



Burris

BTH19 v2



BTH35 v2



BURRIS THERMAL HANDHELD

BTH19 v2 | BTH35 v2

USER MANUAL

**OVERVIEW:**

Congratulations on your purchase of a Burris Thermal Handheld imager. Please review this manual prior to operation and save it for future reference. This guide explains the operation of the BTH19 v2 and BTH35 v2 models.

CAUTION:

Do not point thermal imaging devices at high-intensity energy sources such as the sun or laser emitters as they can permanently damage the infrared detector!

ACCESSORIES:

Neck Strap

Carrying Case

Wrist Strap

M1913 Accessory Rails

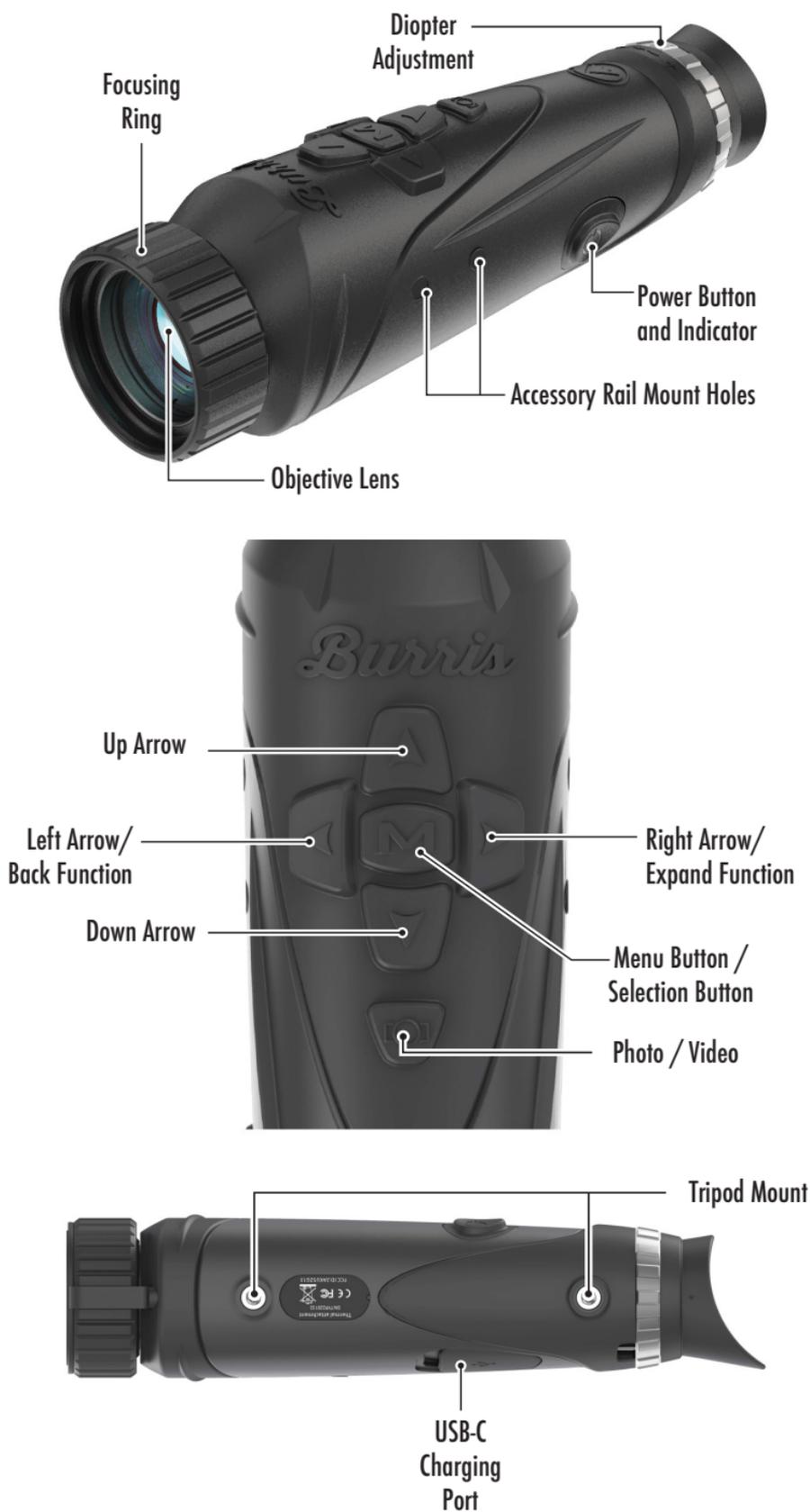
USB-C To USB-A Cable

USB-C To RCA Cable

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BURRIS THERMAL HANDHELD PRODUCT MAP



BURRIS THERMAL HANDHELD TECHNICAL SPECIFICATIONS

Model	BTH19 v2	BTH35 v2
Detector		
Detector Type	VO _x	
Resolution and Pitch	400 x 300 - 12μm	
Spectral Range	8 to 14μm	
NETD	≤ 50mk @F1 25°C	
Detection Distance (Deer)	500m 550yds	1000m 1100yds
Optical Properties		
Focal Length	19mm F1.0	35mm F1.0
Focusing	Manual Focus	
Field of View (DEG)	14.4 x 10.8°	7.8x5.9°
Imaging		
Frame Rate	50 Hz	
Optical Zoom	1.8X	3.3X
Digital Zoom	1X to 4X	
Display		
Display Type	0.4" LCOS	
Resolution	1280x960	
Eyepiece	Exit pupil distance ≥ 17mm, Exit pupil diameter ≥ 5.3mm	
Eyepiece Magnification	13.8X	
Power		
Battery Type	2X 18650 (internal)	
Battery Life	≥ 5 hours @25°C	
Auto Standby	Off/5 Min/10 Min/15 Min	
Auto Power Off	Off/15 Min/30 Min/60 Min	

TECHNICAL SPECIFICATIONS

CONTINUED

Interface	
USB-C	Power/Charge File Transfer Video
Video Interface	Burriss Connect APP (Live video streaming) Analog video (USB-C to RCA)
Mounting Interface	UNC 1/4 - 20 threaded insert Accessory picatinny rails (included)
Environmental	
Operating Temperature	14°F to 122°F -10°C to 50°C
Waterproof	YES
Physical Attributes	
Weight	≤630g ≤22oz
Dimension (LxWxH)	249mm x 61mm x 70mm 9.8in x 2.4in x 2.8in

BURRIS THERMAL HANDHELD PRODUCT FUNCTION

Model	BTH19 v2	BTH35 v2
Smooth Zoom	YES	
Photo	YES	
Video	YES	
WI-FI	YES	
Screen Brightness	Slider Scale	
Thermal Intensity	Slider Scale	
Image Contrast	Slider Scale	
Image Enhancement	YES	
Scene Mode	Enhanced/Highlight/Nature	
Super Energy Saving Mode	YES	
Color Palettes	White Hot/Black Hot/Red Hot/ Green Hot/Blue Hot	
Hot Track	YES	
Working Indicator	Adjustable	
Charging Indicator	Adjustable	
Calibration Model	Automatic/Manual	
Stadiametric Rangefinder	YES	
Auto Power-off	Off / 15 min / 30 min / 60 min	
Auto Stand-By	Off / 5 min / 10 min / 15 min	
Language Settings	English, Spanish, Italian, French, German, Russian, Finnish, Swedish, Danish, Polish	
Time Settings	YES	
Watermark Settings	YES	
PIP	Upper Left, Upper Middle, Upper Right, OFF	
Restore Default	Restores Factory Settings	
Memory Card Formatting	YES	

BURRIS THERMAL HANDHELD BUTTON FUNCTION

Model	BTH19 v2	BTH35 v2
Not In Menu Button Function - SHORTCUT MENU		
Right Button	Toggle Scene Modes	
Left Button	Toggle Color Palettes	
Up Button	Increases Magnification (Max 4X)	
Down Button	Decreases Magnification (Min 1X)	
In Menu Button Function		
M Button	Press to display Settings Menu/ Make Menu Selections	
Up/Down Button	Use to navigate Menu	
Right Button	Expand menus	
Left Button	Back function	
Photo / Video Button		
	Short Press	Long Press
Video Mode		Starts Video Recording; Hold Again to Stop Video Recording
Photo Mode	Takes Photo	





USB-C PORT

USB-C TO USB-A

The charging cable provided is a USB-C to USB-A cord. Operating the device while plugged in will still allow the device to charge.

CHARGING INFORMATION

The Power button displays a green LED that functions as a Working Indicator. The green LED will remain illuminated while powered on, and in sleep mode. The Working Indicator will pulse when the device is charging (Charging Indicator). The Working Indicator can be turned off in the General Settings (see page 17).

The thermal imager must be fully charged prior to first use. Charge the imager for a minimum of 4 hours or until the Charging Indicator stops pulsing.

Note: Charging specifications: 5V, 2A. Do not charge the battery in an environment over 40° C or 104° F.

USB-C TO RCA

The BTH is provided with a USB-C to RCA cable so the BTH display can be seen on a larger screen or captured on a DVR device.

BUILT-IN PHOTO / VIDEO RECORDING

The BTH locally stores recorded videos and photos in the built-in 16GB memory card. Transfer files to a mobile device through the BurrisConnect App or to a PC through a USB cable. Learn how to connect and download our App (see page 19). Use Reformat Storage to clear the memory card (see page 21).



POWER FUNCTION

POWER OFF



To fully power off the thermal imager, hold the Power button down until you see the power off progress bar complete and the unit is powered off.

To cancel the shutdown process simply release the Power button before the progress bar is full. This operation will manually trigger Standby mode.

STAND-BY MODE

To place the thermal imager into Stand-by mode, Press and hold the Power button then release before the power off progress bar completes. Standby mode deactivates the display and places the processor into lower power consumption state. The thermal imager can be quickly turned back on with the press of the Power button. While in Standby, the unit stays connected to the App via WI-FI.

AUTO POWER OFF

The BTH includes an Auto shutdown function if no activity has been detected. Inactivity duration can be changed in the power settings (see page 20). Pressing any button will restart the inactivity duration timer.

AUTO STANDBY



The BTH includes an auto Standby function if no activity has been detected. Inactivity duration can be changed in the power settings (see page 20). Pressing any button will restart the inactivity duration timer.

Note: Quick press Power button to hide menu screen.



FOCUSING THE BURRIS THERMAL HANDHELD

ADJUSTING THE DIOPTER

The eyepiece can be focused so that the display appears sharp and clear. Follow this procedure to quickly adjust the focus.

1. Turn the imager on and open the Menu. If the Menu icons and text appear sharp and clear, no further adjustment is necessary.
2. If the Menu icons and text do not appear sharp and clear, rotate the silver diopter adjustment ring located close to the eyepiece until the Menu icons and text are sharp and clear.

ADJUSTING THE OBJECTIVE LENS

The Focusing Ring is located on the objective end of the BTH and is used to fine tune focus. Frequent focusing on objects at different distances will ensure a crisp image.

Min Focus Distance: BTH35 v2 - 3ft | BTH19 v2 - 18in

LENS COVER

We suggest covering the Germanium lens with the provided lens cover to protect the lens when the product is not in use.

MAGNIFICATION, ZOOM

When the screen does not display menu settings use the up and down buttons to adjust the magnification of the window image. There is 1x, 2x and 4x magnifications.

Hold the Up and Down buttons to enable Smooth Zooming.

MENU OPTIONS

To open the Thermal setting Press the “M” button to display menu options.

The menu icons you see are described below;



COLOR PALETTE



THERMAL SETTINGS



GENERAL SETTINGS



STADIAMETRIC RANGEFINDER



WI-FI



POWER SETTINGS



STORAGE SETTINGS



RESTORE FACTORY SETTINGS



COLOR PALETTE

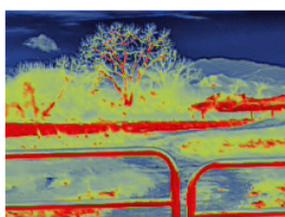
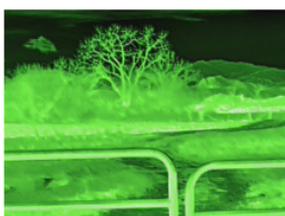
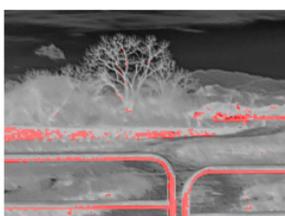
WHITE HOT - Objects with higher temperatures are shown in white or light gray.

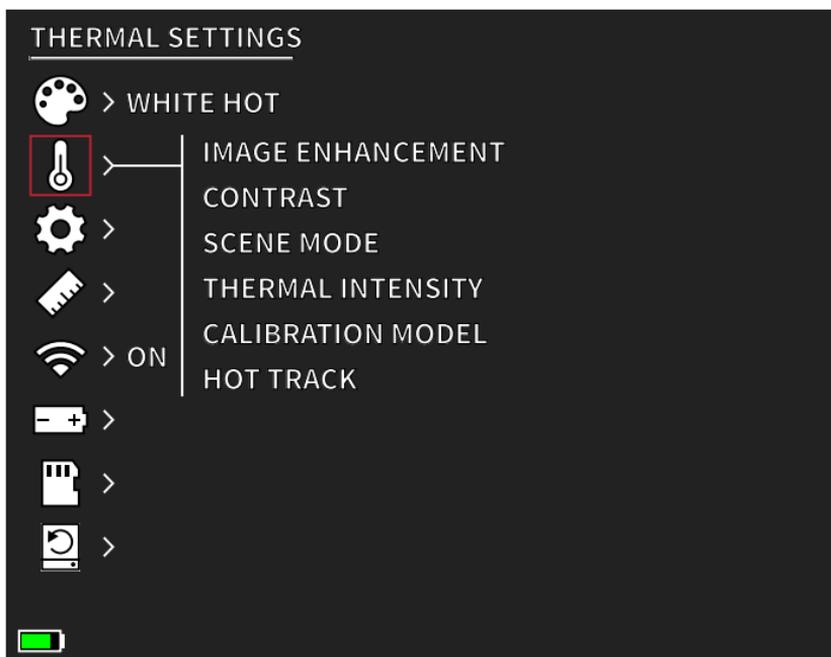
BLACK HOT – Objects with higher temperatures are shown in black or dark gray.

RED HOT – Objects with higher temperatures are shown in red. Users can adjust the intensity of the red in the color profile under the Thermal Settings drop-down, then Thermal Intensity.

GREEN HOT – Objects with higher temperatures are shown in lighter green.

BLUE HOT - Objects with lower temperatures are shown in blue or dark blue and higher temperatures are shown in red and yellow.





THERMAL SETTINGS

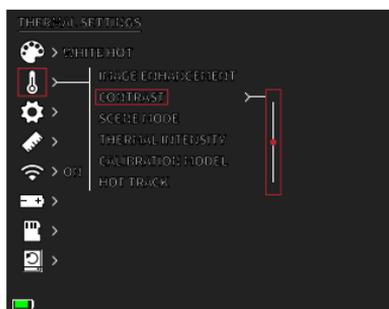
IMAGE ENHANCEMENT

ON/OFF SETTING

Image enhancement automatically adjusts the image output to best see all thermal details within the scene.

CONTRAST

Contrast of the image can be adjusted using the up and down arrows. A slider bar will display on the right side of the screen.



SCENE MODES

Burriss thermal devices can be programmed to operate using three different Scene Modes that use a built-in algorithm to improve image quality and thermal detection capabilities in various environments. Depending on your environmental conditions, choose which scene mode works best for you.

- **Nature Mode:**

Provides the highest amount of thermal differentiation on screen by employing the most color scales. This mode is most useful in environments where objects in the field of view are at similar temperatures.

- **Enhanced Mode:**

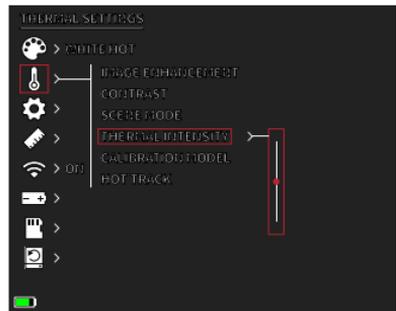
Highlights the hottest objects in the field of view by significantly increasing their intensity.

- **Highlight Mode:**

Creates significant contrast between hottest and coldest objects in the field of view by increasing the intensity of the hottest objects and decreasing the intensity of the coldest objects.

THERMAL INTENSITY

Changes the range of color towards either end of the temperature scale for the active color palette. Hotter objects can be made to appear hotter or colder using this setting.



CALIBRATION MODE

- **Automatic:**

The device automatically corrects the image quality without any action.

- **Manual:**

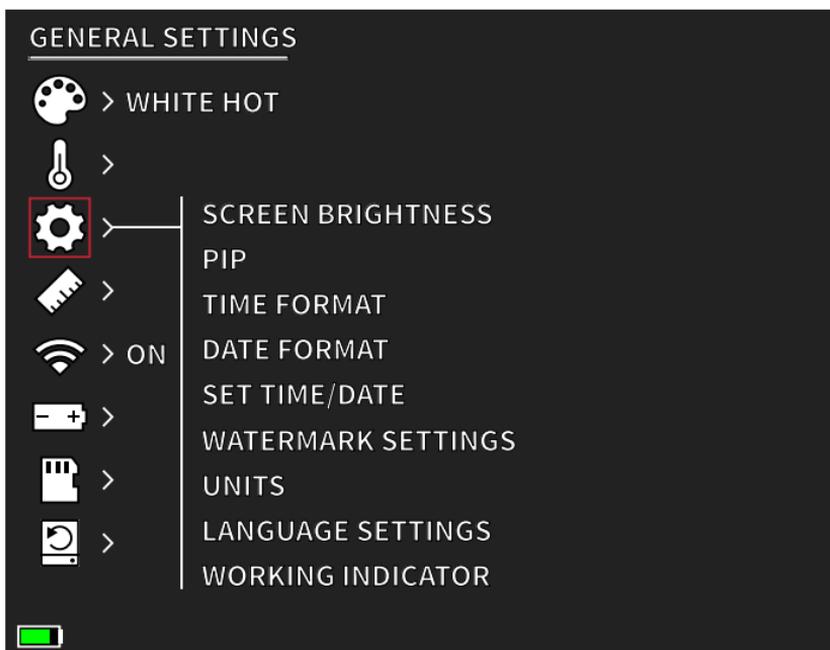
The user manually corrects the image quality as needed and the device shutter closes for calibration.

HOT TRACK

ON/OFF SETTING

When hot track is turned on, the active white crosshairs track the point with the highest temperature in the scene.





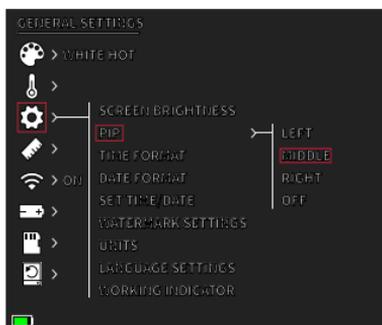
GENERAL SETTINGS

SCREEN BRIGHTNESS

Brightness levels can be adjusted using the up and down arrows. A slider bar will display on the right side of the screen.

PIP (PICTURE IN PICTURE)

When the PIP window image is ON a 2x magnification of the main image is in the display.



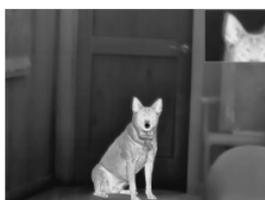
The user has the option to place the PIP window in the upper left/middle/right area of the display.



LEFT



MIDDLE



RIGHT

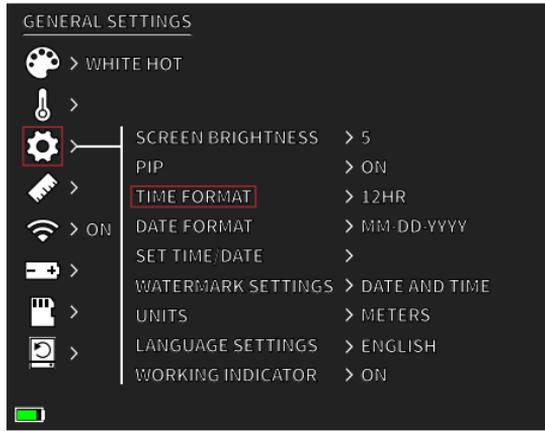
TIME FORMAT

- 12 hr /24 hr

Choose between either standard or military time.

DATE FORMAT

- MM-DD-YYYY
- DD-MM-YYYY
- YYYY-MM-DD



SET TIME/DATE

- Input for date (day, month, year).
- Input for time (hour, minute)



WATERMARK SETTINGS

Users can choose the display style of date and time watermark on the screen.

- Date Only
- Time Only
- Date and Time
- None

UNITS

The thermal imager can display in standard or metric units.

LANGUAGE SETTINGS

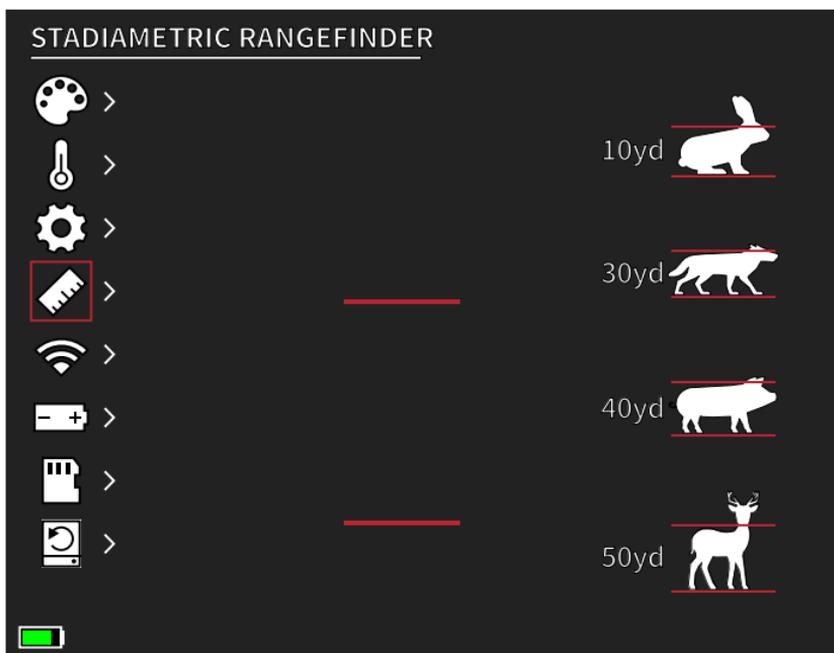
Users can select between 10 languages: English, Spanish, Italian, French, German, Russian, Finnish, Swedish, Danish, Polish

WORKING INDICATOR

ON/OFF SETTING | ADJUSTABLE SLIDER 1-10 (LED BRIGHTNESS)

The green LED on the Power button can be turned on or off and the brightness level of the green LED can be adjusted.

STADIAMETRIC RANGEFINDER



STADIAMETRIC RANGEFINDER

BUTTON FUNCTION:

Up Arrow - Increase Spacing, 1 unit

Down Arrow - Decrease Spacing, 1 unit

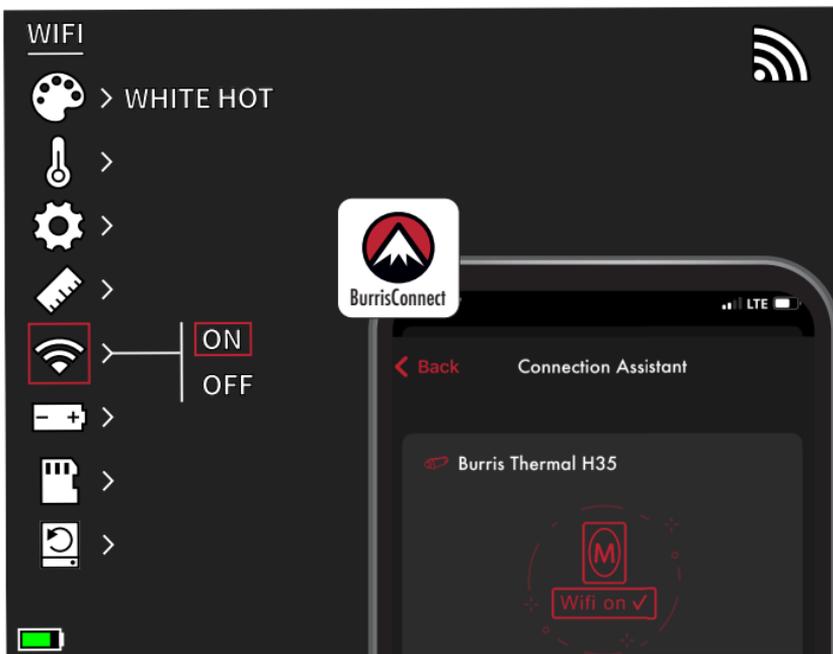
The stadiametric rangefinder lets you estimate the distance of a target. There are four stadia available on the device:

Rabbit (20 cm/7.8 in.), Coyote (52 cm/20.4in)

Hog (80cm/31.4 in.), Deer (100 cm/39.3 in.).

HOW TO USE THE STADIAS:

- Align the lower horizontal line with the bottom of the target image. Press the Up/Down button to change the width between the upper and lower horizontal lines until the upper horizontal line is aligned with the top of the target icon.
- The distance can now be calculated and displayed automatically.
- By comparing the target size with the three reference animal sizes, the user can roughly calculate the distance of the target.



WI-FI SETTINGS

The thermal imager can be connected to the mobile phone app via WI-FI and the thermal imager can be operated remotely.

When WI-FI is turned on, but not connected, the WI-FI icon will flash.

When the WI-FI is connected, the WI-FI icon is always on.



DOWNLOAD
BURRISCONNECT

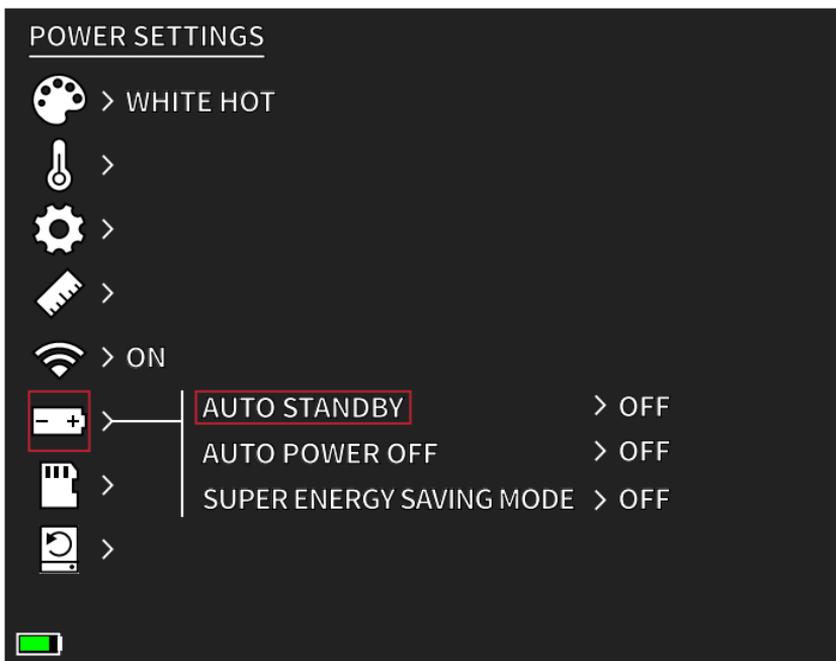
On a mobile device, search and download 'BurrisConnect' in the mobile phone app market.

Open BurrisConnect and find the WI-FI name of "BTH-XXXX" in your mobile phone WI-FI settings.

DEVICE NAME: BTH-XXXX
PASSWORD: 12345678

After the connection is successful, the user can operate remotely.

- Android - Download in Google Play
- IOS - Download in the Apple App store



POWER SETTINGS:

AUTO STAND-BY

If there is no operation in the setting time, it enters Stand-by mode. If the work indicator is on before entering Stand-by mode, the work indicator will flash in Stand-by mode.

- Auto Stand-by Timeout Options
OFF | 5 MIN | 10 MIN | 15 MIN

AUTO POWER

If there is no operation in the setting time, the thermal imager will power off automatically.

- Auto Power Timeout Options
OFF | 5 MIN | 30 MIN | 60 MIN

SUPER ENERGY SAVING MODE

- Super Energy Saving Mode
OFF / ON



The Super Energy Saving icon will display in the bottom left-hand corner, next to the battery indicator when the mode is turned on. While the mode is activated, WI-FI and Screen Brightness settings are disabled.

Note: Auto Stand-by and Auto Power-off cannot be performed while WI-FI is connected.

STORAGE SETTINGS:

Reformat Storage

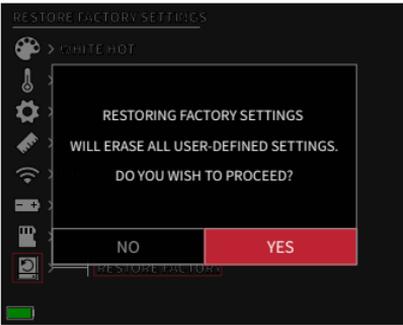
- YES / NO

Note: Reformatting storage deletes all stored media on the device.



RESTORE DEFAULT

This function restores the factory settings.



BURRIS THERMAL HANDHELD TROUBLESHOOTING



PHOTO SAVED



**PHOTO NOT SAVED.
INSUFFICIENT STORAGE**



**PHOTO CAPTURE FUNCTION UNAVAILABLE
(UNPLUG USB CABLE)**



VIDEO SAVED



**VIDEO NOT SAVED.
INSUFFICIENT STORAGE**



**VIDEO CAPTURE FUNCTION UNAVAILABLE
(UNPLUG USB CABLE)**



WI-FI IS ON AND DEVICE IS CONNECTED



WI-FI IS ON AND DEVICE IS NOT CONNECTED



**WI-FI DISABLED
SUPER ENERGY SAVING MODE ACTIVATED**



**SCREEN BRIGHTNESS ADJUSTMENT DISABLED
SUPER ENERGY SAVING MODE ACTIVATED**



STORAGE ALMOST FULL



INSUFFICIENT STORAGE



**EXTREMELY LOW BATTERY WARNING
SHUTDOWN IMMINENT**

STORAGE AND MAINTENANCE

When the thermal imager will be not used for a long time, store it in a dry, well-ventilated environment. Charge the thermal imager at least four hours every two months during the storage. Neglecting to follow the charging procedure during storage will reduce the battery's lifespan.

The infrared lens of the thermal imager is coated with an anti-reflection film. Clean the lens only when dirt or smudges are present. Frequent scrubbing may damage the lens coating. To clean non-optical surfaces of the thermal imager, do not scrub with chemical solvents or cleaners. On exterior surfaces, wipe with a soft and dry microfiber cloth.

WARRANTY

The Burris Thermal Handheld products are covered by Limited Warranty. Burris will repair or replace your product if it is defective. Do not disassemble the thermal imager as this will void the warranty. Contact your nearest Burris dealer for assistance.

For detailed warranty information scan the QR codes below.



US WARRANTY
3 YEAR



INT WARRANTY
2 YEAR

TRANSLATIONS

This manual is available in English, Spanish, Italian, French, German, Russian, Finnish, Swedish, Danish, Polish; Scan QR code or visit www.burrisoptics.com/customer-service/manuals to see translations.





BURRIS COMPANY INC

331 East 8th St.,

Greeley, CO 80631

1-888-440-0244

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BURRISOPTICS.COM