Clarke®

PUMP



NON-SUBMERSIBLE WATER PUMP

MODEL NO: CEB103A

PART NO: 7230328

OPERATION & MAINTENANCE INSTRUCTIONS

UK CA | CE

ORIGINAL INSTRUCTIONS

DL0926 Rev 1

INTRODUCTION

Thank you for purchasing this CLARKE Water Pump, which is a general purpose pump, suitable for a variety of applications involving the transfer of clean, cold water ONLY.

To help ensure long, trouble free performance and the protection afforded by the warranty, please follow carefully all the instructions and recommendations given in this booklet.

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.

ENVIRONMENTAL RECYCLING POLICY



Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

SAFETY PRECAUTIONS

1. Ensure the pump is installed in a horizontal position with the outlet facing vertically upwards, and that it is firmly anchored via its fixing screws.
2. Ensure there is an adequate air flow around the pump. **DO NOT** mount it in an enclosed atmosphere.
3. Ensure all water pipes - supply or discharge, are adequately supported where necessary, so as not to put a strain on the pump connections.
4. **DO NOT** allow the pump to run dry, as this will cause serious damage to the pump seals.
5. Ensure the inlet to the pump is completely unrestricted.
6. Ensure the pump is protected from the elements, neither the motor nor the electrical terminal box is intended to be waterproof.
7. Ensure that all pipes are protected against damage where necessary, and that they are suitably lagged to avoid the possibility of freezing during cold weather.
8. **DO NOT** attempt to pump water when the ambient temperature is greater than 40ºC or the water temperature is greater than 40ºC or less than 0ºC.
9. **DO NOT** use this pump for pumping anything other than CLEAN WATER.
10. **DO NOT** wrap the pump motor or pump head in cold conditions in the mistaken belief that this will stop the pump from freezing.
11. ALWAYS install a foot valve/filter when lifting water (suction lifting) Foot filters are available from your CLARKE dealer.

ELECTRICAL CONNECTIONS

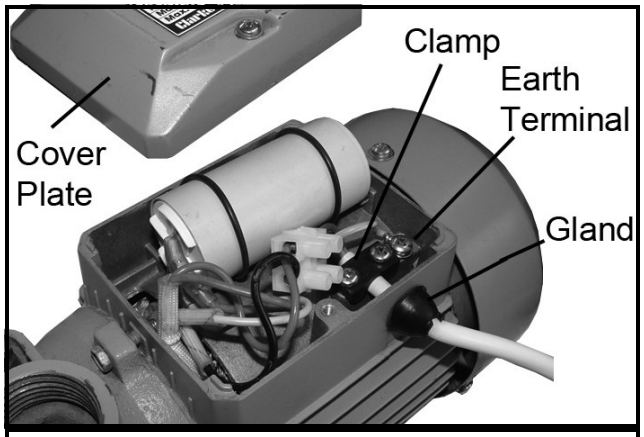
WARNING! READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.

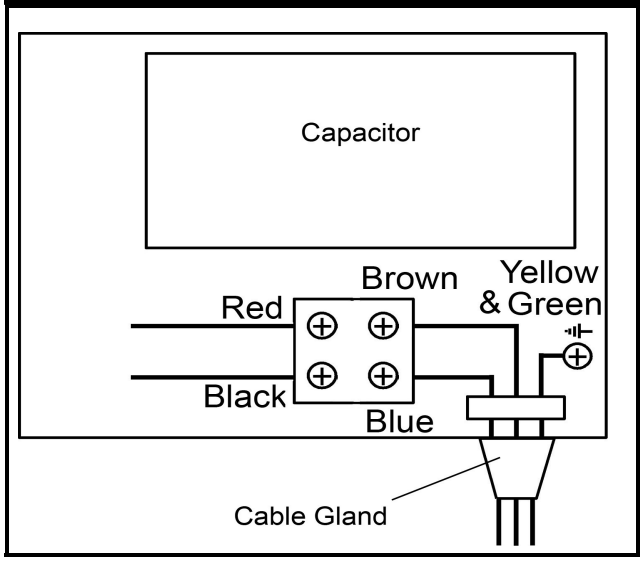
The CEB103A pump will need to be fitted with a minimum 1.5m length of 1.5mm^2 flexible cable and a BS1363 approved plug. The plug will require connection to the cable in accordance with the diagram on page 6.

FITTING THE CABLE

DO NOT attempt electrical installation work if you are in any doubt as to how it should be done correctly. Consult a qualified electrician.

The pump must be wired according to the diagram, after removing the cover plate, ensuring the following principles are observed:





- The cable used must be the correct size to ensure it is a tight fit in the cable gland.
- Ensure the cable gland is correctly used. The clamp must firmly hold the outer cable sheath and not the wires.
- Ensure the earth wire is correctly connected to the earth terminal.
- The bare earth wire should be wrapped around the body of the screw, positioned between the two washers and the screw suitably tightened.

FITTING THE PLUG

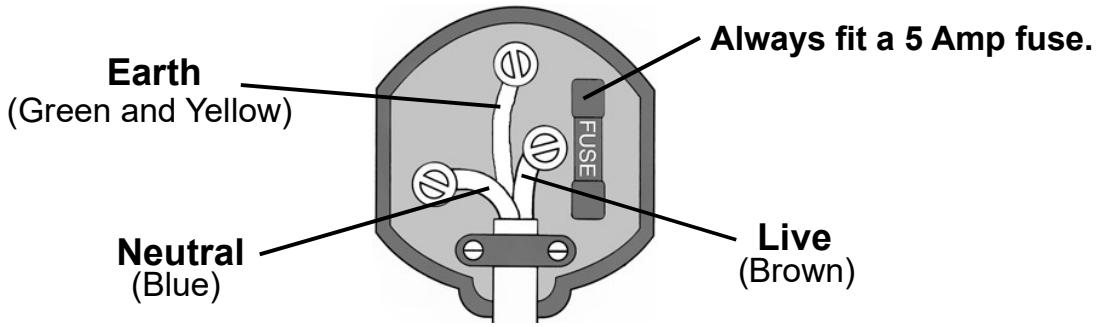
WARNING! THE WIRES IN THE POWER CABLE SHOULD BE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
(Blue = Neutral Brown = Live Yellow and Green = Earth

To ensure that the colours of the wires in the power cable correspond with the markings on the terminals of your plug, proceed as follows.

- The wire which is coloured **Blue** must be connected to the terminal which is marked **N** or coloured **Black**.
- The wire which is coloured **Brown** must be connected to the terminal which is marked **L** or coloured **Red**.
- The wire which is coloured **Yellow and Green** must be connected to the terminal which is marked **E** or ⏚ or coloured **Green**

.

Plug must be BS1363/A approved.



Ensure that the outer sheath of the cable is firmly held by the clamp

- Before switching the product on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This product is designed to operate on 230VAC 50Hz. Connecting it to any other power source may cause damage.

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

If in any doubt, consult a qualified electrician. **DO NOT** attempt any connections yourself.

WATER CONNECTIONS

IMPORTANT: The pump must not be connected to the power supply until the hose/pipe installation is completed.

If any part of the system is to be connected to the mains water supply, ensure that you comply with your local water authority regulations.

Because of the variety of possible installations, no plumbing accessories are supplied as standard with your pump. However, accessories designed specifically for this range of pumps are available from your CLARKE dealer and are listed on page 7.

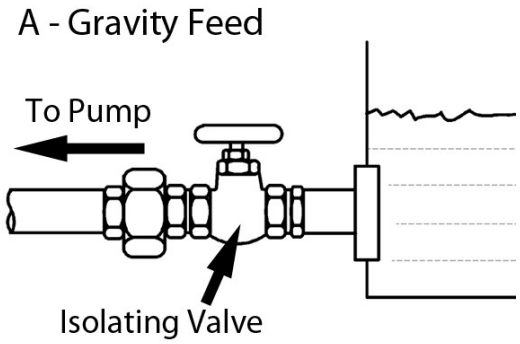
The pump must always be installed and operated in a horizontal position i.e. with the outlet port facing vertically upwards. The fixing holes in the base should be used as necessary to secure the pump firmly in its operating position. Also, ensure that there is adequate air circulation around the motor.

Avoid situations where there is the risk of water coming into contact with the outside of the pump. Neither the motor or the terminal box are intended to be waterproof.

These notes are for guidance on how to achieve a proper working system.

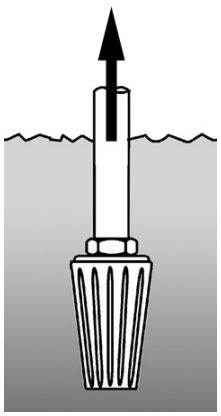
The schematic diagrams illustrate possible methods of pipework installation. Water intake can be by means of either:- A. Gravity Feed or B. Suction Lift.

Water being taken in by the pump should, whenever possible, be fed by means of gravity (Method A). However, if this is not possible then water may be drawn from a lower level by means of suction (Method B).



The suction lift i.e. the vertical distance between the water level and the pump should not exceed distance specified for your pump (see Specifications).

When using this method, a foot valve, must be fitted to the lower end of the suction hose, (as illustrated), so as to help retain water in the suction system.



The delivery head i.e. the vertical distance between the pump and the point of discharge should be at least 5 feet. If this cannot be achieved naturally, then it can be simulated by restricting the outlet flow from the pump.

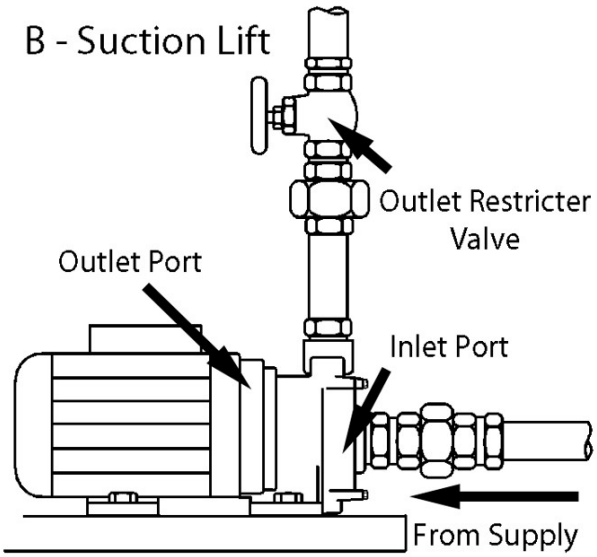
The illustration shows a Isolating valve installed in-line on the delivery side of the pump which can be set as required to regulate the flow of water.

Do not place any such restriction on the suction side of the pump unless it serves only to isolate a gravity fed water supply.

To prevent unnecessary strain or possible distortion to the pump, ensure that adequate support is provided to the hoses and/or pipes. Remember they will be considerably heavier when filled with water.

Should sand, chemical or other contaminant come into contact with the pump, flush through with cold clean water as soon as possible.

Protect the pump and pipework from freezing. The formation of ice may cause serious damage.



PRIMING

When suction lift is used to draw water into the pump it is essential that all connections and hoses are completely air tight, otherwise the system will not work.

Before pumping will start it is necessary to completely fill the suction side with water. This is known as priming the pump and is carried out as follows:-

1. With the pump, all pipes/hoses and the foot valve in position, unscrew the priming plug (small hexagon nut on top of pump body, adjacent to the pump outlet and fill to capacity with clean water. Replace the priming plug.

NOTE: As the filler hole is quite small, it is recommended that you fill the inlet pipe with water before it is connected to the pump, and top up through the filler plug once the pipe is connected.

2. Adjust any device which may be fitted to the outlet side of the pump, so as to ensure as great a flow as possible.
3. Switch on the pump. Water should start to flow through the system. Check for leaks and adjust the flow if necessary using the gate valve (or other type of restriction) on the delivery side of the pump. Remember that some resistance head) is required on the outlet side of the pump to prevent motor overload.

TROUBLESHOOTING

If the system is set up properly, there is little likelihood of problems arising, but if water will not flow as it should then check the following points:-

Should you still experience problems, then contact your Clarke dealer, or Contact CLARKE International Service Department for advice.

Trouble	Cause	Counter Measure
Motor does not start	Thermal Protector	If the motor is overheated, it does not operate. Then, wait till getting cold (20-30 Mins.)
	Faulty Cord Connection	Insert the plug securely
	Cord Disconnected	Replace the new cord
	Trouble in motor	Repair or replace the motor
	Tool low power supply voltage	Confirm the power supplies compare
Water is not pumped out, although motor runs	Water level of well is lower than standard level	Check the water level of well
	Trouble in foot valve	Clean the foot valve, the foot valve seat and the foot valve hole
	Air drawn into suction pipe	After checking the joints of the piping, shut them perfectly
	Air drawn into pump from mechanical seal	Replace with new mechanical seal
Thermal protector for motor works too often	Too low or high power supply voltage	Confirm the power supplies compare
	Impeller is in contact with another part	Repair the defect
	Short or open circuit of the capacitor	Replace the capacitor
Water does not come out in the first few minutes after switch on	Air drawn into suction pipe	Repair the defects of the pipe
Pump starts though no water is being used	Water leak at pipe or pump	repair pipe, pump parts and faucets etc.
Water does not come out immediately after switch on	Water leaks at mechanical seal	Repair the mechanical seal
	Foot valve does not shut perfectly	Clean the foot valve
	Air drawn into suction pipe	Repair the defect

ACCESSORIES

1” Foot Valve Filter	7950561
1” BSP Spigot Hose Connector	7950210
1” I.D. Reinforced Hose for suction and delivery	7955010
1” I.D. Lay-flat Hose for delivery only	7955110

MAINTENANCE

The only maintenance required is a regular inspection to ensure that debris is not blocking the passage of water through the pump.

If you suspect the pump is blocked by silt, leaf debris etc, disconnect it from the power supply and back-flush to clear any blockage using a hose. You will need to disconnect the outlet hose to do this.

If the pump has not been used for some time it may become stuck but can often be freed by twisting the main shaft using the screw for that purpose, located in the end of the shaft.

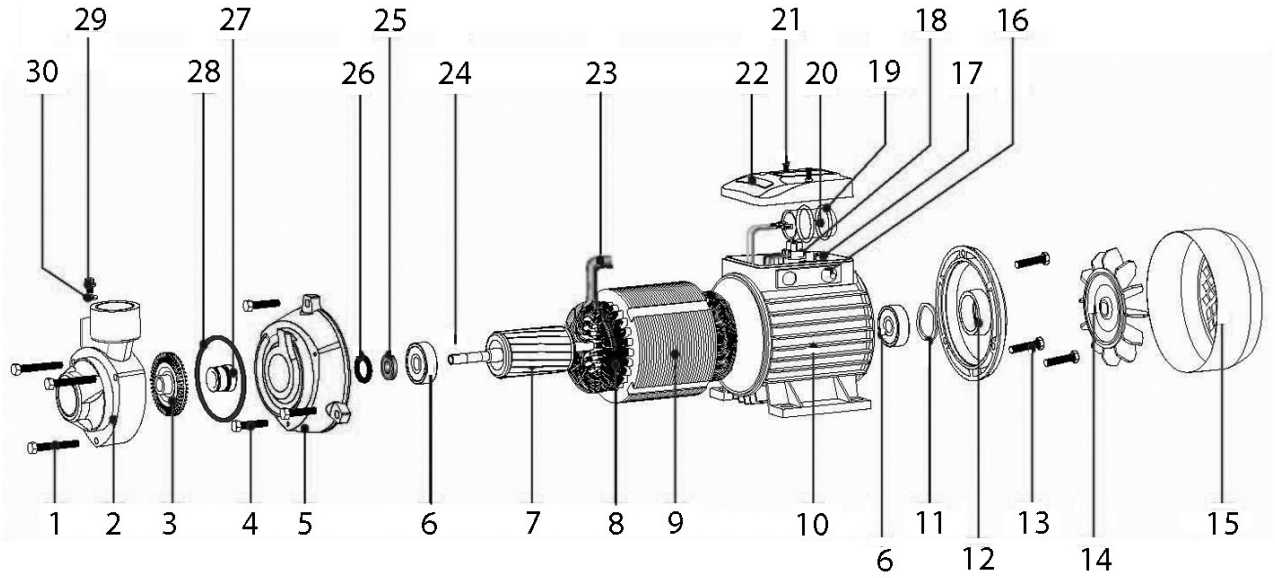
Always keep the pump in a clean condition, checking regularly for loose bolts or a damaged power cable etc. The pump should not be taken apart by the user in the case of overhaul being required, but should be taken to your nearest Clarke dealer for specialist repair.

SPECIFICATIONS

Motor	450W, 230V 50Hz 1ph
Max. Head	35 m
Max. Suction Lift	8 m
IP Rating	IPx4
Max. Temperature or liquid being pumped	40^{o} C
Bore Size	1”BSP
Max. Output	36 litres/min
Guaranteed Sound Power Level LWA	77 dB
Duty Cycle	S1 - Continuous
Weight	5.4 kg

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 pump’s data plate.

PARTS LIST AND DIAGRAM



No	Description
1	Screw
2	Pump Body
3	Impeller
4	Screw
5	Motor Front Cover
6	Ball Bearing
7	Motor Rotor
8	Stator Coil 1
9	Stator
10	Motor Body
11	Spring Washer
12	Motor End Cover
13	Screw
14	Fan
15	Fan Cover

No	Description
16	Cable Seal
17	Power Cable Lock
18	Terminal Block
19	Seal
20	Capacitor
21	Screw
22	Terminal Cover
23	Connector Wire
24	Shaft Key
25	Shaft Seal
26	"O" Seal
27	"O" Seal
28	Mechanical Seal
29	Plug Screw
30	Seal

DECLARATION OF CONFORMITY

UK CA

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DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation:		**The following standards have been applied to the product(s):**
2000/14/EC	*Outdoor Noise Directive*	*EN IEC 60335-2-41:2021+A11:2021, IEC 62321-5:2013, IEC 62321-6:2015, EN 62233:2008,*
2014/30/EU	*Electromagnetic Compatibility Directive*	*EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021+A16:2023,*
2006/42/EC	*Machinery Directive*	*EN IEC 61000-3-2:2019+A1:2021+A2:2024, EN IEC 55014-1:2021, EN IEC 55014-2:2021,*
2011/65/EU	*Restriction of Hazardous Substances (RoHS) Directive*	*EN 61000-3-3:2013+A1:2019+A2:2021, IEC 62321-3-1:2013, IEC 62321-7-1:2015,*
		EN ISO 12100:2010, EN ISO 3744:2010, IEC 62321-8:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2026

Manufacturer:	Clarke International Ltd, Hemnall Street, Epping, Essex, CM16 4LG, United Kingdom	**Notified Body:**	N/A
Product Description:	Water Pump	**Assessment Procedure:**	Annex V of above noise legislation
Model Number(s):	CEB103A	**Measured LWA:**	72.60 dB
Serial/Batch Number:	Refer to product/packaging label	**Guaranteed LWA:**	75 dB
Document Holder:	Alan Pond	**Signed:**	**J.A Clarke**
Date of Issue:	26/05/2026		**Director**

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CE

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DECLARATION OF CONFORMITY

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2006/42/EC	*Machinery Directive*	*EN IEC 61000-3-2:2019+A1:2021+A2:2024, EN IEC 55014-1:2021, EN IEC 55014-2:2021,*
2011/65/EU	*Restriction of Hazardous Substances (RoHS) Directive*	*EN 61000-3-3:2013+A1:2019+A2:2021, IEC 62321-3-1:2013, IEC 62321-7-1:2015,*
		EN ISO 12100:2010, EN ISO 3744:2010, IEC 62321-8:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2026

Manufacturer:	Clarke International Ltd, Fitzwilliam Hall, Fitzwilliam Place, Dublin 2, Republic of Ireland	**Notified Body:**	N/A
Product Description:	Water Pump	**Assessment Procedure:**	Annex V of above noise legislation
Model Number(s):	CEB103A	**Measured LWA:**	72.60 dB
Serial/Batch Number:	Refer to product/packaging label	**Guaranteed LWA:**	75 dB
Document Holder:	Alan Pond	**Signed:**	**J.A Clarke**
Date of Issue:	26/05/2026		**Director**

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