

W WÜLF

NIGHT VISION REAR SCOPE ADD ON
& IR ILLUMINATOR MANUAL

RESEARCH | DEVELOPMENT | PRECISION

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ABOUT YOUR ADD ON

The WULF Night Vision Rear Scope Add On has been designed to allow you to shoot in low light conditions or in complete darkness. This device can display a high quality, full colour image during daylight hours and will provide a black or white image during night use with an IR Illuminator.

The Add On gives you the opportunity to record high quality images and video with the supplied 32GB memory card, allowing you to review and evaluate your performance.



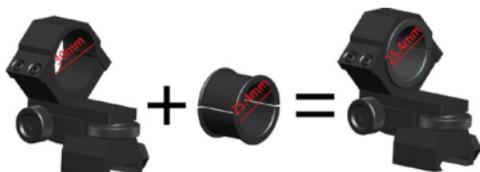
SPECIFICATION

	Function Description
Optical Performance	Ocular Magnification: 1.7X Objective Aperture: 18mm F# for Objective Lens: 1.2 Viewing Range: 20° Focusing: 3m - ∞
EVF	LCoS 1280x960 Resolution Angle Of View: 34° Exit Pupil Distance: 25mm Diameter: 22mm
Imager	Multiple exposure fusing HDR Image High-sensitivity NIR CMOS Sensor Size 1/1.8" Resolution : 1920X1080
TF Card	Support SDHC 4GB-128GB TF Card
Hardware Buttons	Power On/Off Snap Mode selection UP/IRCU DOWN
Operation	Preview Capture JPEG file in TF storage Record MP4 file in TF storage Playback media file from TF storage

Power	External Power Supply - DC 5V/2A 1x 18650 Lithium Battery 3.6-4.2 V Sustain 3 Hours Battery Power Consumption Low Battery Warning
System	OSD Menu Display 4 Modes (Capture, Video, Playback Menu) Single Frame Image Capture Video Image Record Playback Image Delete Image TF Card Format Power Save (Off / 1 min / 3min / 5 min) Language: English / German / Swedish / Spanish / Danish / French / Italian System Reset Light Freq. 50/60HZ RTC Setting Version
Size	120*87*63mm (without eye protector)
Weight	400g (without battery)
Adapter Mount	≤45mm
Ingress Protection	IPX-4K
What's in the Box	USB Cable / TF Card/ IR Torch-850 / Charger / Picatinny Adapter / Shim / Bag / Instruction Manual

WHAT'S IN THE BOX

- WULF Night Vision Rear Scope Add On
- WULF 850 IR Illuminator
- WULF Adjustable Torch Mount
(To fit 30mm and 1 inch tube sizes)



- Eyepiece Adaptor Collars
(to fit 45mm & 42mm eyepieces)

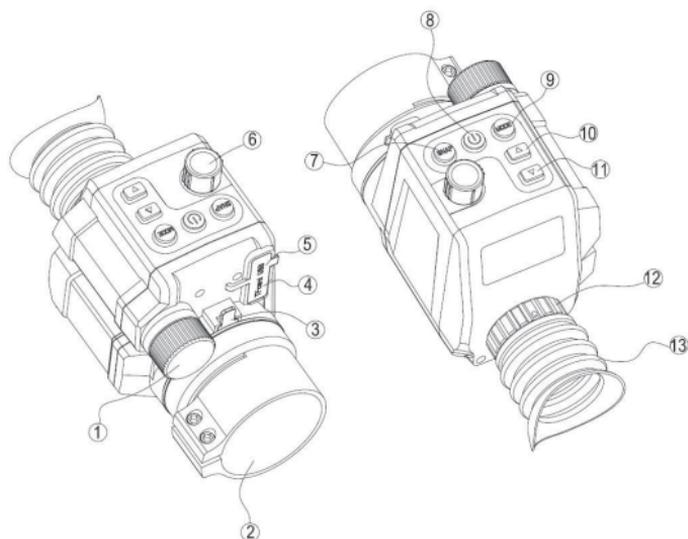


- Eyepiece adaptor collar inserts (thickness: 0.8, 1.2, 1.6, 2mm)



- Rechargeable 18650 Battery with Battery Pip
- Battery Charger
- Allen Key
- 32GB Memory Card
- USB Cable
- Instruction Manual

OVERVIEW



1. Battery compartment cover
2. Eyepiece adaptor collar
3. Quick release lever
4. Memory card slot
5. Micro USB port
6. Focus adjustment
7. Snap to Photo / Video record

8. Power button
9. Mode button
10. Day / Night mode (+ Menu Up button)
11. Menu Down button
12. Diopter adjustment
13. Rubber eye-cup

BATTERY INSTALLATION

Open battery compartment by unscrewing the battery compartment cover and install a 18650 battery being sure to follow the polarity markings inside.

Replace the battery compartment cover by screwing it back into place.

INSERTING & REMOVING THE MEMORY CARD

Remove the rubber cover to expose the memory card port.

Insert the memory card into the port and push until it locks in place.

To remove the memory card, push the memory card inward and it will pop out allowing you to remove it fully.

Storage capacity of 8GB or above is recommended.

INSTRUCTIONS FOR USE

Power On: Press and hold the power button for 2 seconds to turn on the device.

Power Off: Press the power button to the right side for 2 seconds to turn off the device.

Preview Mode: Press the **[MODE]** button and select the preview mode. The icon  will show in the top left corner of the screen.

Please Note: Preview mode will not allow recording of images or video but allows you to use full function of the device.

Taking Pictures: Press the **[MODE]** button and select the image capture mode. The icon  will show in the top left corner of the screen. Press the **[SNAP]** button to record images.

Video Recording: Press the **[MODE]** button and select the video mode. The  will be displayed in the top left corner of the screen. Press the **[SNAP]** button to start recording video and press the **[SNAP]** button again to stop recording.

INSTRUCTIONS FOR USE

Play back the Stored Videos and Photos: Press the **[MODE]** button multiple times and select album mode.

Deleting Stored Videos and Photos: Under the album mode, press the **[SNAP]** button. You will be given the option to play or delete the image and video. Use the Up and Down accordingly.

FOCUSING THE IMAGE

Use the dioptre adjustment to achieve a clear view of the menu / icons on the screen, this process adjusts and optimizes the screen for your eye. You must then focus the device to the specific scope you intend to use.

Whilst looking through the scope, use the focus adjustment to achieve a sharp view of your Rifle Scopes crosshair. You can then use the parallax/side focus adjustment built into the scope to get a clear image at the distance you are targeting – as you normally would

KEY FUNCTIONS

[Mode]:

- Toggles among the recording modes; Preview / Photo / Video / Album / Setting.
- In album mode: Return to previous menu.
- In setting mode: Return to previous menu.

[SNAP]:

- In Video Mode: Press to take video. Press the button again to stop recording.
- In Photograph Mode: Press to take photo.
- In Album Mode: Press to Play or delete the image/video.
- In Setting Mode: Press to select.

[DAY/NIGHT]:

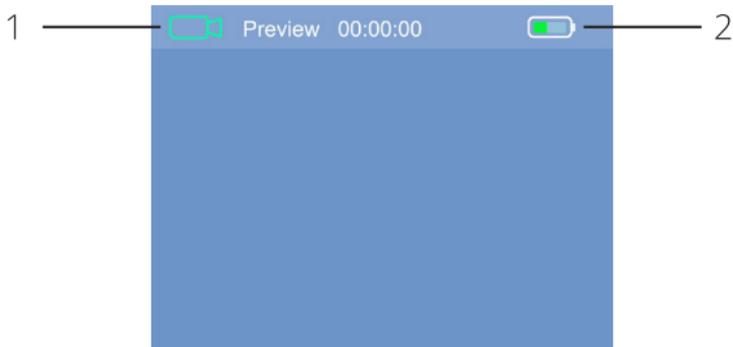
- In Preview Mode: Press to switch between day and night mode.
- In Video Mode: Press to switch between day and night mode.
- In Photograph Mode: Press to switch between day and night mode.
- In Album Mode: Press to select the previous picture or video.
- In Menu Mode: Press to select the previous menu listing.

[DOWN]:

- In Album Mode: Press to select the next photo or video.
- In Setting Mode: Press to select the next setting listing.

LCD DISPLAY INFORMATION

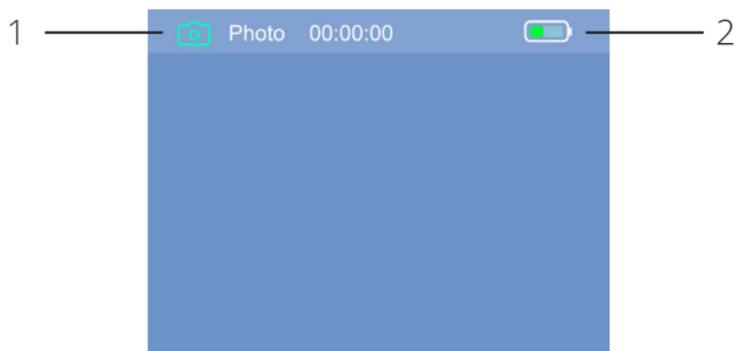
Screen display in Preview Mode



1: Icon displaying that you are in Preview Mode

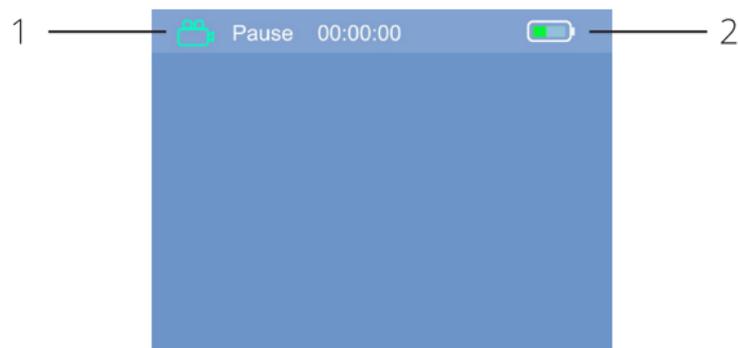
2: Battery power

Screen display in Photo Mode



- 1: Icon displaying that you are in Photo Mode
- 2: Battery power

Screen display in Video Mode



- 1: Icon displaying that you are in Video Mode
- 2: Battery power

LCD DISPLAY INFORMATION

Screen display in Album Mode

Album
norm
photo

Norm: Contains your video files.

Photo: Contains your images.

Screen display in Settings

Settings	Settings	Settings
Cam Attr >	Set Time >	SD Upgrade >
Media >	Language en >	Reset System >
Screen Dormant OFF >	Format SD >	About >

Cam Attr:

WDR - On / Off | Antiflicker Mode - None / 50 / 60

Media:

Segment recording settings

Split Time - 5 / 15 / 30 Mins

Screen Dormant: Off / 1 Min / 3 Min

Screen Dormant mode: The device can be set to automatically shut down the screen when not operating after the selected period of time.

Press any key to restart.

Language:

Select language.

Set Time:

Snap: + | Mode: -

Up: Next | Down: Previous

Format SD:

Select to format the memory card and press confirm.

Firmware Upgrade:

Press confirm to upgrade.

For more information, please see the below firmware upgrade instructions.

Reset system:

Select to complete a factory reset.

About:

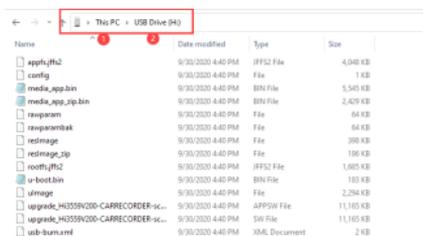
The software version of the device.

FIRMWARE UPGRADE INSTRUCTION

Step 1: Preparation - Micro USB cable, TF (SD) card C10+ (File system: FAT32, Cluster size 32kb)



Step 2: Unzip the Upgrade Firmware, copy all files and paste directly to the TF (SD) card.

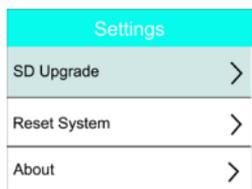


Step 3: Plug in the TF (SD) card to the device.



Step 4: Plug the Micro USB A Male to DC-5V power and Plug the Micro USB Male to the device (18650 Li-ion battery is also available) then turn on the device.

Step 5: Click the “MODE” button to select the “Settings”. Push Down button to SD Upgrade (Figure C), Click the “SNAP” to the upgrade notice (Figure D) then select “Confirm” by clicking “SNAP”.



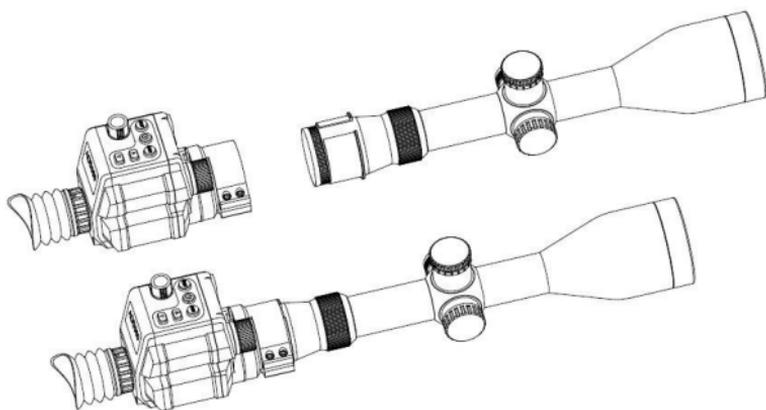
Step 6: After uploading, the device will reboot system automatically and show “Upgrade success”.

ATTACHING THE DEVICE TO YOUR SCOPE

Slide the shim onto the ocular of scope then slide the eyepiece adaptor collar over the shim onto the ocular of the scope.

With the unit powered on, check that the reticle is upright when viewed on the screen of the add on device. After you have checked the alignment of the scope, tighten the 2 Allen screws to secure the eyepiece adaptor onto the scope.

Once this is done, the device can be removed with the quick release lever on the WULF Night Vision Rear Scope Add On and the adaptor collar can remain on the scope.



REMOVING THE DEVICE AFTER FITTING

Push the quick release lever back on the front of the device then turn the device clockwise for 45° to remove the device from the adaptor.

When the adaptor is correctly fitted to the scope you can use the above technique to remove the device and leave the eyepiece collar adaptor attached to the scope.

CHOOSING ADAPTOR & SHIM(S)

Tube diameter of scope	Adaptor	Shim (thickness)
45.4-44.1	45mm	N/A
44-43.4	45mm	0.8mm
43.3-42.6	45mm	1.2mm
42.5-41.8	45mm	1.6mm
41.7-41	45mm	2mm
41-40.4	42mm	0.8mm
40.3-39.6	42mm	1.2mm
39.5-38.8	42mm	1.6mm

ABOUT YOUR IR ILLUMINATOR



The WULF IR Illuminator is NOT a normal torch. The wavelength of light output from the Illuminator is not visible to the naked eye.

PLEASE NOTE: Although the light is invisible - the light output from this device is very bright, you should not stare into the beam. The light beam is designed to be detected by Night Vision scopes, you won't see any light with your eyes (only a small and faint red glow on the LED to show you that the torch is on). Please use the status indicator LED on the back of the Illuminator to determine if the torch is switched on or off. The WULF IR Illuminator emits infrared light with 850nm wavelength - suitable to use with a Night Vision scope.

Adjustable beam angle (Spot to flood): 2.6°- 5.2°

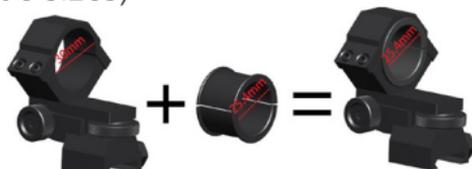


SPECIFICATION

	Function Description
Projection Angle	2.6° - 5.2°
IR	IR Power 2w - 5w IR Wave Length 850nm IR Projection Distance 500m @ 5w 2.6°
Power	1x 18650 Lithium Battery 3.6 - 4.2 V Sustain 1.5 hours @ 5w Battery Power Consumption
Size	118*56*85mm
Weight	415g (without battery)
Ingress Protection	IPX-4K

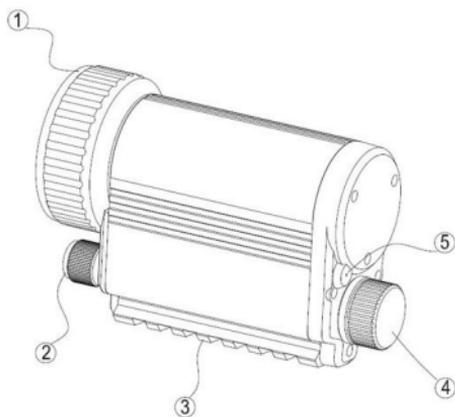
WHAT'S IN THE BOX

- WULF IR Illuminator
- WULF Adjustable Torch mount (To fit 30mm and 1inch tube sizes)



- Allen Key
- Rechargeable battery
- User manual

OVERVIEW



1. Beam angle adjustment ring (Spot to flood)
2. Power on/off
3. Picatinny rail
4. Battery compartment cover
5. Status indicator

BATTERY INSTALLATION

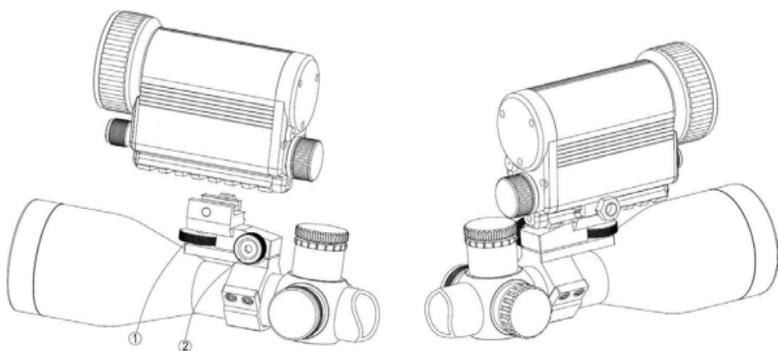
Unscrew and remove battery compartment cover and install one 18650 battery being sure to follow the polarity markings inside the battery compartment. Then firmly screw the battery compartment back in until the battery is held securely.

INSTRUCTIONS FOR USE

Please follow the diagram below to install the WULF IR Illuminator. Start by attaching the adjustable mount to the tube of your scope (use the 25mm adaptor if required for your scope tube) then secure the Illuminator to the mount with the picatinny interface on the bottom of the Illuminator.

The mount allows you to adjust the direction of the beam to ensure that it is perfectly aligned with your scope. When the torch is securely attached to your scope, you can activate the Illuminator by turning the power knob. When you hear the “click” sound, the WULF Illuminator has powered on. (The status indicator led will also be on). If you keep turning the knob, the intensity of the IR beam will get stronger.

The WULF Illuminator is equipped with the zoom function allowing you to adjust the beam from 2.6° to 5.2° according to your preferred style of shooting. A tighter beam will project further and allow you to see further. A wider beam will improve your field of view at close range. This allows you to spot or flood your target.



1. UP/DOWN adjustment
2. LEFT/RIGHT adjustment

ADJUSTABLE TORCH MOUNT

To use the adjustable torch mount you have two wheels which allow you to move the windage and elevation of the IR torch. The horizontal wheel adjusts the elevation of the torch and the vertical wheel adjusts the windage of the torch.

This allows you to confidently and accurately line up the IR with your Rifle Scope and achieve maximum use out of the WULF Night Vision Rear Scope Add On.



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