

# Clarke<sup>TM</sup> POWER WASHER



## POWERWASHER

Models: PLS100FH & PLS100FB

Part Nos: 7330100 & 7330110

## OPERATING & MAINTENANCE INSTRUCTIONS



0201

Thank you for selecting this CLARKE Power Washer for your cleaning requirements.

This booklet contains important information about its operation and maintenance and should be read in conjunction with a similar guide produced by the manufacturers of the engine fitted to this particular unit.

Please read both of these carefully before using the machine.

## GUARANTEE

This CLARKE product is guaranteed against faults in manufacture for twelve months from the date of purchase.

In case it is necessary to make a claim under this scheme, please retain your receipt or invoice to show when and where your purchase was made.

This guarantee will not be valid if the product is found to have been abused in anyway, or used otherwise than for its intended purpose.

Under the Terms of this Warranty, any repair or replacement can only be carried out by Clarke International Limited, or one of our authorised service agents.

Where possible any machine requiring attention should be returned to the dealer from whom it was purchased. Where this is not appropriate, please contact Clarke International, Service Department, Tel. 020 8556 4443.

Goods being returned to us should be consigned to:

This guarantee does not affect your statutory rights.

## GENERAL SAFETY PRECAUTIONS

1. Never direct the spray towards any person or animal.
2. Never direct the spray towards live electrical wiring or equipment.
3. Do not allow children to use this machine.
4. Keep the machine itself well clear of water spray, so that it remains dry.
5. Do not operate the machine with any of the covers removed.
6. Ensure that only clear, clean water is supplied to this power washer.
7. When using the detergent injection facility, use only chemical cleaning agents that are proved for use with power washers.
8. When making a connection directly to the water mains supply you must ensure that it incorporates a device suitable to prevent liquids syphoning back from the power washer into the mains pipework.
9. After the engine has been stopped and the water supply turned off, but before disconnecting any hose or accessory, release any residual pressure in the system by operating the trigger. When not in use we recommend that the mains water supply is disconnected from the machine.

- 
- 
10. Do not attempt any repairs to this machine unless you are properly qualified. If you experience a problem, we suggest that you first contact your local dealer or otherwise Clarke International, Service Division (please see further details under Guarantee section).
  11. Do not operate this power washer at very low temperatures where the water is liable to freeze.
  12. Do not operate this power washer whilst standing on a ladder. Always ensure you take a sure footed position.
  13. We recommend the use of safety goggles, particularly where there may be loose particles of stone or grit caught up in the high pressure spray.

## ASSEMBLY

After removing the contents of the box, fit the top handle (Item 5) to the existing frame (Item 15) using the two black bolts and handwheels (Item 3) provided.

Also supplied separately you will find:

- A) A two piece hose connector with washer for the inlet water supply.
- B) A clear polythene detergent pick-up tube.
- C) A detergent filter.

## WATER SUPPLY

There are different ways in which water can be supplied to this power washer.

In each case connection can be made using an appropriate length of 1/2" bore braided water hose which can be obtained from your local Hardware/DIY Store or Garden Centre. They should also be able to supply whatever you might need to make connection to the water supply source.

The water inlet hose connector on this machine is supplied as standard complete with a hose retaining clip.

### POSITIVE FEED

The best way to supply water to this power washer is by means of:

- A) Connection to a pressurised mains supply OR
- B) Connection to a static supply such as a tank or other container situated above the level of the power washer so that the water flows in by means of gravity.

### SUCTION FEED

This power washer is also capable of drawing water from a static supply at lower level providing that the inlet connection to the machine (Item 10) is no more than 0.5 metres above water level.

Using as short a length of hose as practicable, connect one end to the water inlet, using the hose adaptor supplied, then fill or prime the hose with water before placing the other end into the water supply.

Take special care to see that no foreign matter is likely to be drawn up into the hose. If necessary, use some form of filter (not supplied) to prevent this from happening.

#### **HIGH PRESSURE CONNECTION**

The high pressure hose (Item 1) is supplied already connect to the trigger assembly (Item 6). The other end of the hose is fitted with an adaptor which should be carefully connected to the high pressure outlet (Item 9). Tightening the connector by hand is normally sufficient to ensure a proper seal.

The front end of the operating lance is referred to as the vario nozzle (Item 7) and this connects to the rear assembly containing the trigger by means of a simple bayonet fitting.

Once all the water connections are complete and if you are using a positive feed system, turn on the water supply and operate the trigger to ensure a flow through can be obtained.

N.B.A safety catch is fitted to the handle of the trigger assembly. When this is engaged it prevents the trigger from being operated.

This facility should be used if the operator has to relinquish control of the lance for any reason, whilst the engine is running.

#### **OPERATION**

Before starting the engine and with the machine on a level surface, check the oil level sight-glass on the power washer pump to ensure that it is around the mid-way mark. If necessary top up the oil level using SAE20/30 oil, but do not overfill. Now refer to the engine manufacturers handbook and complete all the preliminary checks including oil and fuel levels before starting the engine.

If using feed water supply, this should be turned on before starting the engine. If using suction feed, ensure that everything is in place, so that water will be drawn up quickly into the pump.

To prevent possible damage to the pump, turn the engine off if the water supply fails for any reason.

Once the machine is up and running, there are two adjustments which can be made to the vario nozzle (Item 7) to vary the pattern and intensity of the spray. The front portion can be turned to adjust between a direct jet and a fan spray. Also by gripping the sleeve portion of the vario nozzle and following the directions of the white arrows, the assembly may be pushed forward (INJECTION) for a low pressure washing spray or pulled back (PRESSURE) for maximum cleaning effect.

The pressure gauge fitted to the pump provides a general indication of the operating pressure which should be 1500 psi (100 bar). This is the maximum

permitted pressure of the machine.

A large pressure control knob is fitted to the pump head. Under normal usage this will not require any adjustment. We strongly recommend that pressure adjustments are always made at the high pressure lance, as previously explained.

Also do not make any adjustment to the engine in an attempt to create higher pressure, otherwise serious damage may occur.

## CHEMICAL INJECTION

To improve the cleaning affect of the machine, it is possible to inject chemical cleaning agents into the spray, but only when it is working at the low pressure setting. This makes the machine particularly useful for washing away the traffic film from vehicles, cleaning greasy engine parts and removing oil and grease from concrete and other surfaces.

The chemical solution should always be applied first and allowed sufficient time to react, before finally being cleaned off with a high pressure jet. Connect the polythene detergent tube (Item 13) to the chemical inlet port which can be found next to the high pressure outlet on the power washer pump. Fit the chemical/detergent filter to the other end of the tube and then immerse this into the cleaning agent. With the machine running normally, and the vario nozzle set to low pressure spray (INJECTION) chemical will be drawn up and mixed with the water.

The brass ring on the chemical inlet connection can be rotated to vary the amount of chemical pick-up. Turn clockwise to REDUCE, anti-clockwise to INCREASE.

To discontinue the chemical feed simply remove the tube from the chemical container or push the sleeve on the vario nozzle back to the (PRESSURE) position.

## MAINTENANCE

Some aspects of maintenance have already been referred to in this booklet and others can be found in the accompanying engine manufacturers handbook. Here we mention some which are particularly important.

1. After each use ensure that the entire system is flushed through with clean water particularly if chemicals have been used.

Ideally, all the equipment should be stored in a frost free location, but if this is not possible, then anti-freeze should be mixed with the flushing water, or otherwise the machine must be completely drained. To assist in the removal of water the engine may be run for a maximum of 15 seconds after the water supply has been turned off. Do not run for any longer period otherwise damaged may occur to the pump.

2. Regularly check the oil levels in both the pressure washer pump and the petrol engine. We recommend that the oil in the high pressure pump be changed after approximately each 100 hours of operation. Do not mix oils of

different grades together. Oil may be drained from the pump by removing the large brass hexagon nut to be found at the base of the pump.

3. When the water supply hose is disconnected from the machine, a gauze filter can be seen fitted to the inlet assembly which helps trap any foreign particles which may have been picked up in the supply. Periodically this should be inspected and cleaned.

## ACCESSORIES

There are a number of accessories available for use with this power washer which will greatly increase its versatility. All of them fit easily by means of the simple bayonet connector. Your local dealer will be pleased to supply any information regarding their use:

	<b>PART NO.</b>
Car Brush .....	7310110
Rotary Brush .....	7310104
Watersand Blaster .....	7310106
Draincleaner .....	7310117
Foam Lance .....	7310118
Turbo Nozzle .....	7310119
Extension Hose (8 Metres) .....	7310120
Lance Extension (30 Cms) .....	7310122

The following consumables are also available.

Car Cleaner (1 Litre) .....	3050823
Traffic Film Remover (5 Litre) .....	3050821
Traffic Film Remover (25 Litre) .....	3050820
Sand for use with Sand Blasting Attachment .....	7320005

## SPARE PARTS AND SERVICE CONTACTS

*For Spare Parts and Service, please contact your nearest dealer, or CLARKE International, on one of the following numbers.*

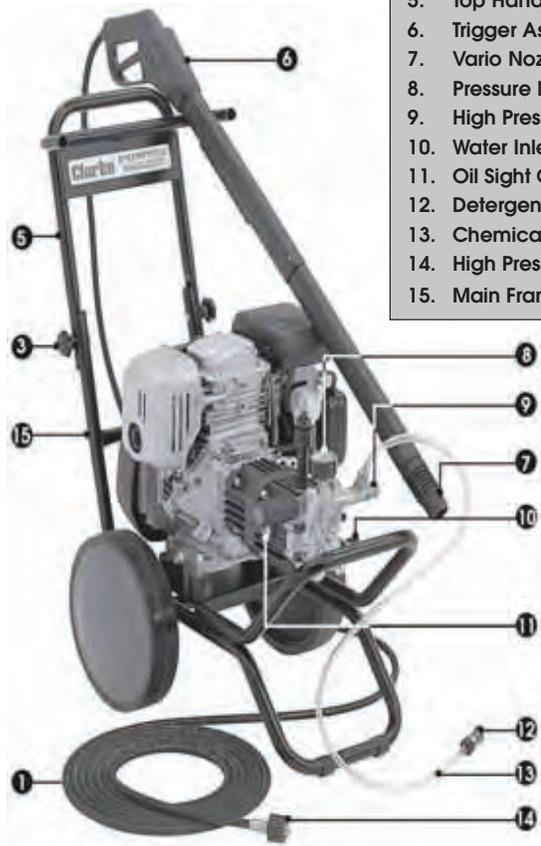
**PARTS & SERVICE TEL: 020 8988 7400**

**PARTS & SERVICE FAX: 020 8558 3622**

**or e-mail as follows:**

**PARTS: [Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)**

**SERVICE: [Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)**



1. High Pressure Hose
2. Handle Securing Nuts
3. Top Handle
4. Trigger Assembly
5. Vario Nozzle
6. Pressure Indicator
7. High Pressure Outlet
8. Water Inlet Connection
9. Oil Sight Glass
10. Detergent (Chemical) Filter
11. Chemical Supply Hose
12. High Pressure Outlet Connection
13. Main Frame

MODEL	PART NO.	ENGINE
PLS100FH	7330100	Honda 5.5HP (as illustrated)
PLS100FB	7330110	Briggs & Stratton 5.0HP (not illustrated)
COMMON SPECIFICATIONS		
Maximum working pressure: .....		1500 psi (100 Bar)
Water flow rate: .....		12.5 litres per minute
Max inlet temp. ....		60°
Weight: .....		32 Kgs.