underhood charging posts.



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.

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#### **Technical Service Bulletin**

#### 93P1 UPDATE

# **Software Update for Control Units – (NVLW)**

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Switch on the hazard warning lights.

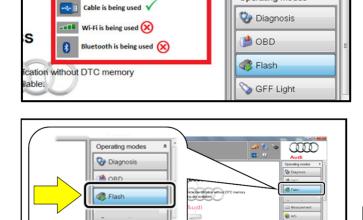
### **A** CAUTION

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.

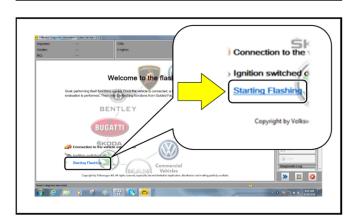
- Connect the VAS6150X/VAS6160X
   Diagnostic Tester to the vehicle.
- Start the ODIS program.
- Confirm that scan tool is communicating with the diagnostic head by USB cable.
  - If the Bluetooth or WiFi symbol is shown, then disconnect the diagnostic head from the vehicle and reconnect the USB cable 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.

# U NOTE

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



Measurement



 Select "Starting Flashing" and follow the onscreen prompts.

The repair information in this document is intended for use only by skilled technicians who have the proper tools, equipment and training to correctly and safely maintain your vehicle. These procedures are not intended to be attempted by "do-it-yourselfers," and you should not assume this document applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Audi dealer. ©2022 Audi of America, Inc. and Audi Canada All Rights Reserved.

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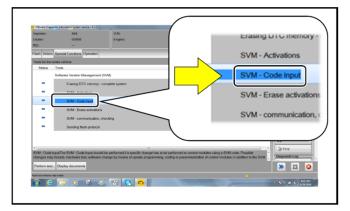
### 93P1 UPDATE

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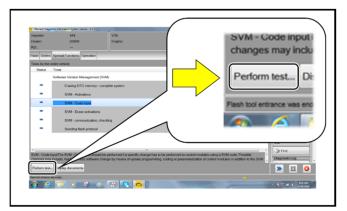




• Select "No RO".



• Highlight "SVM – Code Input".



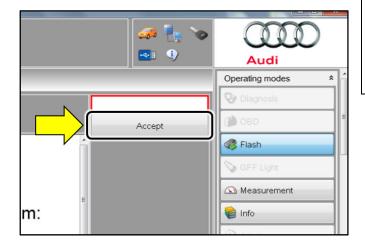
• Select "Perform test".

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## **Software Update for Control Units – (NVLW)**







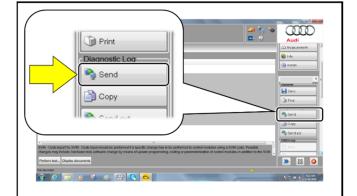
# Using <u>Bluetooth or WiFi</u> for this action is <u>PROHIBITED!</u>

Damage caused to electronic components (e.g. ECM, TCM, etc.) during the SVM flash process is not covered.

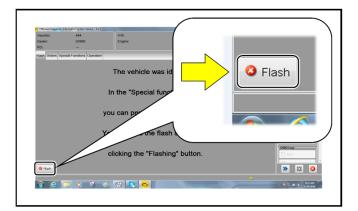
 Enter the corrective action code (SVM code) as liste d below.



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



- 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.
- Faults may store for TPMS and Parking Brake basic settings after the flash. Perform necessary test plans using GFF in order to clear these faults.

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#### **Technical Service Bulletin**

#### 93P1 UPDATE

# Software Update for Control Units - (NVLW)



### Section C - Criteria 05 Repair Instructions



#### A CRITICAL REPAIR STEP



Do not attempt the Criteria 05 flash until the Criteria 02 and 03 flash are both successfully completed.

- Criteria 05 repair overview:
  - Communication path = CAN
  - Update module via Flash
  - Activate bus sleep mode
- Open the hood.
- Access the battery charging posts.
- Switch the ignition on.
- Switch off all consumers (headlights, heated seats, climate control, etc.).
- Attach a battery charger capable of minimum 90 Amp continuous supply to the vehicle's 12V battery or underhood charging posts.



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.

# **A** 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.

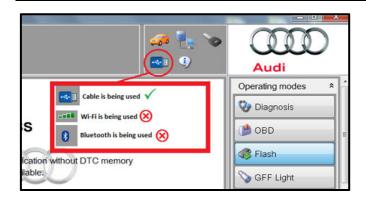
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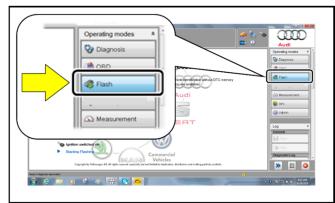
### 93P1 UPDATE

## **Software Update for Control Units – (NVLW)**





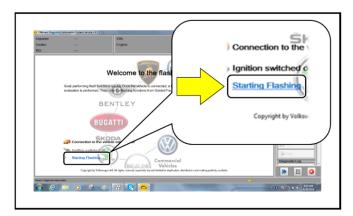
- Confirm that scan tool is communicating with the diagnostic head by USB cable.
  - o If the Bluetooth or WiFi symbol is shown, then disconnect the diagnostic head from the vehicle and reconnect the USB cable to the diagnostic head and then reattach to the vehicle.



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



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 onscreen prompts.

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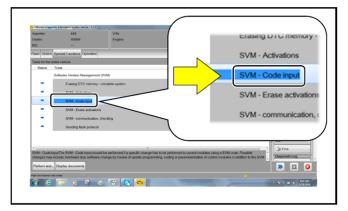
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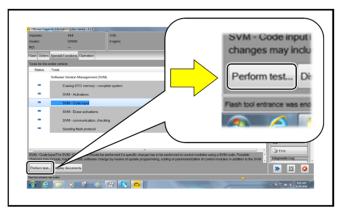




• Select "No RO".



• Highlight "SVM – Code Input".



• Select "Perform test".

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# U NOTE

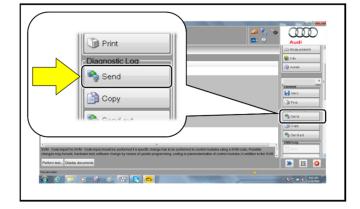
#### Using Bluetooth or WiFi for this action is PROHIBITED!

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 93P1D432

- Select "Accept" <arrow>.
- Follow the on-screen prompts.
- After receiving confirmation that the flash completed successfully, select <arrow> to send the diagnostic protocol online.
- Follow the on-screen prompts.



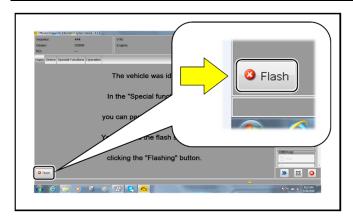
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- Click "Flash" <arrow> to exit the flash session.
- Various event memory entries may be generated after the flashing procedure on some vehicles. Put the vehicle in a corresponding bus sleep mode after performing the update in order to clear the faults.
- 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 approximately 6 minutes.
- After the update has been performed, the message "Please charge battery" may appear in the instrument cluster, regardless of the battery's current state of charge. Please connect the vehicle's high-voltage battery charger briefly and start the charging procedure. The message in the instrument cluster will disappear after a few seconds. This can also be performed step independently at a later time (if no battery charger/charging station is available).

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# **Software Update for Control Units – (NVLW)**



# 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 *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>U.S. dealers:</u> Submit the request through Audi Warranty Online under the <u>Campaigns/Update</u> option.

Service Number	93P1	
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	

Vehicles will have more than one criteria.

Complete and claim all applicable criteria on one claim.

Criteria I.D.	02, 03 and 05		
	LABOR		
	Labor Op	Time Units	Description
	2706 89 50	10	Connect battery charger
	0150 00 00	Time stated on diagnostic protocol	GFF Operations (Labor Op 0150 00 00 can be claimed once for all GFF operations performed for each of the three repair criteria, i.e. fault clearing, basic settings, etc.)
	9325 25 99	Time stated on diagnostic protocol	Criteria 02 software update
	2470 25 99	Time stated on diagnostic protocol	Criteria 03 software update
	9301 25 99	Time stated on diagnostic protocol	Criteria 05 software update
	9035 33 99	10	Activate bus sleep mode and charge vehicle (if necessary)

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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.

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**



Battery Tester/Charger capable of minimum 90 Amp continuous supply



Diagnostic Tester
-VAS6150X/VAS6160X(or equivalent)

# **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.