



**SWITCHBOLT**™

Caliber: .22 LR


**MAGNUM LITE** 

# INSTRUCTION MANUAL

FOR MAGNUM RESEARCH'S MLR-1722, MLR-1722M RIFLES CALIBERS .22 LR SWITCHBOLT AND .22WMR

**BARRACUDA**

Caliber: .22 WMR



**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 FIREARMS 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 FIREARM 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 INFLICT SUCH WOUNDS ACCIDENTALLY ON OTHERS. IN ORDER TO LIMIT THE CHANCE OF SUCH MISUSE, IT IS IMPERATIVE THAT YOU KEEP THIS FIREARM 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 FIREARM 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.

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

**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 SwitchBolt, 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 firearm safely you should seek out supervised instruction. Such instructions are 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  
800-672-3888

**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 firearm chambered for either .22 Long Rifle (.22 LR) or .22 Winchester Magnum Rimfire (.22 WMR), and so marked on the barrel. It is blowback gas operated and uses a standard Ruger Type 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 firearm is ready to fire again.

Each time the firearm'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 .22 WMR 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 FIREARM, AS IT WOULD CAUSE AN UN-SAFE CONDITION.**

**WARNING: THE FIREARM WILL FIRE IF THERE IS A CARTRIDGE IN THE CHAMBER OF THE BARREL EVEN IF THERE IS NOT A MAGAZINE IN THE FIREARM! REMOVING THE MAGAZINE DOES NOT UNLOAD THE FIREARM. ALWAYS INSPECT THE CHAMBER AND MAGAZINE EACH TIME THE FIREARM 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 firearm is held in the normal shooting position, the safety is “ON” when it protrudes from the Right or ejection port side of the firearm’s trigger guard assembly. In this position the safety blocks the hammer of the firearm and the firearm 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 firearm a “Red” band can be seen on the safety when the safety is “OFF” and in the “Firing” position. Nonetheless, 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 FIREARM IS NOT BEING FIRED.**

**DO NOT RELY ON THE APPEARANCE OF THE RED BAND TO INDICATE THAT THE SAFETY IS OFF.** If the firearm 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 FIREARM 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 moved. If the safety moves too easily or does not make an audible “click “ when being used STOP using the firearm immediately and return prepaid to:

**Magnum Research Inc. (MRI)**  
12602 - 33rd Avenue SW,  
Pillager, MN 56473  
218-746-3459 (Service & Parts)

## WARNING

The only “safe “ firearm is when the bolt is open, the chamber is empty, and the magazine has been removed from the firearm. Never allow the firearm 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 firearm 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 up on 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 release it.

**Note:** Bolt does not lock open after last round is fired.

## 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 firearm unsafe. **Altering the trigger components may cause the firearm to fire unexpectedly and will void your warranty.** Additionally you should have the safety on at all times except when actually firing the firearm. Keep your finger off the trigger except when actually firing the firearm.

## AMMUNITION

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

**1722M: Use only .22 WMR 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 firearm is fired.

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

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

The .22 WMR rifle has a very small orifice hole in the barrel that equalizes the timing of peak pressure variances in .22 WMR ammunition. It is vital to the safe function of your firearm.

**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 firearm 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. Typically the cost of the ammunition is directly related 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.**

## Ammunition Tips for Magnum Lite .22 LR Carbon Weave Barrels and Firearms

Following are a few tips on ammunition selection to help you understand this barrel/firearm 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 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 firearm 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 firearm. Most promotional loads will not shoot well, 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. The case is too long. Do not attempt to shoot these cartridges.

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. The hollow point ammunition operates the semi-auto action well. They are usually high speed and function well. If you are hunting and have chosen to use them, select the most accurate brand for your particular firearm.

6. High speed ammo cycles the semi-auto rimfire action better than standard velocity ammo does. High speed ammunition is generally not as accurate.

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

## LOADING AND FIRING

1. Always keep the muzzle (front end of the barrel) pointed in a safe direction.

2. 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 firearm.

3. 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 firearm is not loaded and there are no obstructions or foreign matter in the action or barrel. (Make sure safety is in the "ON" position.)

4. Load the magazine by inserting up to ten cartridges, of the same caliber as marked on the barrel of your firearm. Insert 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. Note: The .22 Long Rifle magazine holds ten cartridges when fully loaded. The .22 WMR magazine holds nine cartridges when fully loaded.

5. Insert the magazine into the firearm with the bullets facing forward. NOTE: The magazine cannot be installed in the wrong direction.

6. Load a cartridge into the chamber by pulling the bolt handle completely rearward, releasing the bolt lock and releasing the bolt handle. **DO NOT TOUCH THE TRIGGER.** Do not "ride" the bolt handle;

rather let it close under its 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 firearm 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 firearm is able to 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 THAT TIME. PLACE THE SAFETY IN THE "ON" POSITION WHILE THE FIREARM 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 firearm to insure the chamber is empty. **IF THE BOLT IS CLOSED ALWAYS ASSUME THE FIREARM IS LOADED. DO NOT RELY ON YOUR MEMORY TO KNOW IF A FIREARM IS LOADED. ALWAYS VISUALLY INSPECT THE MAGAZINE AND CHAMBER.**

## UNLOADING

**NOTE: THIS SEQUENCE MUST BE FOLLOWED EXACTLY AS WRITTEN. FAILURE TO DO SO CAN RESULT IN THE FIREARM'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 firearm is cocked, **MOVE THE SAFETY TO THE "ON" POSITION.**

2. Remove the magazine, but remember, 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 firearm 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 firearm, point the firearm safely downrange and

place the safety in the “off” position. Fire the firearm 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 firearm. Call our service department for further instructions. (218-746-3459)

5. The only “safe” firearm is one that has the bolt open and the chamber and magazine are empty.
6. **UNLOADING THE MAGAZINE:** 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.
7. Do not return any loaded firearm for service or repair. Remove all live and fired cartridges before shipping.

## TO CLEAR A MALFUNCTION OR “JAM”

1. Most “jams” are caused by improper or damaged magazines, incorrect or old ammunition or a dirty firearm.
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 firearm. 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 firearm causes most “jams”.
2. If it appears that the firearm 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 firearm and magazine are unloaded and that the safety is “ON”. Remember the magazine should be removed first when unloading a firearm, 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 10.) 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. Clean the chamber.
  - D. 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 firearm. It may be returned to our service department directly for repair. See page 11 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 firearm should be returned for gauging and inspection.



## MLR DISASSEMBLY

### WEAR SAFETY GLASSES DURING ASSEMBLY AND REASSEMBLY

#### 1. MAKE SURE THE FIREARM IS UNLOADED.

2. With the firearm 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 firearm. **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 firearm 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 firearm over and it will drop out into your hand or onto a soft surface.

## MLR 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 a wooden dowel or your finger 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 ways to accomplish this.

#### 2. Reassembly of the firearm:

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.

## SWITCHBOLT DISASSEMBLY

### WEAR SAFETY GLASSES DURING ASSEMBLY AND REASSEMBLY

#### 1. MAKE SURE THE FIREARM IS UNLOADED.

2. With the firearm pointed in a safe direction, remove the magazine, open the bolt and visually make sure there is no 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 firearm. 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 three 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 firearm upside down.

B. Push out the large steel bolt stop pin located at the rear of the receiver.

C. Remove the bolt handle from the bolt with an Allen wrench.

D. Pull the bolt fully to the rear with your fingers and lift the front of the bolt to pivot it up above the rails that hold it in position.

E. Grab the recoil spring rod and pinch it securely (located directly in front of the bolt) while simultaneously lifting the bolt and spring assembly out of the receiver.

**CAUTION: this rod is under spring tension and must be securely held. Failure to securely hold the rod under spring tension can result in bodily injury.**

F. Once the bolt is out of the receiver, slowly let the spring push the bolt forward while securing the spring and guide rod sleeve with your other hand.

## SWITCHBOLT REASSEMBLY

#### 1. Reassembly of the bolt into the receiver:

A. Place the recoil spring onto the guide rod and depress it enough to also place the guide rod sleeve over the spring.

B. Place the exposed end of the guide rod into the hole on the front of the bolt from the rear.

C. Slide the bolt down over the guide rod and compress the spring.

D. Pinch the guide rod securely, directly in front of the bolt.

E. Place the pointed end of the guide rod into the small hole in the right side of the rear of the receiver and push the bolt fully rearward (with the firing pin down) fully compressing the spring.

F. Slowly allow the front of the bolt to drop fully into the receiver. Once it is under the rails it will spring forward.

G. Using an Allen wrench install the bolt handle on either the right or left side of the bolt.

#### 2. Reassembly of the firearm:

A. Install the bolt stop pin in the rear of the receiver (large steel pin).

B. Place the trigger guard into the receiver and install the two smaller cross pins through the receiver.

C. Place the barrel and receiver assembly into the stock by following in reverse orders steps A through E under disassembly.

## CARE AND CLEANING

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

1. Disassemble the firearm as explained on page 9.

2. Using a cleaning rod, run a solvent dampened 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 dampened 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 firearms have a scope mount rail machined integrally onto the one-piece receiver. It is designed to use any “Picattiny” 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 firearm 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.

- Ensure that the rifle is unloaded.
- DO NOT SHIP ANY AMMUNITION.
- Enclose a letter which includes your full name and address (no P.O. Boxes, please), daytime telephone number, e-mail address, the serial number of the firearm, and details of the problem experienced (stating the brand and type of ammunition used when the problem occurred) or work desired.

- Record the serial number before shipping, in case you wish to check on the repair status of your firearm.
- Please remove all custom parts and accessories, such as stocks, special sights, holsters, and live ammunition from your firearm before returning.
- Place the firearm in its original case or in a similarly secure container, wrap loose items and pack securely.
- When returning a firearm, (please include all magazines,) wrap loose items, ensuring they are unloaded; they are important to the proper function of the firearm.
- The package must NOT bear any markings which indicate the identity of the contents. Please write clearly the RMA# on the outside of the package.
- It is most important that you comply with federal, state, and local laws and regulations. The following guidelines are meant to help, but you must seek assistance from the appropriate authorities if necessary.
- If your firearm must be replaced, it may be necessary to ship the replacement to a dealer rather than directly to you. You will be requested to furnish a signed FFL (Federal Firearms License) from your dealer in such an instance.
- Warranty repair work will begin upon receipt and examination of the firearm. If the repairs are not covered by warranty, our professionally trained gunsmiths will repair the firearm and notify you of the charges. If the requested work will exceed \$100.00, they will notify you prior to starting the work. Repairs and modifications will begin upon receipt of payment. Firearm will be returned after full payment is received.

## PARTS

We will sell parts. Please contact our service department 218-746-3459 with your needs.

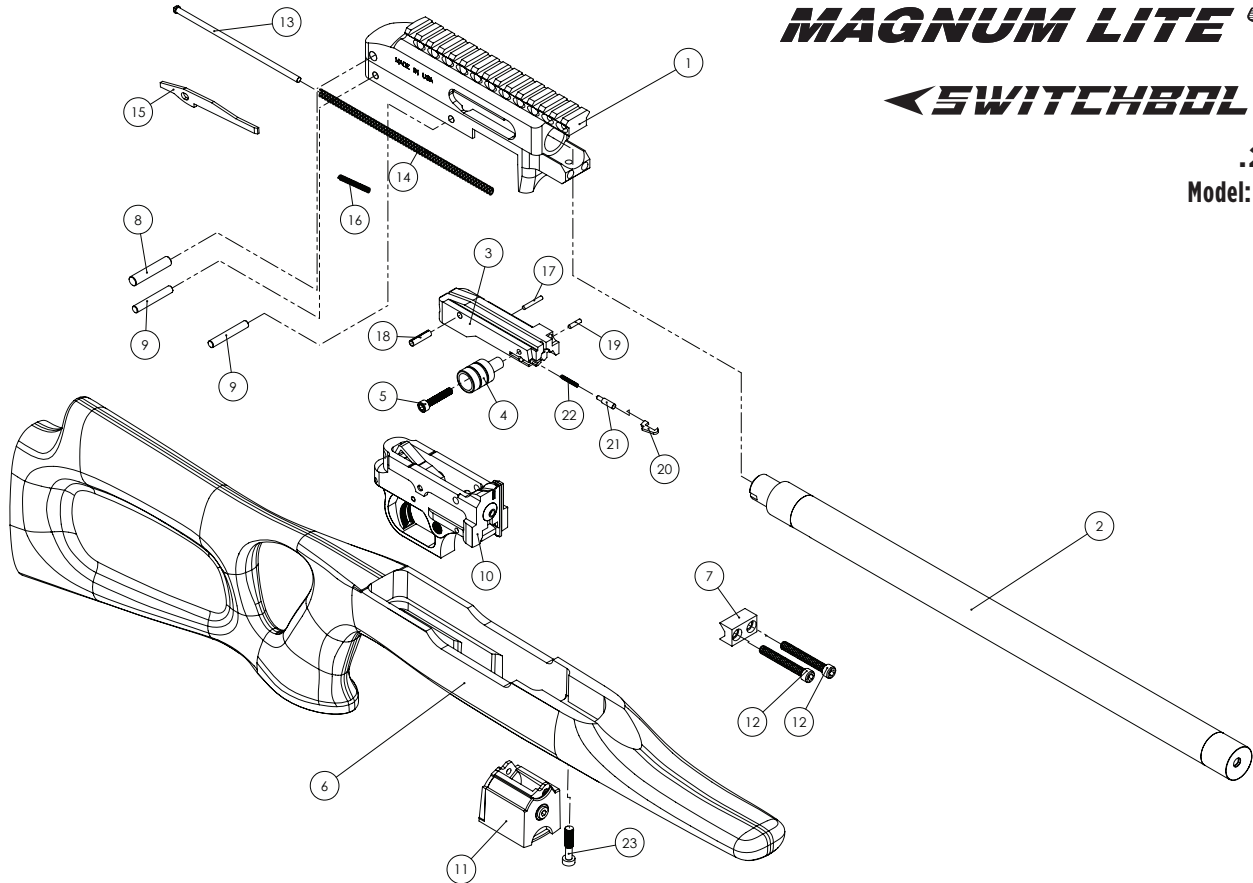
## RETURN AUTHORIZATION REQUIRED

An RMA # can be obtained by calling our service department 218-746-3459 or visiting our website (<https://www.magnumresearch.com/magnum-rma/>). Please include the RMA # and related correspondence with all returns. Obtain a shipment tracking number whenever possible.

**MAGNUM LITE** 

**SWITCHBOLT**™

**.22 LR**  
**Model: SSAT22G**



ITEM #	DESCRIPTION	6	12	18
1	RECEIVER	STOCK	V-BLOCK SCREW	REAR FIRING PIN RETAINING PIN
2	BARREL	V-BLOCK	GUIDE ROD	FRONT FIRING PIN RETAINING PIN
3	BOLT	BOLT STOP PIN	RECOIL SPRING	EXTRACTOR
4	BOLT HANDLE	RECEIVER CROSS PIN (2)	FIRING PIN	EXTRACTOR PLUNGER
5	BOLT HANDLE SCREW	TRIGGER ASSEMBLY	FIRING PIN REBOUND SPRING	EXTRACTOR PLUNGER SPRING
		MAGAZINE	FIRING PIN SPRING PIN	STOCK TAKEDOWN SCREW



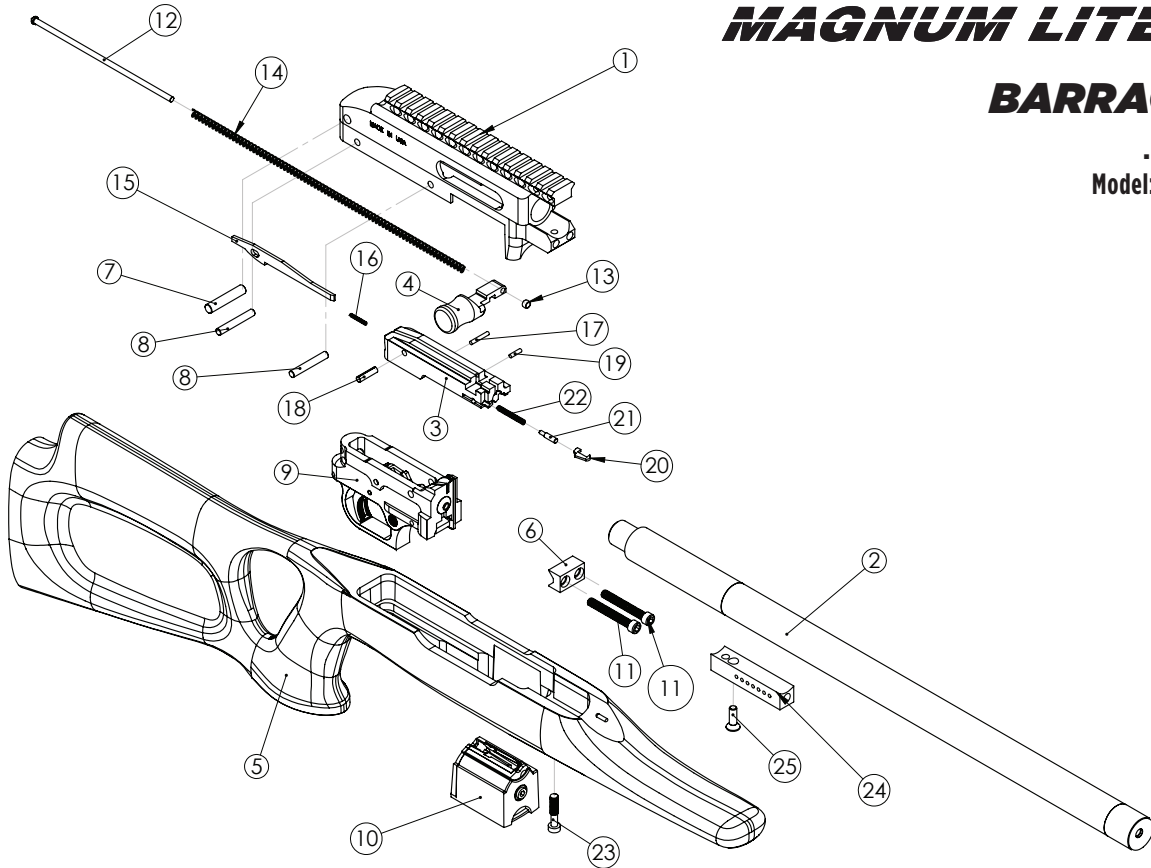
- 17" Carbon Weave Barrel
- 35.5" O/A Length
- 4.25 lbs Weight
- Unique Gas-Assisted Blowback Operation
- Ambidextrous Bolt Handle

**MAGNUM LITE** 

**BARRACUDA**

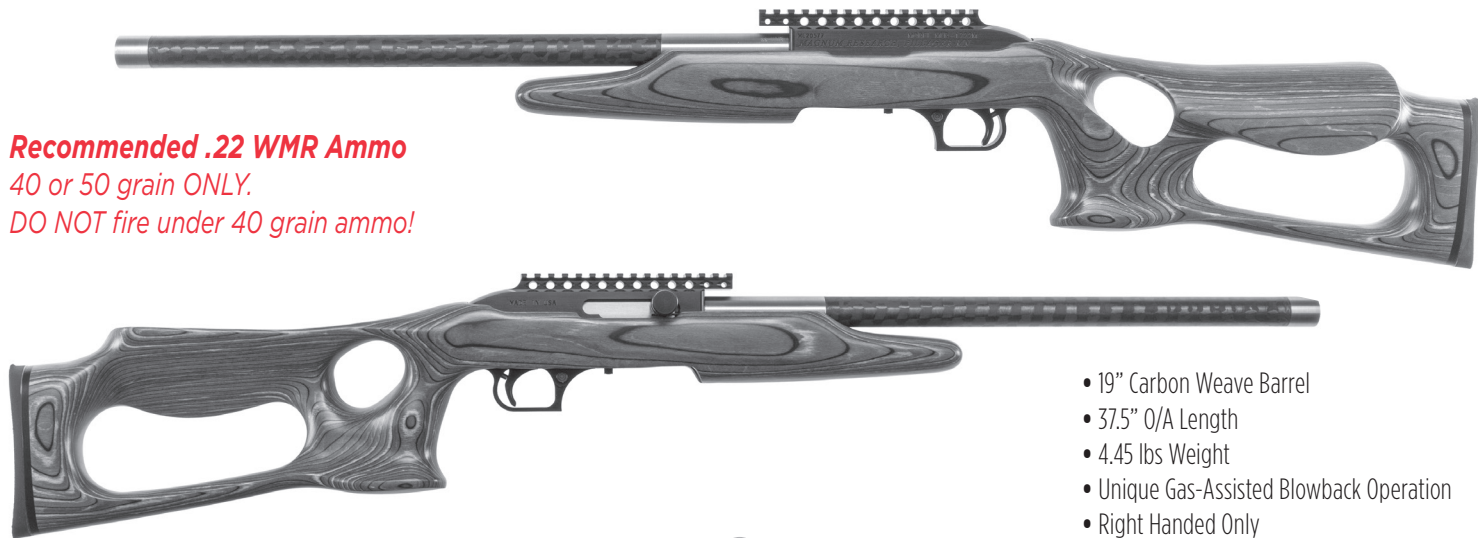
**.22 WMR**

**Model: MLR22WMBP**



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

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



- 19" Carbon Weave Barrel
- 37.5" O/A Length
- 4.45 lbs Weight
- Unique Gas-Assisted Blowback Operation
- Right Handed Only

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## Desert Eagle Pistols

Available in calibers: .50 AE, .44 Mag, .429 DE and .357 Mag  
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Custom  
Model



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Custom  
Model

DESERT EAGLE  
1911



## Desert Eagle 1911 Pistols

Available in calibers: .45 ACP and 10mm



## MagnumLite Rimfire Rifles

Available in caliber: .22 LR  
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Custom  
Model

## MAGNUM RESEARCH, INC.

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