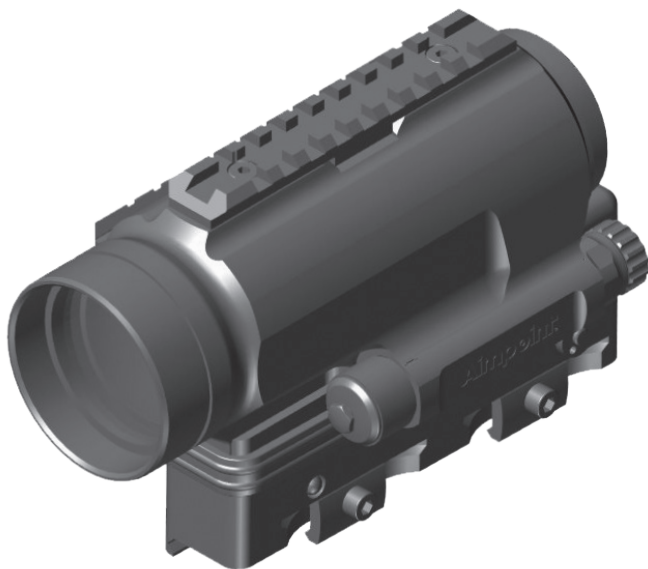


# Aimpoint®

## MPS3™ with MGMount User manual



**THE FUTURE IN SIGHT™**

# 1 PRESENTATION

The Aimpoint® MPS3 (Multi Purpose Sight) is a passive electronic reflex collimator sight designed for use on medium or heavy weapons. Developed primarily for mounted weapons operations, the MPS3 is ideal for use on land vehicles, helicopters or fast attack boats and ships.

The simplicity of use allows the user to concentrate on the target and operate the MPS3 and MGMount even with thick winter gloves in the dark.

Aimpoint red dot sights are designed for the “two eyes open” method which greatly enhances situational awareness and target acquisition. Thanks to the optical design the red dot follows the movement of the user’s eye while remaining fixed on target, eliminating any need for centering.

The Aimpoint® MPS3 allows for unlimited eye-relief and is compatible with all generations of night vision devices.

**WARNING:** Ensure the weapon is not loaded and the safety selector is in the “safe” position before attempting to install, remove or perform maintenance.

## 1.1 Technical Specifications

### Optical system

|                       |  |
|-----------------------|--|
| Working principle     | Reflex Collimator sight with LED                           |
| Optical magnification | 1X, unlimited eye relief, no centering needed              |
| Clear aperture        | 46 mm  |
| Aiming dot size       | 2 MOA <sup>1</sup> , (0.6 mRad) nominal                    |
| Optical coating       | Anti reflex, NVD <sup>2</sup> compatible                   |
| Dot brightness        | 7 NVD <sup>2</sup> and 9 daylight, of which 1 extra bright |
| Dot color             | Red (650 nm wavelength)                                    |
| Optical signature     | No forward optical signature from the dot beyond 10 m      |

### Power source

|                           |   |
|---------------------------|---|
| Battery type              | One AA size battery, (rechargeable 1.2 V), alkaline/lithium 1.5 V or lithium 3-3.7 V (acceptable voltage 1.2-5 V)                       |
| Battery life <sup>3</sup> | Over 8 years of continuous (day and night) use at pos 12 of 16 and over 3 years at pos 13 of 16. Typically 500 000 hours at NVD setting |

### Physical Specifications

|                        |   |
|------------------------|---|
| Dimensions (LxWxH)     | Sight only: 175 mm × 84 mm × 81 mm<br>(6 <sup>7</sup> / <sub>16</sub> " × 3 <sup>5</sup> / <sub>16</sub> " × 3 <sup>3</sup> / <sub>16</sub> ")<br>Sight with MGMount: 195 mm × 84 mm × 124 mm<br>(7 <sup>11</sup> / <sub>16</sub> " × 3 <sup>5</sup> / <sub>16</sub> " × 4 <sup>7</sup> / <sub>8</sub> ") |
| Height of optical axis | 77 mm (3 <sup>1</sup> / <sub>16</sub> " ) with MGMount, over top surface of Picatinny Rail  |
| Mass                   | Sight only: 736 grams (25.9 oz)<br>Sight with MGMount: 1230 grams (43.4 oz )  |
| Lens covers            | Lens covers add 7 mm ( <sup>5</sup> / <sub>16</sub> " ) to the length and 50 grams (2.0 oz) to the weight   |
| Material - housing     | Extruded, high strength aluminum, hard anodized, black to dark gray, non-glare finish   |
| Material - lens covers | Rubber, black, non-glare finish   |
| Radioactive materials  | None (Tritium 0%, Thorium 0%, Thorium Fluoride 0%)  |
| Hazardous materials    | None (Mercury 0%, including battery)  |
| Adjustment             | Range ± 2 m at 100 meters , ± 2 yds at 100 yds, in windage and elevation, 1 click = 50 mm at 100 meters = 2" at 100 yds   |

## Environmental Specification

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|                              |   |
|------------------------------|---|
| Temperature range, operating | -45 °C to +71 °C<br>(-49 °F to +160 °F)                               |
| Temperature range, storage   | -51 °C to +71 °C<br>(-60 °F to +160 °F)                               |
| Thermal shock                | > 7.7 °C/s (-45° C to +71° C in 15 s)                                 |
| Humidity                     | 0 - 100 % condensing or non-condensing                                |
| Immersion                    | 1 meter (3 ft.)   |
| Shock                        | 3 x 400 G, 0.7-11 ms  |
| Vibration                    | XYZ: 10-30 Hz: 3 mm, 30-150 Hz: 5.75 G for 30 minutes                 |
| Chemical resistance          | Not affected by weapon cleaners, lubricants, oil or insect repellants |

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## Mechanical Interface

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|         |   |
|---------|---|
| MGMount | Mounted to a MIL-STD 1913 rail system, "Picatinny Rail" |
|---------|---|

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1 MOA: Minute Of Angle, 1 MOA  $\approx$  30 mm at 100 m or  $\approx$  1" at 100 yds

2 NVD: Night Vision Device

3 Battery life: Values valid at room temperature for a quality battery

## 1.2 Overview

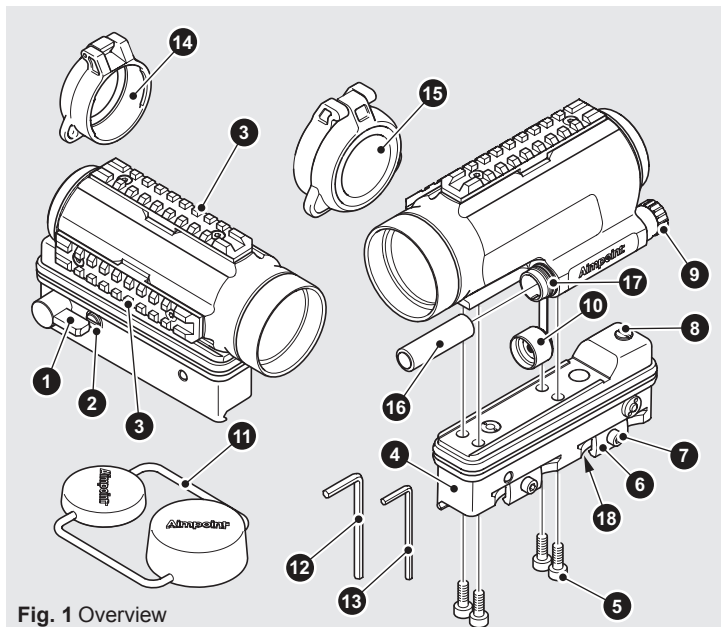


Fig. 1 Overview

- |   |                         |
|---|-------------------------|
| 1. Ballistic compensation lever               | 14. Flip-up rear cover  |
| 2. Windage adjustment screw                   | 15. Flip-up front cover |
| 3. Picatinny rail for mounting of accessories | 16. Battery (AA size)   |
| 4. MGMount                                    | 17. O-ring              |
| 5. Screw                                      | 18. Recoil stop         |
| 6. Bar locking                                |                         |
| 7. Screw                                      |                         |
| 8. Elevation adjustment screw                 |                         |
| 9. Intensity switch                           |                         |
| 10. Battery cap                               |                         |
| 11. Bikini rubber lens cover                  |                         |
| 12. Allen wrench, 5 mm                        |                         |
| 13. Allen wrench, 4 mm                        |                         |

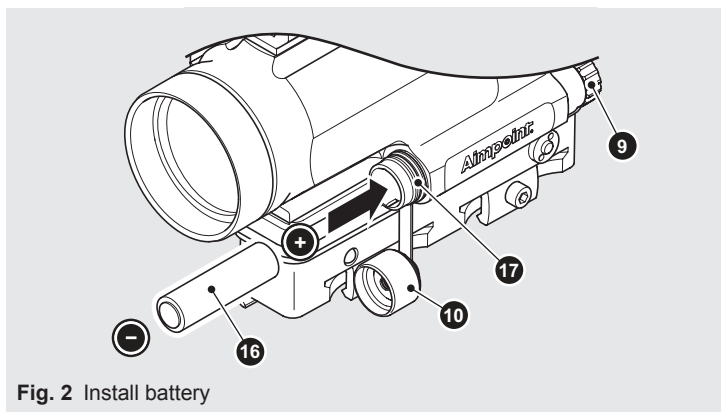
## 2 OPERATION

### 2.1 Install battery

- Turn the battery cap (10) counterclockwise and remove it.
- Insert the battery (16) with the positive end towards the battery compartment as shown in Fig. 2.
- Tighten the battery cap (10) firmly by hand.

**CAUTION:** Check that the O-ring (17) is in good condition and in position to ensure there is no risk of water leakage into the battery compartment.

- Turn the intensity switch (9) clockwise and verify the red dot is present.



**Fig. 2** Install battery

- Intensity switch
- Battery cap
- Battery (AA size)
- O-ring

## 2.2 Install Aimpoint® MPS3 on the weapon

The MPS3 with MGMount is designed for installation on most types of medium or heavy support weapons with a MIL-STD 1913 Picatinny Rail.

- Loosen the two screws (7) using the 4 mm Allen wrench (13).
- Position the recoil stop (18) in a groove on the picatinny rail and clamp the bar lockings (6) around the picatinny rail.
- Push the sight with mount forward (see Fig. 4) before tightening the screws (7) firmly using the 4 mm Allen wrench (13).

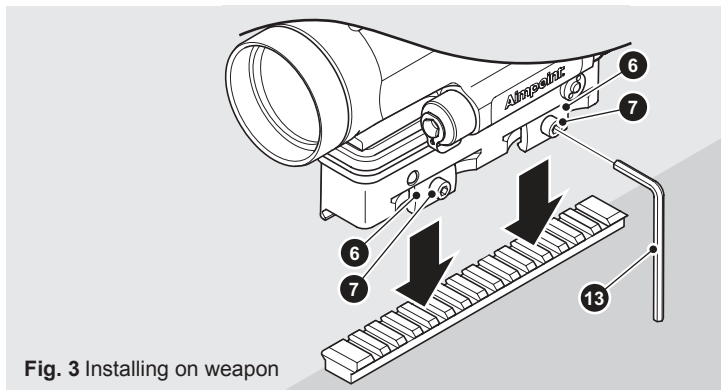


Fig. 3 Installing on weapon

- Bar locking
- Screw
- Allen wrench, 4 mm

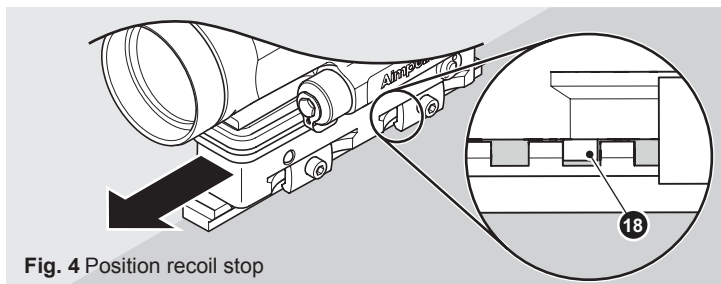


Fig. 4 Position recoil stop

- Recoil stop

## 2.2 Zeroing

The sight is delivered with the red dot in a centered position. Normally, this means that only small adjustments are necessary, provided the weapon rail is properly aligned.

**NOTE:** Before performing zeroing, ensure the ballistic compensation lever (1) is set to "position A" (oriented horizontally and toward the gunner as shown in Fig. 5).

- Turn the intensity switch (9) clockwise until the red dot has sufficient intensity.
- Ensure the ballistic compensation lever (1) is set to "Position A" (oriented horizontally and toward the gunner as shown in Fig. 5).
- Adjust the position of point of impact in relation to the red dot with the elevation adjustment screw (8) and the windage adjustment screw (2) using a screwdriver or knife (see Fig. 6 and Fig. 7).
- Confirm zeroing by firing at least three shots at a zeroing target. Check points of impact to confirm accuracy. Repeat zeroing if necessary.
- After initial firing, ensure the sight and mount are securely installed on the weapon.

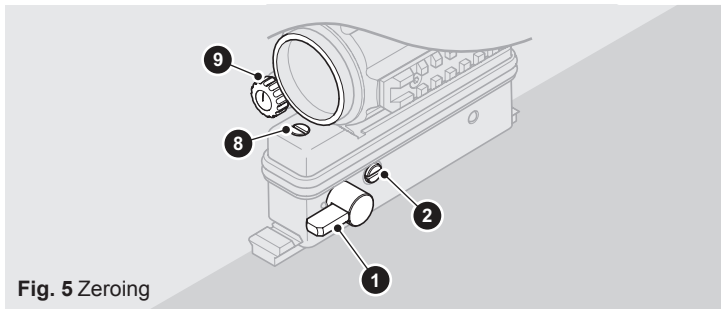


Fig. 5 Zeroing

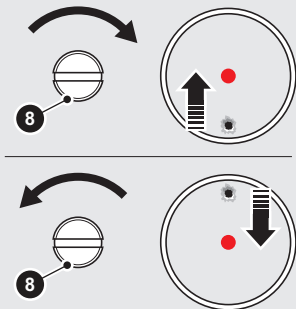
- Ballistic compensation lever
- Windage adjustment screw
- Elevation adjustment screw
- Intensity switch

**NOTE:** Each click on the adjustment screws (2) and (8) corresponds to a 50 mm movement of the point of impact at 100 meters (2" at 100 yards).

**CAUTION:** Do not continue to adjust the windage adjustment screw (2) and the elevation adjustment screw (8) if you encounter resistance.



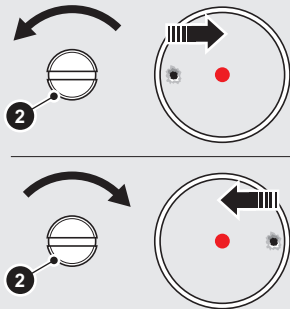
### Elevation adjustment



**Fig. 6** Adjust point of impact (elevation)

8. Elevation adjustment screw

### Windage adjustment



**Fig. 7** Adjust point of impact (windage)

2. Windage adjustment screw

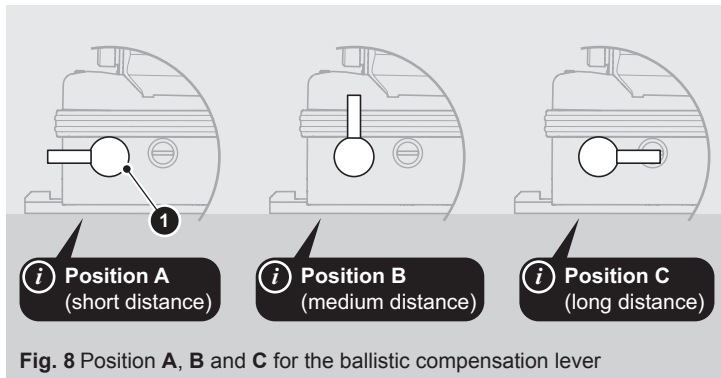
## 2.3 Ballistic compensation

The ballistic compensation lever (1) is used to adjust elevation of point of impact in relation to the red dot when using the sight at different distances (see Fig. 8).

**NOTE:** Turning the ballistic compensation lever (1) from position **A** to position **B** or from **B** to **C** corresponds to an elevation adjustment of the point of impact equivalent of 20 MOA.

**Provided zeroing is performed at 200 meters (or 200 yards) when using the sight with a .50 caliber machine gun:** Turning the ballistic compensation lever (1) from position **A** to position **B** adjusts the position of point of impact to correspond to the position of the red dot at a distance of approximately **800 meters (or 800 yards)**.

Similarly, turning the ballistic compensation lever (1) to position **C** adjusts the position of point of impact to correspond to the position of the red dot at a distance of approximately **1200 meters (or 1200 yards)**.



**Fig. 8** Position A, B and C for the ballistic compensation lever

#### 1. Ballistic compensation lever

### 3 EXTREME CONDITIONS

- Extreme heat (moist or dry): no special procedures required.
- Extreme cold: extreme cold might shorten battery life. The intensity switch (9) can be more difficult to operate than at normal temperatures.
- Salt air: no special procedures required.
- Sea spray, water, mud and snow: ensure the battery cap (10) is tightened before exposing the sight to sea spray, mud, snow or before submerging the sight in water. Hand-tighten only. Use lens covers when the sight is not being used. Clean lenses with lens paper/cloth and wipe the sight dry as soon as possible after exposure to water, sea spray, mud or snow.
- Dust storms and sand storms: Use lens covers when the sight is not being used.
- High altitudes: no special procedures required.

## 4 TROUBLESHOOTING

### **The red dot does not appear or has disappeared**

Make sure contact surfaces in the battery compartment are clean and verify that a working battery (16) is installed correctly according to 2.1. Verify there is zero gap between the battery cap (10) and the battery compartment and that the o-ring (17) is present. If the intensity switch (9) is defective, notify local dealer/armourer.

### **The sight is impossible to zero**

If an adjustment screw (2) or (8) is at its limit, check the alignment of mount and barrel. If point of impact is moving, check the stability of mount and weapon rail.

## 5 MAINTENANCE

- No particular maintenance is required while used under normal conditions.
- During severe weather conditions please refer to section 3.
- Always use lens covers when the sight is not in use.
- Storage: remove battery (16) and allow lens surfaces to dry completely (if wet) before putting lens covers on.

**CAUTION:** Never clean the lenses with fingers. Use lens paper/cloth. If lens paper/cloth is not available:

- To clear away debris (sand, grass etc.): blow away the dirt or rinse with clear water.
- To clean lenses: mist up the lenses or rinse with clear water and clean them with a soft piece of cloth.

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