

P&I is a professional manufacture of Poultry Incubator.
It is designed for user's easy and convenient use.



www.pandi.cc

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P&I is the Best Design with High Quality, Value, and Performance!

Professional Poultry Incubator with P&I

P&I

USER'S MANUAL

DIGITAL EGG INCUBATOR

(Standard Version)



P&I Technology CO.,LTD.(China)

1、 Introduction	2
(1)、 PI24/PI12 Introduction	2
(2)、 Safety Precautions	3
(3)、 Identification of Parts and Composition	3
2、 Before use	4
(1)、 What is an incubation room?/Preparation for Incubation	4
3、 Function Settings	5
(1)、 Incubation Start&Termination/Incubator Initialization (Factory/Setting)	5
4、 Incubation	7
(1)、 Humidity&Air Maintenance during Incubation/Maintenance after Hatching	7
(2)、 Dew Condensation	7
5、 Product Information	8
(1)、 Frequently Asked Questions(FAQ)	8
(2)、 Troubleshooting&Servicing	9
(3)、 Specification	10

Introduction
Before use
Function Settings
Incubation
Product Information

Specification

NAME: DIGITAL INCUBATOR PI12/PI24

● **Specification**

Power	AC 100V ~ 120V, 60HZ/60W AC 220V ~ 240V, 50HZ/60W	
Temp.limits	20.0°C ~ 42.0°C	
Working Temperature	Ideal: 20°C ~ 25°C	Min: 15°C/Max.30°C
Humidity Limits	20% ~ 70% (It can be changed according to the conditions)	
Power Consumption	< 60W	
Egg-Turning Interval	Various according to the tray	
Net Weight	PI12	2kg
	PI24	3kg
Gross Weight	PI12	2.5kg
	PI24	3.5kg
Size	PI12	38cm × 27cm × 19cm
	PI24	54cm × 35cm × 20cm
Fuse Standard	25V 2.0A/Φ5 × 20mm	

● Troubleshooting

CIRCUMSTANCE	ITEMS TO BE CONFIRMED	SOLUTIONS
No signs of power to the incubator.	<ul style="list-style-type: none"> ▲ Check electric cord is properly connected. ▲ Check if there is a power outage. ▲ Check whether the plug is damaged. 	<ul style="list-style-type: none"> ▲ Connect the cord again. ▲ Check the main socket with any other electric appliances. ▲ Try to insert to another outlet.
Temperature will not go high enough.	<ul style="list-style-type: none"> ▲ Check your setting temperature. ▲ Check the air circulation FAN is working. ▲ Initialize the incubator. 	<ul style="list-style-type: none"> ▲ Set the temperature as required. ▲ Take the power plug out of the outlet, and disassemble the main body for cleaning around the air circulation fan with brush.
Alarm sounds with HI indication (abnormal high temp)	<ul style="list-style-type: none"> ▲ Check if room temperature is too high ▲ Check if incubator is exposed to the direct rays of sun 	<ul style="list-style-type: none"> ▲ Adjust room temperature between 20°C and 25°C. ▲ Install incubator without the direct rays of sun ▲ Return incubator to factory setting
Alarm sounds with LO indication (abnormal low temp.)	<ul style="list-style-type: none"> ▲ Check if room temperature is too low ▲ Check if incubator heater(temperature controlling-system) is normally working 	<ul style="list-style-type: none"> ▲ Adjust room temperature between 20°C and 25°C. ▲ Place thermometer inside of incubator and check if setting temperature is correct ▲ Return incubator to factory setting
Humidity will not go high enough.	<ul style="list-style-type: none"> ▲ Close the view window again after checking. ▲ Initialize the incubator.[Refer to the page 9] 	<ul style="list-style-type: none"> ▲ Supply water. ▲ Set the humidity again as required.
The machine makes some noise. -It is normal that the machine emits some sounds because it uses air circulation fan for working.	<ul style="list-style-type: none"> ▲ Check if there is any hatching debris such as feather or eggs-shell in the incubator FAN. 	<ul style="list-style-type: none"> ▲ Take out the plug out of the outlet and disassemble the main body and clean around the air circulation fan with brush.
Egg-Turning fails to work.	<ul style="list-style-type: none"> ▲ Check that the Egg-turning stoppage is not activated. (Egg-turning lamp lighting) ▲ Check that there are no foreign items on the egg turning tray. ▲ Check if egg turning plate is assembled correctly. 	<ul style="list-style-type: none"> ▲ If you need to turn the eggs, you can manually re-start egg-turning. ▲ Unplug the power supply and disassemble the main body for cleaning the egg turning tray and gear. ▲ Assemble egg turning plate as the picture on page 7.
Dew foams in the incubator.	<ul style="list-style-type: none"> ▲ Check the incubator is not placed too cold circumstances. ▲ When you turn OFF incubator and then turn on. 	<ul style="list-style-type: none"> ▲ Move the incubator to where the ambient air temperature is over 20°C. ▲ Dew condensation is normal. ▲ Dry the incubator completely under well ventilated place.
Water leaks from the machine.	<ul style="list-style-type: none"> ▲ Check that you have not overfilled the incubator. ▲ Check that the incubator placed on inclined surface. ▲ Check if it is Dew condensation 	<ul style="list-style-type: none"> ▲ Do not fill water over LIMIT indication. ▲ Place incubator under a level surface.

PI12/PI24

Thanks for choosing the PI12/PI24 incubator.

The PI12/PI24 incubator is the first incubator with credibility to have a superior design and function which help in controlling optimum incubation conditions. It has two sensors, one for detecting surrounding environments and the other for internal incubator conditions.

The PI12/PI24 is designed to be easy and simple use as a customer oriented product, but please remember that the user's incubation knowledge and proper operation are very important for the best incubation result.

Therefore, be sure to read this user's manual carefully before you use this incubator.

The PI12/PI24 offers optimum incubation conditions, but users need to observe and manage all incubation conditions such as species of eggs, temperature or humidity for each incubation period, and incubation circumstances.

Features

- Temperature can be adjustable from 20–50°C (68–122)°F
- The alarm for temperature deviated
- Automatic turning egg and the turning time can be adjustable
- Temperature can be correction
- Temperature units can be adjustable (°C or °F)



Electrical hazards



Be careful the details below when you use.

Do not use a damaged power cord or loose outlet. Risk of electric shock or fire.	Do not pull the cord when taking out the power cord, and keep wet hands away from connecting plug. Risk of electric shock or fire.	Never pull the plug out of the outlet during the incubation period. Incubation will be interrupted.	Do not twist or crush electric cord. Risk of electric shock or fire.	Do not insert multiple connecting plugs in an outlet. Risk of electric overload.

Setting Cautions



Be careful the details below when you use.

Do not install in dusty or dirty environment. Risk of damage of fire within the incubator.	Do not install under the direct sunlight. Risk of fire interference with the incubation process.	Do not install in moist or humid environment. Risk of fire or electric shock.	Do not install in excessively cold or hot conditions, cigarette smoke, etc. Risk of interference with the incubation process.	Do not use any other non-standard parts except those provided. Risk of damage or hatching failure.
Do not cover the ventilating opening. Inner temperature can rise, interrupting incubation.	Install away from heat sources. Risk of damage to the incubator case and interference with the incubation process.	Ensure that the incubator is installed on a stable surface away from edges. Risk of damage to incubator and eggs and user from accidental knocks or drops.	Do not turn the incubator upside down. Water will pour out of the incubator and view window can be dropped or damaged.	Do not install where children or other people can touch with easy. Risk of knocking the incubator or accidental interference with the controls.
Do not disassemble or modify the incubator in any way. Risk of electric shock or fire.	Please ensure that no small objects get into the holes on the incubator. Risk of electric shock or fire.	If the incubator sounds strange or emits smoke contact your service center. Risk of electric shock or fire.	Clean the incubator thoroughly before storing.	If the incubator requires repair disconnect from the power supply and please contact to your service center.

Cleaning Cautions



Be sure to disconnect the electric cord from the outlet before cleaning.

Do not spray cleanser directly on the incubator surface.	Clean the incubator by a soft cloth with a neutral detergent.	Brush away dust on the plug with a dry cloth.	Do not use chemicals like wax, benzene, alcohol, thinner, aromatic, or lubricant, etc.	For special cleaning of inner part per year, contact to the service center. If you don't clean the inside of incubator for a long time, dust can cause some trouble or a fire.

Servicing

All our PI digital incubators of Pand I Technology are made by precision systems under strict quality control. But occasionally some defective products are found on the way of their distribution. If any problem occurs, then please contact Pand I service center or distributors in your country. We will do our best to solve the problems, if any, for you.

This product is designed in modular mode, so for its repair, if any, a qualified person can replace the part concerned with ease.

Frequently Asked Questions(FAQ)

Troubles	Expected Causes(Possibility)	Countermeasures
In case hatching rate is low	<ul style="list-style-type: none"> ◆ When the egg is an unfertilized egg. ◆ Getting infected by germs ◆ Wrong incubation setting ◆ Health condition of mother bird ◆ Improper egg turning 	<ul style="list-style-type: none"> ◆ Check possibility of egg surviving ◆ Disinfect the incubator ◆ Check all settings of incubator. ◆ Especially, check them focusing on the temperature. ◆ Review care of health of mother bird. ◆ Check if egg turning is normal.
When a chick hatches out earlier than expected or a deformed chick hatches out	<ul style="list-style-type: none"> ◆ Setting temperature too high ◆ Egg turning was not operating normally 	<ul style="list-style-type: none"> ◆ Lower temp. setting of the incubator about 0.5°C (1°F) ex) 37.5°C → 37.0°C ◆ Check if egg turning function is OFF
When a chick hatches out later than expected	<ul style="list-style-type: none"> ◆ Setting temperature too low 	<ul style="list-style-type: none"> ◆ Raise temp. setting of the Incubator about 0.5°C (1°F) ◆ ex) 37.0°C → 37.5°C
When hatching dates are so different from each egg (When all chicks don't hatch out at the same time but over a long period)	<ul style="list-style-type: none"> ◆ Eggs stored for different lengths of time ◆ Different incubation temperatures 	<ul style="list-style-type: none"> ◆ Set limits to egg storage time properly ◆ Check Temperature difference in the incubator. (sunlight, temp of incubation room, etc.)
When intending to hatching various eggs at the same time	<ul style="list-style-type: none"> ◆ Incubation days are different, so hatching rate falls down. 	<ul style="list-style-type: none"> ◆ Mark hatching date on eggs and move them to other incubator (brooder) just on the marked date. ◆ In case of putting in many eggs at the same time, it's convenient to prepare a spare incubator available as a brooder

Humidity & Air Maintenance During Incubation

- ▲ When hatching, humidity should be relatively high to prevent the thin membrane from drying out or hardening before hatching.
 - ▲ When hatching, it's recommended not to open the cover often. This is because if you open the cover often, humidity will be rapidly decreased and it will take a long time to regain the proper humidity.
 - ▲ If incubator temperature is higher than 37°C and room temperature is low, it may be difficult to maintain humidity of over 70%. There may be some difference of humidity about $\pm 5\%$ according to the external environment, but no problem with hatching.
 - ▲ It's very important to maintain humidity higher 1~2 days before hatching than the early and middle incubation periods.
Humidity requirements during incubation are (45~55)% for waterfowl, (40~55)% for poultry and (35~45)% for parrot, in general. One day before hatching, all kinds of birds need about 65% humidity and sometimes need higher than that. In areas of high ambient humidity, lower levels of humidity may be needed during incubation.
- ※ Air Controlling Lever: Outer fresh air can be flowed into incubator inside without affecting insulation. When eggs start hatching, open air controlling lever completely.

Maintenance after Hatching

- ▲ Because newly-born chicks just after hatching have little protection against cold, a brooding room should certainly be prepared in advance for them. In case there is no separate brooder prepared, you may let them stay in the incubator for one day or more after hatching. If you move them to a brooder or brooding box, the inner temperature should be kept at 35°C~37°C.
For the production method of a simple brooder, please refer to our website www.pandi.cc
 - ▲ As there is some difference in chick feed for each kind of bird, so it's desirable to obtain the useful information about the chicks before hatching. (For common sense information on birds, you can use the information available at our website.)
 - ▲ We recommend you to use 20W infra-red lamp for heating the brooding room inside. In case you use bulb of 20W over, temperature becomes too high, which may cause chicks die or fire. If feather of chicks gets wet, chicks' body temperature falls down, and, if then, you must immediately dry by hair dryer.
- ※ Dew Condensation
This is a naturally occurring phenomenon when there is a significant difference in temperature between inside and outside of the incubator during incubation period. If this occurs, water may form in inside bottom of the main body of the incubator (bottom part).
- ▲ Pull out the electric cord from the connecting jack and also take out the plug from the outlet.



Don't turn off the power soon after using the incubator, which may cause a break down due to moisture left inside the main controller. At this moment, it's better to firstly remove the water inside of the incubator and dry by operating it for 1 hour and turn it off or open the cover and dry it naturally for 2~3 hours and, then, re-operate it, which may lengthen the life time of incubator.

1. Insert the electric cord in the connecting jack in the back of the main body and put the mains plug into a socket. The LCD display will light up and show temperature.
2. Open the cover and fill clean water again; up to the limit line on its inside mark. (If you refill water during the incubation period, humidity goes down temporarily.)
 - △ After filling up with water, never shake or turn over the main body of the incubator, which would cause water to spill inside the body and could cause a breakdown.
 - △ During incubation period, check the water level about every three days and refill water, if necessary. (After you refill water, check again after 5 min, and refill again.)
 - △ Some gap (about 2mm) around the eggs is needed for easy egg turning.
- ※ When you use rolling divider which is sold separately, carefully adjust the distance of rolling divider so that eggs do not roll down.
3. Place the eggs to incubate in the egg groove and then close the cover.
 - △ Be careful to close the cover completely; if not, the temperature and humidity will fail to go up.
 - △ The egg to incubate must be a fertilized egg.

How to start incubation



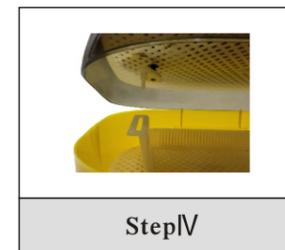
Step I



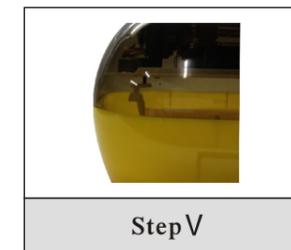
Step II



Step III



Step IV



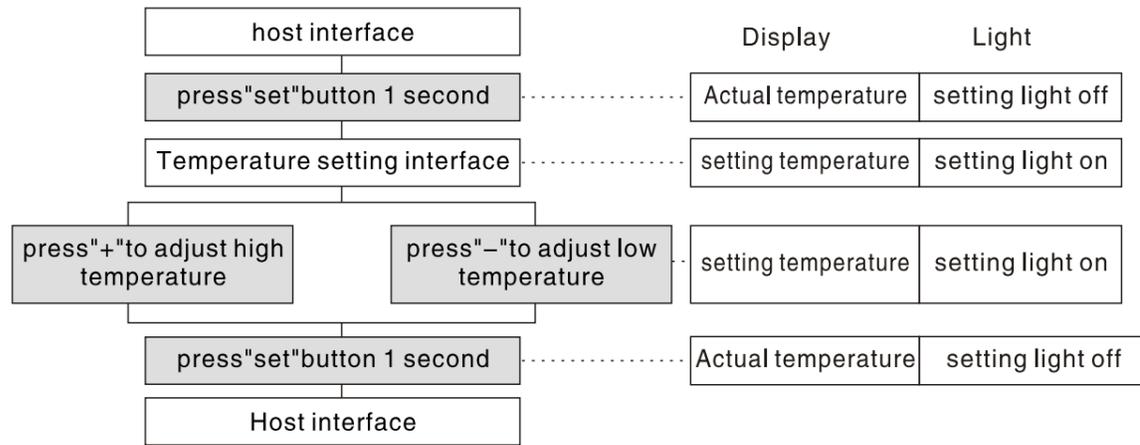
Step V



Step VI

- ▲ If you connect the incubator with power cord, LED of temp. display is blink with alarm. And then it starts incubation with existing temperature and humidity. (Factory default setting—Temp.: 37.5°C)
- △ There can be some smell the first time you use the incubator, that is normal.
- △ Power Failure Notification: When firstly input power, the power is failure, please pull out the power and input power again.

Temperature settings



- P.C: 1. Actual temperature below 19 °C, Host interface will be "LLL".
 2. Actual temperature below setting temperature, host interface will alternate "actual temperature" and "AL" Alarm.
 3. Actual temperature over high than setting temperature, Host interface will alternate "actual temperature" and "AH" alarm.

Function settings

