



Ferrari North America

Technical Information

Date:	March 2021
Bulletin #:	2748
Campaign #:	466
Supersedes:	
Section:	8

Model: **SF90 STRADALE**

Subject: Air conditioning Node (NCL) software update

Please note that it is necessary to update the software of the **Air Conditioning Node (NCL)** control unit on vehicles of the aforementioned model from **VIN number 249268** to **VIN number 265105**.

The list of the vehicles involved in the update may be viewed directly from the **New Modis** portal, by selecting the section **“Recall and Service Campaign Management”** and entering the campaign number indicated.

- IMPORTANT -

All work on components of the high voltage electrical system may only be performed by certified Ferrari-High Voltage Technicians (F-HVT) in possession of valid TÜV certification.

Air conditioning node (NCL) software update procedure

Preparing the vehicle for the update

- Check that the **SOC** (state of charge) of the **HVB** and **LVB** batteries is above **75%**. Monitor the **SOC of the LVb** throughout the entire duration of the procedure. Never attempt to start an update procedure if the **SOC** is below **30%**.
- Disconnect the standard battery charger by pressing the unlock button on the car key. **First disconnect the plug on the vehicle side and then on the wall outlet side.**
- Open the doors of the vehicle (the doors must be left open throughout the procedure) and wait for the vehicle to enter **“Sleep”** state (when backlighting of hazard warning light button extinguishes - this will take at least 15 minutes).

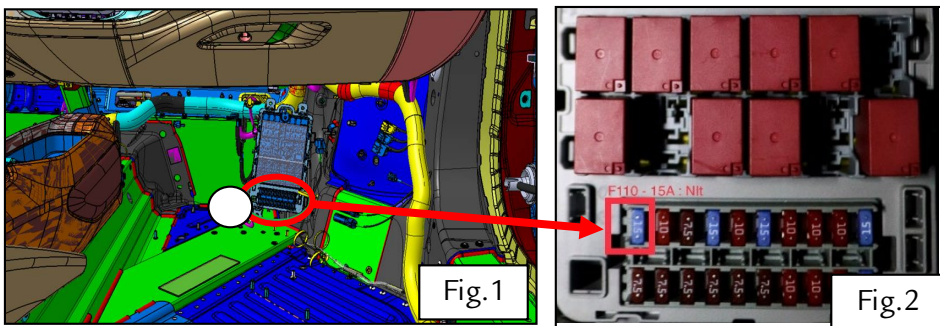
- IMPORTANT -

Do not open or close doors, use the steering wheel or internal controls or operate any function of the vehicle which may cause the vehicle to wake up from sleep state. If this occurs, it will be necessary to wait until the vehicle enters sleep state again.



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- With the vehicle in “**Sleep**” state, disconnect the power feed fuse of the NIT F110, situated in fuse box FRB C312-LA (A) – Fig.1 and 2.



- With the vehicle in “**Sleep**” state, the haptic KEY ON button will be powered off and disabled. Use the **E-Latch** handle of the driver side door to wake up the network.

Turn the vehicle to KEY ON state.

Updating software with DEIS - **Requires DEIS version Alpha 6.0.0.0 or later**

The following software must be installed:

- **SF90 Stradale** - NCL SW Update: 02.08.

- IMPORTANT -

The intermediate step update NCL 02.0D must be installed before installing version NCL 02.08 and is included in the activity loaded to the DEIS server. Install all the updates indicated in the “Activities” page of the DEIS.

- IMPORTANT -

If the aforementioned activity IS NOT LISTED on the DEIS Server, or if the software version to be loaded DOES NOT MATCH the version indicated in this bulletin, contact the FNA Help Desk and wait for further instructions.



- IMPORTANT -

Software download procedures must be performed with the cable DEIS-VCI connection, and NOT with Bluetooth and/or W-LAN connections.

- IMPORTANT -

If multiple downloads are necessary, always perform the downloads one at a time.

- NOTE -

If the software update is not successful, repeat the procedure immediately without switching off the DEIS Tester and disconnecting it from the vehicle. If the Tester is disconnected from the vehicle, the VIN may not be recognized next time it is connected, and you will not be able to continue with other tasks.

- IMPORTANT -

This update **must** be performed with the PC-Tester DEIS updated to the latest software versions indicated as follows (or later versions):

- Module 0	Portal and Troubleshooting	54
- Module 1	DEIS Diagnostic software	93
- Module 2	Technical Documentation	12
- Module 3	Tools	8

Check the software number and, if necessary, update your DEIS Tester immediately.

After updating the DEIS, the first vehicle diagnostic cycle must be performed using a cable connection.



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- Connect the DEIS tester to the power supply.
- Connect the DEIS tester to the VCI interface with the specific network cable.
- Press “**DEIS**” to launch the diagnostic program.
- Select the **NCL** node and press “**Extended Identification**”.
- Save the identification parameter of the **NCL** node installed in the vehicle.
- Before starting to install the software update procedure, make sure that there are no errors in the **NCL** ECU. Resolve any problems indicated by the ECU before starting the software update procedure.
- Press “**Activities**” and follow all the steps for a normal software download procedure as prompted by the DEIS tester. Select the update required (**example**: if starting from version **02.02**, install **02.0D** first and then **02.08**)
- Check that the ECU software update procedure has been completed successfully by comparing the identification parameters of the ECUs against the parameters prior to the update. Select the **NCL** node, press “**Extended Identification**” and check that the “**DRAWING NUMBER**” and “**SOFTWARE VERSION**” values match the software installed and that the “**PRODUCTION DATE**” value is the date in which the update was performed – Fig. 1.

Extended Identification		DTC	Fig. 1
ECU			
Engine Left		DRAWING NUMBER	
		HARDWARE NUMBER	
		HARDWARE VERSION	
		HOMOLOGATION NUMBER	
		ISO CODE	
		PRODUCTION DATE	
		SOFTWARE NUMBER	
		SOFTWARE VERSION	
		TESTER CODE	



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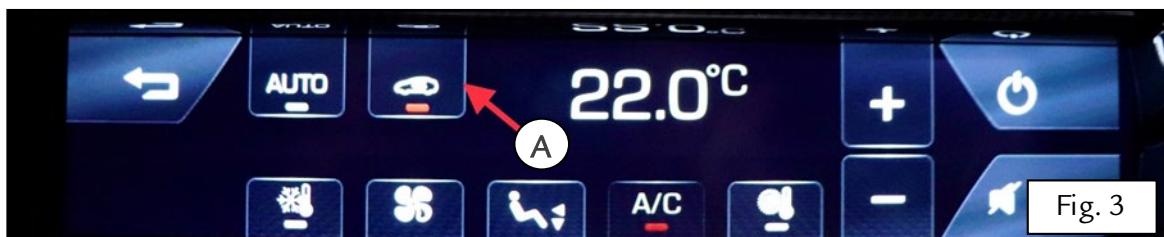
- At the end of the procedure, remember to save the identification parameter for the selected node.
- After completing installation of all the software necessary, check that the version installed is effectively **02.08**.
- Set the vehicle to **KEY OFF** state.
- Refit fuse **F110** of the **NIT** (Fig. 1 and 2). It is not necessary to wait for the network to enter “**Sleep**” state.
- Set the vehicle to **KEY ON** state.
- Reconnect the standard battery charger.
- Check that there are **NO** errors in the **NCL** node.

Note: If any errors are stored, open a **ROL**.

- Close the diagnostics program and disconnect the interface from the vehicle.
- Check for ECU errors with the **DEIS** tester using the “**SCAN OUT**” function. Resolve any problems that arise.

Note: The **SCAN OUT** procedure is mandatory for vehicle approval.

- Check the correct operation of **recirculation** actuator.
 - **Activating recirculation function**
 - Press the relative button (A) on the **passenger display** to switch the **recirculation** function on. The LED under the icon illuminates with a red light – Fig.3.



- The cabin air **recirculation** function is now **active** and there must be **NO** flow of air into the opening (Fig.4) situated under the front lid.

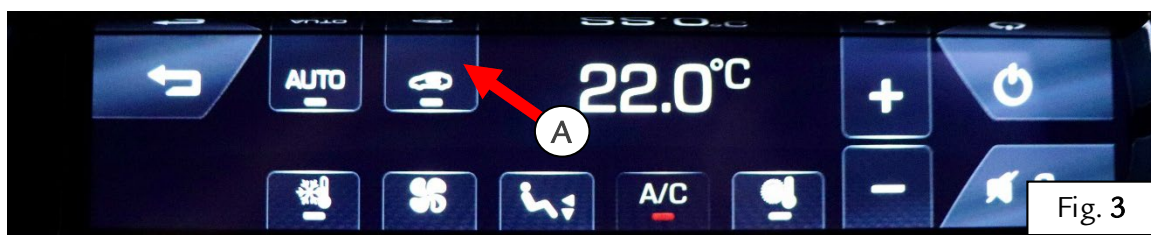


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Deactivating recirculation function

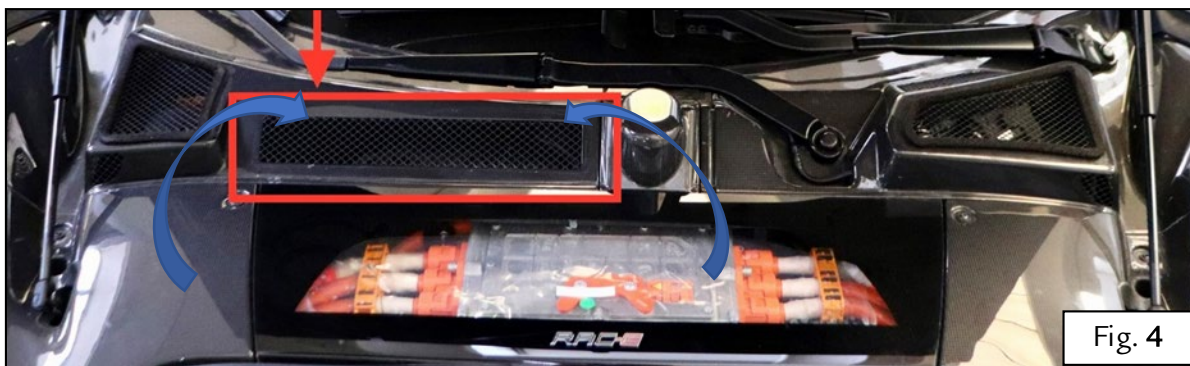
- Press the relative button (A) on the **passenger display** to switch the **recirculation** function off. The LED under the icon illuminates with a white light – Fig.3.



- The internal cab air recirculation function is now **OFF** and air **MUST** be aspirated into the aperture under the front lid, with a significant suction effect noticeable when the electric fan is switched on – Fig.4.



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Checking position of actuator with DEIS – **Requires DEIS version Alpha 6.0.0.0 or later.**

The on/off state of the **recirculation** function may also be verified by monitoring the position of the respective actuator:

- Connect the **DEIS** diagnostic tool.
- Select the **Air Conditioning Node (NCL)**.
- Select “**PARAMETERS**”.

Select “**RECIRCULATION ACTUATOR POSITION**”.

- The value displayed is the angular position of the flap in degrees. The values given below are indicative only, and actual values may differ from vehicle to vehicle:

Recirculation ON = 50°

Recirculation OFF = 140° (with the electric fan ON)



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Services under warranty

The costs incurred for this service must be recovered through our **Warranty System** indicating:

› Campaign number.....	466
› Cost code	23
› Malfunction code.....	7309000353
› Problem code.....	01
› Operation code.....	73090003531
› Time allowance.....	1.50 hours

Thank you for your co-operation.