



**Read the instructions before use!**

**Damaged appliances shall not be used.**

**The appliance and its supply cord must be placed in an indoor area not subject to splashes of water or wet conditions and protected from or out of reach of animals.**

**Repairs shall be carried out only by a suitably qualified person.**

**This appliance shall not be used, cleaned or maintained by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge without supervision. Children shall not play with the appliance.**

**Disconnect the incubator from the mains power supply during cleaning. Ensure that all electrical parts are kept dry.**

**Record your appliance serial number here: \_\_\_\_\_**

These instructions detail the operation of your new Brinsea K7 incubator. Please read them carefully before setting up the incubator in order to achieve best results.

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# 1 Unpacking

Your incubator had been supplied in protective packaging. Please remove all tape, strapping and packing material. Retain the carton and packing materials to enable the unit to be repacked if necessary.

The Brinsea K7 incubator includes:

<i>Item</i>	<i>Quantity</i>
K7 Incubator	1
Evaporation block holder tray	1
Evaporation block holder cover	1
Expanded paper evaporation block	1
Spare water tubing	3m
Turn System Chassis	1
Turn System Floor	1
Egg Rollers	12
Bag of Small O-Rings	1
Mains Lead	1
Spot-Check Thermometer	1

Please identify each part and check that they are all present and undamaged. If there are any parts damaged or missing please contact your retailer or Brinsea Products (at the address at the end of this document). To register your new Brinsea product please visit [www.brinsea.co.uk](http://www.brinsea.co.uk) and follow the link on the right hand side of the home page to qualify for your free 3 year guarantee.

## 2 Setting Up Your K7 Incubator

### 2.1 Location

Your incubator will give best results in a room free from wide temperature variations and with generous ventilation – particularly if several incubators are running at the same time. Ensure that the room temperature cannot drop on a cold night. Ideally thermostatically control the room at between 20 and 25°C (68 and 77°F). Never allow the room temperature to drop below 17°C (63°F) and ensure that the incubator cannot be exposed to direct sunlight.

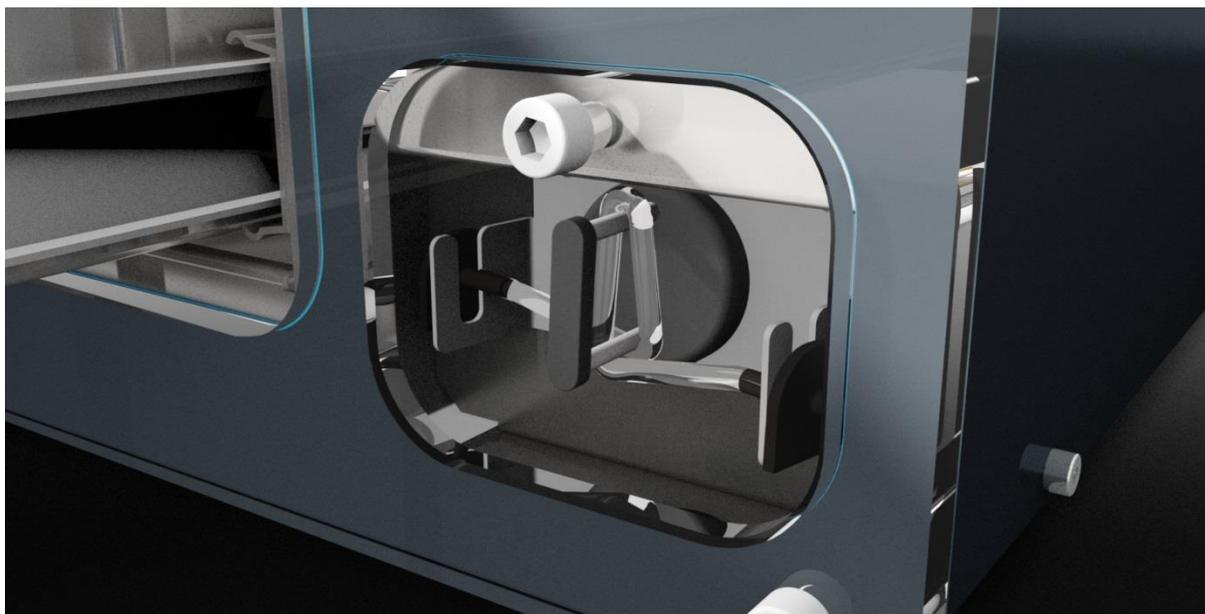
Place the incubator on a flat, level surface capable of supporting the weight of the incubator (35kg). Contaq Z7 and K7 incubators may be stacked a maximum of 2 units high. The top machine must be located squarely over the lower machine to ensure the weight is distributed through the load bearing structure.

## 2.2 Humidity Control System

The K7 incubator uses a precision humidity sensor and peristaltic water metering pump to automatically control the relative humidity of the air in the egg chamber. Pumped water is fed to an expanded paper evaporation block where warm air is drawn over the large surface to effectively evaporate all the water (none should collect under normal conditions). This humidified air is then mixed within the heating chamber so that the air drawn across the eggs is of uniform humidity and temperature.

The incubator is supplied with a water delivery tube already in place inside the egg chamber but not tightly held across the pump capstan (to prevent the tube sticking closed in storage). Cut a length of the additional tube provided that is long enough to reach from the pump to your chosen water container. (A 1 litre container should be adequate under most circumstances). Thread this tube through the grommet at the side of the pump compartment then connect it to the black plastic tube connector on the end of the short tube in the pump compartment.

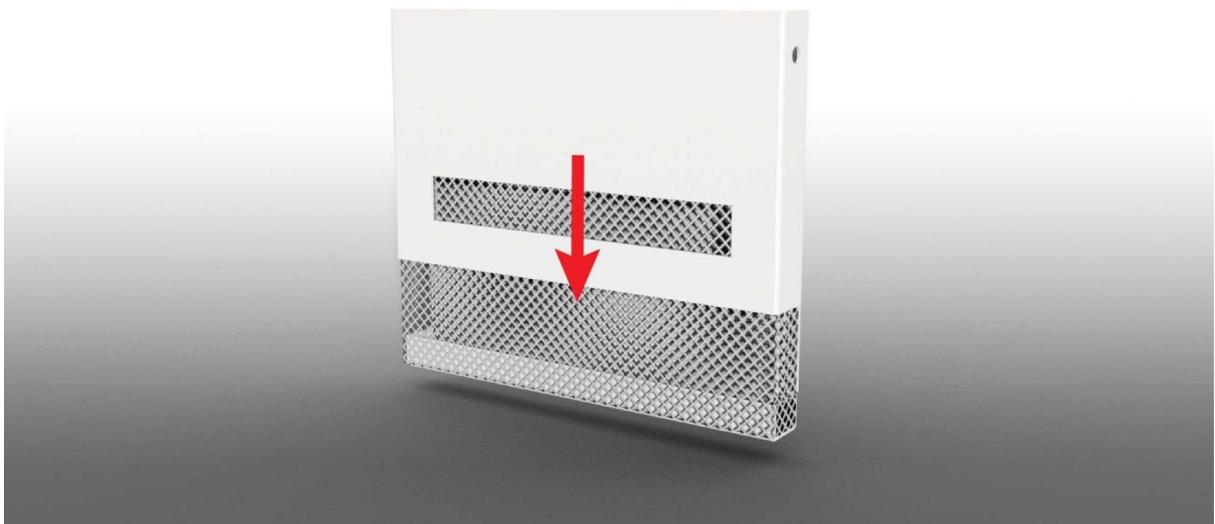
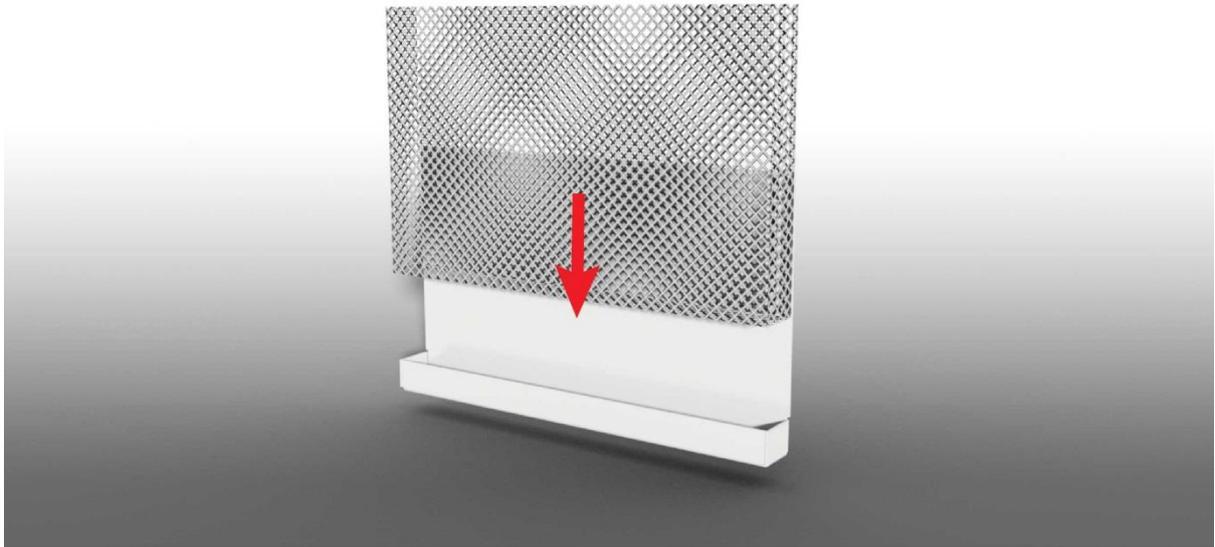
The short tube must then be wound around the capstan and held in the slotted bracket.



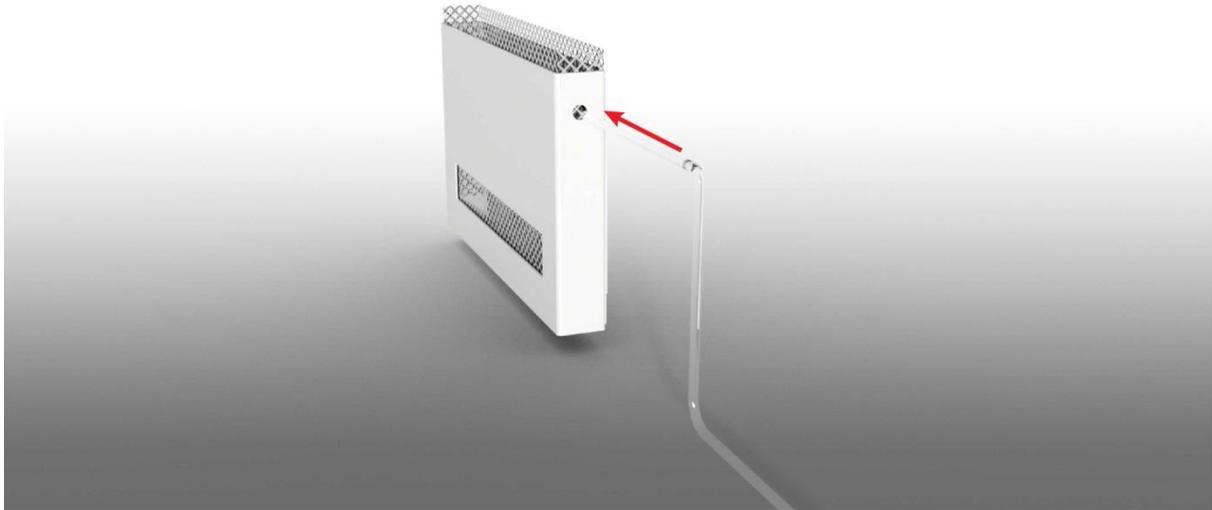
The tube that is held around the pump capstan is of precise length to ensure it is correctly “pinched” where it rolls on the capstan pins. It will wear out during extended use and should be replaced periodically with a new length of tube 110mm long. This length is shown below for reference:



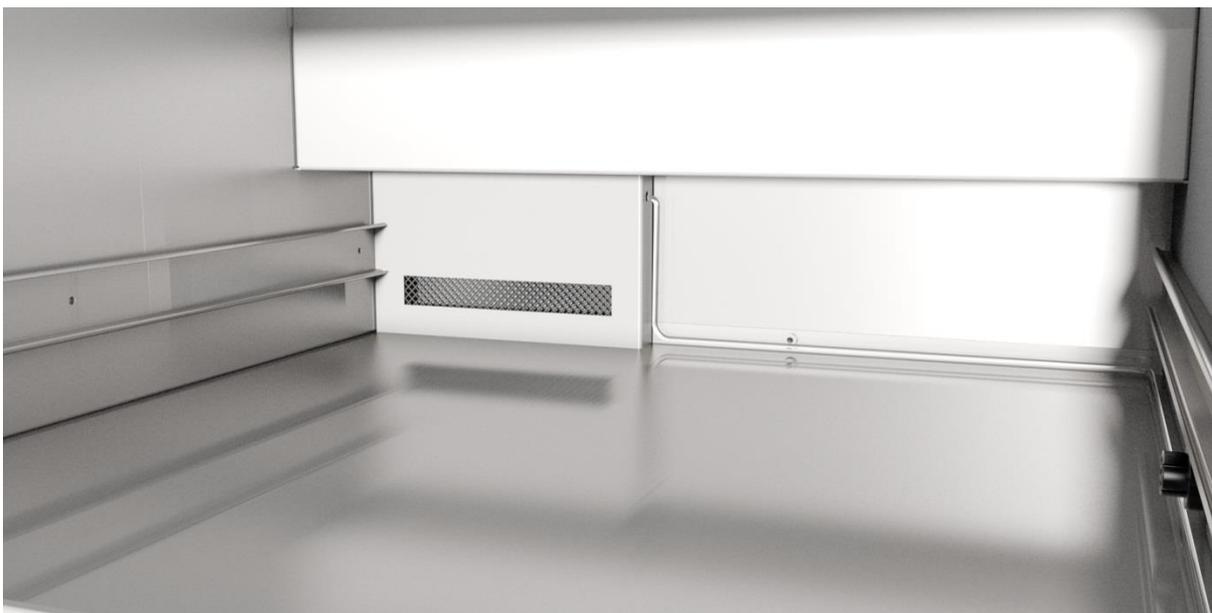
Place the evaporation block in the stainless steel tray and then slide the cover down over the block as shown below.



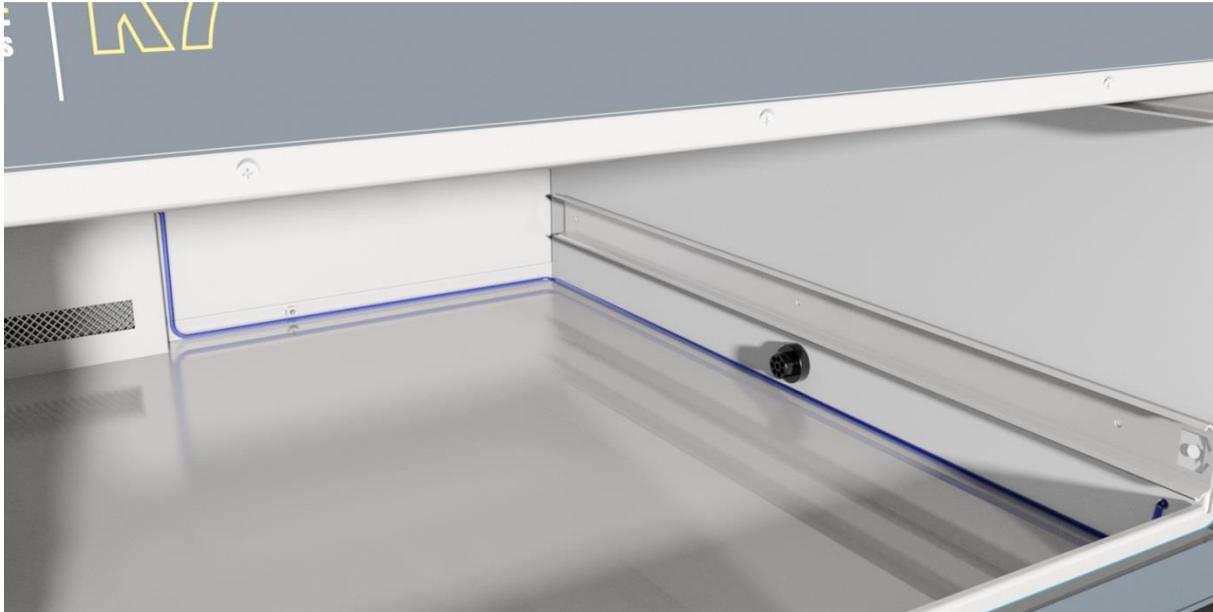
Release the drawer latches and fully open the drawer. The water tube in the egg chamber has a rigid pipe at its end. Thread this through the grommet in the evaporation block holder so that the tip of the pipe is embedded in the top of the middle of the evaporation block.



Hold the evaporation block holder assembly upright and slide it to the far back of the egg chamber, then across as far as it will go to the left. There is a row of air ventilation holes on the underside of the chassis that draw air from the egg chamber into the evaporation block and up into the heater chamber.

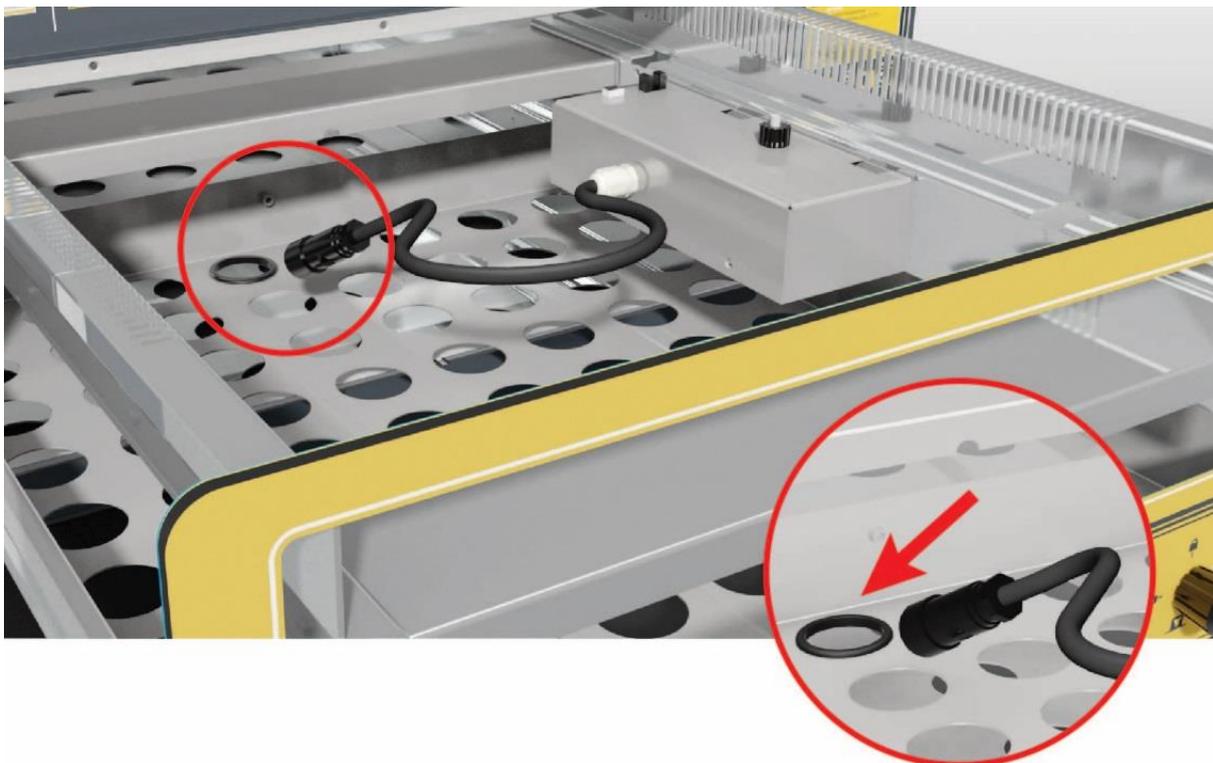


Lay the water tube across the back of the floor of the egg chamber and then down the right hand wall so that it does not interfere with movement of the turn system connector cable.

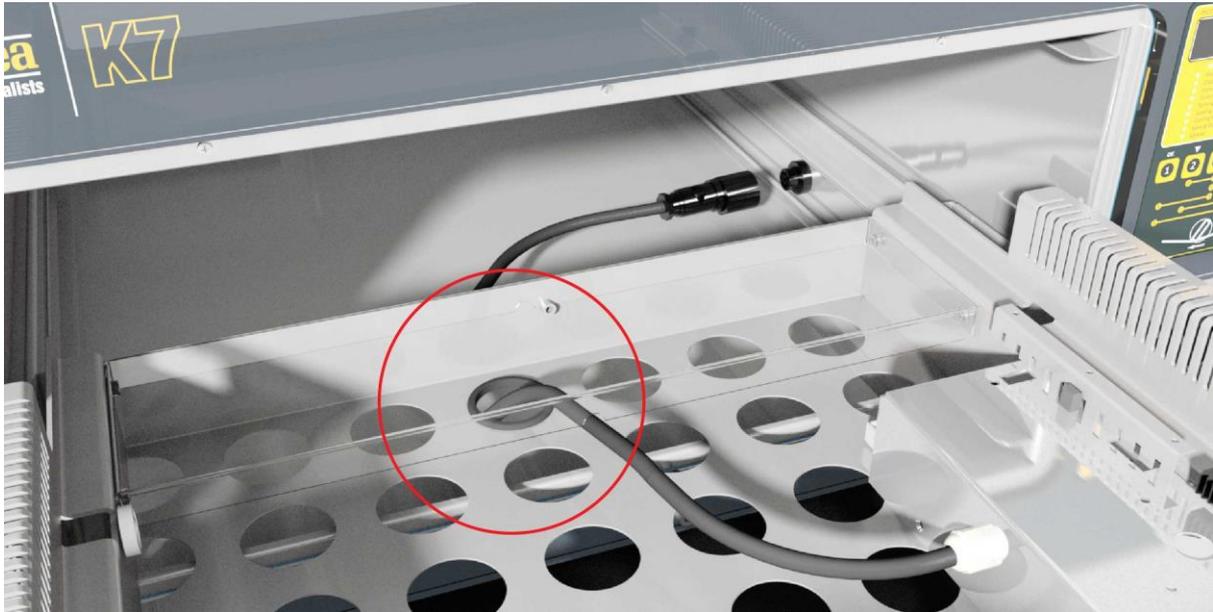


### 2.3 Egg Turning System

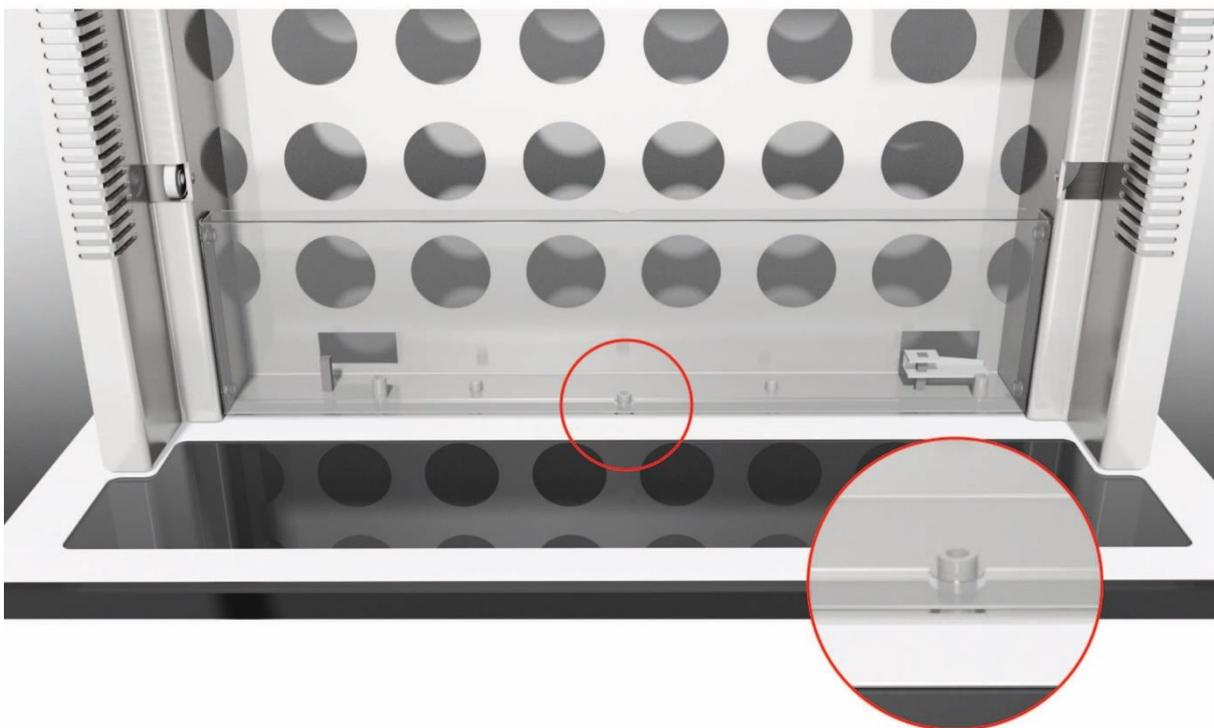
Release the drawer latches and fully open the drawer. Rest the turn system chassis in the drawer in a way that allows the turn system connector cable to be passed through the grommet in the base of the drawer.



Gently pull the cable through into a loop ready to plug into the incubator socket.



Lower the turn system chassis down into the drawer so that it locates centrally over the centre guide pegs. Correct location is important, the assembly will rock from side to side to show if it has not been fitted correctly and needs to be repositioned.



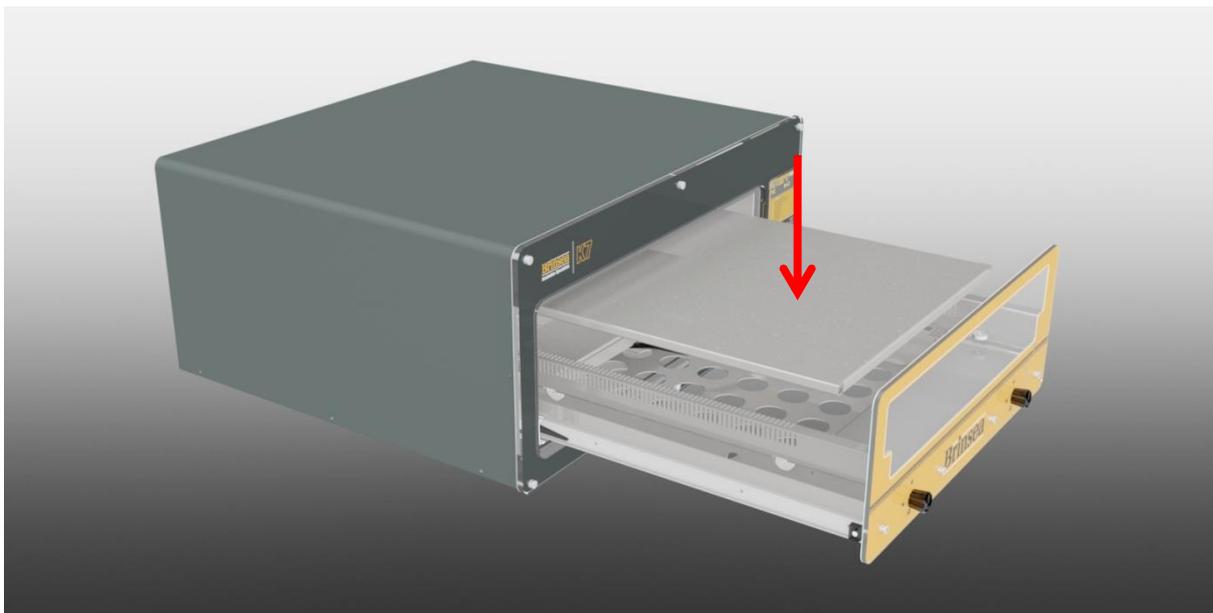


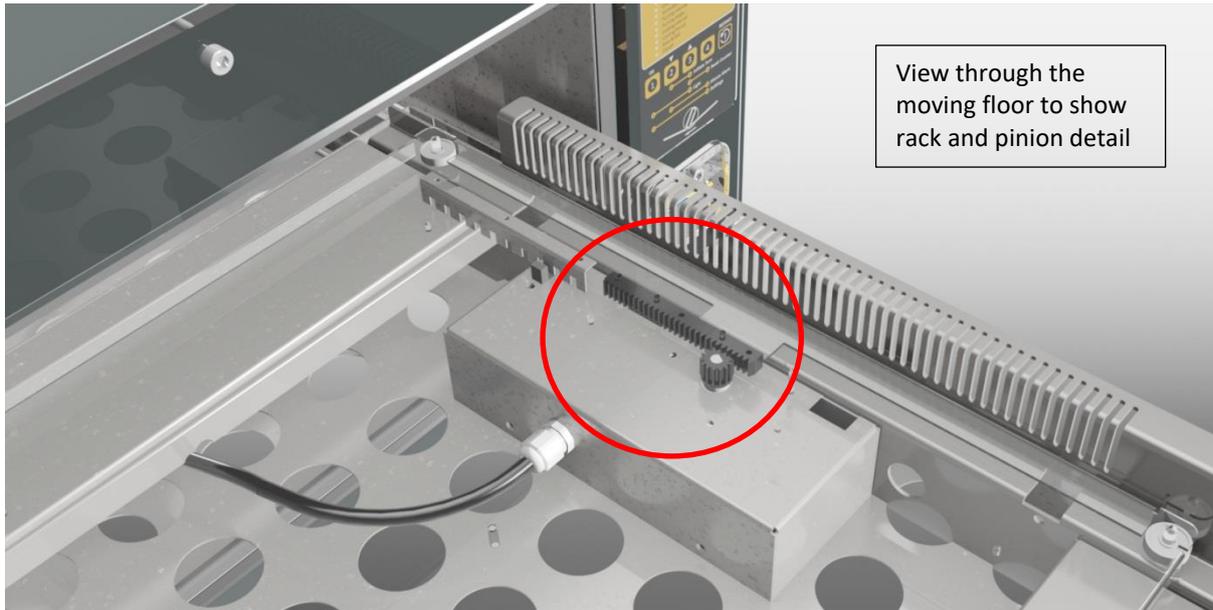
Once the turn system chassis is correctly located connect the plug to the socket in the side of the incubation chamber. The plug pushes in and then the lock ring screws down over it to seal the connector.



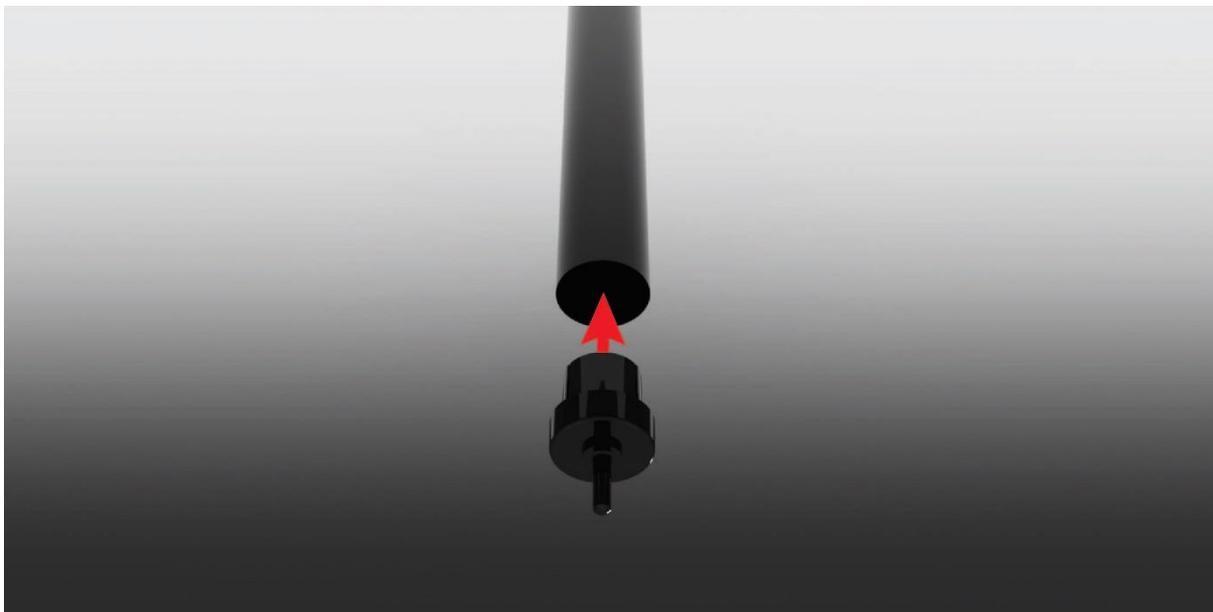


Gently lower the turn system floor onto the chassis. The toothed rack must fit over the side of the motor pinion, the floor will align itself once lowered into place.





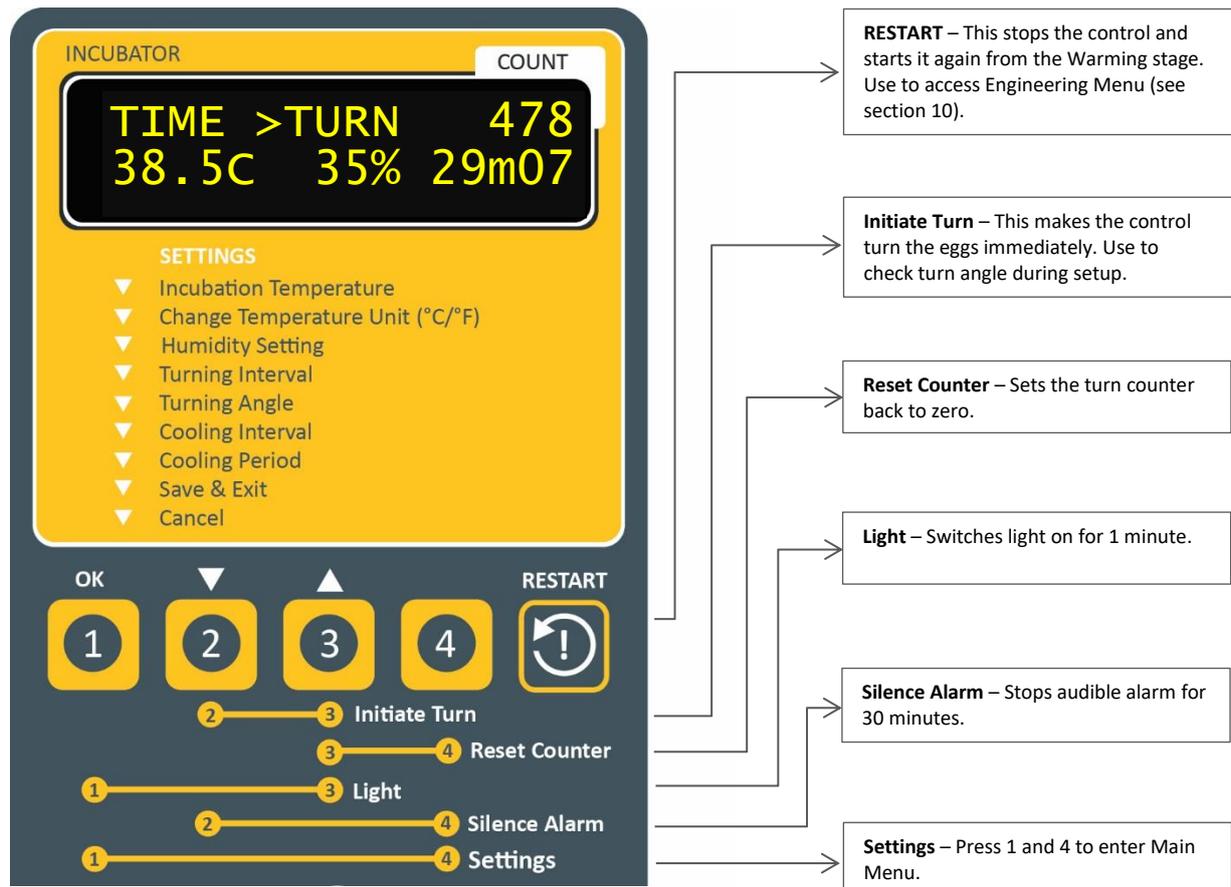
Assemble the egg rollers by pressing the end caps into the tubes.



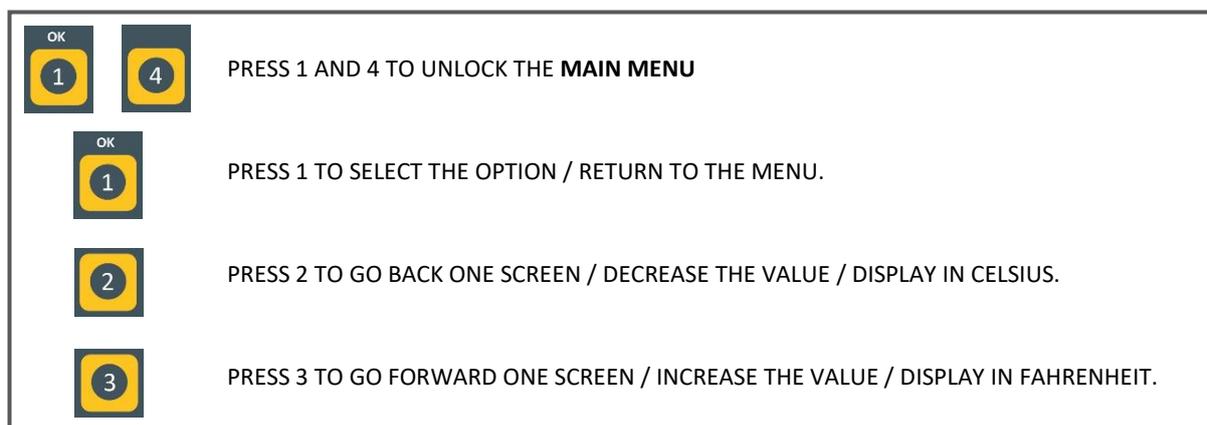
### 3 Incubator Digital Control System

The digital control system allows simple adjustment of key operating parameters. Read all parts of this manual so that you are familiar with the entire control system before attempting to set up the incubator for the first time.

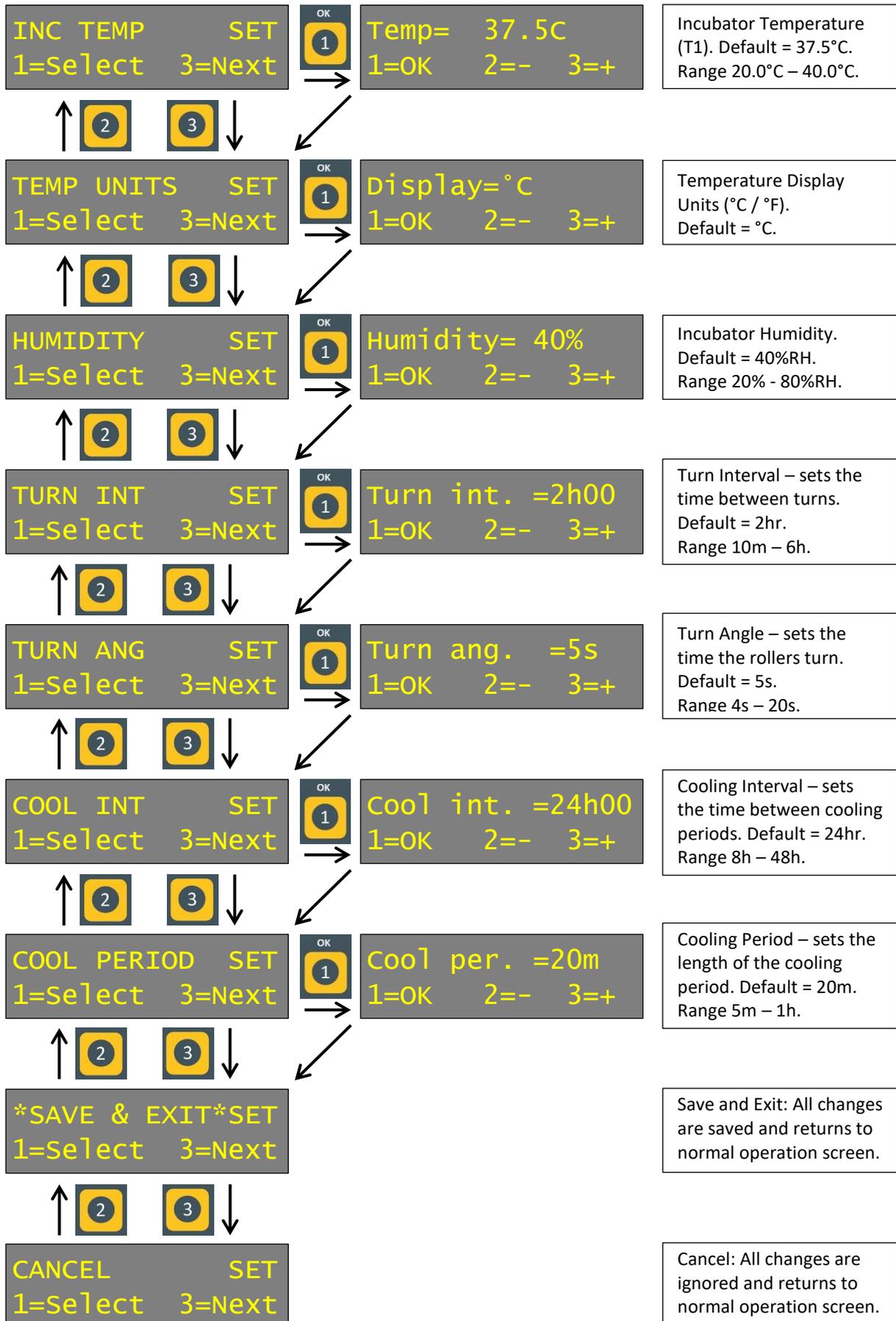
Certain operations may be selected directly from the keypad, these are listed on the keypad for reference:



The keypad is also used to access the menu systems. The control uses the **Main Menu** for frequently used settings:



### Main Menu



### 3.1 Incubation settings

Individual incubations settings are discussed in detail in section 6 of this manual.

### 3.2 Room temperature alarm

The Brinsea K7 control system monitors the ambient conditions and warns if the room temperature is becoming (or has been) too high or low for optimum temperature control. Once the high or low room temperature has been investigated and rectified the RM indicator may be cleared from the display by pressing and holding the OK button.

TIME >TURN 23  
37.5C -RM 15m34

The -RM on this display shows the room temperature is, or has been, too low.

TIME >TURN 23  
37.5C +RM 15m34

The +RM on this display shows the room temperature is, or has been, too high.

### 3.3 Incubation temperature alarm

The incubation temperature is monitored and if it exceeds set limits an alarm sounds and a warning is displayed showing actual temperature and set temperature. The limits may be adjusted, see section 10 for details. Check for ambient conditions that may have caused the incubation temperature to exceed normal limits.

LOW TEMP ALM  
31.5C 37.5C

The incubation temperature is too low.

HIGH TEMP ALM  
40.5C 37.5C

The incubation temperature is too high.

### 3.4 Turn system fault alarm

The egg turning system includes optical feedback of the movement of the stainless steel moving floor. If movement isn't detected within 2 seconds of starting the motor the control system reverses the motor in an attempt to clear a blockage. If the motor still fails to drive the moving floor an alarm sounds and the display shows a warning message.

Note that when the alarm system is triggered the turn system will still remain active to prevent loss of eggs in a false alarm situation such as the optical sensor being covered by dust.



TURN FAULT ALM  
37.5C 12m48

The turn system fault alarm has been triggered by one or more failed attempts to sense movement of the turning mechanism.

### 3.5 Temperature sensor failure alarm

The temperature control system uses a system with three independent temperature sensors. In the unlikely event that one sensor fails temperature control is maintained correctly using the other two sensors. A warning is displayed to show one sensor is outside the expected normal tolerance range.



TEMP SENSOR FAIL  
37.5C 12m48

### 3.6 Control system health monitor

The incubator control system is independently monitored for system health. If the control is interrupted by, for instance, a power line disturbance this will be detected by the monitor and the system automatically reset to allow the control to immediately recover. This system may be tested by pressing the RESTART button on the keypad which simulates a control interruption.

### 3.7 Display Units

The temperatures in the K7 thermometer system may be displayed in degrees Celsius or degrees Fahrenheit. This feature may be accessed in the **Main Menu** (see above).

## 4 Storage of Eggs

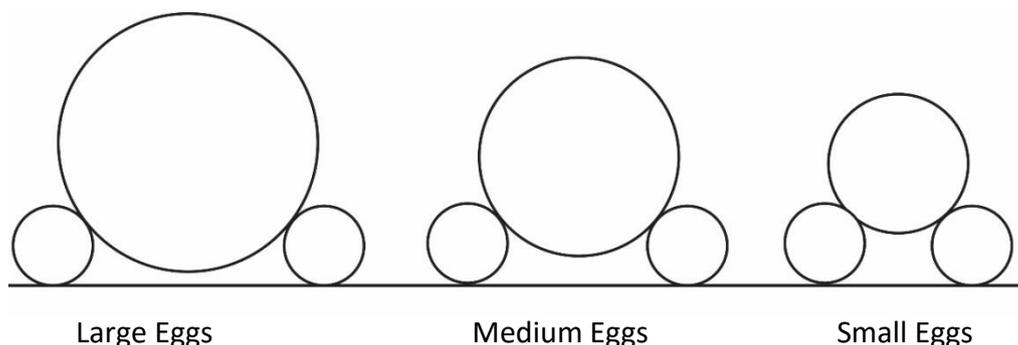
Always store eggs in cool, damp conditions. Most species may be safely stored for up to 14 days before serious reductions in hatch rates are likely. Daily turning of stored eggs also helps maintain hatchability.

Discard cracked, misshapen and heavily soiled eggs (if possible). Wash eggs using a 100:1 solution of Brinsea Incubation Disinfectant. Follow the instructions supplied. It is essential to wash eggs in solution that is significantly warmer than the egg. Bear in mind that all solutions will remove the outer cuticle from the egg as well as the dirt and care must be taken to avoid re-contaminating the eggs during later inspection etc.

## 5 Setting Eggs

Your Brinsea K7 is supplied with rollers which must be fitted with at least 2 'O-rings' (one at each end) to provide reliable drive from the moving floor to the rollers. Place the two O-rings at the ends of the roller tube on the aluminium tube itself, not the end caps.

Slide the tips of the rollers into the slots provided in the turn chassis. Ensure the tips are spaced equally from the front of the chassis so that they run parallel with each other. The distance between the rollers must be optimised for the size of the eggs.



### IMPORTANT

During incubation all eggs should rest with their pointed end lower than the round end, the greater the angle the lower the risk of embryo mal-positioning. Check by regular observation that this is the case.

Rollers should be positioned as far apart as practicable for any particular sized egg, provided there is no danger of an egg falling through or getting jammed. Eggs supported like this are more likely to settle with the point slightly downwards. The angle tends to increase as the air cell dries out, as it does in Nature.

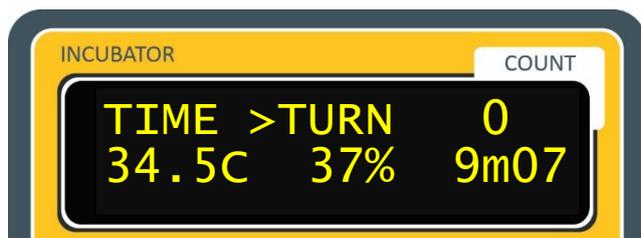
Use the small O-rings provided to divide eggs. By placing small O-rings on the tubing, this will stop eggs from gathering at one end of the tubing during turning.

## 6 Incubation Settings

Once plugged in, power-up the incubator by switching on the mains supply.

Notice the digital display reading 'warming...'. No operations can take place until the incubator has warmed up which will take about 20 minutes.

Once the warming period is finished, a screen similar to the following appears:-



The Brinsea K7 is now in a working incubation mode and can be set-up for your personal preferences and those most suited to your species of eggs. To set-up your incubator, push buttons 1 and 4 on the control panel to enter settings. The **Main Menu** can now be accessed, refer to the menu list on page 13 to help navigate the screens.

### 6.1 Temperature

Stable and correct temperature is essential for good results. Allow the incubator to stabilise for at least an hour after adjusting the temperature. Adjust temperature with care – small differences have large effects on hatching performance.

Your Brinsea K7 is fitted with a high quality, individually calibrated digital thermometer system that controls the air temperature. A calibrated Brinsea “Spot-Check” digital thermometer is also supplied to provide a convenient calibration reference (see section on Calibration). Be cautious of the accuracy of other thermometers used and have them calibrated if necessary.

Note: Your incubator may not be set to the correct temperature for your eggs. The following procedure must be followed before setting eggs. These figures should be taken as a guide only.

**The incubator temperature recommendations below are for guidance and based on current knowledge. These temperatures may need to be refined to optimise results.**

	Rec'd temperatures:	Typical incubation period:
Hens	37.5°C 99.5°F	21 days
Pheasant	37.7°C 99.8°F	23-27 days
Quail	37.7°C 99.8°F	16-23 days
Ducks	37.5°C 99.5°F	28 days
Geese	37.5°C 99.5°F	28-32 days
Falcons	37.2°C 99.0°F	31-33 days
Parrots:		
Amazons	37.2°C 99.0°F	24-29 days
Macaws	37.2°C 99.0°F	28-30 days
Love birds	37.2°C 99.0°F	22-24 days
African Grey	37.2°C 99.0°F	26-28 days
Sulphur Cockatoo	37.2°C 99.0°F	29-31 days
Eclectus	37.2°C 99.0°F	28 days
Rhea	36.0°C 96.8°F	35-40 days
Emu	36.0°C 96.8°F	49-52 days

Developing embryos are fairly tolerant of short term temperature drops and the user need not be concerned about cooling that occurs when inspecting eggs. Temperatures above ideal can quickly have a serious detrimental effect on hatch rates and must be avoided.

The Brinsea K7 is fitted with a temperature alarm system, which gives audible and visual warning of unexpected high or low temperature readings. The screen displays the current temperature reading, as well as the 'correct' target temperature set by the user. To adjust the high and low temperature alarm settings, see section 10 of this manual.

The display of temperature in all aspects of the control system may be switched between degrees Celsius and degrees Fahrenheit. This setting is provided in the **Main Menu** (see page 13).

## 6.2 Egg Turning

The Brinsea K7 has a robust, flexible egg turning system designed to allow accurate control of egg turning and easy cleaning and disinfection of parts.

The turning Angle is controlled by selecting the time that the turning motor runs for. The angle of turn will also be a function of the diameter of the eggs. Larger eggs will need a longer duration of turn to achieve a given angle of turn than smaller eggs. Use the guide to help you determine the correct duration of turn for the desired turn angle. PLEASE NOTE these are approximate figures and it is recommended you check the setting before incubation.

The settings for egg turning are provided in the **Main Menu** (see page 13). Note that the Turning Interval setting may be reduced to 0 (zero) to switch the turning system off.

The moving floor system has optical feedback that is linked to alarm software. In the unlikely event that the turning mechanism is jammed or fails to move the motor is automatically reversed. If this does not clear the error the alarm sounds and a warning is displayed.

### Recommended Turning Durations / Setup:-

Species	90°	120°	150°	180°
Partridge	-	4	5	6
Pheasant	4	5	7	8
Hen	6	7	9	11
Duck	7	9	11	13
Turkey	7	10	12	14
Goose	10	13	15	-
Emu/Rhea	13	15	-	-
Harris Hawk	6	8	10	11
Saker Falcon	6	8	10	11

The turning system has a digital counter that increments at the start of each turn sequence. When the counter reaches 999 it returns to 0. The counter may be reset at any time by pressing buttons 3 and 4 on the keypad.

### 6.3 Periodic Cooling

Periodic cooling can be performed to simulate the bird leaving the nest. Typically this would be set for one or two cooling periods each day of 15 to 25 minutes duration. During the cooling period the heater is switched off. The cooling function settings are located in the **Main Menu** (by default cooling occurs every 24 hours for a period of 25 minutes). Note that the Cooling Interval setting may be reduced to 0 (zero) to switch periodic cooling off. The main menu is disabled while cooling is currently active, to stop cooling press the RESTART button.

### 6.4 Humidity

The K7 incorporates Brinsea's humidity control system which monitors the humidity level in the egg chamber, displays this level on the screen (in %RH) and pumps water onto evaporating media to control the humidity level to the level set by the user. See section 2.2 on how to assemble and service the humidity control system components.

The water pump will stop working during a cooling period to prevent excessive water addition.

Under normal operating conditions the current humidity level is shown continuously on the display. The setting for humidity level is provided in the **Main Menu** (see page 13).

Suggested humidity levels are given below:

#### During incubation-

Waterfowl	45-55% RH
Poultry	40-50% RH
Parrots	35-45% RH
Most Birds of Prey	40-45% RH
(Thin shelled - Merlins, Kestrels, Owls)	50% RH

#### Hatching-

All species	65% RH
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For more specific information on particular species' requirements check the relevant literature.

#### **Determining correct humidity setting – monitoring egg weight loss:-**

Eggs lose moisture through their shells and the rate of evaporation depends on the humidity levels around the eggs. The range in recommended humidity level for any given species is

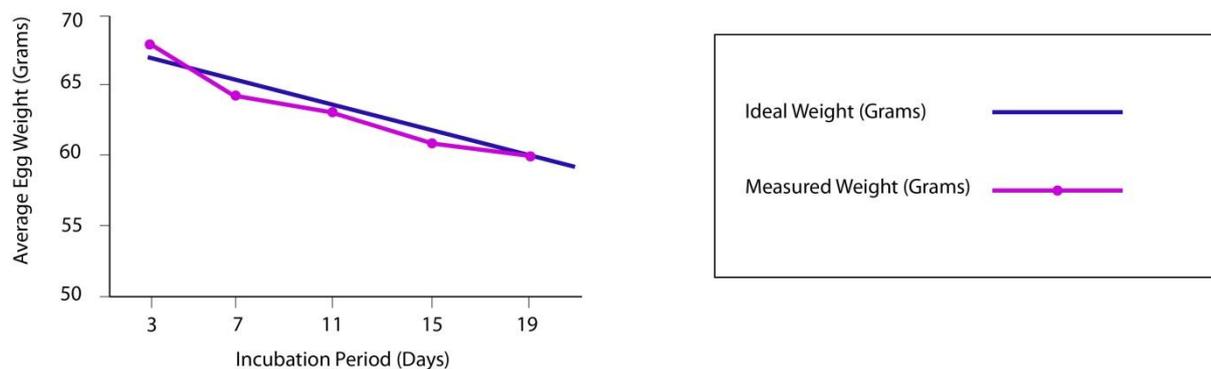
because of individual differences in shell porosity between one egg and another – even if laid by the same bird.

There is a technique whereby water loss can be monitored during incubation, allowing the humidity level to be adjusted to keep water loss exactly right.

The need for eggs to lose a fixed amount of water during incubation corresponds to a loss in weight of around 13-18% depending on species. By weighing eggs periodically during incubation it is possible to monitor and, if necessary, correct humidity levels to achieve the correct weight loss.

Weigh the eggs on the day they are set in the incubator, take the average weight and plot this on a graph (see example over page). The ideal weight loss line can be plotted by joining the point representing initial average weight with the ideal hatch weight (13-18% less depending on species) with the x-axis representing the incubation period (in days).

By measuring actual average weights every few days the actual weight loss can be plotted and compared to the ideal weight loss line and corrections can be made. For example if the actual weight loss was greater than ideal (see graph below) then the air has been too dry and humidity levels need to be increased to compensate.



Typical ideal weight losses for species groups:

Birds of Prey	17%
Poultry	13%
Parrots	16%
Waterfowl	14%

If difficulty is experienced maintaining very high or very low humidity levels an adjustable vent is provided on the rear of the machine to allow fine adjustment of humidity. This is nominally set half open. Open fully to help reduce humidity or close to help increase humidity.

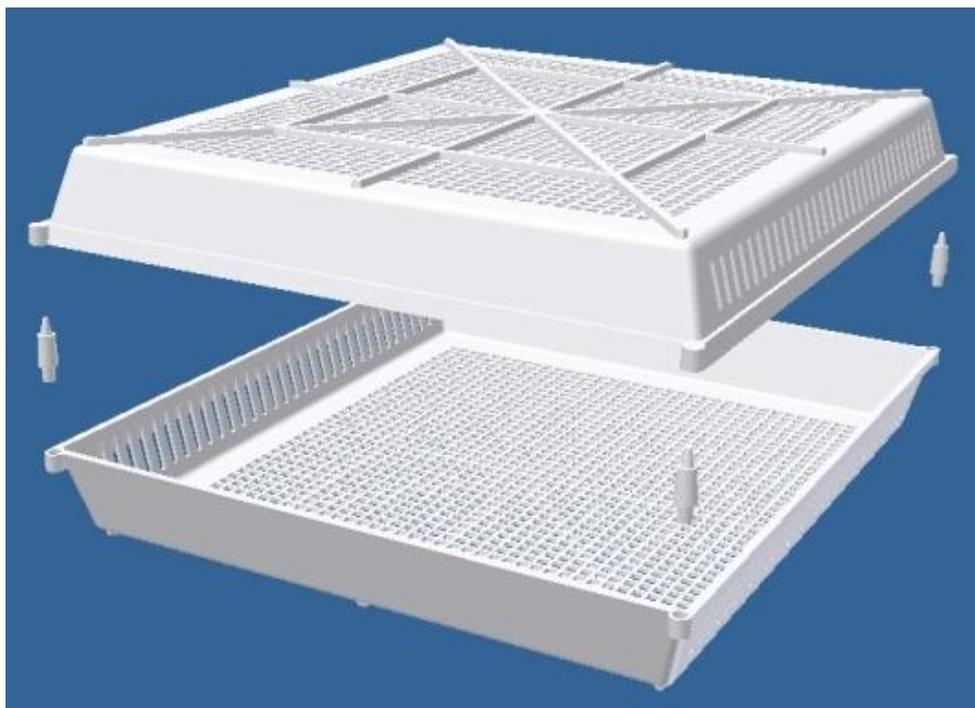
Under realistic operating conditions no water should collect under the paper evaporating block. If it has, try reducing the vent setting to reduce the effect of fresh air diluting the

humidity in the incubator. Avoid humidity settings over 65%RH. This is unnecessary and may lead to condensation forming on hidden surfaces.

## 7 Hatching

The Brinsea K7 can be used for hatching eggs. However, running a separate hatcher (multi-stage incubation) has advantages. In multistage incubation the eggs are set in the main incubator ('setter') and removed around 2 days before they are due to hatch and placed in the 'Hatcher' (which is set up for the purpose with high humidity and no egg turning). The benefits of multistage incubation are that the mess of hatching is kept separate from the incubator – reducing the risk of bacterial contamination and allows eggs to hatch at different dates without compromising the conditions for eggs earlier in incubation.

When hatching in the K7 switch the turning system off in the **Main Menu** by reducing the turning angle to 0 (zero). Remove the complete turning system chassis (refer to section 2.3) to avoid hatching debris contamination. A hatching tray is provided to safely contain the chicks as they hatch, the image below shows how this is assembled. Place the hatching tray in the centre of the base of the drawer.



After each hatch it is essential that the egg chamber surfaces are all carefully cleaned and disinfected and the incubator is left running for at least 24 hours to thoroughly dry all internal areas. Failure to do so may cause corrosion of sensitive components and subsequent failure. Your warranty does not cover repair or replacement parts that have been damaged by failure to follow these instructions.

## 8 Routine Cleaning

In order to get the most out of the Brinsea K7 incubator throughout its life, it is essential that care is taken in routine cleaning and maintenance. Parts can be removed for cleaning, or replacement, which is outlined and illustrated in this section.

**IMPORTANT:**

**DISCONNECT THE INCUBATOR FROM THE MAINS POWER SUPPLY DURING CLEANING.**

**ENSURE THAT ALL ELECTRICAL PARTS ARE KEPT DRY.**

**NEVER WASH PARTS IN LIQUIDS OVER 50°C (120°F). DO NOT USE A DISHWASHER TO CLEAN COMPONENTS.**

Following each hatch in the K7 remove all debris from the floor and hatching trays. Soak parts in a 100:1 solution of Brinsea Incubation Disinfectant. Wipe all internal surfaces with a soft cloth soaked in 100:1 Brinsea Incubation Disinfectant solution.

The egg turning system chassis may be unplugged from its electrical connector and removed for cleaning. A cover cap is supplied to fit over the connector in the incubator to make it liquid tight for cleaning the inside of the egg chamber.

Always clean the incubator before storage and ensure that the unit is totally dry inside and out. The incubator should be left running for at least 24 hours to thoroughly dry all internal areas. Failure to do so may cause corrosion of sensitive components and subsequent failure. Your warranty does not cover repair or replacement parts that have been damaged by failure to follow these instructions.

Re-order Brinsea Incubation Disinfectant by phoning 0845 226 0120 and quoting part number 14.35 (100ml) or 14.36 (600ml).

## 9 Troubleshooting

### 9.1 Poor Hatching Results

Poor hatching results are frustrating and can be caused by a large number of factors. The most common are given below. Brinsea Products will not be held responsible for loss of eggs or chicks under any circumstances. However we will try to advise on incubation technique to improve results where necessary.

#### Gather Information

Gather as much information from the hatching results as possible to enable the problem to be analysed in detail. Record dates that eggs are set, incubator settings, dates of hatches, weight losses and the number and condition of hatchlings. Candle or break open un-hatched eggs to estimate the extent of embryo development. Brinsea OvaView candling lamps are available from your dealer.

#### Embryo Development Guide

The diagrams illustrate various stages and abnormalities of egg development:

- 1:** Clear egg with a distinct embryo.
- 2:** Egg with a network of red blood vessels.
- 3:** Egg with a dark spot, indicating early death.
- 4:** Egg with a red blood 'ring' around the embryo, indicating early death.
- 5:** Egg with a dark, ill-defined outline, indicating late death.
- 6:** Egg with a live embryo and a bill visible in the air sack.
- 7:** Egg showing the normal development of the air pocket over time, with arrows indicating the air pocket's position at 1, 10, and 20 days.

1) Clear when candled - probably infertile (or very early death) when candled at 8 days
2) Fertile with red blood vessels - after 8 days
3) Red or black staining - early death when candled at 8 days
4) Embryo with red blood 'ring' - early death when candled at 8 days
5) Dark outline with ill-defined detail - late death (10-16 days)
6) Live embryo with bill in air sack - due to hatch in 24-48 hours
7) Normal development of the air pocket according to number of days

<b>Observation</b>	<b>Likely Cause(s)</b>	<b>Solution(s)</b>
No chicks hatch	Infertility, infection, drastically incorrect incubation settings, parent ill health.	Check egg viability – are similar eggs hatching naturally. Disinfect the incubator. Check incubator settings and procedures – particularly temperature.
Chicks hatch earlier than expected, deformities.	Incubation temperature too high	Reduce incubation temperature slightly 0.5°C (1°F)
Chicks hatch later than expected	Incubation temperature too low	Raise incubation temperature slightly 0.5°C (1°F)
Hatch dates widely spread	Different rates of development due to different storage times, incubation temperature variation.	Limit egg storage times. Check for incubation temperature variation – sunlight, large room variation etc.
Late stage 'dead in shell'	Incorrect humidity, probably too high.	Try reducing average humidity levels (but see section 7 above)
Generally poor results	Incorrect incubation settings, poor parent bird health, inadequate egg turning,	Improve parent bird health, check all incubation settings, analyse egg weight loss to confirm humidity correct, check turning working correctly.

For further information refer to the Brinsea Incubation Handbook available on line at [www.brinsea.co.uk](http://www.brinsea.co.uk)

## 10 Technical and Non-Routine Servicing

The incubator control system features Engineering Mode functions to allow adjustment of temperature calibration and other system parameters that would not normally need to be changed on a regular basis.

Note: remove eggs from the incubator while making adjustments or checks and ensure the incubator behaves as expected before returning them.

### ***10.1 Incubator control factory values reset***

The default settings for all aspects of the control system may be reset as follows:

Hold button 1 (OK) of incubator control and momentarily press the RESTART button.

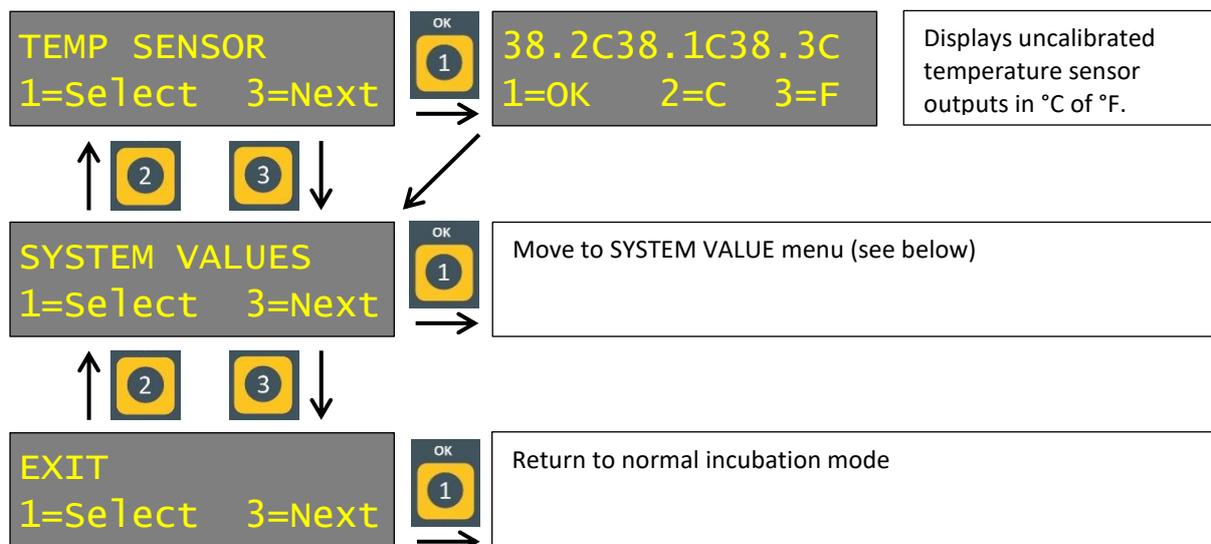
The factory defaults will be reset. **Note that the temperature calibration will be lost and must be adjusted as necessary. Adjust the control temperature display to match the calibrated "spot-check" thermometer supplied with the incubator.**

### ***10.2 Engineering (ENG) Mode and System Values for Incubator Control: -***

Engineering mode can be accessed to view temperature sensor readings and to adjust various system parameters including the temperature display calibration. To access the engineering mode menu hold buttons 2 and 3 and briefly press the RESTART button. Release buttons 2 and 3. The display will show "Initialising". Press button 1 (OK) to enter engineering mode.

Note: Pressing the RESTART button at any point will ignore any changes made and return to incubation mode.

## Engineering Menu (Incubator Control)



## System Values (Incubator Control)

*Please Note: These are the recommended default values and it is not advised they are changed unless you are at an expert level in incubation practice and fully understand the relevance of each setting. Please call our Brinsea technical support team on 0845 226 0120 for help and advice required on this section.*

Push Button 1 to select System Values from the Engineering Menu.

Notice VAL appears in the top right of the display when selected. Use buttons 2 and 3 to scroll between values, and button 1 to select a value. The following settings are provided, the defaults are in brackets:-

CALIB TEMP	Use to calibrate the thermometer system up or down (see section 14.5). (0.0)
TURN DELAY	Increase or decrease the delay from the start of the turn routine to when the motor runs. (2.0s)
OVER TEMP	Increase or decrease the high temperature alarm. This is the difference in degrees Celsius between the set temperature and the alarm temperature. (2.0°C)
UNDER TEMP	Increase or decrease the high temperature alarm. This is the difference in degrees Celsius between the set temperature and the alarm temperature. (5.0°C)
BGH	Increase or decrease the heater gain constant. Low mains voltage in conjunction with low room temperature (or vice-versa) may cause

control temperature oscillations. This setting adjusts the heating power at set point. (60)

LIGHT ON TIME      Increase or decrease the time the light stays on. (2m)

In order to save these settings, ensure you select SAVE & EXIT. If you are unhappy about any changes you have made, select ABORT CHANGES.

### **10.3 Temperature Calibration (Incubator Control)**

#### **CAUTION**

Temperature calibration should not be confused with setting the incubation temperature (section 6.1). The control system thermometer is adjustable to allow its reading to be precisely matched to a reference thermometer.

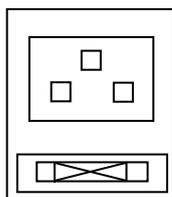
*Do not attempt to calibrate temperature unless the accuracy is suspected to be significantly compromised. Allow at least 24 hours for the equipment to fully warm and stabilise before making an adjustment. Small fluctuations over time are a result of drift in the electronic circuits and variations in room temperature. Do not be tempted to adjust the calibration very frequently; it only serves to exaggerate fluctuations. Please call our Brinsea technical support team on 0845 226 0120 for help and advice required on this section.*

**Always use a high quality thermometer calibrated to a traceable standard. Allow a minimum 30 minutes to stabilise after each adjustment.**

A tube is located behind a rubber bung on the right hand side of the incubator cabinet. This passes into the centre of the heater chamber adjacent to the temperature sensors. A calibrated Brinsea Spot-Check thermometer is provided with a holder made to the correct length for insertion into the tube. Any alternative thermometer used for this purpose should be a similar length when inserted into the incubator.

Once the machine and thermometer have stabilised enter Engineering Mode as explained in section 10.2. Scroll to the 'system values' section, and select. Then scroll to CALIB TEMP and adjust by a minus figure if the display is reading high, or a positive figure if the display is reading low. Note that the calibration figure is an offset in degrees Celsius, it is not the actual temperature. Select "Save and Exit" and allow 30 minutes to stabilise. Adjust further if required by small increments.

## 10.4 Rear Panel Connections



a.c. inlet



external alarm socket

**a.c. inlet**      115 volt or 230 volt mains input as ordered. The inlet has a built-in fuse-holder for a 2 Amp “slow-blow” type fuse plus a compartment for a spare. Further spares may be ordered from Brinsea Products.

**CAUTION** - For continued protection against fire the fuse should only be replaced with one of similar rating.

**Alarm**      The Incubator Control System has a set of relay contacts that can be used to trigger an external alarm system. The socket receives a 3.5mm jack plug: Body = common, Sleeve = N/O when alarm is active, Tip = N/C when alarm is active.

## 11 Specification

### Nominal Egg Capacity:

Quail	110
Partridge	81
Pheasant	64
Hen	49
Duck	20
Turkey	20
Emu/Rhea	8

**Dimensions:** 320mm x 660mm x 590mm h w d

**Weight:** 35Kg

**Max Power Consumption:** 120 Watts

**Electrical Supply:** 230v 50Hz or 110v 60Hz (as ordered)



Used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product to a designated collection point where it will be accepted free of charge.

Please contact your local authority for further details of your nearest designated collection point.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

### Consumable Parts

PN	Description
14.35	Brinsea Disinfectant (100 ml)
14.36	Brinsea Disinfectant (600 ml)

Brinsea Products Ltd, 32-33 Buckingham Road, Weston Industrial Estate,  
Weston-super-Mare, N. Somerset, BS24 9BG  
Tel: +44 (0) 845 226 0120 Fax: +44 (0) 1934 708177  
e-mail: [sales@brinsea.co.uk](mailto:sales@brinsea.co.uk), website: [www.Brinsea.co.uk](http://www.Brinsea.co.uk)

## **Declaration of Conformity**

**We:** BRINSEA PRODUCTS LTD.  
32-33 Buckingham Road  
Weston Industrial Estate  
Weston-super-Mare  
North Somerset  
BS24 9BG

Declare under our sole responsibility the products:

**Egg Incubator:**

**K7 (Serial numbers Q4500x/xxxxxxxxxx)**

to which this declaration relates are in conformity with the following EU Directives:

**2006/42/EC Machinery Directive**  
**2014/30/EU Electromagnetic Compatibility Directive**  
**2011/65/EU Restriction on the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations**

The relevant sections of the following Standards have been used:

**EN 60335-1:2012+A11:2014**  
**EN 60335-2-71:2003+A1:2007**  
**EN 55014-1:2006+A2:2011**  
**EN 55014-2:1997+A2:2008**  
**EN 50581:2012**

The technical documentation for the products is available from the above address.

**Authorised Representative:** Ian Pearce, Managing Director

**Signature:**

**Date of Issue:** 21/01/2016

**Place of Issue:** 32-33 Buckingham Road, Weston Industrial Estate, Weston-super-Mare, North Somerset, BS24 9BG, United Kingdom.