ThermTec

Cyclone Series

Thermal Monocular Cyclone Series User Manual

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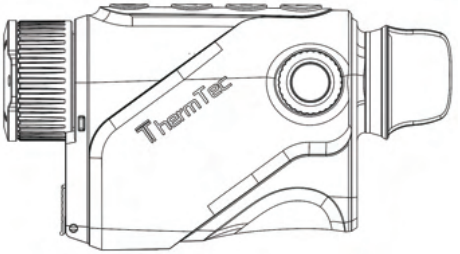

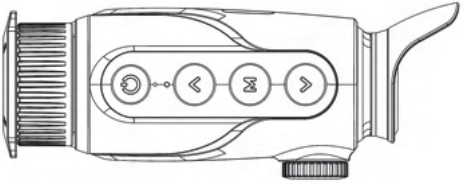

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About this Manual

The Manual includes instructions for using and managing the product, pictures, charts, images and all other information hereinafter are for explanation and description only. The information contained in the Manual is subject to change, without notice due to firmware updates or other reasons. Please find the latest version of this Manual at the ThermTec website (https://www.thermeyetec.com).
Please use this Manual with the guidance and assistance of professionals trained in supporting the product.

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In the event of any conflicts between this manual and the applicable law, the latter prevails.

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SAFETY INFORMATION

Environmental influences

Notes: Never point the lens of the device directly at intense heat sources such as the sun or laser equipment. The objective lens and eyepiece can function as a burning glass and damage the interior components.

Risk of swallowing

Caution: Do not place this device in the hands of small children. Incorrect handling can cause small parts to come loose which may be swallowed.

Safety instructions for use

- Do not expose the device to fire or high temperatures.
- The battery capacity decreases when operated in a cold ambient temperature. This is not a fault and occurs for technical reasons.
- Always store the device in a dry, well-ventilated space. For prolonged storage, remove the batteries.
- Do not expose your device to extreme temperatures lower than - 20°C and higher than + 50°C.
- The product shall only be connected to a USB Type C interface.
- If the device has been damaged or the battery is defective, send the device to our after-sales service for repair.

User information on the disposal of electrical and electronic devices (private households)

The WEEE symbol on products and/or accompanying documents indicates that used electrical and electronic products must not be mixed with ordinary household waste. For proper treatment, recovery and recycling, take these products to the appropriate collection points where they will be accepted without charge. In some countries, it may also be possible to return these products to your local retailer when you purchase a corresponding new product. The proper

disposal of this product serves to protect the environment and prevents possible harmful effects on human beings and their surroundings, which may arise as a result of incorrect handling of waste.
More detailed information on your nearest collection point is available from your local authority. In accordance with state legislation, penalties may be imposed for the improper disposal of this type of waste.

For business customers within the European Union

Please contact your dealer or supplier regarding the disposal of electrical and electronic devices from which could provide you with further information.

Information on disposal in other countries outside of the European Union

This symbol is only applicable in the European Union. Please contact your local authority or dealer if you wish to dispose of this product and ask for a disposal option.

Intended use

The device is intended for displaying heat signatures during nature observation, remote hunting observations and for civil use. This device is not a toy for children.
Use the device only as described in this instruction manual. The manufacturer and the dealer accept no liability for damages which arise due to non-intended or incorrect use.

Function test

- Before use, please ensure that your device has no visible damage.
- Test to see if the device displays a clear, undisturbed image.
- Check that the settings for the thermal imaging camera are correct. See the notes in the Operation section .

REGULATORY INFORMATION

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Directive 2014/53/EU(RED), Directive 2014/30/EU(EMC), Directive 2014/35/EU(LVD), Directive 2011/65/EU(RoHS).

This product and - if applicable - the supplied accessories too are marked with "UKCA" and comply therefore with the following directives: Radio Equipment Regulations 2017, Electromagnetic Compatibility Regulations 2016, Electrical Equipment (Satety) Regulations 2016, the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.

This product and - if applicable - the supplied accessories too are marked with "RoHS"and comply therefore the requirements of Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("RoHS recast" or "RoHS 2").

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

Directive 2006/66/EC and its amendment 2013/56/EU (Battery Directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see:www.recyclethis.info.

1.DESCRIPTION

Cyclone Series Thermal monocular featuring high thermal sensitivity ensures perfect detail recognition even in the hardest weather conditions when the object and background are with minimal temperature difference. Moreover, using Cyclone series thermal monocular includes several benefits over night observation with traditional optics or even night vision devices. The device avails its prominent features dominating various applying occasions, like rescuing, night hunting, hiking, and exploration.

2.FEATURES

Cyclone 315

Cyclone 325

- 384*288 thermal resolution, NETD less than 20mK
- Excellent handheld ergonomic design for a perfect operating experience
- Silent button with no noise
- Various colour palettes for customizable use
- Advanced AI algorithm suitable for diverse distance measurements simultaneously Incomparably simple UI interface
- Up to 32GB storage capacity
- 1024*768 resolution with a 0.39-inch OLED display
- Three types of digital zoom available
- Fast boot within 3 seconds
- Replaceable lithium batteries provide up to 10 hours of continuous work
- A variety of imaging modes including forest, target, and outline

3.SPECIFICATIONS

Model	Cyclone315
	Microbolometer
Resolution	384x288
Pixel Pitch	12μm
NETD	20mK@300k
Spectral range	8-14μm
Frame rate	50HZ
Detection Range	750m
	Optics
Objective lens	15㎜/F1.0
Field of view	17.5° x 13.1°
/ m @100m	30.7m x 23.0m
Magnification	1.4x
Digital Zoom	1x,2x,4x
Eye relief	20mm
Exit pupil	6mm
Diopter	±5D
	Display
Type	AMOLED
Resolution	1024x768
Display size	0.39 inch
Color palette	6
Image mode	Forest/Target/Outline

	Function
Photo/video playback	Yes
Language	Multiple-languages
Inbuilt Memory	32GB
Audio	Yes
Calibration	Auto/Manual
PIP	Yes
AI Distance Measurement	Yes
Heat Track	Yes
OSD Recording	Yes
	Battery
Internal battery	Replaceable and Rechargeable Li-ion Battery (18650x1)
Battery life	10h
	Interface
Type-C	Supports battery charging, data transfer
Hotspot	Yes, App remote control
	Environment
Working temperature	-20℃—+50℃
Protection Level	IP67
Weight, g	255(w/o battery)
Dimension mm	139*76*54
	Accessories
External Cable	USB cable
Other Accessories	Non-dust cloth and etc.

Model	Cyclone325
	Microbolometer
Resolution	384*288
Pixel Pitch	12μm
NETD	20mK@300k
Spectral range	8-14μm
Frame rate	50HZ
Detection Range	1300m
	Optics
Objective lens	25mm/F1.0
Field of view	10.5° x 7.9°
/ m @100m	18.4m × 13.8m
Magnification	2.4x
Digital Zoom	1x,2x,4x
Eye relief	20mm
Exit pupil	6mm
Diopter	±5D
	Display
Type	AMOLED
Resolution	1024x768
Display size	0.39 inch
Color palette	6
Image mode	Forest/Target/Outline

	Function
Photo/video playback	Yes
Language	Multiple-languages
Inbuilt Memory	32GB
Audio	Yes
Calibration	Auto/Manual
PIP	Yes
AI Distance Measurement	Yes
Heat Track	Yes
OSD Recording	Yes
	Battery
Internal battery	Replaceable and Rechargeable Li-ion Battery (18650x1)
Battery life	10h
	Interface
Type-C	Supports battery charging, data transfer
Hotspot	Yes, App remote control
	Environment
Working temperature	-20°C—+50°C
Protection Level	IP67
Weight, g	261(w/o battery)
Dimension mm	135*76*54
	Accessories
External Cable	USB cable
Other Accessories	Non-dust cloth and etc.

Notes:

1. The actual operating time depends on the intensity of using Wi-Fi, video recorder, and AI rangefinder.
2. Improvements may be made to the design and software of this product to enhance its useful features. The specifications of the device may be improved without prior notice.

4.PACKING LIST

Monocular (x1)

USB cable (x1)

Charger (X1)

Lens cloth (x1)

User manual (x1)

Lithium battery (X2)

5. COMPONENTS AND CONTROLS

5.1 Appearance of Cyclone

5.2 Description of Controls

Before entering the main menu			
	Short press	Long Press	Double click
	Standby Mode	Turn On/Off	Calibration
	Zoom In/Out	AI Rangefinder	N/A
	Capture	Record	Main Menu
	Pseudo Colors	Outline Mode	N/A

After entering the main menu			
	Short press	Long Press	Double click
	Standby Mode	Turn On/Off	Calibration
	Cursor Up	N/A	N/A
	Confirm	Withdraw	N/A
	Cursor Down	N/A	N/A

6.OPERATION GUIDE

WARNINGS

Cyclone series has been designed for long-term use. To ensure sustainable performance, please adhere to the following:

- Due to it the thermal monocular, no aiming behaviour to the hot resources is allowed.
- Store with the lens cap on in the carrying case.
- Switch off the device after use.

Attempts to disassemble or repair the device will void the warranty!

- The device is designed for use in various operating temperatures. However, if it has been brought indoors from cold temperatures, do not turn it on for 2 to 3 hours. This will prevent external optical surfaces from condensation.
- To ensure reliable performance, it is recommended to carry out regular technical inspections of the device.

6.1 Power On/Off

Long press the power button for 3s to power on/off the Cyclone.

6.2 Image Correction

Double-click the power button for image correction. Please refer to the “Correction” section for detailed guidance of image correction.

6.3 Standby Mode

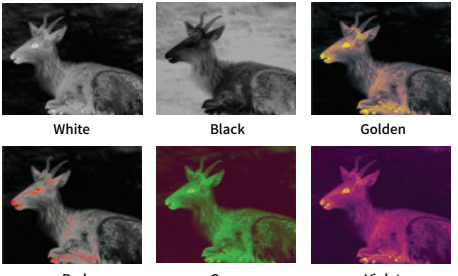
Short press the power button to enable standby mode, and press the power button again to wake it up.

6.4 Lens Focus Adjustment

Open the lens cover, rotate the lens focus knob to focus on the object being observed.

6.5 Pseudo Color Switch

Short press ⌄ to change the pseudo colors. There are totally six pseudo colors
(white hot, black hot, red hot, green, golden, violet) for user choice.

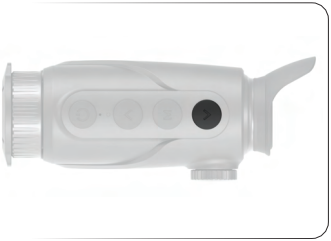


White | Black | Golden

Red | Green | Violet

6.6 Target Outline Mode

Long press ⌄ to turn on/off the Target Outline Mode.



6.7 AI Rangefinder

AI rangefinder function is used to check the distance of the target. Double click ⌃ to turn on/off the AI rangefinder function. You will see distance information on the display after activating this function.

6.8 Zooming Adjustment

Short press ⌃ to adjust the zooming rate of the monocular. There zooming ranges from 1x to 4x.

6.9 Diopter Adjustment

Adjusting the diopter knob to achieve clear view towards the OLED screen. The adjustable range is ±5D.

6.10 Device Charging

There are two means to charge the device, no matter charge the device from a type-c cable directly or take out the battery and charge the battery with the given charger.

Charge through the device

Connect the given type-c cable with the device and connect the other side the the power source can charge the device directly.

Charge the battery

The battery can be easily taken off and charge the battery with the battery charger is also possible.

7.MAIN MENU

- On the home screen, double-click the menu button “M” to enter the main menu interface.
- In the main menu, short-press the “∧/∨” button to switch the menu options.
- Short press the menu button “M” to adjust the parameters of the present option.
- Press and hold the down menu button “M” for 3 seconds to exit to the home screen.
- Short press the Menu button “M” to save.

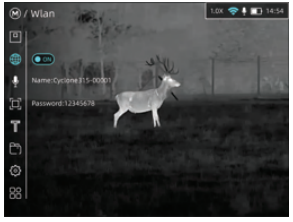
Main Menu function descriptions

PIP

Turn PIP on/off

- Double click the menu button “M” to enter the main menu.
- Select the PIP option with the “∧/∨” button.
- The icon will be turned into blue when PIP is selected.
- Short press the menu button “M” to turn on the PIP feature.

Wlan



Turn Wlan function on/off

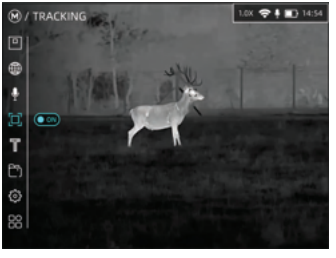
- Double click the menu button “M” to enter the main menu.
- Select the Wlan option with the “∧/∨” button.
- The icon will be turned into blue when Wlan is selected.
- Short press menu button “M” to switch the status of Hotspot.
- When the Hotspot is turned on, it can be connected with “ThermTec Outdoor” APP. The default hotspot password is 12345678.

MIC

Turn MIC function on/off

- Double click the menu button “M” to enter the main menu.
- Select the MIC option with the “∧/∨” button. Short press menu button “M” to shift its status.
- Voices info will be recorded in recordings if the MIC feature has been turned on.

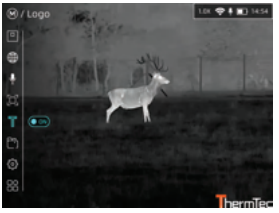
TRACKING



Turn on Tracking feature on/off

- Double click the menu button M to enter the main menu.
- Select the Tracking option with the ∧/∨ button. Short press menu button M to turn it on/off
- When you turn on this feature, it will label the highest temperature point in the field of view.

Logo



Turn the Logo on/off

- Double click the menu button “M” to enter the main menu.
- Select the Logo option with the “∧/∨” button.
- Short press menu button “M” to enter turn on/off the Logo.
- Depend on ones using preference, you can decide whether the logo should be displayed in the right corner or not.

Files

View Images/Videos in Files

- Double click the menu button “M” to enter the main menu.
- Select the Files option with the “∧/∨” button.
- The icon will be turned into blue when Files is selected.
- Short press menu button “M” to enter Images file or Record file.
- Then we can check the captured images and recorded videos.
- Of course, the images/videos can be processed at you willing, delete the selected one, delete all the footage, or you can skim them one by one.

Advanced Menu

Image

Access Further Sets in Advanced Menu

- Double click the Menu button “M” to enter the main menu.
- Select the Advanced Menu option with the “ ∧/∨ ” button.

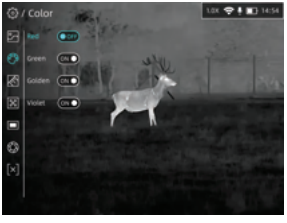
- Short press menu button “M” to enter Advanced Menu.

Advanced Menu

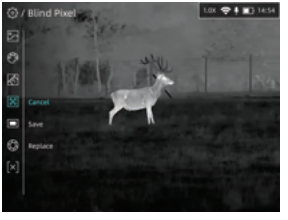
Color

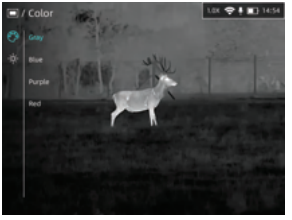
- We can set various parameters here, such as images parameters, color, ranging, Blind Pixel, OLED, Correction, Shutdown.
- Select Image and enter the image set. We can set various image parameters here, such as brightness, contrast, sharpness, denoise and image mode here. The adjusting level ranges from 1-10, the default value is 5.

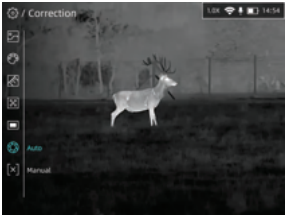
- Two image modes meet the need of various scenarios.



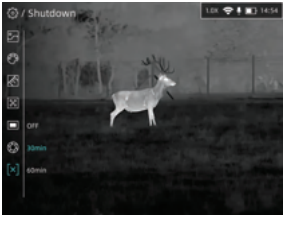
- The users can customize the colors the like and decide if they are put in the color palettes.

Advanced Menu	**Ranging**		● Also, we can set the model size in the AI rangefinder under the advanced menu.
	Blind Pixel		● Some small dead pixels can be erased by the function of Blind Pixel. Keep pressing the Replace until the dead pixels are removed, attention: The whole dead pixel removing process is not a one-time thing, the operation may carry multiple times sometimes.
	OLED		● OLED color can be set in the OLED setting.

<table>
<tr>
<td rowspan="2">Advanced Menu</td>
<td>Correction</td>
<td>




Here are 4 choices of OLED colors for us under the OLED settings. Also the OLED brightness can be set here too, the adjustable ranges from 1-5.
The image correction can be set by Auto and Manual.

</td>
</tr>
<tr>
<td>Shutdown</td>
<td>


Shutdown function can save battery power for you, if you don’t use your device for long time. The device can be set to turn off after 30 mins, 60 mins and you can turn off the shutdown feature.

</td>
</tr>
</table>

System

M-YD

System setting

- Double click the menu button “M” to enter the main menu.
- Select the System option with the “∧/∨” button.

- Short press menu button “M” to enter System. And press one more time to set the system unit. Here we can select M/YD.

System	**Time**		● The device time can be set in the Time setting.
	Date		● The device date can be set in Date setting
	Language		● The supported language can be set in the language setting.

System	**Version**		● We can check the device SN(serial number) and Version in the Version setting.
	Reset		● Reset function is available in Reset setting.
	Update		● The upgrading operation is required to be carried manually after copying the upgrading package to the file of storage via PC.

8.CAPTURING AND RECORDING

A built-in 32GB storage space set for image capturing and video recording. The files of images and videos will be named by the device time, so it is recommended to set the time in the main menu before using the image capturing and video recording function.

Image Capturing

- Press the camera button “M” to take a photo and a capture icon appears on the screen.

- Images are saved in the built-in storage space.

Video recording

- Press and hold down the camera button “M” to start a video recording.
- A recording timer displays on the top of the screen. The time format is HH:MM:SS (Hour:Minute:Second).

- You may enter the menu and enable other functions during video recording.
- Press and hold down the camera button “M” to stop and save the recording.
- The videos are saved in the built-in storage space.

Caution:

- The number of the recorded files is limited by the capacity of the internal memory.
- Check the available space of the built-in storage space regularly and move the footage to other storage media to free up the memory space.

9.MEMORY ACCESS

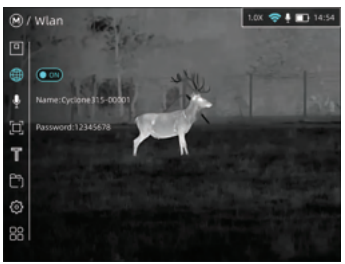
When the device is turned on and connected to a computer, it is recognized by the computer as a flash memory card, which is used to access the device's memory and make copies of pictures and videos.

- Turn on the Cyclone and connect it with the computer via Type-C cable.
- There is an extra disk in the disk zone, enter the disk.
- Images and videos are saved separately in the folders of “Image” and “Record”.
- There are different images and videos named by time in the storage.
- Select desired files or folders to copy or delete.

10.HOTSPOT FUNCTION

A built-in hotspot module is integrated in the Cyclone, which enables the device to connect wirelessly to external devices such as smart phones.

- Double click Menu button “M” to enter the main menu.
- Turn Hotspot function on /off with a short press of menu button “M”.



- Turn on “ThermTec Outdoor” APP, select Wi-Fi, and type in the password on the mobile device to finish the connection. The initial password is 12345678.
- When Wi-Fi is successfully connected, you can control the device via “ThermTec Outdoor” APP.

11.DOWNLOAD “ThermTec Outdoor” APP

You may search "ThermTec Outdoor" in Apple Store or Google Play to download the “ThermTec Outdoor” APP, or download it through the QR code shown on the packing box, user manual or below.

Download on the App Store

GET IT ON Google Play

12.TECHNICAL INSPECTION

A technical inspection of the device is recommended before use.

- Check the external appearance of the device (there should be no cracks in the casing).
- Check the condition of the lens and eyepiece (there should be no cracks, greasy spots, dirt or other deposits).

13.MAINTENANCE

Maintenance should be carried out at least twice a year and consist of the following actions.

- Wipe the external surfaces of metal and plastic parts free of dust and dirt with a cotton cloth. Silicone grease maybe used for this.
- Check the glass surfaces of the eyepiece and the lens. If necessary, remove dust and sand from the lenses (preferably using a non-contact method). Cleaning of the external surfaces of the optics should be done with substances designed especially for this purpose.

14.FIRMWARE UPGRADE

Cyclone series thermal monocular is supported by the “ThermTec Outdoor” APP, which allows you to transmit the images and videos from the device to the smartphone or tablet via Hotspot in real time.
The electronic version of this User Manual and the latest firmware can be downloaded from the ThermTec website: www.thermeyetec.com. Firmware upgrade can also be finished via the “ ThermTec Outdoor ” APP.

Upgrading via APP

- Enter ThermTec Outdoor APP and turn on the GPS function and cellular network of your phone manually.

- Select the corresponding package and download.
- Enter the upgrade module and press upgrade, attention: In order to obtain a stable upgradation, it' s advised to turn off your cellular network during upgradation.
- After finishing the update, the device will reboot automatically.
- Instructions for detailed upgradation can also be downloaded from the official website or you can access our social media for firmware upgradation on ThermTec Outdoor.

Upgrading via PC

- Please download corresponding upgrading package from official website. www.thermeyetec.com.
- Unzip the package just downloaded.
- Connect the device to PC via Type-c data cable.

- Copy the related updating firmware to the file folder named storage of Cyclone. Press "M" to select Update icon, and the system will prompt "Update".

- Enter Version setting to check firmware version.

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