

# Platelet Shaker

## *User Manual & Setup Guide*

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**TPS-18**

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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 cabinet.

This user manual is intended for Thermoline's TPS-18 Platelet Shaker. We recommend that you read this user manual the whole way through before you start using the shaker. Consider this manual as a component of the platelet shaker and an integral part of its function. We recommend keeping it close and within easy access.

## Intended Use

The TPS-18 platelet shaker has been designed for use in agitation of platelets.

Features:

- Robust geared motor with fixed speed control (60rpm).
- Removable slide out trays for easy access (able to accommodate 18 large platelet bags).
- Suitable for free standing bench top use or with the Thermoline TMLR-200 refrigerated incubator.

## Operating Range

The Thermoline platelet shaker is designed to function with specific operating ranges. The optimum operating conditions will be explained further in this manual.





## Dimensions

### External

TPS-18

WxDxH (mm)

455x420x490

### Shelf

WxD (mm)

410x385

## Technical Specifications

Shaking Speed

Fixed 60 strokes per minute at +/- 1 at 230V/50hz

Shaking Stroke

50mm

Bag Capacity

18 large bags / 54 small bags

Electrical

150W/230V

Weight

29kgs

## Features

Carry Handles

✓

Powdercoated Finish

✓

## Safety

Over Current Protection

✓

Shaking Stop Alarm

✓

## Warranty:

Thermoline offers a comprehensive two years parts and labour warranty on all Australian Made products.

## Platelet Shaker Location

Ensure the platelet shaker is placed in the correct environment, away from direct sunlight or direct heat sources. The product shouldn't be placed in a room where the ambient temperature exceeds that of which it was designed to operate.

The platelet shaker should be stored inside at all times. Failure to adhere to this could cause significant drops in shaker performance.

### Extreme Operating Environment:

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

### Optimal Temperatures:

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

Ensure that the platelet shaker is kept away from water. Leave space around the base for ventilation. A circulating fan in the base removes heat generated by the geared motor; ensure that the ventilation slots are not blocked.

**Please note that the platelet shakers can also be installed inside of the TMLR-200 refrigerated incubator.**



## Operating Environment

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### Electrical Connections

The platelet shaker is suitable for connection to a standard 10 amp, 230 volt, 50Hz supply. A dedicated outlet should be used for the supply; do not use power boards or the like. The platelet shaker can also be plugged into a TMLR-200 when used in the incubator.

#### Electrical:

- The platelet shaker includes a 2.5m removable mains power lead with a three-pin plug and a right angle female IEC plug. Ensure the product is reasonably distanced from the power supply. **(Fig 1)**
- On the platelet shaker itself is a 10 amp male IEC socket. **(Fig 2)**



**Fig 1. Suitable distance from power supply (2m)**



**Fig 2. 10 amp male IEC socket**



### Operating Environment Warnings

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The platelet shaker requires an even surface to ensure consistent performance. Internal contents can also be damaged by the shaker being on an uneven surface.

The platelet shaker should be stored inside at all times. Failure to adhere to this could cause significant drops in cabinet performance and damage to items stored inside.

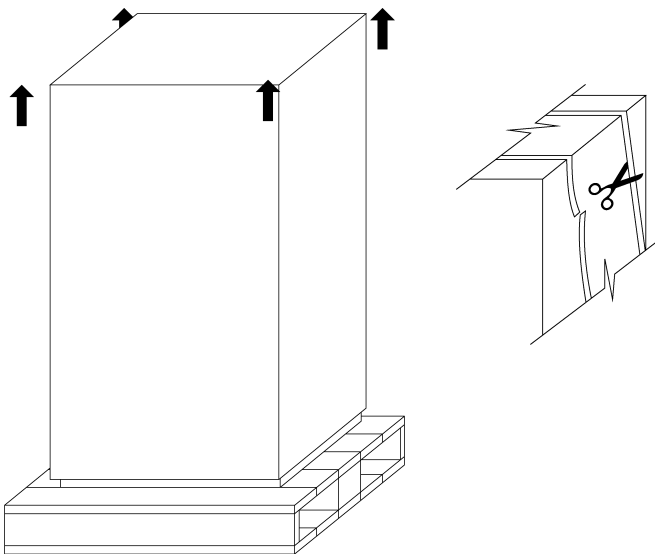


The platelet shaker is not suitable for use with flammable solvents! It is fitted with components that may be the source of ignition.

## Unpacking

### Unpacking process for box and skid:

- The platelet shaker is packed on a timber skid with a lift off carton placed over the top. This is then strapped to the skid prior to dispatch.
- Before proceeding, ensure that all internal (if present) and external packaging has been removed from the platelet shaker and that all tape, plastic bags and foam pieces have been removed.
- To unpack the platelet shaker, firstly cut the straps, then the box can be removed by sliding it upwards. (Fig 1)
- If damage is present upon opening your package, please notify the detail of any damage to your supplier or Thermoline Scientific without delay at +61 2 9604 3911 or email at [service@thermoline.com.au](mailto:service@thermoline.com.au).



**Fig 1 . Unpacking Process**

## Moving and Lifting

When moving and locating the platelet shaker please take caution due to the weight of the unit. The TPS-18 is approximately 29kg.



**Fig 2 . Safe moving of platelet shaker.**





## Setup

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### Start Up Procedure

#### Start-Up procedure for the platelet shaker:

- Take the supplied lead and plug it into the male IEC socket on the rear of the incubator. Next, plug the 3 pin plug into a 10 amp General Purpose Outlet.
- When using the platelet shaker in a TMLR-200 incubator, a special power lead runs power from the incubator to the platelet shaker.
- Turn the main switch to 'ON' to start the shaker.



## PLATELET SHAKER

### Loading the Platelet Shaker

#### Loading process for the platelet shaker:

- Turn off the main switch to stop the shaker while it is loaded.
- The shelves can be pulled out to load. There is a stopper pin to prevent the trays from sliding too far out when loading.
- After loading, turn the main switch to 'ON' to start the shaker.
- When used with a TMLR-200 incubator, the heat generated aids in temperature control, so the agitation should remain on except when loading the shaker.



### Removing Shelves

If the shelves need to be removed, pull them out and lift them up at a 45° angle to go past the stop pin. Reverse this process to replace the shelves).

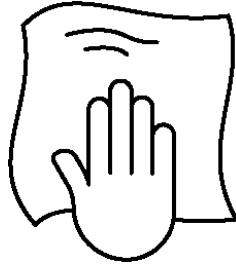


## Setup

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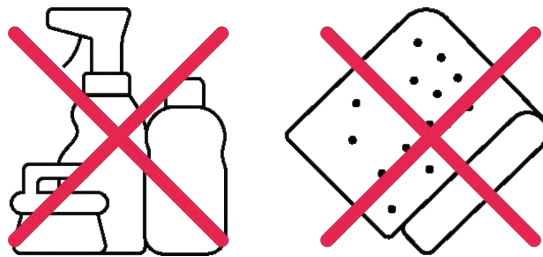
### Cleaning

The Thermoline platelet shaker requires no routine maintenance other than normal levels of cleanliness. The external surface powder coated steel and may be wiped clean using a damp, soft cloth. Never use abrasive cleaners or scouring pads as these will scratch the surface and may result in corrosion. Never use caustic type cleaning agents.



All platelet shakers have electrical components such as the cooling fan and motor. These should not be subjected to any levels of moisture.

The shelves can be removed if required for cleaning.



### Setup Warnings

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Never block off air vents on the platelet shaker. It can cause damage due to excess build up of heat.

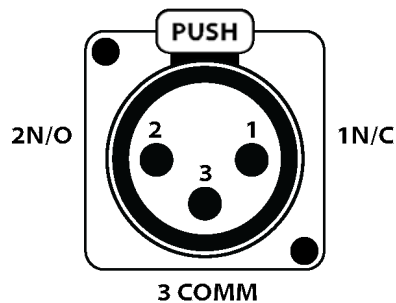


When you remove packaging from the platelet shaker, you should be careful when using knives to cut tape and cardboard.

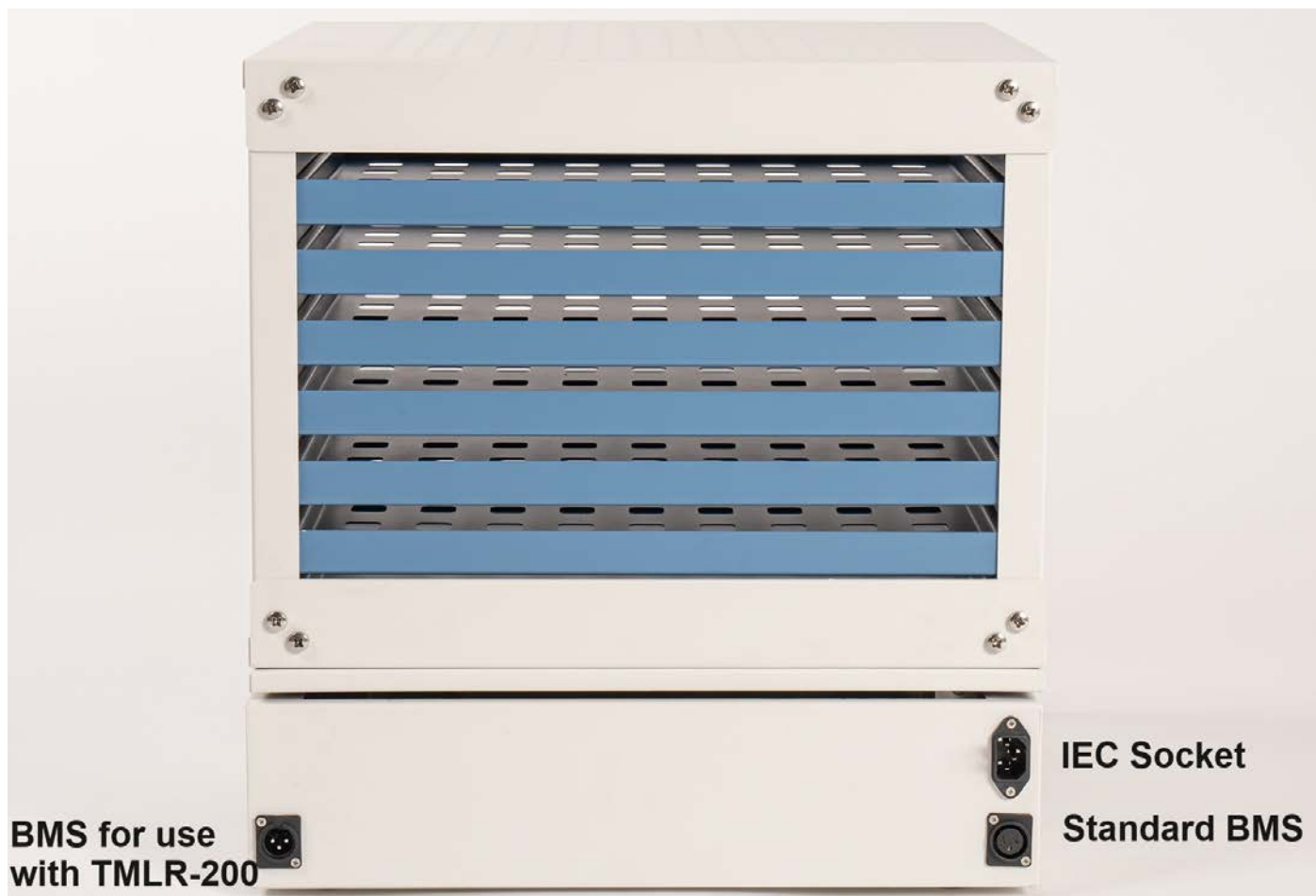
## BMS Output

The platelet shaker is fitted with a 3-pin socket to allow for connection to a building monitoring system or phone dialler. A plug is also supplied separately to connect the socket to your system. The BMS socket is located on the rear of the unit. There is an additional BMS socket on the platelet shaker for use with the TMLR-200.

The alarm contacts have no voltage, but we recommend that a suitably qualified technician connect the wiring. An alarm can be triggered by the shaker movement ceasing.



**1N/C:** Will open loop upon alarm situation. This is the optimal option, as any break in the loop is detected.  
**2N/O:** Will close loop upon alarm situation.  
**3COMM:** At least one wire is connected to this pin.



Location of BMS sockets



**Australian Government**  
**Department of Health and Aged Care**  
 Therapeutic Goods Administration

**Public Summary**

**Summary for ARTG Entry:** 406452 Thermoline Scientific Equipment Pty Ltd - Platelet agitator

<b>ARTG entry for</b>	Medical Device Included Class 1
<b>Sponsor</b>	Thermoline Scientific Equipment Pty Ltd
<b>Postal Address</b>	PO Box 6862, WETHERILL PARK DC, NSW, 1851 Australia
<b>ARTG Start Date</b>	20/03/2023
<b>Product Category</b>	Medical Device Class 1
<b>Status</b>	Active
<b>Approval Area</b>	Medical Devices

**Conditions**

- The inclusion of the kind of device in the ARTG is subject to compliance with all conditions placed or imposed on the ARTG entry. Refer Part 4-5, Division 2 (Conditions) of the Therapeutic Goods Act 1989 and Part 5, Division 5.2 (Conditions) of the Therapeutic Goods (Medical Devices) Regulations 2002 for relevant information.  
 - Breaching conditions of the inclusion related to the device of the kind may lead to suspension or cancellation of the ARTG entry; may be a criminal offence; and civil penalties may apply.

**Manufacturers**

Name	Address
Thermoline Scientific Equipment Pty Ltd	10-12 Ross Place WETHERILL PARK, NSW, 2164 Australia

**Products**

**1 . Platelet agitator**

<b>Product Type</b>	Single Device Product	<b>Effective Date</b>	20/03/2023
<b>GMDN</b>	45226 Platelet agitator		
<b>Intended Purpose</b>	This device is designed for the storage of bags of blood platelets and to provide a gentle reciprocating motion to these bags during storage. Used in hospitals and blood banks.		

**Specific Conditions**

No Specific Conditions included on Record

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Public Summary

Problem	Possible Cause	Fix
Shaker won't start	Not plugged into power correctly/faulty power point	Check the power connection/supply.
Excessive noise	External or internal rubbing of the carriage	Check for clearance of the carriage.
Excessive heat in the base of the case.	Fan motor blocked or broken.	Check that the vents are clear, check the fan motor.
Power is turned on but the carriage does not move.	Connecting rod damaged. Faulty motor.	Check connecting rod. Check motor.


## 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](mailto:service@thermoline.com.au)



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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 cabinet 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](mailto:service@thermoline.com.au).

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We will continue to invest in Australian  
manufacturing.

