1 YEAR
WARRANTY

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User's Guide

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9-IN-1 THERMO-HYGROMETER/ MOISTURE METER

USER'S MANUAL

RH650

Please read this manual carefully and thoroughly before using this product.

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INTRODUCTION

Thank you for purchasing OMEGA's RH650 9-in-1 Thermo-Hygrometer/Moisture Meter. Please read this user's manual carefully and thoroughly before using the instrument.

The RH650 is a handheld instrument that will prove useful to four groups of users: water damage restoration contractors, HVAC/R system installers and technicians, facility maintenance professionals and electronics manufacturers.

The first three groups will exploit the meter's ability to measure, display and store/recall six condensation-related parameters: temperature, relative humidity (RH), absolute humidity, dew point, atmospheric pressure and vapor pressure. The meter's large, primary readouts of each of the last five parameters are accompanied by a smaller, secondary readout of the first parameter: ambient temperature. The six parameters measured, monitored and displayed by the RH650 are most valuable in water damage remediation and the following two applications:

- **Environmental monitoring** of office buildings, greenhouses, food and equipment storage facilities, wineries, freezers, shipping containers, HVAC/R installations, computer rooms, labs, libraries, museums and saunas.

- **Electronics manufacturing**. Alerts provided by the low RH alarm of the RH650 can mitigate the risk of damaging high-voltage static discharges.

Water damage remediators will also make use of the RH650's ability to calculate an environment's mixing ratio (often represented by the unit GPP, or grains per pound). GPP is a more useful moisture metric than RH to water damage remediators. Using RH alone, a remediator might unknowingly introduce moist air—with a low RH but a high GPP—during a job's drying phase. The RH650's atmospheric pressure sensor makes its calculations of GPP—as well as dew point and vapor pressure—more accurate than those of competitive units which use standard atmospheric pressure at sea level.

Another parameter of interest to water damage remediators is the moisture level of a substance (typically, wood or building materials). The RH650 can measure this parameter using either a pinless (non-marring) or pin-type (penetrating) probe; the meter includes both kinds of probe.

Operating in internal moisture mode, the meter uses a non-invasive (pinless) sensor on the back of the unit to detect moisture up to 3/4 in. (20mm) below the surface of wallboard, masonry, hardwood and softwood. It infers the level of moisture from the material's capacitance, which the meter measures by gauging its effect on an electric field that the meter generates each time it is operated in internal moisture mode.

In internal moisture mode, the meter exploits two physical phenomena to make its measurements:

1. The linear relationship between a solid material's moisture level and its dielectric constant—and therefore its capacitance.
2. The so-called fringing-field effect—the slight spreading of the electric field produced by current flowing between two electrodes when both electrodes are on the same side of a material.

Behind the back cover of the RH650 are two metal plates. When the meter is powered on, the plates are given small and opposite charges. The potential difference causes current to flow, creating a three-dimensional electric field.

When the back of the meter is placed against one side of a material with moisture on or slightly below its surface, the increased capacitance of the material distorts the electric field to an extent that can be sensed (as a change in flux over the sensing area) and measured. Displayed readings reflect the average moisture level of the material between its surface and the electric field's maximum penetration of 3/4 in. Moisture closer to the surface has a greater effect on readings than moisture at the maximum penetration depth.

In external moisture mode, the meter bases its measurements on the relationship between the moisture content of a material and its electrical conductivity. The wetter a material, the higher its conductivity. The two replaceable steel pins of the included external probe serve as the electrodes of a conductance meter optimized for measuring moisture content. The meter displays measurements in the unit %WME (Wood Moisture Equivalent).

For hard materials like wood or concrete, the meter's readings largely reflect surface moisture content because: 1) Moisture close to a surface has a greater effect on a reading than moisture deep below it; and 2) The pins of the external probe are only 3/8 in. (10mm) long and cannot be

driven deep into a hard material. For softer materials like soil, paper or powders, readings are more likely to reflect the average moisture level of the material between its surface and the penetration depth of the pins (normally far less than 3/8 in.).

The RH650 can store and recall 20 pairs of measurements in its nonvolatile memory. The instrument also can be set up to sound an alarm if a measured RH or moisture level is above or below a user-defined setpoint. Finally, the unit can track the maximum or minimum reading of any parameter over the duration of a measurement session. The unit is powered by an included "9V" battery.

KEY FEATURES

- Measures 1) ambient temperature, 2) relative humidity (RH), 3) absolute humidity (in mg/L or g/m^3), 4) GPP (mixing ratio—in grains per pound or g/kg), 5) relative moisture level using pinless sensor, 6) absolute moisture level using included pin-type probe, 7) dew point, 8) atmospheric pressure and 9) vapor pressure
- Stores/recalls 20 pairs of readings
- Settable high and low alarms for RH, relative moisture level and absolute moisture level
- Backlit LCD with 3-digit primary readout + 4-digit secondary readout
- Zero reset in pinless moisture level mode
- Min/Max, Data Hold, and 30-minute Auto Power Off functions
- 1 year limited warranty

SAFETY INSTRUCTIONS

Do not operate the RH650 in the presence of flammable or explosive gases.

The steel pins of the external moisture probe are very sharp. When using the probe, be careful not to stab yourself or anyone else. Remember to replace the protective cap over the pins when finished using the probe.

WHAT'S IN THE BOX

The RH650 comes in a soft pouch inside an illustrated box. Also inside the pouch are a pin-type moisture probe, a sensor protection cap, a "9V" battery and this user's manual.

PRODUCT OVERVIEW

Fig. 1 shows the names and locations of all of the controls, connectors and physical structures of the RH650. Fig. 2 shows all possible indications on the unit's LCD. Familiarize yourself with the labels, positions and functions of all buttons and connectors before moving on to the Setup Instructions and Operating Instructions.

Fig. 1. The controls and physical structures of the RH650

A. Humidity/temperature sensor

B. Removable hanger tab

C. LCD

D. **ON/OFF HOLD** button. **With meter off**, pressing button powers it on. **With meter on**, briefly pressing button freezes primary and secondary readouts; pressing and holding button powers meter off.

E. M**AX/MIN** button. For all parameters except moisture level, **pressing button once displays highest reading** since entering that measurement mode. **Pressing button twice displays lowest reading** since entering that measurement mode. Pressing button a third time resumes measurement and display of same parameter. **Also used to enter alarm set mode**.

F. **ZERO** button. **With meter off**, used to disable Auto Power Off (APO) function. In measurement mode, used to reset baseline of pinless moisture (**MOIST INT**) measurements. **In memory mode**, used to clear stored readings.

G. **UNIT** button. **In measurement mode, each press toggles between Imperial and metric** measurement units for the following parameters: Ambient Temperature & Dew Point (°F or °C); Absolute Humidity (mg/L or g/m^3); Mixing Ratio (GPP or g/kg); Barometric Pressure and Vapor Pressure (mBAR or KPa). **In memory mode, used to clear** stored readings. **Also used to enter alarm set mode**.

H. **<DN** button. **In measurement mode, each press shifts mode selector one position to the left. In memory mode, each press decrements record counter** by one digit. **In alarm set mode, each press decreases alarm setpoint** by 0.1%.

I. **UP>** button. **In measurement mode, each press shifts mode selector one position to the right. In memory mode, each press increments record counter** by one digit. **In alarm set mode, each press increases alarm setpoint** by 0.1%.

J. **STORE/ENTER** button. **In measurement mode, stores both displayed readings** in memory when pressed and held for >2 seconds. **In alarm set mode, saves displayed Hi alarm setpoint** and advances to Lo alarm setting, or saves displayed Lo alarm setpoint and resumes measurement mode. **In memory mode, exits memory** mode and resumes measurement and display of last selected parameter.

K. Jack for included pin-type moisture probe

L. Pinless moisture sensor (on back)

M. Battery compartment (on back)

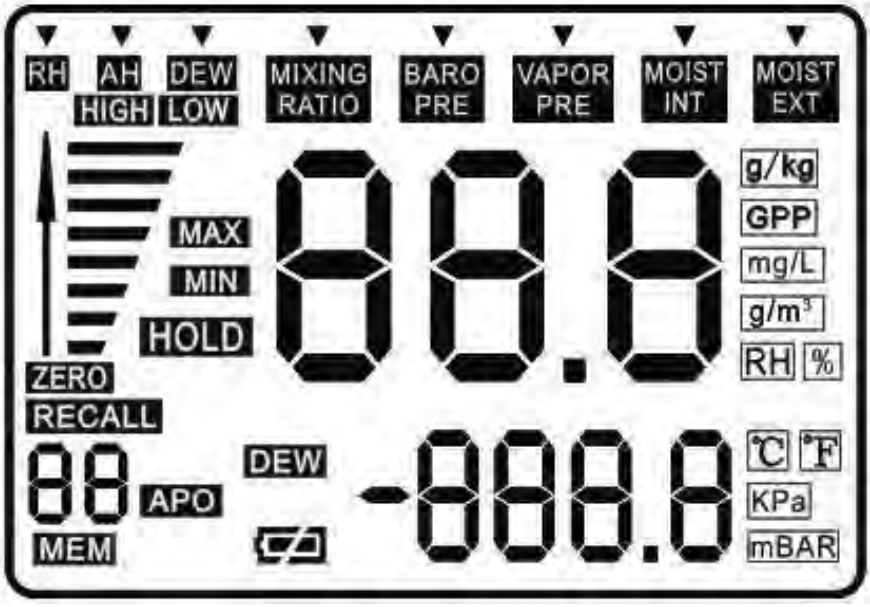


Fig. 2. All possible display indications

▼: Mode selector

RH : Relative humidity mode indicator

AH: Absolute humidity mode indicator

[Upper] DEW: Dew point mode indicator

MIXING RATIO: Vapor pressure mode indicator

BARO PRE : GPP mode indicator

VAPOR PRE: Ambient pressure mode indicator

MOIST INT: Pin-type moisture measurement mode indicator

MOIST EXT: Pinless moisture measurement mode indicator

HIGH LOW : Alarm limit indicators

ZERO: Zero reset indicator

: Pin/pinless moisture level indicator

MAX MIN : Maximum & minimum value indicators

HOLD : Data hold indicator

88.8: Primary readout

-888.8 : Secondary readout

RECALL : Recall mode indicator

88 MEM : Record number indicator

: Low battery icon

[Lower] DEW : Dew point temperature indicator

APO : Auto power off enabled indicator

g/kg GPP : Mixing ratio units

mg/L g/m³ : Absolute humidity units

RH % : Relative humidity unit

°C °F : Temperature units

KPa mBAR : Pressure units

SETUP INSTRUCTIONS

INSTALL BATTERY

To open the battery compartment:

1. Turn the meter over and loosen the single screw securing the battery compartment cover. Remove the screw and set it aside.
2. Lift the tab at the bottom of the cover in order to remove it and set it aside.
3. Plug the included “9V” battery into the wired socket inside the compartment. The terminals of the battery and the socket mate in only one way, with the smaller male terminal plugging into the larger female terminal.
4. Replace the battery compartment cover and reinstall the screw to secure it.

OPERATING INSTRUCTIONS

POWERING ON & OFF

To power on the meter, press the **ON/OFF HOLD** button. By default, the instrument will immediately begin making and displaying RH (relative humidity) measurements.

Before using the meter to make measurements, remove the dust cap protecting the humidity/temperature sensor.

To power off the meter, press and hold the **ON/OFF HOLD** button for at least 2 seconds. The shutdown will be announced by two short beeps.

After powering off the meter, replace the sensor protection cap if you do not expect to use the instrument within the next few hours.

By default, the meter will automatically power itself off if no front-panel button is pressed within any 30-minute period. The upcoming shutdown will be announced by three beeps of the beeper. When this Auto Power Off function is active, the term **APO** will appear at the bottom left of the LCD (see Fig. 2).

To disable the APO function, you must power on the meter in a special way, by pressing and holding the **ZERO** button while pressing the **ON/OFF HOLD** button. When the **APO** function has been disabled, the term **APO** will not appear on the LCD.

SELECTING A PARAMETER

The RH650 can measure and display the value of eight different moisture-related parameters. When the meter is in measurement mode, you select a parameter by pressing either the **UP>** and **<DN** buttons to move the ▼ pointer on the top line of the LCD directly above it. For example, the following is the display for RH measurement mode—the operating mode that the meter enters by default when it is powered on.

As the figure on the left shows, moving the ▼ pointer four positions to the right (by pressing the **UP>** button four times) switches the meter to operate in Ambient pressure mode.

In Dew point measurement mode, DEW will appear at the left of the secondary readout to remind you that the value shown reflects the dew point temperature, rather than the ambient temperature.

GENERAL CONTROLS

Changing measurement units. By default, the RH650 uses Imperial units for all parametric readouts. **To switch to metric units**, press the **UNIT** button. Ambient temperatures and dew points will then be displayed as °C rather than °F; absolute humidity values will be stated in g/m^3 rather than in mg/L; mixing ratios will be displayed in units of g/kg rather than GPP; and barometric pressures and vapor pressures will be stated in KPa rather than mBAR.

Backlight. The RH650 has a green backlight that automatically illuminates whenever any button is pressed. It will remain on for 30 seconds and then extinguish to extend battery life.

Holding readings. *Briefly* pressing the **ON/OFF HOLD** button freezes both the primary and secondary readouts. HOLD will appear on the display to remind you that the readouts are frozen.

To release the hold, briefly press the **ON/OFF HOLD** button again.

Note: When the RH650 is in Hold mode, it takes two separate presses of the **ON/OFF HOLD** button to power off the meter. The first (brief) press (which is accompanied by a short beep) releases the hold. The second press (and hold) initiates shutdown (which is announced by two short beeps).

Storing readings. Pressing and holding the **STORE/ENTER** button for at least 2 seconds saves the values shown on the primary and secondary readouts as a pair in the meter's nonvolatile memory. Each "save" automatically increases by one the Record number indicator—the number above **MEM** at the lower left of the LCD. The readings remain in memory, available for recall, after the meter powers off.

The next section of this manual contains instructions for recalling saved readings.

MIN/MAX tracking. For all parameters except moisture level:

- **Pressing the MAX/MIN button once displays the highest reading** since entering that measurement mode. MAX will appear at the left of the primary readout.
- **Pressing the button twice displays the lowest reading** since entering that measurement mode. MIN will appear at the left of the primary readout.
- **Pressing the button a third time resumes real-time measurement** and display of the same parameter.

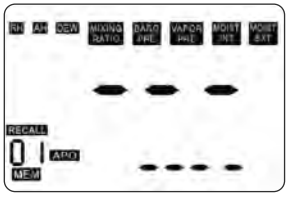
RECALLING STORED READINGS

To enter Recall mode, press the **<DN** and **UP>** buttons at the same time. RECALL will appear above the Record number indicator at the lower left of the LCD. The Record number indicator will correspond to the last pair of readings stored.

You can now use the **<DN** and **UP>** buttons to navigate to and display a specific pair of readings. For example, the screen shot below shows that a pair of readings of 63.8% for RH and 28.8°C for temperature were stored in Record location 08.

Alternatively, you can repeatedly press the **UP>** button to recall all readings in the order in which they were stored, or the **<DN** button to recall them in reverse order. Pressing the **UP>** button when the last stored pair of readings is displayed returns the Record number indicator to 01, corresponding to the first pair of readings stored. Pressing the **<DN** button when the first stored pair of readings is displayed returns the indicator to the record number of the last pair of readings stored.

To exit Recall mode and resume making real-time measurements, press the **STORE/ENTER** button.



To erase all stored readings, press and hold the **ZERO** and **UNIT** buttons at the same time for at least 2 seconds. The meter will respond by sounding three short beeps and resetting the Record number to 01. You can clear all stored readings while operating in Recall mode or Measurement mode. Clearing the memory in Recall mode produces the display at left.

SETTING ALARMS

The RH650 allows you to set alarms that will repeatedly sound the beeper if the measured RH level or the moisture level of a material (measured by either the pinless or pin-type sensor) is above or below a certain value. The upper and lower limits are called alarm setpoints. For example, the screen shot at the top of the next page shows that the upper limit for RH—the **HIGH** setpoint of the RH alarm—has been set to 63.8%.

To **enter Alarm set mode**, press the **MAX/MIN** and **UNIT** buttons at the same time while in **RH, MOIST INT** or **MOIST EXT** mode. Doing so will display the current value of the selected parameter's high setpoint and cause the word **HIGH** to appear near the upper left of the display, as shown on the left.

All three parameters require you to use the same three-step sequence of button presses for changing their setpoint(s). After entering Alarm set mode (with **HIGH** appearing on screen), you can either raise or lower the **HIGH** setpoint by using the **UP>** or **<DN** button, or leave it unchanged (if you wish to change only the **LOW** setpoint). Each press of the **UP>** button increases the setpoint by 0.1%. Each press of the **<DN** button decreases the setpoint by 0.1%. To change the value of the setpoint by a large amount, you can press and hold the **UP>** or **<DN** button for at least 3 seconds.

Whether or not you change the **HIGH** setpoint, you must press the **STORE/ENTER** button to proceed to the next step in the sequence: changing the **LOW** setpoint or leaving it unchanged. Pressing the **STORE/ENTER** button with **HIGH** on-screen saves the value shown on the primary readout as the selected parameter's new **HIGH** setpoint. It also changes **HIGH** to **LOW** and switches the primary readout to show the current value of the parameter's **LOW** setpoint.

Once **LOW** appears on-screen, you can use the **UP>** or **<DN** button to change the value of the parameter's **LOW** setpoint, as explained earlier in the paragraph on **HIGH** setpoints. Alternatively, you can leave the **LOW** setpoint unchanged. Whether or not you make a change, your next step must be to press the **STORE/ENTER** button. Doing so saves the value shown on the primary readout as the selected parameter's new **LOW** setpoint. It also causes **LOW** to disappear and returns the RH650 to operation in real-time RH measurement mode.

To disarm any of the six alarms (**HIGH** and **LOW** for **RH, MOIST INT** and **MOIST EXT**), you must reset its setpoint to 100.0% or 0.0% by pressing the **UP>** or **<DN** button. When disarming a **HIGH** alarm, it is faster to use the **UP>** button to increase its setpoint to 100% than to use the **<DN** button to decrease its setpoint to 0.0%. In practice, what you would do is: 1) press and hold the **UP>** button until the display shows a value greater than 99%, 2) release the button, and 3) use brief presses to reach 99.9%. When the primary readout shows 99.9%, the next press of the **UP>** button will change the readout to **OFF**. Pressing the **STORE/ENTER** button at this point will disarm the **HIGH** alarm for that parameter.

Similarly, you would disarm a **LOW** alarm by 1) pressing and holding the **<DN** button until the display shows a value less than 1%, 2) releasing the button, and 3) using brief presses to reach 0.1%. When the primary readout shows 0.1%, the next press of the **<DN** button will change the readout to **OFF**. Pressing the **STORE/ENTER** button at this point will disarm the **LOW** alarm for that parameter. The screen at left shows the next-to-last step (prior to pressing the **STORE/ENTER** button) of disarming the **LOW** alarm for **MOIST INT**.

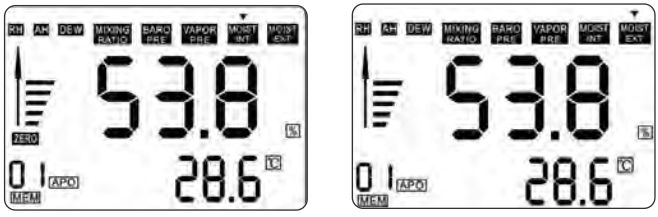
Two notes related to alarms:

- **HIGH** alarm setpoints must be higher than **LOW** alarm setpoints. When the display is showing **LOW** in Alarm set mode, pressing the **STORE/ENTER** button to save a change that violates this rule will not succeed in returning the RH650 to real-time measurement. Instead, the beeper will sound four times and the Alarm set sequence will return to the first step. Consider this a prompt to reset the **HIGH** alarm setpoint to a value greater than the **LOW** alarm setpoint.
- The original factory settings of the **HIGH** and **LOW** alarm setpoints are 85% and 25%, respectively. So if your first use of the meter is in a exceptionally humid or dry environment, an alarm may sound immediately. To disarm the alarm, follow the instructions in the preceding two paragraphs.

MEASURING MOISTURE LEVELS

In addition to the modes for measuring five condensation-related parameters, the RH650 has two separate moisture level measurement modes: **MOIST INT** and **MOIST EXT**. In **MOIST INT** mode, the meter uses a non-invasive (pinless) sensor on the back of the unit to detect moisture on or within 0.75 in. (19mm) of the surface of a material. In **MOIST EXT** mode, the meter uses the included pin-type probe to measure the conductivity of a material as a proxy for its moisture content.

In both moisture level measurement modes, the RH650's display adds a vertical bar graph to the digital readout of a material's moisture level. The bar graphs (see below) have no scale; they exist only to provide an analog way to quickly track changes in relative moisture levels.



To use the included pin-type probe to measure the moisture level of a material:

1. Use the **UP>** or **<DN** button to move the ▼ pointer above **MOIST EXT**.
2. Insert the plug of the probe into the jack on the bottom of the RH650.
3. Remove the protective cap from the business end of the probe and set it aside.
4. Insert the pins of the probe into the material whose moisture level you wish to measure.

The measured moisture level will appear on the primary readout as a percentage, with the ambient temperature below it on the secondary readout.

To use the pinless sensor to measure the moisture level of a material, use the **UP>** or **<DN** button to move the ▼ pointer above **MOIST INT**. Hold the meter in either hand by wrapping your fingers around the rubber grip at the bottom of the unit. Make sure that no part of your hand or fingers is touching—or even near—the pinless sensor on the back of the meter.

If the primary readout shows **0.0%** with the meter in your hand (and not touching anything), the meter is ready to make measurements. To measure the moisture level of a material, press the pinless sensor on the back of the meter (Fig. 1, Callout L) against it. The moisture level, as percentage, will appear on the primary readout.

If the primary readout shows a value other than 0.0%, you should reset the baseline of measurements in **MOIST INT** mode. To do so, continue to hold the meter in your hand (touching nothing) and press the **ZERO** button. Immediately after the term **ZERO** appears briefly below the bar graph at the left of the display, the primary readout will show **0.0%** and the measurements will again be accurate in **MOIST INT** mode.

To obtain accurate readings in **MOIST INT** mode, you should reset the readout to 0.0% each time you re-enter that mode from another mode.

CHECKING CALIBRATION

Although you cannot calibrate the RH650 yourself, you can *check* the meter's calibration periodically to assure yourself of the accuracy of humidity-related readings (RH, absolute humidity, dew point and mixing ratio). Factory calibration should minimize the humidity sensor's drift for several years—well beyond the warranty period.

At a minimum, a calibration check should entail immersing the slotted structure protecting the humidity sensor in two bottles containing saturated salts. One reference salt should produce a reading of a 33%; the other should produce a reading of 75%.

Depending on the size and shape of the calibration salt bottle that you use, you may have to remove the hanger tab (Fig. 1, Callout B) from the meter to provide sufficient clearance for the bottle to fit snugly over the slotted structure protecting the humidity/temperature sensor (after removing the dust cap). The hanger tab is removable for that reason.

SPECIFICATIONS

Ambient Temperature Measurement Range	-20° to 167°F (-29° to 75°C)/±3.6°F (2°C)
Ambient Temperature Measurement Accuracy	±3.6°F (2°C)
RH Measurement Range	0 to 100%
RH Measurement Accuracy	±2.5% from 11 to 90%RH; ±3%RH elsewhere
Absolute Humidity Range	0.5 to 240mg/m^3 (mg/L)
GPP Range	0 to 999 GPP (0 to 160g/kg)
Relative/Absolute Moisture Level Range	0 to 99.9%
Pinless Moisture Measurement Depth	0.75 in. (19mm)
Dew Point Range	-76° to 140°F (-60° to 60°C)
Atmospheric Pressure Range	30 to 120 kPA
Vapor Pressure Range	0 to 20.0 kPA
Sampling Rate	2X/sec
Memory Capacity	20 pairs of readings
Auto Power Off Trigger	30 minutes of inactivity
Backlight Duration	30 seconds
Battery Life	6 to 8 weeks (4 hrs/day use)
Operating Temperature	32° to 110°F (0° to 43°C)
Storage Temperature	-22° to 140°F (-30° to 60°C)
Dimensions	7.3 x 2.8 x 1.4 in. (185 × 72 × 36mm)
Weight	6.2 oz. (175g), without battery
Power Source	(1) “9V” battery (included)

OPERATING & MAINTENANCE TIPS

- When the  icon appears on the bottom row of the LCD, it's time to install a fresh "9V" battery using the procedure on p.7.
- Do not immerse the RH650 in water or get water on it.
- Do not disassemble the unit. Opening the case voids the warranty.
- To avoid fouling the humidity/temperature sensor, do not operate the unit in very dusty environments. Replace the dust cap protecting the sensor after each measurement session.
- Remove the battery if you do not expect to use the unit for several months or longer. This will avoid potential leaks of battery acid that might damage or destroy the unit.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA'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. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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DATA ACQUISITION

- Data Acquisition & Engineering Software
- Communications-Based Acquisition Systems
- Plug-in Cards for Apple, IBM & Compatibles
- Data Logging Systems
- Recorders, Printers & Plotters

HEATERS

- Heating Cable
- Cartridge & Strip Heaters
- Immersion & Band Heaters
- Flexible Heaters
- Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

- Metering & Control Instrumentation
- Refractometers
- Pumps & Tubing
- Air, Soil & Water Monitors
- Industrial Water & Wastewater Treatment
- pH, Conductivity & Dissolved Oxygen Instruments

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