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M14/M1A SCOPE MOUNT INSTALLATION

1. **PREPARATION 1:** Remove stripper clip guide from receiver (see below). Inspect for burrs and remove with file or stone.

IMPORTANT! Remove Stripper Clip Guide with care or damage to receiver may result!

1a: Remove receiver from stock. From the inside of the receiver, insert a 3/32 diameter (or slightly smaller) punch and gently tap the spring pin out. Do not attempt to remove pin by pushing it into the receiver because burrs or a deformed hole on the inside will prevent pin from being removed without excessive force.

1b: Next, support the left side of the receiver with a block of wood. Gently tap the stripper guide on the RIGHT SIDE ONLY. Stripper Clip Guide is removed from right to left.

CAUTION: Care should be taken not to use excessive force to remove pin or stripper clip guide. It may cause the receiver to crack or other damage to occur. If unsure, do not take a chance, bring it to a local gunsmith who is familiar with M1A rifles to perform the task.

2. **PREPARATION 2:** Remove white square packaging cardboard from Hex Screw(3).

3. **INSPECTION:** Check if the tapped hole in the receiver has good threads by manually threading the Hex Screw(3) into the hole (do not use a wrench). Damage to receiver or Hex Screw(3) may occur if threads in the receiver are dirty or damaged. If threads are good and clean, the screw will easily thread into it. If it does not thread easily by hand, first clean receiver hole with solvent and small brush; if that doesn't work, use either a chase screw for cleaning the threads or a tap for re-cutting damaged threads (both tools are available thru Sadlak Industries LLC-see price list or thru an industrial tool supply company). The thread in the receiver is a special extra-fine #12-32 UNEF pitch. Do not get confused and try to clean or do repairs using (the more common) #12-28 UNF fine pitch tap. (Note: Home Depot etc, will not carry this special extra-fine tap).

4. **INSTALL SCOPE MOUNT(1):** Place scope mount in the Receiver Groove on the left side (see Fig.4 on attached diagram). Slide mount toward barrel then back several times to check surface contact between the inside vertical surface of mount and the receiver's left-side face. To help see actual contact surfaces between the mount and receiver, it is best to use Prussian Blue Paste (also called high-spot marking paste). This paste is non-drying, non-staining, and water soluble for easy cleanup (available thru Sadlak Industries LLC-see price list). The Left-Side Key (see Fig.3) on the mount should fit completely into the groove and flush against the receiver left side with no light visible between the mount and receiver. Hold the receiver with mount attached up to a light source to check. No light visible is VERY IMPORTANT because it assures maximum surface-to-surface contact between the mount and the receiver's left side which will improve reliability, prevent loosening of mount from heavy recoil forces, and help maintain zero when the mount is removed. If light is visible, then the mount is not resting flush against the receiver. The main reason for this is the left-side horizontal groove is not made to the close tolerance of the USGI specifications. See further information below about M1A receivers.

5. **INSTALL CAM WASHER(2):** Insert Cam Washer(2) into elongated slot in left side of the mount. Position tab at twelve o'clock as shown in Fig.2.

6. **INSTALL HEX SCREW(3):** Apply Loctite thread locker #222MS to Hex Screw(3) and insert thru Cam Washer(2); then carefully hand start screw into receiver. Partially tighten screw with 3/8 box wrench approx. 1/8 turn past hand-tight to allow mount to make full contact with receiver, yet still be able to slide towards the stripper clip guide angle face. NOTE: It is important, at this stage, for the mount not to have contact with the receiver Angled Face (see Fig. 2 & 4). A small light gap should be visible. This assures the Angled Face does not influence the positive contact on the left side between the mount and receiver. This positive contact is very important for long-term reliability.

7. **CAM MOUNT TOWARD ANGLED FACE:** Lightly tap the tab on the Cam Washer(2) with a plastic mallet clockwise until the above-mentioned light gap (step 6) at the angled face is reduced as the mount contacts the receiver. Keep tapping to allow the mount to ride up the angled face while the Hex Screw(3) remains moderately tight. You may notice the mount only contacts the angled face at a couple high points. This is often normal and caused by the variation in the manufacturing process and tolerances of the Angled Face. The original GI blueprint did not hold this angled feature very accurately because the only function, at the time, was to mount the stripper clip guide. Civilian M1A manufactures often hold this feature even less accurately.

Continued on back.

8. **PREPARE CLIP GUIDE KEY(4):** Remove two small set screws in the key (see Fig.1) and apply Loctite #222MS thread locker. Re-install into key until flush.
9. **INSTALL CLIP GUIDE KEY(4):** Slide key into Dovetail Slot (see Fig. 2 & 4) in receiver. Visually align center-threaded hole in key with hole in mount.
10. **INSTALL CLIP GUIDE SCREW(5):** Thread screw into the Clip Guide Key(4). Partially tighten $\frac{1}{4}$ turn past hand-tight.
11. **LOCK KEY INTO DOVETAIL SLOT:** Screw both set screws in the Clip Guide Key(4) until contact is made with bottom of the dovetail slot in the receiver. Partially tighten 3/4 turns past hand-tight.
12. **FINAL TIGHTEN SCREWS:** Using an inch-lbs torque wrench, final tighten the screws to the following specifications in the order listed:
 - 1) Hex Screw(3): 65-70 inch-lbs
 - 2) Two set screws in the Clip Guide Key(4): 25-30 inch-lbs
WARNING! Use caution when tightening these setscrews. Do not over-tighten! Receiver may crack if excessive force is used. To assure setscrews do not loosen, remember to use Loctite #222MS thread locker.
 - 3) Clip Guide Screw(5): 30-35 inch lbs
13. **FRONT POST SUPPORT:** Screw down Front Post Screw(6) (see Fig.1) until contact is made with the top of the receiver. Turn 1/16 max. past contact point.
14. **LOCK FRONT POST SCREW:** Remove Front Post Set Screw(7), apply Loctite thread locker, and re-install. Tighten to $\frac{1}{2}$ turn past hand-tight.
15. **INSTALL RINGS AND SCOPE:** The scope mount installation is complete and you are ready to install the rings and scope. It is recommended to check and re-torque all scope mount screws after the first 1000 rounds fired.

NOTE: Remember to apply one-drop of Loctite thread locker #222MS (purple for small fasteners) on all screws.

A Note about Sadlak Scope Mounts and M1A Receivers

Sadlak Industries takes pride in the precision and workmanship put into our scope mounts. Our main focus centers around providing quality products that meet the demanding requirements of the military. Our mounts are based on the original Brookfield Precision Tool design previously tested and accepted by the military and are precision machined to fit on all M14 (military select-fire) or M1A (civilian semi-automatic) rifle that has been made to the original USGI specifications.

Manufacturers of M1A semi-automatic receivers for civilian sales (not under government contract) do not have to adhere to the government USGI blueprint specifications and are not inspected using government gages. For mounting a scope on an M1A rifle, the biggest concern is the quality of the machining on the receiver's left-side horiz. groove and the location of the left-side threaded hole. Often this quality has been overlooked resulting in many problems in properly installing a scope mount designed to fit an M14 rifle. If the groove is out-of-spec, it often is not machined deep enough or wide enough resulting in the left-side key on the mount not being able to fully seat into the groove. When this occurs, the groove is too small for the scope mount key causing the mount to rest in a cocked position against the receiver's left-side. If the receiver's horizontal groove was machined correctly the inside key on the scope mount will fit entirely into it with only a small amount of play. The inside surface of the mount will rest flush against the machined surface on the receiver's left-side with no gap or visible light showing.

We cannot anticipate the size that various M1A receiver manufacturers have machined the left-side groove. Therefore, the inside key on our scope mounts are precision machined to just fit into the smallest groove size acceptable per USGI M14 receiver blueprints. They are machined this precisely to provide the best product possible when purchased by the US Military for use on USGI M14 rifles. By doing this, our troops in the field receive only the highest quality products to complete their mission with confidence.

How precise is the left-side groove machined on a real USGI M14 rifle? According to the USGI receiver drawing #7790189, the 60-degree groove on the left side should be .070min./.078max.(per blueprint) wide at the bottom and .149/.153"(calculated from gage point) wide at the top. The groove depth is .062min./.072max.(also calculated). This shows that the GI groove is tightly machined with a tolerance or play of only .004 in the vertical movement, about the thickness of a sheet of copier paper. If problems persist due to an out-of-spec receiver, please refer to the optional custom fitting service available from Sadlak Industries LLC.