

## Adjustable Headset Spacer

Thank you for purchasing Problem Solvers' Adjustable Headset Spacer. We designed the Adjustable Headset Spacer to replace the compression plug or other systems used to preload the headset on forks with carbon steerer tubes. It can also be used in place of a starnut on a steel or aluminum steerer fork. The spacer is designed to be used on 1-1/8 inch threadless steerer tubes with a minimum of 10mm of space between the bottom of the stem and top of the headset.

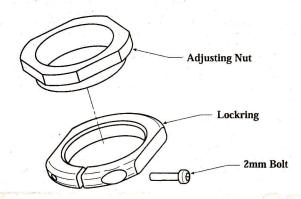
If your fork has a carbon fiber steerer tube, check with the fork manufacturer before using this product. Some forks may not be designed to use an adjustable headset spacer.

Read these instructions completely BEFORE beginning installation of this product. If you lack the knowledge or tools to perform the installation, please have your local professional bicycle mechanic perform the installation. Improper installation can result in loss of control or damage to the bicycle and/or serious injury or death to the rider. We STRONGLY recommend installation of this product be performed by a professional bicycle mechanic.

The following tools are required for installation of the Adjustable Headset Spacer

- · 2 mm allen key
- (2) 36mm headset wrenches (a large adjustable wrench can be substituted for 1 headset wrench, but may not work with all stem/headset setups)
- · all purpose bicycle grease

The Adjustable Headset Spacer has 2 components—the lockring (with bolt) and adjusting nut (see figure). Make sure all parts are included in the package.



If the fork steerer is new and uncut, cut the steerer to desired length following the fork manufacturer's instructions. Make sure to include at least 10mm of steerer for the adjustable headset spacer. Install the headset and fork including all desired spacers and the adjustable headset spacer to determine steerer length. The top of the steerer should be between 0 (flush) and 3 millimeters below the top of the stem. Or use the following equation to determine steerer length:

(headtube length) + (headset stack height) + 10 mm (for adj. spacer) + (stem height) + (desired amount of other headset spacers) = STEERER LENGTH

## WARNING

Manufacturers' specs can change without notice. Measure and double check all dimensions before using above equation.

## INSTALLATION

- Disassemble the adjustable spacer. Lightly grease the threads of the bolt, lockring, and adjusting nut. Reassemble the spacer, threading the lockring onto the adjusting nut completely.
- 2) Remove the stem and approximately 10mm of headset spacers from fork steerer tube (if applicable). Install the adjustable spacer onto the steerer tube. There is no "up" or "down" configuration. Headset spacers may be installed above and/or below the adjustable spacer.
- 3) Reinstall the stem onto fork. The top of the stem should be flush with or up to 3mm above the top of the steerer tube. Make sure \ all of the headset components, adjustable spacer, headset spacers, and stem are seated by pushing the front wheel into the ground and sliding all components down the steerer tube. Align the stem and tighten the steerer clamp bolts to stem manufacturer's torque specifications.
- 4) Using 36mm headset wrenches, adjust the spacer to tension the headset. Hold the lockring in place and thread the adjusting nut out of the lockring. Adjust the nut so that all play in the headset bearings has been removed but the headset still turns freely. Hold the handlebar and front brake and press the front of the bike into the ground to check for headset play. Turn the handlebars 45 degrees from center and check (in both directions) for headset play in the same manner. The headset bearings should not bind when the handlebars are turned all the way in either direction. Readjust the spacer as necessary. Do not turn the adjusting nut more than 2 full revolutions from the fully closed position—doing so will result in inadequate thread engagement on the adjustable spacer. If the nut needs to be rotated more than 2 revolutions to remove headset play, remove the stem and add an additional 1 to 2mm of headset spacers. Go back to Step 2 and readjust the spacer.
- 5) When headset play has been removed, tighten the bolt on the lockring using the 2mm allen wrench. Turn the bolt until snug. The bolt should be tight enough to prevent movement in the adjusting nut (check with 36mm wrenches).
- 6) After your first ride, recheck the adjustment of your headset and adjustable headset spacer. Recheck adjustment every 3-5 rides.

## Problem Solvers™ LIMITED 2 YEAR WARRANTY

This product is warranted against defects in materials and workmanship only, for 2 years from the original date of retail purchase by the consumer, subject to the limitations detailed below. This warranty is expressly limited to the repair or replacement of the original product, at the option of Problem Solvers, and is the sole remedy of this warranty. This limited warranty applies only to the original purchaser of this product and is not transferable. In no event shall Problem Solvers be liable for loss, inconvenience or damage, whether direct, incidental or otherwise resulting from breach of any express or implied warranty or condition, of merchantability, fitness for a particular purpose, or otherwise with respect to this product except as set forth herein.

This warranty does not cover the following:

- Damage due to improper assembly or follow-up maintenance or lack of skill, competence or experience of user.
- Products that have been modified, neglected, used in competition or for commercial purposes, misused or abused, involved in accidents or anything other than normal use.
- Damage or deterioration to the surface finish, aesthetics or appearance of the product.
- · Normal wear and tear.
- Labor required to remove and/or refit and re-adjust the product within the bicycle assembly.

This warranty gives the consumer specific legal rights, and those right and other rights may vary from state to state.

We recommend that you have this product installed and maintained by a professional bicycle mechanic.

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