**Specifications:** (tested with 0.8µm NUCLPR filter)

- **Flow Range:** Adjustable 5 - 12 litres/min with 0.8 micron cellulose filter
- **Flow Stability:** +/- 3%
- **Battery Pack:** 12.8V Lifepo4 Pack12Ah Lithium
- **Charge Time:** 6 - 8 Hours Max
- **Duration:** 12+ Hours @ 8 litres/min
- **Display:** OLED, Elapsed run time and battery indicator
- **Material:** HF ABS
- **Waterproof:** To IP65
- **Dimensions:** H38cm x W24cm x D12cm
- **Mast extends to:** Up to 2.0 metres
- **Weight:** 4.6 kg

**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
- **web:** www.airboxsp.com

---

**thank you for choosing this Airbox product**
Dear Customer

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

Your sincerely

The Airbox Team

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1. 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.

1.1 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.

1.2 Locating and loading the software
Load the USB stick provided with your DATAFLOW pump into your computer, open the Airbox Dataflow Firmware folder and click on SETUP.

The Welcome to Airbox Dataflow 1.1.0 Setup window opens. Click Next.

The Choose Install Location window opens. Click on Browse and choose a destination on your computer to store the software for easy access.

Click Install

When the install is complete the Completing Airbox Dataflow 1.1.0 Setup window opens.

Click Finish

The Welcome to the Device Driver Installation Wizard window opens.

Click Next

The License Agreement window opens
Click on I accept this agreement and click Next

The Completing the Device Driver Installation Wizard window opens

Click Finish

The Airbox Dataflow application appears in your destination and automatically places a short cut icon on your desktop.

1.3 Airbox Dataflow Application

1.4 Airbox Dataflow Application when connected to the pump
2. Preparing the DATAFLOW pump for use

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

2.1 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.

2.2 Running the DATAFLOW from the mains

The DATAFLOW pump can be run from the mains by leaving the battery charger cable connected to the pump and the mains socket. This can only be done by leaving the battery connected inside the pump.

2.3 Removing the waterproof covers

CAUTION: Before switching the unit on, remove the yellow waterproof cover on the air outlet and from the bottom of the air sampling head.

3. Calibration

Airbox Sampling Products follows the guidelines laid out in HSG248. We calibrate the pumps flow rate against our calibrated master flow meter.

Our calibrated master flow receives annual calibrations by a UKAS accredited calibration provider. A copy of this certificate is available upon request.

IMPORTANT:

Airbox Sampling Products (FermionX Ltd) is not a UKAS calibration provider.

All users are recommended to calibrate the pumps prior to use in order to meet air sampling protocols as per their local standards.

3.1 Calibration (cont)

With the pump now connected the application interface now changes to the ‘connected’ window (see 1.4).

Click on the Calibration button (see 1.4) and the following window opens.

Attach a flow meter to the pump and then click on the start button to start the calibration.

Adjust the flow as required, using the forward or backward buttons either by increments of 1(inner buttons) or 10 (outer buttons).

Once the flow meter shows 3 litres/minute, press the Tick button and this setting will be confirmed and the display will show a number indicating the next required calibration level.

Adjust the flow level again until that flow level is achieved and press the tick button to confirm.

Continue this process through to 12 litres/minute when the calibration will be complete.

Your pump is now ready to set up test data.

Press Stop button at any time to cancel

Press Back button to go back to main page
4. 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.

4.1 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. Press start/pause to switch on the unit. The display will show (in this order) the serial number, the current software version and USB Connected.

4.2 Set up Test Data on Airbox Dataflow Application

Press the Settings 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

4.2 Set up Test Data on Airbox Dataflow Application (cont)

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 5.3).
Set a pin number if required (see 5.4).
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.

5. 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 4.2).
Or if no job has been previously set, you can manually Enter a job directly onto the pump.
To choose an option, press start/pause to switch on the unit. The display will show the serial number and the current firmware version.
Press the start/pause to Select/Enter Job. Use the arrow keys to move between Select and Enter.
To Select a previously saved job (see 5.1).
To manually Enter a new job into the pump (see 5.2).
5.1 Selecting a previously saved job

To select a job you have previously set up on the pump, (see section 4 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.

5.2 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.

5.2.1 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 5.3.

5.2.2 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.

5.2.2 Timed Test (cont)

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).

5.3 Logging Period (Sample rate)

The Logging Period (Sample Rate) allows data capture every 1 second, 30 seconds or 60 seconds.

Use the arrow keys to choose the required time then press start/pause until the display shows Set Pin Number.

5.4 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.

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.

5.5 Running Test

Press start/pause to start test.

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.
6. 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. The display will show (in this order) the serial number, the current firmware version and USB Connected.

6.1 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.

Click on the correct job number and choose a file format (XLS, PDF or CSV) to download.

7. Configure unit storage

The DATAFLOW can store a large number of jobs in its memory. The application interface will show how many jobs are stored and how much memory has been used and is left.

You can easily manage this memory by clicking on the Settings 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.

8. Maintenance

8.1 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, pull off the terminal connectors, remove the battery and replace.

NOTE: This is made easier if you lay the pump on its back.

IMPORTANT: The terminals on the battery are colour coded red and black to match the red and black wires of the unit. When fitting a new battery make sure that these match up correctly. For additional safety this is fuse protected by a PTC resetting fuse.

8.2 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).

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.
9. 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:

a) 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.

b) The defect must not have been caused by improper handling or misuse.

c) 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.

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

10. 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
Check tube for kinks and that the sampling head is not blocked. 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.

Contact the team at sales@airboxsp.com

11. Parts

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO1726</td>
<td>DATAFLOW</td>
<td>DATAFLOW Air Sampling Pump (with UK/EU charger)</td>
</tr>
<tr>
<td>PO1726/KIT</td>
<td>DATAFLOW kit</td>
<td>DATAFLOW Air Sampling Pump (with UK/EU charger, sampling head &amp; spare mast)</td>
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<tr>
<td>PO1839</td>
<td>Sampling head</td>
<td>Air sampling head</td>
</tr>
<tr>
<td>PT33520LF</td>
<td>Dataflow Charger</td>
<td>Battery charger DATAFLOW 14.6V 3A Lithium</td>
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<tr>
<td>PT33521</td>
<td>DATAFLOW Battery</td>
<td>12.8V Lifepo4 12Ah Lithium</td>
</tr>
<tr>
<td>PT29482LF</td>
<td>DATAFLOW mast</td>
<td>Telescopic mast for DATAFLOW/VARIFLOW -2m</td>
</tr>
<tr>
<td>PT28297LFKIT</td>
<td>Cap &amp; Plug Kit</td>
<td>Sampling head cap &amp; plug kit - (pack of 10)</td>
</tr>
<tr>
<td>PT28299LF</td>
<td>White filter support pad</td>
<td>Filter support pad 25mm porous plastic (pack of 10)</td>
</tr>
<tr>
<td>PT28551LF</td>
<td>Metal filter support grid</td>
<td>Filter support grid 25mm mesh metal</td>
</tr>
<tr>
<td>PT28301LF</td>
<td>Thin sampling head O-ring</td>
<td>25mm/OD 1.9mm/CS Virgin PTFE (pack of10)</td>
</tr>
<tr>
<td>PT27550LF</td>
<td>Thick sampling head O-ring</td>
<td>25mm/OD 2.75mm/CS Virgin PTFE</td>
</tr>
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