

Maintenance.

All carbon steel parts of the VST-1C are treated with a Manganese Phosphate plating; however, with normal use the plating can be expected to wear at the pivot and detent area - the owner should be instructed to apply a few drops of light gun oil to the base of the sight (while in the upright position) during routine cleaning of the rifle.

Trouble Shooting.

Installation of the VST-1C is a relatively minor modification and should not effect the function of the firearm; however, if you are experiencing problems after assembly, check for the following common issues:

Rifle will not cycle or "short strokes" - Double check that the VST-1C is properly installed, as to align the gas ports in the barrel and the sight base, check for gas leaking between the sight base and the barrel. Check to make sure the gas tube is properly installed and check for gas leaks between the sight base and the gas tube. Finally, make sure that the gas tube is not bent and is properly centered in the bolt carrier gas key.

Rifle requires excessive windage adjustment to zero - Check that the VST-1C sight base is vertically aligned; do not rely on "eyeballing it" with the handguards, if you suspect that the sight is canted it should be checked against a sighting grid.

If you are experiencing problems, feel free to contact Vltor for assistance:

Vltor Weapon Systems

www.vltor.com - support@vltor.com

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Thank you for choosing Vltor!

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The assembly or installation of firearm parts and components should only be performed by a qualified gunsmith or certified armorer. Vltor Weapons Systems is not responsible for any injury or damage resulting from the improper installation or use of our products.

Vltor Weapons Systems strongly supports your 2nd Amendment Right! We promote the safe handling and responsible ownership of firearms, and encourage everyone (no matter your level of experience) to participate in firearms training and education programs. More information about educational programs can be found on the National Rifle Association's web page at <http://www.nrahq.org/education>



VST-1C Folding Front Sight Assembly



WARNING!

Installation of the VST-1C is only to be performed by a qualified gunsmith or certified military/agency armorer!

Safe operation and reliability of a firearm is dependant on professional service. Installation requires special tools and equipment. The following is provided only to assist the professional installer.

WARNING!



Improper installation can result in damage. Do not attempt installation if you are not familiar with the firearm, tools and techniques mentioned. You are responsible for any damage or injury resulting from the improper use or installation of this product.

Ensure the rifle is CLEAR and SAFE!

Before installation, read instructions, Warnings and Notes.

A note to qualified installers: Refer to the current United States Military Technical Manuals or Colt factory technical manuals for proper tool needs and technical data, such as, torque specifications. All parts installed during the conversion should be new and certified by the cognizant U.S. Military authority or contract holder.

Remove the upper receiver from the rifle and remove the handguard(s).
Mount the upper receiver in a sturdy bench vice using barrel blocks or a receiver holding fixture.

Some aftermarket handguards require the gas block be removed before the handguard can be removed - if this is the case, adjust the installation tips accordingly.

Remove the flash suppressor or muzzle brake device.
Some flash suppressors or muzzle brakes are permanently attached to the barrel and removal can often be difficult.

If it is suspected that the muzzle device is permanently attached, you should contact the rifle/barrel manufacturer for removal suggestions, or consult with a shop that specializes in barrel work.

After removing the muzzle device, tape over the end of the barrel to protect the threads and the muzzle.

Removing the Gas Tube.
The gas tube can be removed before or after the gas block is removed. The tube is held in place by a small roll pin that runs through the side of the gas block. After you remove the roll pin, the gas tube can be pulled from the gas block until it is free, then pulled free from the front of the upper receiver.

A specially constructed gas tube clamp or removal tool should be used to pull the gas tube from the gas block; the gas tube can be very hard to remove. In some cases the tube is so tight in the block - or has been installed with a locking compound - that it is difficult to remove the tube without damaging it; we recommend having a spare tube available should this happen.

Removing the front sight base or gas block.
Most front sight bases are held in by two cross pins, these pins are usually tapered and can only be driven out in one direction - **pay close attention to the shape and size of the ends of the pins, to see if they are tapered.**

Other common methods of retaining the front sight base or gas block include set screws from the bottom or clamping to the barrel.

Once you have determined what type of fastening method is used and removed or loosened the fasteners, slide the gas block forward and remove it from the barrel. In some cases, the gas block may be hard to move, due to locking compounds, corrosion or paint - in rare cases, removal of the gas block may require stripping the barrel, heating the gas block or using a mechanical puller.

Surface Preparation.
Make sure the area where the VST-1C will mount is clean. Inspect the gas port to check that it is open and not badly eroded. If the original sight was attached with cross pins, the VST-1C will cover the "cuts" left in the barrel.

Do not sand or use abrasives to clean the area where the gas block mounts; the fit between this surface and the gas block must be exact to ensure a proper seal between the gas ports.

Installing the VST-1C.
Clean and degrease the VST-1C before installation. Slide the VST-1C sight on the barrel - when folded down, the sight pin points toward the back of the rifle. If the rifle uses a forward handguard retainer plate, make sure it is properly in place before installing the VST-1C.

Remember, some handguard systems have to be installed prior to installing the gas block.

It is essential that the gas port lines up properly with the gas block when installed; being off as little as 0.125 inch can cause the firearm to not function properly. Make reference marks to ensure that the gas ports align properly - if the barrel has a index "dimple" located opposite of the gas port, this can be used to check alignment through the drilling cut in the bottom of the VST-1C. The center of the gas port is located 0.270 inch from the rear face of the VST-1C - the average space for the forward handguard retainer is 0.025 to 0.030 inch.

Once the VST-1C is properly lined up, tighten the two clamping screws to **40 inch pounds**; a high temperature, non-permanent locking compound can be used on the clamping screws.

Reassembly.
Replace the gas tube and gas tube roll pin, check the end of the gas tube in the receiver to make sure that it will line up properly with the bolt key - if the gas tube is bent, it can cause misalignment of the tube and the bolt key.

Replace the muzzle device and handguards and reassemble the rifle.

Perform a standard functions check, clean the barrel and bore sight the rifle before range testing!