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› TOPDON TC004 SE Thermal Imaging Camera User Manual

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TOPDON TC004 SE Thermal Imaging Camera User Manual

Model: TC004 SE | Brand: TOPDON

1. INTRODUCTION

The TOPDON TC004 SE is a high-resolution thermal imaging camera designed for precise and reliable diagnostics in various applications, including electrical, HVAC, and building inspections. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your device.

What's in the Box

Upon opening the package, you will find the following items:

- TOPDON TC004 SE Thermal Imaging Camera
- Storage Bag
- USB Cable (Type-A to Type-C)
- Power Adapter with interchangeable US, UK, EU, and AU plugs
- User Manual





Image: The TOPDON TC004 SE Thermal Imaging Camera with its included accessories, including the storage bag, USB cable, power adapter, and user manual.

Unboxing the TC004 SE

Your browser does not support the video tag.

Video: An official unboxing of the TOPDON TC004 SE Thermal Imaging Camera, demonstrating the contents of the package and initial handling of the device.

2. SETUP

2.1 Charging the Device

The TC004 SE is equipped with a powerful 5300mAh battery, providing up to 21 hours of continuous operation at low screen brightness. Before first use, ensure the device is fully charged using the provided USB-C cable and power adapter.

1. Connect the USB-C end of the cable to the camera's charging port (located under the O/I flap).
2. Connect the USB-A end to the power adapter.
3. Plug the power adapter into a suitable wall outlet.
4. The battery indicator on the screen will show charging status.

21 Hours of Non-Stop Power

Enjoy all-day use without recharging

5300mAh
Battery Capacity

5/10/20
Mins Auto Power-Off

Adjustable
Screen Brightness

5300mAh



Note: The 21h runtime is achieved at low brightness settings.

Image: The thermal camera highlighting its 21-hour battery life and 5300mAh capacity, indicating extended operational time.

2.2 Power On/Off

To power on the device, press and hold the power button (usually located on the control panel) until the TOPDON logo appears on the screen. To power off, press and hold the power button again until the device shuts down. The adjustable auto-shutdown function (5/10/20 minutes) helps conserve energy.

2.3 Initial Settings

Upon first power-on or after a factory reset, you may need to configure basic settings:

- **Language:** Select your preferred language from the options provided.
- **Date/Time:** Set the current year, month, day, hour, and minute for accurate timestamping of your recordings.
- **Temperature Unit:** Choose between Fahrenheit (°F) or Celsius (°C) based on your preference.

3. OPERATING INSTRUCTIONS

3.1 Basic Operation and Navigation

The TC004 SE features an intuitive control panel. Use the arrow keys to navigate through menus and adjust settings. The 'OK' button confirms selections, and the 'Back' button returns to the previous screen.

3.2 Temperature Measurement

The camera provides precise temperature readings with a wide range of -20°C to 550°C (-4°F to 1022°F) and an accuracy of $\pm 2^{\circ}\text{C}/2\%$. It automatically displays high, low, and center temperatures on the screen.

- **Center Spot:** Indicates the temperature at the center of the screen.
- **Max Spot:** Shows the highest temperature detected within the field of view.
- **Min Spot:** Shows the lowest temperature detected within the field of view.

High & Low Temp Alerts

Automatically snap photos when temps exceed the preset limits



Image: The thermal camera screen showing automatic high, low, and center temperature alerts, aiding in quick anomaly detection.

3.3 Color Palettes

Choose from 10 different color palettes to visualize thermal data effectively, depending on the application and environment. Different palettes can highlight temperature differences more clearly.

Image: A visual representation of the 10 available color palettes for the thermal camera, allowing users to select the best display for their specific inspection needs.

3.4 Digital Zoom

The TC004 SE features 4x digital zoom, allowing you to magnify the thermal image for closer inspection of specific areas. This is particularly useful for identifying small details or distant heat sources.

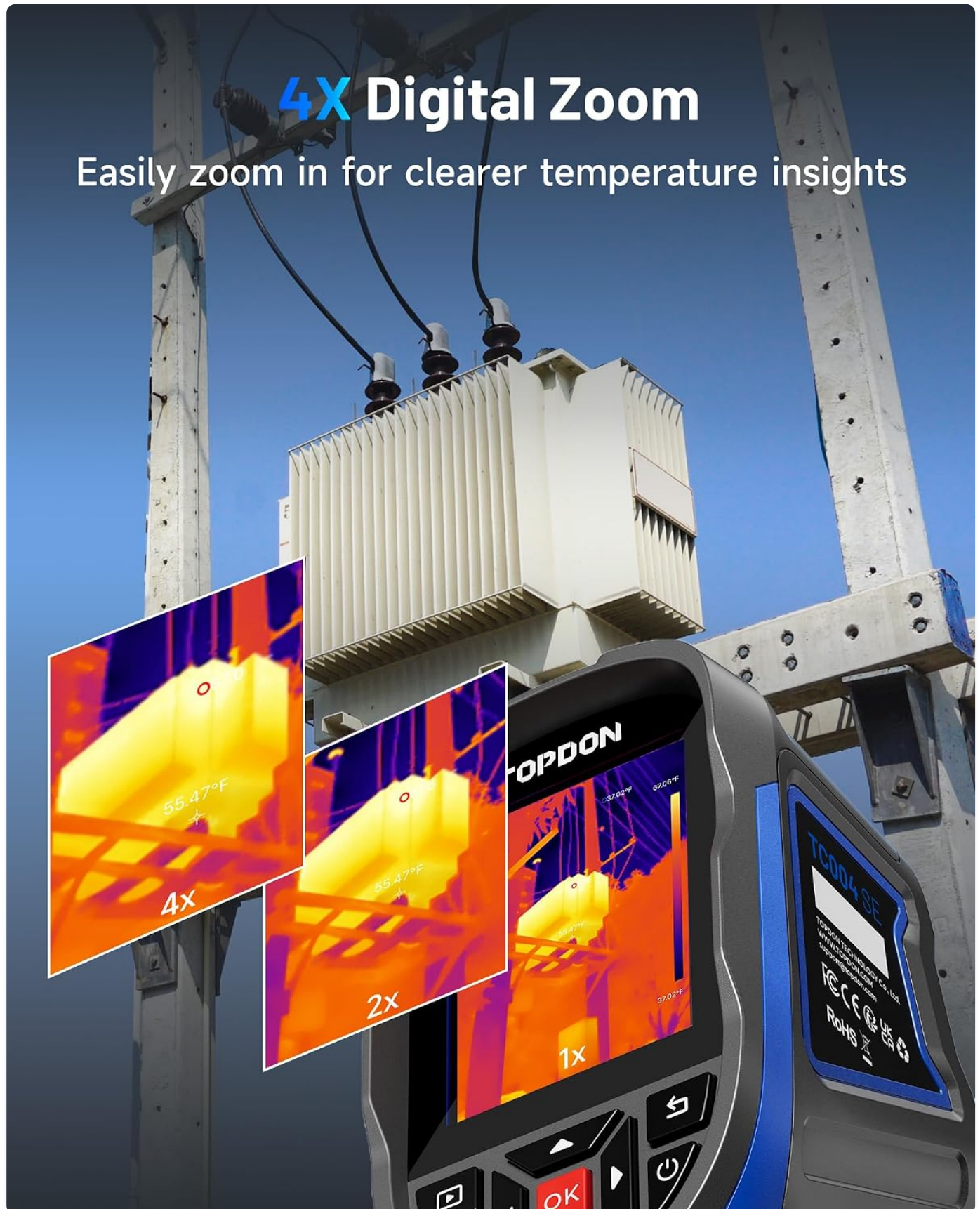


Image: The thermal camera screen showing the effect of 4X digital zoom, providing clearer temperature insights by magnifying the view.

3.5 Image and Video Recording

The device comes with 32GB of built-in storage, capable of saving over 16,000 images or hours of video recordings. This allows for comprehensive documentation and later analysis.

- **Capturing Images:** Press the dedicated capture button to save a thermal image.
- **Recording Videos:** Press the video record button to start and stop video recording.
- **PC Analysis:** Connect the camera to your PC via USB to transfer and analyze recorded images and videos using dedicated software.

Store Up to 160,000 Images

32GB built-in storage for high-quality images
or hours of videos

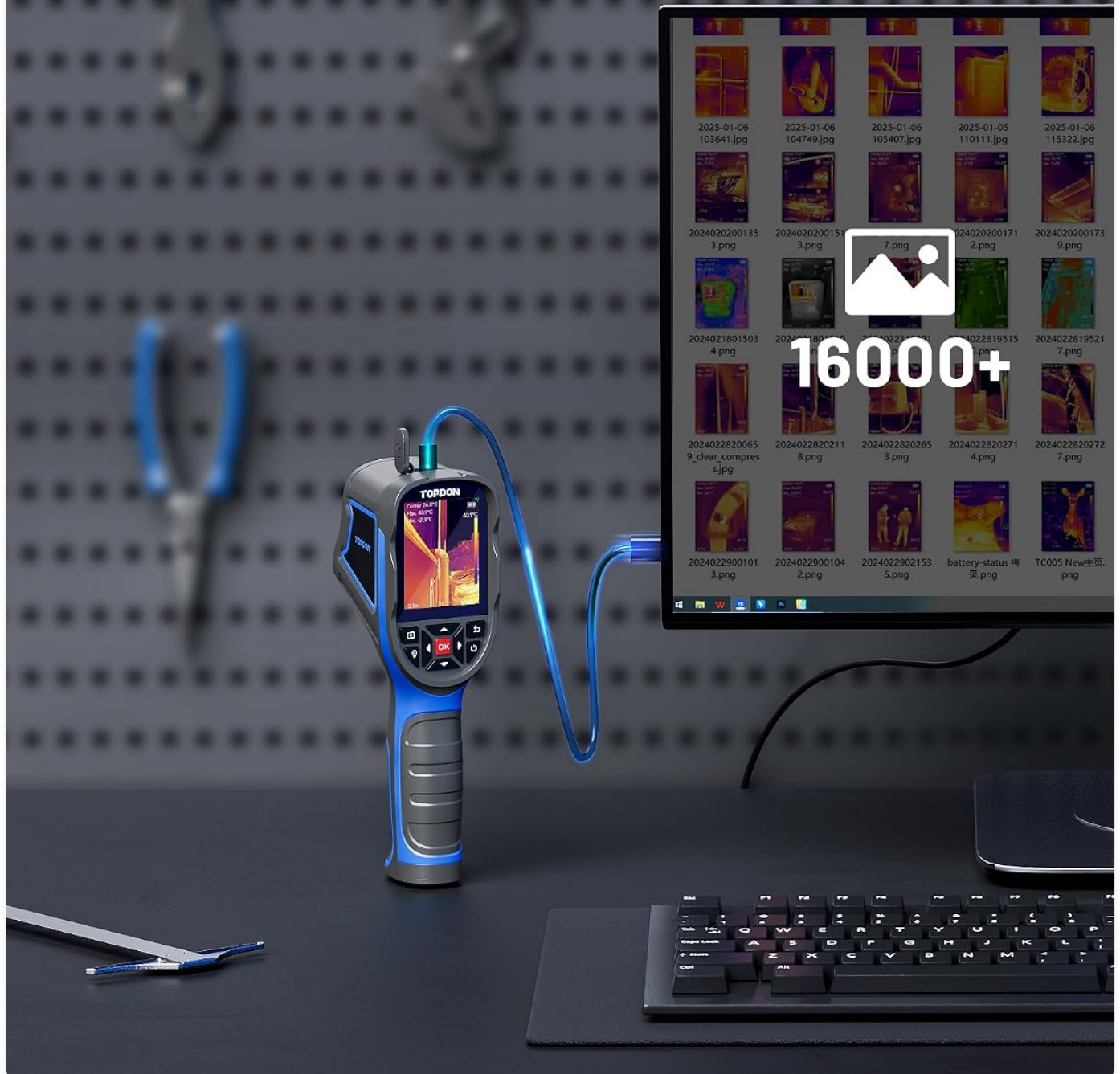


Image: The thermal camera connected to a computer, illustrating its capability to store up to 160,000 images and facilitate PC analysis.

4. MAINTENANCE

4.1 Cleaning the Device

To ensure optimal performance and longevity of your TC004 SE, regular cleaning is recommended:

- Use a soft, dry cloth to wipe the exterior of the camera.
- For the lens, use a specialized lens cleaning cloth and solution to avoid scratches.
- Do not use abrasive cleaners or solvents.

4.2 Battery Care

To maximize battery life and performance:

- Charge the device fully before extended storage.
- Avoid completely draining the battery frequently.
- Store the device in a cool, dry place when not in use.

4.3 Storage

When not in use, store the TC004 SE in its provided storage bag to protect it from dust, moisture, and physical damage. The device boasts an IP54 rating for water and dust resistance and a 2-meter drop-resistant design, making it durable for tough environments.





Image: The thermal camera highlighting its robust design with 6.6ft (2m) drop resistance and IP54 protection level, suitable for challenging environments.

5. TROUBLESHOOTING

If you encounter issues with your TOPDON TC004 SE, try the following basic troubleshooting steps:

- **Device not powering on:** Ensure the battery is charged. Connect to a power source and try again.
- **Image blurry or unclear:** Check the lens for dirt or smudges and clean it carefully. Ensure you are within the optimal measurement distance (0.25m to 4m).
- **Inaccurate temperature readings:** Verify the emissivity setting is correct for the material being inspected. Ensure the ambient temperature is within the operating range.
- **Device unresponsive:** Perform a soft reset by holding the power button for an extended period (e.g., 10-15 seconds) until it restarts. If the issue persists, a factory reset may be necessary (refer to System Settings).
- **Cannot connect to PC:** Ensure the USB cable is securely connected and try a different USB port. Check if the device is in the correct mode for data transfer.

For more complex issues, please refer to the detailed troubleshooting section in the full user manual or contact TOPDON customer support.

6. SPECIFICATIONS

Feature	Specification
IR Resolution	256x192
Refresh Rate	25Hz
Temperature Range	-20°C to 550°C (-4°F to 1022°F)
Accuracy	±2°C or 2%
Battery Capacity	5300mAh
Runtime	Up to 21 hours (low brightness)
Storage	32GB (built-in)
Digital Zoom	4x
Field of View (FOV)	56°x42°
Display	240x320 LED
IP Rating	IP54
Drop Resistance	2 meters (6.6 ft)
Item Weight	1.96 pounds
Package Dimensions	12.91 x 8.43 x 4.88 inches

7. WARRANTY AND SUPPORT

7.1 Warranty Information

The TOPDON TC004 SE Thermal Imaging Camera is manufactured by TOPDON. For specific warranty terms and conditions, please refer to the warranty card included in your product packaging or visit the official TOPDON website. Keep your proof of purchase for warranty claims.

7.2 Customer Support

Should you require technical assistance, have questions about product operation, or need to report an issue, please contact TOPDON customer support. Contact details can typically be found on the official TOPDON website or in the product's packaging.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

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