ROTOR Q-Ring starter's guide: **Part 1**

ADAPTATION PHASES

Transition from Round rings to Q-Rings.

Road or XC2 bike? Start in position **3**
Triathlon or TT bike? Start in position **4**
XC3 bike? Start in position **2**
Recumbent bike? See recumbent installation guide!

It is recommended you complete the first 3 adaptation phases before changing your chainring's OCP setting

Q-RING ADAPTATION PHASES GUIDE

Q-Rings use a your leg muscles at a different rate than round rings. This muscle balance change is why it is important to follow this guide, which will make your transition smooth. Please do not install the Q-Rings until you have read sections 1-4 of this document entirely. The time spent in each phase varies from a few days to a week; depending on the cyclist. Some phases pass faster than others. Adaptation takes a minimum of 500km (road) / 200km (MTB)

Adaptation phase	Characteristics of phase
Phase 1: **Brain Training**	**Pedalling may feel different, leading to a faster or slower cadence than usual. You may notice an initial jerkiness, which will smooth out after the first few kilometers** (high revs may be choppy for a while). Maintain the same gear combinations as usual. Do not push yourself too hard. Avoid focusing on a "perfect spin": this means your legs will try to make Q-Rings round which they are not. Simply focus on pushing the pedals and allow yourself time to adapt to the Q-Rings healthier, performance enhancing pedal stroke.
Phase 2: **Easy riding**	**Q-Rings' improved biomechanic efficiency spreads leg muscle loads more evenly than normal chainrings, reducing knee problems and making your muscles work together at different rates than with round chainrings.** You may notice that your weaker inner leg muscles are being pushed harder to maintain an effort level that feels normal. Do not panic: keep on building baseline Km's without exerting yourself too much, developing said muscles without overloading them. (Even if you feel more powerful, try to resist the temptation to go all out).
Phase 3: **Muscle adaptation**	**You may feel a strange sensation in your stronger leg muscles because they are not being loaded as heavily as usual.** This is a normal continuation of the feeling you had in phase 2: your weaker muscles are equalizing in strength and taking on more work. Continue riding as usual and this feeling will fade away. If you rode hard last week these developing muscles may be fatigued: masage, stretch and step the effort down a notch for a few days. Your pedal stroke with be smoother now. If something doesn't feel "quite right" keep on riding the Q-Rings until your muscle adaptation has finalized (unless you are experiencing joint pain: see part two and contact us in this case).
Phase 4: **Finalization and Customization**	**Your leg muscles will now have achieved a new, healthier balance. Because Q-Rings reduce your weakness and optimize gearing according to your legs immediate capacity, you will now ride through tough conditions more capably than you could before.** If you are in the right OCP position, your spin will be as smooth as before (or better) and your heart rate may be lower than usual. Your legs and knees will likely feel fresher at the end of rides. **If you are still experiencing problems, you can now adapt the position of your chainring to optimize your Q-Rings' position for *your* riding style on *your* bike.** The aim here is to help you find your ideal setting in an analytical manner: In doing so it is important to let your legs, heart rate and effort level speak, not your preconceptions (which can cause you to set your rings up incorrectly).

Do not adjust OCP positions before finishing phaze 3 / If you are comfortable on one chainring but not the other, this will be solved with OCP settings

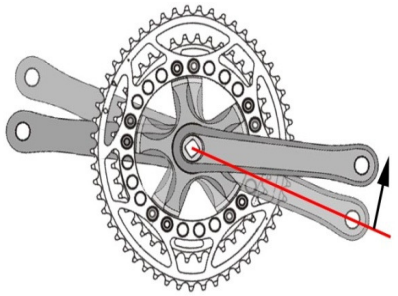
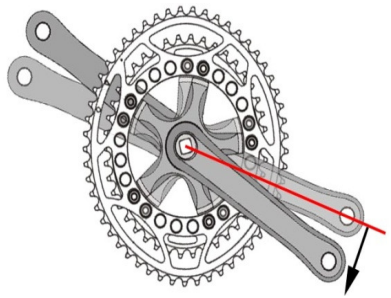
ROTOR Q-Ring starter's guide: **Part 2**

OPTIMUM CHAINRING POSITION

Chainring setup guide

Road or XC2 bike? Start in position **3**
Triathlon or TT bike? Start in position **4**
XC3 bike? Start in position **2**
Recumbent bike? See recumbent installation guide!

It is not possible to set up Q-Rings to achieve an effect (power, spin, etc): Only to make your bike work for you!

Problem situation: If you dont have pedalling problems you are in the right position! A successful change in position will give immediate improvement.	**Have you ridden 500 Road or 200 MTB KM on Q's?**			
	NO		**YES**	
	Cause	**Solution**	**Cause**	**Solution**
Acceleration and speed pulses are easy but maintaining speed is difficult It feels as if you are pedalling in a vacuum It feels as if there is not enough drivetrain resistance to pedal against Pedalling power comes too late in downstroke (too low) Your pedals seem to arrive too low too fast Your pedals shoot through the power zone and become bogged down below You are only comfortable when pedalling slower than usual The only way to pedal comfortably is to ride a smaller cog than usual You sit further forward on your saddle than usual to pedal comfortably It is comfortable to pedal standing but not when sitting Pain at the back of the leg behind the knee that you haven't had before	Your brain and / or legs are not yet used to riding with Q-Rings	Keep riding until you have finished stages 1 to 3 of the adaptation phazes See "yes" solution -->	You are arriving at the maximum chainring diameter too late (OCP number too large)	**Reduce OCP number by <u>only</u> 1 step** from current position: 5 -> 4. 4 -> 3. 3 -> 2. 2 -> 1. 
I'm not experiencing any problems, my Q-Rings are working fine.	You are already in an optimal position and do not need to change anything.			
Cruising is easy but accelerations and speed pulses are difficult Early resistance growth prevents you from pedalling smoothly Too much pedalling resistance early, which disappears too soon You can't reach your power zone on time Your pedals seem to resist entering the power zone You feel stuck too high for too long You attempt to pedal faster than usual to be comfortable The only way to pedal comfortably is to ride a larger cog than usual You sit further back on your saddle than usual to pedal comfortably It is comfortable to pedal seated but not when standing Pain at the front of the knee that you haven't had before	Your brain and / or legs are not yet used to riding with Q-Rings	Keep riding until you have finished stages 1 to 3 of the adaptation phases See "yes" solution -->	You are arriving at the maximum chainring diameter too soon (OCP number too small)	**Increase OCP number by <u>only</u> 1 step** from current position: 1 -> 2. 2 -> 3. 3 -> 4. 4 -> 5. 

Different bikes may need different OCP positions / Adjacent chainrings may need different positions / Change OCP one step & retest before adjusting again / XC3 rings only have 3 positions / XC2 rings only have positions 2-4