

HyperSmart3+ F

Owner's manual

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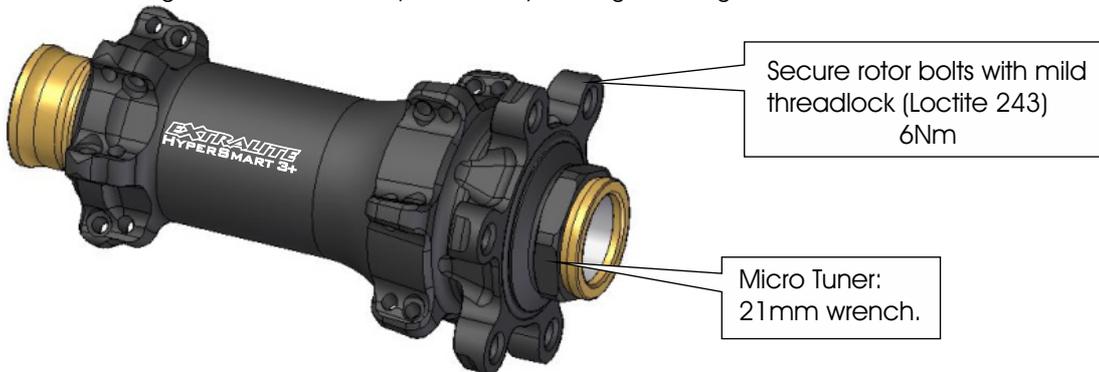
DESTINATION

X-Country, Gravel.

GUIDELINE

Never use high-pressure spray washing directly onto the hub. Clean hubs externally with warm water and soap. Periodically clean hub internals (every 6-12 months in normal and dry conditions, every 3 months in wet conditions and always before leaving the wheel un-used for more than 1 month, see Level1 instructions).

Warning: Water and moisture stagnant inside hub can permanently damage bearings.



BEARING SET-UP

Bearings come pre-adjusted from the factory. Optimal preload is important for long bearing life.

Warning Incorrect bearing preload decreases hub performance.

Preload checking

Before modifying bearing preload carefully check the complete wheel as follows:

- 1) Install the complete wheel into dropouts and normally lock skewer.
- 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, gently turn Micro-Tuner fully clockwise with a 21 mm wrench.
- 2) Unscrew Micro Tuner for 1/8 to 1/4 of turn.
- 3) Repeat preload checking and eventually slightly correct it. Turn anti-clockwise to increase rolling and stopping smoothness. Turn clockwise to correct play. The optimal bearing preload cancels play at the rim without affecting rolling smoothness.

Lacing

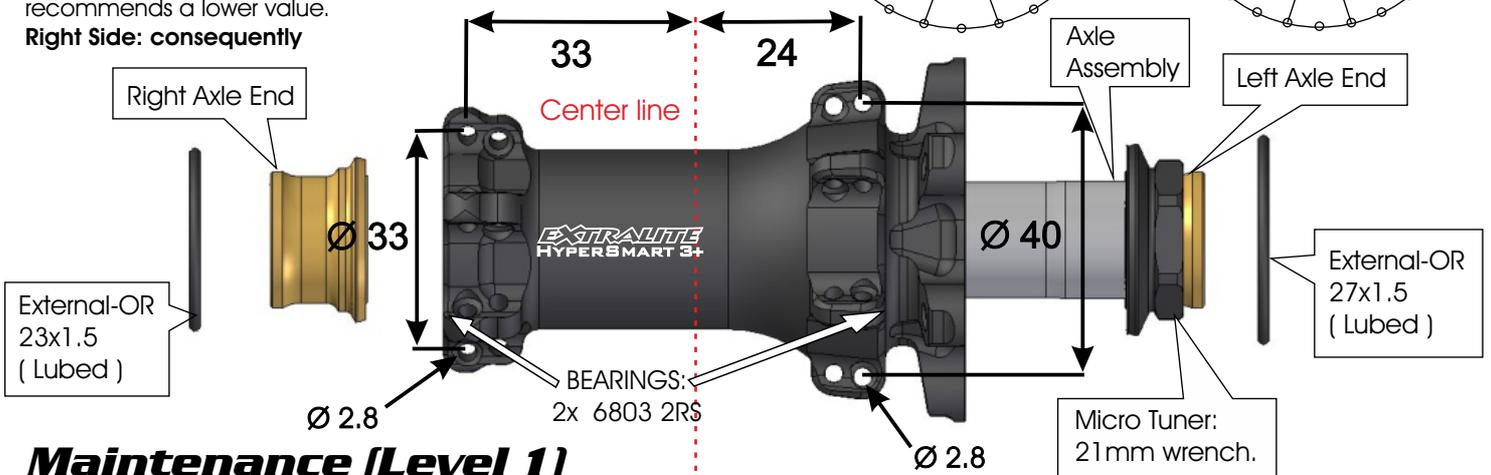
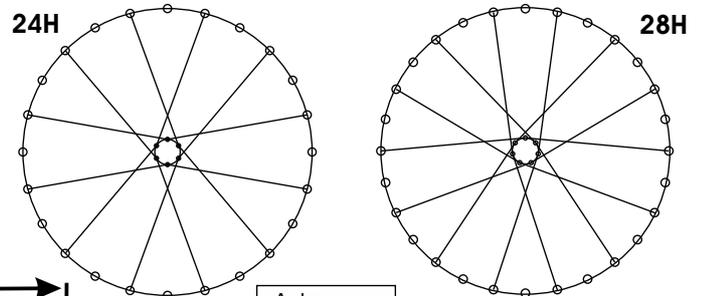
See www.extralite.com to find pre-calculated spoke lengths. Respect specific lacing pattern (see drawing). Do not laterally over-push Axle at the spoke stretching procedure. Excessive lateral load may damage external bearings.

SPOKE TENSION:

Hub maximum spoke tension:

Disc Side: 120Kgf Reduce tension if the rim manufacturer recommends a lower value.

Right Side: consequently



Maintenance (Level 1)

Clean hubs externally with warm water and soap. Never use high-pressure spray washing directly on bearings. Periodically clean hub internals to avoid water and moisture stagnant inside hub.

Axle Assembly removal.

- 1) Pull and extract Right Axle End with External OR (23x1.5).
- 2) Push and Extract Axle Assembly and External OR (27x1.5) from right side.
- 3) Clean all parts.
- 4) Grease bearing contact area on Axle and Right Axle End and Micro Tuner internal faces.
- 5) Reassemble all parts.
- 6) Repeat bearing set-up preload tuning.
- 7) Oil and install both External Orings only when the hub is completely assembled and tuned.