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**A DIVISION OF NcSTAR**

**SOLAR POWERED RED DOT  
REFLEX OPTIC**

**US PATENT PENDING**

**OWNER'S MANUAL**

# SOLAR POWERED RED DOT REFLEX OPTIC

The VISM® Solar Powered Red Dot Reflex Optic is a compact Red Dot optic packed with many desirable features. The Reflex Optic include these features: dual power source from a Solar Cell to power the Red Dot reticle from the Sun or a single AA battery, 1.5" Dot height for AR15/ M4 absolute iron sight Co-Witness, Electronic Control Panel, compact form factor, and Locking Quick Release Mount that will mount to nearly any Weaver/ Picatinny/ MIL-STD 1913 type rails.

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

## Features:

- Alternative power source from a Solar Cell, power the Red Dot Reticle from the Sun!
- The optic also uses a standard AA battery (included).
- LED (Light Emitting Diode) Red Dot Reticle is 100% safe for the eyes.
- Unlimited eye relief, for flexible mounting position/ options on the firearm.
- 1.5" Dot height for AR15/M4 Absolute Co-Witness.
- Five brightness settings for the Red Dot Reticle in Battery power mode.
- Integrated Quick Release Mount for mounting onto Weaver/ Picatinny/ MIL-STD 1913 type rails.
- Compact optic design takes up less space on the optics rail.



- |    |   |     |                             |
|----|---|-----|-----------------------------|
| 1. | Red LED Battery Mode Indicator Light    | 7.  | Allen Head Adjustment Screw |
| 2. | Elevation Adjustment Turret & Cap (⤴UP) | 8.  | Electronic Control Panel    |
| 3. | Windage Adjustment Turret & Cap (⤵R)    | 9.  | Auto-Locking Latch          |
| 4. | Solar Cells                             | 10. | Quick Release Lever         |
| 5. | Recoil Lug                              | 11. | Objective Lens              |
| 6. | Mount Lock Nut                          | 12. | Battery Cap & Compartment   |

## **Mounting the Optic**

The Solar Powered Red Dot Reflex Optic is equipped with a Quick Release Mount with an Auto-Locking Latch. To mount the Optic to a Weaver/ Picatinny/ 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 rearward (Open) position. Place the Quick Release Mount onto the optics rail, with the Recoil Lug placed into one of the cross slots on the optic rail. Move the Quick Release Lever forward (Closed) position to secure/tighten the Quick Release Mount to the optics rail.

On the Left side of the Quick Release 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 (⤵). 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 (⤴) to make the rail mount tension Tighter, turn the Allen Head Adjustment Screw Counter-Clockwise (⤵) to make the rail mount tension Looser.

To test the rail mount tension, open and close the Quick Release Lever while mounted on the optics 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 (⤴) to Lock the Allen Head Adjustment Screw in place.

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

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

## **Dismounting the Optic**

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 rearwards (Open) position. You can then remove the Optic from the optics rail.

## **Solar Cell Power Mode**

The Solar 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 Electronic Control Panel.

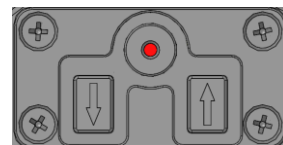
- There are no Red Dot brightness level adjustments available when the optic is operating in the Solar Cell power mode.
- When the Red Dot Reticle is On and the LED Battery mode indicator light is Off in the Electronic Control Panel, this indicates that the Optic is running under the Solar Cell power mode. The Red Dot reticle is not drawing power from the Battery when the Red LED Battery mode indicator light is turned Off.
- There is not a way to manually turn the Red Dot reticle Off under the Solar Cell power mode. You may cover the Solar Cells with tape, to not have the Red Dot Reticle turn On under Solar power mode.

- 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.

## Electronic Control Panel

The Electronic Control Panel for the Dot Reticle functions is located on the left side of the optic body. 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 Control Panel to run the Red Dot Reticle via the Battery power mode.

- For Battery power mode, press and HOLD the Up ↑ Arrow button to turn the Red Dot Reticle On. The Red LED Battery Mode Indicator on the control panel will light up to indicate that you are running in Battery power mode.
- The Circle Button with a Red LED in the center in the Control Panel will turn On, when the optic is running on Battery power mode.
- Tap both the Up ↑ & Down ↓ Arrow 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.
- To adjust the brightness level of the Dot Reticle in Battery power mode, you simply press the Up Arrow ↑ button to increase the brightness level of the Dot Reticle. Press the Down Arrow ↓ 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.
- Whenever the Dot Optic is turned On via Battery power mode, the optic will remember the last brightness setting used.



Be sure that the Red LED Battery mode indicator light is turned off in the Control Panel when not in use, to preserve the battery life.

## Elevation and Windage Adjustments

The Solar Powered Red Dot Reflex Optic is equipped Windage and Elevation Turrets. The markings on the Turrets indicate the direction to turn and the movement of the bullet impact. The Elevation Turret is located on top of the Main Body. You will need to remove the Turret Cap Counter-Clockwise (↺) from the Elevation Turret and turn the target style turret with your fingers to make elevation adjustments.

- Turning the Elevation Turret Clockwise (↻) will move the Dot Up (↑), moving the Bullet Impact Down (↓).
- Turning the Elevation Turret Counter-Clockwise (↺) will move the Dot Down (↓), moving the Bullet Impact Up (↑).

The Windage Turret is located on the Right side of the Main Body. You will need to remove the Turret Cap Counter-Clockwise (↺) on the Windage Turret and turn the target style turret with your fingers to make windage adjustments.

- Turning the Windage Turret Clockwise (↻) will move the Dot to the Right (⇒), moving the Bullet Impact Left (⇐).



- Turning the Windage Turret Counter-Clockwise (↺) will move the Dot to the Left (⇐), moving the Bullet Impact Right (⇒).

Please remember to reinstall both of the Turret Caps Clockwise (↻) once you have made all necessary adjustments.

## **Sighting In The Solar Powered Red Dot Reflex Optic:**

After you have completed installation of the Optic it will be necessary to adjust the Optics 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.

**CAUTION: 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.**

**CAUTION: 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 Solar Powered Red Dot Reflex Optic also uses a standard AA Battery type. If the Dot Reticle no longer illuminates, please follow these instructions for installing/ replacing the battery:

1. The Battery compartment is located in the front of the optic. Between the objective lens and the base mount you will find a Battery Cap. To remove the Battery Cap grasp the knurled edge of the Battery Cap firmly with one hand and twist it off Counter-Clockwise (↺).



2. Remove the old battery and dispose of it properly. Replace it with a new standard 1.5 volt AA Battery type. Place the new AA Battery in the Battery Compartment with the Positive “+” terminal facing out towards the Battery Cap. Twist the Battery Cap Clockwise (↻) back onto the Battery Compartment and hand tighten. You may use a small coin in the Battery Cap slot to make sure the cap is properly tightened. Avoid using tools (such as pliers) to perform this procedure as this may cause damage to the unit. Make sure that the Battery Cap is bottomed out against the Main Optic Body for a secure connection with the battery.

## **Care and Maintenance**

The VISM® Solar Powered Red Dot Reflex 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 lenses 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 lenses using a circular motion starting in the center and ending at the edges. Do not rub the lenses 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 lenses with the silicone cloth. When not in use, always store the Optic in a dry place with lens covers on to prevent scratches to the lenses.

**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 SOLAR POWERED RED DOT REFLEX OPTIC AND YOUR FIREARM.**

### **Specifications:**

#### **SOLAR POWERED RED DOT REFLEX OPTIC:**

- OBJECTIVE LENS DIAMETER: 27mm
- MAGNIFICATION: 1X
- RETICLE: RED DOT
- DOT SIZE: 2 MOA
- CLICK VALUE: 0.5 MOA
- MAX. WINDAGE & ELEVATION: ±104 MOA
- LENS COATING: RUBY
- BATTERY TYPE: AA 1.5V
- LENGTH: 4.0”
- WIDTH: 2.2”
- HEIGHT: 3.0”
- WEIGHT: 11.7 OZ. (WITH BATTERY)

**NOTE:** The Objective Lens (Ruby coating) is angled inside the optic by design from the factory. It is not a manufacturing defect. The Objective Lens is engineered at the proper angle to reflect the internal LED Dot Reticle (which is projected at an angle inside of the optic’s body) back to the shooters eye centered in the lens and optic body when viewed from the Ocular Lens.

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(1-866-627-8278)**

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