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Operating instructions available for download: www.byschulz.com



Installation videos available under : www.voutube.com



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Safety Instructions:

- 1. This manual contains important information regarding the proper installation, use and maintenance of the by,schulz Stem Alpha Pro SDS. Take the listed warning and safety instructions seriously. Failure to do so may result in damage and personal injury for which the seller or manufacturer is not liable.
- 2. The installation is easily possible on bicycles and e-bikes, provided that the installation requirements are met. If you do not have the appropriate expertise, we strongly recommend installation by a dealer.
- 3. Child seats must not be attached to the stem or handlebars, as this can lead to breakage or damage. Handlebar bags or baskets can be installed, but may not weigh more than 8 kg including load.
- 4. To avoid further risks of accidents after a fall, which was accompanied by damage to the component, the stem must be replaced
- 5. We strongly recommend that you check your bike in general, and the operational safety of the Stem Alpha Pro SDS in particular, before each ride. Make sure that the stem is aligned parallel to the front wheel and is firmly tightened or free of play.



















1. USAGE APPROVAL

The Stem Alpha Pro SDS is designed for use in bicycles, pedelecs, cargo bikes and e-bikes up to 45 km/h. It is NOT suitable for extreme loads that occur in downhill, dual slalom or freeriding or riding profiles with jumps.

The aluminum 3D forged A-head Stem Alpha Pro SDS has been tested and approved according to the following DIN standards:

	City Trekking	Ebike up to 25km/h Pedelec	Speed-Ebike up to 45km/h S-Pedelec	MTB Cross Country	Cargo Bikes
	DIN EN ISO 4210	DIN EN ISO 15194	DIN EN ISO 15194	DIN EN ISO 4210	D I N 79010
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2. SCOPE OF DELIVERY

- · 1 1/8" A-Head Stem Alpha Pro SDS
- · Compact Instructions

3. TOOLS

which are needed for the installation:

- · Compact wrench for headset, wrench size 36 mm
- · Torx T25 wrench
- · Allen key 5 mm

4. TECHNICAL DATA

- · 1 1/8" A-Head Stem
- · Handlebar clamp: ø 31,8 oder 35mm
- · with SDS front cap for SDS Links/Adapter
- Material: Aluminium AL-6061-T6, 3D forged
- · Angle: Adjustment range in 10° steps from -10° to +50
- · Color: black anodized
- Installation height: approx. 120mm at 0° angle (measured at the top edge)
- · Weight: approx. 455g at 95mm length / ø 31,8mm
- · Lengths: 65 / 80 / 95 / 110 mm

5. FUNCTION / FEATURES

The stem Alpha Pro SDS allows by using an adjustment joint to change the angle of the stem.

The use of an aluminium adjusting ring instead of an A-head claw / starnut to adjust the headset clearance, allows an internal cable routing of handlebar mounted accessories such as display, headlight and / or brake cables.

In addition, a rotation option of the handlebar by 90 $^{\circ}$ to the right or left without affecting the bearing clearance and the smooth running of the headset is provided.

6. INSTALLATION REQUIREMENTS

- · A-Head fork shaft 1 1/8" threadless, outer diameter 28,6 mm.
- · The necessary fork shaft protrusion is 55-59 mm. No A-Head claw (starnut) is required in the fork shaft.

Protruding 1 1/8" A-Head fork shaft Spacer ring Conical spacer / Riser Head tube/ Frame Technical Installation Requirements Stem Alpha Pro 28,6 mm Spacer ring Chical spacer / Riser Head tube/ Frame 11/8" Head tube

- · If necessary, the correct fork shaft protrusion can be achieved by placing the suitable spacer rings (riser) underneath.
- · The threadless fork shaft can be shortened to the correct length. When cutting, make sure that the end of the fork shaft still has an outer diameter of 28.6 mm and no sharp edges.
- •The brake and shift cables, as well as electrical cable connections to the handlebars, must be of sufficient length to keep them free of bends and to ensure that they do not interfere with the steering in any way.
- · Handlebar and stem must be compatible with each other and must have the same clamping diameter of 31.8 mm or 35mm.

7 INSTALLATION

Before mounting, make sure that all clamping surfaces of the stem, fork shaft and handlebars are clean and free of grease!

7.1 Mounting the stem

1. Loosen the M5 Torx T25 clamping screws on the base (central element) and on the clamp of the stem. (Fig. 6.1.1)



- 2. Push the Stem Alpha Pro SDS onto the fork shaft end so that it rests directly on the headset or spacer ring (riser).
- **3.** Align the stem exactly in the driving direction.
- **4.** Tighten the top M5 clamping screw of the base clockwise with 5-6 Nm to fasten the base to the fork shaft. (Fig. 6.1.2)
- 5. Adjust the headset free of play by unscrewing the

aluminium adjusting ring with a 36 mm fork wrench (counterclockwise). It should still be possible to turn the fork easily (Fig. 6.1.3).



(Fig. 6.1.2)

(Fig. 6.1.3)

- **6.** Tighten the middle M5 clamping screw with 5-6 Nm to fix the aluminium adjusting ring. (Fig. 6.1.4)
- **7.** Align the clamp exactly with the base and fasten it with the M6 clamping screw with 5-6 Nm (Fig. 6.1.5).



8. The stem is now firmly clamped on the fork shaft. Check bearing play and alignment of the stem, correct if necessary. Now the handlebars are mounted.

7.2 Angle adjustment

1. To change the stem angle, you need a 5mm Allen wrench. Loosen the screw in the adjustment joint counterclockwise and turn it out approx. 8 complete turns. (Fig. 6.2.1)



2. By pressing firmly on the head of the loosened screw, you can push the connector out of the joint a little. In this position, the stem can be adjusted in 10° steps. (Fig. 6.2.2)



 ${\bf 3.}$ Select the desired angle in the adjustment range from

-10° to 50°. (Fig. 6.2.3)



- 4. Press the connector back into the joint. Note that the stem element may have to be moved slightly up or down due to the predefined detent. After pressing the connector back, tighten the screw again with a torque of 10-11Nm in clockwise direction. Finish by turning the handlebars to adjust the grip position to the new riding position. The Stem Alpha Pro SDS is now ready for use.
- Lastly, the handlebar position is adjusted to the new riding position by rotating the handlebar. The Stem Alpha Pro SDS is now ready for use.

8. TWIST FUNCTION

Turning sideways: (Fig. 8.1.1 & Fig. 8.1.2)

- 1.1 You will need a Torx T 25 wrench for the twisting function. Loosen the two upper clamping screws in the base counterclockwise. The lower clamping screw of the clamp must not be loosened in the process.
- **1.2** Now turn the stem sideways to the right or left to the desired position.
- **1.3** Retighten the two upper clamping screws to lock the handlebar in the sideways position.

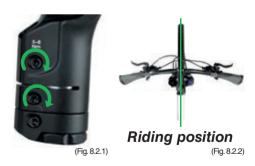


(Fig. 8.1.1)

(Fig. 8.1.2

Back to driving position: (Fig. 8.2.1 & Fig. 8.2.2)

- **2.1** Loosen the two upper clamping screws in the base.
- **2.2** Realign the handlebars to the driving position. Now the base should be exactly aligned with the clamp.
- 2.3 Tighten the two upper clamping screws with 5-6 Nm to secure the stem firmly to the fork shaft again. The bike is ready to ride again.



9. MAINTENANCE

After first installing the stem and a short running-in period of approx. 20 km, check the fork and handlebar play. Readjust them if necessary. Clean the stem regularly. At every annual bike inspection (at least every 1000 km), the play of the headset and Stem Alpha Pro SDS should be professionally checked.