



# INSTRUCTIONS

## ABS Sensor

### Please Read These First

These instructions are intended as a guide only and are not a substitute for a workshop manual. The fitter must have a degree of mechanical competence. If you are in any doubt as to your ability to fit the part, do not undertake the job.

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## ABS Sensor

Please note the different types of ABS/wheel speed sensor, there are generally four types. An initial distinction can be made between active and passive ABS sensors.

Active ABS sensors can be recognised when they are new by their being additionally packaged in a so-called ESD protection film bag. Active ABS sensors can be damaged by an electrostatic discharge. For that reason the electrical contacts of Active ABS sensors must not be touched. Active ABS sensors cannot be tested by using conventional multimeters.

A distinction can also be made as regards the type of fitting, between screw-on and clip-in ABS sensors.

The clip-in ABS sensors is located without additional fastening screws. With screw-on sensors, a further distinction can be made between permanently screwed-on and distance adjustable active ABS sensors. In the case of distance adjustable ABS sensors, identifiable by a thread on the ABS housing and a cardboard tab on the ABS sensor head, this cardboard tab must on no account be removed or modified.

General replacement directions.

Never pull on the ABS sensor cables themselves.

When fitting the new ABS sensor, the connecting cable must be routed as factory standard and all original fitting/locating fixings, as provided by the manufacturer are utilised. ABS sensor leads must not be twisted during fitting.

It is important that the electrical contacts of the mating plug are clean and free from oxidation. During fitting, the electrical plug / socket connections must engage correctly.

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ABS sensors that have to be removed on account of a suspected malfunction must be handled with the same care as new parts. Damage may void the warranty.

After removal of the ABS sensor, the encoder ring must be checked for any mechanical damage and any excessive corrosion and if necessary replaced with a new one. Only use the specified, special tools for replacing ABS sensors.

### **Removing the old ABS sensors.**

1. Disconnect the ABS sensor cable from the ABS sensor proper.
2. Undo the fastening screw of the ABS sensor from the wheel bearing housing.
3. Carefully remove the ABS sensor from the wheel bearing housing. Pull out clip-in ABS sensors only at the gripping surfaces of the sensors.
4. When removing corroded-in ABS sensors, ensure that the mounting surface, the hole in the wheel bearing housing and the encoder ring do not suffer mechanical damage.

### **Fitting of active, passive and clip-in ABS sensors.**

1. Clean the inner surface of the hole and the mounting surface of the ABS sensor on the wheel bearing housing (note: a special tool maybe required). Then give it a thin all-round coating of plastilube/silicone grease corrosion prevention!
2. Carefully insert the ABS sensor into the hole in the wheel bearing housing. Engage clip-in ABS sensors properly.
3. Tighten the fastening screw on the ABS sensor with a low-strength thread locking agent; tighten to factory specified torque setting
4. Replace the ABS sensor cable correctly and reconnect.

### **Fitting of distance-adjustable ABS sensors.**

1. Clean the inner surface of the hole and the mounting surface of the ABS sensor on

the wheel bearing housing (note: a special tool maybe required). Then give it a thin all-round coating of plastilube/silicone grease corrosion prevention!

2. Undo the clamping screw for distance setting so that the ABS sensor is movable relative to the ABS sensor housing.
3. Carefully insert the ABS sensor with the ABS sensor housing into the hole in the wheel bearing housing.
4. Tighten the fastening screw on the ABS sensor with a low-strength thread locking locking agent; tighten to factory specified torque setting
5. Carefully slide in the ABS sensor inside its housing until it comes up against the encoder ring, then tighten the clamping screw with  $2.4 \pm 0.6\text{Nm}$ . When doing so, on no account turn the respective wheel, as otherwise there is a risk of damage to the cardboard tab on the ABS sensor head. After distance setting, the cardboard tab is destroyed during the first wheel turns. The residues do not impair the operation of the ABS sensor.
6. Re-route the ABS sensor cable correctly and remake the plug cable connection.