

# **SPD SOLAR FLIPDOT**

# **RED DOT REFLEX OPTIC**

**US PATENT PENDING** 

**OWNER'S MANUAL** 

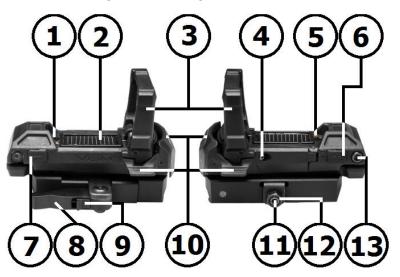
## SPD SOLAR FLIPDOT RED DOT REFLEX OPTIC

The VISM® SPD Solar FlipDot Red Dot reflex optic is packed with many desirable features. The SPD FlipDot includes these features: dual power source from a Solar Cell to power the Red Dot reticle from the Sun or the onboard battery, the optic also has the unique feature of a folding lens assembly that folds down flat against the body into a very compact size and the lens pops up into the deployed position with a push of the release levers/ button. The SPD FlipDot is equipped with a modular KPM mounting base that will mount the Red Dot optic onto: KeyMod<sup>™</sup> slots, Picatinny/ Weaver/ MIL-STD 1913 type rails, and M-LOK® slots. This SPD FlipDot has a large 25mm X 32mm lens for a wide field of view with an unlimited eye relief. This helps the shooter to acquire and engage the targets much quicker.

Backed by VISM® Limited Lifetime Warranty, the SPD Solar FlipDot Red Dot optic will provide you with years of reliable service. This Owner's Manual will help you understand all of the features of your new SPD FlipDot Red Dot reflex optic. Please follow all instructions carefully before initial use to experience the best results.

### **Features:**

- Dual power source from the Solar Cell to power the Red Dot from the Sun or the onboard battery.
- A large 25mm X 32mm folding lens assembly.
- Modular KPM mounting base to mount onto: KeyMod<sup>TM</sup> slots, Picatinny/ Weaver/ MIL-STD 1913 type rails, and M-LOK® slots.
- LED (Light Emitting Diode) Red Dot Reticle is 100% safe for the eyes.
- Unlimited eye relief, for flexible mounting position/ options on the firearm.
- Five brightness settings for the Red Dot Reticle in battery mode.



- 1. Elevation Adjustment Screw
- 2. Solar Cell
- 3. Folding FlipDot Lens
- 4. Battery Door & Screw
- 5. Red LED Battery On Indicator
- 6. 🕈 Battery On (Hold)/ Brightness Up
- 7. Brightness Down (in Battery Mode)
- 8. Quick Release Lever (Picatinny Mount)
- 9. Lever Auto Locking Mechanism
- 10. FlipDot Lens Release Levers and Button
- 11. Rail Tension Adjustment Set Screw
- 12. Locking Hex Nut
- 13. Windage Adjustment Screw

<u>CAUTION</u>: CAREFULLY FOLLOW ALL OF THE MOUNTING PROCEDURES. FAILURE TO DO SO CAN CAUSE DAMAGE TO THE OPTIC OR FIREARM

<u>CAUTION</u>: BE SURE THAT THE FIREARM IS UNLOADED AND POINTED IN A SAFE DIRECTION. PRACTICE SAFE FIREARM HANDLING PROCEDURES AT ALL TIMES.

IF YOU ARE UNFAMILIAR WITH ANY OF THE PROCEDURES IN THIS MANUAL, ALWAYS SEEK THE HELP OF A QUALIFIED PROFESSIONAL TO AVOID DAMAGE TO THE SPD FLIPDOT RED DOT REFLEX OPTIC AND YOUR FIREARM.

## Mounting the Optic with the KPM Mount

The SPD FlipDot optic is equipped with our KPM modular mounting system. The SPD FlipDot optic can be mounted onto: KeyMod<sup>™</sup> slots, Picatinny/ Weaver/ MIL-STD 1913 type rails, and M-LOK® slots. All the necessary hardware is included with the optic. With some quick reconfigurations, you can change between the three mounting options in just a few minutes. The SPD FlipDot optic comes configured from the factory with the Quick Release Picatinny Mount base.

#### **Picatinny Mount**

The SPD FlipDot optic is equipped with a Quick Release Picatinny Mount with an Auto-Locking Latch. To mount the optic to a Picatinny/ Weaver/ MIL-STD 1913 type rail, move the Auto-Locking Latch located within the Quick Release Lever away from the pivot point and swing the Quick Release Lever to the forward (Open) position. Place the Quick Release Mount onto the rail, with the Recoil Lug placed into one of the cross slots on the Picatinny rail. Move the Quick Release Lever backwards (Closed) position to secure/tighten the Quick Release Picatinny Mount onto the rail.

On the Left side of the Quick Release Picatinny Mount is a Lock Nut and Allen Head Adjustment Screw. The Allen Head Adjustment Screw is used to adjust the rail mount tension. To adjust the rail mount tension, you must first loosen the Lock Nut Counter-Clockwise ( $\circlearrowleft$ ). Once the Lock Nut is loosened or removed, you can then use an Allen wrench to turn the Allen Head Adjustment Screw.

Turn the Allen Head Adjustment Screw Clockwise ( $\circlearrowright$ ) to make the rail mount tension Tighter, turn the Allen Head Adjustment Screw Counter-Clockwise ( $\circlearrowright$ ) to make the rail mount tension Looser.

To test the rail mount tension, open and close the Quick Release Lever while mounted on the rail. Make adjustments to the Allen Head Adjustment Screw until you get the proper rail tension. Once you have the rail mount tension properly adjusted, turn the Lock Nut Clockwise ( $\mathcal{O}$ ) to Lock the Allen Head Adjustment Screw in place.

#### KeyMod<sup>TM</sup> and M-LOK® Mount

For mounting onto KeyMod<sup>™</sup> and M-LOK® slots you will need to remove the Picatinny mounting base from the optic. There are four 2.5mm Alan bolts on the bottom rear portion of the Picatinny mount. Remove all four Alan bolts from the mount to separate the Picatinny base mount from the optic. Keep the Alan bolts and the Quick Release Picatinny Base in a safe place, just in case you want to reconfigure the SPD FlipDot optic back to the Picatinny mounting base.



2.5mm captured mounting Alan bolt

The SPD FlipDot optic includes a KeyMod<sup>™</sup> shoe and an M-LOK® compatible T-Nut and a dual purpose reversible mounting adapter plate. The mounting adapter plate has KeyMod<sup>™</sup> and M-LOK® sides. The side with the round protrusion is the KeyMod<sup>™</sup> side and the side with the rectangular protrusion is the M-LOK® side.

With the lens folded down, you will have access to the top mounted 2.5mm captured mounting Alan bolt for the KeyMod<sup>TM</sup> shoe or the M-LOK® T-Nut in the front of the optic, in a slot under the lens. Just behind the front release button for the FlipDot lens.

Turn the Alan bolt Counter-Clockwise ( $\mathcal{O}$ ) to remove the KeyMod<sup>TM</sup> shoe or the M-LOK® T-Nut from the bottom of the optic. The mounting adapter plate will come off after removing the KeyMod<sup>TM</sup> shoe or the M-LOK® T-Nut. Select the side of the mounting adapter plate to the type of slot that you will be mounting the SPD FlipDot optic to. If you're mounting onto a KeyMod<sup>TM</sup> slot make sure the mounting adapter plate round protrusion is facing out (down) and the through hole under the 2.5mm Alan bolt. Then take the KeyMod<sup>TM</sup> shoe and place it onto the end of the 2.5mm Alan bolt and turn bolt a few turns to hold onto the KeyMod<sup>TM</sup> shoe. The KeyMod<sup>TM</sup> shoe doesn't hold onto the mounting adapter plate, so hold the mounting adapter plate to the bottom of the optic as you slide it onto the KeyMod<sup>TM</sup> slot. Make sure the KeyMod<sup>TM</sup> shoe toe is facing forward when you slide the SPD FlipDot optic forward into the KeyMod<sup>TM</sup> slot. Turn the 2.5mm Alan bolt Clockwise ( $\circlearrowright$ ) to secure the SPD FlipDot optic to the KeyMod<sup>TM</sup> slot.



If you're mounting onto an M-LOK® slot make sure the mounting adapter plate rectangular protrusion is facing out (down) and the through hole is under the 2.5mm Alan bolt. Then take the M-LOK® compatible T-Nut and place it onto the end of the 2.5mm Alan bolt and turn a few turns to hold onto the M-LOK® T-Nut. Make sure the T-Nut feet is facing forward when you slide the SPD FlipDot optic forward into the M-LOK® slot. Turn the 2.5mm Alan bolt Clockwise ( $\circlearrowright$ ) to secure the SPD FlipDot optic to the M-LOK® slot.

#### **Dismounting the Optic**

#### **Picatinny Mount**

To remove the Optic from a rail, slide the Auto-Locking Latch located within the Quick Release Lever away from the pivot point and swing the Quick Release Lever to the forward (Open) position. You can then remove the Optic from the Picatinny rail.

#### KeyMod<sup>TM</sup> and M-LOK® Mount

With the lens folded down, you will have access to the top mounted 2.5mm captured mounting Alan bolt for the KeyMod<sup>TM</sup> shoe or the M-LOK® T-Nut in the front of the optic, in a slot under the lens. Just behind the front release button for the FlipDot lens.

Turn the 2.5mm Alan bolt Counter-Clockwise ( $\bigcirc$ ) to loosen the SPD FlipDot optic from the KeyMod<sup>TM</sup> or the M-LOK® slot. Slide the SPD FlipDot optic back from the slot and lift up to remove from the KeyMod<sup>TM</sup> or the M-LOK® slot.

### Solar Cell Power Mode

The SPD Solar FlipDot Red Dot optic has two power modes for powering on the Red Dot Reticle. The Red Dot Reticle will automatically power On, when the Solar Cells on top of the optic have sufficient direct Sun light exposure. The second mode of operation is the Battery power mode via the " $\bullet$ " side control button.

- There is not a way to manually turn the Red Dot reticle Off under Solar power.
- There are no Red Dot Reticle brightness level adjustments available when the optic is operating under Solar power. The Red Dot Reticle will run on the brightest settings under Solar power.
- When the Red Dot Reticle is On and the Red LED Battery indicator light is Off (on top of the optic near the solar cell) this indicates that the SPD FlipDot is running under the Solar power mode. The Red

Dot Reticle is not drawing power from the Battery when the Red LED Battery mode indicator light is turned Off.

• If you are in an environment with variable lighting conditions or if you are operating inside and outside of a structure(s), it's advisable that you run the optic via Battery mode to avoid interrupted Red Dot Reticle illumination.

#### Side Control Buttons

The SPD Solar FlipDot has "**+**" and "**-**" Side Control Buttons located on the back sides of the optic controlling the Red Dot Reticle brightness levels when running in Battery power mode. When the conditions are: cloudy, in low light conditions, shady areas, night time, or indoor use with artificial lighting, you will need to turn the Red Dot Reticle On via the "**+**" button to run the Red Dot Reticle via the Battery power mode.

- For Battery power mode, press and HOLD the "♣" button to turn the Red Dot Reticle On. The Red LED Battery Mode indicator (on top of the optic near the solar cell) will light up to indicate that you are running in Battery power mode.
- To adjust the brightness of the Red Dot Reticle in Battery power mode, tap the "➡" button to increase the brightness level of the Dot Reticle. Tap the "¬ " button to decrease the brightness level of the Dot Reticle. There are five levels of brightness for the Red Dot Reticle when the optic is in Battery power mode.
- Tap both the "+" and "- " buttons at the same time to turn the Red Dot Reticle Off from the Battery power mode. The Red LED Battery mode indicator light will turn Off.

Be sure that the Red LED Battery mode indicator light is turned Off near the Solar Cell when not in use, to preserve the battery life.

#### **Elevation and Windage Adjustments**

The Elevation adjustment screw is located on the Top of the optic; this moves the Red Dot Up and Down. The Windage adjustment screw is located on the Left side of the optic; this moves the Red Dot Left and Right.

**Elevation Adjustment Screw:** 

- Clockwise (♥) moves Dot UP (♀) moves Bullet Impact DOWN (♣)
- Counter-Clockwise (♥) moves Dot DOWN (♥) moves Bullet Impact UP (♈)

Windage Adjustment Screw:

- Clockwise (∪) moves Dot LEFT (⇔) moves Bullet Impact to the RIGHT (⇔)
- Counter-Clockwise (♥) moves Dot RIGHT (⇔) moves Bullet Impact to the LEFT (⇔)

#### **<u>Sighting In Red Dot Reflex Optic</u>:**

After you have completed installation of the SPD FlipDot optic it will be necessary to adjust the Optic's point of aim to match the firearm point of impact. This can be accomplished using several methods, but we recommend the use of a Bore Sighting Device to save time and ammunition.

Using a Bore Sighting Device will ensure that the shots land "on paper". Follow the Manufacturer's Instructions for the Bore Sighting Device that you choose in order to achieve the best results. You are now ready to finalize your Zero.

<u>CAUTION</u>: ALWAYS BE SURE TO REMOVE THE BORE SIGHTING DEVICE BEFORE SHOOTING LIVE AMMUNITION. FAILURE TO DO SO CAN CAUSE DAMAGE TO THE FIREARM OR INJURY TO YOURSELF AND THOSE AROUND YOU.

<u>CAUTION</u>: WHEN OPERATING ANY TYPE OF FIREARM ALWAYS USE PROPER EYE AND EAR PROTECTION. BE SURE TO USE YOUR FIREARM IN AN AREA THAT IS PERMISSIBLE UNDER LOCAL, STATE, AND FEDERAL LAW.

Bore Sighting alone is not sufficient enough to ensure an accurate Zero. You must shoot your firearm at the range in order to confirm a 100% accurate Zero. Follow these steps to fine tune the Optic adjustments:

- 1. Secure your firearm using a steady platform such as a rifle bench rest or sand bags.
- 2. Fire 3 to 5 carefully aimed shots at a target that is set to your desired Zeroing distance.
- 3. Observe where the bullet grouping has struck the target and make adjustments to the Elevation and Windage settings as necessary until the point of aim matches the point of impact.
- 4. Continue with this process until you have achieved the desired level of accuracy.
- 5. The Optic is now zeroed to your firearm at the distance that you have chosen.

It is important to remember that many factors can affect the accuracy of the optic's zero including temperature, humidity, elevation, distance, angle, bullet type/ weight, powder charge, and other conditions. Changing ammunition/brands can affect accuracy as well.

# **Battery Installation**

The SPD FlipDot optic uses a CR2032 battery type. If the Red Dot reticle no longer illuminates when activating the "+" for more than 2 seconds, please follow these instructions for installing/ replacing the battery:

1. Using the supplied Philips screw driver remove the Philips screw located on the Battery Door on the left side of reflex optic. Turn the screw Counter-Clockwise to remove. With the screw removed, you can open the battery door to reveal the battery.



- 2. With the Battery Door open, you can pull the battery out with your fingers or needle nose pliers. Remove and properly dispose of the old battery. Replace with a brand NEW CR2032 3V lithium battery into the battery compartment with the "♣" battery terminal facing Up (介).
- 3. Close the Battery Door and place the Philips screw through the hole in the Battery Door. Tighten the screw Clockwise. Please make sure not to over tighten the screw, to avoid stripping the head of the screw.
- 4. Check and verify that the Red Dot turns on when pressing "**+**" button for more than 2 seconds. The top mounted Red LED next to the Solar cell should light up when in Battery mode and you should see the Red Dot reticle in the lens. If it is not working, please make sure that the Battery was installed correctly.

## **Care and Maintenance**

The VISM® SPD FlipDot optic is a factory sealed unit, please do not attempt to take it apart or clean it internally. The exposed optical lens surfaces will perform their best if they are routinely cleaned with a lens brush and the lens cloth provided with the Optic. For a deep cleaning, you can also use high quality camera lens paper and camera lens cleaning solutions. Never use any other type of materials or solvents other than those designed specifically for optical lens to avoid damaging the Optic. Clean the outer edge of the lens cavity first with cotton swabs, clearing as much debris and dust as possible. Then, gently clean the lens using a circular motion starting in the center and ending at the edges. Do not rub the lens continually; simply wipe in small circular patterns. Maintain the exterior surfaces of the optic by removing dirt or sand by using a soft brush or a soft dry cloth. You can also use a silicone treated cloth to restore luster of the optics body and protect the optic against corrosion. Be careful not to touch any of the lens with the silicone cloth. When not in use, always store the Optic in a dry place with lens cover on to prevent scratches to the lens.

## **Specifications:**

#### SPD SOLAR FLIPDOT RED DOT REFLEX OPTIC:

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- LENS SIZE: 25mm X 32mm MAGNIFICATION: 1X
- BATTERY TYPE: CR2032 •
- PICATINNY MOUNT: 3.5"L X 1.9"W X 2.5"H (LENS UP) •
- **RETICLE: RED DOT**
- DOT SIZE: 3 MOA
- LENS COATING: RUBY
- WEIGHT: 5.9 OZ. (PICATINNY) KEYMOD™ & M-LOK® MOUNT: 3.5"L X 1.9"W X 2.5"H (LENS UP)
- WEIGHT: 3.7 OZ. (KEYMOD<sup>™</sup> & M-LOK®)

#### **US PATENT PENDING**





FOR TECHNICAL ASSISTANCE PLEASE CALL:

> 1-866-NcSTAR-8 (1-866-627-8278)

www.ncstar.com