# BURRIS POS-ALIGN RING SYSTEM INSTRUCTIONS FOR INSTALLATION AND ADJUSTMENT

Please read instructions as improper installation attempts may result in damage not covered by warranty. A full understanding of Pos-Align (pat. pend) is essential to get the best performance from this advanced mounting system.

Tools and supplies needed: 1.125 to 1.140" steel, wooden or aluminum dowel; cleaning agent; heavy grease and hex key (supplied). A bore sighting tool is recommended.

Observe safe firearms handling practices during this installation.

Make sure firearm is unloaded before beginning.

Never use scope as a lever (dowel) during ring installation.

NOTE: Pos-Align rings are available in two styles. Rotary dovetail (for windage-adjustable bases) and Zee Rings (for non-windage adjustable or Weaver-style bases). Directions for each vary.

To obtain best results from Pos-Align it is necessary to have your scope mechanically centered before installation.

# **INSTRUCTIONS FOR FINDING A SCOPE'S MECHANICAL CENTER**

Every Burris scope is shipped mechanically centered, with windage and elevation adjustments in the middle of their range. To find a scope's mechanical center follow these instructions.

- A. Turn elevation adjustment all the way up. Then, as you turn it down, count the revolutions until it bottoms. Divide that count by two and turn back that amount. That point is center.
- B. Use "A" above for windage adjustment centering. All scopes will closely center using this procedure.

# INSTRUCTIONS FOR INSTALLATION FOR ROTARY DOVETAIL SYSTEMS

- 1. Install base according to instructions.
- Degrease rings, scope and inserts with acetone or alcohol. Remove right windage screw in rear base.
- 3. Remove the front (dovetail) ring top and inserts. Place ring tops aside in such a way they can be refitted in the same position to the bottom.
- 4. Place the dowel in the bottom half, replace ring top and insert then tighten screws. Follow the same procedure for the rear ring, but leave ring screws loose enough to rotate and position ring on rear base when it contacts left windage screw.
- 5. Apply a thin film of heavy grease to the dovetail and bottom flat of the ring stem of the front ring.
- 6. Position the dovetail into its seat in the base and rotate 90 degrees, positioning both rings. Replace windage screw in rear base and snug. Remove ring tops and remove dowel.
- 7. Each set of Pos-Align rings is packaged with four sets of Inserts (two concentric, marked 0; one offset .005 and marked -5 and +5; one offset .010 and marked -10 and +10).
- 8. Position both bottom halves of concentric (0) Inserts. Position centered scope in rings. Position the other Insert half on top and attach the ring tops. Tighten and allow inserts to self-center without binding.
- 9. Looking through the scope, determine point of aim. Point of aim must now be brought in line with point of impact. There are three ways to accomplish this: bore sighting tool, live fire or by estimating the relationship of scope to bore by looking through both. Move the windage adjust screws on the rear base to bring the vertical crosshair into alignment without using the scope's internal adjustments. When aligned, double check windage screws for tightness.
- 10. Now confirm amount of elevation adjustment necessary by consulting the bore sighting tool or estimating or firing. If needed adjustment is less than 5" at 100 yards no further adjustments are necessary to Pos-Align. Make final adjustments using the scopes internal adjustments.

If elevation is more than 5" off use the offset Pos-Align Inserts as shown in the accompanying table. Basically, every thousandth (.001) of offset gives a sighting correction of 1" at 100 yards. Just determine the amount of correction needed and select the proper Pos-Align Insert combination that most closely yields that amount of correction. When changing inserts do not adjust the bottom halves of the rings.

#### NOTES:

- Always use Inserts in sets (one "+", one "-") of the same value. Never use two "+" or two "-" halves in the same ring.
- Offset inserts make opposite corrections when used with the rear ring as opposed to front.

### INSTRUCTIONS FOR INSTALLATION OF POS-ALIGN ZEE RINGS

Same basic procedure should be followed as rotary dovetail rings, except the ring bottoms should be installed after cleaning and no windage adjustment is possible with the rear base.

#### SPECIAL SITUATIONS:

For severe alignment problems, or when corrections for shooting at extreme ranges is necessary, optional .020 Pos-Align Inserts are available from your dealer. Using two .020 Pos-Align Inserts in concert allows you to adjust alignment some 40" at 100 yards.

Pos-Align Inserts can be rotated 360 degrees (used at any angle) in order to make custom corrections.

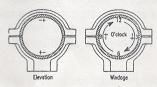
See Applications Chart below for additional information.

## **APPLICATIONS CHART**

To change POINT OF IMPACT (POI) by "X" amount, use this chart.

Desired Change:	POI up "	REAR Ring Insert		FRONT Ring Insert	
	0	0		0	
	5	-5	top	0	top
per -		+5	bottom	0	bottom
	10	-10	top	0	top
_		+10	bottom	0	bottom
	15	-10	top	+5	top
_		+10	bottom	-5	bottom
	20	-20	top	+0	top
		+20	bottom	-0	bottom
	25	-20	top	+5	top
		+20	bottom	-5	bottom
april Galgorian I	30	-20	top	+10	top
		+20	bottom	-10	bottom
	40	-20	top	+20	top
		+20	bottom	-20	bottom
	POI down "				
	0	0		0	
	5	+5	top	0	
		-5	bottom	0	
	10	+10	top	0	
		-10	bottom	0	00000
	15	+5	top	-10	top
		-5	bottom	+10	bottom
	20	+20	top	0	
		-20	bottom	0	
	25	+5	top	-20	top
		-5	bottom	+20	bottom
	30	+10	top	-20	top
-		-10	bottom	+20	bottom
	40	+20	top	-20	top
		-20	bottom	+20	bottom

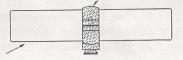
LEFT or RIGHT windage correction is accomplished by using the same combinations and by positioning the (+) half of the collar at either 3 O'clock or 9 O'clock, depending on the windage direction you need.



SUBSTITUTE: 3 O'clock for (-) 9 O'clock for (+) Right for UP

Pos-Alian front ring

Dowel or tubing wrench made of PVC, plastic, hardwood, aluminum or soft brass 1.125" to 1.140" diameter approximately 6" long.



**BURRIS COMPANY, INC.** 

BOX 1747 GREELEY, COLORADO 80632