***Performance-kit B40-800 for W463-G63 from My 2019, article-number 464-B40S-800***

BRABUS®



# 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 | 464-740-15-K | Wiring harness G63 |
| 1x | 190-740-05-W | Unlocking tool |
| 1x | 211-000-14 | BRABUS Schriftzug verchromt |
| 1x | 000-000-30 | Set of letterings "Powered by BRABUS" |
| 1x | 000-738-82 | Brass plate 65x65mm |
| 1x | A1698171415 | Type badge |
| 1x | 000-744-05 | Emblem "BB"  70mm |
| 1x | 177-740-600 | Turbo charger LH |
| 1x | 177-740-601 | Turbo charger RH |
| 1x | 000-740-800-100 | Left carbon air filter cover |
| 1x | 000-740-800-101 | Right carbon air filter cover |
| 1x | 000-740-800-103 | Center carbon air filter cover |
| 2x | A1771420380 | Metal sealing |
| 4x | A0009905510 | Screw |
| 2x | A1770960100 | Cover plate |
| 8x | A1199970045 | Sealing ring |
| 4x | A0159978345 | Sealing ring |
| 12x | A0279970645 | Sealing ring |
| 1x | A0049972990 | Clamp |
| 1x | B28/000-8 | Adhesive set 80ml |
| 1x | N000000001145 | Screw |
| 1x | A1770960002 | Housing cover |
| 1x | 464-698-00-R | Brabus typing for a-pillar |
| 2x | 464-817-00 | Brabus Genuine-badge for b-pillar |

**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)**

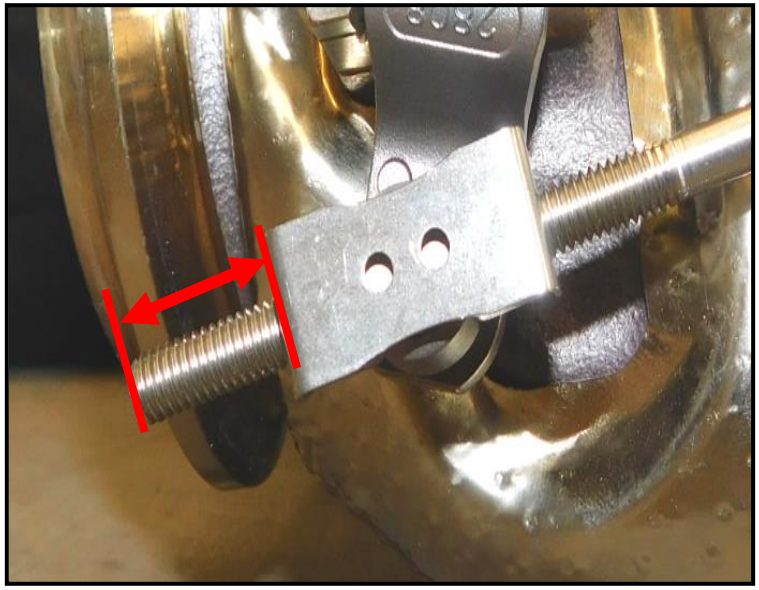
2. **Assembly of electronic control unit**

3. **Assembly of typings, badges and cover trims**

## Attention:

**Prior to disassembling the wastegate pressure boxes which are not to be shipped to Brabus measure the rod lenght of the threaded rod marked left below and write down the values. Mark the turbochargers and the pressure boxes „left“ and „right“ (driving direction).**





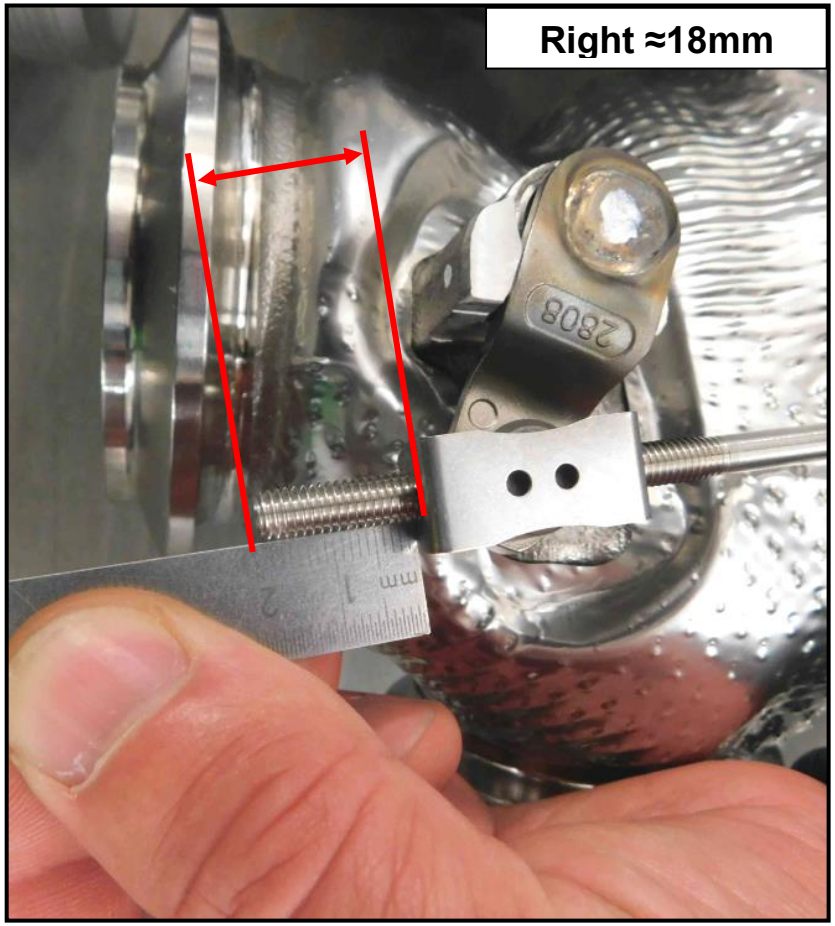



**The machined area is characteristic for the left turbocharger**



## Wastegate adjustment prior to assembly of Brabus turbochargers:

**Assemble the wastegate boxes and their rods and pre-adjust the gap of the rods measured while disassembly.**
**The rod ends must protrude about 18mm on the right charger and about 9mm on the left charger.**
**Secure the rods using the locking braces after adjustment!**





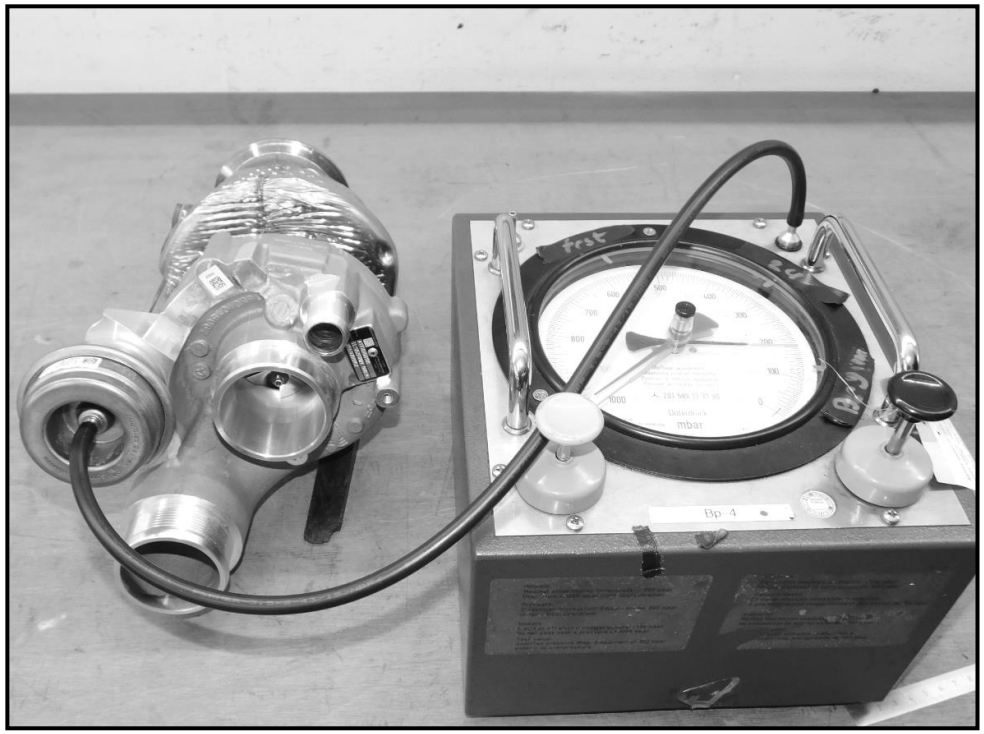


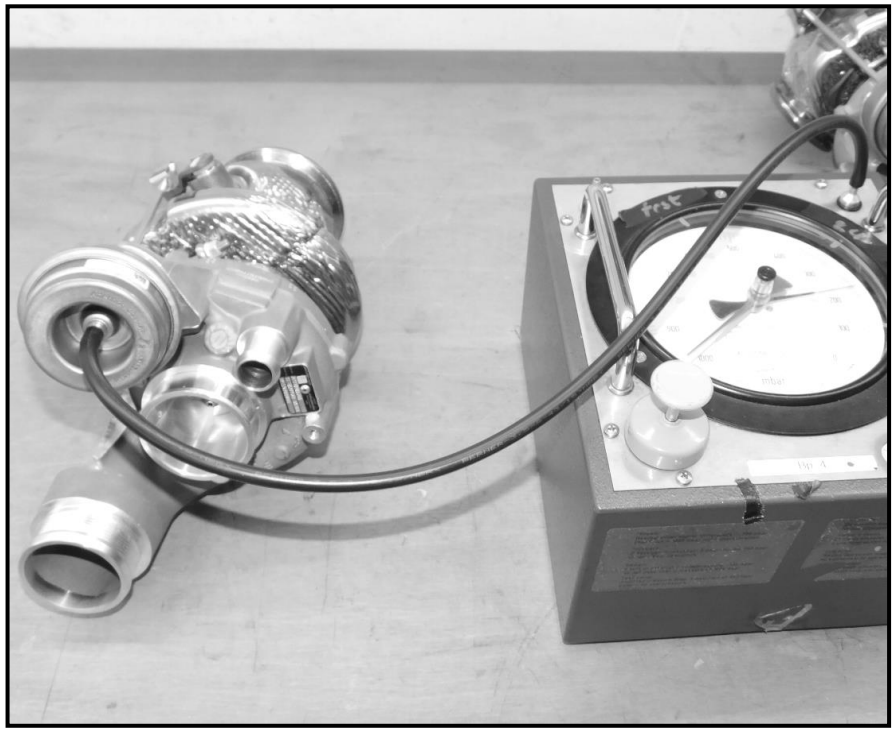


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**Apply pressure to the wastegate valves and check the wastegate valve position:**

- **Left side: Valve opens at a pressure ≈180mb**
- **Right side: Valve opens at a pressure ≈220mb**







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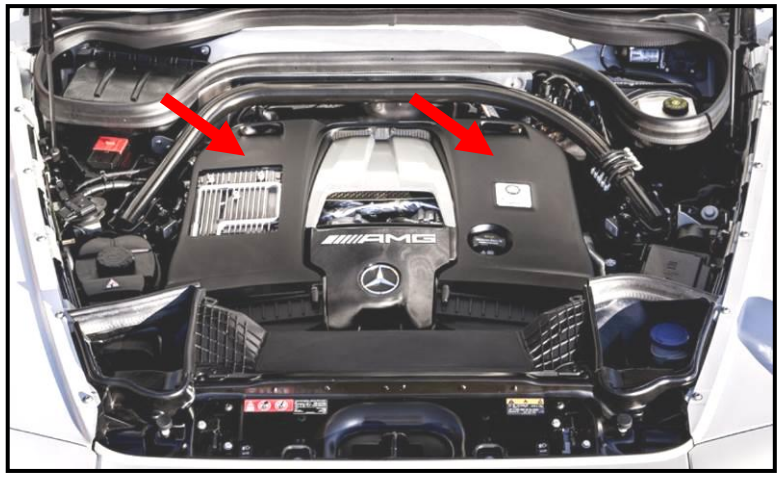
## Montage des elektronischen Zusatzsteuergerätes:

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

- Open bonnet, remove plastic engine covers.

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

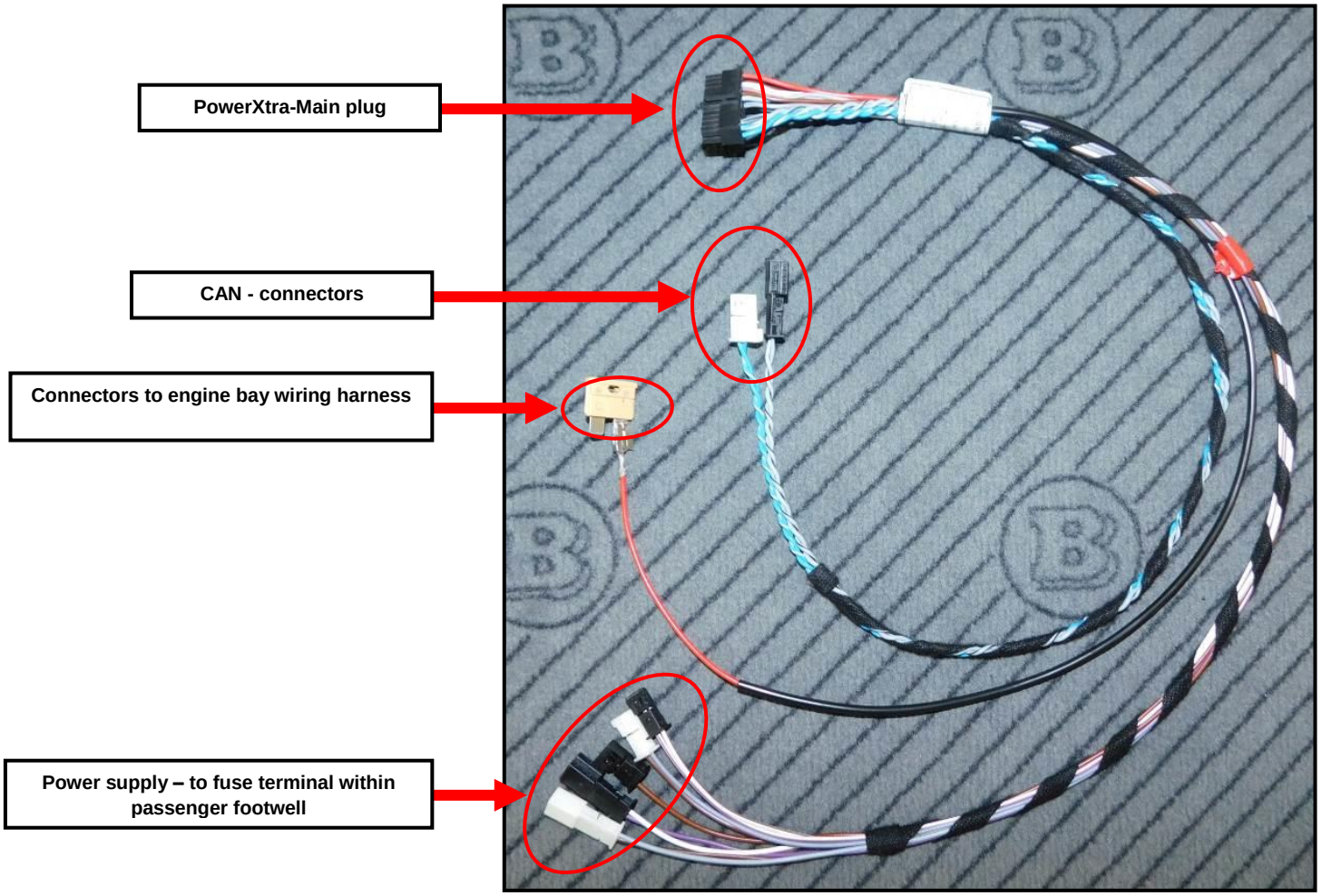







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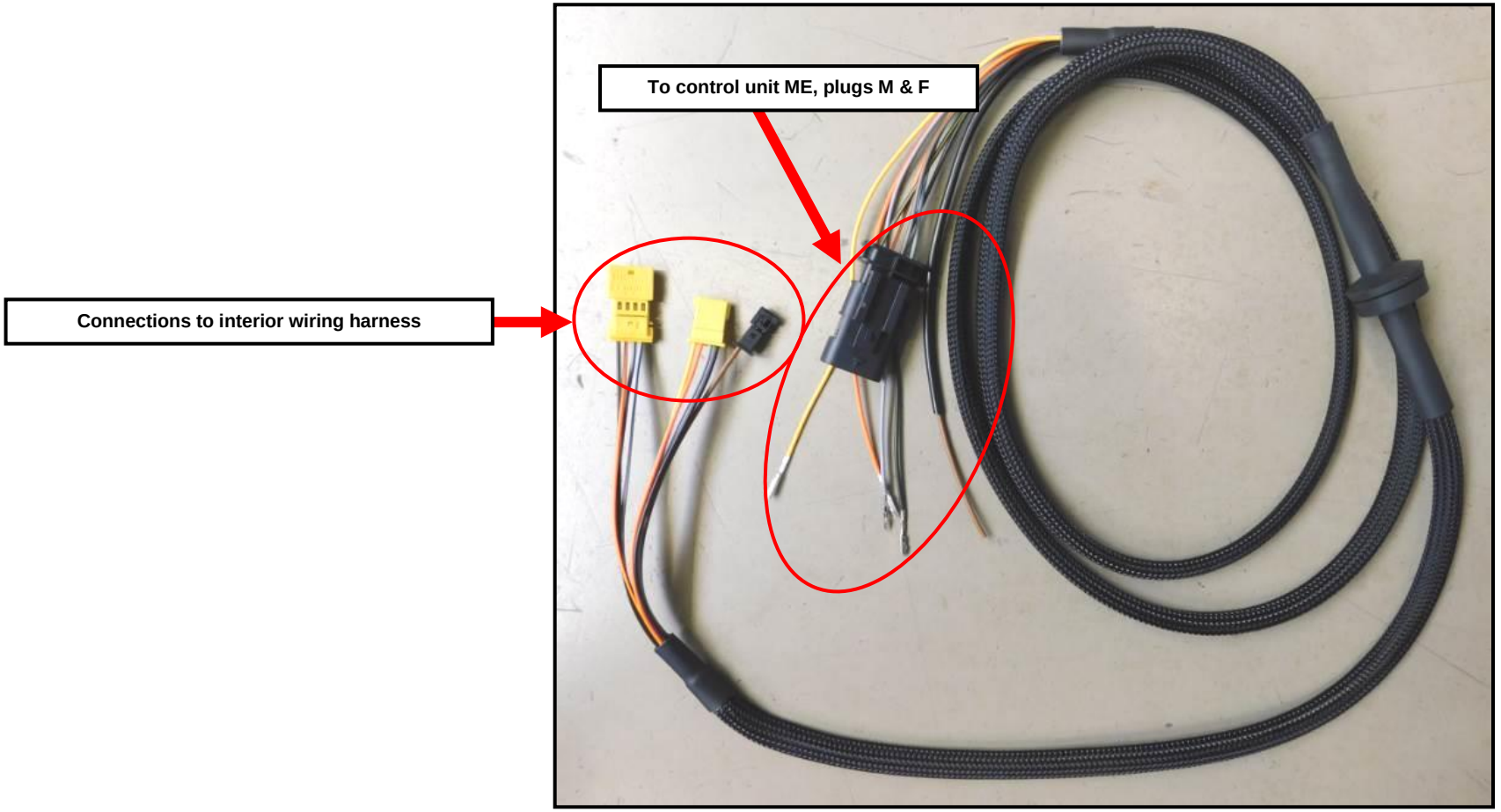
## *Electrical connections overview of interior wiring harness:*





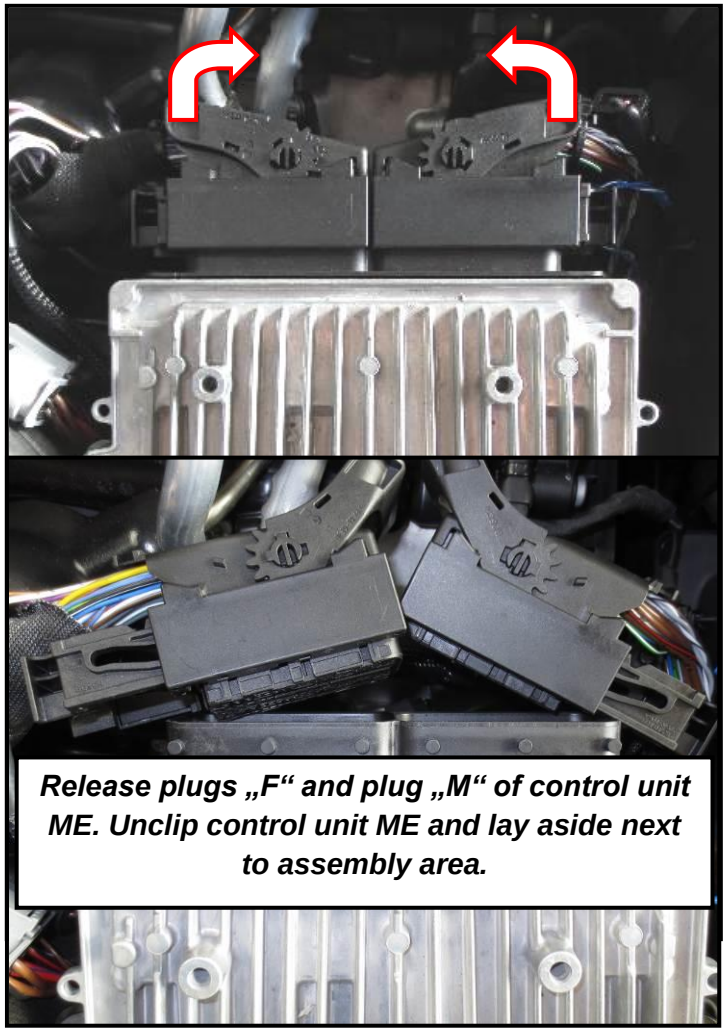

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## *Electrical connections overview of engine bay wiring harness:*





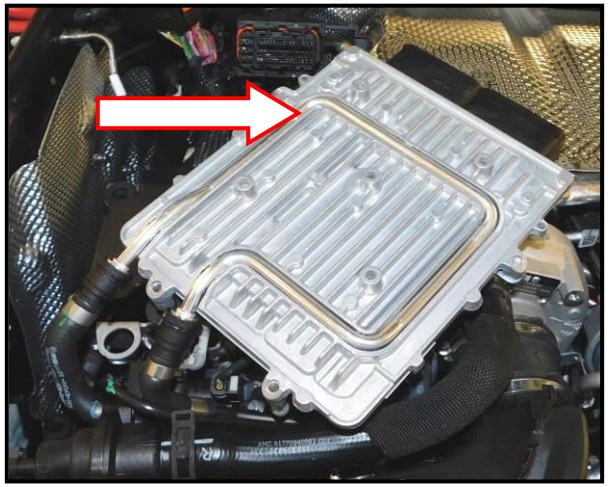

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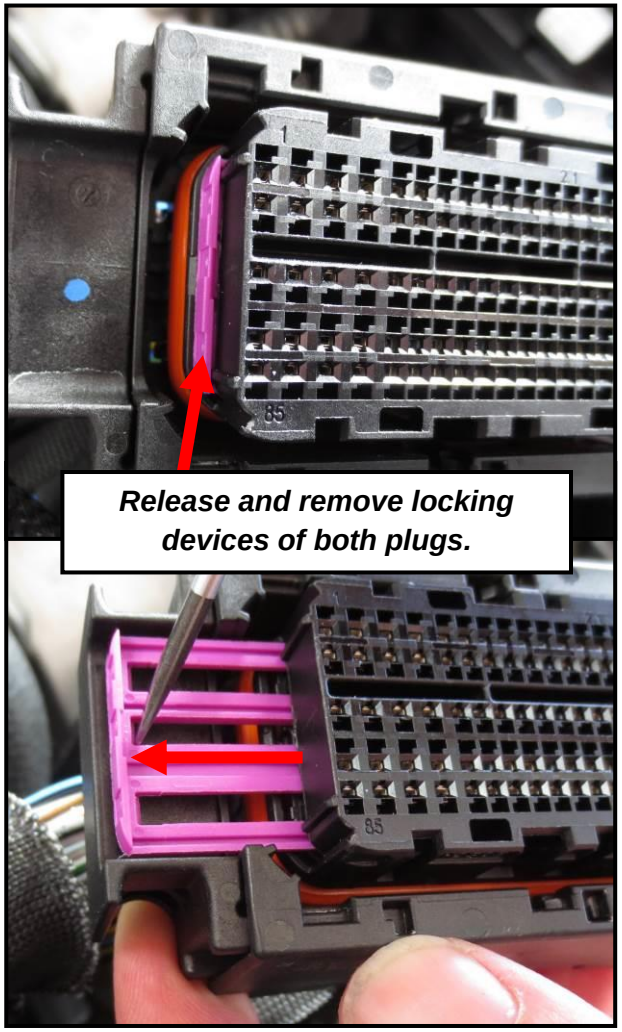


Release plugs „F“ and plug „M“ of control unit ME. Unclip control unit ME and lay aside next to assembly area.



Carefully release at position shown and remove plastic caps of plugs „F“ and „M“.





Release and remove locking devices of both plugs.



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## *Electrical connections within engine bay:*

- *Release and remove standard wires marked of plug „M“ (slots 40, 33, 55, 32) one after the other using unlocking tool supplied and attach to 4-pole plug supplied (according to illustration).*
  *Do not release all 4 wires at once as each two wires are of the same color coding - risk of interchanging!*
  *Make sure not to damage/ deform the pins when unlocking!*

*Unlock the following wires of plug „M“:*

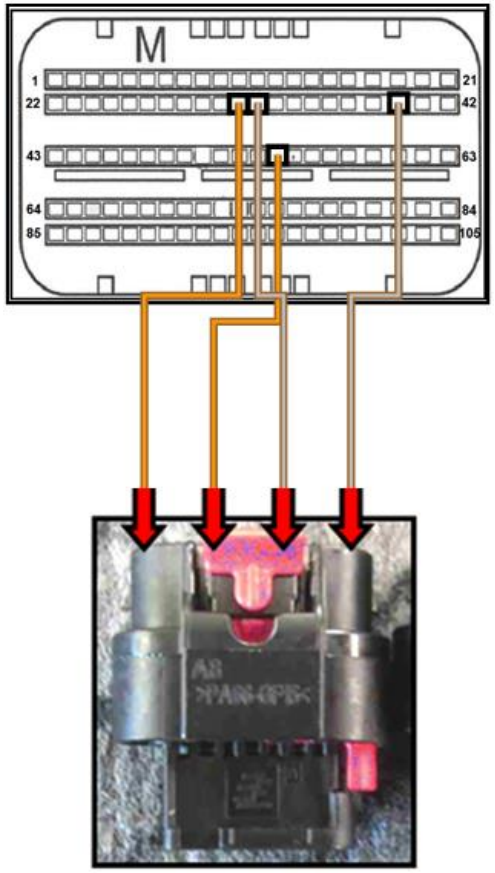
- *Left pressure sensor behind throttle valve (B28/22), BN/GY, slot 40*
- *Left pressure sensor in front of throttle valve (B28/20), BN/GY, slot 33*
- *Right pressure sensor behind throttle valve (B28/23), BN/OG, slot 55*
- *Right pressure sensor in front of throttle valve (B28/21), BN/OG, slot 32*

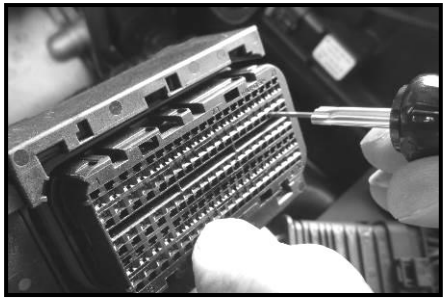
*Attach the wires to 4-pole plug as follows,*
*make sure for proper latching!*

- *Wire out of slot 40 (BN/GY) to slot 1*
- *Wire out of slot 33 (BN/GY) to slot 2*
- *Wire out of slot 55 (BN/OG) to slot 3*
- *Wire out of slot 32 (BN/OG) to slot 4*

*Connect 4-pole plug to 4-pole socket of Brabus engine bay*

*wiring harness.*



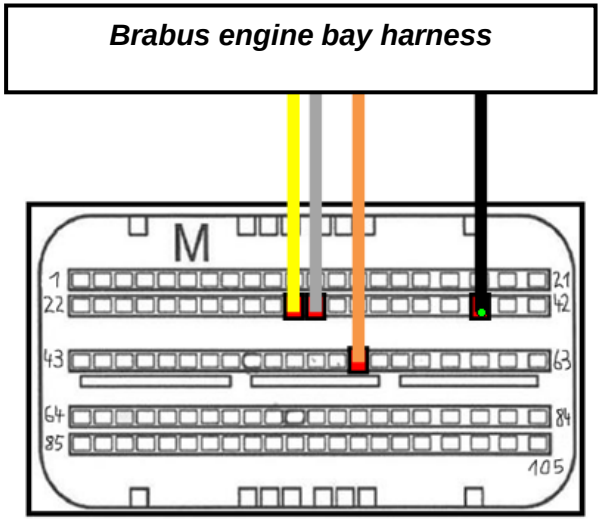
| Kabelfarben nach *IEC 60757*<br>Wire colors according to *IEC 60757* | |
|---|---|
| Braun Brown) | BN |
| Rot (Red) | RD |
| Orange | OG |
| Gelb (Yellow) | YE |
| Grün (Green) | GN |
| Blau (Blue) | BU |
| Violett (Purple) | VT |
| Grau (Grey) | GY |
| Weiß (White) | WH |
| Rosa (Pink) | PK |
| Türkis (Cyan) | TQ |

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- *Attach wires of Brabus engine bay wiring harness to the red marked slots (40, 33, 55, 32) of control unit plug “M”.*

*Attach the wires as follows:*

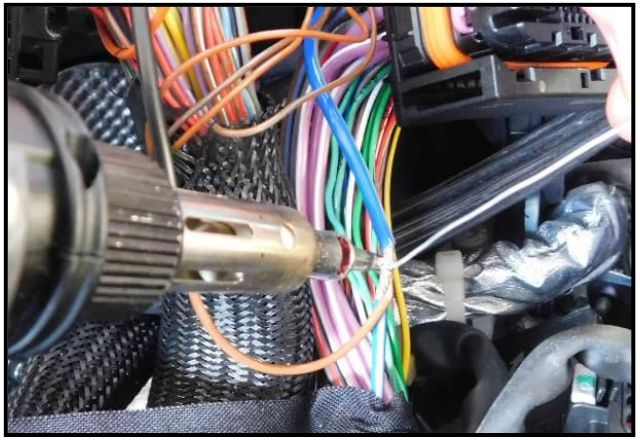
- *BK to slot 40*
- *GY to slot 33*
- *OG to slot 55*
- *YE to slot 32*

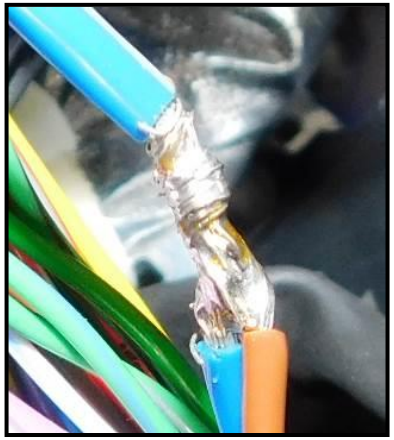


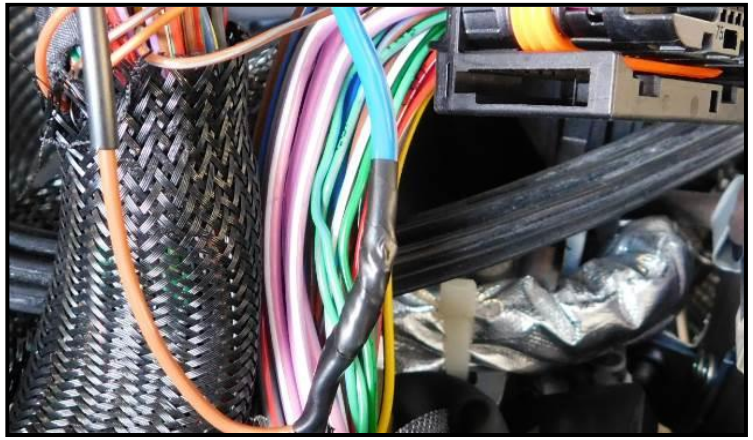

- *Urgently make sure for proper latching of wires within control unit plug „M“!*
  *Re-attach the plug locking and re-assemble plug „M“.*



- *Solder brown wire of Brabus engine bay wiring harness parallel to the wire out of slot 1 of plug „F“ (brown-blue). Do not just wrap the wire around the standard wire!*
  *Sufficiently isolate the soldered area.*
  *Do not connect to any other ground terminal! Re-attach the plug locking and re-assemble plug „M“.*

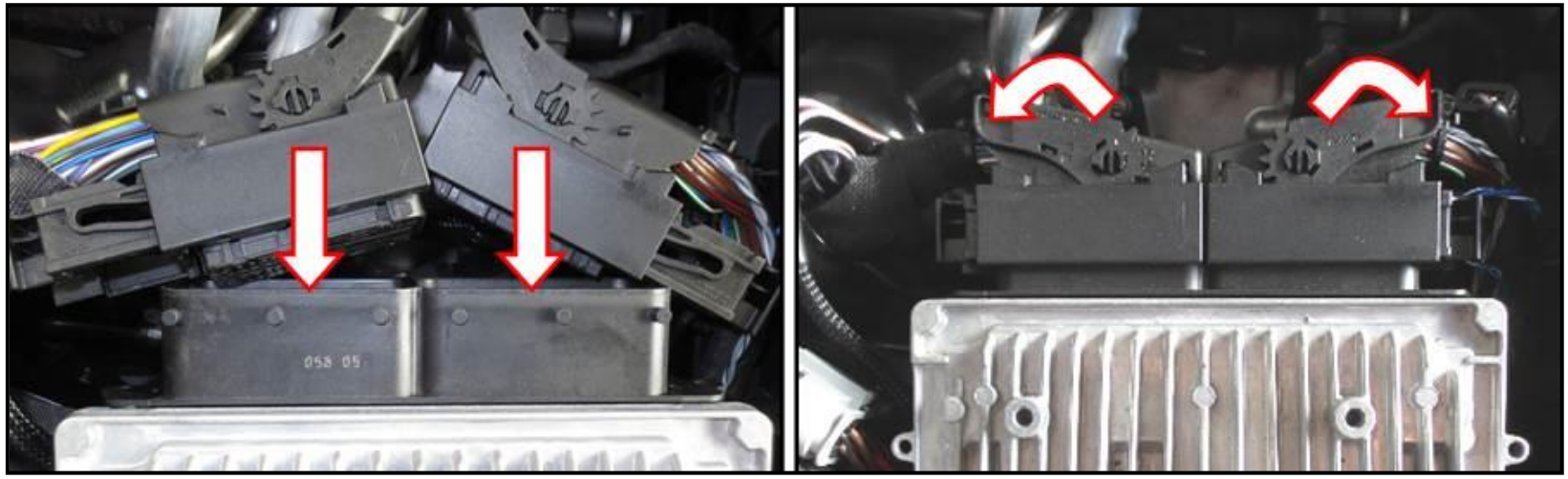






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- *Attach the completed plugs back to control unit ME and lock them. Clip control unit ME back into the brackets.*





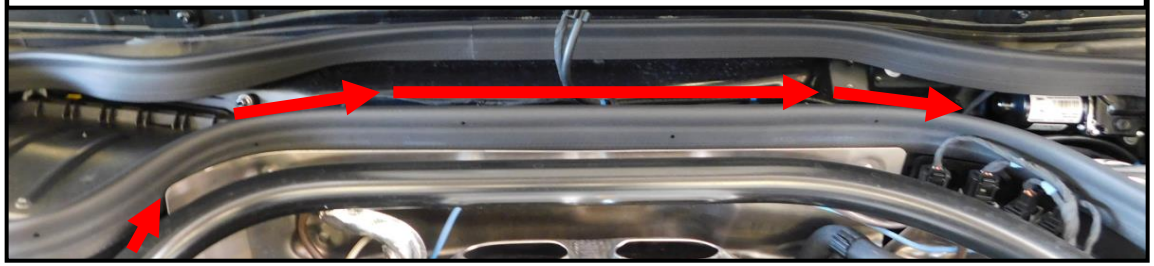
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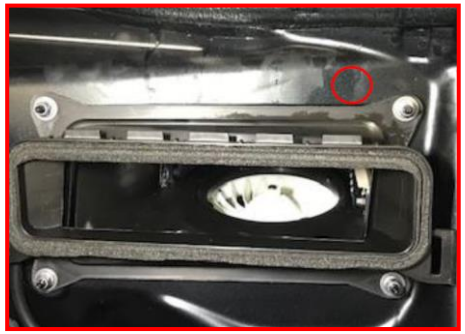
- *Route wiring harness through the gap between the plastic panels shown. Enlarge the gap for sufficient clearance. Route wiring harness to left vehicle side and fixate it on the standard wiring harness using cable ties. Remove the rubber plug and lead the connectors for the interior wiring harness through the bulkhead hole into the vehicle. Connect the engine bay wiring harness to the interior wiring harness. Attach rubber plug of the wiring harness to the bulkhead 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.*** *Make sure the rubberized area of the wiring harness is inside the rubber plug in order to avoid water can intrude the vehicle.*

***Route wiring harness below rubber strip, through gap between plastic panels.***

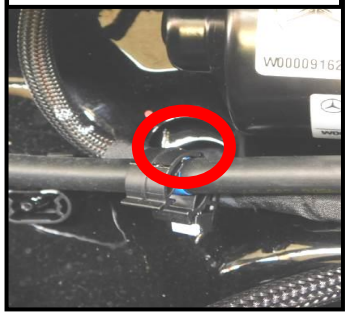


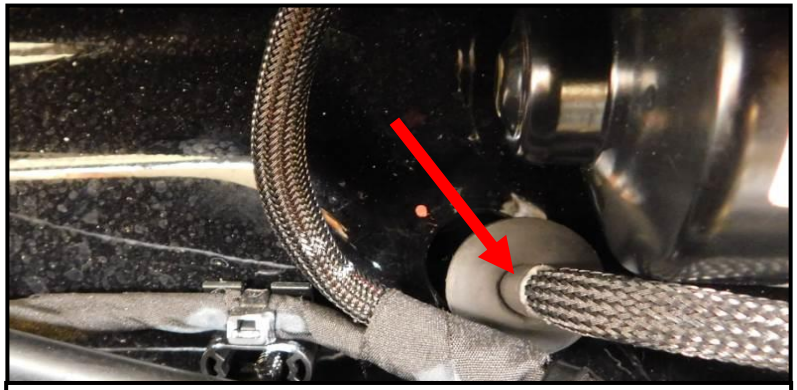
***Route wiring harness to implementation. Fixate with cable ties.***





***Remove rubber plug.***





***Route wiring harness through bulkhead hole into vehicle. The rubberized area must be inside the rubber grommet in order to avoid water can intrude the vehicle.***

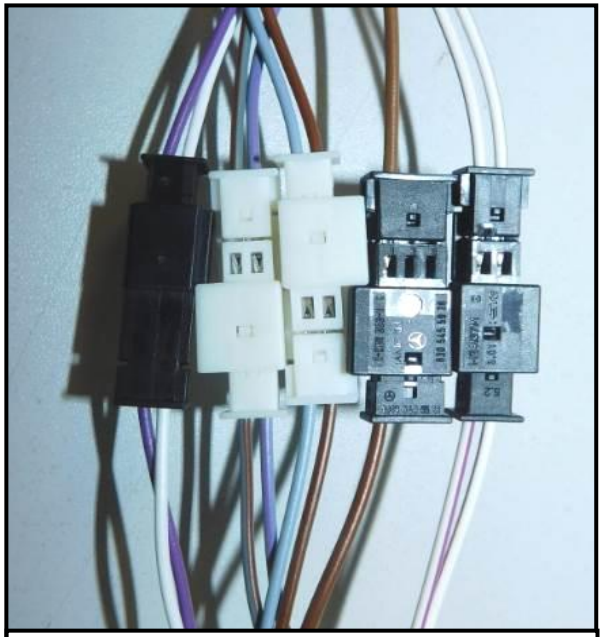


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***Route wiring harness to fuse and relay box K40/6 within left footwell.***

# *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!***



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



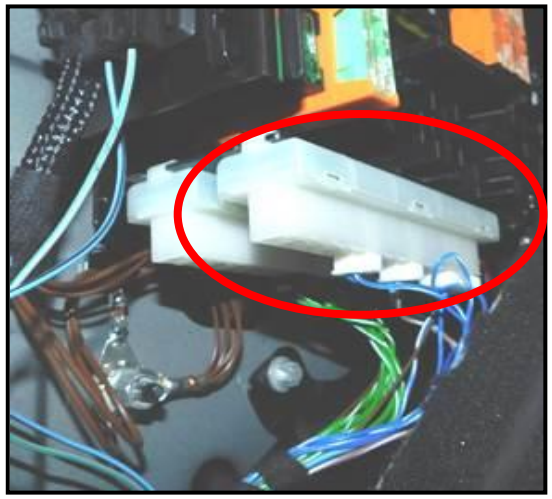
***Route wiring harness down along bulkhead behind insulating material.***

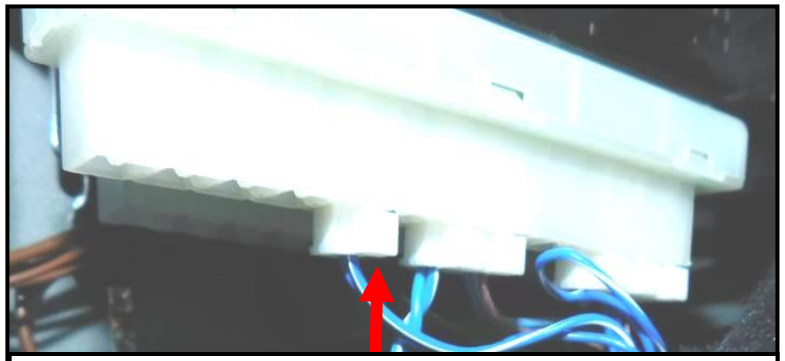



***Connect wiring harness to control unit and fixate control unit at position shown using velcro tape supplied.***



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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.

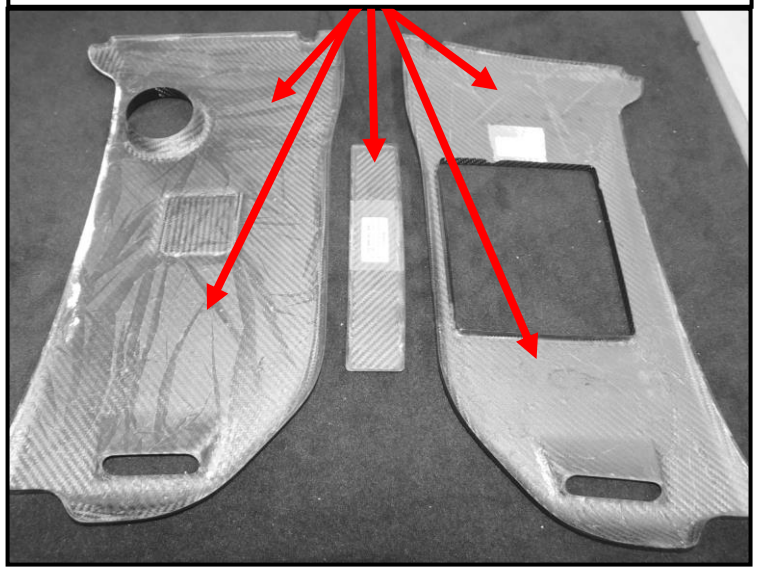
PowerXtra is ready to run after installation, there are no further adaptations/ adjustments to be performed. The blinking blue LED indicates PowerXtra is activated.

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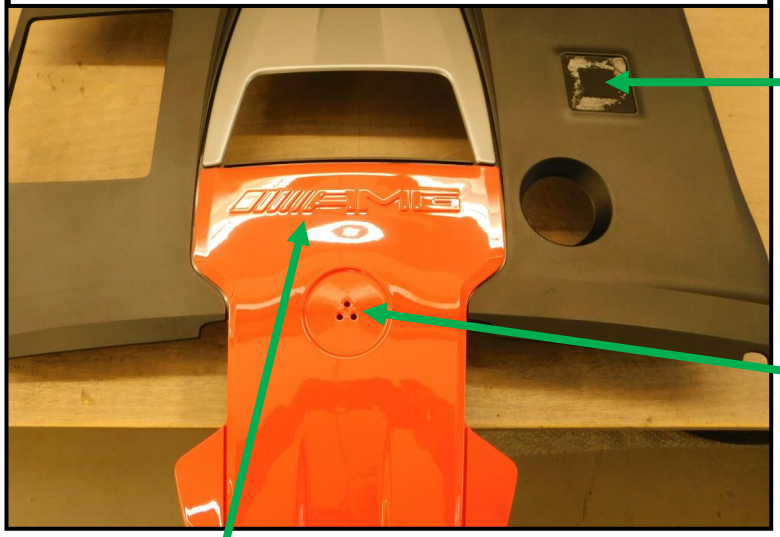
## Bonding positions of badges and trim covers:

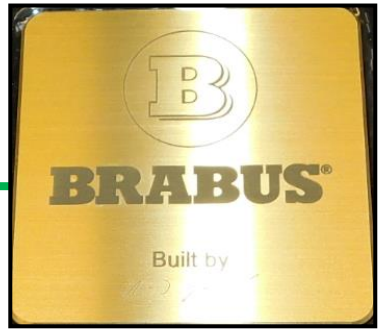
- **Remove AMG-badge and adhesive residues. Clean and degrease bonding areas of the engine plastic cover. Bond the Brabus badge and the Brabus typings to the engine plastic cover using adhesive supplied. Fixate the parts using appropriate adhesive tape until the adhesive is finally hardened.**

**Bonding areas of carbon fibre trims**



**Painting proposal of engine cover: Mercedes-Benz Signal red, color code 568**



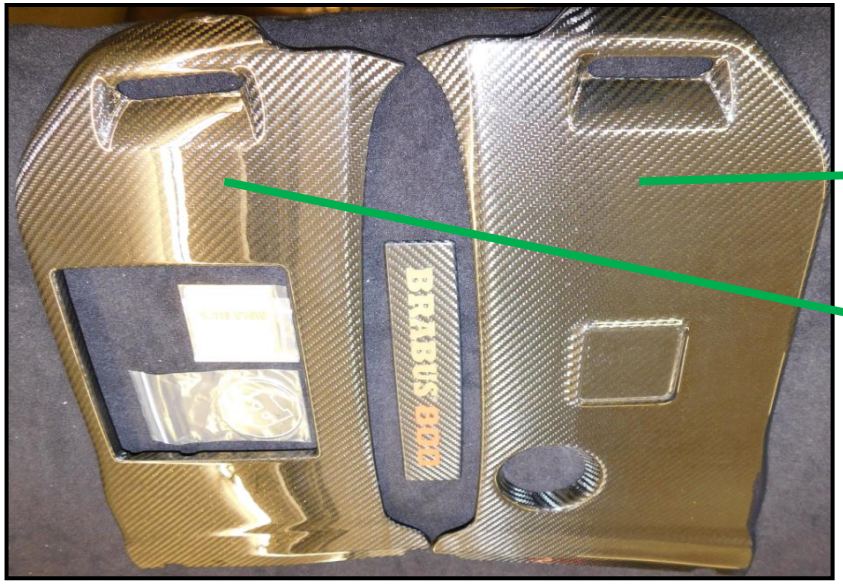


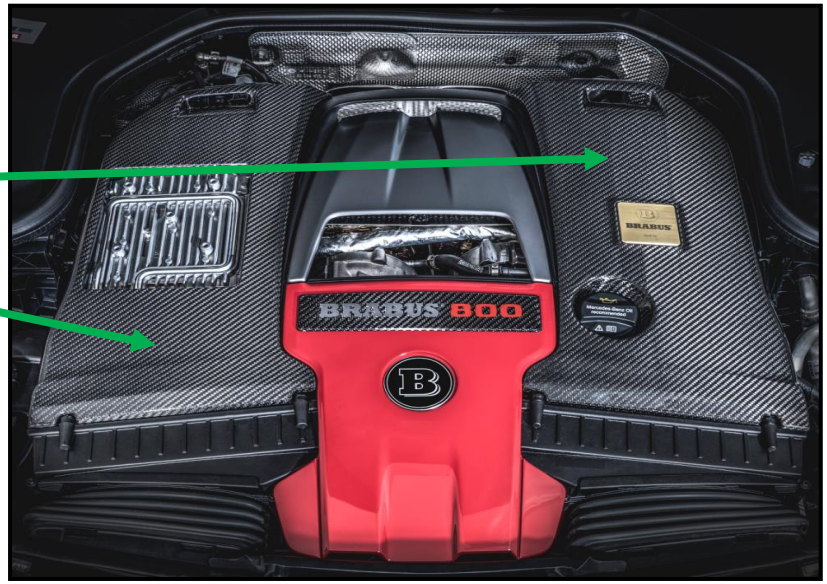






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**Re-assemble all trim parts, check wiring harness for proper routing. Check fault store of control unit ME and delete faults which might have occured during installation. Start the engine and perform a test-drive. Carefully bleed the charge air cooling system according to Mercedes-Benz Workshop information system and make sure for proper seating of all clamp and bolt connections.**
**PowerXtra is ready to run after installation, there are no further adaptations/ adjustments to be performed.**

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