### **Operating Instructions and Parts Manual**

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



### THERMAL IMAGING CAMERA

#### **FOR CUSTOMER SERVICE**

**Technical Question?** 

CALL 1-866-458-2472 customerservice@oem-tools.com

#### UNPACKING

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. If any damage is observed, a shipping damage claim must be filed with the carrier. DO NOT use the OEMTOOLS™ 24552 Thermal Imaging Camera if broken, bent, cracked, or damaged parts (including labels) are noted. Any product that appears damaged in any way, operates abnormally or is missing parts should be removed from service immediately. If you suspect that the Thermal Imaging Camera was subjected to shock load (a load that was dropped suddenly, unexpectedly, etc.), immediately discontinue use until it has been checked by a factory authorized service center.



### **A WARNING**

The following safety information is provided as a guideline to help you operate your Thermal Imaging Camera under the safest possible conditions. Any tool or piece of equipment can be potentially dangerous to use when safety or safe handling instructions are not known or not followed. The following safety instructions are to provide the user with the information necessary for safe use and operation. Please read and retain these instructions for the continued safe use of your tool. Failure to follow instructions listed below may result in serious injury. In addition, make sure that anyone who uses the equipment understands and follows these safety instructions as well.

### **Explanation of Safety Signal Words**

**AWARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. **ACAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**CAUTION:** Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

**NOTES:** Provide clarity and helpful information.

Thank you very much for choosing an OEMTOOLS™ Product!

For future reference, please register your new tool at www.oem-tools.com and complete the owner's record below:

Model: Purchase Date:

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it. This product is designed for certain applications only. OEMTOOLS™ cannot be responsible for issues arising from modification. We strongly recommend that this product is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted customer service to determine if it can or should be performed on the product.



# O=M TOOLS

### THERMAL IMAGING CAMERA

## A

## IMPORTANT INSTRUCTIONS AND SAFETY RULES

- Know your product. Read this manual carefully. Learn the product's applications and limitations, as well as potential hazards specific to it.
- Maintain labels and nameplates on this product. These carry important information. If unreadable or missing, contact OEMTOOLS™ for a replacement.
- Keep work area clean and well lit. Cluttered or dark work areas invite accidents.
- Keep children away. All children should be kept away from the work area. Never let a child handle tools or equipment without strict adult supervision.
- DO NOT operate this product if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, DO NOT attempt to operate.
- 6. Use safety equipment. Eye protection should be worn at all times when operating this tool. Use ANSI approved safety glasses. Everyday eyeglasses are NOT safety glasses. Dust mask, non-skid safety shoes, hard hat or hearing protection should be used in appropriate conditions.
- Wear proper apparel. Loose clothing, gloves, neck-ties, rings, bracelets, or other jewelry may present a potential hazard when operating this product. Keep all apparel clear of the tool.
- DO NOT overreach. Keep proper footing and balance at all times when operating this product.
- Check for damage. Check your camera regularly. If part of the camera is damaged, it should be carefully inspected to make sure that it can perform its intended function correctly. If in doubt, the part should be repaired. Refer all servicing to a qualified technician. Consult your dealer for advice.
- Keep away from flammables. DO NOT attempt to operate this product near flammable materials or combustibles. Failure to comply may cause serious injury or death.
- 11. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one product may become hazardous when used on another product.
- Service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 13. When servicing a product, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
- 14. Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Keep the work area free of obstructions, grease, oil, trash, and other debris. DO NOT use this product in a damp or wet location.
- Avoid accidental fire and/or explosion. DO NOT smoke near engine fuel and battery components.
- 16. The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
- 17. We believe the information contained herein to be reliable. However, general technical information is given by us without charge and the user shall employ such information at their own discretion and risk. We assume no responsibility for results or damages incurred from the use of such information in whole or in part.

- 18. The manufacturer declines any and all responsibility for damage to property if said damage is the result of unskillful handling by the operator or of failure to observe the basic safety rules set forth in the instruction manual.
- The procedures documented in this manual are to serve as guidelines for the use of this equipment.
- 20. The use of this equipment is simple and straightforward if you follow the instructions. When operating this equipment, use common sense, and only use this Thermal Imaging Camera for its intended purpose.

#### PRODUCT DESCRIPTION

The OEMTOOLS™ 24552 Thermal Imaging Camera is a handy tool to visually detect high and low temperature with both heat-mapped color palettes and actual temperature reading. This easy-to-use thermal camera displays and saves images that can be reviewed later from a microSD card. With a broad temperature range of -4°F to 1,202°F, this versatile tool can be used for a wide variety of automotive, industrial, electrical and home applications.

electrical and nome applications.		
Feature	S	
LCD Display	1.8" 128x160 TFT	
Thermal Resolution	Resolution 32x32pixels	
Image Capture Frequency	9HZ	
Thermal Sensitivity (NETD)	≤150 mK	
Hot and Cold Spot Tracking	Yes	
microSD Memory Card	Yes (Not Included)	
Date/Time Setup Controls	Yes	
USB Interface	Yes (mini-USB cable)	
Temperature		
Temperature Measurement Range	-4°F to 1,202°F (-20 to 650°C)	
Temperature Measurement Accuracy	±2% as tested (at 25°C)	
On-Screen Emissivity Correction	Yes	
On-Screen Reflected Background	Yes	
Temperature Compensation	Yes	
Image Performance		
Image Capture Frequency	9 Hz	
Detector Type	Infrared Thermopile Array Sensor	
Infrared Spectral Band	6.5 μm to 14 μm	
Field of View	33° X 33°	
Focus Mechanism	Fixed Focus	
Image Presentation		
Selectable Palettes	3	
Level and Span	Auto	
Image Capture a	nd Storage	
Image Capture	Captured Thermal Image	
Storage Medium	microSD memory card (not included)	
File Format	.bmp	
Memory Review	Scroll through all saved images and view on-screen	
Power Requirements		
Batteries	(4) AAA (not included)	

# TOOLS

### THERMAL IMAGING CAMERA

### **SPECIFIC SAFETY INSTRUCTIONS AND WARNINGS**

**AWARNING:** Be sure to keep exposed skin and flammable clothing away from hot components being viewed with the Thermal Imaging Camera. Take appropriate precautions when working near electrical or

THIS DEVICE IS NOT FOR MEDICAL USE AND SHOULD NEVER BE USED AS A HEALTH OR MEDICAL CARE DEVICE.

**CAUTION:** Keep the Thermal Imaging Camera at a safe distance from hot components being viewed. Failure to due so may cause damage to the camera.

DO NOT point the Thermal Imaging Camera at strong energy sources such as devices that cause laser radiation, or the sun. This can negatively affect the accuracy of the camera and may cause damage to the detector in the camera.

DO NOT use the camera on temperatures higher than the rated maximum temperature. Exceeding the temperatures specified can cause damage to the camera.

DO NOT use solvents or harsh chemicals to clean the infrared lens. This can cause damage to the lens and prevent the camera from operating properly.

#### CONTENTS

1 Thermal Imaging Camera, 1 Storage Pouch, 1 Mini USB cable

### **INITIAL SETUP**

Carefully remove the unit from the packaging and visually inspect to familiarize yourself with the features and controls.



Figure	Description
1	Power Button
2	Infrared Lens
3	Mini USB Port and microSD Slot
4	Capture Image Trigger
5	Battery Cover

- 2. Using a small screwdriver, open the battery cover by removing the small screw that secures the cover. Install 4 AAA batteries, reinstall the battery cover, and tighten the screw. Be careful not to overtighten.
- Press and hold the power button, located at the top of the unit, for 2-3 seconds until the start screen appears.



Press the "OK" button on the control pad once. This will display the settings menu. Use the Arrow  $\triangle$  or  $\bigvee$  buttons to select the setting field that you want to adjust and press "OK".



SD Card

**⊊** Emissivity . 95

🔯 Date 14.03.2019

Temperature Unit

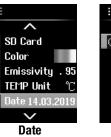
Color











( AutoOff OFF **Auto Shutoff** 

Once you have chosen the options that best suit your needs, use the Return button • to start using the unit.



### THERMAL IMAGING CAMERA

### **OPERATION**

- 1. To use the Thermal Imaging Camera, simply point at the object you want to check and view the LCD screen. You will see Maximum temperature indicated by a small red box as well as Minimum temperature indicated by a small green box. These values will display along the bottom of the LCD screen at all times. The Center of View is indicated by the -\(\frac{1}{2}\) located on the screen. The temperature at the Center of View is displayed along the top left corner of the LCD screen.
- 2. A battery power indicator is displayed when the thermal image is viewed
- To capture images, you must first install a microSD card into the slot.
   Once the microSD card is installed simply pull the trigger to capture thermal images. These can be reviewed later by accessing the memory card menu.
- To turn OFF the unit, press and hold the power button until the display is off.

### **CARE**

Use only a clean, soft cloth to clean the unit. A soft cloth dampened with warm water and mild detergent may be used on the grip and housing of the camera if necessary.

DO NOT splash water onto the Thermal Imaging Camera or submerge.

DO NOT use solvents or harsh chemicals to clean the infrared lens. This can cause damage to the lens and prevent the camera from operating properly.

### **STORAGE**

Store the Thermal Imaging Camera in the included storage pouch to ensure product longevity and accuracy. It is recommended to remove the batteries when stored for extended periods of time.



Figure	Description
1	Center Temperature
2	Storage Card
3	Battery Indicator
4	Minimum Temperature Value
5	Maximum Temperature Value
6	OK Key to Select Settings
7	Return Key
8	Menu Control Keys
9	Green Box – Minimum Temperature Location
10	Red Box – Maximum Temperature Location

### OEMTOOLS™ ONE YEAR WARRANTY

For up to one year from the date of purchase of this OEMTOOLS<sup>TM</sup> product, if you find any defect in material or workmanship (through normal usage), return it to the place of purchase or to OEMTOOLS<sup>TM</sup> for repair or replacement at our discretion. In order to obtain this service, send the product and proof of purchase (transportation pre-paid) to:

OEMTOOLS™ Q.A. Dept, 3580 E. Raines Road #3, Memphis, TN 38118.

We will not be responsible for lost or damaged goods during transportation; please insure your package. If our inspection verifies the defect, we will either repair or replace the product, or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

OEMTOOLS<sup>TM</sup> does not provide warranty for products labeled other than OEM® or OEMTOOLS<sup>TM</sup>. OEMTOOLS<sup>TM</sup> will not provide any warranty for products subjected to abnormal use. Abnormal use includes (but is not limited to) abuse, accident, alteration, neglect, and unauthorized or unreasonable use or repairs. This warranty does not cover bits, blades, files, batteries, or calibration. We recommend that you maintain your tools and sharpen or replace blades, bits, files, and batteries as necessary. OEMTOOLS<sup>TM</sup> reserves the right to make any changes in construction or design at any time without any obligation in incorporating such changes to tools or equipment previously sold.

OEMTOOLS<sup>TM</sup> makes every effort to ensure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of one year from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance.

We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Don't forget to register your new OEMTOOLS™ product at www.oem-tools.com.

### **CONTACT US**

3580 E. Raines Road, Suite 3, Memphis, TN 38118 Tel: 1-866-458-2472 www.oem-tools.com

