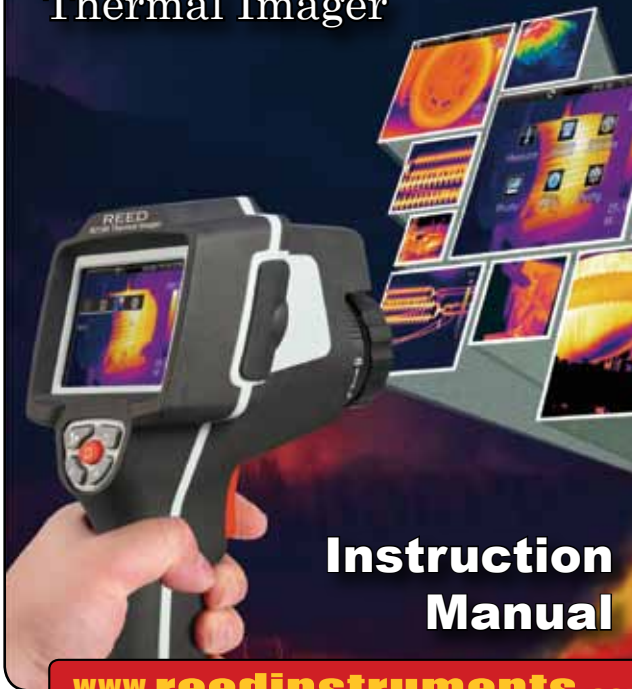


REED

Model R2100

Thermal Imager



Instruction Manual

[www reedinstruments com](http://www.reedinstruments.com)

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For service on this or any other REED product or information on other REED products, contact REED Instruments at info@reedinstruments.com



Safety

- To prevent eye damage and personal injury, do not look into the laser
- Do not point laser directly at people or animals or indirectly off reflective surfaces
- Do not disassemble or do modifications to the Thermal Imager
- Do not point the Thermal Imager (with or without the lens cover) at intensive energy sources as this can damage the Thermal Imager
- Do not use the Thermal Imager in a temperature higher than 50°C (122°F) or lower than -20°C (-4°F)
- Only use the correct equipment to charge the battery
- Do not disassemble or do a modification to the battery
- Do not put the battery in or near a fire, or in direct sunlight, or other high-temperature locations
- Always charge the battery between 0 to 50°C (32 to 122°F)
- Do not get water or salt water on the battery, or permit the battery to get wet
- Clean the case with a damp cloth and a weak soap solution
- Do not use abrasives, isopropyl alcohol, or solvents to clean the case or lens/screen
- Do not clean the infrared lens too vigorously, this can damage the anti-reflective coating
- Remove the battery from the Thermal Imager if not in use for an extended period of time
- Store the Thermal Imager in cool and dry environment

Features

- 3.5" colour TFT LCD capacitive touch screen with sun visor
- High thermal sensitivity (NETD) of <80mK
- Built-in laser and white LED flashlight
- Built-in visible light digital camera
- Includes 7.5mm (29.8 x 22.6° FOV) lens
- 20X continuous zoom
- Infrared and visual images, picture-in-picture, as well as visual image with infrared overlay
- Three spot, three area with min/max and average, two-line and isothermal measurement analysis
- Automatic lens recognition identifies the temperature calibration data associated with each of the interchangeable lenses
- Automatic hot/cold spot indicator
- Choice of six colour palettes including custom
- Automatic image capture
- Save images with voice annotations
- Video recording with voice annotations
- Micro SD memory card extension possible

Specifications

IR Resolution:	160 x 120 pixels
Field of View:	29.8 x 22.6°
Detector Type:	Uncooled microbolometer
Thermal Sensitivity (NETD):	< 0.08°C @ 30°C (86°F)/80 mK
Image Capture Frequency:	50Hz
Focus:	Manual
Temperature Range:	-20 to 400°C (-4 to 752°F)
Accuracy:	±2°C (±3.6°F) or ±2% of reading
Storage Medium:	4GB micro SD card

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Digital Camera Resolution:	640 x 480 pixels
Digital Lens Data:	FOV 62.3°
Video Format:	MPEG-4, 640x480 @ 30fps, on memory card >60 minutes
Image Format:	JPEG, on memory card >1000 pictures
Interface:	USB-mini, audio, composite video (PAL and NTSC), Micro SD slot
Drop Test:	2m
Encapsulation:	IP65
Laser:	< class 2
Operating Temperature:	-20 to 50°C (-4 to 122°F)
Storage Temperature:	-40 to 70°C (-40 to 158°F)
Operating/Storage Humidity:	10 to 90%RH
Power Supply:	7.4V lithium polymer rechargeable battery
Battery Life:	4.5 hours
Dimensions:	243 x 103 x 160mm (9.57 x 4.05 x 6.29")
Weight:	920g (32.45oz) (including battery)
Includes:	7.5mm lens, lens cap, micro SD memory card, video output cable, headset, USB cable, hood, tripod stand, shoulder strap, two batteries, charger, AC adapter, software CD(Multiple language) and hard carrying case
Optional Accessories:	20.6° 11mm Replacement Lens (RL-11) 10.4° 22mm Replacement Lens (RL-22) 6.9° 33mm Replacement Lens (RL-33) Spare Battery (R2100-7.4V)

REED Instruments offers certified thermography training. Contact REED Instruments at info@reedinstruments.com for complete information, dates and locations.



Instrument Description



- 1. Infrared Camera Lens
- 2. Trigger
- 3. LCD Display
- 4. Button Panel
- 5. Battery Compartment

- 6. LED Light
- 7. Visual Camera
- 8. Laser Pointer
- 9. Infrared Camera Lens Lock
- 10. Infrared Camera Lens



- 11. Hood
- 12. Thermal Imager
- 13. Tripod Base
- 14. Lens Cap

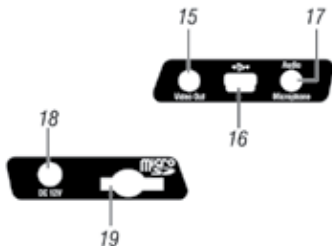
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


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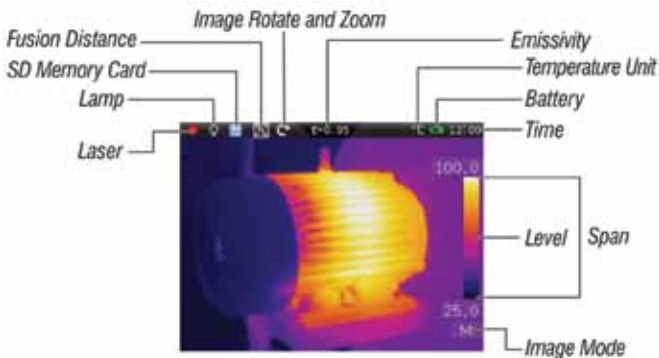
- 15. Video Output
- 16. USB Cable Connection
- 17. Audio/Microphone
- 18. AC Adapter/Charger Input Terminal
- 19. MicroSD Slot



Button Panel Description

-  HOME Button
-  Shutter Button
-  Power Button
-  Save Image Button
-  Laser Button

Display Description



Operating Instructions

Before you use the Thermal Imager for the first time, charge the battery for a minimum of 1.5 hours. To charge the battery, refer to the "Battery Instructions" section of this manual.

To turn the Thermal Imager on or off, press and hold the Power Button for three seconds. You can also turn the Thermal Imager off by pressing the Power Button, and sliding the arrow icon to the right.



Focus

Correct focus is important in all imaging applications. Without the correct focus, the image can be blurry and the radiometric data will be inaccurate. Out-of-focus infrared images are frequently unusable or of little value. This Thermal Imager has focus-free in manual mode. To adjust the focus rotate the IR lens.

Shutter

A shutter is pivoted into the ray path in order to make a temperature reference available for image correction. The self calibration shutter in this Thermal Imager can be set to Manual or Auto. To manually activate the shutter, press the Shutter Button. To activate or adjust the shutter Auto Mode please refer to the Settings Menu section of this manual.

Optical Lens

Rotate the Lens Lock counter-clockwise to remove the optical lens. The optical lens that is supplied with the Thermal imager has the following specifications:

Focal Length:	7.5mm	Horizontal FOV:	29.8°
IFOV:	3.33mrad	Vertical FOV:	22.6°

Emissivity

This Thermal Imager measures infrared energy from the surface of the object and uses this data to calculate an estimated temperature value.

Surfaces that are good at radiating energy (high emissivity), the emissivity factor is ≥ 0.90 . Shiny surfaces or unpainted metals are not good at radiating energy (low emissivity) have an emissivity of < 0.6 .

To more accurately measure materials with a low emissivity, an emissivity correction is necessary. Emissivity is set directly as a value or from a list of emissivity values for some common materials. The global emissivity displays on the LCD Screen as "E=x.xx".

The following table gives typical emissivity of some materials:

Material	Emissivity	Material	Emissivity
Asphalt	0.95	Drywall	0.95
Concrete	0.95	Render	0.94
Hard plaster	0.90	Smoothing cement	0.90
Wood (natural)	0.93	Lacquer	0.92
Lime Stone	0.98	Latex paint	0.97
Ballast chipping	0.95	Wallpaper	0.93
Paper (every color)	0.95	Tiling	0.93
Plastics non film	0.95	Parquet floor	0.90
Tissue (fabric)	0.95	Laminate	0.90
Sand	0.90	PVC-Floor	0.92
Glass wool	0.90	Brick	0.93
Melted asphalt	0.93	Cliff	0.97
Screed/pavement	0.93	Roofing cardboard	0.93
Foamed polystyrene	0.94	Stucco	0.91

Reflected Temperature

Using the offset factor, the reflection is calculated out due to the low emissivity and the accuracy of the temperature measurement is improved. In most cases, the reflected temperature is identical to the ambient air temperature. Only when objects with strong emissions of a higher temperature are in the proximity of the object being measured should be determined and used. The reflected temperature has only little effect on objects with high emissivity. The reflected temperature can be set individually.

Follow these steps to get the right value for the reflected temperature:

1. Set the emissivity to "1.0"
2. Adjust the optical lens to near focus
3. Looking in the opposite direction away from the object, take a measurement and save the image
4. Determine the average value of the image and use that value for your input of reflected temperature

Thermal Imager Reporter Software


Reporter Software is supplied with this Thermal Imager. This software contains features to analyze images, organize data and information, and make professional reports. The Thermal Imager Reporter Software allows audio annotations and commentary to be reviewed on a PC.

Main Menu

Press the Home Button, or tap the screen to enter the Main Menu.
The following menus are available:


- Measure:** Set the calculation and display of radiometric temperature measurement data related to the thermal images
- Image:** Adjust the display on the LCD
- Camera:** Contains the snapshot, video, text and audio annotation functions
- Photo:** Review, delete, zoom, and rotate images saved on the SD Memory Card
- Play:** Review, delete, and play video files saved on the SD Memory Card
- Settings:** Set user preferences such as language, unit of temperature measurement, unit of distance, date, time, and more





Measurement Menu

In the Main Menu, press the  icon to access the Measurement Menu. The Measurement Menu contains Point Measurement, Line Measurement, Area Measurement, and Measurement Settings.




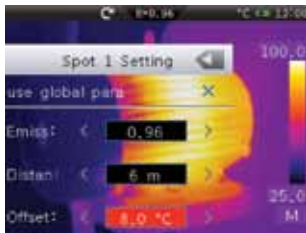
Point Measurement

In the Measurement Menu, press the  icon to access the Point Measurement Menu. There are 3 points to measure, and each point has three modes: manual mode, maximum temperature capture, and minimum temperature capture. Each point can use global parameter settings or custom parameters to set the measuring parameters.

Press on Spot 1, 2, or 3 to activate the corresponding point of the temperature measurement. Press the  icon to enter the Point Submenu. Press on "Manual" to select the point manually. The current point's icon will turn to . Press on "Max" to select maximum temperature capture mode. The current point's icon will turn to . Press on "Min" to select minimum temperature capture mode. The current point's icon will turn to .




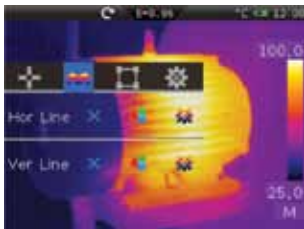
While in the Point Submenu, press the  icon to set the point parameters. Press on "use global para" to check or un-check the use of global parameters for measuring. When global parameters is selected, "Emiss", "Distain", and "Offset" are disabled. Click on the left or right arrows to adjust the parameters.




- | | |
|-----------------|---|
| Emiss: | Object emissivity, value range is 0.01 to 1.00 |
| Distain: | Object distance, the value range is 0 to 5000 |
| Offset: | Object offset, the value range is -100 to 100°C |


Line Measurement

In the Measurement Menu, press the  icon to access the Line Measurement Menu. There are 2 lines to measure. Each line can use global parameter settings or custom parameters to set the measuring parameters. Press "Hor Line" and "Ver Line" to check and un-check them.



Press the  icon to set the amount of rows and columns. "Row" sets the amount of rows, with a range of 1 to 240. "Column" sets the amount of columns, with a range of 1 to 320.




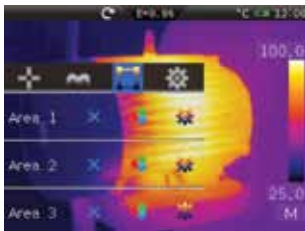
Press the  icon while in the Line Measurement Menu to set the Line Parameters. Press "use global para" to check or un-check global parameters for measuring. When global parameters is selected, "Emiss", "Distain", and "Offset" are disabled. Click on the left or right arrows to adjust the parameters.






- | | |
|-----------------|---|
| Emiss: | Object emissivity, value range is 0.01 to 1.00 |
| Distain: | Object distance, the value range is 0 to 5000m |
| Offset: | Object offset, the value range is -100 to 100°C |


Area Measurement

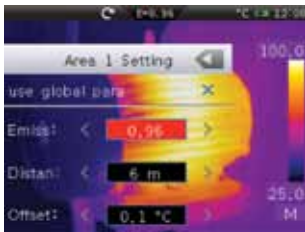
In the Measurement Menu, press the  icon to enter the Area Measurement Menu. There are 3 areas to measure and each area has the measurement of maximum temperature, minimum temperature and average temperature. Each area can also use global parameter settings or custom parameters to set the measuring parameters.



Press on Area 1, 2, or 3 to activate the temperature measurement of the corresponding area. Press the  icon to set the area mode. Press on "Max" to select maximum temperature capture mode. The  icon shows the maximum temperature of the area. Press on "Min" to select minimum temperature capture mode. The  icon shows the minimum temperature of the area. Press "Averg" to display average temperature of the area.




Press the  icon while in the Area Measurement Menu to adjust the Area Parameters. Press "use global para" to check or un-check global parameters for measuring. When global parameters is selected, "Emiss", "Distain", and "Offset" are disabled. Click on the left or right arrows to adjust the parameters



- | | |
|-----------------|---|
| Emiss: | Object emissivity, value range is 0.01 to 1.00 |
| Distain: | Object distance, the value range is 0 to 5000m |
| Offset: | Object offset, the value range is -100 to 100°C |

Measurement Settings

In the Measurement Menu, press the  icon to enter the Measurement Settings Menu. This menu contains Global Parameters Setting, Measure Parameters Setting and Alarm Settings.

Global Parameters Setting

Press "Global Para" to adjust the global parameters settings. Press "Reset Para" to reset all measurement parameters to the factory defaults. Press "Yes" to reset global parameters, press "No" to cancel.

Factory default parameters are:

Emissivity:	0.95
Distance:	5m
Ambient temperature:	25°C
Humidity:	60%
Reflection temperature:	25°C
Offset:	0.0°C

Measurement Settings

In the Measurement Settings Menu, press on "Measure Setting" to display the current infrared optical lens, and also adjust the temperature measurement range, ambient temperature, humidity, and reflection temperature. The standard lens is 7.5mm. The temperature measurement ranges are "-20 to 150°C" and "0 to 400°C". The overlap temperature of the two ranges is more accurate to choose "-20 to 150°C".



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The ambient temperature, humidity and reflection temperature are important for radiometric temperature measurement. This Thermal Imager has temperature compensation for these values. To get more accurate temperature measurement you need to accurately set the ambient temperature, humidity, and reflection temperature. In most cases, the reflected temperature is identical to the ambient temperature. Only when objects with strong emissions with much higher temperature are in the proximity of the object being measured, the reflected temperature is different of the ambient temperature and must set the temperature of environment. Press the left or right arrows to adjust the measurement settings.

Alarm

In the Measurement Settings Menu, press on "Alarm" to check the Alarm on or off. Press the  icon to adjust the Alarm settings. There are 3 kinds of alarm modes: Above, where the alarm will sound if temperature goes above a set point; Below, where the alarm will sound if temperature goes below a set point; and Equal, where the alarm will sound if temperature equals a set point. Press the left and right arrows to adjust the following parameters:



- Target:** Sets the target of temperature alarm, there are 3 kinds of choices: Spot 1, Spot 2, and Spot 3
- Mode:** Sets the alarm mode to "Above", "Below", or "Equal"
- Temp:** Sets alarm temperature value

Image Menu



In the Main Menu, press the  icon to access the Image Menu. The Image Menu contains Image Mode, Image Palette, Image Adjust, and Image Setting.

Image Mode

In Image Menu, press the  icon to enter the Image Mode Menu. Press the left and right arrows to change the image mode. This Thermal Imager has 6 kinds of image modes for display.

- IR:** Displays only infrared image
- Visible:** Displays only visible image
- IR_PIPE_VIS:** IR display with small visible picture
- VIS_PIPE_IR:** Visible display with small IR picture
- IR_Mix_VIS:** IR display with visible picture overlay
- VIS_Mix_IR:** Visible display with IR picture overlay

In IR_PIPE_VIS and VIS_PIPE_IR mode, there are four options for image pipe position: top left (TL), bottom left (BL), bottom right (BR), and top right (TR). In "Position: XX", press the left and right arrows to change picture-in-picture position.



In IR_Mix_VIS and VIS_Mix_IR mode, in "Size: XX", press the left and right arrows to change image mix size. There are two options: Half or Full. In "Blend: XX%", press left arrow or right arrows to change image mix percentage. The range is 0 to 100%.

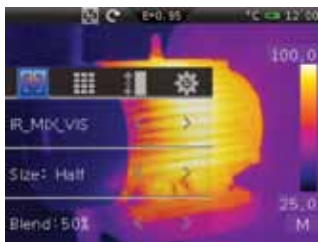

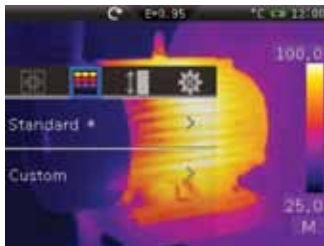


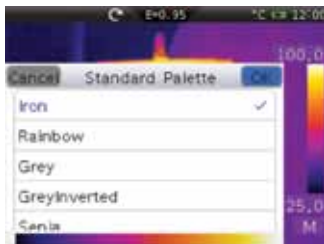
Image Palette

In the Image Menu, press the  icon to enter the Image Palette Menu. The Image Palette lets you change the false-colour presentation of the infrared images on display or captured. A variety of palettes are available for specific applications. This Thermal Imager has standard and custom palettes. The standard palettes offer an equal, linear presentation of colors that allow for best presentation of detail. The custom palettes allow user to customize personal palettes. The * icon represents the current image palette in the corresponding group.



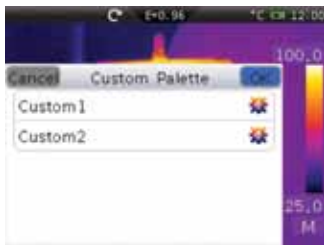
Standard Palette

Press the Standard icon to access the Standard Palette Menu. It shows eight kinds of palettes: IRON, Rainbow, Grey, GreyInverted, Sepia, Blue_Red, Hot_Cold, and Humidity. Press "OK" to select a palette, and "Cancel" to keep the present palette.



Custom Palette

Press the Custom icon to access the Custom Palette Menu. Ten Custom Palettes can be saved at a time. Press "OK" to select a palette, and "Cancel" to keep the present palette. To add, remove and rename custom palettes press and hold the Custom Palette Menu.




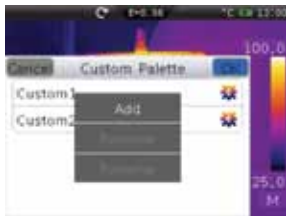
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Press the  icon to adjust a Custom Palette. The colour bar to the right displays the current palette. Every colour value is based on liner gradient. "0.0" is the minimum value, "50.0" is the maximum value. There are 3 scales which the value is based on: position, minimum value and maximum value. Press and move the scale to change the position.

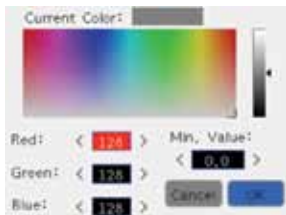



Press "0.0" or "50.0" to adjust the minimum or maximum parameter settings. Click the colour bar to choose a colour, "Current Colour" shows the selected colour. "Red", "Green", and "Blue" shows the RGB value of selected colour. Press the left or right arrows to change the value. Press "OK" to save and "Cancel" button to cancel parameter settings.



Press a scale to change the parameter settings. Press "Enable" to switch on (checked) or off (unchecked). Click the colour bar to choose a colour.

"Current Colour" shows the selected colour. "Red", "Green", and "Blue" shows the RGB value of the selected colour. Press the left or right arrows to change the corresponding value. Press "OK" to save the parameter settings and "Cancel" to cancel parameter settings.



If "Enable" is checked the linear gradient in this scale is switched on. The  icon will appear on the top of scale. If "Enable" is unchecked, linear gradient in this scale is disabled and the icon will disappear.

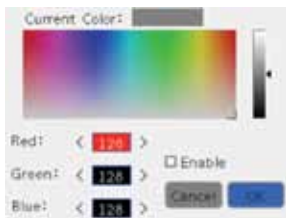


Image Adjustment

In the Image Menu, press the  icon to access the Image Adjustment Menu. There are 3 kinds of modes for thermal image adjustment:

- All Auto:** Level and span are set by the thermal image of minimum and maximum temperature
- Histogram:** Level and span are set by the histogram of thermal image temperature
- Manual:** Level and span are set by values set by the user


Press the left and right arrows to change the image adjustment.



In Manual mode, press "Adjust" to adjust the level and span. Press left or right arrows to change value. Press "Level" to jump to "Span" and vice-versa.




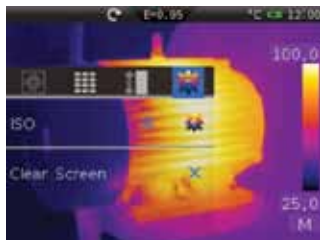
Image Setting

Press the  icon in the Image Menu to access the Image Setting Menu. You can select between ISO or Clear Screen.

ISO: Displays a set colour for infrared image and which temperature is in the given range

Clear Screen: Show only the image in the screen

Press ISO to check isothermal analysis (ISO) on and off. Press the  icon to enter the ISO Menu, where you can adjust the ISO temperature, range, and colour.



Isothermal mode consists of Inter, Above, and Below.

Inter: Infrared image which the temperature in the range of $[\text{Level}-\text{Width}/2, \text{Level}+\text{Width}/2]$ is set to Colour


Above: Infrared image which the temperature is greater than $\text{Level}+\text{Width}/2$ is set to Colour



Below: Infrared image which the temperature is less than $\text{Level}-\text{Width}/2$ is set to Colour

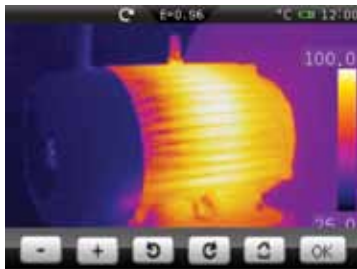
Black, White, Green, and Red are available to select. Press the left or right arrows to select the colour.






Zoom and Rotation

This Thermal Imager has 1 to 20x continuous zoom and 0 to 360° rotation. Press the  icon on the top-left of the display to enter the Zoom and Rotation Menu.

Press the  and  icons to zoom in and out by increments of 10%. The zoom % is displayed on the top-right corner of the LCD.




Press the  and  icons to rotate the image by 1° clockwise and counter-clockwise. The angle of rotation is displayed on the top-right corner of the LCD.


Press the  icon to revert the image back to it's original state.


Press "OK" or the Home Button to exit the Zoom and Rotation Menu.


Camera Menu

In the Main Menu, press the  icon to access the Camera Menu.

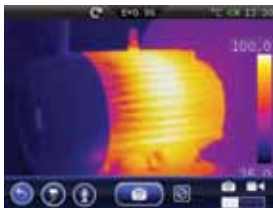
Press the  icon to exit the Camera Menu.

Press the  icon to take a snapshot.


Press the  icon to save the snapshot.


Press the  icon to delete the snapshot.

You can also press the Save Image Button to save the snapshot.




Sound Annotation

When no snapshot is taken, press the  icon to enter the Sound Annotation Menu.

Press the  icon to begin recording sound.


Press the  to stop recording.

Press the  button to save the recording.

Press the Home Button to delete the recording and exit.





Text Annotation

When no snapshot is taken, press the  icon to enter the Text Annotation Menu.


Press the  icon to save.



Video Menu

Press the  icon to switch between the Camera Menu and the Video Menu. Press the  icon to start recording video.

Press the  icon to stop recording.

Press the  icon to exit the Video Menu.

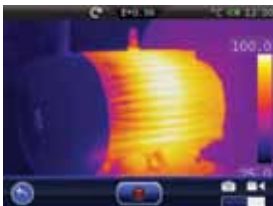


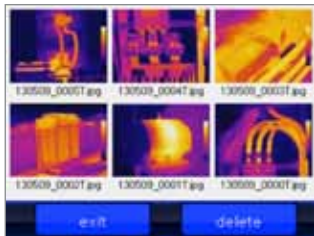


Photo Browser








In the Main Menu, press the  icon to access the Photo Browser Menu. The Photo Browser Menu displays all photos saved on the SD Card.

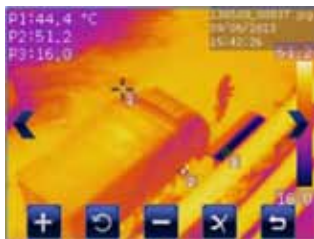
Multi-Photo Browser

Slide your finger on the screen from left to right to display the next page of images. Press the Home Button to exit the Photo Browser. Press "delete" to show the delete menu. Press on an image to select it. The  will appear on the image confirming it is selected. Press "Select All" to select all of the images. Press "delete" to delete the selected images.





Single-Photo Browser

In the Multi-Photo Browser, press on any photo to open it up in full screen. Press on the photo again to view the photo interface. Press the  and  icons to scroll through the images. Press the  and  icons to zoom in and out of the image. Press the  icon to rotate the image. Press the  icon to delete the image. Press the  icon to exit the Single-Photo Browser.








Video Browser

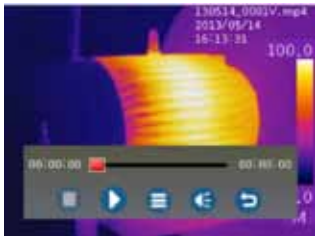
In the Main Menu, press the  icon to access the Video Browser Menu. The Video Browser Menu displays all photos saved on the SD Card.

Slide your finger on the screen from left to right to display the next page of videos. Press the Home Button to exit the Video Browser. Press "delete" to show the delete menu. Press on a video to select it. The  will appear on the video confirming it is selected. Press "Select All" to select all of the videos. Press "delete" to delete the selected videos.



Press on a video thumbnail to enter the video player menu.

Press the  icon to open and close the video player menu. Press the  icon to play the video. Press the  icon to stop the video. Press the  icon to adjust the volume. Press the  icon to exit the video and to return to the Video Browser Menu.



Settings Menu

In the Main Menu, press the  icon to access the Settings Menu. The following menus are available:

- | | |
|------------------------------|---|
| General Menu: | Settings for language, analog output, temperature precision, temperature unit, and distance unit |
| Control Menu: | Settings for lamp, LCD brightness, auto shutter, and auto power off |
| Photos Menu: | Settings for auto-save snapshot, and auto-save interval |
| Date & Time Menu: | Settings for the date, time, AM/PM, and format |
| Info Menu: | Displays the factory model number, production date, production number, version, and SD memory card capacity |

General Menu

Press on "General" to open up the General Menu.



Language Selection

Press on "Language" to enter the Language Submenu. Press on the desired language to select it and press "OK" to save.



Analog Output

Press on "Output" to set the analog output mode. You can choose between Off, PAL, and NTSC.

Temperature Precision

Press on "Precision" to adjust the temperature precision. You can choose between Single (one decimal place) and Double (two decimal places).

Temperature Unit

Press on "Temp Unit" to switch the temperature unit to °C, °F, and K.

Distance Unit

Press on "Len Unit" to switch the distance unit between Meters and Feet.

Control Menu

Press on "Control" to open the Control Menu.

Lamp

Press on "Lamp" to turn the Thermal Imager lamp on and off.

Brightness

Press on "Brightness" to adjust the LCD brightness. The lower the brightness is the less battery power will be consumed.



Auto Shutter

Press on "Auto Shutter" to adjust the auto shutter. You can select between Off, 30 seconds, 1 and 2 minutes. Press on the option to select it. Press "OK" to save the selection.



Auto Screen Off

Press on "Screen Off" to adjust the auto screen off setting. The screen will go dark after a selected amount of time of inactivity to conserve batteries. You can select between Off, 1, 2, and 5 minutes. When the LCD goes dark, just tap it or press a button to turn it back on.



Auto Power Off

Press on "Power Off" to adjust the auto power off setting. The Thermal Imager will turn off after a selected amount of time of inactivity to conserve batteries. You can select between Off, 5, 10, and 30 minutes.



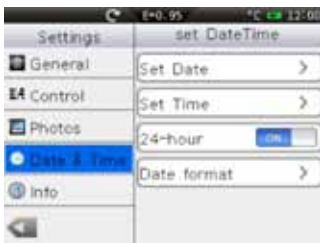
Photo Menu

Press on "Photos" to access the Photo Menu. The Thermal Imager can be set to automatically save photos. Press on "Repeat" to turn the setting on. Press on "Period" to adjust the interval value.



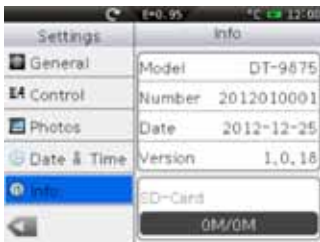
Date & Time Menu

Press on "Date & Time" to access the Date & Time Menu. Press on the options to adjust the date, time, and format.



Info Menu

Press on "Info" to view the Info Menu. The Info Menu contains the factory model number, production number, production date, version, and SD memory card capacity.



Factory Settings

The Thermal Imager factory settings are as follows:

Item	Parameter	Value
Measurement	Spot Measurement	Off
	Line Measurement	Off
	Area Measurement	Off
	Isothermal Analysis	Off
Measurement Parameters	Emissivity	0.95
	Distance	5m
	Ambient Temperature	25°C
	Reflected Temperature	25°C
	Humidity	60%
	Offset	0.0°C
Image	Mode	Infrared
	Palette	Iron
	Adjustment	Auto
System Setting	Language	English
	Analogy Output	Off
	Lamp	Off
	LCD Brightness	100%
	Auto Shutter	Off
	Auto Photos	Off
	Screen Off	Off
	Power Off	Off

Battery Instructions

Before you use the Thermal Imager for the first time, charge the battery for a minimum of 1.5 hours. The battery status shows on the three-segment charge indicator. To charge the battery, use one of the following options:

Battery Charger Base

1. Connect the AC power adapter into the AC wall outlet and connect the DC output to the charger base
2. Put battery into the charger base
3. Charge the batteries until the indicator shows it is full
4. Remove the battery and disconnect the power supply when batteries are fully charged

AC Power Socket

1. Connect the AC power adapter into the AC wall outlet and connect the DC output to the Thermal Imager's AC power socket
2. The battery indicator in the upper right corner of the display will show the battery filling with bars
3. Charge until the charge indicator on the display shows full bars
4. Disconnect the AC power adapter when the battery is full charged

Make sure that the Thermal Imager is near room temperature before you connect it to the charger. Do not charge in hot or cold areas. When you charge in extreme temperature, battery capacity may be decreased.

WARNING

When inserting the battery be sure to look inside the unit and have the pins line up with the holes on the battery. The arrow on the bottom will face the back of the camera. If you force it in the wrong way you may break the pins and permanently damage the camera.

For service on this or any other REED product or information on other REED products, contact REED Instruments at info@reedinstruments.com

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