

INSTRUCTION MANUAL FOR MAGNUM RESEARCH'S MLR-1722 AND MLR-1722M RIFLES CALIBERS .22 LONG RIFLE AND .22WMR



MLR22WMH

MLR22BFC

DO NOT use after-market parts on the MLR-1722 or MLR-1722M rifles. Doing so will void any and all warranties.

**Recommended Ammo - (.22WMR Only)
40 or 50 grain ONLY. DO NOT fire under 40 grain ammo!**

**READ THE INSTRUCTIONS AND WARNINGS IN THIS MANUAL CAREFULLY BEFORE USING THIS FIREARM
THIS INSTRUCTION BOOK SHOULD ALWAYS ACCOMPANY THIS FIREARM WHEN ON LOAN OR WITH CHANGE OF OWNERSHIP**

IMPORTANT SAFETY INFORMATION:

- 1) ALWAYS WEAR EAR PROTECTION WHEN SHOOTING. ESPECIALLY ON A RANGE, WITHOUT EAR PROTECTION THE NOISE OF FIRING CAN LEAD TO CUMULATIVE LONG TERM AND PERMANENT HEARING LOSS.**
- 2) ALWAYS WEAR PROTECTIVE SHOOTING GLASSES FOR EYE PROTECTION WHEN USING ANY FIREARM.**
- 3) NEVER DRINK ALCOHOLIC BEVERAGES OR TAKE DRUGS BEFORE OR DURING SHOOTING AS YOUR VISION AND JUDGMENT CAN BE SERIOUSLY IMPAIRED, MAKING YOUR GUN HANDLING UNSAFE.**



WARNING

STATE-BY-STATE WARNINGS

CERTAIN STATES REQUIRE BY LAW THAT THEIR OWN SPECIFIED WARNING NOTICES IN LARGER-THAN-NORMAL TYPE BE CONSPICUOUSLY INCLUDED BY THE MANUFACTURER, DISTRIBUTOR, OR RETAIL DEALER WITH FIREARMS SOLD IN THAT STATE. MAGNUM RESEARCH, INC. SELLS ITS PRODUCTS IN COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS. BECAUSE OUR PRODUCTS MAY BE SOLD IN THESE STATES, WE INCLUDE THE FOLLOWING:

CALIFORNIA:

WARNING: CHILDREN ARE ATTRACTED TO AND CAN OPERATE FIREARMS THAT CAN CAUSE SEVERE INJURIES OR DEATH. PREVENT CHILD ACCESS BY ALWAYS KEEPING GUNS LOCKED AWAY AND UNLOADED WHEN NOT IN USE. IF YOU KEEP A LOADED FIREARM WHERE A CHILD OBTAINS AND IMPROPERLY USES IT, YOU MAY BE FINED OR SENT TO PRISON. (PER CALIFORNIA STATUTE 12088.3)

CONNECTICUT:

"UNLAWFUL STORAGE OF A LOADED FIREARM MAY RESULT IN IMPRISONMENT OR FINE."

FLORIDA:

"IT IS UNLAWFUL, AND PUNISHABLE BY IMPRISONMENT AND FINE, FOR ANY ADULT TO STORE OR LEAVE A FIREARM IN ANY PLACE WITHIN THE REACH OR EASY ACCESS OF A MINOR UNDER 18 YEARS OF AGE OR TO KNOWINGLY SELL OR OTHERWISE TRANSFER OWNERSHIP OR POSSESSION OF A FIREARM TO A MINOR OR A PERSON OF UNSOUND MIND."

MAINE:

"ENDANGERING THE WELFARE OF A CHILD IS A CRIME. IF YOU LEAVE A FIREARM AND AMMUNITION WITHIN EASY ACCESS OF A CHILD, YOU MAY BE SUBJECT TO FINE, IMPRISONMENT OR BOTH. KEEP FIREARMS AND AMMUNITION SEPARATE. KEEP FIREARMS AND AMMUNITION LOCKED UP. USE TRIGGER LOCKS."

MARYLAND:

"WARNING: CHILDREN CAN OPERATE FIREARMS WHICH MAY CAUSE DEATH OR SERIOUS INJURY. IT IS A CRIME TO STORE OR LEAVE A LOADED FIREARM IN ANY LOCATION WHERE AN INDIVIDUAL KNEW OR SHOULD HAVE KNOWN THAT AN UNSUPERVISED MINOR WOULD GAIN ACCESS TO THE FIREARM. STORE YOUR FIREARM RESPONSIBLY!"

MASSACHUSETTS:

"WARNING FROM THE MASSACHUSETTS ATTORNEY GENERAL: THIS HANDGUN IS NOT EQUIPPED WITH A DEVICE THAT FULLY BLOCKS USE BY UNAUTHORIZED USERS. MORE THAN 200,000 FIREARMS LIKE THIS ONE ARE STOLEN FROM THEIR OWNERS EVERY YEAR IN THE UNITED STATES. IN ADDITION, THERE ARE MORE THAN A THOUSAND SUICIDES EACH YEAR BY YOUNGER CHILDREN AND TEENAGERS WHO GET ACCESS TO FIREARMS. HUNDREDS MORE DIE FROM ACCIDENTAL DISCHARGE. IT IS LIKELY THAT MANY MORE CHILDREN SUSTAIN SERIOUS WOUNDS, OR INFLECT SUCH WOUNDS ACCIDENTALLY ON OTHERS. IN ORDER TO LIMIT THE CHANCE OF SUCH MISUSE, IT IS IMPERATIVE THAT YOU KEEP THIS WEAPON LOCKED IN A SECURE PLACE AND TAKE OTHER STEPS NECESSARY TO LIMIT THE POSSIBILITY OF THEFT OR ACCIDENT. FAILURE TO TAKE REASONABLE PREVENTIVE STEPS MAY RESULT IN INNOCENT LIVES BEING LOST, AND IN SOME CIRCUMSTANCES MAY RESULT IN YOUR LIABILITY FOR THESE DEATHS."

"IT IS UNLAWFUL TO STORE OR KEEP A FIREARM, RIFLE, SHOTGUN OR MACHINE GUN IN ANY PLACE UNLESS THAT WEAPON IS EQUIPPED WITH A TAMPER-RESISTANT SAFETY DEVICE OR IS STORED OR KEPT IN A SECURELY LOCKED CONTAINER."

NEW JERSEY:

"IT IS A CRIMINAL OFFENSE TO LEAVE A LOADED FIREARM WITHIN EASY ACCESS OF A MINOR."

NEW YORK CITY:

"THE USE OF A LOCKING DEVICE OR SAFETY LOCK IS ONLY ONE ASPECT OF RESPONSIBLE FIREARM STORAGE. FOR INCREASED SAFETY, FIREARMS SHOULD BE STORED UNLOADED AND LOCKED IN A LOCATION THAT IS BOTH SEPARATE FROM THEIR AMMUNITION AND INACCESSIBLE TO CHILDREN AND OTHER UNAUTHORIZED PERSONS."

NORTH CAROLINA:

"IT IS UNLAWFUL TO STORE OR LEAVE A FIREARM THAT CAN BE DISCHARGED IN A MANNER THAT A REASONABLE PERSON SHOULD KNOW IS ACCESSIBLE TO A MINOR."

TEXAS:

"IT IS UNLAWFUL TO STORE, TRANSPORT, OR ABANDON AN UNSECURED FIREARM IN A PLACE WHERE CHILDREN ARE LIKELY TO BE AND CAN OBTAIN ACCESS TO THE FIREARM."

WISCONSIN:

"IF YOU LEAVE A LOADED FIREARM WITHIN THE REACH OR EASY ACCESS OF A CHILD YOU MAY BE FINED OR IMPRISONED OR BOTH IF THE CHILD IMPROPERLY DISCHARGES, POSSESSES, OR EXHIBITS THE FIREARM.

PLEASE CHECK WITH YOUR FIREARMS RETAILER OR STATE POLICE FOR ADDITIONAL REQUIREMENTS UNDER STATE OR LOCAL LAWS OR REGULATIONS. SUCH LAWS AND REGULATIONS CHANGE CONSTANTLY, AND LOCAL AUTHORITIES ARE IN THE BEST POSITION TO ADVISE YOU ON SUCH CHANGES.

WARNING

SAFE STORAGE OF FIREARMS

It is your responsibility to safely store this (and all) firearms.

Many states have specific statutes requiring owners of firearms to affirmatively limit access to firearms by children or other unauthorized persons.

Check with your dealer or local law enforcement authority for specific requirements of your state/community.

RELEASE, ASSUMPTION OF RISK, WAIVER OF LIABILITY AND INDEMNITY AGREEMENT.

When purchasing any item distributed by Magnum Research, Inc. the buyer expressly warrants that he/she is in compliance with all applicable federal, state and local laws and regulations regarding the purchase, ownership and use of the item. The purchaser expressly agrees to indemnify and hold harmless Magnum Research, Inc. for all claims resulting directly or indirectly from the purchase, ownership or use of the item in violation of applicable federal, state and local laws and regulations.

FIREARMS SAFETY IS YOUR RESPONSIBILITY

This instruction manual is designed to assist you in learning how to use and care for your Magnum Research model MLR-1722, MLR-1722M rifle correctly.

Only when you are certain that you fully understand all aspects of this manual and can properly carry out all of its instructions should you practice with live ammunition. If you have any doubts about your ability to handle or use any particular type of gun safely you should seek out supervised instruction. Such instruction is often available from gun dealers, gun clubs or police departments. The NRA (National Rifle Association) can also assist you.

NRA
11250 Waples Mill Rd.
Fairfax, VA 22030-7400

SAFETY MUST BE THE FIRST AND CONSTANT CONSIDERATION OF EVERY PERSON WHO HANDLES FIREARMS AND AMMUNITION

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GENERAL INFORMATION

The Magnum Lite Rifle (MLR) is a semi-autoloading rifle chambered for either .22 Long Rifle or .22 Winchester Magnum Rimfire (.22 WMR), and so marked on the barrel. It is blowback gas operated and uses a standard Ruger rotary magazine. Pulling back the bolt handle cocks the internal hammer and compresses a coil spring. When the bolt is released, it moves forward by itself and forces a cartridge from the magazine and directs the cartridge into the chamber of the barrel. The bolt is held against the chambered cartridge by the force of the recoil spring.

When the trigger is pulled, the hammer is released and strikes the firing pin. The firing pin in return strikes the rim of the cartridge causing an indent on the case. This indent causes the internal priming mixture to ignite and a large amount of expanding gas is instantly generated which acts on the interior of the cartridge case in all directions.

Because the bullet offers the least path of resistance it is forced out of the case and exits the muzzle of the barrel. The bolt then moves rearward by itself extracting and ejecting the fired case, at the same time it re-cocks the hammer, compresses the recoil spring as mentioned earlier

and feeds a new cartridge into the chamber upon closing. Once the trigger is released the rifle is ready to fire again.

Each time the rifle's trigger is pulled and released the same cycle is repeated until there is no more ammunition left in the magazine or chamber.

The MLR-1722M .22WMR rifle has a gas dispersion block attached to the bottom of the barrel. A very small orifice hole allows a small amount of expanding gas to be released from the barrel and dispersed through the gas dispersion block.

DO NOT REMOVE THIS BLOCK OR REPLACE THE BARREL ON THIS RIFLE, AS IT WOULD CAUSE AN UN-SAFE CONDITION.

WARNING: THE RIFLE WILL FIRE IF THERE IS A CARTRIDGE IN THE CHAMBER OF THE BARREL EVEN IF THERE IS NOT A MAGAZINE IN THE RIFLE! REMOVING THE MAGAZINE DOES NOT UNLOAD THE RIFLE. ALWAYS INSPECT THE CHAMBER AND MAGAZINE EACH TIME THE RIFLE IS HANDLED TO BE CERTAIN THERE ARE NO CARTRIDGES IN EITHER.

OPERATION SAFETY

The MLR has a cross-button safety that is located in the front of the trigger guard. It can only be operated when the hammer is cocked.

When the rifle is held in the normal shooting position, the safety is "ON" when it protrudes from the right or ejection port side of the rifle's trigger guard assembly. In this position the safety blocks the hammer of the rifle and the rifle cannot be fired from a normal pull on the trigger.

(NOTE: If the safety is modified for a left hand shooter, then when the safety is "ON" it would protrude from the left side of the trigger guard assembly.) In a new rifle a "Red" band can be seen on the safety when the safety is "OFF" and in the "Firing" position. None the less, when handling a firearm the muzzle should "ALWAYS" be pointed in a "SAFE" direction.

NOTE; THE SAFETY SHOULD ALWAYS BE IN THE "ON" POSITION WHEN THE RIFLE IS NOT BEING FIRED.

DO NOT RELY ON THE APPEARANCE OF THE RED BAND TO INDICATE THAT THE SAFETY IS OFF. If the rifle is dirty or if the available lighting is poor the red band may not be visible. IF THE SAFETY IS "OFF" AND THE TRIGGER IS PULLED THE RIFLE WILL FIRE.

The safety itself is held in position by a plunger that is pushed upwards by a coil spring. When the safety is moved to either the "on" or "off" position a clear "click " should be heard. Frequently check the position of the safety to always be certain it has not been inadvertently been moved. If the safety moves to easily or does not make an audible "click " when being used STOP using the rifle immediately and return prepaid to:

Magnum Research Inc. (MRI)
12602 - 33rd Avenue SW,
Pillager, MN 56473

WARNING

The only "safe " rifle is one that the bolt is open, chamber is empty and magazine is removed from the gun. Never allow the rifle to be used in a careless manner or to be pointed in an unsafe direction.

BOLT LOCK

The bolt lock lever is located in the forward section of the trigger guard. It is manually operated and designed to hold the bolt in the rearward position when it is manually operated. When the bolt is locked open, the rifle can be cleaned and inspected. It is inoperative in this position.

TO LOCK THE BOLT OPEN: Pull the bolt handle to its extreme rearward position and while holding it there press in on the LOWER section of the bolt lock lever. Let go of the bolt handle and the bolt will move forward a fraction of an inch, and then will engage the lock and be in its locked open position.

TO RELEASE THE BOLT: Pull the bolt handle to its extreme rearward position and then press on the UPPER part of the Bolt Lock Lever and it will disengage allowing the bolt to move forward under the power of the compressed recoil spring.

NOTE: The bolt lock must be intentionally disengaged by the manual operation described above. This is by design and will prevent an accidental release of the bolt from its open position.

WARNING:

MLR-1722 and MLR - 1722M TRIGGER

The model MLR'S have a factory "pre-set" trigger. It has minimum trigger pull weight and minimum safe sear engagement. Do not alter or change these settings. An unsafe condition can easily be created rendering the rifle unsafe. **Altering the trigger components may cause the rifle to fire unexpectedly and will void your warranty.** Additionally you should have the safety on at all times except when actually firing the rifle. Keep your finger off the trigger except when actually firing the rifle.

AMMUNITION

The MLR-1722 is chambered for .22 Long Rifle and the MLR 1722M is chambered for .22WMR. The caliber of your rifle is marked on the barrel's left side.

1722M: Use only .22WMR ammunition (of 40 grains or more) that are manufactured to SAAMI specifications.

The 1722M rifles have a specially designed bolt handle. It is steel, large and barrel shaped. This bolt handle is the key to successful and safe operation of the .22WMR. It times the action and retards the operation of the bolt appropriately when the rifle is fired.

NEVER FIRE .22WMR AMMUNITION WITHOUT THE SOLID BARREL SHAPED BOLT HANDLE INSTALLED IN THE RIFLE.

The .22WMR bolt handle should NOT be confused with the .22 Long Rifle bolt handle that is similar in shape but has a 1/2" hollow hole in the center.

This rifle has a very small orifice hole in the barrel that equalizes the timing of peak pressure variances in .22WMR ammunition. It is vital to the safe function of your rifle. **DO NOT ENLARGE IT.**

TO AVOID PERSONAL INJURY ALWAYS KEEP THE GAS DISPERSION BLOCK IN PLACE!

This block covers the orifice hole.

.22 Long Rifle: Use only .22 Long Rifle ammunition manufactured to SAAMI specifications. This rifle will NOT FUNCTION with short, long or subsonic cartridges. They may "jam" the mechanism or discharge before they are fully chambered. Use .22 Long Rifle standard velocity or high velocity ammunition.

TIPS: The MLR has a very high potential for accuracy when used with the correct .22 Long Rifle ammunition. Typically .22 Long Rifle standard velocity ammunition will shoot more accurately than high velocity ammunition. Also many of the designated .22 Long Rifle ammunition will outperform even the Standard Velocity ammunition. Typically the cost of the ammunition is directly traceable to how well it will shoot. More expensive ammunition will usually shoot better.

CAUTION: DO NOT USE STINGER AMMUNITION. STINGERS HAVE A LONGER CASE AND MAY STICK IN THE TIGHT CHAMBERS FOUND IN THE MLR-1722 BARRELS. THEY MAY ALSO CAUSE A RUPTURED CASE AND THE RELEASE OF HOT EXPANDING GASES WHEN FIRED.

Loading and firing the rifle with magazine:

1. Always keep the muzzle (front end on barrel) pointed in a safe direction.
2. Pull the bolt handle rearward and engage the bolt lock lever so that the bolt remains in the open position. Inspect to make sure the rifle is not loaded and there are no obstructions or foreign matter in the action or barrel. Place the safety in the "ON" position.
3. Remove the magazine by depressing the magazine latch found directly in front of the trigger guard with your thumb and by simultaneously grasping the front of the magazine with your index finger. Lightly pull the magazine straight out of the rifle.
4. Load the magazine by sliding up to ten cartridges, of the same caliber as marked on the barrel of your rifle, by placing them "rim first " into the magazine's steel throat opening and with slight pressure downward slide the cartridges back and under the steel lips of the magazine. You may repeat this process up to ten times. Note: The .22 Long Rifle magazine holds ten cartridges when fully loaded. The .22WMR magazine holds nine cartridges when fully loaded.
5. Insert the magazine into the rifle with the bullets facing forward. NOTE: The magazine cannot be installed the wrong direction.
6. Load a cartridge into the chamber by pulling the bolt handle completely rearward, release the bolt lock and release the bolt handle. DO NOT TOUCH THE TRIGGER. Do not "ride" the bolt handle; rather let it close under it's own power. Do not force the bolt handle to close the bolt. If the cartridge fails to chamber eject it and remove the magazine. Clean the bolt and chamber if dirty and inspect your cartridges to insure that they are not damaged.
7. The rifle is now fully loaded and ready to fire. Keep the safety in the "on" position. When the safety is moved to the "off" position the rifle will fire with each pull of the trigger until all of the cartridges in the magazine are spent.
8. NOTE: IMMEDIATELY FOLLOWING A SHOT PLACE THE SAFETY IN THE "ON" POSITION IF A SUBSEQUENT SHOT IS NOT TO BE FIRED AT ONCE. PLACE THE SAFETY IN THE "ON" POSITION WHILE THE RIFLE IS POINTED DOWN RANGE IN A SAFE DIRECTION.

9. The bolt will **not** remain open after the last shot is fired. When firing is completed or the magazine is empty remove the magazine and manually pull back the bolt handle and visually inspect the rifle to insure the chamber is empty. IF THE BOLT IS CLOSED ALWAYS ASSUME THE RIFLE IS LOADED. DO NOT RELY ON YOUR MEMORY TO KNOW IF A FIREARM IS LOADED. ALWAYS VISUALLY INSPECT THE MAGAZINE AND CHAMBER.

Unloading the rifle and magazine:

NOTE: THIS SEQUENCE MUST BE FOLLOWED EXACTLY AS WRITTEN. FAILURE TO DO SO CAN RESULT IN THE RIFLE'S CHAMBER BECOMING UNINTENTIONALLY LOADED WITH A CARTRIDGE.

1. Keep the muzzle pointed in a safe direction at all times and keep fingers outside of the trigger guard and away from the trigger. If the rifle is cocked, MOVE THE SAFETY TO THE "ON" POSITION.
2. Remove the magazine but remember that even with the magazine removed a cartridge remaining in the chamber may still be fired.
3. Pull the bolt handle back and lock it open there. This SHOULD eject any cartridge that is in the chamber.

4. Always visually inspect the chamber to insure there is no cartridge in the chamber. If the rifle is dirty or the ammunition is dirty a cartridge may remain in the chamber after the bolt is manually pulled back. In this situation, with NO magazine in the rifle, point the rifle safely downrange and place the safety in the "off" position. Fire the rifle by pulling the trigger. Repeat step three (3). If a cartridge remains in the chamber leave the bolt locked open, place the safety in the "on" position and install the safety lock cable through the ejector port opening and down through the magazine hole and securely lock. This will prevent the bolt from closing and allow for safe transport of the rifle. Call our service department for further instructions.
5. The only "safe" rifle is one that has the bolt open and the chamber and magazine are empty.
6. Cartridges can be removed from the magazine by pushing them lightly downward and forward with the thumb, forefinger or the rubber eraser end of a pencil held against the rim of the cartridge.

TO CLEAR A MALFUNCTION OR "JAM"

1. Any semi-automatic rifle may occasionally malfunction. If it does:
2. BE SURE THE MUZZLE IS POINTED IN A SAFE DIRECTION AND THE SAFETY IS "ON".
3. If possible first remove the magazine. It may be necessary to remove a jammed cartridge, which has only partially been slid from the magazine.

If so, use extreme care. Lock the bolt open with the bolt stop before attempting to clear the jam. Pulling the bolt back may bring the jammed cartridge along with it. Keep your face away from the ejector port during this process. When attempting to clear a jam only use wooden tools so that a cartridge will not be ignited if you strike the primed rim of the cartridge. A 3/16" wood dowel with a pointed end is useful.

4. Visually check to make sure all cartridges have been removed from the rifle. Safely dispose of any cartridges involved in a malfunction incident. Do not use damaged ammunition in any firearm.

TO MINIMIZE MALFUNCTIONS OR "JAMS"

1. Improper or damaged magazines, incorrect or old ammunition or a dirty rifle causes most "jams".
2. If it appears that the rifle and magazine are not at fault and that the jam was caused by the ammunition being used then try a different type or brand of factory ammunition.
3. If changing to a different type of ammunition does not eliminate malfunctioning, then the following steps should be taken:
 - a. Make sure the rifle and magazine are unloaded and that the safety is "on". Remember the magazine should be removed first when unloading a rifle, then check the chamber and be certain it and the magazine are clear of cartridges.
 - b. Thoroughly clean the magazine and bolt assembly. (See Care and Cleaning section on page 14.) Remove accumulated grease by using a bristle brush and cleaning solvent to clean the breech of the barrel and face of the bolt. Clean the ramp of the magazine.

- c. Remove any excess oil and solvent from all cleaned parts and the inside of the barrel and try the firearm again.
4. If the above procedures do not result in a smooth and reliably functioning firearm, do not use this rifle. It may be returned to our service department directly for repair. See page 15 of this manual for packaging and shipping information.

Another precaution: Always form the habit of examining fired cartridge cases. If they appear to be bulged or split the rifle should be returned for gauging and inspection.

TO DISASSEMBLE

1. MAKE SURE THE RIFLE IS UNLOADED.

2. With the rifle pointed in a safe direction, remove the magazine, open the bolt and visually make sure there is not a cartridge in the chamber. Then allow the bolt to close. The hammer should be cocked.
3. Loosen the takedown screw located directly in front of the magazine on the bottom of the rifle. Do not remove it.

4. Position the safety so it is in the “middle” position. There is not a stop here so position it so equal amounts of the safety show on each side of the trigger guard. Failure to do this will result in a damaged stock.
5. Swing the barrel and receiver assembly upward and away from the forearm of the stock. Be careful that the two cross pins in the receiver do not fall out.
6. Remove the trigger guard assembly by pushing out the two small cross pins. The trigger guard can be cleaned without any further disassembly.
7. TO REMOVE THE BOLT:
 - a. Position the rifle upside down
 - b. Push out the larger bolt stop pin located at the rear of the receiver.
 - c. Pull the bolt handle fully to the rear and lift up the front of the bolt until it is disengaged from the handle.
 - d. Remove the bolt handle assembly from the ejector port opening.
 - e. Lift the bolt out of the receiver. If it does not easily come out turn the rifle over and it will drop out.

REASSEMBLY

1. Reassembly of the bolt into the receiver:

- a. Position the rear or cone end of the bolt handle/guide rod into the mating recess near the rear right side of the receiver. The recoil spring must be flat against the side and “bottom” of the receiver.
- b. Maintain the guide rod in its proper position by keeping pressure on the bolt handle with the left forefinger and thumb. At the same time, use the flat side of a screwdriver blade to compress the recoil spring by pulling it back against that area of the bolt handle nearest the spring.
In accomplishing this spring compression it is necessary to maintain the same pressure on the screwdriver with the right hand as that being maintained on the bolt handle with the left hand.

c. When the spring is fully compressed, maintain it in that position with the left hand and with the right hand lay the bolt (firing pin side down) on the section that mates with it. Press down on the front of the bolt until a “click” is heard and the two parts have joined together. You may need to let the handle slip forward a very little way to accomplish this.

2. Reassembly of the rifle:

- a. Install the bolt stop pin in the rear of the receiver. (large pin)
- b. Lay the trigger guard in place and install the two smaller cross pins through the receiver.
- c. Place the barrel and receiver assembly into the stock by following in reverse order steps 1 through 5 under disassembly.

CARE AND CLEANING

Before cleaning, be sure rifle is unloaded and the magazine and chamber contain no cartridges

1. Disassemble the rifle as explained on page 12.
2. Using a cleaning rod, run a solvent wetted patch through the barrel from the breech end of the receiver. NOTE: A convenient cleaning hole has been placed in the rear of the receiver for this purpose. Then attach a solvent wetted brush of the correct caliber and run it back and forth 20 times. Clean the bore and chamber with dry patches and examine. A fouled bore will decrease accuracy. In the case of .22 Long rifle ammunition the grease they leave behind will cause malfunctions.
3. Using powder solvent on a clean patch or brush remove all powder residue from all components of the mechanism. After cleaning, run several dry patches through the bore. Then run a very lightly oiled patch through the bore. Wipe all surfaces clean with a cloth that has been very lightly oiled.

4. NOTE: Use only a small amount of lubricating oil in the mechanism. Excessive oil tends to accumulate burnt powder and debris that may congeal in cold weather and create malfunctions.

SCOPE MOUNT RAIL

The rifles have a scope mount rail machined integrally onto the one-piece receiver. It is designed to use any “weaver” type ring assembly and will accommodate any scope with an objective (front) lens diameter of 50 MM or less with low rings. It extends out over the front of the receiver to allow for proper eye relief with longer target type scopes. When installing rings on the receiver’s scope rail place the nut or head of the attaching bolt of the ring on the left (opposite the ejector port) side of the receiver so that it will not interfere with ejecting the spent or fired cases.

SHIPPING FIREARMS FOR REPAIR

Magnum Lite Rifles may be returned to the factory, prepaid for repair or cleaning. They should be sent to:

Magnum Research, Inc.
12602-33rd Avenue SW,
Pillager, MN 56473

218-746-3459 Service & Parts

We will not accept collect shipments.

You may ship your rifle directly to us for service but some localities may not allow us to return it directly to you. Check with your local authorities before sending a firearm to us. You may need to send it through a federally licensed firearms dealer and it will then be returned to that dealer.

BEFORE SHIPPING ANY FIREARM BE SURE THAT IT IS UNLOADED, BOTH MAGAZINE AND CHAMBER.

Please remove any accessories such as scopes or slings prior to packaging your rifle for shipment. Package the rifle securely in a stout box, include your name, address, phone number, serial number of the rifle and a detailed description of the trouble you have experienced as well as the type of ammunition that was used.

Any work performed on your rifle that is not related to our workmanship or materials will be billed to you on an hourly rate. A return shipping charge will also be added when the rifle is returned.

PARTS

We will sell parts on a case-by-case basis. Please contact our service department with your needs.

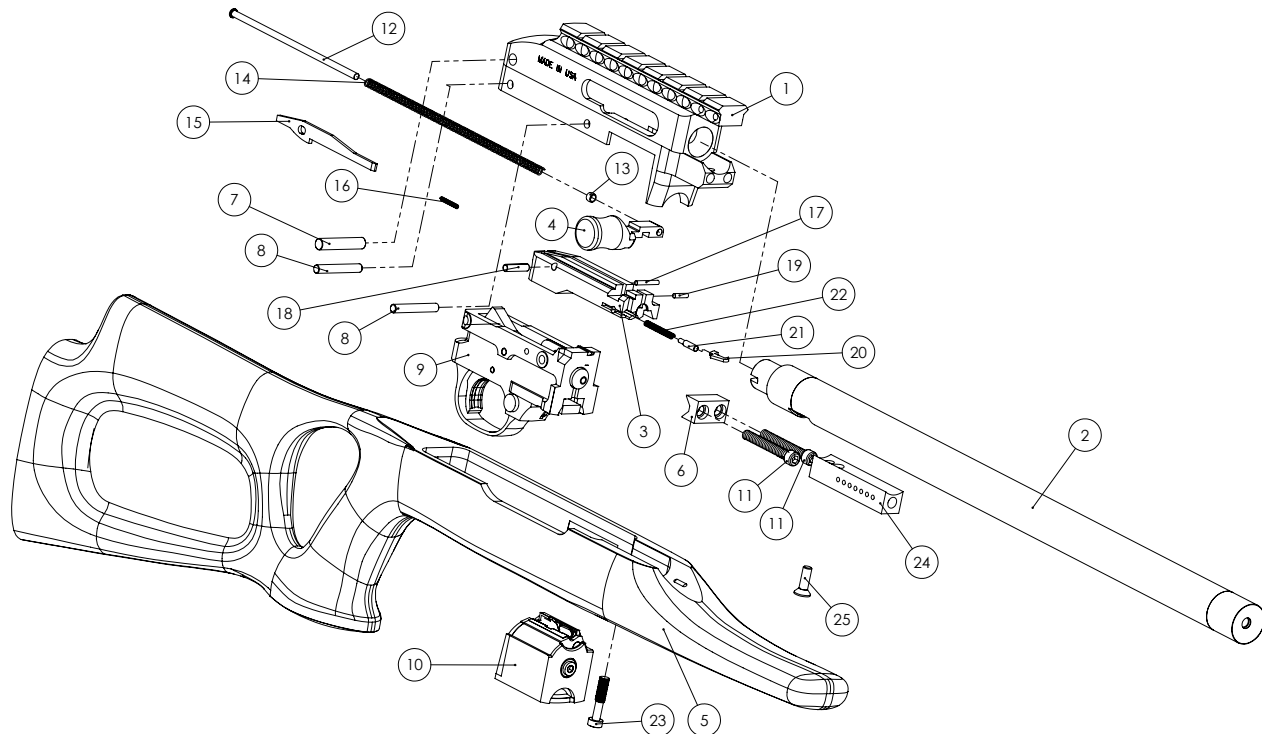
RETURN AUTHORIZATION REQUIRED

Before returning any firearm for service, please obtain a Return Authorization Number (RMA#).

An RMA# can be obtained by calling our service department at 218-746-3459 or visiting our web site at www.magnumresearch.com - and clicking on the tab marked "O&A \ Repair Shipping".

Please include the RMA # and related correspondence with all returns. Obtain a shipment tracking number whenever possible.

PARTS LIST



ITEM #.	DESCRIPTION	ITEM #	DESCRIPTION
1	RECEIVER	14	RECOIL SPRING
2	BARREL	15	FIRING PIN
3	BOLT	16	FIRING PIN REBOUND SPRING
4	BOLT HANDLE	17	FIRING PIN SPRING PIN
5	STOCK	18	REAR FIRING PIN RETAINING PIN
6	V-BLOCK	19	FRONT FIRING PIN RETAINING PIN
7	BOLT STOP PIN	20	EXTRACTOR
8	RECEIVER CROSS PIN	21	EXTRACTOR PLUNGER
9	TRIGGER ASSEMBLY	22	EXTRACTOR PLUNGER SPRING
10	MAGAZINE	23	STOCK TAKEDOWN SCREW
11	V-BLOCK SCREW	24	GAS DISCHARGE DEVICE (.22 WMR Only)
12	GUIDE ROD	25	GAS BLOCK SCREW (.22 WMR Only)
13	GUIDE ROD SLEEVE		



Magnum Research, Inc.

12602 33rd Avenue SW

Pillager, MN 56473

(218) 746-3459 - Service & Parts

(508) 635-4273 - Sales & Accessories

Fax: (218) 746-3097

www.magnumresearch.com

**Ammunition Tips for
Magnum Lite .22LR Graphite Barrels and Rifles
by Magnum Research, Inc.**

Thank you for purchasing our precision engineered .22LR graphite barrel or Magnum Lite rifle. Following are a few tips on ammunition selection to help you understand this barrel/rifle and get the most it has to offer.

CHAMBER: The barrel has a very special chamber designed for accuracy. This “Bentz” chamber is tighter and has a shorter tapered throat or lead into the rifling. This throat is intended to perfectly center the bullet in the rifling prior to firing the round. This is a common throat in a match semi-auto rifle but it is also NOT a universal “shoot all” chamber. It requires good ammunition. Most promotional ammunition will not function well in it. That is by design; we have designed this barrel as an accuracy barrel.

AMMUNITION: We understand that our customers will have many different uses for our barrels. Some will hunt, plink, varmint and target shoot, even seriously target shoot. This barrel is capable of it all, with the correct ammo. To find the correct ammo first decide what you want to do with it, then purchase several different types of ammo that meets your ultimate goal and try them out, select the best performing one and have fun. Selection should be based on function and accuracy. Some legitimate match grade ammunition will shoot great but is subsonic and will not cycle the action of a semi-auto rifle. MOST promotional loads will not shoot well and will not function well in a semi-auto. There are many moderately priced brands that function the semi-auto action well and shoot extremely well. We use CCI standard velocity ammo as a benchmark when we function test our MLR rifles. It is standard velocity ammo that shoots very well and will cycle our semi-auto actions.

TIPS:

1. CLEAN your barrel when it is dirty. Clean it with solvent, copper brushes and cotton patches from the breech end. Our MLR rifles have a cleaning rod hole in the rear of the receiver for this purpose or for simple cleaning of the bore we also recommend the Michaels of Oregon bore snake; pulled from the breech to the muzzle.
2. Promotional, low priced bulk ammunition does not shoot well and may cause function problems in the semi-automatic action and Bentz chamber. They also lead the barrel much quicker than quality ammo.
3. STINGERS are NOT designed to be used in a Bentz chamber do not shoot them. The case is too long.
4. In any rimfire barrel a quality barrel will NOT make cheap ammo shoot well. Rather a quality barrel will enhance the performance of quality ammo.
5. Typically hollow points do not shoot as accurately as a solid bullet in .22LR ammunition. They are usually high speed and function well. If you are hunting and have chosen to use them, try as many brands as possible to select the best shooting brand.
6. HIGH speed ammo cycles the semi-auto rimfire action better than standard velocity ammo does. It also generally does not shoot as well.

Ammo selection can be half the fun of learning about your new barrel or rifle and it is very revealing. Some ammo simply does not work well in a semi-auto.

Thank you for your confidence in Magnum Research demonstrated by the purchase of the Magnum Lite graphite barrel or Magnum Lite rifle. We hope you have as much fun shooting it as we do.