

## Operation Manual

### Incubator

### ARTICLE 50035



Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!

Due to further developments, illustrations, functioning steps and technical data can differ insignificantly.

Updating the documentation

If you have suggestions for improvement or have found any irregularities please contact us.



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Although WilTec Wildanger Technik GmbH has made every effort to make sure that this user manual is complete, accurate and updated, errors cannot always be avoided. In the event of problems with this user manual please complete and send this form back to us.

**FAX-notification** (+++49 2403 55592-15),

**from:** \_\_\_\_\_

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**I would like to report the following mistakes:**

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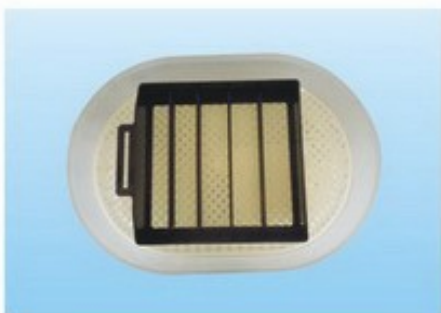
### **Introduction**

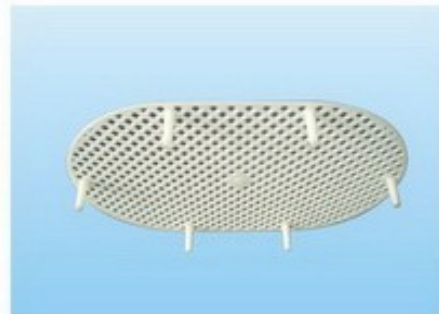
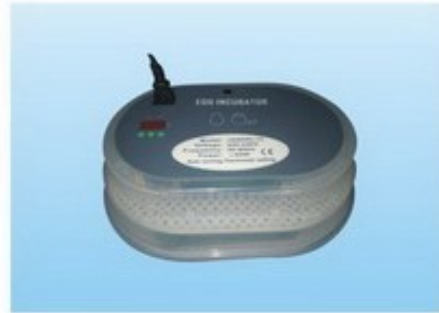
Thank you for purchasing this quality product. **To minimize the risk of injury by means of fire or electric shock we urge that our clients take some basic safety precautions when using this device. Please read the operation instructions carefully and make sure you have understood its content.**

Always use a grounded power connection with the appropriate mains voltage. You can find the corresponding mains voltage on the type plate. If you have any doubts about the connection being grounded, have it checked by a qualified professional. Never use a faulty electric cable.

Do not inspect the electrical part of the pressure pond filter in a wet or damp environment or when you are wet yourself and protect it from direct sunlight. Install this device in a safe location so that nobody can step on the cable, fall over or damage it. Disconnect the power plug before cleaning it and use only a damp cloth for cleaning. Avoid using cleaning agents and make sure that no liquid enters the electrical part of the pump.

The electric part of the device contains no parts that can be inspected or serviced by the user. Leave the maintenance, adjustment and repair to qualified technical personnel. In case of unauthorised intervention the 2-year warranty is no longer valid! Keep these operation instructions safe.





Unpack the incubator and check it regarding its completeness and function.

#### **I. Note:**

In case the ambient temperature is below 25°C you should provide for an insulation by blankets, towels or insulating material. This reduces the heat output and helps to save energy. Before first use, you should match the temperature as displayed by means of a thermometer, if necessary, provide for a calibration (CA-parameter).

After a warm-up of 2 hours, the device can be operated.

#### **II. Preliminary operation procedures:**

1. Slide the grid (large meshes) (fig. 1) into the incubator.
2. Put the movable base egg tray (fig. 2) onto the grid.
3. Insert the separating strips (fig. 3) on the movable egg tray, according to the eggs' size.
4. When placing the egg on the movable tray (fig. 5), make sure that there is a proper distance of 5 mm from the grid to be turned easily. Now the lower part of the incubator is to be filled with approx. 100 ml of water. The liquid level is to be checked every two days so that the incubator is never operated without water. Never add more than 100 ml of water each time. Please note the table regarding air humidity and breeding period. Always operate the device on an appropriate working height (60-100cm).
5. When closing the lid (fig. 7) the connecting stud has to be set accurately into the longitudinal guide of the egg tray to make sure that the eccentric movement is transmitted to the egg tray, too.
6. After having closed the lid turn on the power supply again and set the temperature as described below (IV. Adjustment) If there is no time for the temperature setting, the temperature for breeding can be set at 38°C from the first day and the temperature for hatching at 37.5-37.8°C on the following days.
7. As for other poultry, the breeding base is to be removed 3 days before the usual stage of hatching.
8. Remove the egg turner 3-4 days prior to the hatching stage and carefully set the eggs onto the breeding tray (fig. 10/11). Check again the level of the liquid.
9. After having closed the lid, the hatching procedure can be observed again.

#### **III. Important for security**

1. The incubator can be operated with a voltage of 220-240V.
2. Make sure that nobody stumbles on the power cord.
3. Make sure to use a grounded socket that is secured properly. Overloading may lead to fire or electrical damage.
4. In case of smoke or unusual odours, the device is to be disconnected from the mains and the manufacturer contacted.
5. Never touch the power cord with wet hands, as this may cause electric shock.
6. This incubator must not be used outdoors.
7. Before cleaning the mains power plug has to be pulled.
8. Always operate the device in quite and ventilated places. Moreover, never store any harmful and toxic chemicals or the like in the surroundings.
9. During operation, the ventilation opening must not be blocked.

#### IV. Adjustment of incubator:

##### 1. <SET>

###### **A: Adjustment of temperature**

Press SET and <+> or <-> for adjusting of temperature. For a quicker setting press <+> or <-> for 3 seconds. Press SET again to quit the menu.

###### **B: Adjustment of menu**

Press SET for 3 seconds to enter the system menu. Press <+> or <-> to select the required menu setting. Press again <+> or <-> to enter the submenu. Press <+> or <-> again to set the parameters. Finally, press SET/RST or wait for 5 seconds for the system to close automatically.

2. <+>: Increasing menu parameters
3. <->: Decreasing menu parameters

###### **Operation:**

Operating status:

As soon as the device is switched on, the red "working lamp" on the display's left side is glowing. LED indicates the actual temperature inside the incubator.

###### **Instruction for function:**

###### ◆ (HU+HD) heating element

HU and HD are factory-set and should not be modified by the user himself.

###### ◆ (CA) calibration of temperature sensor

This Value is factory-set to 0°K. In case that the temperature is measured incorrectly (test: place the thermometer for approx. 1 hour inside the closed breeding machine and compare it with the displayed temperature) you can adjust the temperature difference by the following means:

1. Adjust temperature sensor deviation to actual temperature
2. Press SET for 3 sec.
3. Press + or - until CA is displayed
4. Press SET again
5. By + and - you modify the parameter for the temperature difference

###### ◆ (HS+LS) Adjust the limit of the upper/ lower temperature

The upper / lower limit of temperature setting can be restricted

1. Temperature SET adjust upper limit
2. Press SET for 3 sec.
3. Press + or - until HS is displayed
4. Press SET again
5. By + and - you modify the parameter for the temperature difference

Adjust lower limit

1. Press SET for 3 sec.
2. Press + or - until LS is displayed
3. Press SET again
4. By + and - you modify the parameter for the temperature difference. If there is not pressed any button within 5 sec., the last value is saved and the menu is quit.

Code	Description	Range	Basic setting	Unit
HU	Parameter heating capacity	1-90	35	
HD	Parameter heating preservation	1-80	30	
LS	Set lower limit	- 9.9~ HS	30	°C
HS	Set upper limit	LS~9 9.9	39,5	°C
CA	Temperature correction	-5~+5	-1,5	°C
AH	Factory-set	0-15	0,8	°C
AL	Factory-set	0-15	0,5	°C

## Hygiene

Cleanliness and hygiene are essential for a high hatching ratio. A poor hygiene is often the reason for the chicks' death within the first 10 days after hatching. Always put clean eggs into the device. Contaminated eggs are potential carriers of diseases which thrive particularly in warm and humid environment. If you put dirty eggs into the device, it is recommended to clean them in warm water (approx. 44-49°C) along with a disinfectant such as used in the household. Thereafter they are dried with a soft paper towel. Never soak the eggs for a period longer than 4 minutes in order not to affect the fertility. Never use cold water which promotes penetration of bacteria through the eggshell. Eggs which have been sterilized by fumigation contribute essentially to hygiene.

## Humidity

During the breeding period, humidity is essential. Refill the channels beyond the plastic tray with water in order to prevent dehydration. By means of an egg tester (lamp) the egg is illuminated. In case the bubble of air is too large, humidity is increased. The bubble has to be controlled depending on the type of egg (see illustration). If you decide to make use of a hygrometer, there has to be used a special hygrometer (for incubators) The three days before hatching the water channels are refilled once again with warm water. Only refill with warm water. If the eggshell is particularly hard, you can make use of a water-soaked sponge as a help for the breeding, so as to increase the humidity yet. Additionally, the breeding temperature can be increased by 1°K at a maximum.

## Hatching period

Three days before this phase, the turning device is removed and the eggs placed on the grid, thus avoiding any possible injuries on the chicks caused by the turning procedure. After the hatching procedure, the chicks are kept inside the breeding machine until their feathers have dried, but at the latest after 24 hours.

## Comment

Good breeding results are essentially dependent not only on the breeding material (eggs) but also on the operation during the incubation period. There are several facts that lead to poor or even unsuccessful hatching procedures. The reasons for such failure should always be analysed. After the end of each breeding period, the lower part of the device and the channels are carefully cleaned and disinfected.

poultry	number of days	period of incubation		breeding period		breeding egg weight
		temperature °C ±0.5	humidity %	temperature °C ±0.5	humidity %	
chicken	21	38 55-75		37.5	65-85	100-200
pigeon	18	38.5 55-75		37.8	65-85	30-40
domestic chicken	21	37.9 55-75		37.5	65-85	45-55

### Example

7. **Chicken:** Incubation period: 28-33 days. Temperature: the first 21 days 38.3°C; air humidity: more than 10 days, approx. 45%, additionally to be refilled with water (20ml) after 18 days 55%, additionally to be refilled with water (20ml), cooling down for 10 min. Pay special attention to the air bubble on the 7<sup>th</sup> and 14<sup>th</sup> day
8. **Duck:** Incubation period: 28-33 days. Temperature: the first 21 days 38.3°C; air humidity: approx. 65%: additionally to be refilled with water (20ml); from the 7<sup>th</sup> up to the 21<sup>st</sup> day cooling down daily for 20 min. From the 26<sup>th</sup> day to be refilled again with 20 ml of water. Pay special attention to the air bubble on the 7<sup>th</sup> and 14<sup>th</sup> day
9. **Goose:** Incubation period: 28-33 days. Temperature: 38.3-38.9°C, air humidity 75% at the start (large and small channels are refilled with water); from the 7<sup>th</sup> up to the 10<sup>th</sup> day cooling down for 30 min every day. From the 15<sup>th</sup> day up to the 26<sup>th</sup> day, place the eggs into water (38°C) for 30 sec. every 3<sup>rd</sup> or 4<sup>th</sup> day. From the 26<sup>th</sup> day additionally to be refilled with water (approx.20-40 ml). Pay special attention to the air bubble on the 7<sup>th</sup> and 14<sup>th</sup> day.
10. **Turkey:** Incubation period: approx. 28 days. Temperature: the 1<sup>st</sup> week 37.8°C, 2<sup>nd</sup> week from 38.3°C to 38.9°C; air humidity 60% (fill water into the large and medium channel) cooling down once a day 5-10 min. From the 25<sup>th</sup> day fill with more water. Pay special attention to the air bubble on the 7<sup>th</sup> and 14<sup>th</sup> day
11. **Pheasant:** Incubation period: 22 to 24 days. Temperature: 38.3-38.9°C; air humidity 60% at the start (the large and medium channels) twice a day cooling down for 5 min. From the 22<sup>nd</sup> day fill with water (20-40 ml). Pay special attention to the air bubble on the 8<sup>th</sup> and 16<sup>th</sup> day.
12. **Quail:** Incubation period: 16-17 days. Temperature: 38.3°C; air humidity 56% at the start (additionally fill with water 20-30 ml); place the eggs quietly within the 1<sup>st</sup> 60 hours; from the 14<sup>th</sup> day fill with water (20-30 ml) Small quail eggs need not to be cooled.

### Breeding of reptile eggs

Due to the large variety of reptiles this is just an example.

There is literature you can refer to. (Günther Köhler (ISBN 3936180-11-3)

To achieve the best results of breeding it is essential to use eggs of the same type. It is beneficial to make use of a hygrometer for the humidity surveillance. Make the eggs hatch on a vermiculite and perlite cushion. Make always use of natural material, being absorbent but also ensuring that the eggs are not kept too moist. Vermiculite and perlite can also be applied in a mixed version. For disinfection the material is placed on a plastic wrap and sprinkled with water, then it is put into the microwave for 1 min. Thereafter it is cooled down. Now the material is filled into a can up to a height of 4-5cm. Finally the substrate is sprinkled with water up to 2/3 of its weight



**Agama:** Incubation period approx. 52 to 91 days. Set the incubator as described at 25-31°C. After a 24 hours warm-up the eggs are removed carefully from the terrarium and placed (2/3) on a tin. Attention! Never change the position nor turn the eggs. Pay attention to the moisture and keep the substrate wet in a way that no fungal or bacterial infections can occur. It may be the case that the eggs change colour during the breeding process.

Species	(Latin)	°C	days
Bartagam	(Pogona Vitticeps)	27-31	55-86
Green iguana	(Iguana Iguana)	26-32	64-139
Common collared lizard	(Crotaphytus-Collaris)	28-30	45-86
Leopard gecko	(Eublepharis Macularius)	26-31	45-65
Greek turtle	(Testudeo Hermanni)	28-31	54-79
Corn snake	(Elaphe Gutatta)	25-29	55-86
Python regius	(Python Regius)	29-32	55-71
Agama	(Gama Agama)	25-31	52-91
Sting agama	(Agama Planiceps)	30	46
Water agame	(Physignathus Lesueurii)	26-31	56-74
Indian lizard	(Calotes versicolor)	25-27	70-79
Egyptian turtle	(Testudeo Kleinmanni)	28-32	70-119
Lizard	(Lacerta Saxicola)	28	37-40
African snake	(Scabra)	27-30	52-90

## Disposal regulations

EU guidelines regarding the disposal of scrap electric appliances (WEEE, 2012/19/EU) were implemented in the law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE regulations are labelled with the crossed-out wheeled waste bin logo. This logo indicates that this electric equipment must not be disposed with the domestic waste.

The company WilTec Technik GmbH has been registered in the German registry EAR under the WEEE-registration number DE45283704.

Disposal of used electrical and electronic appliances (intended for use in the countries of the European Union and other European countries with a separate collection system for these appliances).

The logo on the article or on its packaging points out that this article must not be treated as normal household waste but must be disposed to a recycling collection point for electronic and electrical waste equipment. By contributing to the correct disposal of this article you protect the environment and the health of your fellow men. Environment and health are threatened by inappropriate disposal.



Materials' recycling helps reduce the consumption of raw materials.

Additional information on recycling this article can be provided by your local community, municipal waste disposal facilities or the store where you purchased the article.

Address:  
WilTec Wildanger Technik GmbH  
Königsbenden 12 / 28  
D-52249 Eschweiler

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