

Circulated Water Baths

User Manual & Setup Guide

TWBC RANGE

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**General
Warning Sign**

Warning sign: signifies a general warning, and indicates a risk to people specified by the supplementary sign that if not avoided, may result in death or serious injury.



**Warning;
Flammable**

Warning; Flammable: signifies a flammable warning, and indicates a risk of flammable content as specified by the supplementary sign that if not avoided, may result in a fire by igniting flammable material.



**Warning;
Electricity**

Warning; Electricity: signifies a electricity warning, and indicates a risk of contact with electricity as specified by the supplementary sign that if not avoided, could result in injury.



**Warning; Hot
Surface**

Warning; Hot Surface: signifies hot surface warning, and indicates a risk to people specified by the supplementary sign that if not avoided, will result in contact with hot surface.



**General
Prohibition Sign**

General Prohibition: signifies a prohibited action, indicates a risk to people specified by the supplementary sign that if not avoided, will result in death or serious injury.



**Do Not Expose
Outside**

Do Not Expose Outside: signifies prohibiting the exposure to direct sunlight, and indicates a raised temperature due to sunlight or placement on hot surface can cause harmful damage to bath.

This user manual is intended for Thermoline's range of circulated water baths. We recommend that you read this user manual the whole way through before you start using the bath. Consider this manual as a part of the bath and an integral part to its function. We recommend keeping it close and within easy access.

Intended Use

The Thermoline Water Baths TWBC-12 and the TWBC-24 are designed and manufactured in Australia. Designed to operate with a heater circulator, such as Thermoline's TU3 heater circulator. The Thermoline water bath offers an industry standard in temperature controlled baths.

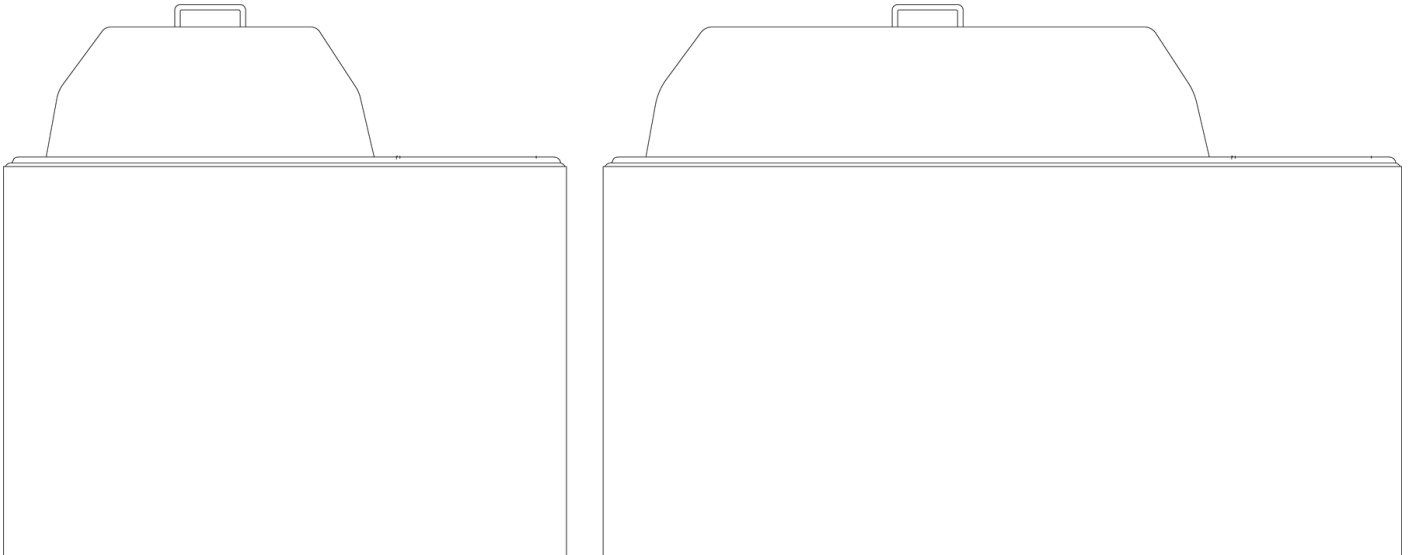
The Thermoline range of water baths are set to function with specific operating ranges. The optimum operating conditions will be explained further in this manual.

- Control Accuracy: see the TU3 heater circulator manual
- Operating Temperature: see the TU3 heater circulator manual



Product Specifications

Circulated Water Bath User Manual
By **Thermoline Scientific**



Dimensions

External

TWBC-12

TWBC-24

WxDxH (mm)

270x330x260

530x330x260

Internal

WxDxH (mm)

240x300x165

500x300x165

Spacing

TWBC-12

TWBC-24

Front (mm)

100

Back (mm)

100

Sides (mm)

100



Product Specifications

Technical Specifications

TWBC-12

TWBC-24

Temperature Range

N/A - See Heater Circulator Specifications

Temperature Stability

N/A - See Heater Circulator Specifications

Temperature Uniformity

N/A - See Heater Circulator Specifications

Heating Power

N/A - See Heater Circulator Specifications

Electrical

N/A - See Heater Circulator Specifications

Capacity

12L

24L

Weight

8kgs

11kgs

Time Ambient to 50°C

N/A

Time Ambient to 100°C

N/A

Features

Omron E5CC Controller

N/A

Whisper Quiet Operation

N/A

Incoloy Heating Element

N/A

Built in circulator pump

No

Safety

Over Current Protection

N/A - See Heater Circulator Specifications

Over Temperature Safety

N/A - See Heater Circulator Specifications

False Floor Protection from Heating Element

N/A

Fibreglass Insulation

✓

✓

Options

Polycarbonate Gable Lid

PCLC-12: To suit TWBC-12
PCLC-24: To suit TWBC-24

Stainless Steel Flat Lid

SSFLC-12: To suit TWBC-12
SSFLC-24: To suit TWBC-24

Water Bath Location

Ensure the water bath is placed in a suitable environment, away from direct sunlight or direct heat sources (**Fig 1**). The product shouldn't be placed in a room where the ambient temperature exceeds that of which it was designed to operate.

Water baths should be stored inside at all times. Failure to adhere to this could cause significant drops in water bath performance and damage to items stored inside.

Extreme Operating Conditions:

- **Temperature:** 10°C to 32°C
- **Humidity:** Up to 85%RH

Ideal Conditions:

- **Temperature:** 23°C (+/- 5°C)
- **Humidity:** 50%RH (+/- 25%RH)

Ensure the water bath is placed on a level surface (**Fig 2**).

While the bath doesn't necessarily require ventilation, Thermoline still suggests 100mm on the sides and back to aid with accessibility (**Fig 3**)

Ensure the bath is placed on a level surface.

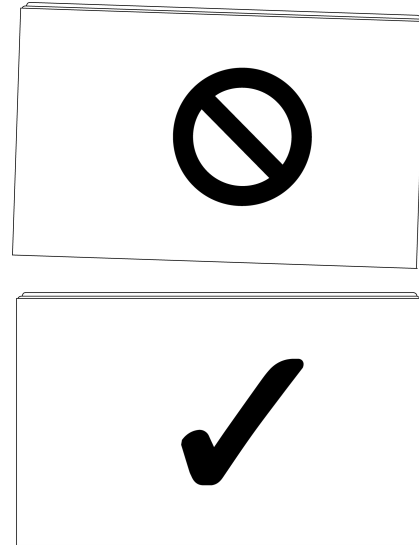


Fig 2. Level surface



Fig 1. Suitable operating environment.

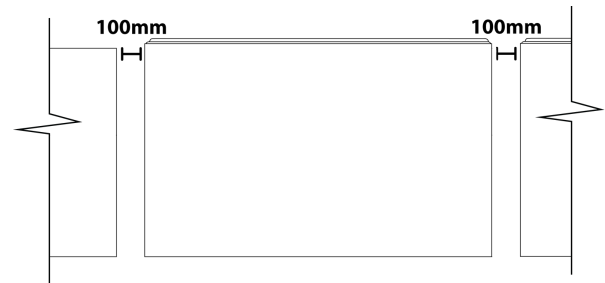


Fig 3. Adequate Spacing

Operating Environment

Electrical Connections

Please see the TU3 heater circulator manual.

Operating Environment Warnings



Water baths should be stored inside at all times. Failure to adhere to this could cause significant drops in performance and damage to items stored inside.



Water baths are not suitable for use with flammable solvents! They are fitted with components that may be the source of ignition.



Water baths heat water up to 100°C and can become hot. This includes the optional lids.

Unpacking

Unpacking process for carton:

- The TWBC-12 and TWBC-24 will be delivered in a carton.
- Removing the box requires the cling wrap and straps to be cut, then expose the bath by carefully sliding the box upwards. (Fig 1)

If upon opening your package damage is present, notify the detail of any damage to your supplier or to Thermoline Scientific without delay at +61 2 9604 3911 or email at service@thermoline.com.au.

Moving

The water bath will need to be drained prior to moving. Please note to take caution with lifting and be aware of any residual heat from the bath (Fig 2).

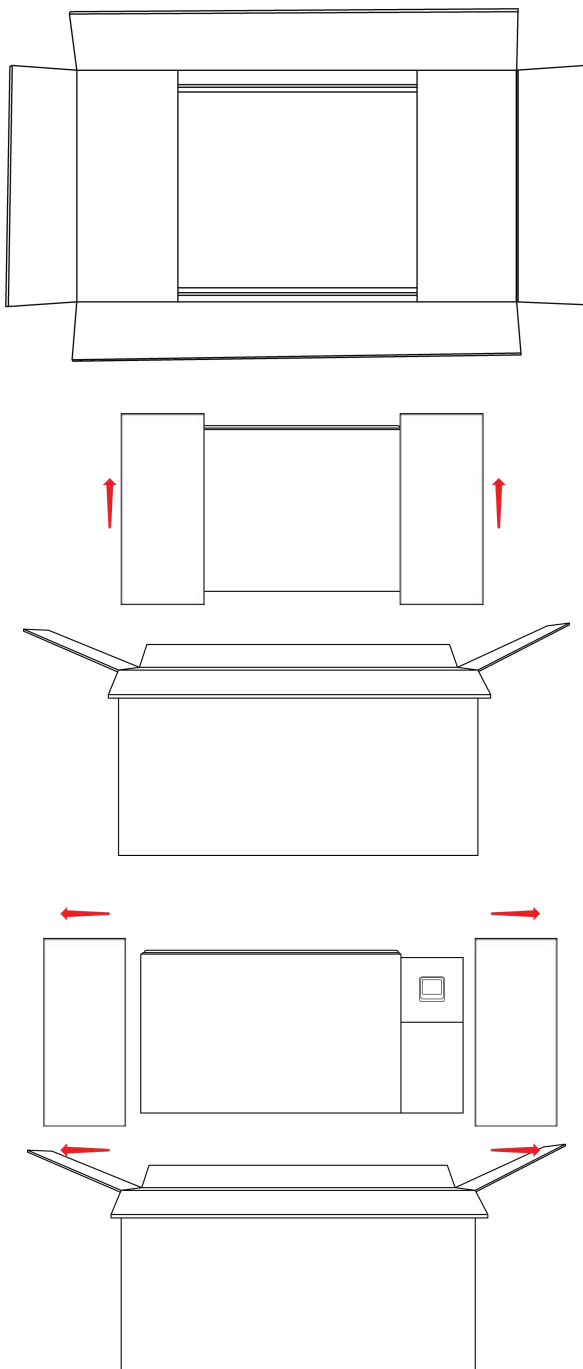


Fig 1. Unpacking Process (Box)

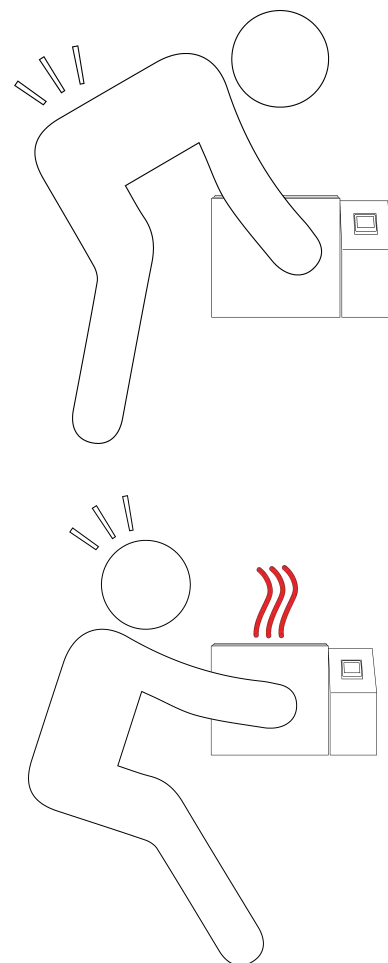


Fig 2.

Setup

Filling

Please always make sure that the bath is filled to at least minimum required by the heater circulator being used (**Fig 1**). The maximum level can be seen by the lip at the top of the bath, approximately 30mm from the top (**Fig 2**).

When filling please take into account the samples to go into the bath to ensure their displacement does not cause an overflow.

Note: Never use deionised water in the water bath. It will corrode the stainless steel and not be covered by warranty.

Note: Never fill the bath using oil. The introduction of oil into the bath will result in pyrolysis (chemical decomposition by heat).



Note: The water in the bath and the bath itself including the lid, can become very hot.

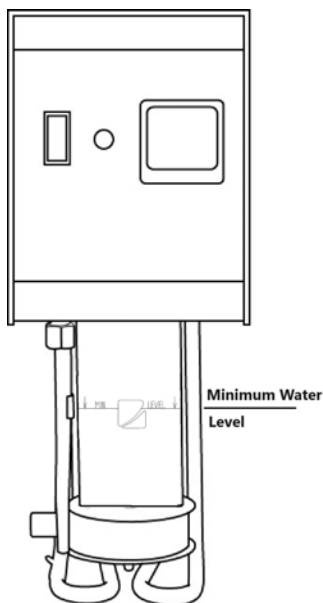
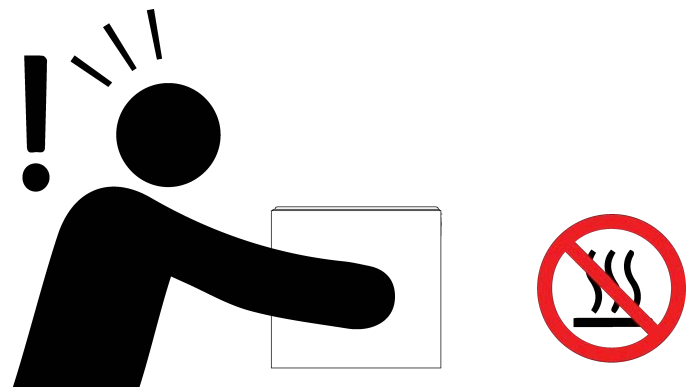


Fig 1. Minimum fill level.



30mm

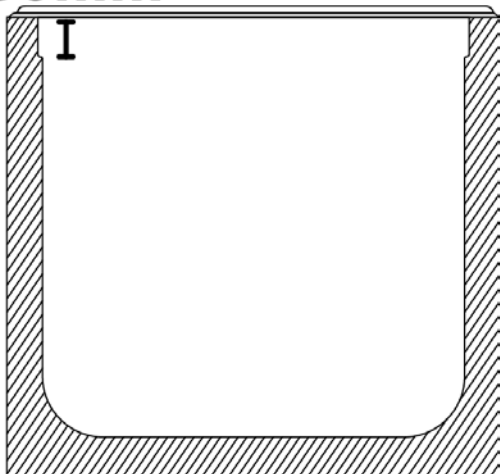


Fig 2. Maximum fill level.

Setup

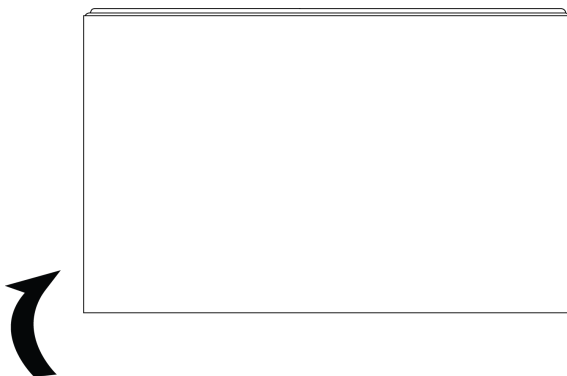
Cleaning

The interior and exterior can be cleaned as often as required using a soft cloth and soapy water. Never use abrasive cleaners or scouring pads, as these will scratch the surface and may result in corrosion. Never use caustic-type cleaning agents.



Drain

Prior to cleaning or storage the water bath will need to be drained. The Thermoline water bath has a drain feature located on the left side of the bath. Simply pull on the white part to let the water drain out of the bath.

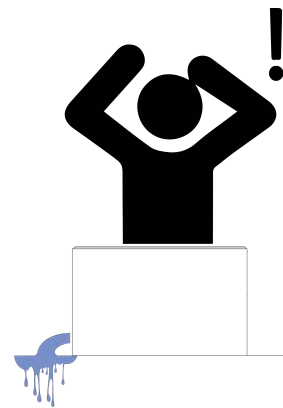


To drain the bath simply find the drain located on the side of the bath and pull it out (exposing the hose). You can then remove the plug to drain the water.

All water baths have electrical components such as the temperature control and internal light. These items should not be subjected to any levels of moisture.

Cleaning Stainless

Stainless steel is under most conditions extremely resistant to corrosion. This is in part due to the addition of chromium and nickel to the steel and the formation of a durable chromium oxide at the surface during the manufacturing process. There are several chemicals which will attack the surface of stainless steel, plus the lack of oxygen at the surface will cause rusting, corrosion and pitting. Generally Tap water is suitable. Should this supply prove to be of poor quality, it is recommended that distilled water be used.



Note: Please ensure the the end of the hose is place into a sink or some other suitable drain before removing the plug as there is no tap.

Setup Warnings



Ensure that the water baths are placed on an even and flat surface.



When you remove packaging from the water bath you should be careful when using knives to cut tape and cardboard.



Water baths heat water up to 100°C and can become hot. This includes the optional lids.

Please see the TU3 heater circulator manual.

Technical and Repair Support

When contacting Thermoline regarding information about the product, it is important to have the Serial Number and other related information with you. The serial number is on a silver sticker, usually located near the power IEC socket.

Contact Thermoline service on +61 2 9604 3911 or email at service@thermoline.com.au



ABN 80 000 859 129

SALES AND MANUFACTURING

10-12 Ross Place, Wetherill Park NSW 2164 Australia

Phone: +61 2 9604 3911 Email: sales@thermoline.com.au



Model:
Serial No:
Watts/Amps:
Volts:

Have the following information available when you contact the service department. Model number and serial number. This is generally found on the exterior of the bath in the form of a stick-on label. The company name, address, contact name, contact phone number. A brief description of the problem. All warranty claims must be reported to, and agreed to by a Thermoline representative prior to any work being carried out.

Standard 24 Month Warranty

Thermoline Scientific Equipment Pty Ltd ABN 80 000 859 129 **(‘Thermoline’)**

Thermoline warrants to the original purchaser that this product will perform to its product specification for a period of 2 years from date of purchase, provided that the installation of the product has been carried out in accordance with the latest version of the manufacturer’s instructions and further provided that the use of the product complies with that specified in the relevant specification. Thermoline is not responsible for any loss or damage arising from incorrect usage, usage outside the suitability of the product as stipulated in the manufacturer’s instruction, damage caused by accident, fire, flood, act of God or failure to properly install, operate or maintain the goods in accordance with the printed instructions provided.

The following statement applies only to product sales that fall within the definition of a Consumer Sale set out in the Australian Consumer Law contained within the Competition and Consumer Act (Cth) 2012:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Notwithstanding the preceding clause and to the extent permissible by law, the liability of Thermoline is limited, in relation to the warranted product and at the option of Thermoline to:

Replacing the product or the supply of equivalent product;
The repair of the product;
The payment of the cost of replacing the product or of acquiring equivalent product; or
The payment of the cost of having the product repaired.

To the extent permitted by law, all other warranties whether implied or otherwise, not set out in this Warranty are excluded and Thermoline is not liable in contract, tort (including, without limitation, negligence or breach of statutory duty) or otherwise to compensate the Purchaser for:

any increased costs or expenses;
calibration/certification services;
any loss of profit, revenue, business, contracts or anticipated savings;
any loss or expense resulting from a claim by a third party.
Any special, indirect or consequential loss or damage of any nature whatsoever caused by Thermoline’s failure in complying with its obligations or the purchaser’s failure due to accident damage, impact, misuse or negligence.

The benefits given to the purchaser in this Warranty are in addition to other rights and remedies under a law in relation to the products or services to which this warranty applies. This warranty applies only to products purchased and installed in Australia and does not cover any consumable items e.g. filters, light globes, ultrasonic nebulizers. The warranty does not extend to labour and freight costs where the warranted product is located outside Australia.

To make a warranty claim, contact Thermoline on 02 9604 3911 or service@thermoline.com.au.

We are proudly Australian owned

We will continue to invest in Australian
manufacturing.

