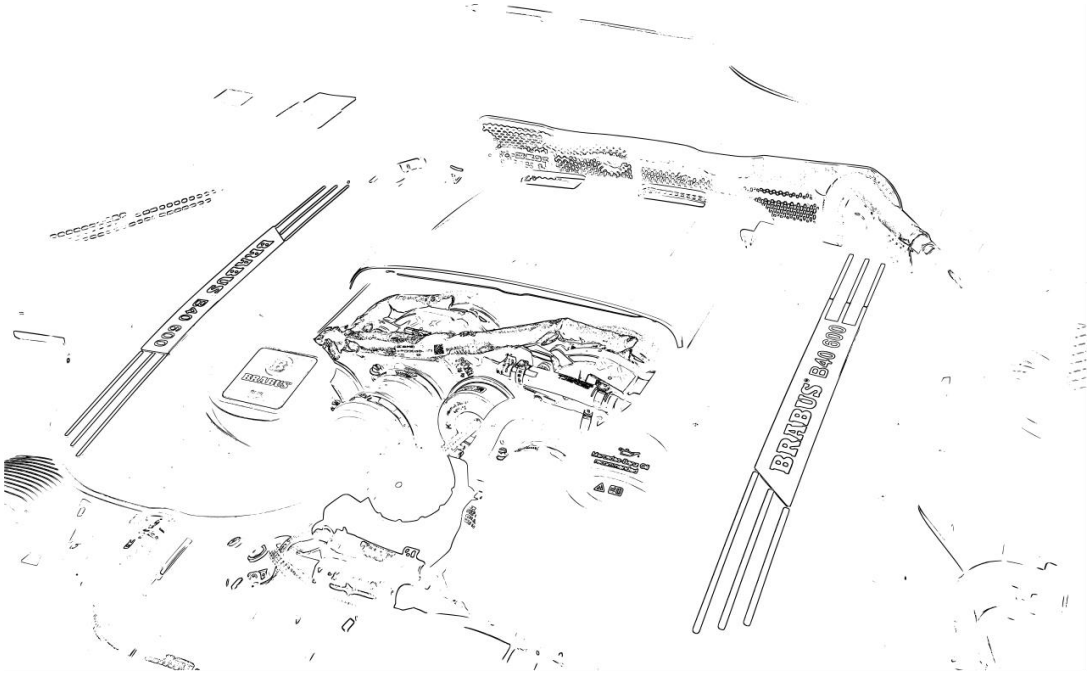
Performance kit B40S-550 for type W 463– G500

BRABUS®



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 make 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.

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 12.

Content of delivery:

Electrical components:

1x PowerXtra control unit	000-CGI-02
1x Wiring harness	463-740-05-K

Mechanical components:

2x Special-turbocharger M177 ATL	177-740-500
1x Heat shield	
1x Assembly material	

Typings and badges:

1x Brass badge 65 mm x 65 mm	000-658-82
2x Alloy bezel „B40-650“	463-B40S-100
1x Typing „Brabus“	211-000-14
1x Set of typings „powered by“	000-000-30
1x Adhesive kit	B28/008-00





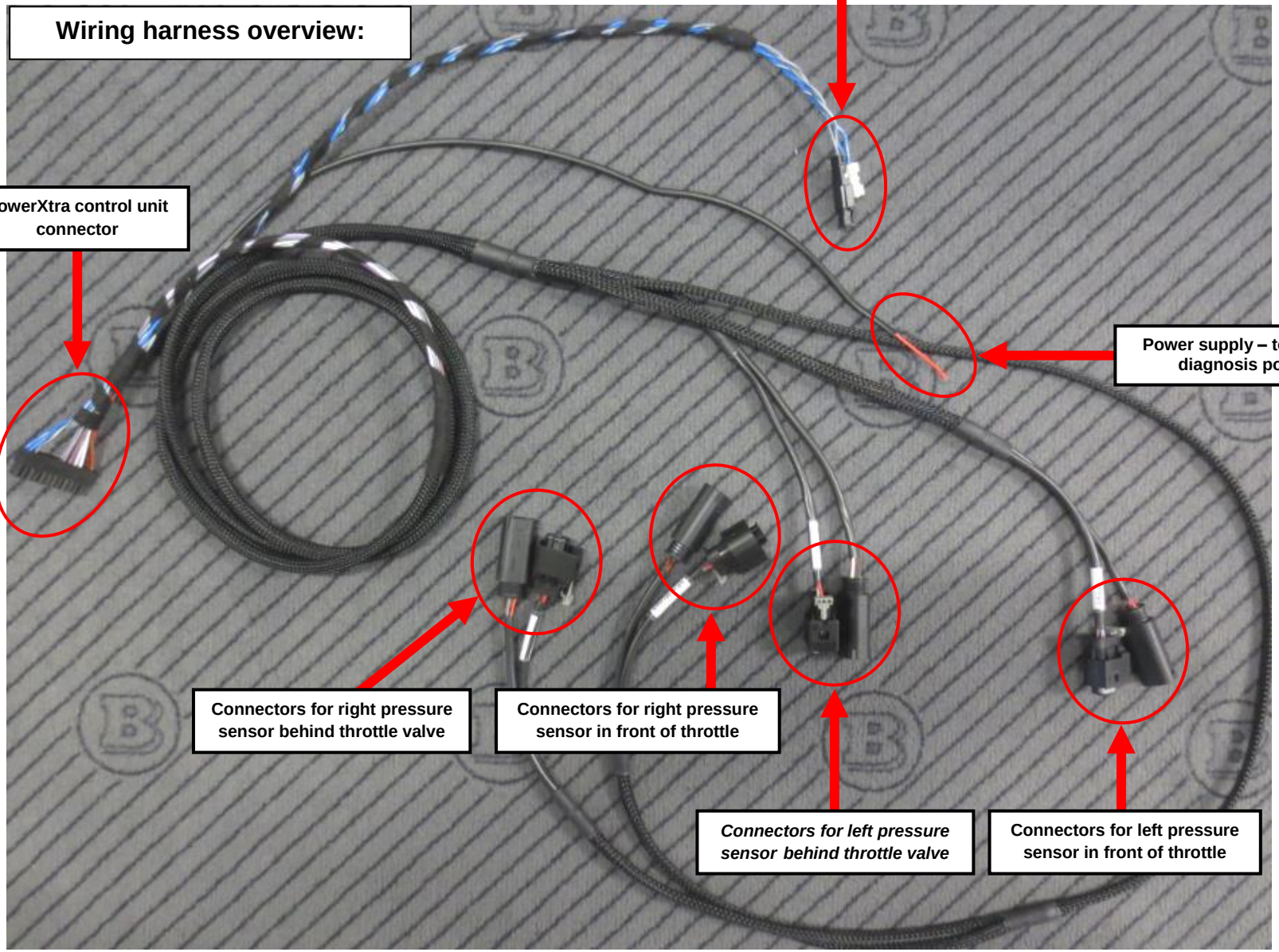
Illustration shows airfilter housings and trims painted signal-red, Mercedes-Benz colour code F568.

Assembly chronology:

1. Brabus special-turbocharger
2. PowerXtra electronical performance-kit unit
3. Typings and badges (after assembly of airfilters and trim parts)

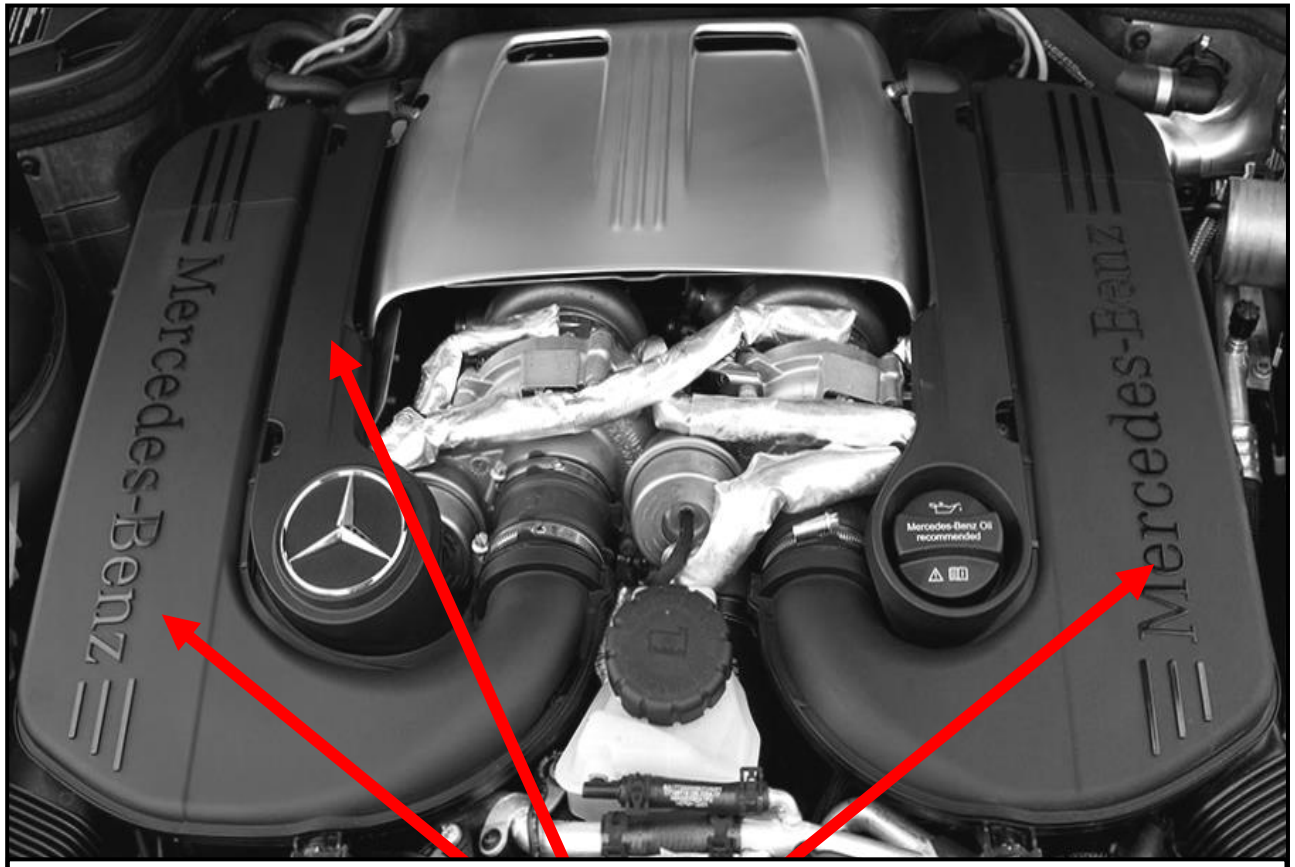
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Wiring harness overview:



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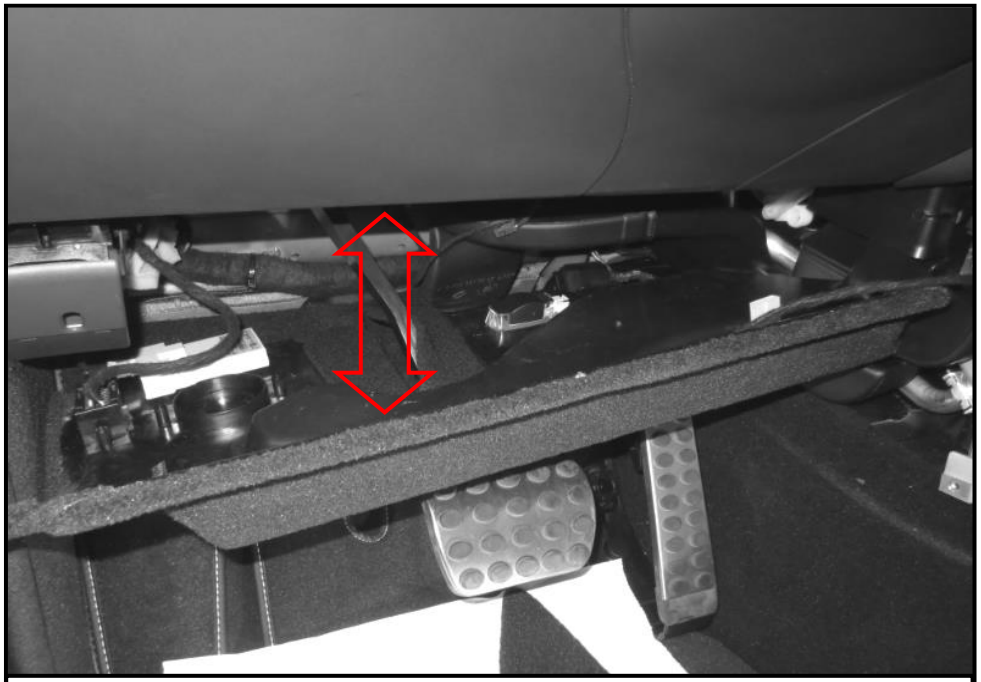
Preparation:



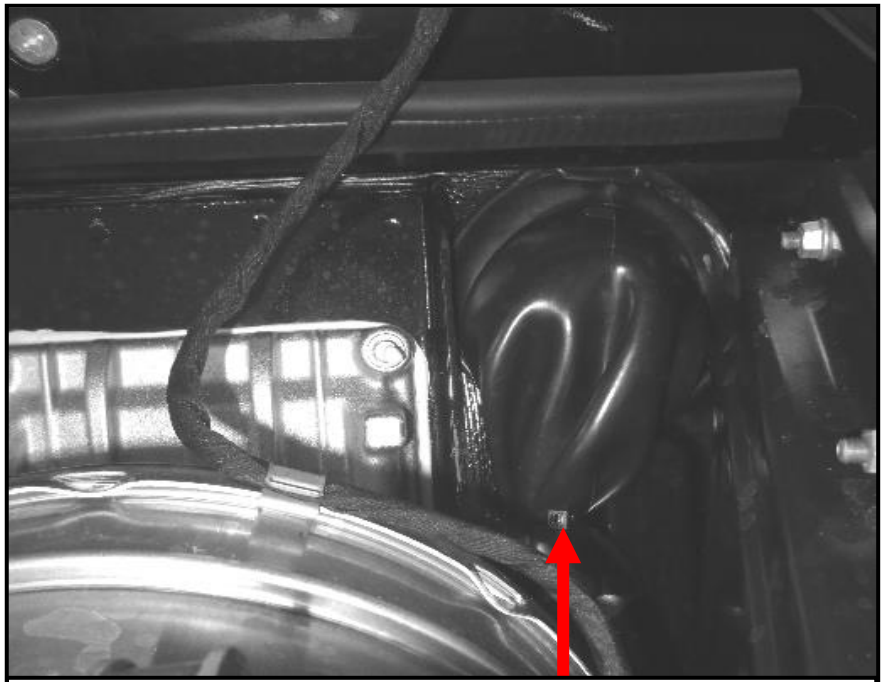
Remove engine plastic trims shown and both airfilters according to Mercedes-Benz workshop instructions.

Protect turbochargers agains dirt and foreign objects using appropriate measures!

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Loosen and fold down left lower dashboard cover.

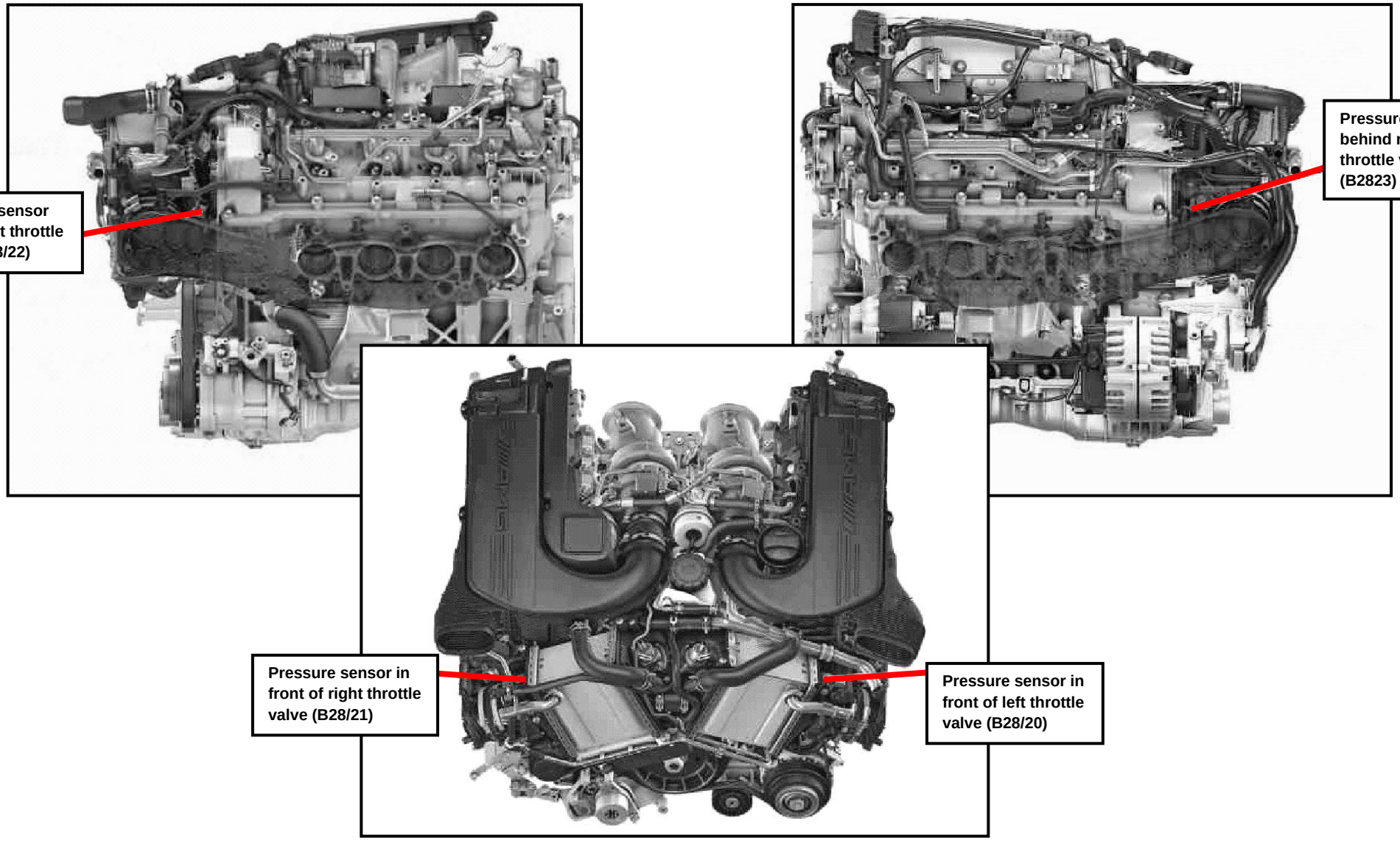


Remove cable tie at rubber grommet

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.***

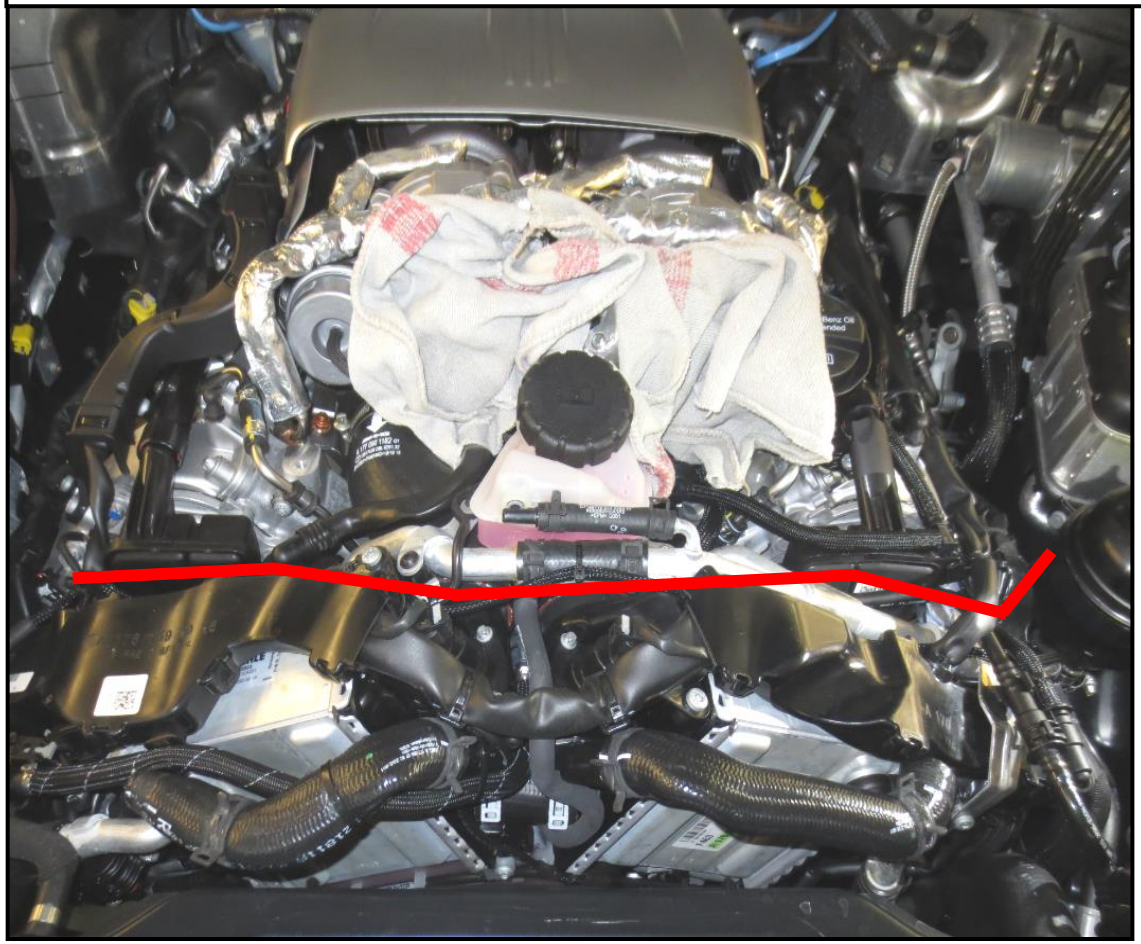
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Positions of standard sensors the Brabus harness gets connected to



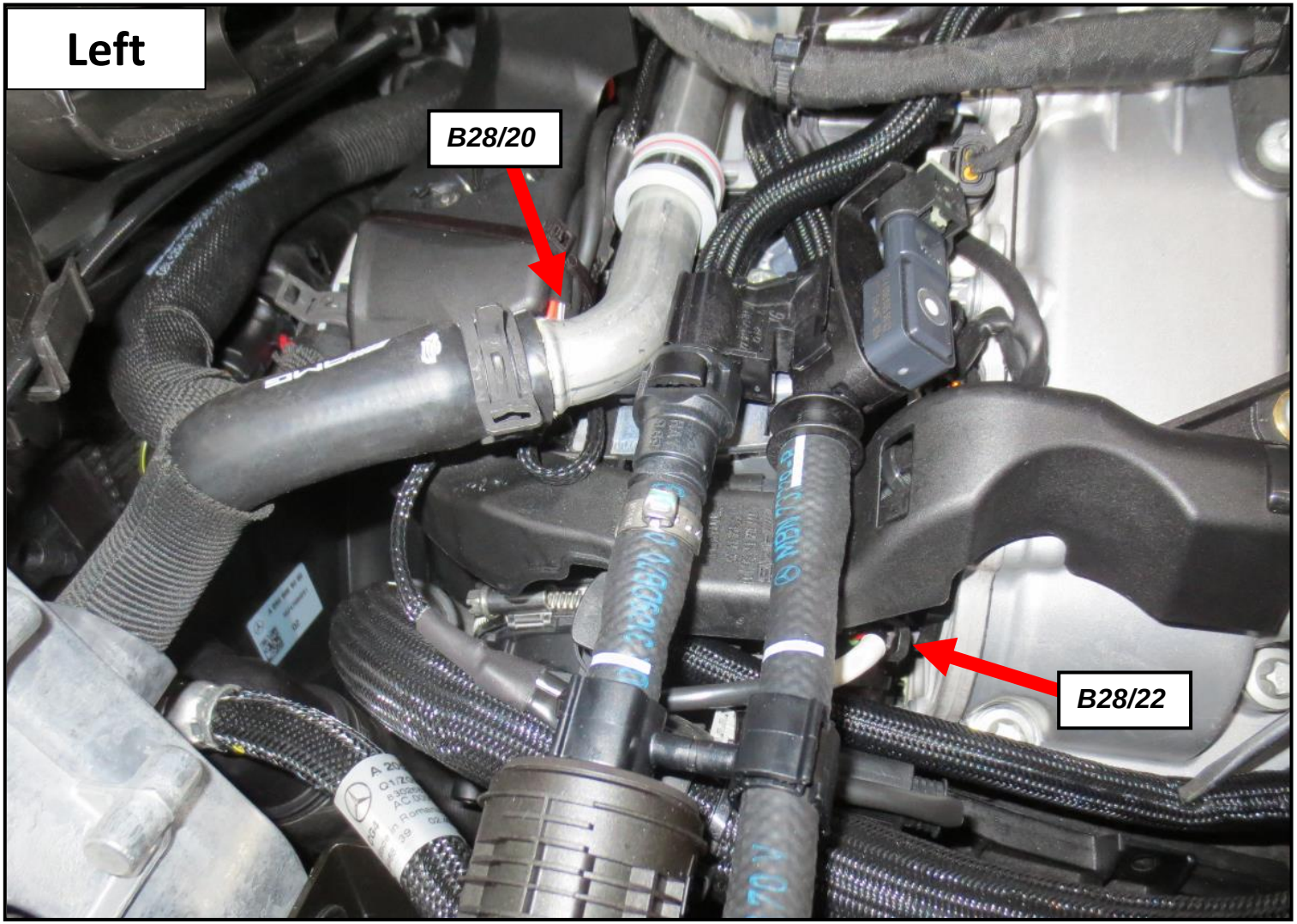
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Route the wiring harness according to illustration below and attach to standard engine wirings using cable ties. Attach plugs of Brabus wiring harness to sensors and standard sensor plugs to sockets of Brabus wiring harness. Route wiring harness to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

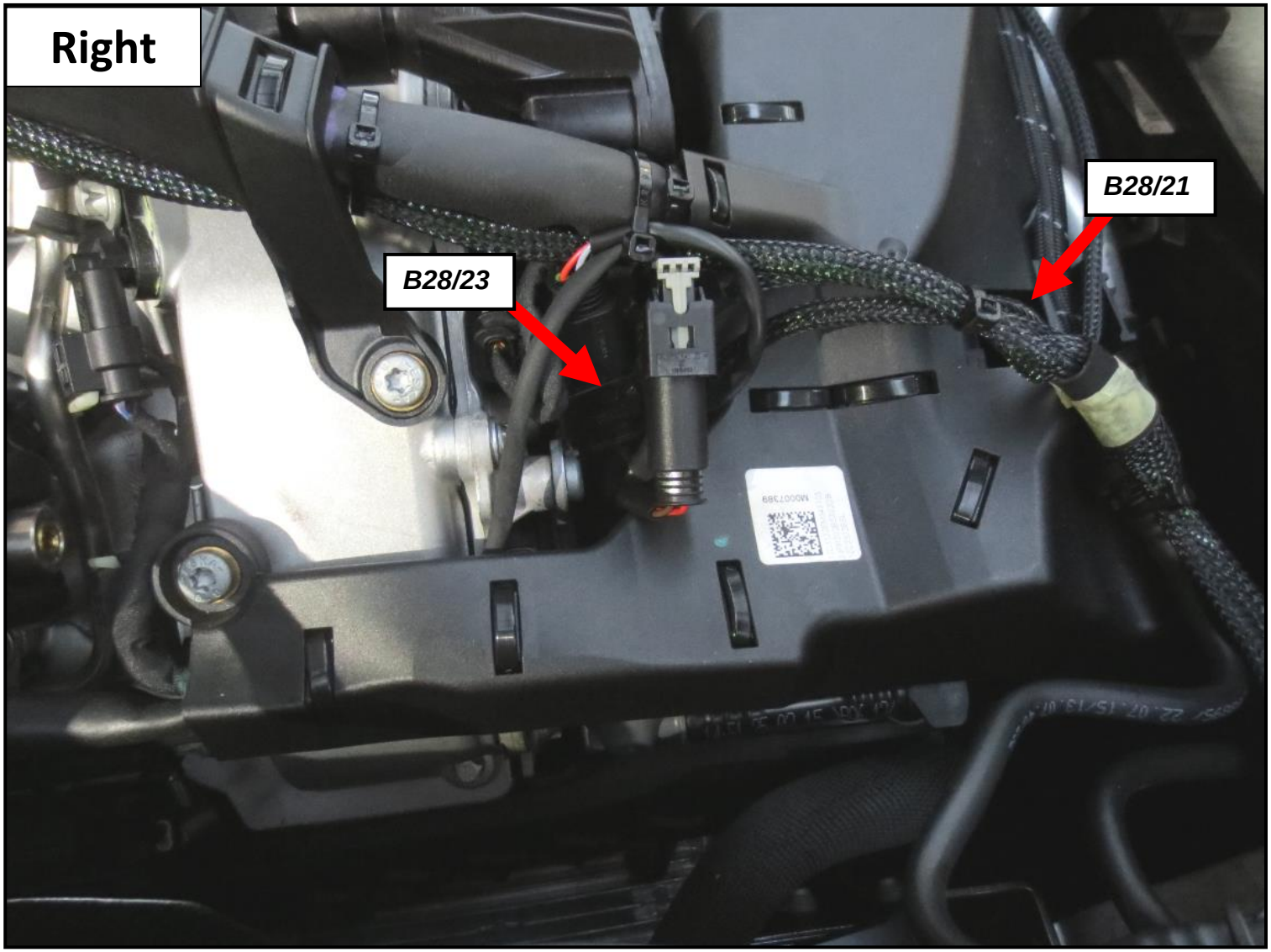




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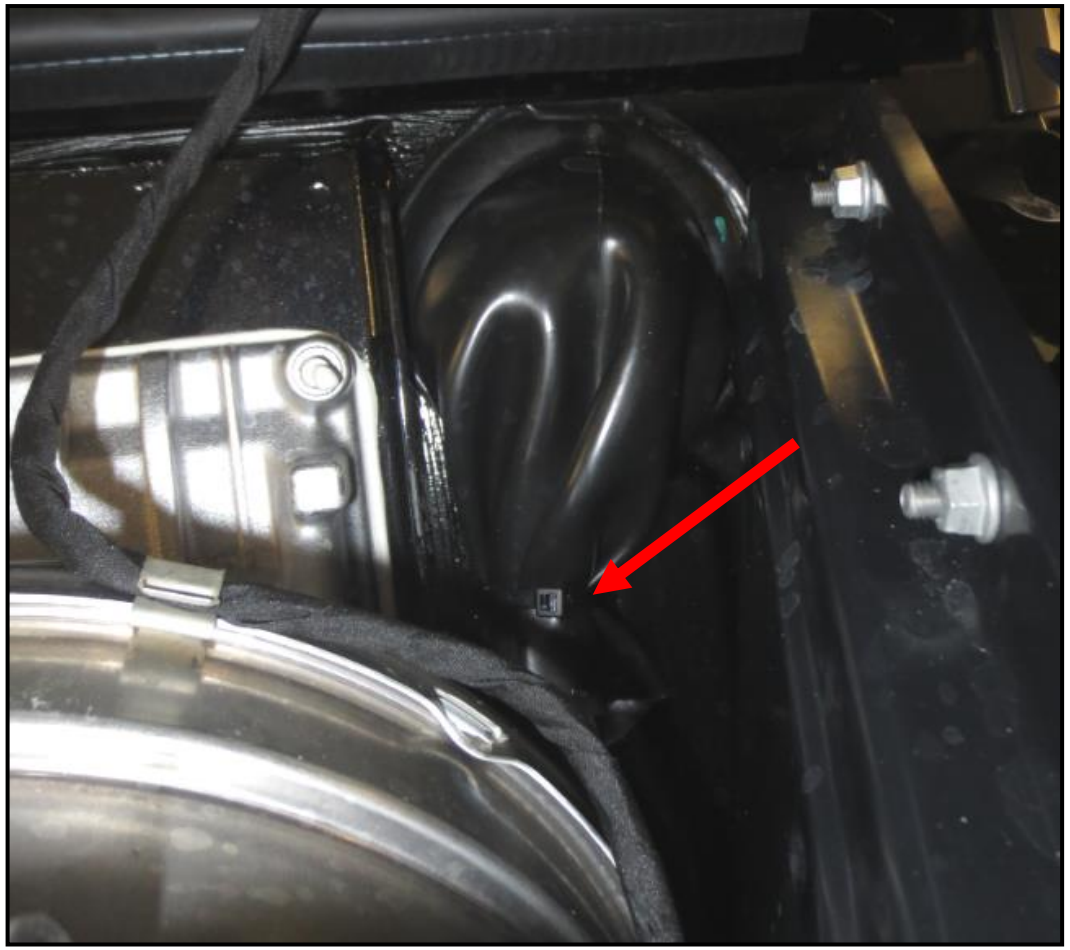


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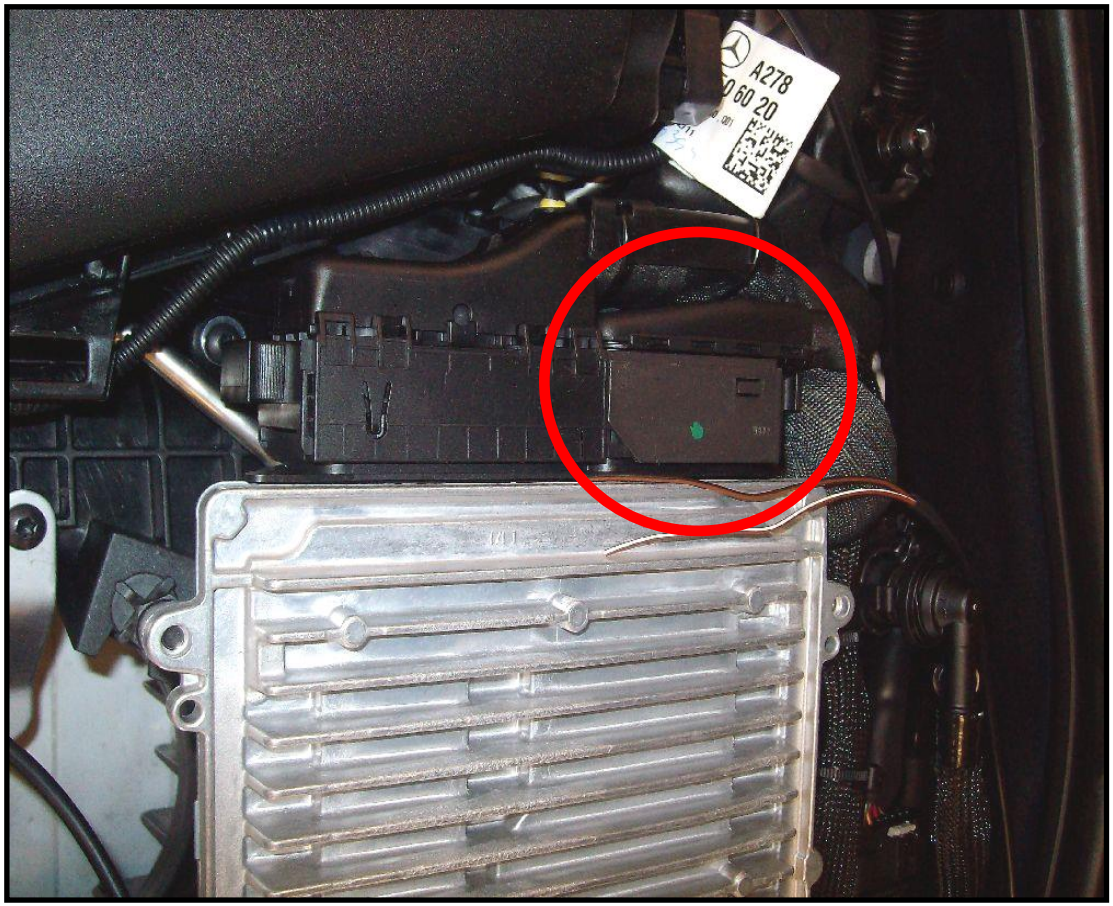
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Measure harness length required within engine bay and route wiring harness trough rubber grommet into the vehicle. Fixate wiring harness appropriately using cable ties and close rubber grommet using a cable tie.



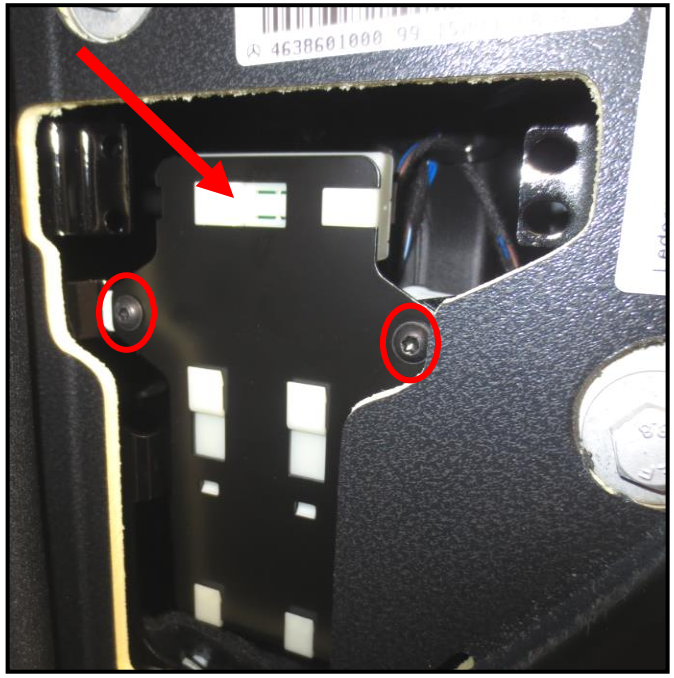
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Disconnect plug „F“ of engine control unit ME (right within engine bay).

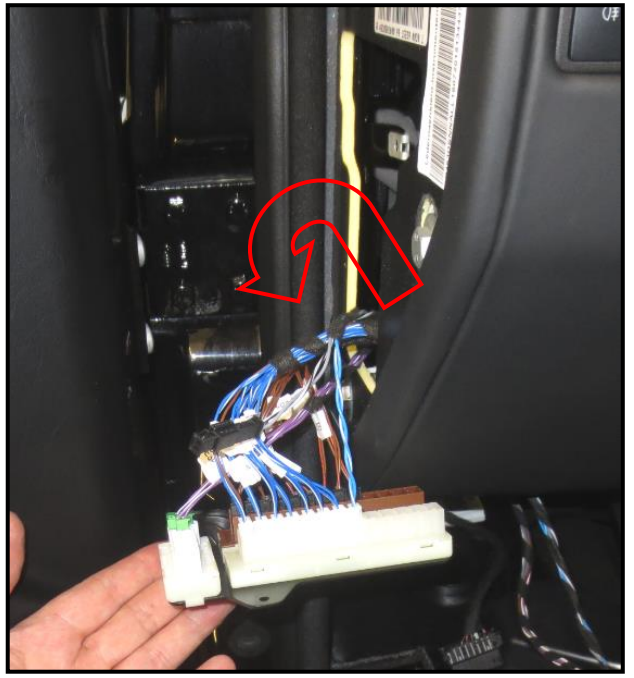


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Remove left dashboard plastic cover and loosen the screws of the CAN distributor panel. Take the ´panel out to gain access to the CAN distributors.

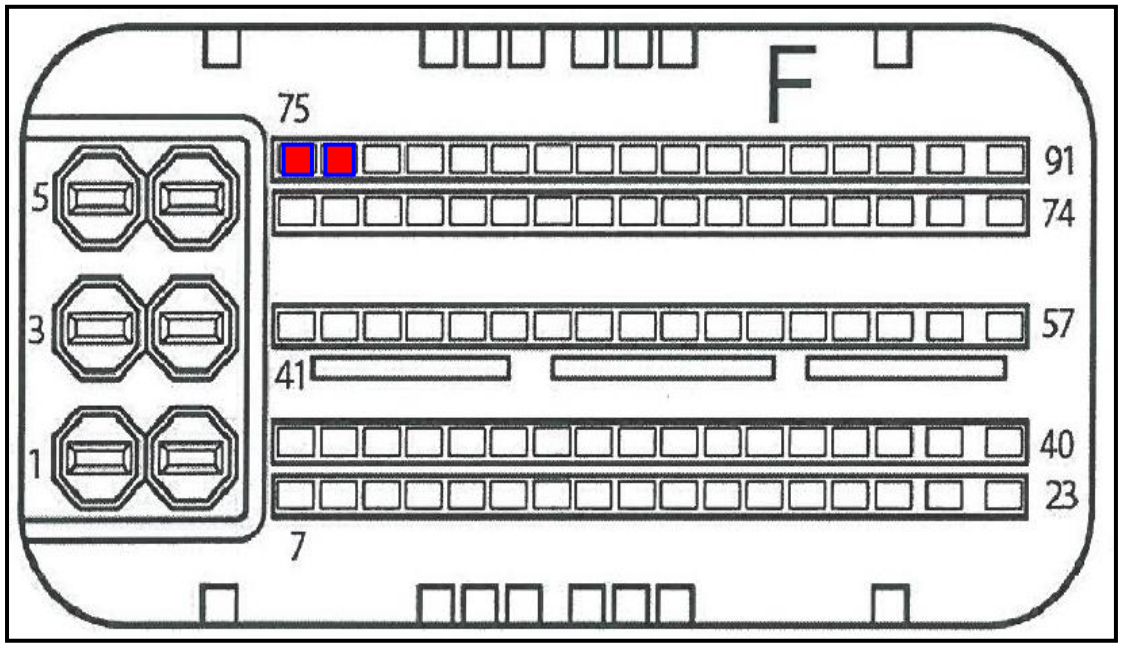


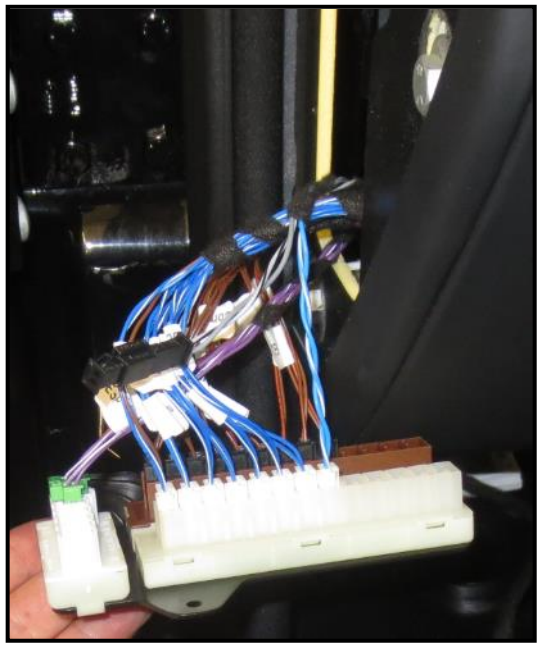




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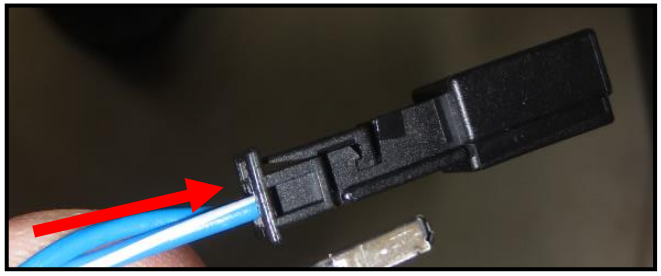
Carefully attach a multimeter to slots 76 (CAN-low) and 75 (CAN-high) of control unit plug „F“ and switch it to continuity testing. Make sure not to widen the pins inside the plugs! Remove the plugs out of the CAN distributor one after another until the multimeter notifies an interruption. When this is the case you have found the slot the PowerXtra wiring harness is to be connected to.





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Remove the wires out of the 2 pole plug and attach these to the 2-pole black plug supplied. Connect the 2-pole plug to the 2-pole socket of the wiring harness (GY to BU / BU-WH to GY-BK).
Attach the plug of the Brabus harness to the free slot of the CAN distributor.



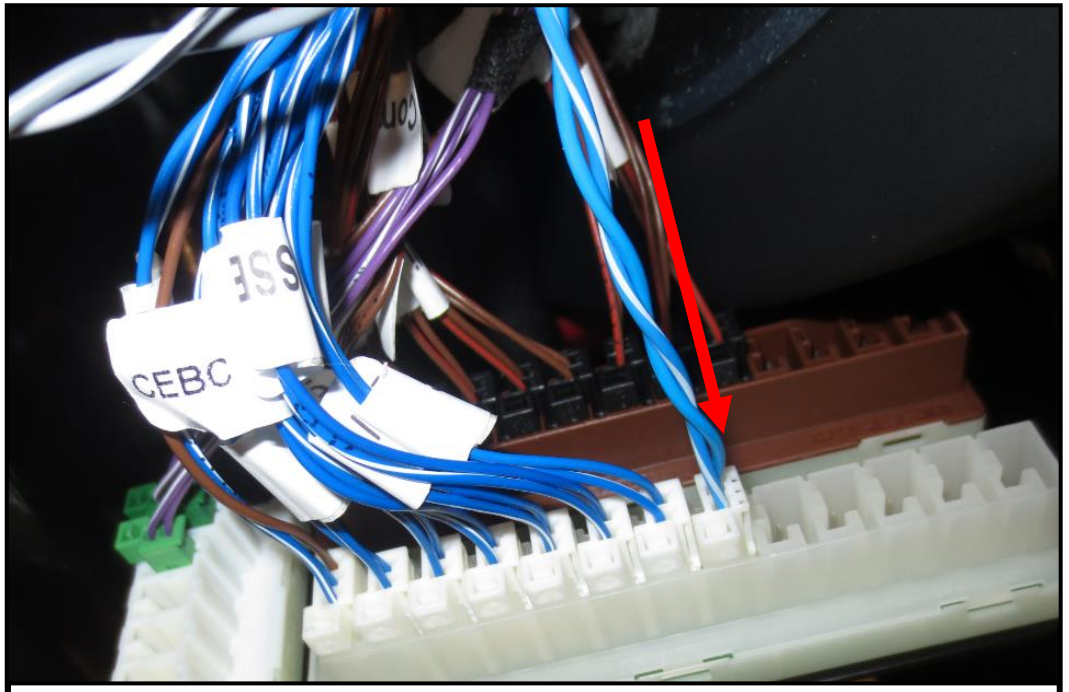
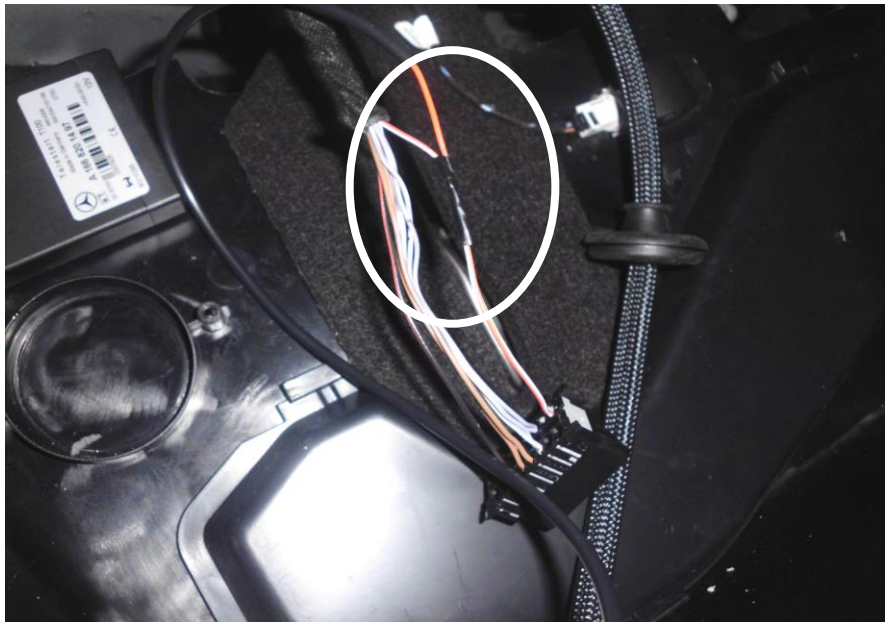


Illustration. Slot to be used can be different.

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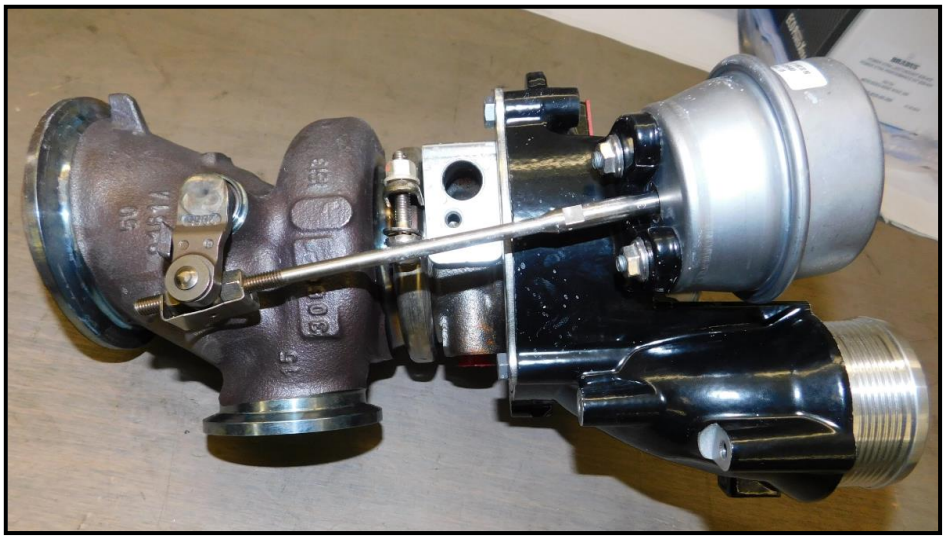
Solder power supply wire of Brabus wiring harness parallel to wire out of slot 16 of OBD diagnosis port. Take care for sufficient isolation. Connect PowerXtra-wiring harness to PowerXtra-module and attach PowerXtra-module to lower dashboard cover using velcro tape supplied.

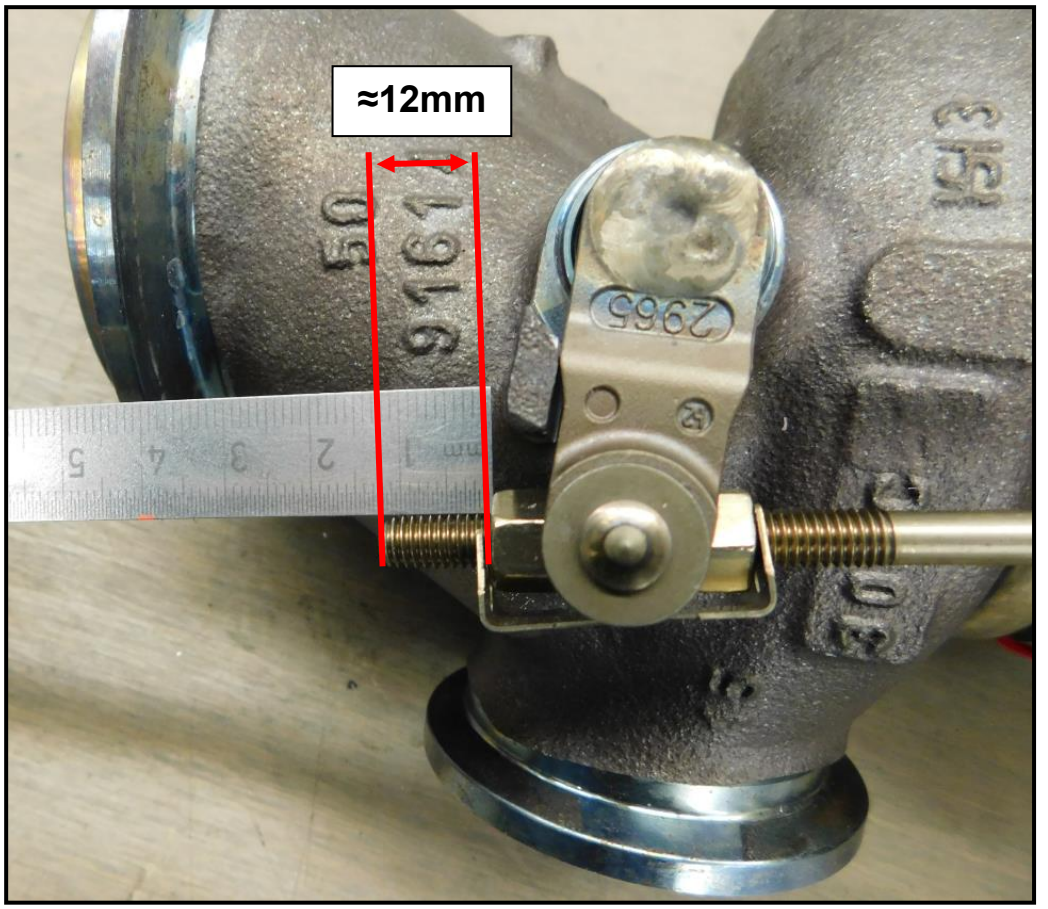


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Wastegate valve adjustment:

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!

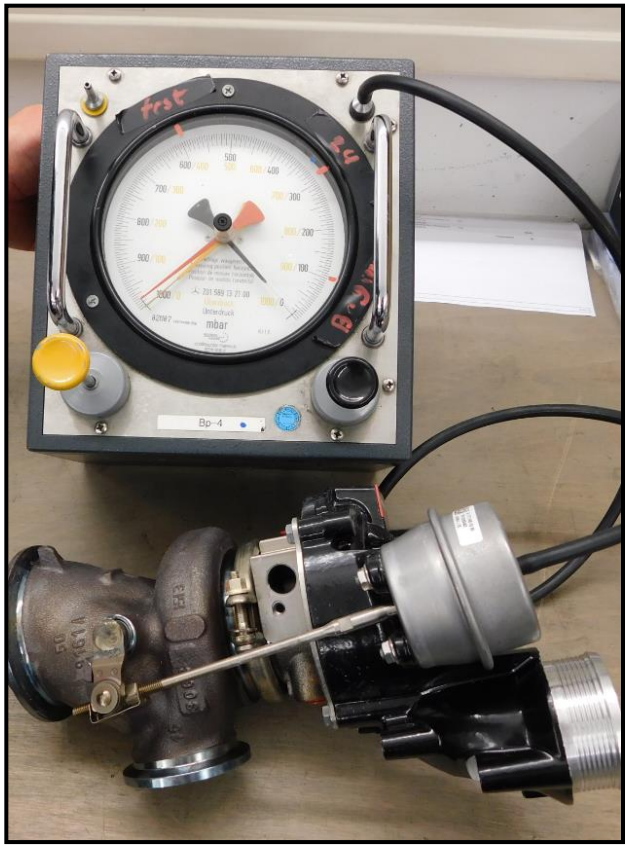




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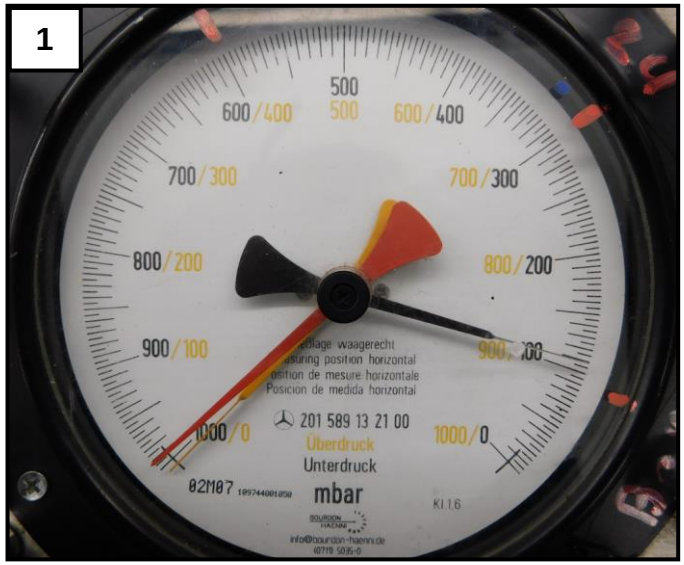
Apply pressure to the wastegate valves in three steps and check the wastegate valve position:

- **≈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**

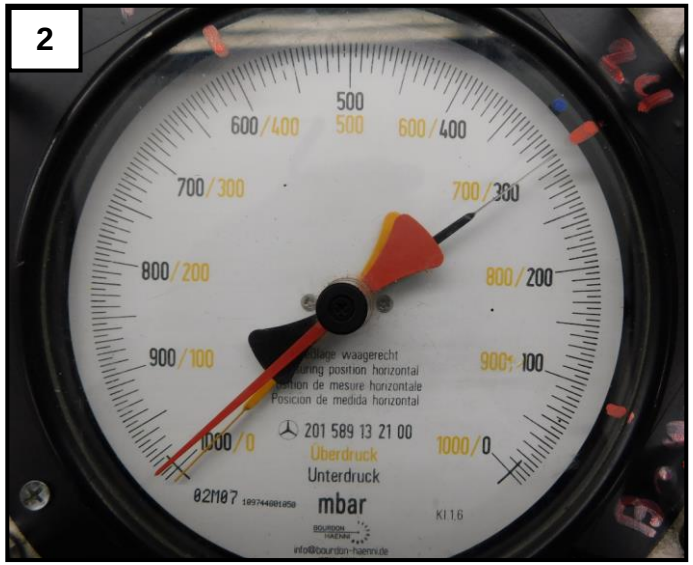


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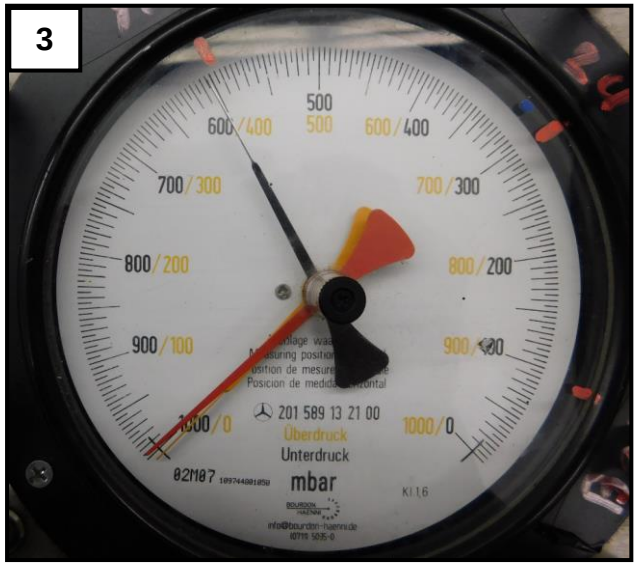
1



2



3



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Remove AMG-badge and adhesive residues. Clean and degrease bonding areas of the engine plastic cover. Bond the Brabus badge and the Brabus typings to the engine plastic cover using adhesive supplied. Fixate the parts using appropriate adhesive tape until the adhesive is finally hardened.



Re-assemble air filters and plastic trims, check wiring harness for proper routing. Check fault store of control unit ME and delete faults which may have occured during installation. Start the 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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