

STREAMLINE®

SAFELY CLEANING AT HEIGHT

INSTRUCTION MANUAL

HIGHLINE™

Codes:

HP-T12150PHR
HP-T15207PHR-G
HP-T16276PHR-G
HP-T15207DYR-G



These instructions identifies a risk situation which could lead to serious injury. **MUST** read before operating the **HIGHLINE™** Pressure Washer, along with any other manual/literature supplied. Pay particular attention to any instructions relating to safety, and the starting, stopping and maintenance of petrol and diesel engines.

INSTR-PRESSURE-H



1.	Why STREAMLINE®?	3
2.	Warranty Information	4
3.	Responsibilities	
	General Responsibilities	5
	Manufacture Responsibilities	5
	Personnel Responsibilities	5
4.	Technical Specifications	
	Technical Data	6
	Parts and Accessories	6
5.	Safety Regulations	
	Personal Safety	8
	System Safety	9
6.	Operating the HIGHLINE™ system	
	Unpacking your system the HIGHLINE™ System	10
	Storage of the HIGHLINE™ Pressure washer System	10
	About your system	11
	How to assemble your system	12 - 13
	Turning your HIGHLINE™ High Pressure Washing System ON	14
	Operating your HIGHLINE™ High Pressure Washing System	14 - 15
	Turning your HIGHLINE™ High Pressure Washing System OFF	16 -17
7.	Maifuctions & Troubleshooting	18
8.	Maintenance	19
9.	Disposal of System and Filters	20
10.	Declaration of Conformity	20

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

1 Why STREAMLINE®?

Why STREAMLINE®?

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.

3 Responsibilities

Responsibilities

General Responsibilities

These operating instructions allows you to use the **HIGHLINE™** pressure washer 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 **HIGHLINE™** high pressure system for future consultation.

Your **HIGHLINE™** high pressure 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 **HIGHLINE™** pressure washer systems are designed and manufactured to be operated in industrial applications. It is important that the operator(s) of the **HIGHLINE™** pressure washers have read through these operating instructions thoroughly, and understand all safety instructions and regulations.

The **HIGHLINE™** 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.

4 Technical Specifications

Technical Specifications

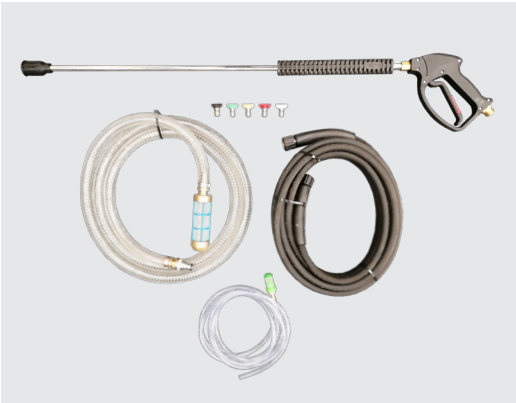
Specification Data

PRODUCT CODE	HP-T12150-PHR	HP-T15207-PHR-G	HP-T16276-PHR-G	HP-T15207-DYR-G
Country of Origin	United Kingdom	United Kingdom	United Kingdom	United Kingdom
Maximum Height	90cm	102cm	102cm	102cm
Maximum Length	90cm	115cm	115cm	115cm
Maximum Width	50cm	60cm	60cm	60cm
Dry Weight	45.2kg	65.2kg	65.2kg	68.0kg
Wet Weight	46.8kg	67.3kg	67.3kg	70.0kg
Optimum Operating Flow	12Lpm	15Lpm	16Lpm	15Lpm
Optimum Operating Pressure	150Bar / 2175psi	207Bar / 3000psi	276Bar / 4000psi	207Bar / 3000psi
Standard Water Inlet Connection (Male hosesock)	3/4 inch	3/4 inch	3/4 inch	3/4 inch
Waste Water Outlet Connection (Male hose lock)	M22 standard high pressure fitting	M22 standard high pressure fitting	M22 standard high pressure fitting	M22 standard high pressure fitting
Engine	Petrol GX160	Petrol GX240	Petrol GX390	Diesel L100
SPL	107Lwa dB	105Lwa dB	107LWA DB	111LWA DB
GSPL	111Lwa dB	111Lwa dB	111Lwa dB	111Lwa dB
Pump Gearbox	No	Yes	Yes	Yes

Parts and Accessories

The **HIGHLINE™** system will include the following parts:

- Heavy duty metal pressure washing trolley complete with pressure washer unit
- 36inch heavy duty steel chrome single lance
- 1x 10mtr twin wire high pressure hose with M22 fittings
- 1x 3mtr 19mm suction water inlet hose with weighted brass filter
- 1x 3mtr 6mm chemical suction hose with plastic filter
- 5x assorted nozzles for different cleaning applications
- Instruction manual



Safety Regulations

The **HIGHLINE™** pressure washer system is intended solely for high pressure washing of machinery, buildings and other washable surfaces typically through standard and optional accessories provided by **STREAMLINE®**.

The water cannot be used for human consumption.

Only use water and detergent. Use only a recommended detergent.

Personal Safety

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

Use personal protective equipment to avoid personal injury:



Protective Gloves



Safety Goggles



Protective Footware



Ear Protection

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 wearing of eye protection in hazardous areas requirement under regulation 4 of the personal protective equipment work regulations 1992. This can include full face protection or goggles.

**The noise at work regulations require that from February 2006 persons working in noise levels between 80dBA and 85dBA must be provided with suitable hearing protection on request. If noise levels are above 85dBA then hearing protection must be supplied and worn.

System Safety

The **HIGHLINE™** trolley is manufactured with the safety of the operator in mind, however please note some of the key safety errors.



Use in confined spaces

- Diesel and Petrol engines produce fumes and toxic gases, use only in well-ventilated spaces.
- To prevent the build up of flammable vapours the charging o
- Petrol and Diesel tanks should not be done in confined spaces. Any spillages should be cleaned up and any absorbent material used should be disposed of in a proper manner.



General Safety

- Check all hoses and couplings for tightness and damage, loose connections should be tightened and damaged hoses replaced
- Ensure the workspace is clear and free from obstructions
- Ensure you have a good firm footing at all times, and anticipate a 'Kick Back' reaction when the trigger is pulled
- Extra care should be taken when working at heights, please use **HIGHLINE™** Giraffe Telescopic Poles for reaching areas up to 12mtr



Mechanical Hazards

- To avoid all mechanical hazards, place the **HIGHLINE™** trolley on an even surface only, and ensure sufficient stability.

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

6 Operating the HIGHLINE™ high pressure 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 HIGHLINE™ system

Your **HIGHLINE™** System has been carefully manufactured, checked through QC and packaged as a kit.

Carefully unpack your new **HIGHLINE™** 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 HIGHLINE™ pressure washer system

Short term and long term storage is an important issue. The **HIGHLINE™** system must be protected from algae and bacteria growth in tank or pump by stagnant water.

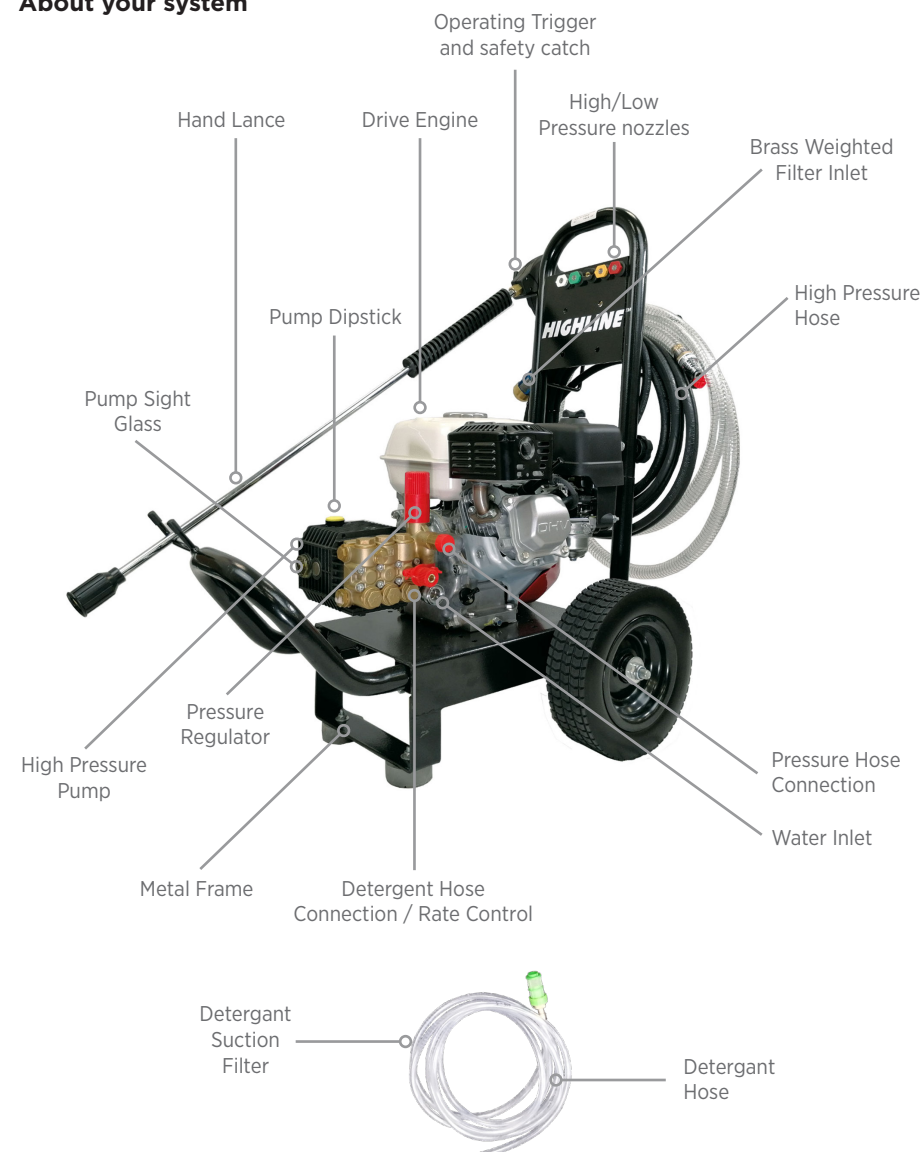
Important

The unit must be protected from freezing.

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

- Disconnect all pressure hose and lance, draining water from the hose
- Disconnect the water feed hoses, draining water from the hose
- Wash out detergent hose with clean water, draining water from the hose
- Turn over the engine by hand to expel water from pump
- Repeat above until equipment is clean and dry before storage

About your system



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 **HIGHLINE™** high pressure system,

- i. Remove all **RED** travel plugs from the pump and gearbox (if fitted), and replace with yellow-topped dipsticks. Check all oil levels and top up if needed.



- ii. Fill engine with oil and fuel, see engine manufacturers handbook for details of oil and fuel types. If needed please call **STREAMLINE®** Technical Support.



- iii. Connect the suction hose to the high pressure pump, ensuring there is no air leaks. Air leaks will reduce the suction quality and impair the performance of the machine.



- iv. Submerge the brass weighted filter in a suitable container, containing the water supply. It is important to ensure the filter is kept below the water line for a smooth operation.



- v. Connect the high-pressure hose to the pressure washer and to the appliance used. Tighten as appropriate but do not over tighten. Ensure the safety catch is in the ON position whilst making these connections.



You are now set up ready to proceed.

Turning your HIGHLINE™ high pressure washing system ON

- i. START your engine (refer to accompanying engine booklet relating to the type/style of engine fitted.)

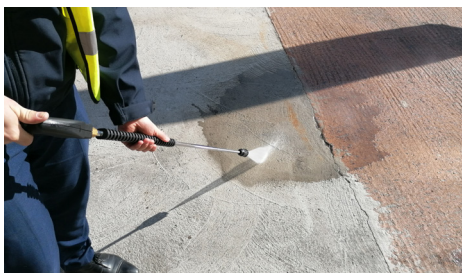


Operating your HIGHLINE™ high pressure washing system

- i. Release the lance safety catch which is located behind the trigger.



- ii. Point the lance towards the object being cleaned



- iii. Squeeze the trigger to start the high pressure jet. You can adjust the working pressure by turning the pressure regulator + or - to suit your application.



- iv. Release the trigger to stop the high pressure jet.



The **HIGHLINE™** high pressure washer system is designed for a single operator use.

The water supply can sometimes be interrupted for short lengths of time i.e. when the operator moves from locations. However if the **HIGHLINE™** system is interrupted for long periods of time, it is best to switch off the pump to save overheating and/or over pressurising, and potentially damaging the system.

Important

Always ensure you have a firm footing and be ready for the 'Kick Back' when pulling the trigger on the lance.

Turning your HIGHLINE™ high pressure washing system OFF

- i. Release the trigger to stop the high pressure jet



- ii. Stop the engine (refer to additional refer to accompanying engine booklet relating to the type/style of engine fitted)



- iii. Depress the high pressure lance by squeezing the trigger and release the pressure in the hose



- iv. Disconnect all hoses and water supply



Warning

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

Malfunctions and Troubleshooting

During the usage of the **HIGHLINE™** high pressure system, there may be some small troubleshooting to undertake:

i. Fluctuating pressure at the lance

- a. Blocked inlet water filter or poor water supply – check, clean or replace if needed
- b. Pump sucking in air – ensure all seals are firm, check integrity of suction hose and connections

ii. Pump running normally but pressure is low

- a. Pressure regulator valve needs adjustment
- b. Pump sucking in air – ensure all seals are firm, check integrity of suction hose and connections
- c. Lance in low pressure mode – check and adjust
- d. Nozzle is badly worn – check and replace

iii. Pump active but very noisy

- a. Pump sucking in air – ensure all seals are firm, check integrity of suction hose and connections
- b. Excessive temperature of liquid in pump – reduce temp to below 60 degrees
- c. Worn bearing or valves – contact service centre

iv. Presence of oil in the water

- a. Worn out oil seals – contact service centre

v. Water dripping from under the pump

- a. Worn piston seals – contact service centre

vi. Oil dripping from pump/gearbox/engine

- a. Worn oil seals – contact service centre

vii. Excessive vibration in lance/delivery line

- a. Water supply low – check adequacy of water supply. Ensure suction filter is below water level.
- b. Ingress of air into suction line – check integrity of suction hose and connections
- c. Contact service centre

Maintenance

Care and maintenance of your **HIGHLINE™** high pressure system will ensure it is well looked after and running smoothly every time.

It is recommended to run an inspection quarterly examination before each use, 3 month and 12 months.

Before Each Use

- Inspect / top up oil levels in pump, gearbox, engine
- Clean brass weight water inlet filter
- Inspect high pressure hose and its connection for tightness and damage
- Inspect suction hose and its connection for tightness and damage
- High pressure jet must be inspected and changed if damaged
- Overall system if there is any physical damage

12 month inspections

- Change the oil in Gearbox, Engine and high pressure pump
- Inspect Gearbox and replace if damaged
- Change high pressure jet
- Change air filter

Do not use the components removed as spare parts.

Declaration of conformity

Dr. H.

Dean Scott
Development Director

[illegible]

Notes

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



STREAMLINE®

SAFELY CLEANING AT HEIGHT

Hamilton House, 8 Fairfax Road,
Heathfield Industrial Estate,
Newton Abbot
Devon, TQ12 6UD
United Kingdom

Telephone: +44 (0) 1626 830 830

Email: sales@streamline.systems

Visit www.streamline.systems

