

Instructions Heatwave

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Hotbox Heatwave Installation <u>&</u> Operating Instructions

- Hotbox Heatwave Panels are made to measure to your specification
- No Cold Spots!
- No Wasted Space!



Manufactured by

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To Install the Heatwave Panel

- 1. Unroll the Heatwave panel, having first placed $1^{1/2} 2^{"}$ polystyrene panels on the bench base. Ensure that the surface is flat and tape up any joints.
- 2. Lay your Hotbox Heatwave Panel onto the bench.
- 3. Lay a sheet of Polythene over the Heatwave. This will prolong its life by protecting it from the effects of water, salt, chemicals and the organic acids that are present in composts (the polystyrene will also benefit from this protection)
- 4. If you wish to use capillary matting this can be laid over the polythene. This will help irrigation and protect the Heatwave from sharp edges on any trays being used.
- 5. Place the Sensor into the seed tray compost (fully immersed).
- 6. Plug into the mains and set the thermostat temperature.



You are now ready to use the Hotbox Heatwave Panel.

Please take the time to read thorough these instructions before doing so.

If you have any questions with regards to the installation, use or maintenance of your Heatwave please call us directly and we will be happy to assist you. Our phone number can be found on the front page of this booklet.

Note: 1. The size of the Panel cannot be reduced, please do not cut.

2. This must be plugged into a socket protected by 30m A RCD

<u>DO's</u>

Do Insulate - lost heat from underneath, around or above the Heatwave will mean lower temperature and high energy consumption, leading to higher energy bills.

DON'T'S

- **Do not** use without ensuring the earth wire is connected.
- **Do not** use rolled or folded.
- **Do not** tamper with connections.
- **Do not** cut or attempt to alter the heating element.
- **Do not** place polystyrene on top of the foil panel.

Thermostat (Optional Extra)

Thermostat has been specifically designed for greenhouse use and its ability to resist the ingress of water is well above the minimum recommended standards.

However, this product is not entirely waterproof so steps must be taken to protect it from the harsh environment found in many growing situations.

- 1. Select a position where the thermostat can be fixed so that it is upright and will not be affected by any irrigation systems.
- 2. It is imperative that you protect the thermostat from spraying water. This can be done by making a polythene protective flap that can be hung above the thermostat.
- 3. All capillary thermostats have their own reaction time. This means that they will need a certain length of time before the liquid can expand and the thermostat can reach to varying temperatures.
- 4. When used in soil, the reaction time of the thermostat is probably the same length of time that it takes the soil to change temperature. This means that very stable temperature can be achieved.
- 5. The ambiance in the Glasshouse can change rapidly due to direct sunlight or open doors. It can take a little time before those changes are passed on to the mechanism which controls the power supply to the thermostat.

- 6. Allowances should be made when the thermostat is used as frost protection only as the expansion of the liquid lessens when temperatures are on or around freezing point.
- 7. The thermostat is of the "liquid expansion" type. The sensing phial is filled with liquid which expands in a rising temperature. The expanding liquid runs along the capillary tube into a piston like unit which then cuts off the power supply to the Heatwave Panel. The opposite occurs when the temperature drops.

Sensor

To achieve the best possible results please ensure that the <u>whole</u> of the sensor is placed into the growing medium.

Drill a hole into the end of the seed tray and the sensor fully into the compost about 2cm below the surface at root level. If the sensor is not level or is not fully covered with the compost it will not record the correct temperature and will result in inaccurate operation of the thermostat. For example. If the end of the sensor is outside of the soil, it will take on the air temperature and will heat (or cool) the Heatwave Panel accordingly.

An easy way to ensure correct placing of the sensor is to make a sausage shaped earth bag. Fill a small plastic bag (or similar) with earth, place whole sensor inside and place the bag between the trays. This way the sensor will always be placed correctly.

Direct sunlight or cold drafts can also affect the sensor and this can lead to false readings.



Master & Slave Set Up

The same instructions apply for a Master and Slave(s) set up.

Please note that the thermostat now has a switch which enables you to switch the "Slave" on and off.

The master panel determines the temperature of both panels.

The master panel **can** run on its own.

The slave panel **cannot** be run independently of the master panel.

