

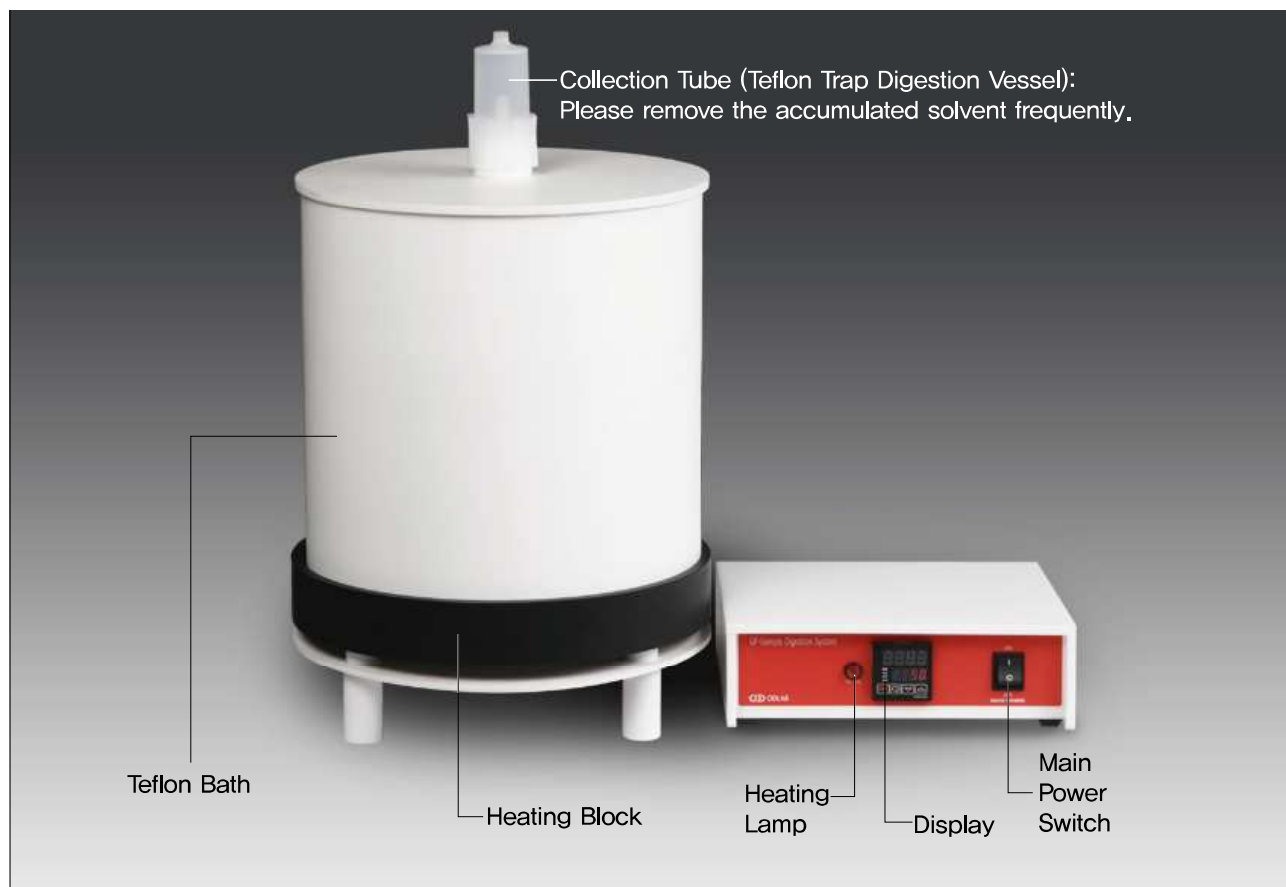
USER MANUAL

TEFLON CLEANER



Operation Guide

■ Functional Description



Notice : be placed on the laboratory hood that has 500mm height from floor to table, 800mm height of opening door and 1200mm width.



Warning

Please follow guides below surely for using a Teflon Bath

1. In the laboratory hood with an exhaust port, use a Teflon Bath.
2. Use for wash only laboratory vessels such as flasks, beakers, teflon vessels.
3. To clean a Teflon Bath, please use a dry towel to prevent from be scratched.
4. Have a over 20cm distance between heating plate and controller. If the hood is too small or over 60°C in the inner space, please the controller must be placed out of the hood.
5. To move Teflon Bath, please be cold enough and separate the connector at first.
6. In the collection tube on the cap, steam will be accumulated by cooling. Please pour the accumulated solution into the Teflon Bath, (be empty every 2 hours)



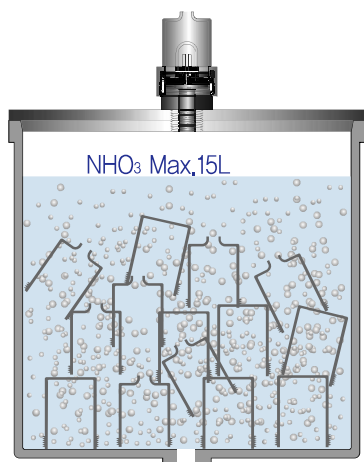
Warning

Please follow guides below surely for using a Teflon Bath

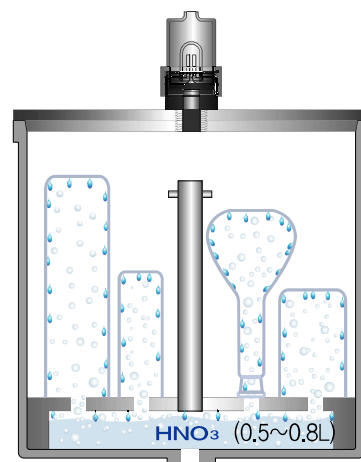
1. Please do not contact to Teflon Bath and Heating Plate during the heating.
2. After complete the heating, please be cool Teflon Bath down up to room temperature and open a cap.
3. When open the cap, be cautious that prevent your skin from acids-spattered Teflon Bath inside walls.
4. Requires that lab coats, rubber glove and goggles be worn on at

Operation Guide

Teflon Bath structure and Cleaning process



Boiling Acid Cleaning



Steam Acid Cleaning

■ Cleaning process

1. For boiling acid cleaning, fill with DI-water 8 : HNO₃ 2 on the bottom of Teflon Bath. (up to 15L)
2. For steam acid cleaning, fill with diluted acid solution 0.5~0.8L on the bottom of Teflon Bath. (please cover unused holes)
3. At the 180°C~200°C temperature on the controller, do heating the Teflon Bath.
4. Be heating for 5 hours to be clean.
5. After complete the heating, please be cool down. Please disassemble a collection tube on the top of cover and drop out the accumulated solution then assemble it again.
6. Hold a collection tube to lift up the cover and put on a table.
7. Use ODLAB-tongs for picking up the cleaned-vessels. Lastly wash the vessels with DI-water and be dry.

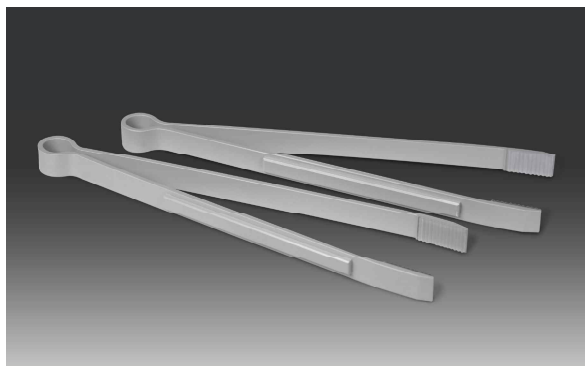
■ Notes

When you life up the cover from Teflon Bath, please be cool inner solutions down up to room temperature and also collection tube to be empty.

Please be cautious that prevent your skin from acids-spattered Teflon Bath inside walls.



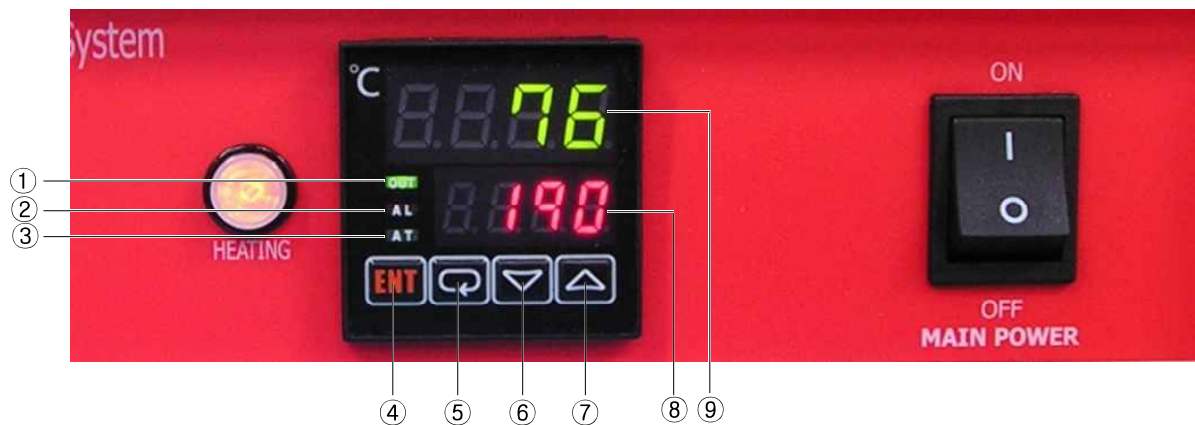
Brush for cleaning vessels



Glassware Tongs

Operation Guide

■ The functions and names of Manual Controller(OD-98-001)



① OUT Lamp	Out lamp is turned on when graphite block is heated
② AL Lamp	Alarm Function (this product can't be used.)
③ AT Lamp	AT lamp is on when auto tuning.
④ Enter Key	Using for Temperature and time setting
⑤ Mode Key	Using for changing mode
⑥ Down Key	Using for Time & temperature setting
⑦ Up Key	Using for Time & temperature setting
⑧ Setting time & Time display	Display present time & Temperature
⑨ Present Temp	Display present temperature

■ How to setting the temperature

Turn on power switch, Use ⑥Down Key ⑦Up key for using temperature setting.
After setting, press enter key button.

■ How to setting the time

After temperature setting, Press mode key one time and displayed **88.88**
Use ⑥Down key or ⑦UP key for setting time. The setting time is 1min~99h59min
After setting, press ④Enter key for 5sec to complete set up. If Completed setting,
It will be display setting temperature and setting time by turn



◀ Mode for Time setting

◀ Display for Time(min)

Caution: It can't be setting temperature after time setting
Beware that please fix setting temperature in advance.

Operation Guide



If the heating plate is heated up to 90% of setting temperature, the time will be work.
For example, setting 200°C temperature on the controller, the time will be work at the 180°C temperature of heating plate.
Being working the setting time, displayed time on the controller is going down.
When the setting time is done, heating is done and display a left diagram.

After time ends, press "enter key 3secs for release

■ How to Auto Tunning

Auto Tunning is fixed from ODLAB. But the LAB's electric condition is Kind of different, it will be better to auto tuning that want to use temperature. Also, you can use auto tuning when the temperature is unstable.

Auto Tunning is to setting temperature that mainly use, press ⑤ mode key 2 times,
If display **AT**, then press ⑦ up key to ON, press ⑤ mode key for 3 secs, **At** will be working.
After, the Screen display present temperature and setting temperature and ③ At will be light on.



▶ Display Auto Tunning(AT)

▶ Display off, If press Up key then turning to change on.

Note:

Being working Auto Tuning, temperature setting can not be working.
At process time depends on setting temperature. (30min~1hour in general)

■ Auto Tunning is that

The controller will be automatically setting temperature by PID method.