

Kestrel Quick Guide

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The Kestrel has a great instruction manual, which you should read the first time, but it can be a bit daunting for everyday use. Here are the main things I suggest you need to know.

1 General use

Switch on with  (It switches off after a preset period (currently 15mins) but still logs data).
As soon as it comes on, there is a quick flash showing the battery %age capacity.
Then it goes to a reading of one of the quantities measured (eg temperature).

Use  or  to scroll through each of the quantities (humidity, wind speed, etc), followed by date/time, then 3 customisable user screens each of which can be set to show any combinations of 3 quantities at once if you want.

When showing a reading of a particular quantity (eg temp), pressing  or  scrolls between three temperature screens showing (1) the current temp, (2) min, average and max temp since start of recording, and (3) a graph of all the temp data since last cleared. On the graph screen, you can read off the data by pressing the central  key, and then scrolling through point by point using  or . At any point it shows the date and time of that observation and the value (eg 12 May 19:28:50 24.2°C)

The Kestrels have all been set to read temp in degrees C, wind in m/s and pressure in mb, but these can be changed if you wish. The digital compass on the Kestrel 4500 (yellow) has been calibrated, but if you take out the batteries you will have to do it again – it is very simple and only takes a few minutes. See page 6.

The backlight is activated by pressing the key showing a circle half white and half black.

2 Main Setup Menu

When the display is on, pressing  takes you to the Main Setup Menu which has 10 scrollable functions, eg Memory Options, Graph Scale, etc, each of which can be selected using the central  key.

2a Memory Options

Use this to set Store Rate, which can be between 2sec (memory lasts 46mins) and 12hr (lasts 700 days). Roughly, 1min lasts nearly 1 day, 2min lasts nearly 2 days etc. (1400 points per quantity)
Unwanted data can be cleared using Clear Log
Suggest keeping Overwrite on Off, otherwise old data is overwritten by new data and hence lost. NB:
The Kestrel is logging even when off.

There are some other useful functions in the Main Setup Menu such as setting up user screens (if you want to), changing units, calibrating the barometer (see page 15) etc

Uploading data to a PC

This involves loading up the Kestrel Communicator programme from the CD (or from the Kestrel website). On loading the CD you will get a popup, and click on install. It doesn't take long.

It also needs a USB driver, which is allegedly on the CD, but I couldn't find it. So I got it from www.kestrelweather.com.au/page.html?id=5 ("XP USB Driver" about half way down the page)

Next connect the Serial-to-USB cable to the cradle (9-pin plug and socket) and the other end of the cable to a USB port.

Then put a Kestrel into the cradle and switch it on. It communicates via 2 windows at the bottom back of the Kestrel, so use a Q-tip to make sure these are clean.

Click on the Communicator programme and you get a window with tabs along the top. The contents of the Help tab have been printed off and should be kept with the Kestrels.

The handbook alleges that you have a choice of USB ports, and these should be between 1 and 4. I found it set to COM7, with no alternative on the drop down, but this seemed to work OK.

To check the comms are working, click Read Device Data pink button; after a few secs some text should come up in the box saying what type of Kestrel it is, when calcs were last done etc. If all is working, click on tab Real-Time to see current readings.

To download the data in the Kestrel click on Load from Kestrel Tracker button. A moving bar on a popup shows data is being read. When all data is in (2-3 minutes) go to the Data Log tab. This shows a table of all readings. You can save the whole of the data in .xml format by clicking on the Save to File button on the Kestrel Tracker tab, but this is in .xml format, which may not be very easy to work with for some.

Better still, go to the Date Log page and Export Data using All Data or Selected Data buttons. (If you only want to export some of the data, just highlight the rows you want). This will save data in .csv (comma separated variables) format, which can be opened using Excel. You then have all the capability of Excel eg analysis, graphing, etc.