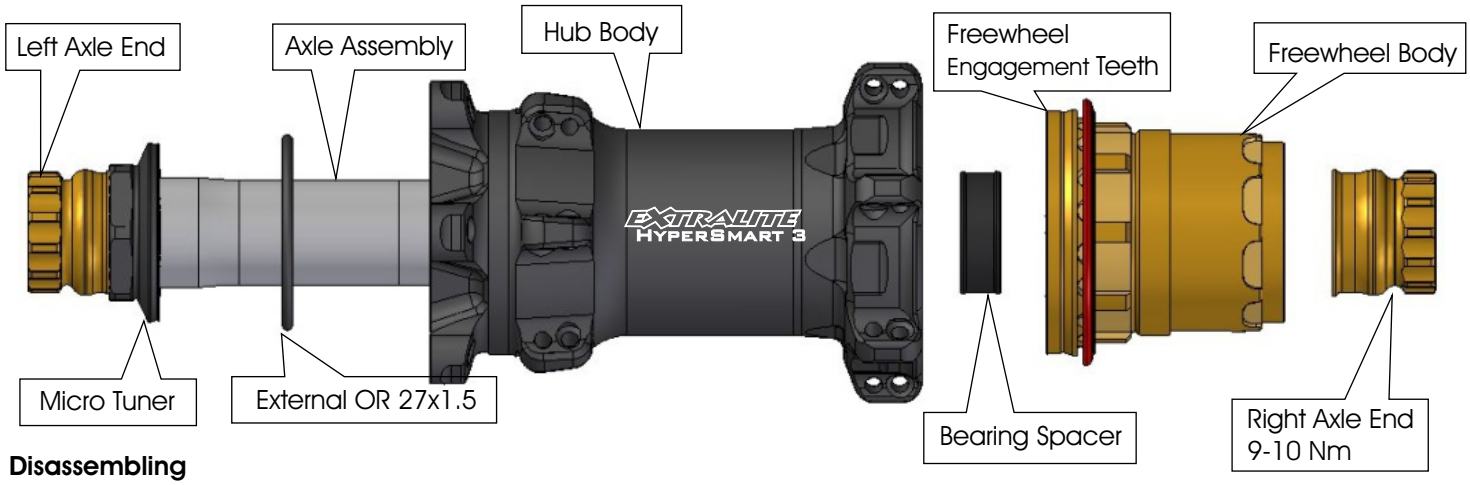
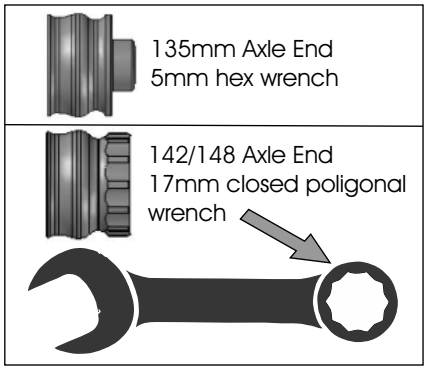
BAK3-R Boost Adapter Kit - Rear

BAK3 Rear kit provide a proper transformation to Boost standard (not just plug-ends spacers) and mimic the positive spoke camber advantage of Boost standards and the tipical chainline of Boost frameset.
This mod requires a minor adjustment of rim camber.
Adjustment of wheel center is 1mm when converting from 142 to 148 and 1.5mm converting from 135 to 148.

WARNING: Execute these operations only on a well clean and well illuminated table, you'll have to handle delicate internal parts and tiny springs, even small debris can compromise freewheel engagement mechanism.
Carefully follow maintenance instructions step by step.
Schedule periodical cleaning and lubrication sessions since water and moisture stagnant inside hub will damage bearings in few weeks.



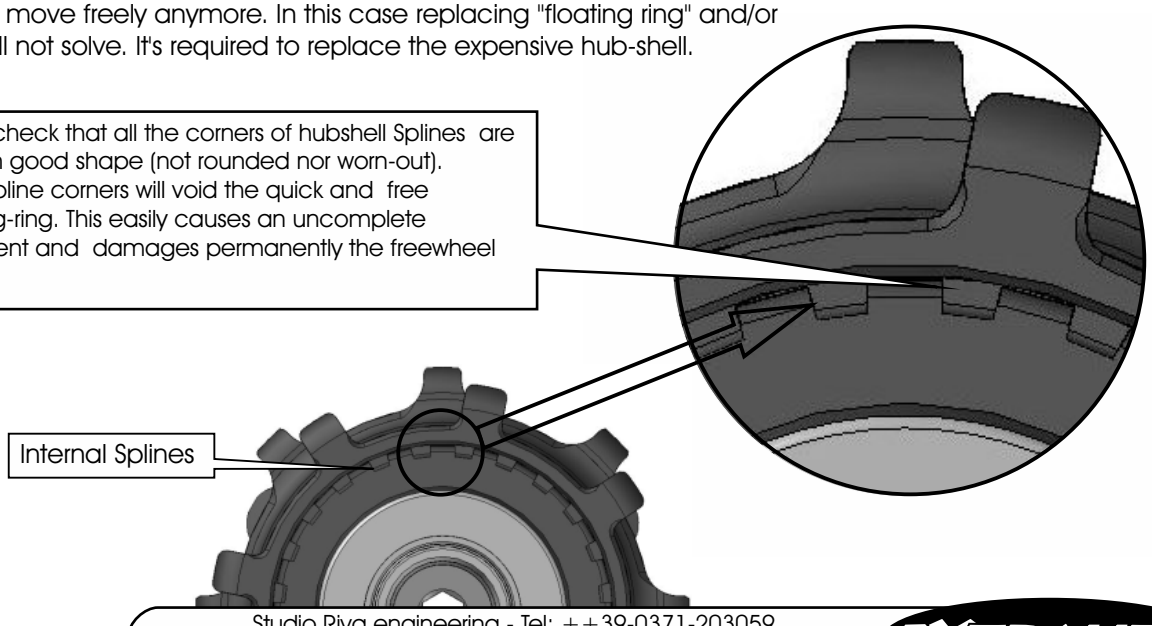
Disassembling
1) Remove disc rotor
2) Insert a 17mm closed wrench onto Left Axle End (5mm hex for QR).
3) Unscrew Right Axle End with another 17mm closed wrench (5mm hex for QR).
4) Pull Freewheel Body and remove it.
5) Extract Bearing Spacer.
6) Remove Lip Seal from Hub Body.
7) Remove Floating Ring from Hub Body, you'll find 3 tiny springs on its back side.
8) Push out Axle Assembly and completely extract it from disc side.



Cleaning
9) Clean all parts (Do not use aggressive solvents).
10) Clean very carefully all Internal Splines.
Warning: even one small debris can void freewheel engagement.
Warning: carefully check hubshell Splines (see below).

Checking hubshell Splines
Once hub-shell internal is perfectly clean check well that every spline corner is still well square and flat.
When riding HyperSmart3 with dirt inside the hard particles of sand can sensibly grind the hubshell splines. Shortly the sand grinds and rounds all the hub-shell splines till the "Floating Ring" won't move freely anymore. In this case replacing "floating ring" and/or "Freewheel body" will not solve. It's required to replace the expensive hub-shell.

Clean and carefully check that all the corners of hubshell Splines are still well square and in good shape (not rounded nor worn-out).
Worn and rounded Spline corners will void the quick and free movement of floating-ring. This easily causes an uncomplete freewheel engagement and damages permanently the freewheel parts.



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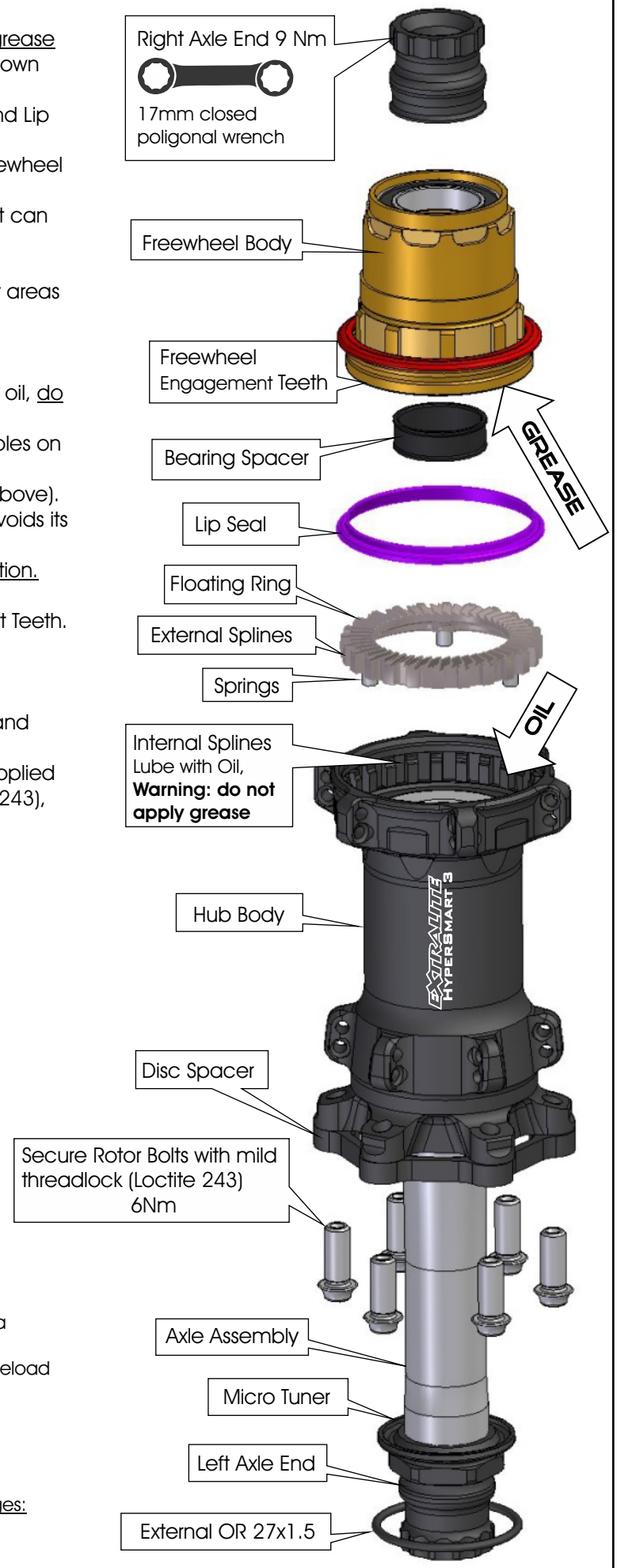
Lubrification and reassembling
Warning: use only very soft density grease as original Alugrease Super1. Medium-dense or sticky grease can lock or slow down Floating Ring movement, this can destroy the freewheel mechanism! Chemical additives may damage O-rings and Lip Seal.
Warning: Un-correct greasing and/or maintenance of freewheel mechanism can lock and destroy it!
Warning: Even small debris inside freewheel engagement can damage mechanism permanently.

11) On new BAK3 R Axle Assembly grease bearing contact areas and fill up Micro Tuner internal face with soft grease.
12) Insert new Axle Assembly from disc side.
13) Insert Bearing Spacer.
14) Oil Internal Splines of Hub Body with 1cc w30-50 motor oil, do not apply grease here.
15) Apply a minimal amount of grease into spring fitting holes on Floating Ring back side, then carefully insert the 3 springs.
16) Insert Floating Ring (in the correct position, see notes above).
17) Fully snap in Lip Seal (uncomplete/unaligned inserting voids its seal function).
18) Check again that the 3 springs are in their correct position.
19) Check that Floating Ring moves freely and quickly.
20) Apply 1cc of soft grease onto Freewheel Engagement Teeth.
21) Insert Freewheel without pinching Lip Seal.
22) Tighten Right Axle End at 9-10 Nm.
23) Check Preload Tuning (see chapter).
24) Install External OR (27x1.5 oiled) between Micro Tuner and bearing.
25) Install Disc Spacer between disc rotor and hub, use supplied Rotor Bolts. Secure Rotor Bolts with mild threadlock (Loctite 243), tighy at 6Nm.



BEARING PRELOAD SET-UP:
Optimal bearing preload is important for a long bearing life.

Checking
Before modifying bearing preload carefully check the complete wheel as follows:
1) Install wheel into dropouts and normally lock thru axle.
2) Check there is no play at rim diameter.
3) Leave wheel free to completely stop spinning and carefully control latest instants of movement. Stopping should be very smooth.

Preload Tuning
If necessary fine tune as follows.
1) Install wheel into dropouts and normally lock skewer.
2) If you feel play at the rim turn in Micro-Tuner (clockwise). Use a 21mm wrench, very delicate torque and manners.
3) Unscrew Micro-Tuner for ca 1/4 of turn to release excessive preload on bearing balls and achieve max rolling smoothness.
4) Repeat Preload Checking and eventually slightly correct it.
5) The optimal bearing preload cancels play at the rim without affecting rolling smoothness.

Warning Incorrect bearing preload can bring to serious damages:
- Too tight --> bearings damage and premature wear
- Too loose -->permanent freewheel damage