



Ferrari North America

Technical Information

Date: June 2018
Bulletin #: 2499
Campaign #: 455
Supersedes:
Section: 3

Model Type: F12 Berlinetta/TDF, California T, 488 GTB/Spider, GTC4Lusso
Model Year: Assembly Number 128352-146990
Subject: **Updating Electronically Controlled Gearbox Node Software**

Please note that a software update for the **Electronically Controlled Gearbox Node (NCR)** is now available for the aforementioned models **from Assembly No. 128352 to Assembly No. 146990 (from VIN No. 212171 to VIN No. 229566)**, which improves the general acoustics and comfort of the vehicle. The new software strategy is also designed to improve clutch control during downshifts, reducing the mechanical noise produced by the gears.

As the DCT gearbox control strategies are interdependent with engine control software functions, vehicles produced within a specific period may also require an update to the **Engine Control Node (NCM)** software.

The following table indicates the **NCR** software version required in relation to the model and, where necessary, the relative **NCM** software version.

MODEL	NCR SW VERSION REQUIRED	NCM-ENGINE CONTROL SW -
488 GTB	1596	332661.000
488 SPIDER	1597	332661.000
CALIFORNIA T	1588	333861.001
CALIFORNIA T HS	1589	333860.000
GTC4 LUSSO	1593	NOT REQUIRED
F12	1598	NOT REQUIRED
F12 TDF	1599	NOT REQUIRED

The list of vehicles involved in the update **is viewable on the NewModis site, using the "CMP – Campaigns" function, entering the campaign number indicated.**

The respective activities required will be displayed automatically on the DEIS server: if necessary, also update the **NCM** ECU software.



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Procedure

1. Preliminary operations

- IMPORTANT -

Software downloading procedures must be performed with the cable DEIS-VCI connection, and NOT with Bluetooth and/or W-LAN connections. If multiple downloads are necessary, always perform the downloads one at a time.

- IMPORTANT -

If, upon connecting the DEIS, the pending activities include multiple downloads for the same ECU, always load the most recent software version and always open a ROL for the correct management of the previous software versions.

- IMPORTANT -

As the download procedure may be susceptible to failure, open the engine compartment lid and connect the battery to a stabilized battery charger.



- 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	49
- Module 1	DEIS Diagnostic software	80
- Module 2	Technical Documentation	12
- Module 3	Tools	7

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.

- Connect the DEIS tester to the power unit.
- Connect the DEIS tester to the VCI interface with the specific network cable.
- Press “DEIS” to launch the diagnostic program.
- Check that the PC-Tester DEIS software is updated to the latest version.

2. Software update procedure for Electronically Controlled Gearbox Node

- Select the NCR node and press “Extended Identification”.
- Save the identification parameter of the NCR node installed in the vehicle.



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- Before starting the download procedure, check that there are no errors stored in the NCR ECU. Rectify any problems indicated by the ECU before starting the software update procedure.
- Press “**Activities**” and follow all the steps for a normal software update procedure as prompted by the DEIS tester.
- Check that the update procedure has been performed successfully by checking that the ECU identification parameters have changed accordingly. Select the **NCR** node, press “**Extended Identification**” and check that the “**DRAWING NUMBER**” and “**SOFTWARE VERSION**” values match the versions newly loaded onto the ECU, and check that the “**PRODUCTION DATE**” value is the date on which the software 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	

- At the end of the procedure, remember to save the identification parameter for the selected node.
- Check that there are NO errors stored on the **NCR** node.

Note: In case of errors, open an **ROL**.



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3. Software update procedure for Engine Control Node (perform ONLY if necessary)

If required, update the NCM ECU as described below. If not, go directly to step 4 **Concluding software update and signing vehicle off for return to customer.**

- Select the **NCM** node and press the “**Extended Identification**” button.
- Save the identification of the **NCM** node present in the vehicle.
- Before downloading, make sure that there are no errors in the **NCM** ECU. Rectify any problems indicated by the ECU before starting the software update procedure.
- Press “**Activities**” and follow all the steps for a normal software update procedure as prompted by the DEIS tester.
- Check that the update procedure has been performed successfully by checking that the ECU identification parameters have changed accordingly. Select the **NCM** node, press “**Extended Identification**” and check that the “**DRAWING NUMBER**” and “**SOFTWARE VERSION**” values match the downloaded software and that the “**PRODUCTION DATE**” value is the date in which the download procedure was performed – Fig. 2.

Extended Identification	DTC	Fig. 2
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.
- Check that there are NO errors stored on the **NCM** node.

Note: In case of errors, open an **ROL**.

4. Concluding software update and signing vehicle off for return to customer.

- Once the update is complete, close the diagnostics program and disconnect the interface from the vehicle.
- Disconnect the stabilized battery charger from the vehicle.
- Road test the vehicle:
 - total 10 Km.
 - normal driving.
- 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.



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Services under warranty

You may recover the costs for this procedure via the **Warranty System**, specifying the following codes:

For the 488 GTB and 488 Spider - NCR update only:

› Campaign number	455
› Cost code	23
› Malfunction code.....	4435200004
› Problem code	01
› Operation code	44090003280
› Time allowance.....	0.50 Hours

For the 488 GTB and 488 Spider - NCR and NCM updates:

› Campaign number	455
› Cost code	23
› Malfunction code.....	4435200004
› Problem code	01
› Operation code	44090003285
› Time allowance.....	1.00 Hours



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For the F12 Berlinetta:

› Campaign number	455
› Cost code	23
› Malfunction code.....	5235200004
› Problem code	01
› Operation code	52090003281
› Time allowance.....	0.50 Hours

For the F12 Tdf:

› Campaign number	455
› Cost code	23
› Malfunction code.....	5335200004
› Problem code	01
› Operation code	53090003282
› Time allowance.....	0.50 Hours

For the California T and California T Handling Speciale - NCR update only:

› Campaign number	455
› Cost code	23
› Malfunction code.....	4835200004
› Problem code	01
› Operation code	48090003283
› Time allowance.....	0.50 Hours



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For the California T and California T Handling Speciale - NCR and NCM updates:

- › Campaign number 455
- › Cost code 23
- › Malfunction code..... 4835200004
- › Problem code 01
- › Operation code 48090003286
- › Time allowance.....1.00 Hours

For the GTC4 Lusso:

- › Campaign number 455
- › Cost code 23
- › Malfunction code..... 4735200004
- › Problem code 01
- › Operation code 47090003284
- › Time allowance.....0.50 Hours

Thank you for your co-operation.