



COFFEE CHAPS

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Cautions

Avoid installing in a place exposed to direct sunlight or near a heating device, and do not store flammable spray or flammable substances near the product. It may cause fire or malfunction.

Do not insert or drop metal or flammable substances into the product. It may cause fire or malfunction.

For safety, be sure to ground. It may cause electric shock or malfunction.

Do not install in a place splashing with water or in a humid place. It may cause a short circuit.

Do not install in a dusty or poorly ventilated area. It may cause an overheating or short circuit

Do not block or completely cover the exhaust port of the water tank unit. It may cause fire or malfunction.

Do not climb or sit on the water tank unit. It may cause injury or malfunction.

Never turn over or stand the water tank unit. Fire or water leakage may result.

To exercise caution when handling hot water to avoid direct contact with your skin. There is a risk of burns.

When you leave your seat, be sure to check that the water has stopped. It may cause burns or malfunction.

Do not lean on the product or place heavy objects on it. It may cause malfunction.

Connect the supply and drain hoses firmly to the end. It may cause water leakage.

If it has not been used for a long time, drain the stored water completely, then empty the water newly filled in the tank before using it.

Warning

Install a 20A circuit breaker for Constanto and connect separately from any other circuits.

If the power cord is damaged, stop using it immediately.

Do not modifications such as extending the length of the power cord. It may cause electric shock or fire.

Do not touch switches and power cords with wet hands. It may cause electric shock.

When installing the product, cut off the power and water supply to the product before proceeding. It may cause electric shock or malfunction.

Never disassemble, repair, or modify the product except for service technicians. It may cause fire or malfunction.

Do not immerse in water or spray water. It may cause fire or electric shock.

Do not use it alone by children or those unfamiliar with the product. It may cause injury or electric shock.

If there is smoke or a strange smell, stop using the product, turn off the power switch immediately, and contact customer service.

If water flows from inside the product or if water accumulates around the product, close the water supply valve, turn off the power cutoff switch, and contact customer service.

SPEC

Model no. CONSTANTO

Water tank capacity : 5L x 2ea

Power consumption: 3,000W

Rated voltage : 220V~60Hz

Temperature range : 80 ~93°C

Hot water flow speed : 1Liter per minute

Weight : Boiler part 32kg / Controller part : 5.4kg

Machine size

a. Boiler : W520mm x D372mm x H380mm

b. Controller :

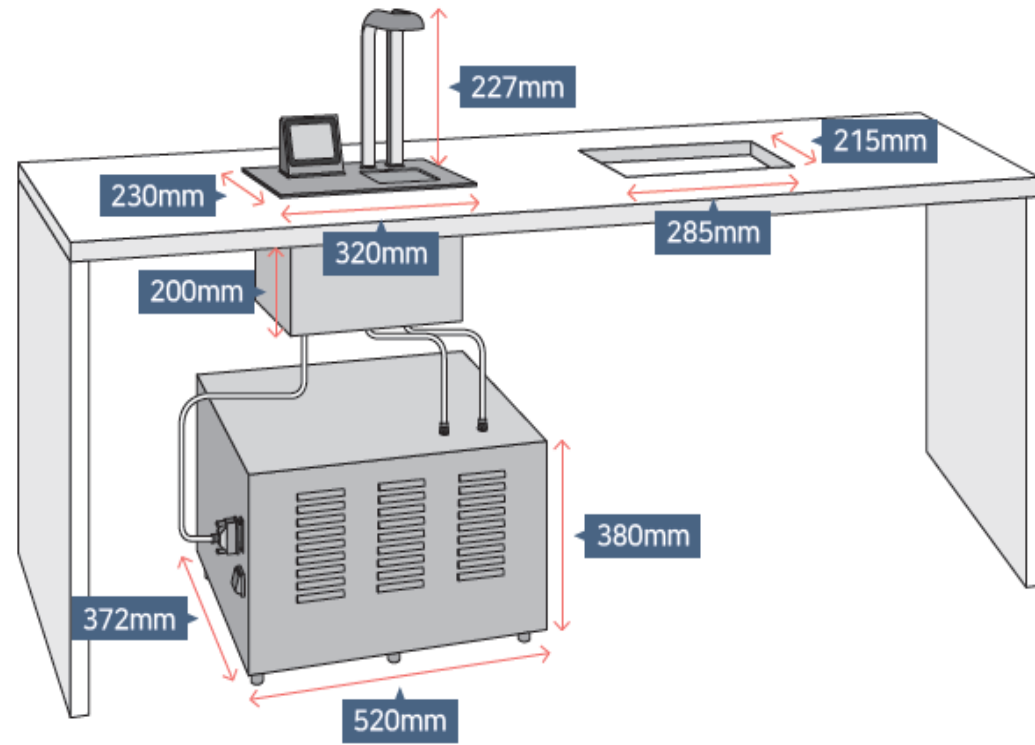
b-1. Table top part : W320mm x D230mm x H227mm

b-2. Under table part : W280mm x D210mm x H203mm

b-3. Operating hole size : W285mm x D215mm

Water supply line : ¼" (6.35mm)

Drain line : ½" (12.7mm)

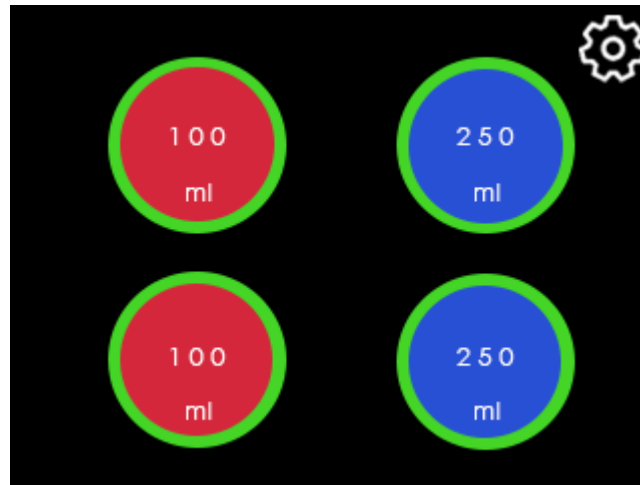


Please turn on the power to use Constanto

When turning on the power, the logo screen (Figure a) is displayed. Once touch the screen, the main screen (Figure b) is displayed.



a



b

Understanding of the Main Screen

The two red buttons on the left mean hot water and the other two blue buttons mean direct water. Water output for each button can be set in the setting menu. It can be changed to the 6-button UI in the setting menu.

The hot water is released only when the temperature is reached to target.

When hot water is available, the outline of the buttons turn green.

Direct water is the same.

Number 1 in the red circle means the target temperature. You can set the target temperature in the settings menu.

Number 2 in the red circle displays the current temperature.

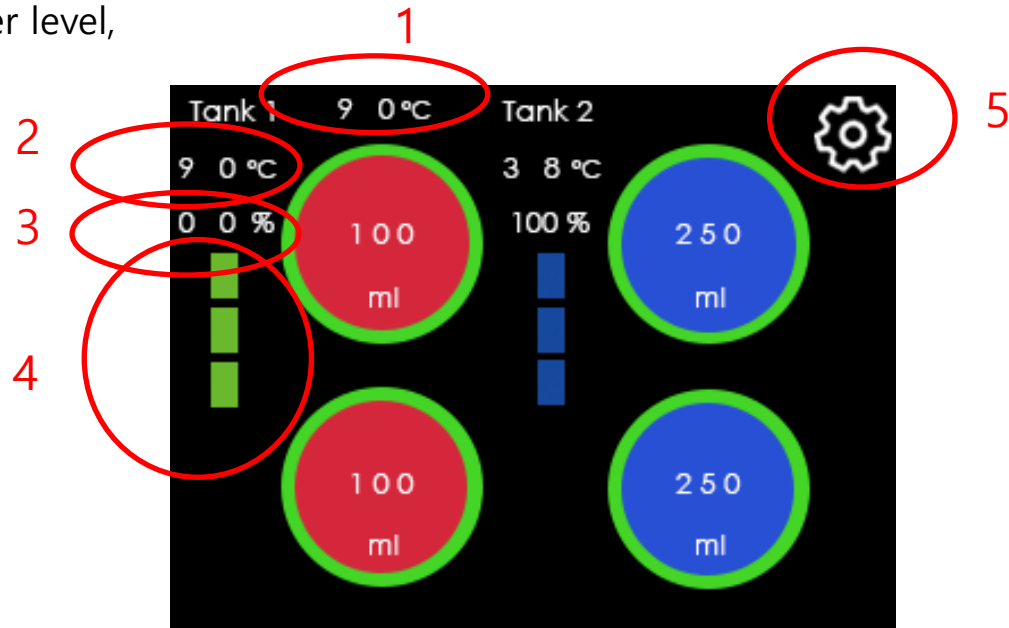
Number 3 in the red circle displays the heater occupancy rate. In the picture below, tank1 is using 0% and tank2 is using 100% heater.

Number 4 in the red circle indicates the condition inside the hot water tank. If there are three bars, the tank is at full water level, and two means at medium water level, one is at low water level.

Number 5 in the red circle is a button to go to the setting menu.

Sensor status bar by color (No. 4)

- Red : Heating
- Blue : During water supply
- Green : Ready to use
- White : Initializing
- YELLOW : Draining



Understanding of the Main Screen

In Figure a, hot water is not ready yet, Only direct water is possible.

The hot water buttons are gray.

When the hot water is ready, the button turns red and the outline turns green as shown in figure b.

While water is being dispensed, the corresponding button blinks.



a



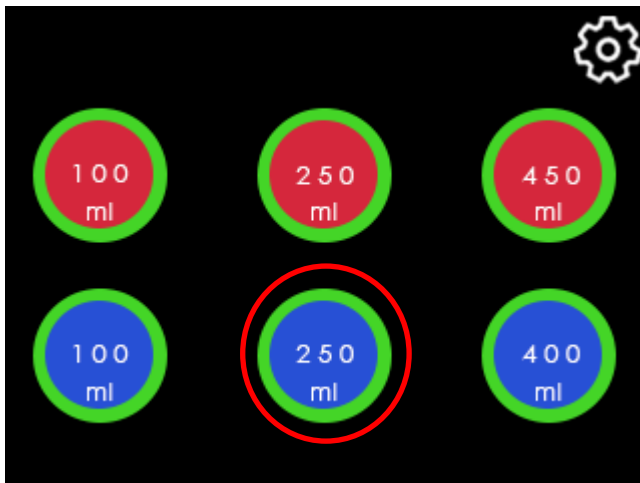
b

Fine-tune of water output

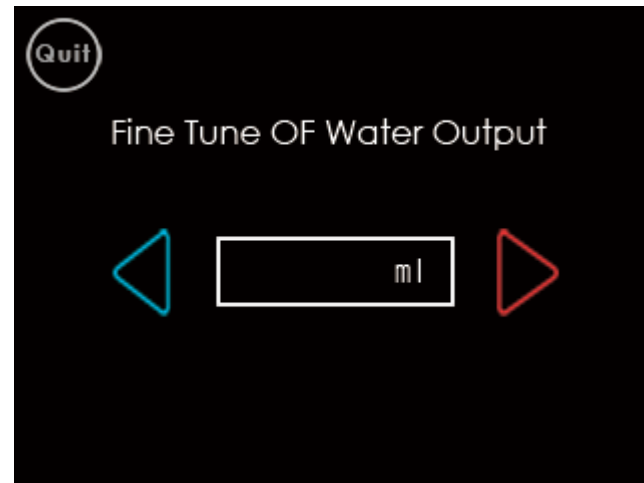
When press each button for 5 seconds, Figure b will appear allowing you to fine-tune the water quantity.

The adjustment interval is a total of 20 steps for hot water and 40 steps for direct water

(step means the clicks on the flow meter, and each flow meter displays the approximate amount of water output (ml) according to the click)



a



b

Settings

Specify the hot water temperature and water output.

Hot water temp: Can be used in the range of 80 degrees to 93 degrees Celsius.

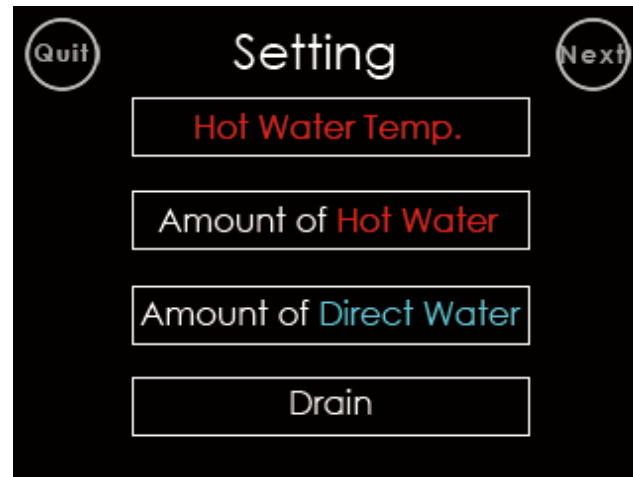
2. Amount of Hot Water: Specify the water output amount for hot water.

The range is from 30 to 1,000ml and can be set in increments of 10 ml.

3. Amount of Direct Water: Set the amount for the direct water.

The range is from 30 to 1,000ml and can be set in increments of 10 ml.

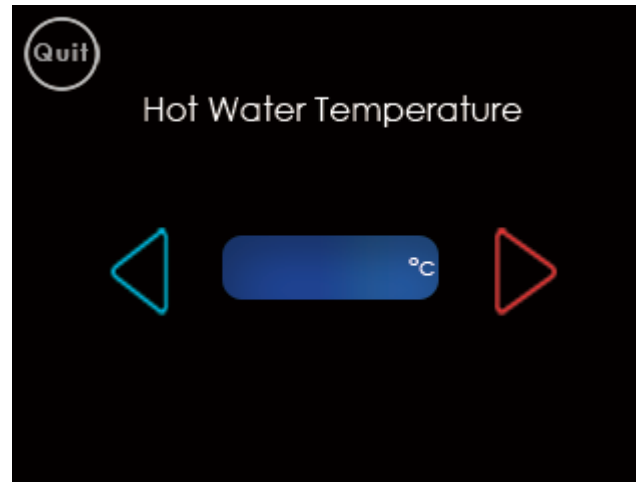
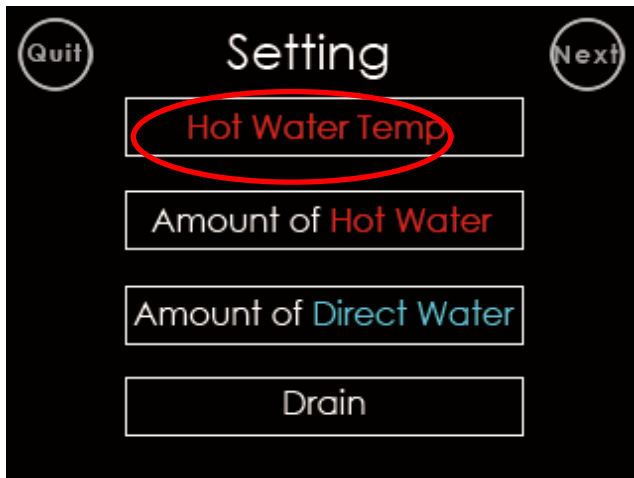
Drain: Drain water from the boiler for 6 minutes.



Hot water temperature setting

Set the hot water temperature by Hot water temp button in the setting menu.

The hot water temperature ranges from 80 to 93 degrees Celsius, and the default value is 90 degrees Celsius.



Hot water output amount setting

By the amount of hot water button in the setup menu specify the output amount of the hot water.

The setting range is 30ml ~ 1000ml, Figure 2 shows the settings for the 4-button menu. The default for Small is 100 ml, and the default for Large is 200 ml.

Figure 3 shows the settings for the 6-button menu. The default for Small is 100 ml, for Medium is 200 ml, and for Large is 400 ml.

The Large value in the 4-button menu is applied as the Medium value in the 6-button menu.

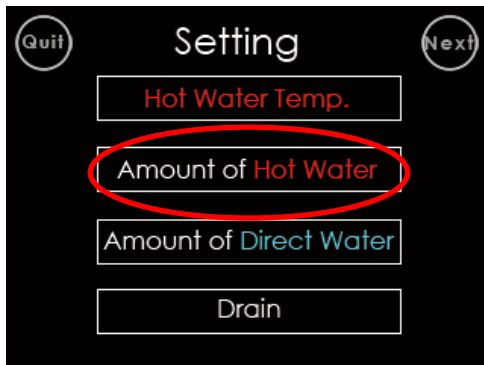


Figure 1

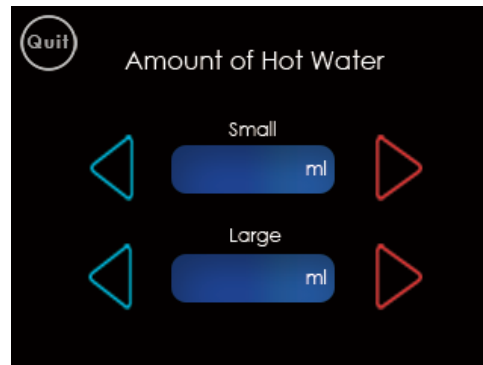


Figure 2

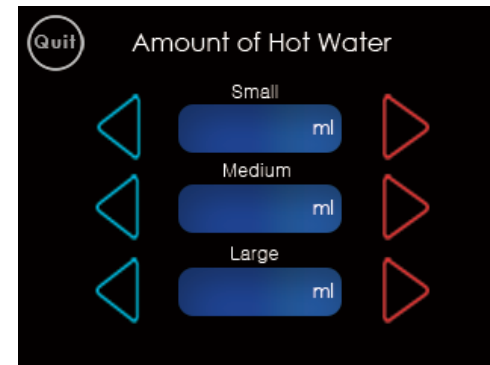


Figure 3

Direct water output amount setting

By the amount of direct water button in the setup menu specify the output amount of the hot water.

The setting range is 30ml ~ 1000ml,
Figure 2 shows the settings for the 4-button menu. The default for Small is 100 ml,
and the default for Large is 200 ml.

Figure 3 shows the settings for the 6-button menu. The default for Small is 100 ml,
for Medium is 200 ml, and for Large is 400 ml.

The Large value in the 4-button menu is applied as the Medium value in the 6-button menu.

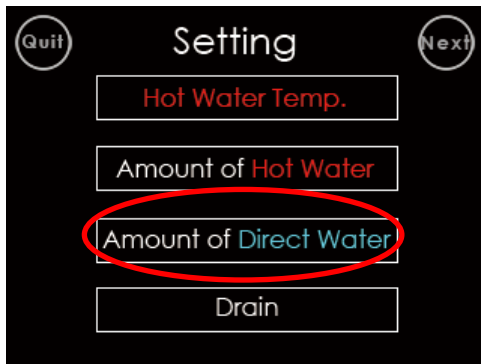


Figure 1

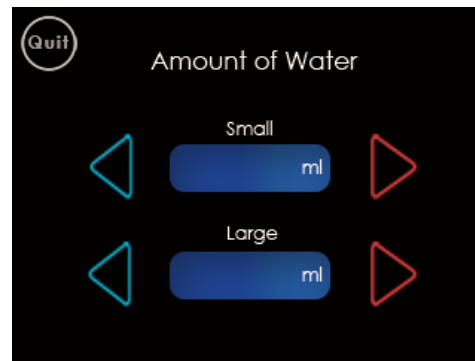


Figure 2

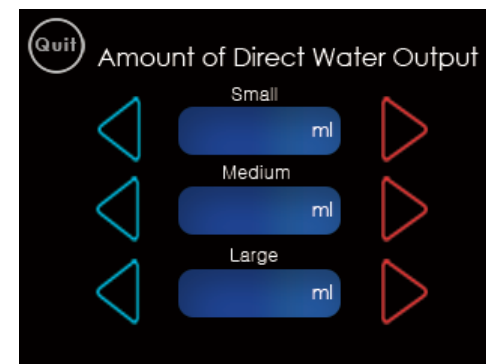
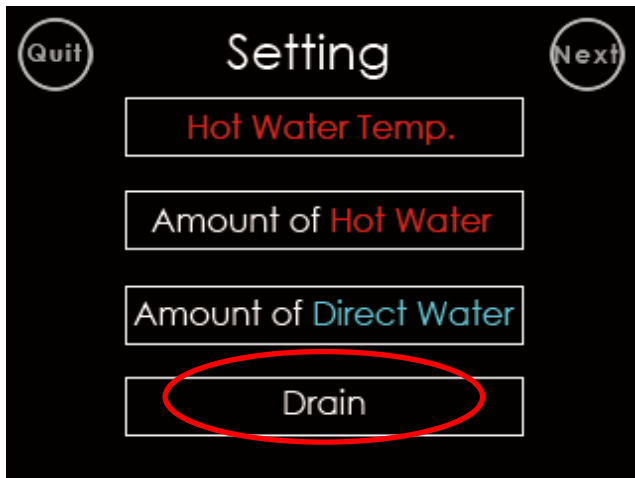


Figure 3

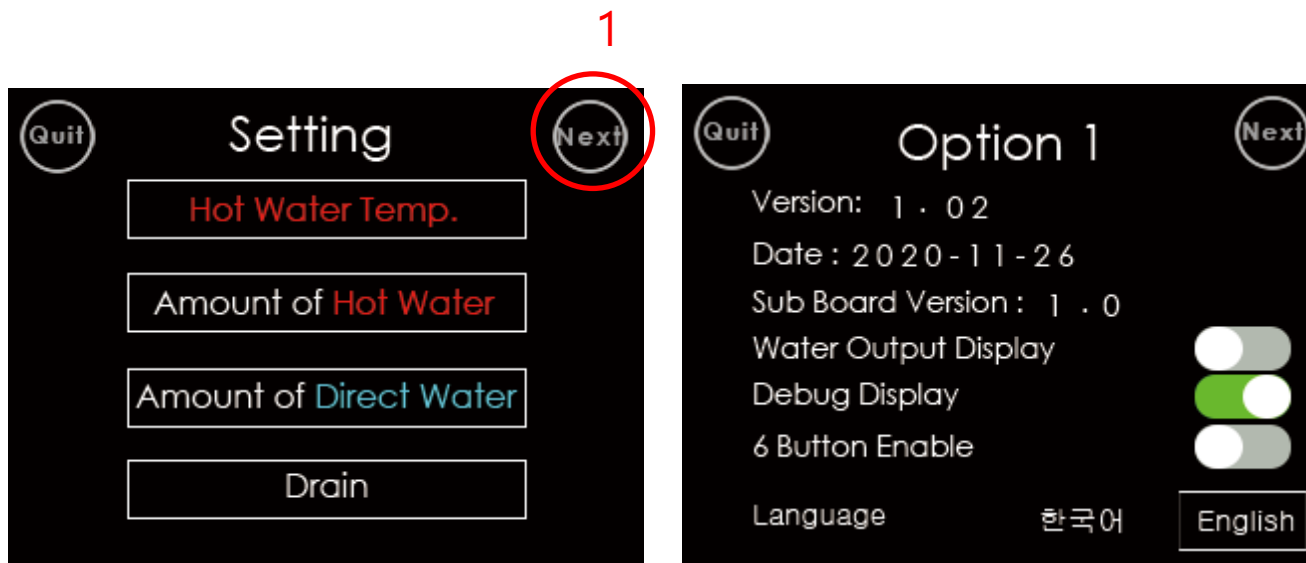
Drain

Press the Drain button in the Settings menu to run Drain.
Dispense water for up to 6 minute with start button.
When the water level in the tank is low, the water in the other tank is dispensed.



Move to the Option menu

Pressing position 1 to move to the Option 1 menu



Option 1 menu (Figure 1)

Version: Mainboard MCU firmware version

Date: Mainboard MCU firmware creation date

Subboard version: Expansion board MCU version

Water Output Display: If ON, the set water output amount is displayed
(See Figure 4 below)

When OFF, the cup icon is displayed as shown in Figures 2 and 3.

Debug display: Specifies whether to display the tank status.

Water level, tank temperature, set temperature, operating status, etc. are displayed.

6 button Enable: If ON, set 6 buttons as shown in Figure 3

If OFF, set the buttons to 4 as shown in Figure 2.

Language: Possible to select English or Korean.

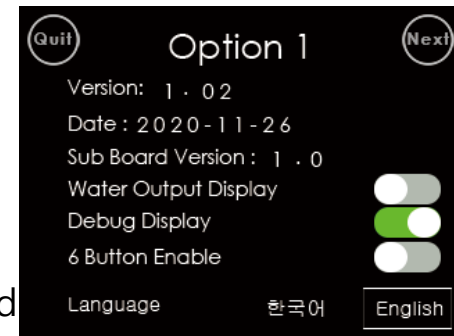


Figure 1



Figure 2

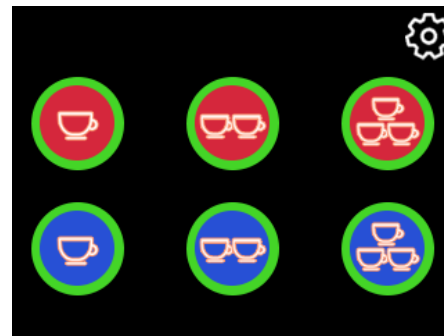


Figure 3

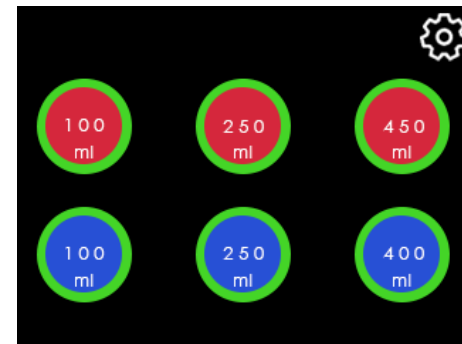


Figure 4

Option 2 menu (Figure 2)

In Option 1, click the Next button on the top right to move.

This menu specifies the time to enter sleep mode and screen saver operation time when there is no operation.

Power saving mode can be selected among off, 2 hours, and 3 hours.

Screen saver operation time can be selected from off, 20 to 90 minutes.

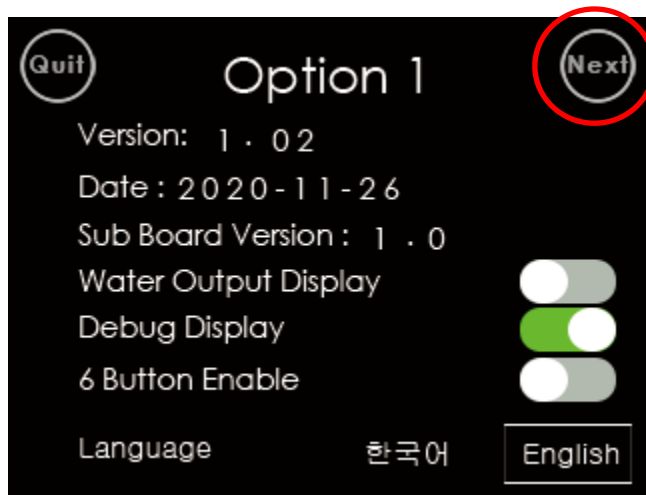


Figure 1

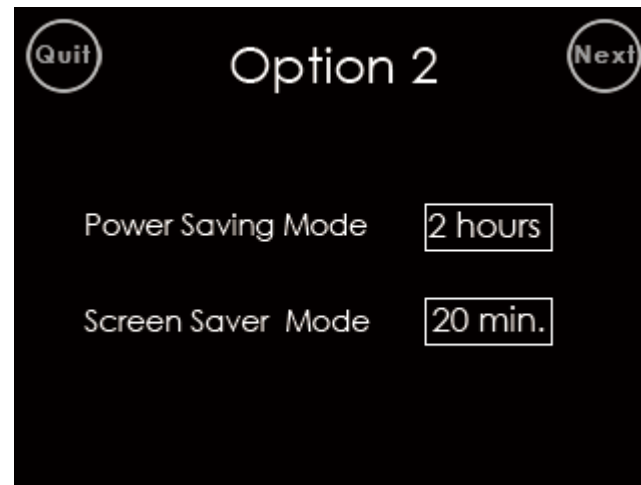


Figure 2

Option 3 menu (Figure 2)

In Option 2, click the Next button on the top right to move.

This is a menu to correct the error in the extraction quantity of direct water or hot water.

Water output per 100 ml of hot water adjustment: -6 ml to +6 ml per 100 ml of water output per 2 ml

Water output per 100ml straight water adjustment: -15 ml ~ +15 ml adjustment of water output per 100 ml by 1ml

This is the change in water output per 100 ml

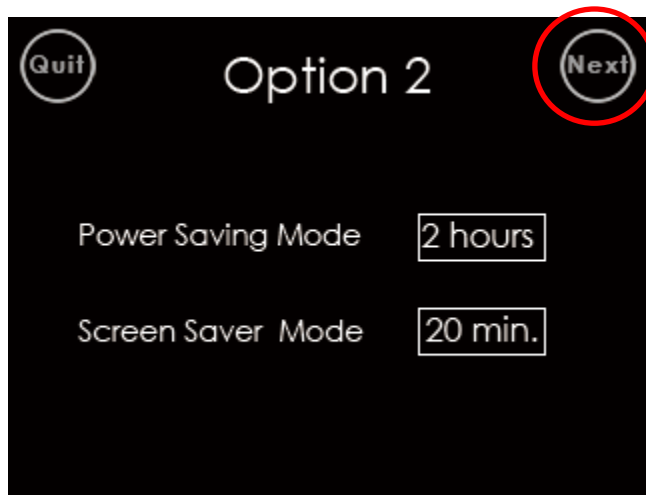


Figure 1

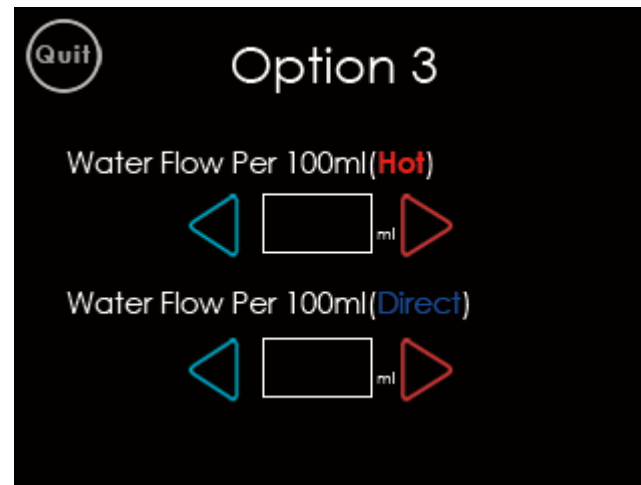
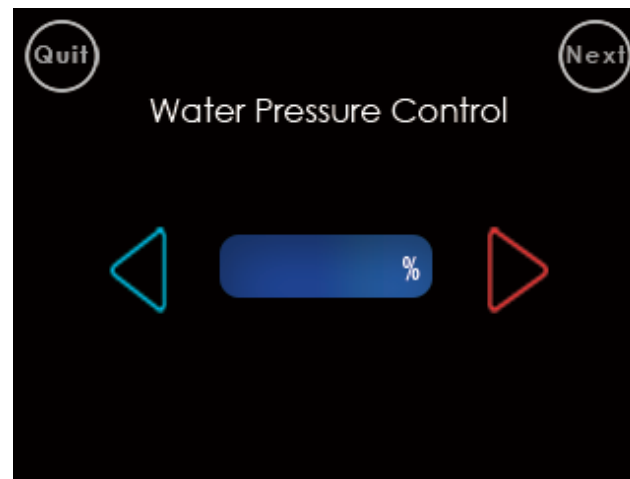
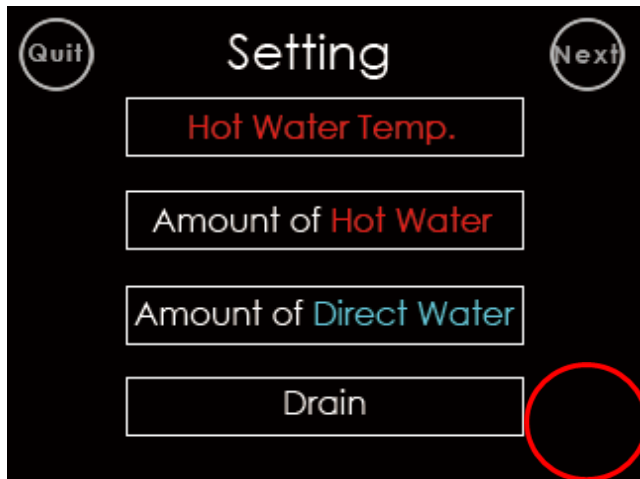


Figure 2

Water pressure control

If you press the lower right corner of the setting menu for 10 seconds, the water pressure control menu is displayed.

The selection range is 20% to 80% (in increments of 5%), default is 40%



Two stage protection

If Next is pressed in the water outlet strength adjustment menu, it goes to the two stage level protection.

This setting is to prevent the hot water or direct water button from being pressed in an undesirable situation.

If it is set to On, after selecting the button you want, you must press it again to activate it.

Two stage protection operation On/Off for hot water.

Two stage protection operation On/Off for direct water.

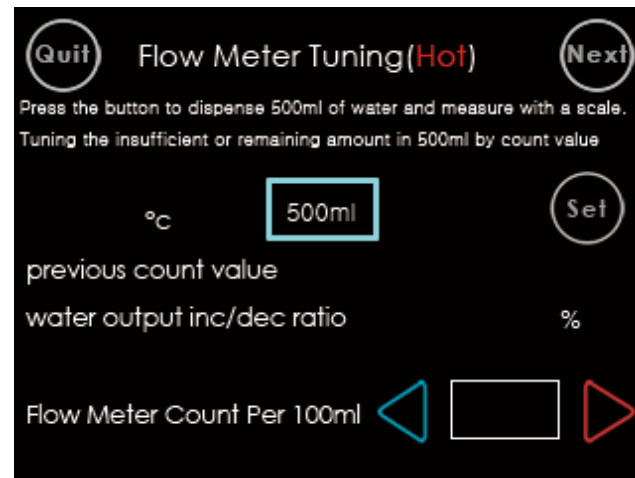
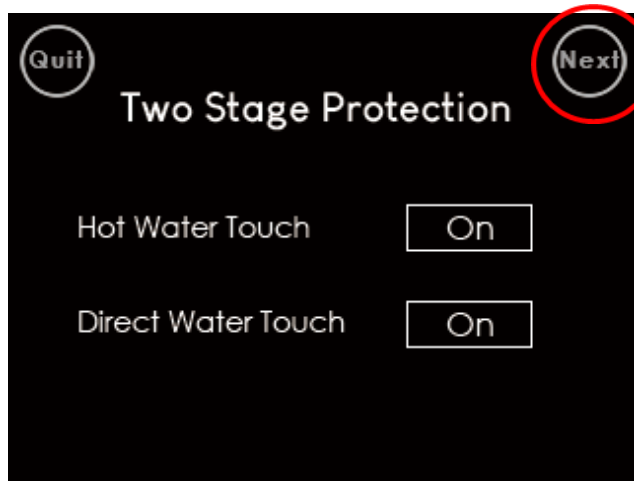


Flow Meter Tuning(Hot)

Go to the Flow Meter Tuning(Hot) menu by pressing the Next button in the Two-stage Protection menu.

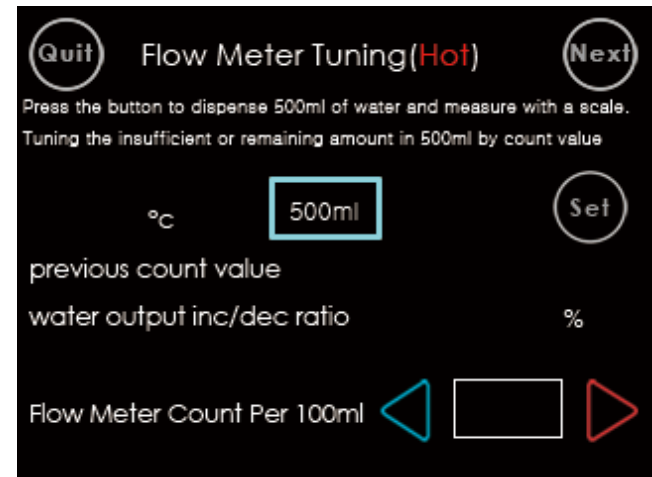
Prepare the server and scale and press the 500ml button to adjust the difference between the extracted water and the actual 500ml using the increase and decrease buttons.

- Press the Next button to display the Flow Meter Tuning(direct water) menu.
- Temperature means current temperature of tank1.
- 500ml button : 500ml water exit button
- Set button: The count per 100ml adjustment value is updated to the previously set counter count per 100ml, and the ratio becomes 0%. Based on this value, the count value adjustment ratio is determined.
- Previously count value: Set number of flow meter counts per 100ml.
- Water output inc/dec ratio: Increase/decrease ratio of the expected output volume according to count adjustment.
- Flow Meter Count per 100ml: Adjust count value for 500ml output.



How to set up the flow meter (hot water)

- Before tuning, set the Fine-tune of water output value for each button in page 8 to 0.
 - Before tuning, set the Water output per 100 ml in option 3 menu on page 17 to 0.
1. Place the scale and server on the water heater.
 2. After placing the server on the scale, press TARE to zero the weight.
 3. Press the 500ml button.
 4. When the water extraction is completed, look at the weight and increase or decrease it in the menu for adjusting the number of counts per 100ml to designate how much to increase or decrease from the current water quantity. For example, if 550ml is dispensed, adjust the ratio to be approximately -10%. If you press set at this time, you can adjust the increase/decrease ratio based on the current adjustment value for the next adjustment.
 5. Empty the server, place the server back on the water heater, and press the 500ml button again.
 6. Repeat this process until you get the correct amount.



Flow Meter Tuning(Direct water)

Go to the Flow Meter Tuning(Direct water) menu by pressing the Next button in the Flow Meter Tuning(Hot) menu.

Prepare the server and scale and press the 500ml button to adjust the difference between the extracted water and the actual 500ml using the increase and decrease buttons.

The setting method is the same as the hot water flow meter.

- 500ml button : 500ml water exit button
- Set button: The count per 100ml adjustment value is updated to the previously set counter count per 100ml, and the ratio becomes 0%. Based on this value, the count value adjustment ratio is determined.
- Previously count value: Set number of flow meter counts per 100ml.
- Water output inc/dec ratio: Increase/decrease ratio of the expected output volume according to count adjustment.
- Flow Meter Count per 100ml: Adjust count value for 500ml output.

