



# SP597 Smart Humidity / Temperature Probe Instruction Manual



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the TPI View app:



## Description

The TPI SP597 Smart Humidity / Temperature Probe is used to measure humidity and temperature in heating and cooling systems, ambient air, and in ducts. It connects to a smart device using the TPI View app. It sends live measurement data and can be used to calculate Enthalpy, Wet Bulb, and Dewpoint using the App. The SP597 is also capable of logging temperature measurements over time to help identify intermittent problems.

## OPERATION

**WARNING:** The SP597 reads up to 140°F, do not use the probe to measure a temperature above this.

1. Install the TPI View App on your smart device.
2. Press and hold the SP597 on/off key for approximately 2 seconds to turn the smart probe on. An orange LED will blink indicating the SP597 is ready to be connected to a smart device.
3. Open the View app and tap 'Start Scanning for TPI Smart Instruments'. Then tap on SP597 to connect it to the app.
4. The live readings will be displayed on the app. Units are selectable by tapping on the temperature box.

## Dry Bulb, Wet Bulb, Dew Point, and Enthalpy

Connecting two SP597 smart probes allows for the following calculations to be made for Return and Supply air: Dry Bulb, Wet Bulb, Dew Point, and Enthalpy.

1. Turn one or both SP597 and open the app. Tap on 'Enthalpy' and then tap on 'Select' to assign a SP597 to the Return Air. Repeat this process if performing a Supply Air test as well.
2. Insert the probe(s) to the Return and Supply Air ducts.
3. The Dry Bulb, Wet Bulb, Dew Point, and Enthalpy calculations can be seen. Also, the live %RH reading is displayed.
4. Tap on the gear symbol to change the Air Volume setting, Altitude, and units of measure.

**Enthalpy:** A thermodynamic quantity equivalent to the total heat content of a system. It is equal to the internal energy of the system plus the product of pressure and volume.

## **LED INDICATOR**

The SP597 uses a multi-colored LED to indicate operational status.

**Orange** blinking LED – SP597 is on and ready to connect to the smart device

**Green** blinking LED – SP597 is connected to a smart device

**Red** blinking LED – Batteries need to be replaced

**Orange** and **Green** blinking LED – Data logging active and SP597 is not connected to the app.

## **AUTO POWER OFF**

If the SP597 is not connected to a smart device for more than 8 minutes it will auto power off. When connected to a smart device the auto power off is disabled. Auto power off is also disabled during data logging.

## **DATA LOGGING**

The SP597 has the ability to log readings with a time and date stamp. The maximum number of readings that can be logged is 5,000.

1. Connect to the SP597 as outlined earlier.
2. Select 'Logger' in the View App.
3. Set the logging interval in minutes/second and the end time and date.
4. Tap on 'Start Logging' and the SP597 will begin logging data.
5. The View app can be disconnected from the SP597 and logging will continue until the end time is reached or the View app is reconnected and logging is stopped. When the SP597 is in logging mode and disconnected from the View app, the SP597 LED will blink green and orange.
6. Once logging has been stopped or ended, logged data can be retrieved using the View app.

## GENERAL MAINTENANCE

**Housing:** The SP597 can be wiped down with a damp lint free cloth. Do not use any cleaning agents including solvent or soap.

**Battery Replacement:** When the LED indicator blinks Red the batteries need to be replaced.

1. Turn the SP597 off. Loosen the battery cover screw and open the cover.
2. Remove the three AAA batteries from the battery holder.
3. Install three new AAA alkaline batteries into the holder observing correct polarity. Note: Battery level is displayed in the Smart Probe app.

## SPECIFICATIONS

Humidity	Range	0%RH to 100%RH
	Resolution	0.1%RH
	Accuracy	+/-3%RH (20%RH to 80%RH) at 25°C +/-5%RH (<20%RH and >80%RH) at 25°C
Temperature	Range	-4°F to 140°F (-20°C to 60°C)
	Resolution	0.1°F / 0.1°C
	Accuracy	32°F to 140°F (0°C to 60°C) = +/- 0.1°F (+/- 0.5°C) <32°F (<0°C) = +/-2°F (+/-1.0°C)
General	Data Logging	5,000 readings in 1 sec to 59 min 59 sec intervals
	Battery Life	Approximately 200 hours
	Battery Type	AAA x 3 alkaline
	Operating Temperature	32 °F ~ 122 °F (0 °C ~ 50 °C)
	Storage Temperature	-4 °F ~ 140 °F (-20 °C ~ 60 °C)
	Operating Humidity	0 ~ 80 %RH
	Weight	4.52oz (128g)

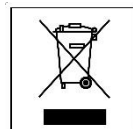


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IC (Industry Canada) ID: 5123A-BGM113



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## **SP597 STANDARD ACCESSORIES**

A597SP – Soft Pouch for SP597

## **SP597 OPTIONAL ACCESSORIES**

A931 – Carrying case capable of holding (2) SP670 pressure probes, (2) SP323 temperature clamps, and (2) A597 humidity probes

## **WARRANTY**

This product is warranted to the purchaser against defects in material and workmanship for three years from the date of purchase.

**Covered by Warranty:** Repair parts and labor; or replacement of the product at company's option. Normal transportation charges to the purchaser are also covered.

**Not Covered by Warranty:** Damages to the product which are the result of abuse, improper use or maintenance are not covered. Any other expense, consequential damages, incidental damages, or incidental expenses including damages to property are not covered. Transportation expenses to the company are not covered.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

**To Obtain Warranty Performance:** Include with the product: your name, address, phone number, written description of the problem and proof of purchase date. Carefully package and return to:

**TPI, Inc.**  
9615 SW Allen Blvd.  
Beaverton, OR 97005  
USA  
503-520-9197  
[www.testproductsintl.com](http://www.testproductsintl.com)

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**Implied Warranties:** Any implied warranties including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to three years from date of purchase. To the extent any provision of this warranty is prohibited by federal or state law and cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## NOTES

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