

Basic Guidelines for Heating Vivaria

Reptiles are Ectotherms, that is they heat themselves and regulate their body temperature by means of the environment. They move in and out of hot and cool areas to maintain their preferred temperature. It is therefore important that the vivarium has a suitable temperature gradient for the reptiles to behave naturally.

The heater should be placed at one end of the vivarium so

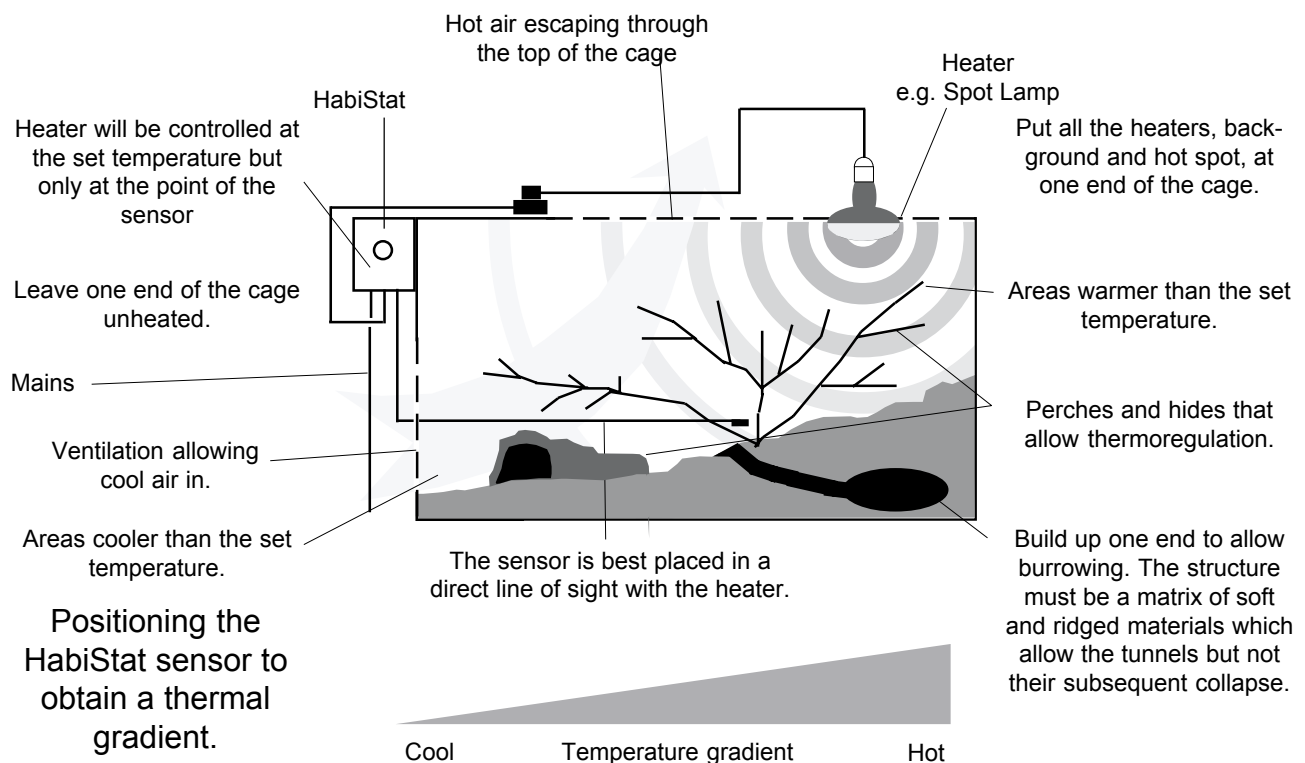
that it does not heat the whole of the enclosure. In this way the temperature will vary between the hot area, near the heater and the cooler areas at ambient temperature. For sophisticated temperature management the thermostat is equipped with a temperature drop facility. This will enable regular temperature changes, like those that occur at night for example, to take place. Either a *HabiStat Night Eye* or a time switch will be needed to make the most of this facility.

More than one heater may be controlled by the HabiStat, providing the total load of 600 watts is not exceeded. To function properly a minimum load of 40 watts is needed so the heaters should not be smaller. *HabiStat Dimming* thermostats are particularly accurate controllers that maintain a narrow temperature range once stabilised.

This type of thermostat is ideal for heat and other light emitting lamps. Other heaters may also be controlled

Size Matters

Heaters must be large enough to heat the vivarium to the required temperature. An underrated heater will rarely supply enough heat to reach the temperature set on the HabiStat. Too large a heater will supply so much heat that the HabiStat is constantly running it at minimum power. This will lead to poor temperature management and may cause either the heater or the thermostat to malfunction or worse, fail.



Positioning the HabiStat sensor to obtain a thermal gradient.

...Using the HabiStat.

The HabiStat will control the heater at the level set on the dial and detected at the sensor. The function of the remote sensor is to enable selection of the site at which the temperature can be sampled and controlled. The range of the temperature gradient will be proportional to the distance between the sensor and the heater and the ambient temperature. If the HabiStat is set at a temperature on the dial but the sensor is placed away from the heater there will be areas near the heater that are hotter than the set temperature. Similarly, if the sensor is placed near the heater, there will be areas away from the sensor that are cooler than the set temperature.

It should also be noted that as hot air rises, setting the sensor at the top of a vivarium will only maintain the required temperature at that point. A vivarium that houses ground dwelling animals may be too cool if set up in such a way. Place the sensor where the animals are likely to be!

Some criteria for controlling the temperature are:

- Ensure that the placement of the sensor is representative of the temperature required, use common sense in choosing the position.
- Remember that the HabiStat will be most accurate in the middle of its range. Try to use this, rather than the extremes, to maintain accurate control of temperature.
- Although the dial is accurate the temperature should always be checked with a thermometer.

...Dimming Control

The *HabiStat Dimming Thermostat* uses a very accurate method of temperature control. A continuous but variable amount of power is supplied to the heater. The 'Heater' neon will reflect this by glowing at an intensity relative to the amount of power being used.

The heater is rarely switched either fully on or completely off and is therefore kept warm, rather than alternately hot and cold. This extends the life of the equipment as neither electrical or thermal extremes are common.

...Day/Night Facility

A drop in temperature of between 5°F and 25°F (2.8°C and 13°C) lower than the one set is available if the thermostat is supplied with mains voltage through the auxiliary two pin socket on the side. A lead is supplied for this use and fits the socket. This can be fed via a *HabiStat Night Eye* light detecting switch or a time switch. With the drop in temperature facility in use, the thermostat will be fed with *two* power supplies. The drop in temperature can be achieved manually by switching the power supply to the alternative input. A much more practicable approach is to feed this supply via an automatic device like a timer or light dependant switch.

When a timer is used the temperature can be lowered at night and returned to normal the following morning. The timer plugged into the side socket would be set to be *on* at night and *off* during the day. A more natural sequence of day and night can be achieved with a *HabiStat Night Eye*. This unit feeds the alternative mains voltage whenever the light level falls. It is specially manufactured to complement HabiStat thermostats with a day night facility and is equipped with matching plugs.

The drop in temperature is set with the red knob on the base of the unit. Turned fully anticlockwise, the temperature will be set at the minimum drop of around 5°F (2.8°C) lower than that set on the main dial. When turned fully clockwise, the maximum drop of around 25°F (13°C) lower is set. The temperature maintained by the thermostat will not of course, be lower than the ambient temperature, whatever the settings on the thermostat.

LIVINGEarth

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Guarantee

Thank you for buying this HabiStat electronic thermostat. Used in accordance with these instructions this unit will give many years service. There are no user serviceable parts in this unit, so please do not open it. Any tampering, including cutting any wire, will render the guarantee void. This thermostat is guaranteed for five years from the date of purchase against faulty parts and workmanship. In the unlikely event of failure, return it to Living Earth Electronics and ensure a **receipt or proof of purchase** and details of the fault are included. We will aim to return the repaired or replaced unit in the post within one working day. If returned within one year of purchase there will be no charge but after that time a small administration and postage fee of five pounds (£5.00) will be levied. Please send a Postal Order or Credit Card details in favour of Euro Rep Ltd. to cover this. No liability is accepted other than for the repair or replacement of a faulty product. Statutory rights are not affected.

All three leads are supplied at a useful length. This allows for the maximum flexibility. As the leads must not be cut, they can be tidied with cable ties and this will accommodate any extra wire. The long wires mean virtually any cage can enjoy the benefits of HabiStat control. This brings unparalleled choice, convenience and safety.

The fitted three pin plug is for connection to the domestic mains. It is supplied with a 3 amp fuse which must be replaced with one of the same value if it blows.

- Neon lights when heater is on.
- Temperature dial calibrated in Fahrenheit and Celsius.
- A heater load of between 40 and 600 watts at 230 volts, 50 Hz AC.
- A fully specified *HabiStat* thermostat that meets all current standards.
- An electronic thermostat that continuously but variably, adjusts the power to the heater.
- An auxiliary, two pin mains input that drops the temperature whenever it carries power
- Adjustment knob that sets the drop in temperature when the auxiliary mains input is applied via a time switch or *Night Eye*.
- Especially suitable for heat and basking lamps

The three pin socket is for connection to the heater. If wires have to be threaded through small holes, it is better to disconnect, thread and rewire the heater lead, if the plug is rewirable. Please make sure the thermostat is disconnected from the mains before any installation work is carried out.

