

1. Welcome



Welcome to this Explorer 2 Quick Start Guide.

This Guide is designed to help show the basics of what the Explorer 2 can do. If you own the original Explorer, you are probably already familiar with the terms used in this guide but if not, don't worry all will become clear.

Fitting two AA Alkaline batteries:
If you need to fit the batteries, turn Explorer 2 over and using a small screwdriver remove the four screws in the positions shown below. Place the batteries in the holder. Make sure you use Alkaline batteries.



2. Getting started

Press any of the three buttons to switch Explorer 2 on.



The display shows the readings from the inbuilt sensors. These are Temperature, Light and Sound. You will also see <Menu>, <Off> and <Start> appear above the buttons.

To start collecting data:
Press the Green <Start> button Explorer will now start recording the Temperature, Light and Sound.

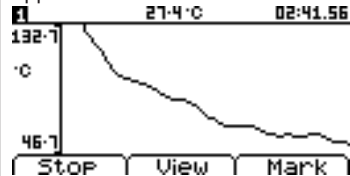
To stop collecting data:
Press the Red <Stop> button Explorer will now save the data readings in its memory and display the recorded data as a graph.

To return to the start menu press the Blue <Home> button. This is known as 'Autolog' and allows you to record data automatically. You could record how the Temperature, Light and Sound varies in the classroom overnight.

3. Viewing data

If you want to look at the data in more detail whilst you collect it, you can do that using the Blue <View> button.

Follow the instructions in section 2 to start collecting data. Press the Blue <View> button. A screen like the one shown below appears.

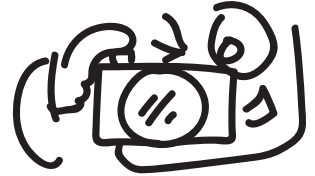


Pressing the Blue <View> button again allows you to cycle through each sensor as the data is recorded in graphical form.

Pressing the Red <Mark> button allows you to put a small marker in the collected data. Press the Red <Stop> button to stop collecting data.

Looking at saved data:
• Press Red <Menu> button
• Select 'Files and Settings'
• Select 'View Files'
• Select the stored data using the Red button (The last set of data recorded is numbered 1)
• Press Green <Open> to view the stored data.

4. Snapshot logging



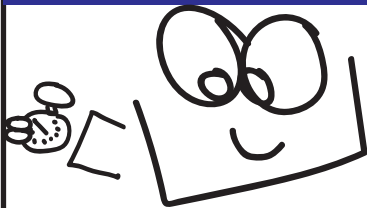
Snapshot logging can be thought of in the same way as taking a photo. When the logger is set to Snapshot mode, readings are only recorded when a button is pushed.

You might use this mode to record light levels and temperature under different trees for example.

- Press any button to switch on
- Press the Red <Menu> button
- Press the Green <Select> button to select snapshot mode
- Press the Green <Store> button to take a reading and use the Blue <Delete> to delete a reading
- Press the Red <Stop> button to exit the logging function and save the data

SNAPSHOT				02:41.56
1	°C	LUX		
	28.3	6978	6978	6978
3	68.2	6978		
2	23.9	7869		
1	23.9	7869		
	Save	Delete	Store	

5. Stopwatch



To use the Stopwatch:-

- Switch on Explorer using any button
- Press the Red <Menu> button
- Press the Red button to move down to 'Stopwatch'
- Press the Green <Select> button
- The Green <Start> button will then start and stop the stopwatch

You can reset the stopwatch to zero at any point by pressing the Red <Reset> button.

Press the Blue <Home> button to exit the timer and return to the Home screen.

6. Timing



Explorer 2 can use its built in Light Sensor to record the Time or Speed an object takes to pass by.

To Time an object passing:
• Press the Red <Menu> button
• Press the Red button to select 'Timing' and press Green <Select>
• Press the Green <OK> button
• Shine a torch into the light sensor on the back of Explorer 2.
• Pass an object between the torch and Explorer and the time taken for the object to pass will be shown.

To measure the Speed:
• Follow the above setup for timing.
• Select Red <Speed>
• When you pass a piece of card measuring 6cm between the torch and Explorer the Speed of the object is shown along with how its been calculated.

Note: Speed can only be selected when the the Torch is shining into the light sensor.

7. Pulse rate

Explorer 2 has a built in Pulse monitor. This shows Beats Per Minute (BPM) of the Heart along with a Pulse wave form. You can record the Pulse data in exactly the same way as the other inbuilt sensors.

To use the Pulse Monitor:
• Plug the Finger/Ear clip into the Heart socket on the back of Explorer.
• Place the clip onto the ear or onto a finger.
• Now you can monitor the BPM and Wave Form, or you can press the Green <Start> button to record the Heart data. See section 2 (collecting data).

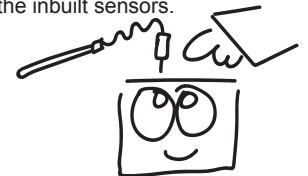


Note: When using the Finger/Ear clip you may have odd BPM values or non at all. If this happens the Finger clip, which uses Infrared light, cannot see through the finger or ear and you may need to move the clip until a stable reading is obtained. Nail polish and pushing the clip to far onto the finger can prevent the clip from 'seeing' the blood flow. Using the clothes clip on the Finger/Ear clip can also prevent the clip from moving which can cause odd results.

8. Connecting other sensors

Explorer 2 can also be expanded by plugging in additional sensors. You can use external Temperature probes, Voltage leads, pH Electrodes, IR Heat, Motion sensors etc

To connect an external temperature sensor, simply plug into any of the numbered sockets on the back. The Home screen will now show the new sensor in place of one of the inbuilt sensors.



9. Addition Quiz

Explorer also has an addition quiz.

- Press the Red <Menu> button
- Select 'Addition Quiz' using the Green button
- When ready press the Green <Start> button

How many did you get right in the time available?