

### PRODUCT REGISTRATION:

Congratulations on your new purchase! We think you've made a smart move. Now, make an even smarter move and register your product online by clicking through to the warranty section of our web site at [www.raceface.com](http://www.raceface.com). It's quick, easy and doesn't cost you a penny.

### INSTALLATION INSTRUCTIONS:

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.

### COMPATIBILITY:

The X-Type DH & XC/AM bottom brackets are compatible with both 68 and 73mm BB shells using fixed or E-Type derailleurs. They are also compatible with double or triple ring set ups. Race Face X-Type bottom brackets can also be used with Shimano external BB cranksets.



### TOOLS REQUIRED:

- External BB Cup Spline Tool ( Park BBT-9 Or Shimano )
- Ti-FC32 / Ti-FC33
- Bottom bracket chasing/facing tool
- Waterproof Grease

### 1) FRAME PREPARATION (CRITICAL):

- BB shell threads must be chased after welding to ensure good alignment between opposing ends of BB shell.
- BB shell must be face milled on both sides after paint to ensure flat, parallel bottom-out surfaces for BB cups to mate with.
- Critical!!!** BB shell width tolerance after face milling must be:

68mm shell = 67.25mm - 68.25mm\*  
73mm shell = 72.25mm - 73.25mm\*

**Note:** BB shell widths outside this specification may result in unacceptable function and life of the BB assembly (too loose or too tight). See crank manufacturer's installation instructions for more information.

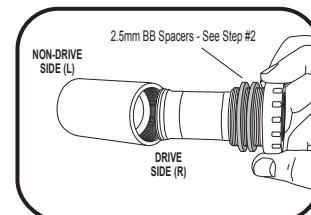
### 2) DETERMINE BB CUP SPACER / CHAINGUIDE / E-TYPE REQUIREMENT:

Race Face DH & XC/AM BB assembly includes: 3 x 2.5mm BB cup spacers. A Shimano E-Type front derailleur bracket may also be positioned behind the driveside BB cup if required. Use the following chart to determine spacer requirement for any given set-up:

BB SHELL	FD TYPE	NON-DRIVE SIDE (L)	DRIVE SIDE (R)
68MM	CLAMP-ON FD	1x2.5MM SPACER	2x2.5MM SPACERS
68MM	E-TYPE FD	1x2.5MM SPACER	1x2.5MM SPACER + E-TYPE FD BRACKET
73MM	CLAMP-ON FD	0 SPACERS!	1x2.5MM SPACER ONLY
73MM	E-TYPE FD	0 SPACERS!	E-TYPE FD BRACKET ONLY (NO SPACERS!)

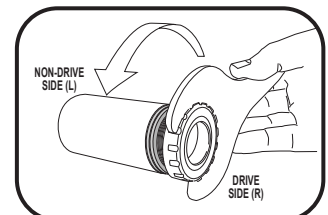
### 3) INSTALL BB CUPS INTO FRAME:

**Note:** BB cup / bearing / seal / BB Cup Outer race assemblies are pre-assembled at the factory and are not intended to be disassembled or serviceable. Disassembly will likely damage one or more of these components, resulting in inferior sealing quality and/or bearing life.

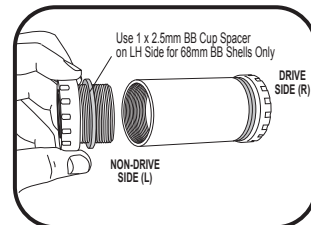


a) Apply grease to the threads inside the BB shell of the frame.

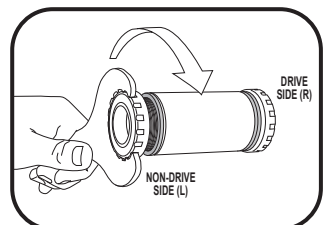
b) Press plastic water sleeve into inner portion of drive side (R) BB cup until it bottoms-out (by hand-tight fit).



c) Thread drive side (R) BB cup (assembled with water sleeve and spacers as determined in step #2 above) counter-clockwise into drive side BB shell threads in frame. Using external BB cup spline tool, tighten cup firmly in place against the BB shell face.



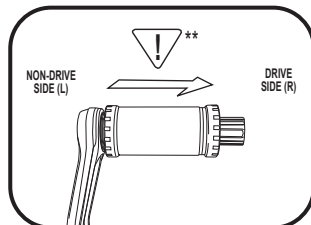
d) Thread non-drive side (L) BB cup (assembled with spacers as determined in step #2 above) clockwise into non-drive side BB shell threads in frame.



e) Using external BB cup spline tool, tighten cup firmly in place against the BB shell face.

### 4) INSTALL LH CRANK / SPINDLE ASSEMBLY INTO CUPS:

Follow crank manufacturer's instructions for installing cranks.



**\*\*Caution!!** Be very careful to guide the BB spindle into the through hole of the drive side BB cup race. Misalignment may cause BB spindle end to be forced into the inner face of the plastic BB cup outer race causing damage to this plastic component or dislodging it from the bearing/seal assembly.

**Note:** Fit between BB spindle and BB cup races may be a bit tight so a few light taps with a plastic mallet may be required to force the BB spindle through.