

OPERATION MANUAL

TH-200 Pen-Style Thermo-Hygrometer



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1. INTRODUCTION

Thank you for purchasing the TH-200 Thermo-Hygrometer. It is used to measure temperature and relative humidity, calculate dew point temperature, and wet bulb temperature, as well as calculate Heat Index temperature and WBGT (WetBulb Globe Temperature). The Heat Index and WBGT index represent how an average person feels relative to climate conditions.

2. FEATURES

- Temperature and relative humidity measurement.
- Calculate dew point temperature and wet bulb temperature.
- Calculate heat index and WBGT.
- HI temperature alarm setting (Heat Index/WBGT).
- Reading Hold and Maximum/Minimum/Average functions.
- Auto power off function.
- Quick response and high accuracy.

3. MATERIALS SUPPLIED

- Meter
- Battery (CR 2032, 3v battery included)
- Operation manual
- Box

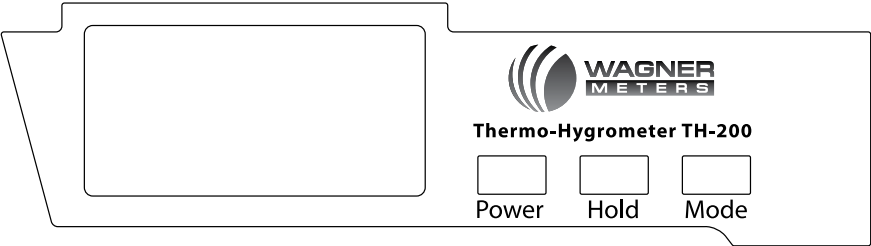
4. LCD DISPLAY



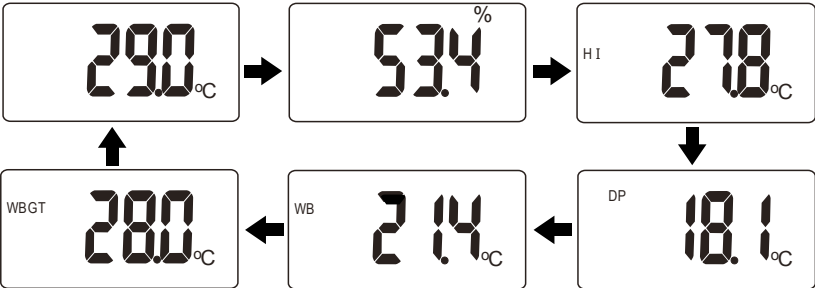
5. SPECIFICATION

Operating Temp. range	-4 - 122°F (-20 - 50°C)
Operating RH % range	0 - 99.9% RH
Resolution (Temp.)	0.1°F / 0.1°C
Resolution (RH%)	0.1% RH
Accuracy (Temp.)	±0.1°F (±0.6°C)
Accuracy (RH %)	±3% RH at 77°F (25°C), 10 - 90% RH; otherwise ±5% RH
Heat Index	YES
WBGT Index	YES
Dew Point Temp. (DP)	YES
WetBulb Temp. (WB)	YES
HI Alarm Setting (Heat Index / WBGT)	YES. Programmable from 60°F - 99.9°F and 20°C - 39.9°C

6. KEY FUNCTION



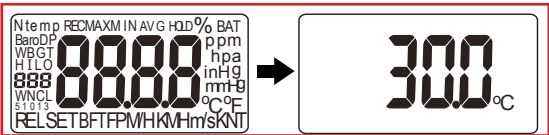
- 1. POWER:** Turn the meter ON/OFF, enter into Max/Min mode.
- 2. HOLD:** Reading Hold mode.
- 3. MODE:** Select measurement modes: Temp. (Temperature); RH (Relative Humidity); HI (Heat Index); DP (Dew Point); WB (WetBulb)-HI WB (WBGT).



7. OPERATION

Power On/Off

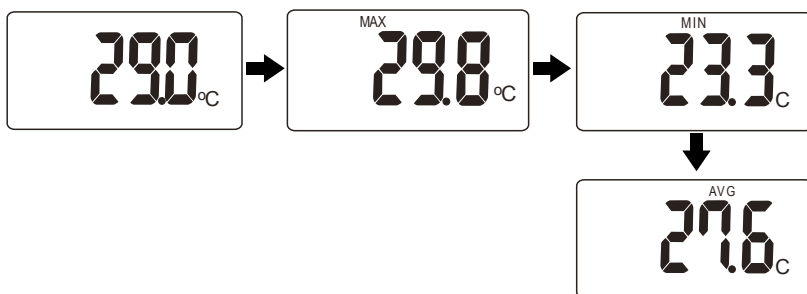
Press **POWER** button to turn on the meter.



The meter displays full segments in 1 second and then TEMP icon with reading appears on the LCD with a beep sound. To turn off the meter, press **POWER** button for more than 2 seconds.

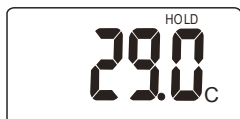
Maximum and Minimum mode

With meter on, press **POWER** button less than 2 seconds, MAX icon with the highest reading appears on the LCD. Press **POWER** button again, MIN icon with the lowest reading appears on the LCD. Press **POWER** button again, the meter will return to normal measurement.



Holding a Reading

1. Press **HOLD** button to freeze reading (see below).
2. Press **HOLD** button again, meter will return to normal measurement.



Auto Power Off

1. The meter will shut off automatically after approximately 15 minutes if no action is taken.
2. To disable this auto power off feature, the meter must be OFF. Press the **HOLD** and **POWER** buttons at the same time until "S-no" appears, then release buttons to return to normal measurement.




Once the meter is powered off, it will default back to the auto power off mode.

Setting Mode


Heat Index and WBGT HI alarm setting.

1. Select temp. Unit °F / °C
2. Alarm setting

Step 1.





With power off:
Press **MODE+POWER** to enter setting function
Press **MODE** button to select °F / °C
Press **POWER** button again to save and move to next steps 2-5 for setting alarm thresholds.



NOTE:
During setting operation, if you want to escape any mode setting, go through all setting modes by pressing the **POWER** button until you reach normal operation.

Step 2.







Press **MODE** to select
HI (Heat Index) alarm ON or OFF.

1. When the HI alarm function is on, press **POWER** button to enter Heat Index alarm threshold mode. (Move to Step 3)
2. When the HI alarm function is off, press **POWER** button to enter WBGT (HI WB) alarm setting mode.

Step 3. (Heat Index setting)





When HI alarm is on, HI icon with the current alarm threshold appears on the LCD.
Press the **MODE** button to increase the alarm threshold from decimal point (0.1-0.9), to unit digit (0-9), and then ten digit (60-90°F/20-30°C) until you release the button.
Press **POWER** button to save HI setting, and move to WBGT setting.

Step 4.



WBGT

A-on_{°C}

WBGT

A-of_{°C}

Press **MODE** to select HI WB (WBGT) alarm ON/OFF.

1. When the alarm function is on, press **POWER** button to enter WBGT setting. (Move to Step 5.)
2. When the alarm function is off, press **POWER** button back to normal measurement.



Step 5. (WBGT setting)

WBGT

28.0_{°C}

WBGT

82.4_{°F}

When WBGT alarm is on, HI WB (WBGT) icon with the current alarm threshold appears on the LCD.

Press **MODE** button to increase the alarm threshold from decimal point (0.1-0.9), to unit digit (0-9), then ten digit (60-90°F/20-30°C) until you release the button.



Step 6.

29.0_{°C}

84.2_{°F}

Press **POWER** button to save WBGT setting, and meter will go back to normal measurement.

Note:

1. The alarm sound can only be disabled when in setting mode to change the threshold setting.
2. You will hear the alarm sound continuously if HI or HI WB (WBGT) reach the HI threshold setting. To distinguish the alarm sound, enter into the HI or HI WB (WBGT) mode to see if HI or HI WB (WBGT) is blinking.
3. The default setting of Heat Index and WBGT is ON.

Troubleshooting

Error messages:

E-2	Humidity Sensor failed.
E-3	Temperature Sensor failed.
E-4	Operation Temperature is too high.
E-5	Operation Temperature is too low.
E-6	Hardware failed.

Note: If above error messages appear on the display, contact Wagner Meters at (844) 726-6308.

8. BATTERY REPLACEMENT

When low battery indication “BAT” icon appears on the LCD, the battery needs to be replaced.



Use a coin to remove the battery compartment cover on the rear of the meter. Replace the CR-2032 lithium battery; install the new battery face up (+) in the battery compartment.

9. WARRANTY

This instrument is warranted for one year from the date of purchase against material or production defects, in accordance with our general sales conditions. During the warranty period, the manufacturer reserves the right to decide to either repair or replace the product.

The warranty doesn't apply to:

- Batteries.
- Repairs made necessary by improper use (including adaptation to particular applications not foreseen in the instructions manual) or improper combination with incompatible accessories or equipment.
- Repairs made necessary by improper shipping material causing damages in transit.
- Repairs made necessary by previous attempts for repair carried out by unskilled or unauthorized personnel.
- Instruments for whatever reason modified by the customer without explicit authorization of our technical department.

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