

# Clariflo®

## POWER WASHER



## COLD WATER WASHER

Model Nos. ELS140, 140R & ELS150



Part Nos. 7320610, 7320615 & 7320620

1203

## OPERATING & MAINTENANCE INSTRUCTIONS

## SPECIFICATIONS

	ELS140 & 140R	ELS150
Motor	230V 50Hz	230V 50hz
Power Rating	2500W	2700W
Fuse Rating	13Amps	13Amps
Noise Level - Guaranteed	79dBL <sub>WA</sub>	78dBL <sub>WA</sub>
Max. Pump Pressure	140bar	150bar
Water Flow Rate	8 L/min	9 L/min
Detergent tank Capacity	7litres	7litres
Dimensions	430x340x920mm	430x340x920mm
Weight	30kg	30kg

Please note that the details and specifications contained herein are correct at the time of going to print. However CLARKE International reserve the right to change specifications at any time without prior notice. Always consult the machines data plate

## PARTS & 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)**



Thank you for purchasing this CLARKE COLD WATER WASHER.

This machine is a lightweight, portable, high pressure power washer, designed for general DIY and LIGHT INDUSTRIAL use. Model ELS140R is provided with a reel to accommodate the hose.

It comprises an electric motor, pump, a high pressure hose with a trigger and lance, and provision for use with foam or cleaning agents. On model ELS140R the high pressure hose is mounted on a reel, at the back of the machine, to provide easy and convenient storage. These washers are ideal for cleaning greasy engines, garden furniture or removing oil spots from driveways /patios etc.

Before attempting to use your washer, please read this instruction manual thoroughly and carefully follow all instructions. By doing so you will ensure the safety of yourself and that of others around you, and you also can look forward to the washer giving you long and satisfactory service.

## GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission. This guarantee does not effect your statutory rights.

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## SAFETY PRECAUTIONS

### WARNING

Water at high pressure can be dangerous and may cause severe damage to persons or property if subject to misuse.

NEVER allow anyone to operate this equipment unless they are thoroughly reliable, and completely familiar with the safety precautions.

1. Never direct the spray jet at any person or animal.
2. Never hold a finger over the high pressure nozzle.
3. Never direct the spray jet at the machine itself or any other electrical equipment.
4. After use, and before disconnecting hoses, release the pressure in the high pressure hose by operating the trigger. Do not attempt to disconnect any hose or coupling with pressure still in the hose.
5. Never operate the machine with the covers removed.
6. Do not, attempt any electrical or mechanical repair. If you have a problem with your machine contact your local dealer or Clarke Customer Services Dept., tel: 020 8556 4443
7. Never supply any liquid other than water to the water inlet.
8. Use only chemical cleaning agents (detergents) approved for power washing when using the chemical injection facility.
9. Never use the chemical injection facility to introduce solvents eg. paint thinners, petrol, oil, etc.
10. Do not operate the machine whilst standing on ladders: use a platform tower or scaffolding.
11. Children should NOT be allowed to use the machine.
12. You should always wear the appropriate protective clothing and non-slip shoes when operating this machine. We also recommend the use of safety goggles for any application where loose particles of stone or grit etc. may be blown around by the high pressure spray.
13. When not in use, disconnect from the electrical supply and disconnect the hoses from the machine, ensuring they are drained of water. Store in a dry, frost free environment. Failing this, ensure the pump is filled with anti freeze. (See Maintenance).
14. Disconnect from the mains supply before carrying out any maintenance or servicing.
15. Never pull the washer by the power cable, or yank the cable to disconnect it from the socket. Keep the cable away from heat, oil or sharp edges.

## ELECTRICAL CONNECTIONS

**WARNING: THIS MACHINE MUST BE EARTHED.**

This product is provided with a standard 13 amp, 230 volt (50Hz), BS 1363 plug, for connection to a standard, domestic electrical supply. Should the plug need changing at any time, ensure that a plug of identical specification is used.

**IMPORTANT: The wires in the mains lead should be wired up in accordance with the following colour code:**

Green & Yellow	-	Earth
Blue	-	Neutral
Brown	-	Live

As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- Connect the GREEN & YELLOW cord to terminal marked with a letter "E" or Earth symbol "⏏"
- Connect BROWN cord to plug terminal marked letter "L"
- Connect BLUE cord to plug terminal marked letter "N"

We recommend that this machine is connected to the mains supply through a Residual Current Device (RCD).

## FUSE RATING

The fuse in the plug for this appliance must be rated at **13 amps**

**IMPORTANT:**

**If this appliance is fitted with a plug which is moulded onto the electric cable (i.e non-rewirable):**

1. **The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.**
2. **Never use the plug without the fuse cover fitted.**
3. **Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).**
4. **Replacement fuse covers can be obtained from your local dealer or most electrical stockists.**

## EXTENSION CABLES

If an extension cable is used, always ensure it is fully unwound. When used outdoors, ensure the extension cable is specifically designed for outdoor use.

The maximum extension length is 25 metres. Ensure that the wire sizes in the cable are at least 2.5mm<sup>2</sup> in cross section. As a general rule, the extension cable must be thicker than the cable supplied with the washer.

**IF IN DOUBT, CONSULT A QUALIFIED ELECTRICIAN...Do not attempt any repairs yourself.**

## ASSEMBLY AND PREPARATION

The machine is supplied fully assembled except as detailed below.

### Model ELS140

The lance is in two sections, the high pressure hose being integral with the lance handle and trigger assembly.

Assemble by slotting the spigot end of the lance into the handle assembly. Push in firmly and twist to lock it in position as shown in Fig. 1.

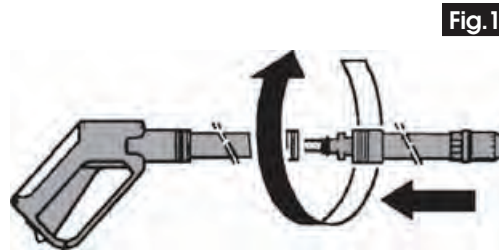


Fig.1

### Model ELS150

The Lance is also in two sections, but assembled by screwing the two halves together. The high pressure hose is screwed to the adapter, just forward of the trigger assembly.



Fig.2

### Model ELS140R

The high pressure hose is fitted to a reel at the back of the machine.

It is necessary to attach the handle to the reel, as shown in Fig.3.

Connect the connecting hose to the inlet on the reel and water outlet on the machine. See parts diagram, p10.

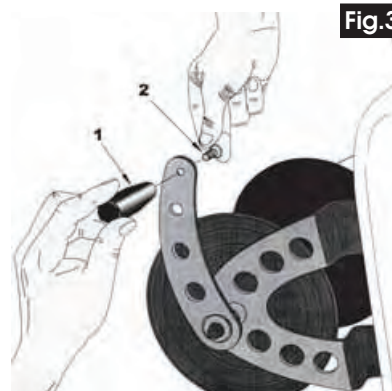


Fig.3

## All Models

Screw the loose end of the high pressure hose from the Lance, into the high pressure outlet at the front of the machine, shown at C Fig. 2.

Take care not to cross thread the fine threads.

The low pressure water inlet, shown at D, Fig. 2, carries a 3/4" BSP thread.

A 3/4" BSP adapter with a 1/2" hose connector is provided, so that a suitable hose (not supplied), may be attached. You may use either a worm drive clip (not supplied), or a snap-on type connector, commonly available from most hardware or DIY stores, to attach the hose, the other end of which should be connected to your water supply.

We recommend that you connect to a supply of CLEAN WATER ONLY.

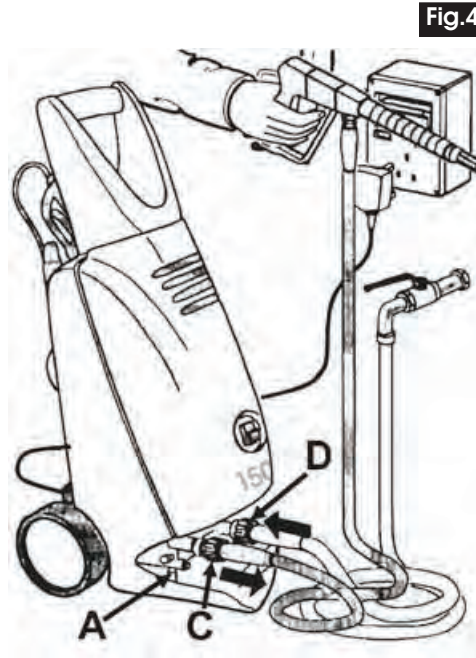


Fig.4

## OPERATION

Make certain the PUMP ON/OFF switch which is located on the front panel, is set to the OFF position.

Connect the plug to the mains supply preferably via a Residual Current Device.

Turn the water tap fully on.

When starting, you should always adopt the following procedure:

1. In order to ease the starting process, and to prevent the possibility of blown fuses, pull the trigger on the lance - it may be necessary to release the safety latch, located in the base of the hand grip, in order to do so.
2. Hold the trigger in that position whilst switching the pump ON, and allow the pump to run for a few moments to develop full pressure
3. You may release the trigger once full pressure is developed. In doing so the pump will stop, and will start again as soon as the trigger is pressed once more.

**NOTE: For the reasons given above, it is recommended that you ALWAYS set the jet to its LOW PRESSURE setting before switching ON. This is achieved as follows:**

## ELS 140

Water pressure is regulated by turning the adjuster at the nozzle end of the lance, (as shown by the arrows on the ferrule), ANTICLOCKWISE to INCREASE pressure and CLOCKWISE to DECREASE, (looking from the handle end).

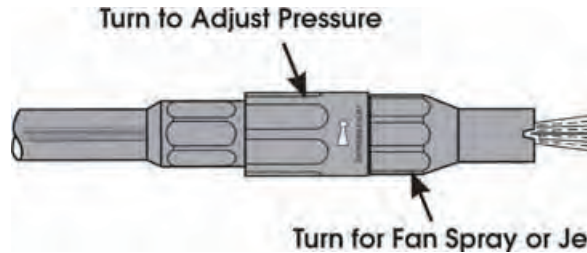


Fig.5

If you desire a fan spray, turn the nozzle fully anticlockwise - for a high pressure pencil jet, turn it fully clockwise.

## ELS 150

As illustrated in Fig. 6, turn the grip for high and low pressures...

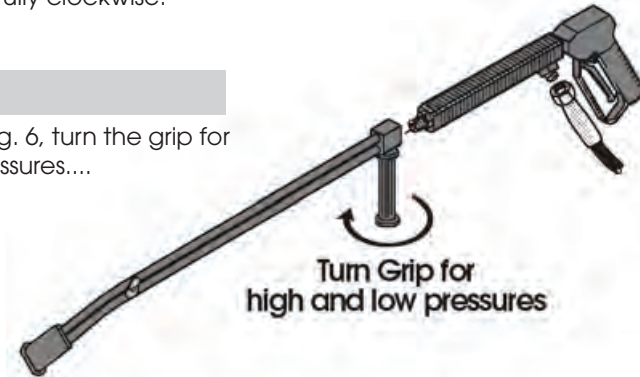


Fig.6

In the event that you switch the machine OFF, but intend to continue with its use after a few minutes or so, DO NOT depress the trigger, but set the safety latch to prevent it from being accidentally pulled. This will ease and assist the subsequent restarting of the motor as pressures will remain equalised on either side of the pump, thereby reducing the load on the motor when restarting.

NEVER attempt to run the machine with water supply disconnected or turned off.

It is recommended that whenever possible, a screen or partition be erected between the washer and the wash area, to prevent accidental spraying of the machine. Any moisture entering the machine could cause serious damage.

### WARNING

Ensure the operator is aware that when the trigger is pulled, water at high pressure can cause the lance to kick - it should therefore be held firmly. In addition, care must be taken to ensure that the nozzle is NOT aimed at an area where the water jet will cause damage, i.e. away from people, animals, windows - greenhouses etc., and be aware that splash back could also cause damage if the jet is trained on a nearby wall etc.



## CHEMICAL INJECTION FACILITY

**IMPORTANT: The chemical injection facility will ONLY operate at LOW pressure.**

If you intend to use the chemical injection facility, fill the detergent tank with the requisite detergent. The filler cap is located directly beneath the handle

Alternatively, provision is made so that an external source of detergent may be used. To do this, first disconnect the hose from the reservoir to the pump, at the pump connection shown at A, fig. 4 and also at A in fig. 6, and in its place, connect the length of hose supplied and lower it into a drum of detergent.

The amount of detergent that enters the system may be regulated by turning the knob shown at B, fig. 6. The total movement of the knob is approx. 1/8 of a turn from Max. to Min.

**Max. provides a mixture strength of approx. 15:1...Min-approx. 1000:1.**

Use ONLY those detergents specifically designed for use with Power Washers. We recommend the use of CLARKE Traffic Film Remover, which is a powerful low foaming agent for car cleaning, patio cleaning etc., or CLARKE Wash & Wax, both available from your CLARKE dealer.

**IMPORTANT: Ensure you read and comply with the manufacturers instructions regarding the use of chemical detergents.**

## SHUTTING DOWN THE MACHINE

If the chemical injection facility has been used, turn the pressure adjuster on the end of the lance to HIGH pressure, and allow the pump to run for a minute or so until the water being ejected is foam free, then switch OFF the pump.

Disconnect from the mains electrical supply, and turn OFF the water supply - disconnect where appropriate.

**IMPORTANT:**

**ALWAYS operate the lance trigger once more to ensure there is no pressure in the high pressure hose. NEVER disconnect the high pressure hose without first pulling the trigger.**

Fig.6



## MAINTENANCE

### WARNING:

Ensure the plug is removed from the socket before carrying out any adjustment, servicing or maintenance.

### AFTER EACH USE

When using chemical detergents, always ensure the system is thoroughly flushed out after use as described above.

Ensure the hoses and power cable are coiled and properly stowed. DO NOT allow them to be left casually, in a heap. This invites damage and will cause rapid deterioration.

### STORAGE

Store the Washer in a vertical position, preferably under cover, protected from the elements.

If there is a danger of freezing, the pump should be filled with antifreeze by inserting the inlet and outlet hoses into a bucket of antifreeze as shown in fig. 7.

Start the machine and allow the antifreeze to circulate. After a short time stop the machine using the procedure outlined on page 9, and store the machine with the antifreeze still within the pump body.

#### NOTE:

*If you experience difficulty in starting the motor following a long period of storage, it is possible that the seals within the pump have dried out and are gripping the pistons. This problem may be alleviated by storing the machine with antifreeze within the pump body, as described above.*

If the seals are stuck however, disconnect the machine from the electrical and water supply's, and proceed to free them as follows:

Remove the front cover by unscrewing the three securing screws, one at the top, centre (A fig. 7), and one at either side at the bottom (B, fig. 7), to reveal the motor.

On the top of the motor is a circular plastic grill, covering the motors' fan. In its' centre is a hole, through which can be seen the head of a hex. socket head screw.

Insert a hex. wrench (not supplied), through the hole, into the screw head, as shown in fig.8, and turn the motor a turn or two to free it. It should now be possible to start in the normal way.

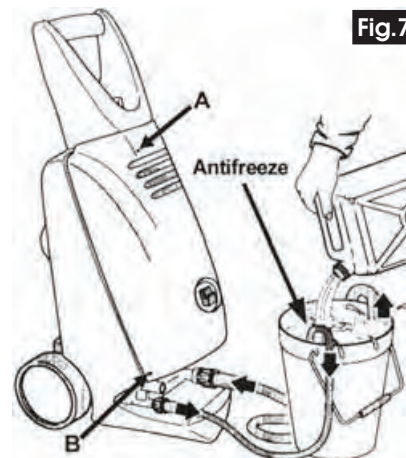


Fig.7

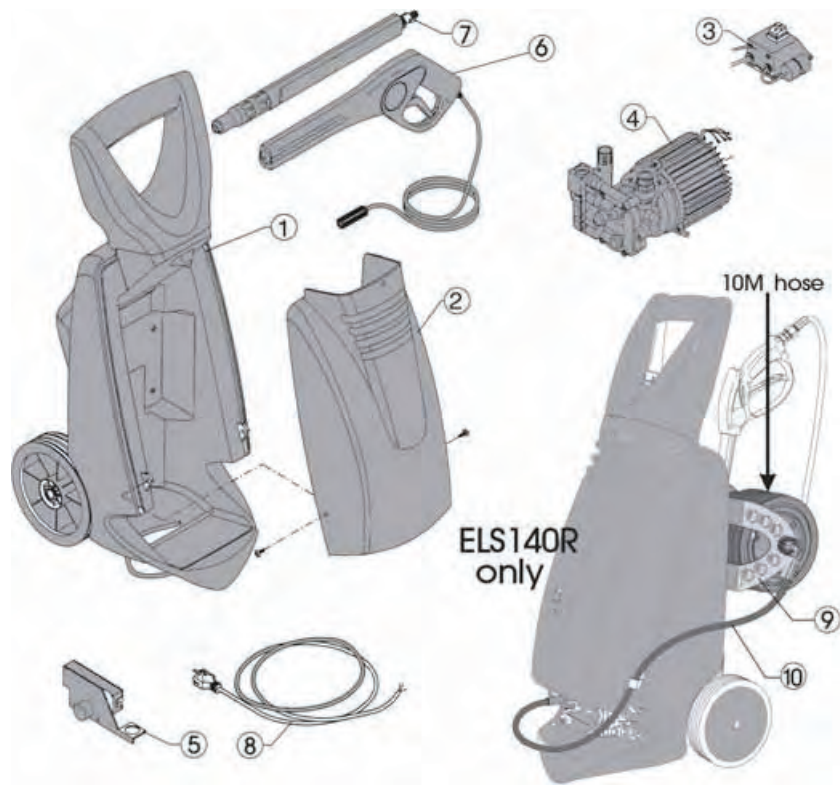


Fig.8

## TROUBLE SHOOTING

FAULT	CAUSE	REMEDY
Pressure drop	<ol style="list-style-type: none"> <li>1. Air in system</li> <li>2. Worn high pressure nozzle.</li> <li>3. Pressure regulator incorrectly set</li> </ol>	<ol style="list-style-type: none"> <li>1. Bleed system by quickly operating trigger several times. If necessary operate the machine briefly without the high pressure hose connected.</li> <li>2. Renew nozzle</li> <li>3. Set to required working pressure by turning press. adjuster. (see p8.)</li> </ol>
Pressure fluctuations or pressure drop	<ol style="list-style-type: none"> <li>1. No water</li> <li>2. Water supply hose too long/too small diameter</li> <li>3. No water due to clogged inlet filter</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on water tap</li> <li>2. Use min. 1/2" dia. water supply hose</li> <li>3. Clean water filter</li> </ol>
Oil leak	Worn seals	Contact your CLARKE Dealer
Motor does not start when switched on*	<ol style="list-style-type: none"> <li>1. Plug is not connected properly.</li> <li>2. Mains fuse tripped/blown</li> </ol>	<ol style="list-style-type: none"> <li>1. Check plug and lead and have them replaced by a qualified electrician if necessary</li> <li>2. Renew fuse or reset.</li> </ol>
Motor hums when trigger operated and does not start	<ol style="list-style-type: none"> <li>1. Mains voltage too low</li> <li>2. Incorrect dia cable resulting in voltage drop</li> </ol>	<ol style="list-style-type: none"> <li>1. Have electrical connection checked</li> <li>2. Use correct dia. cable</li> </ol>
Motor cuts out - trigger open	<ol style="list-style-type: none"> <li>1. Motor protection switch has been activated due to overheating or motor overload.</li> <li>2. Nozzle partly clogged</li> </ol>	<ol style="list-style-type: none"> <li>1. Ensure supply voltage and unit voltage are equal. Switch off and allow to cool for at least three minutes</li> <li>2. Clean using the supplied nozzle cleaning needle</li> </ol>
Additives are not being supplied	<ol style="list-style-type: none"> <li>1. Additive container empty</li> <li>2. Lance not correctly set</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill additive container</li> <li>2. Put lance on low pressure setting</li> </ol>

\* If the washer is switched OFF and then switched back ON, when there is still pressure in the pump (i.e. without operating the trigger), the pump will not start until such time that the trigger is pulled.



## PARTS LIST

Item	Description	Part No.
1	Frame	FPELS14001
2	Cover	FPELS14002
3	ON/OFF switch box compl.	FPELS14003
4	Motor w/Pump Assy. (ELS140)	FPELS14004
4	Motor w/Pump Assy. (ELS150)	FPELS15004
5	Hydraulic cut out	FPELS14005
6	High Press. Hose w/Gun assy. (ELS140)	FPELS14006
6	High Press. Hose w/Gun assy. 10M (ELS140R)	FPELS140R06
6	High Press. Hose w/Gun assy. (ELS150)	FPELS15006
7	Lance (ELS140)	FPELS14007
7	Lance (ELS150)	FPELS15007
8	Mains Cable complete	FPELS14008
9	Hose Reel complete	FPELS14009
10	Connecting Hose	FPELS14010

## ACCESSORIES

A range of accessories designed for use with your washer are available from your CLARKE dealer, as follows:

ELS140	Part No.
Rotary Brush .....	7310010
Turbo Nozzle .....	7310000
Car Brush .....	7310020
Water Sandblaster .....	7310015
Drain Cleaner .....	7310025
Foam Lance with Detergent Bottle .....	7310118
Traffic Film Remover 5 litre concentrate .....	3050821
Traffic Film Remover 25 litre concentrate .....	3050820
Wash 'n Wax 5 litre .....	3050815
Sand for Sandblaster .....	7320005



Drain Cleaner



Rotary Brush



Car Brush



Sand Blaster



Foam Lance w/Detergent Bottle

ELS150	Part No.
Rotary Brush .....	7310107
Water Sandblaster .....	7310108
Drain Cleaner .....	7310109
Traffic Film Remover 5 litre .....	3050821
Traffic Film Remover 25 litre .....	3050820
Wash 'n Wax 5 litre .....	3050815
Sand for Sandblaster .....	7320005

# Clarke<sup>™</sup> INTERNATIONAL

This is an important document and should be retained

## DECLARATION OF CONFORMITY



We declare that this product complies with the following standards/directives:


- 98/37/EEC
- 89/336/EEC
- 73/23/EEC
- 2000/14/EC

Sound Power Level: Guaranteed	ELS140	ELS150
	79dB <sub>LWA</sub>	78dB <sub>LWA</sub>

Description: **POWER WASHER**

Model No: **ELS RANGE**

Serial (Batch) No: **See Product Date Plate**

Signed: 

**Clarke** INTERNATIONAL  
Hemnal Street, Epping, Essex CM18 4LG