

User's manual

Fully Automatic Breeder for 24 Eggs

64151



Illustration similar, may vary depending on model

Please read and follow the operating instructions and safety information prior to initial operation.

Technical changes reserved!

Illustrations, functional steps, and technical data may deviate insignificantly due to continuous further developments.

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Introduction

Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it. Keep these operation instructions in a safe place.

Safety instructions

Caution!

The device is not intended for use by persons (including children) with impaired or limited physical, sensory, and mental abilities or lack of experience and/or real knowledge, unless they are supervised by a person responsible for their safety or follow the instructions made by this person on how to correctly use the device. Children should be supervised to ensure that they do not play with the device.

Caution!

- Perform a visual inspection of the device before every use. Do not use the device if the safety appliances are damaged or worn out. Never override safety regulations.
- Only use the device accordingly to the intended purpose stated in this manual.
- You are responsible for the safety of the working zone. Always keep your working zone tidy to avoid accidents.
- If the cable or the plug is damaged due to external influences, the cable must not be repaired, but must be replaced with a new one. This work may only be carried out by a qualified electrician.
- The voltage of 230 V AC indicated on the nameplate of the device must match the existent mains voltage.
- The device must never be lifted, transported, or attached by the power cord.
- Ensure, that the electrical plug connection is in an area protected from flooding and humidity.
- Always pull the electricity plug before carrying out any work on the device.
- Avoid exposing the device to direct water jets or rain.
- The user is responsible for complying with local safety and mounting regulations. If you are not sure, ask a qualified technician.
- In case of device failure, repairs can only be carried out by an electrician.
- Read all safety precautions and instructions. Failure to obey the safety precautions and instructions might cause an electric shock, a fire, and/or severe injuries.
- Keep all safety notes and instructions in a safe place, which is always accessible.

Other important instructions!

- The temperature inside the device is prone to temporary fluctuations when realising certain interventions (e.g., after opening the lid, after resetting to the factory settings, after adjusting or modifying the temperature, etc.). Wait for the temperature to stabilise, then observe the device.
- Only open the lid during brooding when there is an emergency. Do not leave the device in off-state for too long a time during brooding to avoid compromising the development of the eggs.
- The notes contained in this manual are only for the beginner's orientation. Due to the differences of temperature and humidity depending on the location of use, a certain experience and sure instinct are required for hatching.

Technical specifications

Operational voltage (V)	220 (AC)
Frequency (Hz)	50–60
Ambient temperature (°C)	15–30

The right location

For a good result, place the incubator into a heated room. There should not be any major room temperature fluctuations inside it. Ideally, the room temperature should be comprised between 17 °C and 25 °C. The room humidity should be below 70 %.

Additionally, there should be a good ventilation in this area. Especially with presence of several incubators, you should make sure sufficient ventilation. A natural air supply ensures that the developing embryos always have fresh oxygen.

Make sure that the incubator is placed on a flat, even surface and not in direct sunlight. Place it on a solid surface which is approx. 50 cm above the floor.

It is recommended to place the incubator far away from heating sources, drafts, and windows to avoid harmful temperatures fluctuations. Additionally, the incubator should be kept with the included polystyrene packaging, which provides protection.

General information on breeding

1. How do the poultry eggs must be stored before placing them into the incubator?

Hatching eggs should not be kept longer than ten to twelve days. After that, the hatching success rate is very low. Store the eggs at a cool temperature (8–15 °C) and at a relative air humidity of 75 %. If the hatching eggs have been sent you via post, they should rest for at least 24 h before being placed in the incubator.

Important: The eggs should be stored lying and need to be rotated halfway around their longitudinal axis at least once a day.

2. When is the incubator ready?

The incubator should run for at least 24 hours before placing any eggs into it. If possible, let the incubator run for a week without eggs. Thus, you will easily see if all parameters can be adjusted and work as required. Additionally, you will learn how the incubator functions and adjustments work during this time. Nothing is more harmful to the eggs than the wrong incubator adjustments. If everything works accordingly in the testing period, the incubator can be cleaned thoroughly with a suitable disinfectant.

The intended humid and warm climate in the incubator is a good breeding ground for bacteria and fungi. Not disinfecting the incubator invites the growth of these, posing a threat to the entire brood. Thus: Before the first breeding and after every new breeding, thoroughly disinfect the incubator.

You need to make sure that the disinfectant is suitable for the material of the incubator. Otherwise, the material can be attacked and the hatching process endangered.

Important note on parameters: Be sure to properly understand the term “internal temperature” (“internal”). Do not confuse the term “internal temperature (inside the egg)” with “internal temperature (inside incubator).” The internal temperature within the incubator constantly changes up and down. The internal temperature of the egg thus is the average temperature of the temperature fluctuations inside the incubator. In the following instructions, “internal temperature” is the temperature inside the breeder.

3. Which temperature should my incubator have?

The required temperature depends on the individual animal species. Every animal species has its own requirements and even amongst poultry there are difference regarding the required temperature during the breeding process. The required temperature depends as well on the type of incubator.

With surface incubator (breeding on an even surface), the breeding temperature is measured on the height of the upper edge of the egg. — An overview of various poultry types and the breeding temperatures required:

Type of poultry	Breeding temperature (°C)
Chicken	37.4–37.6
Duck	37.4–37.6
Pigeon	38.5
Goose	37.6
Quail	37.6–37.8

Note: A short temperature drop while checking the eggs usually is not a problem for the embryos. Contrariwise, temperatures exceeding the recommended one are harmful and even deadly and should be avoided at all costs.

4. Does my thermometer show exact values?

Thermometers are not exact. Keeping the temperature constant might be difficult, even with good thermometers. If running a big incubator over a longer period of time, you can optimise the temperature, regardless of what the thermometer states.

After the first breeding process, you may modify the temperature (set it to a higher or lower value).

With poultry: If the hatching takes places in an early stage, the temperature should be lowered. If the hatching is delayed, it needs to be increased.

How to check the thermometer: Keep notes during the time of the brood, as these are a reliant aid. You will soon have the required routine to select the right adjustments and settings for a successful hatch.

Alternatively, an additional thermometer can be placed into the incubator so that you are able to perceive the various temperature differences and to accordingly readjust the incubator temperatures.

5. What must be the amount of humidity?

The air humidity required varies again depending on the brooded type of animal and needs to be changed during the breeding process. Inform yourself beforehand on the requirements to be met in the incubator. Here are two examples:

Chicken eggs:

Day 1–18: 50–55 % air humidity

From day 19: 70–75 % air humidity

Quail eggs:

Day 1–14: 55 % air humidity

From day 15: 75 % air humidity

The air humidity is increased towards the end of the breeding with poultry eggs, it softens the hard membrane inside the egg. Without increased humidity, the chicks can neither break through the membrane nor through the egg shell. Yet, the humidity should not be increased too much, as the chicks might drown.

Note: The humidity is checked with a so-called hygrometer. It is near enough impossible to keep humidity as exact as temperature, especially in small incubators. Just try to keep it as exact as possible.

The temperature is the significant criteria. Even a small deviation (even a couple of degrees) can ruin the breeding process or lead to a bad result.

Important: The air humidity changes with the season.

If the breeding is carried out in January and February, it is very difficult to keep the humidity at the desired level, as the external humidity is rather low (depending on the location).

In June and July, the external humidity usually is higher, resulting in the humidity in the incubator being higher than desired.

6. How long is the incubation time?

Type of poultry	Incubation time (days) [normal deviation: 1–2]
Chicken	20–21
Duck	28
Pigeon	18
Goose	30
Quail	16–18

7. When start to turn and how frequently? When do the eggs not must be turned any longer?

This device is a fully automatic motor breeder. As a motor breeder realises a slow and permanent turning, the turning system can be used from the very first day on. This is not particularly concussive, which is vital as the embryos are very delicate during the first days; consequently, avoid any concussion.

Additionally, the incubator should be kept closed within the first three days of breeding, if possible, which allows for a better climate to build up.

Important: In the last two to three days of the breeding process, the eggs must not be turned any longer. For the chicks are finding a hatching position, which must not be changed any more.

8. What is to regard within the last days of the breeding process?

In the last two to three days before hatching, the poultry eggs must not only not be turned anymore, but also does the entire incubator need to stay closed. For the humid-warm atmosphere needs to be preserved during the last days of breeding to soften the egg membrane and enable the hatching process.

Pull out the plug of the turning motor, take out the eggs, place the net onto the rollers, and the eggs onto the net. Try to keep opening of the breeder as short as possible and use a vaporiser to spray the eggs with warm water to soften the eggshell. Wait for the chicks to hatch.

9. What happens after hatching?

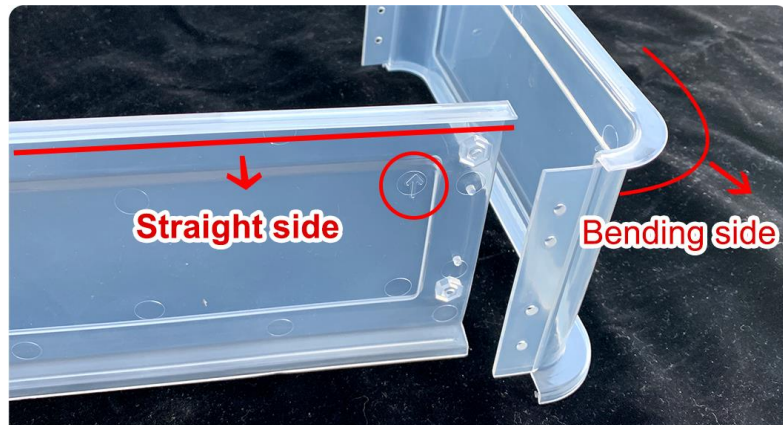
Congratulations, your chicks have hatched! Have a little patience, as the freshly hatched chicks should stay in the incubator for approx. 24 hours longer to be able to recover and dry off.

Important: Remove the water containers. Otherwise, the humidity is too high for the chicks, and there is the danger of the chicks drowning. However, you must develop a sure instinct for possible Johnnys-come-lately still need humidity to hatch.

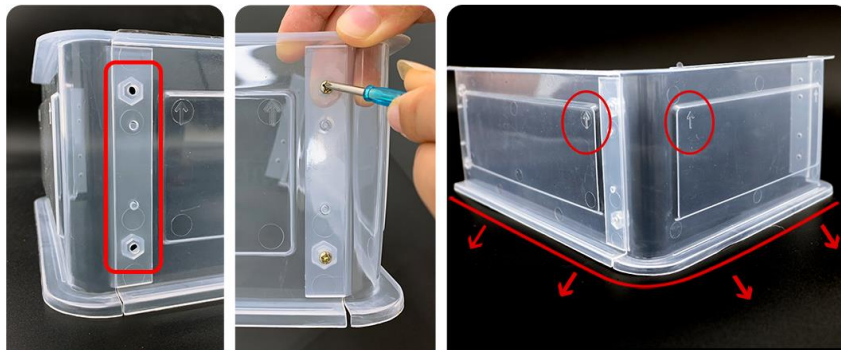
If these latecomers, pecking the egg from the inside, have difficulties getting through the eggshell, you can provide a starting aid by carefully opening the eggshell a little bit. Certainly, a sure instinct is needed as well in this condition for you must not help them too early. Oftentimes, a wrong humidity can be the reason for that, as the egg membrane can dry and get stuck to the chick before it is able to get out. Thus, the chick cannot turn any longer and hatch.

Note: There must be a sufficient fresh air flow, too, as the young animals can otherwise suffocate in the closed container. If an integrated air hole is available, it will ensure for fresh air.

Assembly



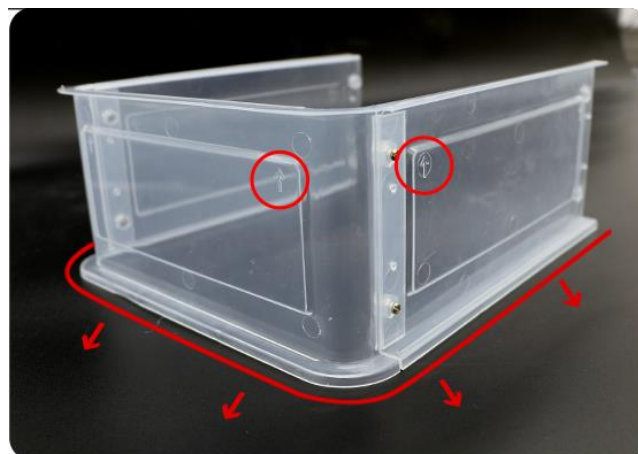
1. When assembling the box, the straight side must be inside, the panel with the round edges (“bending side”) is placed before it. Make sure that the arrow (circle) is pointing upwards and the bended side outwards.



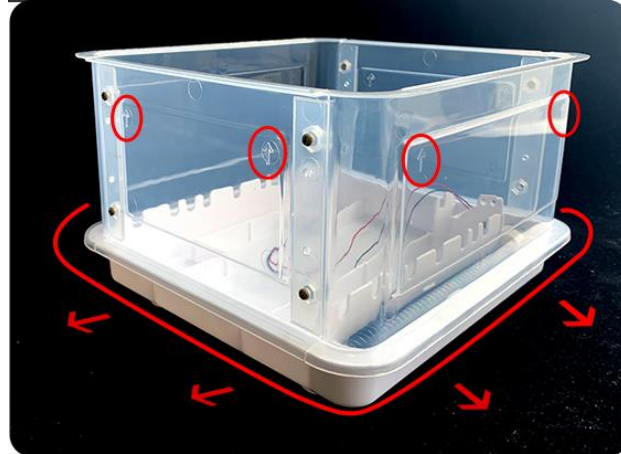
2. Align the holes.

3. Set in the screw.

4. Recheck if all arrows are pointing upwards and that the outer edge outwards.



5. Continue the assembly with the next side panels according to the steps 1–4.

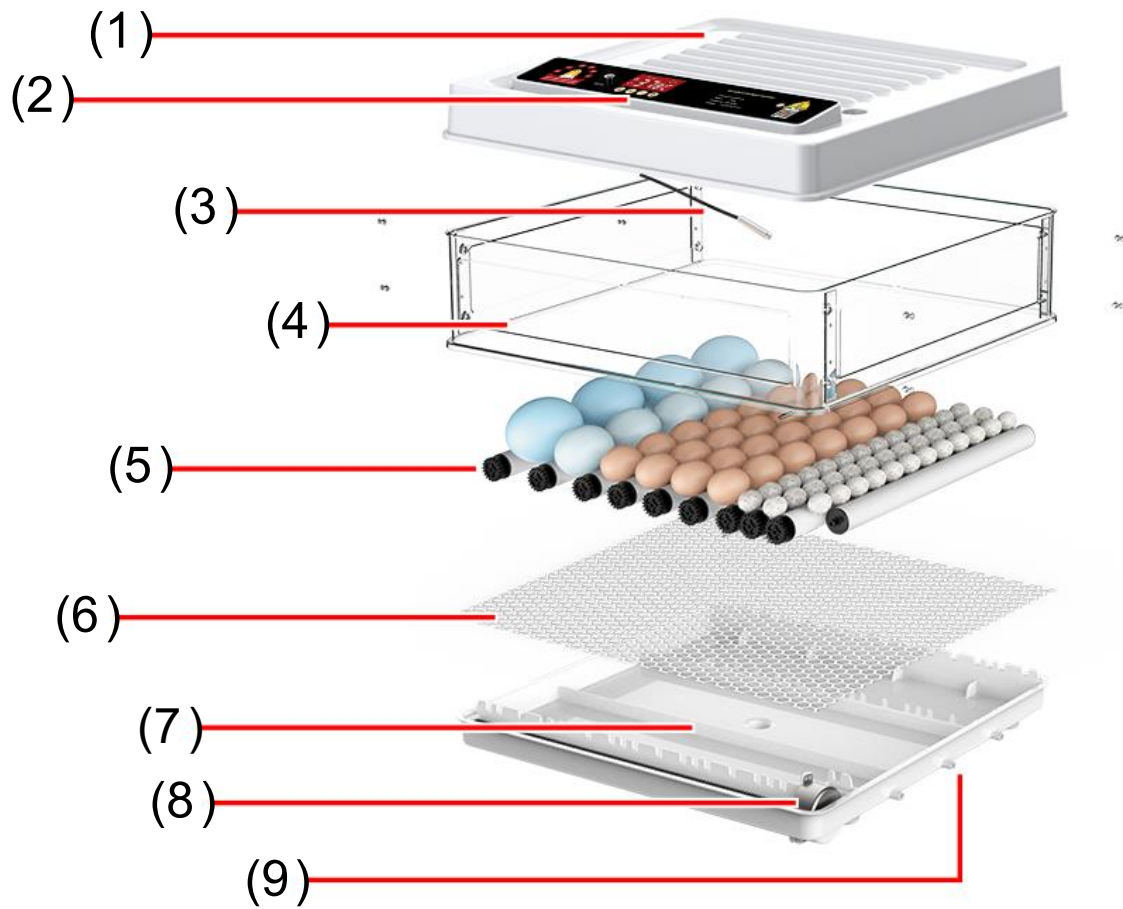


6. After assembly, place the box onto the white tray. All arrows must point upwards, the outer edges outwards.



7. Set the lid onto the box.

Main components



No	Name	No	Name
1	Lid with control panel	6	Hatcher net
2	Control panel	7	Lower tray
3	Temperature probe	8	Turning motor
4	Box	9	Water opening
5	Roller egg tray		



No	Name	No	Name
1	Lid	10	Connection wire
2	Box (* user assembly)	11	Display
3	Lower tray	12	Egg candle
4	Hatcher net	13	Aeration hole

5	Rollers	14	Turning motor
6	Power cable	15	Water openings
7	Temperature probe	16	Power cord socket
8	Fan (** must always be operated during use)	17	Battery cable socket (***) obey instructions on dual power supply)
9	Heating wire	18	Battery cable (**** obey instructions on dual power supply)

Please note that the main components might deviate from the illustrations.

Using the roller egg tray

With the help of the adjustment rack of the egg tray, you can adapt the distance between the rollers accordingly to the size of the eggs. The number of rollers depends on the model. The illustrations are for reference only and might deviate from the actual device.



Turning motor

At an early incubation stage, the plug of the turning motor must stay connected for the eggs to be turned automatically. In the last three incubation days, the plug must be disconnected for the eggs not to be turned any longer.

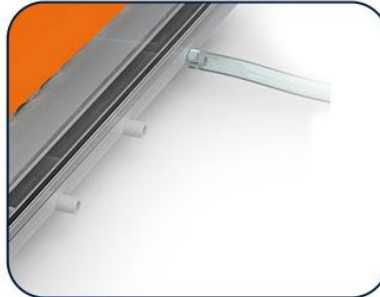
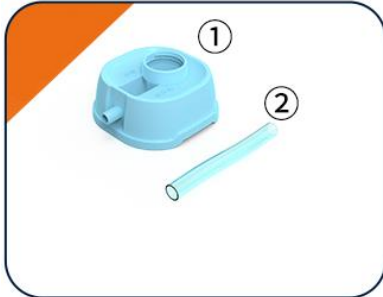


Using the hatcher net

The eggs must not be turned any longer during the last three days of hatching. Pull out the plug of the turning motor, take out the eggs, place the net onto the rollers, and the eggs onto the net. Then spray them with water for the shell to soften. Wait for the chicks to hatch.



Assembling and installing the water container



No	Name
1	Water container
2	Hose

The number of water containers included varies depending on the model. The illustrations are for reference only. In the early stage, one water container is sufficient. During the last days of breeding, shortly before hatching, all water containers included must be connected.

Please note! The water bottles shown are not included in the scope of delivery.

Connect the end of the hose (2) with the water filling opening of the lower tray. Fill a screw-cap bottle with water and screw the water container (1) to the bottle. Use a finger to close the opening of the water container (1) and quickly turn the bottle and water container. Finally, connect the hose (2) to the water container (1).

Note: If the water container is placed on a higher position than is the breeder, too much water will flow into the device and overflow it. If the water container is placed on a lower position than is the breeder, the water cannot flow in automatically. That is why you must make sure that water container and breeder are on the same level.

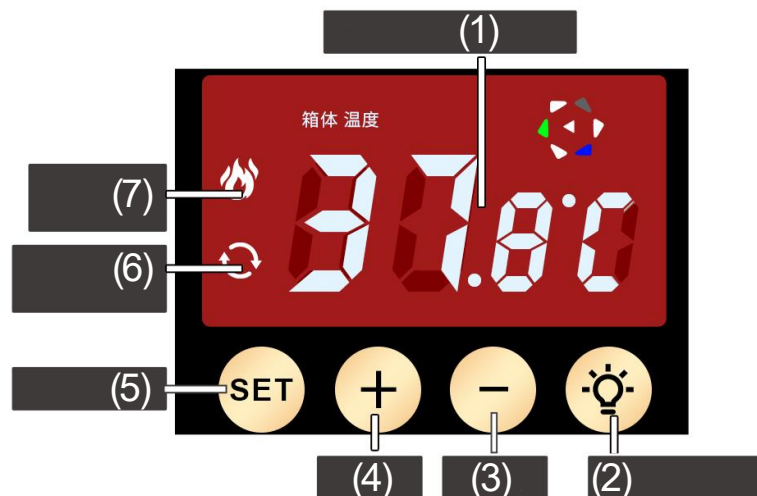
Ventilation

The lid has an opening through which the device is ventilated and which makes sure that the chicks are supplied with oxygen.

Control and display panel



No	Name	No	Name
1	DC power interface	3	AC power interface
2	Display	4	Egg candle



No	Name	No	Name
1	Temperature inside breeder	5	Set key
2	Egg candle key	6	Egg turning display
3	- key	7	Heating display
4	+ key		

- The factory-set temperature is 37.8 °C. This is the temperature needed for breeding eggs without further adjusting the machine.
- If another temperature is required for breeding, this must be adjusted via the control panel. For this purpose, press the set key (5) – temperature display begins to flash. Then adapt the temperature with the + key (4) and – key (3). Finally, press the set key (5) once more.
- Factory reset: Press the + key (4) and – key (3) together for 8 s. “888” is shown, the values are re-set to factory settings.
- Press the + key (4) once to check the egg turning feature.

- Press the – key (3) once to cancel the alarm.

Using the heat-retaining foam box

The suggested ambient temperature for the operation of the breeder is comprised between 15 °C and 30 °C. With these temperatures, the foam box can be used as long as the machine does not overheat. If the ambient temperature is too low and the device cannot reach the target temperature, you should take insulation measures, e.g., paperboard or blanket.



The device should at least be placed 50 cm above the floor to avoid influence of the temperature coming from the floor on the internal temperature of the device.



Commission test

1. Plug in the power cord and switch on the device – Make sure that the mains plug is not loose; otherwise, the device might burn.
2. Test egg turning function – Press the + key of the control panel to check if the rod rotates. A rotating rod means that the eggs can be turned as intended. The factory default value of turning is every 120 min. The + key does not need to be pressed again.
3. Establish normal operation conditions – We take a hen's egg as example to explain the normal operation conditions. A fluctuation of the temperature between 0.1 and 0.3 °C deviating from the pre-set temperature is normal and harmless. For example, with 37.8 °C being adjusted, the temperature displayed can be comprised between 37.5 °C and 38.1 °C. However, if the temperature is lower or higher than 0.8 °C, there is an alert. Generally, the ambient temperature must be 10 °C lower than the set temperature; in no account, it can exceed 30 °C.
4. After an operational test of 2 hours and normalisation of the temperature, the fertilised eggs can be placed into the device.

Regulations for waste disposal

The Waste Electrical and Electronic Equipment Directive (WEEE Directive, 2012/19/EU) of the EU was implemented in the German law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE directive are labelled with the symbol of a crossed-out wheeled rubbish bin. This symbol indicates that this electric device must not be disposed of with the domestic waste.

WilTec Technik GmbH is registered with the German registration authority EAR (Stiftung Elektro-Altgeräte Register) under the WEEE-registration number DE45283704.

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

The symbol on the packaging or the product itself indicates that this product must not be treated as normal domestic waste but must be disposed of at a recycling collection station for electrical and electronic waste.

By disposing of this product correctly, you contribute to the protection of the environment and the health of your fellow people. Inappropriate disposal threatens the environment and health.



Material recycling helps to reduce the consumption of raw materials.

Additional information about the recycling of this product can be provided by your local commune, the municipal waste disposal facilities, or the store where you purchased the product.

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