

# The ALBA Ranger

Congratulations on your purchase of the ALBA Ranger.

The ALBA Ranger is supplied with:

- 9V plugtop power supply
- ALBA Software Disk 1 CD-ROM
- The ALBA Interface and Logger Manual on the CD-ROM.

## Installing the Software

The ALBA Ranger software environment is a small part of the much larger ALBA Interface and Logger software. When you install the software you are in fact installing the complete ALBA Core that includes some Applications and the manual for the ALBA Interface and Logger. This results in a full range of analysis tools being available to use with the ALBA Ranger. The Applications have been provided so that you can work through the Tutorials in the manual and use the software to its full potential.

If the installation does not start automatically then type `D:\setup.exe` from the Windows Start menu "run" command (D is the letter of your CD-ROM drive).

There are three parts to the installation:

- The first part installs the latest ALBA core, the Help file and manual.
- Next the Applications are installed.
- Finally you are asked if you wish to install the Adobe Acrobat Reader. You should install this if you do not already have it because you will require it later to print the ALBA Interface and Logger manual.

The installation process puts the ALBA icon on your desktop.

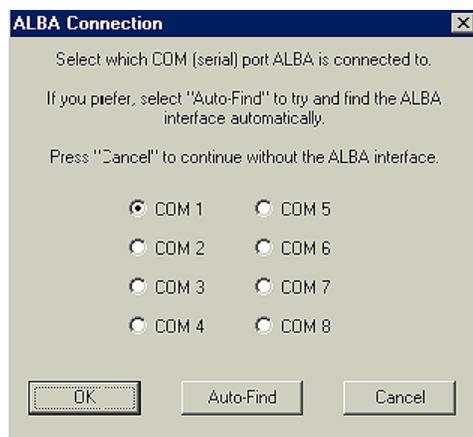
## Getting Started

Connect the D connector to a serial port on your PC/laptop.

Connect the lead from the plugtop supply to the socket at the back of the ALBA Ranger.

Click the ALBA icon on your desktop.

The first time you use your ALBA Ranger the software will ask what serial port you are using. If you are unsure then click Auto-Find.



You should then be offered several options:



Clicking the Instructions icon will take you to the Help file where you can read how to set up the ALBA Ranger.

Clicking the GO icon will launch the Investigator and you may proceed to set up the ALBA Ranger as instructed in the Help file.

Clicking the Experiment Notes icon on the Toolbar at any time will display the appropriate section of the Help File.

### **Teaching Ideas using the ALBA Ranger**

Set up the ALBA Ranger as a large distance meter and ask a student to move towards and away from it. Now set it up to display a graph and ask the student to move towards and away from it as before. The student should then try to relate their movement to the shape of the graph.

The ALBA Ranger can continuously display velocity without the need to display distance. Hence motion on air tracks and runways can be examined without the added complication of distance/time graphs being visible.

Damped simple harmonic motion can be studied using pendula and oscillating springs.

The Physicist's favourite quantity 'g' can also be measured. To do this, mount the ALBA Ranger in a tall stand overhanging a bench and drop a large ball beneath it.

### **Printing the Manual**

In the ALBA folder, which was created by the installation software, there is a pdf version of the manual that requires the Adobe Acrobat Reader (supplied on the CD-ROM with the ALBA Ranger). You may print as many copies of the manual as required for use within your educational establishment.

### **Getting the Most from the Software**

If you require to take accurate measurements then the ALBA Ranger must be calibrated before starting. To do this, follow the instructions in the Help file.

Normally distances are measured from the ALBA Ranger to the object. However sometimes it is useful to have a different reference point e.g. the floor when examining the bounce of a ball. The software enables you to display the results in real-time using a reference point other than the ALBA Ranger.

There is a host of software tools available in the ALBA core and the best way to explore these is to follow the Tutorials in the ALBA Interface and Logger manual. To get started, disconnect the ALBA Ranger and close the ALBA software. Re-launch the ALBA software and, because you have disconnected the ALBA Ranger, the software will display the "ALBA Connection" window, asking you which serial port the ALBA Ranger is connected to. Simply select "Cancel". At this point you can follow the Tutorials and also examine the Applications supplied on the CD-ROM. In addition, you can create Tables and graphs and write reports.

djb microtech hope you enjoy using your ALBA Ranger.

## **djb microtech ltd**

**Delfie House, 1 Delfie Drive, Greenock, Renfrewshire, PA16 9EN**

Phone: 01475 786540

Website: [www.djb.co.uk](http://www.djb.co.uk)

Email: [info@djb.co.uk](mailto:info@djb.co.uk)