

**NoThreadset™**

**Congratulations!** You have just purchased what many people regard as the finest headset in the world. Since 1976 Chris King has been supplying cyclists with the best made, most reliable headsets you can buy. With proper installation and maintenance you can expect to enjoy the many years of the legendary quality and performance built into each and every component we make.

**Installation**

Headset installation requires specialized tools. We recommend the procedure be performed by a professional bicycle mechanic.

To ensure proper installation, the use of headset cup press adapter kits are recommended. Our press adapters help to correctly align the bearing cups with the head tube and prevent damage to the bearings by directing pressure only and evenly over the bearing cups. The baseplate installation adapter prevents damage to the baseplate by protecting the conical bearing contact surface from the crown race setting tool. Sizes are available to fit all popular headset pressing and setting tools.

**Reaming and Facing of Head Tube**

Proper preparation of the head tube is essential for best headset performance. Every head tube must be reamed and faced, even if the frame is new and appears to be prepared at the factory.

1. Ream the head tube to ensure that the head tube bore is the proper diameter, depth and roundness. Be sure that the head tube bore (inner diameter) is correct (see table below) to ensure proper press fit. Minimum ream depth is **10.0 mm** into all head tubes except 1.5, which requires a **20.0 mm** ream depth.
2. Face the head tube to ensure that the ends are square and parallel to each other, and that all paint and anodization material is removed from the frame-headset interface.
3. Using a small file or sand paper, carefully remove any sharp edges or burrs and slightly round, or chamfer, the inside edges of the head tube at the top and bottom to prevent scraping any metal from the cups during installation.
4. Clean to remove any chips, shavings, and/or cutting oil.
5. The proper press fit should be with no more than **.1 mm (.004")** of interference. See table below for head tube bore specifications. Do not file or otherwise remove material from the cups to make them fit.

	Head tube bore (ID)	Crown seat OD
1"	30.1 mm	26.5 mm
1" BMX	32.7 mm	26.5 mm
1-1/8"	33.9 mm	30.1 mm
1-1/4"	36.9 mm	33.1 mm
1.5	49.6 mm	39.8 mm

**Installation of Bearing Cups**

1. Be sure that surfaces of headset cup press adaptors are clean and free of burrs to minimize risk of marring headset cup finish during installation.
2. Press in both bearing cups using a headset cup installation press fitted with Chris King headset cup press adapters. Check to assure the cups are seated flatly against the ends of the head tube.

**Preparation of Fork and Installation of Baseplate**

Proper preparation of the fork is essential for best headset performance.

1. Ream and face the crown race seat to ensure that the crown race seat face is square with the steerer tube. See table above for crown seat outer diameter (OD) specifications. The proper base plate press fit should be with no more than **.1 mm (.004")** of interference.
2. Clean to remove any chips, shavings, and/or cutting oil.
3. Slide the baseplate, conical side up, onto the steerer tube. Use a crown race setting tool to set the baseplate with the beveled side of the baseplate installation adapter against the baseplate.

**Cutting of Steerer Tube**

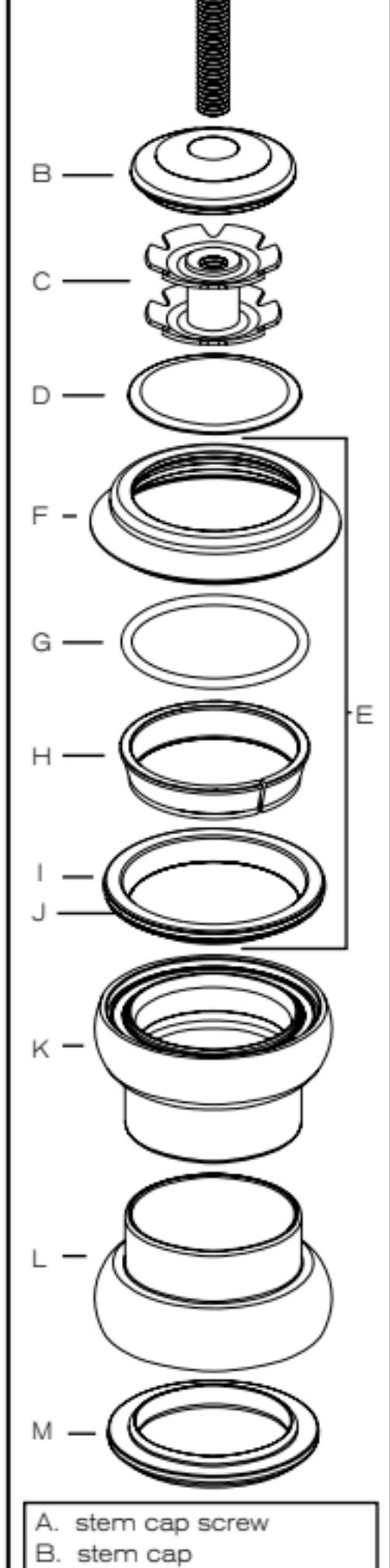
Use extreme caution when cutting steerer tube to avoid injury.

1. Insert fork, with baseplate installed, into frame.
2. Slide GripLock cap assembly, then spacers (if needed), and then the stem over steerer tube. Scribe a line flush with top of stem.
3. Remove items from steerer tube and mark another line 3 mm below the first. Cut on the lower line using a hacksaw and saw guide.
4. Remove all sharp edges from inside and outside of steerer tube. With a file or sandpaper, round outside edge of tube to avoid shearing GripLock cap O-ring upon installation.

**Installation of Star Nut**

1. Thread star nut onto installation tool. (If installation tool is not available, thread bolt well into star nut and use it to drive the star nut **15 mm** below the top of the steerer tube).
2. With a soft hammer or mallet, drive star nut straight into steerer tube until tool contacts top of steerer tube. Unscrew tool from star nut.

Note: A star nut is not included with headsets that require a straight 1.5 steerer tube. We recommend using a Chris King PreLoader to provide a secure bearing preload interface when using a straight 1.5 steerer tube.



- A. stem cap screw
- B. stem cap
- C. star nut
- D. scuff washer
- E. GripLock assembly
- F. GripLock cap
- G. cap O-ring
- H. split ring
- I. bearing ring
- J. bearing ring O-ring
- K. upper bearing cup assy.
- L. lower bearing cup assy.
- M. baseplate

## **GripLock™ Assembly**

The GripLock is shipped pre-assembled. If it has been disassembled, fit assembly together as shown in diagram. Follow the procedure below.

1. Place thin bearing ring O-ring into outer groove of bearing ring.
2. Place split ring into bearing ring.
3. Snap the bearing ring and split ring into the GripLock cap.
4. Feed cap O-ring into the groove created by the assembled parts.

## **GripLock™ Installation, Final Assembly and Adjustment**

1. Remove all sharp edges from inside and outside edges of the cut steerer tube with a file or sand paper to avoid shearing the cap O-ring during installation.
2. Apply thin layer of grease onto cap O-ring.
3. Insert fork into frame.
4. Place assembled GripLock onto steerer tube. In most cases, the assembly will easily slide onto steerer. If cap O-ring hangs up on the top edge of the steerer tube, take care not to shear the O-ring. Gently push the cap O-ring to the side and push the GripLock assembly onto the steerer using steady downward pressure and a slight twisting or rocking motion.
5. Note: If GripLock assembly comes apart during installation, go back to "GripLock Assembly" section and then repeat the installation steps.
6. Slide scuff washer, then any spacers and stem onto steerer tube. Thread stem cap screw through stem cap and into star nut. Tighten to 15 in.lbs. (1.7 Nm) of torque using 5 mm hex wrench.
7. Adjust alignment of stem and then secure stem according to the manufacturer's specifications.
8. Check headset for proper adjustment. When properly adjusted, the fork will rotate smoothly without play or restriction. Some settling may occur after a few rides; readjust as necessary.

New seals will produce some resistance in rotation for the first 50-100 hours of use. Avoid confusing this with rubbing or binding that may result from improper installation or stems that are not properly faced.

## **Maintenance**

Chris King headsets are designed to provide the maximum life of any headset with a minimum of maintenance. Besides an occasional adjustment, the only service necessary is an occasional cleaning and regreasing of the bearings. Riding conditions will dictate how often to service your headset. In wet conditions, service may be necessary as often as every 6 months; in dry conditions, up to every 5 years.

## **Service of Bearings**

Do not at any time attempt to remove headset bearings from bearing cups. Chris King sealed bearings have removable snap rings that hold the rubber seals in place.

1. Carefully, using a small screwdriver, pick, or penknife, remove the snap ring by inserting tool into split of snap ring. Gently work pointed end of the snap ring toward bearing center until it is out of its groove. Follow the ring around with the tool until the snap ring is completely dislodged.
  2. Lift and remove exposed black rubber seal to access the interior of the bearing.
  3. Thoroughly flush the bearing with a light spray lubricant (e.g., WD-40™) and blow dry.
  4. Wipe dirt and other contaminants from the seals and snap rings. Used snap rings and seals can be reinstalled unless warped, punctured, or otherwise damaged. If damaged, replacement seals and snap rings are available from any authorized Chris King dealer or directly from Chris King Precision Components.
- Some solvents, synthetic lubricants, and greases with high-pressure additives may attack and damage seals and other nonmetallic materials. Minimize exposure to these substances and thoroughly dry bearing assembly after cleaning.
5. Lay a bead of waterproof grease around the top of the bearing. Rotate the inner race to work grease throughout the ball area.
  6. Reinstall rubber seal between inner and outer bearing race.
  7. Insert one edge of snap ring into groove of outer bearing race. Press along entire groove until snap ring is fully seated; a small gap should be visible between both ends of the snap ring.
  8. Turn inner race of bearing by hand to test for binding. If bearings do not run smooth, repeat steps 1-8. Binding is often a result of improperly seated seals and/or snap rings.

Used snap rings and seals can be reinstalled unless warped, punctured, or otherwise damaged. If damaged, replacement seals and snap rings are available from any authorized Chris King dealers or directly from Chris King Precision Components.

## **GripLock™ Removal**

1. Remove stem cap, stem and spacers from steerer tube. Release GripLock "lock" by tapping side of steerer tube with palm of hand or rubber mallet. Do not hit steerer tube from top, as this may damage the headset bearings.

## **Headset Removal**

1. Remove cups from head tube with a standard cup removal tool, taking care that tool contacts the inside edges of the cup skirt, not the bearing.
2. To remove baseplate from fork, we recommend using a crown race removal tool to lessen the possibility of warping or deforming the baseplate. If necessary, a 1/4" or 3/8" drift punch can be used instead. Be sure to alternate strikes on either side of fork crown to lessen the possibility of warping or bending.
3. After removing the baseplate from the fork, check for deformities by placing it on a level surface. If the baseplate does not sit level on the surface and in any way appears to be warped or deformed, it must be replaced for optimal bearing performance.

Baseplates and other headset parts are available from any authorized Chris King dealer or directly from Chris King Precision Components by calling our Customer Service number.

## **Warranty**

Chris King Precision Components warrants its bicycle headsets to be free from defects in materials or workmanship for a period of 10 years from the original date of purchase. Any Chris King product that is found by Chris King Precision Components to be defective in materials or workmanship will be repaired or replaced at the sole discretion of Chris King Precision Components providing it is returned to the factory freight prepaid. This warranty does not cover damage or failure resulting from misuse, abuse, alteration, neglect, normal and reasonable wear and tear, crash or impact, failure to perform routine maintenance as instructed, or use other than that for which the product was intended.

If a defect is found, our entire liability and your sole remedy shall be, at our option, free repair or replacement of the Chris King product. Chris King Precision Components shall not be held liable for any indirect, special, or consequential damages. The warranty does not cover any Chris King Precision Components product where the serial number has been altered or removed. This written express warranty is in lieu of all other warranties, implied or expressed, and does not cover any representation or warranty made by dealers beyond the provisions of this warranty. This warranty gives you specific legal rights, and you may also have other rights which vary state to state.

Thank you for your purchase!

## **Made in the USA**

All Chris King Precision Components products are manufactured in the USA using industry leading environmental and quality control standards.

Printed with soy ink. Contains 100% post-consumer recycled paper fiber.

## **Chris King Precision Components**

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