

HEATSTRIP[®]

R A D I A N T O U T D O O R H E A T E R S



Product Manual



HEATSTRIP[®] *INTENSE* Electric Heater

Model THY2200





Product Overview

Rev B DEC 17

Why choose HEATSTRIP® electric radiant heaters for your outdoor or hard-to-heat indoor area?

As there is typically constant air movement in an outdoor or open indoor area, many conventional heaters rely on convection heating which works by heating the surrounding air. This can be quite impractical for these areas, as this heated air can easily blow away with natural air movement. Radiant style heaters transfer heat directly to objects through infra-red waves. Whilst convection heaters heat the air in between objects, radiant heaters heat the surface of the objects themselves. HEATSTRIP® electric radiant heaters are more effective within an outdoor or uninsulated indoor area because they provide targeted warmth directly to the people and objects in their path.

Innovative, High Performance Electric Heating Technology — for outdoor and indoor areas

Using the radiant heating principle, HEATSTRIP® *Intense* can provide effective and energy efficient comfort heating for outdoor (undercover and open) and indoor open areas. HEATSTRIP® has successfully enabled many entertainment venues such as restaurants, pubs and clubs to utilise their outdoor dining areas day and night, through all seasons. Within your workplace or business, HEATSTRIP® can provide comfort heating for designated outdoor smoking and leisure areas, as well as for workstation spot heating in factories, warehouses and showrooms. Within your home, HEATSTRIP® can provide comfort heating for undercover alfresco dining and BBQ area, patios, verandas, courtyards and balconies.

There are 5 different ranges within the electric HEATSTRIP® product category. Each has a different temperature rating making them suited to a variety of applications. Below is a list of some common applications, to assist with the selection of the most effective and efficient series. This is a general guide only, please refer to the Product Manual for each product, for more information.

HEATSTRIP® Indoor (THS-A models) is a medium intensity heater used for protected indoor applications only with installation heights up to 2.5m (THS800A) or 2.7m (all other THS-A models).

HEATSTRIP® Classic (THH-A models) is a premium high temperature heater and is primarily used for protected outdoor areas with an ideal mounting height of 2.3m to 2.5m and maximum mounting height of 2.7m.

HEATSTRIP® Elegance (THE models) is a premium high temperature heater and is primarily used for protected outdoor areas with an ideal mounting height of 2.3m to 2.5m and maximum mounting height of 2.7m.

HEATSTRIP® Max (THX models) is an ultra high temperature heater used for uncovered or open indoor or outdoor areas with an ideal mounting height of 2.3 m to 2.7m, and up to a maximum 3.5m for protected indoor applications.

HEATSTRIP® Intense (THY models) is an instant high temperature heater perfect for any exposed outdoor or indoor areas with an ideal mounting height of 2.3m to 2.5m, and a maximum of 3m in an outdoor exposed application.

APPLICATION	THS	THH THE	THX	THY
Indoor insulated areas: classrooms, offices, bathrooms, wet areas, drying rooms	√	√		√
Outdoor under cover: café, veranda, patio, balcony ceiling height 2.7m or less		√	√	√
Outdoor under cover: café, veranda, patio, balcony ceiling height 2.7m or more			√	√
Highly exposed outdoor area			√	√
Indoor open area: warehouse, factory, production areas, sports facilities	√	√	√	√
Indoor spot heating, above tables, assembly areas		√	√	√



Innovative, High Performance Electric Heating Technology

Features & Benefits

High Output radiant heat

HEATSTRIP[®] *Intense* electric radiant heaters produce radiant heat that travels through the air directly to people and surfaces below – similar to the heat rays emitted by the Sun. Radiant heating is the only viable option for outdoor or tough indoor sites.

Maximum heat performance – multiple applications

The high temperature output of the HEATSTRIP[®] *Intense* is perfect for exposed outdoor sites, high ceilings and hard-to-heat indoor and outdoor applications.

Suitable for permanent outdoor mounting, no protection needed.

For outdoor applications, the HEATSTRIP[®] *Intense* is suitable for both permanently exposed (eg. courtyards and patios) and undercover installations - does not need to be fully protected from the elements.

Corrosion protection

Built from corrosion resistant alloy, it is suitable for use in most applications, including difficult corrosive environments such as coastal areas.

Multi-Purpose Mounting Options

The HEATSTRIP[®] *Intense* is supplied with flexible mounting options. The standard bracket will allow both ceiling and wall mounting, at various angles, as well as suspension by chains/wires and metal rods.

DIY

The THY2200 (2200W) is supplied with a lead and plug, and is therefore ideal for DIY installations with brackets included.

Element

Carbon filament infra-red heating element provides high performance instant heat.

Warranty

2-year residential and 1-year commercial warranty.

Material & Design

Anodised alloy casing and end caps with a powder coat hexagon grille.





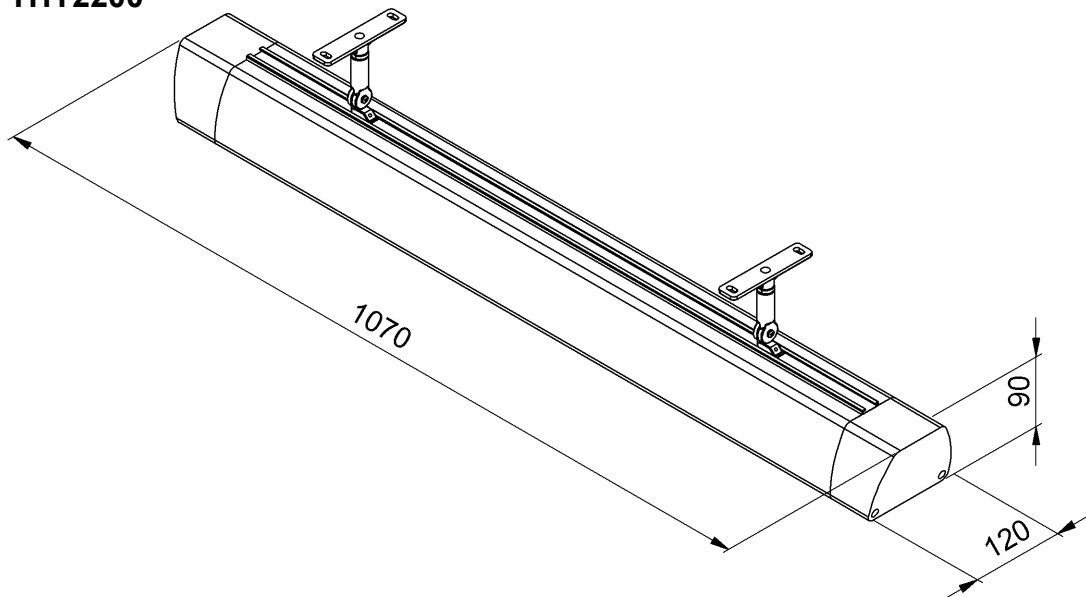
Specifications - Australia

MODEL	POWER (WATTS)	CURRENT (AMPS)	DIMENSIONS (mm)	WEIGHT (Kg)	LEAD LENGTH (mm)	PLUG
THY2200	2200	9.2	1068 x 120 x 90	6	1000	YES

MODEL

HEATER TYPE	High intensity electric radiant, infra-red overheat heater with carbon filament element.	
OUTPUT	2200 watts	
POWER	230-240 Volts Nominal at 50—60 Hertz, Single Phase	
CONNECTION	3 Core Cable 2.5mm ²	
APPROVALS	AUSTRALIA / NZ / EU	
MOUNTING HEIGHT	MINIMUM RECOMMENDED MAXIMUM	2.1 m 2.3 m - 2.5 m 3m Outdoors and 3.5m Indoors (For higher ceiling heights, units can be lowered using optional brackets kits)
MOUNTING OPTIONS	Suitable for ceiling, wall, and beam mounting as well as suspension by chains & wires using standard brackets. Optional mounting accessories include extension mount poles and flush ceiling mount kit.	
PROTECTION RATING	IPX5 Protection from water ingress from all directions	
MATERIALS OF CONSTRUCTION	Anodised alloy casing and end caps with powder coat grille	

THY2200





Spot heating principle

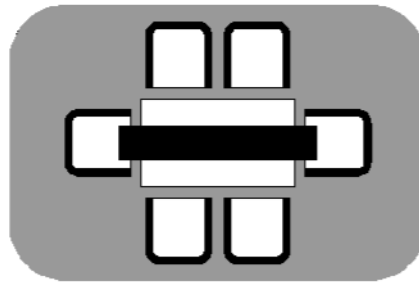
In most outdoor or difficult-to-heat indoor applications, there are 2 methods when looking at the size and quantity of heaters required.

Option 1 is to comfort heat the entire area based on the total dimensions of the space, regardless of whether the entire area is being fully occupied or not.

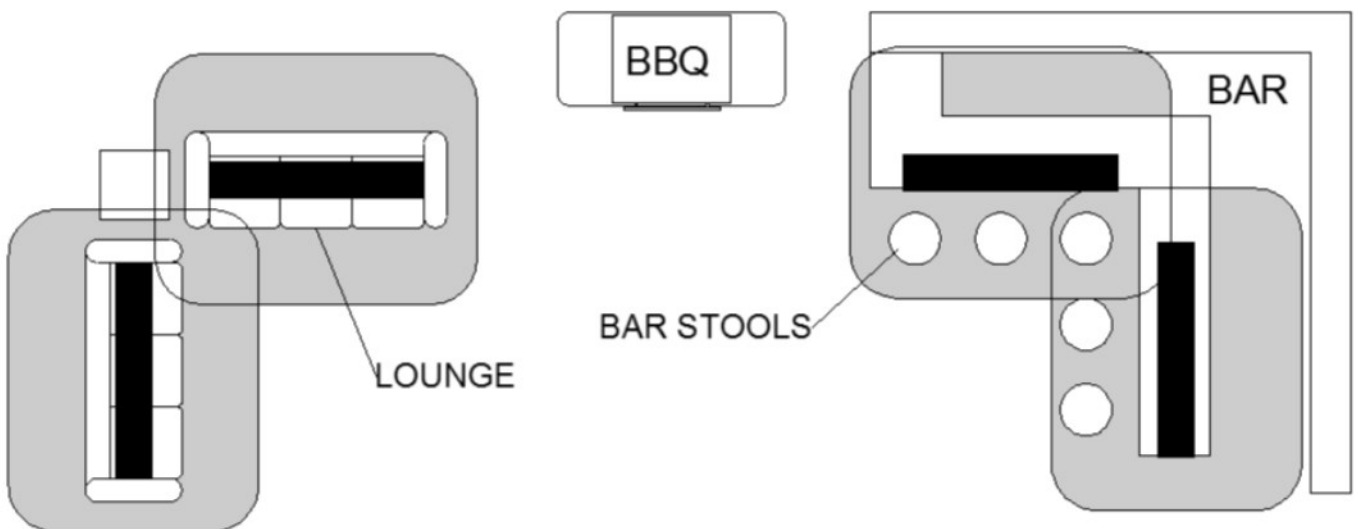
Option 2 is to spot heat the high use areas, such as over outdoor tables, BBQ's, lounges, assembly lines or indoor workstations.

Often it is more practical and efficient to spot heat these areas. Spot heating will help to reduce the initial capital cost, as well as the on-going running costs. Spot heating will allow the area to be "zoned", meaning heating only the areas that are being used, such as tables in a restaurant or outdoor alfresco area.

The top diagram shows how HEATSTRIP® *Intense* is recommended to be used directly over a table, while the bottom diagram indicates how to spot heat a large area.



THY2200 over table





Selection guide

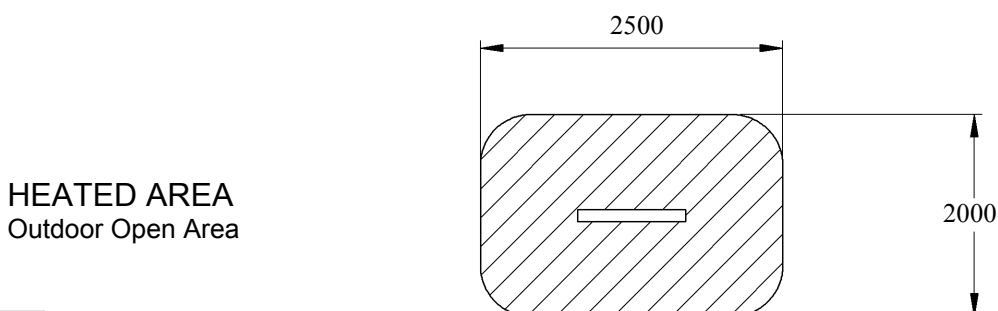
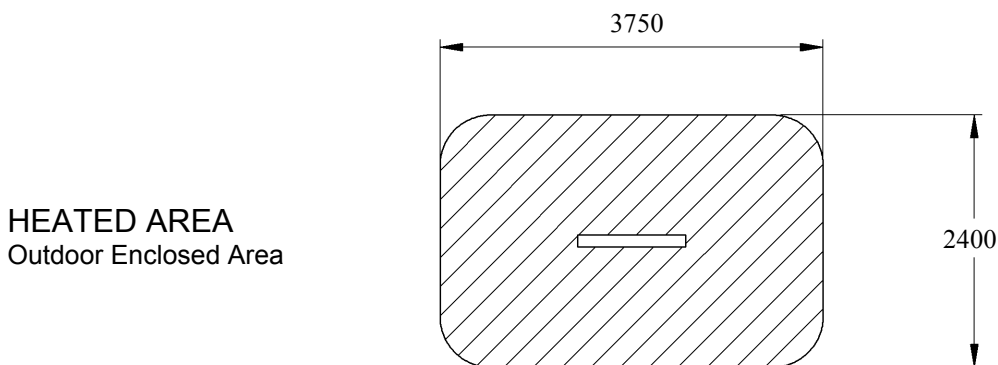
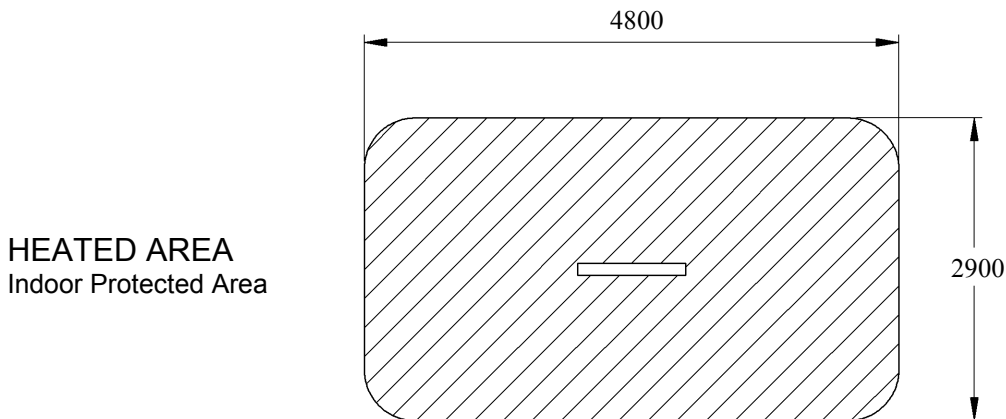
General recommendations for **HEATSTRIP® Intense**:

- Ideal mounting height: 2.3m to 2.5m, and the maximum is 3 m
- Ideal mounting location: ceiling mounted, directly above area to be heated (eg. above a table)

The below table outlines the coverage HEATSTRIP® *Intense* model (in m²), based on 3 different scenarios.
For example, in an outdoor area that is protected from prevailing winds by walls, café blinds etc, (eg outdoor enclosed)

This data is based on direct overhead ceiling mounting. If the heaters are wall mounted, the radiant footprint will be reduced.

MODEL	INDOOR PROTECTED (m ²)	OUTDOOR ENCLOSED (m ²)	OUTDOOR EXPOSED (m ²)
THY2200	14	9	5





Installation Requirements

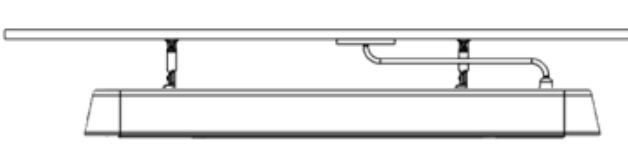
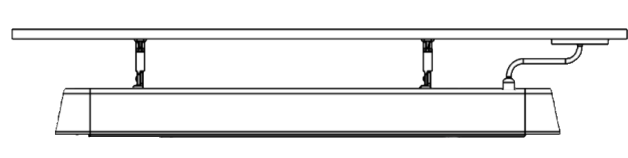
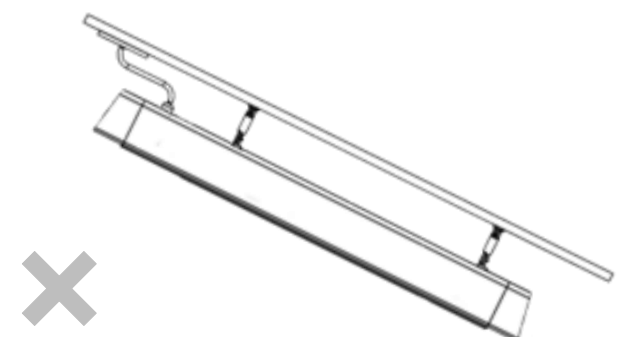
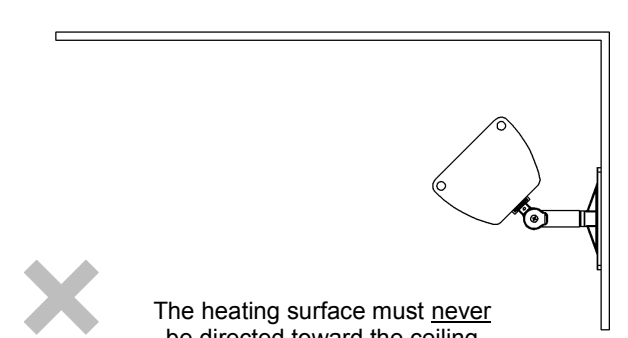
The ideal mounting position for the HEATSTRIP® *Intense* is on the ceiling, directly above the area to be heated. If this is not possible, HEATSTRIP® *Intense* can be mounted on a wall and angled downwards. In this situation, ensure the mounting height is in the range of 2.3m to 2.5m.

For mounting heights more than 3m outdoors, we recommend the use of the optional accessories to reduce the height of the heater to 2.3m—2.5m. This will increase the effectiveness of your HEATSTRIP®. Refer to the Mounting Accessory section for more information.

Electrical connections/GPO's should not be located at the back of the heater. They should be located outside the physical footprint of the units to minimize heat build-up behind the units.

The HEATSTRIP® *Intense* is not suitable for mounting on an incline, along the length.

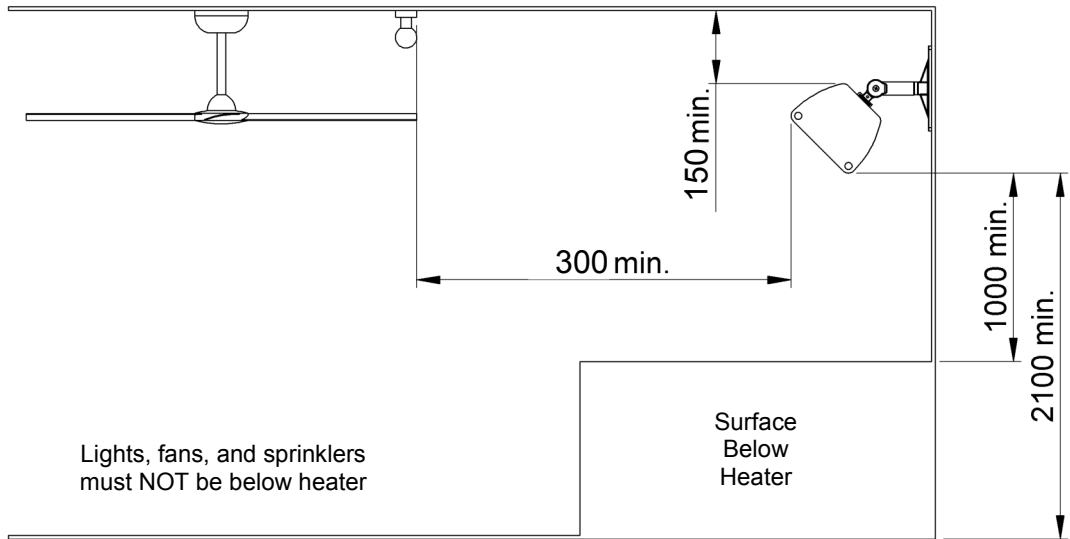
This Model may be hardwired and connected to an On/Off switch. In this situation, the heater must be installed by a licenced electrician.

Incorrect Installation	Correct Installation
 <p data-bbox="175 1164 255 1254">✘</p>	 <p data-bbox="821 1164 901 1254">✔</p>
 <p data-bbox="175 1545 255 1635">✘</p>	
 <p data-bbox="175 1948 255 2038">✘</p> <p data-bbox="303 1993 654 2049">The heating surface must <u>never</u> be directed toward the ceiling</p>	

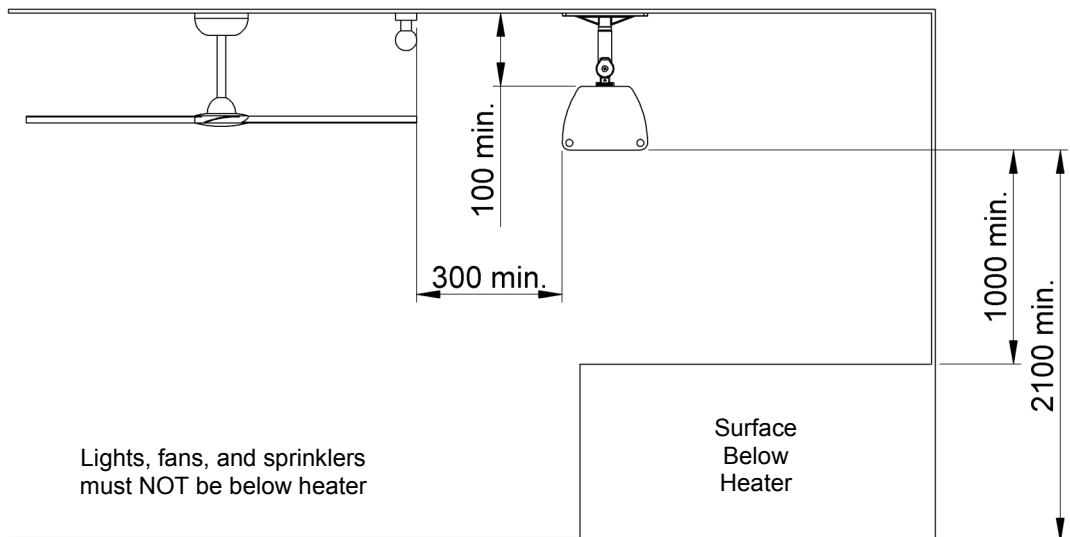


Installation location — the below diagrams confirm the minimum recommended clearances.

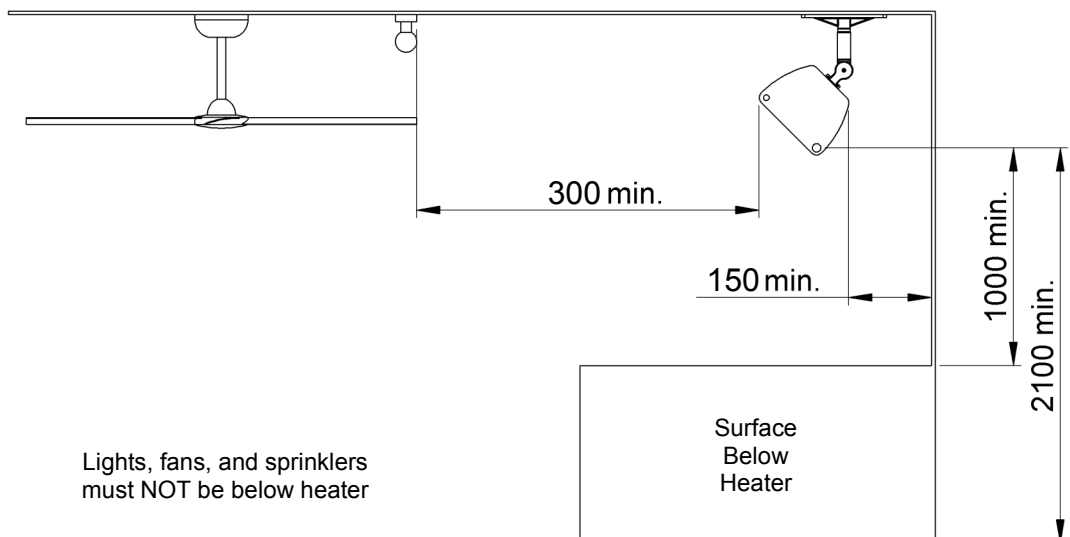
Angled Wall Installation



Ceiling Installation



Angled Ceiling Installation



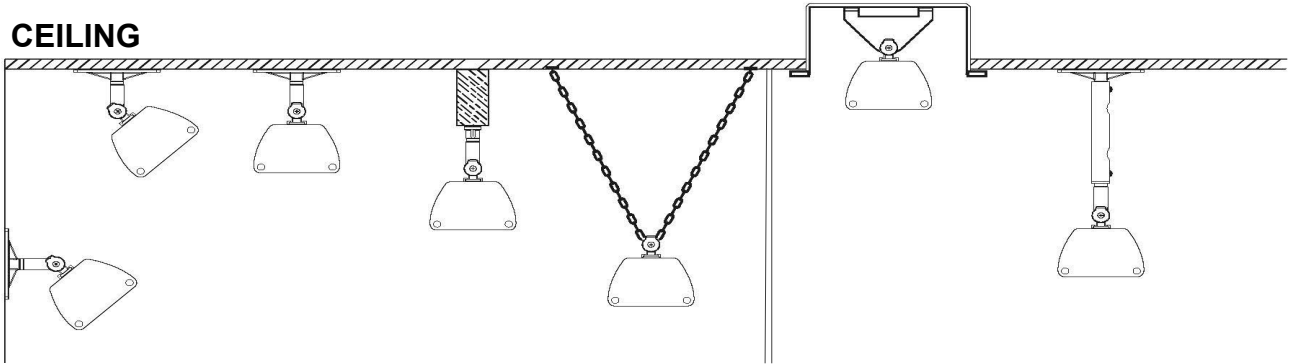


Mounting options

The installation of HEATSTRIP® *Intense* is simple and easy with the standard mounting brackets supplied. For other more challenging locations there are a range of mounting options available - refer to below diagrams.

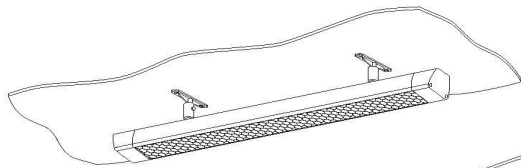
The HEATSTRIP® *Intense* can be mounted directly to the ceiling, flush mounted into the ceiling, angled downwards on a wall, suspended on chains, poles or attached to beams and rafters. Refer to the following pages for more detailed information on each mounting option.

CEILING

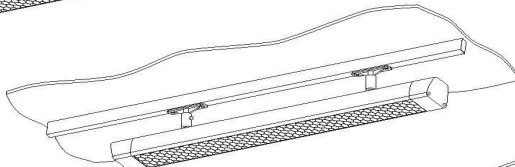


Installation options with standard bracket
(*Chain not included)

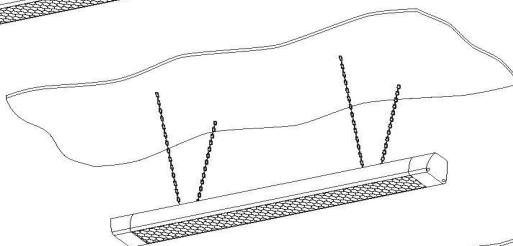
Optional Mounting Accessories



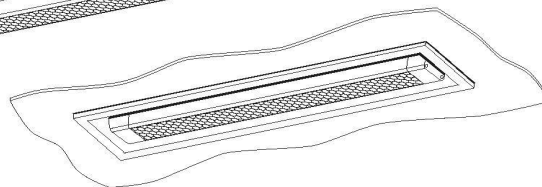
Standard Ceiling Bracket



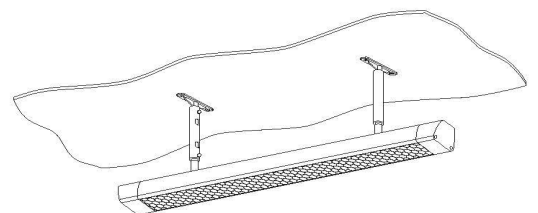
Beam / Pole Mounting
(Using standard bracket)



Chain / Wire Mounting
(Using standard bracket)



Flush Mount Enclosure



Extension Mounting Bracket



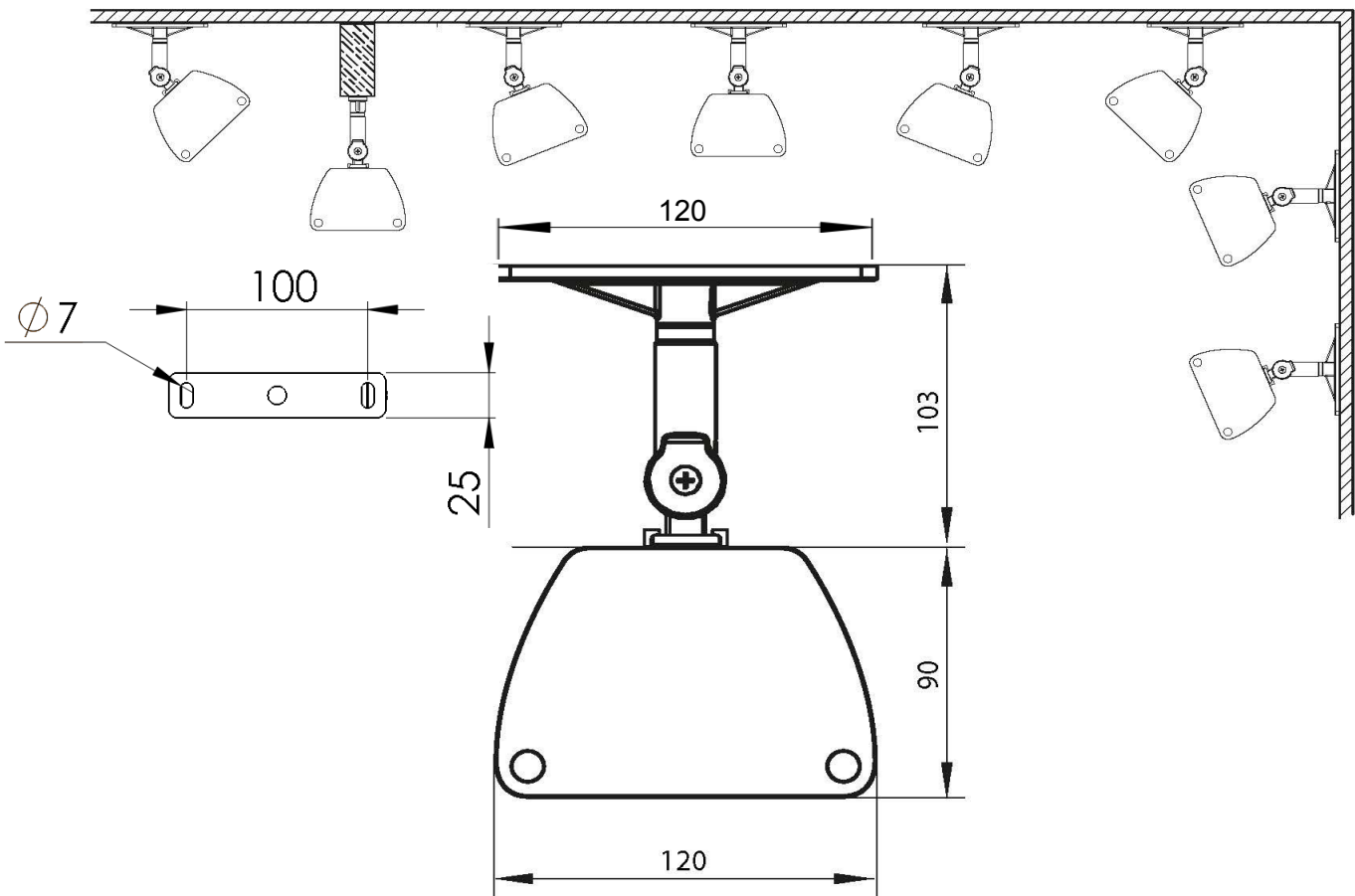
Standard mounting brackets

The HEATSTRIP® *Intense* comes with a pair of standard mounting brackets. These adjustable brackets allow direct ceiling or wall mount, and come with pre-set angle options of parallel, 22.5° and 45°.

The flexible standard mounting bracket can be turned 90 degrees to mount onto a beam, it can also be used to suspend with chains.

The brackets need to be mounted onto a secure frame or wall with a minimum distance between the two brackets. The minimum distance ("B") for each model is listed on the next page. All dimensions shown below are in (mm).

When completing the installation, ensure all screws are tight and unit is secure.



Standard Mounting Bracket

PART No	PACKAGED DIMENSIONS (mm)	WEIGHT (kg)	MATERIALS
ZBRAK-132B	125 x 100 x 40	0.2	ALLOY (BLACK)



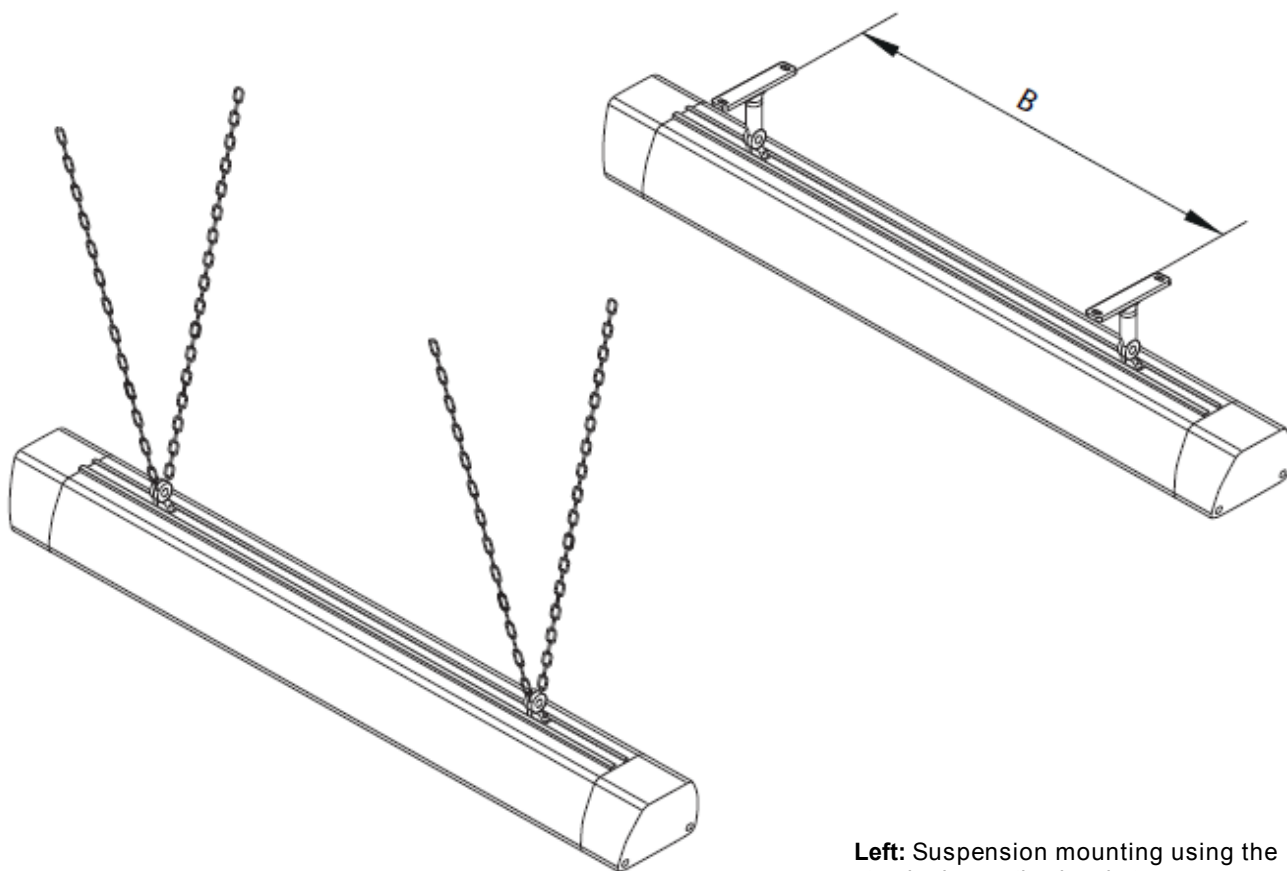
MOUNTING

Fix the two mounting brackets to the ceiling or wall in the desired location (refer minimum bracket centre chart). Make sure the method of fixing (bolts or screws) will be more than strong enough to support the weight of the heater, allowing for strong winds and other conditions.

- Slide the 2 locking brackets into the groove on the back of the heater. Make sure the pins on the locking bracket are facing the matching holes in the top mounting bracket.
- Lift heater into position and secure the 2 locking brackets to the mounting brackets using the screws provided. Make sure the 2 pins on the locking bracket engage with the matching holes in the mounting bracket. The pins will allow for both horizontal or angle mounting as required
- Tighten all screws and tighten the round nut at the top of the bracket, so it locks onto the top part of the mounting bracket.

NOTE: The standard bracket allows for normal or angle mounting of the heater and is suitable for ceiling or wall mounting.

MODEL	"B" MINIMUM DISTANCE (mm)
THY2200	350



Left: Suspension mounting using the standard mounting brackets

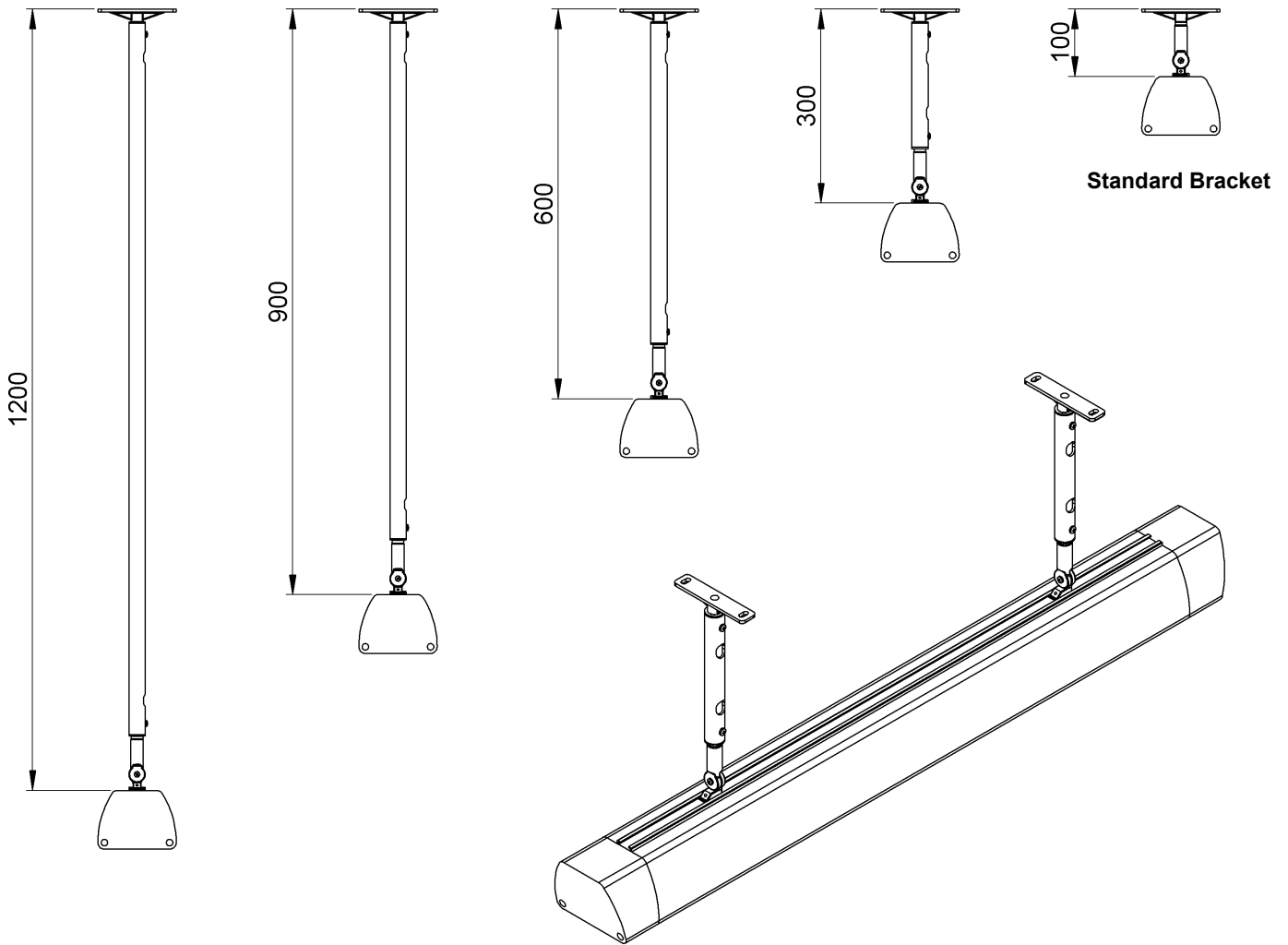
NOTE: Chains or wire not included



Extension Mount Bracket

The Extension Mount bracket allows HEATSTRIP® *Intense* units to be lowered from high ceilings using rigid connections. The standard length options as part of the kit are 300mm, 600mm, 900mm and 1200mm.

The extension mount bracket utilises components from the standard bracket kit which is supplied with each heater.



PART No	PACKAGED DIMENSIONS (mm)	WEIGHT (kg)	MATERIALS	NOTES
THHAC - 024	300 x 150 x 50	0.21	Aluminium	Kit includes 2x300mm extension pole
THHAC - 025	600 x 150 x 50	0.38	Aluminium	Kit includes 2x600mm extension pole
THHAC - 026	900 x 150 x 50	0.55	Aluminium	Kit includes 2x900mm extension pole
THHAC - 027	1200 x 150 x 50	0.71	Aluminium	Kit includes 2x1200mm extension pole



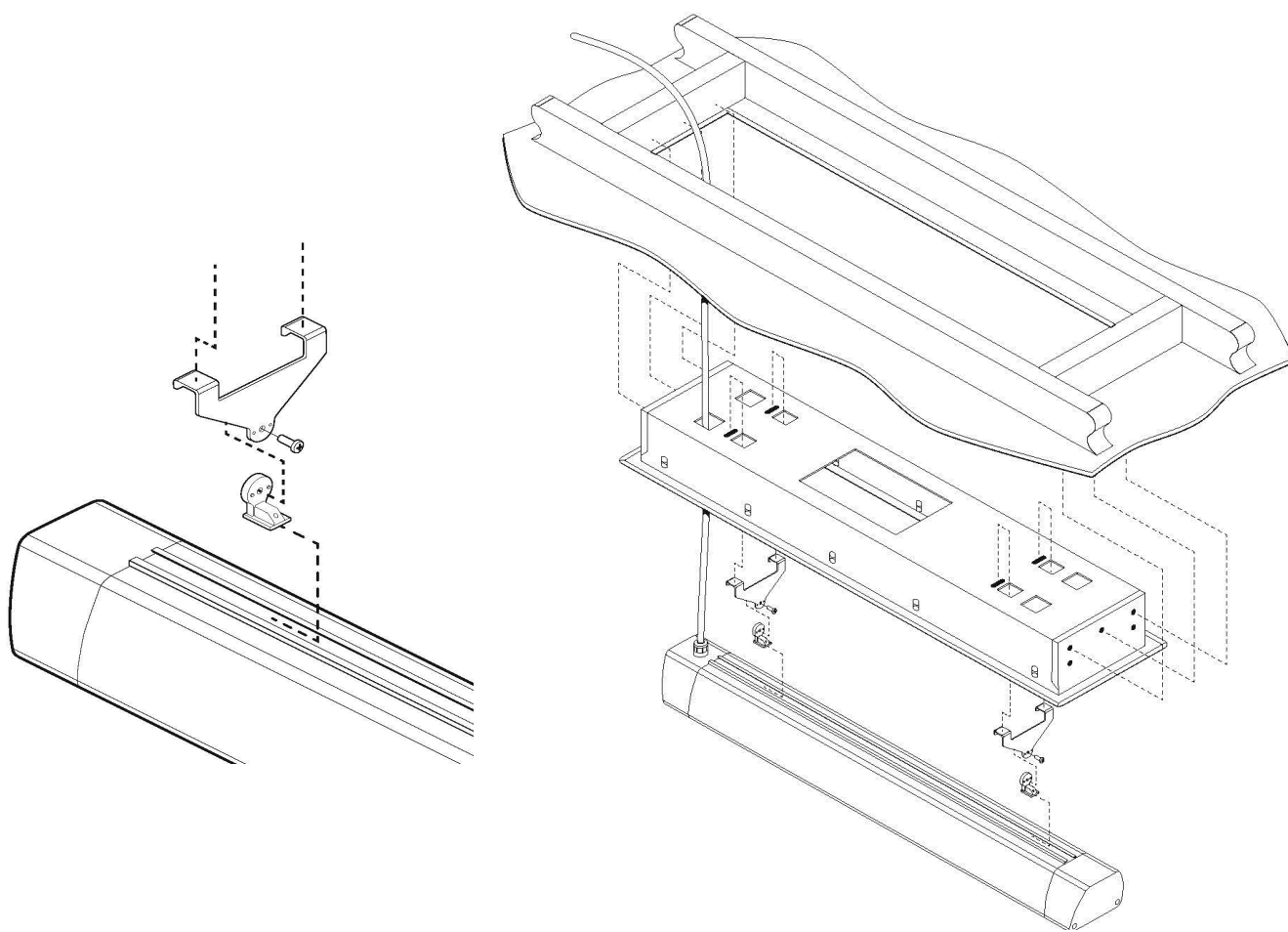
Flush mount enclosure

The Flush Mount Enclosure is an ideal way to neatly install the HEATSTRIP® into a ceiling. They are available for the HEATSTRIP® *Intense* model, and are supplied as a one-piece unit suitable for mounting individual heaters. Flush mounting can be used with plaster or timber lined ceiling materials.

An ideal mounting height is 2.3m - 2.5m, with a maximum ceiling height of 2.8m in an outdoor enclosed environment. Maximum mounting heights should be strictly followed, otherwise the performance of the units may be reduced.

A minimum clearance of 200mm behind the enclosure must be provided.

The enclosure is manufactured from powder coated steel, with a black fascia.



SUITABLE FOR MODEL	PART No	HOLE CUTOUT DIMENSIONS (mm)	OVERALL DIMENSIONS (mm)	WEIGHT (kg)
THY2200	THYAC - 047	1122 x 176	1150L x 184W x 190H	5



HEATSTRIP® TT-MTR-PLUG Controller

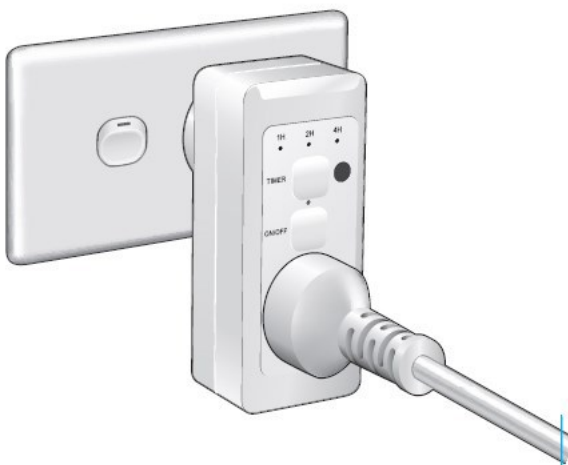
TT-MTR-PLUG Controller

The TT-MTR-PLUG controller consists of a remote control and a plug-in wall socket timer unit to provide easy wireless timer operation of wall plug connected appliances.

The TT-MTR-PLUG has been designed to provide easy remote control timer functionality to wall socket powered Heatstrip heaters. The unit can however be used to remotely operate with timer functionality any device powered by a standard 10A Australian wall socket outlet.

Design Features

- The TT-MTR-PLUG provides an easy means of remotely turning on appliances that are normally permanently connected to a standard wall socket.
- An easily selected 1 hour, 2 hour and 4 hour timer function accessible on both the wall unit and re-mote
- Programmable remote control unit capable of controlling multiple units.



Specification

Remote battery	CR2025, 3V, Lithium
Remote range	10m+
Wall socket supply	220V - 240V, 50Hz
Max Load	10A (2400W)
Standby consumption	<1W
Remote Frequency	38KHz IR
Dimensions (mm)	105 (H) x 55 (W) x 60 (D)
Approvals	Australian Standards AS/NZ 3105, 3112, 3100

NOTE: Optional Controller (Not Included with unit)



Safety

HEATSTRIP® *Intense* has an IP rating of X5. This means it is safe for water ingress from all directions. The HEATSTRIP® can be safely hosed down.

HEATSTRIP® has undergone extensive testing both in laboratory conditions; in Thermofilm's manufacturing facility in Melbourne and field trials in Australia and overseas. It has been this testing that gives the purchaser the confidence of a high quality product.

Independent laboratory testing has confirmed Thermofilm's full compliance with Australian and other International Standards. This includes CE, AS/ANZ, UL/CSE

HEATSTRIP® is Class 1 equipment and must be earthed.

In operation, this heater is VERY HOT— do not touch any part of the heater while it is turned on. Do not touch any part until 30 minutes after it is turned off.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or intellectual 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 they do not play with the appliance.

Do not allow any cables, furnishings, flammable materials or other items come in contact with any surface of the heater.

If installed in wet areas, the heater switches or controls must be located so that they cannot be touched by persons in the bath or shower.

The heater needs to be installed as per the installation instructions paying special attention to the minimum clearances. The heater needs to be mounted on a rigid bracket or fixing.

The heater must not be mounted immediately below or in front of a socket outlet.

In case of a heater fault or damaged supply lead, the appliance should be returned to the point of purchase for return to Thermofilm for repair.

Maintenance

The HEATSTRIP® is made from durable materials, however regular care and maintenance of your heater will help prolong the life of the heater.

It is recommended that you hose down the heater and with a soft cloth gently wipe the surfaces of the heater with a mild detergent to remove the built up contaminants from the environment. Then rinse all detergent off the heater.

All chemicals in the atmosphere including cigarette smoke, pollution etc. will tarnish the surface of the heater. In this case, additional cleaning and maintenance may be required. The cleaning process at least every three months will reduce the amount of build up and keep it looking as best it can. If the heater is in a corrosive environment eg. salt spray, we recommend that you clean your heater with a light spray of fresh water every week. After cleaning, turn the heater on for 20 minutes to dry any water residue and prevent water staining.

Before cleaning or inspection activity, the heater must be switched off and cooled down completely.

Do not use any abrasive materials or products to clean the heater, this includes solvents, citrus based cleaners or other harsh cleaning products.

When handling the heater, ensure that your hands are clean or that you use clean gloves as grease or dirt can mark the surface of the heater.

Do not use high pressure water to clean heaters, light water spray only.



Warranty Terms & Conditions

The below Warranty Terms and Conditions apply for **New Zealand and Australia only**. For international warranty please refer to international warranty terms and conditions.

Thermofilm warrants to the original owner that HEATSTRIP® *Intense* products will be free from defects in materials and workmanship for a period of 24 months for residential applications (and 12 months for commercial applications) from the date of purchase in accordance with the following warranty terms and conditions.

Provision of this warranty is subject to:

- The HEATSTRIP® product must be installed in accordance with the Installation Instructions and relevant electrical standards and codes.
- The HEATSTRIP® product must be maintained and cleaned according to instructions detailed in the Installation Manual.
- There is no warranty expressed or implied with regard to capacity requirements. The selection of the unit or units depends entirely upon the system design and capacities as determined by the purchaser.
- The customer has not repaired, opened or altered the product in any unauthorised manner.
- This warranty excludes damage to the product or components arising from circumstances outside the control of Thermofilm, including, but not limited to, where the product is not used for intended purpose; where the product has been rectified in any way; incorrect installation; incorrect power supply; damaged caused during delivery; misapplication, misuse, abuse, vandalism, lack of maintenance or accident.
- Thermofilm's obligations under this warranty are limited to repair or replacement at Thermofilm's factory of any components of the product which Thermofilm identifies to its satisfaction to be defective.
- Transportation charges involved in return of the product to the Thermofilm factory (or any other location authorised in writing by Thermofilm) is the sole responsibility of the customer.
- All products are inspected and tested before despatch and are at the risk of the purchaser after the shipment from the Thermofilm factory, if not delivered by Thermofilm to destination.
- Discolouration of the surface may occur after a period of time, this does not constitute a warrantable event.
- Twisting and bending of the heaters may occur, this does not constitute a warrantable event.
- No products or components will be supplied in advance of an examination of the faulty product or components by Thermofilm or an authorized representative of Thermofilm.
- Thermofilm does not participate in any site related costs or labour expenses incidental to replacement of parts, repairing, removing, installing, servicing, transportation or handling of parts to complete products, and assumes no liability on parts repaired or replaced without written authorisation. Thermofilm shall not be liable for any default or delay in performance of its warranty obligations caused by any circumstances beyond its control, including, but not limited to, judicial or government restrictions, strikes, fires, floods, abnormal weather conditions, delayed supply of components.

Should products be determined as damaged on arrival, immediately notify the transport company of the condition and have them noted on the freight documents. If damage is discovered after unpacking, demand immediate inspection by the transportation company and insist that a record of the damage is made on the freight documentation.

The customer warrants using the product in accordance with:

- Any instructions provided to it by Thermofilm from time to time.
- All government and local regulations, including but not limited to all relevant electrical, environmental laws and regulations governing the installation, storage, use, handling and maintenance of the goods.
- All necessary and appropriate precautions and safety measures relating to the installation, storage, use, handling and maintenance of goods.

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.

All warranty requests for repairs or replacements must be accompanied by a complete "Warranty Claim Form" available from Thermofilm, together with proof of purchase (and where possible, photos of the installation) and the heater returned to the place of purchase.

In the event of a warranty claim, the goods need to be returned to the distributor/retailer for repair/replacement. Contact

Thermofilm Australia Pty Ltd
17 Johnston Court, Dandenong South, Victoria 3175, Australia
Telephone: (03) 9562 3455,
Email: info@thermofilm.com.au