

HOBO®
Event Logger
User's Manual
(for part# H07-002-04)



Requires Onset
Computer Corporation's
BoxCar® (version 3.0 or
later) or BoxCar® Pro
software and interface
cable for operation.

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Trademarks
Onset®, HOBO®, and
BoxCar® are trademarks
of Onset Computer
Corporation.

The CE mark identifies this
product as complying with all
relevant directives in the
European Union (EU).

Service and Support

HOBO® products are easy to use and reliable. In the unlikely event that you have a problem with the hardware, please read the following.

Whom do I contact?

Contact the company that you bought the loggers from: Onset Computer Corporation or an Onset Authorized Dealer.

Before calling, you can evaluate and often solve your problem if you try the following:

1. Read this manual and the ReadMe file on the software disk. It may only take a few moments to get the answers you need.
2. Write down the events that led to the problem. Have you changed anything in your computer recently? Are you doing anything differently?

When contacting Onset Computer Corporation, please indicate that you need Technical Support for HOBO® products. Be prepared to:

1. Provide the product number and serial numbers for the HOBO® Event Logger (which are found inside the case) and software version in question.
2. Provide details on the hardware and software configuration of your computer including: manufacturer, model number, peripherals, and version of operating system.
3. Completely describe the problem or question. The more information you provide, the faster and more accurately we will be able to respond.

NOTE: Onset allows one technical support contact for each software license.

Onset Technical Support

Onset Computer Corporation
470 MacArthur Blvd., Bourne, MA 02532
Mailing: PO Box 3450, Pocasset, MA 02559-3450
1-800-LOGGERS (1-800-564-4377)
Phone: (508) 759-9500
Fax: (508) 759-9100
e-mail: loggerhelp@onsetcomp.com
www.onsetcomp.com

HOBO® Warranty

The HOBO® products are warranted to be free from defects in material and workmanship for a period of one year from the date of original purchase. During the warranty period Onset will, at its option, either repair or replace products that prove to be defective. This warranty is void if the Onset products have been damaged by customer error or negligence or if there has been an unauthorized modification.

Returning Products to Onset

Direct all warranty claims to place of purchase.

Before returning a failed unit, you must obtain a Return Merchandise Authorization (RMA) number from Onset. You must provide proof that you purchased the Onset product(s) directly from Onset (purchase order number or Onset invoice number). Onset will issue an RMA number that is valid for 30 days. You must ship the product(s), properly packaged to protect against further damage, to Onset (at your expense) with the RMA number marked clearly on the outside of the package. Onset is not responsible for any package that is returned without a valid RMA number or for the loss of the package by any shipping company. Loggers must be clean and free of any toxins before they are sent back to Onset or they may be returned to you.

Repair Policy

Products that are returned after the warranty period or that are damaged by the customer as specified in the warranty provisions can be returned to Onset with a valid RMA number for evaluation.

ASAP Repair Policy

For an additional charge, Onset will expedite the repair of a returned product.

Optional Services

Please contact Onset for more information and prices on:

Data-back™ Service

HOBO® data loggers store data in nonvolatile EEPROM memory. Onset will, if possible, recover your data to a disk.

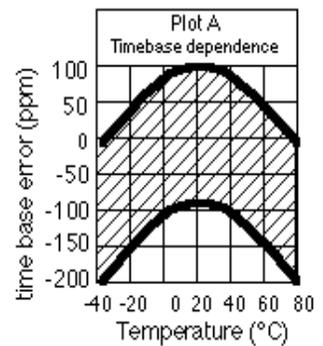
Tune Up™ Service

Onset will examine and retest any HOBO® data logger.

Thank you for buying the HOBO® Event data logger. With proper care it will give you years of accurate and reliable service. The HOBO Event is compatible with the HOBO Shuttle, allowing for convenient retrieval of field data.

Specifications:

Event type: Relay contact openings
Minimum event interval: 1/2 second
Operating temperature (logger): -20°C to +70°C (-4°F to +158°F)
Time accuracy: ±100 ppm at +20°C, full dependence shown in Plot A
Capacity: 8000 events (note that the 8000 events require 32K of memory in the HOBO Shuttle to fully offload.)
Size/weight: 4.25" x 3.50" x 1.75"/ 3.3 oz.
Battery: CR-2032 (lithium); provides one year of continuous use
Storage temperature: -40°C to +75°C (-40°F to +167°F)
Case: Weatherproof enclosure (avoid placing in direct sunlight)
Relative humidity range (when case is open): 0 to 95%, non-condensing

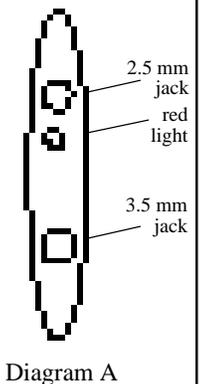


Connecting the communications cable and Launching

A Starter Kit, which includes an interface cable and software, is required to operate your logger. Connect the interface cable into the 3.5 mm jack (Diagram A) on the logger and into a working serial port of your computer. Install and start the logger's software. Select **Launch...** under **Logger** on the menu bar and the launch dialog box will appear. *Note: The act of connecting or disconnecting the logger's plugs while logger is recording may itself be recorded as an event.* For a complete explanation on installing the software and launching your logger, please refer to the software manual or the software's on-line help.

External contact opening

The HOBO Event data logger is intended to operate with a Normally Open contact. It records only the closure-opening following a contact closure. When the contact is closed, the battery drains about 5 times faster than normal. Consequently Normally Closed contacts are not recommended. The contact needs to be connected to the cable which plugs into the 2.5 mm jack (Diagram A). In applications where both actions are important, a HOBO® State data logger should be used. *Note: The red wire is not used.*



Connecting to a tipping-bucket rain gauge

The black and white input wires (cable to 2.5 mm jack) of the HOBO Event can be connected directly to the relay output of most tipping-bucket rain gauges (polarity of input connection does not matter). The red wire is not used. If your gauge came with a counter display and battery, these should be disconnected, and the HOBO Event connected instead. When connecting and disconnecting an active HOBO Event, be careful not to touch the input wires together as this will record an event.

Operation indication

The HOBO Event data logger has a red LED (Light Emitting Diode) (Diagram A) that blinks every two seconds while it's logging. The LED light also blinks four times rapidly as it stores an event.

Lockout after event

The HOBO Event data logger has a feature that causes it to ignore events for a programmable period after an event is recorded. The lockout time can be set for as short as one second to as long as nine hours. *When the HOBO Event data logger is being used with a rain gauge, we recommend setting the lockout to one second to eliminate switch bounce.*

Readout

Reconnect the HOBO data logger to the interface cable, start the software, select **Readout** under **Logger** on the menu bar and the data will be displayed. For a complete explanation on reading out your logger, please refer to the software manual.

Changing the battery

Open the case by unsnapping the latch and lifting the lid. Unplug the 2.5 mm sensor cable. Hold the case upside down by the bottom and firmly tap the open case into the palm of your hand until the circuit board dislodges. *Do not hold the case by the top or you may snap the lid off!* Remove the circuit board from its cover and then remove the battery by carefully pushing it out with a small, blunt instrument. Be sure to install the battery with its printed side away from the HOBO's circuit board (Diagram B). The logger's light will blink three times after the battery has been installed.

Keep the inside of the case dry

With the case closed and latched, the HOBO Event data logger is weatherproof. The electronics can be permanently damaged by corrosion from moisture, so protect them from rain and condensation. Should the electronics get wet, remove the battery immediately and dry the board completely with a hair dryer before reinstalling the battery. The moisture-absorbing desiccant pack inside the case should be replaced when the battery is changed.

Battery

Battery Holder
Diagram B