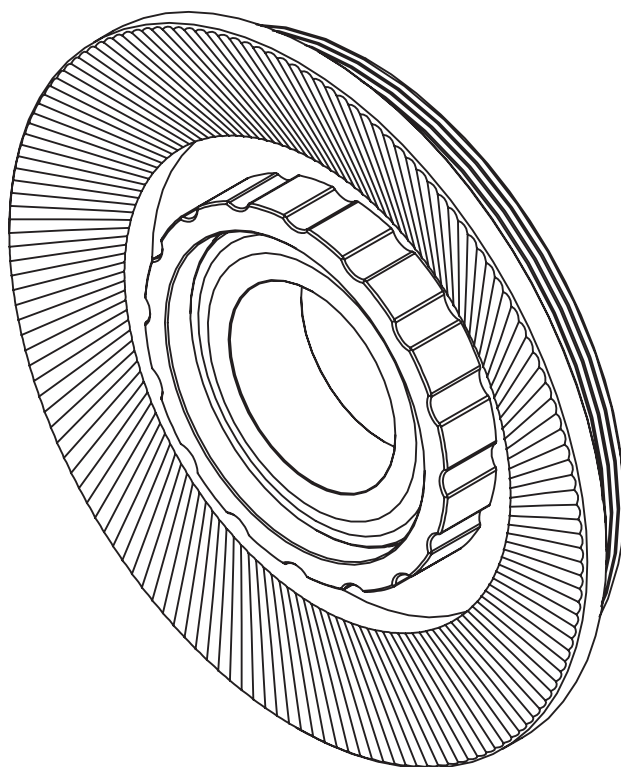




CYC NUCLEUS LOCKER

USER MANUAL



Doc-V1.0

LEKKIE NUCLEUS LOCKER

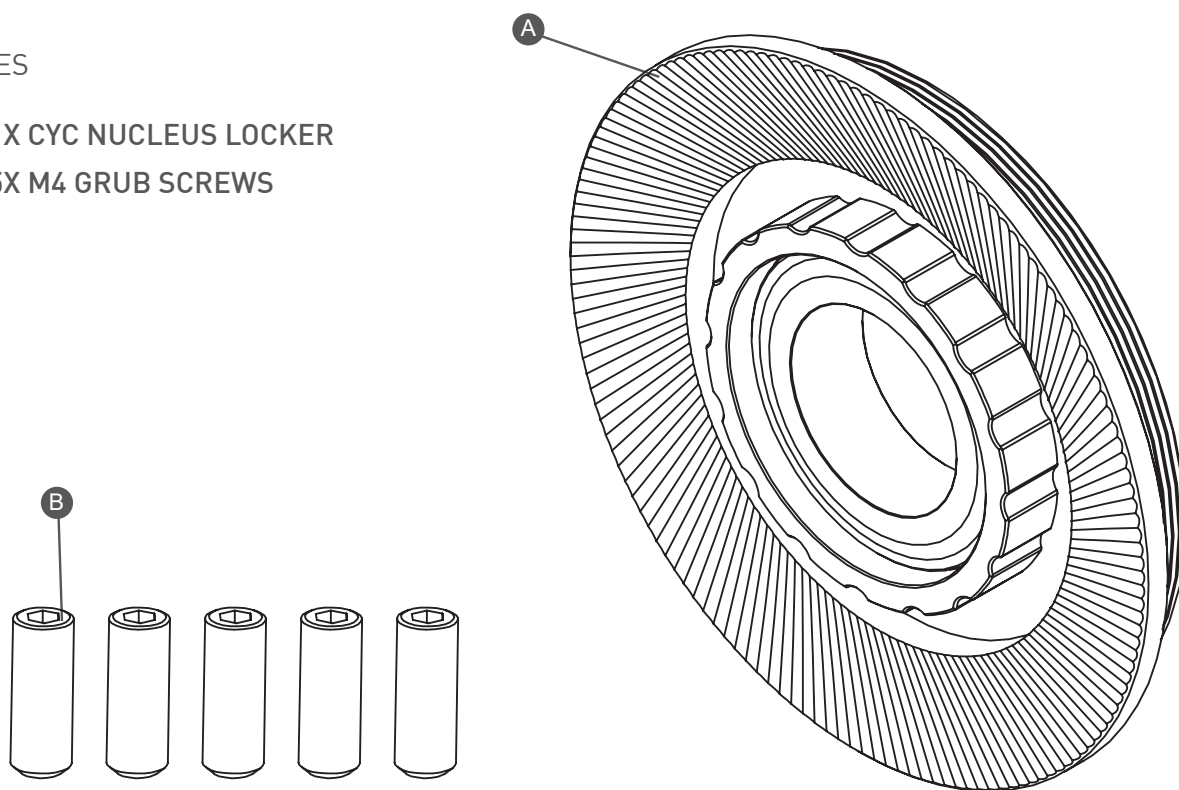
Designed for the CYC Photon motor, the Lekkie Nucleus Locker fits both the stock CYC chainring assembly and Lekkie Spline Up System.

The Nucleus Locker utilises a standard 44mm 16 notch spline, which works with sockets** designed for Shimano's 44mm Bottom Bracket system, and doubles as a tool to remove the existing CYC locking nut.

FOR LEKKIE NUCLEUS LOCKER COMPATIBLE WITH CYC PHOTON

INCLUDES

- A** 1X CYC NUCLEUS LOCKER
- B** 5X M4 GRUB SCREWS



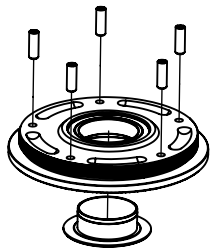
** A socket type 44-16 notch tool is required, as a flat spanner type cannot engage the spline.

TOOLS REQUIRED

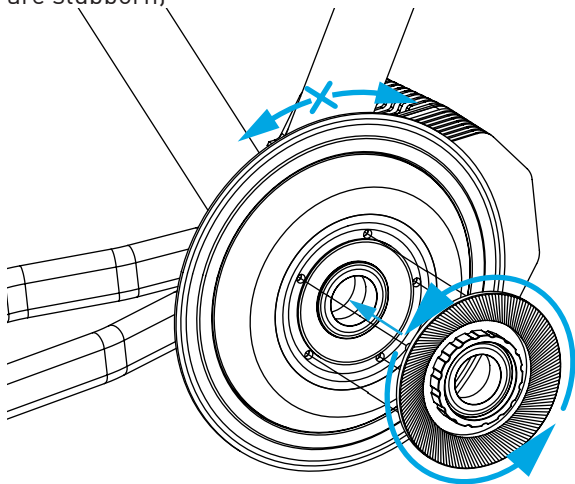
- 44mm 16 notch BB socket + Driver
- 2mm hex/Allen key
- Torque tool
- Rubber mallet
- All purpose lithium or anti-seize grease

MOTOR PREPARATION

1. The Nucleus Locker doubles as a tool to remove the CYC locking plate. Insert the included 5x m4 grub screws into the holes in the rear of the Nucleus Locker. Temporarily pop out Plastic bearing bush. Align and insert the 5x screws into the CYC locking plate.



2. Use a chain whip to hold the sprocket and 44-16 notch socket to remove the CYC Locking plate turning it anticlockwise (a rattle gun can also be useful if parts are stubborn)



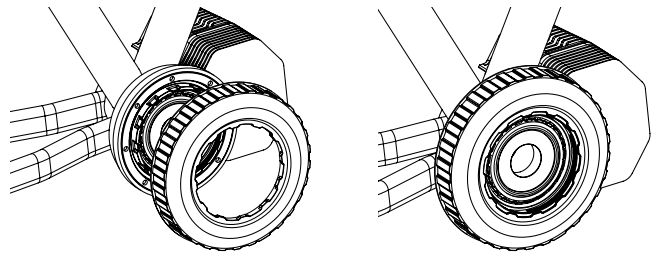
3. Remove the Nucleus locker and unscrew the 5x M4 screws. Replace the Plastic bush into the bearing. Remove the CYC Locking plate from the motor.

If using stock CYC chainring assembly please skip to FINAL ASSEMBLY page.

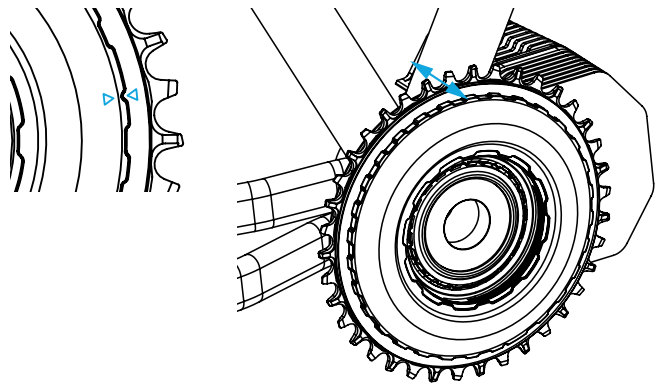
If using Lekkie Spline Up see next step.

LEKKIE SPLINEUP ONLY

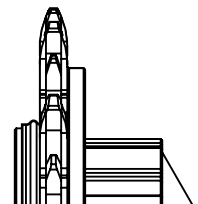
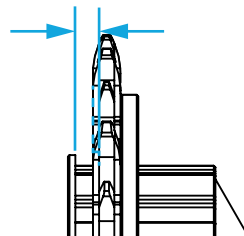
4. Remove CYC chainring assembly then place the SplineUp Carrier onto the motor, push it in all the way onto the CYC spline.



5. Take your chosen chainring and place it on the carrier, aligning the small spline (marked with a triangle on 38T and larger sprockets), it can only go on one way to ensure correct tooth direction.



5b. move the sprocket until you find the best chainline for your setup (often this will be hard up against the backstop). Ensure adequate clearance between the chainring and chainstay. Measure the distance from the rear of the sprocket top to the carrier lip. (Note, there is a



6. Remove the sprocket if rear spacing is required. Slide on a spacer/s to match the distance measured (see guidelines). Use a single spacer on the rear when possible (2-5mm, avoid running a single 1mm spacer by itself).

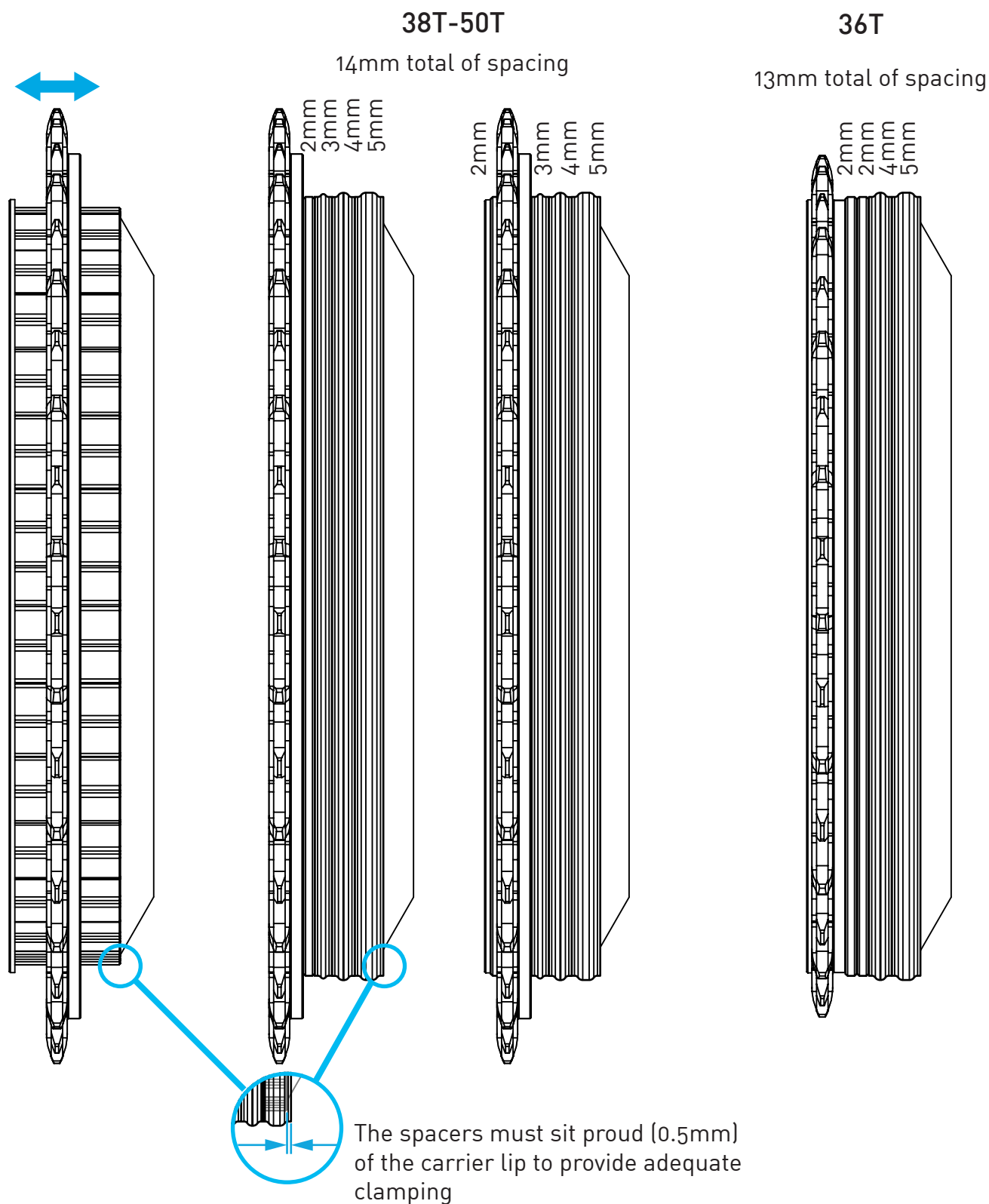
7. Slide the sprocket back onto the carrier, If using a guard place it on next to the sprocket *. Calculate the required outer spacers based on the sprocket (see next page) place required spacers starting with the smaller sizes.

*In some cases you may wish to run a 1mm spacer between the sprocket and guard however avoid running more than 1mm as chain jams can occur.

OFFSET ADJUSTMENT

Spacing of the rings is critical for correct function. Using the supplied spacer rings, stack them onto the spline to achieve the desired offset.

It is critical that the overall thickness of the spacers is correct, for the 38T, 40T, 42T, 46T and 50T rings there must be 13mm of spacers. For a 36T ring there must be 14mm of spacers. A chain guard counts as a 5mm spacer.



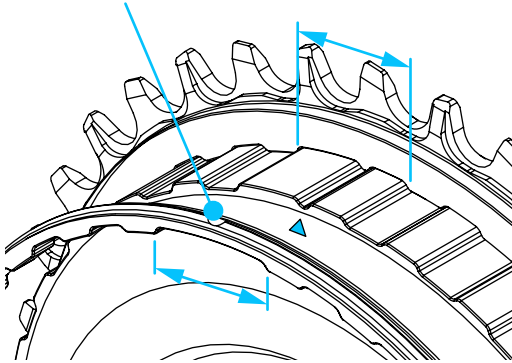
ASSEMBLY

The Set of spacers includes 1x5mm, 1x4mm, 1x3mm, 2x2mm and 2x1mm spacers.
(colors for illustrative purposes)

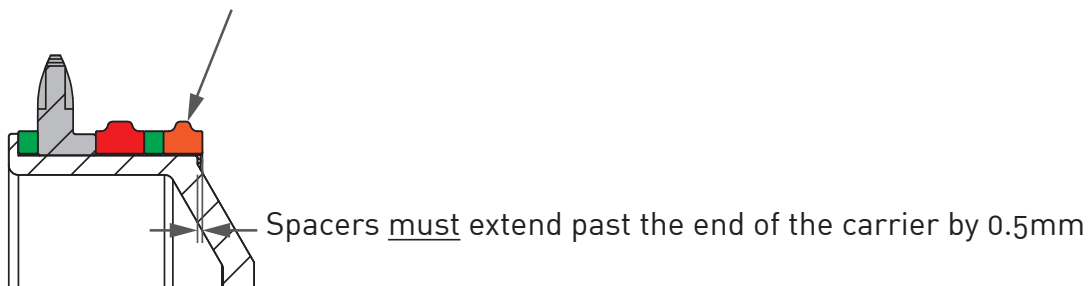


GUIDELINES

When fitting spacers, align the wide spline with the marked carrier spline. Thicker spacers have an outer notch to assist.



Run wider spacers on the outside to obtain the required 0.5mm compression overlap with adequate spline engagement.

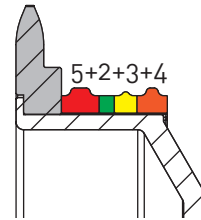


SPACING TABLES

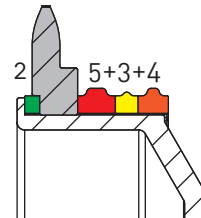
Spacing for the 38T-50T Chainrings - Overall Spacing MUST equal 14mm

Inside Spacing/ers	Chainring	Outside Spacing/ers
0mm		(14mm) 5+2+3+4
1mm		(13mm) 5+2+2+4
2mm		(12mm) 5+3+4
3mm		(11mm) 5+2+4
4mm		(10mm) 5+1+4
5mm		(9mm) 5+1+3
(6mm) 5+1		(8mm) 2+2+4
(6mm) 4+2		(7mm) 2+1+4
(7mm) 4+3		(7mm) 2+5
(7mm) 5+2		(6mm) 1+5
(8mm) 5+3		(6mm) 2+4
(9mm) 5+4		(5mm) 1+4
(9mm) 5+4		(4mm) 1+3
(9mm) 5+2+2		(4mm) 2+2
(10mm) 5+1+4		4mm
(11mm) 5+2+4		3mm
(12mm) 5+3+4		2mm
(13mm) 5+2+2+4		1mm
(14mm) 5+2+3+4		0mm

Example, 38T with 0mm offset
(Note: Larger rings can run an extra 1mm of offset over the 36T, due to the rear face recess).



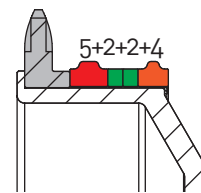
Example, 38T with 2mm offset



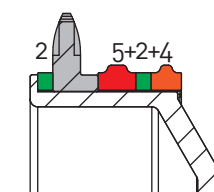
Spacing for the 36T Chainring - Overall Spacing MUST equal 13mm

Inside Spacing/ers	Chainring	Outside Spacing/ers
0mm		(13mm) 5+2+2+4
1mm		(12mm) 5+3+4
2mm		(11mm) 5+2+4
3mm		(10mm) 5+1+4
4mm		(9mm) 5+1+3
5mm		(8mm) 2+2+4
(6mm) 5+1		(7mm) 2+1+4
(6mm) 4+2		(7mm) 2+5
(7mm) 4+3		(6mm) 1+5
(7mm) 5+2		(6mm) 2+4
(8mm) 5+3		(5mm) 1+4
(9mm) 5+4		(4mm) 1+3
(9mm) 5+4		(4mm) 2+2
(9mm) 5+2+2		4mm
(10mm) 5+1+4		3mm
(11mm) 5+2+4		2mm
(12mm) 5+3+4		1mm
(13mm) 5+2+2+4		0mm

Example, 36T with 0mm offset



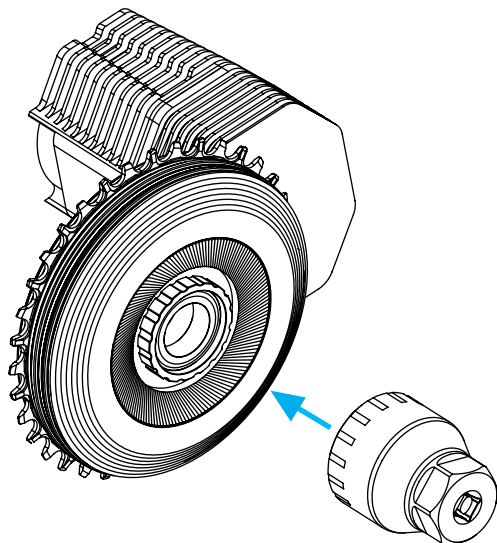
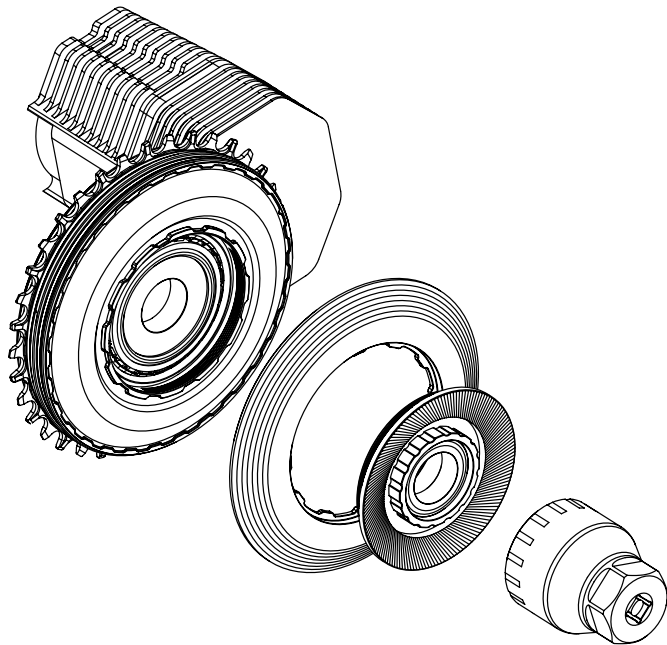
Example, 36T with 2mm offset



FINAL ASSEMBLY

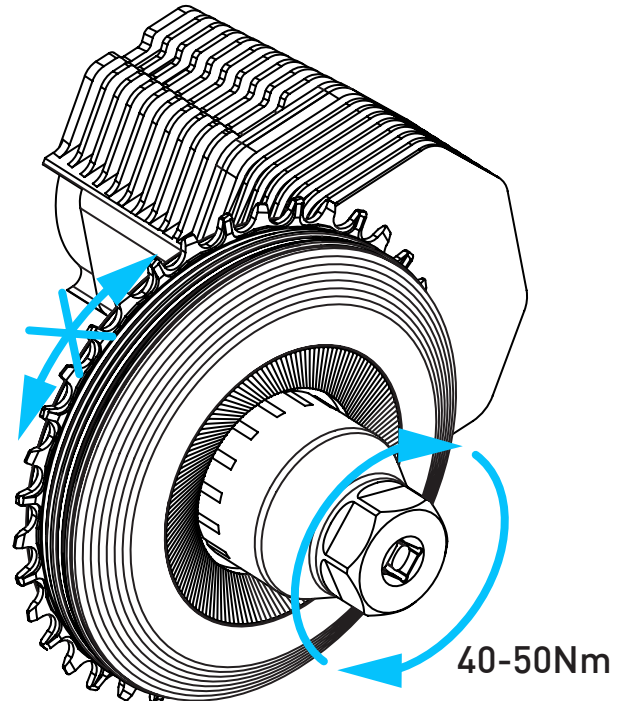
1. Place the Ring Lock plate onto the assembly and engage the spline. Skip step if using stock CYC chainring assembly

2. Apply a small amount of grease to the main Nucleus Locker thread to prevent binding, carefully screw it on ensuring correct thread engagement (cross threading the locker will terminally damage the thread).



3. Fit the chain onto the chainring, this will stop the ring turning if the rear wheel is held. Else use a chain whip to hold the ring while tightening the Nucleus locker.

4. Holding the rear wheel/chain whip, use a 44m-16 notch socket and torque wrench to tighten the Nucleus locker to 40-50Nm.



5. Check the chainring sits as desired and chainline is working correctly. Adjust spacing as required. Finish assembling the motor axle etc as per CYC instructions.

WARRANTY

At Lekkie we don't accept anything but the best workmanship and quality. If a part has slipped through our QC system and made it to your hands let us know and we will put it right.

If one of our products fails we want to know so we can make our products better. If you destroy a Lekkie product in extreme use tell us. We can learn from this and sell you something so suit your needs.

If you are in anyway unhappy with your Lekkie product get in touch so we can put it right.