

**VORTEX**

THE FORCE OF OPTICS®

**SPARC<sup>®</sup> II**

**RED DOT**



## THE VORTEX SPARC® II RED DOT SIGHT

The rugged, streamlined SPARC® II with daylight-bright red dot lends itself to a variety of firearm platforms including AR-15s, shotguns and pistols. The multi-height base offers four mounting heights for user- and weapons-specific customization. Get on target fast with the SPARC II.



## RED DOT ADJUSTMENTS

### Battery Installation

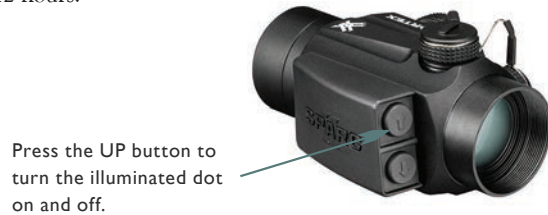
Remove the battery compartment cover. Be sure the metal tether doesn't add tension to the cap as you remove it. Install one CR 2032 battery so the "+" lettering faces outward and replace the cover. When replacing the cover, be sure it is fully screwed down.



### Powering Up

To turn the SPARC II on, press and release the **UP** button. To turn the SPARC II off, press and hold the **UP** button for five seconds.

**Note:** If you forget to turn off the SPARC II, it will automatically shut down in 12 hours.



### Brightness Adjustments

The SPARC II red dot sight offers ten variable illumination settings—the lowest two settings are night-vision compatible. Adjust the dot brightness by tapping the appropriate **Up** or **Down** adjustment control button.



### Typical Battery Life

The SPARC II uses a CR 2032 battery. The typical battery life depends on the brightness intensity setting of the dot.

Dot Color	Maximum Brightness	Minimum Brightness
Bright Red Dot	300 Hours	5,000 Hours

## Windage and Elevation Adjustments

The SPARC II red dot incorporates elevation and windage dials with audible clicks. Each small click will move the point-of-impact one Minute of Angle (MOA). 1 MOA will closely correspond to one inch at 100 yards, 1/2 inch at 50 yards, 1/4 inch at 25 yards, etc.

### Example

At a 50 yard sight-in distance, it will take twelve clicks of the dial to move the bullet's point-of-impact six inches.

### Adjust the elevation and windage settings:

- Remove the dial covers.
- Use the raised bars on the dial covers, coin or screw driver to make the adjustments.
- Turn the adjustment dial in the appropriate direction as indicated by the arrows. Move the dials in the direction you wish the bullet's point-of-impact to change.



### Elevation Adjustment

Remove the turret cap and turn the inner screw counter-clockwise to adjust the bullet's point-of-impact up; turn the inner screw clockwise to adjust bullet's point-of-impact down.



### Windage Adjustment

Remove the turret cap and turn the inner screw counter-clockwise to adjust the bullet's point-of-impact to the right; turn the inner screw clockwise to adjust windage bullet's point-of-impact to the left.

## Mounting the SPARC II

To get the best results from your SPARC II red dot, proper mounting is essential and, although not difficult, the correct steps must be followed. Your firearm will need to be equipped with a Picatinny or Weaver style rail/base. If needed, these may be purchased at most firearms dealers. *If you are unsure of your abilities, it would be best to use the services of a qualified gunsmith.*

1. Attach the SPARC II to the rail/base with the adjustment control buttons facing the shooter and make sure the mount is solidly seated in the base groove. In order to prevent recoil injury, position the SPARC II so you have at least four inches of eye relief.
2. Be sure the base clamp is hooked around the outside of the rail/base.
3. Press the SPARC II downward and forward toward the muzzle. Then, firmly tighten the base clamp bolt using the hex wrench.



Position the SPARC II so you have at least four inches of eye relief.

**Note:** It is a good practice to regularly re-check all mounting screws (including spacer attachment screws) to be sure they haven't loosened under field conditions.

## Mount Height Options

The SPARC II can be mounted on a variety of platforms using various combinations of the high mount, low mount and spacer.

**Note:** To ensure the attachment screws do not loosen under use, Vortex recommends using a thread locker compound.



### Mounting Tips

- When changing mounts, use the included wrench to loosen or tighten the four screws attaching the mount to the SPARC II.
- When using the spacer, install this between mount and body of SPARC II and use the longer attachment screws.

## Multi-Height Mount System

The heights as listed in millimeters refer to distance from the center of the red dot image to the base surface height of the firearm.



### 40 mm Extra-High Mount Height

Use the high mount and spacer to provide lower 1/3 co-witness on flat top AR-15 rifles.



### 37 mm High Mount Height

Use the high mount alone to provide absolute co-witness on flat top AR-15 rifles.



### 21 mm Low-Plus Mount Height

Use the low mount with the spacer to add additional height to the low mount if desired.



### 18 mm Low Mount Height

Use the low mount alone for most applications other than flat top AR-15 rifles.

## SIGHTING IN

### Bore Sighting

After mounting, an initial bore sighting of the SPARC II at short range (25–50 yards) will save time and money at the range. This can be done using a bore sighter according to the manufacturer's instructions, or by removing the bolt on some rifles to visually sight through the barrel

#### To visually bore sight a rifle:

1. Place the rifle solidly on a rest and remove the bolt.
2. Sight through the bore and center the target inside the barrel.
3. With the bulls eye centered in the bore, make windage and elevation adjustments until the illuminated dot is also centered over the bulls eye.

### Final Range Sight-In

Final sight-in should be done at the range using the exact ammunition you expect to hunt or shoot with:

1. After bore sighting the SPARC II, fire a shot or two at your desired zero distance to check that you're roughly on target. *If necessary, adjust the dot to put you near the center of the target* (see *Windage and Elevation Adjustment* on page 6).
2. Fire a three-shot group as precisely as possible.
3. Using the center of this group as a reference, make any necessary adjustments for windage and elevation correction. Using arrows for reference, adjust dials in the direction you wish the group to move.
4. Fire a final three-shot group to confirm proper adjustment. Repeat as necessary.

## SHOOTING WITH THE SPARC II

The key thing to remember when shooting with the SPARC II red dot is to keep both of your eyes open! Shooting with both eyes open allows you to take full advantage of your peripheral vision to get on target very quickly. Eye placement is not critical. As long as you can see the dot, you'll hit your target!

**Note:** If using an optional magnifier for distance shooting, you may find it easier to shoot with one eye closed due to the increased magnification.

## TROUBLESHOOTING

Please check the following before returning the SPARC II for service.

#### If the red dot does not illuminate:

- Is the battery dead? Replace.
- Is the battery installed correctly? Be sure the battery is oriented with “+” lettering facing the cover.
- Is the battery cover loose? Be sure cover is snug and contact points are clean.

#### If bullets are not grouping:

- Be sure all mount screws are tight. You should not be able to twist or move the SPARC II in any direction. Many times, problems thought to be with the scope are actually mount problems.

**Note:** Our **Troubleshooting Guide** is available online at <http://www.vortexoptics.com/content/troubleshooting>.

## MAINTENANCE

### Cleaning

The SPARC II red dot will require very little routine maintenance other than periodically cleaning the exterior lenses. If desired, the exterior may be cleaned by wiping with a soft, dry cloth.

When cleaning the lenses, be sure to use products that are specifically designed for use on coated optical lenses such as the Vortex Lens Pen and FogFree Cleaning Kits.

- Be sure to blow away any dust or grit on the lenses prior to wiping the surfaces.
- Using your breath, or a very small amount of water or pure alcohol, can help remove stubborn things like dried water spots.

### Lubrication

All components are permanently lubricated, so no additional lubricant should be applied.

**Note:** Do not attempt to disassemble any components of the red dot.

### Storage

Use the included lens cover to protect the lenses when not in use.

- Remove the battery before putting in storage for extended periods.
- Avoid storage in direct sunlight or in any very hot location.
- Storage and use in extreme cold will shorten battery life.

## THE VIP WARRANTY

We build optics based on our commitment to your absolute satisfaction. That's why Vortex products are unconditionally guaranteed and we make this Very Important Promise to you—a Very Important Person.

Rest assured that in the event your SPARC II becomes damaged or defective, Vortex Optics will repair or replace the red dot at no charge to you. Call Vortex Optics at 800-426-0048 for prompt, professional, and friendly service.



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Visit [www.vortexoptics.com](http://www.vortexoptics.com) for more information. Canadian customers may visit [www.vortexcanada.net](http://www.vortexcanada.net) for customer service information.

**Note:** The VIP warranty does not cover theft, loss, or deliberate damage to the product.

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#RD-SPARC-2-13A

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