

Micro Incubator

Manual

I. Introduction:

64 household micro incubators are 2019 new household incubators developed by our company, taking advantage of the technical advantages of our company in developing computer network technology and power control equipment, under the guidance of animal husbandry experts, and in combination with China's hatching production reality and the experience of scientific research personnel engaged in the development and production of hatching equipment.

64 household micro incubator uses 0.56 inch digital tube as display screen and adopts special multi-function window to guide operation, which adds many functions convenient for users, provides more precise control functions and realizes more perfect automatic incubation process. 36 household micro incubator has not only intellectually controlled temperature, humidity, regular egg turning and a variety of alarm indication functions, detection functions and fault prompt functions, but also has one-key incubation setting function, which truly realizes full automatic incubation.

This machine can freely input AC220V and DC12V, and automatically detect and switch. When AC220V and DC12V are connected at the same time, AC 220V is preferred. When AC220V power is cut off, this machines would switch to DC12V automatically. Let your incubation process without power failure.

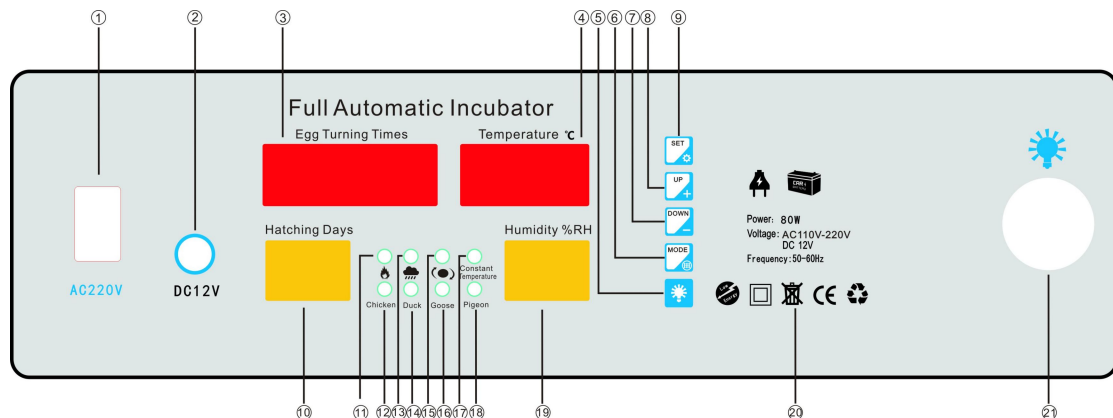
II. Main technical index:

1. Temperature measuring range: 0~99.9℃
 2. Temperature measuring precision: $\pm 0.1^{\circ}\text{C}$
 3. Humidity measuring range: 0 ~ 99%RH
 4. Humidity control precision: $\pm 4\%\text{RH}$
 5. Control the number of output signals: 6 (heating AC220V, heating DC12V, egg turning, humidification and shining eggs)
 6. Control the output of maximum load current: heating $\leq 1\text{A}/\text{AC}220\text{V}$; humidification $\leq 0.1\text{A}/\text{DC}5\text{V}$; egg turning $\leq 0.1\text{A} / \text{DC}5\text{V}$; circulating fan $\leq 0.3\text{A}/\text{DC}12\text{V}$; shining eggs $\leq 0.1\text{A}/\text{DC}3\text{V}$
 7. Period of eggs turning: adjustable for 0 ~ 999 minutes (Factory default is 75 minutes)
 8. Time of eggs turning: adjustable for 0 ~ 999 minutes (Factory default is 200 seconds)
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III. Working conditions:

1. Working voltage: alternating current 105V~235V, 50Hz; direct current 12V
2. Relative humidity: less than 85% RH
3. Optimal use ambient temperature: 10°C~35°C

Introduction of display screen and keys:



1.AC220V power plug 2.DC12V battery interface; 3. Egg turning countdown display;4. Temperature display screen; 5. Egg key; 6. Mode switch key; 7. Reduce key; 8. Add key;9. Setting key; 10. Incubation days screen; 11. Heating indicator lamp; 12. Chicken mode indicator light; 13. Humidification indicator light; 14. Duck mode indicator lamp; 15. Egg turning indicator lamp; 16. Goose mode indicator light; 17. Constant temperature mode indicator lamp (representing 24-hour incubation at constant temperature and humidity);18. Pigeon mode indicator light; 19. Humidity display screen; 20. Product parameters and model area; 21. Technical parameters at egg lighting area

The hatching setup of this machine can be divided into two types: batch laying eggs (temperature change) and batch laying (constant temperature).

IV. Setting of incubation at variable temperature (namely laying eggs and hatching in whole batch)

After starting the machine, wait for that the temperature and humidity show normal, and then enter the egg type selection (the hatching egg type of this machine is divided into five categories: chicken, duck, goose, pigeon and constant temperature.)

The operation is as follows: press the **mode** key for five seconds (raise your hand after about 5 seconds), then the indicator light of the chicken mode lights up - enter the egg hatching mode. If other eggs are hatched, press the **mode** key for five seconds (raise your hand after about 5 seconds), then enter the five categories: chicken, duck, goose, pigeon and constant temperature.

Considering the climate difference in different places and the particularity of hatching eggs, more experienced hatching technicians try to adopt a constant temperature mode during hatching. The incubation temperature and humidity, egg turning and air exchange parameters in the following table are the results of joint tests by our company and relevant domestic animal husbandry experts. If the four hatching modes of chicken, duck, goose and pigeon are selected, the internal parameters of the mode cannot be modified during the hatching process.

Table of incubation time and parameters under four modes:

1. Egg incubation time and parameter sheet

Incubation	1~3 days	8-14 days	15-16 days	17-18 days	19 days or above
Temperature parameter	38.0℃	37.8℃	37.7℃	37.7℃	37.6℃
Humidity parameter	60%RH	60%RH	60%RH	60%RH	65%RH
Egg turning parameters	90 (70)	90 (70)	90 (70)	Without egg turning	Without egg turning

2. Duck egg incubation time and parameter sheet

Incubation	1-3 days	4-7 days	8-15 days	16-20 days	21-25 days	26 days or above
Temperature parameter	38.2℃	38.0℃	37.8℃	37.5℃	37.5℃	37.2℃
Humidity parameter	60%RH	60%RH	60%RH	65%RH	65%RH	75%RH
Egg turning parameters	90 (75)	90 (75)	90 (75)	90 (75)	Without egg turning	Without egg turning

3. Goose egg incubation time and parameter sheet

Incubation	1-3 days	4-7 days	8-15 days	16-23 days	24-25 days	26 days or above
Temperature parameter	38.3℃	38.0℃	37.8℃	37.5℃	37.5℃	37.2℃
Humidity parameter	60%RH	60%RH	60%RH	65%RH	65%RH	70%RH
Egg turning parameters	90 (85)	90 (85)	90 (85)	90 (85)	Without egg turning	Without egg turning

4. Pigeon egg incubation time and parameter sheet

Incubation	1-3 days	4-7days	8-13 days	14 days	15 days or above
Temperature parameter	38.2℃	38.0℃	37.8℃	37.8℃	37.8℃
Humidity parameter	60%RH	60%RH	60%RH	60%RH	65%RH
Egg turning parameters	90 (40)	90 (40)	90 (40)	Without egg turning	Without egg turning

V. Setting of incubation at constant temperature (namely laying eggs and hatching in batches)

The mode light is used under the condition of **constant temperature**

The incubation at constant temperature means that the temperature, humidity and egg turning parameters set for laying and hatching in batch do not change with incubation time.

VI. Setting of temperature and humidity

For example, the incubation temperature is 37.9- 38.0℃ and the humidity is 55-60%RH. Press the “Setting” key, and the temperature display nixie tube window on the left side of the instrument starts to flash. The three digits displayed by the temperature digital tube are the original factory temperature setting values. If you need to change, please press the “+” key or the “-” key to adjust so that the upper limit of the temperature range you need is 38.0 ℃. Press the “Setting” key again to save the temperature setting, then the digital tube of the instrument flashes three times 88888 to indicate the setting is successful. If the temperature has not been saved for a long time after adjustment, the system will automatically save it for you.

After the temperature setting is completed, press the **Setting** key to enter the humidity setting. At this moment, the humidity display nixie tube window starts flashing. The two digits of the humidity display are the original factory humidity setting value. If you need to change, press the **+** key or the **-** key to adjust, so that the upper limit of the humidity value range you need is 60%RH. Press the **Humidity** key again to save the temperature setting, then the digital tube of the instrument flashes three times 88888 to indicate the setting is successful. If the humidity has not been saved for a long time after adjustment, the system will automatically save it for you.

VII. Examples of arbitrary temperature and humidity settings (it can change the automatic generation interval, which is generally not used)

1. Temperature alarm setting

Press and hold the **Setting** key and do not raise your hand, then press the **+** key

until the humidity display digital tube on the right side of the instrument displays **P1** to raise your hand. If you need to change, please press the **▲** or **▼** key to adjust, so that the number shows the setting value you need. Press the **S** key to save the settings. If the temperature alarm settings are not saved for a long time after adjustment, the system will automatically save them for you.

The reference code and meaning are shown in the following table.

Parameter name	Parameter code	Parameter description	Factory settings
High temperature alarm value	P1	Alarm when temperature reaches this value	39.0℃
Upper limit of temperature control	P2	Upper limit of heating	38.0℃
Lower limit of temperature control	P3	Lower limit of heating	37.9℃
Low temperature alarm value	P4	Alarm when temperature reaches this value	37.0℃
High humidity alarm value	H1	Alarm when humidity reaches this value	85%RH
Low humidity alarm value	H2	Alarm when humidity reaches this value	30%RH
Upper limit of humidification	H3	When the humidity reaches this value, humidification stops.	60%RH
Lower limit of humidification	H4	When the humidity reaches this value, humidification begins.	55%RH
Period of egg turning	F1	Egg turning interval	90 minutes
Time of egg turning	F2	Turning egg action time	75 seconds
Temperature calibration	F3	Calibration after comparison with standard thermometer	Current measured temperature
Humidity calibration	F4	Calibration after comparison with standard hygrometer	Current measured humidity
Days of incubation	F5	Hatching time record	1

VIII. Manual egg turning and egg shining

1. In the non-setting state, the manual egg turning can be realized by pressing the  key, and the time for manual egg turning is 75 seconds. The direction of egg turning is automatically determined by the computer.

2. Press the  key to turn on the shining light on the right side of the instrument, and the egg shining indicator is a low voltage indicator.

IX. Quickly return to the original factory settings

In the non-setting state, press and hold the  and  keys at the same time and do not raise your hand to set and restore the original factory setting state. The temperature is 38.0 °C, and the humidity is 60%RH. The period of egg turning is 90 minutes and the time of egg turning is 75 seconds.