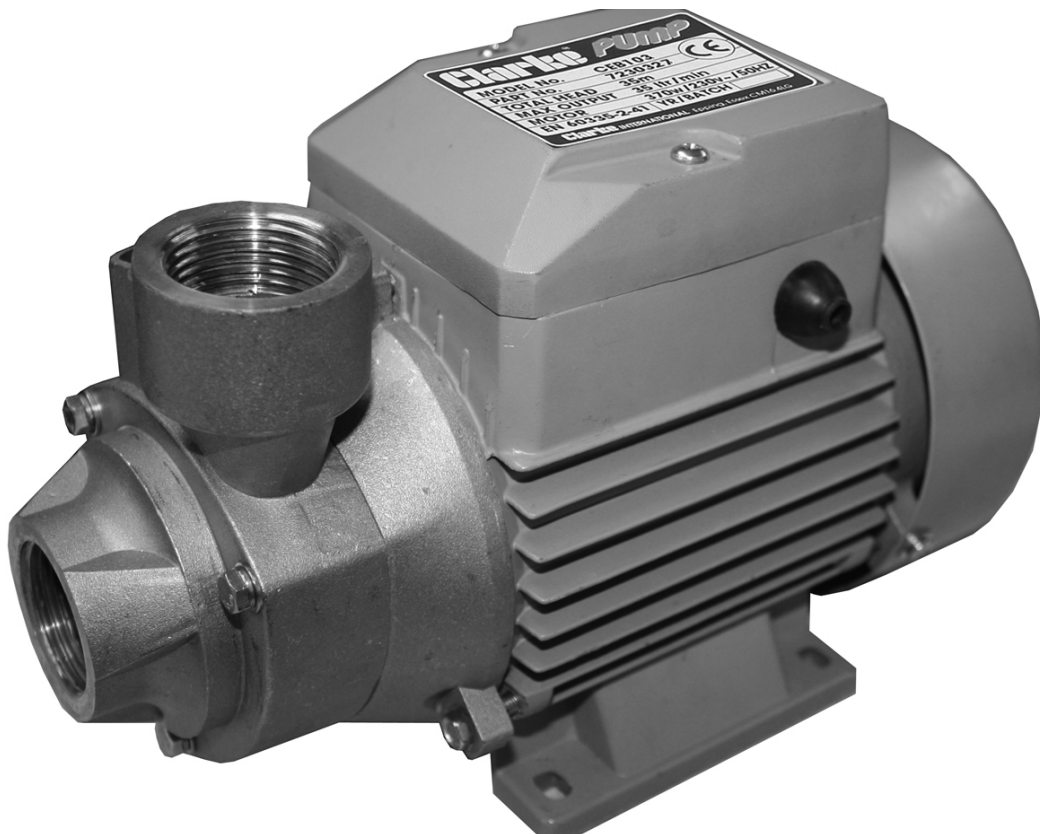


Champion® PUMP



NON-SUBMERSIBLE WATER PUMP

MODEL NO: CEB103

PART NO: 7230327

OPERATION & MAINTENANCE INSTRUCTIONS

UK | **CE**



ORIGINAL INSTRUCTIONS

DL0822 - REV 4

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.

SPECIFICATIONS

Motor	370W, 230V 50Hz 1ph
Max. Head	35 m
Max. Suction Lift	8 m
IP Rating	IPx4
Max. Temperature or liquid being pumped	40° C
Bore Size	1" BSP
Max. Output	35 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.

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 40°C or the water temperature is greater than 40°C or less than 0°C.
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.

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.

ELECTRICAL CONNECTIONS

WARNING: THIS PRODUCT MUST BE EARTHED.



It is strongly recommended that installation should only be carried out by a qualified electrician in accordance with I.E.E. Regulations. However, in the further interests of safety we would emphasize the following.

This pump should be connected to a standard domestic 230 volt (50Hz), electrical supply and we strongly recommend that the connection be made via a Residual Current Device (RCD) and a suitably rated circuit breaker.

IMPORTANT: Should the supply be taken from a normal 13 amp socket, then the plug used must be to BS 1363 standard, and the cable conductors should be connected in accordance with the following colour code:

Green & Yellow - Earth or marked with a letter "E" or Earth symbol "⏚".

Blue - Neutral or terminal marked with a letter "N".

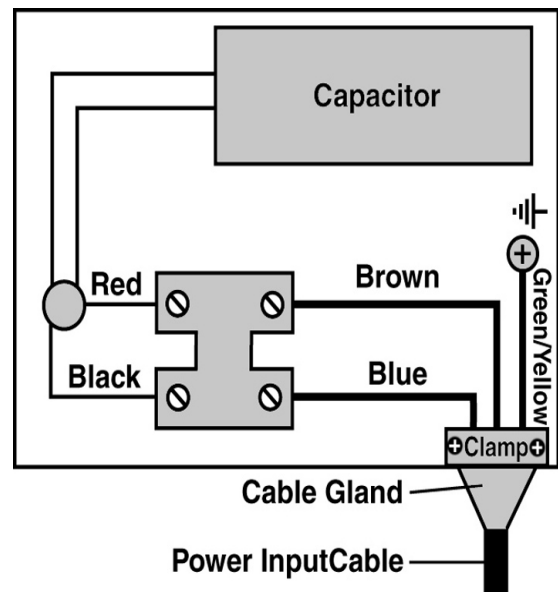
Brown - Live or terminal marked with a letter "L".

FUSE RATING

The fuse in the plug must be rated at 5A.

The pump MUST be wired according to the diagram on the right, and ensuring the following precautions are observed:

1. The cable used must be of such size to ensure a tight fit in the cable gland.
2. Ensure the cable gland is correctly used. The clamp must firmly clamp the outer cable sheath and NOT the conductors.
3. Fit a crimp style ring terminal to the earth wire and make sure that it is correctly connected to the earth terminal. The ring terminal should be placed between the two washers, and the screw suitably tightened.



WARNING: DO NOT ATTEMPT ELECTRICAL INSTALLATION WORK IF YOU ARE IN ANY DOUBT AS TO HOW IT SHOULD BE PROPERLY CARRIED OUT. CONSULT A QUALIFIED ELECTRICIAN.

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.

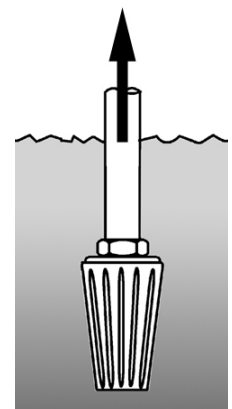
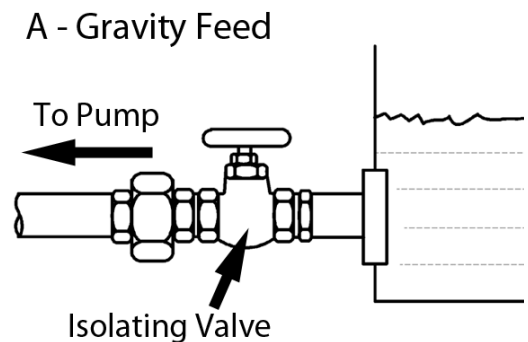
Water being taken in by the pump should, whenever possible, be fed by means of gravity (Method A). However, if this is not possible then water may be drawn from a lower level by means of suction (Method B).

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:-

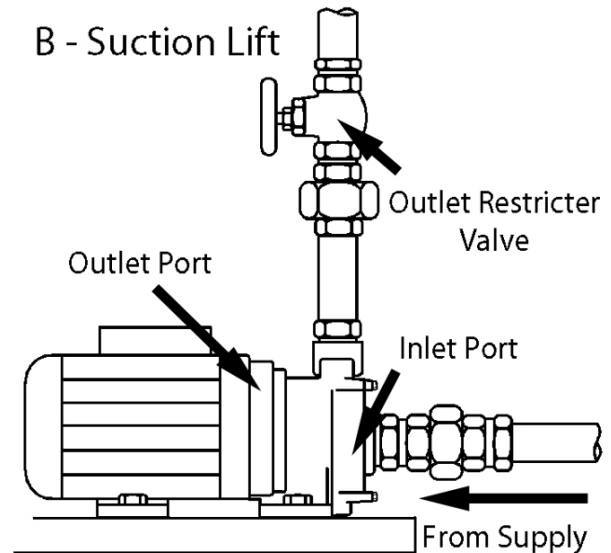
1. With the pump, all pipes/hoses and the foot valve in position, unscrew the priming plug (small hexagon nut on top of pump body, adjacent to the pump outlet and fill to capacity with clean water. Replace the priming plug.

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:-



1. The suction hose and connections including the filler plug need to be completely air tight, otherwise air will be drawn in and either reduce or completely stop the flow of water.
2. Ensure that the system has been fully primed with water up to the level of the filler plug.
3. Check to see that no foreign matter is fouling the intake system and check the filter is not blocked or obstructed.
4. Check that the vertical height between the level of the water intake and the ultimate discharge point does not exceed 35 metres. If this should be the case then the height must be reduced.

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

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. Layflat Hose for delivery only	7955110

MAINTENANCE

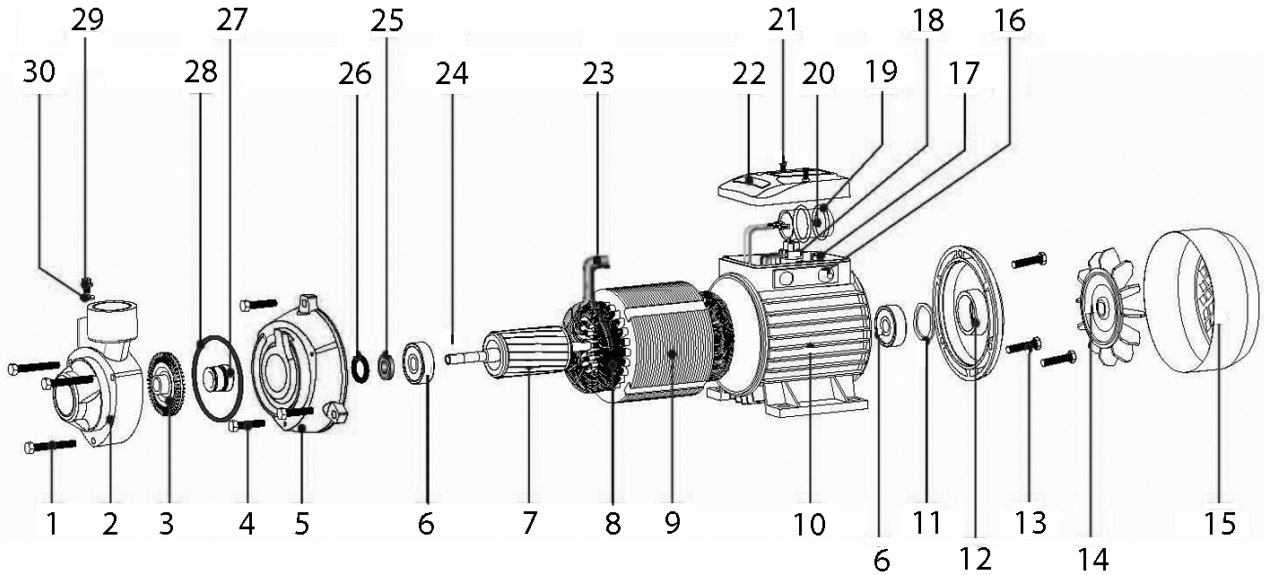
The only maintenance required is a regular inspection to ensure that debris is not blocking the passage of water through the pump.

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.

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



Hemroll Street, Epping, Essex CM16 4LG

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following statutory requirement(s):

- Electromagnetic Compatibility Regulations 2016
- Electrical Equipment (Safety) Regulations 2016
- The Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment Regulations 2012
- Noise Emissions in the Environment by Equipment for Use Outdoors Regulations 2001

The following standards have been applied to the product(s):

- EN 55014-1:2017 + A11:2020, EN 55014-2:2015, EN 61000-3-2:2014, EN IEC 61000-3-2:2019, EN 61000-3-3:2013 + A1:2019, EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019, EN 60335-2-41:2003 + A1:2004 + A2:2010, EN 62233:2008, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-8:2017, EN ISO 3744:2010

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: 2022

Product Description: 1" 230V Centrifugal Brass Body Water Pump
Model number(s): CEB103
Serial / batch Number: N/A
Date of Issue: 15/08/22

Signed:

J.A. Clarke
Director



Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following directive(s):

- 2014/30/EU Electromagnetic Compatibility Directive
- 2014/35/EU Low Voltage Equipment Directive
- 2011/65/EU Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment (RoHS) Directive
- 2000/14/EC Outdoor Noise Emissions Directive

The following standards have been applied to the product(s):

- EN 55014-1:2017 + A11:2020, EN 55014-2:2015, EN 61000-3-2:2014, EN IEC 61000-3-2:2019, EN 61000-3-3:2013 + A1:2019, EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019, EN 60335-2-41:2003 + A1:2004 + A2:2010, EN 62233:2008, IEC 62321-3-1:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-8:2017, EN ISO 3744:2010

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

The CE mark was first applied in: 2014

Product Description: 1" 230V Centrifugal Brass Body Water Pump
Model number(s): CEB103
Serial / batch Number: N/A
Date of Issue: 15/08/22

Signed:

J.A. Clarke
Director

ALSO AVAILABLE FROM YOUR CLARKE DEALER

INDUSTRIAL WATER PUMPS - CPE RANGE



Heavy duty self-priming pumps suitable for domestic, agricultural & industrial applications, particularly for boosting mains water pressure and general water transfer.

- 1.5" & 2" models supplied with hose couplings
- Output up to 800 litres/minute
- Head up to 18 metres

Model	Volts/ph	Size (BSP)	HP	Max Flow Ltr/min	Max Head	Part No.
CPE15A1	230v/1	1 1/2"	1	325	16M	7120305
CPE15A3	400v/3	1 1/2"	1	325	16M	7120310
CPE20A1	230v/1	2"	2	500	18M	7120315
CPE20A3	400v/3	2"	2	500	18M	7120320
CPE30A1	230v/1	3"	3	800	17M	7120325
CPE30A3	400v/3	3"	3	800	17M	7120330

ELECTRONIC CONTROL UNIT



EPC1000

This in-line device maintains water pressure from booster pumps by instantly sensing water usage and automatically starting or stopping the pump.

- Maintains constant pressure.
- Easy to install.
- Suitable for use with both submersible and surface mounted pumps up to maximum flow 120 litres/minute and maximum operating pressure 8 bar.
- Built-in dry running cut-out and non return valve.
- Manual & auto reset.
- 230 Volt, 1 Phase supply.
- Weight 1.5kg.
- Part No. 7230700

IN-LINE FILTER



In-Line Filter

Top quality filter ideal for use with SPP3 and SPP6 swimming pool pumps. This filter can also be used with many of our other 1" pumps Incl. TAM105, CEB102 CBM100SS, CBM240E, CBM250SS & BPT600, BPT1200SS.

- Includes easy to clean replaceable element.
- Part No. 7175100.

A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS



AIR COMPRESSORS
From DIY to industrial, Plus air tools, spray guns and accessories.

GENERATORS
Prime duty or emergency standby for business, home and leisure.

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Hot and cold, electric and engine driven - we have what you need

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Mig, Arc, Tig and Spot. From DIY to auto/industrial.

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Drills, grinders and saws for DIY and professional use.

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Saws, sanders, lathes, mortisers and dust extraction.

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Cranes, body repair kits, transmission jacks for all types of workshop use.

WATER PUMPS
Submersible, electric and engine driven for DIY, agriculture and industry.

POWERTOOLS
Angle grinders, cordless drill sets, saws and sanders.

STARTERS/CHARGERS
All sizes for car and commercial use.



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