

- **NB This is a quick guide for GPS remote use of the Logbook GLE.**
- The Logbook GLE with GPS has all the same functions as the Logbook GLE, see the Quick guide for the Logbook GLE these details. The one exception to this, in roll capture recording types in 'Standard' Mode, where the GLE has a variable interval for roll capture, set in the Default settings screen, and a fixed length of 44604 points which stops recording when the file is filled.

Logbook GLE Operating Modes: The GPS enabled Logbook GLE has 2 modes of operation.

- Standard Mode Logger will use Standard files, and function as described in Logbook GL Quick Guide.
- GPS Mode Logger activates GPS module to get a GPS fix, and records data in the 2 Extended memory files
- These modes can be toggled in the first menu screen. The Third line of the screen states the mode the Logger is set to, either 'STD' for standard or 'GPS'.

It is important to realise from the beginning that, in GPS Mode, no recording can be started before the Logger has obtained a GPS fix. So to get a GPS fix....

Getting a GPS Fix with the Logbook GLE

- For clarity of this quick guide, start with no external sensors connected.
- Turn the Logger on by pressing the **Tick** button, and ensure the Logger is in GPS mode (see above).
- After the first 3 message screens pass by, you will see the Meter screen, you should see the letter V on the bottom row. This indicates that the GPS unit is active and is seeking a GPS fix (V is for Void).
- Place the Logger in a location with a clear sky view, and after a variable short period of time, a GPS fix is obtained. The atmospheric conditions and times of day will affect the period of time needed to get a fix.
- A Direction sign post is shown, where the V was. The latitude and Longitude are also shown in the bottom row of the screen.

Starting a GPS Log with the Logbook GLE

- The Logger will allow 2 recording types, roll capture, and snapshot.
- In GPS Mode, the roll capture recording has a fixed recording interval of 1 second, and a maximum number of data points of 29736, which is 8 hours, 15 minutes.
- If you wish to add a fourth sensor for recording data, you should plug it in now, and the start the recording you wish by pressing the **Tick** button. To ensure you are starting the correct type of recording press the Down arrow to see the Log start screen.

Stopping a GPS Log with the Logbook GLE

- When you wish to end the recording, press the **Cross** button and follow the on- screen options to save the recording or discard it. Beware at this point, to follow the instructions carefully.
- You can store 2 of these long files in the logger.

Access a GPS Log from the Logbook GLE using Logbook Graphing Software

- Install Logbook Graphing software onto a PC, and then connect to Logbook GLE to the PC. Start Logbook Graphing application, and the files found in the Logger will be displayed on screen. Select the file to open and press 'GPS Log'. The application will open and display the channel selection dialog, followed by the remainder of the Google Earth file generation software. You will be able to view a Google Map, with suitable permissions and internet connectivity.
- 3 Files are produced, to your specified location, with the file name you input. They are as follows:
 1. A Google Earth kmz file, which can be viewed in Google Earth.
 2. An xml file which can be uploaded to <http://www.participateschools.co.uk/homepage>, the ScienceScope data sharing website, which as our customer, you will be provided free access, if you request it from us. This site has strong moderation features, to allow safe sharing of sensor data, and poster style documents. It has a School, Teacher and Pupil structure, where teachers moderate the pupils input before it can be displayed publicly. This site was developed in conjunction with the BBC, and as such follows the highest standards of abuse control.
 3. An xls file which shows all the sensor and GPS data, when opened with Microsoft Excel 2002 or later.
- The sensor data will also be displayed after the KMZ generation is complete. This data can be saved as Logbook Graphing file, and reopened later in this application.