

**KNS Precision Inc.**  
**The Discarder™**  
for  
**Steyr AUG™ Family Firearms**  
**Installation & Operation**  
**User Manual**

**Patent 12,259,208**

## Safety Notes

- Always obey the four laws of gun handling:
  - Treat every gun as if it were loaded
  - Do not point the muzzle at anything you are not willing to destroy
  - Always be sure of your target and what is beyond it
  - Keep your finger off the trigger until ready to fire
- Ensure the firearm is unloaded before installation
- Always wear eye protection while performing maintenance on the firearm
- Always use eye and ear protection during live fire
- Always perform gas system adjustment in accordance with the user manual procedure
- Do not make large gas system adjustments without prior incremental testing to verify safe operation

## Safety Disclaimer

The KNS adjustable gas regulator grants a much wider range of operating force to the gas system than was originally intended. As such, it is possible for inappropriate adjustment settings to drive the firing & extraction cycles beyond safe limits of operation.

**The consequences of unsafe operation can range from damage to the operating parts, to case failures capable of fatal injury.**

Always perform gas system adjustments incrementally through testing in accordance with the user manual procedure to minimize the risk of unsafe operation.

\*\*\* KNS Precision, INC is NOT responsible for misuse or failure to follow user guidelines, resulting in damage to firearm \*\*\*

## Warranty Information

This product is covered by our Lifetime Warranty against manufacturer's defects and breakage during normal use of this product. For warranty issues please send an email with your contact information and product details to [info@knsprecisioninc.com](mailto:info@knsprecisioninc.com).

## About KNS Precision Inc.

KNS Precision, Inc. had its beginning in the summer of 1999, when two friends, one a master machinist, the other a firearms enthusiast, combined to produce and market new products for the AR15/M16 platform. With overwhelming success from the start, KNS Precision, Inc. has earned the firearm and shooting industry's acceptance through product innovation and customer service.

In 2006 the machinist sold his portion of the company to his nephew, who was also a master machinist and owned a local Swiss machine shop. KNS Precision, Inc. then moved four miles from its original location to the new machine shop. In 2008, the second partner retired and a portion of the company was sold to a military Veteran and local Police Sergeant who had been the company's Law Enforcement and Military representative since 2002.

The current owners have continued the strong traditions of the company while expanding company growth, customer service and product development.

KNS Precision Inc.  
112 Marschall Creek Rd.  
Fredericksburg, TX 78624  
[knsprecisioninc.com](http://knsprecisioninc.com) (830) 997-0000

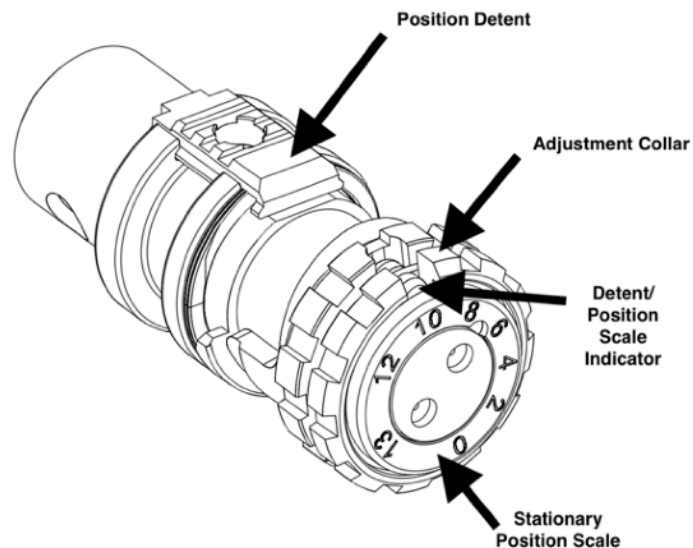
# Introduction

## **Congratulations on purchasing The Discarder™!**

Upon installation, users will enjoy:

- The ability to safely use a much wider variety of ammunition
- The ability to reduce the rate of fire and bolt group velocity
- The ability to quickly adjust settings without tools
- Reduced venting of gas from the chamber area into the user's face
- Repeatable, precise adjustment positions for recording settings
- A fully-reversible, installation requiring only a bullet tip/multitool
- Corrosion-resistant, easily cleaned parts for minimal maintenance

The purpose of this manual is to walk the new user through installing The Discarder™ Adjustable Gas Regulator in their configuration of choice, safely tuning it for desired operation, and keeping it maintained. Appendices with useful information for suggested gas system adjustments, and troubleshooting lie at the end of this manual.



# Installation Procedure

## ENSURE FIREARM IS UNLOADED BEFORE PROCEEDING

-Tools Required:

- Fingers/small punch

-Step One: Ensure firearm is unloaded before proceeding.

-Step Two: Remove the barrel per factory manual and secure in vise equipped with soft jaws. Facing the gas block, apply outward pressure on the factory gas plug locking tab, rotate gas until it reaches the takedown position, then remove it from the gas block by pulling forward towards muzzle per factory user manual. Remove the factory gas plug - bag and tag factory parts for future use.



-Step Three: Turn adjustment collar to position “0”, insert The Discarder™ into the gas block, orient it so that the regulator drops into the gas block and then rotate into desired position. The act of pressing The Discarder™ into the gas block will automatically depress the position detent and allow it to lock into either “High” or “Low” setting. To change between these positions, the gas cut-off grenade launching position, or the take down position - simply slide the position detent forward against it’s spring with your finger, bullet tip, or small punch - and rotate the entire assembly within the gas block. \*NOTE\*, the adjustment collar must be in position “0” in order to fully release the position detent and also prevent over-travel.



The Discarder shown above right is locked into the “Low” setting, with the position detent clearly visible in the 10:30 o’clock orientation as viewed from the front. By placing the adjustment collar in the “0” position and sliding the position detent forward, The Discarder™ can be rotated anti-clockwise within the gas block to the “High” setting. The grenade launch position can be accessed by continuing anti-clockwise to the last position available and will close the port completely, preventing the weapon from cycling.



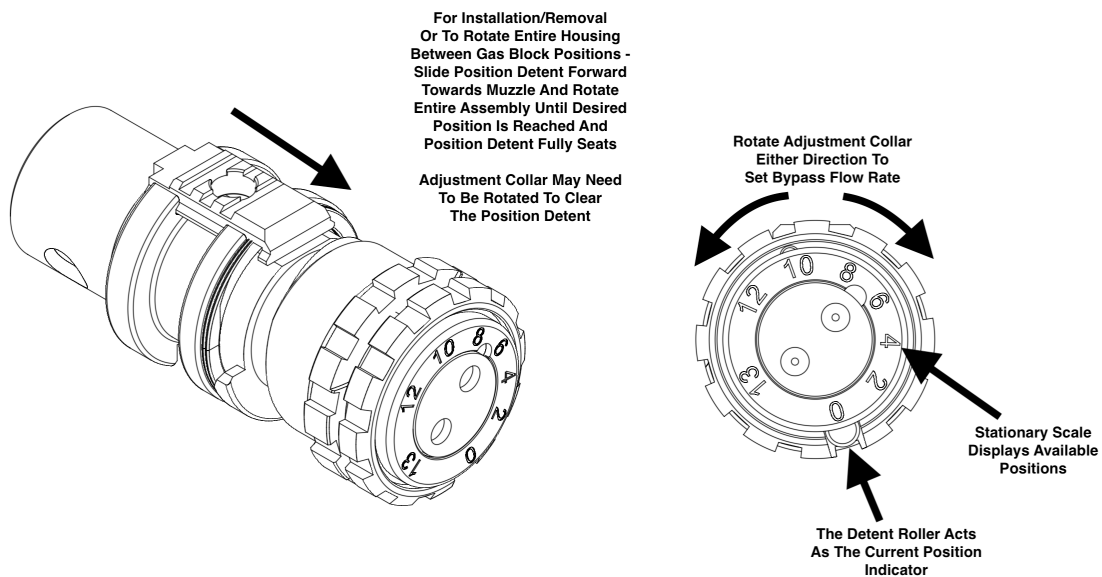
A small punch can be used to slide the position detent forward and apply twisting motion to break carbon build up if the weapon has been used extensively between cleaning. The adjustment collar must first be moved to the "0" setting to allow sufficient detent movement without over-travel.



At this point, the typical installation is complete, and all that is left is to test fire the weapon in all configurations to determine best setting(s). One of the many great features of the Steyr AUG™ platform is the two user-selectable gas apertures between the barrel and the piston journal, as well as a gas cut-off. These allow the hard aperture size to be changed by the user to accommodate different configurations/ammunition types simply by turning The Discarder™ body within the gas block.

By selecting different apertures, the amount of gas supplied to the piston/regulator can be increased or decreased as needed. This allows the weapon to be tuned for high/low pressure ammunition, barrel lengths, and various muzzle devices such as suppressors.

If more or less total energy is desired, release the position detent and rotate The Discarder™ to the “High” or “LOW” position. Think of this like the transfer case on a manual transmission - you are modulating the total volume of gas available for the regulator to...regulate.



## Adjustment Procedure

# OBSERVE ALL RULES FOR THE SAFE OPERATION OF LOADED FIREARMS

The most important point to remember when adjusting the gas system of your firearm, is to begin from a safe starting point, and work incrementally toward the desired adjustment. The Discarder™ functions by venting excess gas volume out of the regulator to reduce operating force, so the “0” setting of the adjustment collar - combined with the “Low” position on the housing represents the lowest possible energy

setting, and is a safe default setting for initial tuning. For suppressed firearms or when shooting non-standard ammunition, excessive back pressure can result in dangerously violent operation capable of damaging the firearm or injuring the shooter. **Therefore, it is recommended that initial adjustment for any gun be done in unsuppressed semi-automatic condition, with standard ammunition.**

There are three possible positions within the gas block - “Low”, “High”, and a gas cutoff position intended for military grenade launching. While the cutoff position might be useful to some, the “Low” and “High” are the most useful settings. The “Low” setting is accessed by rotating the position detent until it is closest to the barrel on the upper side of the barrel. This will allow a smaller total volume of gas to enter the regulator. The “High” position is found by rotating to the bottom side of the gas block to the first notch available - the position detent should be almost exactly at the 6 o’clock of the gas block. The gas cutoff position is the last position past “High” and is the closest notch to the barrel on the bottom side of the gas block.

The laser engraved scale on the face of The Discarder™ indicates the level of energy being delivered to the piston to cycle the firearm. The detent/notch points to the position it is currently in, “0” being the lowest amount of energy delivered, “13” being the highest amount delivered. The scale is stationary, while the adjustment collar detent provides the traveling “pointer” to indicate current setting. Turn the adjustment collar until the adjustment collar detent is aligned with the desired setting.

The two round pockets in the face of the scale are factory assembly features only, this part is swaged in place permanently - DO NOT attempt to use these pockets to adjust any settings as damage to your tool and/or The Discarder™ may occur.

**It is important to understand that the combination of these two variables results in the desired energy being delivered to the bolt**

**group. The gas port sizes in the “Low” and “High” positions regulate \*gas volume\* delivered to the regulator whereas the adjustment collar controls how much \*of that volume\* is used to accelerate the bolt carrier vs. being vented to atmosphere.**

-Step One: Begin with the firearm in the unsuppressed condition, shooting standard ammunition, and the adjustment collar turned to the full-open (“0”) position, with the main housing in the “Low” gas pass through port setting. The goal is to start in a low-energy “safe state” so that the host weapon is not damaged by excessive bolt group velocity. Fire the weapon with one round in the magazine, if the weapon does not lock open on an empty mag - increase the power delivered to the carrier by rotating the adjustment collar to the next higher number and repeat. If the highest number (“13”) is reached the weapon still does not lock open on empty mag - rotate the main housing to the “High” pass through port size, return the adjustment collar to lowest setting (“0”), and begin the test again, repeat until baseline operation is achieved.

-Step Two: Verify the firearm can cycle appropriately in the baseline position. It is best to start with a full magazine to make sure the carrier momentum can overcome the friction of rounds pressed against its underside, with the selector in the semi-automatic position so the disconnecter is struck, and achieve bolt lock once the magazine is empty. A slightly more energetic than baseline setting may be chosen in order to ensure reliability across various environmental and ammunition conditions.

-Step Three: Repeat this process to determine best settings for each ammunition type and muzzle device.

Most weapons have a setting that bridges the gap between suppressed and unsuppressed, the best way to find this setting is to test the various ammunition types and accessories intended for use.

Most weapons/suppressors also have a “perfect” setting for suppressed,

and then a completely different setting to achieve “perfect” for unsuppressed. It is very helpful to test all configurations and make notes. The markings on the unit make it very easy to repeat “known good” configurations.

**\*\*\*Do not be tempted to run any weapon you rely on - at the very lowest gas setting. Ammunition/weather/carbon fouling can potentially combine to rob just enough energy to cause a malfunction if the gas setting is set too close to low energy failure point.\*\*\***

Cleaning: high round count/suppressed fire can result in carbon build up over time, especially if the adjustment collar is rarely moved between positions.

AC Delco GM top engine cleaner PN: 10-3007 has been found to be very effective at dissolving carbon deposits. Simply remove the regulator/piston from the host weapon, place in small disposable plastic container - and soak/scrub per instructions on the label. An old toothbrush works well at cleaning the various small features.

At the time of this publication, 13oz aerosol containers can be purchased from Amazon.