H9 Binocular low-light night vision Goggles

（Instruction manual）

Product Features：

The H9 Multi-Function Low-Light Night Vision Device is a new product developed using the latest optoelectronic technology. This instrument employs high-performance second-generation/third-generation image intensifiers, featuring excellent performance, compact size, lightweight design, a fully metallic housing, adjustable interpupillary distance, clear imaging, simple operation, compatibility with night vision image output, high cost-effectiveness, and the ability to adjust magnification by replacing the objective lens (or connecting a magnifier). The night vision device is equipped with an infrared auxiliary light source and an automatic anti-glare protection system. This product is highly practical and suitable for military observation, border and coastal defense reconnaissance, police surveillance, evidence collection, customs anti-smuggling operations, and other applications in unlit nighttime environments. It is an ideal device for police departments, armed police units, special police forces, and security patrols.

Technical Specifications：

Model	H9	H9A
Image intensifier grade	Gen2+	Gen3
Magnification	1X	1X
Resolution	45-57	51-63
Cathode surface type	S25	GaAs
Signal-to-noise ratio (decibels)	15-21	18-25
Optical sensitivity (microamperes/lumen)	450-500	500-600

Mean time between failures (hours)	10,000	10,000
Field of view (degrees)	42+/-3	42+/-3
Observation distance (meters)	180-220	250-300
Interpupillary distance range	59-71mm	59-71mm
Eyepiece diopter adjustment range (diopters)	+5/-5	+5/-5
Lens system	F1.2, 25mm	F1.2, 25mm
Optical coating	Multi-layer composite broadband ultra-high vacuum ion-plated anti-reflective coating	Multi-layer composite broadband ultra-high vacuum ion-plated anti-reflective coating
Objective lens adjustment range (meters)	0.25--∞	0.25--∞
Automatic anti-glare	High sensitivity, ultra-fast, broadband detection	High sensitivity, ultra-fast, broadband detection
Auxiliary light source wavelength	850nm	850nm
Night vision imaging (optional)	800-line Video	800-line Video
Flip detection	Fully solid-state, non-contact automatic posture recognition	Fully solid-state, non-contact automatic posture recognition
External dimensions (millimeters) (excluding eyepiece)	130x125x56	130x125x56
Product material	All-aircraft aluminum alloy	All-aircraft aluminum alloy
Weight (grams)	386	386
Power supply voltage (volts)	2.4-3.2V	2.4-3.2V
Battery type (volts)	AAA x2	AAA x2
Continuous operating time (hours)	60(IR off) 35(IR on)	60(IR off) 35(IR on)
Operating temperature range (° C)	-40/+50	-40/+50
Relative humidity	5%-98%	5%-98%
Dust and water resistance rating	IP65（IP67 optional）	IP65（IP67 optional）

Instructions for use：

1. Battery Installation：

   As shown in Figure ①, insert two AAA batteries (refer to the battery markings for polarity) into the night vision device battery compartment, align the battery cover with the threads on the battery compartment, turn clockwise, and tighten to complete the battery installation.

2. Turn on the scope

As shown in Figure ②, turn the work switch clockwise one notch, with the knob pointing to the "ON" position, and the system will start up. At this point, the system will begin to operate, and the tube will light up. (Clockwise rotation is as follows: ON/IR/AUTO) The IR setting turns on the infrared auxiliary light source; the AUTO setting enters automatic mode.

3. Eyepiece adjustment

Select a target with moderate ambient brightness, and adjust the eyepiece without opening the objective lens cover. As shown in Figure ③, turn the eyepiece knob clockwise or counterclockwise to match the human eye's visual acuity. When the target image appears clearest through the eyepiece, the eyepiece adjustment is complete. Different users may need to readjust the eyepiece according to their own vision. Pushing the eyepiece toward the center or pulling it outward can change the eyepiece distance.

4. Objective lens adjustment

The purpose of objective lens adjustment is to clearly view objects at different distances. Before adjusting the objective lens, please first adjust the eyepiece according to the aforementioned method. When adjusting the objective lens, please select a relatively dark environment as the target. As shown in Figure ④, open the objective lens cover, align with the target, and rotate the objective lens focusing knob clockwise or counterclockwise until the clearest image of the

environment is visible, completing the objective lens adjustment. When observing targets at different distances, the objective lens must be readjusted according to the aforementioned method.

5. Operating Modes

This product has a four-position switch with a total of four modes. In addition to the OFF position, there are three other modes: ON, IR, and AT, which correspond to normal operating mode, infrared auxiliary mode, and automatic mode, respectively, as shown in Figure ②.

6. Infrared Mode

When the ambient light is extremely low (completely dark environment) and this night vision device cannot observe clear images, turn the operation switch clockwise one more notch. As shown in Figure ②, the system enters “IR” mode, at which point the built-in infrared auxiliary lighting of this product is activated to ensure normal operation in completely dark environments. Note: In infrared mode, encountering similar equipment may easily expose the target.

7. Automatic Mode

Automatic mode differs from “IR” mode. In automatic mode, the environmental detection sensor is activated, enabling real-time monitoring of ambient light levels and adjusting system operation based on these readings. In extremely low-light or completely dark environments, the system automatically activates infrared auxiliary lighting. When the ambient light level is sufficient for normal observation, the system automatically turns off the “IR” function. When the ambient light level reaches 40-100 Lux, the entire system automatically shuts down to protect light-sensitive core components from damage caused by strong light.

8. Helmet Installation

First, rotate the device locking knob on the helmet mount counterclockwise to the end. Then align the universal mounting bracket of the night vision device with the device mounting slot on the helmet mount, press down firmly on the device anti-disengagement button on the helmet mount, and simultaneously push the night vision device along the device mounting slot until the center of the anti-disengagement button moves to the middle of the universal mounting bracket. At this point, release the anti-disengagement button and rotate the device locking knob clockwise to secure the device. As shown in Figure ⑤. After installing the night vision device, align the helmet mount's mounting latch with the universal equipment mounting slot on the soft helmet. then press the locking button on the helmet mount while rotating the night vision device and helmet mount assembly counterclockwise. When the helmet mount connection bracket is fully aligned with the universal device slot on the soft helmet, release the locking button on the helmet mount to secure the product assembly to the soft helmet. As shown in Figure ⑥.

9. Helmet Adjustment

To ensure smooth horizontal movement when using this night vision component, release the left and right adjustment knobs on the helmet mount when the optimal position is reached. The night vision component will lock into place, completing the horizontal adjustment. As shown in Figure ⑦ in green. Front-to-back adjustment: When adjusting the distance between the night vision eyepiece and the eye, first rotate the device locking knob on the helmet mount counterclockwise, then slide the night vision component front-to-back to the appropriate position. Finally, rotate the device locking knob clockwise to secure the device, completing the front-to-back adjustment, as shown in Figure ⑦ blue.

10. Flip-up helmet

After the product has been properly worn, during actual use, if the night vision device is not currently in use, it can be flipped and placed on top of the helmet. This does not obstruct the current field of view and allows for convenient access at any time. When naked-eye observation is required, press and hold the flip button on the helmet mount to flip the night vision component upward. When the angle reaches 170 degrees, release the flip button on the helmet mount, and the system will automatically lock the flipped position. To lower the night vision component for observation, first press the flip button on the helmet mount, and the night vision component will automatically return to its working position and lock into place. When flipping the night vision component onto the helmet, the night vision system will automatically turn off. When it returns to the working position, the night vision system will automatically turn on and function normally. As shown in Figure ⑧.

11. Objective Lens Replacement

This night vision device supports the replacement of objective lenses with different magnifications to meet requirements for different observation distances (Note: Water resistance will decrease after replacing the objective lens). When replacing the objective lens, first rotate the lens counterclockwise to remove the objective lens installed on the night vision device, then rotate the objective lens to be replaced clockwise and install it onto the main unit of the night vision device.

12. Magnifier Installation

This night vision device not only supports the replacement of objective lenses with different magnifications but also supports the serial connection of magnifiers to adjust the observation magnification, meeting the requirements of different observation distances. (When using serial magnifiers, it does not affect the waterproof capability of the night vision device itself.) Before installing the serial magnifier, first remove the original objective lens cover, then directly twist the corresponding-diameter magnifier to the front end of the original objective lens. This magnifier also supports direct multi-level serial connection. The serial connection method of the magnifier is as follows: , first open the original objective lens cover and directly twist the corresponding magnification lens onto the front end of the original objective lens. This magnification lens also supports direct multi-level series connection, with the same connection method as the objective lens series connection. This night vision device supports three-level magnification lens series connection, with a maximum magnification of 6X.

Troubleshooting:

1. Not lighting up

a. Check if the battery is installed correctly. b. Check if the battery has power. c. Ensure the ambient light is not too bright (needs to be close to nighttime conditions).

2. Image is not clear

a. Check if the eyepiece and objective lens are dirty. b. In a nighttime environment, ensure the objective lens cover is open (do not open during daytime). c. Confirm the eyepiece diopter is properly adjusted (refer to the eyepiece diopter adjustment procedure). d. Confirm the objective lens focus is properly adjusted (refer to the objective lens focusing procedure). e. In a completely dark environment, confirm the infrared auxiliary light source is turned on.

3. Automatic detection not functioning

a. In automatic mode, if the strong light automatic protection does not work, check if the environmental detection area is obstructed. b. In inverted mode, if the night vision system does not automatically shut down, or if installed on a helmet and placed in the normal observation position, the system cannot start normally, check if the helmet mount is correctly connected and secured to the product. (Refer to the head-mounted installation procedure)

Important Notes:

1. Anti-Glare Protection

This night vision system is equipped with an automatic anti-glare protection mechanism that activates when exposed to intense light. While this feature maximizes protection against damage from strong light sources, repeated exposure to intense light can still cause cumulative damage. Therefore, please avoid exposing the product to prolonged or frequent intense light conditions to prevent permanent damage.

2. Moisture Protection

This night vision device is designed with waterproof functionality, with a maximum waterproof rating of IP67 (optional). However, prolonged exposure to humid environments can gradually corrode the product

and cause damage. Therefore, please store the product in a dry environment.

3. Usage and Storage

This product is a high-precision optoelectronic device. Please strictly follow the operating instructions when using it. When not in use for an extended period, remove the battery and store the product in a dry, well-ventilated, cool environment, ensuring it is protected from light, dust, and impact.

4. If the product is damaged during use or due to improper use, please do not attempt to disassemble or repair it yourself. Contact the dealer directly.