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EXTECH RHT20 Humidity and Temperature Datalogger User Manual

USER MANUAL
Humidity & Temperature Datalogger
Model RHT20
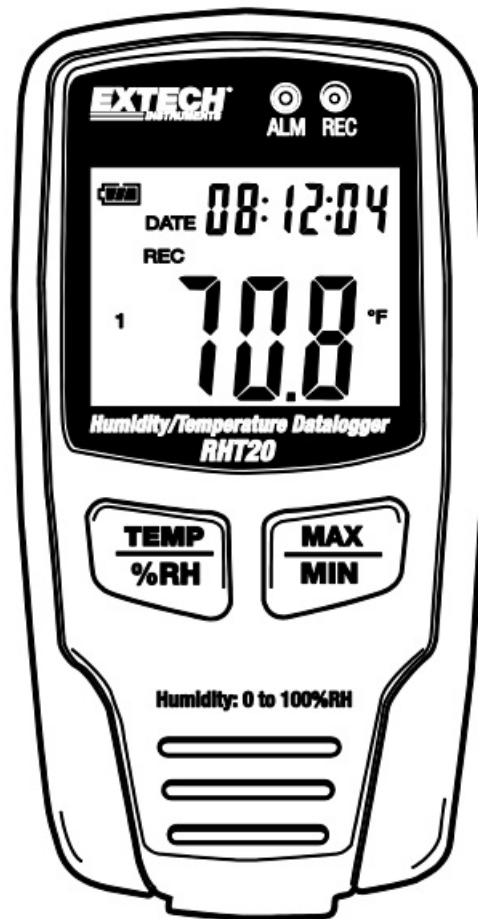
Contents

Introduction

Congratulations on your purchase of this Temperature and Humidity data logger. With this meter, you can monitor and log data over long periods of time and then easily transfer the data to a pc for viewing and evaluation. The LCD display provides current or Max/Min temperature, humidity, and time information. This device is shipped fully tested and calibrated and, with proper use, will provide years of reliable service. Please visit our website (**www.extech.com**) to check for the latest version and translations of this User Manual, Product Updates, Product Registration, and Customer Support.

Meter Description
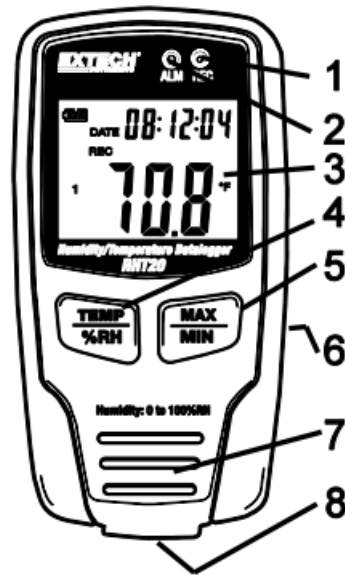
1. Record LED
2. Alarm LED
3. LCD Display
4. Temperature- Humidity display selection
5. MAX/MIN display selection
6. Battery Compartment (rear)
7. Temperature and Humidity sensors
8. USB PC port (bottom)

Display Description

 Full battery symbol.

 Weak battery symbol. Replace the battery when this appears. Battery life is more than 3 months.
DATE: Current date is displayed
TIME: Current time is displayed Time and Date automatically swap every 10 sec.
MAX: Maximum value during a data logging session is displayed
MIN: Minimum value during a data logging session is displayed
REC: Recording in progress indicator
FULL: Memory is a full indicator
%RH: Humidity value is displayed
°C: Celsius temperature units

°**F:** Fahrenheit temperature units

Operation

The display and front panel buttons provide a means to view the status of the datalogger, observe the current Temperature or Relative Humidity, and view the MAX and MIN values recorded during a recording session. The datalogger set up conditions such as sample rate, temperature units, and alarm values are programmed via the provided software. Refer to the software Help File on the disk for those procedures.

1. Press the MAX/MIN button to view the recorded Max and Min values with the time they were recorded. If, while in this mode, no button is pressed for 40 seconds the display will automatically return to the real-time display.
2. The Time and Date display will automatically toggle every 10 seconds
3. When downloading the data to the PC, "-PC-" will be displayed on the LCD. After the download is complete, the data logger will display the last value recorded, but it will stop recording. The logger needs to be re-set from the software to begin a new recording session.
4. The "REC" LED will flash at the programmed rate when the unit is data logging.
5. Alarm function: When the measured value exceeds the programmed upper or lower limit and the LED function is selected in the software, the ALM LED will flash one time per minute.
6. If "-LO-" is displayed, the temperature and humidity sensors need attention.
7. The data logger should be placed upright when in use.
8. If used in a low temperature, high humidity environment, the datalogger should be placed upright in a dry area to remove any condensation before downloading the data.
9. Battery life can be extended by leaving the data logger connected to a pc.
10. Disabling the REC and ALM LEDs will extend battery life.
11. The LCD display will stop functioning at very low temperatures and will become active again when the unit is returned to higher temperatures.

NOTE: The logger needs to be re-set from the software to begin a new recording session.

Combination Lock

The logger is supplied with a wall-mount case and security combination lock. The lock is shipped with a -0-0-0- code as viewed from the side with the alignment bar.

To change the code:

1. Press the release to open the lock (1)
2. Using a pointed object, press IN and HOLD the locking pin on the bottom of the lock (2).
3. Set the new code (3) and release the locking pin
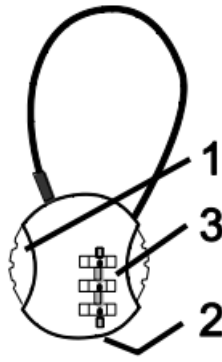
Software Installation

This meter has the capability to connect to and communicate with a PC.

Check the software download page of the website **www.extech.com/software** for the latest version of the PC software and its operating system compatibility.

Download, Unzip and install the software. Run ExtechInstaller.exe and then refer to the instructions provided in HELP Utility within the software program.

Maintenance

⚠️ **WARNING:** To avoid electrical shock, disconnect the meter from any circuit and turn OFF the meter before opening the case. Do not operate with an open case.

Battery Replacement

1. Remove the green protective cover by pushing the bottom of the meter until it slides through the opening at the top.

2. Remove the two Phillips head screws that secure the battery compartment at the back of the meter.

3. Open the battery compartment and replace the 3.6V lithium battery observing correct polarity.

4. Re-assemble the meter before use.

Safety: Please dispose of batteries responsibly; never dispose of batteries in a fire, batteries may explode or leak. If the meter is not to be used for 60 days or more, remove the battery and store it separately.

Specifications

Display	Multi-function LCD
Measurement ranges	0 to 100% RH -40 to 158°F, -40 to 70°C
Resolution	0.1°, 0.1RH

Maximum data points	16,350 Temperature and 16,350 Humidity values
Sample rate	1s to 24h selectable
Analysis software	Check the software download page of the extech.com website for the latest version of the PC software and its operating system compatibility.
Open input indication	"LO" appears on the LCD
Low battery indication	An empty battery symbol appears on the LCD
Power supply	3.6V Lithium Battery
Battery life	3 months (approximately)
Operating Temperature	-40 to 158°F, -40 to 70°C
Operating Humidity	0 to 100% RH
LCD Operating Temperature	-13°F to 158°F (-25°C to 70°C)
Dimensions	3.7×1.9×1.2″) (94.4×48.9×31.2mm)
Weight	3.2oz (90.7g)

	Range	Accuracy
Relative Humidity	0 to 20% and 80 to 100%	±5.0%
	20 to 40% and 60 to 80%	±3.5%
	40 to 60%	±3.0%
Temperature	14 to 104°F	±1.8°F
	-13 to 14°F and 104 to 158°F	±3.6°F
	-40 to -13F	±8°F typical
	-10 to 40°C	±1°C
	-25 to -10°C and 40 to 70°C	±2°C
	-40 to -25C	±4°C typical

Two Year Warranty

Teledyne FLIR LLC warrants this Extech brand instrument to be free of defects in parts and workmanship for two years from the date of shipment (a six-month limited warranty applies to sensors and cables). To view the full warranty text please visit **http://www.extech.com/support/warranties.**

Calibration and Repair Services

Teledyne FLIR LLC offers calibration and repair services for the Extech brand products we sell. We offer NIST traceable calibration for most of our products. Contact us for information on calibration and repair availability, refer to the contact information below. Annual calibrations should be performed to verify meter performance and accuracy. Product specifications are subject to change without notice. Please visit our website for the most up-to-date product information: **www.extech.com**.

Contact Customer Support

Customer Support Telephone List: https://support.flircomicontact
Calibration, Repair, and Returns: repairextech.com
Technical Support: https://support.flircom

Documents / Resources

EXTECH RHT20 Humidity and Temperature Datalogger [pdf] User Manual
RHT20 Humidity and Temperature Datalogger, RHT20, Humidity and Temperature Datalogger

References

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- 🌴 **Extech is now on FLIR.com | Teledyne FLIR**
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