



**ALPEN<sup>®</sup>**  
OPTICS



— **APEX THERMAL MONOCULARS**  
Instruction Manual

— Discover the Difference



FCC ID: 2AE3N-BR90D

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

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.

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

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

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Models: Apex Thermal Monoculars, #ATM25 / #ATM35 / #ATM54

## **LIMITED LIFETIME WARRANTY**

ALPEN OPTICS warranties our products to be free from defects in materials and workmanship for a specified period based on product type. ALPEN OPTICS will repair or replace such product or part thereof that upon inspection by ALPEN OPTICS, is found to be defective in materials or workmanship. As a condition to the obligation of ALPEN OPTICS to repair or replace such product, the product must be returned to ALPEN OPTICS together with proof-of-purchase and product registration satisfactory to ALPEN OPTICS.

Limited Warranty is in the USA, USA territories and Canada. For full warranty protection, the product must be registered within 60 days of purchase.



You can scan the QR code to consult the full guarantee terms as well as information on extending the guarantee period and details of our services.



(USA) [www.alpenoptics.com/pages/warranty](http://www.alpenoptics.com/pages/warranty)

## — ABOUT THIS INSTRUCTION MANUAL

 Read the safety instructions and the instruction manual carefully before using this device.

Keep this instruction manual in a safe place for future reference. When the device is sold or given to someone else, the instruction manual must be provided to the new owner/user of the product.

### General warnings

#### **DANGER!**

Children may only use the device under adult supervision. Keep packaging materials (plastic bags, rubber bands, etc.) away from children! There is a DANGER OF CHOKING!

Do not expose the device to high temperatures. Use only the recommended batteries. Do not short-circuit the device or batteries or dispose of in fire! Excessive heat and improper handling can cause short circuits, fires and even explosions!

Do not expose this device - especially the lenses - to direct sunlight! Focusing of sunlight could cause fires.



#### **DANGER OF AN ELECTRIC SHOCK!**

This unit contains electronic parts that are powered by a power source (AC adapter or batteries). Never leave children unattended whilst handling the device! Only use the device as described in the manual. Otherwise, you run the DANGER of an ELECTRIC SHOCK.



#### **RISK OF BURNS!**

Leaking battery acid can lead to chemical burns. Avoid contact of battery acid with skin, eyes and mucous membranes. In the event of contact with acid, rinse the affected region immediately with a plenty of water and seek for medical attention.



## NOTE!

- All electronic operation should strictly comply with electrical safety codes, fire codes, and other pertinent codes in your area.
- Please use the cable normally included in the delivery. The power consumption must not be less or greater than the required value.
- Do not drop the device or expose it to strong mechanical shocks or large electromagnetic radiation.
- Do not clean the device with detergent but use a slightly damp cloth to clean the lens
- Do not expose the device to direct sunlight or similar strong heat sources. Otherwise, blooming or smear effects may occur and at the same time the service life of the sensor will be impaired. The sun can burn into the sensor and cause irreparable sensor damage.
- The optics can be twisted out of the socket if turned excessively. Please turn the optics only so far in both directions until you have optimized the focus of the

device. - If necessary, clean the lens with a slightly damp eyeglass cleaning cloth and do not use physical pressure. The protective surface could be damaged by this.



## Privacy PROTECTION!

The Alpen APEX Thermal is intended for home use. Respect the privacy of your fellow human beings - do not look into private property with this device, for example!

## Scope of delivery

- Thermal device
- Hand strap
- Transport bag
- Instruction manual

## — EQUIPMENT OVERVIEW

- ① Lens / Objective
- ② Power/Standby key
- ③ Photo short press / Video long press
- ④ Arrow key up / Digital zoom (long press) / Calibrate (short press)
- ⑤ Menu key (short press) / PiP mode (long press)
- ⑥ Arrow key down / color change (short press) / heat detection (long press)
- ⑦ Status LED
- ⑧ Diopter wheel
- ⑨ Eyecup
- ⑩ Lens focus



## — CONTROL BUTTONS AND SETTING OPTIONS

### 1. Turn on

Switch on the camera by pressing the power key ② for 2 seconds. The infrared image is switched on, the start screen appears and the LED indicator lights up.

### 2. Switch off

The camera is switched off by pressing and holding the power key ②. Do not release the power key until the screen is dark.

### 3. Standby mode

When the device is switched on, briefly press the power key ② to enter standby mode. Briefly press the power key ② again to return the device from standby mode to the normal state.

### 4. General menu

Pressing the menu key ⑤ briefly opens the menu. Movements within the menu options are performed using up ④ and down ⑥ arrow keys. The selection is made by briefly pressing the M key ⑤.

Pressing and holding the M key ⑤ closes the menu.

Pressing the Photo key briefly takes you back one step in the menu.

### 5. Diopter adjustment

Eyepiece adjustment can help you get the clearest image for different eye conditions. Turn the diopter wheel ⑤ until the characters and labels on the screen can be seen sharply.

### 6. Color mode

Briefly press the down ⑥ arrow key to change the picture mode from white-hot, black-hot, red-hot, yellow-hot, color mode, or to red monochrome. If you keep pressing, the mode starts again from the beginning.

### 7. Adjust brightness and contrast values

The brightness and contrast of the image can be adjusted in 10 levels. To do this, enter the menu with

the M key **5** and select the item Brightness (item 4) or Contrast (item 5) by briefly pressing the M key. With a short press on the M key you select the desired level. You will automatically be taken one step back in the menu.

Info: We recommend that brightness and contrast should not be too far apart. e.g. brightness 2 and contrast 9.

## **8. Clear+ mode**

This mode is preset at the factory. We recommend using it this way. If you do not want the edges and detail optimization of the Clear+ mode or only want it partially, you can adjust it individually in 4 levels each. A higher value provides more details and higher sharpness.

At the same time, this increases the image noise. We therefore recommend the value 2 off and 2 on.

## **9. Digital zoom**

Press the up **4** arrow key for 2 seconds to digitally zoom the image 2x or 4x. Please note that this is not an optical zoom and the image section is digitally

enlarged by 2x or 4x. If you want to optimally adjust the sharpness in 1x magnification, it is recommended that you focus the device on a high-contrast edge (house, stone or even a car) in 2x zoom and then switch back to 1x magnification.

## **10. Photo and videos**

In normal display mode, briefly press the photo key **3** to take photos. For 1 second, a photo icon appears next to the Wifi icon. Press the photo key **3** for 2 seconds to capture video. A video icon flashes in the lower right corner. Press again for 2 seconds to end video saving.

## **11. Heat detection**

Press the down arrow key **6** for 2 sec. to start the heat detection function. The hottest point is marked with a square and moves around depending on the image situation. To deactivate the function, press the down arrow key **6** again for 2 seconds.

## 12. Setting Menu

Press the menu key ⑤ to enter the main menu, and then briefly press the down arrow key ⑥ or the up arrow key ④ to move up and down in the menu.

Briefly pressing the menu key ⑤ again selects the menu item. The following settings can be adjusted:

- Colour palette
- Heat detection
- Zoom
- Brightness
- Contrast
- Clear+ mode
- WiFi
- Picture-in-Picture (PiP)
- Photo/Video
- System settings

When you are finished, press the menu key ⑤ for 2 seconds to exit the menu or wait until it disappears by itself (after about 30 seconds of inactivity).

## 13. WiFi function

Call up the menu by briefly pressing the ⑤ menu key. Point 7: Select the Wifi item and set it to "On". It will remove the dash from the Wifi icon at the bottom right of the screen.

Password: wifi12345678

Connect your smartphone to the WiFi signal. The name of the WiFi signal is **ALPEN WiFi + serial number**. The password is **wifi12345678**. After the WiFi connection is established, you can use the Alpen Thermal APP to view the live camera image. Download the appropriate APP on your smartphone:

### Alpen Thermal

iOS: Apple App Store / Android: Google Play Store



## 14. Calibration mode

The camera has an automatic internal shutter. Through this, the image renews itself regularly and does not lose quality. If you still see vertical lines in the image and find them annoying, you can calibrate the device manually. To do this, briefly press the up arrow key **④**. In the submenu, you can also set whether you want to use the semi-automatic shutter or the silent manual shutter. When you set manual calibration, the internal shutter is disabled. When shuttering (calibrating), you must hold the lens cap in front of the lens or use another object to cover the sensor. If you do not cover the lens in manual mode, a so-called ghost effect occurs, which is why you see the image doubled or covered. Shuttering with a cover can eliminate this error. In the semi-automatic mode, you decide when the instrument should calibrate by briefly pressing the up **④** arrow key. The shutter is triggered by the device.

## 15. Picture-in-Picture (PiP)

When the picture-in-picture function is turned on, a small window appears at the top center with the 2x magnification of the normal image. The mode is activated by pressing the menu key **⑤** for approx. 2 seconds. Press again for 2 seconds to exit the mode.

## 16. Other setting

Select the System item in the menu.

The following points can be changed here:

- Calibrate
- Screen brightness
- Menu bar
- Language
- Date
- Reset
- Pixel repair
- About - device software version etc.

## 17. Pixel repair

Here you are offered the possibility to repair small pixel defects in the image yourself. To do this, open the ⑤ menu and navigate over the defective pixel using the ④ and ⑥ arrow keys. Confirming the pixel will repair it.

## 18. Screen brightness

Here you can adjust the screen brightness. If you prefer a less bright setting at night or in poor lighting conditions, change the brightness preferably here.

## 19. Information about the system

The user can get the current version in the system information. The ⑤ menu under System->About displays the following items:

- Hardware version
- Software version
- Sensor resolution

## 20. Factory provision

Select menu->System->Reset to reset the device to factory settings.

Then select Yes or No. After rebooting the factory settings, the image is restarted in the original delivered status.

## 21. Rechargeable battery

If the indicator is red, it means that the battery is insufficiently supplied. The battery is designed for 500 charging cycles. You can charge with the AC adapter or any other USB power source. Mobile also with a power bank (USB). When charging via USB-C, the LED shows red. A flash additionally appears in the battery symbol of the device.

## 22. Download images and videos

After you connect the device to the computer via USB cable, the device memory (including photos and videos) will open and you can move or backup the photos and video.

## EC DECLARATION OF CONFORMITY

 A "Declaration of conformity" in accordance with the applicable directives and corresponding standards has been prepared by Alpen Optics GmbH.

## DISPOSAL

 Dispose of the packaging materials properly, according to their type, such as paper or cardboard. Contact your local waste-disposal service or environmental authority for information about the proper disposal.

Do not dispose of electronic devices in the household waste! According to the European Directive 2012/19/EU on Waste Electrical and Electronic Equipment and its transposition into national law, used electrical equipment must be collected separately and recycled in an environmentally sound

manner. Batteries and rechargeable batteries must not be disposed of with household waste. You are legally obliged to return used batteries and accumulators and can return the batteries after use either at our sales outlet or in the immediate vicinity (e.g. in the trade or in municipal collection points) free of charge. Batteries and accumulators are marked with a crossed-out dustbin and the chemical symbol of the pollutant, "Cd" stands for cadmium, "Hg" stands for mercury and "Pb" stands for lead.

## — DOWNLOAD THE LATEST SOFTWARE



Scan QR Code or Visit:

**[www.alpenoptics.co.uk/Support-Service/Download](http://www.alpenoptics.co.uk/Support-Service/Download)**

Download the software update manual and choose the correct file for your thermal monocular.

ALP3010025(EU) / ATM25(USA) - ALPEN OPTICS Apex Thermal 25mm / 40mk / 384x288

ALP3010035(EU) / ATM35(USA) - ALPEN OPTICS Apex Thermal 35mm / 40mk / 384x288

ALP3010054(EU) / ATM54(USA) - ALPEN OPTICS Apex Thermal 54mm / 40mk / 384x288



— NOTES



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