

Clarke®

PUMP



HIGH HEAD DRAINING PUMP

MODEL NO: CHHD830

PART NO: 7230294

OPERATION & MAINTENANCE INSTRUCTIONS

UK
CA | CE



ORIGINAL INSTRUCTIONS

GC08/22

INTRODUCTION

Thank you for purchasing this CLARKE submersible pump.

The CLARKE range of submersible pumps are suitable for discharging pools, ponds, fountains, pits and any waste water drainage. They can handle foul water containing suspended material as stated in the specification. The pumps are not suitable for handling inflammable, corrosive, explosive or dangerous liquids. The pump is water-cooled and does not contain any oil.

High-head pumps are designed to create high water pressure, allowing water to be pumped to great heights, or over long distances. The 'Pump Performance Curve' graph shown, displays the characteristics graphically and describes the relation between the flow-rate and the head for the pump.

The pump is provided with a thermal overload cut-out, so that in the event that the pump becomes overheated (due to becoming blocked etc) it will shut off automatically. When the blockage has been cleared, the thermal cutout will cool down and re-set and the pump can be re-started.

Before attempting to use this product, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the product giving you long and satisfactory service.

SPECIFICATIONS

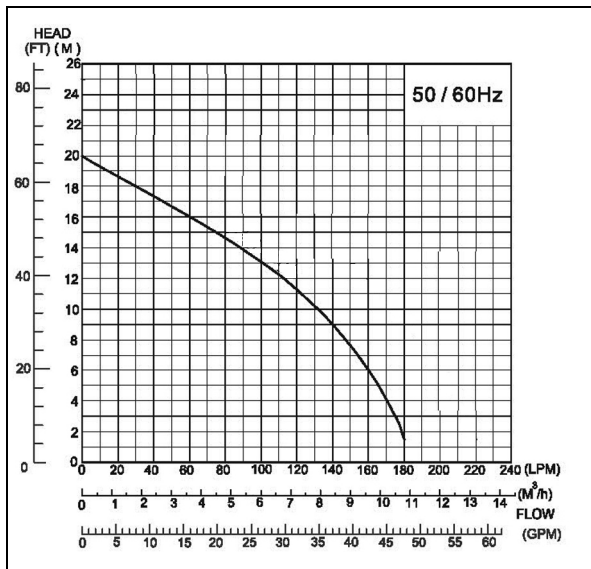
Voltage	230V~50Hz
Max input power	550 W
Output rating	830 W
Maximum Head Height	20 m
Maximum Depth	8 m
Maximum Flow	180 l/min
Maximum Operating Temperature	40°C
Maximum solid body size in suspension	8 mm
Minimum pickup depth	50 mm
Weight	14 kg
Cable Length	10 m
Ingress protection rating	IP68
Dimensions (D x W x H)	220 x 150 x 385 mm
Outlet Thread Diameter	1¼" BSP (32mm thread)

OVERVIEW & FEATURES



1. Water inlet screen
2. Power cable with plug
3. Water outlet elbow
4. Hose adaptor
5. Lifting handle

Pump Performance curve



SAFETY PRECAUTIONS

WORK AREA

1. Keep the work area clean and well lit. Floors should always be kept clear. Cluttered or dark areas invite accidents.
2. Keep children and bystanders away while operating the pump. Distractions can cause loss of control.
3. Remember, the operator or user is responsible for accidents or hazards occurring to other people or their property.

PERSONAL SAFETY

1. ALWAYS stay alert, watch what you are doing and use common sense when operating this pump. DO NOT install the pump while you are tired or under the influence of medication, drugs or alcohol. A moment of inattention can result in personal injury.
2. DO NOT over-reach. Keep your proper footing and balance at all times when positioning the pump.
3. NEVER direct the water discharge towards electrical wiring or equipment.
4. ALWAYS store the pump out of reach of children and do not allow persons unfamiliar with these instructions to operate it.
5. NEVER direct the discharge flow towards another person.
6. ALWAYS thoroughly familiarise yourself with this pump & its operation and follow all instructions in this manual.
7. ALWAYS ensure that the pump is properly positioned where necessary to prevent it from moving during operation, and that the immediate area surrounding the pump is kept clear.

GENERAL USE AND CARE OF THE PUMP

1. An approved Residual Current Device (RCD) must be used when pumping from ponds or swimming pools.
2. ALWAYS lift the pump using the handle and use a rope or chain attached if necessary to lower it into the water. Never lift or carry the pump by the power cable.
3. NEVER use this pump if any part is damaged. Have it inspected and repaired by your local CLARKE dealer.
4. ALWAYS use an extension cable suitable for outdoor use when operating outdoors. Using the correct cable reduces the risk of electric shock.

5. ALWAYS use an approved cable extension suitable for the power rating of the pump (see specifications). The conductor size should also be at least the same size as that on the pump, or larger. When using a cable reel, always unwind the cable completely.
6. ALWAYS maintain the pump with care and keep it clean.
7. NEVER use for pumping flammable liquids or corrosive chemicals. These pumps are designed to pump water only.
8. NEVER abuse the electrical cable. Never use the cable for pulling or unplugging the pump. Damaged or tangled cables increase the risk of electric shock.
9. NEVER run the pump dry. Always ensure the pump is immersed in water before starting. Switch the pump off immediately the task is completed
10. NEVER pump water from a swimming pool when there is a person or animal still in the pool.
11. NEVER install the pump on sand, silt or mud which is likely to shift or collapse.
12. NEVER modify this pump in any way. Use it only for the purpose for which it is designed.

SERVICING & REPAIRS

1. ALWAYS have the pump serviced by your local CLARKE dealer, using only identical replacement parts. This will ensure the safety of the pump is maintained. The use of non standard parts could be hazardous.
2. NEVER attempt any repairs yourself unless qualified. If you have a problem with the pump contact your local CLARKE dealer.
3. ALWAYS disconnect the pump from the electrical supply before placing it into, or removing from the water, and before any cleaning or maintenance.
4. If the power cable becomes damaged, it must be replaced rather than repaired.
5. Your CLARKE water pump has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local 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.

This product contains valuable raw materials. Metal products should be taken to your local civic amenity site for recycling of metal products. Recycle unwanted materials instead of disposing of them as waste. All unwanted accessories and packaging should be sorted and taken to a recycling centre for disposal in a manner which is compatible with the environment.

ELECTRICAL CONNECTIONS




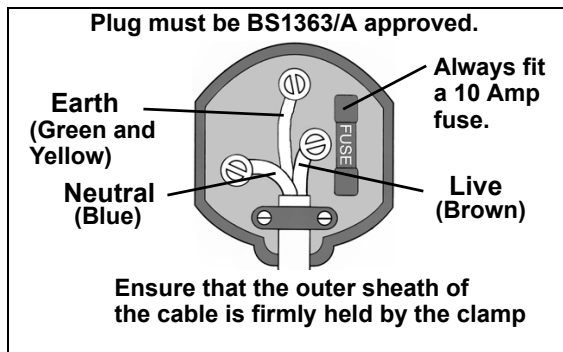
WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.

Connect the mains lead to a standard, 230 Volt (50Hz) electrical supply through an approved BS 1363 plug, or a suitably fused isolator switch.

If the plug has to be changed because it is not suitable for your socket, or because of damage, it must be removed and a replacement fitted, following the wiring instructions shown below. The old plug must be discarded safely, as insertion into a power socket could cause an electrical hazard.

If the colours of the wires in the power cable do not agree with the markings on the plug proceed as follows.

- The BLUE wire must be connected to the terminal marked N or coloured black.
- The BROWN wire must be connected to the terminal marked L or coloured red.
- The YELLOW AND GREEN wire must be connected to the terminal marked E or  or coloured green.



AN APPROVED RESIDUAL CURRENT DEVICE (RCD) WHICH HAS A TRIPPING CURRENT OF LESS THAN 30MA MUST BE USED.

If you are not sure, consult a qualified electrician. DO NOT try to do any repairs.

POSITIONING AND HOSE CONNECTION

Remove all packaging and make sure that the unit contains no visible damage. Dispose of all packaging appropriately.

CONNECTING THE PUMP

1. Connect the hose to the outlet adaptor.
2. Always use the largest diameter hose possible as any restriction will reduce capacity and put unnecessary strain on the motor especially if a long run of discharge hose is being used.
 - The outlet adaptor fitting allows for connection of 32 mm (1¼") hose which should be secured with a hose clamp.
 - Suitable hoses are available from your local CLARKE dealer.

POSITIONING THE PUMP

1. It may be safer to raise and lower the pump into deep water using a rope attached to the lifting handle.
2. Place the pump in a vertical position resting on a firm, flat surface in the area that you want to drain. If there is sediment in the operating area, the pump should be placed vertically on house bricks, or similar but ensure they are not likely to collapse. Never position the pump on sand, silt, mud or ground which is likely to collapse.
3. Route the hose as straight as possible. Excessive bending of the hose could obstruct the flow of water, reduce the pumping volume or clog the pump with mud, thus disabling the pumps function. If the hose is kinked at its base it will create air pockets in the pump, causing it to operate in a partially dry state. Take care to straighten any kinks or bends in the hose.
4. Do not operate the pump if the water is too shallow. This will be below the level of the outlet elbow with the impeller fully immersed.
5. Allowance must also be made for the overall width of the pump including the outlet elbow on one side.
 - When the pump is being used in a permanent or semi-permanent installation, a non-return valve should be fitted in the delivery hose. Suitable hoses and valves are available from your CLARKE dealer.
 - Take all necessary precautions as described on pages 5-6.
 - The pump inlet must be fully submerged before being switched on.

USING THE PUMP



WARNING: CHECK THE PUMP FOR DAMAGE BEFORE USE, DO NOT USE THE PUMP IF IT IS DAMAGED IN ANY WAY.

WARNING: THE WATER BEING PUMPED WILL BE POLLUTED IF THIS PUMP BECOMES DAMAGED AND LUBRICANT WITHIN THE PUMP ESCAPES.

1. Plug in the pump and switch on the power supply.
 - The pump will begin to drain water.
2. Run the pump continuously or remove from the water and store in a frost free location if the water is likely to freeze.
3. Ensure the pump is switched off when water has stopped flowing.
 - The pump should be able to clear water down to a residual depth of the inlet port, In this situation, air and residual water may be seen escaping from the discharge hose.
4. Disconnect from the power supply when the water has been pumped out. Avoid running the pump continuously if the discharge hose has become obstructed and water is not flowing.
5. DO NOT ALLOW THE PUMP TO RUN DRY
6. Disconnect the pump from the mains supply before placing it into or removing it from the water.
7. NEVER insert your fingers into the pump whilst it is connected to the mains.
8. DO NOT use the pump if the water is liable to freeze, as this can cause damage to the pump. Remove the pump from the water and store it in a frost free location.

OVERLOAD PROTECTION

These pumps are fitted with automatic thermal overload protection.

If the pump overheats due to an obstruction in the pump, or pumping warm water for example, it will shut off automatically.

Switch the pump OFF at the mains supply. Check for blockages and allow the motor to cool (at least 5 minutes) by which time the cut-out will have reset.

Once the pump has cooled the pump will automatically restart.

CLEANING, MAINTENANCE & STORAGE



WARNING: MAKE SURE THAT THE PUMP IS DISCONNECTED FROM THE POWER SUPPLY BEFORE CLEANING OR PERFORMING MAINTENANCE

The pump should require no maintenance other than regular inspection and cleaning.

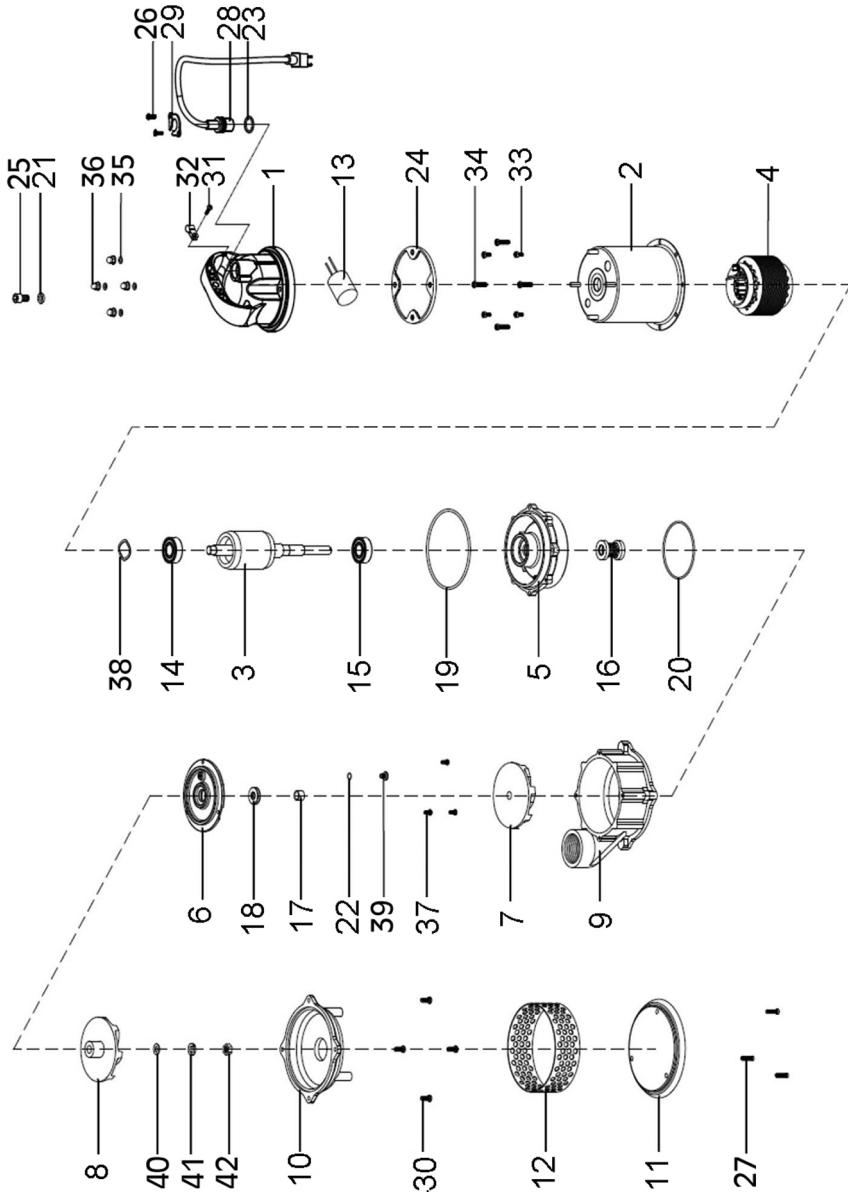
1. Inspect the pump prior to use and DO NOT use the pump if there is any damage to the mains power cable.
2. Check pump regularly to ensure the inlet is clear of leaves or other debris.
 - It can be cleaned out either by back-flushing or by removing the base plate (after undoing the retaining screws) and cleaning out by hand.
3. If the pump has been used for pumping swimming pool water or salt water likely to leave chemical residues, it should be flushed through with clean water before storage.
4. When the pump is not being used for extended periods, clean and dry it thoroughly and store in indoors. If the pump is left in water, it should be run occasionally to prevent it from seizing up.
5. If the pump shows signs of wear or damage, contact your CLARKE dealer for advice. DO NOT attempt to repair the pump yourself, as you may damage the waterproof seals and invalidate your guarantee. Repairs should be carried out by your local CLARKE dealer, or contact the CLARKE Service Department on 020 8988 7400.

TROUBLESHOOTING

PROBLEM	CAUSE AND REMEDY
PUMP WILL NOT START	<ol style="list-style-type: none"> 1. Make sure that the power is switched on. 2. Check fuse (consult an electrician if in doubt). 3. If extension lead is fitted, check connections (consult an electrician if in doubt). 4. Internal thermal cut-out has not re-set. Leave for 5-10 minutes and try again. 5. The impeller may be jammed. Disconnect from the mains supply and remove any objects that may be obstructing the impeller. 6. If the pump still fails to start, consult your CLARKE dealer.
PUMP WILL START BUT NOT PUMP	<ol style="list-style-type: none"> 1. Check that the inlet is not blocked. 2. Check that the discharge tube is not clogged or obstructed. 3. The head may be too great, i.e. you are trying to lift the water too great a distance for the pump to cope with. 4. Air bubbles in the pump, produced during immersion. Immerse the pump again, at an angle, and shake it whilst lowering to remove any air trapped in the system. 5. Impeller may be damaged - Consult your CLARKE dealer.
PUMP STOPS RUNNING	<ol style="list-style-type: none"> 1. Thermal overload has operated. Leave for 5-10 minutes and try again. 2. A foreign object has jammed the impeller.

If this does not solve your problem, please contact the CLARKE Service Department.

COMPONENT PARTS





COMPONENT PARTS

1	Motor cover
2	Motor housing
3	Rotor & shaft
4	Stator and coil
5	Bearing bracket
6	Seal cover
7	Impeller
8	Impeller
9	Upper pump housing
10	Bottom pump housing
11	Base
12	Strainer
13	Capacitor
14	Bearing
15	Bearing
16	Mechanical seal
17	Shaft sleeve
18	Oil seal
19	O-ring
20	O-ring
21	Washer

22	O-ring
23	O-ring
24	Gasket
25	Washer
26	Screw
27	Screw
28	Power cable
29	Cable plate
30	Screw
31	Pin
32	Bolt
33	Short screw
34	Long screw
35	Washer
36	Cap nut
37	Screw
38	Washer
39	Bolt
40	Washer
41	Washer
42	Nut

USEFUL ACCESSORIES FROM CLARKE

Hoses	Hose Clips
	
<ul style="list-style-type: none">• Available in 100 metre coils or per meter.	<ul style="list-style-type: none">• Zinc plated for corrosion resistance.

Hoses, clips and other items are available from your CLARKE dealer.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required 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.

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL
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
- 2006/42/EC Machinery Directive
- 2011/65/EU Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive

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

- EN IEC 55014-1:2021, EN IEC 55014-2:2021, EN IEC 61000-3-2:2019+A1, EN 61000-3-3:2013+A1, EN 61000-6-2:2005, EN 61000-6-4:2007/A1:2011, IEC 60335-2-41:2012, IEC 60335-1:2010+A1+A2, EN 6091998-A1:2009/AC:2010, EN ISO 12100:2010, EN 60204-1:2018, EN 12162:2001+A1:2009, IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-8:2017

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: 2022

Product Description: 830W High Head Draining Pump
Model number(s): CHHDP830
Serial / batch Number: N/A
Date of Issue: 09/09/2022

Signed:

J.A. Clarke
Director



Clarke[®]
INTERNATIONAL
Hermoll 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
- Supply of Machinery (Safety) Regulations 2008
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

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

- EN IEC 55014-1:2021, EN IEC 55014-2:2021, EN IEC 61000-3-2:2019+A1, EN 61000-3-3:2013+A1, EN 61000-6-2:2005, EN 61000-6-4:2007/A1:2011, IEC 60335-2-41:2012, IEC 60335-1:2010+A1+A2, EN 6091998-A1:2009/AC:2010, EN ISO 12100:2010, EN 60204-1:2018, EN 12162:2001+A1:2009, IEC 62321-3-1:2013, IEC 62321-4:2013, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-7-2:2017, 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: 2022

Product Description: 830W High Head Draining Pump
Model number(s): CHHDP830
Serial / batch Number: N/A
Date of Issue: 09/09/2022

Signed:

J.A. Clarke
Director

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PARTS & SERVICE: 0208 988 7400

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