

# **WUNDERKIND** **CUSTOM**

## ***Rear conversion with LED lighting***



**Installation manual and safety information  
for  
BMW R 18  
From model year 2020**



## Caution



### Important safety advice:

- Work undertaken on wheels and wheel axles poses a safety risk. This work may only be carried out by appropriately qualified personnel. Faulty work can have serious consequences and may pose a threat to life and health. Only undertake this installation if you are sufficiently qualified and have an official workshop manual as well as all relevant service notifications available. Otherwise, we strongly recommend that the installation is carried out or at least checked in a specialist workshop.
- Any work in relation to the installation, removal and tightening torque of original parts should always be carried out in compliance with the workshop manual.
- All screws must be attached with thread-locking fluid. However, this should only be done after the installation is complete.
- It is your responsibility to check the product regularly and to determine if a service or replacement is required.
- Please bear in mind that this product is a safety-relevant part of your vehicle. After a fall or collision, check the product and if there is the slightest indication of damage, you must replace it.
- This product has been designed for a standard vehicle. ABM® Fahrzeugtechnik GmbH makes no warranty or guarantee of any kind for any damages whatsoever arising out of the combination with other component parts not tested by ABM, as a consequence of improper installation or inadequate maintenance. The installation of additional accessories (e.g. cases, bags, exhaust systems, ...) from the vehicle manufacturer or other suppliers can impair the functionality of the product / vehicle and is therefore not permitted.

## 1 Preparation

- Prior to the retrofit, please read the entire safety information and installation manual carefully.
- **Before coating, the fender must be fitted and adjusted, where necessary.**
- A motorcycle not securely positioned can fall over during the following work. Therefore, make sure that the motorbike is positioned on solid, flat ground and is secured against falling over and rolling away.
- Keep children and pets away from the work area and protect removed parts from damage.
- Please note when disassembling individual parts which screws are used to fasten them. Keep these parts and screws and unless specified otherwise, reuse when assembling.

## 2 Content and recommended accessories:

### Caution:

- Before installation, ensure that the spring struts are set correctly.
- To fasten the number plate, a side holder is required.
- This rear conversion has been designed for the original tyres and the original spring elements and tested with these.



### 3 Installation



Safely position the vehicle with a jack.



Remove the seat.



Remove the left side cover and plastic covering.

Disconnect the vehicle battery.



Remove both silencers.





Unscrew and remove the rear fender.



Loosen the receiver of the anti-theft device (keyless antenna).

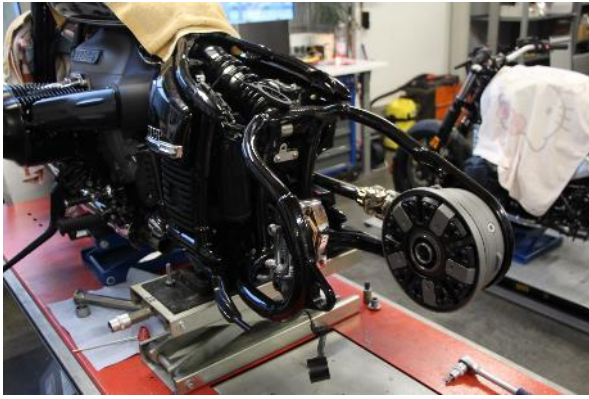


Completely remove the rear lighting.

Disconnect the plugs for the rear lighting.



Completely remove the original rear frame.



Remove the rear wheel.



Remove the mudguard.



Mount the holder provided to the lower bracket of the swingarm in accordance with the drawing.

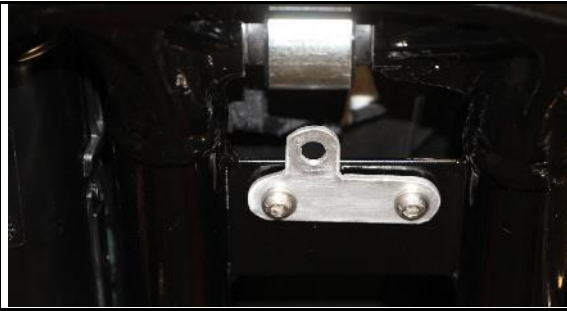


**Caution:** Please make sure to insert a spacer bushing on the left side between the holder and the swingarm and ensure that the holder's right side is located behind the bracket in order to generate a straight mounting surface for the fender.

Fasten the screws only lightly initially.



Attach the holder provided ...



... to the upper bracket of the swingarm in accordance with drawing.

Fasten the screws only lightly initially.



Carefully slide the fender into the swingarm and lightly fasten using the screws provided.



**Caution: A spacer bushing must be inserted between the fender and the upper retaining bracket.**

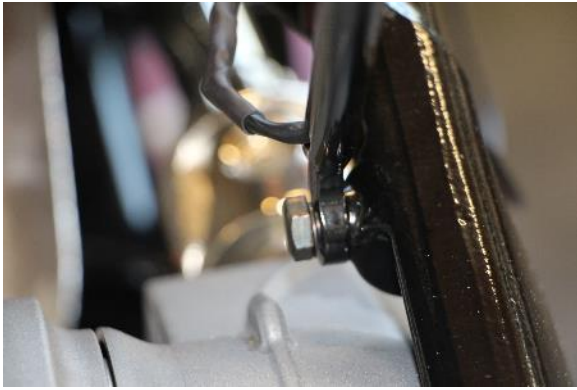


Attach the fixing braces with the screws, washers and o-rings...



... to the fender in such a way that they can still be easily turned.





Attach the two braces to the swingarm using the screws and safety washers provided.



The fender should be easily movable and adjustable at this stage.



Mount the rear wheel.

Align the fender.



Remove the rear wheel again and tighten all fender screws.

Use thread-locking fluid (medium strength).

Tightening torque M6: 8 Nm

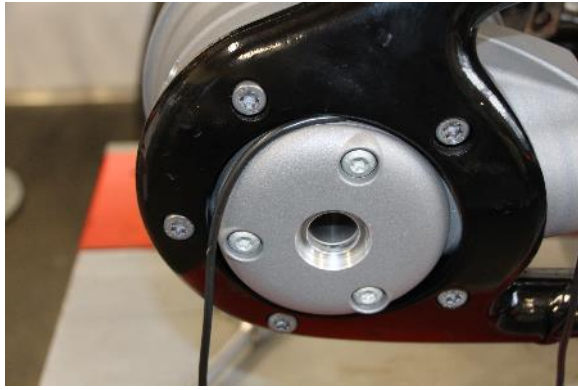
Tightening torque M8: 25 Nm



The thread pin on the inside of the rear lights can be used to align the fender and the rear lights.

Tightening torque M5: 4 Nm





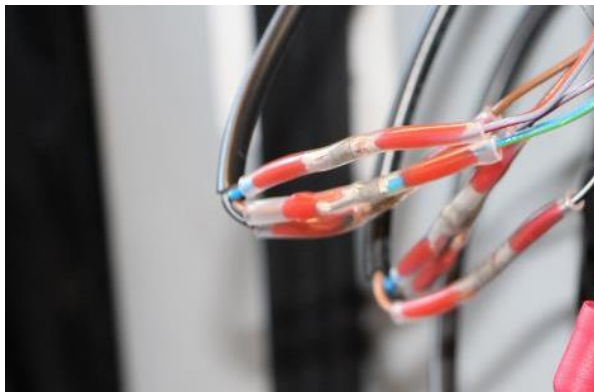
Lay both cables along the swingarm in such a way that they can be connected with the original cable harness on the left side under the side cover and next to the battery.

All electric wires must be laid in a manner which prevents them from bending or getting pulled during spring deflection movements and which adequately protects them against rubbing.



Cut the cable harness at a distance of approx. 20 cm from the connector.

**Caution: The number plate light must also be reconnected here.**



Connect both three-core cable to the original cable harness according to the diagram using the enclosed solder connector.

**Caution: Incorrectly connected electrical loads (e.g. number plate holder) can lead to malfunctions of the lighting and/or error messages on the vehicle.**

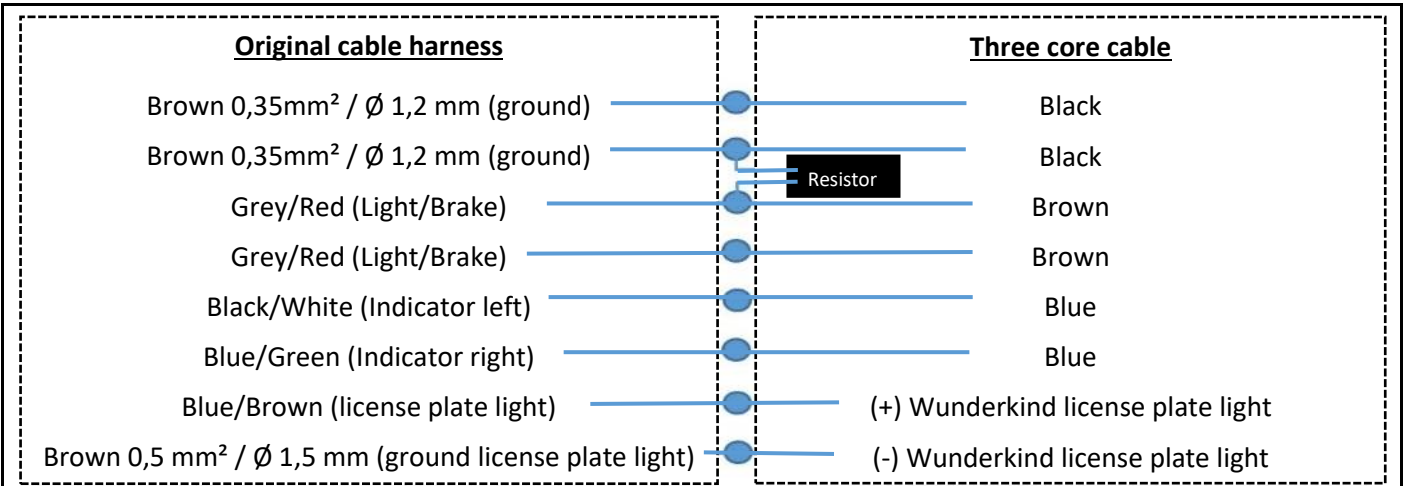
**Widerstand**

The resistor is connected in parallel to the brake light.



### **Description of the solder connectors:**

The tin is melted by the heat of a heat gun and a secure contact is ensured. Furthermore, the connector shrinks with inside adhesive and thus ensures impermeability. The transparent heat-shrink tubing enables a visual control of the connection.



**Function test**

- With ignition ON, lighting switches from brake light to tail light
- Indicator and hazard lights functioning
- Number plate lighting functioning
- No error message in display.

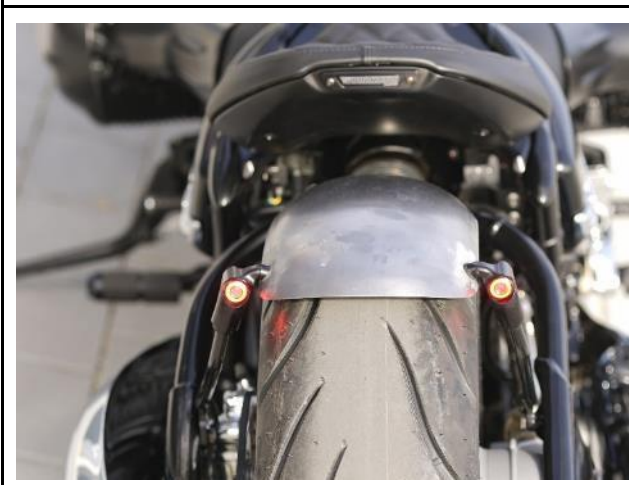


**Possible malfunction:**

- Number plate lighting not functioning
- Error message in display

**Error sources:**

- Incorrect light source on number plate holder
- Resistor not/incorrectly connected (see installation manual number plate holder)



**Possible malfunction:**

- Lighting switches off immediately
- Error message in display

**Error sources:**

- Resistor not/incorrectly connected.



Remount and reattach the rear wheel, brake caliper and all removed parts.



Pre-mount the complete seat bracket with covers.



Tightening torque M5: 4 Nm

Tightening torque M6: 8 Nm

Tightening torque M8: 20 Nm



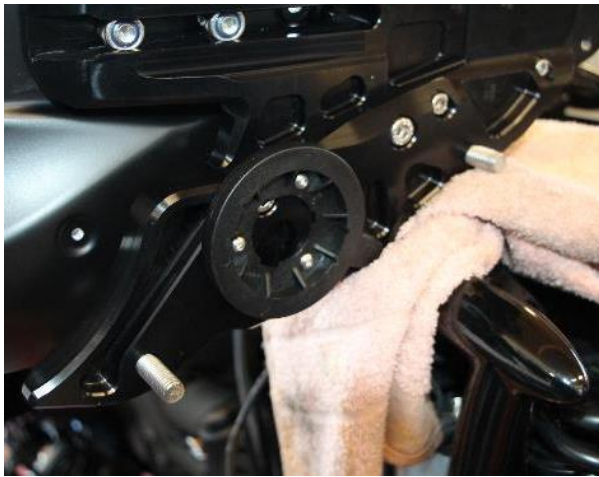
Remove the original seat bracket.





Place the two spacers provided onto the front two hold points.

Tip: Lightly grease the contact surfaces.



Using the screws provided, screw the receiver of the anti-theft device (keyless antenna) onto the seat bracket from below (the original holder is obsolete).

The cable runs to the top left.



Attach the complete holder using the screws provided.



Tightening torque M6: 6 Nm

Tightening torque M10: 30 Nm

Push the plastic coverings into the screw heads.



Slide the two nuts provided from below into the holder notch.



Attach the seat shell onto the holder using the two screws and large diameter washers provided, adjust as required and tighten.

Tightening torque 25 Nm



Place the seat onto the shell and attach using the screws (M5) provided.

*Note: Screw in the hexagon screws at the front.*



Attach the emblem using the two screws (M4) provided.

## 4 Final check

- The fender must not collide with other components on the vehicle, not even when fully loaded and over the entire spring travel.
- All electric wires must be laid in a manner which prevents them from bending or getting pulled during all spring deflection movements and which adequately protects them against rubbing.
- After completing the work, check that all components and screws are tight and functioning correctly. Also check the rear wheel's freewheel and the functionality of the brake system.
- Afterwards, a test drive must be carried out! After completing the test drive, the tightness of all screw connections must be checked, as well as the adequate free travel of all moving parts. Re-test the rear wheel's freewheel and check the brake system for overheating.



