



Forced Air Drying Oven

LB-17FAO

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1. Safety Measures

1.1 Symbols and Warning

Sign	Warning
	General Warnings
	High voltage Caution
	High-temperature attention
	Drive part attention
	Explosive attention
	General Note
	Electrocution Precautions
	Scalding caution
	Empty burn caution
	Leaky attention
	Exclusive water

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	Highly toxic attention
	General prohibitions
	Fire inhibition
	Decomposition Forbidden
	Contact ban
	General coercion
	Connecting ground wire
	Horizontal setting
	Unplug an electrical outlet
	Regular spot checks

Symbols	Warnings
	Do not use in flammable or explosive gas environments: This product is not equipped with explosion-proof features. Using it in areas with flammable or explosive gases could result in fire or an explosion. Kindly refer to 1.2 Chapter
	Make sure you connect the ground cable Make sure that the ground wire is connected correctly. Electrical leakage can cause electric shock, fire, etc.

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	Do not use it when abnormal In the event of smoke or an unusual Odor, immediately turn off the leakage protection switch and unplug the power cord to prevent electric shock, fire, or other hazards.
	Do not wrap the power cord for use If the cable is wrapped, it may overheat and cause a fire accident.
	The power cable must not be damaged Do not bend, stretch, or twist the power cord too much to damage it, which may cause fire, electric shock, and other accidents
	Do not use explosive or combustible substances There are explosive, combustible substances that contain the above-mentioned substances, must not be used, and may cause explosions, fire, and other accidents. Kindly Refer to 1.2 Chapter (List of Dangerous Substances)
	Kindly do not touch the hot part There are hot parts during operation and when operation has just stopped. kindly be aware of burns
	Kindly do not break down or modify this product This product must not be disassembled or altered. It may cause accidents such as failure, fire, and electric shock.
	Time of lightning Kindly turn off the power supply immediately when the lightning starts, because it may cause failure, fire, electric shock, and other accidents.
	Kindly do not place items on it. Kindly do not place items on this product, as it may collapse, cause injury, etc
	When opening and closing doors. When opening and closing the door, kindly pay attention to its opening and closing range (space) and keep your hands and face away from it. Because hands and faces close together will cause injuries, etc.
	Kindly do not use it with the door open. If the door is opened, it will not only fail to control the temperature normally but also cause the danger of abnormal overheating of the heater. Be sure to use it with the door closed. After running, do not open the door to allow the sample to cool quickly. Because the heat emanating from the box will cause the deformation of the control panel and the failure of the controller.
	Do not use corrosive test materials. Although the inner tank is made of stainless steel SUS304 material, it will still be corroded by strong acids and other substances. In addition, there are the doors of the chamber bar, glass glue, etc. may be acid, alkali, oil, halogen (hormone) series of dissolves, and other corrosion, which do not pay attention to.

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	Use the appropriate temperature. The use temperature range is room temperature 300°C; Be sure not to use temperatures outside this temperature range
	Setting of samples The load of the attached shed board is about 30kg (except for customized products), Kindly do not exceed this weight, when multiple test materials, and kindly disperse the setting. Once the test material into too much, it cannot be normal temperature control, to ensure the accuracy of the temperature, Kindly leave 30% space above the shed board, and place the test material.
	Kindly do not place the test material on the bottom of the inner groove If the test material is directly used on the bottom of the inner groove, it will not only cause the machine performance to fail but also cause the temperature in the box to be abnormally high, resulting in accidents. Therefore, be sure not to put the test material directly into the bottom surface. The test material is equipped with an attached shelf, kindly install the shelf board on the internal shelf support.
	Reset the power failure. When the machine stops due to power failure in operation, the machine needs to restart operation after the power supply is restored.
	When the two sections overlap setting. Kindly choose the special shed board bracket, 2 layers placed.
	Do not directly overlap the two layers of scaffolding.
	After installation. It may be due to unpredictable earthquakes, impacts, and other reasons, resulting in the collapse of the device. For safety, Kindly take measures to prevent collapse.

1.2 List of dangerous substances

Explosive Substances	Explosive Substances	Glycol dinitrate, nitro-glycerine, nitrocellulose, and other explosive nitrates.
		Nitrobenzene, trinitrotoluene (explosive) acid, and other explosive nitro compounds.
		Methyl mono ethyl ketone, butyl ketone super acidifiers, super acidified benzene, and other organic superacid compounds.
Flammable Substance	Combustible Substance	Metal [lithium], metal [potassium], metal [sodium], yellow phosphorus, phosphorus sulfide, red phosphorus, nitro fiber ivory, calcium carbide (also known as calcium carbide), lime phosphide, magnesium powder, aluminum powder, magnesium powder and metal powder other than aluminium powder, sodium sulfate (also known as disulfide).
	Acid Substance	Potassium chlorate, sodium chlorate, ammonia chlorate, and other chlorates.
		Potassium perchlorate, sodium perchlorate, ammonia perchlorate, and other perchlorates.
		Potassium peroxide, sodium peroxide, barium peroxide, and other inorganic peroxides.
		Potassium nitrate, sodium nitrate, ammonia nitrate, and other nitrates.
		Sodium chlorite, and other chlorite salts
		Calcium sub-chlorite and other sub-chlorite salts.
	Combustible	Ether, gasoline, acetaldehyde, propylene chloride, carbon disulfide, and other substances with a burning point below minus 30 degrees.
		N-hexane, ethylene, acetone, benzene, methyl, and other substances with an ignition point above minus 30 degrees and below 0 degrees.
		Methanol, ethanol, xylene, and other substances with an ignition point above 0 degrees and below 30 degrees.
		Kerosene, gasoline, turpentine, amyl alcohol, acetic acid, and other substances with ignition points above 30 degrees and below 65 degrees.
	Flammable Gases	Hydrogen, acetylene, ethylene, biogas, ethane, propane, butane, and other flammable substances at a temperature of 15 degrees and a pressure of 1.

2. Introduction

Forced Air Drying Oven LB-17FAO operates at a maximum temperature of 300°C, ensuring efficient drying for various applications. It has a 91-liter capacity and includes 9 shelves for organized drying. The stainless-steel armored heating tube with fins provides uniform heat distribution throughout the chamber. Our oven features a self-diagnostic function for continuous monitoring. It is constructed from high-quality materials, providing durability and reliability in laboratory environments.

3. Features

1. Overtemperature and leakage protection
2. Crafted from stainless steel
3. Uses aluminum silicate fiber cotton for insulation
4. Single door with outward opening
5. Type K thermocouples for temperature regulation

4. Specifications

Model	LB-17FAO
Chamber Volume	91 liters
Number of Shelves	9 segments /45mm
Temperature Range	RT to 300°C
Heating Rate	≤ 60 minutes (RT to 300°C)
Cooling Rate	≤ 60 minutes (300°C to 80°C)
Temperature Fluctuation	± 0.5°C
Temperature Deviation	±2.0°C (at 200°C) ± 3.0°C (at 300°C)
Current	12A
Power Supply	Single-phase AC 220V
Internal Dimensions (W × D × H)	450 × 450 × 450 mm
External Dimensions (W × D × H)	1050 × 620 × 840 mm
Weight	78 kg

5. Applications

Forced Air Drying Oven is used for drying, sterilization, and material testing in various laboratory and industrial applications, including pharmaceuticals, food processing, chemical analysis, and research and development.

6. Instrument Introduction

Right side

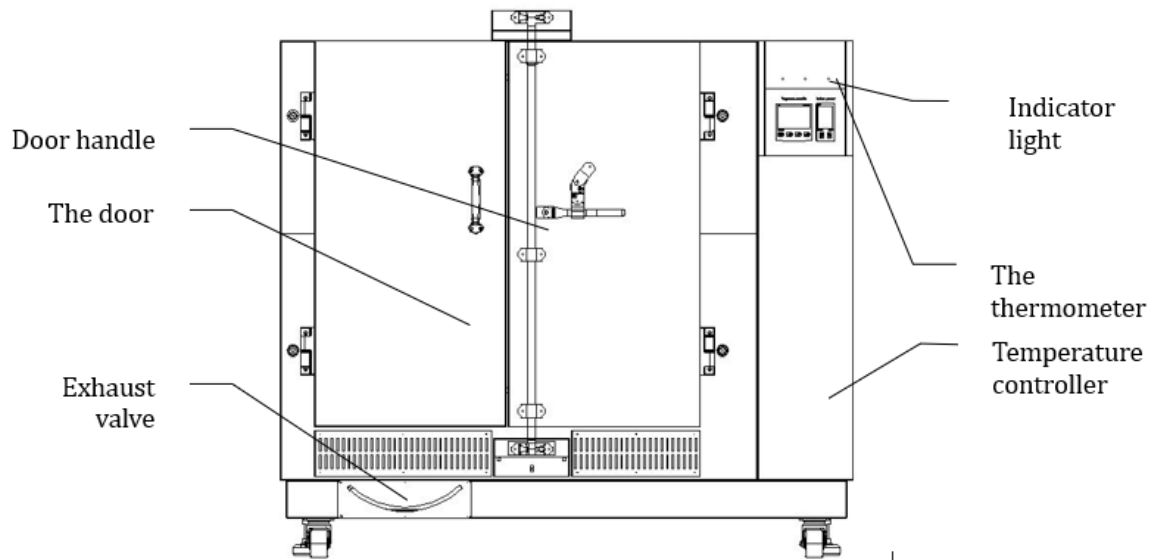


Figure-1

Back side

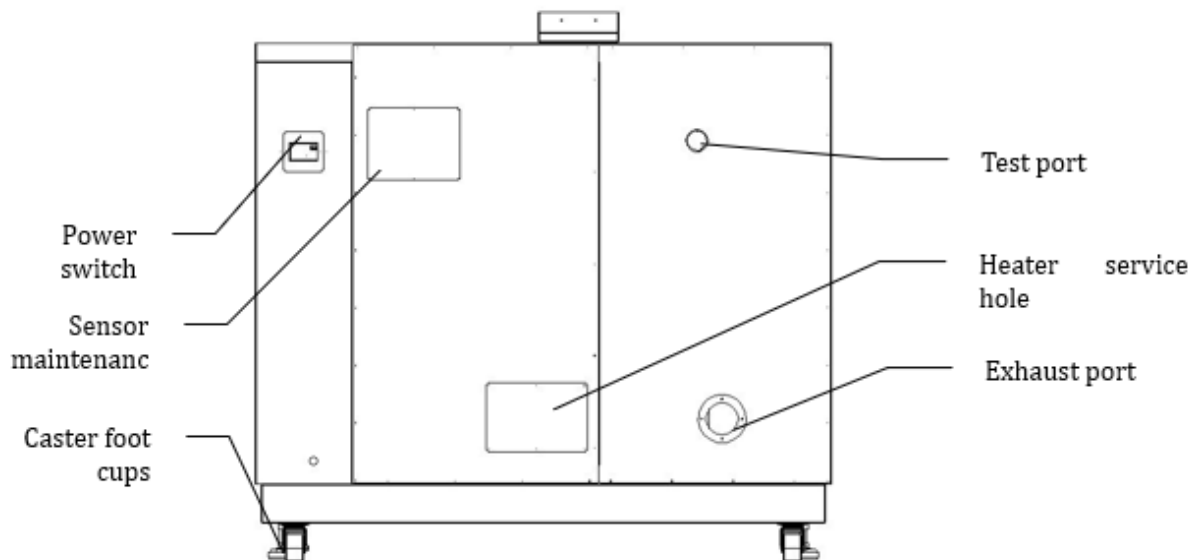


Figure-2

6.1 Control Panel

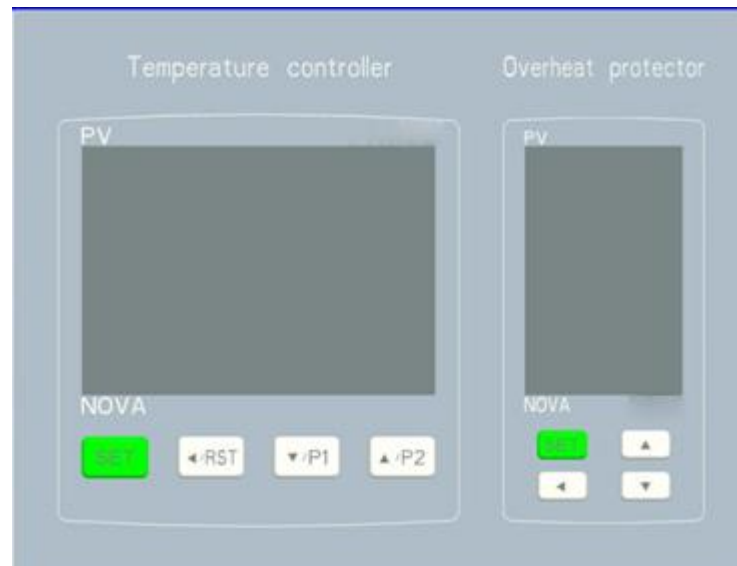


Figure-3

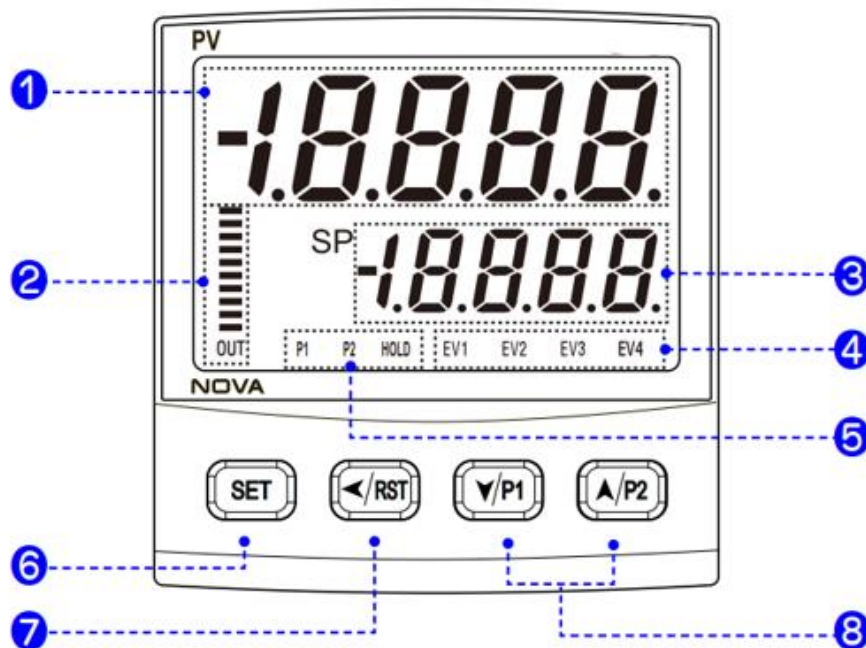


Figure-4 Temperature Controller

Forced Air Drying Oven LB-17FAO

S. No	Content
1.	PV display, parameter name.
2.	Display MV Bar Graph. 90.1 to 100.0%: 10 grid lights are on. 80.1 to 90.0%: 9 grid lights are on. 10.1 to 20.0%: 2 grid lights are on. 0.1 to 10.0%: 1 grid light is on. 0%: Overall, can on light. OUT LAMP: Off when the position is proportional.
3.	SP setting, Parameter Setting Value.
4.	The light is on when the " Event " occurs.
5.	The light is on when P1, P2, and HOLD are in action.
6.	Used when logging in to set content and select parameters. Used when changing the DISPLAY screen in the operation screen. In the running screen, Set for more than 3 seconds →Move to "SET screen". In the SET screen, according to the SET for more than 3 seconds →Move to "Run Screen".
7.	Charge the Digit to be modified, use it when the location is charged. RST: Used when the program stops (about 1 second).
8.	When the parameter content changes Used when moving between combinations. P1: Used when program 1 is running (about 1 second). P2: Used when program 2 is running (take 1 second).

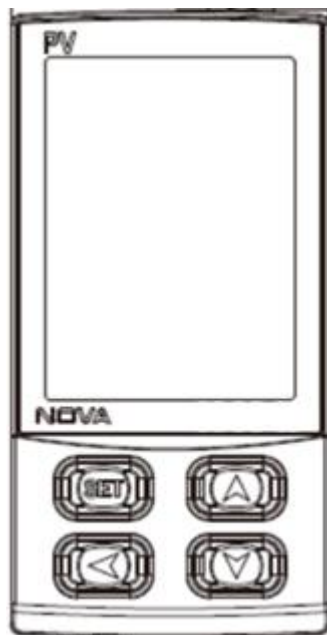
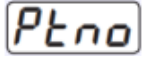
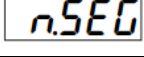
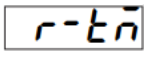
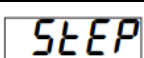
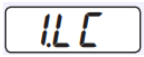
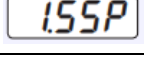
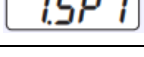
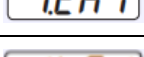
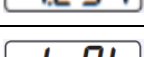
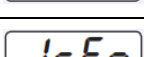
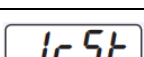


Figure-5 Individual over lift preventer

6.2 Description of Symbols Used in Controller

Symbols	Identification	Name	Uses
	PROG	Program Group.	
	PTNO	Program-related parameter combination.	
	N.SEG	Current segment order.	Used to view the current segment.
	R-TM	Remaining time.	Used to view the time remaining in the current segment.
	STEP	Functional actions.	Used to skip the current program segment.
	1. LC	Parameter setting at the end of the run.	Set the action at the end of the program.
	1. SSP	Starting set points.	Set the starting temperature.
	1.SP1	First paragraph target set point.	Set the sub-paragraph goal setpoint.
	1.TM1	Set the value for the first period.	Set the first run time.
	1.TS1	Time signal.	Set segment time signal (default is off).
	1. RPT	Number of cycles.	Set the program loop function.
	1. REN	The last paragraph.	Set the interval loop to end the segment.
	1. RST	Start segment.	Set the interval cycle start segment.

For operation Mode and Code, kindly Refer to (Operation Mode).

7. Installation

7.1 Before Use

- ⚡ The **LB-17FAO** does not have a plug and requires a single-phase 220V power supply.
- ⊘ Kindly be grounded according to the technical standards of electrical equipment.
 - To avoid electric shock due to leakage, the ground wire must be connected to the ground terminal.
 - The ground wire cannot relate to gas and water pipes. It may cause accidents such as fire.
 - The ground cable cannot relate to the telephone line's ground connection and lightning rod, because it may cause fire and electric shock.
 - Do not use porous sockets. The use of porous sockets can generate heat and is dangerous.

Pay Attention to the Place of Placement

- ⊘ Do not place this product in the following places.
 - Concave and convex surfaces or dirty areas
 - Locations with flammable gases or corrosion hazards
 - Environments where the ambient temperature exceeds 35°C
 - Areas with significant temperature fluctuations
 - Locations with high dust levels or humidity
 - Areas exposed to direct sunlight
 - Environments with excessive vibration

Kindly ensure the area around the product, including the **LB-17FAO** model, is clear within the designated clearance zone. The **LB-17FAO** has a vent on the back, so do not block the vent or obstruct airflow.

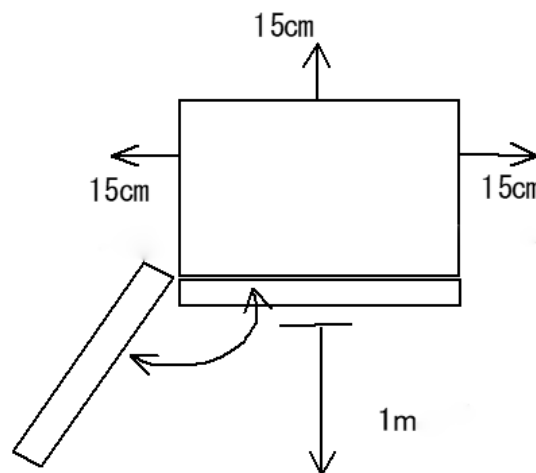


Figure-6

7.1.1 Plug in a power source using a dedicated outlet



Use an outlet that corresponds to the capacity of the power supply.

Power supply capacity **LB-17FAO** AC220V 12A

If the device does not start despite the power supply being ON, Kindly check if the main power supply voltage is low, or if other machines on the same power line are causing the issue. You can try connecting other machines to a separate power line as an alternative solution.

7.1.2 For Initial Use



When using the product for the first time, you may detect an odor when high temperatures are reached. This is due to the decomposition of material components in the heat-resistant material and is not a fault of the machine. It is recommended to run the product at maximum temperature before its first use.

7.1.3 Setup of shed board and test material



Depending on the product model, a different number of shed boards are provided. For the **LB-17FAO** model, two shed boards are included in the oven, along with four supports. Kindly ensure the remaining shelves are positioned correctly within the oven.

The heater is installed beneath the rectifier plate. As a result, the temperature in and around the rectifier plate will be higher than the set temperature. Placing the test material directly on the rectifier plate could cause it to burn or even result in a fire.

To prevent this, the shed board should be installed as shown in figure 7, ensuring that the test material does not come into direct contact with the rectifier plate. If you need to remove the shed board to accommodate the shape of the test material, make sure to leave enough space between the rectifier plate and the test material. Under no circumstances should the test material be placed directly on the rectifier plate."

This version improves the flow and makes the instructions easier to understand while maintaining the original technical details.

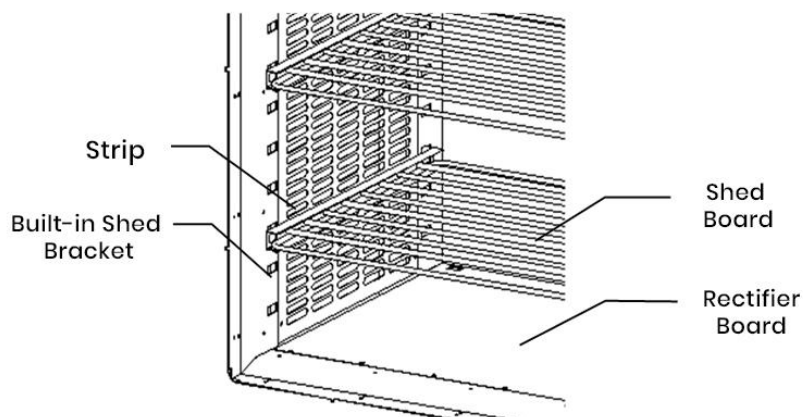


Figure-7

7.2 Safety Precautions for Installation

7.2.1 Do not use in Flammable, Explosive gas ranges.



It is prohibited to use in the range of flammable and explosive gases. Because this product has no explosion-proof structure, the leakage circuit breaker".



When the arc light is generated in the action, it may lead to fire, explosion, and other accidents.

For inflammable and explosive gases, Kindly Refer List of dangerous substances.

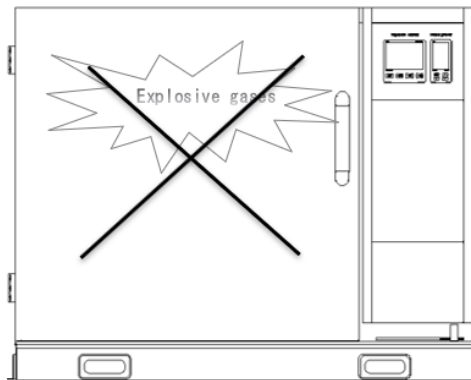


Figure-8



Be sure not to use explosive, combustible substances and articles containing such substances, because of the risk of explosion, fire, and other hazards.

For explosive and combustible substances Refer to list of Dangerous Substances.

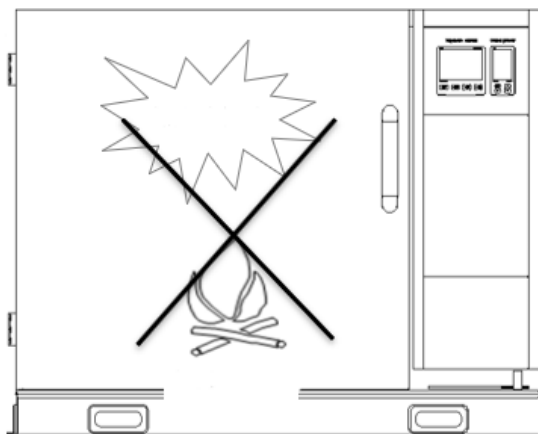


Figure-9

7.2.2 Do not transfer



Due to the malfunction, kindly do not modify this product based on requirements.

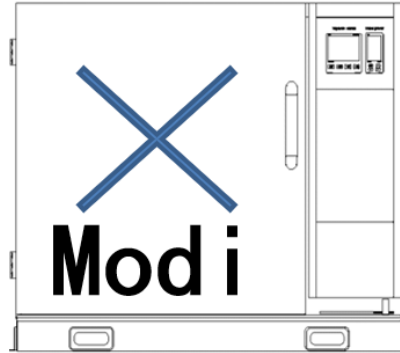


Figure-10

7.2.3 Kindly Store in a level Place



Kindly ensure the product is placed on a level surface. If not properly leveled, it may lead to unexpected accidents or malfunctions.

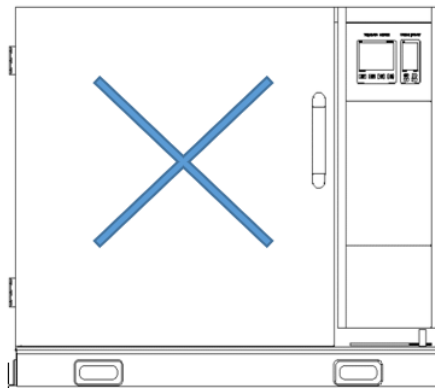


Figure-11

7.2.4 Do not place items on it



The load resistance of the shed board is equal load of 30kg (except for customized products). Kindly disperse the sample.

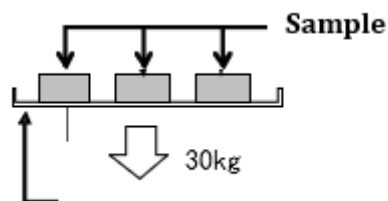
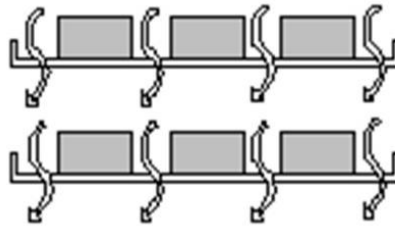


Figure-12

7.2.5 Do not put the sample Excess

⊘ Excessive test material may cause abnormal temperature control. To ensure accurate temperature readings, it is important to use the shed board and leave a gap between the materials. Ideally, more than 30% of the space on the shed board should remain unoccupied.



Free up more than 30% of the space

Figure-13

7.2.6 Place

⚠ Sudden events such as earthquakes or impacts may cause the product to collapse, shift, or become damaged. It is best to place the product in an area with minimal foot traffic and take appropriate safety precautions.

7.2.7 About the Use of Power Cables

⊘ Do not bundle the power cables, as this may cause them to overheat and lead to a fire. Do not bend, twist, stretch, or process the power cables, as this could result in a fire or electric shock. Do not place the power cord under furniture (such as tables or chairs) or clamp it with objects, as this can damage the wires and increase the risk of fire or electric shock.

⚠ Do not place the power cord near stoves or other heat sources, as the protective layer of the cord may melt or burn, leading to a fire or electric shock. If the power cable is damaged (e.g., exposed wires, broken cable, etc.), immediately turn off the circuit breaker, disconnect the main power supply, and ensure the power cable is connected to the appropriate outlet.

7.3 Installation Guide

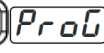
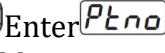
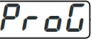
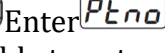
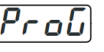
No	Items	Implementation Method	Reference
1.	Accessories	Confirm the number of attachments according to the contents in the attachment field.	Refer Accessories.
2.	Settings	Visual confirmation of environmental condition Attention: Be aware of your surroundings.	Refer to Pay Attention to the Place of Placement.

Forced Air Drying Oven LB-17FAO

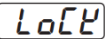
Action relationship			
1.	Supply voltage	Use a multimeter to measure the user's voltage value (Outlets, etc.) Measure the voltage while running (within specifications) Note: When installing plugs and leakage protectors, Kindly use parts within the specifications	Be sure to connect the ground wire and dedicated power supply. Refer Specifications.
2.	Running starts	Start of operation Perform fixed value operation, automatic stop operation, automatic start operation, and program operation.	Refer Setup of the shed board and test material.
Instructions			
1.	Instructions	According to the instruction manual to the user for each part of the operation instructions.	Refer to Operation Mode, Safety Measures, and List of Dangerous Substances.
2.	Trouble code	Explain the fault code to the user according to the operation manual.	Refer to Troubleshooting.
3.	Maintenance point inspection	Make the operation instructions of each part to the user according to the instruction manual.	Refer Maintenance.
4.	Installation complete Recording matters	Record the date of installation on the product label.	

8. Operations

8.1 The operation mode

S. No	Name	Instructions
1.	Set Value Run (P2)	Press for three seconds and enter   Press to  Enter  Press or enable to enter the corresponding fixed value running parameter Settings,   PTNO=1 Press three seconds to start running  Press three seconds to stop running 
2.	Program Run (P1)	Press for three seconds and enter   Press to  Enter  Press or enable to enter the corresponding program running parameter Settings,   PTNO=1 Press three seconds to start running  Press three seconds to stop running 
3	Automatic stop	Press for three seconds to enter   Press to Enter   Press or make PTNO=   1 Press to enter 1. LC and modify its parameter to RST, Press three seconds to start the program, the Program will stop automatically after the end. 

The operation mode of this product cannot be changed during operation. If users need to change the mode, kindly stop the operation and then change it.

S. No	Name	Instructions
1.	Over temperature protection	Overtemperature protection features: Associated with the set temperature of this product, when the temperature in the box rises or exceeds the set temperature, the buzzer buzzes, the red indicator light, the EV1 light instrument, and automatically stops heating.
2.	Correction function	Correction function: When there is a difference between the target temperature in the box and the controller temperature (sensing temperature), the function of correcting the difference.
3.	Interface lock function	Lock functions that have been set to work. Set parameters to lock and unlock. 

8.2 Run Mode

The setting of the lift preventer

To prevent temperature, overrise, in the safety device, in addition to the automatic overrise prevention function in the controller (automatic reset), there is also an overrise prevention device (manual reset) composed of an independent temperature measurement loop, CPU, sensor, output loop, etc., which uses double safety protection measures.

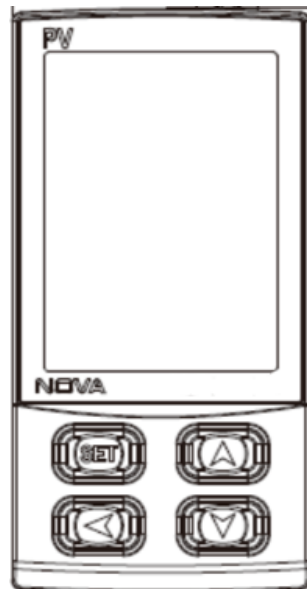


Figure-14

Set directly, press the  increase or  decrease key to set the temperature value required for overtemperature protection, and the temperature value set by ultra-high temperature must be greater than the "maximum temperature" during the test. 



Quick setting, press $\square$ to set the value of the first digit will begin to blink, you can press the increase key $\square$ or reduce the key $\square$ to increase or decrease the value of the action. $\square$ $\square$ $\square$ After the completion of the increase or decrease, then press the shift key to switch to the second digit, so the cycle goes on, when you have set the four values, press the set key $\square$, and you can write this set value to the controller, $\square$ Complete the setting.

Note:

Overtemperature protection must be set before the test. If not set, it may cause damage to the test.

8.3 Running Order (Fixed Value Running)

1. Select operation mode and start of operation.

Operate according to P18 and enter PTNO=2 Interface.

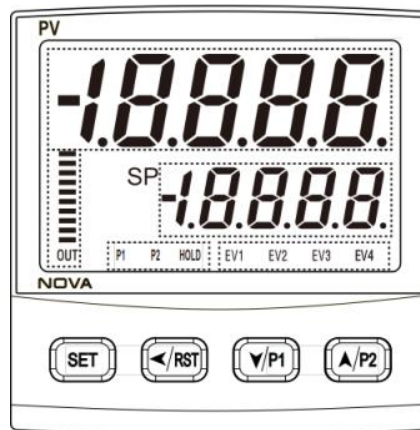
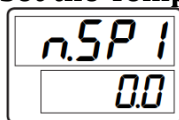


Figure-15

2. Set the Temperature

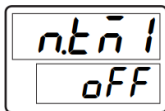


Press bits to set the value size



Set the Fixed Value when run, 2. SSP=2.SSP

3. Set the time



Press the button once to enter the time setting, press the button to

select the number of digits, press or to set the value size



Time mode is HH: MM (hour: minute)

The initial value of running time is 0:01. If you change the time, you need to set the number of cycles (2. RPT) parameter to 1.

4. Run to Stop

Press three seconds to return to the main interface  (Refer to Figure 15)
 Press the button for three seconds to start the fixed operation, and the P2 indicator is steady on  Press the button for three seconds.  Operation stops, P2 light goes out

8.4 Operation Sequence (Program operation)

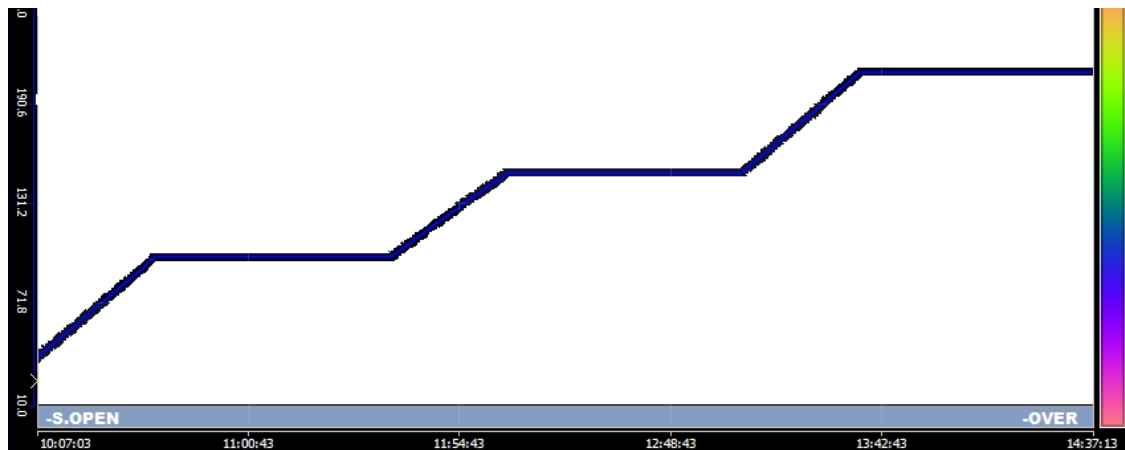


Figure-17

Example Program Set up

The initial temperature is 40°C, from 40°C to 100°C, the temperature rise time is 30min, constant for 1 hour; From 100°C to 120°C, the temperature rise time is 30min, constant 1Hour; From 120°C to 150°C, the temperature rise time is 30min, constant 1Hour, and the program will automatically stop after the end of the operation.

SSP=40, SP1=100, TM1=00:30

SP2=100, TM2=01:00

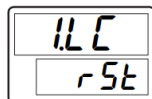
SP3=120, TM3=00:30

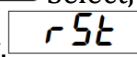
SP4=120, TM4=01:00

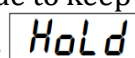
SP5=150, TM5=00:30

SP6=150, TM6=01:00 (the above example is P1 default).

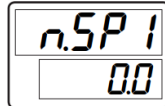
1. Select running mode and start running (Refer to Figure 15)
Operate according to P17 and enter PTNO=1 interface
2. **Set the action at the end of the program run**



Select, the program will automatically stop running after the end of running. 

Select, continue to keep the current temperature, and continue to run after the program ends. 

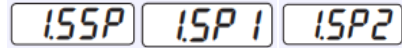
3. Set the temperature.



Select the number of digits or set the value size.

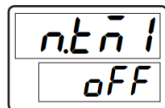


The program runs in a mode composed of multiple programs, which enter sequential modifications PTNO=1



To the desired final stage of the target temperature.

4. Set the time

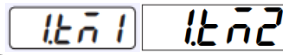


Open time Settings, select bits or set the value size.



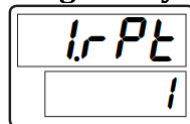
. The time unit is HH: MM.

Enter to modify PTNO=1



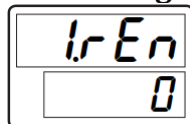
Each time value is up to the desired final segment.

5. Program Cycle Function Setting



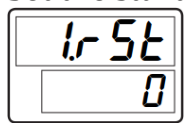
When set to 0, it is an infinite repeated cycle, and when set to 1 Then it loops 1 time. Range (0--999).

6. The setting of the end of the program



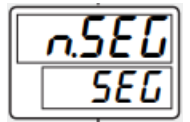
Set the final segment to run to the end of the final segment (Example: Set to 6, then run to end SP6).

7. Set the start of the interval



When set to 1, you start running from segment 1 (SSP -- SP1).

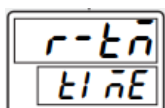
8. View the Current Segment.



Initial page Press the key until look at the above interface, the display value is the current program segment



9. View the remaining time of the current Session

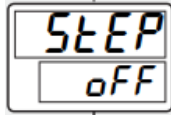


Initial page Press the key until you look at the above interface,



The displayed value is the remaining time of the current program segment, in HH: MM.

10. Skip the current segment and enter the next Segment



Initial pages press the key until look at the interface above, then press the key,  .

If it is displayed as on, you can skip the current section and enter the next section.

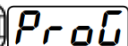
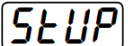
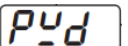
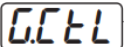
Select to confirm will still be in the current interface, confirm once to skip the current segment.

8.5 Quick Function (Correction, Locking Function)

8.5.1 Use the Correction Function

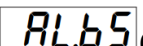
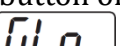
The so-called correction function is the function of correcting the difference between the actual temperature in the box and the control temperature (sensing temperature) of the temperature controller (which can be set within the range of the temperature controller).

- 1) The purpose of the set temperature is to run, after the temperature is constant, use the temperature recorder and other instruments to check the temperature in the box.
- 2) Check the difference between the set temperature and the temperature in the box.
- 3) **Setup steps:**

- Press three seconds on the boot interface, to enter;  
- Press once to enter,  
- Press the SET key once to enter,  
- Press twice to enter (you need to enter the password in the PW  D interface,) 
- Press // and after entering the password, press the SET key once to enter    

Note: Move numeric digits,   / change numeric size) .

Press once to enter  

- Press nine times to enter the screen.   Continue to press the button to enter BS. P1, BS. P2, BS. P3, BS. P4,  BS0, BS1, BS2, BS3, BS4. Press the button once on the  BS4 interface to return to the interface of 3.6. .

AL.BS for full range fix; It is recommended that the full range correction be set to 0 and that a segmented correction be used.

BSP1-BSP3 is the segment correction point

BS0-BS4 is the correction point of the segment interval

Example: When the meter displays 100 degrees, 150 degrees, and 200 degrees, the test equipment displays 101 degrees 149 degrees, and 202 degrees, respectively.

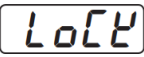
At this time, in the correction interval, the segment correction values for the equipment are: BS0 is set to 0, BS1 is set to 1, BS2 is set to -1, and BS3 is set to 2. BS4 needs to be set to the same correction value as BS3.

The segment correction is set to:

Correction points		BSP 1	BSP2	BSP3	
		100	150	200	
Correction value	BS0	BS1	BS2	BS3	BS4
	0	1	-1	2	2

- After the correction is completed, press the button for 3 seconds to return to the main interface running. .
- If the input is too large, the difference between the actual temperature and the displayed temperature will be too large.

8.5.2 Use the lock Function

- Lock the function that has been set to run, and set the temperature to achieve locking and unlocking (LOCK)
- Refer to the steps in Use the correction function (Using Calibration function) to select . Then keep pressing select and set to the parameter to OFF or ON.   After setting, press the button for 3 seconds to return to the  Running, main screen.

9. Maintenance

9.1 Daily Check/ Maintenance

- Always disconnect the main power supply when inspecting and maintaining, except in special circumstances.
- Kindly check or maintain the machine when it returns to normal temperature.
- Do not disassemble the machine.
- Kindly wipe the stain with a wrung-out soft cloth, do not use gasoline, banana water, cleaning agent, brush, or other substances, as it may cause deformation, deterioration, discoloration, etc.

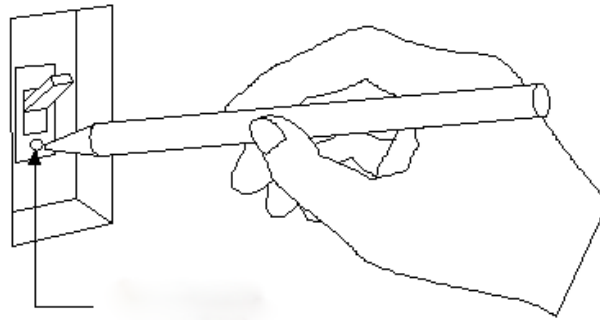


Figure-18

- Check the leakage protector function regularly.
- Check the leakage protector function regularly.
- Connect the cable line to the power test.
- First, open the leakage protector to ON.
- Then, press the test switch of the leakage protector with the tip like a pencil. If the leakage protector is disconnected, it will be normal.

9.2 When not used for a long time, or discarded

When not in use for long periods.	Attention Cut off the body's power supply and remove the power cable from the power supply.
When abandoned.	Warnings • Do not place in an area where children play. • Do not lock the door when discarded, remove the handle and scrap it. • Kindly dispose of large waste products.

9.3 Disposal Precautions

When you dispose of it, kindly start from an environmental perspective, break it down as much as possible, and dispose of it separately. Besides, it is also necessary to consider many factors such as resource reuse. The main components and materials used in this device are as follows:

Main parts	Material
Mechanism Department (Main components)	
Exterior fittings	Cold-rolled steel plate with spray coating
Interior Fittings	Stainless steel SUS304
Heat Breaker	Aluminum silicate cotton
Door Chamber Strip	Silicone rubber
Handles	Cast aluminum, epoxy spray
Signage	Polyethylene (PET) resin film

Electrical Series Main Parts

Name of Main Parts	Material
Heater	Stainless steel armored heating tubes.
Motor	Steel plate, copper wire, resin-insulated wire.
Substrate Type	Composite materials (relay, resistor, transformer, etc.)
Power Lines/Wiring Materials	Synthetic rubber insulating protective layer, resin-based insulating protective layer.

10. Troubleshooting

This product is equipped with an internal self-diagnosis function of the controller and an independent safety device of the controller.

The cause and treatment method of safety device action are given below

Fault Code

When the product is faulty or operating abnormally, the fault light on the control panel will illuminate and display a fault code. If an issue occurs, kindly verify the fault code and stop the operation immediately.

Safety Devices	Symptoms	Cause and treatment
Abnormal Sensor	S.pn code display	Temperature sensor disconnected, abnormal
SSR disconnected	EV1/EV2 signal light	SSR break
Heater disconnected	EV2 signal light on	Heater disconnected
Abnormal display	E.ys code display	EEPROM, DATA loss
Abnormal internal communication	The SP decimal indicator is off	Poor communication status Kindly check the communication loop
Temperature rise	EV1 signal light	Overrise preventer action, kindly confirm the set temperature.
Abnormal temperature correction	-OVR code display	Fixed when the temperature is outside the normal range

Symptoms	Verify
Cannot start even with power on.	- Verify that the power cord is indeed properly connected to the power supply, socket, etc. - Is there a power outage?
When the temperature cannot rise.	- Set the value lower than the temperature inside the box. - Has the voltage to the power supply dropped? - Is the ambient temperature lower? - Is the cooling load in the box too large?
Temperature changes during use.	- Is the set temperature appropriate? - Has the voltage to the power supply dropped? - Does the change in ambient temperature increase? - Whether the load in the box has increased
The displayed temperature does not match the measured temperature.	If the set value of the correction is a value other than [0], set it to [0]. Confirm the set value [use the complement function].

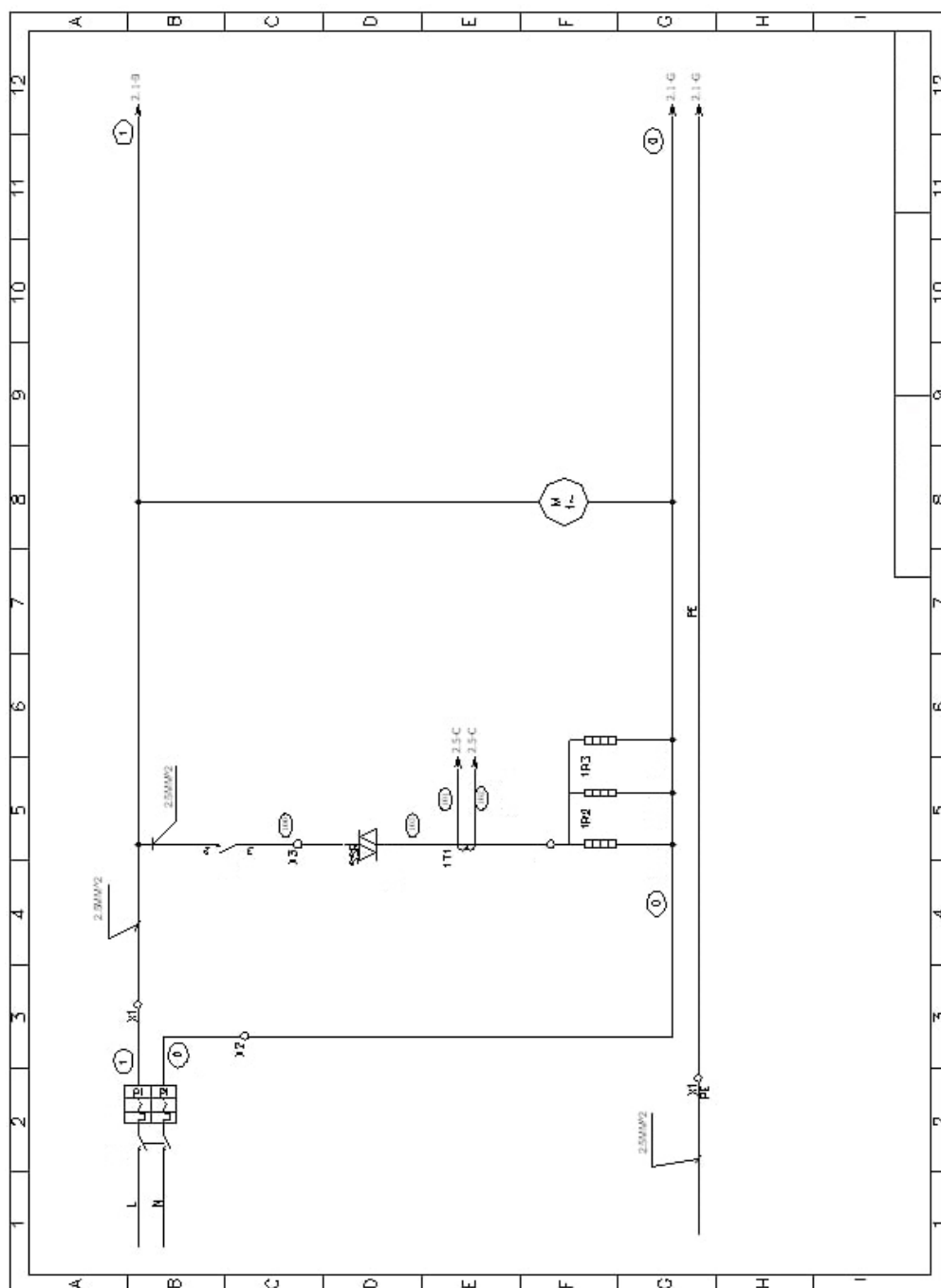
In short, when the above abnormal situation occurs, kindly disconnect the body leakage protector immediately, and take off the power cable

11. Accessories

Optional Accessories

Accessories	Quantity
4.3-inch Touch Screen	1
Shelve	1

12. Circuit Diagram



The contents of this instruction manual may be changed in the future without prior notice.



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