Installation guide and coding procedure

Monoblock-HD - 8,5x 18 ET55 for G500-4x4², wheel type-no. HD10-858-55



HD10-858-55

Attention:

The conversion of a Mercedes-Benz G500-4x4² to the Brabus Monoblock-HD wheel (dimension 8.5x18 offset 55) and tires dimension LT37 x 12,5 R18, type BF Goodrich Mud Terrain (tire recommended by Brabus) requires a VeDoc code adaptation by an approved Mercedes-Benz workshop and the decoding of the ESP®- and the engine control unit by XENTRY Diagnostics. The standard top speed of 210KM/H by this procedure is reduced to 160KM/H and the ESP® characteristic diagram is adapted to the changed requirements.

Converting a vehicle to the Brabus Monoblock-HD wheels without performing the described coding/ adaptation measures is not permissible!

Also regard to the TÜV type-approval of the Brabus Monoblock-HD rim (TÜV-Nord, document-no. RZ-065635).

Measures to be taken:

- **Delete code RK0 (ø 56cm, 22“- alloy wheels) within VeDoc, add code RL1 (ø 45,7cm, 18“- alloy wheels).**

- **VeDoc AO-text:**
  “Vehicle converted to 18“ Brabus alloy wheels with changed ESP®-regulation and modified SCN-coding of engine control unit. When converting back to 22” stock wheels please regard to document SI40.10-P-0033A of the Mercedes-Benz workshop information system”.

- **SCN-coding of ESP9_463 control unit**

- **SCN-coding of MED1775 control unit**

HD10-858-55

Please regard to tire installation and wheel balancing hints, the coding measures described strictly are to be performed!
When the vehicle is converted back to the stock wheels the codings must be set back to factory condition!

Further information:

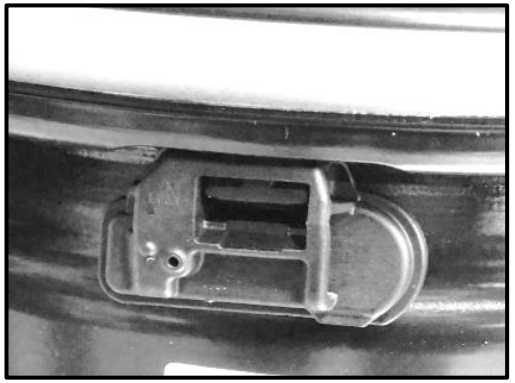
Wheel type:	**BRABUS Monoblock-HD. type-no. HD10-858-55, 8,5 J x 18 H2 - ET55**
Tire type:	**Brabus recommends tire size LT 37 x 12.50 R 18 115Q, manufacturer BF Goodrich, type MUD TERRAIN T/A KM2, which at the moment is the only tire with an ECE conformity (POR) and which is approved for usage on the G500 4x4² by Daimler AG.** **When using tires of another type an approval of the specific tire manufacturer is required,** **The tire manufacturer guidelines in this case are to be strictly followed.**
Assembly material	**Factory rim nuts, M14x1,5, R14**
Balancing weights:	**6.5mm maximum height**

The centering adapter needs to match the demands of wheels with a center bore diameter of 122mm.
Contact the manufacturer of the tire fitting machine in case that there is no suitable adapter available.
We recommend to perform the assembly by two mechanics.

Tire assembly:

- **Bolt the tire pressure monitoring sensor (BRABUS- RDK-2015, or standard Mercedes-Benz sensor) to the rim according to images below, tightening torque 8Nm.**



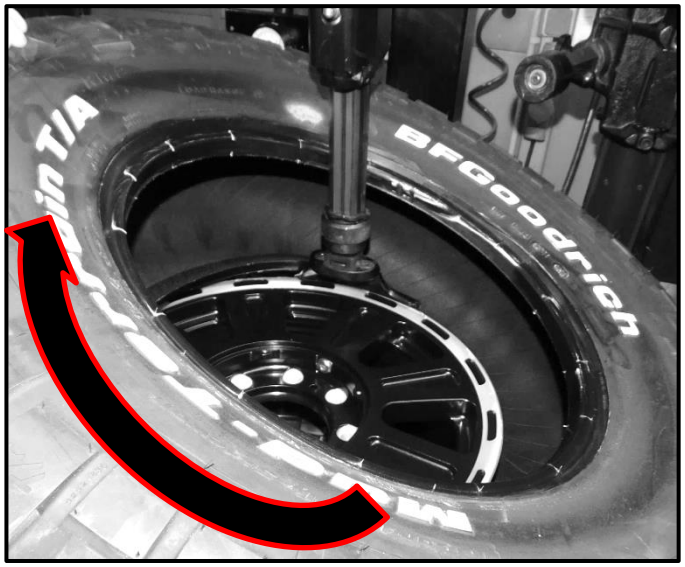


- **Attach the alloy wheel to the tire fitting machine and secure by the clamps, lubricate both tire beads and the upper hump of the rim thoroughly using approved tire lubricant.**

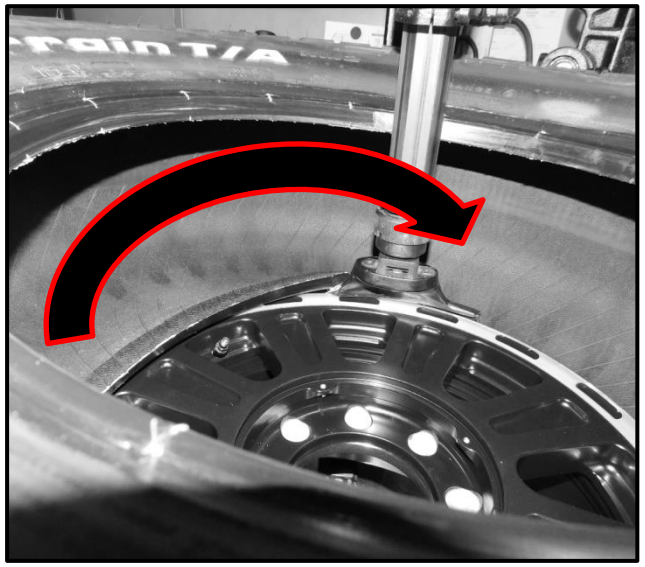



- **Lay the tire to the rim with the backside facing downward and start to operate the turntable, while turning the rim work the bead under the rim flange, above the mount head.**

The tire must be kept within the cylindric area while turning in order to avoid the tire bead rips.
Make sure the tpms sensor stays out of the assembly area.

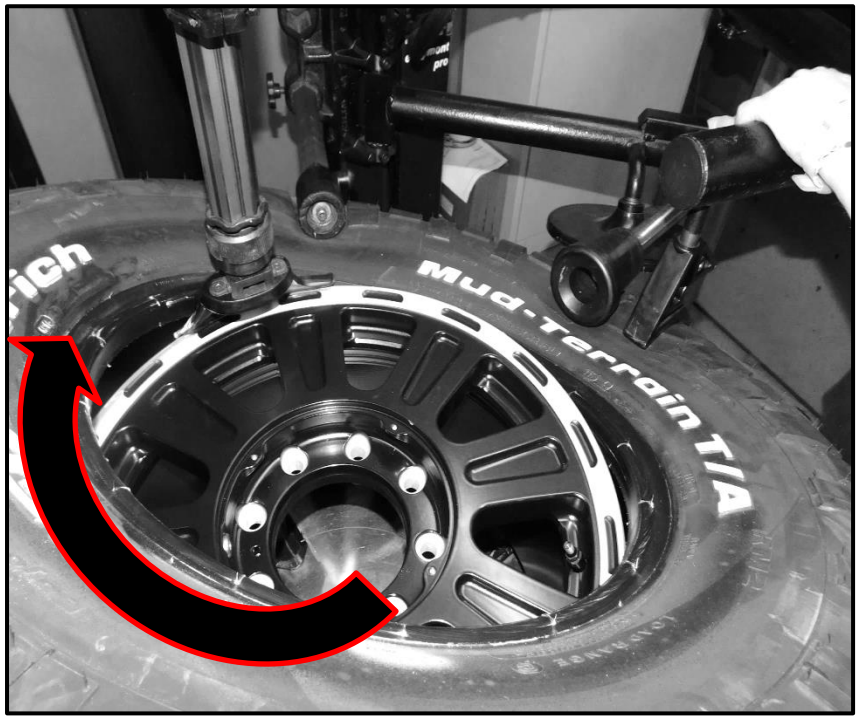






- **Place the downholder according to left image below and start turning the wheel, work the upper bead of the tire under the rim flange.**

- **Keep the downholder in a constant height during while turning until the tire bead has completely slipped under the upper rim flange.**





- **After assembly of the tire inflate the weel.**

Information:

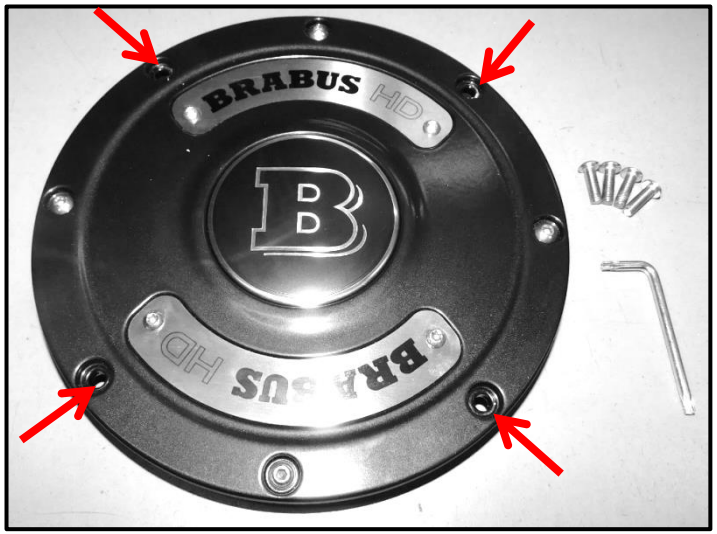
The sealing plug marked red within right image below allows the application of a tire pressure regulation system.
When no tire pressure regulation system is used it may not be loosened or removed!
When a tire pressure regulation system is used please request the accessories at Brabus.

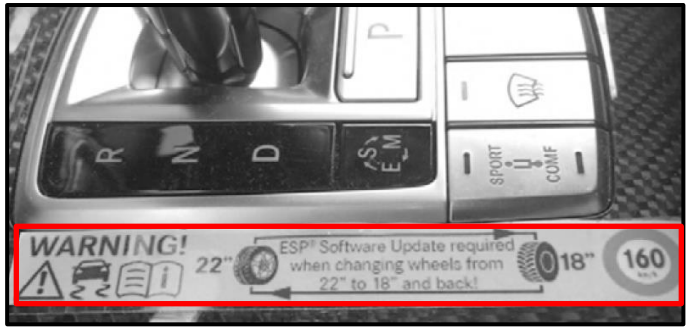




- **Balance the wheel on a wheel balancing machine, attach the balancing weights with a height of maximum 6.5mm (to have sufficient clearance to the brake caliper) according to image.**
- **Attach the balancing weights only within the cylindric area and not behind the red markings (clearance to brake caliper).**
- **Tightening torque of wheel nuts 150Nm.**
- **For assembly disassembly loosen/ fasten the 4 torx screws at areas of the center cap shown (not the allen screws).**
- **Attach the sticker with the warning hints each within the driver's viewing range and within the tool kit compartment.**







Before changing the factory delivered 22 inch wheels to the 18 inch wheels tested and approved for special operations, it is essential to ensure that the following declaration is signed by the customer. For every wheel change (including switching back to 22 inch from 18 inch), appropriate Electronic Stability Program (ESP®) recoding is necessary and the maximum design speed must be adapted to the respective wheel/tire combination installed. Each wheel/tire combination change and the vehicle modifications related to this change are to be carried out by a technical workshop qualified to make these changes, i. e. exclusively in a service operation.

<u>Every modification is to be documented as well as stamped and signed in VeDoc.</u>

Warning - risk of accident and injury

Vehicle dynamics control systems, e. g. the anti-lock braking system (ABS) and the ESP® (see operator's manual), are attuned to the vehicle's driving characteristics when equipped with the factory delivered 22 inch wheels. Due to the requested change to 18 inch wheels, it is necessary to recode the ESP® control unit in order to adjust the ESP® function to the modified wheel/tire combination, because otherwise the usability of vehicle dynamics control systems (e. g. ABS and ESP®) is affected. After the ESP® control unit has been recoded, the vehicle is to be operated exclusively with the matching or appropriate wheel/tire combination. Each change of the wheel/tire combination (including switching back to the original factory delivered 22 inch wheels) requires the ESP® control unit to be recoded accordingly. If the ESP® control unit is not recoded, this can cause brake control system malfunction with a significant increase in braking distance and unstable handling characteristics. There is a risk of ESP® system malfunction. This can lead to a risk of skidding on all types of roadway and loss of traction in damp, snowy and icy conditions. As a result, there is an increased risk of accident and injury.
After the wheel change, the maximum design speed must be limited to 160 km/h for the aforementioned 18 inch wheels and the maximum design speed must be permanently limited to this value until the wheels are changed back with the ESP® control unit being recoded appropriately. Always have the required operations carried out in a technical workshop qualified to perform them, e. g. a Mercedes-Benz service center.
The customer is hereby expressly informed of the increased risk should the ESP® control unit not be adapted (recoded) to the respective wheel/tire combination and should the maximum design speed not be permanently limited to 160 km/h when using 18 inch wheels, and in particular undertakes to:

1. **Inform third parties of this risk before transferring the vehicle (additional drivers, next registered owner or holder)**
2. **For every wheel/tire combination change (and reversal of this change), the necessary ESP® recoding and limiting of the maximum design speed is to be carried out by a technical workshop qualified for this work e. g. a Mercedes-Benz service partner.**

Copy sheet, cut off and stick the upper section into the operator's manual at the start of the chapter on SAFETY.

Certificate of compliance, exemption and measures

1. The customer declared that he is aware of all hazards and injury risks involved in connection with his requested conversion, as mentioned above.
   The customer's signature indicates that the customer expressly approved of such a conversion.
2. The customer is aware that on account of their requested change and as a consequence of their expressly declared approval of the attendant, increased hazards and risks of injury, no claims can be expressed against BRABUS GmbH, its sales partners which arise directly or indirectly because of the above-mentioned change and the related increased risk of injury.
3. The customer hereby releases BRABUS GmbH from all third-party claims and indemnification as stated under (2.).

Vehicle identification number

WDB _____

Name and address of customer:

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Furthermore, the customer hereby undertakes to ensure that

- the above-separated specification is always kept with the operator's manual
- other vehicle users are informed thereof and
- To explain in full the change and the related hazards and increased risks of injury involved to other users/purchasers of the vehicle and to document this and
- To allow the modification or backfitting of 22 inch wheels to 18 inch wheels to be reversed in a qualified technical workshop when the vehicle transfers owners.

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Date/signature of customer

Date/stamp and signature of Mercedes-Benz service operation

The Brabus partner commits himself to send the fulfilled customer declaration as PDF file to Techsupport@Brabus.com.