Small Arms Collimator SAC

This remarkably simple, robust and effective device gives all users the ability to zero, check zero or re-zero their weapons in the field with no live firing, improves operational capability and optimises the use of training resources.

The range of Pyser Optics Small Arms Collimators is the product of years of experience with defence and security forces the world over. The unique, fully proven design allows all weapon users to maintain complete operational readiness when deployed, providing all personnel with total confidence in their weapon systems.

The Requirement
In out-of-country, covert and peace-keeping missions, live firing is often impossible. The lack of resources to check the alignment of weapon sighting systems quickly and regularly, means that the operational advantages of putting sights on weapons can easily be lost.

The increasing use of rapid deployment forces and increasing legal framework in which soldiers now operate means that systems are needed to allow the user to zero, check zero and validate the weapon and its sighting systems at any time and in any place.

The Solution
The design concept provides dedicated SAC’s tuned to the exact operational requirements of the client. Each collimator is factory calibrated to the operational zeroing range and ballistic characteristics of the user’s ammunition. Every collimator is supplied with the unique confidence checker ensuring that the user knows the SAC is correct before use.

The single piece, rigid aluminium casting, sealed and purged optics and spring fixed spigot, allows users to zero their weapons, without the need for live firing.

On target right from the start

Typical graticules (others on request)
Ease of Use
Simply insert the collimator into the barrel of the weapon and align the sight with the markings on the SAC graticule to either a common zero position or, where known, to a personal zero position.

As SAC’s are not adjustable and have no moving parts, they will give an accurate and repeatable result everytime - straight out of the bag!

The rugged design has been proven to give years of trouble free and reliable service, requiring little maintenance with very low through life cost.

Deployment Quantities
Individual organisations define their own needs but typically SAC’s are deployed on the basis of:
- 1 per section or squad for front line infantry
- 1 per sniper pair
- 1 per support weapon
- 1 per weapon type per Armed Response Vehicle
- Armourers
- Weapon repair facilities
- HQ units

Operational Scenarios
Many armed and police forces around the world now use Pyser Optics SAC’s in their standard operational procedures:
- For checking alignment before any weapon user goes out on patrol
- Before live firing on a range
- On peace keeping missions
- For special forces
- For rapid intervention teams
- On guard posts
- For secure military compounds in civil security operations
- For front line infantry units
- On operations requiring the changing of sights e.g. from day to night fighting roles

The SAC provides a high degree of confidence in the weapon system and ensures that when the weapon is used, it will be effective.

Benefits
- Sights can be zeroed in the field to an accuracy and repeatability of 0.25mil (25mm in 100m / 1 inch in 100 yards) in less than a minute, without needing specialist personnel or resources
- Cost effective, rapid, accurate and safe zeroing of all small arms, by day or night, without the need for live firing
- Capability to zero and check zero sights any time, any place with no live firing
- Big increases in soldiers’ confidence in their weapons and their shooting ability
- Increases in hit probability of over 200% compared to conventional zeroing techniques
- Reduced need for firing range and time/personnel/travel and ammunition costs
- Copy personal zero to other weapons
- Unique self checking system
- Weapons delivered to front line units already zeroed
- Increased weapon life, reduced maintenance costs

User Configurations
All aspects of the SAC are user definable. Manufactured to full military specifications, they are passive and they require no power source for their operation. Supplied complete with instructions, a pouch offering suitable protection and a confidence checker. An optional Gaseous Tritium Light Source (GTLS) or battery powered light source is available for full night time use with image intensifier night sights of any generation or for zeroing iron sights in darkness.