


PosiTector® **IRT**

Infrared Thermometer

 On-Gage Help Reference

Ayuda en el Medidor | On-Gerät-Hilfe | Aide sur l'instrumentation



DeFelsko®
The Measure of Quality

Introduction

This Reference is a compilation of the On-Gage Help that is available on your PosiTector gage. To view these help items on the gage, enter the gage menu and touch the  icon or press the  button with the desired menu item selected.

For an overview of the use and operation of your instrument, refer to its included Instruction Manual or download a digital PDF at www.defelsko.com/manuals.

Update your gage to ensure your PosiTector includes these latest help references. Instructions are available at www.defelsko.com/updates.

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Memory

The PosiTector IRT Standard has internal memory storage for recording measurement data. Stored measurements can be reviewed on-screen or downloaded to a computer. Measurements are date and time-stamped. Store up to 1000 readings (per probe) into a single batch.

The memory icon appears and basic statistics are displayed when the Gage is set to store measurement data.

NOTE:

Remove the last reading by pressing (-).

View

Use the Up or Down buttons to scroll through information, statistical summary, and a list of each reading in the currently opened batch. Press the center navigation button to exit.

Off

Turns memory off and stops recording (stored readings remain in memory)

On

Turns memory on and begins recording measurements.

Clear

Removes all stored readings from memory.

Statistics

Menu option for configuring Statistics and HiLo Alarm modes.

Statistics

Statistics mode continually displays/updates average, standard deviation, min/max thickness and number of readings while measuring.

When selected, the statistics icon and statistical summary will appear on the display.

Ignore the last measurement by pressing the (-) button. Press (+) to clear statistics.

Clear

Clears all on-screen Statistics and HiLo tabulations.

HiLo Alarm

Allows the Gage to visibly and audibly alert the user when measurements exceed user-specified limits.

When HiLo Alarm is selected, the current Lo setting is displayed. Adjust using the (-) or (+) buttons. Select Next to accept this value. The current Hi setting is now displayed. Repeat to adjust the Hi setting.

Each measurement will be compared to the defined Hi and Lo limits. The Gage beeps if results are within those limits. A single low tone will sound if the reading is below the Lo limit, and a high tone if it is above the Hi limit. Press (+) to clear HiLo readings.

The Statistics icon will appear on the display.

Cal Reset

Resets all user calibration adjustments and restores factory calibration for the connected probe.

Setup

Set configuration options for the Gage.

Set Clock

All measurements are date and time stamped (24 hour format) when stored into memory. It is therefore important to keep both the date and time current using this menu option. Use the Up and Down buttons to scroll, and the (-) and (+) buttons to adjust value. The Gage's date and time can also be viewed in Gage Info and on top of the main menu.

Reset

Restores factory settings and returns the Gage to a known condition. The following occurs:

All batches, stored datasets, batch names and screen captures are erased.

Menu settings are returned to the following:

Memory = OFF
Statistics Mode = OFF
HiLo Alarm = OFF
Min Scan = OFF
Trend Chart = None
Auto Dim = ON
Bluetooth & Stream = OFF
BLE Keyboard = OFF
WiFi & Access Point = OFF
Display = None
Laser Pointer = OFF

Perform a more thorough Hard Reset by powering down the Gage, waiting several seconds, then simultaneously holding both the center navigation and (+) buttons until the Reset symbol appears. This returns the instrument to a known, out-of-the-box condition. It performs the same function as a menu Reset with the addition of:

Bluetooth Pairing info is cleared. Menu settings are returned to the following status:

Units = Celsius
Touch = ON
Flip Lock = OFF

Auto Sync .net = ON
Sound = Medium
Language = English
Emissivity = 0.95
Battery Type = Alkaline
Backlight = Normal
Bluetooth Smart = OFF
USB Drive = ON

NOTE:

Date, Time and WiFi are not affected by either Reset.

Units

Converts the display from Celsius (°C) to Fahrenheit (°F) and vice versa.

Battery Type

Selects the type of batteries used in the Gage from a choice of Alkaline, Lithium or NiMH (nickel-metal hydride rechargeable). The battery state indicator symbol is calibrated for the selected battery type. No damage will occur if the battery type used in the Gage does not match the selected battery type.

Sound

Adjusts the volume of built-in speaker (Off, Low, Medium, High).

Trend Chart

Turns the trend chart on. The trend chart can also be turned on by pressing the Up button from the main screen.

Touch

Allows the touch screen functionality to be disabled. All gage functions can also be controlled using the navigation buttons.

Emissivity

Sets the emissivity ratio for the PosiTector IRT infrared temperature sensor.

Emissivity refers to a material's ability to emit infrared energy, compared to an ideal black surface at the same temperature. The ratio varies from 0 to 1, and each material has a specific emissivity associated with it. The PosiTector IRT has built in emissivity settings for certain materials as well as a user-adjustable emissivity option.

Most organic and painted surfaces have an emissivity of around 0.95, and are ideal surfaces for accurate infrared temperature readings. Shiny or reflective surfaces can be difficult to measure with an infrared thermometer, as they tend to reflect ambient infrared energy instead of their own. To compensate for this, cover such surfaces with flat paint or a piece of electrical tape. Allow the paint or tape to acclimate to the surface's temperature, and take a measurement over the paint or tape.

Select Custom to manually adjust the emissivity value or to adjust to a known temperature. Emissivity is automatically calculated when adjusting to a temperature. See NOTE below.

Alternatively, use one of the following preset options:

Aluminum (rough) = 0.07
Plastics = 0.94
Zinc (Galvanized) = 0.25
Steel (Oxidized) = 0.95
Concrete = 0.54
Wood = 0.95
Paint = 0.96

NOTE:

Depending on surface treatment, metals such as blasted steel can have a broad range of emissivity values. Adjusting to a known temperature (measured by a direct contact surface temperature probe) on a representative sample will assist in obtaining an accurate emissivity value.

Backlight

Selects display brightness (Sun, Normal or Night).

Flip Lock

Disables the Auto Rotate feature by locking the display in its current orientation.

Language

Converts displayed and printed words to the selected language.

Gage Info

Displays the model number and serial number, probe type and serial number, PosiSoft.net registration key, the amount of remaining memory for storage of readings, date and time, and software packages.

For security purposes, the registration key is required to add the Gage to your free PosiSoft.net account.

Laser Pointer

Select to activate the laser pointer. The laser helps aim the infrared temperature sensor. The laser pointer symbol is displayed on the screen when the laser is active.

Shortcut

Press the Down button to toggle the Laser Pointer On/Off.

Connect

Configure communication and connection options for the Gage.

USB

Connect the Gage to a PC/Mac using the supplied USB-C cable. View and print readings and graphs with universal web browsers/file explorers or using PosiSoft Desktop.

NOTE:

While connected, power is supplied through the included USB-C cable. The batteries are not used and the body will not automatically power down.

Sync.net Now

When selected, the Gage immediately synchronizes stored measurement data to PosiSoft.net (USB connection required to a computer running PosiSoft Desktop).

Alternatively, select Auto Sync.net from within the USB connect menu to automatically synchronize upon connection to a PC. Additional measurements added to memory while connected are synchronized only when the USB cable is disconnected and reconnected, or when the Sync.net Now option is selected.

NOTE:

PosiSoft Desktop is required when using USB connections to synchronize measurements with PosiSoft.net.

USB Drive

When USB Drive is enabled, the PosiTector is recognized as a USB mass storage device which provides a simple interface to retrieve stored data in a manner similar to USB flash drives and digital cameras. USB Drive is also required to import stored measurements into PosiSoft Desktop. Once connected, any computer can view measurements stored in memory by navigating a virtual drive labeled PosiTector using the supplied USB-C cable.

NOTE:

While connected, power is supplied through the included USB-C cable. The batteries are not used and the body will not automatically power down.

JSON Files

When enabled (default), JSON schema files will be available in PosiSoft USB drive. Files can be parsed in to databases and custom software applications.

NOTE:

Disabling this option may reduce the time required for the computer to recognize the PosiTector when first connected via USB.

HTML Report

When enabled (default), a formatted HTML report is viewed by selecting the index.html or START_HERE.html file found in the root directory. Optionally, text (.txt) files located in each batch folder provide access to measurement values. Stored readings and graphs can be viewed or copied using universal web browsers or file explorers.

NOTE:

Disabling this option may reduce the time required for the computer to recognize the PosiTector when first connected via USB.

Auto Sync .net

When enabled, measurements will automatically synchronize with PosiSoft.net when connected to a computer running PosiSoft Desktop. Additional measurements added to memory while connected are synchronized only when the USB cable is disconnected and reconnected, or when the Sync.net Now option is selected.

NOTE:

PosiSoft Desktop is required when using USB connections to synchronize measurements with PosiSoft.net.

Updates

Determines if a software update is available for your Gage.

To perform an update the Gage must be connected to an internet connected computer running PosiSoft Desktop.

See www.defelsko.com/update

WARNING:

The Gage will perform a Hard Reset after an update. All stored measurements will be erased from memory.

Help

When a Menu option is highlighted, the (i) icon indicates on-gage help is available. Press (+) or touch the (i) icon to display the help. Update your gage to ensure that you have the latest on-gage help information.

A formatted PDF containing all on-gage help items is available at www.defelsko.com/help.

Menu Operation

To access the Menu, power-up the gage, then press the center navigation button. Either the keypad or touch screen can be used to navigate the menu. If desired, touch screen functionality can be disabled within the Setup > Touch menu.

Select a menu option by touching it, or use the Up and Down buttons to highlight the desired option and press the center navigation button to select it.

On menus longer than one page, the current page number is displayed below the menu name. Navigate between pages using the Up button when the first menu item is selected, or Down button when the last menu item is selected. If using touch, navigate between pages by touching the left or right arrow, or by swiping up or down.

Press the (-) button or swipe right to return to a previous screen. Select Exit to close the Menu.

A menu option with a > indicates that a sub-menu exists for the Menu option. Select the option to display its sub menu.

Screen Capture

Press both (-) and (+) buttons simultaneously to save an image of the current display. The last 100 screen captures are stored in memory and can be accessed when connected to a computer via PosiSoft USB Drive.

Power Off

To conserve battery life, the gage will automatically go to sleep after 5 minutes of inactivity and enter Sleep Mode. While in Sleep Mode the gage powers up significantly faster— convenient when moving between parts or locations. The gage will completely power off after 4 hours of inactivity. Alternatively, select Power Off from the main menu. All settings are retained.

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