Draft EAW – Fokus HD 50 User Manual

Content:

1. Attention and Precautions:

The proper usage of the device is important for safe exploitation! Therefore, read carefully the present manual!

If the device was left in storage for a longer period before exploitation check its functionality.

Disassembling of the device is prohibited, except in authorized repair centers.

The external optical surfaces should be always clean. Touching the optical surfaces with bare hands is not recommended.

Sand and sea water can damage the optical coatings!

Do not point the device directly at the sun!

Image performance is dependent on scenery and atmosphere conditions. Contrast in the same image may vary as a function of the time of day due to the effect of the sun. For example, at sunset objects will have absorbed different levels of heat resulting in greater temperature differences and better contrast.

When carrying or transporting the device, put the protective lens cap!

Condensation can cause fogging of the optical surfaces! Condensation occurs when the temperature or humidity changes as follows:
· When moving the device from cold to warm place or vice versa.
· In places with high humidity.
When equalizing the temperature of the device with the environmental, the condensation disappears. Use the towel to remove moisture.

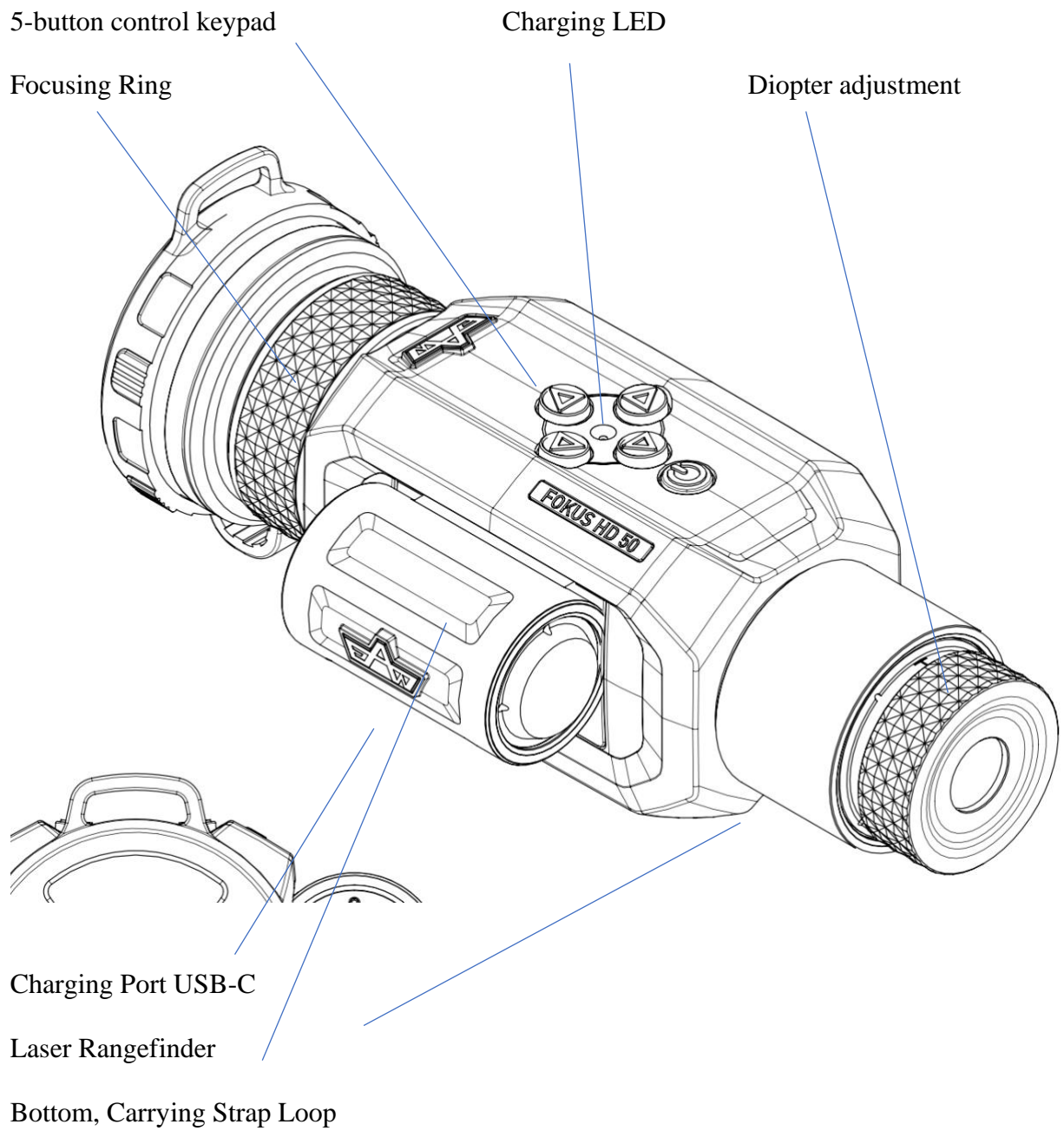Clean the lens surfaces with the Lens Cloth or with the napkin!

IMPORTANT NOTE:
The Rangefinder may only be mounted with the device turned off! If it is attached when turned on malfunctions may occur. Those can only be cured by the manufacturer.

LEGAL NOTICE:
Before attaching to weapons, check the regional legal regulations in the area of application.
The attachment to a weapon is always the sole responsibility of the user.

2. FUNCTIONAL ELEMENTS:

5-button control keypad

Charging LED

Diopter adjustment

Focusing Ring

FOKUS HD 50

Charging Port USB-C

Laser Rangefinder

Bottom, Carrying Strap Loop

3. Operation and Menu Control:

The thermal camera has 5 buttons for operation.
Each button has a short press (quick access) and a long press function.

Button:

On/Off: Power on / off   Standby on / off

Up: Enter / Exit Main Menu   Set Palettes

Right: Start / Stop Video Recording   Take Photo

Down: LRF Scan Mode   Single LRF Measurement

Left: Toggle Clip-on / Monocular   NUC
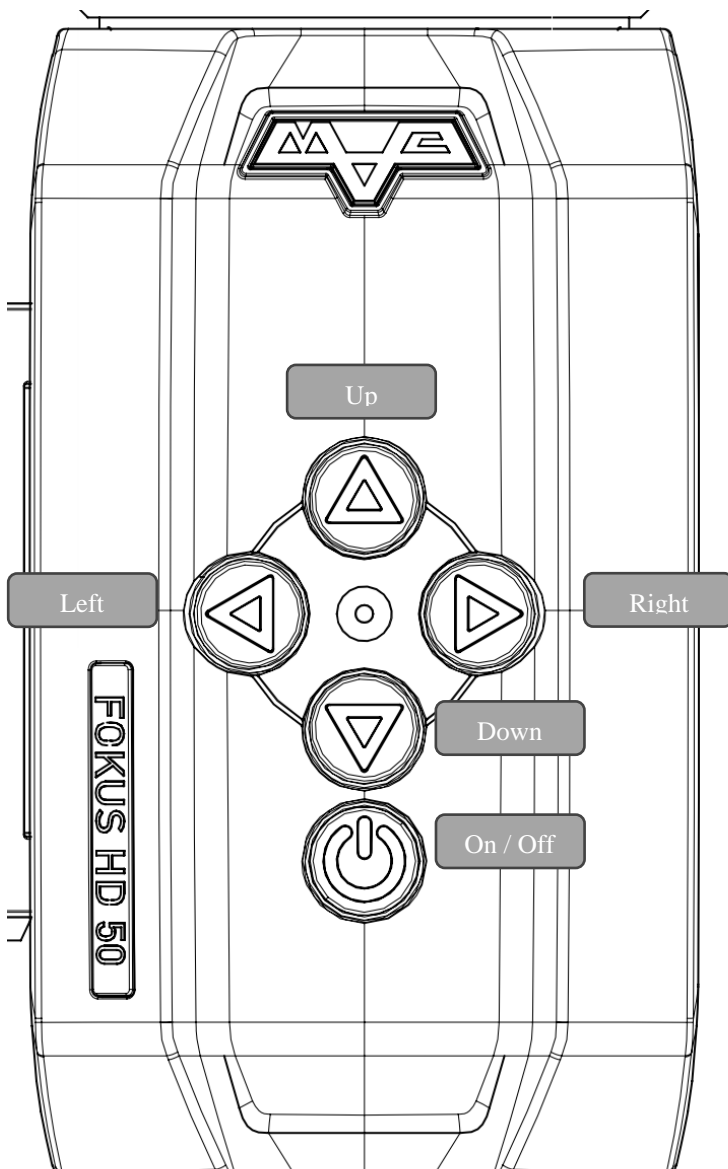
4. Multipurpose Use:

The thermal device offers a multiple use as Monocular, Clip-on for rifle scope and as a stand-alone thermal scope. Depending on software version and legal restrictions in the respective countries of use some of these functions may be not available or can be acquired through a software update.
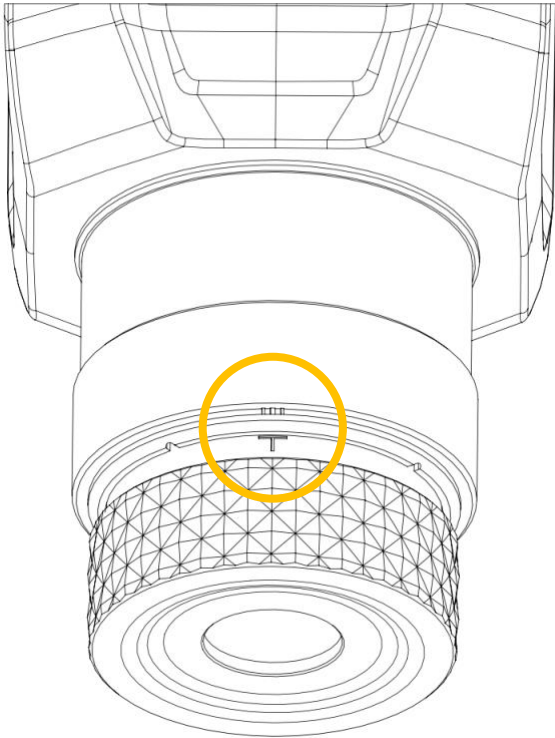
Monocular Mode:
In this mode the thermal image is displayed full screen. Please use the rubber eyecup attached to the eyepiece and set the diopter adjustment according to your needs.

Clip-on Mode:
For proper function in clip-on mode the eyepieces need to be set to 0 diopter and parallax free position. This position is marked on the eyepieces and rear housing. Make sure that the T marking coincides with the end of the housing and use the eyecup as shown in the picture for best image quality. Depending on your scope made and setting a small readjustment for best performance may be necessary.

After the basic eyepiece setting connect the M43x0,75 adapter to the thermal camera and use on your scope side the right size clamping adapter. The camera needs to be setup once for highest shooting accuracy by the menu function.
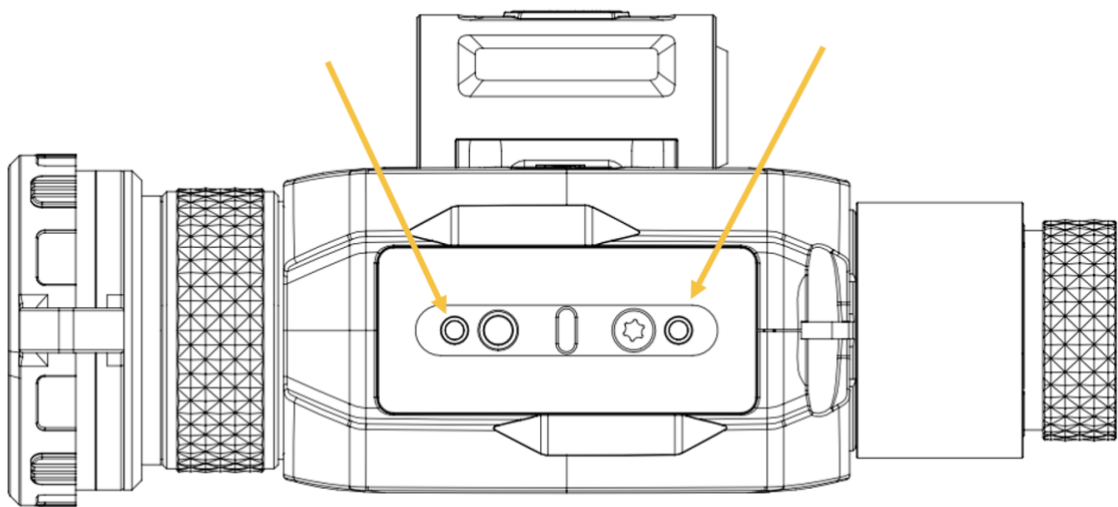
Best function is given with low power magnification scopes in the range of 1-x or 2-x times magnification.

Scope Mode:

The thermal camera has a interface for attaching a scope mount on the bottom. Best results will we achieved with a EAW mount.
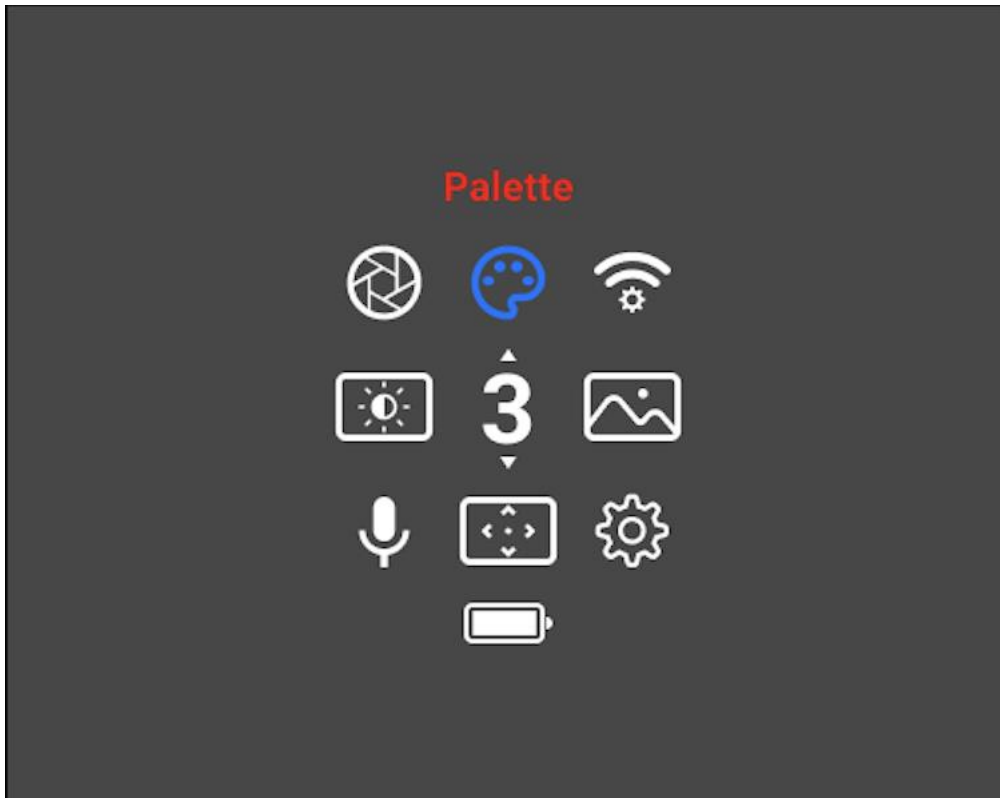In this mode a choice of reticles and zeroing options is available.

5. MONOCULAR and CLIP-ON MODE:

Menu and Icons:
Graphics Icon user interface with 5-button control
Toggle through settings with up/down and left/right
Highlighted value for adjustment in the center.

Menu and Functions:

BASIC SETTINGS

Long press Up button to enter **Main Menu**

Short press Right or Left button to move the cursor from 1 to 8 menu options.

1) Screen Brightness
2) Image Mode
3) Palette
4) WiFi
5) Slient Calibration
6) Advance Setting
7) Alignment
8) Auto NUC

Screen Brightness

Short press **Up/Down** button to change Screen Brightness from 1~5. When the brightness is adjusted to 5 or 1, change the setting according to the narrow points.

Image Mode

Short press **Up/Down** button to switch between Smooth mode and Enhance mode.

Palette

Short press **Up/Down** button to switch the Palette from WH-WW-BH-CG-GB-RB.

WH---WhiteHot BH---BlackHot GB---Glowbow

WW---WarmHot CG---ColdGreen RB---Rainbow

WiFi

Short press **Up/Down** button to turn on/off WiFi, the default status is WiFi off. With shown in display means WiFi is on, without shown in display means WiFi is Off.

Slient Calibration

Short press Up/Down button to do slient calibration, close the lens cover, complete after counting down 3-2-1

Auto NUC (Non Uniformity Correction)

Short press **Right/Left** button to move the cursor to Auto NUC. Short press **Up/Down** button to switch ON/OFF .

Note: Short press **Left** button in real-time image to do Non-uniformity calibration.

Start/Stop Video Recording

Long press **Right** button to start/stop video recording.

Take Photo/Video on-board

Short Press **Right** button to take a photo, number of photos will shown on bottom screen.

Long Press **Right** button to start/stop video recording, recording icon will be shown on screen.

Standby Mode

Short press **ON/OFF** button to enter/exit Standby mode. Long press **ON/OFF** button to Power on/off the device.

Advanced Settings

Short press Up/Down button to enter submenu of Advance Setting. Long press Up button to exit submenu of Advance Setting.

Defective Pixel Repair

Short press **Left/Right** button to move the cursor to Defective Pixel Repair, close lens cap and short press **Middle** button to start Defective Pixel Repair, complete after counting down 3-2-1.

Language

Short press **Left/Right** button to move the cursor to Language, short press **Up/Down** button to select Language, the default Language is English.
EN---English DE---German RU---Russian CZ---Czech ES---Spanish

Device Info

Short press **Left/Right** button to move the cursor to show Device Info. **Restore Factory Settings**

Short press **left/Right** button to move the cursor to Restore Factory Settings. Short press **Up/Down** to select Yes/No. Short press **Middle** button to set menu settings to default when selecting Yes.
The following settings will be restored to original values before changes made by user:

WiFi Status
Palette
Screen Brightness
Image Mode
Language
Calibration Mode

5.1.Laser Rangefinder

When under real time image mode, Short press **DOWN** Button to enter Single measurement mode. Aim to the target, then short press **DOWN** Button, the corresponding distance of target will appears on display.

When under real time image mode, Long press **DOWN** Button to enter/exit scan mode. Aim to the target, the corresponding distance of target will appears on display.

Distance to the object displays in status bar and a " " on reticle suggests the aiming point accordingly.

5.2.   Clip-On Alignment:

The devices adjusted with accuracy from 0.1 mrad to 0.3 mrad before shipping out. The final accuracy depends on user's rifle scope, parallax and shooting distance. So Artemis offers super accuracy by alignment.

```
X=-00.0cm/100m
Y=00.0cm/100m

↑

←          →

↓
Press mid to save & back

▬
```
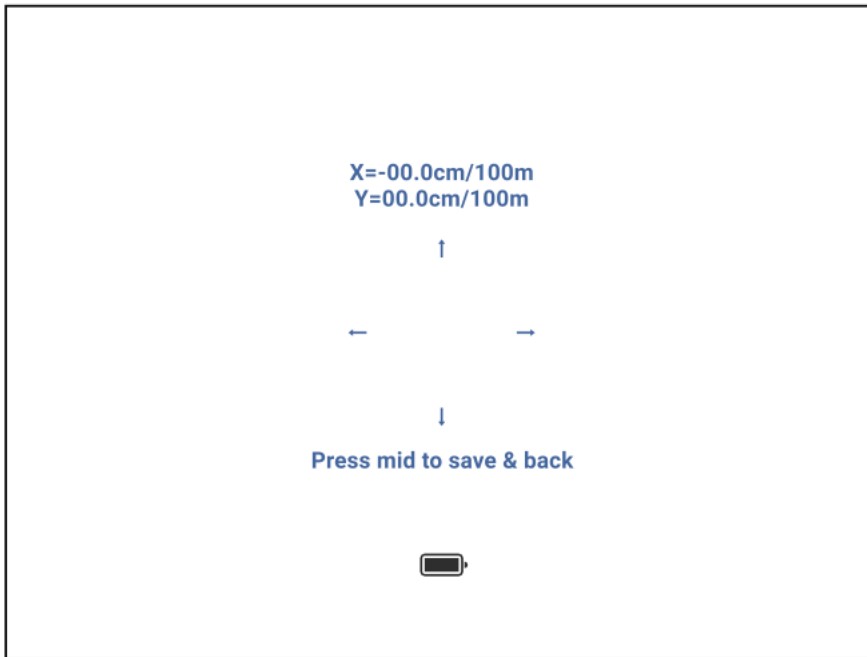
Operating Instructions for accuracy correction:

1) Aiming your daytime scope to the middle of target and shoot which is to test and control good daytime scope accuracy.

2) Clip Artemis onto the daytime scope by adapter. Aim to the thermal target and shoot again.
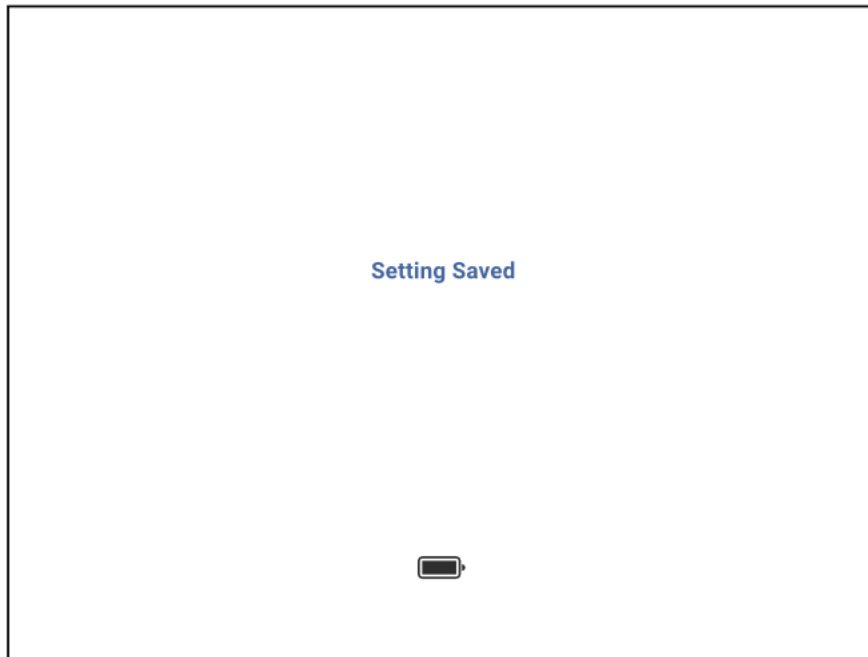
3) Measure horizontal distance x and vertical distance y between shooting position and target from step 2.

4) Short press **Up/Down** button to enter Alignment.

5) Short/long press **Up/Down** button to adjust the value of y, short/long press Left/Right to adjust the value of x.

Short press **Left** button, x=-2.4cm on 100m Long press **Left** button x=-24cm on 100m Short press **Right** button x=2.4cm on 100m Long press **Right** button x=24cm on 100m Short press **Up** button y=2.4cm on 100m Long press **Up** button y=24cm on 100m Short press **Down** button y=-2.4cm on 100m Long press **Down** button y=-24cm on 100m

6) Short press **Middle** button to save and back.

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6. SCOPE MODE

The Scope Mode offers some additional features besides the above-mentioned use as monocular and clip-on device.

Status Display:

The actual operating status of the sight,including:
Zeroing profile A/B/C/D/E Distance display
Display mode(A-B-C-D) Color palette Magnification
WIFI status
Battery capacity

Quick Menu:

R Mode

Reticle type

Short press **Down** Button to switch the Reticle type.

Rangefinder
Long Press **Down** Button to enter/exit Stadiametric rangefinder mode.

LRF Mode

Single measurement mode
Short press **Down** Button to enter Single measurement mode.

Scan mode
Long Press **Down** Button to enter/exit Scan mode.

NUC

Short press **Left** Button to do Non-Uniformity Calibration.

Media mode

Long press **Left** Button to enter/exit Media mode.

Magnification/PIP

Short press **Right** Button to switch Magnification,PIP.

WIFI

Long press **Right** Button to turn on/off WIFI.

Laser Rangefinder

When under real time image mode, Short press **Down** Button to enter Single measurement mode. Aim to the target, then short press **Down** Button, the corresponding distance of target will appears on display.

When under real time image mode, Long press **Down** Button to enter/exit scan mode. Aim to the target, the corresponding distance of target will appears on display.

Distance to the object displays in status bar and a " " on reticle suggests the aiming point accordingly.

6.1.   ZEROING:

Various profiles can be used when employing the sight on different rifles and when shooting different cartridges.Select one of the zeroing profiles(shown with letters A;B;C;D;E) with short press **Left/Right** button.

Zeroing

To zero your weapon , you need to set a zeroing distance first.

New distance

Press **Left/Right** Button and you will see A0000m , set the value for each digit with Press **Up/Down** Button,switch between the digits with a short press of **Left/Right** Button.
Press **Middle** Button to save the new distance.

Note: Max number of zeroing distances is 5 for each profile.

Distance

Press **Up/Down** Button to select the zeroing distance.

Zeroing parameters settings

Press **Left/Right** Button to zeroing parameters settings.

Windage /Elevation

Take a shoot, move **Up/Down/Left/Right** Button to make cross center of reticle at point of impact. X,Y will show the distance value you move.
Short press **Middle** Button to Save & Exit.

Magnification

Magnification allows you to use a digital zoom of the riflescope when zeroing, which reduces the minute of angle click for zeroing accuracy improving. Press Left/Right Button to change the magnification.

Freeze

The feature of the freeze function is that there is no need to constantly keep the riflescope at the point of aiming.

After shooting, the user needs to align the dividing center point with the center of the cross target, and then press **Left/Right** Button to freeze the infrared image of the current frame, as shown in the following figure.
Press **Left/Right** Button to unfreeze again to resume normal display of the infrared image.

When freezing the image,you can press **Up/Down** Button to adjust other options in the zero calibration.

Change primary distance

Press **Left/Right** Button to change primary distance.

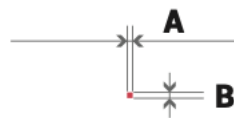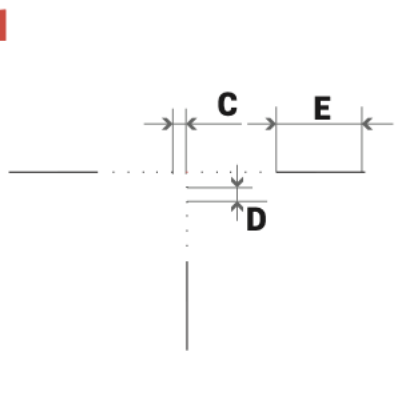**Delete distance**

Press **Left/Right** Button to delete distance.

When zeroing is finished, the hundred digits of the distance you set will be displayed on the reticle.
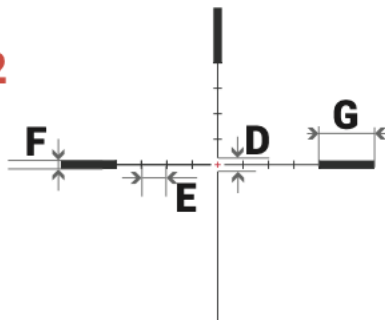
6.2. RETCILE SETTINGS

Reticle type

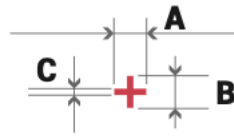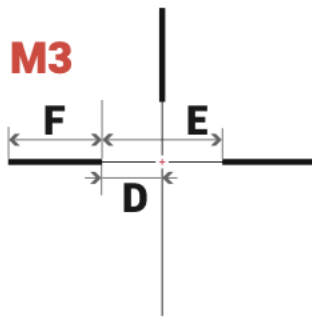Press **Left/Right** Button to select the reticle type.

Reticle	MOA/cm@100m			
parameters	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	0.88/2.54	0.62/1.8	1.572/4.572	1.1/3.198
Section B	0.88/2.54	0.62/1.8	1.572/4.572	1.1/3.198
Section C	4.4/1.27	3.1/9	7.86/22.86	5.5/15.99
Section D	4.4/1.27	3.1/9	7.86/22.86	5.5/15.99
Section E	28.6/82.55	20.15/58.5	51.09/148.59	35.75/103.935

Reticle	MOA/cm@100m			
parameters	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	2.64/7.62	1.86/5.4	4.716/13.716	3.3/9.594
Section B	2.64/7.62	1.86/5.4	4.716/13.716	3.3/9.594
Section C	0.88/2.54	0.62/1.8	1.578/4.572	1.1/3.198
Section D	7.04/20.32	4.96/14.4	12.576/36.576	8.8/25.584
Section E	8.8/25.4	6.2/18	15.72/45.72	11/31.98
Section F	3.52/10.16	2.48/7.2	6.288/18.288	4.4/12.792
Section G	20.24/58.42	14.26/41.4	36.156/105.156	25.3/73.554

M3

Reticle	MOA/cm@100m			
parameters	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	2.64/7.62	1.86/5.4	4.716/13.716	3.3/9.594
Section B	2.64/7.62	1.86/5.4	4.716/13.716	3.3/9.594
Section C	0.88/2.54	0.62/1.8	1.572/4.572	1.1/3.198
Section D	21.56/62.23	15.19/44.1	38.514/112.014	26.95/78.351
Section E	44/127	31/90	78.6/228.6	55/159.9
Section F	35.2/101.6	24.8/72	62.88/182.88	44/127.92
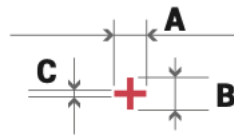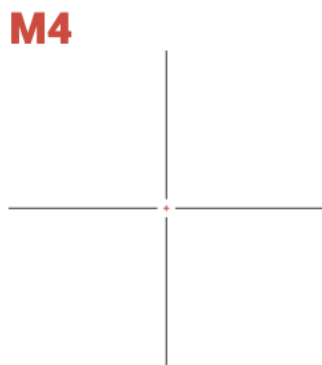
M4

Reticle	MOA/cm@100m			
parameters	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	2.64/7.62	1.86/5.4	4.716/13.716	3.3/9.594
Section B	2.64/7.62	1.86/5.4	4.716/13.716	3.3/9.594
Section C	0.88/2.54	0.62/1.8	1.572/4.572	1.1/3.198

M5
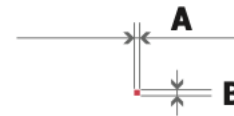
Reticle	MOA/cm@100m			
parameters	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	0.88/2.54	0.62/1.8	1.572/4.572	1.1/3.198
Section B	0.88/2.54	0.62/1.8	1.572/4.572	1.1/3.198

Reticle Colour

Press **Left/Right** Button to select the desired reticle colour: black, white,red and green.

System Settings:

Unit

Press **Left/Right** Button to select units of measurement from Yards and Meters.

Language

Press **Left/Right** Button to select language and press **Middle** Button to save.

Restore Default Setting

Press **Left/Right** Button to Restore Default Setting. (All parameter settings are restored to default values)

GENERAL INFORMATION:

Power supply / Firmware update

The charging port is for 5V Type-C USB, serves for external power supply, data transmission and firmware update.

Transport and Storage:

Before storing it, clean obligatory the device
(if on its surface there are moisture, dust or traces of dirt)!

Make sure that there are no traces of moisture, and the battery compartment is empty!

It is also possible for a short periods of time device to be stored in a suitable soft pack, bag or cartridge box.

The premises in which the device is kept for long term have to be dry, enclosed, unheated and ventilated.

During the storage should not be allowed exposure to aggressive environments, temperatures below -50°C and above +60°C, relative humidity greater than 80%, and prolonged periods of direct sunlight.

Before each transportation, the product should be neatly packed in its original packaging (transport bag) and all other items and accessories should be carefully and steadily placed in the bag. After that the bag should be steadily placed in the transport suitcase.

You can ship the product with all types of transport at different distances and at altitude up to 12000 m.

Status Icons:

The status icons are respectively located at the top and bottom of the display and show information on the actual operating status of the device, including:
Battery capacity WiFi status
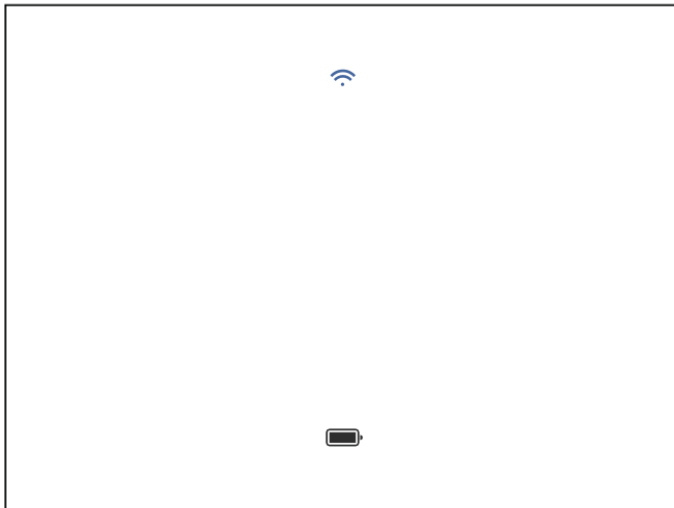
Quick Menu:

The Quick menu allows change of basic settings.

Palette

Short press **Up** button to switch palette.

WH---WhiteHot BH---BlackHot GB---Glowbow

WW---WarmHot CG---ColdGreen RB---Rainbow

Long Press **Up** Button to enter/exit Main menu.

Screen Brightness

Short press **Down** button to switch brightness from 1 to 5.

Image Mode

Long press **Down** button to switch between Smooth mode and Enhance mode.

NUC

Short press **Left** button to do Manual Non-uniformity calibration.

Take Photo

Short press **Right** button to take a photo.

Start/Stop Video Recording

Long press **Right** button to start/stop video recording.

Standby Mode

Short press **ON/OFF** button to enter/exit Standby mode. Long press **ON/OFF** button to Power on/off the device.

Take Photo/Video on-board

Short Press **Right** button to take a photo, number of photos will shown on bottom screen.

Long Press **Right** button to start/stop video recording, recording icon will be shown on screen.

TECHNICAL DATASHEET

TBD