

Operating and Cleaning Manual
for the 90Osprey, 400Osprey, and 450Osprey



If Silencerco determines, in its sole and absolute discretion, that a returned suppressor is not covered under this warranty, for any reason, you may purchase a replacement product at 75% off the suggested retail price.

Should a suppressor require repair, the owner should contact Silencerco and make arrangements to return the suppressor. Customer must return damaged product with a legible copy of the approved ATF form and a legible written description of the problem, defect and/or malfunction. Please include in such written description the serial number of the product, and the events leading up to the issue including what ammunition has been used and any host weapons that have been used.

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REPAIR POLICY

Should the sound suppressor require repair or modification, the owner should contact Silencerco either in writing or by telephone because many problems can be handled without returning the unit. If it is determined that the suppressor should be returned to the manufacturer for repair or modification, it should be shipped to Silencerco.

If repairs are required due to a defect in manufacturing or materials, there will be no charge for repairs.

LIMITED WARRANTY

Subject to any restrictions set forth herein, Silencerco agrees to replace and/or repair the Osprey for an unlimited amount of time. This warranty covers repair, service and replacement of damaged product caused by normal use, free of charge, only at a Silencerco facility.

Limited Lifetime Warranty

Subject to any restrictions set forth herein, Silencerco agrees to replace and/or repair the Osprey for an unlimited amount of time. This warranty covers repair, service and replacement of damaged product caused by normal use, free of charge, only at a Silencerco facility.

Failure to follow installation and maintenance instructions detailed in this manual may result in serious personal injury and damage to the weapon. Firearm sound suppressors are user attached firearm muzzle devices, and as such are subject to improper attachment unless the proper procedures outlined in this manual are followed. Do not attempt to use this product unless you have specific training and experience in the use of firearms.

Welcome

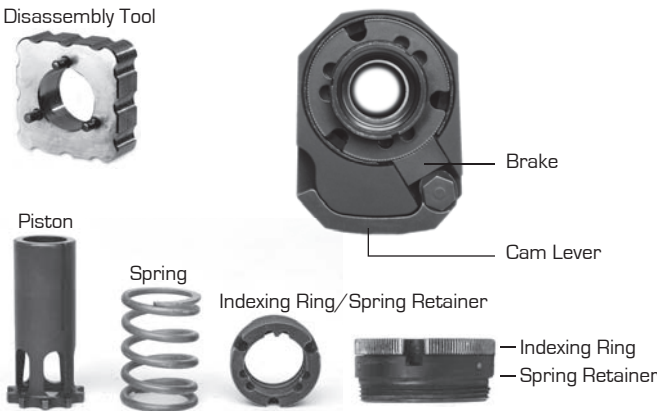
We at Silencerco hope that you enjoy the technological advancements that we have made to the Osprey firearm sound suppressor line. To provide for your safety and effective use of this suppressor, it is critical that the owner or any user of the suppressor read this entire manual and follow strictly the warnings and instructions in it. This suppressor is intended to be used only by sophisticated users with experience and training in the use of firearms.

Because sound suppressed firearms make less noise than non-suppressed firearms, it is easy to forget that they are still firearms and capable of causing bodily injury and property damage. It is of vital importance to remember that a sound suppressed firearm is just as dangerous as a non-suppressed firearm, and the same safe handling requirements that apply to a non-suppressed firearm apply to a suppressed firearm.

MANUFACTURER'S DISCLAIMER

The manufacturer is not responsible for improper usage of this product. This product is potentially dangerous, and, as such, it is the user's responsibility to understand and implement its proper use. If you do not understand the instructions in this manual, please contact the manufacturer for further clarification 801-417-5384.

Osprey Parts Diagram



General Description and Overview of the 450Osprey, 400Osprey, and 90Osprey Silencers

The Silencerco Osprey sound suppressor is one of the only eccentric silencers on the market today, and the only eccentric silencer that has the patent pending cam lever lock mounting system for proper orientation when mounting to the host weapon. The Osprey has a Nielsen device, or booster, that aides in semi-auto function while shooting from a pistol. The booster has the ability to interchange pistons for different thread specs to ensure proper mounting to all relevant host pistols.

One of the most important components of an effective silencer is how much internal volume the silencer has. The more the better. Although, increasing a silencers size comes with some undesirable side effects such as added length and weight, and the biggest issue is added radius which will obstruct the sight picture of the host weapon and inhibit the ability for the silencer to be holstered while it is still attached to the host weapon. The Osprey's unique eccentric design allows you to acquire the desired internal volume without compromising sight picture and holster-ability. Although when a silencer is eccentric it must have a way to mount to the host weapon and then index to any barrel in a desirable location.

The Osprey has a patent pending cam lever lock system that facilitates this indexing very simply and quickly. Just thread the silencer on the barrel of the host weapon just as you would a traditional round silencer. When the silencer comes to rest on the threads shoulder, hand tighten the silencer to insure a snug fit. Then release the cam lever and rotate the silencer to your desired location, then finish by moving the cam lever back to its locked position. To remove silencer from host weapon simply unthread the silencer from the host weapon just as you would a traditional silencer while leaving the cam lever in the locked position. When you thread the Osprey back on to the host weapon it should be indexed already without the need to use the cam lever.

Before installing or removing the Osprey sound suppressor from the host weapon, be sure that the weapon is unloaded, the magazine must be removed and the action is opened so that it is visibly clear of any ammunition. If you are at all unsure as to the proper procedures to ensure that your firearm is unloaded, please consult your firearm user's manual/instructions and/or contact a properly licensed dealer or the manufacturer of your weapon.

Mounting and Indexing

After confirming that your weapon is unloaded, with the action open, place the threaded piston end of the Osprey suppressor in line with the threads at the end of the barrel and screw the suppressor on the barrel of the host weapon until the silencer has rested against the shoulder of the threads. Hand tighten only. Special care should be taken to prevent cross-threading. After the silencer has a snug and secure fit to the host weapon, release the cam lever lock by rotating the lever counter clockwise. While holding lever fully open, rotate the Osprey and stop at the desired orientation to the host weapon. When you are satisfied with the orientation, rotate the cam lever clockwise back to its locked position.

The Osprey has several different threaded piston options for different host weapons. Confirm the piston is the proper thread spec for your host weapon before you attempt to mount the silencer. It is necessary for the threads on the host weapon to be absolutely concentric with the bore and must have a ninety degree (90°) shoulder perpendicular to the bore. Silencerco, LLC assumes no responsibility for any damage caused to the silencer, host weapon or other property or any other damage or bodily injury caused to persons due to poorly threaded barrels or if the silencer is improperly installed. For detailed thread diagrams log on to www.silencerco.com

Failure to follow installation instructions detailed in this manual can result in potential for serious injury to the user and damage to the weapon.

If you are uncertain if the host weapons threads are absolutely concentric, please consult a licensed firearms dealer or the manufacturer of the host weapon. Never, under any circumstances, attempt to use the Osprey unless, among other things, you are absolutely certain of the Osprey's proper fit on the host weapon. A suppressor will rest properly and securely when, after turning freely upon the threads for several revolutions, the rear of the suppressor will come to rest on the shoulder of the barrels threads. Resistance from the suppressors contact to the shoulder prevents the suppressor from being turned further and no threads may be seen.

Failure to ensure a proper fit of the Osprey on the host weapon may lead to property damage and/or serious bodily injury.

Since thread mounted silencers are known to unscrew during firing, it is of the utmost importance that the operator frequently ensures the silencer remains securely threaded onto the barrel. The threading of the suppressor to the firearm should be checked at least after 30 discharges of the firearm.

When removing the Osprey, use extreme caution as it may be hot to the touch. Use gloves to avoid burns or other injuries.

Removing From Host Weapon

After confirming that your weapon is unloaded, with the action open, remove by unthreading the Osprey as you would a traditional round silencer, keeping the cam lever in the locked position. Once removed you may thread the Osprey back on to the host weapon that it was previously mounted to and it should come to rest in the proper orientation without the need to use the cam lever lock mounting system. The Osprey should remain timed to that particular host weapon until you disassemble the booster for cleaning, change piston, or mount to a different host weapon.

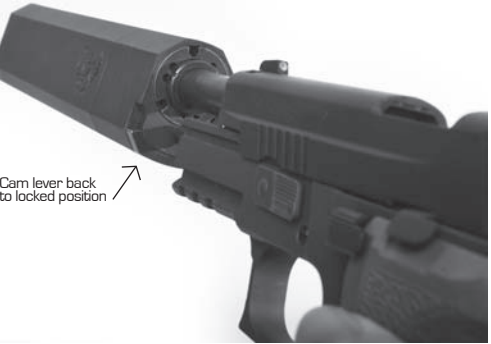
Quick Start: Attaching Osprey To Your Host Weapon

***** **DANGER** *****
Before performing maintenance or removing and installing the suppressor, open the action, remove the magazine and be sure the chamber is empty. Failure to do so can result in property damage, injury or death.

Step 1- With the cam lever in the locked position, place the threaded piston end of the Osprey suppressor in line with the threads at the end of the barrel and screw the suppressor on the barrel of the host weapon until the silencer has rested against the shoulder of the threads.



Step 3- When you are satisfied with the orientation, rotate the cam lever clockwise back to its locked position.

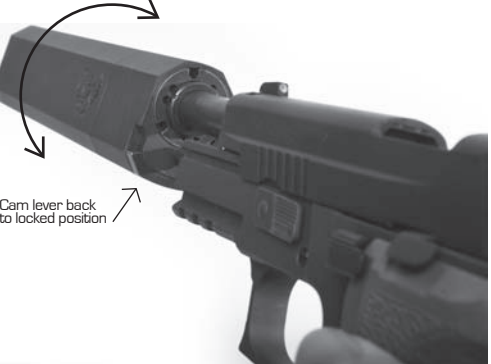


Step 2- After the silencer has a snug and secure fit to the host weapon, release the cam lever lock by rotating the lever counter clockwise. While holding the lever fully open, rotate the Osprey and stop at the desired orientation to the host weapon.

NOTE: When the cam lever is opened the brake is free to disengage the indexing ring by gravity alone. Sometimes when the Osprey is dirty it will not freely disengage. Just use your finger to slide it down if this happens.

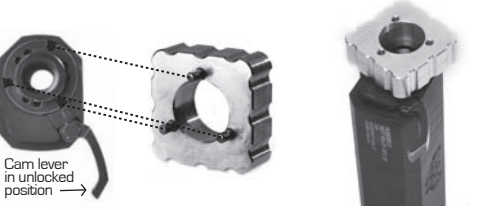


Step 4- Detaching Osprey From Your Host Weapon- Remove by unthreading the Osprey as you would a traditional round silencer, keeping the cam lever in the locked position.

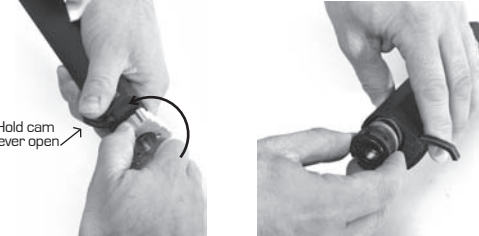


Disassembly Of The Nielsen Device/Booster

Step 1- Move the cam lever lock to the unlocked position. With the provided disassembly tool, align the three pins on the tool with the three holes in the indexing ring/spring retainer and insert pins into holes.



Step 2- While holding the cam lever open, and making sure the brake disengaged, unscrew the indexing ring/spring retainer and remove booster assembly. To ensure the brake is disengaged, apply force with finger away from indexing ring/spring retainer.



Step 3- Remove the indexing ring/spring retainer by sliding off the piston. Remove spring in the same manner.



Assembly Of The Nielsen Device/Booster

Step 1- Slide spring over the piston.



Step 2- Slide the indexing ring/spring retainer over the piston, threaded end first, until the piston comes to rest on the teeth of the indexing ring. You will have to press firmly in order to slide the O-ring inside the spring retainer over the piston.

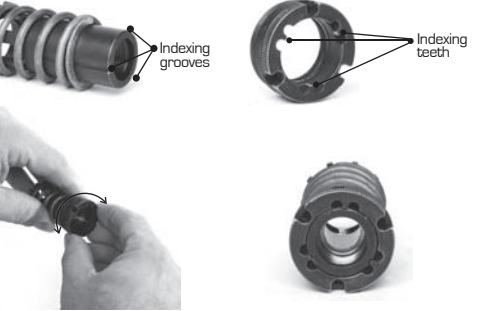


Step 2 (cont.)

Note: Apply a portion of white lithium grease to the O-ring located inside the spring retainer before assembling. This will aid in the assembly process.



Step 3- While pressing firmly on the indexing ring/spring retainer, rotate the indexing ring portion around the piston until the three indexing teeth on the indexing ring align with the indexing grooves on the piston and continue pushing until the indexing ring/spring retainer is tight against the spring.



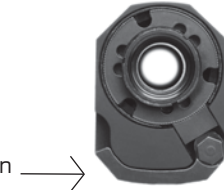
Step 4- Insert entire booster assembly into the back cap of the silencer, making sure the cam lever is held open in the unlocked position and the brake is moved down and away from the indexing ring.



Step 5- Align the three pins on the disassembly tool with the three holes in the indexing ring/spring retainer. Insert pins into holes, and while pressing firmly rotate the tool so the booster assembly engages the threads. Then continue to thread booster assembly onto silencer until hand tight.



Step 6- Rotate the cam lever back to the locked position.



O-ring maintenance and replacement-

Inside the indexing ring/spring retainer there is an O-ring. The O-ring seals the gases from escaping the silencer when the piston is actuated from firing. This O-ring will have to be replaced from time to time. It is important to note that the Osprey will function without the O-ring in place but for the most effective sound suppression it is needed. You will know when to replace it because you will see substantial wear and tear after heavy use or it may break and exit out the back of the silencer. At this point just simply disassemble the booster [refer to "disassembly of booster"

section] and insert new O-ring into the provided O-ring groove located on the inside of the spring retainer, directly under the threads.

Use Viton O-ring size -18



Tips and Tricks

1. After use and before disassembling the booster, spray break free into the booster through the bore hole and through the piston vents so that the break free enters the inside of the booster assembly. This will allow the booster assembly to be removed from the silencer easier.
2. If booster is difficult to remove from the back of the silencer, thread the osprey back on the host weapon (refer to "attaching Osprey to your host weapon" section), open the cam lever lock and rotate the Osprey back and forth which will loosen some of the carbon build up making it easier to remove the booster from the silencer. After rotating silencer back and forth for a matter of seconds, move the cam lever back to the locked position, detach the Osprey from the host weapon and proceed with the removal of the booster from the silencer. *****WARNING*** Make sure the gun is unloaded and the action is opened and cleared before trying this method.**

Maintenance and Cleaning

Because the Osprey has such a substantial amount of internal volume, there is no need to regularly clean the baffles. When you do want to clean the baffles, soak the silencer in a hydrocarbon-based solvent such as VWD-40 and certain mineral spirits and/or lacquer thinners. Then, remove the Osprey and blow out the internals with pressurized air, shake all the liquid out, and let dry. The Nielsen device, or booster, should be regularly cleaned. Remove the booster and disassemble all the parts (refer to the "booster disassembly" section). Using an abrasive brush and/or a scotch bright pad and solvent, scrub the components free of the carbon build up. When finished apply white lithium grease to the O-ring inside the spring retainer, assemble the booster and install into the back of the Osprey. NOTE: Do not use sand paper to clean the booster as it may ruin the precision finish and may cause malfunction.

***** **CAUTION** *****
Always read the warning label on any cleaner or solvent, and remember that virtually all solvents are inherently dangerous and potentially toxic. Always use adequate ventilation and both skin and eye protection when using organic solvents.

Ammunition

The Osprey should only be used with factory loaded ammunition. The Osprey performs best when subsonic ammunition is used. For increased performance, 5cc of water can be inserted in the blast chamber.

Host Weapon/Fixed Barrel Spacer

Only firearms that are in proper working condition should be used with the Osprey. The Osprey should not be used on a firearm with a fixed barrel without first replacing the booster spring with a fixed barrel spacer.

***** **WARNING** *****
Do not attach the Osprey to a firearm with a fixed barrel without first replacing the booster spring with a fixed barrel spacer.

Note: if you have any question whatsoever about whether you are performing assembly, disassembly or cleaning of the suppressor properly and in accordance with these instructions, you may contact Silencerco customer service at 801-417-5384 or access our web site at www.silencerco.com.



Manufactured By:



Osprey First Edition, 2010

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