

2008 Technical Manual



Adjusting the let off

Before making any adjustments to the limb bolts, the four pocket set screws need to be loosened about one full turn . After adjusting the limb bolts to the desired weight, make sure and tighten the four pocket set screws. **WARNING: DO NOT TURN THE LIMB BOLTS OUT MORE THAN THE RECOMMENDED TWO (2) TURNS!** Doing so could damage the bow, cause limbs to break out of their pockets and result in bodily injury. It will also void of your Elite warranty.

Binary Cam Adjustment and tuning

Binary cams are modular adjusted; (the charts in the following sections will indicate which module and draw stop setting your bow should be set up at.) Draw lengths are available in 1/2 inch increments. All Elite bows are set to peak performance from the factory.

Changing the let off

Changing the let-off is very simple. Your bow may require a post setting and/or module change. The draw stop affects the bow's let-off by stopping the rotation of the cam on the module track before it over rotates and before the cables contact the mod stop post. Let-off can be adjusted up to 80%.

NOTE: Post setting adjustments allow fine tuning to achieve individual draw length requirements, however adjusting the draw length will affect the let-off and the valley at the same time. Achieving an exact let-off at a specific draw length will require some trial and error of minor modifications and/or the use of a draw board and digital scale. See your local Elite dealer for assistance.

SPEED RATINGS...

How manufacturers rate speed

IBO Speed ratings are an industry standard of measurement used by all manufacturers. Speed ratings are based on a bow with a draw weight of 70# and a draw length of 30" using a five (5) grain per pound arrow (350 grain). Any deviation from these settings causes a drop in arrow velocity. The chart below is a general guide for the amount of speed lost when accessories are added to your string.

String Accessories Speed Loss

String Loop	1-3 fps
Rubber Peep Tube	6-10 fps
E-Buttons	2 fps each
String Silencers	2-6 fps
Peep Sight	3-6 fps
Brass Nock	2-4 fps

Speeds vary depending on placement and manufacturer of string added accessories. Speed loss of arrows over the IBO standard of five (5) grains per pound (350 grains @ 70# draw weight)

STRING, CABLES AND TUNING FOR ALL ELITE BOWS...

Elite recommends that you cycle the bow 100-125 times to settle the string and cables into the grooves.

To install your peep sight, simply twist the string from the bottom in 1/2-turn increments until the peep sight aligns. In some cases, this may need to be repeated after cycling and additional 150-200 shots

We recommend waxing the string often. To wax the string, apply wax liberally to the entire length of the string. Rub briskly with fingers until the string appears slick. Remove excess wax with a clean towel or cloth. Waxing every other time you shoot will lengthen the life of your string and cable sets.

Only replace your string and cables using 24 stands of BCY 452X. Replacing with other material or reducing the strands will void your warranty.

Setting a center shot on the rest for Elite bows, Measured from the inside of the riser from the burger to the center of the arrow shot, roughly 7/8 of an inch from the hole.

Installing the nocking point on an Elite bow , the nock should be set between 1/8" and 3/8" above center.

Arrow and Arrow Usage

Always inspect your arrows for cracked, bent, or dented shafts. Also inspect the nocks and vanes/feathers and replace damaged or loose ones.

Always be safe and follow all warnings, NEVER aim a bow at another person. NEVER alter your bow. Doing so will VOID any and all warranties and could result in personal injury. Be careful when using broad heads around bow string and cable, nicking or cutting strands of string or cable could cause damage to the bow or personal injury.

If you pull the bow back and decide not to shoot you'll have to "let the bow down", keep your bow arm straight and prepare for a rapid let down of the bow's string. Keep your head and face back out of danger during a let down. NEVER try pulling a bow that has more poundage than you are comfortable pulling.

Changing the Draw length

Changing the draw length on your Elite bow is done by removing the module screw and placing the correct module size onto your cams. You then need to place your draw stop post in the corresponding position for your draw length.

2008 Bows

Specifications and Draw Stop Positions

<u>Fire</u>		
	<u>DL</u>	<u>Draw Stop Setting</u>
ATA: 32 1/4"		
BH: 7 1/8"	28	1.2
Mass Weight: 3.12lbs	27.5	2.9
Draw Weight: 40-60	27	3.9
	26.5	4.8
Strings: 51"	26	5.1
Cables: 36 1/4"	25.5	7.0
	25	7.5
	24.5	8.0
	24	8.5

<u>Extreme XL</u>		
	<u>DL</u>	<u>Draw Stop Setting</u>
ATA: 36"		
BH: 8"	32	1.8
Mass Weight: 4.2lbs	31.5	3.1
Draw Weight: 50-70	31	4.3
	30.5	4.9
Strings: 57 7/8"	30	5.6
Cables: 40 1/16"	29.5	6.3
	29	6.9
	28.5	7.4
	28	7.9

<u>Extreme XL With Fire Cams</u>		
	<u>DL</u>	<u>Draw Stop Setting</u>
ATA: 36"	30	1.1
BH: 8 "	29.5	2.8
Mass Weight: 4.1lbs	29	3.3
Draw Weight: 60-100	28.5	4.0
	28	5.0
Strings: 54 6/16"	27.5	5.7
Cables: 37 7/8"	27	6.2
	26.5	6.9

2008 Bows Continued...

Specifications and Draw Stop Positions

Synergy Extreme

	<u>DL</u>	<u>Draw Stop Setting</u>
ATA: 33"		
BH: 7"	30	1.9
Mass Weight: 4.1lbs	29.5	3.5
Draw Weight: 60-100	29	4.0
	28.5	5.2
Strings: 55 1/4"	28	6.0
Cables: 37 7/8"	27.5	6.5
	27	6.9
	26.5	7.8
	26	8.4

GTO

	<u>DL</u>	<u>Draw Stop Setting</u>
ATA: 33 1/8"		
BH: 7"	30	1.9 -2.3
Mass Weight: 3.15lbs	29.5	3.7 -4.3
Draw Weight: 50-100	29	4.1 -4.5
	28.5	5.0 -5.4
Strings: 55 3/16"	28	5.8 - 6.2
Cables: 37 7/16"	27.5	6.8 -7.2
	27	7.1 -7.7
	26.5	7.8 -8.1
	26	8.5-8.8

Setting up an Elite AIGIL...

The Aigil is a single cam bow with the idler wheel offset which gives the advantage of improved accuracy by creating a truly straight or vertically aligned string.

<u>Aigil</u>		
	<u>DL</u>	<u>Draw Stop Setting</u>
ATA: 32 3/4"	1 30	1.9
BH: 7 1/2"	2 29.5	3.1
Mass Weight: 4lbs	3 29	3.9
Draw Weight: 60-70	4 28.5	4.6
Strings: 89 1/2"	5 28	5.5
Cables: 34 3/4"	6 27.5	6.4
	7 27	7.0

DRAW LENGTH

The draw length is adjusted by changing the module on the bottom eccentric and then adjusting the draw stop to the appropriate setting. The module is installed using a T-20 wrench.

DRAW WEIGHT

Elite's Aigil has a 10 pound weight reduction range from your bow's peak weight. Draw weight adjustments are made using a 3/16" Allen wrench. Turn the limb bolt clockwise to increase the draw weight and counter clockwise to decrease the weight. Each rotation is equivalent to 5 pounds of draw weight. It is very important to adjust the limb bolts equally but do not exceed 2 1/4 full turns out from maximum draw weight.

NOCK POINT INSTALLATION

There are many variables involved in determining where to install your nock point. These include: type of arrow rest, arrow spine, whether you use fingers or a release, as well as hand placement on the bow. As a general rule, the nock point should be set perpendicular (90°) to your arrow rest or somewhere within 1/8-3/16" above the 90° point. This guideline is a starting point, you may need to move your nocking point as you fine-tune your Elite Aigil.

Tuning an Elite Aigil...

TILLER

Setting the tiller on your Elite Aigil bow is very easy! Starting from the point where both limbs are tightened completely, simply back them off an equal number of turns. Then measure the distance from where the limb meets the pocket to the string in a perpendicular line. Fine tune the limb bolts until the distance is equal.

ESTIMATING CENTER SHOT

Using the correct arrow size, position your arrow on the string at the nock point. Elite recommends 7/16" over from the riser to the center of the arrow shaft. This is also a good reference point to begin paper tuning.

PAPER TUNING

When a bow is paper tuned improperly, broad heads any shoot as much as 18" off center at 20 yards (compared to field tips.) By tuning a bow to shoot a good hole in paper, you will ensure the best broad head flight. Perfect "bullet holes" are not always possible with all shooters. Light tears are very acceptable and will not deter accuracy. Fine tuning requires patience and consistent shooting form. Perfect results are only achieved by using perfect form. ALWAYS remember to do your final sightings with broad heads before hunting.

- To begin paper tuning, first be sure to put a suitable backstop several feet behind the paper to allow complete arrow passage. Stand approximately four feet from the paper.
- Shoot a fletched arrow through the center of the paper, with the arrow at shoulder height.
- Observe how the paper is torn.



This tear indicates good arrow flight, The point and fletching enter the same hole.



This tear indicates a high nocking point, a clearance problem, or a very weak arrow.

To correct, lower the nocking point 1/16" at a time, until the high tear is eliminated.



This tear indicates a low nocking point.

To correct, raise the nocking point 1/16" at a time and repeat the process until the low tear is eliminated.

Paper Tuning



A right tear indicates the arrow rest position is too far to the right.

To correct, move the rest to the left in small increments until the paper is shooting holes. Also check to see that your cable guard has enough clearance.



A left tear indicates a weak arrow reaction or a clearance problem.

To correct, move the rest to the right, in small increments until you get a bullet hole.



A multi directional tear indicates a combination of issues in flight disturbances. Use the procedures above to isolate and resolve your flight issue.

Helpful hints and tips

Kinetic Energy is measured using the formula:

Kinetic Energy = (arrow weight) / 450,800 x (arrow speed).

Kinetic energy measures the level of penetration your arrow possesses

Draw length

A properly sized bow has to fit your arms. But don't get caught short. The longer you can draw back the bow, the more speed you'll get in your arrow.

- You can measure your wingspan by spreading your arms out and measuring the distance from fingertip to fingertip
- Refer to the chart below for your proper draw length. Add or subtract a half-inch for each inch over or above the wingspans listed below.

Wingspan	Draw length
63	24
64	24 1/2
65	25
66	25 1/2
67	26
68	26 1/2
69	27
70	27 1/2
71	28
72	28 1/2
73	29
74	29 1/2
75	30
76	30 1/2
77	31

Warranty Information

Elite Archery is proud to stand behind the workmanship and overall quality of our compound bows by offering the Limited Lifetime Warranty. This warranty applies to the original owner and is non transferable.

The warranty covers the riser, pockets, limbs, and eccentrics against defects in material and workmanship for the lifetime of the bow.

Items not covered by warranty are strings, cables, limb savers, cables slides, cable rod, grip, camo and/or paint and finish. Alterations and modifications made by the consumer will void this warranty. There are no other warranties expressed or implied binding Elite archery its dealers and distributors. Registration card must have been received for warranty to be valid.

