

For BUSHMASTER BA50 .50 BMG Caliber Rifles & Carbines



Part # BFI BA500PMAN
V.1 – 1/2008

**OPERATING AND SAFETY
INSTRUCTION MANUAL**



PLEASE PRACTICE SAFE FIREARMS HANDLING!

WARNING: BEFORE USING THIS FIREARM, READ AND FOLLOW THESE INSTRUCTIONS.

OUTSIDE BACK COVER

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**OPERATING AND SAFETY INSTRUCTION MANUAL
For BUSHMASTER BA50 .50 BMG Caliber Rifles & Carbines**



**NOTE: ALWAYS WEAR EAR & EYE PROTECTION
WHEN SHOOTING THIS - OR ANY - RIFLE.**

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Made with Pride in the U.S.A.

PLEASE PRACTICE SAFE FIREARMS HANDLING!



WARNING: IF THIS FIREARM IS CARELESSLY OR IMPROPERLY HANDLED, UNINTENTIONAL DISCHARGE COULD RESULT AND COULD CAUSE INJURY, DEATH, OR DAMAGE TO PROPERTY.



CAUTION: CAREFULLY READ THIS INSTRUCTION MANUAL PRIOR TO LOADING AND FIRING THIS FIREARM. FOLLOW ALL INSTRUCTIONS ON THE PROPER HANDLING AND SAFE USE OF THIS FIREARM – LIVES MAY DEPEND ON IT!



WARNING: USE ONLY CLEAN, DRY, HIGH QUALITY COMMERCIALY MANUFACTURED AMMUNITION APPROPRIATE TO THE .50 BMG CALIBER OF THIS FIREARM. Ammunition must be loaded to SAAMI standards by a reputable, insured manufacturer. Bushmaster does not recommend the use of remanufactured or hand loaded ammunition as it may damage your rifle.



CAUTION: NEVER USE “SLAP ROUNDS” IN THIS RIFLE. THEY WILL NOT FIT IN THE CHAMBER, AND MAY CAUSE DAMAGE. DOING SO WILL VOID YOUR WARRANTY.

This manual should always accompany this firearm. If you lend, give or sell this firearm, make sure this manual goes with it. If there is anything you do not understand, get help from the factory or a qualified person in the safe handling of firearms. If unfamiliar with firearms, seek further advice through safe handling courses run by your local gun club, NRA approved instructor, or similar qualified organizations.

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A SAFETY NOTE REGARDING LEAD... *Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to cause birth defects, reproductive harm, and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.*

This Operating and Safety Instruction Manual should always accompany your Bushmaster Firearm.

Model: _____

Serial Number: _____

Issued To: _____

Date Issued: _____





P.O. Box 1479 • 999 Roosevelt Trail
Windham, Maine 04062 U.S.A.
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info@bushmaster.com

Thank you for purchasing this fine Bushmaster Rifle. Everyone at Bushmaster Firearms hopes you have a safe and enjoyable shooting experience with your Bushmaster BA50 Rifle.

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FUNDAMENTAL RULES FOR SAFE GUN HANDLING

ALWAYS KEEP THE GUN POINTED IN A SAFE DIRECTION.

NEVER LOAD THE GUN UNTIL READY TO USE.

**KEEP YOUR FINGER OFF THE TRIGGER
UNTIL READY TO SHOOT.**

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WARNING: ALWAYS USE EYE AND HEARING PROTECTION WHEN SHOOTING THIS RIFLE. Eye and Ear protection is provided with this rifle.



WARNING: If this firearm is carelessly or improperly handled, unintentional discharge could result and could cause injury, death, or damage to property. Read and understand all of this Manual before removing this firearm from its package. This Bushmaster Rifle is classified as a firearm by the Alcohol, Tobacco and Firearms division of the Department of Justice. This Rifle may discharge accidentally when a round is fed into the chamber, if it is dropped, or receives a blow to the muzzle or front of the Rifle. This can occur regardless of the position of the hammer or any of the various safety devices. Please use extra care and strict adherence to these instructions to avoid the risk of accidents.



CAUTION: GENERAL HANDLING: ALWAYS handle your firearm as if it were loaded. NEVER point your firearm at anything you do not intend to shoot. NEVER take anyone's word that the rifle is unloaded, check the chamber for yourself to make sure the rifle is unloaded to avoid accidental discharge. ALWAYS make sure your rifle is not loaded and the chamber is empty before laying it down, or handing it to another person. ALWAYS keep and carry your rifle unloaded with the hammer forward, except when you intend to shoot. ALWAYS be aware of possible risk from dropping your rifle. You may not be able to see if any part of the rifle is damaged. If damage is severe, the firearm may discharge and cause injury, death, or damage to property.

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WARNINGS / CAUTIONS CONTINUED...

NEVER leave the Rifle cocked and ready to fire as this condition is extremely dangerous, and the Rifle could easily discharge causing injury, death, or damage to property. NEVER leave your Rifle unattended, someone, especially a child, may fire it causing injury, death, or damage to property. ALWAYS instruct children and others in your household to respect firearms. This rifle is not intended for use by children so DO NOT let anyone underage shoot this rifle. A .50 caliber rifle has recoil similar to a 12 Gauge shotgun. Even if your underage children use shotguns, the air blast created by a .50 caliber round is much more powerful than children can handle. ALWAYS keep firearms away from children at all times. Keep firearms unloaded and locked in a gun safe when not in use at a firing range.

SHOOTING CAUTIONS:

NEVER fire this rifle if your condition or judgment is in any way impaired. If you are taking medications, seek advice from your doctor to ensure that you are fit to shoot safely. ALWAYS use Eye and Ear Protection when using this firearm – we recommend using Double Ear Protection while using this rifle. ALWAYS keep the Safety lever on Safe when the rifle is loaded and cocked, until you are ready to aim at the target and intend to fire. ALWAYS keep others clear of the ejection port and muzzle blast area. NEVER squeeze the trigger or put your finger in the trigger guard until you are aiming at the target and ready to shoot. ALWAYS make sure your rifle is clean, with the barrel and chamber free of any obstruction before using this rifle. NEVER shoot this rifle at a hard surface such as a rock, or liquid surface such as water, as the bullet may ricochet and travel in any direction and strike you or another object you cannot see, causing serious injury, death, or property damage.

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WARNINGS / CAUTIONS CONTINUED...

NEVER engage in horseplay while holding or using this Rifle. NEVER walk or climb with this Rifle loaded and cocked - ready to fire. NEVER dryfire this Rifle when the Receivers are open. DO NOT abuse your Rifle by using it for any purpose other than shooting. NEVER alter any parts of this Rifle as it may reduce the level of safety and or void your Warranty.

CLEANING AND STORAGE: Always make sure your Rifle is unloaded before cleaning and storing. Keep Ammunition and Rifle in separate locked places away from children and untrained people in your household.



WARNING: THE MUZZLE BRAKE ON THIS RIFLE SHOULD NEVER BE REMOVED. SERIOUS INJURY CAN OCCUR IF THIS RIFLE IS FIRED WITHOUT THE MUZZLE BRAKE.



WARNING: ALWAYS MAKE SURE THE BACK DROP OF YOUR RANGE IS BIG ENOUGH TO STOP A .50 CALIBER ROUND. IF THE RANGE DOES NOT ALLOW .50 CALIBERS, DO NOT SHOOT THIS RIFLE AT THAT RANGE. THERE COULD BE BACK DROP ISSUES THAT PREVENT SAFE SHOOTING OF .50 CALIBER RIFLES. FIND A RANGE THAT HAS A LARGE ENOUGH DIRT HILL FOR A .50 CALIBER ROUND.

INTRODUCTION...

- **GENERAL INFORMATION:** This Manual includes specific operating and maintenance instructions, and safety information pertaining to all Bushmaster BA50 .50 BMG (Browning Machine Gun) Caliber Bolt Action Rifles and Carbines.
- **PREPARATION FOR STORAGE OR SHIPMENT:** Except in extreme situations, Bushmaster BA50 models should always be stored and transported in their original factory cases.

SPECIFICATIONS...

- **CALIBER:** .50 BMG (Browning Machine Gun Cartridge) [12.7 X 99 mm]
- **WEIGHT:** Rifle: 30 Lbs. [13.61 kg] / Carbine: 27 Lbs. [12.25 kg]
- **OVERALL LENGTH (Assembled):** Rifle: 58" [147.32 cm] / Carbine: 50" [127.00 cm]
- **BARREL LENGTH:** Rifle: 30" [76.2 cm] / Carbine: 22" [55.88 cm]
- **RIFLING:** 1 x 15" [38.1 cm]
- **MAGAZINE CAPACITY:** 10 Rounds
- **BUTTSTOCK:** Standard AR15 Type with Trapdoor Storage Compartment
- **SAFETY:** Standard AR15 Type Safety with Manual Thumb Lever - Left Side
- **OPTIC MOUNTING RAIL:** MIL-STD 1913 Rail
- **MUZZLE VELOCITY:** Approximately 2850 fps [853 mps] w. std. 660 grain [42.8g] projectile
- **MAXIMUM RANGE:** Approximately 6,800 meters

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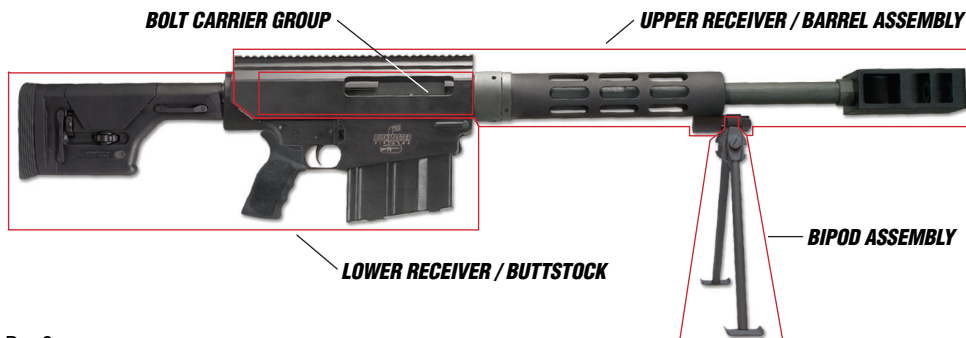
MAINTENANCE...

INSPECTION OF RIFLE'S MAJOR GROUPS:

The Rifle's Four Major Groups are:

- **LOWER RECEIVER**
- **BOLT CARRIER GROUP**
- **UPPER RECEIVER / BARREL ASSEMBLY**
- **BIPOD ASSEMBLY**

Ensure all components are present, and inspect for obvious damage. Report any discrepancies or problems to Bushmaster Customer Service (1-800-883-6229). Detailed inspection should be conducted as described on the following pages.



MAINTENANCE... (Continued)

INSPECTION OF THE LOWER RECEIVER...

1. LOWER RECEIVER should not have any pits or cracks, the Butt Stock and Pistol Grip should not move and must be firmly attached to the Receiver. All the Trigger Group Parts should be functioning properly. Both the Take Down Pins should be in the Receiver.

INSPECTION OF THE BOLT CARRIER GROUP...

- 1. THE BOLT** should move freely in and out of the Bolt Carrier by rotating with the Cam Pin.
- 2. THE EJECTOR AND EXTRACTOR** must be checked to ensure they are under spring tension and show no signs of chipping, cracking or wear.
- 3. THE CARRIER PIN** which holds the Firing Pin in place should not be bent or cracked, and the Spring/Detent mechanism at its tip should be functional in order to hold the pin within the Bolt Carrier.
- 4. INSPECT FIRING PIN PROTRUSION** by pushing the Bolt into the Carrier and manually pushing the Firing Pin forward. Check the Firing Pin hole on the Bolt Face. Make sure it is not eroded or elongated. Bolt face should not be pitted.
- 5. THE CARRIER BEARINGS** should be tightly screwed into the Carrier on the top side. This part should never be taken out of the Bolt Carrier by unscrewing the screws.

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MAINTENANCE... (Continued)

INSPECTION OF THE UPPER RECEIVER...

- 1. THE BARREL** should be clean and free of any obstructions.
- 2. THE HAND GUARD** should be tightly attached to the Barrel Locking Collar. Do not remove the Hand Guard.
- 3. THE BIPOD ASSEMBLY MOUNT** should be attached to the Hand Guard tightly. Do not remove this Mount.
- 4. THE UPPER RECEIVER** body should not be cracked, chipped, pitted or worn.
- 5. MUZZLE BRAKE** should be tightly screwed to the barrel. ***Do not remove the muzzle brake!***
- 6. ALL SCOPE MOUNTINGS** should be tight, in good condition, and free of oil.

INSPECTION OF THE BIPOD...

- 1.** If any parts of the **BIPOD** are cracked, do not use it. Replace it immediately.
- 2. THE BIPOD LEGS** should not be bent.
- 3.** All parts of the **BIPOD** should be clean and dirt free to function properly.

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MAINTENANCE... (Continued)



CAUTION: BEFORE BEGINNING ANY RIFLE CLEANING PROCEDURES, MAKE SURE THE RIFLE IS UNLOADED BY VISUALLY CHECKING THAT THE FIRING CHAMBER IS EMPTY AND THE MAGAZINE HAS BEEN REMOVED FROM THE LOWER RECEIVER.

GENERAL MAINTENANCE...

1. Ensure that all bearing surfaces and exposed parts – particularly those listed below – are clean and properly lubricated.

BOLT AND CARRIER

TRIGGER ASSEMBLY

BIPOD ASSEMBLY

2. Inspect all parts and tighten or replace as necessary. Each time the rifle is assembled for firing, make sure the barrel and chamber are free of excess oil. If possible, perform an operational check with dummy rounds (up to 10 – maximum magazine capacity) to confirm proper function. This insures that ammunition will chamber and extract properly.

3. Before Firing the Rifle: Thoroughly clean and dry the Bore and Chamber. Use cleaning rods by inserting them from the Chamber to the end of the barrel. Be careful not to damage the Muzzle Crown since this effects the accuracy of the Rifle.

4. After Firing the Rifle: The Rifle should be cleaned and lubricated as soon as possible after each shooting session. After every 50 rounds it is recommended that the Chamber and Bore be scrubbed with a copper solvent to remove deposits.

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MAINTENANCE... (Continued)

5. Long Term Maintenance: If the Rifle is not being fired for 30 days or more, oil the Rifle – especially the Bore and Chamber – depending on climate conditions in your area. For storage periods of six months or more, apply a good quality coating oil to the Rifle and inspect it for re-oiling every six months.

6. Troubleshooting: If you experience any difficulty pulling back on the Bolt Handle, you may have a dirty Chamber that needs cleaning, or the ammunition you are using has too much chamber pressure – and **should not** be used. If you have difficulty closing the Bolt during firing you may have an obstruction in the Chamber requiring cleaning, or your ammunition might be out of specification – and **should not** be used.

ASSEMBLY & DISASSEMBLY PROCEDURES...

! WARNING: THE MUZZLE BRAKE ON THIS RIFLE SHOULD NEVER BE REMOVED. SERIOUS INJURY CAN OCCUR IF RIFLE IS FIRED WITHOUT A MUZZLE BRAKE.

ASSEMBLY OF MAJOR PARTS OF THE RIFLE:

The Rifle is shipped in either a Cardboard Case with Foam Inserts or an optional Hard Plastic Shipping Case. It is shipped disassembled in the case - comprised of four groups:

UPPER RECEIVER & BARREL ASSEMBLY / LOWER RECEIVER ASSEMBLY / BIPOD / MAGAZINE

Take the Upper Receiver out of the Case by holding onto the Muzzle Brake and the Receiver Housing. Place it on a table or flat surface. Insert the Bolt Handle with Bolt Handle Sleeve into the Bolt Carrier Group and tighten the Bolt Handle Set Screw with supplied Allen Wrench. Pull the Bolt Handle back. Inspect the Chamber to make sure it is empty and clear.

SAFETY MECHANISM: There is a single Thumb-Lever which prohibits the Rifle from firing by blocking the rear of the Trigger from rotating up, effectively preventing the Hammer from being released under spring tension. The **BA50** also has a Firing Pin Safety that does not allow the Firing Pin to protrude out of the Bolt unless the Bolt is rotated and locked.

Now take the Lower Receiver out of the Case and manually push the Hammer back until it is cocked. Turn the Safety Selector Lever to **SAFE** (horizontal position, see Figure 1 - next page). The pointed end of the Safety Selector Lever should point towards the **SAFE** marking.

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ASSEMBLY & DISASSEMBLY PROCEDURES... (Continued)

ASSEMBLING THE RIFLE... UPPER RECEIVER TO LOWER

Push the Front Pivot Pin and the Rear Take Down Pin out of the Lower Receiver from the left side. Assemble the Upper Receiver with the Lower by aligning the Pivot Pin hole first. Push the Pivot Pin into the Upper Receiver from right to left.

With the Hammer cocked, and the Safety Selector on **SAFE**, pivot the Upper Receiver down onto the Lower Receiver. When Receivers are completely closed, the Rear Take Down Pin can be pushed in from right to left to complete this assembly.

Note: Front Pivot Pin and the Rear Take Down Pin are "captivated" by their detents so they can't fall out and be lost.

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ASSEMBLY & DISASSEMBLY PROCEDURES... (Continued)

ASSEMBLING THE RIFLE... BIPOD ASSEMBLY

Remove the Bipod Attachment Nut by unscrewing it from its stud on the Handguard (may require a 3/4" wrench to initially loosen it). Attach the Bipod onto the Upper Receiver by sliding it onto the Bipod Stud, then screw the Bipod Nut back on. Tighten by hand, then with 3/4" wrench.



CAUTION: RIFLE IS NOW READY FOR USE. **DO NOT** INSERT A LOADED MAGAZINE UNTIL YOU ARE AT A SHOOTING RANGE AND READY TO FIRE THE RIFLE. ALWAYS REMEMBER TO USE EYE AND EAR PROTECTION.

AMMUNITION...



CAUTION: USE ONLY HIGH QUALITY, CLEAN, DRY AMMUNITION FROM A REPUTABLE MANUFACTURER. FAILURE TO DO SO MAY PLACE YOU, OR THOSE AROUND YOU AT RISK, AND MAY DAMAGE YOUR RIFLE, AND/OR VOID YOUR WARRANTY.

If you buy ammunition that is over-pressured, or is possibly old or surplus, firing such ammunition will cause the brass to swell and stick in the Firing Chamber, and cause problems when pulling back on the Bolt Handle for Case extraction. Only new, high quality ammunition from reliable manufacturers should be fired in this rifle.

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FIRING THE RIFLE...

BREAK-IN PERIOD...

NOTE: YOUR MODEL BA50 RIFLE WILL REQUIRE SHOOTING ABOUT 75 ROUNDS TO BREAK IN PROPERLY. The Bolt Action of the Rifle will get smoother after the break in period.

Every time you pull the Bolt Handle back to charge a new round, pull the Handle back all the way, and push it forward and down all the way. If the Bolt is not properly closed, you should not fire the Rifle. To visually check if the Bolt is closed properly, look at the Ejection Port Opening. The Bolt Carrier should be flush with the Barrel Extension. If it is not, the Bolt it is not completely closed. The Bolt Handle should be all the way down in the Handle Slot in the Upper Receiver. Eject the round and inspect the Chamber for any obstruction. The Firing Chamber may need cleaning if the Rifle has fired more than 50 Rounds.

When you are ready to fire the Rifle, make sure you have a safe place to shoot – with a good back stop sufficient to stop a .50BMG round. Keep the Rifle pointed down range. Unlock the Bolt and pull it back all the way. Place the Rifle's Safety on SAFE position.

Insert a loaded Magazine while pushing the Magazine Release Button in about 1/8th of an inch. Once the Magazine is inserted about 1 inch into the Magazine Well, release the Magazine Release Button. PUSH up on the bottom of the Magazine to make sure it is properly inserted into the Magazine Well.

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FIRING THE RIFLE... (Continued)

When you are ready to fire, push the Bolt Handle forward and then down. The Bolt will push a round from the Magazine into the Firing Chamber. Make sure the Bolt Handle is down all the way. Look at your target through your scope or sights, acquire the target, move the Safety Selector to the OFF position, aim, and pull the Trigger. The Trigger has a 6 lb. pull. Do not tamper with the Trigger system - this will void your Warranty. After you have fired the round, pull the Bolt Handle up and back, the Bolt will eject the fired round. Then move the Safety Selector to the SAFE position before you observe your target with a spotting scope. To reload another round, simply repeat the same procedure. To remove the Magazine, push the Magazine Release Button and pull the Magazine out of the Lower Receiver.

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RIFLE DISASSEMBLY PROCEDURES...

DISASSEMBLY OF THE RIFLE FOR STORAGE OR CLEANING...



CAUTION: BEFORE BEGINNING ANY RIFLE CLEANING OR DISASSEMBLY PROCEDURES, MAKE SURE THE RIFLE IS UNLOADED BY VISUALLY CHECKING THAT THE FIRING CHAMBER IS EMPTY, AND THE MAGAZINE HAS BEEN REMOVED FROM THE LOWER RECEIVER.

Disassembly will be the reverse of some of the procedures already described for Assembly. Push out the Rear Take Down Pin from the left side, pivot the Upper Receiver to an open position, and push the Front Pivot Pin out to separate the Upper and Lower Receivers. Place the Upper Receiver on a flat solid surface.

REMOVING THE BOLT CARRIER GROUP... Refer to Figures 2 & 3 – on the next page.

Pull the Bolt Handle up and slide it back to expose the Firing Chamber. Check again to make sure the Chamber is empty and the Rifle is unloaded. Now close the Bolt, and rotate the Bolt Handle down. You will see a Set Screw on the Bolt where the Handle is attached to the Bolt.

Using a 3/32" Allen Wrench, unscrew the Set Screw until it is rotated out of the Bolt about 1/8th inch. Once the Set Screw is loose, unlock the Bolt by lifting Handle up, then slide the Handle out of the Bolt along with the Handle Sleeve. Then slide the Bolt Carrier Group out of the rear of the Upper Receiver.

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DISASSEMBLY FOR CLEANING / STORAGE... (Continued)



Figure 2



Figure 3

DISASSEMBLY FOR CLEANING / STORAGE... (Continued)

BOLT CARRIER DISASSEMBLY – REMOVING CLEVIS PIN...

After sliding the Bolt Carrier out of the Upper Receiver, remove the Carrier Pin (which holds the Firing Pin within the Carrier) by pushing in it's detent (on the left side of the Carrier - see Figure 4 below). Then remove the Carrier Pin by pushing it out of the Bolt Carrier.

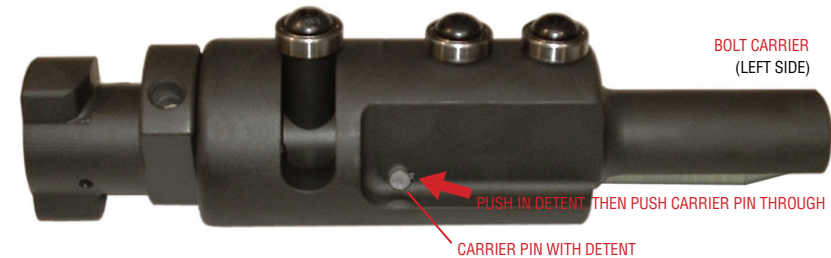


Figure 4



Figure 5

DISASSEMBLY FOR CLEANING / STORAGE... (Continued)

FIRING PIN / CAM PIN / BOLT REMOVAL...

The Firing Pin Sleeve, Firing Pin and Firing Pin Spring can be removed by unscrewing the Rear Roller Bearing Cap Screw and the Firing Pin Sleeve Set Screw underneath it in the Carrier ("A" - Figure 7 below). Then slide the Firing Pin Sleeve, Firing Pin and Firing Pin Spring out of the rear of the Bolt Carrier ("B" below).

Once the Firing Pin Sleeve, Firing Pin and Spring have been removed, the Cam Pin ("C" below) can be pulled up and out. Then the Bolt can be pulled out of the front of the Carrier.

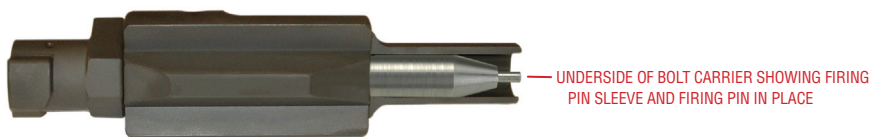


Figure 6

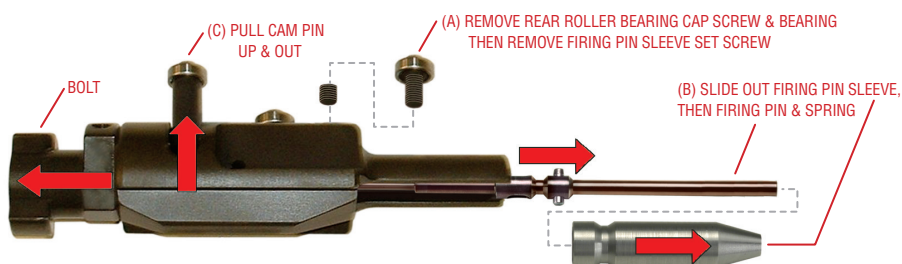


Figure 7

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DISASSEMBLY FOR CLEANING / STORAGE... (Continued)

BOLT CARRIER GROUP...

Shown here are the disassembled components of the Bolt Carrier Group.

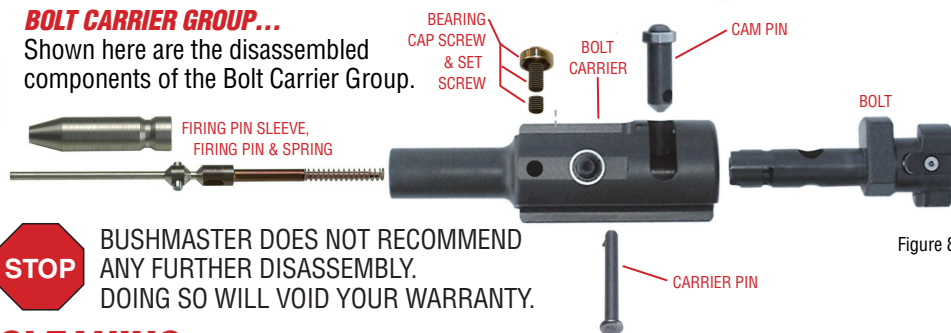


Figure 8

CLEANING...

AFTER FIRING YOUR RIFLE, clean it as soon as possible to make the job easier and to avoid allowing the development of any corrosion due to powder residue. Even when your Rifle has not been fired, you should clean it at least once or twice a year if you live in a temperate climate, or as often as once a week in a tropical climate.

IF YOUR RIFLE GETS WET, clean it as soon as possible to prevent corrosion or rust.

USE A HIGH QUALITY RIFLE CLEANING KIT that includes a cleaning rod; swab holder; cotton flannel bore patches; pipe cleaners; a small toothbrush; brass wire bristle bore and chamber brushes appropriate to the .50 BMG Caliber of this Rifle, and a Cleaner/Lubricant/Preservative (CLP).

CLEANING... (Continued)

CLEANING THE BORE: The bore of your Bushmaster rifle has Lands and Grooves called Rifling. Rifling makes the bullet spin as it moves down the Bore and down range. It is difficult to **push** a new, stiff Bore Brush through the Bore. You will find it much easier, and more effective, to **pull your Bore Brush through the Bore**. Also, because the brush will clean better if the bristles follow the grooves (called tracking), you want the Bore Brush to be able to turn as you pull it through.

ALWAYS CLEAN FROM FROM CHAMBER TOWARD THE MUZZLE. Commercial rifle cleaning kits may include alternate cleaning instructions which may be just as effective.

1. insert the Cleaning Rod into the muzzle end of the barrel. Rod should be long enough so it will protrude from the end of the Upper Receiver and allow you to easily insert Cotton Cleaning Patches into the Patch Holder attachment of the Rod. Cleaning Patch should be moistened with "CLP" or other suitable bore cleaner.

2. Pull the Cleaning Rod out from Receiver towards Muzzle.

3. Remove the Patch Holder from Rod, reinsert rod through barrel from Muzzle end, and attach the .50 BMG size Bore Brush (Bore diameter of this Rifle is .510 inches).

4. Pull the Brush through the Bore and out the Muzzle. The Rod should be able to twist as you pull it - allowing the Brush to "track" in the rifling.

NEVER reverse the direction of the Bore Brush while it is in the Bore. Always pull Brush or Patch from Receiver towards Muzzle (following the path of the bullet to ensure that any fouling or powder residue is removed).

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CLEANING... (Continued)

5. After the first pull with the Bore Brush, remove Brush from Rod – reinsert Rod in Muzzle – reattach Brush. Repeat this process for three or four pulls.

6. Send a patch through the Bore occasionally to help clean out the fouling that the brush is getting loose. Just replace the Bore Brush with the Patch Holder, a wet patch, and pull it through. Remember to always have the Bore **wet with cleaner** before trying to pull a brush through. Bore cleaning is complete when bore appears bright and shiny, and a final Patch comes through clean.

CLEANING OTHER COMPONENTS OF THE RIFLE...

BOLT CARRIER GROUP:

The parts of the Bolt Carrier Group should be wiped down with CLP type Cleaner (or other suitable solvent), and lightly oiled with a quality gun oil before reassembly.

UPPER RECEIVER/BARREL ASSEMBLY & LOWER RECEIVER:

The interior and exterior of the Upper Receiver/Barrel Assembly and the Lower Receiver should be thoroughly cleaned with CLP type Cleaner (or other suitable solvent). Lightly oil all surfaces before reassembly. Pay particular attention to lubrication of the Hammer, Trigger and Safety Selector, and test for smooth function before reassembly.

BIPOD ASSEMBLY:

Clean with CLP solvent and a small brush (toothbrush) to remove any exterior dirt or mud.

Lubricate all moving parts with quality gun oil.

CLEANING... (Continued)

MAGAZINE:

The Magazine can be disassembled by sliding the Base Plate off the Magazine Body after prying up the front end of the plate (use an Allen Wrench or Screwdriver for leverage). The Magazine Spring can then be worked – side to side – out of the Magazine Box. Then the Cartridge Follower can be dropped out of the Magazine Box.

Clean all parts, and lightly lubricate before reassembling in reverse order from description above. Note that the Follower will only fit into the Magazine Box one way, and the Spring must be oriented so as to fit over the heavy protrusion on the underside of the Follower.

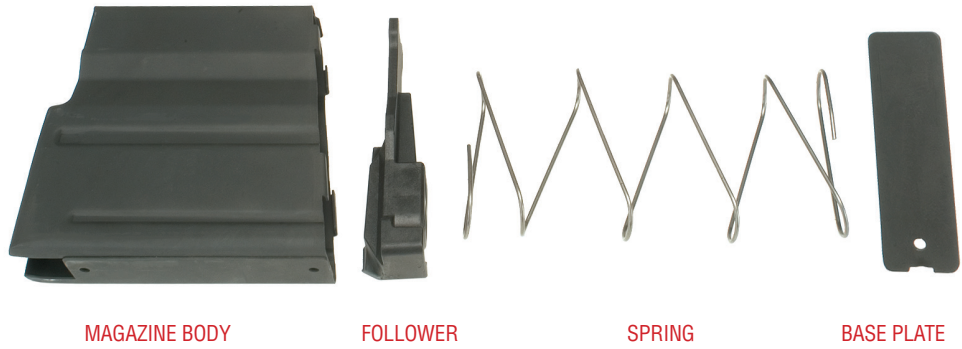


Figure 9

ASSEMBLY AFTER CLEANING...

ASSEMBLY OF THE BOLT CARRIER GROUP...

Insert the Bolt into the Bolt Carrier – the large lug on the Bolt with the hole for the Bolt Handle should be facing up. You’ll be able to see the Cam Pin hole through the large slot at the top of the Bolt Carrier. Insert the Cam Pin with its hole for the Firing Pin aligned so that you can slide the Firing Pin and Firing Pin Spring through the Cam Pin – holding it in place. The Firing Pin should be inserted with its protruding side pins in a horizontal position. When you can see through the Carrier Pin holes in the Bolt Carrier and the Firing Pin, you have proper alignment to insert the Carrier Pin.

Then insert the Carrier Pin from the right side of the Bolt Carrier. You may need to slightly rotate the Firing Pin to allow alignment and insertion of the Carrier Pin. Once fully inserted, the Carrier Pin will protrude on the left side of the Bolt Carrier and will be held in place by its spring and detent mechanism.

Perform a **FUNCTION CHECK** on the Firing Pin Safety by keeping pressure on the back of the Firing Pin and rotating the Bolt within the Carrier. With the Bolt completely rotated clockwise (as you look at the Bolt Face), you should see the Firing Pin protruding from its hole in the center of the Bolt Face. Maintain the pressure on the back of the Firing Pin and rotate the Bolt back all the way up - counterclockwise into “locked position” (Cam Pin aligned with Bearings on top of Bolt Carrier). The Firing Pin should go back into the Bolt. If this function check did not work properly then the assembly is incorrect. Disassemble it and reassemble it following the above instructions.

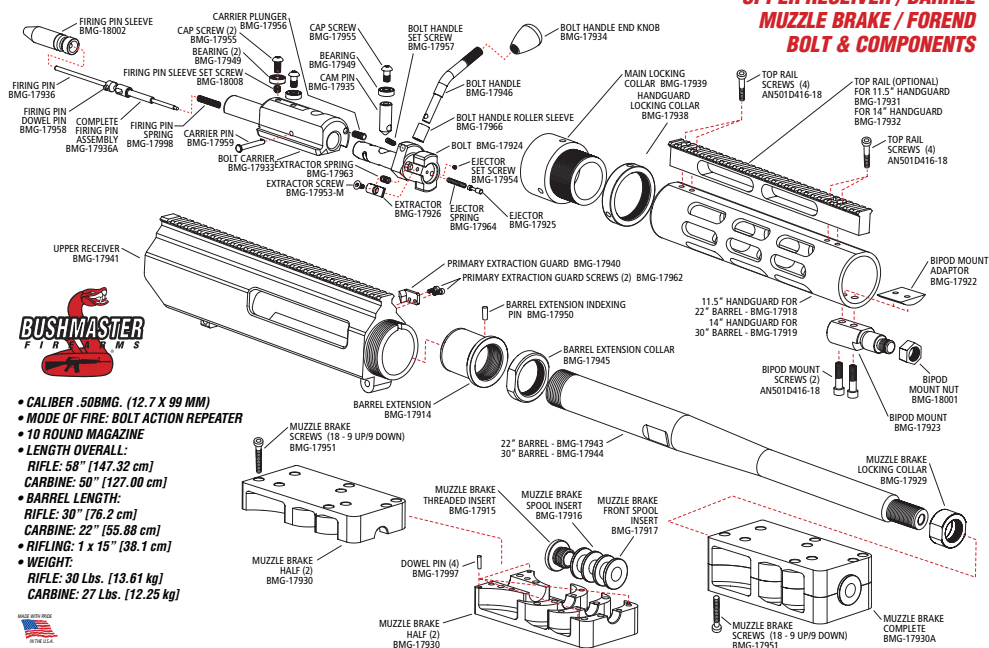
ASSEMBLY AFTER CLEANING... (Continued)

Now insert the Bolt Carrier back into the Upper Receiver, by keeping all three Bearings in a straight line, and the Bolt end forward to mate with the Barrel. Push the Bolt Carrier fully into the Upper Receiver, then slide the Bolt Handle and its Sleeve into the Bolt, and rotate the Handle downward until it stops – locking the Carrier into position within the Receiver. With the bend of the Bolt Handle angled down from the Upper, you can then tighten the Bolt Handle Set Screw with the 3/32" Allen Wrench. The Handle should now be tightly locked in position – exhibiting little or no play or rotation. Now the Upper Receiver is ready to be stored in the case, or assembled onto the Lower Receiver in preparation for shooting.

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SCHEMATIC DIAGRAM – BUSHMASTER BA50...

UPPER RECEIVER / BARREL MUZZLE BRAKE / FOREND BOLT & COMPONENTS

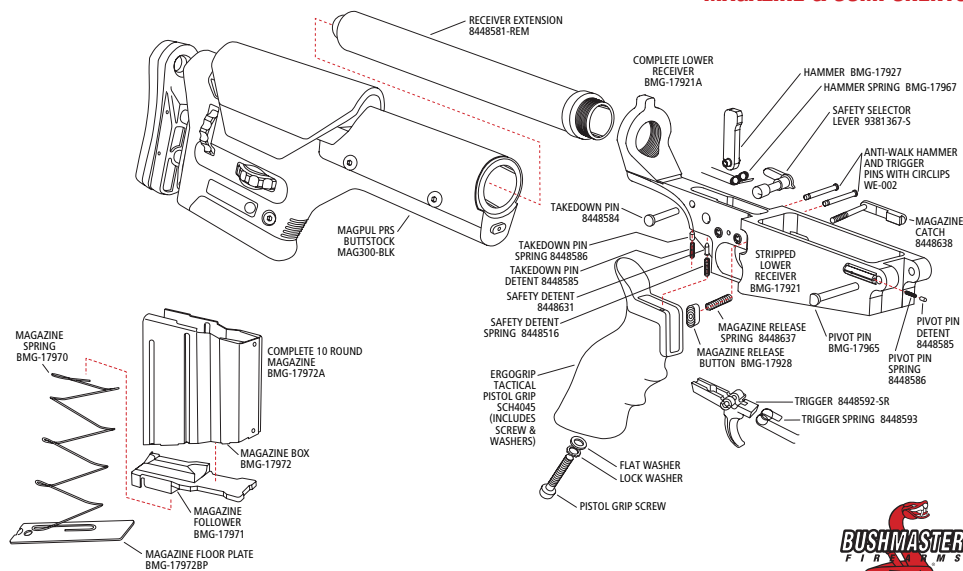


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SCHEMATIC DIAGRAM – BUSHMASTER BA50... (Continued)

LOWER RECEIVER / BUTTSTOCK MAGAZINE & COMPONENTS



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WARRANTY...

BUSHMASTER LIMITED ONE YEAR WARRANTY... Bushmaster Firearms are warranted to be free from defects in materials and workmanship. Any such defect of which Bushmaster Firearms International, LLC is given written notice, as provided below, within one year and ten days from the date of first purchase by a customer will be remedied by Bushmaster Firearms International, LLC. This warranty is granted by **Bushmaster Firearms International, LLC, P.O. Box 1479, 999 Roosevelt Trail, Windham, Maine 04062.**

To initiate a Warranty claim, call Bushmaster Customer Service (toll free: 8:30 AM to 6:00 PM E.S.T. - Monday thru Friday **1-800-883-6229**) to get an RMA number ("Return Merchandise Authorization"). Warranty claims should state (in writing) the model and serial number of the firearm concerned, a description of the difficulty experienced, and the date of purchase. The firearm concerned should be shipped (transportation charges prepaid), to the **Warranty Service Department, Bushmaster Firearms International, LLC, 999 Roosevelt Trail, Windham, ME 04062.** Firearm shipment should be insured by the owner, as **Bushmaster Firearms International, LLC will accept no responsibility for loss or damage in transit.**

Shipping and insurance charges for the return of a firearm to its owner will be paid by Bushmaster Firearms International, LLC if the related claim is a proper claim for warranty work.

Under no circumstances shall Bushmaster Firearms International, LLC be responsible for incidental or consequential damages with respect to economic loss or injury to property, whether as a result of express or implied warranty, negligence or otherwise. Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation may not apply to you. Bushmaster Firearms International, LLC will not be responsible for the results of careless handling, unauthorized adjustments, defective, low quality, reloaded, or improper ammunition, corrosion, neglect, ordinary wear and tear, or unreasonable use. Furthermore, the liability of Bushmaster Firearms International, LLC under this warranty shall be limited solely to the obligation to repair or replace the firearm, and to pay transportation and insurance charges for return of the firearm to owner.

NOTE: Handguns and long guns are classified as FIREARMS or DANGEROUS WEAPONS. Guns are surrendered by Bushmaster Firearms International, LLC with the express understanding that it assumes no responsibility for resale handling under local laws and regulations.