

# RACE FACE

## INSTALLATION INSTRUCTIONS

1) Install outer and middle chainrings (outer and inner for road) using standard chainring bolts and nuts. Tighten bolts alternately in a crossing pattern to eliminate un-even load on bolts (see diagram). This is similar to fastening the lug nuts on your car wheels.

Note: To eliminate loosening, we recommend use of loctite small thread locker (purple) on outer chainring bolt threads if steel bolts are used. If aluminum hardware is used, grease the threads and check them regularly. If titanium hardware is used, apply "Finish Line Ti-Prep" anti seize compound to the threads, and check them regularly.

2) MOUNTAIN CRANKS ONLY: Apply grease to the threads of the supplied 16mm inner chainring bolts (or anti-seize if you are using Ti hardware). This is absolutely necessary since you are threading these bolts directly into an aluminum spider on the cranks.

Note: If you are substituting aluminum or titanium inner chainring bolts for the stock steel units, they must have a minimum of 16mm of fully threaded section under the bolt head, otherwise all warranties are null and void.

3) Install inner chainring using pre-greased bolts and supplied aluminum spacers. Torque to 100 inch/lbs. Use crossing pattern for tightening as per step #1. Use caution not to over-tighten these bolts and strip the aluminum threads in the spider.

Note: If you are using an aluminum inner chainring, be sure that it is the type with a recess for the chainring bolt head to fit into. Aluminum chainrings are relatively thick, and aluminum inner chainrings without this recess will decrease the amount of chainring bolt thread contact into the spider, increasing the chance of pulling the threads out or stripping them.

4) Inspect bottom bracket spindle. Make sure "taper flats" are in good shape, and free of burrs or sharp edges that may damage the crank arm. Make sure the threads inside the spindle are in good shape.

**NOTE: WE RECOMMEND APPLYING A FILM OF WATERPROOF GREASE TO THE BB SPINDLE FLATS BEFORE INSTALLING RACE FACE CRANKS TO HELP PREVENT CORROSION THAT CAN OCCUR BETWEEN THE CRANK TAPERS AND THE BB SPINDLE.** This corrosion occurs due to the

natural movement between the two parts and can adversely affect the life of the crank arm. While this is a controversial area, our extensive lab testing has proven that greasing the spindle flats does not adversely affect the crank arms, while preventing corrosion has definite benefits. Cranks tend to "suck-on" to a greased spindle approximately 0.5mm (0.020") further than they would onto a dry spindle using the same torque value (28 ft/lbs. max.) on the crank bolt. We have taken this into consideration in the CNC machining of our tapers to ensure it is not a problem.

Lubricating the spindle flats is especially important when using a non-plated steel BB spindle (Shimano UN52) or a Titanium BB spindle, as corrosion attack is much worse in these cases.

5) Apply grease to crank bolt threads. (Use anti-seize if Ti spindle and/or Ti hardware is being used) Make sure you use a washer with the crank bolt, or a bolt with a built-in washer. Torque crank bolts down to 25-28 ft/lbs (300-335 inch/lbs.) This torque setting applies regardless of whether spindle flats are greased or dry. **DO NOT OVER-TIGHTEN! EXCESSIVE FORCE CAN DAMAGE THE TAPER FLATS IN THE CRANK ARM, LEADING TO PREMATURE FAILURE!** It is easy for a person of average strength to achieve this torque force with a standard 6-8" handle crank wrench or hex key. 2 foot long leverage bars are NOT required!!! **THE CRANK ARM, LEADING TO PREMATURE FAILURE!** It is easy for a person of average strength to achieve this torque force with a standard 6-8" handle crank wrench or hex key. 2 foot long leverage bars are NOT required!!!

Note: If you are using a chromoly spindle and steel hardware, we recommend using small screw threadlocker loctite instead of grease. This will reduce the frequency of checking and re-torquing crank bolts, as **CRANK ARMS AND CRANK BOLTS LOOSEN DUE TO VIBRATION FROM REGULAR USE AND MUST BE CHECKED PERIODICALLY.** Make sure bolts and spindle threads are clean of all grease, oil, dirt etc., or loctite will not work.

6) Install dust cap into puller threads (unless you are using a bolt with a built-in plastic dust cap). These dust caps are cheap, and eliminate problems removing cranks due to puller thread damage.

7) Adjustment of front derailleur may be necessary, depending on previous crank used. Consult derailleur manufacturer's installation instructions (or bike shop) for correct set-up procedure and specs.

## MAINTENANCE INSTRUCTIONS

1) Check and re-torque crank bolts after your first long ride, and periodically thereafter. Front derailleur adjustment may be required after re-torquing, as aluminum cranks tend to "ride-up" to the spindle further with use. **DO NOT EXCEED RECOMMENDED TORQUE VALUES, AS THIS MAY DAMAGE CRANK TAPER FLATS.**

2) Check, and re-tighten if necessary, chainring bolts after first ride, and periodically thereafter. Pay special attention to the inner chainring bolts, as they are installed with lubricant. Riding with inner chainring bolts loose may damage or strip the threads in the aluminum spider. However be careful not to over-tighten.

3) Removal and cleaning cranks and chainrings with solvent is perfectly safe. Removal and re-greasing of hardware will be required. Do not soak "IB series" cranks in solvent for more than about 10 minutes. IB series cranks are assembled using a bonding compound. While normal solvent cleaning is fine, submerging the part for excessive periods of time could lead to break-down of the bonding compound. This does not apply to "LP series" cranks as they utilize a one piece design.

## IMPORTANT

7075 Aluminum Alloy as used in Race Face Cranks is exceptionally strong, but also has poor resistance to corrosion. The crank arms are protected from this by the anodizing or chemical polishing finish processes that we use.

Do not attempt to remove anodized coating from cranks using "oven cleaner" or any other means. This will severely affect the integrity of the part. Such chemicals attack the aluminum alloy, and destroy bonding compounds used. Such actions eliminate and void all warranties.

***If you get bored of the color, sell the cranks to someone who likes it and get yourself a new set!***

Spiders can bend if you nail a rock with your chainrings or grind over a big log. This will cause your chainring to "warp" or become "un-true". But don't despair! It's easy to fix. First determine that it is your spider that is bent, and not just your chainrings (chainrings bend more easily than spiders). If it is your spider, return the cranks to the bike shop where you purchased them. The bike shop will contact us, and we will instruct them with a repair method.