

**Owners Manual  
M-11/22 .22 LR  
Sub-Caliber Conversion Unit**



**NFA Warning**

This device is designed to be used with the SWD M-11/9 submachine gun. NFA (National Firearms Act, Title 26, United States Code) rules apply to its use and possession.

It is the owners/users responsibility to comply with all local, State and Federal laws and regulations in the use of this product.

Read these instructions completely prior to installation and operation of the M-11/22 Sub-Caliber Conversion Unit.

### Description/Features

The M-11/22 is a .22 LR Sub-Caliber conversion device for use with an M-11/9 upper receiver. The M-11/22 is designed to use the original low profile "Hockey Puck" style cocking knob. Other aftermarket cocking knobs may add additional weight to the bolt assembly and affect performance.

The semi-auto function of the M-11/9 will not work, with this kit installed.

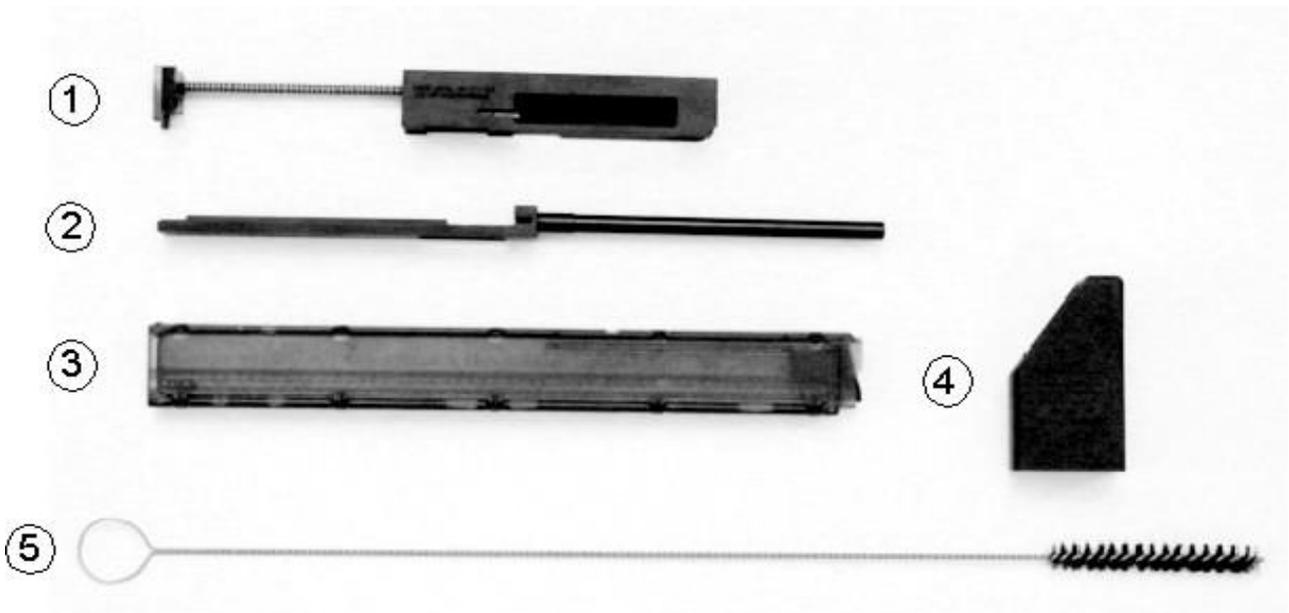
The M-11/22 is designed specifically to be used with Remington Golden Bullet 36 Grain bullets.

#### Features:

- Uses .22 LR ammunition allowing inexpensive practice, training and casual shooting.
- "Drop in" installation requires no modification to the upper or lower receiver.
- 40 round polymer magazine.
- Rate of fire is between 800 and 900 rounds per minute.

The kit consists of the following components:

- 1) Bolt Assembly
- 2) Barrel Insert and Ejector Plate
- 3) 40 Round Magazine
- 4) Magazine Loader
- 5) Magazine Cleaning Brush



## Installation

**Note: Upper receiver and barrel must be clean prior to installation of kit.**

**CAUTION!** Do not install this unit in a barrel longer than 5-1/2 inches. Use in a longer barrel will cause severe lead and powder residue build-up forward of the barrel insert inside the 9mm barrel. This build-up **MUST BE REMOVED** prior to shooting with 9mm ammunition, and it is very difficult to do so. Lage Manufacturing, L.L.C. sells barrel inserts to fit a variety of barrel lengths. Use the correct barrel insert for the barrel length you are using.

If a muzzle brake or flash suppressor is installed on the barrel, please note that lead and powder residue will build up and need to be thoroughly cleaned before using with 9mm. For ease of use and maintenance, you may prefer to remove the muzzle device while using the M-11/22.

- ① Insure firearm is unloaded. Point in a safe direction. Remove magazine and pull bolt to the rear to insure chamber is empty.



- ② While holding cocking knob, pull trigger and ease bolt forward into closed position.



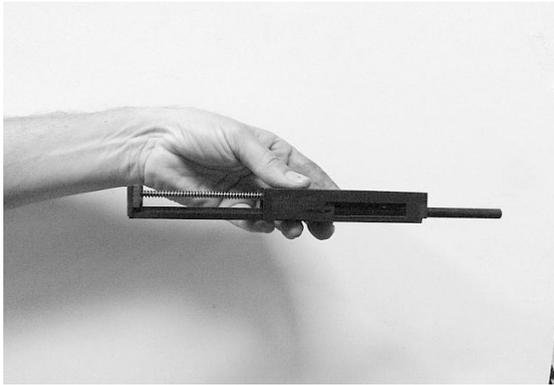
- ③ Remove front pushpin and detach upper receiver from lower receiver.



- ④ Retract 9mm bolt from upper receiver until cocking knob can be removed and remove bolt assembly.



- ⑤ Place M-11/22 bolt assembly on top of barrel insert/ejector plate.



- ⑥ Install assembly inside upper receiver insuring barrel insert is placed inside barrel.  
Slide assembly forward until cocking knob hole lines up with rear of slot in upper receiver.  
Install cocking knob.



- ⑦ Using the cocking knob, continue to slide assembly forward within upper receiver until .22 barrel insert bottoms out on barrel. Resistance may be felt as the barrel insert is fully seated. It is designed to be a tight fit.

NOTE: Due to the design of the M-11/9, the extractor of the 9mm bolt may impact the 9mm barrel face and cause a burr to be formed. If a burr on the barrel face prevents the barrel insert from fully seating, remove the barrel insert and remove the burr with a jewelers file.



- ⑧ Align back plate on rear of ejector plate and place upper receiver onto lower receiver.



- ⑨ Insert upper receiver retaining pin.
- ⑩ Cycle the bolt back and forth to insure there is no binding and that it seats fully closed.
- ⑪ Inspect the extractor alignment to insure it engages the barrel face correctly. The extractor should be centered in the relief cut of the barrel face as shown below.



If the extractor hits the top of the relief cut, before the bolt is fully seated, your barrel may need to be aligned for the kit to fit properly. If the barrel needs alignment, you will need to ship the M-11/22 kit along with your M-11/9 upper receiver to Lage Manufacturing.

## Operation

### Ammunition

The M-11/22 is designed to use .22 Long Rifle ammunition. The recommended ammunition is Remington Golden 36 Gr. .22 Long Rifle. Use only bright and shiny ammunition of recent manufacture.

The following ammo also works very well with the M-11/22:

Winchester Super-X, 40 Grain 1300 FPS #X22LRSS1  
CCI Mini-Mag HP, 36 Grain, 1260 FPS #0031  
CCI Stinger, 32 Grain 1640 FPS #0050

Use only plated bullets to minimize leading of the barrel. Use of other ammunition may cause unreliable performance.

### Load magazine

**Always use the loading tool to load the magazine.** The tool insures that the bullets are set at the correct angle and that the bullet tips are not loosened or bent during loading.

The magazine holds 40 rounds of .22 LR ammunition. Count the rounds while loading to insure you do not try to overload the magazine. Trying to overload the magazine will cause the case of the bullet in the magazine to get dented, which may cause a jam.

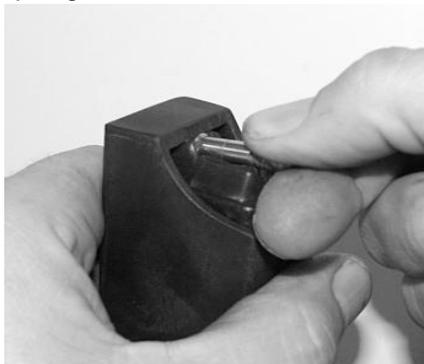
The key to reliable performance is proper, careful loading of the magazines. Jams, if any, will more than likely be caused by poor presentation of the bullet from the magazine.

Inspect bullets to insure bullets are not deformed and cases are not dented.

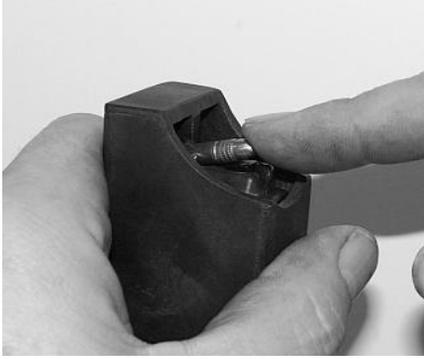
- ① Place loader over top of magazine and push down to lower the magazine follower.



- ② Place bullet in magazine and push bullet fully rearward until it seats against the plunger of the loader.



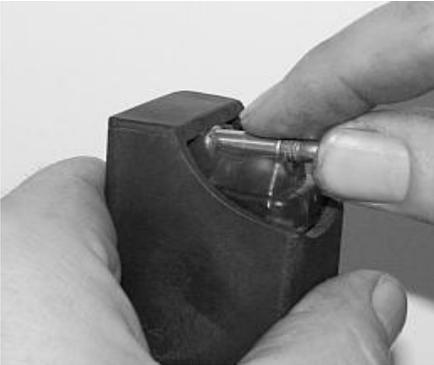
- ③ Release loader and lightly push the bullet until it seats against back wall of magazine.



- ④ Push loader down again, depressing previously loaded round.



- ⑤ Place bullet in magazine and push bullet fully rearward until it seats against the plunger of the loader.



- ⑥ Release loader and lightly push bullet until it contacts the rim of the bullet previously loaded.



⑦ Repeat steps 4 through 6 until magazine is fully loaded.

If at any time during loading, the inserted bullet does not return to the feedlip of the magazine, inspect the previously loaded bullets to insure the rim of the bullet on top did not pass the rim of the bullet underneath. Unload "crossed over" bullets and reload.



When fully loaded inspect top round in magazine to insure it is at the correct presentation angle. Bullet should be slightly tilted up. If bullet is not tilted up, unload magazine and reload, paying careful attention that the rims do not cross over.

CORRECT



INCORRECT



If problem persists, clean magazine. (see Cleaning and Lubrication and Maintenance section below). If bullet case is dented during loading, remove bullet and discard. Bullets partially feeding (bullet head in chamber mouth and rear of bullet case still in magazine) or being crushed at the top of the magazine (never exiting magazine) is a sign of a dirty magazine. Use with a sound suppressor will cause the magazine to accumulate burnt gunpowder debris quicker and more frequent cleaning may be required.

## Shooting

### Caution:

**Always wear ear and eye protection when shooting. Make sure no one is positioned opposite the ejection port. Besides hot brass cases being ejected, sparks and burnt gunpowder are expelled at a high velocity out of the ejection port and can injure bystanders.**

Operation is identical to the original 9mm M-11/9. Point firearm in a safe direction and pull on cocking knob to cock. Engage safety. Install loaded magazine. Pull down on magazine to insure it is securely latched in place. When ready to fire, disengage safety and pull trigger.

The shooting technique required for the M-11/22 is contrary to what everyone is taught about shooting. The trigger needs to be jabbed, or pulled and quickly released to let the sear get back into position without dragging. Releasing the trigger slowly may cause the sear to raise up while the bolt is traveling over it. This causes the bolt to slow down and may cause a feed or extraction jam. After firing it a while, you will get used to the rhythm and let go of the trigger at the right moment.

Eventhough this kit fires a .22 LR bullet, hold the gun firmly when shooting. This will prevent the bolt from short stroking and causing a jam.

For the very first time shooting, perform the following break-in procedure:

- Leave the gun unloaded and "dry fire" 10 times.
- Load only 10 rounds in magazine and fire in one complete burst.
- Load 40 rounds and fire.

### Use with a Suppressor

A .22 suppressor should not be used with these kits. Installation of the .22 barrel insert into the 9mm barrel may cause misalignment with a .22 suppressor attached to the 9mm barrel. This could result in a baffle strike in the suppressor. A 9mm suppressor can be used with the .22 kit but the 9mm suppressor will need to be cleaned after use to insure lead build up does not obstruct the baffle holes.

Use with a suppressor will accelerate the rate of fouling of the bolt face area and the magazines.

If your 9mm suppressor has a warranty from the manufacturer, check with them to see if using .22 LR ammunition with their suppressor will void the warranty.

When first using a suppressor with the kit, pay close attention to operation. After firing a couple of rounds, some .22 ammunition may create an overpressure condition that will cause case rim failure. This will be indicated by a loud "pop" sound and the gun may jam. If this happens, discontinue use of this ammunition with the suppressor. Also, inspect the bolt assembly to insure the extractor, plunger and spring have not blown out.

## Cleaning, Lubrication and Maintenance

Recommended cleaning interval is 500 rounds. More frequent cleaning may be required with suppressor use.

After use, do not leave the barrel insert inside the barrel of your upper receiver. During use, burnt gunpowder passes between the barrel insert and the barrel. Leaving the barrel insert in place can result in accelerated corrosion of the barrel and barrel insert.

### **Bolt Assembly-**

Using a brass or nylon brush and solvent, clean bolt face and extractor area.

The extractor, spring and plunger may be removed for cleaning. To do so, retract the plunger with a small flat head screwdriver and remove the extractor. Place your finger over the extractor area and carefully remove the screwdriver. The plunger and spring will pop out and be captured by your finger. In case replacements are needed, the M-11/22 uses a standard Ruger 10/22 extractor, plunger and spring.

After cleaning, lightly oil the bolt exterior surfaces.

### **Barrel Insert-**

**Note- if using a cleaning rod, clean the bore from the muzzle end of the barrel to protect the tip of the ejector.**

Using a brass or nylon brush and solvent, clean barrel face and extractor groove area.

With heavy use, the bore of the barrel insert may be severely fouled with lead residue. You may find that a brass bore brush for a .270 caliber bore performs better than a standard 22 bore brush. To effectively use the brass brush, push all the way through the barrel until brush clears the barrel end and pull back through. Remove any lead that remains attached to the brush after each pass. Occasionally look through the barrel to see if the rifling is clear of lead deposits. Repeat the brushing process as necessary to remove all lead deposits. Complete the cleaning process by following with cleaning patches or a bore snake. Wipe all surfaces with gun oil or preservative.

### **Magazine-**

The magazine is made from polycarbonate and can be damaged by harsh chemicals. Use dish soap and water or other "plastic safe" solvents for cleaning.

Remove floorplate, plunger, spring, and follower. Using the provided magazine cleaning brush and solvent, clean inside of magazine housing. Use a cotton tipped swab and solvent to clean the recesses underneath the feed lip area. Using a synthetic brush and solvent, clean the spring, plunger, follower and ejector block. Blow dry all components with compressed air or let air dry. Do not add lubrication to the inside of the magazine body.

## Parts Identification

Bolt Assembly, M-11/22

- 1) Bolt
- 2) Extractor
- 3) Extractor Plunger
- 4) Extractor Spring
- 5) Recoil Rod
- 6) Recoil Spring
- 7) Front E-Clip 1/8"
- 8) Rear E-Clip 7/64"
- 9) Buffer
- 10) Backplate
- 11) Buffer screw, 5/16" Long

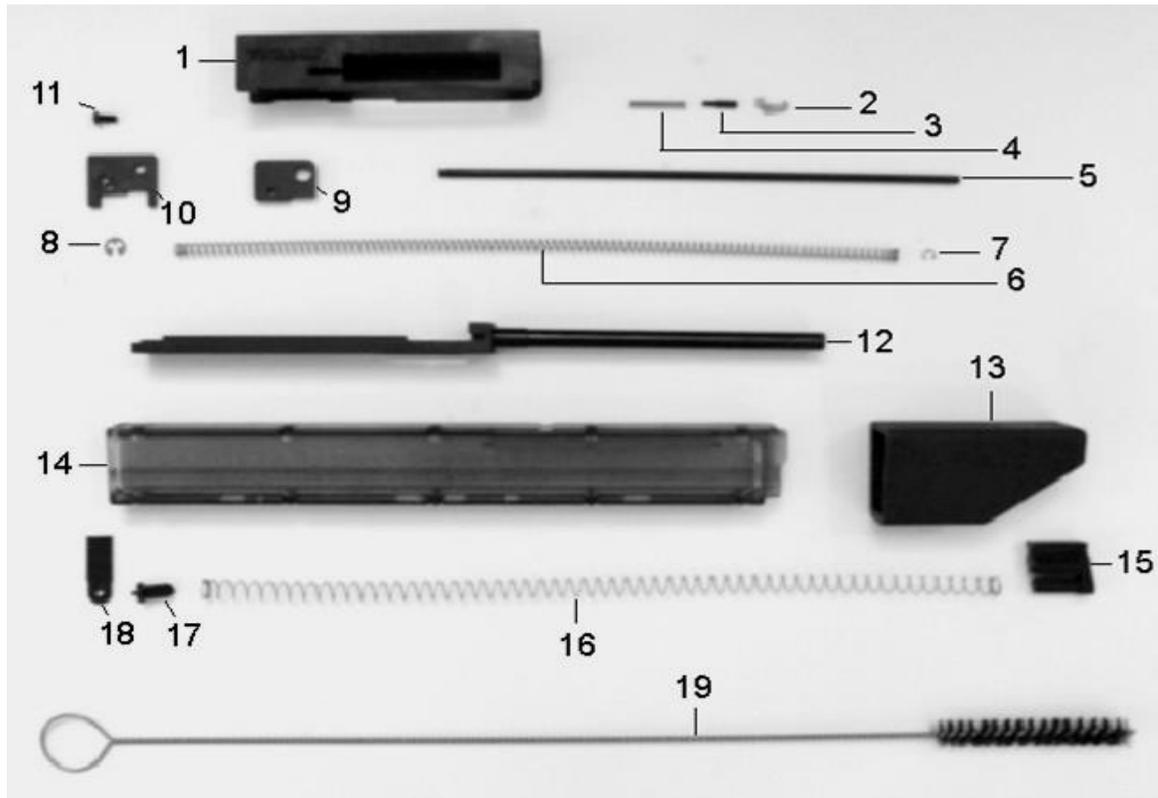
12) Barrel Insert and Ejector Plate, 5-1/2"

13) Magazine Loader

Magazine

- 14) Magazine Body
- 15) Follower
- 16) Spring
- 17) Plunger
- 18) Floorplate

19) Magazine Cleaning Brush



## Warranty and Repair

*The M-11/22 .22LR, Sub-Caliber Conversion Unit has been manufactured in a manner to insure it is defect free and durable. LAGE Manufacturing, L.L.C. warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of One Year from the original date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidental, repairs or alterations outside our facilities or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of this product. The above limitation of exclusion may be subject to state law and may not apply to you.*

*To utilize this warranty, the M-11/22 .22LR, Sub-Caliber Conversion Unit must be returned to us packaged in a manner to preclude damage during transit and with shipping charges prepaid. Proof of purchase date, and a written description of the complaint must be included. If upon inspection, the complaint is verified, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide a replacement. We will return the repaired product at our expense, but if we determine that there is no defect, or that the defect was a result of causes not within the scope of this warranty, then you must bear the cost of returning the product.*

*This warranty gives you specific legal rights and you may have other rights, which vary from state to state.*