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## General Information

These instructions guide you through the installation and operation of this **BritTherm™** circulation pump. The **UPS2A Commercial** is a high efficiency circulator which is perfectly suited to operate in:

- Single zone heating systems
- Multi zone heating systems
- Underfloor heating systems

The pump incorporates a permanent magnet motor with differential pressure control which enables its performance to be aligned with actual system demand.

It has a connection size of **1½"**, a maximum head of **8 meters** and a port to port distance of **180mm** making it perfect for heavy domestic and light commercial applications.

## Pump Liquid

BritTherm™ pumps require clean, thin, non-aggressive liquids to operate correctly and prevent damage to their internal components.









The liquids used must not contain any solid particles, fibres or mineral oil.

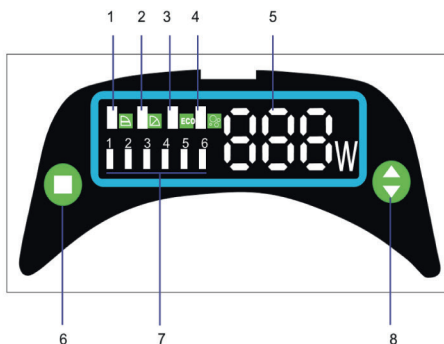
Liquids running through circulation pumps used on heating systems must comply with the accepted standards of quality especially in domestic applications.

Liquids that do not comply will void the warranty offered with the circulation pump.

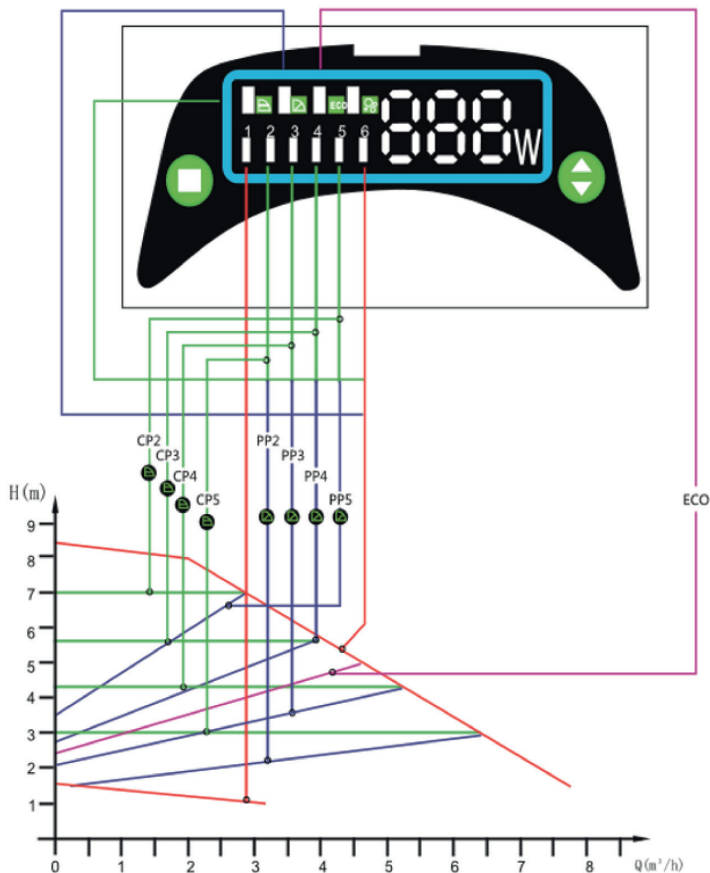
## Control Panel

A diagram of the control panel can be found on the next page, here's what each of the numbers represent:

1. Constant Pressure Mode 
2. Proportional Pressure Mode 
3. ECO Mode 
4. Air Venting Mode   
(Press the setting button for 5-6 seconds)
5. Power Usage (Watts) 
6. Mode Selection Button 
7. Pump Speed (CP & PP only) 
8. Speed Selection Button 



# Pressure Curve



# Operating Modes



↑ CP2 to CP5

The operating point moves back and forth on the constant pressure curve according to the volume of flow from the system.



↑ CP1 & CP6

These 2 speeds are the minimum and maximum in constant pressure mode. The curve is shown in the graph on the previous page.



↑ PP2 to PP5

The operating point moves back and forth on the proportional pressure curve according to the volume of flow from the system. As shown in the graph, the pump pressure is directly proportional to demand.



↑ PP1 & PP6

These 2 speeds are the minimum and maximum in proportional pressure mode. The curve is shown in the graph on the previous page.

**PP1** - (Proportional Pressure 1) the duty point moves up/down on the lowest proportional pressure curve. Head pressure is then reduced and increased at falling and rising heating demand respectively.

**PP2** - (Proportional Pressure 2) the duty point moves up/down on the highest proportional pressure curve. Head pressure is then reduced and increased at falling and rising heating demand respectively.

**CP1** - (Constant Pressure 1) the duty point of the pump moves out or in the constant pressure curve depending on heating demand. Head pressure remains constant irrespective of heating demand.

**CP2** - (Constant Pressure 2) the duty point of the pump moves out or in the constant pressure curve depending on heating demand. Head pressure remains constant irrespective of heating demand.

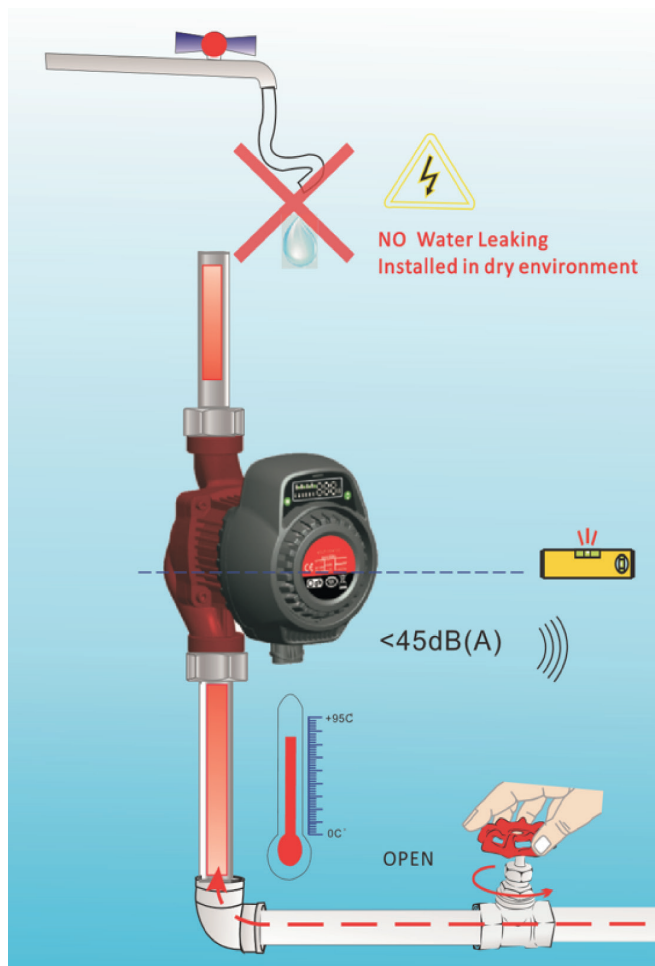
# Fault Finding



**Before starting any work on the pump please ensure the electricity supply is turned off and cannot be accidentally switched back on at any time.**

<b>Fault</b>	<b>Control Panel</b>	<b>Cause</b>	<b>Remedy</b>
Pump doesn't run at all	Light is off	A) One fuse is blown	Replace fuse
		B) The current/voltage operated circuit breaker has tripped out	Cut in the circuit break
		C) The pump is defective	Replace pump
	Only shows power	A) Failure of electricity supply, might be too low	Check the supply falls within the specified range
Noise in the system	Lights on for power and pump setting	A) Air in system	Vent the system
		B) Flow is too high	Reduce the suction head
Noise in the pump	Lights on for power and pump setting	A) Air in pump	Let the pump run, it vents itself over time
		B) Inlet pressure is too low	Increase the inlet pressure. Check the air volume in the expansion tank if installed
Insufficient	Lights on for power and pump setting	A) Pump performance is too low	Increase the suction head

# Pump Diagram

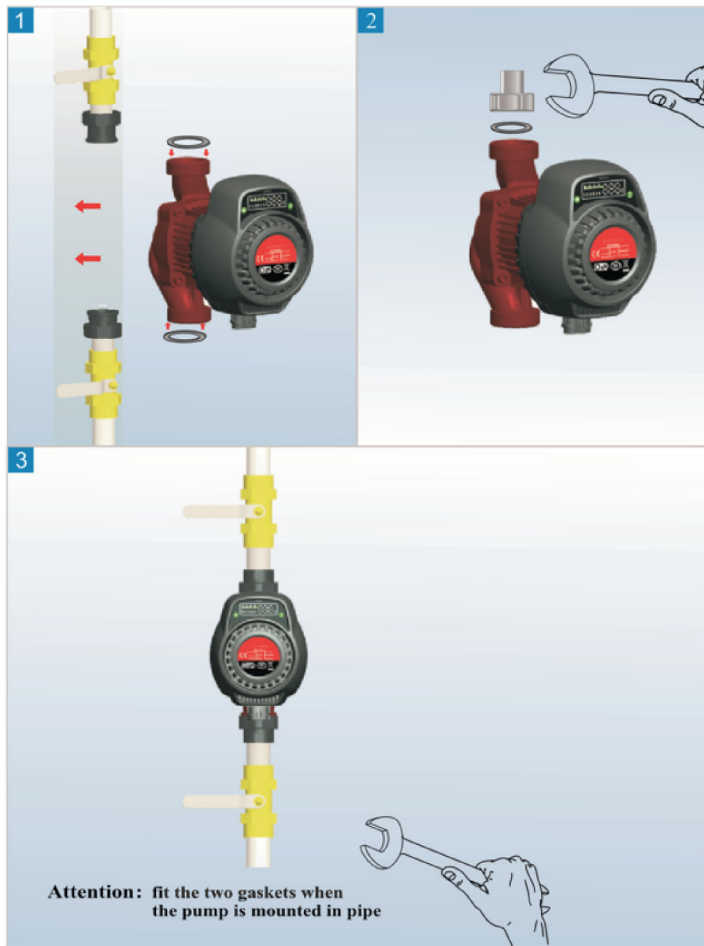




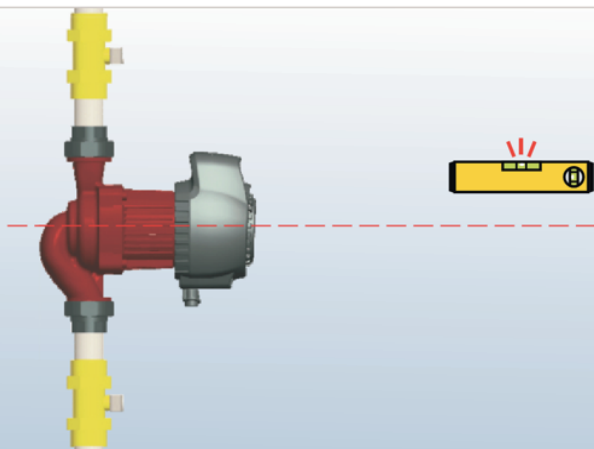
- 1. Inlet**
- 2. Pump Body**
- 3. Outlet**

- 4. Motor Housing**
- 5. Label**
- 6. Control Panel**

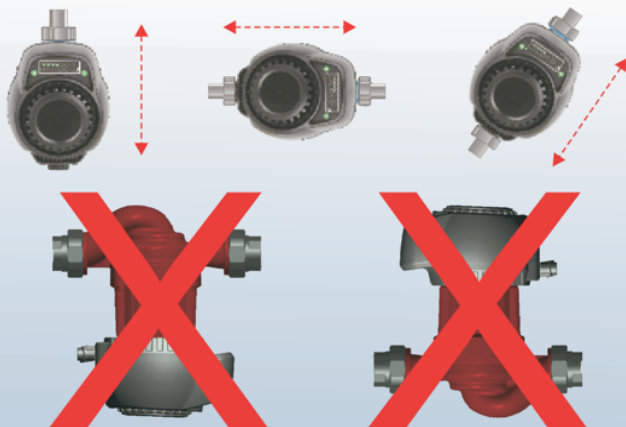
# Installation

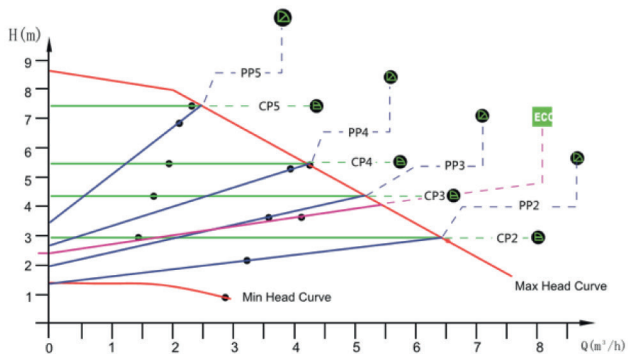
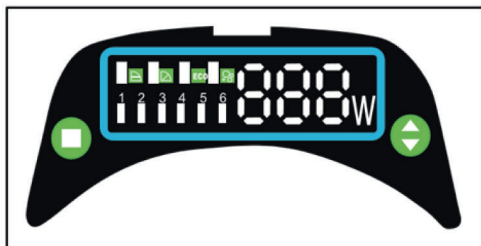


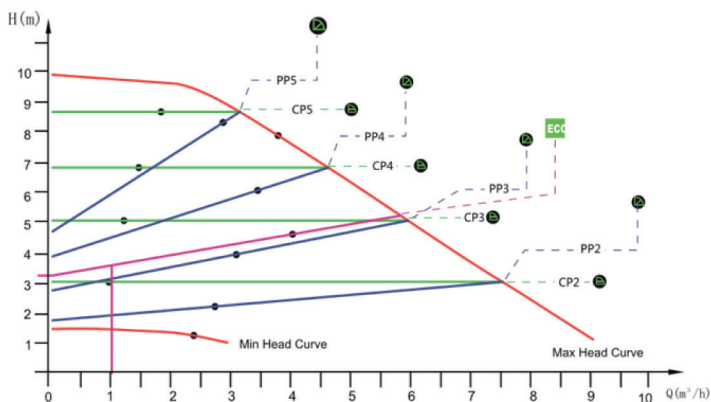
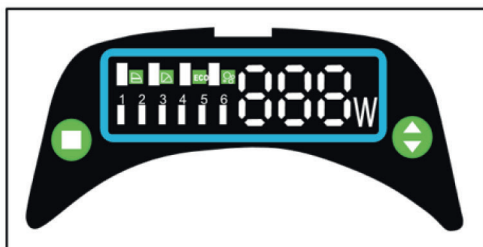
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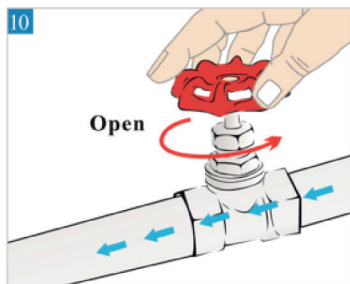
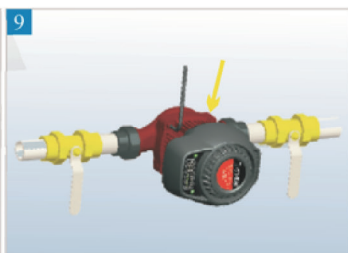
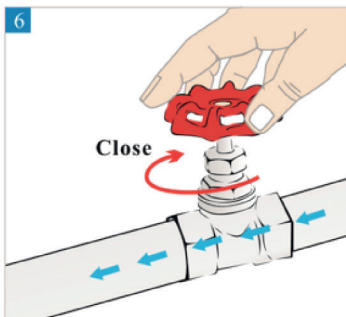


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## Guarantee Registration

This pump is covered against manufacturing malfunction by a 6 year guarantee on a diminishing terms basis.

The guarantee is only valid if the pump has been installed correctly, the system is maintained adequately, and the guarantee is registered within 30 days of purchase.

The pump is covered for a **free of charge replacement** should malfunction occur within the first **3 years** from the date of sale.

After 3 years and up to **6 years** the pump will be replaced at a cost of **50% of the original purchase price**.

To register please email the following details to  
**guarantees@brittherm.co.uk**

- Date of purchase
- Address where pump is fitted
- Name of supplier
- Supplier invoice number

Please retain your purchase invoice as it may be required in the event of a guarantee claim.

To make a claim please contact BritTherm by phone on:

**0208 904 4832**