



SUPER AUTOMATIC INCUBATOR



AT-1KO INCUBATOR

Operating Manual

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Important!

PLEASE READ CAREFULLY THE FOLLOWING RECOMMENDATIONS BEFORE CONNECTING THE UNIT

Instruction of safety:

1. Do not install the equipment in the open nor inside a room that is too humid. Please make sure that in normal conditions the room remains dry. Ensure that the unit is steadily located on an even, flat, and horizontal surface. Do not leave heavy items on the equipment.
2. Please confirm that the available electrical tension is coincident with the one as stated in the plate of the unit and the technical information delivered with it.
3. ADHAM Incubators do not have automatic protection devices against short circuits and displacement currents. The users should verify that the electrical power supply to the unit has, in its protection switchboard, the suitable automatic and differential switches, all that following the present electro technical low tension regulations.
The power supply to the unit should be from sockets rated at 13Amp, 230V, 50/60Hz + earth.
ADHAM incubators do not require any special maintenance, other than the usual requirements for any electrical household appliance. For any service, cleaning, maintenance or repair always disconnect from the mains.
4. General checking out of electrical equipment:
Approximately every three months, please visually check the condition of electrical contacts (connections to the heaters, etc.)
Do not replace original plugs, far from it; do not remove any of them to connect wires without the plug. Please contact your official dealer for advice or to install one suitable socket inside the regulations.
5. Always unplug the unit from the mains before carrying out any operation on the equipment. Ensure your hands are dry.
6. Do not use any long, thin tool (i.e. screwdriver), inside the fan's protection grill nor in the heater wire connections.
7. To clean and disinfect the unit please refer to the operating manual and use the recommended products. Carefully read the operating instructions and strictly adhere to all safety recommendations.
Discard the cleaning waste under present regulations in the matter of dumping remains of industrial and chemical products.
8. Any unauthorized modification or alteration to the unit carried out without the approval of the manufacturer will invalidate the warranty and the manufacturer will not accept any claim it can be done because of that reason.
9. ADHAM incubators have been designed to artificially reproduce natural hatching conditions. They should only be used by the "Operating Manual". Any other use outside of the as per stated limits will automatically cancel any warranty clause and release ADHAM farm equipment manufacturing LLC from any responsibility

1. Main Features

- 230/240 single-phase, 50/60Hz.
- Incubating trays with positioned.
- Setter Trays / Hatching Baskets.
- Manual ventilation.
- High sensitivity electronic temperature thermostat, digital thermometer.
- Automatic turning system once per hour with turning counter.
- The body structure is made with a sandwich panel (filled with thermal insulation 50 mm), with a strong Galvanized Iron base and Aluminum roof.

AT-1K0 Technical Specification

Total Setter baskets	10	(each tray size : 88 chicken eggs or 221 Quail eggs)
Total Hatching baskets	2	(each basket size : 88 chicken eggs or 221 Quail eggs)
Temperature control	PID digital	
Turning system	Auto	
Humidity	2 Ultrasonic Mist Maker	
Ventilation	Manual	
Power (Watt)	300	
Voltage (V) Freq. (Hz)	220 - 240 volt/50 - 60 Hz	
Dimensions L*D*H(cm)	110L x 84D x 128.3H cm	
Weight	75 Kg.	



Controls unit

2. Positioning of Incubator

We recommend keeping the temperature in the room where the incubator is located at between 22°C to 28°C. It is important to maintain proper ventilation.

You can find air Dehumidifiers on the market, although in most cases the best solution is to install an air conditioning device to achieve the control of the temperature within the limit of 24°C and at the same time to diminish relative humidity in the air.

The incubator must be placed on top of a horizontal surface (on the floor).

- **Please ensure that electrical power is 230V 50/60Hz, single phase + earth.**

3. Start-up

On the upper part of the incubator, the following controls can be found: (see controls photograph)

1. Long Press **POWER** for 3 seconds to turn on/off.
2. Press the **SET** key to change the temperature and humidity setting.
3. (^) to increase the set value. Long press for the fast set. And (~) to decrease the set value. Long press for the fast set.
4. (←) **ENTER** key to confirm the settings.
5. Short press **RESET** to cancel and return.
6. Press the **LAMP** button to turn inside lights on/off.



Do not plug this unit to the mains without automatic and differential protection and Herat connection.

4. Storing of the eggs

To achieve good incubation results, the eggs must be properly handled before they are placed in the incubator. Experience has shown that the eggs should be stored for a maximum of 7 days and the temperature should be between 12°C to 16°C with relative humidity at 50% to 60% Rh. It is advisable to place the eggs in special storing trays with the air sack upwards and with a turning system that allows 45° inclinations from back to front around every 12 hours.

The dirty egg must be discarded or at any rate, if one were to try to use it as a hatching egg. It would be suitable to use some kind of brush and try to clean it in dry conditions.

5. Loading the eggs inside the incubator

Once you have checked that the machine is working properly then you can proceed to load the eggs. Please put special attention to introducing the trays right up to the bumper so that they do not project outside of their holders. Normally, loading will take place every 5 days, (this depends on the species of eggs to be incubated). The position of the eggs to be important since it influences the hatch rate. The eggs must always be placed tip down, that is to say with the air sack upwards.



Do not load egg with turning system on.

6. Turning system

- To start the turning system on AUTO, turn the switch to the right or left.
- To stop the turning system, point the switch into the middle position.

7. Candling eggs

In general, after the 7th day of the incubation period, egg candling can be carried out. This operation consists of looking through the eggs against the light to eliminate unfertilized eggs or those that are aborted. This can be done using an egg Candler of whom we have several types available. For easy operation, the room should be quite dark.

Fertilized eggs have a dark spot from which reddish filaments emerge, (thus giving the appearance of a spider) with mobility of their own or by slightly tilting the eggs.

Eggs with an aborted embryo show a blackish spot in the form of a semi-circle that is stuck to the shell. Unfertilized eggs appear clear and must be removed along with the aborted eggs.

8. Temperature

The recommended temperatures for the incubation are the following:

Bird	Setter/ Hatcher Mode
Chicken	37.5°C
Quail	37.5°C

Temperature control systems are factory adjusted with great precision.

Do not use any other type of thermometer because it would lead you to false temperature verification readings.

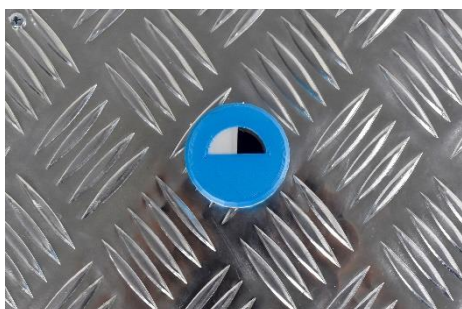
9. Humidity

To give embryos the correct humidity please make sure that the Humidifier unit always contains water (Connected to water source/tank).

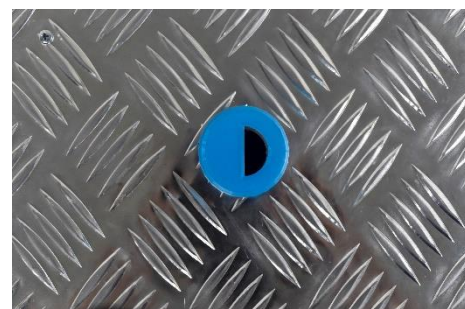


10. Ventilation

- AT-1KO top side has adjustable ventilation vents.
- It is recommended that 50 % of ventilation vent has to be open during the incubation period for stable humidity and temperature.
- In case of humidity or temperature issues, the ventilation vent could be changed accordingly to achieve stable humidity and temperature.



Recommended 50% Ventilation



100% ventilation

11. Hatching

During the last three days of the incubation period, the hatching of the chicks takes place. During these days the eggs should be placed on the hatching trays, they have to be placed in a horizontal position and should no longer be turned.

All chicks must be taken out of the hatching trays at the same time and only when they are totally dry. This takes place 24hrs after the hatching period.

12. Incubation period for different species of birds

Bird	Setter	Hatcher
Chicken	18 days	3 days
Quails	15 days	3 days

13. Fertility and incubation

There are many factors to bear in mind to achieve the maximum hatching rate. It is impossible to consider this subject in-depth within these instructions, as it is a very complex matter. However, it is useful to understand that both fertilization and the later development of the embryo during incubation of the egg could be affected by several factors to a greater or lesser extent. A few of these factors are listed here though this is by no means an exhaustive list:

- Parent's feeding.
- The correct proportion between males and females, according to each bird species.
- Habitat where the birds are to be kept.
- Correct morphology of the eggs to be incubated.
- Proper storage of eggs before incubation.
- Parent's age.

14. Cleaning

After every hatching, it will be needed to



Un-plug the unit from the mains before making any operation inside it.

clean

thoroughly the bottom and all the inside parts of the unit.

- Completely disconnect the incubator from the power supply.
- Should also clean the hatching tray and the bottom of the machine.
- Do not spray directly to the Electrical Parts.
- Do not use caustic products for this operation: bleaches, acids, etc.

15. Disinfection

This section is of special importance and should be treated from various aspects:

1. Disinfection of the material:

Trays, incubator walls, etc..... We suggest you use active disinfectants, but not corrosive ones that would attack the material.

2. Disinfection of the eggs:

At large premises, it may be very convenient to have one disinfecting chamber available. Please if\when necessary ask to ADHAM technical service for the additional details of these points since this does vary according to species, the number of eggs available, and operating system of the entire process.



Before using any product, please make sure about its suitability on the material where has to be applied.

16. Technical assistance

These instructions are not a perfect incubation manual, nor do they pretend to be, other points could be dealt with or extended upon; however, our only wish is that they serve as a starting point or guideline for the most important operations, these being the ones that could influence the good results of the incubation.

At our ADHAM technical assistance service, we are happy to be available to you to provide any information or to solve any doubts you might have.

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17. Get to know your Incubator parts

