

Owners Manual

NC-22

RIMFIRE RIFLE

NC-22

RIMFIRE UPPER

Thank you for choosing Nordic Components!

Your new NC-22 rifle/upper assembly is ready to use right out of the box, but before you get started, please carefully study and diligently practice, the safety and operational procedures outlined in this instructional manual. Doing so will ensure years of reliable service while maintaining a safe and enjoyable shooting experience for yourself and those around you.

Limitation of Liability

Products are sold by us with the express and specific understanding that Nordic Components, Inc. is not responsible in any way for physical injury including hearing loss or eye damage resulting from failure to take adequate precautions while shooting or property damage resulting in whole or in part from criminal or negligent discharge, unsafe, improper use or careless handling by the user; unauthorized modifications; defective, improper, reloaded, hand loaded, or non-standard ammunition or improper caliber usage; corrosion, abuse or neglect, or other influences beyond our direct and immediate control. Retail purchase of this rifle implies consent to these terms.

Warranty Information

NO WARRANTY CARD HAS BEEN INCLUDED WITH THIS NEW NORDIC COMPONENTS FIREARM

The Magnuson-Moss Act (Public Law 93-637) does not require any seller or manufacturer of a consumer product to give a written warranty. It does provide that if a written warranty is given, it must be designated as "limited" or as "full" and sets minimum standards for a "full" warranty. Nordic Components, Inc. has elected not to provide any written warranty, either "limited" or "full", rather than to attempt to comply with the provisions of the Magnuson-Moss Act and the regulations issued there under. There are certain implied warranties under state law with respect to sales of consumer goods. As the extent and interpretation of these implied warranties varies from state to state, you should refer to your state.

Local, State & Federal Restrictions

According to the NRA-ILA website; *"There are estimated to be more than 20,000 gun laws in America at the federal, state and local levels and laws vary greatly from state to state and, in some states, from locality to locality. Since 1968 virtually every aspect of lawful firearms commerce from manufacture to retail sales has been strictly controlled and regulated by the federal government"* It is your responsibility to educate yourself on the laws pertaining to firearms ownership, transfer, transport and storage in your area.

Questions/Concerns

If, at any time, you are unclear on any of the safety or operational procedures discussed in this manual or are having difficulties with your firearm, please contact Nordic Components, Inc. for assistance at 320-234-6015. Our customer service and technical support is second to none and we are available to you should you have any questions or concerns.

Problems/Returns

We make every effort to supply products in the best possible condition, however, issues can arise from time to time. If there is a problem with our product or if a shipment was damaged in transit, call us immediately for assistance and instructions at 320-234-6015. Remember that it is illegal to ship a firearm and ammunition in the same package. Ammunition must be shipped separately

ATTENTION:

EYE AND EAR PROTECTION IS REQUIRED WHEN ENGAGED IN, OR SIMPLY OBSERVING SHOOTING ACTIVITIES. RICCOCHETS ARE COMMONPLACE AND CAN TRAVEL GREAT DISTANCES OUTSIDE OF AN OTHERWISE CONTROLLED SHOOTING AREA. IT IS HIGHLY RECOMMENDED THAT EYE PROTECTION BE WORN AT ALL TIMES AND IN ALL AREAS OF THE FIRING RANGE.

ATTENTION:

USE ONLY HIGH QUALITY, COMMERCIALY PRODUCED AMMUNITION, OF THE APPROPRIATE CALIBER IN THIS FIREARM.

WARNING:

CARELESS OR NEGLIGENT HANDLING, OR FAILURE TO FOLLOW THE RECOMMENDED SAFETY PROCEDURES OUTLINED HEREIN, MAY RESULT IN DAMAGE TO PROPERTY, SEVERE INJURY OR DEATH.

WARNING:

CARELESS, NEGLIGENT OR ABUSIVE HANDLING, OR FAILURE TO FOLLOW THE OPERATIONAL PROCEDURES OUTLINED HEREIN, MAY RESULT IN DAMAGE TO THE FIREARM AND IS NOT COVERED UNDER WARRANTY BY NORDIC COMPONENTS, INC.

WARNING:

DO NOT, UNDER ANY CIRCUMSTANCES, ATTEMPT TO ALTER OR MODIFY YOUR FIREARM OR PERFORM SERVICE BEYOND GENERAL MAINTENANCE. DOING SO MAY VOID YOUR FACTORY WARRANTY AND JEOPARDIZE YOUR SAFETY. PLEASE CONTACT NORDIC COMPONENTS, INC. IF THERE IS A PROBLEM.

WARNING:

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 AND WASH HANDS THOROUGHLY AFTER EXPOSURE.

Safety

Firearms safety is everyone's responsibility. Do your part by ensuring that you and those around you are consistently practicing the safe handling of all firearms. Although the list does not stop here, the four fundamental rules for the safe handling of firearms are:

ALWAYS treat every firearm as though it is loaded. It is up to you alone to verify the condition of every firearm, every time you pick it up.

NEVER point any firearm at anything you are not willing to destroy. This includes muzzle awareness on and off the range, even when the firearm is known to be unloaded.

ALWAYS verify your target and what is around and beyond it. Choosing a suitable backstop is imperative. This includes the handling of firearms in the home. Do not assume that your target will stop a bullet.

ALWAYS keep your finger off of the trigger and out of the trigger guard until the firearm is intentionally pointed downrange at a verified target, in front of a suitable backstop and you are ready to fire.

Rifle Features & Operation

Safety Selector (complete rifle only)

The safety selector lever, located on the left side of the lower receiver, has two positions, "FIRE" and "SAFE." When the lever is in the vertical position it is set to "FIRE." In the "FIRE" position, the rifle will fire a single shot each time the trigger is depressed, so long as a loaded magazine is inserted and until that magazine is empty. When the lever is in the horizontal position it is set to "SAFE." In the "SAFE" position, no shot will be fired when the trigger is depressed and you will notice limited to no movement in the trigger. To select between "FIRE" and "SAFE", simply flip the lever with the thumb of your firing hand.

NOTE: NC-22 rifles come from the factory with a right-handed safety selector. There are aftermarket components available which allow you to convert your safety selector for left-handed or ambidextrous operation.

WARNING: The safety selector can only be switched to the "SAFE" position when the hammer is cocked (ready to fire). When the hammer is in the de-cocked (fired) position, the safety selector will normally only travel about half way between positions before it comes to a hard stop. It is imperative that you not force the safety selector to the "SAFE" position in this condition. Doing so will break the tail of the trigger and require factory service, not covered under warranty.

Magazine

All NC-22 complete rifles and upper assemblies are supplied with one 10-round *Black Dog Machine* magazine. *Black Dog Machine* magazines are the only magazines we recommend with NC-22 rifles and upper assemblies.

Magazine Release (complete rifle only)

The magazine release button is located on the right side of the lower receiver, between the trigger and ejection port. Depressing this button will release the magazine from the receiver. Note that the magazine will drop free and hit the ground if you do not prevent it from doing so.

Bolt Catch (complete rifle only)

The bolt catch is the small teardrop shaped lever located on the left side of the lower receiver. The bolt catch on the NC-22 rimfire rifle does not function quite the same as a traditional M15 type centerfire rifle, due to the mechanical differences between the rimfire and centerfire operating systems.

CAUTION: The bolt does not lock back on the bolt catch after the last round is fired out of the magazine. Rather, it locks back against the magazine follower. As soon as the empty magazine is removed, the bolt will be released and close forward under its own spring tension. You can manually lock the bolt back against the bolt catch, this will allow the user to look in the entry of the chamber. *It is not possible to manually lock the bolt open with the bolt catch, then insert a loaded magazine and chamber a round via pressing the bolt catch to release it.*

Barrel Assembly

The NC-22 rifles and upper assemblies feature a match quality .22 Long Rifle barrel with 1:16 right hand twist and an 11-degree target crown for peak accuracy potential. Where applicable, the muzzle is threaded to an industry standard ½-28TPI to accommodate a variety of muzzle devices such as flash hiders, compensators and sound suppressors. Not all NC-22 barrels have threaded muzzles.

Handguard Assembly

The machined aluminum Nordic Components handguard assembly featured on your NC-22 rifle or upper offers a light-weight, yet remarkably strong platform for your support hand, bipod, bag rest, vertical grip or any other rifle accessory you wish to install, including lights, back-up sights and slings. The series of slots and pre-tapped holes allow you to install any number of Nordic Components Picatinny rail sections or standard sling studs to configure the rifle in a way that works for your individual needs.

Rifle Features & Operation (continued)

Dust Cover & Brass Deflector

With the bolt closed forward, you can snap the dust cover (ejection port cover) shut to prevent dust or other foreign objects from fouling the action when not in use. Any cycling of the action, be it live fire or manually via the charging handle, will automatically open the dust cover, allowing any live cartridge or spent case to be ejected clear of the rifle. It is not necessary to open the dust cover prior to firing.

The NC-22 upper also incorporates a brass deflector just behind the ejection port. This is designed to redirect spent cases away from the face of a left-handed shooter.

Charging Handle

The charging handle, located at the rear of the mil-spec, Picatinny flat-top receiver rail, allows you to manually retract the bolt assembly in order to verify the loaded/unloaded condition of the rifle, chamber a live cartridge, or manipulate the action to clear a spent case or malfunction. The left side of the charging handle features a latch, which locks into a relief in the upper receiver, preventing the handle from bouncing back and forth under live fire. The charging handle does not reciprocate with the action under live fire.

Bolt Assembly

The NC-22 bolt assembly consists of both a forward and rear section, connected by an action (recoil) spring and guide rod. The forward section acts as the bolt face, while housing the firing pin, extractor and related springs and reciprocates under live fire to facilitate semi-automatic function. The rear section of the bolt assembly is stationary and supports the action spring and guide rod.

Black Dog Machine "Bolt-Saver" (upper assembly only)

With this device installed on the underside of the upper assembly (not applicable to complete rifles) when shipped from the factory, it is not possible for your bolt assembly to inadvertently fall out of the back of the receiver during handling or transport. This device must be removed in order to mate the upper and lower assemblies.

Loading, Firing and Unloading

With the rifle set-aside for now, pick up the empty magazine in one hand and a .22 long rifle cartridge in the other. Holding the magazine upright (red follower up) and with the bullet facing forward (the front of the magazine curves forward and the back of the magazine has a rib along its length) position the cartridge on top of the red follower, about half way back. Press down and then back on the cartridge with your thumb so that the rim of the case clears the front of the magazine feed-lips and slides back underneath them, where the magazine will retain it. To load additional cartridges, repeat the process. Once you have loaded to the desired capacity, set the loaded magazine aside. Pick up the rifle and keeping your finger off of the trigger and out of the trigger guard, disengage the charging handle latch and pull the charging handle fully to the rear. While holding the handle back, look in through the ejection port and visually verify that the chamber is clear and there are no obstructions in the bore. If clear, release the charging handle so the bolt closes. Make sure that the charging handle latch is engaged with the relief in the receiver. The hammer will be cocked during this process and you should now flip the safety selector to the horizontal "SAFE" position. As you continue to point the rifle in a safe direction, pick up the loaded magazine and orient it so that it is upright and the bullets are pointing forward (toward the muzzle). Insert the magazine up into the lower receiver through the magazine-well and push up until you sense the "click" of the magazine catch locking it in place. Verify that the magazine is seated fully by gently pulling down on the magazine. If seated fully, the magazine will stay put. If it comes out when you pull, you will have to try again. Avoid slamming the magazine into place. This is unnecessary and may cause over-insertion and damage to the magazine. Grasp the charging handle, disengaging the latch and pull all the way back until it stops. Now release the charging handle very deliberately. Do not ease the handle forward. It must be released sharply and from the rearward most position to reliably strip a cartridge off the magazine and chamber into full battery. YOU NOW HAVE A LOADED FIREARM IN YOUR HANDS. *(Since you have been following all of the safety rules detailed above, this does not change how you handle the rifle.)*

You are now ready to fire.

With eye and ear protection in place and the rifle pointed safely down range at a verified target with a suitable backstop, pull the stock of the rifle up to your shoulder, rest your cheek on the stock and look through the sights/scope. Once the sights/scope are aligned with your target and you are satisfied with your sight picture and ready to fire, flip the safety selector to the vertical "FIRE" position. Gently place the first knuckle of your trigger finger on the trigger and slowly squeeze the trigger until the rifle fires. Hold the trigger to the rear until the rifle has fully cycled and come to rest. Release the trigger until you feel the "click" of the trigger resetting. You are now ready to fire the next shot and can continue this process until the magazine is empty or you simply wish to stop firing. To clear the rifle, first press the magazine catch button and remove the magazine from the rifle. If the magazine was empty, the bolt will have locked back on the magazine follower and the bolt will close forward when the magazine is released. If the magazine had cartridges remaining, the bolt will be closed and there will still be a live cartridge in the chamber, which must be extracted. With the magazine removed, pull the charging handle back until it stops. This will extract and eject any remaining cartridge and allow you to visually verify that the chamber is empty. **WARNING:** Whether the magazine is empty or loaded when you remove it after shooting, you must manually retract the charging handle to clear the chamber and visually verify that the chamber is empty. Simply removing the magazine is not verification of an unloaded rifle and simply retracting the charging handle is not verification of an empty chamber. You must LOOK at the chamber. You have now completed the Load, Fire & Unload sequence.

This section will detail the disassembly of the rifle down to a "field stripped" condition, sufficient for routine maintenance and inspection. We do not recommend disassembly of your NC-22 rifle or upper assembly beyond what is detailed herein. If you feel there is cause for your rifle to be disassembled further, please contact Nordic Components, Inc. for assistance. ALWAYS WEAR EYE PROTECTION WHEN USING SOLVENTS AND COMPRESSED AIR, OR WORKING WITH SPRINGS. **BEFORE PERFORMING ANY CLEANING, MAINTENANCE OR INSPECTION OF ANY FIREARM, VISUALLY VERIFY THAT IT IS COMPLETELY UNLOADED AND REMOVE ALL AMMUNITION AND LOADED MAGAZINES FROM THE AREA.**

Separating the upper and lower assemblies

The upper and lower assemblies are joined by way of a front pivot pin and a rear takedown pin, located at the top-front corner of the magazine well and above the pistol grip respectively. These two pins are both pushed out by hand from left to right. (It may be necessary to employ a non-marring drift or small dowel if the pins are snug). Lay the rifle flat on your lap on its right side. Push both pins down until they come to a stop. DO NOT FORCE THE PINS ANY FURTHER. Both pins are retained in the lower receiver by a spring and detent system to prevent them being misplaced. They are only intended to push out far enough to separate the upper and lower assemblies.

NOTE: Keep the entire rifle supported during this process. Once the pins are pushed aside, the upper and lower will be free to fall away from one another.

Separate the upper and lower assemblies.

Lower Disassembly

The lower assembly should not be disassembled any further for routine cleaning, maintenance or inspection.

Upper Disassembly

Lay the upper in front of you on its right side (ejection port down). Disengage the charging handle latch and pull the handle out until it stops. The bolt assembly will follow. Grab the rear portion of the bolt assembly and draw it straight back out of the receiver. Grab the charging handle and pull it toward you (away from the receiver rail) until the two tabs on the charging handle clear the relief cut in the charging handle track. The upper assembly should not be disassembled any further for routine cleaning, maintenance or inspection.

Upper Reassembly

Reassembly is essentially the reverse order of disassembly. First, place the charging handle in the receiver and fit the two tabs through the relief cuts in the charging handle track. Slide the handle in about half way. Start the bolt assembly into the back of the receiver and be sure the raised portion at the top of the bolt assembly sits inside the channel in the underside of the handle. Push the bolt assembly in until it stops, then latch the handle into the relief cut in the receiver. Note that the bolt assembly protrudes from the back of the receiver about a quarter inch. This is normal.

Joining of the Upper and Lower Assemblies

Lay the upper on its left side (ejection port up). Align the front holes between the upper and lower and push the front pivot pin all the way in. Now, swing the back of the lower up until the rear holes align. The tailpiece of the lower will automatically push the protruding bolt assembly into the receiver. Push the rear takedown pin all the way in. Now that the rifle is back in assembly, cycle the action a few times to ensure everything feels normal before engaging in live fire.

Cleaning & Maintenance

SEPARATE THE UPPER AND LOWER ASSEMBLIES WHEN CLEANING AND PERFORMING MAINTENANCE.

Lower Assembly

It is advisable to clear the trigger compartment of dirt and debris periodically, or whenever the need arises. It is not necessary to remove the trigger, hammer or safety selector to accomplish this. A bit of compressed air is usually sufficient to clear out the trigger components, but you may also first use a degreaser such as lacquer thinner or lighter fluid to degrease and rinse away any unwanted fouling. First, de-cock the hammer by pulling the trigger and catching the hammer with your opposite hand. **DO NOT LET THE HAMMER FALL FREELY AGAINST THE RECEIVER, AS DAMAGE MAY RESULT.** With the hammer de-cocked and at rest against the receiver, you can work the trigger back and forth slightly. Working the trigger while degreasing or using compressed air will displace any debris or build-up underneath the trigger.

When you are satisfied that the trigger compartment is clean, you'll need to replace any necessary lubrication that was removed in the process. The trigger and hammer pins will typically not require lubrication, but you may want to add a drop of liquid gun oil to the pins after a thorough degreasing. The hammer-notch/trigger-sear interface and the disconnecter-nose/hammer-hook interface require high-solids grease, such as Rydol Boron Nitride or Anti-Seize Compound. **DO NOT USE LIQUID LUBRICANTS ON HIGH-LOAD SURFACES LIKE THE SEAR.** With the hammer de-cocked, put a dab of sear grease on a toothpick and reach way down the back of the hammer and apply to the hammer-notch and the front face of the trigger (sear). Then add a dab to the disconnecter-nose where it catches the hammer-hook. No further cleaning or maintenance is required with the lower assembly.

Upper Assembly

Fieldstrip the upper assembly as detailed above. For barrel bore cleaning, it is helpful to support the upper in a bench vise with padded jaws. Use only enough clamping force to support the weight of the upper, clamping toward the base of the handguard where it is most solid. This leaves your hands free to do the work. **DO NOT OVERTIGHTEN VISE JAWS.** Start with a quality one-piece stainless .22 caliber rod with a pointed or loop style jag. Push a .22 caliber patch, saturated with a bore solvent such as *Hoppe's 9* or equivalent, through the bore from the breech end out. **ALWAYS AVOID CLEANING FIREARMS FROM THE MUZZLE END.** Let the bore soak for a couple minutes so the solvent can work while you clean the receiver. Scrub out the inside of the receiver, breech face and feed ramp with a nylon brush and solvent and wipe with a clean rag. Use the same solvent-saturated patch you started with and run it through the bore several times, then follow up with dry patches until the patches come out clean. Mop out any excess solvent or debris from the receiver and remove the upper from the vise. Hold the upper toward a light source and look through the bore, examining for dark spots or areas of fouling that may need more work. When satisfied, set the upper aside. Now thoroughly clean the entire bolt assembly and charging handle with the nylon brush, solvent and rag. Be sure to scour the bolt face and extractor and use liberal amounts of compressed air to clear out all of the passages. Add a drop of gun oil to each of the tabs and the top of the charging handle. Add a small amount of oil to the sides of the forward bolt section, both on the upper (narrow) sections and the lower (widest) section.

Periodically, you may wish to clean the crown of the muzzle, particularly if using a compensator. The crown must be cleaned very carefully, as even very minor imperfections can wreak havoc with your rifle's accuracy. Using a non-abrasive cloth and bore solvent, wet the crown and let it soak for a few minutes. Come back with the cloth and carefully wipe/scrub clean. If you have a compensator, you will need to remove the compensator to access the crown and should also clean the inside of the compensator.

No further cleaning or maintenance is required with the upper assembly.

Magazine

It may be necessary to clean the magazines periodically. Disassemble by depressing the small red button on the bottom of the magazine and sliding the floor plate out the back of the magazine body. Use caution, as the spring will want to eject when the floor plate is removed. Draw the spring and follower out of the magazine body. Wipe all surfaces inside and out and blow clear with compressed air. Reassemble in reverse order. You may wish to add a bit of powdered graphite (optional) to the inside of the magazine for smoother operation. **DO NOT USE WET LUBES IN MAGAZINES.**

A Note About Lubrication

Lubricating the action with liquid oils requires you to tailor the type and amount of oil used for the various conditions encountered. As a rule, a moderate amount of mid-weight oil, combined with a reasonably clean rifle will give you reliable function in most climates and situations. If you are unable to service your rifle for extended periods of time due to logistics or other considerations, you can maintain reliable function by applying a higher volume of oil at more frequent intervals. The same holds true for particularly hot and dusty conditions. Conversely, if you are using your rifle in extreme cold conditions (35 degrees F and colder) you will need to use smaller amounts of much lighter weight oil and in some cases, no oil whatsoever.

Factory Service & Replacement Parts

Please contact our Technical Support staff at 320-234-6015 for any of the following:

- Technical questions regarding your NC-22 rifle or upper assembly
- Diagnostic and troubleshooting assistance
- Warranty Claims
- Instructions for returning your NC-22 rifle or upper assembly for service or repair