# DTCP Data Transfer Cable Kit QuickStart

*Software Installation:*
The enclosed diskette contains three files: "`DataCap.exe`" (the data capture program) and two Windows dll files "`mfc42.dll`" and "`msvcrt.dll`". If you are running Windows 98 or later, simply copy the `DataCap.exe` file to your hard disk and installation is complete. If you are running Windows 95 and get an error message when you try to run the program that indicates that the above dll files are missing, copy them to the `\Windows\System` directory of your hard disk and try again.

*Operation:*
The RS-232 level shifting circuitry on the Data Transfer cable is powered by a standard 9V battery. Please observe proper polarity when connecting the battery. Battery drain is low (approximately 5 ma), but for longest battery life the battery should be removed when not in use.

*Transfer:*
After a flight, your altimeter will be beeping out the peak altitude achieved. Remove the altimeter (or avionics bay) from your rocket, but do not turn the altimeter off. Disconnect the ejection charge battery cable (if used) from the altimeter and plug the three wire cable from the Data Transfer cable into the altimeter. Connect a 9V battery to the level shifter board. Plug the 9 pin connector from the level shifter into your PC's serial port and start the "DataCap" program.

Go to the "Acquire" menu and select "Data". A dialog box will appear, allowing you to specify the serial port that you have plugged the altimeter cable into. Click the appropriate radio button and click on OK. Another window will appear, informing you that the program is waiting for data. Turn the altimeter's CAL switch ON to initiate the data transfer (make sure you do not turn the altimeter OFF by mistake!). The beeping will stop after a moment and data will be transferred to the PC. When transfer is complete (a few seconds at the most), a window will acknowledge receipt of data. If you get a timeout error instead, check your cable connections and make sure you have specified the proper serial port number. When you dismiss the "transfer complete" message, a plot of the data will appear in the main window. Ground level and apogee readings will be reported numerically.

If you wish to identify your plot, the "Properties" item from the File menu can be used to add/edit comments. The run can be saved to disk using the File>Save command, which saves the data in ASCII text format. This file can be reloaded using the File>Open command at a later time, or imported into most spreadsheet programs for further analysis. The File>Print command will print the plot and any comments that you have added to the selected printer.

Don't forget to remove the 9V battery from the level shifter board and turn off the altimeter after the transfer is complete!

*(Data directly from altimeter):*

```
Perfectflite Alt4600 v2.1
Ground level,then data sampled at
200mS intervals:
0320

0080
0080
0100
0100
0120
0140
0180
0200
0220
0240
0260
0300
0320
0340
0360
0380
0380
0400
0420
0440
0460
0480
0500
0500
0520
0540
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0580
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0900
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0900
0900
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*(Data as saved to disk):*

4600 *(altimeter model)*
0320 *(ground level MSL)*
0080 *(first altitude reading AGL)*
0080 *(second altitude reading AGL)*
0100
0100
0120
0140
0180
0200
0220
0240
0260
0300
0320
0340
0360
0380
0380
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0880
0900
0900 *(last [96th] altitude reading AGL)*
Any text in the comments field will appear here *(comment string)*