



## Service Info



# Observe installation orientation

## Wheel bearing with passive encoder

Manufacturers: BMW, Mercedes-Benz

Models: 3 (E36, E46, E90, E91, E92)  
 5 (E60, E61)  
 7 (E38)  
 8 (E31)  
 X3 (E83)  
 X5 (E53)  
 Z3 (E36)  
 Z8 (E52)  
 E-Class (S124, W124)

Part No.: 713 6492 80  
 713 6674 80  
 713 6677 90



Fig. 2: The segments are located in the seal.

In many cases, angular transducers or so-called "encoders" are used to record wheel speed. For this purpose, an encoder wheel is located in the seal of the wheel bearing.

In order to ensure that the bearing is installed the right way round when making repairs, it is first necessary to determine which side the sensor ring is located.

With active speed recording systems, this can be checked easily and rapidly with an encoder card (Fig. 1).



Fig. 1: The encoder card can be used to determine the installation side of a multipole encoder. With passive encoders, this does not work.

The wheel bearings of the wheel bearing kits listed above, on the other hand, use passive angular transducers, also known as increment rings. These encoders **cannot** be checked with the encoder card. The relevant segments can be recognized by the recesses in the seal (Fig. 2). This side must also be installed facing inward, i.e. toward the sensor.

**Note:**

In combination with a suitable sensor, active encoders, also known as multipole encoders, deliver precise speed signals after even the slightest rotary motion. In vehicles, they are used with CAN bus systems, because they not only supply the speed signal but they also indicate the direction. Driver assistance systems such as ABS, ESP, navigation, traction control, etc. use the signal. Passive transmitters, on the other hand, primarily supply signals which can only be processed by the ABS.

Please observe the vehicle manufacturer specifications!

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