General directions GB

M 3000

PLEASE READ THIS INFORMATION CAREFULLY BEFORE PUTTING THE INCUBATOR INTO OPERATION !!!

Dear customer,
we would like to congratulate you for the acquisition of this inexpensive, top-class incubator. It was manufactured of isolating thermoplastic material and designed in accordance with the latest technical standards and developments. Correct operation and good-quality eggs will guarantee low current consumption (only about 14 to 17 W), high hatching rates and healthy chicks.

The incubator is equipped with two viewing windows, a heating element, a 220 W control thermostat with pilot lamp, a thermometer for incubation temperature control and a fully automatic egg turning insert with on/off control as well as with six water channels located in the housing floor.

Important:
The control thermometer must the checked for exact reading prior to each incubation process. It should be placed in the middle of the incubator, resting on the eggs, so that the bulb is always level with the upper edge of the eggs!!
For temperature correction please turn the adjusting screw only very slightly!! The incubator must not be heated above 122°F (50°C). Overheating of the incubator will lead to the loss of all guarantee rights!!
Note: Always disconnect the incubator from the mains before opening it. Any repair or maintenance work on the electric system may only be done by the manufacturer or an electrician.

Testing of the control thermometer for exact reading:

Hold the thermometer into a vessel filled with warm water at approximately 102°F (39°C). Once the thermometer has reached the definite water temperature, add a calibrated clinical thermometer to the vessel and compare the temperature readings of both thermometers. Any existing difference can be added to or deducted from the reading of the incubator control thermometer. The incubator control thermometer will work reliably even with these small differences.

Operating Instructions:

The incubator control thermometer, egg turning rollers and wire grating are packaged separately in order to avoid damage during transport. All packing materials must be removed on arrival.

Place the incubator in a room with constant temperature, if possible above 59°F (15°C). The incubator should not be exposed to sunlight or heat, because exterior temperature variations will affect its inside temperature. The most suitable location is still the 'good old' basement, but always provided the heating facilities are installed someplace else. Avoid damp places, vibrating supports as well as shakes and shocks. The incubator must stand free so that air circulation is not impeded.
Now you can connect the incubator to the mains by carefully pulling the plug out of the recess as far as it will go and connecting it to the receptacle. The pilot lamp will come on immediately to indicate that the heating is on. With the help of an auxiliary means (e.g. a small potato) place the control thermometer approximately level with where the upper edge of the eggs would be. Do not place it on the turning insert or on the wire grating.
The thermostat was adjusted roughly during assembly. For fine adjustment, proceed as follows:
If the pilot lamp goes out after only a few minutes before the incubation temperature is reached, turn the adjusting screw in the '+' direction shown by the arrow. Please do only very slight turns. Repeat this procedure every 15 minutes until the control thermometer reads the desired incubation temperature. If the temperature is too high, the adjusting screw must be turned in the '-' direction. Precise adjustment of the temperature is the most important factor for successful incubation. Therefore you should take your time to ensure that it is done correctly.
Once the reading of the thermometer has become constant according to the performed adjustment, keep the incubator in operation without any eggs in it for one day, so that all parts of the machine can take in the heat and you can be sure that the incubator is well adjusted. This avoids the need for permanent readjustment once the eggs are inside the incubator.

After the test day put the eggs into the incubator and place the control thermometer onto the eggs. You will notice that the temperature will stay below the adjusted value, possibly over a longer period of time. The length of this period depends entirely on the individual temperature of the eggs. It is not necessary to carry out any temperature corrections during this time, as the temperature will regulate itself gradually to the pre-adjusted value.

Fully automatic egg turning insert:

The incubator is equipped with a fully automatic egg turning insert. Both the egg turning rollers and the wire grating are packaged separately underneath the housing floor in order to avoid damage during transport. You will need the wire grating only in the hatching phase, therefore we recommend you to initially install only the rollers into the housing floor. When installing the rollers you must ensure that the red dot on the guide stops is clearly visible. Find the correct position of the turning rollers by moving them to either side so that the spigot on the top of the housing is in line with the red dot (between the two last rollers) when closing the incubator. The turning function can be activated and deactivated by means of the switch provided on the top of the housing. Turning follows constantly and slowly. One complete turn takes 4 hours, any change in the position of the turning rollers can therefore only be seen after 15 to 30 minutes. The turning function should be started already on the first incubation day, and not on the third as indicated in the incubation instructions. Three days before the expected hatching day switch off the turning function, remove the turning insert rollers and place the eggs on the wire grating. This will prevent the chicks from hurting themselves when hatching (navel rupture). After removing the turning rollers both the eggs and the control thermometer will lie a little deeper, so that the temperature will balance out at a lower value. It might be necessary to readjust the temperature after removal of the turning rollers.

Additional information:

Good hatching results depend mainly on the eggs but also on the correct operation of the incubator during the incubation period. There are quite a few reasons that can lead to unsatisfactory results. In most cases these reasons are not due to the incubator and cannot be traced down from a distance. Therefore we must ask you to avoid sending us inquiries for possible causes of trouble in case of minor or modest results. However, we will gladly be at your disposal for telephone information through which, as a result of specific questions, we can clear possible causes of trouble or any technical questions you may have.
Late hatching is caused by insufficient heat, premature hatching by excessive heat. In both cases the control thermometer must be checked for correct operation.
Clean the incubator with warm water after every completed incubation process. Do not use disinfectants, because they corrode the thermoplastic material of the incubator.

From egg to chick

Incubating Instructions:

General:
Slight temperature variations will not harm the embryos. On the contrary, they favour the air exchange in the eggs and are often better than if the temperature is being permanently readjusted.
After putting in the eggs, the incubator must be kept closed during the first two days. In the case of incubators not fitted with the fully automatic egg turning insert, the eggs should neither be turned nor cooled until the third day. In the case of incubators provided with the fully automatic turning insert, the eggs are turned from the first day on.
The correct humidity (filling of the water channels under the wire grating) is very important in order to prevent the eggs from drying out. This condition can be controlled on the air bubble inside the egg (see drawing) with the help of a special lamp (article nr. 570). If the air bubble is too big, humidity must be increased. The air bubble should be controlled with special care on the days indicated below for each type of egg.

From the tenth day on you can inspect the inside of the eggs with a special lamp. In a living egg you will see a dark spot with little blood vessels leading away from it. Unfertilized eggs are bright and show only the shadow of the yolk. Unfertilized eggs must be removed from the incubator, because they harm the fertilized eggs. During the daily cooling, move the eggs placed on the sides to the middle of the incubator and viceversa. Three days before the expected hatching day fill the water channels for the last time and then do not open the incubator again. The water channels should always be filled with warm water and only to half of their capacity.
Remove the new chicks from the incubator when they are dry (approximately 24 hours after hatching). In the case of hard or thick eggshells, you can support the hatching by increasing the humidity inside the incubator. To do this, put a sponge soaked with warm water into the incubator and increase the temperature by 33.8°F (1°C).
Cooling of the eggs is important in order to ensure air exchange and a sufficient supply of fresh oxygen to the eggs. For cooling, remove the incubator cover and leave the incubator open for the time indicated in the relevant incubating instructions.

Important:
In order to achieve the best possible hatching results put only eggs of the same type of poultry and size into the incubator. The simultaneous incubation of different types of poultry does not bring good hatching results. The eggs should be neither too big nor too small, likewise neither too round nor too peaked. Excessively round or peaked eggs can lead to weak chicks. The eggs should be clean, without having had to be washed with water. Eggs with an excessively rough shell should also be avoided, because they contain too much chalk which can hinder the development of the embryo. As a basic rule, the eggs used for artificial incubation should not be older than 3 to 5 days but not younger than 24 hours after having been laid. Older eggs reduce the hatching rates, since older embryos can die in any of the different development stages due to their lower vitality. Furthermore, the eggs should come only from healthy, naturally fed animals and be free from any frost damage. Eggs foreseen for artificial incubation should be stored in a room with a temperature between 46 - 54°F (8 - 12°C), or a maximum of 59°F (15°C). The storing above these temperatures will cause excessive evaporation of the egg contents. Already during this pre-incubation storage the eggs must be turned daily, at least three times. If you work with a hygrometer, please make sure that it is of the correct type for incubators. All others could lead to wrong handling.

Hens and bantams:
Incubation period: 21 days. Incubation temperature: 101°F (38.3°C). Humidity: from the 10th day on 45% (fill water channels nbr. 1) and from the 18th day on 55% (fill water channels nbrs. 1 and 2). From the 3rd day on turn eggs three times a day and cool daily for approx. 10 minutes. Control the air bubble especially on the 7th and the 14th day.

Ducks:
Incubation period: 28 - 33 days. Incubation temperature: 101°F (38.3°C) during the first 21 days, then 102°F (38.9°C). Humidity: from the 1st day on 65% (fill water channels nbrs. 1 and 2). From the 3rd day on turn eggs twice a day. From the 7th till the 21st day cool daily for approx. 20 minutes. From the 26th day on fill also water channels nbr. 3. Control the air bubble especially on the 7th and 14th day.

Geese:
Incubation period: 28 - 33 days. Incubation temperature: 101 - 102°F (38.3 - 38.9°C). Humidity: from the 1st day on approx. 75% (fill water channels nbrs. 1 and 2). From the 3rd day on turn eggs three times a day. From the 10th day on cool daily for approx. 30 minutes. From the 15th till the 26th day, immerse eggs every third or fourth day in warm water (100°F) for half a minute. From the 26th day on fill also water channels nbr. 3. Control the air bubble especially on the 7th and 14th day.

Turkeys:
Incubation period: approx. 28 days. Incubation temperature: in the 1st week 100°F (37.8°C), in the 2nd week 101°F (38.3°C), then 102°F (38.9°C). From the 3rd day on turn eggs twice a day and cool daily for 5 to 10 minutes. Humidity: during the first 24 days, approx. 60% (fill water channels nbrs. 1 and 2). If necessary, sprinkle eggs with warm water. Control the air bubble especially on the 10th and the 25th day.

Pheasants:
Incubation period: 22 - 24 days. Incubation temperature: 101 - 102°F (38.3 - 38.9°C). Humidity: from the 1st day on 60% (fill water channels nbrs. 1 and 2). From the 3rd day on turn eggs three to five times every day and cool twice daily for approx. 20 minutes. From the 22nd day on fill also water channels nbr. 3. Control the air bubble especially on the 8th and 16th day.

Quails:
Incubation period: 16 - 17 days. Incubation temperature: 101°F (38.3°C). Humidity: from the 1st day on 65% (fill water channels nbrs. 1 and 2). Allow eggs to rest during the first 60 hours of incubation then turn twice daily up to the 14th day. From the 14th day on fill also water channels nbr. 3. Small eggs need not be cooled.

Queen bees:
Insert cells 10 days after the larva has formed. Incubation temperature: 95°F (35.0°C). Humidity: approx. 65% (fill water channels nbrs. 1 and 2). Remove new queen bees from incubator every 60 minutes.

FROM EGG TO CHICK

PLEASE READ CAREFULLY BROODING AND OPERATING INSTRUCTIONS BEFORE INCUBATOR IS PUT INTO OPERATION !!

Dear Customer,
we like to congratulate you for this purchase, you have bought a very budget-priced but top class incubator. This maschine was manufactured in accordance with the latest technical standards and findings of the isolating material "Thermalplastics", it is very economic in current comsumption (it needs only approx. 14 - 17 watt) and high hatsch rates as well as healthy chicks are guaranteed provided that the incubator is operated carefully and correctly and the brooding material (eggs for hatching) is in perfect condition.

The incubator is equipped with window, heating element, 220-volt controller thermostat, pilot lamp, brooding thermometer and three water channels in different sizes (on the ground of the casing). And in addition - if it is part of the equipment - a semi-automatic respectively all-automatic egg turning insert is also provided.

Important:

The brooding thermometer has to be checked and tested for exact indication prior to each brooding process. It should be placed in the middle of the incubator, but make sure that it is put on the eggs so that the thermometer bulb is situated at a level of upper edge of the eggs !
For temperature correction please turn the adjusting screw only very sligthly! The incubator may not be heated over 50°C (Celsius).
If you don't follow these instructions, you may loose all guarantee rights !
Note: Please disconnect plug before opening the incubator. Repair work on the electric type may only be done by the manufacturer or by an electrician.

Testing of the brooding thermometer for exact indication:

Hold the brooding thermoeter into a vessel containing warm water with a temperature of approx. 39°C. As soon as the brooding thermometer shows the definite water temperature, you will hold additionally a calibrated clinical thermometer into the vessel and then you compare the heat degrees on the two thermometers. If there should be noticed a difference, This varying difference can be added to or deducted from the temperature indicated on the brooding thermometer. Even then the brooding thermometer does still work reliably.

OPERATING INSTRUCTIONS:

The brooding thermometer is packaged separately in order to avoid damaging during transport.

Place the incubator in a room with constant temparature, if possible more than 15°C. Do not expose the incubator to sun light or do not place it next to a heater, because exterior variations in temperature do affect the temperature inside the incubator. The most suitable and best brooding place continues to be the usual room in the basement, but not the room where the heating facilities are installed. Avoid damp places, vibrating supports as well as shaking and shocks. The incubator has to placed detachedly so that air supply is not impeded.
Now you can connect the incubator to the electric network by pulling the plug carefully out of the recess and extending the flexible cord up to its end and by connecting the plug to the receptacle. Immediately the pilot lamp lights up and this means that the heating is in operation. Put the brooding thermometer approximately in the level of the upper edge of eggs by placing under the thermometer an auxiliary or provisional means (e.g. a small potato), but do not put the thermometer neither onto the egg turning insert nor onto the wire grating. The thermostat was adjusted roughly during assembly, exact adjustment has to be done by yourself as subsequently described:
If the pilot lamp goes out already after a few minutes and the brooding temperatur ist not yet reached, you have to turn the adjusting screw into "+" direction of arrow. Please turn the adjusting screw only very slightly. This process shall be repeated approx. every 15 minutes so many times, until the thermometer shows the desired brooding temperature. If the temperature is too hight, the adjusting screw has to be turned into "-" direction af arrow. Precise adjustment is one of the most important factors of the entire incubating. Therefore you should invest enough time for temperature adjustment.
When the termometer after precise adjustment shows the desired temperature constantly, keep the incubator in operation without any brooding material in it during one day so that the entire materials can well take on the heat and you can be sure that the incubator is well adjusted. And so a permanent readjustment after having put in the eggs for hatching can be avoided.

After the test day put the eggs for hatching into the incubator and place the brooding thermometer onto the eggs. By doing this you will find out that the temperature - possibly during a longer period - will stay at less centigrades as previously adjusted. This period depends entirely on the individual temperature of the eggs. During this time there should not be effected any readjustment, because the temperature readjusts itself gradually to the previously adjusted brooding temperature.

Semi-automatic egg turning insert: (only if it exists)

The semi-automatic turning insert is placed into the lower part of the incubator onto the wire grating and the cord twine is led to the outside through the eyes. Put the eggs onto the round bars and mark some of the eggs with a pencil on one side with an "X" and on the other side with an "O". Then pull gently at the end of the cord, until the eggs have turned what you can recognize through the marking on the eggs. For the next turning you pull at the other end of the cord. By this repeated process the eggs will be turned at least so many times as indicated in the brooding instuctions. if possible however 5 times a day.
Take out the turning insert 3 days before the expected day of hatching and put the eggs on the wire grating. By doing this it will be avoided that the chicks get injured (tear of their navel) when hatching, this is to say when the chicks fall down from the turning insert onto the wire grating. Caused by taking out the turning insert the eggs and the brooding thermometer are situated a little deeper, whereas also the temperature balances out a little lower. For this reason there has to be a slight readjustment of temperature after taking out the turning insert.

All-automatic egg turning insert: (only if it exists)

The all-automatic turning insert is placed into the lowe part of the incubator onto the wire grating from the very frist day on and it is connected by means of a plug to the electric network. The turning is effected immediately, very slowly and always permanently. The eggs for hatching are put into the supporting rods with their small peaked ends downwards. Put the brooding thermometer at the end of the turning insert, where the turning motor is placed, in transverse position between egg supporting rods and fitting strip, where all egg supporting rods are hung in. Thus one half of the thermometer is placed on approx. 3 egg supporting rods, ther other half is placed on the fitting strip, where all egg supporting rods are hun in (see drawing). Caused by this placement of the brooding thermometer it is absolutely necessary that your incubating temperature is 1 °C higher than indicating in the brooding instructions. Please be aware that the egg supporting rods can turn araund without any obstacles, because the turning motor could be damaged, when the rods get jammed or blocked. Take out the turning insert 3 days before the expected day of hatching and put the eggs on the wire grating (see semi-automatic turning insert).

Additional Notes:

Good hatching results do mainly depend on the brooding materials (eggs for hatching), but also operation of the incubator during the period of the brooding is very important. There are quite a lot of reasons, which can lead to worse respectively unsatisfactory or even missing results. In most cases these reasons are not due to the incubator and they also can not be recognized nor detected from far away. We therefore ask you not to make inquiries for possible causes of trouble in case of minor or modest results. But we are always at your disposal for telephone information, througt which - by asking specific questions - certain causes for trouble perhaps can be cleared and for any other telehone inquiries concerning technical questions ans information.
Delayed hatching indicates too little heat, premature hatching indicates too much heat. In both cases the brooding thermometer has to be checked under any circumstances.
When the brooding is finished, clean the incubator only with warm water. Do not use any desinfectants, because they corrode the thermalplastic material.

BROODING INSTRUCTIONS:

Generald Notes:

A slight variation in temperature upward or downward does not harm the germs, and quite on the opposite it is often better than to readjust the temperature permanently. Slight fluctuations of temperature favour the air exchange in the egg.
After putting in the eggs for hatching you have to keep the incubator closed during the first 2 days. During this time there may be no turning of the eggs (this does not apply to incubators with all-automatic turning insert) and also no cooling. From the 3rd day on you can start turning the eggs.
The correct humidity (filling of the water channels underneath the wire grating) is very important in order to avoid desiccation of the eggs. Desiccation can be controlled with a special lamp (this lamp is designed for selection of good and foul eggs) on the air-bubble inside the egg (see drawing). In case the air-bubble is too big, humidity has to be increased. Perform control of the air-bubble particulary on these days which are indicated for the respective type of egg.

From the 10th day on you can test the eggs for hatching with a special lamp (select goods eggs from foul ones). In case of a living egg you can recognize a dark spot, from where little veins are leading away. Am unfecundated egg clear and you can only recognize the shadow of the yolk. Take out the unfecundated eggs, because they harm the living eggs. During the daily cooling put particularly these eggs, which are placed on the exterior side, into the middle of the incubator and vice versa. Three days before the expected hatching day fill the water channels and then do bot open the incubator any more, if possible. Basically only warm water shall be filled into the water channels. Take the hatched chicks out of the incubator only by that time, ehen are well dryed (approx. 24 h after hatching). In case of hard or thick egg-shell you can still and in addition increase humidity - a method which supports hatching, by putting a sponge soaked with warm water on the wire grating and by increasing the brooding temperature by approx. 1 °C. Cool the eggs during the time indicated in the brooding instructions by removing the cover of the incubator. Cooling is important in order to provide air exchange as well as supply of fresh oxygen.

Wichtig:

Do not put too many eggs for hatching and - if possible - only eggs of the same size and of the same type of poultry into the incubator. For each respective type of poultry do not use too big and too small eggs. Likewise do not use too peaked and too round eggs. As a consequence of peaked and round eggs there can be born too weak chicks. The eggs for hatching should be clean, without being necessary any washing with water. Eggs with rough shell should not be used, because they contain too much chalk and therefore the constant development of the embryo will be impeded - the consequence thereof is the dying of the embryo in the egg. Basically the eggs for an artifical brooding should not be older than 5 to 7 days, but at least 24 h from the point of having been laid by the animal. Older eggs diminish substantially the percentage of the results of hatching, because the embryos - the older the eggs are the weaker is the embryos vitality - can die in the different stages of development. Furthermore the eggs should not be from animals having been fed with germinating feed and the eggs should not show any frost damage. Store the eggs for hatching, until they are put into the incubator, with their peak downward in a room where there is a temperature of 8 ° to 12 °C, at max. 15 °C. Too warm storage leads to a too high water evaporation of the egg content, In case you are working with an hygrometer, do use only such a type, which has been designed especially for incubators. All other types are not suitable for brooding, because they do not indicate humidity correctly and consequently they lead to wrong handling and false operation.

Hens/chicken and bantams:

Brooding period: 21 days, brooding temperature: 101 F (38,3 °C), humidity: from the 10th day on 45% (fill small water channel) and from the 18th day on 55% (fill small and middle water channel). From the 3rd day on the eggs shall be turned 3 times a day and shall once a day for approx. 10 minutes. The air-bubble shall be controlled particularly on the 7th and on the 14th day.

Ducks:

Brooding period: 28 - 33 days, brooding temperature: 101 F (38,3 °C) during the first 21 days, after that time the brooding temperature is 102 F (38,9 °C), humidity: approx. 65% (fill small and big water channel from the very beginning). From the 3rd day on eggs shall be turned twice a day. From the 7th until the 21st day the eggs shall be cooled daily dor approx. 20 minutes. From the 26th day on the middle water channel shall be filled additionally. The air-bubble shall be controlled particularly on the 7th and on the 14th day.

Geese:

Brooding period: 28 - 33 days, brooding temperature: 101 - 102 F (38,3 - 38,9 °C), humidity: approx. 75% (fill middle and big water channel from the very beginning). From the 3rd day on eggs shall be turned 3 times a day. From the 10th day on egg shall be cooled daily for approx. 30 minutes. From the 15th to the 26th day eggs shall be dipped every third or fourth day for half a minute into warm water, temperature 100 F. From the 26th day on the small water channel shall be filled additionally. The air-bubble shall be controlled particularly on the 7th and on the 14th day.

Turkeys:

Brooding period: approx. 28 days, brooding temperature: 1st week 100 F (37,8 °C), 2nd week 101 F (38,3 °C), then 102 F (38,9 °C). From the 3rd day on eggs shall be turned twice a day and cooled once a day for 5 to 10 minutes. Humidity shall be approx. 60% (fill small and middle water channel) during the first 24 days. If necessary, eggs shall be sprinkled with warm water. The air-bubble shall be controlled particularly on the 10 th and on the 25th day.

Pheasants:

Brooding period: 22 - 24 days, brooding temperature: 101 - 102 F (38,3 - 38,9 °C), humidity: approx. 60% (fill small and middle water channel from the very beginning). From 3rd day on eggs shall be turned 3 to 5 times and be cooled twice a day for approx. 20 minutes. From 22nd day on the big water channel shall be filled additionally. The air-bubble shall ve controlled particularlly on the 8th and on the 16th day.

Quails:

Brooding period: approx. 16 - 17 days, brooding temperature: 101 F (38,3 °C), humidity: 65% (fill small and big water channel from the very beginning). During the first 60 h the eggs shall not be moved, then they shall be turned twice a day until the 14 th day. From the 14th day on the middle water channel shall be filled in addition. Small eggs do not need to be cooled.