

FRAME PREPARATION

Prepare BB shell:

- 1) BB shell faces should be parallel, $\pm 0.05\text{mm}$ tolerance.
- 2) BB shell faces should be at $68 \pm 0.2\text{mm}$.

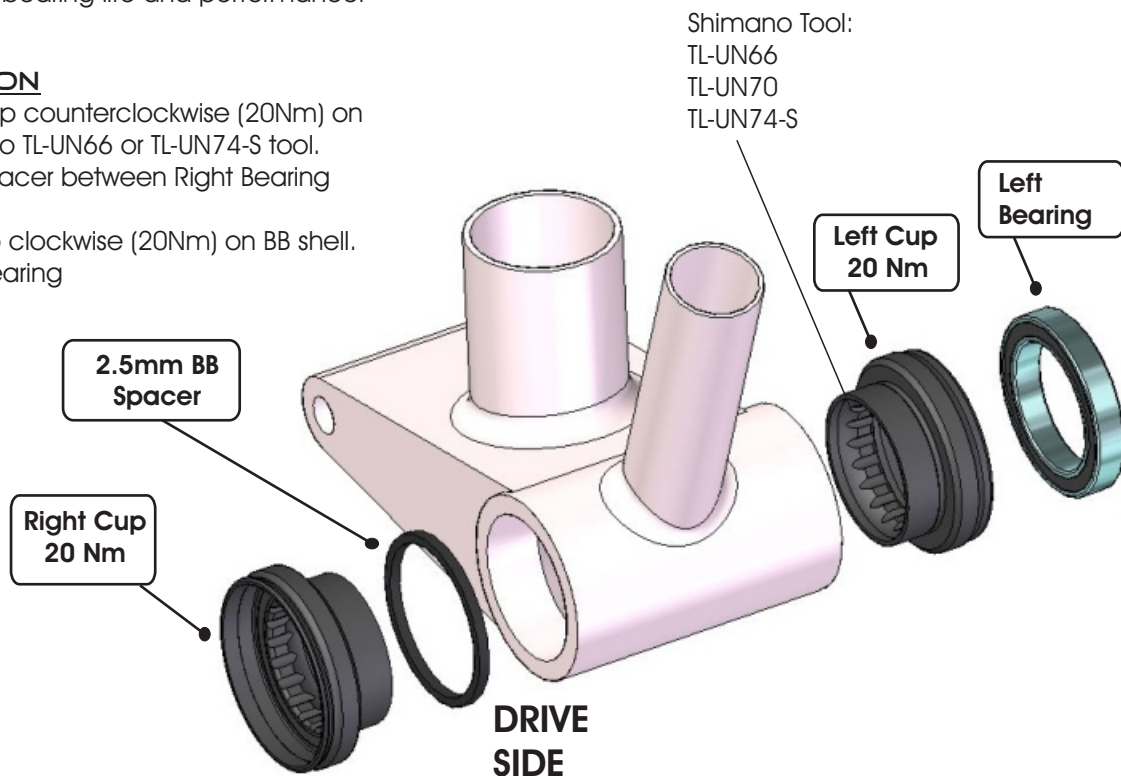
Eventually file faces with appropriate tool.

- 3) Moisture draining: drill $\varnothing 3.5$ to 5mm drain hole.
Stagnant moisture or water will damage bearings in few weeks. Drilling might be not necessary only on sealed BB shell of monocoque frames.

WARNING: Incorrect / incomplete 1,2,3 set-ups can significantly reduce bearing life and performance.

BB INSTALLATION

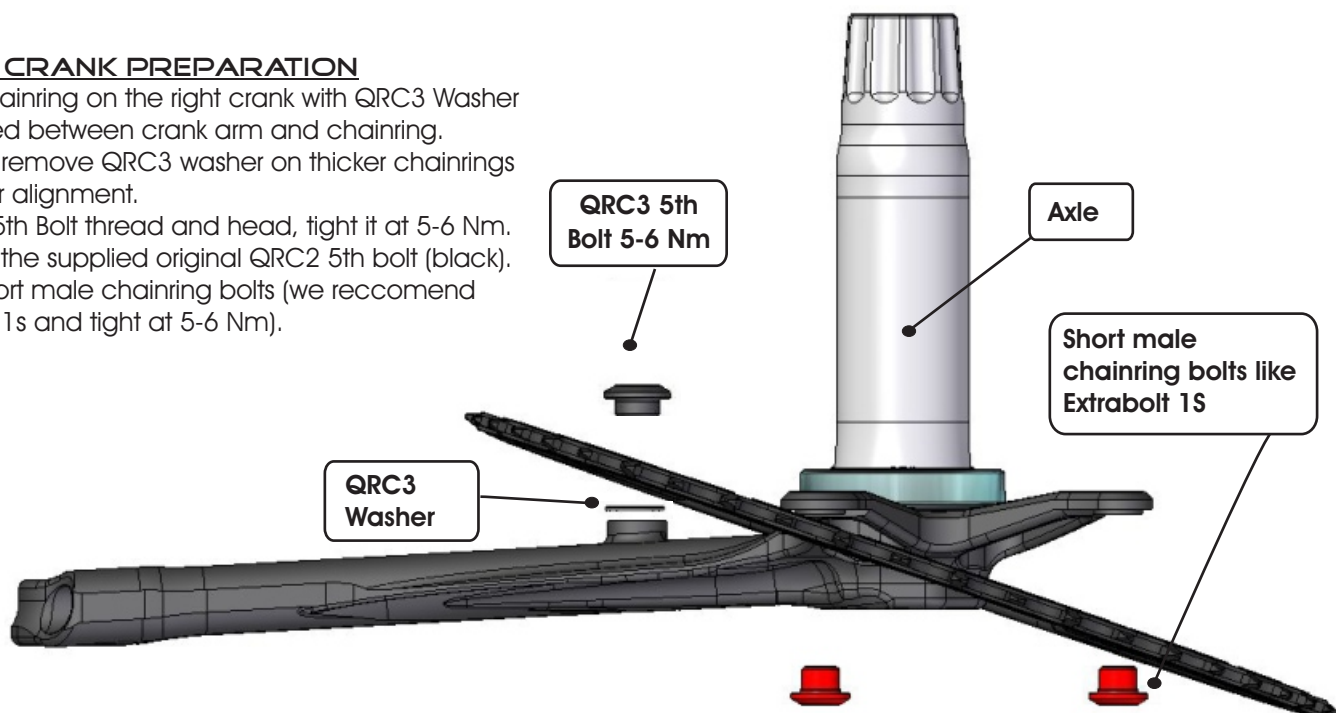
- 1) Tight right side cup counterclockwise (20Nm) on BB shell with Shimano TL-UN66 or TL-UN74-S tool.
Place 2.5mm BB Spacer between Right Bearing Cup and Frame
- 2) Tight left side cup clockwise (20Nm) on BB shell.
- 3) Install Left side bearing



DRIVE CRANK PREPARATION

Install chainring on the right crank with QRC3 Washer positioned between crank arm and chainring. You can remove QRC3 washer on thicker chainrings for better alignment.

Grease 5th Bolt thread and head, tight it at 5-6 Nm. Use only the supplied original QRC2 5th bolt (black). Install short male chainring bolts (we recommend Extrabolt 1s and tight at 5-6 Nm).



CRANKSET INSTALLATION

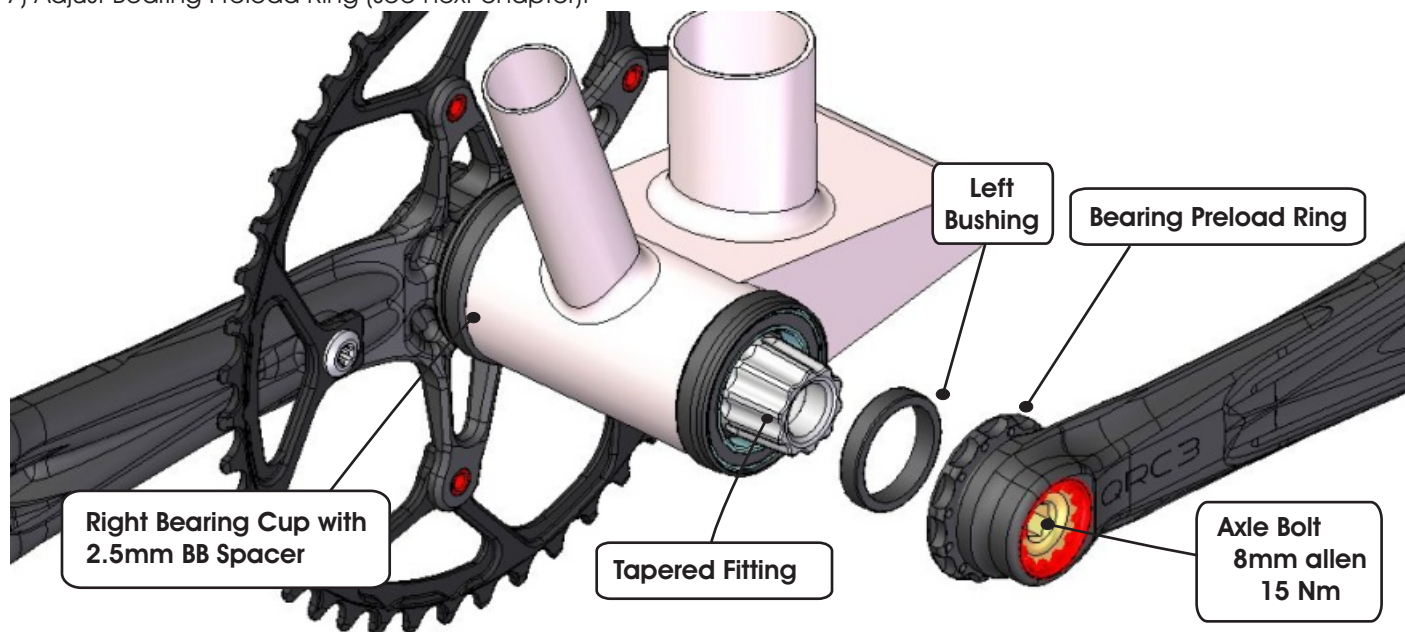
Clean perfectly male/female Tapered Fitting, Axle bolt and thread.

- 1) Insert drive crank Axle (with right bearing) into Left Cup.
- 2) Gently press it in with a small plastic mallet, completely insert it.
- 3) Insert Left Bushing onto Axle from left side end. Position it just between Axle and bearing inner race. Left crank will fully press in the bushing to its correct position, see point 8)
- 4) Grease Tapered Fitting and Axle Bolt thread.
- 5) Fully turn Bearing Preload Ring all way into the left crank lever (LOOSE direction) by hand.

WARNING: If you don't respect point 5) you'll damage Bearing Preload Ring thread.

- 6) Align left crank on Conical fitting, screw in Axle Bolt and tighten it (15Nm).

- 7) Adjust Bearing Preload Ring (see next chapter).



BEARING PRELOAD

Bearing Preload Ring allows precise adjustment of bearing axial preload.

After installation you always have to adjust bearing preload as follows.

Fully turn Bearing Preload Ring to FIRM direction by hand and then turn back 1-2 click to LOOSE direction.

Shake crank-end and check BB play.

Optimal tuning cancels axial play without adding any rolling resistance.

If necessary fine tune as follows:

FIRM --> to correct axial play.
<-- LOOSE to increase rolling smoothness.

WARNING: incorrect bearing preload may seriously damage bearings/parts and decreases performance.

REMOVAL

To disassemble left crank just fully unscrew Axle bolt.

To extract right crank and Axle pull it from right side. You can gently use a plastic mallet to push Axle from left side.

WARNING: keep all parts very clean especially male/female fittings of Hexagonal Cone, Axle bolt and threads.

Debris and dirt may seize alloy thin threads and/or damage Hexagonal Cone press fitting.

