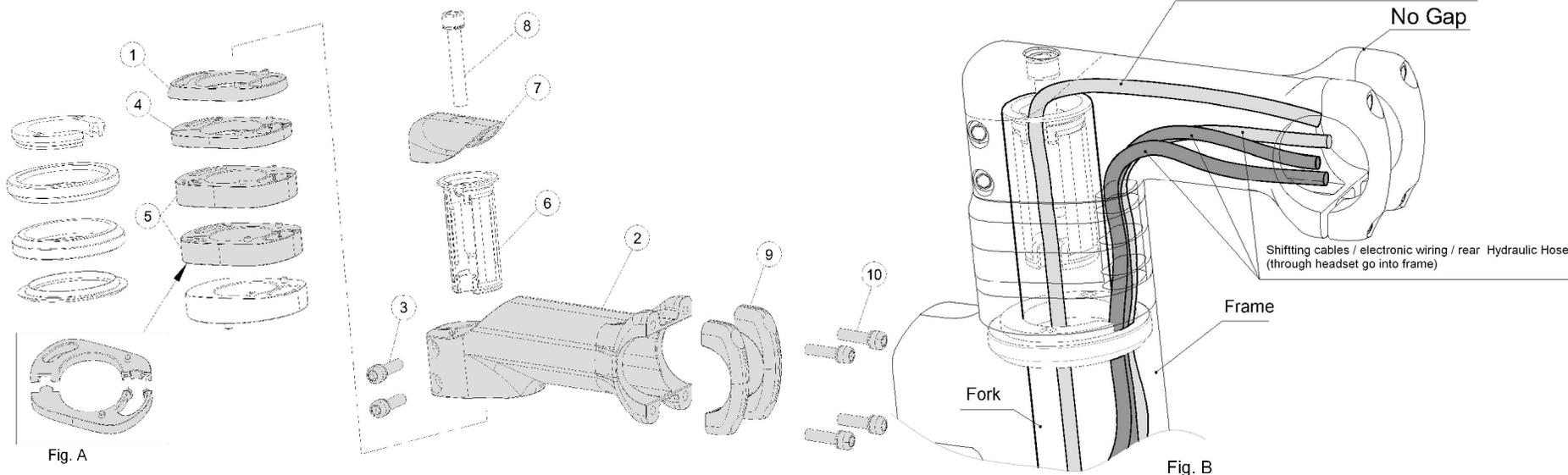




NS ACR Stem Installation Instructions

Published – Oct, 2018. ZS210.v0 © Full Speed Ahead

WWW.FULLSPEEDAHEAD.COM



Introduction

Congratulations on your purchase 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, Vision, Metropolis and RPM 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: <http://www.fullspeedahead.com/en/support/warranty-policy>

Specification

Item Number / Model Name ST-OS-160/ NS Series ACR

FSA road, MTB and 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 Spacers | ⑥ Expander Assembly x1 (Not include) |
| ② NS ACR Stem Body x1 | ⑦ Top cap x1 |
| ③ Fixing Bolts x2 | ⑧ Compression Bolt x1 (Not include) |
| ④ Left / Right spacer 5mm x1 | ⑨ Stem Face Plate x2 |
| ⑤ Left / Right spacer 10mm x2 | ⑩ Face Plate Fixing bolts x4 |

Wiring Installation Tips

1. Before proceeding to installation, all Brake/ Hydraulic Hose / electronic wiring / should be run through the handlebar and NS ACR Stem Body ② and Spacers ④、⑤ / ACR Expander Assembly/ ACR headset. (Fig. B)
2. Installation is greatly improved when using a guide cable to gently pull the housing or electronic wires through the stem from either direction.

Stem Installation to Fork Steerer Tube

1. Measure diameter of steerer tube ④ to be certain it is correct size for ACR stem installation. It's often required that the steerer tube be cut to length. This operation should be performed by a qualified bicycle technician. Install fork through the stem body, place the spacers ① over the fork and then according to your demand place left/right spacers ④、⑤ (④、⑤ are detachable, fig A).

Note: Carbon steerer tubes should not extend through the stem completely to ensure top cap can be used to tighten the NS ACR stem. Ensure that 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 steerer tube.
4. Install the Expander Assembly ⑥ per Expander Assembly instructions below.
5. Apply grease to stem fixing bolts ③. Tighten the bolts 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. If two fixing bolts go over the maximum torque, may cause damage to bolts and carbon fork cracks. Ensure stem will not slip before proceeding to install handlebar.

Expander Assembly Installation

The Expander Assembly is designed to work with Carbon Steerer Tubes. Do not apply grease on the Carbon Steerer or Expander Assembly.

1. Install the Stem ② onto the Carbon Steerer. Tighten the Steerer Clamp Bolts ③ finger tight only.
2. Adjust Expander Assembly ⑥ so it contacts the inner walls of the steerer tube but is still able to slide inside. Install the pre-adjusted Expander Assembly. Tighten the Expander Assembly with a 6mm hex wrench to 60-90 kgf.cm / 6-9 Nm / 53-80 in.lbs. of torque.
3. Tighten the Top Cap ⑦ with a 5mm hex wrench to until proper bearing preload is achieved. Note: Proper bearing preload is apparent when there is no "knock" (fore / aft or up / down free play) in the headset assembly, while the bearings rotate freely (free steering motion).

⚠ CAUTION Check the alignment of Stem to the front wheel before final torque is applied to the Steerer Clamp Bolts, loosen and adjust if required. Be sure all bolts are tightened to recommended torque.

Handlebar Installation to Stem

1. Apply FSA Dynamic Installation Compound on handlebar clamp area. Insert handlebar between stem body ② and face plate ⑨. Pre-tighten Face Plate Fixing bolts ⑩.
2. Apply grease to faceplate bolts ⑩ and tighten the upper bolts to a torque 60-90 kgf.cm / 6-9 Nm / 53-80 in.lbs 1/4 turn at a time to tighten faceplate evenly (Fig. B).
3. Tighten the lower bolts to a torque 60-90 kgf.cm / 6-9 Nm / 53-80 in.lbs 1/4 turn at a time to tighten faceplate evenly.

⚠ 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

Be sure to choose the correct stem to fit the steer tube and handlebar for which it is to be installed. Installing the stem on an incorrect steerer tube, or handlebar clamp diameter may cause damage to product, or cause an accident resulting in injury or death.

- | FSA NS ACR stems are designed to work with 1 1/8" steer tubes. (Apply small amount of FSA Dynamic installation compound on steerer tube and stem)
- | FSA Road and MTB stems are available to fit 31.8mm Handlebar clamp only.

⚠ 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:

- | 31.8mm + 0.15 / -.00mm
- | 26.0mm + 0.15 / -.00mm
- | 25.4mm + 0.15 / -.00mm

Steerer Tube Dimensions:

- | 1 1/8 " 28.6mm + 0.1 / -.00mm
- | 1 1/4 " 31.8mm + 0.1 / -.00mm
- | 1 1/2 " 38.1mm + 0.1 / -.00mm (referred to as 1.5")

⚠ 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: <http://www.fullspeedahead.com/contact> or contact:

Full Speed Ahead, USA
12212 Cyrus Way Mukilteo, WA 98275-5702
Tel: 1_425_488_8653 Fax: 1_425_489_1082

Full Speed Ahead, Europe
Via Del Lavoro, 56 20874 Busnago, Milan, Italy
Tel: +39_039_688_5265 Fax: +39_039_682_3336

TH INDUSTRIES / FSA Asia
NO.6, Wu-gong 8th Rd., Wufeng Dist., Taichung City 41353, Taiwan (R.O.C.)
Tel: +886_4_2331_9134 Fax: +886_4_2331_9314

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.

Vision

METROPOLIS