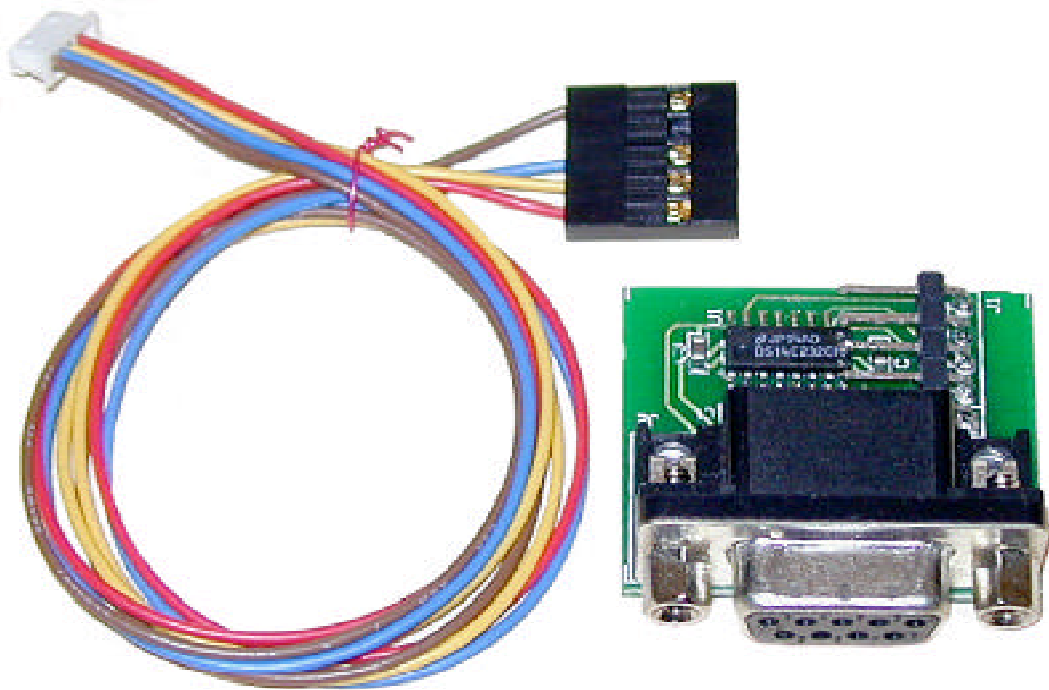


# DT2x Data Transfer Kit

(for Alt15K/WD and miniAlt/WD)



*PerfectFlite*

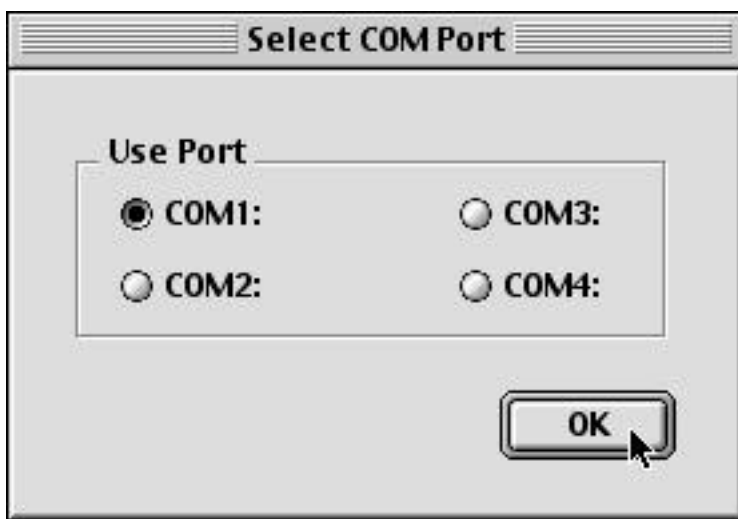
## *Using the DT2 with the Alt15K/WD*

### *Software Installation:*

The enclosed CD contains software for Windows and Macintosh operating systems. To install the software, simply copy the appropriate folder (“Alt15K Software for Macintosh” or “Alt15K Software for Windows”) from the CDRom to your hard disk. A sample data file is also included to provide a representation of a typical flight’s data.

### *Setup and Transfer:*

The Alt15K/WD will respond to the serial port at any point before or after a flight. Start by connecting the serial cable between your computer’s serial port and the Data Transfer module, and connect the four wire cable to the altimeter’s “Data” port. Run the DataCap program, and select the appropriate serial port from the **Altimeter>CommPort** menu item. On the Macintosh you should select port 1 for the “Modem” serial port or port 2 for the “Printer” serial port.

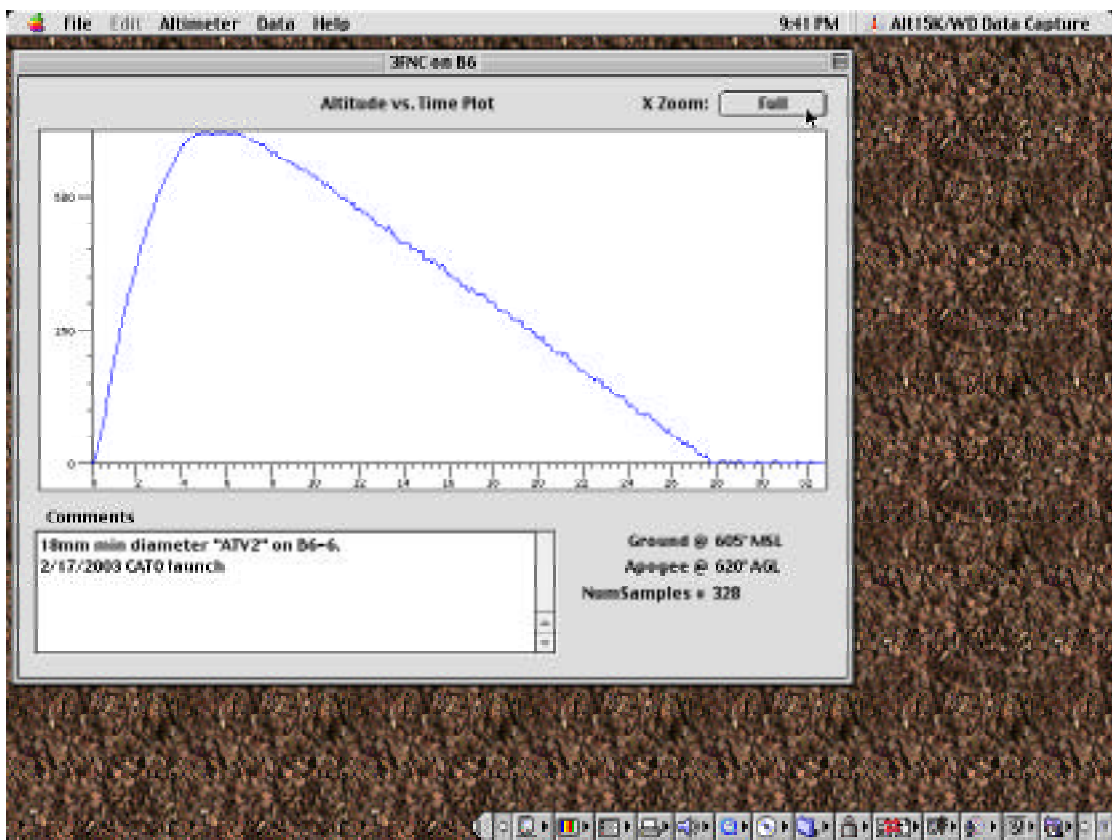


After the proper port is chosen, you can select the **Data>Acquire** menu item which will bring up a dialog box prompting you to turn on the altimeter. Turn on the altimeter, which will begin to beep out its switch settings (if you are connecting post-flight, the altimeter will

already be on). When you respond with the “OK” button the data transfer process will commence and a progress indicator will appear on screen.



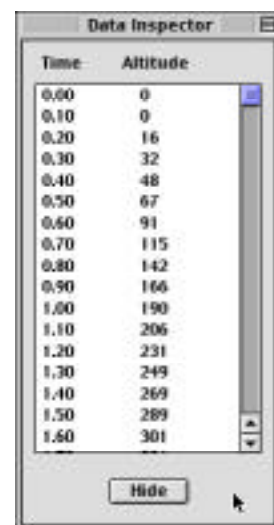
When the transfer is complete, a graph of the altitude *vs.* time profile of the flight will appear.



Clicking on the “X Zoom” button will allow you to view the entire flight or zoom in on the first 15 or 30 seconds to examine the boost characteristics of the flight.

The **Data>Inspect** menu item brings up a separate window with the data arranged in tabular format for inspecting individual data points.

The File menu provides the normal functions for Saving, Opening, and Printing of individual data runs. Data are saved in text format for easy import into spreadsheet programs for further analysis.



The screenshot shows a window titled "Data Inspector" with a table of data. The table has two columns: "Time" and "Altitude". The data points are as follows:

Time	Altitude
0.00	0
0.10	0
0.20	16
0.30	32
0.40	48
0.50	67
0.60	91
0.70	115
0.80	142
0.90	166
1.00	190
1.10	206
1.20	231
1.30	249
1.40	269
1.50	289
1.60	301

At the bottom of the window, there is a "Hide" button and a mouse cursor.

## *Using the DT2 with the miniAlt/WD*

### *Software Installation:*

The enclosed CD contains software for Windows and Macintosh operating systems. A sample data file is also included to provide a representation of a typical flight's data. To install the software, simply copy the appropriate folder ("miniAlt Software for Windows" or "miniAlt Software for Macintosh") from the CDROM to your hard disk. Macintosh users will also need to move the extension "Serial Tool" from this folder into the Extensions folder in their System folder.

### *Setup and Transfer:*

As mentioned in the miniAlt/WD manual, the altimeter will only respond to the serial port during the period before the continuity check beeps commence and the period after a flight. I/O through the serial port is disabled as soon as the continuity check beeps start and remains disabled until the end of the flight. This is to keep noise or spurious commands from taking the altimeter out of flight mode and entering command mode. If this were to happen, data acquisition and event triggering would not occur.

To set up any desired features using the software, connect the serial cable between your computer's serial port and the Data Transfer module, and connect the four wire cable to the altimeter's "Data" port. Run the DataCap program, and select the appropriate serial

port from the **Altimeter>CommPort** menu item. On the Macintosh you will be able to change other settings in the Serial Tool, but don't – they need to be left at 38,400 baud, No Parity, 8 Data bits, 1 Stop bit, XON/XOFF protocol.

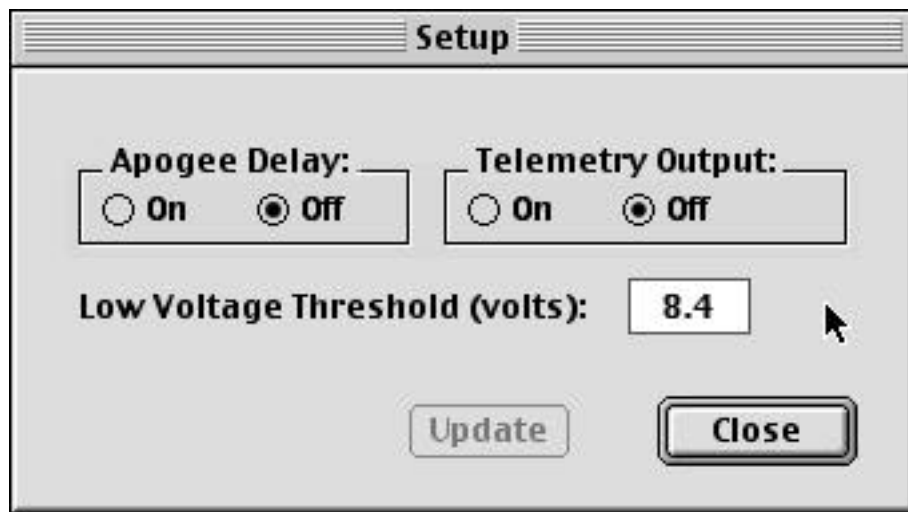
With the proper port selected, turn on the altimeter, which will begin to beep out its switch settings. At this point you can select the **Altimeter>Identify** menu item, which will stop the beeping and return a dialog box describing the model of altimeter and the revision number of its firmware and transfer software. This will also confirm proper communications with the altimeter.



The **Altimeter>Test** menu item allows you to test fire charges (or low power lightbulbs) attached to the altimeter's ejection charge terminals, and turn the audible continuity test on or off.



The **Altimeter>Setup** menu item allows you to enable telemetry output during flight (sent to the Data port as output only at 9,600 baud) and a 1 second apogee delay for dual altimeter installations to keep both apogee charges from firing simultaneously. You can also select a new value for the Low Battery Alarm in this dialog. After making any changes to the settings, click on the “Update” button to send them to the altimeter.



The **Data>Acquire** menu item will download the last flight’s data from the altimeter and plot it in the graphing window. Clicking on the “X Zoom” button will allow you to view the entire flight or zoom in on the first 15 or 30 seconds to examine the boost characteristics of the flight.

The **Data>Inspect** menu item brings up a separate window with the data arranged in tabular format for inspecting individual data points.

The File menu provides the normal functions for Saving, Opening, and Printing of individual data runs. Data are saved in text format for easy import into spreadsheet programs for further analysis.

This package contains a serial cable, level shifter board, and software to extract data from the Alt15K/WD or miniAlt/WD logging altimeters.

A standard RS-232 serial port is required – the DT2x transfer kits will not work with other ports such as USB, FireWire, Parallel, or SCSI.

### ***Hardware Requirements:***

**Windows:** PC with 9 pin serial port capable of operation at 38,400 bps and 64 meg RAM

**Macintosh:** Mac with 8 pin serial port capable of operation at 38,400 bps and 64 meg RAM

### ***Software Requirements:***

**Windows:** Windows 95, 98, 2000, or XP

**Macintosh:** Mac OS 7.1 to 9.22

*Note: If your computer has a USB port and lacks a serial port, you can obtain a converter from:*

[http://www.usbgear.com/usa/item\\_162.html](http://www.usbgear.com/usa/item_162.html) or  
[http://www.usbgear.com/usa/item\\_158.html](http://www.usbgear.com/usa/item_158.html)

*Mac Users: These USB converters run under MacOS 8.6 to 9.22 only and require the DT2P (Windows) connect kit for the proper cable. For your convenience, the Macintosh transfer software is also supplied with the DT2P (Windows) connect kit.*