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	Subject:	Engine Software Update	
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Campaign code.

L615-A.02.16

Campaign title.

SW Update

Model.

Gallardo Spyder.

Model year.

From 2011 to 2013

Special or Limited Versions.

All.

Markets.

All.

VIN identification

From **BLA100073** to **DLA12536**

Warning: some vehicles included in this VIN range may not be involved, so check carefully on the Lamborghini WEB Portal (at the section named VIN Info) if the cars in your workshop or in your dealer stock are involved before performing any other operation.

Information to the field

As a result of continuous product monitoring, Automobili Lamborghini Spa has revised the diagnostic function of the engine control unit to allow an improved diagnosis of certain components.

Field solution

The instruction herein detailed describes two operations:

- operation B, which concerns software update;
- operation C, replacement of fuel pumps only when error code **P310A** is present after the update.

Spare parts.

Order the following part number which are connected to the operation required:

- Operazione B – Software update

P/N	Description	Q
n/n	n/n	0

- Operazione C – Fuel pump replacemet

P/N	Description	Q
400198037	Fuel Pump Kit: <ul style="list-style-type: none"> - Intake manifold seals (Q.10); - Drive by wire seals (Q.2); - Calmp (Q.2); - HP Fuel pump (Q.2); - Screws (Q.4); - Union (Q.4); - Fuel filter (Q.1); - Fuel filter protective hose (Q.1) - Fuel line clamp (Q.6) - Fuel line from intake manifold to sensor support (Q.1); - Intake manifold union (Q.1); - Sensor support (Q.1); - Fuel line from LH bank sensor support to HP pump (Q.1); - Fuel line from LH bank sensor support to HP pump (Q.1); - Fuel line from RH bank sensor support to HP pump (Q.1); - Fuel line from RH bank sensor support to HP pump (Q.1); - Pressure sensor (Q.1) 	1
407201215A	Pipe from filter to engine.	1
407201220	Pipe from tank to filter	1

Replaced parts management.

Store properly and tagged the parts replaced with bar code form for their identification during Area Manager visits.

Labour time

- SW update : **1 hour.**
- Replacement of high pressure fuel pump: **13,5 hours.**

Warranty Claim instructions

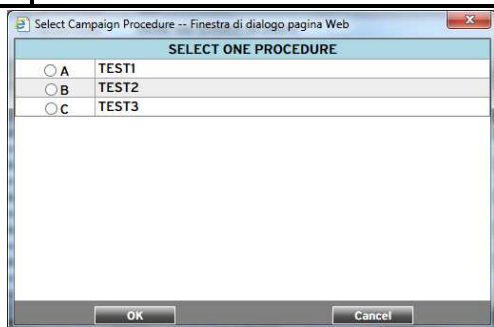
To claim the reimbursement log into the warranty system management on the Lamborghini Portal and consults the manual “W.Claim “ available on the portal for the download .

Select the desired campaign and go on with the claim insertion, read carefully the windows message content and choose the option button corresponding to the operation performed .

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On the base of the chosen option the reimbursement will be:

- **OPTION B,** software update
manpower: *1 hours*
spare parts: *none,*
- **OPTION C:**
manpower: *13,5 hours;*
spare parts: *400198037, 420201215A, 420201220.*



ATTENTION!

Attach all documents produced during the vehicle visit that show evidence of the work performed such as repair order, software protocols or acquisitions...etc.; the lack of one or more of those, may deny the reimbursement.

Remember to fill all data in the section “Service and Recall Campaign” in the Warranty booklet of the vehicle as shown below.

Necessary tools/material.

P/N	Description	Q
-		

Preliminary operations:

1. Please be sure to have installed the LaRA-AS_7.0.0.192_VS_5.0 as described in the information bulletin BI.16.13 and LaRA License Renewal described in the information bulletin BI.06.15.
2. Help documentation: Gallardo MY11 e MY12 repair manual at chapter 10.90.



WARNING!

The update procedure for the Engine ECU’s (Master and Slave) lasts more than 40 minutes, hence it is necessary to plug the diagnostic laptop into an electrical socket and to deactivate screen savers and all the energy saving options in order to avoid any interruption of the procedure.

Update procedure

1. Connect the vehicle to the battery charger in order to maintain a constant voltage supply during programming
2. Connect the diagnostic laptop at the vehicle using the Basic XS interface (p/n 66095011) with the black cable (p/n 69190206).
3. Turn the ignition key ON; start the LaRA software and select the “Gallardo Coupè LP570-LP560-LP550 (MY09-14)” or “Gallardo Spider LP560-LP570 (MY09-14)”. Then select “Automatic mode”.





4. Click on “Next”.



5. Click on “Documentation”.

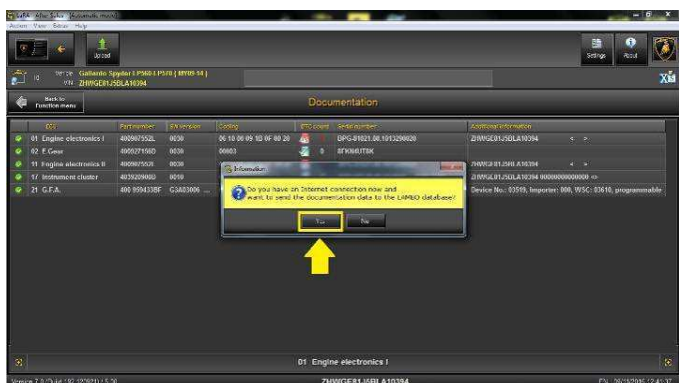


6. Click on “Yes” in order to start the upload.



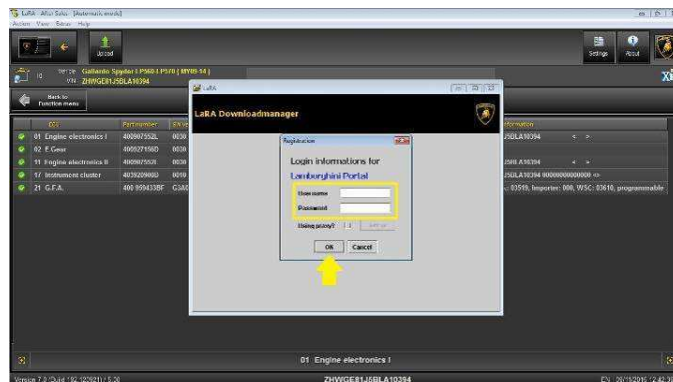
Remark:

Be sure that diagnostic laptop is connected to the internet network before starting the upload.

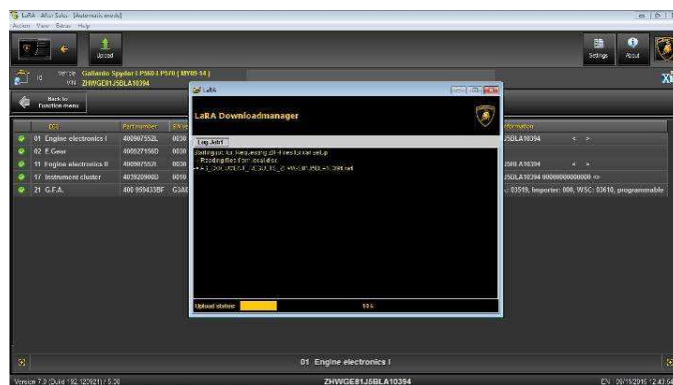


7. Insert your user name in the field “Username” and the pin 1324 + current 6 digit code displayed on your web token in the field Password.

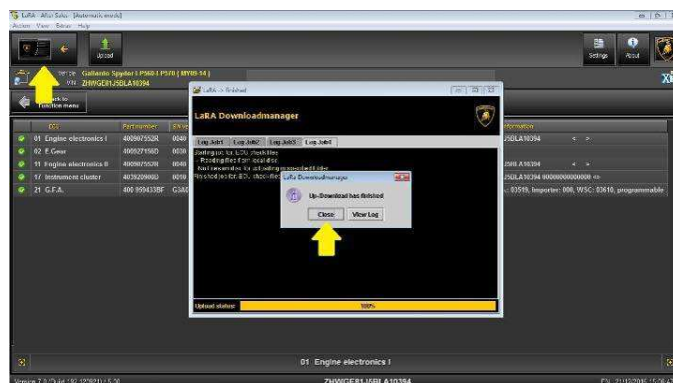
Then confirm clicking on “OK”.



8. The procedure Documentation proceeds automatically



9. Click on “Close”, and Then click on “Back” as shown in the picture.

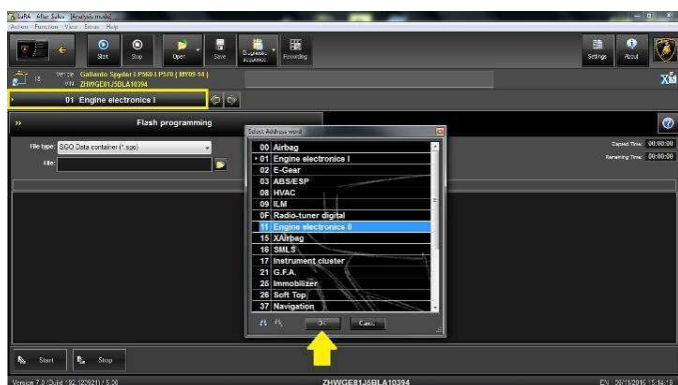




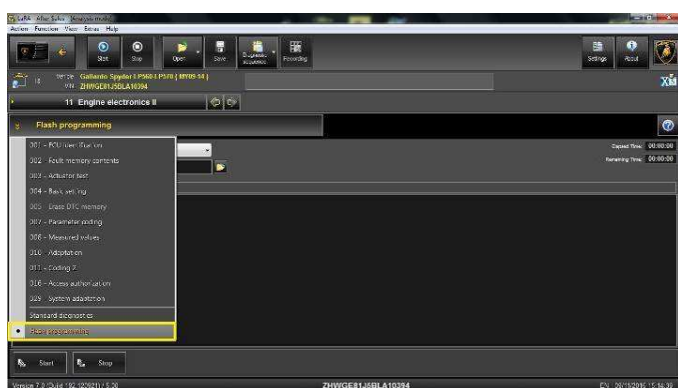
10. Select the “Analysis mode” button.



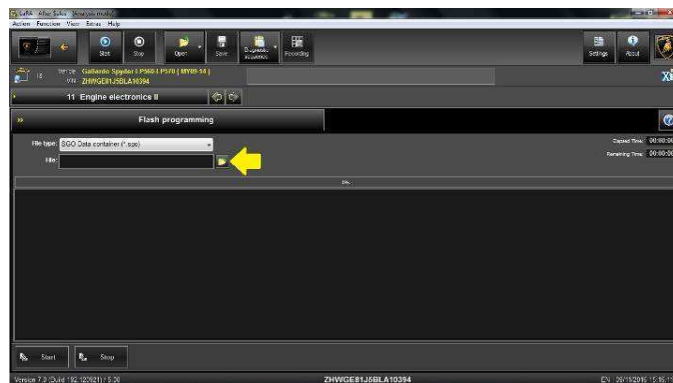
11. Click on the top left of the toolbar. Select the “11 Engine electronics II” and confirm clicking on “OK”.



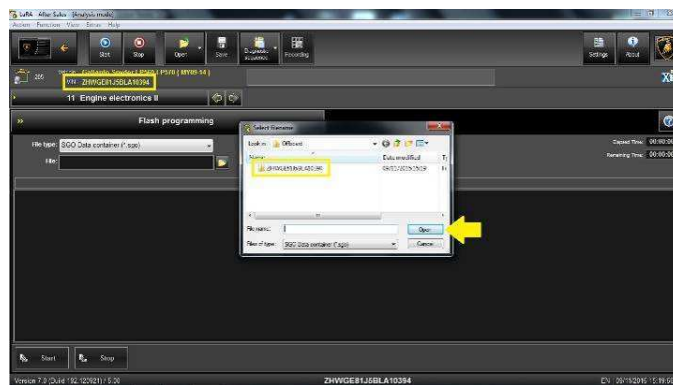
12. Select “Flash programming” from the function menu.



13. Click the folder icon for the selection of the File Type “SGO Data container”.



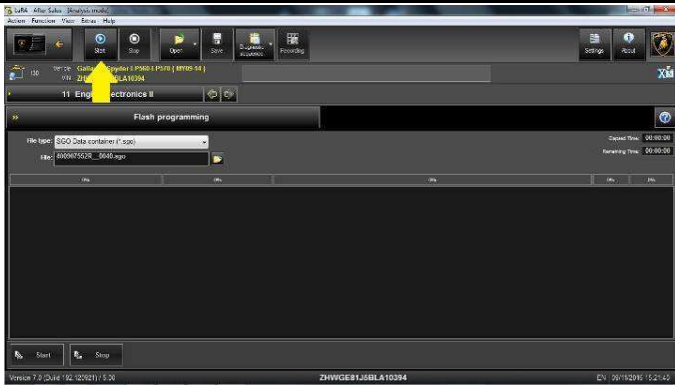
14. Select the VIN of the corresponding vehicle and then click on “Open”, as shown in the picture.



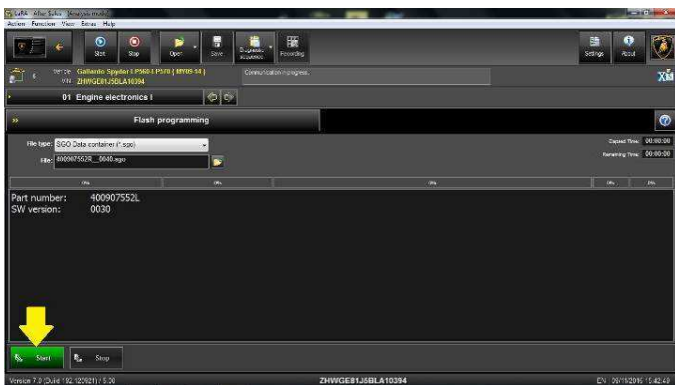
15. Select the File *.sgo and click on “Open”, as shown in the picture.



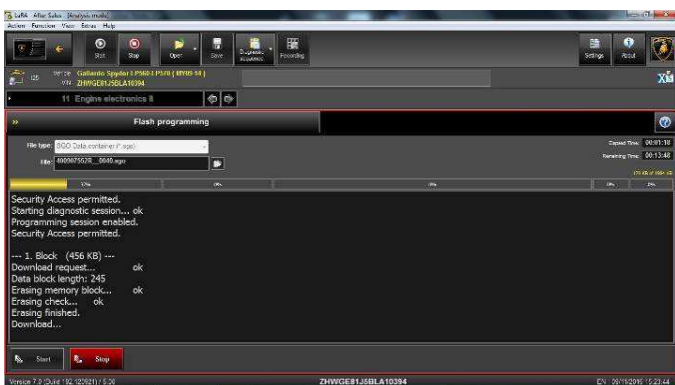
16. Click on “Start”, as shown in the picture.



17. Click on “Start” in order to update programming the ECU “Engine electronics II” (ECU Engine Slave).



18. Wait until the update programming is completed (estimated time: 18 minutes).



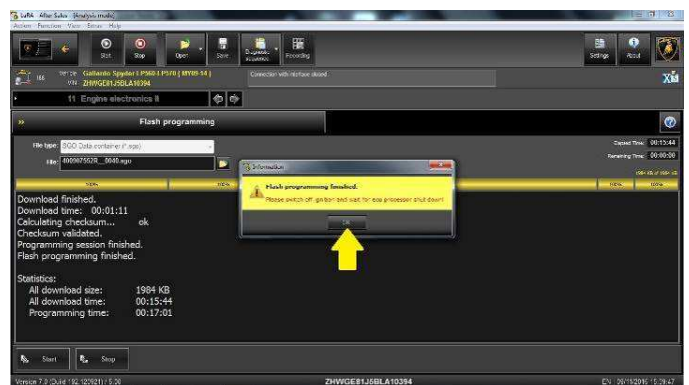
19. The flash programming for the ECU Engine Slave is finished.

Click on “OK” without switch the ignition OFF

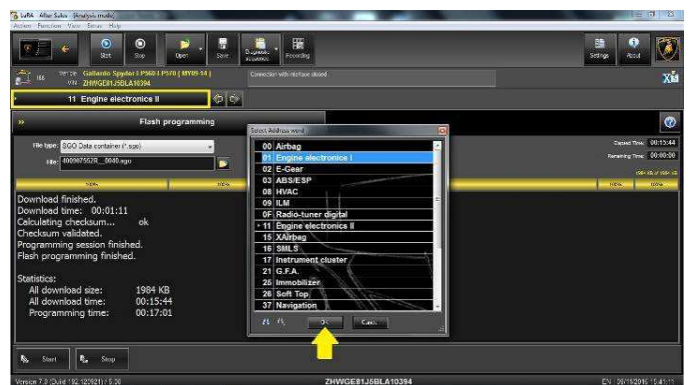


Remark:

In case of incomplete or unsuccessful update programming ; switch the ignition OFF , then wait 1 Minute before switching it back ON again and repeat the procedure from step 12



20. Click on the top left of the toolbar. Select the “01 Engine electronics I” and confirm clicking on “OK”.

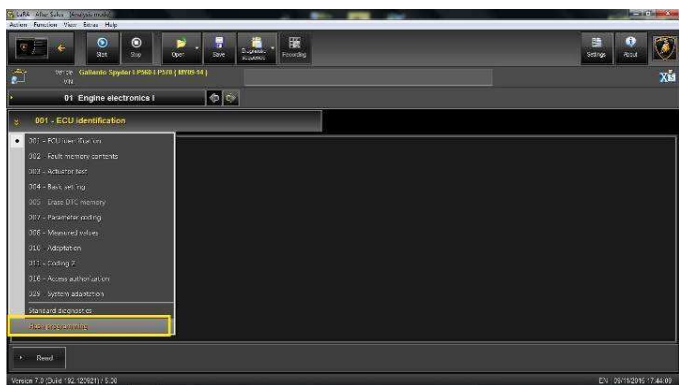


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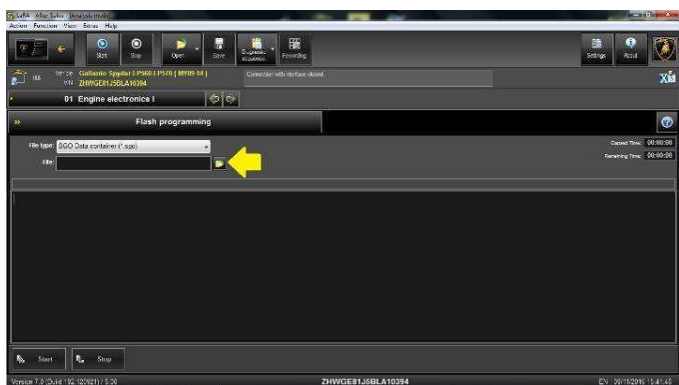
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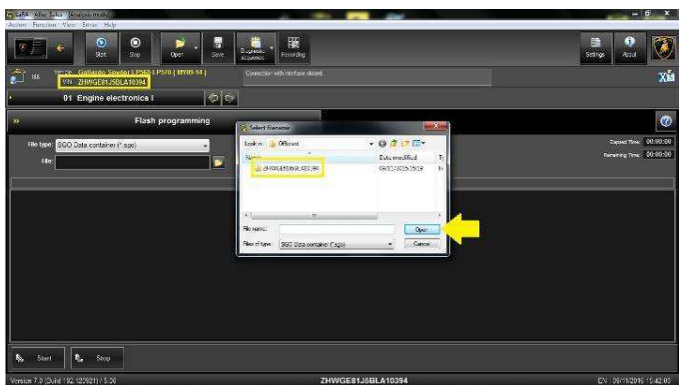
21. Select “Flash programming” from the function menu.



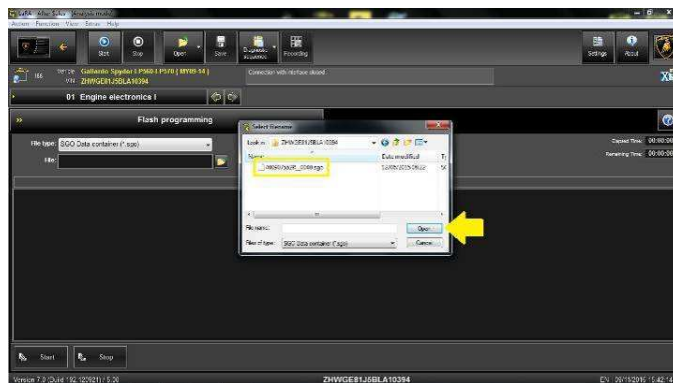
22. Click the folder icon for the selection of the File Type “SGO Data container”.



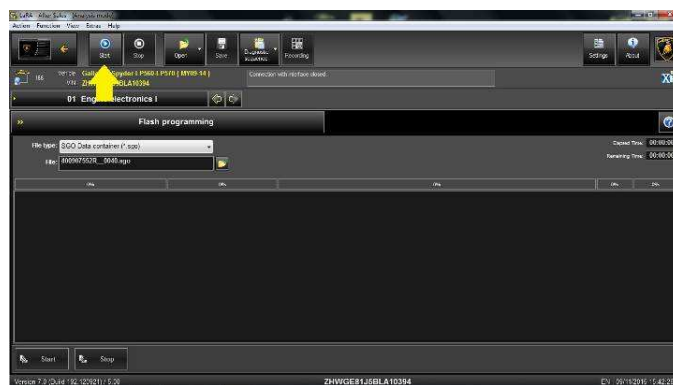
23. Select the VIN of the corresponding vehicle and then click on “Open”, as shown in the picture.



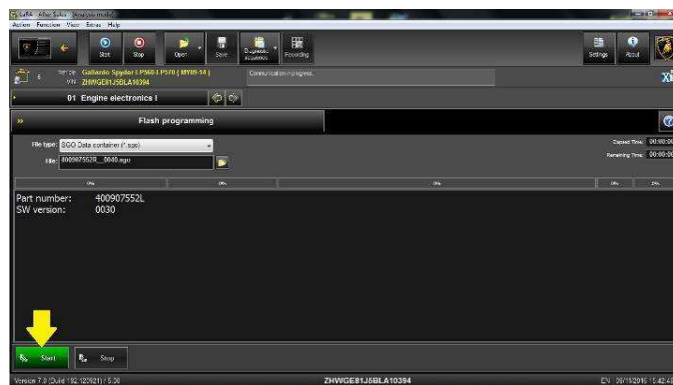
24. Select the File *.sgo and click on “Open”, as shown in the picture.



25. Click on “Start”, as shown in the picture.



26. Click on “Start” in order to update programming the ECU “Engine electronics I” (ECU Engine Master).



27. Wait until the update programming is completed (estimated time: 18 minutes).

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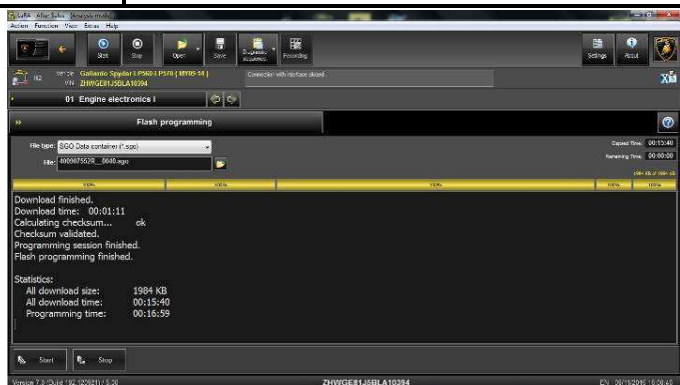
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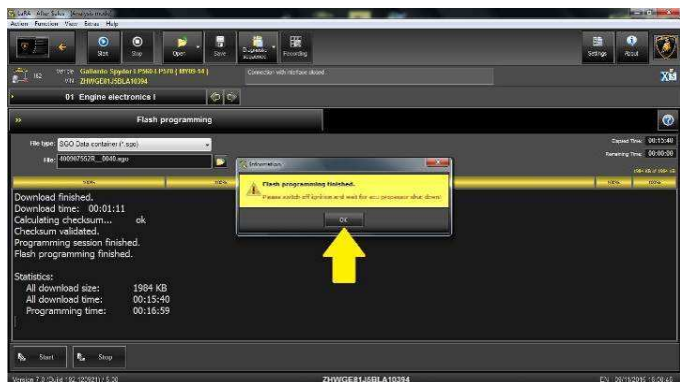
28. The flash programming for the ECU Engine Master is finished.

Click on “OK” and switch OFF the ignition for at least 1 minute, before switch the ignition back ON again



Remark:

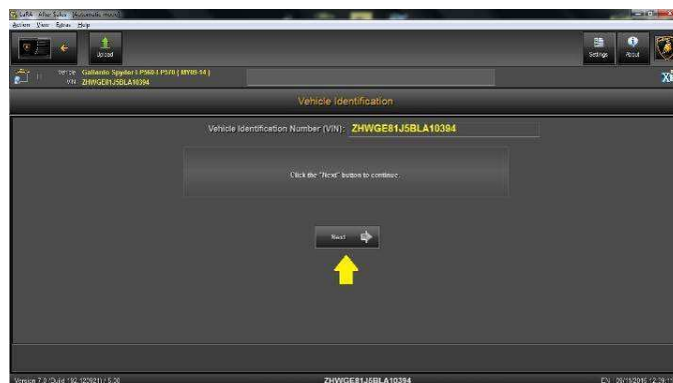
In case of incomplete or unsuccessful update programming ; switch the ignition OFF , then wait 1 Minute before switching it back ON again and repeat the procedure from step 21



29. Return to the main menu of LaRA, then select the “Automatic mode” button, as shown in the picture.



30. Click on “Next”.



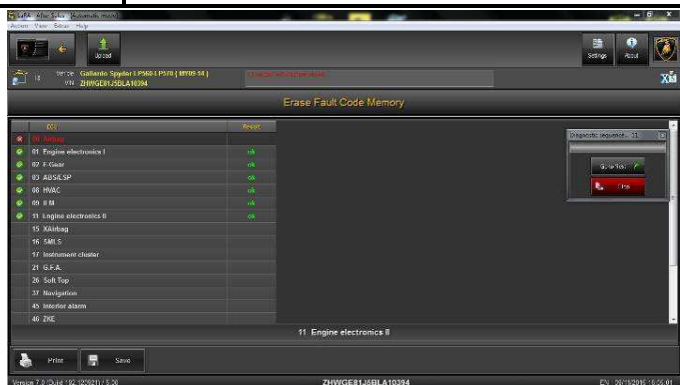
31. Select and run the program “Erase Fault Code Memory” to clear all the faults stored because of the software update.



32. Wait until the erase of all the errors present in the vehicle’s ECU is finished.

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33. Click on “Back” to return to the main menu of LaRA, as shown in the picture.



34. Finally perform these “Basic setting” from Analysis mode”.

- On the ECU “01 Engine electronics I” (ECU Engine Master):
 - Routine 60 adaptation throttle body;
 - Routine 142 adaptation of the tumble valves.
- On the ECU “11 Engine electronics II” (ECU Engine Slave):
 - Routine 60 adaptation throttle body;
 - Routine 144 adaptation of the tumble valves

(see also the workshop manual instructions chapter 10.90.00).

35. Control of the just installed software code and version.

Before going on with the next step, check that the software code displayed on your notebook screen matches with ones of those reported in the template below, and its version is **0040**.

	4WD	4WD SL	2WD
EU;US; CH	400907552R; version: 0040	400907552T; version: 0040	400907552S; version :0040
ROW	400907552C version: 0040	400907552G version: 0040	400907552E version: 0040

EU= Europe.

US=United States of America.

CH=China.

ROW= Rest Of the World.

4WD= Gallardo Coupè or Spyder four Wheel Drive .

4WD SL= Gallardo Super Leggera.

2WD= Gallardo Coupè or Spyder two Wheel Drive.

Road test

36. Road test the vehicle for approx.20 minutes under the following conditions:

- further work is necessary;
- out of town (if possible);
- acceleration phases with high engine load;
- overrun phases;
- engine speed 2000...3000 rpm;

If the engine management warning amp (EPC) does not light up, no further work is necessary..



ATTENTION!

If the engine management warning lamp (EPC) lights up and the entry "P310A - Fuel low pressure regulation, fuel pressure fluctuating" appears in the event memory, the high-pressure pumps must be replaced so go on with the procedure .

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Replacement of High pressure fuel pump.



WARNING!

Operations to be performed with the following conditions:

- cold engine;
- absence of open flame or electronic devices.

It is recommended to keep a fire extinguisher close at hand.

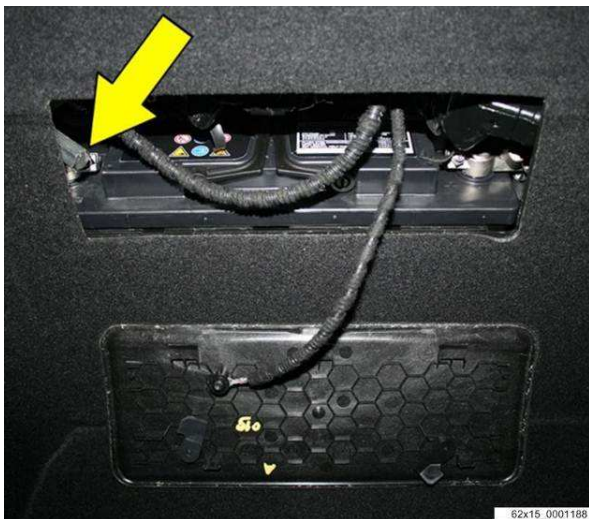
Preliminary dismantling.

1. Open the trunk and remove the Battery inspection lid.
Disconnect the battery terminal clamp from the negative post.



ATTENTION!

Secure the clamp once it has been in order to prevent it from accidentally touching the battery post.



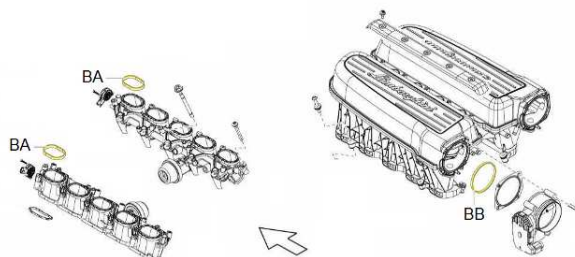
2. Take apart the intake manifold following the instructions detailed in the workshop manual posted on the Dealer Portal.

Manual index :

Air intake Manifold – 03 Disassembly
Main group: 01 Engine
Subgroup: 29 Air intake manifold.

The items listed in the following template must be replaced before reassembling:

Ref.	Desc	P/N
BA	Seal ring	07L129717E
BB	Seal ring	07L133073F



3. Dismantle the fuel filter and low pressure lines following scrupulously the instructions detailed in the Workshop Manual available on the Portal.

Manual Index :

Fuel pump and lines - 03 Disassembly

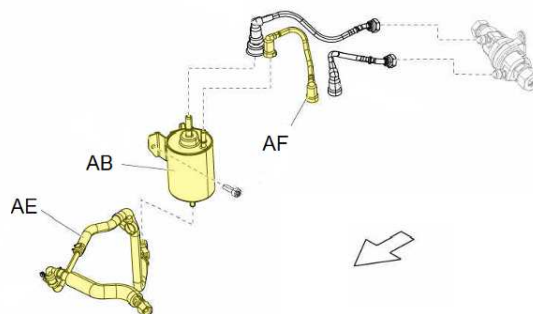
Main group: 01 Engine

Subgroup: 27 Fuel pump and lines

The items listed in the following template must be replaced before reassembling:

SPYDER

Ref.	Des.
AB	Fuel Filter
AE	Pipe
AF	Pipe



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4. Disassemble the feeding pipes and the high pressure pumps following scrupulously the instructions reported in the Workshop Manual.

Manual index:

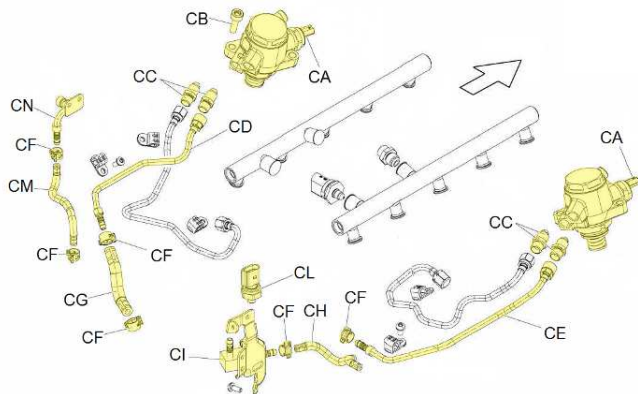
Injection system – 03 Disassembly.

Main Group: 01 Engine.

Subgroup: 28 Injection system.

The items in the following template must be replaced before reassembling:

Ref.	Des.
CA	High pressure pump
CB	M8X30 Screw
CC	Union pipe
CD	Pipe
CE	Pipe
CF	Clamp
CG	Pipe
CH	pipe
CI	Union
CL	pressure sensor
CM	Pipe
CN	Union



Assembly of fuel filter and low pressure lines:

5. Install Low pressure lines together with the new fuel filter and the protection tube (B).

Fasten the clamp (A). to secure the filter

Connect the low press. lines and check the terminals are correctly inserted (C).



Assembly of fuel feeding lines and high pressure pumps.

6. Connect the new high pressure pump (A) to the supplied union (B,C).

Screw the new union to the pumps without tightening.



Remark:

Always Replace the union after every disassembly.
Use always new components. The Reemployment of used parts may cause damages to the vehicles.



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7. Soak with engine oil the seal ring (A) before installing the pump.

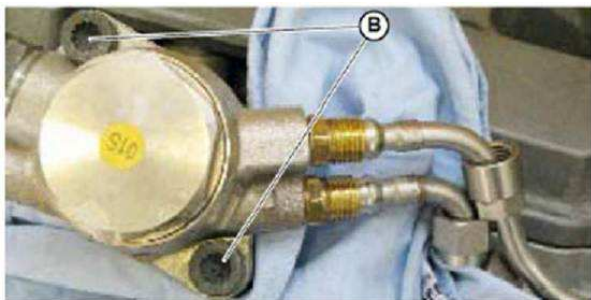


8. Install the pump and fasten them with the supplied screws (B). Alternate to each fasteners 2 turns of screws making the pumps perfectly adhere to their lodge.

Check the pumps are correctly installed on their own lodges, then tighten the fasteners.

Screw tightening.

Torque: **22Nm**.



9. Torque the unions (C,D) you have previously installed on the pumps.

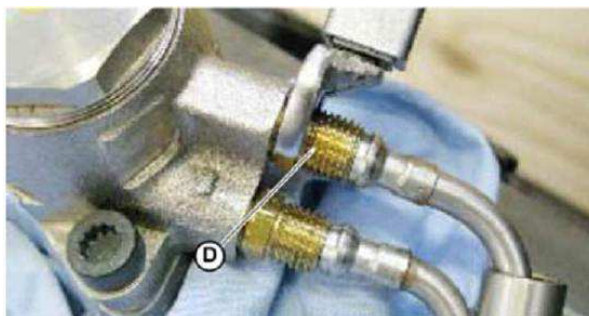
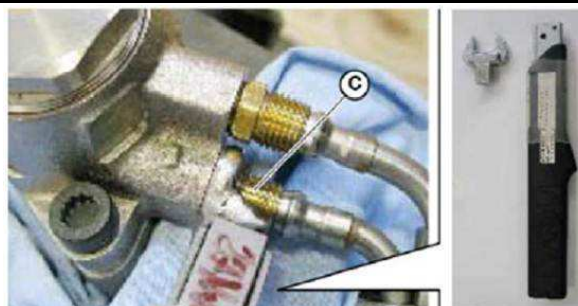
Union (C,D) tightening.

Torque: **35Nm**.



Remark:

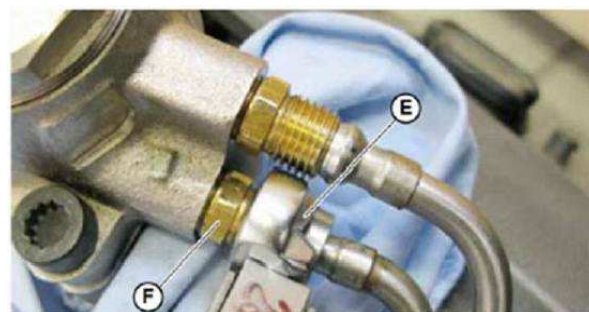
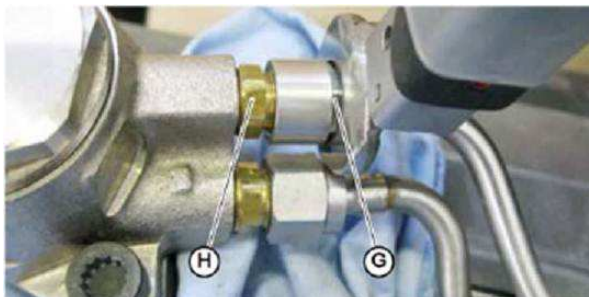
Perform the tighening before fitting the steel tubes.



10. Assemble the feed and high pressure lines made of steel. Tighten the nut (G,E) to the pumps (H,F).

Junction tightening (H,F).

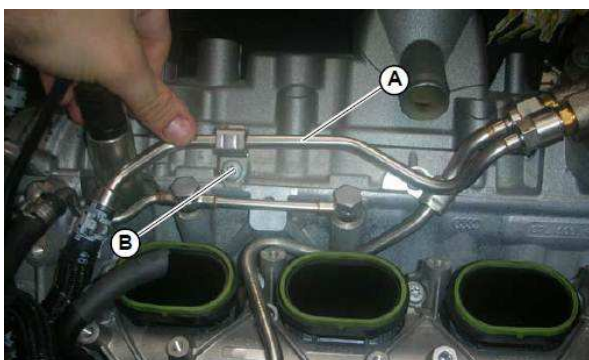
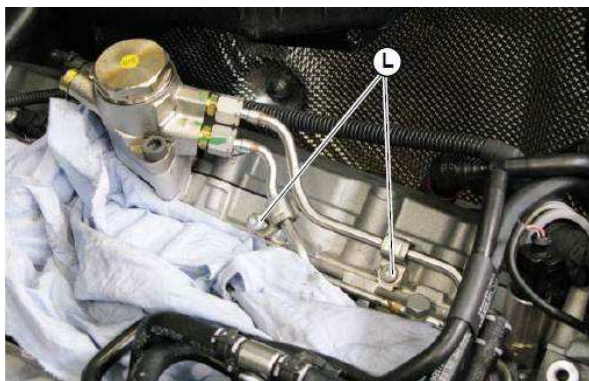
Torque : **25Nm**.





11. Fasten the feed and high pressure lines made of steel to the engine with the fasteners (L,B) removed during the preliminary dismantling operation.

Line tightening (L;B).
Torque: **7Nm + 90°**



12. Install the mounting (B) of the fuel pressure sensor then fit the new sensor (A). Fasten the fuel lines with the supplied clamps (C).



Remark:

Replace clamps at every disassembly.

Tightening of sensor and mounting fasteners

Fuel sensor torque (A): **15Nm**;

fastener torque (B): **9Nm**.

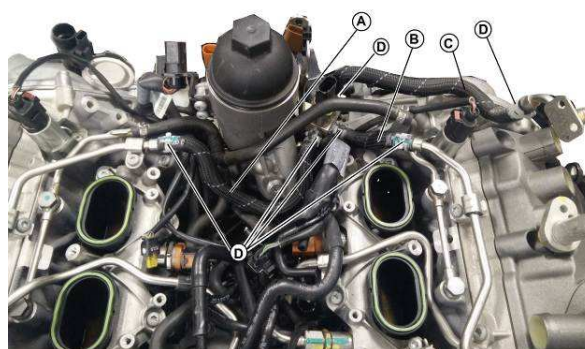


13. Install the feed rubber hoses (A,B,C). fasten the lines with the supplied clamps (D).



Remark:

Replace the calmps at every dismantlemnt .



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14. Fasten to the engine the feed lines which were previously installed at step 5 by the Union (B).

Union tightening.
Torque: **28Nm**



FIRE HAZARD:

before mounting the remaining components, clean carefully the engine from the fuel traces left from the previous works.

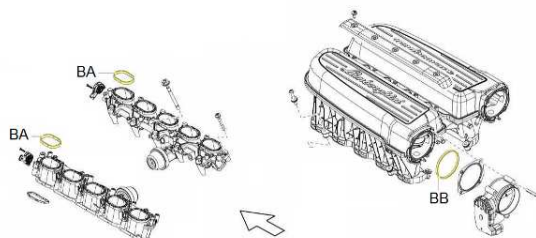
Final operations:

15. Restore the vehicle following the workshop instructions for the intake manifold consultable on the Dealer Portal.

Manual Index .
Air intake Manifold – 05 Assembly
Main group: 01 Engine
Subgroup: 29 Air intake manifold

The items here below must be replaced before the re-assembly get started:

Ref.	Des.
BA	Seal ring
BB	Seal ring



16. Access to the trunk and connect again the battery clamp to the negative post:

Clamp nut Tightening.
Torque: **5Nm**.

Refit the battery inspection lid.

