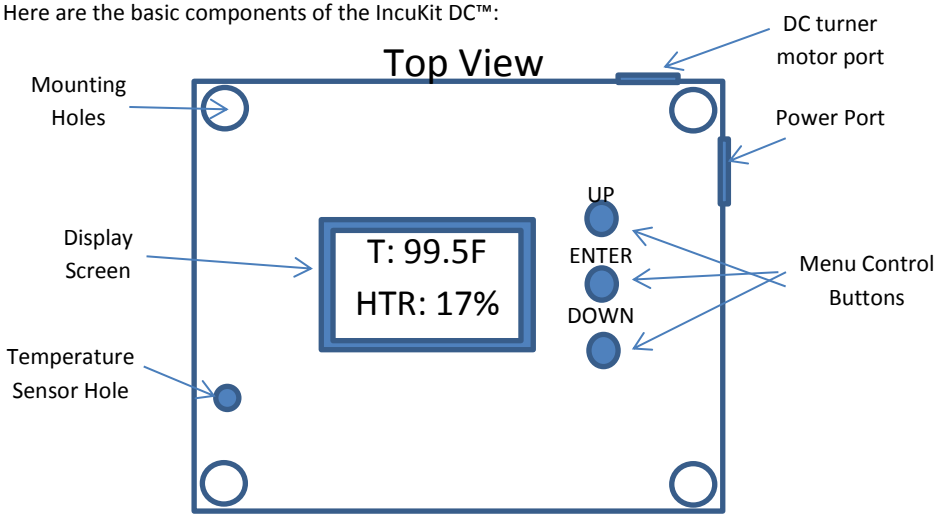
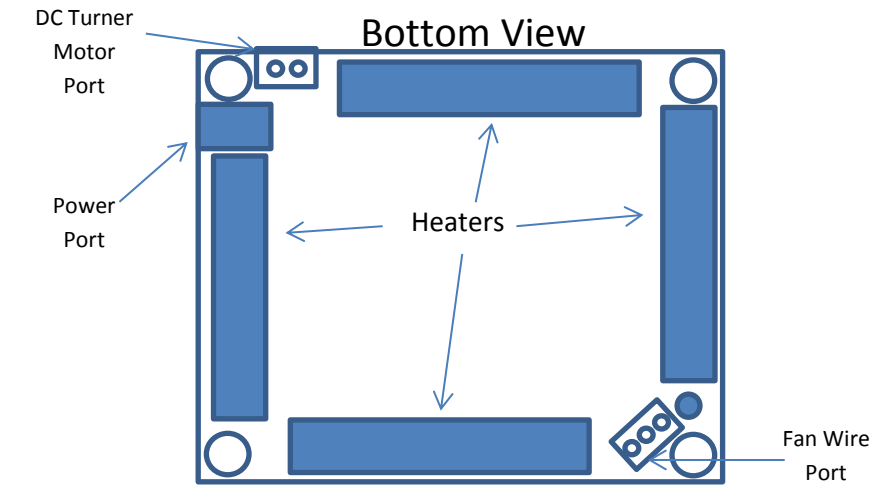
IncuKit DC™
by
INCUBATOR WAREHOUSE.COM

Congratulations on your purchase of the all new IncuKit DC™. This great little device will allow you to convert your small-to-medium sized container into an effective incubator.

Here are the basic components of the IncuKit DC™:





Installing the IncuKit DC™

Due to the nature of this kit, the specific way to install will depend on your specific configuration. But there are some basic things to help you get started.

Determine what container to put your IncuKit DC into. It is important that the container is NOT too large for the amount of power this kit can produce. The IncuKit DC can produce up to 48 watts of power at a time, but it is recommended that it **NOT** be kept at this maximum for extended periods of time. When the container is first warming up, the heaters will be on 100% power. That is normal. But if the heaters have to stay on at 65% (or more) most of the time, your container may be too large or you need to add more insulation to your container so it will retain more heat.

Determine where you will mount the IncuKit. Is it normally best to mount the IncuKit to the top (ceiling) of your container to get the best air circulation and to keep the chicks from getting too close to the fan or heaters.

The IncuKit will mount from the inside so make a hole just large enough to give you access the display screen and control buttons from the outside of your container. Then make two holes for the mounting fasteners. These will press into the two free holes in the corners of the IncuKit. Two fasteners hold the fan in place; the other two will mount the IncuKit to your container. Then make a hole for the power cord. You may use the template on the last page to make holes in the appropriate place.

After mounting the IncuKit, put the power cord through the hole you created for it and plug it in. This will start the IncuKit. Position the temperature sensor in a location that will be as close as you can to the level of your eggs.

To see an example of this IncuKit mounted in a cooler, see this video:

http://www.youtube.com/watch?v=lz4URtfD1g8

Basic Menu Options

When you first plug in the power, the default display will show you the current temperature and the amount of power the heater is using. There may be an initial odor from the heaters as the "burn in".
Press the UP button to see the set point (default is 99.5 degrees F) and you'll also see "DC NTC". This means it is set to use DC power and uses a NTC thermal sensor.

Press UP again and it shows the current setting for the hatch timer. It comes disabled. See below for instructions for enabling the timer.

Press DOWN twice to get back to the temperature reading. Then DOWN again to see the slope and range for the heater power settings. Most users will not need to pay attention to these. They are explained later.

Press DOWN again to see the fan setting and again to see the turner setting. Press the UP button until the display gets back to the temperature setting.

To Change Settings:

NOTE: After making any changes to the settings, be sure to exit the programming mode by scrolling down through the menu options until the screen reads "please wait" in order to save the changes.

From any menu display, hold the ENTER button for three seconds. This will put the unit into "Change Settings" mode.

There are several different setting options. They fall within three different categories of settings.
1. Basic: Normal settings that many users may find helpful.
2. Advanced: Most users will not need to make any adjustments to these. They are a little more advanced and technical.
3. Should not be changed: Settings that this particular device is set up to use. Other applications may require changes, but when used as you received the device, these should NOT be changed.

This is the order you will see each setting option. Press ENTER again and you'll see an astric (*) appear in front of the text. This means that if you press the UP or DOWN button, it will change the setting. Press ENTER again and it will remember the setting and you can move to the next menu option.

Set Temp: Basic
This will move the temperature up and down by 0.1 degree increments. If you hold the UP or DOWN buttons down, it will change more rapidly. NOTE: the temperature sensor on this device is VERY sensitive and will adjust very rapidly to tiny changes in temperature. You may see the temperature display moving by several 10ths of a degree above or below the set point and then go the other direction. The sensor is quickly communicating with the controller to adjusting the amount of power that is sent to the heaters. The temperature variation that your eggs will experience is MUCH, MUCH less than the sensitive sensor is reading.

Ctrl Ofs: Advanced
This changes the temperature point where the heater will begin tapering down in power. Depending on your configuration, you may find that the temperature does not get to an average temperature that is close enough to the set point. This could be due to the size of your incubator or the insulation that is used in your incubator. By moving this value up, it can help get the average closer to the set point.

Ctrl Rng: Advanced
This changes the temperature range that the decreasing heater slope will be applied to.

OSPslope: Advanced
This changes the percentage of total power that the heater will receive after the set point has been reached.

Degrees: Basic
This changes the setting from Fahrenheit to Celsius.
Temp Cal: Advanced
This allows the user to calibrate the temperature sensor if needed. If you have a trusted thermometer that is giving a different reading than the temperature reading from the IncuKit, you can calibrate the reading.

Sensor: Should not be changed

NTC R25: Should not be changed

NTC B: Should not be changed

Power: Should not be change
Fan: Basic
You can adjust the amount of power going to the fan, from 0-100%. In most cases, you will not need to change this but if you find there is too much air movement in your application, this provides an option to slow the fan down. **CAUTION**: even though the program lets you do it, it

is recommended that you DO NOT decrease the fan speed to less than 70%. Good air movement is critical to cooling off the heaters and control board. If the fan speed is too low, it can cause the board to overheat.

Fan Prot: Basic
With a standard 3-wire DC fan, this provides a safetly check in case the fan fails. If the controller senses the fan has stopped turning, it will turn off the power to the heaters to keep them from overheating. If this option is turned off, the fan can be removed or turned off without turning the heaters off.

Turner: Basic
This controls the amount of power going to the turner motor port so you can speed up or slow down the turner motor. After making these changes, be sure to exit the programming mode. Then unplug the IncuKit DC, then plug it back in. Then these changes will take effect.

Trn On T: Basic
If you are using a motor that should be cycled on and off, this allows you to control how long the turner motor is on each cycle. After making these changes, be sure to exit the programming mode. Then unplug the IncuKit DC, then plug it back in. Then these changes will take effect.

TrnFullC: Basic
If you are using a motor that should be cycled on and off, this allows you to control how long the time frame is for cycling the turner motor. After making these changes, be sure to exit the programming mode. Then unplug the IncuKit DC, then plug it back in. Then these changes will take effect.

BK Light: Basic
You can adjust the display backlight up and down.

HatchTmr: Basic

This turns on the hatch timer so you can see how long it has been since you started hatching your eggs. Note that the timer will be reset if the power is turned off.

Here is a template you can use for creating holes in the correct place in your incubator container. Cut out the template and the mounting holes and display screen and control buttons sections. Then lay the template where you want to mount your IncuKit. This will let you know where to make the holes for simple mounting.

Mounting Template