



INSTRUCTION MANUAL

BOSS SUBMERSIBLE PUMPS

MODELS: BOSS 31-110 Volt
BOSS 31-230 Volt
BOSS 51
BOSS 101-110 Volt
BOSS 101-230 Volt
BOSS 101-400 Volt



Pipeline & Heating Solutions



Models:

- BOSS 31-110 Volt**
- BOSS 31-240 Volt VOX**
- BOSS 51**
- BOSS 101-110 Volt**
- BOSS 101-240 Volt**
- BOSS 101-415 Volt**

CE DECLARATION OF CONFORMITY

We, The BSS Group Limited Fleet House, Lee Circle, Leicester LE1 3QQ
Declare under our responsibility that the products to which this
Declaration refers are in conformity with the following directives:

- 2006/95/CE (Low Voltage Directive)
- 2004/108/ CE (Electromagnetic Compatibility Directive)

And with the following standards:

- EN 60335-1 : 08 (Household and similar Electrical Appliances Safety)
- EN 60335-2-41 : 05 (Particular Requirements for Pumps)


The BSS Group Limited, 1st January 2012

Signature Category Director



Pipeline & Heating Solutions

1. SAFETY MEASURES

 **Before starting the pump, read this instruction booklet carefully.**

For safety reasons, the pump must not be used by anyone who has not read these instructions.

The power cord and floating switch must never be used to carry or move the pump. Always use the pump's handle.

The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance. (CEI EN 60335-1 : 08)

 **When handling the pump, while it is connected to the electric power supply, you should avoid all contact with water.**

 **Never remove the plug by pulling on the power cord.**


 **Before taking any action on the pump, always remove the plug from the power socket.**


2. USE


Powerful submersible pumps for draining and emptying, and for small-scale irrigation needs; they can be used with clear water containing some particles in suspension up to a maximum of:

BOSS 31- 10mm BOSS 51- 10mm BOSS 101- 5mm

The temperature of the fluid being pumped must be no greater than 50°C

 **The pump must not be used to pump salt water or flammable, corrosive or explosive liquids (e.g. petroleum oil, petrol, thinners), grease, oils or foodstuffs.**

 **If the power supply cord has been damaged, it must be replaced by the manufacturer or his authorized customer support service in order to avoid all risks.**

 **Before starting the pump, make sure that:**

- the voltage and frequency specified on the pump's nameplate coincide with those of the available power supply;
- there are no signs of damage to the pump or its power cord;
- the electric connection is made in a dry place, protected against any risk of flooding;
- the electric system is complete with a residual current circuit-breaker ($I \Delta n \leq 30 \text{ mA}$) and an efficient earthing connection;
- the length of the power cord is no more than 10 meters. Any extension cords must comply with the requirements of the DIN VDE standard 0620.

Note: given the different provisions applicable to the safety of electric systems in different countries, make sure that the pump system, as concerns its intended use, is in accordance with current legislation.

3. STARTING THE PUMP

Insert the plug on the power cord in a suitable power socket.

Automatic operation:

The floating switch starts and stops the pump automatically. The water level that prompts the starting and stopping of the pump can be adjusted by changing the length of cable between the holder and the float.

4. RECOMMENDATIONS

To ensure the proper operation of the pump, it is important to comply with the following recommendations:

- **The pump must never be allowed to run dry.**
- Never leave the pump in operation when the delivery pipe is clogged.
- The pump must be positioned so that the holes on the suction side cannot be partially or totally clogged by dirt.
- The pump must only be used when it is immersed in water. If the water runs out, the pump must be stopped immediately by removing the plug from the power supply.

- Pay careful attention when the pump is operated in manual mode.
- The pump must be placed in a stable position inside a trap or in the lowest part of the place where it is installed.
- The float must be able to move freely while the pump is in operation, so the recommended dimensions for the trap are 40x40 cm.
- It is absolutely essential to prevent any risk of the pump freezing. In the event of freezing temperatures, remove the pump from the liquid, empty it and keep it in a place where it cannot freeze.

Overload protection

The pump has a thermal overload safety device. In the event of any overheating of the motor, this device automatically switches off the pump. The cooling time is roughly 15 to 20 minutes, then the pump automatically comes on again. If the overload cutout is tripped, it is essential to identify and deal with the cause of the overheating. See Troubleshooting.

5. TROUBLESHOOTING



Before taking any troubleshooting action, disconnect the pump from the power supply (i.e. remove the plug from the socket).

If there is any damage to the power cord or pump, any necessary repairs or replacements must be handled by the manufacturer or his authorized customer support service, or by an equally-qualified party, in order to prevent all risks.

Fault	Possible causes	Solutions
The motor does not start or makes no noise.	A. Make sure the motor is powered. B. The pump is not enabled by the float.	B. - Make sure the float can move freely. - Increase the depth of the trap.
The pump delivers no water.	A. The suction grid or piping are clogged. B. The impeller is worn or stuck. C. The required head is too high for the characteristics of the pump.	A. Remove the obstruction. B. Replace the impeller or remove the obstruction.
The pump does not stop.	A. The pump is not disabled by the float.	A. Make sure the float can move freely.
The flow rate is too low.	A. Make sure the suction grid is not partially clogged. B. Make sure the impeller or delivery pipe are not partially clogged or fouled.	A. Remove any obstructions. B. Remove any obstructions.
The pump stops after a brief period of operation.	A. The thermal cutout stops the pump.	A. - Make sure the fluid being pumped is not too dense, causing the motor to overheat. - Make sure the temperature of the water is not too high. - Make sure there is no solid body obstructing the impeller.



6. GUARANTEE

Any material or manufacturing defects will be corrected during the guarantee period established by current law in the country where the product is purchased. It is up to the manufacturer to decide whether to repair or replace any faulty parts.

The manufacturer's guarantee covers all substantial defects attributable to manufacturing or material defects, providing the product has been used correctly and in compliance with the instructions.

The guarantee becomes null and void in the event of the following:

- unauthorized attempts to repair the appliance;
- unauthorized technical changes to the appliance;
- use of non-original spare parts;
- manhandling;
- inappropriate use, e.g. for industrial purposes.

The guarantee does not cover:

- parts liable to rapid wear and tear.

For any action under guarantee, you must contact your local BSS branch or our AMS aftersales.

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**For spares and service, please contact
AMS Aftersales on
0870 8503886**



Pipeline & Heating Solutions

The BSS Group Limited
Fleet House
Lee Circle
Leicester
LE1 3QQ

Tel: **0870 6092101**
Email: **ampumps@bssgroup.com**

Web: **www.bssindustrial.co.uk**