

Authored Date	20/03/2024	
Doc No.	IAMW0003002v2	
Title	Software Update for Vehicles fitted with TRM – US MY24 only	
Affected Vehicle(s)	Grenadier	RF004651 - RF015987
Prior to starting any reworks, please make sure you check the vehicle is affected by checking the VIN using Vehicle Simple Search in the Warranty System.		

Reason for this document

Issue: An issue has been identified on a small percentage of the affected vehicles where the vehicle requires the correction of previous software to enable the Towing Electronics functionality.

Cause: Software Issue

Action: Follow the procedure below.

Workshop Procedure

Software Update for Vehicles fitted with TRM

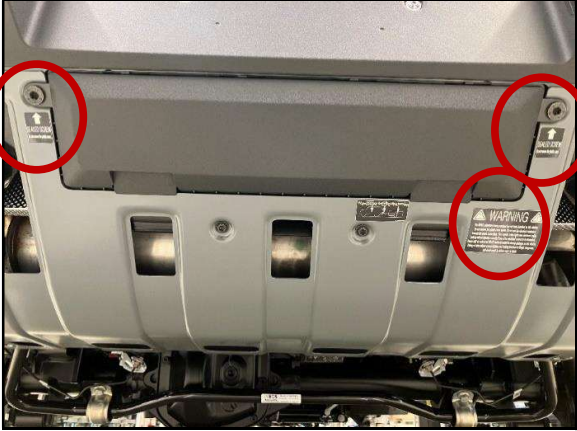


Operation	Repair Time
Check, Install Tow Bar, Update ECUs and Update Head Unit	1
Check, Update ECUs and Update Head Unit	0.8

Procedure – Check Tow Bar Installation


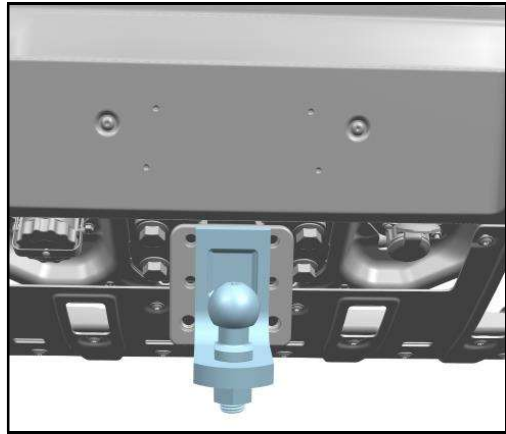
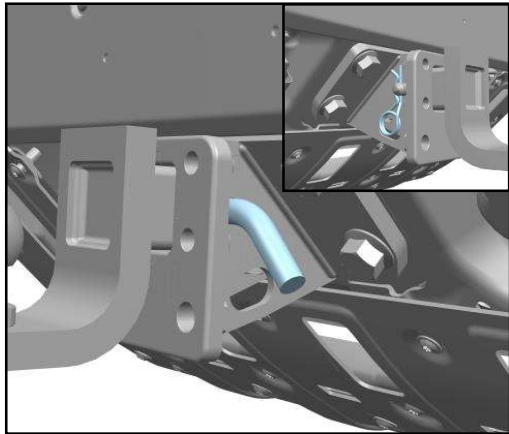
1	<p>Check if IAUPS002824 or IAUPS002824v2 has been applied to the vehicle.</p> <p>If the campaign has been applied to the vehicle, proceed to Procedure – Install the Tow Bar and install the Tow Bar that was originally fitted to the vehicle.</p> <p>If the Campaign has not been applied to the vehicle, proceed to Procedure – Updating Head Unit.</p>
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Procedure - Install the Tow Bar

<p>1</p>	<p>Raise and Support the Vehicle on a suitable 2-Post Lift Refer to: TOPIC_000000382 Lift Vehicle on Ramp</p>
<p>2</p>	 <ul style="list-style-type: none"> - Remove the 3 Warning Labels on the Skid Plate - Using a suitable cleaner, remove any residue from the Skid Plate.
<p>3</p>	  <ul style="list-style-type: none"> - Remove the 2 Towing Hitch Cover screws. - Remove the Towing Hitch Cover.



<p>4</p>	 <ul style="list-style-type: none"> - Install the Towing Adaptor Plate - Install and tighten the 4 bolts. <p>Torque: 250Nm</p>
<p>5</p>	 <p>Install the Tow Ball.</p>
<p>6</p>	 <ul style="list-style-type: none"> - Install the Tow Ball Pin. - Install the R-Clip to the Tow Ball Pin.

7	Lower the Vehicle.
8	Proceed to Procedure – Updating Head Unit.

Procedure – Updating Head Unit.

1 **Caution:** Store all Head Unit flash data into a folder called "**update**" directly in the root of the USB stick: (minus Caps sensitive) "**Update**" WILL NOT WORK

Note: Ensure a dynamic battery charger, capable of outputting 40 Amps is installed to the vehicle B+ and earth, do **NOT** use a trickle charger, the amperage input is not dynamic, errors can occur

Caution: Use a known good USB A stick of the following specification – USB in FAT32 format (generic USB format), Minimum of 1 GB Storage capacity, no more than 128G, Free from other documents or data on USB stick.

Note: Do **NOT** adjust or delete any files in the 'update' folder

Note: The latest software version is SW-0000000690 (HU)


Note: If you have an issue while flashing HU, please use a "Branded USB stick".

Flash the Head unit with the latest 'update' via USB.

- Click the link below to access the required files.
- Download the files to a USB stick.

[HU Update](#)

2




Before the Head Unit is flashed. Write down the Service interval information.

- Distance (miles /kilometres)
- Date
- Engine running time



3



Positive jump point

Negative jump point

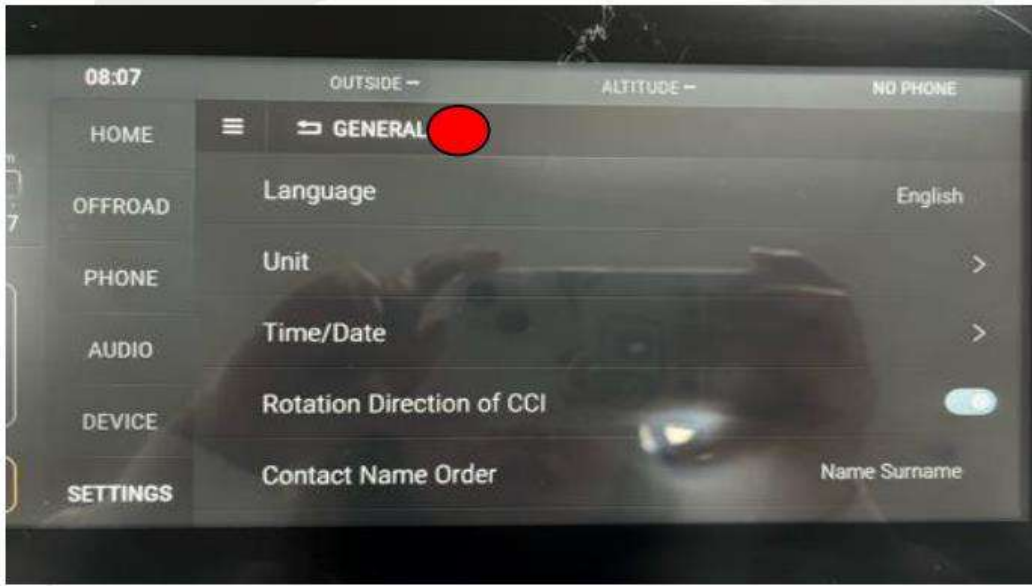
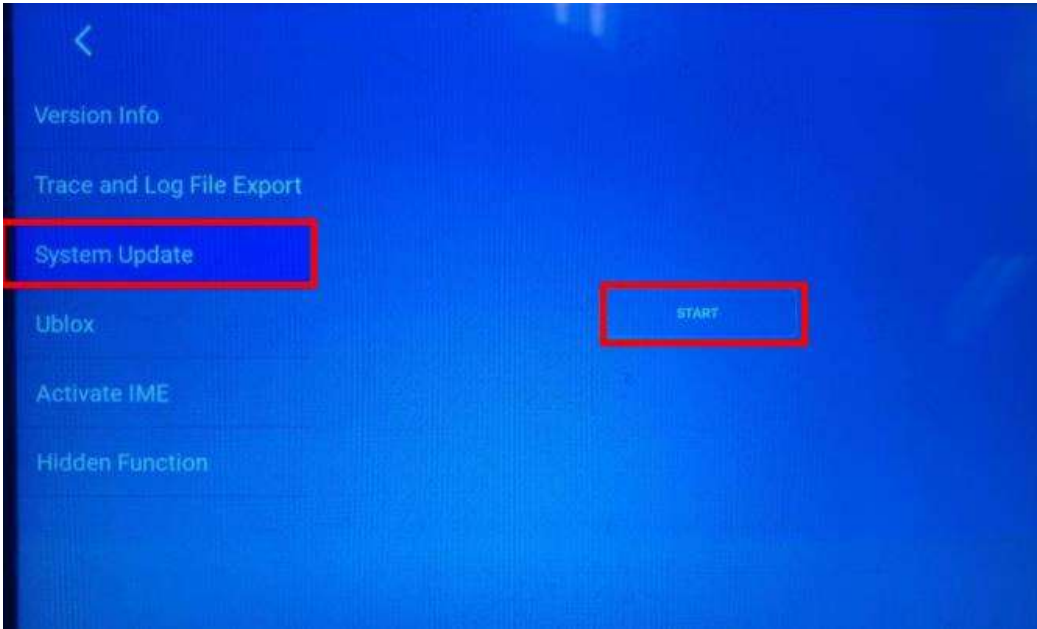
Place the vehicle on charge. Ensuring the battery charger can output up to 40 amps to support the vehicle power supply during the process.

4

Insert the USB stick into USB-A connection in the center console storage area with Head Unit (HU) 'update' software data from software pack SW-0000000690 (HU). A notification will display stating 'USB connected'





<p>5</p>	<p>Head unit (HU) Hidden Menu Access. On the central display select 'SETTINGS - GENERAL'. On the touchscreen, press and hold the area to the right of the 'GENERAL' title for approximately 8 seconds. A screen will appear for PIN input.</p> 
<p>6</p>	<p>Note: the last 2 digits will not change the display 'dots' as there are only 6</p> <p>On the PIN screen, input the PIN number: 46367308</p>
<p>7</p>	<p>On the left side select 'System Update' and then select 'Start'</p> 

8

Note: The software update takes approximately 40 minutes to complete.

Note: Place the vehicle on charge ensuring the vehicle battery charger can output up to 40 Amps

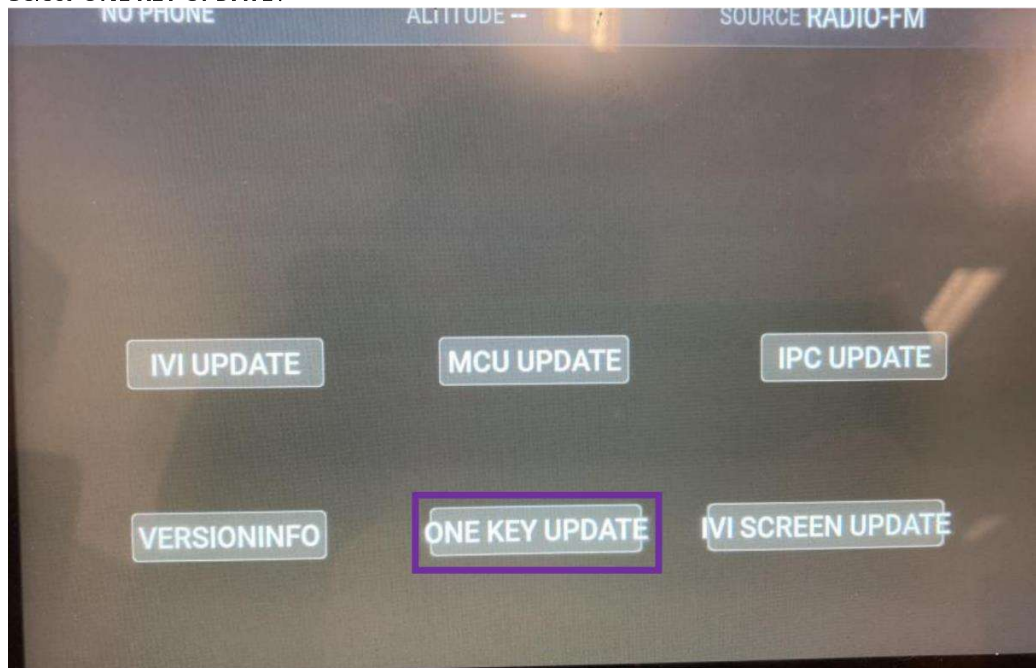
Note: The technician is NOT required to be with the vehicle during this time.

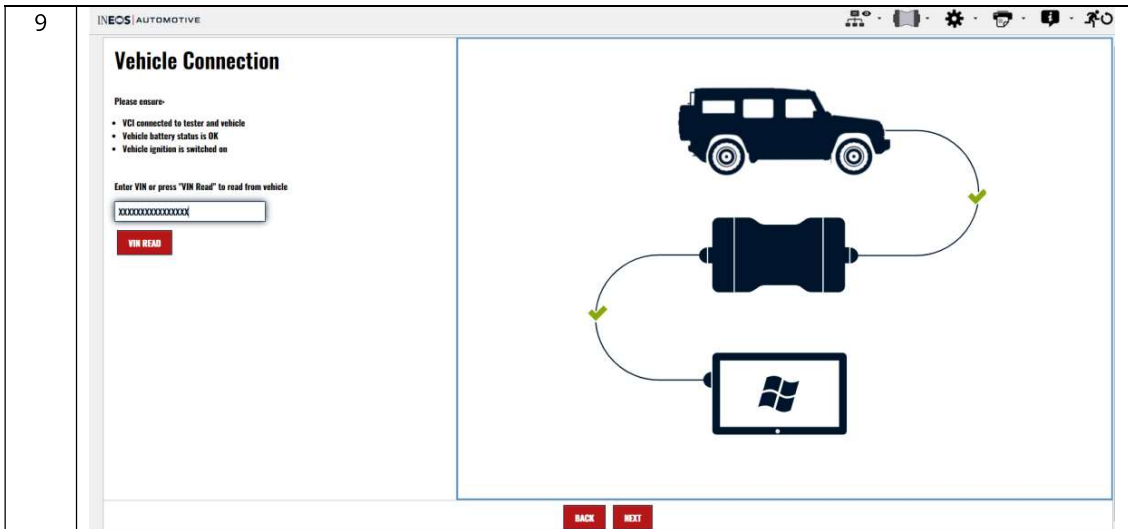
Note: The software update no longer requires each application to be selected individually.

Note: Do not switch off the ignition or stop the process unless there is a notification is displayed in the central display.

Note: The ONE KEY UPDATE will flash all applications of the Head unit (i.e., IVI UPDATE / MCU UPDATE / IPC UPDATE / IVI SCREEN UPDATE)

Select 'ONE KEY UPDATE'.





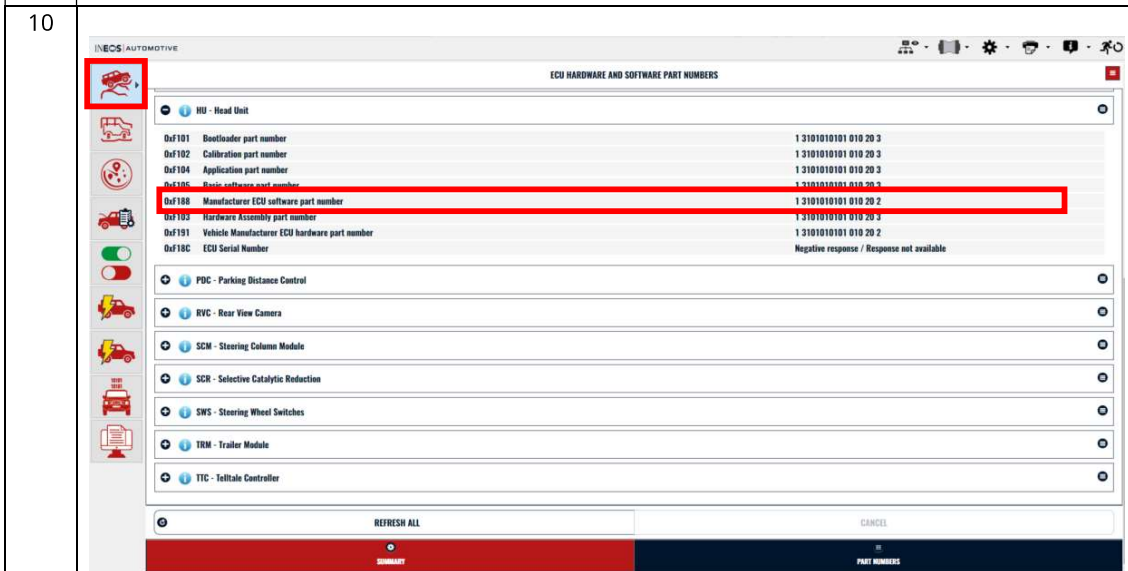
Note: See VCI connection documentation for VCI self-help.

Note: Ensure the connection is **NOT** in simulation.

Connect the vehicle to Grade-X using the VCI connected to the OBD port in the driver's footwell.

Select **'VIN READ'**.

Select **'NEXT'**.



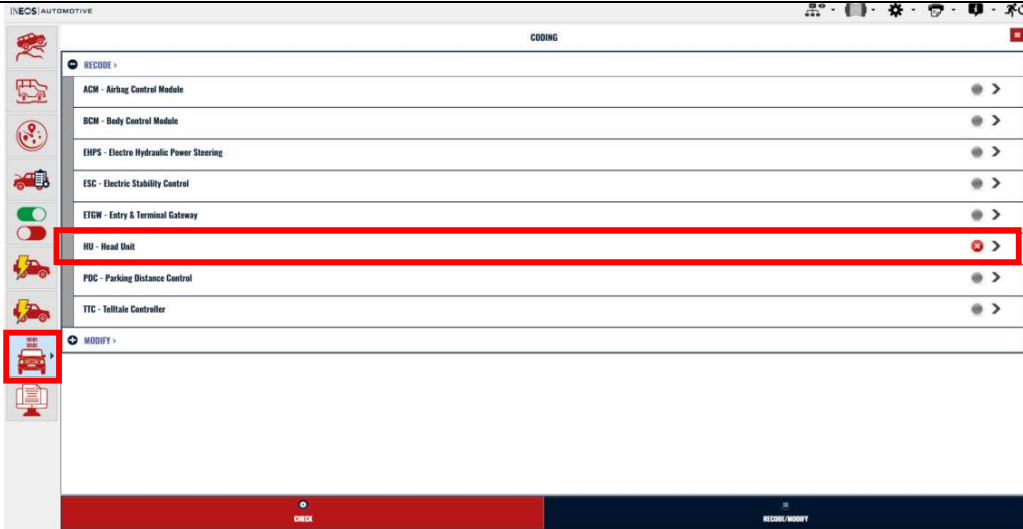
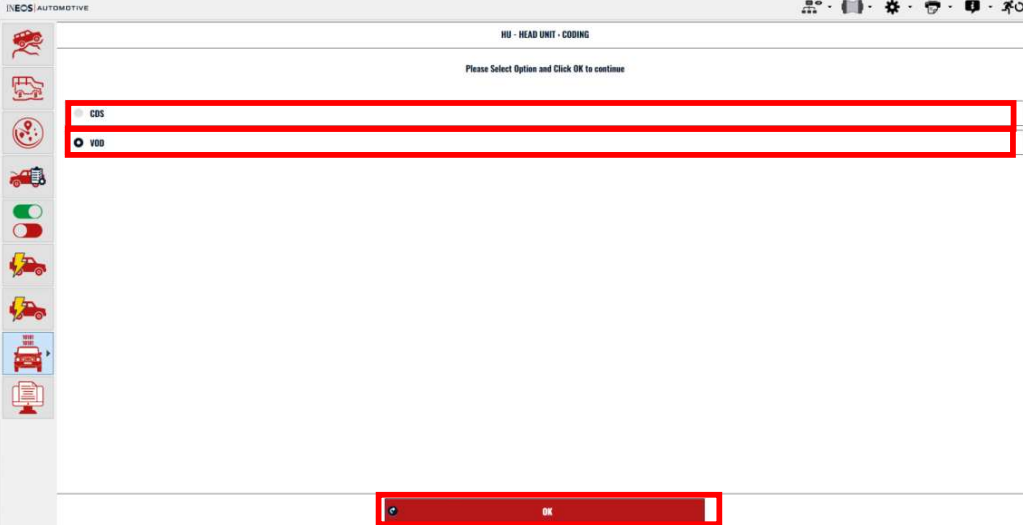
On the vehicle summary page

Select **'PART NUMBERS'**

Select **'HU - Head Unit'**

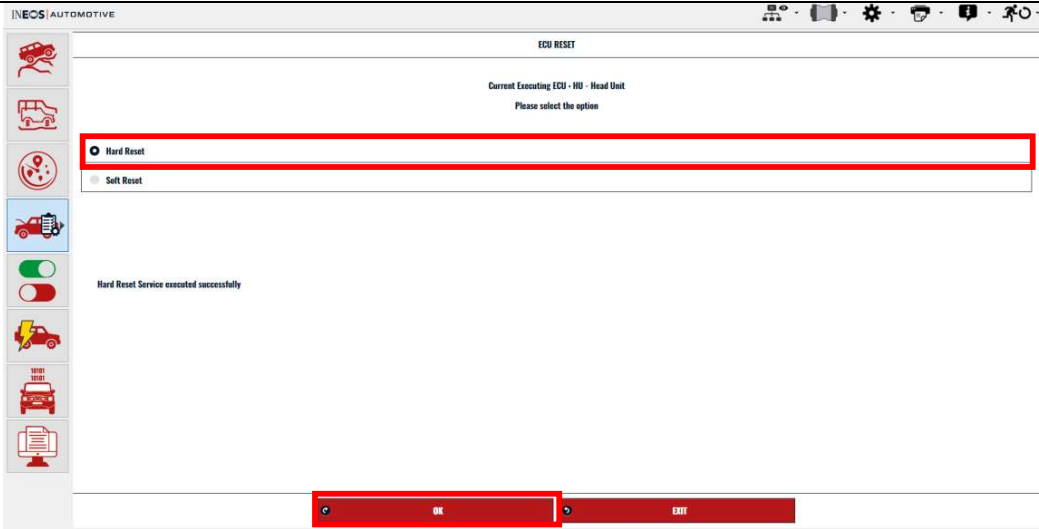
Review the **'F188 - Manufacturers ECU software part number'** check and ensure 'SW-000000690 (HU)' is displayed as the part number.



<p>11</p>	 <p>Select the coding tab.</p> <p>Select 'HU -Head Unit'</p>
<p>12</p>	 <p>Select 'CDS', select 'OK'. Code the CDS to the Head unit with Grade-X. Select 'VOD', select 'OK'. Code the VOD to the Head unit with Grade-X.</p>



13



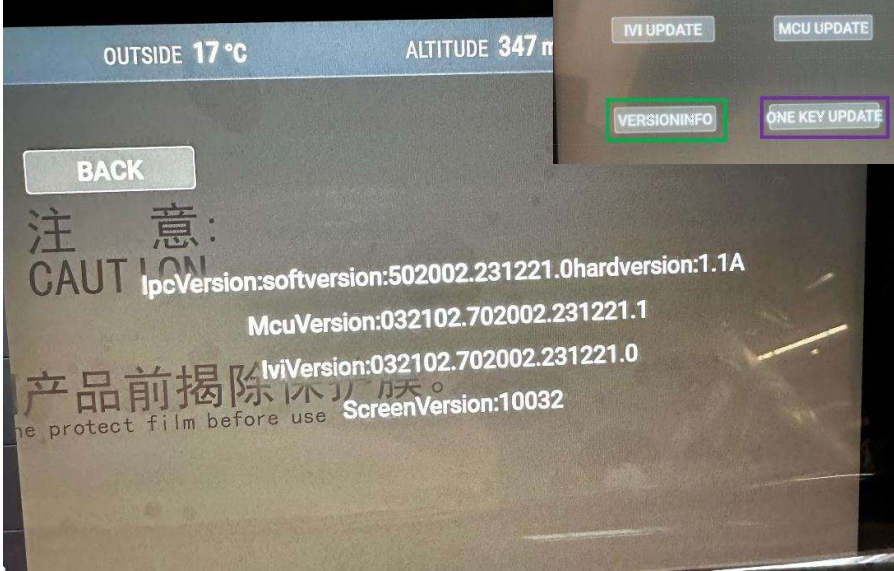
Click **'Hard Reset'**
Click **'OK'**

NOTE: The head unit will reboot. This will take a few minutes. Allow the head unit to complete the reboot process.

14



Select **'DTC Memory'** tab
Grade-X will start to read the ECU DTCs.
Select **'CLEAR ALL'**
Grade-X will clear and read the vehicles DTCs.

<p>16</p>	<p>Complete a full and comprehensive check on the head unit functionality to ensure there is no operational concerns. Ensuring the Head Unit (HU) is functioning as intended, and the software aligns, the Head Unit (HU) Flash has been successful.</p> <p>Select 'VERSIONINFO' and check that all 3 dates are exactly the same.</p> <p>To identify the dates, the information is written in the below format (Image shown for illustration purposes)</p> <p>IpcVersion:Softversion: XXXXXX.YMMDD.0hardversion:1.1A McuVersion: XXXXXX.XXXXXX.YMMDD.X IviVersion: XXXXXX.XXXXXX.YMMDD.X</p>  <p>If an update fails, without functional faults, attempt the Head Unit (HU) flash of the application again. If the software application fails after 3 attempts, a Technical Support ticket should be raised. Provide the relevant information from the process step(s) to the INEOS technical support team to provide efficient support.</p> <p>In the unlikely situation that a Head Unit (HU) software flash has not been deployed fully or flashed correctly, a Technical Support ticket must be raised. Provide the relevant information from the process step(s) to the INEOS technical support team to support.</p>
<p>16</p>	<p>Proceed to – Procedure - Updating Grade - X</p>

Procedure - Updating Grade - X

Grade-X - Uninstallation & Installation

Caution: An internet connection is required through the process. Coding will fail if the internet connection is not available.

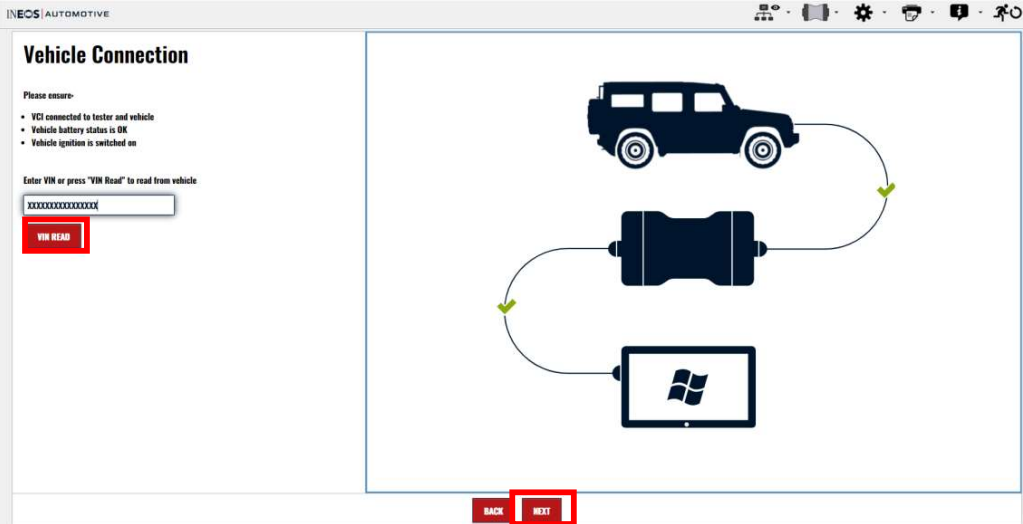
<p>1</p>	<p>Note: Local admin rights are required to carry out the following actions.</p>
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	<p>Note: The Grade-X Updater can NOT be used for the installation of Grade-X Runtime v1.6.</p> <p>Uninstall Grade-X runtime v1.2, v1.3 or 1.4 (whichever is installed).</p>
2	<p>Download Grade-X runtime v1.6</p> <ul style="list-style-type: none"> - Click the link below to access the required files. <p>Grade-X v1.6</p>
3	<p>Note: If there are any problems experienced in this process, please first liaise with repairer IT department before contacting INEOS Automotive. If the problem is still present, requiring INEOS Automotive to support, contact INEOS Automotive Technical Services team via a technical under, Diagnostics systems and equipment.</p> <p>Install Grade-X runtime v1.6</p>
4	<p>Proceed to – Procedure – Updating TRM</p>

Procedure – Updating TRM

Caution: An internet connection is required through the process. Coding will fail if the internet connection is not available.

1	<p>Before starting the vehicle software update make sure the following conditions are met –</p> <ul style="list-style-type: none"> - Dynamic battery charger ON, fitted to the engine compartment B+ and earth. - Lights set to OFF. - Cabin fan OFF. - Vehicle audio OFF. - All external devices disconnected (i.e. USB sticks, B+ auxiliary connection etc.). - All doors, except the drivers, are closed. - Vehicle on a flat even ground. - The vehicle must NOT be disturbed during the process.
2	 <p>Note: See VCI connection documentation for VCI self help</p>



Note: Ensure the connection is **NOT** in simulation
 Connect the vehicle to Grade-X using the VCI connected to the OBD port in the driver's footwell.

- Select **'VIN READ'**, check the VIN is correct to the vehicle.
- Select **'NEXT'**, Grade-X will read the vehicle data.



Note: If an installed ECU is not listed as communicating, carry out a battery rest for 10 minutes.
Note: Ignore FCM, and other ECUs not installed as these will display as red crosses.

Within the 'Vehicle Summary' check all installed ECUs have an open communication displaying a green tick.

4

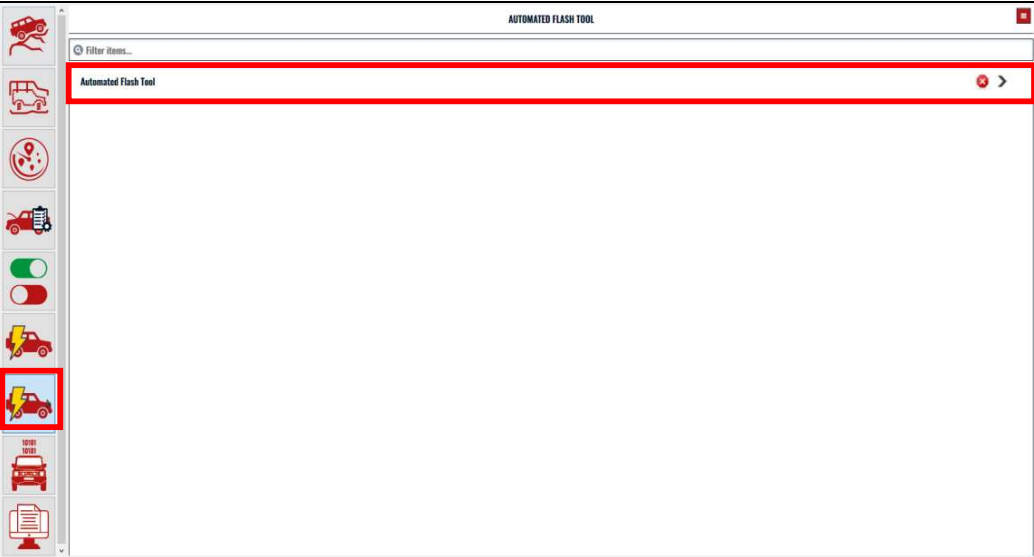


Note: Grade-X will start to read the ECU DTCs.
 Select **'Fault Memory'** tab.

Note: Grade-X will clear and read the vehicles DTCs.
 Select **'CLEAR + REFRESH ALL'**.



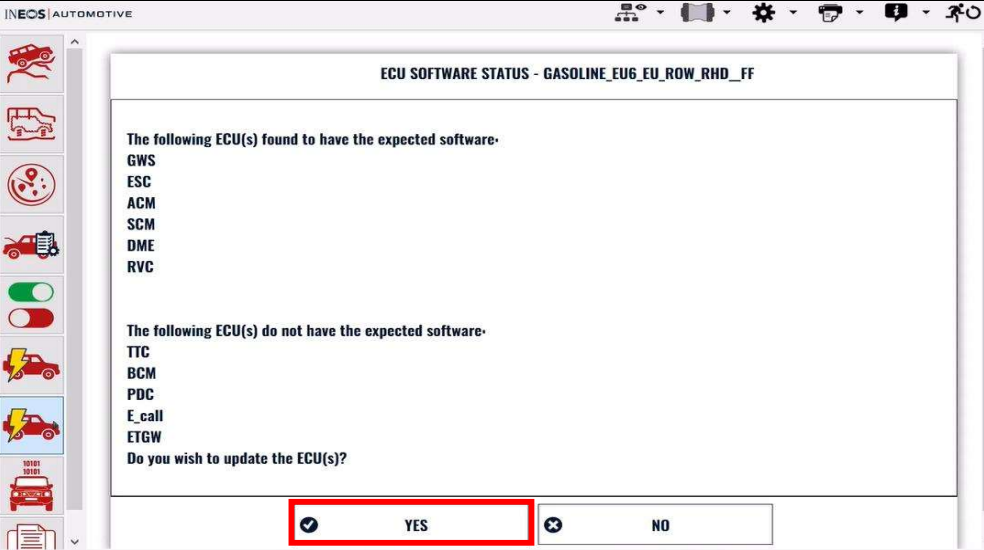
5



Select 'Automated Flash Tool' tab.

Select 'Automated Flash Tool' action.

6



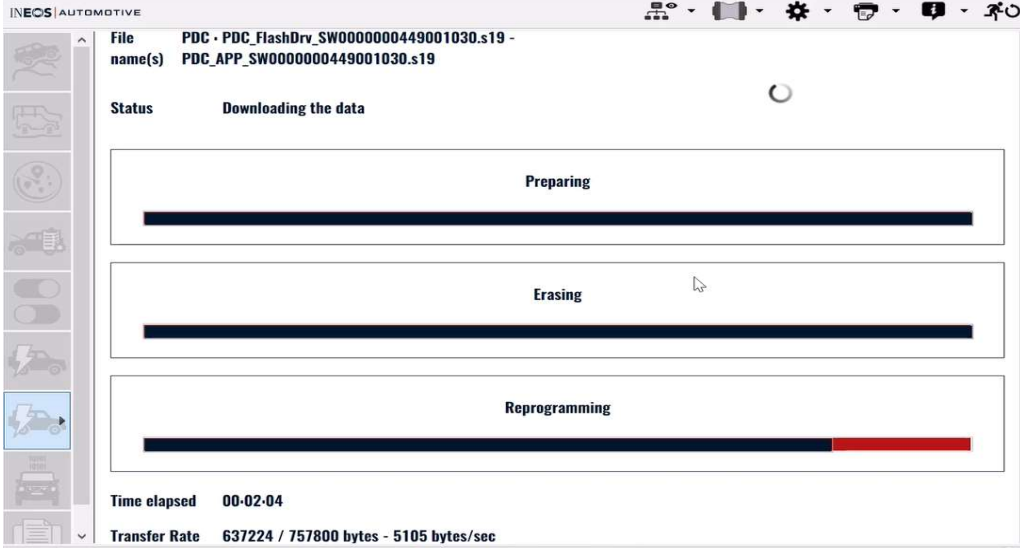
Note: There should be a list of ECUs requiring update that include **TRM**. If the ECUs are not displayed, the software of the ECU is up to date.

Grade-X Automated Flash will assess the ECU software part numbers of the ECUs, displaying the ECUs requiring a software update.

Select 'YES' to update the ECUs software to the latest level.



7

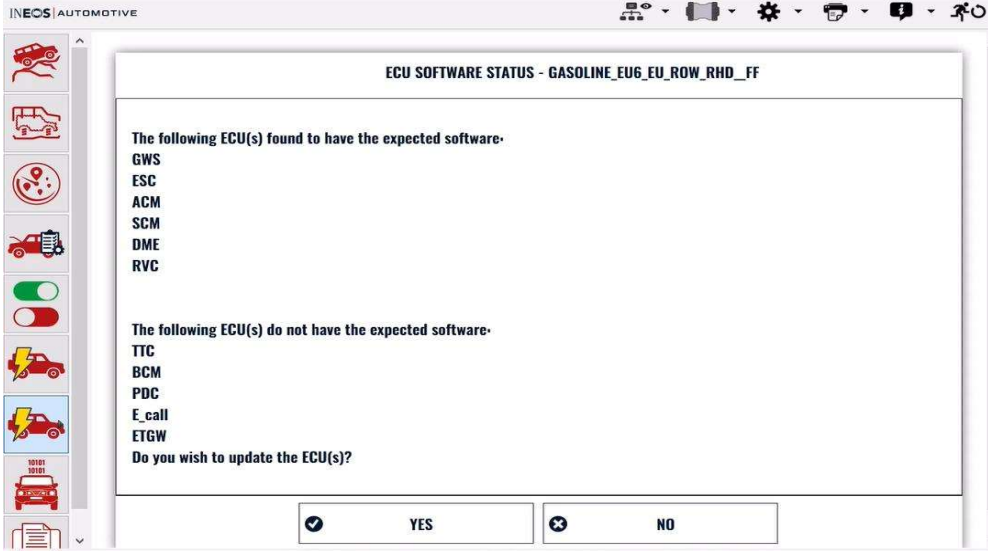


Note: The right engine cooling fan will activate during the update of many ECUs. During the ETGW update, the fan will not activate.

Note: Use a dynamic battery charger capable of outputting 50amps to support the vehicle electrical system.

Allow Grade-X to update all ECUs until the update is completed.

8



If the flash fails due to the following reason, carry out the check, and attempt the update again:

- Checksum error
- Pre-conditions failed – check preconditions in step 1.

If the flash fails more than twice, raise a technical support ticket in the INEOS portal providing the following information:

- VIN number



	<ul style="list-style-type: none"> - ECU the failure was against - ECU responding / not responding - The notification from Grade-X on the error - Any DTCs stored after the flash
9	Release the vehicle.

Change History

Reference No.	Date	Description
IAMWO003002	29/02/2024	First release
IAMWO003002v2	20/03/2024	Second release

