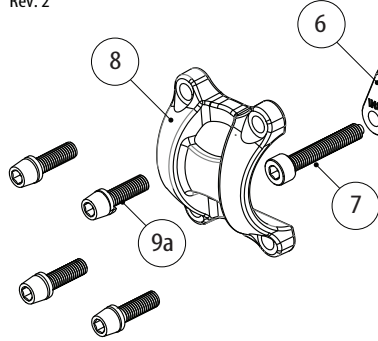


For the most up-to-date instructions, instructional videos and additional resources, visit www.redshiftsports.com.

#	QTY	PART NAME
1	1	Stem Tube
2	1	Steerer Tube Clamp
3	2	Elastomers
4	1	Preload Wedge
5	1	Wedge Capture Bolt
6	1	Wedge Install/Removal Tool
7	1	Wedge Tool Bolt
8	1	Stem Faceplate
9a	4	Faceplate Bolt (M5x18mm)
9b	2	Steerer Clamp Bolt (M5x18mm)

Rev. 2



BEFORE YOU BEGIN

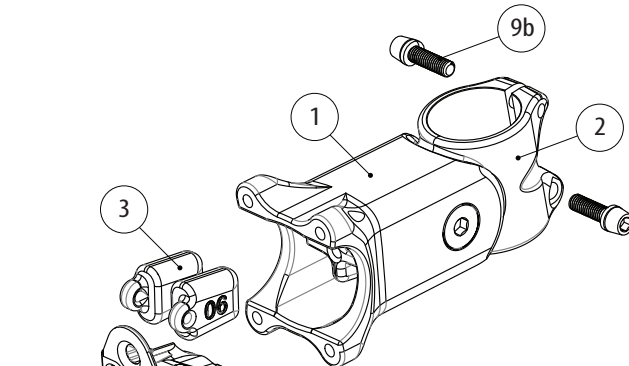
Before you begin installation, take note of your current stem's installed orientation and position on the steerer tube. Most stems can be installed in either the positive or negative orientation in order to adjust the amount of rise. Headset spacers can also be placed above or below the stem to change its position along the steerer tube.

COMPATIBILITY

- The ShockStop is compatible with drop handlebar and flat handlebar setups. The ShockStop is not compatible with swept back or "cruiser" style handlebars.
- The handlebar clamp is 31.8mm and can fit smaller diameter handlebars with appropriately sized shims.
- The ShockStop is designed for use on threadless headsets and is available in a 1-1/8" (28.6mm) version (most common) as well as a 1-1/4" (31.8mm) version for oversized steerer tubes.
- If your bike has a quill stem, you will need to install a quill-stem adapter (not included) to use the ShockStop.

TOOLS YOU'LL NEED

- Wedge Install/Removal Tool, Wedge Tool Bolt, 4mm & 3mm hex wrench, torque wrench, bicycle grease.



SHOCKSTOP 80mm SUSPENSION STEM INSTRUCTIONS

Thank you for purchasing the ShockStop Suspension Stem. This stem is different than other stems, so please read these instructions and warnings completely before installing or using it. If you are unfamiliar with bike maintenance or stem installation, or if you lack the required tools, please visit your local bike shop or contact Redshift Sports customer service for assistance. Improper installation or use may void the product's warranty policy and may lead to serious injury or death.

⚠ WARNING

- Failure to follow these instructions and warnings may result in malfunction or breakage of this component, possibly causing serious injury or death.
- Do not attempt to loosen or remove the main pivot bolt. Doing so will void the product warranty.
- Always use a torque wrench when installing or adjusting fasteners, and always tighten to Redshift torque specifications (or the bike manufacturer's torque specification). Periodically check all fasteners for tightness using a torque wrench, since fasteners can loosen under the influence of road vibration.

REMOVE YOUR EXISTING STEM

Note: This section describes the removal process for a typical threadless stem. If your bike has a quill stem, you will need to install a quill stem adapter (not included) after removing the stem.

1. Unscrew and remove the faceplate bolts and remove the faceplate to separate the handlebar. You can let the handlebar hang in front of the bike or rest on the front wheel.
2. Loosen the 2 pinch-bolts on your stem's steerer tube clamp.
3. Unscrew and remove the top cap of the steerer tube.
4. Slide the stem off the steerer tube (along with any spacers that are above the stem).

ATTACH THE SHOCKSTOP TO YOUR BICYCLE

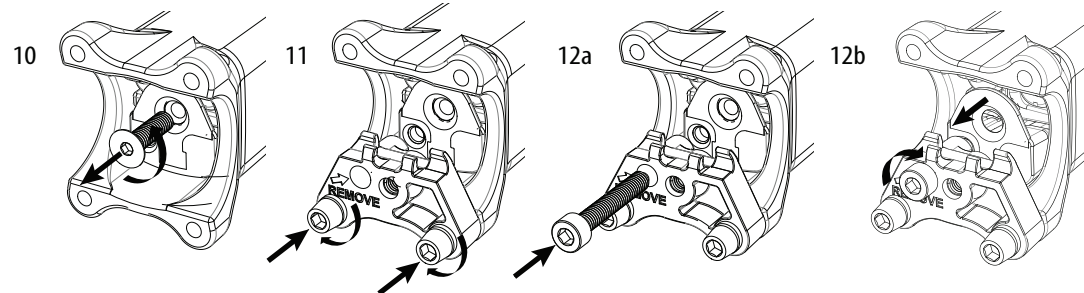
The 6 degree ShockStop can be installed in either the +6 degree or -6 degree orientation. The +30 degree ShockStop should only be installed in the +30 orientation. For the standard ShockStop Stem, the words "Torque, 5.0 N-m" will face upward on the top of the stem tube in the +6 degree orientation. For the PRO model, "+/-6 deg" will face upward on the inside bottom surface of the stem tube.

*** ATTENTION: The 6 degree ShockStop stem ships with elastomers installed in the +6 degree orientation. If you flip the stem to the -6 degree orientation, you will need to remove and reinstall the elastomer(s) and preload wedge so that the elastomers are positioned above the support, as shown in steps 9-19 below.**

5. Loosen the two pinch bolts [9b], and slide the steerer tube clamp [2] onto the steerer tube in the positive rise or negative rise orientation. Position your bicycle's headset spacers above or below the stem, as desired.
6. Make sure that the top headset spacer (or top of the stem if all spacers are positioned below the stem) is slightly above (about 2-3mm) the top of the steerer tube.
7. Very lightly tighten the 2 pinch bolts [9b] on the ShockStop in order to keep it from easily sliding back and forth on the steerer tube.
8. Lightly screw the top cap onto the steerer tube until it begins to tighten.

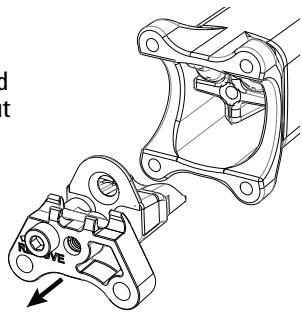
REMOVING ELASTOMERS

9. Using a 4mm hex wrench, loosen and remove the four faceplate bolts [9a] and remove the faceplate [8] and handlebar (if installed).
10. Using a 3mm hex wrench, loosen and remove wedge capture bolt [5].
11. Using a 4mm hex wrench and two faceplate bolts [9a], secure wedge tool [6] to the same side of the stem as the preload wedge [4] with the "REMOVE" label facing outward.
12. Using a 4mm hex wrench, insert wedge tool bolt [7] into the "REMOVE" hole and thread clockwise into preload wedge [4] to extract wedge. Turn bolt until preload wedge hits the wedge tool stop.

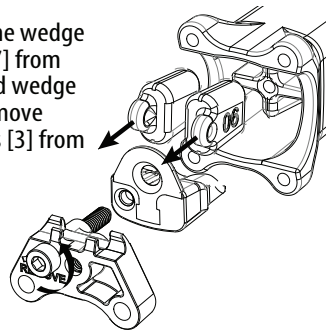


- Periodically clean and inspect all surfaces of this component for hairline cracks or signs of damage. If you find any cracks or damage, immediately cease using the part and contact Redshift Sports customer service.
- Using the ShockStop stem can affect a bicycle's handling characteristics. Following installation, practice using the ShockStop at low speed in a safe area to get used to the bicycle's responsiveness and steering.
- This stem is intended for use only on paved or unpaved roads. Off-road use may lead to slippage or breakage of the component, possibly causing serious injury or death.

13. Using a 4mm hex wrench, remove faceplate bolts [9a] and pull tool and wedge out of stem. **NOTE:** Some force may be required to pull the wedge out.



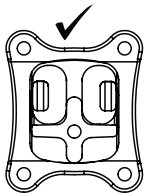
14. Unscrew the wedge tool bolt [7] from the preload wedge [4] and remove elastomers [3] from stem.



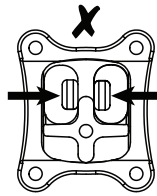
INSTALLING ELASTOMERS

15. Select an elastomer combination from the chart on the right and insert the appropriate elastomer(s) into one or both of the upper elastomer pockets. Be sure to insert the elastomers [3] in the orientation shown below (handle towards the outside), so as not to interfere with the preload wedge [4] installation.

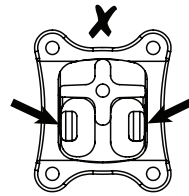
Elastomer handles face out. Elastomers above support



Elastomer handles face in

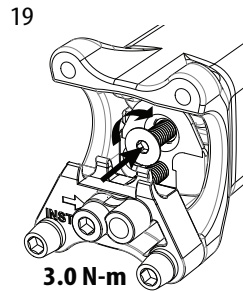
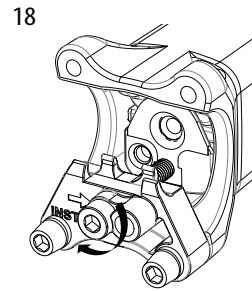
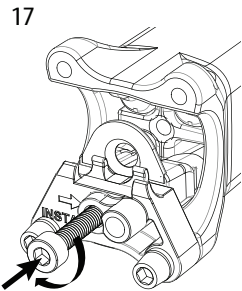
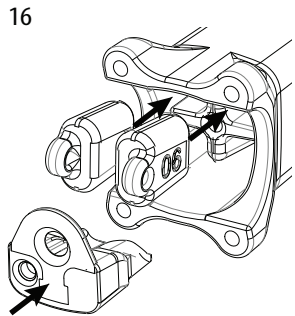


Elastomers below support



16. Push the wedge [4] by hand partially into the lower half of the stem [1]

17. Using a 4mm hex wrench and two faceplate bolts [9a], attach the wedge tool [6] to the stem with the "INSTALL" label facing out. Thread wedge tool bolt [7] into the "INSTALL" hole.



19. Install wedge capture bolt [5] and torque to 3.0 N-m. Remove wedge tool [6] from stem. **NOTE:** Elastomer handles may protrude slightly into handlebar clamp area - this is normal.

INSTALL HANDLEBAR AND FACEPLATE

20. Apply grease to the four faceplate bolts, or titanium anti-seize for the titanium bolts on the PRO model [9a].
 21. Center the handlebar in the stem and install the stem faceplate [8] by lightly tightening the faceplate bolts [9a].
 22. Ensure that the gap between the faceplate [8] and the stem tube [1] is roughly equal above and below the handlebar.
 23. Rotate the handlebar to the desired angle.
 24. Tighten the four faceplate bolts [9a] gradually (1/4 turn at a time) in an X-pattern to a torque of 5.0 N-m.

TIGHTEN THE HEADSET

Note: Refer to your bike's user manual for guidance on tightening the headset and checking for play.

25. With the bike on the ground and able to roll, check the headset tightness by holding the front wheel brake with one hand and placing the other hand at the top of the headset. Rock forward and back and feel for any movement of the steerer tube relative to the headset.
 26. If you can feel motion, loosen the pinch bolts [9b] on the ShockStop, tighten the top cap (approx. 1/4 turn), and re-tighten the pinch bolts [9b].
 27. Repeat Steps 25 and 26 until there is no longer any rocking movement felt at the top of the headset during Step 25. Afterwards, check that the steering freely moves left and right with no sense of friction. If it is too tight, loosen the two pinch bolts [9b] and the top cap and go back to Step 25.
 28. Once the headset is properly tightened, torque the 2 pinch bolts [9b] on the ShockStop to 5.0 N-m.

SELECTING ELASTOMERS

The ShockStop can be used with one or two elastomers of varying stiffness in order to tune the feel of the suspension. Each elastomer has a number marking on the side, and higher numbers correspond to a stiffer feel. Below, you'll find charts that show various elastomer configurations ranked in order of effective stiffness. There are many factors that can affect what feels right for a given rider, including rider weight, rider position, handlebar geometry (drop vs flat), stem length, riding style, and expected road conditions. Because of this, the charts below should be used as a starting point. Once you have tried the ShockStop, you may wish to change the elastomer combination to fit your preferred ride feel.



Drop Handlebars



Rider Weight		Elastomer 1	Elastomer 2
lbs	kg		
< 115	< 52	60	50
115 - 135	52 - 61	70	50
135 - 155	61 - 70	70	60
155 - 185	70 - 84	80	50
185 - 205	84 - 93	80	70
> 205	> 93	90	50

Flat Handlebars



Rider Weight		Elastomer 1	Elastomer 2
lbs	kg		
< 135	< 61	50	none
135 - 185	61 - 84	60	none
185 - 215	84 - 98	70	none
> 215	> 98	60	50

Notes:

- In configurations where Elastomer 2 is "none", do not install a 2nd elastomer (leave it empty).
- There will be a slight "breaking-in" or softening of the suspension feel during the first ride(s) as the elastomers settle into place.
- Additional combinations are possible. For a full chart of possible elastomer combinations, visit www.redshiftsports.com

QUESTIONS?

If you encounter any issues while using the ShockStop, please visit www.redshiftsports.com for the most up to date instructions and answers to frequently asked questions. You can also contact us directly at support@redshiftsports.com.

WARRANTY

We stand behind the products we sell and want you to have an amazing experience with your Redshift components. Warranty details and return instructions for all Redshift products can be found at www.redshiftsports.com/warranty.