DAIHAN Scientific
YOUR PARTNER *in* LABORATORY

Digital Precise Water Bath

.Certifications by - - -

- ☑ **CE Marked Products.**
- ☑ **ISO 9001 Certified.**
- ☑ **PL Insurance.**
- ☑ **Patented(No. 10-0554098) Jog Shuttle Control System.**

✧ English Page : P. 1 ~ 22
✧ Korean Page : P. 23 ~ 44

User Manual

(Version 2.2.1)

written for
WB-6 /-11/ -22 Model

"WB-11"

Digital Precise Water Bath.

Sales & Basic A/S :
By the Nearest Official Distributors.

Man 206. (13 Aug. 2015)

EUROPEAN DECLARATION OF CONFORMITY

DAIHAN Scientific
YOUR PARTNER *in* LABORATORY

We, DAIHAN Scientific Co., Ltd.,
326, Sinpyeongseokhwa-ro, jijeong-myeon, Wonju-si, Gangwon-do, Korea
Tel: 82-2-967-5235, Fax: 82-2-967-5258
declare under our sole responsibility that the product

Water Bath

WB-6, WB-11, WB-22

to which this declaration relates is in conformity
with the following standard or other normative document

EN 55011:2009/A1:2010 (CISPR11:2009/A1:2010),

EN 61326-1:2006(IEC 61326-1:2005)

EN 61010-1:2001(Second Edition), EN 61010-2-010:2003(Second Edition)

following the provisions of the directives:

Directive 2014/30/EU
Directive 2006/95/EC

Reference Report No. : DRECEE1407-0366, DRSCEL1504-0193(1)

From "DT&C Co,.Ltd"

Signed: _____ (Chong ku Shu)

Date: 29, May 2017

Authority: President / CEO

For

DAIHAN Scientific Co., Ltd.,
326, Sinpyeongseokhwa-ro, jijeong-myeon, Wonju-si, Gangwon-do, Korea
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1. General

1.1 Precautions Before Use

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Thank you for purchasing the Digital Precise Water Bath.

This manual describes the performance and usage instructions of the product, and the precautions in the handling. Please carefully read this manual, before using the product. The following warnings should be strictly adhered to: (The following warning sign is marked in the part that is required user attention, so please safely use the product after being well-acquainted with the meaning.)

	Warning Failure to follow the instructions may result in injury. **Caution** Failure to follow the instructions may result in product failure. **Proximity Caution** Keep clear of the product during use.
	Notification Do not disassemble or modify the product or use it for purpose other than its intended function.
	Caution: High Temperature High-temperature heating, pose a risk of burns.
	Danger of Explosion If volatile, explosive chemicals are used, there is a danger of explosion.
	This symbol indicates Protective earth (ground).
	This symbol indicates power "OFF" on the power on/off switch.
I	This symbol indicates power "ON" on the power on/off switch.
N	This symbol indicates the connection point of the neutral conductor on the installed unit.
	This symbol indicates alternating current Voltage.

1. General

1.2 Product introduction

WB-series Digital Water Baths are useful for various kind of laboratory works such like Chemistry, Life Science, Medical Science, Pharmacology, etc.
This product was developed and manufactured considering the best possible ease for use and safety, and has the following features.

1. This product is equipped with the anti-over temperature function, the prevention function of over current and the sensor with error sensing function.

2. This product has been designed so that excellent temperature safety is maintained, at the same time that the maximum power is supplied nearby the set temperature by applying Fuzzy temperature control method, and that the power supplied to the heater is properly controlled and the temperature deviation is minimized after reaching to the setting temperature.

3. The stainless steel material processed by a press is used in order to maintain the aesthetics of product and the high level of hermeticity, and the outside overheating of the equipment is protected against in the maximum limit by using the advanced insulator.

4. The Digital LCD screen with advanced specification is built in and it displays the status of this product.

5. Because multi-functional Jog-Dial knob is built-in, it is easy to manipulate.

6. Because the timer function that can be set up to 99 hours and 59 minutes (99:59) is built-in, it provides various experimental environments to user.

7. Because the drainage Drain Valve is installed, the material within the Bath can be easily drained. (Only WB-22 Model)

8. CE Certified Products.

9. PL(Product Liability) Insurance

1. General

1.3 Product Configuration

Component Photo	Component Name	No. of Configuration
	WB-6 /-11 /-22	1 Unit
	Stainless steel lid	1ea

- Including a copy of the Operation Manual

*** Model**

- DH.WB000106 : Water Bath, Digital, 230V, 6 Lit., " WB-6", with Cord./Plug
- DH.WB000111 : Water Bath, Digital, 230V, 11 Lit., " WB-11", with Cord./Plug
- DH.WB000122 : Water Bath, Digital, 230V, 22 Lit., " WB-22", with Cord./Plug
- DH.WB000206 : Water Bath, Digital, 120V, 6 Lit., " WB-6", with Cord./Plug
- DH.WB000211 : Water Bath, Digital, 120V, 11 Lit., " WB-11", with Cord./Plug
- DH.WB000222 : Water Bath, Digital, 120V, 22 Lit., " WB-22", with Cord./Plug

2. Installation

2.1 Product Installation

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* Caution of Installation

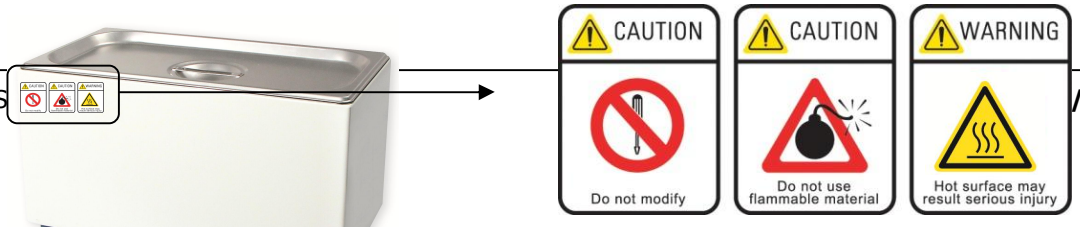
1. Please do not lay the product on the floor or subject it to shock. It can cause damage inside the product.
2. Please install the product in a hard, flat, and stable place.
3. Please do not install the product in a place where it is exposed to direct sunlight, or in the dangerous places.
4. To minimize the risk of short circuits, do not install the product (in the) places where it will be subjected to the inflow of moisture or organic solvents on the regulator part or inside of the body.
5. This product was manufactured for normal operation at a rated voltage, so please check the voltage status before installing the product.
6. When installing and using the product, please certainly use the power cord provided with the products.

* Installation Process

1. After receiving the unit and locating it in the specified location, remove the packaging.
2. Check the unit for any transport damages. If any such damages are found, please contact the deliverer of the product.
3. This Product is not equipped with casters. Units should be moved using a cart. Ensure that no damage is sustained by the units during transport. It is recommended that units are moved by at least 2 people and by lifting units up holding the indicated positions in the figure below.
4. Place the device on a level, horizontal surface to support the capacity of the device without vibration.
5. When installing the device, insure the wall socket is easily accessible.
6. Do not earth to gas pipe, plastic tap water pipe or phone line. It may cause an electrical shock, a fire, breakdown or explosion of the unit.

* Safety Symbols on a product

- Safety symbols stickers Attached to front of product. For meaning of each symbol, please refer to Precautions Before Use, Safety Instructions.



Safety symbols on units, for further description of each symbol, please refer to 3.1 Precautions for Use

*** Check OPT by Regulation.**

1. On the product front, check the Safety Knob.
2. If the power of the product is OFF, check the 'Tak' sound in the vicinity of room temperature when slowly turning clockwise up to 120℃ after adjusting the Safety Knob to 0℃.
3. If the power of the product is ON, check the 'Tak' sound in the vicinity of current temperature of product when slowly turning clockwise up to 120℃ after adjusting the Safety Knob to 0℃.
4. 'Tak' sound is Normal, If 'Tak' sound is not occurred A/S is required.
5. Please check the progress on a regular basis. Proceed at least once to 6 months.

□ **Product Liability (PL) Insurance Admission**

DAIHAN Scientific (Co., Ltd.) is a member of Product Liability Insurance (PL Insurance), so that its customers can trust our products, (believe and use its products,) by preparing against the accident which can be occurred during using the products by self-production.

[Contents] .....

Insurance Type: Product Liability Insurance

Publishing Office: Machinery Insurance Cooperative

Limit of Indemnity: 100 million won for Persons and Objects

Secured Area: Worldwide (excluding North America)

Emergency Contact: **DAIHAN Scientific (Co., Ltd.) (TEL:** 080-008-3000, FAX: 033-737-7575)
(TEL: 02-369-8516, FAX: 02-369-8521)

2. Installation

2.2 Product Specifications

Model & Capacity		" WB-6 "	" WB-11 "	" WB-22 "
		6 Lit.	11 Lit.	22 Lit
Temp. Range & Accuracy		Ambient +5℃ to 100℃, ±0.1 ℃		
Temp. Resolution		0.1℃-Display, 0.1℃-Control		
Temp. Uniformity & Probe		±1.0℃, PT100		
Heating Power		800 W	1 kW	2 kW
Timer & Alarm		99hr 59min (Delay & Continuous run), Error status & Timer-end		
Display		Digital LCD Display with Back-Light Function		
Controller		Digital Fuzzy Controller with Jog-Dial Switch(Turn+Push)		
Safety Circuit		Over-Temp./-Current protection, Sensor Error Detection		
Material		Stainless Steel (#304)-Internal, Powder Coated Steel-External		
Lid		Included Stainless steel Flat Lid, Optional Dome Lid		
Drain Valve		None		Mount(Φ9.5~11mm)
Dimension (wxdxh) (mm)	Effective Space	300x155x110	302x240x110	500x295x110
	Internal	300x155x150	302x240x150	500x295x150
	External	325x180x260	325x265x260	535x330x260
Packing Size (mm) & Gross Weight (kg)		350x210x310, 8kg	350x300x310 10kg	570x360x310 14kg
Power Supply & Cord/Plug*		1 Phase, AC 120V, 60Hz or 230V, 50/60Hz		

3. Product Usage

3

3.1 Precautions for Use

	Please be familiar with the user manual before using this product, and operation should be performed only by qualified personnel
	This product should be connected to a appropriate power source that it is generally used. Please use a lower power source than the regulation load permitted (AC 120V~, 60Hz or AC 230V~, 50/60Hz, Single-phase).
	Place the product on a level, horizontal surface to support the weight of the product without vibration. Install the product in a place where the floor is hard and flat. Failure to do so can cause accidents. by negligence.

- **Warnings**

- **Please observe the following precautions**.

	This product should be operated in a room with temperature maintain between 5℃ and 40℃. Long-term use in an environment that exceeds the allowable range may cause a malfunction.
	Please do not damage or distress the power cord. (Please do not hurt on the power cord, or process it, or force bend it, or pull it, and tie it.) Also, if heavy objects are placed over the power cord, or the power cord is inserted in between objects, the power cord can be damaged and may cause fire or electric shock.
	Please do not directly spray water on the product or wash it with water, to avoid short circuits or electric shock.
	Please do not touch or manipulate the electrical parts such as the power plug with wet hands electric shock.
	Please do not operate the product by manipulation of the plug to avoid electric shock or short circuits
	Do not install the product where it can get damp or in a dusty environment. It may cause overheating or short circuit. – Pollution Degree 2
	Do not install the product in a location at an altitude of over 2,000 meters (6,562 feet).
	Please do not operate in the condition that explosive or flammable chemicals (alcohol, benzene and other flammable solvent) are put inside the Bath.
	Do not operate this product near a heater or an air-conditioner.
	The temperature of the regulator SAFETY should be set up 20°C higher than the operating temperature. If the regulator SAFETY is set to 0, the heater does not operate.
	If unexpected sound, smell or smog is generated, pull the main plug out from the wall socket and contact the technical assets of DAIHAN Scientific

	If irradiated or contaminated samples are placed in the chamber, the warranty is voided. Do not use this product to sterilize or disinfect objects or samples.
	Do not use outdoors avoid overheating or electrical faults. The use in the place where the sun continuously shines and can get rained on it is prohibited. It may cause overheating or electrical fault of the product.
	Please do not use flammable or volatile products in the vicinity of the product to minimize the risk of firer. Please do not use the flammable spray such as lacquers and paint, or volatile, flammable chemicals and its similar product, in the proximity of the product. They may cause the ignition due to the spark of switch.
	Please avoid the disassembly or modification of this product by a non-authorized person to avoid serious electrical problems and to retain the warranty service of DAIHAN Scientific Co., Ltd.
	This product must be connected to a properly grounded power supply.
	Please regularly check whether dust or dirt are on the power plug and completely connect the plug. If the plug is covered with dust, or the connection is not complete, it will cause an electrical shock or fire.
	Please separate the power plug from the outlet for safety when the product is unused for long periods of time to avoid overheating or ignition due to dust.
	When disconnecting the power plug, it must be grasped by the hands and then pulled. Grasping only the cord and then disconnecting it may cause overheating or ignition because of internal lines being disconnected.
	Insert the plug securely into an appropriate wall socket. Loose connections result in excessive heat generation to the device and may cause arcing to occur at the connection.
	If unusual noise or signs of abnormal behavior are found during use of this product, please immediately contact the supplier or DAIHAN Scientific (Co., Ltd.) after turning off the power supply and disconnecting the power line.
	When moving the product, please move it so that the power cord and the product are not damaged after disconnecting the power plug from the electrical outlet, in order to avoid the electrical shock or the ignition due to the damage to the cord.
	Please maintain the clean condition of this product by removing the foreign matter while gently wiping with the neutral detergent and a dry cloth after checking whether the foreign matter present or not, before and after using this product.
	The fluctuation of main power voltage should be lower than +/-10% of the

	nominal voltage.
	The maximum relative humidity is 80% at 31°C and 50% at 40°C .
	If a product was transported or stored in high humidity condition, please check packaging condition before use. If the carton or wooden box is waterlogged, please contact the deliverer or our technical service engineer. Do not operate the unit before checking with an engineer, otherwise it may cause an electrical shock or a fire.
	The Sound Level of the buzzer is maximum 60dB in 1 meter distance when an error is detected.
	The device should be set at a well ventilated place. Be sure the holes on the side or rear surface of the body are blocked by a wall or an object. And do not operate the device at a poor ventilated place or use closed. It may cause a fire or damage of the device as not to release heat or insufficient ventilation may result.
	If you don't use the device for a long time, please drain all of water from bath and then clean up.
	Never insert the explosive or flammable chemicals inside the Bath. There is a fire danger.
	Please apply only distilled water to the Bath. If you don't, it may cause roast by ferrum which was in tap water.
	This Symbol indicates that this product is to be collected separately. The following apply only to users in European countries: ● This product is designated for separate collection at an appropriate collection point. Do not dispose of as household waste. This product is required to comply with the European Union's Waste Electrical & Electronic Equipment(WEEE) Directive 2002/96/EC

※ All of the circuits, electrical or mechanical parts and configurations used in this product are the technical assets of DAIHAN Scientific (Co., Ltd.). Only technicians of the technical support team at DAIHAN Scientific (Co., Ltd.) or technicians approved through the education from DAIHAN Scientific should be allowed to repair this product.

3. Product Usage

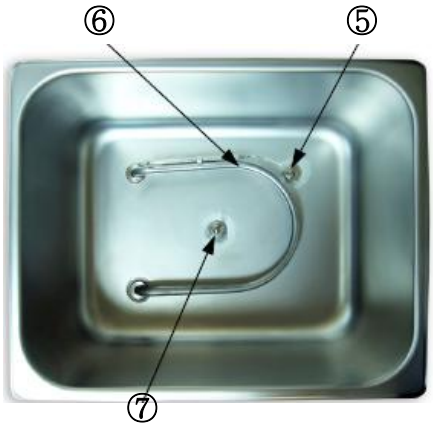
3.2 Names of Each Part

- **Outside**

④

< Figure 3.2.1> The appearance of Water Bath

<Figure 3.2.2> Back of Water Bath

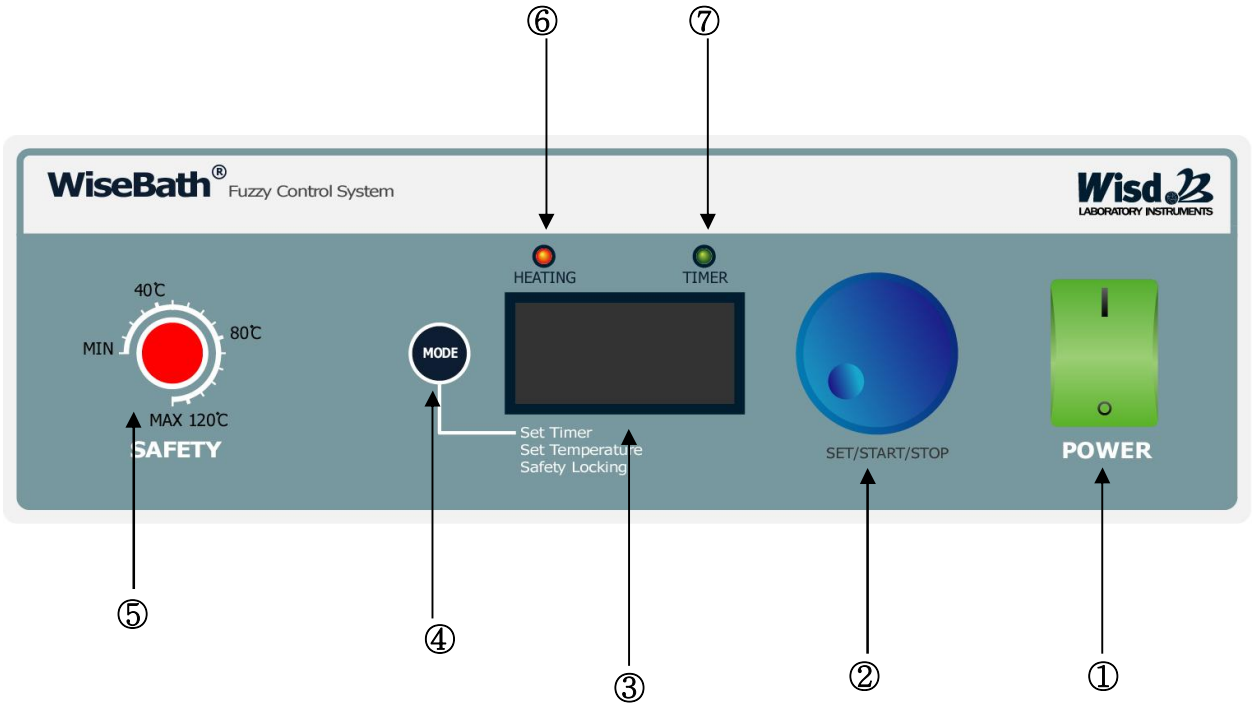


<Figure 3.2.3> Internal of Water Bath

NO	Names	Description
①	Power Connection	Power Cord Apply
②	Power Switch	Power ON/OFF
③	Controller	Controlling and checking the operation of this Product
④	Lid	sample and protect inside the bath
⑤	Over Temp. Protection	Overheat protection device
⑥	Heater	Heating the water in the Bath
⑦	Temp. Sensor	Inside Bath water temperature measured

<Table.3.2.1> Names of each part and description

- **Controller**



<Figure 3.2.4> Controller of Water Bath " WB"

NO	Names	Description
①	Power Switch	Power ON/OFF
②	Jog Dial knob	Turning this knob, the control of Increase and Decrease of Operation value and Start/Stop operation of this product are possible.
③	LCD Display	Input and operation information are displayed.
④	MODE Button	Switch to Timer, Delay Time, Heating, Offset, Locking Mode
⑤	Safety Switch	Overheat safety device
⑥	Heating LED	LED is lighted during corresponding Heating operation.
⑦	Timer LED	LED is lighted during corresponding Timer operation.

<Table 3.2.2> Controller for " WB"

3. Product Usage

3.3 Usage Instructions

- Before operation, Set the SAFETY knob to 20°C higher than operation temperature.
- Please pour distilled water to the Bath until sink the heater.
- Connect the power cord to the proper power socket and Turn on the Main Switch.

*** Operation method for Jog-Dial**

- Jog-Dial can be manipulated for the setting in each mode by Turning and Push motion.
- If turning the Jog-Dial knob to clockwise or counter-clockwise, the setting values can be adjusted, and if briefly pressing once the Knob, the Start or the Stop operation is performed.
- The Turning of the Jog-Dial knob does not manipulated during operating, and if resetting the set value, it can be adjusted by the Jog-Dial knob after stopping the product by pressing briefly once the Knob.
- If pressing for 2 or 3 seconds the Knob, the set value is saved, and even if the power is turned on again, that value is maintained. (If "0" value is saved, the setting value is initialized.)

① MODE - Set Operation Time

- When the power is turned ON, the initial screen is the setting mode of the Timer set mode.

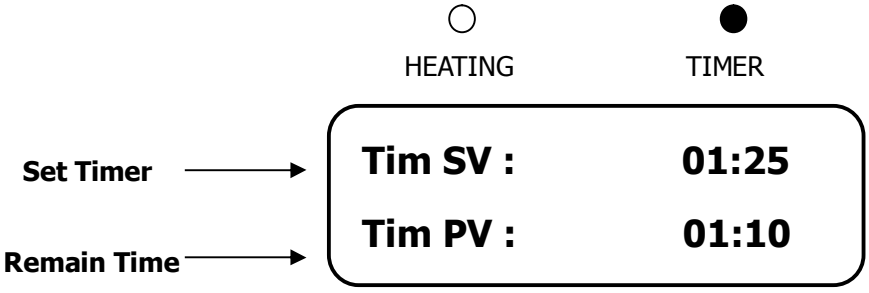


Fig 3.3.1. Set Operation Time Mode

- TIMER LED is lighted during the operation of timer, and indicates that it is operating.
- The range of setting time is from 00:00 to 99hr and 59min(it is possible to adjust at 1min.) and 00:00 indicates continuous operation.
- If the timer operation is completed, the alarm will sound and heating will be stopped.
- The timer setting mode can be operated by referring to the jog-shuttle operation method.

- It turns to "Set Temperature" mode by pushing MODE button or it turns to "Set Delay Timer" mode by pushing MODE button and Jog-Dial Knob together(i.e., push Jog-Dial Knob while pushing MDDE button)

* Set Delay Time

- It turns to "Set Delay Timer" mode by pushing MODE button and Jog-Dial Knob together
- The Delay Timer sets the reservation time and has the function that sets so that the operation of Heating and Timer are performed after that time is elapsed.

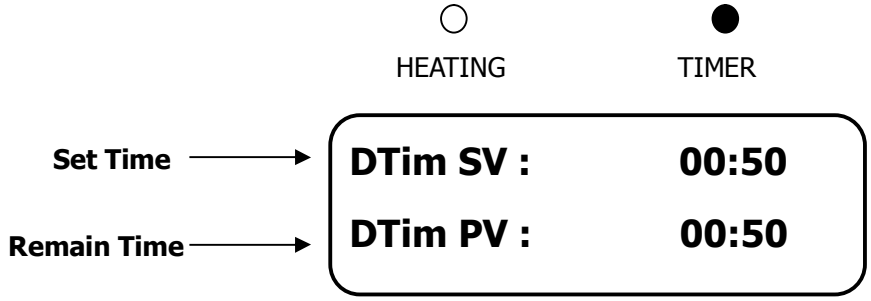


Fig 3.3.2. Set Delay Time Mode

- The proper use of the delay timer is to manipulate so that the reservation time is set for the first time, and then the temperature and the operation timer is set and the set operation is automatically operated after the reservation time is elapsed.
- The reservation time value is displayed over blinking on the display, and if pressing the Knob by setting the reservation time value with the Jog-Dial knob, the value is fixed on the Display, and the reservation timer is activated.
- After setting the reservation timer value, you can set-up the operation timer value by pressing the MODE button and then press Start button. And, you can set-up the temperature by pressing the MODE button again, and then press Start button. The Start button in the condition that the reservation timer has been set-up, is the button for the operation of the setting value after the reservation timer, not to immediately operate.
- As described above, if continuously setting the operation, Heating and Timer are operated after the set reservation time as user intend.
- Since the delay timer is not set during the operation of Heating/Timer, the delay timer should be set after stopping the operation of Heating/Timer.
- You can change or save the setting by using the operation method of the Jog-Dial, and Start/Stop of operation can be performed.

- If pressing MODE button, it is switched to the Set Operation Time Mode.

② MODE - Set Temperature

- If pressing once the MODE button in the Set Operation Time Mode, it is switched to the temperature setting mode.

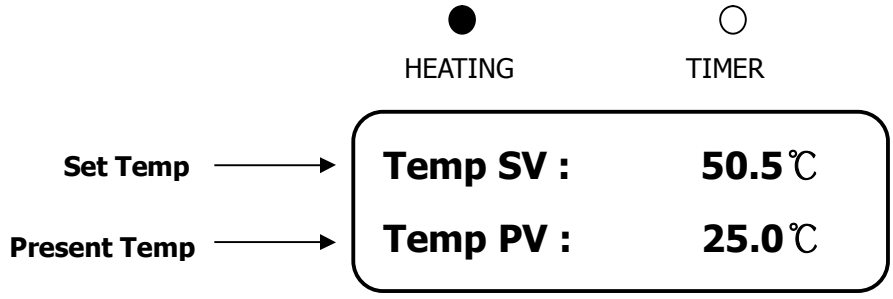


Fig 3.3.3. Set Temperature Mode

- The HEAT LED is lighted during the operation of Heating, and indicates that it is operating.
- The range of the setting temperature is adjustable in the unit of 0.1℃, and it can be set up from Ambient +5℃ to 100℃.
- You can change or save the setting by using the operation method of the Jog-Dial, and Start/Stop of operation can be performed.
- It turns to "Locking" mode by pushing MODE button or it turns to "Set Temp Offset" mode by pushing MODE button and Jog-Dial Knob together(i.e., push Jog-Dial Knob while pushing MDDE button)

* Set Temp Offset

- It turns to "Set Temp Offset" mode by pushing MODE button and Jog-Dial Knob together
- Temperature compensation is the function that can add or reduce the constant value by setting the compensation value in the case that user must experiment by matching the thermometer which he/she is using as the experimental standard and the thermometer indicated in this regulator.

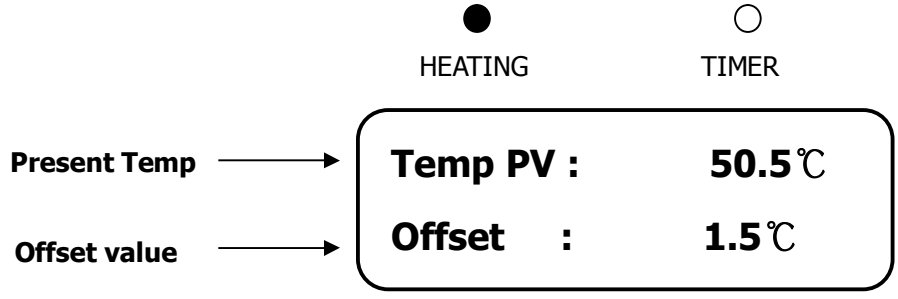


Fig 3.3.4. Set Temp Offset Mode

- The scope of the compensative value is -10.0℃ ~ +10.0℃, and it is possible to adjust at 0.1℃ unit.
- After setting the compensation value, the indication of the current temperature is displayed as the temperature including the compensation value.
- When entering into the compensation value setting mode during the Heating operation, the Heating operation that is operating is stopped. After setting the compensation value, the Heating operation is re-conducted in the Set Temperature Mode.
- If the Knob of Jog Dial Knob is pressed and held for 2-3 seconds, the setting value is saved and this saved value is maintained even when the power is turned on again.
- If pressing MODE button, it is switched to the Set Temperature Mode.

③ MODE - Locking Mode

- If pressing MODE button in the Set Temperature Mode, it is switched to the Locking mode.

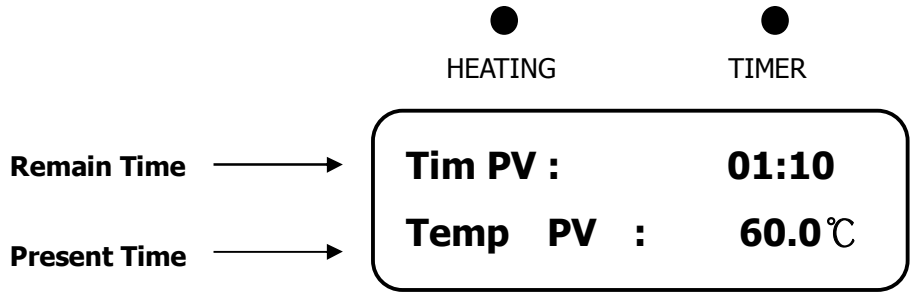


Fig 3.3.6. Locking Mode

- In the Locking Mode, the Turning by the Jog-Dial Knob or Push button do not applied, and LCD Display and LED lamp indicate the status that is currently operating.
- If pressing once the MODE button, it is entered into the Set Operation Time Mode.

* ERROR Message

ERROR Message	Cause	Remedy
Error 1	Informs the time to be displayed the temperature of abnormal value due to the abnormality of Temperature Sensor.	Please check the temperature of the heated top plate.

<Table 3.3.1 > ERROR Message Table

4. Products Management

4

4.1 Accessories

*** Ordering Information**

Image	Ordering Number	Information
	DH.WB010206	Dome Lid, for 6Lit., 324 X 176 X h100mm, "BD206"
	DH.WB010206	Dome Lid, for 6Lit., 324 X 176 X h100mm, "BD206"
	DH.WB010206	Dome Lid, for 6Lit., 324 X 176 X h100mm, "BD206"
	DH.WB030106	Lid with 2 X Concentric Ring Cover Sets, for 6 Lit., Stainless steel, 330 X 182 X h20mm, "BFC106"
	DH.WB030111	Lid with 2 X Concentric Ring Cover Sets, for 11 Lit., Stainless steel, 329 X 269 X h20mm, "BFC111"
	DH.WB030122	Lid with 6 X Concentric Ring Cover Sets, for 22 Lit., Stainless steel, 539 X 334 X h20mm, "BFC122"
	DH.WB020106	Tube Rack, for 6 Lit., 36 Hole X Φ17mm, "BTH106", Stainless steel, 220 X 125 Xh78.5mm
	DH.WB020206	Tube Rack, for 6 Lit., 15 Hole X Φ32mm, "BTH206", Stainless steel, 220 X 125 Xh78.5mm
	DH.WB020111	Tube Rack, for 11 Lit., 63 Hole X Φ17mm, "BTH111", Stainless steel, 220 X 205 Xh78.5mm
	DH.WB020211	Tube Rack, for 11 Lit., 25 Hole X Φ32mm, "BTH211", Stainless steel, 220 X 205 Xh78.5mm
Validation(IQ, OQ) Service	DH.WB040106	Validation Service(IQ, OQ),"BV106", for "WB-6"
	DH.WB040111	Validation Service(IQ, OQ),"BV111", for "WB-11"
	DH.WB040122	Validation Service(IQ, OQ),"BV122", for "WB-22"

4. Products Management Method

4.2 Maintenance and Management

Digital Precise Water Bath was manufactured with the consideration of various situations that may occur during the operation. However, for long-term use with stable performance, please observe the following precautions:

1. If the unit is not to be used for an extended period of time, disconnect the power cord from the wall socket.
2. **DAIHAN** is not responsible for damage to the unit caused by abnormal use or by not heeding warnings and cautions in the manual or unauthorized modifications of the unit.
3. When changing the installation place of the device, please do not apply the mechanical shock and vibration. When changing the installation place, please get help from a professional.

CLEANING

1. Before cleaning the unit, disconnect the power cord from the wall socket. Otherwise, it may cause an electric shock or fire.
2. To clean the unit, a neutral detergent and soft cloth is recommended. Do not use coarse cloth, strong chemicals or organic solutions.
3. Do not use water, Benzene, Thinner or any alcohol for cleaning the product. It may cause discoloration, damage, an electric shock or fire.
4. If you expect damage by a chemical during cleaning, call technical support team.
5. Do not pour water directly into the unit. It may cause an electric shock or fire.

- Cleaning Method of the Inner Bath

- If the liquid filled inside the Bath is high temperature, please discharge through the Drain hose after sufficiently cooling the liquid. (Drain Valve : Only WB-22 Model)
- Remove the shaking rack equipped in the bath. Clean the contaminated part using a neutral detergent and soft cloth.
- After cleaning, reassemble the rack properly.
- Do not clean the unit aggressively. Otherwise, the coating or painting of the product could be damaged.

- Cleaning Method of the Exterior

- Clean the exterior using a neutral detergent and soft cloth.
- Do not clean the display or Jog-Dial Knob aggressively as they may be damaged.
- Do not clean the unit aggressively. Otherwise, the coating or painting could be damaged.

4. Products Management

4.3 If product Defect Occur

Situation	Confirmations and Solutions
If power does not turn ON.	- Make sure that Power Cord is plugged well. - Check that there are no problems in the power supplied. - Check the short circuit status of the fuse.
If Jog Dial knob does not operate.	- Check the current mode. Jog Dial knob does not operate in the Lock Mode.
If the temperature does not rise at room temperature.	- Check the temperature currently set. - Check that SAFETY Knob is not placed in the "0" position, and if SAFETY Knob is in the "0" position, sets up 20℃ higher than the service temperature. - Make sure that the power switch is in ON position. - Make sure that the Push button of the Jog Dial knob is exactly pressed to operate the set temperature.
If the temperature is risen but the heater does not operate to the set temperature.	The abnormality may be present in the built-in sensor or the main control unit. Please contact to the service center.
※ If you have any problem other than the above, please call technical service of manufacturer or an official agent.	

5. Product Assurance

5.1 Quality Assurance

5

CERTIFICATE

of
Quality Tested by Manufacturer
and Free Warranty up to 2 years
for Laboratory Instrument

Limited Warranty

1. This instrument has gone through our testing process about all functions before shipment.
2. This instrument is warranted for 2 years from purchasing date.
3. A breakdown caused by customer's improper use or natural disaster is excepted from this warranty.
4. This certification is only for international customers.

Item	**Digital Precise Water Bath**
Model No.	**WB**
Serial No.	
Date	
Customer	

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