Operating the Gala Cocks is very simple but please note that for success in hatching operation you must first read the manual carefully.

#### General Notes:

- Before putting eggs into the machine, it should work for 1-2 days to make sure that every parts work correctly.
- If you do not have enough experience to use the machine, it is recommended, not to use expensive eggs. Start with some cheap eggs.
- Do not install the machine outdoor and under direct sun light or wind.
- The ideal temperature of the room is between 23-27 degrees, otherwise the output decreases.
- When using air conditioning systems, make sure that the machine is not exposed to the warm or cold wind.
- Enclosed and poorly ventilated spaces are not recommended. It will reduce efficiency.
- There are some inlets under the machine to enter fresh air. Do not put the machine on the carpet or any floor covering those inlets.
  - Please note that the ventilation channel on the machine's door must be open all the time.
  - During the hatching period (3 last days) especially when some chicks have been hatched, do not open the machine's door.

- Do not manipulate the electronic systems.
- Ideal humidity of atmosphere is between 50-55 percent.

3 issues are involved in this process:

- 1- Egg incubator
- 2- Eggs
- 3- Operator

Do not use old eggs. maximum time of storage eggs is 7 days. also eggs must be stored in special condition.

Do not store eggs in refrigerator, the best temperature is 18 degrees and humidity is 55%, store them in dark places.

Temperature fluctuation of the environment should not be more than 4 degrees.

If the temperature fluctuation is more than 4 degrees, output decreases.

Before putting eggs in the machine, put them in a warm place for some hours (about 25 degrees) to prevent any shock.

To put the eggs in the machine, make sure that the eggs stand on their head.

Do not wash the eggs; clean them with a dry brush.

Do not use very big or small or abnormally shaped eggs.

Do the egg candling on the 7<sup>th</sup> and 14<sup>th</sup> nights and remove transparent eggs from the machine because they are without embryos and can cause the rest of the eggs be contaminated.

It is suggested that after each period, break the unsuccessful eggs and check out the reason. Note that if after 21 days, eggs still have albumen and yolk it means that they do not have sperm at all.

The Gala Cocks can work with car battery so during the power cut connect the machine to the battery because fan failure and temperature reduction has devastating effects on chicks.

Do not use any chemical for cleaning the machine.

# Incubation process definition:

Incubation process is divided to 2 periods of setter and hatch.

- During setter period, the egg is on the tray and turns. In this period the chick grows inside the eggs. Ideal temperature is 37.7 and ideal humidity is 55-65%.
- In hatch period, chick inside the egg is completed .in this period eggs must be put on the hatch basket. Hatch period for chicken eggs is 3 days.

## Egg Candling:

For the diagnosis of fertilized eggs and also to ensure the growth of the embryo, do the egg candling on the 7<sup>th</sup> and 14<sup>th</sup> nights.

- 1-Do the egg candling in a dark room.
- 2- Do the egg candling in a warm room to prevent any shock.
- 3- Make sure that during egg candling the egg is not exposed to intense shaking.
- 4- Do the egg candling in the shortest time.

5- Remove the transparent eggs from the machine otherwise the rest of the eggs will be contaminated.

How can you do the candling?

While looking through eggs on seventh night, you must see blood vessels and black spots, otherwise remove transparent eggs.



On the 14<sup>th</sup> night, if you observe eggs, you must see most of the inside dark, otherwise remove transparent eggs again.

Introduction of machine parts:

- 1- Body: it is made of PVC with 3 cm thickness insulation layer.
- 2- Controllers: Two digital thermo controllers with the precision of a tenth of a degree. One of them works as a main thermo controller and another one is for emergency.

Two digital humidity controllers with the precision of 1%. One of them works as a main humidity controller and another one is for emergency.



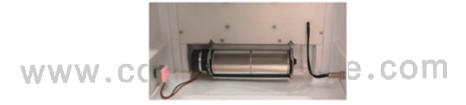
In normal situation main controllers work and set the temperature and humidity.

Note that two thermo controllers(main and emergency) should not have a difference more than 0.5 degree. Also two humidity controllers (main and emergency) should not have a difference more than 5 percent.

While the inside temperature is lower than adjusted value, the thermostat's green light is on and when the temperature reaches to the adjusted value, the green light off.

Note: the machine is adjusted in the factory. Do not change the setting.

### 3- Fan (blower):



Note: the machine's fan must work all the time. check the fan daily and make sure that it works properly.

After each period clean the fan carefully.

4- Electricity power, battery connectors:



You can see the method of connecting the electricity power in a picture.

During the power cut, connect the battery wire and use car battery.

Note: connect the red clip to the + and the black one to the -.

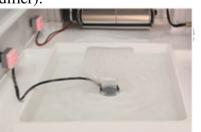
Also this electricity power is able to charge the battery slowly. In case of short the clips together or connecting them in wrong direction, the fuse burns.

Note: do not use the worn out battery.

There is a spare fuse in the package. The fuse must be 20A.

5- Mist maker (humidifier):





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While the humidity is lower than 60% (adjusted value), the red light of the mist maker is on and it works.

Note: due to water hardness in different areas, the guarantee does not include the mist maker.

Use distilled water because heavy and salty water causes deterioration of ultrasonic part.

Every few days pour some water in the water container and make sure that the water level is upper than mist maker metal tip.

- 6- Egg Candler: doing egg candling on the 7<sup>th</sup> and 14<sup>th</sup> nights.
- 7- Tray: this machine has 3 kinds of trays for all kind of bird eggs. You can watch the method of changing trays on the video.



Note: turning operation of the eggs cannot be seen easily. To make sure that the gearbox works, put your hand on it and you must feel its shake and warmth.

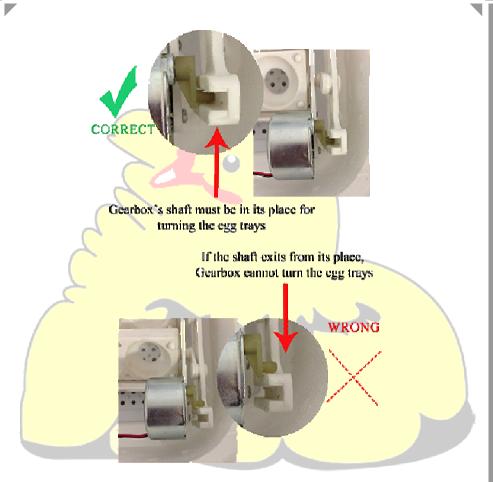
The machine has 10 shelves and each shelf has a separate gearbox.

The red light of the white signals means that they are working.



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Connect the gearboxes to the specified places and make sure the gearboxes wires are completely fixed in the signals.



## 8- Water container:

It is washable and you can change it easily.

# 9- Artificial mother & recovery unit: Chine. COM

- On the 23rd or 24th day, when all chicks hatch, remove egg shells from the machine
- Install the drinkers.
- Install the recovery lamps in their places and bend them down to light the middle of the baskets.
- Empty the water container.
- Do not keep chicks inside the machine more than 4-5 days



#### Installation:

- ❖ Put trays in the machine and connect the gearboxes.
- ❖ Pour some water in the water container and make sure the water level is upper than the metal tip.
- \* Connect the electricity power and turn the machine on:
- 1- All the 4 digital controllers must be on
- 2- All the 10 signal lamps (gearboxes) must be on.
- 3- The red light of the fan must be on and fan works.
- 4- While the humidity is lower than 60%, the red light of the mist maker must be on and it works.

Note: the machine is adjusted in the factory, do not change the setting.

Note: before putting eggs in the machine, let it works for a day to make sure that every part works properly.

Then put the eggs. Eggs must be stand on their head. Close the machine door and make sure that air cannot enter.

During the 18 days of setter, every 3 days pour water in the machine.

- ❖ The ideal temperature inside the machine is 37.5 -37.7 degrees and the ideal humidity inside the machine is 55-65%.
- ❖ In the 7<sup>th</sup> and 14<sup>th</sup> nights, do the candling with considering all important notes. CKSMaChine COM

### Hatching operation:

- > Remove the trays from the machine.
- > Put the eggs in the glass baskets.
- ➤ Pour water in the water container to make sure that there is no need to open machine door during rest of days.

Note: Operation of transferring eggs must be done in a warm room to prevent any shock.

Close the machine door and do not open it during the 3 last days.

It suggested to open the door on the 2<sup>nd</sup> and 4<sup>th</sup> days, then take the chicks out, because with each opening and closing the door some chicks could die.

Hatching of all chicks may extend to the 25th day.

After each period and before starting new period, make sure that all inlets in the front of the fan and on the top of the machine are open.

How to use the emergency controllers:

In case of disorder in any of main controllers, use emergency.

- Turn the machine off.
- Remove shelves cksmachine.c
- Remove the plastic basket on the top of the machine to see the inside of the panel.
- Disconnect the wire behind the main controller and connect it to the emergency with considering the direction.

All steps of changing controllers are shown in the training video.

	Period of incubation	Poultry		
			•	
	21	chicken		
	4			
	28	Peacock Peacock		
	7			
	42	Ostr	ich	
	2			
(				
	28-31	Goo	ose	
	30	Swan		
				1
/	16.10	D:		1
[	16-18	Pigeon		
-	20.24	Dl		
	20-24	Pheasant		
	17-18 Quail		- 31	
	17-18	Quail		
	23-25	Partr	:1	
	23-23	Parti	luge	
1001	W cocken	achi	no co	m
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