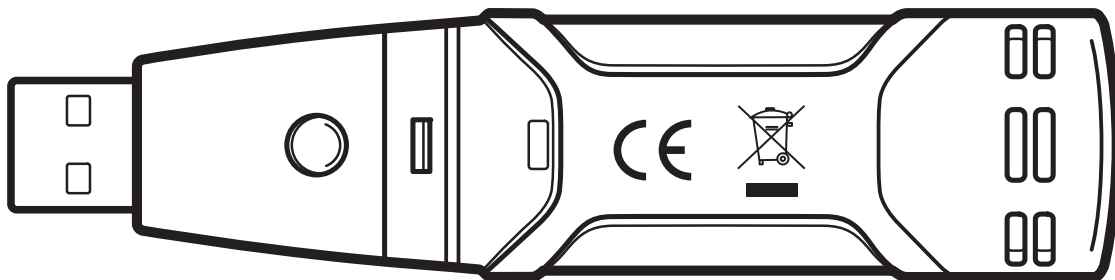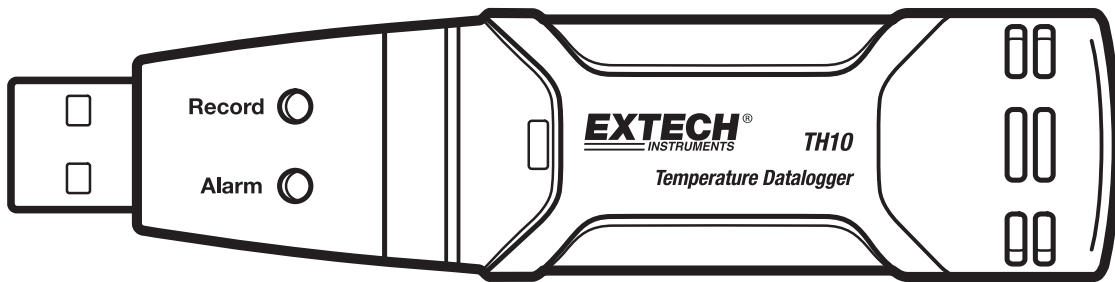# Temperature Datalogger

Model TH10

Introduction

Congratulations on your purchase of the Temperature Datalogger. This datalogger measures and stores up to 32,000 temperature readings. The user can easily set up the logging rate, high/low alarm and start-mode, and download the stored data by plugging the module into a PC's USB port and running the supplied PC software. Temperature data can then be graphed, printed, and exported to other applications. The data logger is supplied with a long-life lithium battery, which can typically allow logging for one year. This meter is shipped fully tested and calibrated and, with proper use, will provide years of reliable service

Features

- Memory for 32,000 readings
- Selectable data sampling rate: 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1hr, 2hr, 3hr, 6hr, 12hr, 24hr
- Status Indication via Yellow LED and Green LED
- USB Interface for Set-up and Data Download
- User-Programmable Alarm Thresholds for Temperature
- Analysis software used to view graph
- Long battery life

Description

1. Protective cover
2. USB connector to PC port
3. Start button
4. Temperature sensor
5. Alarm LED (yellow)
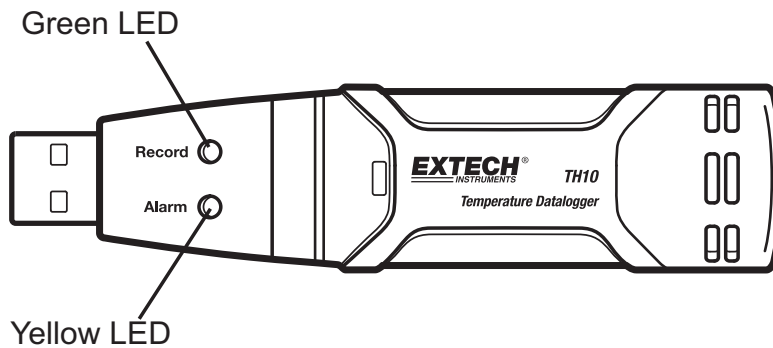6. Record LED (green)
7. Mounting clip
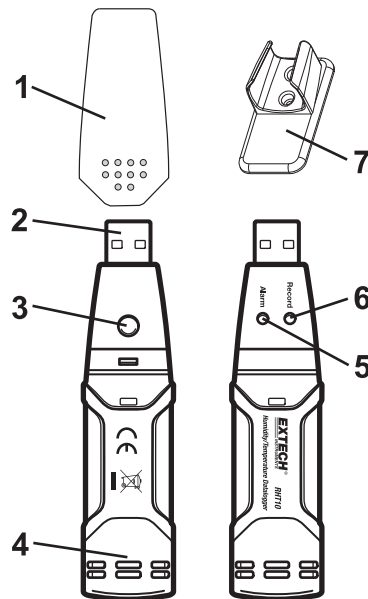
Installing the Software

Install the supplied Windows PC Datalogger Software by placing the supplied program disk in the PC's CD-ROM drive. If the installation program does not automatically open and provide on-screen prompts, open and browse the CD-ROM drive, then find and double-click on the SETUP.EXE file included on the program disk. Follow the on-screen prompts to complete the installation.

Before running the graphing software, please connect the TH10 to the PC and install the USB Driver software as described in the software help file.

TH10 LED Status Guide

Green LED

Yellow LED

LEDs		Meaning	Action
Record ○	Alarm ○	**No LEDs flashing** **-No logging in process** **Or** **-No battery found** **Or** **-Battery completely discharged**	**Fit battery in place** **Replace the battery and download the data**
Record ●	Alarm ○	**Green single flash every 10 sec. *** **-Logging, no alarm**** **Green double flash every 10 sec. *** **-Delayed start**	**To start, Hold the start button until Green and Yellow LED flash**
Record ○	Alarm ●	**Yellow single flash every 10 sec. *** **-Logging, low alarm for TEMP** **Yellow single flash every 10 sec.** **-Logging, high alarm for TEMP** **Yellow single flash every 60 sec.** **- TH10 memory full**	**Download data**

*   To save power, the TH10's LED flashing cycle can be changed to 20s or 30s via the supplied software.

** To save power, alarm LEDs for temperature can be disabled via the supplied software.

†   When the battery is low, all operations will be disabled automatically. NOTE: Logging automatically stops when the battery weakens (logged data will be retained). The supplied software is required to restart logging and to download logged data.

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Specifications

| Temperature	Overall Range	-40 to 70°C (-40 to 158°F)
	Accuracy (-40 to -10 and +40 to +70°C)	±2°C
	Accuracy (-10 to +40°C)	±1°C
	Accuracy (-40 to +14 and 104 to 158°F)	±3.6^{o}F
	Accuracy (+14 to 104°F)	±1.8^{o}F
Logging rate	Selectable sampling interval: From 2 seconds up to 24 hours	
Operating temperature	-35 to 80°C (-31 to 176°F)	
Battery type	3.6V Lithium (1/2 AA) (SAFT LS14250, Tadiran TL-5101 or equivalent)	
Battery life	1 year (typ.) depending on logging rate, ambient temperature, & use of Alarm LEDs	
Dimensions/Weight	101x25x23mm (4x1x.9") / 172g (6oz)	

Battery Replacement

It is highly recommended that the battery be replaced every 12 months, or prior to logging critical data.

The TH10 does not lose its stored readings when the battery weakens or when the battery is replaced; the data logging process will however be stopped and cannot be re-started until the battery has been replaced and the logged data has been downloaded to PC.

Use only 3.6V lithium batteries. Before replacing the battery, remove the datalogger from the PC. Follow diagrammatic steps 1 through 4 below.

NOTE: Leaving the RHT10 plugged into the PC USB port longer than necessary will cause some of the battery capacity to be lost.
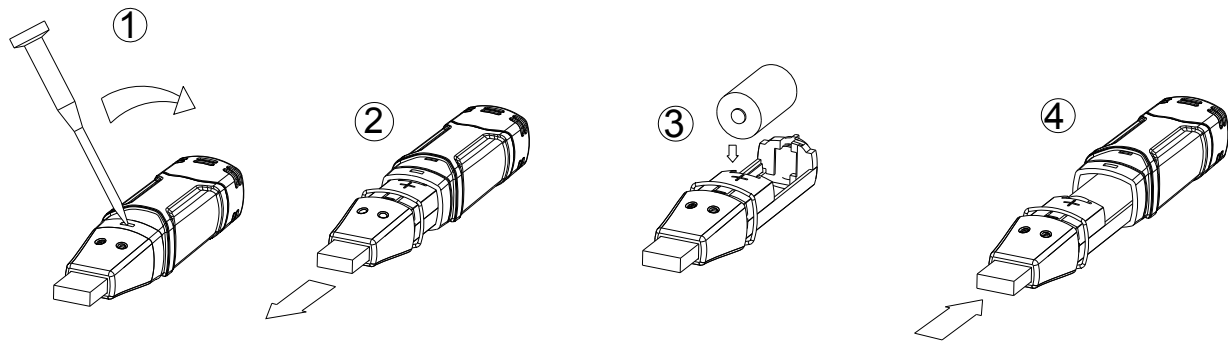
You, as the end user, are legally bound (**Battery ordinance**) to return all used batteries and accumulators; **disposal in the household garbage is prohibited!**
You can hand over your used batteries / accumulators at collection points in your community or wherever batteries / accumulators are sold!

Disposal: Follow the valid legal stipulations in respect of the disposal of the device at the end of its lifecycle