

# MXB CROSSBOW

Owner's Manual



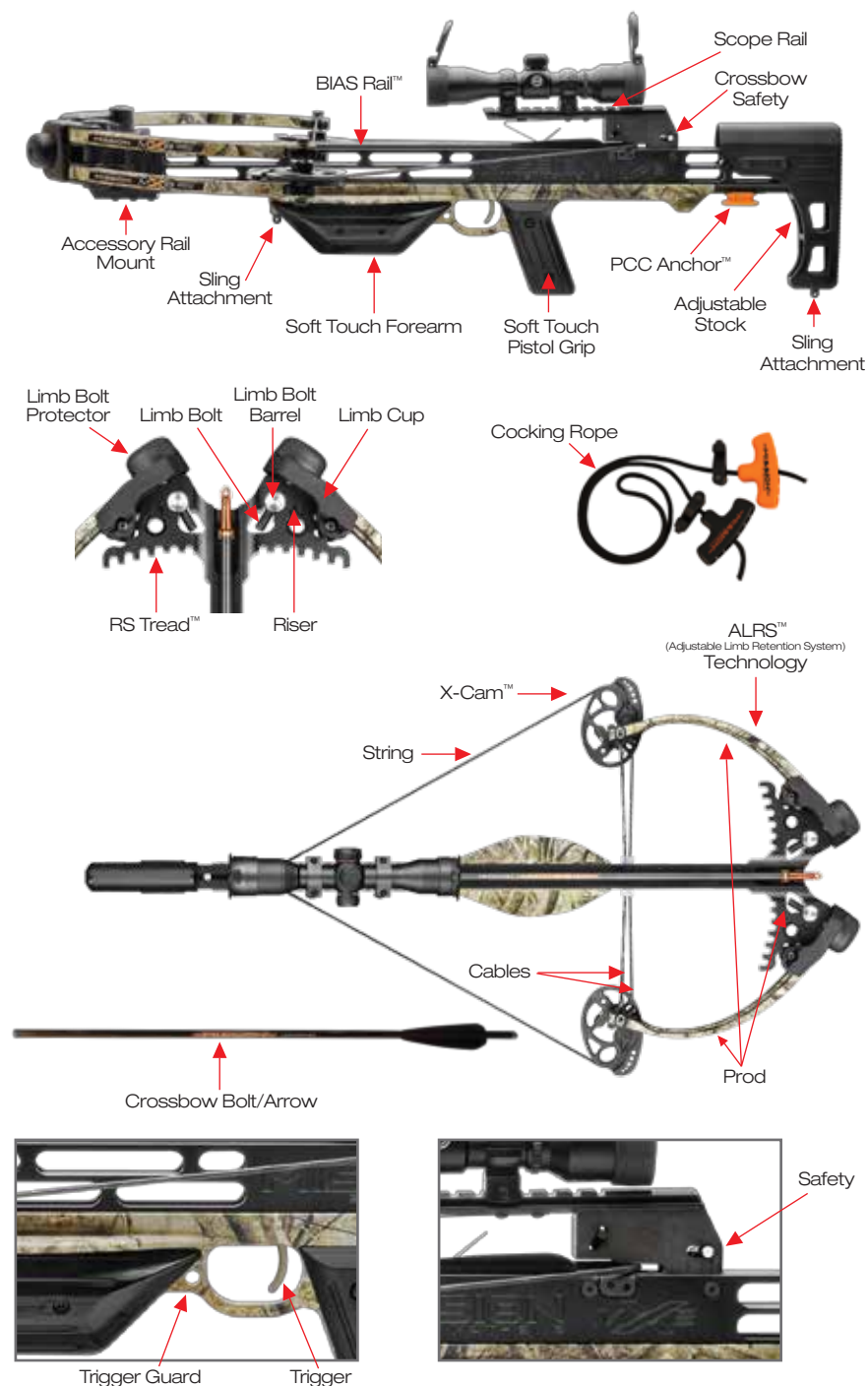


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## MXB® Parts Identification Diagram

Carefully review all of the crossbow components below so you are familiar with this information as it relates to the safety and operation of your crossbow.



## MXB® Safety Rules & Instructions

**⚠️WARNING** **SAFE USE OF YOUR MISSION® CROSSBOW IS YOUR PERSONAL RESPONSIBILITY AND THE FAILURE TO FOLLOW ALL OF THESE BASIC SAFETY RULES AND INSTRUCTIONS MAY RESULT IN SEVERE PERSONAL INJURY OR DEATH TO YOU OR OTHERS.**

1. **⚠️CAUTION** Your Mission® crossbow is a precision instrument that requires specific tools and expertise. Accordingly, Mission® recommends that all maintenance and repair of your Mission® crossbow be performed by an Authorized Mission® Retailer. Failure to comply with this requirement may cause damage to your crossbow, inflict serious injury, and may void your warranty.
2. **NOTICE** While this crossbow has been factory tested, and is delivered pre-assembled to ensure your safety, this manual also provides general crossbow information including parts identification, extensive loading, cocking and safety instructions.
3. **NEVER** expose your crossbow to extreme heat or prolonged moisture while in the cocked position.
4. **AVOID** storing your crossbow for extended periods of time in areas subject to extreme heat, such as the trunk of a vehicle, your attic, or in a damp garage.
5. **NEVER** use solvents, sprays or cleaners such as acetone or mineral spirits on or around your crossbow, as they may adversely affect the finish, or damage components. Use a damp cloth or light gun oil for cleaning.
6. **⚠️CAUTION** Mission® dedicates itself to quality and safety. To ensure a safe and reliable shooting experience your Mission® crossbow is equipped with an **automatic safety mechanism**. **The safety will automatically engage when you fully cock the crossbow. As with any firearm, it is your responsibility to ensure that the safety is properly engaged when your crossbow is cocked, and remains engaged until you are ready to put your finger on the trigger.** (See Figs 1.1 - 1.3)



Fig 1.1: Auto Safety Mechanism



Fig 1.2: FIRE position



Fig 1.3: SAFE position

## Safety Rules & Instructions (Cont'd)

7. **⚠️CAUTION** Anyone operating a crossbow under the age of 18 should always be accompanied by an adult.
8. **⚠️WARNING** **ALWAYS** BE AWARE OF YOUR TARGET AND WHAT'S BEYOND. **NEVER** POINT YOUR CROSSBOW TOWARD OR IN THE DIRECTION OF ANOTHER PERSON.
9. **⚠️CAUTION** Handle every crossbow with the same respect as a firearm. A crossbow can be dangerous and potentially fatal when mishandled.
10. **⚠️WARNING** **KEEP FINGERS AND THUMBS CLEAR OF THE CROSSBOW RAIL. NEVER PLACE ANY OBJECTS IN THE WAY OF THE STRING OR LIMBS TO AVOID EQUIPMENT DAMAGE OR SERIOUS PERSONAL INJURY. (See Figs 2.1 and 2.2)**

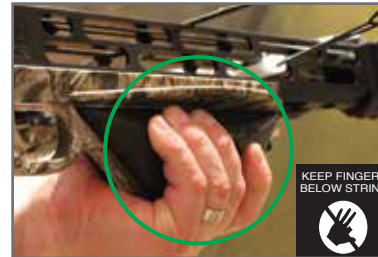


Fig 2.1: Correct Finger Placement

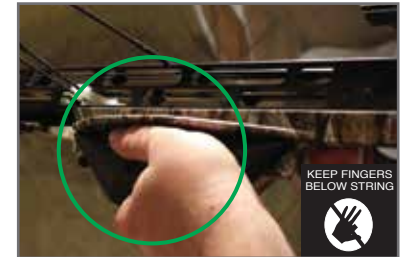


Fig 2.2: Correct Thumb Placement

11. **⚠️WARNING** **NEVER DRY FIRE YOUR MISSION® CROSSBOW.** Doing so will void your warranty, and could result in serious injury to you and/or others, as well as damage the crossbow.  
Dry firing means firing the crossbow without a bolt/arrow loaded into the crossbow receiver. In the process of cocking the MXB crossbow the Anti-Dry Fire device is activated automatically and the trigger mechanism is placed in the Safe "S" position. In this condition the crossbow cannot be fired until an arrow/ bolt is in place. Only when an arrow /bolt is in place and you are ready to shoot, should the safety be moved to the "Fire" position. Should a dry-fire occur, your crossbow must be completely inspected for damage to its components before further use. (See Fig 3.1)



Fig 3.1: Automatic Anti-dry fire mechanism

## Safety Rules & Instructions (Cont'd)

12. **ALWAYS** use authorized crossbow bolts/arrows for shooting. Bolts/arrows must weigh a minimum of 375 grains and be designed for your Mission® crossbow.
13. **NEVER** point your crossbow at a target unless you intend to shoot.
14. **NEVER** place your finger on the trigger until you are ready to discharge your crossbow.
15. **NEVER** alter your crossbow from factory specifications in any way. This will void your lifetime warranty and potentially cause harm to you or bystanders.
16. **NEVER** transport, store or do any climbing with your crossbow while it is loaded.
17. **ALWAYS** wear safety glasses when using your crossbow.
18. **ALWAYS** carefully inspect bolts/arrows and crossbow for damage or missing parts before every use.
19. **ALWAYS** wear a safety belt or harness when hunting from a tree stand or elevated position.
20. **NEVER** attempt to cock your crossbow while in your tree stand unless you are securely harnessed into your stand and you have practiced this maneuver while at ground level in your tree stand.
21. **IMMEDIATELY** replace any frayed or severely worn string or cables. (See Fig. 4.1)
22. **ALWAYS** use proper lifting techniques when manually cocking your crossbow. (See Fig 5.1)



Fig 4.1: Example of a worn crossbow string



Fig 5.1: Correct lifting technique

23. **NEVER** work on or attempt to shoot your Mission® crossbow while on medication that may impair your judgement, physical abilities, or reflexes.
24. **NEVER** work on or attempt to shoot your crossbow while under the influence of alcohol or while consuming drugs. Doing so can result in damage to the bow or inflict serious injury or even death.
25. **ALWAYS** handle crossbow bolts/arrows that are equipped with broadheads with extreme care.

## Safety Rules & Instructions (Cont'd)

26. **ALWAYS** utilize a quiver to protect yourself and your crossbow's components from bolts/arrows tipped with sharp broadheads.
27. **ALWAYS** check the cable orientation of your MXB crossbow as it is critical to the crossbow's performance. If your cables are not the same as pictured below, visit an authorized Mission® retailer (See Fig 6.4).

The power cable coming from the right "R" cam (Blue) enters the deeper forward slot of the rail slide (Fig 6.1 & Fig 6.3) on the right of the crossbow rail and exits the deep slot at the rear of the slide on the opposite side of the crossbow rail. Conversely the "L" left cam cable (Yellow) enters the shallow forward cable slot on the left side of the crossbow rail (Fig 6.2), crossing over the other cable and exits the shallow slot at the rear of the slide on the opposing side of the crossbow rail.



Fig 6.1: "R" Cam Cable Route (View from Right side of rail slide)



Fig 6.2: "L" Cam Cable Route (View from Left side of rail slide)



Fig 6.3: MXB Rail Slide

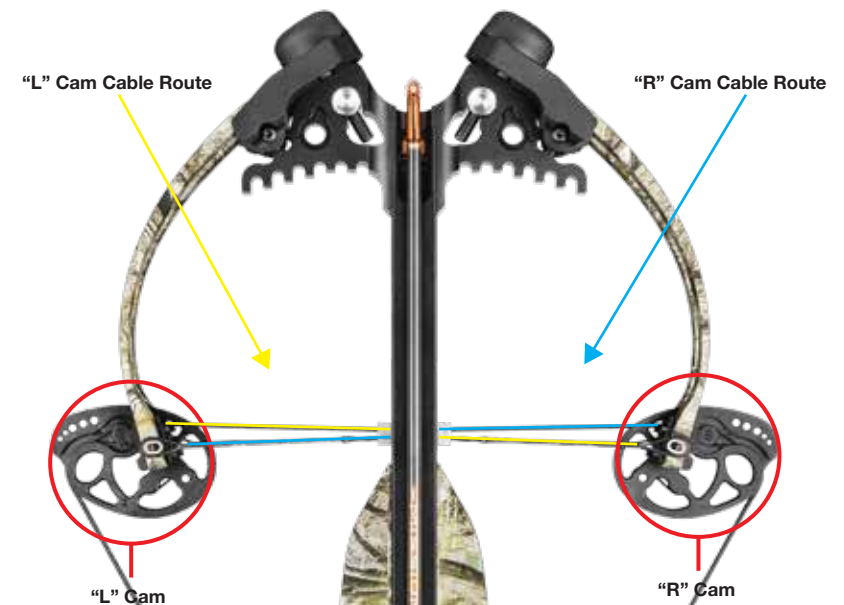


Fig 6.4: Cable Orientation

## Cocking Instructions & Safety

**⚠CAUTION** Practicing the following procedures until they become second nature will ensure that you load your crossbow safely and accurately every time. Improper crossbow cocking could result in injury.

1. **⚠WARNING** **PLACE THE SAFETY IN THE TRIGGER HOUSING TO THE FIRE POSITION. (SEE FIG 7.1). AS THE BOWSTRING IS LOADED INTO THE RECEIVER THERE WILL BE AN AUDIBLE “CLICK” AS THE STRING CATCH IS ENGAGED WITH THE BOWSTRING SECURELY IN THE STRING CATCH. DURING THIS PROCESS THE SAFETY WILL AUTOMATICALLY ENGAGE AND BE PLACED INTO THE “SAFE” POSITION, MARKED S. ALWAYS MAKE SURE YOUR SAFETY IS ENGAGED UNTIL YOU ARE READY TO FIRE YOUR CROSSBOW. (SEE FIG 7.2)**

2. **⚠WARNING** When manually cocking your crossbow, use proper lifting technique to avoid shoulder, back or finger injury. A cocking rope is supplied with every Mission® crossbow for your safety and crossbow cocking convenience.

3. Place foot on the RS Tread™ to secure crossbow against the ground. (See Fig 7.3)

4. **ALWAYS** make sure the cocking rope is secured around the PCC Anchor™. (See Fig 7.4)

5. **ALWAYS** make sure the hooks are located closely to each side of the rail and located (hooks up) to capture the string. (See Fig 7.5)

6. **NEVER** attempt to cock your Mission® crossbow without a cocking rope to prevent unbalanced string engagement which can adversely affect accuracy.

7. With your hands on the handles of the cocking rope and close to the crossbow rail, pull the string the full length of the rail stopping when the trigger assembly receiver makes a pronounced **CLICK**. This indicates that the string is fully engaged into the string catch and the automatic safety has been engaged. Please check to make sure the crossbow safety is engaged in the “SAFE” position.



Fig 7.1: FIRE position



Fig 7.2: SAFE position



Fig 7.3: Foot Placement



Fig 7.4: PCC Anchor™



Fig 7.5: Cocking rope string placement

## Cocking Instructions & Safety (Cont'd)

8. **⚠WARNING** **NEVER ASSUME THE SAFETY IS ON. ALWAYS CHECK THE SAFETY BEFORE INSTALLING A CROSSBOW BOLT/ARROW.**

9. **⚠CAUTION** Before firing your crossbow, always check to make sure your bolt/arrow is installed cock vane down and the aluminum bolt nock is secured tightly against the string. (See Figs 8.1 & 8.2) Failure to do this may result in a dry fire injuring yourself or damaging the crossbow.

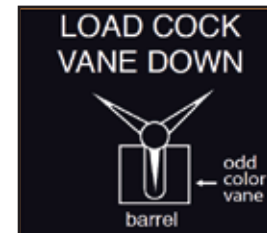


Fig 8.1: Bolt loading placement in the rail

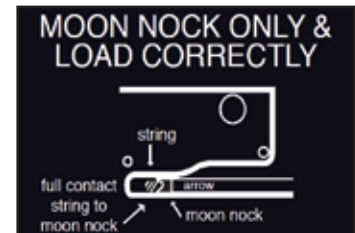


Fig 8.2: Moon nock on bolt/arrow must have full contact with the string.

## Un-cocking Warnings

**⚠WARNING** **NEVER ATTEMPT TO “UN-COCK” YOUR CROSSBOW BY HAND OR WITH A COCKING ROPE. UN-COCKING A CROSSBOW BY ANY MEANS OTHER THAN SHOOTING IT COULD CAUSE PERSONAL INJURY TO YOU (I.E. BACK OR HAND INJURIES).**

**⚠CAUTION** The recommended method to un-cock your crossbow is to shoot the arrow into a target or into the soft ground a few feet in front of you. If you want to switch to a different crossbow arrow/bolt prior to shooting to un-cock the crossbow use the following steps.

- 1) Reposition the safety to the “S” Safe location making the trigger inoperable and re-engage the Anti-Dry fire mechanism avoiding the possibility of a dry-fire.
- 2) Carefully replace your arrow/bolt with one more suitable to shoot into a target or into the ground.
- 3) Aim at the target or soft ground a few feet in front of you, move the safety to the Fire “F” position and discharge the arrow/bolt.

## Bolt/Arrow Specifications & Requirements

**NOTICE** Mission® recommends using our customized Mission® branded bolts/arrows that are equipped with aluminum half moon nocks and meet all minimum weight and length specifications.

1. Mission® recommends using bolts/arrows with aluminum nocks that are half moon shaped. This will greatly reduce the possibility of nock failure resulting in a dry fire, which may result in damage or injury. (See Fig 9.1)
2. The bolt/arrow must have a minimum fletching clearance of **1.35"** from inside of nock to beginning of the vane. (See Fig 9.2)
3. Total bolt/arrow weight **WITH** broadhead or field point installed must be a minimum of **375** grains.
4. **NEVER** shoot a crossbow bolt/arrow without a field point or broadhead.
5. **ALWAYS** load bolts/arrows cock vane down into the slot in the rail (See Fig 9.5) with the moon nock in full contact with the string (See Fig 9.6)
6. Inspect bolts/arrows for damage after every shot. (See Fig 9.3)
7. It is recommended that fixed blade broadheads be tuned to match bolt/arrow fletching.
8. Mission® Lumbolts are not recommend for bows that have speeds faster than 380 fps.



Fig 9.1: Aluminum "Half-Moon" Style nocks only

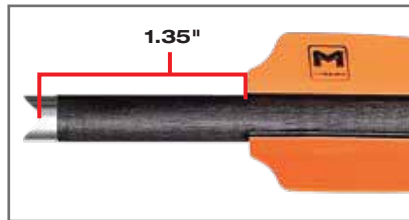


Fig 9.2: Minimum fletching clearance



Fig 9.4: Recommended Mission® Bolts/Arrows – 20" can only be used on Dagger™ and 320, 22" and 24" can be used on all models of MXB® Crossbows

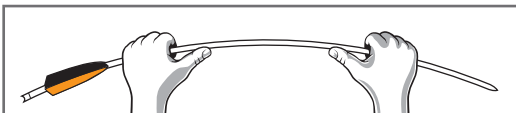


Fig 9.3: Arrow Inspection

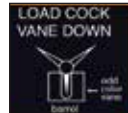


Fig 9.5: Correct vane



Fig 9.6: Correct nock placement

## Crossbow Maintenance

**CAUTION** Your Mission® crossbow is a precision instrument that requires specific tools and expertise. Accordingly, Mission® recommends that all maintenance and repair of your Mission® crossbow be performed by an Authorized Mission® retailer.

**WARNING** FAILURE TO COMPLY WITH THIS REQUIREMENT MAY CAUSE DAMAGE TO YOUR CROSSBOW, INFLICT SERIOUS INJURY OR EVEN DEATH, AND MAY VOID YOUR WARRANTY.

1. Keep the trigger and anti-dry fire mechanism clear of debris. The trigger/receiver assembly is designed to operate without additional lubrication. Lubing the trigger can result in attracting dirt and grime resulting in less than optimum trigger performance.
2. To ensure the safety is operating properly, cock and load your crossbow and test the safety. Aim your crossbow with an arrow at a specific target in a safe direction before pulling the trigger to test the safety device.
3. Protect all external metal parts of your crossbow with a light film of gun oil.
4. Make sure your crossbow receives a thorough drying if used in wet conditions.
5. Inspect limbs and bolt/arrows periodically to ensure there are no signs of damage, such as cracks, nicks, or slivers in the materials.
6. In the event of contacting your crossbow limb with an object during a shot, always check limbs and cams for damage. (See Fig 10.1)
7. All bearings and axles are pre-lubed and do not require additional lubrication or grease.
8. Lubricate the rail using Mission® Rail Lube every 5-10 shots to prolong the life of your string. (See Fig 10.2)



Fig 10.1: Avoiding Obstructions



Fig 10.2: Rail Lube Location

## Accessories & Installation

### Scope Installation

1. All the Mission® crossbow scopes are preassembled with scope mount rings and ready to mount on the scope rail.
2. Loosen the two screws on the bottom of the scope mount rings and place at the desired spot on scope rail. (See Fig. 11.1)
3. Do not over tighten screws. A snug fit will work the best.
4. It's recommended to check scope location with hunting clothes to simulate hunting situations.
5. After properly mounting your scope, begin sighting in your crossbow by firing your crossbow into an authorized crossbow target and adjusting the scope accordingly.
6. Four different scope reticle configurations are available as illustrated in Fig 11.2, Fig 11.3, Fig 11.4 and Fig 11.5.



Fig 11.1: Correct Scope Mounting

Fig 11.2: 4x32



Fig 11.4: 1x32 SR



Fig 11.3:  
Highly visible,  
adjustable  
red dot sight



Fig 11.5: 1.5-5x32



## Accessories & Installation (Cont'd)

### MX-3® Quiver Installation Instructions

1. Assemble the quiver claw per the included instructions. (Note: The MXB® Quiver Claw is designed specifically for MXB-Crossbows. This claw is different from the vertical bow series Quiver Claws.)
2. Determine where you would like to place the quiver. There are 4 Keyholes that the quiver can be placed for the convenience of the shooter and their preference.  
**Note:** If you are using a sling, mounting the quiver on top of the riser is recommended to avoid damaging arrows during transportation. (See Fig 12.2)
3. Place the claw into the chosen Keyhole and secure the claw onto the crossbow with provided attachment screw and basil.
4. **⚠ WARNING YOU MUST REMOVE THE QUIVER TO COCK THE CROSSBOW.**

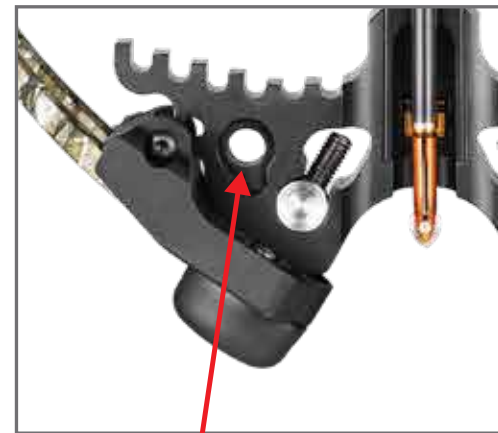


Fig 12.1: Quiver Keyhole



Fig 12.2: Quiver mounted on top of the riser

## RSD™ System



We lead the industry with the first-ever silent mechanical cocking device for crossbows. The patent pending RSD™ fits all Mission® MXB® Crossbows and can be installed or removed in a matter of a few seconds. In addition to being completely silent, the RSD™ improves accuracy through the use of a floating rope-pull that ensures equal tension is applied to each side of the bowstring during the draw. The RSD System™ is outfitted with a removable, ambidextrous handle that when engaged will reduce the operator's effort by twenty five times. The RSD System™ makes it possible for virtually anyone to draw a crossbow in complete silence.

### Features and Benefits of RSD™

- **Safe and silent**
- **Attach or remove in seconds**
- **Self centering string for superior accuracy**
- **Easily draw every MXB® crossbow**
- **Ambidextrous operation**
- **Operate crossbow with RSD™ attached or removed**

Visit the video gallery on [Missionarchery.com](http://Missionarchery.com) to see videos on the features and how to operate the RSD™.



## NEW FOR 2015

## MXB®-SNIPER LITE™

IBO Rating // up to 310 fps

Powerstroke // 14"

Weight // 5.96 lbs

Adjustable // 150  
Draw Weights

Width // 20.5" (not axle to axle)

Finishes // Black

Length // 32.75"

Bowstrings // Zebra® Hybrid

The all-new SyncCam™ and Patent Pending Smart Guide™ cable slide offer precision cam synchronization that self-centers at full draw



Apply Rail Lube after every 5-10 shots on your crossbow.

Accessory rail for adding lights and bi-pods is available for all MXB® crossbows.

New adjustable shooting stick, from 30"-65" adjustment, cradle or picatinny rail attachment.

## MXB®-320™

IBO Rating // up to 320 fps

Weight // 6.5 lbs

Width // 19.5" (not axle to axle)

Length // 32.75"

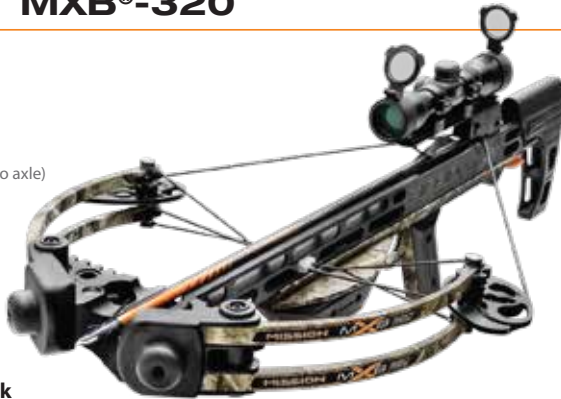
Powerstroke // 12"

Adjustable // 180 / 150  
Draw Weights // 125 / 100

Finishes // Lost AT / Black

Bowstrings // Zebra Hybrid

Apply Rail Lube  
after every  
5-10 shots on  
your crossbow.



180 lbs // 0 turns out	Speed // 320 fps
150 lbs // 3.5 turns out	Speed // 292 fps
125 lbs // 6 turns out	Speed // 261 fps
100 lbs // 8 turns out	Speed // 226 fps

## MXB®-DAGGER™

IBO Rating // up to 340 fps  
(20" - 385 grain Mission bolt)

Weight // 6.3 lbs

Width // 19.5" (not axle to axle)

Length // 30"

Powerstroke // 10"

Adjustable // 220 / 200  
Draw Weights // 150 / 125

Finishes // Lost AT / Black

Bowstrings // Zebra Hybrid



You can use 20" Mission® bolts with the  
compact MXB® Dagger™



WX-cam™ is designed to  
maximize speed and  
efficiency.

220 lbs // 0 turns out	Speed // 340 fps
200 lbs // 2 turns out	Speed // 315 fps
150 lbs // 6 turns out	Speed // 273 fps
125 lbs // 9 turns out	Speed // 243 fps

## MXB®-360™

IBO Rating // up to 360 fps

Weight // 6.55 lbs

Width // 19.5" (not axle to axle)

Length // 35"

Powerstroke // 14"

Adjustable // 160 / 125  
Draw Weights // 100

Finishes // Lost AT / Black

Bowstrings // Zebra Hybrid

New trigger assembly installed  
on all 2014 or newer models!



160 lbs // 0 turns out	Speed // 360 fps
125 lbs // 5 turns out	Speed // 311 fps
100 lbs // 8.5 turns out	Speed // 271 fps

## MXB®-400™

IBO Rating // 400+ fps

Weight // 6.9 lbs (includes accessory rail)

Width // 19.5" (not axle to axle)

Length // 34"

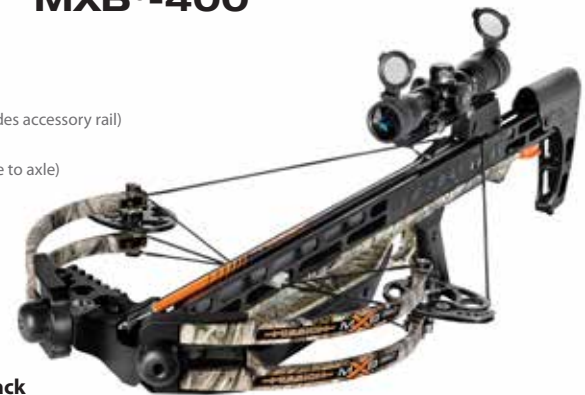
Powerstroke // 14"

Adjustable // 200 / 175  
Draw Weights // 150 / 125

Finishes // Lost AT / Black

Bowstrings // Zebra Hybrid

Accessory rail for adding  
lights and bi-pods  
comes standard  
on the MXB® 400™



200 lbs // 0 turns out	Speed // 400 fps
175 lbs // 4 turns out	Speed // 364 fps
150 lbs // 6 turns out	Speed // 338 fps
125 lbs // 9 turns out	Speed // 293 fps

## Crossbow Warranty



**To activate the Lifetime Warranty\* on your new bow, you must register online at: [missionarchery.com](http://missionarchery.com)**

### Mission® Limited Lifetime Warranty\*

#### LIMITED LIFETIME WARRANTY.

YOUR MISSION® CROSSBOW IS WARRANTED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP TO THE ORIGINAL REGISTERED OWNER WHEN PURCHASED AT AN AUTHORIZED RETAILER, FOR THE LIFE OF THE ORIGINAL OWNER. THIS INCLUDES ALL BOW PARTS EXCEPT THE STRING, BUSS CABLE, CABLE SLIDE, TRIGGER, AND COSMETIC APPEARANCE (CHIPS, DINGS, SCRATCHES) CAUSED BY NORMAL USE AND WEAR. ALL WARRANTY CLAIMS ARE PROCESSED THROUGH AN AUTHORIZED MISSION® RETAILER. YOUR AUTHORIZED MISSION® RETAILER WILL CONTACT A MISSION® WARRANTY TECHNICIAN ON YOUR BEHALF. ANY AND ALL WARRANTIES, WRITTEN OR IMPLIED, ARE VOID WITH ANY ALTERATIONS TO THE CROSSBOW INCLUDING COSMETIC REFINISHING.

#### LIMITATION OF LIABILITY

MATHEWS MANUFACTURING, INC. SHALL NOT BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE PERFORMANCE AND USE OF THE PRODUCTS, EVEN IF MATHEWS MANUFACTURING, INC. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. APPLICABLE LAW MAY NOT ALLOW THE LIMITATIONS OF EXCLUSION OF LIABILITY OR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

#### NOTE:

Mission® reserves the right to make substitutions on warranty coverage for any reason, including but not limited to available parts and/or camo pattern. Authorized Mission® Retailers may charge for warranty work performed.

\* Limited Lifetime Warranty to the Original Owner.

**NOTICE** The warranty will be void if any of the following occur:

1. Failure to follow the safety and operating instructions in the owners manual;
2. Crossbow is not registered by original purchaser;
3. Crossbow is purchased from unauthorized retailer (not authorized by Mathews® and Mission®);
4. The crossbow or any of its parts or accessories are altered from their original state;
5. Damage is caused by abuse or neglect;
6. Dry fire damage caused by using plastic or non "half-moon" nocks;
7. Damage is caused by dry firing or by using underweight bolts/arrows (lighter than recommended in the Owners Manual); or
8. The crossbow is rented or loaned for use by others.

## Personal Records

Remember, your Mission® warranty is only activated when you register your bow. Register now at: [missionarchery.com](http://missionarchery.com)

Fill out the following personal bow record for future reference:

Name \_\_\_\_\_

Address \_\_\_\_\_

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

Daytime Phone \_\_\_\_\_

Evening Phone \_\_\_\_\_

E-mail \_\_\_\_\_

Bow Model \_\_\_\_\_

Serial Number \_\_\_\_\_

Located above the grip on most models

Purchased at \_\_\_\_\_

Authorized Mission® Retailer

Purchase Date \_\_\_\_\_ Sales Associate \_\_\_\_\_

Draw Length \_\_\_\_\_ Draw Weight \_\_\_\_\_

Important Notes \_\_\_\_\_

## Join the Mission® Online Community Stay Connected 24/7 at [missionarchery.com](http://missionarchery.com)

Share your Mission field report with us at [missionarchery.com/fieldreports](http://missionarchery.com/fieldreports), become a fan on Facebook to get all the latest news and share your photos with us on [instagram.com/missionarchery](https://www.instagram.com/missionarchery) using #missionarchery.

Mission® User Name: \_\_\_\_\_

Password: \_\_\_\_\_





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919 River Rd, Sparta, WI 54656