

COMPACT INCUBATOR

MI-30-1

(MINI-INCUBATOR «KVOCHKA®»)

INSTRUCTION MANUAL

REST 272131.001 RE

1. GENERAL INFORMATION

1.1. This operating manual contains the general information concerning the structure and operating of the compact incubator MI-30-1 (Mini-incubator “KVOCHKA”) hereinafter to as incubator, being the document certifying the incubator’s general specifications.

This incubator is a household device purposed for hatching of any poultry eggs for private farming.

1.2. This incubator is to be operated indoors, in heated rooms with normal climatic conditions at the environment temperature +15...+35°C.

1.3. It is prohibited to install the incubator near heaters. Protect the device from direct sunrays and draught.

2. TECHNICAL DATA

Incubator capacity, quantity of eggs:

Quail	up to 200
Hen	up to 80
Duck and turkey	up to 50
Goose	up to 40
Temperature range the incubator is adjusted for, °C	+37,7+38,3
The electronic thermoregulator supports the temperature required automatically.	
Temperature accuracy within the set range, °C	±0.1
Alternating current voltage	220
Power system frequency, Hz	50
Consumed power, W	30
Power consumption within the hatching period (30 days), KW per hour, at the most	10

Dimensions:

Length, mm	470
Width, mm	470
Height, mm	210
Gross weight, at the most, kg	2.3

3. COMPLETE SET

Incubator MI-30-1	1 pc
Operating manual	1 pc
Cardboard box	1 pc

4. SAFETY REQUIREMENTS

- 4.1. Please read this manual thoroughly and follow the operation requirements.
- 4.2. Do not switch on the incubator with its cover removed.
- 4.3. Do not place the incubator near open fire and heaters.
- 4.4. Do not pull the power cord when disconnecting it from the power net.
- 4.5. Do not place any objects on the incubator's cover and do not press on it.
- 4.6. If stored in the cold place the incubator is to be kept at the room temperature during six hours at the least before connecting it to the power net.

5. INCUBATOR'S STRUCTURE

- 5.1. The incubator consists of two functional parts (see the figure): the case 1 and the cover 2, made of special heat insulator. There are two separate grooves and seven vent holes 4 on the bottom of the case 1. The tray 13, grid 5 and cover 2 are installed on flanges of the case 1. There are two inspection holes 6 on the cover 2, covered with transparent lids 8, eight constantly opened vents 7 and two vents closed with the red plugs 9. The lamp heater 10 and heat-sensing device 11 are installed inside the cover 2. The lamps of the heater 10 are covered with the special protecting cases – reflectors. There is an electronic thermoregulator 15 with the power cord 14 is mounted on the front surface of the cover 2. There is an electronic temperature indicator 16 in the center of the thermoregulator's cover, and in its right lower part there is a temperature setting button 12.
- 5.2. The electrical lamp heater 10 supports the set temperature inside the incubator. The heater switches on and off automatically, through the thermoregulator 15.
- 5.3. Air moistening inside the incubator is provided due to the free water evaporation out from two grooves 3 in the tray 13
- 5.4. Air circulation inside the incubator is maintained through seven vents in the case 1, the tray 13 and eight vents in the center of the cover 2. Two vents in the cover 2 closed by the removable red plugs 9 serve for more intensive ventilation.

6. PREPARATION FOR WORK

- 6.1. Unpack the incubator. Remove the cover 2 from the incubator's case. Take out a tray, a grid and an operation manual.

ATTENTION! Operate and service carefully the incubator, and you will get healthy just-hatched poultry and your incubator will look well.

- 6.2. Wash and disinfect separately the case 1, the grid 5 and the tray 13 with 3% manganese-water solution (pink colour). Neither wipe, nor dry them. Clean the case and the cover with a wet napkin from outside.
- 6.3. Install the case 1 on the **horizontal hard surface**, providing thus the air clearance for ventilation. Put the tray 13 on the case's bottom.
- 6.4. Fill in both grooves 3 of the tray 13 with drinking water on 2/3 of the grooves' depth (the water temperature would not exceed 40°C).
- 6.5. Place the grid 5 on the tray 13 of the case 1.
- 6.6. Put the cover 2 onto the case 1 so, that the lateral channels, where the power cord 16 is placed for transportation and storage, should not coincide.
- 6.7. Connect the two-pin plug with the 220 V socket. Four lamps of the heater 10 must switch on, and the indicator 16 will display the current temperature inside the incubator.
- 6.8. Check up the temperature after four hours of operation. Its value should hesitate between 37.7-38.3°C (the most favorable temperature for any eggs' hatching). The incubator has factory sets at the said temperature range without eggs.

7. OPERATION

- 7.1. Select eggs suitable for hatching according to the recommendations described in the manual *Things You Should Know About Poultry Farming*, Chapter 3 (edited by Ost-Invest Ltd.) (Not included into the incubator's set and can be delivered at the particular order).
- 7.2. Mark the eggs prepared for incubation with the sign **O** on one side and with the sign **X** on the opposite side. Use a soft pencil only.
- 7.3. Disconnect the incubator from the power supply, take off the cover 2. Put the eggs with the equal sign up (O, for example) evenly over all the surface of the case's grid. The sharp end is to be directed slightly down. Having all eggs placed inside the incubator put the cover 2 onto the case 1. Connect the power cord plug 14 to the 220 V socket.
- 7.4. Inspect the automatic operation of the incubator after 4 hours of operation at least. The incandescent lamps on the heater 10 must periodically switch on.
- 7.5. Turn the eggs over after 12 hours of their placing into the incubator for the first time, take off the incubator cover for this. Before taking off the cover disconnect the incubator from the power supply. Further the eggs are to be turned over twice a day (in the morning and in the evening). Monitor the water level in the tray's grooves. Add some water each 3-4 days.

7.6. Put the cover over the incubator and connect it to the power supply. One hour at least is required for the temperature restoring in the incubator.

7.7. **ATTENTION!** During the 1-3 days after laying eggs into the incubator the thermometer shows the temperature of cold eggs. That is why it is **PROHIBITATE TO SET THE TEMPERATURE.**

A couple of days before hatching a natural temperature rising goes on in the incubator (the embryo's temperature in the egg is about 40°C), that is why it is not recommended to decrease the temperature in the incubator.

7.8. To rate the temperature inside the incubator press the button 12 for a short while (1-1.5 sec.), and the indicator 16 will display the set temperature. Release the button, and the indicator will display the current temperature value inside the incubator.

The thermoregulator 15 allows to set the temperature value within the limits from 37.0 to 39.0°C. To change the set temperature press and keep pressed the button 12 for more than 2 seconds. At this the temperature rate will rise by 0.1°C each 2 seconds till reaches 39.0°C. Then it will drop to 37.0°C and will rise again. The value shown by indicator at the moment of the button's release is memorized and will correspond to the set temperature rate.

7.9. The humidity inside the incubator is controlled due to mist of the lids 8. When more than a half of the lids' surface becomes misted, open two incubator holes closed with the plugs 9 and keep them open till the mist disappears. Keep the said two holes open during two days before hatching.

7.10. The power supply discontinuing within 5 hours does not result negatively on the hatching process; though we recommend to close the inspection holes with some thermal insulator (books, for example), do not close eight vents between the holes. If power supply discontinues often do not take the books away. If there is no power supply more than 5 hours, put hot water bottles on each inspection hole (the least water temperature is 65°C) and cover the bottles so that the vents remain open. In this case monitor the temperature inside the incubator oftener.

7.11. Stop turning over the eggs: on the 15th day for quails; on the 18th day for hens; on the 24th day for turkeys and ducks; on the 27th day for geese and on the 29th day for musk-ducks. The hatching results depend on the quality of chosen eggs and accuracy of following recommendations of this manual and those of *Things You Should Know About Poultry Farming*.

7.12. Watch the hatching through the inspection holes and take the chicks off when they are already dry. When the incubation is over wash the tray, grid and case (all parts separately using warm water with detergent). Disinfect them with 3% manganese-water solution (pink colour) and do not dry. After that you may lay another eggs.

8. STORAGE

- 8.1. Keep the incubator in the supplied cardboard box that protects it from damage.
- 8.2. Protect the incubator from strong chokes and pushes.
- 8.3. Store the incubator packed in the dry, ventilated room, protected from direct sunrays at the temperature +5...+35°C and maximal relative humidity 80%. Never place the incubator near the open fire and heaters.
- 8.4. The air in the storage place should not contain any evaporations and gases that may result corrosion of the parts.

ATTENTION! The incubator is to be stored in the room free from rodents (mice, rats).

9. TROUBLE-SHOOTING AND FAULT REMOVAL

Fault	Possible cause	Removal
1. Four heater lamps do not switch on (the temperature inside the incubator drops)	<ul style="list-style-type: none">- the filament is broken or there is no contact inside the lamp (lamps are in series connection);- The lamp cap fails to contact with the lampholder contact set	<p>Replace the lamp (lamp capacity 60W)</p> <p>Turn the lamp tightly</p>

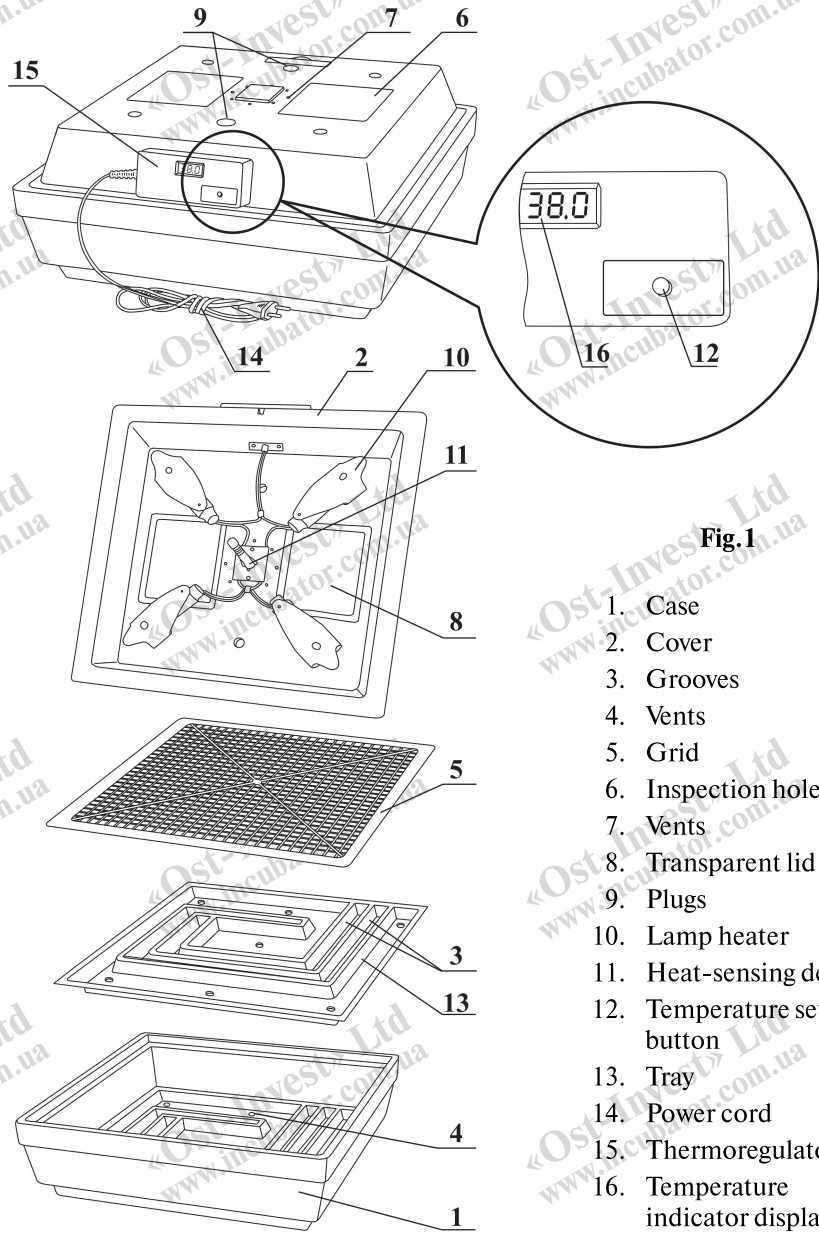


Fig. 1

1. Case
2. Cover
3. Grooves
4. Vents
5. Grid
6. Inspection holes
7. Vents
8. Transparent lid
9. Plugs
10. Lamp heater
11. Heat-sensing device
12. Temperature setting button
13. Tray
14. Power cord
15. Thermoregulator
16. Temperature indicator display

10. ACCEPTANCE CERTIFICATE

- 10.1 The incubator MI-30-1 meets the technical specifications REST 27213.001 TU and is certified for operation.

11. MANUFACTURER'S WARRANTY

- 11.1. The manufacturer guarantees that the quality of the incubator conforms with the technical specifications REST 27213.001 TU if the consumer follows the service conditions specified in this manual.

The warranty period is 18 months since the sale date.

The incubator's service life is 5 years at least since the production date.

The incubator's owner has right for free repairs during the warranty period subject to this manual presentation.

The warranty repairs will be performed by the manufacturer:

Ost-Invest Ltd.

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