SIGNATURE SERIES BOTTOM BRACKETS



Signature XS
XC/Road
Single/Double/Triple



Signature Ti
XC Racing/Road
Single/Double/Triple



Signature FR
Big Hit Freeride
Triple/Double + Bash



Signature DH
Big Hit DH/DS
Chain Guide System

COMPATIBILITY:

Frame BB Shell: English threaded frames (BC 1.37X24T - LH thread drive side / RH thread non-drive side) 68mm or 73mm shell widths on all models except Signature DH 100x143 which ONLY fits 100mm shells.
E-Type BB Mount Front Derailleurs: The signature series bottom brackets shown are not designed to be used with an E-type derailleur. Race Face will not guarantee performance with these derailleurs.
BB Mount DH Chain Guide (Chain Tensioning) Systems: requires use of DH Cup (included with Signature DH models or purchased separately). Be aware that depending on the combination of all your parts, the chainline and/or crank arm clearance may be less than ideal, or may not work.

TOOLS REQUIRED

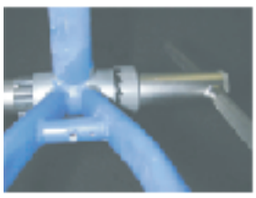


A) Light Oil (chain lube)
B) Waterproof Grease
C) Finish Line Ti-Prep© anti-seize for Signature Ti (included)
D) Torque wrench (recommended)
E) Race Face ISIS Drive BB Tool with Ratchet
Note: 'Shimano'-type will not fit, although the Race Face tool fits all other 20-tooth cups
F) 8mm Allen key
G) Lockring wrench (such as Park HCW-5) for Signature DH 128mm
H) Bottom Bracket Shell Tap with Facing Tool

TORQUE SPECIFICATIONS:

BB Cups into frame: 35 foot-pounds (47 Newton-meters)
Crank Bolts First Crank Installation: 40 to 60 ft·lb max (54 N·m)

INSTALLATION



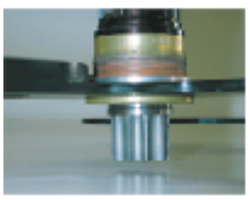
1. Chase and face bottom bracket shell - recommended. This should be performed by a professional bike shop.



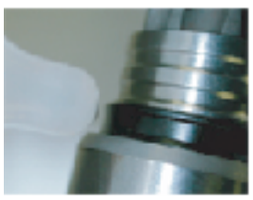
2. Apply a film of grease to the threads inside the BB shell to prevent seizing or galling.



3. Thread the non-drive side cup 3 to 4 turns by hand.



4. ***If using a chain guide:*** Slide on the chain guide (and the 2.5mm spacer if required - see chainline adjustments)
Note: Always follow your chain guide manufacturer's instructions. If they differ significantly from these instructions, please contact either the chain guide manufacturer or Race Face.



5. Apply a drop of oil to each Delrin seal wiper.



6. Thread the drive side cup until:
a) cup flange is tight to frame
b) cup is 1mm recessed on 73mm shell
c) cup is 1mm exposed on 68mm shell



7. Tighten down the non-drive side cup until it comes to a dead stop. Check that cups are torqued to 35 ft·lb.

Note: you may notice some rotational friction upon installation. It's from the extra seals and thick waterproof grease we use in our bearings. The drag should not be significant once the cranks and chain are installed, and will be reduced after a couple of break-in rides.



8. On Signature 128 DH BB if more than 2 mm of the non-drive side cup are exposed, it is recommended to use the included lockring. Grease the frame-side face and the threads, and tighten until snug.
WARNING: DO NOT ATTEMPT TO USE THE LOCKRING IF LESS THAN 2 MM OF THREAD ARE EXPOSED; IT WILL DAMAGE THE CUP THREADS

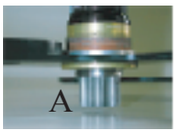
CHAINLINE:

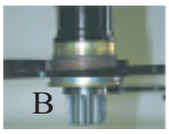


When installed with a Race Face crankset, 48.5 to 49.5 mm chainline for optimal shifting. To adjust when not using the DH CUP, loosen the drive side cup (to increase) or non-drive side cup (to decrease) by approximately 1 full turn per millimeter required. Then tighten the opposite side cup as step 7, above.

Using a Chain Guide System, increase chainline in these ways:

1. Spacers (a 2.5mm spacer is included with the Signature DH models, or most bike shops sell spacers of various thicknesses) can be installed





   A. between the chain guide and frame (increases chainline only)

   B. between cup flange and frame (also increases the chain guide-to-chainring spacing.)

2. On the Signature DH 128 and Signature DH 118 you can remove the spindle assembly and install so the drive side is on the LH side of the bike resulting in an increase of 4 mm or 2.5mm respectively.

3. Buy a longer BB. All of the Signature FR 113, Signature DH 118 and Signature DH 128 are useable with chain guides.

Note: If the crank arm-to-chainstay clearance is good but the chainline is too long, Race Face manufactures special chainring tabs for the North Shore DH crank that offset the middle position chainring 2mm inboard

CRANK INSTALLATION:

1. Apply a generous amount of waterproof grease to all of the spline teeth on both ends of the spindle as well as to the threads on the inside of the spindle.
FOR SIGNATURE TI: IT IS EXTREMELY IMPORTANT TO USE TITANIUM ANTI-SEIZE INSTEAD OF GREASE (WE RECOMMEND USING FINISH LINE TI-PREP©). ALL WARRANTIES ARE VOID IF ANTI-SEIZE IS NOT USED.
2. Install cranks as per manufacturer's instructions (for Race Face cranks, see the instructions included with cranks or see RACEFACE.COM)
NOTE: ALWAYS USE THE CRANK BOLTS SUPPLIED WITH YOUR BOTTOM BRACKET, DO NOT SUBSTITUTE.

MAINTENANCE:

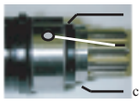
Your Race Face dealer can order replacement parts as required.

1. Inspect the lip seals for damage, and ensure they have remained in the cups. Inspect the compression ring in each cup. If it is excessively deformed or damaged it should be replaced.



vibra seal (orange)
compression ring (yellow)
lip seal (blue)
cup flange (only on DH cup, shown)

2. Use a fine-tip grease gun filled with high quality, sticky, waterproof bearing grease. Pump into the grease port in the outer race of the cartridge bearing until grease oozing out the seal on the side runs clean. Wipe away excess grease.
Note: It is not recommended to remove the bearings for re-greasing as they can be damaged in this process.



Delrin seal wiper
grease port
crank stopper

WARNING: RE-GREASING IS ONLY MEANT TO PROLONG BEARING LIFE AND IMPROVE PERFORMANCE - BEARINGS SHOULD BE REPLACED WHEN RE-GREASING DOES NOT IMPROVE FEEL OR BEARING IS NOTICEABLY DAMAGED

BEARING REPLACEMENT:

Bearings in the Signature series can easily be replaced. Contact your local Race Face dealer to purchase repair parts. Use of non-proprietary parts (including bearings) will void all warranties, and could lead to serious and unexpected failure.

IMPORTANT: CHECK WARRANTY INFORMATION AND ADDITIONAL INFORMATION AT RACEFACE.COM OR ASK YOUR LOCAL RACE FACE DEALER

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