

# Aimpoint®

**ACO™**

User manual



# 1 PRESENTATION

Aimpoint® red dot sights are designed for the "two eyes open" method which greatly enhances situational awareness and target acquisition. The red dot follows the movement of the user's eye while remaining fixed on target, eliminating any need for centering.

## Technical specification 1.1

### Optical system

Optical magnification	1X
Eye relief	Unlimited
Optical coating	Anti-reflection (AR) coating
Clear aperture	23 mm / 0.9 in
Dot size	2 MOA <sup>1</sup>
NVD <sup>2</sup> compatible	No
Adjustments	1 click = 16 mm at 100 m / 0.6 in at 100 yds
Adjustment range	±2 m at 100 m / ±2 yds at 100 yds

### Power source

Battery	One Lithium battery type 2L76 or DL1/3N (3 V)
Battery life <sup>3</sup>	More than 1 year of use (continuous on) at pos. 7

### Height of optical axis

Configuration (no spacer)	39 mm / 1.5 in (from top surface of Picatinny rail)
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### Mechanical interface

Sight	30 mm diameter tube
Configuration	MIL-STD 1913 Rail system Picatinny rail

### Materials

Sight	Anodized, high strength aluminum, black to dark gray, non-glare finish
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### Environmental specification

Temperature range (operation)	-30 °C to +60 °C / -20 °F to +140 °F
Water resistance	5 m / 15 ft.

1 MOA: Minute Of Angle, 1 MOA ≈ 30 mm at 100 m or ≈ 1 in at 100 yds

2 NVD: Night Vision Device

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

## 1.2 Overview

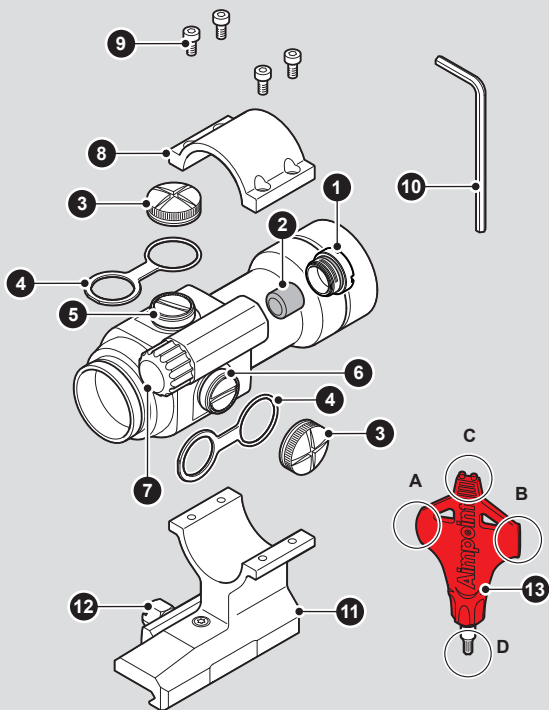


Fig. 1 Overview

- |                                    |                               |
|------------------------------------|-------------------------------|
| 1 Battery cap                      | 8 Ring top                    |
| 2 Battery (DL1/3N or 2L76)         | 9 Screws for ring top (4 pcs) |
| 3 Cap for adjustment screw (2 pcs) | 10 Allen wrench               |
| 4 Strap for cap (2 pcs)            | 11 Mount with ring base       |
| 5 Elevation adjustment screw       | 12 Nut                        |
| 6 Windage adjustment screw         | 13 Aimpoint tool (ABCD)       |
| 7 Rotary switch                    |                               |

## 2 OPERATION

### ⚠ WARNING

Ensure the weapon is not loaded and the safety selector is in the "safe" position before attempting to install, remove or perform maintenance.

## ⚠ WARNING



- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.

- Your device is powered by button or coin cell batteries such as DL1/3N with a nominal voltage of 3 volts. Please carefully read the separate instruction manual for each battery-powered device.
- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above +75°C / +167°F or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).

- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

## 2.1 Install battery

- Remove battery cap (1) by turning it counterclockwise using the Aimpoint tool (13B).
- Insert battery (2) with positive end (+) toward battery cap. See Fig 2.

### ⚠ CAUTION

Check that the O-ring is in good condition and in position to ensure that there will be no water leakage into the battery compartment.

- Install battery cap (1) by first turning it clockwise by hand. When firm resistance is encountered, continue to tighten the battery cap (1) an additional 1/4 turn using the Aimpoint tool (13B). Do not overtighten the battery cap (1).
- Verify that the red dot is present by turning the rotary switch (7).

### ⚠ NOTE

Remove battery before putting the sight in storage for extended periods.

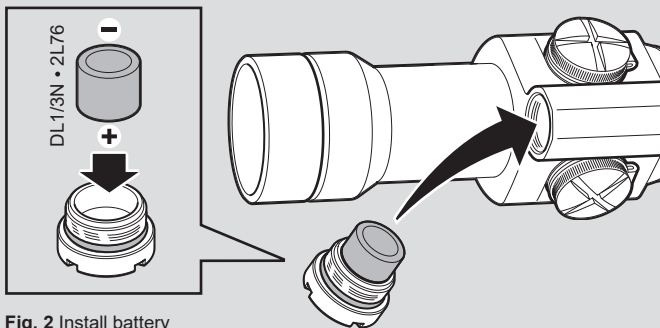


Fig. 2 Install battery

## 2.2 Install Aimpoint® ACO to a weapon

- a Select a groove on the Picatinny rail for a comfortable position in regards to eye relief. Ensure the groove is undamaged and free from dirt and / or sand.
- b Loosen the nut (12) of the mount (11).
- c Install the sight with the recoil stop in the selected groove of the Picatinny rail.
- d Push the sight forward (toward muzzle) and handtighten the nut firmly at the same time. The recoil stop shall be in contact with the front edge of the groove. See Fig. 3
- e Proceed to tighten the nut with a wrench another 1/8 up to 1/4 turn to ensure that the mount is secured to the rail.

### ▲ NOTE

Always ensure that the sight is securely installed to the weapon prior to use..

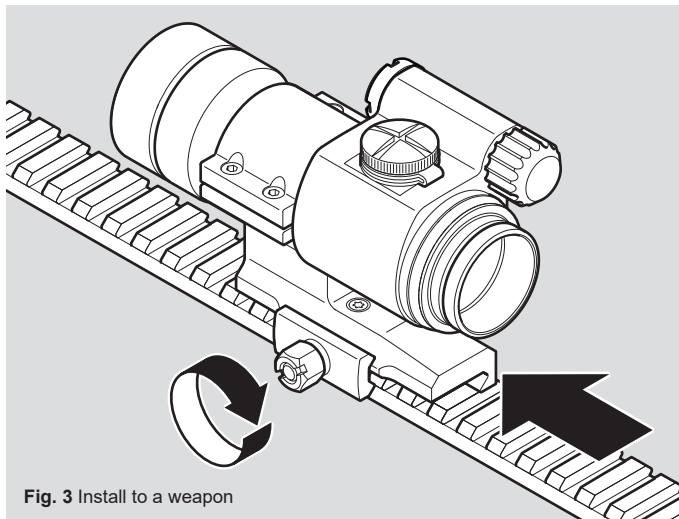


Fig. 3 Install to a weapon

## 2.3 Zeroing

### ⚠ CAUTION

Do not continue to adjust windage and elevation mechanisms if you encounter resistance.

- a Turn the rotary switch (7) clockwise until the red dot has a sufficient intensity to contrast against the target.
- b Remove the windage and elevation adjustment caps (3).
- c Insert adjustment tool (coin, screwdriver, knife) or cartridge casing in adjustment screw slot.

### ⚠ NOTE

Each click of the adjustment screw corresponds to a 16 mm movement of point of impact at 100 meters or 0.6 in at 100 yds.

- d Windage adjustment (see Fig. 4)
  - Turn windage adjustment screw (6) counterclockwise to move point of impact to the right.
  - Turn windage adjustment screw (6) clockwise to move point of impact to the left
- e Elevation adjustment (see Fig. 5)
  - Turn elevation adjustment screw (5) counterclockwise to move the point of impact up.
  - Turn elevation adjustment screw (5) clockwise to move the point of impact down.
- f Confirm zeroing by firing at least three shots at a zeroing target. Check impact points on a zeroing target to confirm accuracy and repeat above procedure if required.
- g After initial firing, ensure that the mount and sight are secured to the weapon.

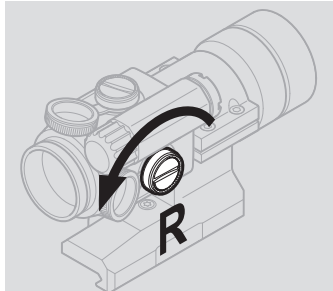


Fig. 4 Windage adjustments

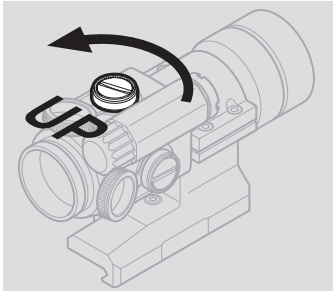


Fig. 5 Elevation adjustments

### 3 OPERATION UNDER EXTREME CONDITIONS

- Extreme heat (moist or dry). No special procedures required.
- Extreme cold. Extreme cold might shorten battery life.
- Salt air. No special procedures required.
- Sea spray, water, mud and snow. Ensure that battery cap (1) and adjustment caps (3) are tightened before exposing the sight to sea spray, mud, snow or before immersing the sight in water. Hand tighten only.
- 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. Protect the lenses from exposure.
- High altitudes. No special procedures required.

#### **⚠ 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: fog the lenses or rinse with clear water and clean them with a soft piece of cloth.



## **4 TROUBLE SHOOTING**

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

Clean contact surfaces in the battery compartment and verify that the battery (2) is working and that it is installed correctly. Verify that the battery cap (1) is firmly tightened.

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

If an adjustment screw (5) (6) is at its limit, check the alignment of mount and barrel. If point of impact is moving, check the stability of mount.

### **4.3 The red dot does not appear to be round**

Most likely the result of how your eye perceives the red dot. Look at the red dot and slowly rotate the sight. If the aberration in the shape of the red dot does not rotate with the sight, the irregularity is caused by how your eyes perceive the red dot. Minimize this effect by always setting the intensity of the red dot to the lowest setting where the red dot is clearly visible against the target in relation to ambient light.

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