



Portable Incubator for Aquagenx CBT Kits

The Portable Incubator is a standard soft-sided cooler that has been modified with the addition of a small heater, fan and temperature feedback control that allow the incubator to maintain a constant above-ambient temperature.

The topmost zippered compartment contains the connector for the three different power adapters as well as the controls for the heating element.

The incubator includes three different power sources for the 12 Volt DC power the unit requires. Two of the adapters can use power from a 12 Volt battery and one adapter is for use with AC power. The three power supplies are packed inside the bottom zippered compartment in the incubator.



Cigarette lighter adapter to deliver 12 Volt DC from an automobile

Set of spring clips to attach to Volt DC battery in car, truck or motorbike

120-277 VAC-to-12 VDC electric power supply

How to Set Up Incubator

When the incubator is powered on, a small display lights up and flashes or alternates between displaying three values:

<p>Temperature set point (Fahrenheit)</p>	<p>Relative humidity of the chamber</p>	<p>Temperature of the chamber</p>



When the heating element is on, the small amber LED underneath the screen will glow.

The default temperature set point is 95 degrees Fahrenheit (35 degrees Celsius). The only temperature adjustment users can make is to change the set point of the incubator up or down 1/10 of one degree Fahrenheit each time the user presses the temperature arrows up or down.

How to Use Incubator

1. Select your power source (electrical, battery or cigarette lighter)
2. Connect one of the power adapters to the incubator:



3. Attach power source to the appropriate power adapter
4. Modify the temperature setting, if desired
5. Place water samples in the incubator
6. Incubate in the portable incubator at 95°-98.6°F (35°-37°C) for 20-24 hours

Ambient temperature incubation period and temperatures for the Aquagenx CBT

95-98.6°F (35-37°C): Incubate 20 hours
87.8°- 93.2°F (31-34°C): Incubate 24-30 hours
77-86°F (25-30°C): Incubate 40-48 hours

Frequently Asked Questions

Q: Does the incubator need to be plugged in for the entire incubation period? For example, once it reaches the desired temperature, can it be unplugged?

A: In order to maintain the constant temperature of 95°F the incubator must remain plugged in to a power source.

Q: The electricity goes out at night where we are sampling. How long will the temperature inside the incubator hold?

A: We recognize the unreliability of grid power in developing countries, so we included three different power options. Our recommendation is to use the cigarette adaptor in your vehicle. If you cannot use this then use the alligator clips and clip it to the vehicle's battery. The incubator has an internal thermostat that will regulate the heater and keep the temperature constant.

Q. How many Aquagenx Compartment Bag samples does the incubator hold?

A. The incubator holds 7-8 filled Compartment Bags with plastic seal clips.

Q. When I press the plus or minus buttons it doesn't look like anything happens. Will it not go beyond 95.4 degrees?

A. We preset the temperature to 95°F, which is an optimal temperature for incubation. If you would like to change the temperature, follow the instructions above.

Q. Does the incubator have a rechargeable battery?

A. No, it does not.

Q. Is there a way to change the humidity level in the incubator or is that a function of the outside environment?

A. Humidity level is a function of the outside environment. It cannot be changed in the incubator.

Q. How much power does the incubator draw?

A. When it is running, the heating unit draws about 28 Watts and the fan draws about 0.5 Watts. This is about 30 Watts total, therefore the system pulls 2.5 Amps on a 12 Volt system (30W/12V).

If you know the amp-hour rating of the battery you are using, you can go to a website such as the one below and get a reasonable estimate for the kind of performance you are looking to obtain. Run time depends on how cold the ambient temperature is relative to the temperature in the incubator. The assumption below is for worst case operation, eg. the heater is running continuously.

<https://www.batterystuff.com/kb/tools/calculator-sizing-a-battery-to-a-load.html>