


PosiTector® **RTR**

Replica Tape Reader

 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 RTR Advanced has internal memory storage for recording measurement data. Stored measurements can be reviewed on-screen or accessed via computers, tablets and smart phones. Measurements are date and time-stamped. Store up to 250,000 readings in up to 1,000 batches.

The memory icon appears when the Gage is set to store measurement data.

Open

Select a previously created batch or sub-batch to open and make it the active batch. If it contains measurements, on-screen statistics will immediately reflect values calculated from this batch. The calibration setting (i.e. Cal 1) associated with this batch is also opened.

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.

Display

Choose between display options in the upper portion of the screen while taking measurements.

Shortcut:

Press the Up button to scroll through the display options.

NOTE:

The Display option appears only if a batch is currently open.

Annotate

Create meaningful batch names and enter notes directly on the Gage using a familiar onscreen QWERTY keyboard.

Either the touch screen or navigation buttons can be used to enter annotations.

Annotations can be synchronized with PosiSoft.net and the PosiTector App. They are included in PosiSoft USB Drive reports.

Print

Sends a statistical summary and individual measurements to the optional Bluetooth wireless printer.

NOTE:

To cancel printing, simultaneously press and hold the (-) and (+) buttons.

Save SDF

(PosiTector RTR-3D probes only)

Stores a Surface Data File (SDF) to the USB Drive every time a reading is taken when selected. This provides a means to perform a more detailed analysis of the surface using PosiSoft or third party image rendering/analysis software.

Only a single SDF can be stored at a time. Each saved image overwrites the previous one.

The SDF can be accessed when connected to a computer. It will appear as a batch when imported to PosiSoft Desktop and can be viewed or exported. The SDF file can also be accessed directly from the PosiSoft USB Drive root directory named with the format: rtr_{datetime}.sdf for use with third-party applications.

Optical Grade Replica Tape provides higher quality SDF surface data files than conventional Press-O-Film replica tape. This special grade of tape is recommended when taking measurements which will be exported as SDF images.

New Batch

Closes any currently opened batch and creates a new batch name using the lowest available number. For example, if only B1 and B3 exist, then B2 would be created and made the current batch. Each measurement will be displayed and stored into this new batch.

On screen statistics are immediately updated with each measurement. New batches are date and time stamped when they are created.

Shortcut: When a batch is open, press (+) to create a new batch

NOTE:

Remove the last reading from the current open batch by pressing (-).

Close

Stops the recording process, closes the current batch, and removes batch information from the display.

Delete

Removes a batch or sub-batch completely from memory. The name is deleted and all measurements are erased. Sub-batches can be deleted individually. To delete all related sub-batches, simply delete the top-level batch.

Batch Summary

Displays a summary of all stored batches with the Batch Name, Probe Type and Number of Readings listed for each batch.

Statistics

(PosiTector RTR-H probes only)

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.

Calibration Settings

Calibration and Verification

Calibration

Gage calibration is typically performed by the manufacturer or accredited lab. All PosiTector RTR probes include a Certificate of Calibration.

Verification

Ensure that the probe has been cleaned with the included cleaning card and that the probe has been zeroed.

Verify accuracy of the digital micrometer measuring system.

Place the PosiTector RTR Check Shim into the probe opening. The average of several measurements should be within the combined tolerance of both the Gage and the shim. If not, the Gage may need to be returned for service.

The check shim is specifically intended for all PosiTector RTR probes. The Gage is designed to measure burnished replica tape within a limited measuring range and automatically subtracts 50.8 microns (2 mils) from height measurements to account for the incompressible polyester film. Therefore plastic shims intended for other instruments such as coating thickness gages will not be measured properly.

Verify the optical measuring system

(PosiTector RTR-3D probes only)

Place the Peak Density Check Tape into the probe opening. The peak density (Spd) result should be within tolerance specified on the tape. If not, the Gage may need to be returned for service.

Ignore the peak height (H) result when using the Peak Density Check Tape.

Zero

The probe should be zeroed regularly to ensure best accuracy. The user will be prompted to zero the probe every time the Gage is powered up. The Zero menu item allows the procedure to be performed at more regular intervals. It is particularly useful during long measurement sessions.

Important:

Clean the probe with the included cleaning card before performing a probe zero.

Simultaneously press and hold both probe buttons firmly until the Gage beeps and the arrows point outward. Do not place anything in the measurement opening during this procedure.

SHORTCUT:

Simultaneously press and hold both probe buttons firmly until the Gage beeps and displays 0. This can be performed from the main measurement screen without having to access the menu.

Tape Grade

Selects a replica tape grade. Required when Linearize mode (HL) is ON.

C - Coarse

XC - Extra Coarse (default)

NOTE:

Coarse Minus and X-Coarse Plus grades are not supported in Linearize mode since the only function of these two grades is to improve upon the accuracy of C tape at its low end and XC tape at its high end, something the PosiTector RTR H will automatically do when measuring HL. When Linearize mode is OFF, the PosiTector RTR H will measure all grades of replica tape just like a conventional spring micrometer.

Linearize

This is the default measurement mode. Linearize mode is ON when this box is ticked and the HL appears on the display.

An undesirable characteristic of replica tape is that measurements made with analog spring micrometers are most accurate near the middle of each grade's range and least accurate at the outer ends of each grade's range. That is why two other grades, Coarse Minus and X-Coarse Plus, are used to check and, if necessary, adjust measurements at the lower and upper ends of the primary range of 20-115 microns (0.8-4.5 mils).

Inside the primary range, the upper end of the Coarse grade range and the lower end of the X-Coarse grade range share a 38 - 64 micron (1.5 -2.5 mils) overlap region. Current Testex instructions describe a relatively complicated and time consuming procedure (the average of one reading using Coarse grade and one reading using

X-Coarse grade) that is used to knit the Coarse and X-Coarse subranges together to achieve reasonably accurate readings over the primary range. This method is a compromise between accuracy and ease of use.

When the Linearize box is NOT ticked, the PosiTector RTR displays a height value of H comparable to the value an analog spring micrometer would display after the 50.8 microns (2 mils) of incompressible polyester film has been subtracted. In other words, it is the average of the maximum peak-to-valley distances obtained by measuring the thickness of the replica tape without any correction.

When the Linearize box IS ticked, the PosiTector RTR displays a more accurate peak-to-valley height measurement HL that has been adjusted for the non-linearity of replica tape. There is no need to average 2 or more replicas from different grades of tape AND there is no need to subtract the 50.8 microns (2 mils) of incompressible polyester film. Ensure the proper tape grade, C or XC, has been selected and appears in the upper left corner of the display.

During measurement, if the linearized measurement falls outside of the selected tape grade's range, the Gage will suggest a more suitable tape grade to perform the measurement.

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.

NTP

Enables automatic time synchronization with a remote server over WiFi using the NTP (Network Time Protocol).

Enter a NTP Server address and TZ (Time Zone) details. The PosiTector uses POSIX format to set the time zone.

Eastern Time in the USA is input as the following:

EST5EDT4,M3.2.0,M11.1.0

From left to right:

- EST5 is the time zone name and offset from UTC
- EDT4 is the daylight savings time zone name and offset from UTC
- M3.2.0 is the start of EDT. 'M' specifies that the date will follow a 'Month.Week.Day' format. 3.2.0 is the third month, second week, first day (Sunday)
- M11.1.0 is the end of EDT. 'M' specifies that the date will follow a 'Month.Week.Day' format. 11.1.0 is the eleventh month, first week, first day (Sunday)

Detailed NTP instructions available at: www.defelsko.com/NTP

3D

(PosiTector RTR-3D probes only)

Displays a low-resolution color three-dimensional (3D) image of the replicated surface. When Memory is on, this thumbnail image is stored with each reading for inclusion into inspection reports.

NOTE:

Press the Up button to toggle between 2D and 3D images if the image does not automatically appear on the display.

Reset

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

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

Menu settings are returned to the following:

Memory = OFF
Statistics Mode = OFF
Display = None
Bluetooth = OFF
WiFi & Access Point = OFF
USB Keyboard & Stream = OFF
Bluetooth BLE Keyboard = OFF
Tape Grade = XC
Linearize = ON
Auto Dim = ON

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 = Microns
Flip Lock = OFF
Sound = Medium
Touch = ON
Language = English
Battery Type = Alkaline
Backlight = Normal
USB Drive = ON
Auto Sync .net = ON
Bluetooth Smart = OFF

NOTE:

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

Units

Converts the display from thou/mils to microns 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).

2D

(PosiTector RTR-3D probes only)

Displays a two-dimensional (2D) black and white image of the replicated surface. When Memory is on, this thumbnail image is stored with each reading for inclusion into inspection reports.

NOTE:

Press the Up button to toggle between 2D and 3D images if the image does not automatically appear on the display.

Touch

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

Backlight

Selects display brightness (Sun, Normal or Night). If Auto Dim is enabled (default), the display dim slightly after a period of no activity to conserve battery life. Press the Down button to brighten the display.

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.

Analysis Setup

(PosiTector RTR-3D probes only)
Setup 2D and 3D analysis parameters.

2D Parameters

(PosiTector RTR-3D probes only)

2D parameters are calculated from a virtual trace across the image area. When the Orientation is set to Horizontal X or Vertical Y directions, the Evaluation Length is equal to 3.8mm, minus double the length of the selected discard filter. When the Orientation is set to Diagonal XY or Diagonal YX directions, the Evaluation Length is equal to 5.4mm, minus double the length of the selected discard filter.

The 2D Parameters Menu allows the operator to select 2D analysis parameters to be displayed by the gage (a maximum of 6 parameters can be selected from the 2D and 3D Parameter lists).

Rpc Boundary C1

(PosiTector RTR-3D probes only)

Defines the boundary lines located equidistant above and below the profile mean line. A peak is counted after the trace goes below the lower boundary line and above the upper boundary line. The default is 0.5 microns.

Rpc Peak count

(PosiTector RTR-3D probes only)

The number of peaks per unit length within the evaluation length.

Ra

(PosiTector RTR-3D probes only)

Ra Roughness average: arithmetic average of the absolute values of the profile height deviations within the evaluation length measured from the mean line.

Rv

(PosiTector RTR-3D probes only)

Rv Maximum profile valley depth: the distance between the deepest valley and the mean line within the evaluation length.

Rt

(PosiTector RTR-3D probes only)

Rt Total profile height: the distance between the highest peak and the deepest valley within the evaluation length.

Rz

(PosiTector RTR-3D probes only)

Rz Average maximum height of the profile: arithmetic average of the successive values of the maximum peak to deepest valley within each sampling interval calculated over the evaluation length. The length of the sampling interval is equal to the cutoff length and the number of sampling intervals is the number of whole cutoff lengths that can fit within the evaluation length.

Rq

(PosiTector RTR-3D probes only)

Rq RMS roughness: root mean square average of the profile heights within the evaluation length measured from the mean line.

Rp

(PosiTector RTR-3D probes only)

Rp Maximum profile peak height: the distance between the highest point of the profile and the mean line within the evaluation length.

3D Parameters

(PosiTector RTR-3D probes only)

3D parameters are calculated across the image area. When calculating 3D parameters, an evaluation area is determined by removing an area around the outside edge of the image area equal to the width of the discard length.

The 3D Parameter Menu allows the operator to select 3D analysis parameters to be displayed by the gage (a maximum of 6 parameters can be selected from the 2D and 3D Parameter lists).

H

(PosiTector RTR-3D probes only)

H Average maximum peak-to-valley height: the distance between the anvils minus the 2 mils (50.8 μm) of incompressible film. When selected an optional linearization can be performed by selecting the linearization checkbox in the Cal Settings Menu.

Sa

(PosiTector RTR-3D probes only)

Sa Average roughness: the arithmetic average of the absolute values of the measured height deviations from the mean surface taken within the evaluation area.

Sv

(PosiTector RTR-3D probes only)

Sv Maximum valley depth: the absolute value of the minimum height in the evaluation area with respect to the mean surface.

Sz Root

(PosiTector RTR-3D probes only)

Sq Root mean square roughness: the root mean square average of the measured height deviations from the mean surface taken within the evaluation area.

Sz Maximum area peak-to-valley height: the vertical distance between the maximum peak height and the maximum valley depth. Commonly referred to as St.

Sp Maximum area peak height: the maximum height in the evaluation area with respect to the mean surface.

Sv Maximum valley depth: the absolute value of the minimum height in the evaluation area with respect to the mean surface.

Sp

(PosiTector RTR-3D probes only)

Sp Maximum area peak height: the maximum height in the evaluation area with respect to the mean surface.

Sq

(PosiTector RTR-3D probes only)

Sq Root mean square roughness: the root mean square average of the measured height deviations from the mean surface taken within the evaluation area.

3D Parameters

(PosiTector RTR-3D probes only)

Spd Areal peak density: the number of peaks per unit area (formerly known as Pd).

Sa Average roughness: the arithmetic average of the absolute values of the measured height deviations from the mean surface taken within the evaluation area.

Sq Root mean square roughness: the root mean square average of the measured height deviations from the mean surface taken within the evaluation area.

Sz Maximum area peak-to-valley height: the vertical distance between the maximum peak height and the maximum valley depth. Commonly referred to as St.

Sp Maximum area peak height: the maximum height in the evaluation area with respect to the mean surface.

Sv Maximum valley depth: the absolute value of the minimum height in the evaluation area with respect to the mean surface.

Short Filter

(PosiTector RTR-3D probes only)

To optimize the analysis for a specific application, filters may be applied to the raw image to remove undesirable profile characteristics prior to calculating the 2D and 3D parameters. The short wavelength Gaussian filter attenuates features that have a wavelength shorter than the selected size.

The following Short Filters are available:

None

0.008mm

0.025mm (default)

0.080mm

Cutoff Filter

(PosiTector RTR-3D probes only)

To optimize the analysis for a specific application, filters may be applied to the raw image to remove undesirable profile characteristics prior to calculating the 2D and 3D parameters. The long wavelength cutoff Gaussian filter attenuates features that have a longer wavelength than the selected size.

The following Cutoff Filters are available:

None
0.08mm
0.25mm
0.8mm (default)
2.5mm

Discard

A side effect of the long wavelength cutoff filter is that values near the edge of the evaluation length or area are skewed. To prevent these skewed values from affecting 2D and 3D parameter calculations, the values near the edges of the evaluation are discarded. The Discard length is calculated from the long wavelength cutoff selected.

The following discard selections are available:

Discard none
Discard 1/2 (default)
Discard 1

2D Orientation

(PosiTector RTR-3D probes only)

2D parameters are calculated from a virtual trace across the image area. By default, this trace is in the Horizontal X direction, parallel to the long axis of the replica tape. This orientation can be changed if desired:

Horiz X (Horizontal X) (default)
Vert Y (Vertical Y)
Diag XY (Diagonal XY)
Diag YX (Diagonal YX)

Connect

Configure communication and connection options for the Gage.

Bluetooth

Configure Bluetooth communication and connection options for the Gage.

Enabled

When Enabled, allows communication with a computer or smart device running the PosiTector App via auto-pairing Bluetooth Smart (BLE) wireless technology.

Bluetooth Setup

Setup options for Bluetooth input/output communication modes.

Input Devices

Displays the currently paired Bluetooth keyboard or barcode scanner. Use your external Bluetooth keyboard or barcode scanner to conveniently enter reading and batch annotations.

To add a new device, put your keyboard or barcode scanner into pairing mode, then press Next. Select your input device from the displayed list. Once connected, the gage will return to the main measurement screen. The Bluetooth input (keyboard) icon will be displayed indicating a successful connection.

Keyboard

BLE Keyboard mode communicates wirelessly with your computer by emulating keyboard keystrokes. When connected in this mode, PosiTector Advanced instruments will be recognized as a simple Bluetooth keyboard. Each reading is typed, followed by a carriage return (enter). This provides a simple way to capture readings as they are taken without any special software, drivers or complex setup.

For more information on BLE Keyboard mode visit: www.defelsko.com/connect

Power Off Time

By default, the PosiTector Advanced powers off after 5 minutes of inactivity. This power off time interval can be adjusted when connected wirelessly via Bluetooth Smart to help

maintain connectivity while measuring. The interval is user selectable in 5-minute increments up to a maximum of 60 minutes. Use the (-) and (+) buttons to adjust the interval time, then select Ok.

Send Batches

Transfers selected batches to the PosiTector App. Send Batches is useful when switching between devices, as only readings and batches that have yet to be synchronized with any smart device are synchronized automatically.

The Send Batches option is visible in the menu when the Gage is connected to a smart device running the PosiTector App.

Sync Batches

Select batches to flag them for synchronization to the PosiTector App. Sync Batches is useful when connecting a new device to a gage with pre-existing batches, since only batches created while Bluetooth Smart is enabled are automatically selected.

Selected batches are synchronized when the next reading is taken in a batch flagged for synchronization, or when the Sync Batches option is selected at the bottom of the list of selected batches.

NOTE:

If Bluetooth Smart is disabled, data from batches selected in the Sync Batches menu are held in a queue until communication with the PosiTector App is re-established.

Bluetooth Classic

Allows readings to be sent to a computer, optional printer or compatible device using Bluetooth wireless technology. Pairing required.

See www.defelsko.com/bluetooth

NOTE:

Bluetooth Classic is not compatible with the PosiTector App. Enable Bluetooth for use with the PosiTector App.

Pairing

The instrument and receiving device must be paired before readings can be transmitted.

For pairing instructions, see www.defelsko.com/bluetooth

Enabled

Allows readings to be sent to a computer, optional printer or compatible device using Bluetooth Classic wireless technology. Pairing required.

Stream

Stream individual readings to a USB connected computer via a serial protocol. Ideal for use with serial compatible SPC data collection software.

See www.defelsko.com/update

Info

Lists information about your current Bluetooth connection, including the currently paired device and MAC address.

Smart Probes

Displays available PosiTector DPM-L and PosiTector CMM-IS Smart Probes within range of the PosiTector gage. Smart Probes must be powered ON to be visible.

Shortcut:

Check the Shortcut box to add the Smart Probes menu option to the gage's main menu.

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.

Stream

Stream individual readings to a USB connected computer via a serial protocol. Ideal for use with serial compatible SPC data collection software.

For more information on USB Keyboard and Streaming visit:
www.defelsko.com/usb/stream

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.

USB Keyboard

USB Keyboard mode enables PosiTector Advanced instruments to emulate a USB keyboard when connected to a computer.

USB Keyboard mode communicates with your computer by emulating keyboard keystrokes. When connected in this mode, PosiTector Advanced instruments will be recognized as a simple USB keyboard. Each reading is typed, followed by a carriage return (enter). This provides a simple way to capture readings as they are taken without any special software, drivers or complex setup.

For more information on USB Keyboard mode visit: www.defelsko.com/connect

Keyboard Format

By default, when a measurement is transferred in Keyboard mode, it's followed by a carriage return (enter). Keyboard Format allows the user to customize the delimiter to match forms or software field input requirements. Multiple delimiters can be joined together.

For more information on Keyboard mode visit: www.defelsko.com/connect

WiFi

Allows connection to your local wireless network or mobile hot spot. Ideal for using your network's internet connection for synchronizing stored measurements with PosiSoft.net.

See www.defelsko.com/wifi

Setup Options

Setup WiFi configuration options for the Gage.

AP Channel

The access point channel corresponding to a frequency range. (Default Channel: 6)

For most users the default channel will not have to be altered. If you are experiencing poor connection or are unable to connect, try another channel.

Press the Up button to highlight the channel. Use the (-) or (+) buttons to change the channel. Press the Down button and select OK.

Gage Name

Enter a unique name for the Gage (up to 14 Characters). This helps identify the gage on your local network.

Server Enable

The gage contains a WebServer that can be accessed by network connected devices. This option enables (default) a connection between the network and the Gage. To access the gage server, browse to the gages IP Address:8080 using an internet browser.

IP Settings

Manually enter network IP information as follows...

IP Type (DHCP or Static), IP Address, Gateway, Netmask, DNS1, DNS2

See your network administrator or IT department for assistance.

AP Passphrase

A series of characters, numbers or symbols used to log on to a WiFi network. Default Passphrase: password

Press the center navigation button to display on-screen keyboard. Enter a Passphrase for the Access Point. The Passphrase will be required for all devices connecting to the PosiTectors Access Point.

The PosiTector is now visible to all WiFi enabled devices. Simply connect your devices WiFi to the new PosiTector Access point. All PosiTectors are uniquely identified by their respective gage body serial numbers or user selected Gage Name.

WiFi Reset

Removes all previously configured networks and restores default WiFi settings.

WiFi Stream

Wirelessly stream readings to a device or computer over WiFi.

When enabled, the gage will send a GET request to specified URL for each reading. The URL can contain tags which are replaced by the PosiTector with values corresponding to the reading. This solution turns the PosiTector gage body into an Internet of Things device and is ideal for users with an existing WiFi network and a desire to stream live readings to a central application or database.

For more information on WiFi Streaming visit: www.defelsko.com/connect

Auto Sync .net

When enabled, the Gage automatically attempts to synchronize stored measurement data with PosiSoft.net upon power-up (internet connected WiFi network required). Alternatively, select Sync .net Now to immediately synchronize stored measurement data.

Access Point

Creates a wireless network to allow your smart device or computer to connect directly to the PosiTector. Ideal when a WiFi network is not available.

To enable, select Access Point from the Connect > WiFi menu. The Access Point icon will display in the upper left of the PosiTector display.

Securing your Access Point

To ensure the PosiTector is only accessible to authorized devices, it is important that you enter a passphrase (password) for the Access Point. The default Passphrase is password.

In the Connect > WiFi > Setup menu, select AP Passphrase to modify the default passphrase.

Enabled

Select to allow connection with your local WiFi network. The WiFi icon will appear on the display and the Gage will attempt to connect to any previously configured network. Connect to a new network from the Networks menu option.

Networks

Searches and displays all available WiFi networks within range. Select a network, then enter the password, if required. The WiFi icon will appear on the display.

NOTE: Some networks may not be visible and will require manual configuration using the Add Network option. See your network administrator or IT department for assistance.

WiFi Information

Displays information about the local WiFi network connection including:

SSID:
the network's name

State:
the network connection status

IP Address:
the assigned IP Address for the Gage on the network

Sync .net Now

When selected, the Gage immediately synchronizes stored measurement data to PosiSoft.net (WiFi internet connection required).

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, or a WiFi network.

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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