

CiMUKA EGG INCUBATORS

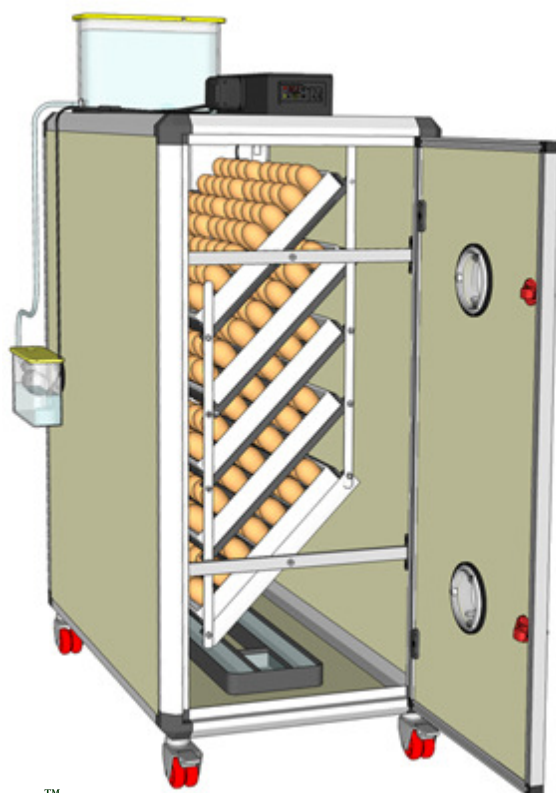
HB175 / HB350 / Hb500 / HB700

HB SERIES

Please read the following instruction manual carefully before use.

IMPORTANT! Keep this user manual safe for future reference.

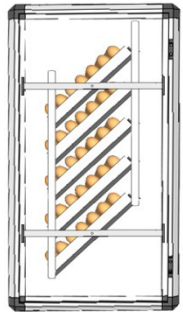
USER MANUAL



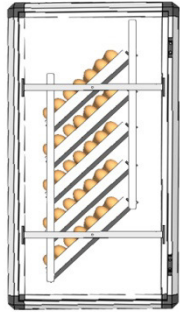
Hb Series Models	2
Parts of Models	3- 4
Quick Guide.....	5
Placement of Models.....	6
Ventilation.....	6
Egg Handling.....	7
Temperature/ Humidity Controller.....	7-10
USB connection / room sensor.....	11
Humisonic™ Auto-humidity control	12
Humidity tray.....	13
TurnX™ Automatic Turning System.....	14
Setter Trays and Hatchery Baskets.....	15-16
Active Periodic Cooling (APC)	17-20
Setting and Hatching	21-23
Incubation Records.....	24
Factors Affecting Hatchability.....	24
Cleaning up and Service.....	25
Safety Labeling.....	25
Product Information.....	26
Recommended Incubation values.....	27

Models

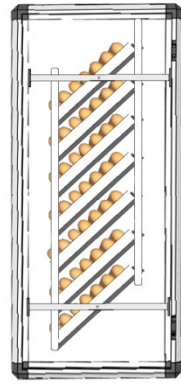
Setter Models (S types)



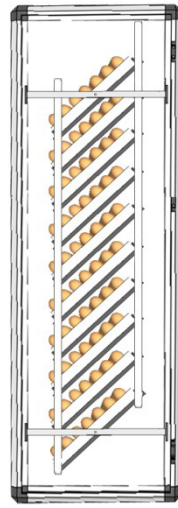
Hb175 S



Hb350 S

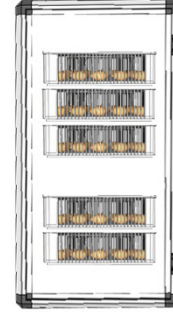


Hb500 S

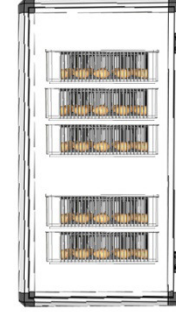


Hb700 S

Hatcher Models (H types)



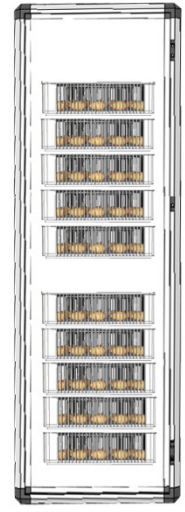
Hb175 H



Hb350 H

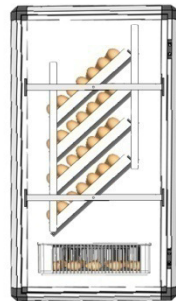


Hb500 H

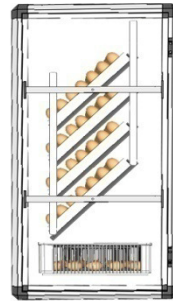


Hb700 H

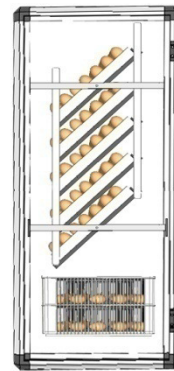
Combined Models (C types)



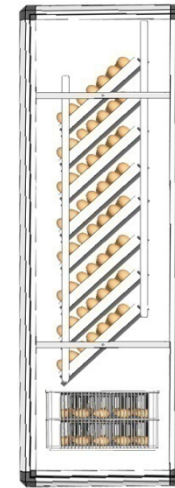
Hb175 C



Hb350 C



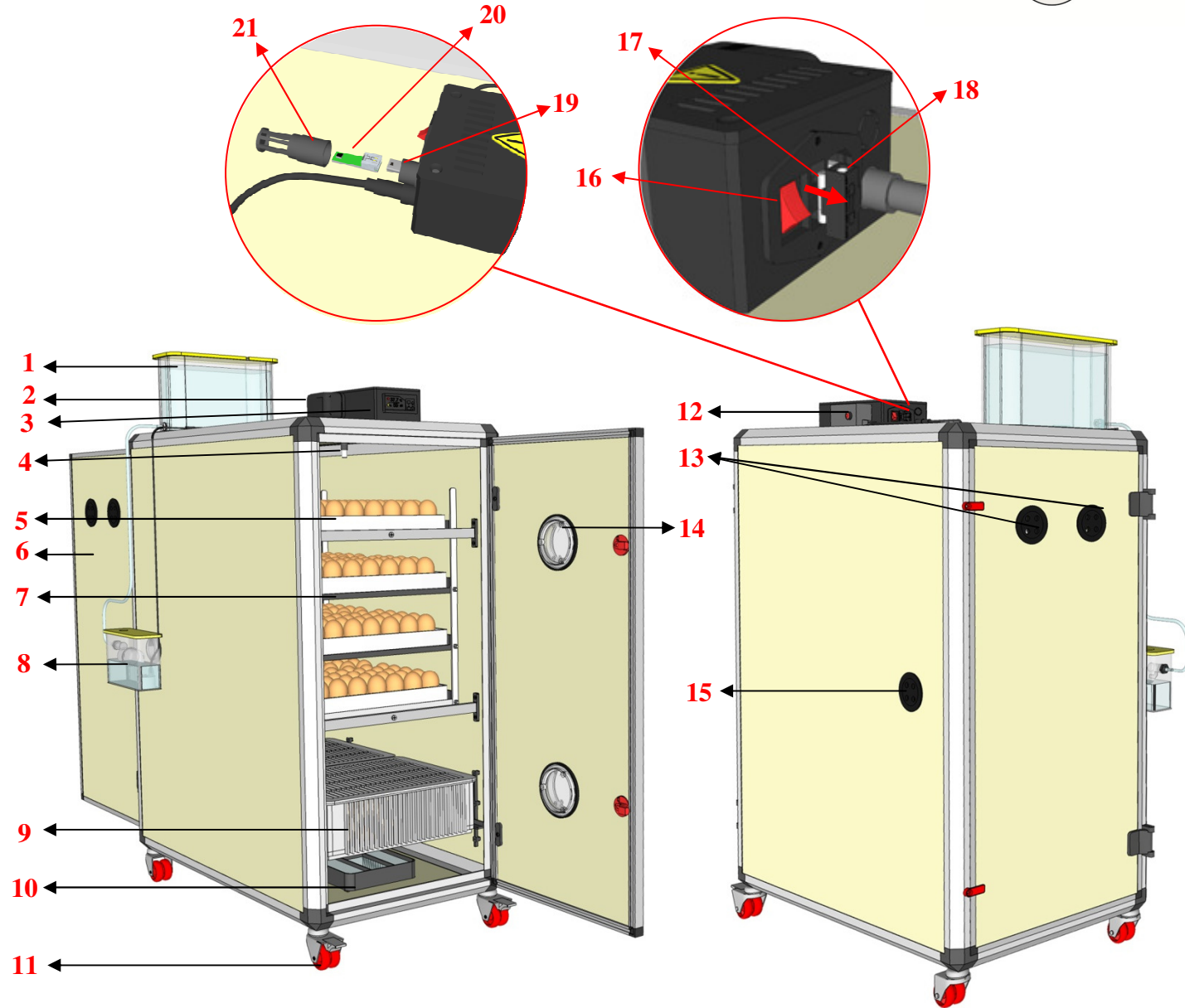
Hb500 C



Hb700 C

Parts of Models

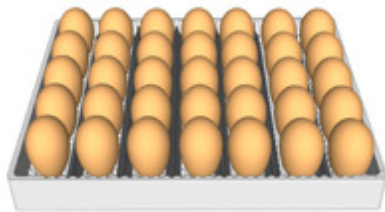
1	Water reservoir - 4lt (1 Gallon)
2	Humisonic™ Adapter
3	Control Panel
4	Temperature/Humidity sensor
5	Flexy35 Setter tray (C and S types)
6	Back Door for cleaning and service
7	TurnX™ mechanism (C and S types)
8	Humisonic™ reservoir
9	CS35Y Hatchery Baskets (C and H types)
10	Humidity tray
11	Lockable wheels
12	TurnX™ Control Adapter
13	Adjustable air-out holes
14	Observation windows
15	Adjustable air in hole
16	Power inlet module (on/off button)
17	Protection fuse (F type)
18	Spare fuse (F type)
19	USB connection
20	Room sensor chip
21	Room sensor cover



Accessories

	Hb175			Hb350			Hb500			Hb700		
	C	S	H	C	S	H	C	S	H	C	S	H
Flexy35	4 pc	5 pc	-	8 pc	10 pc	-	10 pc	14 pc	-	16 pc	20 pc	-
Separators for Flexy	40 pc	50 pc		80pc	100 pc		100 pc	140 pc		160 pc	200 pc	-
CS35Y	1 pc	-	5 pc	2 pc	-	10 pc	4 pc	-	14 pc	4 pc	-	20 pc
Cover for CS35Y	1 pc	-	2 pc	2 pc	-	4 pc	2 pc	-	4 pc	2 pc	-	4 pc
TurnX™ Adapter	1 pc	1 pc	-	1 pc	1 pc	-	1 pc	1 pc	-	1 pc	1 pc	-
Humisonic™ System	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc
Power Cable	1 pc	1 pc	1pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc
Water tray WT02	1pc	1pc	1pc	-	-	-	-	-	-	-	-	-
Water tray WT03	-	-	-	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc
Hatchery cover for Flexy35	Optional	Optional	-	Optional	Optional	-	Optional	Optional	-	Optional	Optional	-

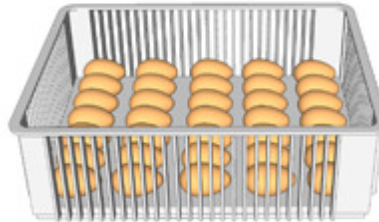
Flexy35



Separator for Flexy35



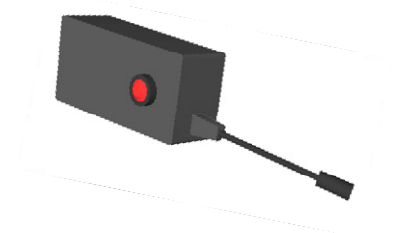
CS35Y



Cover for CS35Y



TurnX™ Adapter



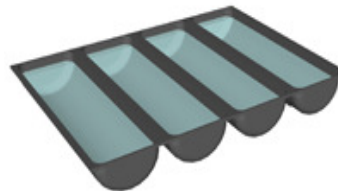
Humisonic™ Unit



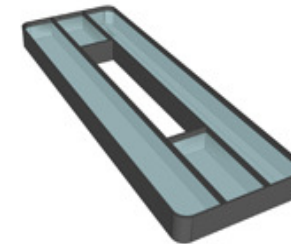
Power Cable



Humidity Tray WT02



Humidity Tray WT03



Hatchery cover for Flexy35



CAUTION! Any damaged part must not be used.

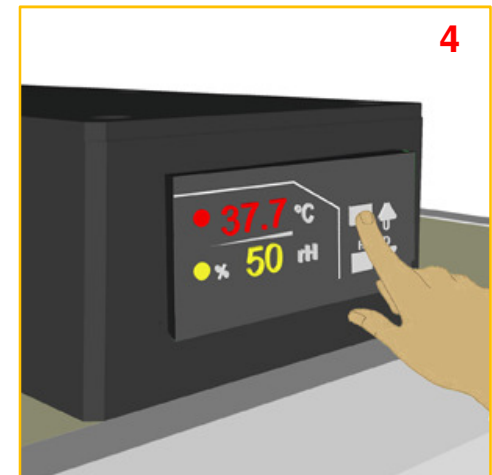
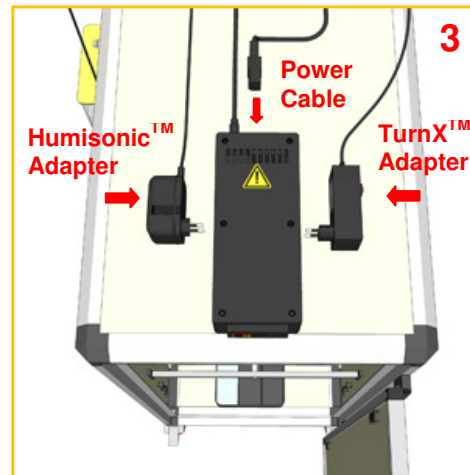
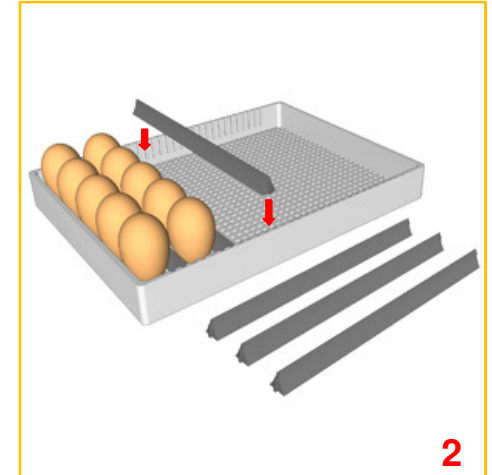
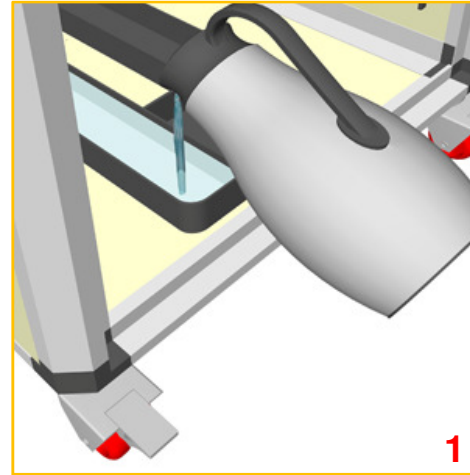
Quick Guide

- Remove all packing material carefully.
- Please identify and check all parts of model. (see page 2-4)
- Install Humisonic™ unit onto Cabinet (see page 11)
- Fill humidity tray with water (1 channel). **Picture 1**
- Adjust Flexy35 separators for the eggs that will set. **Picture 2**
- Plug your TurnX™ / Humisonic™ adapters to control panel and plug your machine to electric supply **Picture 3**

CAUTION! Do not use the equipments with high electric consumption in the same electrical line as your egg incubator.

CAUTION! Always use a grounded power line for your incubator.

- Press power button and set temperature and humidity for your eggs. **Picture 4**
(see page 8-9)
- The incubator must be worked for 3 - 4 hour to check all parts and functions before first setting.



Placement of Model

Your incubator must be located in an indoor area. The area must be clean and ventilated. **Ideal distance from walls are 50 cm (1,5 ft).** Do not place machine close to the walls of incubation room. The incubator should not be exposed to direct sunlight and not subject to splashes of water or high humid conditions.

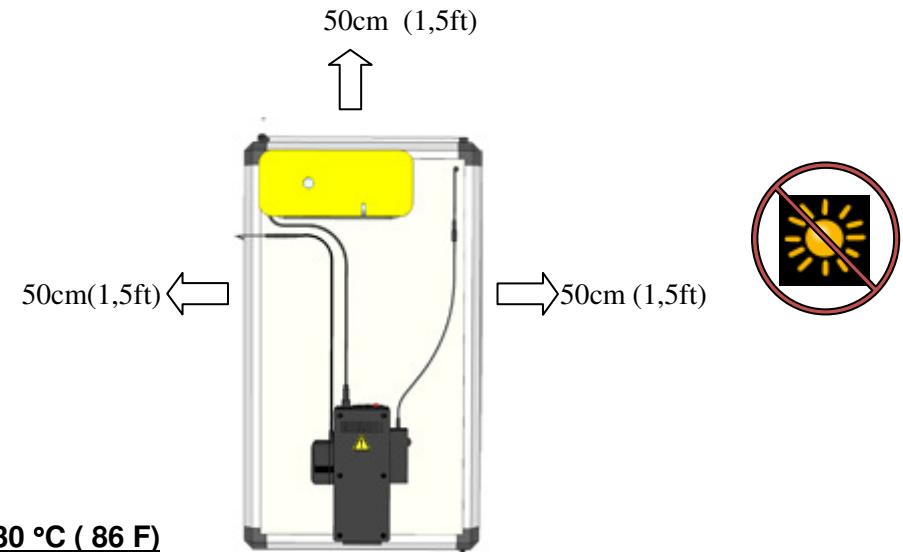
Place your incubator to a flat surface far from doors and windows.

Ideal incubation room temperature is 20–25 °C (68 – 77 F). Wide temperature variations in the room affect your incubation results. If your area is very cold or hot, use an air condition system in the room.

Caution! **Don't let** room temperature **below 15 °C (59 F) and above 30 °C (86 F)**

Caution! **Don't let** reaching of animals and insects to the incubator.

Caution! **Don't let** accessing of children or person that have physically or mentally problems to the the incubator.



Ventilation

Embryo needs proper oxygen levels and produce carbon dioxide during incubation. To supply oxygen in proper level and remove carbon dioxide, ventilation is essential.

Ventilation is supplied automatically with fan and adjustable air-in/out holes.

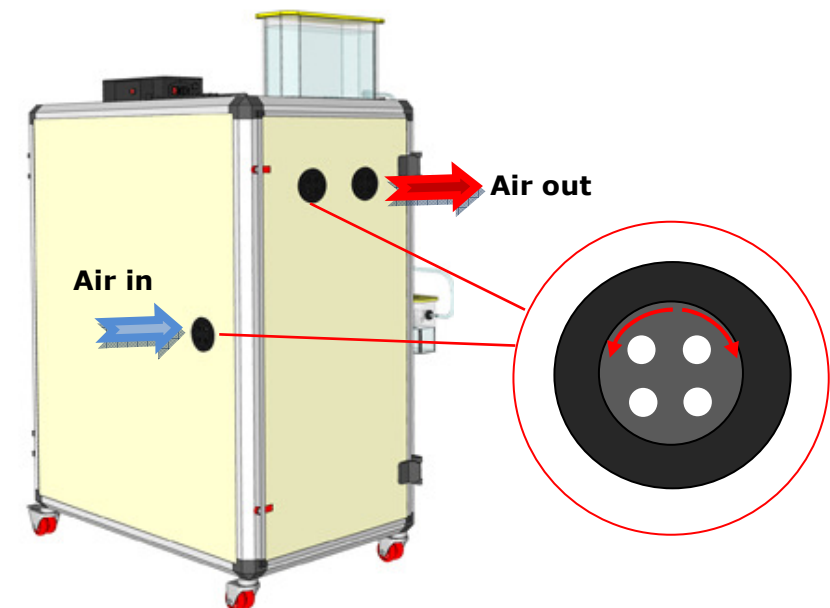
Air in/out can be adjusted by left / right turn to decrease air in/out by considering egg amount in your incubator.

Caution! **Never close air- in / out holes.**

Caution! **Always keep air- in / out holes fully open during hatching period.**

Caution! **Never make animal breeding in incubation room.**

Caution! **Be sure incubation room has adequate air intake.**



Egg Handling

Eggs should be collected carefully and stored in good conditions up to setting. Quality of eggs is very important for hatchery results. Sanitizing eggs before storage is an effective method for killing or decreasing the amount of microorganisms in egg surface. You must know that sanitation processes does not only kill the bacteria, but it can also kill the chick embryo in the egg. Use proper sanitary procedures.

Ideal egg storage temperature is **12–13 °C (53 -55 F)**. Store eggs in cool condition **between 10 – 20 °C (50 - 68 F)** and never let them be exposed to sunlight. Daily turning of eggs is suggested during storage to maintain hatchability.

CAUTION! Eggs never be stored in refrigerator. 4°C (39 F) is too low.

CAUTION! Improper storage of eggs and higher than 7 day storage decrease the egg quality and hatchability.

CAUTION! Eggs must be stored 1 day minimum before setting.

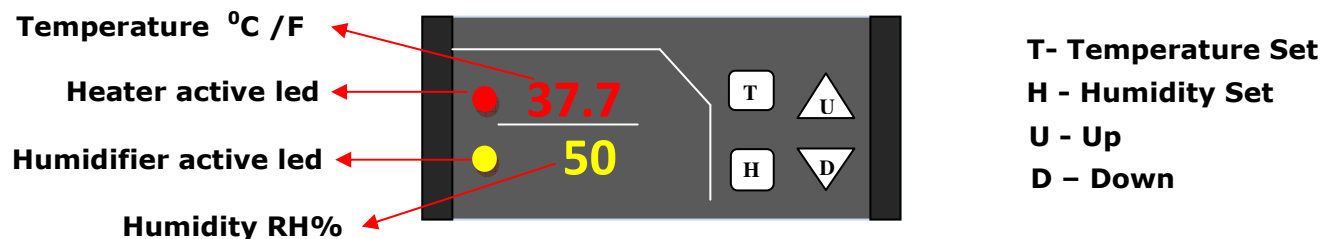
CAUTION! For dirty eggs, never use cloths to clean and improper washing procedures.

Temperature / Humidity Controller

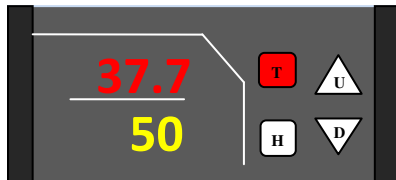
In egg incubation, the most important factor is temperature. Temperature control is provided by electronic controller which manages heater units with high precise electronic control system.

Embryos tolerate short term temperature drops, however higher temperatures than ideal affect embryos detrimentally. Be sure that your temperature setting is true and don't concern about short term cooling of eggs when cover open for water adding or inspections.

Main Screen

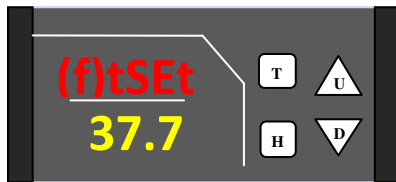


To check temperature set point



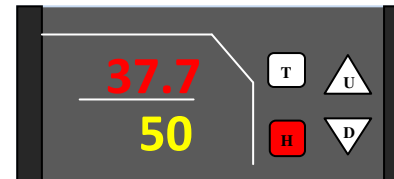
When main screen is active,

Press **T** button and release



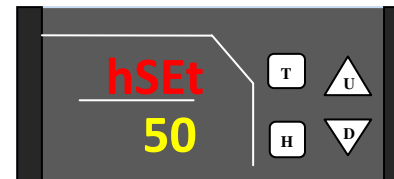
(f)tSEt – Temperature Set Screen
will appear 2 s and turn back to main screen.
Down value is temperature set point.

To check humidity set point



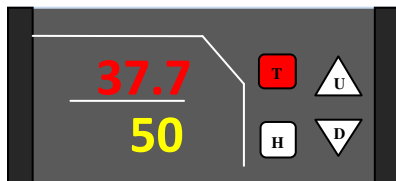
When main screen is active,

Press **H** button and release



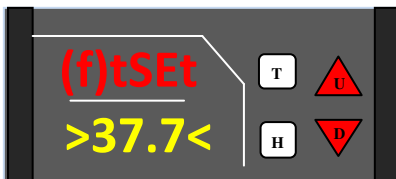
hSEt– Humidity Set Screen
will appear 2 s and turn back to main screen.
Down value is humidity set point.

To change temperature set point



When main screen is active,

Hold **T** button for 2 seconds

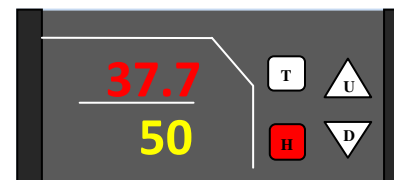


While temperature set value blinks
Use **U / D** buttons to adjust temperature set point



When finished adjustment,
Press **T** button to “save” adjusted value.

To change humidity set point



When main screen is active,

hold **H** button for 2 seconds



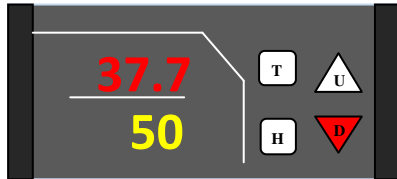
While humidity Set value blinks
Use **U / D** buttons to adjust humidity set point



When finished adjustment,
press **H** button to “save” adjusted value.

Recommended temperature and Humidity values for different species are given at page 27

Turn Light On

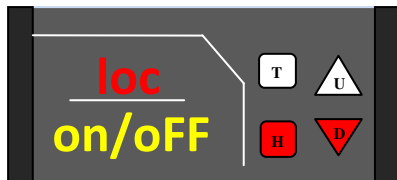


When main screen is active,

Press D button to light on and off.

Note: If you forget light on, controller will off bulb automatically after 3 minute.

To Lock Screen on/off



When main screen is active,

Hold H+D buttons together for 3 seconds to lock and unlock screen

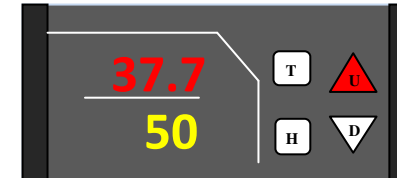
Alarm delay



When main screen is active,

**Hold U button for 3 seconds
Voice alarm will be delayed
15 minutes.**

Second sensor / Remaining time until next cooling

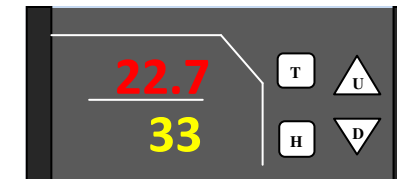
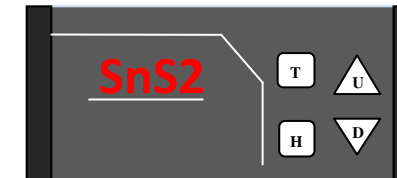


When main screen is active,

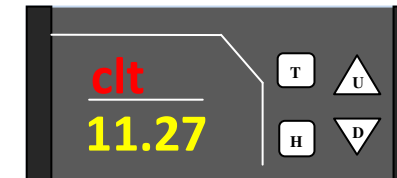
Press U button and release to check second sensor values and remaining time for next cooling

*Note: Second sensor value will appear if second sensor activated
(pls check user menu parameters. (See page10))*

SnS2 will appear.

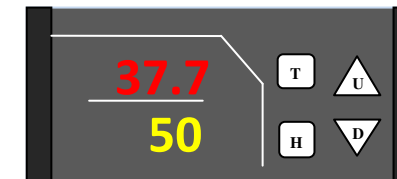


Then, second sensor temperature and humidity values will appear.



Then remaining time until next periodic cooling appear.

*Note: remaining time to next cooling will appear if periodic cooling function on
(pls check APC menu. (See page 18))*



Then, screen turns back to main screen.

HB SERIES

User Menu Parameters



37.7 50	T H	U D
hhi 10	T H	U D
hlo -10	T H	U D
(f)thi 0,8	T H	U D
(f)tlo -2.0	T H	U D
(f)tco 0.0	T H	U D
hco 0.0	T H	U D

Hold T + H together for 3 seconds to enter menu
-Use T /H buttons to choose parameter.
-Use U/D buttons to change parameter values.
-Hold T + H together for 3 seconds to save changes.

hhi: high humidity alarm.

Started : set value +10
Delay time: 20 minutes
Notification: Alr 5
Voice alarm : continuous

hlo: low humidity alarm.

Started : set value -10
Delay time: 20 minutes
Notification: Alr 6
Voice alarm : intermittently

(f)thi: high temperature alarm.

Started : set value + 0,8
Delay time: 2 minutes
Notification: Alr 1/3
Voice alarm : continuous

(f)tlo: low temperature alarm.

Started : set value - 2.0
Delay time: 30 minutes
Notification: Alr 2/4
Voice alarm : intermittently

tco: temperature calibration value.

CAUTION! tCo is a critical parameter . Changing this can results in chick looses. Please use qualified and calibrated glass or electronic thermometers for calibrationpurpose. Check temperature values regularly.

hco: humidity calibration value.

CAUTION! hCo is a critical parameter. Changing this can results in chick looses. Please use qualified and calibrated glass or electronic thermometers for calibration purpose. Check humidity values regularly.

uS2 th	T H	U D
(f)rtl 18	T H	U D
(f)rth 28	T H	U D
rhl 10	T H	U D
rhh 85	T H	U D
rAt off	T H	U D
rAh off	T H	U D

US2: USB connected device

no : no connected device
th : second sensor connected (room/calibration)
iot: iot module connected
Notification: Alr 15 (usb connection error)

below parameters active if Us2 is selected "th"

(f)rtl: second sensor low temperature alarm.

Started : below 18 C / 65 F
Delay time: no
Notification: Alr 10
Voice alarm : intermittently

(f)rth: second sensor high temperature alarm.

Started : over 28 C / 83 F
Delay time: no
Notification: Alr 9
Voice alarm : intermittently

rhl: second sensor low humidity alarm.

Started : below 10 RH
Delay time: no
Notification: Alr 14
Voice alarm : intermittently

rhh: second sensor high humidity alarm.

Started : over 85 RH
Delay time: no
Notification: Alr 13
Voice alarm : intermittently

rAt: second sensor temperature alarm activation.

On: alarms activated
Off: alarms deactivated

rAh: second sensor humidity alarm activation.

On: alarms activated
Off: alarms deactivated

USB Connection / Room sensor

Your model is equipped with a USB connection at the back side of the control panel. It is connected to the main controller.

A second room sensor is installed to it with sensor protective cover. Room sensor measures the temperature and humidity conditions of the room.

Cimuka advanced temperature/ humidity controller provides best control of cabinet for room conditions and it has second sensor voice alarm function for high/low temperature/humidity with user adjustable parameters. **(see page 10)**

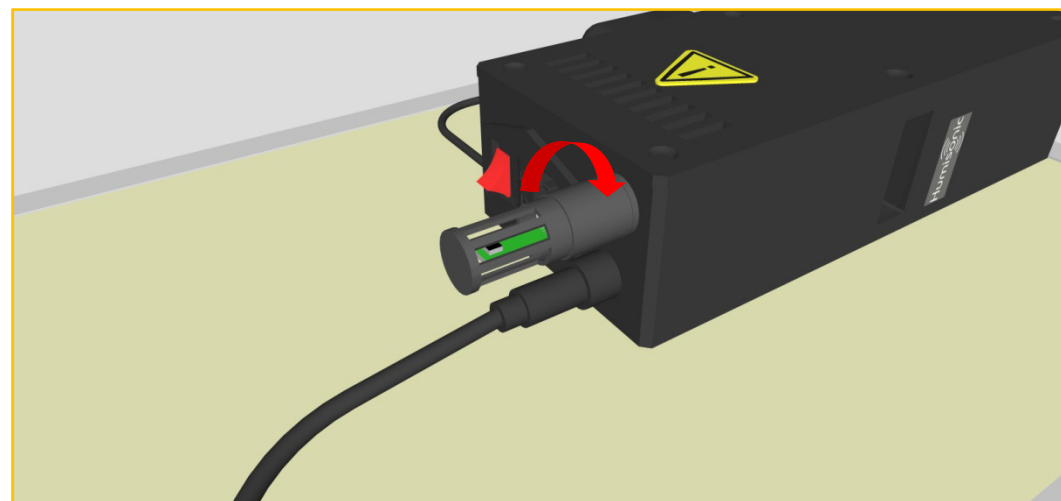
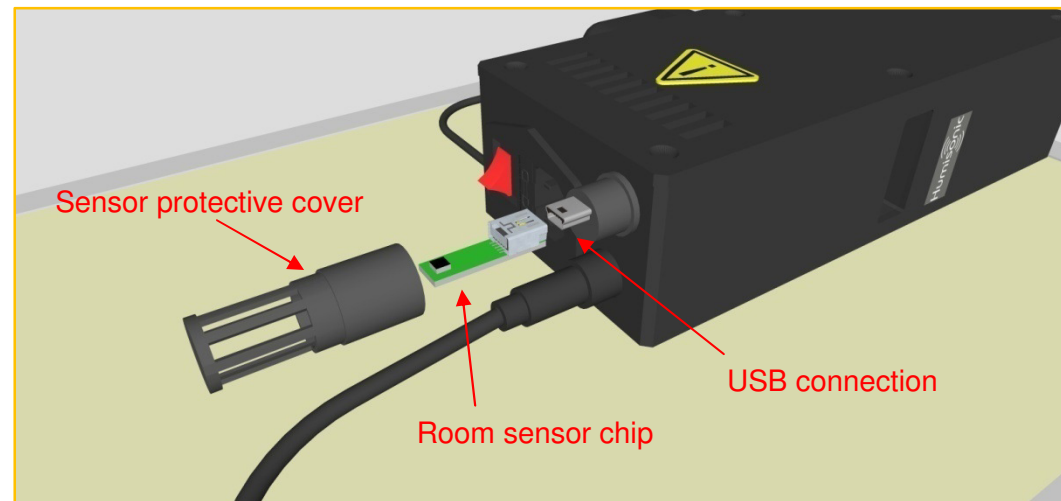
Room sensor chip is identical to the main sensor of the egg incubator. It can also be used as a spare sensor for emergency situations.

Usb connection can also be used for calibration sensors and lot module connections.

Connection device should be selected from user menu. Please check user menu parameters. **(see page 10)**

Contact with your dealer for optional devices and accessories that can be connected to USB connector

CAUTION! Always power of the incubator during any sensor or lot module installation.



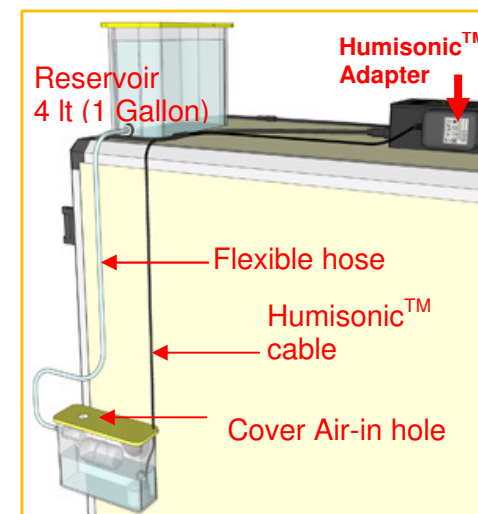
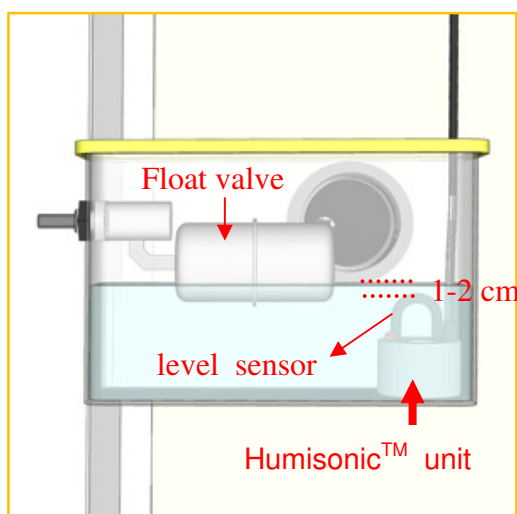
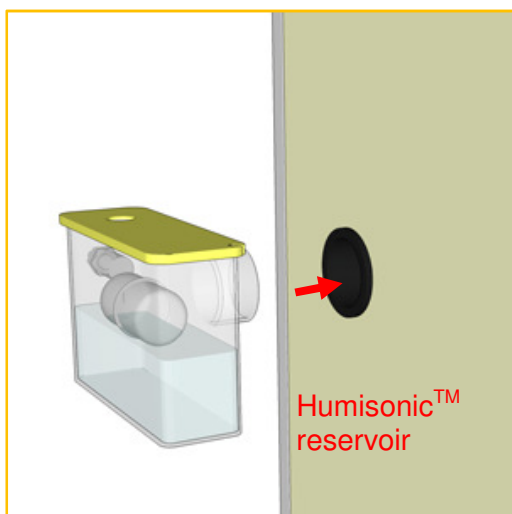
Humisonic™ Automatic Humidity Control

Humidity adjustment in incubators is for **providing adequate water loss from eggs**. Eggs need to lose between 13-16 % water depending on the species during incubation period. Weighing your eggs during incubation is the most reliable way to find proper humidity level for particular poultry species.

Different from temperature, short term humidity changes during incubation are not important. Keeping an average humidity (See Page 27) during all incubation period is enough to achieve good results. However, **high humidity levels during hatching period (last 2-3 day) are very important**. When the chicks start to hatch, inner membrane of egg dries quickly. This makes membranes harden and chick can stick to shell. To prevent drying of membranes, humidity must be adjusted to high levels depending on species for last 2-3 day of incubation.

Installation

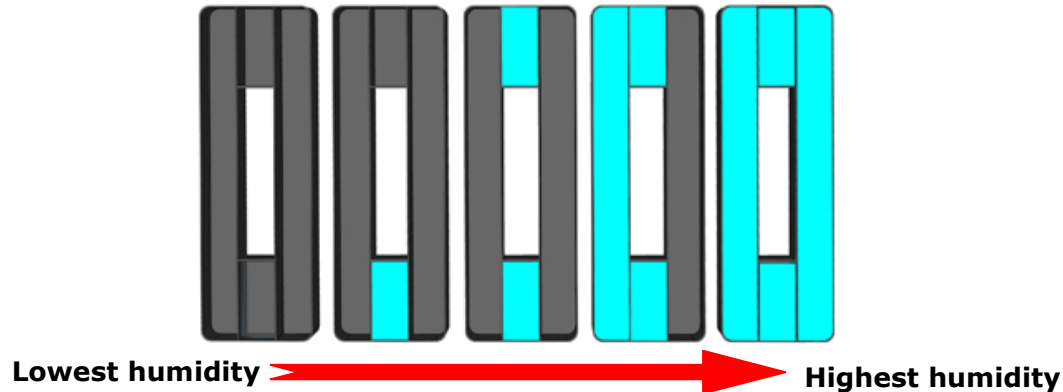
- Connect Humisonic™ reservoir right side of the incubator.
- Place stainless steel Humisonic™ unit into the bottom of the reservoir.
- Use flexible hose to connect Water tank and Humisonic™ reservoir
- Connect Humisonic™ cable to Humisonic™ adapter. Connect adapter to the control panel.
 - The float valve will keep water level 1 - 2 cm (.39-.79") above water level sensor.



CAUTION! Don't use hard and lime-enriched water for humidifier system and for humidity tray. Change humidifier disks regularly. Humisonic™ humidifier units designed for on – off use. Leaving the unit on for prolonged periods of time will decrease service life of unit and power adapter. Never attempt to close air-in hole on Humisonic™ reservoir cover.

Humidity Tray

Cabinet humidity value can also be adjusted manually by water channels. Humidity values are shown in control panel digitally. Humidity levels directly result of **water surface area in base**. Hb series models have different size of water channels to adjust humidity at desired level.



CAUTION! Never fill humidity trays with cold water. Use warm water close to incubator set point. Ideally 25-30 °C (77-86°F)

CAUTION! Humidity tray is part of the incubator. Always keep it in bottom, even empty. Advisable to fill one section of humidity tray during setting period and keep full for hatching period last 2-3 day.

Keeping water in humidity tray gives many advantages to user and decrease the risk of incubation,

- Humidity tray is backup water supply in case your external water tank runs out of water or in case of unexpected system malfunction
- Humisonic™ Unit life will increase with low working and less power consumption with low energy costs.

Don't forget that humidity values depend on temperature values, always check humidity values at temperature set point.

You could not decrease humidity below a point and could not increase above a point . This low and up limits depend on humidity level of your incubation room.

TurnX™ Automatic Turning System

TurnX™ Automatic turning system provides 90° turning per 1 hour. TurnX™ linear actuator is controlled by TurnX™ control adapter. Turner button in control adapter is to get trays parallel position for egg setting and transfer procedures.

CAUTION! Only use the button to get setter trays horizontal position.

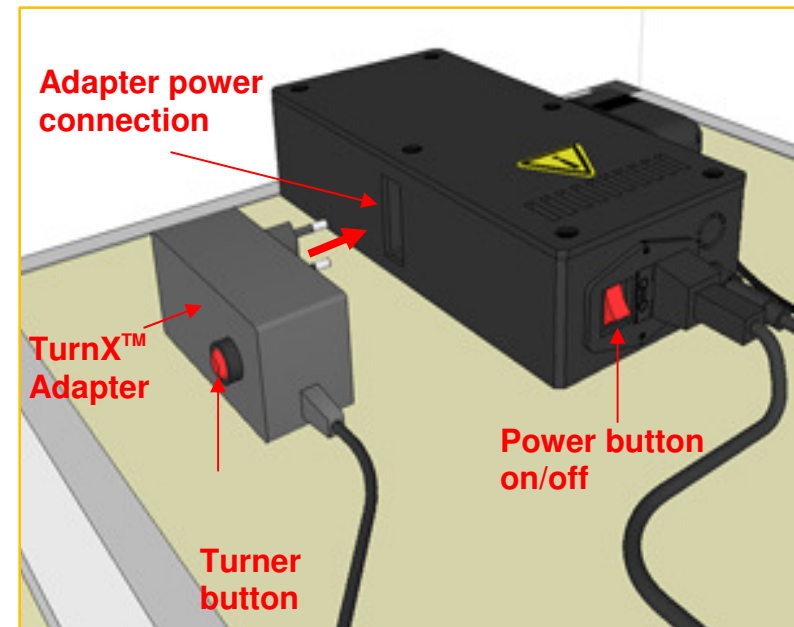
Turning button turns the trays clock wise or counter clockwise. To set the trays into machine or to take out the trays from machine, turning mechanism must be gotten horizontal position.

CAUTION! Don't try to set or take out trays before getting them horizontal position.

To get setter trays horizontal position;

- Push and release the button to start turning
- When the trays get horizontal position, close the incubator by pressing **power button**.
- After finished your transfer, use power button to switch on the incubator.
- Trays will have 45 degree position and turn to automatic mode.

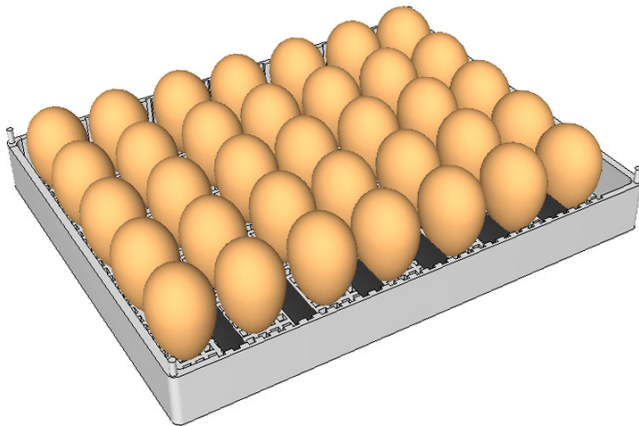
CAUTION! Flexy35 trays must be settle truly. Before switching on the incubator, check all trays. Otherwise, trays or turning mechanism can be damaged.



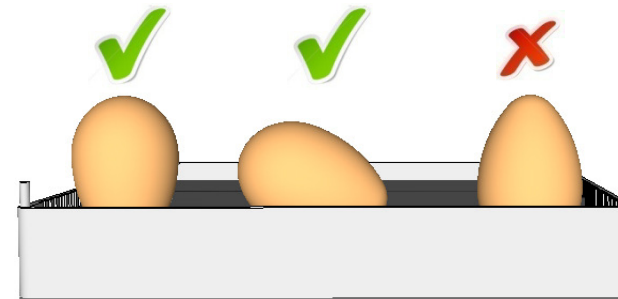
Setter Trays and Hatchery Baskets

Flexy35 Universal Setter Tray

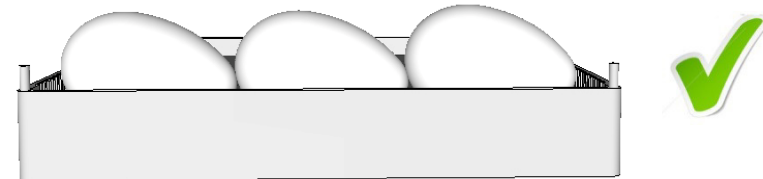
Hb series Setter (S) and Combined (C) models come with **Flexy35** universal egg trays. **Flexy35** separators can be adjusted for different egg size. Each Flexy35 tray comes with 10pc of separator and can be adjustable from quail to goose eggs.



CAUTION ! Never set eggs on the position small end top.
Eggs must be set small end down or horizontal.



Goose and Peacock eggs must set horizontally small end a bit lower position



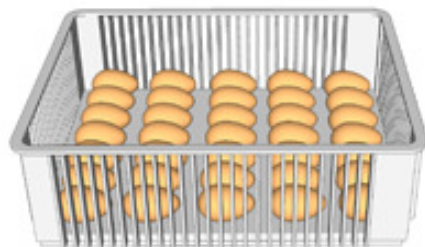
Approximate Egg Capacities		Setting
Chicken/Duck	35	6 separator / 7 line x 5 egg
Quail	99	10 separator / 11 line x 9 egg
Partridge	56	8 separator / 8 line x 7 egg
Pheasant	48	7 separator / 8 line x 6 egg
Turkey / Big Duck	24	5 separator / 6 line x 4 egg
Goose- peacock	15-20	4 separator / 5 line x 3-4 egg

CAUTION! Before setting Flexy35 trays to TurnX™ mechanism, be sure that separators are placed truly and check eggs not fall down during 45 degree turning.

HB SERIES

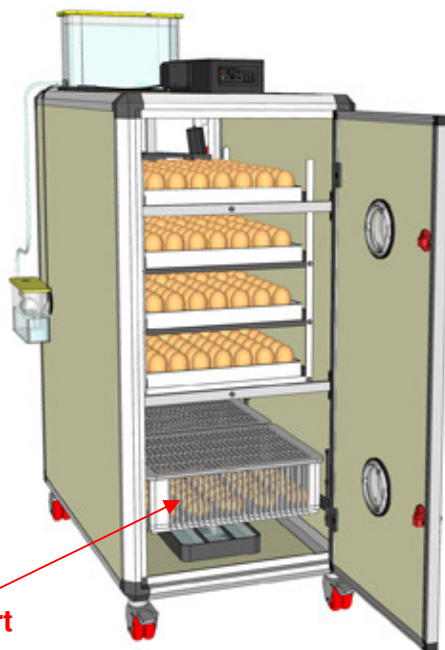


CS35Y Hatchery Basket



Eggs are transferred to Hatchery baskets at free position for last 2-3 day of incubation.

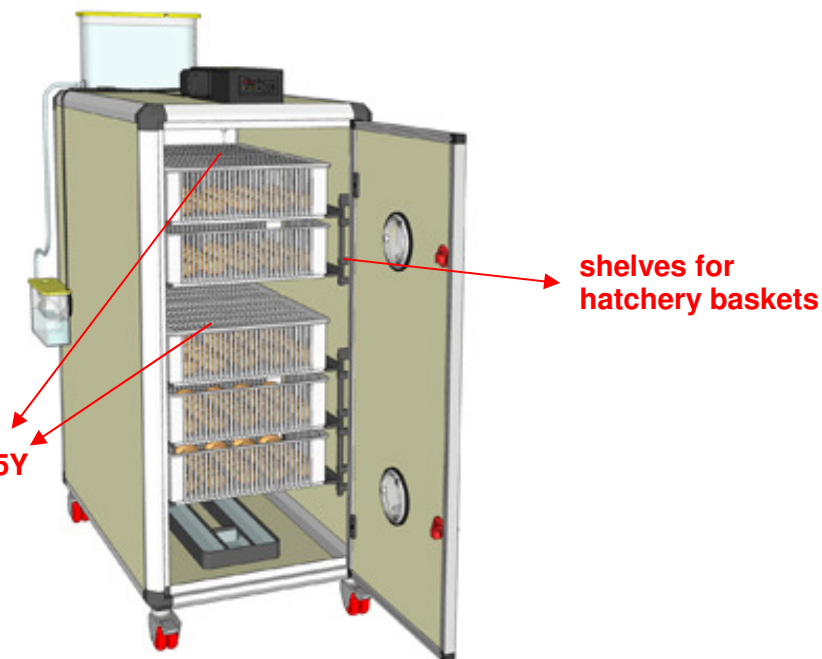
In Combined Models(C), there is internal hatchery part for hatchery baskets.



Internal hatchery part for CS35Y

Typical Egg Capacities	
Chicken/ Duck	35
Quail	99
Partridge	56
Pheasant	48
Turkey/ Big Duck	24
Goose- Peacock	15-20

Hatchers (H types) have shelves for hatchery baskets and all hatchery baskets can be reachable separately for easy access and control of chicks.



Cover for CS35Y in middle and top shelves.

shelves for hatchery baskets



Active Periodic Cooling (APC)

CAUTION! Active periodic cooling function is for professional users. If needed, please seek assistance from your vendor. Results can change for a variety of reasons including poultry species, egg size, and room conditions. Improper cooling can result in late hatching and chick loss.

In natural incubation, most birds leave the nest for a period of time at least one time after first week of the incubation. Eggs cool and dehumidify during this period. **Active periodic cooling (APC)** lets you mimic this natural behavior.

Researches show that periodic cooling of goose, duck and even chicken eggs during incubation has positive effects in hatch rates and chick quality. Periodic cooling is very important for most of goose types. Without periodic cooling, goose egg hatch rates can decrease up to 20-30%. Many breeders manually cool the eggs by taking them out of the incubator and letting them cool in hatchery room conditions and sprays eggs with warm water, then place eggs in the incubator again.

To automate the process, Cimuka uses **Active Periodic Cooling (APC)** with 2 different modes to simulate natural behavior. All alarms for temperature and humidity will be off during this time. After APC is complete, temperature and humidity will return to preset standards.

1. (clt) Cooling for a time mode

- System turns off heat and humidity (for models with humidifier) for an adjusted time.

2. (cIS) Cooling for a set mode

- System turns off heat and humidity (for models with humidifier) and drops temperature up to an adjusted temperature set point and keeps the temperature at this point for an adjusted time.

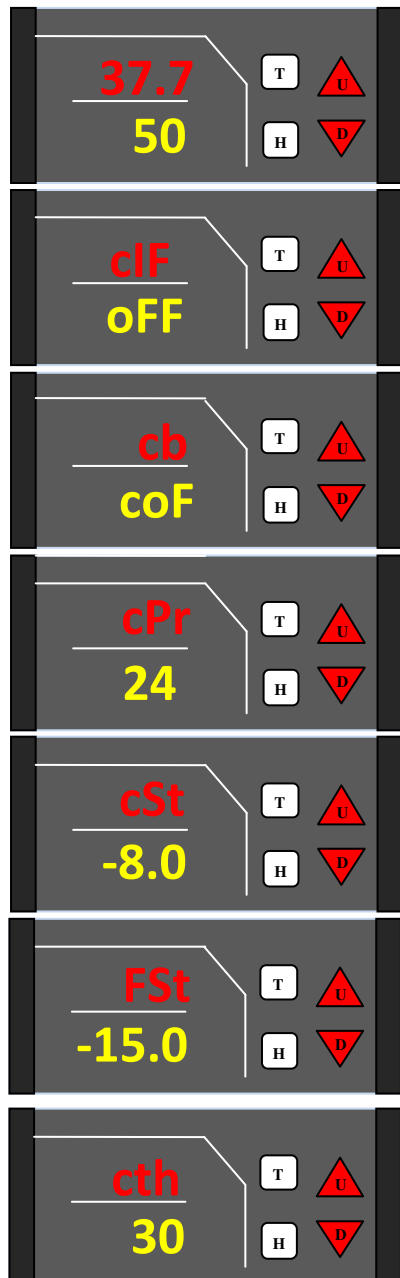
Models include 2 more modes:

1. **Humidification mode** (for models with humidifier) – before cooling period ends, high humidity is applied
2. **Fan assistant cooling mode** (for models with cooling fan) - reaches desired cooling temperature faster

Cimuka 's advanced incubator controller lets user to change all parameters with Active Periodic Cooling (APC) menu to try and achieve best hatch rates for different poultry specie's eggs.

HB SERIES

Active Periodic Cooling (APC) Menu



-Hold U + D together 3 seconds to enter menu

-Use T / H buttons to choose parameter.

-Use U/D buttons to change parameter values.

cIF: Active Periodic cooling(APC) function activation.

oFF: Active Periodic Cooling is deactivated.

cLt: “cooling for a time” mode. Stops heater and humidifier for “hct” time. (check hct parameter)

cLS: “cooling for a set ”mode. Stops heaters and humidifier up to a adjusted temperature set point and keep temperature at this point for an adjusted time. (check cSt/FSt)

cb: Active Periodic cooling Starting.

con: first cooling starts immediately after save the menu.

coF: first cooling starts after periodic cooling cycle (cPr)

cPr: Periodic cooling cycle time(hours)

6-8-12-24-48-72 hours selectable.

System repeats cooling in this cycle.

cSt: cooling set point (for C display models)

cooling set value: temperature set point – cst (- 8 C)

note: cSt is only active in cLS mode on C display models

Example: for a system working on 37.7 C, system cools up to 29,7 C (37,7 – 8.0)

FSt: cooling set point(for F display models)

cooling set value: temperature set point – FSt (-15 C)

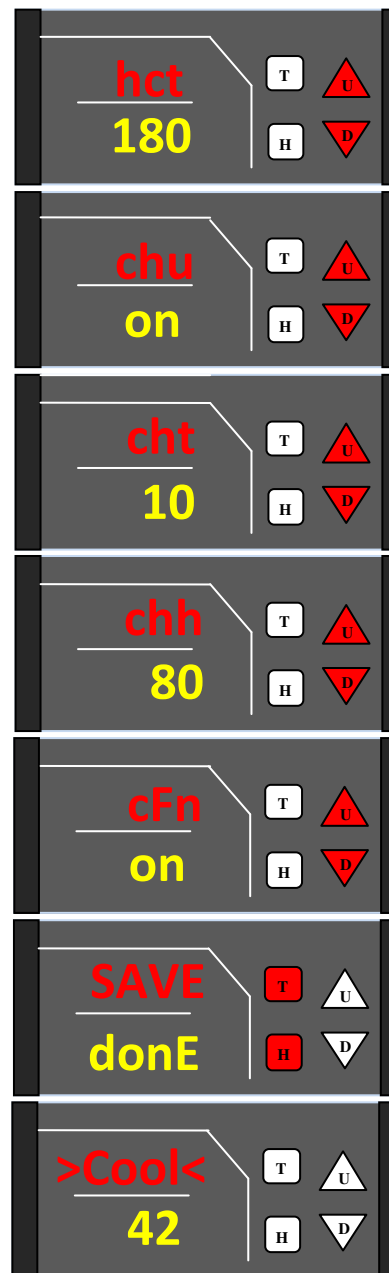
note: FSt is only active in cLS mode on C display models

Example: for a system working on 99.8 F, system cools up to 84,8 F (99,8 – 15.0)

cth: waiting time in cooling set point.(minute)

Waiting time of system in cooling set point

cth is only active in cLS mode



hct: max cooling time (minute)

Heater /humidifier cut off time for cLt mode.

Maximum cooling time for cLS mode.

chu: humidification activation during cooling (only for models equipped with humidifier)

on: humidification activated

oFF: humidification deactivated

cht :Humidification time in cooling (minute) (only for models equipped with humidifier)

Humidification will start before cooling finished for cht time.

Example. If cooling will finish within 30 minutes.

Humidification starts after 20 minute(30-10). (see page 21)

chh : max humidification set in cooling(RH%) (only for models equipped with humidifier)

Humidifier works up to this set and keeps incubator in this point during humidification period.

cFn : cooling fan activation (only for models equipped with cooling fan)

On: cooling fan is activated during cooling.

OFF: cooling fan is deactivated during cooling.

Hold T+ H together for 3 seconds to save changes

During cooling, “cool” blinks on screen,

CAUTION! don't cut the power of incubator during cooling. Power cut will terminate cooling but the time for cooling period will continue.

The best hatch rates can be reached with which parameter combination is not known for different species yet. Cimuka Research Team is collecting data from our research center and customers for different APC applications. **The table below outlines the recommended parameters for cooling for a set (cIS) mode.**

Note: Cooling by a time (clt) mode is highly dependent on hatchery room conditions and the number of eggs in the model. It is only advisable to use for temperature controlled hatchery rooms to reach same hatching results.

Active Periodic Cooling (APC) Parameters	Display	Factory settings	Chicken	Duck	Goose
Cooling mode	clF	oFF	cIS On at 8th day Off at 19th day	cIS On at 8th day Off at 25th day	cIS On at 8th day Off at 27th day
Cooling start time	cb	cof	con	con	con
Cooling cycle time	cPr	24 h	24	24	24
Cooling set point C (set –adjusted data)	cSt	-8.0 C	-8.0	-8.0	-8.0
Cooling set point F (set –adjusted data)	FSt	-15.0 F	-15.0	-15.0	-15.0
Waiting time in cooling set point	cth	20 min	10 minutes 8th to 13th 20 minutes 14th to 18th	10 minutes 8th to 15th 25 minutes 16th to 25th	10 min. 8th to 14th 20 minutes 15th to 21th 40 minutes 22th to 27th
Max cooling time	hct	120 min	120 minutes	150 minutes	180 minutes
Humidification*	chu	on	-/on	on	on
Humidification Time*	cht	10 min.	10	15	15
Max humidity during humidification*	chh	80 RH%	80	80	80
Cooling fan activation**	cFn	on	on	on	on

* only for models equipped with humidifier

**only for models equipped with cooling fan

CAUTION! Turn off Active Periodic Cooling (APC) function during hatching period - Last 2-3 days of incubation. Cooling in last 2-3 days of incubation results in bad hatching rates and chick loss.

CAUTION! Changing cooling mode (clF) or cooling cycle time (cPr) parameters in APC menu resets periodic cooling cycle time (cPr).

CAUTION! In cIS mode, time to reach cooling set point cSt (Fst) is highly dependent on room temperature. For very low set points, system may not be able to reach cooling set point. For such situations, system finalizes cooling at max cooling time (hct).

Active Periodic Cooling (APC) function behavior at “cooling for a set (cLS)” mode given in the graph for below parameters

APC Parameters	Display	settings
Cooling mode	cIF	cLS
Cooling start time	cb	on
Cooling cycle	cPr	24 h
Cooling set point C (set –adjusted data)	cSt	-8.0 C
Cooling set point F (set –adjusted data)	FSt	-15 F
Waiting time in cooling set point	cth	20 min
Max cooling time	hct	120 min
Humidification*	chu	on
Humidification Time*	cht	10 min.
Max humidity during humidification*	chh	80 RH%
Cooling fan activation**	cFn	on

* only for models equipped with humidifier

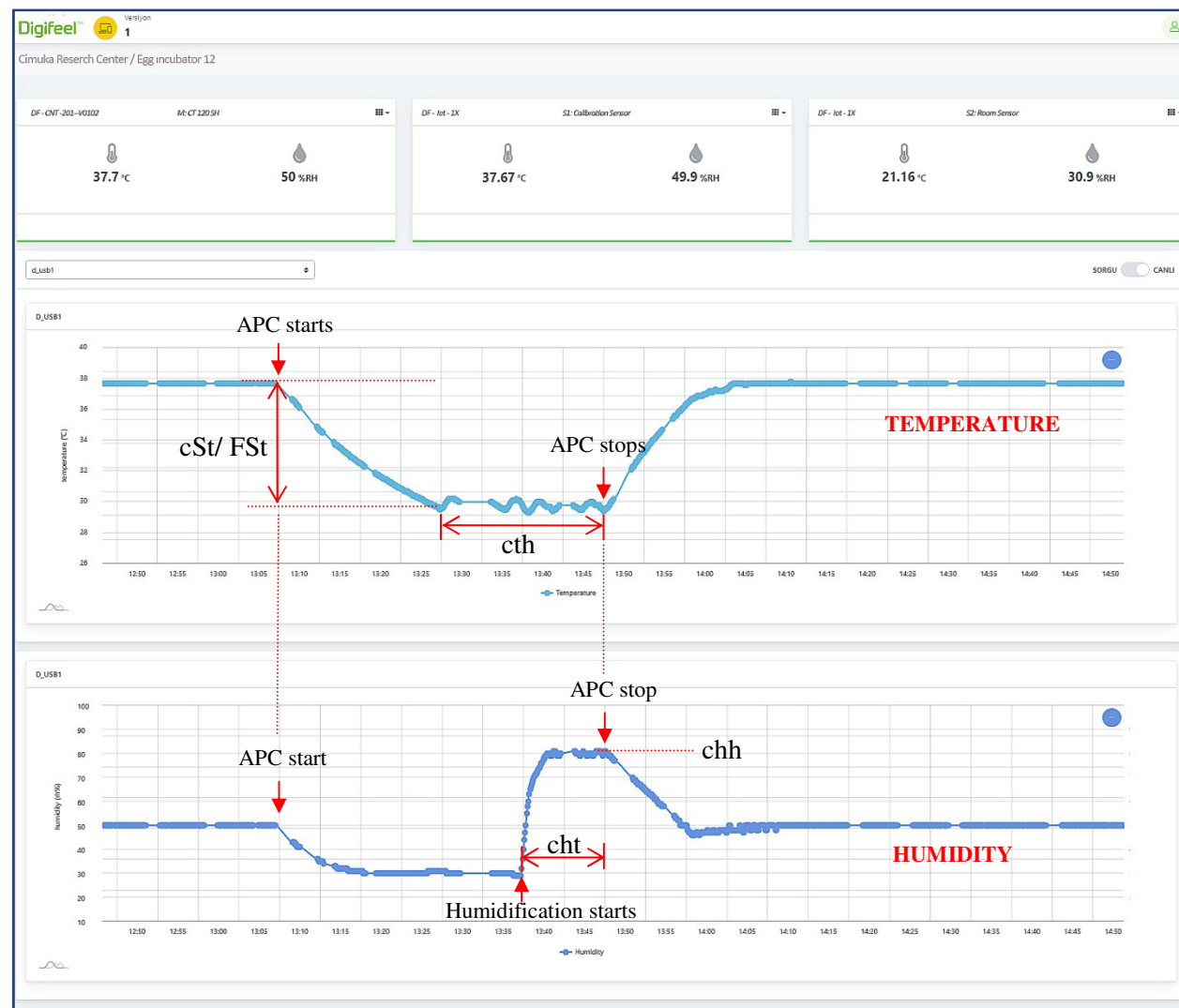
**only for models equipped with cooling fan

System repeats APC behavior every cPr time.

In a power outage, cooling cycle time cPr is not reset, It will continue from last recorded time.

Example: if there is an 1 hour power cut, the next cooling time will delay about 1 hour.

Remaining time to next cooling can be checked by the controller (see page 9)



Setting and Hatching

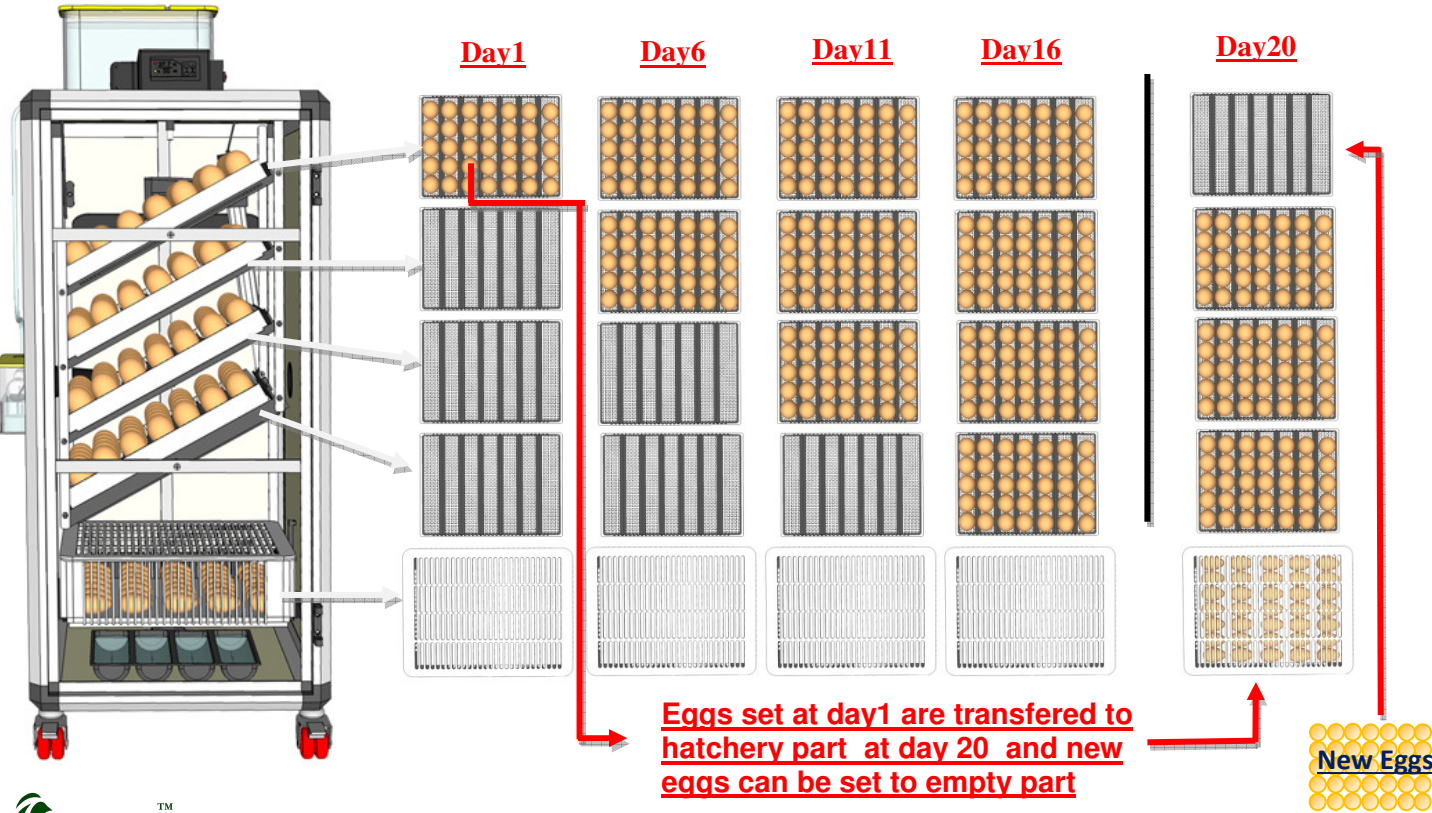
Combine (C type) Models – Partial Setting

To decrease egg storage times, in Combined models (C type), eggs are set partially and periodically per 4-5 day. Not forget to consider hatchery capacity of model. Eggs must be transferred to hatchery part for last 2 day of incubation.

CAUTION! Never set more eggs than hatchery part capacity. Period between two settings must be minimum 5 day.

Example : *Model: Hb175C - 35 chicken egg partial setting every 5 day (incubation time 21 day)*

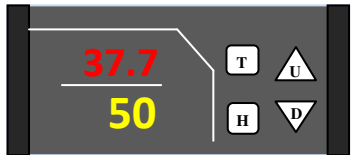
For first 19 day, eggs must be hold in TurnX mechanism, then transferred to hatchery part for last 2 day.



First 19 day

Temp: 37.7 °C (99.8 F)

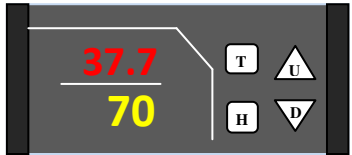
Humidity: 50 % RH (50-55)



Last 2 day

Temperature: 37.7 °C (99.8 F)

Humidity 70 % RH (65-70)



Note: Keep temperature value at setting value during hatching period. Hatchery part temperature is automatically 0.4-0.5 C lower

Setters / Hatchers

Hb series offers Setter (S) and Hatcher (H) models in 4 different capacities from 175 to 700 chicken egg.

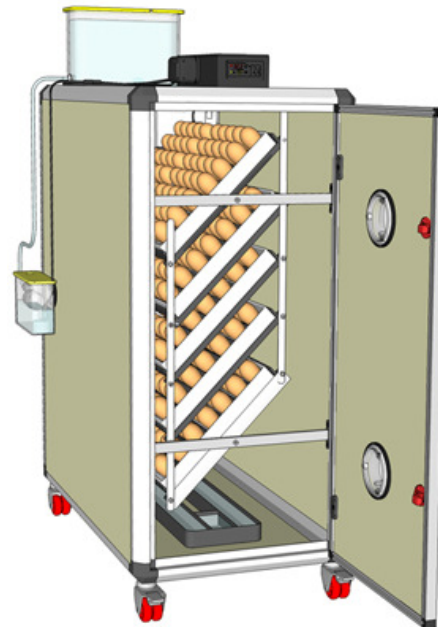
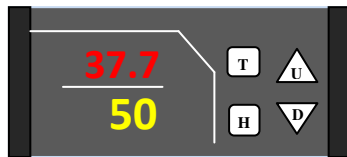
Using a separate hatcher gives advantage user to work with exact temperature and humidity values for embryo needs. And also a separate hatcher decreases microbial cross contamination risk between eggs in setter and hatcher.

Example : Chicken Egg (incubation time 21 day)

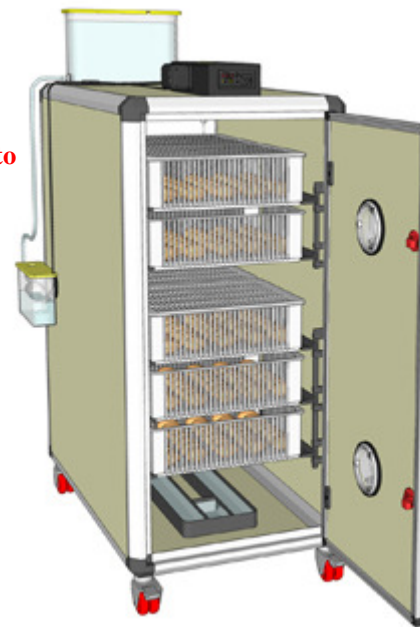
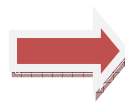
First 18 day

Temp: 37.7 °C (99,8 F)

Humidity: 50 % RH (50-55)



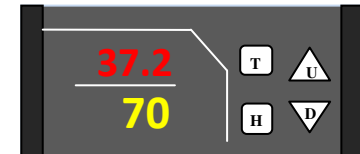
19TH DAY
Transferring to
hatcher



Last 3 day

Temperature: 37.2 °C (99.0 F)

Humidity 70 % RH (65-70)

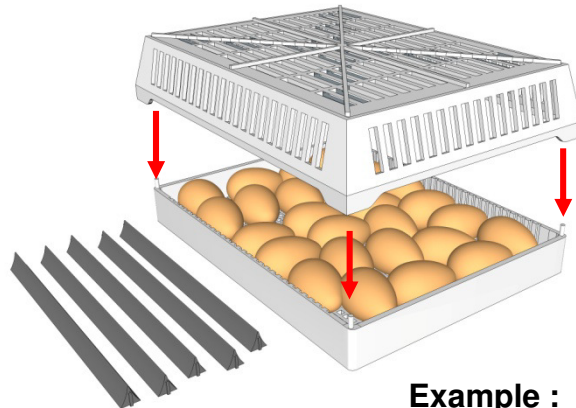


HB SERIES



All Set / All Hatch

Setter (S) models and Combined Models (C) can also be used for all set / all hatch . Flexy35 setter tray can be converted to a hatchery basket by using Flexy35 hatchery cover.



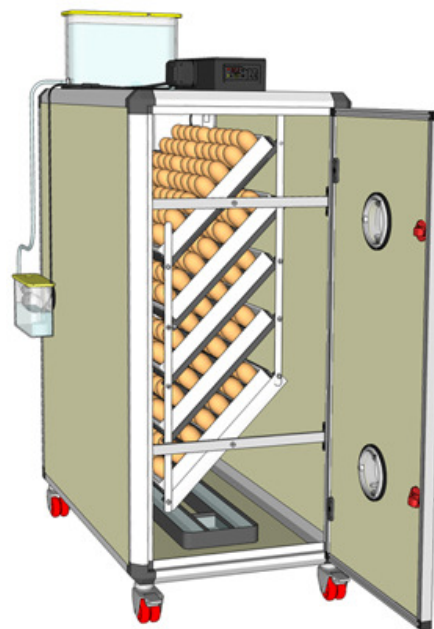
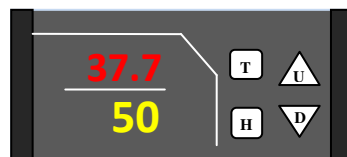
Flexy35 Typical Hatching Capacities

Chicken/Duck	30
Quail	99
Partridge	56
Pheasant	48
Turkey / Big Duck	24
Goose- Peacock	15-20

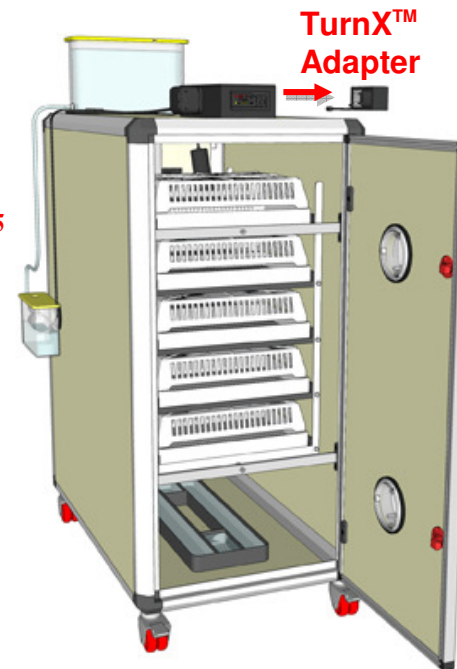
Example : Chicken Egg (incubation time 21 day)

First 18 day

Temp: 37.7 °C (99.8 F)
Humidity: 50 % RH (50-55)



19TH DAY
use Flexy35
Hatchery
covers

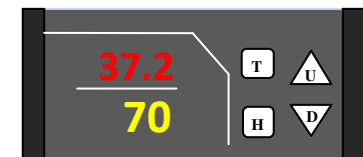


TurnXTM
Adapter

CAUTION! Always unplug TurnXTM Adapter during hatching. Accidental Turning with flexy35 covers can damage inside parts and turning system

Last 3 day

Temp: 37.2 °C (99.0 F)
Humidity: 70 % RH (65-70)



Incubation Records

Keeping personal records is important for identifying performance issues or problems in incubation.

Name of species, setting date, transfer date, first and last hatching date, number of eggs set, number of fertile eggs, number of chicks, and % hatchability should be recorded for future reference. We also suggest candling you eggs to check for infertility.

Hatchability rates can vary by species. Hatchability can be calculated by dividing number of chicks by the number of fertile eggs.

Sample table (Quail incubation time 17 days, chicken incubation time 21 days.)

Species	Date of			Number of			Hatchability %	Notes Hatching times, Early, middle and late death, problem in chicks
	Set	Transfer	Hatching	Eggs	Fertile Eggs	chicks		
Quail	1.1.2000	15.1.2000	18.1.2000	25	20	19	95	16-17 days hatch, 1 early death
Hen	5.1.2000	23.1.2000	26.1.2000	5	4	4	100	20-21 days hatch

Factors Affecting Hatchability

- Incorrect incubation settings.
- Turning problems.
- Very low or very high incubation room temperature.
- Inadequate room ventilation.
- High egg storage times .
- Electric cut offs.
- Inadequate or wrong sanitary procedures for eggs or machine.
- Very old or very young parents
- Improper or poor parent feeding
- General problems for health of parents
- Illnesses and genetic problems in parents
- Wrong male / female ratio.

Cleaning Up and Service

CAUTION! Disconnect the incubator from electric supply during cleaning or service.

CAUTION! Service and spare part changing's must be carried out only by a qualified person.

CAUTION! Never use water higher than 50° C(122 F) for cleaning. Electrical parts must be kept dry during cleaning.

Internal parts of cabinet and egg trays must be cleaned after every hatch with a proper sanitary solution. Apply recommended sanitation methods and chemicals for cleaning. If you are using your model seasonally, after egg season, clean your incubator and keep it on without humidifier unit to dry all parts for min 1 day. Use a dry soft brush or vacuum to clean control panel and fan panel.

Always check inside temperature and humidity of your model periodically with a high quality calibrated glass or electronic thermometer. If needed carry out a proper calibration procedure.

Egg incubation requires dedication and oversight. Cimuka, or it's distributors will not be held responsible for loss of eggs or chicks under any circumstances.

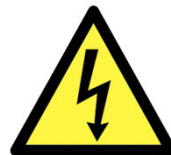
Most components of the incubator are easily replaceable. Always keep critical parts as spares. For spare parts and service needs, contact your vendor.

Safety Labeling



RISK OF ELECTRIC SHOCK!

ALWAYS OPERATE YOUR EGG INCUBATOR WITH GROUNDED POWER SOCKET. NEVER ATTEMPT TO TOUCH OR SERVICING UNLESS THE MACHINE IS DISCONNECTED FROM THE MAINS ELECTRICITY SUPPLY. Connections inside of control panel at main voltage.



RISK OF ELECTRIC SHOCK!

NEVER ATTEMPT ANY KIND OF SERVICING UNLESS THE MACHINE IS DISCONNECTED FROM THE MAINS ELECTRICITY SUPPLY. The cables, heater, fan and bulb are at main voltage.



RISK OF BURN! HOT SURFACE. DON'T TOUCH

NEVER ATTEMPT TO TOUCH THE HEATER INSIDE OF VENTILATION PANEL. THE MACHINE MUST BE DISCONNECTED FROM THE MAINS ELECTRICITY SUPPLY AND WAIT MIN 5 MINUTES.



RISK OF INJURY! KEEP HANDS AND FINGERS AWAY.

NEVER ATTEMPT TO TOUCH OR SERVICING FAN UNIT UNLESS THE MACHINE IS DISCONNECTED FROM THE MAINS ELECTRICITY SUPPLY.

Product Information

Typical Egg Capacities	Hb175			Hb350			Hb500			Hb700		
	S	H	C	S	H	C	S	H	C	S	H	C
Quail	495	495	396+99*	990	990	792+198*	1386	1386	990+396*	1980	1980	1584+396*
Partridge	280	280	224+56*	560	560	448+112*	784	784	560+224*	1120	1120	896+224*
Pheasant	240	240	192+48*	480	480	384+96*	672	672	480+192*	960	960	768+192*
Hen/ Duck	175	175	140+35*	350	350	280+70*	490	490	350+140*	700	700	560+140*
Turkey/ Big Duck	120	120	96+24*	240	240	192+48*	336	336	240+96*	480	480	384+96*
Goose-Peacock	75	75	60+15*	150	150	120+30*	210	210	150+60*	300	300	240+60*

*Setter part + Hatcher part

Power (W)				
Max:	210	285	425	425
Average:	75	100	125	160
Electric Supply	230VAC 50 Hz / 110VAC 60Hz (as ordered)			



Used electrical and electronic equipment (WEEE) should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge. Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with you national legislation.

Recommended Incubation Values

Typical incubation periods and recommended temperature / humidity values for the species are given below. *Incubation periods, temperature and humidity values can change for particular species. Please check literature or ask your dealer for information.*

	Incubation Period (Day)	Setting Temp.	Setting Humidity	Hatching Temp. (last 2-3 day)	Hatching Humidity (last 2-3 day)
Chicken	21	37.7 C ⁰ / 99,8 F	%RH 50 - 55	37.2 C ⁰ / 99,0 F	%RH 65 - 70
Turkey	28	37.5 C ⁰ / 99,5 F	%RH 50 - 55	37.0 C ⁰ / 98,6 F	%RH 65 - 70
Quail	17	37.7 C ⁰ / 99,8 F	%RH 50 - 55	37.3 C ⁰ / 99,1 F	%RH 65 - 70
Partridge	24	37.5 C ⁰ / 99,5 F	%RH 50 - 55	37.0 C ⁰ / 98,6 F	%RH 65 - 70
Pheasant	24	37.7 C ⁰ / 99,8 F	%RH 55 - 60	37.2 C ⁰ / 99,0 F	%RH 70 - 75
Duck	28	37.5 C ⁰ / 99,5 F	%RH 55 - 60	37.0 C ⁰ / 98,6 F	%RH 70 - 75
Goose	30	37.7 C ⁰ / 99,8 F	%RH 55 - 60	37.2 C ⁰ / 99,0 F	%RH 75 - 80

- During last 2-3 day of incubation, always keep temp / humidity set values at hatching values even you have eggs in setting period.
- For Combined Models (C type), always keep temperature at setting temperature value.



**CRESCENT GAMEBIRD & POULTRY
PRODUCTS SUPPLIERS LTD**

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