Cane Creek
Double Xc Flush, Double XcR Flush Headset Instructions

WARNING: Cane Creek 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) 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.

NOTE: *If you have questions about the compatibility of our Double X headset products with your bicycle, please call Cane Creek customer service at 800.234.2725.*

B) Fork Compatibility and Frame Clearance:

Cane Creek's Double Xc Flush and Double XcR Flush headsets are compatible with forks equipped with 1-1/8" threadless steerer tubes. A "Flush" headset design may not provide enough clearance with certain frame/fork combinations. To verify that your frame and fork will accommodate the Double Xc/XcR Flush design:

1. Rotate the front fork until the wheel is approximately perpendicular to the frame. Measure the minimum amount of clearance between the fork crown and frame (see Fig. C).
2. Measure the lower assembly stack height on the headset that is currently installed on the bike (dim B).
3. Subtract 6.4 mm from the measurement above. This will be the lower stack height reduction.
4. If the fork clearance (measured in step B-1) is less than the lower stack height reduction (calculated in step B-3) then you are likely to have frame/fork interference.

CAUTION: *if your frame/fork combination does not provide adequate clearance, then the Double X "Flush" headsets should not be used. Cane Creek Cycling Components is not liable for frame or fork damage resulting from improper installation or use.*

C) Preparing the Frame and Fork for Headset Installation:

1. Use a head tube reaming and facing tool to prepare the top and bottom of the frame's head tube. Be sure to use the correct reamer diameter corresponding to the headset being installed.
2. Use a crown race cutting tool to turn and face the crown race seat of the fork. Be sure to use the correct cutter diameter corresponding to the headset being installed.

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 might not turn smoothly 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 the Required Fork Steerer Tube Length:

There are 2 possible methods for determining the required fork steerer tube length:

1. Calculation Method:

Determine the headset stack height by adding the following measurements (see Fig. B-1 and B-2).

a) Measure the distance from the bottom of the large diameter portion of the upper cup to the outer top of the upper bearing cover (dimension A).
b) Measure the distance from the bottom surface of the crown race to the top of the large diameter portion of the lower cup (dimension B).
c) Measure the total height of headset spacers desired.
d) Measure the length of the bicycle's head tube.
e) Measure the height of the clamp portion of the handlebar stem.

Add the above dimensions and subtract 3 mm for adjustment clearance.

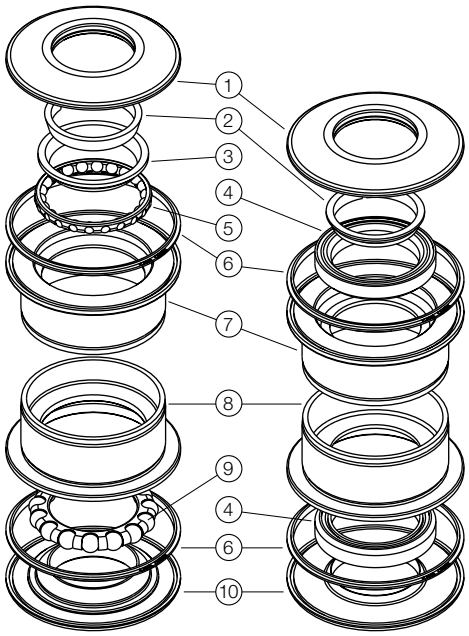
2. Assembly Method (preferred):

a) Install the bearing cups as instructed in procedure F.
b) Install the crown race as instructed in procedure G.
c) Assemble the headset as instructed in procedure I.
d) Tighten 1 stem clamp bolt enough to hold the assembly in place.
e) Mark the steerer tube at the top of the stem (use a pencil or permanent marker).
f) Disassemble the stem, headset spacers, upper bearing cover and bearings.

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

E) Cutting the Fork Steerer Tube:

1. Carefully cut the fork steerer tube in the correct location, as determined from procedure 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.



Double XcR Flush — Double Xc Flush

Fig. A

1. Bearing Cover
2. Compression Ring
3. Upper Bearing Race
4. Cartridge Bearing
5. 5/32" Caged Bearing Assembly
6. T-Seal Ring
7. Upper Bearing Cup
8. Lower Bearing Cup
9. 1/4" Caged Bearing Assembly
10. Crown Race

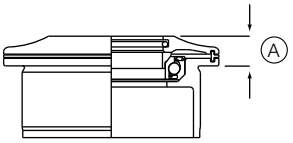


Fig. B-1

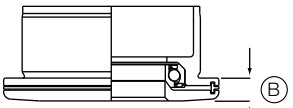


Fig. B-2

Headset Stack Height = (A) + (B)

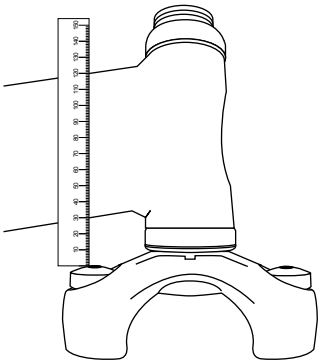


Fig. C

F) Installing the Upper and Lower Bearing Cups:

Press the upper and lower bearing cups into the head tube using a good quality headset press.

Note: *To prevent damage to the cups, it is important to fully support the outer portion of the cup during installation.*

G) Installing the Crown Race:

Press the fork crown race onto the fork with an appropriate crown race installation tool until the flat surface is flush against the fork crown. Do not press against the tapered portion of the crown race.

H) Installing the Star Nut Into the 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

   Notes:

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

   b) Certain fork models, especially those with carbon steerer tubes, 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.

I) Assembling the Headset:

1. Slip a blue T-seal over the steerer tube and onto the crown race, ensuring that it is seated properly in the alignment groove.
2. Slide the lower bearing over the fork steerer tube until it mates with the fork crown race. For assemblies that use cartridge-style bearings, be sure that the angled surface at the inside diameter of the bearing is downward and mates with the crown race angle.

NOTE: *For headsets with caged or non-cartridge ball bearings, thoroughly lubricate the ball retainers and races (including bearing cups) with a good quality bicycle grease.*

3. Insert the fork steerer tube into the head tube, holding it while completing the steps below.
4. Install the upper bearing (and upper bearing race – if applicable) over the steerer tube until it mates with the upper bearing cup. For assemblies that use cartridge-style bearings, be sure that the angled surface at the outside of the cartridge bearing is downward and mates with the angle at the inside of the upper bearing cup.
5. Slide the compression ring over the steerer tube with the angled surface downward so that it mates properly with the angled surface on the inside of the cartridge bearing.
6. Slip a blue T-seal over the steerer tube and onto the upper bearing cup, ensuring that it is seated properly in the alignment groove.
7. Install the upper bearing cover (It may be necessary to apply a small amount of grease to the o-ring to allow easy installation).
8. Install desired headset spacers to set the proper stem height.
9. Install the stem onto the steerer tube.
10. Seat the steerer tube firmly upward in the head tube and the stem firmly downward against the spacer stack (or upper bearing cover), leaving the stem 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 preload 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 the 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. With the stem clamp bolts still loose, 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 bolts. 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. Rotate the front fork until the wheel is approximately perpendicular to the frame. Measure the minimum amount of clearance between the fork crown and frame (see Fig. C). There should be at least 5 mm of frame/fork clearance to ensure proper operation of the headset and steering assembly.

CAUTION: *if your frame/fork combination does not provide adequate clearance, then the Double X "Flush" headsets should not be used. Cane Creek Cycling Components is not liable for frame or fork damage resulting from improper installation or use.*

6. 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 J-3) and retighten the stem clamp bolts to the proper torque specification (step J-4).

WARRANTY

Cane Creek Cycling Components warrants its bicycle products for a period of 2 years from the original date of purchase. Any product 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#) be obtained by calling Cane Creek before any product is returned. Additionally, a dated Proof of Purchase must accompany the product when returned.