

# SIoux<sup>®</sup>

LONG-RANGE INFRARED ILLUMINATOR

USER MANUAL

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## DESCRIPTION

The AGM Sioux extra long-range infrared illuminators provide advanced image-intensified viewing capabilities to night vision devices (NVD) and is ideally suited for operations in little to no ambient light.

The illuminator features adjustments for field of view divergence and output power, extending the capabilities of night vision device. One of the market's most powerful infrared illuminators, the AGM Sioux comes equipped with the 18650 rechargeable battery and charger.

The Sioux line includes the Sioux 850 model with 850 nm peak wavelength and Sioux 940 model with 940nm peak wavelength. The 850 nm wavelength is standard for most night vision applications. The 850 nm light source does produce a faint red glow at direct exposure, but otherwise it is not visible to the naked eye. The main advantage of the 940 nm wavelength is that it is completely invisible.

When working in complete darkness, turn the IR illuminator on for enhanced visibility. Always remember that the beam emitted by your IR illuminator will lose its brightness over long distances, and that it will still be visible via other night vision devices.

## FEATURES

- Powerful, long-range infrared illuminator
- High power, IR-emitting diode
- Power adjustment
- Wide-range beam angle adjustment
- Precise adjustment of beam direction
- Invisible to the human eye
- Eye safe
- Lightweight and rugged
- Ideal for extreme, low-light conditions
- Can be mounted on the Weaver rail or used as a handheld device
- Comes standard equipped with a rechargeable battery and charger unit
- Limited two-year warranty

## STANDARD COMPONENTS AND OPTIONAL EQUIPMENT

The standard components and optional equipment for the AGM Sioux are shown in Figure 1 and listed in Table 1.

The ITEM NO. column indicates the number used to identify items in Figure 1.

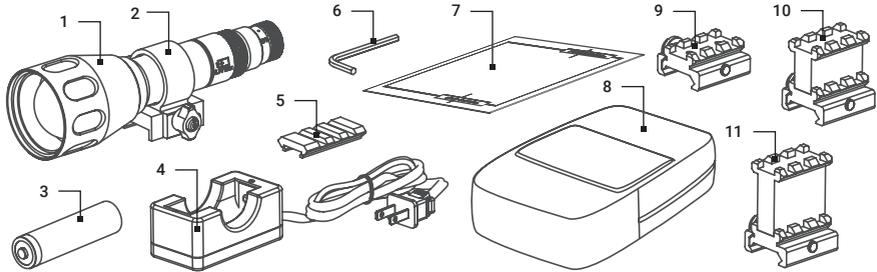


FIGURE 1. STANDARD COMPONENTS AND OPTIONAL EQUIPMENT

TABLE 1. STANDARD COMPONENTS AND OPTIONAL EQUIPMENT

ITEM NO.	DESCRIPTION	QUANTITY
1	<b>AGM Sioux</b> Long-range infrared illuminator.	1
2	<b>Mount</b> Dedicated mount for installation on a Picatinny/Weaver rail.	1
3	<b>18650 Rechargeable Battery</b> A single rechargeable battery used to power the IR illuminator.	1
4	<b>Battery Charger</b> Charger for 18650 Rechargeable Battery.	1
5	<b>Picatinny/Weaver Adapter</b> Allows the IR illuminator to be mounted on the NVD rail.	1
6	<b>2.5 mm Hex Key</b> A key that can be used to loosen or tighten the IR illuminator's clamp screws.	1
7	<b>User Manual</b> Provides equipment description and operating instructions.	1
8	<b>Carrying Case</b> A protective case used for storing and carrying of the Sioux and accessories.	1
9	<b>Riser 10</b> Allows the IR illuminator to be mounted on the NVD with a large objective lens. Increases the mounting height to 10 mm.	Optional
10	<b>Riser 30</b> Allows the IR illuminator to be mounted on the NVD with a large objective lens. Increases the mounting height to 30 mm.	Optional
11	<b>Riser 40</b> Allows the IR illuminator to be mounted on the NVD with a large objective lens. Increases the mounting height to 40 mm.	Optional

## IR ILLUMINATOR CONTROLS

The controls of the optional IR illuminators are shown in Figure 2 and defined in Table 2. The ITEM NO. column indicates the number used to identify items in Figure 2.

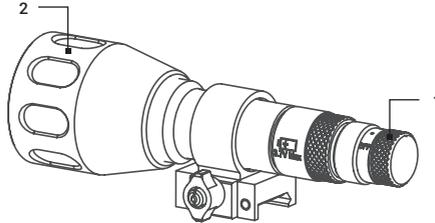


FIGURE 2. IR ILLUMINATOR CONTROLS

TABLE 2. IR ILLUMINATOR CONTROLS

ITEM NO.	FUNCTION	DESCRIPTION
1	POWER SWITCH	Switches the IR illuminator on/off and adjusts for radiated power. Four ON positions are located between the two OFF positions, and are each marked with a different-sized spot. The larger the spot, the greater the radiated power.
2	LENS FOCUS	Adjusts for IR beam divergence. Adjustment range is covered within approximately one turn of the lens.

## IR ILLUMINATOR INSTALLATION

The AGM Sioux is a removable, near-infrared illumination device that can be installed on the rail of various night vision devices (NVD). The IR illuminator comes with a dedicated mount, to enable installation on the Picatinny/Weaver rail.

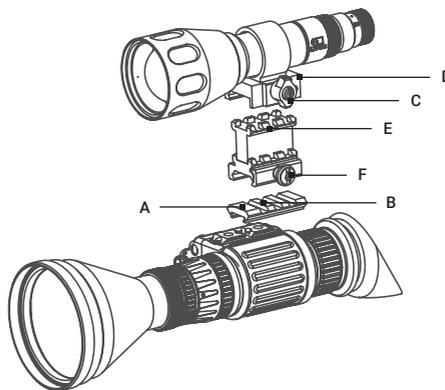


FIGURE 3. MOUNTING ILLUMINATOR TO A NIGHT VISION DEVICE

To mount an IR illuminator on the dovetail-type mini-rail, use the Picatinny/Weaver Adapter. Perform the following steps (refer to Figure 3):

1. Install the adapter (A) onto the dovetail-type mini-rail of NVD.
2. Tighten the screw (B) on the adapter.
3. With the nut (C) loosened, install the IR illuminator mount (D) on the adapter Weaver rail so that the stop slides into one of the transverse slots of the rail.
4. Tighten the nut (C).

If needed, you can use one of the optional Risers to increase the height of the mount (for example, when a large objective lens interferes with or obscures the IR beam). To do so, install the Sioux on the rail of the riser (E). Then install the illuminator with the riser on the Weaver rail of your NVD; the recoil stop of the riser should slide into one of the transverse slots of the rail. Tighten the nut (F) using a screwdriver.

## BATTERY INSTALLATION

Before installing the Sioux illuminator, fully charge the 18650 rechargeable battery. Insert the battery into the charger, aligning the polarity symbols on the battery with the polarity symbols on the charger. Never install the battery backwards.

Connect the power cord to an appropriate power source. A red indicator light will flash while the battery is charging, and will turn green when it is fully charged. Remove the battery promptly after charging is complete.

### **CAUTION:**

- Use only the supplied battery. Do not install any other types.
- Keep the lithium batteries far away from open flame, extreme heat, or combustible materials. If handled or recharged incorrectly, lithium ion batteries can cause fires, explosions, property damage, injuries, and death.
- Keep the batteries and charger far away from water or liquids of any kind. Exposure to water may cause shock hazards and fatal electrocution.
- Do not leave lithium ion rechargeable batteries and chargers unattended while recharging.
- Do not operate the charger on wood, carpet, fabric, or any other soft or flammable surfaces.
- Do not attempt to recharge disposable lithium batteries. Do not use any unprotected lithium ion rechargeable batteries. Never recharge lithium ion batteries in any chargers other than those designed for the specific battery types being used.

To install the battery (refer to Figure 4):

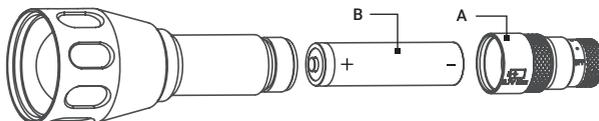


FIGURE 4. BATTERY INSTALLATION

**CAUTION:**

Confirm that the IR Illuminator is off before installing the battery.

1. Unscrew the battery cap (A).
2. Install the fully charged 18650 rechargeable battery (B) into the battery compartment. Align the polarity symbols on the battery with those on the cap.
3. Replace the battery cap (A).

## IR ILLUMINATOR OPERATION

**CAUTION:**

- The device is equipped with an infrared LED which is not hazardous to human health. However, do not point the IR illuminator at anyone's eyes.
- The IR illuminator infrared light will be invisible to the naked eye. The light can, however, be detected by other night vision devices.

To operate the IR illuminator:

1. Turn on the IR illuminator.
2. To change the radiated power level, turn the power switch to one of the spots between the two OFF positions. The brightness levels are marked with dots of increasing size, respective to the four different output power levels.
3. To adjust IR beam divergence, rotate the objective lens.
4. To adjust the IR spot position in the field of view (refer to Figure 5):
  - a) Loosen the screw (A) of the clamp on the IR illuminator mount (using a 2.5 mm hex key);
  - b) Turn on the night vision device and the IR illuminator;
  - c) While looking through the eyepiece of your device, move the IR illuminator up, down, and side-to-side to observe the IR spot position relative to the night vision device;
  - d) Once the IR spot is centered in the field of view, tighten the clamp screw (A).

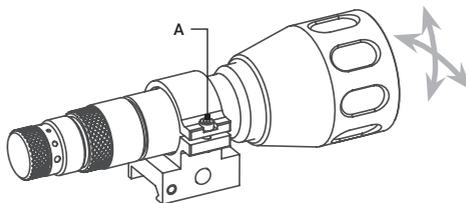


FIGURE 5. IRSPOT POSITION ADJUSTMENT

# WARRANTY INFORMATION AND REGISTRATION

## WARRANTY INFORMATION

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of three (3) years from the date of purchase. In the event that a defect covered by the warranty below occurs during the applicable period stated above, AGM Global Vision, at its discretion, will either repair or replace the product; such action on the part of AGM Global Vision shall be the full extent of AGM Global Vision's liability, and the Customer's sole and exclusive repair. This warranty does not cover a product if it has been (a) used in ways other than its normal and customary manner; (b) subjected to misuse; (c) subjected to alterations, modifications or repairs by the Customer or by any party other than AGM Global Vision without prior written consent of AGM Global Vision; (d) is the result of a special order or categorized as "close-out" merchandise or merchandise sold "as-is" by either AGM Global Vision or the AGM Global Vision dealer; or (e) merchandise that has been discontinued by the manufacturer and either parts or replacement units are not available due to reasons beyond the control of AGM Global Vision. AGM Global Vision shall not be responsible for any defects or damage that in AGM Global Vision's view are a result from the mishandling, abuse, misuse, improper storage or improper operation of the device, including use in conjunction with equipment that is electrically or mechanically incompatible with, or of inferior quality to, the product, as well as failure to maintain the environmental conditions specified by the manufacturer. This warranty is extended only to the original purchaser. Any breach of this warranty shall be enforced unless the customer notifies AGM Global Vision at the address noted below within the applicable warranty period.

The customer understands and agrees that except for the foregoing warranty, no other warranties written or oral, statutory, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose, shall apply to the product. All such implied warranties are hereby and expressly disclaimed.

## LIMITATION OF LIABILITY

AGM Global Vision will not be liable for any claims, actions, suits, proceedings, costs, expenses, damages, or liabilities arising out of the use of this product. Operation and use of the product are the sole responsibility of the Customer. AGM Global Vision's sole undertaking is limited to providing the products and services outlined herein in accordance with the terms and conditions of this Agreement. The provision of products sold and services performed by AGM Global Vision to the Customer shall not be interpreted, construed, or regarded, either expressly or implied, as being for the benefit of or creating any obligation toward any third party of legal entity outside AGM Global Vision and the Customer; AGM Global Vision's obligations under this Agreement extend solely to the Customer. AGM Global Vision's liability hereunder for damages, regardless of the form or action, shall not exceed the fees or other charges paid to AGM Global Vision by the customer or customer's dealer. AGM Global Vision shall not, in any event, be liable for special, indirect, incidental, or consequential damages, including, but not limited to, lost income, lost revenue, or lost profit, whether such damages were foreseeable or not at the time of purchase, and whether or not such damages arise out of a breach of warranty, a breach of agreement, negligence, strict liability, or any other theory of liability.

## **PRODUCT REGISTRATION**

In order to validate the warranty on your product, the customer must complete and submit AGM Global Vision PRODUCT REGISTRATION FORM on our website ([www.agmglobalvision.com/customer-support](http://www.agmglobalvision.com/customer-support)).

## **OBTAINING WARRANTY SERVICE**

To obtain warranty service on your unit, the End-user (Customer) must notify the AGM Global Vision service department via e-mail. Send any requests to [support@agmglobalvision.com](mailto:support@agmglobalvision.com) to receive a Return Merchandise Authorization number (RMA). When returning any device, please take the product to your retailer, or send the product, postage paid and with a copy of your sales receipt, to AGM Global Vision's service center at the address listed above. All merchandise must be fully insured with the correct postage; AGM Global Vision will not be responsible for improper postage or merchandise that becomes lost or damaged during shipment. When sending product back, please clearly write the RMA# on the outside of the shipping box. Please include a letter that indicates your RMA#, the Customer's Name, a Return Address, reason for the return, contact information (valid telephone numbers and/or an e-mail address), and proof of purchase that will help us to establish the valid start date of the warranty. Product merchandise returns that do not have an RMA# listed may be refused, or a significant delay in processing may occur. Estimated Warranty service time is 10-20 business days. The End-user/Customer is responsible for postage to AGM Global Vision for warranty service. AGM Global Vision will cover return postage/shipping after warranty repair to the End-user/Customer only if the product is covered by the aforementioned warranty. AGM Global Vision will return the product after warranty service by domestic UPS Ground service and/or domestic mail. Should any other requested, required, or international shipping methods be necessary, the postage/shipping fee will be the responsibility of the End-user/Customer.

For service, repair or replacement, please contact:

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# SPECIFICATIONS

ITEM	SIOUX 850	SIOUX 940
Compatible Night Vision Devices	Gen 1, Gen2, Gen 3, Digital	Gen2, Gen 3, Digital
IR Emitter Type	LED	LED
Power	1,000 mW	800 mW
Peak Wavelength	850 nm	940 nm
Illumination Range	Up to 1,000 m / 1100 yd	Up to 600 m / 550 yd
Divergence	4° to 35°	
Battery	Single 18650 (3.7v ) Rechargeable Battery	
Operational Time at 20°C	Up to 10 hours (1/4 Power); 8 hours (1/2 Power); 6 hours (3/4 Power); 2.5 hours (Full Power)	
Environmental Rating	Water Resistant	
Operating Temperature	-30°C to +50°C / -22°F to +122°F	
Dimensions w/o Mount	153 x 48 x 48 mm / 6.0 x 1.9 x 1.9 in	
Weight w/o Mount and Battery	225 g / 7.9 oz	

**NOTE:**

All data subject to change without notice.



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