

Instruction Book Model 700 ML

MODEL 700 ML IN-LINE MUZZLELOADING RIFLE

Congratulations on your choice of a Remington. With proper care it should give you many years of dependable use and enjoyment.

For best results we recommend that you use Remington Reloading Components--the components used in factory testing your firearm against our exacting function and performance standards.

FIREARM SAFETY

A person using a firearm has assumed an enormous responsibility. You must use your firearm in a way that will ensure not only your own safety, but that of others. Safe firearm handling is not a part-time or occasional requirement--it is a full time responsibility. You **must** know how to use you firearm safely at **all** times under **all** circumstances. **Never** use any firearm without a complete understanding of how it works and how to use it safely.

This instruction booklet is intended to help you learn how to properly and safely use and care for your Remington firearm. Only when you understand and can **safely** practice **all** of the instructions in this book, should you begin to use the firearm with live ammunition.

If you are unfamiliar with the muzzleloading firearms, seek professional instruction from a qualified organization such as the International Black Powder Hunting Association, National Muzzleloading Rifle Association, National Rifle Association or your State Hunter Safety Program.

If you loan or sell this firearm, this book must accompany the firearm.

Replacement books are available from Remington at no charge.

If you have any questions concerning the safe use of your Remington firearm, write to us at Remington Arms Company, Inc., Consumer Services, 870 Remington Dr., Madison, NC 27025.

SAFETY RULES AND INFORMATION

WARNING

READ THESE BASIC SAFETY RULES. Learn how to handle your firearm safely. Failure to read, understand and obey these rules can result in serious personal injuries or death. Only you can prevent accidents.

KNOW YOUR FIREARM. To use it correctly and safely, read and follow the instructions in the enclosed safety book and this instruction book. Copies are available free on request from Remington Arms Company, Inc.

TREAT EVERY FIREARM AS IF IT WERE LOADED. Don't rely on the safety. Use it as shown in this book. Even when the safety is engaged, careless handling can cause the firearm to fire. The safety may not actually be engaged; the internal mechanism may be altered, disabled, or broken; or the safety may have been disengaged by careless handling of the firearm.

NEVER MAKE ADJUSTMENTS. Do not make changes or alterations to any parts of a firearm. Use only REMINGTON parts. Never make an adjustment to the trigger, or change the shape or size of the sear, sear notch, sear spring or any other parts.

NEVER ATTEMPT TO REMOVE THE TRIGGER ASSEMBLY OR THE BARREL FROM THE RECEIVER. This work must be done by a REMINGTON RECOMMENDED GUNSMITH or the Remington factory.

MAKE YOURSELF SAFE. Wear shatterproof eyeglasses, shooting glasses, or sunglasses when shooting. Wear ear protection, such as ear plugs or muffs, when target shooting or plinking. Repeated exposure to shooting noise can cause permanent hearing loss. Firearm malfunction may damage hearing or vision. Never handle your firearm when your ability is impaired by alcohol, any kind of drugs, illness or fatigue. Never smoke near any quantity of black powder or PYRODEX.

TAKE CARE OF YOUR FIREARM. Always keep the barrel clean and free of obstructions. Clean and maintain the firearm according to the instructions in this book. Have the firearm checked periodically by a qualified gunsmith to make sure it is mechanically correct. Worn, damaged or missing parts may be dangerous.

WATCH YOUR MUZZLE. Always keep the firearm pointed in a safe direction. (A direction which will not allow a discharged bullet/slug or shot to strike a person or an object which may cause injury, death, or damage or may glance off such object causing injury, death, or damage). Do not allow the muzzle to point at any part of your body or at anybody else.

BEFORE LOADING, MAKE SURE THE FIREARM IS NOT ALREADY LOADED. To make sure it is unloaded, insert the ramrod provided with the rifle into the bore to the breech plug and note its position at the muzzle. It should be approximately 1/4-inch

below flush with the end of the barrel if the rifle is not loaded. Note: Nothing can be attached to the ramrod while using it in this way. **USE ONLY THE RAMROD PROVIDED.**

LOAD YOUR FIREARM SAFELY. Never load your firearm until you are in a location where it is safe to shoot. Always keep the safety engaged until you are ready to shoot. As soon as you cease firing, even temporarily, you should immediately engage the safety.

CHECK AND CLEAR THE FLASH HOLE THROUGH THE NIPPLE BEFORE SHOOTING. ALWAYS CHECK THE BARREL FOR OBSTRUCTIONS BEFORE LOADING AND SHOOTING. Before checking for an obstruction, put the safety in the "S" position and open the bolt assembly and remove the percussion cap and residue from the nipple. Water, snow, mud or any other material can obstruct the barrel and cause barrel damage.

USE BLACK POWDER OR PYRODEX ONLY TO LOAD YOUR MUZZLELOADING FIREARM. Never use even small amounts of smokeless powder, even if it is black in color. The use of any other propellant may cause injury or death to the shooter or bystanders, and damage to the firearm. Never exceed the maximum recommended powder charge contained in this manual. To do so could result in injury or death to the shooter or bystanders.

NEVER POUR POWDER DIRECTLY FROM A POWDER FLASK OR CONTAINER. A sudden powder ignition from a lingering spark could cause the entire flask to explode. Use an individual charge from a powder measure when loading your rifle. Read and follow your powder manufacturer's procedures for powder storage.

NEVER USE THE WRONG AMMUNITION COMPONENTS. Only use ammunition components that exactly match the caliber marking on your firearm and are meant to be used together. Use only pure lead or Remington brand loading components when shooting lubed conical bullets. Do not use any other lead alloys with lubed conical bullets as they may be too hard for proper and safe use in your muzzleloader.

WHEN LOADING, BE CERTAIN POWDER, PATCHES, AND PROJECTILES ARE IN THEIR PROPER SEQUENCE AND THAT THEY ARE COMPLETELY SEATED AGAINST ONE ANOTHER. Serious personal injury or death can result if space is left between them. To provide a reference mark for future loadings, mark the ramrod at the muzzle once a projectile has been loaded to the proper depth. Note: Be sure to recheck the ramrod mark if you change loading components or alter the ramrod. See picture 13 on page 17. Never attempt to shoot out a projectile that is not firmly seated against the powder charge or does not seat to the proper depth. Remove these projectiles following the instructions on page 23.

NEVER POUND ON THE RAMROD. Black Powder and PYRODEX are impact sensitive and could ignite from impact. Keep the ramrod away from your face or body.

STORE YOUR FIREARM SAFELY. Keep firearms and ammunition components away from children. Lock unloaded firearms and ammunition components securely in separate locations.

KNOW YOUR TARGET. Before you pull the trigger, make sure you can see the target and the path of the projectile beyond the target clearly. Never shoot at water, rocks, or any hard surface. Bullets may glance off such surfaces and cause injuries. Be sure all spectators are completely behind you to insure that they are clear of the shot path and any sparks or percussion cap fragments emitted by the firearm.

KNOW THE RANGE OF YOUR FIREARM. Muzzleloading projectiles have a range of more than one-half mile.

IF THE FIREARM FAILS TO FIRE, BE PREPARED FOR A HANGFIRE. Keep the muzzle pointed in a safe direction and wait no less than **one full minute** before opening the bolt. A spark may have reached the powder without any sound. **The rifle could fire at any moment during this minute.** If the rifle does not fire within a minute, carefully follow the directions on how to handle a misfire on page 18.

RENDER YOUR FIREARM INOPERABLE WHENEVER YOU ARE NOT SHOOTING. Never place the percussion cap on the nipple until just before firing and remove it immediately if you do not fire. Never carry or store a loaded firearm in a building or vehicle. Unload it by firing it into a suitable backstop before returning to your vehicle, entering a building, crossing or climbing up or down any obstacle that may prevent you from keeping full control over the firearm, such as a fallen tree, fence, tree stand, or slippery area. Failure to follow this rule may cause serious injury or death to the shooter or bystanders.

BLACKPOWDER LEAVES HEAVY CORROSIVE RESIDUES. A thorough cleaning and lubing are absolute necessities before storage and prior to loading and shooting. Follow the cleaning instructions on page 25. Always carry loading and cleaning equipment with you in the field.

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

IMPORTANT PARTS OF THE FIREARM

THE SAFETY

The safety provides additional protection against accidental or unintentional discharge under normal usage when properly engaged and in good working order.

To engage the safety, put the switch in the "S" (SAFE) position. See picture 3.

Always put the safety in the "S" position before handling, loading, or unloading the firearm.

When you are ready to fire the firearm, put the safety in the "F" (FIRE) position to disengage the safety. See picture 4.

WARNING: Do not touch the trigger while moving the safety.

Never pull the trigger when the safety is in the "S" position.

Even when you think the safety is in the "S" position, careless handling can cause the firearm to fire. See Safety Rules on Page 2.

THE BOLT ASSEMBLY

The bolt assembly houses the firing pin and mainspring.

TO INSTALL THE BOLT ASSEMBLY

1. Point the firearm in a safe direction.
2. Put the safety in the "S" position.
3. Check to be sure there is no percussion cap or percussion cap residue on the nipple and there is no charge in the barrel. See instructions on using the ramrod to check for a charge in the barrel on page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on page 23.

4. Remove the bolt stop screw from the receiver. See Picture 5.
5. Slide the bolt assembly into the receiver and align the firing pin head with the slot cut in the rear of the receiver. Also, align the long slot in the bolt body with the hole for the bolt stop screw in the receiver. See Picture 6.
6. Screw the bolt stop screw into the receiver until the head of the screw stops firmly against the bottom of the counterbore. (The end of the screw will be inside the slot in the bolt body.) Do not over-tighten.
7. Slide the bolt assembly fully forward into the receiver.
8. to place the bolt assembly in the closed, ready to fire, position, push the bolt handle down.

TO REMOVE THE BOLT ASSEMBLY:

1. Point the firearm in a safe direction.
2. Put the safety in the "S" position. **WITHOUT TOUCHING THE TRIGGER WHILE MOVING THE SAFETY.**
3. Raise the bolt handle to open the bolt.
4. Check to be sure there is no percussion cap or percussion cap residue on the nipple and there is no charge in the barrel. See instructions on using the ramrod to check for a charge in the barrel on page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on page 23.

5. Remove the bolt stop screw from the receiver. **Never attempt to remove the bolt stop screw with the bolt handle down.**
6. Slide the bolt out of the receiver.

THE TRIGGER ASSEMBLY:

Pulling the trigger fires the firearm.

The trigger is adjusted at the factory. All adjustments to the trigger must be made by the factory or a REMINGTON RECOMMENDED GUNSMITH.

WARNING: NEVER remove the trigger mechanism, or make adjustments to the trigger or trigger assembly.

WARNING: NEVER put your finger on the trigger unless you are going to fire the firearm.

THE BARREL

The inside of the barrel must be clean and free of obstructions.

1. TO CHECK THE INSIDE OF THE BARREL:

1. Point the firearm in a safe direction.
2. Put the safety in the "S" position.
3. Check to be sure there is no percussion cap or percussion cap residue on the nipple and there is no charge in the barrel. See instructions on using the ramrod to check for a charge in the barrel on page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on page 23.

4. Remove the bolt assembly. See instructions on Page 9.
5. Remove the breech plug. See instructions on Page 11.
6. Look through the inside of the barrel from the breech end to the muzzle. See Picture 1.

II. TO REMOVE A FOREIGN OBJECT FROM INSIDE THE BARREL: (To remove a charge, See Removing A Charge, Page 23.

1. Use the ramrod with extension and handle.
2. With the breech plug removed, push the ramrod through the barrel from the breech end to the muzzle to remove the object.
3. If an object cannot be easily pushed out of the barrel with the ramrod, return the firearm to the factory or a REMINGTON RECOMMENDED GUNSMITH.

WARNING: NEVER try to remove a foreign object from the barrel by firing it out. This may cause serious damage to the firearm and injury or death to the shooter or bystanders.

III. TO CLEAN THE BARREL FOLLOW INSTRUCTIONS SHOWN ON PAGE 25.

Before loading the firearm, make sure the inside of the barrel is free of dirt or other obstructions.

THE BREECH PLUG:

TO INSTALL THE BREECH PLUG:

WARNING: If the nipple is in the breech plug when you are installing it, make sure there is no percussion cap on the nipple.

1. With nothing in the barrel and a clean breech plug, apply Remington Wonder Lube™ paste for black powder generously into the breech plug threads. **Avoid putting Remington Wonder Lube™ paste for black powder on the front face of the breech plug.** See Picture 7. (This will foul the powder that comes in contact with it, increasing the chances of a misfire or hangfire.)
2. With the bolt assembly and bolt stop screw removed, place the breech plug in the bolt assembly clearance hole in the receiver, with the hexagon wrench flats facing rearward.

3. Slide the breech plug through the receiver until it stops against the rear of the barrel.
4. Use the hexagon end of the combination wrench provided or a standard 7/16 inch socket with a long extension to thread the breech plug into the rear of the barrel. Start it by hand first to ensure it is not cross-threaded.
5. Make sure the breech plug is tightened snugly and the back face of the breech plug is even with the front edge of the ejection port in the receiver. Do not over-tighten. See Picture 8.

WARNING: THE BREECH PLUG MUST BE SEATED CORRECTLY IN THE BARREL TO ENSURE THE PROPER AND SAFE OPERATION OF THE FIREARM. DO NOT ATTEMPT TO FIRE THE RIFLE if the breech plug will not thread in smoothly and tighten snugly with the BACK FACE of the breech plug even with the FRONT EDGE of the ejection port in the receiver. If the breech plug cannot be seated correctly, return the firearm to the factory or a REMINGTON RECOMMENDED GUNSMITH.

TO REMOVE THE BREECH PLUG:

WARNING: If the nipple is in the breech plug as you are removing it, make sure that there is no percussion cap on the nipple.

1. Point the firearm in a safe direction.
2. Put the safety in the "S" position.
3. Raise the bolt handle to open the bolt.
4. Check to be sure there is no percussion cap on the nipple or percussion cap residue remaining on the nipple and there is no charge in the barrel. See instructions on using the ramrod to check for a charge in the barrel on page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on Page 23.

5. Remove the bolt assembly and bolt stop screw. See instructions on page 9.
6. Use the hexagon end of the combination wrench provided or a standard 7/16 inch socket with a long extension to remove the breech plug from the barrel.
7. If the breech plug can not be removed with reasonable force using a 7/16 inch socket with extension, return the firearm to the factory or a **REMINGTON RECOMMENDED GUNSMITH.**

THE NIPPLE

The nipple provided with this rifle is designed to accept a No.11 percussion cap and has 1/4-28 UNF-2A threads.

TO INSTALL THE NIPPLE:

1. With an empty barrel and a clean nipple, apply Remington Wonder Lube paste for black powder to the threads of the nipple. This will protect it from the highly corrosive powder residues left from shooting black powder or PYRODEX and ensure it's easy removal. Avoid putting Remington Wonder Lube paste for black powder on the front face of the nipple. (This will foul the powder charge that comes in contact with it, increasing the chances of a misfire or hangfire)
2. With the breech plug installed and the bolt stop screw and bolt assembly removed, thread the nipple into the breech plug. Start threading by hand to ensure that it is not cross-threaded and then use the combination wrench. Be sure that the end of the nipple is seated snugly against the bottom of the nipple hole in the breech plug. Do not over-tighten. See Picture 9.

WARNING: THE NIPPLE MUST BE SEATED CORRECTLY IN THE BREECH PLUG TO INSURE THE PROPER AND SAFE OPERATION OF THE FIREARM.

DO NOT ATTEMPT TO FIRE THE RIFLE: If the nipple cannot be seated correctly, return the firearm to the factory or a **REMINGTON RECOMMENDED GUNSMITH.**

TO REMOVE THE NIPPLE:

WARNING: Never attempt to remove the nipple with a percussion cap on it.

1. Point the firearm in a safe direction.
2. Put the safety in the 'S' position.
3. Raise the bolt handle to open the bolt.
4. Check to be sure there is no percussion cap on the nipple or percussion cap residue remaining on the nipple, and there is no charge in the barrel. See instructions on using the ramrod to check for a charge in the barrel on page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on page 23.

5. Remove the bolt assembly and the bolt screw. See instructions on page 9.
6. Use the combination wrench to remove the nipple from the breech plug.
7. If the breech plug turns and starts to unscrew, retighten the breech plug and then remove the nipple.
8. If the nipple can not be removed with reasonable force using the combination wrench, return the firearm to the factory or a **REMINGTON RECOMMENDED GUNSMITH.**

LOADING AND SHOOTING PROCEDURES

USE BLACK POWDER OR PYRODEX ONLY: Never use modern smokeless gunpowder even if it is black in color. Never use any powder other than black powder or **PYRODEX** in a muzzleloader. The use of any other propellant will cause serious injury or death to the shooter and bystanders, and damage to the firearm.

Prior to loading and shooting the firearm, refer to the cleaning instructions on page 25. It is essential your gun is clean for proper safety, function and accuracy.

BLACK POWDER AND PYRODEX:

Black powder is the name that identifies the type of powder that is safe to use in muzzleloading firearms and **DOES NOT REFER TO ALL POWDERS THAT ARE BLACK IN COLOR. Some modern smokeless powders are black in color but are designed to be used only in modern centerfire cartridges and shotgun shells. Be sure to identify the powder as a type to be used in muzzleloading firearms by the name and NOT THE COLOR.**

PYRODEX is a black powder replica that is intended for use in percussion type muzzleloading firearms and black powder cartridges firearms and is the **ONLY** black powder replica that is safe to use in this Remington Model 700 ML Muzzleloading rifle. **PYRODEX is intended to be used as a volume-to-volume replacement for black powder** and will produce similar velocities and pressures as the same volume of the appropriate granulation of black powder. Thus, a volumetric powder measure that is set to measure 100 grains of black powder can be filled with **PYRODEX** instead to achieve similar results. (This measure will only contain approximately 80 grains of **PYRODEX**. **PYRODEX** is used on a volume-to-volume replacement basis and **NOT ON A WEIGHT-TO-WEIGHT BASIS**.)

WARNING: The use of **ANY** quantity of smokeless gun powder will produce dangerously high pressures which **WILL** result in serious injury or death to the shooter and bystanders, and damage to the firearm.

Black powder is available in four powder grain sizes which are identified by a series of "Fs" marked on the container.

2F or FFg- is used in .45 caliber or larger guns. **This is the granulation recommended for use in this muzzleloading rifle. Do not use any other granulation.**

PYRODEX is available in two grain sizes identified by and "RS" or "P" on the container.

PYRODEX RS - Stands for Rifle and Shotgun powder and is designed for use in all calibers of percussion type muzzleloading rifles and shotguns. **PYRODEX RS is not recommended for use in this muzzleloading rifle. Do not use any other designation.**

WARNING: ONLY 2F OR FFg black powder or PRYODEX RS should be used in this rifle.

Never exceed the maximum quantity of powder for a particular projectile in the loading charts on pages 19 and 20.

Failure to comply with any of these warning could result in serious personal injury or death to the shooter or bystanders and damage to the firearm.

SELECTING THE PROJECTILE:

NOTE: It is recommended for safety and performance, only Remington brand loading components made to Remington's exacting standards, be used in this Remington Model 700 ML muzzleloading rifle.

There are three projectile types that can be fired safely and accurately in this rifle. They are the sabot conical, the lubed conical, and the patched round ball. See Picture 10.

THE SABOTED CONICAL: With a sabot conical projectile, the sabot engages the barrel rifling, (rather than the projectile itself), to provide a gas seal as well as to provide the rotation necessary to stabilize the projectile in flight. A smaller-than-bore-size projectile can be used with a sabot resulting in higher muzzle velocity, flatter trajectory. The sabot is self lubricating, so there is no need to use additional lubrication when shooting sabot conical projectiles.

Never use a patch with a conical projectile that is to be used with.

THE LUBED CONICAL: With the lubed conical, the projectile itself engages the rifling to provide a gas seal as well as the rotation necessary to stabilize the projectile in flight.

Never use a patch or sabot with a lubed conical projectile.

Always use lubricant with any projectile that is not to be used with a sabot.

THE PATCHED ROUND BALL: With a patched round ball, the lubed cloth patch serves the same purpose as the sabot does with the sabot conical projectile type. It engages the rifling to provide a gas seal as well as the rotation necessary to stabilize the ball in flight.

WARNING: The patch should be well lubricated and made of cotton to avoid building a static electric charge in the barrel as the projectile is being seated on the powder charge. A non-cotton patch could create a spark and ignite the powder charge causing serious injury or death to the shooter or bystanders.

THE REMINGTON WONDER WAD: The Remington Wonder Wad can be used with any of the three types of projectiles that can be used in this firearm. It is to be placed between the powder and projectile in the barrel. It acts as a secondary gas seal and expands to fill the bore and grooves in the barrel as the pressure builds behind the wad and the projectile. This reduces gas blow-by and helps improve velocity and accuracy. In addition, the Remington Wonder Wad helps clean and lubricate the barrel both as it is being loaded as well as upon firing. As a result, more shots can be fired before the barrel must be cleaned.

WARNING: Except for the sabot and cotton patch, the Remington Wonder Wad is the only approved loading component to go between the projectile and powder.

Never use a jacketed bullet without a sabot in this muzzleloading reifl. Only pure lead or Remington brand lubed projectiles, specifically designed for muzzleloading, are meant to be used without a sabot.

Never use a sabot with a round ball. The sabot is not designed for a round ball and could easily separate from the powder charge creating a dangerous air gap.

Be absolutely certain that loading components are used only as they were intended to be used and are properly used together.

LOADING THE POWDER AND PROJECTILE:

Loading the Remington Model 700 ML consists of three steps. These steps are:

1. Load the Powder.
2. Load the Projectile.
3. Place the Percussion Cap on the Nipple.

BEFORE LOADING MAKE SURE:

1. The firearm is in good working order.
2. The firearm is pointed in a safe direction.
3. The safety is in the "S" position. See Page 7.
4. The bolt assembly is in the open position. See Page 9.
5. There is no percussion cap on the nipple, or percussion cap residue, on the nipple.
6. The firearm is not already loaded. See Page 4.
7. The barrel is free from obstructions. See Page 9.
8. The breech plug is seated in the barrel. See Page 10.
9. The nipple is seated in the breech plug. See Page 12.
10. The flash hole through the nipple is clear.
11. You are wearing ear and eye protection.
12. You are in a place that is safe to shoot.
13. You are using only the correct loading components for this rifle.

1. LOADING THE POWDER:

WARNING: Do not attempt to load the firearm until you have read and understand this book in its entirety and all 13 of the conditions listed here on this page have been met.

1. Using the ramrod with extension handle and cleaning jag, swab the bore to the breech plug with a cleaning patch that has been saturated with Remington All-Natural Bore Cleaner to remove any debris or fouling that may have accumulated in the bore while the rifle was in storage.
2. Swab the bore with cleaning patches until the patches come out clean and dry.
3. Swab the bore with a cleaning patch lubed with Remington Wonder Lube paste for black powder.
4. Point the firearm in a safe direction and fire at least two percussion caps to make sure the flash hole through the nipple is clear and dry. Residual bore cleaner at the breech could saturate the powder and increase the possibility of a misfire or hangfire.

WARNING: Wait at least one full minute after firing the last round or percussion cap before pouring powder into the bore to allow time for any residual sparks to be extinguished.

5. Place the butt of the rifle on a firm, stable surface with the muzzle pointed up and well away from your body. **Treat the as if it could go off at any time.**
6. Use an individual powder measure to pour the correct amount of powder into the bore.

WARNING: Make sure you are using 2f or FFg black powder or PYRODEX RS only.

Never use ANY quantity of any other powder.

Never pour powder directly into the muzzle from a powder flask or container. A lingering spark could ignite the entire container of powder. Always use an individual charge measure.

Never exceed the maximum charge listed on pages 19 and 20.

NEVER USE CENTERFIRE POWDER CHARGING EQUIPMENT FOR BLACK POWDER.

7. Keep the muzzle pointed up and away from your body at all times to keep the powder in the bottom of the barrel, and to avoid accidents or injuries.
8. Proceed to load the projectile.

2. LOADING THE PROJECTILE:

WARNING: Do not attempt to load the firearm until you have read and understand this book in its entirety and all 13 of the conditions listed under "BEFORE LOADING MAKE SURE:" on Page 15 have been met.

1. Keep the butt of the rifle on a firm stable surface with the muzzle pointed up and away from your body.
2. If you choose to use the Remington Wonder Wad, place it evenly on the muzzle so it plugs the entire bore. Push the Wad into the bore a short distance with a short starter.
3. Load ONE of the projectiles as follows:
 - To Load a Saboted Conical, firmly seat the projectile in the sabot and push the sabot and projectile into the bore by hand. See Picture 11.
 - To Load a Lubed Conical, push the lubricated projectile by hand into the bore. See Picture 11.
 - To Load a Patched Round Ball, lay a lubricated patch evenly over the muzzle and push a round ball into the center of the patch and into the bore by hand. See Picture 11.
4. Use the ball end of a short starter to start the projectile and align it with the bore. Push the projectile approximately six inches into the bore with the shaft of the short starter.
5. Use the ramrod to seat the projectile (and Remington Wonder Wad if used), firmly on the powder charge. See Picture 12.

WARNING: Do not pound on the ramrod to seat the projectile. Black powder and PYRODEX are impact sensitive and may ignite from impact. The impact may also deform the projectile, adversely affecting accuracy.

6. Be sure the projectile is seated on the powder charge so there isn't a gap between the powder and the projectile. To Provide a reference mark for future loadings, mark the ramrod at the muzzle once a projectile has been loaded to the proper depth. See Picture 13.

NOTE: Be sure to recheck the ramrod mark if you change loading components or alter the ramrod.

7. Remove the ramrod from the barrel and replace it in the stock under the barre.

3. PLACING THE PERCUSSION CAP:

NOTE: Only use Remington, No.11 percussion caps.

1. Place a percussion cap on the nipple.
2. Slide the bolt handle forward and push the bolt handle down.

NOW THE RIFLE IS LOADED

To make the rifle ready to fire, push the safety in the "F" position.

NOW THE RIFLE IS READY TO FIRE

Pulling the trigger fires the rifle.

WARNING: Wait at least one full minute after firing the last round before pouring powder into the bore to allow time for any residual sparks to be extinguished.

HOW TO HANDLE A MISFIRE AND HANGFIRE:

The Remington Model 700 ML has been designed to fire the instant that you pull the trigger. If, however the powder and/or percussion cap is damp, a hangfire or misfire may occur. A hangfire occurs when the rifle fires up to several seconds after the trigger is pulled. A misfire occurs when a loaded rifle does not fire when the trigger is pulled.

In the case of a misfire or hangfire, proceed as follows:

1. Keep the rifle pointed in a safe direction for at least one minute with the bolt in the closed position. **BE PREPARED FOR THE RIFLE TO FIRE AT ANY INSTANT.**
2. After no less than one minute open the bolt assembly, keeping the rifle pointed in a safe direction.
3. Put the safety in the "S" position. See Page 7.
4. Remove the percussion cap from the nipple and use a nipple pick to ensure that the flashhole through the nipple is clear.
5. Place a new percussion cap on the nipple.
6. Close the bolt assembly.
7. Aim at the target.
8. Put the safety in the "F" position and fire. See Page 7.
9. If the rifle still does not fire, repeat steps 1 through 8 several more times.
10. If the rifle still will not fire the charge must be removed manually. See REMOVING A CHARGE on page 23.

SUGGESTED LOADING DATA:

This data was compiled from testing done by Remington Arms using both .50 and .54 caliber Remington projectiles in the Model 700 ML rifle. The Model 700 ML barrels are rifled with 1 in 28" twist in both .50 and .54 caliber. All testing was done with 2F or FFg black powder.

WARNING: NEVER EXCEED THE MAXIMUM CHARGE WEIGHT LISTED FOR THE PROJECTILE YOU ARE USING. NEVER SUBSTITUTE ANY QUANTITY OF ALTERNATE POWDER TYPE OR GRANULATION. Failure to adhere to these maximum charge weights or substitute any powder type or granulation could result in serious personal injury or death to the shooter or bystanders, and damage to the firearm.

The charge weights listed are the nominal and charge weights for the given projectile.

The nominal suggested range of charge weight produces the best combination of accuracy and velocity. It is suggested that a load is worked up. This is done by starting at the lower charge weight listed in the nominal range and increasing in 5 grain increments until and optimum load is achieved. An optimum load is one which produces the best accuracy.

WARNING: Do not exceed this charge weight. To do so may result in serious personal injury or death to the shooter or bystanders and damage to the firearm.

TO ADJUST THE SIGHTS

This Remington Model 700 ML is equipped with a fully adjustable rear sight. It can be adjusted for both windage (left to right) and elevation (up and down).

TO ADJUST THE REAR SIGHT:

Move the rear sight slide for elevation adjustment and aperture for windage adjustment. Move the slide or aperture in the same direction as you need the point of impact on the target to move. See Picture 14 and the information table.

TELESCOPIC SIGHTS:

The top of the receiver has holes for the installation of telescopic sights. The same Model 700 two piece scope mounts that fit the centerfire rifles will fit on this muzzleloader. Model 700 Short Action one piece scope mounts will also fit.

NOTE: The use of telescopic sights are illegal in some areas during the big game muzzleloading season. Be sure to check the regulations in the area you will be hunting before installing the scope.

HOW TO USE THE WEATHER SHROUD

This Remington Model 700 ML is shipped with an optional weather shroud. The shroud can be placed on the end of the bolt assembly to protect the percussion cap from inclement weather. This shroud will decrease the possibility of the percussion cap getting damp which will decrease the chance of a misfire or hangfire.

NOTE: In some areas, the use of the weather shroud is illegal during the muzzleloading season for big game. Some areas require that the ignition source be exposed to the elements (open breech) prior to firing. Before installing the weather shroud, check the regulations in the area you will be hunting.

The weather shroud is intended only for use while hunting or shooting in inclement weather. It should not be used when target shooting or sighting in the rifle. Extended use of the weather shroud while shooting could cause accumulation of fouling in the bolt assembly. This fouling can result in an interference between the firing pin and bolt body. Always disassemble and clean the bolt assembly after shooting with the weather shroud. See page 28 for bolt cleaning instructions.

INSTALLING THE WEATHER SHROUD:

The weather shroud has a gas escape hole to vent blowback gasses to the environment. To work properly, it must be aligned with the ejection port opening when the bolt is in the closed position. See Picture 15.

To install the weather shroud:

1. Close the bolt and make a pencil mark on the bolt approximately 1/8 inch from the bottom on the ejection port opening. See Picture 16.
2. Remove the bolt assembly. Align the vent hole with the pencil mark and push the shroud on to the end of the bolt until the shroud is seated against the step on the bolt. See Picture 17.
3. Reinstall the bolt assembly and verify that the vent hole is properly positioned. See Picture 18.

REMOVING A CHARGE AND PROJECTILE

UNLOADING

Under normal conditions a muzzleloading firearm is unloaded by simply firing it into a safe and suitable backstop. There are, however, three conditions which may occur that will require the rifle to be unloaded manually. These are:

1. A misfire or failure to fire.

WARNING: FOR A MISFIRE OR FAILURE TO FIRE, WAIT AT LEAST ONE MINUTE WITH THE RIFLE POINTED IN A SAFE DIRECTION. A LINGERING SPARK SMOLDERING IN THE POWDER COULD FIRE THE RIFLE AT ANY MOMENT.

2. Powder fouling or other circumstances causing the projectile to become lodged partially down the barrel after firing.
3. The projectile is not firmly seated against the powder charge and cannot be made to do so with normal ramrod pressure.

If any of these situations arise, the projectile must be removed from the barrel as follows:

1. Keeping the muzzle pointed in a safe direction, put the safety to the "S" position, open the bolt, and remove the percussion cap from the nipple. Be sure there is no percussion cap residue remaining on the nipple.
2. Remove the bolt assembly. See page 9.
3. Turn the rifle upside down so that the trigger guard is up and the muzzle is pointed in a safe direction.
4. Remove the three screws, see picture 19, and remove the barreled action from the stock.
5. Use a nipple pick to clear the nipple.
6. Submerge the action in a pail of CLEAN water, (hot water is recommended), with the muzzle pointed up, also fill the bore with water so that it is level with the muzzle. Let stand for a minimum of 30 minutes. Be sure that the breech section of the action is submerged to a depth of at least 12 inches so that water can saturate the powder charge through the nipple. Wait no less than 30 minutes. The powder charge will then be deactivated.

NOTE: THE POWDER MUST REMAIN SATURATED TO BE DEACTIVATED. SATURATED POWDER WILL NOT IGNITE. IF THERE HAS BEEN A DELAY AFTER STEP 7 AND YOU ARE UNSURE THAT THE POWDER IS STILL SATURATED, REPEAT STEP 6.

WARNING: NEVER ATTEMPT TO REMOVE A PROJECTILE FROM THE BORE UNTIL THE POWDER HAS BEEN DEACTIVATED.

7. Remove the action from the water and pour the water from the bore.
8. Remove the breech plug and proceed to step 9. If the breech plug cannot be removed, attach a screw type bullet puller to the ramrod. Keep the ramrod directed away from your face and body while attempting to remove the projectile. Insert the ramrod with the attached bullet puller into the muzzle and twist the bullet puller into the bullet.

NOTE Considerable force may be necessary to fully engage the bullet puller into the bullet.

Carefully pull the projectile out of the muzzle and wash the remaining saturated powder from the barrel. Omit steps 9 and 10 and go directly to step 11.

9. Thread the cleaning tube into the breech plug threads.

10. Keep the ramrod directed away from your face and body while removing the projectile and charge. Insert the ramrod, with extension and handle, from the muzzle, and push the projectile, along with any remaining saturated powder, through the cleaning tube. If the projectile and charge cannot be moved rearward, remove the cleaning tube from the breech bolt threads and wash away the saturated powder from behind the projectile. Rethread the cleaning tube into the breech. Again, keeping the ramrod directed away from your face and body, insert the ramrod with extension and handle through the cleaning tube and gently push the projectile through the barrel and out the muzzle.
11. Clean and lubricate the rifle as explained in the cleaning instructions beginning on this page.

WARNING: AN IMPROPERLY CLEANED AND LUBRICATED RIFLE MAY BE DANGEROUS AND COULD RESULT IN AN ACCIDENTAL DISCHARGE AND SERIOUS INJURY OR DEATH TO THE SHOOTER BYSTANDERS.

12. Reassemble the firearm.

CLEANING INSTRUCTIONS

Black powder and PYRODEX are very corrosive. Failure to clean and lubricate your firearm will damage it and impair its function. Your firearm should receive a thorough cleaning and lubrication each time that it is shot or is to be stored for more than one week.

WARNING: BE SURE THAT YOUR RIFLE IS UNLOADED PRIOR TO CLEANING. SEE PAGE 4. ATTEMPTING TO CLEAN A LOADED OR PRIMED FIREARM CAN CAUSE INJURY OR DEATH TO THE SHOOTER OR BYSTANDER. See page 23 to unload the firearm.

Periodic cleaning of the bore may be required during prolonged shooting sessions. The bore should be cleaned if the projectile becomes difficult to load and seat over the powder or if accuracy begins to degrade.

See the procedure for **FIELD CLEANING** on page 29 for cleaning between shots.

Use only Remington All-Natural Bore Cleaner to clean your bore and use Remington Wonder Lube paste for black powder to preserve and condition your bore. Use only Remington Rem Oil. To lubricate your trigger and bolt assemblies. Use of other products is not recommended.

Prior to loading and shooting your firearm it is necessary to thoroughly clean the bore to remove any residual oils that may cause the powder to foul and reduce accuracy. Using Remington All-Natural Bore Cleaner and cotton patches, repeat steps 9-16 on page 26, until the patches are visible clean **before you ever shoot your rifle.** In order to achieve desired accuracy it is necessary to "season" or break-in the barrel. This is

accomplished by the initial cleaning, followed by shooting approximately ten (10) consecutive rounds (preferably lead balls or conicals) and repeating the cleaning steps 9-16, and again shooting ten (10) to twenty (20) rounds, and again cleaning. The group sizes achieved by this process will decrease as more shooting, followed by cleaning and lubing of your bore is done. Do not be discouraged if your initial group sizes are larger than expected.

THOROUGH CLEANING

TO CLEAN THE BARREL, BREECH PLUG, AND NIPPLE:

1. Keeping the muzzle pointed in a safe direction, put the safety to the 'S' position, and be sure there is no percussion cap or percussion cap residue on the nipple.
2. Use the ramrod to be sure there is no charge in the barrel. See instruction on Page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions page 23.

3. Remove the bolt assembly. See page 9.
4. Remove the nipple. See page 12.
5. Remove the breech plug. See page 11.
6. Soak the nipple and breech plug in Remington All-Natural Bore Cleaner.
7. Using a small brush and Remington All-Natural Bore Cleaner, clean the breech plug threads in the rear of the barrel thoroughly. Use a cleaning patch or clean cloth to wipe the breech plug threads clean of all residue.
8. Insert the bore cleaning tube through the receiver, and thread it into the breech plug threads by hand only. This is required to protect the breech plug threads and trigger assembly from fouling and debris.

WARNING: Fouling and debris from the bore may fall into the trigger assembly if the bore cleaning guide is not used. This could impair the function of the trigger assembly and may result in serious personal injuries or death to the shooter or bystanders.

9. Attach the cleaning jag to the ramrod. Assemble the ramrod extension and handle and place a cleaning patch soaked with Remington All-Natural Bore Cleaner evenly over the cleaning jag.
10. Insert the jag into the bore cleaning tube, and push it firmly into the barrel from the breech. Swab the bore with short strokes for best results. Push the patch through the barrel and remove the cleaning patch at the muzzle.
11. Using the same method, push a dry patch through the bore.
12. Repeat steps 9-11 until the dry patch is clean.
13. Place a cleaning patch with Remington Wonder Lube paste for black powder evenly over the jag and push it into the bore from the breech. Swab the bore with short strokes to uniformly apply the pate.

14. Repeat step 13 several times to properly condition and preserve the bore.
15. Thoroughly clean and dry the breech plug and nipple.
16. Sparingly apply Remington Wonder Lube paste for black powder on the threads of the breech plug and nipple.

NOTE: Avoid putting Remington Wonder Lube for black powder on the front face of the breech plug and nipple and in the flash hole of the nipple. Excess Remington Wonder Lube for black powder may foul the powder charge and possibly cause a misfire or hangfire.

17. Reinstall the breech plug and the nipple. See pages 10 and 12.
18. Wipe the exterior of the barrel and receiver with a cloth treated with Remington Wonder Lube for black powder.

ALTERNATE METHOD TO CLEAN THE BARREL:

1. Keeping the muzzle pointed in a safe direction, put the safety to the 'S' position, open the bolt, and be sure there is no percussion cap or percussion cap residue remaining on the nipple.
2. Use the ramrod to ensure there is no charge in the barrel. See page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on page 23.

3. Remove the bolt assembly. See page 9.
4. Remove the nipple. See page 12.
5. Remove the breech plug. See page 11.
6. Insert the bore cleaning tube into the receiver and against the breech plug threads. Do not thread this tube into the barrel.
7. Attach a bore mop to the ramrod with the extension and handle assembled and insert it through the bore cleaning tube and into the barrel.
8. Place the muzzle in clean, hot water and pull the bore mop back through the barrel into the bore cleaning tube. This action will pull clean water through the bore and breech plug threads.
9. Repeat step 8 several times swabbing the bore with short strokes until the barrel and breech plug threads are clean.
10. Thread the bore cleaning tube into the breech plug threads and remove the bore mop.
11. Place a cleaning patch with Remington Wonder Lube paste for black powder evenly over the jag and push it into the bore from the breech. Swab the bore with short strokes to uniformly apply the paste.
12. Repeat step 11 several times to properly condition and preserve the bore.
13. Thoroughly clean and dry the breech plug and nipple.
14. Sparingly apply Remington Wonder Lube paste for black powder on the threads of the breech plug and nipple.

NOTE: Avoid putting Remington Wonder Lube for black powder on the front face of the breech plug and nipple and in the flash hole of the nipple. Excess Remington Wonder Lube for black powder may foul the powder charge and possibly cause a misfire or hangfire.

15. Reinstall the breech plug and the nipple. See pages 11 and 12.
16. Wipe the exterior of the barrel and receiver with a cloth treated with Remington Wonder Lube for black powder.

TO CLEAN THE RECEIVER AND TRIGGER ASSEMBLY:

1. Keeping the muzzle pointed in a safe direction, put the safety to the 'S' position, open the bolt, and be sure there is no percussion cap or percussion cap residue remaining on the nipple.
2. Use the ramrod to be sure there is no charge in the barrel. See page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on page 23.

3. Remove the bolt assembly. See page 9.
4. Turn the rifle upside down.
5. Remove the three screws, and remove the barreled action from the stock. See Picture 20.
6. Spray the four points of the trigger assembly with Rem Oil, as shown. See Picture 21. Let stand for 15 minutes. Spray again to wash off the components. Shake off excess lubricant.

NOTE: Prevent the Rem Oil from entering the barrel by installing the breech plug and nipple. The petroleum base lubricant will break down the protective coating of Remington Wonder Lube paste for black powder in the barrel and increase barrel fouling after shooting.

7. Wipe away powder fouling in the receiver with a cloth containing Remington All-Natural Bore Cleaner.
8. Wipe down the exterior of the receiver and barrel with a cloth treated with Remington Wonder Lube paste for black powder.

WARNING: Do not apply Remington Wonder Lube paste for black powder to any part of the trigger assembly. The trigger assembly and the bolt assembly are the only components of your rifle that require cleaning with Rem Oil only. The use of a non-recommended lubricant could cause serious function problems, possibly leading to accidental firing.

9. Replace the barreled action in the stock and reinstall the three screws. See Picture 20 on page 27.

TO CLEAN THE BOLT ASSEMBLY:

TO DISASSEMBLE THE BOLT ASSEMBLY:

1. Remove the bolt assembly from the firearm. See page 9.
2. Pull the bolt assembly away from the firing pin assembly by hooking the notch on the firing pin head over a metal edge and pulling. See Picture 22. Insert a coin into the slot that will become visible in the side of the firing pin head.
3. Holding the bolt assembly, unscrew the firing pin assembly, and slide it out of the bolt body.

CAUTION: Clean the firing pin assembly as a unit. No further disassembly is required.

4. Clean all parts with Remington All-Natural Bore Cleaner and dry with a clean cloth.
5. Apply a light coating of Rem Oil to all parts.

NOTE: The trigger assembly and bolt assembly should be lubricated with Rem Oil instead of Remington Wonder lube paste for black powder. The use of a non-recommended lubricant could cause serious function problems, possibly leading to accidental firing.

TO ASSEMBLY THE BOLT ASSEMBLY:

1. Slide the firing pin assembly into the rear of the bolt assembly.
2. Tighten the firing pin assembly by hand only.
3. Pull the coin from the slot in the firing pin head.
4. Align the firing pin head with the small notch in the rear of the bolt assembly. The bolt is now cocked. See Picture 23.

NOTE: The bolt must be cocked to assemble the bolt assembly in the receiver.

5. Assemble the bolt assembly in the receiver. See Instructions on Page 8.

FIELD CLEANING

WARNING: BE SURE THAT YOUR RIFLE IS UNLOADED PRIOR TO CLEANING. SEE PAGE 4. ATTEMPTING TO CLEAN A LOADED OR PRIMED FIREARM CAN CAUSE INJURY OR DEATH TO THE SHOOTER OR BYSTANDERS.

See page 23 to unload the firearm.

Follow this procedure to clean your muzzleloader in the field:

1. Keeping the muzzle pointed in a safe direction, put the safety in the 'S' position, open the bolt, and be sure there is no percussion cap or percussion cap residue remaining on the nipple.
2. Use the ramrod to ensure there is no charge in the barrel. See page 4.

WARNING: If there is a charge in the barrel, do not attempt to remove it by shooting it out if you are unsure what the charge is or if you are unsure if the charge is safe. Instead, remove the charge using the instructions on page 23.

3. Attach the cleaning jag to the ramrod. Assemble the ramrod extension and handle and place a cleaning patch soaked with Remington All-Natural bore Cleaner evenly over the cleaning jag.
4. Push the cleaning jag into the barrel at the muzzle and swab the bore with short strokes until the jag reaches the breech plug. Remove the ramrod and remove the cleaning patch from the jag.
5. Repeat step 4 with a dry patch.
6. Repeat steps 3-5 until the dry patch remains clean.
7. Place a cleaning patch with Remington Wonder Lube paste for black powder evenly over the jag and push it into the bore from the breech. Swab the bore with short strokes to uniformly apply the paste.
8. Repeat step 7 several times to properly condition and preserve the bore.
9. Point the firearm in a safe direction and fire at least two percussion caps to make sure the flash hole through the nipple is clear and dry. Residual bore cleaner at the breech could saturate the powder and increase the possibility of a misfire or hangfire.

WARNING: Wait at least one full minute after firing the last percussion cap before pouring powder into the bore to allow time for any residual sparks to be extinguished.

HOW TO ORDER PARTS FROM THE REMINGTON FACTORY

ORDER PARTS:

NOTE: Many Remington Dealers or Service Centers carry a full line of parts. Please check with them before ordering.

TO ORDER:

1. CALL OUR TOLL FREE NUMBER: 1-800-243-9700
 - A. Please have your firearm model and serial number ready, in addition to the quantity, item number in the parts listing and parts description.
 - B. Please have your Visa, Mastercard, Amex, or Discover card ready. If you wish to pre-pay by check or money order, an exact quote will be given to you over the phone.

(Sorry, no COD's); or

2. Fax your order to: 336-548-7801. Include all of the information in 1A & 1B above, in addition to your Name, Address (with zip) and complete telephone number.

WARNING: USE ONLY REMINGTON PARTS IN REMINGTON FIREARMS.

NOTE: SOME PARTS MAY BE RESTRICTED.

See parts list for details.

INSTRUCTION BOOKS AND GUNSMITH LIST:

To get an instruction book for any Remington firearm, or a list of recommended gunsmiths, call 1-800-243-9700.

TO EXPEDITE SERVICE AND PARTS:

- An Authorized Gunsmith list is provided for your use. Please contact your Authorized Service Center, for evaluation of your firearm, as this may provide you with the most timely service and repairs.
- If your local Remington Gunsmith cannot provide the service or repairs and you need further assistance, please call our toll free number 1-800-243-9700, then press or say "1". Then, if shipment of your firearm to Remington is required, Please,
 1. Enclose in the firearm box the model name or number of your firearm, and a note fully describing the problem. Include your full name and address (including zip code) daytime telephone number, the model and serial number of your firearm.
 2. Please send your **INSURED** firearm by either United Parcel Service (UPS) or Parcel Post (US Post Office).
 3. Be sure to record the serial number of your firearm before sending it to us.
 4. **PROOF OF PURCHASE** may be required on recently manufactured firearms.

WARNING: DO NOT SEND LIVE OR SPENT SHELLS IN YOUR FIREARM OR IN THE SAME BOX WITH THE FIREARM. THIS IS A VIOLATION OF FEDERAL LAW. IF YOU FEEL YOU MUST SEND SPENT SHELLS, PLEASE SEND THEM IN A SEPARATE PACKAGE AND INCLUDE NAME, ADDRESS (WITH ZIP CODE), TELEPHONE AND MODEL AND SERIAL NUMBER OF YOUR FIREARM.