

L614-
R.01.18

To: **Official After Sales Network**
Subject: **Engine Software Update Coupè**
Date: **21 December 2018**
Pages: **18**



Campaign code.

L614-R.01.18

Campaign title.

Engine SW Update Coupè

Model.

Gallardo Coupè

Model year.

From 2011 to 2013

Special or Limited Versions.

All.

Markets.

Only USA.

VIN identification

From **BLA10027** to **ELA14018**

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 detected that the vehicles in the VIN range might have followed a wrong procedure to perform the reflash of the engine SW of the ECU. A not proper procedure may result in a system failure that does not store trouble code after each key off, and consequently warning lamps indicating system failures will cease to illuminate.

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); - Clamp (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
420201215J	Pipe from filter to engine.	1
420201220B	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: **12,5** hours.

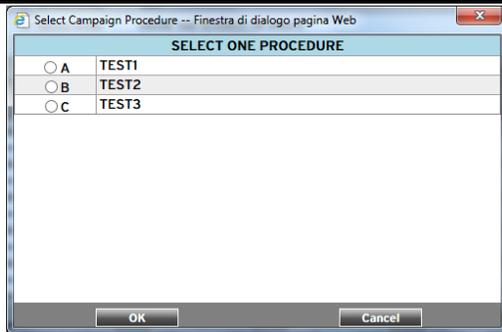
Warranty Claim instructions

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: High pressure fuel pump replacement;
manpower: 12,5 hours;
spare parts: 400198037, 420201215J, 420201220B.



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.27.18.
2. Help documentation: Gallardo MY11, MY12 and MY13 repair manual at chapter 10.90.



IMPORTANT!

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.

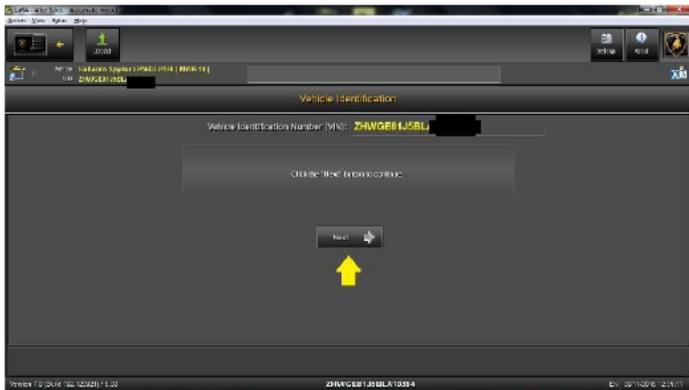
Update procedure

3. Connect the vehicle to the battery charger in order to maintain a constant voltage supply during programming.
4. Connect the diagnostic laptop to the vehicle using the Basic XS interface (p/n 66095011) with the black cable (p/n 69190206).
5. 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”.





6. Click "Next".



7. Click "Documentation".



8. Click "Yes" in order to start the upload.



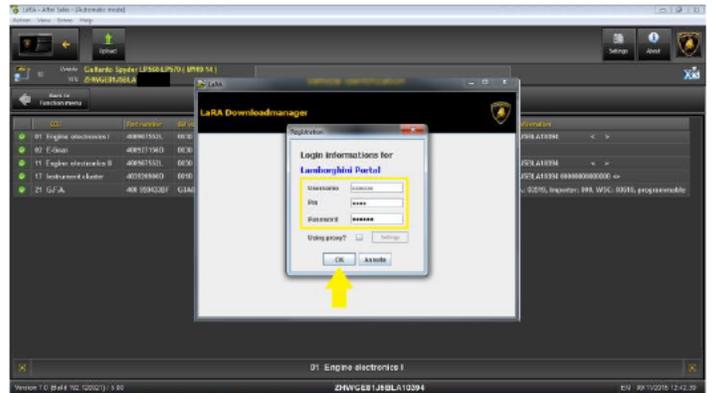
Remark:

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

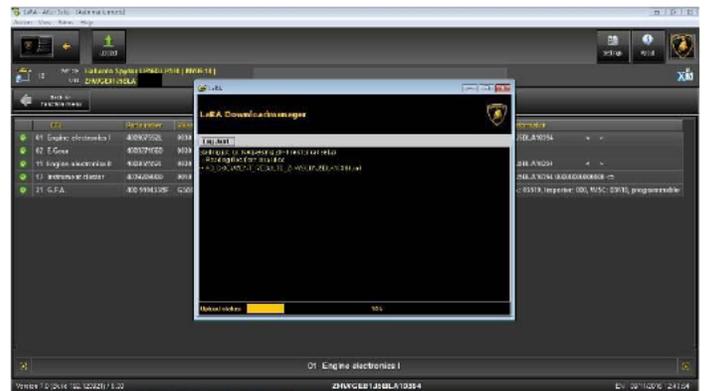


9. Insert your user name in the field "Username", 1324 in the field "Pin" and six-digit code displayed on your web token in the field "Password".

Then confirm clicking on "OK".



10. The procedure Documentation proceeds automatically



11. Click "Close", and then click "Back" as shown in the picture.

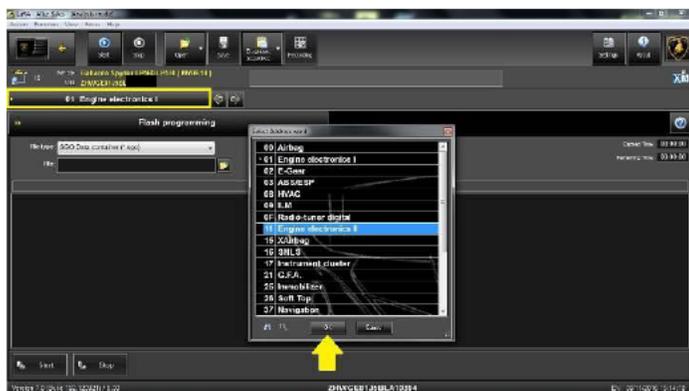




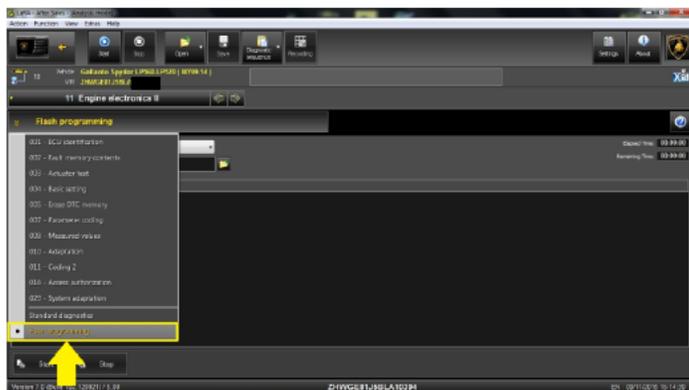
12. Select the “Analysis mode” button.



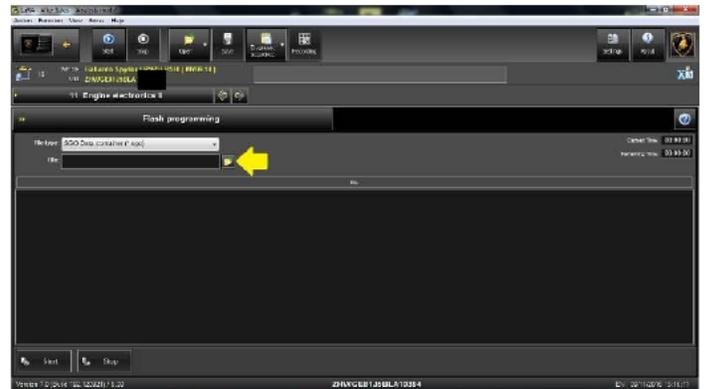
13. Click the top left of the toolbar. Select the “11 Engine electronics II” and confirm clicking on “OK”.



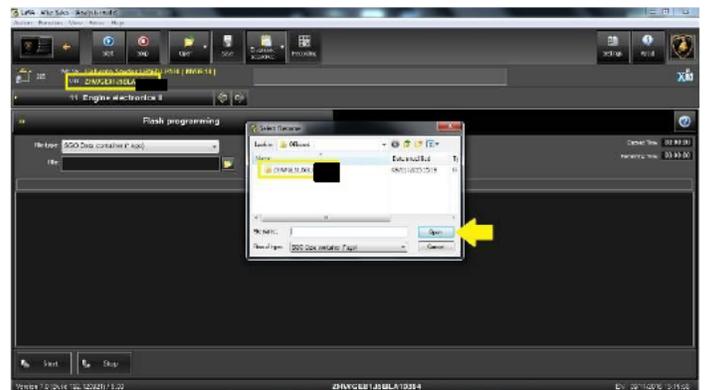
14. Select “Flash programming” from the function menu.



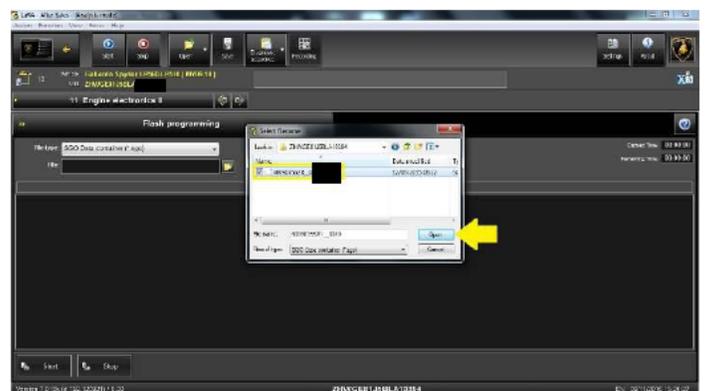
15. Click the folder icon for the selection of the File Type “SGO Data container”.



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



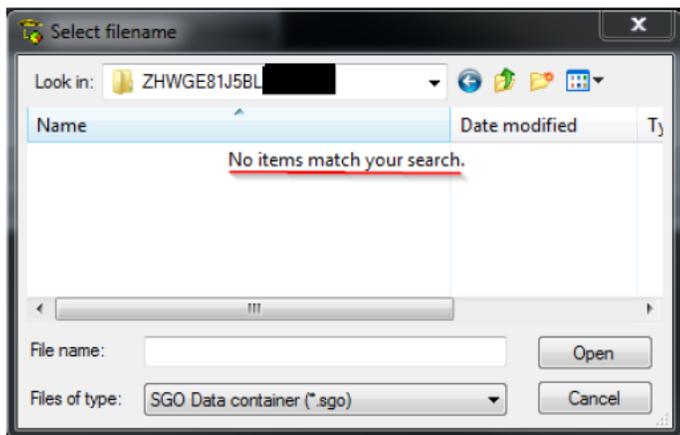
17. Select the File *.sgo and click “Open”, as shown in the picture.



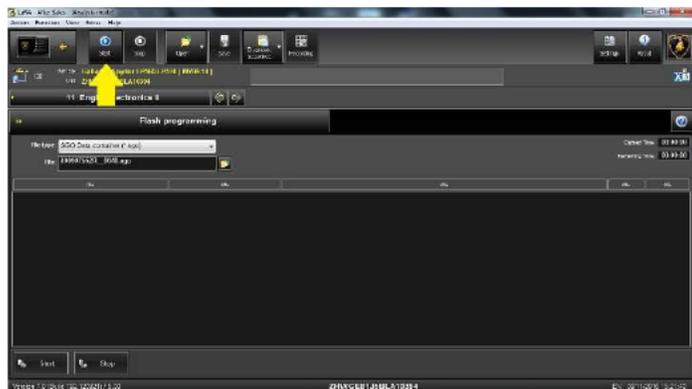


IMPORTANT!

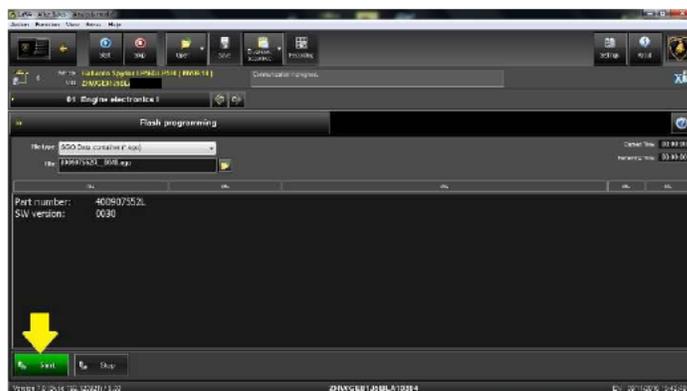
If no file is present in the folder as shown in the picture below, follow the troubleshooting chapter from step 68 of this bulletin.



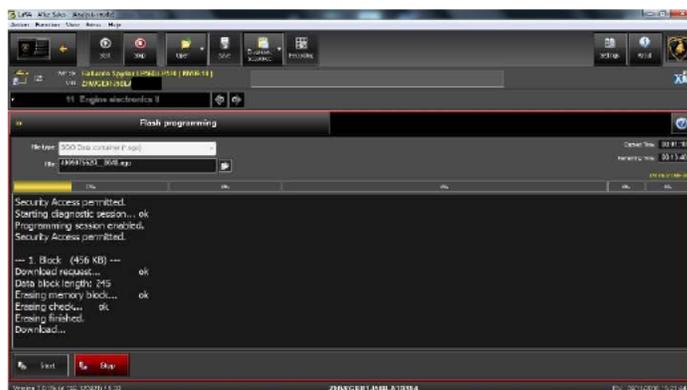
18. Click “Start”, as shown in the picture.



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



20. Wait until the update is complete (estimated time: 18 minutes).



21. When the flash programming for the ECU Engine Slave is finished, click “OK”. Switch the key OFF. Wait at least 10 seconds and switch key ON again.

Repeat the operation (key OFF, 10 seconds, key ON) another time.



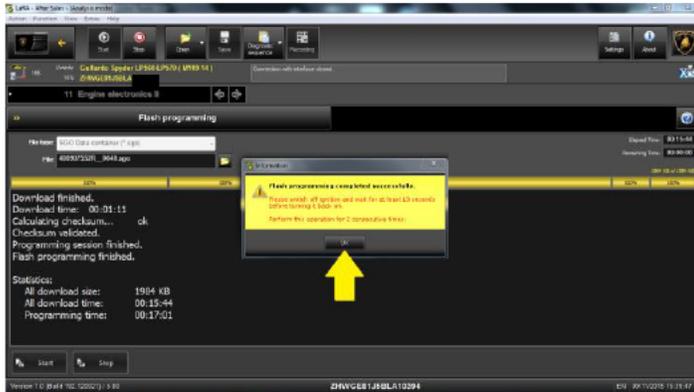
IMPORTANT!

Please perform both key cycles and the 10 seconds wait. An incorrect execution of the procedure might result in an incomplete software update.

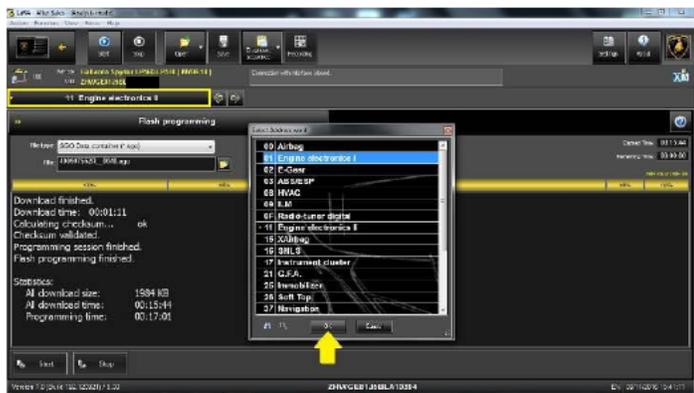


Remark:

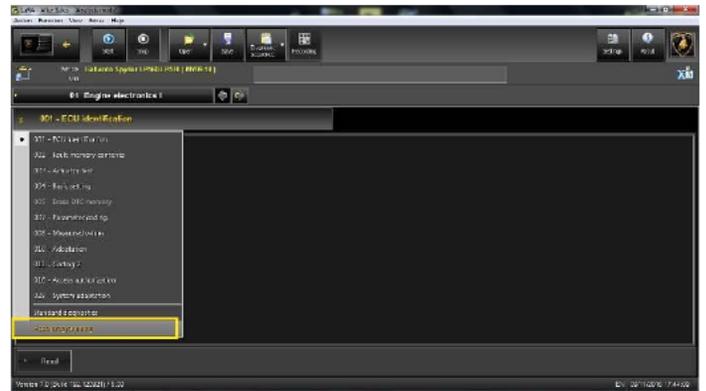
In case of incomplete or unsuccessful update switch the ignition OFF , then wait one minute before switching it back ON again and repeat the procedure from step 14



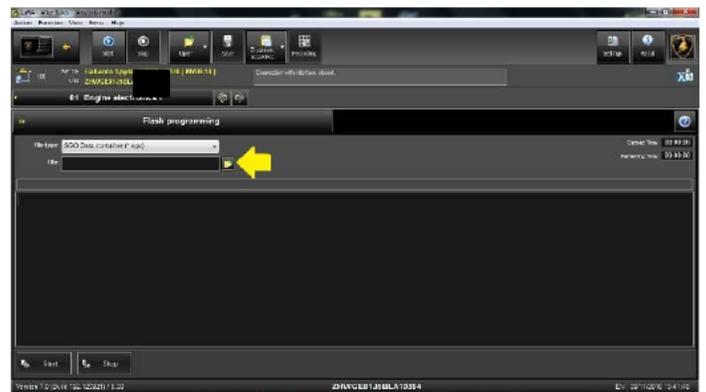
22. Click the top left of the toolbar. Select "01 Engine electronics I" and confirm clicking "OK".



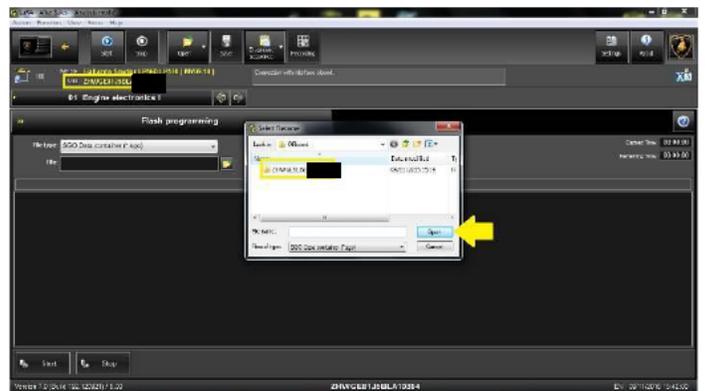
23. Select "Flash programming" from the function menu.



24. Click the folder icon to select the File Type "SGO Data container".



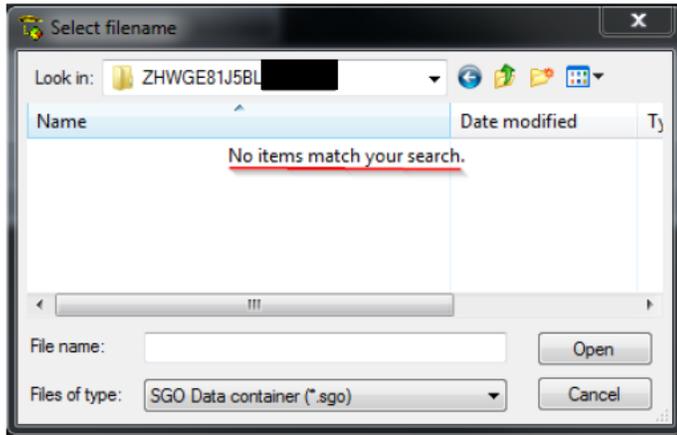
25. Select the VIN of the corresponding vehicle and then click "Open", as shown in the picture.



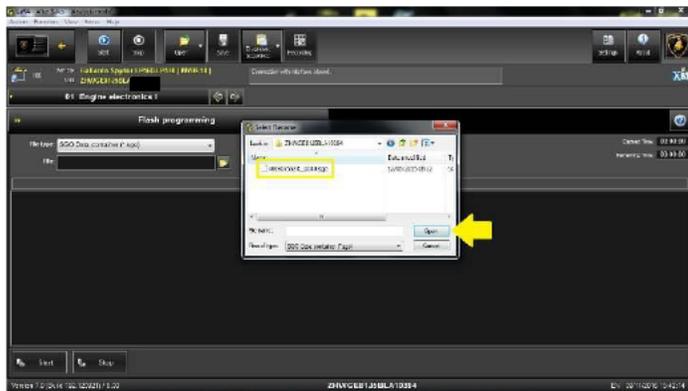


IMPORTANT!

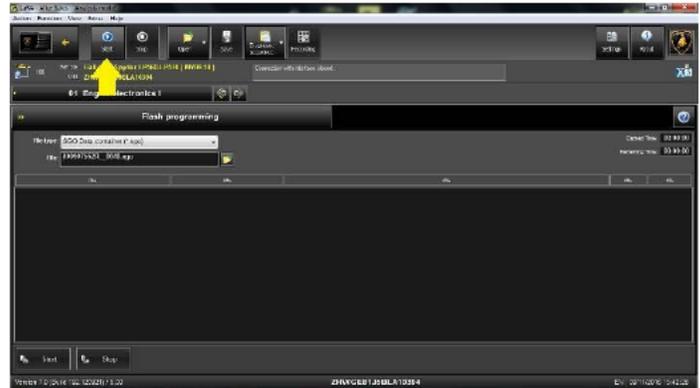
If no file is present in the folder as shown in the picture below, follow the troubleshooting chapter from step 68 of this bulletin.



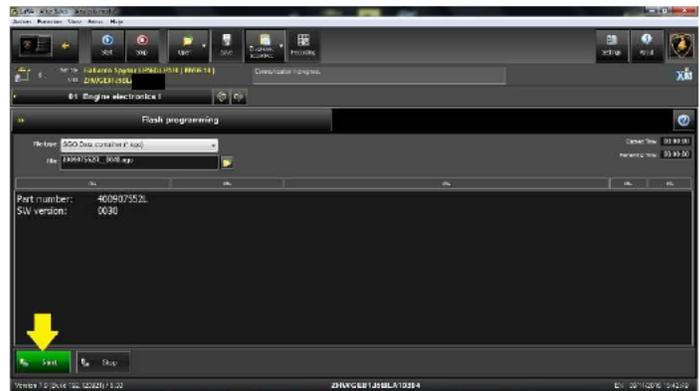
26. Select the File *.sgo and click “Open”, as shown in the picture.



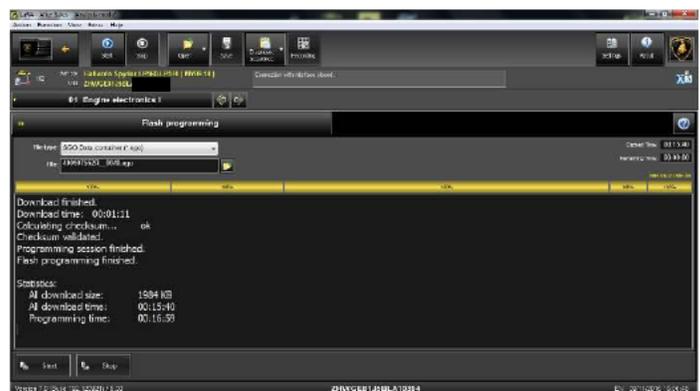
27. Click “Start”, as shown in the picture.



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



29. Wait until the update is complete (estimated time: 18 minutes).



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30. When the flash programming of the ECU Engine Master is finished, click “OK”. Switch the key OFF. Wait at least 10 seconds and switch key ON again.

Repeat the operation (key OFF, 10 seconds, key ON) another time.



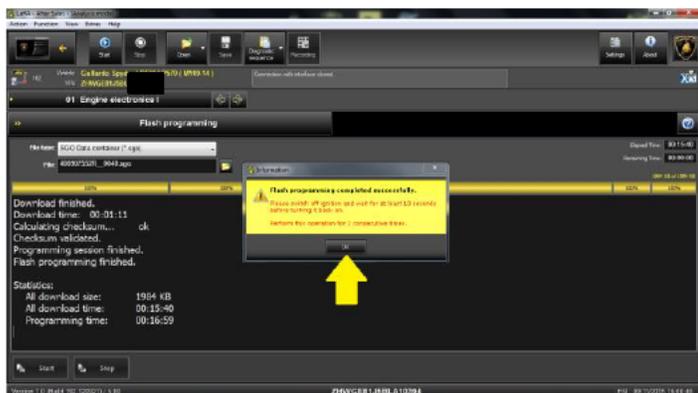
IMPORTANT!

Please perform both key cycles and the 10 seconds wait. An incorrect execution of the procedure might result in an incomplete software update.



Remark:

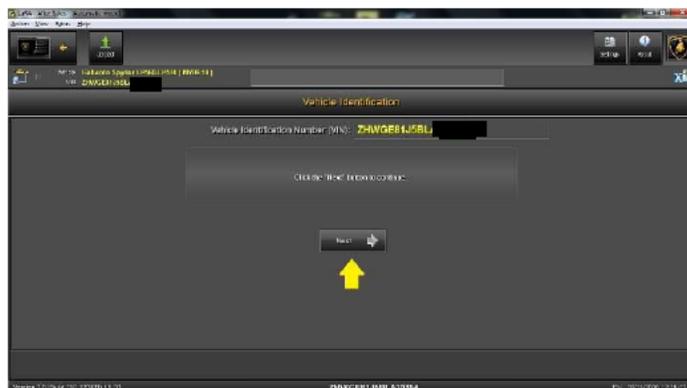
In case of incomplete or unsuccessful update programming switch the ignition OFF, then wait one minute before switching it back ON again and repeat the procedure from step 23



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



32. Click “Next”.



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





34. Wait until all the errors in the vehicle ECUs are erased.



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



36. Perform the following “Basic settings” in “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).

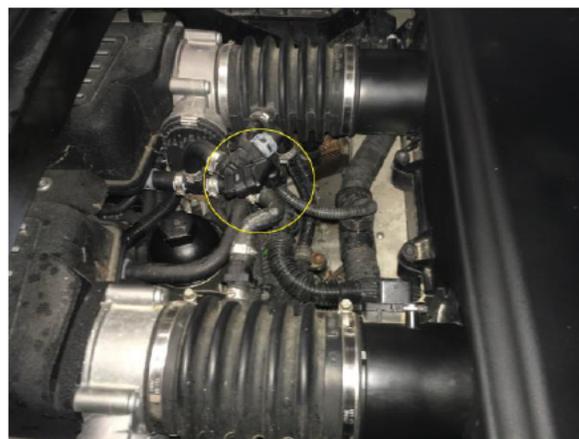
37. Before going on with the next step, check that the software code displayed on your notebook screen matches with those reported in the table below, and its version is **0040**.

	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 / Gallardo Performante
 2WD= Gallardo Coupè or Spyder two Wheel Drive.

Check after update

38. Bring the key in the ON position and disconnect the mass flow sensor’s connector of the left bank.



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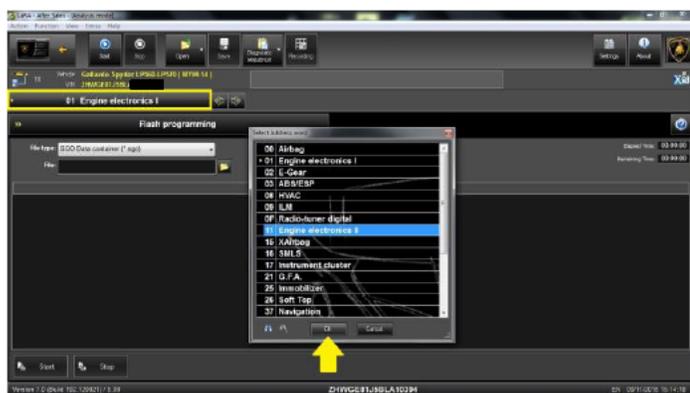
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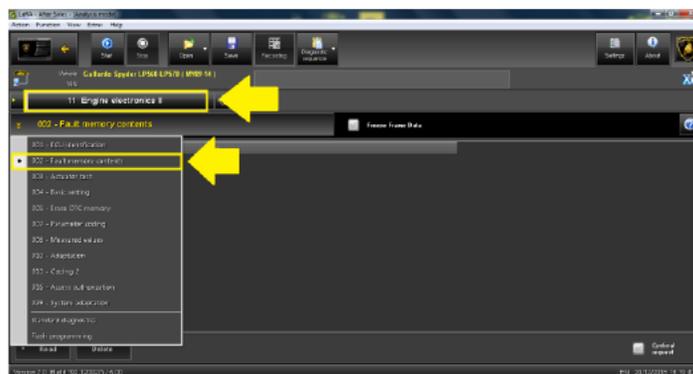
39. Return in the “Analysis mode”



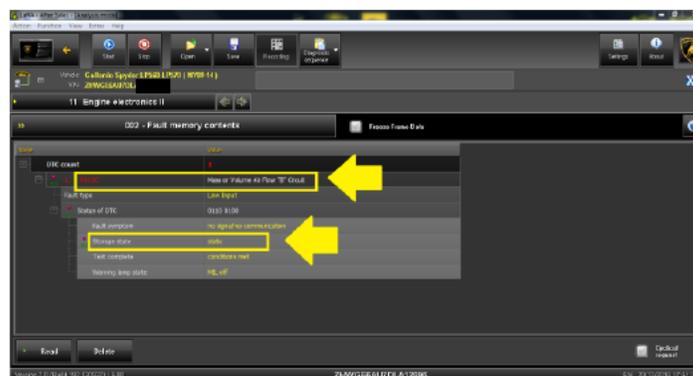
40. Click on the bar on the ECU's top right corner and select “Engine electronics II” from the list. Confirm it by clicking on “OK” as shown in the figure.



41. Select “002 – Fault memory contents” from the function list as shown in the picture.



42. Click on the “Start” and verify that it is memorised the fault code “P010C” in the “static” state, as shown in the figure.



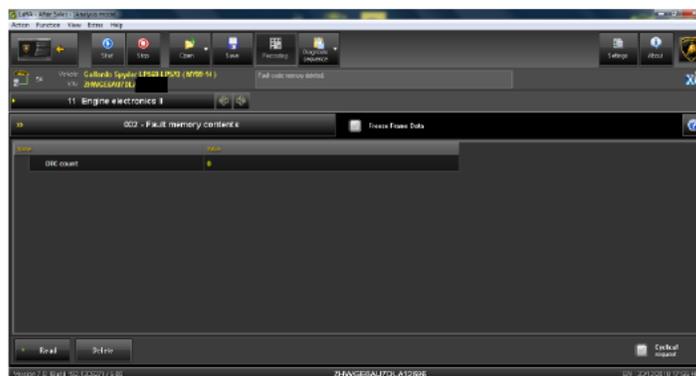
43. Bring the key in the off position.



44. Reconnect the Air flow meter.

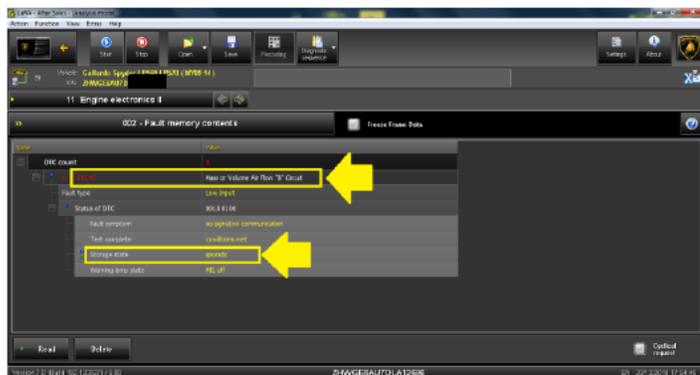


48. Verify that the fault code “P010C” does not appear in the list, as shown in the figure.

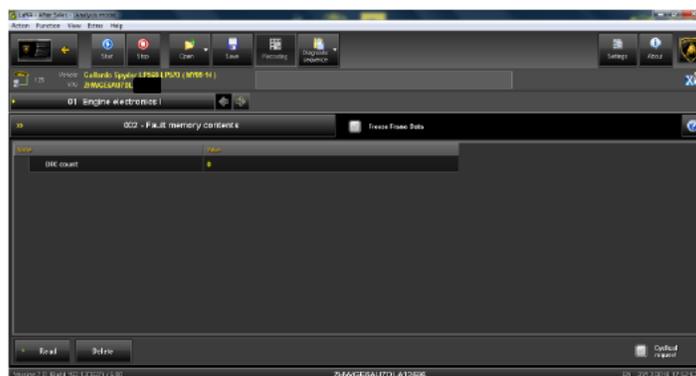


45. Bring the key in the ON position.

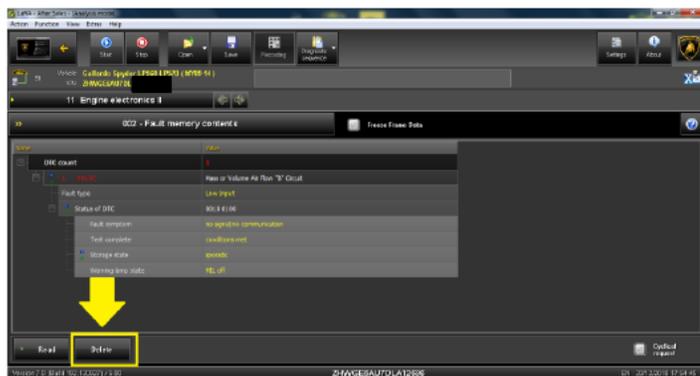
46. Click on the “Start” and verify that the fault code “P010C” has the “sporadic” state, as shown in the figure.



49. Check that no error code is saved in the “01 Engine electronics I” control unit, as shown in the figure.



47. Click on the “Delete”, as shown in the figure.





Prova su strada

50. Test the car for 20 minutes respecting the following conditions:

- extra-urban roads (if possible);
- high load acceleration phases;
- Release phases;
- Engine speed 2000.....3000 rpm.

If the engine management warning light (EPC) does not light up, no further operation is required, the product must be considered complete.



IMPORTANT!

If the engine management warning light comes on and the warning "**P310A-low fuel pressure setting has been stored, the fuel pressure fluctuates in the data memory**". The high pressure pumps must be replaced; proceed to the next step

Road test

51. 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..



IMPORTANT!

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 .

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.

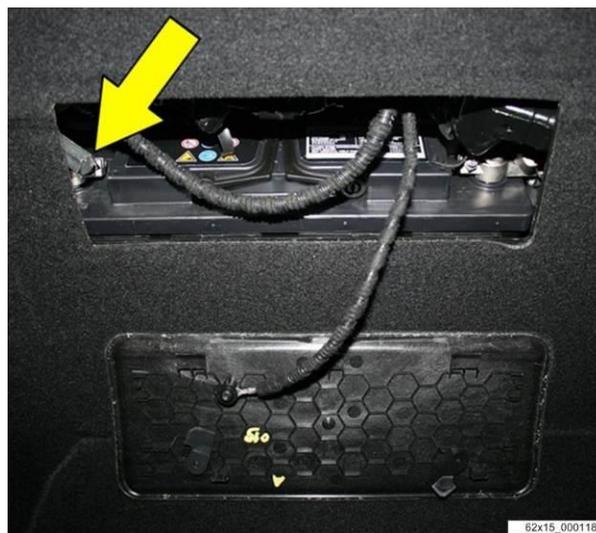
52. Open the trunk and remove the Battery inspection lid.

Disconnect the battery terminal clamp from the negative post.



IMPORTANT!

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



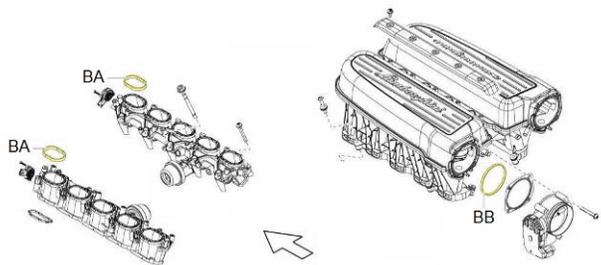


53. Take apart the intake manifold following the instructions detailed in the workshop manual posted on the Dealer Portal.

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.	Description
BA	Seal ring
BB	Seal ring



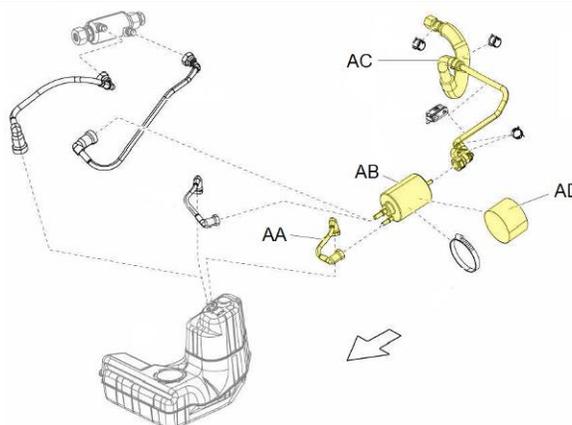
54. Dismantle the fuel filter and low pressure lines following scrupulously the instructions detailed in the Workshop Manual available on the Portal.

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:

COUPE'

Ref.	Description
AA	Pipe _ Before
AB	Fuel Filter
AC	Pipe
AD	Pipe

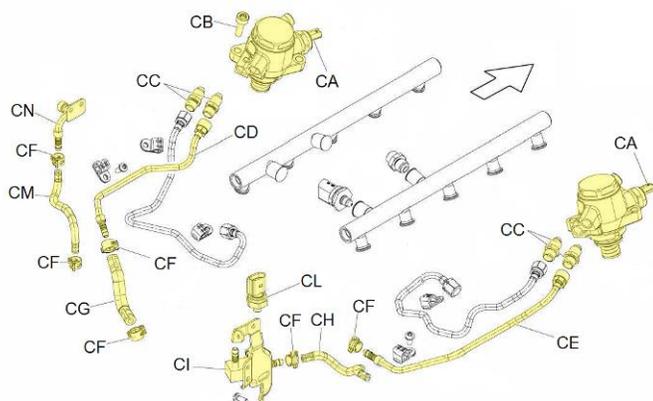


55. Disassemble the feeding pipes and the high pressure pumps following scrupulously the instructions reported in the Workshop Manual.

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:

56. 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.

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

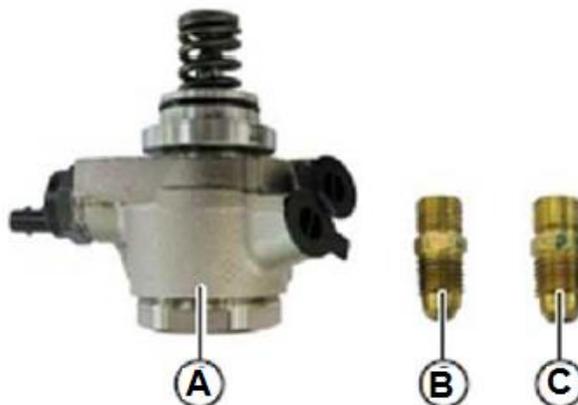
Screw the new union to the pumps without tightening.



Remark:

Always Replace the union after every disassembly.

Use always new components. The Reemployment of used parts may cause damages to the vehicles.



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

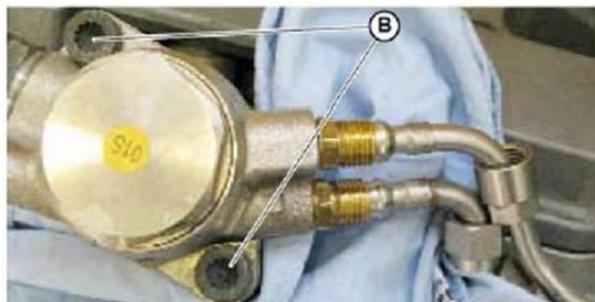


59. Install the pump and fasten them with the supplied screws (B). Alternate to each fasteners 2 turns of screws making the pumps perfectly adhere to their lodge.

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

Screw tightening.

Torque: 22Nm.





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

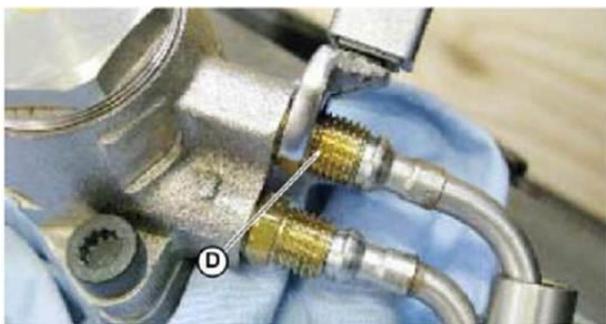
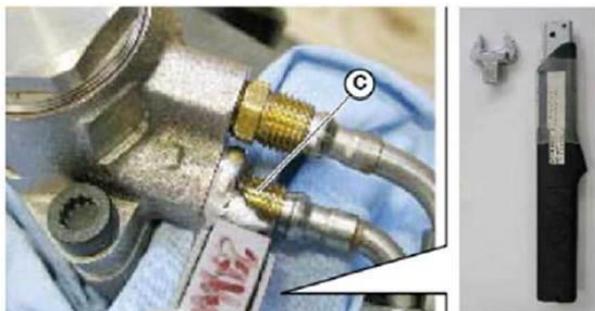
Union (C,D) tightening.

Torque: **35Nm**.



Remark:

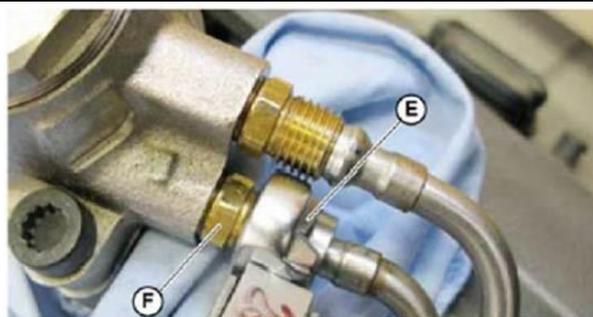
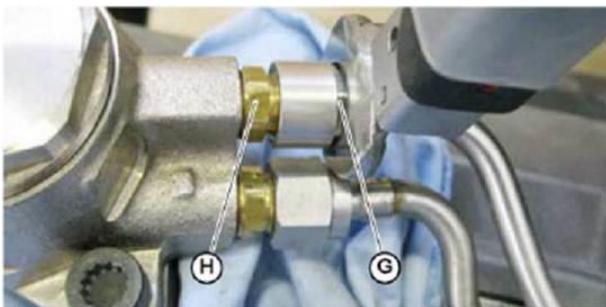
Perform the tightening before fitting the steel tubes.



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

Junction tightening (H,F).

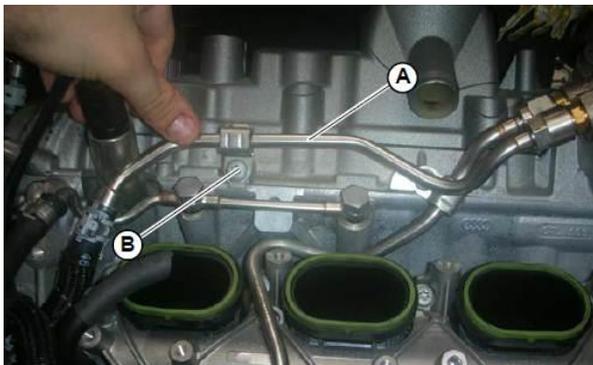
Torque : **25Nm**.



62. 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°**





63. 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**.

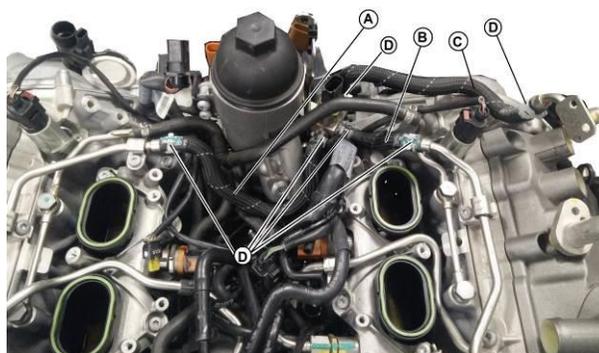


64. Install the feed rubber hoses (A,B,C). fasten the lines with the supplied clamps (D).



Remark:

Replace the clamps at every dismantlement.



65. Fasten to the engine the feed lines which were previously installed at step 56 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:

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

Manual Index .

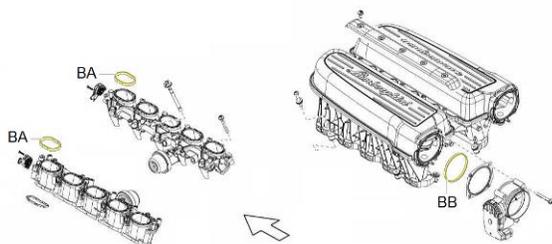
Air intake Manifold – 05 Assembly

Main group: 01 Engine

Subgroup: 29 Air intake manifold

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

Ref..	Desc.
BA	Seal ring
BB	Seal Ring

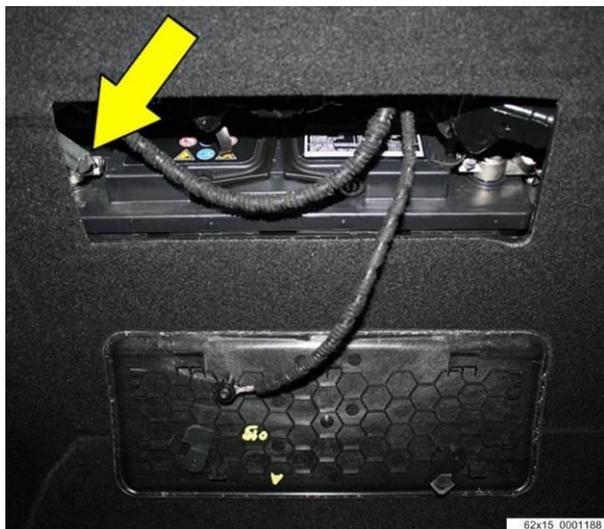


67. Access to the trunk and connect again the battery clamp to the negative post:

Clamp nut Tightening.

Torque: 5Nm.

Refit the battery inspection lid.

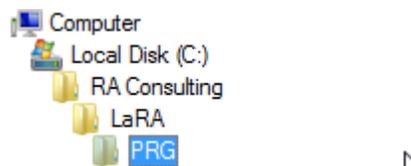


Troubleshooting:

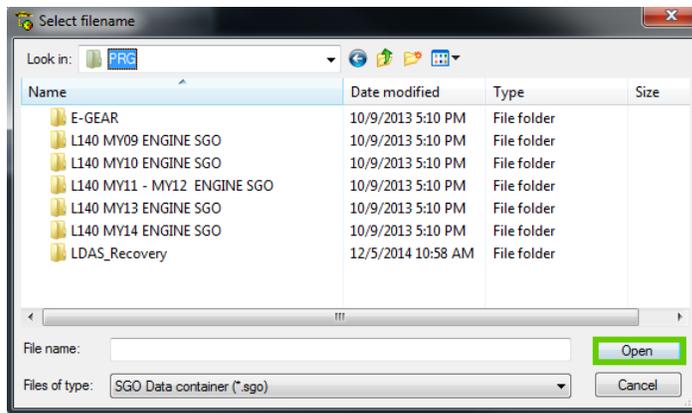
68. If no file is present in the default folder identified by the vehicle VIN:



it is necessary to select a different path (C:\RA Consulting\LaRA\PRG)



69. In the following dialogue box select the row which corresponds with the vehicle model year (e.g. if the vehicle is a model year 11, select L140 MY11 - MY12 ENGINE SGO) and click “Open”.

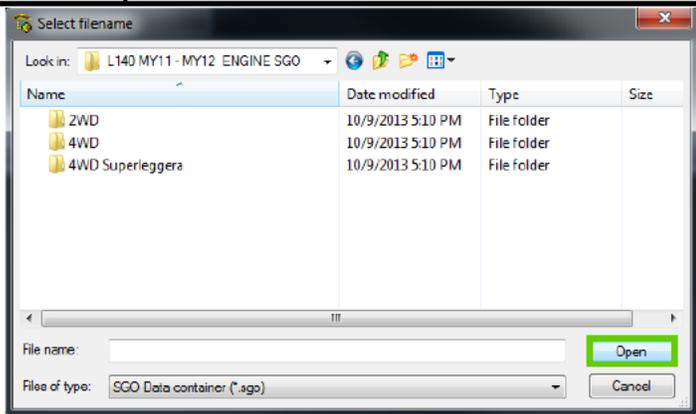


70. In the next dialogue box select the row which corresponds with the vehicle model type (e.g. if the vehicle is a Superleggera, select “4WD Superleggera”) and click “Open”.

4WD= Gallardo Coupè or Spyder four Wheel Drive

4WD SL= Gallardo Super Leggera / Gallardo Performante

2WD= Gallardo Coupè or Spyder two Wheel Drive

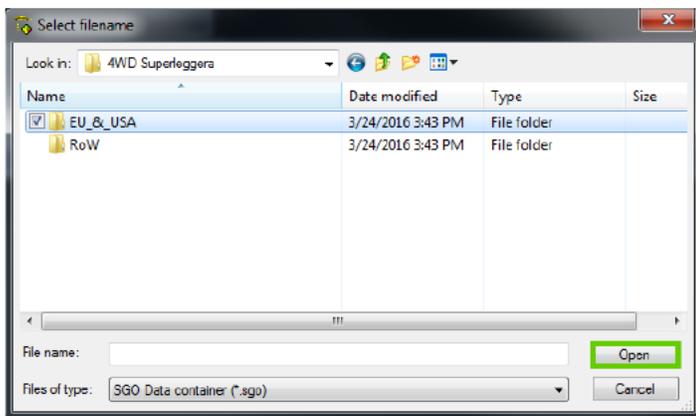
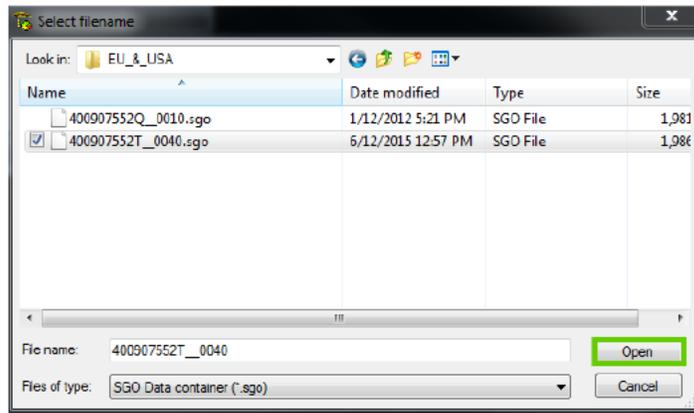


EU= Europe
 US=United States of America
 CH=China
 ROW= Rest Of the World
 4WD= Gallardo Coupè or Spyder four Wheel Drive
 4WD SL= Gallardo Super Leggera / Gallardo Performante
 2WD= Gallardo Coupè or Spyder two Wheel Drive.

(e.g. the correct software for a MY11 “Superleggera”, for European market is 400907552T, version: 0040)

Click “Open”.

71. Then select the correct market (e.g. for a European market vehicle select “EU_&_USA”) and click “Open” again.



73. At this point the SGO file is correctly selected and it is possible to proceed with the installation following step **Error! Reference source not found.** and **Error! Reference source not found.** of this bulletin.



IMPORTANT.

For China market vehicles select “EU_&_USA”.

72. Select the correct SGO file with the following table:

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

