

# UEI<sup>®</sup> INSTRUCTION MANUAL

## THL2

*Compatible with  
Windows™ 2000, XP,  
Vista and Windows 7.*



**1-800-547-5740 • Fax: (503) 643-6322**  
**www.ueitest.com • email: info@ueitest.com**

**Temperature/Humidity USB Datalogger**

# Introduction

Use the UEi THL2 to log temperature and humidity values for later analysis. Verify cold storage requirements are being met, or test temperatures and humidity for comfort analysis.

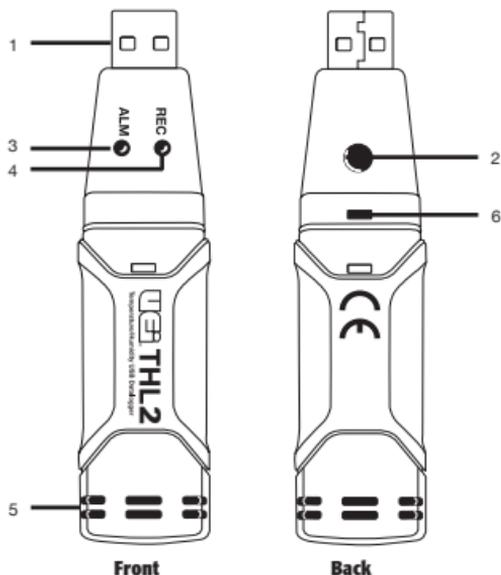
## Features include

- 32,000 data points (16,000 Temperature, 16,000 Relative Humidity)
- Analysis software with dew point calculation, charting of results, and export to other file formats
- USB interface and Windows™ compatible
- Instant or manual start
- Alarm LED's with user selectable values
- Magnetic mount
- Long battery life

## Contents include

- THL2 Data logger
- Wall mount
- (1) Battery
- Software CD

## Controls and Indicators



*NOTE: You **MUST** Install the software provided and initialize the THL2 Prior to use.*

1. **USB:** Connects to a USB port on a computer.
2. **Start Button:** Activates data logger.
3. **Alarm LED:** Illuminates red or yellow.
4. **Record LED:** Illuminates green.
5. **RH and Temperature Sensors**
6. **Slot to Open Battery:** Refer to battery replacement.

## Operating Instructions:

**Before using you must install the software on your computer and initialize the THL2.**

LEDs	Indication
<b>REC</b> <b>ALM</b>  	Both LED lights off
<b>REC</b> <b>ALM</b>  	One Green flash every 10 seconds* Double Green flash every 10 seconds*
<b>REC</b> <b>ALM</b>  	Single Red flash every 10 seconds* Double Red flash every 10 seconds* Single Red flash every 60 seconds
<b>REC</b> <b>ALM</b>  	Single Yellow flash every 10 seconds* Double Yellow flash every 10 seconds* Single Yellow flash every 60 seconds

	<b>Description</b>	<b>Action</b>
	Not logging	Start logging
	Low battery	Replace battery and download data
	Logging - No alarm**	
	Not logging - in Manual Start Mode	Press "START" to begin logging
	Logging - Low Alarm RH%***	
	Logging - High Alarm RH%***	
	Low battery****	Logging will stop automatically. Replace battery and download data (No Data will be lost)
	Logging - Low Temp Alarm***	
	Logging - High Temp Alarm***	
	Logger memory full	Download Data

\*To save power, the logger's LED flashing-cycle can be changed to 20 or 30 seconds via the supplied software.

\*\*To save power alarm LED's for temperature and humidity can be disabled via the supplied software.

\*\*\*When both temperature and relative humidity readings exceed the alarm levels the LED status indication alternate every cycle. For example if there is only one alarm cycle the "**REC**" LED will blink for one cycle, and the Alarm LED status will blink on the next cycle. If there are two alarms the "**REC**" LED will be disabled and the two alarms will alternate on each cycle.

\*\*\*\*When the battery is low all operations will be disabled automatically.  
**NOTE:** *Logging will automatically stop if the battery level is low (logged data will be retained). The software is required to download data and restart logging.*

\*\*\*\*\*To delay logger start, use the software and select "**MANUAL**" instead of "**INSTANT**". This is available from the "**LINK**" menu and then "**LOGGER SET**", or by clicking on the computer icon on the Logger Software task bar. If you select "**MANUAL**" the logger will not begin logging until you press the yellow button on the logger housing.

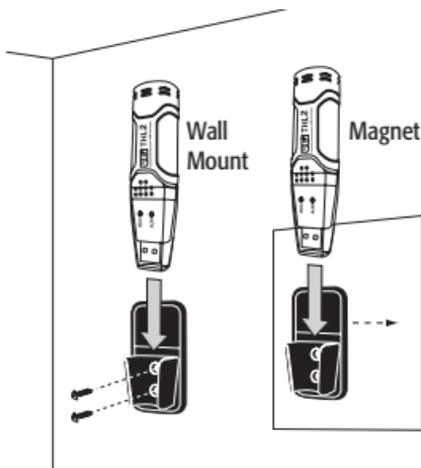
## Software Installation

The THL2 comes with software that must be installed before the device can be used. Insert software CD into computer and follow the install instructions. After installation, place unit in the PC USB port to begin download data.

## Mounting to Wall

Screw in wall mount to wall and place the THL2 data logger inside the holder as shown.

Or, use the magnetic mount on metal surfaces and place the THL2 data logger inside the holder as shown.



# Maintenance

## Periodic service



### **WARNING!**

*Repair and service of this instrument is to be performed by qualified personnel only. Improper repair or service could result in physical degradation of the meter. This could alter the protection from electrical shock and personal injury this meter provides to the operator. Perform only those maintenance tasks that you are qualified to do.*

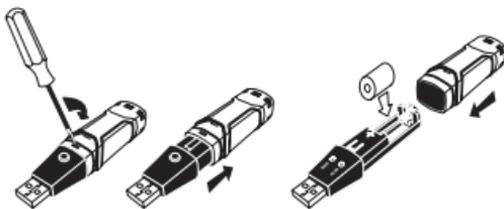
## Cleaning

Periodically clean your meter's case using a damp cloth. **DO NOT** use abrasive, flammable liquids, cleaning solvents, or strong detergents as they may damage the finish, impair safety, or affect the reliability of the structural components.

## Battery Replacement

Only use 3.6V lithium battery.

1. With a small screw driver, open the case. Lever the casing off in the direction of the arrow.
2. Pull the data logger from the casing.
3. Replace/insert the new battery into the battery compartment observing the right polarity. The two displays briefly light up for control purposes (alternating green, yellow, green).
4. Slide the data logger back into the casing until it snaps into place. Now the data logger is ready for programming.



### **WARNING!**

*Under **NO** circumstance should you expose batteries to extreme heat or fire as they may explode and cause injury.*

***NOTE:** Leaving the THL2 Data logger plugged into the USB port for longer than necessary will cause some of the battery capacity to be lost.*

## Specifications

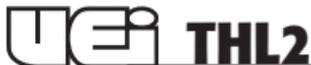
Relative Humidity	Overall range	0 to 100%
	Accuracy (0 to 20 and 80 to 100%)	±5.0%
	Accuracy (20 to 40 and 60 to 80%)	±3.5%
	Accuracy (40 to 60%)	3.0%
Temperature	Overall range	-40° to 158°F (-40° to 70°C)
	Accuracy (-40° to +14 and 104° to 158°F)	±3.6°F
	Accuracy (+14° to +104°F)	±1.8°F
	Accuracy (-40° to -10° and +40° to +70°C)	±2°C
	Accuracy (-10° to +40°C)	±1°C
Dew Point Temperature	Overall range	-40° to 158°F (-40° to 70°C)
	Accuracy (25°C, 40 to 100% RH)	±4.0°F (2.0°C)
Logging Rate	Selectable sampling interval: From 2 seconds up to 24 hours.	
Operating Temperature	-31° to 175°F (-35° to 80°C)	
Battery Type	3.6V lithium (1/2AA) (SAFT LS14250, Tadiran TL-5101 or equivalent)	
Battery Life	1 year (typ.) depending on logging rate, ambient temperature and use of alarm LEDs.	
Dimensions	101 x 25 x 23 mm (4 x 1 x 9")	
Weight	172 g (6 oz)	

## **Sensor Reconditioning**

Over time, the internal sensor may be compromised as a result of pollutants, chemical vapors, and other environmental conditions which can lead to inaccurate readings. To recondition the internal sensor, please follow the procedure below:

Dry the logger at 176°F (80°C) at <5% RH for 36 hours followed by 70° - 90°F (20° - 30°C) at >74% RH for 48 hours (for re-hydration).

If permanent damage to the internal sensor is suspected, replace the Logger immediately to ensure accurate readings.



## **Temperature/Humidity USB Data logger Limited Warranty**

The THL2 is warranted to be free from defects in materials and workmanship for a period of one year from the date of purchase. If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at UEi's option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance. Batteries and consequential damage resulting from failed batteries are not covered by warranty.

Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. UEi shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss. A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge. Return the unit postage paid and insured to:

**Attn: UEi Service  
8030 SW Nimbus  
Beaverton, OR 97008**

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This warranty gives you specific legal rights. You may also have other rights which vary from state to state.