

<b>Authored Date</b>	03/10/2024	
<b>Doc No.</b>	IATSB003368v2	
<b>Title</b>	Software Update for Fuel Plausibility - US MY24.1 only	
<b>Affected Vehicle(s)</b>	Grenadier	RF005988 - RF017814
This Technical Service Bulletin (TSB) should only apply to vehicles that demonstrate the described issue below.		

**\*\*This is for MY24.1 vehicles only. The TSB only applies to vehicles in the stated VIN range.\*\***

### Reason for this document

**Issue:** An issue has been identified on a small percentage of the affected vehicles where the Engine Management Light turns on after the vehicle has been re-fuelled.

**Cause:** The actual fuel level is not available within the specified time frame from DME for leakage detection. This results in a fuel level un-plausibility after refuelling and puts an Engine Management Light on TTC.

**Action:** Follow the procedure below.

### Workshop Procedure

#### Software Update – US Vehicles only.

<b>Operation:</b>	<b>SRO</b>	<b>Repair Time:</b>
<b>Update</b>	XTSBSWUUSA2	0.5

#### Note:

- The procedure contains illustrations showing certain components removed to provide extra clarity.
- This procedure contains some variation in the illustrations depending on the vehicle specification, but the essential information is always correct.

**Procedure – Updating Head Unit.**

1.

**Cautions:**

- 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
- 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:**

- 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.
- Do NOT adjust or delete any files in the 'update' folder.
- The latest software version is SW-0000000773 (HU)
- If you have an issue while flashing HU, please use a "Branded USB stick".

- Raise a technical support ticket with the following information:
  - o Symptoms experienced.
  - o DTC that was logged.
  - o Software Level that is on the vehicle.
- The technical support team will provide the software.
- Download the files to a USB stick.
- Flash the Head unit with the latest 'update' via USB.

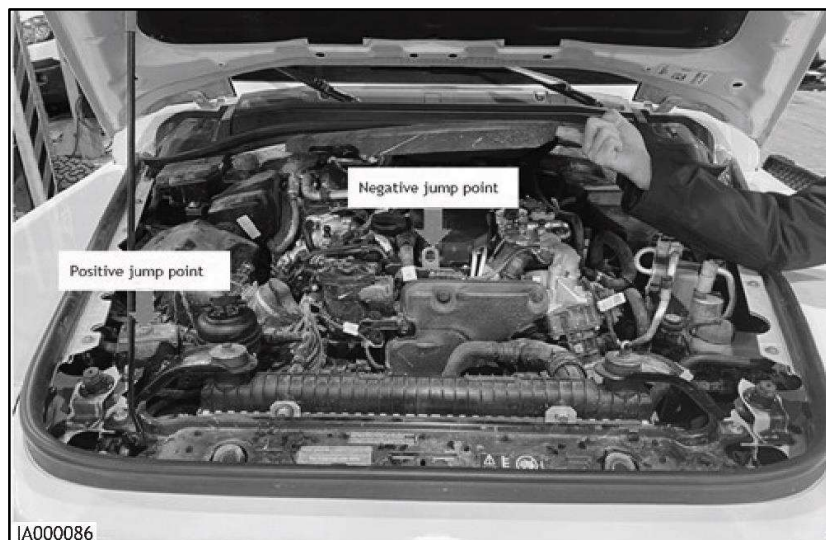
2.



Before the head unit is flashed, Write down the service interval information.

- Distance (Miles/Kilometres).
- Date.
- Engine running time.

3.



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

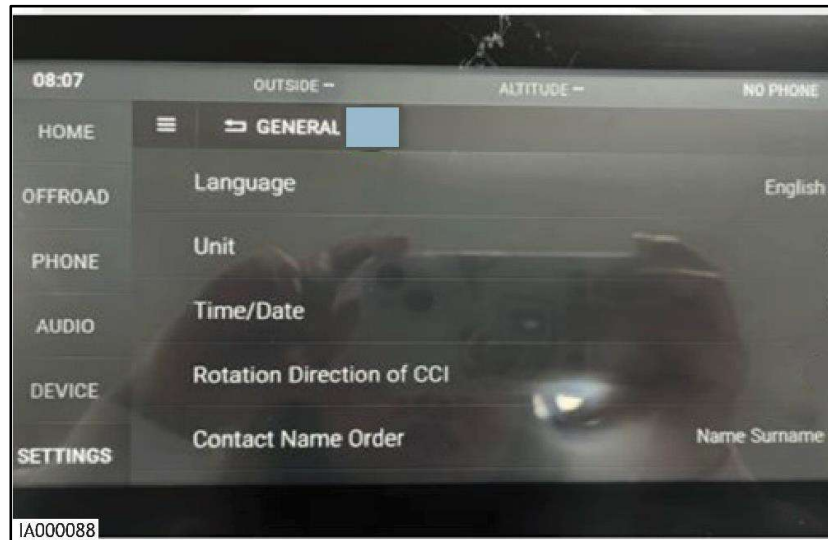
4.



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-0000000773 (HU). A notification will display stating 'USB connected'

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5.



- 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.

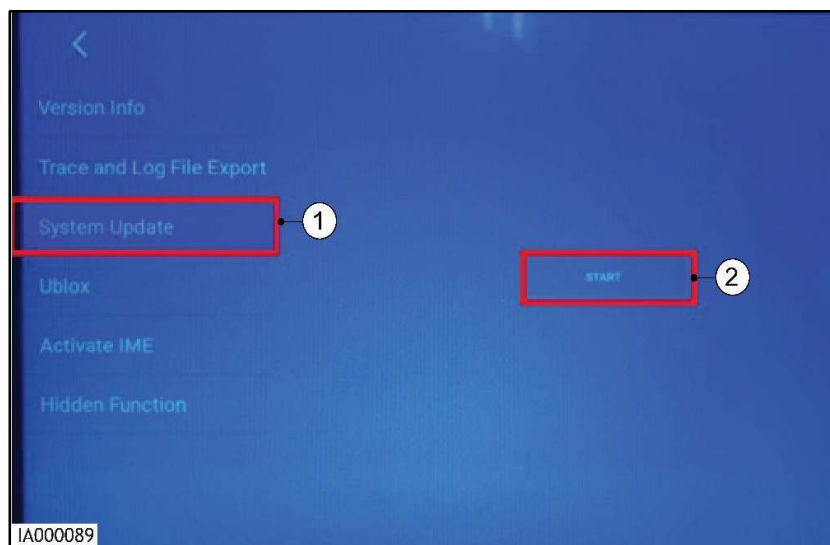
6.

**Note:**

The last 2 digits will not change the display 'dots' as there are only 6.

On the PIN screen, input the PIN number: **46367308**

7.

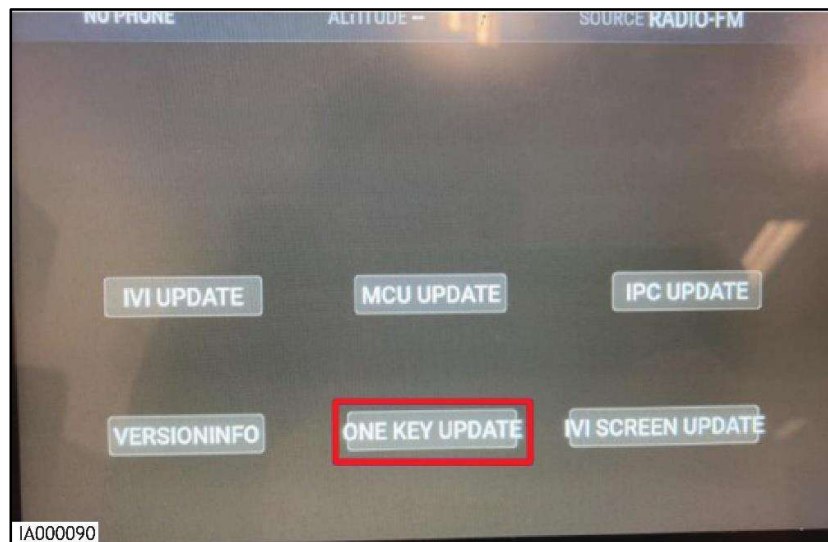


- 1) Select '**System Update**'.
  - 2) Select '**Start**'.
-

8.

**Note:**

- The software update takes approximately 40 minutes to complete.
- Place the vehicle on charge ensuring the vehicle battery charger can output up to 40 Amps.
- The technician is NOT required to be with the vehicle during this time.
- The software update no longer requires each application to be selected individually.
- Do not switch off the ignition or stop the process unless there is a notification is displayed in the central display.
- The ONE KEY UPDATE will flash all applications of the Head unit (i.e., IVI UPDATE / MCU UPDATE / IPC UPDATE / IVI SCREEN UPDATE)

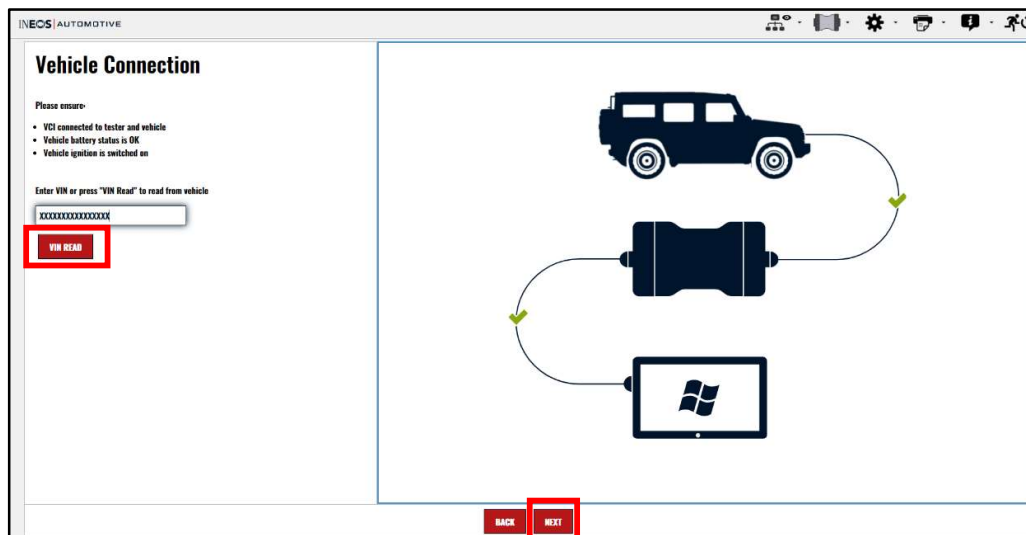


Select '**ONE KEY UPDATE**'

9.

**Note:**

- See VCI connection documentation for VCI self-help.
- Ensure the connection is **NOT** in simulation.

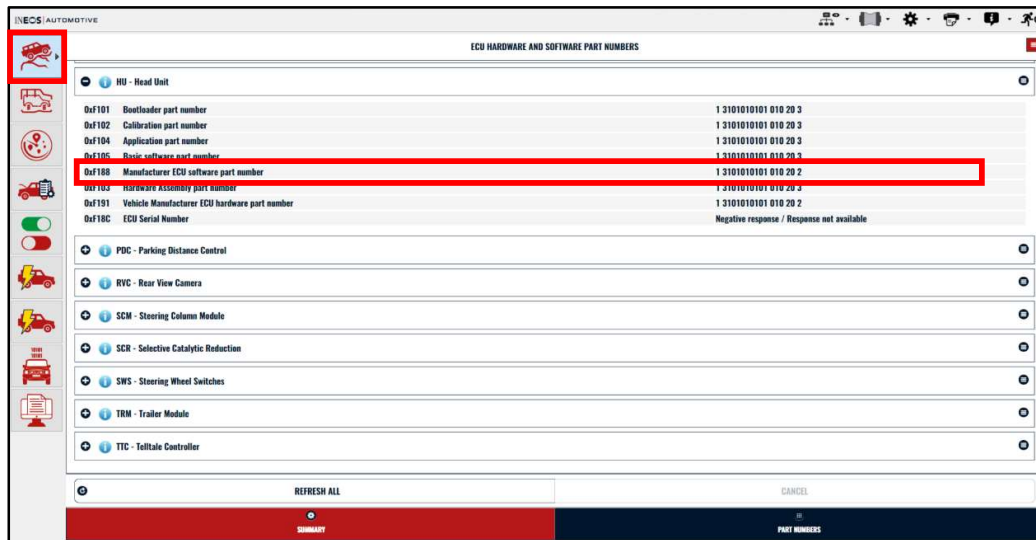


Connect the vehicle to Grade-X using the VCI connected to the OBD port in the driver's footwell.

- 1) Select '**VIN READ**'.
- 2) Select '**NEXT**'.



10.



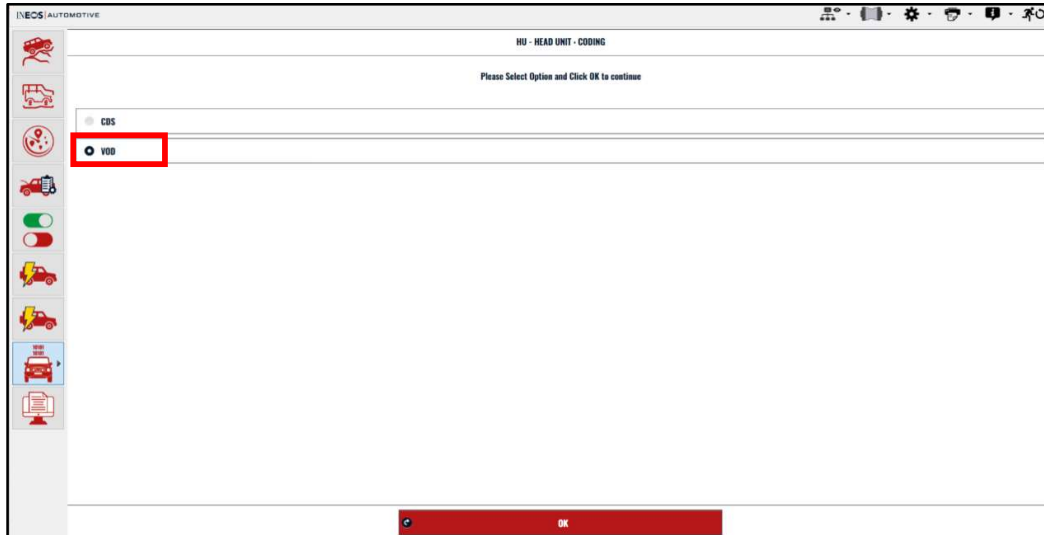
- Open the vehicle summary page.
- Select '**PART NUMBERS**'.
- Select '**HU- Head Unit**'.
- Review the '**F188 - Manufacturers ECU software part number**' check and ensure SW-0000000773 (HU) is displayed as the part number.

11.



- Select the coding tab
- Select '**HU - Head Unit**'.

12.

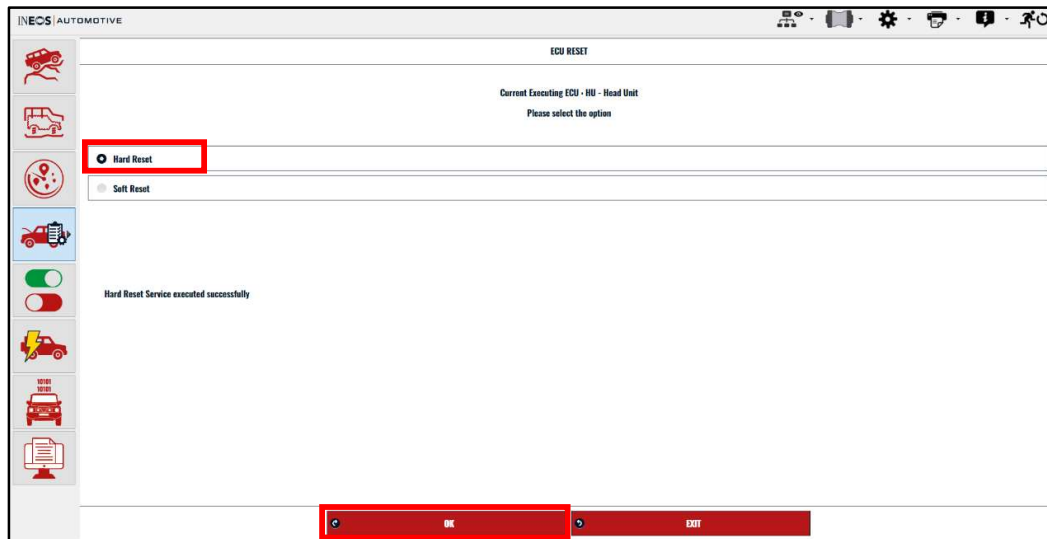


- Select '**VOD**' and the '**OK**'.
  - Code the VOD to the Head Unit with Grade-X
  - Repeat this step for '**CDS**' on the Head Unit.
-

13.

**Note:**

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



- Click 'Hard Reset'
- Click 'OK'

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.

15.

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.

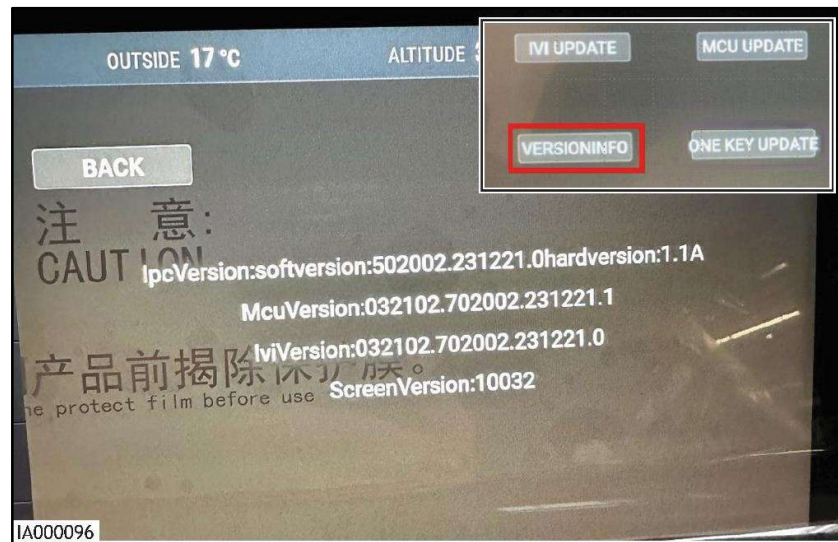
Select '**VERSIONINFO**' and check that all 3 dates are exactly the same.

To identify the dates, the information is written in the below format (Image shown for illustration purposes)

IpcVersion:Softversion: XXXXXX.**YYMMDD**.0hardversion:1.1A

McuVersion: XXXXXX.XXXXXX.**YYMMDD**.X

IviVersion: XXXXXX.XXXXXX.**YYMMDD**.X



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.

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.

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16.

Proceed to – **Procedure – Updating Control Units.**

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**Procedure – Updating Control Units.**

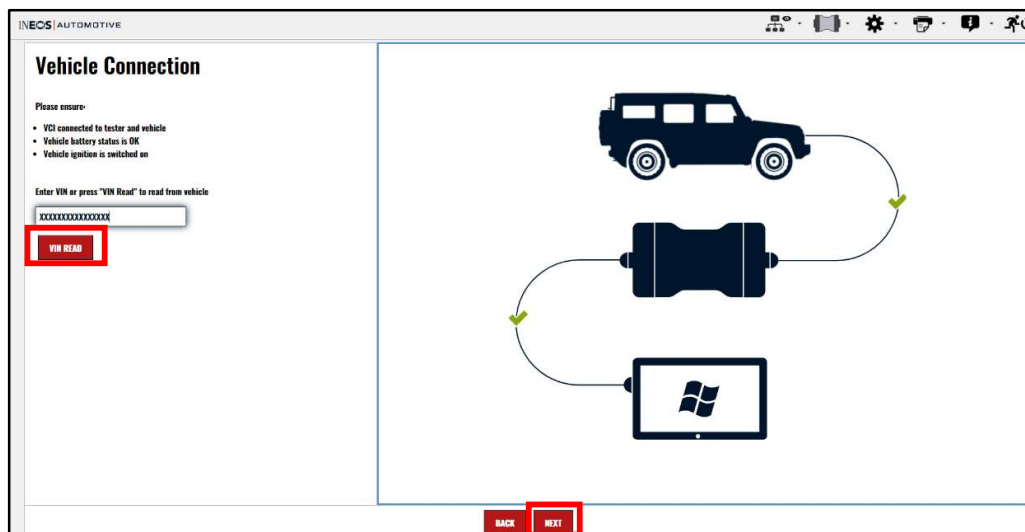
1.

**Cautions**

- An internet connection is required through the process. Coding will fail if the internet connection is not available.
- Before starting the vehicle software update make sure the following conditions are met –
  - 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.

**Note:**

- See VCI connection documentation for VCI self-help.
- Ensure the connection is **NOT** in simulation.



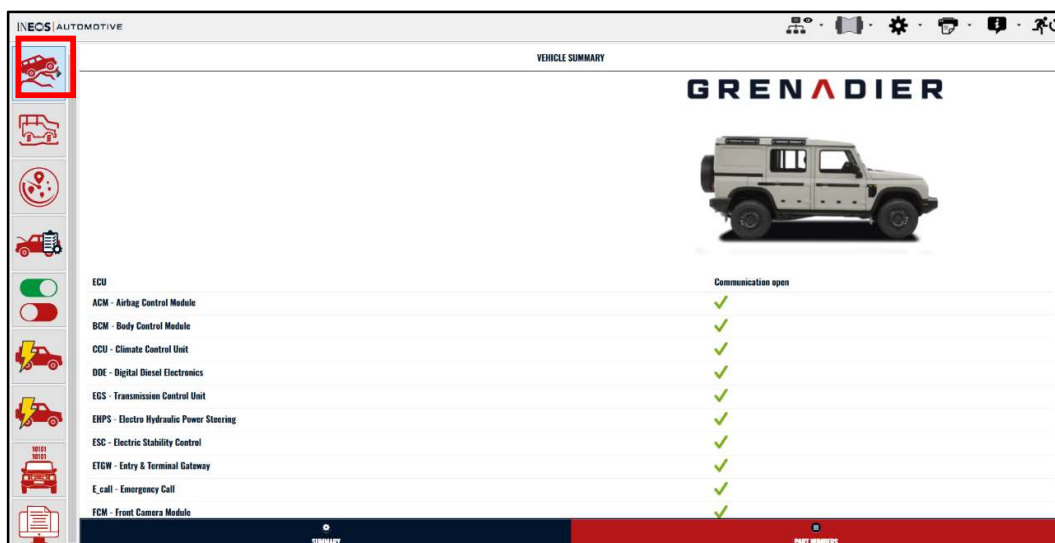
Connect the vehicle to Grade-X using the VCI connected to the OBD port in the driver's footwell.

- 1) Select '**VIN READ**'.
- 2) Select '**NEXT**'.

2.

**Note:**

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



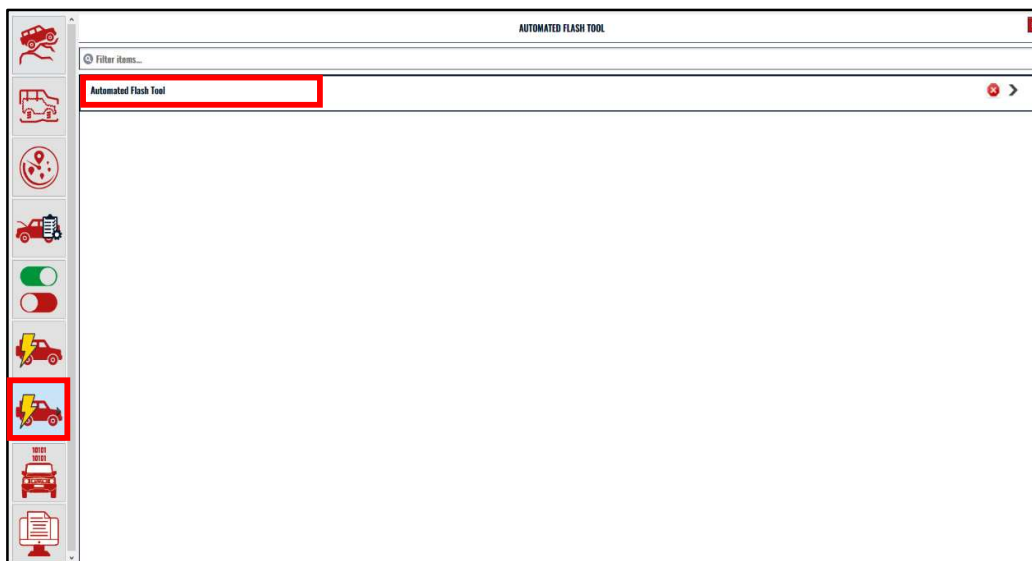
Within the 'Vehicle Summary' check all installed ECUs have an open communication displaying a green tick.

3.



- Select '**Fault Memory**' Tab.
- Select '**CLEAR + Refresh All**' once all DTCs have been read.

4.



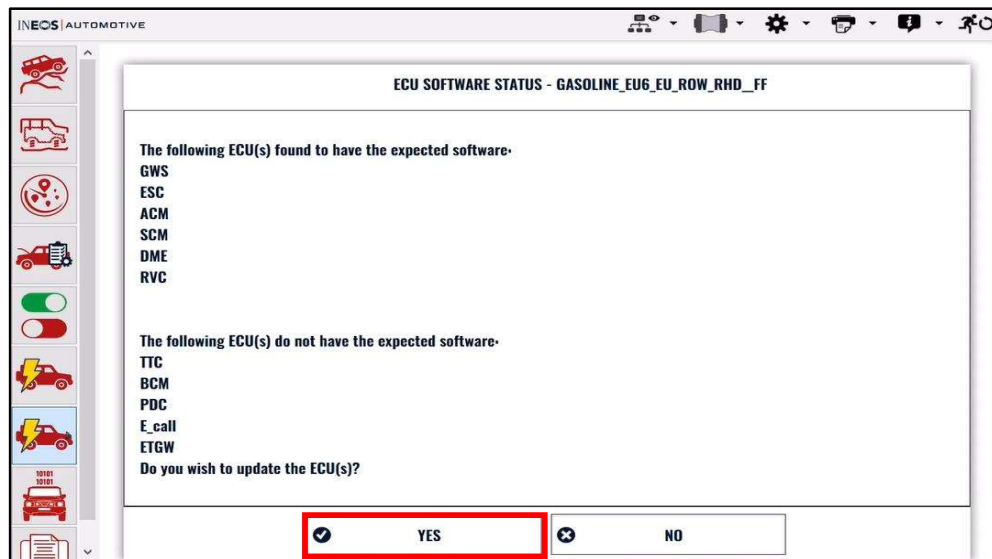
- Select '**Automated Flash Tool**' tab.
- Select '**Automated Flash Tool**' action.



5.

**Note:**

- There should be a list of ECUs requiring update that include **ECALL**. If the ECUs are not displayed, the software of the ECU is up to date.
- Image above is an example only, each vehicle might show different ECUs requiring to be updated.

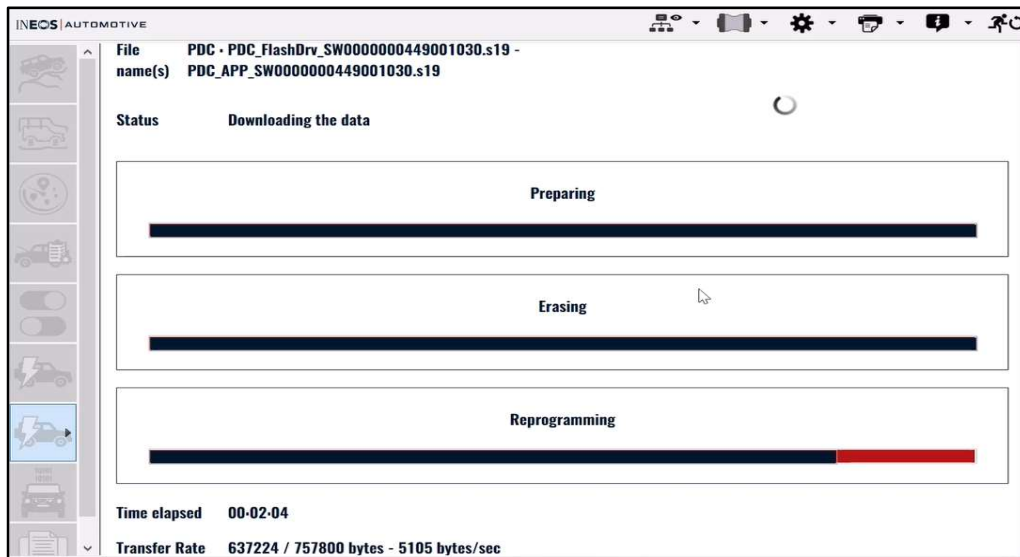


- Grade-X Automated Flash will assess the ECU software part numbers of the ECUs, displaying the ECUs requiring a software update.
- Select '**YES**' to update the ECUs software to the latest level.

6.

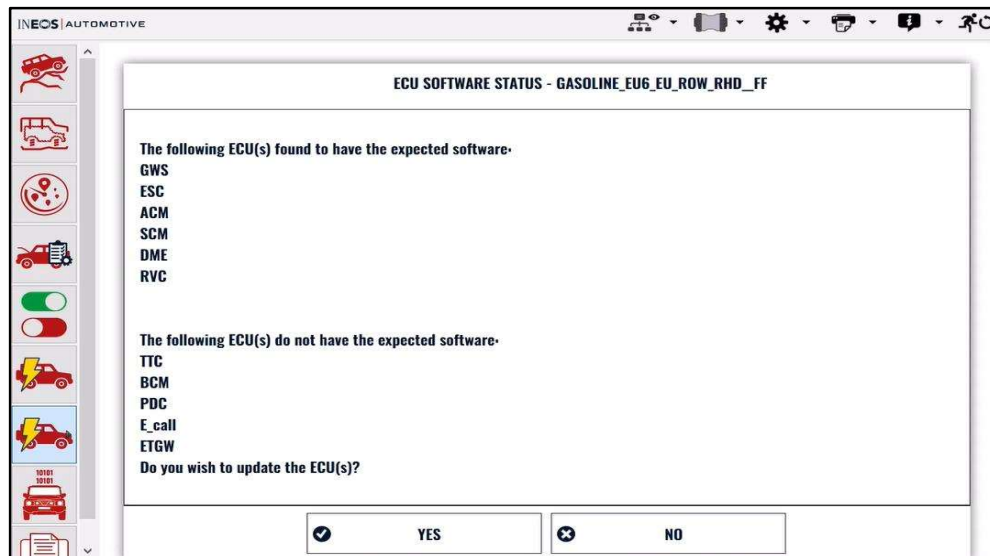
**Note:**

- There should be a list of ECUs requiring update that include **ECALL**. If the ECUs are not displayed, the software of the ECU is up to date.
- Image above is an example only, each vehicle might show different ECUs requiring to be updated.



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

7.



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
- ECU the failure was against
- ECU responding / not responding
- The notification from Grade-X on the error
- Any DTCs stored after the flash

8.

Release the vehicle.

## Change History

**IATSB003368**

Reference No.	Date	Description
IATSB003368	02/09/2024	First release
IATSB003368v2	03/10/2024	Second Release