**Dwyer ETC Controller Quick Start:**

The dwyer ETC controller is a simple dual stage controller. This means that you can control heating and cooling functions with this unit. It needs a few minutes of setting up by you before you can brew, but you'll be up and at it in around 5 minutes.   There are many ways to program this controller, as it can provide temperature alerts, etc. Because we want you to begin to use it as soon as possible, we're just covering the functions that we feel are relevant.

Always plug your Dwyer Controller into a GFCI protected circuit.

The dwyer has 2 outputs, one for cooling and one for heating.
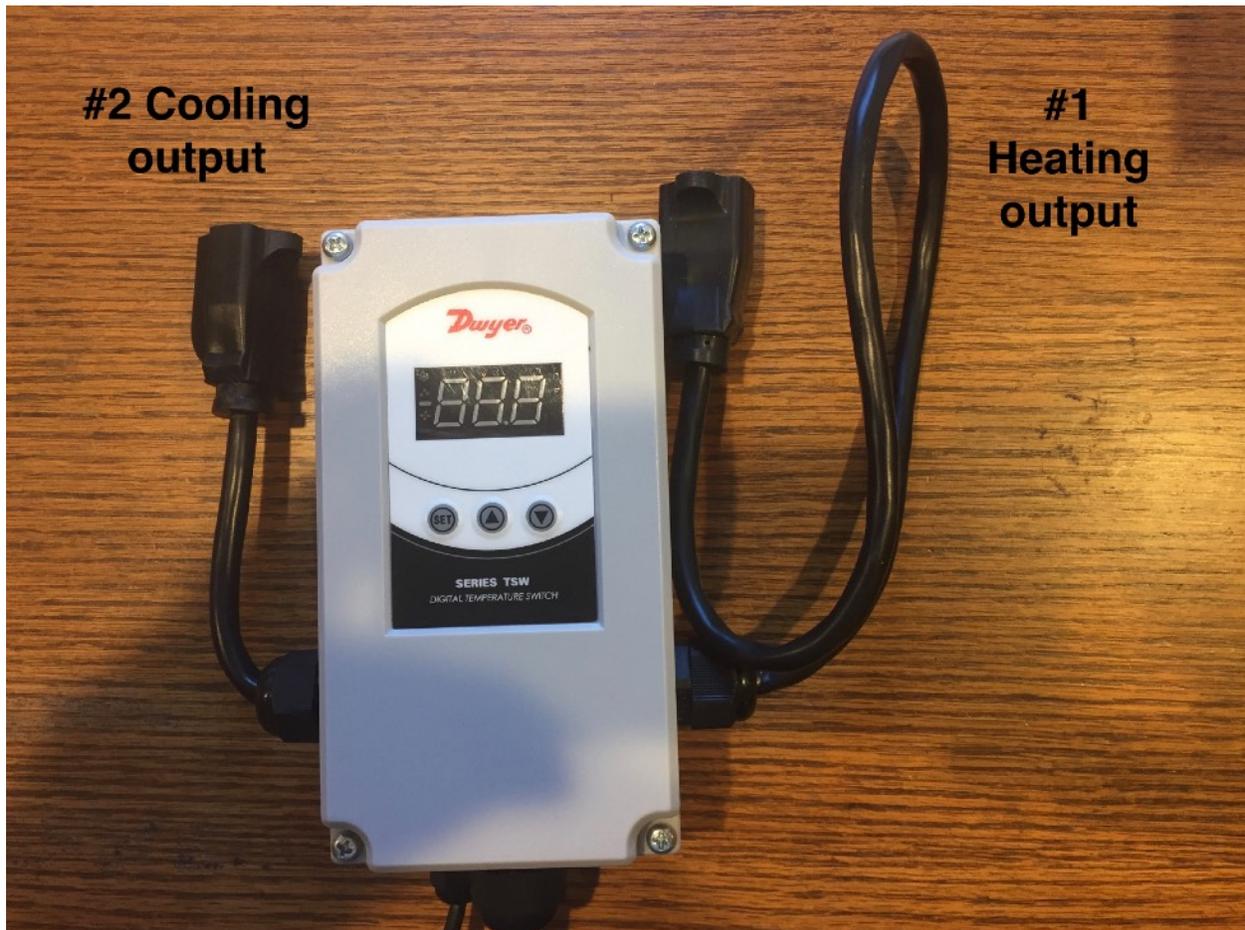
Set up:
On the front face you can see the **set** button.
• Long press this for at least 8 seconds The access code value **0** will show on the display.
• Press **set** button again and you will keep the setting at **0**, **SP1** will show on the display.
• Press the **up** arrow repeatedly until **r1** shows on the display. This is the Differential for **SP1** which is your heating element.   It can be lowered for more sensitivity of the heating element and therefore your mash cycle. Press **set** to change the value from 1 degree. It can be fine tuned all the way to 0.1 degrees. Press **set** again to exit.

- Press the **up** arrow again will show **r2**. This is the differential for **SP2**. This can be used for your cooling devices, for example; a water solenoid that controls cold water flow into your chilling coil or plate chiller. Change the settings in the same way as above.
- Press the **up** arrow repeatedly until you see **A6** on the display. This is the Alarm probe selector. I'm not a fan of using this feature and I shut it off. Change this setting to **Ano**. Press the up arrow again and you see **A7**. This is the Alarm probe 2 selector. I also shut this off.
- Press the up arrow a few more times and you'll see **C1** on the display. This changes the operational direction of **relay 1**. I change this to **inv**.
- And finally, press **up** arrow some more times until you see **PO** on the display. This is the temperature units selector. Change as you please. Leave the controller for around 30 seconds and it will return to the main display.

Now your controller is ready for you to begin brewing. You just need to input your mash temperature, and your fermentation temperature, if this applies to you.

Set Temperature:
press **set** once and **out 1** will be flashing. Use the arrows to set your temperature and either leave the controller for 30 seconds, or press set. When you press **set**, **Out 2** begins flashing. This is for you to set your fermentation or yeast pitching temperature. Or your fridge temperature!

Now all you need to do is insert the probe into your thermowell, and get started.

Because of power limitations using a 120V brewing element, it isn't advised to brew and ferment at the same time. You can however, use a heater and control a refrigeration device device at the same time, as long as you aren't exceeding the circuit limitations. The maximum amperage permitted on the cooling output is 8A. The maximum for the heating output is 15A or 1650W. Do not exceed this value as the internal contact isn't designed for a heavier load and you will damage your device.