

# HEAT MAT & HEAT STRIP

## Instruction Manual

This is essential to read through to ensure safety of your reptile.

**ALWAYS  
USE WITH A  
THERMOSTAT**



Efficient vivarium and terrarium heating for reptiles, amphibians and invertebrates



**PROREP** 

## IMPORTANT INSTRUCTIONS - PLEASE READ

Thank you for purchasing this ProRep heat mat. Our heat mats are manufactured in the UK to the highest safety standards. Correctly used this heater will give many years of trouble free service but it is vital that you read the safety and installation instructions before use. Failure to follow these instructions correctly could result in injury to your animal or damage to your heat mat, tank or vivarium.

### What is a heat mat?

Heat mats consist of two metal conductive strips connected by a flat membrane. This membrane conducts electricity across it but its resistance causes it to heat up and produce ultra-long wave infra-red radiation. Infrared radiation is not visible but provides a gentle background heat to an enclosure. It also heats up the animal and cage furnishings without raising the air temperature significantly. This action is similar to the infra-red radiation produced by the sun which warms reptiles as they bask in the wild. A thermostat must always be used.

### What is a heat strip?

Heat Strips are effectively long thin heat mats. They are manufactured in the same way, and to the same standards as heat mats and all the safety and installation instructions above should be applied to them. They are often used to heat a series of small containers for small snakes or other small animals. It is important that care is taken when setting them up as creating a good thermal gradient and preventing overheating can be more difficult in small tanks. A thermostat must always be used.

### How are they used?

Heat mats and strips can be used as a primary or secondary heat source, depending on the animal. In most cases they will not raise the air temperature of an enclosure significantly, unless it is small, but the animal will be able to raise its body temperature as required. If they are used for animals that bask, or need high temperatures, then additional heating should be supplied to create hot basking areas or significantly raise the air temperature.

### Why use a heat mat/strip?

All reptiles, amphibians and invertebrates are cold blooded and rely on their environment for heat. To control their body temperature (called thermoregulation) they must have areas that are cool and areas that are warm. This is called a "thermal gradient" and the animal will move from hot or cold to cool down or warm up as required. When installing any heater you must think about where the heat is going to be produced and aim to position the heater to create an adequate thermal gradient for the particular animal being kept. A heat mat or strip must ALWAYS be smaller than the enclosure it is being used in, typically 50% of the size of the enclosure. If it is the same size then there will be no cool areas for the animal to use and it may well overheat, even if the air temperature of the enclosure is quite low. Heat mats and strips can be used on the bottom, side or top of a vivarium or terrarium. If used with a glass enclosure then they can be mounted on the inside or outside of the terrarium. If used with a wooden vivarium then they must only be used inside the vivarium. If they were placed on the outside then the wood insulates the mat and slows the heat getting into the vivarium where it is needed.

### Do's and Don't's...However you use your new heat mat there are some simple do's and don't's you should observe at all times:

#### Do....

- Heat Mats **MUST** be controlled by a thermostat.
- Check your heat mat, mains cable and plug for damage before use.
- Ensure that the mat is positioned so that it will create a thermal gradient.
- Ensure that it is fixed or mounted according to the installation instructions.
- Turn off and disconnect from the mains before cleaning.
- Ensure that the probe from the thermostat is positioned very close, or in contact with the heat mat so that the surface temperature of the heat mat is detected correctly.
- Ensure the probe of the thermostat is positioned under the substrate, not on top of it to accurately measure the temperature of the mat.
- Use polystyrene sheet under glass tanks to recess the terminal block. Leave an air gap of 5mm if the heat mat is positioned under a glass terrarium to allow sufficient air circulation.
- Use a thermometer to accurately measure the temperature at the basking site.
- Consider that objects placed onto a heat mat will increase the resistance of the mat and in turn increase the heat generated. Every additional item added (including substrate) will increase the heat generated and can result in a serious failure.

#### Don't....

- Pierce, cut or fold the heat mat.
- Cover or insulate the mat on both sides as this will cause serious overheating.
- Use the mat with large animals, such as monitors, that may damage the mat or cable unless it is protected or out of reach of the animal.
- The mat is splash proof and can be wiped clean but do not immerse in water or get wet.
- Use outside a wooden vivarium.
- When used with large animals that are capable of covering the whole mat do not mount on the floor.

***And remember, once you have set up your vivarium leave it running for at least 48 hours and carefully monitor the temperatures to ensure that it is working correctly before introducing any animals.***

## Installation

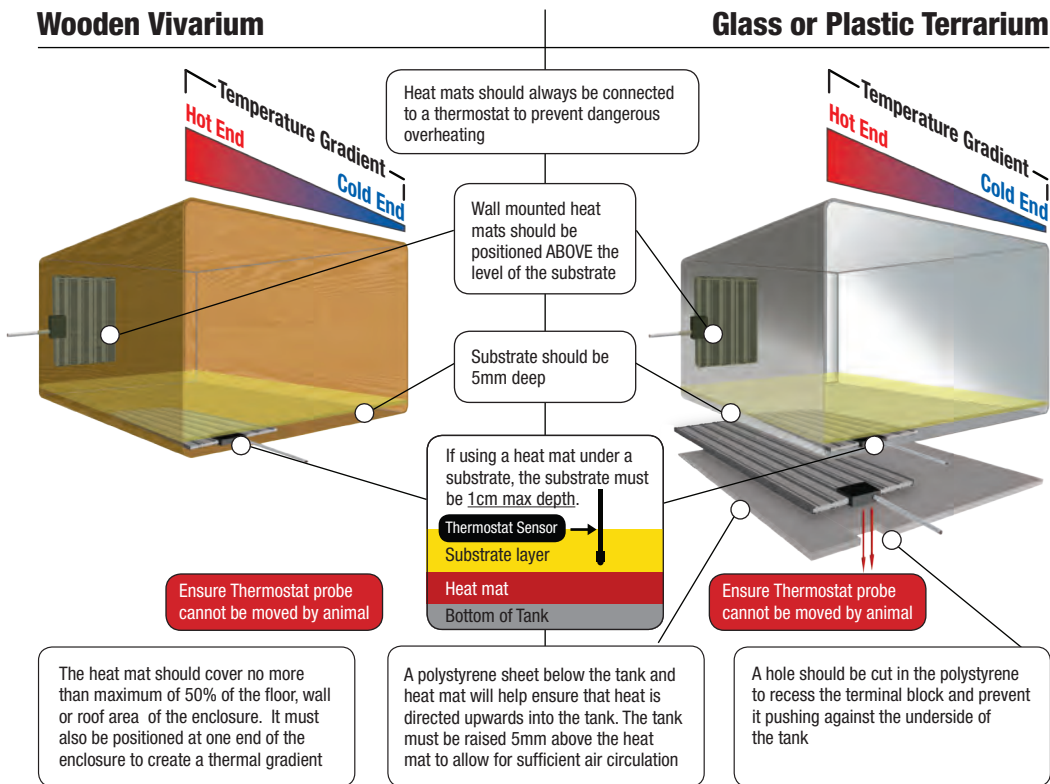
Before installing and using your new heat mat or strip please read these instructions thoroughly, remove all packaging and carefully examine the mat, plug and cable for any signs of damage. DO NOT use the mat if it has been folded, torn or pierced in any way or if you can see any damage to the plug or cable.. If you are unsure about any aspect of its use then please ask. The seller of the heat mat should be able to provide all the information you need. If you still have questions then please email our customer care team on [sales@pro-rep.co.uk](mailto:sales@pro-rep.co.uk) and they will be pleased to assist. Remember all heaters are potentially dangerous and incorrect use could seriously harm your pet; do not take chances. Always control heat mats with the appropriate thermostat. Heat mat and strips can be used with on/off, dimmer or pulse proportional thermostats. For the most accurate temperature control, a pulse proportional or dimming thermostat should be used. ProRep heat mats have been tested with all Microclimate thermostats. If you are using a different make then please refer to the manufacturers instructions for its suitability.

## How shall I use my heat mat with my pets enclosure?

Wooden vivariums should always have the heat mat mounted INSIDE. With glass or plastic tanks the heat mat can be placed inside or outside the tank. If the mat is used outside of a plastic or glass tank then ensure a layer of polystyrene is used under the mat and that the tank is raised so that there is at least a 5mm gap between the mat and the bottom of the tank to allow airflow and to prevent the mat from overheating.

## Wooden Vivarium

## Glass or Plastic Terrarium



## Warning!

**If using a heat mat or strip on the floor of a terrarium or vivarium then it should only be covered with a thin layer (no more than 1cm) of substrate to prevent the mat overheating. For substrate depths of > 5mm always ensure the substrate cannot cause overheating of the mat. The thermostat probe must be placed UNDER the substrate touching the mat. Substrate will act as an insulator and too much will result in the mat seriously over heating. Heavy objects such as hides and water/feeding dishes must not be put on the mat. This will cause thermal blocking and can result in fire.**

## Floor mounting

### External Use (Glass and Plastic Tanks Only)

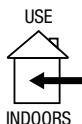
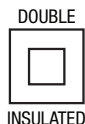
Mounting externally is only recommended for plastic or glass tanks as the heat can be conducted through the material. First, think about the thermal gradient that you are trying to create and place the heat mat where you want the warmest area to be. Usually the mat or strip will be placed at one end of the enclosure to create a hot and cool end. If the mat is being mounted outside of the enclosure then first place a sheet of polystyrene (the same size as the tank being heated) on the surface where the tank will be sited. Heat mats emit heat from both sides and this will help to direct heat upwards into the tank. Place the heat mat in position and mark the position of the black terminal block where the mains cable is attached to the mat. Cut a hole in the polystyrene so that the block is flush with the surface. Make sure that the mat is the correct way up and that the flattest side of the terminal block is facing upwards. Now place the tank on top of the mat so that the mat is in the correct position to create a thermal gradient when working. The tank should be raised so that there is a 5mm gap between the mat and the bottom of the tank to allow airflow and so prevent the mat from overheating. **PROBE MUST BE ABOVE WHERE THE HEAT MAT IS.**

### Internal Use

If you are mounting the mat inside a tank then it should be stuck into position using strong tape. All of the edges must be secured so that the animal cannot get underneath the mat and care must be taken that there are no exposed areas of adhesive that the animal could get stuck to. It is important that the tape is only secured to the clear plastic areas around the edge of the mat and not onto the metal strips or heating element. Ensure that the thermostat probe is touching the mat in the same place that the animal will be when it is in the tank so that it can sense the temperature of the mat. Remember to only use a thin layer of substrate (Maximum 1cm) and do not place any objects on top of the substrate where the mat is situated. Heavy objects must not be put on the mat as this can create a thermal block and can cause a serious failure, this can lead to overheating and is a potential fire risk.

### Wall or roof mounting

Heat mats can be stuck to the walls or roofs of terrariums and vivariums using tape in the same way as mounting internally on a vivarium floor. Even if you think the mat is out of reach of the animal then you should still ensure that all the edges are firmly stuck down to be sure the animal cannot get behind the mat where it would quickly overheat. If mounting on the side of a terrarium/vivarium then the mat should be positioned above the level of the substrate to prevent overheating. Remember, even when mounting on the top or side of an enclosure you must still mount the mat inside of wooden vivariums. If you have any doubts about the installation then consult a qualified electrician or stockist.



This product bears the selective sorting symbol for waste electronic and electrical equipment (WEEE). This means that the product must be handled pursuant to European Directive 2002/96/EC in order to be recycled or dismantled to minimise its impact on the environment.



### CONTACT DETAILS:

Rolls Farm Barns, Hastingwood Road,  
Magdalen Laver, Essex CM5 0EN  
T: 01279 438459 F: 01279 438549  
E-mail: sales@pro-rep.co.uk  
www.pro-rep.co.uk



**PROREP** 

Version:  
Date: