



AIRBOX Dataflow Pump User Manual

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Dataflow Pump



Product Usage Instructions

1. Install the Airbox Dataflow Application by loading the USB stick provided with your DATAFLOW pump into your computer and running the setup.exe file.
2. Before using the DATAFLOW pump, ensure it is fully charged by plugging the charger into the charging socket. The red LED will be illuminated, and it will change to green when the battery is fully charged. It takes approximately 6-8 hours to completely charge the battery. Re-attach the blue charger cap to maintain the pump's IP65 Waterproof and Dustproof rating.
3. To preset and download data from your DATAFLOW pump, connect the unit to your computer and set up test data on the Airbox Dataflow Application.
4. Select and enter jobs on the Dataflow by selecting a previously saved job or creating a new one.
5. To get technical support or customer service, contact Airbox Sampling Products at telephone: +44(0)1903 524 600 or email: sales@airboxsp.com

Specifications:- (tested with 0.8µm MCE filter)

- Flow Range: Adjustable 5-10 l/min
- Flow Stability: < 3% +/-
- Battery Pack: 12.8V Lifepo4 12Ah Lithium
- Charge Time: 6 hours
- Duration: 12+ Hours @ 8l/min
- Material: HF ABS
- Waterproof: IP65
- Dimensions: H38cm x W24cm x D12cm
- Mast extends to: Up to 2.0 meters
- Weight: 3kg

Warranty Registration

Don't forget to register your new Airbox product by filling in the registration form provided and returning it to us at the address below. Alternatively you can do this online at: www.airboxsp.com

Technical support

For all technical support or customer service enquiries please contact us:

telephone: +44(0)1903 524 600

email: sales@airboxsp.com

Airbox Sampling Products, Technology Centre, Easting Close, Worthing, West Sussex BN14 8HQ

Thank you for choosing this Airbox product. To ensure that you get the best possible use from it, please read this manual carefully.

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INSTALLING THE AIRBOX DATAFLOW SOFTWARE

Before you can preset and download data from your DATAFLOW pump you will need to install the Airbox Dataflow Application.

Compatible operating systems

The application is only compatible with Microsoft Windows operating systems and will not work on the Mac OS X platform. The minimum recommended requirement is Windows 7.

Locating and loading the software

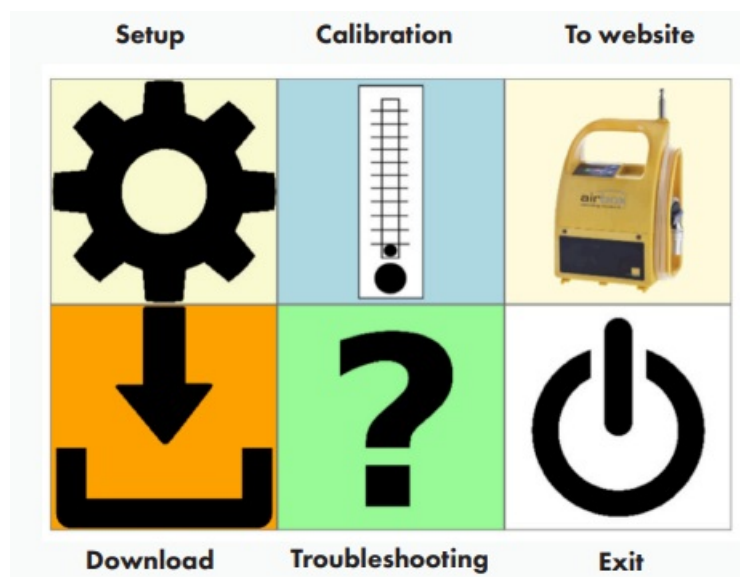
- Load the USB stick provided with your DATAFLOW pump into your computer, open the Airbox Dataflow Firmware folder
- Firstly download both files (setup.exe & Dataflow Installer.msi)
- Once downloaded, run the setup.exe file. You will be taken to the Welcome to the Dataflow Setup Wizard window. Click Next.
- The Select Installation Folder window opens. Click Browse and choose a destination on your computer to store the software for easy access.
- The Confirm Installation window opens. Click Next to start the installation.
- The Installation Complete window opens. Click Close to exit.

- The Airbox Dataflow application will appear in your file destination chosen and automatically places a shortcut on your desktop

Airbox Dataflow Application



Airbox Dataflow Application when connected to the pump



PREPARING THE DATAFLOW PUMP FOR USE

Before you use the DATAFLOW pump make sure it is fully charged.

Charging the battery

When the charger is plugged into the charging socket a red LED will be illuminated. The LED will change to green when the battery is fully charged. It takes approximately 6-8 hours to completely charge the battery. **CAUTION:** Ensure you re-attach the blue charger cap to maintain the pump's IP65 Waterproof and Dustproof rating.

DATAFLOW START UP

Make sure the application is open on the computer. Connect the USB cable to the computer and to the pump. Press start/pause to switch on the unit. The display will show (in this order):

AIRBOX DATAFLOW

S/N:

Firmware revision:

- Time and date
- Last calibration date
- Battery %
- AIRBOX DATAFLOW

PRESETTING JOBS ON THE DATAFLOW

The best way to use the DATAFLOW is to preset the jobs onto the pump before it is taken out on site. Multiple jobs can be preset and saved in the application.

Connecting the unit to the computer

Open the Airbox Dataflow Application from the shortcut on your desktop. Connect the USB cable to the computer and to the pump. Start the pump as per 2.2 DATAFLOW START UP.

Set up Test Data on Airbox Dataflow Application

- Press the Setup button on the application interface (see 1.4).
- A new window opens.
- Here you can set up all the data required to run a test.
- First choose your language

The screenshot shows the 'Memory Usage' section at the top with a progress bar and three language flags (UK, Germany, Spain). Below this is an 'Erase All Device Data' button with a trash icon and a note: '(This does not affect data synced with the PC)'. The main section is titled 'Current Jobs' and 'Create Job'. The 'Create Job' section includes fields for 'Job Name', 'Location', 'Mode' (a dropdown menu currently set to 'Capacity'), 'Flow (L/Min)' (set to 8), 'Capacity (L)' (set to 480), 'Time (Mins)' (set to 60), 'Sample Time' (a dropdown menu set to '1 Second'), and a checkbox for 'Use PIN'. A large left arrow button is on the bottom left, and a checkmark button is on the bottom right.

- Enter a Job Name
- Enter a Location
- Set up either a Capacity Test or Timed Test using the drop down menu in Mode
- Enter the Flow (L/Min)
- For Capacity Test, when entering the required Capacity (L) the Time (Mins) will automatically be calculated. “
- For Timed Test when entering the required Time (Mins) the Capacity (L) will automatically be calculated.

- Choose a Sample Rate for data collection (see 4.3).
- Set a PIN number if required (see 4.4).
- Once all required fields are completed click on the Tick
- The window will close and the job will now be stored on the Dataflow pump.

NOTE: You can set up multiple jobs. When you have completed the set up, click on Disconnect From Unit and remove the USB cable.

SELECTING AND ENTERING JOBS ON THE DATAFLOW

- You now have a choice. When using the DATAFLOW, you can either:
- Select the job you have previously set (see 4.1).
- Or if no job has been previously set, you can manually Enter a job directly on to the pump (see 4.2).
- To choose an option, press start/pause and turn on the pump (see 2.2)
- Press the start/pause to Select/Enter Job. Use the arrow keys to move between Select and Enter.
- If Select is chosen, see 4.1.
- If Enter is chosen see 4.2.

Selecting a previously saved job

To select a job you have previously set up on the pump, (see section 3 on presetting jobs) with Select showing on the display, press start/pause. Use the arrow keys to scroll through and find the job you want to run.

Once you have located the correct job, press start/pause and Start Job – OK Yes is displayed. Use the arrows to choose YES/NO/DELAY. Press start/pause to choose option.

If DELAY is chosen, use the arrow keys to change the values and the start/pause to scroll across the numbers.

Once the values have been set, press start/pause and the time will run down and start the test.

If NO is selected, you will be taken back to main screen.

Manually entering a job

- To manually enter a new job, with Enter showing on the display, press start/pause.
- To Enter Job Number use the arrow keys to enter letters or numbers (up to a maximum of 10 digits) The up arrow starts on the letter A, the down arrow on the number 9. Pressing the start/pause moves the cursor on to the next digit.
- When your happy with your job number press start/pause to set. If you enter it incorrectly, press stop to clear the display and start again.
- Once you have entered the job number you now have the choice of doing a Capacity Test or a Timed Test. Use the arrow keys to choose.

Capacity Test

- With Select Test Mode Capacity Test showing in the display, press start/pause. The display will now show the default capacity of 480 litres.
- Use the arrow keys to change the values and the start/pause to scroll across the numbers. Once the values have been set, press start/pause until the display changes to Enter Flow Rate and shows the default value of 08.0 litres/min.
- Use the arrow keys to change the values and the start/pause to scroll across the numbers. Once the values

have been set, press start/pause until the display changes to 'Logging Period' and shows the default value of 1 second(s). Continue from 4.3.

Timed Test

- With Select Test Mode Timed Test showing in the display, press start/pause. The display will now show the default flow rate of 08.0 litres/min.
- Use the arrow keys to change the values and the start/pause to scroll across the numbers. Once the values have been set, press start/pause until the display changes to Enter Run Time and shows the default value 01:00:00.
- Use the arrow keys to change the values and the start/pause to scroll across the numbers. Once the values have been set, press start/pause until the display changes to Logging Period and shows the default value of 1 second(s).

Logging Period (Sample rate)

- The Logging Period (Sample rate) has data capture of flow rate, time stamp, and accumulated capacity. You have a choice to log this data every 1 second, 30 seconds or 60 seconds.
- Use the arrow keys to choose the required logging period/sample time, then press start/pause until the display shows Set PIN Number.

Pin Number

- Pin Number allows you to enter a four digit security number to pin protect an individual pump so that it can only be accessed by the person who sets the pin. Use the arrow keys to select yes or no.
- If Yes is selected, Enter PIN Number is displayed. Use the arrow keys to enter values and start/pause to scroll across them. Press start/pause to continue and job is saved to memory and Start Job – OK Yes is displayed.

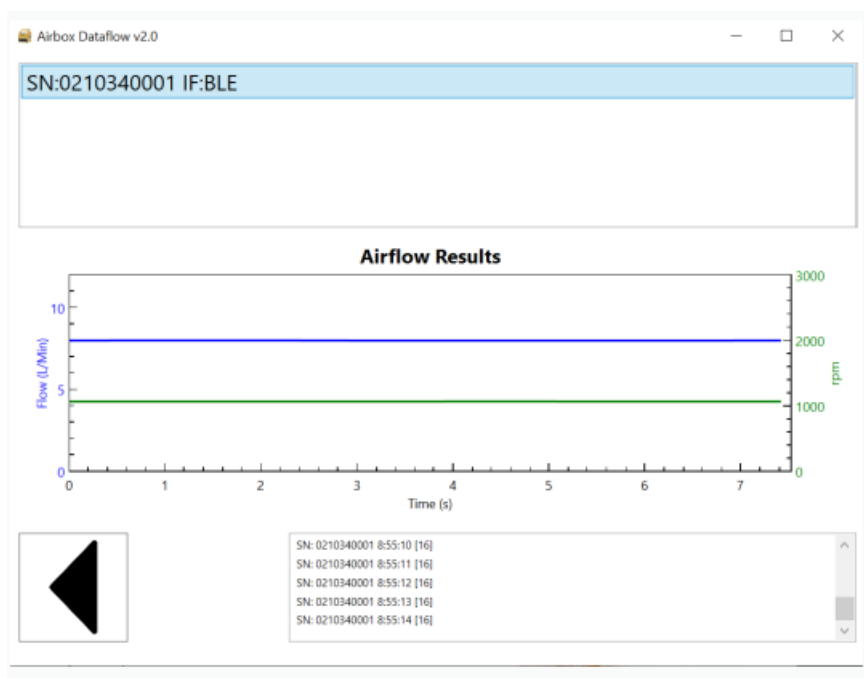
Running Test

- If YES is chosen, test will begin.
- You can pause the test by pressing start/pause.
- You can stop the test by pressing stop. You will be asked if you are sure. If yes press stop.
- When the job is completed, the pump will stop. Test Completed and the accumulated capacity will be displayed.
- Press stop to return to the start menu. Press stop again to shut the unit down. Data is saved and ready for download.
- Use the arrows to choose YES/NO/DELAY. Press start/pause to choose option.
- If DELAY is chosen, use the arrow keys to change the values and the start/pause to scroll across the numbers. Once the values have been set, press start/pause and the time will run down and start the test.
- If NO is selected, job is saved to memory and you will be taken back to main screen.

CHECKING LIVE FLOW RATES ON A PUMP

While pump is running you can check live flow rates. Open the application, and press the Download Icon (See 1.4) on the application interface. A new window will open showing a list of the saved jobs on the pump (see 6.1

Download Test Data). On the bottom right corner you will see a Pulse Icon, click on this. A new window will open showing a list of pumps that are running and are either connected via USB cable to the PC, or via bluetooth. Choose which pump to view via the S/N illustrated, and wait until the 0 in the x axis meets the y axis, it will then start to record the live flowrates onto a graph for the user to ensure the pump is still running at the correct flow rate.

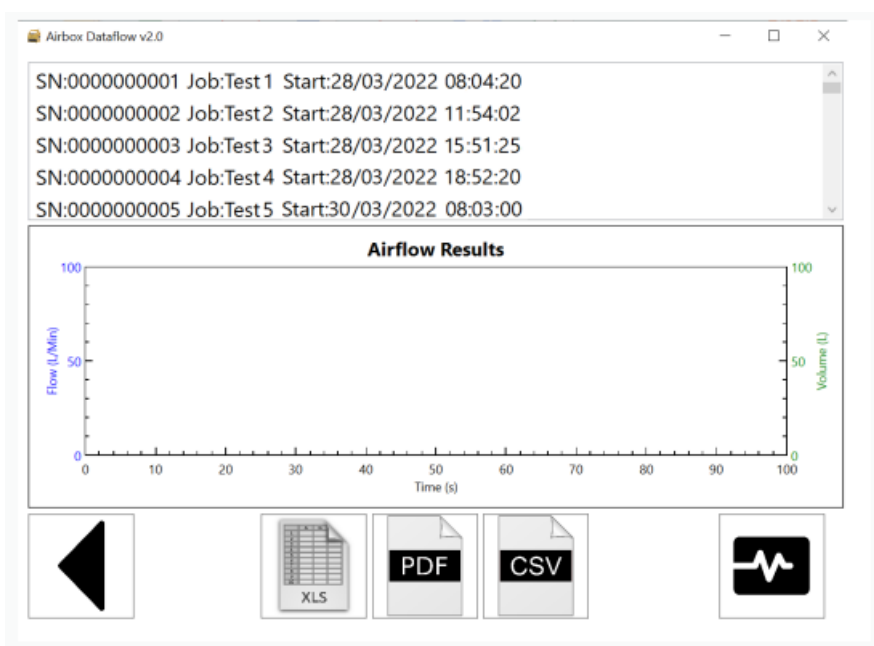


DOWNLOADING DATA FROM THE DATAFLOW

Make sure the application is open on the computer. Connect the USB cable to the computer and to the pump. Press start/pause to switch on the unit. (See 2.2)

Download Test Data

Press the Download icon (see 1.4) on the application interface. A new window opens showing a list of the saved jobs on the pump.



CONFIGURE UNIT STORAGE

The DATAFLOW can store a large number of jobs in it's memory. The application interface will show how much memory has been used and is left. You can easily manage this memory by clicking on the Setup button (see 1.4).

This brings up a new window where you can erase the complete device data.

Caution: Make sure you have downloaded and saved the test data for each job before you erase the complete memory.

MAINTENANCE

Replacing the battery

The DATAFLOW pump has been specifically designed to make replacing the battery a quick and easy task. Simply half turn the two screws on the front of the battery housing, unclip the connector, remove the battery and replace. NOTE: This is made easier if you lay the pump on its back.

Replacing the mast

The mast is secured on the unit in a threaded housing, so to replace just unscrew and remove. We would also recommend removing the mast when cleaning the unit (8.3).



Cleaning the unit

The casing of the DATAFLOW pump is made from a hard wearing ABS structural foam, making it incredibly rugged and also very easy to clean. Tested to IP65 standards ('Protected against low pressure water jets from any direction.') the unit can be cleaned under a shower hose. NOTE: Do NOT Submerge the product fully in water.

SERVICE AND WARRANTY

The DATAFLOW pump is covered by our exclusive warranty and in the event that the unit fails we will undertake the repair free of charge for up to 2 years from the date of purchase. The warranty covers the costs of materials and labour (excluding the battery and mast and with the shipping costs to be covered by the customer) and is valid under the following conditions:-

1. The warranty registration card must be received by us within four weeks of the date of purchase. This can be done online in the service section of the website.
2. The defect must not have been caused by improper handling or misuse.
3. Return the unit to us only in its original packing and in the decontamination bag provided by Airbox. We will not assume responsibility for transport damage under any circumstances.
4. Warranty sticker must remain intact, showing the user has not attempted to gain access inside the unit

5. A short description of the defect must be included with the returned unit.


TROUBLESHOOTING

- Pump will not start, red LED illuminated.
Battery voltage maybe too low, check the battery level and recharge the battery. If the pump still doesn't start, contact the Airbox team.
- Pump will not start, no display
Flat battery, recharge or replace the battery. If the pump still doesn't start, contact the Airbox team.
- Flow rate doesn't reach required level
Firstly check for kinks and that the sampling head is not blocked, then re-calibrate against external flow meter
Battery voltage maybe too low, check the battery level and recharge the battery. If flow rate is still insufficient, contact the Airbox team.
- Pump stops while running, red LED illuminated
Check tube for kinks and that the sampling head is not blocked. Flat battery, recharge or replace the battery. If this still doesn't work, contact the Airbox team at sales@airboxsp.com

PARTS

Product Code	Name	Description
P02133	DATAFLOW	DATAFLOW Air Sampling Pump (with UK/ EU charger)
P02133/KIT	DATAFLOW kit	DATAFLOW Air Sampling Pump (with UK/ EU charger, sampling head & spare mast)
P01839	Sampling head	Air sampling head
P035620LF	Dataflow Charger	Battery charger DATAFLOW 14.6V 3A Lithium
PT35619	DATAFLOW Battery	12.8V Lifepo4 12Ah Lithium
PT29482LF	DATAFLOW mast	Telescopic mast for DATAFLOW/VARIFLOW -2m
PT28297LFKIT	Cap & Plug Kit	Sampling head cap & plug kit – (pack of 10)
PT28299LF	White filter support pad	Filter support pad 25mm porous plastic (pack of 10)
PT28551LF	Metal filter support grid	Filter support grid 25mm mesh metal
PT28301LF	Thin sampling head O-ring	25mm/OD 1.9mm/CS Virgin PTFE (pack of 10)
PT27550LF	Thick sampling head O-ring	25mm/OD 2.75mm/CS Virgin PTFE

Documents / Resources

	AIRBOX Dataflow Pump [pdf] User Manual Dataflow Pump, Dataflow, Pump
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References

-  [Airbox - Airbox](#)

Manuals+.