Performance-kit B40S-550 for W463-G500 from my 2019, article-no. 464-B40-550-XXX



Installation guide

The product described in the instructions was developed, produced and checked considering the necessary safety requirements.
In order to ensure a proper and safe function and to rule out danger for persons and objects, this product must be installed appropriately.
Only trained, qualified staff, having the necessary technical experience and tools, should perform the installation.
Therefore you have to read and completely understand these instructions.
Before you start please check the content of the supplied parts as detailed below.

Included in delivery:

1x	000-CGI-02	Control unit Power Xtra S
1x	464-740-05-K	Wiring harnesst G500
1x	211-000-14	BRABUS typing
1x	000-000-30	Set of letterings "Powered by BRABUS"
4x	A0009905510	Screw
2x	A1770960100	Cover plate
2x	A1771420480	Metal sealing
6x	A1199970045	Sealing ring
2x	A2781810680	Metal sealing
4x	A0159978345	Sealing ring
1x	A0169971745	Sealing ring
11x	A0279970645	sealing ring
1x	A0049970190	Clamp
2x	A2048170915	Type badge
1x	N000000001145	Screw
1x	A1770960002	Housing cover
2x	177-740-500	Turbo charger M177

Attention:

The assembly of the performance-kit, especially the assembly of the Brabus special - turbochargers, must be performed by an authorized Mercedes-Benz workshop which is equipped with the special tools and diagnosis tools required.

The replacement of the turbochargers is to be performed strictly according to Mercedes-Benz workshop instructions! For adjustment of the wastegate valves please regard to instructions on page 4.

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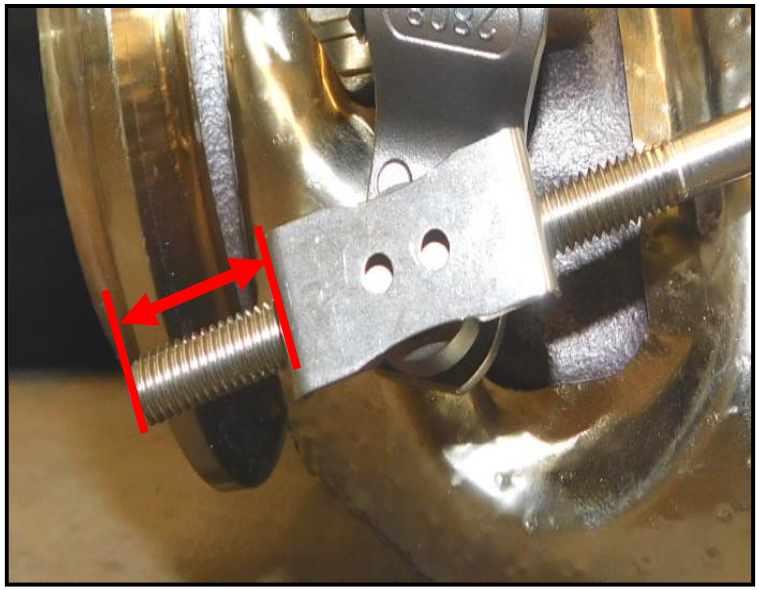
Assembly order:

1. **Assembly of special turbochargers**
   (According to Mercedes-Benz Workshop information system, documents ar09.40-p-6026xga & ar09.40-p-6027xga)

2. **Assembly of electronic control unit**

Attention:

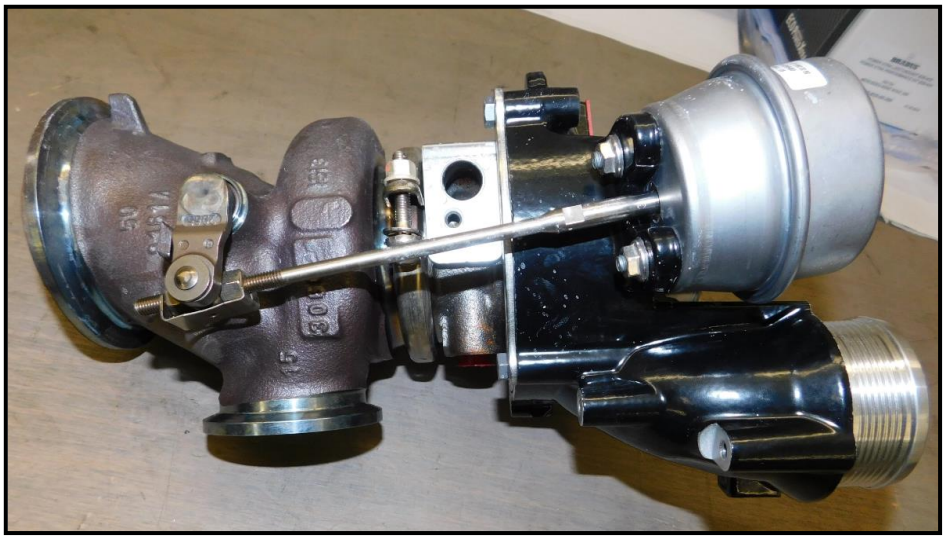
Prior to disassembling the wastegate pressure boxes which are not to be shipped to Brabus measure the rod lenght of the threaded rod and write down the values. You will need it for the assembly on the new turbochargers.

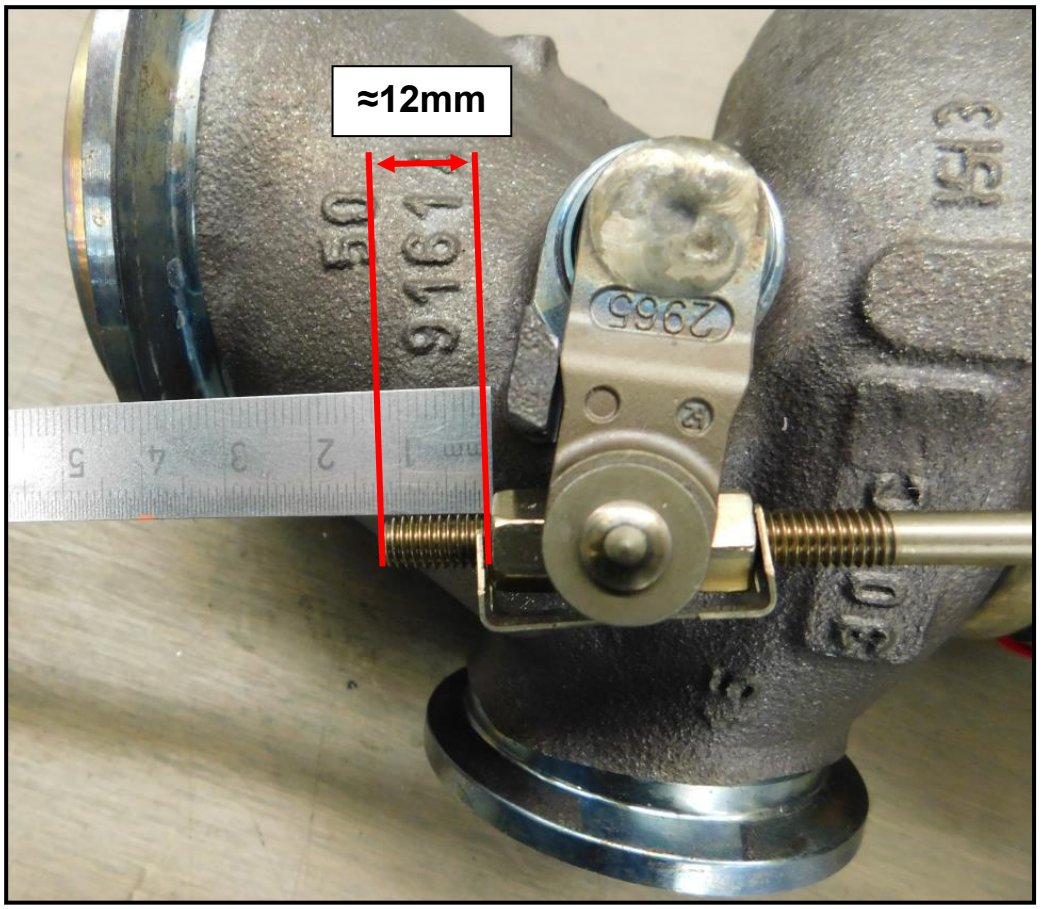


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Wastegate valve adjustment:

Assemble the wastegate valves and their rods and pre-adjust the rod according to illustration below. The threade rod must protrude approximately 12mm. After pre-adjustment carefully re-attach the locking springs!

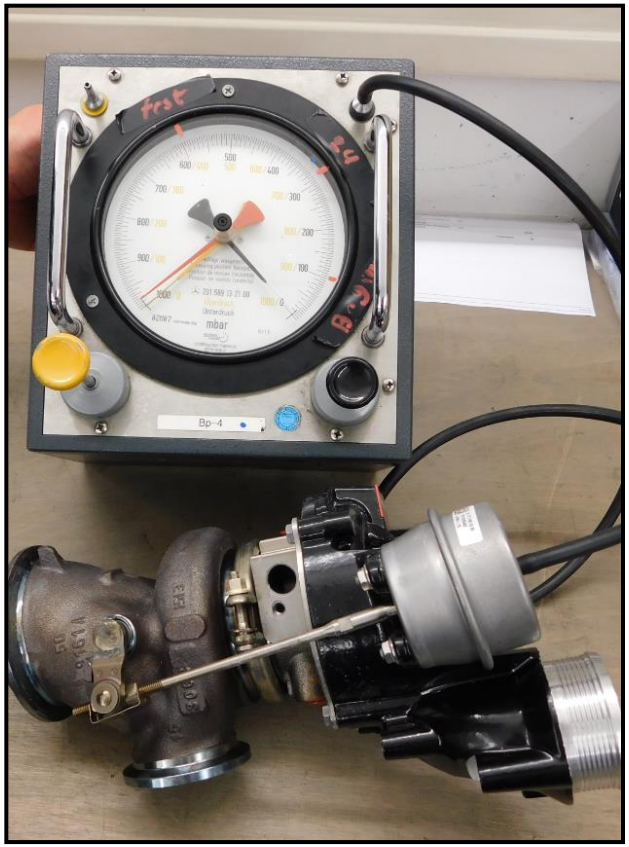




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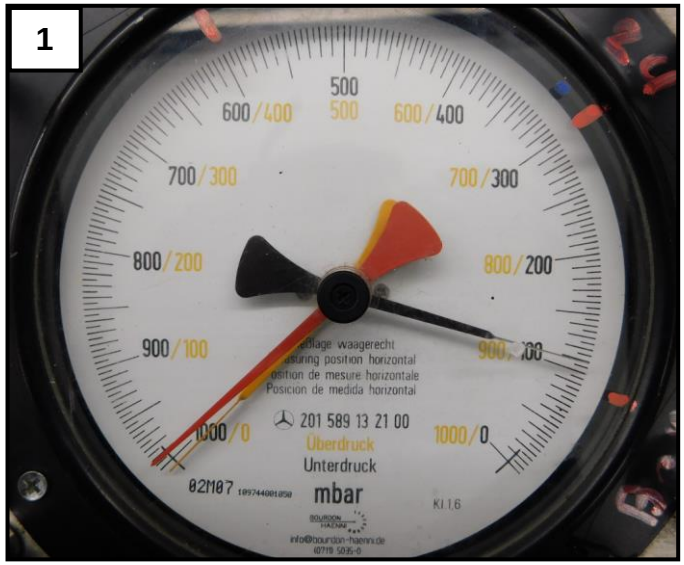
Apply pressure to the wastegate valves in three steps and check the wastegate valve position:

- **≈100mb (1,45psi) – Valve starts to move**
- **≈300mb (4,35psi) – Valve nearly closed but still can be slightly moved**
- **≈600mb (8,7psi) – Valve firmly closed**

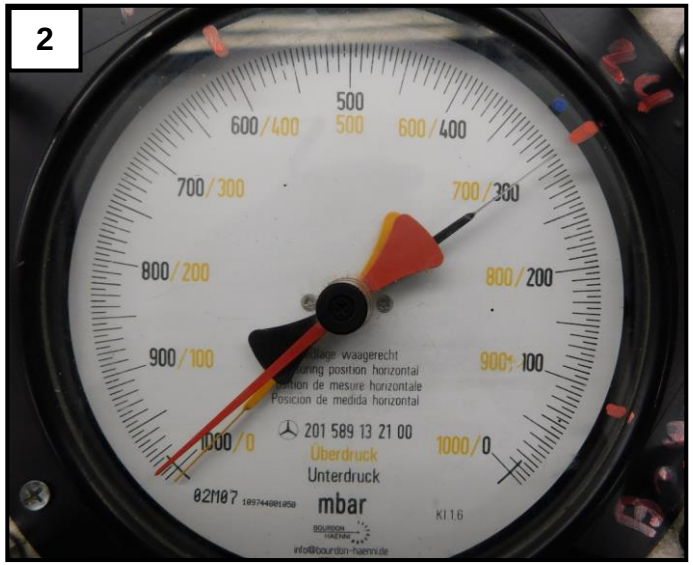


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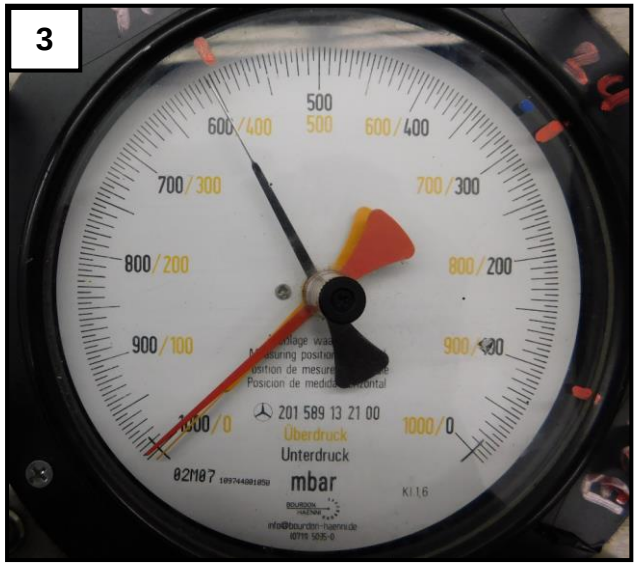
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2



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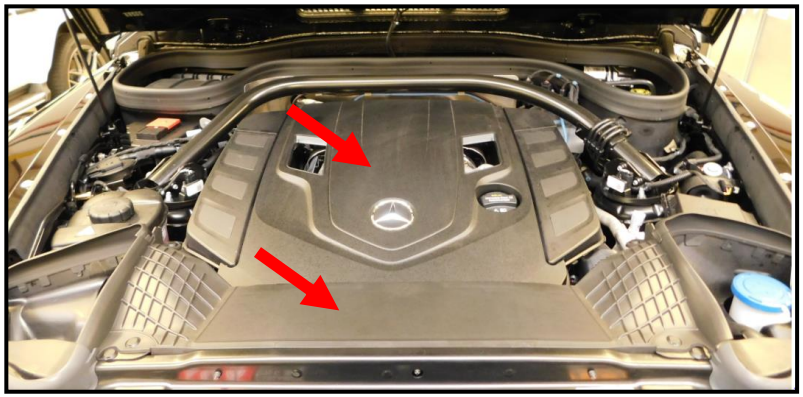


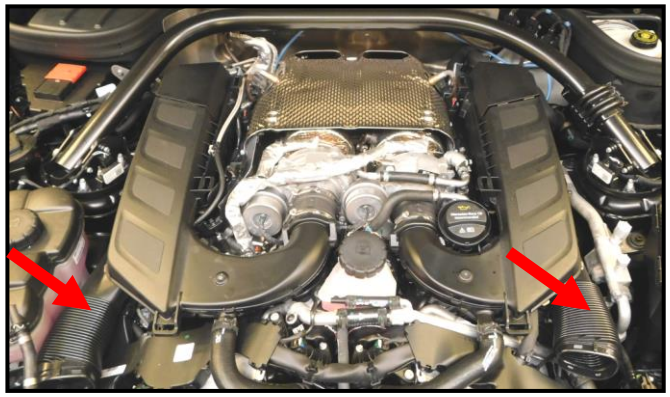
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Preparations:

- Disconnect the ground wire from the vehicle battery below the flooring within the boot compartment. Loosen the drawbar eyes to be able to access the vehicle battery.

- Open the bonnet, remove the plastic engine covers and the left and right air ducts.

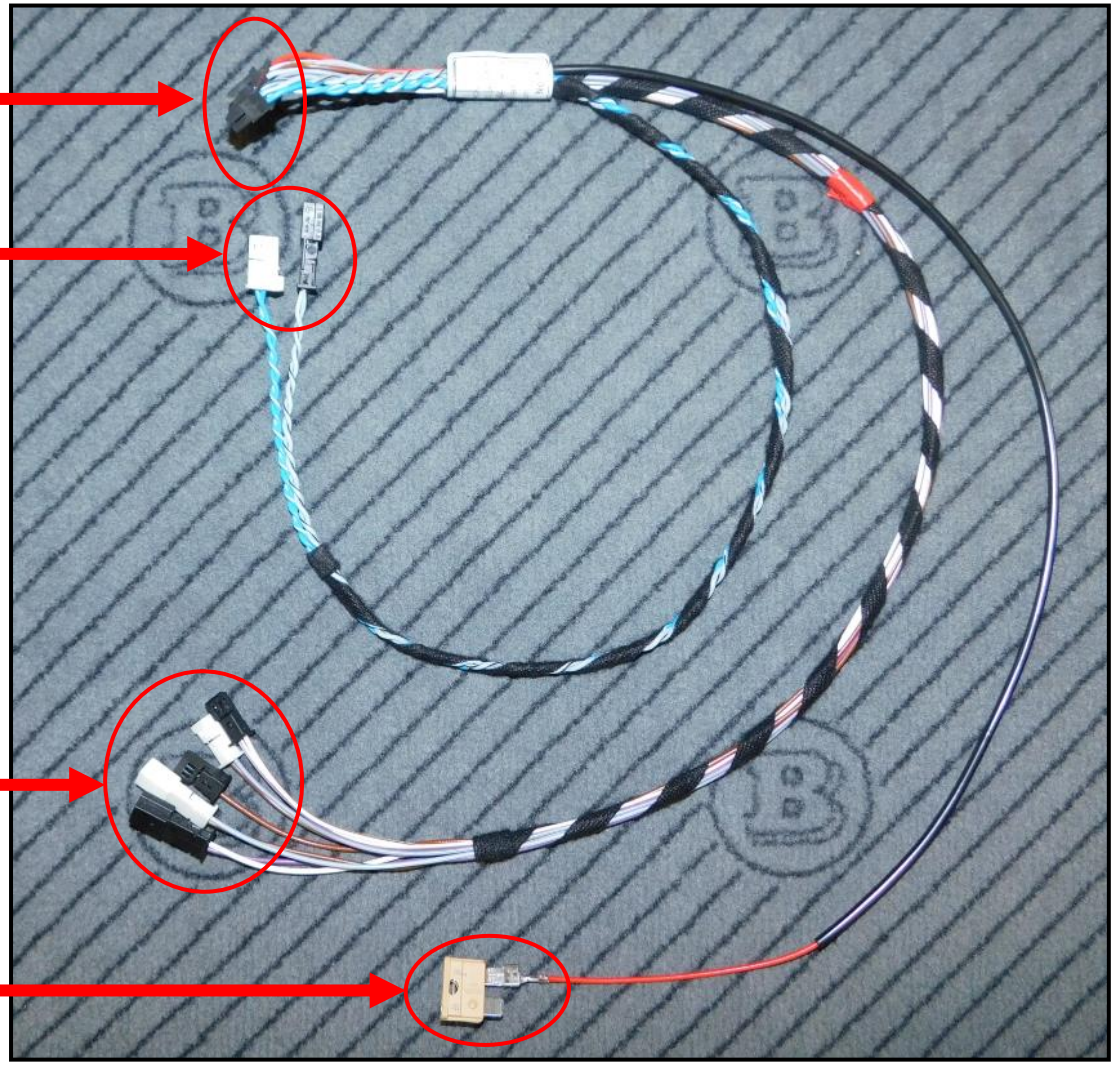




- Disassemble the driver's side plastic entrance trim according to Mercedes-Benz workshop instructions.

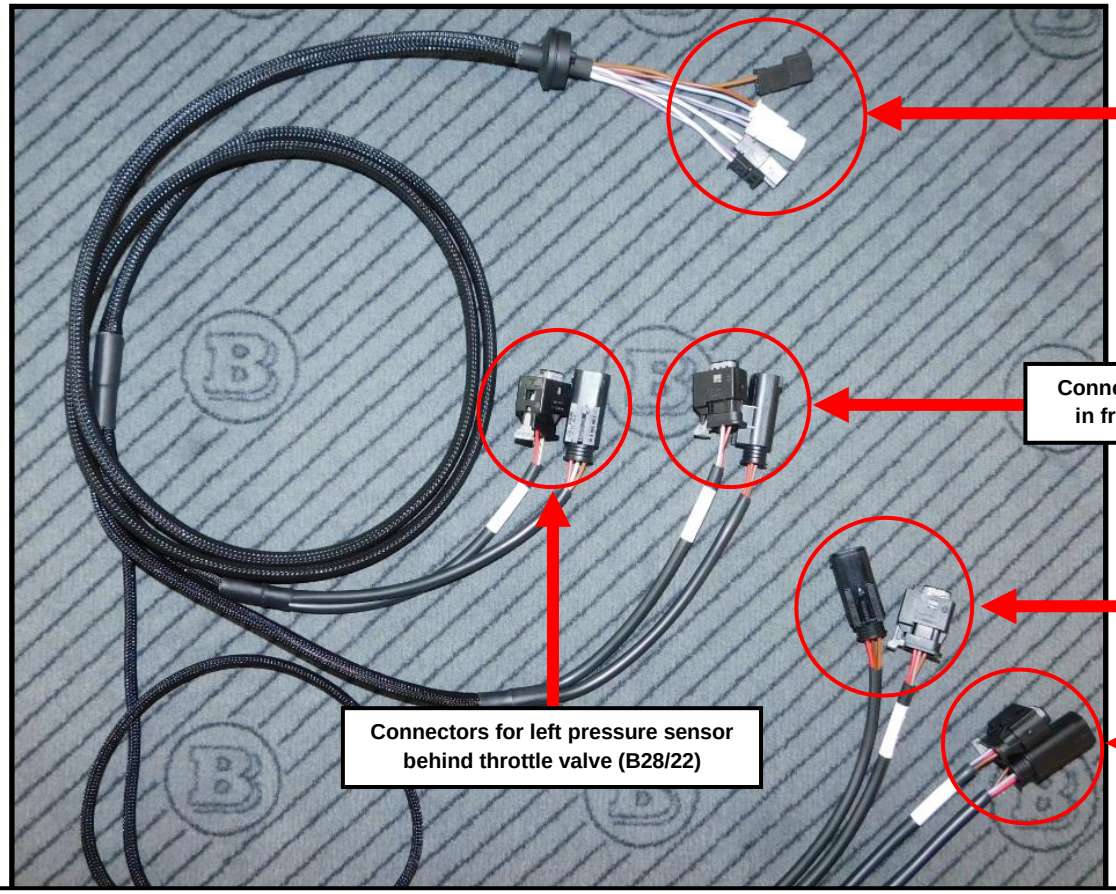
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Electrical connections overview of interior wiring harness:



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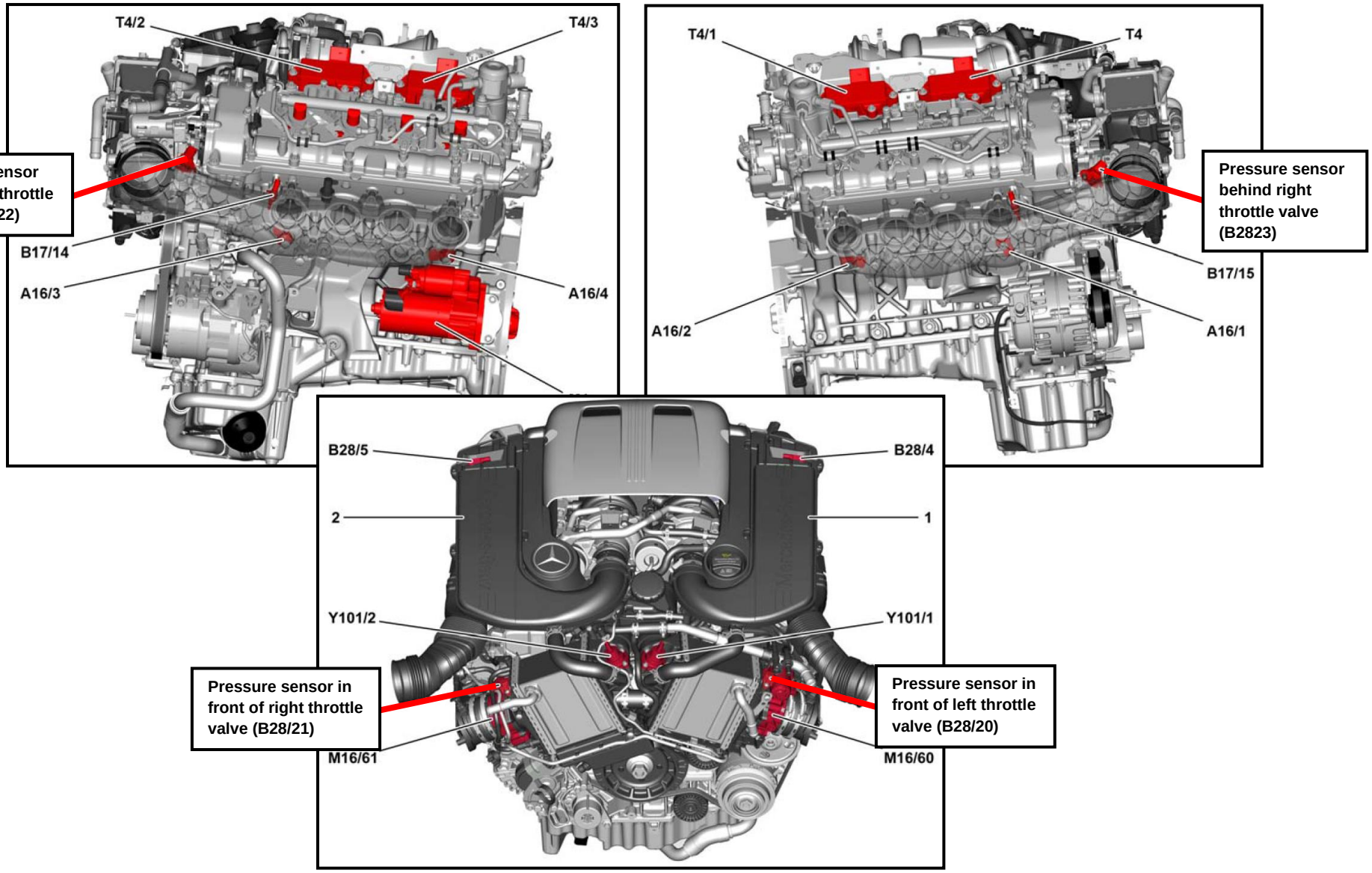
Electrical connections overview of engine bay wiring harness:



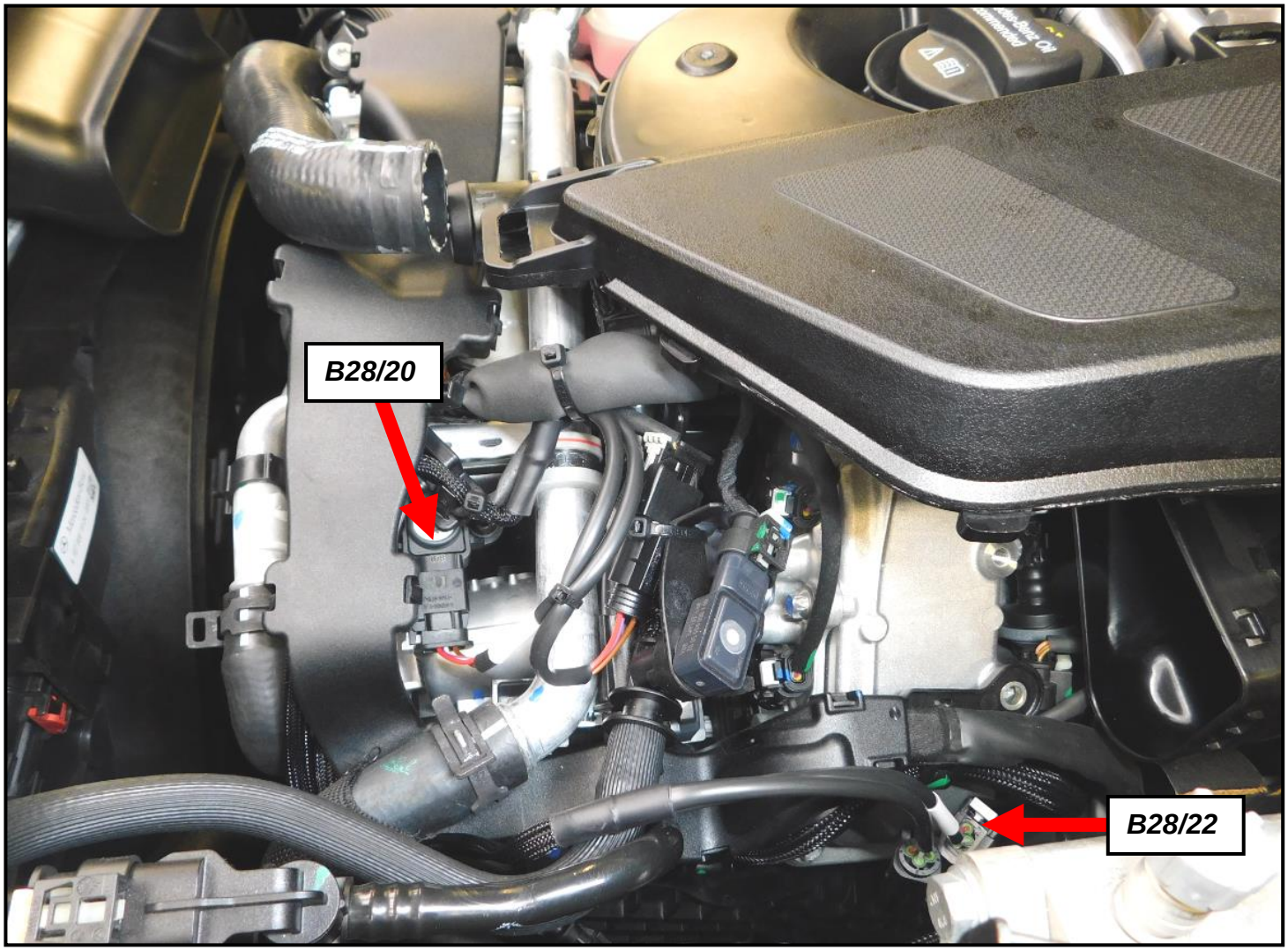
Attention: ***The standard sensors the Brabus wiring harness needs to be connected to are difficult to access. It may help to remove further plastic trims in order to be able to connect the wiring harness to the sensors.***

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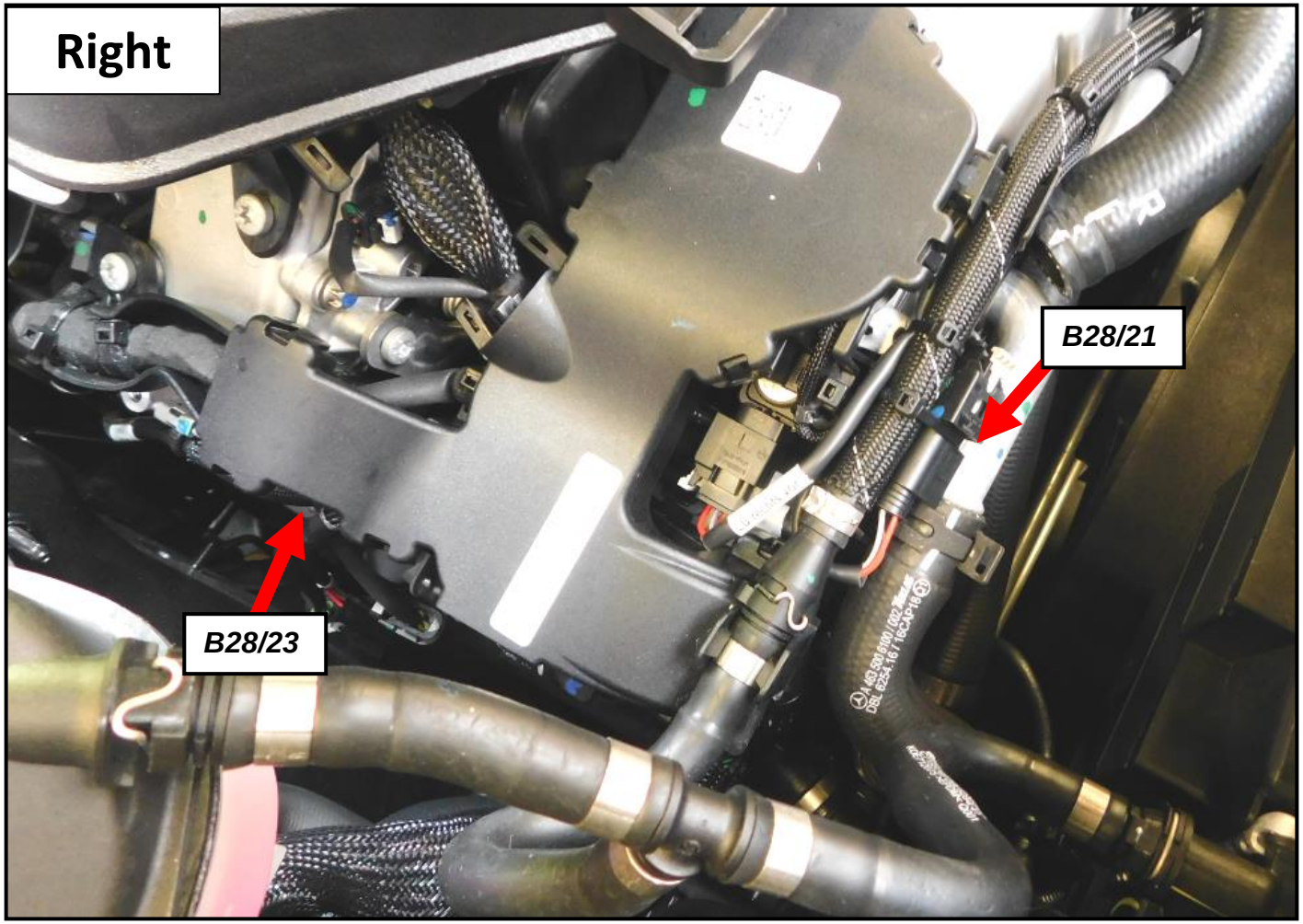
Positions of standard sensors the Brabus harness is connected to



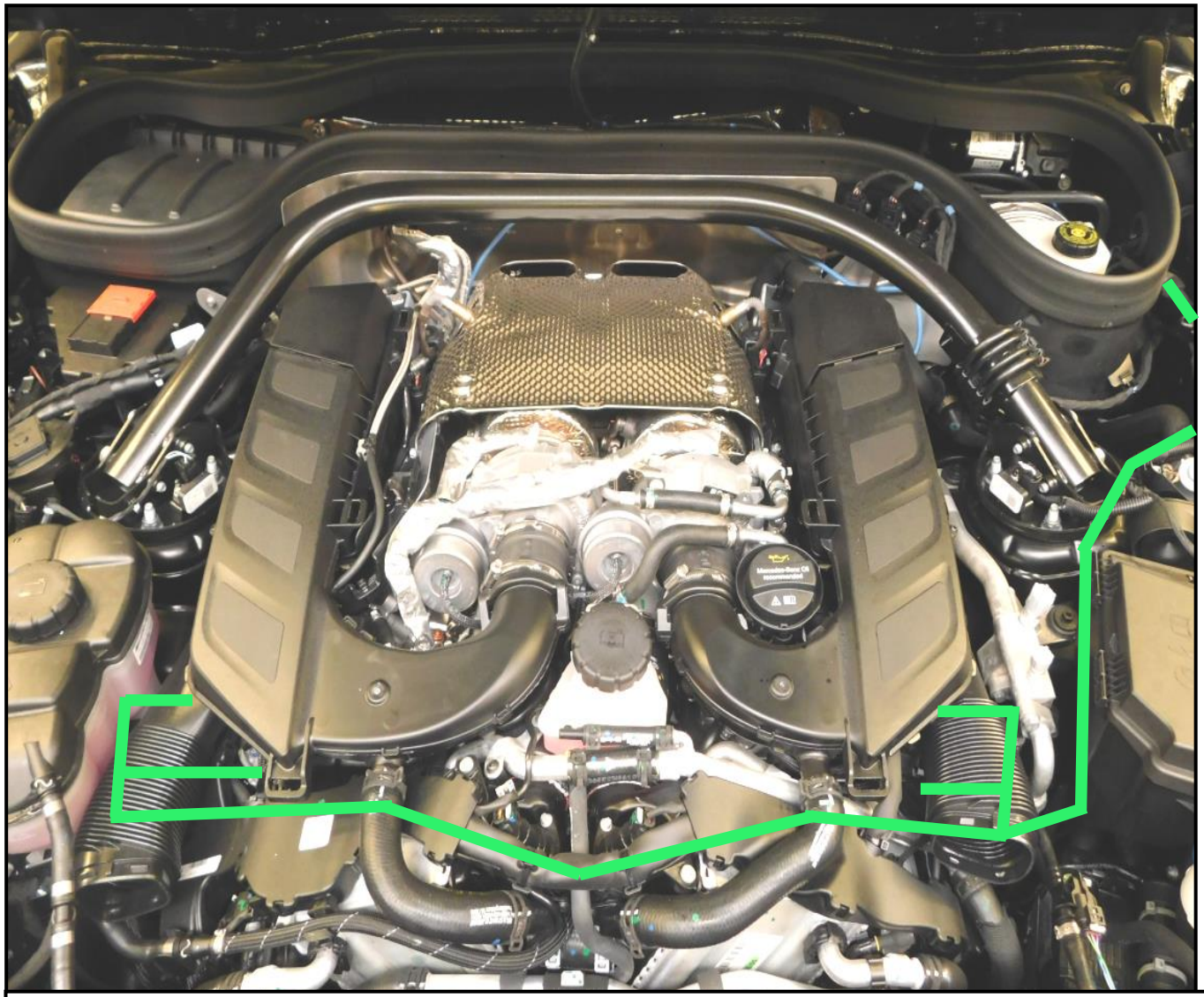
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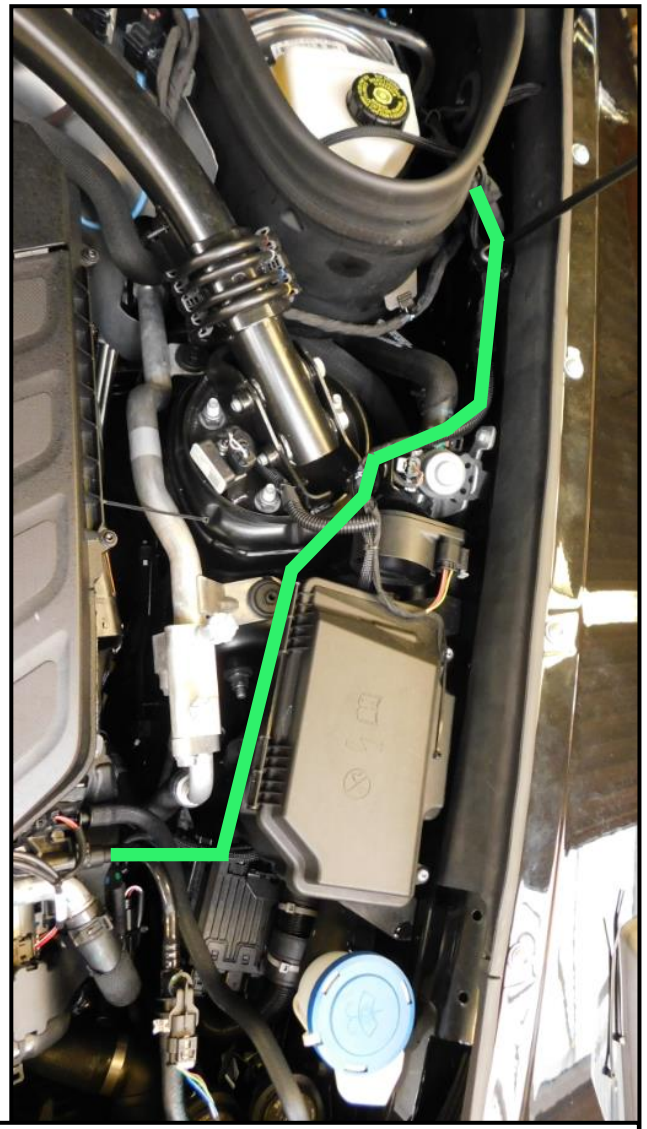


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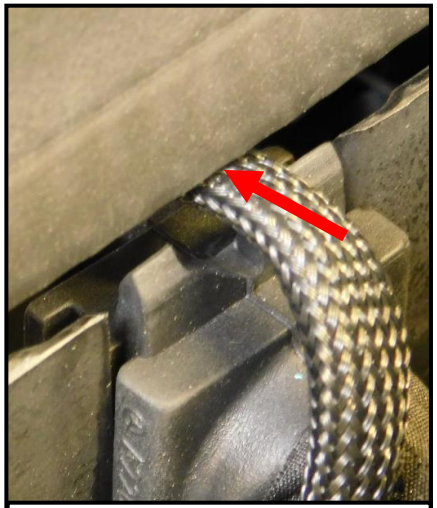
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Route the wiring harness according to illustration below and attach to standard engine wirings using cable ties.
Attach plugs of Brabus wiring harness to sensors and standard sensor plugs to sockets of Brabus wiring harness.

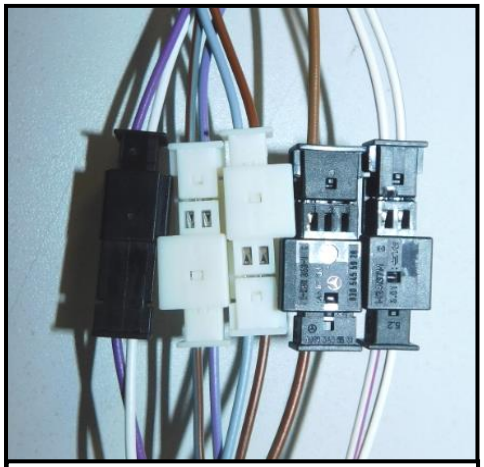
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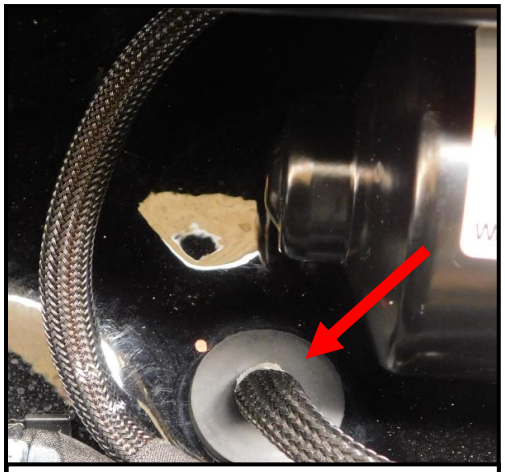
Route wiring harness above rubber grommet into vehicle (cut grommet).



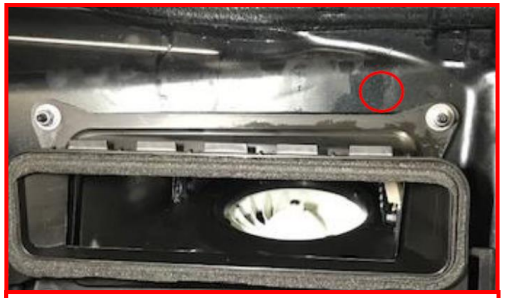
Remove rubber plug shown.



Connect engine bay harness to interior harness (connections cannot be interchanged).



Route wiring harness through hole into the vehicle, attach wiring harness rubber grommet to bulk head hole.



At right hand vehicles drill a hole (18mm) into the bulkhead according to image framed red using a suitable cone drill and route the wiring harness into the vehicle.

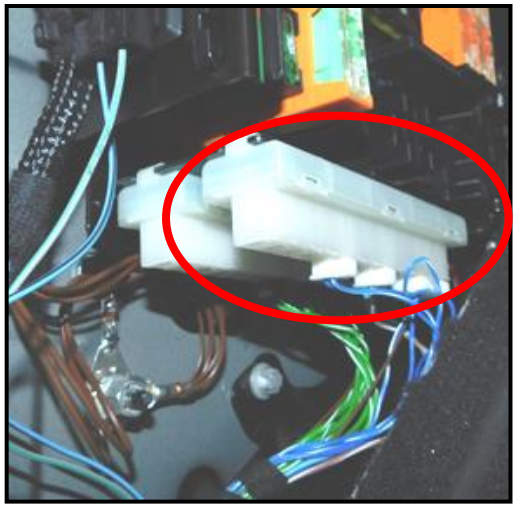


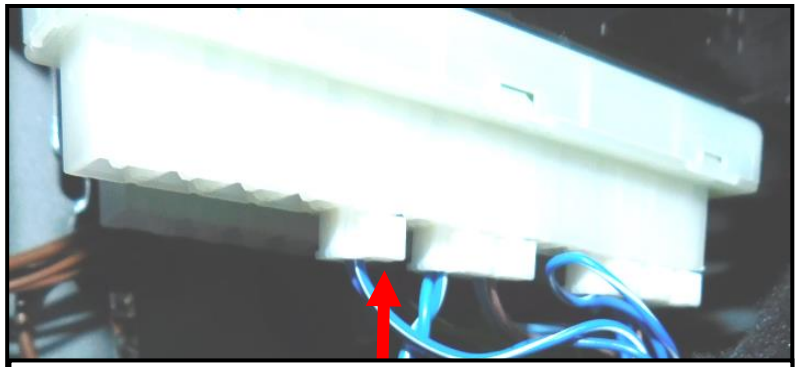
Route wiring harness to fuse and relay box K40/6 within left footwell.

Attention:

The wiring harness may definetely not touch the steering column or the pedalry and may not be routed along these components or be able to block their functions! Make sure for sufficient clearance!

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Attach CAN plug to free port of CAN distributor X30/21.

The plug connection with wire colors gy/ gy-bk is not used.



Loosen fuse and relay box driver side K40/6 according to WIS document AR54.15-P-0003XG and fold aside.



Attach power supply contact from behind to fuse port shown. Attach 5Amp fuse to fuse port.

Assemble all plastic trims and covers, check the wiring harness for proper routing.

Connect ground wire to vehicle battery. Check the fault store of the engine control unit and delete faults which might have occurred during installation. Start engine and perform a test-drive.

PowerXtra is ready to run after installation, there are no further adaptations/ adjustments to be performed.



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