

## ***PLEASE READ BEFORE INSTALLING OR USING REST TOP!***

*Thank you* for selecting our SHOOTING REST TOP. To ensure many hours of use we are including some maintenance tips and suggestions.

Knowing that most shooters are of a mindset that makes them think they must "take everything apart" we want to advise against that. This rest is shipped completely assembled and adjusted to be used with most types of rifles. It should support rifles up to approximately 18 pounds with a good feel when sighting on target.

The rest is ready to replace the rest top you are now using. Install this new rest top on your base and attach your sand bag.

*PLEASE NOTE: We have found a very small number of bases that have UNDERSIZE post holes in them. Most of these are just barely too small. If you find yours is too small have it modified by running a .750 or 1.000 diameter drill through, and all will work fine. We have not found any problems with the .875 ACME thread bases.*

The threaded post is attached very securely and torqued to prevent accidental rotation. If your existing rest top has a "mariners wheel" it is suggested you install it on this rest top also. Note: if you shoot on very low targets you might want to leave the wheel off. Due to the range of motion of our rest top you may not need the mariners wheel.

*Please note* when we refer to FRONT we are indicating the target side. REAR is the side with the joystick and RIGHT and LEFT are like the shooters hands. TOP is the sandbag surface and BOTTOM is the threaded post.

### **TO CLEAN MOST FOREIGN STUFF FROM THE REST INTERIOR.**

Remove the sandbag and then remove the 4 countersunk screws that are under it. Lift the bag plate off and set it down on a clean surface. Now you can see all the workings and it is suggested that you blow any powder, sand, or dead bugs out with compressed air. This should be the only cleaning needed. But, if you happen to leave it in the dirty bed of you truck, cover it with a load of fill dirt and then let it rain on it for several days it may need a bit more dis-assembly to get it clean.

### **TO COMPLETELY DISASSEMBLE AND CLEAN THE REST**

Proceed as above and then: Remove the Button head screw from the front end of the joystick. Pull the joystick out from the rear side of the rest. Note: If you can't pull the stick out by hand insert a small diameter, less than .150 diameter, drift punch into the threaded hole after you have removed the screw and give it a light tap with a small "brapping tool", (hammer). Loosen and remove the tension screws. CAUTION!!! The tension screws have very small Belleville washers installed between the tension screw and the plastic looking button head plug that is fitted into the tension screws. Pay close attention to how these washers are installed. They are cone shaped and be sure the small end of the cone is against the tension screw, and the small end of the opposing one is against the underside of the button head. They fit together like two saucers facing each other. Remove the two sliding plates and the two cylindrical pins. The front sliding plate has two bored holes through the plate. In these holes are two button head pins and two small springs. Pay attention to their removal. Clean all parts as needed and reassemble in reverse order.

A light film of lubricant should be applied to all friction surfaces. We use a synthetic cream lubricant available from any quality bicycle shop.

Take care to ensure the buttons on the tension screws fit into the grooves machined into the rear surface of the rear sliding plate. A little care will be required to reinstall the joystick, it is a tight slip fit in the two bearings and therefore aligning the bearings is critical. It's not hard, just a little patience and good eyesight. If you had to tap your stick to remove it, it may require a gentle tap to seat it. Be sure to remove the knob before taping the stick.

#### ADJUSTMENT PROCEDURE:

Now that you have it back together it is time to ADJUST the tension screws. Snug both screws so that there is some resistance to movement of the joystick. Check by moving the joystick side to side, up and down, and radially. Increase the tension of both screws equally so that a downward force of approximately 9 to 11 pounds, or as required to support you gun, is required to cause the bag plate to move without using the joystick. If the screws don't have equal tension, one side of the bag plate will move before the other. Check by moving the joystick side to side, up and down, and radially. Readjust until the bag plate moves as desired. Just a little rotation of the tension screws will make big changes in the action of the bag plate. Again the tendency is to over tighten. Adjust carefully. Once you have it adjusted, do a small victory dance. See that wasn't too bad.

There are two precision radial bearings in the rest top, they should provide a lifetime of use, but if replacements are needed contact us.

**To set-up on the bench at 100 yards.** Initially push joy stick all the way down and adjust front rest height to place cross-hairs approximately 2.00 inches below sighter. After firing the bags will "settle in" and this should place the rest top range of motion to cover sighter to record.

*Go shoot small groups and enjoy!*

***S.E.&A.***

***Shadetree Engineering & Accuracy***

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