





# **RAPT Bluetooth Thermometer KL24334**

**Instruction Manual** 

**KegLand Distribution PTY LTD** www.KegLand.com.au

#### **KL24334 – RAPT Bluetooth Thermometer Instruction Manual**



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The RAPT Bluetooth Thermometer is compatible with Gen 4 BrewZilla's, RAPT Temperature Controllers and RAPT Fermentation Chambers allowing you to make smarter and more automated decisions on how to control the brewing or distillation process. The RAPT Bluetooth Thermometer is able to perform many functions when bonded with a RAPT controller including, but not limited to:

- Measuring core grain temperature of your BrewZilla to more accurately control the heating elements according to the mash temperature.
- Measuring still head temperature and controlling the BrewZilla to turn the elements off once your target temperature is hit and your distillation run is over.
- Measuring core fermentation temperature and controlling your RAPT Fermentation Chamber or RAPT Temperature Controller heating and cooling.

The RAPT Bluetooth Thermometer will not work without one or more of the devices listed above.

#### **WARNINGS - IMPORTANT INFORMATION!**

- Do not install the batteries in the incorrect orientation.
- Do not submerge in or subject any part of the device to liquid other than the thermometer probe.
- Only clean the probe with recommended cleaners and sanitisers including: <u>StellarClean</u>, <u>StellarOxy</u>, <u>StellarSan</u>, <u>Phosphoric acid</u> and <u>Super Kill Ethyl Sanitiser Spray</u>.
- Do not use any non-approved probes with this Bluetooth thermometer.
- Changes or modifications to this unit which are not approved by KegLand may result in warranty being void.



#### **ASSEMBLY & INITIAL START UP**

#### **Battery Installation**

Slid the cover off the cover off the battery compartment and then install the two supplied AAA batteries ensuring that they are installed in the correct orientation.



Once the batteries have been installed the device should beep and the screen should automatically power on.

#### Power ON/OFF

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To power the device ON/OFF, hold down the button for at least 3 seconds.

### **Temperature Probe Installation**

Plug the probe into the 3.5mm female jack on the RAPT Bluetooth Thermometer.

When the temperature probe is plugged into the device the display will show the temperature measured by the probe.

If three dashes are shown on the display then this means that the temperature probe may be unplugged or faulty.



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#### Sleep Mode

The device will enter "Sleep Mode" after 10 minutes of inactivity. While in sleep mode BLE will be shown on the display to conserve battery. While in Sleep Mode the device will still transmit data via Bluetooth to any bonded devices.

Press the button to wake the device up and show the measured temperature on the display.



# **Operation Instructions**

- 1. Install the batteries and temperature probe and remove the black plastic tip on the probe before use.
- 2. Power on the device by holding down the button below the display for at least 3 seconds
- 3. Bond the device with your RAPT Temperature Controller, RAPT Fermentation Chamber Controller or Gen 4 BrewZilla. Bonding instructions are <u>shown below</u>.
- 4. Submerge the temperature probe into the liquid you wish to measure. The temperature measured by your RAPT Bluetooth thermometer will then automatically transmit to your bonded device.
- 5. <u>Set the RAPT Bluetooth Thermometer to be the controlling temperature sensor</u> for your BrewZilla or RAPT Temperature Controller.



# **Bluetooth Bonding to a RAPT Device**

To utilise the Bluetooth functionality of the RAPT Bluetooth Thermometer you will need to bond it via Bluetooth to a RAPT Temperature Controller, RAPT Fermentation Chamber or Gen 4 BrewZilla Controller. Follow the steps below to bond your RAPT Bluetooth Thermometer to a RAPT enabled device:

- 1. On your RAPT Temperature Controller, RAPT Fermentation Chamber or Gen 4 BrewZilla enter the **Menu** and navigate to **Settings** and press 'Select' on the **Bluetooth enabled** setting to enable Bluetooth on the controller.
- 2. On your RAPT Temperature Controller, RAPT Fermentation Chamber or Gen 4 BrewZilla enter the **Menu** and navigate to Bluetooth, then navigate to **RAPT Temp [Temperature]** shown in the unbonded devices. Press **Select** and when prompted press **Select** again to bond to this device.

You can successfully bond multiple RAPT Bluetooth Thermometers with your RAPT enabled controller as per normal. Each RAPT Bluetooth Thermometer has a unique mac address which is displayed in the Bluetooth settings when the thermometer is powered on.

# Setting the RAPT Bluetooth Thermometer to be the controlling temperature sensor

The RAPT Bluetooth Thermometer can be set as the controlling temperature sensor of your RAPT Controller. To set the RAPT Bluetooth Thermometer as the controlling temperature sensor follow the instructions below.

- 1. Bond the RAPT Bluetooth Temperature Controller to your <u>RAPT Temperature Controller</u>, <u>RAPT Fermentation Chamber or Gen 4 BrewZilla Controller</u>
- 2. Go to **Settings** on the RAPT Temperature Controller, RAPT Fermentation Chamber or Gen 4 BrewZilla Controller
- Navigate to Select Temperature Sensor and press Select. Then use the up or down buttons
  to scroll through the available bonded devices until your RAPT Temp is selected. Then press
  Select to confirm the setting of the RAPT Bluetooth Thermometer as being the controlling
  temperature sensor.

Once you have set the RAPT Bluetooth Thermometer as the controller temperature sensor your RAPT Temperature Controller, RAPT Fermentation Chamber or Gen 4 BrewZilla will then cycle the heating or cooling (if applicable) on, according to the temperature measured by the RAPT Bluetooth Thermometer and not by the built-in probe on the RAPT Controller or BrewZilla.



## Using the RAPT Bluetooth Thermometer to measure and control mash temperature

The RAPT Bluetooth Thermometer can be utilised to achieve a more accurate mash temperature during your brew day.

To nail your mash temperature, measure the core temperature of the mash and set the RAPT Bluetooth Thermometer to be the controlling temperature sensor for the BrewZilla. When the RAPT Bluetooth Thermometer is set as the controlling temperature sensor the elements will turn On/Off when required based on the set temperature on the controller and the temperature measured by the RAPT Bluetooth Thermometer within the core of the mash.

This allows a more accurate mash temperature to be maintained and meaning you can nail your recipe.

- 1. Bond the RAPT Bluetooth Thermometer to your BrewZilla Controller
- 2. Set the RAPT Bluetooth Thermometer as the controlling temperature sensor.
- 3. Set your required mash temperature on your BrewZilla controller.
- 4. Insert the probe of the RAPT Bluetooth Thermometer into your mash.





# Using the RAPT Bluetooth Thermometer to measure and control distillation

The RAPT Bluetooth Thermometer is also a useful tool for monitoring the head temperature of your distillation apparatus and subsequently controlling your boiler based on the temperature in the still head and automating the overall distillation process.

To achieve this simply insert the probe into the thermowell in your distillation apparatus. Then bond your RAPT Bluetooth Thermometer with your Gen 4 BrewZilla and set the thermometer to be the controlling temperature sensor.

Adjust the set temperature of the Gen 4 BrewZilla to be when you want the distillation to end (for example the temperature that you expect to begin collecting tails). Then once the temperature in the still head hits this shut off temperature the BrewZilla will then turn off the heating elements until the temperature drops below the hysteresis value set on your BrewZilla.

You may need to adjust the <u>Allowed Sensor Diff</u>. setting in the BrewZilla controller to ensure that the wash in your boiler continues boiling throughout the distillation process.

#### **Allowed Sensor Differential**

The Allowed Sensor Diff. setting in the RAPT Controller is the maximum deviation (differential) from the set point that the built-in temperature probe of the bonded RAPT enabled device is allowed to reach before the heating/cooling is turned off to prevent excessive temperature over/undershoot.

The heating/cooling of the RAPT Controller will then turn back on based on the hysteresis settings of the controller to increase or decrease the measured temperature until it reaches the desired set point.

More detailed information regarding how the Allowed Sensor Diff. setting works can be found in the video below:

Allowed Sensor Differential Setting Explanation

## Warranty & Support (Australia)

The RAPT Bluetooth Thermometer has a 12-month Warranty when sold in Australia.

To lodge a warranty, claim in Australia please forward as many visual pieces of supporting information and a detailed description of your issue to <a href="mailto:beer@kegland.com.au">beer@kegland.com.au</a>

If you purchased your unit from an international distributor, you will be required to go through their warranty claims process.

For full terms and conditions, please visit our website here -> Terms & Conditions