



## User Manual

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## **General Requirements**

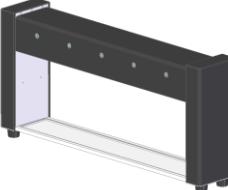
- The ambient temperature should be kept constant while operating the system.
- Temperature range is from +10 °C to +35 °C (or 50 °F to 95 °F).
- Do not install the machine where there is risk freezing.
- Work for earthing is needed before installing the machine.

## **Safety Precaution**

- Be careful not to scald from hot water when the machine is operating.
- Place the machine on safe location where the customers cannot easily touch while the machine is operating.
- Only use parts provided or recommended by the manufacturer.
- Make sure the power off when you conduct maintenance and inspection.
- Only the technical service engineers or appropriately trained personnel are allowed to open the case of the machine.
- Close supervision is necessary when the appliance is used by or near children.

## **Contents of the Package**

- Boomtle 5-head / 3-head pour-over system
- HB15L-6K / HB9L-3K boiler
- Drip tray
- Dripper holder
- 24V DC adapter with extension cable
- Hose nipple for drainage

No.	Item	Name
1		Boomtle Pour-over System 5-head / 3-head
2		Boiler HB15L-6K / HB9L-3K
3		Drip Tray
4		Dripper Holder
5		24V DC Adapter with Extension cable
6		Hose Nipple for Drainage (* Use it when connect the drainage hose from the main machine)
7		Teflon Hose for Inlet-Outlet Between Boomtle and Boiler (3m)

# Boomtle Installation

## Requirements

### 1. Networking / IT

- Recipes can be set on the application of mobile device operating on Android OS. You need to have Android based mobile device that can connect Boomtle by Bluetooth.

### 2. Water Supply / Drainage

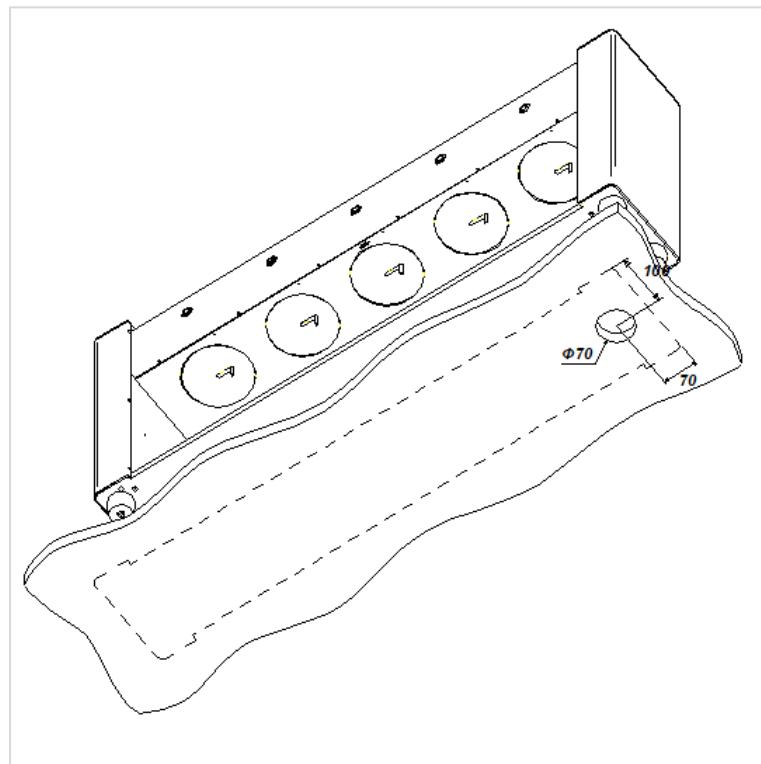
- Main machine is connected to the boiler with 10mm diameter Teflon hose. Prepare Teflon hose according to the installation environment.

### 3. Power supply

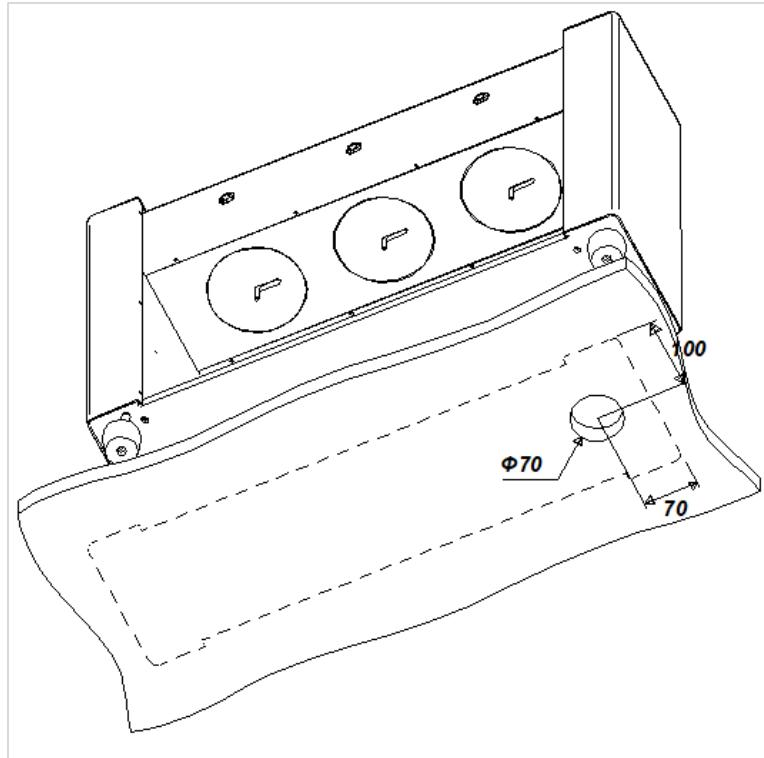
- For the boiler, use 50A circuit breaker only and the power cable 6SQ / 3Core (VCT6SQ 3C).

### 4. Counter-top hole

- The hole should be at least  $\varnothing 70$  on the counter-top where the left bottom\* of Boomtle will be placed. (\* Viewed from button side of the machine)



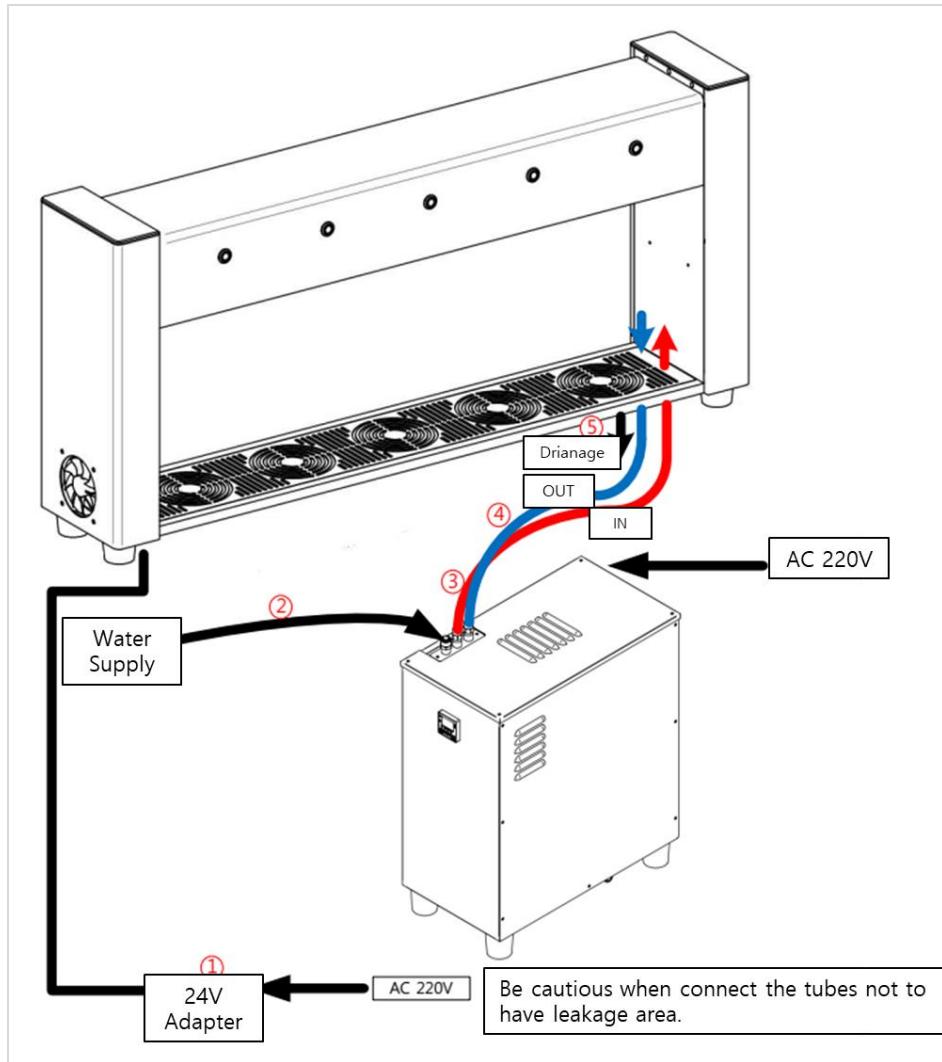
Pic. 1 5-head Hole Position



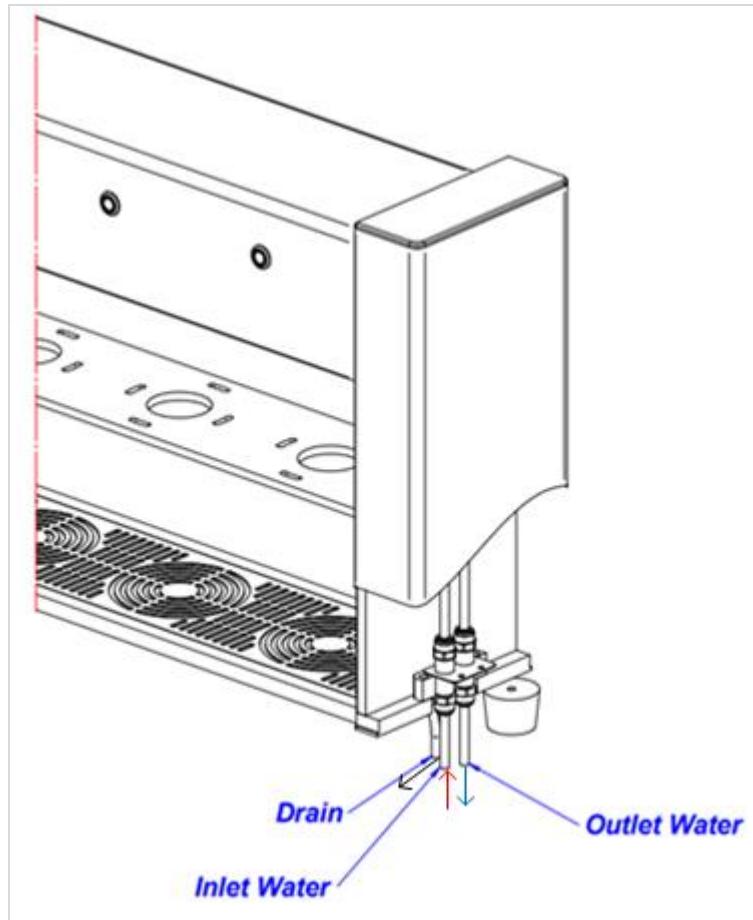
Pic. 2 3-head Hole Position

## Installation

1. Place Boomtle and its boiler
  - Ensure the counter-top is flat
  - Never lay the machine or up-side down.
2. Connect all fittings of the water supply in/out tubes and the drainage on Boomtle and the boiler.
  - Ensure to place the boiler as close to Boomtle as possible.



Pic. 3 Connection



Pic. 4 Connection

### 3. Secure power supply

- Boomtle: Use DC24V/6A adapter provided with the machine.
- Boiler: AC220V

► Each fitting has stopper to prevent unintentional disconnection.

## Boiler Installation

### Requirements

- Ensure to place the boiler on where the drainage is good.

- Electric shock or flooding can occur from water leaking from joint and fittings.
- Use the circuit breaker (over 50A) used only for the boiler.
- Use power cable with over 6.0 SQ and connect it only to the boiler. (Do not connect other devices simultaneously.)

## Installation

1. Place Boomtle and its boiler
  - Ensure the counter-top is flat
  - Never lay the machine or up-side down.
2. Connect all fittings of the water supply in/out tubes and the drainage on Boomtle and the boiler.
  - Ensure to place the boiler as close to Boomtle as possible.

### ● Connecting the Filter

- 1) Connect the following filter to the hose through which hot water moves from the boiler to Boomtle.
- 2) There is no directional distinction for the filter, so it can be installed by extending the hose or changing the direction according to the installation environment.



### ● Cleaning the Filter

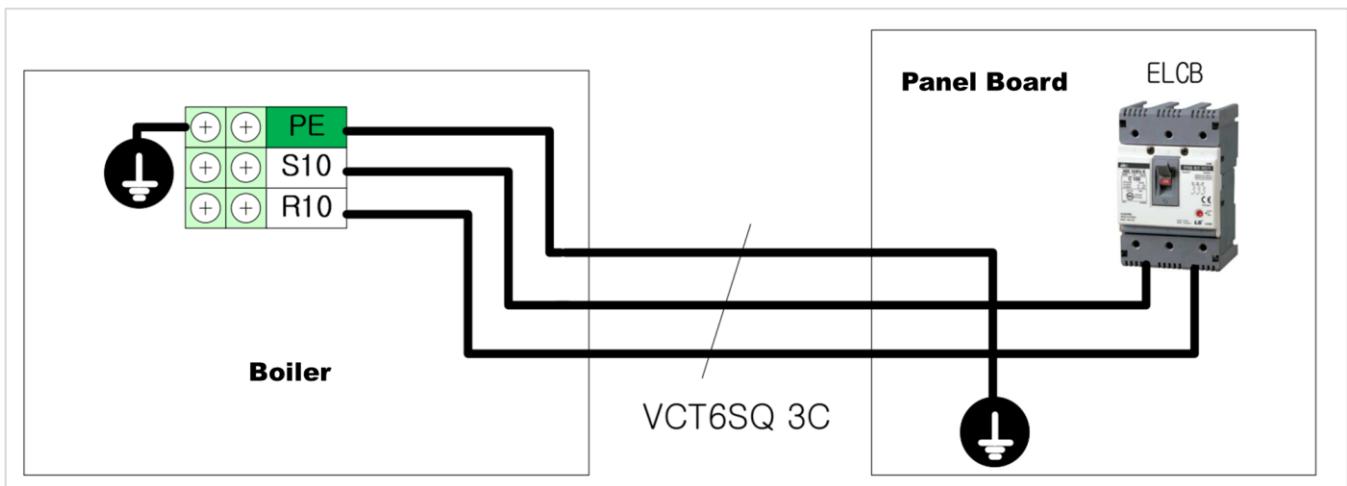
- 1) Once a month, open the cap and check the contamination in the filter.

2) Open the cap of the filter and separate the mesh screen, then rinse it under running water.



### 3. Power Connection

- Use the power cable of VCT6SQ 3C.
- Connect the power cable to 50A earth leakage circuit breaker (ELCB) which was installed in advance like below.



Pic. 5 Electrical Connection

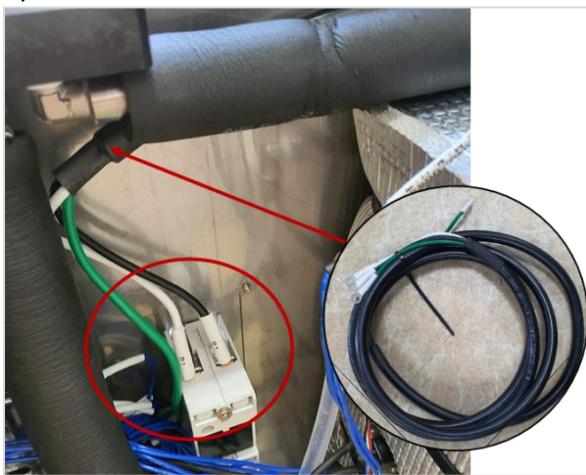
#### • How to connect power cable

- 1) Pass the power cable through boiler.

♣ Power cable is not included the standard package. Depending the installation environment, the customer needs to prepare 6SQ / 3Core power cable with length necessary.



2) Connect the cables to the 50A circuit breaker inside the boiler.



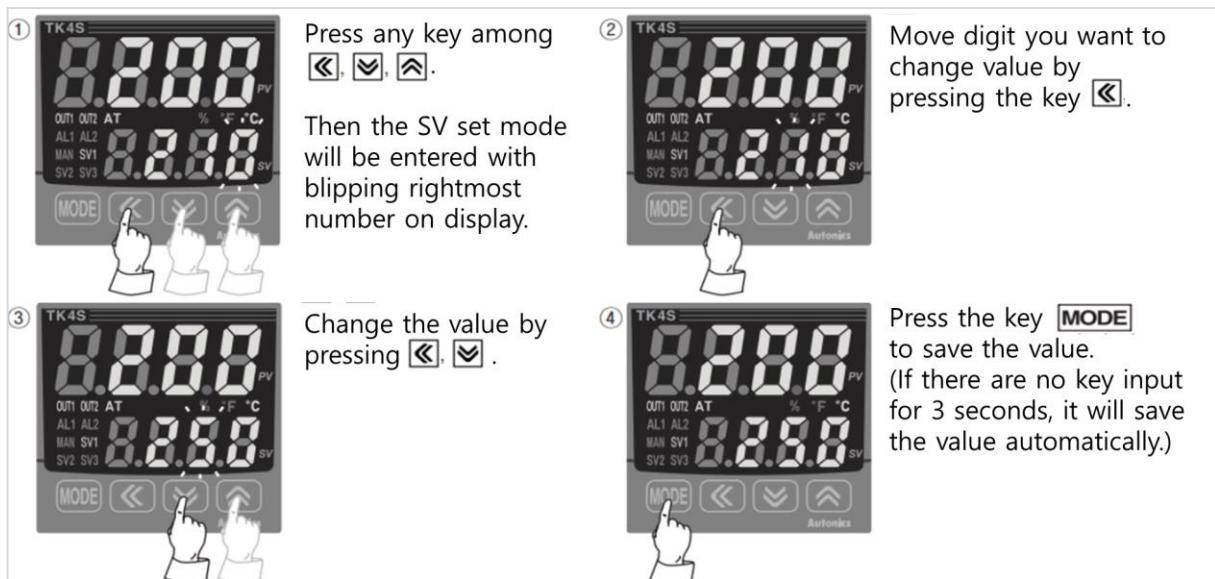
3) Tighten the screws.

- The green one can be adjusted internally using a driver.
- For the white and black ones, tighten them externally as shown in the picture below.



## Boiler Operation

1. Fill water in the boiler to over “Low Sensor”.
  - Turning on power before filling water can cause damage to the heating element of the boiler which affect the functioning seriously.
2. Turn on the power
3. Set temperature
  - You can set value by pressing buttons    . Follow the process below.



Pic. 6 Boiler Temperature Setting

#### 4. Basic Operation

- Pump will run if water level is between “Low Sensor” and “Over Sensor”, and the bimetal is not disconnected.
- Solenoid valve for water supply will be turned off as soon as the water level reaches “High Sensor”. And it is turned on again 1.5 seconds after the water level gets lower level than “High Sensor”.
- Heater will run in the condition that the water temperature is lower than the set value, the water level is higher than “Low Sensor” and the bimetal is not disconnected.

#### 5. ECO Mode

- The ECO mode of the boiler reduces energy consumption when the equipment is not in use and helps protect key components.
- Pressing the ECO button on the front panel of the boiler activates the ECO mode, indicated by the illuminated LED.
- In ECO mode, the target temperature is changed to 80°C, and the operation of the water pump is stopped, resulting in the cessation of water circulation between the boiler and the Boomtle.
- Pressing the ECO button on the front panel again turns off the LED, ending the ECO mode.

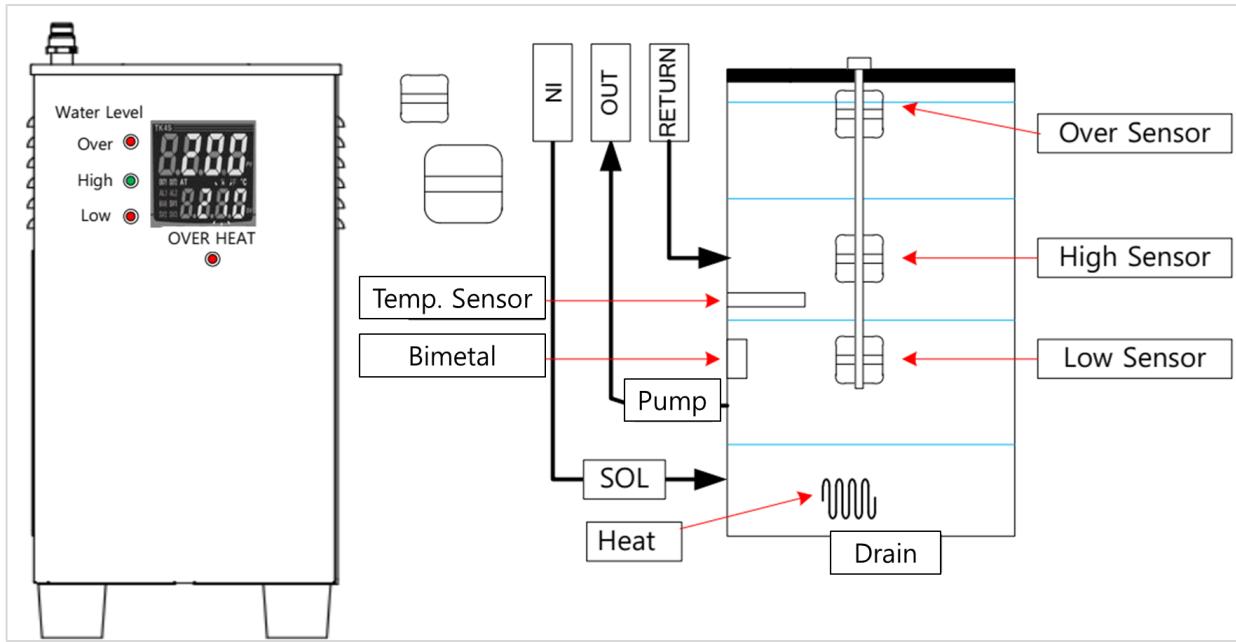
- When the ECO mode is ended, the target temperature returns to the previous temperature setting, and the water pump resumes operation, initiating water circulation once again.



Pic. 7 ECO Mode

► **Caution**

The ECO mode is intended to be used when there is idle time during normal operation (typically when the temperature reaches around 90-95°C). Using the ECO mode at too low of a temperature will result in heating up to the ECO mode temperature of 80°C without water circulation, which will consume more power.



Pic. 8 Boiler Sensors

#### • Water Level Sensors

- ▶ Over LED will be on when the water level reaches "Over Sensor" and all operation will be shut down.
  - ⇒ Fix the problem causing the alarm.
  - ⇒ Drain some water until the water level is lower than "Over Sensor" to make all functions normal again.
- ▶ High LED will be on when the water level is lower than "High Sensor".
- ▶ Low LED will be on when the water level is lower than "Low Sensor".
- ▶ Over Heat LED will be on when the heater is turned off by bimetal. To reset the bimetal, press reset button of the bimetal (picture below) after the temperature is below 30°C.



## Application

### Installing App

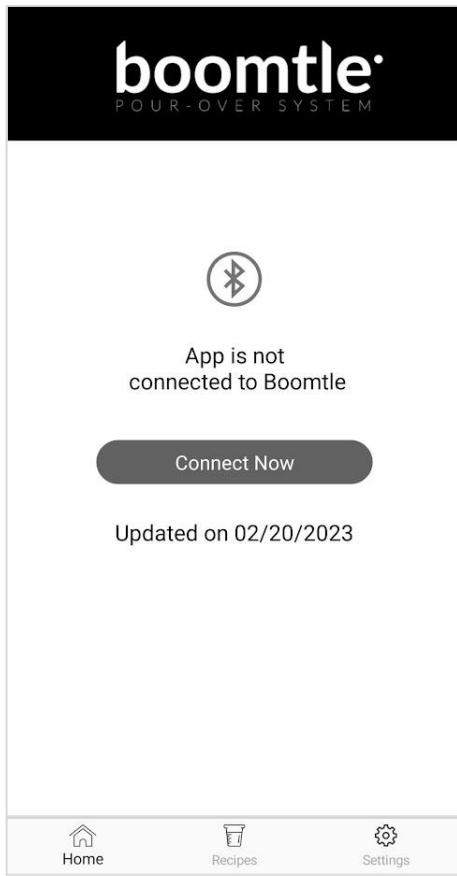
1. Search "Boomtle" on Google's Playstore.

2. Install the app on your mobile device.

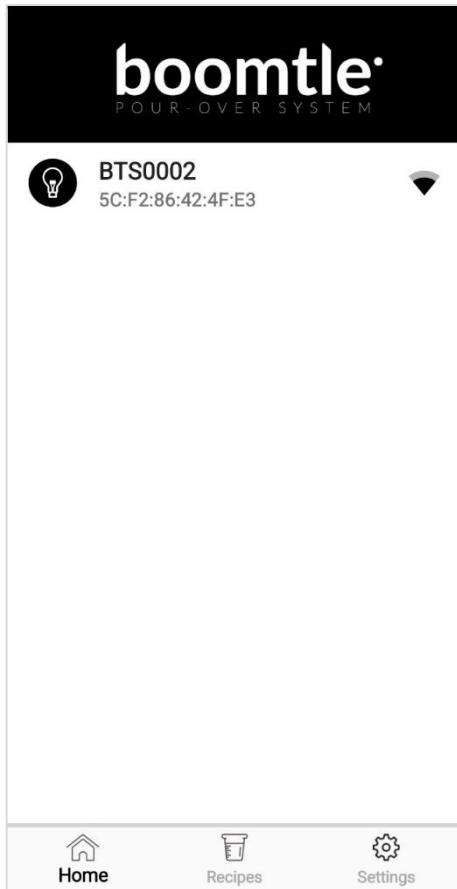
- ▶ *Boomtle App is currently operated only on Android device.*
- ▶ *The app currently supports up to Android version 12.*
- ▶ *Turn on Bluetooth on the mobile device before connecting the app to Boomtle.*

## Connecting to Boomtle

1. Turn on Boomtle.
2. Open the app and click “Connect Now”.

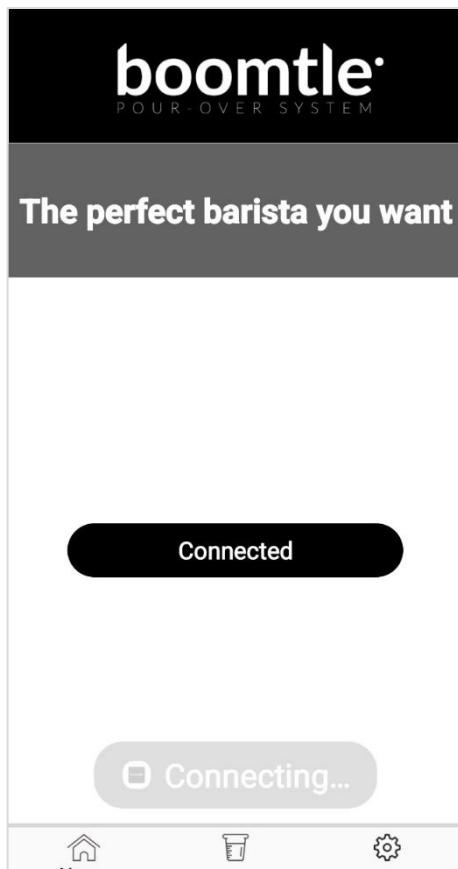


3. App will display devices that can be connected.
4. Select the Boomtle to be used.



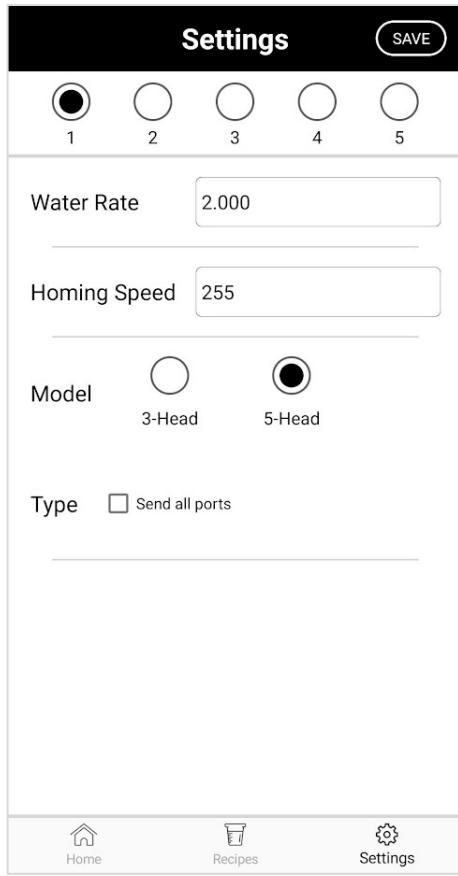
App 2. Home\_Selecting Device

5. When it is connected to the machine the app will display like below.



## Setting Water Rate

1. Select “Settings” and select the model.
2. Select the port to be set.
3. Input value on “Water Rate” and “Homing Speed”.
4. Click “Save” to save the data.
5. Set other ports.



App 4. Settings

#### ● Water Rate

- ▶ Factory set “Water Rate” value is provided when is delivered. The user can conveniently set “Water Rate” with the factory value.
- ▶ If you find pouring volume is different from pre-set value, “Water Rate” needs to be set again.

#### ● How to Calculate Water Rate

- ▶ When you set the “Water Rate” again, follow the formula below to find the right water rate value.

**New water rate = (Target weight (g) x Current water rate) / Measured weight(g)**

**Example:**

Current water rate = 2.0

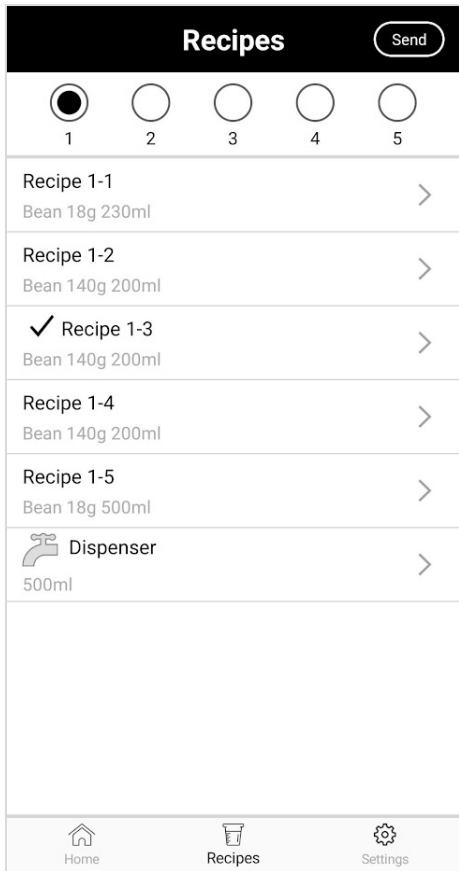
Target weight = 50 (g)

Measured weight = 45 (g)

$(50 \times 2.0) / 45 = 2.222$  (\* calculate to 3 decimal places)

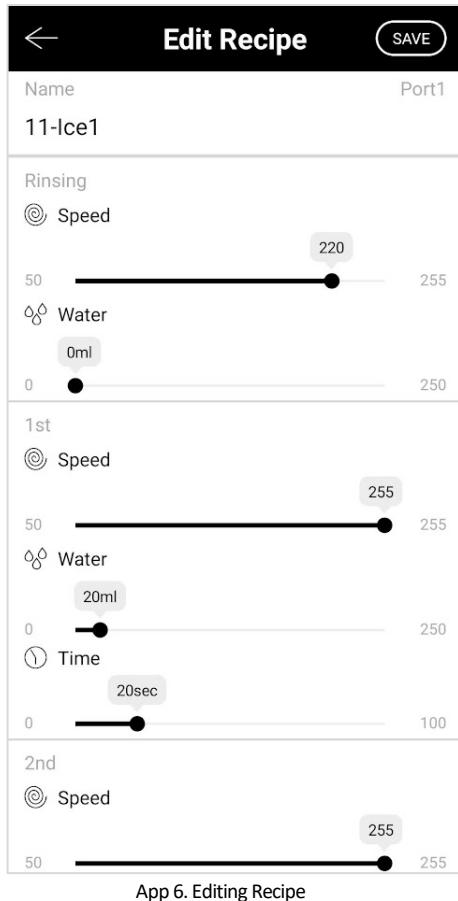
## Editing Recipes

1. Select “Recipes” and the port to be set.



App 5. Recipes

2. Select one of recipe slots to enter “Edit Recipe”.
3. Set spin speed, water flow and time to make recipe.
4. Click “Save” to save the data. .



App 6. Editing Recipe

### ● **Speed (Rotation Speed)**

- The rotation speed should be set to a minimum of '50'. (Rotation may not occur at speeds below 50.)
- If the rotation speed is set to '0', the nozzle will only pour water from the home position without rotating.

### ● **Default Recipes (\*Adjust the recipe according to your preference)**

	<b>Speed</b>	<b>Water (g)</b>	<b>Time (s)</b>
<b>Rinsing</b>	255	100	-
<b>1st</b>	200	30	30
<b>2nd</b>	145	50	30
<b>3nd</b>	145	70	27
<b>4th</b>	145	80	0

- Bean: 18g
- Total brewing time: around 2' 30"
- For Hot: Add 50-100g of hot water according to your preference.

- *For Iced: It is served as is without adding water.*

## Sending Recipe

1. Select “Recipes” and the port to send.
2. Click “Send” to synchronize the recipe with Boomtle.

- ▶ *Each port on Boomtle can have only one recipe.*
- ▶ *If you want to change the recipe, follow the sending process above again.*
- ▶ *Checkbox for “All Port Send” in “Settings” tap should not be checked for sending recipe on single port each.*

Type  All Port Send

### ● All Port Send

- *This function is for sending one recipe to all ports of Boomtle at the same time.*
- *If “All Port Send” is checked and click “Send” on one of recipes from Port 1, all ports of Boomtle have the same recipe. (Only recipes from slot 1~5 of port 1 is applicable.)*
- *“Water Rate” and “Homing Speed” will not be sent to all port when sending a recipe with “All Port Send”.*

## Boomtle Operation

### Making Coffee

1. When Boomtle is turned on, all ports do homing routine.
2. Place the filtered dripper and server on the port where you want to make coffee.
3. Press the LED button of the port to rinse the filter. When rinsing is finished, LED will blink.
4. Prepare coffee grounds on the wet filter. And press the button to start pour water.
5. When all pouring process is finished, LED button will be turned off.

## Water Dispenser

1. When Boomtle is turned on, all ports do homing routine.
2. Press the button of the port that preset as water dispenser. Then the LED will blink to show it is ready to pour water.
3. Press the button again to start pouring.
4. When the pouring is finished, the button will be turned off.

► To cancel the pouring process, press button while working.

## Cleaning

### Daily Cleaning

1. Clean all exposed surfaces with a damp cloth.
2. Clean the tray and drainage.

### Descaling

1. There is only limited area where scale can be accumulated in Boomtle.
2. If the machine is used with filtered water supply, we recommend to conduct descale process one a year.

## Troubleshooting

Please contact our technical team when you encounter problems with Boomtle.

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