

AfterSales TSO – Circular Letter



MAS002563
(MCL 21-10)

From: Aftersales – TSO
To: Maserati Network
Auburn Hills, MI | March 10, 2021

Maserati Tutorship Process – Harman Components - MY 21 and forward

MODELS: Quattroporte (M156), Ghibli (M157) and Levante (M161) **MY 2021 and forward**

Dear Dealer Network,

We are pleased to inform you that there is a new Harman Tutorship Process for MY 21 and up vehicles that will communicate directly with the suppliers of the main components of Maserati vehicles. This MY 21 process will help to promptly evaluate potential issues, help reduce diagnosis times and provide the maximum assistance and information for the resolution of our clients' concerns.

Through the direct support of professional technicians, the Aftersales Tutorship Team along with the supervision of the HQ Blue on Line (BOL) Team, they will be able to carry out detailed diagnosis on reports coming directly from the dealer network.

If a repair on a component in the Tutorship List on page 3 is needed, you must open a BOL as a Warranty Authorization to Claim.

It's important that you accurately follow the instructions that you will receive back in the BOL and do not replace a component without a BOL authorization. **If more diagnosis time is required to perform an in depth diagnosis, you will receive an approval from the BOL.**

NOTE: Any Warranty claims submitted without the BOL authorization will be rejected.

Important: It is essential that you do not delete any errors in component memory of electronic components. There may be cases where an on-site diagnosis is required and a HQ Flying Doctor will be sent to investigate the concern.

BOL reports must be detailed, complete and include; Parameters, Errors, Videos, Images, etc., to clearly define the complaint/fault and to help the team act effectively.

If a component on the Tutorship List is replaced, it must be sent back to MNA via Urgent Part Return Request.

MY21 Harman radios are equipped with FOTA (Firmware Over The Air) technology so most of the newer software will be automatically available for the customer to update.

If the vehicle is in a dealer and the customer complains of an issue that can be fixed by a specific SW update not already installed by FOTA, the Tutorship BOL Specialist will ask you to install it by using USB update procedures. Download the software from MODIS-AFTERSALES-TECHNICAL ASSISTANCE-SOFTWARE DOWNLOAD (refer to the attached USB Update procedures).

If you are instructed by BOL to perform a SW update and submitting a related warranty claim, first check to see if the vehicle is involved in any service actions that already request a SW Update and insert a related warranty claim accordingly.

In a case where there is no service action active, submit a warranty claim in cost code 16 using the following standard repair time:

08.71.240.1 (0,6h)

The Aftersales Tutorship Team, with your cooperation, will be able to accelerate the BOL management process and any new anomaly diagnosis to provide solutions for the entire authorized dealer network more efficiently.

Thank you for your continued support and cooperation.

Maserati North America, Inc.
Aftersales Department

Tutorship List

Harmon components for: **Model Years - 2021 and forward**
Quattroporte (M156), Ghibli (M157) and Levante (M161)

MODEL	MY	BOL COMPONENT ID	COMPONENT (Listed in IT section)
GH-157	MY21 and forward	57850079	RADIO R1
QP-156	MY21 and forward	56850079	RADIO R1
LEV-161	MY21 and forward	61850079	RADIO R1

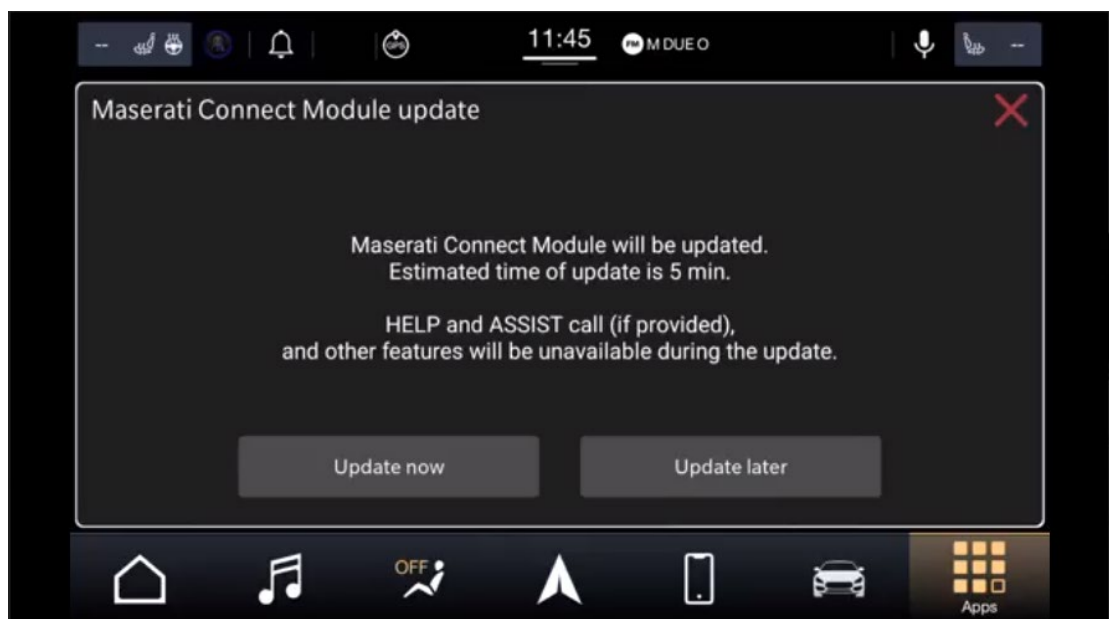
NOTE: Starting with MY 21 the Infotainment system has a separate display screen which is not involved in this Tutorship process. If a display screen is required, a BOL must be opened and submitted as a "Support Request" as part of the Infotainment system.

As a reminder about FOTA, below is some information taken from Technical Information Bulletin number MAS002429: FOTA – A Finger Ready Update – Short introduction and FAQ's.

Starting with MY21, Maserati Vehicles become connected. The new Connectivity services will make it easier for each Customer to interact with their vehicle which introduces a new way of interfacing with their car.

Car Connectivity is much more than just that. Maserati, in collaboration with its technical partners has implemented a new technology starting on MY21 vehicles whereby the Customer will be able to update several system control modules by themselves with the simple press of a finger on the Display.

FOTA (Firmware Over The Air) enables all of this.



The system control modules that can be updated with this technology are those directly involved with the connectivity of the vehicle, the TBM and the ETM. For these modules, each customer can perform the updates independently, just as they do with other daily use devices from a mobile phone to a Smart TV.

Since introducing **FOTA**, we will always have updated, state of the art vehicles, with the latest software versions available.

FOTA will help you during your daily work to reduce the number of requests for assistance on issues concerning the Radio and Multimedia features in general.

As a reminder, in service (at the workshop) will be possible to update vehicles using traditional tools (MD EVO, USB memory stick, etc.) when the tool software becomes available.

You will be informed about the specific procedures for each future **FOTA** action through the publication of a dedicated Bulletin.

Appendix: F.A.Q. Frequently Asked Questions

This FAQ section will help you to better understand the logic behind the FOTA updates and will provide you with guidelines on how to manage the most frequently asked questions.

1. How will the updates be distributed via FOTA?

- Each FOTA action will be started by Maserati TSO (Technical Service Operations) in Modena. The Maserati Network will be informed through the publication of a Service Bulletin in MODIS CS+.

2. How do I notice (in the workshop) that there is an update?

- A message will appear on the ETM screen (Only if the Download phase has been concluded).
- Check in ModisCS+ there may be an open campaign listed for the Vin.
- If the update message via FOTA appears on the ETM display, we recommend to use FOTA to update the Vehicle. FOTA is certainly the fastest and most efficient to do. *In this case, no warranty claim must be entered.*
- In the near future when the MDEVO software is available, you can always update the Vehicle using the standard tool (MDEVO for TBM and USB Memory Stick for ETM). *In this case, the warranty claim must be entered to flag the Vehicle as done into the system.*

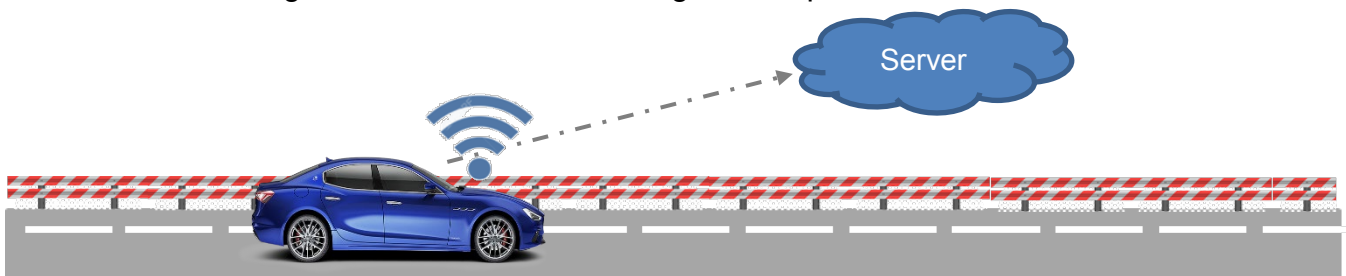
Use this way only to update vehicles in case of problems with FOTA (No FOTA message on main display, poor 3G/4G connection etc).

3. How FOTA works?

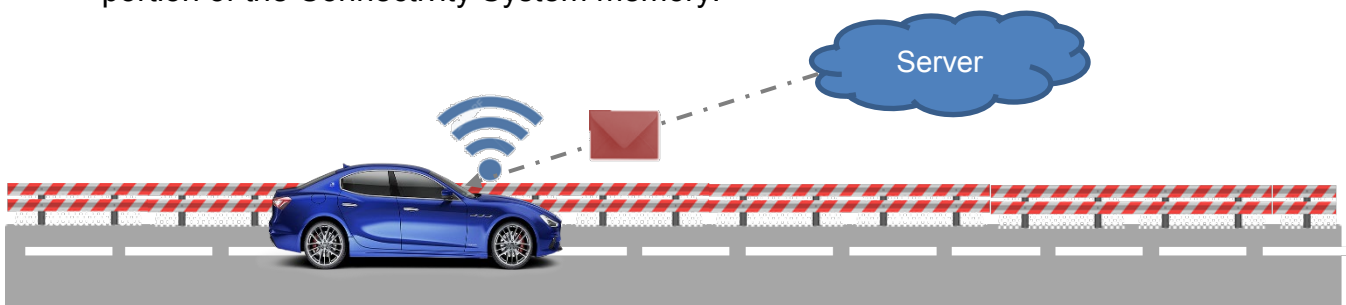
To better understand FOTA functionality, we will subdivide the action in 2 phases. **Download** of the Software and **Installation of the software**.

a) Software Download

- At each KEY-ACC (key turned on) the Car (if 3G/4G/HotSpot and GPS are available) starts a dialogue with the server checking for an update.



- If a new Software is available, it will be sent to the vehicle and stored on a dedicated portion of the Connectivity System memory.



- In this phase, the Software will NOT be installed on the vehicle and **no message will appear on the main display to disturb the driver.**
- The Software Download may not start instantly, but in general within 24 hours from the KEY-ACC. This phase is managed directly by the Server according to its internal rule.

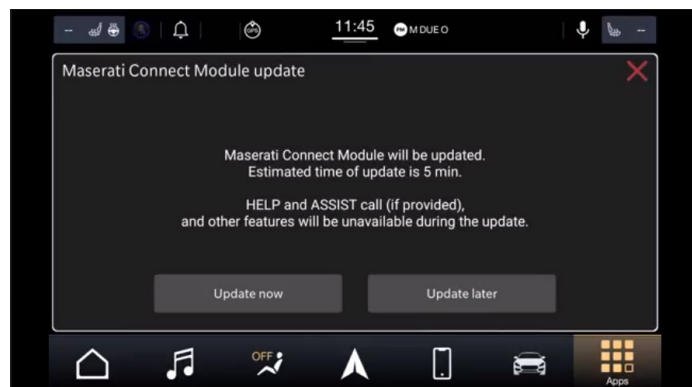
There is no functionality to check for an update or to force or check the download percentage progress. In this way the Customer will not have to worry about the Download phase which will be automatically managed by the systems and has no impact on the car.

Only at the end of the Download phase, after the first KEY OFF, a message appears on the main display to inform the customer about an update to install.

- If the Customer switches off the car, the download restarts from the same point after the next KEY-ACC.
- Data Traffic is for free using a virtual SIM inside the TBM. This subscription is valid for 10 years.

b) Software Installation

- Installation starts with the first KEY-OFF after the software is Downloaded into the system memory. A message on the main screen will appear to inform the Customer.



- Pushing on the “Update Now” icon will start the Installation. The installation cannot be interrupted. If it is interrupted, (key turned on, car driven, etc.) the installation will be interrupted, all connectivity functions will be operable and the software installation will resume at the next key off.
- The Customer can also choose to update later. In this case the same message will be displayed at the next KEY-OFF.
- **The installation cannot be interrupted.** If the engine is restarted, it doesn't affect the installation. There is no way to interrupt the installation (open/close doors, ON/OFF lights etc.).
- The Customer can leave the vehicle, close the vehicle and the procedure will continue automatically. (the key only needs to be inside the vehicle to start the procedure).
- The update takes 10-15 minutes. During the update some functions related to the updated modules may not work. Refer to the pre-installation screen.
- At the end of the update, the control unit performs a self-check of the newly installed content. In the remote case of a failure, the module restores the previous version. For this reason, the procedure is 100% safe.

- In this phase 3G/4G and GPS coverage is not necessary (due to the software being previously downloaded into the system memory and waiting for the installation phase).

4. What happens if the customer always chooses to postpone the installation?

- After several postponements, the update will be forced automatically at KEY-OFF. If the radio is on, a pop-up will be displayed. This installation cannot be interrupted or postponed again.

5. Preconditions

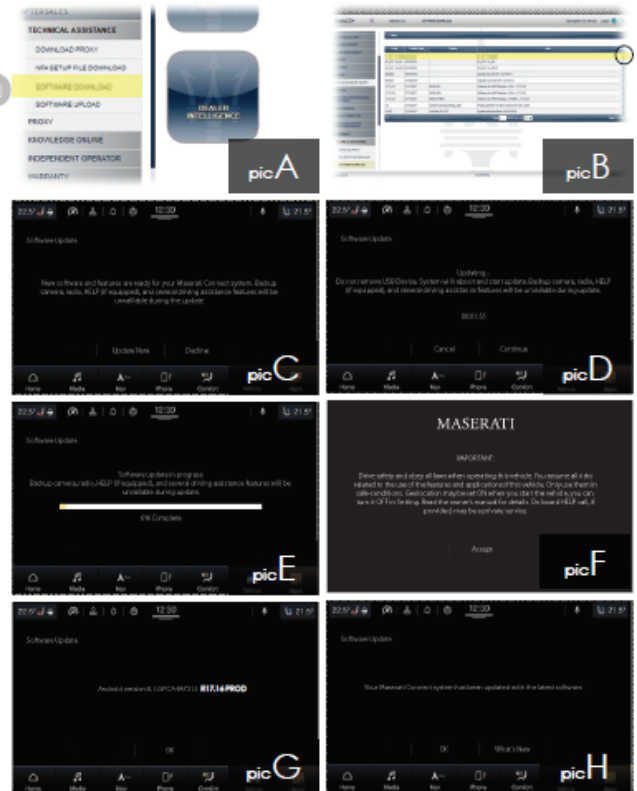
- Vehicle must be under 3G/4G and GPS signal (only for the Download phase).
- Key inside the vehicle with the ignition off (just to start the installation phase then the key can be removed from the vehicle).
- SOC > 75%. (Battery State Of Charge greater than 75%)
- Vehicle parked and in KEY-OFF position to start the installation.

NOTE: The system does not inhibit the functionality of the vehicle, which could be restarted immediately after starting the installation phase. Restarting the vehicle does not block the installation. Maserati does not recommend driving the car while the FOTA update is in progress as some driver assistance functions (Radio, Navigation, etc.) may not be available during the software installation phase. This is why the Installation phase starts at the key off position (then pressing the "Update Now" icon) is that the vehicle will be parked and off for an extended period of time or overnight.

2. TECHNICAL PROCEDURE

Update with USB Memory Stick. Dealer Prospective

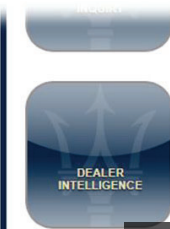
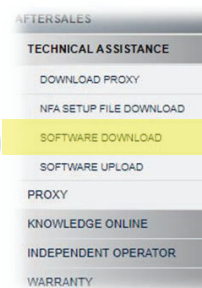
- 1 Check if the vehicle is involved in the action and if the campaign has not been previously performed.
NOTE: Only the vehicles in Stock Dealer must be update with USB stick. This campaign will be launched as a FOTA* campaign for all the vehicles already delivered to the Final Customer.
- 2 Go to MODIS CS + at **AFTERSALES / TECHNICAL ASSISTANCE / SOFTWARE DOWNLOAD** then press **Search** on the main screen. (pic A)
- 3 Select the Software on the list and click on the arrow to download it. (pic B)
Check on the VinList for more information about the right SW to download.
- 4 Copy the file on a empty USB memory stick formatted with a **NTFS file system**.
 - Use only Sandisk, Verbatim, Kingston or Transcend "3.0 Certified" PEN Drive. Use a 64 GB devices with NTFS format.
 - Not to Unzip the File. The file **MUST** be copied on the Root folder of the memory stick as downloaded. Do not change the name.
- 5 During the update the ETM could show black screen. In this case wait for systems restart without removing the PEN Drive from the USB socket.
- 6 Remove Logistic Mode and Turn on the engine or connect a power supplier to the battery and insert the PEN Drive into the USB socket.
- 7 The following picture will appear and press **"Update Now"**. (pic C)
If the procedure doesn't start or an error appear, open a **BLU ON LINE**.
- 8 The following picture will appear, then press **"Continue"** and wait for the software download. (pic D)
NOTE: this step will take approx. 45 minutes (without any action to be done from operator).
- 9 Wait for the reboot of the system, then press **"Accept"**. (pic E)
- 10 Turn Off the engine and remove the PEN Drive.
- 11 Turn on the engine. The following picture will appear and press **"OK"**. (pic F)
- 12 The next step will shown the new software version updated and then press **"OK"** (the software version indicated are just an example). (pic G - pic H)
- 13 With the Maserati diagnostic tool, select **CHECK VEHICLE** and launch **CLEAR ALL DTC**.
- 14 Procedure is **Completed**.



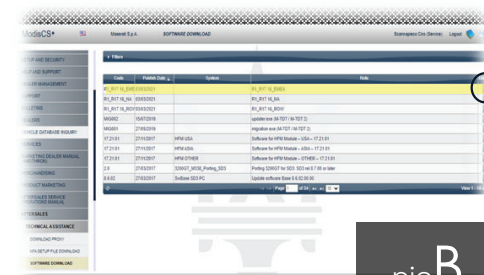
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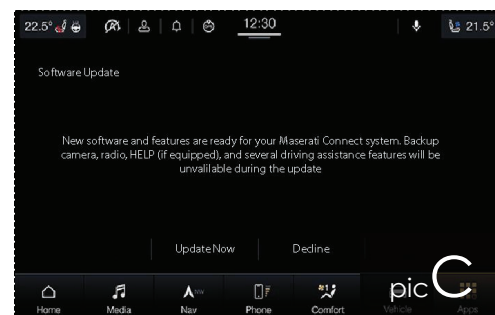
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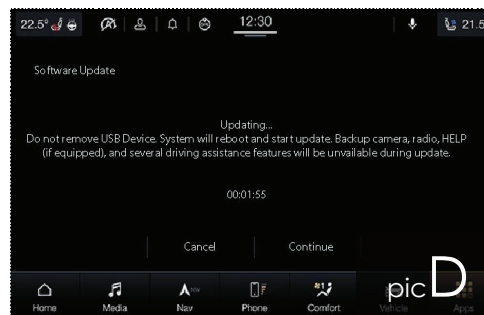
pic A



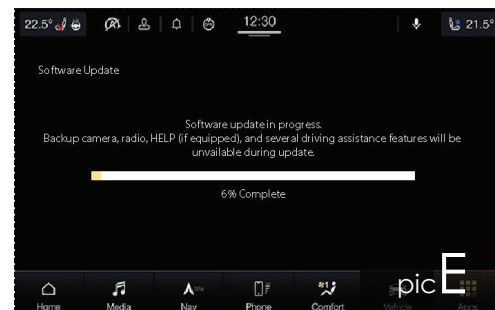
pic B



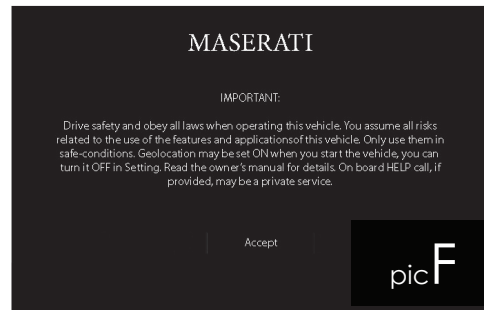
pic C



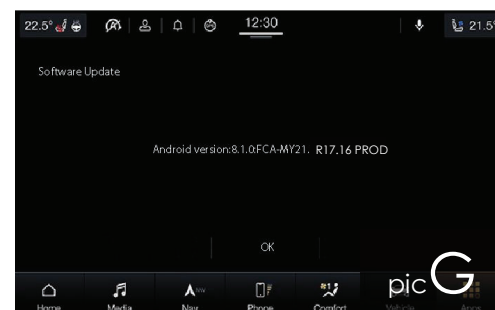
pic D



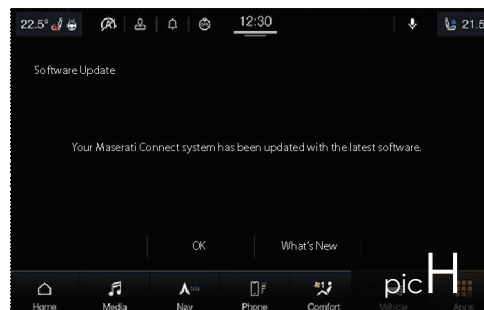
pic E



pic F



pic G



pic H