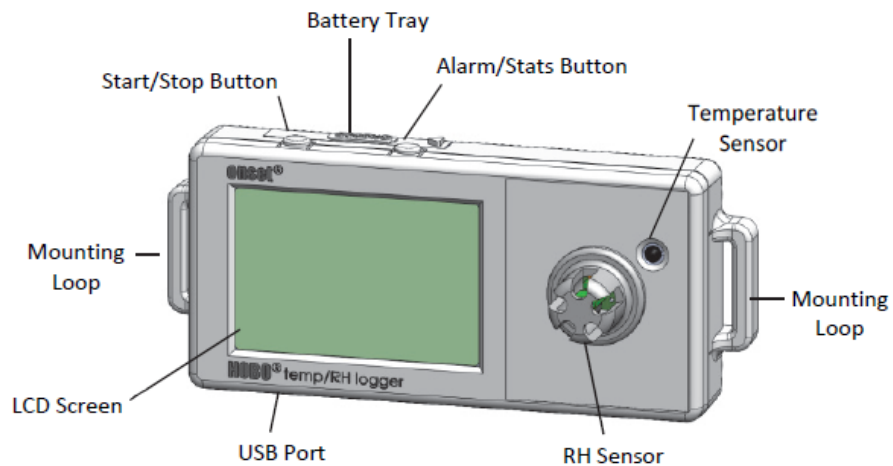


HOBO Indoor Data Logger User Guide

UX-100 Temp/RH



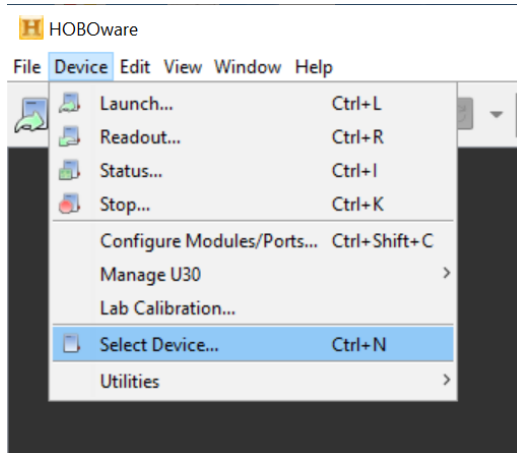
Prepared by the Center for Collaborative Heat Monitoring
[Refer to the HOBO user manual for additional information.](#)



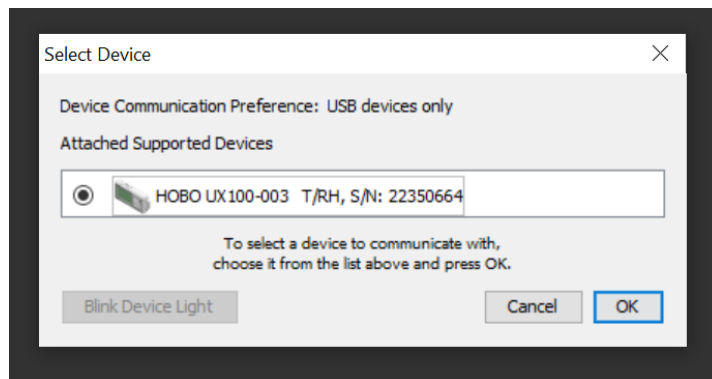
**CENTER FOR
COLLABORATIVE
HEAT MONITORING**

Setting up (or “launching”) your logger for the first time

1. Install [HOBOWare software](#) (free) on your computer.
2. Connect logger to computer with USB cable. You may connect more than one logger to your computer at a time.
3. Choose “Device > Select device” from the menus.



4. Select the device you want to set up (HOBO uses the term “launch”).



5. Open “Launch logger” window. Choose settings. Click Start.
6. Disconnect logger from the USB cable. Logging will begin immediately or at a time that you selected in settings. (Logger will display “Logging” if logging data)

The screenshot shows the 'Launch Logger' window for a HOBO UX100-003 T/RH sensor. The window is titled 'Launch Logger' and has a close button (X) in the top right corner. It contains several sections:

- Device Information:**
 - Name:
 - Serial Number: 22350664
 - Deployment Number: 4
 - Battery Level: 90 %
- Sensors:**
 - Configure Sensors to Log:
 - ☒ 1) Temperature
 - ☒ 2) Relative Humidity (Depends on Temp Channel 1)
 - Buttons: **Alarms...** and **Filters...**
- Deployment:**
 - Logging Interval:
 - Logging Mode:
 - Logging Duration: 1.2 years
 - Start Logging: 11:34:57 AM
 - Stop Logging:
 - ☒ When memory fills
 - ☐ Never (wrap when full)
 - ☐ Push Button
 - ☐ After
 - Options: ☐ Turn LCD off
- Buttons:** **Help**, **Cancel**, and **Start**

Launch settings:

- You can rename a device when it is launched.
 - Launching a device will erase any existing data on the device. Remember to read out and save data before relaunching a device.
 - You can set the logging interval (15 minutes, fixed interval is recommended)
 - You can set a start time for logging (e.g. if you will transport loggers or prepare loggers in advance)
 - You can set the logger to stop logging when memory fills or 'wrap' (overwrite old data as memory fills). It is recommended to set loggers to stop logging when memory fills so no data is lost. Encourage participants to monitor loggers' available memory by checking the bar on the LCD screen (see "Reading the LCD screen").
 - You can set loggers to start and stop on a given day (e.g. at the end of the study period), but if memory fills or other errors occur, loggers may stop earlier.
 - It is possible to configure alarms when temperatures exceed certain thresholds.
- Please request further assistance if you would like guidance on how to use alarms.

Mounting the Logger

There are several ways to mount the logger using the materials included:

- Use the four built-in magnets on the back of the logger to mount it to a magnetic surface.
- Attach the Command strip to the back of the logger to mount it a wall or other flat surface.
- Use the double-sided tape to affix the logger to a surface.
- Insert the hook-and-loop strap through the mounting loops on both sides of the logger to mount it to a curved surface, such as a pipe or tubing.

Protecting the Logger

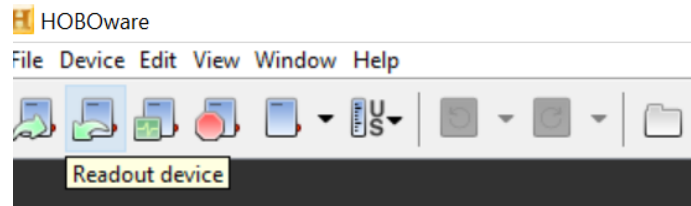
- **The logger is designed for indoor use and can be permanently damaged by corrosion if it gets wet. Protect it from condensation.**
- If the message FAIL CLK appears on the LCD screen, there was a failure with the internal logger clock possibly due to condensation. Remove the battery immediately and dry the circuit board.
- Note: Static electricity may cause the logger to stop logging. The logger has been tested to 8 KV, but avoid electrostatic discharge by grounding yourself to protect the logger. For more information, search for “static discharge” on www.onsetcomp.com.

Installation notes and recommendations

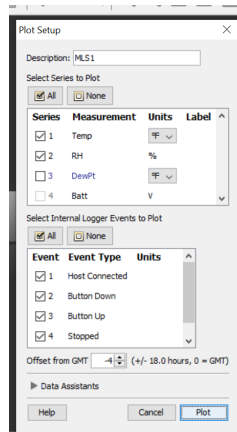
- These loggers are designed for indoor use and will malfunction if installed outdoors.
- Where possible, install the loggers away from places in your home that are known to get extremely hot or extremely cool in ways that could skew the data. For example, do not install the logger right by an air vent, window unit, oven, stovetop, furnace, dryer, or hot water heater.
- Having said that, if participants’ home has minor variations in temperature across different rooms or areas (“hot spots” or “cold spots”) it may be helpful to install the logger in a known “hot spot” to capture the warmest temperature.
- Avoid installing the logger in a place that is prone to condensation, such as inside a shower or bathroom area. Condensation can permanently damage the logger.
- Loggers are intended to capture indoor temperatures under normal living conditions. Encourage participants to run their air conditioner to their comfort level and live their lives as they normally would while loggers are running.

Reading Out/Exporting Data

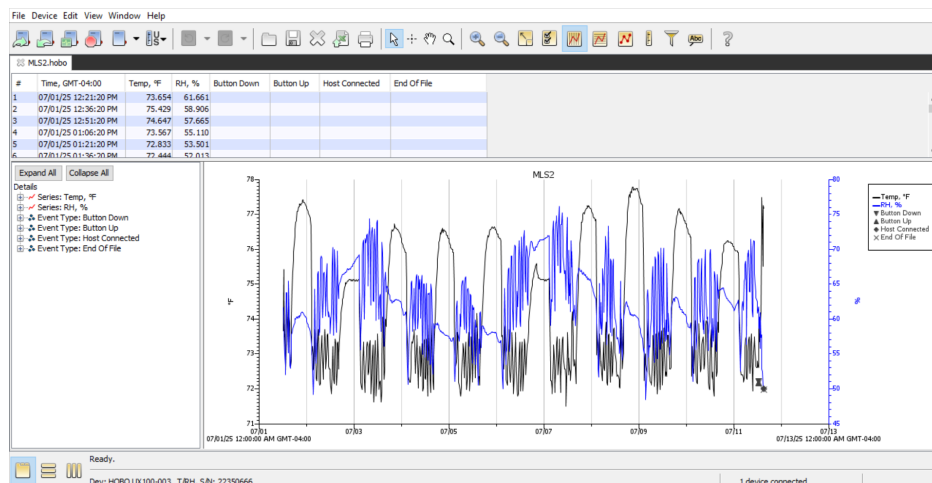
1. Connect logger to a computer with HOBOWare installed using USB cable.
2. Select “Device > Readout” or the “Readout device” icon to read out the data. You can choose whether you would like the logger to stop logging or continue logging while readout is performed.



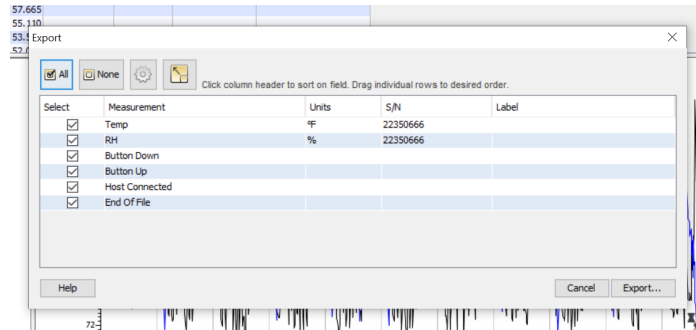
3. Select the data you want to plot and select “Plot.”



4. Once data is read out, your screen will look like this. From here, you can adjust settings of plotted data, view data, export it, or save it as a “project.”



5. Select Export Table Data to export your data, or “File > Save Project As” to save the plotted data in HOBOWare. Adjust export settings on this screen.



6. After reading out and exporting data, you can disconnect the logger from the USB cable and resume logging, or you can “relaunch” the logger to erase data or adjust device settings.

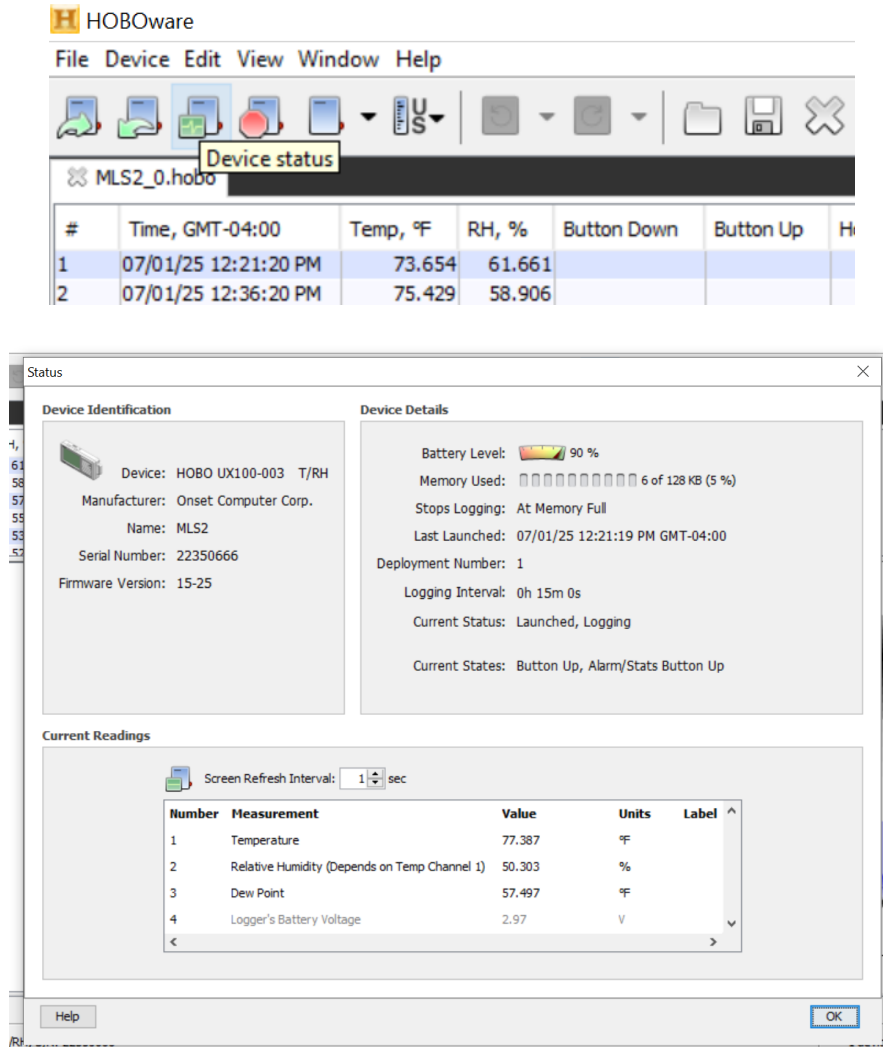
Relaunching the logger

1. **Do not relaunch the logger until after you have downloaded all data.** You must save or export your plotted data before relaunching the logger.
2. If you are ready to erase your data and relaunch the logger with new settings for redeployment, select “Device > Launch.”
3. Review the information on logger settings in “Launch settings.” Choose settings and click “Start.”
4. Disconnect logger from the USB cable. Logging will begin immediately or at a time that you selected in settings. (Logger will display “Logging” if logging data).

Check device status, battery level, memory, etc.

1. If you would like to check your device settings without relaunching, select “Device > Device status” from the menus or the “Device status” icon to view information about your device settings, battery level, and remaining memory space.

If you would like to change these settings, you can read out and download the data, and relaunch the logger with new settings.



The screenshot shows the HOBOWare software interface. The top menu bar includes 'File', 'Device', 'Edit', 'View', 'Window', and 'Help'. A toolbar contains various icons, including a 'Device status' icon. Below the toolbar, a table displays data for two devices. The 'Status' window is open, showing 'Device Identification' and 'Device Details'.

Device Identification:

- Device: HOBO UX100-003 T/RH
- Manufacturer: Onset Computer Corp.
- Name: MLS2
- Serial Number: 22350666
- Firmware Version: 15-25

Device Details:

- Battery Level: 90 %
- Memory Used: 6 of 128 KB (5 %)
- Stops Logging: At Memory Full
- Last Launched: 07/01/25 12:21:19 PM GMT-04:00
- Deployment Number: 1
- Logging Interval: 0h 15m 0s
- Current Status: Launched, Logging
- Current States: Button Up, Alarm/Stats Button Up

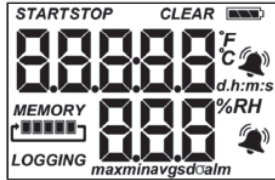
Current Readings:

Screen Refresh Interval: 1 sec

Number	Measurement	Value	Units	Label
1	Temperature	77.387	°F	
2	Relative Humidity (Depends on Temp Channel 1)	50.303	%	
3	Dew Point	57.497	°F	
4	Logger's Battery Voltage	2.97	V	

Reading symbols on the LCD screen

LCD Screen: This logger is equipped with an LCD screen that displays details about the current status. This example shows all symbols illuminated on the LCD screen followed by definitions of each symbol in the table below.



LCD Symbol	Description
START	The logger is waiting to be launched. Press and hold the Start/Stop button for 3 seconds to launch the logger.
STOP	The logger has been launched with a push button stop enabled; press and hold the Start/Stop button for 3 seconds to stop the logger. Note: If you also launched the logger with a push button start, this symbol will not appear on the display for 30 seconds.
	The battery indicator shows the approximate battery power remaining.
MEMORY 	The logger has been configured to stop logging when memory fills. The memory bar indicates the approximate space remaining in the logger to record data. When first launched, all five segments in the bar will be empty. In this example, the logger memory is almost full (only one segment in the memory bar is empty).
MEMORY 	The logger has been configured to never stop logging (wrapping). The logger will continue recording data indefinitely, with newest data overwriting the oldest data. When first launched, all five segments in the memory bar will be empty. In this example, the memory is full (all five segments are filled in) and new data is now overwriting the oldest data. This will continue until the logger is stopped or the battery runs out.
LOGGING	The logger is currently logging.

LCD Symbol	Description
	A sensor reading is above or below the high or low alarm that you configured. Press and release the Alarm/Stats button until the "alm" symbol (described below) is displayed on the screen. This symbol at left will clear depending on how alarms were configured in HOBOWare. If the alarm was configured to clear when the logger is relaunched, this symbol will remain on the LCD. Otherwise, it will clear when the sensor reading is back within the alarm limits or by pressing the Alarm/Stats button for 3 seconds.
CLEAR	An alarm is ready to be cleared. This will only appear if "Cleared with button press" was selected in the HOBOWare alarm settings. Press the Alarm/Stats button for 3 seconds to clear the alarm.
max min avg sd	These symbols show the maximum, minimum, average, and standard deviation values most recently calculated for the logger (if the logging mode has been set to Statistics in HOBOWare). Press the Alarm/Stats button for 1 second to cycle through each of the available statistics and then back to the current sensor reading (or to the alarm value if applicable).
alm	This is the sensor reading that tripped the alarm. Press the Alarm/Stats button to view this reading. Press the Alarm/Stats button again to cycle through any statistics (defined above) and ultimately back to the current sensor reading.
80.2°F	This is an example of a temperature reading. Temperature units are determined by the settings in HOBOWare. To switch between Celsius and Fahrenheit, change the Display Preferences in HOBOWare before launching the logger.
68.0%RH	This is an example of an RH reading.
05:38 m:s	The logger has been configured to start logging on a particular date/time. The display will count down in days, hours, minutes, and seconds until logging begins. In this example, 5 minutes and 38 seconds remain until logging will begin.
LoAd	The launch settings are being loaded onto the logger from HOBOWare. Do not disconnect the USB cable during this process.
Err	An error occurred while loading the launch configurations onto the logger from HOBOWare. Make sure the USB cable is connected to both the logger and the computer and try launching again.
Stop	The logger has been stopped with HOBOWare or because the memory is full.