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 in a condition that 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's day night function can be fed via a *Night Eye*. This will give both day/night and seasonal synchronisation.

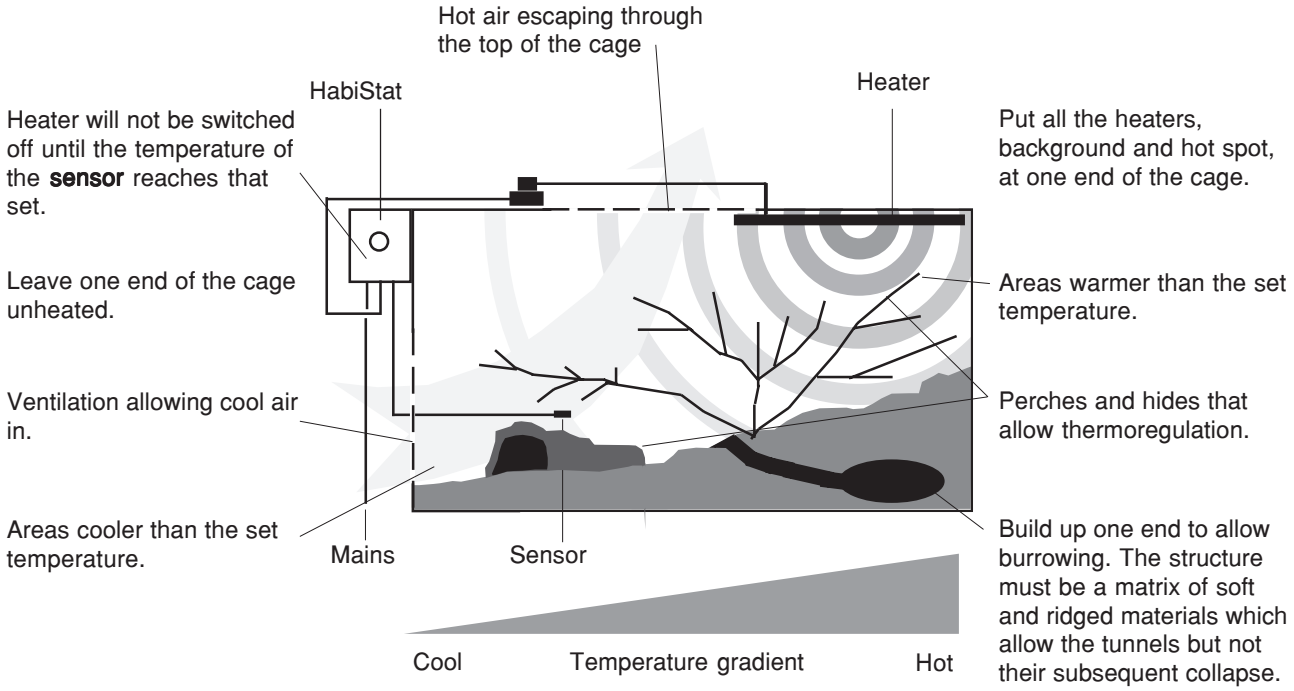
Size Matters

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 continually switching it off. This would lead to poor temperature management and may cause the heater to fail.

More than one heater may be controlled by the HabiStat, providing the total load of 600 watts is not exceeded.

The ideal heaters to use with this type of thermostat are ceramics. Other heaters may also be controlled but light emitting lamps should be avoided. The best thermostat for this type of device is the HabiStat Dimming thermostat.

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.

…**Pulse Proportional Control**

A pulse proportional thermostat uses a very accurate method of temperature control. Like the name suggests, power is fed to the heater in pulses, the frequency of which is proportional to the amount of power required. The 'Heat' neon will reflect this by flashing at a rate relative to the amount of energy 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 practical 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.

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HabiStat THERMOSTATS

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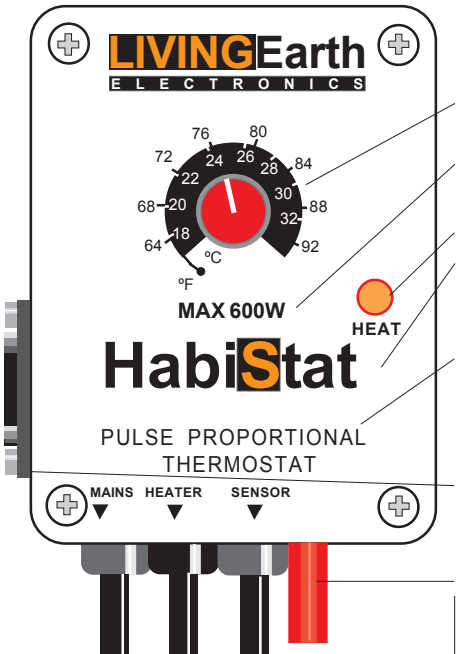
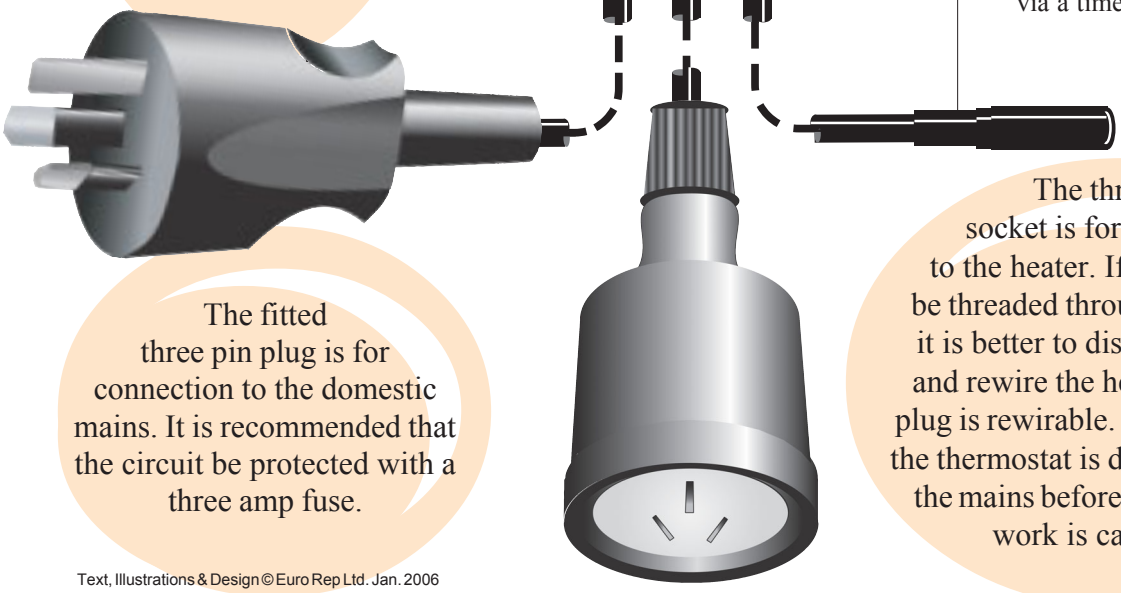
Guarantee

Thank you for buying this HabiStat electronic thermostat. Used in accordance with the 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 the cutting of any wire, will render the guarantee void. This thermostat is guaranteed for one year from the date of purchase against faulty parts and workmanship. In the unlikely event of failure, return it to our distributor, Herp Shop, with a **receipt or proof of purchase** and details of the fault. Herp Shop will ensure your unit is returned to full working order. 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.



- Temperature dial calibrated in Fahrenheit and Celsius.
- A maximum heater load of 600 watts at 230 volts, 50 Hz AC.
- Neon lights when heater ius on.
- A fully specified *HabiStat* thermostat that meets all current standards.
- An electronic thermostat that pulses power proportionally and is especially suitable for ceramic heaters.
- 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*.



The fitted three pin plug is for connection to the domestic mains. It is recommended that the circuit be protected with a three amp fuse.

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.