

PosiTector® 6000

Coating Thickness Gage

i 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.

Contents

Memory	4
Open	4
View	4
Display	4
Prompted Batch	4
New 90/10	5
Annotate	5
Print	5
New Sub-Batch	6
Delete Template	6
Reading Annotate	6
New PA2	6
New Batch	7
Close	7
Delete	7
New ISO 19840	7
Batch Summary	8
Statistics	9
Statistics	9
Clear	9
HiLo Alarm	9
Calibration Settings	10
1pt Adjustment	10
Zero	11
Cal Memory	11
Edit Cal Name	11
N 1pt Adjustment	11
Zero Offset	12
F Zero	12
2pt Adjustment	13
Cal Lock	13
Zn Zero	13
N Lock	14
Setup	15
Set Clock	15
Fast	15
Reset	16
Units	17
Battery Type	17
Sound	17
Touch	17
Scan	17

Backlight	18
Flip Lock	18
Language	18
Gage Info	18
Hi Res	18
Duplex Mode	19
Connect	20
Bluetooth	20
Enabled	20
Bluetooth Setup	20
Input Devices	20
Keyboard	20
Power Off Time	20
Send Batches	21
Sync Batches	21
Bluetooth Classic	21
Pairing	22
Enabled	22
Stream	22
Info	22
Smart Probes	22
USB	22
Sync.net Now	23
USB Drive	23
JSON Files	23
HTML Report	23
Stream	24
Auto Sync .net	24
USB Keyboard	24
Stream Annotate	24
Keyboard Format	25
WiFi	25
Setup Options	25
AP Channel	25
Gage Name	25
Server Enable	26
IP Settings	26
AP Passphrase	26
WiFi Reset	26
WiFi Stream	26
Auto Sync .net	27
Access Point	27
Enabled	27
Networks	27
WiFi Information	27

Sync .net Now	28
Updates	28
Help	29
Power Off	30

Memory

The PosiTector 6000 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 and basic statistics are displayed when the Gage is set to store measurement data.

NOTE:

Remove the last reading by pressing (-).

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.

Prompted Batch

Create pre-defined batches in PosiSoft Desktop with onscreen text and image prompts for each reading, then upload to PosiTector 6000 gages. Ideal for ensuring a consistent measurement pattern for repetitive jobs or when specific measurement locations are

required. Create and store multiple templates for different jobs.

See the PosiSoft Desktop help file for full instructions.

NOTE:

Deleting a Template from the PosiTector does not remove it from PosiSoft Desktop.

New 90/10

The PosiTector 6000 PSPC 90/10 mode simplifies the process of determining pass/fail criteria under the IMO directive. Although developed for maritime applications, this mode can be used by other industries looking for a statistical method of ensuring correct dry film thickness over a surface area.

The 90/10 Rule

90% of all thickness measurements should be greater than or equal to NDFT (nominal dry film thickness) and none of the remaining 10% measurements should be below 0.9xNDFT.

90/10 Rule Setup

Enter the target NDFT by pressing the (+) or (-) buttons. A value of 320 microns (12.6 mils) is typically used. Select NEW to accept.

Detailed instructions available at: www.defelsko.com/9010

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.

Ensure printer is powered ON, paired with the Gage and within range, then select Print. To cancel printing, press and hold the (-) and (+) buttons simultaneously.

For information on pairing, see www.defelsko.com/bluetooth

New Sub-Batch

Creates a new sub-batch within the currently opened batch. Sub-batching allows the user to group related batches so that statistics can be accumulated for them. For example, the main Batch (B1) would contain the statistics for it's sub-batches (ie. B1s1 and B1s2).

Shortcut: When a sub-batch is open, create a new sub-batch by pressing (+).

NOTE:

The New Sub-Batch option appears only if a batch is currently open.

Delete Template

Removes Prompted Batch Template from the PosiTector body.

NOTE:

Deleting a Template from the PosiTector does not remove it from the PosiSoft Desktop software.

Reading Annotate

Create meaningful batch names and enter notes directly on the Gage using a familiar onscreen QWERTY keyboard or external Bluetooth keyboard/barcode scanner.

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

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

New PA2

SSPC PA2 mode helps determine if film thickness over a large area conforms to user specified min/max levels.

PA2 Setup

Adjust the PA2 parameters as necessary.

To adjust a parameter, use the Up and Down buttons to highlight the appropriate parameter, then use the (-) and (+) buttons to adjust that parameter.

Detailed instructions available at: www.defelsko.com/PA2

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.

New ISO 19840

Helps determine if a protective coating system complies with the ISO 19840 acceptance criteria for measuring coating thickness on rough substrates.

ISO 19840 Setup

Adjust the ISO 19840 parameters as necessary.

To adjust a parameter use the Up and Down buttons to highlight the appropriate parameter, then use the (-) and (+) buttons to adjust that parameter.

Detailed instructions available at: www.defelsko.com/19480

Batch Summary

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

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. Alternatively, measure a coating with a thickness close to the required value and make final adjustments with the (-)(+) 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, Verification and Adjustment

The PosiTector 6000 non-destructively measures the thickness of coatings on metals. Three steps ensure best accuracy:

1. Calibration: typically performed by the manufacturer. All probes include a Certificate of Calibration.
2. Verification of Accuracy: typically performed by the user on known reference standards such as the included plastic shims or optional coated thickness standards.
3. Adjustment: Adjustment, or Calibration Adjustment is the act of aligning the Gage's thickness readings to match that of a known sample in order to improve the effectiveness of the Gage on a specific surface or in a specific portion of its measurement range. 1-point or 2-point Cal adjustments are possible.

Probes are factory calibrated and perform an automatic self-check each time a measurement is taken. For many applications no further adjustment is necessary after a Reset. Just check ZERO on the uncoated substrate, then measure. However, sometimes readings can be influenced by changes in substrate, such as shape, composition, and surface roughness. That is why Cal adjustments are made possible. The factory calibration symbol disappears whenever a Cal adjustment is made to the Gage.

Where a Cal adjustment method has not been specified, use a Zero or 1-point method first. If measuring the included shims on your surface reveals inaccuracies, use the 2-point method. Factory Cal settings can be restored at any time by performing a Reset, creating a NEW Cal setting, or by DELETING the adjustments made to the Cal 1 calibration setting. The factory calibration symbol appears on the display whenever factory Cal settings are in use.

For FN gages, calibration adjustments are made independently to the F or N modes, and are stored together within a particular Cal.

1pt Adjustment

When measuring coating thickness over a rough substrate, it is preferable to adjust the Gage to a known thickness, such as a shim, rather than adjusting it to zero.

Press (+) to select the number of readings to be used to obtain an average, typically 3 to 10 readings. The greater the variation between readings, the more readings should be taken to obtain an average.

Repeatedly measure the known thickness reference. The Gage will wait 2 seconds between readings to allow the user to correctly position the probe on the surface. After the last measurement the Gage will calculate and display the reading which represents the average of all the measurements taken. If the expected reading is not obtained (within tolerance) lift the probe from the surface and adjust the reading down (-) or up (+) to the expected thickness and press the center button.

Zero

A Zero Calibration Adjustment should be performed when the gage does not read 0 within the tolerance of the probe being used on the uncoated part.

When measuring on smooth substrates, a single Zero (X=1) is sufficient. When measuring on a rough or curved surface a preferred method is to take several readings on the uncoated part and average the result.

Press (+) to select the number of readings to be used to obtain an average, typically 3 to 10 readings. The greater the variation between readings, the more readings should be taken to obtain an average.

Repeatedly measure the uncoated part. The Gage will wait 2 seconds after placing the probe on the surface to allow the user to correctly position the probe on the surface. After the last measurement the Gage will calculate a Zero which represents the average of all the Zero readings taken.

Cal Memory

It is often convenient to store a particular calibration adjustment before making another. Then, when returning to that part, the corresponding calibration setting can be restored.

The current Cal Setting (ex. Cal 3) is displayed in the upper right corner of the display. A stored Cal Setting can be selected when returning to a particular part. Cal 1 can be adjusted but never deleted and is always made active with factory settings after a Reset. A new Cal Setting cannot be created if a batch is open with readings present.

Edit Cal Name

Create meaningful Cal Memory names directly on the Gage using the onscreen QWERTY keyboard — helpful when storing multiple Cal Memory adjustments.

N 1pt Adjustment

(PosiTector 6000 FNDS only)

For rough zinc surfaces (i.e. zinc spray metallizing), it may be desirable to adjust the Gage to a known thickness, such as a shim placed over the zinc, rather than adjusting it to zero. This ensures the Gage measures the thickness of paint over the metallizing peaks.

Press (+) to select the number of readings to be used to obtain an average, typically 3 to 10 readings. The greater the variation between readings, the more readings should be taken to obtain an average.

Repeatedly measure the known thickness reference on the unpainted galvanized part. The Gage will wait two seconds between readings to allow the user to correctly position the probe on the surface. After the last measurement, the Gage will calculate and display the reading which represents the average of all the measurements taken. If the expected reading is not obtained (within tolerance), lift the probe from the surface and adjust the reading down (-) or up (+) to the expected thickness and press the center button.

NOTE:

The known thickness should be similar to the expected paint thickness.

Zero Offset

The Zero Offset adjustment is useful when measuring coating thickness over rough or blasted substrates without access to the uncoated representative substrate.

Predefined Zero Offset values can be selected according to the blast profile height (as determined by ISO 8503-1) in accordance with ISO 19840. Alternatively, a custom Zero Offset can be entered.

Fine	10 um (0.40 mils)
Medium	25 um (1.00 mils)
Coarse	40 um (1.55 mils)
Custom	Adjust with (-)(+)

The Zero Offset value is subtracted from each reading.

F Zero

(PosiTector 6000 FNDS only)

Measure the uncoated steel substrate (if available). If the average of several F readings is not within tolerance of 0, perform an F Zero adjustment.

Press (+) to select the number of readings to be used to obtain an average, typically 3 to 10 readings. The greater the variation between readings, the more zero readings

should be taken to obtain an average.

Repeatedly measure the uncoated steel part. The Gage will wait two seconds after placing the probe on the surface to allow the user to correctly position the probe. After the last measurement, the Gage will calculate a Zero which represents the average of all the F Zero readings taken.

2pt Adjustment

Provides greater accuracy within a limited, defined range, and is the preferred method for very unusual substrate materials, shapes or conditions.

Press (+) to select the number of readings to be used to obtain an average, typically 3 to 10 readings. The greater the variation between readings, the more readings should be taken to obtain an average.

Repeatedly measure the first known thickness reference. The Gage will wait 2 seconds between readings to allow the user to correctly position the probe on the surface. After the last measurement the Gage will calculate and display a thickness value which represents the average of all the readings taken using the factory calibration settings.

Lift the probe from the surface and adjust the displayed reading down (-) or up (+) to the known thickness value of the first thickness reference. Press the center button to accept this value.

Repeat these steps for the second thickness reference.

Cal Lock

When enabled (default), the Calibration Lock icon will appear on the display. This prevents an adjustment from being performed inadvertently if the (-) or (+) buttons are pressed.

Zn Zero

(PosiTector 6000 FNDS only)

Measure the unpainted zinc surface (if available). If the average of several N readings is not within tolerance of 0, perform an Zn Zero adjustment.

Press (+) to select the number of readings to be used to obtain an average, typically 3 to 10 readings. The greater the variation between readings, the more readings should be taken to obtain an average.

Repeatedly measure the unpainted galvanized part. The Gage will wait two seconds after placing the probe on the surface to allow the user to correctly position the probe.

After the last measurement, the Gage will calculate a Zero which represents the average of all the Zn Zero readings taken.

N Lock

(Combination FN Probes only) Select N Lock (Non-Ferrous Lock) when operating regularly on non-ferrous substrates. The N Lock icon will appear and the probe will only use the eddy current principle to shorten measurement time and extend battery life.

N Lock is useful when measuring coatings on plated steel, or partially magnetic substrates:

Plated Steel: Normally the probe measures the combined thickness of the coating and plating over the steel using the magnetic principle. In N Lock mode, the gage measures only the thickness of the coating over the non-ferrous plating.

Partially magnetic substrates; i.e. clear-coat on gold over nickel-plated brass: In N-Lock mode, the gage ignores any magnetism in the substrate and uses the eddy current method to accurately measure the coating thickness.

CAUTION:

With N Lock engaged it is possible to obtain a reading when measuring non-conductive coatings on steel (ferrous). This is not recommended.

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

Fast

Increases measurement speed. Useful for quick inspection or when measuring large areas with thick coatings where proper probe positioning is not critical. Swift up/down probe movement is required. Reduced accuracy may be noted.

NOTE:

For FN probe models, the N mode is disabled in Fast Mode.

Reset

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

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

Calibration adjustments and Cal Memory are cleared and returned to the Gage's factory settings. The factory calibration icon will appear on the display.

Menu settings are returned to the following:

Memory = OFF
Hi Res = OFF
Statistics Mode = OFF
HiLo Alarm = OFF
Scan Mode = OFF
Auto Dim = ON
Cal Lock = ON
Bluetooth & Stream = OFF
BLE Keyboard = OFF
WiFi & Access Point = OFF
USB Keyboard & Stream = OFF
Display = None
N Lock = 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 = Microns
Touch = ON
Flip Lock = OFF
Auto Sync .net = ON
Fast Mode = OFF
Sound = Medium
Language = English
Backlight = Normal
Battery Type = Alkaline
Bluetooth Smart = OFF

USB Drive = ON

NOTE:

Keep the Gage away from metal during a Reset. Date, Time and WiFi are not affected by either Reset.

Units

Converts the displayed readings from inch to metric or vice versa. Stored measurements in memory are not converted. Switching units will turn off Statistics, HiLo Alarm and closes the current batch.

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).

Touch

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

Scan

By default, the PosiTector 6000 takes approximately 1 reading per second. Scan mode allows the user to take multiple readings in rapid succession (3 readings per second) without lifting the probe.

Choose from 3 Scan modes:

Normal - continuously measures when placed on the surface

Statistics - displays real-time scan statistics when placed on the surface. Average, max., min., and standard deviation are displayed.

Limited # Avg. - continuously measures until user-specified number of readings is reached, then displays the average for the scan.

When Memory is on, Scan measurement data is recorded. However, in Statistics and Limited # Avg. Scan modes, only the statistics and/or average is saved, not individual readings. Note that performing a scan may reduce the life of the probe and is recommended for smooth surfaces only.

For additional information, visit
<http://www.defelsko.com/scan>

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.

Hi Res

Increases the displayed Gage resolution as follows:

Range	Resolution
-------	------------

0.00-99.00 mils	0.01 mil
-----------------	----------

100.0-999.9 mils	0.1 mil
------------------	---------

0.0-999.9 um	0.1 um
over 1000 um	1.0 um

NOTE:

Gage accuracy is not affected.

Duplex Mode

(PosiTector 6000 FNDS probes only)

Duplex coating systems use a combination of two corrosion protection systems –typically paint or powder coating over galvanized steel (hot-dip, electro or zinc spray metallizing). The resultant corrosion protection is superior to either protection system used independently.

In Duplex mode, the Gage utilizes both magnetic (ferrous) and eddy current (nonferrous) principles simultaneously to calculate and display the individual paint and zinc layer thicknesses. The magnetic principle is used to measure the combined paint/zinc thickness over the ferrous substrate and the eddy current principle is used to measure the paint thickness over the non-ferrous zinc coating. The zinc thickness is calculated by subtracting the paint thickness from the combined paint/zinc thickness measurement.

When enabled (default), the Gage will display two measurement values. To disable, uncheck Duplex within the Setup Menu. Alternatively, when Memory is OFF, press the Up button to toggle Duplex On/Off.

When disabled, the Gage will operate like a conventional combination ferrous/nonferrous instrument (similar to the PosiTector 6000 FNS probe). Ideal for measuring non-magnetic coatings over steel and non-conductive coatings over non-ferrous metal substrates.

For additional information visit <http://www.defelsko.com/duplex>

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

Stream Annotate

Stream Annotate allows the user to enter text, such as a part number or job ID, that is streamed with each measurement.

When enabled, a Stream Annotate field will appear on the main measurement screen. Touch the field to enter text using the onscreen keyboard (touch must be enabled).

NOTE:

Stream Annotate is only available when Stream is enabled and Memory, Statistics and HiLo are off.

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.

DeFelsko®

The Measure of Quality



www.defelsko.com

© DeFelsko Corporation USA 2020
All Rights Reserved

Limited Warranty, Sole Remedy, and Limited Liability

DeFelsko's sole warranty, remedy, and liability are the express limited warranty, remedy, and limited liability that are set forth on it's website: www.defelsko.com/terms

This manual is copyrighted with all rights reserved and may not be reproduced or transmitted, in whole or part, by any means, without written permission from DeFelsko Corporation.

DeFelsko, PosiTector, and PosiSoft are trademarks of DeFelsko Corporation registered in the U.S. and in other countries. Other brand or product names are trademarks or registered trademarks of their respective holders.

Every effort has been made to ensure that the information in this manual is accurate. DeFelsko is not responsible for printing or clerical errors.