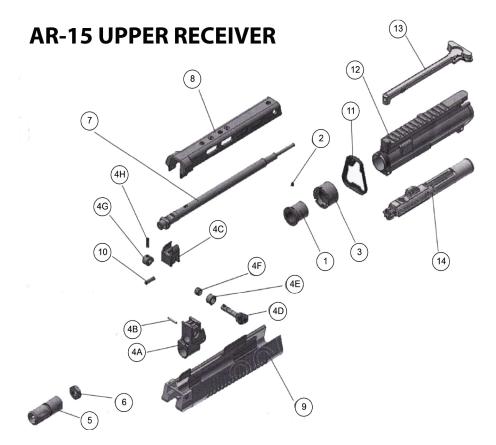


## **Operator's Manual**

## **Complete AR-15 Upper Receiver**

Gas Piston Driven | Hammer Forged Barrel

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- 1. Barrel Sleeve With Locking Lug
- 2. Locking Lug Pin
- 3. Barrel Nut
- 4. Gas Block/Front Sight Assembly
  - A) Gas Block
  - B) Gas Block Pin
  - C) Front Sight
  - D) Gas Piston Retainer
  - E) Collar
  - F) Position Spring
  - G) Locking Collar
  - H) Locking Collar Pin

- 5. Muzzle Compensator
- 6. Lock Nut
- 7. Gas Piston Assembly
- 8. Upper Hand Guard
- 9. Lower Hand Guard
- 10. Locating Pin
- 11. Hand Guard Retainer Clip
- 12. Upper Receiver Tube
- 13. Charging Handle Assembly
- 14. Bolt Carrier Assemble

## Operator's Manual for WOLF 5.56x45mm A1 Gas Piston Upper Receiver

**Introduction** ~ WOLF's 5.56x45mm A1 upper receiver is a complete assembly ready to install on your standard AR-15 lower receiver assembly. Installation is easily accomplished in seconds with no tools or special training required. The A1 features our Rapid Clean" Gas Piston operating system for reliable and trouble-free service and easy maintenance and cleaning.

**Characteristics** ~ The WOLF A1 upper receiver is chambered for standard 5.56x45mm NATO cartridges. It features a 16.5 inch Cold Hammer Forged barrel with a 1-7 inch rifling twist to provide optimum performance with a wide range of bullet weights. Operation is by short-stroke "Rapid Clean" gas piston with a rotating bolt. The upper receiver features a MIL-SPEC 1913 "Picatinny" rail to allow easy mounting of iron sights or optical sights. Robust synthetic hand guards provide a secure grip and feature heat shields. A protected front sight adjustable for elevation is standard. The muzzle features standard 1/2x28 threads and a combination compensator/flash suppressor is mounted. This device not only reduces felt recoil but it also cuts down on the flash signature.

Operation of the "Rapid Clean" Short Stroke Gas Piston System ~ When a cartridge is fired burning gas propels the projectile down the barrel. After the projectile passes a gas port in the barrel a small amount of gas is vented through the orifice in the barrel into the gas block where it passes into the regulator. Gas entering the body of the regulator comes in contact with the head of the piston and pushes it to the rear. The piston pushes the tappet which in turn comes in contact with the tappet key machined into the bolt carrier. The bolt carrier begins to move rearward unlocking the bolt from the barrel extension. After a very short movement of approximately 0.25-inch the piston has moved far enough to the rear to expose two small round vents at 3 and 9 O'clock on the regulator. Any extra gas is vented from the system through these holes. The bolt carrier continues its rearward cycle while the tappet spring returns the tappet/piston assembly to its original position. As the bolt carrier moves to the rear it extracts and ejects the fired cartridge case and cocks the hammer. Once the bolt carrier moves clear the magazine pushes the next cartridge up against the feed lips of the magazine and presents it ready for loading. At the end of the bolt carrier's rearward cycle the action spring, housed in the receiver extension, propels the bolt carrier forward loading a fresh cartridge into the chamber and locking the bolt. The piece is now ready to fire.

**Installing the Upper Receiver onto your AR-15 lower receiver** ~ To install the WOLF A1 upper receiver onto your AR-15 lower receiver begin by removing the magazine and ensuring the firearm is empty and clear of ammunition. Visually check the chamber to ensure no ammunition is present. Then with the bolt carrier assembly forward, press and push through the rear take-down pin and pivot the receiver up. Next press the front pivot pin through as far as it will go. You can now lift the upper receiver assembly up and off the lower receiver.

Next carefully place the WOLF A1 upper receiver assembly onto your AR-15 lower receiver and check for alignment with the front pivot pin hole and the rear take-down pin hole. Push the front pivot pin all the way through. Next, push the rear take-down pin all the way through. Ensure both pins are fully seated. Retract the charging handle and ensure smooth movement of the bolt carrier assembly.

**Installing iron or optical sights** ~ The WOLF A1 upper receiver features integral MIL-STD 1913 "Picatinny" rails machined into the top of the upper receiver. Iron sights, day sights, night sights or a combination may be installed. Refer to the mounting instructions of your iron/optical sights for proper mounting procedures.

**Adjusting the front sight** ~ When zeroing the upper receiver using iron sights the integral front sight is adjusted for elevation only. Elevation adjustments are made

by depressing the detent which locks the front sight in place and rotating the front sight post. The detent can be depressed using a standard M16 front sight tool or the tip of a standard 5.56x45mm cartridge. Rotating the post clock-wise will move the point of impact UP. Rotating it counter-clockwise will move the point of impact DOWN. Each notch moves the point of impact approximately 1.09 inches (2.8 cm) at 100 meters.

**To Field-Strip Bolt Carrier** ~ Begin by removing the magazine from the rifle and retracting the bolt. Verify the chamber is empty and there is no ammunition present. Remove the upper receiver from the lower receiver by pushing the take-down pin as far as it will go. Pivot the upper receiver from the lower receiver and then push the receiver pivot pin through as far as it will go. Separate the upper and lower receiver halves. Pull back on the charging handle and bolt carrier assembly and remove the bolt carrier assembly. Then pull the charging handle assembly back and down to remove it. To field strip the bolt carrier assembly start by moving the bolt forward to its unlocked position. Next remove the firing pin retaining pin by pulling it out of the carrier. Push in on the bolt assembly and catch the firing pin as it drops out of the back of the carrier assembly. Turn the cam pin 90 degrees and lift out. Finally, pull the bolt from the front of the carrier. Assembly is the reverse.

**To Remove the Hand Guards** ~The synthetic hand guards are retained by a cross-pin located at their front. To remove the hand guards use the tip of a cartridge or a properly sized punch and push the hand guard retaining pin towards the right. The pin will be retained and will not come all the way out. With the pin pushed fully to the right the lower hand guard can be pulled down and off. The upper hand guard can be lifted up and off. Assembly is the reverse.

**To Field Strip the Gas System** ~ On the left side of the gas block is a robust spring-loaded retainer for the gas piston assembly. Push this in and rotate it 180-degrees to unlock the gas piston assembly. The gas piston assembly is visible at the front of the gas block. Rotate this 180-degrees and the entire assembly can be pulled from the front of the gas block. Both the retainer and piston assembly are designed to allow a cartridge or tool to be inserted for leverage to aid rotating a badly fouled piece. With the entire piston assembly removed retract the outer metal tube and turn clock-wise to unlock. This frees the regulator and allows the outer tube to be removed from the inner tappet and piston assembly. Finally the tappet spring can be removed from the tappet. The design is simple, robust and can only be assembled one way. Assembly is the reverse.

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Visit our website for a link to the WOLF A1 Disassembly Guide video or go to https://www.youtube.com/watch?v=aMRvkQggjxs

**WARNING** Always maintain a safe muzzle direction. Always load the rifle from a magazine and never drop a cartridge directly into the chamber without a magazine inserted. Never disassemble or work on a loaded firearm. Follow the instructions and safe handling rules in the lower receiver manual.