



Hatch-It Version 4 Incubator

General Instructions

And

Log Sheets

Author:	
Revision:	
Date:	

Setting Up

Cleaning incubator

Wash it with a 10% bleach solution, followed by warm soapy water and a thorough rinse to ensure you are starting with a sanitized environment.

Filling water

- Take the water bucket provided and add clean water till it is full
- Make sure the incubator is on a level platform before continuing
- Place the bucket on top of the incubator and connect it to the hose provided
- Make sure the other end of the hose is connected firmly to the humidity tray
- Make sure the mist maker is positioned under the transparent blocker.
- Make sure the mist maker is well connected to its power source
- Open the bucket tap and fill the humidity tray
- When its full, check that the mist maker is well immersed and that there are no leaks or spills of water

Turning the incubator on

- The system is fully installed and always running when it is commissioned. however, you can cut power to it using the breaker on the front of the system.
- **NOTE:** switching this breaker off will not stop the incubator timer
- To turn the incubator on, start with the blue master switch then the solar switch.
- Once the incubator is running, check that the temperature and the humidity are rising.
- Give the system 2 hours to warm up.
- While the system is warming up, you can **PREPARE THE EGGS**

Cleaning eggs

- Clean the eggs with a damp cloth and water only. Using any chemicals may damage the eggs

Selecting the eggs

- Make sure that the eggs do not have any of the following defects:
 1. Too elongated
 2. Too stump
 3. Too dirty
 4. Cracked or weak

Marking the eggs

- Label your eggs with a blunt pencil and write the information down in the egg/bird performance log provided.
- Disconnect and remove the trays from the incubator and load them outside of the incubator

Day 0 - Loading eggs

- Place the trays with the eggs into the incubator, starting with the bottom tray and moving to the top.
- Connect the trays to the electrical supply using the connectors provided.
- Check that the trays are rolling/tilting correctly by noting the position of the marks you put on the eggs as you run the manual tilting function (see the attached controller manual).
- If they are not turning properly, contact your agent.
- Take note of the date and time of starting the incubator in the incubator incident log.

Day 0 to Day 17

- For incubation, set the temperature to 38.0°C (see attached manual)
- Set the humidity to 60%
- record the following parameters into the incubator performance log:
 1. Incubator temperature
 2. Incubator humidity
 3. Cloud cover
 4. Water level
- Make the recordings at least 3 times a day. The times below are the recommended times:
 1. 6:00 AM
 2. 1:00 PM
 3. 7:00 PM

Day 18 – Candling

How to candle

- Remove the top tray by first disconnecting it from the electricity supply then gently taking it out
- Close the incubator door after you've taken out a tray so that the temperature and humidity do not drop too much
- Take the eggs one by one and shine a light onto the egg as shown in the picture below. See the pictures below to determine what a good egg looks like and what a bad egg looks like.
- If you have a 12V power source, you can use the candling platform provided. As shown in the picture below.
- Remove all the bad eggs and take note of them on the egg performance log, then destroy them according to section 6 of the FAQ.
- After you are done with the tray, replace it and reconnect the electricity
- Remove the middle tray and repeat the candling process. Then the bottom tray last. Each time you take out a tray, close the door to maintain the temperature and humidity.
- After you are done with all the trays, check that the rolling/tilting is working correctly (for day 6 and 12 candling)

Day 18 – Lockdown

- For hatching keep the temperature at 38.0°C
- Change the humidity and set it to 70%
- Remove the trays from the incubator following the procedure you did for candling.



- Remove the eggs and place them into the hatching basket(s)
- Write down the eggs into the egg performance log
- Log the hatching start process into the incubator incident log

Day 19 to Day 21 - Taking out the chicks

- Check the chicks by looking through the peek glass every day for the three days of hatching and listening for any chirping. DO NOT open the door.
- Every day at 7:00 AM, take out the hatched chicks whose feathers are fluffy and they look strong.
- If any chicks are coming out of the eggs, DO NOT HELP THEM.
- Place them into the fowl run that you will have prepared in advance (see section 1 of the FAQ on how to prepare the fowl run)

Day 22 - Shutting down and reset

- Take out the remaining unhatched eggs and destroy them according to section 6 of the FAQs.
- Shut down the incubator by turning off the solar switch first and then the battery switch
- Wash it with a 10% bleach solution, followed by warm soapy water and a thorough rinse to ensure the incubator is sanitized again. Also use descaler if the water you used was hard water.
-
- After 1 day you can restart the process with a new batch of eggs.

FAQ

1. Where do the newly hatched chicks go?

Preparing the fowl run

- Take a box of 2 meters length, 1 meter width and 1 meter height to accommodate your chicks
- Install a light and a fan heater into the box as is similar to the one in the picture below
- Place a thin layer of straw or coarse wood shavings (see picture) on the base of the box
- Place a container with starter food for the chicks into the box

Innoculating the chicks

- Dilute one vial of *gumboro* d78 into 5 to 20 litres of water. This vaccine can vaccinate up to 1000 birds and there is no risk of overdosing
- Place the water in a suitable container into the fowl run box together with the food
- Make sure the water gaps are small so that the chicks do not drown in the container
- Place the box in a warm place in the fowl run or any well ventilated secure room
- Move the chickens from the hatching basket to the fowl run box

2. How do I operate the controller?

- Please see the attached manual

3. General troubleshooting

The incubator just shut down

- Check the status of the master switch
- Check if there is a fan sound coming from the battery box

The trays are not tilting/rolling

- Check the connections to the trays
- Test the tilting/rolling manually

The humidity is not rising

- Check the water level in the bucket
- If there is a mist maker:
 - Check that the mist maker is running and that the controller has the wet light on
 - Check that the mist maker is well connected to its power source (warning: be careful not to hurt your fingers with the turning fan blades or to burn yourself with the heater elements!)
 - Check the water level in the humidity tray and that the mist maker is fully immersed
- Check that the valve is not closed or blocked by disconnecting the pipe and running water through it separately
- If none of these are working, call the support team or a designated agent near you

The alarm is too loud

- refer to the attached manual on how to silence or activate the alarm.



- In some cases, if the alarm wont stop, check the values that are causing the alarm. They may be too low or too high. If that is the case, wait for the values to settle and then the alarm rate will decrease. In that case it can be silenced.

4. Record Keeping

- The Incubation process is one of always learnign and there is always room for imprpovement. It is prudent to keep track of the progress of your incubation process, so as to be able to improve the process in the future.
- Use the logs below to start your record keeping process

5. General Maintenance

- Clean the panels regularly. This will keep their performance at its best. You can clean them by using a cloth with water and/or soap to remove dust or any dirt that may have fallen on them, then rinse with clean water.
- Request for a thorough maintenance check from the hatchit team or the recommended agent at least once every three months or three incubations

6. Destroying bad eggs

- Collect all the bad eggs and take them far from the incubation site
- Dig a hole in the ground and bury them. Optionally, you can break them up defore burying them

7. Record tables

- a) Egg/bird performance log
- b) Incubator performance log
- c) Incubator incident log

