



MADE IN CANADA
PRINTED IN CANADA

ATA

ARCHERY TRADE ASSOCIATION

THE
ABEX
AWARDS

2004 Finalist

www.apaarchery.com
info@apaarchery.com
1-306-948-5101

Place
Postage
Here

APA Innovations Inc.
704 Main Street
P.O. Box 1420
Biggar, SK S0K 0M0
Canada

COMPOUND BOW
**OWNER'S
MANUAL**





WELCOME TO APA ARCHERY



WE ARE **NOT** THE SAME.

Thank you for selecting an APA Bow. We feel confident you will be pleased with the performance, functionality and durability we build into each and every bow we manufacture. Our bows are engineered to be user friendly and easy to maintain, with proper care you will experience many years of enjoyment from your new APA Bow. APA has become synonymous with innovation in the archery industry and is the most technologically advanced bow available.

Here at APA, we strive for excellence in producing the best possible product and your comments are always welcomed. We also would like to hear about your success stories using our bows. Any photos or information that you would like to share is appreciated. If a picture or testimonial is sent to us, it is implied that it can be used in our catalogue, advertising, and or website.

Protect yourself and others **You must read the instructions and warnings** in this manual carefully before using any APA Bow.

- 2 This manual should always accompany this bow and should be transferred with it upon change of ownership or when this bow is loaned to another person. A copy of the instruction manual is always available from the factory upon request. This manual contains important safety warnings which must be understood before using any APA Bow.

Owner's Record

Bow Model: _____
Date Purchased: _____
Cam Style: _____
Draw Weight: _____
Draw Length: _____
String Length: _____
Cable Length: _____
Control String Length: _____
Purchased From: _____



LIMITED LIFETIME WARRANTY

APA Innovations Inc. believes it builds one of the finest made compound bows on the market today and to back this up APA Innovations Inc. offers the best warranty in the industry. Every APA Bow is warranted conditionally for the life of the registered original owner. The acquisition of an APA bow must be made by walk-in at an authorized APA dealer or factory-direct if there is no dealer in your area. Warranty is void on any APA bow purchased through the internet or mail order. The first year after purchase is covered 100% at no cost for repair or replacement at the manufacturer's discretion. After the first year a \$45.00 service fee will be charged for each warranty claim.

Transportation and insurance charges for the return of the bow to APA Innovations Inc. are not covered. Ground return charges for the repaired or replacement bow will be paid by APA Innovations Inc. Wilful damage or unauthorized modification will **nullify warranty**. Bow strings, cables, cable slides, wooden grips and cosmetic appearance such as scratches, chips and dents, paint and/or film dipped finishes are not covered under this warranty. Remove all accessory parts from the bow before returning it to the factory. Prior to returning your bow for warranty, a call **must** be made to the factory for an authorized return number, this will allow for a speedy return of your bow.

All warranty bows are to be sent to **APA Innovations Inc.**
704 Main Street, Box 1420, Biggar, Saskatchewan, S0K 0M0, Canada

Warranty Card

For the Warranty to be in effect, the Warranty card must be completed and properly returned to APA Innovations Inc. along with a copy of the purchase receipt within 30 days of purchase. (Card is on back cover)

Authorized Dealer

The APA Warranty covers only bows bought from Authorized APA Dealers. Contact APA Innovations Inc. to confirm that the person you are buying from is authorized.

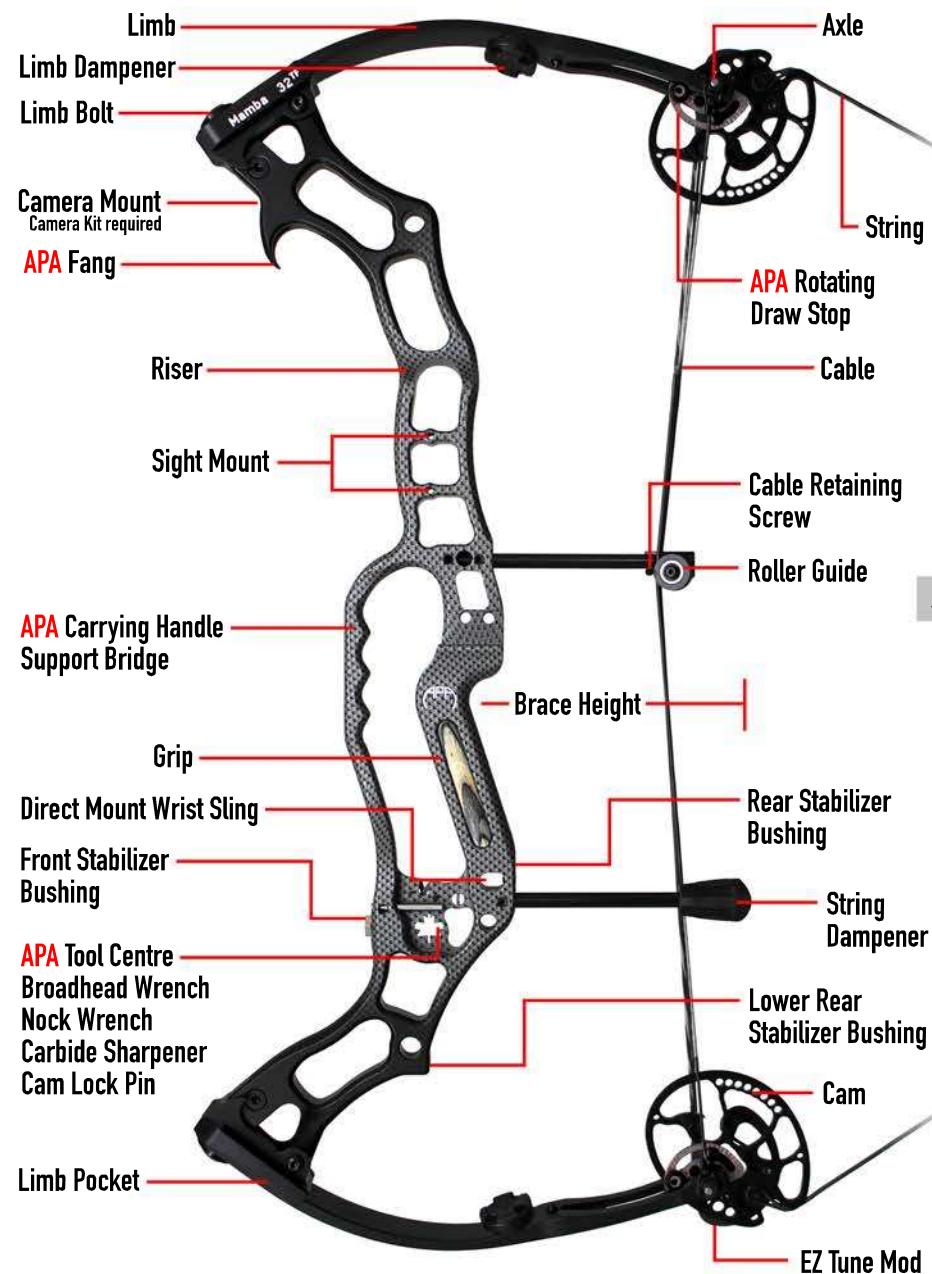
A digital version of this manual can be found at
www.apaarchery.com

Table of Contents

Warranty Information	3
Terminology	5
Safety	6
Disclaimer of Liability	6
Preventing Bow Damage	7
Draw Weight Adjustment	8
Changing Strings & Cables	8
APA Cam Lock	9
Bow Tuning	10
Draw Stop Adjustment Venom Cam	10
Venom (Single) Cam	11
Dual Cam Timing	12
Draw Length Adjustment Dual Cam	12
Rotating Draw Stop	13
APA Stationary Rests	14
Twister CDX Rest	15
Warranty Card	17

This manual contains several safety warnings and instructions preceded with **WARNING**, **CAUTION** or **ATTENTION**. These signal words are designed to draw attention to important safety information. **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious personal injury. **CAUTION** indicates a hazardous situation, which, if not avoided, could result in moderate or minor personal injury. **ATTENTION** addresses safety practices not related to personal injury.

APA COMPOUND BOW TERMINOLOGY



SAFETY

APA builds high performance bows, please respect the power generated by these bows.

WARNING The use of any archery equipment by a minor should be closely supervised by a responsible adult.

WARNING Prior to each hunt, competition or practice session, inspect your equipment for signs of wear or damage.

CAUTION Consult the owner's manual when making adjustments and changes to equipment. Any change or adjustment not covered in the owner's manual should be referred to a qualified dealer or APA Innovations Inc.

WARNING Do not shoot arrows straight up into the air.

WARNING Do not point or aim a bow, loaded or unloaded, at another person.

WARNING Do not take "sound" shots. Be sure of what you are shooting before arrow release.

WARNING Always be sure the area behind your target is clear.

WARNING Do not shoot a bow with a damaged arrow rest or frayed bow string.

WARNING Always inspect arrow, fletching and nock for imperfections such as cracks, splits, or splinters prior to shooting. Damaged arrows must not be used and should be destroyed.

WARNING Never draw the bow without properly adjusted limb bolts (no more than 4 turns off peak weight.) Make sure the cables and strings are properly attached to the correct post and in the correct tracks in order to avoid possible injury.

DISCLAIMER OF LIABILITY

By accepting an APA Bow archery product the buyer agrees to hold harmless, APA Innovations Inc. and all associated parties from liability for any damage to persons or property which may result, for any reason, by use of this product.

If you have any questions about the safety or use of any APA product, contact an authorized APA Innovations Inc. Dealer or call APA Innovations direct at (306) 948-5101. Email contact info@apaarchery.com

PREVENTING BOW DAMAGE

WARNING Never dry fire the bow, draw the bow without an arrow.

WARNING Never draw the bow without an arrow nocked. Doing so could cause physical injury and/or damage the bow. When drawing a bow for inspection or demonstration, never release the string at full draw to let down. Hold onto the string and do not let it slip out of your hands. Without the resistance of a properly weighted arrow to absorb the energy, you may damage the bow and cause personal injury to yourself and others.

WARNING Inspect your bow frequently for frayed string or cables and replace accordingly.

WARNING Inspect your arrow and nock before and after every shot for damage.

CAUTION Whenever your bow is being put in a bowpress, the weight should be set down from maximum by three turns of the limb bolts.

ATTENTION Never allow your bow to be put into a center-pulling bow press as twisting of your bow handle may result. Not covered under warranty.

WARNING Do not use an arrow that is too short to remain on the arrow rest when the bow is at full draw.

WARNING Do not use an arrow that is too weak in spine for your bow.

WARNING Do not back out the limb bolts more than the recommended number of turns (4 turns from peak weight), Rattler/Mamba Micro max 6 turns from peak weight.

ATTENTION Do not expose your bow to extreme heat, such as in your vehicle or hot weather for extended periods of time.

WARNING Do not draw your bow when the draw length module or draw stop has been removed.

WARNING Do not draw your bow unless all modules and module screws are installed.

WARNING Do not shoot an arrow that is less than 5 grains per pound of weight, example 70 lbs / 350 gr. arrow

WARNING Do not touch or place fingers near cams while bow is in use.

WARNING Do not modify your bow to increase draw weight or length over its designed limits.

DRAW WEIGHT ADJUSTMENT

Typically APA bows have a 10lb adjustable draw weight range. This adjustment is made by using a 3/16 Allen wrench inserted into the limb bolts and turned clockwise to increase weight, counter clockwise to decrease weight. Some models may offer a larger draw weight range, please refer to your bow specifications on the bottom limb. If you have any questions contact APA Innovations Inc.

APA Innovations recommends you tighten clockwise both limb bolts just snug then back both bolts off equally to achieve desired shooting weight. Each complete turn should lower the draw weight approximately 3 to 4 pounds. **WARNING** Never back out the limb bolts more than 4 turns (Some models may allow more adjustment range).

CHANGING STRINGS & CABLES

We recommend to have your **Authorized APA Dealer** change strings and cables unless you have the proper training and knowledge.

When using a bow press

8

WARNING Change your bow string and cables at the first sign of loose strands or excessive wear. The only way to safely change the string and cables is through the use of a bow press or our patented Cam Lock system. (Do not use a center pull press)

CAUTION When using a bow press first decrease the draw weight of the bow making it near the minimum recommended shooting weight. Then relieve the tension on the string and cables. Be sure to only put the minimum tension on the bow as necessary to relieve the tension. This will make it easy to remove the old string and cables to replace with new ones.

CAUTION Be sure to check that all string and cable ends are completely looped over their posts and ensure that they run in the grooves of the cam. Only then should you slowly remove bow from the bow press.

Insist on factory replacement strings and cables of proper measurements. For best performance make sure APA speed silencers are installed in the proper position.



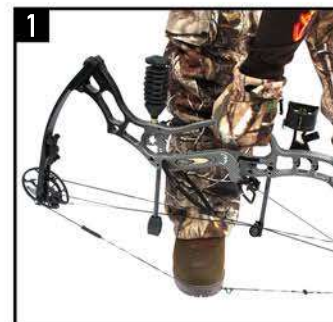
MORE THAN JUST A BOW

APA CAM LOCK

CAUTION If you are not comfortable working on your bow, we recommend taking/sending your bow to your local pro shop to have strings and or cables replaced.

Another truly innovative technology is APA's patented Cam Lock system. The Cam Lock allows you to change strings and cables on your bow. Simply remove the Cam Lock pin from its storage located within the Tool Centre on the riser. 1 Hold the bow by the carrying handle and step on the string, gently pull up on the grip or carrying handle just enough to initiate cam rotation. 2 Insert the pin through one of the holes in the outer perimeter of the cam. **CAUTION** Ensure the ends of the pin are flush with both sides of the limb and gently let the string back down until the pressure is held by the pin. Now you can change the string on a single cam bow, or change the string and one cable of a dual cam bow. To remove the pin, simply repeat the above steps in reverse order. To change the other cable of a dual cam bow simply repeat the above steps on the other cam and you can now change the opposing cable. To change the cable on a single cam bow, you need to reduce the brace height by gently squeezing the cable towards the riser until one of the holes on the cam appears on the inside of the limb. Then simply insert the Cam Lock pin into place allowing the change of a cable. Reverse this process to remove the pin. Be extremely careful not to pinch fingers or insert fingers through the cam while operating the Cam Lock feature or at any other time.

9



BOW TUNING

In order for your bow to perform efficiently and accurately, you will need to achieve straight and true arrow flight.

CAUTION You must first select the correct arrow spine/length for your draw length and draw weight. You can refer to your arrow manufacturer's chart to select an arrow with a correct spine.

Your bow may require re-tuning after 100 or so shots as the string and cables may stretch slightly. If this happens, retune your bow. It will stay in tune after this process.

The String Dampener should be just touching the string when the bow is at rest.

DRAW STOP ADJUSTMENT FOR VENOM CAM

(Draw length adjustment must be done prior to draw stop adjustment)

A draw stop is located in the slot on the outer edge of the Venom cam systems. This can be used to fine-tune your draw length. Simply set the sliding module for your draw length and position the draw stop to provide a solid wall at the end of the draw cycle. To adjust the draw stop, loosen the screw, slide the draw stop to the desired position then tighten the screw. Finding the right spot for your draw length may take several attempts. Do not use the draw stop to adjust for more than an inch of draw length. This will decrease the performance of your bow.

WARNING Never attempt draw stop adjustments while drawing the bow.

Draw length examples. If you require more information regarding draw length for other APA bows do contact your authorized APA Dealer or visit www.apaarchery.com

Viper Air	Viper Nano	Mods Size Pattern
A 23" 272	A 23.5"	A
A.5 23.5"	A.5 24" 267	A.5
B 24" 262	B 24.5"	B
B.5 24.5"	B.5 25" 277	B.5
C 25" 272	C 25.5"	C
C.5 25.5"	C.5 26" 287	C.5
D 26" 282	D 26.5"	D
D.5 26.5"	D.5 27" 297	D.5
E 27" 292	E 27.5"	E
E.5 27.5"	E.5 28" 307	E.5
F 28" 302	F 28.5"	F
F.5 28.5"	F.5 29" 317	F.5
G 29" 312	G 29.5"	G
G.5 29.5"	G.5 30" 327	G.5
H 30" 320	H 30.5"	H

VENOM CAM

The Venom cam system requires very little tuning. When a straight edge is held across the two timing marks, it should be parallel to the shooting string (See Figure 1). Twisting the string or the cable will bring the cam back into the proper position.

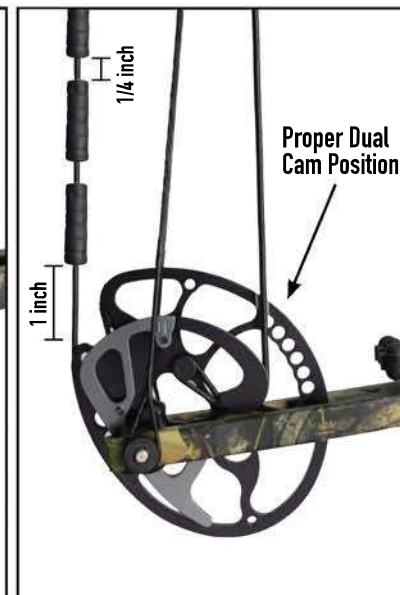
Draw Length Adjustment for Venom Cam Systems

WARNING Do not draw back any bow while the draw module is removed.

The Venom cam systems are equipped with a single rotateable module designed to accommodate a variety of draw lengths over a 6-inch range. The sliding module can be adjusted by removing the two screws located on both the front and back of the cam. Note: On some models the use of a bow press or APA's Cam Lock may be required to access some module screws. Once the screws are removed, slide the module to the desired position. Draw lengths are represented on the back of the cam by the letters A to F ("A" being the shortest draw and "F" being the longest). Simply line up the correct letter to the arrow on the back of the cam and re-install the screws. The draw stop must be used in conjunction with the module to provide a solid wall to your draw cycle.



Venom Cam
Timing marks parallel to the shooting string.



Dual Cam (Page 12)
Timing marks shown drawn on cam.

DUAL CAM TIMING

To get the best performance out of your cam system, it is important that the cams are timed properly. On a dual cam bow, both cams should rotate in a synchronized fashion.

CAUTION To properly adjust cam timing, the bow should be physically drawn back pointing in a safe direction at a target with an arrow and release aid or anti-fire safe draw. Once at full draw, apply a little extra force to ensure sure both cams are fully rolled over and the cables are contacting the flat section of the module on both top and bottom cam. Slowly creep forward, at this point both cams should be firing at the same time. If one cam is faster than the other, enable the Cam Lock or use a bow press (removing the tension just enough to enable you to remove the cable from the post on the slower cam) and put more twist(s) in that cable. (Twists in the "Y" section of the cable must be in the same direction as the main cable) This will in effect make the cable shorter. Then loop the cable back on the post and re-check the timing. This process may take several attempts to achieve the desired result. **ATTENTION** We do not recommend a draw board for this procedure.

It is suggested that upon receipt of your APA Bow, you mark the position of our cams in relation to the power cable. Then if any stretching of the string or cables ensues, you will be aware of the problem and can make the necessary adjustment. Twisting the appropriate cable will bring the cams back into the proper position (See page 11).

DRAW LENGTH ADJUSTMENT FOR DUAL CAM

WARNING Do not draw back any bow when the draw module is removed.

The Dual Cam system is equipped with ez-tune draw length modules (found on the top and bottom cams). All modules are engineered to provide 1/2 inch increments of draw length adjustment from one size to the next.

To change the draw length modules, remove the mounting screws from both the top and bottom cams and install the correct modules for your draw length. Then tighten all the screws, being careful not to over tighten, **ATTENTION** This can cause them to strip. It is important that the same number module be installed on both the top and bottom cam. All module screws must be in place before the bow can be drawn. (We recommend to use blue Loctite on mod screws).

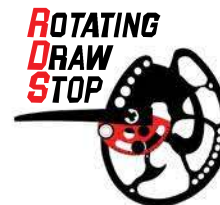
WARNING Some mods require 3 screws others require 2 screws. Insure all mod screws are reinstalled and properly tightened.

Cable Guard Position

If your APA Bow is equipped with an adjustable cable guard, don't offset the cable guard any more than needed to clear fletching. Too much offset will cause premature wear and affect the performance of the bow.

ROTATING DRAW STOP

- 1 Loosen the RDS Lock Screw.
- 2 Rotate the RDS module so that the draw stop post comes in contact with the lock screw (Fig 1).
- 3 Follow the "Dual Cam Timing" procedure (see page 12) and confirm your dual cams are properly set using the cam modules.
- 4 Rotate the RDS module opposite direction to oppose Lock Screw (Fig 2).
- 5 Lightly Tighten the RDS lock screw to still allow movement with friction.
- 6 **CAUTION** At this point use an arrow, target, release or anti-fire safe draw. Slowly draw the bow back to full draw. The RDS module will slide into position for that draw length.
- 7 Gently let down the bow and tighten the RDS lock screw. This would be a good starting point, but further adjustments can be made to personalize the draw stop.



APA STATIONARY RESTS

- 1 Fasten the main bracket screw (from bracket side Fig. 3a) just snug until height is set (approximately half way in the oval slot). Use the slot in the main bracket to adjust height so the arrow runs across the arrow rest mounting hole. NOTE: The top of the main bracket should be parallel to the cable rod (Fig.3b). Tighten the main bracket screw.
- 2 Insert the cradle into main bracket and adjust center shot. Centre shot measurement should be approximately 3/4" to 7/8" from the riser to the center of the arrow. Once correct center shot is achieved, tighten screw (Fig. 4b).
- 3 On stationary shoot-through rests there should be approximately 1/2 inch clearance between the top of the arrow shaft and and the cradle (Fig. 4a).
- 4 Set the D-loop or nock set approximately 1/16" tail high.

PLEASE NOTE: When the screw (Fig. 4b) is tightened on APA Safari Lite, the clearance is automatically set. Depending on fletching size and shaft diameter, additional clearance can be achieved by tilting the main bracket slightly. To accommodate different arrow diameters, the cradle arm tips can also be spread or squeezed together. We recommend a gap of approximately 3/16".

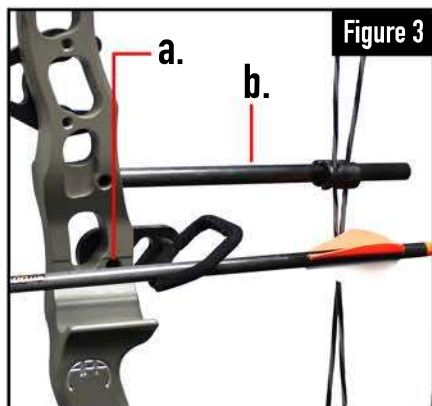


Figure 3

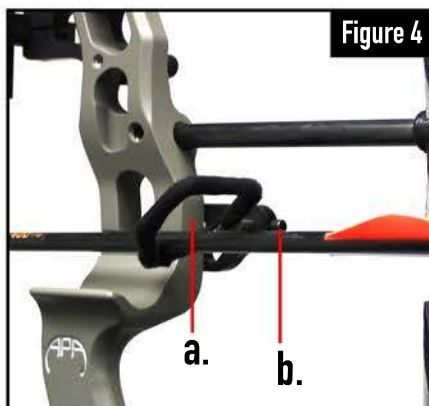


Figure 4

TWISTER FC/TL

- 1 Fasten the main bracket with screw (Fig. 5a) at the top of the centre long slot in the bracket. Note: The top of the main bracket should be parallel to the cable rod (as in Fig.3b).
- 2 Insert an arrow through the cradle and onto the string.

- 3 Make sure clearance (Fig. 5d) is approximately 3/16". At the same time, make sure that the arrow is at 90 degrees to the string, or up to 1/16" tail high at the arrow launch position as in (Fig. 5).

- 4 Arrowrests with a RED Painted Screw are Factory Set for height clearance. If adjustment is needed to set proper clearance, loosen cradle-lock screw(s) (Fig. 5e), rotate cradle to set proper clearance and then tighten screw(s). Note: Cone-point screw (Fig. 5c) should be backed off at this time.

- 5 To adjust center shot, loosen screw (Fig. 5b) and use 7/64" Allen wrench to turn micro-drive screw (located under "micro" on rest Fig. 7b). Centre shot measurement should be approximately 3/4"(single cam) to 7/8"(dual cam) from the riser to the center of the arrow shaft. Once correct center shot is achieved, tighten screw (Fig. 5b).

- 6 Attach cable-drive rope to your top "Y" power cable using a D-loop knot (Fig. 6). Insert rope into hole located by screw (Fig. 7)

- 7 Rotate cradle to the down position while pulling the rope tight. Keep rope tight and tighten set screw (Fig. 7a). Do not over tighten, we recommend a drop of blue Loctite.

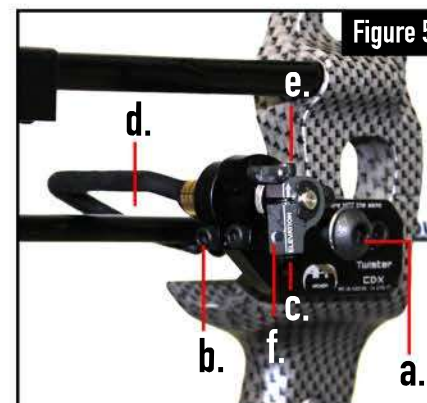


Figure 5

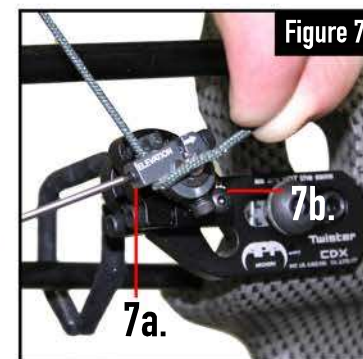


Figure 7



Figure 6



Assembled



MASS TRANSFER MODULE

APA's compact and innovative Mass Transfer Module (MTM) is engineered to control the front to back, side to side balance of your bow, minimizing hand torque. It maintains a sleek profile making it ideal for all hunting scenarios. **Quick easy one screw adjustment.**

CAUTION If your bow is equipped with an MTM ensure that MTM and the mounting screw is positioned away from the cables to ensure proper cable clearance.



If have any further questions regarding this manual or APA product please refer to are website or contact us directly.



Notice

**Staple your sales receipt here.
Proof of purchase date is needed should you
ever require warranty work.**

PLEASE RETURN WARRANTY CARD WITHIN 30 DAYS OF PURCHASE



APA Innovations Inc. Warranty Card

Model: _____ Serial No. (on bow) _____

Date Purchased: _____

Owner's Name: _____

Address: _____

Province/State: _____ Postal/ZipCode: _____

Dealer Name/Company: _____

Address: _____

Province/State: _____ Postal/ZipCode: _____