



ADA Instruments 256 Thermal imager ADA TemPro User Manual

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ADA INSTRUMENTS OPERATING MANUAL TEMPO VISION 256 PROFESSIONAL Infrared thermometer



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INTRODUCTION

ADA TemPro VISION 256 PROFESSIONAL is a portable temperature measurement infrared thermometer. It is equipped with laser, illumination and visible light, as well as PC connection interface and TF card support interface, meeting the requirements of using in various occasions.

SPECIFICATION

IR image & Optical

Detector type	256×192
Spectral	7.5~14μm
Frame Rate	25Hz/9Hz
Thermal Sensitivity / NETD	45 mk
Focal Length	3.2mm
Field of view(FOV)	56°×48°
Spatial Resolution(IFOV)	3.75mrad
Min focus distance	0.3m
D:S	266:1
Focus	fixed focus

Visible Camera

Visible Camera Resolution.....	2Mp
Flashlight.....	Yes

Image Display

Display	2.4 inches (IPS technology, TFT)
Display Resolution	240×320
Image Model	IR, Visible, Picture-in-Picture, MIF
Color Palettes	6:White Hot, Iron Red, Hot Iron, Arctic, Rainbow 1, Rainbow 2

Temperature Measurement

Temperature Range	-20°C-150°C, 100°C-550°C (Auto switching)
Accuracy	±2°C or ±2%, whichever is greater (target temp ≥0°C, ambient temp is 15°C ~ 30°C)
Measurement Area	Center spot
Measurement dots	3 (incl. max & min temp)
Auto Hot & Cold Spot Tracking	Yes
Alarm	Yes

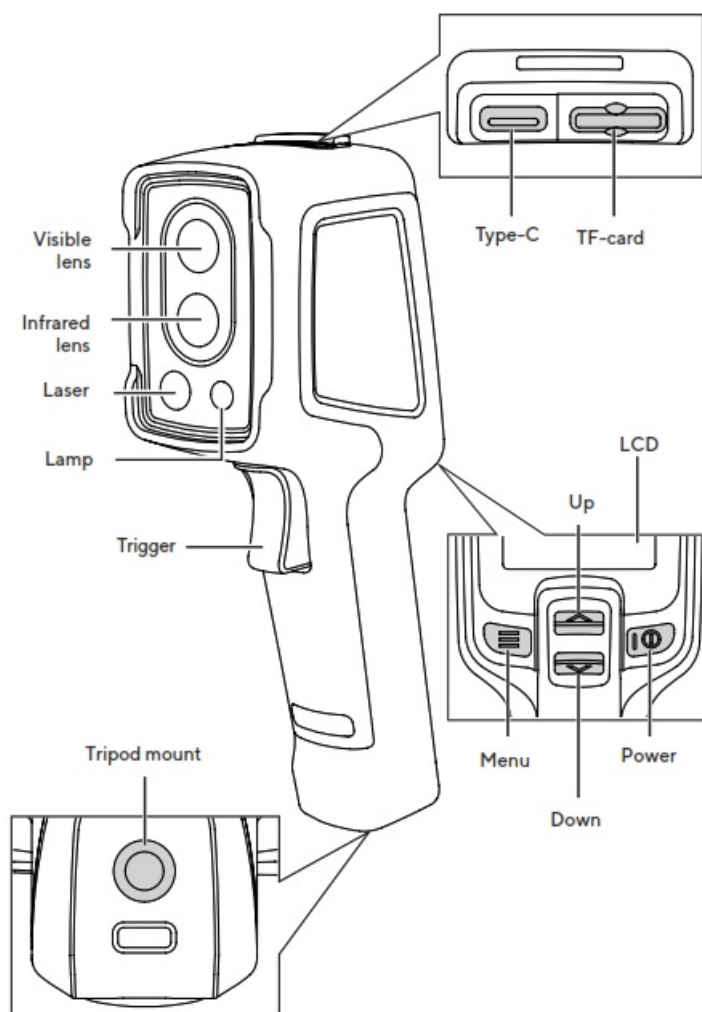
Image Storage

Storage Media	TF card (up to 32G)
IR Image Format	IR/MIF/PIP imaging mode: jpg format with temperature data (256*192) ;
Visible light imaging mode	Format jpeg without temperature data (240*320)

Connections & Communications



USBTYPE-C TF Card slot
 LaserYes
 Tripod interfaceYes
Power supply
 Battery TypeLi ion battery
 Battery Operating Time≤16 hours
 Charging Time≤2.5 hours
Environmental Parameters
 Operating Temperature.....-15°C~50°C
 Storage Temperature-40°C~70°C
 ProtectionIP54
 Weight.....375g
 Size194mm×61.5mm×76mm

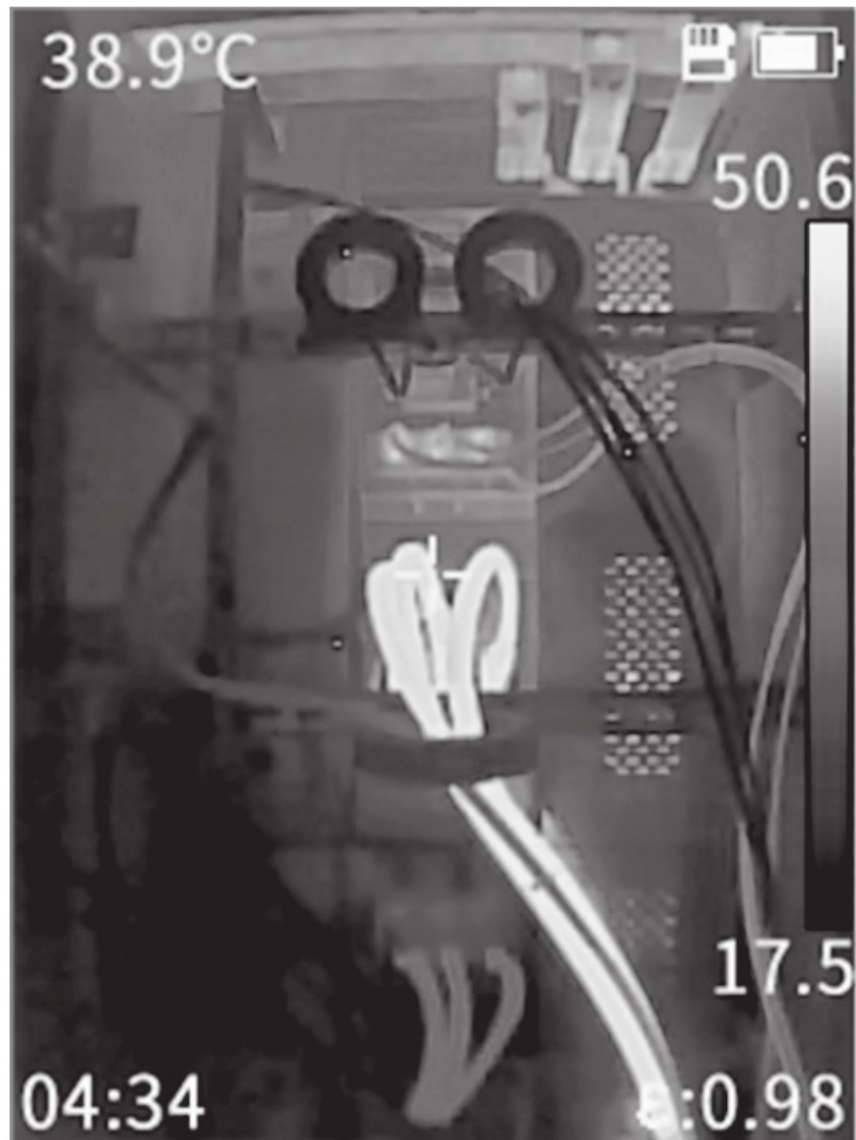
PRODUCT COMPONENT DESCRIPTION









OPERATION INSTRUCTIONS

Take photos and view

In the live surveillance interface, short press the “Trigger” button to take a photo, and then press the “” button to save the photo or the “” button to delete it according to the prompt on the interface.





View and delete images

1. Short press the “” button to access the menu.
2. Select the photo column by pressing “ ” buttons.
3. Short press the “” button to display the photo file.
4. Shortly press the “” button to view the photos. Press buttons Up or Down (if necessary) to display another photo.
5. To delete a photo, press shortly the “” button in the photo preview interface.

File export

1. Open the USB cover on the top of the device.
2. Connect the USB-Type C cable to the computer.
3. Enter the disk folder of the computer, select the image to be exported, copy it to the computer, and view the image files through the analysis software.
4. After copy is completed, disconnect the USB cable from the computer.

Image mode

In the surveillance mode, select the image mode through   of the remote control. The device supports four image modes: infrared mode, visible light mode, MIF mode and PIP mode.



Temperature measurement parameters

The temperature measurement parameters will affect the accuracy of the measured temperature. They need to be set before measurement.




- 1. Temperature measurement range: select the appropriate temperature measurement range according to the temperature of the measured target
- 2. Emissivity: The emissivity varies depending on the object being measured. The user can select a commonly used emissivity preset in the device or customize it.
- 3. Reflected temperature: influence of ambient temperature to the currently observed object.
- 4. Target distance: adjust the distance parameters of the device according to the distance of the measured target to make the temperature measurement more accurate.

OTHERS

Resetting and formatting SD card

- 1. Access the Setup Menu-Reset and press the “” button to confirm the reset.
- 2. This function resets your device to its factory defaults. Please operate carefully.
- 3. Access the Setup Menu-Formatting SD Card, and press the “” button to confirm the formatting.
- 4. This function will delete all files from the SD card, please operate carefully.

HIGH AND LOW TEMPERATURE ALARM

- 1. Short press the “” button to enter the menu.
- 2. Select the «Alarm» fuction.
- 3. Select high or low temperature by pressing the   button. Then switch on the alarm function by adjusting the alarm threshold.

EMISSIONS OF COMMON OBJECTS

Material	Emissivity	Material	Emissivity
Wood			
.....0.85			
Black paper.....		Rust	0.8
..... 0.86		Copper plate	0.
Water		06	
.....0.96		Gypsum	0.75
Polycarbonate		Dark aluminum	0.
..... 0.8		95	
Brick		Paint	
.....0.75		...0.9	
Concrete		Human skin	0.9
.....0.97		8	
Stainless steel		Rubber	0
.....0.14		.95	
Copper oxide		Asphalt	0.96
.....0.78		Soil	
Adhesive tape 0.93	
.....0.96		PVC plastics	0.9
Cast iron		3	
.....0.81			
Aluminum plate			
..... 0.09			

Fault	Cause	Measures
Start failure	Low battery	Start the device after charging for 10 minutes
	The plug of the external power supply is not plugged in place	Unplug, reconnect and push it into place
	Battery life has expired	Replace the battery with a new one
Infrared image is not clear	The lens is covered with water vapor or contamination	Clean the lens with dedicated device
Visible light image is not clear	The environment is too dark	Take proper lighting measures
	Water vapor or contamination in the front end of visible light	Clean the visible light front end with dedicated device
Inaccurate temperature measurement	The parameters related to temperature measurement are not set correctly	Change the parameter settings or restore the default parameter values directly
	Measure temperature immediately after startup	To ensure the accuracy of temperature measurement, we recommend to start temperature measurement after 5 ~ 10 minutes when the device is turned on

IMPORTANT

This manual is a general manual covering multiple thermographic cameras in a product line, which means that some functions and instructions are not applicable to certain model of thermographic camera.

NOTES

Please strictly observe the following rules at all times:

1. Keep the device as stable as possible to prevent shaking.
2. Do not use the device under unacceptable operating temperatures. Store the device in compliance with the storage temperature range.
3. Do not place the device with strong thermal emitters, such as the sun, lasers and spot welders.
4. Do not expose the device to dust or moisture. Avoid splashing water on the device when using it in a humid

environment. Cover the lens when not in use

5. Place the device and all its accessories into a special packing box when not using it.
6. Do not block any hole on the device.
7. To prevent damages do not hit, throw or vibrate the device or its accessories.
8. Do not disassemble the device to prevent damage and loss of warranty.
9. Do not use the CD card for other purposes.
10. Do not use the device in an environment exceeding its operating temperature so as to prevent possible damages.
11. Do not apply dissolvable or similar liquid to the device and cables so as to prevent possible damages.

The device is powered by a lithium-ion battery so users should strictly observe the following precautions:

- Never try to open or dismantle the battery.
- Do not place the battery in a high temperature environment or nearby a high temperature object.
- Do not short-circuit the battery.
- Do not put the battery in a moist environment or in the water.
- If battery fluid comes into contact with your eyes, immediately rinse your eyes with clean water and seek medical attention.
- Please charge the battery as directed in the manual and follow charging instructions and precautions. Wrong charging may heat or damage the battery or even cause injuries.
- Take out the battery if the device will not be used for a long time.

Please observe the following rules when wiping the device:

- Non-optical surface: if necessary, wipe the non-optical surface of the thermographic camera with a clean and soft cloth.
- Optical surface: when using the thermographic camera, please avoid soiling the optical surface of the lens, especially avoid touching the lens with your hands, because the optical coating on the glass surface may be corroded due to sweat on the hands. When the optical lens surface is contaminated, use special lens cloth to carefully clean it.

Battery precautions:

1. The battery can be charged repeatedly. However, the battery is a vulnerable part. If the device's standby time is significantly reduced, replace the battery with a new one.
2. If the device is operated for a long time, especially at high temperatures, its surface will become hot. When it warms up, stop using it and put it in the shade. Do not touch hot surfaces for a long time.
3. When charging the device, it is recommended to use original batteries and charging cables.
4. The battery charging time depends on the temperature and its wear and tear. 5. When the battery level is low, the device will display low battery message.
5. When the battery level is too low, the device will automatically turn off. 7. If the device does not turn on when you press the power button, means the battery is dead and the device can be started only after charging with the charger for more than 10 minutes.

WARRANTY

This product is warranted by the manufacturer to the original purchaser to be free from defects in material and workmanship under normal use for a period of two (2) years from the date of purchase. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with the same or similar model at manufacturer's option), without charge for either parts or labour.

In case of a defect please contact the dealer where you originally purchased this product. The warranty will not apply to this product if it has been misused, abused or altered. Without limiting the foregoing, leakage of the battery, bending or dropping the unit are presumed to be defects resulting from misuse or abuse.

EXCEPTIONS FROM RESPONSIBILITY

The user of this product is expected to follow the instructions given in operator's manual. Although all instruments left our warehouse in perfect condition and adjustment the user is expected to carry out periodic checks of the product's accuracy and general performance.

The manufacturer, or its representatives, assumes no responsibility of results of a faulty or intentional usage or misuse including any direct, indirect, consequential damage, and loss of profits.

The manufacturer, or its representatives, assumes no responsibility for consequential damage, and loss of profits by any disaster (earthquake, storm, flood ...), fire, accident, or an act of a third party and/or a usage in other than usual condition.

The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits due to a change of data, loss of data and interruption of business etc., caused by using the product or an unusable product.

The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits caused by usage other than explained in the user's manual.

The manufacturer, or its representatives, assumes no responsibility for damage caused by wrong movement or action due to connecting with other products.

WARRANTY DOESN'T EXTEND TO FOLLOWING CASES:

1. If the standard or serial product number will be changed, erased, removed or will be unreadable.
2. Periodic maintenance, repair or changing parts as a result of their normal runout.
3. All adaptations and modifications with the purpose of improvement and expansion of normal sphere of product application, mentioned in the service instruction, without tentative written agreement of the expert provider.
4. Service by anyone other than an authorized service center.
5. Damage to products or parts caused by misuse, including, without limitation, misapplication or negligence of the terms of service instruction.
6. Power supply units, chargers, accessories, wearing parts.
7. Products, damaged from mishandling, faulty adjustment, maintenance with low-quality and non-standard materials, presence of any liquids and foreign objects inside the product.
8. Acts of God and/or actions of third persons.
9. In case of unwarranted repair till the end of warranty period because of damages during the operation of the product, its transportation and storing, warranty doesn't resume.

WARRANTY CARD

Name and model of the product _____

Serial number _____

Date of sale _____

Name of commercial organization _____

stamp of commercial organization

Warranty period for the instrument exploitation is 24 months after the date of original retail purchase.


During this warranty period the owner of the product has the right for free repair of his instrument in case of

manufacturing defects.
Warranty is valid only with original warranty card, fully and clear filled (stamp or mark of thr seller is obligatory).
Technical examination of instruments for fault identification which is under the warranty, is made only in the authorized service center. In no event shall manufacturer be liable before the client for direct or consequential damages, loss of profit or any other damage which occur in the result of the instrument outage.
The product is received in the state of operability, without any visible dam- ages, in full completeness. It is tested in my presence. I have no complaints to the product quality. I am familiar with the conditions of qarranty service and i agree.
purchaser signature _____
Before operating you should read service instruction!
If you have any questions about the warranty service and technical support contact seller of this product



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Documents / Resources

	<p>ADA Instruments 256 Thermal imager ADA TemPro [pdf] User Manual 256 Thermal imager ADA TemPro, 256, Thermal imager ADA TemPro, imager ADA TemPro</p>
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References

-  [ADA Instruments](#)