

FirePRO[™] 300

User Manual



IMPORTANT SAFETY INFORMATION
READ ENTIRE MANUAL BEFORE USE

FirePRO 300 User Manual



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TABLE OF CONTENTS

1.	INTRODUCTION	4
1.1	How To Use These Instruction	4
1.2	Intended Use And Reasonably Foreseeable Misuse	4
1.3	Online Documentation.....	4
2.	CAMERA OPERATION AND USE	5
2.1	Camera Elements (Front and Rear).....	5
2.2	Charging Dock	6
2.3	Screen Elements	6
2.4	Include In The Box	7
2.5	Quick Start Guide	7
2.6	Camera Application Modes.....	8
2.7	Mixed Gain Technology	10
2.8	Display Warnings	10
2.9	Training Operating Notes	10
2.10	Video Recording And Image Capture.....	12
2.11	Connecting The Camera To A Computer	13
2.12	Updating Camera Firmware	13
3.	POWER AND BATTERY INFORMATION	14
3.1	Equipment Ratings.....	14
3.2	Battery Status Indicator (while operational)	15
3.3	Device Charging.....	15
4.	MAINTENANCE AND CLEANING	16
5.	CUSTOMER AND PRODUCT SUPPORT	16
5.1	Quality Assurance.....	16
5.2	Troubleshooting	16
6.	LEGAL AND WARRANTY	17
6.1	Export Compliance	17
6.2	End User License Standard Conditions.....	17
6.3	Disclaimer	17

1. INTRODUCTION

Thank you for choosing Seek Thermal. The FirePRO 300 is a dependable situational awareness thermal imaging camera designed by firefighters, for firefighters. We hope you find this thermal imaging camera to be the most efficient and effective tool in your arsenal and we look forward to continuing to support the fire service community worldwide.

The FirePRO 300 is a professional-grade Thermal Imaging Camera (TIC) developed by Seek Thermal for use in firefighting and emergency response applications. Designed to provide reliable performance in extreme conditions, the FirePRO 300 combines a rugged enclosure, advanced thermal sensor technology, and image optimization to deliver clear and actionable thermal images in zero-visibility environments.

The camera incorporates a 320 × 240 thermal sensor with a wide dynamic range to ensure accurate thermal detail across a variety of operational scenarios. With its simple, large button operation and mixed gain technology, the FirePRO 300 allows firefighters to focus on critical tasks.

The FirePRO 300 is engineered and tested to withstand the heat, water exposure, and mechanical impact typical of firefighting environments. Its compact and lightweight form factor ensures ease of use while wearing full Personal Protective Equipment (PPE), without compromising durability or reliability.

When used correctly, the FirePRO 300 enables the operator to:

- Visualize through smoke and darkness.
- Identify the seat, spread, and intensity of fires.
- Locate and assist victims during search and rescue operations.
- Improve situational awareness and safety during overhaul and investigation.
- Detect hotspots and monitor structural integrity.

1.1 How To Use These Instructions

Ensure that each person who uses the product has read and understood this user manual before using this product. Failure to do so can result in serious injury or death.

Follow all the instructions. This will avoid fire, explosions, electric shocks, or other hazards that may result in damage to property and/or severe or fatal injuries. Keep all safety information and instructions for future reference and pass them on to subsequent users of the product.

Seek Thermal is not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with this user manual. In such cases, the warranty will be voided.

1.2 Intended Use And Reasonably Foreseeable Misuse

This product is intended to be used as a personal safety aid. Never become wholly dependent on the thermal imager for personal navigation. It is not a substitute for proper safety training. Always maintain awareness of location and escape routes when using this device. Failure to do so may result in serious injury or death.

The product may only be used in accordance with the instructions described in this manual. Any use other than those described in this manual is considered as non-intended use. This will also invalidate the warranty.

1.3 Online Documentation

We update our user manuals regularly. The latest version of the documentation is available at:

thermal.com/firepro-series

2. CAMERA OPERATION AND USE

2.1 Camera Elements (Front and Rear)



1. Power On / Off
2. Image and Video Capture
3. Flashlight / Mode Selection
4. °F to °C Unit Change Button
5. 2.8" LCD Display

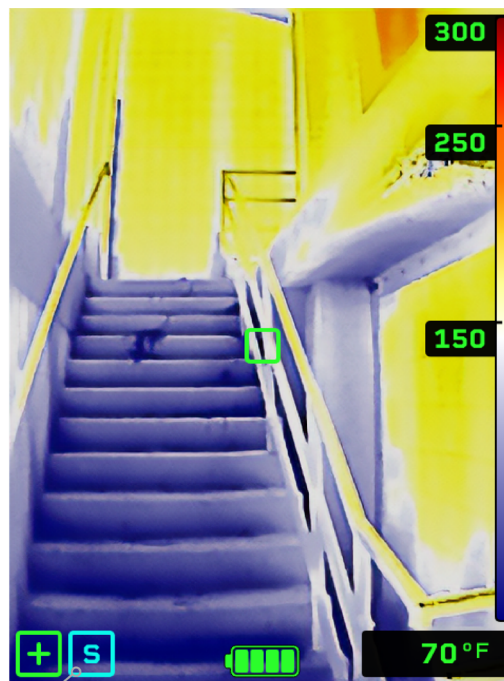
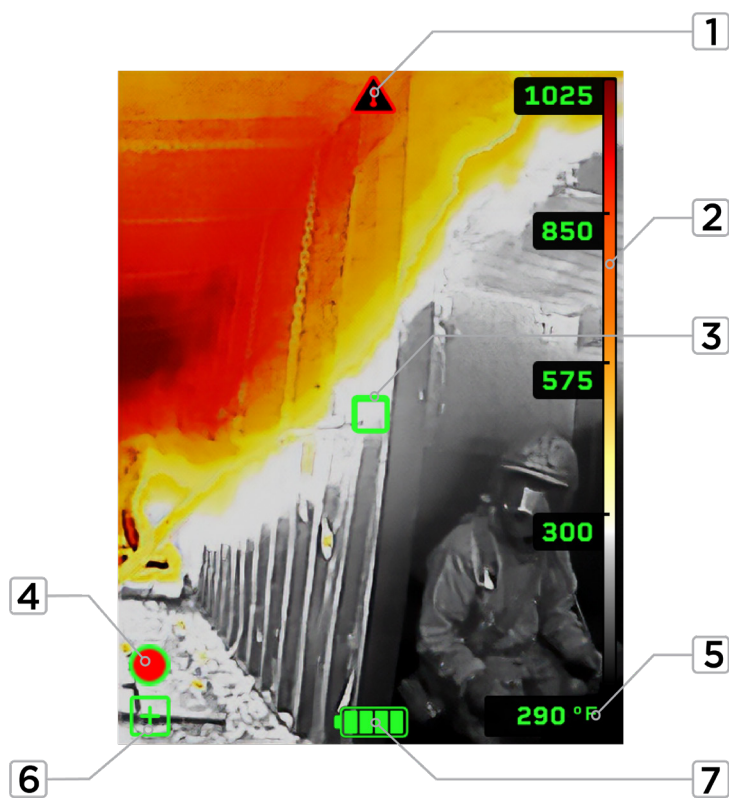
6. 300 Lumen LED Flashlight
7. 320 x 240 Resolution Thermal Sensor
8. Charging Pogo-Pin Contacts
9. Lanyard Retractor Attachment

2.2 Charging Dock



1. USB-C Power and Data Port
2. Charging Contacts
3. Hook and Loop Attachment
4. Camera Charging Dock

2.3 Screen Elements



1. Over Temperature Indicator
2. Color Reference Temperature Bar
3. Temperature Reticle
4. Video Recording Icon
5. Temperature Measurement Reading

6. TI BASIC+ Icon
7. Battery Status Indicator
8. Application Mode Icon

2.4 Include In The Box

- Thermal Imaging Camera
- Charging Dock
- USB-C to USB-A cable
- Seek FirePRO 300
- Hook and Loop Retaining Strap
- Durable Quick Start Guide
- Safety Information Booklet

2.5 Quick Start Guide

Please refer to the following to start using the product right away.

- Before first time use, charge the FirePRO 300 using the supplied charging dock for 3.5 hours or until the charge screen indicates full battery.
- Push the Power button to turn the camera on. The camera will start imaging within 7 seconds.
- Aim the front of the camera lens toward the scene of interest.
- To change modes, press and hold the Mode/Flashlight button for 3 seconds. To quickly cycle through modes, press the Power button and Flashlight button simultaneously. The modes will cycle in the following order: TI Basic, TI Basic+, Survey Mode. An icon will appear in the lower left corner of the display when using TI Basic+ or Survey Mode. For more information, see the Camera Modes section.
- To turn flashlight on/off; press and release the Mode/Flashlight button.
- To capture images; press and release the Media Capture button. To capture video; press and hold the Media Capture button for 2 seconds. A red recording icon will appear in the bottom left of the screen. Press the Media Capture once to turn off video recording.
- To change the temperature units between Fahrenheit and Celsius, insert a paper clip into the pin hole situated between the Power button and Mode/Flashlight button.

2.6 Camera Application Modes

The FirePRO 300 has 2 imaging application modes; Fire Mode and Survey Mode. The FirePRO 300 always powers on in Fire Mode.

Operational Notes:

- **One-handed operation:** Press and hold the Mode/Flashlight button for 2 seconds to cycle to the next mode.
- **Quick scrolling:** Press the Mode/Flashlight button and the Power button simultaneously to quickly scroll through the modes.

Note: A short press of the green button will always return the camera to Fire Mode, regardless of the current mode in use.

2.6.1 FIRE MODE

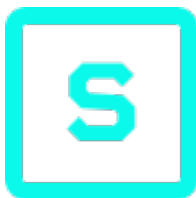


Fire Mode is optimized for active interior firefighting. Fire Mode provides a high-contrast thermal image with enhanced detail to support navigation, victim location, and fire attack in zero-visibility environments. In Fire mode, the display includes a vertical color reference bar positioned on the right side of the screen. This bar provides a visual temperature scale to aid in quick interpretation of thermal data.

- The color temperature bar is displayed in a white-hot gray scale, with brightness expanded to match the dynamic range of the scene.
- Colorization is introduced for areas exceeding 300°F (150°C), highlighting high-temperature zones with increasing intensity.
- The color reference bar is fixed.
- The bar is marked with four temperature graduations (300°F (150°C), 575°F (300°C), 850°F (450°C), 1025°F (550°C)).



2.6.2 SURVEY MODE



Survey Mode is Seek's investigative mode for threat identification and post-fire assessment. It provides a simplified thermal image for hazard detection and scene evaluation, with colorization beginning at 150 °F (65 °C) to highlight heat sources and temperature anomalies.

- The color temperature bar is displayed in blue monochrome, with brightness expanded to match the dynamic range of the scene.
- Colorization begins at 150°F (65°C), highlighting elevated temperature areas with increasing intensity.
- The bar includes three graduations: 150°F (65°C), 250°F (120°C), 300°F (150°C).
- A center reticle and a temperature readout are always shown, providing the average temperature of the targeted area in the lower-right corner of the display.
- If the measured object exceeds 300°F (150°C), the temperature readout in the bottom-right corner will flash >302°F (>150°C).



Typical Uses of Survey Mode:

- 360° size-up during initial scene assessment.
- Smells and bells investigations (alarm activation, odor of smoke, suspected electrical faults).
- Overhaul operations to locate hotspots.
- Search and rescue outside the fireground, where visibility may be compromised but active fire is not present.

2.6.3 TI BASIC+



TI BASIC+ adds a center reticle and a temperature readout in the lower-right corner of the display. The reticle defines the measurement area, and the temperature shown represents the average value within that spot. This feature provides a quick reference for identifying hazards, monitoring objects of interest, or comparing temperatures within the scene.

- TI BASIC+ is always included in Survey Mode and can be toggled on or off in Fire Mode.

NOTICE: TI BASIC+ requires additional training. Refer to Section: Training Operating Notes.

2.7 Mixed Gain Technology

Seek's Mixed Gain Technology eliminates the need for separate high and low gain modes or on-screen indicators. Instead of switching the entire image between gain levels, each pixel in the sensor automatically adjusts to high or low gain based on the temperature it detects. This pixel-by-pixel response happens instantly, ensuring that no image details are lost during rapid changes in scene temperature. The result is continuous, uninterrupted visibility - even in fast-moving, high-heat environments.

2.8 Display Warnings



Over temperature indicator provides a visual warning that the camera is approaching its maximum safe operating temperature. Move the camera to a cooler location. If the indicator begins to flash, power off the camera and allow it to cool before further use.

2.9 Training Operating Notes

NOTICE: Training and practice are required before use of this equipment in a hazardous situation. Use of a thermal imager without proper training may place the user at higher risk in dangerous situations which could result in serious injury or death.

The following is not, nor is it intended to be, an exhaustive list of behaviors of infrared energy that differ from visible light. Use of this thermal imaging camera must be part of a complete training program. Interpretation of the thermal image requires training and experience. Do not use this product if you have not been thoroughly trained in its use and operation. Use of this product without proper training and thorough understanding of its operation may cause errors in judgment based on misinterpretation of the thermal imaging information, which could result in serious injury or death. The training must include extensive practice with the thermal imager in a variety of non-hazardous and hazardous environments to develop a complete understanding of how to interpret the thermal image. The user must be able to distinguish between relatively harmless and potentially hazardous sources of heat. The user must also be able to distinguish between actual sources of heat and reflected images of heat sources. Because different brands and models of thermal imagers may operate differently, always update training with each new piece of equipment.

- Before entering a potentially hazardous situation, turn on and test the thermal imager to confirm it is operating properly. Failure to confirm the thermal imager is operating properly may place the user at higher risk in dangerous situations which could result in serious injury or death.
- Beware of misconceptions about thermal imagers. Thermal imagers only show temperature differences between objects and not an optical image of the objects. The greater the temperature difference, the more distinct the thermal image. Experience and training are required to correctly interpret the thermal image.

These are some other circumstances which could result in misinterpretation:

- The thermal imager cannot see through walls. A source of heat behind a wall will not be evident if it does not heat the wall itself.
- The heat from some high temperature objects or sources of high heat may be blocked, obscured, or made less distinct in the thermal image display by any of the following:
 - Water mist, spray, or highly saturated fog
 - Some chemical substances in a concentrated cloud or vapor
 - Extremely dense & heated smoke or a layer of heated gases
- If a concrete floor and a hole in that floor have the same temperature, there will be no apparent difference in the thermal image display to indicate the presence of the hole.

Visually transparent or reflective materials such as glass, shiny plastic, or water can reflect infrared radiation from an actual source of high temperature. The user must be able to distinguish and identify when the image in the display could be a reflection and not the actual source of high temperature. For Example:

- When viewing a window or other shiny surface at an angle, a source of high temperature reflected in the surface will be at some angle opposite and away from the apparent location.
- When viewing a source of high temperature through a clear window with a thermal imager, the thermal imager display will only show a reflection of the user holding the thermal imager and not the source of high temperature behind the window.
- When viewing a hole filled with water, the thermal imager display will show a reflection of any heat sources above and away from the water surface.
- Molten or boiling substances will appear hot in the thermal image display, but it may be difficult to identify their physical nature and the hazards they present based on the thermal image alone.
- Keep the lens clean while operating the thermal imager.
- Dirt or soot build up on the lens will obscure or reduce the clarity of the thermal image. Wipe the lens with a glove or cloth as needed. Clean the lens thoroughly after use.
- Condensation on the lens of the thermal imager will also block the thermal image and make entire display appear blank. Wipe the lens regularly to remove accumulated condensation. Use an approved anti-fog preparation on the lens to reduce the possibility of condensation on the lens.

Basic familiarity and fire service use case examples are provided on the Seek Thermal website at

www.thermal.com/firepro-series-training

For additional training resources, please visit the following:

Instructor Andy Starnes - www.insighttrainingllc.com

Max Fire Box fire dynamics - www.maxfirebox.com

2.10 Video Recording And Image Capture

The FirePRO 300 allows users to capture both images and video clips to the camera's internal memory.

CAPTURING IMAGES

1. Press and release the Media Capture button.
2. A white flash will appear on the screen, confirming that an image has been saved.

NOTICE:

- The number of images that can be captured depends on the combined total size of all saved videos and images.
- When storage capacity is nearly full, the oldest files will be automatically deleted on a first-in, first-out (FIFO) basis.

RECORDING VIDEO

1. Press and hold the Media Capture button for 2 seconds to begin recording.
2. A red RECORD icon will appear on the screen, indicating that the camera is recording a video clip.
3. To stop recording, press and release the Media Capture button again.
4. The red RECORD icon will disappear, confirming that the video has been saved.

NOTICE:

- The camera will continue recording until the user stops recording or the device powers down.
- Each video file is saved in 5-minute clips.
- The internal storage capacity is 4 GB, allowing approximately 1 hour of video recording.
- The number of video files that can be stored depends on the total size of images and videos saved.
- Videos are deleted on a first-in, first-out (FIFO) basis as memory fills.
- To avoid loss of data, periodically transfer files from the camera to a computer.

2.11 Connecting The Camera To A Computer

1. Place the camera on the charging dock and connect the USB cable to a Windows or macOS computer.
2. The camera will appear as a removable drive named "FIREPRO".

To transfer images and videos:

1. Open the DCIM folder on the FIREPRO drive.
2. Copy and paste the desired videos or images to a folder on your computer.
3. When finished, eject the FIREPRO drive safely from your computer.

2.12 Updating Camera Firmware

Seek Thermal periodically releases product improvements and feature enhancements in the form of firmware updates.

Visit www.thermal.com/firepro-series to check for the latest firmware version.

To check your current firmware version:

1. Connect the camera to a Windows or macOS computer.
2. The firmware version will be displayed on the USB connect screen under "Firmware Version"
3. The version number is displayed in the following format: X.X.X.X.

If your firmware version is lower than the one available online, update your camera as follows:

1. Connect your camera to a Windows or macOS computer.
2. Download the latest firmware file from the Seek Thermal website.
3. Copy the file THERMAL.STR to the FIREPRO drive.
4. Wait approximately 10 seconds for the file to transfer.
5. Safely eject the FIREPRO drive from your computer.
6. Remove the camera from the dock and power it on.
7. After approximately 5 seconds, the camera will begin the firmware update process.
8. A green tick will appear on-screen, indicating a successful update.

NOTICE:

- The firmware file name must remain THERMAL.STR
- Renaming the file will cause the update to fail.

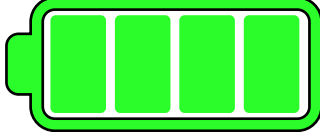
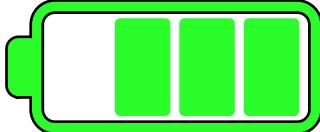
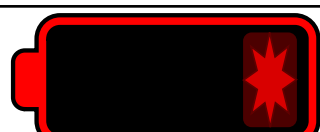
3. POWER AND BATTERY INFORMATION

The FirePRO 300 is powered by an internal rechargeable lithium-ion battery (3.6 V, 3500 mAh). The camera is designed for outdoor and wet-location use, while the charger is intended for indoor environments. Charge the unit using a 5 V DC (minimum 1.0 A) USB Type-C power source before first use.

3.1 Equipment Ratings

Battery Material	Lithium-ion
Nominal Voltage	3.6 V
Nominal Capacity	3500 mAh
Environmental	Intended for wet locations (camera) Intended for outdoor use (camera) Intended for indoor use (charger) 10 ~ 95 % RH, non-condensing Overvoltage Category OCV: 1 Pollution Degree 2
Altitude	Camera: 16,400ft (5000m) Desktop: 16,400ft (5000m) (Warning: Overall altitude is dependent upon the altitude rating of the AC/DC adapter used to provide the 5Vdc source).
Operation and Storage Temperature	Storage: -4°F to +140°F (-20°C to +60°C) During Discharge: -4°F to +140°F (-20°C to +60°C) During Charge: +32°F to +113°F (0°C to +45°C)
Charger Input Rating	5VDC, min 1.0A (USB Type C connection) Only for use with a USB AC/DC charger or USB computer host with a 5Vdc output which is rated LPS or Class II.
IP Rating	IP67 (camera), IP20 (charger)

3.2 Battery Status Indicator (while operational)

Full charge (green) 100-76% charge remaining 360 - 270 mins remaining	
75% charge remaining (green) 75-51% charge remaining 270-180 mins remaining	
50% charge remaining (yellow) 50-26% charge remaining 180 - 90 mins remaining	
25% charge remaining (red) 25-6% charge remaining 90-30mins remaining	
Low Power (flashing red) < 5 min remaining	

3.3 Device Charging

1. Place the charging dock on suitable stable surface
2. Plug the USB cable into a suitable USB charging source
3. Place the FirePRO with the screen facing upwards and charging contacts facing downwards into the dock
4. The screen on the FirePRO will indicate battery status within a few seconds

NOTICE

- Charge time for a fully depleted battery is 3.5 hours
- The charger is suitable for indoor use only
- Clean the charging contacts periodically

4. MAINTENANCE AND CLEANING

The FirePRO 300 thermal imager requires little maintenance. For best care, please follow the guidelines below:

- When not in use, the thermal imager should be stored in at an average room temp of 23°C (73°C) and kept clear from potential physical damage.
- If company or department information is added to the thermal imager, ensure that you do not cover the original product labels or markings, the thermal imager lens, flashlight window, the functional buttons, or the display.
- To clean the camera housing, use a soft cloth with warm water only and a mild detergent. Do not use solvents to clean the camera.
- To clean the lens and flashlight, a commercial lens cleaning solution with more than 30% isopropyl alcohol may be used with a soft cloth. Gently use the cloth on the lens, as the lens has a delicate anti reflective coating.
- Do not allow any liquids or debris to enter the battery compartment, and make sure the battery compartment is closed when handling the device around dirty or contaminated environments.
- Decontamination: please make sure the camera is thoroughly cleaned, decontaminated, and disinfected before sending to your reseller or Seek Thermal for service. Contaminants include: chemical fire extinguishing compounds, radioactivity, bio hazardous materials, and residues from chemical fires.
- Seek Thermal reserves the right to charge the full cost for the decontamination and disinfection of cameras that are shipped to our service department.

5. CUSTOMER AND PRODUCT SUPPORT

For any questions or issues with the use of this product, do not hesitate to contact our customer support group at:

thermal.com/support

5.1 Quality Assurance

The Quality Management System under which this product was developed and manufactured complies to the ISO 9001 Standard. Seek Thermal Incorporated reserves the right to make changes and improvements on any of the products without prior notice.

5.2 Troubleshooting

WARNING

If you are experiencing problems with your product, please refer to this checklist. If the problem persists, please contact Seek Thermal Customer Services or your local distributor.

Error	Solution
Thermal imager will not turn on.	Ensure battery is fully charged.
Thermal imager switches off by itself.	Ensure battery is fully charged.
Battery will not charge.	Clean battery charging contacts.
Power is on but LCD is black.	Ensure no obstacles are impeding the view.
Image is a reflection of the user.	Ensure no water or glass items are impeding the view.
Image appears blurred.	Ensure the lens window is clean.

6. LEGAL AND WARRANTY

6.1 Export Compliance

The technology utilized in Seek Thermal imagers may be subject to export control regulation by the governments of the USA. Where an export license applies, once obtained by Seek Thermal on behalf of the customer, all parties must strictly adhere to the terms and conditions pertaining to that license. Where an export license applies, a copy of the license will be provided to the end user, and the end user must agree to follow all license terms and conditions. As an indicative (but not exhaustive) guide, typical thermal imager End User License Standard Conditions are reproduced in the next section.

6.2 End User License Standard Conditions

The end user must always maintain the item in their possession and is responsible for its security against theft, loss, unauthorized access, or use.

No resale, donation, export, re-export, transfer, or disposal by other means of the Item is authorized. When the Item reaches the end of its service life, it **MUST** be returned to:

Seek Thermal Incorporated

6300 Hollister Avenue,

Santa Barbara, CA 93117

www.thermal.com

www.thermal.com/support

Maintenance of the Item is limited to routine preventative maintenance and installation of field replacement parts only. Disassembly and/or repair of electrical/mechanical assemblies must only be performed by Seek Thermal authorized personnel.

If the Item is lost, stolen, or destroyed, or unauthorized people have access to it, this must be reported to Seek Thermal within 21 days. The report must include a description of the incident, to include as appropriate:

- Who had physical possession of the item.
- What is being done to recover the item.
- Police incident report number.
- Steps taken to prevent another such event.
- If unauthorized personnel had access to the Item, who allowed this and what has been done to avoid recurrence.

The end user must agree to all conditions set forth in the export license by signing said conditions and returning the signed export license to Seek Thermal prior to shipment of the Item.

6.3 Disclaimer

Specifications subject to change without further notice. Models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to thermal.com/support with any questions.



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Part Number: UM003

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