



INSTRUCTION MANUAL

MOBI®

Codes:

FP-TR2000-03

FP-TR3000-03

Kit Includes:

230V mains powered
FILTERPLUS® MOBI®
MAXI Single / Double
Filtration System



English

INSTR-FP-TR2000-EU



These instructions identifies a risk situation which could lead to serious injury. **MUST** read before operating the **FILTERPLUS® MOBI®** filtration trolley system.

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Responsibilities

General Responsibilities

These operating instructions allows you to use the **FILTERPLUS® MOBI®** filtration 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 **FILTERPLUS® MOBI®** filtration system for future consultation.

Your **FILTERPLUS® MOBI®** filtration 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.

Manufacturer Responsibilities

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

VARITECH SYSTEMS Ltd, the manufacturer 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 **FILTERPLUS® MOBI®** filtration equipment is designed and manufactured to be operated in industrial applications. It is important that the operator(s) of the **FILTERPLUS® MOBI®** filtration equipment have read through these operating instructions thoroughly, and understand all safety instructions and regulations.

The **FILTERPLUS® MOBI®** filtration equipment 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 **STREAMLINE®** website: www.streamline.systems

Technical Specifications

Specification Data

PRODUCT CODE	FP-TR2000-03	FP-TR3000-03
Country of Origin	United Kingdom	United Kingdom
Maximum Height	1340mm	1340mm
Maximum Length	600mm	600mm
Maximum Width	450mm	450mm
Dry Weight	54kg	62kg
Wet Weight	56kg	64kg
Inlet Pressure Requirement	2.8bar / 40psi	2.8bar / 40psi
Optimum Operating Pressure	8.2bar / 120psi	8.2bar / 120psi
Standard Water Inlet Connection (Male hose lock)	3/4 inch	3/4 inch
Waste Water Outlet Connection (Male hose lock)	3/4 inch	3/4 inch
Pure Water Outlet Connection (Male hose lock)	3/4 inch	3/4 inch
Electrical Power Supply	230V mains	230V mains
Power Consumption	1.2W	1.2W
Water Quality Range	000ppm – 1000ppm	000ppm – 1000ppm
Pure Water Flow (optimum output)	6.8Lpm	9.6Lpm
Waste Water Flow	4.5Lpm	6.4Lpm
Operating Time	Continual	Continual

Parts and Accessories

The **FILTERPLUS® MOBI®** filtration system will include the following parts:

- 1x 3mtr length of black Standard Water Inlet hose with stainless steel connections
- 1x 3mtr length of red Waste Water Outlet hose with stainless steel connections
- 2x 3mtr length of blue Pure Water Outlet hose with stainless steel connections
- SPAN3 filter spanner for changing filters



3 Safety Regulations

Electrical Specifications & Safety

This applies to both FP-TR2000-03 and FP-TR3000-03 FILTERPLUS® MOBI® filtration systems.

Please check that the installation and sockets are adequate for the maximum power of the appliance indicated on the rating plate. If in doubt, consult a qualified electrician. The correct plug should be fitted by a qualified electrician.

- 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 mm. 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.

Personal Safety

Stay alert, watch what you are doing and use common sense when operating the FILTERPLUS® MOBI® 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 Footwear

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.

The water cannot be used for human consumption.

System Safety

The **FILTERPLUS® MOBI®** filtration trolley is manufactured with the safety of the operator in mind, including some key features such as;



Over Pressure

- If the water pressure in the **FILTERPLUS® MOBI®** filtration system is above the standard 10bar pressure, the pressure relief valve opens on the pump allowing a greater flow through the waste water outlet, reducing the pressure in the system and through the pure water outlet.
- It is important to never open the filter vessels or membrane housings during operation or whilst under pressure.



Over Heating

- If the powerful booster pump overheats on the **FILTERPLUS® MOBI®** filtration system, an activation switch is triggered and the system will automatically switch off.



Electrical Hazards

- As the **FILTERPLUS® MOBI®** filtration system is powered by an electrical source, never use the equipment in the rain, snow or strong winds.
- Never use the filtration system to clean people and/or animals.
- Before each use, undertake a visual check on all electrical cables for damage. Never use the filtration system with a damaged cable.



Mechanical Hazards

- To avoid all mechanical hazards, place the **FILTERPLUS® MOBI®** filtration trolley on an even surface only, and ensure sufficient stability.

Operating the FILTERPLUS® MOBI® Filtration System

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

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 FILTERPLUS® MOBI® filtration system

Your **FILTERPLUS® MOBI®** Filtration System has been carefully manufactured, checked through QC and packaged as a kit.

Carefully unpack your new **FILTERPLUS® MOBI®** Filtration System 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.

Storage of the FILTERPLUS® MOBI® filtration system

Short term and long term storage is an important issue. The **FILTERPLUS® MOBI®** filtration system must be protected from algae and bacteria growth in the pressure vessels caused by stagnant water. The reverse osmosis (RO) membranes and de-ionising (DI) resin must not dry out wither.

Important

The unit must be protected from freezing.

The following procedures should be followed to protect the unit from bacteria fouling and damage from freezing;

Storage of your system

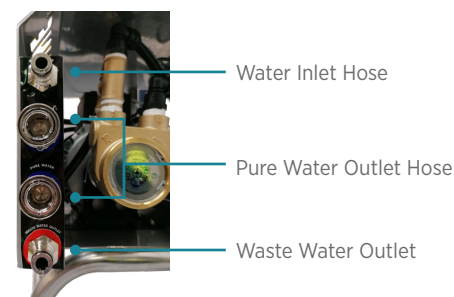
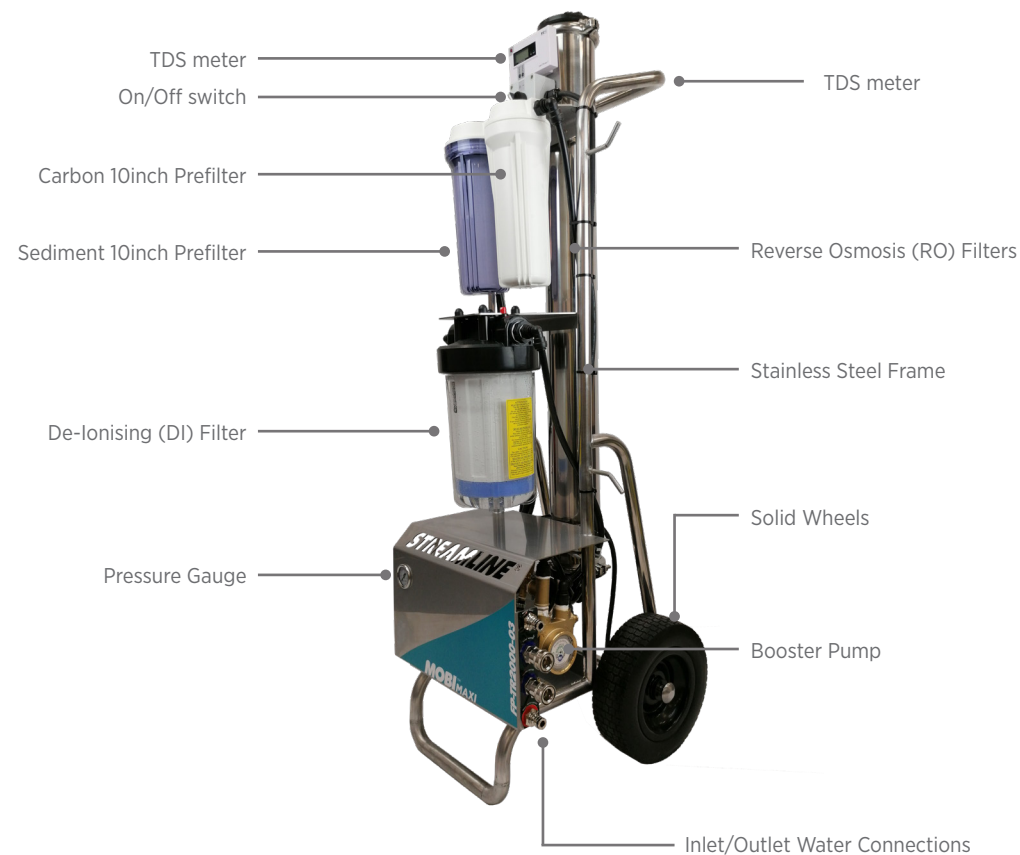
Short term storage: 2-4 weeks of no use

- i. Remove the prefilter housing and pour out the excess water.
- ii. Remove the DI resin cartridge housing and pour out the excess water.
- iii. Remove the RO membrane caps and lay down the trolley unit for the excess water to drain from the membranes.
- iv. Ensure you reinstall the top caps on RO pressure vessels. Do not allow them to dry out.
- v. Ensure you reinstall the prefilters and DI resin cartridge. Do not allow them to dry out.

Long term storage: 4 weeks plus of no use

- vi. Remove the prefilter housing and pour out the excess water.
- vii. Remove the DI resin cartridge housing and pour out the excess water.
- viii. Remove the RO membrane caps and lay down the trolley unit for the excess water to drain from the membranes.
- ix. Remove all filters from the trolley system, wrap in individual plastic bags and seal.
- x. Replace all filter housings and membrane caps without any filters inside.
- xi. It is important to store the trolley system where it cannot freeze.
- xii. It is important for all filters to not be allowed to dry out when not in use.

About your system



To operate the **FILTERPLUS® MOBI®** filtration system, there needs to be access to a water supply and mains electricity.

The water enters the **FILTERPLUS® MOBI®** filtration trolley system through the water inlet connection, and then passes through the carbon block prefilter removing the largest particles in the water before the water enters the membrane.

The reverse osmosis (RO) membrane filters remove up to 98% of the impurities in the water, before it reaches the de-ionising (DI) resin filter where the water is polished and reaches a 000ppm result.

From the RO membrane filters, waste water is discharged through the waste water outlet. This water is not harmful to the environment or skin, however full of impurities therefore not suitable for cleaning.

The **FILTERPLUS® MOBI®** filtration trolley system you have purchased, the booster pump is powered by 230V mains electricity



Assembling the System

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

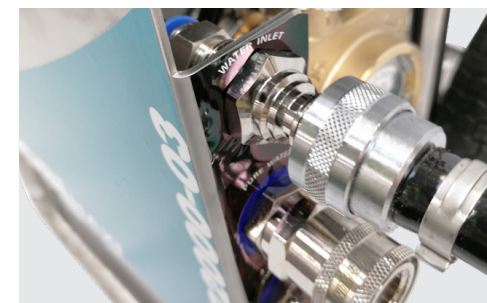
These parts must be assembled by the user following the assembly instructions.

To use your **FILTERPLUS® MOBI®** filtration system:

- W** Ensure the trolley system is safely secure and stable on a level surface



- ii. Connect the **BLACK** hose from the mains water supply to the water inlet



- iii. Connect the **RED** hose from the waste water outlet and direct to a drain or nearby soakaway



- iv. Connect the 2x BLUE hose from the pure water outlet to your waterfed poles (it is possible to add a **STREAMLINE**® 100mtr hose reel)



- v. Plug in the system to the mains power supply



Turning your FILTERPLUS® MOBI® Filtration System ON:

Once the final position of the **FILTERPLUS**® **MOBI**® filtration system has been reached, you are now ready to switch on the water supply and power up the booster pump.

- i. Switch on the water supply at the mains water tap and allow the **FILTERPLUS**® **MOBI**® filtration trolley to pressurised



- ii. Inlet Pressure will show on the Pressure Gauge, when the Mobi Maxi is running, this should be registering 100-120psi. Do not exceed 125psi.



- iii. When pure water is following from the waterfed brush, switch on the booster pump by turning the 'POWER' switch to the ON position.



- iv. The pressure gauge should now be around 120 - 150 psi (8-10 bar)



You are now good to use your **FILTERPLUS® MOBI®** filtration trolley system.

Important:

Please ensure you regularly check the water quality with the inline TDS meter.

Turning your FILTERPLUS® MOBI® Filtration System OFF

To switch off the **FILTERPLUS® MOBI®** filtration system after completing the cleaning task, simply:

- i. turn the 'POWER' switch to the OFF position, switching off the booster pump



- ii. Disconnect the mains power supply before disconnecting the mains water supply



- iii. Remove all hoses and safely store in storage box



Important:

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

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Malfunctions and Troubleshooting

Malfunctions and Troubleshooting

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

- i. Low water pressure or water supply at waterfed brush
 - a. Check for any blockages or kinks in hose
 - b. Disconnect all extension hose reels and connect the **FILTERPLUS® MOBI®** filtration system directly to the telescopic pole
 - c. Clean or replace the sediment filter
 - d. Contact service centre
- ii. High waste water flow and low pure water flow
 - a. Check if membrane has the plug installed – if so, replace membrane
 - b. Contact service centre
- iii. High pure water TDS
 - a. Check membrane quality – replace membrane
 - b. Check DI filter – replace resin beads in DI cartridge
 - c. Contact service centre
- iv. Booster pump will not start
 - a. Check fuse on mains power
 - b. Contact service centre

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Maintenance and Replacing Filters

Maintenance and Replacing Filters

Care and maintenance of your **FILTERPLUS® MOBI®** filtration system will ensure it is well looked after and running smoothly every time.

It is recommended to run a weekly, monthly and quarterly examination on the **FILTERPLUS® MOBI®** filtration system to ensure all filters are adequate and effective for producing pure 000ppm water quality.

Weekly inspection

- Keep a check on the pure water TDS by using the inline TDS meter. This measures in parts per million (ppm). If the output reads higher than 10ppm, it is recommended to change the de-ionising (DI) filter, and make a note in the back of the inspection booklet

Monthly inspections

- Each month it is recommended to flush through the reverse osmosis (RO) membranes and reset the ratio between pure water output and waste water output.
- The waste water valve should be opened 100% to allow waste water to flow out for approx. 5mins. Gradually reset to 60% pure and 40% waste water.

Quarterly inspections

- Depending on the usage, however, it is advised to change the carbon pre-filter at least 1x a quarter.
- Complete a check on all membranes to ensure performance is still acceptable.

Prefilters – usage and replacing

The sediment and carbon block 10inch prefilter are the first initial filters the feed water will pass through.

Usage

Either quarterly replacement or approx. 25,000ltrs of mains water running through, whichever comes quickest

How do I change the carbon prefilter?

With the use of the spanner which comes with the **FILTERPLUS® MOBI®** filtration system, simply unscrew the clear prefilter housing and dispose of the used carbon prefilter. Slide in the new CF10-F-001 STREAMLINE® 5micron prefilter into the prefilter housing and reattach to the filtration system. Ensure you safely and securing tighten up the housing to ensure the system is safe under operating pressure



WARNING

Ensure the **FILTERPLUS® MOBI®** filtration system is not operating or under pressure when maintenance or filter replacements are being undertaken.

De-ionising (DI) resin filter

The DI resin filter is the last polishing filter that the RO pure water will pass through.

Usage

Either quarterly replacement or approx. 25,000ltrs of mains water running through, whichever comes quickest

How do I change the carbon prefilter?

With the use of the spanner which comes with the **FILTERPLUS® MOBI®** filtration system, simply unscrew the membrane housing caps and remove the membranes one by one.

Replace the 1x (or 2x) membrane with the V-MRO-4040-F from **STREAMLINE®**.

Please pay special attention to the flow direction on the membrane housings and on the membranes themselves



Reverse Osmosis (RO) Membrane Filters – usage and replacing

The RO membranes are the core part of the water filtration – produce up to 98% of water filtration

Usage

Either yearly replacement or approx.
250,000ltrs of pure water running through,
whichever comes quickest

How do I change the RO membranes?

With use of Size 14 spanner and ratchet, undo the screws holding the clamps holding the plastic RO End cap in place, remove clamp. Use large flat screwdriver, locate in groves on end cap and work end cap off carefully. Using long nose pliers pull the membrane out the top of the stainless membrane housing, taking note of which end the membrane seal is located. (Single - membrane - located at base. Double membrane - located at base and top of righthand).

Carefully lubricate new membrane seal and slide new membrane into stainless housing. Replace RO End Cap and clamp securely. Once new membrane in place, ensure sure MAXI is run in flush mode for 30 mins prior to operating pressure set. Failure to do this will cause premature Membrane failure.

Replace the 1x (or 2x) membrane with the V-MRO-4040-F from STREAMLINE®. Please pay special attention to the flow direction on the membrane housings and on the membranes themselves



WARNING

Don't lose the RO membrane plugs! Carefully insert 2x in the water inlet side. If in doubt speak to your **STREAMLINE®** technician.

Disposing of filters and machine

The **FILTERPLUS® MOBI®** filtration system is classified as special waste. It must be taken apart and divided into uniform sections which should be disposed of according to current legislation.

Do not use the components removed as spare parts.

All filters are classified and disposable as unarmful general waste.



WARNING

Disposing of resin beads can create a slippery surface. Care needed to dispose of resin beads effectively. Remove all over spill immediately.

EC Declaration of Conformity according to the, RoHS Directive 2011/65/EC. The **FILTERPLUS® MOBI®** Filtration System 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®**.

Signed by:



Dean Scott
Director of STREAMLINE® Europe

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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