

# Download & relaunch with HOB0 sensors

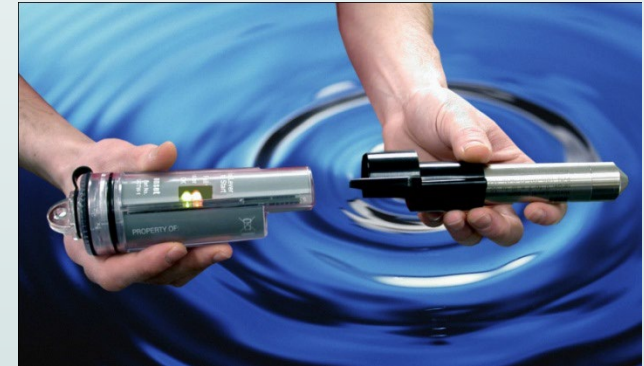
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## Scenario 1



Laptop (with HOB0ware)

## Scenario 2



Waterproof shuttle

# Scenario 1 – laptop in the field

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## Workflow

1. Obtain sensor
2. Connect sensor to the coupler/base station or shuttle/computer
3. Open HOBOWare
4. Select 'Readout'
5. Choose option to stop logger (important!)
6. Save the file on the computer
7. Relaunch the sensor
8. Put sensor back into position

# Connect sensor to the coupler/base station or shuttle/computer



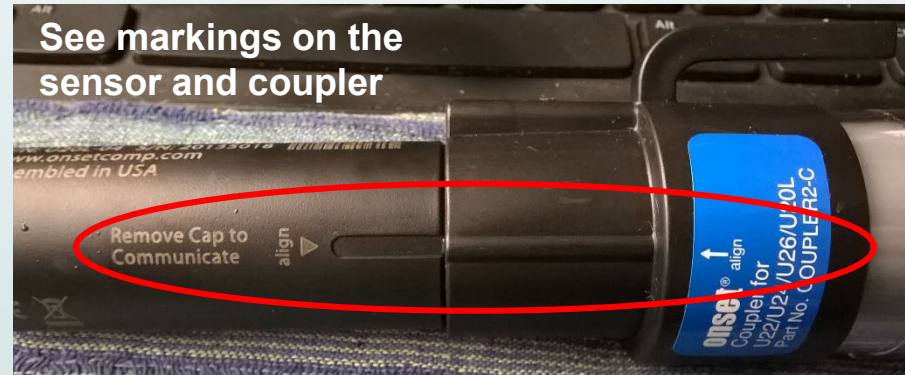
1. Remove the end cap



2. Make sure the optics aren't fouled



3. Attach the coupler (need to make sure the lines are aligned!)



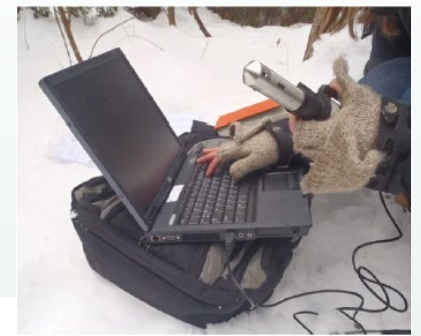
4. Attach the base station or shuttle



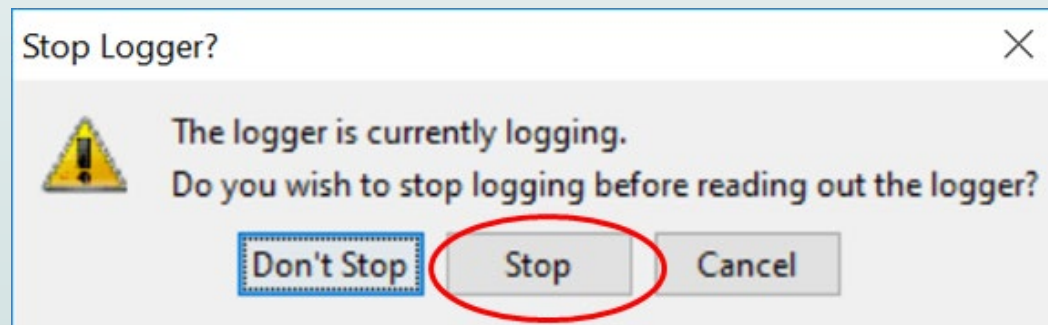
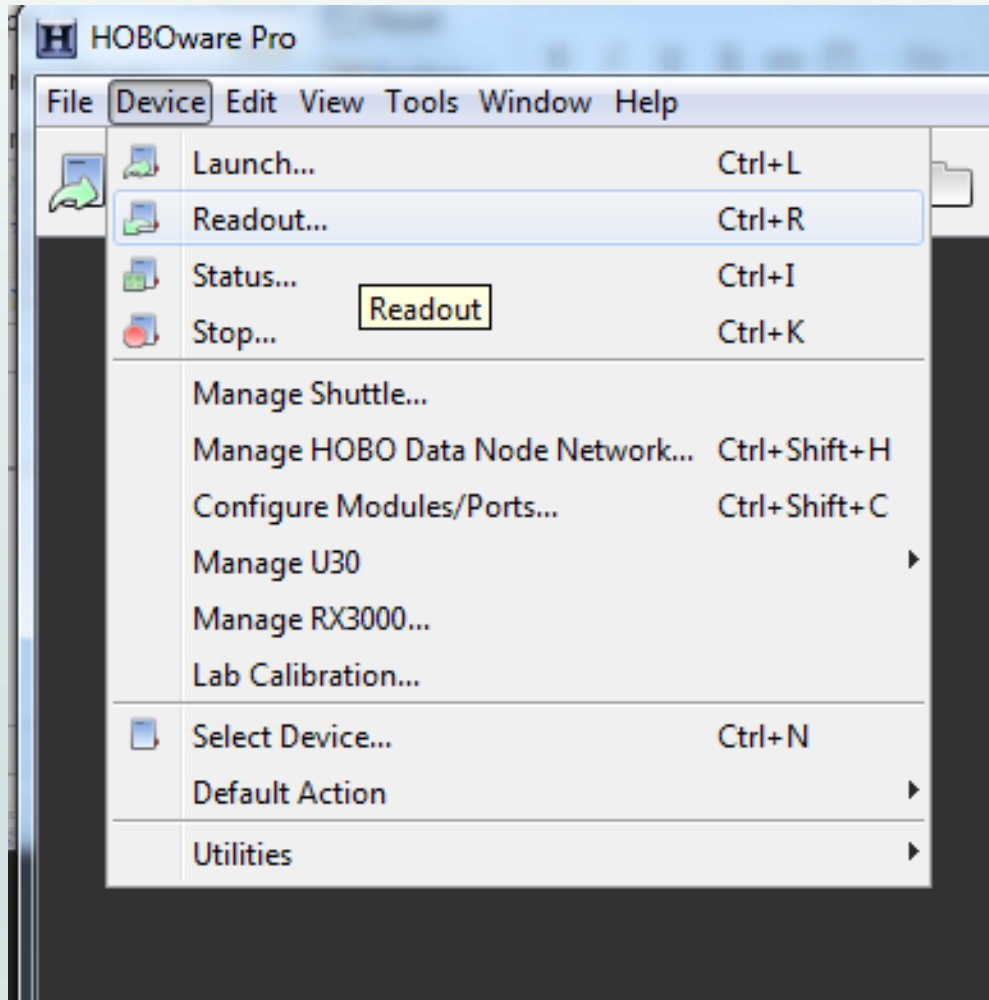
5. Plug the USB cable into the computer with HOBOWare



# Stop sensor, then readout



- Device
  - Readout
  - When prompted, select 'stop' logging before reading out logger



**Important:** by stopping and then restarting the logger, you start the next deployment with memory cleared and avoid data overlap. This also corrects the time to the laptop time.








# Save file



ECO66E09 - Clark



Consider setting up a folder for each site

-  Data1\_RAW
-  Data2\_QC
-  Data3\_Aggregated
-  Data4\_Stats
-  Field forms
-  HOBOWare files
-  Photos



# Plot data

**Description:** ECO66G12

Select Series to Plot

☒ All ☐ None

Series	Measurement	Units	Label
<input checked="" type="checkbox"/> 1	Abs Pres	psi	
<input checked="" type="checkbox"/> 2	Temp	°C	
<input type="checkbox"/> 3	Batt	V	

Select Internal Logger Events to Plot

☒ All ☒ None

Event	Event Type	Units
<input type="checkbox"/> 1	Coupler Detached	
<input type="checkbox"/> 2	Coupler Attached	
<input type="checkbox"/> 3	Stopped	
<input type="checkbox"/> 4	End Of File	

Offset from GMT: -4 (+/- 18.0 hours, 0 = GMT)

Data Assistants: Barometric Compensation Assistant, Growing Degree Days Assistant

Buttons: Process..., What's This?, Manage..., Load..., Help, Cancel, Plot

Description: **StationID**

## Units

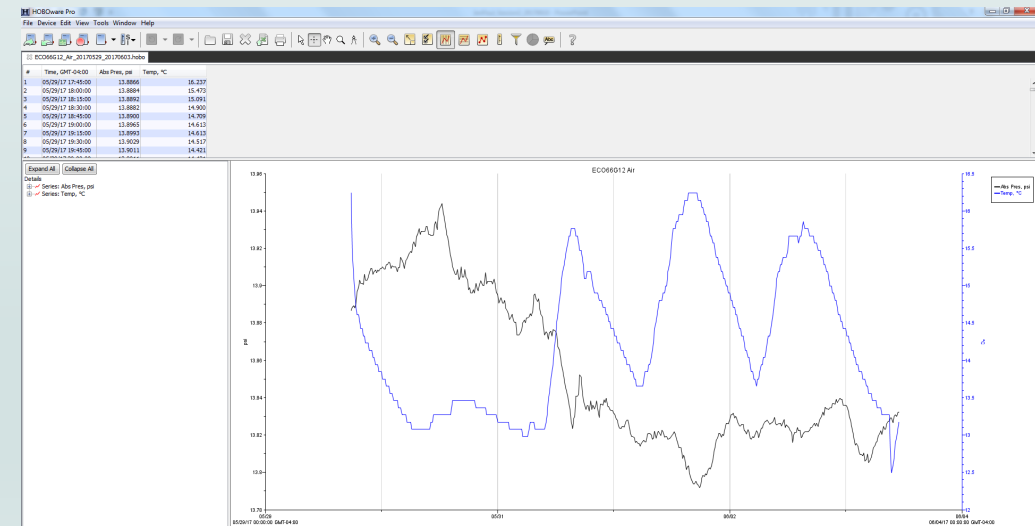
- Abs Pres - psi
- Temp - °C

Click '**None**' (otherwise you'll get unwanted 'logged' entries in the .csv file that you'll need to delete later)

If the time zone for the site is incorrect, you can change that here (when you open the file, it goes to the default, which is the time zone of the computer at the time the sensor was launched)

Click '**Plot**'

In the field, consider plotting the data and taking a quick look for potential problems (if the sensor needs to be replaced, now is a good time to find out...it could potentially save you a site visit)



# Relaunch the sensor



Check battery.



Check logging interval.

Start Logging “At Interval” so the logger will continue to take readings on the hour and half hour, if that is what it was doing (**remember don’t use “Now”**).

Launch Logger

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**HOBO U20L-04 Water Level**

 Name: ECO66G12\_Air  
Serial Number: 20135017  
Status... Deployment Number: 9  
Battery State:  **GOOD**

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**Sensors**


Configure Sensors to Log:

☒ 1) Absolute Pressure <Enter label here>  Filters...

☒ 2) Temperature <Enter label here>

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**Deployment**

 Add Interval

Logging Interval	Samples	Logs until
1) 30 minutes	21657	1.2 years

Start Logging: At interval 22:00:00

Help ☐ Skip launch window next time Cancel Delayed Start

Start Logging at Interval

## Scenario 2 – waterproof shuttle



### Workflow

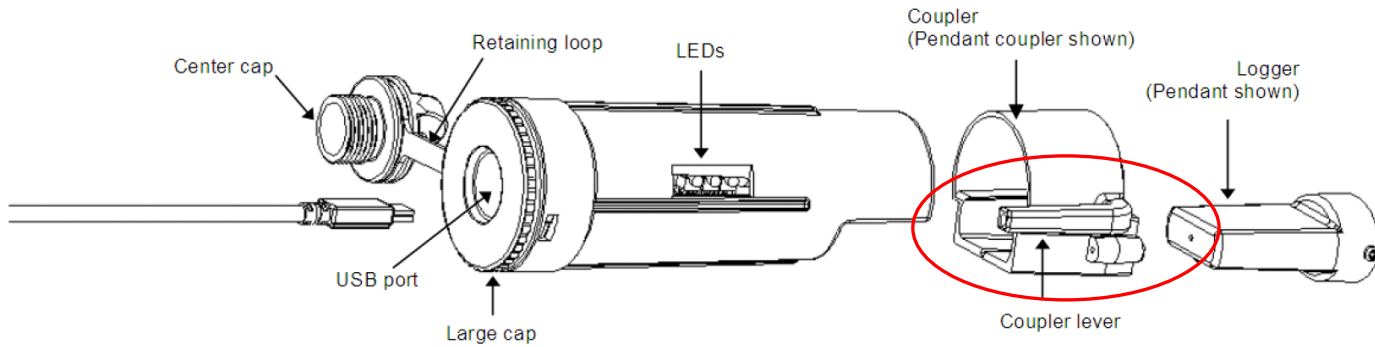
1. Obtain sensor
2. Connect sensor to shuttle
3. Momentarily press coupler lever against shuttle
4. Release when you see the amber light come on
5. Amber light will blink during data transfer and relaunch
6. Will change to green blinking light when data transfer is complete
7. Momentarily press coupler lever to turn off the green light
8. Put sensor back into position
9. Download files onto the computer when able



# Waterproof shuttle



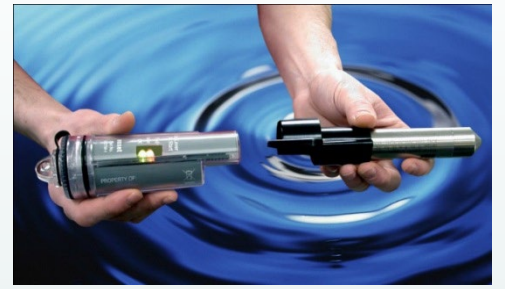
HOBO Waterproof Shuttle features



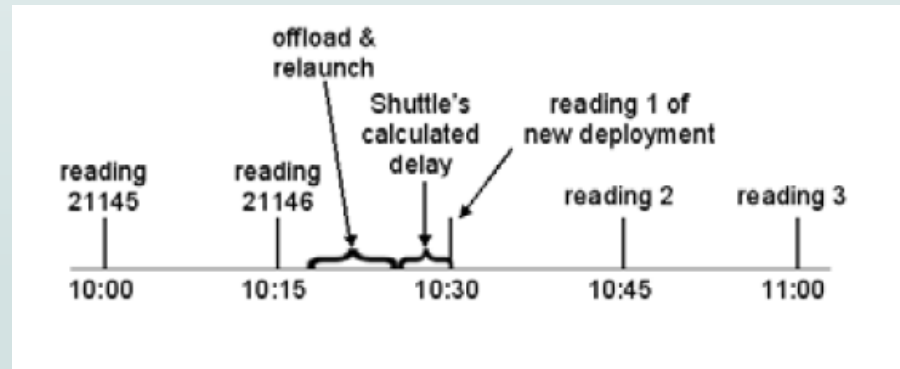
- Coupler lever contains a magnet
- Momentarily press coupler lever against shuttle
- Release when you see the amber light
- The amber light should blink during data transfer
- The green light should blink when data transfer is complete



# Waterproof shuttle relaunch

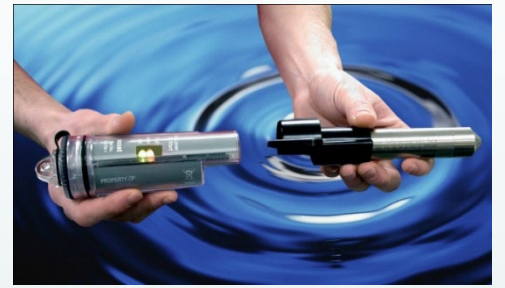


After reading out the logger, the shuttle synchronizes the logger's clock to the shuttle's internal clock and relaunches the logger, using the logging interval and other settings that are already in the logger from the previous deployment.



# What if you see a red blinking light?

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There was a communication error -

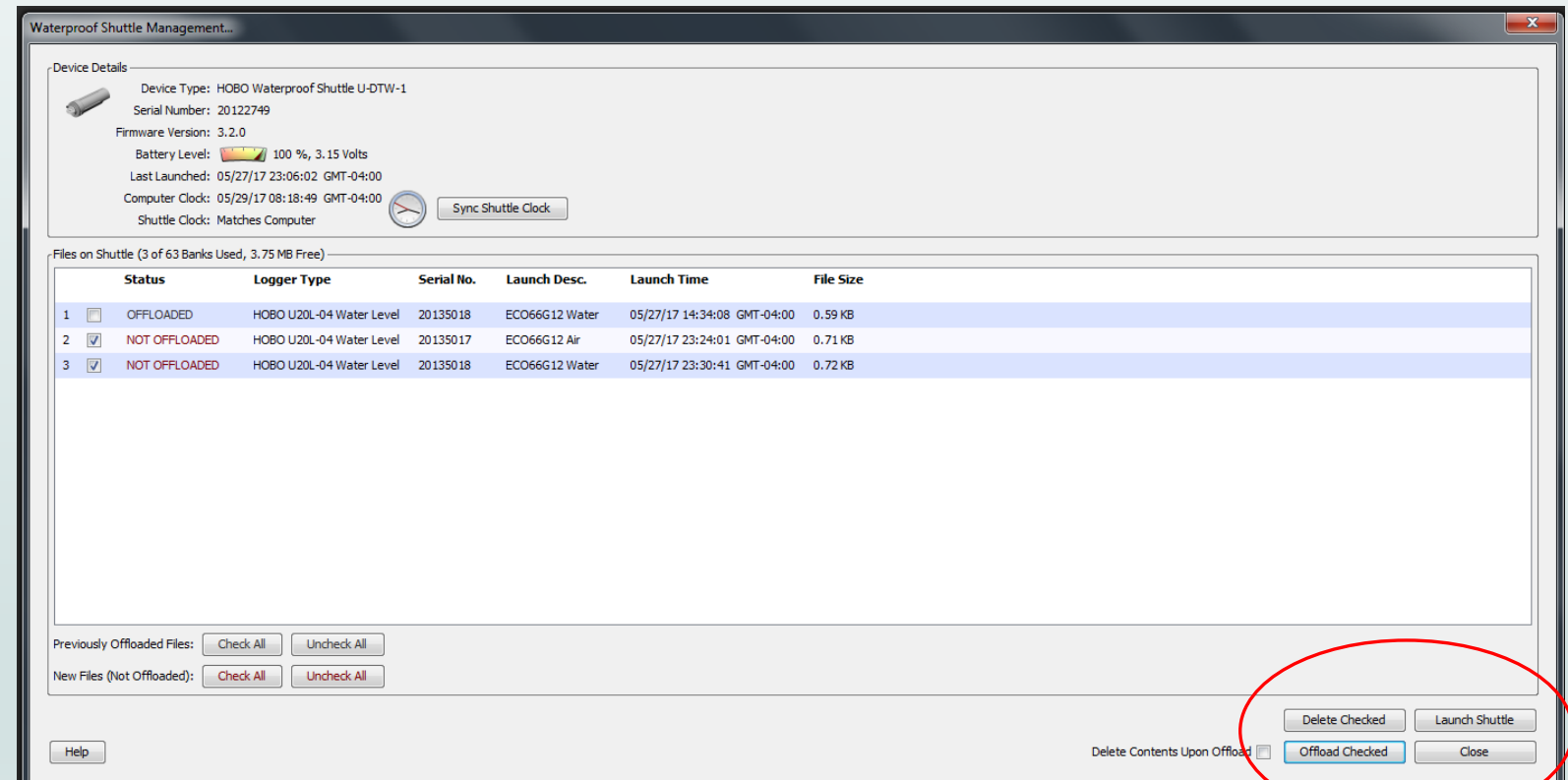
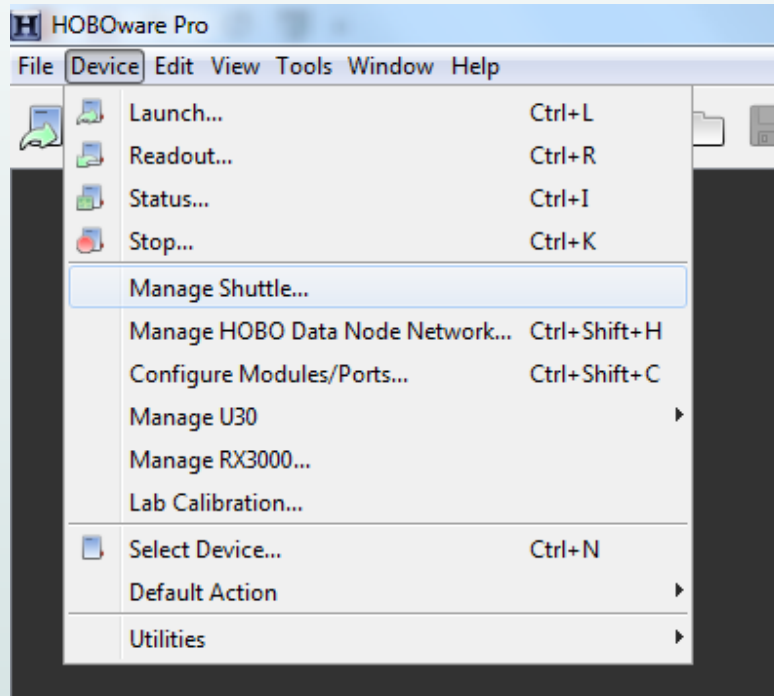
- Is the communication window clean?
- Did the logger move during download?
- Shuttle's batteries running low?
- All of the shuttle banks are full?
- Clock has not been set in the shuttle?

For more details, refer to the Troubleshooting section in the shuttle manual

# Save files on computer



- Device
  - Manage shuttle



Note: if you click 'Launch Shuttle' it will clear the memory

# Review: sequence of events during field visit

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Before downloading the data –

- Check for anything that could cause the sensor to record questionable readings
- **Water temperature accuracy check**
- **Reference water level measurements**
  - Take the measurement **before you download** the data
  - You **can also take one after you download** the data and put the sensor back in position (but if you don't have the sensor out of position for long, it's probably not necessary)
  - Use an **average of multiple readings**
- **Elevation survey** (if possible)
- Enter all of this information into your **field notes/form(s)**
- Download
- Relaunch

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