NS VAS Stem Installation Instructions

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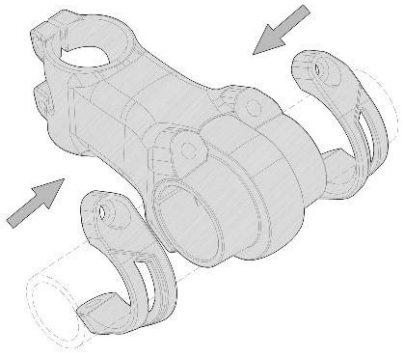
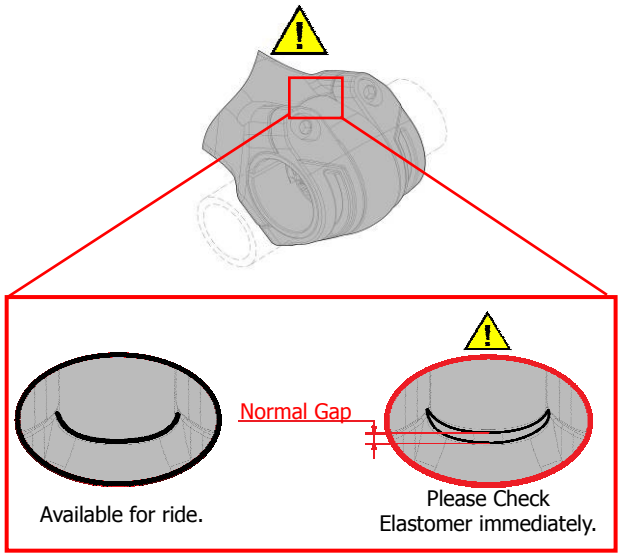


Fig. A



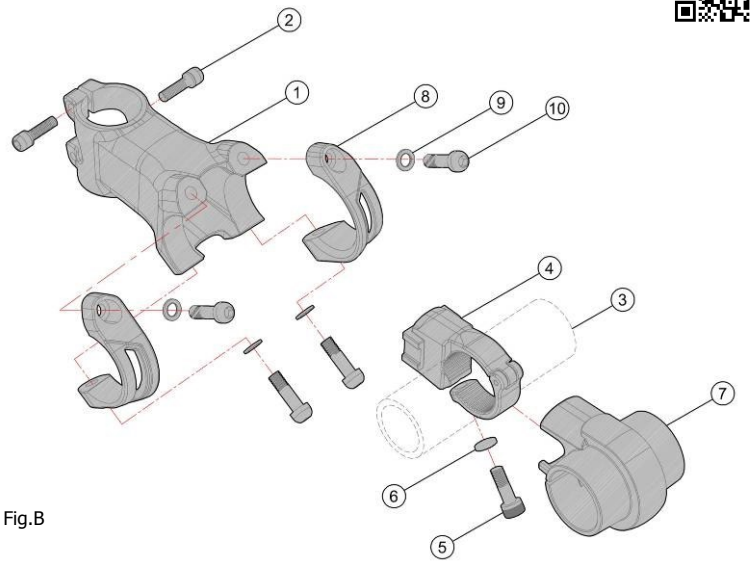


Fig.B

Introduction

Congratulations on your Full Speed Ahead product. Please read these instructions and follow them for correct use. Failure to follow the warnings and instructions could result in damage to product not covered under warranty, damage to bicycle; or cause an accident resulting in injury or death. Since specific tools and experience are necessary for proper installation, it is recommended that the product be installed by a qualified bicycle technician. FSA & Vision assumes no responsibility for damages or injury related to improperly installed components.

Warranty

Full Speed Ahead (FSA) warrants all FSA and Vision products to be free from defects in materials or workmanship for a period of two years after original purchase unless otherwise stated in the full warranty policy. The warranty is non-transferable and valid to the original purchaser of the product only. Any attempt to modify the product in any way such as drilling, grinding, and painting will void the warranty. For more information on warranty policy and instructions for completing a warranty claim, check out the Full Warranty Policy found at our website: https://www.fullspeedahead.com/en/technology

NS VAS Stem elastomers and bushings are consumables and not covered by the FSA warranty.

Specification

Model Name / Item Number **FSA NS VAS Stem** / **ST-OS-19**

FSA road stems are compatible with industry standard steerer tube and handlebar diameters. To choose the correct FSA stem, first check the specific diameter of steerer tube and handlebar to be used.

Components

Follow the assembly order in the illustration:

① NS VAS Stem Body x1
② Fixing Bolts M5x18L x2
③ Handlebar (not included)
④ Handlebar Clamp x1
⑤ Socket Head bolts M6x20L x 1
⑥ Lock Washer x1
⑦ Elastomer x1
⑧ Face plate x2
⑨ Washer x4
⑩ Round Head bolts M6x20L x4

Stem Installation to Fork Steerer Tube

1. Measure diameter of steerer tube to be certain it is correct size for VAS stem ① installation. It's often required that the steerer tube be cut to length and should be performed by a qualified bicycle technician. Ensure the steerer tube is clean and free of burrs or chips before installing stem onto steerer tube.
2. Headset should be installed per headset manufacturer's instructions.
3. Apply small amount of FSA Dynamic installation compound on Carbon steerer tubes.
4. Install the Expander Assembly (not shown) per Expander Assembly instructions if use with Carbon steerer tubes.
5. Tighten the fixing bolts ② to 61 kgf.cm / 6 Nm / 53 in.lbs. of torque by alternating between bolts 1/4 turn at a time so both bolts reach proper torque simultaneously.

⚠ CAUTION Do not go above maximum torque rating printed on the VAS stem. If two Fixing Bolts ② go over the maximum torque, can cause cracks in carbon steerer tube. Check stem for slippage on the steerer tube before proceeding.

Handlebar Installation to Stem

1. Apply FSA Dynamic Installation Compound on handlebar ③ clamp area. Insert handlebar between Handlebar Clamp ④.
2. Apply grease to Fixing bolt ⑤ and thread into Handlebar Clamp ④ including Lock Washer ⑥, adjust the handlebar to the desired angle then tighten the bolt to 112 kgf.cm / 11 Nm / 97 in.lbs..

Note: While tightening Fixing Bolt ⑤, the Lock Washer ⑥ can make clicking sounds. This is normal and not an indication of handlebar failure.

3. Install desired Elastomer ⑦ around the Handlebar Clamp ④ and handlebar ③, Ensure the elastomer bolt hole is facing down.
4. Install the Face plate- Left and Right ⑧ overlay on Elastomer ⑦ from two sides (see Fig.A) by using Washer ⑨ and Fixing bolts ⑩ tighten to finger tight.
5. Ensure the Fixing bolts ⑩ are correct positioned, tighten to torque 61 kgf.cm / 6 Nm / 53 in.lbs by alternating between bolts 1/4 turn at a time so both bolts reach proper torque simultaneously. Ensure Stem Body ① Face plates ⑧ and Elastomer ⑦ have no gaps. Tighten the bolts ⑩ to 122 kgf.cm / 12 Nm / 106 in.lbs by alternating between bolts 1/4 turn at a time so both bolts reach proper torque simultaneously.

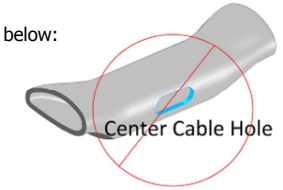
⚠ CAUTION Do not go above maximum torque rating printed on the stem. Check handlebar for slippage before each ride to ensure safe operation. Contact FSA for Troubleshooting information.

⚠ WARNING

The elastomer and bushings are consumables and must be inspected regularly. If they are damaged, must be replaced immediately. If continue to ride with the damaged elastomer and bushing, it may cause the stem or handlebar to slide, causing the bicycle to lose control, an accident, result in damage to the bicycle, or injury or death.

Depending on the rider and the riding route, the elastomer and the bushing may have different wear rates. Recommended service interval for bushing and elastomer are shown in the chart below:

- **Do not install NS VAS Stem on handlebars with holes for cable routing in the central clamping region, handlebar damage or breakage can result.**
- **NS VAS Stem is only compatible with handlebars that have a Φ31.8mm clamp area and are narrower than 460mm.**
- **Check NS VAS Stem elastomer and bushing regularly, if there is damage or significant wear replace with new parts.**
- NS VAS Stem only compatible to Steerer Tube Dimension Ø28.6mm
- Do not use bolts and spacers not originally equipped with NS VAS Stem



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Bushing Color	Usage Level	Riding Hours (Approx)	Mileage (km)	Normal Gap(mm)
Black	Race	1000	+/- 20,000	0.5
Dark Grey	Sport	500	+/- 10,000	0.5
Grey	Comfort	100	+/- 2000	1

⚠ WARNING

Measure Fork Steerer tube and handlebar clamp area before installing stem. Use an accurate measuring device such as a caliper or micrometer. Installing stem onto an undersized steertube or handlebar can cause stem or bar to slip causing loss of control of bicycle; resulting in an accident, damage to bicycle, injury or death. Use FSA Dynamic Assembly Paste between stem, steerer tube, and handlebar to reduce chances of slippage. Consult fork and handlebar manufacturer for exact diameter specification. If manufacturer specifications are unavailable, general guidelines are as follows:

Handlebar Clamp Area Dimensions:
- Φ31.8mm + 0.15 / -.00mm

Steerer Tube Dimensions:
- 1 1/8" Φ28.6mm +.01 / -.00mm

⚠ WARNING

Headset and Fork must be installed before stem installation. Headset and Fork installation requires specialized knowledge, tools, and experience. General mechanical aptitude may not be sufficient to properly install these components. It is recommended that the headset and fork be installed by a qualified bicycle technician. Improper installation can result in failure of headset, fork, stem, and cause personal injury or death.

Contact

If you have questions, please visit our web site technical section: https://www.fullspeedahead.com/en/support or contact:

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Notes: Specifications of product may be changed or improved for performance. Please refer to website periodically for technical updates and revised instructions. Printed in Taiwan.