User Manual

TRIPLETT

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RHT02 Hygro-Thermometer Pen
RHT05 Hygro-Thermometer Pen with Wet
Bulb and Dew Point Functions

$C \epsilon$

Introduction

Thanks for purchasing the Triplett RHT02/RHT05 Hygro-Thermometer Pen The models RHT02/RHT05 can measure Relative Humidity from 10% to 90% and Temperature from -4 to 140°F (-20 to 60°C). Advanced features include MIN/MAX Memory, Push-button Calibration, Display Hold, and Automatic Power Off. The model RHT05 adds Wet Bulb (Wb) and Dew Point (DP) calculated measurements.
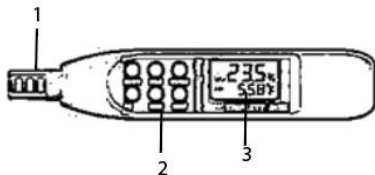
Features

- °F/°C switchable
- Data Hold freezes the reading on the display
- Min/Max records the highest and lowest readings
- Auto power off with disable
- Built-in Humidity calibration using optional calibration solutions
- Includes CR2032 battery
- 1-year warranty

Description

METER DESCRIPTION

1. RH and Temperature Sensor
2. Function Button Area
3. LCD Display

FUNCTION BUTTONS

RHT02   **RHT05**

LCD DISPAY

Operation

- Power on the meter by pressing **ON/OFF** button. You will see a full display on the screen (though you might have seen "**DP**","**WB**" shown on the screen, however these icons are only available for RHT05 model) for one second, now the meter will start measuring the temperature and humidity and display both readings at the same time.

  Note: Make sure you have rotated the sensor cap for ready to measure.

- "**AIR**" icon shows current environ-ment temperature and humidity.

- The default setting of temperature display can be in ^oF or ^oC. You can press **F/C** button to change the temperature display

- Press **MIN/MAX** button , **MIN** appears on display.
  The LCD screen is now showing the minimum humidity and tem-perature readings in memory. Press **MIN/MAX** button again, **MAX** will show on the LCD screen. Press **MIN/MAX** button once again, it backs to the normal measurement.

- To clear current MIN and MAX readings from memory, press and hold RESET button, now the meter reading turns to the normal mode and data in memory is clear now.

```
      50.0
AIR   25.8°C
```

- Press the hold button until "**HLD**" appears in display. The current reading is now being held and will not change until Hold function is cancelled. Press "**HOLD**" key to cancel HOLD function. Hold function can be used for Humidity and Temperature

```
HLD   50.0
AIR   25.8°C
```

- Unit will turn itself off after 20 min. (Sleep mode).To override Auto Power Off function (Non-Sleep Mode), press ON/OFF ,HOLD keys simultaneously before powering on. Now the display shows "n" on the screen. When "n" appears then release ON/OFF button. Unit will now be in Non-sleep mode for long time operation purposes

```
      n
```

NOTE: For model RHT05 press "MODE" key to switch the mode of temp. display. When meter is in AIR temperature mode, press "MODE" to toggle between "AIR", "DP", and "WB" readings.

RH Calibration

1. Turn off the meter, plug the meter probe into 32.8% salt bottle and press "**ON/OFF+F/C**" key more than one second to turn on the meter and enter Calibration mode.
2. You will see **3x.x%** display on the LCD, after 60 minutes the flashing stops to indicate the finish of "**3x.x%**" calibration (with saving)
3. Move the meter probe to 75.3% and press "**MN/MX**" key more than one second to enter 7x.x% calibration.
4. Now "**7x.x%**" is flashing on the LCD.
5. Flashing will stop after 60 minutes, it means the whole calibration is completed

A convenient look-up table has been built in to aid calibration.

HR 33 MgCl

TEMP	15 °c	20 °c	25 °c	30 °c	35 °c
RH%	33.30	33.07	32.78	32.44	32.05

If different temperatures, say 25 °C, the RH of MgCl is 32.78 and in 30°C, the RH is 32.44.

The same reference says 30 °C , the RH of NaCL is 75.09 RH% humidity and in 35 °C , the RH is 74.87% . (See the table)

HR75 NaCl

TEMP	15 °c	20 °c	25 °c	30 °c	35 °c
RH%	75.61	75.47	75.29	75.09	74.87

The relations are recorded in the look -up table.

Once the calibration mode is **ON**, the meter will search the right humidity value according to the current temp-erature to get more accurate calibra-tion. |

NOTES:

- You can exit calibration without saving by pressing "**ON/OFF**" key
- Auto power off is disabled in calibration mode.
- For best accuracy results the calibration should be done in an environments temperature of 23+2°C
- If the reading difference is not within 0.3% after calibration , it means the calibration is failed
- RH Calibration solution lookup table ---→

BATTERY REPLACEMENT

1. Turn off the meter and use a coin to open the battery cover.
2. Put the battery (CR2032) whose

"**+**" faces out into the battery compartment and place the battery cover back and lock it with a coin

Troubleshooting Tips

POWER ON BUT NO DISPLAY

- Make sure the time of pressing "**ON/ OFF**" key is more than 300mS.
- Check the battery is in place and make sure good contact and correct polarity.
- Replace a new battery and try again.
- Remove the battery. Press "ON/OFF" for 10 seconds. Install the battery and try again.

DISPLAY DISAPPEARS

- Check whether the low battery indicator is displayed on before display off , if yes , please replace with a new battery.
- Turn on the meter by pressing "**ON/ OFF+HOLD**" key to disable Auto Power Off function for a long time using.

CALIBRATION FAILURE

- Check whether the low battery icon is displayed on before cabliration , if yes, please replace with a new battery and try again.
- Make sure the good sealing when the meter probe plug into the salt bottle.
- Make sure the free air temperature is within $23\pm2\ ^{o}C$ when calibration.

Specifications

	RHT02	**RHT05**
Air Temperature	-4 to 140°F (-20 to 60°C)	-4 to 140°F (-20 to 60°C)
Accuracy	±1.8°F/1°C	±1.8°F/1°C
Relative Humidity	0 to 100%RH	0 to 100%RH
Accuracy	±3RH (10 to 95%)	±3RH (10 to 95%)
Wet Bulb	—	calculated
Dew Point	—	calculated
Resolution	0.1°F/°C; 0.1%RH	0.1°F/°C; 0.1%RH
Power	1 CR2032 Battery	1 CR2032 Battery
Dimensions	6.9 x 1.7 x 0.6" (175 x 42 x 16mm)	6.9 x 1.7 x 0.6" (175 x 42 x 16mm)
Weight	1.9oz (55g)	1.9oz (55g)

Warranty