

MUST BE SET UP UNDER ADULT SUPERVISION

MICROCLIMATE

Microprocessor based vivarium temperature controllers

DL1, DL2, DL1ME AND DL2ME INSTRUCTIONS

These instructions relate to the following models :-

DL1 Dimming proportional controller with single temperature setting.

DL2 Pulse proportional controller with single temperature setting.

DL1 Magic Eye Dimming proportional controller with day and night temperature settings.

DL2 Magic Eye Pulse proportional controller with day and night temperature settings.

Choice of heater

The DL1 and DL1ME are dimming thermostats designed specifically to control mains voltage filament lamps e.g. reflector bulbs. However they can also be used with any resistive heat source. **Do not** use with fluorescent or discharge lamps. The thermostat can control loads of 5 watts up to a maximum of 600 watts.

The DL2 and DL2ME are pulse proportional thermostats designed specifically to control non light emitting sources of heat such as ceramic heaters. the heater can be a minimum of 5 watts up to a maximum of 600 watts. **Do not** attempt to operate the thermostat with a greater load than specified. to do so may result in damage to the thermostat.

Connections.

Connect the mains cable from your heat source to the heater output of your thermostat (fitted mains socket) using a suitable 13a plug (fitted with a 3a fuse).

Connect the thermostat to the mains supply using the fitted mains plug. Please note the mains plug is fitted with a 3a fuse which must be replaced with a 3a fuse in the event of a failure. The mains cables fitted to the thermostat are colour coded as follows :-

(brown-live) (blue- neutral) (green/yellow-earth)

Installation.

Position the thermostat sensor in the vivarium at the point that you require the temperature to be controlled. this is usually approximately in the centre of the vivarium. Thus giving your vivarium a gradient of temperatures i.e. hotter at the heat source end, controlled temperature in the middle and cooler at the end furthest away from the heat source. Do not position the sensor directly in front of the heat source. This is to ensure the sensor is measuring air temperature and not direct heat.

Always use a thermometer to check the temperature of the vivarium and adjust the thermostat as required to give the required temperature.

Adjustment.

A small flat blade screwdriver can be used to adjust the temperature control pot on the lid of the thermostat. The thermostat controls the temperature in the vivarium to closely match the level set by the front panel adjustment and will indicate an alarm if for some reason it cannot. For the units with two settings the temperature will be controlled at the day time setting (Sun symbol) whilst light is detected by the 'Magic Eye' and at a reduced level whilst darkness is detected. The 'Night time drop' setting (Moon symbol) sets the number of degrees that the temperature is reduced during the hours of darkness. The amount of light required by the 'Magic eye' is set using the small shaft which protrudes near the cable entries.

Alarms

Any alarm condition has to exist for at least 5 minutes before it will be indicated.

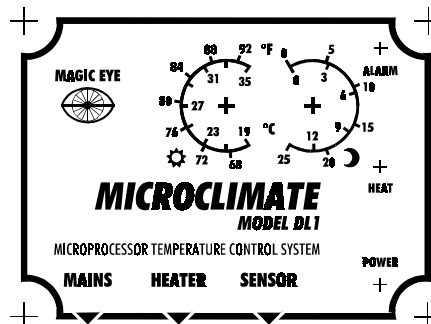
Heater failure alarm

Indicated when the temperature in the vivarium cannot be raised to the required level even with full power applied to the heater.

Low temperature alarm

Indicated when the temperature is more than 5°C below the required temperature.

High temperature alarm



Indicated when the temperature is more than 5°C above the required temperature.
If a 'High temperature alarm' is detected the heater is switched off immediately.

Green indicator lamp (POWER)

Lights to show that power is applied to the unit. Flicks off to indicate 'Night' (See 'Magic eye').

Yellow indicator lamp (HEAT)

Flashes on and off with a 5 second period, the proportion that the light is lit within the 5 second cycle represents the amount of power being applied to the heater. E.g. If the light is lit for 2.5 seconds and off for 2.5 seconds then half power is being applied to the heater.

Note. For DL2 models power is applied to the heater whilst the 'HEAT' lamp is lit.

Red indicator lamp (ALARM)

Flashes to indicate an alarm, the beeper sounds at the same time. The 3 different alarms are indicated by different sequences of beeps and flashes as follows :-

Heater failure	One beep/flash and then a pause	(Beep Pause, Beep Pause, etc.)
Low temperature	Two beeps/flashs and the a pause	(Beep Beep Pause, Beep Beep Pause etc.)
High temperature	Regular beeps/flashs with no pause	(Beep, Beep, Beep, Beep, Beep, etc.)

Magic Eye

Internal sensor detects ambient light level and the status Day/Night is indicated on the Green indicator lamp (POWER)

Day Green LED on constantly

Night Green LED flicks off once per second.

If the unit is indicating 'Night' and should not be (Due to the light level), turn the 'Magic eye' adjustment clockwise. If the unit is not indicating 'Night' and should be, turn the adjustment anti-clockwise.

When a change from day to night or night to day is required the controlled temperature is changed slowly. It takes approximately 20 minutes for the required temperature to change from one setting to the other.

Note. As the 'Magic eye' works by detecting the ambient light level in a room ensure that it cannot see the light directly from any lamp used as a heater within the vivarium.

The microprocessor thermostats are guaranteed for a period of 12 months from the date of purchase.
In the unlikely event of a component failure -: if less than 3 months old the thermostat will be replaced. If over 3 months old the thermostat will be repaired free of charge. In order for the guarantee to be valid this instruction sheet must have been followed.

We reserve the right to repair rather than replace any thermostat that has been altered in any way.

All thermostats

It is understood that some installations may require the removal of the thermostats mains socket for the connection to the heater. However this is not recommended.

Exceptions to the guarantee

The guarantee will be void if the thermostat has been misused i.e. over loaded, or physical damaged.

This does not affect your statutory rights

The microprocessor range of thermostats have been designed to last for many years if set up and used correctly. Due to the universal application of this product, no liability for loss, injury to livestock or damage to equipment etc, or consequential loss can be accepted. If you experience any problems with the thermostat contact the shop where purchased. All thermostat designs are subject to copyright. Any breach of copyright will result in legal action.

British and European patents pending

Please keep all packaging and proof of purchase for future reference.

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