



## ▲ WARNING

THIS MANUAL CONTAINS IMPORTANT SAFETY INFORMATION.  
READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.  
FAILURE TO FOLLOW THESE INSTRUCTIONS AND WARNINGS COULD CAUSE DEATH OR SERIOUS INJURY.

# WELCOME TO THE TEAM!

**Congratulations on your purchase  
of a Bullard Thermal Imager.**

This document is in English, Francais, Deutsch, and Espanol. To find this document in other languages please visit

<https://www.bullard.com/thermal-imaging/>

or scan the QR code below.

SCAN ME!



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### 1. SAFETY CONSIDERATIONS, GENERAL WARNINGS, AND LIMITATIONS OF USE

#### ▲ WARNING

THIS MANUAL CONTAINS IMPORTANT SAFETY INFORMATION. READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT. FAILURE TO FOLLOW THESE INSTRUCTIONS AND WARNINGS COULD CAUSE DEATH OR SERIOUS INJURY.

#### ▲ WARNING

DO NOT USE A BULLARD XT SERIES THERMAL IMAGER WITHOUT THE CORRECT TRAINING. IMPROPER ANALYSIS OF THE IMAGES CAN OCCUR. **THERMAL IMAGING IS NOT A TECHNOLOGY DESIGNED TO REPLACE FIREFIGHTING TRAINING AND SAFETY TACTICS.** IT IS A TOOL WHICH ALLOWS THE FIREFIGHTER TO BE MORE EFFECTIVE AND TO MAKE BETTER INFORMED DECISIONS.

BEFORE USING A THERMAL IMAGER, FIREFIGHTERS SHOULD RECEIVE PROPER TRAINING ON HOW THERMAL IMAGERS WORK, THEIR USES AND LIMITATIONS, IMAGE INTERPRETATION, AND SAFETY CONSIDERATIONS FOR THERMAL IMAGING USE. THIS IS ESPECIALLY IMPORTANT FOR USERS WHO MAY USE A THERMAL IMAGER IN HAZARDOUS OR IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH) ENVIRONMENTS.

**FIREFIGHTERS MUST RELY ON AND USE THEIR FIREFIGHTING TRAINING AND SAFETY TACTICS, AT ALL TIMES.** FAILURE TO FOLLOW THESE INSTRUCTIONS COULD CAUSE DEATH OR SERIOUS INJURY.

#### ▲ WARNING

THE BULLARD XT SERIES THERMAL IMAGERS ARE EXTREMELY SENSITIVE TO INTENSE, RADIANT HEAT SOURCES.

NEVER POINT A BULLARD XT THERMAL IMAGER AT THE SUN OR ANY OTHER SOURCE OF EXTREME RADIANT HEAT. THIS CAN CAUSE SEVERE DAMAGE, AFFECT THE ACCURACY AND RENDER THE PRODUCT UNSAFE FOR USE.

#### ▲ CAUTION

##### LIMITATIONS WITH TEMPERATURE READINGS

THERMAL IMAGERS CANNOT DIRECTLY MEASURE THE TEMPERATURE OF AN OBJECT, INSTEAD THEY DETECT RADIATED HEAT. TEMPERATURE INDICATIONS IN THERMAL IMAGERS ARE AFFECTED BY DISTANCE, MATERIAL EMISSIVITY, AND EXTREME TEMPERATURES. BULLARD XT SERIES THERMAL IMAGERS ARE DESIGNED FOR FIREFIGHTING APPLICATIONS AND ARE PRIMARILY IMAGING DEVICES, DESIGNED TO PROVIDE GENERAL INFORMATION ABOUT A SCENE. TEMPERATURE READING SHOULD BE INTERPRETED AS AN APPROXIMATION. **FIREFIGHTERS MUST CONTINUE TO RELY ON AND USE THEIR FIREFIGHTING TRAINING AND SAFETY TACTICS, AT ALL TIMES.**

# Bullard NXT™ Pro Thermal Imager User Manual

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## ▲ WARNING

DO NOT USE SOLVENTS OR PAINT THINNERS TO CLEAN THE BULLARD THERMAL IMAGER AS THEY COULD PERMANENTLY MAR THE SURFACE OR DEGRADE THE PROTECTIVE PROPERTIES OF THE CASING.

DO NOT INTENTIONALLY SUBMERGE THE UNIT UNDER WATER OR SUBJECT THE UNIT TO HIGH PRESSURE WATER.

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD CAUSE DAMAGE AND RENDER THE PRODUCT UNSAFE FOR USE.

## ▲ WARNING

ONLY USE CHARGERS APPROVED BY BULLARD TO CHARGE THE BATTERY. DAMAGE TO THE BATTERY CAN OCCUR IF YOU USE NON-BULLARD CHARGERS. FAILURE TO FOLLOW THIS INSTRUCTION COULD CAUSE DAMAGE AND RENDER THE PRODUCT UNSAFE FOR USE.

## ▲ CAUTION

THE TEMPERATURE RANGE TO CHARGE THE BATTERY IS 32°F TO +113°F (0°C TO 45°C). IF YOU CHARGE THE BATTERY AT TEMPERATURES OUTSIDE OF THIS RANGE, IT CAN CAUSE SEVERE DAMAGE TO THE BATTERY.

## ▲ WARNING

DO NOT CHARGE THE THERMAL IMAGER IN A HAZARDOUS LOCATION. FAILURE TO FOLLOW THIS INSTRUCTION COULD CAUSE DEATH OR SERIOUS INJURY.

## ▲ WARNING

DO NOT SHORT CIRCUIT, CRUSH, INCINERATE, OR DISASSEMBLE THE THERMAL IMAGER OR BATTERY. FAILURE TO FOLLOW THIS INSTRUCTION CAN CAUSE SEVERE DAMAGE AND RENDER THE PRODUCT UNSAFE FOR USE.

## ▲ WARNING

RISK OF FIRE, EXPLOSION OR BURNS IF USED IMPROPERLY.





## ▲ WARNING

**EXPLOSION HAZARD.** DO NOT CONNECT OR DISCONNECT THE EQUIPMENT (THERMAL IMAGER) TO ANY CHARGER IN A HAZARDOUS LOCATION. FAILURE TO FOLLOW THIS INSTRUCTION COULD CAUSE DEATH OR SERIOUS INJURY.



## ▲ WARNING

USERS MUST VERIFY ALL CHANGES MADE ON THE CONFIGURATOR ARE ACTIVATED ON THE IMAGER PRIOR TO USE. FAILURE TO FOLLOW THIS INSTRUCTION COULD CAUSE DEATH OR SERIOUS INJURY.

## 2. TECHNICAL SPECIFICATIONS AND CERTIFICATIONS

	<p><i>This Thermal Imager 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.</i></p> <p><i>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:</i></p> <ul style="list-style-type: none"> <li>—Reorient or relocate the receiving antenna.</li> <li>—Increase the separation between the equipment and receiver.</li> <li>—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.</li> <li>—Consult the dealer or an experienced radio/TV technician for help.</li> </ul>
	<p>This Thermal Imager complies with the Conformité Européenne. The letters 'CE' appear on many products traded on the extended Single Market in the European Economic Area (EEA). They signify that products sold in the EEA have been assessed to meet high safety, health, and environmental protection requirements.</p> <p>Standards:          FCC Part 15B ICES-003 Issue 7 CISPR 32:2015+A1:2019, EN 55032:2015+A1:2020 CISPR 35:2016, EN 55035:2017/ A11:2020 IEC 61000-6-1:2016, EN IEC 61000-6-1:2019 IEC 61000-6-3:2020, EN IEC 61000-6-3:2021</p>
	<p>This Thermal Imager complies with the WEEE Directive marking requirements. The affixed label indicates that you must NOT discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste. Email <a href="mailto:recycle@bullard.de">recycle@bullard.de</a> for recycling information.</p> <p>Electrical and electronic equipment (EEE) contains materials, components and substances that may be hazardous and present a risk to human health and the environment when waste electrical and electronic equipment (WEEE) is not handled correctly.</p> <p>Equipment marked with the below crossed-out wheeled bin is electrical and electronic equipment. The crossed-out wheeled bin symbol indicates that waste electrical and electronic equipment should not be discarded together with unseparated household waste but must be collected separately.</p> <p>For this purpose, all local authorities have established collection schemes under which residents can dispose waste electrical and electronic equipment at a recycling center or other collection points, or WEEE will be collected directly from households. More detailed information is available from the technical administration of the relevant local authority.</p> <p>Users of electrical and electronic equipment must not discard WEEE together with household waste. Residents must use the municipal collection schemes to reduce adverse environmental impacts in connection with disposal of waste electrical and electronic equipment and to increase opportunities for reuse, recycling, and recovery of waste electrical and electronic equipment.</p> <p>WEEE Compliance: for your recycling needs please contact <a href="mailto:info@bullard.de">info@bullard.de</a>          WEEE Einhaltung: Fuer Ihren Recyclingbedarf wenden Sie sich bitte an <a href="mailto:info@bullard.de">info@bullard.de</a></p>
	<p>Bullard's Thermal Imager NXT Pro complies with the requirements set forth in the regulation.</p> <p><b>California Proposition 65 ▲ WARNING:</b> Cancer and Reproductive Harm- <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.</p> <p><b>Proposition de la 65 ▲ Avertissement:</b> Cancer et Troubles de l'appareil reproducteur - <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.</p>

# Bullard NXT™ Pro Thermal Imager User Manual

<p>SEI Certification</p> 	<p>This Bullard XT Thermal Imaging Camera model is certified by the Safety Equipment Institute, in accordance with the requirements of NFPA 1801-2021, Standard on Thermal Imagers for the Fire Service.</p>
<p>IEC (International Electrotechnical Commission) Certification</p>	<p>This Thermal Imager was tested for conformity using IEC certification standards. The IEC is a global, not-for-profit membership organization, whose work underpins quality infrastructure and international trade in electrical and electronic goods. The IEC brings together more than 170 countries and provides a global, neutral and independent standardization platform to 20 000 experts globally. It administers 4 Conformity assessment systems whose members certify that devices, systems, installations, services and people work as required.</p> <p>IEC 62133-2:2017 CB Test Certificate Reference Number: SE-104040A2          IEC 62368-1:2018 CB Test Certificate Reference Number: JPTUV-150676          IEC 60529          IEC 61000-6-2</p>
<p>U.S Export Administration Regulation (EAR)</p>	<p>Bullard Thermal Imagers are subject to the U.S Export Administration Regulation (EAR). Distributors/End-Users must comply with all applicable laws including the U.S. Export Administration Regulations, as well as end-user, end-use and destination restrictions issued by U.S. and other governments; ECCN: 6A003, Subparagraph b.4b.</p>
	<p>Thermal Imager For use in: Class I, Division 2, Groups A-D Hazardous Locations Class II, Division 2, Groups F &amp; G Hazardous Locations Temperature Class: T6 Ambient Temperature Range: <math>-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}</math>.          This Thermal Imager is a certified ETL marked product. The ETL Mark is proof of product compliance to North American safety standards. Authorities across the US and Canada accept the ETL Listed Mark as proof of product compliance to published industry standards. To have the right to bear the ETL mark, the product must have been tested by a Nationally Recognized Testing Laboratory (NRTL). A Nationally Recognized Testing Laboratory (NRTL) is an independent laboratory recognized by the American Occupational Safety and Health Administration (OSHA) to test products to the specifications of applicable product safety standards.</p>
<p>Battery Specifications</p>	<p>Internal Li-Ion Battery          Power Rating: 6400 mAh          Voltage: 3.6V          Charging Temperatures: <math>0^{\circ}\text{C}</math> to <math>45^{\circ}\text{C}</math> (<math>32^{\circ}\text{F}</math> to <math>113^{\circ}\text{F}</math>)          Storage Temperatures: <math>-20^{\circ}\text{C}</math> to <math>50^{\circ}\text{C}</math> (<math>-4^{\circ}\text{F}</math> to <math>122^{\circ}\text{F}</math>)</p>



### 3. THANK YOU AND CONGRATULATIONS

Congratulations on your purchase of an advanced decision-making thermal imager from the Bullard XT Series. Bullard XT Series Thermal Imagers are built on more than 20 years of experience in designing tough, ergonomic imagers with a clear and sharp image. The benefits of using thermal imaging technology as a firefighting tool encompass nearly every aspect of a firefighter's job. This technology enhances images so that elements not visible to the naked eye are now seen. They can accelerate certain tasks by helping the user make more informed decisions.

Some of the many uses for your Bullard XT Thermal Imager include:

- Search and rescue
- Scene assessment
- Locating the seat of the fire
- Determining the spread of the fire
- Locating hot spots
- Identifying potential flashover situations
- Determining ventilation points
- Determining entry and exit points
- Overhaul
- Hazmat
- Wildland firefighting
- Incident investigation
- Training

#### ▲ CAUTION

THERMAL IMAGING IS NOT A TECHNOLOGY DESIGNED TO REPLACE OTHER FIREFIGHTING TACTICS OR TRAINING. RATHER, IT IS A TOOL THAT HELPS THE FIREFIGHTER BE MORE EFFECTIVE AND MAKE BETTER INFORMED DECISIONS

THIS MANUAL PROVIDES YOU WITH THE ESSENTIAL INSTRUCTIONS ON HOW TO PROPERLY USE AND MAINTAIN THE PRODUCT. ADDITIONAL RESOURCES INCLUDING GUIDES, TRAINING VIDEOS, AND TROUBLESHOOTING INFORMATION CAN BE VIEWED BY VISITING THE BULLARD THERMAL IMAGING PAGE AT:

[HTTPS://WWW.BULLARD.COM/THERMAL-IMAGING.](https://www.bullard.com/thermal-imaging)

#### ⓘ NOTE:

Previous XT Series models (QXT™ and NXT™) utilize different operation modes. Reference the appropriate User Manual for those models.

### 4. WHAT'S IN THE BOX

Look below to see what is included in your box.

- Bullard NXT Pro Thermal Imager
- Bullard USB Cable and Adapter (Green)
- Bullard XT Series Quick Set Up Guide
- Bullard NXT Pro User Manual
- Bullard XT Series Wireless Charger (if purchased as bundle)
- Bullard XT Retractable Lanyard (if purchased as bundle)

# Bullard NXT™ Pro Thermal Imager User Manual

## 5. GENERAL OPERATION

### 5.1 POWER UP

Power ON your Bullard XT Series Thermal Imager by pressing the green power button on top of the imager. The screen will turn on and the green power button will illuminate. See Table 1 for the power button indicators. The start-up logo will appear followed by the thermal image within a few seconds. This image will consist of black, white, and grey elements that indicate heat signatures of objects and scene dynamics. Warmer elements appear as lighter shades, and cooler elements appear as darker shades.



### 5.2 POWER DOWN

Press and HOLD the green power button to turn off your imager. A red power icon will appear on the display. When the countdown timer (3, 2, 1) completes the imager powers off.

### 5.3 SUPER RED HOT (SRH) COLORIZATION

Bullard XT Series Thermal Imagers include Super Red Hot (SRH) colorization, which displays heat levels in yellow, orange, and red hues. This feature identifies specific heat layers, alerting firefighters to areas of intense heat through visual awareness. The SRH feature automatically adds colorization to areas of a scene that include temperatures above 500° F/260° C.

SRH gives a semi-transparent color overlay to high-temperature areas of the scene, helping the visibility of structural detail, flow paths, or other objects. The Heat Color Reference Bar accompanies SRH and is adjacent to the Temperature Bar. The temperature is illustrated by the filled height of the Temperature Bar and by the Numeric Temperature Indicator (only in BASIC PLUS Mode for the NXT Pro). The Heat Color Reference Bar is a visual indicator to quickly allow the user to determine the meaning of the color displayed on the screen. The colors follow a gradient and correspond to the values in Table 2.

Table 1 Power Button Indicators

Power Button LED	Imager State
Solid White	Imager is powered ON
Pulsing Green	Imager is charging
Solid Green	Imager is fully charged (on charger)
Flashing Orange	Error condition (problem with the imager or charging system)
Alternating Flashing Orange/Red	Error condition, battery is too hot or too cold to charge

Table 2 Standard SRH Colorization Temperature

Color	Approximate Temperature
Yellow	500° F / 260° C
Orange	800° F / 426° C
Red	1000° F / 537° C
Dark Red	>1200° F / >648° C

Temperatures measured with thermal imaging can vary based on several factors (see Caution statement below). Use these features with caution and verify indicated heat levels through traditional means whenever possible.

#### ⚠ CAUTION

#### Limitations with Temperature Readings

Thermal imagers cannot directly measure the temperature of an object, instead they detect radiated heat. Temperature indications in thermal imagers are affected by distance, material emissivity, and extreme temperatures. Bullard XT Series Thermal imagers are designed for firefighting applications and are primarily imaging devices, designed to provide general information about a scene. Temperature reading should be interpreted as an approximation. **Firefighters MUST continue to rely on and use their firefighting training and safety tactics, at all times.**



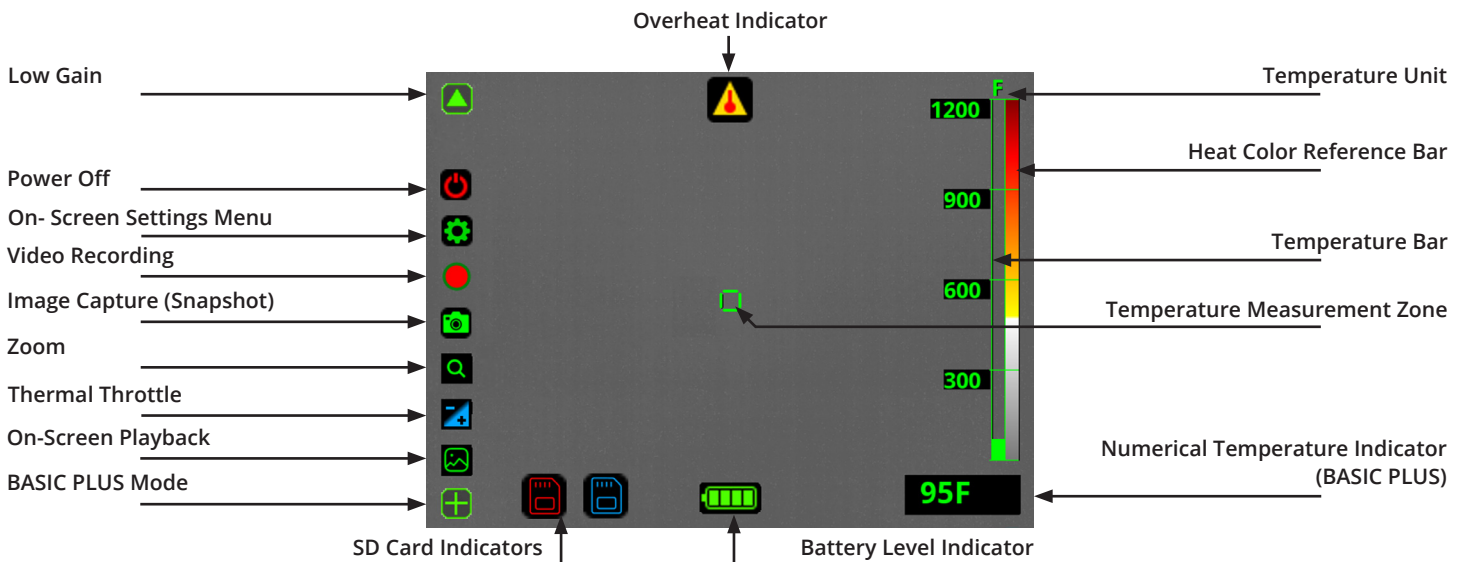
## 5.4 SENSITIVITY (GAIN) MODES

XT Series Thermal Imagers feature Seamless Gain Transition. With this technology, the imager smoothly and automatically switches between high and low sensitivity (gain) modes based on scene temperatures. When low sensitivity mode is active, it is indicated by a triangle located in the upper left of the viewing area.

## 5.5 MAXIMUM SCENE TEMPERATURE

The Maximum Scene Temperature (dynamic range) is the temperature above which heat signature differences can no longer be distinguished. For the NXT Pro the Maximum Scene Temperature is approximately 1200° F (650° C). As scene conditions approach the Maximum Scene Temperature, the display may show a large red zone where the temperature is at or above 1200° F (650° C). Also, the Numeric Temperature Indicator may not correctly display a temperature above 1200° F (650° C). Temperatures measured with thermal imaging can vary based on several factors (see Bullard's Limitations with Temperature Readings - Caution statement on p.7). Use these features with caution and verify indicated heat levels through traditional means whenever possible.

## 6. ON-SCREEN INDICATORS



### NOTE:

Features: Zoom, Thermal Throttle, and On-Screen Playback are only available in BASIC PLUS Mode.

## 6.1 TEMPERATURE BAR

The Temperature Bar is a bar-graph style temperature gauge in the right portion of the display. The temperature bar represents the approximate temperature of the object viewed within the Temperature Measurement Zone in the center of the display. Accuracy of indication is dependent on numerous factors, including the distance from the object being viewed (accuracy decreases as distance increases) and its emissivity (heat radiation properties).

Your Bullard XT Series Thermal Imager is factory-calibrated to emissivity corresponding with normal construction materials. Objects with emissivity varying greatly from these materials (particularly reflective objects such as metals and shiny materials) will see a reduced accuracy of the temperature indication.

Temperatures measured with thermal imaging can vary based on several factors (see Bullard's Limitations with Temperature Readings - Caution statement on p.7). Use these features with caution and verify indicated heat levels through traditional means whenever possible.



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## 6.2 NUMERIC TEMPERATURE INDICATOR

The Numeric Temperature Indicator, displayed under the Temperature Bar, indicates the approximate temperature of an object in the Temperature Measurement Zone (center of the display). The indicator provides a quick reference to compare objects of similar emissivity, assisting with identification of intense heat sources. Temperatures measured with thermal imaging can vary based on several factors (see Bullard's Limitations with Temperature Readings - Caution statement on p.7). Use these features with caution and verify indicated heat levels through traditional means whenever possible.

### NOTE:

Numeric Temperature Indicator is not available on your NXT Pro in BASIC Mode.






## 6.3 BATTERY LEVEL INDICATOR

The battery level indicator, located at the bottom center of the XT Series Thermal Imager display, will show the current battery level of your imager. During operation, the bar will deplete from left to right. Table 3 explains the approximate operating time associated with each indicator stage.

### NOTE:

Battery performance may vary with age and temperature.

Table 3 Battery Level Indicators

Indicator		Approximate Time Remaining
	4 Green	4.5 hours - Up to 6.5 hours
	3 Green	3 hours - 4.5 hours
	2 Yellow	1.5 hours - 3 hours
	1 Red	5 minutes - 1.5 hours
	1 Flashing Red	5 minutes



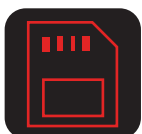
## 6.4 OVERHEAT INDICATOR

If the thermal imager becomes too hot, an overheat indicator icon will appear on the screen. This indicates that the internal temperature of the imager has reached a level that could potentially cause damage. To protect itself, the imager will automatically switch to a limited function mode. In this mode, certain non-critical functions may be disabled to reduce heat generation. To restore full functionality, power off the imager and allow it to cool. Once the imager has been allowed to cool, power the imager back on and resume normal operation.

### WARNING

FAILURE TO FOLLOW THE INSTRUCTIONS FOR THE OVERHEAT INDICATOR COULD RESULT IN DAMAGE TO THE UNIT AND RENDER THE IMAGER UNSAFE FOR USE.

FIREFIGHTERS MUST ALWAYS RELY ON THEIR FIREFIGHTING TRAINING AND SAFETY TACTICS. FAILURE TO DO SO COULD CAUSE DEATH OR SERIOUS INJURY.



## 6.5 SD CARD INDICATORS

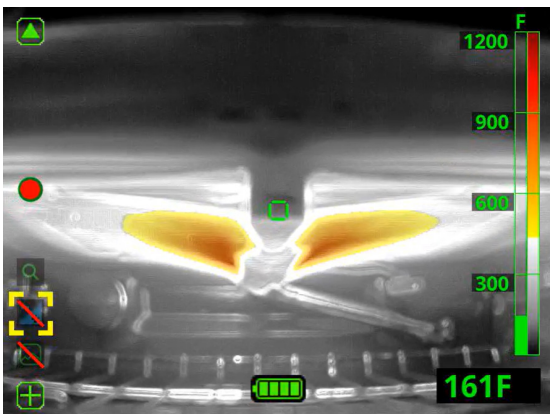
The imager stores images and recordings on an internal SD memory card, not removable by the user. If the imager cannot access the internal SD card, a visual warning (red SD card icon) is displayed, and the imager will not be able to connect to a computer for updates, configuration, or access to recordings. In this instance, functions other than image capture, video recording, and on-screen playback will continue to function normally. If the SD Card icon appears in blue, something may have corrupted the file system. Try connecting the imager to a PC with a USB cable, wait for their imager to show up, properly disconnect again, and restart the imager. If the SD Card Indicator keeps appearing or recording/playback features are not operating, contact Bullard Customer Service or your Bullard Distributor for assistance.





## 7. BASIC/BASIC PLUS MODE

NXT Pro models power up in BASIC Mode with a simple display of the thermal image. This is a mode described in detail in the NFPA 1801 standard, with the goal that all NFPA 1801 imagers look and act very similar on startup. While in BASIC Mode, you will not have access to the Numeric Temperature Indicator or most features including Thermal Throttle, Hot Area Detector, Cold Area Detector, Zoom, and On-Screen Playback. To activate these features, the NXT Pro first needs to be put in BASIC PLUS mode. Long press the 'A' button (left) to enter BASIC PLUS mode. Tap the power button at any time to disable all advanced features and return the camera to BASIC Mode.

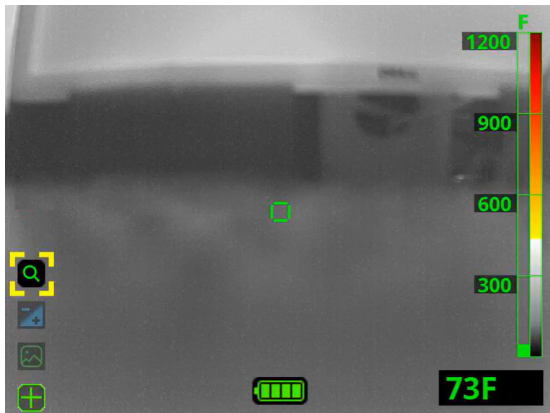


## 8. SAFETY KICKOUT

For your safety, the imager will automatically deactivate certain features when more than 5% of the pixels on the screen are above the threshold for colorization (typically 500° F / 260 ° C). This safety feature applies for Thermal Throttle, On-Screen Playback, and the On-Screen Settings Menu.

If you are in a situation where more than 5% of the pixels on the screen are above the threshold for colorization and you are not in Thermal Throttle or On-Screen Playback those icons will appear crossed out. This means that you cannot activate the feature at this time (see image to the left).

## 9. OPTIONAL FEATURES



### 9.1 FEATURE ACTIVATION

#### 9.1.1 Features Menu

Use the Features Menu to activate/deactivate certain features. Short press the 'A' button to display the Features Menu. Once the Features Menu is activated, a series of transparent icons will appear on the left part of the image indicating the available features on this specific imager. If no further button press is detected in a period of 3 seconds, the menu automatically disappears.

#### NOTE:

Your NXT Pro Thermal Imager MUST be in BASIC PLUS Mode to access the Features Menu.

#### 9.1.2 Features Selection

Short press the 'A' button to move the selector (indicated by yellow corner brackets) to the next feature, the feature that is currently selected will appear opaque. If the selector reaches the bottom of the feature list, it will automatically cycle back to the beginning on the press of the 'A' button.

Long press the 'A' button to activate the selected feature.



Transparent Icon = Feature is available for activation.



Opaque Icon = Feature is selected or activated.



Crossed Out Icon = Feature cannot be activated at this time.

#### 9.1.3 Exit Features

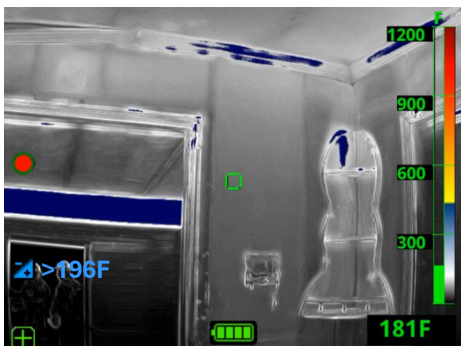
Long press the 'A' button to return to standard operation, or tap the power button to return to BASIC Mode.

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## 9.2 THERMAL THROTTLE

If equipped with the Thermal Throttle, this feature is helpful for locating hot spots during overhaul and size-up, searching for overheated electrical equipment, finding victims, and clarifying objects in low ambient temperature (non-fire) situations. When engaged, Thermal Throttle senses the hottest areas in the scene and colors them blue. This feature allows the user to fine-tune the temperature threshold for blue colorization to help identify the warmest areas with higher precision. If part of the image is in excess of 500° F it will show yellow, orange, or red along with the Thermal Throttle blue colorization. Once 5% of the image is in excess of 500° F, Thermal Throttle will kickout to standard SRH. If you see yellow, orange, or red this is the indicator that Thermal Throttle is getting ready to automatically kick out and go back to standard SRH.



### 9.2.1 Activating Thermal Throttle

Activate Thermal Throttle from the Features Menu with a short press of the 'A' button to move the selector (indicated by yellow corner brackets) to the Thermal Throttle icon and a long press of the 'A' button to activate.

### 9.2.2 Adjusting Thermal Throttle Temperature Threshold

Lower (decrease) the temperature threshold by short pressing the 'A' button. Raise (increase) the temperature threshold by short pressing the 'B' button. The temperature threshold is shown next to the Thermal Throttle icon and is the coldest temperature that appears blue in the thermal image. Items with a temperature greater than the set temperature threshold will appear blue. Raise the temperature threshold to reduce the amount of the scene that appears blue. Most of the benefits of Thermal Throttle are accomplished with the first few presses of the button.

### 9.2.3 Thermal Throttle Bar

When Thermal Throttle is engaged, the Temperature Bar shows a blue zone for temperatures below Super Red Hot colorization. For accurate information on what temperatures are blue it is recommended to refer to the temperature threshold next to the Thermal Throttle icon.

### 9.2.4 Exiting Thermal Throttle

To exit Thermal Throttle, long press the 'A' button to return to standard operation or tap the power button to return to BASIC Mode. Thermal Throttle is designed to kick out in certain situations. Please refer to the Safety Kickout section on page 10.

Temperatures measured with thermal imaging can vary based on several factors (see Bullard's Limitations with Temperature Readings - Caution statement on p.7). Use these features with caution and verify indicated heat levels through traditional means whenever possible.

Thermal Throttle is an analysis tool and should NOT be used during active firefighting or in situations with imminent danger. Firefighters MUST continue to rely on and use their firefighting training and safety tactics, at all times.

#### NOTE:

⚠ Thermal Throttle is not available on your NXT Pro in BASIC Mode.



## 9.3 ZOOM

### 9.3.1 Activating Zoom

If equipped with Zoom, activate this feature from the Feature Menu with a short press of the 'A' button to move the selector (indicated by yellow corner brackets) to the Zoom icon and a long press of the 'A' button to activate. This will engage the '2x' Zoom level.

#### NOTE:

Zoom level is indicated in the image next to the zoom icon with '1x', '2x' or '4x'. If you are at 1x and press the 'A' button you will remain at 1x, same with the 'B' button at 4x.

#### NOTE:

Zoom is not available on your NXT Pro in BASIC Mode.

### 9.3.2 Adjusting Zoom

Zoom out by pressing the 'A' button. Zoom in by pressing the 'B' button.

### 9.3.3 Exiting Zoom

Return to standard view with no Zoom by long pressing the 'A' button or tapping the power button to return to BASIC Mode. Users should immediately exit Zoom when finished using.

#### ⚠ WARNING

ZOOM REDUCES THE FIELD OF VIEW. REMAINING IN ZOOM MAY RESULT IN MISSING CRITICAL INFORMATION WHICH COULD LEAD TO DEATH OR SERIOUS INJURY.



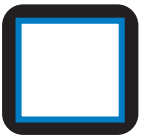
## 9.4 HOT AREA DETECTOR (HAD)

If your imager is equipped with Hot Area Detector, you will see a small red square on your display. This red square will automatically move to the hottest area on the screen every second. The Hot Area Detector is extremely easy to use, as it requires no user interaction.

Temperatures measured with thermal imaging can vary based on several factors (see Bullard's Limitations with Temperature Readings - Caution statement on p.7). Use these features with caution and verify indicated heat levels through traditional means whenever possible.

 **NOTE:**

Hot Area Detector is not available on your NXT Pro in BASIC Mode.



## 9.5 COLD AREA DETECTOR (CAD)

If your imager is equipped with Cold Area Detector, you will see a small blue square on your display. This blue square will automatically move to the coldest area on the screen every second. The Cold Area Detector is extremely easy to use, as it requires no user interaction.

Temperatures measured with thermal imaging can vary based on several factors (see Bullard's Limitations with Temperature Readings - Caution statement on p.7). Use these features with caution and verify indicated heat levels through traditional means whenever possible.

 **NOTE:**

Cold Area Detector is not available on your NXT Pro in BASIC Mode.



## 9.6 VIDEO RECORDING

### 9.6.1 Begin Video Recording

If equipped with Video Recording, press and hold the 'B' button until the video recording icon (red circle outlined in green) is displayed on the screen to begin recording.

### 9.6.2 Stop Video Recording

To stop video recording, press and hold the 'B' button until the video recording icon is no longer displayed on the screen.

### 9.6.3 Video Storage

Bullard NXT Pro Thermal Imagers have 16GB of solid-state memory. This can hold up to 8 hours of video, 30,000 images, or a mixture of both video and images.

 **NOTE:**

Memory is shared between video and images. When storage is full, the unit automatically overwrites the oldest file available.

Video files are recorded and separated into segments to optimize viewing. The segment length will be 10 minutes by default, but you will have the option to change it to 3, 10, or 20 minutes using the MyBullard Imager Configurator at <https://mybullard.com>. To make it easier to manage multiple videos from different thermal imagers, the video file names have the following format: "YYYYMMDD-HHMMSS-S/N.avi" where S/N is the serial number of the imager that took the video.

### 9.6.4 Download Video Recordings

To download recorded video, connect the imager to a computer via the Micro USB port on the bottom of the imager. When connected in this manner and powered ON, the NXT Pro will behave like any other USB mass storage device (i.e. flash key, hard drive, etc.). The video recordings will be in the Recording folder. If you have set a PIN Code for your imager, it will be required to view, download, and delete videos.

# Bullard NXT™ Pro Thermal Imager User Manual



## 9.7 IMAGE CAPTURE

If equipped with Image Capture, short press the 'B' button to take a snapshot (Image Capture). A small camera icon will briefly appear on the left side of the screen, indicating that a snapshot was taken. This functionality is not available when Thermal Throttle, Zoom, or On-Screen Playback features are active.

Refer to the Video Storage and Download Video Recording sections of this user manual for image file naming convention and access. Captured images will be in the Snapshot folder. If you have set a PIN Code for your imager, it will be required to view, download, and delete snapshots.



## 9.8 ON-SCREEN PLAYBACK

### 9.8.1 Activating On-Screen Playback

If equipped with On-Screen Playback, activate this feature from the Feature Menu with a short press of the 'A' button to move the selector (indicated by yellow corner brackets) to the On-Screen Playback icon, and a long press of the 'A' button to activate. Once activated, the display will stop showing the live thermal image and switch to the On-Screen Playback interface shown below.



The interface is separated into three areas:

- The left area shows the list of snapshots and video recordings on the camera, sorted from newest to oldest. Under each, a description is included with either VID (video recording) or IMG (snapshot) followed by the date and time.
- The top area is a reminder of the interface instructions.
- The center/bottom-right area shows the current selected snapshot or the video. Videos will automatically play back when selected.

### 9.8.2 Selecting Video or Snapshot for Playback

Move the selector up towards more recent snapshots/videos, by short pressing the 'A' button. Move the selector down toward older snapshots/videos by short pressing the 'B' button.

### 9.8.3 Exiting On-Screen Playback

To exit On-Screen Playback long press the 'A' button to return to standard operation or tap the power button to return to BASIC Mode.

On-Screen Playback enables you to quickly review after training or facilitate tactical discussions in technical calls. It should only be used in a safe environment and should be avoided in situations with imminent danger.

On-Screen Playback is designed to kick out in certain situations. Please refer to the Safety Kickout section on page 10.

#### NOTE:

On-Screen Playback is not available on your NXT Pro in BASIC Mode.

## 10. ALTERNATE MODES

### 10.1 LEGACY THERMAL THROTTLE INTERFACE

Departments with multiple imagers of various Bullard models may want imagers to operate with the same Thermal Throttle interface. The NXT Pro has a new Thermal Throttle interface; however, you may choose the legacy interface as an option. With the legacy interface you will see a TT number instead of the temperature next to the Thermal Throttle icon. To activate the Legacy Thermal Throttle Interface, go to the MyBullard Imager Configurator at <https://mybullard.com>.

### 10.2 SUPER RED HOT: EARLY ENGAGE MODE

Super Red Hot colorization, which typically engages at 500° F, can be set to Early Engage Mode, which begins colorization at 150° C / 300 ° F. Early Engage Mode is sometimes preferred for departments looking to match colorization across multiple brands of imagers.

To change your Super Red Hot colorization to Early Engage Mode, go to the MyBullard Imager Configurator at: <https://mybullard.com>.

Early Engage Mode will start colorizing in yellow at 150° C / 302° F, orange at 300° C / 572° F, red at 450° C / 842° F, and deep red at 650° C / 1202° F. The Heat Color Reference Bar will change as well to reflect this change.

Due to the colorization starting at 150° C the safety kickout will occur earlier, when 5% of the pixels are on the screen are above 150° C / 302° F.

 **NOTE:**

It is recommended to use the same colorization mode on all thermal imagers within the same department. It is the responsibility of the customer to choose the colorization mode and provide proper training.

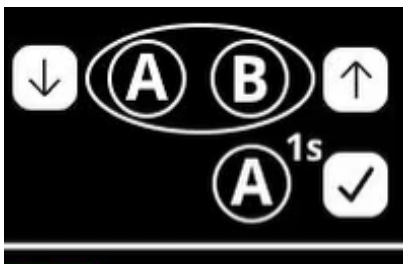
Temperatures measured with thermal imaging can vary based on several factors (see Bullard's Limitations with Temperature Readings - Caution statement on p.7). Use these features with caution and verify indicated heat levels through traditional means whenever possible.

## 11. IMAGER CONFIGURATION



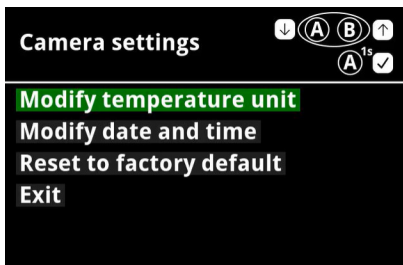
### 11.1 ON-SCREEN SETTINGS MENU

The Bullard XT Series Thermal Imagers are equipped with an On-Screen Settings Menu for imager customization. To access the On-Screen Settings Menu, press and hold both the 'A' and 'B' buttons for approximately 10 seconds. After a few seconds, you will see a small settings icon along the left side of the display with a count down. Once it reaches 0, the On-Screen Settings Menu will open.



#### 11.1.1 Navigating the On-Screen Settings Menu

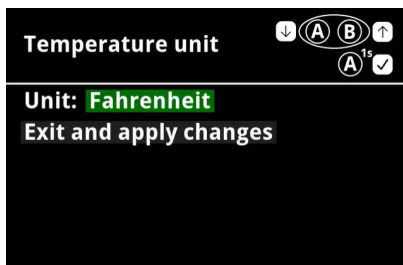
To navigate the On-Screen Settings Menu, short press 'A' to scroll down, short press 'B' to scroll up, and long press 'A' to select. When using 'A' to scroll down, if you get to the bottom of the list, it will automatically come back to the top. Likewise, when using 'B' to scroll up, if you get to the top of the list, it will automatically come back to the bottom. To exit the On-Screen Settings Menu, use the Exit menu item to return to standard operation, or tap the power button to return to BASIC Mode.



#### 11.1.2 Changing Settings with the On-Screen Settings Menu

With the On-Screen Settings Menu you will be able to

- Change the Temperature Unit
- Change the Date and Time
- Reset your imager back to factory default



#### 11.1.3 Changing the Temperature Unit

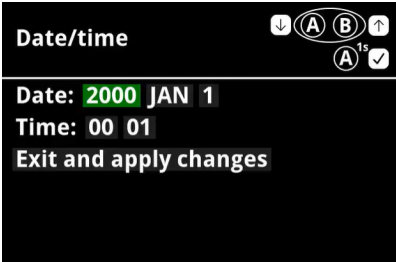
Your imager will come standard in Fahrenheit. If you want to change so temperatures are displayed in Celsius, follow the instructions below.

1. Turn on your thermal imager and enter the On-Screen Settings Menu by pressing and holding both the 'A' and 'B' buttons for approximately 10 seconds. After a few seconds you will see a small settings icon along the left side of the display with a count down. Once it reaches 0, the Settings Menu will open.
2. Short press the 'A' button to scroll down to "Modify Temperature Unit". Long press 'A' to select.
3. Long press 'A' to select the current temperature unit. You must select the current temperature unit to change it.
4. Short press 'A' or 'B' to change your temperature unit. Once the temperature unit displayed is correct, long press 'A' to select.
5. Short press 'A' to scroll down to "Exit and apply changes". Long press 'A' to select.

**NOTE:**  
If you exit from this screen by pressing the power button, the temperature unit will not reset.

**NOTE:**  
To change the temperature unit of the temperature threshold in Thermal Throttle, you must reboot your imager after changing the temperature unit with the On-Screen Settings Menu.



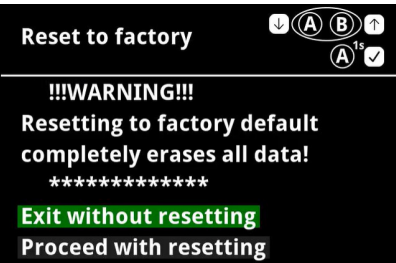


### 11.1.4 Changing the Date and Time

1. Turn on your thermal imager and enter the On-Screen Settings Menu by pressing and holding both the 'A' and 'B' buttons for approximately 10 seconds. After a few seconds you will see a small settings icon along the left side of the display with a count down. Once it reaches 0, the Settings Menu will open.
2. Short press the 'A' button to scroll down to "Modify Date and Time". Long press 'A' to select.
3. Long press 'A' to select the year. You must select the year to change it.
4. Use 'A' and 'B' to select the correct year. Once the correct year is shown, long press 'A' to select.
5. Short press the 'A' button to scroll to the month. Long press 'A' to select the month. You must select the month to change it. Use 'A' and 'B' to select the correct month. Once the correct month is shown, long press 'A' to select.
6. Short press the 'A' button to scroll to the day. Long press 'A' to select the day. You must select the day to change it. Use 'A' and 'B' to select the correct day. Once the correct day is shown, long press 'A' to select.
7. Short press the 'A' button to scroll to the time, hour. Long press 'A' to select. You must select the time, hour, to change it. Use 'A' and 'B' to select the correct hour, options are 0-23. Once the correct time, hour, is shown, long press 'A' to select.
8. Short press the 'A' button to scroll to the time, minute. Long press 'A' to select. You must select the time, minute, to change it. Use 'A' and 'B' to select the correct minute. Once the correct time, minute, is shown, long press 'A' to select.
9. Short press 'A' to scroll down to "Exit and apply changes". Long press 'A' to select.

#### NOTE:

- The imager clock will not automatically change with daylight savings time.
- The imager clock is 24-hour time. So, 1300 is 1pm.
- The date and time will only display in snapshots, recordings, and when the imager powers on or off.



### 11.1.5 Resetting to Factory Default

1. Turn on your thermal imager and enter the On-Screen Settings Menu by pressing and holding both the 'A' and 'B' buttons for approximately 10 seconds. After a few seconds you will see a small settings icon along the left side of the display with a count down. Once it reaches 0, the Settings Menu will open.
2. Short press the 'A' button to scroll down to "Reset to factory default". Long press 'A' to select.
3. If you are sure you want to reset your imager to factory default, short press the 'A' button to scroll down to "Proceed with Resetting". Long press 'A' to select. If you DO NOT want to reset your imager to factory default, long press 'A' to select, "Exit without resetting" to go back to the main settings menu or tap the power button to exit to BASIC Mode.

The On-Screen Settings Menu will allow you to reset the imager to its factory default settings. This can be helpful if you have deleted a folder. However, this will erase all data from your imager, including images, recordings, and configurations.

#### NOTE:

When changing something on your imager make sure to select, "Exit and apply changes" or it will not apply the changes.

#### NOTE:

The On-Screen Settings Menu is designed to kick out in certain situations. Please refer to the Safety Kickout section on page 10.

## 11.2 MYBULLARD IMAGER CONFIGURATOR

To get the most use out of your imager, you will need to connect it to a computer using the USB cable provided and go to <https://mybullard.com>. Here you will be able to manage all your Bullard XT imagers. With this Imager Configurator tool, you will be able to customize your imagers.

Below are some of the things you will be able to manipulate with the Imager Configurator. Please note that this is not a complete list of everything that can be manipulated with this tool; visit the MyBullard Imager Configurator for a complete list.

- Add a Custom Splash Screen
- Set-Up Access Control by Pin Code
- Turn on Always on Recording

#### NOTE:

Bullard recommends using Google Chrome or Microsoft Edge when accessing the MyBullard Imager Configurator for ease of use.



#### WARNING

USERS MUST VERIFY ALL CHANGES MADE ON THE CONFIGURATOR ARE ACTIVATED ON THE IMAGER PRIOR TO USE. FAILURE TO FOLLOW THIS INSTRUCTION COULD CAUSE DEATH OR SERIOUS INJURY.



# Bullard NXT™ Pro Thermal Imager User Manual

## 12. DEPLOYMENT/OPERATIONAL LIFE

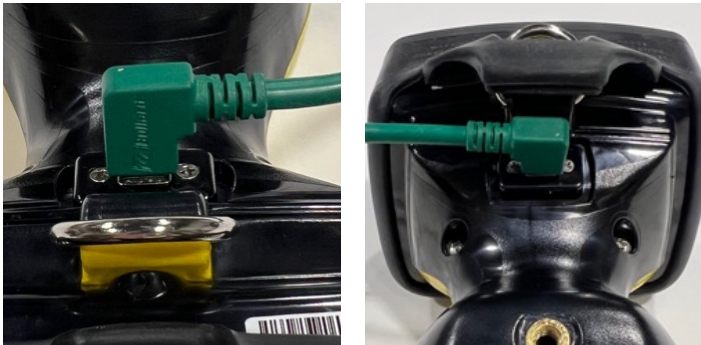
### 12.1 CHARGING YOUR IMAGER

Your Bullard XT battery can be charged with one of two charging systems: the included USB Wall Charger or the optional Wireless Charger. To charge your imager with the Wireless Charger, please refer to the XT Series Wireless Charger User Manual.

To charge with the USB Wall Charger, open the USB cover located on the rubber boot at the bottom of the display side of the imager. Plug the USB power cord into a wall outlet using the included AC adapter. When the connection has been verified and the battery is charging, the Bullard XT power button LED will pulse GREEN. When fully charged, the same LED will change to steady GREEN.

#### ⚠ CAUTION

Be careful when inserting the micro-USB into your imager, there is only one way it can be inserted. The Bullard logo should be facing the display when it is properly inserted. See the images below.



If the Bullard XT internal control software determines that internal temperatures are too high or too low for battery charging, the power button will flash ORANGE/RED until the imager internal temperature stabilizes to a range appropriate for charging. It will continue charging automatically when moderate temperatures have been reached.

#### ⚠ NOTE:

The XT Series Wireless Charger is designed to be mounted securely in accordance with NFPA 1901-14.1.10.2 and DIN EN 1846-2 5.1.2.2.2 when storage of the Imager in a vehicle is required.

Table 4 Power Button Charging Indicators

Power Button LED	Imager State
Pulsing Green	Imager is charging
Solid Green	Imager is fully charged (on charger)
Flashing Orange	Error condition (problem with the imager or charging system)
Alternating Flashing Orange/Red	Error condition, battery is too hot or too cold to charge

If you see a flashing orange LED power button indicator, remove the imager from the XT Series Wireless Charger and reset it on the charger, or disconnect the USB cable and reconnect. If this does not work, refer to the troubleshooting section of the manual.

#### ⚠ WARNING

**EXPLOSION HAZARD.** DO NOT CONNECT OR DISCONNECT THE EQUIPMENT (THERMAL IMAGER) TO ANY CHARGER IN A HAZARDOUS LOCATION. FAILURE TO FOLLOW THIS INSTRUCTION COULD CAUSE DEATH OR SERIOUS INJURY.

#### ⚠ CAUTION

THE TEMPERATURE RANGE TO CHARGE THE BATTERY IS 32°F TO +113°F (0°C TO 45°C). IF YOU CHARGE THE BATTERY AT TEMPERATURES OUTSIDE OF THIS RANGE, IT CAN CAUSE SEVERE DAMAGE TO THE BATTERY.

#### ⚠ WARNING

ONLY USE CHARGERS APPROVED BY BULLARD TO CHARGE THE BATTERY. USING NON-BULLARD CHARGERS CAN DAMAGE THE BATTERY.

#### ⚠ NOTES ON CHARGING:

1. Do not use a computer USB connection to charge the thermal imager. Connection to a computer via USB is only intended for the purpose of downloading video and/or communicating with the imager. It is not guaranteed that a computer will supply the necessary power for appropriate charging.
2. Due to the variety of USB standards, Bullard cannot guarantee charging performance with non-Bullard chargers nor non-Bullard USB adapters.
3. Battery charging temperature range is 32° F (0° C) to +113° F (45° C).
4. Internal lithium-ion battery is designed for a long life. Bullard recommends leaving the XT connected to your preferred Bullard charging system so the unit is charged and ready for use. For maximum life of the imager, avoid fully depleting the battery.
5. Power off the imager during charging.

## 13. CARE AND STORAGE INSTRUCTIONS

Bullard XT requires little maintenance. For best results, after each use:

- Clean and disinfect the outside of the unit with mild soap or detergent.
- Wipe the lens with a soft cloth.
- Clean the display with a soft cloth.
- Check screw tightness on cover window; torque is 5-inch pounds.
- Store your Bullard XT, powered off, on the provided USB charger, optional Wireless Charger, or in the delivery case provided. For best performance, Bullard recommends leaving your imager charging when not in use.
- Maintain thermal imagers using a programmed system.

### 13.1 Stickers and Markings

You may place department and/or company information on your Bullard XT. When adding stickers or other markings, do NOT cover the certification label, thermal imager lens, cover window, or display. Do not place stickers on the bottom of the imager, as it may interfere with the wireless charging and will cover the certification label. Do not engrave in the plastic material as this can damage the unit and jeopardize sealing.

If placing stickers or labels on your imagers here are some things to know:

1. UL approved 2 Mil Polyester 3-1309 or Scotchlite material with High Heat adhesive work well.
2. Avoid metal/metalized stickers/labels.

#### **▲ WARNING**

DO NOT USE SOLVENTS OR PAINT THINNERS TO CLEAN THE BULLARD THERMAL IMAGER AS THEY COULD PERMANENTLY MAR THE SURFACE OR DEGRADE THE PROTECTIVE PROPERTIES OF THE CASING.

DO NOT INTENTIONALLY SUBMERGE THE UNIT UNDER WATER OR SUBJECT THE UNIT TO HIGH PRESSURE WATER.

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD CAUSE DAMAGE AND RENDER THE THERMAL IMAGER UNSAFE FOR USE.

## 14. REPLACEMENT PARTS AND INSTRUCTIONS

Thermal imagers are tools used in harsh environments and often undergo vast amounts of wear and tear. The display cover window has a scratch-resistant hard coating to minimize marring. However, it is still possible that it might endure heavy scratching or gouging. Knowing this, the two rubber boots, display window, and metal plate are designed to be easily replaceable by you.

#### **To replace the cover window:**

1. Remove the four Phillips screws along the sides of the window.
2. Lift the USB cover (lower portion of the Rear Boot) and pull it over the D-ring while pulling forward on the Rear Boot. The Rear Boot and Window will disengage from the imager.
3. Pull the Display Cover Window from the slot and replace it with the new Display Cover Window.
4. Stretch the Rear Boot/Window assembly over the screen and feed the D-ring through the hold in the boot. Press the USB cover into the lower housing.
5. Replace the four screws in the cover window. Torque to 5-inch pounds (0.6 Newton meters). Take care NOT to overtighten the screws during reassembly.

#### **To replace the rear boot:**

1. Remove the four Phillips screws along the sides of the window.
2. Lift the USB cover (lower portion of the Rear Boot) and pull over the D-ring while pulling forward on the Rear Boot. The Rear Boot and Window will disengage from the imager.
3. Pull the Display Cover Window from the slot and place it in the new rear boot.
4. Stretch the Rear Boot/Window assembly over the screen and feed the D-ring through the hold in the boot. Press the USB cover into the lower housing.
5. Replace the four screws in the cover window. Torque to 5-inch pounds (0.6 Newton meters). Take care NOT to overtighten the screws during reassembly.

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## **To replace the front boot:**

1. Remove the four Phillips screws along the sides of the metal plate.
2. Gently remove the metal plate and silicone boot covering the edges of the imager.
3. Place the new boot on the camera. Place metal plate over it.
4. Replace the screws. Torque to 8-inch pounds (0.9 Newton meters). Take care NOT to overtighten the screws during reassembly.

## **To replace the metal plate:**

1. Remove the four Phillips screws along the sides of the metal plate.
2. Place the new metal plate over the boot.
3. Replace the screws. Torque to 8-inch pounds (0.9 Newton meters). Take care NOT to overtighten the screws during reassembly.

## **Replacement Parts for Camera**

- XTWINDOW – XT Series Display Window Replacement Kit (Screws included)
- XTWINDOWSCREWS - XT Series Display Window Replacement Screws
- XTMETALX – XT Series Front Metal Plate (Screws included)
- XTBUMPER – XT Series Front Boot Bumper (Screws included)
- XTLCDGUARDNXTPRO – NXT Pro Display (LCD) Boot

## **Parts for Charging**

- XTRUCKMOUNT - XT Series Wireless Charger (US Only)
- XTCHARGEPOWER - XT Series Wireless Charger AC Adapter with Interchangeable Blades
- XTCHARGERRING – XT Series Charger Interface Ring Replacement Kit
- XTUSBCHARGEPOWER - XT Series USB AC Adapter and USB Cable

## **Accessories**

- XTHARDCASE – XT Series Hard Carrying Case
- XTRETRACT – XT Series Retractable Lanyard
- XTRUCKMOUNTUNIT - XT Series Vehicle Mounting Unit (Europe Only).

## **15. SHIPMENT**

For all electronics with internal lithium-ion batteries, special considerations must be observed when shipping the Bullard XT.

When shipping the Bullard XT, by regulation the exterior case must have a red-bordered announcement with the following text: "CAUTION – LITHIUM ION BATTERY – DO NOT LOAD OR TRANSPORT PACKAGE IF DAMAGED". Additionally, further regulations stipulate that the imager must not have greater than two bars of battery charge if shipping by air. Please consult applicable shipping rules for your mode of transport or consult with your shipping provider.

Bullard Thermal Imagers are subject to the U.S Export Administration Regulation (EAR). Distributors/End-Users must comply with all applicable laws including the U.S. Export Administration Regulations, as well as end-user, end-use and destination restrictions issued by U.S. and other governments; ECCN: 6A003, Subparagraph b.4b.

## 16. TROUBLESHOOTING

If you experience any problems with your Bullard XT, please refer to our website (<https://www.bullard.com/thermal-imaging/>) for the latest information on fixes, updates, and best practices. Also check the MyBullard Imager Configurator at <https://mybullard.com> for firmware updates.

If the imager appears unresponsive, it may require a hard power off. To accomplish this, depress and hold the power button for 15 seconds.

The Bullard XT is also equipped with a safety feature which provides automatic shutoff to protect the electronics if they experience prolonged excessive temperatures.

### ▲ WARNING

**DO NOT ATTEMPT TO DISASSEMBLE THE BULLARD XT THERMAL IMAGER.** IF THE UNIT IS NOT FUNCTIONING PROPERLY, RETURN IT TO THE BULLARD SERVICE CENTER FOR EVALUATION. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN CAUSE DAMAGE AND RENDER THE THERMAL IMAGER UNSAFE FOR USE.

## 17. SERVICE

If your Bullard XT is not performing properly and you have tried the troubleshooting section on: [www.bullard.com/thermal-imaging/](http://www.bullard.com/thermal-imaging/) contact Bullard Customer Service: See Table 6 in section 18.1 for Customer Service Contact Information.

For your convenience, your representative will attempt to help you diagnose or correct the problem over the phone. Please describe the problem to the Bullard representative as completely as possible.

Before returning your Bullard XT, you should verify with your representative that the product should be returned to Bullard. Bullard Customer Service will provide you with written permission and a Return Authorization (RA) number. Bullard will use its best efforts to repair the unit within 48 business hours of receipt. In some cases, if the repair time is extended, Bullard, at its discretion, may provide the customer with a temporary replacement unit on loan.

## 18. LIMITED WARRANTY

Bullard offers high quality, tough, and durable thermal imagers worldwide. Please read this section carefully, as it contains information to help you protect and service your investment.

This section contains valuable information about the type of warranty, the purchaser's obligations, warranty coverage, limitations, exclusions, and other terms and conditions that may affect Bullard's obligations under this warranty.

Bullard warrants to the original purchaser that the Bullard XT Series thermal imagers are free of defects in materials and workmanship under intended use and service for the periods stated in Table 5 on the following page. This warranty is not transferable.

Bullard's obligation under this warranty is only to repair or replace, at Bullard's discretion, items returned within the warranty period and determined by Bullard to be defective, subject to the following limitations:

- a) the Item must be returned to Bullard with shipping charges prepaid;
- b) the Item must not be altered from its original configuration; and
- c) the item must not have been misused, abused, or damaged in transport.

# Bullard NXT™ Pro Thermal Imager User Manual

## 18.1 WARRANTY PERIOD AND COVERAGE:

The warranty periods defined in Table 5 below are subject to the following limitations:

- a) the product registration date considered for warranty will be no more than three (3) months after the product manufacture date.
- b) repairs performed under warranty do not affect the warranty period.
- c) accessories not specifically detailed in Table 5 may have a limited warranty. If you are unsure about the warranty, please contact Bullard Customer Service for assistance.

**Table 5 Warranty Periods**

Warranty Coverage	Warranty Period
- Thermal imaging unit	5 years from the date of product manufacture or registration, whichever date is later
- Internal li-ion battery	5 years from the date of product manufacture or registration, whichever date is later.
- Wireless chargers for thermal imagers	2 years from date of purchase
- Protective boots - AC/DC and USB adapters - Other thermal imaging accessories	90 days

### WARRANTY EXCLUSIONS DISCLAIMERS:

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT ANY IMPLIED WARRANTY IS REQUIRED BY LAW, IT IS LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD ABOVE. NEITHER BULLARD NOR ITS DISTRIBUTORS SHALL BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY NATURE, INCLUDING WITHOUT LIMITATION, LOST PROFITS, BUSINESS INTERRUPTION, OR ANY OTHER DAMAGE WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

THIS LIMITED WARRANTY EXPRESSLY EXCLUDES ROUTINE PRODUCT MAINTENANCE AND SOFTWARE UPDATES. ANY MISUSE, ALTERATION, MODIFICATION, REPAIR, ATTEMPTED REPAIR, IMPROPER MAINTENANCE, NEGLIGENCE, ABUSE OR FAILURE TO FOLLOW THE PRODUCT INSTRUCTIONS, DAMAGE OR ANY OTHER IMPROPER CARE OR HANDLING OF THE PRODUCT VOIDS THIS LIMITED WARRANTY.

The foregoing is the only warranty made by Bullard. No representative, dealer or any other person is authorized to make any warranty, representation, condition or promise on behalf of Bullard with respect to this product. No terms or conditions other than those stated herein or provided by law, and no agreement or understanding, oral or written, in any way purporting to modify this warranty shall be binding upon Bullard, unless made in writing and signed by an authorized employee of Bullard.

### CONTACT BULLARD

If you have any questions about service or warranty, or your Bullard thermal imager is not performing properly, contact your local distributor or your nearest Bullard Customer Service.

**Table 6 Contact Information**

Region	Contact
United States and Canada	+1.877.285.5273 <a href="mailto:info@bullard.com">info@bullard.com</a>
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## 19. MAINTENANCE CHECKLIST

### To Maintain Optimal Performance of Your Thermal Imager

#### Daily or After Each Use:

- Ensure unit is working properly.
- Verify all battery chargers and associated cables are functioning properly.
- Store in charging mode on the wireless charger or connected via a designated USB adapter.
- Using a damp cloth, clean off large pieces of debris.

#### Weekly:

- Clean lens with soft cloth and mild cleaner.
- Clean LCD display cover with soft cloth and mild cleaner.
- Check for cracks, holes, or other damage to the unit's outer shell.

#### Monthly:

- Check tightness of all external screws, including those connecting the LCD display cover and those connecting any bumpers. Do not overtighten.
- Using a damp cloth and mild cleaner, clean the outer shell of the unit. Do not immerse the unit under water for cleaning.

#### Variable:

The frequency of these maintenance steps will be determined by the amount of use the unit receives in the field. While this is a guideline, users should replace any part when they notice a decrease in product performance or usability, rather than waiting for a specific period of elapsed time.

- Every 8 to 24 months: replace the LCD display cover
- Every 12 to 36 months: return the unit to Bullard for the Preventive Maintenance service.

# Bullard NXT™ Pro Thermal Imager User Manual

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