

Reagent incubator

YH061

User manual

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[Production record number]: Yueshen Machinery No. 20200658

[production date]: see the equipment label for details

[Use period]: See the equipment label for details

[Instruction revision]: revised on December 25, 2018

Instructions for use

Shenzhen Ukin Biotech Co., Ltd.

This manual is written in full accordance with GB/T 9969-2008 "General Provisions on Instructions for Use of Industrial Products" issued by the State Administration of Technical Supervision and "Administrative Regulations on Instructions and Labels of Medical Devices" issued by the State Drug Administration, and conforms to enterprise standards. The contents described in this manual are fully consistent with the situation of this series of thermostats. If there is any modification, the company will not give further notice.

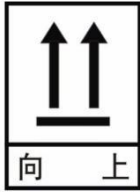


This manual describes the main structure, performance, type, specification and installation, use, operation, maintenance, maintenance and storage methods according to the characteristics and needs of the product, as well as the safety measures to protect the operator and the product. Please refer to each chapter for details.

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The company reserves the right of final interpretation of the contents of this manual.

User Safety Tips

Please read this instruction "User Manual" carefully before using the instrument.

	<p>Side up: Indicates that the location of the shipping package is straight up.</p>
	<p>Handle with care: Indicates that the package should be handled with care when moving.</p>
	<p>Keeping Dry: the package is afraid of moisture.</p>

Do not plug or unplug the power supply with wet hands, it may cause electric shock.

Do not damage wires and connecting cables, etc., do not step on, twist, or pull wires and cables. If the wires and cables are broken, electric shock or fire may occur.

Do not use damaged wires and connecting cables, etc., as it may cause electric shock or fire.

Do not use other wires and cables other than the design requirements, if the capacity is small, it will cause a fire.

If there is abnormal operation, stop the operation immediately.

If you feel any abnormality such as burning smell or peculiar smell, immediately turn off the power and unplug the power cord.

Use and operate in accordance with the regulations or instructions in the "User's Manual".

Do not use chemical agents such as turpentine, benzene, etc. to clean external stains, as it may cause changes in color and shape. Scrub with a soft or damp cloth. For severe stains, clean with detergent or 75% alcohol.

If a screw or metal object falls into the instrument, stop the operation immediately, and ask qualified maintenance personnel to remove the metal object before starting the operation, otherwise the instrument may malfunction.

Do not put water, etc. on the instrument table to avoid liquid leaking into the instrument and causing damage to the instrument.

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Over view

1.1 Product:

Reagent incubator

1.2 Model:

YH061

1.3 Specification:

Size: 300*160*135mm Net weight:4.5kg

1.4 Scope of application:

It is used to record the reaction time of the reagent card, and remind the user of the reaction time within the specified time.

Technical performance

2.1 Working conditions

2.1.1 Power supply voltage: AC 100-240V;

2.1.2 Input power: 30W;

2.1.3 Ambient temperature $-20^{\circ}\text{C}\sim 40^{\circ}\text{C}$;

2.1.4 Relative humidity $\leq 85\%$, no condensation;

2.1.5 Atmospheric pressure: 86 kPa \sim 106 kPa;

2.1.6 Keep away from strong electromagnetic interference sources;

2.1.7 Avoid direct exposure to strong light;

2.1.8 It has a good grounding environment and can be used indoors.

2.2 Transportation and storage conditions

2.2.1 Ambient temperature: $-40^{\circ}\text{C}\sim 55^{\circ}\text{C}$;

2.2.2 Relative humidity: $\leq 90\%$;

2.2.3 The instrument should be restored (placed) under normal working conditions for more than 24 hours before taking it out for use under the conditions of transportation and storage. The instrument should be handled with care. If it is to be moved and transported, it is best to pack it in the original packaging to prevent damage due to severe vibration. Avoid violent impact during transportation, which may cause damage to packaging and products. If used

instruments are to be shipped, they should be sterilized in accordance with the internal regulations of the medical institution before shipment, and marked as "sterilized"; otherwise, they should be marked with "unsterilized" to remind the personnel who received the instruments to pay attention to protection.

2.3 Technical parameters and functions

2.3.1 Card positions: 6 incubation card positions;

2.3.2 Temperature control range: 5~65°C;

2.3.3 Temperature display accuracy: 0.1°C;

2.3.4 Temperature error: <0.5°C;

2.3.5 Heating rate: 10°C/min (25-50°C)

2.3.6 Cooling speed: 4°C/min (25-4°C)

2.3.7 Over temperature protection function;

2.3.8 Timing range: 0-100min

2.3.9 Appearance size: 300*160*135mm

2.3.10 Net weight of the fuselage: 4.5kg

2.4 Instrument system components and main structure

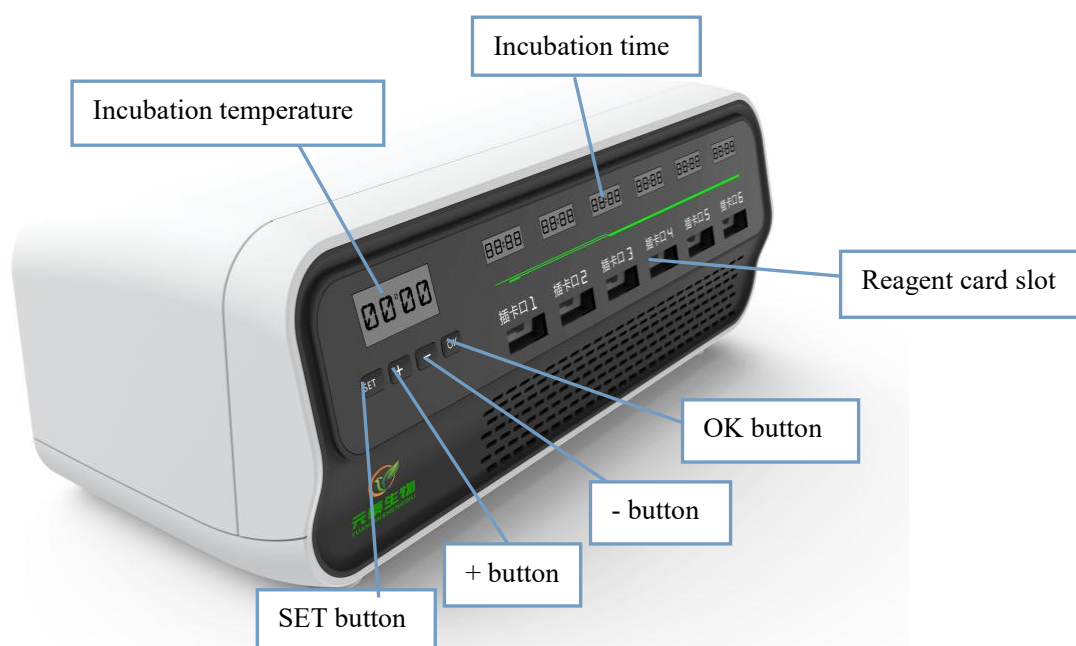
System Components

After unpacking, check each component against the standard configuration table below and inspect the instrument for missing or damaged components.

Instrument standard configuration table

No.	Name	QTY	Unit
1	Reagent card incubator	1	/Set
2	Power Adapter	1	/PCS
3	Power cord	1	/PCS

The main structure



Installation

3.1 Instrument host installation

- 3.1.1 Open the special packaging carton for the instrument, and carefully check whether the packing list matches the instruments and accessories in the packaging box. If it is missing or damaged, please contact the supplier immediately;
- 3.1.2 After the inventory is correct, carefully take out the instrument and place it on a stable and flat work surface to prevent strong vibration and keep the instrument environment clean;
- 3.1.3 Take out the power cord and power adapter of the instrument, connect the power cord and power adapter to the power jack on the rear panel of the instrument, and connect the other end to the three-pin socket with the ground wire installed.

3.2 Power and Environmental Requirements

- 3.2.1 The power supply for the normal operation of the instrument is: AC 220V, 50Hz;
- 3.2.2 Protective grounding: The protective grounding of the instrument adopts the method of connecting the power cord plug to the protective grounding wire of

the mains power supply, so it is required that the power cord plug must be inserted into the mains power supply (AC 220V, 50Hz) with reliable protective grounding when the instrument is working.) on the socket;

- 3.2.3 The instrument should be protected from dust, shock, and strong electromagnetic interference and corrosive places. At the same time, the instrument has no strong electromagnetic interference to the network power supply and other equipment. The instrument is required to operate under the normal working conditions specified in 2.1 above. The instrument should not be placed close to the wall, and a space of no less than 20 cm should be reserved to ensure air circulation. There should be enough space where the power cord plug is inserted into the network power supply (AC220V, 50Hz) to ensure that the power plug can be used in emergency situations. Quickly and smoothly unplug from the power outlet.

3.3 Parameter setting

- 3.3.1 Turn on the power switch of the instrument, the digital tube on the instrument panel lights up;
- 3.3.2 The "SET" button in the control panel is used to select the desired setting item. When the selected item's digital tube display number begins to beat, use the "+" and "-" buttons to modify the parameters, and the "SET" button to complete the setting. (Please press the button on the screen printing position);
- 3.3.3 When the reagent card is inserted into the reagent card slot, the timer will automatically start, and the countdown will automatically alarm when the countdown ends, and the timeout time will be recorded;
- 3.3.4 For channels in the countdown process, the timing duration cannot be modified.

Attention

- 4.1 Users should read this manual carefully before using the instrument.
- 4.2 Shut down and unplug the power plug when it is over or not in use for a long time.
- 4.3 During operation, if it is not used in accordance with the specified method, the protection provided by the equipment may be damaged.
- 4.4 The remaining test samples and their accessories after the instrument is used should be disposed of before being discarded, so as to meet the national regulations and the requirements of local environmental organizations.

- 4.5 Please wear a lab coat, especially when close to the place where the instrument is placed.
- 4.6 Manufacturer's Statement The instrument and its internal parts are designed and manufactured to avoid hazards to operator safety.
- 4.7 The use of the instrument cannot guarantee that there is no harm to the exposed parts of the human body.
- 4.8 The manufacturer reminds that all parts of the instrument may come into direct contact with blood and serum and must be treated as potential infectious agents.
- 4.9 When handling potentially contaminated serum, the operator must wear: lab coat, disposable gloves and safety glasses to avoid splashing and spilling of infectious fluid, which may come into contact with any exposed part of the body.
- 4.10 If a fault occurs, immediately turn off the power supply and cut off the power cord, contact the dealer or the manufacturer, do not open the equipment without authorization, and do not connect the power supply or turn on the power supply of the equipment without the manufacturer detecting the faulty product, so as to avoid secondary damage to the equipment and damage to the human body.
- Danger.

Daily maintenance and Care

5.1 Maintenance and Care

- 5.1.1 In order to ensure the continuous stability and accuracy of the instrument, do not place the instrument in an environment with strong magnetic field interference, and at the same time, ensure that the environment is well ventilated and breathable.

Note: Maintenance inspections are to be done by the manufacturer and its agents or other qualified personnel; For parts to be replaced, use parts provided by the manufacturer and its agents.

5.2 Cleaning

- 5.2.1 Turn off the power switch and unplug the power plug of the instrument to ensure that the instrument is disconnected from the network power supply;
- 5.2.2 Using disposable gloves, use a disposable rag moistened with a little water

or mild detergent to clean the outer surface of the instrument. After working with dangerous infectious substances, sterilize the instrument as follows:

Warning: Turn off the power switch first, and unplug the instrument.

5.3 Disinfection

5.3.1 Use disposable gloves and a disposable cloth dipped in 75% ethanol to clean the surface of the instrument (the cloth should be damp, not dripping liquid).

5.4 Periodic inspection

Inspection cycle	Check item	Check content	Inspection purpose
everyday	power supply	Plug,sockets,power cord	Prevent bad contact or even leakage to hurt people
Half a year	Impedance	Instrument enclosure to ground impedance	Prevent poor protection or even leakage to hurt people

Troubleshooting

Phenomenon	Reason	Method of exclusion
Instrument not responding	power failure	Check the power plug
	Poor contact between instrument and power cord	Check the power switch indicator to see if it is on
	The power switch is not turned on	Turn on the power
Abnormal noise	The centrifuge tube is not buckled and falls off	1. Press the start/pause key to pause the instrument 2. Open the hatch and re-install the centrifuge tube 3. Long press the start/pause button to cancel the current process, and press the start/pause button again to continue grinding
	Mechanical failure	Call manufacturer customer service
Button no response	Circuit failure	Call manufacturer customer service

Maintenance service

7.1 For non-artificial damage, the manufacturer provides a one-year warranty for free; outside the warranty period, the manufacturer is responsible for maintenance and charges a reasonable fee.

- 7.2 During the warranty period, the user is not allowed to disassemble and assemble the parts that are not allowed in the manual, so as not to expand the failure due to unfamiliarity, otherwise the maintenance cost during the warranty period will be borne by yourself.
- 7.3 If the user wants to repair by himself, only qualified technicians should be familiar with the structure and circuit principle of the instrument before repairing. The manufacturer is not responsible for the quality of the instrument after repair and the personal safety of the maintenance personnel.
- 7.4 If users need to order instrument parts or repair the instrument, they can contact the after-sales service department of the manufacturer.