### CECAMICSPEED

# Oversized Pulley Wheel System for Shimano Mounting & Maintenance



# Congratulations with your new CeramicSpeed Oversized Pulley Wheel System for Shimano

Personally, I want to thank you for joining the growing number of CeramicSpeed users worldwide. The Oversized Pulley Wheel System you have bought is developed and handmade in Denmark and contains the unique CeramicSpeed Balls and components, carefully chosen from high quality suppliers. This system is compatible with Shimano Ultegra/Dura Ace (6800/7800/7900/7970/9000/9070) 10s and 11s, electronic and mechanical groupsets.

Our aim, as the world's best performing ceramic bearings and optimised racing chains manufacturer, is to deliver products that contribute to your performance as a rider. We are confident that you will love your new purchase.

To ensure the best lifetime and performance, it is important that your new Oversized Pulley Wheel System is mounted and maintained correctly. Familiarise yourself with the technical information supplied in this brochure. Should you have any concerns or issues, please contact your local dealer or the technical department at CeramicSpeed.

Happy and safe riding, and once again welcome to CeramicSpeed.

Best regards,

CeramicSpeed

Martin Banke

**Executive Vice President** 

mont Bull

Part of the Victory

#### Maintenance

No set of rules can be made for how often your Oversized Pulley Wheels are to be maintained. Maintenance frequency depends on the weather conditions that you are riding in.

A worn chain will increase the wear on the pulley wheels significantly, so make sure that you change your chain before it is completely used. Under normal conditions, we recommend that you maintain the Oversized Pulley Wheels when you have ridden under wet conditions, washed your bike or each time you lubricate the chain. For normal maintenance, add

a drop of oil into the lubrication points (9) for optimal performance. You will find the lubrication points on the back cage plate (3). Make sure to position the OSPW System horizontally to ensure that the oil reaches the Oversized Pulley Wheel bearings.

We recommend the use of CeramicSpeed Oil on the OSPW System. This can be purchased from the CeramicSpeed dealers worldwide or from our webshop. Approximately once every half a year we recommend that you provide an extended maintenance. If used in wet and muddy conditions, a better protection can be obtained by using All Round Grease instead of oil. Please watch our mounting and maintenance videos at ceramicspeed.com in the Techlab section.

When travelling, your OSPW System will not fit in the bike travelling bag. We recommend that you dismount the whole rear derailleur and pack it aside.

#### **EXTENDED MAINTENANCE**

If you are riding under wet and muddy conditions, we recommend that you provide an extended maintenance more frequently. In this case, you should dismount the Oversized Pulley Wheels from the cage, remove the seals from both sides and clean all parts in a shaker with degreaser.

After cleaning, dry the components off, put two drops of oil onto the CeramicSpeed Balls, place the seals back on and remount the Oversized

## Mounting the CeramicSpeed Oversized Pulley Wheel System for Shimana

To ensure the very best in riding performance it is vital that your new OSPW System is mounted correctly. Follow these instructions to install your OSPW System for Shimano:



**1.** Begin with your bike mounted in a stand, shift to the 3<sup>rd</sup> smallest rear cog and remove your rear wheel.



2. Using the proper chain tool, remove your chain. You will need a new chain that is approximately 3 links longer to complete the install. Note: it is not recommended to add links to a previously ridden chain.

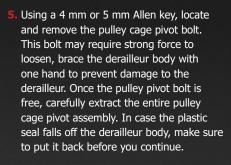


3. With a 3 mm Allen key, first remove the lower pulley wheel and bolt followed by the upper pulley wheel and bolt. Set these aside along with the back pulley cage plate.



4. Using one hand to rotate down the front pulley cage plate (A), locate & remove the Philips head pulley cage stop screw (B). Carefully allow the pulley cage spring to unwind, releasing the spring tension. Your derailleur cage will appear to be upside down (C).







6. The pulley cage pivot assembly consists of the pivot bolt, a thin metal washer, a thick metal spacer, and the tension spring. Take note of the assembled order, you will use some of these parts on your new OSPW System. The front pulley cage plate and the metal spacer must not be reused. You will use the new ones from the package when mounting the OSPW System.



7. Unpack your new OSPW System. In a clear space remove both pulley wheel bolts (1a,b) and the cage stop screw (7), found on the front cage plate, with a 2.5 mm Allen key. Next, remove tower bolt (2) A and loosen tower bolt (2) B with a 2 mm Allen key.



8. Carefully rotate the back cage plate allowing for clear access to the upper pulley wheel. Slide carefully the upper pulley wheel off the mounting tower and set it aside along with the three extracted bolts. Remember that the blue bolt must be used for the upper pulley when remounting.





9. Now regather the original pulley cage pivot assembly, as extracted in point 6 of this manual. Grease the mounting pivot, add the thin metal washer and insert it through the pulley cage pivot. Then, slide the thick metal spacer, found in the OSPW System package, over the threads.



- 10. Remount the tension spring in either the H (high), M (medium) or L (low) tension setting. Selecting the L tension setting will reduce both chain tension and friction, but will also result in slightly compromised shifting performance. Selecting the H tension setting provides the best in shifting performance, yet it will increase friction performance slightly over the L and the M tension setting. CeramicSpeed recommends choosing:
  - H & M tensions for mechanical groupsets
  - M & L tensions for electronic groupsets.



11. Line up the pulley cage-mounting pivot with the installed bolt and tension spring and press it into the derailleur body. Align the spring post with the guide hole that sits inside the derailleur body. The pulley cage should appear upside down. Once the spring is aligned on both ends, tighten the pivot bolt.



12. Rotate the pulley cage counterclockwise (from facing the outside of the bike) to increase spring tension until the cage is slightly forward of normal position (A). Install the cage stop screw (7) with a 2.5 mm Allen key to a max torque of 0.3 Nm (B) and carefully release the pulley cage (C).

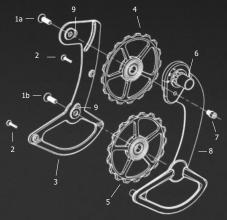


13. Carefully slide the upper pulley wheel onto the pulley mount post. The logo engraved on the pulley should always be facing outwards. Rotate the back pulley cage plate into alignment with the front plate. With a 2.5 mm Allen key reinstall both pulley wheel bolts (1a,b) to a max torque of 1 Nm. Make sure to use the blue bolt (1a) when installing the upper pulley. With a 2 mm Allen key, reinstall the tower bolts (2) and tighten them to a max torque of 0.3 Nm. Tower bolts do not need to be very tight, flush contact without any gap is all that is required.



14. Measure and install your new chain.

Wind the chain through the Oversized
Pulley Wheels as normal. You will need to
adjust the b-limit screw (A) to provide the
appropriate clearance for optimal shifting.
Remember to check the upper and lower
limit screws, as well as the gear adjustment.
The appropriate clearance will depend
on your frame geometry and cassette
size. Pay extra attention to the gear drop
when finishing up mounting your OSPW
System and make sure that it is aligned. If
in doubt, have a mechanic make the final
gear fittings.



Pos.	Description
1(a,b)	Pulley wheel bolts
2	Tower bolts
3	Back cage plate
4	Upper pulley
5	Lower pulley
6	Cage pivot
7	Cage stop screw
8	Front cage plate
9	Pulley wheel lubrication points

#### Tools required

For the installation of your new CeramicSpeed Oversized Pulley Wheel System for Shimano (henceforth referred to as OSPW System) you will need the following tools:





- A. Chain Tool
- B. Philips Screwdriver P1
- C. Allen Key set (2 mm, 2.5 mm, 3 mm, 4 mm or 5 mm)
- D. We recommend the use of torque tools in order to secure the right torque when assembling the OSPW System

#### Up to 6 years warranty

Thankfully, we do not have to deal with our warranty too often. Nevertheless, we are happy to introduce you to our comprehensive warranty program.

#### **Standard Products 4 years**

Bottom Brackets
Pulley Wheels
Wheel Kits
Headsets
Oversized Pulley Wheel Systems

#### **Coated Products 6 years**

Bottom Brackets
Pulley Wheels
Wheel Kits
Headsets
Oversized Pulley Wheel Systems

We are committed to manufacturing and delivering the best ceramic bearing products in the industry. Should your CeramicSpeed product not live up to expectations and this is caused by defects in materials and/or craftsmanship we encourage you to contact us.

Register your product within the first 30 days of purchase on ceramicspeed.com/sport in the Warranty section. Should you need to file a claim within the warranty period and after registering your product, please return to the Warranty section on our website to fill in your claim. We always try to respond to you regarding your claim within 24 hours.



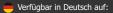


# Benefit from other products in the CeramicSpeed family

A broad range of CeramicSpeed products is available for you to upgrade your bike. Apart from the OSPW Systems you can upgrade with CeramicSpeed Bottom Brackets, Wheel Kits, Pulley Wheels and UFO Racing Chains, available for most standards and brands on the market. You have also the chance to upgrade with Headsets.

CeramicSpeed manufactures the cycling industry's leading, most sought-after ceramic bearings and optimised chains. Delivering exceptional performance, our OSPW System provides you with increased energy savings, smooth drivetrain performance and unmatched lifetime.

It is proven that CeramicSpeed bearings installed in the bottom bracket, wheels and pulley wheels can save a rider between 6-9 watts. This means a saving of up to 9 minutes over 180 km. On top of that, thanks to the CeramicSpeed UFO Racing Chains and the Oversized Pulley Wheel Systems, we deliver a total watt saving between 10-16 watts. Many of the fastest World Tour teams and international triathletes choose to ride CeramicSpeed - simply because it makes a difference.



Accessibles en français sur:
Disponible en español

 Disponible en españ a continuación en nuestro sitio web:

ceramicspeed.com/sport/techlab

