We strongly recommend that you have a professional bike shop install and service your Race Face components. Improper assembly and/or adjustment will significantly compromise the strength and life span of this component. If you choose to install the component yourself, please follow the installation instructions carefully. NOTE: The rider assumes all risks upon installation and use of Race Face components.

ASSEMBLY INSTRUCTIONS

COMPATIBILITY SPECIFICATIONS:

For use with 1 1/8" threadless steerer tubes only.

Fork crown race diameter	= 30.20mm
Head tube cup press diameter	= 34.00mm
Upper stack height	= 18.00mm
Lower stack height	= 13.00mm
Total stack height	= 31.00mm

STEERER TUBE LENGTH FORMULA:

To determine the required fork steerer tube length use the following equation:

Head tube length	(e.g.) 105.0mm
Headset stack height	+ 31.0mm
Stem height	(e.g.) + 40.0mm
Optional height spacer(s)	(e.g.) + 5.0mm
Less compression gap for pre-load	- 2.0mm
Total steerer tube length required	(e.g.) = 179.0mm

Note 1: The full length of the steerer tube must be UNTHREADED!

Note 2: After cutting the steerer tube to length, remove all burrs from both the inside and outside of the top edge of the tube. This is necessary for ease of installing the BARBED NUT and the TOP RACE.

INSTALLATION INSTRUCTIONS

1) Apply a light film of grease to the inside diameter of the CROWN RACE. This will prevent seizing and will allow for easier removal in the future. This is especially important with aluminum steerer tubes. Install CROWN RACE onto fork using a slide hammer to fit 1 1/8" steerer tubes. Make sure that the bottom of the CROWN RACE is flush with the fork crown (i.e. no gap). (see diagram #1).

Warning: The slide hammer must make contact with the CROWN RACE only and NOT the SPLASH GUARD. Improper instal lation will result in damage of the SPLASH GUARD.

2) Install BARBED NUT into steerer tube. For best accuracy use special tools manufactured by "Diacompe" or "Park" if available. If not then install the M6 allen head bolt into the barbed nut and tap into place with a hammer to depth of approximately 1 cm. (see diagram #2).

3) Apply a coating of grease to the portion of the headset cups that are to be pressed into the frame. (see diagram #3).

4) Press the upper and lower headset cup/bearing assemblies into the frame using a high quality bicycle cup press. Guide the cups carefully into the head tube to ensure that they are being pressed-in straight. Make sure that both cups fit in flush with the faces of the head tube and there are no gaps.

Warning: Do not use cup press tools that make contact with the inside races of the bearings. Use of such tools for installation will result in damage to these components and will dramatically reduce their performance and service life.

Note 1: We recommend use of models such as that made by "Park Tool Co." as this design distributes the load across the entire surface of the headset cup rather than just the inside race, thus protecting the bearing races from damage during installation. (see diagram #4).

Note 2: For best results we highly recommend that a professional bike shop REAM AND FACE your frame's head tube and install the cups for you.

5) Slide the fork's steerer tube through the frame's head tube. Apply a light film of oil or grease to the TOP RACE O-RING SEAL (for ease of installation). While holding the fork in position, slide the TOP RACE onto the steerer tube and down until it makes contact with the upper bearing. *This will be a tight fit as it is necessary for the function of this headset. Rotating the TOP RACE slowly while pushing down will make installation easier.

Note: To ease installation of the TOP RACE; file a small chamfer onto the outside diameter edge at the top of the steerer tube. This will act as a "lead-in" for the o-ring.

6) Slide any OPTIONAL HEIGHT ADJUSTMENT SPACERS you require onto the steerer tube. *We recommend using at least two - 5mm spacers during initial set-up. Remember, if it's too high, you can always cut the steerer tube shorter, but if you cut it too short initially, you can't add material back on!

Note: "Optional height adjustment spacers" are not included with the Race Face headset. These can be purchased separately to suit your height requirements, or, any non-keyed 1 1/8" headset spacers can be used.

7) Install STEM onto steerer tube, but DO NOT tighten clamping mechanism yet.

8) Drop ALUMINUM COMPRESSION CAP onto top of steerer tube and install M6 allen head bolt through cap and thread into BARBED NUT previously installed into steerer tube.

9) Tighten M6 allen head bolt, using a 5mm allen key, until all play is removed from the headset mechanism but it still rotates freely. You have now achieved correct headset adjustment.

Note: Do not over-tighten! This compression mechanism is designed for pre-load only, and overloading the allen head bolt may damage the ALUMINUM COMPRESSION CAP, or cause the BARBED NUT to slip, or adversely affect the service life of your headset bearings. This operation should create very little load on the allen key.

10) Lin e-up stem straight with your front wheel, then tighten stem's clamping mechanism to lock in headset adjustment and stem position.

THIS COMPLETES THE INSTALLATION! NOW GO RIDE YOUR BIKE!

SERVICE INSTRUCTIONS

The design of the Race Face Headset enables you to completely remove and re-install the fork of your bike in minutes and requires only 1 tool; a 5mm allen key!

Use this feature to frequently inspect your headset on the inside. This is especially important after a particularly wet ride or after cleaning your bike off with a high pressure water hose.

CLEANING THE SYSTEM

1) Remove allen head bol t and ALUMINUM COMPRESSION CAP, loosen the stem's clamping mechanism and remove stem.

2) Remove: OPTIONAL HEIGHT ADJUSTMENT SPACERS, and TOP RACE, then slide fork out of head tube.

3) Wipe all headset surfaces, steerer tube, and inside head tube with a clean dry rag to remove any moisture from the headset/head tube area.

4) Re-install and re-adjust headset as per installation instructions, starting with step #5.

RE-GREASING THE BEARINGS

1) Follow steps 1 to 3 above.

2) With the bearings still in the cups; remove the exposed rubber sea l on both the upper and lower bearings. This can be achieved with a pointed tool such as a flat head micro-screwdriver. Slide the flat blade of the screwdriver under the inside edge of the seal (upper bearing) or outside edge of the seal (lower bearing) and gently pry the seal free from the bearing, rotating around the bearing as you go.

Note: Do not bend or deform the seal in any way! This will make re-installation impossible!

3) The ball bearings will now be exposed. Spread a generous amount of grease into the bearing, and re-install the rubber bearing seals. They will easily slip back into place with hand pressure.

Note: Use only top quality water-proof grease! We recommend brands such as "Bel-Ray", "Phil Wood", or "Moly-Slip". Generic white lithium-based grease is NOT recommended.

4) Re-install and re-adjust headset as per installation instructions, starting with step #5.

REMOVAL OF BEARINGS FOR REPLACEMENT

1) Follow steps 1 to 3 of "Cleaning The System" instructions.

2) REMOVAL OF UPPER BEARING:

With the UPPER HEADSET CUP still in the frame, use a medium sized (approx. ¼") flat head screwdriver to pry the UPPER BEARING from the UPPER HEADSET CUP. Press the flat blade of the screwdriver into the gap between the bottom of the inside bearing race and the headset cup. You may tap the screwdriver lightly with a hammer to "wedge" it into place . Use a twisting action on the screwdriver to break the bearing free. Repeat this process back and forth between your starting position and a position on the opposite side of the bearing (180 degrees) until the bearing is free of the cup. (see diagram #5).

3) REMOVAL OF LOWER BEARING:

***Note:** The LOWER BEARING of the Race Face Team SL headset is a uni-directional angular contact bearing. Removal of this bearing from the lower cup results in the destruction of this bearing!

a) Removal of Inside Race: With the LOWER HEADSET CUP still in the frame, use a medium sized (approx. 1/4") flat head screwdriver to pry the inside race of the bearing out of the assembly. Press the flat blade of the screwdriver into the gap between the bottom of the inside bearing race and the headset cup. Use a twisting action on the screwdriver to break the inside race of the bearing free. (see diagram #5).

***Note:** all of the ball bearings from the cartridge will fall out when the inner race is removed, leaving only the outside race of the cartridge bearing inside the headset cup

b) Removal of Outside Race: Press the flat blade of the screwdriver into the gap between the bottom of the outside bearing race and the headset cup. Use a twisting action on the screwdriver to break the outside race free of the headset cup. Repeat this process back and forth between your starti ng position and a position on the opposite side of the bearing (180 degrees) until the bearing is free of the cup. (see diagram #5).

INSTALLING NEW BEARINGS:

1) With both headset cups still in the frame, clean the inside diameter of the cups and the outside races of the new bearings (press-fit surfaces) by applying a small amount of acetone or de-greaser to a clean rag and wipe the surfaces. *Keep acetone or de-greaser away from the inside of the cartridge bearings!

2) Apply 3 or 4 drops of #RC609 (green) Loctite compound to the inside diameter of the cups where the bearings will press-fit into the cups. This will remove any gaps and create a good bonded fit.

3) Use a high quality headset cup press tool to press the bearings into their respective cups. Ensure that the bearings are pressed in smoothly and evenly, without excessively loading the inside races of the bearings. Make sure that the bearings are pressed-in until they bottom-out at the base of the cups. Note that the LOWER BEARING is recessed into the LOWER HE ADSET CUP. The LOWER BEARING's outside race will be recessed by 1.4mm from the bottom edge of the LOWER HEADSET CUP. Wipe away excess Loctite from all surfaces.

Note 1: In the absence of appropriate cup press tools it is possible to use the headset's own retention system to press the bearings back into the headset cups. (See assembly diagram). Disassembly will be required to wipe away the excess Loctite.

Note 2: The upper and lower bearings are significantly different, making it impossible to interchange them. The upper bearing is a bi-directional radial bearing, so it can be installed either way. The lower bearing is uni-directional, and must only be installed with the raised / chamfered inner race facing the crown race (i.e. facing down when installed on the bike).

4) Re-install and re-adjust headset as per installation instructions, starting with step #5.