Data Logging

Data logging is accessed through the computer software. Click the data logging button at the top of the screen. A list of times and temperatures for each channel will be displayed. This can be exported to excel or a similar spreadsheet program to display a graph. In the options menu via the computer software it is possible to select the data logging period which controls how often data is logged from the different channels.

Alarms

There are 3 built in alarms these indicate under temperature, over temperature and sensor failure. You will be notified by the red led indicator flashing and an audible tone. On the home screen the display will indicate on the channel sounding the alarm the warning being issued flashing between the temp on that channel and either LOW (Low temp), HIGH (High Temp) or SNSR (Problem detected with sensor). It is possible to set an alarm delay using the computer software. this is useful when a big drop in temperature is required for night time mode, delaying the alarm will prevent a low temp alarm being sounded whilst the viv is heating up to the daytime temperature. The alarms can also be muted in the options menu.

Min/Max Temperatures

The minimum and maximum temperature settings per channel are the alarm points that can be setup to alert you to Low and High temperatures. These can be setup using the computer software or via the channel menu on the prime.

Correct temperature reading

The temperature sensors encased in the black sheaths are very accurate. Having set the desired temperature on the thermostat and positioned the sensor in its required location the temperature of the air will be controlled accurately at the position of the temperature sensor.

The temperature nearer the heater (from the sensor position) will be hotter and further away from the heater it will be cooler.
Please note that when using a thermometer to check the temperature that unless it is in exactly the same position as the thermostat sensor there will be a discrepancy due to the positioning of the thermometer.

Warranty

Used in accordance with these instructions this thermostat will give many years of trouble free service.

The thermostat is guaranteed for five years from the date of purchase against faulty parts and workmanship. In the unlikely event of a failure, return it to Microclimate International Ltd together with a receipt or proof of purchase and brief description of the fault. If returned within one year there will be no charge, after this time a charge of £10 will be made for administration and postage. Please enclose a cheque or postal order made payable to Microclimate International. Cash is also accepted.

No liability is accepted other than for the repair or replacement of a faulty product.

THIS DOES NOT AFFECT YOUR STATUTORY RIGHTS.

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QUICK START GUIDE

Prime Thermostats

The Prime range of thermostats are at the cutting edge of thermostat technology using the latest software and hardware to allow the user even greater control of their vivarium than ever before.
The Prime range allows the user to select control types of Dimming, Pulse or On/Off and also allows control of non heating/cooling devices for example lighting or misting equipment.
To add even more flexibility the way the 24 hour period is controlled is completely user definable with options for a constant temperature throughout 24hours or options for day/night setting or even up to 8 different temperatures throughout a 24 hour period to allow you to create an extremely natural environment for you reptile on each channel.
The Prime range have USB built into the unit which allows the user to setup the thermostat extremely easily, monitor the thermostat from a computer and pull historical data from the thermostat using the data logging facility. The computer software can be downloaded from www.microclimate.co.uk.
The Prime range are also fully user updatable via the computer software that means that when new features become available you can download the latest software and keep your unit up to date all in a very simple process.

Channel Colour Coding

The channels are pre named R (Red) , Y (Yellow) and B (Blue Prime 2 only). The channel names correspond to the coloured bands on the sensor and output sockets for easy identification. The channels can be renamed using the computer software for personalisation of the Prime. The Yellow (& Blue Prime 2) are the main outputs with the Red output being the secondary output.

Connecting Prime to a computer

The simplest way of setting up your prime thermostat is using a computer. To do this please download the latest software from www.microclimate.co.uk. Install the software and connect your prime using the USB cable supplied. If multiple primes are connected to the computer use the drop down menu to select which unit you wish to control

WARNING DO NOT OVERLOAD YOUR THERMOSTAT BY CONNECTING HEAT SOURCES GREATER THAN 600 WATTS PER CHANNEL AND A COMBINED OUTPUT OF 1200w MAX DAMAGE CAUSED BY MISUSE IS NOT COVERED BY THE WARRANTY.
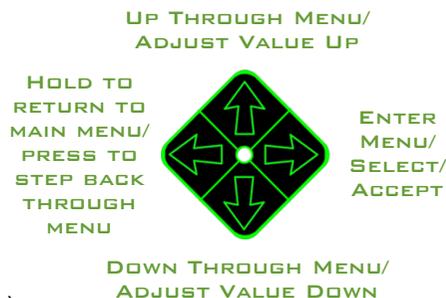
PF0500

Installing your Prime Thermostat

Find a suitable location for the thermostat to be located on the outside of the vivarium ensuring sufficient cable is available for the sensor. The sensors should be installed inside the vivarium(s) at least 225mm (9 inches) away from the heat source(s). This is to ensure that the sensor is measuring the air temperature. The sensor(s) should be in free air and not fixed to the wall of the vivarium as this will not give a correct reading to the thermostat. Ensure the sensor is at least 10cm from the side walls of the vivarium. However if you are controlling a heat mat installed underneath a layer of substrate inside the vivarium then we recommend that the sensor for the heat mat be placed under the substrate directly on top of the heat mat. This allows direct control of the heat mat. Connect the mains cable from your heat source to the heater socket on the thermostat using a suitable mains plug fitted with a 3 amp fuse. Connect the mains cable from the thermostat to your mains supply. Please note the mains plug is fitted with a 10 amp fuse.
The mains cable fitted to the thermostat is colour coded as follows

BROWN - LIVE   BLUE - NEUTRAL   GREEN/YELLOW -EARTH

Menu Navigation

When using the prime stand alone there are 4 navigation buttons on the face of the thermostat. To enter the menu from the home screen press the right arrow. It is then possible to scroll up and down through the main menu using the up and down arrows. To select a menu item press the right arrow. Holding the left arrow will return to the home screen. Whilst the prime is at the home screen it is possible to scroll through different information displays by pressing the up or down arrows. The display can be automatically scrolled (see display scrolling)

Up Through Menu/ Adjust Value Up

Hold to return to main menu/ press to step back through menu

Enter Menu/ Select/ Accept

Down Through Menu/ Adjust Value Down

Setting the clock

To set the clock enter the menu by pressing the right arrow key, navigate to the clock setting in the menu using the up or down arrows. Press the right arrow to enter the clock settings. Set the hours using the up or down arrows. Then press the right arrow to move across to the minutes then set the minutes using the up and down arrows. Once complete press the right arrow to confirm the setting. To exit the clock settings press the left arrow button to return to the menu.

Display Scrolling

When the thermostat is in use you can select if you want the display scrolling through information automatically from all active channels. The display can be manually changed through various information by pressing the up and down buttons whilst at the home screen. To toggle automatic scrolling on or off press the left arrow whilst at the home screen.

Options Menu

The options menu allows the user to set the display units in C or F, toggle the alarm sound on/off and toggle the keyclick on/off. To access the options menu enter the main menu by pressing right on the home screen. Navigate to the options menu using the up and down arrows

Naming Channels

Using the prime computer software it is possible to rename all of the prime channels and the thermostat itself for easy identification. Select the options tab and replace the name you wish to change.

Control Method

There are 3 different methods of thermostat control on the prime thermostat.
Dimming - The thermostat varies the power output to control at the set temp.
Pulse   - The thermostat pulses power to the heater to maintain the temp.
on/off   - The thermostat switches the power on and off around a set point.

Control Type

There are 3 types of control available on the prime
Heating - Heating thermostat
Fixed   - Fixed output (used for on/off timed control) or constant output level
Cooling - Cooling thermostat

Timing

There are 4 different timing modes that can be set on the prime per channel.
Constant   - A single constantly outputted setting.
Day & Night   - Different temperatures set for night and day.
Multi   - Up to 8 different settings throughout the 24hr period
Periodic   - Output can be triggered at intervals throughout the 24 hr period.

Ramp Time

The ramp time controls how fast the thermostat reacts to temperature change for example when switching from night to day mode. The longer the ramp time the longer the transition between the 2 set temperatures giving a smoother temperature change.

Making Changes using the computer software

Complete control and setup of your thermostat is made extremely simple using the computer software and included USB cable. This is the recommended way of setting up your thermostat. When making a change after a few seconds the data on the prime thermostat is automatically updated for you.

Setting up main output(s) without a computer (Basic)

To setup the main output (s) on the prime unit without the use of a computer is quite simple. The example given is for basic control as a thermostat.
Enter the menu system by pressing the right arrow on the unit. Navigate to Y Channel (Y or B on Prime 2) then select it by pressing the right arrow.
Enter the channel setup by pressing the right arrow. Now you need to decide if you want one temperature for the 24 hour period or a more advanced setting like Day & night. Select either Constant or day & night. In this example we will set up using day & night. As we are using the thermostat for heating select heating from the menu. Now select the channel times, enter the time that you would like night time mode to start then enter the time you would like daytime mode to start. Next select channel temps here you will set the temperatures for both night and day time control.

Setting up the secondary output (R) as a timed output without a computer

The secondary output of the Prime can be setup in a number of ways either as an on/off thermostat as above, periodic timed or on/off points set throughout the day. In this example we will set it up for periodic use for example with a mister system.

Enter the channel setup menu, select periodic. Select fixed output as no thermostat control will be required. Then press the left arrow to exit the channel setup menu. Enter the Channel O/Ps menu. select the option for Off On. This will tell the Prime that the channel is normally Off and to come on at the given times. Exit the Channel O/Ps menu. Select the channel times menu, enter the period this sets the interval between activation of the output. Press the down arrow and enter duration, The duration is the length of time the output is switched on for so for example if this is set to 5 the output will be switched on for 5 seconds.