



IGUASSU Digital Hot & Cold Water Purifier

User's Manual

- * Design and color may differ from the picture.
- * Read user's manual thoroughly before using product.
- * Product appearance, specification, etc. are subject to change without prior notice if necessary for improving product performance.
- * The rated voltage of this product is AC 110V/60Hz only.



ChungHo Nais Co., Ltd.

Greetings

We greatly appreciate your purchase of the Hot, Cold and Ambient water purification system, "IGUASSU Digital".

The product is manufactured according to standard specification, and "IGUASSU Digital" produced with a reliability test on all integrated components. The system is tested thoroughly on strict quality guidelines including temperature, moisture, shock, dust, vibration, drop, etc. We are sure that IGUASSU Digital's subjection to these various production processes will provide the utmost customer satisfaction in both quality and excellence.

Before installing or using this product, read this user's manual in detail and please keep it for future reference.

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1. Features

1 Energy saving function

While operation hot water, a light detection sensor reacts to the light density and it controls heater operation. If surroundings are getting dark, the heater automatically stops working to reduce power waste.

2 “LOCK” function

If “LOCK” is set on the front, it prevents users from pressing wrong button accidentally.

3 24 Hour Natural Water Circulation System(N.W.P.W)

ChungHo purification system is designed to allow water to continuously flow for 24 hours within the water purifier by adopting a natural circulation method. This mode, entitled N.W.P.W. applies the natural weight of water pressure in order to always supply clean and fresh water. (patent : No.105585)

4 Infrared water detection sensor

Differed from ordinary float level sensor, an infrared light is used for improving water level detection accuracy. Infrared application stably detects water level in more reliable and safer way. The signal from the sensor is sent to a controller in order to automatically adjust purified water level.

5 Convenience in use

The optimally displayed button and LED indicate setting of the product to users.

6 Enhanced safety features

Built-in automatic temperature detector and overheating protector are programmed to be alert to the possibility of danger in advance.

7 Superior design

Designed with elegance to suit any location

8 Hot lock function

The product is designed to avoid any accidental burns due to carelessness.

9 Constant water dispensing function

Users can take water as much as they want by leaving lever upward without having to hold the lever.

10 Convenient temperature selection

Cold or ambient water can be easily selected by the flip of a switch.

2. Safety cautions

Safety cautions are divided into 2 categories : 'Danger' and 'Caution.'

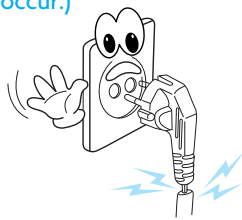


Danger

Associated with the possibility for serious injury or death.

When the power cord has been damaged, call A/S center.

(An electric shock or fire may occur.)



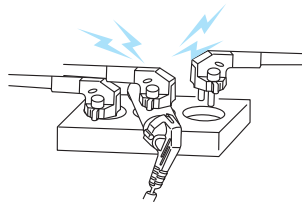
Insert the power plug in a stable position properly in order to avoid swinging.

(Unstable connection may cause a fire.)



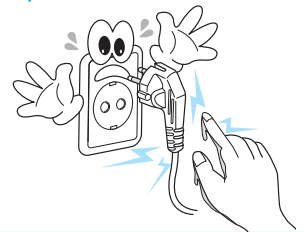
Do not use several appliances in same multiple outlet.

(A fire may occur due to overheating.)



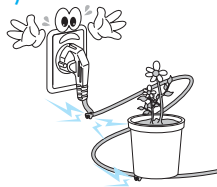
Do not touch the power plug with wet hands.

(An electric shock may occur.)



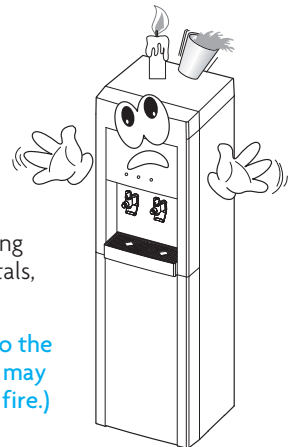
Do not bend the power cord excessively nor allow it to be damaged by being pressed under heavy objects.

(An electric shock or fire may occur.)



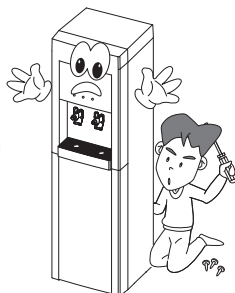
Do not place candles, lighters, lit cigarettes, etc on the product.

(A fire may occur.)



If the product is damaged or malfunctioning, do not disassemble, repair, or modify it on your own.

(An electric shock may occur.)



Do not put a bowl containing water, chemicals, small metals, etc on the product.

(If these materials drop into the inside of the product, this may cause an electric shock or fire.)

2. Safety cautions

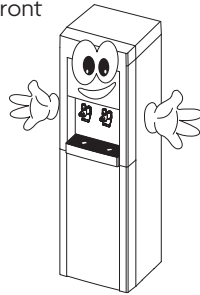
Safety cautions are divided into 2 categories : '**Danger**' and '**Caution**'.



Caution

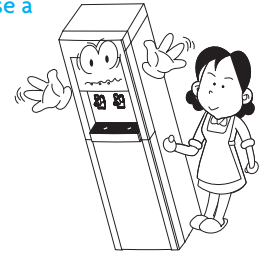
Associated with injury, property damage, and reduced product performance.

Refer to the rated voltage on the front page.

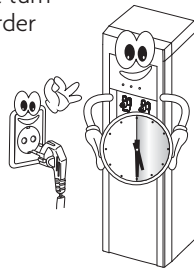


Do not tilt the product over 45° during transportation.

(Severe inclination can cause a reduced performance.)

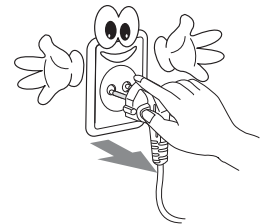


After transporting product, do not turn on the power for 30 minutes in order to stabilize the cooling system.



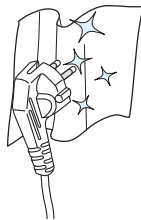
Unplug the power cord by holding the power plug and slowly pulling it out.

(Damaged power cord can cause a fire and electric shock.)



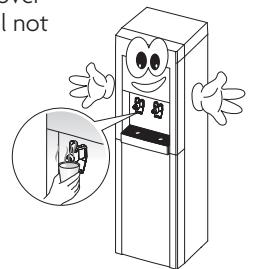
Keep the power cord pin clean from dust and water.

(An electric shock and fire can occur.)



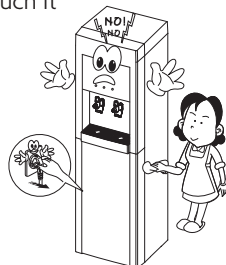
The temperature of hot water is over 176°F (80°C). Therefore, be careful not to get burned by hot water.

(Using a cup with handle on is recommended.)



Pull out the power plug before cleaning the inside meanwhile, do not touch it with wet hand.

(An electric shock may occur.)



2. Safety cautions

Safety cautions are divided into 2 categories : 'Danger' and 'Caution.'

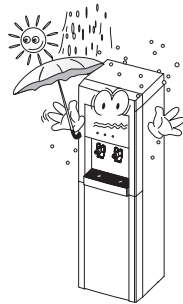


Caution

Associated with injury, property damage, and reduced product performance.

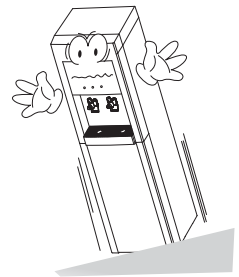
Do not install the product largely damp areas, at a place where is near flammable materials, exposed to rain or snow

(An electric shock and fire may occur.)

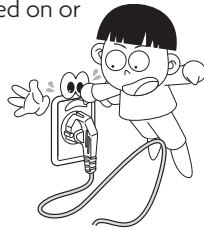


Do not install the product in a sloped or unstable position.

(This can cause a reduced performance, system damage, or trouble.)

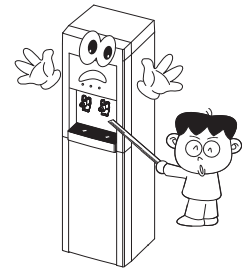


After installation, arrange the power cord so that it will not be stepped on or stepped over.



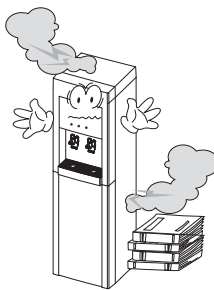
Do not press down lever or button with something sharp such as a pin.

(An electric shock or reduced performance may occur.)



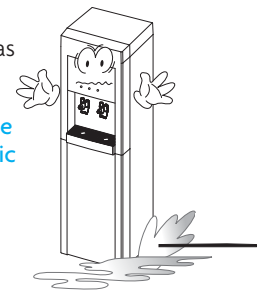
Do not put any covering such as blanket or cloth on the rear and side of product.

(Blocking ventilation holes may raise inside temperatures and it can cause a fire.)

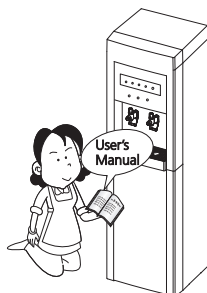


Fix the tube for brine and drain water not to splash around areas with water.

(Water may drop into the inside of the other product or electric outlet, it can lead an electric shock.)

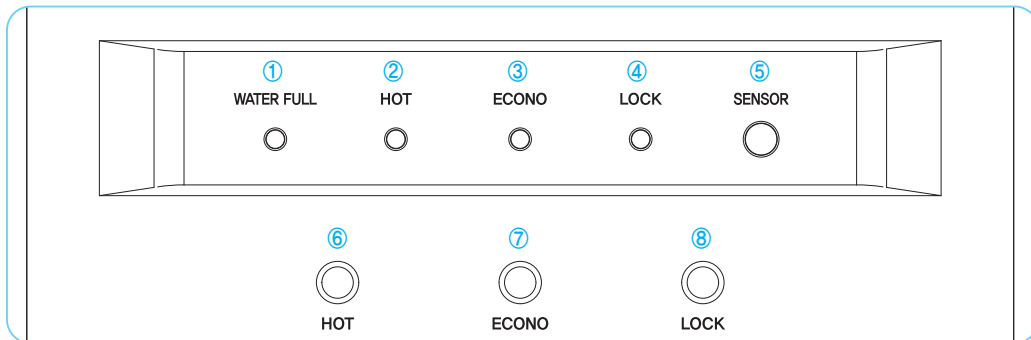


Read user's manual thoroughly.



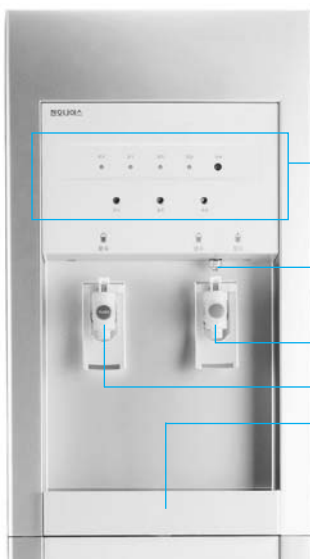
3. Names of each part

3-1. Operation display and Buttons



- ① **WATER FULL LED** : Purified water is full in the tank, LED (Green) is on.
- ② **HOT LED** : When "HOT" is set, LED (Red) is on.
- ③ **ECONO LED** : While "HOT" is set, LED (Green) is on by pressing "ECONO" button.
- ④ **LOCK LED** : When "LOCK" is set, LED (Red) is ON.
- ⑤ **SENSOR** : Detects light density.
- ⑥ **HOT Button** : Setting /Releasing of hot water. 3 second long pressing is required for operation and 2 second long pressing to stop operating.
- ⑦ **ECONO Button** : Setting/Releasing of energy saving function. This Button is available under "HOT" is on only.
- ⑧ **LOCK Button** : ON/OFF of "HOT" and "ECONO". 2 seconds are required to press button for setting and 2 seconds again for releasing function.

3-2. Front



※ Refer to the Operation display and Buttons above.

- ① **Cold/Ambient water Selection lever**
- ② **Cold/Ambient water dispensing lever**
- ③ **Hot water dispensing lever**
- ④ **Water gutter**



Be careful when you take the hot water to avoid the burn. Use container such as a cup.

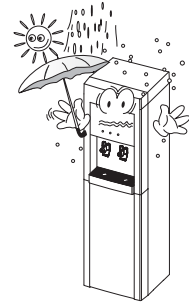
4. Installation cautions

• Service engineer installs the product. You should check if the product is properly installed.

1 Do not install it at the following places.

- Near fire or heater
- Near flammable material
- Wet place
- A place exposed to rain and snow
- A place exposed to direct sunlight
- Near chemicals(volatile material, organic solvent, etc.)
- A place below 32°F(0°C) or a place with the possibility of dropping below 32°F(0°C).
- A place above 104°F(40°C) or a place with the possibility of climbing above 104°F(40°C).

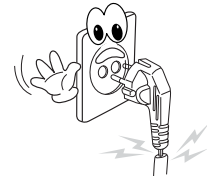
※ This can cause a reduced performance and fire.



2 Use the product at the following conditions.

- pH : 5.8-8.5
- Water pressure : 7-120psi(0.5-8.4kgf/cm²)
- Water temperature : 39-100°F(4-38°C)
- Water hardness : 300ppm or less
- Evaporated residue : 500ppm or less
- Water quality : Biologically safe water quality

※ When using the water out of range, discuss it with the company. If not, the product can be excluded from the stated warranty.



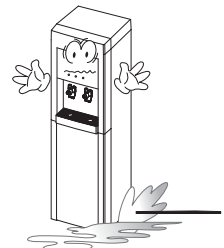
3 A bad wall outlet or plug may cause an electric shock or fire, so do not use them.

4 When transporting the product, do not tilt it over 45°.

※ Severe tilting can cause a reduced performance.

5 Do not connect hot water(over 100°F(38°C)) to the product.

※ This can cause a reduced performance or trouble.



6 When connecting tube, make sure that the tube is not bent or pressed down by heavy objects, etc.

※ If tube is bent or pressed, it can be the causes of several problems.

7 Fix tube so that the brine water and drain water may not splash around areas.

※ The brine water and drain water can be used for other purposes. (e.g. cleaning the house, washing clothes. etc.) But do not use the brine water for drinking or cooking.

8 Keep the product approximately 6" (15cm) away from the wall so that ventilation may be well performed for safe operation.

4. Installation cautions

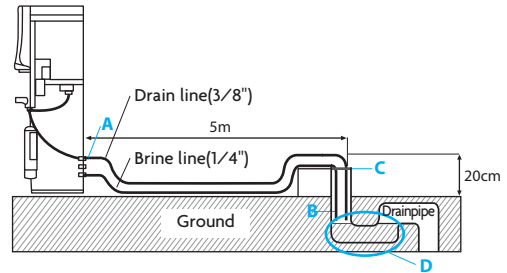


Caution

Notice of Drain tube installation

- Follow the instruction for proper drainage of product.
- ※ Manufacturer is not responsible for any damage or reduced performance from wrong installation.

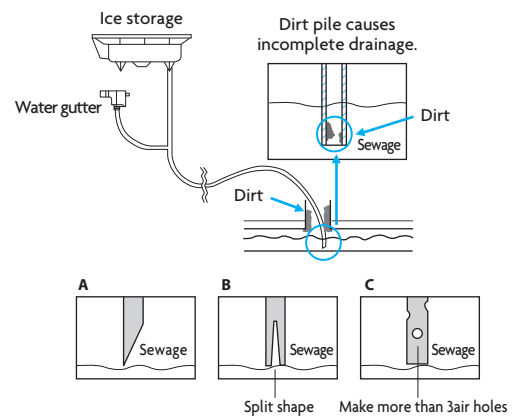
If you put the end of drain tube into remaining water in the U-Trap pipe(D) deeply or in case the hole(C) of drainpipe is sealed, it can hinder water flow. It increases the hydrostatic pressure and this causes water overflowing up to the water gutter.



〈Pic 1. Drawing of drain tube installation〉

• Instruction of installation

- Use bigger than a size of 3/8" drain tube (O.D.: outer diameter) without connector (ex. Fitting) from A to B. (Refer to the Pic 1.)
 - Avoid using 1/4" drain tube (O.D.) with a reducer (3/8" → 1/4"). You should follow this instruction to prevent the water leakage or overflow from incomplete drainage.
- In case of U-Trap pipe type, change the shape of end of drain tube same as the picture on the right. (Refer to the Pic 2. A, B, C)
- It prevents the drain tube (3/8") from being clogged with dirt. And it helps drainage well with proper air flow.
- Do not put the end of drain tube into the water. (Refer to the Pic 2)



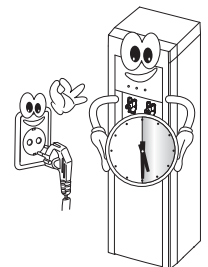
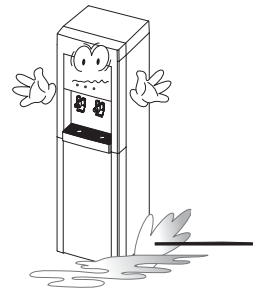
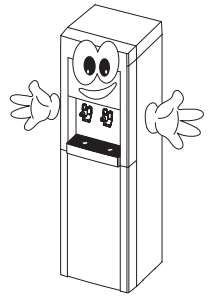
〈Pic 2. The shape of end of drain tube (3/8")〉

- The highest point of installed drain tube must be less than 8"(20cm) away from the flat floor. (Refer to the Pic 1)
- Total length of drain tube must be less than 197"(5m). In case of longer than the stated length of drain tube, drain pump is necessary to install.
- Black insulation tape is recommended to tie up 3/8" drain tube rather than cable tie. (Tight tying with cable tie can interrupt the drainage.)
- After installation the product, pour the water (about 1ℓ) into the water gutter to remove air inside. And check out water draining properly from the water gutter. If the water is not drained well, reinstallation of drain tube is needed.

5. Installation method

• Service engineer installs the product. You should check if the product is properly installed.

- 1 Install horizontally and clean up the area.
- 2 Turn off water supply valve and separate the connector part of tap water in order to connect an adapter. Then, connect the adapter.
※ If a sealing rubber(packaging) is missing or the thread of a screw is damaged, it may occur water leakage.
- 3 Connect the adapter and the tube to a water inlet on the rear of the product.
※ Do not bend the power cord excessively nor allow it to be pressed by being pressed under heavy objects.
- 4 Connect tube to drain and brine connector on the back of the product. And then, place tubes to drain hole such as sink, toilet etc.
- 5 Fix the tube not to splash areas with water and arrange the area.
- 6 Turn on water supply valve connected to the house and position the adapter "OPEN".
- 7 Check if water is supplied into the product and there are any leakages on every connection.
- 8 Do not plug in the power for 30 minutes in order to stabilize the cooling system and safe use of the product. (If power is supplied after 30 minutes, it gets operating flickering LED display twice.)
- 9 After 20-30 minutes have passed from supplying the power, check if water is served by pressing the water dispensing lever.



6. Usage

- 1 Do not plug in the power cord for 30 minutes since the product is installed in order to stabilize the cooling system.
- 2 When being supplied power, LED display is flickering twice and water purifying system operates as programmed.
- 3 Every function is off except water cooling function when the product is shipped from the factory.
※ Water cooling function cannot be selected by ON/OFF. Water cooling function runs automatically when the level of water is filled more than 30% of the water tank.
- 4 "HOT" LED is turned on if you press the "HOT" button for 3 seconds on the display.
- 5 After 20-30 minutes have passed from supplying the power, check if water is served by pressing the water dispensing lever.
- 6 Use the product when water flows into water tank.
- 7 Water is served if you press water dispensing lever with containers such as a cup. Users can take as much as they want by leaving lever upward without having to hold the lever.
- 8 Be careful when you take the hot water to avoid the burn. Use container such as a cup.
- 9 To clean up the reservoir tank, grasp the both sides of lower front panel and pull it frontward as pressing. Then, you can see hot water flushing valve on the left and cold water flushing valve on the right. Connect drain tube to flushing valve respectively and turn the valve to the left to drain the water in the tank.
※ Be careful of hot water from drain tube connected to the hot water flushing valve.
- 10 "LOCK" function and "ECONO" function
 - 1) LOCK
 - ① "LOCK" function gets started by pressing "LOCK" button as "LOCK" LED is turned on.
 - ② "LOCK" function is released by pressing "LOCK" button again. "LOCK" LED is turned off and "HOT" and "ECONO" functions get back to normal.
 - 2) ECONO
 - ① "ECONO" function gets started by pressing "ECONO" button as turning on "ECONO" LED.
 - ② This function is only available while "HOT" LED is on. "ECONO" function is released by pressing "ECONO" button again.

※ Energy saving function is

While operating hot water, the light detection sensor reacts to the light density and it controls heater operation. When it is dark, it sends a signal of stopping operation of the heater. This function is very useful for an empty office after business hour, closed restaurant and night at home. If it gets bright around the product (Light is turned on or so), hot water operation sets back into motion automatically.

7. Cautions for usage

- 1 Be careful! Hot water(185-194°F(85-90°C)) can burn you when you take hot water. Therefore, use a container like cups. And lock the hot water with hot "LOCK" button for a child.
- 2 Never move the product while in operation.
 - This can cause unwanted problems.
- 3 Exchange filters according to the recommended schedule to ensure proper purification and great tasting water. Failure to adhere to the recommended schedule will result in degradation of water quality and poor water purification.
- 4 Do not place or use the product in temperatures below 32°F(0°C) and above 104°F(40°C).
- 5 Avoid the use of chemicals around the product(volatile material, inorganic solvent, etc.) and do not place chemicals near the product.
- 6 Make sure that all tubes(inlet, brine, drain) are not blocked off or bent, which may reduce or prevent water flow.
- 7 When cleaning the water tank, make sure that you replace the rubber lining properly along the tank when closing the tank lid.
 - Improper alignment may cause pollutants, ants and/or other insects to enter the water tank.
- 8 Do not use water to wash down the product.
 - This cause an electric shock and/or fire.
- 9 When the product is not used for long periods of time, shut off the source water adapter valve before pulling the power plug out. Do not touch the power plug with wet hands.
 - There is danger of an electric shock or fire.
- 10 Do not use brine water for drinking and/or cooking. However, brine water may be used for other purposes.(e.g. cleaning the house, washing cloths, etc.)
- 11 If an operation does not function properly, even though the touch sensor button has been applied, broaden the contact area of which the touch sensor button is pressed(using your thumb, etc.)
- 12 The amount of time required for the purified water to reach a set temperature may vary depending on the external conditions(temperature, humidity, source water etc.)of surrounding environment near the system.
- 13 If an abnormal sound, smell, or smoke appears from the product during use, then pull out the power plug immediately, shut off the source water adapter valve, and then call A/S.
 - There is danger of an electric shock or fire.

8. Filters

8-1. Filter Functions



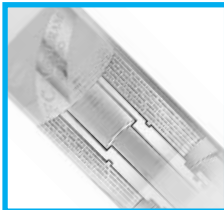
Sediment filter

It removes particles and pollutants that are over $5\mu\text{m}$ from the water. It helps to extend the life of the membrane filter.



Pre-carbon filter

It is made from high temperature processed carbon. it absorbs and eliminates dissolved pollutants(such as chlorine, THMs and organic chemical contaminants), so it protects the membrane filter and helps it function work properly



Membrane filter

It removes dissolved pollutants.(a molecular weight over 200, such as heavy metals, bacteria and organic chemical contaminants) through RO filtration using a semi-permeable membrane($0.0001\mu\text{m}$ pore size, $1/1,000,000$ of hair) and the dissolved pollutants are discharged through drainage tubing.



Post-carbon filter

It removes dissolved gases and odors to improve water taste.

8-2. Filter service life

Filter	Service life
Sediment filter	About 6 months
Pre-carbon filter	12 months
Membrane filter	24 months
Post-carbon filter	18 months

※ Filter service life is not the filter warranty. This ideal filter service life is based on the use of 5.28G(20ℓ) per day.

※ Filter service life is varied depending on environment such as location, water conditions(quality, temperature), amount of water used and seasons(summer, winter).

※ You can take clean water by replacing filters according to the recommended filter service life.

9. Specification and water flow diagram

9-1. Specification

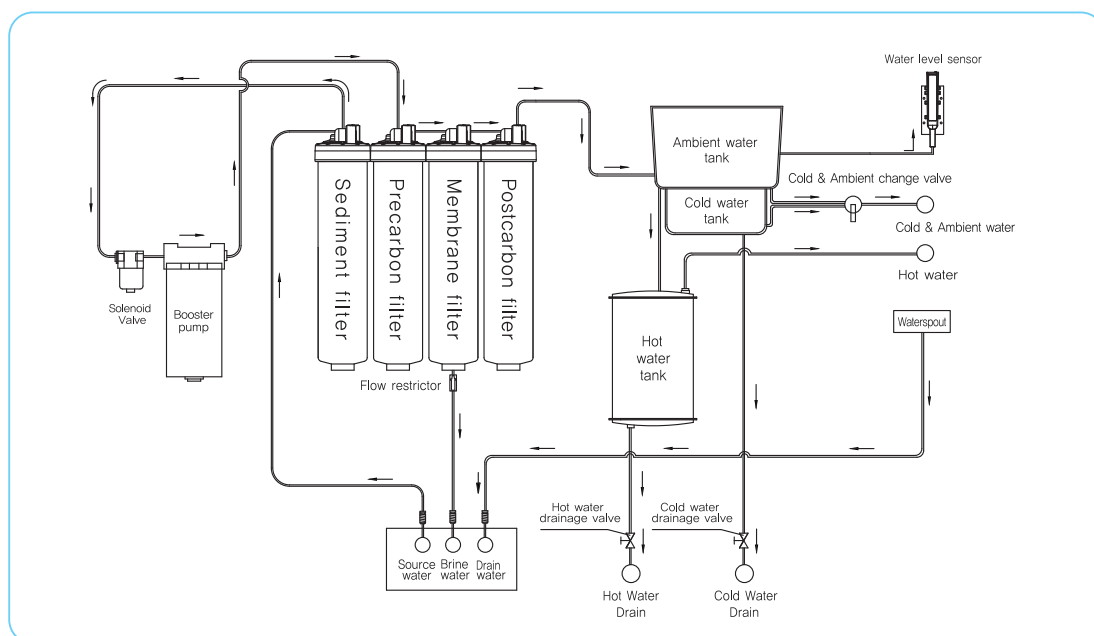
Product name		IGUASSU Digital	Heat radiation type	Wire condenser type
Model name		CHP-3800S	Cold water temp. regulation	Thermistor
Product weight		37.5kg	Hot water temp. regulation	Bimetal(Automatic return)
Rated voltage		Refer to the front page	Overheating prevention	Bimetal(Manual return)
Power consumption	Hot water	500W	Safety system	Overheating prevention, Water level detecting
	Cold water	125W		
Tank capacity	Cold water	1.2 G(4.5 ℓ)	Weather class	N class(89.6 °F ±1.8 °F) (32°C ±1°C)
	Hot water	1 G(3.8 ℓ)		
	Ambient water	4 G(15 ℓ)	Refrigerant	R-134a(36g ±1g)
Dimension		360W x 412D x 1323H(mm)	Power cord	1.8 m
Compressor		1/10 HP Hermetic	IP class	IPX1

※ "N class" indicates temperate climate.

※ Product specification is subject to change for improving performance.

※ "IP class" stands for "International Protection" against water.

9-2. Water flow diagram



10. Troubleshooting

Symptom	Check point	Action	Remarks
LED display is not turned on.	Is the power plug inserted properly?	Insert the power plug to wall outlet properly.	
Ambient water is not dispensed.	Is tap water being supplied?	Pull out power plug and insert it if source water is supplied.	Refer to the page 8 and 10
Cold water is not cold enough or isn't dispensed.	Check ambient water tank.	Wait until ambient water is filled up to 30% of water tank. (Operation starting point)	Refer to the page 11.
Hot water is not hot enough or isn't dispensed.	Isn't water in ambient water tank?	Wait until ambient water is filled up to 30% of water tank. (Operation starting point)	Refer to the page 11.
	Is the "HOT" LED turned on?	Wait until hot water tank is hot enough. (30 minutes is required since "HOT" LED is on).	
	Is the "HOT" LED turned off?	Set the "HOT" LED on.	
	Is the "ECONO" LED turned on?	Make the surrounding of product bright and wait until the temperature of hot water tank is climbing.	
Water in water gutter is not drained.	Open the lid of water gutter and check out if foreign materials block a drain hole.	Remove foreign materials.	
	Is drain tube bent or pressed by heavy object?	Set drain tube properly.	
Button does not work.	Is "LOCK" turned on?	Release "LOCK"	Refer to the page 11.



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