

# Owner's Manual — Humiport 05

## Installation, Operation & Service Instructions

**Read and Save These Instructions**

The Phoenix Humiport line of ThermoHygrometers offers the restoration professional the optimum balance between cost, accuracy and response time.

Each Humiport Meter offers a large display for easy reading, and all of the important restoration information including, temperature (either F or C), relative humidity (%), dew point (F or C) and the popular “grains per lb” mixing ratio. There is even an “altitude” input that makes sure the grains calculation is extremely accurate. A listing of altitudes by state and (some) cities is available at [www.usephoenix.com](http://www.usephoenix.com), so you can set the meter to your specific area.

The Phoenix Humiport meters record conditions, calculate data and can display: MIN (minimum), MAX (maximum), AVG (average) and HOLD. The Phoenix Humiport 05 offers 3% accuracy for relative humidity between 5% – 95% and a temperature range of -4 to 122 degrees Fahrenheit.



### The Phoenix Humiport 05

- Fast response
- Grains/lb display
- Dew point
- Large display
- Min/Max/Avg. and Hold functions
- Altitude input for gpp calculation

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Serial No. \_\_\_\_\_

Purchase Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Dealer's Name \_\_\_\_\_

## WARNING

*Read the operation and maintenance instructions carefully before using this the Humiport 05.*

*Do not measure near live electrical components.*

*Avoid using in temperature conditions outside of that recommended (overheating can lead to their destruction)*

*Calibration should only be adjusted when used with a recommended calibration source or known standard.*

*Allow approximately 2 minutes for stabilization when taking measurements in dramatically different environments.*

### **IMPORTANT WARRANTY INFORMATION BELOW:**

*The plastic protection cap must be placed on the sensing head whenever the meter is not in use. Without this protection the sensing elements can be mechanically damaged or chemically contaminated. Meter failures due to damage or contamination of the sensing elements are not covered under warranty.*

*Place the meter in the supplied soft case to further protect from physical damage and contamination*

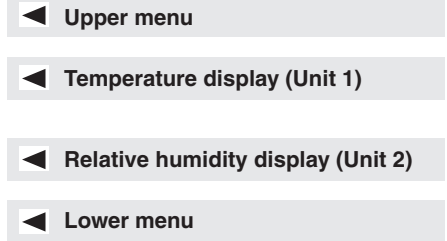
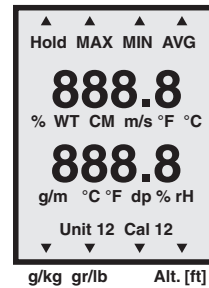
## 1 Appropriate Use

The measuring device must only be operated within the products specifications.

The measuring device must only be used under the conditions and for the purposes for which it was designed.

Modification to this device will void the warranty and may compromise the accuracy and safe operation of this device.

## 2 Display



## 3 Operation

The Humiport 05 can be adjusted using the three-way “Thumb Wheel” on the left hand side of the device.

Up and down movement of the wheel is used to navigate through different menu items on the screen. Items that flash intermittently on the screen are items that can be adjusted. Pressing the wheel inward will act as a “click” or selection of the highlighted item.

When the unit is first turned on, moving the wheel up or down will select the upper or lower menus on the screen.

### 3.1 Three Positions of the Thumb Wheel

- ▲ Turn up
- ▼ Turn down
- ▶ Press in the middle position

To switch on: ▶ (press briefly)

To switch off: ▶ press for approximately 2 seconds  
(No menu activated)

Upper menu: ▲ (press briefly),  
select with ▲, confirm with ▶.

Lower menu: ▼ (press briefly),  
select with ▼, confirm with ▶.



## 4 Upper Menu

The standard function:

### HOLD MAX MIN AVG

Can be selected in the upper menu. Select with ▲. The selected function flashes and is confirmed by means of ►. Once confirmed, the function is shown steady on the display. The menu can be cancelled by ▼ or by not pressing for 20 seconds. To exit the menu after confirmation press ►.

**Hold:** Hold “freezes” the measured value.

**MAX:** MAX displays the maximum value in the active period.

**MIN:** MIN displays the minimum value in the active period.

**AVG:** AVG indicated the arithmetical average value while activated.

## 5 Lower Menu

The functions:

### Unit 1 2 CAL 1 2

can be selected in the lower menu. Select with ▼. The selected function flashes and is confirmed by means of ►. The menu can be cancelled by ▲ or by not pressing for 20 seconds. To exit the menu after confirmation press ►.

**Unit1:** This selects display value of temperature on the upper numeric display. You have a choice of °C and °F. You can select with ▲ and ▼; confirm by ►.

**Unit2:** This selects the humidity value displayed on the lower numeric display. Click the wheel down to scroll through the display options that include b/m<sup>3</sup>, %r.h. dp°C, dp°F as well as g/Kg and gr/lb (gbb) identified the downward pointing arrow at the bottom of the screen.

You can select with ▲ and ▼; confirm by ►.

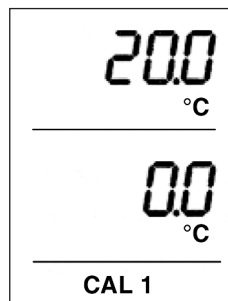
### 5.1 Single-Point Calibrations of Temperature and RH

**CAL1:** With CAL1 (Single-point temperature calibration) you adjust the value for Sensor 1 on the upper display (temperature). The offset from the factory calibration is shown on the lower display.

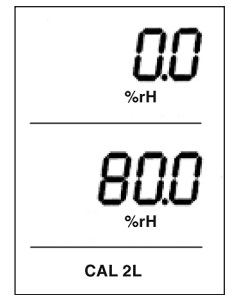
Maximum offset is ± 10°C or ± 10°F.

You can select with ▲ and ▼; confirm by ►.

**Adjust the offset to 0.0 to restore the factory calibration.**



**CAL2:** The lower screen should be showing % RH to use this feature. With CAL2 (single-point RH calibration) you adjust the value for Sensor 2 on the lower numeric display (RH). The offset from the factory calibration is shown on the upper display (RH). Maximum offset adjustment is ± 10% RH. Calibration adjustments must be made at 30% to 95% RH. For best full range accuracy, calibration should be made at 70 to 80% RH.



You can select with ▲ and ▼; confirm by ►.

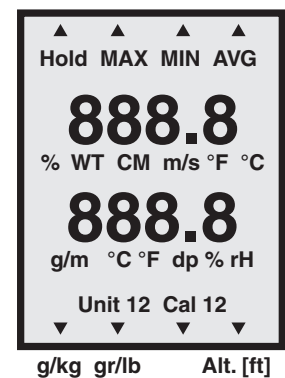
**Adjust the offset to 0.0%RH to restore the factory calibration.**

## 6 Measuring the Humidity Ratio

The Humiport 05 can calculate and display humidity or mixing ratio in g/Kg or gr/lb (gbb). In order to properly calculate this value the air pressure or altitude must be known. To display the correct humidity ratio value the local altitude must be set within ± 200 ft.

To adjust altitude, first set the unit to gr/lb (gbb) on the lower menu and select the lower right arrow on the screen above the Alt. (ft) label on the case. Select with ►. Move the wheel up and down to adjust the altitude. You can select with ▲ and ▼; confirm by ►.

For altitude in your area you can do a web search or use the City Altitude Guide available from Phoenix.



## 7 Replacing the Battery

When the message “BAT” appears on the display, you have a few hours of battery life left. Open the battery cover on the front of the device. Remove the discharged battery and replace it with a new one.

Please use only 9V E-block (PP3) batteries.

When inserting batteries please ensure that they are placed correctly and use only high-quality batteries.

## 8 Maintenance and Adjustment

Clean the device with a damp cloth when necessary. Do not use any cleaning fluids, just plain water to dampen the cloth. Do not touch the sensor.

When used for indoor environmental measurement we recommend annual calibration. Recalibration should be carried out more frequently in a harsh environment.

Recalibration should only be performed by a calibration laboratory, or by using a standard calibration method such as use of saturated salt solutions. Regardless of the method, calibrations should occur at a minimum of two %RH concentrations. Humidity sensor can also be calibrated to another recently calibrated humidity sensor.

Phoenix Restoration (Therma-Stor LLC) offers calibration services for all types and makes of hand held temperature and humidity monitors.

For more information on the Phoenix Calibration service call 1-800-533-7533

## 9 Specifications

### Measurement Range:

RH 5...95% RH  
Temp -4 to 122°F (-20° to 50°C)

### Calculated Values:

Dew Point °F, °C  
Humidity Ratio grams/Kg /dry air  
grains/lb dry air

### Accuracy:

RH ±3% RH  
Temp ±0.7°F at 32 to 103°F  
otherwise at ±1.3°  
(±0.4°C at 0 to 40°C otherwise ±0.7°C)

### Resolution:

RH 0.1%  
Temp 0.1°F, (0.1°C)

### Response Time:

RH T90<6.0 seconds

### General:

Supply Voltage 9V battery  
Battery Life 150 hours (typical)  
Working Temp. Range 32 to 122°F (0 to 50°C)  
Storage Temp. Range 3-4 to 140°F (-20 to 60°C)  
CE Compatibility EN61000-6-2, EN50147-3  
Weight 0.5 obs. (200 g)

## Phoenix Humiport 05/10/20 Limited Warranty

**Warrantor:**

Therma-Stor LLC  
4201 Lien Rd  
Madison, WI 53704  
Telephone: 1-800-533-7533

Phoenix Restoration (Phoenix) warrants this unit to be free of defects in materials and workmanship for a period of 12 months from date of purchase. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of Phoenix's control. Components which wear are not warranted, including but not limited to switches, displays, batteries and calibration. Phoenix's warranty does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification.

If the unit should malfunction, it must be returned to the factory for evaluation. Phoenix Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by Phoenix, if the unit is found to be defective according to the warranty it will be repaired or replaced at no charge. If the product is found not to be covered by the warranty, the customer will be offered the opportunity to purchase a replacement, refurbished unit.

Phoenix is pleased to offer suggestions on the use of its various products. However, Phoenix neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by Phoenix, either verbal or written. Phoenix warrants only that the parts manufactured by it will be as specified and free of defects. PHOENIX MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED.

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*Specifications subject to change without notice.*