



EASYSense Vu User Guide



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What's supplied?



Getting to know your Vu data logger

Charging

Charge EASYSense Vu fully before first use

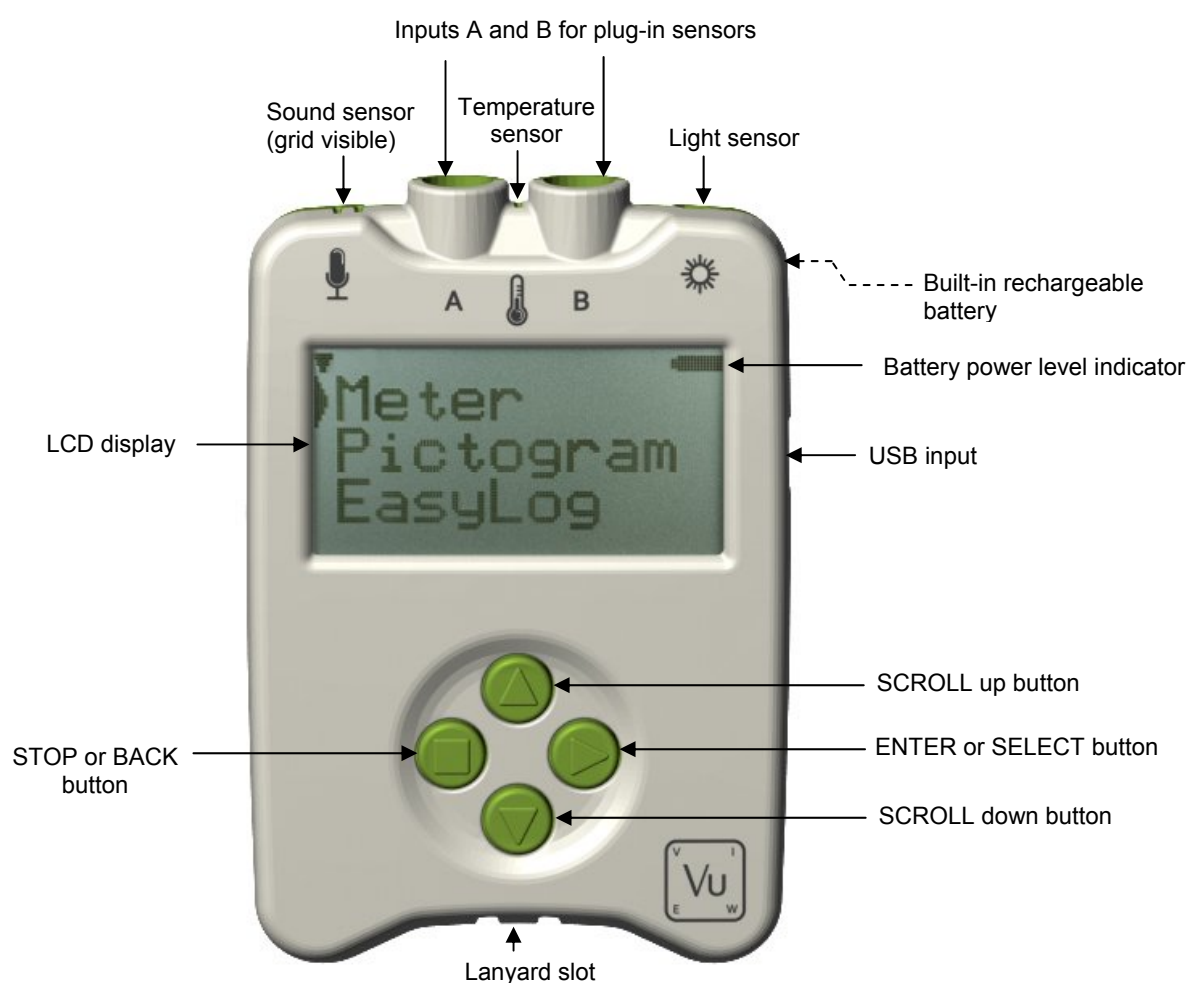
Connect Vu directly to a USB port on your computer* (or a powered USB hub) using the USB cable supplied with it. A full charge can take up to 8 hours.

A battery charging symbol will be displayed on Vu's screen while the logger is charging.




*Your computer must be turned on and not in sleep or standby mode; otherwise, the battery may drain instead of charge.

Note: Vu can also charge from a USB mains charger that outputs 5 V at 500 mA or more.

The Vu data logger






Vu buttons

-  The ENTER button is used to start data collection, progress to the next screen, confirm a choice or take a sample.
-  The square STOP button is used to stop data being recorded or return to the previous screen
-  The SCROLL buttons are used to scroll through menus on the LCD screen or to browse measurements during data logging.

Sensors

The built-in sensors

Vu is a fully self-contained portable data logger with 3 built-in sensors – Sound, Light and Temperature. It is supplied with the default range for its sensors selected and the built-in Temperature sensor switched off.

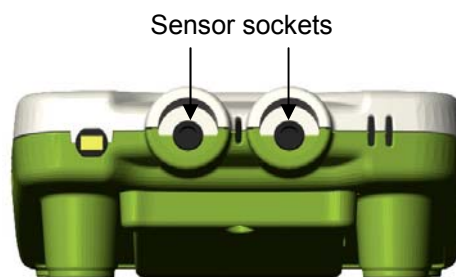
| | Built-in Sensors | Ranges |
|---|------------------|--|
|  | Sound | 40 to 110 dBA |
|  | Light level | Indoor 1 k lx (0 to 1,000 lx) In/Out 10 k lx (0 to 10,000 lx) Outdoor 100 k lx (0 to 100,000 lx) |
|  | Temperature | Celsius 0 to 50°C Celsius 0 to 110°C Celsius -30 to 110°C Fahrenheit 0 to 120°F Fahrenheit 0 to 232°F Fahrenheit -22 to 230°F |

The plug-in sensors

Plug the sensors into the sockets labelled **A** and **B** on the back of the Vu logger.

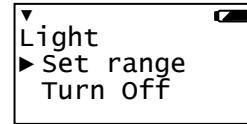
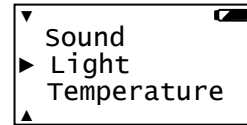
When a sensor is connected it will automatically be detected and displayed on the LCD display.

Note: All Temperature sensors will use the same range.



Changing a sensor's range and turning a sensor on or off

- Use ▲ & ▼ to scroll the list until the pointer is pointing at Meter and select ►.
- Select ► again.
- Use ▲ & ▼ to scroll until the pointer is pointing at the appropriate sensor. Select ►.
- Use ▲ & ▼ to scroll until the pointer is pointing at the appropriate option and select ►.

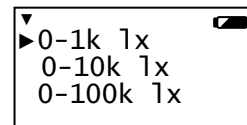


Note: If a sensor only has one range then only Turn Off will be available.

Range

The pointer will indicate the current range selected.

Use ▲ & ▼ to scroll until the pointer is pointing at the required range. Select ► to choose the range.

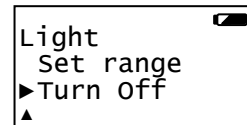


Select ■ to exit to the sensor option window

Turning a sensor ON or OFF the display

The built-in sensors can be switched On or Off the display e.g. Sound and Temperature switched off so only Light measurements are displayed.

With the pointer pointing at Turn Off / On press ► to alter from Off to On or visa versa.



- Select ■ to return to the Meters window.

Ways to capture data with Vu

There are different ways that Vu can be used to collect data.

- As a stand alone instrument: Vu is used to display, collect and store data while disconnected from the computer i.e.
 - Display readings on its LCD screen (but not stored) using **Meter** mode.
 - Displayed, collected and stored using Vu's logging menu options e.g. **Pictogram, EasyLog, Snapshot, Timing** and **Counting**.

The data collected is stored in Vu's memory to either be reviewed on Vu's screen or retrieved to the EasySense software on a computer.

Up to 6 sets of data can be stored in Vu's memory. Once six sets have been stored, Vu will overwrite the earliest data set with the newest.

- As an interface connected to a PC computer: Vu is entirely driven by the software on the host computer. The data from the sensors is transmitted immediately to the computer and displayed on the computers screen using the options in the EasySense software. This method of collection is useful for many classroom-based experiments.

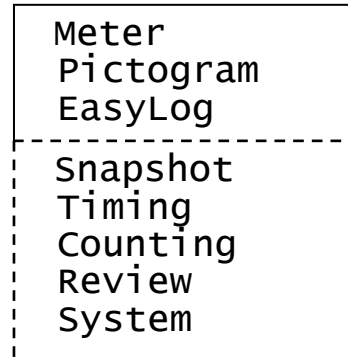
Using Vu standalone (without a computer)

Vu has no ON switch. To 'switch' on press any button on the panel.

Notes:

- If Vu is operating on battery power and is idle, it will automatically switch itself off after 2 minutes. Press any button to resume operation.
- Vu does not auto switch off while powered from a USB port.

Vu has a menu of different options available, which are displayed on the built-in LCD screen.



There are six working modes, which can be used to collect data without being connected to the computer. These are **Meter, Pictogram, Easy Log, Snapshot, Timing and Counting** modes.

A menu option is selected by using ▲ & ▼ to move the pointer up or down until it is pointing at the required option then press ► to select.

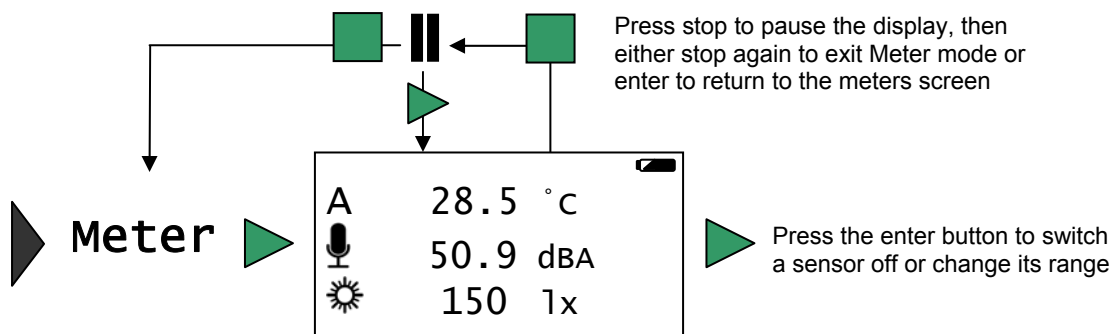
If using plug-in sensors they should be connected before entering a logging mode (except for Meters when they will automatically ID and then display readings).

Meter

In Meter mode Vu will display measurements from the sensors (built-in and any plug-in sensors) on the LCD screen but will not store any data.

► is used to check or change the sensors range or to switch a sensor off (see [page 5](#)).

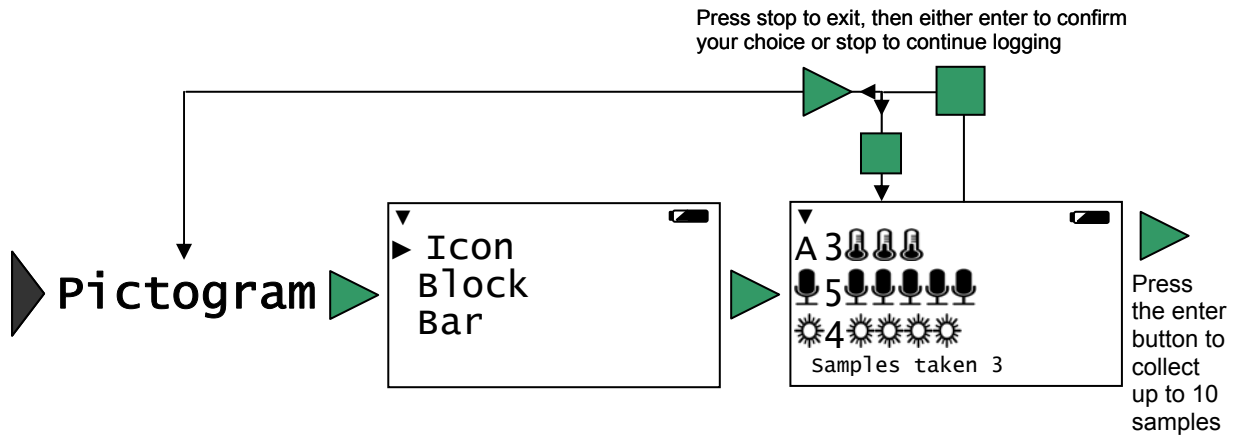
■ is used to temporarily halt updates to the sensors readings. Two lines || (top left) indicate that the display is paused.



Pictogram

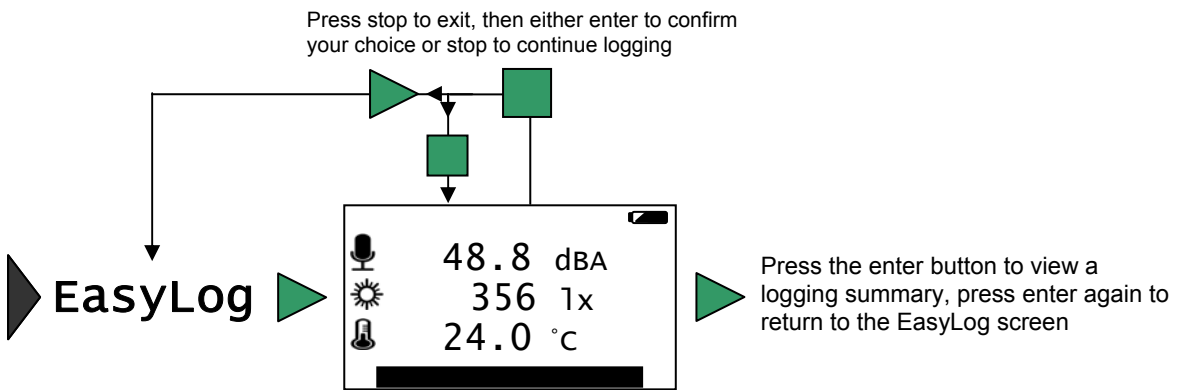
Pictogram uses an image, block or bar to represent the data. Each represents a 10th of a total range (or span) of the sensor and displays the number proportional to the reading.

Sensor readings are captured every time ► is pressed, rather than at regular time intervals. Up to 10 samples can be stored in each set of data.



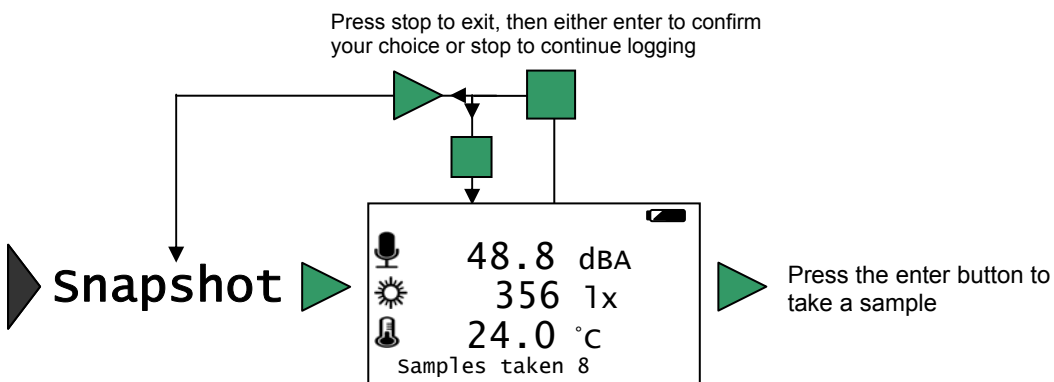
EasyLog

Select EasyLog to begin logging continuously until stopped. The bottom line of the LCD display is a visual indicator of logging as it takes place, each time the line completes logged samples are compressed and the sample rate alters.



Snapshot

Snapshot mode enables you to capture sensor readings every time is pressed, rather than at regular time intervals.




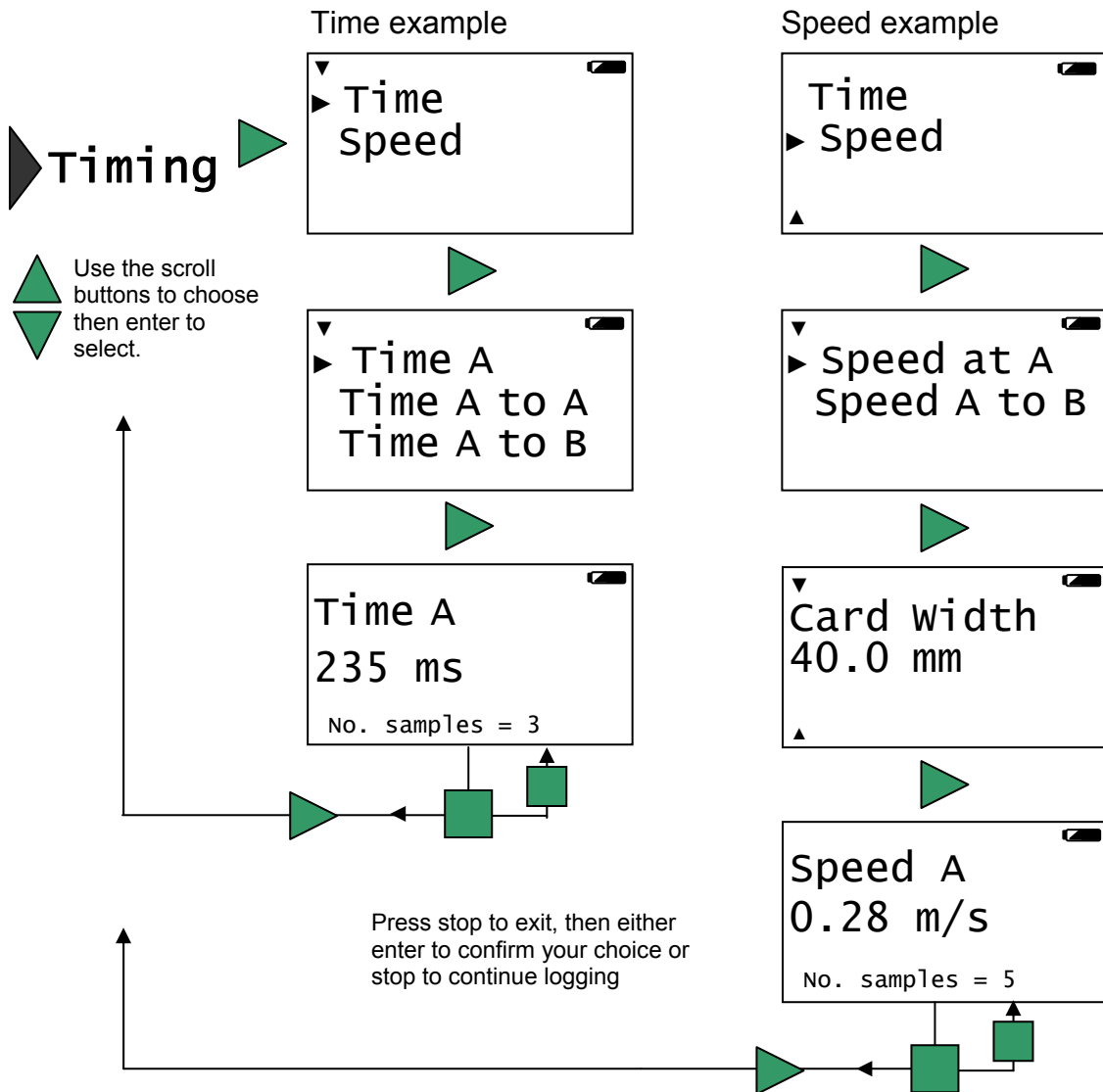
Timing

Timing is used to set up and store simple time and speed measurements. Connect the digital switch type sensors before selecting Timing. The options available will depend on whether one sensor is connected to Input A or two are connected to Input A and Input B.



For Vu to calculate speed you will also need to select the parameter used in the experiment i.e.


- For Speed A to B select the distance between the sensor connected to input A and the sensor connected to input B,
- For Speed at A select the width of the single interrupt card that will pass through the Light gate connected to input A.

Upon completion of a timing event the elapsed time will be displayed in milliseconds on the LCD display (press  to alter the display to show seconds).

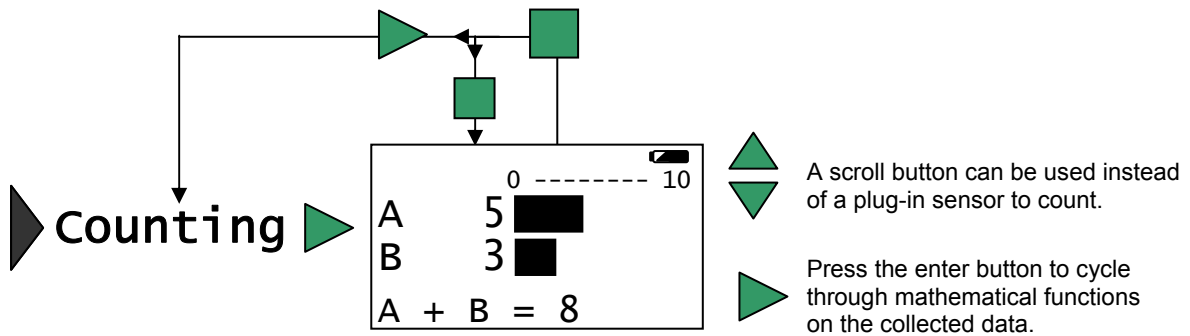


Counting

Counting is used to count events by either using digital switch type sensors connected to Input A, both A and B or the   buttons on Vu.

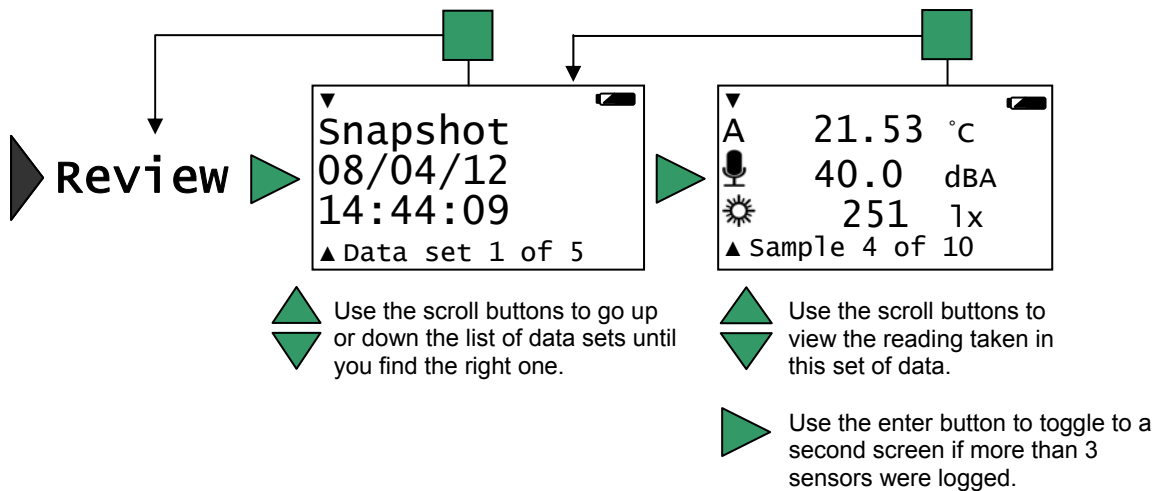
Press  to cycle through simple mathematical functions on the A, B data (A + B, A - B, B - A, Difference).

Press stop to exit, then either enter to confirm your choice or stop to continue logging

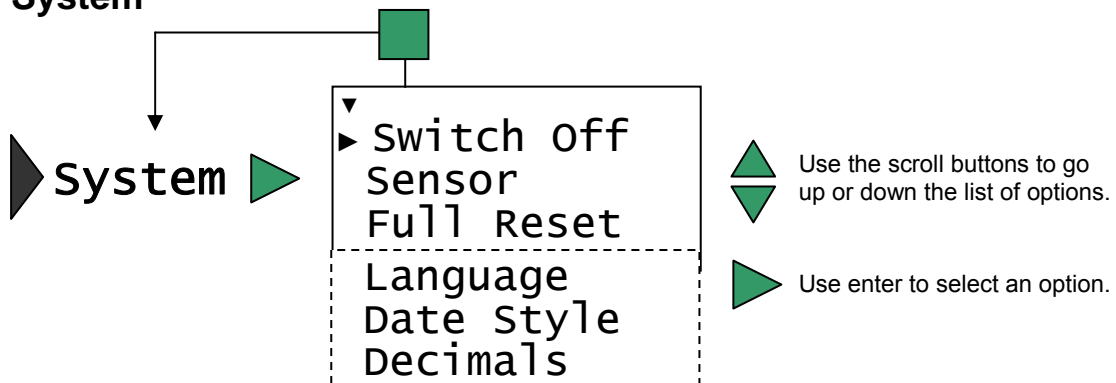


Review

You can use Retrieve to view the readings stored in a data set. The most recently stored data is shown first.



System



Switch Off - Used to send Vu directly into low power (sleep mode), even when it's connected to a USB port.

Note: Vu will automatically go to sleep after a period of inactivity.

Sensor - Use to change the range of a sensor or switch the built-in sensors On or Off the display. This is also available by pressing whilst in Meter mode.

Full Reset - Use to reset Vu back to its factory default conditions. Please note this will also erase all data!

Language - Use to alter the selected language choice.

Date Style - Use to alter the format of the date display i.e. from a European to USA date format.

Note: The actual time and date is set automatically when the logger is connected to the EasySense software.

Decimals – Use to switch decimals off and on, or to change the decimal format from a full stop to a comma.

Using Vu connected to a computer for the first time

Step 1:


Install the EasySense software, if it is not already on your computer. For details of how to install and operate this program, please refer to the instructions provided with the EasySense software.


EASYSense Vu requires **version 3.1** or above of the EasySense software. (The version number can be verified in About from the Help menu).

Step 2:

Connect Vu to the computer's USB port using the USB cable supplied. Windows will automatically detect a new device and install the drivers.

Step 3:

- Check that the LCD display on Vu is displaying the main menu (EasyLog, Snapshot, Timing, Counting, Review, System).
- Open the EasySense software program. 

Note: In most circumstances Vu will **not** communicate with the PC if it is taking samples. If the LCD screen shows samples being taken, press  to finish recording.

Step 4:

The first time the EasySense program is opened a 'Select Program Level' window will automatically open. Select a suitable user's level.

Level 1 is aimed at 'start' level (e.g. up to 9 years old), Level 2 at 'mid' level (e.g. 9 – 15 years old) and Level 3 at 'exam' level (e.g. 15 years plus).

Step 5:

An Interface option window will open. Leave the Interface selection as **EasySense Range** and the method of connection as **USB Port** and select OK. The program will save your selection so it will be automatically configured when next used.

The Home screen will open. Select one of the experiment modes e.g. EasyLog, Pictogram, Meters, Snapshot, Counting or Timing.




Using Vu after the initial setup

Use the USB cable to connect Vu to the computer, open the EasySense software and select one of the experiment modes e.g. EasyLog from the Home screen.

Hard Reset

If Vu fails to respond to the computer or a button press, carry out a Hard Reset.



1. If necessary attach Vu to USB power.
2. Press  +  +  at the same time for a second and then release.

If the hard reset has been done correctly, the LCD will display **EASYSense Vu** and the version number of its operating system before returning to the main menu.

If Vu still fails to respond, please contact Data Harvest.

Note: A Hard Reset does **not** erase any stored data sets but if a recording is interrupted by a reset, then the data being captured will not be stored.

Warranty

EASYSense Vu is warranted to be free from defects in materials and workmanship for a period of 12 months from the date of purchase provided it has been used in accordance with any instructions, under normal laboratory conditions. This warranty does not apply if Vu has been damaged by accident or misuse.

In the event of a fault developing within the 12 month period, **EASYSense Vu** must be returned to Data Harvest for repair or replacement at no expense to the user other than postal charges.

Note: Data Harvest products are designed for **educational** use and are not intended for use in industrial, medical or commercial applications.



WEEE (Waste Electrical and Electronic Equipment) Legislation

Data Harvest Group Ltd is fully compliant with WEEE legislation and is pleased to provide a disposal service for any of our products when their life expires. Simply return them to us clearly identified as 'life expired' and we will dispose of them for you.

FCC Details

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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