

## ABOUT OUR UNITS

### **Model 2150 - Digital Still Air Incubator**

Our unit has a built in LCD display panel, single extra large observation window, extra temperature probe, state of the art electronic PCB board and circuitry, indicator light, easy quick connects for the Fan Kit (model 3150), and ventilation plugs along with built in moisture rings in the bottom of the incubator. This unit holds approximately 45 chicken eggs, 115 quail eggs, 90 pheasant eggs and 41 turkey or duck eggs. 40 Watts / 120 VAC

### **Model 2250 and 4250 – Digital Circulated Air Incubators**

In addition to the features listed above, these units have an installed Circulating (Forced Air) Fan Kit to help keep a uniform heat temperature inside the unit.

### **Model 3150 – Optional Heating assembly with Circulating (Forced) Air Fan Kit**

Our unit is easily installed inside the Still Air Incubator, Model 2100 to circulate the air temperature not regulate the air temperature. The Fan Kit spliced wires simply connect to the two (2) grey connects on the bottom of the circuit board cover. 120 VAC

### **Model 3200 - Automatic Egg Turner (AET)**

Our Automatic Egg Turner holds 41 large eggs except duck and turkey eggs. This unit is 120 Volt with a small motor used to turn the eggs six (6) times a day. The power supply cord exits through the one notch in the sides of the both TOP and BOTTOM cover. The unit is intended to be placed on top of the metal mesh floor. The AET turns the eggs approximately 30° to each side. This unit fits our Model 2150 and Model 2250 and is included with Model 4250. 120 VAC. **NOTE: Stop using the Automatic Egg Turner three (3) days before hatching, then remove the eggs from the (AET) and place back onto the metal mesh floor in their natural unsupported position.** Place the probe thermometer on top of the eggs for monitoring 100F temperature.

## HATCHING AND EGG TURNING

During incubation, eggs must be turned at least 2-3 times a day at the same time. Turning the eggs by hand is the most demanding and tedious part of the incubation process – make sure your hands are sanitized. We recommend marking each egg with a pencil “X” and “O” on opposite ends to keep track of the turning. Place the “X” side up then the “O” side up at the next turning time. Alternate this procedure each turning cycle until three (3) days before hatching. The eggs must be sanitized before being initially placed in the incubator with any egg disinfectant on the market. Place the eggs on their sides with the small end slightly down. **Stop turning the eggs three (3) days before hatching – the chicks are positioning themselves for hatching.** Our Automatic Egg Turner holds 41 large eggs except duck and turkey. **We recommend all electrical units to be plugged directly into a certified GFCI grounded outlet.**

## GETTING STARTED WITH YOUR INCUBATOR

Remove the incubator from our packaging. You will see that the incubator comes in two parts (top and bottom). The BOTTOM of the incubator is the cover without the large observation window and power supply cord. The TOP of the incubator is the cover with the heating element, LCD display panel with indicator light and extra large observation window and power supply cord. Place the metal screen in the bottom of the BOTTOM cover for egg placement. Please note that both the BOTTOM and TOP cover have a notch on each cover to route the power supply cord when using the Automatic Egg Turner (Model 3200). **Plug directly into a surge protector.**

## HEAT REGULATION

Your unit has a built in LCD display panel to display the internal temperature and read the humidity percentage in the unit. The temperature is pre-set to 100F from the factory. However, based on various factors, you may find you need to adjust the readout to more accurately match auxiliary thermometers used inside. To adjust the temperature UP or DOWN, press the MODE button once. The TEMP display will start flashing. Next press the UP or DOWN red button as needed to adjust the temperature. Finally, press the MODE button for day adjustment if needed and again to exit the MODE. The set up is completed. **The ideal temperature for incubation is between 99.5 and 100.5 degrees F.** When using our glass probe thermometer included with the unit inside the incubators, **you should calibrate it first with another thermometer you know to be accurate.** Place it on top of the eggs so you can view the temperature of the unit. Do not allow the glass part of any thermometer to lie on the eggs.

## PLACEMENT OF THE INCUBATOR

Your digital incubator needs to be installed in a room with constant temperature. Avoid drafty areas and direct sunlight. **The ideal room temperature is 70 degrees F. +/- 3 degrees F for the Still Air Incubator.** Please note the use of our Circulated Air Incubator or our Still Air Incubator with our installed optional Circulating Air Fan Kit (Model 3150) is preferred for rooms with temperatures between 60 degrees F and 80 degrees F.

## OPERATING THE INCUBATOR

Your unit has a built in LCD display panel to display the internal temperature, the humidity percentage, and count down the days to hatch. The temperature is pre-set to 100F from the factory. The red indicator light will turn on and off frequently which is normal to control the desired temperature for your egg species. We suggest running the incubator for 6 to 8 hours prior to putting eggs in to confirm a steady, maintained temperature before starting your project. The unit will read in the LCD display TEMP OK when the unit temperature is between 98F and 102F. To adjust the “Days to Hatch” countdown, hold the MODE button till temp flashes. Press MODE button again till “Day” flashes. Adjust up or down accordingly. This feature will count down the days to hatch. It will flash when it reaches 0.

## CONTROLLING THE HUMIDITY AND VENTILATION

We suggest adding distilled warm water to the BOTTOM cover moisture slots to give the eggs their natural moisture. Monitor and fill daily the moisture slots with warm water as needed. This will depend on your room humidity level. The Hygrometer should show relative humidity of approximately 55-60% during incubation and then increase to 65% during hatching. **CAUTION:** Monitor humidity carefully as too much moisture may affect electronic circuitry. **Company is not responsible for damage due to excess humidity.**

Proper ventilation is paramount during embryo development and should increase during the hatching process. We suggest you remove one RED ventilation plug on the TOP cover when the chicks start to hatch. The RED ventilation plugs are located on opposite ends of the large observation window. After hatching remove both RED ventilation plugs to help dry the chicks.

## EMBRYONIC DEVELOPMENT - CANDLING

Use our optional Model 3300 Egg Candler to check development progress of eggs and to identify infertile or “dead in shell” eggs for removal.

**HELPFUL HINTS FOR A SUCCESSFUL HATCH**

- Function of the incubator is to bring the room temperature up to the desired hatching temperature
- Ideal operating temperature is 99 – 100F.
- Ideal humidity during incubation is 55-60%, increasing to 65% during hatching
- Location of the incubator is crucial to a successful hatch
- Still Air incubator is ideal in room temperatures between 65F – 72F
- Use optional Circulating Air Fan Kit in room temperatures between 60F – 80F
- Need plenty of fresh air and a stable room temperature; basement is perfect
- Recommend putting paper underneath the incubator in case of water over-flow
- Always sanitize the unit both before and after hatch using anti-bacteria soap.
- Keep your hands fully sanitized when touching/turning the eggs
- Eggs capacity will affect the ventilation in the incubator; needs more oxygen
- After hatching remove both red ventilation plugs to help dry chicks
- Eggs should be placed on the metal screen laying on their side with small end slightly down. Do not crowd the eggs.
- Do not open the incubator the first day after the eggs have been set in place
- Eggs should be turned at least two to three times a day at the same time
- Stop turning the eggs 3 days before incubation as the chicks are in position for hatching
- Mark the eggs with an “x” and “o” on opposite ends with a pencil to make sure you have properly turned the eggs. Letter should face up once turned over.
- Use Egg Candler (Model 3300) to monitor development



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**Please read instructions carefully before attempting to install and operate the unit. Know the unit’s application, limitations, and potential hazards. Protect yourself and others by observing all safety information.**

**LIMITED WARRANTY**

Farm Innovators, Incorporated has carefully inspected, tested, and packaged this unit to insure safe and reliable operation. When you receive your incubator, examine it carefully to determine there is no damage that may have occurred in shipment. If damage has occurred, notify the company from which you purchased the incubator. They will assist you in replacing the unit.

The Models 2150, 2250, 3150, 3200, 3300, and 4250 are **guaranteed for 30 days, under normal conditions and intended use of service**, from the original date of consumer purchase or date stamped on the unit against defects due to materials and the company’s workmanship only. The sole obligation shall be to replace the defective unit with replacement parts or a replacement unit. Units should be “Checked for proper operation” prior to returning as defective. Units must be returned prepaid. No liability for loss or damage of any nature or kind, whether arising out of or from the use of the product, whether or not defective, is assumed by Farm Innovators, Incorporated and/or their employees.

**Farm Innovators, Incorporated implies no warranty whatsoever to any factors relating to the successful hatching of any eggs. There are numerous factors that can lead to a successful and unsuccessful hatching of eggs. See the following website for further incubation information: <http://msucare.com/poultry/reproductions/index.html>**

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**MAINTENANCE – Sanitizing Unit & Eggs**

Carefully wash and sanitize the entire incubator both before and after each hatching the eggs. We recommend using any anti-bacterial soap. You must also sanitize the eggs before putting them in the incubator. There are many egg disinfectants on the market.

**LENGTH OF INCUBATION**

Chicken eggs require 21 days to hatch, but the incubation period for the eggs of other species of poultry varies. The approximate periods of incubation required for various species of poultry and game birds are:

Type of Bird	# of Days	Type of Bird	# of Days
Turkey	28	Ring neck Pheasant	23-24
Duck	28	Mongolian Pheasant	24-25
Muscovy Duck	33-35	Bobwhite Quail	23
Goose	29-31	Japanese Quail	17-18
Guinea	26-28	Chukar Partridge	22-23
Pigeon	16-18	Peafowl	28