

SIGHT MARK[®]

USER MANUAL



SHADE
THERMAL RIFLESCOPE
2-16x15
SM17004



SHADE
THERMAL RIFLESCOPE
3.5-28x30
SM17005

ABOUT SIGHTMARK®

Founded to meet the changing needs of the outdoor industry and its customers, Sightmark® was introduced at SHOT Show 2007 in response to the growing popularity of the modern shooting market. The goal was to provide state-of-the-art optics and accessories to make the modern sporting rifle, shotgun and pistol as accurate as possible. In addition, each product is designed for the core market, enabling shooters to purchase more high quality items to accessorize their firearm for hunting, home defense and competition shooting.

In 2011, the new 33,000 square-foot (3066m²) headquarters was completed in Mansfield, Texas, combining the company's corporate offices and a large warehouse to handle the increase in sensitive material and technology being produced. The new facility provides more space for research and development, production, and distribution of defense-related products.

Best-selling products include red dot sights, riflescopes and chamber laser boresights. More than one million Sightmark® boresights are in use since first released to the market. Sightmark® has earned several patents and awards from industry associations and publications including Field & Stream, Optics Planet, Outdoor Life and Predator Xtreme. Numerous optics and accessories have been field tested and approved by prominent outdoor organizations such as the North American Hunting Club and the National Tactical Officers Association.

Currently, Sightmark® represents leading markets growing in more than 55 countries and many quality retailers in every state. Products are sold by top retailers and national specialty chains such as: Academy Sports & Outdoors, Bass Pro Shops, Cabela's, Frankonia and many more.



SHADE THERMAL RIFLESCOPE SERIES

The Sightmark Shade Thermal Rifle scope series delivers reliable thermal imaging performance in a compact, lightweight platform, perfect for hunters chasing clarity and consistency after dark. Whether you're covering wide fields or dense timber, both models in the Shade line feature a 256x192 thermal sensor with <50 mK NETD sensitivity, offering strong contrast and heat detection even in brushy terrain or shifting weather conditions.

From scanning for movement at close range to dialing in on heat signatures at extended distances, the Shade's optical and digital zoom combinations provide flexible magnification. Each model is equipped with a high-resolution FLCOS display available in 1280x720, for sharp visuals and confident target acquisition. A built-in video recorder and support for up to 256GB of storage ensure you can capture every moment in the field.

Housed in rugged yet lightweight aluminum bodies and designed around a Picatinny mount, Shade thermal scopes balance durability with portability. Both run on two easy-to-source CR123A batteries, delivering a maximum of 4.4 hours of performance on preview mode with USB external power options for extended sessions. Whether you're hiking deep into the backcountry or holding steady in a blind, the Sightmark Shade thermal lineup offers clarity, control, and confidence for every hunt.

SHARED FEATURES:

- 256x192 Thermal Resolution
- 8x Digital Zoom
- Lightweight and Compact
- Built-in Recording w/ Sound
- FLCOS LCD
- 5 Color Palettes
- 5 Weapon Profiles
- Display Resolution 1280x720

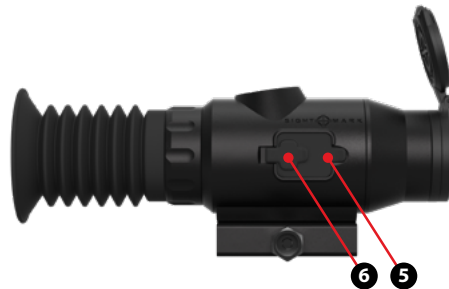
INCLUDED:

- Flip-up Caps
- Removable Throw Lever (incl. only with SM17005 model)
- Rubber Eyecup
- 2x CR123A Batteries
- USB Cable

TECHNICAL SPECIFICATIONS	SHADE 2-16x15 SM17004	SHADE 3.5-28x30 SM17005
Sensor Resolution	256x192	256x192
Sensor Type	Thermal sensor	Thermal sensor
Display Resolution	1280x720	1280x720
Display Type	FLCOS LCD	FLCOS LCD
Magnification (x)	2x Optical	3.5x Optical
Digital Magnification (x)	1-8x	1-8x
Objective Lens (mm)	15	30
Pixel Pitch (μm)	12	12
Spectral Range (μm)	8-14	8-14
NEDT (mK)	< 50 mK @ 25 Hz, 300 K, F/1	< 50 mK @ 50 Hz, 300 K, F/1
Field of View °	11°	6°
Built-In Video Recorder Availability	Yes	Yes
Maximum Memory Card Supported (Gb)	256	256
Power Supply (v)	6	6
Battery type	2x CR123A	2x CR123A
Battery life (hours)	3.5 (Video) - 4.4 (Preview)	3.5 (Video) - 4.4 (Preview)
External Power Supply	5V via USB	5V via USB
Body Material	Aluminum	Aluminum
Mount Type	Picatinny	Picatinny
Operating Temperature	-4° to 144°F / -20° to 50°C	-4° to 144°F / -20° to 50°C
Dimensions (in/mm) (length without flip up caps)	4.84 x 3 x 2.9 / 123 x 77 x 74	5.55 x 3 x 2.9 / 141 x 77 x 74
Weight (oz/g) (with battery, flip up caps, eyecup)	19.97 / 566	21.91 / 621

DIAGRAM

1. Objective lens
2. Eyepiece (diopter adjustment)
3. Controls
4. Focus adjustment
5. Card slot
6. USB port
7. Battery Compartment
8. Throw lever (not shown below)



BATTERIES

This unit uses 2x 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.)
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 focus:

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



VIEWFINDER

1. Profile
1 2 3 4 5
2. Magnification
1X 2X 3X 4X 5X 6X 7X 8X
3. Date
4. Memory card status
CARD FULL
5. Battery status



CONTROLS

- **Digital Zoom** - Use the up and down arrows to adjust the magnification. This unit has a digital magnification range up to 8x.
- **Manual Calibration** - press the left button to manually calibrate the sensor.
- **Color Mode** - Hold the left button to toggle between color modes.
- **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.



ZEROING THE RIFLESCOPE

1. Boresight the rifle to get the riflescope close to zero. For more information on boresighting see https://sightmark.short.gy/thermal_menu.

2. Take 1 to 3 shots on a paper target while aiming at the center.

3. Open the menu and go to Reticle Settings and then Reticle Zero.   Reticle Settings  Reticle Zero

4. 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. 

5. Press the center button to save and exit the menu. 

6. 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.

CHANGING THE RETICLE STYLE AND COLOR

1. Open the menu and go to Reticle Settings.   Reticle Settings

2. Select either Reticle Color or Reticle Style and press the center button.  Reticle Color  or  Reticle Style

3. Use the up and down buttons to choose a reticle or color and press the center button to save and exit the menu.   

WEAPON PROFILES

The Shade has 5 weapon profiles. These profiles store the reticle setting.

To edit these profiles:

1. Open the menu and go to Weapon Select.   Weapon Select

2. Select a profile number and click the right button.  or  or  or  or  

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.

WEAPON PROFILES (CONT.)

To select a profile:

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

RESOLUTION ENHANCEMENT

To unlock and toggle resolution enhancement:

1. Open the Menu. 
2. Use the up/down arrow to navigate down to Settings and select it.   Settings
3. Select Resolution Enhancement Lock.  Resolution Enhancement Lock
4. Select Off to disable the lock.
5. Close the menu and double tap the left arrow to switch between Resolution Enhancement on and off. An icon will appear on the bottom of the screen when this feature is enabled. 

VIDEO RECORDING AND PHOTO MODE

To switch between video recording and photo mode:

1. Open the menu and go to Settings and then Record Mode.   Settings  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.  or 
2. Press the right button to take a photo/start recording video.  
3. Press a second time to stop recording.  

To watch playback of videos:

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

BRIGHTNESS SETTINGS

To Adjust Brightness:

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

TIME AND DATE

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. 

FIRMWARE

To update the firmware:

1. Confirm the batteries are full and/or connect external power.
2. Download the latest firmware from our website at https://sightmark.short.gy/firmware_update.

3. Copy the firmware file to the root of your micro memory card. The file should not be placed in a folder in the card.
4. Confirm the filename has not been altered or renamed.
5. Insert the micro memory card into the riflescope 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.

To perform a factory data reset:

1. Open the menu using the center button. 
2. Go to Settings and then Factory Data Reset.  
3. Use the arrow buttons to navigate to Yes and select it with the center button.

Warning: This will completely reset the unit to factory settings including all reticle zero settings.

SLEEP MODE

The unit is equipped with a sleep mode feature. This lets the unit conserve battery while also allowing the unit to quickly reactivate.

To activate sleep mode:

1. Hold the down button for 4-5 seconds when the unit is on and not inside a menu. The screen should turn off. 

To activate the unit when in sleep mode:

2. Press the power button and the unit should quickly turn on. 

MENUS

Use the up and down buttons to scroll through and the center button to select. The left button can be used to exit menus.

1. Brightness



2. Reticle Settings



- a. Reticle Color
- b. Reticle Style
- c. Reticle Zero

3. Playback



Use the up and down button to scroll through pictures and video, click the center button to play back video files. Use the left button to exit Playback.

4. Settings



a. Video/Photo

i. Resolution Enhancement Lock

- 1. Yes
- 2. No

ii. Record Mode

- 1. Video

2. Photo

c. Format Card



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

d. Factory Data Reset



- i. Yes
- ii. No

e. Firmware



- i. Firmware Version
- ii. Firmware Update

f. 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

MAINTENANCE

Proper maintenance of the Sightmark Shade is recommended to ensure longevity. **Attempts to disassemble or repair the unit will void the warranty.** It is recommended that when the unit becomes dirty that it is wiped down with a dry or slightly damp cloth. Blow dirt and debris off all optics and then clean lenses with a lens cleaning cloth. To remove oils or dried water spots, apply a small amount of denatured alcohol to a lens cloth or cotton swab. Clean the surface of the lens and let dry. Finally use your breath to clean the lens once more. No further maintenance is required.

TROUBLESHOOTING

Never ship back a product without getting proper authorization beforehand. Doing so could result in losing the product due to a multitude of reasons, i.e. sending it to the wrong address and other problems associated with unexpected packages.

The unit will not turn on:

- 1. Check the polarity of the batteries. Reinstall the batteries if necessary.
- 2. Clean the battery compartment contacts with denatured alcohol and a cotton swab.
- 3. Install fresh batteries.

The image is dark:

- 1. Make sure the lens caps on the objective lens is opened. Adjust the display brightness accordingly to obtain a bright, clear image.

There are light or black dots on the display:

- 1. The presence of dots on the display is caused by sensor production technology and is not a defect. No action is required.

TROUBLESHOOTING (CONTINUED)

The image is not in focus:

1. Make sure there is no dust or condensation covering the objective lens or eyepiece.
2. Adjust the focus ring near the objective lens to adjust focus for different viewing distances.
3. Make sure to adjust the diopter setting on the eyepiece for your specific vision.

The image is flickering:

1. This is common if the unit is viewing or pointing in the direction of a bright light source. Cease viewing the bright light source immediately. If flickering in normal dark conditions the unit may need to be returned for service.

FIRMWARE UPDATING

Visit https://sightmark.short.gy/firmware_update for updates and instructions.

SIGHTMARK WARRANTY

Please visit www.sightmark.com for warranty details and information.



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two criteria: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes of modifications to this unit is not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



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