



**S40i** ENDURA S40i 5-40x56i FFP ED  
EXTRA-LOW DISPERSION GLASS

## Features

- 30.0 MRAD (+100.0MOA) elevation travel range with 0.1 MRAD per click and 10.0 MRAD per turn
- Side parallax adjustable from 10M
- HOYA Japan FCD1A Extra-Low Dispersion Glass
- Unrestricted zero-stop elevation turret with revolution indicator scale
- Covered windage turret cap
- B9GDi - A MRAD based reticle wth floating illuminated dot and 0.2MRAD holdover grid pattern
- Wide angle optical system with wide and flat field of view, even at low magnification
- Expansive 8x zoom erector configuration with versatile 5-40 magnification range
- Robust 34mm tube design of single piece construction
- Fully multi coated lenses within an extra-low dispersion system (ED)
- 12 illumination settings with an "off" between each step
- Includes a throw lever for magnification ring
- Includes sunshade
- Nitrogen Purged, waterproof, fogproof, shockproof
- Each unit is hand tested in the United Kingdom before sale

## Specification

MAGNIFICATION RANGE	5-40x
FIELD OF VIEW @ 100M	7.9m-1.1m
EYE RELIEF	102mm - 85mm
MAX ELEVATION ADJUSTMENT RANGE	30.0 MRAD
ADJUSTMENT VALUE PER CLICK	0.1 MRAD
ADJUSTMENT PER TURN	10.0 MRAD
PARALLAX DISTANCE	From 10M
RETICLE CHOICES	B9GDi - 0.2 MRAD Grid with Floating Illuminated Dot
RETICLE INSTALL	Front Focal
TOTAL LENGTH	398mm
WEIGHT	1150g
TUBE DIAMETER	34mm
CONSTRUCTION	1 Piece Tube/Saddle
OBJECTIVE LENS DIAMETER	56mm
OUTER OBJECTIVE DIAMETER	66mm
OUTER OCULAR DIAMETER	45mm
ADDITIONAL SUNSHADES	1 Supplied
BIKINI LENS COVERS	Yes, Supplied
CONFIGURATIONS AND ORDER CODES	S40iED (0.1MRAD with B9GDi Reticle)



## What's Included?

- Sunshade
- Lens cleaning cloth
- Throw-Lever for magnification ring
- Thread protector cap for when windage turret cap not installed
- Driver tool for battery compartment

## Basics

1 - Objective end. Contains the objective lens assembly and objective lens hood. The sunshade will thread into position here.

2 - Ocular end. This rotates for adjustment, sometimes referred to as diopter correction or 'European style fast focus eyepiece'. See 'Guidance For Use' for instructions on how to adjust this to your eye.

3 - Eyepiece section. Houses the ocular lens assembly

4 - Magnification ring. This rotates to adjust the magnification setting. The throw lever can be installed here.

5 - Illuminated reticle switch. Settings 1- 12 with an off setting between each step. 1= Minimum, 12= Maximum.

6 - Elevation and Windage turrets. These are used to adjust the position of the reticle and 'zero in'. Compensate for windage and adjust to engage targets at different ranges.

7 - Side parallax turret (Side Focus). This is used to bring targets in and out of focus.



## Guidance For Use

### Fast Focus Ocular Lens / Diopter Adjustment

- It's important that the reticle appears sharp and is correctly set to your eye.
- Use the fast focus eyepiece to adjust the sharpness of the reticle to suit your eyesight, by pointing the scope at a featureless bright area such as a wall or open sky. Do not look at the sun! Turn the fast focus eyepiece clockwise and anticlockwise until the reticle appears as sharp and defined as possible.
- If the above is not carried out correctly then parallax error may become a problem. Do this first.
- Once the eyepiece is set then don't adjust it.

### Mounting the riflescope

- CAUTION : Make sure the firearm is not loaded when mounting the riflescope. Always use good quality mount rings. Poor quality mount rings may damage your scope and will almost certainly hinder performance.
- Be careful not to crush the scope tube by over tightening the mount rings. Refer to literature supplied with the mount rings to ensure the correct torque settings are used on both the top screws and base screws. Each set of mount rings and supplied screws should be built to a specific tolerance that will determine the correct torque setting. Typically this will be quoted in **inch/lbs**.
- Equally, under-torqued mount rings can also be an issue, especially in combination with heavy recoil. If the mount ring manufacturer does not identify any torque settings for ring and rail screws then consider a different brand that does.
- The position of the front mount ring is critically important, as sometimes this can hinder the side parallax mechanism internally. To avoid this then mount away from the saddle section, closer to the objective end of the scope. Safe (Green) and unsafe (Red) mounting areas are shown below



## Windage / Elevation Turret Adjustment

- ENDURA S40i has an adjustment value of 0.1 MRAD per click. This equates to 1cm @ 100M. The total elevation range is 30.0 MRAD.
- Its important to remember that the MRAD based adjustment system matches the MRAD nature of the reticle on S40i, so, no inch/cm conversion is required. 1.0MRAD as displayed by the reticle is equal to 10 clicks of adjustment, regardless of target distance
- Each scope will be preset to mechanical centre (midway point of adjustment range) out of the box. Try and keep both the windage and elevation turrets as close to mechanical centre as possible when zeroing. Optical standard and adjustment consistency may suffer at the extremes of any scopes adjustment range.
- You will feel a positive resistance 'stop' once the scope reaches the extreme of its elevation or windage adjustment. Don't be tempted to force the turret any further as this will damage the mechanism
- ENDURA S40i features an elevation turret cap that is secured using a 3 horizontally mounted holding screws. The turret caps can be repositioned as required, normally to display '0'. To do this then slacken off the screws using the hex key provided in the box. Then disengage the turret cap by easing it off the internal spline. A little force may be required to break the O-ring seal. Reposition the turret cap as desired, and then re-tighten the screw to secure.

## Unrestricted Zero-Stop

- ENDURA S40i has a zero stop mechanism built into its elevation turret. To set after zeroing then start by removing the elevation turret cap using the provided hex key. Loosen and remove turret cap.
- The disc shaped Zero-Stop collar should then be visible. This is secured using 3 horizontally mounted grub screws. Loosen each of these using the same hex key. The collar will then drop into position.



- Slacken grub screws and the collar will drop
- To accurately set then rotate the collar clock-wise until you feel a firm 'stop'.

- Re-secure the Zero-Stop collar using the hex key, making sure to evenly tighten the 3 grub screws so the collar is level and secure against the turret spline.
- Once the turret cap is re-installed then the Zero-Stop is set. The elevation turret will continue to operate freely within the remainder of its adjustment range. You will hear a firm 'click' once the Zero-Stop is hit, at the bottom of the remaining adjustment range.

## **Magnification Adjustment**

- To adjust the magnification simply rotate the ring by hand to the desired setting. Add the throw lever for extra leverage if you wish. There is an elevated ridge on the magnification ring, that is threaded to accept the throw lever. Never tamper with the hex head holding screw on the opposite side of the mag ring.
- The zeroed point of impact (POI) should remain unchanged across the entire magnification range.

## **Side Parallax Adjustment**

- 'The third turret' will appear to bring targets in and out of focus. It can sometimes be stiff and difficult to rotate straight out of the box, but it will free off with use.
- Use the turret to remove parallax, bringing both the target and the reticle into sharp focus.
- Generally speaking, the higher the magnification setting then the easier it will be to remove parallax as targets will appear either : in, or out, of focus.

## **Illuminated Reticle**

- ENDURA S40i features a B9GDi Reticle. This illuminates red using dual LED emitters with 1-12 levels of intensity. Its powered by a CR2032 coin battery which locates inside the third turret on the scope saddle. To access the battery compartment then simply rotate the cover that has the coin slot design, a helpful driver tool is included. If S40i has needed to travel to you by Air, then the battery might not be included as standard.
- Unscrew the battery compartment cap counter-clockwise and insert the CR2032 3V battery with the + side facing outwards and the – side facing the scope body. Carefully screw the battery cap back into place, finger tight, taking care not to cross-thread it.
- ENDURA S40i features 12 intensity settings. Simply turn the dial to the desired brightness level. Between each brightness level is an "OFF" setting indicated by a dot in between each number.
- Settings 9>12 are very bright and are designed for use in bright environments like snow or sand. We don't recommend these high settings for use during low light, dusk and dawn for example. The reticle could start to lose definition and you may also detect some unwanted stray light from the LED.

## **Sunshade**

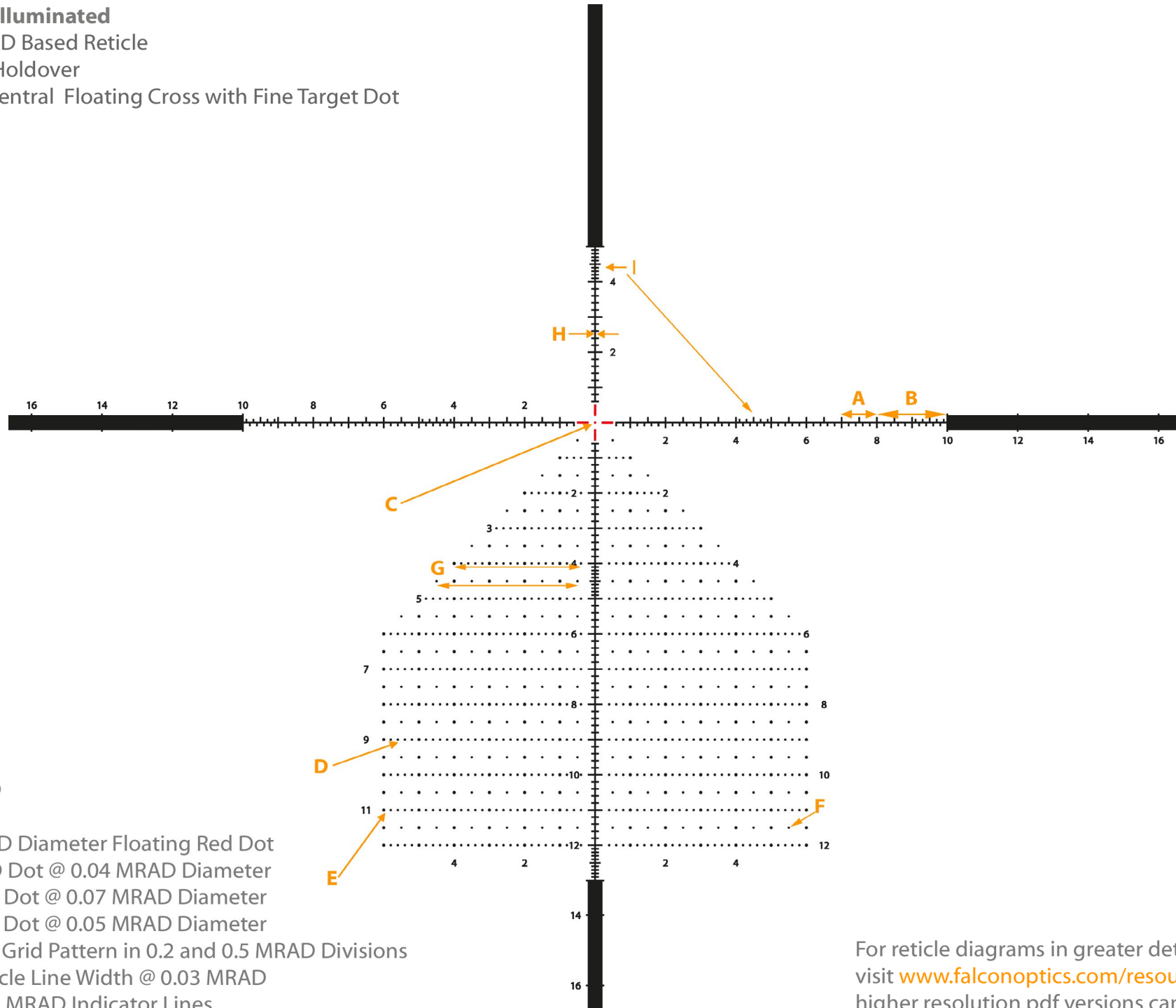
- ENDURA S40i is supplied with an additional sunshade. When shooting in low winter sun, or very sunny days then you may find this to be useful. To install then simply thread into the objective end of the scope.

# B9GDi - FFP Illuminated

0.1 & 0.2 MRAD Based Reticle

Grid Pattern Holdover

Illuminated Central Floating Cross with Fine Target Dot



A = 1.0 MRAD

B = 2.0 MRAD

C = 0.04 MRAD Diameter Floating Red Dot

D = 0.2 MRAD Dot @ 0.04 MRAD Diameter

E = 1.0 MRAD Dot @ 0.07 MRAD Diameter

F = 0.5 MRAD Dot @ 0.05 MRAD Diameter

G = Holdover Grid Pattern in 0.2 and 0.5 MRAD Divisions

H = Main Reticle Line Width @ 0.03 MRAD

I = Area of 0.1 MRAD Indicator Lines

For reticle diagrams in greater detail please visit [www.falconoptics.com/resources](http://www.falconoptics.com/resources) where higher resolution pdf versions can be downloaded

## Care and Maintenance

- With the exception of repositioning the turret caps along with adding/removing throw lever then do not attempt to disassemble the scope.
- Do not tamper with the holding screw on the magnification ring, the coil spring cover underneath the side parallax turret, nor the nitrogen port screw on the base of the saddle.
- Do not attempt to 're-parallax' the scope by adjusting the position of the front lens assembly. In doing so you run the risk nitrogen loss and moisture ingress over time.
- You will feel a positive stop at the end of the travel ranges for the windage and elevation turrets, and focus eyepiece. Don't be tempted to apply more force once you reach the stop.
- When mounting the scope always be sure to check the torque settings for the mounts/rings that you plan to use.
- The external lens surfaces can be wiped clean with the lens cloth provided. Remove any noticeable particles of dirt or sand in advance using a lens blower or a very soft brush. Take care in doing this to ensure the outer lens coatings do not get scratched.
- Store the scope in a moisture free environment. Don't leave the scope in direct sunlight whereby the sun's rays can enter either the objective or ocular ends.
- Avoid storing the scope in areas that will reach very high temperatures for long periods of time.
- CAUTION : Never use the scope to look at the sun

## Troubleshooting

*Can't zero the scope, running out of windage and/or elevation adjustment?*

- Rule out common alignment issues such as: barrel alignment and shift, barrel threaded at an angle, rail/receiver install, rail alignment, mount/rings install and alignment
- It might be that a tapered (inclined) rail is necessary in order to gain the desired elevation adjustment.



*I'm seeing a dark shadow around the image edges, it seems to disappear at higher magnification but returns at lower magnification*

- Windage and/or elevation turrets are dialled to far from mechanical centre. Return them closer to mechanical centre and the shadow will ease.
- If you're having to dial in that much windage/elevation in order to zero then we would recommend the use of a tapered rail.

*My group size has opened up after shooting well in the past / Shift in point of impact*

- Change to focus eyepiece setting?
- Does the scope appear to be shifting in the mount/rings? Have ring/base screws worked loose?
- Play/movement between the rings/rail/receiver?
- Recent change of ammunition?
- Silencer/moderator alignment?
- Inconsistent head position?
- Windage and/or elevation turrets are dialled to far from mechanical centre? Loss of tension on erector spring. Return closer to mechanical centre.

*Optical standard suddenly seems noticeably poorer*

- Recent changes to zero and elevation/windage setting? Optical standard may suffer at the extremes of any scopes adjustment range.
- Check for changes to focus eyepiece setting and that parallax is being correctly dialled out.
- Head alignment consistent?
- Shooting in low sun? Use the sunshade.
- Check for any obstructions on exterior lens surfaces such as dust, dirt and condensation. See care and maintenance section.

## Online Resources

Web - [falconoptics.com](http://falconoptics.com)



Facebook - Search 'Falcon Optics'

Page - [facebook.com/falconoptics1](https://facebook.com/falconoptics1)

Group to share content and discussion - [facebook.com/groups/falconopticsscopes](https://facebook.com/groups/falconopticsscopes)



Instagram - @falconsopes



Twitter - @falconoptical



## ENDURA Warranty & Service Commitment

If ENDURA S40i 5-40x56i FFP ED doesn't perform, then we will either repair it, or give you a brand new unit. No charge.

### Key Points:

- To request service then contact us directly at [service@falconoptics.com](mailto:service@falconoptics.com)
- If the scope performs outside of tolerance then we will repair or replace it. No charge. No time limit.
- Additional service commitment if your ENDURA S40i 5-40x56i FFP ED is damaged through normal use.
- Covers the original owner of the scope. Proof of purchase may be required.
- Additional service commitment for future owners of the scope.
- Excludes loss, theft, deliberate damage, abuse and misuse.
- Also excludes cosmetic damage that doesn't hinder the performance of the scope.

