

User's Manual

Open-Shake O Series shaker

This Manual applies to:

Modes: Open-Shake O35-44
Open-Shake O35-22



Thanks!

Thank you very much for your purchase of our Open-Shake O series shaker which is specially designed for you.

SciQuip Open-Shake O series shaker, a kind of open shaking facility, is ideal for mass production in constant temperature room. With its features such as simple structure, easy to operate, large capacity and little space needed, this kind of product is economical and practical and is especially ideal for pilot-scale experiment and mass produce. The Open-Shake O series shaker is widely used in experiments of pharmacy, such as germ culture, ferment, hybridization, and research of biochemical reaction, enzyme and cellular tissue. It has a wide and important range of applications in research of medicine, biology, numerator, pharmacy and environmental protection.

“SciQuip” thank you for your trust in its product!

Since the date of your purchase of this product, after-sale service will always be with you. No matter what questions you meet in your using, please do not hesitate to contact us whenever you want.

Reminder

The manual should be read and understood thoroughly, because it can help you to master the operating method and feature of this high-tech product. Prior to operation, we strongly recommend you to read this manual completely so that you can master all the function to the utmost extent.

Safety instruction!

Please be sure to follow the instructions, which are really important for your safety.



Danger! (Warnings against likely injury or death)

1. Grounding outlet to avoid accidental electric shock or fire disaster.
2. Do not attempt to repair the product yourself. Improper handle will result in fire or electric shock.
3. Please use the independent mains jack socket. Make sure the proper plug with outlet. Loose connection will result in overheating, electric shock, or even fire disaster.
4. Do not pull out the plug when it is operating. Do not drag the wire to plug the outlet.
5. Do not damage the wires or use the undesignated wires. Do not try to extend the wires or attach wires at the middle by yourself. Improper handling of wires will result in fire or electric shock.
6. Plug the outlet with wet will get risk of electric shock.
7. In case of malfunction or burning smell, the unit must be immediately unplug and ceased for further checking, or use a circuit breaker to cut off the power supply. Continuance of abnormal state will result in fire caused by overheating.
8. Make sure that the platform is in static state before extracting culture solution.
9. The electric power supply must be cut off under following situations:
 - 9.1. When opening the door of power box. Without cutting off power supply, the opening of the door will probably result in electric shock.
 - 9.2. When replacing the fuse. Replacing the fuse without cutting off the power supply will probably result in electric shock.
 - 9.3. When the malfunction occurs. Mishandling will result in the further damage of the equipment or accidental injury.
 - 9.4. When not using for a long period of time. The dust accumulated on the outlet may lead to fire caused by electric leakage.
 - 9.5. When moving the equipment. Moving the equipment connected with power supply will probably result in electric shock.



Attention!

Instructions to keep the normal life and proper operations of the equipment!

- 1.The unit must be placed horizontally on solid, flat floors and provide with sufficient clearance on all sides of the unit, at least 20cm.
- 2.Do not leave the unit in a location exposed to direct sunlight or near heater.
- 3.Verify the local voltage of power supply before using. Voltage that does not meet the requirement will leads to abnormal condition or damage of the equipment.
- 4.When the platform is oscillating, a certain distance should be maintained between the operator and the platform to avoid any injury or affectingthe normal operation of the equipment.
- 5.The exterior of equipment must be kept away from volatile, flammable, explosive liquids or gases.
- 6.Regular check should be conducted on the fixed screw of flash clamp in order to prevent noise or the falling of clamp.
- 7.Please keep the chamber clean. Regular cleaning is required.
- 8.For reciprocating shaker, lubricate the guide rail every time before using.



Apart from the above warnings and instruction, there are several other special reminder with a exclamation point within a triangle, please read and follow. Any neglect will probably lead to hidden trouble, serious damage, or accidental injury.

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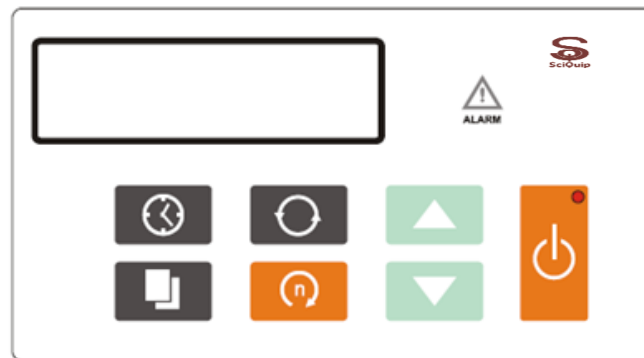
1. Key features

- 1.P.I.D environmental scanning micro-processing controller and intelligentized audio and visual alarm.
- 2.The large LCD screen clearly indicates the preset and real parameters.
- 3.The operating parameter locked by encryption prevents misoperation.
- 4.Operating parameter memory function avoids monotonous operation.
- 5.Timer up to 500 hours and audio and visual alarm will be activated when shaking terminates.
- 6.AC inductive long-life motor design, broad speed regulation, constant torque, constant speed of rotation, no carbon brush and maintenance free.
- 7.Provided with power-off recovery function, the equipment can automatically recover to run according to the originally designed programs when the external power is recovered after a sudden cut off.
- 8.Wiring of the acceleration control ensures soft start, smooth acceleration and the security of samples.
- 9.The critical components, made of superior cast iron and aluminum, have the characteristics of stabilization and durability.
- 10.The orbit or eccentric drive unit and the fine molding at one time machining technology ensure the stability and reliability of the main engine.
- 11.The luxurious streamline mould involving aesthetic designing, static plastic-spraying case. Electro polished platform, spring and clamp spare the problem of rust.

2、Technical Specifications

Mode	Open-Shake O35-44	Open-Shake O35-22
Action Mode	Orbit	
Stroke(mm)	Φ35	Φ50
Speed (rpm)	30~300	
Speed Variation (rpm)	±1	
Timer	1 minute to 500 hours	
Number of Trays	2	1
Tray (mm) (WxD)	920*640	
Flasks Configurations*	*Glass dimensions may reduce max.capacity	
50ml	172	86
100 ml	172	86
250 ml	106	53
500 ml	74	37
750 ml	58	29
1000 ml	44	22
2000 ml	-	12
3000 ml	-	11
5000 ml	-	7
Tube Rack S/S	26	13
96 Well Plate	68	34
Exterior Dimensions (mm) (WxDxH)	1115*840*815	1115*840*455
Packing Dimensions (mm) (WxDxH)	1185*910*975	1185*910*615
Net/Gross Weight (kg)	310/360	280/330
Power (W)	300	
Electricity	220-240V 50/60 Hz	
Approval	CE, ISO	

3、Control Panel



Power button:

Press this button to switch on the power and press it again to switch off, the unit will enter the standby mode.



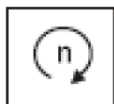
Time button:

Button to display the preset time and the status of the power-off recovery function. Press again to display the remaining time.



Change/Confirm button:

Press this button to change the parameters.



Start/Stop button:

Button to start and/or stop shaking. Operating indicator will be lighted. Press this button again to stop shaking and the operating indicator goes off.



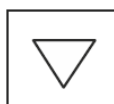
Speed button:

Press once to display the preset speed, press it again to display the actual speed.



Increase button:

Press this button and the parameter will increase by one digit, the parameter will keep increasing while this button is held



Decrease button:

Press this button, the parameter will decrease by one digit, the parameter will keep

4. Preparation and Start-up

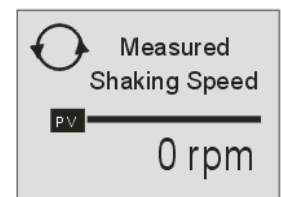
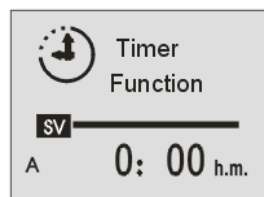
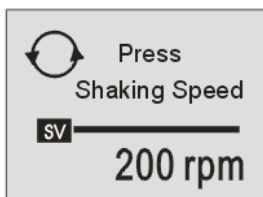
- 1.Position this unit according to the procedure, adjust the foot of the equipment to make the equipment touch the ground stably. Use screws to fix the equipment on the ground..
- 2.Configuration of power supply of AC 220~240V 50/60Hz and capacity not less than 1 KW with socket reserved for the use of this equipment.
- 3.Connect the plug of power supply with the independent jack socket and turn on the main power.



Attention!

Only use a properly grounded outlet. We are not responsible for damages caused by incorrect voltage of power supply.

- 4.For reciprocating shaker, lubricate the guide rail every time before using. The method: Disassemble the front and back door of the equipment, use a oil gun to add lubrication on the guiding rail directly.
- Switch on the equipment and the screen displays in turn the operating parameter stored in the equipment:

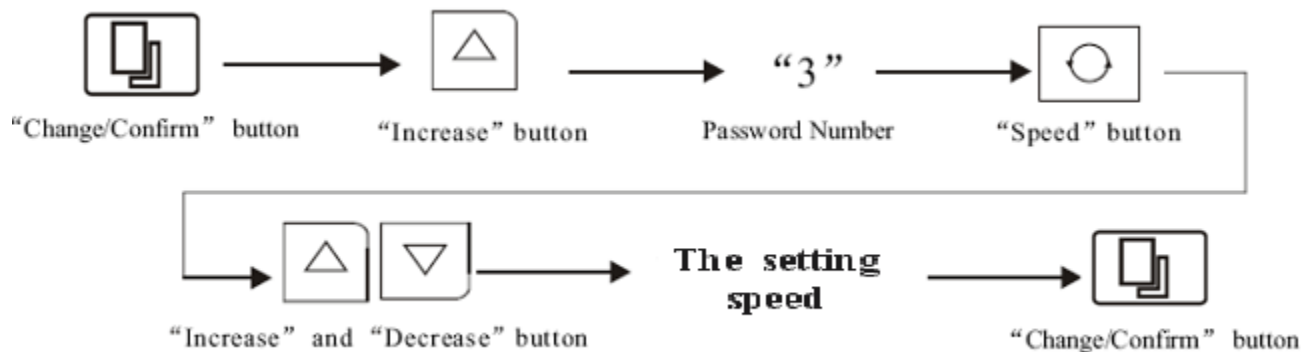


And now, according to the preset parameter, the equipment is in the state of readiness.

5. Setting of Speed

1. Press the “Speed” button to display the preset speed and press it again to display the real speed.
2. To set the speed parameter, first press the “Change/Confirm” button, then press the “Increase” button to “3”, at last press the “Speed” button to display the preset speed parameter on the screen. SV twinkles, press the “Increase” or “Decrease” button to change the parameter.
3. When setting is finished, press the “Change/Confirm” button to confirm the change.

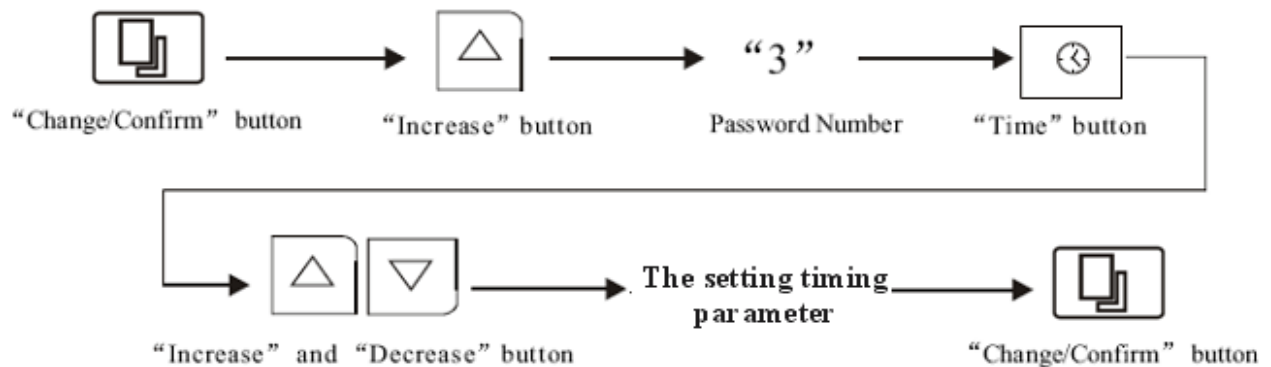
Simplified instruction on the setting of speed



6. Setting of Timing

1. Press the “Time” button to display the preset time, and press it again to display the balance time.
2. To set the time parameter, first press the “Change/Confirm” button, then press the “Increase” button to “3”, at last press the “Time” button to display the preset time parameter on the screen. SV twinkles, press the “Increase” or “Decrease” button to change the parameter.
3. When changing the timing value, the parameter will increase or decrease by 1 minute within the range of 0-12 hour and by 30 minutes within the range of 12-500 hour.
4. When setting is finished, press the “Change/Confirm” button to confirm the change.
5. When the balance time reduce to “0:00”, the platform will stop oscillating automatically. The alarm indicator twinkles and the buzzer dings for 2 minutes. Press the “Time” button to terminate the alarm.

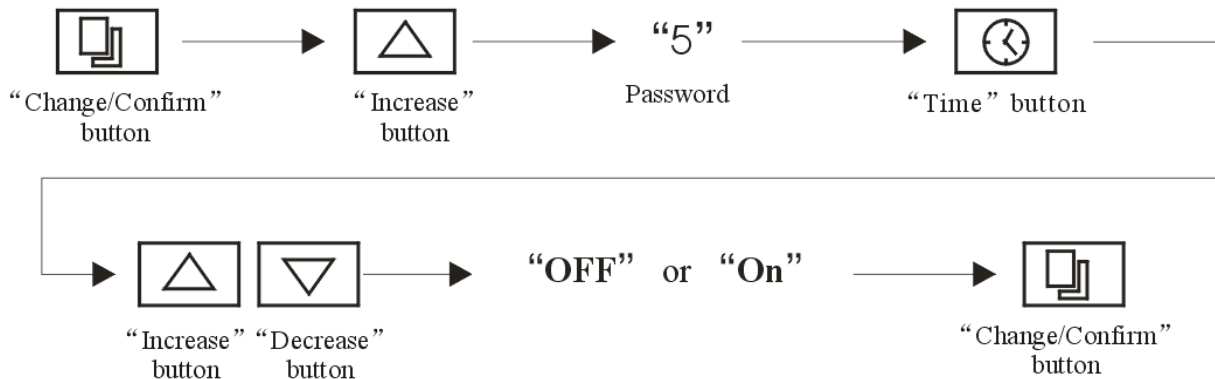
Simplified instruction on the setting of timing



7 .Setting of the power-off recovery function

- 1.If the power-off recovery function has been set, the equipment will run according to the originally designed program when the external power is recovered after a sudden cut off.
- 2.To set the power-off recovery function, first press the “Change/Confirm”button, then press the “Increase”button to“ 5”, at last press the “Time”button and the screen will display the character “On”or “Off”. press the“Increase”or “Decrease”button to change the parameter and press the “Change/Confirm”button to confirm the change.
- 3.When the character “Off”is displayed on the screen, the power-off recovery function is not in use.
- 4.When the character “On”is displayed on the screen, the power-off recovery function is activated.
- 5.Press the “Change/Confirm”button to confirm.
- 6.Press the “Time”button, if the symbol “A”is displayed on the lower left corner of the screen, it means the power-off recovery function has been used, otherwise not.

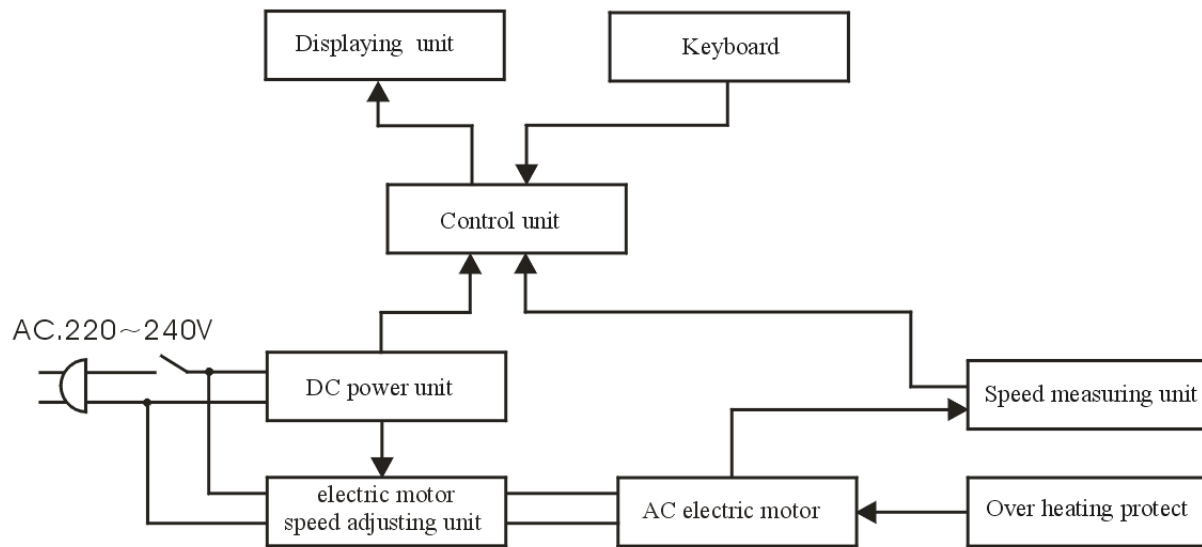
Simplified instruction on the setting of power-off recovery function



8、 Operation and Switch off

1. When the above setting is finished, press the “Start/Hold” button and the equipment will run according to the designed program. The remaining operating time will begin count down from the preset time and it will twinkle every second.
2. When in operation, press the “Start/Hold” button to stop the platform from oscillating temporarily. The operating time is on hold.
3. Press the “Start/Hold” button again to resume operation, the operating time starts counting down from the remaining time when the operation was stopped.
4. When in operation, if the “Start/Hold” button is held on, 3 seconds later the remaining operating time will be cleared to zero. Press the “Start/Hold” button once more, and the equipment begin to count down from the preset operating time.
5. When the equipment is in operation or on hold, the current remaining operating time can not be changed. If it was changed at this time, it is invalid with the current operation. Only when the current operation is over or terminated according to the above method and the “Start/Hold” button is pressed again will the new changed value be effective.
6. The equipment can be turned off by holding on the “Power” button on the control panel for 2 seconds. At this time, the power control transformer is still connected to power supply, so the main switch on the right side of the equipment must be shut off ..

9. Electric theorem



10. Normal Malfunction and debugging

Encountered symptoms	Possible cause	Debugging
Power on without display	1.Power supply is not connected. 2.Block have access to jack socket. 3.The fuse is broken	1.Check the power supply system to see if there is voltage. 2.Check the reliability of power supply plug 3.Replace the fuse
Shaking Platform not stable	1.Equipment is placed on an uneven surface. 2.Malfunction of control circuit. 3.Screw of tray connector is loose.	1.Adjust the legs on feet to make the equipment stable. 2.Call for manufacture to repair the electric circuit. 3.Check transmission connector, tighten screw
Equipment has big noise	1.Equipment is placed on an uneven surface. 2.The fix screw of the flask clamp is loose. 3.The fix screw of the tray is loose. 4.Mechanical failure of transmission	1.Adjust the legs on feet to make the equipment stable. 2.Tighten the fixed screw of the flask clamp 3.Tighten the fixed screw of the tray 4.Lubricate the bearing to debug or notify the manufacturer.

Fuse Replacement

- Before changing the fuse, main power must be disconnected.
- Two spare fuses are provided with this unit in an accessory pouch.
- The fuse case is located right next to the power plug socket on the back of the unit.
- Unscrew the case cap to remove the faulty fuse.
- Insert the new fuse and screw on the case cap.

Fuse type: 32*6, 10A250V, Slow Blow Fuse