



Angry Stag - TriMode™ Thermal Scopes with ThermoLoc™ (with and without Laser Range Finder (LRF)) User Guide

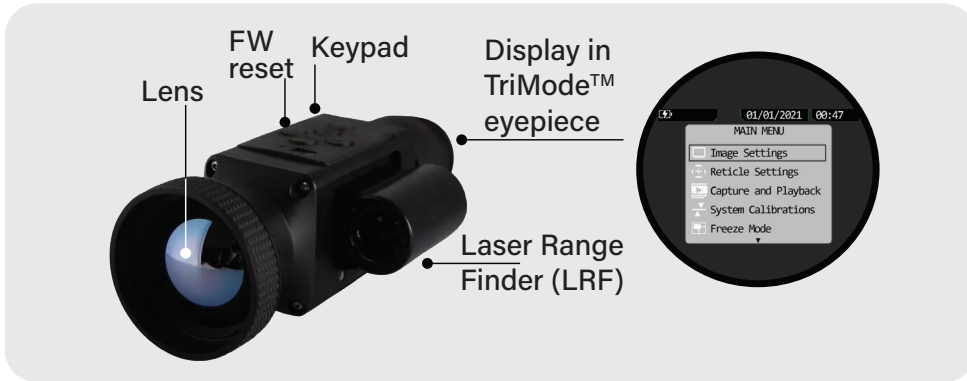


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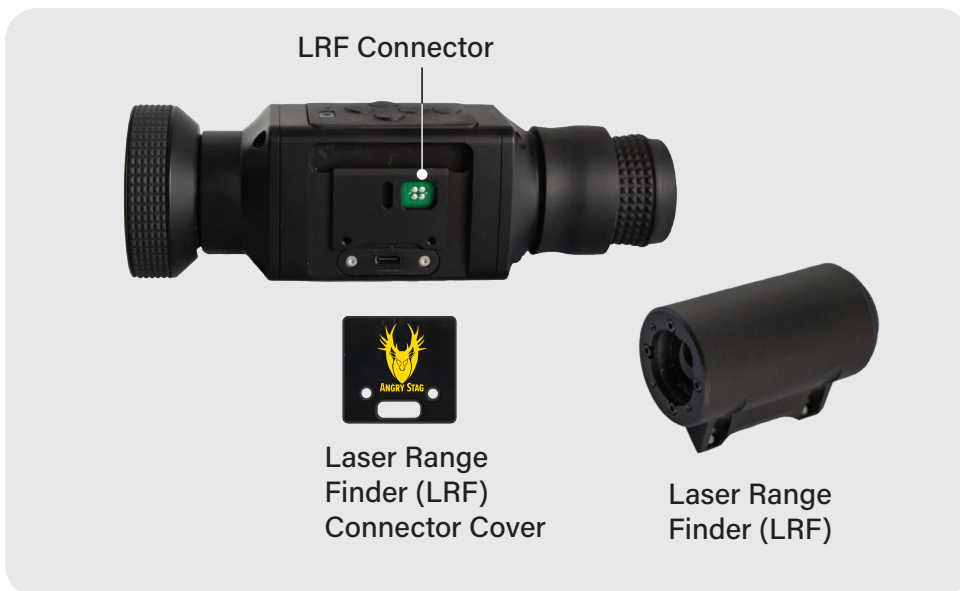
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Get to Know Your Scope

Camera Body




Adding the Laser Range Finder (Optional)



To install the LRF, start by removing the 2 T2.5 torx screws on the Connector Cover. Position the LRF over the C mount, then secure it to the scope using the same 2 screws. Once attached, the scope will automatically recognize the LRF. **Note:** If the LRF was not factory pre-mounted, calibration and alignment are needed. See LRF setup.

Basic Operation and Control - Setup and Alignment

Charging

Connect the power adapter to the USB-C port. A charging icon  should appear on the screen in the eyepiece, and the top keypad LED will flash while charging. The initial charging time is approximately 4 hours or until the LED is on solid. Once disconnected from the charger, the battery icon should display as full.



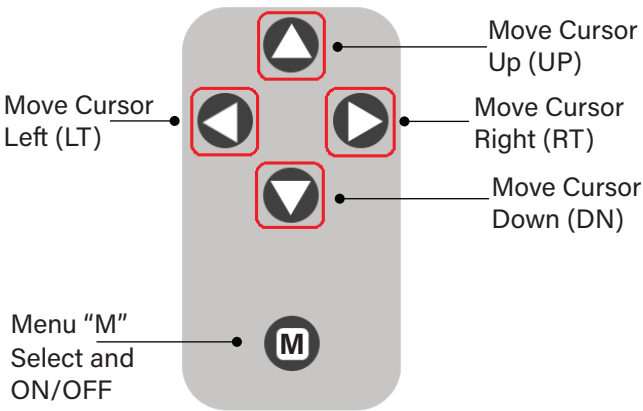
Control Buttons and Menu Navigation

Keypad controls

The 5 button keypad on the top of the scope is multifunctional having two modes: Direct Function mode, and Menu mode.

The “M” button has several functions: ON/OFF, Select highlighted item, and press for 2 seconds to exit the Menu back to normal view.

Menu Function – Press M for Main Menu



Direct Function Mode: Special Keypad Apps

Camera calibration (NUC):

Press and hold Left Arrow until the message "camera calibration" appears on the screen.

Lens correction:

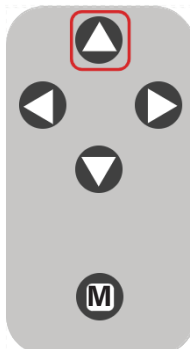
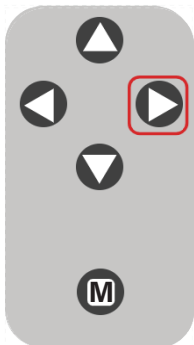
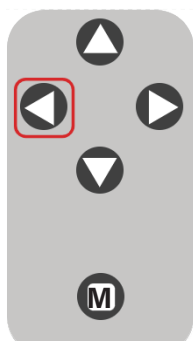
Press and hold Right Arrow until "Lens Correction Capture" appears. Wait for "Lens Correction Done". (Lens needs to be covered)

Zoom +:

Press UP arrow to zoom in the image. Smooth 12 Steps.

Zoom -

Press DN arrow to zoom out the image.

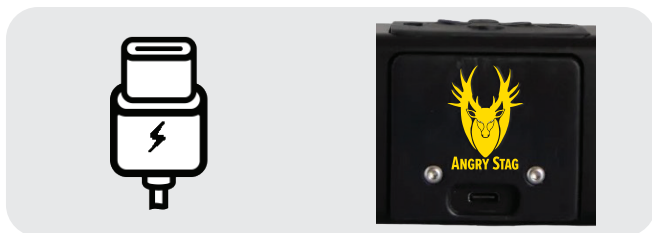


NOTE: Camera and lens calibration not necessary if using shutterless mode.

Turn ON/OFF

USB Operation

The scope turns on automatically when the charger or USB-C cable is connected to the USB-C port.



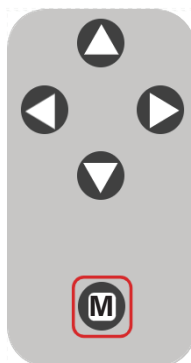
Battery Operation

Turn on

Press and hold the M (Menu) button until the unit turns on, about 5s. Angry Stag logo appears.

Turn off

Press and hold the M button for 5s until the "System Power Off" message appears.



I/O, (Menu)



LED Functions/Indications

The external LED displays different states of the unit:

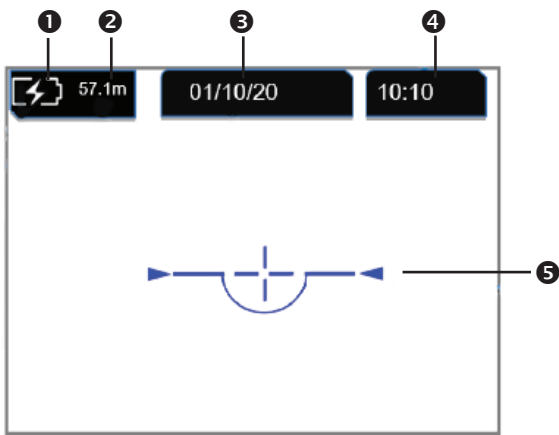
Startup Initialization:

- The LED flashes quickly while the scope initializes. Once initialization is complete, the LED will blink steadily.

Charging Status:

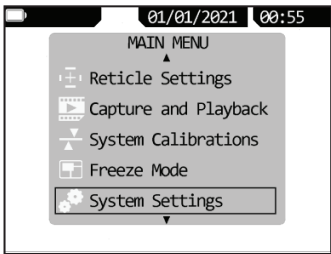
- If charging is needed: When the scope is connected to a power source (either an adapter or a computer via USB), the LED will blink.
- If fully charged: When the scope is connected to a power source and fully charged, the LED will remain solid ON.

Display Icons

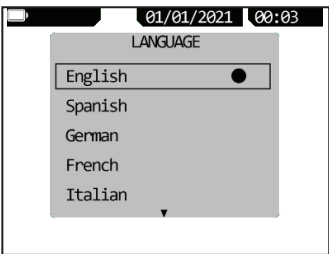
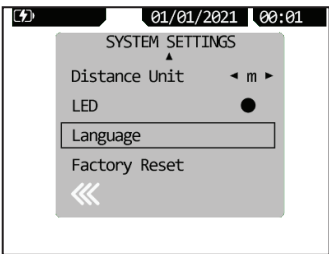


- ❶ **Battery icon:** shows the battery level. The icon blinks when the battery level is low. When charging, the icon will look like the icon shown.
- ❷ LRF Reading
- ❸ Date
- ❹ Time
- ❺ Reticle

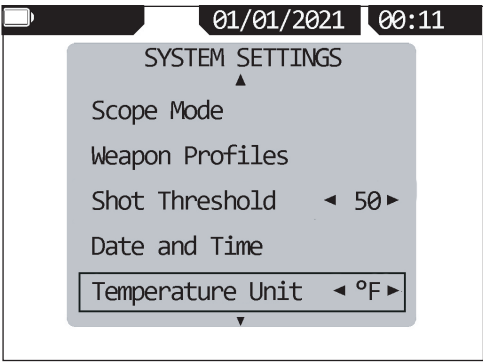
Preference Settings: Setting Language, Temperature units, Distance Units, Date and Time



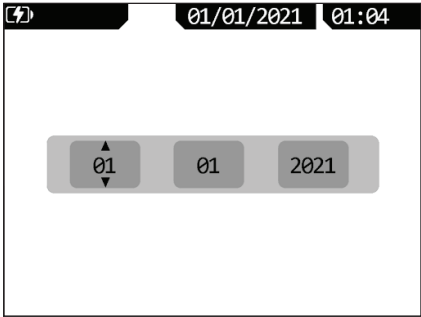
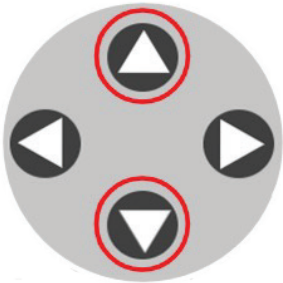
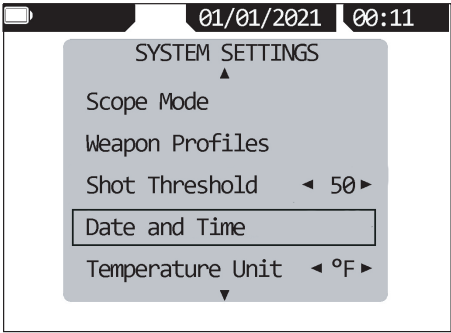
Language Selection (default is English) – The scope has 6 languages built in for user convenience. To change the language, start at the Main Menu, go to System Settings, and choose Language. Select the language by highlighting it and press the M button. Exit, and press M for 2 second.



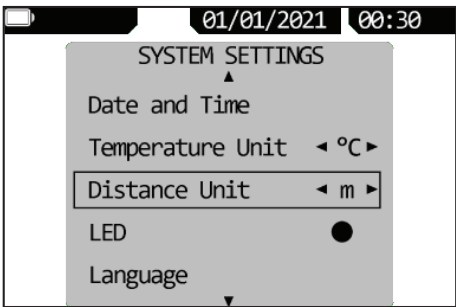
Set Temperature units - Temperature can be set to °F or °C. From the Main Menu, go to System Settings, and choose Temperature Unit. Use the left and right cursors to change units.



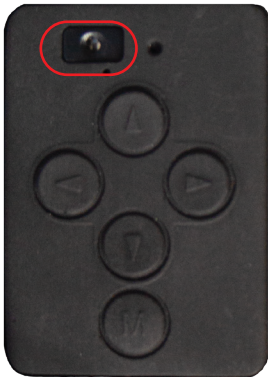
Set Date and Time - To set the Date and Time, press the M button, enter the Main Menu, go to System Settings. Look for the Date and Time option and select it. Use the cursor to set the current date and time.



Set Distance units - Distance Measure - Units can be in meters (m) or yards (yd). From the Main Menu, go to System Settings, and choose Distance unit. Use the left and right cursor to change.



External LED Function - You can turn the external LED On/Off for stealth hunting. To turn off the LED, go to Main Menu, select System Settings, select LED and press M to toggle between modes. The black dot indicates ON. **Note:** the keypad area highlighted in the image below also contains a light sensor for auto display brightness control based on ambient light, so do not cover it.



LED location



TriMode™ Functionality

TriMode™ is a patent pending eyepiece that allows the scope to be used as a riflescope, a clip-on, or a hand-held scope with no optics changes. The eyepiece is designed to have a wide eye-relief from under 0.5cm to several feet. This allows for ultimate flexibility. Riflescope is the default setting. The Clip-on mode can be set in the Systems Settings: 1- change the display size based on the user's optical scope magnification (2 size options); 2- align the thermal scope to the user's optical scope reticle; and 3- to delete the thermal scope reticles. Eyecups for the 3 modes are included with your scope.



Scope Mounting -

Riflescope – a standard Picatinny rail mount is included with your scope.

Clip-on – there are three options for mounting the scope for clip-on application:

1. The standard Picatinny rail can be used in front of the optical scope using an extended picatinny rail on the weapon.
2. An optional flip mount is offered on the Angry Stag website. This mounts to the weapon's Picatinny rail in front of the optical scope and can be adjusted for height to align to the user's optical scope. When not in use, the mount allows for a secure flip of the thermal scope out of the sight line of the optical scope, reproducibly flipping securely back in place with no additional alignment needed.
3. The third mount option is offered by several third parties and clip-on directly to the user's objective lens enclosure. The Angry Stag scope has an M43x0.75 screw mount to the eyepiece that can accommodate most third party clip-on mounts. Angry Stag does not offer this type of clip-on mount at this time. Check back with us as our development is ongoing and always improving.

Once you have mounted your scope, set the Scope Mode. This enables features associated with each mode. As an example, Clip-on Mode allows for adjusting the OLED image size to best correspond with the user's optical scope. To set Scope Mode: System Settings » Scope Mode » then choose the mode.

Alignment - Reticle Alignment - (One Shot Freeze Mode)

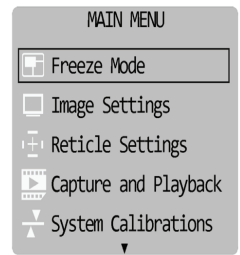
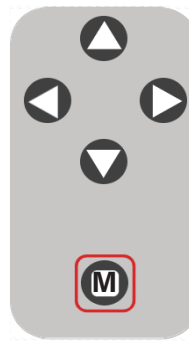
The Reticle Alignment Freeze Mode is a feature that allows the user to freeze the image and move it so that the reticle aligns at the point of impact. This aligns your scope to your gun and is critical for accurate shooting. The process is as follows:

1. Set up the thermal target at the distance you intend to shoot. A target and 5 thermal heat pads are included with your scope. The heat pads are chemically activated and will last about 20 minutes, so make sure you are ready to shoot before activating the pad. Additional pads and targets can be purchased on the Angry Stag website.
2. Before you activate the thermal pad, you will need a method to stabilize your weapon for accurate shot placement. A tripod or other stable method is recommended. If you do this freehand you may have to shoot several times to get an accurate alignment.
3. Once the target is set up, you have a stable weapon platform, and you have observed all safety precautions for a live fire, you are ready to do the live fire shot alignment. Activate the thermal pad (instructions on the pad envelope).



4. Set the scope to maximum magnification by pressing and holding the up button until maximum magnification.

5. On the scope, enter the Freeze Mode by pressing the M, Main Menu. Select Freeze Mode by highlighting it, and press M.



6. Align the reticle to the center of the heat source on the target. Take one steady shot.



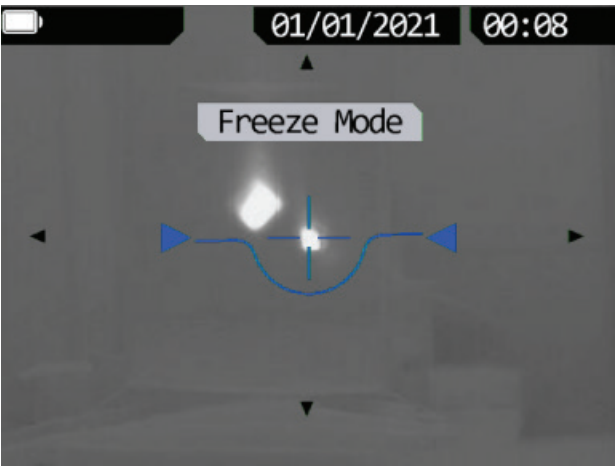
7. Depending on the distance, the shot location may be hard to see in thermal view. You can use a piece of Aluminum foil about the size of the shot hole or you can use one of the remaining thermal pads, activate it, and center it over the point of impact. This should give a very clear location.



8. Carefully align the thermal reticle to the original aiming location, NOT the shot location. Press the M button again, which will freeze the image on the display as shown.



9. Use the navigation buttons to align the reticle to the center of the shot impact point as shown. When aligned, press the M button again to lock in the reticle alignment which will shift the center of the image. Press M again to exit and save this setting.

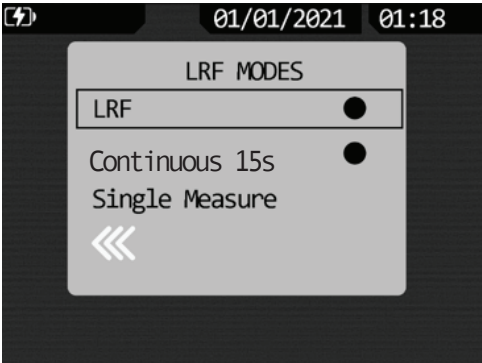
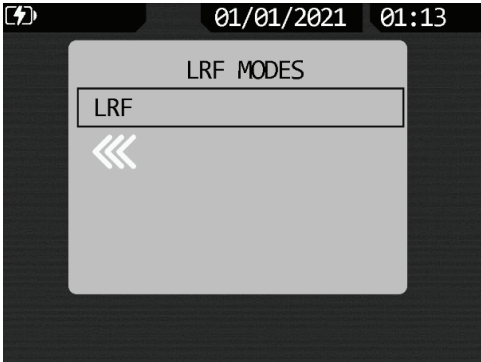
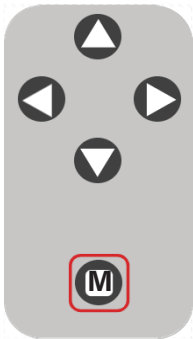


Resetting or fine tuning alignment:

You should take another shot to verify the shot location is now centered. If not, you can either reset the reticle to the default location and start again, or just repeat the procedure retaining the adjustments you make and fine tune the location by repeating the procedure without resetting the default reticle location. To reset the reticle to the original default reticle location, while in freeze mode, press and hold the M button for 2s.

Laser Range Finder (LRF) (if attached)
Enable, Calibrate and Align the LRF

The LRF provides accurate distance measurement up to 1km +/- 0.5m. To operate, first install the LRF as in section 1. Once installed you need to calibrate and align the LRF. Mount the scope with the LRF on your weapon.



Step 1 - Enable the LRF:

go to Main Menu and select System Settings then select LRF Mode and select LRF. Select either 15 second continuous measurement or single pulse measurement. NOTE: The LRF will shut off when the scope is turned off and will need to be re-enabled when the scope is turned back on again.

The LRF has two sampling modes, Continuous 15s to take samples continuously for 15 seconds, and Single measure to take only one sample; go to the desired option and press the button to select.

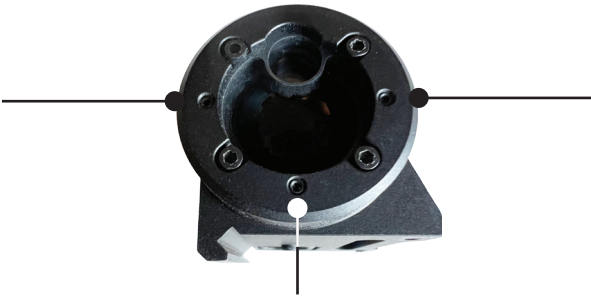


Step 2 - Calibrate and align the LRF.

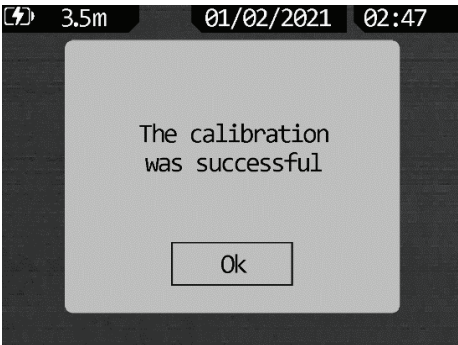
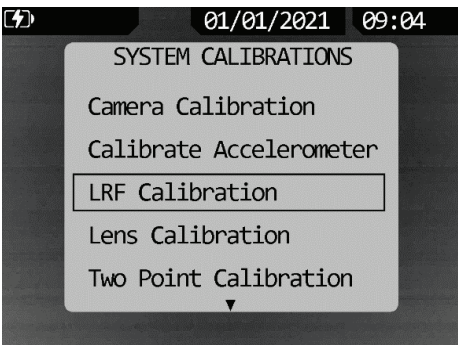
This can be done in one step. Follow the procedure below.

- 1. The scope reticle needs to be pre-aligned to your gun before aligning the LRF. Complete the Reticle alignment (One shot freeze mode) on page 7 before proceeding.
- 2. Place the scope with LRF exactly 7m (275.6") from a wall with no other obstacles in the way. The 7m is measured from the front of the LRF. The weapon should be in a fixed location, not hand held.
- 3. Prepare a thermal target or you can use a small piece of aluminum foil taped to the wall.
- 4. Center the reticle on the thermal target. Focus as best you can given the short distance.
- 5. Alignment process - access Main menu, select System Calibration. Next, select LRF Calibrate and press start. At this point the visible laser will be ON and a dot shown on the wall. The visible laser is for alignment only and will turn off after calibration. Adjust the LRF mechanical alignment screws until the laser is exactly 44mm (1.73") from the center of the thermal target. To do this, there are 3 adjustment T2 Torx 2mm screws on the front of the LRF enclosure. Adjust the screws in or out to align the LRF until it is 44mm (1.73") from the scope reticle center. Since this process may move the scope, recheck that the scope reticle is centered and check the 44mm distance. The laser should now be parallel to the scope reticle, offset by 44mm (1.73"). The offset is not relevant since the laser dot grows with increased distance and will not affect accuracy. Continue to the LRF distance calibration process below.

locations of
the 3
adjustment
screws



- 6. Distance Calibration process - if the scope has moved, recheck and verify the front of the LRF is 7m from the wall and press M to start the calibration. The display should say "The calibration was successful". The visible laser will shut off.



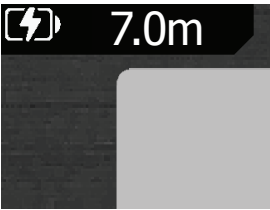
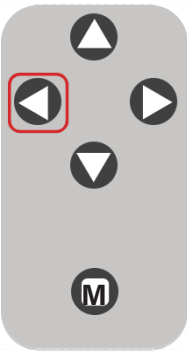
Operation of LRF

- 1. **Activate the LRF** - From the Main Menu, choose Systems Settings, then Select LRF. Select "15 Seconds Continuous" or "Single Measure".
- 2. **Taking Distance Measurements** - Exit the menus (press M for 2 seconds). A momentary press of the Left Arrow button will measure distance.



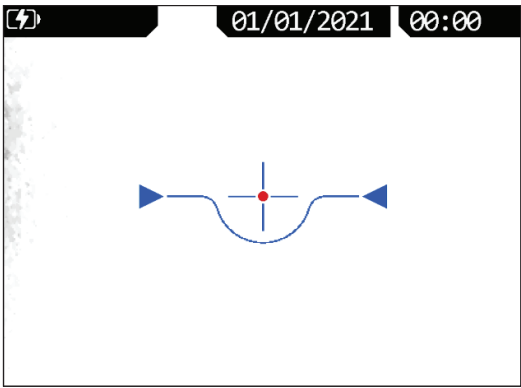
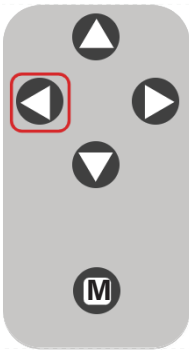
Operation of LRF

Once the LRF is enabled (turned on), aligned and calibrated, verify by taking a measurement. The left cursor button activates the LRF. At the 7m distance, press the left cursor once. The measurement will appear at the upper left next to the battery icon. **Note:** The LRF must be turned on each time the scope is restarted. The scope will retain your momentary or 15s continuous selection.

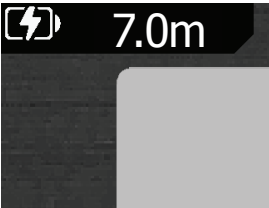


Take a Distance Measurement

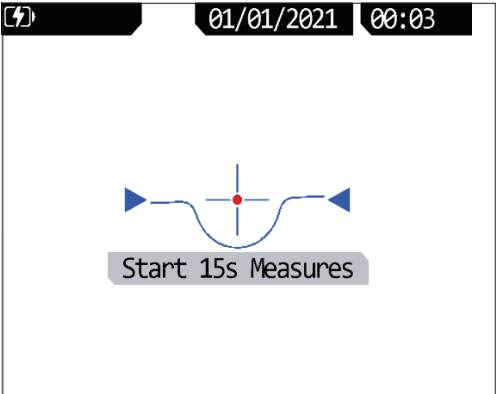
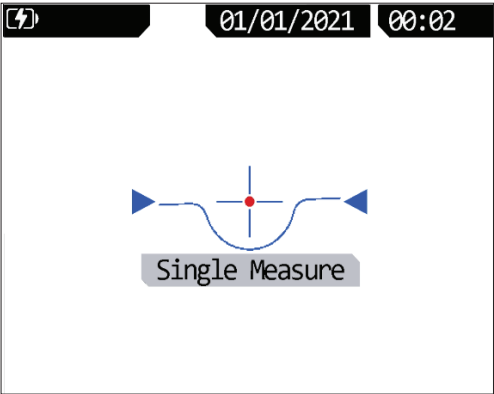
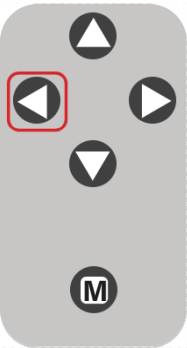
After activating the LRF option, just press the left arrow and the measurement will show up next to the battery level indicator. A center aiming mark will momentarily appear.



Shows the Aiming mark.



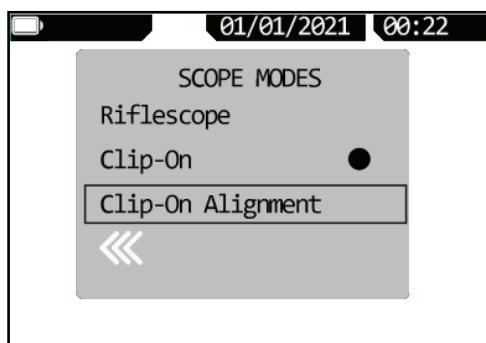
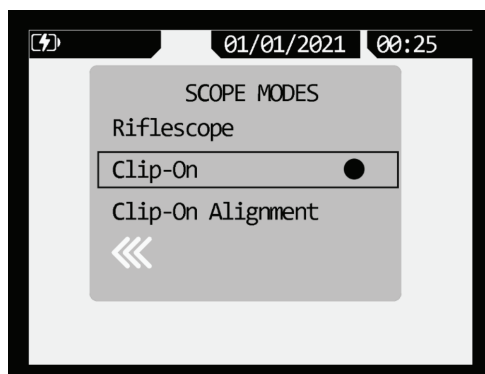
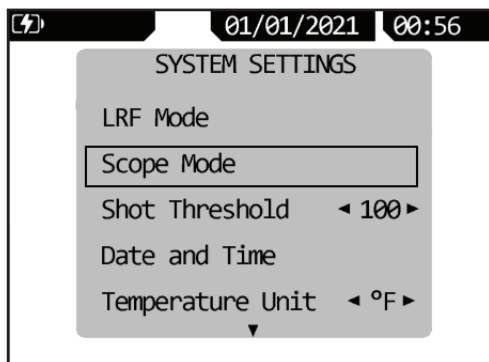
The Aiming mark will disappear, and the measurement will appear in the upper left corner next to the battery icon. If the LRF is in single mode, the measure will disappear after 15 seconds. Or, if you take a measurement at any time, it will show the new measurement. If it is in Continuous 15s mode, it will keep taking samples within 15 seconds and stop taking samples after 15s.



Scope Modes, Setting Riflescope, or Clip-on

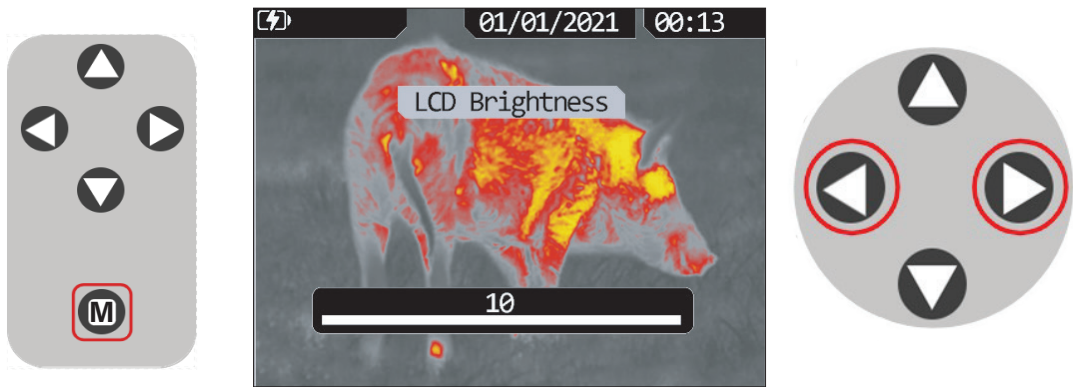
Scope Mode is a feature of the scope that allows you to adjust the display size. In **Riflescope Mode** the screen is defaulted to full screen size 1024x768 pixels. This is the correct setting for this mode and should not be changed. If you use the scope as a clip-on in front of an optical scope, there are 2 other sizes you can use to best fit the magnification of your optical scope to get a full screen image with no areas cut off. Before you start making any changes make sure you align your reticle in section 2.10. Changing to Clip-on mode involves sizing the viewable image AND centering the image by aligning the thermal and optical scope reticles. The thermal scope needs to first be aligned as in section 2.10. To change the scope mode to a **Clip-on**:

1. Go to the Main Menu, (press M), select System Settings, select Scope Mode, select Clip-on. Set the screen size to fit in your optical scope's view. Options are: large at 776x577 pixels, or small at 384x287 pixels, whichever fits your optical scope best.
2. Next, select Clip-on alignment. This activates the reticle centering function. Use the 4 cursors to center the thermal reticle to the optical scope's reticle. When centered, press the M button for 1 second to set.
3. Once the alignment is completed, you can mute the thermal reticle. See Reticle Section



LCD Brightness

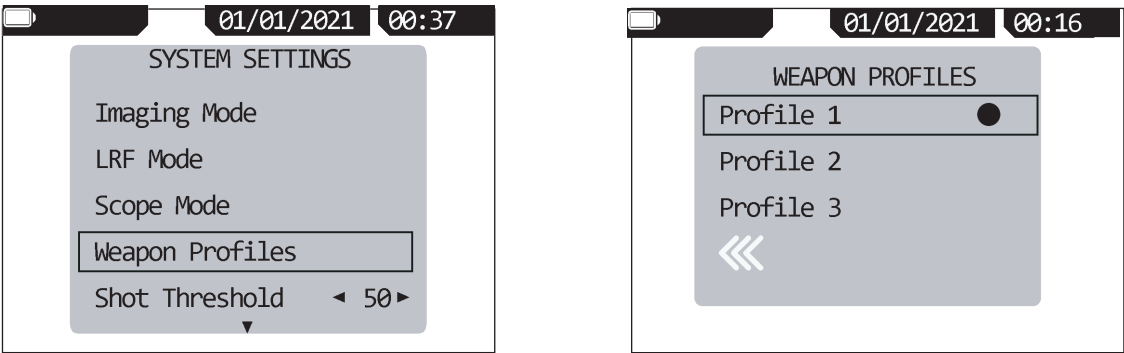
The display has the option to adjust the brightness intensity for the user's comfort. If you wish to modify this option, access the Main Menu, select the Image Settings option and select the LCD Brightness option. Adjust to desired brightness with the cursor, to save changes and exit, press M.



Note that there is a light sensor on the top of the keypad next to the external LED. This light sensor will adjust the display brightness based on current ambient brightness. Your setting of the brightness is used as the reference point. So only one setting should be enough to customize the display for all ambient brightnesses. To set, go to image settings, select LCD brightness and adjust using the Left and Right arrow buttons. Press M to save and exit.

Weapons Profiles

Up to 3 Weapons Profiles can be added to remember the basic alignment settings for different weapons and different mounting options. Once you have selected a mounting option and selected a Scope Mode, set the profile. Go to System Settings, Weapons Profiles and choose the profile.



3 Image Quality

Camera Calibration/ Non-Uniform Correction (NUC)

Non Uniform Correction (NUC) – All thermal sensor pixels are subject to temperature drift. The drift results in poor quality images if not “corrected”. Our scopes have three camera calibration/NUC options:

Shutterless, Auto or Manual.



- **Shutterless** scopes are calibrated in a temperature chamber from -20C to 60C. Each pixel is adjusted continuously based on its temperature. Manual NUC is generally not required to maintain a quality image. Shutterless mode is the default setting. We recommend leaving the scope in this mode. In this mode, lens and camera calibration is unnecessary.

- **Automatic** camera calibration (NUC) -is a feature that is set to use the internal shutter to perform a NUC when the sensor array temperature changes by more than a preset temperature. This change can be set by the user in the camera calibration menu. Default is 0.25C. This can be turned off in the Camera calibration menu. Default is ON.
- **Manual NUC** – The NUC shutter can be triggered manually at any time the image quality is poor. (Press and old the LT button until Camera Calibration appears).

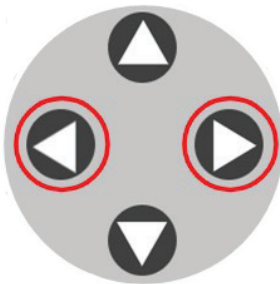
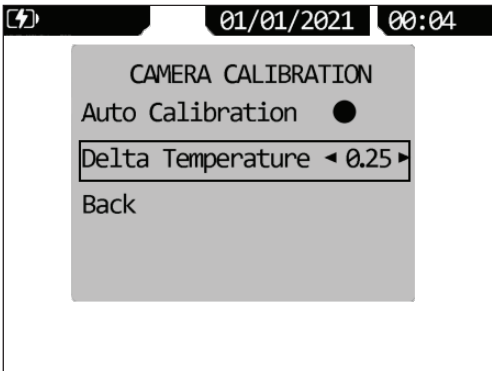
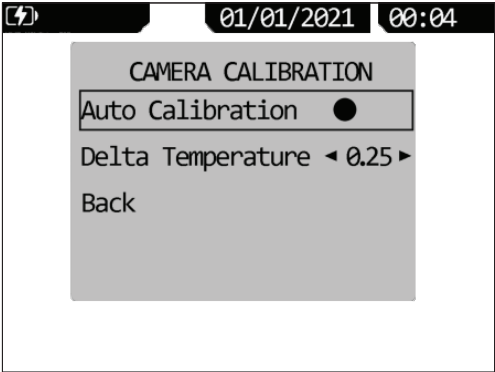
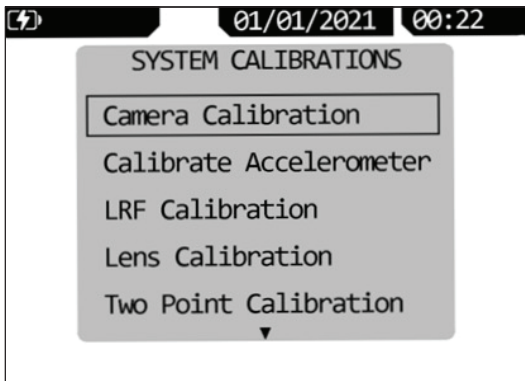
Achieving best image quality – Best results overall are achieved by using the **advanced algorithmic NUC in Shutterless mode with Manual NUC** enabled. The latter corrects for very fast changes in temperature during startup, or rapid changes in environment, like moving from a warm home or car to a subzero environment. Manual NUC is generally not required to maintain a quality image but can be used when in entering an extreme temperature change environment if noise is noticed. For ultra fine image quality, there is a Lens correction NUC that can be done that can correct minor lens non-uniformities. It is recommended to do the lens calibration once the scope is in the intended use temperature and focus distance environment. Cover the lens (close the lens cover), hold the RT button until Lens Correction disappears from the menu (about a 3-5 second process). This corrects for any minor lens variations and should result in the sharpest, zero noise image possible.

Activate Auto Calibration

Automatic Calibration NUC

Automatic Camera calibration (NUC) can be activated or deactivated in the system calibration menu.

- To activate or deactivate automatic camera calibration (default ON), go to the Main Menu, select System Calibrations, then select Camera Calibration and change the Auto Calibration state option. Auto NUC will create a shutter event when the thermal sensor temperature changes by a certain amount. Default is set to 0.25 degrees C.
- To change the default setting, go to the Main Menu, select System Calibration, go to Camera Calibration, select Delta Temperature, adjust to the desired temperature.

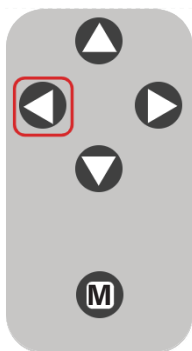


Change delta temperature



Manual Calibration (NUC)

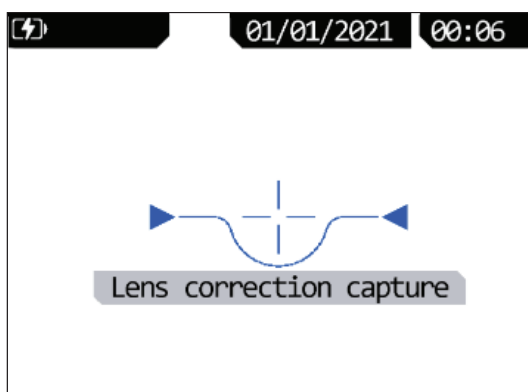
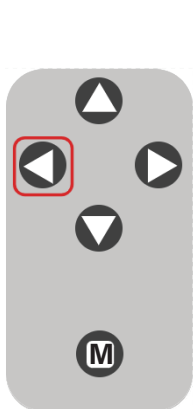
With manual calibration (NUC) you can select when you want to perform the non-uniform correction. This a simple 2-3 second single button press process and can improve the image quality by resetting all pixels to one temperature and correct for the drift. If the scope's image presents noise, the camera calibration can be performed manually. To perform a manual calibration, press and hold the Left arrow button until the Camera Calibration message appears on the screen. Image will improve immediately.



Lens Correction

Lens correction is the method to eliminate the noise generated by lens non-uniformities. If you observe noise in the image after a NUC, you can perform a Lens Correction to improve the image quality. Lens corrections are extremely minor corrections, but can result in a nearly perfect image. In most cases this correction is not needed unless you are imaging at the extreme distance of the scope. It can help for slightly more clarity.

To perform lens correction, cover the lens with the lens cap, press and hold the Right arrow button until a "Lens Correction Capture" message appears on the screen, and wait until "Lens Correction Done" message appears, about 3-5 seconds.



NOTE: if the camera lens is not covered with the cap, an overlapping image will be perceived on the screen. If this happens, cover the lens with the cap and perform the Lens Correction again.

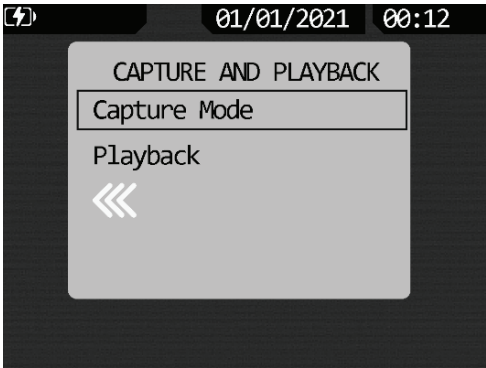
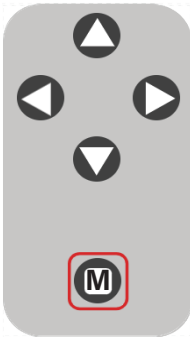


4 Record, Play, and Delete images and video

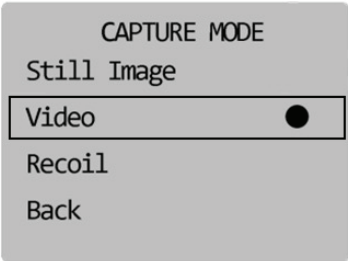
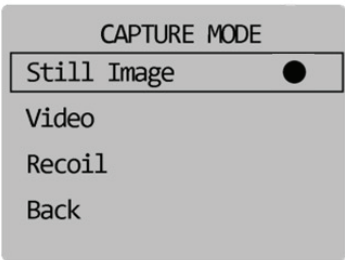
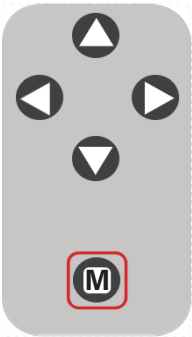
Capture Mode

The scope can record and play video and images. In the Capture Mode menu you can change the type of video or image capture you want. To change the type of capture follow the steps below.

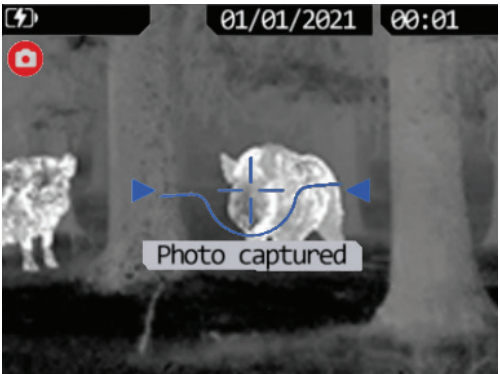
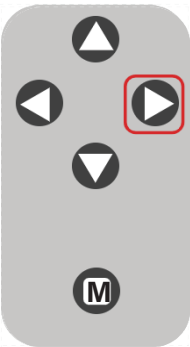
Press the M button, go to the Main Menu. Select the Capture and Playback option. A menu will appear as shown in the screen image.



Select the Capture Mode option, select the mode you want, as shown in the image. Options are: Still Image, Video or Recoil video. Press the M button to select.

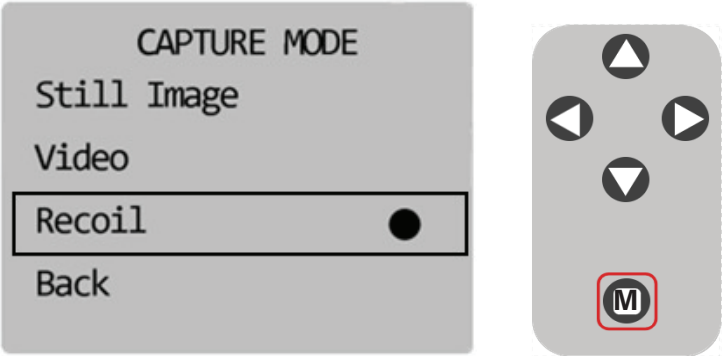


To capture an image or video, return to the Main Screen, focus on a target and press the right button. If you selected the Still Image Capture mode, the camera will take a picture. If you selected the Video Capture mode, the camera will start recording video. To stop video recording press the Enter button again.

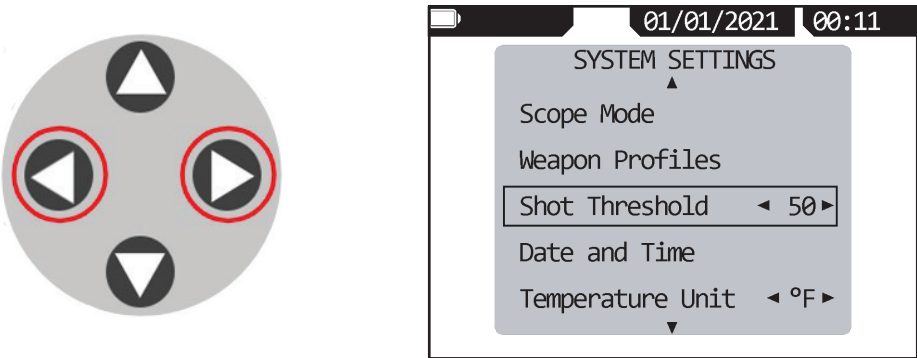


Special Capture Mode

There is a special Capture Mode called Recoil. Recoil is a feature that records video for 2 seconds before and 10 seconds after shooting.

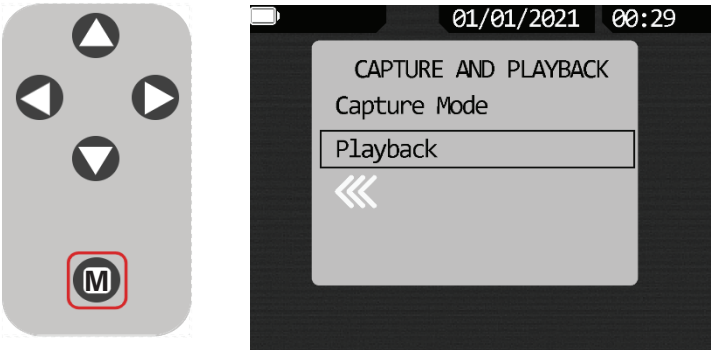


The Recoil option is activated when a recoil event is detected by the accelerometer at the time of taking a shot. The sensitivity of the recoil has a default setting that should work for most weapons. It can be modified if the video either records without shooting or if it fails to record when a shot is taken. If the recoil is set too high, it will not detect the shot. Too low and you get false starts. To change the sensitivity enter System Settings, select Shot Threshold option and with the cursor select the shot threshold value you want. Threshold values are in G's. Default is 100.



Show/Play and Delete image or video

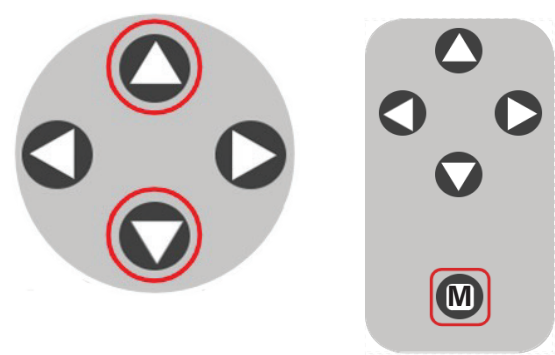
To play an image or video through the scope's display, enter the Main Menu, select the Capture and Playback option as shown in the image.



A list of images and videos that have been saved in the unit's memory will be displayed. The date for each will appear as year, month, day, followed by a sequential chronological number, followed by the type of file, video or still. YYMMDD_0000_VID. As an example, March 22,2024, the first video will appear as 240322_0001_VID.



Search with the cursor for the video or image you want to play or delete, press M to select the video or image. You will find two options, Show or Delete, place the cursor on the desired option and press M.



If you select the Play option in a video, you can press M to pause or continue the video. To exit video playback, press and hold the button for 3 seconds.

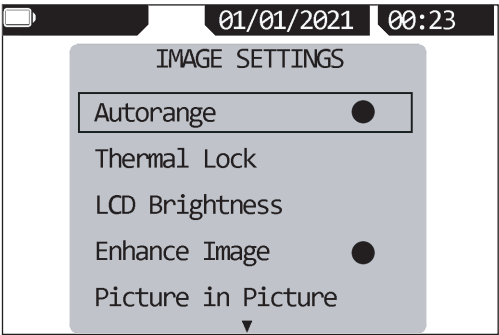
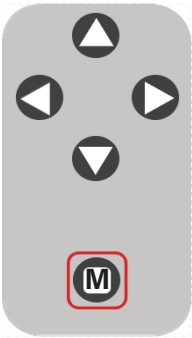
A Delete All feature is also available. Any Delete requires Confirmation or Cancel.

5 Image Modes

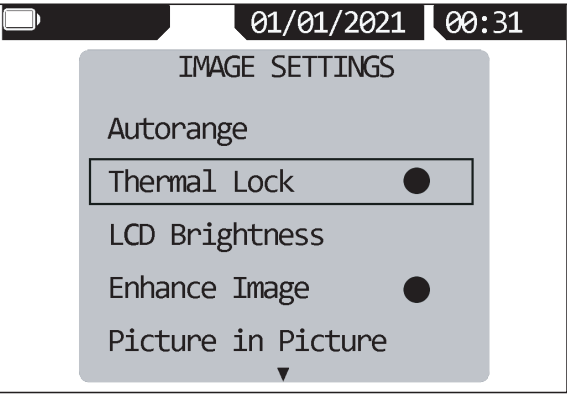
The scope has two image modes, automatic temperature range, or Autorange, and ThemaLoc™.

Autorange is a standard assignment of temperatures to colors based on the live image temperatures. Most every Thermal scope uses this mode only. Autorange automatically assigns a color to objects based on the object temperature. So, colors are constantly shifting based on the image changes. For most night hunting, this mode works well. But, at sunrise and sunset, and more so during the day if the intended target temperature is lower than the ambient environment, like hot afternoons in Texas, or desert conditions, Angry Stag has created a new mode called ThemaLoc™ that locks your target color temperature so you can easily differentiate it from the background.

AutoRange



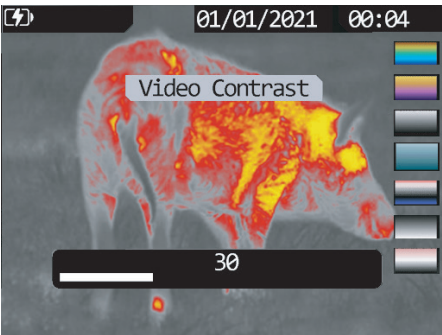
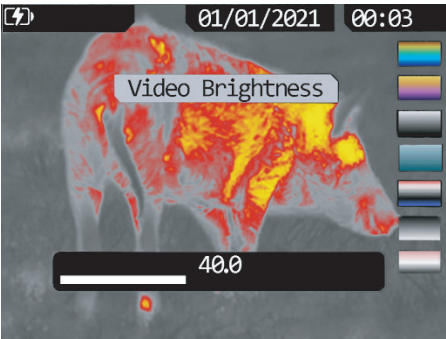
AutoRange is recommended for most night use and is the default setting.
ThermaLoc™ is recommended for hot days, evenings and desert use. It can also be helpful anytime, day or night, in more populated areas that have object temperatures higher than your target temperature.



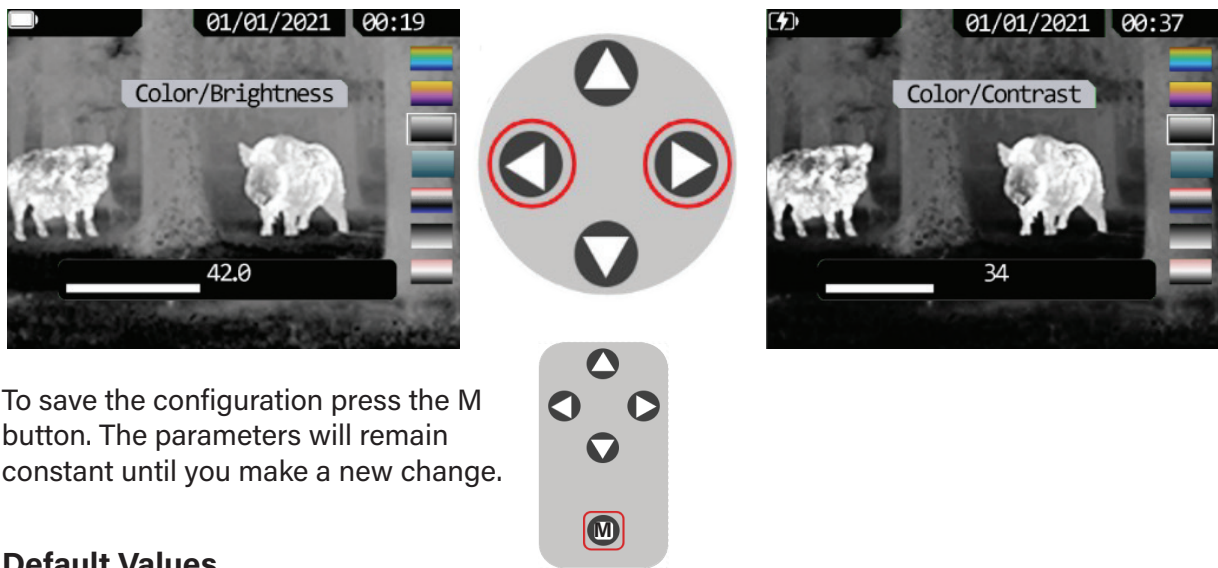
Video Brightness and Video Contrast

Autorange

When you enter the Autorange option you will be able to navigate to the Video Brightness, Video Contrast and Default Value options. To change the value of these parameters place the cursor on the desired option and press the M button.



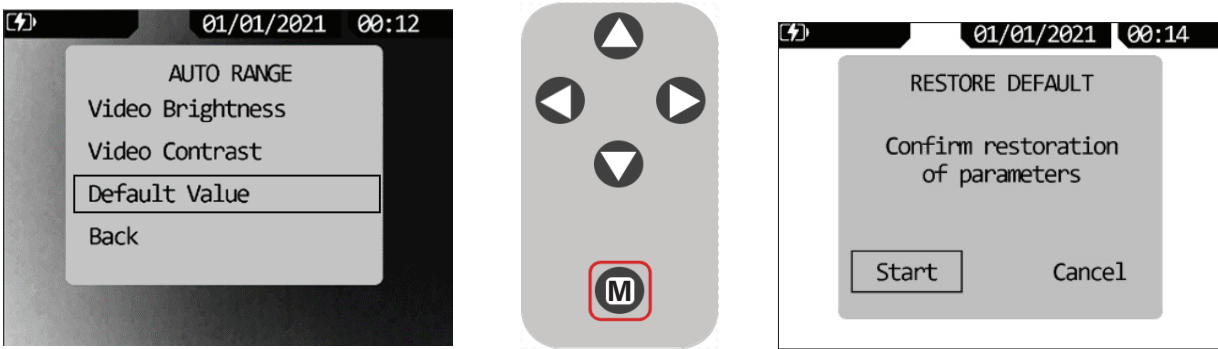
When you enter the Video Brightness or Video Contrast options, the following images will be displayed on the screen. To change the parameters, press the cursor buttons until you get the desired image.



To save the configuration press the M button. The parameters will remain constant until you make a new change.

Default Values

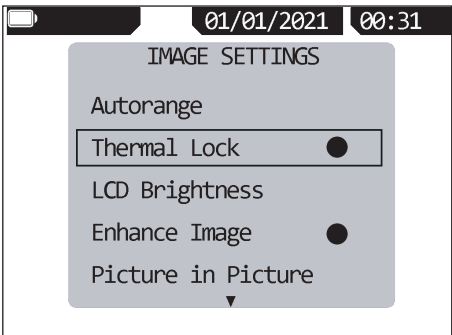
The Default Values option returns the parameters to the default values. To restore the values choose the Default Value option, press the M button to enter the option, and press the Enter button again in the Start option.



ThermaLoc™

ThermaLoc™, a Patent Pending feature, allows the user to hunt during the day in hotter than target conditions and never lose their target. This is on-board image processing software that locks in your targets' temperature and will not shift colors no matter how hot a new object comes into view. So "you never lose your target".

To access ThermaLoc™, open Main Menu, select Image Setting, select ThermaLoc™. ThermaLoc™ presets the target temperature to 97F (36C) or normal body temperature for most game. To use this feature effectively, first use the offset adjustment to fine tune the target temperature image based on different environments.

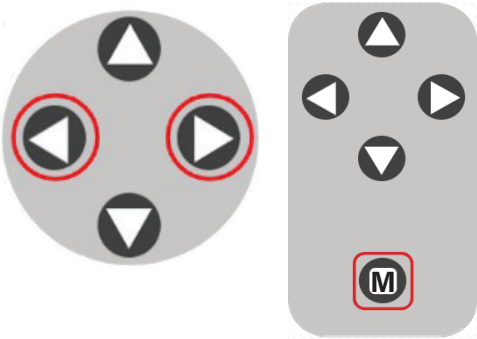
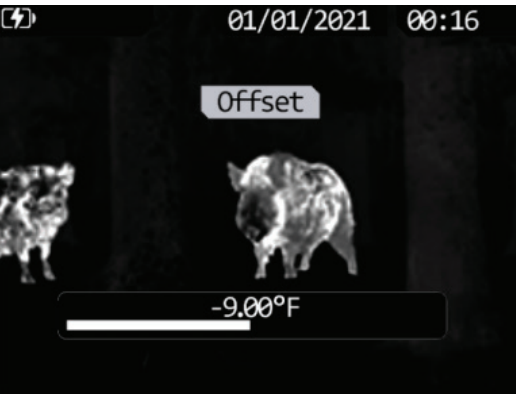


Offset, Color/Brightness, and Color/Contrast for this application are independent. Offset adjustment is generally required to optimize image quality.



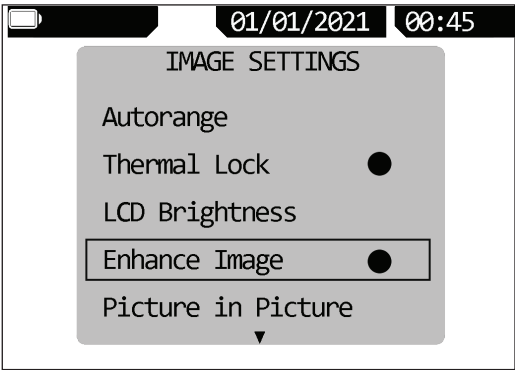
Offset

An image will be displayed on the screen as shown below. Point to the target and adjust the Offset value with the cursor until you find an image with the best detail. After adjusting offset for best image, you can fine tune the image with contrast and brightness as required.



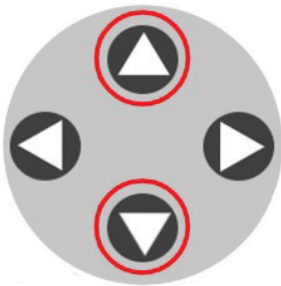
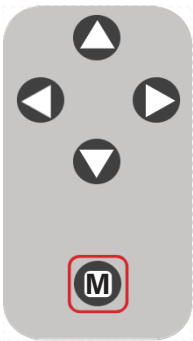
Enhance Image

This is a sharpening algorithm. It can improve distance recognition outdoors. To activate: Select Image Settings, select the Enhance Image option, press M to select. Black dot means ON.



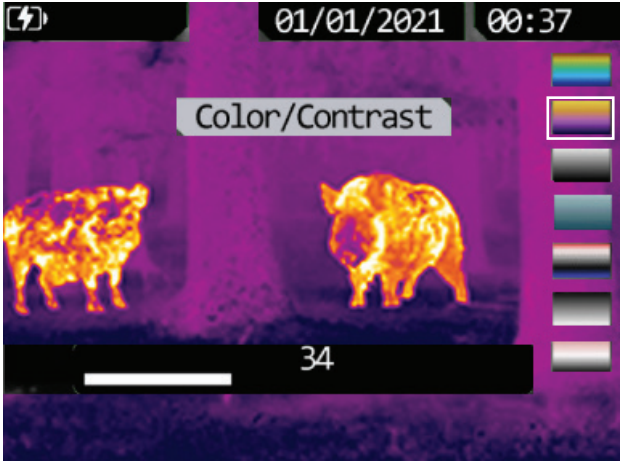
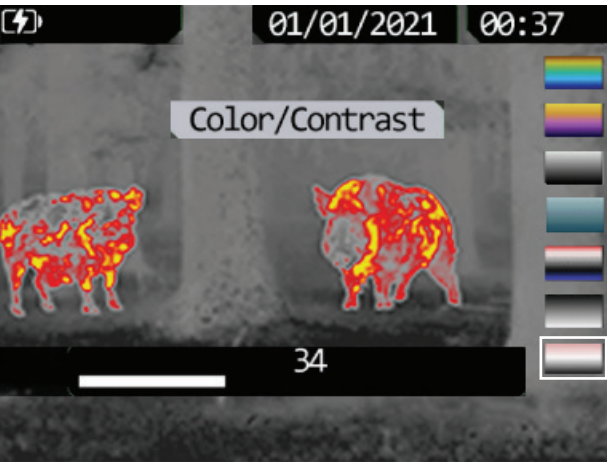
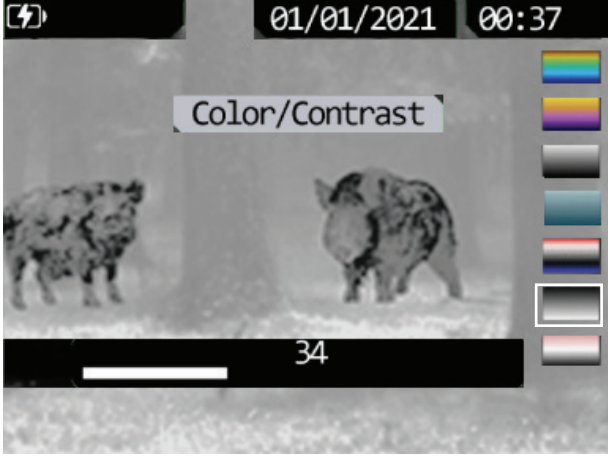
Color Modes

The color mode is a feature of the scope that allows you to see the image using different color modes. There are 7 color modes: White Hot, Black Hot, Red Hot (not shown), Modified Red Hot, Ironbow, Rainbow and White Phosphor. They can be changed in the Color Contrast or Color Brightness screens in Autorange, ThermaLoc™ modes. To change the color mode, press M button, go to Main Menu, select Image Settings, select Autorange or ThermaLoc™, then select Color/Contrast or Color/Brightness. To change the color mode, select the color of your preference by navigating with the cursor. Save the changes by pressing the M button. **Note:** Colors are the same in Contrast or Brightness modes.



White Hot

Black Hot

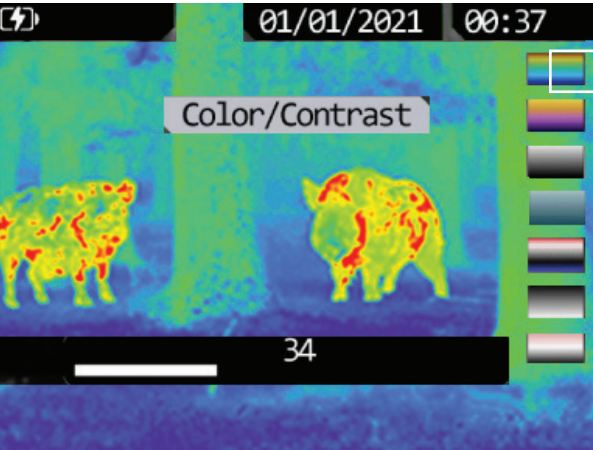


Modified Red Hot

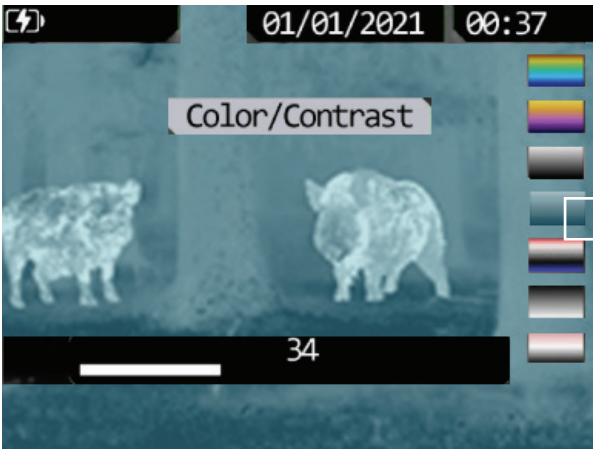
Ironbow Hot



Rainbow

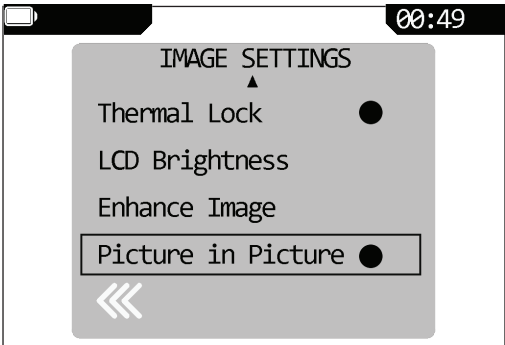


White Phosphor



Picture In Picture

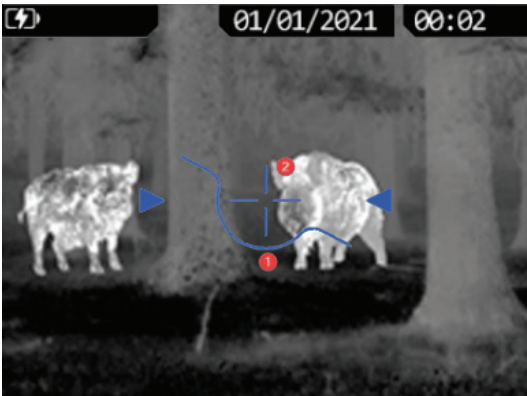
Picture in Picture is activated as shown. To exit PIP mode, press M.



6 Peripherals

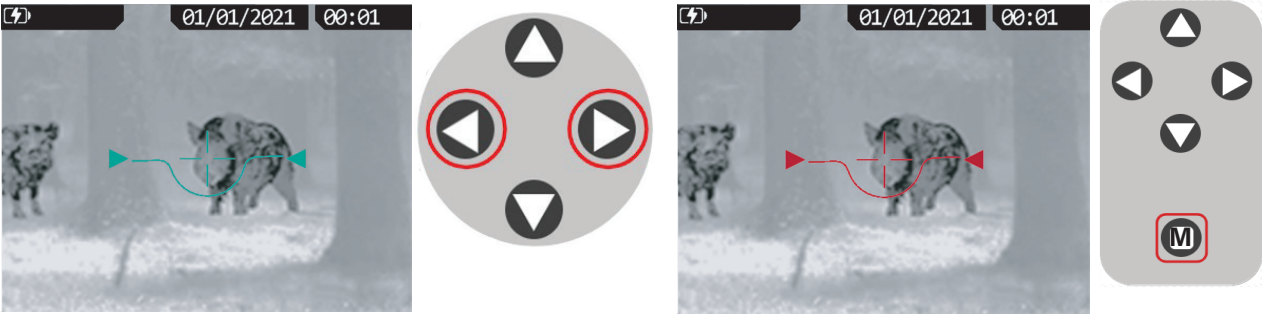
Reticle

There are 5 standard reticles. More are coming and when available, they can be loaded using the Field Update feature. The reticles have two parts, the rotation/level tilt indicator (1) and the target reticle (2). The tilt reticle indicates the angle of the weapon relative to the horizon. The target reticle is used to align the target shot. **Note** that the reticle must be pre-aligned to the gun before it is accurate (see scope alignment section 2.9).



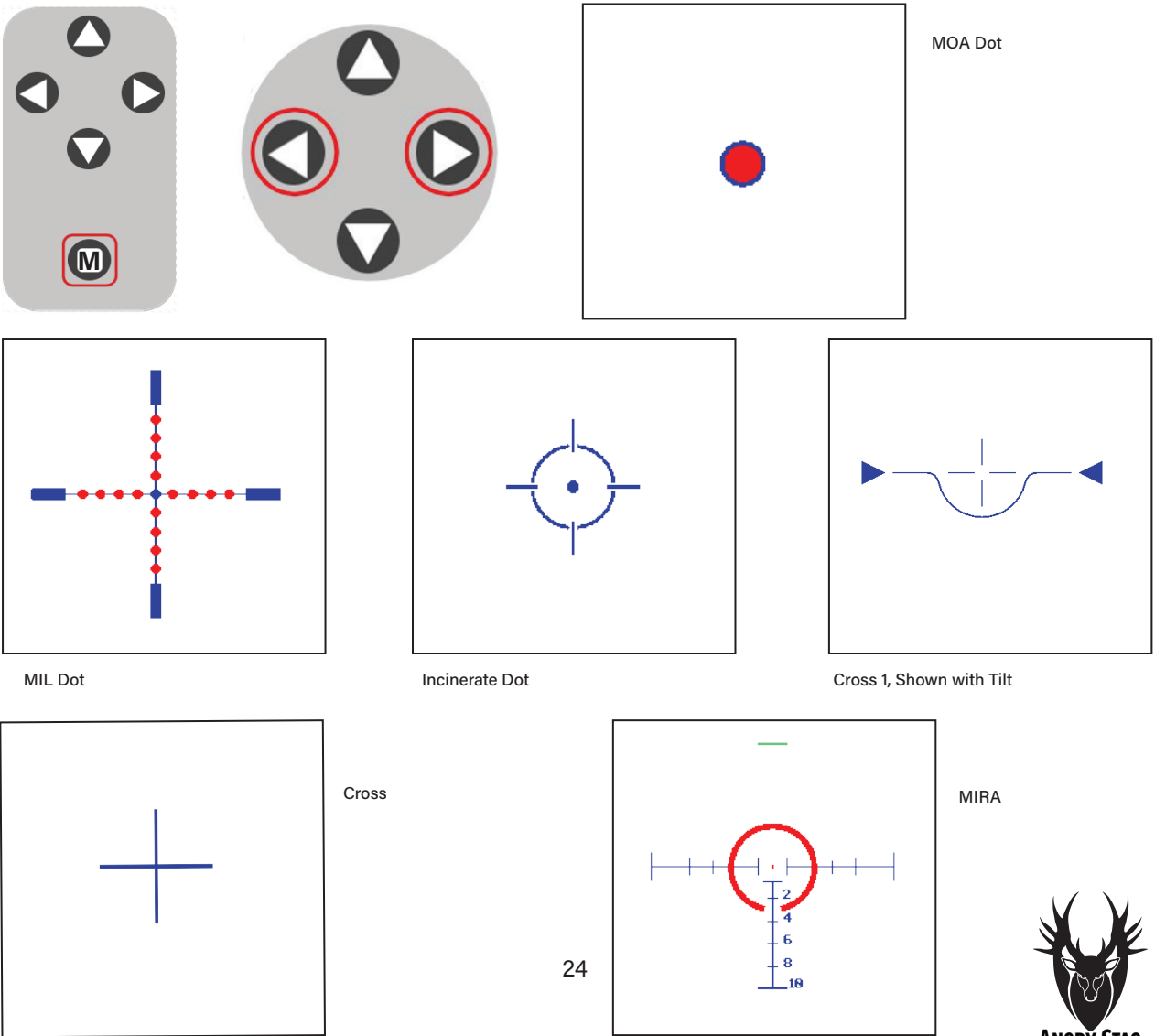
Reticle Color - 3 Options

The reticle color can be set to blue, green or red. To change the color go to the Main Menu, select Reticle Settings and select Reticle Color. Use the cursor buttons to change the color, press M (1 second) to set and exit.



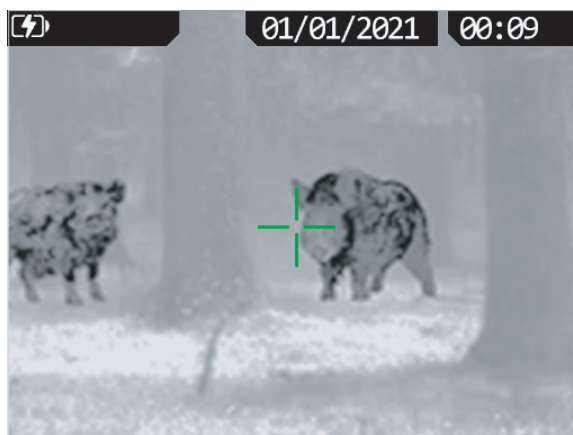
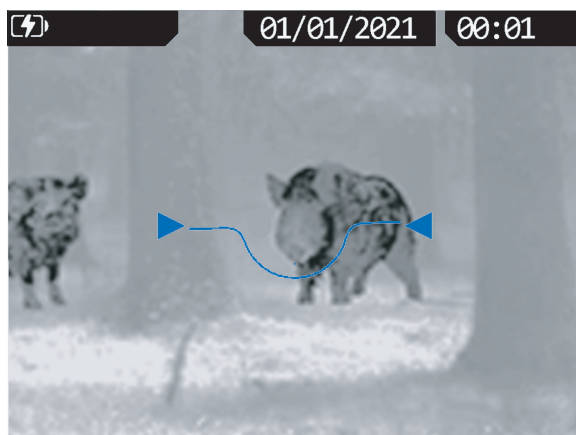
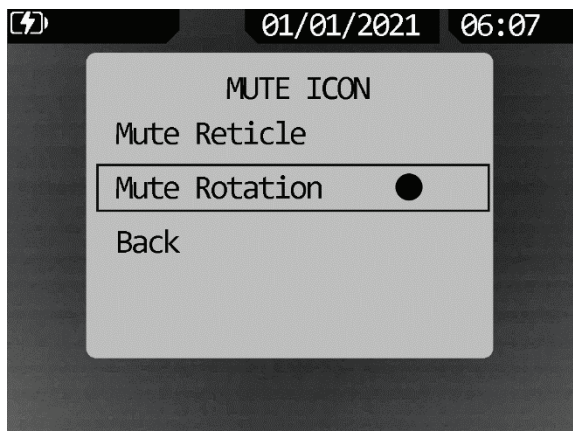
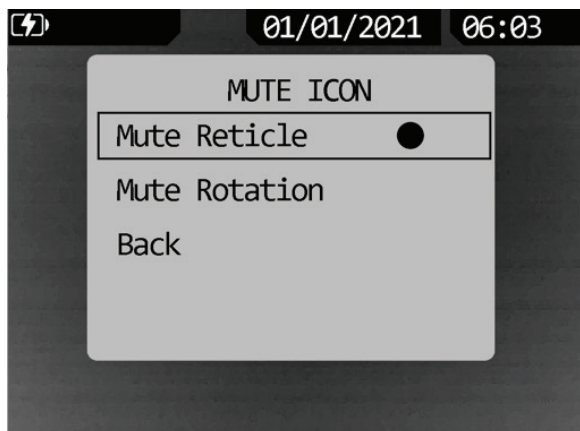
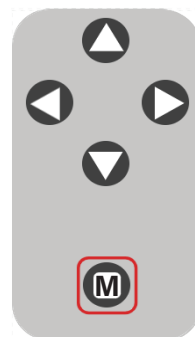
Reticle Type - 5 options

There are five options for the stationary part of the reticle. To change it, go to Main Menu. Select the Reticle Settings menu, and select Reticle Type. Use the cursor buttons to change the type, and click the M button to save and exit.



Mute Reticles

You can Mute either tilt (rotation) or target or both reticles. To mute, go to Main Menu, select Reticle Settings. Select Mute Icons, then choose which one to mute. Mark with the M press to select. Exit and save with 1 second M press.

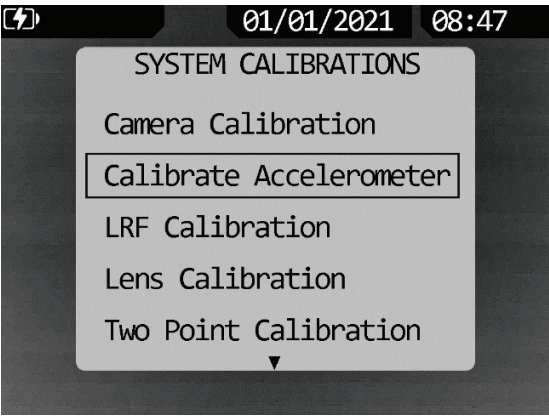


ANGRY STAG®

Accelerometer Calibration

The scope accelerometer is calibrated at the factory, but may need calibration from time to time. You can tell if it's needed by the following: place the scope on a flat surface. If the rotation/tilt reticle is not level, recalibration is needed.

To calibrate the accelerometer, go to Main Menu, select System Calibration and select the Calibrate Accelerometer option and follow the instructions that appear on the screen: "Place the unit on a flat surface in horizontal position then press start". The process is automatic.

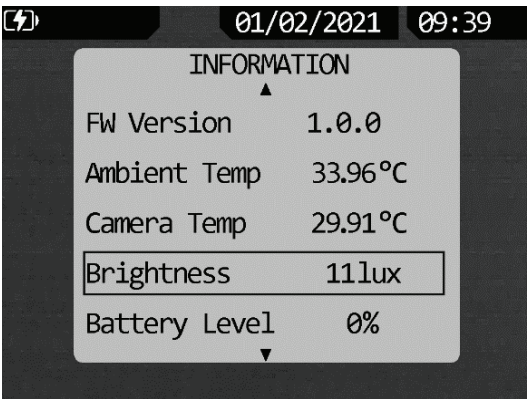
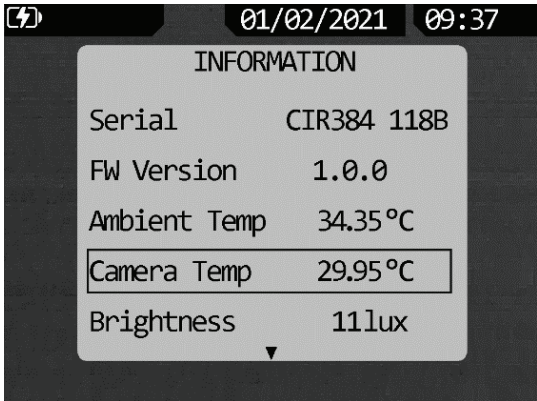
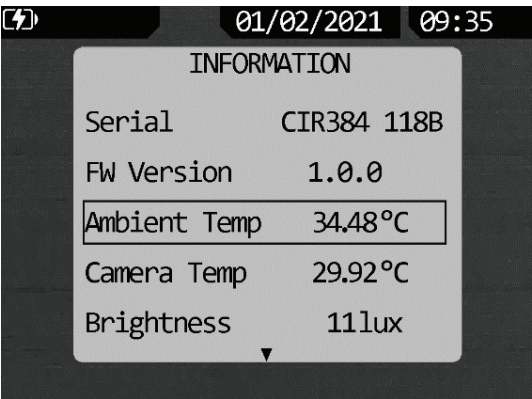


Information Screen

The scope has an information screen that has no user modifiable items. Access by Main Menu, Information. To Exit press M for 2 seconds. Contained in that screen are the following:

There are two temperature sensors: one temperature sensor to measure the ambient temperature and a second sensor to measure the temperature of the scope thermal camera sensor.

The internal camera sensor is used exclusively by the internal Firmware to adjust image quality.



Brightness Sensor: The scope has a brightness sensor: this sensor takes the measurement of ambient light intensity which is used to adjust the display brightness. The brightness intensity is measured in lux (lx) as shown in the image.

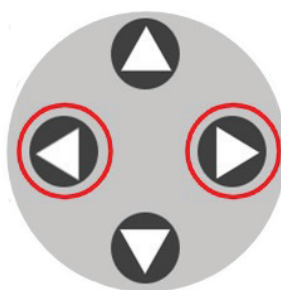
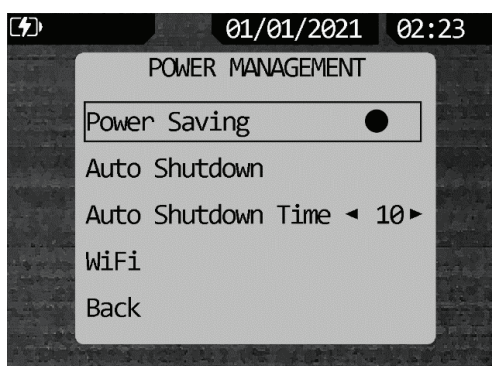
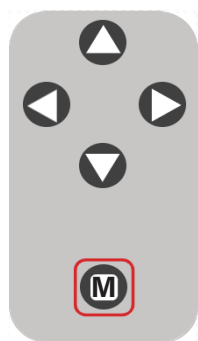


7 Power Management

Power Saving

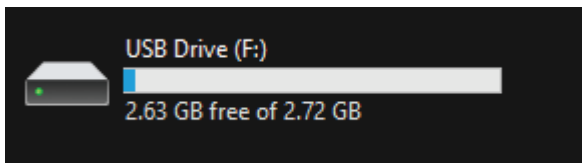
The scope is equipped with a 3000mAh rechargeable battery that should operate the scope continuously for about 8 hours. The scope has 2 features that will extend battery life; timed auto-shutdown and "tilt" Power Saving.

- 1. Timed Auto-Shutdown** – This feature is user settable and can be set to Off, or On. In the On position the user can adjust the auto-timer from 1 to 99 minutes. To access: From the Main Menu, choose Power Management, select Auto Shutdown. Highlight Auto Shutdown time and adjust as needed with the right and left cursors. To Exit, press M for 2 seconds.
- 2. Tilt Power Saving (Power Saving)** – This is a user settable feature and can be set to Off or On. In the On state, when the weapon is tilted below 45 degrees, the scope shuts down several high drain devices allowing for approximately 20% more battery life time. Recovery is under 1 second for full scope operation. To access: From Main Menu, go to Power Management, select Power Saving. To Exit, press M for 2 seconds.

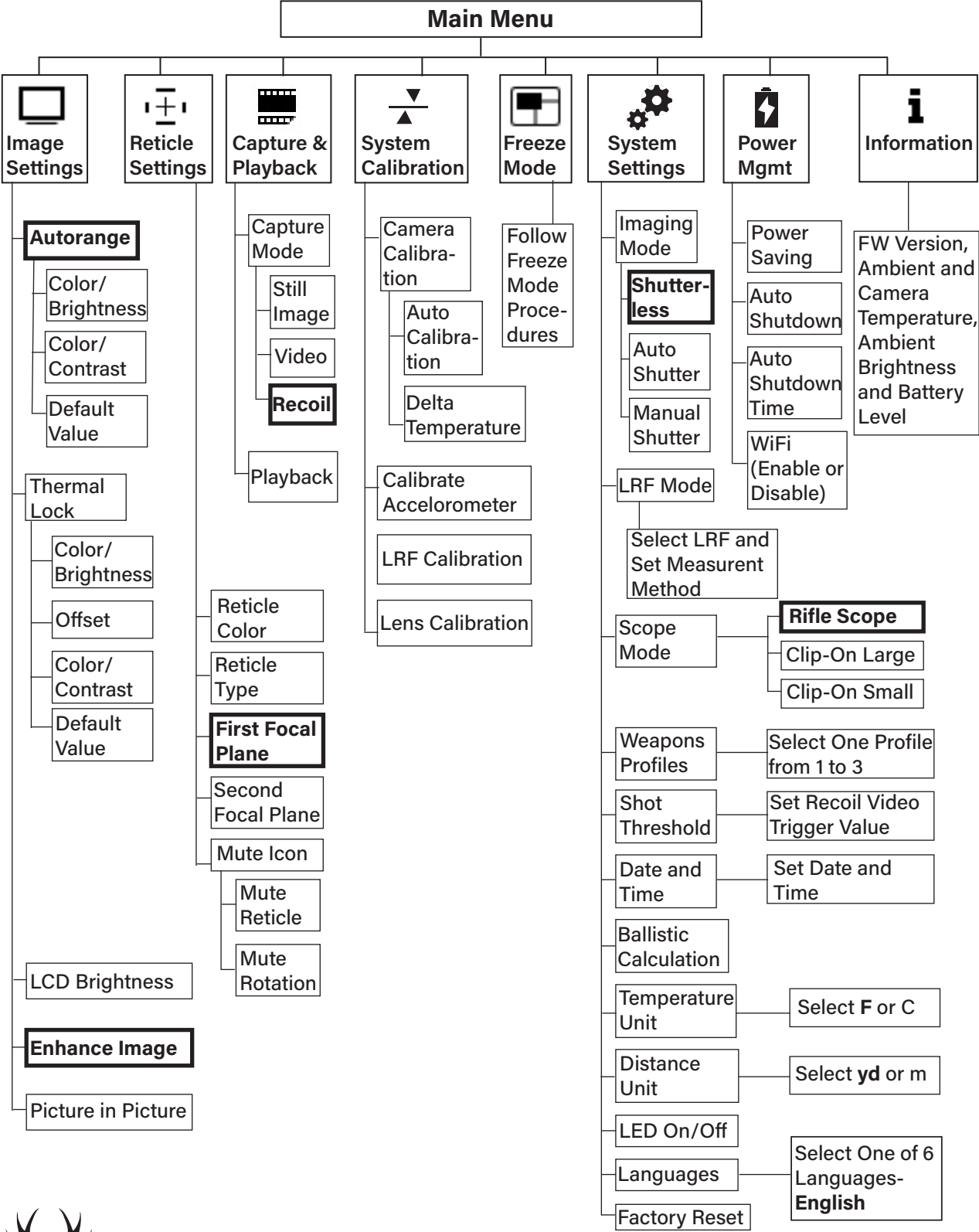


8 Internal Storage

The unit has a USB type C connector; through this connector you can access the unit's memory as a mass storage drive if you connect the unit to the PC. Inside the drive you will find the videos and images captured with the scope. You can access the drive directly with a PC or Mac using the USB-C connector on the scope. It operates the same as a USB drive.



Scope Menu



Data and Specifications

- <20mk All sensors used on Angry Stag products (Lynred, USA sensor supplier) 50Hz
- Standard AGC; dynamic pixel correction; multipoint calibration; on-board image interpolation for sharpest image
- Shutterless NUC (Non-Uniform Correction), calibrated from -20°C to 60°C
- Tri-Mode™: Clip-on, full riflescope, or handheld (Patent Pending)
- ThermaLoc™ Feature: User settable temperature range so you pick your target and never lose it, day or night. Filters out the sun, hot desert rocks, campfires, etc. (Patent Pending)
- Ultra low latency for fast target acquisition even when moving
- HD full color display 1024x768 at 50Hz
- On-board Rechargeable Battery with 8 hour battery life, 8+ hours with tilt power saving on
- Pre-event record, Video, stills, user selectable = 4GB flash on board recording (about 10 hours of video) video and stills
- One shot freeze alignment
- 7 false color palettes
- 5 reticles to choose from, 3 colors
- 1st and 2nd focal planes, user selectable
- 12 step Smooth digital magnification
- 12 step digital magnification
- WiFi streaming with cross platform App
- Picture in Picture
- USB Field updatable
- USB download of images and video
- 3 weapons profiles
- 6 language UI, English, French, Polish, Spanish, German, Italian
- Tilt indication and tilt power savings (user selectable 45 degree power Standby). Extends battery life by 20% +
- FCC and CE certified
- 1000 G tested
- Optional - Snap on Laser Range Finder (accessory, not included) 1km accuracy to 0.5m

FIELD FIRMWARE UPDATE – Please see our website for updated Firmware, features and instructions.

Designed and Made in the USA



FCC Declaration

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.

Warning: Changes or modifications to this equipment not expressly approved by Angry Stag could void your warranty and your ability to operate the equipment.

Note: 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 relocated the receiving antenna.
- Increase the separation between the equipment and the 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.

RF Warning Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Warranty

Angry Stag® warrants its products to the original purchaser against defects or malfunctions in material and workmanship under normal use and service, for Three (3) years from the original date of purchase.

In order to keep this warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying the product. Angry Stag® shall (at its option) repair or replace a defective unit covered by this warranty, or shall refund the product purchase price. Repair, replacement with a new or reconditioned unit, or refund, as provided under this warranty, is your exclusive remedy. This warranty does not cover any damages due to accident, misuse, abuse, wear or negligence. Angry Stag® shall not be liable for any incidental or consequential damages.

Some states do not allow limitation or exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Implied warranties of merchantability and fitness for a particular purpose are limited in duration to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

To make a warranty claim, the purchaser must obtain a return authorization number (RA) from Angry Stag® (serial number and purchase date required), and then return the product to Angry Stag® at purchaser's expense. A copy of the original dated receipt or shipping document must accompany the product. To obtain a return authorization, see Warranty on our website www.angrystag.com, e-mail buck@angrystag.com, or contact us at:

Angry Stag

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