# PosiTector® SST

## Soluble Salt Tester

### 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 ..... 3
- Open ..... 3
- View ..... 3
- Display ..... 3
- Annotate ..... 3
- Print ..... 4
- New Batch ..... 4
- Close ..... 4
- Delete ..... 4
- Batch Summary ..... 4

Setup ..... 5
- Patch Volume ..... 5
- Set Clock ..... 5
- Reset ..... 6
- Units ..... 7
- Battery Type ..... 7
- Sound ..... 7
- Touch ..... 7
- Backlight ..... 7
- Flip Lock ..... 7
- Language ..... 7
- Gage Info ..... 7
- Hi Res ..... 8
- Bresle Mode ..... 8
- Calibration Adjustment ..... 8

Connect ..... 9
- Bluetooth ..... 9
  - Enabled ..... 9
  - Bluetooth Setup ..... 9
    - Input Devices ..... 9
    - Keyboard ..... 9
    - Power Off Time ..... 9
  - Send Batches ..... 10
  - Sync Batches ..... 10
  - Bluetooth Classic ..... 10
    - Pairing ..... 11
    - Enabled ..... 11
    - Stream ..... 11
    - Info ..... 11
  - Smart Probes ..... 11
- USB ..... 11
  - Sync.net Now ..... 12

USB Drive ..... 12
JSON Files ..... 12
HTML Report ..... 12
Stream ..... 13
Auto Sync .net ..... 13
USB Keyboard ..... 13
Keyboard Format ..... 13
WiFi ..... 14
Setup Options ..... 14
AP Channel ..... 14
Gage Name ..... 14
Server Enable ..... 14
IP Settings ..... 14
AP Passphrase ..... 15
WiFi Reset ..... 15
WiFi Stream ..... 15
Auto Sync .net ..... 15
Access Point ..... 15
Enabled ..... 16
Networks ..... 16
WiFi Information ..... 16
Sync .net Now ..... 17
Updates ..... 17
Help ..... 18
Power Off ..... 19

# Memory

The PosiTector SST 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.

# 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.

# Setup
Set configuration options for the Gage.

# Patch Volume
Set the volume of water being used for the test (3.0 ml default). Use the (-) and (+) buttons to decrease/increase the displayed value. The patch volume is used to calculate surface density.

# 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

# 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.

Calibration adjustments are returned to factory settings.

The last stored background measurement (y1) is erased.

Menu settings are returned to the following:

Memory = OFF
Bresle Mode = ON
Auto Dim  = ON
Display = None
Patch Volume = 3.0 ml
Hi Res = OFF
Bluetooth & Stream = OFF
BLE Keyboard = OFF
WiFi & Access Point = OFF
USB Keyboard & Stream = OFF
Surface Density Units = mg/m^2
Temperature units = Celsius

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:

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

# Units
Allows the operator to change the displayed units for both Temperature (°C or °F) and Surface Density (mg/m^2 or μg/cm^2).

# 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.

# 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:

0.1 μS, 0 – 200 μS
1.0 μS, over 200 μS

## NOTE:

Gage accuracy is not affected.

# Bresle Mode

When checked (default), the Gage guides the user through a 3- step test process in accordance with ISO 8502-6. Uncheck Bresle Mode to use the PosiTector SST as a regular conductivity meter such as when testing abrasive materials in accordance with ISO 11127-6 and ASTM D4940-15.

# Calibration Adjustment

The PosiTector SST can be adjusted to a known conductivity standard. Use the (-) and (+) buttons to decrease/increase the displayed value to match the known conductivity of the standard.

## NOTE:

In typical use, a calibration adjustment should not be required. Before performing the adjustment, ensure that the PosiTector SST test cell has been thoroughly cleaned with DI water. Ensure that the conductivity standard and PosiTector SST test cell are at the same temperature.

# 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 barccde 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 delimeters 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.