
EXCALIBUR
CROSSBOW
INSTRUCTION MANUAL
WWW.EXCALIBURCROSSBOW.COM

Thank you for purchasing an Excalibur crossbow. We're confident that your new crossbow will bring years of enjoyment and enhance your hunting experience. All of our crossbows are proudly crafted at our Kitchener facility in Ontario, Canada.

BEFORE BEGINNING TO ASSEMBLE AND SHOOT YOUR CROSSBOW, PLEASE READ THIS MANUAL THOROUGHLY AND PAY CLOSE ATTENTION TO ALL THE SAFETY INSTRUCTIONS, RULES AND INFORMATION PROVIDED.

We have placed heavy emphasis on how to safely handle and shoot your new Excalibur crossbow. A crossbow is inherently safe unless handled in a careless or irresponsible manner. Failure to read this manual or not follow proper operating and safety procedures, could result in damage to your crossbow or injury or death to you or others.

This manual covers important information for operating and servicing your crossbow, be sure to save it for future reference. If you have any questions or issues with your new crossbow please contact us:

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Website: www.excaliburcrossbow.com

WARNING

PLEASE READ AND FULLY UNDERSTAND ALL INSTRUCTIONS, RULES AND PROCEDURES OUTLINED IN THIS MANUAL BEFORE SHOOTING YOUR CROSSBOW. IT IS VITAL TO YOUR SAFETY AND THE SAFETY OF OTHERS THAT YOU ACCURATELY FOLLOW ALL INFORMATION, RULES AND INSTRUCTIONS CONTAINED IN THIS MANUAL.

IMPORTANT SAFETY INSTRUCTIONS

General Crossbow Safety Practices

1. Always remember to treat your crossbow with the same respect given any sporting arm. It can be dangerous and deadly if mishandled.

2. Always keep your crossbow pointed in a safe direction. Never point at people, property or anything you don't intend to shoot.

3. Treat a cocked crossbow the same as a loaded gun, with or without an arrow loaded.

4. Always place the trigger safety into the "safe" position before removing your foot from the stirrup.

5. Never place anything or any part of your body in the path of the crossbows string when cocked, serious injury or death may occur.

6. Before shooting always make sure nothing is in the path of either cocked crossbow limb.

7. Never climb a treestand with a crossbow loaded with an arrow. Do not pull a loaded crossbow up into a tree stand with a rope.

8. Never attempt to cock or uncock a crossbow in a tree stand while standing. Cock the crossbow on the ground and pull it up into the treestand utilizing a pull rope. See page 15 for more information regarding the recommended way to cock a crossbow in a tree stand.

9. Do not place the safety into the "fire" position until you are ready to shoot.

10. Do not attempt to modify the safety or trigger mechanism in any way. Doing so could be dangerous or deadly and will void your warranty.

11. Always check your crossbow thoroughly for worn, loose, damaged or missing parts prior to shooting. This will help avoid malfunctions and possible injury or death to you or someone else.

READ THESE INSTRUCTIONS CAREFULLY AND THOROUGHLY BEFORE HANDLING OR OPERATING YOUR CROSSBOW. ALSO, WATCH THE INSTRUCTIONAL DVD INCLUDED WITH YOUR CROSSBOW PACKAGE OR VIEW IT ON-LINE AT EXCALIBURCROSSBOW.COM. IF YOU HAVE ANY QUESTIONS REGARDING THE SAFE OPERATION OF YOUR CROSSBOW PLEASE CALL OUR CUSTOMER SERVICE DEPARTMENT AT 800-463-1817.

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OPERATION SAFETY RULES

Cocking and Uncocking

1. **Always make sure your foot is placed completely in the stirrup before attempting to cock or uncock your crossbow.**
2. Confirm that you have placed the cocking aid correctly on the crossbow with the rope routed around the molded groove in the stock located directly under the safety. Not installing the cocking aid correctly could result in personal injury, death, or damage.
3. Before pulling back the rope cocking aid confirm you have a firm grip on the handles to avoid them slipping from your hands.
4. Immediately upon cocking the crossbow, you must set the safety to the "safe" position. **Never take your foot out of the stirrup until the safety has been set to "safe".**
5. **Always remove the arrow from the deck before attempting to uncock your crossbow to avoid serious injury.**
6. While uncocking your crossbow, always confirm that you have the entire draw weight securely held with the cocking aid handle before activating the trigger. Failing to firmly grasp the cocking aid handle can result in it pulling from your hand which can cause potential damage, personal injury, or death.
7. **Never place any part of your body into the path of the string or limb travel when your crossbow is cocked. Be sure that your fingers and thumb are below the crossbows deck before every shot.**
8. If using the #2094 Crankaroo or #2199 C2 crank cocking aids, make sure to remove the mechanical crank from your crossbow before attempting to shoot.
9. **Never attempt to uncock your crossbow using a crank cocking aid.** The catch on the crank handle is designed to prevent the handle from rotating. Once that is deactivated the handle can free-wheel and cause injury if uncocking is attempted.

Shooting and Handling

1. While shouldering your crossbow make sure you can comfortably handle the weight of the crossbow and have it supported in a safe manner. If a person can not adequately hold the crossbow and keep it steady they should not be allowed to shoot it.
2. Do not point a crossbow at anything you do not intend to shoot.
3. Never place the safety into the "fire" position until you are ready to shoot.
4. Always confirm and identify your target before shooting.
5. Do not place your finger on the trigger until you are ready to shoot.
6. **Confirm your fingers, thumbs, or anything else is not in the path of the string. The string will cause serious damage or injury to anything it comes in contact with once it's released from the trigger.**

7. Do not dry fire your crossbow (shooting a crossbow without an arrow). Dry firing can damage your crossbow and void the warranty.

8. When loading the arrow confirm it is placed all the way back under the hold down spring and positioned firmly against the string before firing. Not doing so could damage the arrow or crossbow and will adversely affect your shot , and may cause personal injury or death.

9. Do not shoot any projectile out of your crossbow other than crossbow arrows designed specifically for use with your crossbow. All Matrix series models use an 18" arrow, and all other Excalibur models use a 20" arrow. Minimum total arrow weight is 350 grains for all models except the Vixen II. Confirm the minimum arrow weight suggested for your model.

10. Before shooting, be sure the crossbow limbs will not strike a tree limb or other obstacle.

11. Never disengage the safety until you are ready to shoot and the crossbow is pointed in a safe direction. Be sure to re-engage the safety if you do not shoot!

Target Shooting

1. Confirm the target you are shooting into is rated for crossbow use and capable of stopping a crossbow arrow. For shooting broadheads, make sure you use an adequately designed foam target.

2. Make sure you have an adequate structure behind your target in case an arrow happens to penetrate it.

3. Choose your shooting location carefully. Make sure that the arrow will not hit anything or anybody if it would happen to miss the target. It's best to have a hill or structure that could handle an arrow impact behind your target.

4. If you are missing the target, move closer to the target until you have the crossbow properly sighted in. Continuing to shoot if you are missing the target is dangerous and may result in personal injury or death to you or others. **Lost or damaged arrows are not covered under warranty.**

5. **WARNING: Be sure that your fingers and thumb are below the crossbow deck before shooting. Most injuries occur while target shooting with the crossbow on a rest. The other hand is typically free since it's not holding the crossbow and is more likely to stray into the string's path. It's imperative that you make sure nothing is in the path of the crossbow's string before shooting or serious injury will occur.**

6. Inspect your arrows regularly for signs of wear, splits, dents, or anything that might weaken them. Tremendous stress is placed on crossbow arrows as they are released, damaged arrows could break causing possible injury or death. Do Not use arrows that show signs of wear, splits, dents, or any other types of irregularity.

7. Replace the crossbow string as soon as it shows any sign of wear. Shooting with a worn string could result in failure, possibly damaging your crossbow or result in personal injury or death to you or others.

Storage and Transportation

1. Make sure to follow your local game laws regarding encasing your crossbow.
2. Never transport your crossbow in a vehicle while it's cocked.
3. Always unstring your crossbow if it will be exposed to extreme heat, such as in an enclosed automobile on a hot day or resting beside a heat source. Excessive heat may damage the limbs of your crossbow.
4. **While walking with a cocked and loaded crossbow, never allow anybody to walk in front of you.**
5. **Never have your finger on the trigger while walking with a cocked and loaded crossbow.**
6. **Never place your hand or anything in the path of the string while carrying a cocked crossbow.**
7. If you are carrying hunting broadheads, carry them in such a way that the sharp edges do not cause a threat to the shooter or others. Be sure they are completely covered.
8. If you plan on travelling by air with your crossbow the best way to transport it is to take it apart and place it into a double gun case as per the photo below.

ASSEMBLING YOUR CROSSBOW

Lite-Stuff Packages
What's in the box?

The majority of Excalibur Crossbow models are now being sold with Lite-Stuff packages. These packages contain most of the items you will need to get started hunting, except for broadheads. When you open the box containing your crossbow package, confirm it is not missing any components. Below is a chart showing what is included in each Lite-Stuff package per model. Confirm your model and part number on the box and consult the chart below. If you think you're missing anything please call us directly:
warranty@excaliburcrossbow.com.

	Cheek piece	Dissipator bars	R.E.D.S./ S5 System	Rope Cocking Aid	String	Quiver & Bracket	Carbon Arrows	Field Points	Anti-Dry-Fire	Scope Mount	Scope Rings	Twilight DLX	Tact-Zone Scope	Vari-Zone Scope	SMF Scope
Matrix 405 LSP	V		V	V	V	V	V	V	V		V	V			
Matrix 405 bow-only	V		V		V				V						
Matrix 380 Xtra LSP	V		V	V	V	V	V	V	V		V		V		
Matrix 380 B/O LSP	V		V	V	V	V	V	V	V	V	V		V		
Matrix 355 LSP				V	V	V	V	V		V	V		V		
Matrix 330 LSP				V	V	V	V	V						V	
Matrix 310 LSP				V	V	V	V	V							V
Ibex SMF				V	V	V	V	V		V	V				V
Axiom SMF				V	V	V	V	V		V	V				V
Vixen II LSP				V	V	V	V	V		V	V			V	
Vixen II LSP (Pink)				V	V	V	V	V		V	V			V	

NOTE: All Lite-Stuff packages also include this instruction manual, instructional DVD , hardware and allen wrenches to assemble the crossbow.

Here is what should be in your Lite-Stuff box

1. Stock/Mainframe assembly
2. Limb assembly
3. 4-Carbon arrows
4. 4-Arrow Quiver
5. Multi-Plex scope
6. Scope rings
7. Instruction manual
8. Instructional DVD
9. Hardware bag
10. Quiver bracket
11. Quiver block
12. Rope cocking aid
13. Sticker
14. 150 grain field points

Attaching Limb Assembly

Attaching Limb Assembly (continued)

Mount the limb system to the mainframe section by using two 5/16" tapered allen cap screws provided, along with the large tapered washers in place as shown. Tighten screws with the 3/16" allen wrench provided. Confirm the riser is fully seated to the mainframe before tightening.

Mounting Scope

The scope mount (or Guardian Anti-Dry-Fire mount standard on some models) has already been installed on your crossbow at the factory using Blue Loctite to prevent the screws from loosening. To avoid rounding off the screws, ensure the allen wrench is properly seated.

Place rings onto the base so that the cross bolts fit into the cross grooves of the base. With a coin or well-fitting screwdriver, tighten the locking nut at the side of the ring. Remove the top clamp from the ring in preparation for mounting the scope.

Set the scope in the cradles formed by the bottom ring portions. Replace the ring tops, but don't tighten.

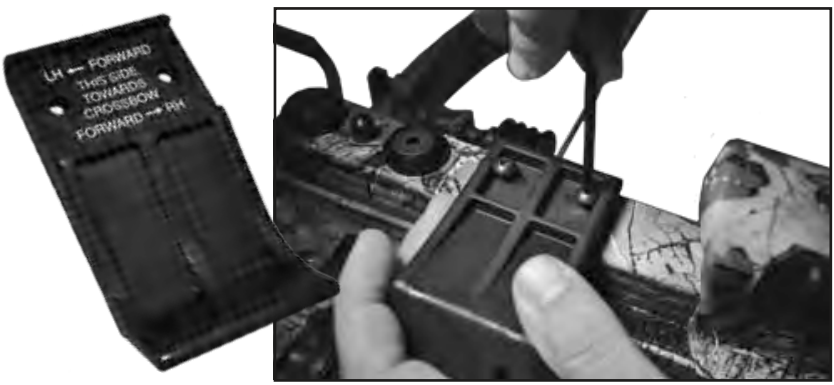
Push the scope as far forward as it will go. Rotate the scope so that the elevation turret is on top. With the crossbow uncocked, hold the crossbow in your normal shooting position. Look through the scope; slide it forward or backwards as needed, to obtain the best eye relief.

Check the position of the reticle, the horizontal components should be aligned with the limbs. When the scope is properly positioned and the reticle is aligned with the limbs, tighten the ring top screws in a crisscross style pattern, turning each screw a quarter turn at a time to avoid altering the reticle position.

CAUTION! Do not over-tighten the scope ring screws. Over tightening the scope ring screws can cause damage to the scope, affecting performance or even rendering it inoperable. The gaps should be even on the left and right side of both scope rings.

Mounting 4-Arrow Quiver

The quiver bracket mounts to the underside of your crossbow. Two holes for mounting the quiver bracket are located just behind the riser mounting bolts on the bottom of the mainframe. The quiver bracket can be mounted on the left or right hand side of the crossbow and is marked accordingly.



Place the bracket with written instructions against the mainframe/rail section of the crossbow (for right-handed shooters, the bracket should be installed on the right side, for left-handed shooters, it should be installed on the left.) Align the two holes in the bracket with the two holes tapped in the bottom of the mainframe. Thread the two 10-24 X 1/2" allen head screws through the holes in the bracket into the threaded holes in the mainframe and snug down using the wrench provided.

DO NOT OVER TIGHTEN SCREWS, DOING SO MAY STRIP THE THREADS!

The quiver attaches to the quiver bracket by utilizing a plastic receiver block supplied. Place the two 10-24 x 5/8" screws through the holes in the block and into the two holes located in the bracket. Make sure the opening in the receiver block is facing forward to allow the quiver to be inserted in the correct direction. Place the screws through the holes and secure with the two 10-24 acorn nuts. Place the quiver into the receiver block from the front end of the crossbow and lock it into place with the thumbscrew.

Carbon Arrows

Your crossbow kit may have come with either #22CAV "Firebolt" or #22DV18 "Diablo" carbon arrows. All Excalibur arrows use a threaded rear insert instead of a nock. The insert is threaded to allow the use of our #1986 T-Handle Arrow Puller. The arrows included with your crossbow have proven to be the best for your particular model and will work well with either fixed blade or mechanical broadheads.

The arrow vanes are 4" or 2" depending on the model and use a left or right 3-4 degree offset. No cock feather is required, any vane can be placed in the track while loading. Do not shoot an arrow lighter than the published minimum arrow weight for your crossbow. All models use a 350 grain total minimum arrow weight (arrow and tip combined) except the Vixen II, which utilizes a 325 grain arrow and tip. Confirm the minimum arrow weight for your crossbow model.

***HINT-To avoid arrows sticking in foam targets, treat the shaft with furniture polish or car wax.**

ALL EXCALIBUR ARROWS USE A THREADED REAR INSERT, NO NOCKS ARE REQUIRED. THE INSERTS ARE THREADED TO ALLOW THE USE OF OUR #1986 T-HANDLE ARROW PULLER.

Visually inspect the crossbow and check all fasteners to be sure they are tight. Get into the habit of doing a quick visual inspection before each outing.

For detailed instructions on how to assemble your new crossbow please watch the Instructional DVD that was included with your crossbow package or view it on our website at www.excaliburcrossbow.com.

SHOOTING YOUR CROSSBOW

Where to shoot?

It's important to choose a safe spot to shoot your crossbow. Crossbows generate a lot of kinetic energy therefore choosing the correct type of target and where to place it requires some consideration. Targets that are not made for crossbow use may allow arrows to penetrate, knowing what is behind the target is very important. There is also a chance you could make a bad shot and miss the target completely allowing the arrow to travel a considerable distance creating a potential dangerous situation.

The safest place to shoot your crossbow is outside with sufficient distance and nothing behind the target area to hit. Choosing an area with a hill or natural barrier is the safest.

Always know your target and never shoot an arrow without taking proper precautions, ensuring no harm to people or property.

COCKING THE CROSSBOW (using the rope cocking aid)

1. Place your foot firmly in the stirrup.

2. Take the left rope cocking aid hook and place it on the string on the left side of the mainframe/rail.

3. Run the rope from the left hook up the side of the crossbow and around the molded groove in the stock located under the safety.

4. Continue running the rope down the right side of the crossbow and attach the remaining hook on the string. The cocking aid rope will appear short, you must grab the left side of the string with your left hand and pull it up until you can place the right hook onto the string using your right hand.

5. Confirm the rope cocking 'T' handles are facing outwards and make sure both hooks are firmly against the mainframe/rail of the crossbow before attempting to cock the crossbow, failing to do this may result in inaccurate shooting.

6. Once the rope cocking aid is correctly positioned, confirm your foot is placed securely into the stirrup. It's very important that your foot is placed as far as possible into the stirrup to avoid having the crossbow slip off of your foot.

7. With your foot in the stirrup grab each of the rope cocking aid 'T' handles. Confirm the safety is in the "fire" position.

8. Using your legs, not your back, quickly stand up and simultaneously raise both your arms. Doing the operation in one motion is the correct technique, attempting to slowly pull the cocking aid up while bent over is significantly more difficult.

9. Once the string is pulled completely back it will engage into the trigger assembly and you will hear a click; the crossbow is now cocked.

10. Immediately place the safety into the "Safe" position. **Never take your foot out of the stirrup until the safety has been set to "Safe".**

11. If you are experiencing problems pulling the rope cocking aid up high enough to engage the string into the trigger, it may be necessary to shorten the rope. This is easily achieved by removing the knot from the end of the 'T' handle; tie another knot at the correct position which will allow you to cock the crossbow. Once the correct position has been found, cut the rope ½ inch from the end of the knot and then melt the end of the rope with a lighter to avoid further fraying. Place the knot back in the 'T' handle.

12. If your crossbow is equipped with the Guardian Anti-Dry-Fire unit, make sure that the string travels past the dry fire catch and locks into the trigger mechanism. Failing to confirm that the string is caught by the trigger will result in your crossbow not being cocked or able to fire. If you discover the string was only caught by the dry fire safety catch, just simply pull the string up until the trigger catches the string. For information regarding cocking your crossbow using the optional #2199 C2 Crank cocking aid, please see the instructions included with the device.

UNCOCKING THE CROSSBOW

1. IMPORTANT: REMOVE THE ARROW FROM THE ARROW TRACK. Not removing the arrow before uncocking a crossbow can cause serious injury or death!

2. Place your foot firmly into the stirrup.

3. Install the rope cocking aid on the crossbow exactly the same as when cocking the crossbow. Make sure the hooks are placed securely on the string and the rope is routed through the groove molded in the stock.

4. Place the safety into the "Fire" position.

5. Pull up on one of the 'T' handles with your strongest hand placing enough tension on the string to lift it off the latch so that the handle will not slip out of your hands when the trigger is pulled.

Confirm you have the entire weight of the crossbow limbs tension supported and that you have a firm grip on the cocking aid handle before releasing the trigger. Failing to fully support the string tension and having a firm grip of the cocking aid handle could result in the handle slipping from your hand and causing damage or injury.

6. Once you are certain that you have the entire weight supported with your strong hand, pull the trigger with your other hand and slowly lower the string down.

7. If your crossbow is equipped with the Guardian Anti-Dry-Fire accessory, make sure to press the deactivation lever forward and hold in place before pulling the trigger (see image). If the string happens to get caught on the Guardian catch when attempting to uncock, pull the string back up into the trigger and attempt the procedure again.

Cocking a crossbow in a tree stand

It's recommended to cock and uncock your crossbow on the ground. However, there are occasions when you may need to re-cock your crossbow while in a tree stand. The best method is to cock the crossbow in a stand is while seated. If your stand has a safety bar position the crossbow under it. Put your foot in the stirrup and install the rope cocking aid as described on pages 11-12. Pull up the rope cocking aid handles and extend your leg simutainously until the trigger catches the string. Once cocked, immediately place the safety into the "safe" position. **Cocking a crossbow while standing in a tree stand could result in injury or death due to the risk of losing your balance and falling.**

Loading an arrow

1. Place the arrow in the flight groove with one vane placed down. Since the arrows do not use nocks but rather utilize a flat insert, it is not critical which vane is placed in the groove, there is no cock-vane.

2. Slide the arrow towards the trigger and under the arrow hold down spring arm, until the rear insert touches the string. Confirm the arrow is properly seated against the string.

3. If your crossbow is equipped with the Guardian Anti Dry-Fire accessory, make sure the arrow is pushed past the anti-dry fire latch and that it is pushed all the way to the trigger unit and makes full contact with the string.

Failing to properly seat the arrow firmly against the string may cause the crossbow to misfire. While shooting, if the crossbow makes a loud noise and the arrow travels a short distance, improper arrow loading is likely the cause.

4. Your crossbow is now loaded and must be handled with extreme caution.
Note: Do not point the crossbow at anything you do not intend to shoot!

Shouldering and holding

Holding a crossbow correctly and securely will greatly enhance your ability to shoot accurately and safely. A crossbow is not much different to shoulder than a typical firearm, although its weight and balance points are unique.

1. Excalibur crossbow models are ambidextrous so both left and right handed shooters will find the crossbow comfortable to shoulder.

2. Place your non-dominent hand under the forestock. You can grip the forestock or place your hand flat under it, whichever you find most comfortable. **DO NOT PLACE FINGERS OR THUMB ABOVE THE RAIL, DOING SO CAN CAUSE SERIOUS INJURY.**

3. For thumbhole style stocks place the thumb on your dominant hand through the hole in the stock and place your fingers around the grip. For traditional style stocks just simply grip the stock. **KEEP YOUR INDEX FINGER OFF THE TRIGGER UNTIL YOU ARE READY TO SHOOT.**

Shooting off a Rest

When shooting from a rest or platform make sure you don't allow your non trigger hand and fingers to be placed in the path of the string. Most thumb and finger injuries happen when using a rest.

Sighting-in

CAUTION: All shooting should be done at an approved range or other safe area. Always use an appropriate target specifically designed for crossbow use and make sure its location will not allow anything or anybody to be accidentally hit.

1. Use a target for sighting-in which will safely stop your arrows without damaging them.

2. Field points are excellent for sighting-in your scope, but be sure to adjust for your broadheads before going hunting.

3. If your scope is equipped with a speed ring, set the range compensation markers to the correct 10 yard trajectory spacing by setting it to the arrow speed in FPS. To determine the arrow speed of your crossbow model and arrow configuration use a chronograph or refer to the chart in this manual. (on page 24) .

4. Shoot the crossbow at 20 yards using the crosshair and note the impact point. Shoot several arrows to establish an arrow grouping.

5. Measure the distance from your aiming point to where the arrows hit the target in both the vertical (elevation) and horizontal (windage) plane. Adjust your scope accordingly, 1 click equals 1/2" adjustment at 20 yards. For example, if your arrows are hitting 2 inches high and 3 inches left of your aiming point, adjust the elevation 4 clicks down and windage 6 clicks right. Shoot again and confirm the crossbow is properly sighted in, if not repeat above until you are satisfied that the arrows are hitting accurately.

6. To confirm that the 30, 40, 50 and 60 yards markers on the reticle are accurate, try shooting several arrows at 30 yards using the 30 yard marker and note impact point. If the 30 yard marker is on, try the other markers out to 60 yards to confirm all are acceptable. If you notice the impact point is consistently high or low, a slight adjustment can be made utilizing the arrow speed ring (if equipped). If the arrows are hitting high, increase the speed, if the arrow is hitting low, lower the speed.

7. If you find that your scope is aimed correctly at 20 yards but the windage (right/left) is off at longer distances, windage adjustments must be made. If you can not achieve correct elevation at longer distances by adjusting the speed ring, the elevation dial will have to be adjusted. Altering the elevation and windage adjustments will not adversely affect accuracy at 20 yards. 1 click at 20 yards moves the arrow 1/2", at longer distances 1 click will move the impact point considerably more. Most will not notice a 1/2" change at 20 yards but at longer distance it can make a considerable difference. **Note: For more information regarding the operation of your scope please consult the scope instruction manual.**

MAINTENANCE

Oiling Trigger & Fasteners

1. Occasional lubrication of your trigger mechanism is necessary especially if you are using your crossbow in wet conditions. Use Ex-Oil or a similar light lubricant, applying through the safety slot and upper and lower trigger areas.

2. Make sure to treat all fasteners with oil to prevent corrosion.

Inspect Fasteners

1. Periodically inspect all fasteners to be sure that they have not vibrated loose from shooting, especially those holding sights, scope mounts, or sight pins. Scope mount screws should be secured using Blue Loctite or similar thread locking compound to prevent future issues.

Lubing the Rail & Waxing

1. Application of our Ex-Wax to the centre serving of the string (approximately every 30-40 shots) will greatly lengthen the life expectancy of your crossbow string; do not apply directly to the mainframe.

2. Application of our Ex-Lube to the rail/mainframe reduces string friction, increases speed and prolongs string life.

What string does my crossbow use?

The type of string your crossbow uses is determined by the model. The length of the string may vary slightly since they are handmade. All Matrix series crossbow models use the #1992 Matrix string. All other models use the #1994 Excel string. All traditional crossbow models (non-Matrix) can also use the optional #1989 Dyna Flight Flemish string for full performance.

Do I need to unstring my crossbow?

A common question is "do I need to unstring my crossbow during the off-season?". The short answer is no. If your crossbow will be exposed to extreme heat you should unstring it to avoid limb damage. But, if you store your crossbow at normal temperatures you can leave it strung.

Brace Height

Brace height is the distance the string sits measured from the joint where the riser meets the rail. Correct brace height is important and will affect the performance of your crossbow and string. Tightening the string will make it shorter and loosening it will make it longer. Brace height is easily adjusted by simply removing and twisting the string. Not all models use the same brace height so check which crossbow model you have and refer to the following:

Matrix Series Models: 1/2" - 1" Brace height
Traditional Models: 1" - 1.5" Brace height

Some models have lines scribed on the rail, these can be used as a brace height guide. For models with 2 lines on the rail, the string can be set anywhere between the two lines. New strings will sometimes sit behind the rear line which is normal since the strings will stretch with use.

CHANGING YOUR STRING (Using optional #2096 Stringing Aid)

One of the big advantages of owning an Excalibur crossbow is the ability for the user to change the string on their own without the need of a bow press. Changing the string is an easy process when using the optional #2096 stringing aid. (not included)

Positioning your string

1. Place the limb-holders over each limb tip as shown in **FIGURE 1.** The stringing aid rope should be positioned toward the trigger unit with the plastic wear tube in the centre.

Adjustment

2. For optimum performance, the length of the stringing aid rope may need to be adjusted. Both of the limb-holders have three holes. You can lengthen or shorten the stringing aid by slipping the rope through these holes. Make sure the end of the rope runs under the loop to secure it as shown in **FIGURE 2.** Adjust the length of the rope so it draws the limbs just far enough back to easily remove or install the string. The stringing aid rope should always be long enough so that the limb-holders will go over unstrung limb tips.

Stringing your crossbow

3. The stringing aid should be positioned on your crossbow with the holes in the limb holders over each limb tip as shown in **FIGURE 1** place your foot firmly in the stirrup, lift the centre of the rope with both hands and pull until it latches into the trigger unit on the clear wear tube cover. Set the safety to "Safe". Run the loops of the string through the holes in each limb-holder as shown in **FIGURE 3** and then over the limb tips as shown in **FIGURE 4.** After both loops are placed on the limb tips make sure they are securely located in the limb tip groove. Disengage the safety and lift up on the stringing aid rope with both hands until the pressure of the rope is removed from the crossbow's trigger. You will now be supporting the entire weight of the crossbow limbs, using your thumb release the trigger. Let the rope down until the crossbow string tightens and releases the tension from the stringing aid. Pull the limb-holders off each limb tip to remove it.

Unstringing your crossbow

4. Unstringing your crossbow using the stringing aid is just the reverse procedure as stringing it. Position the stringing aid as shown before in **FIGURE 1** over the crossbows strung (not cocked) limbs. With your foot firmly in the stirrup, lift up and latch the stringing aid rope into the trigger utilizing the plastic wear tube, place the safety into the "Safe" position, remove the loops (of the string you wish to replace) from the limb tips, pull them through the limb-holders and remove the string. As with stringing, disengage the safety, lift up on the stringing aid rope with both hands to remove all the weight of the trigger unit and release the latch by pulling the trigger with your thumb. Ease the rope down until the crossbow limbs reach the unstrung position and remove the stringer.

FIGURE 1

FIGURE 2

FIGURE 3

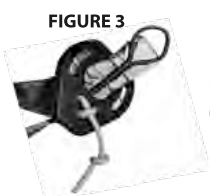


FIGURE 4

For higher draw weight crossbow models, instead of stringing and unstringing by hand as previously mentioned its recommended to use your rope cocking aid along with your stringing aid (see above) to string and unstring. Make sure you use your cocking aid exactly the same as if you were cocking the string and ensure the rope is routed around the groove molded in the stock located just under the safety.

Sound Suppressors

5. It is not necessary to remove the crossbow's string when not in use unless the crossbow will be exposed to extreme heat. However, if you wish to remove the string and your crossbow is equipped with the dissipator bars system, remove the pads before unstringing your crossbow to prevent them from being damaged.

If you have the S5 or R.E.D.S. system on your crossbow, you should occasionally rotate the rubber absorber pads to alternate the strings impact zone and increase the service life. Make sure you have distance between the string and the suppressor pads, 1/8"-1/4" is ideal. Not having sufficient space may cause premature wear to the pads.

Cleaning

Keeping your crossbow clean will assure its reliability and a long service life, plus it's a good time to inspect it for damage or loose hardware. It's common for wax from the serving to build up on the top of the rail section. An easy way to remove the wax is to use a light oil like WD40 soaked in a rag.

To clean the rest of the crossbow, soap and water or a mild cleaner can be used. Make sure to dry the entire crossbow and apply oil to all fasteners to avoid corrosion.

Disassembly

It may become necessary to disassemble your crosssbow for storage or transportation. In most cases the only disassembly necessary is the removal of the limb system from the mainframe/stock section. To accomplish this, remove the two 5/16" bolts (located on the bottom of the mainframe underneath the limb system) using a 3/16" Allen wrench. The entire limb assembly can now be removed from the mainframe.

WARRANTY POLICY AND DISCLAIMER

Excalibur crossbows have a lifetime warranty on manufacturing defects. Warranty will be given at Excalibur's discretion for the lifetime of the original owner.

If you received an item with a suspected issue, please contact Excalibur customer service for a resolution. For a quick diagnosis visit our warranty center located on our website: excaliburcrossbow.com or send an email to the address listed below with a photo and explanation of the suspected fault.

All returns for warranty consideration must have a RMA# assigned. The RMA# must be indicated on the packaging or the package may be refused. To obtain an RMA number and correct address to ship your item, please contact Customer Service at excaliburcrossbow.com or 519-743-6890.

Phone: 519-743-6890
Email: warranty@excaliburcrossbow.com

Shipping costs for sending any item to Excalibur Crossbow for warranty consideration will be the responsibility of the sender. All shipping and handling costs for returning repaired or replaced product to the owner will be at Excalibur Crossbow's expense.

If an expedited method is requested for returning warranted product the additional costs will be at the owner's expense.

Excalibur Crossbow will not warrant damage as a result of misuse or abuse. All costs associated with any repairs required to products due to the result of abuse will be the responsibilty of the owner.

Aftermarket Components
All modifications to any part of your Excalibur Crossbow product will be at your own risk. Any alteration or substitution of components on an Excalibur Crossbow product will VOID the warranty.

Non Warranted Items
Some Excalibur Crossbow accessories may not be covered under warranty unless the failure was deemed a manufacturing defect as determined by Excalibur Crossbow. Any products shot out of the crossbow or categorized as normal wear items, will not be covered under warranty.

Examples of typical items not covered under warranty:
- Arrows lost or broken after being shot
- Damaged broadheads or field points that have been shot
- Worn string
- Worn rope cocking aid
- Worn stringing aid
- Worn C2 crank cocking aid rope
- Worn dissipator pads
- Fasteners stripped by owner
- Arrow inserts coming out of arrow shaft after being lodged in a target
- Arrow fletching damaged after being shot
- Damage to mainframe due to improper use of cocking devices
- Worn S5/R.E.D.S. suppression pads
- Items damaged by user abuse

	Draw Weight	Power Stroke	Velocity (FPS@350Gr.)	Kinetic Energy (ft. lbs)	Stock Style	Mass Weight	Overall Length	Arrow Length	Minimum Arrow Weight (Gr.)	Finish/Colour	Brace Height	String Type
Matrix 405 Mega	290 lbs.	13.87"	405#	127.51	Ergo-Grip	6.2 lbs.	36.25"	18"	350	Mossy Oak Tree Stand®	5/8" - 1"	Matrix
Matrix 380 Snow	260 lbs.	13.12"	380#	112.10	Ergo-Grip	5.9 lbs.	35.62"	18"	350	Realtree AP® Snow	5/8" - 1"	Matrix
Matrix 380 Xtra	260 lbs.	13.12"	380#	112.10	Ergo-Grip	5.9 lbs.	35.62"	18"	350	Realtree Xtra ®	5/8" - 1"	Matrix
Matrix 380 Blackout	260 lbs.	13.12"	380#	112.10	Ergo-Grip	5.9 lbs.	35.62"	18"	350	Black Carbon	5/8" - 1"	Matrix
Matrix 355	240 lbs.	12.25"	355#	97.80	Ergo-Grip	5.4 lbs.	34.75"	18"	350	Realtree Xtra®	5/8" - 1"	Matrix
Matrix 330	220 lbs.	11.37"	330#	85.65	Ergo-Grip	5.1 lbs.	33.87"	18"	350	Mossy Oak Break-Up Infinity®	5/8 "- 1 "	Matrix
Matrix 310	200 lbs.	10.87	310#	72.00	Ergo-Grip	5.1 lbs.	33.90	18"	350	Mossy Oak Break-Up Infinity®	5/8 "- 1 "	Matrix
Ibex SMF	175 lbs.	14.5"	305*	72.20	Thumbhole	5.9 lbs.	36.4"	20"	350	Realtree AP®	5/8 "- 1 5/8"	Excel
Axiom SMF	175 lbs.	14.5"	305*	72.20	Traditional	6 lbs.	37.5"	20"	350	Advantage Timber®	5/8 "- 1 5/8"	Excel
Vixen II	150 lbs.	13.5"	285*	63.10	Traditional Compact	5.9 lbs.	35.5"	20"	325	Realtree Hardwoods HD® Realtree APC® Pink™	5/8 "- 1 5/8"	Excel

* using optional #1989 Flemish Dyna Flite String and minimum arrow weight

\# using the standard #1992 Matrix String and 350 grain minimum arrow weight

Arrow Configuration
Your crossbow came with either the 18" Diablo arrow (Matrix series crossbows) or the 20" Firebolt arrow. These arrows are specifically designed to be used with Excalibur crossbow models. We recommend to always use the type of arrow included in your crossbow package.

Note: The minimum arrow weight recommended with your particular crossbow model (see page 22) is the total arrow weight which includes the arrow complete with inserts, fletching and tip. Firebolt arrows weigh approximately 265 grains with no tip, Diablo arrows weight 250 grains. You can safely use 100+ grain broadheads with any Excalibur arrow and not harm your crossbow.

Nocks
Excalibur arrows do not use a nock, instead a flat insert is utilized. The insert is threaded to allow the use of our #1986 T-Handle Arrow Puller. The advantages of using a flat insert is no cock feather is required and the string mates perfectly with it.

Fletching
Firebolt arrows use a 4" low profile vane and the Diablo style arrow a 2" vane. Fletching is set at a 3-4 degree offset.

Arrow Selection
For most game the arrows that were included with your crossbow package are well suited. However, a specialized setup might be required for larger or exoctic hunts. The main factor is how much kinetic energy is required for your hunt. Below is a general guideline of how much kinetic energy is typically required for specific game:

< 25 ft. lbs. Small Game (rabbit, groundhog, etc.)

25-41 ft. lbs. Medium Game (deer, antelope, etc.)

42-65 ft. lbs. Large Game (elk, black bear, wild boar, moose, etc.)

> 65 ft. lbs. Toughest game (cape buffalo, grizzly, etc.)

The following chart illustrates expected arrow speeds and kinetic energy achieved with typical arrow and broadhead/tip combinations. Simply choose your crossbow model, the total arrow weight and both the arrow speed and energy are shown. Below are arrow weights for standard Excalibur arrows, add your broadhead weight for total arrow weight.

Firebolt - 265 grains | Illuminated Firebolt - 292 grains | 2213 - 273 grains | 2219 - 352 grains
Diablo - 250 grains | Illuminated Diablo - 277 grains | 2216 - 316 grains

Arrow Selection Chart

Total Arrow Weight (grains)	350		375		400		425		450		475		500	
Draw weight	FPS	KE	FPS	KE	FPS	KE	FPS	KE	FPS	KE	FPS	KE	FPS	KE
Matrix 405	405	127	396	130	390	135	378	135	374	132	366	141	350	136
Matrix 380	380	112	372	115	363	117	355	119	346	120	339	121	333	123
Matrix 355	355	97	347	102	335	100	331	103	323	104	318	106	311	107
Matrix 330	330	85	323	87	316	89	310	91	303	92	296	92	290	93
Matrix 310	306	72	298	73	291	75	284	76	277	77	271	77	265	78
Axiom/Ibex	288	64	287	69	280	58	278	73	277	77	273	78	268	80
Axiom/Ibex*	305	72	303	76	287	73	289	79	282	79	277	81	273	83
Vixen II	265	55	263	58	259	60	256	62	251	63	247	64	243	66
Vixen II*	285	63	267	59	267	63	265	66	260	68	256	69	252	71

All speed numbers represent speed in feet per second.

* Speeds in FPS with models using a optional #1989 Dyna Flight Flemish strin

KE=Kinetic enerergy

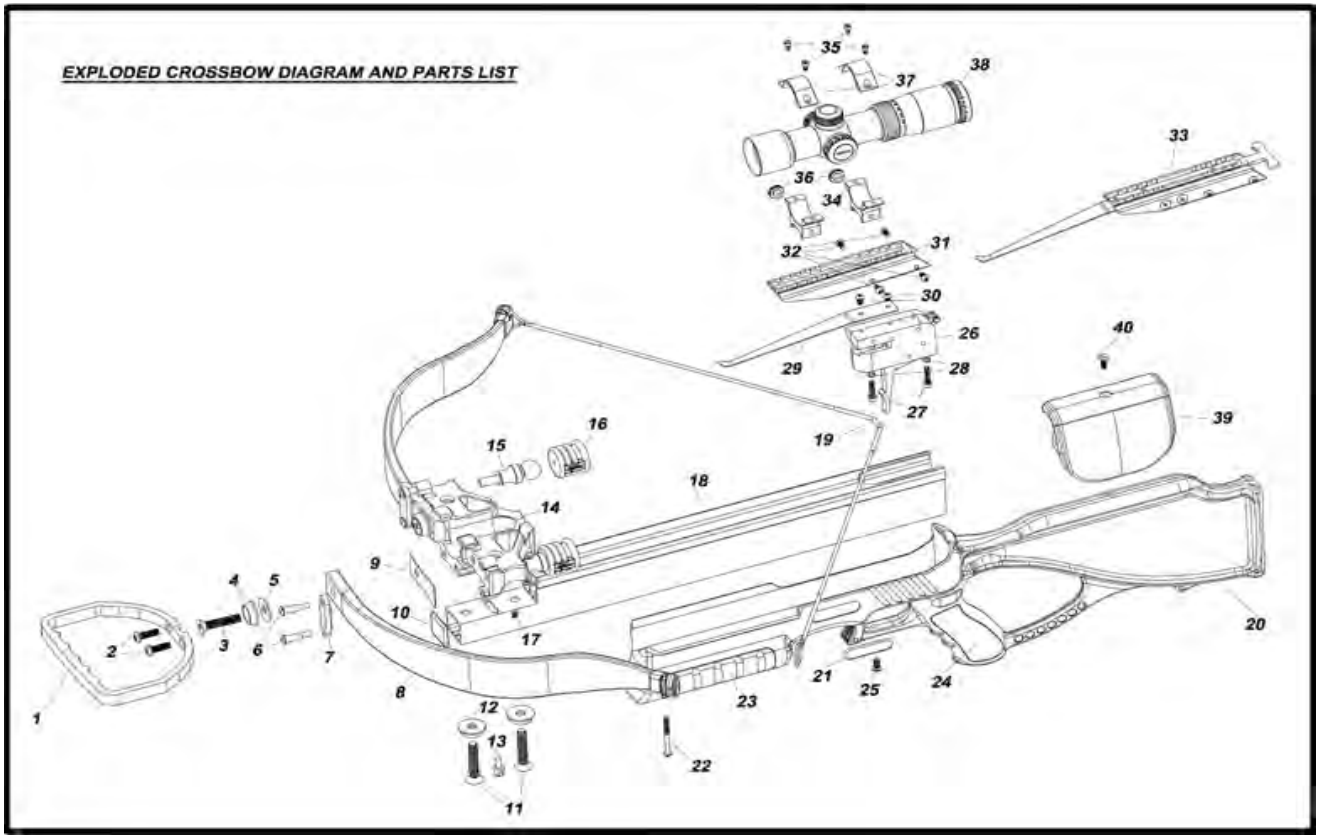
TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Crossbow seems loud	The release of energy from high draw weight results in noise	Install Buzz Buster, d.B. Bar kit or S5/R.E.D.S sound suppressors.
Dry-fired Crossbow	Fired without an arrow	Look for splinters in the limbs, broken tips or loose fasteners, if you find nothing wrong you are ok. If you found any of the above, call our Customer Service.
Cracks/Stress marks or pockets on the limbs	Part of the Limb Molding Process	These marks are part of the process of making limbs, will not hinder safety or accuracy. Some have more than others.
String loops fell apart on Flemish string Excel string is too short Can't install string with stringing aid	String twisted the wrong direction when installed. Purposely made shorter String is shorter	Twist the string in the direction it was made. String will stretch with use. Adjust and shorten the rope on the stringing aid by pulling it through one of the plastic ends, this will allow the limbs to be pulled back further.
String serving wearing prematurely	Lack of Wax or Rail Lube	The serving on your string needs to be waxed after about every 30/40 shots. You may also choose to apply Rail Lube to the mainframe of your crossbow. Doing either of these will lengthen the life of the string.
Hooks from Cocking Aid/Crank jump up onto the rail/mainframe	Improper routing of Cocking Aid rope	The rope for the Cocking Aid/Crank needs to be positioned over the groove which is just under the safety on the stock.
Cocking Aid too short	Purposely made shorter	The rope is made shorter to give the user more mechanical advantage. When going to hook the 2nd hook on the string on the opposite side, pull the string up while you are pushing the hook towards the string.
Deer "jumping" the string	Distance & Deer awareness	Try to be as close as possible to the deer and don't shoot if the deer is looking at you. 30 yards and under gives the best results.

Arrow grouping is not consistent	Loose mount, faulty arrows	Ensure that all mounting hardware is good and snug. Shoot just 1 arrow, if it hits in a large group, your scope is faulty. If the 1 arrow groups, you have a faulty arrow. Check the arrows to make sure the fletching is not damaged, spin them to make sure they are straight. Make sure the cocking aid hooks are snug against the rail before cocking.
Arrows missing nocks	Our arrows do not use nocks	Excalibur crossbows are designed to use a flat insert. They are threaded to use the T-handle Arrow Puller.
Arrow vanes bent/warped	Crushed during storage or shipping	Hold the arrow over a steaming kettle for a few seconds and the worst will come out.
Cheek Piece does not fit	Will only fit newer style stocks (5 diagonal lines molded in the stock, located above trigger area)	The Cheek Piece fits very tightly and may require significant force to snap into place. Lay the stock on a table, position it and then push down using the palm of your hands until it snaps into place.

For more Frequently Asked Questions and further information please visit our on-line knowledge base at excaliburcrossbow.com

EXPLODED CROSSBOW DIAGRAM AND PARTS LIST



PARTS LIST

1. Stirrup
2. Stirrup Screw
3. Limb Bolt
4. Tapered Washer
5. Round Plastic Washer
6. Shoulder Bolt
7. Recoil Plate w/rubber
8. Limb
9. Rectangular Washer
10. End Cap
11. Riser Bolt
12. Tapered Washer
13. Sling Stud
14. Riser
15. R.E.D.S. Aluminum Part
16. R.E.D.S. Rubber-optional
17. R.E.D.S. Set Screw
18. Mainframe
19. String
20. Stock
21. Sticker (Excalibur Logo & Model)
22. Front Stock Screw
23. Front Rubber Grip Insert
24. Rear Rubber Grip Insert
25. Rear Stock Screw
26. Trigger
27. Trigger Screw
28. Trigger Screw Washer
29. Hold Down Spring
30. Hold Down Spring Screw
31. Scope Mount-optional
32. Scope Mount Screw
33. Guardian Anti-Dry Fire-optional
34. Scope Rings-optional
35. Scope Ring Screws
36. Scope Ring Screw-large
37. Scope Ring (Top Half)
38. Scope-optional
39. Cheek Piece-optional
40. Cheek Piece Screw

NOTES

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