

# **NIGHT VISION MONOCULAR**

**USER MANUAL** 

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# SAFETY SUMMARY

- Read and follow all instructions
- Read all warnings
- · Only use the attachments/accessories specified by the manufacturer
- · All service must be provided by the manufacturer

#### WARNING:

This product contains natural rubber latex, which may cause potentially fatal allergic reactions! If you are allergic to latex, it is important that you strictly avoid exposure to products that contain it.

#### WARNINGS:

The intensifier's phosphor screen contains toxic materials.

- Please note:
- If the intensifier tube breaks, be extremely careful to avoid inhaling the phosphor screen material. DO NOT allow the material to come in contact with your mouth, eyes, or any open wounds on the skin.
- If the phosphor screen material comes in contact with your skin, wash it off immediately with soap and water.
- If you inhale or swallow any phosphor screen material, drink a lot of water, induce vomiting, and seek medical attention as soon as possible.

#### WARNINGS:

- When used in total darkness, the light from the unit's infrared (IR) illuminator is invisible to the naked eye. However, the light can be detected by other Night Vision Devices (NVD).
- To reduce the risk of detection by another NVD, avoid prolonged use of the IR illuminator.
- Light from the IR illuminator is more easily detected by other NVDs when used in fog, smoke, and rain. Avoid prolonged use of the IR illuminator in these conditions.
- Do not use contaminated eyecup. If it is contaminated, it must be replaced.

#### CAUTIONS:

NVM night vision monocular is precision electro-optical instruments and require careful handling. Please follow the below instructions of safe use:

- · Do not disassemble the unit.
- Keep the unit clean; protect it from moisture, sudden temperature drops and shocks.
- Be careful not to touch the glass surfaces. If you leave finger-prints on, or contaminate the glass surfaces, use only clean and soft materials to clean it.
- Protect the unit from excessive lighting. Do not turn the monocular on in daylight with the front lens cap off. Do not point the monocular at the bright light source (a fire, car headlights, lanterns, street lamps, room lights, etc.).
- Do not test the device in daylight conditions even with the daylight filter/lens cap on for more than ten (10) minutes.
- Do not leave the unit in on position during stops in operation.
- Remove the battery from the unit when it is planned to store for over 3 days. Failure to do so may damage the unit.

#### EQUIPMENT LIMITATIONS

To avoid injuries and equipment damage from using the NVM, carefully read and consider the following equipment limitations.

- The unit is equipped with an Automatic Shut-off System. If the monocular is removed from the head or helmet while turned on, they will turn off automatically. To turn the unit on after automatic shut-off, you will need to press the operating knob.
- The built-in IR illuminator is meant to provide additional illumination when needed, while viewing scenes at close distances (up to 3 meters).
- The equipment requires some night light (moonlight, starlight, etc.) to operate. The level of equipment performance depends upon the level of light.
- Night light reduces by passing through the clouds, while operating under trees, under the shadows of houses, etc.
- The device results less effective in peering into shadows and other darkened areas.
- The device results less effective in viewing through rain, fog, sleet, snow or smoke.
- The equipment will not "see" through the dense smoke.
- Its protection system cuts off the image intensifier when ambient light level continues exceeding of 40 lux for the following 10 seconds.
- Under starlight conditions low contrast environments (such as snow-covered territory, sandy deserts, large bodies of water or grassy hills) degrade visibility thereby disguising or masking changes in terrain.
- Under too low-light conditions the monocular loses some of the resolution that it has under full moon.

# **1** GENERAL INFORMATION

# 1.1 SYSTEM DESCRIPTION

The AGM Global Vision NVM-40 and NVM-50 monoculars can be used as a handheld, headmounted or helmet-mounted night vision system to enable mobility, driving, use of weapons, short-range surveillance, map reading, vehicle maintenance, and the administration of first aid during nighttime operation. The NVM-50 model has a viewing angle increased to 51 degrees.

The NVM uses advanced, multi-coated optics and a tough, compact, ergonomic composite housing. This device uses one-touch button power management. The device allows for vertical adjustment (using the head or helmet mount), fore-and-aft adjustment, objective lens focus, and eyepiece focus. The monocular is equipped with an infrared (IR) light-emitting diode (or IR illuminator) to provide additional illumination for close distance. There are two levels of IR illumination power. The operating modes of IR illuminator are controlled by a separate button. The monocular is also equipped a low battery indicator, a bright light cutoff system indicator, and IR illuminator indicator in the field of view of device.

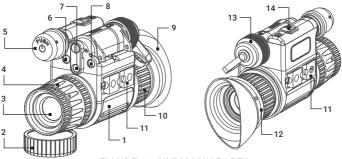


FIGURE 1-1. NVM MAIN PARTS

TABLE 1-1. NVM MAIN PARTS	TABLE	1-1. N	IVM	MAIN	PARTS
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ITEM	DESCRIPTION
1	Body
2	Lens Cap
3	Objective Lens Assembly
4	Focus Ring
5	Power button
6	Photoreceiver
7	IR Illuminator Pivotal Focusing Lens

ITEM	DESCRIPTION
8	Built-In IR Illuminator
9	Eyecup
10	Diopter Adjustment Ring
11	Mounting Mini-Rail
12	Eyepiece Assembly
13	Battery Cap with Battery Adapter
14	IR Button

# 1.2 KEY FEATURES

- Focus adjustments for custom image quality optimization
- Integrated infrared (IR) illuminator with two switchable power levels
- Head or helmet mountable
- Automatic shut-off system
- Automatic turn off feature with flip-up head/ helmet mount
- Low-battery, bright light cutoff, and IR indicators in eyepiece
- Self-contained system operating on a single AA or CR123 battery
- Compact and lightweight, rugged construction
- Limited 3-year warranty

# **1.3 STANDARD COMPONENTS**

The standard components of the NVM are shown in Figure 1-2 and listed in Table 1-2. The ITEM column indicates the number used to identify items in Figure 1-2.

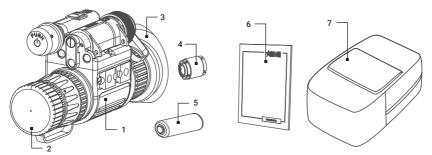


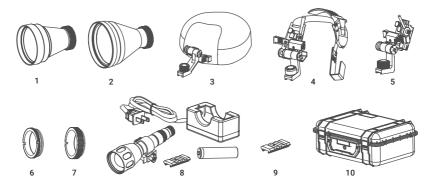
FIGURE 1-2. NVM STANDARD COMPONENTS

TABLE 1-2	. NVM STANDAR	D COMPONENTS
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ITEM	DESCRIPTION	QUANTITY
1	Night Vision Monocular	1
2	Lens Cap	1
3	Eyecup	1
4	Battery Adapter	1
5	Battery	1
6	User Manual	1
7	Carrying Case	1

# 1.4 OPTIONAL EQUIPMENT

The optional equipment of the NVM is shown in Figure 1-3 and listed in Table 1-3. The ITEM column indicates the number used to identify items in Figure 1-3.



#### FIGURE 1-3. NVM OPTIONAL EQUIPMENT

#### TABLE 1-3. NVM OPTIONAL EQUIPMENT

ITEM	DESCRIPTION	PART NO.
1	Afocal Magnifier Lens Assembly, 3X	61023XA1
2	Afocal Magnifier Lens Assembly, 5X	61025XA1
3	Cap Goggle Kit W	6104GKW1
4	Helmet Mount W-MP for MICH and PASGT Helmets	6103HMW1
5	Helmet Mount W-S for Shroud	6103HMS1
6	Demist Shield NVM-40	6101DS41
-	Demist Shield NVM-50	6101DS51
7	Sacrificial Window NVM-40	6101SS41
-	Sacrificial Window NVM-50	6101SS51
8	Sioux850-W Long-Range Infrared Illuminator comes included with Mount, Adapter, Rechargeable Battery, and Charger	501SIOUW850IR1
9	Picatinny Adapter	6106PAW1
10	Hard Case for Storage/Transportation	6610HCS1

# **2** OPERATING INSTRUCTIONS

# 2.1. INSTALLATION AND MOUNTING

#### CAUTION:

To protect the intensifier tube when the sight is not in use or when it is being operated in daylight, keep the protective lens cap securely fitted over the lens.

#### 2.1.1 BATTERY INSTALLATION

The NVM operates on a single CR123A or AA battery.

Depending on the size of the battery used, it may be necessary to reposition the battery adapter within the battery cap.

#### NOTE:

If operating the device at temperatures below  $-20^{\circ}$ C ( $-4^{\circ}$ F), the use of an alkaline battery is not recommended, as the severe cold will adversely affect the life of the battery. In these conditions, it is recommended that you use a lithium-iron disulfide 1.5V AA battery, or its equivalent.

Install the battery as follows (refer to Figure 2-1):

- 1. Unscrew the battery cap (A) and insert the CR123A battery (B) or AA battery (D), observing the polarity markings on the body of the device.
- 2. Set the position of the adapter (C) in the cap according to the type of battery used.
- 3. Screw the battery cap back securely.

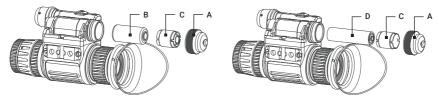


FIGURE 2-1. BATTERY INSTALLATION

#### 2.1.2 MOUNTING THE NVM TO A GOGGLE KIT

Mount the NVM to the goggle kit as follows (refer to Figure 2-2):

- 1. Put on the goggle kit. Adjust the goggle kit strap pads until the goggles fit securely around your head. Remove the goggle kit.
- 2. Loosen the screw (A). While pushing down on the button (B), insert the NVM rail into the guide (C) of the goggle kit bracket. Tighten the screw (A).

- 3. Put on the goggle kit, now mounted with the NVM.
- 4. To adjust the equipment for greater comfort, loosen the screw (A) and move the unit along the guide (C).
- 5. The goggle kit has a flip-up mechanism. Push the button (D) of the goggle kit bracket and lift the unit up until it reaches its top position. The unit will automatically turn off when it reaches this position.
- 6. Push the same button (D) to lower the unit into the correct viewing position. Turn the unit back on to continue your session.

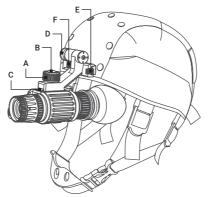


FIGURE 2-2. MOUNTING NVM TO A GOGGLE KIT

Figure 2-2 shows the NVM in the correct position for the left eye. To readjust the unit for the other eye, remove the unit from the goggle kit bracket. Turn the unit around (180°) and mount it on the bracket through the rail on the second side. With the button (E) pushed, move the unit along the slide-rail (F) until the desired, most comfortable position is reached.

To remove the NVM from the goggle kit, loosen the screw (A), push the button (B), and slide the unit out of the bracket guide (C).

#### 2.1.3 MOUNTING THE NVM TO A HELMET

An optional flip-up helmet mount can be used to attach the NVM to a helmet. The helmet mount fits the NVM securely onto helmet via a rugged strapping device and grooved hooks. With the helmet mount, the NVM can be positioned directly in front of the user's eyes, or flipped backwards, out of the field of view.

Mount the NVM to a helmet as follows (refer to Figure 2-3):

- 1. Attach the mount to the helmet.
- 2. Adjust and tighten the strap (A).
- 3. Loosen the screw (B). With the button (C) pushed down, insert the NVM rail into the guide (D) of the helmet mount bracket. Tighten the screw (B).
- 4. Put on the helmet with the NVM attached.
- 5. Push the button (F) and move the unit along the slide-rail (G) until the most comfortable position is reached.
- 6. Adjust the mount for comfortable using. Loosen the screw (B) and move the unit along the guide (D) for eye relief adjustment. Turn the lever (H) and move the unit along vertical slide-rail until the most comfortable vertical position is reached.

- 7. To remove the NVM and turn it around, push the button down (E) and lift the unit up until it reaches the top position. Once it reaches this position, the unit will turn off automatically.
- 8. Push the same button (E) to lower the NVM into the proper viewing position. Turn the unit on to proceed with your mission.

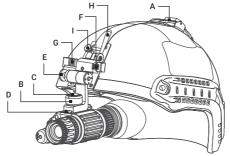


FIGURE 2-3. MOUNTING THE NVM TO A HELMET

In Figure 2-3, the NVM is shown in the correct position for the left eye. To readjust the NVM for the other eye, reverse its positioning and reinstall it on the helmet mount bracket (see Figure 2-3). Use the second unit rail located on the opposite side of the unit. Push the button (F) and move the unit along the slide-rail (G) until the most comfortable position is reached.

To remove the NVM from the helmet mount, loosen the screw (B), push down on the button (C), and slide the unit out of the guide (D). To remove the flip-up mechanism from the helmet mount, loosen the lever (H), pull the knob out (I), and slide the flip-up mechanism out of the vertical rail.

#### 2.1.4 MOUNTING THE NVM TO A SHROUD

An optional Helmet Mount can be used to attach the NVM to a helmet with a shroud. With the helmet mount, the NVM can be positioned directly in front of the user's eyes, or flipped backwards, out of the field of view.

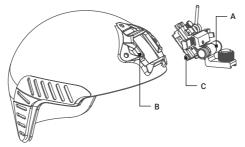


FIGURE 2-4. MOUNTING THE HELMET MOUNT FOR A SHROUD

Mount the NVM to a helmet as follows (refer to Figure 2-4):

- 1. Attach the mount (A) to the shroud (B). Place the tab at the top of the mount into the notch at the top of the shroud. Press down on the bottom of the mount and snap it into the shroud.
- 2. Attache the NVM. Adjust position of the unit similar per instructions in paragraph 2.1.3.
- 3. To remove the Helmet Mount W-S from the shroud, push the button (C).

#### 2.1.5 DEMIST SHIELD INSTALLATION

To mount a Demist Shield to the NVM:

- 1. Remove the eyecup from the eyepiece.
- 2. Coat the Demist Shield with an anti-fogging compound to prevent condensation on the surface of the shield.
- 3. Screw the Demist Shield into the threading of the eyepiece.
- 4. Secure the eyecup back into place.



FIGURE 2-5. DEMIST SHIELD INSTALLATION

#### 2.1.6 SACRIFICIAL WINDOW INSTALLATION

To mount a Sacrificial Window to the NVM:

- 1. Remove the NVM lens cap if needed.
- 2. Screw the Sacrificial Window into the threading of the objective lens.

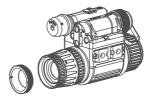


FIGURE 2-6. SACRIFICIAL WINDOW INSTALLATION

#### 2.1.7 OPTIONAL AFOCAL LENSES INSTALLATION

The monocular can be used as a long-range viewer with an optional 3x or 5x afocal lens.

To mount the afocal lens to the monocular, screw it into the threading of the standard 1x objective lens.

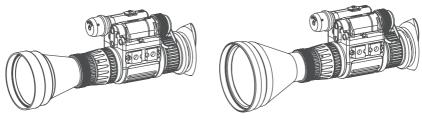


FIGURE 2-7. AFOCAL LENSES INSTALLATION

#### 2.1.8 OPTIONAL LONG-RANGE IR ILLUMINATOR INSTALLATION

The Sioux 850 Long-Range Infrared Illuminator provides enhanced viewing capabilities for operations in little to no ambient light. Infrared illuminators are used in areas where the level of natural light is insufficient. The illuminator features adjustments for field-of-view divergence and output power. The Sioux 850 comes standard equipped with a rechargeable battery and charger unit.

The Sioux 850 illuminator mounts onto the device's mini-rails using the Picatinny adapter.

- 1. Install the Picatinny adapter (A) onto the NVM rail.
- 2. Tighten the fixing screw (B) on the adapter.
- 3. Loosen the IR illuminator fixing screw (C).
- 4. Mount the IR illuminator on the rail of adapter and tighten the fixing screw (C).

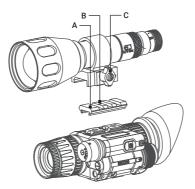


FIGURE 2-8. MOUNTING AN IR ILLUMINATOR

# 2.2 CONTROLS AND INDICATORS

#### 2.2.1 POWER BUTTON

The operating knob (A, refer to Figure 2-9):

- · Activates the NVM when pushed.
- · Deactivates the NVM when pushed again.

#### 2.2.2 IR ILLUMINATOR BUTTON

The IR Illuminator button (B, refer to Figure 2-9):

- · Activates built-in IR illuminator when the button is pushed once.
- Increases the IR illuminator's brightness/ illumination level when pushed down for 2-3 seconds.
- Returns to low IR power mode when button is pressed and held down again.
- Turns off the IR illuminator when pushed again.

#### 2.2.3 DIOPTER ADJUSTMENT RING

Adjusting the diopter allows the user to control the sharpness of the image. While looking through the eyepiece, rotate the diopter adjustment ring (C, refer to Figure 2-9) until the image is clear.

#### 2.2.4 FOCUS RING

Bring objects into focus by rotating the objective focus ring (D, refer to Figure 2-9) until the image of the target appears clear and sharp (CCW for far away objects, CW for close objects). Rotate the focus ring until the image becomes clear and sharp.

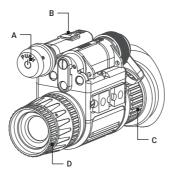


FIGURE 2-9. NVM CONTROLS

#### 2.2.5 INDICATION

When the NVM is on, the LED indicators will appear in the field of view. These LED indicators mean the following:

INDICATIONS	COLOR OF LED IN THE FOV
Built-in IR illuminator is activated	Red
Image intensifier tubes are exposed to excessive levels of light	Green
Battery is low	Flashing Red

#### 2.2.6 AUTO POWER OFF FUNCTION

The monocular will automatically shut off when disconnected from the head mount or helmet mount, or when flipped up to the stowed position. The bright light cut-off feature shuts off power to the monocular when it is exposed to excessive levels of light for more than 10 seconds. An automatic shut-off system will power down the device when it is unused (controls are not touched) for 60 minutes, helping to preserve battery life in the event that the device is inadvertently activated.

# 2.3 OPERATING PROCEDURES

#### 2.3.1 OPERATING PROCEDURES

1. Verify that the battery is installed properly.

#### NOTE:

Only operate the monocular in dark environments. If it necessary to operate the device in daylight, always cover the objective lens with the cap. The pinhole at the centre of the lens cap will allow the user to check operational capabilities in daylight conditions.

- 2. Remove the lens cap.
- 3. Turn the monocular on. After a slight delay, a green or white glow will appear in the eyepiece.
- 4. Adjust the diopter by rotating the adjustment ring.
- 5. Observe the scene. Rotate the focus ring until the image is clear and sharp.

#### NOTE:

If the automatic shut-off system turns off the device when it is used, turn on the monocular again by double-clicking on the power button.

#### NOTE:

If the bright light cut-off feature turns the device off, it will turn back on automatically once the light in the surrounding environment decreases to an acceptable level, or the device is remitted to a darker area.

#### 2.3.2 IR ILLUMINATOR OPERATIONS

#### NOTE:

The built-in IR illuminator provides additional illumination (when needed) while viewing scenes or targets from a short distance.

The built-in IR illuminator has two power levels. The low power mode allows user to see in total darkness at a distance of up to 3 meters. The high power mode allows user to see in total darkness at a distance of up to 10 meters.

To turn on the built-in IR illuminator in low power mode, press the IR illuminator button briefly.

To turn on the built-in IR illuminator in high power mode, press and hold the IR illuminator button for 2-3 seconds.

A red LED indicator will appear in the FOV to indicate that the IR illuminator is operating.

To turn IR illuminator off, push the IR button again.

#### NOTE:

When you turn off the monocular, the IR illuminator will also turn off.

To focus the IR beam, place the pivotal focusing lens onto the IR illuminator output window.

#### 2.3.3 OPERATING UNDER CHANGING LIGHT CONDITIONS

If the ambient light level exceeds 100-300 lx for more than 10 seconds, the automatic protective system will shut off the intensifier tube. If an operation must be carried out in changing light conditions, the user can shut down the protective system manually by closing the photoreceiver.

#### CAUTION:

DO NOT forget to open the photoreceiver after completing your mission.

#### 2.3.4 NVM SHUT-DOWN

1. Pressing the end of the operating knob. The green glow of the viewing area will fade to black.

2. Secure the lens cap over the objective lens.

3. If necessary, remove the unit from the rail or mount.

4. Unscrew the battery cap and take out the battery. Replace the battery cap. Do not store the unit with the battery still in it.

5. Store the unit and all accessories in the case.

# **3 MAINTENANCE INSTRUCTIONS**

# 3.1 CLEANING PROCEDURES

Wipe the housing with a damp cloth as needed.

#### CAUTION:

Do not use abrasives or solvents to clean the housing, lens, or display window of the device. Do not use ammonia-based cleaning products to clean the lens. Doing so may damage the anti-reflective coating of the lens.

The NVM lens is designed for the harsh outdoor environment and has a coating for durability and anti-reflection, but it may require occasional cleaning. Avoid scratching the lens and/ or leaving fingerprints on the optics. Optics can be damaged by improper cleaning. Clean the lens according to the instructions below.

Do not use abrasive materials, such as paper or scrub brushes, as this can scratch or otherwise damage the lens. Only wipe the lens clean when there is visible contamination on the surface.

Preferred Method for Cleaning the Lens

Materials:

- · Optical-grade cloth
- · Pure water (deionized or other)
- Isopropyl alcohol (IPA)

Saturate a piece of the lens tissue with water and drape it over the lens. Let the surface tension of the water pull the tissue onto the lens surface. Drag the tissue across the lens surface. Repeat several times with different pieces of tissue.

Repeat the same step using isopropyl alcohol instead of water. Drag the final piece of tissue over the lens several times to prevent pooling, which may leave a residue behind.

### 3.2 TROUBLESHOOTING

Table 3-1 lists the most common malfunctions that may occur with your equipment. Perform the tests, inspections, and corrective actions in the order they appear in the table.

This table does not list all the malfunctions that may occur with your device, or all of the tests, inspections, and corrective actions that may be necessary to fix them. If the equipment malfunction is not corrected by the suggested actions, or a problem occurs that is not listed in this table, please contact AGM Global Vision's Customer Support center or your retailer.

#### TABLE 3-1. TROUBLESHOOTING

MALFUNCTION	PROBABLE CAUSE/ TEST/ INSPECTION	CORRECTIVE ACTION
Monocular fails to activate.	Battery is dead, missing or improperly installed.	Replace the battery or install it correctly.
	Battery contact surfaces or contact springs are dirty or corroded.	Clean the contact surfaces with a pencil eraser and/ or alcohol and cotton swabs.
	Defective image intensifier.	Please contact Customer Support.
Battery adapter difficult to remove.	Check for damaged battery adapter and battery cap.	If damaged please contact Customer Support.
IR illuminator fails to activate.	Turn the IR illuminator on in a dark area. Visually estimate whether or not the observed scene is illuminated.	If the IR illuminator fails to activate, please contact Customer Support.
LED indicators fail to activate.	Visual inspection.	Please contact Customer Support.
Poor image quality.	Check objective lens or eyepiece focus.	Refocus the lens.
	Check for fogging or dirt on the lens.	Clean the lens as detailed in Part 3.1. If image quality is still poor, please contact Customer Support.
	Damaged optical components.	Please contact Customer Support
Light is visible around the eyecup.	Check the exit pupil distance value.	Readjust for proper eye-relief distance.
	Check the eyecup resilience.	If the eyecup is defective, please contact Customer Support.
Focusing ring cannot be moved.	Check to see if the focusing ring is bent or broken.	If damaged, please contact Customer Support.
Eyepiece ring cannot be moved.	Check to see if the eyepiece ring is bent or broken.	If damaged, please contact Customer Support.

# 3.3 PREPARATION FOR EXTENDED STORAGE

- 1. Unscrew the battery caps and remove the batteries from the monocular and IR illuminator.
- 2. Inspect the battery compartments for corrosion or moisture. Clean and dry if necessary.
- 3. Replace the battery caps.
- 4. Remove the accessories, if installed.

#### NOTE:

Prior to placing the NVM and its accessories into the carrying case, ensure that the monocular and case are free of dirt, dust, and moisture.

5. Place the monocular and accessories into the carrying case.

## 4.1 WARRANTY INFORMATION AND REGISTRATION

#### 4.1.1 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 reparation. 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.

#### 4.1.2 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.

#### 4.1.3 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).

#### 4.1.4 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 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:

#### AGM Global Vision, LLC

173 West Main Street PO Box 962 Springerville, AZ 85938 Tel. 928.333.4300 support@agmglobalvision.com www.agmglobalvision.com

# **5.1 SPECIFICATIONS**

#### **TABLE 5-1. NVM SPECIFICATIONS**

ITEM	NVM-40	NVM-50
Magnification	1x	1x
Lens System	27 mm; F/1.3	19 mm; F/1.26
Field of View (FOV)	40°	51°
Focus Range	0.25 m to Infinity	0.25 m to Infinity
Eye Relief	25 mm	17 mm
Diopter Adjustment	-6 to +2 dpt	-6 to +2 dpt
LED Indicators (in the FOV)	- Low Battery - IR On - Excessive Level of Light	- Low Battery - IR On - Excessive Level of Light
Bright Light Cut-Off	Yes	Yes
Automatic Shut-Off System	Yes	Yes
Built-In Infrared Illuminator	Yes	Yes
Battery Type	One CR123A (3V) or AA (1.5 V)	One CR123A (3V) or AA (1.5 V)
Battery Life (Operating)	Up to 40 hours at 20°C	Up to 40 hours at 20°C
Operating Temperature Range	-40°C to +50°C (-40°F to +122°F)	-40°C to +50°C (-40°F to +122°F)
Storage Temperature Range	-50°C to +50°C (-58°F to +122°F)	-50°C to +50°C (-58°F to +122°F)
Weight	383 g (0.85 lb)	360 g (0.8 lb)
Dimensions (w/o Eyecup and Lens Cap)	116 × 48 × 73 mm (4.56 × 1.89 × 2.87 in)	110 × 48 × 73 mm (4.33 × 1.89 × 2.87 in)
Overall Dimensions	164 × 54 × 79 mm (6.45 × 2.12 × 3.11 in)	157 × 54 × 79 mm (6.18 × 2.12 × 3.11 in)

#### NOTE:

All data are subject to change without notice.

# APPENDIX

# A. SPARE PARTS LIST

The parts authorized in this list of spare parts are required for operator maintenance. This list includes parts that must be removed in order to replace authorized parts.

The PART NO. Column indicates the primary number used by the manufacturer to identify an item; this number controls the design and characteristics of the item, including standards, engineering specifications, and inspection requirements.

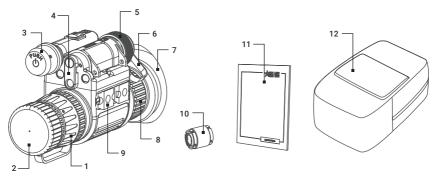


FIGURE 1-2. NVM SPARE PARTS

ITEM	DESCRIPTION	PART NO.
1	Objective Lens Assembly for NVM-40	NVM400LAS
-	Objective Lens Assembly for NVM-50	NVM500LAS
2	Lens Cap	NVMLNCP
3	Power Button	NVM PWBT
4	Pivotal Focusing Lens	NVMPFLN
5	Battery Cap	NVMBTCP
6	Battery Cap Retainer	NVMBCRT
7	Eyecup for NVM-40	NVM40EYCP
-	Eyecup for NVM-50	NVM50EYCP
8	Eyepiece Assembly for NVM-40	NVM40EPAS
-	Eyepiece Assembly for NVM-50	NVM50EPAS
9	Rail	NVMMRL
10	Battery Adapter	NVMBTAD
11	Operation and Maintenance Manual	NVMOMM
12	Carrying Case	NVMCRCS

#### TABLE A-1. NVM SPARE PARTS LIST



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