

# DETAILED PRODUCT INFORMATION / INSTRUCTION MANUAL

revised 4/2013

## JOHN NORRELL FULL AUTO AND SUPPRESSED RUGER 10/22 & 77/22

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## SUPPRESSED RUGER MARK II PISTOL

NOTE: *The Norrell Ruger 10/22 full auto select fire mechanism was developed by John Norrell in 1982 after eighteen months of prototype design work. The commercial version of the Norrell full auto Ruger 10/22 was first released in April of 1984. The Norrell 10/22 full auto mechanism was the first closed bolt adaptation of the Ruger 10/22 to full auto and has continued to be considered the most reliable, durable and safest of all known commercial attempts to convert the Ruger 10/22 to full auto. The original prototype rifles were collectively test fired in excess of 200,000 rounds. These characteristics have given rise to its popularity among machine gun enthusiast and collectors. No expense has been spared in its construction. Parts in the full auto trigger group are precision machined and hardened where necessary. Internal suppressor components, including baffles, are CNC precision machined from aircraft T6 aluminum and stainless steel. The suppressor outer tube is made from the highest quality seamless stainless steel tubing obtainable.*

*All suppressors and full auto trigger groups are test fired with factory Ruger magazines for proper functioning and accuracy. A test target is included with each suppressor. The following material is being provided in an attempt to educate and allow the shooter to maximize the fun and safety of these exceptional firearms.*

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### Section 1: AMMUNITION

Ruger 10/22 and Ruger MKIII Pistol Suppressors . The Norrell full auto Ruger 10/22 rifles (suppressed and non-suppressed), the semi-auto suppressed Ruger 10/22, and Norrell suppressed Ruger MKIII pistols are ported and tuned to operate reliably, accurately and with optimal sound reduction when using high quality high-velocity, 40 grain long rifle ammunition. There is no need to use standard velocity or subsonic ammo. The suppressor design automatically controls the speed of high velocity (supersonic) bullets by reducing them to quiet subsonic speed. More specifically, the rifle, pistol suppressors and full auto trigger packs function optimally using 40

grain solid nose CCI Mini-Mags. This is a common high quality ammunition. You may, however, use any ammo that functions the action, is accurate and is quiet but best all around accuracy and functioning is optimal with CCI 40 grain Mini-Mags. CCI also produces a 36 grain hollow point Mini-Mag but its 35 fps faster than the 40 grain Mini-Mags and the hollow point bullet will generally exceed the speed of sound creating a “super-sonic crack”, therefore, not making it a suitable choice for the suppressed Ruger 10/22 rifle.

Many brand name ammunitions (Remington, Winchester, etc) usually have at least two grades of .22 cal. long rifle ammo. For example, Remington Golden High Velocity is the premium grade for Remington, Winchester has Super-X and Wildcats. The second grade or what is commonly referred to as “promotional ammo” is sold under the Remington label with names such as Mohawk and Thunderbolt and are identified by their paraffin coated gray colored bullets. The Remington premium grade can be identified by their use of “gold colored plated” bullets. We do not recommend the use of the “promo” ammos since their bullets are usually coated in wax paraffin as a lubricant. The wax will build up in the chamber area and requires more frequent cleaning and may interfere with chambering and extraction.

Federal .22 high velocity ammo is generally **not** reliable in the suppressed Ruger rifle, the full auto Ruger rifle or suppressed pistol. The powder burn rate, type of powder, etc. are not conducive for optimal use.

The general malfunction that is produced when a lower quality or weak cartridge is used will be incomplete ejection of the fired cartridge casing and non-chambering of the next cartridge. In regard to “Hyper” velocity ammo such as Remington Yellow Jacket, CCI Stinger, etc. the suppressor was not tuned and ported for “hyper” velocity .22 caliber ammo. Although hyper velocity cartridges may function reliably in the action of the rifle, they produce bullet speeds that exceed the speed of sound when fired through our suppressors. When a bullet “breaks” the speed of sound, a noticeable “crack” is produced. This sonic crack is present no matter how efficient the suppressor. High velocity .22 cal. ammunition while supersonic through a non-suppressed barrel is reduced to subsonic speed when fired through our specially tuned and ported suppressed barrels.

We do not recommend the use of “standard” velocity or subsonic .22 cal. Although the standard velocity Remington ammunition comes very close to functioning perfectly in the suppressed 10/22 or MKIII, it produces borderline chamber pressures for proper operation. Bullet speed may also be reduced too much when using less powered “subsonic ammo” to hold an acceptable trajectory. Overall, the use of ammunition other than those recommended may produce less than optimal performance. You may wish to try several brands and grades. The ammo you eventually decide to use should satisfy three primary requirements: 1). The action should function reliably, 2). Produce acceptable accuracy, and 3). Exit the ported suppressed barrel at a sub-sonic speed.

Ruger 77/22 bolt action suppressed rifles - The Norrell integral suppressor for the 77/22 bolt action rifle is very similar internally in designed to the Ruger 10/22. Since a bolt action rifle does not required the ammunition to auto eject you may use any ammunition that is quiet and accurate in your rifle.

## **Section 2: FULL AUTO OPERATION**

Trigger packs are available with a *lever selector* or *button selector* to select from semi to full auto shooting modes. The *lever selector* is located on the right side of the trigger. When placed

in a position along side the trigger, the action will function in a full auto mode. The lever selector can be rotated forward to produce semi- auto functioning. The *button selector* is located in the center of the trigger and allows easy semi to full auto fire mode as you pull the trigger.

### Section 3: PLUNGER ADJUSTMENT

For most closed bolt machines to function properly, the bolt must have some type of locking mechanism incorporated into their design. Examples of the use of a locking bolt is in the Colt M-16, H&K machine guns, M-2 carbine, M-14 rifle, etc. etc. Sturm, Ruger and Company did not include in their design of the 10/22 a locking bolt; therefore, the Norrell “anti-bounce weight” was developed. Later in its development, the Norrell full auto bolt and trigger group design included two “anti-bounce” bolt mechanisms to eliminate stoppage due to light firing pin hits on the rim of the cartridge.

The first and primary anti-bounce modification is the counter weight machined into the rear of the bolt. No adjustment or special service is required for maintenance; however, the weight should always be clean enough to freely move. The second mechanism is the adjustable spring loaded plunger (detent) located on the left front side of the full auto trigger housing. The plunger slides into a groove machined into the bolt to aid in controlling bolt bounce. The spring tension placed on the plunger is adjustable by the screw located directly underneath the plunger and spring hole.

The adjustment screw is accessible from the bottom of the trigger housing and may be adjusted by a 1/16" allen wrench without any disassembly of the firearm. Initial spring tension adjustment, although preset by the manufacturer, is set by removing the trigger housing from the firearm receiver and turning the adjustment screw until the plunger protrudes .060".

This is the initial setting and in most instances the plunger spring tension will not require additional adjustment; however, readjustment may be needed due to changing the full auto trigger group and bolt from one firearm to another, change in ammunition, excessively dirty weapon, lack of lubrication, use of non-Ruger barrels, or use of the trigger group and bolt in both a suppressed and non-suppressed firearm. As stated above, fine-tuning of the spring tension may be made on the outside of the firearm without any disassembly.

Readjustment of the plunger spring tension is rare but may be required if the following malfunctions occur:

**Malfunction:** Unfired cartridge in the chamber when shooting full auto.

**Cause:** Light hit due to bolt bounce. (Light hits can also be caused by a dirty plunger that is frozen in its guide hole. See section on *Cleaning and Maintenance*.)

**Solution:** Turn the plunger spring adjustment screw clockwise 1/4 turn. If malfunction occurs again try another 1/4 turn clockwise. The total amount of adjustment needed should not exceed one full turn.

**Malfunction:** Fired cartridge does not always eject.

**Cause:** Too much spring tension on bolt causing bolt to drag. ( It should be noted that a number of conditions can cause fired rounds to not eject. See sections on *Magazines, Cleaning and Maintenance, Lubrication, Jams and Malfunctions, and Ammunition*.)

**Solution:** Turn the plunger adjustment screw counter-clockwise 1/4 turn. If malfunction is not corrected try another 1/4 to 1/2 turn, refer to other sections.

## Section 4: JAMS AND MALFUNCTIONS

It is not unusual to shoot 1000 or more rounds on full auto without any malfunctions when using the proper ammo, good magazines, and routine cleaning. Bear in mind that this is a .22 caliber rimfire cartridge, therefore, duds and weakly loaded cartridges do exist; however, almost all malfunctions are related to feeding and ejecting problems caused by the magazine. The proper way to determine if a malfunction is caused by the firearm and/or conversion or related to the magazine is to shoot the firearm utilizing the original Ruger ten round magazine with recommended ammo. If the firearm functions perfectly with the Ruger ten round magazine then the malfunction is not caused by the firearm, conversion, or suppressor. It should also be noted that Strum, Ruger and Company designed the Ruger 10/22 with two ejectors. The primary ejector is located on the left top lip of the magazine. The secondary ejector is located in the trigger group. The secondary ejector is designed to function when a round is being fired and the magazine has already been removed from the firearm. All after-market magazines such as Ramline, Eagle, Sanford, Mitchell, Bingham, Butler Creek Steel-Lips, Eaton, etc. have the ejector located on the magazine. The only magazine that utilizes the secondary ejector is the Butler Creek Hot Lips. (See the *Magazine* section for more information.)

On the plastic magazines the ejector may eventually wear down and round off causing malfunctions. A razor blade or sharp knife can quickly restore the magazine to like new performance by cutting the ejector back to obtain a square edge. When mounting a scope rail, make sure that the screws are not too long to protrude into the receiver and impede the movement of the bolt.

Ejection and feeding malfunctions may occur when the high capacity magazine placed in your rifle does not completely slide forward in the “magazine well.” Some magazines will fit into the magazine well and appear to be installed properly when in reality the magazine is not in the correct forward position. To determine if this is happening to you, make sure that between the front of the magazine and the metal on the front wall of the magazine well there is not a space or gap. If you see a space, push the magazine forward to seat it. This can also be a symptom of a cracked magazine.

It should be noted that CCI, Remington and Winchester occasionally produce .22 ammo that does not perform to their usually high standards. Entire cases of ammo may be found that are weak and will not cycle the action, includes duds, etc. If you have a problem with malfunctions all of a sudden, try another brand of ammo to verify it is not the ammunition.

Note: Several years ago Ruger started producing Ruger 10/22 rifles with receivers that had a rough wrinkle paints finish but then recently discontinued it and went back to their standard. You may have this finish and it is rough and thick. This wrinkle finish inside the receiver on the inside top is rough enough to prevent the full auto bolt from freely sliding and functioning properly. If you notice that the full auto bolt does not slide easily in your wrinkle paint receiver, I would suggest you take some sandpaper and smooth down this finish at the inside top of the receiver. Make the surface slick and smooth.

## Section 5: MAGAZINES

Finding after-market high capacity magazines that are of the same high quality as the original Ruger 10 round magazine is the challenge for shooting full auto. There are many brands of non-Ruger (aftermarket) high capacity magazines that have been produced over the years. It is suggested that before you buy a quantity of any particular brand of magazine, that you try different ones first. You will find that most definitely that some high capacity non-Ruger brand magazines will not even shoot reliably on semi-auto much less full auto. As with any machine gun, reliable full auto shooting is dependent on the quality of

the ammunition feed delivery system (magazine). It should be noted that even among the same brand of magazine some will function perfectly and others will fail to feed reliably. The most common malfunction for a non-Ruger brand poor quality magazine will be the failure for it to bring ammunition to the top of the magazine for the bolt to push into the chamber. Ammunition will be stuck down in the magazine and the bolt, therefore, closes on an empty chamber. This failure has nothing to do with the rifle, suppressor or full auto conversion. It is simply a borderline quality magazine.

Below is a list and brief description of various magazines (both good and bad) that have been produced for use in the Ruger 10/22.

1. Standard Ruger Magazine (10 rounds). Usually (see below) the factory Ruger 10 round magazines always function perfectly except when in rare cases when the spring is not wound tight enough by the manufacturer to feed rounds. Spring tension, however, can be increased with an allen wrench. *(Generally, the factory 10 round Ruger rotary mags are the ones that work perfectly and the high caps mags, the ones that you have to find good ones. In the past few years we have seen some new 10 rounds Ruger mags that would not feed. The bad ones will have rounds hung up down in the magazine and they will not rise to the top where the feed lips are. It should be noted there are two 10 round Ruger mags. One is black and the other (newer) clear. We have not had any problems with the clear mags as they are from a different mold and made of a different plastic resin. All problems have been with a few black magazines.*

*If you have a black Ruger 10 round mag that will not feed, you may want to wind the spring tighter and this may solve your problem. There is an allen screw on the back that allows you to adjust the tension. It is a little bit of a trick to adjust but can be done with an allen wrench and a pair of pliers. I'd suggest you wind the spring 1/2 turn more and try that. If that does not do it, then go one full turn. However, I think the mold for the black magazines may be flawed and that makes them too tight internally for the rounds to feed smoothly. I have not had any problems with the newer clear mags.*

2. Butler Creek Steel Lips (25 round.) Stainless steel top piece with ejector located on the magazine. The earlier versions of this magazine functioned perfectly. Later production had mixed results with some functioning perfectly and others that do not.

3. Eagle (30 rounds) Early production were amber in color with midyears production produced in black and smoke. Early production mags generally function perfectly. Mixed results with later production.

4. Ram-Line (30 round single column). Although discontinued in 1990, the following colors have shown to function on full auto: Both sides clear, one clear side and one black side, all smoke and all amber. The all black colored Ram-Line 30 round single column magazines did not function properly. The amber magazines were the last to be made by Ram-Line in the single column design and were acceptable but borderline due to repairs needing to be made to the original molds.

5. Bingham Steel Magazine (30 rounds). Discontinued a number of years ago, however, it will function especially when the feed lips are shaped for best feeding. This is the same type magazine as used in many .22 sub-caliber kits such as ones for the M-16, Mini-14, Thompson SMG, etc. The feed lips bend easily so dropping them will bend the lips but they can be re-bent easily back to form.

6. Tactical Innovations (25 rounds) A recently produced all aluminum magazine that can be disassembled for cleaning and lubricating. Uses Butler Creek steel lip internals. Have seen some work perfectly on full auto and others not. They have a website and now make a polymer version of the same magazine.

7. Butler Creek Hot Lips (25 rounds). They do not have an ejector located on the magazine and utilizes the secondary ejector in the firearm.

8. Ramline double feed column mags (all capacities and colors). The double column feed design can make it difficult to feed quickly enough to keep up with full auto fire.

9. Sanford/Eaton 50 round drums.

10. Mitchell 50 round teardrop drums.
11. Eaton 25 round stick magazines.
12. Condor 30 round magazines (the first high capacity mag made for the Ruger 10/22.)
13. McGuire all aluminum 25 round magazine. Were produced in very limited numbers and discontinued.
14. ProMag 50 round drum. A very recent addition to the array of Ruger 10/22 high capacity magazines.
15. There have been several new brands of Ruger high cap mags produced such as Tactical Innovations, etc. with varying functioning levels for full auto. One of the latest is the Ruger BX-25. Ruger is finally making there own high cap mag. We have test fired a few of the BX-25 Ruger mags and have not had any malfunctions on the several we have fired.

#### **Section 6: CLEANING AND MAINTENANCE [Full auto trigger group, bolt, and receiver]**

Sturm, Ruger and Company recommends cleaning the 10/22 rifle every 500 rounds. The Norrell full auto mechanism does not require cleaning more frequently than recommended by Ruger. To insure perfect performance the following areas are the most important to clean.

##### **A. Bolt**

1. Make sure counter weight is free to move on the guide pins.
2. Soak with a light penetrating oil or solvent. Scrape all powder residue from under the extractor on the bolt face.

##### **B. Trigger Group**

1. Blow residue from fully assembled trigger group with air or flush out with solvent. There is no need to disassemble the trigger group for cleaning, except plunger area (see below).

##### **C. Plunger Hole**

1. Remove plunger and spring from its hole. Do not remove adjustment screw.
2. Run a Q-Tip down plunger guide hole to remove any debris. If debris has hardened remove with a .22 cal. brass bore brush. Do not use a stainless steel bore brush to avoid distortion of the plunger hole. If the plunger becomes too dirty to freely move up and down, light hits may occur.

##### **D. Receiver**

1. Wipe receiver bolt travel area with cloth rag and light oil or solvent.
2. Clean extractor groove area on barrel facing.
3. Wipe or scrape the barrel facing to remove any build-ups of residue.
4. Run brass bore brush down barrel to clean the chamber and bore.

#### **Section 7: CLEANING AND MAINTENANCE [RIFLE SUPPRESSORS]**

Internal suppressor cleaning and maintenance requires disassembly, cleaning and repacking of the suppressor. All types of suppressors for any caliber size will trap powder residue (carbon). This residue is particularly voluminous with the .22 cal rimfire cartridge due to the type powders used. This residue coats all parts of the suppressor. There are two reasons for cleaning your suppressor. The first reason is to maintain the low sound level. The secondary reason is that more frequent cleaning and disassembly allows the suppressor to more easily be disassembled.

We recommend cleaning the suppressors on the 10/22 at 8,000 round and the Ruger MKIII pistol at 2,000. Although the sound level may not increase significantly at these round counts, if you wait longer it will be more difficult to disassemble the suppressor. The residue actually acts like a “glue” and sticks parts together.

In an attempt to design suppressors that are user friendly in regard to servicing, the Norrell suppressor you purchased was designed to make the cleaning process as easy as possible. For example, we use stainless

steel tubing to prevent rust from forming and residue from sticking easily. In addition, we line the suppressor tube with another layer of stainless tubing cut into 1 ½" sections with a wall thickness of about .020". These "liners" prevent the inner walls of the suppressor tube from collecting residue. \

The liners trap the residue and are much easier to clean than the inside of the suppressor tube. The suppressor may be disassembled in two manners. The first is manually without any specific disassembly tools and the other is with disassembly tools manufactured specifically for Norrell .22 caliber suppressors manufactured after 1988. There is a disassembly and reassembly tool set available from John Norrell Inc. that will disassemble both the Ruger rifle and Ruger pistol suppressors. The set includes: 1.) spanner wrench to remove the front cap, 2.) threaded ram rod with pilot bushing, and 3.) barrel centering tool for reloading cooling eyelets. Instructions for use of the disassembly tools are supplied with the tool. Pre-1988 Norrell suppressors are to be disassembled only by the manual method.

Manual Disassembly for post-1988 Rifle suppressors- (without a specialized tool set)

1. Leave the suppressor assembly and receiver attached to each other.
2. Remove stock, trigger group and bolt.
3. Remove the front-end cap with a spanner wrench or needle nose pliers.
4. Remove the rear sight assembly and staking screw(s) underneath the suppressor (if equipped).
5. Clamp the suppressor tube in a vise using leather to protect the finish. Do not over-tighten the vise jaws to avoid crushing the tube and also not too tight to prevent the internal parts from sliding out of the tube.
6. Hold onto the receiver either by hand or use a large crescent wrench lined with cloth or leather to carefully twist the receiver and barrel clockwise and counter-clockwise to break it free of the residue. The suppressor tube should not move in the vise. If it does, increase the vise tension on the tube.
7. Slowly twist the barrel and receiver back and forth while pulling the barrel out of the tube at the same time. The barrel will come out slowly. (*If it will not move then it is recommended you use the specialized Norrell tools for removal.*)
8. After you have the barrel out of the suppressor tube, you will need to push or drive out the internal parts (liners, cooling eyelets, barrel bushing, baffle spacer and baffles). This can be done by inserting a piece of steel tubing (*local hardware store*) into the suppressor to drive out the internal parts. (*The Norrell tool set presses all the liner out automatically*)
9. Once all parts are out of the suppressor tube, clean everything. Also run an 1/8" drill bit by hand or with a drill through each barrel port to remove residue buildup.
10. Reassemble in the following sequence: Place the barrel in the tube, attach rear sight assembly, drop all liners into suppressor tube, center barrel with a 3/16" rod while dropping in the new brass cooling eyelets, push barrel bushing into tube and over front of barrel, drop in baffle spacer, drop in all baffles with sharp inner edges toward chamber and screw-on the front end cap.

If you are unable to turn and eventually remove the barrel, etc. the suppressor will require the use of a disassemble tool specifically designed for this purpose. Disassembly/reassembly tools are available on our website at [www.johnnorrellarms.com](http://www.johnnorrellarms.com)

All of our .22 caliber integral suppressors, rifle or pistol, use brass eyelets as the cooling heat sink. A number of other materials can be utilized instead of the eyelets but most are short lived and hard to pack around the ported barrel. Our suppressors may be reassembled without the eyelets or any heat sink materials. No harm or accuracy loss will occur if no heat sink is used but you will notice that the suppressor is not as quiet as without the cooling eyelets.

Eyelets and liners can be purchased directly from us via mail or U.P.S. The eyelets are \$ 6.00 per ounce and the following amounts are required. (UPS shipping for eyelets up to 16 ounces is \$10.00)

Pistol - one ounce                      Shorty Rifle - two ounces                      Full Length - three ounces  
Stainless steel liners are \$ 8.00 each

### **Section 8: CLEANING AND MAINTENANCE                      [PISTOL SUPPRESSORS]**

All pre-1988 Norrell .22 cal. pistol suppressors with one underneath staking screw have a suppressor tube that is threaded for attachment to the receiver. The early model Norrell suppressor should be manually disassembled only.

All Norrell .22 cal. pistol suppressors after 1988 that have two underneath staking screws are a slide fit to receiver and may be disassembled either manually or with the aid of our special suppressor disassembly tool. The same tool will press the internals out of our .22 caliber pistol or rifle suppressors. There is a disassembly and reassembly tool set available from John Norrell Arms, Inc. The set includes: 1.) spanner wrench to remove the front cap, 2.) threaded ram rod with pilot bushing, and 3.) barrel centering tool for reloading cooling eyelets. Manual disassembly, cleaning and re-assembly procedure of the early and late model pistol suppressors is performed using the same method as the rifle suppressor. The only difference is that the early model pistol tubes screw-off of the receiver rather than slide off.

### **Section 9: ACCURACY and TARGET BARRELS**

Standard Ruger factory barrels are used in the construction of the Norrell Ruger 10/22 and 77/22 suppressors and average about 1 ½" group at 50 yards. Although some Ruger stock barrels will shoot much tighter groups approaching ½" groups or less at 50 yards this is dependent on the accuracy of the individual barrel.

Within the last several years a number of after-market companies now produce "heavy target" barrels for the 10/22. Target barrel with their tighter chambers can cause some feed related problems especially when wax paraffin coated bullets are used due to the build up in the chamber. The general advantage of a "target" barrel, is the reduction of "flyer" bullets that occasionally shoot outside a normal group of shots.

On a Ruger 10/22, the action is held in place by one screw on the bottom on the stock. Rifles that are designed with a single action screw, the screw when tightened pulls both the action and barrel down against the stock. Since a non-suppressed or Norrell suppressed Ruger 10/22 barrel comes in contact with the stock, the amount of tightening of the screw may change the trajectory of the group and therefore the location of a group, even a tight one, on a target.

The screw should be snug but not tightened with a lot of force. Like with many rifles, the removal of a sighted-in barreled action from a stock may cause the group location to change up to several when placed back in the stock. You may wish to check your sight-in each time you remove the action from the stock for cleaning or other reasons.

### **Section 10: PURCHASE OF REPLACEMENT PARTS**

**Suppressor:** On May 19, 1986 federal legislation was passed that required all internal and external suppressor components to be regulated and controlled by BATF. Therefore, all internal parts, as well as, empty outer suppressor tubes are considered by BATF to be suppressors without any other parts. It is illegal for anyone, including Class II manufacturers, to sell any baffles, etc. by themselves as replacement parts except under certain conditions. While it is not illegal to possess or own **certain** replacement parts that specifically fit a legally registered suppressor that is registered in your name, the process to obtain these parts has been significantly changed. You may purchase the cooling eyelets and liners from us since

they are not specifically suppressor parts. We cannot sell, however, the baffles or other parts that are specifically designed as suppressor parts without the suppressor being sent to our shop. We can exchange parts but cannot return any “extra parts.”

**Full Auto:** The Norrell full auto Ruger 10/22 trigger group and/or auto sear is considered to be a machine regardless of whether a Ruger firearm is attached. We can sell a replacement or extra bolt with our anti-bounce weight modification since the configuration of the bolt has not changed. A replacement plunger and spring may also be purchased directly from us. We do not offer completed full auto trigger housing assemblies or auto sears as replacement parts.

### **Section 11: LUBRICATION**

Use a very light oil such as Rem Oil (Remington Oil) on the bolt surface, inside receiver, spring guide on cocking handle mechanism, plunger, and internal trigger group parts. Do not use more viscous lubricants such as LSA, grease, etc. since they thicken in cooler weather impeding the free movement of the 10/22 bolt and also attract debris.

### **Section 13: WARRANTY**

John Norrell warrants that the workmanship of the suppressor and full auto trigger group to be free of defects and will replace or repair any parts we have manufactured for a period of one year from date of shipment. *This is the same warranty that Sturm, Ruger and Company gives on their rifles.* Failure to function properly with a non-Ruger factory magazine is not covered by the warranty as this is not related to the conversion or firearm. This warranty does not include routine maintenance, cleaning or abuse of the full auto trigger group and suppressor. This firearm has been properly designed, fitted and test fired; however, any mechanical device can fail. If you have problems with the firearm or suppressor that you think may make it unsafe, please cease shooting it and do not fix it yourself. You may create an unsafe firearm and also void the warranty. Please return the firearm to us for evaluation. Never rely upon the safety button to justify careless handling. This firearm is not a toy.

**Always wear safety glasses when shooting !**