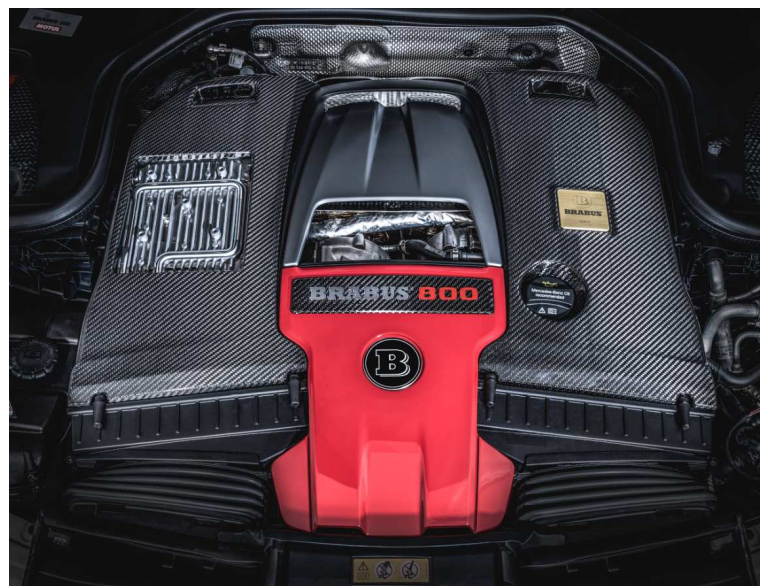




The product described in the instructions was developed, produced and checked considering the necessary safety requirements.

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. Dismantle standard components according to Mercedes-Benz workshop instructions (WIS).

According to the fact that a Mercedes-Benz Star Diagnosis system is required during installation the installation can be performed only by a certified Mercedes-Benz workshop!

Prior to installation please check the content of the supplied parts as detailed below.

Color coding according to IEC 60757, allocation on page 9.

*Regard to the Mercedes-Benz electric diagram „control unit petrol direct injection“ (WIS-document **pe07.08-p-2101-97dbe**).*

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.

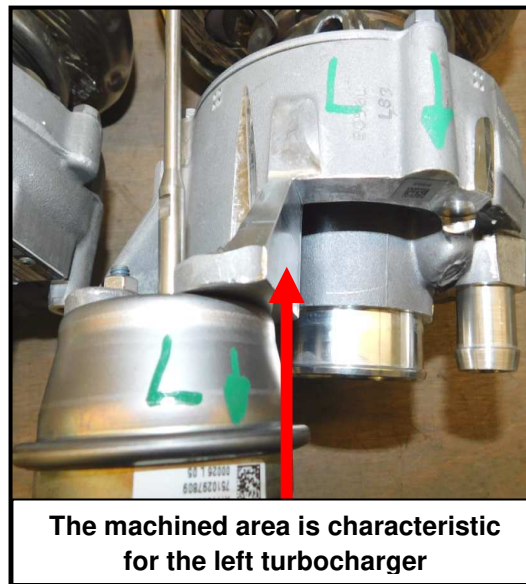
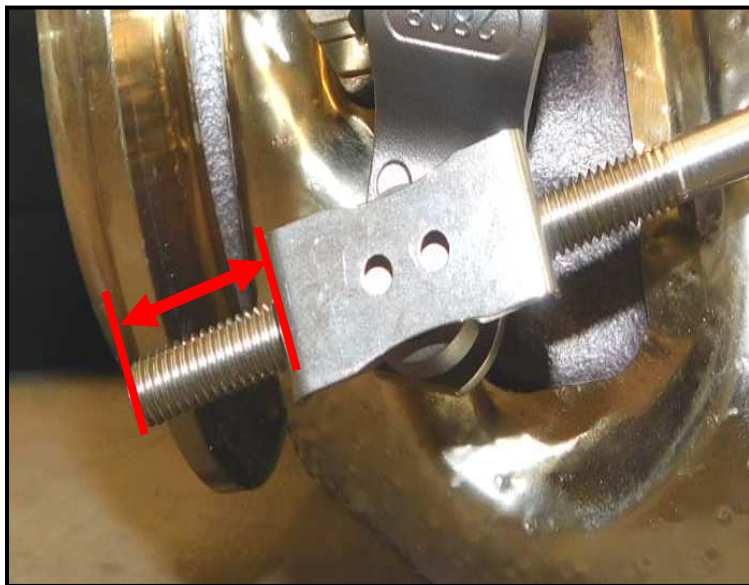
The replacement of the turbochargers is to be performed strictly according to Mercedes-Benz workshop instructions! For adjustment of the wastegate valves please regard to instructions on page 4.

Assembly order:

1. Assembly of special turbochargers
(According to Mercedes-Benz Workshop information system, documents ar09.40-p-6026mne & ar09.40-p-6027mne)
2. Assembly of electronic control unit
3. Assembly of typings, badges and cover trims

Attention:

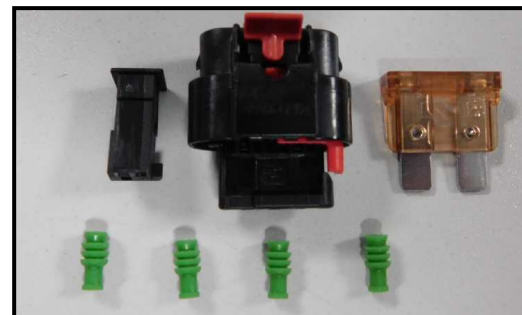
Prior to disassembling the wastegate pressure boxes which are not to be shipped to Brabus measure the rod length of the threaded rod marked left below and write down the values. Mark the turbochargers and the pressure boxes „left“ and „right“ (driving direction).





Included in delivery:

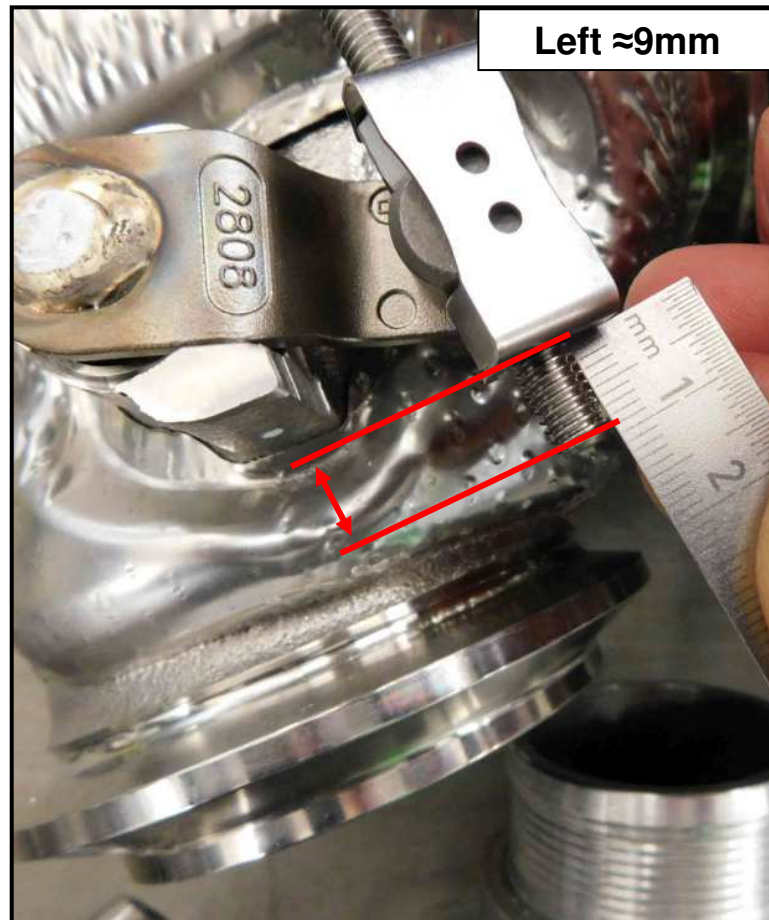
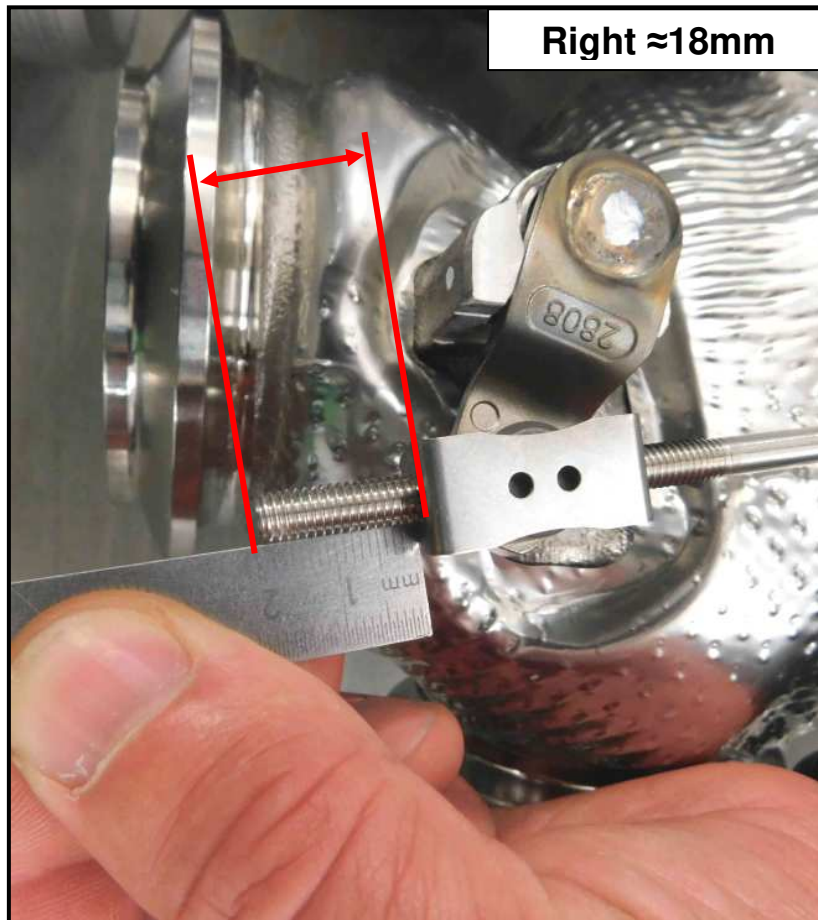
1x PowerXtra control unit	000-CGI-02
1x Cable harness E63	213-740-05-K,
consisting of:	
1x 4-pole black plug	
1x MQS-plug, 2-pole, black	
4x Wire sealings	
1x 5A fuse	
1x Unlocking tool	190-740-05-W
1x Set of turbochargers with large compression unit	
1x Brabus brass plated 65x65mm	000-738-82
1x "Powered by BRABUS"-lettering	000-000-30
1x BRABUS chrome lettering	211-000-14
1x „BB“ engine cover badge 70mm	000-744-05
2x Type badge	A1698171415
4x Screw	A0009905510
2x Cover plate	A1770960100
2x Metal gasket	A1771420380
1x Clamp	A0049972990
8x Sealing ring	A1199970045
4x O-sealing ring	A0159978345
12x O-sealing ring	A0279970645
1x Left carbon-fibre cover	000-740-800-100
1x Right carbon-fibre cover	000-740-800-101
1x Center carbon-fibre cover	000-740-800-103
1x Edge protection, ~5cm	
1x PU-adhesive	B28/000-8



Wastegate adjustment prior to assembly of Brabus turbochargers:

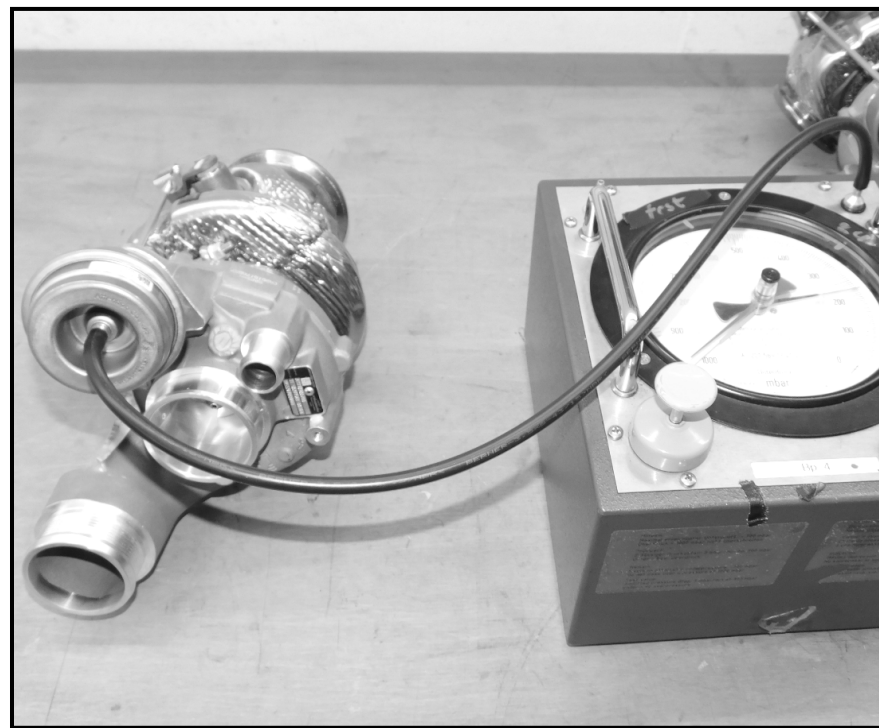
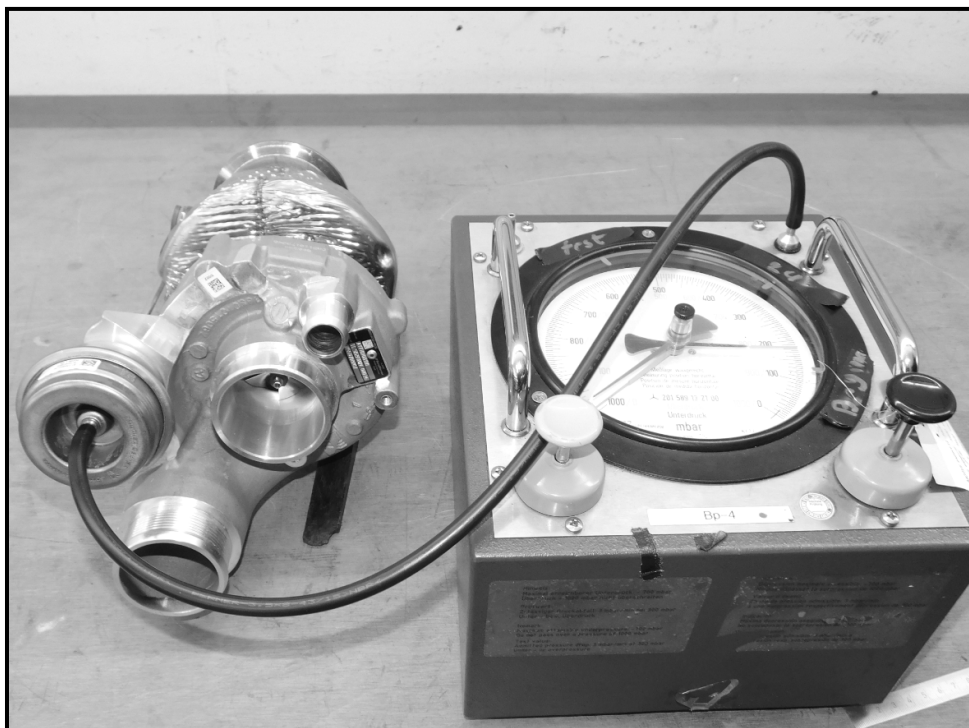
Assemble the wastegate boxes and their rods and pre-adjust the gap of the rods measured while disassembly. The rod ends must protrude about 18mm on the right charger and about 9mm on the left charger.

Secure the rods using the locking braces after adjustment!



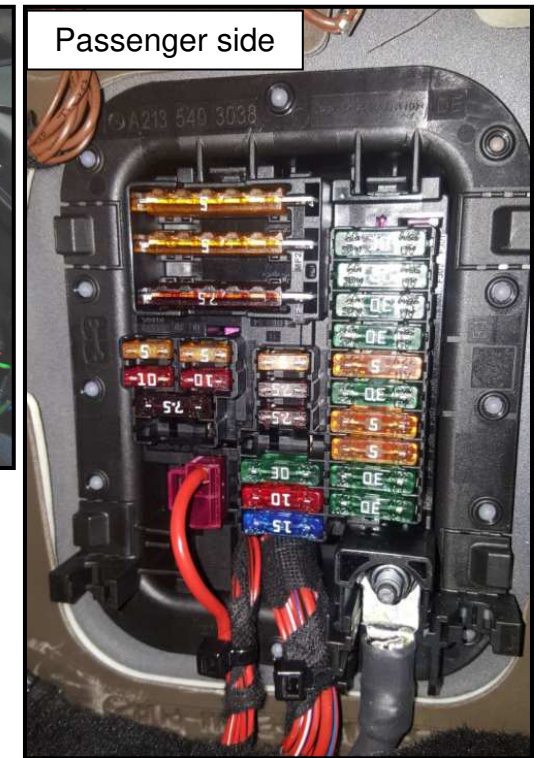
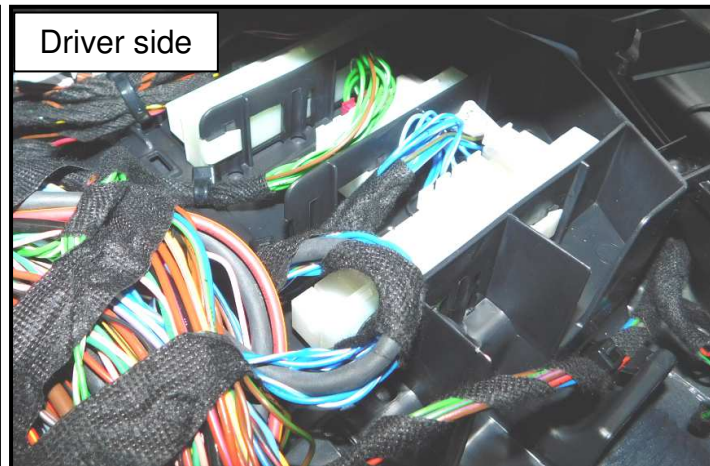
Apply pressure to the wastegate valves and check the wastegate valve position:

- Left side: Valve opens at a pressure $\approx 180\text{mb}$
- Right side: Valve opens at a pressure $\approx 220\text{mb}$



Installation of additional electronic control unit:

- Open bonnet, disconnect the ground line of the vehicle battery.
- Disassemble the engine plastic cover, the air duct, the right side plastic cover (driving direction) and the right side supporting strut.
- Disassemble the left and right floor plastic covers to gain access to the left and right side electrical components within the footwells.



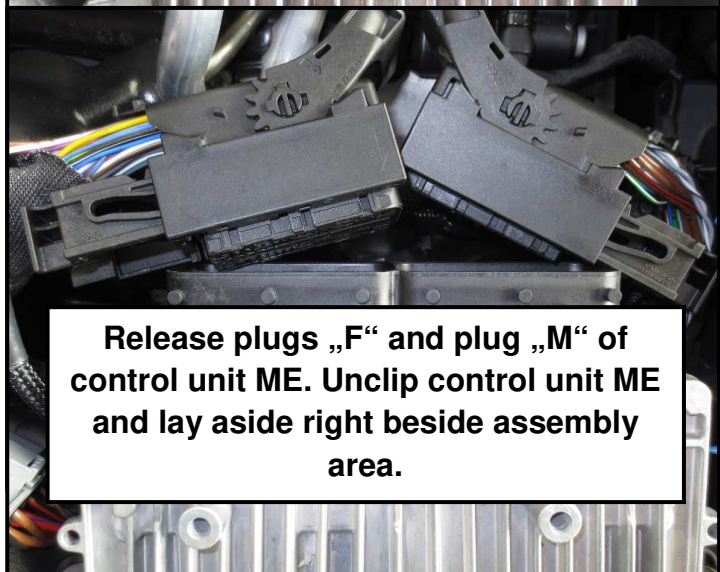
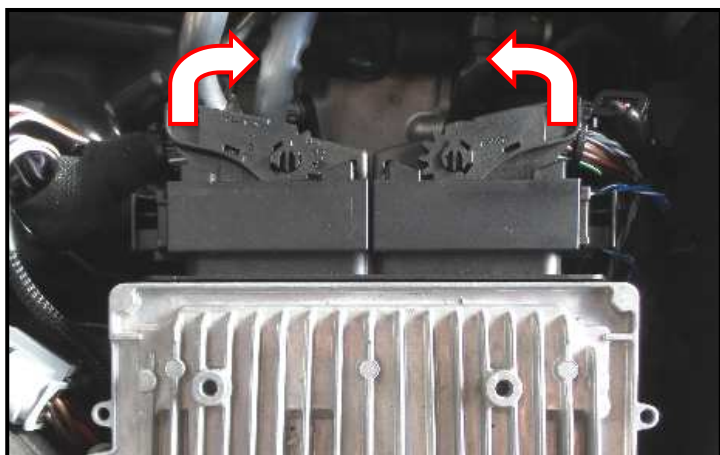
Overview of electrical connections:

Wires of pressure sensors in front of (B28/20 & B28/ 21) and behind (B28/22 & B28/23) throttle valve and ground, to be soldered to wire out of slot 2 of control unit ME plug „F“. Do not just wrap around! Sufficiently isolate soldered area.

CAN - lines, to CAN - distributor within driver footwell

PowerXtra connector

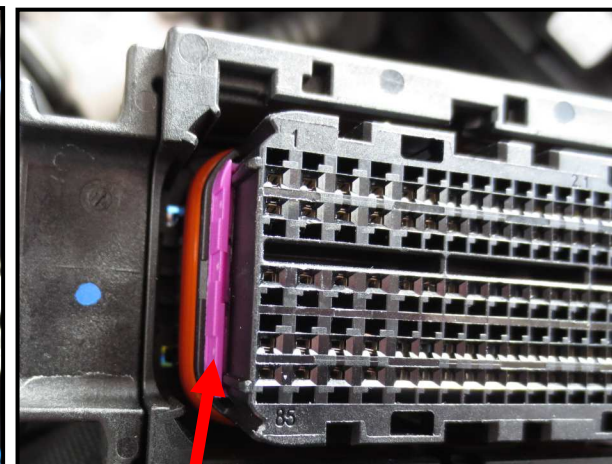
Power supply connector, to fuse and relay terminal within passenger footwell,



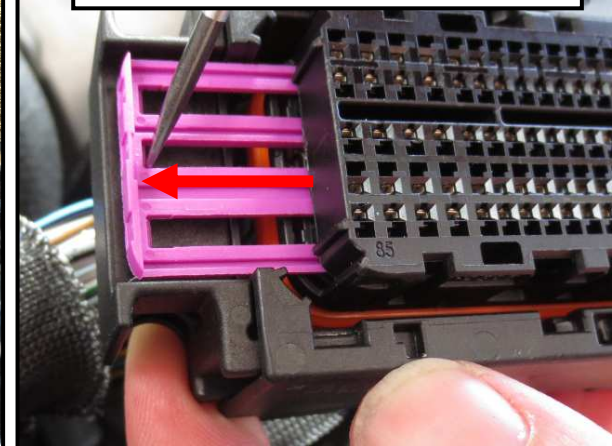
Release plugs „F“ and plug „M“ of control unit ME. Unclip control unit ME and lay aside right beside assembly area.



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



Release and remove locking device of plug



- 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!

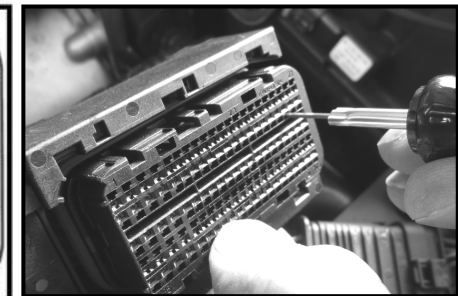
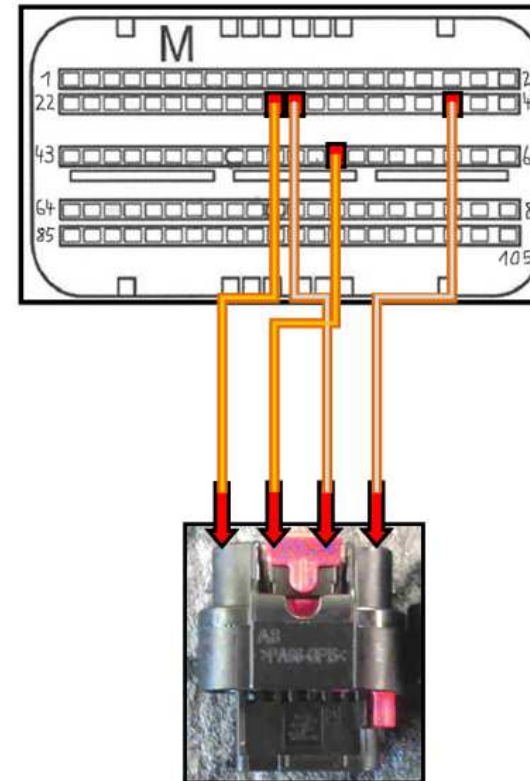
Unlock the following wires of plug „M“:

- 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 wiring harness.



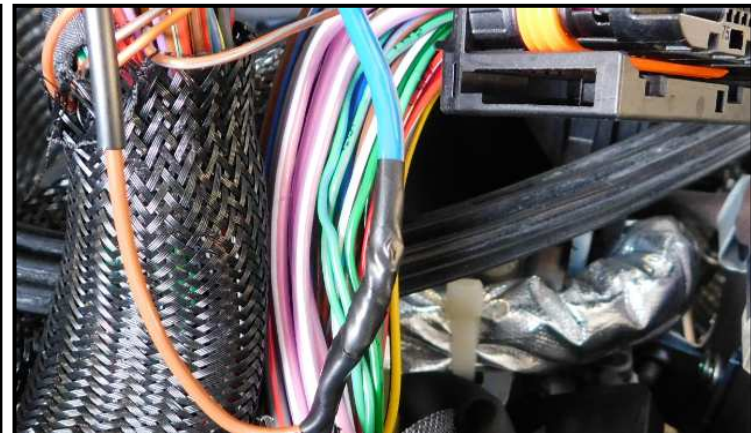
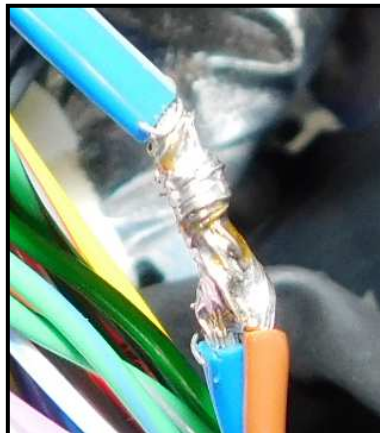
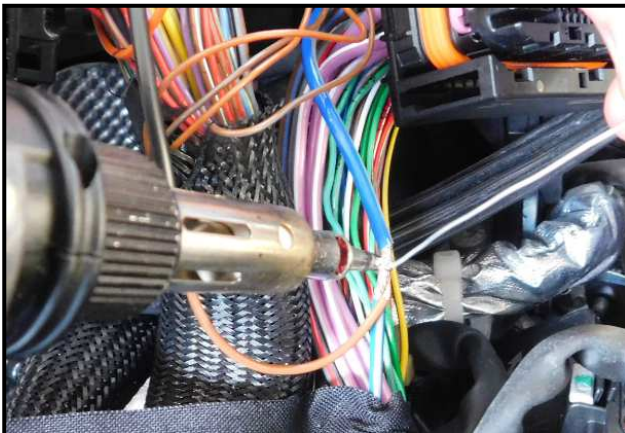
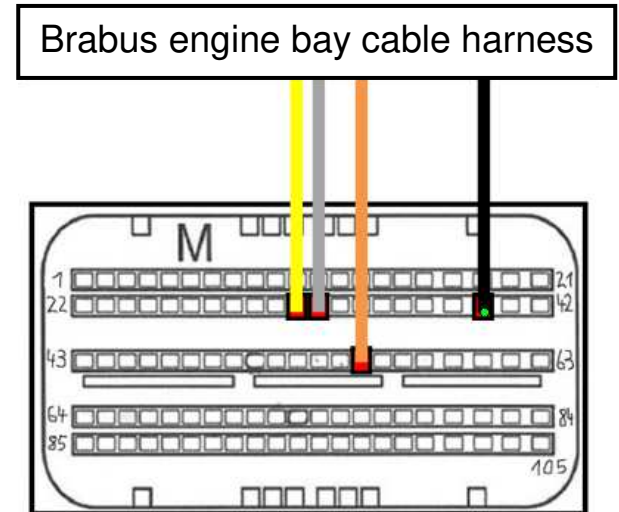
Kabelfarben nach IEC 60757
Wire colors according to IEC 60757

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

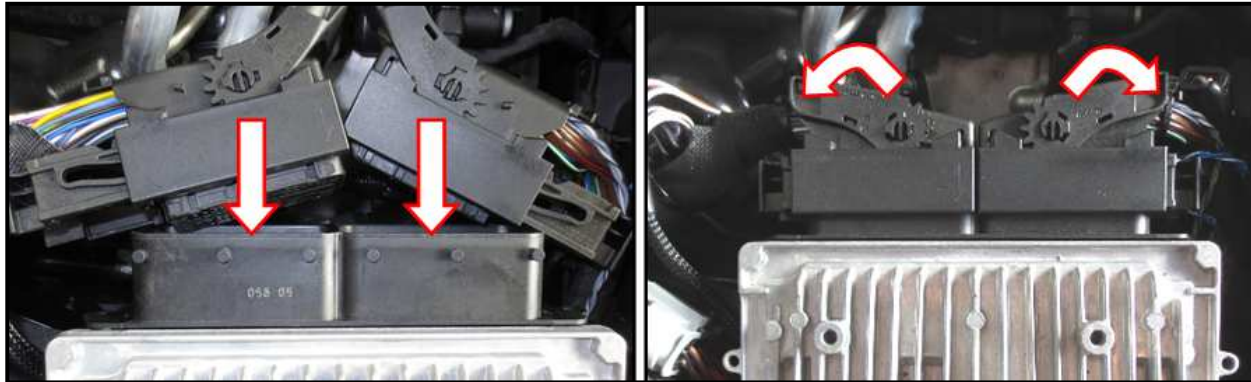
Attach wires of Brabus wire harness to the red marked slots (40, 33, 55, 32) of control unit plug „M“.

Attach the wires as follows:

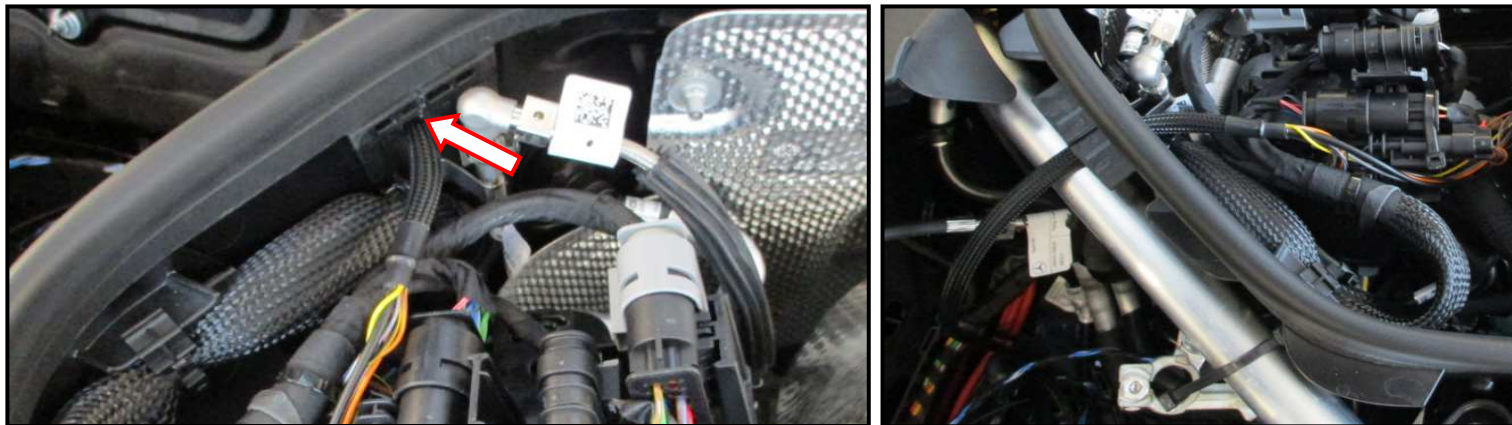
- BK to slot 40
- GY to slot 33
- OG to slot 55
- YE to slot 32
- Urgently make sure for proper latching of wires within control unit plug „M“!
Re-attach the plug locking and re-assemble plug „M“.
- Solder brown wire of Brabus wire harness parallel to the wire out of slot 2 of plug „F“. Do not just wrap 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“.



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

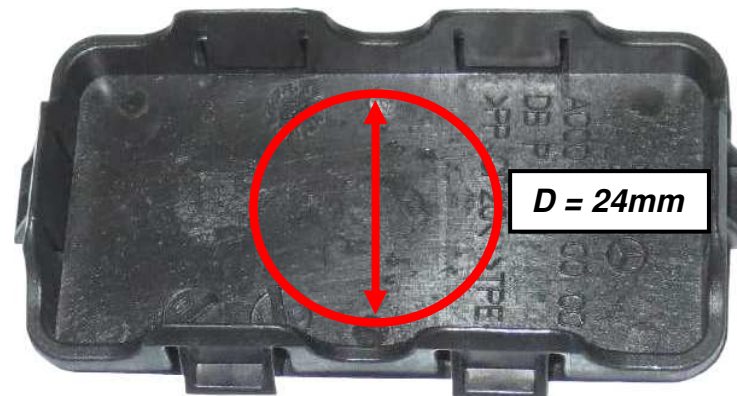
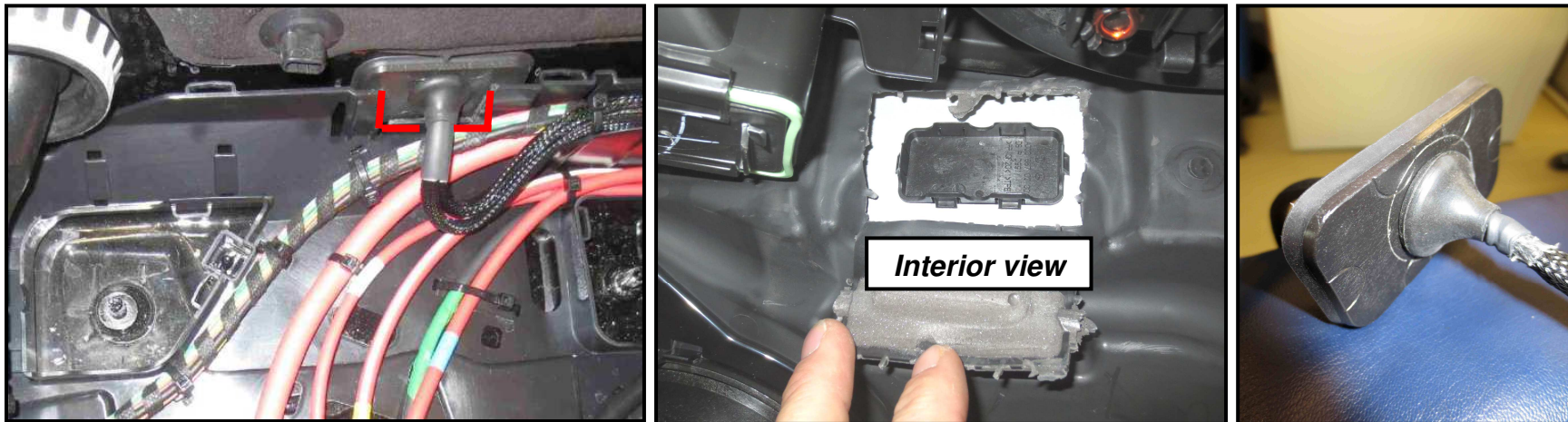


- Route wire harness through plastic grommet within the engine bay interwall (cut plastic grommet and route wire through the rubber area). Fixate wire harness by using cable ties. Route wire harness to interior implementation and fixate by using cable ties.



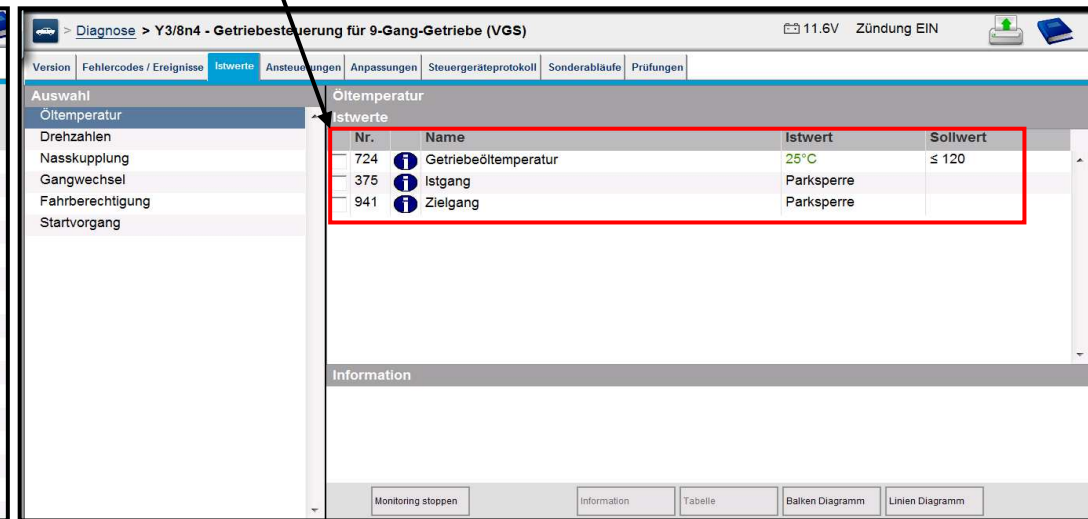
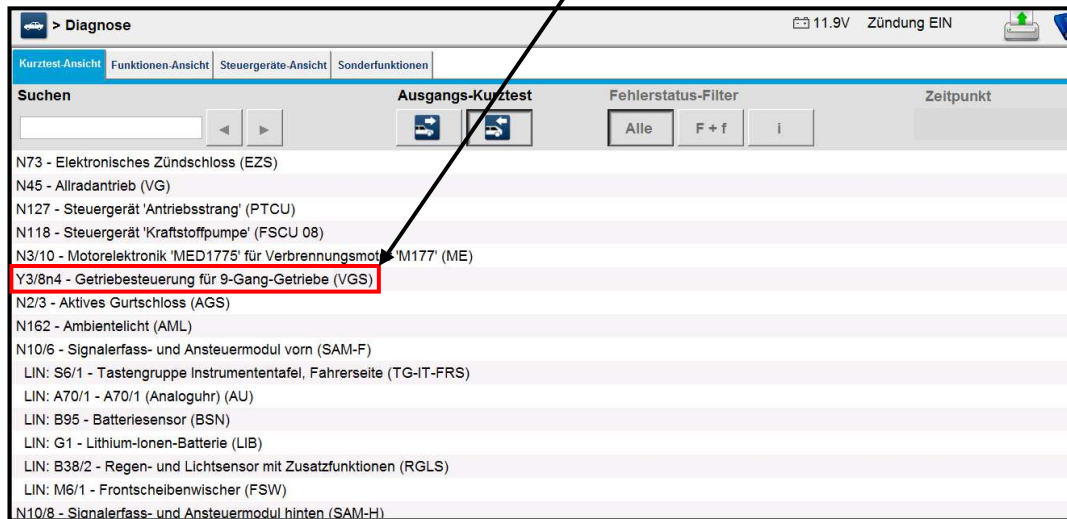
The wiring harness is routed from the engine bay into the vehicle, through plastic cover shown below.

- Loosen and fold up the battery plastic support. Cut the plastic cable duct below the battery support using a suitable tool in order to be able to route the wiring harness through. Remove the plastic cover and drill a hole into it using a suitable cone drill (centered, diameter 24mm). Route the interior connectors through the plastic cover and through the bulkhead into the vehicle, attach the rubber implementation to the plastic cover. Measure the wiring length required within the engine bay and fixate the implementation using a cable tie. Make sure for sufficient denseness of the implementation!

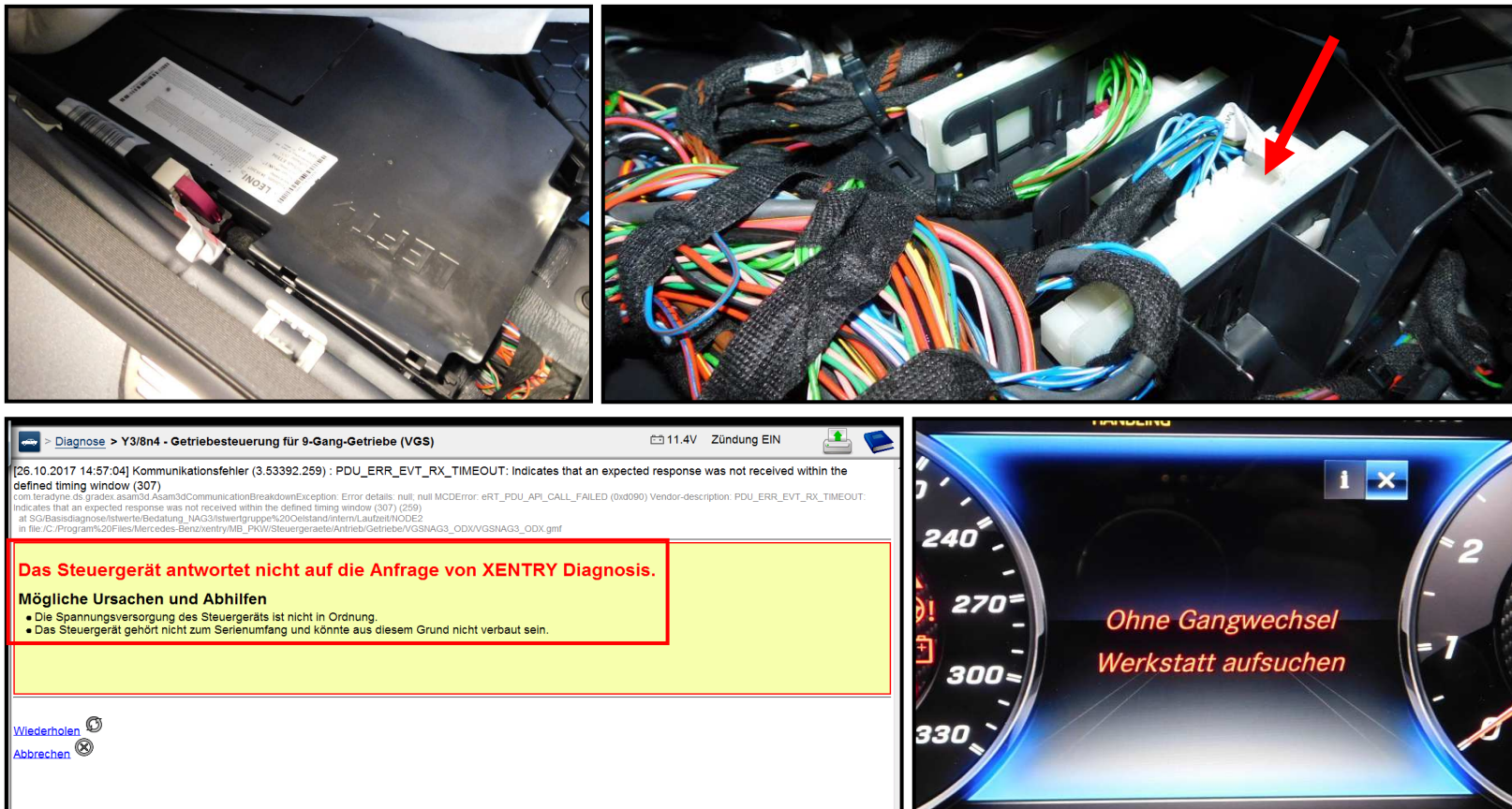


Connection of CAN-connections within passenger footwell using Star Diagnosis:

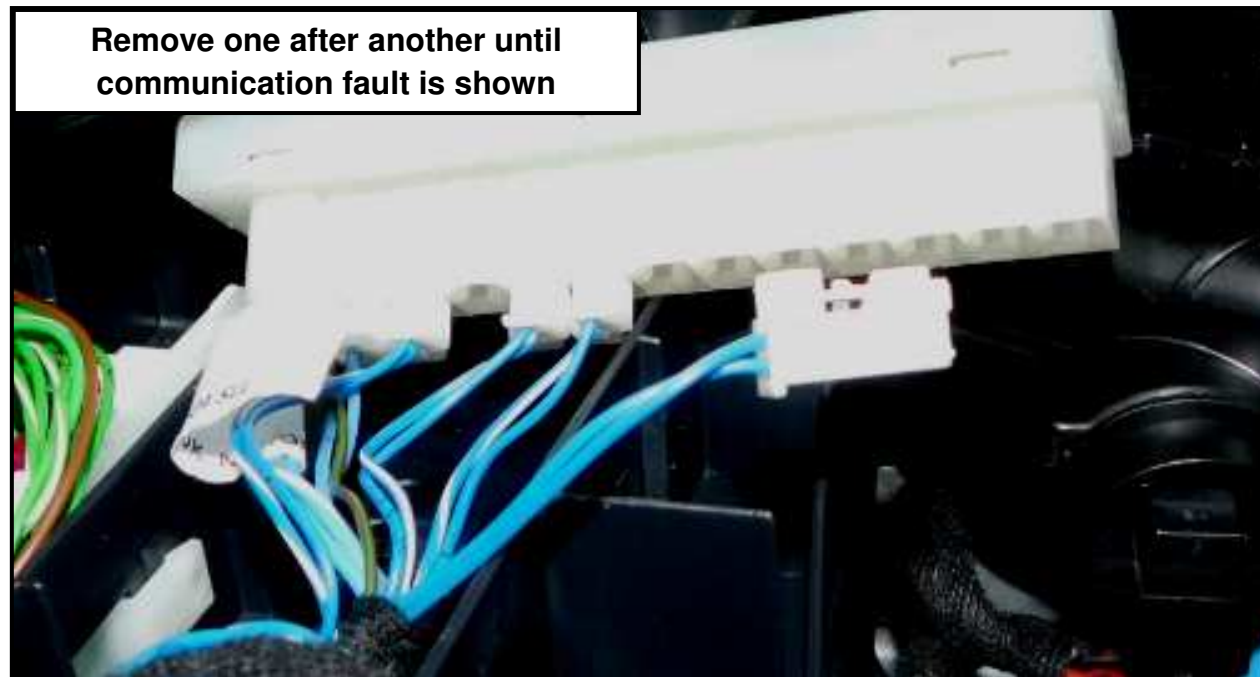
- Switch on ignition
- Connect Star Diagnosis to OBD - port and establish communication
- Choose „Y3/8n4 transmission control unit für 9G-tronic (VGS)“ and visualize actual values



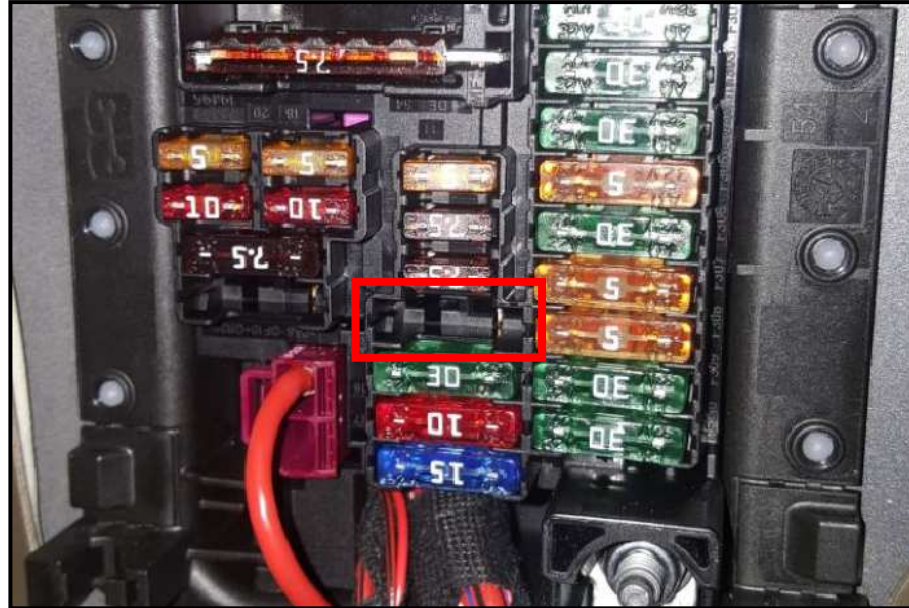
- Route the CAN-wires into the driver footwell (below dashboard). Disconnect CAN-plugs of CAN-distributor within the driver footwell shown (within cable duct, white plug, wire colors BU/ BU - WS) one after another until a communication fault is shown by Star Diagnosis (and instrument cluster fault message „Without gear change - visit workshop). The CAN-plug that has caused the fault is to be used and to be connected to the Brabus wiring harness. Attach the remaining standard plugs back into their slots.



- Release wires of 2-pole standard CAN plug and attach the wires to the 2-pole black MQS-plug supplied.
- Attach black CAN-plug to Brabus wire harness (to 2-pole plug with wire colors GY - GY / BK).
- Attach wires of Brabus interior wire (BU / BU -WH) to standard CAN-plug and attach the plug to the free port of the CAN-distributor.



- Release fuse panel. Attach power supply connector to free port (F413) of power supply panel shown. Attach supplied 5Amp fuse to the used port.

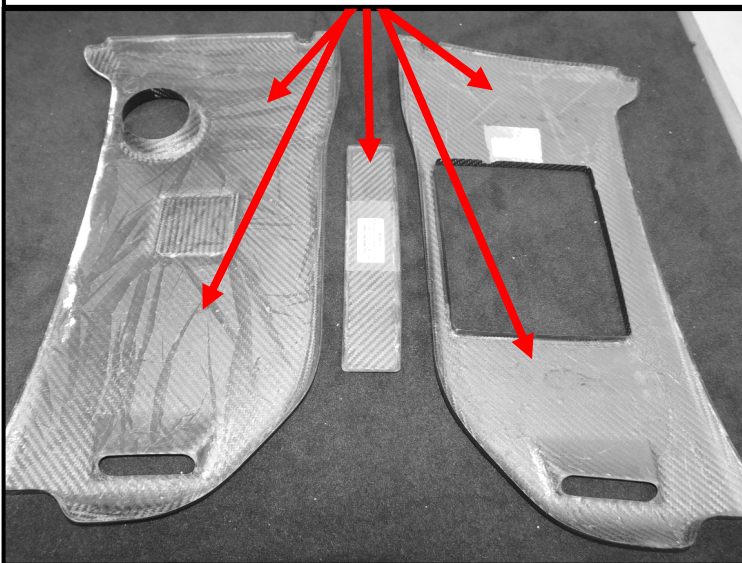


- Re-assemble all trim parts and make sure that all connections have been properly performed. Also make sure the wirings have been routed safely and protected against damages.
- Attach PowerXtra control unit to a suitable place within passenger footwell cover using Velcro tape supplied.

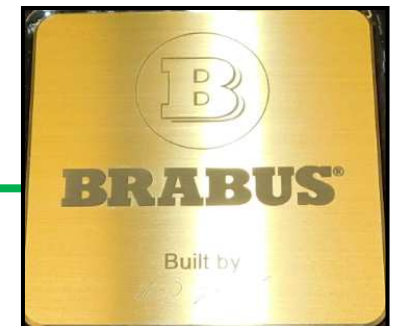
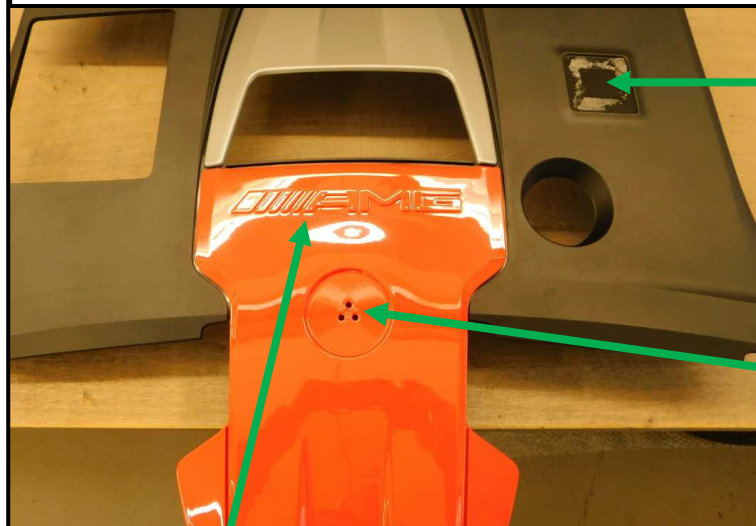
Bonding positions of badges and trim covers:

- 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





Re-assemble all trim parts, check wiring harness for proper routing. Check fault store of control unit ME and delete faults which might have occurred 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.