



# Ultra Warmer

*Temperature Controlled Fermentation Heater*



User Instruction Manual

**Designed & Engineered by Keg King**



## WARNINGS AND GENERAL SAFETY

- ▲ **DO NOT** operate if the power supply cord or power pack is damaged. To avoid a hazard, the power cord **MUST** be replaced by the manufacturer, a service agent, or similarly qualified persons.
- ▲ When positioning the appliance, ensure the power supply cord is not trapped or damaged.
- ▲ Beware of electricity around liquids! Ensure power cords are placed well away from any potential spills and pooling condensation.



Please read the entire manual before operating.  
These instructions are available in other formats. To request, please send an e-mail to [info@keg-king.com.au](mailto:info@keg-king.com.au)



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# Keg King



Whether you're a brewer or someone wanting to put drinks on tap in your own home, cafe or office, Keg King offers beverage creation and keg dispense solutions for amateurs and pros!

We don't just sell products, we innovate, design and manufacture our equipment to bring your beverage ambitions to life!

Our brands include:

- King Kegs, our Australian Made P.E.T. kegs
- Apollo P.E.T. Pressure Fermenters & Unitanks
- KegMaster™ Kegerators
- Atomic 15 Brewery Cleaners
- UltraTap Twist FC Faucets
- Spundy spunding valves
- the KegMaster™ Solstice Fridge
- and more!

Check the resellers map on our website to find where our products are available in North America, UK, EU, Aus, NZ and South Africa.

<https://www.kegking.com.au/retailers>

Since 2009, Keg King's mission is to make the best brewing & dispensing equipment in the world!

Check out our helpful instructional videos on the **Keg King YouTube Channel**

<https://www.youtube.com/c/KegKingvideos>

Enjoy your **Ultra Warmer** Temperature Controlled Fermentation Heater!



# Introduction

The Ultra Warmer, released in 2022, is super-efficient and provides consistent heating for all your low heating needs in fermentation chambers, terrariums and more.

It is the fast way to keep your fermentations at the right temperature.

Each unit comes with a probe, and a 12v power pack to use in a 10 Amp power outlet.

Perfect for use in fermentation chambers, cupboards, insulated fermenter jackets and more.

Simply plug the unit in, set the desired temp and delay time on the controller and that's it.

The Ultra Warmer's PTC Heater produces a gentle, consistent heat without burning.

Please check our web site product pages for updated versions of our Instruction Manuals.

<https://www.kegking.com.au/>

## Features

- Compact
- 12V Power Pack
- Temperature Probe
- Positive Temperature Coefficient (PTC) heater
- HJ-510 Temperature Control Panel

## Unboxing

Please check that the unit is free of damage.

## Included Items



The Ultra Warmer



12V Power Supply and Power Cable



Temperature Sensor Cable





## Getting to Know the Unit







1. Temperature Control Panel
2. Temperature Sensor Connection
3. Warm Air Outlet
4. 12V DC Power Connection
5. Air Inlet

## The Control Panel



-  Switch menus and parameters
-  Confirm & save parameter setting  
Switch Cooling / Heating
-  Increase value / Select Parameter  
Force ON/OFF Defrost
-  Decrease value / Select Parameter  
Factory Reset


- Cool**  Cooling indicator
- Heat**  Heating indicator
- Set**  Setting indicator
- Def**  Defrost indicator


## Initial Set Up


1. Place the Ultra Warmer inside the fermentation chamber, fermenter insulating jacket or confined space for temperature control
2. Plug the Temperature Control Cable into the top of the Ultra Warmer and place the Temperature Sensor either in the fermenter's thermowell (if it has one) or tape it to the side of the fermenter.
3. Connect the Ultra Warmer to the 12V Power Pack and the power pack to mains power and turn power on.

# General Operation





## Selecting Cooling or Heating mode

 Press and hold the “**Rst**” button for 3 seconds to switch between Cooling and Heating modes.

 When Cooling mode is activated the “**Cool**” indicator will illuminate and the display will show “**Fr**” for 5 seconds

 When Heating mode is activated the “**Heat**” indicator will illuminate and the display will show “**Ht**” for 5 seconds


## Setting the Temperature

1.  Press and hold the “**Set**” button for 5 seconds  
The “**Set**” indicator will illuminate, and the display will show the set temperature for the mode the unit is currently in (Cooling or Heating)  
**NOTE: separate temperature values are stored for Cooling and Heating modes**
2.   Use the up and down arrow buttons to set the desired temperature
3.  Press the “**Rst**” button to confirm and save the parameter value.

## Reset to Factory Default Settings

To reset all parameter settings to the factory default values

 Press and hold the Factory Reset  / Down button for 10 seconds

 The display will temporarily show “**H0**”, and then all parameters will be reset to factory default values. Operation will then continue with the default values.



## Configuration Parameters

There are a number of settings that can be configured on the control panel.

**F1**

**F1** is the temperature setting for cooling mode.  
Range: 0-10°C (32-50°F), Default: 5°C (41°F)

**F2**

**F2** is the temperature setting for heating mode.  
Range: 15-88°C (59-190°F), Default: 30°C (86°F)

**F3**

**F3** is the cooling hysteresis setting.  
Range: 0-10°C (0-18°F), Default: 3°C (5.4°F)  
In cooling mode, once the temperature set via F1 is achieved, the unit pauses cooling. The hysteresis value is the temperature threshold above which the unit resumes cooling. Setting this value too small will result in excessive cool cycling. Typically, 3°C (5.4°F) should work well.

Example: with a hysteresis value of 1° and a temperature setting of 5°, the unit will reach 5° and then pause actively cooling. If temperature rises by 1° above 5°, it will then start cooling until it reaches 5° again.

**F4**

**F4** is the heating hysteresis setting.  
Range: 0-10°C (0-18°F), Default: 3°C (5.4°F)  
In heating mode, once the temperature set via F2 is achieved, the unit pauses heating. The hysteresis value is the temperature threshold below which the unit resumes heating. Setting this value too small will result in excessive heat cycling. Typically, 3°C (5.4°F) should work well.

Example: with a hysteresis value of 1° and a temperature setting of 5°, the unit will reach 5° and then pause actively heating. If temperature drops by 1° below 5°, it will then start heating until it reaches 5° again.

**F5**

**F5** is the cooling mode cabinet sensor temperature calibration value.  
Range: -5 to +5°C (-9 to +9°F), Default: 0°C (0°F)  
Set this value if you test the sensor in a liquid with a known, validated (from an accurate thermometer) temperature, and the STC-1000 reads a different temperature. Set this value to the difference between the cabinet sensor reading and the validated temperature.

**F6**

**F6** is the heating mode cabinet sensor temperature calibration value.  
Range: -5 to +5°C (-9 to +9°F), Default: 0°C (0°F)  
Set this value if you test the sensor in a liquid with a known, validated (from an accurate thermometer) temperature, and the STC-1000 reads a different temperature. Set this value to the difference between the cabinet sensor reading and the validated temperature.

**F7**

**F7** is a cooling delay setting.  
Range: 1-15 minutes, Default: 3  
If the unit has been actively cooling and stops due to reaching the set temperature, it will not start cooling again until the cooling delay is passed (and the temperature is above the set hysteresis value).














## Configuration Parameters (continued)

- A1** A1 sets the action for sensor errors in cooling mode.  
Range: 00 or 01, Default: 01  
If A1 is set to 0, cooling stops. If A1 is set to 1, there is a delay as specified by A2 or A3 depending on if the unit was cooling at the time of the sensor error.
- A2** A2 sets the cooling run time for sensor errors in cooling mode.  
Range: 01-90 minutes, Default: 15 minutes  
If there is a sensor error while the unit is actively cooling, cooling will continue for this specified time.
- A3** A3 sets the timeout for sensor errors in cooling mode.  
Range: 01-90 minutes, Default: 15 minutes  
If there is a sensor error in cooling mode while the unit is NOT actively cooling, cooling will be paused for this specified time.
- A4** A4 sets the cooling mode “Low Temperature” alarm level.  
Range: -25°C to A5, Default: 0°C  
If the unit is in cooling mode, and the sensor reads a temperature at or below this temperature, an alarm is triggered
- A5** A5 sets the heating mode “High Temperature” alarm level.  
Range: A4 to 70°C, Default: 60°C  
If the unit is in heating mode, and the sensor reads a temperature at or above this temperature, an alarm is triggered
- A6** A6 enables / disables audible alarms.  
Range: 00 (off) or 01 (on), Default: 01
- A7** A7 sets the alarm delay time.  
Range: 0-250 minutes, Default: 0 minutes
- d1** d1 sets the defrosting time  
Range: 1-90 minutes, Default: 10 minutes
- d2** d2 sets the period of defrosting  
Range: 0-24 hours, Default: 4 hours
- d3** d3 sets the defrosting interval mode  
Range: 00 or 01, Default: 01  
00: Power on for **d2** hours  
01: Cooling continuously for **d2** hours
- d4** d4 sets the defrosting display mode  
Range: 00, 01 or 02, Default: 01  
00: temperature display  
01: temperature for defrosting  
02: display **dEF**

## Setting Parameters

To set any of the parameters above:

If the unit does not have power supplied, follow the instructions in the “Powering Up” section

1.   Press and hold both the “**Set**” and Down buttons for 5 seconds  
 The “**Set**” indicator will illuminate, and the display will show F1, which indicates the temperature setting mode.  
 To set the temperature, go to step 3
2.   Use the up and down buttons to select the parameter to change.  
 (F1, F2, F3, F4, F5, F6, F7, A1, A2, A3, A4, A5, A6, A7, d1, d2, d3, d4 as detailed above)
4.  Press the “**Set**” button again to activate the parameter setting mode
5.   Use the up and down arrow buttons to set the desired parameter value
- 6a.  Press the “**Set**” button to confirm and save the parameter value, and then return to parameter selection.
- 6b.  **OR** Press the “**Rst**” button to confirm and save the parameter value and then return to normal operation.
- 6c.  **OR** Wait 30 seconds to save the parameter value and return to normal operation.

## Troubleshooting

Issue	Remedy
The Unit is not heating	<ol style="list-style-type: none"><li>1. Ensure that the Ultra Warmer has power and the Control Panel display lights up</li><li>2. Ensure the Temperature Probe Cable is plugged into the Ultra Warmer</li><li>3. Ensure the Ultra Warmer is in Heating mode (see “Selecting Cooling or Heating mode”)</li><li>4. Ensure the set temperature is set to the desired temperature (see “Setting the Temperature”)</li></ol>

## Specifications



**Height:** 128 mm (165 mm with temperature probe connected)

**Width:** 120 mm

**Depth:** 120 mm (165 mm with power connected)

**Weight:** 1.15 Kg

**Power:** 12V 5A DC, 60 Watts