

Avey Incubator
Reptile Cabinet Incubator
RCAB-80



Avey Incubator, LLC
www.aveyincubator.com/support.htm
(719)297-7010
Email: aveyincubator@gmail.com

Reptile Cabinet Incubator

Owner's Manual

Caution: Shock Hazard - No user serviceable parts inside the control box of the incubator.

Your incubator is ready for use right out of the box. Plug it in and it will power up. The fan will spin, the display will light up and display the temperature in the cabinet. Allow a couple of hours for the incubator to stabilize. Always double check everything when incubating! That means checking the temperature inside the incubator in different spots to verify it is within your tolerances. We calibrate to the middle tray in the middle, front to back, left to right. There will be areas where the temperature will be higher or lower. But generally the temperature at whatever point you measure it will be very stable and won't vary.

If you use your own eggboxes try to keep them centered on the shelf and pushed away from the front door. The temperature at the front will be lower than other places. Our zero substrate eggbox should also be centered on the shelf and pushed all the way back.

Where you place your incubator for use greatly impacts the success you will have in incubating eggs. A room with a stable, thermostat control temperature, draft free, without the sun shining into the room to heat the room up is desired.

A room heated by a wood stove, a barn, a shed, are not great choices. An incubator micro-manages the environment it is placed in. The harder you make it work the greater chance you will exceed it's operating limits.

The other very important factor in successful incubation is cleanliness. Your incubator should be cleaned and disinfected after every clutch or so or your hatch rate will drop. There are some good disinfectants out there but a 10:1 solution of water to Bleach is as effective as any and is very inexpensive.

Setting the temperature

Selection knob

1. The selection knob has 2 operations. Push in (momentarily then let go) to start and push in to finish a selection and turn left or right to change the selection. (Push in and then release - some people try to hold the knob in and then turn the knob while it is held in - this won't work! Push in means push and release)

2. Passcode

- a) Your passcode is 5 (default)

- b) Push in the selection knob.
 - c) When prompted dial in your passcode.
 - d) Push in selection knob (and then let it out)
 - (i) If you wait too long the operation times out and the Incubator resumes normal operation.
 - (ii) If you dial in the wrong passcode the Incubator resumes normal operation
 - (iii) If you dial in the correct password the Incubator display advances to the temperature selection screen .
3. Temperature Selection
- A. Dial in the desired temperature.
 - B. Push in the selection knob to set..
 - C. If you want to verify your settings, enter your passcode again, the temperature displayed will be what the incubator is set at.
 - D. The Incubator remembers the settings even when powered off.

Cleaning

We recommend a ten parts water to one part chlorine bleach solution for disinfecting the incubator cabinet. Spray on, let sit for 10 minutes, then rinse off. Let dry in sunlight if available (sunlight breaks down the chlorine and also the UV (ultra-violet) rays kill bacteria too – nature’s disinfectant)

Adding Humidity:

Add water to a shallow pan and place on any available shelf. This will add enough humidity to get you closer to what your eggs will require. Your goal should be 55%-65% Relative humidity. Don’t exceed 65% for any extended time. This is a buffer between the drier outside room air and the super high humidity you’ll want in your eggbox. Don’t try to go to 100% humidity inside the incubator cabinet. This will just shorten the life of the electronics and possible cause equipment failure while you are incubating – and no one wants that to happen!

To achieve even higher humidity levels add a humidifier wick to the water in the pan (available at ACE Hardware or Loews or Home Depot).

The actual fine tuning of your humidity is accomplished through the zero substrate eggbox. (optional) You can create up to a 100% saturation inside the eggbox. And this is where you make you fine adjustments to get the humidity level you desire.

Eggboxes:

You must use the lid on the box. If you don't the eggs will rapidly dry out. **In fact the lid is key to regulating the humidity.** Reptile eggs need to incubate in the neighborhood 96% to 99% RH. You can't rely on a digital hygrometer to calculate the correct humidity. Digital hygrometers are not accurate below 20% and above 80% RH.(relative humidity).

If someone tries to tell you otherwise they are wrong. Avey Incubator pioneered the use of digital humidity sensors and the automatic, computer controlled humidity systems on our other incubators starting in the mid 1990's.

But when we developed incubators for reptiles we had to concede that digital humidity control was not going to work. The required humidity levels were just too high. But not to worry. Reptile eggs have tough leathery flexible shells. And they will expand and contract depending on how turgid (wet or high humidity) or desiccated (dry or low humidity). When the shells expand, they become almost smooth and round, when the shells contract or are desiccated then not so round and they look like they are collapsing in on themselves. Both too turgid, and too desiccated, is not good. "Good" is that window in between. Not too turgid and not too desiccated.

What's really great about this is that you have a visual indicator of the condition of the egg's humidity level at any time. You just need to read the egg's body language. Eggs start out on the turgid side and gradually will dry out as the incubation period progresses. Make sure you cull out any "slugs" or bad eggs.

Using the Zero Substrate Egg Box:

The main purpose of the zero substrate eggbox is to provide a precise way to control humidity. Pour water in the bottom of the eggbox – about 1" deep. The eggs are placed in deli cups or Tupperware trays on the tray (middle shelf). With all the vents in the top lid closed you should be at 100% humidity. Many users report that only a tiny opening – maybe ¼" in one adjustable vent gives them the humidity they need.

The water should last about 2 months in the eggbox. Some users also put a drop (watch this – no more than a drop) of Clorox Bleach in the water to retard bacteria.

We provide more vents so you can vent the air closest to any condensation that might form on the lid. Condensation drops should not drip on the eggs. When opening the eggbox - tilt it open so any drops run to the side and out of the way.

You don't have to use our zero substrate eggbox. More traditional methods with vermiculite or other substrates may be more comfortable to you. But our Zero Substrate system is trending toward being the method of choice to control humidity when incubating difficult to hatch eggs.

Place your eggs in deli cups or other small plastic containers. We don't recommend laying them out directly on the middle tray of the eggbox. 3,4 or 5 ball python or Burmese eggs per deli cup – or more than that when incubating smaller eggs. Trooper Walsh took great pains to convey to me the concept that the eggs develop together as an entity themselves. Those 4 or 5 eggs in each deli cup act and react to the environment together. The deli cups allow a group of eggs to develop together but limit any loss if one of the eggs goes bad. The ZS-6 eggbox will hold up to 6 deli cups. (6 deli cups X 4 or 5

eggs per deli cup = 24 – 30 eggs. Space for 3 total ZS-6 eggboxes so maximum capacity is 90 ball python eggs with our zero substrate eggboxes.

Using the Sterilite Substrate Eggbox:

The first step is to mix the vermiculite substrate with water. Mix four or five handfuls of vermiculite with water. The goal is to get the vermiculite wet enough so that when squeezed in your fist the vermiculite will remain in a clump. If the clump falls apart, it is too wet, if too dry – same thing.

Spread out the wet vermiculite about 1” deep in the eggbox. Your eggs will sit on top of the vermiculite substrate. The moisture in the vermiculite substrate will keep your eggs from drying out too much before the hatch.

Once you have laid the eggs on top of the vermiculite. Place the lid on the eggbox and place the eggbox in the incubator. Maintain clearance on the sides and front to back so air can freely circulate.

With the lid closed the humidity level inside the eggbox will be very high. Probably too high. Watch the eggs for clues. If they get plumper and rounder, smoother shells, then they are probably turgid and that means the humidity is too high.

The solution is to make a ¼ inch hole in the top with a drill, or soldering iron or awl (ice pick) and watch the eggs for a day or so. If the eggs are still too turgid then make another hole and watch the eggs. If you go too far, make too many holes, cover up a hole, and watch the eggs,

The ongoing theme here is to watch the eggs. They are the key to a successful hatch. Usually all these things change slowly – over days at a time. If you see rapid changes, in a matter of hours, then something is seriously too high or too low. And immediate action is required.

Possible problems include substrate is too dry or wet, too many holes or not enough.

If the eggs become desiccated then put some Scotch tape over a hole, this slows the rate of evaporation.

If the substrate dries out, you can add a bit of water, just pour in a small amount away from the eggs. You don't want the eggs to get soaked on the bottom.

Fresh Air Supply:

Fresh air is essential for proper egg development. The Reptile Cabinet Incubator has 2 fresh air vents at the sides near the top of the cabinet. For most situations these can remain closed. There is enough natural air exchange through the front door and the upper

rear of the cabinet. If your humidity levels are higher than you want, then by opening these vents you can mix in additional fresh air and lower the humidity levels.

High and Low Temperature Alarm:

The high temperature alarm is pre-programmed for about 2 degrees higher than the setpoint temperature.

The over high temperature scenario includes:

1. Sun shining through a window onto the Incubator
 - a) If the high temp Alarm sounds - push in the selection knob to silence it and open the Incubator to vent some heat.

The low temperature alarm is pre-programmed for about 4 degrees below the setpoint. A common cause of the low temperature alarm is forgetting to close the door of the incubator. Another is if the ambient room temperature drops 35 or more degree below the setpoint. ie; setpoint is 87 degrees and the room temperature drops below 52 degrees.

Terms and Conditions

Incubators and brooders carry a 1 year parts and labor warranty. Shipping to and from our facility is still your responsibility but we warrant the rest. It is that simple.

Warranty and Liability are limited to repairing or replacing the necessary components. Any risk or loss of eggs or babies is the buyer's responsibility. We cannot control how you use our products, or the viability of the eggs you place in our units.

Return Policy:

Returns will be accepted for 15 days after shipping date on unused equipment returned in the original packaging. Once animals or eggs have been placed in our products they are considered used and are not resalable as new, therefore they are not refundable. Returned products must be in re-salable condition or adjustment will be made. You must call for return authorization or shipment will be refused. Shipping charges to and from our facility are your responsibility and not refundable. If a promotional, discount, or flat rate shipping charge was used in your order, the actual shipping charge will be used in calculating your refund. Please use FedEx or FedEx Ground. A restocking charge of 20% will be assessed to cover re-inspection, testing and re-packaging of the product. Packages must be insured. You need to call and notify us on the day you ship your return and be prepared to supply your tracking number in order to meet the terms of the return policy.