

HOBO Vaccine Kit

Congratulations on purchasing your HOBO vaccine Data logging kit.
In no time you will become very comfortable with using your data logger.

There are a few initial once only steps to work through before you begin logging.

NOTE: All the time & date information that is recorded is based on the clock/calendar on your PC, ensure this is correct before you start.

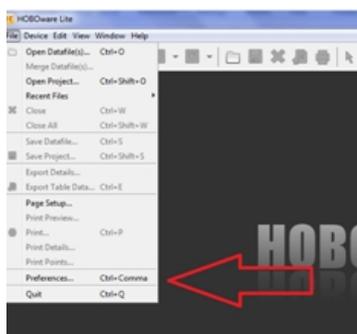
1. Download the free HOBOWare software from:

<http://www.hobodataloggers.com.au/hoboware-free-download>

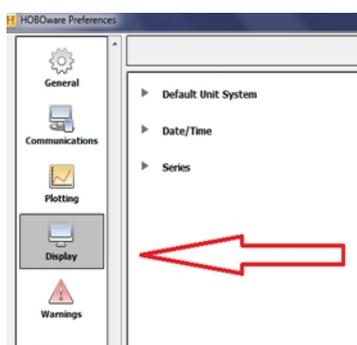
Once downloaded you'll have a HOBOWare Icon on your desktop.
To open the program simply double click on the Icon.



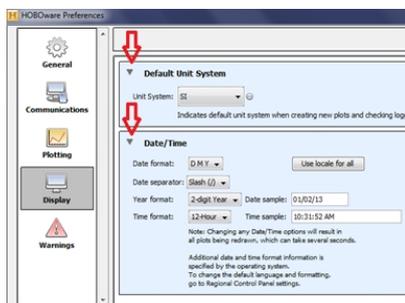
2. Next you'll need to software up for recording in Deg C & dates in Australian format.



From the drop down menu located by clicking on the word "file" at the top of the screen. Then select preferences



Then Select Display



Then select Unit System "SI"

And DMY as the date format

Here you can also choose to have the time displayed in 12 or 24hr clock format

To confirm these changes click "OK" on the bottom right hand corner of the screen.
You will only need to do these steps in the initial set up- your PC will remember these settings.

Data Logging hints

The key to successful data collection of your storage conditions is consistency.

It's really important to set up a schedule so you know the data is regularly reviewed and stored for future reference. A weekly routine of data download is highly recommended.

It's also really important that more than one person is proficient in the use of the logger, this is the reason this guide has been written

Please use it as a guide for training of all your staff.

Following the initial launch (start up) of the logger..... refer to page 3

We recommend on a weekly basis you

- **Download & save the data..... refer to page 5**
- **Relaunch (restart) of the logger refer to page 3**

For quick tour on how to read your data.....ref to page 8

We recommend using the visual alarm featureref to page 10

Frequently asked questions.....ref to page 11

To Start the logger



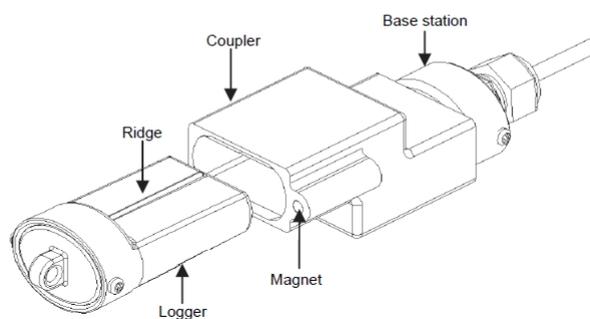
Double click on the HOBOWare icon located on your desk top to open the program



Attach the Optic base station to your PC, then insert the logger into the coupler, using the alignment grooves.



Make sure that the logger is inserted in the end of the coupler that has the magnet, and that the ridges on the base station and logger are aligned with the grooves in the coupler. If the logger is not aligned with the magnet, or if the ridges on the logger and base station are not aligned with the grooves in the coupler, the logger and the Optic USB Base Station will be unable to communicate.

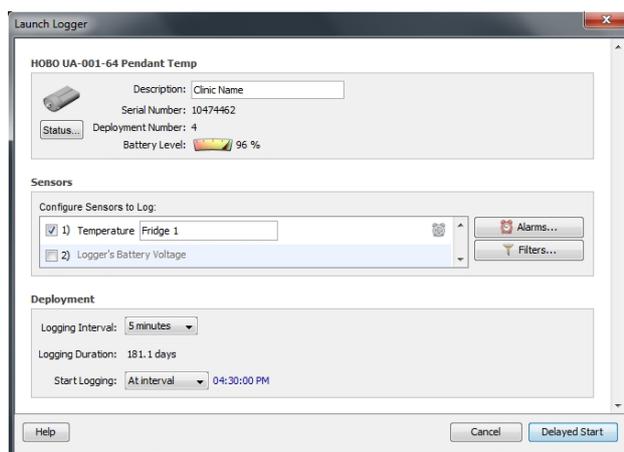


When aligned correctly you will see on the bottom left hand corner of the screen when the logger has been detected by the software.



To launch (Start) the logger

Select the first icon with the arrow pointing to the right



In the launch screen you set the logger up.

Working from the top of the screen.

The words you enter into the description field will appear on download at the top of your graph, it's common practice to show your clinic or business name here.

It's important to check the battery level every time you relaunch the logger, when it gets down to around 70% it's time to change the battery. Details on how to change the battery are listed in the manual, available for download from:

[Download the Pendant Manual](#)

Configure Sensors to log:

Make sure there is a tick in the box next to Temperature,

In regard to Battery Voltage: so long as your keeping an eye on the battery level at each deployment there really isn't much need to also log the battery voltage – just leave it blank.

At this point we recommend setting the visual alarms, see page 10

Then in the box marked deployment, select the logging interval (how often you want it to record a temperature reading) commonly this every 5 minutes (not more than 15min)

Then select from drop the down list beside Start Logging – select "At Interval"

At interval means, the logger will wait til the next exact 5 or 10 minute interval before it starts. This means you get nice neat data for example 10:10, 10:15, 10:20 rather than 10:08:57; 10:13:57, 10:18:57

Once the launch is complete you will observe a small flashing light next to OK indicating that the logger has been launched.

Now take the logger from the optic base station and place in the refrigerator – preferably in the centre of the fridge, perhaps hanging from the shelf.

Downloading (reading out) the data from your logger

Double click on the HOBOWare icon located on your desk top



Attach the logger to the Optic base station, using the alignment grooves.



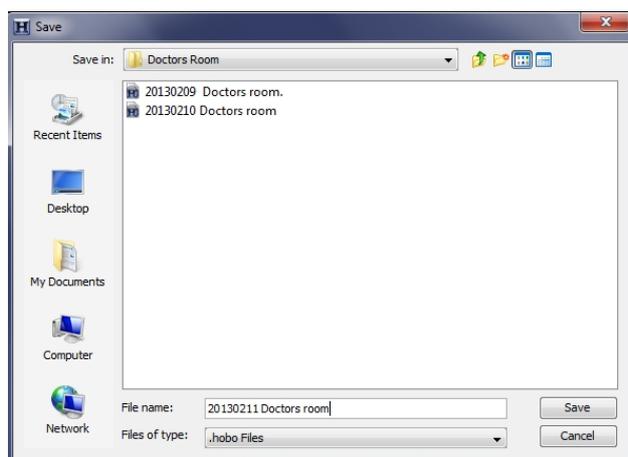
To readout (download) the logger

Select the second icon with the arrow pointing to the left

The Computer will ask you if you want to stop the Logger,



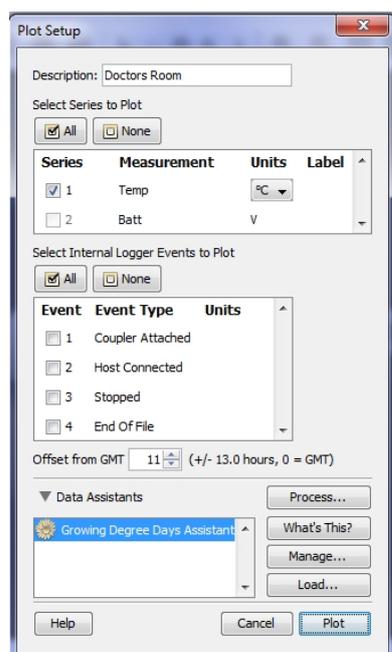
Click "Stop"



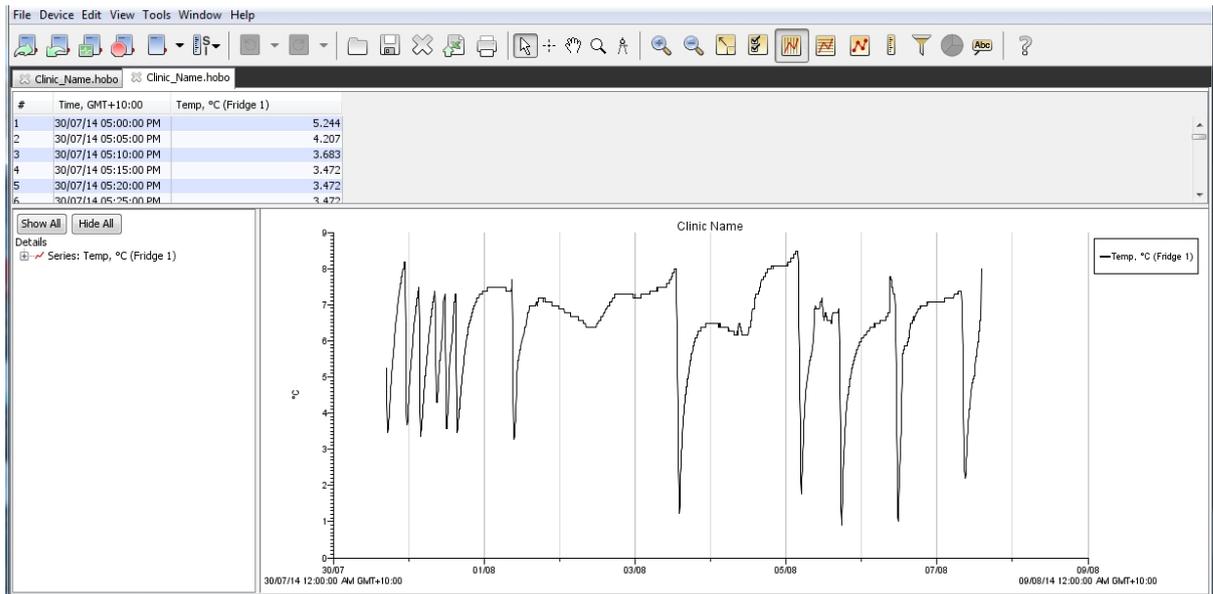
Next you'll need to tell the computer on where you want to save the data file
Browse by clicking to on the drop down menu to find the correct location
Name your file with your Date then your clinic name for fridge name

Hint:

If you enter the date backward e.g 150616 (YY/MM/DD) your files will stay neatly in order within your file



Click on Plot Button to draw the graph



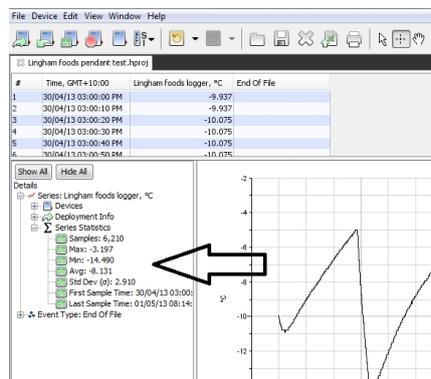
To print the graph, click on the printer button at the top of the screen – this will print it to the printer connected to your PC.

Now – you will need to launch the logger again before returning the logger to the fridge.
See page 3.

Easy analysis of your data - A quick glance

A summary of your data can be viewed once the data has been plotted.

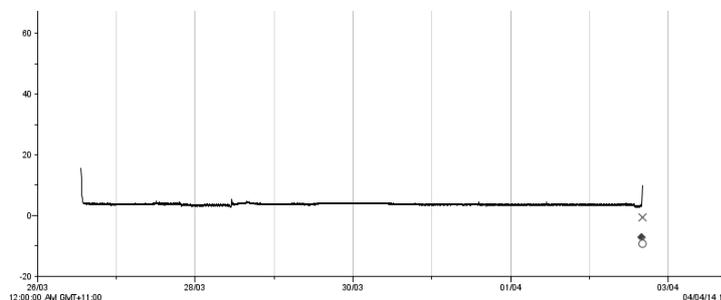
On the left hand side of the screen under details. Select the series, then series statistics



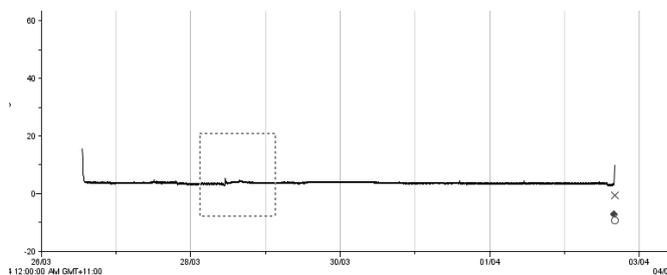
Here you will see the number of samples taken during the deployment, the max, min and std deviation.

This data can be printed from the file menu, select print details.

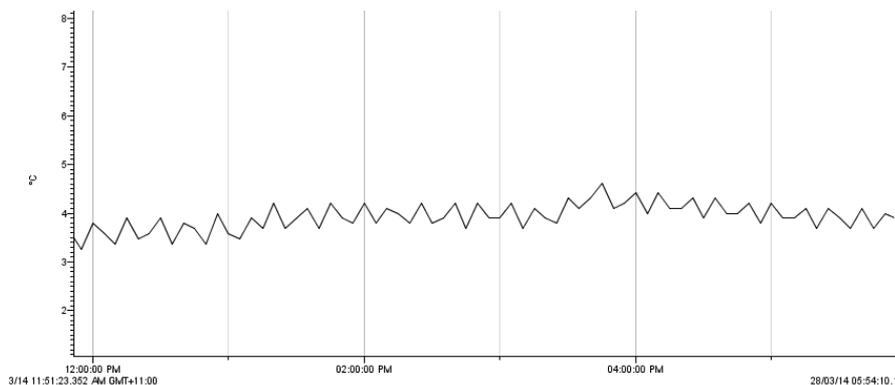
Taking a closer look at data of interest



Select the looking glass tool located to the left of the hand tool at the top of the HOBOWare screen, then draw a box around the area of interest



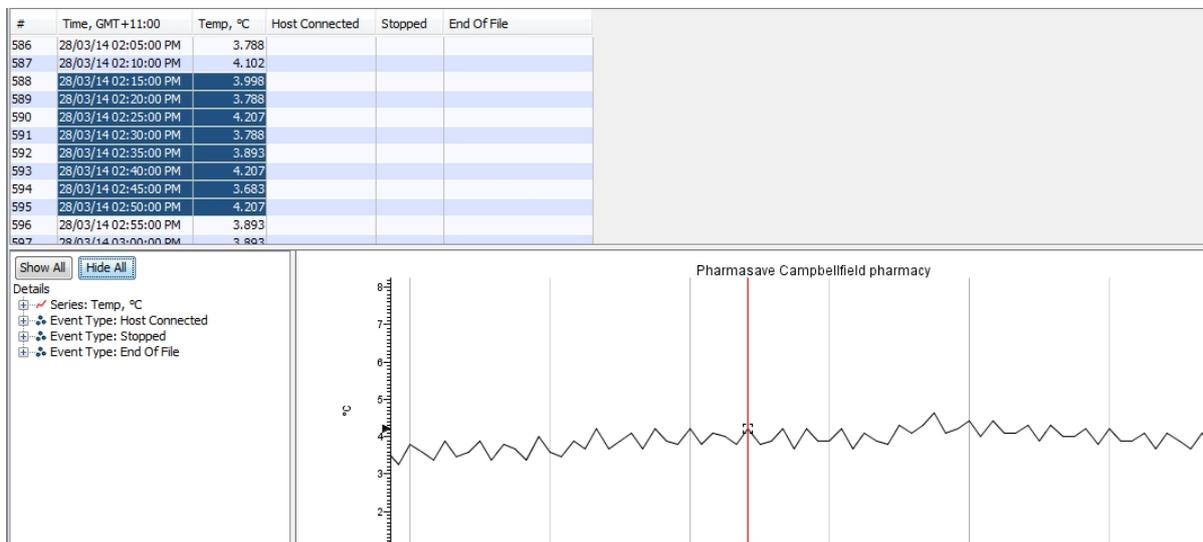
Then left click inside the box, HOBOWare will redraw the graph and alter the scale according to the data selected.



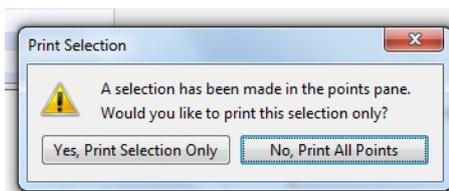
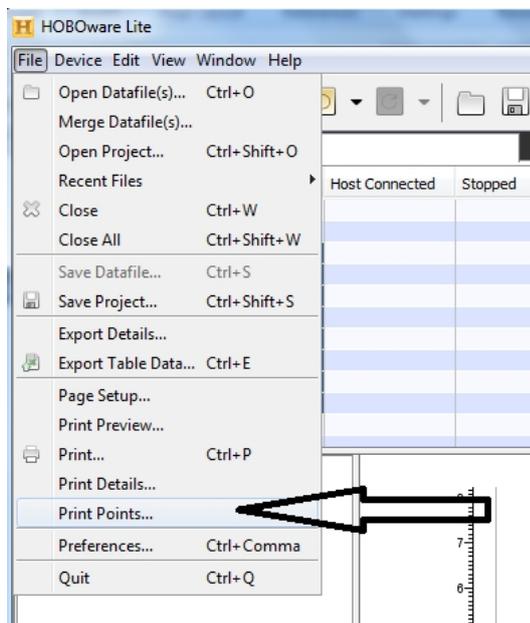
To keep this graph, you will need to save it as a project, selected from the menu under the word file on the top of the HOBOWare Screen

To print the data points from the file

You can print all the data points but generally just a selection is all that is required. Use the Cross hair tool to find the data of interest, and then select the data you are interested in within the points table.



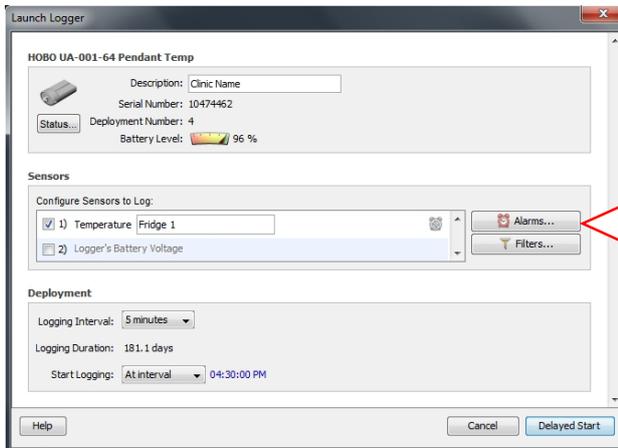
Then from the file menu, select print points



Then print selection only.

Note: there's a lot more information on using HOBOWare available from the Help menu at the top of the HOBOWare Screen.

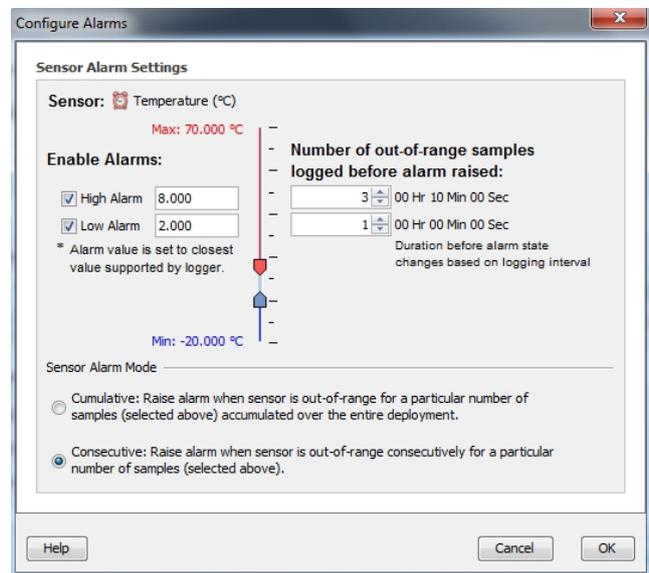
We recommend using the visual alarm



In the launch screen, after you have selected your logging interval select the alarm tool

- Tick the high & low alarm boxes, then enter your Max & Min temperature alarm points
- Select Sensor alarm mode Consecutive
- Then select the number of logging intervals allowable at alarm temperature before the visual alarm is activated.

This allows time for the logger to return to the fridge temperature when it's been out for downloading purposes and for short term changes in fridge temperature during times of stocking the fridge.



We suggest if you are logging at 5 min logging intervals. If logging at longer intervals, adjust accordingly, the alarm must activate in a max of 15min.

- High alarm delay of 3 logs – this allows 10 minutes delay before the alarm is activated
- Low alarm delay of 1 log this means the visual alarm will activate as the first log recording the low temperature alarm point

Reference: strive for 5

A 'cold chain breach' has occurred if vaccine storage temperatures have been outside the recommended range of +2°C to +8°C. It excludes fluctuations up to +12°C, lasting no longer than 15 minutes, as may occur when stock taking or restocking refrigerators.

Then Click OK to include the alarm set up information in your launch set up



The (2) in the alarm tool indicates that the alarms have been set up

Then proceed to launch your logger as outlined on page 4

Frequently asked questions

Battery replacement

The battery for the HOBO Pendant logger is CR2032 batteries

We recommend good quality batteries be fitted, purchased from us or a store that would have a high stock turnover. (even new looking batteries can already be significantly drained)

Before removing the battery, download the data.

Once the battery has been removed from the logger it will stop.

If the battery has gone flat during the deployment, fit a new battery then download the logger.

Note: you'll receive a message saying the power has been reset - this just means it knows the battery has been removed) say ok to continue.

To continue logging you will need to relaunch the logger

Note: on first launch after a battery has been changed you will get message saying the power has been reset – this just means it knows the battery has been removed) say ok to continue.

Common problem

You've changed the battery but the logger is not working (light not flashing)

– **Fix:** you need to relaunch the logger.

You've fitted a new battery, but the logger can no longer be recognised by HOBOWare cause - most likely cause is the logger has been incorrectly reassembled or the optics are not aligned.

Battery replacement on UA pendant loggers



Very important optics must be located at bottom of logger

When replacing the battery it is vital that the logger is reassembled correctly - as described in the manual. You should see the battery through the side with the plastic key.

You should also be able to see the optics located at the bottom of the logger on the flat side
If incorrectly assembled the optic alignment will be impossible.

Common alignment issues found

Stickers being placed over the optics



Coupler being incorrectly fitted to the base station

The Base station is supplied the coupler correctly fitted and positioned with a rubber boot

With a little persuasion the coupler can be removed

And it can be refitted it the wrong way around, making optic alignment impossible.

Ensure alignment key & keyway are used correctly and coupler is facing the correct component.

For information and procedures on data logging and temperature measurement in Vaccine refrigerators always refer to “Strive for five” which can be downloaded.

<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/IMM77-cnt>