



**PepperBall®**  
*SAFER OPTIONS*

VARIABLE KINETIC SYSTEM

**VKS™**

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**User Manual**

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PEPPERBALL.COM



VARIABLE KINETIC SYSTEM

# VKS™

**WARNINGS & SAFETY** ..... PAGE 3

**INVENTORY LIST** ..... PAGE 6

**OPERATIONAL INSTRUCTIONS OVERVIEW** ..... PAGE 7

**SAFETY OPERATION** ..... PAGE 9

**CHARGING**.....PAGE 10

**LOADING PROJECTILES**.....PAGE 11

**MAGAZINE**.....PAGE 12

**BARREL REMOVAL**.....PAGE 13

**ADJUSTING VELOCITY** ..... PAGE 13

**HOPPER ATTACHMENT** ..... PAGE 14

**CLEANING & MAINTENANCE** ..... PAGE 15

**WARRANTY & REPAIRS**.....PAGE 17

## WARNING

**THIS LAUNCHER IS NOT A TOY AND IS INTENDED FOR USE BY MILITARY, LAW ENFORCEMENT, CORRECTIONAL OFFICERS, PRIVATE SECURITY GUARDS, BAIL ENFORCEMENT AGENTS AND OTHER AUTHORIZED PERSONNEL. THIS PRODUCT LAUNCHES PROJECTILES FROM THE BARREL. MISUSE MAY CAUSE SERIOUS INJURY OR DEATH. ALWAYS MAKE SURE THAT THE TRIGGER SAFETY IS IN THE "SAFE MODE," EXCEPT WHEN THE LAUNCHER IS IN USE. SEE ADDITIONAL SAFETY GUIDELINES AND USER INSTRUCTIONS IN THIS MANUAL. KEEP OUT OF THE REACH OF CHILDREN.**

## WARNINGS AND SAFETY

### Congratulations on your purchase of the PepperBall VKS™ Launcher.

This launcher has been designed and manufactured by United Tactical Systems, LLC (UTS) to be reliable, accurate and durable. When properly handled, the VKS™ will give many years of dependable service. Please take the time to read through this manual and become familiar with the VKS™ parts, operation, maintenance, and safety precautions before you attempt to load or fire this launcher. This manual is a supplement to the recommended PepperBall® training and should be used as a reference when performing maintenance or annual re-qualification.

By purchasing this launcher, you and your agency assume total responsibility for its safe and lawful use. You must observe the same safety precautions as you would with any firearm to ensure the safety of not only yourself, but everyone around you. The operator should use caution at all times when maintaining and firing this launcher.

### LIMITATIONS AND USAGE

There are some state or local limitations on purchase, possession, and use of the VKS™. Verify local legal requirements in your state and city to ensure possession and use are proper. The user assumes the liability from unsafe or improper use or any action which constitutes a violation of any applicable law or regulation.

The VKS™ may be prohibited from certain premises, including government buildings, airports, courthouses, schools, or other public spaces. Possessing a VKS™ in a prohibited area may subject user to criminal liability.

#### **WARNING: If misused, this PepperBall® launcher is a dangerous weapon.**

The user assumes all liability from unsafe handling or any action that constitutes a violation of any applicable laws or regulations. UTS shall not be liable for personal injury, loss of property, or loss of life resulting from the use of this weapon under any circumstances, including any intentional, reckless, negligent or accidental discharges. By using this PepperBall® launcher, you release UTS of any and all liability associated with its use.

All information in this manual is subject to change without notice. UTS reserves the right to make changes and improvements to products without incurring any obligation to incorporate such improvements in products previously sold.

#### **IF YOU DO NOT ACCEPT LIABILITY, DO NOT USE THIS OR ANY PEPPERBALL® LAUNCHER.**

**WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.**

### SAFETY IS YOUR RESPONSIBILITY!

The following safety information contains important warnings related to the proper use of the launcher, projectiles, and gas canisters. Do not load, discharge or otherwise use this launcher until you have completely read this manual and are familiar with its safety features, mechanical operation, and handling characteristics.



## LAUNCHERS

- **Danger:** Never aim or shoot at the head, face, eyes, ears, throat or spine. Impact in these areas could result in unintended severe or permanent injury or death.
- **Danger:** Never look down the barrel of the launcher. Accidental discharge into the eyes may cause permanent injury or death.
- Eye, face and ear protection should be worn when utilizing this system in force-on-force training.
- Handle this launcher as if it were loaded at all times.
- Keep your finger off the trigger until ready to fire.
- Keep this launcher on "Safe Mode" until ready to fire.
- Always keep the barrel pointed down or in a safe direction.
- Never point or discharge your launcher at anything you do not intend to shoot.
- Never discharge your launcher at the personal property of others.
- Do not disassemble this launcher while it is pressurized or attempt to pressurize while it is disassembled.
- Keep exposed skin away from any escaping gas when in use and when installing or removing air supply.
- Use only PepperBall® authorized projectiles in this launcher. The use of any unauthorized projectiles in this launcher will void all warranties.
- Any unauthorized modifications to the function of this launcher will void all warranties.
- If any laser is equipped with this launcher, never point the laser directly at eyes and observe all safety warnings associated with the equipped laser.
- Always verify launcher is in "Safe Mode" and stored in a safe and secure location when not in use.
- USE CAUTION when engaging suspects beyond 20 meters as accuracy is reduced beyond that distance.

## PROJECTILES

### PEPPERBALL LIVE-X™ AND PEPPERBALL LIVE™ PROJECTILES

**WARNING! THIS PRODUCT IS NOT A TOY! KEEP OUT OF THE REACH OF CHILDREN! MAY CAUSE IRRITATION UPON CONTACT OR INHALATION.**

Read projectile label carefully before opening container or using any of its contents. Opening container indicates user has carefully read label in its entirety and accepts its provisions as the terms and conditions under which this product is furnished. THIS PRODUCT IS INTENDED SOLELY for use by properly trained users including military, law enforcement, private security, and corrections personnel.

**IRRITATION:** PAVA projectiles contain pepper powder and may cause irritation upon contact or inhalation.

## SAFETY

**ACTIVE INGREDIENT of PAVA-filled projectiles:** Approximately 0.5% in LIVE projectiles and 5.0% in LIVE X projectiles +/- 0.02% by weight PAVA (with CAPAICIN II) Capsaicinoids 1.0% per A.S.T.A. 21.3

### EXPOSURE:

**Eye Contact:** Flush eyes and other contaminated areas IMMEDIATELY with large amounts of cool water, and expose to fresh air. Contact lenses should be removed by subject or qualified medical personnel and must be discarded.

**Skin Contact:** Wash skin with soap and water to prevent further exposure. Flush skin with large amounts of cool water to minimize irritant effect. Wash contaminated clothing before reuse. DO NOT rub contaminated areas or apply creams, salves, oils, lotions, or burn cream, which can trap irritant on the skin.

**Inhalation:** If breathing is difficult, administer oxygen. If high concentrations are inhaled, immediately remove subject to fresh air. Keep person calm. If not breathing, begin artificial respiration. If breathing difficulty persists, seek medical attention.

**Ingestion:** Although ingestion is unlikely and not considered a potential route of exposure, individual should be treated as having an acute non-specific airway reaction by an appropriate specialist. Do not induce vomiting.

For more details on these products, please refer to the Safety Data Sheets (SDS) listed on [www.pepperball.com](http://www.pepperball.com)

**STORAGE AND DISPOSAL:** Store in areas inaccessible to children. Do not store where temperature may exceed 150°F. Discard safely three (3) years from date of manufacture. PEPPERBALL patented products are protected by one or more of U.S. Patent Numbers 5,965,839; 6,393,992; 6,543,356; 6,546,874; 7,194,960; European Patent Number 1177409; and/or other domestic and foreign patent pending applications. For information, call (877) 887-3773 or go to [www.pepperball.com](http://www.pepperball.com).

### GLASS-SHATTERING PROJECTILES

**WARNING! NOT INTENDED FOR USE ON HUMANS! KEEP OUT OF THE REACH OF CHILDREN!**

Glass-Shattering Projectiles should only be used for breaking automobile side windows or residential windows. These projectiles are NOT recommended to be used as anti-personnel projectiles. Projectiles should NOT be reused. Dispose of all previously launched projectiles. By opening the container and breaking the sealed cap, the agency and the user agree to abide by all manufacturer's recommendations. Discard safely six (6) years from date of manufacture.

## HIGH PRESSURE SYSTEMS

**WARNING--CONTENTS UNDER PRESSURE**

**Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F. Keep out of the reach of children.**

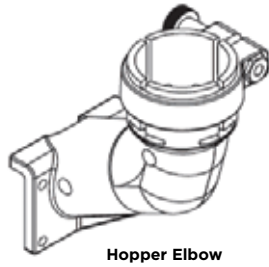
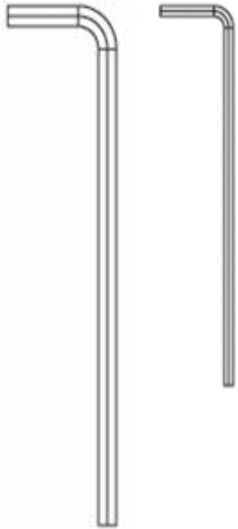


## PARTS INVENTORY LIST

### HEX WRENCHES

3/16"

3/32"

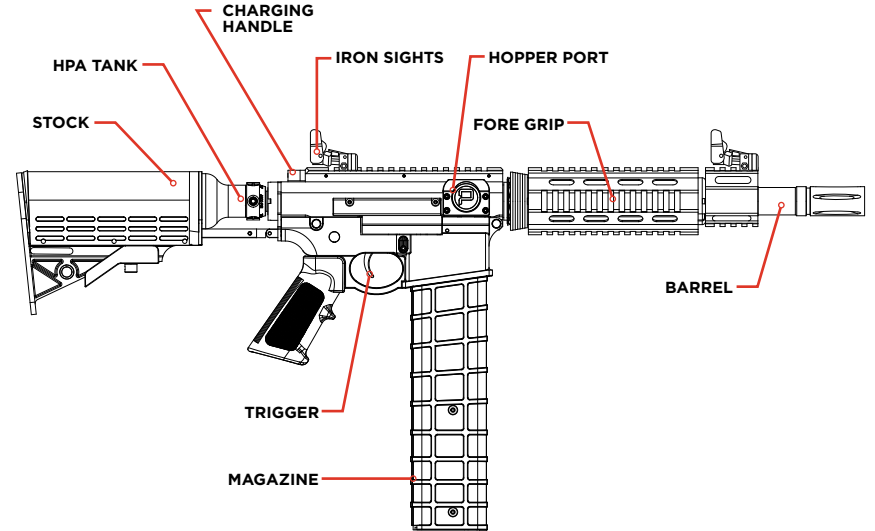


Hopper Elbow



HPA O-Ring

## OPERATIONAL INSTRUCTIONS OVERVIEW

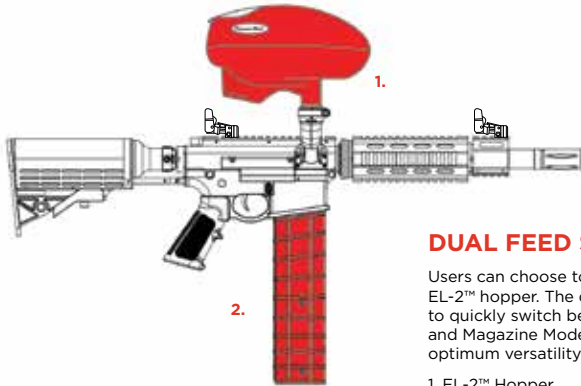


### VKS™ SPECIFICATIONS

Caliber	.68
Action	Semi-auto
Power	HPA
Length	31in/78cm
Height	13in/33cm
Weight	6.2lbs/2.8kg
Mag Capacity	10 or 15



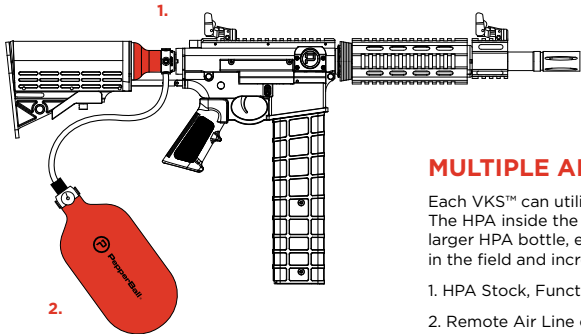
## OPERATIONAL INSTRUCTIONS



### DUAL FEED SYSTEM

Users can choose to use magazine and/or an EL-2™ hopper. The dual feed allows the officer to quickly switch between "Hopper Mode" and Magazine Mode" during an operation for optimum versatility.

1. EL-2™ Hopper
2. Magazine and Standard Hopper

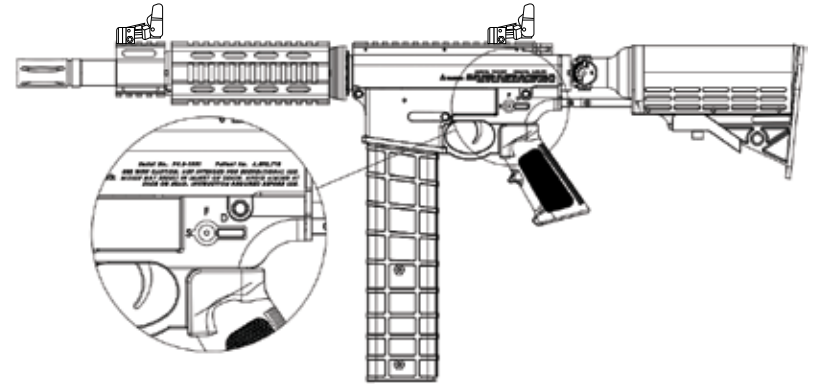


### MULTIPLE AIR SOURCE

Each VKS™ can utilize 2 types of air sources. The HPA inside the stock, and an external, larger HPA bottle, extending the users time in the field and increasing functionality.

1. HPA Stock, Functions as a stock with a tank.
2. Remote Air Line connects to any tank.

## OPERATIONAL INSTRUCTIONS



### SAFETY OPERATION

The VKS™ safety is located on the lower left hand side of the launcher. It operates much like most other launchers and firearms.

The safety has 3 functions:

- S-Safety
- F-Fire
- D-Disassemble

Place the VKS™ in safe position by aligning the safety switch with the "S." The Safety can be found on the left side of the launcher just above the grip.

**CAUTION: THE LAUNCHER CAN BE FIRED IN DISASSEMBLE MODE**



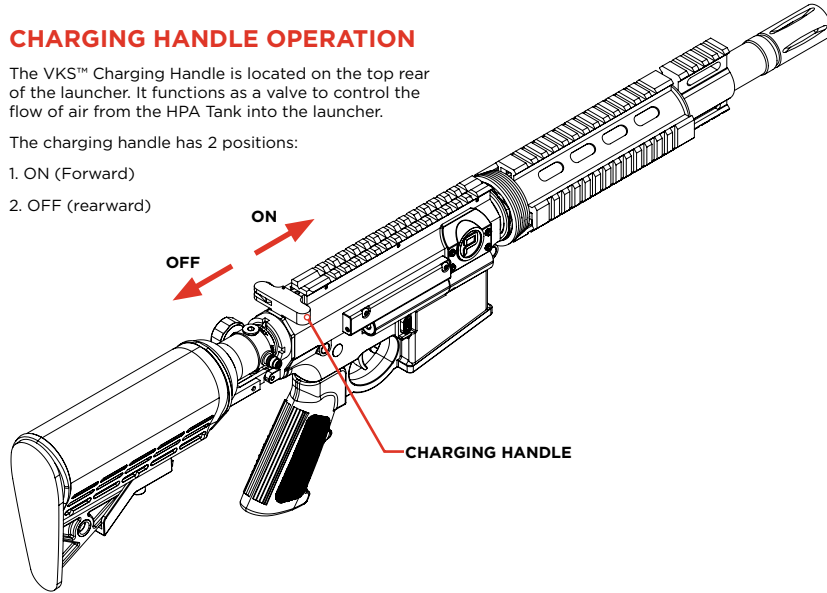
## OPERATIONAL INSTRUCTIONS

### CHARGING HANDLE OPERATION

The VKS™ Charging Handle is located on the top rear of the launcher. It functions as a valve to control the flow of air from the HPA Tank into the launcher.

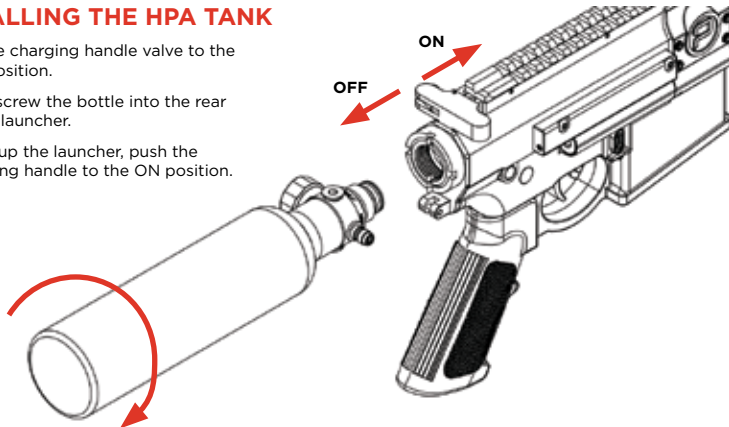
The charging handle has 2 positions:

1. ON (Forward)
2. OFF (rearward)

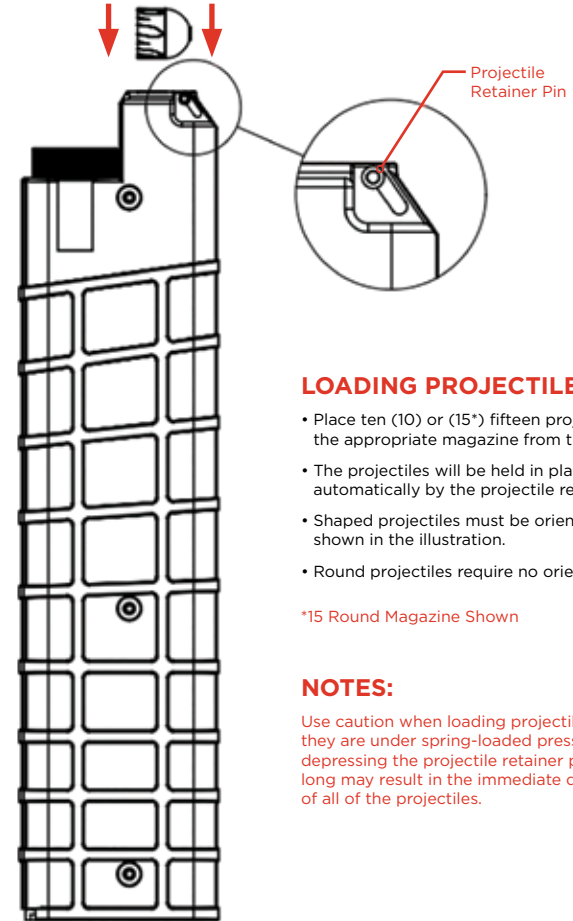


### INSTALLING THE HPA TANK

1. Pull the charging handle valve to the OFF position.
2. Next, screw the bottle into the rear of the launcher.
3. To air up the launcher, push the charging handle to the ON position.



## OPERATIONAL INSTRUCTIONS



### LOADING PROJECTILES

- Place ten (10) or fifteen (15\*) projectiles into the appropriate magazine from the top.
- The projectiles will be held in place automatically by the projectile retainer pin.
- Shaped projectiles must be oriented as shown in the illustration.
- Round projectiles require no orientation.

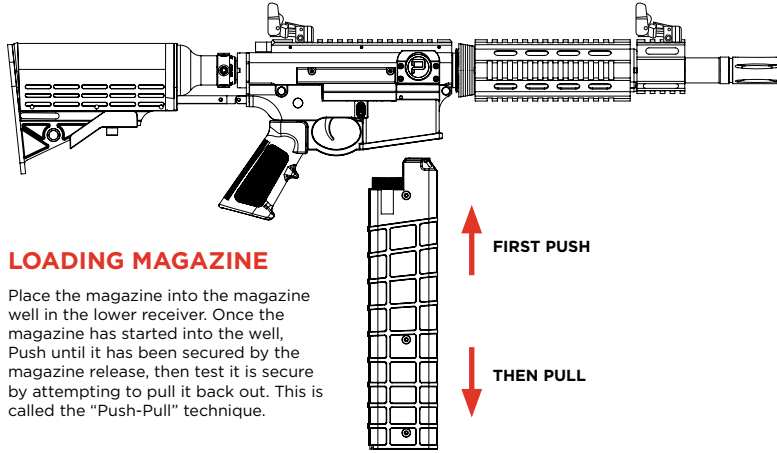
\*15 Round Magazine Shown

### NOTES:

Use caution when loading projectiles as they are under spring-loaded pressure and depressing the projectile retainer pin for too long may result in the immediate discharge of all of the projectiles.

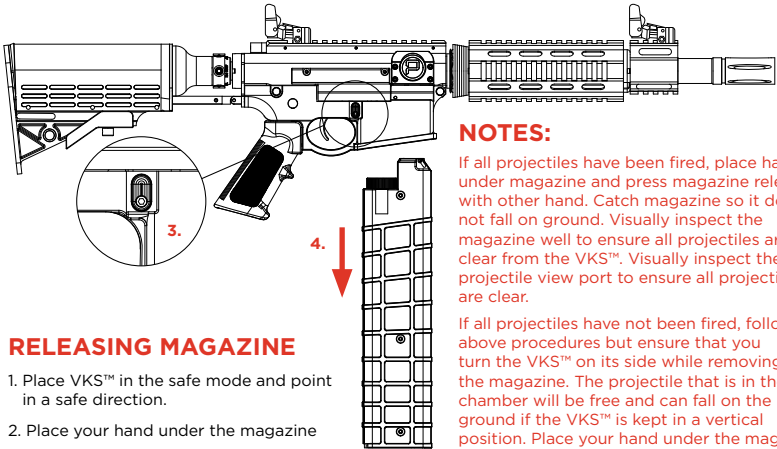


# OPERATIONAL INSTRUCTIONS



## LOADING MAGAZINE

Place the magazine into the magazine well in the lower receiver. Once the magazine has started into the well, Push until it has been secured by the magazine release, then test it is secure by attempting to pull it back out. This is called the "Push-Pull" technique.



## RELEASING MAGAZINE

1. Place VKS™ in the safe mode and point in a safe direction.
2. Place your hand under the magazine
3. Push Magazine Release Button
4. Pull Magazine free from the launcher

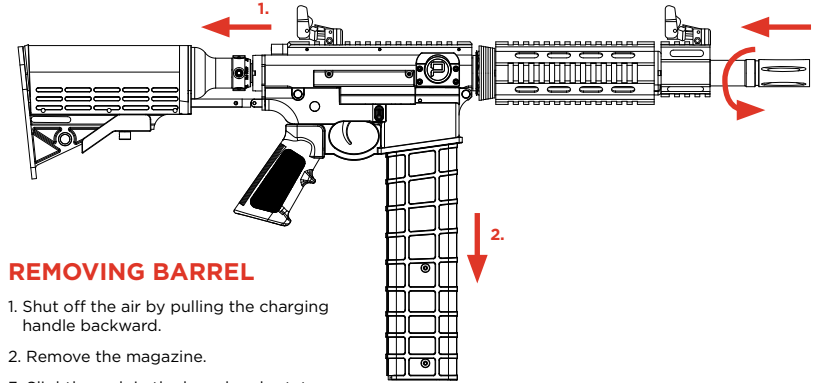
### NOTES:

If all projectiles have been fired, place hand under magazine and press magazine release with other hand. Catch magazine so it does not fall on ground. Visually inspect the magazine well to ensure all projectiles are clear from the VKS™. Visually inspect the projectile view port to ensure all projectiles are clear.

If all projectiles have not been fired, follow above procedures but ensure that you turn the VKS™ on its side while removing the magazine. The projectile that is in the chamber will be free and can fall on the ground if the VKS™ is kept in a vertical position. Place your hand under the magazine well and capture the loose projectile as you turn the VKS™ vertically.

If magazine is partially ejected with projectiles still in the magazine, the user should not re-insert the magazine without first clearing the magazine well of loose projectiles. Failure to do so will result in broken projectiles inside the breach and magazine and could cause a malfunction.

# OPERATIONAL INSTRUCTIONS



## REMOVING BARREL

1. Shut off the air by pulling the charging handle backward.
2. Remove the magazine.
3. Slightly push in the barrel and rotate the barrel counterclockwise.
4. Your barrel is now free to slide out.

## ADJUSTING VELOCITY

1. Turn the velocity adjustment screw clockwise to increase velocity.
2. Turn the velocity adjustment screw counter-clockwise to decrease velocity.

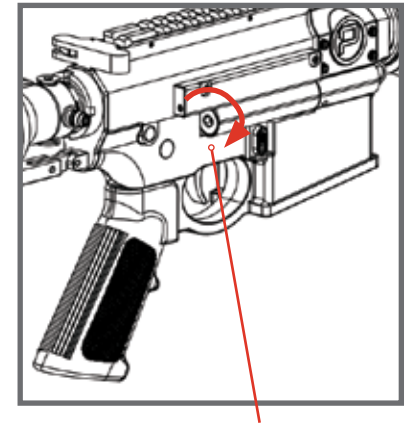
After turning the Velocity Adjustment Screw, the velocity of the launcher **MUST** be checked by utilizing a chronograph (not included) to verify projectile velocity.

## TOOLS REQUIRED:

3/16" hex wrench

### NOTES:

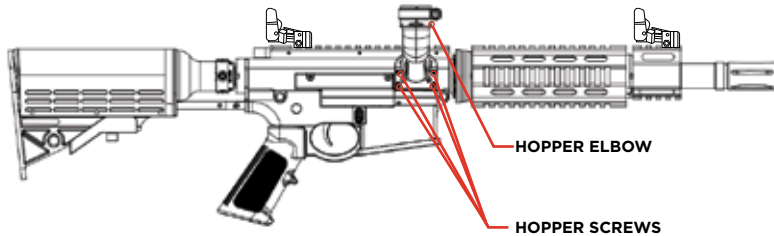
Any time the velocity is changed, the unit should be cycled (either fired or cycling the on/off valve).



VELOCITY ADJUSTMENT SCREW

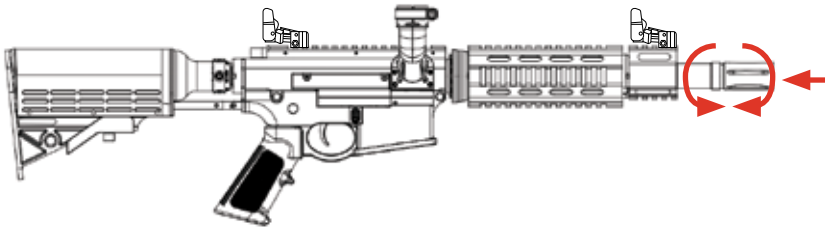


## OPERATIONAL INSTRUCTIONS



### HOPPER ATTACHMENT (optional)

- 1. REMOVE HOPPER COVER PLATE:** Remove the Hopper Cover Plate by removing the four (4) (H-S 4-40 x 5/16") screws.
- 2. INSTALL HOPPER ELBOW:** Attach the Hopper Elbow located in the universal pack that came with the launcher re-using the (4) (H-S 4-40 x 5/16") screws from the cover.



### HOPPER/MAGAZINE SELECTION

#### TO CHANGE VKS™ FROM MAGAZINE MODE TO HOPPER MODE:

1. Grab barrel and push in toward launcher to release detent.
2. Twist barrel clockwise (as viewed facing launcher) until barrel clicks into hopper detent.

#### NOTES:

If the magazine is not empty when changing to hopper mode, the next projectile fired will be from the magazine.

#### TO CHANGE VKS™ FROM HOPPER MODE TO MAGAZINE MODE:

1. Grab barrel and push in toward gun to release detent.
2. Twist barrel counter-clockwise (as viewed facing gun) until barrel clicks into magazine detent.

#### NOTES:

If the hopper is not empty when changing to magazine mode, the next projectile fired will be from the hopper.

## CLEANING AND MAINTENANCE

### SAFETY NOTES:

- Never clean a loaded or pressurized launcher.
- Remove all projectiles from the launcher prior to doing any cleaning or maintenance.
- Never use petroleum-based cleaning solvents or lubricants as they can attack the O-ring seals.
- Do not use cleaning solvents that come in aerosol cans.

### BARREL DEBRIS REMOVAL:

1. If there is foreign debris or a broken projectile in the VKS™ barrel, the barrel will need cleaned. Remove the barrel as described in the "Operational Instructions".
2. Use a .68 caliber soft nylon brush, .68 caliber squeegee, or a 12 gauge patch tip with a soft cotton cloth to clean the barrel. Do not allow lubricants or water to remain in the barrel of the VKS™. It is designed to be used with the barrel dry.
3. Wipe off any dirt or grime from the outside of the VKS™ barrel with a dry cloth.

### BREACH DEBRIS REMOVAL:

1. If there is foreign debris or a broken projectile in the VKS™ breach, the breach will need to be cleaned.
2. Using a dry cloth, wipe any debris out of the breach area. Be sure that the magazine forks and magazine release are clear of debris as this could affect proper operation.

With the lower receiver removed, the breach can be more easily cleaned, and the trigger group can be both cleaned and lubricated.

**IMPORTANT: If pressurized with the lower receiver removed, the trigger has no safety function to prevent accidental firing.**

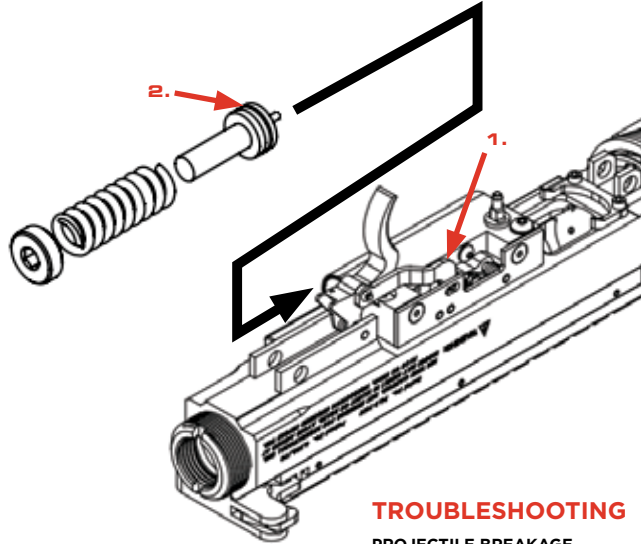
### DISASSEMBLY STEPS

1. Remove the Stock from the rear of the launcher
2. Remove the HPA Tank from the rear of the launcher
3. Remove barrel
  - A plastic or non-marring rod may also be used to push out the pins
  - If the pins are stuck, the rear castle nut may need to be loosened
5. Carefully separate lower receiver from upper receiver, pulling up from the front first





## CLEANING AND MAINTENANCE



### LUBRICATION

**IMPORTANT:** To field lubricate the VKS™ launcher, the lower receiver must first be removed.

For optimum performance, do the following monthly\*:

1. Place one drop of oil between trigger release and trigger rotator.

\*Launcher may require more frequent cleaning and lubrication if used heavily.

Have an armorer perform:

1. Remove the engine assembly and lightly grease the Air Chamber Cap O-Ring and the Slide Valve o-rings.
2. Remove the regulator spring pad and oil the regulator spring pad O-Ring.

### OPERATIONAL CONSIDERATIONS

- A. If the regulator spring pad is removed, the launcher velocity will require re-setting.

### TROUBLESHOOTING

#### PROJECTILE BREAKAGE

If you experience more than a small number of broken projectiles, check that:

1. Be sure that both the launcher and magazine are free of broken projectiles or any other debris by running a barrel squeegee through barrel until it's clean and free of debris.
2. Make sure that the barrel is locked in its correct position, and that both detents are installed correctly so that they catch a projectile as it enters the breach.
3. Make sure the launcher is set to a reasonable velocity

#### HPA BOTTLE AIR LEAKS

The most common leak occurs from a bad bottle O-ring, located on the tip of the HPA bottle. Remove the bad O-ring before installing a new one. The best O-rings are made of urethane and are not affected by high air-supply pressures. These may be purchased from UTS.

**NOTE:** IF a new HPA bottle O-ring does not resolve the air leak, do not attempt to repair the HPA bottle. Please contact UTS."

## WARRANTY AND DISCLAIMER

### WARRANTY, DISCLAIMER OF WARRANTY AND LIMITATION OF REMEDIES

United Tactical Systems, LLC (UTS) warrants, solely to the end user, law enforcement agencies, private security firms, or private or public corrections agencies, that the product is delivered free from defects in materials and workmanship for a period of one (1) year from the original date of purchase.

Within the one-year warranty period, UTS's liability and the buyer's sole and exclusive remedy hereunder for all claims shall be limited to a refund or credit to buyer of the purchase price, or replacement of this product, at UTS's option, provided that the non-conforming product is (1) returned during the warranty period and (2) properly packaged and shipped to UTS's designated facility in accordance with UTS's Return Merchandise Authorization (RMA) Policy.

### THE REMEDY SET FORTH ABOVE SHALL BE THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF THE FOREGOING WARRANTY.

Products which have been improperly handled, stored or shipped, or which have been subject to abuse, misuse, alteration and or neglect are not covered by the warranty. Aftermarket products and the use of non-authorized projectiles are strictly prohibited by UTS and any indication of their installation or use shall void all warranties.

**DISCLAIMER OF WARRANTY:** Except for the express limited warranty set forth above, UTS makes no warranties or representations of any kind, whether express or implied, with respect to the product, including any (a) warranty of merchantability; or (b) warranty of fitness for a particular purpose; or (c) warranty against infringement of intellectual property rights of a third-party, whether express or implied by law, course of dealing, course of performance, usage of trade or otherwise. There are no warranties which extend beyond the description of the face hereof. Buyer shall make no warranty or representation regarding the products that is inconsistent with the warranty set forth above. UTS shall not be liable for any injury, loss, or damage, direct or consequential, arising out of the use or the inability to use this product.

**Before use,** the user shall determine the suitability of the product and be fully trained for its intended use, and user assumes all risks and liability whatsoever in connection therein. In no event shall UTS be liable or obligated to buyer or to any third party in any manner for any (a) special, non-compensatory, consequential, indirect, incidental, statutory, or punitive damages of any kind, including, without limitation, lost profits and/or lost revenue, regardless of the form of action, whether in contract, tort, negligence, strict product liability, or otherwise, even if informed of or aware of the possibility of any such damages in advance, (b) in an amount greater than the amounts paid to UTS by buyer for the products, or (c) damage or injury caused by the products, unless due to the gross negligence or willful misconduct of UTS. The limitations set forth above shall be deemed to apply to the maximum extent permitted by applicable law and notwithstanding the failure of the essential purpose of any limited remedies. The parties acknowledge and agree that they have fully considered the foregoing allocation of risk and find it reasonable, and that the foregoing limitations are an essential basis of the bargain between the parties.



## RETURN POLICY

### UTS RETURN MERCHANDISE AUTHORIZATION (RMA) POLICY

#### For warranty and non-warranty repair:

- Call UTS at 1-260-478-2500
- UTS will issue a Return Authorization (RA) number
- UTS will provide the shipment address.
- Include a brief statement regarding the requested repair, your name, your return address and a telephone number where you can be reached during normal business hours.
- CAUTION: ALWAYS UNLOAD AND REMOVE AIR SOURCE AND PROJECTILES BEFORE SHIPPING A LAUNCHER.
- CAUTION: THE AIR SOURCE MUST BE DISCHARGED.
- Please make sure that the RA number is clearly marked on the outside of the package.
- Postage and delivery charges must be pre-paid. Collect delivery charges will not be accepted.
- Products within the one-year warranty period are returned via ground shipping at no charge.
- Out-of-warranty returns require a pre-payment of shipping charges prior to return shipment by UTS.
- You may request expedited shipping at your expense with charges paid prior to return shipment.

UTS strives to complete the necessary repair work within a reasonable amount of time.

#### PepperBall® A Division of United Tactical Systems, LLC

www.pepperball.com | (858) 638-0236  
 28101 Ballard Drive, Suite F  
 Lake Forest, IL 60045

## NOTES

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**HEADQUARTERS**

28101 Ballard Dr. Ste. F  
Lake Forest, IL 60045

**1-877-887-3773** | North America

**+1-858-228-1439** | International

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