



**CHRIS KING**  
PRECISION COMPONENTS

## Micro Spline Driveshell Addendum

### Disassembly of rear ISO, ISO B, and ISO Superboost Hub with Micro Spline Driveshell

1. Remove the thru axle, cassette lockring, and cassette from hub.
2. Remove non-driveside axle end cap from axle assembly by pulling it off the axle or use a small flat head screwdriver to gently pry it off at the split.
3. Loosen the 2.5mm hex bolt on the adjusting clamp. Insert a 2.5mm hex key into the helper hole on the adjusting clamp adjacent to the 2.5mm hex bolt. Use the hex key as a lever to unscrew the adjusting clamp (counter clockwise) and remove it from the axle.
4. Remove the driveshell and axle by holding the hubshell or wheel in one hand and with other hand pull the driveshell out of the hubshell assembly while rotating counter clockwise.
5. Use Park Tool Co. FR-1.3 to remove the threaded insert from the driveshell.
6. Remove the axle from the driveshell. The outboard driveshell bearing will remain on the axle.
7. Remove the bearing from the axle by pushing the bearing toward the non-driveside, exposing the silver Axle Wedge. Remove the silver Axle Wedge from the axle with a pick or flat-head screwdriver. Remove the bearing.

### Rear hub basic cleaning

Chris King sealed bearings have removable and reusable snap-rings that hold the rubber seals in place. For detailed bearing service steps see “Service of the bearings” below.

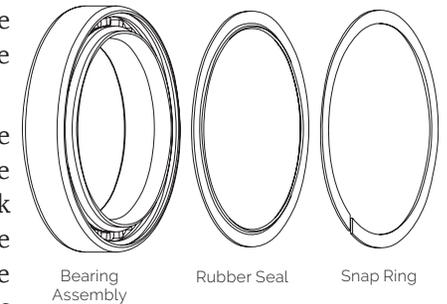
1. Once the hub is disassembled, thoroughly flush the RingDrive assembly with a light solvent-based spray lubricant (e.g., WD-40™). Do not use citrus-based cleansers as they are corrosive and will damage hub parts. Some solvents, synthetic lubricants, and greases with high-pressure additives may attack and

damage seals and other nonmetallic materials. Minimize exposure to these substances and thoroughly dry the hub after cleaning.

2. Using a toothbrush, scrub bearing surfaces, RingDrive splines and teeth, and helical splines on driveshell to remove hardened grease and contaminants.
3. Flush bearing and RingDrive assembly again with a light solvent-based spray lubricant.
4. Use compressed air to blow all spray lubricant, old grease, and contaminants out of the bearings and hubshell. If compressed air is not available, use a clean, lint-free towel to thoroughly wipe out the interior of the hub assembly and bearing surfaces. Bearings, RingDrive, and hub interior must be completely dry and free of solvents before adding new lubrication.
5. Wipe dirt and other contaminants from the seals and snap rings. Avoid cleaning the seals with heavy-duty solvent, which could cause deterioration.

### Service of the bearings

Chris King sealed bearings have removable and reusable snap rings that hold the rubber seals in place.



1. At the snapping split, find the acute point of the inner edge and move 2cm over from that point, use a pick or dulled knife to gently pry the snapping and remove it. Take care not to puncture the seal, these parts are designed to be reused. The seals break-in with use and have less drag compared to a new seal.
  2. Lift and remove exposed rubber seal to access the interior of the bearing. Carefully note it's orientation, the worn in seal will have developed a curve.
  3. Thoroughly flush the bearing with a light spray lubricant (e.g., WD-40™) and blow dry. Some solvents, synthetic lubricants, and greases with high-pressure additives may attack and damage seals and other nonmetallic materials. Minimize exposure to these substances and thoroughly dry hub after cleaning.
1. Wipe dirt and other contaminants from the seals and snap rings. Avoid cleaning the seals with solvent, which could cause deterioration.
  2. Lubrication of the bearings. For Chris King bearings with stainless steel balls, apply a bead of Chris King Silver Grease 1/4 to 1/2 of the way around the bearings. For Chris King bearings with ceramic balls, apply a light bead of Chris King Silver Grease 1/8 to 1/4 of the way around the bearings. Rotate

the inner race to work the lubricant throughout the bearing. In wet and/or muddy conditions, apply more lubricant to the bearings to help seal the bearings from contaminants.

3. Reinstall the black rubber seal between inner and outer bearing race. If using the original seal, reinstall it using the same orientation as when it was originally installed, as this will minimize drag.
4. Turn inner race of bearing by hand to test for binding. If bearings do not run smooth, repeat steps 1-7. Excessive drag is often a result of improperly seated seals and/or snap rings.

Used snap rings and seals can be reinstalled unless punctured, or otherwise damaged. If damaged, replacement seals and snap rings are available from any authorized Chris King dealer or directly from Chris King Precision Components ([www.chrisking.com](http://www.chrisking.com)).

### Rear hub basic lubrication

1. Depress the drive ring inside the hubshell assembly and apply 1-2 mL of RingDrive™ Lube 2.0 on the helical splines between the drive and driven rings.
2. Apply a drop of lightweight, low viscosity oil, with PTFE (e.g. TriFlow™) onto the O-ring on driveshell, both of the O-rings on the axle and the O-ring on the QR adaptor.
3. Apply a thin layer of grease onto the threads of the adjusting clamp and 2.5 mm hex screw.

### Reassembly of the Driveshell and Axle

1. Insert the Driveshell Spring into the driveshell, followed by the driveshell o-ring.
2. Apply a light film of grease to the inside surface of the driveshell that is still exposed.
3. If the outboard driveshell bearing is separated from the axle, slide the bearing onto the axle from the driveside with the seal and snap ring facing the driveside and the white bearing retainer facing the non-driveside. Slide the bearing past the Axle Wedge groove and o-ring.
4. Install the Axle Wedge by sliding it onto the axle from the driveside, thin side first, until it rests in the Axle Wedge Groove.
5. Insert the axle, threaded (non-driveside) end first into driveshell. Continue until the axle is through the hub and the driveside axle bearing is firmly seated in the driveshell.

6. Install the Threaded Insert into the driveshell tightening it to 4.5 Nm (40 in-lbs) using the Park Tool Co. FR-1.3

### Installing the Driveshell and Axle assembly

1. Insert the axle and driveshell into the hub shell; turn the driveshell in a clockwise motion while letting it pull itself in. A distinctive click sound will indicate that the driveshell is firmly seated.
2. Thread the adjusting clamp onto the threads on the non-driveside of the axle.
3. Install Axle Ends (if applicable).
4. Set bearing preload using the adjustment clamp. See “Rear hub adjustment” below.

### Rear hub adjustment

The Micro Spline Driveshell features an adjusting clamp and bearing spacer spring to maintain proper bearing preload.

1. Secure the hub/wheel into the bike or truing stand.
2. Push the hubshell toward the driveside. This compresses the bearing spacer spring in the driveshell and ensures proper bearing seating.
3. While maintaining pressure on the hubshell, tighten the adjusting clamp onto the axle until it stops against the bearing. Do not over-tighten.
4. Once the adjusting clamp is in position, tighten the adjusting clamp with a 2.5mm hex key to 10 inch-pounds (1.13 Nm).
5. Double-check the adjustment for bearing play or binding, and readjust the adjusting clamp if needed.

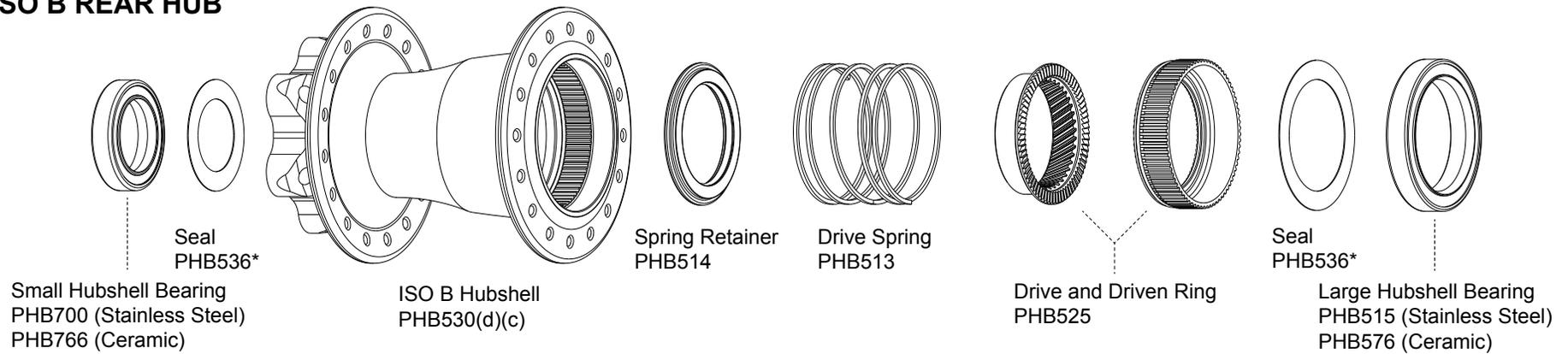
**Note: Correct adjustment of the rear hub is necessary for proper engagement of the RingDrive. If the hub is run loose, the RingDrive may not engage properly and could lead to permanent damage of the internal parts and hubshell.**

## Additional Support

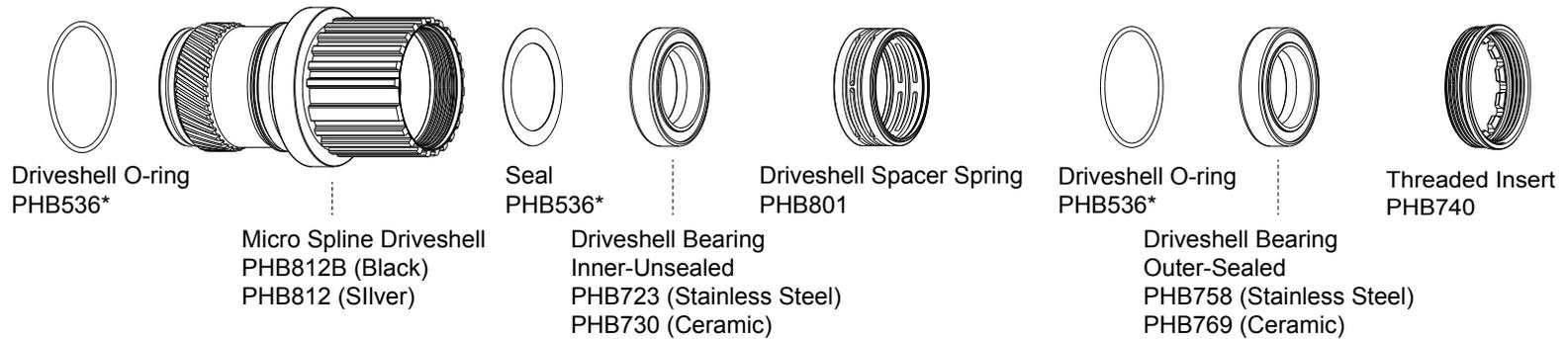
Check our web site often for updated technical information produced in an effort to help you, our customers, stay on your bike.

**Additional questions? Please email us at [info@chrisking.com](mailto:info@chrisking.com) or call Chris King Customer Service at 800-523-6008. Monday through Friday, 8am - 5pm Pacific time.**

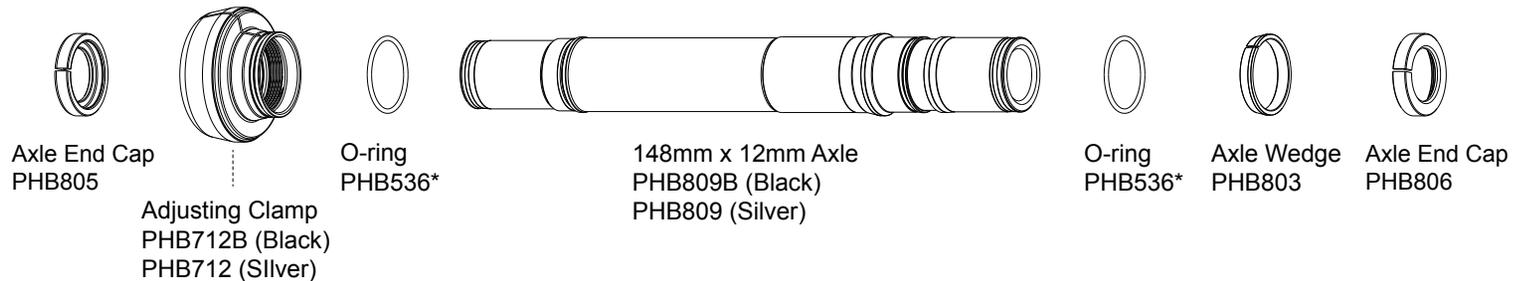
## ISO B REAR HUB



## MICRO SPLINE DRIVESHELL



## 148MM X 12MM (THRU AXLE) FOR MICRO SPLINE



\* PHB536 includes all seals, snap rings, and o-rings for ISO B rear hubs.