



INSTRUCTION MANUAL

DRAGONFLY®

Codes:

DRAGONFLY4-001

DRAGONFLY4-002

DRAGONFLY4-OV8



English

INSTR-DRAG4

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Responsibilities

General Responsibilities

These operating instructions allows you to use the **DRAGONFLY®4** internal window cleaning system safely and efficiently. The instructional booklet must be read before setting up, starting or using your **STREAMLINE®** equipment. It is an integral part of the product itself



Please read the warning and instructions contained in this booklet carefully. They provide important information on the safe use and maintenance of the equipment. Pay particular attention to general safety instructions.

Please keep this booklet in a safe place near your **DRAGONFLY®4** system for future consultation.

Your **DRAGONFLY®4** internal window cleaning system is constructed according to current safety standard and regulations. The latest and current edition is illustrated in this manual.

The contents of this booklet should be bought to the attention of all users.

Manufactures Responsibilities

VARITECH SYSTEMS Ltd, the manufacture of **STREAMLINE®**, holds 12-months warranty on all machines and equipment from the date of purchased (see Warranty section 2)

VARITECH SYSTEMS Ltd, the manufacture of **STREAMLINE®**, is in no case responsible for failures or errors caused by modifications to the unit by customer or other persons.

Personnel Responsibilities

The **DRAGONFLY®4** internal window cleaning system is designed and manufactured to be operated in industrial applications. It is important that the operator(s) of the **DRAGONFLY®4** internal window cleaning system have read through these operating instructions thoroughly, and understand all safety instructions and regulations.

The **DRAGONFLY®4** internal window cleaning system is not intended for use by children, adolescents, persons under the influence of alcohol / drugs or simply lacking experience and knowledge.

These operating instructions are designed to educate the user, informing the operator how to carry out the task at hand successfully, whilst avoiding potential dangers that might occur.

Important

If needed, training videos can be found on the manufacture website: www.streamline.systems

2 Technical Specifications

Technical Specifications

Specification Data

PRODUCT CODE	DRAGONFLY4-001	DRAGONFLY4-002
Country of Origin	United Kingdom	United Kingdom
Maximum Height	mm	mm
Maximum Length	mm	mm
Maximum Width	mm	mm
Dry Weight	kg	kg
Wet Weight	kg	kg
Optimum Operating Pressure	2.8bar 40psi	2.8bar psi
Pure Water Outlet Connection	Female Q21 stop connector	Female Q21 stop connector
Electrical Power Supply	12V Battery / 230V mains charger	230V mains / 230V mains charger
Power Consumption	kW	kW
Optimum Water Quality	000ppm	000ppm
Pure Water Flow (optimum output)	3.8Lpm	3.8Lpm
Operating Time	8 Hours Battery Life	8 Hours Battery Life

Parts and Accessories

The **DRAGONFLY*4** system will include the following parts:

- 1x **STREAMLINE* DRAGONFLY*4** backpack, containing 1.5Ltr water reservoir
- 1x **DRAGONFLY*4** pump box, containing a 12V battery, pump and remote control switch
- 230V mains battery charger
- 25cm Aluminium Mop Plate
- 2x Glass Microfibre Scrub Mops
- 2x Glass Microfibre Polishing Mops
- Pole attachment complete with Spray jet
- 15mtr of pole tubing



3 Safety Regulations

Safety Regulations

The **DRAGONFLY*** Internal Window Cleaning Kit is designed to clean internal glass quickly and effectively and with your feet on the ground. It eliminates the need for ladders and expensive access equipment. Glass which has not been cleaned for some time may require an initial clean, using conventional methods, but the **DRAGONFLY*** will make short work of the maintenance thereafter.

You may want to use your own telescopic pole, therefore please ensure you use the length of internal tubing supplied with the **DRAGONFLY***.

Personal Safety

Stay alert, watch what you are doing and use common sense when operating the **DRAGONFLY*** filtration system. Do not use the filtration system while you are tired or under the influence of alcohol, drugs or medication. A moment of inattention while operating the filtration trolley may result in serious personal injury.

Use personal protective equipment to avoid personal injury:



Protective Gloves



Safety Goggles



Protective Footware

Additional protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection may be required depending on the safety regulations in the operator surroundings.

System Safety

The **DRAGONFLY*4** filtration trolley is manufactured with the safety of the operator in mind, including some key features such as; result in serious personal injury.



Over Pressure

- If the water pressure in the **DRAGONFLY*4** system is above the standard 2.8bar / 40Psi pressure, the pressure switch is activated to stop the pump over pressurizing
- It is important to never open the **DRAGONFLY*4** pump during operation or whilst under pressure.
-



Over Heating

- If the pump overheats on the **DRAGONFLY*4** system, an activation switch is triggered and the system will automatically switch off.



Electrical Hazards

- Do not use the **DRAGONFLY*** in the vicinity of power lines, junction boxes, power sockets
- If the **DRAGONFLY*** is used to clean illuminated signs, remember to switch off the power supply first
- Never direct the jet towards people, animals or electrical equipment
- Before each use, undertake a visual check on all electrical cables for damage. Never use the **DRAGONFLY*4** system with a damaged cable.
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Mechanical Hazards

- When using the **DRAGONFLY*** do not place it on the ground or use it as a support element.

Use only original accessories that come with the **DRAGONFLY*4** system, offering maximum quality and security. Failure to use original accessories absolves **VARITECH SYSTEMS Ltd**, the manufacturer from all liability.

Electrical Specifications and Safety

This applies to all **DRAGONFLY*4** systems.

Electrical connections must be carried out in respect of current legislation (in compliance with the provisions of the IEC 60364-1 standard) and in accordance with the manufacturer's instructions.

- **VARITECH SYSTEMS Ltd**, the manufacture of **STREAMLINE*** declines all liability for damage to persons, animals or things caused by faulty or incorrect connection.
- Before connecting the equipment, check that the specification given on the rating plate corresponds to that of the mains electrical supply.
- If the equipment is connected via an extension, use cables with an adequate cross section, never less than 1,5 mmq. The plug and socket must be watertight.
- The electrical safety of the equipment is guaranteed only when correctly and efficiently earthed as specified in current electrical safety legislation (in compliance with the provisions of the IEC 60364-1 standard). This fundamental safety requisite should be verified. If in doubt, ask a professionally qualified electrician to check the system thoroughly. It is recommended that the electric supply to this machine should include a residual current device that will interrupt the supply if the leakage current to earth exceeds 30 mA for 30ms or a device that will prove the earth circuit.

VARITECH SYSTEMS Ltd, the manufactures of **STREAMLINE***, declines all liability for damage caused by faulty earthing of the appliance.

- The equipment can be disconnected from the mains only by unplugging the plug from the mains socket.
- When using any electrical appliance, certain fundamental rules should be respected:
 - Do not touch the appliance with wet hands or feet;
 - Do not touch the appliance with bare feet or unsuitable clothing;
 - Do not pull the power cable or appliance itself to unplug the plug from the mains.

Operating the DRAGONFLY®4 System

When purchasing the product, make sure it has an identification plate. If this is missing, notify the distributor / manufacturer where you purchased the unit from.

Use of an appliance without an identification plate absolves the manufacturer from all liability. Products without an identification plate should be considered as anonymous and potentially dangerous



Unpacking of the DRAGONFLY®4 system

Your **DRAGONFLY®4** system has been carefully manufactured, checked through QC and packaged as a kit.

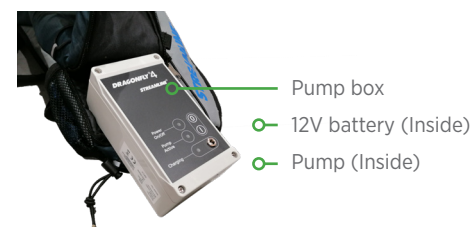
Carefully unpack your new **DRAGONFLY®4** and carry out a thorough visual check on all parts. If in doubt, do not use the system. Contact your dealer and/or manufacturer.

Packaging (bags, boxes, nails, tape etc.) should be kept out of reach of children as they may represent a potential hazard. Packaging can be recycled according to your local legislation.

Important:

The unit must be protected from freezing.

About your system



To operate the **DRAGONFLY®4** system, you will need access to pure water and a telescopic pole (if not already included in your package)...

Charing your Battery

Before using the Dragonfly, ensure that the battery is full charged.

- i. Unzip the back-pack to expose the pump enclosure and partially slide it out.



- ii. Insert the battery charging plug unto the socket on the pump enclosure.



- iii. Plug the charger into a 230v mains power supply and switch it on. The blue charging light on the pump enclosure will illuminate.



The **RED LED** 'Charge' light will illuminate on the charger and indicates the charging process. During the testing cycle the **GREEN LED** 'Ready' flashes also but goes out after about 1 minute when the test phase is over. After termination of the fast charge, the charger switches automatically to trickle charge. The **RED LED** 'Charge' is off and the **GREEN LED** 'ready' is on for approximately 2 minutes. After about 2 minutes the indicator changes to **GREEN** flashing. The battery is now fully charged and ready for use.

If the **GREEN LED** 'Ready' flashes immediately after connecting the charger to the pump enclosure, and the **RED LED** 'Charge' lights up sporadically, this means that the polarity (+/-) at the charging cable is not set correctly. Please reverse the polarity, by removing the plug tip and turning it through 90 degrees before reinserting into the connector. If both LED's are still flashing after changing the polarity and the steady light 'Ready' does not light up permanently, the battery is defective and cannot be recharged at all. In this case, the battery has to be replaced.

The optional discharging procedure can be started by pressing the button for discharging for about 2 seconds.

The **YELLOW LED** 'Discharge' lights and indicates the discharging procedure. During the first minute, the **GREEN LED** 'ready' flashes but should turn off after the test phase

After discharging, which can in some cases last for several hours, the charger automatically switches over to fast charging.

The intelligent charger will not allow the battery to overcharge.

Assembling the System

All main parts and safety devices are assembled by the manufacture. Some other secondary parts may be supplied separately i.e. telescopic pole.

- i. Open the top flap of the back-pack to expose the water reservoir. Fill the reservoir with deionised water and screw the cap on securely.



- ii. Unzip the back-pack to expose the pump enclosure and partially slide it out. Press the power 'ON' button switch, which will illuminate green when in the 'ON' position.



- iii. Activate the press button fob to confirm that the pump is working. The **RED** light on the pump enclosure will illuminate and the sound of the pump will be heard.



Warning:

As with all technical appliances, your equipment should always be used according to the instructions.

- iv. Slide the pump enclosure into the back pack and zip the compartment closed.



- v. Fit the back-pack on your back and adjust the webbing straps until it feels comfortable.



- vi. Connect the hose from the back-pack to the connection on the bottom end of the pole.

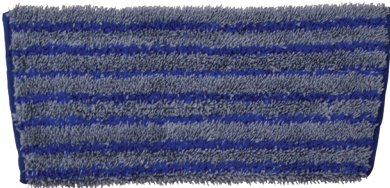


All main parts and safety devices are assembled by the manufacture. Some other secondary parts may be supplied separately i.e. telescopic pole.

Every **DRAGONFLY®** kit comes complete with two of each microfibre mop:



- **V549120 - GLASS MOP (Light Grey)** For well-maintained areas of glass, mirrors, stainless steel etc.



- **V549121 - SCRUB MOP (Dark Blue)** for heavily soiled hard surfaces including pressed steel ceiling tiles, ceramic tiles, oily surfaces etc.

Operating your DRAGONFLY® Filtration System

- Press the button on the fob until water sprays out of the spray tip.



- Familiarise yourself with the quantity of water which the spray tip allows.

- Extend the pole to the required height and dampen the glass with a short spray of water. Do not over-wet the glass.



- Buff the glass with the microfibre mop, wetting the glass if necessary.



- The spray tip may drip after releasing the fob button. Take precautionary measures if working above water sensitive areas.

The spray tip has a very small spray orifice and will easily block if dirt is allowed to enter the reservoir. Make sure that only clean water is used, and that the reservoir is not used for other purposes which may cause contamination.

5 Malfunctions and Troubleshooting

Turning your DRAGONFLY®4 system OFF

To switch off the **DRAGONFLY®4** system off after completing the cleaning task, simply:

- i. Press and hold the 'POWER' button on the pump control box



- ii. Disconnect the pole from the backpack unit



- iii. Empty the reservoir after each use. Store the battery charger separately in a dry place. Wash the microfiber pads after each use and allow them to dry



During the usage of the **DRAGONFLY®** filtration system, there may be some small troubleshooting to undertake:

During the usage of the **DRAGONFLY®** filtration system, there may be some small troubleshooting to undertake:

- i. The pump is active but there is no water coming out?
 - a. Check the water reservoir has pure water inside
 - b. Check all hose connections are secure and there are no blockages
- ii. The pump light is not active when switching on the powerpack?
 - a. Ensure you have the correct operating fob with the **DRAGONFLY®4** backpack
 - b. Contact **STREAMLINE®** service team
- iii. The powerpack is not turning on with the power 'ON' button?
 - a. Ensure you full charge the battery before each use – see section 6. Charging Battery
 - b. Contact **STREAMLINE®** service team

EC Declaration of Conformity according to the, RoHS Directive 2011/65/EC. The **DRAGONFLY**® has been designed and produced by **STREAMLINE**® in accordance with the above mentioned EC Directives. The technical documents are complete. The complete EC Declaration of Conformity with all standards applied can be requested on the **STREAMLINE**® Website or directly from **STREAMLINE**®.



Dean Scott
Development Director

Why STREAMLINE®?

Flexibility

- **STREAMLINE**® systems can be built according to customers' exact requirements
- For non-standard systems, the user's needs or specifications are listened to and turned into reality.

Quality

- Whilst price is important, quality is remembered long after price is forgotten
- We insist on sourcing brand name products from around the world, only of a reputable quality, and bring them together under the **STREAMLINE**® name
- All **STREAMLINE**® products carry a full one year's warranty, according to the manufacturers' standard terms and conditions of sale.

Service

- We have an in-house technical helpline able to answer most of your questions relating to the capabilities and functionalities of all **STREAMLINE**® products
- If we get it wrong, we will put it right. If you are sent a wrong item, we will immediately attend to sending you the correct item and arrange a collection of the wrong item without any quibbles
- **STREAMLINE**® is backed by a comprehensive range with massive stocks providing you with a 'one stop shop' for all your requirements.



MANUFACTURED
IN THE
UNITED KINGDOM



CHECKED AND
TESTED BY
QUALITY CONTROL

STREAMLINE® Warranty

The warranty on all Machines and Equipment is for 1 year (12-months) from RECORDED DATE OF PURCHASE.

THIS WARRANTY EXCLUDES NORMAL MAINTENANCE ITEMS, including but not limited to HOSES, FILTERS, O-RINGS, DIAPHRAGMS, VALVES, GASKETS, CARBON BRUSHES and damage to motors and other components as a result of failure to replace normal maintenance items. THIS LIST IS NOT EXHAUSTIVE.

If **STREAMLINE®** receives notice of such defects during the warranty period, **STREAMLINE®** will either, at its opinion, repair or replace components which prove to be defective.

Replacement parts will only be supplied under warranty, upon the inspection and approval of the defective parts by **STREAMLINE®**.

Should it be necessary to supply replacement parts before the opportunity to inspect, these will be charged at current prices and credit will only be issued upon subsequent inspection and warranty approval by **STREAMLINE®**.

The customer is responsible for the cost of return of the defective part. If warranty is approved, **STREAMLINE®** will pay for the cost of the repaired or replacement part.

This warranty excludes the following conditions and circumstances which are at the discretion of **STREAMLINE®**:

Wear and tear, misuse, abuse improper maintenance, frost damage, the use of chemicals other than those supplied or approved by **STREAMLINE®**, improper installation or repair, unauthorised modification, incidental or consequential costs, loss or damage, service, labour or third party charges, the cost of returning defective parts to **STREAMLINE®**.

This warranty constitutes the exclusive remedy of any purchaser of a **STREAMLINE®** unit and is in lieu of all other warranties, express or implied, including without limitation any implied warranty of merchantability or fitness for use, to the fullest extent permitted by law. In no event shall any implied warranty of merchantability or fitness for use exceed the term of the applicable warranty stated above and **STREAMLINE®** shall have no other obligation or liability.

Important

Unfortunately these rights cannot be transferred to a third party.



Notes

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