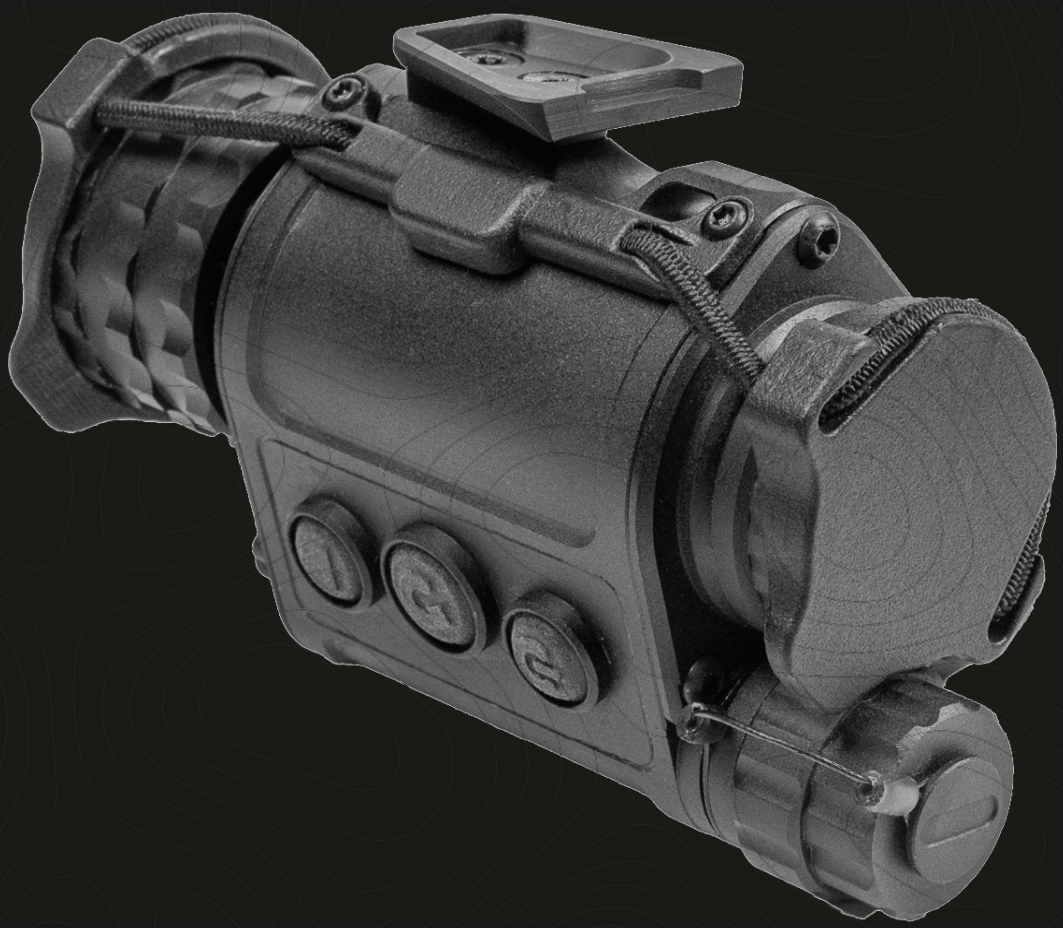
FC-T

THERMAL MONOCULAR

Handheld · Helmet · Clip-on · Standalone sight



FALCONCLAW

START HERE

The FC-T is a thermal monocular: it shows heat, not light. Handheld, on a helmet, in front of a day scope, or on a rifle as the sight.

1. NEVER POINT THE LENS AT THE SUN

Direct sun burns the thermal sensor permanently, even when the FC-T is switched off; high-power lasers do the same. Not covered by the warranty. Lens cap on whenever you are not looking through it.

2. DO NOT OPEN IT

Opening or modifying the housing breaks the IP67 seal and voids the warranty. Paint is fine; keep it off the infinity focus stop, the cap thread, the USB flap and the markings.

3. MOUNTING TO A FIREARM

Make sure the firearm is unloaded before you fit, remove or adjust the FC-T or a mount. Thermal sights are restricted in several countries: check your local law first (page 16).

AN AID, NOT A DECISION

Thermal shows heat shapes, not identity. Never make a shoot / no-shoot decision on the thermal picture alone, and never navigate by it alone. It does not see through glass or walls. Keep it and the cell away from children.

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NOTATION

POWER, **MENU**, **PHOTO** are the three buttons. Press = short press. Hold = keep the button down until something changes on screen. Menu items are written as they appear on screen.

01 IN THE BOX



- FC-T thermal monocular
- Hard transport case
- Lens cap
- User manual

Not included: the battery, one 18650 lithium-ion cell, 3.7 V (we recommend the Nitecore NL1834R), and the mounts (page 9).

02 QUICK START

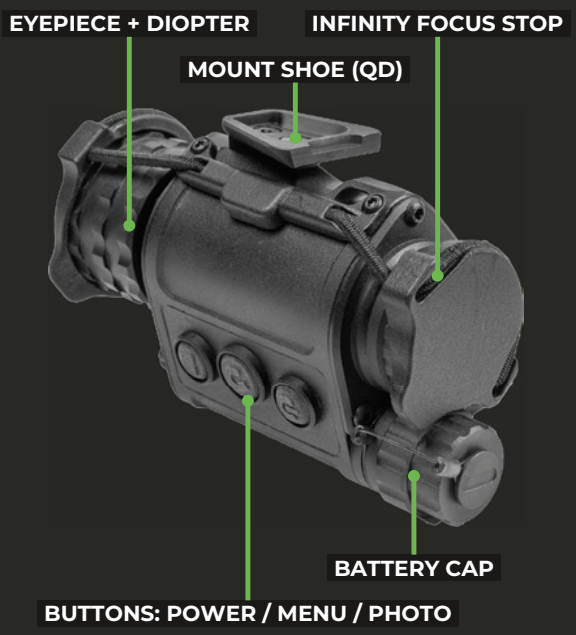
FIRST USE

1	Unscrew the battery cap (page 6). Insert the 18650 with its – end towards the – mark on the outside of the cap. Screw the cap on firmly.
2	Hold **POWER** until the screen lights up.
3	Turn the diopter ring on the eyepiece until the on-screen text is sharp. Set once.
4	Take the lens cap off, away from the sun. Push the focus lever to the stop: that is infinity. Back off a little for close objects.
5	**POWER** steps the zoom 1×, 2×, 4×. **MENU** opens the menu; palette under Polarity (White Hot, Black Hot, Red Hot), exit icon returns to the picture. Hold **POWER** to switch off.

SENSOR REFRESH (NUC)

Now and then the picture freezes for a moment with a click. That is Non-Uniformity Correction: the sensor recalibrates its pixels to remove grain, stripes and shading. Normal. Automatic refresh can be switched off, but the sensor still needs a calibration from time to time: Calibration in the Advanced Menu (page 10).

03 KNOW YOUR FC-T



Infinity focus stop	With a thumb lever. Turn to the stop and you are at infinity, by feel, even in complete darkness.
Diopter ring	On the eyepiece, −5 to +2.
Buttons	**POWER**, **MENU**, **PHOTO** (page 7).
Battery compartment	One 18650, 3.7 V only. DO NOT USE 2× CR123A. Cell size matters: length 71 ± 0.3 mm, diameter 18.5 ± 0.3 mm. A shorter cell loses contact under recoil and the FC-T switches off.
USB-C	Under a rubber flap. File transfer; external power from a power bank, not a charger.
Mount shoe	Built-in dovetail that is compatible with QDM, QDB, QDF (page 9). The zero stays with the FC-T when you take it off the QDF and put it on the QDB.
Water and dust	IP67: rain, snow, a short dip (2 m, 30 min) with cap and flap closed. Not for diving. Dry before opening the battery cap.

04 THE THREE BUTTONS

ON THE MAIN PICTURE

BUTTON	PRESS	HOLD
POWER	Zoom 1×, 2×, 4×	Off or standby
MENU	Open the menu	Change the working mode (page 8)
PHOTO	Photo	Start / stop video

INSIDE THE MENU

BUTTON	PRESS	HOLD
POWER	Move along the row	none
MENU	Select	none
PHOTO	Move along the row	none

SWITCHED OFF

BUTTON	PRESS	HOLD
POWER	none	Switch on

OFF OR STANDBY

Hold **POWER**: the FC-T offers off or standby. Use off for storage.

05 FOUR WAYS TO USE IT

One working mode per role. The zero is kept across modes.

Handheld	Observation. Reticle can be switched off.
Helmet	QDM J-arm alone, or QDB bridge with an FC-M night vision monocular on the other eye (Falconclaw MVS). Mounts: page 9.
Standalone	QDF flip-to-side mount on a Picatinny rail. The FC-T is the sight: reticle and zero (page 11).
Clip-on	In front of the day scope, which keeps its own reticle and zero (page 12).

CHANGE THE MODE

1. Hold **MENU** on the main picture.
2. The mode icon on the screen shows the active mode.
3. Or: Scene Mode in the main menu.





06 MOUNTS

Built-in QD shoe, no tools, zero stays with the FC-T. Mounts sold separately.

QDF	Rifle, Picatinny rail, flip-to-side.
QDB	Helmet bridge: FC-T on one side, FC-M on the other.
QDM	Helmet J-arm.
Clip-on mount	Matching mount for use in front of a day scope; collimated at the factory (page 12).



QDF QDB QDM

FIT AND CHECK

1. Make sure the firearm is unloaded and pointed in a safe direction.
2. Slide the shoe into the mount until it locks.
3. Pull once. If it moves, it is not locked.
4. After a mount change, confirm the zero with a group.

07 SCREEN AND MENU

The screen shows the working mode and palette, zoom, compass heading, battery and time, the reticle in Standalone mode (page 11), and pitch and tilt scales.

THE MENU

A row of icons at the bottom of the screen; the selected icon turns teal and shows its name. The gear icon opens the Advanced Menu.

1	**MENU** opens the menu.
2	**PHOTO** and **POWER** move along the row.
3	**MENU** selects. Inside a setting the same buttons change the value.
4	The exit icon at the end of the row returns to the picture.

Scene Mode	Handheld / Helmet / Standalone / Clip-on.
Color Palette	White / Black / Red / Color / Violet / Crimson / Viridian
Image Brightness, Image Contrast, Screen Brightness	1 to 10 each.
Reticle Settings	Page 11.
Advanced Menu	Opens the second row.

ADVANCED MENU

Recoil Activated Video	Records automatically on recoil.
Calibration	Manual sensor refresh, NUC (page 5). Run it when the picture is grainy or striped.
Zeroing	Page 11.
Compass, Compass Calibration	On / off. Calibrate outdoors, away from vehicles and steel.
Pixel Defect Correction	Hides dead pixels.
Formatting	Erases all photos and videos.

08 RETICLE AND ZEROING

Zeroing aligns the reticle with the point of impact. Standalone mode only; in Clip-on mode the day scope keeps its zero (page 12).

Reticle	On / off.
Type	8 styles.
Colour	Black, White, Red, Green.
Brightness	0 to 6.
Gun profile	A, B or C. Each keeps its own zero: one FC-T, three rifles.
Zeroing distance	100, 200 or 300 m, a separate zero for each.

ON A RIFLE

Firearm unloaded while you fit or adjust. Mind the eye relief: recoil can drive the eyepiece into your eye.

HOW TO ZERO

1. Standalone mode (page 8), QDF mount (page 9), rifle on a rest.
2. A target the FC-T can see as heat, for example a hand warmer behind a paper target, at 100 m.
3. Reticle Settings: choose the gun profile and the zeroing distance.
4. Fire a three-shot group at the centre.
5. Advanced Menu, Zeroing: move the reticle onto the group with **POWER** and **PHOTO**. Press = 1 pixel, hold = 10.
6. Save. Confirm with a second group.

09 CLIP-ON AND COLLIMATION

In Clip-on mode the day scope keeps its zero and reticle; the FC-T only puts the thermal picture on the day scope's line of sight. That alignment is the collimation. The FC-T is collimated at the factory: mount it and shoot. Rifles, handguards and mounts differ a little, so you can fine-tune it on the device, but only if point of aim and point of impact drift apart.

BEFORE YOU START

- The QDF and the day optic do not wobble; the FC-T sits securely in the QDF. Day scope zeroed without the FC-T.
- Rifle on a rest, heat target at 100 m.
- FC-T fitted in front of the scope, Clip-on mode (page 8).
- Diopter at zero, the white dot on the eyepiece (ocular lens), and focus at the infinity focus stop. The factory collimation was set there.

ADJUST

1	Aim with the day scope's reticle. Fire a three-shot group.
2	Note the offset, for example 8 cm low, 5 cm left.
3	On the main picture, hold **POWER** and **MENU** together until the X / Y adjustment opens.
4	**MENU** switches between X and Y.
5	Move the picture towards the group: **PHOTO** right / up, **POWER** left / down. Press = 1 pixel, hold = 10.
6	Save. Confirm with a second group.

AT THE LIMIT

The picture moves within a set range only. If you reach it, re-seat the mount and start again.

10 PHOTOS, VIDEO, USB AND CARE

PHOTO: photo. Hold **PHOTO**: video, no sound. Recoil Activated Video (Advanced Menu) records the shot by itself. 64 GB internal memory, playback on the device.

COPY FILES

1. Open the flap, connect USB-C to a computer. Port and plug dry.
2. Copy the files.
3. Close the flap.

POWER BANK

The USB-C port runs the FC-T from a power bank. The flap stays open: keep the device dry.

CARE

- Lens: lens cap after use, dry lens cloth only, no solvents.
- Housing: soft dry cloth.
- Cell out for transport, flights and long storage. Store in the case, dry.
- Before wet use: cap tight, flap closed.



11 TROUBLESHOOTING

Does not switch on	Hold **POWER**, do not press. Fresh 18650, right way round, cap tight (page 5).
Click and a short freeze	Normal: sensor refresh, NUC (page 5).
Grainy or striped picture	Calibration, Advanced Menu (page 10).
Blurred	Infinity focus stop. If the on-screen text is blurred too, diopter ring first.
Flat grey picture	Lens cap on, or no temperature difference in the scene.
Too dark or washed out	Image Brightness, Image Contrast, another palette (page 10).
Does not hold zero	Mount locked and tight (page 9)? Right gun profile and distance (page 11)?
Shots off in Clip-on mode	Re-seat the mount, then collimation (page 12).
Compass wrong	Compass Calibration outdoors, away from vehicles and steel (page 10).
Short runtime	Normal in cold. Fresh cell.
Switches off under recoil	Cell too short. Use a 71 mm × 18.5 mm 18650 (page 6).
Got wet	IP67 with cap and flap closed (page 6). Dry before opening.
Still stuck	contact@falconclaw.eu with your order number and a photo or video (page 16).

12 SPECIFICATIONS

Detector	640 × 480, 12 µm uncooled VOx, NETD ≤ 15 mK
Frame rate	60 Hz
Display	1440 × 1080 OLED, 0.71 in
Lens	25 mm f/1.0 germanium, manual focus with thumb lever and infinity stop
Field of view	17.2° × 13.7°
Magnification	1×, digital zoom 1× / 2× / 4×
Diopter	−5 to +2
Eye relief	15 to 42 mm
Palettes	White Hot, Black Hot, Red Hot
Recognition range	Standing person, open ground, clear air: 1180 m. Vehicle: about 1.6 km.
Gun profiles	3, zero stored at 100 / 200 / 300 m
Reticle	8 types, 4 colours, on / off
Battery	1 × 18650 Li-ion, 3.7 V, 71 ± 0.3 mm × 18.5 ± 0.3 mm
Runtime	Up to 6 h at 23 °C, less in cold
Recording	Photo and video without sound, recoil-activated, on-device playback, 64 GB
USB-C	File transfer and external power
Size and weight	117 × 44 × 76 mm, 286 g without battery and accessories
Housing	7075 aluminium, black anodised, made in Estonia
Water and dust	IP67, 2 m for 30 min
Temperature	−40 °C to +60 °C
Recoil	300 Win Mag / 7 mm Mag class
Interface	Built-in dovetail QD: QDM / QDB / QDF

13 WARRANTY, EXPORT, SUPPORT

WARRANTY

Two years against defects in materials and workmanship under normal use. Statutory consumer rights apply in addition. Not covered: sensor burn from the sun or another strong heat source, opening or modifying the housing, damage from a wrong or damaged cell, normal wear and cosmetic damage. Write to us before you send anything in; we repair or replace. 14-day returns on online orders.

WE SHIP TO

Freely inside the EU. To the UK, Norway, Switzerland, Iceland, Liechtenstein, Canada, Australia, New Zealand and Japan under the EU001 general export authorisation. Other countries need an export licence; ask us. Not to the United States.

TRAVELLING WITH YOUR FC-T

The FC-T is an export-controlled item. Taking it outside the EU, on a trip or for resale, is an export under your own country's law: get the authorisation from your national export authority first.

DISPOSAL

Electronics recycling (WEEE), not household waste. Tape the ends of a used cell.

MANUFACTURER

Falconclaw OÜ, Saarma tee 18, 75331 Uuesalu, Estonia · falconclaw.eu · contact@falconclaw.eu. CE: meets the applicable EU directives; declaration of conformity available on request.

SUPPORT

contact@falconclaw.eu or the chat on falconclaw.eu. Order number and what the screen shows. We answer on working days, normally within one.