

SIGHT MARK[®]

USER MANUAL



WRAITH 4K MINI
2-16x28
(SM18041)

ABOUT SIGHTMARK®

While Sightmark's MAKE YOUR MARK tagline perfectly illustrates our mission to provide uncompromising accuracy in virtually any environment, to us, those three words mean quite a bit more.

MAKE YOUR MARK represents our commitment; first, to those who serve; second, to our Constitutional right to bear arms, the right ensuring all others remain intact; and finally, every single professional and recreational shooting enthusiast embracing and sharing our Pro-2nd Amendment lifestyle.

MAKE YOUR MARK also symbolizes our desire to build more than a brand people know they can trust. It represents our higher calling to build an honorable, unapologetic legacy, truly appreciative of the fabric of a free society to pass on to future generations. Only accomplishing the latter truly embodies the gravity of what MAKE YOUR MARK means to us.

In the spirit of gratitude for those who preserve freedom as we know it to be, MAKE YOUR MARK is a call to action. One we take seriously when it comes to developing products worthy of our brand... and our lifetime warranty. The same brand countless professionals rely upon for performance in the best... and most assuredly, worst of times.



WRAITH 4K MINI

The Wraith 4K Mini 2-16x32 Digital Rifle scope combines Sightmark's rugged quality with ultramodern technology to deliver the finest day/night rifle scope known to the firearms industry. Boasting an incredible 4K (3840x2160) CMOS sensor, the Wraith 4K Mini detects objects up to 300 yards in the darkest of nights and displays them on a flawless 1280x720 FLCOS screen.

Over 20% more compact and lighter than the original Wraith 4K, the Wraith 4K Mini possesses some serious capabilities. Its built-in recorder takes AVI videos with audio in 1080p and/or 4K resolution, ensuring every shooting memory is captured and preserved in incredible detail. With first focal-plane reticle options and 8x digital zoom, the Wraith 4K Mini enables shooters to locate their targets with speed and precision. Its included LED IR illuminator emits an 850nm beam to help maximize positive target identification.

Supremely durable, the Wraith 4K Mini is a solid aluminum scope that operates in temperatures ranging from 32F to 140F (0 to 60C). It is shockproof for drops up to 3ft, can withstand a maximum caliber of .308 and features IPX6 water resistance, providing protection from heavy rain or snowfall.

FEATURES:

- 4K Digital Imaging
- 2-16x magnification, 8x digital zoom
- 300-yard night detection range
- Night vision mode
- Daytime color mode
- Built-in video recording with audio capabilities
- 14 reticle options with 9 colors
- Built-in 4K video recording

DIAGRAM

1. Objective lens
2. Eyepiece (diopter adjustment)
3. Controls
4. Focus adjustment
5. IR flashlight mount
6. IR button and battery cap
7. IR focus adjustment
8. Card slot
9. USB port
10. Battery compartment
11. Throw lever
12. Rubber Eye cup



BATTERIES

This unit uses 2 CR123A batteries. To change the batteries:

1. Press the battery door release button.
2. Insert batteries in to slots in orientation indicated.
3. Press battery cap closed until strong snap
4. Confirm latch fully engaged



EXTERNAL POWER

This unit is equipped with a USB C port for external power. The USB port is located under the rubber cover on the side of the unit.

MICRO MEMORY CARD

This unit is equipped with a Micro memory card slot used for recording. The card slot is located under the rubber cover on the side of the unit.



MOUNTING

The unit is fitted with a Picatinny mount.

To attach:

1. Loosen the mount thumbscrews.
2. Place mount on to Picatinny rail, aligning the bolts with the Picatinny rail slots. Check eye relief and adjust to the proper position.
3. Tighten thumbscrew to 20-25 inch pounds.



DIOPTER ADJUSTMENT

To adjust diopter:

1. Locate the diopter adjustment (#2 in diagram on pg 3.)
2. Turn the adjustment left or right until the display becomes focused. Use icons or numbers on the display to check screen focus as the actual image through the viewfinder may need to be focused as well.










FOCUS ADJUSTMENT

To adjust diopter:

1. Locate the focus adjustment (#4 in diagram.)
2. Turn the adjustment left or right until the image becomes focused.












VIEW FINDER

1. Weapon Profile Display     
2. Magnification 1X 2X 3X 4X 5X 6X 7X 8X
3. Date
4. Time
5. Memory Card Status 
- (no image if card is inserted and not full)
6. Day/night Mode
7. Battery Status 
8. Reticle



CONTROLS

-  **DIGITAL ZOOM**- Use the up and down arrows to adjust the magnification. This unit has a digital magnification range up to 8x.
-  **STADIAMETRIC RANGEFINDER**- To activate stadiametric rangefinding, adjust zoom to the lowest level and press down one more time. Stadiametric rangefinding mode is now activated.
- 
 Use the up and down buttons to adjust the crossbars to match the top of the target's body and the bottom of its feet, and then press the center button to display the estimated range.
-  Press the right button to change target animal between hog, coyote, deer or custom.
-  Press left to exit.
-  **DAY/NIGHT/NIGHT CUSTOM MODE**- Use the left button to toggle between day, night, and Night Custom.
-  **MENU/POWER**- To power on the unit, hold the power button until the unit turns on. To turn it off, hold until the display shuts off. To access the menu, click the button and the menu will open.
-  **RECORD/PHOTO**- Use the right button to start/ stop recording or take a photo.

USING THE IR ILLUMINATOR

- Adjusting the IR illuminator-
 - To adjust the angle of the IR illuminator:
 1. Loosen the two bolts holding the IR illuminator (1).
 2. Adjust the angle of the illuminator in place by applying pressure to the front or rear of the illuminator.
 3. Tighten the 2 bolts that were loosened (1).
 - Twist the focus adjustment to adjust the beam width (2).
- To operate the IR Illuminator- press the button on the rear of the illuminator.
 - The illuminator has 3 brightness levels (low, medium, high) and they can be cycled by clicking the button.

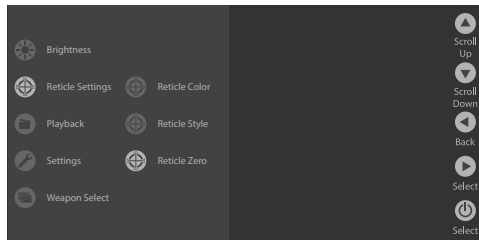


ZEROING THE RIFLESCOPE

Boresight the rifle to get the riflescope close to zero. For more information on boresighting see https://www.youtube.com/watch?v=qZZf_IIn2oo

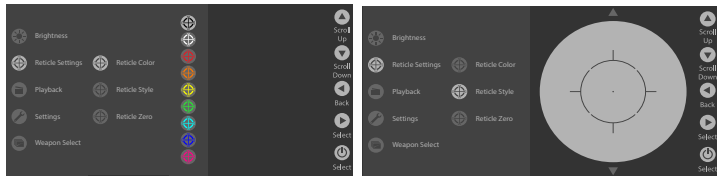
1. Take 1 to 3 shots at a paper target while aiming at the center.
2. Open the menu and go to 'reticle settings' and then Reticle Zero.
3. While keeping the crosshair on the point of aim (the center of the target in this case) use the arrows to move the red adjustment reticle to the bullet hole, or the center of the grouping of bullet holes if you took 3 shots.
4. Press the middle button to save and exit the menu.
5. Take 1 to 3 additional shots. The scope should now be zeroed. If these shots were not on target restart from step 3.

The numbers shown on screen represent the offset from the center of the screen. They are not needed for the zeroing process but may be useful for re-adjusting back to a known zero if you save these numbers.



TO CHANGE THE RETICLE STYLE OR COLOR

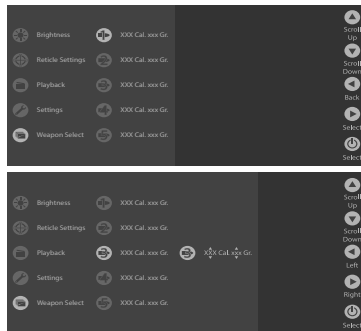
1. Open the menu and go to Reticle Settings.
2. Select either reticle color or reticle style and press the center button
3. Use the up and down buttons to choose a reticle or color and press the center button to save and exit the menu.



EDITING A WEAPON PROFILE

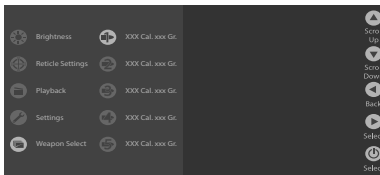
The Wraith 4k has 5 weapon profiles. These profiles store the reticle setting. To edit these profiles:

1. Open the menu and go to Weapon Select.
2. Select a profile number and click the right button.
3. Use the up, down, left and right buttons to adjust the characters to show the desired caliber and Grain. This is just to help remember what each profile is.
4. All reticle and zeroing changes will be applied to the last profile selected.



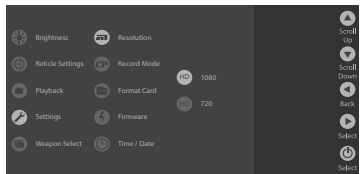
TO SELECT A WEAPON PROFILE

1. Open the menu and go to Weapon Select.
2. Select a profile number and click the middle button.
3. All reticle and zeroing changes will be applied to the last profile selected.



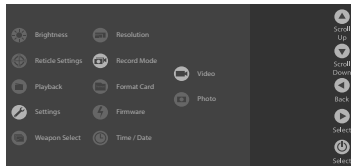
TO CHANGE RESOLUTION SETTINGS

1. Open the menu and go to Settings and then resolution.
2. Use the up or down button to select the desired resolution.
3. Use the center button to save and exit the setting.



TO SWITCH BETWEEN VIDEO RECORDING AND PHOTO MODE

1. Open the menu and go to Settings and then record mode.
2. Use the up or down button to select either photo or video
3. Use the center button to save and exit the setting.



TAKE A VIDEO/PHOTO

1. When looking through the unit, either a photo or video symbol will be displayed in the lower left of the screen.
2. Press the right button to take a photo/ start recording video.
3. Press a second time to stop recording.

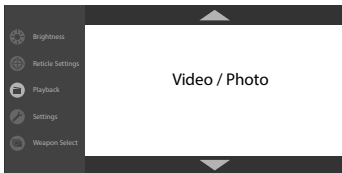
TO ADJUST BRIGHTNESS

1. Open the menu and go to Brightness.
2. Adjust the brightness slider up or down to adjust the brightness.
3. Press the middle button to save the setting and exit the menu.



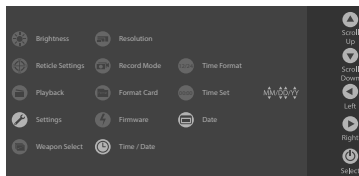
TO WATCH PLAYBACK OF VIDEOS

1. Open the menu and go to Playback.
2. Use the up and down to look through the existing photos and videos/
3. Press the center button to watch the video



TO SET THE TIME/DATE

1. Open the menu
2. Go to settings and then time/date
3. Select Time Set or Date.
4. Adjust Time/ Date using up, down, left, and right buttons.
5. Press the middle button to save and exit










TO UPDATE THE FIRMWARE

Visit this link for a detailed video of how to update the firmware → <https://www.youtube.com/watch?v=wlta1GqJ9bo>

1. Confirm the batteries are full and/or connect external power
2. Download the latest firmware from our website at <https://sightmark.com/wraith/firmware/>
3. Copy the firmware file on to your micro memory card.
4. Confirm the filename is ###insert file name###
5. Insert the micro memory card in to the rifle scope card slot.

6. Open the menu
7. Go to settings and then firmware
8. Select Firmware update
9. When update is complete the unit will shut off. This can take a few minutes.

MENUS

-  1. **Brightness**
-  2. **Reticle Settings**
 - Reticle Color*
 - Reticle Style*
 - Reticle Zero*
-  3. **Playback** - Use the up and down button to scroll through pictures and video, click ok to play back video files. Use the left button to exit playback.
-  4. **Settings**
 -  *Video/Photo*
 -  i. Resolution
 - 4K
 - 1080
 -  ii. Record Mode
 - Video
 - Photo
 - iii. Day Frame Rate
 - 30
 - 60 (interpolated)

iv. Advanced Settings

1. Resolution
 - a. 4K
 - b. 1080
2. Record Mode
 - a. Video
 - b. Photo
3. Day Frame Rate
 - a. 30
 - b. 60 (interpolated)
4. Night Frame Rate (Night Custom Only)
 - a. 30
 - b. 60
5. Exposure
 - a. Long
 - b. Original
 - c. Short
6. Gain
 - a. Iso12800
 - b. Iso11200
 - c. Iso9600
 - d. Iso800
 - e. Iso6400
 - f. Iso3200

7. Contrast

- a. High
- b. Medium
- c. Low

8. AE Meter

- a. Multi point
- b. Spot



b. Format Card

- i. Are you sure? (Format Card)
- ii. Cancel



c. Firmware Version



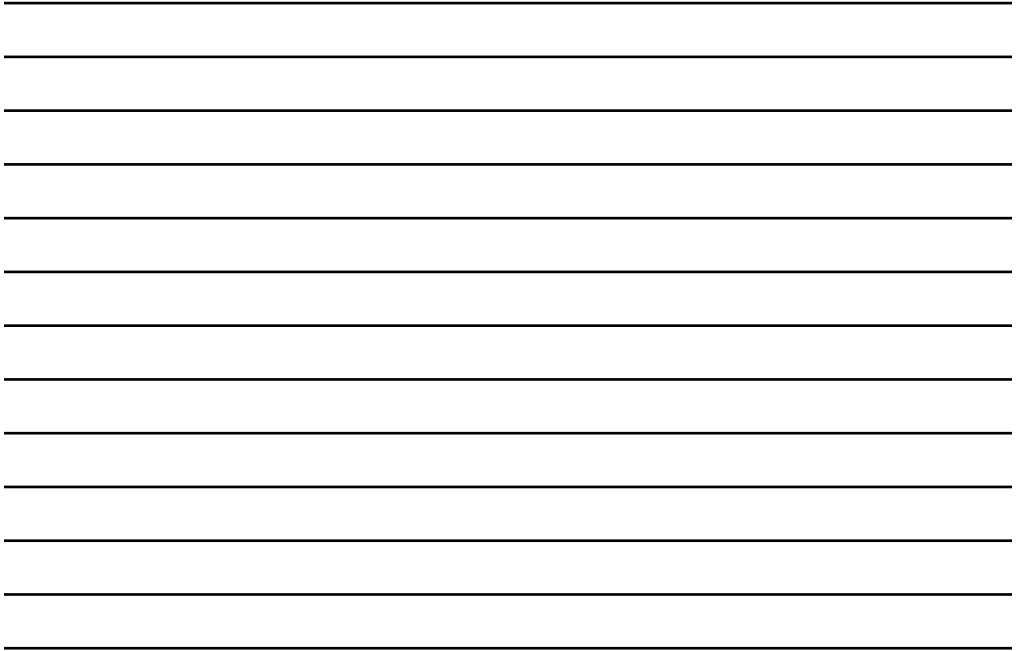
d. Time and Date

- i. Time Format
 - 1. 12 Hour
 - 2. 24 Hour
- ii. Time Set
- iii. Date



5. Weapon Select

- a. Profile 1
- b. Profile 2
- c. Profile 3
- d. Profile 4
- e. Profile 5



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