



Burris

BTC35 v2



BURRIS THERMAL CLIP-ON

BTC35 v2

USER MANUAL

**OVERVIEW:**

Congratulations on your purchase of a Burris Thermal Clip-on. Please review this manual prior to operation and save it for future reference. This guide explains the operation of the BTC35 v2.

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:

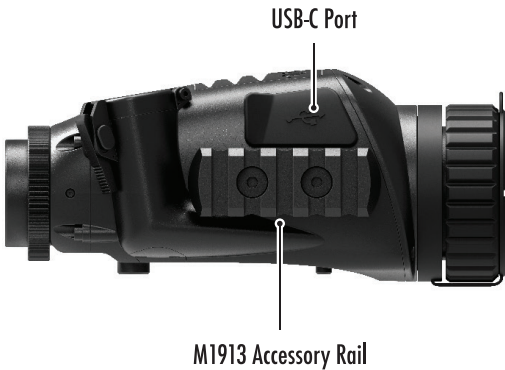
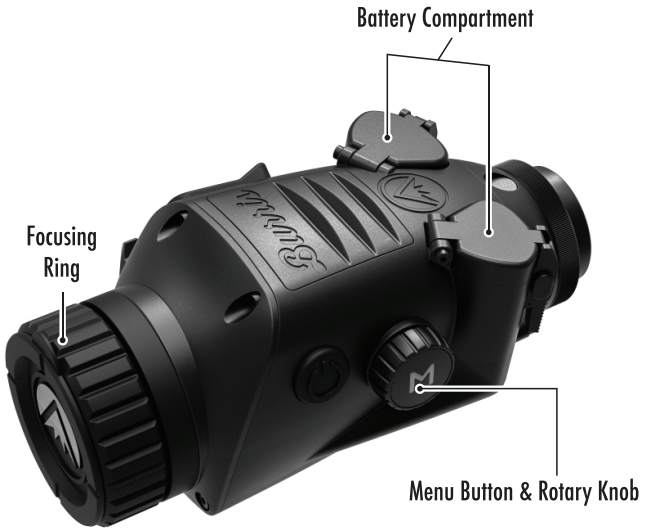
USB-C To USB-A Cable

USB-C To RCA Cable

BURRIS THERMAL HANDHELD TABLE OF CONTENTS

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BURRIS THERMAL CLIP-ON PRODUCT MAP



BURRIS THERMAL CLIP-ON TECHNICAL SPECIFICATIONS

Model	BTC35 v2
Detector	
Detector Type	VO _x
Resolution and Pitch	400 x 300 - 12 μm
Spectral Range	8-14 μm
NETD	≤ 50 mk @ F1 25 °C
Detection Distance	(Deer) 1000 m 1100 yd (Car) 2400 m 2624.67 yd
Optical Properties	
Focal Length	35 mm F1.0
Focusing	Manual Focus
Field of View (DEG)	7.8 x 5.9°
Imaging	
Frame Rate	50 Hz
Optical Zoom	3.2X
Digital Zoom	1x, 2x, 4x
Display	
Display Type	OLED
Resolution	1024 x 768
Eyepiece	Eye Relief ≥ 10 mm, Exit pupil diameter ≥ 18 mm
Power	
Battery Type	2X 16340 (RCR123) Rechargeable
Battery Life	≥ 2 hours @ 25 °C

TECHNICAL SPECIFICATIONS

CONTINUED

Model	BTC35 v2
Interface	
USB-C	Power Video
Video Interface	BurrisConnect App (live video streaming) Analog video (USB-C to RCA)
Mounting Interface	M33.5 x 0.75 threaded eyepiece (SmartClip) 1/4-20 interface for M1913 QD Mount
Environmental	
Operating Temperature	- 4 °F to 122 °F - 20 °C to 50 °C
Waterproof	IP67
Recoil	800 G/1 ms
Physical Attributes	
Operational Weight	≤ 460 g ≤ 16.2 oz
Dimension (LxWxH)	152 mm x 75 mm x 64 mm 5.9 in. x 2.9 in. x 2.5 in.

BURRIS THERMAL CLIP-ON PRODUCT FUNCTION

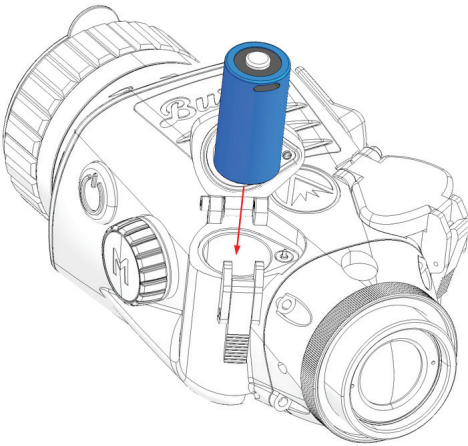
Model	BTC35 v2
WI-FI	YES
Photo	BurrisConnect
Video	BurrisConnect
Screen Brightness	Slider Scale
Thermal Intensity	Slider Scale
Image Contrast	Slider Scale
Image Enhancement	YES
Scene Mode	Enhanced/Highlight/Nature
Super Energy Saving Mode	YES
Color Palettes	White Hot/Black Hot/ Red Hot (1,2,3)/ Green Hot/Blue Hot
Hot Track	YES
Calibration Model	Manual
Stadiametric Rangefinder	YES
Auto Power-off	Off/15 min/30 min/60 min
Auto Stand-by	Off/15 min/30 min/60 min
Language Settings	English, Spanish, Italian, French, German, Russian, Finnish, Swedish, Danish, Polish
PIP	Upper Left, Upper Middle, Upper Right, OFF
Restore Default	Restores Factory Settings

BURRIS THERMAL CLIP-ON BUTTON FUNCTION

Model	BTC35 v2
Not In Menu Button Function SHORTCUT MENU	
Rotary Knob Clockwise	Decreases Zoom
Rotary Knob Counterclockwise	Increases Zoom
In Menu Button Function	
M Button	Press to display menu options/ make selections
Calibration	
Power Button	Execute Shutter Calibration

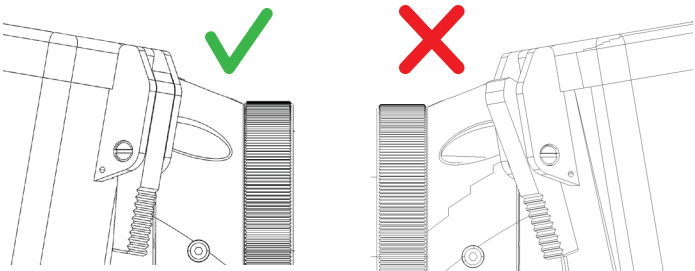
BATTERY INSTALLATION AND REMOVAL

The BTC is equipped to use (2) 16340 rechargeable batteries. The batteries are independently changeable, allowing for hot-swapping. While one of the batteries has sufficient charge, the other battery port can be opened and that battery can be replaced without cutting power to the imager. If both battery ports are open, the imager will shut down.



NOTE: The BTC is specifically designed to use 3.7v 16340 rechargeable batteries. Non-rechargeable, 3v CR123A batteries can be used in the BTC, but it is not recommended as working time, and performance will be reduced, especially in cold weather.

NOTE: Ensure that the battery cover latches are fully engaged after closing the battery port lids.





USB-C PORT

USB-C TO USB-A

The power cable provided is a USB-C to USB-A cord. Operating the device while plugged in will not charge the batteries. Utilizing an external battery pack during operation will significantly increase working time.

BATTERY STATUS

Battery state of charge (SoC) icons are located in the bottom center of the menu wheel. (1) indicates the SoC of the left battery and (2) indicates the SoC of the right battery.



If you notice overheating, odors or discoloration, or deformation of the battery, discontinue use immediately.

USB-C TO RCA

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



POWER BUTTON FUNCTION

POWER OFF

To fully power off the BTC, hold the Power button down until you see the power off progress bar is 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 Stand-by mode.

STAND-BY MODE

To place the BTC into Stand-by mode, press and hold the Power button, then release it before the power off progress bar completes. Stand-by mode deactivates the display and places the processor into a lower power consumption state. The BTC can be quickly turned back on with the press of the Power button. While in Stand-by, the unit stays connected to the app via Wi-Fi.



AUTO POWER OFF

The BTC 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 STAND-BY

The BTC includes an auto Stand-by 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 the Power button to the hide menu screen



FOCUSING THE BURRIS THERMAL CLIP-ON

THE DIOPTER

The BTC has a fixed, non-adjustable diopter. The diopter of the daylight scope must be adjusted in order to focus the BTC display.

ADJUSTING THE OBJECTIVE LENS

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

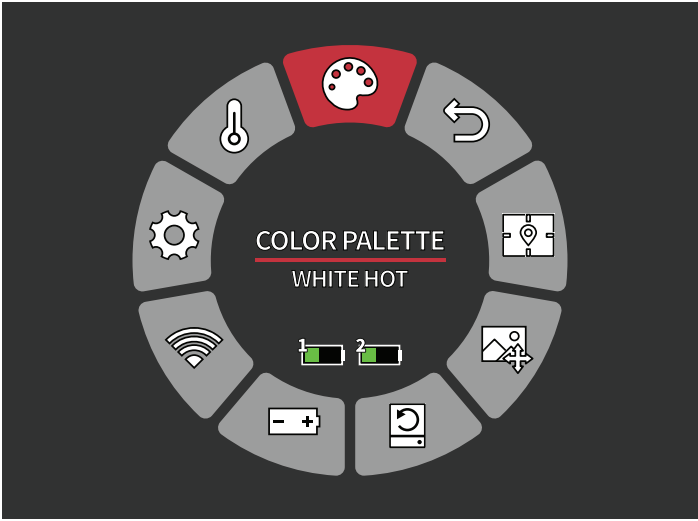
Min. Focus Distance: BTC - 2 ft

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 rotary knob to adjust the magnification. Magnification can be adjusted to 1x, 2x, and 4x.



COLOR PALETTE



THERMAL SETTINGS



GENERAL SETTINGS



WI-FI SETTINGS



POWER SETTINGS



RESTORE FACTORY SETTINGS



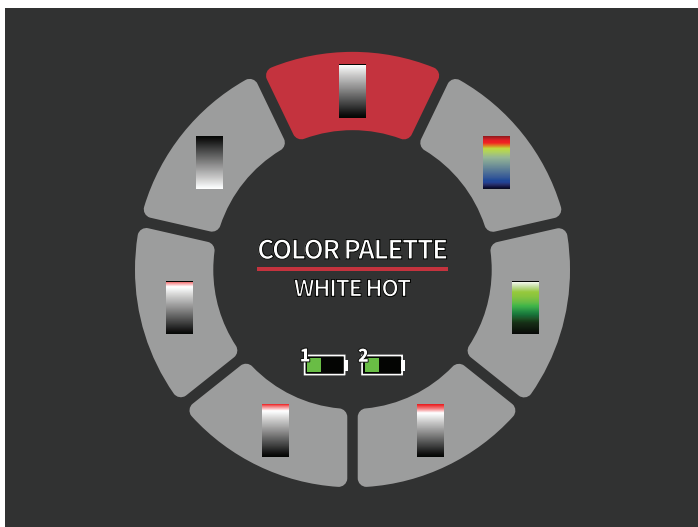
SCREEN POSITION



SCREEN ADJUSTMENT



EXIT MAIN MENU



COLOR PALETTE

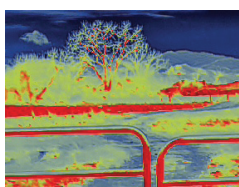
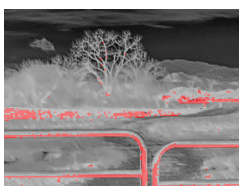
WHITE HOT – Objects with higher temperatures are shown in white or light gray.

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

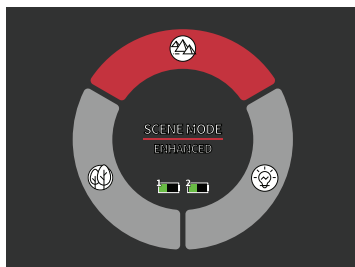
Image enhancement automatically adjusts the image output to best see all thermal details within the scene.

CONTRAST

Contrast of the image can be adjusted using the rotary knob. 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.

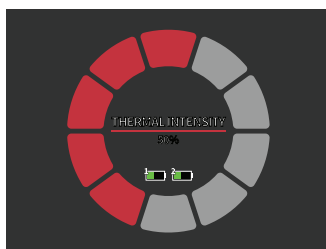


Highlight Mode

Creates significant contrast between the 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

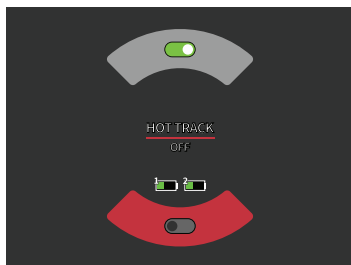
Changes the range of color towards either end of the temperature scale for the active color palette. Hotter objects can be made to appear hotter or colder using this setting.



HOT TRACK

ON/OFF SETTING

When Hot Track is turned on, the active red crosshairs track the point with the highest temperature in the scene.





GENERAL SETTINGS

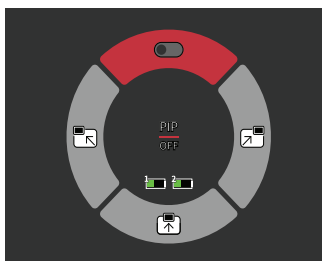
SCREEN BRIGHTNESS

Brightness levels can be adjusted using the rotary knob. A slider bar will display on the right side of the screen.

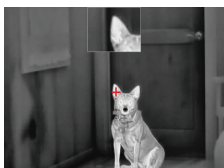
PIP - (PICTURE IN PICTURE)

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

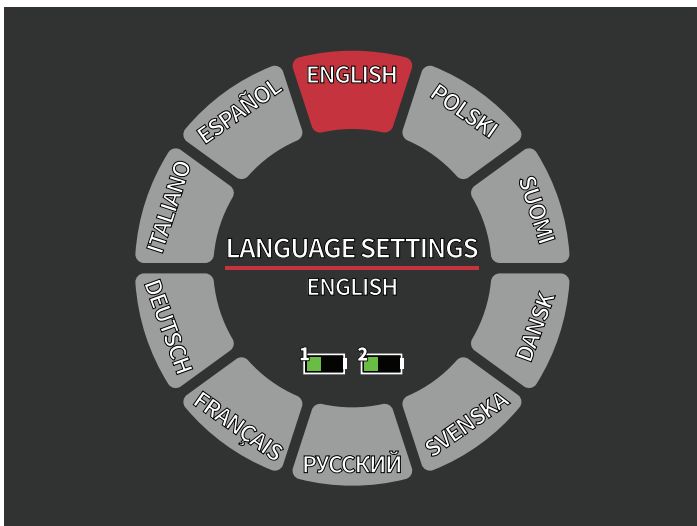
UNITS

The BTC can display in standard or metric units.



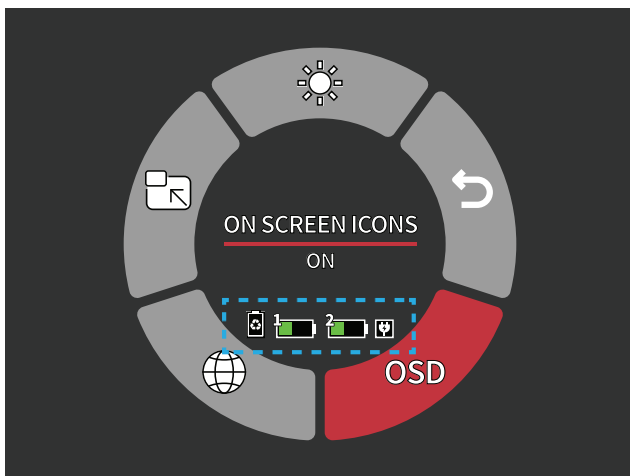
LANGUAGE SETTINGS

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



ON SCREEN DISPLAY ICONS

Users have the option to turn off the Super Energy Saving Mode, Battery SoC, and USB icons if the icons are blocking the field of view. All icons will still appear while the Main Menu is open.





WI-FI SETTINGS

The BTC can be connected to the BurrisConnect app via Wi-Fi and certain functions and viewing can be operated remotely.



DOWNLOAD BURRISCONNECT

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

Turn on BTC Wi-Fi under the Wi-Fi settings option in the menu.

Find and connect to the the Wi-Fi network name **BTC-XXXX** in your mobile phone's Wi-Fi settings. Open BurrisConnect and go to devices.

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.

DEVICE NAME: BTC-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

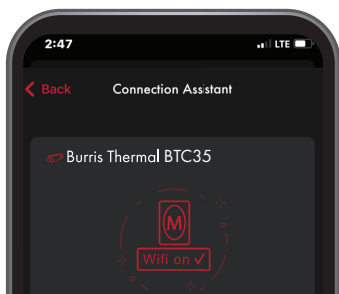


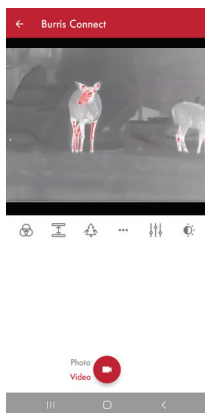
PHOTO AND VIDEO RECORDING

Photo and video can be recorded from your BTC via the BurrisConnect app. To record a video select video mode and hit the red record button on the mobile app.

To take a photo select photo mode and hit the red button on the mobile app.

Photos and videos are stored on your mobile device.

NOTE: Recording function can only be operated from the mobile app.



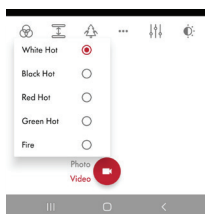
BURRISCONNECT FUNCTIONALITY

Below are the settings that can be changed remotely.



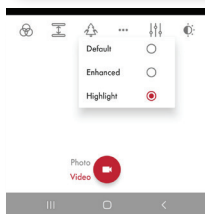
COLOR PALETTE

(See page 14)



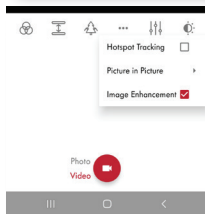
SCENE MODES

(See page 15-16)



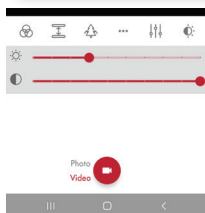
GENERAL SETTINGS

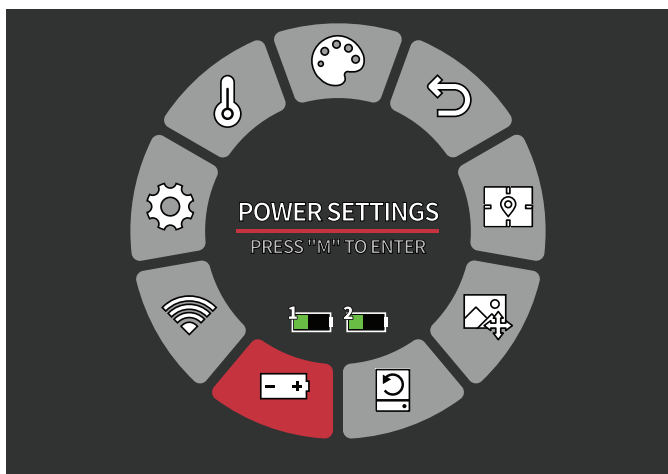
(See page 17)



BRIGHTNESS & CONTRAST

(See page 15 & 17)





POWER SETTINGS

AUTO STAND-BY

If there is no operation in the setting time, the BTC enters 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 BTC will power off automatically.

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

SUPER ENERGY SAVING MODE

The Super Energy Saving Mode 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.

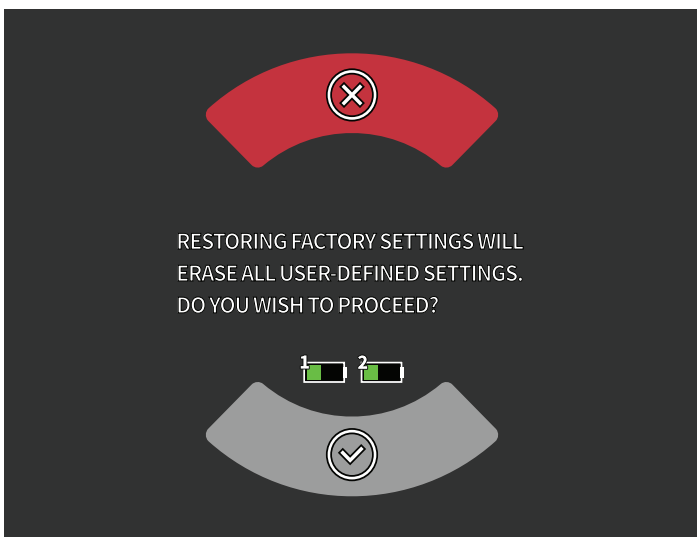
- Super Energy Saving Mode
OFF /ON

NOTE: Auto Stand-by and Auto Power-off cannot be performed while Wi-Fi is connected.

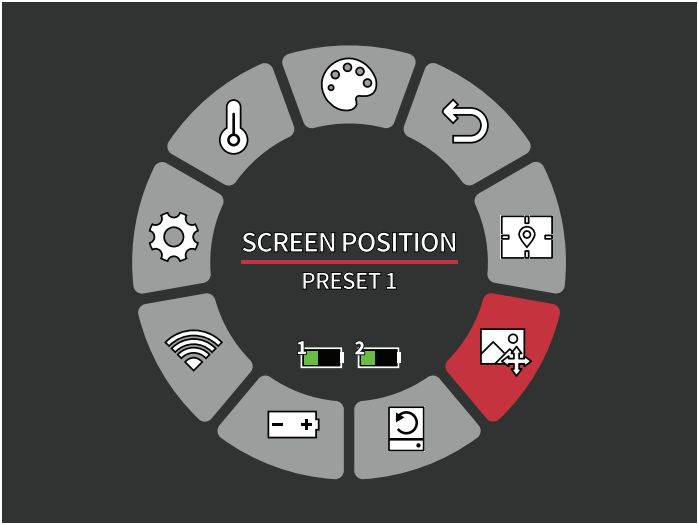


RESTORE FACTORY SETTINGS

This function restores the factory settings.

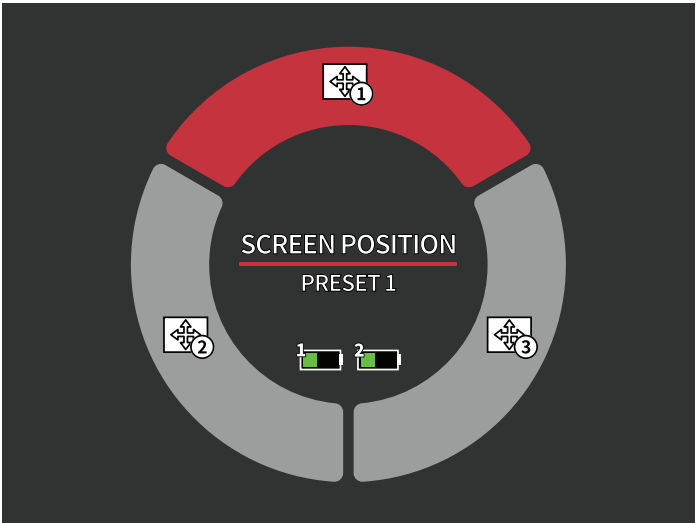


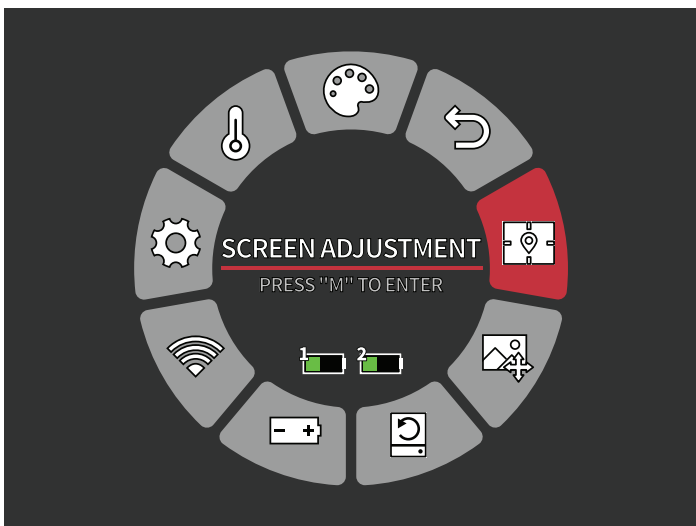
NOTE: RESTORING FACTORY SETTINGS WILL ERASE ALL USER-DEFINED SETTINGS. DO YOU WISH TO PROCEED?



SCREEN POSITION

The BTC can store up to three preset screen positions, allowing the user to maintain zero for multiple setups. The SCREEN POSITIONS can be adjusted within the SCREEN ADJUSTMENT menu.



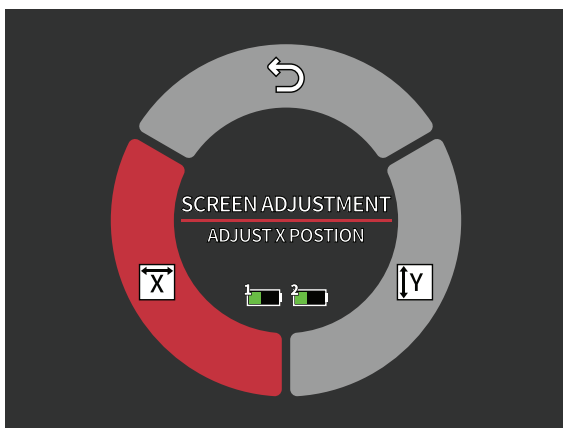


SCREEN ADJUSTMENT

The BTC35 v2 display is factory aligned to the device's central axis. After installation, the Clip-on display must be aligned to the optical axis of the daylight scope to ensure alignment of the Point of Aim (POA) to the projectile's Point of Impact (POI). On the BTC, this alignment is achieved digitally using the SCREEN ADJUSTMENT tool in the MAIN MENU.

Follow the step-by-step instructions below to zero your BTC.

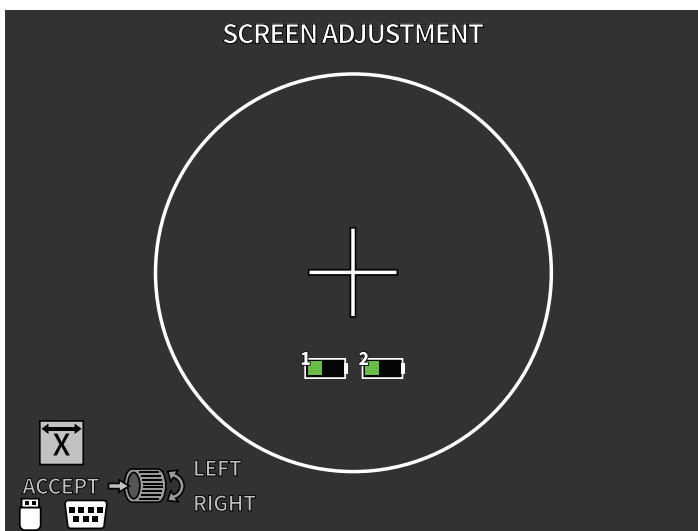
1. Ensure that the daylight optic is zeroed at an appropriate distance.
2. Install the BTC onto the rifle system using either the Burris Clip-on Mount (626607) or a SmartClip Adapter system.
3. Open the MAIN MENU by pressing the Menu button inwards.



4. Navigate to and open SCREEN ADJUSTMENT.

5. Select 

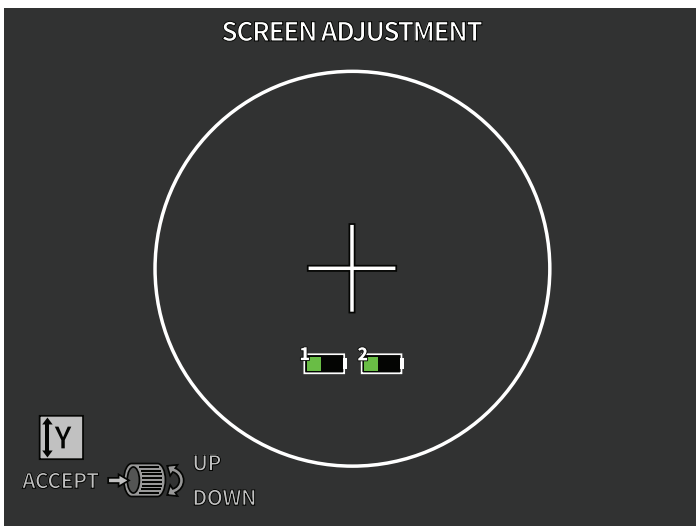
6. Rotate the Menu Wheel until the screen centering icon is horizontally aligned to the reticle of the daylight scope.



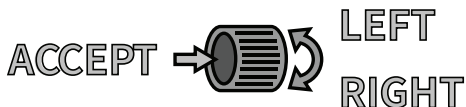
7. Press the Menu button inwards to accept the change

8. Select 

9. Rotate the Menu Wheel until the screen centering icon is vertically aligned to the reticle in the daylight scope.





10. Press the Menu button inwards to accept the change.



11. Close the MAIN MENU.

12. Check zero by firing a shot at a thermally-active target at the same distance the daylight scope is zeroed. It is highly recommended to start close and progressively move the target further away.

13. Find and record the POI of the projectile.

14. In the SCREEN ADJUSTMENT menu, adjust  and  until the reticle of the daylight scope is aligned to the POI of the projectile. The POI adjustment directions are displayed on the screen.

NOTE: The SCREEN ADJUSTMENT tool is pixel optimized to achieve the smallest increments of adjustment.

	MOA	MIL	in. @ 100 yd	cm @ 100 m
1 Click	0.6	0.18	5/8	1.75

STORAGE AND MAINTENANCE

When the BTC will be not used for a long time, store it in a dry, well-ventilated environment. 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 BTC, do not scrub with chemical solvents or cleaners. On exterior surfaces, wipe with a soft and dry microfiber cloth.

Coarse dirt/debris must be removed from the lens surface. The most convenient way to clean a lens surface is to use a Lens Pen. Position the scope so particles will fall away from the lens, and then use the Lens Pen or soft brush to gently whisk away the debris while blowing on the lens to dislodge the particles. Canned air or an air compressor will help clear off any dust particles. For heavy dirt, like dried mud, use a spray of clean water or lens cleaning fluid to remove the dirt.

COMMON FAULT ICONS AND TROUBLESHOOTING

If your BTC has performance issues, the troubleshooting chart on the next page will solve most problems. If these suggestions do not solve the problem, contact Burris Company for service or repair.



IMAGE CALIBRATION COMPLETE



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



**EXTREMELY LOW BATTERY WARNING
SHUTDOWN IMMINENT**

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
3 YEAR**

TRANSLATIONS

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



**SCAN FOR
TRANSLATIONS**



Burris

BURRIS COMPANY INC

331 East 8th St.,
Greeley, CO 80631
1-888-440-0244

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