

# CINDER



Operations Manual

CINDER THERMAL SIGHT

Item Number: 9501

**STEINER**   
Nothing Escapes You

## Safety Precautions



Please read carefully before proceeding.

### **WARNING**

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Ensure polarity is observed when installing the battery to the thermal sight.

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The unit is a precision optical device and must be handled carefully to prevent damage.

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Always remove the batteries when the unit is not in-use

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DO NOT scratch the external lens surface or touch them with fingers.

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To prevent thermal damage to the unit, never point it directly at the sun or any other source of high intensity light that the unprotected human eye cannot tolerate (such as a welding arc).

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DO NOT attempt to service the product yourself. For any service requests, contact Steiner Customer Support

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## About

Steiner is one of the largest manufacturers of high-quality optics in the world. The Cinder thermal sight is designed for use in day, night, and poor weather conditions (fog, smog, dust). In addition to an extensive on-board feature set including multiple color palettes, photo and video storage, and electronic zoom, this cutting-edge device runs a custom Android OS allowing wireless connection to smartphones, tablets, and the Cloud.

With a compact design and low power consumption, the Cinder is particularly well-suited for hunting or other outdoor activities, including detecting items through a variety of obstacles (bushes, grass, foliage).

This innovative system includes several features to improve your targeting experience, including multiple reticles, instant-on video, and a straightforward zeroing methodology.



Day and Night  
Operation



Powered by  
Qualcomm  
Snapdragon



Weatherproof  
Imaging



Effortless  
Operation via  
iOS/Android



Cloud-based



WiFi Enabled

# Major Components



Dwg. Ref.	Part Name	Location (on sight)
1	Keypad	Top Right
2	Focus Ring	Front
3	Objective Lens	Front
4	Eyepiece	Rear
5	Eyepiece Diopter Ring	Rear
6	Power Button	Rear Right
7	Battery Compartment	Front Right
8	Battery Compartment Cap	Front Right
9	Weapon Rail Adapter	Bottom

# The Steiner Cinder App

Steiner has created a companion app to the Cinder sight, which is available in both the Google Play store and the App Store, under the name “Steiner Cinder”.



The app can be installed on the appropriate mobile device (Android or iOS) and allows:

- WiFi connection to the Cinder
- Easy remote control of the camera
- View, capture, and share thermal photos / videos in real time
- Upload/download waypoints for navigation cues in the Cinder or Google Maps

Platform	Login Details	Comments
Steiner Cinder Thermal App	00000000	Default hotspot password for Cinder

After downloading and installing the app, you will be required to allow the app access to photos, media, and device location.

## Insert Battery



1

Rotate  
counterclockwise  
to open



2

Insert battery  
+ end first



3

Rotate  
clockwise to  
secure cap



Note:

*Always insert battery positive  
(+) end first.*

## Install Cinder on Weapon

The Cinder comes with a mount suitable for attachment to a Picatinny- or Weaver-style weapon-rail pre-installed. Proper tightening of the mount on the weapon rail requires a 3mm or 1/8 inch hex key.

To install on your weapon:

- Locate the Cinder on your weapon's rail such that the eyepiece will be fully visible when you've assumed a normal firing position. In most cases, the Cinder will be towards the back of the weapon.
- Ensure the recoil lug engages one of the grooves in the rail, and tighten the mount to finger tight.
- Check that the sight does not wobble and is fully engaged on the rail.
- Fully tighten the mounting screws to the rail.
- Zero the sight per instructions in the **Using Reticles** section.

## Power On

Adjust diopter to ensure



To power the Cinder “On”:

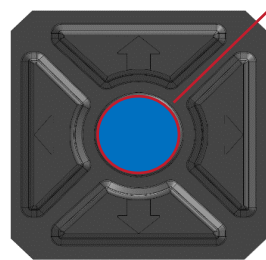
1. The power button is located on the rear right of the thermal sight, marked with this symbol.
2. Press and hold for 3 seconds and look into the eyepiece to see the display light up. The Steiner logo will appear, followed by thermal imagery after a short boot-up.
3. Once powered on, adjust the eyepiece diopter ring to bring the display into focus.



4. The system will boot up in “camera” mode. Focus the objective lens to bring the scene to a sharp image.

## Controls

Cinder is controlled using a 5-button keypad, with up/down/left/right/select functions.



**Menu  
/Select**

The Control Pane at the bottom of the display indicates keypad function for each screen. These functions change depending upon what screen you’re in. After a brief time on each screen, the control pane will disappear.



*You can configure the hotkeys to perform other functions by navigating to Settings > Hot Keys.*

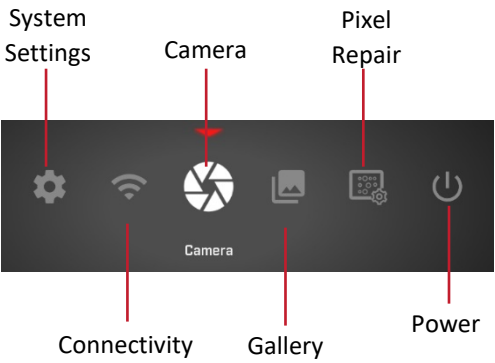
## Hot Key Function

The hot key control on the keypad allows quick access of frequently used settings. By default, the hotkeys are set to zoom in/out, click a snapshot and to start/stop recording.


- When viewing a scene in the display, use ▲ button to zoom in - up to 4x and the ▼ button to zoom out.
- Use ◀ button to capture a snapshot and ▶ to start and stop recording a scene.

# Home Screen Functions







To access Home Screen, open Menu and use ▲▼ to navigate to Home Screen



Use ◀ and ▶ buttons to navigate between these functions and use ● to select a function.

 *To view and control video output, click Camera in the Home Screen of your thermal sight.*

Note:


 <b>System Settings</b>	View system info, perform software upgrades, change screen and interface settings, enable/ disable user pin and profile, configure hot keys
 <b>Connectivity</b>	To choose how the thermal sight connects with external devices
 <b>Camera</b>	To view and control camera settings including configuring and selecting presets, brightness, polarity, sharpness settings, bad pixel and non-uniformity
 <b>Gallery</b>	To view stored media – images and videos
 <b>Pixel Repair</b>	To fix bright or dark spots on the display. Refer to section <b>Fixing Bad Pixels</b> for detailed information.
 <b>Power</b>	To reboot or shutdown the sight

## System Settings

<b>Device Information</b>	Read-only information about the device and its components
<b>System</b>	<p>To check and download system updates. <i>Before updating the device, ensure that the battery is fully charged.</i> Steiner will occasionally make system updates available for new features or bug fixes.</p> <p>Also send system logs to the cloud for troubleshooting if necessary.</p>
<b>Screen</b>	To adjust screen position, size and increase/decrease brightness and contrast for the OLED
<b>Timezone</b>	To set the date and time zone for the device.
<b>Interface</b>	To change language settings, enable/disable display widgets, set up duration until screensaver is activated and to enable display indicators auto-hide. When this setting is

	enabled, the menu options and display indicators are auto-hidden after 10-seconds of inactivity.
<b>Video Recording</b>	To define recording quality, set a maximum recording time, and allow/disallow “screen-recording.” <i>Screen-Recording allows video to include on-screen display items such as the rangefinder, but at a lower frame rate than standard recordings.</i>
<b>Streaming</b>	To set bitrate and maximum latency for streaming.
<b>User Management</b>	Reserved for future firmware release.
<b>Hot Keys</b>	To change the hot key functions assigned to the Up, Down, Left, Right buttons.
<b>Location and Compass</b>	To setup and calibrate compass, and to turn on/off current GPS location.

## Wireless Connectivity

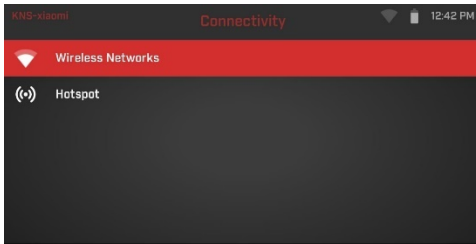
If you desire to use the LAN/Wi-Fi as the connection, once you power the Cinder “On”, navigate to  Connectivity and click Wireless Networks. Toggle Wi-Fi to On and select the network you wish to connect to.




*Connecting to external wireless devices is optional.*

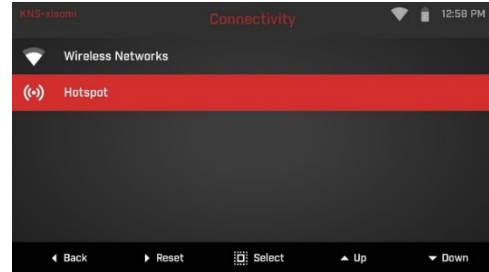
Note: *Turn Wi-Fi On only if you wish to allow wireless access to the thermal sight.*

*System works with 2.4GHz networks.*



If there are no WiFi networks available in the region, Cinder can establish a Hotspot connection with your smartphone/Tablet PC for remote wireless operation.

Navigate to  Connectivity and click Hotspot.



Note: *Once Hotspot is enabled, Cinder remains in hotspot mode even after system reboots, until the setting is manually disabled from the Connectivity menu.*

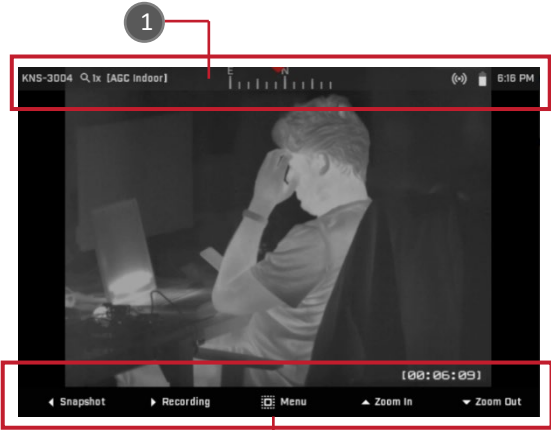
If using the Steiner Cinder app: Android devices may be connected to Cinder via Private (Peer to Peer) connectivity, or via Wi-Fi (LAN); iOS devices may be connected to Cinder via Hotspot or Wi-Fi (LAN).

Camera

When powered on, the sight displays the camera feed.

To go back to the camera feed from the Home Screen, click the Camera icon.

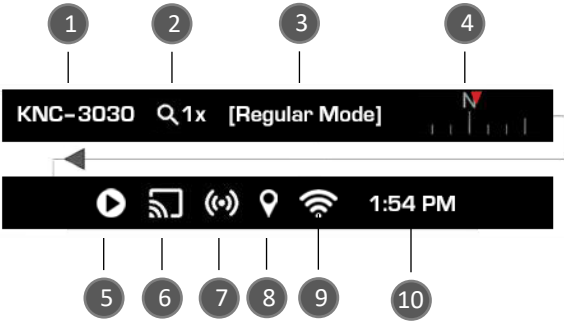
The following are the default display indicators on the camera screen:



1	Status Bar	Displays indicators for active modes, current zoom level, Wi-Fi and battery status, current time
2	Control Pane	Displays the keypad functions for each screen

Status Bar





These are the status bar indicators:







1	Device ID
2	Displays current Zoom level
3	Displays current AGC mode (Regular/Enhanced)
4	Compass – Displays direction (magnetic north)
5	On Screen Recording – Displays logo when this option is selected in System Settings
6	Stream – Icon is visible when Cinder is streaming video
7	Connectivity Mode – Displays Hotspot icon when mode is enabled
8	Location – Icon is visible when GPS is turned on
9	Connectivity – Displays WiFi icon when mode is enabled
10	Time – Displays current time

# Menu

Use Menu to select or modify the following settings:




 <b>Home Screen</b>	Change settings and wireless connections, view gallery or power off the sight.
 <b>Thermal Settings</b>	<p>Perform NUC, set contrast enhancement, select from predefined AGC modes, set gain.</p> <p>Refer to the <b>Changing Thermal Settings</b> section for detailed information.</p>
 <b>Image Settings</b>	<p>To adjust Brightness, Contrast, Sharpness, Edge Detection, Zoom, Picture in Picture, FPS, Video Orientation and Aspect Ratio. Refer to the <b>Changing Image Settings</b> section for detailed information.</p>
 <b>Color Settings</b>	Select from various color palettes, change polarity and apply selective coloring to targets.

	Refer to the <b>Color Settings</b> section for detailed information.
 <b>Preset</b>	<p>Select from built-in presets: Indoor, City, Forest, Fixed, Semi-Auto, or Auto: or save your own custom preset.</p> <p>Refer to the <b>Using Presets</b> section for detailed information.</p>
 <b>Rangefinder</b>	<p>To estimate the distance to a target of known size. You can either select one of the three built-in targets or adjust it by moving the two horizontal bars on the display</p> <p>Refer to the <b>Using Rangefinder</b> section for detailed information.</p>
 <b>GPS Waypoints</b>	<p>To save waypoints or set navigation to a waypoint via GPS.</p> <p>Refer to the <b>Using GPS</b> section for detailed information.</p>






 <p><b>Reticle</b></p>	<p>To ready the unit to target. Select from five reticles, multiple mesh (grid) sizes, and reticle colors.</p> <p>You can also move the reticle along the horizontal and vertical axis for precise targeting using the Reticle Position setting.</p> <p>Refer to the <b>Using Reticles</b> section for detailed information.</p>
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## Changing Thermal Settings

<p><b>NUC</b></p>	<p>Single Point Non-Uniformity Correction levels the temperature of the microbolometer and eliminates image flaws like fixed pattern noise, vertical stripes etc. Use of this feature may improve image quality at a given temperature, particularly a very cold or hot temperature. Select between On and Off. Default</p>
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	<p>is Off – selecting this option will temporarily overwrite the factory thermal calibration to optimize for a given temperature. Restarting Cinder (or setting to Off) will return the device to factory settings.</p>
 <p><b>Contrast Enhancer</b></p>	<p>Selectively increases the target contrast to make it stand out from the background. Select a numerical value between 1 and 10 to suit user preference.</p>
 <p><b>AGC</b></p>	<p>Auto Gain Control makes internal contrast enhancements to display the best output for a given scene. Options are “Regular” or “Enhanced”. Change to suit individual user preference.</p>
 <p><b>Image Boost</b></p>	<p>Manually controls the AGC algorithm for a given scene. Select a numerical value between 0 and 36 to suit user preference.</p>

## Changing Image Settings

 <p><b>Brightness</b></p>	<p>Adjusts scene brightness. Select a numerical value between 0 and 20 to suit user preference.</p>
 <p><b>Contrast</b></p>	<p>Adjusts scene contrast. Select a numerical value between 0 and 20 to suit user preference.</p>
 <p><b>Sharpness</b></p>	<p>Applies a sharpness filter to the scene. Select a numerical value between 0 and 10 to suit user preference.</p>
 <p><b>Edge Detection</b></p>	<p>Displays only the outlines of objects in the scene. Often useful for target detection. Toggle on/ off to suit user preference.</p>
 <p><b>Zoom</b></p>	<p>To zoom into or out from a subject in the scene, digitally. Available values are: 0.5x, 1x, 2x, 3x and 4x</p>



**Edge Detection**







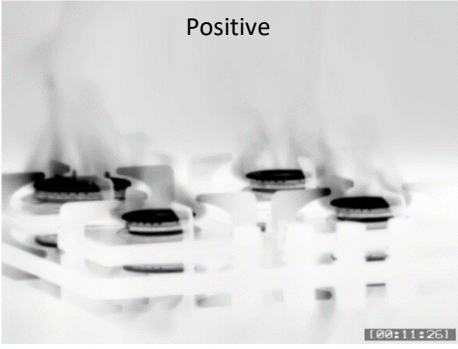
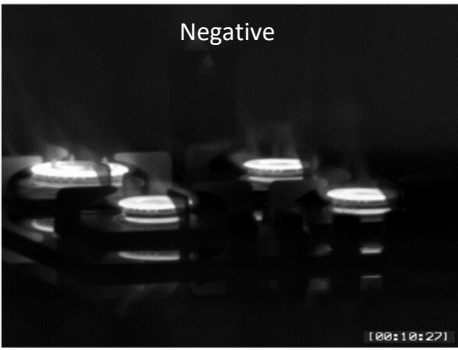
**Picture In Picture**

When active, the zoomed in/out view is displayed only at the center of the screen. Often use for situational awareness. Toggle on / off to suit user preference.



**Picture In Picture**

 <b>FPS</b>	Adjusts the frames per second (imager refresh rate). Available options are 15, 24, and 30. Default is 30.
 <b>Rotation</b>	Switches video orientation 180 degrees (upside down).
 <b>Aspect Ratio</b>	To switch between two available aspect ratios: Expanded or 4:3. Default is 4:3.
 <b>Video Displacement</b>	Shifts the thermal image left to right on the display. Available values are -200 to 200. Default is 0.



## Changing Color Settings

### **Polarity**

To select between two polarities: Positive and Negative. The default polarity is set to Negative. Polarity selection applies to palettes and selective coloring.

### **Palette**

To select from 10 built-in palettes to suit a given scene. The following image shows all the palettes with negative polarity:



## ))) Selective Coloring

To selectively apply a palette on a target. The rest of the scene is shown using the previously selected color palette (ie. Teals, Inferno, etc.)

**Off:** No selective coloring

**Hot:** Works best when the target is hotter than the scene. This is the most commonly used preset.

**Moderate:** Works best when the target is of a moderate temperature compared to other hot and cold objects in the scene.

**Cold:** Works best when the target is colder than the scene.

**Custom:** To manually set a minimum and maximum range to apply the palette.

The following image shows a scene where selective coloring is applied with a Hot preset:



In the image, the palette is only applied to the objects in the scene that fall within the threshold defined for the Hot preset.

Hottest areas are shown in red, moderate in yellow, and lower temperature areas are shown in blue. The palette is not applied to the rest of the scene where the temperatures are relatively lower.

## Using Presets

Each preset is an optimal combination of brightness, contrast, sharpness, polarity and gain to deliver the best possible image in a given environmental condition. There are 6 built-in presets:

<b>Indoor</b>	Enhanced brightness mode to add more light to shadow areas and even out contrast.
<b>City</b>	Enhanced contrast mode to view target against busy skyline.
<b>Forest</b>	Low contrast mode perfect to view animals against foliage and vegetation.
<b>Fixed</b>	Recommended for fixed or static scenes.
<b>Semi-Auto</b>	Provides enhanced information in the scene, but increases noise.
<b>Automatic</b>	Default template, should work well in most cases.
<b>Custom</b>	User-defined presets

To configure and save a custom preset:

1. Navigate to Thermal or Image settings using ▲▼ from Menu and

perform your scene adjustments as required.

2. To save current settings as a custom preset, navigate to **Presets >**



Save to Custom Preset

3. Select from the available custom slots and click to save the preset.



*You can save up to two custom, user-defined presets.*

Note:

	71.3m	
	178.3m	
	237.7m	
	358.5m	1.50m Custom

## Using Rangefinder

Cinder has a built-in Stadiametric Rangefinder to estimate the approximate distance of a target of known size.

Inside the Rangefinder setting you will see four built-in targets: Rabbit (0.30m height), Boar (0.75m height), Deer (1.00m height), and Custom (user defined height).

To calculate the distance to target:

1. Place bottom arrow / lower bar at the bottom of the target (use buttons to position the bar, and center button to finalize placement ).
2. Place the top arrow / upper bar at the crown of the target, using same buttons.
3. Read the distance to the target in the table to the right, using the icon most similar in size to your target.

The distance to the target is recalculated automatically when you move the upper bar to the target on the display.

4. Selecting the ► button will allow you to alter the custom target size by entering a sub-menu. Press ● button to exit that sub-menu.
5. If GPS has been enabled and the Cinder has achieved good GPS lock, a Waypoint can be created to the target that was just ranged. This waypoint takes into account the orientation of the Cinder (ie uphill / downhill), the compass direction the Cinder is pointed in, and the range to the target. Press ● to create and name your waypoint. You can then navigate to that waypoint using the **GPS Waypoints** menu.



Note:

*If using the Cinder App, then waypoints generated in this manner will also be navigable using Google Maps.*

## GPS Waypoints

Cinder features navigation to a set point via GPS.




Warning:

*Ensure that the compass is calibrated before using the waypoint feature. Compass calibration can be done by following the steps mentioned in the **Calibrating Compass** section.*


## Turning On / Off GPS

1. On the camera screen, click on **Menu** and then select **GPS Waypoints**.
2. Ensure that **GPS** is turned on via the


Enable/Disable GPS  Menu and has a 3D location fix. During the first time the Cinder GPS is turned on in a new location, it may take up to 15 minutes to locate sufficient satellites for a 3D fix. Subsequent uses in the same location should

take less than 5 minutes to achieve a 3D fix. (If a fix is not available, you will see “Awaiting GPS Fix...” if you attempt to create or navigate to a Waypoint. (Alternately, GPS can be turned on/off via the System Settings Menu)

### Saving a Waypoint

1. Ensure that GPS is turned on and has a 3D fix.
2. Select Create Waypoint 
3. Enter the name of the waypoint on the dialog box and click **Save**. This will save the current location of the Cinder as a waypoint.

### Waypoint Navigation

1. Ensure that **GPS** is turned on and has a 3D fix.
2. Select Waypoint List 
3. Select a previously saved waypoint from the list and click **Navigate**.

An arrow along with the distance to target waypoint will be visible over top of the camera video if the

distance from sight's current location to the target waypoint is more than 10m.



If the distance from sight's current location to the target waypoint is less than or equal to 10m, it will show a box showing the distance only.

Move in the direction shown by the arrow to reach the waypoint. An *“up” arrow (as shown above) means the target is in front of you.* The arrow will move with the Cinder, and distance to waypoint will change as you move closer to/farther away from the target.

## Rename a Waypoint

1. Select Waypoint List.
2. Select a previously saved waypoint from the list and then click **Rename**.
3. Enter a different name of the waypoint on the opened dialog box and click **Save**.

## Delete a Waypoint

1. Select Waypoint List.
2. Select a previously saved waypoint from the list and click **Delete**.

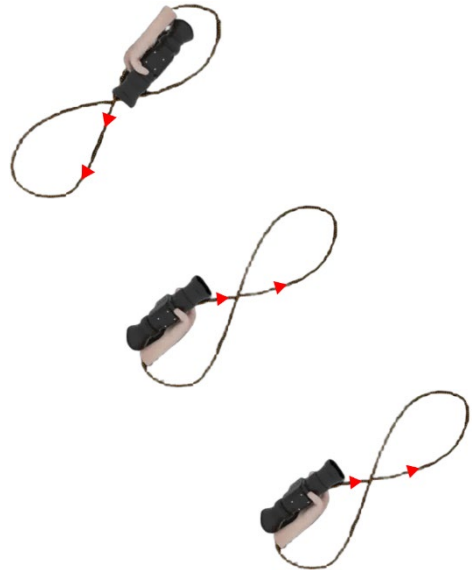
## Calibrating Compass

The compass can be calibrated to fix any inconsistencies in the compass readings. The compass can be calibrated from the compass calibration settings using the following steps:

1. Navigate to System Settings and click Location & Compass.
2. Click **Declination** and select your country and state (or city) from the list. It will set the declination angle





of the selected location which is required for compass calibration.

3. Click Calibrate Compass.
4. Click **Calibrate** and then rotate the camera in a figure of 8 for 15 seconds. Ensure there are no magnetic fields (cars, building walls) near you.
5. After 15 seconds, calibration will be completed.



# Using Reticles

Cinder includes a range of smart reticles, as well as multiple grid (mesh) configurations, and user-selectable color.

 <b>Reticle Style</b>	There are 5 different pre-programmed reticles. Choose one based upon user preference.
 <b>Reticle Position</b>	To adjust reticle position on the horizontal and vertical axis to aid in zeroing.
 <b>Mesh</b>	To enable/disable grid for enhanced targeting precision. There are multiple different grid configurations (2x2, 3x3, etc.)
 <b>Color</b>	To switch colors for the grid and reticles. Available colors are: black, white and red

# Zeroing

You will need to zero your weapon, if:

- This is the first installation of the Cinder on your weapon.
- Your previous zeroing distance is different from the current.
- You wish to fit the thermal sight on another weapon

To zero:

1. Stand at a distance of 25 Yards or Meters from the target, and then work outward to longer distances (50 / 75 / 100).
2. Take aim by centering the reticle on the target and fire a series of shots to get a grouping of at least three shots.
3. Calculate reticle setting using the below procedure and charts
4. Use the reticle position setting to move the reticle and bring the center of impact to the Aim Point.

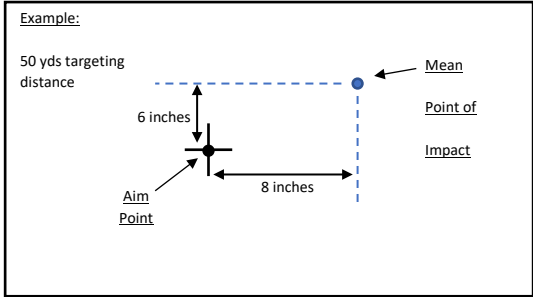
# Reticle Setting Procedure

Zeroing is performed by moving the reticle **towards** the Mean Point of Impact.

Note the original position of the reticle in X (windage) and Y (elevation). For example, the factory zero position is (0,0). Starting from your original position, movement in the positive X direction will move the reticle to the right; movement in the positive Y direction will move the reticle upwards.

Taking a known distance from the target (25/50/75/100 yards or meters), fire shots to generate a 1 inch (25mm) grouping.

Measure the horizontal and vertical distance of the Mean Point of Impact (MPI) (center of grouping) from the Aim Point. For example, in the image below the MPI is 8 inches to the right and 6 inches higher than the Aim Point.



Use the tables on the next page to calculate the required offset, for each direction. For example, in the image the range distance was 50 yards. Using the 50 yard column and 8 inch row yields a horizontal offset of 26 in the positive direction (because we need to move the aim point to the right). Using the 50 yard column and 6 inch row yields a vertical offset of 20 in the vertical direction (because we need to move the aim point up).

		Horizontal			
		Yards			
		25	50	75	100
Inches	1	7	3	2	2
	2	13	7	4	3
	3	20	10	7	5
	4	26	13	9	7
	5	33	16	11	8
	6	39	20	13	10
	7	46	23	15	11
	8	53	26	18	13
	9	59	30	20	15
	10	66	33	22	16

		Vertical			
		Yards			
		25	50	75	100
Inches	1	7	3	2	2
	2	13	7	4	3
	3	20	10	7	5
	4	26	13	9	7
	5	33	16	11	8
	6	39	20	13	10
	7	46	23	15	11
	8	53	26	18	13
	9	59	30	20	15
	10	66	33	22	16

If starting at (0,0), the new reticle coordinates would therefore be (26,20). If starting at an alternate zero location (for example at (-10,15)) the new reticle coordinates are added to the starting point (in this specific example, the new coordinates would be (16,35)).

### Using Instant-On Video

Instant-On Video (IOV) is a feature on the Cinder that allows you to automatically record a video clip a few seconds before and after the sight experiences a shock event, such as from recoil.

This is helpful when you must quickly take a shot and don't have time to manually start the recording process.

To activate IOV, navigate to Home > System Settings > Video Recording and toggle "on" Enable IOV.

		Yards			
		25	50	75	100
Inches	1	7	3	2	2
	2	13	7	4	3
	3	20	10	7	5
	4	26	13	9	7
	5	33	16	11	8
	6	39	20	13	10
	7	46	23	15	11
	8	53	26	18	13
	9	59	30	20	15
	10	66	33	22	16
	11	72	36	24	18
	12	79	39	26	20
	13	85	43	28	21
	14	92	46	31	23
	15	98	49	33	25
	16	105	53	35	26
	17	112	56	37	28
	18	118	59	39	30
	19	125	62	42	31
	20	131	66	44	33
	21	138	69	46	34
	22	144	72	48	36
	23	151	75	50	38
	24	158	79	53	39
	25	164	82	55	41
	26	171	85	57	43
	27	177	89	59	44
	28	184	92	61	46
	29	190	95	63	48
	30	197	98	66	49

		Meters			
		25	50	75	100
Centimeters	1	2	1	1	1
	2	5	2	2	1
	3	7	4	2	2
	4	9	5	3	2
	5	12	6	4	3
	6	14	7	5	4
	7	17	8	6	4
	8	19	9	6	5
	9	21	11	7	5
	10	24	12	8	6
	11	26	13	9	6
	12	28	14	9	7
	13	31	15	10	8
	14	33	17	11	8
	15	35	18	12	9
	16	38	19	13	9
	17	40	20	13	10
	18	43	21	14	11
	19	45	22	15	11
	20	47	24	16	12
	21	50	25	17	12
	22	52	26	17	13
	23	54	27	18	14
	24	57	28	19	14
	25	59	30	20	15
	26	61	31	20	15
	27	64	32	21	16
	28	66	33	22	17
	29	69	34	23	17
	30	71	35	24	18

## Maintenance

Ensure that you undertake maintenance of the thermal sight at least twice a year.

Housing	Check for damage including cracks, missing parts and any other visible defects
Battery Compartment	Check the battery compartment for dirt, dust, moisture or defective contacts. Remove battery when system is not in use.
Optical Surfaces	Inspect all lenses for dirt, fingerprint residue, chips or cracks.
Lens and Neoprene Cover	Rotate focus and diopter rings to ensure free movement. Visually check for scratches, cuts, tears, dirt and foreign material.




Eyeiece	Visually check for cuts, tears, dirt, torn, bent or improperly fitting eyepiece rubber.
Power Button	Insert the battery and Power On. Inspect that the display is On and that it shows no errors.
Control Buttons	Ensure the control buttons are responsive and not stuck.

## Cleaning and Storage

- Wipe external surfaces clean of dust and dirt.
- Check the lens and eyepiece. If required, remove dust and sand (preferably noncontact method).
- Always store the sight in a dry, well-ventilated space. Always remove the batteries when storing the unit.

## Fixing Bad Pixels

When operating any thermal sight, bad or dead pixels may occasionally appear on the display. These may appear larger when you zoom into a scene. To fix bad pixels:

1. Navigate to Pixel Repair from the Home Screen 
2. A large red square window will appear on the display. A “zoomed in” view, showing the contents of the large red square, will appear in one of the four corners of the screen.
3. Use the directional keys to move the large red square to the bad pixel. Use the zoomed in view to place the specific bad pixel inside the smaller red square shown in the zoomed view.
4. Click  and click **Select Bad Pixel**.
5. Repeat the above steps for all bad pixels.
6. Click  and select Save & Exit to Menu.

The changes will apply after rebooting the system.

## Troubleshooting

Sight fails to power on	
Battery is missing or installed in the reverse polarity.	Install battery or install battery in the correct polarity.
Battery is dead or discharged	Replace battery

Sight fails to power on / Sight is non-responsive / Sight keeps crashing	
System is non-responsive or only shows flashing logo	Replace battery
System is bricked	<p>Initiate system reset by following these steps:</p> <p>Reinsert battery and press and hold the following button combination for 4 seconds:</p> <ul style="list-style-type: none"> <li>- Power + Menu + Up</li> </ul> <p>The reset process takes around 5 minutes during which the Steiner logo is displayed on the screen.</p>

	The sight reverts to older OS version after system reset.
	<b>WARNING:</b> Ensure that the sight is at 100% battery before initiating system reset.
<p>After a system reset is done, Steiner recommends uploading the system logs from the Troubleshooting option from System Settings</p> <p>If issues with the sight persist after a system reset, contact Steiner Customer Support.</p>	

Poor image quality	
Lens or eyepiece focus may need adjustment	<p>Refocus objective to focus on target.</p> <p>Refocus diopter to set Cinder for user's vision.</p>
Fogging or debris on lens or eyepiece	Clean the lens and eyepiece as detailed in section <b>Cleaning and Storage</b>
Unit is damaged	Contact Steiner Customer Support

No Wi-Fi signals detected	
Too many Wi-Fi networks or	Move thermal sight to a place with

barriers causing signal interference	fewer or no other Wi-Fi network or no barriers
Sight beyond reliable Wi-Fi range	Relocate sight to place with stronger Wi-Fi signal
<b>Blurry image with uneven background or vertical stripes</b>	
Ambient temperature differences exceed factory NUC	Perform NUC from Camera > Thermal Settings > NUC > On
<b>Image is too dark</b>	
Brightness/contrast set too low	Adjust brightness/contrast
AGC mode disabled	Select alternate AGC or AGC2 mode via Camera > Thermal Settings. Optimize settings for user preference.



*If you encounter an issue not listed here, contact Steiner*

**Note:** *Customer Support for resolution*

## Support

For service or repair, please contact **Steiner Customer Support** for your appropriate region (USA or International). Details are on the back cover of this manual.

To assist the service personnel to determine if the item can be repaired, please provide the following information:

- Model number and serial number of the unit
- Complete description of the malfunction, defect or damage
- An explanation of how the malfunction, defect or damage occurred, if known.

Once a support request is made, Steiner service personnel will determine the nature of the request and decide if the issue can be resolved via email or phone call or by requesting return of the unit.

# STEINER



Nothing Escapes You



Steiner eOptics is a  
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