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# Mounting & Maintenance

## OSPW X

For SRAM RED, FORCE and Rival XPLR



**CERAMICSPEED**

# 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 worn out. Under



normal conditions, we recommend that you service 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 (see the page 3) for optimal performance. Make sure to position the OSPW System horizontally to ensure that the oil reaches the Oversized Pulley Wheel bearings.

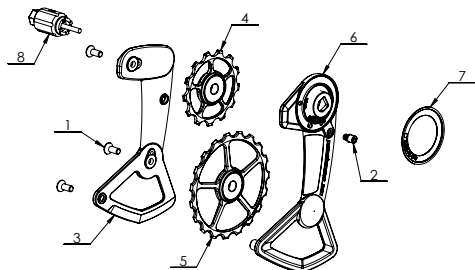
We recommend the use of CeramicSpeed Oil on the OSPW System. This can be purchased from the CeramicSpeed dealers worldwide or from our webshop. Watch our maintenance video on [ceramicspeed.com](http://ceramicspeed.com) in the Support section.

## Extended Maintenance

Approximately once every half a year we recommend that you perform an extended maintenance. 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 Pulley Wheels. When dismounting the cage plates, you will need a 2.5 mm Allen Key for the bolts. To remount the screws, tighten the screws up to a max torque of 1.5 Nm. For this, a torque tool is recommended. If you're riding in wet and muddy conditions, we recommend you to perform an extended maintenance more frequently and replace oil with All Round Grease for better protection.

# Mounting the CeramicSpeed Oversized Pulley Wheel System X for SRAM RED, FORCE and Rival XPLR

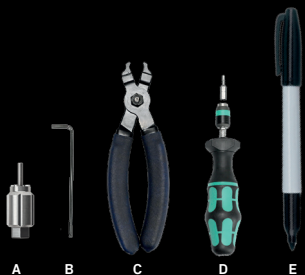
Pos.	Description
1	Pulley wheel bolts
2	Rotation stop screw
3	Back cage plate
4	Upper pulley
5	Lower pulley
6	Front cage plate
7	Derailleur body spacer only for Rival
8	AXS mounting tool



## Tools required

For the installation of your new CeramicSpeed Oversized Pulley Wheel System for X for SRAM RED, FORCE and Rival XPLR, you will need the following tools:

- A: CeramicSpeed supplied 4 prong tool for main mounting nut
- B: Allen key (2, 2,5 mm)
- C: Chain Tool
- D: Torque wrench (1,5, 3 and 6 Nm)
- E: Marker in good condition



# Mounting Manual

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 X for SRAM RED, FORCE and Rival XPLR:

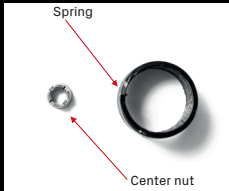
1. Remove the chain.  
Remove the rear wheel.  
Shift the derailleur up so that the cage can rotate past the body. Remove the rear derailleur from the bike.
2. Remove both pulley wheels & the back half of the pulley cage.



3. Hold the stock pulley cage (NOT the derailleur) and loosen the main center nut (A) with the included Ceramicspeed special tool but do not completely remove the mounting nut.

When the center nut is loose enough, allow the rotation stop screw to move past the stop point on the derailleur body to release the spring tension

Remove the main center nut and the stock cage. There will be a small amount of spring tension on the cage due to the clutch.



4. Set aside the spring and center nut for re-use.

5. Unbox the CeramicSpeed OSPW system and remove the rotation stop screw (to be reinstalled once the cage is mounted). The Rival interface spacer will only be used for the OSPW system installation on a Rival derailleur. Disassemble the OSPW system by removing all 3 bolts from the back of the OSPW system. Set aside the 3 bolts, rotation stop screw, back cage plate, & both pulley wheels.

For Rival, skip to step 12.

For RED & FORCE continue to step 6.



6. Using the OSPW front cage plate, rotate the D-shaped center post inside the derailleur counter clock wise until it stops. Using a marker, mark the end of the center post along the same line as shown on the back of the OSPW cage plate. Remove the OSPW cage plate.

7. Mount the factory spring into the derailleur body. Be careful to place the spring post into the correct hole; Note: The correct hole is deeper than all others.



8. Note the two spring tension settings below the 'Red/Force' marking: H (high) and L (low). The L tension setting will reduce both chain tension and friction, but will also result in slightly compromised shifting performance. The H tension setting will deliver the highest friction levels but deliver the strongest chain retention for rougher roads or mixed surfaces.



9. Align the OSPW cage plate with the back of the derailleur, inserting the spring post into the high (H) tension setting on the cage (B). The D shaped interface will not be aligned at this time.

10. Thread the original cage nut on the center screw into place using the provided 4 prong tool. Finger tighten the nut until firm, and then unthread 360 degrees (1 full turn)



11. Take note of the mark you placed on the center post bolt in relation to the alignment mark on the OSPW cage.

Rotate the cage clockwise (looking at the nut & bolt interface) and ensure that the nut does not rotate or tighten. Rotate the cage until the alignment mark on the cage lines up with the mark placed on the threaded post. Once aligned, press the cage against the derailleur body to secure the D shaped interface, you should feel when the cage locks into place. You may need to wiggle the cage slightly to seat the engagement. Using the included 4 pronged tool, secure the center nut to a torque of 6Nm. Skip to step 16 to complete Red and Force installation.



12. For Rival installation.

Place the Rival cage interface spacer on the face of the front cage plate, aligning the spring tension hole with the Rival marked hole on the cage.



13. Mount the factory spring into the derailleur body. Be careful to place the spring post into the correct hole; Note: The correct hole is deeper than all others.



14. Align the OSPW cage plate with the back of the derailleur, inserting the spring post into the single Rival spring hole on the cage. While lightly pressing the OSPW cage plate against the derailleur, align the D-shaped interface with the derailleur center post. Once aligned, you should feel when the cage locks into place. You may need to wiggle the cage slightly to seat the engagement. The cage plate should now sit flush against the derailleur body and can rotate smoothly.



15. Thread the original cage nut on the center screw using the included 4 pronged tool, secure the center nut to a torque of 6Nm.



16. Continue for all systems.

#### Control:

You can confirm the cage is installed fully when the center post threads protrude beyond the head of the mounting nut.

17. Install the 13 tooth pulley on the upper post and the 19 tooth pulley on the lower post of the OSPW cage. Ensure the etching on the pulleys face outward (facing the cage plate with the logo). Align the back cage plate & install the 2.5mm screws for each pulley and the bottom tower to a torque of 1.5Nm.



- 18.** Rotate the OSPW cage forward and install the rotation stop screw with a 2.5mm hex key. Tighten to a torque of 3.0Nm.

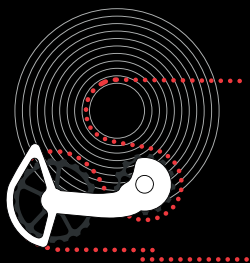


- 19.** Install the derailleur onto the bike. Shift down to the bottom (smallest cog) and install the rear wheel. Follow the chain length guide below to cut the chain to the appropriate length. Ensure the derailleur hanger is accurately aligned, check the upper and lower stops of the derailleur, and set the b-limit gap following the factory SRAM guidelines; 7mm for a 44T cog, 11mm for a 36T cog. Adjust the trim for proper alignment between the cogs and pulley wheels. Confirm successful shifting through all gear combinations. If in doubt, have a qualified mechanic make the final gear adjustments.

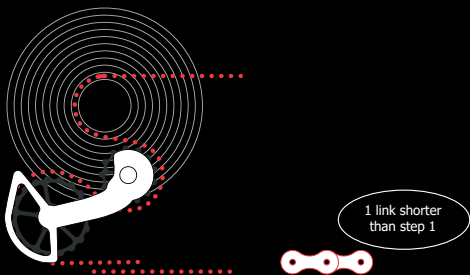


# Chain length

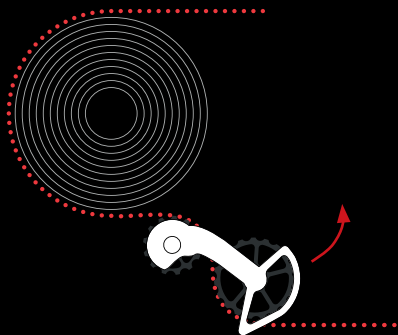
Test the present chain length acc. to the description below.  
If it turns out to be necessary to change the chain length, follow the description below.



**STEP 1:** Place the chain on the small chain ring, through the derailleur cage, and the smallest cog on the cassette. If you are using an electronic group set that does not allow the 'small-small' combination, shift to the smallest cog possible while in the small front chain ring. To find the correct chain length, at the bottom span between chain ring and derailleur cage, pull the two chain ends together. The lower part of the cage should start to move downwards, away from the cassette, as referenced in the second image.



**STEP 2:** When tension is applied on the chain and the OSPW System appears to be aligned as the diagram above, cut the chain 1 full link (inner + outer link combination) shorter to ensure adequate chain tension is present in all gears (small chain ring/smallest cog allowed on the cassette).



**STEP 3:** With the chain now cut to length it is important to test the clearance of the OSPW System when rear derailleur is set in the biggest chain ring and the largest cog on the cassette. Just as the arrow indicates, the cage should be able to rotate further counter clockwise. It is important that there is 3+mm clearance between the upper pulley wheel of the OSPW System and the largest cog on the cassette. If you find the clearance is not enough, adjust the B-tension accordingly. For derailleurs without a B-tension adjustment, you may need to remove additional links, one at a time, to increase the clearance until adequate.

## Spring tension

For the initial setup you should select the spring tension hole next to L (second lowest tension). This provides the best balance between low tension/resistance and optimal shifting under standard conditions. If shifting response is too slow, and/or if you ride on rough surfaces (cobbled roads, rough gravel, or cyclocross), you may change the spring position to a higher tension at or next to H.

# Up to Lifetime warranty

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

## **Standard products 4 years**

Bottom Brackets

Pulley Wheels

Wheel Kits Headsets

Single Bearings

## **Coated products + OSPW Cages Lifetime warranty**

Bottom Brackets

Pulley Wheels

Wheel Kits Headsets

Single Bearings

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

Register your product within the first 30 days of purchase on [ceramicspeed.com/sport](https://ceramicspeed.com/sport) under the section Support. Should you thereafter, and within the warranty period need to file a claim, please return to the same section on our website and fill in your claim. We will always strive to revert to you concerning your claim within 24 hours.