

Congratulations on joining the Savage Arms family of sporting firearms owners. With reasonable care, your firearm should deliver years of reliable service and perform to our "legend of accuracy".

For your convenience, this INSTRUCTION MANUAL has been divided into 8 SECTIONS:
SECTION 1: 10 Commandments of Shooting Safety
SECTION 2: Muzzleloader Safety Guidelines
SECTION 3: Operating Instructions
SECTION 4: Recommended Powder Loads
SECTION 5: Statement of Limited Warranty
SECTION 6: Rings & Bases
SECTION 7: Frequently Asked Questions
SECTION 8: Parts List and Product Diagram

This manual should always accompany your firearm and be transferred with it upon change of ownership. This is your responsibility and may protect you from future liability.

SECTION 1

10 COMMANDMENTS OF SHOOTING SAFETY

(The following excerpts are from SAAMI bulletin #081 1MM 7/97 BP. The entire booklet can be obtained by calling: NATIONAL SHOOTING SPORTS FOUNDATION, 11 MILE HILL ROAD, NEWINGTON, CT 06470; 203-426-4358)

Firearms Safety Depends On You

From the time you pick up a firearm, you become part of a system over which you have complete control.

You are the only part of the system that can make a gun safe – or unsafe.

You can help meet this responsibility by enrolling in hunter safety or shooter safety courses, if you have not already done so. You must constantly stress safety when handling firearms, especially to children and non-shooters. Develop safe shooting habits and remember, firearms safety is up to you. Make no mistake about it.

ALCOHOL, DRUGS AND GUNS DON'T MIX.

1. ALWAYS KEEP THE MUZZLE POINTED IN A SAFE DIRECTION

This is the most basic safety rule. If everyone handled a firearm so carefully that the muzzle never pointed at something they didn't intend to shoot, there would be virtually no firearm accidents. It's as simple as that, and it's up to you.

Never point your gun at anything you do not intend to shoot. A safe direction means a direction in which a bullet can not possibly strike anyone, taking into account possible ricochets and the fact that bullets can penetrate walls and ceilings. Even when "dry firing" with an unloaded gun, you should never point the gun at an unintended target.

This is your responsibility, and only you can control it.

2. FIREARMS SHOULD BE UNLOADED WHEN NOT ACTUALLY IN USE

Firearms should be loaded only when you are in the field or on the target range or shooting area, ready to shoot. When not in use, firearms and ammunition

should be secured in a safe place, separate from each other. It is your responsibility to prevent children and inexperienced adults from gaining access to firearms or ammunition. A loaded gun has no place in or near a vehicle or building.

Whenever you handle a firearm or hand it to someone, always open the action immediately, and visually check the chamber, receiver and magazine to be certain they do not contain any ammunition. Never assume a gun is unloaded – check for yourself! While in the field, there will be times when common sense and the basic rules of firearms safety will require you to unload your gun for maximum safety. When in doubt, unload your gun!

3. DON'T RELY ON YOUR GUN'S "SAFETY"

Treat every gun as though it can fire at any time, regardless of pressure on the trigger. The "safety" on any gun is a mechanical device, which, like any such device, can become inoperable at the worst possible time. The safety serves as a supplement to proper gun handling but cannot possibly serve as a substitute for common sense.

Never touch the trigger on a firearm until you actually intend to shoot.

Your firearm is a precision instrument. Regardless of the position of the safety, any bump strong enough to actuate the firing mechanism of a gun can cause it to fire. The only time you can be absolutely certain that a gun cannot fire is when the action is open and it is completely empty. You and the safe gun handling procedures you have learned are your gun's primary safeties.

4. BE SURE OF YOUR TARGET AND WHAT'S BEYOND IT

No one can call a bullet back. Don't shoot unless you know exactly what your bullet is going to strike. Be sure that your bullet will not injure anyone or anything beyond your target. You should keep in mind how far a bullet will travel if it misses your intended target or ricochets in another direction.

Be aware that even a .22 short bullet can travel over 1¼ miles and a high velocity cartridge, such as a 30-06, can project a bullet more than 3 miles. Shotgun pellets can travel 500 yards, and shotgun slugs have a range of over a half-mile.

5. USE CORRECT AMMUNITION

You must assume the serious responsibility of using only the correct ammunition for your firearm. Read and heed all warnings, including those that appear in the gun's instruction manual and on the ammunition boxes. Using improper or incorrect ammunition can destroy a gun and cause serious personal injury. It only takes one cartridge of improper caliber or gauge to wreck your gun, and only a second to check each one as you load it. Be absolutely certain that the ammunition you are using matches the specifications that are contained within the gun's instruction manual and the manufacturer's markings on the firearm barrel.

Handloaded or reloaded ammunition deviating from pressures generated by factory loads or from competent recommendations specified in reputable handloading manuals can be dangerous, and can cause severe damage to guns and serious injury to the shooter.

Ammunition that has become very wet or has been submerged in water should be discarded in a safe manner. Do not spray oil or solvents on ammunition or place ammunition in excessively lubricated firearms.

Form the habit of examining every cartridge you put in your gun. Never use damaged, old or questionable ammunition – the money you save is not worth the risk of possible injury or a ruined gun.

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

6. IF YOUR GUN FAILS TO FIRE WHEN THE TRIGGER IS PULLED, HANDLE WITH CARE!

Occasionally, a gun may not fire when the trigger is pulled. If this occurs, keep the muzzle pointed in a safe direction. Keep your face away from the breech. Then, carefully open the action, unload the firearm and dispose of the cartridge in a safe way.

Any time there is a cartridge in the chamber, your gun is loaded and ready to fire- even if you've tried to shoot and it did not go off. It could go off at any time, so you must always remember RULE #1 and WATCH THAT MUZZLE!

7. ALWAYS WEAR EYE AND EAR PROTECTION WHEN SHOOTING

All shooters should wear protective shooting glasses and some form of hearing protectors while shooting. Exposure to shooting noise can damage hearing, and adequate vision protection is essential. Wearing eye protection when disassembling and cleaning any gun will also help prevent the possibility of springs, spring tension parts, solvents or other agents from contacting your eyes. No target shooter, plinker or hunter should ever be without them.

8. BE SURE THE BARREL IS CLEAR OF OBSTRUCTIONS BEFORE SHOOTING

Before you load your firearm, open the action and be certain that no cartridge is in the chamber. Then glance through the barrel to be sure it is clear of any obstruction. Even a small bit of mud, snow, excess lubricating oil or grease in the bore can cause dangerously increased pressure, causing the barrel to bulge or even burst when firing, which can cause injury to the shooter and bystanders. Make it a habit to clean the bore with a cleaning rod and patch to wipe away anti-rust compounds in the gun each time immediately before you shoot it. If the noise or recoil on firing seems weak or doesn't seem quite "right", cease firing immediately and be sure to check that no obstruction or projectile has become lodged in the barrel.

9. DON'T ALTER OR MODIFY YOUR GUN, AND HAVE GUNS SERVICED REGULARLY

Firearms are complicated mechanisms, which are designed by experts to function properly in their original condition. Any alteration or change made to a firearm after manufacture can make the gun dangerous and will usually void any factory warranties. Do not jeopardize your safety or the safety of others by altering the

trigger, safety or other mechanism of any firearm or allowing unqualified person's to repair or modify a gun.

Your gun is a mechanical device, which will not last forever and is subject to wear. As such, it requires periodic inspection, adjustment and service.

10. LEARN THE MECHANISM AND HANDLING CHARACTERISTICS OF THE FIREARM YOU ARE USING

Not all firearms are the same. Consequently, never handle any firearm without first having thoroughly familiarized yourself with the particular type of firearm you are using, the safe gun handling rules for loading, unloading, carrying and handling that firearm, and the rules of safe gun handling in general.

You should always read and refer to the instruction manual you received with your gun, or if you have misplaced the manual, simply contact the manufacturer for a free copy.

Having a gun in your possession is a full-time job. You cannot guess; you cannot forget. You must know how to use, handle and store your firearm safely. Do not use any firearm without having a complete understanding of its particular characteristics and safe use. There is no such thing as a foolproof gun.

SECTION 2

MUZZLELOADER SAFETY GUIDELINES

Loading and shooting a muzzleloading rifle is not difficult, but does require procedures that are different than loading and shooting a cartridge firearm. To avoid

possible damage to the rifle or injury to the shooter and bystanders, read, understand, and practice the *10 COMMANDMENTS OF SHOOTING SAFETY* (SECTION 1) and *MUZZLELOADER SAFETY GUIDELINES*. Always use common sense when loading and shooting any firearm.

Ten Commandments Of Muzzleloader Safety

1. The beginning muzzleloader shooter can receive instruction and information from the National Muzzleloading Rifle Association, local muzzleloading clubs, the National Rifle Association and state hunter education programs.

2. The Savage Model 10ML-II has been designed and built to shoot prescribed smokeless powder loads. This rifle will also give outstanding performance with black powder or Pyrodex® propellants.

CAUTION: DO NOT USE SMOKELESS POWDER IN ANY OTHER MUZZLELOADING FIREARM NOT SPECIFICALLY DESIGNED FOR ITS USE.

3. ALWAYS keep the muzzle of the rifle pointed in a safe direction, especially during loading. With any muzzleloader, there is always the possibility of an accidental discharge while loading. It is imperative that the barrel be vertical and angled away from the face and body when pouring in a measured powder charge and while seating the projectile over the powder.

4. ALWAYS open the bolt of the rifle before loading powder and projectile in the barrel. Once the primer is loaded and the bolt closed, the rifle is ready to fire.

5. Remain focused during loading to insure that you use the proper sequence of components. NEVER hand a loaded muzzleloader to another shooter. NEVER fire a muzzleloader someone else has loaded (without knowing how and with what it was loaded). NEVER attempt to jump across a ditch, climb across a fence or log, or hoist a muzzleloader into an elevated tree stand while it is primed and ready to fire. ALWAYS know if your rifle is loaded or unloaded, primed or unprimed. NEVER let yourself become distracted while handling a loaded and primed muzzleloader.

6. ALWAYS seat the projectile firmly over the powder charge. Any projectile that sits off of the powder charge will usually produce poor accuracy and could result in pressures high enough to burst the barrel and cause injury. In some cases, the powder will fail to ignite.

7. The best accuracy with smokeless loads in your Savage Model 10ML-II will be achieved with powder charges that have been carefully weighed on a smokeless powder scale and carried in small, capped plastic tubes. Never load directly from the can, powder flask or powder horn. A burning ember left in the barrel from the last shot could ignite the powder and result in the explosion of the container. ALWAYS use a separate container/dipper/charge tube to transfer the charge from the container. ALWAYS keep your face and hands away from the muzzle when loading, and immediately close any powder or Pyrodex® container after use.

8. DO NOT smoke while loading or handling a loaded muzzleloader, or when handling propellants.

9. Keep powder and primers away from where firearms are being discharged. Sparks, intense heat or a sharp impact can detonate powders and primers. ALWAYS read and understand the manufacturer's instructions for details on safe handling and storage.

10. Thoroughly check all safety and functioning of mechanical parts before loading your Savage Model 10ML-II rifle. Take precautions against overcharging the rifle and always make sure that the projectile is properly seated over the powder before closing the bolt with a primer. Accidental double powder charges, improper seating of bullets, or an obstruction in the bore could result in damage to the rifle and serious injury or death to a shooter or by-stander.

SECTION 3

OPERATING INSTRUCTIONS

PRIOR TO LOADING, FAMILIARIZE YOURSELF THOROUGHLY WITH THESE OPERATING INSTRUCTIONS AND THE MAIN PARTS OF YOUR FIREARM.

FAILURE TO OBEY A SAFETY WARNING MAY RESULT IN INJURY TO YOU OR OTHERS.

KNOW HOW TO LOCATE AND OPERATE THE SAFETY MECHANISM.

SAFETY

The safety on your Savage Arms bolt action firearm has 3 positions:

1 – **FULL SAFE** - Pull safety button towards shooter (trigger blocked – bolt can not be opened).

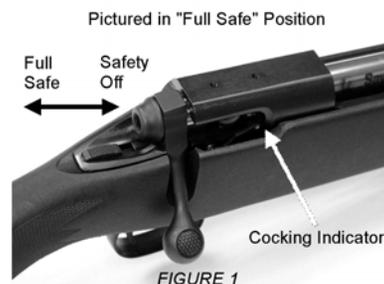
2 – **MID POSITION** (trigger blocked – bolt can be opened).

3 – **SAFETY OFF - READY TO FIRE**. Push safety button away from shooter.

1. FULL SAFE

A) The safety is in the *FULL SAFE* position when it has been moved fully rearward, covering the red "F" (See *FIGURE 1*).

B) The safety should be moved into the *FULL SAFE* position when the bolt has been closed and the firearm is ready to fire.



Caution: When carrying a loaded firearm the safety must always be in the FULL SAFE position.

C) In the *FULL SAFE* position, the trigger is blocked from moving and the bolt on rifles can not be opened.

The only time you can be absolutely certain that a gun cannot fire is when the action is open and it is completely empty of ammunition.

2. MID POSITION

A) *MID POSITION* allows the bolt to be opened and cycled while still blocking the trigger.

B) The safety will move to the *MID POSITION* when the following sequence is performed:

- lift the bolt handle
- move the safety to the *FULL SAFE* position
- push the bolt handle downward

3. SAFETY OFF – READY TO FIRE

A) The safety is in the *OFF* position when moved fully forward, exposing the red "F".

CAUTION: NEVER CARRY A LOADED FIREARM WITH THE SAFETY OFF.

LOADING

Firearms should be loaded only when you are in the field, on the target range, or at a shooting area ready to shoot.

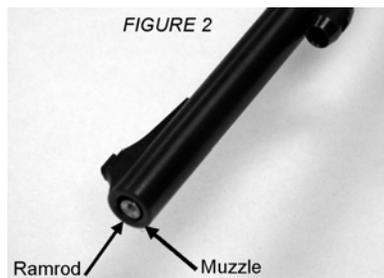
Use *ONLY* the correct powder charges and sabot/bullet combination specified in the Instruction Manual or listed on the "Savage Arms, Inc." web site (www.savagearms.com).

Thoroughly clean the inside of the barrel, breech plug and vent liner to remove all grease and other possible

obstructions prior to loading. Lightly coat the threads on the vent liner and breech plug with an anti-seize compound before reassembly.

CAUTION: EXCESS ANTI-SEIZE COATING WILL WET POWDER CAUSING MISFIRES.

1. **MAKE SURE THE RIFLE IS UNLOADED AND THE BOLT IS OPEN.** The ramrod is approximately the same length as the bore of the rifle. When dropped into an unloaded barrel, one end should sit nearly flush with the muzzle (See FIGURE 2). If it protrudes an inch or more, the rifle is either loaded or has a barrel obstruction. See instructions for disassembly to remove load or obstruction.



2. Before pouring in the powder charge, make sure the bolt is open.

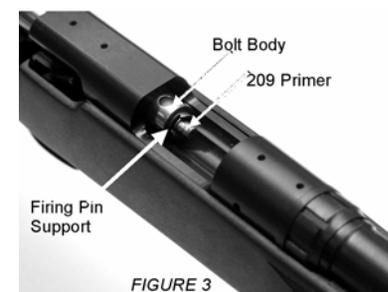
3. **WIPE THE BORE FREE OF OIL.** With the barrel pointed away from your face, use cleaning jag on the end of the ramrod to push a clean dry patch down the bore to remove excess oil. After checking to be sure the rifle is not loaded, again pointing the barrel in a safe

direction, fire a primer to clear the breech plug and vent liner of oil or cleaning solvents. The rifle is now ready to be loaded. Open the bolt and remove the fired primer.

4. With the barrel vertical and away from the face, **POUR IN MEASURED OR WEIGHED POWDER CHARGE.** Your Savage Model 10ML-II rifle can be loaded with charges of black powder, Pyrodex® or prescribed loads of certain smokeless powders (see SECTION 4). For safety and consistent accuracy, all powder charges should be carefully measured. When loading with black powder or Pyrodex®, use a volume type measure. Pyrodex® should be loaded on a volume-to-volume basis with black powder. **MAXIMUM PRACTICAL CHARGE WITH EITHER PYRODEX® OR BLACK POWDER IS 150 GRAINS.** Best accuracy (with prescribed smokeless loads) is obtained when charges are precisely weighed on a smokeless powder scale. **NEVER CLOSE THE BOLT WITH A PRIMER ATTACHED WHILE LOADING...AND ALWAYS KEEP FACE AND HANDS CLEAR OF MUZZLE.**

5. **START AND SEAT THE PROJECTILE OVER THE POWDER CHARGE.** Plastic sabot and bullet combinations must fit barrels tightly. Insert the sabot and bullet into the end of the barrel and press down past the muzzle. The ramrod is then used to firmly seat it over the powder charge. **DO NOT CRUSH THE POWDER CHARGE.** Simply push the projectile down the bore until it makes contact with the powder, then seat firmly. For best accuracy, always exert the same amount of pressure on the ramrod for every shot. Note position of ramrod when loaded – it should always be in the same place after subsequent loading, or something is wrong! Always check it.

6. **WITH THE SAFETY IN THE FULL-SAFE POSITION AND BOLT OPEN,** place a #209 primer[Ⓛ] fully into the slot in the firing pin support (See FIGURE 3) and close the bolt to chamber the primer. **SINCE THE SAFETY WILL AUTOMATICALLY MOVE TO THE MID-SAFE POSITION, RESET TO “FULL ON” POSITION BEFORE CARRYING.**



CAUTION: ALWAYS WEAR PROPER EYE & HEARING PROTECTION WHEN LOADING AND SHOOTING YOUR NEW SAVAGE MODEL 10ML-II MUZZLELOADER

TO FIRE

Do not move the safety forward to the SAFETY OFF – READY TO FIRE position until you are ready to shoot.

[Ⓛ] Note: Due to differences in manufacturers, we recommend the use of Winchester or CCI primers

1. Keep your finger off the trigger and out of the trigger guard until you are ready to shoot.

The only time you can be absolutely certain that a gun cannot fire is when the action is open and it is completely empty of ammunition.

2. Always look carefully around to be sure that no one will cross in front of you when you are ready to shoot.
3. Place the firearm to your shoulder and move the safety forward to the SAFETY OFF – READY TO FIRE position and take aim.
4. Place your finger in the trigger guard and when you are on target, squeeze the trigger slowly.
5. OPEN BOLT AND REMOVE FIRED PRIMER. To reload, run a patch dampened with solvent down the bore to remove fouling. Periodically wipe face of bolt if fouling is noticed.

Never touch the trigger on a firearm until you actually intend to shoot.

You can not call a shot back!

Never point your gun at anything you do not intend to shoot.

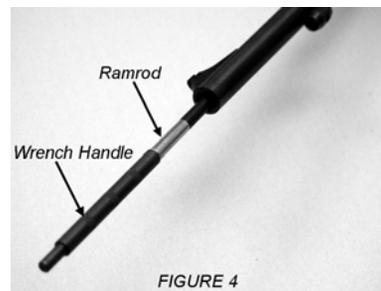
UNLOADING YOUR RIFLE

To unload your Savage Model 10ML-II, you have three alternatives:

1. You can fire the rifle into a safe backstop.

2. You can open the bolt and remove the primer from the slot in the firing pin support, pull the bullet, and pour out the powder.

3. You can remove the bolt and the removable breech plug (see “DISASSEMBLY”) and pour out the powder charge through the receiver. Using a stiff, heavy-duty cleaning rod or attaching the breech plug wrench handle to your ramrod (See FIGURE 4), push the projectile out through the breech end of the barrel.



Note: Completely screw wrench handle into small end of ramrod until shoulder bottoms on brass end of ramrod.

One of the most significant features of the Savage Model 10ML-II is the removable breech plug. It allows the shooter to easily unload the rifle without having to fire the load, and simplifies the cleaning process. If you are shooting smokeless powder and have the luxury of shooting into a proper backstop, firing the rifle is the quickest and easiest way to unload any muzzleloader.

A LOADED GUN HAS NO PLACE IN OR NEAR A VEHICLE OR BUILDING.

WHAT TO DO IN CASE OF A MISFIRE

The #209 shotshell primer used in the Savage Model 10ML-II puts upwards of 15 times the amount of fire into the barrel as is possible with the very best No. 11 percussion cap used for ignition on most other muzzleloading rifles. When fresh quality primers are used, the chance of a misfire is indeed rare. Primers, however, are produced in mass quantities and it is possible to experience a defective one.

If you should experience a misfire, follow this procedure:

1. Without opening the bolt, keep the muzzle of the rifle pointed downrange, or in a safe direction, for at least one minute. In the case of a delayed or hang fire, this will avoid the potential of injury to others and/or property damage.
2. After the minute has passed, and with the muzzle still pointed in a safe direction, open the bolt and remove the primer from the firing pin support.

CAUTION: ALWAYS RESEAT THE BULLET ONTO THE POWDER CHARGE BEFORE ATTEMPTING TO REFIRE WITH ANOTHER PRIMER. THE PRESSURE CREATED BY A SINGLE NO. 209 SHOTSHELL PRIMER IS ENOUGH TO PUSH THE BULLET AND POWDER CHARGE UP THE BARREL AND CREATE A DANGEROUS SITUATION.

3. With the barrel pointed in a safe direction, place a new primer in the firing pin support and close the bolt.

If the rifle still fails to fire, wait one minute then follow the instructions for "DISASSEMBLY" and remove the breech plug. There may be a good chance that you simply forgot to pour powder into the barrel before seating the projectile or your powder charge may be damp or contaminated with oil that may have been left in the bore from the last cleaning. Pour out any powder (through the receiver) and push the projectile from the barrel with a stiff, heavy-duty cleaning rod. Thoroughly clean the barrel, breech plug and receiver area. Clean or replace the vent liner if worn (approximately 100 shots).

4. Reassemble the rifle, making sure that the threads of the breech plug have a light coat of anti-seize compound.

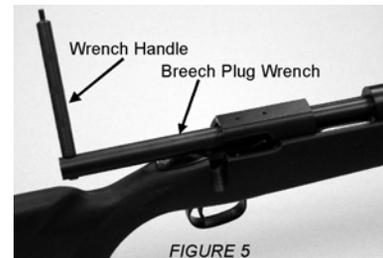
DISASSEMBLY

1. MAKE SURE THE BOLT IS OPEN AND THE RIFLE IS UNLOADED. (See "Step 1" of "LOADING" PROCEDURE".

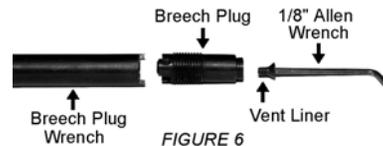
CAUTION: IF LOADED PROCEED WITH EXTREME CAUTION, KEEPING THE MUZZLE POINTED IN A SAFE DIRECTION.

2. REMOVE BOLT. Raise bolt handle, pull rearward, loosen rear stock/receiver screw with a 5/32" Allen wrench, and slide bolt out the rear of the receiver.
3. REMOVE RAMROD.
4. REMOVE BREECH PLUG. Using the special breech plug wrench supplied with your rifle, insert the wrench from the rear of the receiver until it fits snugly into the notches at the rear of the breech plug. (See

FIGURE 5). Unthread the breech plug from the barrel by turning counter clockwise. YOUR RIFLE CAN NOW BE CLEANED FROM THE BREECH END OF THE BARREL.



5. REMOVE THE BREECH PLUG VENT LINER. Use a 1/8" Allen wrench to remove the vent liner at the face of the breech plug (See FIGURE 6). Depending upon the powder being shot, the vent liner should be replaced after approximately 100 shots to maintain optimum performance.



REASSEMBLY

Simply reverse the procedures for "DISASSEMBLY". Before installing the breech plug vent liner and breech plug, apply a light coat of anti-seize compound to the

threads of each. This will ensure that these parts will unthread the next time the rifle is completely disassembled. Failure to apply anti-seize compound to these parts could result in the need to ship your muzzleloader back to Savage Arms, Inc. for disassembly – for which you will be charged. Note: Failure to properly seat the breech plug during reassembly will prevent the bolt from fully closing with a primer. Excess anti-seize compound can result in misfires. Always wipe the bore clean with a dry patch before loading. The stock/receiver screws should be tightened securely (front first and then rear).

CLEANING YOUR SAVAGE MODEL 10ML-II MUZZLELOADER

Savage Arms, Inc. recommends the use of most popular smokeless powder cleaning solvents for the bore, breech plug and vent liner. If you have fired either black powder or Pyrodex® through your rifle, use any good commercial black powder/ Pyrodex® cleaning solution. Be sure to read and understand all of the cautions and warnings on all solvents and chemicals prior to use. Follow the manufacturer's instructions for best cleaning results. Note: Use of Pyrodex® or black powder may require wiping bore between shots and periodically cleaning breech face or firing pin support.

FREQUENCY OF CLEANING

Using smokeless powder – Every 50-60 shots or every other range session.

Using Pyrodex® or black powder – Not more than 20 shots and same day after each use.

FREQUENCY OF VENT LINER REPLACEMENT:

Using smokeless powder – Every 100 shots.

Using Pyrodex® or black powder – Every 50 shots or less.

CLEANING INSTRUCTIONS:

1. Make sure that the bolt is open and there is no primer in the breech plug. Follow the instructions for "DISASSEMBLY".

CAUTION: IF LOADED USE SPECIAL PRECAUTIONS (SEE "DISASSEMBLY").

2. Using the appropriate cleaning solvent for the specific powder used (smokeless or black powder/ Pyrodex®) read, understand, and follow the directions listed from the manufacturer.

3. Lightly scrub the bore with a bronze bore brush to ensure removal of light plastic residue left by plastic sabots.

4. Wipe the bore with dry, clean patches.

5. Lightly apply a good gun oil to a dry, clean patch and run through the bore several times.

6. Thoroughly clean the breech plug and removable vent liner of fouling with same solvent used to clean the bore. Carbon buildup in the breech plug behind the vent liner may have to be dislodged. Use care not to damage the threads for the vent liner. Pushing carbon from front to rear is the best way to clean. Inspect the vent liner by looking through it and replace if necessary. Wipe dry and apply a light coat of anti-seize compound

to the threads of the vent liner and reinstall with 1/8" Allen wrench. Apply a light coat of anti-seize to the threads of breech lug and reinstall in the barrel.

7. Wipe the outside metal surfaces of the barrel, receiver, and bolt with a lightly oiled cloth.

8. Reassemble the rifle in the reverse order of disassembly.

SECTION 4

RECOMMENDED POWDER LOADS

RECOMMENDED SMOKELESS POWDERS LOADS

Your .50 caliber Savage Model 10ML-II muzzleloader has been designed and built specifically to shoot clean burning, non-corrosive, smokeless powder. Loads should be checked by weight carefully on an accurate smokeless powder scale. Never use a volumetric muzzleloader powder measure. If using "LEE" dippers follow instructions for filling and leveling charge and periodic checking on a scale.

WARNING: DO NOT ATTEMPT TO LOAD AND SHOOT THESE OR ANY OTHER SMOKELESS POWDER LOADS IN ANY OTHER MUZZLELOADER.

Powder	Bullet (w/black MMP sabot)	Velocity (f.p.s.)	Energy (ft. lbs.)
IMR-4227			
46 gr.	250 gr. Hornady .452" XTP	2,147 f.p.s.	2,550 f.p.e.
43 gr.	300 gr. Hornady .452" XTP	2,080 f.p.s.	2,880 f.p.e.
48 gr.	250 gr. Hornady .452" XTP	2,254 f.p.s.	2,820 f.p.e.
45 gr.	300 gr. Hornady .452" XTP	2,166 f.p.s.	3,120 f.p.e.

Accurate Arms XMP-5744

41 gr.	250 gr. Hornady .452" XTP	2,170 f.p.s.	2,612 f.p.e.
41 gr.	300 gr. Hornady .452" XTP	2,110 f.p.s.	2,940 f.p.e.
44 gr.	250 gr. Hornady .452" XTP	2,267 f.p.s.	2,837 f.p.e.
44 gr.	300 gr. Hornady .452" XTP	2,218 f.p.s.	3,270 f.p.e.

VIHTAVOURI N110

41 gr.	250 gr. Hornady .452" XTP	2,240 f.p.s.	2,785 f.p.e.
41 gr.	300 gr. Hornady .452" XTP	2,133 f.p.s.	3,030 f.p.e.
44.5 gr. (weighed)	250 gr. Hornady .452" XTP	2,368 f.p.s.	3,100 f.p.e.
(3.7cc Lee dipper)	250 gr. Hornady .452" XTP	2,353 f.p.s.	3,075 f.p.e.
44.5 gr. (weighed)	300 gr. Hornady .452" XTP	2,244 f.p.s.	3,360 f.p.e.
44.4 gr. (3.7 cc Lee dipper)	300 gr. Hornady .452" XTP	2,227 f.p.s.	3,300 f.p.e.

NOTE: To determine the best load for your Savage Model 10ML-II, try loading one or two grains more or less of these powders with sabot bullets of similar weights and diameters.

Use smokeless powder loads with sabot .45 caliber bullets only. When loading and shooting bore-sized lead conical bullets, Savage Arms, Inc. recommends loading with "Pyrodex® RS", "Select", or "Pyrodex® Pellets". Maximum recommended charge is 150 grains.

NOTE: The Savage Model 10ML-II is designed, engineered and built to withstand the higher pressures of modern smokeless propellants such as those listed above.

THE USE OF SMOKELESS POWDER (OTHER THAN PYRODEX®) IN A MUZZLELOADER NOT DESIGNED FOR SMOKELESS POWER MAY CAUSE SERIOUS INJURY TO THE SHOOTER, BYSTANDERS AND DAMAGE TO THE FIREARM.

USE **ONLY** HIGH PRESSURE MAGNUM SABOTS DESIGNED FOR SMOKELESS POWDER WHICH ARE AVAILABLE FROM MAGNUM MUZZLELOADING PRODUCTS, 518 BUCK HOLLOW LANE, HARRISON, AR 72601 - TEL. #870-741-5019, FAX 870-741-3104. Part Number - 50X451 -- UPC Code - 3709650045.

NOTE: Loads specified are for average hunting applications/seasons. Shooting during extremely hot days will require reduction of powder charges for best accuracy. Heat softens the sabot and can cause a "blow-by" condition, which reduces velocity and accuracy.

RECOMMENDED BLACK POWDER AND PYRODEX® LOADS

WARNING – NEVER MEASURE POWDER CHARGE DIRECTLY FROM CANISTER OR HORN. USE A SEPARATE MEASURE TO TRANSFER CHARGE.

Powder	Bullet (w/MMP sabot)	Velocity (f.p.s.)	Energy (ft. lbs.)
Three 50-grain pellet loads (150 gr. charge)			
	250 gr. Hornady .452" XTP	1,955 f.p.s.	2,125 f.p.e.
	300 gr. Hornady .452" XTP	1,908 f.p.s.	2,430 f.p.e.

Pyrodex® "RS Select"

100 gr.	250 gr. Hornady .452" XTP	1,620 f.p.s.	1,455 f.p.e.
100 gr.	300 gr. Hornady .452" XTP	1,555 f.p.s.	1,605 f.p.e.
120 gr.	250 gr. Hornady .452" XTP	1,694 f.p.s.	1,587 f.p.e.
120 gr.	300 gr. Hornady .452" XTP	1,615 f.p.s.	1,740 f.p.e.

NOTE: Sabot and bullet combination designed for use with black powder will not perform satisfactory with smokeless powder. All such loads must only be used with black or Pyrodex® powders.

NECESSITIES AND ACCESSORIES – SAVAGE MODEL 10 ML-II

**Supplied with rifle*

Necessary items for use of the 10ML-II

- * Instruction manual – *read and understand*
- * Breech plug wrench & handle
- * Anti-seize lube (*Kleen-Bore® TW25B sample included*)
- * 1/8" Allen wrench (*for vent liner*)
- * 5/32" Allen wrench (*for stock/receiver screws*).

Powder scale

Plastic vials for powder charges

Vent liner pick (i.e. "Hoppes Nipple Pick" or .025 diameter music wire).

Proper cleaning solvents and equipment for the type of powder used.

Proper prescribed loads (*includes specific powder charge, bullets, primer and sabots*).

Patch worm (*to pull lost patches*).

Powder measure (for smokeless powder)

NOTE: Black powder measures are graduated for black powder/Pyrodex® loads only and should not be used for smokeless powder. "Lee" dippers can be used according to the manufacturer's instructions.

Accessories

Range rod (*heavier and longer than that supplied with the rifle, which is intended for field use*).

Cleaning rod with swab or mop for wiping between shots.

Spare vent liner.

Spare breech plug.

SECTION 5

STATEMENT OF LIMITED WARRANTY

Please complete the **WARRANTY REGISTRATION CARD** and return it to Savage Arms, Inc. within ten (10) days from the date of purchase.

Savage Arms, Inc. must be notified within one (1) year from the date of purchase of any defect in materials or workmanship encountered during normal use.

WHO IS COVERED?

- * The original owner (with proof of purchase).

WHAT IS COVERED?

- * Any defect in materials or workmanship.

* The repair or replacement of the firearm at the sole discretion of Savage Arms, Inc. (in the event that Savage Arms, Inc. replaces a firearm, the defective one (in its entirety) will be retained at Savage Arms, Inc.).

HOW LONG IS THE WARRANTY PERIOD?

One (1) year from the date of purchase.

WHAT IS NOT COVERED?

PERSONAL INJURY, PROPERTY DAMAGE, AND/OR DAMAGE TO THE FIREARM CAUSED BY:

- * Negligence to provide proper care and maintenance.
- * Alterations/modifications performed without the expressed authorization of Savage Arms, Inc. Service Department.
- * Normal wear; tear; and/or corrosion.
- * Accidental discharge, careless handling, and/or misuse.
- * Black powder, Pyrodex®, or smokeless power load other than that recommended in this Instruction Manual or on the Savage Arms web site.
- * Barrel obstructions.

EXCLUSIONS AND LIMITATIONS:

This *WARRANTY* and the remedies set forth herein are exclusive and takes the place of all other expressed or implied *WARRANTIES* (including any implied *WARRANTY* of merchantability or fitness for any particular purpose which are disclaimed). No other representations or claims of any nature shall be binding on or obligate Savage Arms, Inc.

Savage Arms, Inc. excludes any incidental and consequential damages under this warranty. Some states do not allow exclusions or limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

This *WARRANTY* gives you specific legal rights. You may have other rights, which will vary, from state to state.

RETURNING A FIREARM:

For *WARRANTY* claims, proof of purchase must accompany the firearm.

It is a violation of Federal Law to ship a firearm with live ammunition either in the box or in the firearm itself. If received, The Bureau of Alcohol, Tobacco, and Firearms must be notified!

Savage Arms, Inc. is not responsible for the loss or damage to any accessories shipped with the firearm.

If there is a question whether the firearm should be returned or parts could be purchased, please call 1-413-568-7001 between 9:00 am and 3:30 p.m. EST and ask for the Service/Warranty Department.

All firearms are to be sent to Savage Arms, Inc. prepaid. Warranty repairs will be returned to the owner at Savage Arms, Inc.'s expense.

1. Pack the firearm in its original box if possible (or a similar suitable box), being careful to include any support pieces.

2. Enclose a brief note including:

- * name, address and phone number of sender

- * serial number of firearm
- * description of the problem you are having
- * bullet weight, bullet type, sabot, powder type and charge you are using
- * any other information which you feel may be helpful.

3. Return to:

Savage Arms, Inc.
100 Springdale Road
Westfield, MA 01085
Attn: Service Department

4. Upon receipt at Savage Arms, Inc. an acknowledgement will be sent within five (5) working days, stating your firearm has been received.

5. If there will be a charge involved for the repair, a quote will be sent within seven (7) working days.

6. If there is no response from the quote within (30) days, a second quote will be sent.

7. If there is no response from the second quote, the firearm will be returned COD (\$15.00 Shipping/Handling).

8. Firearms will be repaired in a reasonable amount of time (typically 3 weeks after receipt of payment) in the order they were received.

9. It is at the sole discretion of Savage Arms, Inc. to replace a *WARRANTY* firearm deemed uneconomical to repair.

SECTION 6

RINGS AND BASES FOR MOUNTING A SCOPE

The following Companies manufacturer *RINGS* and *BASES* that fit Savage firearms.

The manufacturer's listed below should be contacted for specific part numbers and information.

WEAVER
P.O. Box 39
Onalaska, WI 54650
608-781-5800
www.weaver-mounts.com

KWIK-SITE
5555 Treadwell
Wayne, MI 48184
734-326-1500
www.kwiksiteco@aol.com

B-SQUARE
P.O. Box 11281
Fort Worth, TX 76110
800-433-2909
www.b-square.com

BURRIS
331 East 8th Street
Greeley, CO 80631
970-356-1670
www.burrisoptics.com

MILLETT
7275 Murdy Circle
Huntington Beach, CA
800-645-5388
www.milletsights.com

LEUPOLD
14400 NW Greenbrier Parkway
Beaverton, OR 97006
503-526-5196
www.leupold.com

The 10ML-II also uses rings and bases that fit standard M-10/11/12/16 series Savage Arms short-action rifles.

SECTION 7

FREQUENTLY ASKED QUESTIONS

For additional information, please see our Web site at: www.savagearms.com.

How often and why must I lube the vent liner and breech plug?

The rifle should have the breech plug and vent liner removed and cleaned before storage. In heavy use at the range, it may be necessary to clean them during the day. Black powder will require cleaning about every 20

shots while smokeless will allow much more shooting between cleanings. The cleaned vent liner and breech plug threads should be lightly coated before assembly with a seizure-preventing compound (i.e. "Kleen-Bore" TW25 B). Use it very sparingly or it will wick into the barrel and wet the powder - causing misfires.

WARNING – CHECK BARREL WITH RAMROD TO INSURE THERE IS NO CHARGE IN RIFLE FIRST.

Before loading a rifle removed from storage, it is a good practice to fire a primer only, checking for the muzzle blast on the ground. This will indicate that the ignition path is clear.

What is the purpose of the vent liner?

The vent liner is the last constriction in the path of the flame from the primer and concentrates the flame into the powder charge. The vent liner should be replaced after approximately 50 shots with black powder or 100 shots with smokeless powder. If not replaced, the flame will wear the 1/8" hex drive making it difficult to remove. The through hole should be cleaned with a short piece of .029" diameter wire or smaller. Products can also be purchased for this application (i.e. "Hoppes Nipple Pick").

Information on sabots

Many sabots designed for use with black powder will not withstand the smokeless powder pressures. Sabots are also affected by ambient temperatures and will perform poorly in very hot weather. The best sabots for smokeless powder are those designed for high pressures and made of harder plastic; usually called "magnum sabots". The sabot must have a good grip on the bullet and will require effort to push into the

barrel. A loose fitting bullet and sabot will result in a loss of accuracy and very low velocity. Be sure the bullets and sabots match and provide a tight seal. Too high a powder charge will "blow by" the sabot and reduce velocity, degrading accuracy. A good charge is one that shows a dull red flash at the muzzle, producing the highest velocity. A white or very bright flash indicates a "blow-by" of the sabot. Pick up your fired sabots when developing your load and examine the petals. Melted or torn petals are the sign of a "blow-by". The best load with the highest velocity will show the petals folded open but intact with the base. The best performance with smokeless powders will be obtained loading .452" (.45 caliber) bullets with the proper sabot (as supplied by Magnum Muzzleloading Products, 518 Buck Hollow Lane, Harrison, AR 72601 Tel. #870-741-5019, Fax 870-741-3104) – Part Number - 50X451 – UPC Code - 3709650045. With black powder/Pyrodex®, .429" to .430" (.44 caliber) bullets with their appropriate sabots can be used.

Loading powder

All charges of smokeless powder should be checked with a smokeless powder scale. A variation of ½ grain can be detrimental to accuracy and can triple the group size. Black powder and bulk Pyrodex® can be loaded by volume but smokeless powder must be loaded by weight. Try to hold the barrel vertical (and away from your face), pouring the powder down the center (to prevent it from clinging to the sides of the bore); the sabot will not clean powder from the rifling. When shooting at the range, wiping between shots will increase accuracy. Preload and identify the charges in plastic tubes for ease of loading in the field or at range.

CAUTION: DO NOT USE SMOKELESS POWDER IN ANY OTHER MUZZLELOADING FIREARM NOT SPECIFICALLY DESIGNED FOR ITS USE.

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	SOLUTION
MISFIRE	No charge/load	Check for load w/ramrod (see INSTRUCTION MANUAL Figure 2)
	No primer	Insert a #209 primer into the firing pin support
	Oil left in the bore could moisten the powder	Remove load (see INSTRUCTION MANUAL for MISFIRE precautions and the proper disassembly procedure) and swab the bore with a clean dry patch
	Oil blocking the vent liner or breech plug	Remove load (see INSTRUCTION MANUAL for MISFIRE precautions and the proper disassembly procedure) and clean the breech plug / vent liner
	Defective primer	Remove defective primer (see INSTRUCTION MANUAL for MISFIRE precautions) and insert a new primer into the firing pin support
	Wrong diameter bullet or sabot	See INSTRUCTION MANUAL Section 4 - RECOMMENDED POWDER LOADS
	Sabot not seated on charge	See INSTRUCTION MANUAL section for LOADING – paragraph 5
	LOSS OF ACCURACY	Incorrect powder load

Incorrect bullet / sabot	See INSTRUCTION MANUAL Section 4 - RECOMMENDED POWDER LOADS	
Severely fouled barrel	See INSTRUCTION MANUAL Cleaning Instructions	
Overheated barrel	Allow a few minutes of cooling when the barrel becomes warm to the touch	
Loose stock	Tighten the front then rear stock/action screws to 25 inch pounds	
Loose or damaged scope	Replace or tighten scope	
RAM ROD DOES NOT STAY IN THE STOCK	Ramrod spring missing / damaged	Remove stock and assure ramrod spring is in its proper location
BOLT IS HARD TO CLOSE	Fouled breech plug	See INSTRUCTION MANUAL Cleaning Instructions
	Loose breech plug	Using the supplied BREECH PLUG WRENCH, retighten as shown in Figure 5 of the INSTRUCTION MANUAL
	Rear stock/action screw is too tight	Loosen rear stock/action screw and retighten to 25 inch/pounds
PRIMER IS HARD TO REMOVE	Fouled breech plug	See INSTRUCTION MANUAL Cleaning Instructions
	Low pressure load	See INSTRUCTION MANUAL Section 4 - RECOMMENDED POWDER LOADS

SECTION 8

PARTS LIST AND PRODUCT DIAGRAM

When ordering parts, it is necessary to specify the model number marked on barrel, caliber, and the serial number stamped on the left rear of the receiver.

KEY # DESCRIPTION

1. ** Safety assy
- ** 1A socket screw 832 x 1/4
- ** 1B safety detent spring
- ** 1C screw 540 x 3/16
- ** 1D safety
2. ** Trigger bracket kit
- ** 2A ring retaining
- ** 2B trig pull adj. screw
- ** 2C trigger pin
- ** 2D safety bearing pin
- ** 2E trig pull adj. Spring
- ** 2F trigger bracket
3. ** Trigger assy
- ** 3A socket screw 832 x 3/8
- ** 3B trigger
4. ** Sear 10MLII kit
- ** 4A sear pin
- ** 4B sear spring
- ** 4C sear
5. Firing pin support
6. Retaining pin magnum
7. Bolt body 10MLII
8. Bolt assy screw
9. Cocking piece sleeve
10. Bolt handle 10MLII
11. ** Firing pin assy
- ** 11A cocking piece pin
- ** 11B cocking piece
- ** 11C cocking piece washer
- ** 11D mainspring long
- ** 11E washer firing pin stop nut
- ** 11F firing pin stop nut
- ** 11G firing pin 10MLII

16. Rear sight kit
 - 16A screw rear sight
 - 16B rear sight assy
17. Front sight kit
 - 17A front sight screw
 - 17B front sight
 - 17C front sight
18. Stock assy
 - 18A swivel stud rear
 - 18B swivel stud front 10ml ¼"
 - 18C nut 1032 hex
19. Trigger guard/action screw kit
 - 19A Trigger guard
 - 19B rear trigger gd. screw
 - 19C rear action screw 10MLII
 - 19D front cation screw
20. * Receiver
 - 20A dummy screw 648
21. * Recoil lug
22. * Lock nut
23. Breech plug
24. Vent liner
25. * Barrel
26. Screw, thimble
27. Ramrod thimble
28. Cleaning/ramrod
29. Spring, ramrod retaining

* *FACTORY INSTALLATION ONLY.*
***SOLD TO FFL OR FACTORY INSTALLED*

