

# Tinytag Thermohygrometer User Guide



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## WARNINGS



- Use Alkaline Batteries, size AA only.
- Remove batteries if exhausted or if the unit will not be used for a prolonged period.
- Do not recharge.
- If this equipment is installed or used in a manner not specified by the manufacturer then the protection provided by the equipment may be impaired.
- This equipment should only be interfaced to equipment which is powered by a Safety Extra Low Voltage Supply. The maximum voltage levels are to be 30V rms, 42V peak or 60Vdc and separated from hazardous voltages by double or reinforced insulation. For the United States consider a Safety Extra Low Voltage Supply to be a Class 2 source as defined in the National Electrical Code. If the unit is connected to a computer outdoors the computer must also comply.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause any harmful interference, and (2) this device must accept any interference received, including interferences that may cause undesired operation.

## Controls and Connections

This section identifies the controls, connections and display symbols on the Thermohygrometer.

**FRONT**

**REAR**



- ① Temperature / Humidity Probe
- ② Computer socket for connection to a personal computer
- ③ LCD Display
- ④ Display on / off button
- ⑤ Battery compartment for 2 x AA Alkaline cells.

## Display Symbols



Low battery warning.



Constant indication: Data is being logged to memory.

Flashing indication: Ready to log data, waiting for a delayed start.

**%RH**

Relative Humidity is currently being displayed.

**°C**

Temperature is currently being displayed, in degrees Centigrade.

**°F**

Temperature is currently being displayed, in degrees Fahrenheit.

## Quick Start

- Loosen the retaining screw and remove the battery compartment cover ⑤.
- Fit 2 x AA Alkaline Battery (*supplied*), observing correct polarity.
- Refit the cover ⑤.
- Press and release the Display On/Off Button ④.
- The LCD display ③ will alternate between temperature and humidity readings (the currently displayed value will be indicated by the %RH, °C or °F symbols - see page 5 for further details).
- To switch off, press and release the Display On/Off Button ④.

## Operating Instructions

This section contains detailed instructions for operating the Tinytag Thermohygrometer.

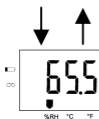
### Switching the Display On and Off



Press and release the Display On/Off button ④ to switch the unit on or off.



The LCD display will alternate between Temperature and Relative Humidity measurements every two seconds when the power is on.



Note: If logging has been activated, the ∞ symbol will be shown only when the display is switched on. Logging will continue when the display is switched off.

### Changing Temperature Measurement Units

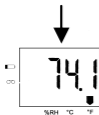


(12 Sec)

The unit's display can be set to show the temperature in degrees Celsius or degrees Fahrenheit.



To change the measurement units from the default Celsius to Fahrenheit, with the display off, hold down the Display On/Off button ④ for 12 seconds.




When the display symbol changes from °C to °F release the Display On/Off button.

## Operating Instructions (*continued . . .*)

### Low Battery Warning



The  symbol will indicate when the batteries need replacing.


Note: To prevent data loss, always ensure that logging is not active, and the display is off, before removing the batteries.

### Data Logging


The Thermohygrometer can be configured to record measurements to internal memory which can subsequently be transferred to a personal computer for analysis and archiving.

This process requires a copy of the Tinytag Explorer software, part number SWCD-0040, and a PC download cable, part number CAB-0007-USB. Refer to the documentation supplied with the software for detailed operating instructions.



The  symbol indicates that the unit is recording.



A flashing  symbol indicates that the unit has been set to record and will start after a programmed delay.

To conserve power when logging, the display should be switched off.

The unit will continue to record even if the screen is blank.



### Battery Replacement

- Ensure that the unit is not recording.
- Loosen the retaining screw and remove the battery compartment cover ⑤.
- Fit 2 x AA Alkaline Batteries\*, observing correct polarity.
- Refit the cover ⑤.

After the unit's battery has been replaced it will default to reading temperature in degrees Celsius. For instructions on how to change this to degrees Fahrenheit please see page 7.

\*If the unit is used below 0 °C check that any replacement AA batteries used are rated to the temperature you require.

## Specification

<b>Temperature range</b>	-20 °C to +50 °C (-4 °F to 122 °F)
<b>Response Time</b>	2 mins to 90% FSD in moving air
<b>Temperature accuracy</b>	Better than 1 °C from -20 to 0 °C Better than 0.5 °C from 0 to +45 °C Better than 0.6 °C from +45 to +50 °C
<b>Humidity range</b>	5 to 95% RH
<b>Response Time</b>	15 seconds* to 90% FSD in moving air
<b>Humidity accuracy</b>	±3% RH
<b>Stability</b>	<1%/year typical
<b>Display resolution</b>	0.1 °C 0.1%RH
<b>Logger resolution†</b>	Better than 0.05 °C and 0.05%RH
<b>Logging interval†</b>	1 second to 10 days
<b>Logger capacity†</b>	32,000 readings (16,000 per channel)
<b>Power supply</b>	2 x 1.5V AA Alkaline Battery
<b>Dimensions</b>	
<b>Height (including probe)</b>	195mm (7.68")
<b>Width</b>	65mm (2.56")
<b>Depth</b>	23mm (0.91")
<b>Weight (including batteries)</b>	175g (6.17oz)

\*The thermal response of humidity measurement is 2.5 minutes.

†See page 8 for further information on using this unit as a data logger.

## Approvals

Gemini Data Loggers (UK) Ltd. operates a Business Management System which conforms to ISO 9001 and ISO 14001.



## Disposal

- Data loggers, accessories and batteries should be disposed of at organised facilities, where available, in line with local regulations.
- In accordance with the WEEE directive Gemini Data Loggers (UK) Ltd. will take back and dispose of any equipment purchased directly. Equipment not purchased directly should be returned to the point of sale for disposal.



## Warranty

- All units are manufactured by Gemini Data Loggers UK Limited under ISO 9001 (NQA Certificate 6134).
- This product carries a manufacturing defects warranty of 12 months from the date of purchase. Units returned under warranty will be repaired or replaced at the manufacturer's discretion. This warranty does not cover mishandling, modification or battery replacement and is subject to the standard Terms and Conditions of Sale, a copy of which is available on request.
- **The equipment/goods are sold "as is" and with "all faults" (applies in USA). Claims under warranty should be referred to the point of sale.**



Manufactured by:

**Gemini Data Loggers (UK) Ltd.**  
Scientific House, Terminus Road,  
Chichester, West Sussex,  
PO19 8UJ, England.  
t: +44 (0) 1243 813000  
f: +44 (0) 1243 531948  
e: [sales@tinytag.info](mailto:sales@tinytag.info)  
w: [www.tinytag.info](http://www.tinytag.info)

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DATA LOGGERS