

SHAKING INCUBATOR **ARGO LAB**

User manual



SKI 4



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1 Warranty

Thank you for purchasing an ARGO LAB instrument. In normal use conditions, the instrument is guaranteed for a period of 24 months from the date of purchase.

The warranty is valid only if the product is original. It does not apply to any product or parts of it that have been damaged due to incorrect installation, improper connections, improper use, accident or abnormal conditions of operation.

The manufacturer declines all responsibility for damage caused by failure to follow instructions, lack of maintenance and any unauthorized modification.



2 Contents of package

The instrument is delivered complete with the following parts:

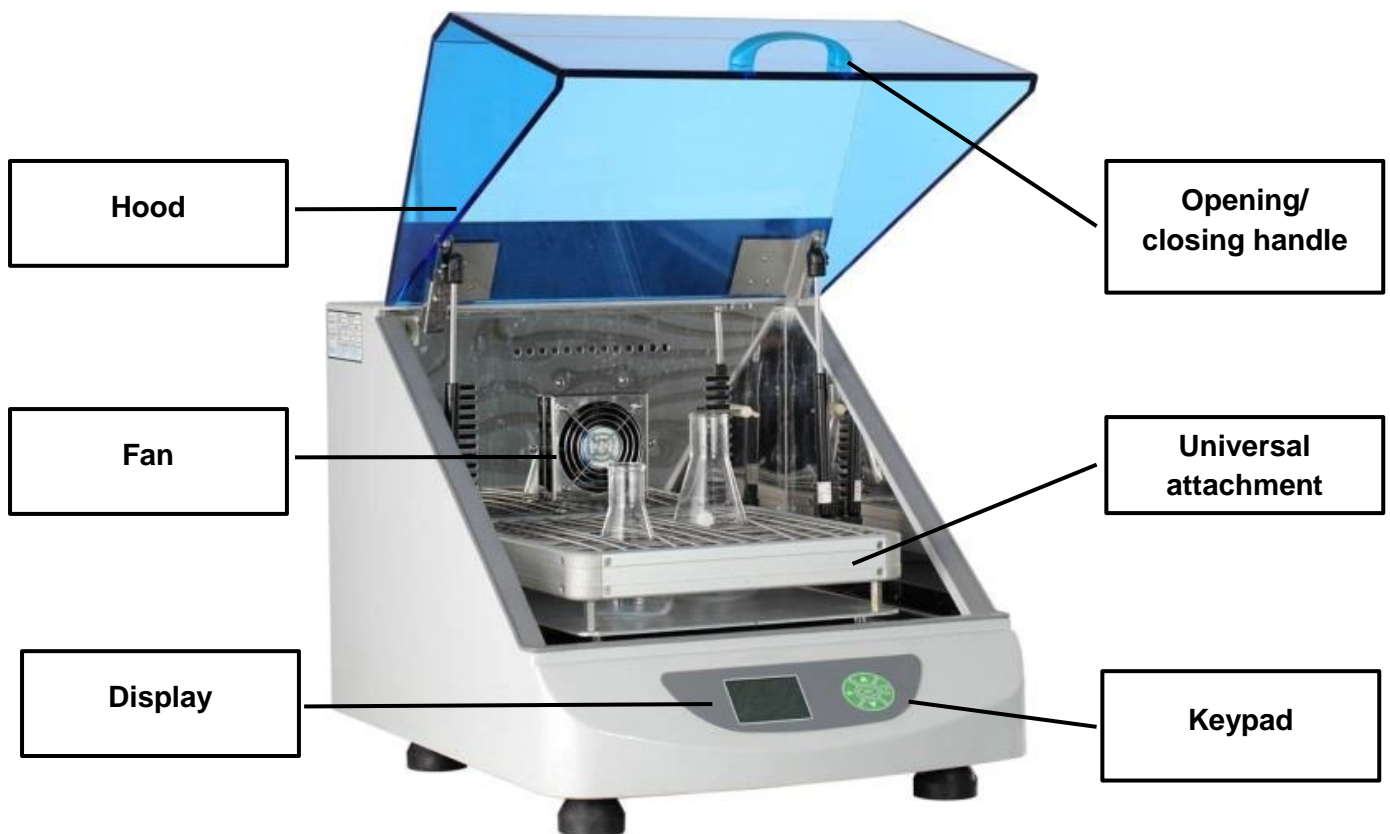
1. Universal attachment
2. Power supply cable
3. User manual

3 Installation

The shaker incubator should be installed in follow conditions:

1. Dry, clean and stable work table with a flat horizontal surface
2. Respect minimum spaces of 30 cm around instrument
3. Room temperature between 15 °C and 35 °C, maximum relative humidity 85%
4. Power supply socket with earth connection
5. Power feed between 220-240 V - 50 Hz

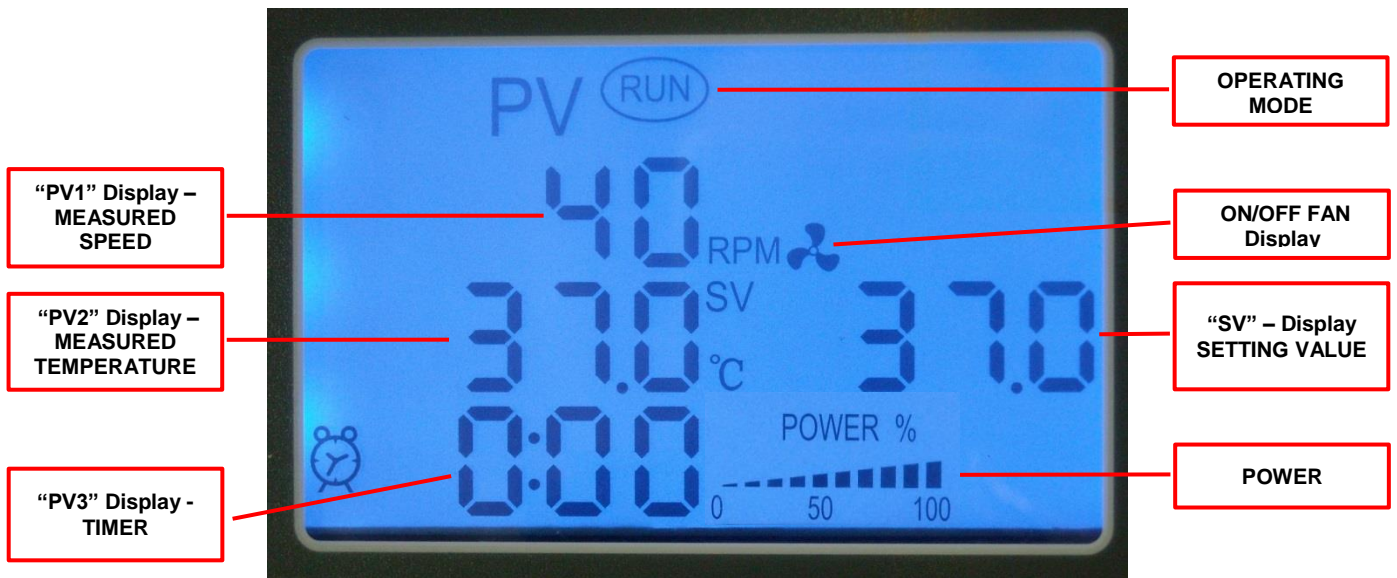
3.1 Instrument parts



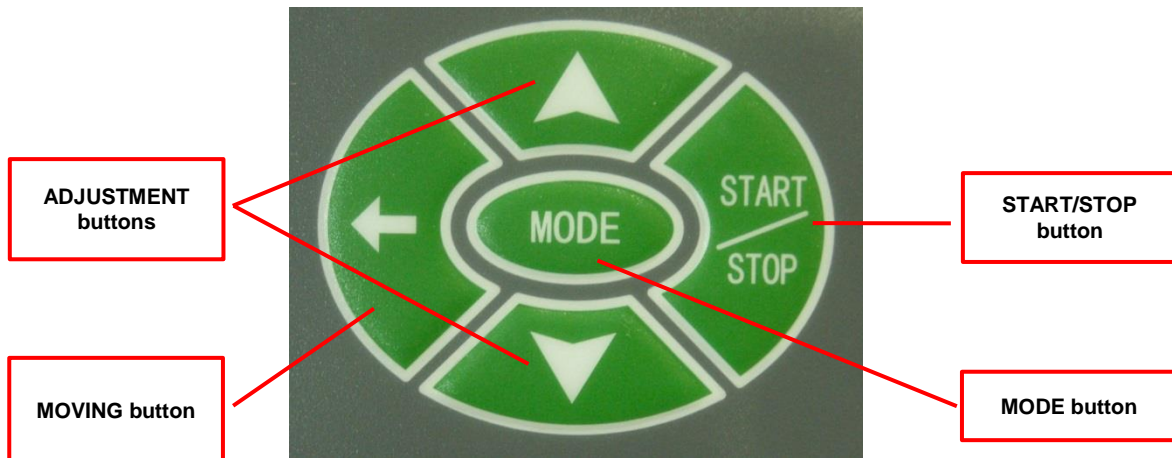
Picture 1



4 Display and commands

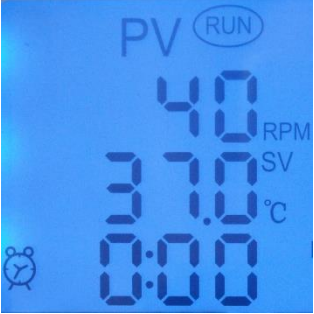

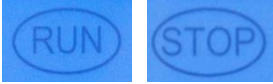

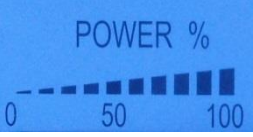





Picture 2



Picture 3



DISPLAY / COMMAND	DESCRIPTION
<p>PV Display</p> 	<p>The PV1 display shows the speed value measured by the instrument.</p> <p>The PV2 display shows the temperature value measured by the instrument.</p> <p>The PV3 display shows the timer value that may be a finite value or signalize the continuous operating mode.</p>
<p>SV Display</p> 	<p>During the setting phase the SV display (set value) shows in sequence the parameters (temperature, speed and time). During the working cycle it shows the set temperature.</p>
	<p>It shows the operating mode of the instrument:</p> <ul style="list-style-type: none"> - RUN, the instrument is working - STOP, the instrument is switched on but in standby
	<p>This indicates the working phase of the fan inside the chamber.</p>
	<p>It shows the percentage of electric power absorption of the instrument.</p>
<p>“MODE” BUTTON</p>	<p>By repeatedly pressing of the "MODE" button you can proceed to the modification of the various operating parameters of the instrument.</p>
<p>“START / STOP” BUTTON</p>	<p>It allows you to start or stop the process of the instrument.</p>
	<p>They allow you to increase or decrease the value of the parameter you are editing.</p>
	<p>The “shift key” allows you to quickly move between the digits of the value that you are editing.</p>
	<p>On/off button.</p>



5 Operation

5.1 Switching on the instrument

Connect the power cord to a power outlet with a protective ground connection.

Switch on the shaking incubator with ON/OFF button on the right side of the instrument.

The display light on and the instrument is ready to start with the parameters set during the last operation.

NOTE: if the instrument had finished a process before being switched off, it will display on the display "End" and make beep. To stop the buzzer, press any key.

5.2 Setting of parameters

With the instrument switched on it's possible to modify the operating parameters inside the setting mode using the button "MODE".

Pressing (short press) more times the "MODE" button, the SV display (set value) shows the different parameters in the follow sequence: TEMPERATURE, STIRRING SPEED, TIMER.

NOTE: All parameters can be changed also while the instrument is working.

5.2.1 Temperature

With the instrument in stanby phase or during the operation, pressing one time the "MODE" button (short press), the SV display blink and shows the temperature value set in that moment.

Use the ▲ ▼ button to increase and decrease the value of temperature from RT + 5°C to 60 °C.

Press again the "MODE" button (short press) to confirm the value and pass to the next parameter.

5.2.2 Stirring speed

With the instrument in stanby phase or during the operation, pressing one time the "MODE" button (short press), the SV display blink and shows the temperature value set in that moment.

Use the ▲ ▼ button to increase and decrease the value of speed from 40 to 300 rpm.

Press again the "MODE" button (short press) to confirm the value and pass to the next parameter.

5.2.3 Timer

With the instrument in stanby phase or during the operation, pressing one time the "MODE" button (short press), the SV display blink and shows the temperature value set in that moment.

Use the ▲ ▼ button to increase and decrease the value of timer from 0 to 99 h and 59 min.

Press again the "MODE" button (short press) to confirm the value and pass to the next parameter.

NOTES:

- **The timer starts when you press the START button**
- **If you do not set a definite time, but is left to the value "00:00", the instrument will work in "continuous" mode, that will not stop until the operator stops it manually by pressing the "STOP" button**



5.3 Start/stop of cycle of operation

After setting of parameters, it's possible start the operating cycle **pressing the “START” button in long way (about 4 seconds)**.

The instrument starts its working cycle and simultaneously also the timer starts.

To stop the working cycle press the “STOP” button. The instrument stops, the display shows “End” and it beeps.

NOTE: To stop the buzzer press a keys.

6 Alarms

The instrument can make some acoustic-visual alarms to report any anomalies:

TEMPERATURE EXCESS – if the temperature measured by the sensor inside the instrument exceeds the set temperature by more than 3 ° C, the heating would stop and the instrument would emit an audible warning.

The beep can be stopped by pressing any key.

- **MOTOR OVERLOAD** – if the motor has been in overloaded for more than 10 seconds due to excessive load fluctuations, the instrument will emit an audible warning.

The beep can be stopped by pressing any key.

- **PROBLEMS ON TEMPERATURE SENSOR** – in the case where the temperature sensor has problems, the display would display the following message “-----” .



7 Pulizia e manutenzione

Proper maintenance and cleaning of the instrument guarantee its good conditions.

It's possible to clean with any detergent provided it is not aggressive and / or corrosive.

You should clean the inside and outside surfaces with a standard all-purpose cleaner sprayed on a soft cloth.

Before proceeding with any cleaning or decontamination, the user must ensure that the method used does not damage the instrument.

IMPORTANT:

If the instrument must be returned for service, it is necessary to provide for proper cleaning and possible decontamination by pathogens of the same.

It is also recommended to put the instrument in its original packaging to send it in for repairs.

8 Disposal of electronic equipment



The electrical and electronic equipment marked with this symbol may not be disposed of in landfills.

In accordance with EU Directive 2002/96/EC, the European users of electrical and electronic equipment have the opportunity to give back to the distributor or manufacturer upon purchase of a new one.

The illegal disposal of electrical and electronic equipment is punished with an administrative fine.