

OPERATION MANUAL

Thermohygrometer

User's Manual



Model: 8723

INTRODUCTION

Thank you very much for purchasing this psychrometer with remote probe. The psychrometer is a micro processor-based design. A must device for HVAC engineers use. No need to whirl the meter or refer to the chart. Easy to get the wet bulb and dew point quickly!

Features :

- **Big LCD** digital display
- Professional **remote probe**
- **C & F** selectable
- **Handheld size**, easy to carry
- **Low** battery indication
- **Fast** response & **Accurate** reading
- **Tripod mountable** for long time use
- **Dew Point** calculated in seconds
- **Wet Bulb** calculated in seconds
- **Microprocessor** circuitry for reliability
- **Sleep and non-sleep** selectable
- Powered by **4 AAA** batteries
- **Back light** for dark places
- Self **calibration** function included
- **HOLD/MIN/MAX** function included

MATERIAL SUPPLIED

This package contains:

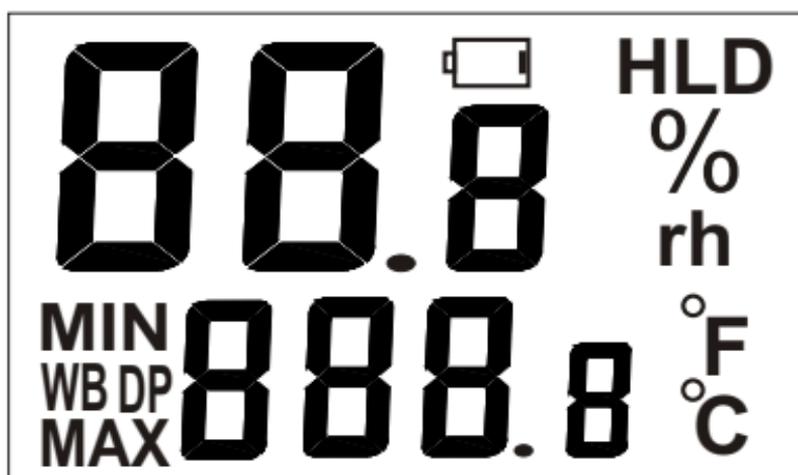
- ✓ The meter x 1
- ✓ Remote probe x1
- ✓ Battery x 4 (AAA size)
- ✓ Operation manual x1
- ✓ Hard carry case x1

Optional accessory:

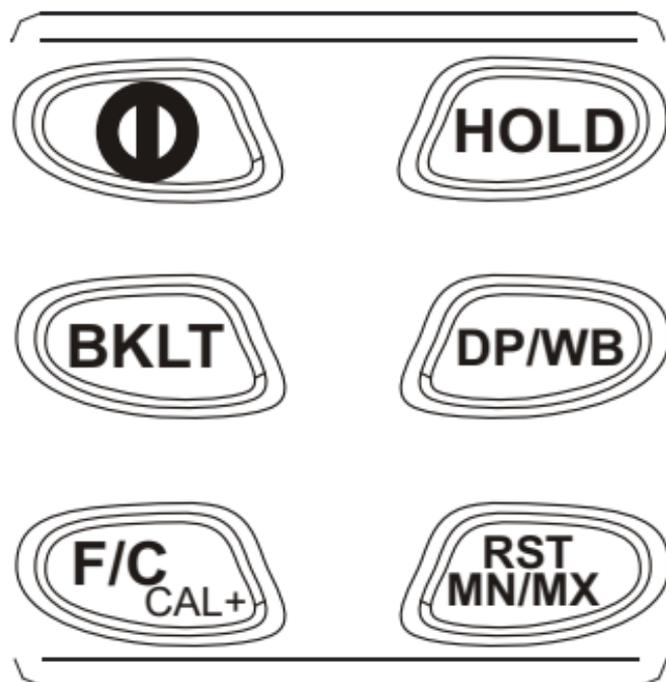
- ✓ Calibration solution x2

LCD & KEYPAD

LCD DISPLAY



KEY PAD



FUNCTION KEYS

1) key

- To turn on the meter with auto-sleep (20 minutes) and enter to normal mode
- Turn off the meter in any mode.

2) **BKLT** key

- Pressing the key to turn on the back light of LCD for 10 seconds.

3) **C/F CAL+** Key

- In normal mode, pressing the key to switch the unit C and F.
- In calibration mode, pressing the key more than one second to stop the calibration manually.
- Pressing with on/off key at the same time to enter calibration mode.

4) **HOLD** key

- Only in normal mode, pressing the key to hold the current reading.
- Pressing the key again to unlock.

5) **DP/WB** key

- Switching DP, WBT and air temperature in normal mode.

6) **RST/MN/MX** key

- Switching the display of min, max, and current value.
- Pressing more than one second to reset the min. and max. value.

7) **On/Off + Hold** key

- To turn on the meter without autosleep and enter to Normal mode.

POWER ON/OFF

- Pressing **⏻** to turn on the meter with auto-sleep (20 minutes) and enter to normal mode
- Pressing **⏻** to turn off the meter in any mode..

BACK LIGHT

- Pressing "**BKLT**" key to turn on the back light of LCD for 10 seconds.

UNIT SELECTION

- In normal mode, pressing "**C/F CAL+**" to switch the unit C and F.

HOLD READING

- Only in normal mode, pressing "**HOLD**" to hold the current reading.
- Pressing "**HOLD**" again to unlock.

AIR/DEW POINT/WET BULB

- Pressing **DP/WB** to switch AIR temperature, DP and WBT in normal mode.

CURRENT/MIN./MAX. VALUE

- Pressing **RST MN/MX** to switch the display of current value, min. and max. value.
- Pressing **RST MN/MX** more than one second to reset the min. and max. value.

NON-SLEEP

- Pressing **ⓘ + HOLD** to turn on the meter without autosleep and then enter to normal mode.

CALIBRATION

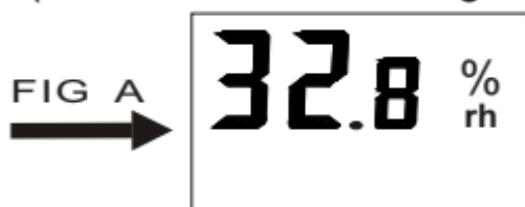
1. To turn off the meter, plug the meter probe into 32.8% salt bottle and press "**On/Off + F/C**" key more than one second to turn on the meter and enter calibration mode.
2. You will see 3x.x% flashing on LCD (FIG.A), after 30 minutes, the flashing stop to indicate the "3x.x%" calibration is finished and saved. You can also manually end & save the calibration

by pressing "**F/C CAL+**" key for more than one second.(Note a)

3. Move the meter probe into 75.3% salt bottle and pressing "**MN/MX/RST**" more than one second to enter 7x.x% calibration. "7x.x%" will flashing on LCD.
4. Flashing stop after 30 minutes, up to now the whole calibration has been completed, you can also manually end and save the calibration by pressing "**F/C CAL+**" key for more than one second. (Note d)

Note:

- a) You can manually exit calibration w/o saving by pressing "**On/Off**" key.
- b) Auto power off is automatically disabled during calibration procedure.
- c) In order to get high accuracy, you must do the calibration at a 23 ± 2 degree C & steady airflow room.
- d) While the procedure is just finished, if the value differ from 7x.x% or 3x.x% for more than 0.3%, it means the calibration fail.(see troubleshooting 3)



TROUBLESHOOTING

1. Power on but no display.

- a) Make sure the time of pressing On/Off " key is more than 100 ms.
- b) Check the batteries are in place, good contact and correct polarity.
- c) Replace new batteries and try again.
- d) Move the batteries away for one minute and install again. 5

2. Display disappear.

- a) Check whether the low battery indicator displayed before display disappeared, if yes, replacing new batteries.
- b) Turn on the meter by pressing "On/Off + Hold" key to disable auto power off function for long time using.

3. Calibration failure.

- a) Check whether the low battery indicator displayed before calibration, if yes, replacing new batteries and try again.
- b) Make sure the good sealing when the meter probe plug into the salt bottle.
- c) Make sure the free air temperature is within 23 ± 2 C and the airflow is stable.

4.E 11.

- a) RH calibration error. Need calibration again.

5.E 33.

- a) Circuit error in RH measurement channel. Returning the meter to the dealer.

6.E 34.

- a) Circuit error in Temperature measurement channel. Returning the meter to the dealer.

Note: When the meter is on, plugging in the probe will also result in "E 33" or "E 34" in max. and min. mode.

SPECIFICATION

1. Range:

*Humidity measurement: 0~100%

*Temperature measurement: $-10 \sim 60$ °C
(14 to 140 °F)

*DP : -73.4 to 59.9 °C (-100.0 to 139.8 °F)

*WBT: -13.4 to 59.9 °C (7.88 to 139.8 °F)

2. Accuracy:

*Humidity : $\pm 3\%$ from 10-90% (at calibration temperature); $\pm 5\%$ for others

*Temperature: ± 0.6 °C (± 1 °F)

3. Storage Temperature: -20 °C to 60 °C

4. Operating Temperature: 0 °C to 50 °C

Accuracy, the Zenith of Measuring / Testing Instruments !

Hygrometer / Psychrometer
Thermometer
Anemometer
Sound Level Meter
Air Flow meter
Infrared Thermometer
K type Thermometer
K.J.T. type Thermometer
K.J.T.R.S.E. type Thermometer
pH Meter
Conductivity Meter
T.D.S. Meter
D.O. Meter
Saccharimeter
Manometer
Tacho Meter
Lux / Light Meter
Moisture Meter
Data logger
Temp. / RH transmitter
Wireless Transmitter

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