

Version : 2020

RECIRCULATING HEATER



USA-RH-11L



TABLE OF CONTENTS

Keep this manual on-hand so it can be used by all operators of the unit. Use the unit only in the way described in this manual. Failure to follow the instruction in this manual may cause wrong operation.

1. General Description	3
2. Graphic Symbols	4
3. Key Features	5
4. The Outward	6
5. Installation	7
6. Setting and Operation	8
7. Specification	12
8. Troubleshooting	13

1. GENERAL DESCRIPTION

Thank you for purchasing our product. We know that in today's competitive marketplace, customers have many choices when purchasing laboratory equipments.

We appreciate your choosing our quality product. Our stands behind our products and wants to let you know we are here if you need us.

Before you use the unit, read this entire manual carefully to understand how to install, operate and maintain the unit in a safe manner.

Your satisfaction with the unit will be maximized as you read this manual thoroughly.

Our capable products will satisfy you by the best performance of with easy operation.

2. GRAPHIC SYMBOLS

BE SURE THAT YOU UNDERSTAND ALL OF THESE SYMBOLS
BEFORE OPERATING THE UNIT.



Important operating and / or maintenance instruction.
Read the accompanying text carefully.



This symbol indicates items and procedures that are **STRICTLY PROHIBITED** with regards to the unit.



Potential electrical hazards.



Explosive.



No disassemble.

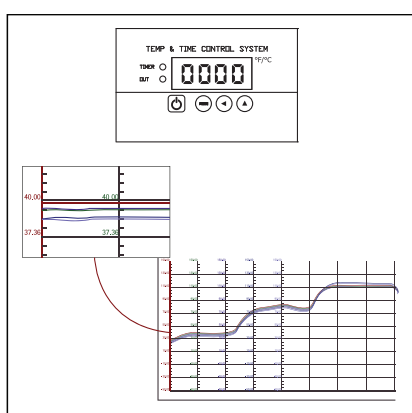


Flammable.

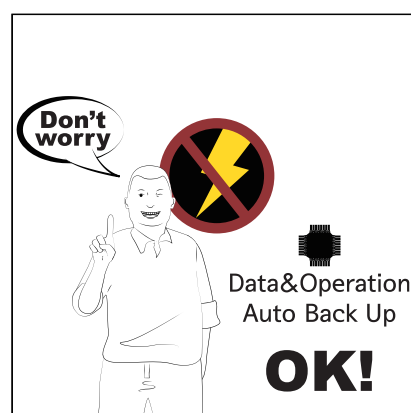


Hot surface or steam.

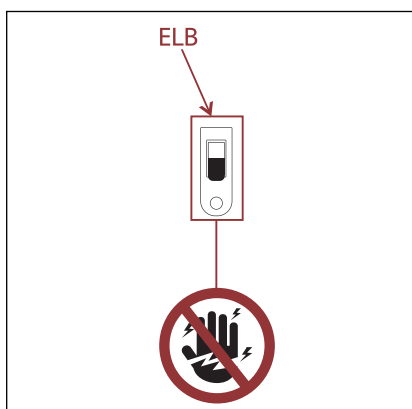
3. KEY FEATURES



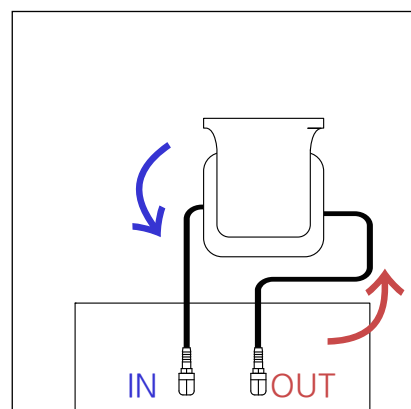
- Digital display of temp and time
- Multi key-in (100Ω(DIN Pt100Ω), KPt100Ω(JPt100Ω), K(CA))
- Precise temperature control



- Auto back up

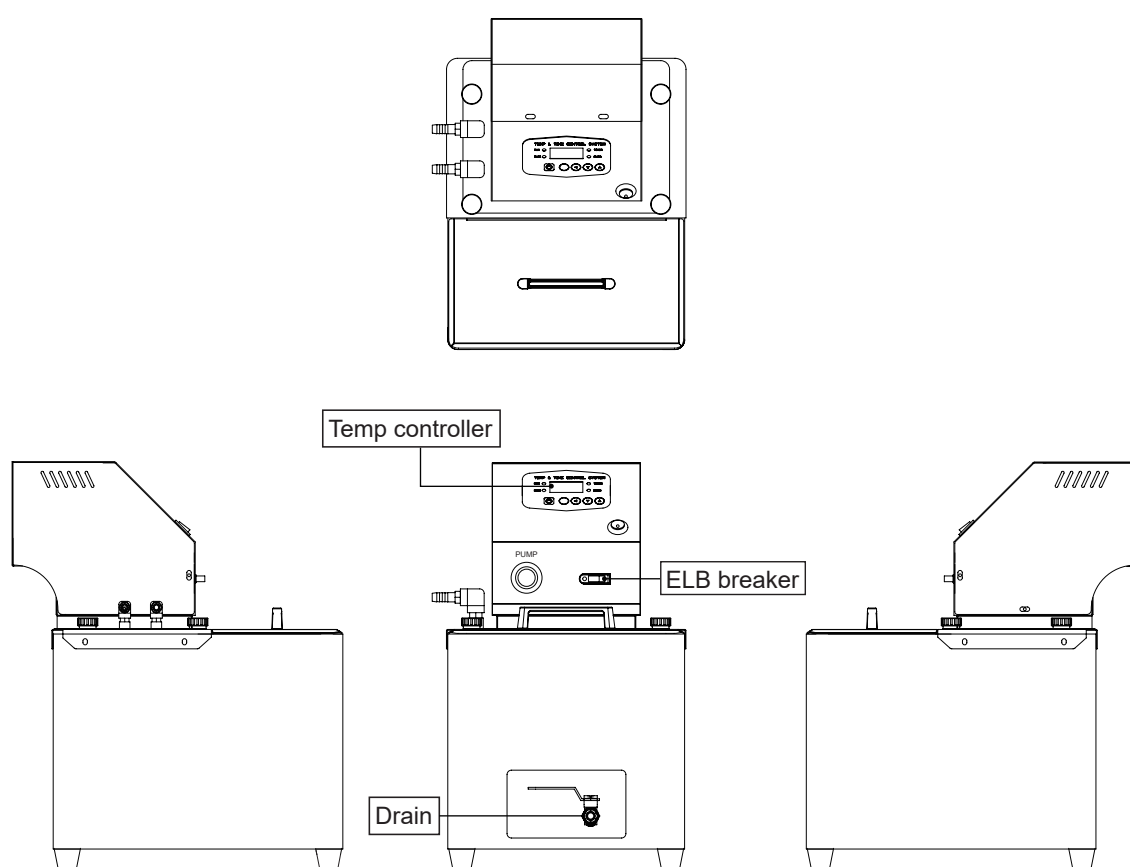


- Over-temperature protection function



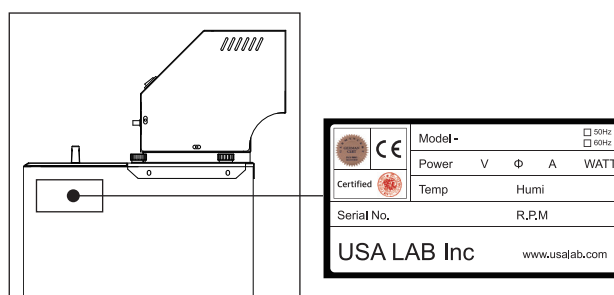
- Excellent heat exchanging

4. THE OUTWARD



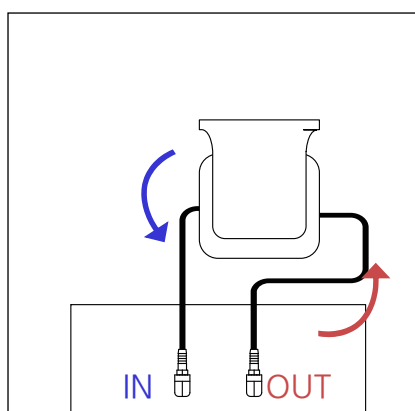
<USA-RH-11L>

5. INSTALLATION

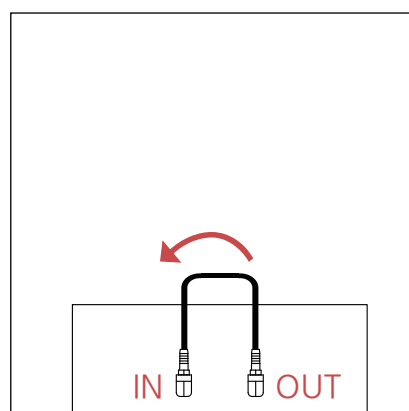


- ! Serial label shows the electric power specification of the unit.
Connect power and turn on the main switch (E.L.B)

Dual application



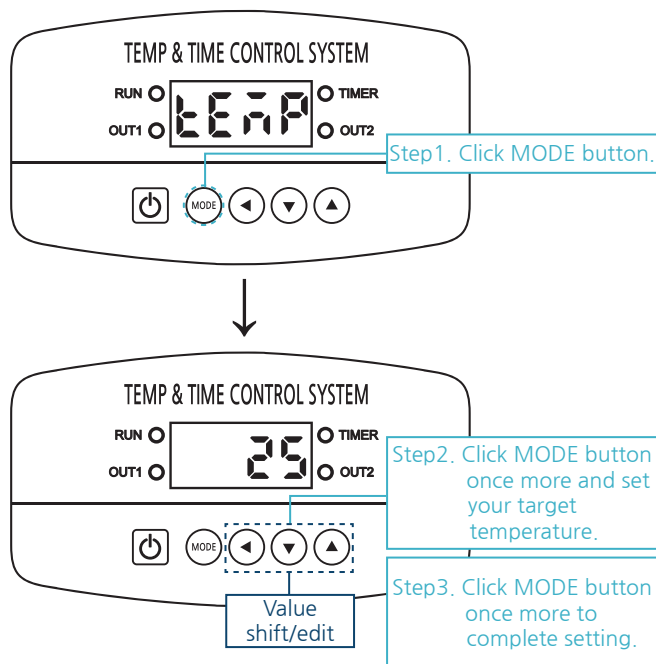
In case of connecting with
other device.



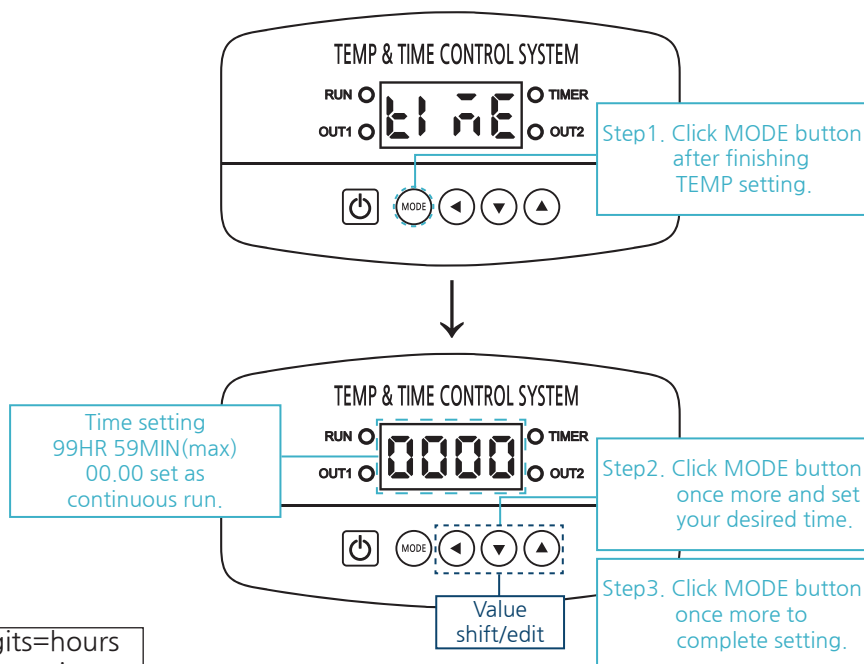
In case of connecting itself.

6. SETTING AND OPERATION

(1) TEMP mode



(2) TIME mode



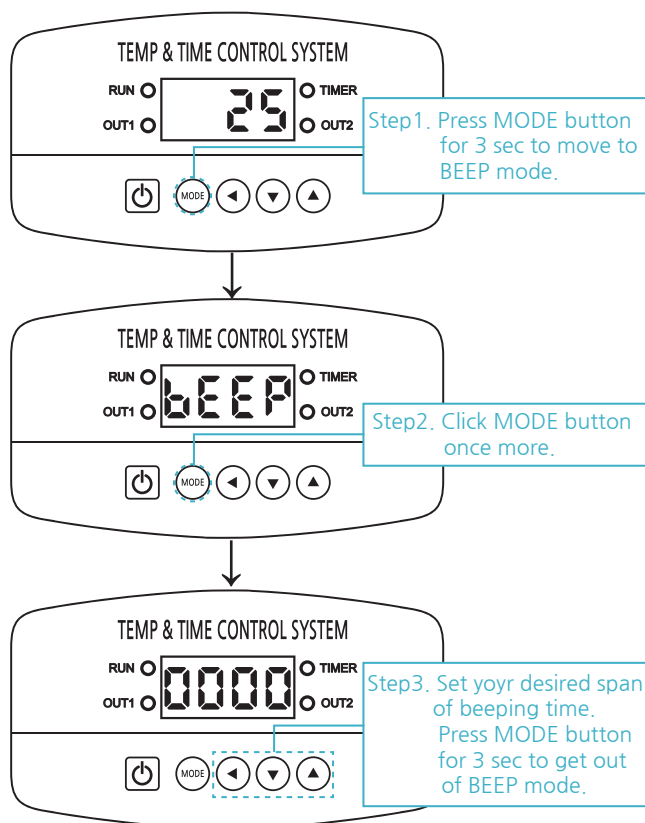
※The first 2 digits=hours
The last 2 digits=minutes

If you want a minute-second or day-hour time combination instead, feel free to contact your supplier.

※Be aware that 00.00 means infinite value.

The unit will continue to run until the user manually turns it off.

(3) BEEP mode

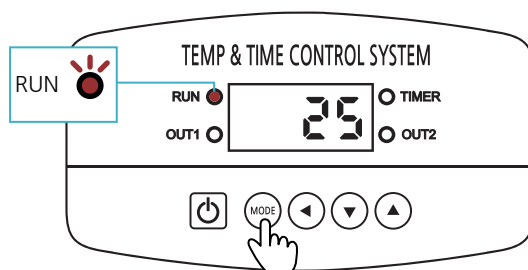




The span of time set under beep mode is the duration of the beeping once the set operating time has been finished.




1 buzzer sound/sec.

The BEEP timer will only operate once TIME mode is set.

(4) Start / Stop the unit



Press  for 3 sec and the unit will start running with RUN lamp on.
Press  for 3 sec and the unit will stop running with RUN lamp off.

-  OUT1 lamp will be on or blinking during the unit runs.
-  TIMER lamp will be blinking and it will be on when the set temp is reached.
-  OUT2 is nothing to do with this product.

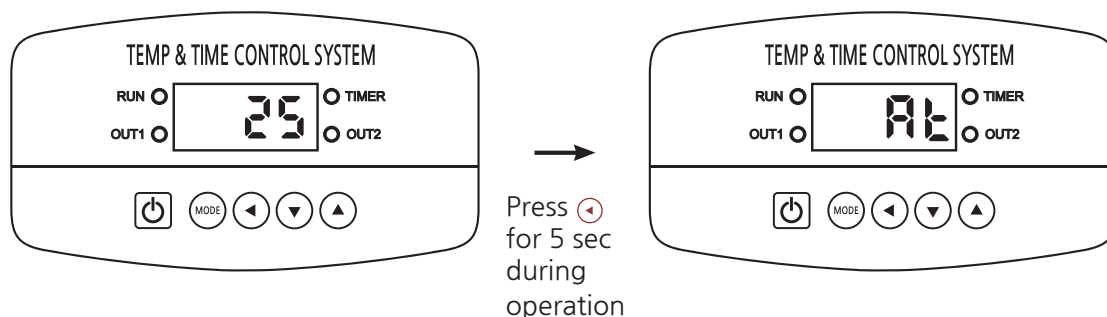
(5) Auto Tuning(AT)

AT is recommended under 2 cases.

case1. When the change of current temp is fluctuating more than $\pm 0.1^{\circ}\text{C}$.




case2. When the unit can not reach at the set temp.

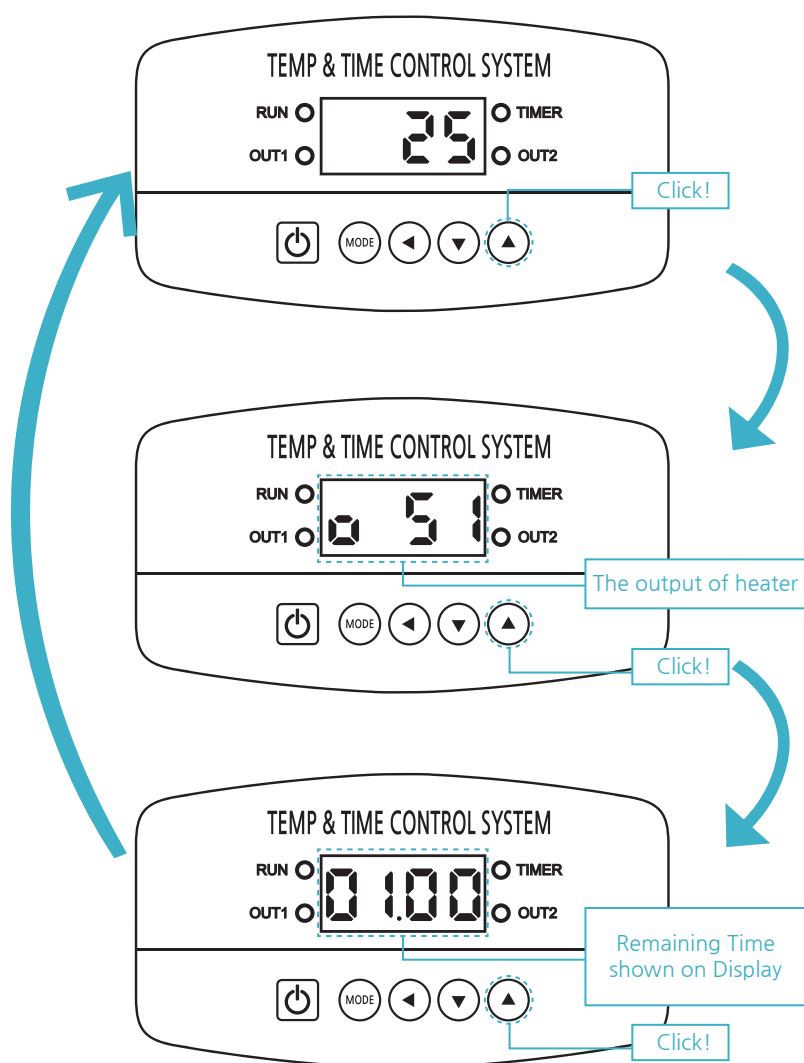
You can enter / quit AT mode by pressing  for 5 sec when the unit runs.



AT will be finished automatically when it is done.

(6) Checking the remaining operation time and the output of heater

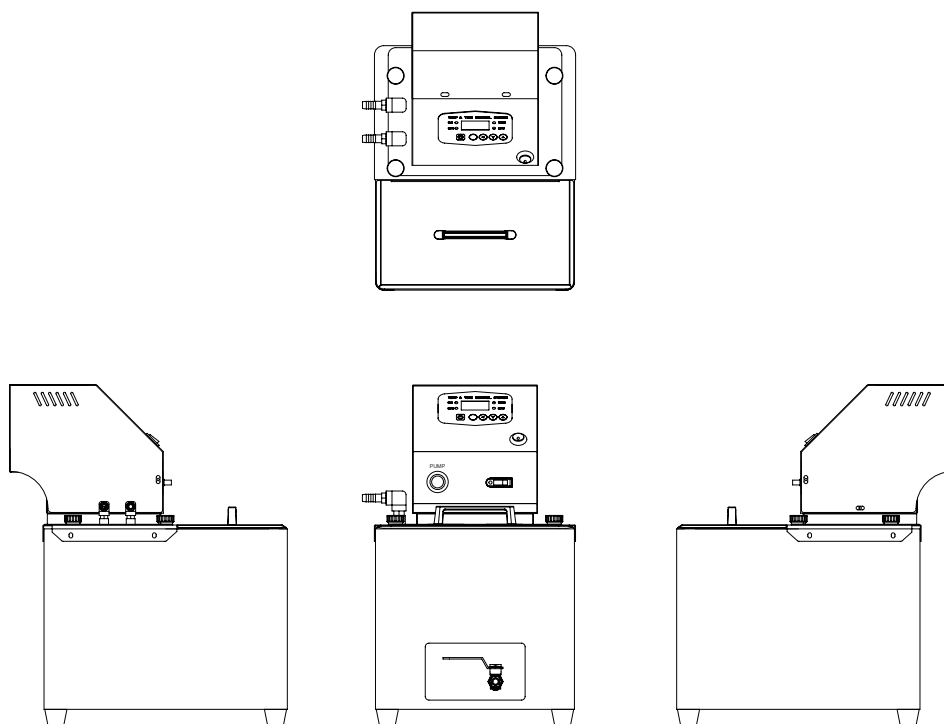
- ➔ You can check the output of heater by clicking  button for 1 sec.
- ➔ You can check the remaining operating time by clicking  button one more time.
- ➔ You can return to the original display by clicking  button one more time.



* 0.100=100% Output of heater
 0.60=60% Output of heater
 0.30=30% Output of heater






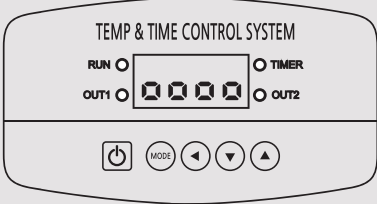
7. SPECIFICATIONS

RECIRCULATING HEATER - USA-RH-11L



Model	USA-RH-11L
Temp Range	Ambient +5°C to 99°C (Ambient + 9°F to 210°F)
Temp Controller	Digital PID Controller
Time Range	00.00 to 99HR 59MIN (MIN SEC) Selectable Digital Display
Capa	10.8 L
Heater Capa	4KW
Dimension Internal (W×D×H)	240x300x150(mm) 9.45x11.81x5.91 (inch)
Dimension External (W×D×H)	290x390x470(mm) 11.41x15.35x18.50(inch)
Top Open (W×D)	240x124(mm) 9.45x4.88(inch)
Net weight	7 Kg
Material Internal	Stainless Steel
Material External	Steel Plate With Powder Heating Coated
Electrical Requirements 230V,50/60Hz, 1φ	17.4 A

8. TROUBLESHOOTING

Symptom	Possible Causes of Problem
Unit does not work	<p>Check power is connected well.</p> <p>Press  button for 5 sec if lamp OUT is continuously on.</p>
Temperature does not rise	<p>Press  for 3 sec.</p> <p>Press  button for 5 sec.</p> <p>Check OVER TEMP set value.</p>
Operating Temp.fluctuates	<p>Press  button for 5 sec.</p> <p>Press  button for 5 sec.</p>
	Alert of temperature sensor's short circuit.

Memo

Memo



11730 Globe St.
Livonia MI 48150
Call us at 734-855-4890