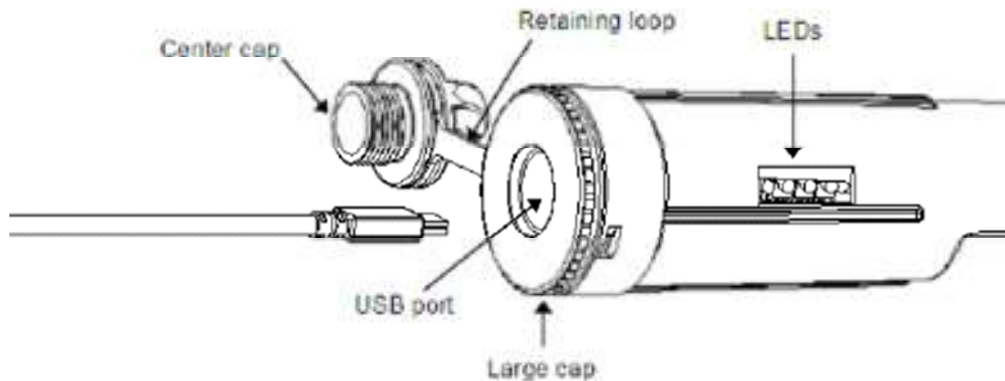


## HOBO TidbiT Directions for: Activation/Setup, Download, Export Data as a .csv or .xls and Deactivation Instructions

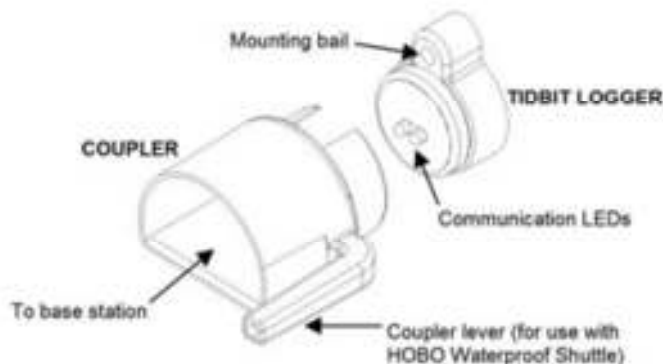
### Setup:

#### Initiating TidbiTs with Data Shuttle

1. Plug Onset Data Shuttle into USB port and open HOBOWare Pro software from desktop of CHaMP laptop.



2. Insert TidbiT into data shuttle and press lever. The Data Shuttle's green light will turn on if TidbiT is working. The following image does not show the full waterproof shuttle only the coupler which should be already connected to the waterproof shuttle.

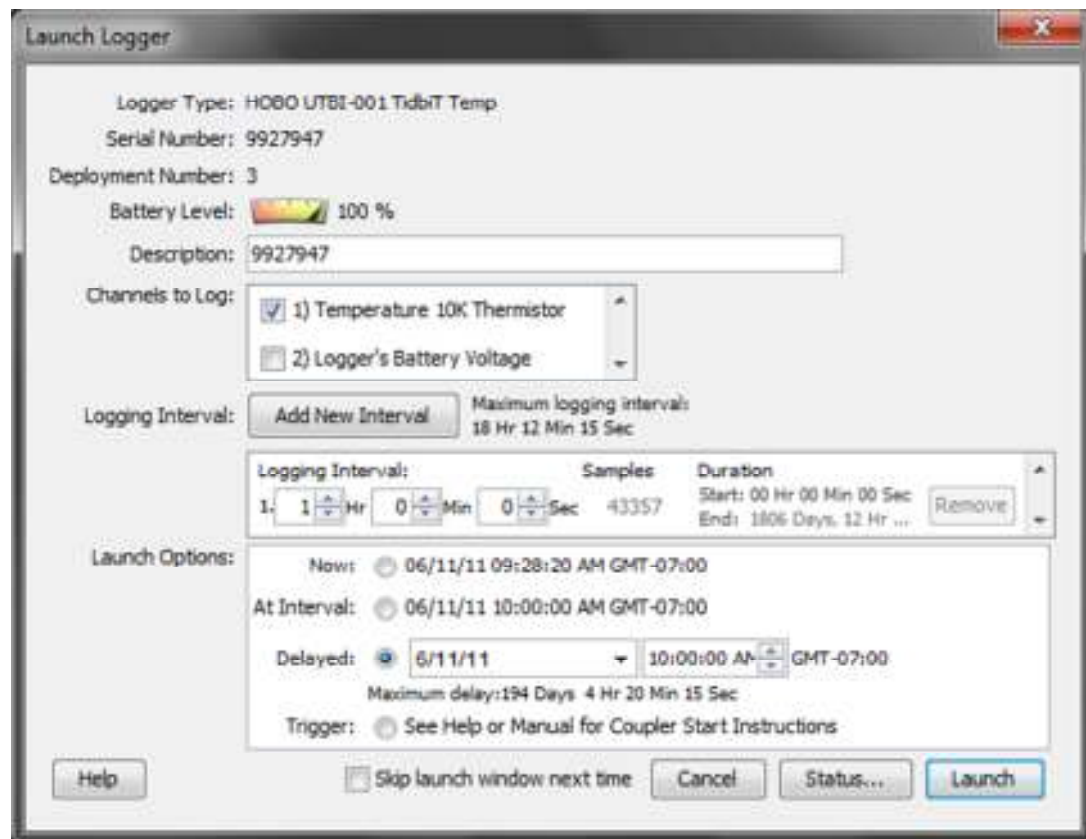


3. Make sure that the settings are in SI units. In HOBOWare, select Launch Device. The Launch Logger dialogue will open (see below).



In the Launch Logger dialogue

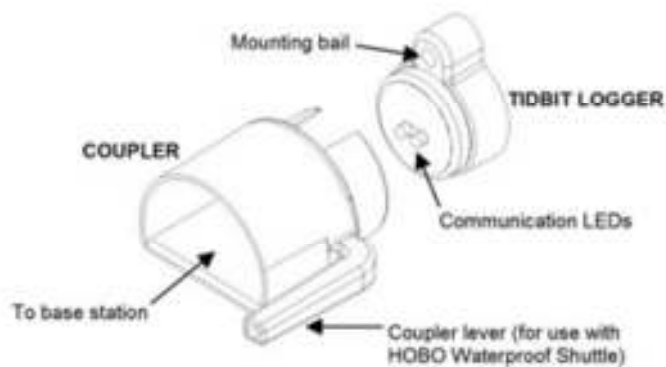
1. Check battery. It should read near 100% before initiation.
2. Set Logging Interval to every hour.
3. Under Launch Options, select At Interval or Delayed and enter the date and time you want the logger to start recording.
4. Select Launch.
5. Remove TidbiT from Data Shuttle. Make sure that red light is blinking.



## Downloading

### A. Downloading data from the HOBO TidbiTs to the Data Shuttle:

1. Make sure the shuttle's large cap and center cap are closed securely. Tighten the center cap until it is just flush with the large cap, or until the O-ring is no longer visible.
2. Make sure the communication end of the shuttle is clean. Attach the correct coupler for the logger, and ensure that it is seated properly (This should have already been done.)
3. Insert the logger into the coupler, following the instructions that came with the coupler (See below).



4. Momentarily press the coupler lever. Readout should begin immediately. The amber LED blinks continuously while readout and relaunch are in progress. Do not remove the logger when the amber LED is blinking.
5. After reading out the logger, the shuttle synchronizes the logger's clock to the shuttle's internal clock and relaunches the logger, using the description, channels to log, logging interval, and other settings that are already in the logger. (If the logger was launched with multiple logging intervals, the final defined logging interval will be used.) The logger is launched with a slight delay that causes its readings to be synchronized with those of the previous deployment, as shown in the following diagram.



6. When the relaunch has completed, the green LED blinks for 15 minutes or until you momentarily press the coupler lever to stop it. If the red LED blinks instead, there was an error and the logger may have stopped. Refer to “Troubleshooting” in the Onset Data Shuttle manual for details.

7. Remove the logger from the coupler.

## **B. Downloading data from the Data Shuttle to the CHaMP laptop:**

You can download the data stored in the shuttle even when the batteries are depleted. Take the following steps:

1. Connect the Data Shuttle to a CHaMP laptop running HOBOWare as described above in step 1 of initiating the Hobo tidbit.

**NOTE:** HOBOWare Shuttles require HOBOWare Pro.

2. Choose **Manage Shuttle** from the Device menu.

**Alternate Method:** To quickly offload all of the new datafiles that are on the shuttle, choose **Readout** from the **Device** menu.

3. Choose files to offload:

### U-Shuttle

All files are selected by default if the shuttle has not been offloaded before. To uncheck all files, click the **Uncheck All** button. To uncheck individual files, click the checkbox next to each file.

### Waterproof Shuttle

Only the files that have not previously been offloaded *and saved* are selected by default. To check or uncheck individual files, click the checkbox next to each file. Use the **Check All** and **Uncheck All** buttons next to **Previously Offloaded Files** and **New Files (Not Offloaded)** to control the selection of these groups of files.

To automatically delete files from a Waterproof Shuttle after you offload and save them, enable the **Delete Contents Upon Offload** option. Files will be automatically deleted only after you successfully save them to the CHaMP host computer.

4. Offload Files

Click the **Offload Checked** button to begin offloading the datafiles.

Once offloading begins, the **Offload Checked** button will change to **Cancel Offload**. When offloading is complete, the **Files on Shuttle** panel on the Shuttle Management window will change to a **Files Offloaded From Shuttle** panel.

You can now save the files to your computer (See the following section, **Saving Files**).

5. Review the list of banks and delete any that are no longer needed. Make sure the battery level is good, and change the batteries now if they are weak. (If you change the batteries in the field, the shuttle's clock will stop, and the shuttle will not read out loggers.) Update the shuttle's clock, if necessary.

6. When finished, disconnect the shuttle from the computer and close the center cap securely.

### C. Saving Files:

Before you can save files, you must offload them from the Data Shuttle, see prior section (**Downloading data from the Data Shuttle to the CHaMP laptop**).

#### Saving Files

The illustration below shows the parts of the Shuttle Management window related to saving files.



#### 1. Save Folder

The default location for the save is indicated in the **Save Folder** box. To change to another location, click **Choose** and browse to the location

#### 2. Automatically Open Files

To have the folder automatically open on the desktop after the files are saved, check:

*Windows: Open Folder in Windows Explorer after Save.*

*Mac: Open Folder in Finder after Save.*

#### 3. Choose files to save.

By default, all of the files you offloaded will be selected for saving.

To uncheck individual files, click the checkbox next to each file.

To uncheck all files, click the **Uncheck All** button.

To save all files (if you have already unchecked a few), click the **Check All** button.

#### 4. Datafile Name

Enter a new name if desired.

#### 5. Cancel Save

To exit without saving any files, click **Cancel Save**.

#### 6. Save Checked

Click this button to save all checked files.

The files are saved to the specified folder.

## **Exporting Hobo tidbit data as a .csv file:**


### **Before You Begin**

To change preferences for exporting, Preferences > General > Export Settings (This is where you can specify to export the data as a .csv file type).

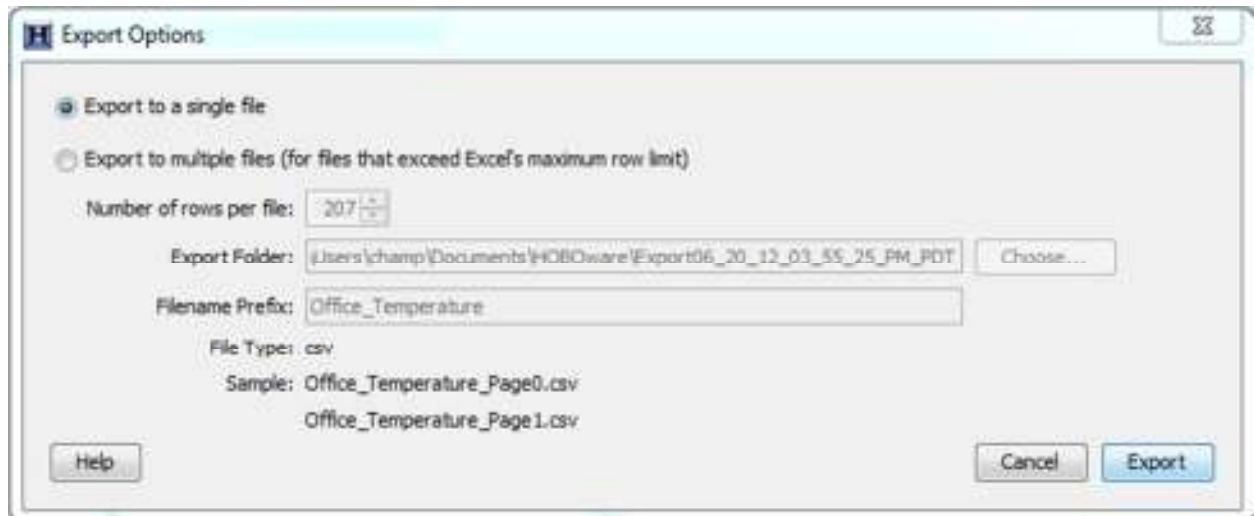
1. Open the .hobo or .dtf file(s) in HOBOWare pro by navigating to the file: File > Open Datafile(s) that have been saved on the CHaMP laptop.
2. HOBOWare tidbit data will be displayed as a table or plot.

### **Steps**

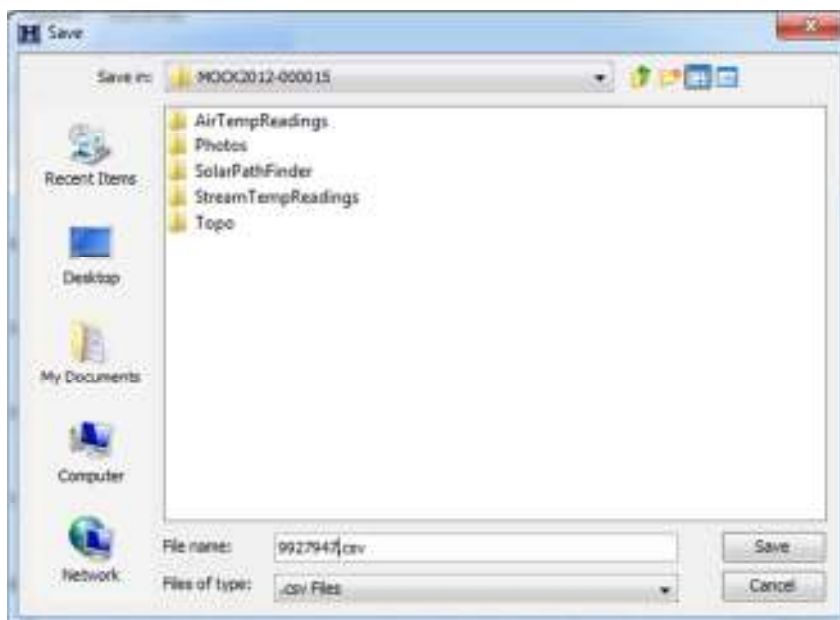
To export points:

1. Make sure the Points table includes the series you want to export. This might include series pasted from other datafiles, or series derived through filters or Data Assistants.
2. Click the Export icon  on the toolbar, or choose **Export Table Data** from the File menu.

The Export Options window appears.



4. Choose **Export to a single file** and click **Export**.
5. In the Save window, navigate to the folder  
“C:\ChampBroker\Organization\Crew\Hitch\SiteID\StreamTempReadings”



6. Name the file using the serial number from the logger plus the date when the data were downloaded (use “YYYYMMDD” format)
7. click **Save**.

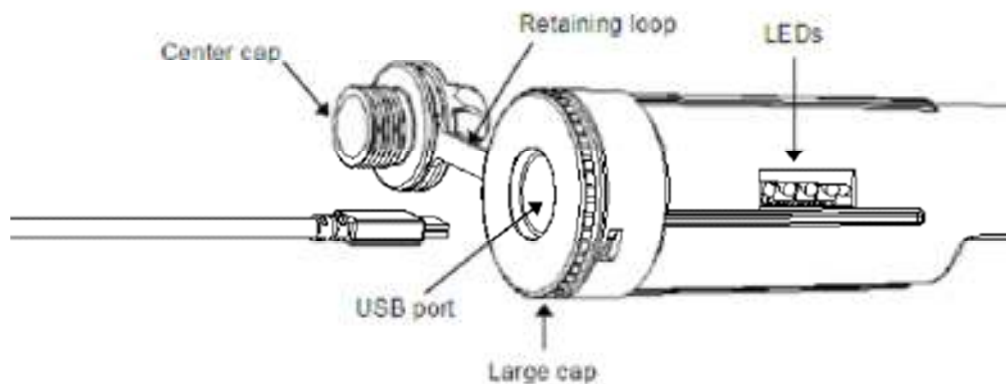
### **Copy Hobo Data File:**

Move a copy of the Hobo data file into the survey folder. This will provide a redundant copy of the data to the CHaMP Broker in the hobo data file format.

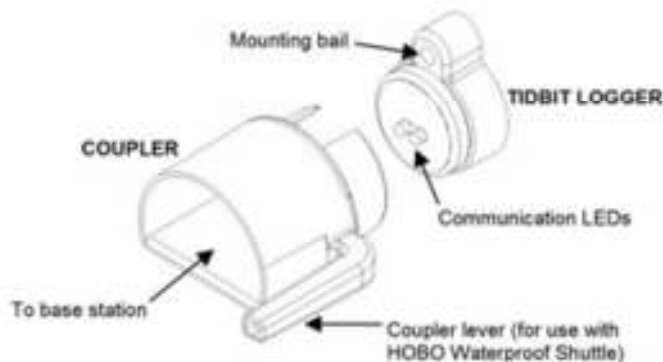
1. Open the folder “C:\Users\champ\Documents\HOBOWare\” or go to “Documents\HOBOWare\”
2. This folder contains multiple files with the .hobo extension.
3. Select and copy the file for the given survey and then paste it into the folder “C:\ChampBroker\Organization\Crew\Hitch\SiteID\StreamTempReadings”

### Deactivation of the Hobo tidbit:

1. If HOBOWare tidbit is on it will be flashing red.
2. Open HOBOWare Pro software from the desktop.
3. Connect the Data Shuttle to the laptop via the USB port underneath the screw cap lid.

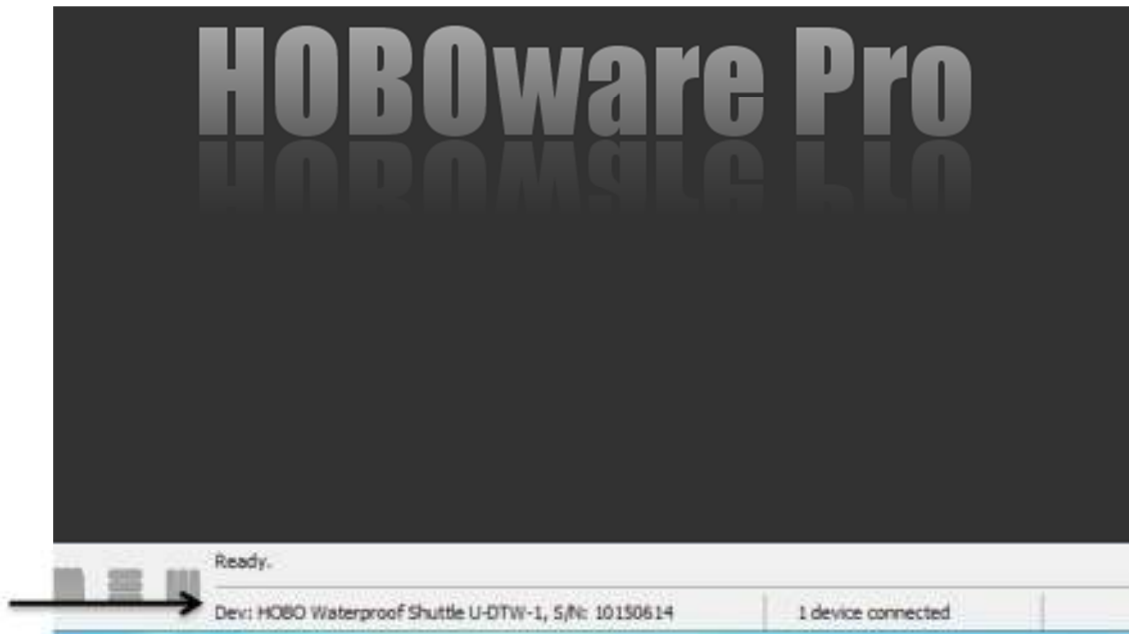


4. Connect the HOBOWare tidbit to the Data Shuttle. The following image does not show the full Data Shuttle only the coupler which is already connected to the Data Shuttle.

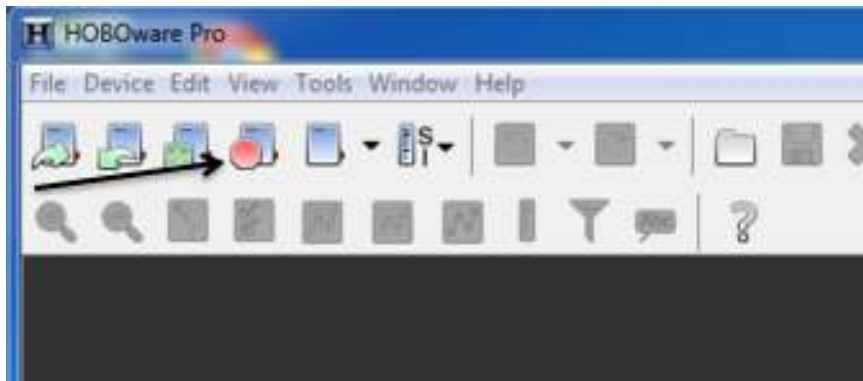


5. Once the tidbit is connected to the waterproof shuttle via the coupler press the coupler lever firmly. The amber TRANSFER LED light should turn on. Release the coupler lever and the green OK LED light should turn on.
6. After a few moments the HOBOWare Pro software should recognize the HOBOWare tidbit and register the unique identification serial number at the bottom of the screen.





7. You are now ready to turn off the HOBOWare Pro. Navigate to the STOP icon located on the upper left icon with a red stop sign symbol.



8. Press the stop icon button and turn off the HOBOWare Pro.

