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Class II Manufacturer Class III Dealer Law Enforcement Sales Repair/Refinishing Forensic Testimony

## Disassembly and Cleaning Instructions Ruger 10/22 and Ruger 77/22 Rifles and Ruger MKIII Pistols

3/12

You have purchased a suppressor that has been designed so you can disassemble for cleaning. The Norrell suppressor tools are designed to remove the suppressor tube and internal parts from the barrel without damaging any parts or the finish on the suppressor. The majority of other brands of suppressors on the market are either sealed permanently so you can't disassemble them or they require a very physical means of manual disassembly that can damage the tube or internal parts. .22 caliber rimfire powder creates a large amount of carbon residue. This hardened residue deposits itself on internal parts of all .22 cal suppressors and will eventually require removal to obtain original sound reduction levels. There is no liquid solvent that will adequately remove baked on carbon deposits.

A complete set of Norrell disassembly tools is comprised of three tools. 1.) spanner wrench, 2.) threaded ram rod with pilot ram bushing and 3.) barrel centering tool. These tools are designed for Norrell suppressors made after 1988. Norrell suppressors made between 1982 and 1988 cannot be disassembled with these tools. The disassembly, cleaning and reassembly process generally takes about an hour to perform. It will place your suppressor back in like new condition and original reduced sound levels.

Recommended cleaning intervals:

Pistol suppressor - 1500 fired rounds. Rifle with 19" suppressor - 5,000 to 8,000 fired rounds. Rifle with 12" suppressor - 3,000 fired rounds. Normal shooting and routine cleaning of the Norrell pistol or rifle suppressor does not require replacement of any parts other than the cooling eyelets. Going beyond recommended cleaning intervals may make the suppressor much more difficult to disassemble and due to the more physical effort needed you may inadvertently damage baffles or other parts. The suppressor is comprised of an outer stainless steel tube, barrel, stainless steel tube liners, stainless steel barrel centering bushing, aluminum spacers, aluminum baffles, a stainless steel end cap and brass cooling eyelets. When you disassemble the suppressor please note how these pieces were arranged. You will be placing them back into the same order when cleaned.

## Disassembly Procedure:

1. Pistol - Remove the suppressed upper receiver from the lower pistol grip assembly. Follow standard Ruger factory instructions in your Ruger manual. Rifle- remove the suppressed barrel assembly from the receiver following basic Ruger instructions. Rifle barrels are removed easily with a screw driver and an allen wrench.
2. Remove the front end cap of the suppressor with the spanner wrench or a suitable substitute tool such as needle nose pliers. You do not need to remove the front sight.
3. Remove the first two or three baffles. You can tape the suppressor on a table to get a couple baffles to drop out or use a piece of wire or hook to pull them out. Be careful not to damage the center hole in the baffles. Do not remove all the baffles as the pilot ram bushing will damage the barrel crown.
4. Pistol – remove the two staking screws underneath the rear of the suppressor. Rifle - Remove the rear sight and/or staking screws at the rear of the suppressor. These screws attach the tube to the barrel and must be removed. (The front end cap must be removed first to relieve pressure off these screws- see step 2)
5. Place a drop of oil or grease on the concaved center of the pilot ram bushing and drop in the pilot ram bushing with the pilot shaft facing internally on the suppressor. The ram bushing pilot shaft will center inside the baffle.
6. Clean the tube threads of debris, lubricate the threads with light oil and screw in the threaded ram rod. Screw-in the collar as far as it will go to fully engaged the threads. You must have the pilot ram bushing in place first to use the threaded ram rod or you will damage the baffles. The pointed tip of the ram rod will fit into the center concave center of the pilot ram bushing.
7. Place the hexagon threaded collar fitting on the ram rod in a vise and slowly screw in the ram rod. The rod will engage the ram bushing and slowly press the internals out of the tube. The suppressor tube should never be placed in a vise. The ram rod tool is in the vise instead. As you screw the rod in you will feel resistance. Take your time and slowly turn the rod. The barrel and internal parts will slowly be pressed out. If the tool simply will not press the internals out, do not try to force it. Check to see that you have removed your rear sight and/or staking screws on the underside of the tube. If the barrel still will not press out, you make need to soak the entire suppressor in penetrating oil first. Forcing the tool may damage baffles and ruin the tube.
8. Once the internals are removed, the cleaning process involves removing the carbon deposits from the liners, baffles and other parts. The cooling eyelets are to be replaced and are not expected to be cleaned. You can clean the parts with a brush and knife blade or use a glass bead machine to air blast the parts clean in a few minutes.
9. The barrel is ported with numerous 1/8” holes. These holes eventually clog with powder residue. Take a 1/8” drill bit and push it though each hole to clean the debris out.

## Reassembly:

1. Once all parts are cleaned including the ports in the barrel, you are ready to reassemble.

Pistol -Place the tube over the barrel and screw the underneath staking screws in to attach the tube to the barrel.

Rifle - Place the tube over the barrel and screw the underneath staking screws into the tube and /or the rear sight to attach the tube to the barrel.

2. Drop in the stack of cleaned stainless steel tube liners. Do not leave a liner out. It takes a complete stack to allow disassemble of the suppressor later for cleaning. Place a light film of anti-seize paste on outside of each liner to allow easier disassembly in the future. Anti-seize paste comes in a small tube and can be bought at any Wal-Mart or any auto parts store.

3. When the liners are in the tube along side the barrel, place the barrel centering tool down the tube to center the barrel. You will now the new cooling eyelets. The brass eyelets allow gases to cool down more quickly as the hot gas exits the ports in the barrel. Drop 10 to 20 eyelets down the tube and tap on the outer tube with a plastic hammer or piece of wood. This will shake them around and they will gradually pass down the sides of the barrel through the notches cut into the centering tool.

4. Once you have filled the area under the centering tool with eyelets, remove the tool and slide the barrel centering bushing down the tube. Make sure the bushing is flush with the end of the barrel. If not, you may have an eyelet or two too many in the tube. Remove the excess eyelets.

5. The centering bushing is in place, now you will drop in the spacers and baffles. A spacer goes in first and then a baffle then a spacer, etc. Make sure you place a light film on anti-seize paste on each baffle and spacer.

6. Once the last baffle or spacer is placed in the tube, screw in the end cap. Look down the barrel to make sure you do not have any eyelets that got loose and are mixed in with the baffles. If can't see through the barrel, then you have blockage and need to disassemble to correctly assemble the suppressor. If you do shoot it in this condition, you will damage the internal parts of the suppressor.

7. Once completed, sight-in by shooting a target and, if needed, adjust sights accordingly.

Purchase of suppressor eyelets:

The amount of eyelets needed it based on the length of the suppressor. Eyelets are \$6.00 per ounce with \$10.00 shipping for up to 32 ounces of eyelets.

Pistol suppressor – 1 oz.

Rifle with 12” suppressor - 2 oz

Rifle with 19” suppressor – 3 oz

Tools: Complete tool set is \$90.00 plus \$10.00 shipping.

Disassembly ram and pilot - \$ 60.

Spanner wrench \$ 15.

Barrel centering tool \$ 15.

Stainless steel tube liners \$ 7. each ( the front one must be cut to fit)

Eyelets and tools may be purchased at:

John Norrell Inc.

13529 Saddle Hill Dr.

Little Rock, AR 72212

[www.johnnorrellarms.com](http://www.johnnorrellarms.com) or [www.molyresin.com](http://www.molyresin.com)