

ULTRA

**X40i ELR** 5-40x56i

Features

- Developed in the United Kingdom > Hand Built in Japan > Quality tested in the United Kingdom.
- 40mm maintube to enable 42 MRAD or Elevation Travel and over 20 MRAD Windage Travel.
- Dense Fluor-Crown ED optical system delivers stunning resolution and stable performance in challenging light.
- Precision Target Dot floats in the centre of the 0.2 MRAD based reticle with holdover grid pattern.
- New 8x optical system with 5-40 magnification range and side focus from 10M
- Oversized elevation turret with revolution indexing scale and massive laser etched MRAD increments on the turrets to aid rapid dialling.
- Capped windage turret for competition where its “set and forget”, or remove the cap to reveal a wonderfully tactile medium profile windage turret.
- 42.0 MRAD elevation travel range with 0.1 MRAD per click and 10.0 MRAD per turn.
- Robust 40mm tube design of single piece construction.
- Unrestricted Zero-Stop system.
- MP2 (Fine) MRAD Reticle (Red Illuminated).
- 11 illumination settings with an "off" between each step.  
Includes 40mm Rings built in Italy by Garima Design and Customisation.
- Includes a throw lever for magnification ring and sunshade.
- Nitrogen Purged, waterproof, fogproof, shockproof.
- Repair or Replace Warranty if the scope doesn’t perform. No charge. No time limit.

Specification

MAGNIFICATION RANGE	5-40x
FIELD OF VIEW @ 100M	7.2-0.9M
EYE RELIEF	95mm
MAX ELEVATION ADJUSTMENT RANGE	42.0 MRAD
MAX WINDAGE ADJUSTMENT RANGE	20.0 MRAD
ADJUSTMENT VALUE PER CLICK	0.1 MRAD
ADJUSTMENT PER TURN	10.0 MRAD
PARALLAX DISTANCE	From 10M > Infinity
RETICLE CHOICES	MP2 (Fine) Holdover Grid
RETICLE INSTALL	First Focal
TOTAL LENGTH	425mm
WEIGHT	1140g
TUBE DIAMETER	40mm
CONSTRUCTION	1 Piece Tube/Saddle
OBJECTIVE LENS DIAMETER	56.0mm
OUTER OBJECTIVE DIAMETER	66.0mm
OUTER OCULAR DIAMETER	46.5mm
WHAT'S IN THE BOX	40mm Rings by Garima Design, Flip covers, Throw lever, Sunshade, Zero-Stop (Pre-installed)
CONFIGURATIONS AND ORDER CODES	X40iA - ULTRA X40i ELR 5-40x56i FFP ED / MRAD / MP2 Fine



## What's Included?

- Sunshade
- 40mm Mount Rings by Garima Design and Customisation
- Lens cleaning cloth
- Throw-Lever for magnification ring
- Flip up covers
  - Zero-stop ring (normally pre-installed)
- Hex-wrenches for turret caps and zero-stop ring

## Basics

1 - Objective end. Contains the objective lens assembly and objective lens hood.

The sunshade will thread into position here and the threaded flip cover is shown installed.

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

The threaded flip cover is shown installed

3 - Eyepiece section. Houses the ocular lens assembly

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

5 - Illuminated reticle switch. Settings 1- 11 with an off setting between each step. 1= Minimum, 11 = 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.



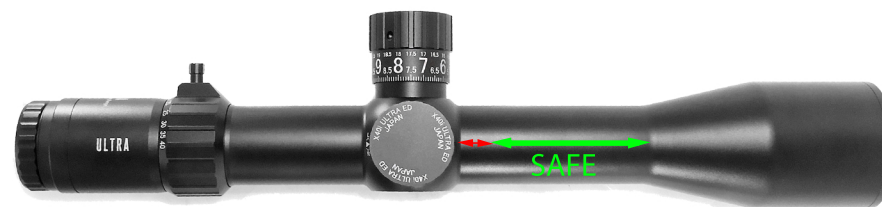
## Guidance For Use

### 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, before the scope is even mounted.
- 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.
- X40i Ultra ELR 5-40x56i is built around a 40mm tube/saddle section of one-piece construction.
- 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



18inch/lbs MAX TORQUE



## Windage / Elevation Turret Adjustment

- X40i Ultra ELR has an adjustment value of 0.1MRAD per click. This equates to 1cm @100M. The total elevation range is +42 MRAD.
- The scope features a Zerto-stop ring that can be installed after zeroing the scope. To install then slacken the top mounted holding screw on the elevation turret cap, using the driver tool provided. Remove the turret cap and the internal spline will be visible. Locate the Zero-stop ring over the spline and allow it to drop into position. Rotate the Zero-stop ring in a clockwise motion until it contacts firmly and can rotate no further. To secure the Zero-stop ring then use the supplied hex key to tighten its 3 grub screws. The mechanical Zero-stop will now prevent adjustment below the desired "zero".
- X40i Ultra ELR 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. This is why we recommend the use of a tapered base or adjustable mounts/rings to aid zeroing and ensure X40i Ultra ELR gives the best possible performance. - 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.
- X40i Ultra ELR features elevation and windage turret caps that are secured using 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.

## Side Parallax Adjustment

- X40i Ultra ELR has been designed to enable precise elimination of parallax via the use of the side parallax turret. Careful use of the side parallax turret will appear to bring targets in and out of focus.
- Generally speaking, the higher the magnification setting that is used, then the easier it will be to determine if the target and image is in or out of focus. To enable greater range finding precision then an additional side-wheel can be used with X40i Ultra ELR. For the most accurate results when using an additional side-wheel then its very important that the ranging method remains consistent.
- The start position at the wheel before ranging should always be the same, pick either one of: infinity or minimum parallax distance as the start point and use that setting as the start point to range each target
- Adjust the side-wheel in a smooth continuous motion in one direction until the target snaps into sharp focus. If you go too far and the target slips out of focus again, then return to the start point and repeat the process. For the most accurate results then its important to eliminate any back and forth motion at the wheel. To range the next target then return to the start point you have chosen, then repeat the process.

## 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.
- The zeroed point of impact (POI) should remain unchanged across the entire magnification range.
- With the reticle being installed in the First Focal Plane then any holdover points will also remain consistent at any given magnification setting.

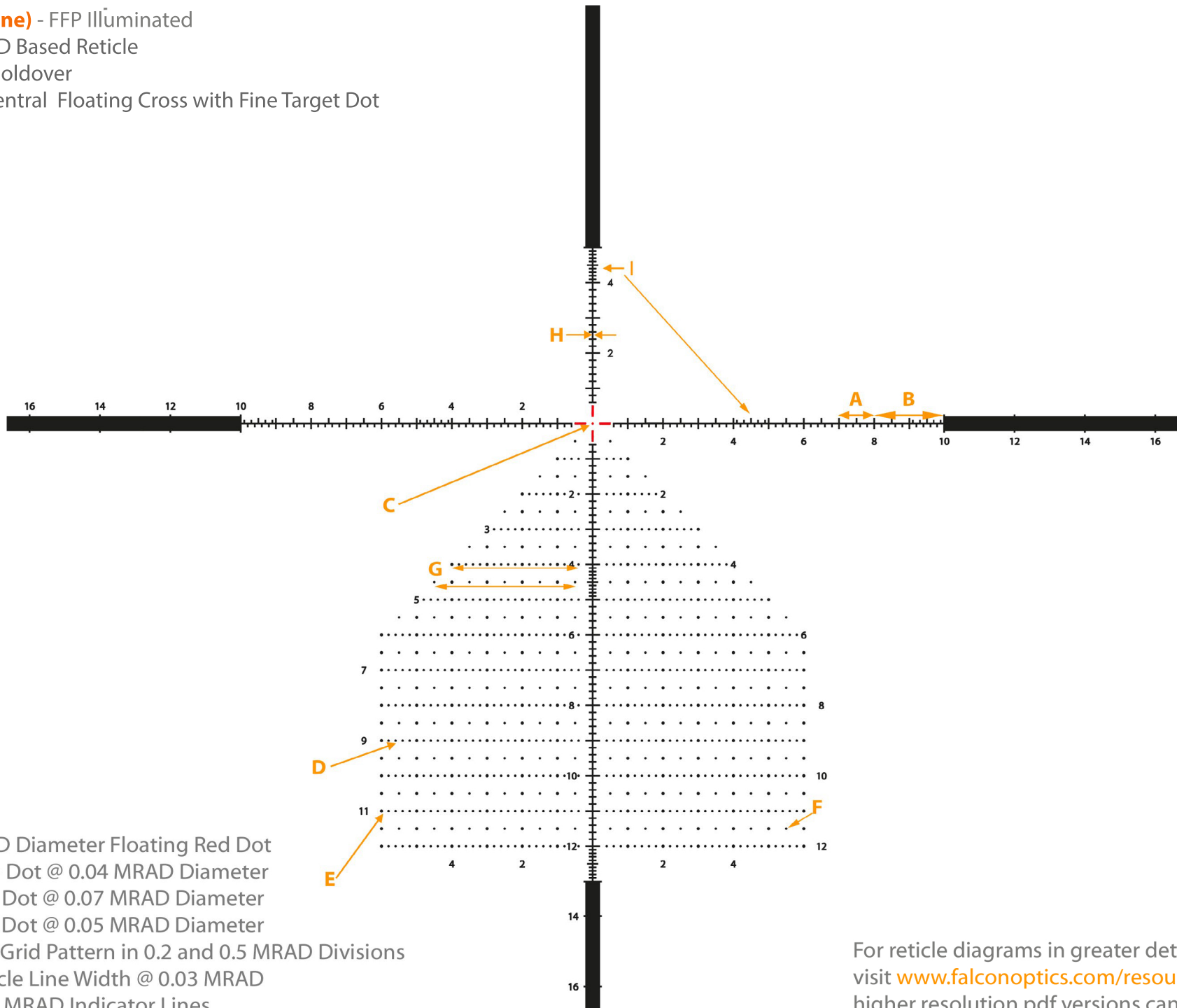
## Illuminated Reticle

- X40i Ultra ELR features a .2 Mil Grid Reticle. This illuminates red using dual LED emitters with 1-11 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 X40i Ultra ELR 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.
- X40i Ultra ELR features 11 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>11 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

X40i Ultra ELR 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.

### Illuminated Central Floating Cross with Fine Target Dot



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. Don't install rings too close to the scope saddle section.
- 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*

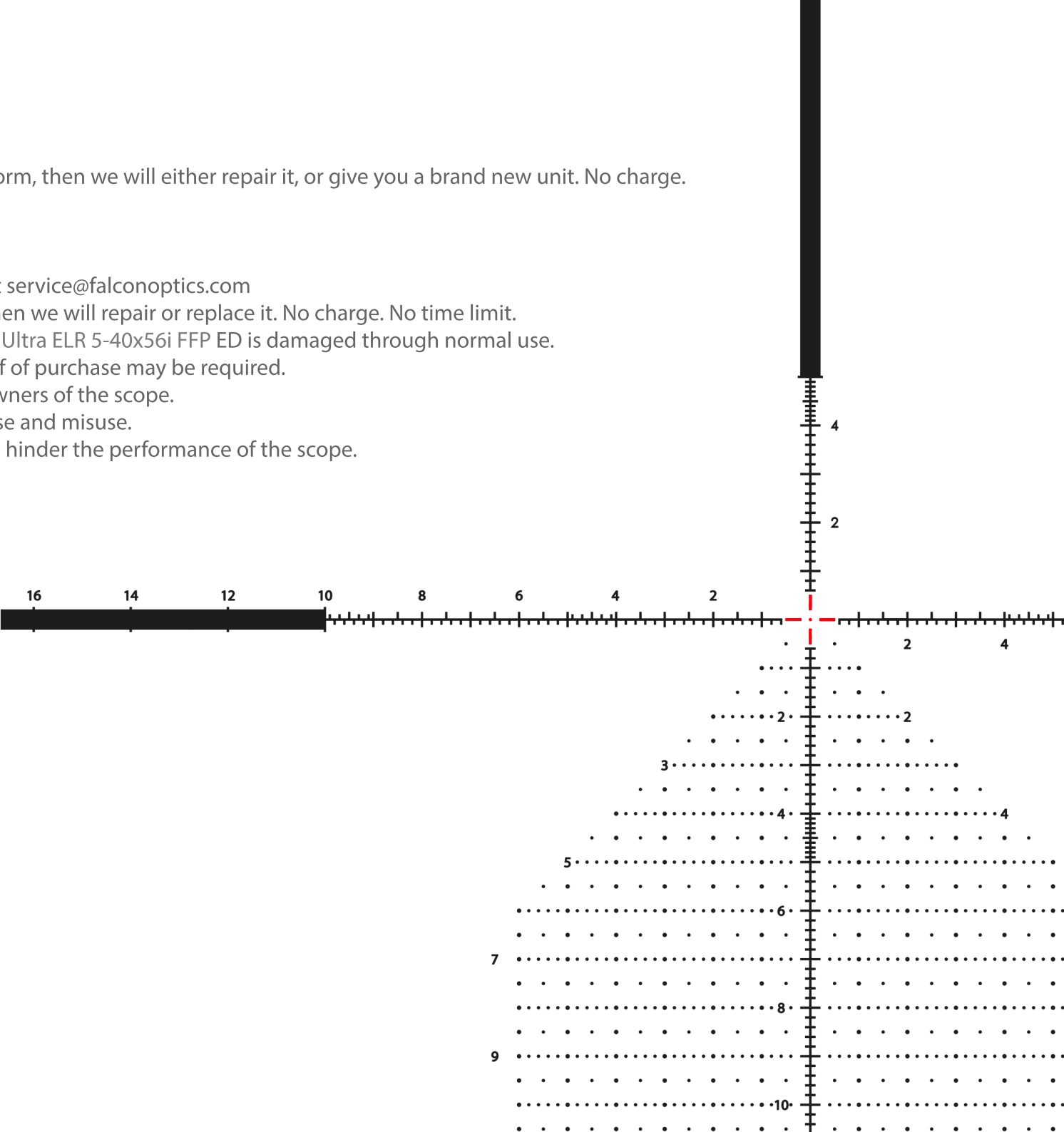
- Recent changes to zero and elevation/windage setting? Optical standard may suffer at the extremes of any scopes adjustment range.
- Check for changes to focus eyepiece setting and that parallax is being correctly dialled out.
- Head alignment consistent?
- Shooting in low sun? Use the sunshade.
- Check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

# Warranty & Service Commitment

If X40i Ultra ELR 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 X40i Ultra ELR 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.
- Excludes supplied accessories.



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