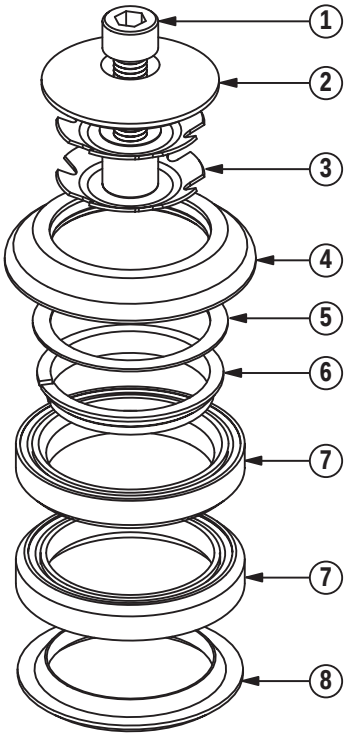
# AHEADSET® ISC & ICBM Headset Installation Instructions

**WARNING:** AheadSet threadless headsets are designed for use with unthreaded, full-thickness bicycle fork steerer tubes. Use of this headset with a threaded steerer tube or a steerer tube with a reduced wall thickness can result in cracking or breaking of the steerer tube, causing damage to the bicycle and possible injury or death to the rider.

## A) Headset & Frame Compatibility

AheadSet ISC & ICBM headsets can be used only in bicycle frames specifically designed for their use and are incompatible with frames designed for headsets with "traditional" press-in cups. Head tubes must be made with a specific and unique bore diameter. ISC & ICBM headsets appear to be similar in design (Integrated Standard) , but are not compatible with each other. The ICBM headset is compatible with certain Schwinn Mountain Bikes (only).




1. *Adjusting Bolt*
2. *Top Cap*
3. *Star Nut*
4. *Upper Cover*
5. *IS Spacer (0.25-0.5 mm)* *(included with ISC only)*
6. *Compression Ring*
7. *Bearing*
8. *Crown Race*

## B) Inspection of Frame Before Headset Installation:

The cutting tools used to ream and face head tubes for use integrated system (IS) headsets are not commonly available and are very different from those traditionally used. It is the responsibility of the frame manufacturer to ensure that the head tube is made correctly. However, the following inspections are necessary:

1. Ensure that tapered bearing seats inside the head tube are free of paint and other obstruc tions that could prevent the bearings from seating properly.
2. Ensure that the top of the head tube is flat to prevent undesired contact between the bottom of the bearing cover and the head tube.
3. Pre-assemble the upper assembly components into the top of the head tube in the order shown in the illustration (upper right) while omitting any spacers. Verify that the upper bearing cover sits slightly above the top of the head tube (It is acceptable to add spacers above the compression ring to adjust this gap as necessary.)
4. Next pre-assemble the lower assembly components into the bottom of the head tube. Verify that the bottom of the crown race is slightly below the bottom of the head tube.

Note: The bearings should assemble into the head tube with little or no resistance.

## C) Preparing Fork for Headset Installation:

Use a crown race cutting tool to face the crown race seat of the fork. This will ensure that the fork crown seat and steerer tube are aligned.

## D) Determining Required Fork Steerer Tube Length:

1. Install the crown race as instructed in F below.
2. Assemble the headset as instructed in H below (choose the short or tall cover).
3. Tighten 1 stem clamp bolt enough to hold the assembly in place.
4. Mark the steerer tube at the top of the stem.
5. Disassemble the stem, spacers, upper bearing cover and bearings.
6. The required fork steerer tube length will be 3 mm below the marking from step 4.

## E) Cutting Fork Steerer Tube:

1. Carefully cut the fork steerer tube in the correct location, as determined from step B, using a tubing cutter, hacksaw or other appropriate cutting tool.
2. Use a file to remove any burrs (except carbon) from the area of the cut to prevent damage to the upper bearing cover o-ring.

## F) Installing Crown Race:

Press the fork crown race onto the fork with an appropriate crown race installation tool until the flat back face is flush against the fork crown. Be sure to contact only the flat portion of the crown race when installing to prevent damage to the conical interface surface.

## G) Installing Star Nut Into Fork Steerer Tube:

1. Position the star nut with the concave end facing upward over the top of the steerer tube.
2. Press the star nut into the steerer tube to a point 15 mm below the top. This should preferably be done using an installation

tool such as Cane Creek's **Star Nut Installation Tool Set** *(p/n TL0200)*. If this tool is unavailable, thread the compression bolt into the star nut and lightly tap the assembly into position with a deadweight mallet or similar tool. Ensure that the threads of the star nut are aligned with the steerer tube.

**Notes:**

1. When replacing a fork, it is necessary to use a new star nut.
2. Certain fork models, especially those with carbon steerers, use a special preload mechanism supplied with the fork. When supplied, these should be installed per the instructions of the manufacturer of the fork or preload mechanism.

## H) Assembling Headset:

1. Slide one bearing cartridge over the fork steerer tube while ensuring the angled surface at the inside diameter of the cartridge is downward and mates with the crown race angle.
2. Insert the fork steerer tube into the head tube, holding it while completing the steps below.
3. Install the upper bearing cartridge over the steerer tube while ensuring the angled surface at the outside of the bearing cartridge is downward and mates with the angle at the inside of the head tube.
4. Slide the compression ring over the steerer tube with the angled surface downward.
5. Install the upper bearing cover (It may be necessary to apply a small amount of grease to the o-ring to allow easy installation).
6. Inspect the gap between the bottom of the upper bearing cover and the top of the head tube. If this gap is less than 0.5 mm add an appropriate thickness spacer between the compression ring and the upper bearing cover to increase the gap.
7. Install stem height adjustment spacers (if used) and then the stem onto the steerer tube.
8. Seat the steerer tube firmly upward in the head tube and the stem firmly downward against the stem spacer (or upper bearing cover), leaving the clamp bolts loose.

CAUTION: The top of the steerer tube must be 3 mm below the top of the stem before the compression bolt is tightened. If the steerer tube is too long, sufficient compression may not be possible and the headset will remain loose, risking rapid headset wear and possible damage to the frame. If the steerer tube is too short, the stem may not have sufficient clamping surface against the steerer tube to be used safely.

## I) Tightening/Preloading Headset Assembly:

1. Lubricate the compression bolt.
2. Insert the compression bolt through the recess in the top cap and begin threading the bolt into the star nut, while seating the top cap into the top of the stem.
3. Tighten the compression bolt with a 5 mm hex wrench to preload the bearings. Apply only enough torque to remove all play from the headset while ensuring it still rotates freely. CAUTION: Insufficient preload will result in a loose headset. Excessive preload will result in the headset binding. Either condition will cause rapid headset wear and could adversely affect the steering characteristics of the bicycle.
4. With the stem aligned with the fork, secure the stem to the steerer tube and lock in the bearing preload by tightening the stem clamp bolt/s. These should be tightened to the torque recommended by the stem manufacturer. WARNING: Ensure that the stem clamp bolts are sufficiently tight to prevent the stem and handlebars from turning relative to the steerer tube. A loose stem can result in damage to the bike, loss of control, and severe injury or death to the rider.
5. If the headset needs readjusting after the initial break-in period: Loosen the stem clamp bolt/s, reset the preload with the compression bolt (step 3) and retighten the stem clamp bolts (step 4). NOTE: It is essential that the stem is securely tightened to the steerer tube.

CAUTION: Ensure that the upper bearing cover still sits at least 0.5 mm above the top of the head tube after preloading.

## WARRANTY

AheadSet headsets are warranted for a period of 1 year from the original date of purchase. Any component that is found to be defective in materials or workmanship will be repaired or replaced at the discretion of Cane Creek. This warranty applies to the original owner only. This warranty does not cover damage or failure resulting from misuse, abuse, alteration, neglect, wear and tear, crash or impact, lack of maintenance or other conditions judged by Cane Creek to be abnormal, excessive, or improper. It is mandatory that a Return Authorization Number (RA#) is obtained by calling Cane Creek before any product is returned. Additionally, a dated Proof of Purchase must accompany the product when returned. (Revised 3.13.2003)