



**NEW FRONTIER**  
MUZZLELOADING

# In-Line Rifle Warranty Information

This book contains information critical to the safe use and maintenance of New Frontier muzzleloading firearms. **YOU MUST READ THIS MATERIAL ENTIRELY AND FULLY UNDERSTAND THIS INFORMATION BEFORE YOU CAN SAFELY USE YOUR MUZZLELOADER.** If firearm is loaned or sold by a dealer or individual this book must accompany the firearm. Replacement books are available from our factory. Call New Frontier Customer Service at (770) 449-4687 if you have any questions.

**ANTY CARD** (Please complete all sections)

\_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

\_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Name \_\_\_\_\_ Date Purchased \_\_\_\_\_

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

\_\_\_\_\_ Model # \_\_\_\_\_ Serial No. \_\_\_\_\_

What type of store was product purchased?

- Chain/Discount  Hobby
- Sporting  Hardware  Mail Order

Did you select a New Frontier Muzzleloading product?

- Special Feature  Price
- Impulse Purchase  New Frontier Advertisement
- Hunting  Target Shooting  Decoration

Are any features you dislike? \_\_\_\_\_

Improvements would you recommend? \_\_\_\_\_

Place  
Stamp  
Here

Frontier Muzzleloading  
Peachtree Corners East  
GPO, GA 30071



**NEW FRONTIER**  
M U Z Z L E L O A D I N G

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Caliber \_\_\_\_\_ Date Purchased \_\_\_\_\_

Type of Gun \_\_\_\_\_

# Warranty Information

## WARNING

**IF HANDLED IMPROPERLY FIREARMS ARE DANGEROUS. READ AND FOLLOW ALL "CAUTIONS", "CAUTION" AND WARNINGS OF "DANGER" TO AVOID SERIOUS INJURY AND/OR DEATH AND/OR PROPERTY DAMAGE.**

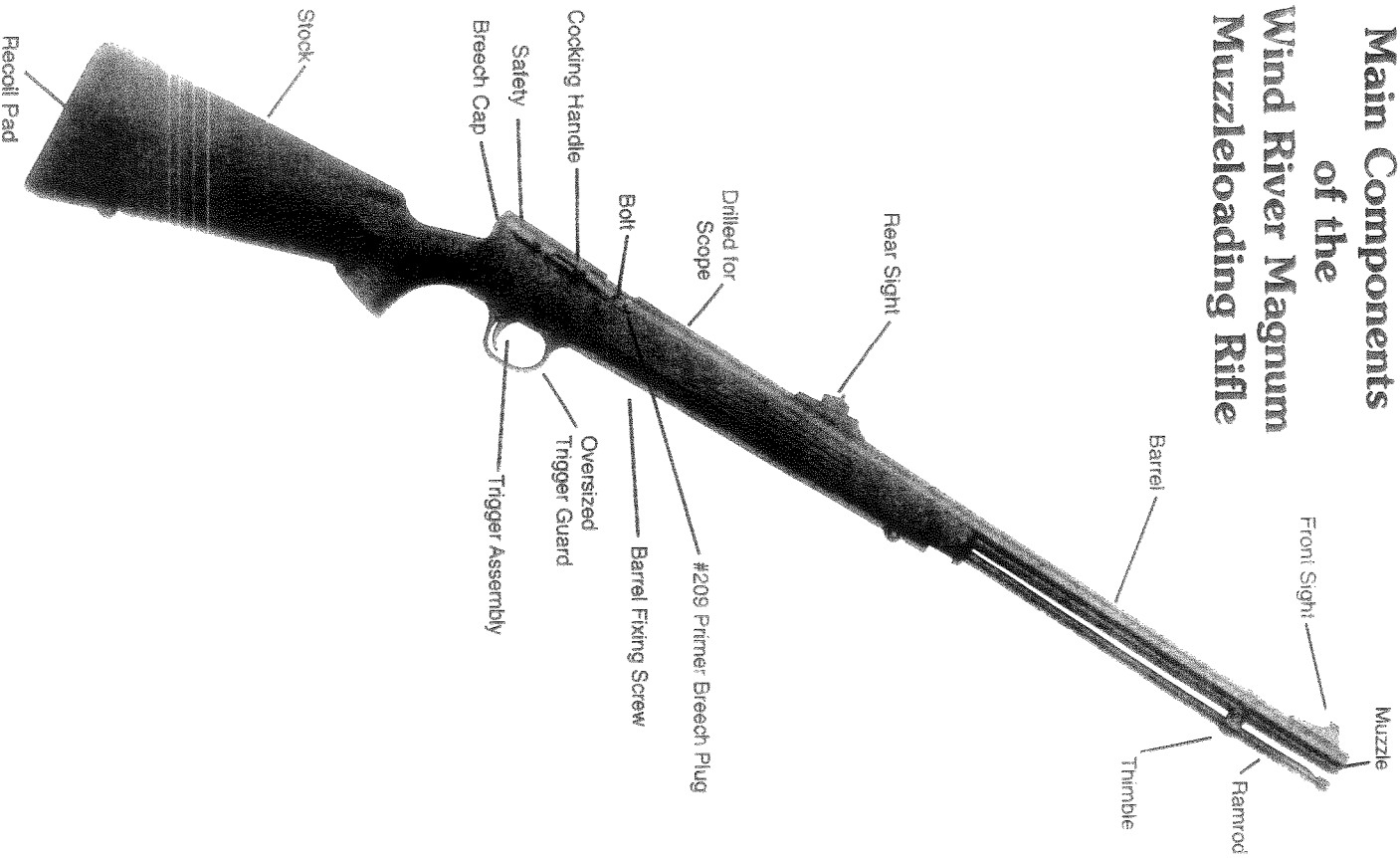
Call New Frontier Customer Service at 770-449-4687 if you have any questions or E-mail us at: [info@BPFGuns.com](mailto:info@BPFGuns.com)

## TABLE OF CONTENTS

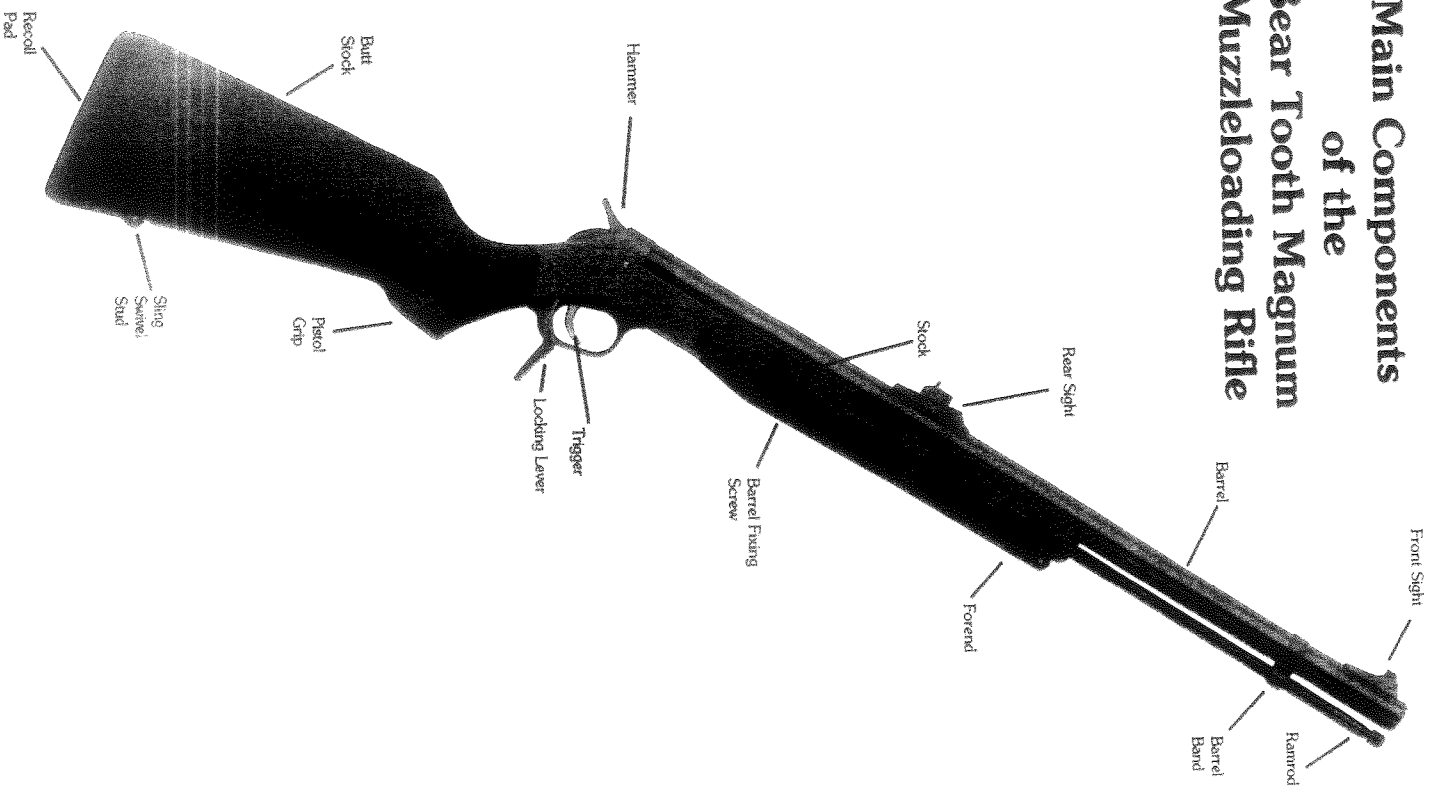
## PAGE

Section	
A	Introduction to In-Line Muzzleloaders ..... 1
B	Getting Started ..... 2
C	Ten Commandments of Firearm Safety ..... 2
D	Safety Considerations Unique to Muzzleloaders ..... 3
E	Specific Cautions for Safe Use of New Frontier In-Line Muzzleloading Firearms ..... 4
F	Basic Accessories for a Muzzleloader ..... 5
G	Propellants ..... 6
H	Projectiles ..... 7
I	Recommended Loading Data ..... 8
J	Loading and Shooting New Frontier In-Line Muzzleloaders ..... 9
K	Ignition Systems Options ..... 11
L	Safety Systems ..... 12
M	Conventional In-Line Disassembly / Assembly for Cleaning and Maintenance ..... 12
N	Removal and Installation of Bolt Assembly from the Receiver ..... 13
O	Bolt Action Disassembly / Assembly and Cleaning ..... 14
P	Break Action Disassembly / Assembly and Cleaning ..... 15
Q	General Cleaning and Maintenance ..... 15
R	Removing a Charge ..... 16
S	Sight Adjustment ..... 17
T	Scope Mounting ..... 17
U	Statement of Liability ..... 18
V	Service ..... 18
W	Ordering Instructions for Replacement Parts ..... 18
X	Limited Lifetime Warranty ..... 19

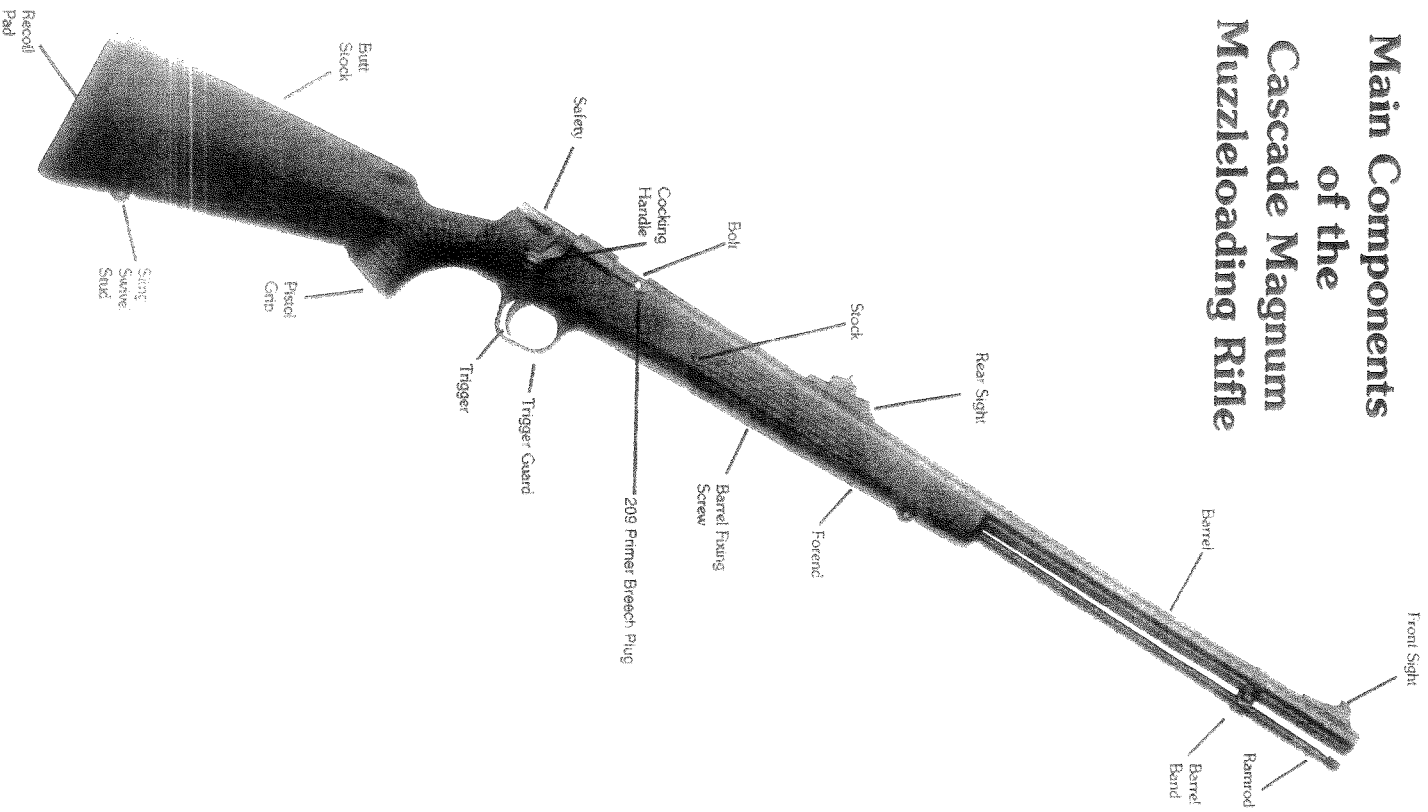
# Main Components of the Wind River Magnum Muzzleloading Rifle



# Main Components of the Bear Tooth Magnum Muzzleloading Rifle



# Main Components of the Cascade Magnum Muzzleloading Rifle





**WARNING: THE INFORMATION CONTAINED IN THIS MANUAL IS CRITICAL FOR THE PROPER USE AND CARE OF YOUR FIREARM. DO NOT ATTEMPT TO LOAD OR FEED YOUR MUZZLELOADER UNLESS YOU HAVE READ AND UNDERSTAND THE INFORMATION DESCRIBED IN THIS MANUAL.**

All muzzleloading firearms, including In-Lines, are faithful to the original basic designs. For this reason, blackpowder guns cannot be made with many of the refinements and features that are standard on modern cartridge firearms. Shooters must remember that even now, despite the modern appearance of In-Line design rifles, there is no way to build a muzzleloader that absolves the user from the need to use the special safety precautions and good judgement unique to all muzzleloading firearms. When handled properly, a muzzleloader is a safe and enjoyable firearm for shooting and hunting. But, if abused, harmful consequences can result. Treat this muzzleloading firearm with the full respect due any firearm.

**NOTE:** If after reading the instructions, cautions, and dangers contained in this manual, you are not willing to accept the responsibilities involved in the safe handling and shooting of a muzzleloader, return the firearm in its entirety to the place of purchase. If you have any questions about safe use of your New Frontier Muzzleloading firearm, write, call, or e-mail our customer service department at 5988 Peachtree Corners East, Norcross, Georgia 30071; (770) 449-4687; info@BPiGuns.com.

If you sell, trade, or give this firearm to any other person this owner's manual must accompany the firearm. Replacement books are available free of charge from New Frontier Muzzleloading.

## **A. INTRODUCTION TO IN-LINE MUZZLELOADERS**

In-Line design muzzleloaders are so described due to the fact that the ignition source (#11 percussion cap, musket cap or 209 primer) is located directly behind (or, in line with) the propellant charge. By contrast, with sidelock design muzzleloaders the ignition source is positioned to the side of the propellant charge.

Among the New Frontier in-line design muzzleloaders, there are three distinct categories of rifles which are differentiated by their cocking mechanisms:

1. The Wind River Magnum is a "conventional in-line" and features a straight-pull cocking design. In this design the bolt stays in the cocked, or rearward, position until the trigger is pulled, releasing the bolt to spring forward and strike the primer.
2. The Cascade Magnum is a "bolt action in-line" and utilizes a John action style cocking mechanism similar to that of a modern centerfire rifle.
3. The Bear Tooth Magnum is a "break-open in-line" wherein a lever (located alongside the trigger guard) actuates an internal locking mechanism allowing the rifle to pivot open at the breech.

## **B. GETTING STARTED**

1. Safety First - Verify gun is unloaded.
2. Assemble gun.
3. Check all functions.
4. Remove breech plug (and nipple, if applicable).
5. Clean and check entire gun.
6. Clean barrel.
7. Apply breech plug/nipple grease or anti-seize compound to breech plug threads. Replace breech plug and nipple. Turn in until snug (do not overighten).
8. Read and study information booklet.
9. Understand terminology & procedures.
10. Get all questions answered.  
For Safety: New Frontier Muzzleloading encourages that you take a certified hunter's safety course before using this muzzleloader or any other firearm. Consult your local Game & Fish authorities, The National Muzzleloading Rifle Association or your local sporting goods dealer for information on the courses available.

## **C. TEN COMMANDMENTS OF FIREARM SAFETY**

1. Always keep the gun muzzle pointed in a safe direction and never pull it towards you by the muzzle.
2. Be sure of your target and beyond.
3. Never rely on a gun's mechanical "safety".
4. Gun should be unloaded until ready to use.
5. Always wear eye and ear protection.
6. The barrel should be clear of obstruction before shooting.
7. Handle every gun as if it is loaded.
8. Keep guns and ammo separate and in locked storage.
9. Avoid alcoholic beverages and drugs before and during use of a firearm.
10. Do not alter or modify your firearm. Have your firearm checked regularly by a competent gunsmith. Make sure all parts work properly.  
**Health Warning:** Discharging of firearms in a poorly ventilated area and/or handling of ammunitions may cause exposure to lead or lead compounds. According to the state of California, exposure may cause cancer, birth defects, or other reproductive harm. Make sure that you have proper ventilation at all times. Be sure to wash hands thoroughly after shooting, handling ammunition, or cleaning your firearm. Do not eat or smoke during these activities.

#### **D. SAFETY CONSIDERATIONS UNIQUE TO MUZZLELOADERS**

1. Never smoke when shooting or handling a muzzleloader or related equipment. Ashes and/or loose sparks may cause powder or caps to ignite, resulting in personal injury or death.
2. Always wear eye protection. Flying debris from the breech area and muzzle are always a possibility with any muzzleloader.
3. Never pour powder into a muzzleloader directly from a flask, horn or any large volume, enclosed container. Hot embers in the barrel could cause the container to explode.
4. All powder storage containers and percussion caps should be kept well away from the area where shooting is to be conducted. Sparks from shooting can cause accidental ignition of these devices. Follow all manufacturers instructions for long term storage of powder, percussion caps and primers.
5. Use only Blackpowder or an approved blackpowder substitute in your muzzleloading firearms. The only approved blackpowder substitutes are Pyrodex and Pyrodex Pellets, Triple 7 Powder & Triple 7 Pellets, Pioneer Powder & Pioneer Powder Stix, Clean Shot Powder & Clean Shot Pellets, and Clear Shot powder. **NEVER USE MODERN SMOKELESS POWDER IN ANY MUZZLELOADER.** The use of any amount of smokeless powder in a muzzleloader will create dangerously high pressures upon ignition, may result in severe injury or death to the shooter and/or bystanders, and will void the warranty.
6. Always check to ensure that your muzzleloader is in good working condition before use. Test the bolt and safety mechanisms carefully prior to loading. Check the barrel for any obstruction as any blockage may cause the gun to explode.
7. Use only recommended loading data for the particular model of rifle in use. Different models have different powder charge and projectile capabilities. Improper loading or overloading of a muzzleloading firearm may result in severe injury or death.
8. Never prime or cap a firearm until you are ready to fire. Primer/cap should always be removed when walking, climbing trees or fences, transferring the gun from one person to another, leaving the gun unattended, etc.
9. Never lean or rest a loaded muzzleloader against a tree, wall, vehicle or other surface. Any fall of the loaded gun may cause accidental discharge resulting in severe injury or death to bystanders.
10. Never transport a loaded muzzleloader in any type of vehicle. A muzzleloader is considered loaded until powder, bullet and percussion cap are removed.
11. Never exchange a loaded muzzleloader with any other person. Only the party who personally loaded or witnessed the loading of the muzzleloader should fire it. This practice will help prevent overloading or doubleloading, which may cause severe injury or death.

12. Never store a loaded muzzleloader. Muzzleloaders should be unloaded and cleaned (including Bolt Assembly) prior to any storage.
13. Never load a muzzleloader without first making sure that it is unloaded.
14. Exercise extreme caution when hunting from treestands with muzzleloaders. The dropping of a loaded muzzleloader may cause accidental discharge leading to severe injury or death. Be sure the primer/cap is removed whenever raising or lowering the firearm.
15. Never allow the hammer or bolt of a muzzleloader to rest against the cap. Any impact to the hammer or bolt could cause accidental discharge.
16. Never rely upon a mechanical safety. Muzzleloaders should always be handled as if ready to fire, regardless of the safety systems employed.
17. Always use proper cleaning procedures. Firing of an improperly maintained muzzleloader may lead to unsafe pressure conditions, resulting in severe injury or death.
18. Make sure that the projectile is firmly seated against the powder charge. "Short starting" of the projectile may cause the gun to explode.
19. Always keep the muzzle of the gun pointed in a safe direction while loading. Never lean over the muzzle while loading.

## **E. SPECIFIC CAUTIONS/RECOMMENDATIONS FOR THE USE OF NEW FRONTIER IN-LINE MUZZLELOADING FIREARMS**

**YOU ARE RESPONSIBLE FOR FIREARM SAFETY!** As a gun owner, you accept a set of demanding responsibilities. At all times handle your muzzleloader with intense respect for its firepower and potential danger. Read and understand the functions and terminology explained in this book before attempting to use your New Frontier muzzleloader.

1. When selecting powder loads be sure to refer to the correct loading data in Section I.
2. "Magnum" loads for New Frontier in-lines are safe only when using pelletized powder. "Magnum" loads of loose blackpowder or loose blackpowder substitutes are inefficient and are not recommended.
3. Always follow recommended loading data when selecting bullet type and weight. When using sabot bullets and pelletized powder, maximum bullet weight should not exceed 300 grains. With loose powder loads, conical lead bullets should never exceed 400 grains. Heavier bullets may produce dangerously high pressure levels, possibly resulting in explosion of the gun and severe injury to the shooter and bystanders.
  - PowerBelt™ Bullets are recommended when using New Frontier rifles.
  - PowerBelt™ Bullets provide the tight gas seal necessary for efficient burn of the entire powder charge.
5. For maximum accuracy when shooting sabot bullets, the barrel must be cleaned of powder fouling and plastic residue after each shot. PowerBelt™ Bullets do not require cleaning after every shot. When

- using PowerBelt™ Bullets, you can clean every 4 to 5 shots without compromising accuracy.
7. Round ball and patch loads are not recommended for New Frontier In-Line rifles. The fast rate of rifling twist (1:28) associated with New Frontier In-Lines may not provide acceptable accuracy when using patched round ball loads.
  8. Never use modern smokeless powder or any mix of smokeless powder in muzzleloaders. Such improper loading of the rifle may result in an explosion or fire gun causing severe injury or death to the shooter and bystanders.

## **F. BASIC ACCESSORIES FOR A MUZZLELOADER**

### **1. LOADING ACCESSORIES**

- Propellant - Blackpowder or approved synthetic substitute such as Pyrodex, Triple 7, Clean Shot and Clear Shot. **NEVER USE MODERN SMOKELESS POWDER.**
- Projectile - conical bullet, sabot bullet, or belted bullet.
- Ignition Source - Percussion Cap, Musket Cap, or Modern 209 Primer.
- Powder Flask - To transport and dispense powder (not required with the use of pelletized powder).
- Powder Measure - To measure correct powder charge (not required with the use of pelletized powder).
- Bullet Starter - To "start" bullet down the barrel.
- Capper - To carry and dispense percussion caps or 209 primers.
- Preloaders - To hold premeasured powder charge and bullet for quick reloading.

### **2. CLEANING ACCESSORIES**

- Solvent - Cleaning solution
- Patches - For cleaning inside of barrel
- Nipple Wrench - For installing and removing nipple (if applicable)
- Breech Plug Wrench – For removing breech plug and/or nipples (included with the purchase of all New Frontier in-line muzzleloaders)
- Jag - Retains cleaning patch on end of ramrod
- Bore Brush – Scours the bore and removes heavy fouling

## **G. PROPELLANTS**

**WARNING: NEVER USE MODERN SMOKELESS POWDER IN ANY MUZZLELOADER.** The use of any amount of smokeless powder in a muzzleloader will create dangerously high pressures upon ignition, may result in severe injury or death to the shooter and/or bystanders, and will void the warranty.

Only six types of propellant are acceptable for use in New Frontier muzzleloading firearms.

The first type is **BLACKPOWDER**. (**IMPORTANT:** The term "black powder" refers to the formulation of the propellant, not the color. Many of the smokeless propellants manufactured for modern cartridges or shotgun shells are also black in color, but will create extremely dangerous pressures in the muzzleloading barrels.)

**FFG BLACKPOWDER** (Commonly called Double "F") This is the genuine, old fashioned blackpowder. Although other granulations of blackpowder are available, FFG is the only granulation to be used in the New Frontier in-line muzzleloaders. Blackpowder is measured by volume, rather than by weight, using a volumetric type measure.

The second type of propellant acceptable for use in New Frontier muzzleloading firearms is **PYRODEX**. Pyrodex is a propellant designed for use in percussion rifles, pistols and shotguns found to be in good shooting condition by a competent gunsmith. Pyrodex relates closely to blackpowder on a volume to volume basis, but not the weight of the charge. In other words, a volumetric type measure set to dispense 100 grains of blackpowder will dispense roughly 72 grains of Pyrodex (Pyrodex is bulkier). This lighter charge weight of Pyrodex will fill the measure and provide a charge which is ballistically similar to 100 grains of blackpowder of the appropriate granulation. Used in this manner, Pyrodex will yield approximately the same velocities and pressures as blackpowder. Pyrodex is currently offered as granulated powder or compressed pellets. The approved grades are listed below:

**PYRODEX RS** (rifle & shotgun) Designed for use in all calibers of percussion muzzleloading rifles and shotguns.

**PYRODEX SELECT** Has similar loading characteristics to Pyrodex RS, but is a "match grade" propellant yielding greater consistency and accuracy.

**PYRODEX PELLETS** Are a premeasured and preformed version of loose Pyrodex powder. Pyrodex Pellets are available for a variety of calibers and may be combined into multiple pellet loads to create several different grain-equivalent loads.

The other four brands of approved blackpowder substitutes include Clean Shot Powder & Clean Shot Pellets, Clear Shot Powder, Pioneer Powder & Pioneer Powder Stix, and Triple 7 Powder & Triple 7 Pellets.

Pyrodex Pellets and Triple 7 Pellets are the only propellants which can be used to create "magnum" loads for New Frontier "magnum" caliber in-line rifles.

**Note:** Please refer to powder manufacturer's written instructions for the specific propellant you are using, or contact the customer service/technical department listed on the product label.

## H. PROJECTILES

PowerBelt™ Bullets are the recommended projectile for use in all New Frontier in-line rifles. New Frontier bore diameters have been carefully matched with PowerBelt™ Bullet diameters to provide a safe optimum result when used with our recommended powder charges and projectiles in the appropriate caliber.

**NOTE: MUZZLE LOADING PROJECTILES MUST BE MADE FROM PURE LEAD. LIQUID OR WHEEL WEIGHT LEADS CONTAIN ANTIMONY WHICH CREATES AN EXTREMELY HARD, OVERSIZED PROJECTILE AND IS VERY DIFFICULT TO LOAD.**

Some projectiles produced by other manufacturers, especially some saboted bullets, can produce high barrel pressures creating unsafe conditions. If you have questions concerning approved projectiles, contact the New Frontier customer service department at 5988 Peachtree Corners East, Norcross, Georgia 30071; 770-449-4687 or fax 770-242-8546, or E-mail us at [info@BPiGuns.com](mailto:info@BPiGuns.com).

### 1. POWERBELT™ BULLETS

PowerBelt™ Bullets are conical projectiles with a plastic base. The base or "belt" provides a perfect gas seal, eliminating accuracy robbing blow-by. Like sabots, the PowerBelt™ Bullet's patented snap-on base creates a perfect gas seal, providing consistent pressures and unsurpassed accuracy. But unlike sabots, PowerBelt™ Bullets are easy to load and do not require cleaning after every shot. And they are full caliber sized, so you get the most knock down power possible out of a muzzle-loader. PowerBelt Bullets are available in .45, .50, and .54 calibers, copper coated or pure lead, with hollow points or AeroTips, and in a variety of grain weights. They are the #1 selling muzzleloading bullet on the market and receive our highest recommendation for New Frontier muzzleloaders. (Figure 1-A)

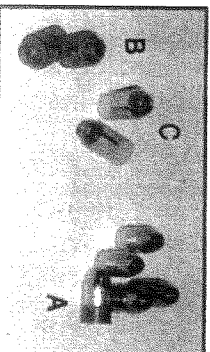


Figure 1A-C

2. **CONICAL BULLETS**—Conical bullets provide acceptable accuracy in New Frontier Muzzleloaders as well as increased knock down power desired by hunters. These projectiles are best suited for use in barrels with medium to fast twist rifling which stabilize the bullet more rapidly. (FIGURE 1-B)

3. **SABOTED BULLETS**—Modern sabots from various manufacturers have been tested and provide acceptable accuracy in New Frontier Muzzleloaders when complying with the sabot manufacturer's recommendations for usage. Caution: Do not use a sabot bullet weighing more than 300 grains. (Figure 1-C)

Note: Patched round balls are not recommended for use in New Frontier in-lines. This is because the twist rate is too fast to stabilize a round ball and will result in very poor accuracy.

Loads for conical bullets and sabots should not exceed the maximum load recommended in Table 1.

### I. RECOMMENDED LOADING DATA

The proper charge for any muzzleloading firearm is an efficient load which provides consistent ignition and velocity while keeping breech pressures below the maximum safe levels. NOTE: Rarely do two rifles settle on the same exact load.

The shooter should load using the minimum and maximum charge limitations shown in the table below. It is recommended to begin shooting using a charge in the middle of the recommended range, gradually increasing or decreasing the load to obtain the desired results. Tests have shown that heavier loads increase breech pressures while providing only a minor increase in velocity. These tests also indicate that heavier loads may be less accurate.

TABLE 1

CALIBER FIREARM	PROJECTILE TYPE	CHARGE TYPE	CHARGES IN GRAINS	
			MINIMUM	MAXIMUM
.50	.50 Conical	Powder FFG	50	100
.45	.45 PowerBelt™/Saboted	Powder FFG	50	100
.50	.50 PowerBelt™/Saboted	Powder FFG	50	100
.45	.45 PowerBelt™/Saboted	Pellet	50	100
.50	.50 PowerBelt™/Saboted	Pellet	50	100
.45	.45 PowerBelt™/Saboted	Magnum Pellet	75	150
.50	.50 PowerBelt™/Saboted	Magnum Pellet	100	150

Warning: This is a "Magnum" charge and can only be safely used in medium caliber rifles. All New Frontier in-line rifles are magnum ca-



table. DO NOT attempt to use these loads in in-line rifles not listed by the manufacturer as magnum capable, or in side lock rifles.

## J. LOADING AND SHOOTING NEW FRONTIER IN-LINE MUZZLELOADERS

1. Wear shatterproof shooting glasses and ear plugs or muffs to protect yourself from sparks, bits of fragmented caps, and hearing loss.
2. Verify the rifle is not loaded.
  - a. Place ramrod down the barrel to breech plug and mark ramrod at the muzzle. NOTE: The Bear Tooth Magnum has an extendable ramrod that must be in the extended position for this step. (Sec. Q, Step 8)
  - b. Remove ramrod and lay along outside of barrel, lining up mark at muzzle.
    - c. The end should be at the base of the breech plug. If rod does not line up, assume the rifle is loaded and that it should be unloaded before proceeding.
3. Check to make sure that breech plug and nipple (if applicable) are snugly screwed into place. Do not overtighten. Note: Make sure breech plug grease or anti-sieze has been applied to all threads of the breech plug and nipple (if applicable).
4. On Cascade and Wind River rifles, confirm that the safety is in the "safe" position (green dot). Insure the trigger does not release the bolt. The Bear Tooth rifle features an automatic, internal transfer-bar safety that does not require manual setting.
5. Clean all oil and grease from barrel interior.
6. With the rifle pointed in a safe direction, place a 209 primer into the breech plug or a percussion cap on the nipple (if rifle has been adapted to shoot percussion caps).

**CAUTION:** Use a capper to place cap on the nipple as percussion caps are sensitive to pressure and can explode under extreme finger pressure.

7. Release the safety and fire a minimum of 3 caps or shotgun primers to insure bore and nipple are dry of solvent or moisture. **NEVER DRY FIRE ANY NEW FRONTIER MUZZLELOADER. DOING SO WILL RESULT IN DAMAGE TO THE FIRING MECHANISM AND/OR NIPPLE THAT WILL NOT BE COVERED UNDER WARRANTY.**
8. If using powder, pour powder from flask into a volumetric powder measure that is set for correct powder charge. (See Figure 2). Skip to step 9 if using pelletized powder.
9. With the muzzle pointed "up" and no part of your body extended over the gun, pour a measured charge or drop the correct number of pellets down the barrel. (See suitable charges Table 1, Page 8, Figure 3)



Figure 2

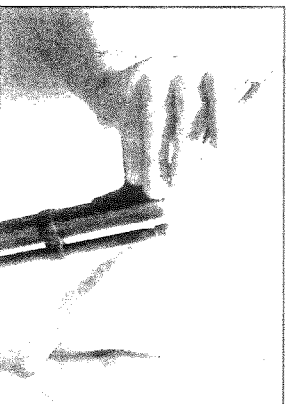


Figure 3

**CAUTION:** Do not pour a charge directly from a horn or flask. If a smoking ember is present, it could ignite the powder in the container, as well as the powder charge, as it is poured into the barrel. This excess amount of powder could cause a dangerous explosion. Therefore, be safety minded, use a powder measure.

10. If using loose powder, slap side of barrel in front of receiver. This will help insure that powder will fully enter the breech and nipple area.
  11. For Lubricated Bullets, PowerBelt™ Bullet or Saboted Bullet:
    - a. Make sure bullet is lubricated. PowerBelt™ Bullets and saboted bullets do not require additional lubrication.
    - b. Start the projectile into the bore with your fingers, making sure it is centered.
    - c. Use short end of bullet starter to press bullet just into muzzle. (See Figure 4).
  12. Use longer end of ball starter to move projectile about six inches down the bore. (See Figure 5).
  13. With ramrod, push projectile down on top of powder, firmly, but without crushing the powder or pellets.
- IMPORTANT:** Be sure projectile is seated firmly against powder. No air space should exist between projectile and powder.

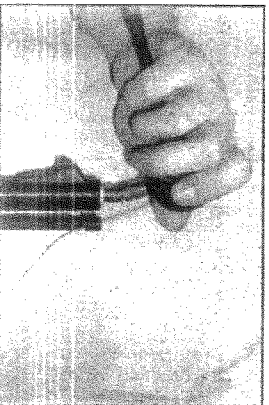


Figure 4

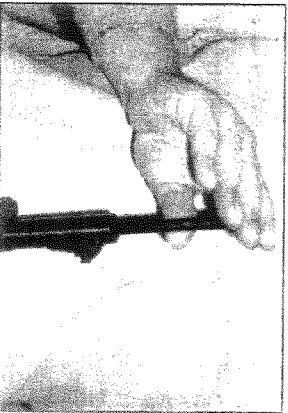


Figure 5

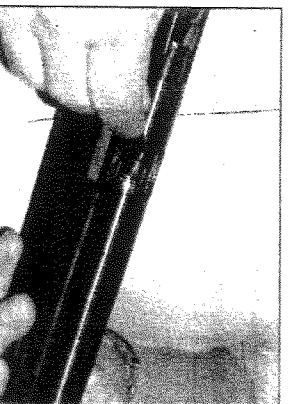


Figure 6

**CAUTION:** When using the barrel, never grab it more than 8 inches above the muzzle. To do so could cause a side stress break, the ram or any possible priming your hand.

14. **WITH GUN POINTED IN SAFE DIRECTION and firing mechanism open, place a 209 primer into the breech plug.** If using percussion caps, place the cap onto the nipple. **THE GUN IS NOW LOADED.** (See Figure 6).
15. Aim at target and release the safety (cock hammer on Bear Tooth ). **YOU ARE NOW READY TO FIRE.**
16. Squeeze trigger to fire.
17. After firing, wait one minute to reload. This allows all remaining sparks in barrel to burn out prior to reloading.
18. If a misfire or failure to fire occurs, wait at least one minute with the gun pointed at the target.
  - a. Make sure the bullet is seated on the powder charge. Install a new primer or percussion cap in the breech. Be certain of the target and fire.

**CAUTION:** Wait at least one minute with gun pointed at target if misfire or failure to fire occurs.

- b. Never attempt to shoot out a projectile which is not firmly seated against powder charge. Remove the breech plug, remove the powder charge, and push the projectile out of the barrel. See Section F, Removing A Charge, for detailed procedure.
- c. Go back to Step 1 and repeat, being sure bore and nipple are clean and free of obstructions and moisture.

#### **K. IGNITION SYSTEM OPTIONS**

1. **#209 SHOTGUN PRIMER IGNITION SYSTEM** Accepts modern #209 shotgun primers. This ignition source is the primary ignition source to be used in all New Frontier Muzzleloaders. The shotgun primer is the most reliable ignition source in foul weather and is suitable for use with loose powder or Pelletized Powder.

2. **PERCUSSION CAP IGNITION SYSTEM** An optional ignition system is available for Wind River and Cascade owners hunting in areas where the #209 shotgun primer is prohibited by law. A new breechplug and nipple combination is substituted for the standard 209 breechplug with no other changes required. This conversion adapts the rifle for reliable ignition using #11 percussion caps or musket caps. Contact New Frontier Customer Service at 770-449-4687 to order.

## L. SAFETY SYSTEMS

**WARNING:** Never rely on any mechanical safety.

1. All **Wind River Magnum and Cascade Magnum** rifles are equipped with a thumb actuated trigger blocking safety. The safety should be manually engaged to the rearward (green) position for safe setting (Fig. 7). Move the safety button to it's forward (red) position to fire.
2. The **Bear Tooth Magnum** break-action rifle features an automatic, trigger actuated transfer-bar system that prevents the firing pin from contacting the primer unless the trigger is held fully to the rear. No other external safety is needed.
3. **Reminder:** A manual safety is no substitute for safe gun handling!

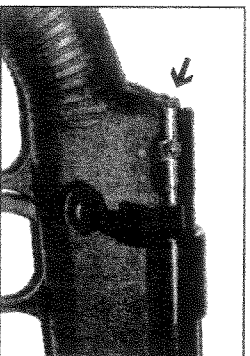


Figure 7

## M. CONVENTIONAL IN-LINE DISASSEMBLY/ASSEMBLY FOR CLEANING AND MAINTENANCE. (FIGURE 8)

**NOTE:** For Wind River Magnum Muzzleloaders *only*. For Cascade Magnum proceed directly to section N. For Bear Tooth Magnum proceed directly to section P. Before beginning this procedure make sure gun is unloaded. (See Step 2 of Section J).

1. Remove ramrod from gun.
2. Loosen and remove the hex screw from the underside of the stock.
3. Remove the barrel/receiver assembly from the stock.
4. Unscrew and remove the cap at the rear of the receiver. The cap should screw on in the unloaded position prior to unscrewing cap.
5. Remove the bolt spring.
6. Remove the handle from the percussion bolt by pulling it straight out to the side.

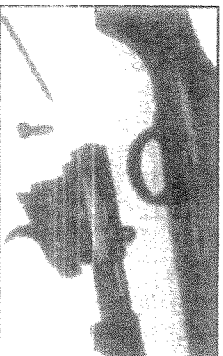


Figure 8

7. While depressing the trigger, remove the bolt by sliding out through the rear of the receiver.
8. Remove the breech plug and nipple (if applicable) with the Breech Plug/Nipple Wrench tool supplied. The slotted end removes the nipple and the screw driver end removes the breech plug. The 5" steel rod slides through the Breech Plug/Nipple Wrench tool body acting as a handle.
9. Clean barrel according to instructions found in General Cleaning and Maintenance Section (Section Q). After each session it is critical to remove breech plug assembly and clean thoroughly, especially when using modern 209 primers.
10. Do not attempt to disassemble the trigger assembly. Clean as a one-piece unit.
11. Avoid prolonged contact of cleaning solvents on synthetic stocks.
12. Reassemble the rifle by reversing the order of disassembly.  
**IMPORTANT-LUBRICATE BREECH PLUG AND NIPPLE THREADS WITH BREECH PLUG/NIPPLE GREASE (OR AN ANTI-SEIZE COMPOUND) BEFORE REINSTALLING. NOTE: Check breech plug for snug fit with wrench before firing. Do not overtighten plug.**

### 13. Preparation Before Loading

- a. Insure no obstructions are present in the barrel.
- b. Insure barrel is clean and dry before loading. Fire several caps or primers through the rifle before loading powder to eliminate any moisture or solvent remaining in the barrel.
- c. Insure bolt locks in place to the rear and be certain safety is engaged. Insure the trigger does not activate the bolt before placing a primer in the breech plug.

DO NOT ATTEMPT TO USE THIS RIFLE IF ANY OF THE SAFETY MECHANISMS DO NOT OPERATE PROPERLY. CHECK WITH A COMPETENT GUNSMITH OR NEW FRONTIER CUSTOMER SERVICE TO CORRECT THE PROBLEM, AS ACCIDENTAL FIRING MAY RESULT.

## N. REMOVAL AND INSTALLATION OF BOLT ASSEMBLY FROM THE RECEIVER

**NOTE:** For Cascade Magnum Bolt Action Muzzleloaders *only*. Before beginning this procedure make sure gun is unloaded. (See Step 2 of Section J).

### BOLT REMOVAL

1. Cycle the Bolt Handle to the open and back position. Then, as per arrow "A" press down on the bolt handle (Figure 9).
2. Maintaining downward pressure on the bolt handle (as described in Step

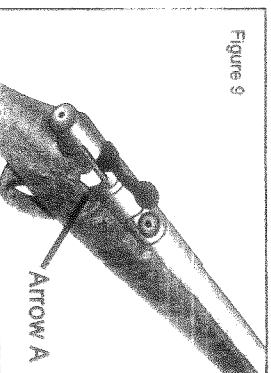


Figure 9

1), pull the bolt assembly rearward, as per arrow "B". The entire bolt assembly will now pull free from the receiver (Figure 10).

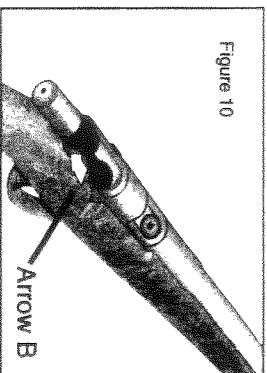


Figure 10

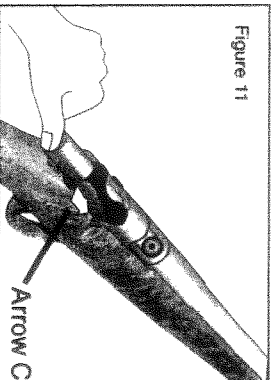


Figure 11

#### INSTALLATION OF BOLT

1. With the Bolt Assembly in the cocked position, align the bolt assembly in the same position as when removed in Figure 14. Using the thumb, push forward on the Bolt Cap, past the initial resistance, until the Bolt Assembly stops (Figure 11).
2. Cycle the Bolt Handle up, as per arrow "C". Then forward, as per arrow "D" (Figure 12).

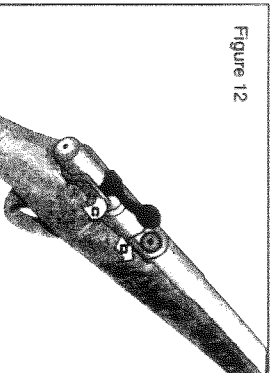


Figure 12

#### O. BOLT ACTION DISASSEMBLY / ASSEMBLY AND CLEANING

**NOTE:** For Cascade Magnum Bolt Action Muzzleloaders *only*. Before beginning this procedure make sure gun is unloaded (See step 2 of Section J).

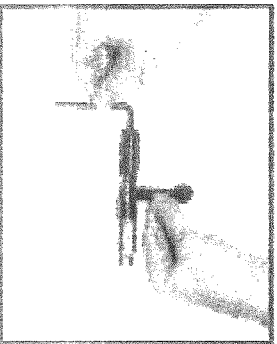


Figure 13

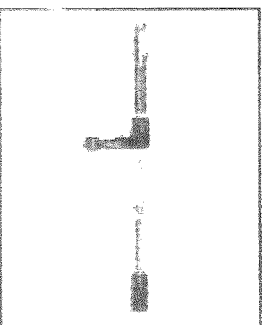


Figure 14

1. Check to ensure gun is unloaded.
2. Remove bolt from receiver.

3. Using the allen wrench provided, unscrew the bolt cap by turning counterclockwise. The spring, striker, bolt handle, and bolt body will now come apart (Figure 13).
4. Clean all bolt parts thoroughly, dry all parts, then lubricate with a non-petroleum based gun oil.
5. Reassemble bolt body, bolt handle, striker, and spring (Figure 14).
6. Move bolt to the uncocked position
7. Place the bolt cap back over the spring. While pressing the spring downward, screw the bolt cap on to the bolt body. (See Figure 15)
8. Holding the bolt cap securely with the allen wrench, twist the bolt handle counter clockwise to the cocked position.
9. Return bolt to receiver as described in section N.

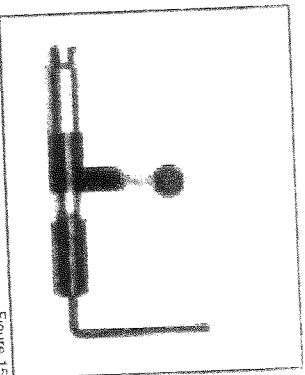


Figure 15

#### **P. BREAK ACTION DISASSEMBLY / ASSEMBLY AND CLEANING**

**NOTE:** For Bear Tooth Magnum Muzzleloaders *only*. Before beginning this procedure make sure gun is unloaded. (See Step 2 of Section J).

1. Remove ramrod from gun.
2. Loosen and remove the screw from the bottom of the fore end.
3. You can now remove the fore end from the barrel.
4. Open the action by pulling rearward on the locking lever.
5. The barrel may now be removed from the receiver.
6. Remove the breech plug using the supplied breech plug wrench.
7. Clean barrel according to instruction found in General Cleaning and Maintenance Section (Section Q) . Wipe out the barrel recess and breech face in the receiver with solvent.
8. Do not attempt to disassemble receiver. Clean as a unit.
9. Reassemble in reverse order. Important - Lubricate breech plug threads with Breech Plug Grease or anti-seize before reinstalling. **NOTE:** Do not overtighten plug.

#### **Q. GENERAL CLEANING AND MAINTENANCE**

Blackpowder and blackpowder substitutes are very corrosive. Therefore, careful cleaning of your muzzleloading firearm is extremely important. If left uncleaned for any length of time the fouling will cause rust, pits, and degradation of the metal particularly around threaded areas.

1. Verify that gun is unloaded. (Section J, Step 2)
2. Remove cocking mechanism from gun as described in section M for Conventional In-Lines and section N for Bolt Action In-Lines.
3. Insert breech plug tool (provided) into the receiver to engage the breech plug. Turn counterclockwise to remove.

4. Using a cleaning brush and solvent, thoroughly clean breach plug of all rust preventative oils and/or fouling. Important - Lubricate breach plug threads with Breach Plug Grease or anti-seize before reinstalling. NOTE: Do not overtighten plug.
5. Loosen and remove the retention screw from the underside of the stock.
6. You will now be able to separate the stock from the barrel.
7. (Cascade and Wind River rifles only) Remove the trigger mounting screws and lift the one-piece trigger from the receiver. Note: For a light field cleaning this process is not necessary.
8. Attach the cleaning jag (provided) to the ramrod. Swab the barrel with patches and cleaning solvent until all residue has been removed. For best results, use a range or cleaning rod that allows greater clearance from the muzzle.

The ramrod on the Bear Tooth Magnum features a unique extendable jag to aid in cleaning the barrel. This is deployed by unscrewing the jag until an un-threaded shaft is visible. Pull the jag and shaft out from the rod until a second set of threads engages the rod end. Continue turning counter-clockwise until the extended jag locks into place.

9. Clean the breach area, including receiver threads, with a breach brush and barrel cleaning solvent.
10. Dry all parts thoroughly, including the inside and outside of the barrel, and spray with a light coating of non-petroleum based gun oil.
11. Reassemble the gun components in reverse order.

Note: Always store your muzzleloader unloaded and in a cool dry place.

## R. REMOVING A CHARGE

Under normal conditions a muzzleloading firearm is unloaded simply by firing it into a suitable and safe backstop. There are, however, some conditions under which the firearm cannot be fired and the charge must be removed.

**THE TWO MOST COMMON CONDITIONS ARE AS FOLLOWS:**

1. If the projectile cannot be seated firmly against the powder charge, stop immediately! Do not attempt to fire the rifle! You must remove the charge and clean the barrel.
2. If the rifle is loaded in a proper manner yet fails to fire after repeated attempts (as explained in the "Loading and Shooting" Section).

**NEVER ATTEMPT TO PULL A CHARGE UNTIL THE POWDER HAS BEEN COMPLETELY NEUTRALIZED BY THOROUGHLY SOAKING IN WATER.**

Removing a projectile is dangerous when there is a powder charge behind the projectile. Two approved methods to remove a projectile from the barrel are to: (1) Use a CO<sub>2</sub> discharger to blow the projectile from the



barrel or (2) With the muzzle in a safe direction, and the primer removed from the breech plug, remove the breech plug using the breech plug wrench (see section Q). Empty the powder into a safe container. Using the ramrod and cleaning jag with a solvent soaked cleaning patch, push the projectile from the breech forward and out the muzzle of the barrel.

After the projectile has been removed from the bore, clean the bore, barrel and parts as explained in the "Cleaning" section and reassemble the firearm.

If for any reason you are unable to remove the charge in the manner recommended, soak the barrel in very hot water for one-half hour. Once the powder has been rendered inert, take the barrel to a qualified gunsmith.

## S. SIGHT ADJUSTMENTS

Most New Frontier rifles are equipped with adjustable style rifle sights for windage and elevation. Exceptions include "slick barrels" that are sold as a scope combination package.

1. Adjust the rear sight for elevation by loosening the elevation retaining screw located on the side of the rear sight. **REMEMBER:** Slide the sight up the ramp to raise the point of impact and down the ramp to lower the point of impact.
2. Adjust the rear sight for windage by loosening the windage retaining screw on the top of the rear sight. **REMEMBER:** To move the point of impact to the right, move rear sight to the right. To move the point of impact to the left, move rear sight to the left.

## T. SCOPE MOUNTING

New Frontier Muzzleloaders are drilled and tapped for easy scope installation. Mounts and rings are available from your local dealer or from New Frontier Muzzleloading. Do not drill additional holes in the barrel as this could weaken its structure, causing injury and/or death and will void the warranty. Scopes should be mounted according to manufacturer's instructions.

The recommended scope mount system for the New Frontier Muzzleloader is the CVA Universal Scope Mount. The part numbers are:

AC1668	Low Mount Black	AC1669	Low Mount Silver
AC1666	See-Thru Black	AC1667	See-Thru Silver

You may also use the Weaver #418-M base (2 required) along with Weaver-style rings.

## U. STATEMENT OF LIABILITY

This gun is classified as a firearm or dangerous weapon and is sold by us with the express understanding that we assume no liability for its resale and unsafe handling under local laws and regulations. Blackpowder Products, Inc. and New Frontier Muzzleloading assume no responsibility for

physical injury or property damage resulting from intentional or accidental discharge, or the function of any gun subject to influences beyond our control. We will honor no claim which was the result of careless or improper handling, unauthorized adjustment, unauthorized modification of firearm, improper loading, use of improper powder or components, corrosion or neglect.

For your protection, examine this firearm carefully at the time of purchase. If any unsafe condition exists contact New Frontier Muzzleloading immediately.

New Frontier Muzzleloading does not recommend or approve of any custom alteration or conversion. Firearms subjected to alterations are not covered by factory warranty. Responsibility for these alterations rests totally with the individual performing such work. Any such work done improperly or without proper judgement may cause malfunction or damage resulting in injury or death to the shooter and/or bystanders.

#### **V. SERVICE & REPAIR (770) 449-4687 MON-FRI 8:30 - 4:00 PM EST**

*info@bplguns.com*

Should your New Frontier Muzzleloader require repair, we recommend that it be returned to our Warranty Repair Center. This will insure all work is performed by a competent staff of trained technicians.

Any firearm returned to the repair center should be marked to the attention of the Repair Department. A letter of instructions should be enclosed to facilitate handling. Please be sure to include name, address and day-time phone number. All firearms must be unloaded and shipped via United Parcel Service (UPS).

Our Service Department will inspect and evaluate the problem. Should any work required not be covered by warranty, you will be advised of the cost. No work will be done without your approval.

#### **W. ORDERING INSTRUCTIONS FOR REPLACEMENT PARTS**

1. All correspondence and orders must be addressed to:

New Frontier Muzzleloading  
5988 Peachtree Corners East  
Norcross, GA 30071  
info@bplguns.com

Attention: Customer Service

2. Include in the order:

Model of Gun  
Part Number  
Part Description  
Caliber

3. If the proper part identification is not possible from the parts list, send the specific part in question to aid identification.
4. Discontinued items are subject to availability. New Frontier Muzzleloading will reserve the right to make compatible substitutions when necessary.

5. Enclose the total retail price of the item plus postage and handling. Refer to the chart to determine this.
6. Please allow four to six weeks from receipt of order for delivery.

### POSTAGE & HANDLING CHART

Orders Totaling:	Add
UP TO \$20.00 .....	\$3.50
\$20.01 - \$30.00 .....	\$5.00
\$30.01 - \$50.00 .....	\$7.00
\$50.01 - \$80.00 .....	\$10.00
\$80.01 - \$110.00 .....	\$15.00
\$110.01 - \$200.00 .....	\$20.00
\$200.01 - \$500.00 .....	\$25.00
OVER \$500.00 .....	\$30.00

Georgia residents must add 6% sales tax.

### X. LIMITED LIFETIME WARRANTY

New Frontier Muzzleloading warrants all factory finished firearms to be free of defects in material or workmanship, for the lifetime of the firearm, to the original consumer owner. This warranty is established by return of the authorized warranty card within fifteen (15) days of purchase, and is not transferable.

Any New Frontier Muzzleloader or part thereof returned postage paid to the address below will be repaired or replaced to our commercial standard, free of charge, and returned to the purchaser postage prepaid. This warranty does not cover any damage resulting from careless handling, improper loading, corrosion, neglect, or customer alteration. Nor does it cover normal wear of any part, metal or wood finish, cost of inconvenience due to product failure, or transportation damage.

New Frontier Muzzleloading reserves the right to refuse to repair or replace firearms or parts thereof damaged by the above.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

This warranty is void if:

- Any propellant other than the correct type blackpowder or Blackpowder Substitute has been used.
- New Frontier recommended powder charge has been exceeded.
- Any form of plastic patch has been used. (modern day sabots or PowerBelts™ not included)

Address all inquiries and correspondence to:

New Frontier Muzzleloading  
 5988 Peachtree Corners East  
 Norcross, GA 30071  
 info@BPiguns.com  
 Attn: Customer Service Department

