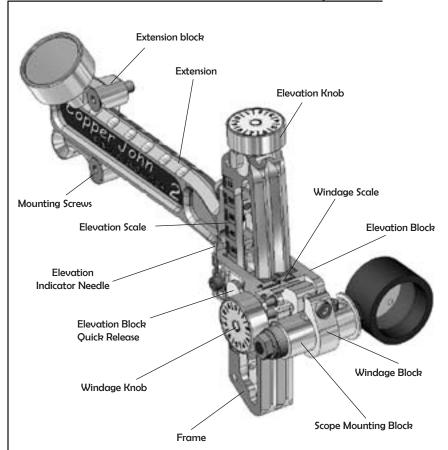
ANTS. Always Normal Target Sight

Technical Manual

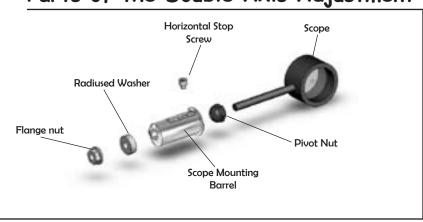
Copper John Corp 173 State St. Auburn, NY 13021 315-258-9269 sales@copperjohn.com www.copperjohn.com



Parts of the A.N.T.S System



Parts of the Double Axis Adjustment



A.N.T.S Assembly

Step 1

Screw the Pivot Nut on to your scope's threaded rod. Using a 7/16 wrench, securely snug the nut against the scope housing.



Slide on the scope mounting barrel. Make sure that the pivot nut seats fully in its socket. Test that the sight rotates properly by moving the scope thread back and forth. Make sure it glides smoothly.



Always use a open end wrench that is the proper size when making adjustments in this area. Pliers or adjustable wrenches can damage the nut and ruin your sight.



Step 3

Slip the Radiused Washer into place. Orient the "cave" side of the washer to the Scope Barrel. Test it and make sure it glides over the end of the Scope Barrel properly.



Step 4

Screw on the flange nut and snug it in place with a 3/8 wrench. Initially, you will want to leave this just finger tight. You will need to adjust your scope level later during set up.



A.N.T.S Assembly cont.

Horizontal Block

Stop Screw

The horizontal stop screw will be useful when you are

disassembling your sight for travel in its case. The

stop screw makes sure your scope locates perfectly every

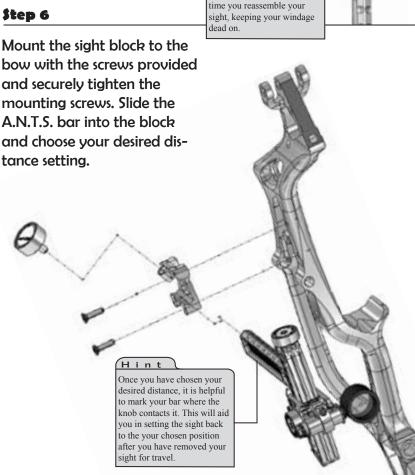
Hint

Windage Block

Locking Screw

Step 5

Insert the Double Axis assembly into the Windage Block. Make sure the horizontal stop screw is all the way against the Windage Block. Tighten the Windage Block Locking screw



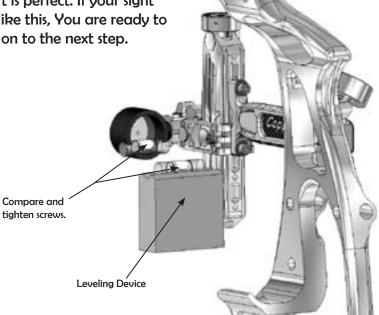
A.N.T.S Level Setup

It is important when using any range adjustable sight that your scope is perpendicular with the frame (3rd Axis) and the scope is level with the earth (2nd Axis). The frame can also be leveled with the shooting string (1st Axis), but this is not crucial. It is common that shooters will adjust their 1st Axis so that it matches, or is level, with their natural cant or bow tilt while at full draw.

Setting the 2nd Axis

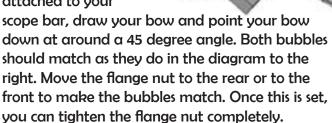
You must set the 2nd Axis first. Using a line level or similar device against the frame, hold the frame level and note the level in the scope. Raise or lower the flange nut on the end of the Double Axis Adjustment until both levels show that they are perfect. Note, the diagram to the left is perfect. If your sight looks like this, You are ready to move on to the next step.







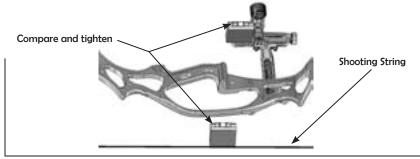
The third axis adjustment makes sure the scope is perpendicular to the bar, bow, and plane of the shooting string. With your level still attached to your



Setting the 1st Axis

It is not critical for your first axis to be set, but some shooters prefer it. Some prefer it to match their natural cant. To set this, you will draw your bow to full draw with your eyes closed. Allow it to settle and then open to see if the bubble is level. Tilt the frame on the bar until this test comes out level. If you would like to level the frame with the string, put your bow on a flat table and level the string by shimming the bow. Then put your level on the sight. Tilt the frame into position and tighten the screws. Once the screws are tight, recheck.

45° down

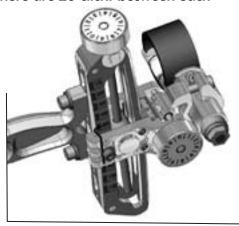


Getting the most out of your A.N.T.S

Using the Adjustment Knobs and the Scale

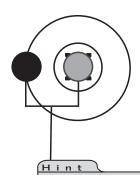
Both the Elevation Knob and the Windage Knob have a number scale and they are labeled up/down, left/right for your convenience. The numbers on your knobs are related to the hash marks on the scale. If you start with the knob on Zero, and rotate it one full turn, it will move one number or hash mark on the scale. There are 20 clicks between each

number. When getting sight marks, note the number on the scale and the number on the knob. This will help you get the tightest marks possible and it will get you right back to the perfect spot everytime



Adjusting your sight and counting clicks

It is handy to know how much distance a click represents when you are using your sight. This will help you get on target faster and stay on target with a minimum of guesswork. The distance is expressed in Minute Of Angle or MOA. The MOA is 5/32 of an inch at 100 yards on an A.N.T.S. This means that one click on windage or elevation equals 5/32 of an inch at 100 yards. Therefore at 20 yards one click equals 20% of 5/32" or 1/32 of an inch. 50 yards would be 50% of 5/32" or 5/64 of an inch.



At twenty yards, one click will move your arrow 1/32". It will take 25 clicks to move your sight from dead center of the X ring line to the exact

center of the X ring.

General Maintenance

Keep your A.N.T.S. clean and dry. If it gets wet, towel it off and allow it to dry completely before storing in its case. Lubrication is normally not necessary, but if you should feel the need to lube your sight, use only synthetic, non water soluble grease such as SuperLube®. Lube only the Brass Rear Bearings by putting a line of lube in their slots and running the elevation block up and down to distribute the lube, or you can lube the underside of the adjustment knobs by putting a drop on the knob and spinning the knob to distribute the lube. No other part of the sight should be lubed. Be very sparing with the lubrication because excessive amounts of lube will attract dirt and grime which could hamper the performance of your sight.