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ALLIGATOR®

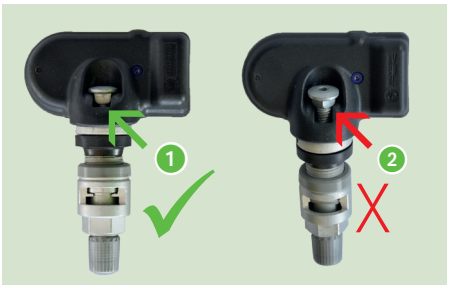
ALLIGATOR TPM Valve Technology

Generation 2 fitting variant (screw with square under screw head)

Assembly instructions

What needs to be considered during assembly?

The square section at the base of the screw must be properly seated in the slot.

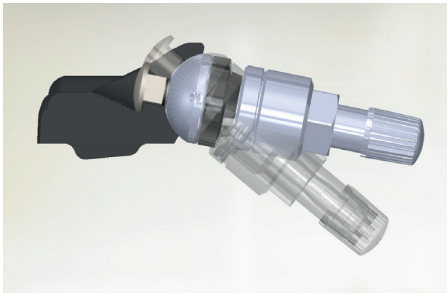


The screw must be pre-tightened sufficiently so that it can not turn when the valve is rotated in the housing.

The square section at the base of the bolt must be seated in the slot. 1

The screw must be correctly fitted in the slot, otherwise the housing can split or burst.

If the screw is incorrectly seated, it will cause damage. 2



Before fitting into the wheel, the sensor unit needs all the space provided by the adjustment angle so that it can be fitted in the optimum way at the valve angle required.

The electronics housing must be pushed into the drop-center while the hex nut is tightened. The angle between the valve and the housing sets itself automatically due to the excentricity of the ball joint and the bolt support.

Adjustment angle: Generation 2 → 10-40° / Generation 1 → 12-40°

The grommet must be seated properly against the rim

(Use the space provided by the adjustable angle (10 - 40°))

If all the adjustable angle space is not used, it may cause the grommet not to lie correctly on the rim which can lead to leaks. 2

In an extreme case, the housing can break due to the forces from the screw if the angle between the rim and the housing differs too much. 3

The grommet must run parallel to the plane of the sealing surface on the rim. 1

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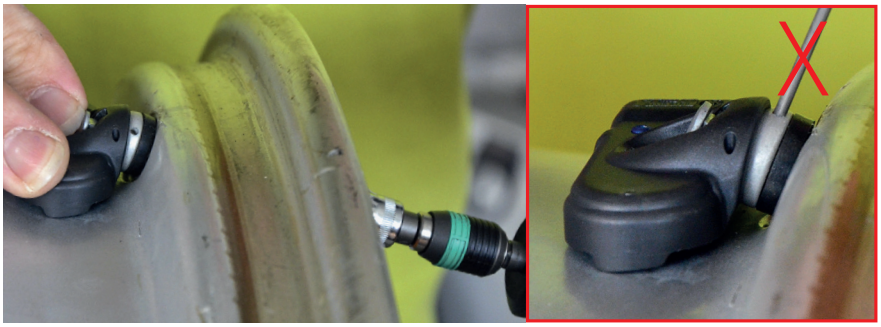
Do not use pin for assembly (to hold the valve steady during assembly!)



After assembly, check that the housing is seated firmly!

The torque of the bolt is created by the breaking properties of the special shear-collar in hex-nut, which means you must not use the pin during assembly! The valve must turn until the bolt is tightened.

Nut torque: **4,0 Nm**

The shear-collar breaks at < 3.5 Nm

Use the pin for disassembly

The cross-bore in the base of the valve is for disassembly. The disassembly pin can be used to loosen a stuck hexagonal nut.

Hex-nut with shear-collar

This fitting variant with shear-collar was developed for high volume industrial wheel assembly where the valve is assembled using electrically driven tools. When assembling by hand, the breaking tourque of the shear-collar increases due to lower fastening speed.

On this variant, visible pressure-mark on the surface of coloured valves (black, anthracite) can occure due to the assembly forces being applied twice to the hexagon of the nut (1 x shear-collar, 1 x tightening the hexagonal nut).

If the components need to be loosened for a second fitting attempt, a new nut and if necessary a new valve stem should be used, as the shear torque increases with the wear on the valve collar.

The shear-collar breaks at less than 3.5 Nm

* A valve cap with integrated seal must be used to ensure a leak free wheel-assembly.

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