



## **QUAD 400**

"Veloci-Speed" Synthetic Systems



Shown with optional accessories.

### **Manual Includes the Following:**

<b>Safety Guidelines</b>	<b>General Information</b>
<b>Assembly Guides</b>	<b>Warranty Information</b>
<b>Trouble Shooting</b>	<b>Care and Maintenance</b>

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**C**ongratulations, you are the proud owner of the finest production crossbow in the world!

Please follow all safety, assembly and trouble shooting instructions contained in this manual. It is extremely important to read and follow the instructions before attempting to use your crossbow. Serious injuries to yourself or others, damage to your crossbow, or poor performance from your crossbow could result from failure to thoroughly read and understand these instructions. If any part of this manual is unclear to you, contact the Sales Department at 800-237-4507. After assembly of your crossbow, please keep your manual for future reference.

For the **Quad 400** Barnett highly recommends using a 22" Carbon or Aluminum arrow with half moon nock weighing at least 450 total grains including a 125-grain practice tip or broadhead. Depending on your state regulations, we recommend using mechanical broadheads, which result in a more consistent flight pattern.

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## SPECIFICATIONS

<b>"Veloci-Speed" Sys.</b>	<b>Quad 400</b>
Feet per Second	345
Power Stroke	15.5
Draw Weight	150
String Length	39.63
String Stock No.	16012

**\*\* Arrow speeds are derived by using Competitor's arrows.**

## PARTS LIST

Before assembling your crossbow, take a moment to organize these parts and ensure you have everything you need.

Quantity	Part Name
1 Each	¼, 3/16, 5/32 & 2mm Hex Keys
1	Lubewax
2	Button Head Screws, acorn nuts, lock washers, & 1/2" diameter spacers for Foot stirrup
1	Socket Cap Screw for Prod Housing
1	Lock Washer for Prod Housing
1	Sight Bracket <b>(Not included when bow ships with scope)</b>
2	Sight Pins <b>(Not included when bow ships with scope)</b>
1	Rear Peep Sight <b>(Not included when bow ships with scope.)</b>

If you are missing any of the above parts contact the Barnett Sales Department at 1-800-237-4507.

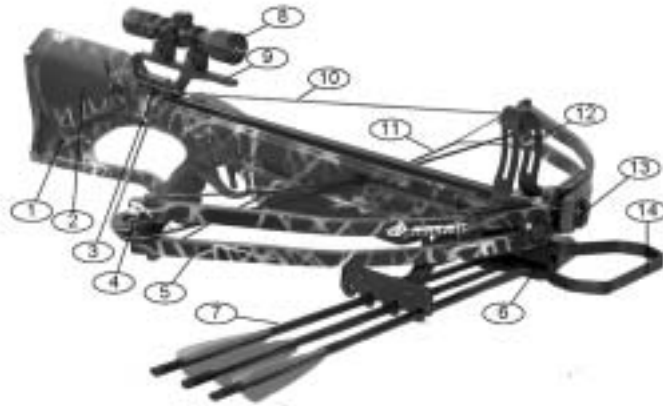
## Safety Guidelines Quad-400

Barnett **Quad-400** crossbows are equipped with an automatic safety, which engages every time the crossbow is cocked. The safety must be released before each shot. This, as with any other mechanical device, does not guarantee total safety, as no safety device is a substitute for common sense and safe handling. The crossbow trigger is only to be pulled when the safety is in "fire" position and NEVER when it is in the "safe" position or anywhere between "safe" and "fire." Do not attempt to alter or modify the safety or the trigger mechanism. When the trigger is pulled before the safety is released, the safety may not release. To correct this, push the trigger pull forward, then release the safety catch.

**The following rules should be followed at all times:**  
***EXTREME CAUTION SHOULD BE USED AT ALL TIMES WHEN HANDLING A CROSSBOW. FAILURE TO FOLLOW THESE RULES COULD RESULT IN SERIOUS INJURY OR DEATH.***

- **Always keep your fingers below the flight track and out of the path of cables and strings when firing the crossbow.**
- **Never dry-fire the crossbow (shooting without an arrow or too light of an arrow). *Dry firing will void the warranty* and can result in damage to the limb assembly and possibly cause personal injury.**
- **Never fire the crossbow until you are sure of your target.**
- **Always use an adequate target and backstop when target shooting.**
- **Always use suitable crossbow arrows, such as Barnett's 22" 2216 Aluminum or Carbon arrows with half moon nocks made by BARNETT for the Quad-400. Arrows of improper stiffness or mass weight may damage the limb and cable assembly, *voiding the warranty* and possibly cause personal injury.**
- **Always inspect the crossbow and arrows before firing. Bent or damaged arrows are not safe to fire and should be discarded or repaired.**

## Crossbow Breakdown



- 1 Quad 400 Stock
  - 2 Quad 400 Cheek Piece Right Side Shown
  - 3 Trigger Assembly
  - 4 Eccentric Assembly
  - 5 Quad 400 Limbs
  - 6 Quiver Assembly If Included
  - 7 Arrows (must be at least 450 grains) If included
  - 8 Scope 4X32 If Included
  - 9 Scope Mount
  - 10 String 39-5/8" Item Number 16012
  - 11 Cables 28-1/2"
  - 12 Front Sight and Pin Assembly If Included
  - 13 Limb Bolt & Stop Block Assembly
  - 14 Foot Stirrup
- \* Rear Peep Sight (not shown) If Included

## ASSEMBLY GUIDE

### Attaching Prod Housing to Stock

1. Place the string on top of the flight track while sliding cables in the long U-shaped channel. See Figure 1
2. Push bow limb assembly gently until it engages with stock.
3. Secure the bow limb assembly with the 5/16-18 X 2-1/4" socket cap head bolt and lock washer. Tighten with 1/4" hex key. See Figure 2

Fig. 1

Fig. 1

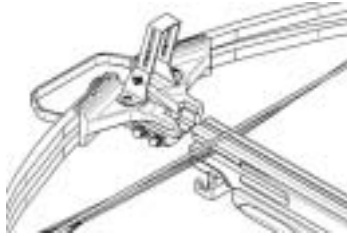


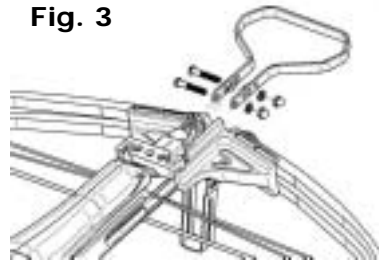
Fig. 2



### Attaching the Foot Stirrup Assembly

1. Align the first hole on the foot stirrup over the first hole on the prod housing. Insert the 1/4-20 Button Head Cap Screw through the foot stirrup and prod housing. Attach lock washer and acorn nut.
2. Insert the second 1/4-20 Button Head Cap Screw through the third hole of the foot stirrup and through one of two 1/2" diameter nylon washer, then through the second hole of the prod housing, through the second 1/2" nylon washer. Attach lock washer and acorn nut. Tighten with 5/32" hex key. See Figure 3

Fig. 3



### Mounting The Front Sight

**\*\*Please note: Front sight is not included when a crossbow package with scope is purchased.**

1. Align the holes of the front sight bracket with the holes on the prod housing and attach firmly using the screws and washers given in the hardware kit. See Figure 4



**Fig. 4**

2. Insert the first sight pin through the bracket with the slotted screw flush inside the bracket and tighten down the barrel and washer on the outside of the bracket. Install the second pin in the same manner facing first pin. See Figure 5



**Fig. 5**

### **Mounting the Rear Peep Sight**

**\*\*Please note: Peep sight is not included when a crossbow package with scope is purchased.**

1. Slide the rear peep sight onto the attached dovetail with setscrew facing the front of the bow.
2. Tighten setscrew when the peep is in the proper eye relief position with the hex key provided. See Figure 6



**Fig. 6**

### **Installing an Optional Scope**

The recommended crossbow scope is a Barnett 4x32 mm five-reticle scope, which includes 1" rings to fit a 3/8" dovetail mount.

- 1.) Remove peep sight from the scope rail.
- 2.) Position your scope by moving it forward or backward until the proper eye relief is found. This is typically three to four inches from your eye to the eyepiece when you are holding the crossbow in a shooting position.
- 3.) After the scope is installed you *may* remove the front sight bracket and pins.

*Important:* Be sure to tighten scope mount rings before shooting crossbow.

# CROSSBOW OPERATION

## Cocking your Crossbow

***Be sure to apply Barnett lubewax to the center string serving, cables and the flight track area from the string to the trigger area.***

- 1.) Place the foot stirrup on the ground with one foot in the stirrup and the stock resting against your mid section.  
See Figure 7
- 2.) Place both hands on the string at each side of the crossbow body no more than ½ inch from crossbow body.
- 3.) Using even pressure pull the string back until it locks into the trigger mechanism with an audible “click”. Be sure to apply downward pressure against flight track.
- 4.) Slowly release hand pressure on the string until you are sure it is locked securely into the trigger mechanism.  
The crossbow is now cocked with the safety on.



**Fig. 7**

Note: The serving on the string has had a line on each side of the flight surface marked at the factory. After cocking the crossbow make sure that the marks on the string are showing equally on each side of the trigger mechanism. Unevenly cocked crossbows will have erratic arrow flight. When restringing your crossbow mark the serving of the string, on each side of the flight track at rest, where the string leaves the flight surface (track) and apply Barnett Lubewax to the string serving and track surface.

## **Arrow Retainer**

When loaded, the arrow should lie “flat” in the flight groove. The arrow retaining spring should not be twisted to the left or right and should exert only enough pressure on the rear of the arrow to hold it in place. It should not lift the front of the arrow off the flight groove. At this point, the arrow should be lying directly parallel with the flight groove. We recommend the use of Barnett arrows manufactured specifically for your Barnett crossbow.

### Loading your Crossbow

- 1.) Place the arrow forward under the front sight bracket and lay the arrow on the flight surface. When using arrows with half moon nocks, be sure that the odd colored fletch is placed in the flight groove and that the concaved nock is parallel to the string.
- 2.) Slide the arrow back under the arrow retaining spring and **fully into the trigger mechanism**. *Note: The arrow retaining spring should only exert enough pressure to hold the arrow in place without lifting it from its position on the flight surface.*

### Firing your Crossbow

To fire the arrow from your crossbow:

- 1.) Point the crossbow in a safe direction.
- 2.) Slide the safety forward to the off position. The crossbow will now fire when the trigger is pulled. The safety **MUST** be disengaged in this manner prior to every shot. **BE SURE TO KEEP YOUR FINGERS BELOW THE STOCK FORE END (FLIGHT TRACK) WHILE SHOOTING.** *Note photos below*



**CORRECT**



**INCORRECT**



**CORRECT**



**INCORRECT**

*This will prevent your hands from being struck by the string as it travels forward. The velocity of the string hitting your fingers will cause severe injury.*

### Unloading your Crossbow

By far, the easiest way to un-cock a cocked crossbow is to fire an arrow into a target or into the ground away from debris, loose rocks or other people.

## **Sighting-In the Crossbow**

### **Using the rear peep sight and front sight pins:**

- 1.) Place the first sight pin near the top of the front sight bracket.
- 2.) Shooting at a target from 10 yards, aim for the bulls eye. If the first shot is above the bulls eye, move the pin up (or down if the shot is below the bulls eye).
- 3.) If the first shot is to the left of the bulls eye, screw the pin to the left (or right if the shot is to the right)

*TIP: Move the pin in the direction of the error, follow the arrow. Continue in this manner until you have three consecutive shots into the bulls eye. Repeat this procedure with the other pin, starting near the bottom of the sight bracket. It is recommended that the bottom pin be sighted in to the 30- to 35-yard range.*

## **Arrow Selection and Proper Flight**

Due to the unique design of your Barnett crossbow, it is **imperative** that only specified arrows are used. These arrows are correctly weighted to absorb the high energy generated by the compound design. Lighter arrows simulate a "dryfire" condition and will result in damage to the crossbow VOIDING the warranty. Barnett's 22" 2216 Aluminum and Carbon arrows are correctly "spined". **DRY FIRING WILL VOID THE WARRANTY.**

- Use Barnett's 22" 2216 Aluminum or Carbon arrows with straight, offset or helical fletches with Half Moon Nock.
- Recommended fixed blade broadheads can be any three-blade low profile broadhead with a cutting diameter no larger than 1-3/16".
- When using fixed blade broadheads, the blades must be aligned with the fletches of the arrow. This can be done by placing a rubber o-ring between the broadhead and the arrow front insert.
- Mechanical broadheads that simulate the flight of a field point may be used where legal.

### **IMPORTANT DISCLAIMER**

*Because of the power of the Barnett Crossbow and the inconsistent properties of wooden shafts, which have a tendency to warp, vary in spine stiffness; density; moisture absorption, all of which result in inaccuracy. Barnett International DOES NOT RECOMMEND their use under any circumstance.*

*Possible injury could result from shaft breakage, ect., we accept no responsibility or liability arising from the use of wooded shaft arrows.*

## **TROUBLESHOOTING**

### **Arrow Flight**

Possibly the greatest variable in accuracy are the arrows. These differ greatly and have totally different flight characteristics. Generally speaking, target arrows are more accurate than hunting arrows. Because of the surface area of the fixed bladed broadheads used in hunting there is a tendency for the arrow to "plane". To help overcome this we suggest that practice be made well in advance of the hunting season with the type of arrows you will be using to achieve consistent groupings. Consider the following when selecting arrows; heavy, stiff spined arrows with fletching hold more energy for humane harvesting at reasonable ranges (15-35 yards). Lighter arrows are much faster however hold less energy.

1. If the string has been changed was it a Barnett string?
2. Are the arrows straight and fletches (vanes) in good condition?
3. Does the arrow lie flat (true) on the flight groove? Is the arrow retainer too tight or twisted? (Adjust arrow retainer with a pair of needle nose pliers – USE CAUTION)
4. Does the arrow slide smoothly and evenly into the trigger mechanism?
5. When cocking your crossbow, are you pulling equally on each side on each side of the string? (Mark your new strings on each side of the flight track as stated earlier) After cocking the crossbow, make sure the marks are showing evenly on each side of the trigger mechanism.
6. When cocking your crossbow make a conscious effort to hold the string on the flight track so as not to lift over the arrow retainer.
7. Are you putting one fletching down in the flight groove?

8. When using broadheads, line up the blades with the fletches on the arrow (using o-ring).
9. Have you checked the tiller to see if any adjustments should be made? Figure 8



\*\*Tiller is the measurement between the base of the limb and the bowstring. The tiller measurement tells you if both limbs are equally stressed. Your bow is in proper tiller when this measurement is the same for both limbs. Uneven tiller will cause erratic arrow flight. **All crossbows are accurately tillered at the factory prior to shipping.** To adjust the tiller, use an allen wrench and measuring tape as shown in the illustration.

### String Fraying

1. Are you using Barnett lubewax on the center string serving and flight track every 5-10 shots and on the cables when needed?
2. Keep the trigger mechanism and flight surface free of obstruction.
3. Check for metal burrs on the flight track and arrow end caps.

### Limbs Weak or Losing Power

1. Has the crossbow been dry fired? (could cause limb to crack).
2. Inspect the limbs for splits or cracks.
3. Are you using Barnett string (the proper length)?

## CARE AND MAINTENANCE

### Care of String

The owners kit contains a tube of lube wax that should be applied to the center serving and flight track every 5 – 10 shots. Lube wax should also be applied anywhere the cables make contact with the Teflon tape or flight track every 20 – 30 shots. To extend the life of your cables it is important to apply ARCHERY STRING WAX to all areas of the cables and string every 30 - 50 shots or when white fuzz begins to appear. If the

crossbow has been exposed to excessive moisture you may need to apply wax sooner.

***PRIOR TO EVERY SHOOTING SESSION, IT IS RECOMMENDED THAT A COMPLETE CHECK OF CABLES, WHEELS, SCREWS AND ARROWS BE MADE.***

- **Always store your crossbow in a safe, dry place.**
- **Do not expose your crossbow to extreme heat, such as closed, hot vehicles or near heat sources.**
- **Inspect cables and strings for signs of wear. An authorized service center or the factory should replace Cables showing wear immediately.**
- **Periodically put a few drops of quality lightweight machine oil in the trigger mechanism.**
- **Periodically lubricate the eccentric wheel axels with lightweight machine oil.**
- **Keep the flight track and the string serving waxed, reducing friction.**
- **Your prod can be left strung indefinitely although we do not recommend that the bow be left in the cocked position for periods longer than four hours.**

With reasonable care of your equipment and diligent practice, your crossbow will remain an accurate, highly efficient hunting weapon.

## **WARRANTY INFORMATION**

**The stock, trigger mechanism and limb assembly are covered under a limited lifetime warranty. Our liability extends to parts, labor and return transportation to the consumer.**

**Not covered are:** strings, cables, arrows, transportation of product to our Service Center; damage caused by abuse, modification or failure to perform normal maintenance; or any other expense, consequential damages, coincidental damages, or incidental expenses including damage to property or person.

There are no other warranties expressed or implied. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

**Warranty Registration Card must be mailed within 10 days of purchase to validate the warranty.**

**To obtain service:** Please call for a return authorization number prior to sending the unit and write the RA# on the outside of the package. Return the unit to an authorized Service Center **or** directly to the factory. For a listing of authorized service centers please call the factory at the toll free number listed below. Attach to the product your name, address, telephone number and a letter describing the problem. Carefully package and return product prepaid to:

**Barnett International, Inc.  
Attn: Service Department  
13447 Byrd Drive  
Odessa, FL, 33556**

For further inquiries contact the Sales Dept through the toll free number: 1-800-237-4507.

**How to reach us:  
Barnett International, Inc.  
PO Box 934  
Odessa, FL, 33556  
Phone 813-920-2241 - Fax 813-920-5400  
E-mail [service@barnettcrossbows.com](mailto:service@barnettcrossbows.com)**

**Cut out and mail immediately to:**

**Barnett International, Inc.**  
**P.O. Box 934**  
**Odessa, FL 33556**

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**WARRANTY CARD**

Name\_\_\_\_\_ Age\_\_\_\_\_

Address\_\_\_\_\_

City\_\_\_\_\_ State\_\_\_\_\_ Zip\_\_\_\_\_

Date of Purchase\_\_\_\_\_ Phone # \_\_\_\_\_

Place of Purchase\_\_\_\_\_ Price Paid\_\_\_\_\_

Purchase Address\_\_\_\_\_

City\_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Registration completed by: Dealer ( ) Consumer ( )

Sales Representatives Name:

**Registration No.**

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