



Reveal Shield^{PRO}

USER MANUAL



Learn more at thermal.com

111 Castilian Drive, Santa Barbara, CA 93117 USA

Seek Thermal engineers, designs and manufactures high quality thermal imaging products and core platforms for consumer, commercial, and heat sensing IoT data applications. With headquarters in Santa Barbara, California, the global hub of thermal imaging innovation, the company has developed breakthrough thermal imaging camera cores that will enable a range of affordable products for use at home, work and play. For more information visit thermal.com and follow #seekthermal on Instagram and @seekthermal on Twitter.

TECHNICAL SUMMARY

SPECIFICATIONS	DESCRIPTION
Thermal Sensor	320 x 240
Detection Distance	825 Yards (758 Meters)
Recognize Distance	200 Yards (190 Meters)
Identify Distance	115 Yards (108 Meters)
Field of View	24 Degree FOV
Frame Rate	9 Hz or 30 Hz
Zoom	4X Digital Zoom
IP Rating	IP67 Waterproof
Display	2.4" Color with Corning® Gorilla® GlassUncooled
Microbolometer	Vanadium Oxide
Startup Time	2-3 Seconds
Spectral Range	7.5 - 14 Microns
User Interface	Self-Contained Device with 3 Button Navigation
Storage Temp	-40 to 140F (-40 to 60C)
Operating Temp	-40 to 120F (-20 to 50C)
Runtime	Up to 3.5 Hours Thermal Imaging
Battery	Rechargeable Lithium Battery
	For support and user guides visit support.thermal.com

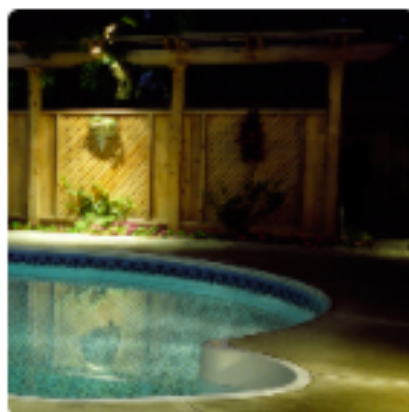


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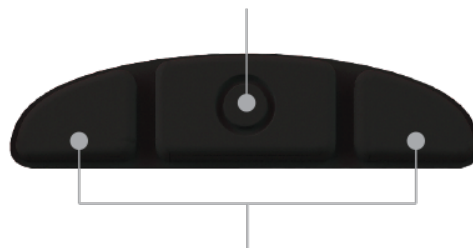
1 Schematic/Features

GETTING TO KNOW YOUR

Reveal ShieldPRO™



Single click for full screen thermal
Einzelklick für Vollbild-Thermal
Un seul clic pour le plein écran thermique



Press and hold Left and Right buttons for settings menu
Drücken und halten Sie die Links und Rechts Tasten für das Einstellungsmenü
Appuyez et maintenez pour le menu des paramètres

2 Getting Started

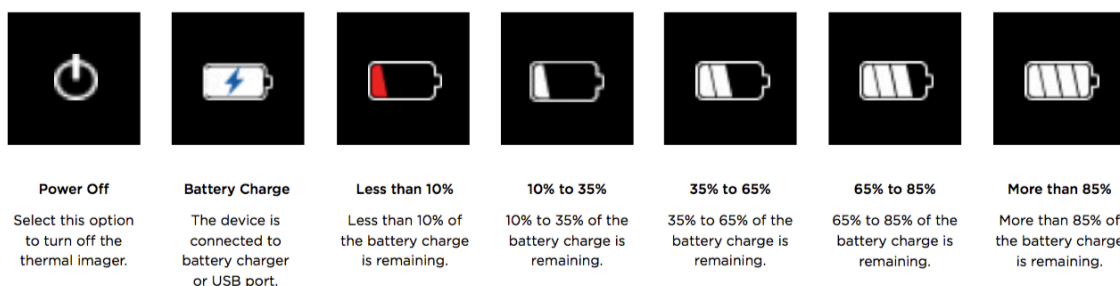
The Reveal ShieldPRO is Seek Thermal's latest personal TIC designed and tested for law enforcement and border patrol personnel. This product is not available to the general public and is intended to help these parties enforce the law, and better serve and protect the people.

2.1 What's in the Box

Inside your box, you will find a ballistic nylon holster for your Shield, the thermal camera, and micro USB cable to charge the device. Lift camera and insert tray for a welcome guide that provides additional information about your thermal camera and its unique specifications & attributes.

2.2 Charging the Battery

Before you turn on the device, you're going to want to charge it. For the best results, charge your Reveal ShieldPRO using the included USB cable. When the thermal camera is 'off', the Battery Charging screen will appear. The battery charge level will only appear when plugged in and the **LEFT** or **RIGHT** buttons are pressed.



NOTE: This device will provide up to 3.5 hours of imaging time with a full charge.

2.3 Setting up your device

To turn on your device, press the **CENTER** button until the display lights up.

You will be directed to a screen that asks you to set up some basic information, including language, and date & time formats. Using the **RIGHT** and **LEFT** buttons, scroll down/up and highlight the appropriate fields, using the **CENTER** button to select and continue, concluding with the 'setup complete' screen.

To switch the device off, press and hold down the **CENTER** button for 2 seconds until screen goes dark.

3 Navigation/Operation

Reveal ShieldPRO has been designed to help you maintain stealth during operations and missions. One thing you will notice from the start is that the default display brightness has been set very low to maintain discretion while using it in darkness. The lower status bar at the bottom of the display indicates the current magnification of the camera, the brightness percentage of the display, and the battery level icon from left to right.

Basic Functions:

3.1 Display Banner

To toggle the above information on and off, simply press the **CENTER** button.

3.2 Modes

To switch between different thermal modes, press and release the **LEFT** button until you find your desired filter.

3.3 Photo Capture

To take a photo, press and release the **RIGHT** button, and a white border will briefly freeze frame around the display. Capture is instantaneous, so there is no need to worry if you accidentally move or shift the cameras view once you have pressed the button.

3.4 Digital Zoom

To adjust your camera's zoom, press and hold the **LEFT** button. An icon displaying the zoom's numerical value will appear towards the left center of the display and begin increasing from 1x-4x until released. Your camera will hold its current zoom until you hold the button down past 4x, at which point it will reset to 1x and start rising again.

3.4 Brightness Adjust

To adjust your displays brightness, press and hold the **RIGHT** button. The display brightness will jump from its default setting minimum up to 20%, and will subsequently increase in 20% increments up to 100% brightness. Your camera will retain its current brightness until you hold the button down past 100%, at which point it will reset to min and start rising again.

3.5 Flashlight Operation

Pressing the **SIDE** button on your Shield unit will turn on a 300 lumen LED, located beside the lens at the front of the camera. Press the button four times to switch between its 'High' 'Low' and "Strobe light" and "Off" settings.

4 Modes

Reval ShieldPRO has been designed with three unique modes to help facilitate specific tasks for law enforcement officers. Whichever mode you choose will ultimately be contingent on the situation at hand as well as personal preference.

4.1 Night

The default startup mode for the Shield and is a RED color palette set at minimum brightness. This is a “search” mode that has been designed for imminent danger / threat situations, when you don’t want to be front lit by the screen while preserving your night vision. In your advanced settings menu (See page 9) the color scheme can be additionally altered to blue, green, or copper.



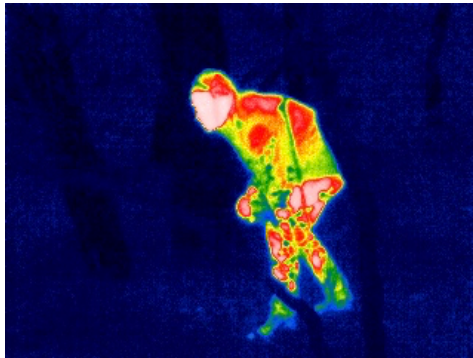
4.2 Search

Designed for general search purposes when there is no imminent danger. This high contrast mode may help to find or observe subjects-of-interest in the majority of non-hostile/low risk situations



4.3 Locate

This is an additional search mode designed to quickly help pinpoint suspects. Some users may find it easier to acquire subjects-of-interest with this high contrast color mode.



5 Advanced Settings

*Beyond the Shield's simple and intuitive user interface there are a host of settings that can be customized to your preference. To gain access to the advanced menu, press and hold the **LEFT** and **RIGHT** button simultaneously for 2 seconds and you will be directed to the following screen*

***NOTE:** While in advanced settings menu, holding down the **LEFT** or **RIGHT** button will do nothing to alter the zoom or brightness of your screen. You will be redirected from the advanced menu screen back to active imaging after 20 seconds of inaction.*

Advanced Menu Features:

5.1 Gallery

Select this field to gain access to your devices image gallery and view all thermal images you have taken. You may delete any existing image by pressing the **CENTER** button which will give you the option to 'delete' the existing image, 'cancel' the action bar, or 'exit' back to active imaging.

5.3 Startup Mode

This field will allow you to set which thermal mode your camera will use when you first turn it on. Choose between Night, Search, and Locate depending on which application you most commonly use your camera for.

*Note: Default is set to **NIGHT** mode at the factory.*

5.4 Default Brightness

This field enables you to adjust the brightness of the display when the unit is powered on. Choose between minimum, 20, 40, 60, 80 or 100% brightness depending on the time of day which you most commonly use your camera.

Note: Default is set to minimum at the factory.

5.5 Default Night Mode

This field lets you alter the color scheme of your Night Mode Red LUT to Copper, Green or Blue.

*Note: Default is set to **RED** at the factory.*

5.6 Device

Selecting this field opens the Device menu which gives you access to a variety of settings you first set up when you power on the device for the first time, restore, or hard reset.

5.6.1 Date & Time

This option allows you to go back and adjust formats selected when you first set up the device. You may change time between military and standard time, and preferred date format.

5.6.2 Language

Choose between English, Spanish, French, German, Dutch, Italian, Portuguese, Polish, Korean, Chinese, and Japanese as your camera's native language.

5.6.3 Auto OFF

Selecting this field will allow you to modify the time which your device will automatically switch off at between minimum 5, 10, 15, 20 minutes and OFF.

5.6.4 Flashlight

Selecting flashlight will give you the option to adjust the brightness of your 300 lumen LED on the front of the camera between 60, 80, and 100% in "High", and 5, 20, and 40% in "Low". The "Strobe" option for the light can be set to 'on' or 'off'.

5.6.5 Watermark

In the bottom, left-hand corner of the screen during active imaging the Seek Thermal Watermark will appear, and also show up when you review your images. Select this field if you would like to switch the watermark "on" or "off".

5.6.6 Restore

To restore and reboot your device to its factory settings you will be asked "continue" by selecting "ok". This action will not affect any stored data in your gallery, but will require you to re-input information first selected when you set up the device.

5.7 About

Provides Serial and Firmware information of your camera, including the model, serial number, software, build, and link to software updates.

6 Cleaning & Maintenance

At times, thermal images may begin to look cloudy or low quality despite having a focused camera. This may be due to particles of dirt on the lens. Cleaning your camera lens may help to clear up images and give higher quality images.

Required materials for cleaning: • Q-tip • isopropyl alcohol

1. Apply small amount of isopropyl alcohol to the clot of the Q-tip until slightly damp.
2. Use the Q-tip to lightly rub the reflective inner lens of the camera until clean.
3. Lightly pat and dry the lens with a clean cloth and let air dry.

NOTE: Never use window cleaners, harsh chemicals, or cleaning solvents on your Shield.




7 Support

We're here to help! If you still need customer support for an issue not addressed above with your product, you may directly contact support within the camera under 'menu' → About → Get updates at. You may also email your request directly to support@thermal.com. Your request will be answered within 3-5 business days.

(*Note: Please include the information in the 'About' screen when contacting support if you have an issue.)

For more information, visit support.thermal.com.



CONTACTING SEEK SUPPORT :

North America - SUPPORT@THERMAL.COM and 1 (844) SEE-HEAT
Europe - EUSUPPORT@THERMAL.COM and +44 (0) 1425 284267

ATTENTION: IPHONE CUSTOMERS

iPhone users running iOS 11.0 or newer may encounter an error when connecting their camera. To fix this issue, please update your app to version 2.1.2 available in the App Store now.

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