DOUBLE X & Xc Headset Instructions

A) Frame Compatibility

Cane Creek's DOUBLE X Headsets can be used only in bicycle frames specifically designed for the OnePointFive interface standard. For more detailed information see www.onepointfivestandard.com

B) Fork Compatibility

- Cane Creek's DOUBLE X headset is compatible with forks meeting the OnePointFive interface standard (steerer tube OD of 1.5")
- Cane Creek's DOUBLE Xc headset is compatible with 1-1/8" forks.

Cane Creek's DOUBLE X and DOUBLE Xc headsets share many components and enable easy conversion from one to the other, thus allowing a OnePoint-Five head tube to be used with either a 1.5" or 1-1/8" fork.
Conversion kits are available.

C) Preparing Frame and Fork for Headset Installation:

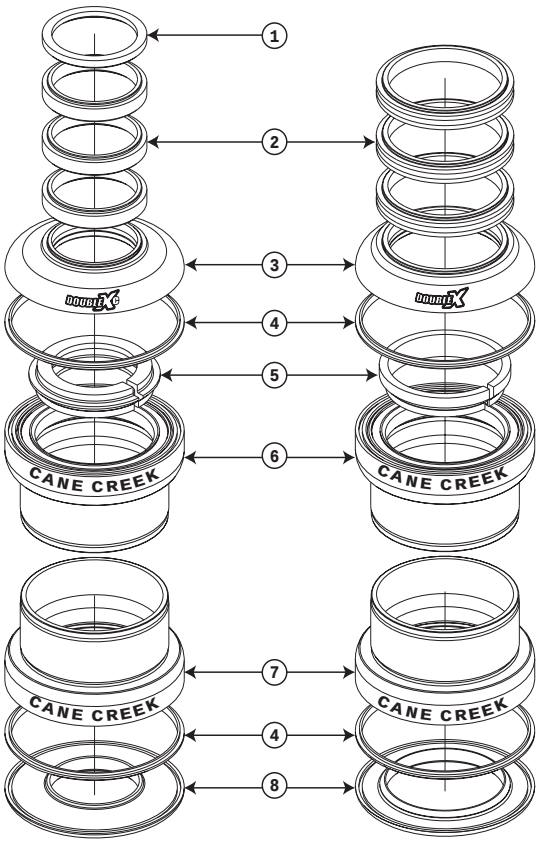
Use a head tube reaming and facing tool to prepare the top and bottom of the frame's head tube. Use a crown race cutting tool to turn and face the crown race seat of the fork.
NOTE: *It is imperative to complete these steps to ensure a smooth operating headset. If these steps are not completed or done improperly, the headset may be more rough in turning or may tend to "stick" to one side or the other. This applies to ALL frames and forks, new or used, painted or unpainted.*

D) Determining Required Fork Steerer Tube Length:

There are 2 possible methods for determining the required fork steerer tube length (explained below):

i) Calculation Method:

1. Determine the headset stack height by adding the following measure ments (illustration below/right).
   A) Bottom of the large diameter portion of the upper cup to the outer top of the upper bearing cover.
   B) Crown race bottom to the top of the large diameter portion of the lower cup.
2. Measure the head tube length.
3. Measure the total height of any stem height adjustment spacers used.
4. Measure the height of the clamp portion of the handlebar stem.
5. Add the above dimensions and subtract 3 mm for adjustment clearance

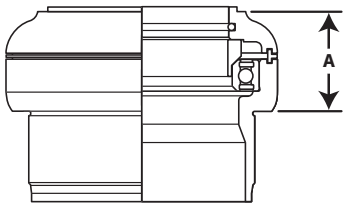


1. *Interlok Spacer (3mm-top)*
2. *Interlok Spacer (5 mm)*
3. *Top Cover*
4. *Seal Ring*
5. *Compression Ring*
6. *Upper Bearing Cup w/ Bearing*
7. *Lower Bearing Cup w/ Bearing*
8. *Crown Race*

Required fork steerer tube length = headset stack height + head tube length + total height of spacers + stem clamp height - 3 mm

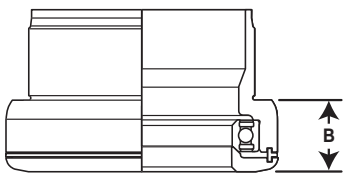
ii) Assembly Method (preferred):

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



E) Cutting Fork Steerer Tube:

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



Headset Stack Height = A + B

F) Installing Upper and Lower Bearing Cups:

Press the upper and lower bearing cups into the head tube using a good quality headset press. To prevent damage to the bearings, it is important to press on outer portion of the cup only.

G) 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. Do not press against the tapered portion of the crown race.

Note: The crown race should fit with a press fit.

H) 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 a star nut installation tool. 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.

NOTE: When replacing a fork, it is necessary to use a new star nut.

I) Assembling Headset:

1) Place a seal over the steerer tube and onto the crown race, ensuring that it is seated properly in the groove.
2) Insert the fork steerer tube into the head tube, holding it while completing the steps below.
3) Ensure that the lower seal is correctly seated in the groove of the lower cup and is still seated correctly in the crown race.
4) Slide the compression ring over the steerer tube with the angled surface downward.
5) Install the remaining seal into the groove of the upper bearing cup.
6) Install the upper bearing cover (It may be necessary to apply a small amount of grease to the o-ring to allow easy installation), ensuring that it seats correctly with the upper seal in the groove.
7) Install stem height adjustment spacers (if used) and then the stem onto the steerer tube.

NOTE: *The spacers provided with the headset are interlocking and should be assembled with the protruding diameter upward. Cane Creek's patent pending Interlok spacers minimize the undesirable relative radial motion between spacers and make the assembly more rigid. Though less desirable, it is possible to invert spacers as desired to make slight stack height adjustments or to accommodate stems with minimal interface at the top of the spacers.*

8) Seat the steerer tube firmly upward in the head tube and the stem firmly downward against the 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.*

J) 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 pre-load by tightening the stem clamp bolt/s. These should be tightened to the torque recommended by the stem manufacturer.

WARNING: *Make sure 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 re-adjusting after the initial break-in period: Loosen the stem clamp bolt/s, re-set the pre-load 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.

WARRANTY

Cane Creek Cycling Components warrants its bicycle components for a period of two years 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 5.10.2002)

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