



INSTRUCTIONS MANUAL

SUBMERSIBLE PUMP 400W

RAY400EPDW



CAUTION: Read these instructions before use this appliance

BUILDER
32, rue Aristide Bergès - ZI 31270 Cugnaux – France
MADE IN PRC 2018



1. SAFETY INSTRUCTIONS

Please note that all instructions must be consulted! Failure to observe the following instructions and warnings may result in electric shock, fire and / or serious injury. Keep all instructions and warnings for future reference. If you are giving this device to another person, please provide this instruction manual as well.

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Use this unit as described in this manual. Any mishandling or use contrary to these instructions will in no case be the responsibility of the manufacturer.
- Failure to observe the safety and operating instructions may cause a risk of electric shock, fire and / or injury to persons.
- Do not use attachments other than those recommended by the manufacturer; they can damage the unit and / or cause injury.
- **DANGER OF SUFFOCATION!** Keep packaging materials out of the reach of children.
- Before any connection, check:
 - Do not damage the device or cable. In this case, do not use the appliance and take it to your dealer for inspection and repair.
 - That the voltage indicated on the rating plate of the appliance corresponds to that of your electrical installation.
- Do not disassemble the device yourself. Any disassembly, repair or inspection should be carried out exclusively by a qualified service.
- The supply cord must be easily accessible.
- The pump must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.
- When the pump is to be used near swimming pools or garden ponds and in their area of protection, it must be equipped with a PRCD (residual current circuit breaker) with a nominal trip current of max. 30 mA (according to VDE 0100, part 702 and 738). The pump must not be operated while people are in the swimming pool or in the garden pond!
- Protect the appliance and electrical connections against moisture.
- In case of flood danger, protect the connectors.
- Avoid the discharge of aggressive liquids and the discharge of abrasive materials.
- The submersible motor pump must be protected from freezing.
- The submersible motor pump must not run dry.

- Disconnect the pump from the supply mains before carrying out user maintenance such as cleaning the filter.
- Pollution of the liquid could occur due to leakage of lubricants.
- The pump must not be used when people are in the water.

Symbols



Disposal (WEEE)



Read the instruction manual

Intended use

This submersible motor pump is designed for the discharge of water at a maximum temperature of 35 ° C. This pump should not be used for the discharge of other liquids, particularly motor fuels, cleaning products and other chemicals.

This pump can very well be used as a cellar pump. Installed in a well, this pump prevents flooding. You can use the pump wherever water has to be pumped back, e.g. for home, agriculture, gardening, sanitary sector and many other areas.

Not suitable for professional use.

2. YOUR PRODUCT

a. Description



1. Carrying handle
2. Supply cord
3. Water outlet
4. Water inlet
5. Floating switch
6. Motor housing

b. Technical data

Type	RAY400EPDW
Voltage / frequency	230V/50Hz
Power input	400W
Delivery rate max	7500 l/h
Max total head	5m
Max operating depth max.	7 m

Water temperature max.	35° C
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3. OPERATION

a. Before use

- Remove all packing materials. Keep them out of the reach of children. There is a risk of accidents and suffocations if children play with plastic wrappings and bags.
- Check that the appliance, power cord, power plug and all accessories have not been damaged during transport and that the appliance is complete. In case of damage or missing parts, do not use the pump and take it to your dealer.

b. Installation

If the pump is used in the vicinity of swimming pools, garden ponds, it must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA (according to VDE 0100, part 702.738). If people are in the pool or in the garden pond, do not put the pump on.

Contact a qualified electrician for more advice about electrical installation.

Ask a specialist to check the conformity of the grounding and the neutralization. It must comply with national safety regulations.

The pump must not run dry. The pump, cable and connectors must be protected against freezing and humidity.

Avoid the discharge of aggressive liquids and the discharge of abrasive materials.

Warning

When installing the pump, attach the pump with its handle (do not use other parts of the appliance for hanging), or place it in the bottom of the place where it must be installed. In order to ensure proper operation of the pump, the bottom must always be free of mud or other impurities.

If the water level is too low, any mud deposits may dry and prevent the pump from starting. Therefore, it is essential to control the submersible motor pump at regular intervals. (Perform start-up tests.) The float switch is set so that commissioning is immediately possible.

The submersible pump is installed as follows:

- In a stationary position with fixed pipeline or
- In a stationary position with a flexible hose pipe.

c. Connection to the network

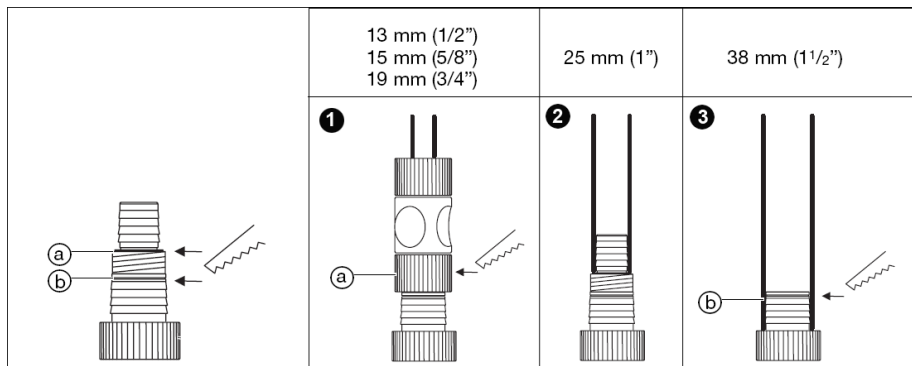
The submersible motor pump that you have just purchased is equipped with a safety socket. The sink is designed to be connected to a 230V/50 Hz safety socket.

Make sure the plug is sufficiently protected by fuses (minimum 6 amps) and in perfect condition. Plug the plug into an outlet; it is ready for commissioning.

If the mains cable or plug is damaged by external elements, it is absolutely forbidden to repair the cable!

d. Hose connection

The pump is equipped with a universal fitting which allows connecting hoses of various sizes as listed below:



- **Connection for hoses of Ø 13 mm / 15 mm / 19 mm:**
Cut off the topmost nipple on the universal fitting at the position \circ, a .
Screw a 25.4 mm tap adaptor onto the universal fitting.
Connect a hose quick connector (for hose of Ø 13 mm or 15 mm or 19 mm) to the tap adaptor, then insert the hose and tighten it.
- **Connection for hose of Ø 25 mm:**
Screw and push a hose of Ø 25 mm onto the universal fitting without cutting anything.
Tighten the hose with a hose clamp.
- **Connection for hose of Ø 32 mm:**
Cut off top two nipples on the universal fitting at the position \circ, b .
Screw and push a hose of Ø 32 mm onto the universal fitting.
Tighten the hose with a hose clamp.

Note: hose, tap adaptor, hose quick connector and hose clamp are not provided.

e. Starting

- **Check that the pump is at the bottom of the well.**
- **Check if the pipe is correctly fixed; diameter minimum 1 "1/4.**
- **Make sure that the connection to the mains is never reached by moisture or water.**
- **Do not allow the pump to run dry.**

Venting the pump before use

- Always ensure that the pump is vented properly before commissioning the pump. Possibly tilting back and forth several times until no more air bubbles appear, wait at least 15 seconds before the pump to start.

Setting the ON/OFF operating point

- The ON and OFF operating point of the float switch can be set by adjusting the float switch in its latching holder.
- Before putting the pump into operation, please check the following:
 - The float switch must be installed so that the level of the ON operating point and the level of the OFF operating point can be reached easily and with little force. To check this, place the pump in a vessel filled with water, raise the float switch carefully by hand and then lower it again. As you do so, note whether the pump switches on and off.

- Make sure that the distance between the float switch head and the latching holder is not too small. Proper operation is not guaranteed if the gap is too small.
- When you set the float switch, make sure that it does not touch the base before the pump switches off. Caution! Risk of dry-running.

4. MAINTENANCE AND STORAGE

Before any maintenance, cleaning and storage, the appliance must be disconnected. Do not use abrasive cleaners such as gasoline, alcohol, ammonia, etc. This type of product may damage the unit.

a) General cleaning

Clean the appliance frequently. After each use, check its general condition and thus the condition of the power cable. In the event of damage or malfunction, do not use the tool and have it inspected and repaired with qualified service.

- In case of removable use, the pump must be cleaned with clean water, after each use.
- In the case of a stationary installation, it is advisable to check the operation of the float switch every 3 months.
- Remove fluff and fibrous particles which may have deposited in the pump casing with a jet of water.
- Every three months, remove the mud from the bottom of the well and clean the walls of the well.
- Remove the deposits on the float switch with clear water.

b) Cleaning of the impeller

In the event of large deposits in the pump casing, the lower part of the pump must be disassembled as follows:

- Detach the suction basket from the pump housing.
- Clean the turbine with clean water.
- Replace the unit.

c) Storage

- Carefully clean the machine and its accessories.
- Keep out of the reach of children, in a stable and safe position, in a dry and temperate place, avoid too high or too low temperatures.
- Protect it from the ray of light.
- Do not enclose it in nylon bags because moisture may form.

5. DISPOSAL



Electrical products should not be discarded with household products. According to the European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation into national law, electrical products used must be collected separately and disposed of at collection points provided for this purpose. Talk with your local authorities or dealer for advice on recycling.

6. TROUBLESHOOTING

Incidents	Causes	Remedies
Pump does not start	<ul style="list-style-type: none">- No mains supply- Floater does not switch	<ul style="list-style-type: none">- Check mains supply- Bring floater in a higher position
No flow	<ul style="list-style-type: none">- Inlet sieve is clogged- Pressure hose in bent	<ul style="list-style-type: none">- Clean inlet sieve water jet- Reset hose
Pump does not switch off	<ul style="list-style-type: none">- Floater cannot sink down	<ul style="list-style-type: none">- Place pump properly on shaft ground
Insufficient flow	<ul style="list-style-type: none">- Inlet sieve is clogged- Reduced pumping capacity by dirty and abrasive water	<ul style="list-style-type: none">- Clean inlet sieve- Clean pump and replace worn-out parts
Pump switches off after short operating period	<ul style="list-style-type: none">- Thermal cut-out stops pumps due to dirty water- Water too hot. Thermal-cut-out stops pump	<ul style="list-style-type: none">- Remove mains plug. Clean pump and shaft- Make sure that a water temperature of max. 35°C is not exceed

