



# VTE

## Instruction Manual

17 HMR/22 WMR & 22 LR Semi-Automatic Rifle



# EXCELLENCE IS ESSENTIAL

Warning: Read entire manual before using firearm.

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## VT2

Utilizing a unique button and lever combination, the VT2 requires no tools, no twisting, and no tightening.

Simply depress the takedown button, release the locking lever by pulling down, and the barrel slides effortlessly out of the receiver. The 22 WMR/17 HMR model allows for the corresponding barrels to be swapped to immediately switch calibers.



## WELCOME!

Congratulations on the purchase of one of the finest firearms available — the Volquartsen VT2. Volquartsen Firearms takes great pride in each and every firearm that we produce. Each rifle is meticulously machined using the latest machining technology to ensure that you are completely satisfied with each and every rifle that we manufacture.

If you have any questions or encounter a problem, please be sure to contact us by either phone or email, and we will take care of it immediately. Your Volquartsen VT2 Rifle comes with a limited lifetime warranty.

**712-792-4238**

**[info@volquartsen.com](mailto:info@volquartsen.com)**

Any alterations or unauthorized repairs to this rifle will void this warranty. This instruction manual is designed to assist you in learning the proper use and care for your Volquartsen VT2 Rifle. However, in no way should this manual be a substitute for proper firearm training.



For warranty details visit  
**[Volquartsen.com/warranty](http://Volquartsen.com/warranty)**



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## **WARNINGS**

Read the instructions and warnings in the manual before operating this firearm.

This instruction manual contains operating, care, and maintenance instructions. Failure to follow the instructions and warnings in this manual can void the warranty. Failure to follow the instructions and warnings can also lead to accidents resulting in injury or death.

This instruction manual should be kept with this firearm at all times. This instruction manual should be transferred with it upon change of ownership.

There is no such thing as a foolproof firearm!

**FIREARM SAFETY  
IS YOUR  
RESPONSIBILITY!**

## **BASIC RULES OF FIREARM SAFETY**

1. Before using any firearm, learn the mechanical and handling characteristics of your firearm.
2. Never point the muzzle in an unsafe direction.
3. Be sure to unload the firearm when not in use.
4. Check the barrel before shooting. Take care to make sure there are no obstructions.
5. Check your target thoroughly before shooting. Take note of anything or anyone close by.
6. Wear protective shooting glasses and hearing protection when shooting.
7. Never climb a tree, fence, or other structure with a loaded firearm.
8. Never shoot at any hard surface or at water.
9. Never transport a loaded firearm.
10. Never use any firearm when under the influence of alcohol or drugs.

## TOOLS NEEDED

Torque Wrench      1/8" Allen Bit      3/16" Allen Wrench  
 T20 TORX Bit      1/8" Allen Wrench      5/64" Allen Wrench

TORQUE SPECS	
Handguard Screws	45in/lbs
Trigger Guard Screws	25in/lbs
Bolt Handle	25in/lbs

## DISASSEMBLY

### Removing the Barrel Mount

To remove the barrel mount, which is MLOK compatible, from the handguard, use a 1/8" Allen wrench and loosen the two screws. Once screws are loosened, remove the barrel mount from the handguard (Fig 1).

**Note:** The barrel mount is optional.

### Removing the Barrel

To remove the barrel you will need to push the button in on the left side of the receiver, while holding the button



Fig 1



Fig 2



down pull the lever down from the handguard (**Fig 2**). Once the lever is in the full down position you can now pull the barrel straight out from the receiver (**Fig 3**).

### Removing the Handguard



To remove the handguard from the barrel you will need a T20 TORX bit. Remove the two handguard screws located on the bottom of the handguard (**Fig 4**). With the two screws out the handguard will now be free of the barrel.



### Removing the Trigger Group

To remove the trigger group from the receiver you will need a  $\frac{1}{8}$ " Allen wrench. There are 4 screws located on the receiver that hold the trigger group in place (**Fig 5**). When removing the 4 screws, the barrel mount (which is mounted to the side of the receiver) will come off after removing the 4 screws. Once the 4 screws are removed, pull the trigger group out of the bottom of the receiver (**Fig 6**).



## Removing the Bolt

With your  $\frac{1}{8}$ " Allen wrench you can remove your bolt handle from the bolt by unthreading it (**Fig 7**). Now that the bolt handle is removed you can take your bolt out of the receiver. With the trigger guard and bolt handle removed, from the bottom of the receiver, pull the bolt back from the front of the bolt, all the way to the rear of the receiver and lift up (**Fig 8**). Keeping pressure on the bolt and recoil spring pull the bolt out of the receiver (**Fig 9**).



Fig 7



Fig 8



Fig 9

## Removing the Grip

To remove the Magpul MOE-K grip from the gun, using a  $\frac{3}{16}$ " Allen wrench remove the grip screw which is located inside the grip, accessing from the bottom side of the grip through the opening (**Fig 10**). Once the grip screw is fully unthreaded, pull the grip down from the receiver.



Fig 10

## Removing the Buffer Tube

With the grip removed from the receiver you can now remove the

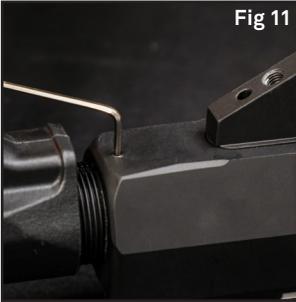


Fig 11

buffer tube. Take the  $\frac{5}{64}$ " Allen wrench and remove the set screw holding the buffer tube in place, which is located behind where the grip would be on the receiver (**Fig 11**). Once the set screw is removed, unthread the buffer tube from the receiver (**Fig 12**).

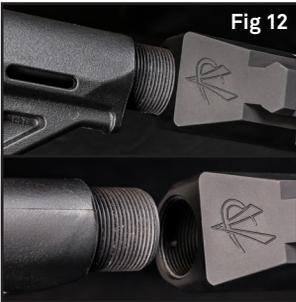


Fig 12

## Removing the Grip Adapter

To remove the grip adapter, there is a set screw located on the bottom of the grip adapter. The set screw is blind, with the  $\frac{1}{8}$ " Allen wrench, unthread the set screw enough to slide the grip adapter out from the receiver (**Fig 13**).



Fig 13

## REASSEMBLY

### Installing the Grip Adapter

To install the grip adapter, slide in the groove on the bottom of the receiver till it stops. (**Fig 14**). While holding the receiver in place, tighten the set screw, hand tight.



Fig 14

**Note:** The grip adapter can only be accessed after removing the grip and trigger group.

### Installing the Buffer Tube

To reinstall the buffer tube to the receiver, thread the buffer tube into the desired spot (**Fig 15**). No specific spot as it has a flat on the buffer tube so you can adjust as desired. Screw the set screw back in and hand tighten (**Fig 16**).



Fig 15

### Installing the Grip

To reinstall the grip, slide the grip over the grip adapter and push till it is fully seated against the receiver (**Fig 17**). Taking the grip screw and the  $\frac{3}{16}$ " Allen wrench, thread the screw back into the grip adapter and hand tighten (**Fig 18**).



Fig 16



Fig 17

### Installing the Bolt

To reinstall the bolt, first put your recoil spring back on to the recoil rod. Next with the rounded end of the recoil rod set in the pocket in the back of the receiver (**Fig 19**). Looking at the bottom of the receiver, this pocket will either be on the right side or the bottom side depending on



Fig 18



Fig 19

how you are looking at the receiver. While holding the recoil rod and recoil spring, take the bolt and on the left side of the bolt there is a hole where the recoil rod will go through (**Fig 20**). Compress the recoil spring and align the hole on the bolt with the recoil rod. Push the bolt to the rear of the receiver and push it down till it hits the top of the receiver, slowly let the bolt go forward. With the  $\frac{1}{8}$ " Allen wrench thread the bolt handle back into the bolt and torque to 25in/lbs.



Fig 20



Fig 21

## Installing the Trigger Guard

To reinstall the trigger guard, with the recoil buffer facing towards the rear of the receiver, slide the trigger guard into the bottom of the receiver and align with the 4 holes on the side of the receiver. Once the trigger guard is aligned, set the barrel mount back onto either side of the receiver, aligning with the trigger guard holes. Once aligned, use the  $\frac{1}{8}$ " Allen bit to torque the four trigger guard screws to 25 in/lbs (**Fig 21**).



Fig 22

### Installing the Handguard

To reinstall the handguard on to the barrel, with your T20 TORX screw the handguard screws in tight enough to align the barrel to the handguard. Once aligned, tighten the handguard screws to 45in/lbs (**Fig 22 & 23**).



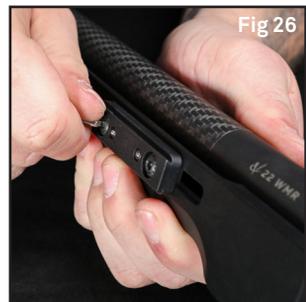
### Installing the Barrel

To reinstall the barrel into the receiver, with the lever in its full down position, slide the barrel back into the receiver (**Fig 24**). Once the barrel is in the receiver, push the lever back up until you feel, hear, and see the push button extend (**Fig 25**).



### Installing the Barrel Mount

To install the barrel mount back onto the handguard, place it in any of the MLOK slots on the handguard and on the same side as the receiver barrel mount. Once it is in the MLOK slot hand tighten the two screws with a 1/8" Allen wrench (**Fig 26**).



## FIRING

Once the safety is switched to the “fire” position, the rifle will fire with each pull of the trigger. Firing will automatically reload the rifle. Be sure to switch the safety back to the “safe” position if subsequent shots are not going to be immediately fired. The bolt does NOT remain open after the last shot has been fired, nor does the bolt automatically lock open when the magazine is empty. The bolt automatically opens and closes while firing.

Be sure to keep face and hands away from the ejection port. Hot brass and powder are ejected as each round is fired.

Note the location of the ejection port. Volquartsen Firearms designed your Volquartsen VT2 Rifle to be fired from the right shoulder. Firing from the left shoulder would put your face in the path of spent cartridges.

## CLEARING A MALFUNCTION

Any firearm may malfunction or jam. One of the easiest ways to prevent this is to keep the chamber clean. If a cartridge jams, **DO NOT FORCE IT**. A hard impact on the rim can ignite the ammunition. If a jam or malfunction should occur, follow these steps in order to clear the malfunction:

- 1 Point the muzzle in a safe direction.
- 2 If possible, remove the magazine before proceeding to the next step.
- 3 Pull the bolt handle rearward and lock the bolt open with the bolt hold open latch before attempting to clear the jam or malfunction. The jammed cartridge may clear itself when you retract the bolt, so keep your face away from the ejection port during this operation.
- 4 If the cartridge did not eject on its own when you retracted the bolt, be sure to use only wood “tools” to remove the jam. This will help prevent a live cartridge from being ignited. A wooden dowel with a pointed end is recommended. The use of metal tools or objects may damage the chamber as you attempt to clear the jam.
- 5 Before resuming firing, visually check and make sure the firearm is cleared of any cartridge(s) that were involved in the malfunction incident.
- 6 If there are ANY questions or problems regarding a malfunction, be sure to contact us at Volquartsen Firearms.

## BARREL CLEANING

The barrel should be cleaned only from breech to muzzle using a pull-through cleaning system. Lock the bolt open via the bolt hold open feature of your rifle. Any use of a cleaning rod from the muzzle end will void the warranty and greatly affect accuracy.

**22LR** – We recommend that you clean the barrel approximately every 500-600 rounds.

**22WMR & 17HMR** – We recommend that you clean the barrel approximately every 200-250 rounds.

It may be necessary to clean the chamber area on a more frequent basis using only a cotton swab.

## AMMUNITION

Always wear protective shooting glasses and hearing protection when firing your Volquartsen VT2 Rifle.

**22 LR** This firearm is designed to function with 22 Long Rifle (22 LR) ammunition. CCI® Stinger ammo is **NOT** recommended in this rifle due to the oversized cartridge. Use of CCI® Stinger ammo can cause a bore obstruction and will void the warranty. Due to the tight bore tolerances, certain ammo may not be able to be manually extracted.

Volquartsen will rechamber your barrel for manual extraction if needed.

**22 WMR** This firearm is designed to function with 22 Winchester® Magnum Rimfire (22 WMR) cartridges. Do not attempt to alter this firearm to function with any other cartridge. We **DO NOT** recommend shooting Hornady® 45 grain Critical Defense ammo through this rifle. Alterations will void the warranty.

**17 HMR** This rifle is designed with the 17 Hornady® Magnum Rimfire (17 HMR) ammunition only. Volquartsen recommends Winchester® .17 gr or CCI A17 ammo. Ammo older than 3 years may develop split necks prior to firing. We recommend routinely inspecting your ammo.

## ADDITIONAL INFORMATION



To learn more about cleaning and operating your Volquartsen VT2 Rifle, visit our videos page at: [volquartsen.com/videos](http://volquartsen.com/videos)

If you have any problems or questions concerning your Volquartsen VT2 Rifle, please do not hesitate to contact us:

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# GREAT ACCESSORIES FOR YOUR NEW VTE

VOLQUARTSEN.COM



## ATLAS BIPOD

The BT10-LW17 V8 Atlas Bipod mounts directly to any 1913 style Picatinny rail via the included ADM-170-S lever.



## 6" HANDGUARD

An alternative handguard length for shooters who prefer a lighter, more compact overall package.



## ADDITIONAL BARREL

The VFVT-WMR and VFVT-HMR models allow for the corresponding barrels to be swapped to immediately switch calibers.

Order the additional barrel if you decide you'd like multi-caliber functionality - requires no other modifications.



## CLEANING MAT

The soft polyester top will ensure your gun doesn't get scratched while the neoprene rubber backing on the mat will keep everything in place and prevent your work surface from sliding around.



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