TERA SPARK

USER MANUAL

Commercial Sparkling Water Dispenser

CONTENTS

IMPORTANT SAFETY INSTRUCTIONS

WARNING	Indicates improper operation may cause severe injury or property damage.
PROHIBITED	Indicates forbidden actions.
NOTE	Reminders for installation, usage, and maintenance.

WARNING

- Install indoors in a cool, dry area with a floor drain. Avoid sunlight and flammable materials.
- Use only 220V/50Hz power with a grounded outlet.
- Do not place objects on the power cable or use extension cables.
- Disconnect power immediately if smoke, odors, or abnormal noise occurs.
- Use only food-grade CO_2 gas .
- Standard CO_2 pressure: 0.7–0.8MPa.
- This product has a built-in compressor refrigeration system and must be left to stand for 24 hours after receiving the machine before it can be powered on use, otherwise it may cause compressor system failure.

PROHIBITED

- Do not disassemble, modify, or repair the machine .
- Do not replace damaged power cords without professional assistance.
- Avoid impacts, drops, or collisions during transport/usage.

NOTE

- If leaking occurs, shut off power/water and contact professionals.
- PE pipes must be fully inserted, avoid sharp bends (>90°), and protect from heat/light.
- Operating conditions: Temperature 4–40°C, humidity ≤90%, water pressure 0.1–0.3MPa.
- Do not operate below 0°C. Heating time increases in cold environments.
- Clean with a soft cloth. Do not use solvents or water sprays.
- Hot water is scalding. Supervise children.

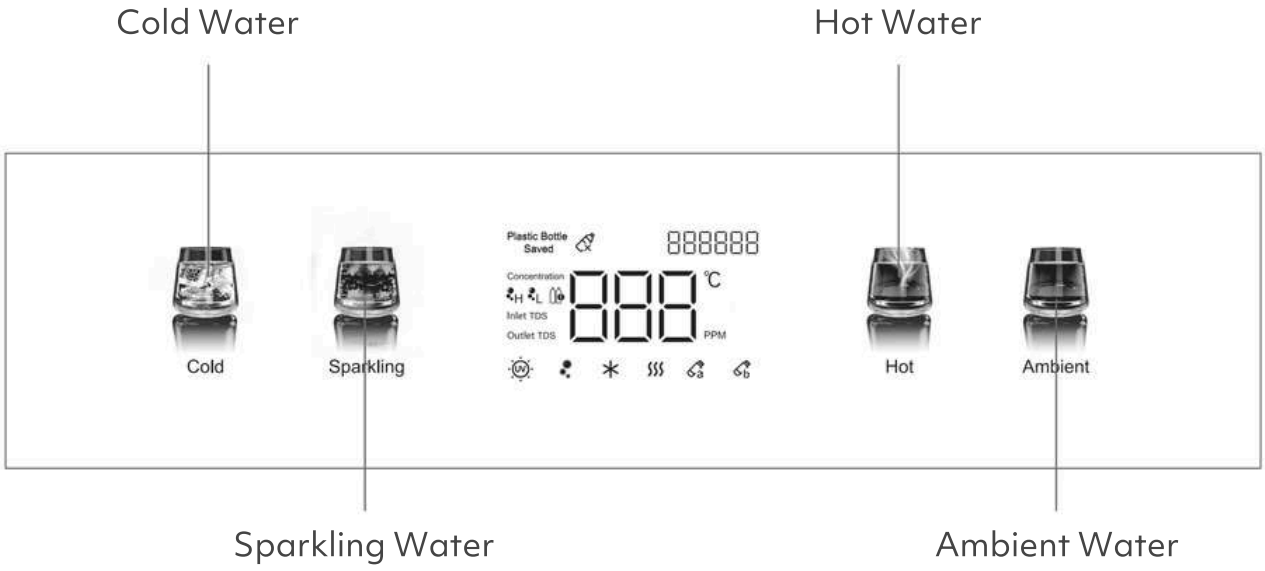
PRODUCT FEATURES

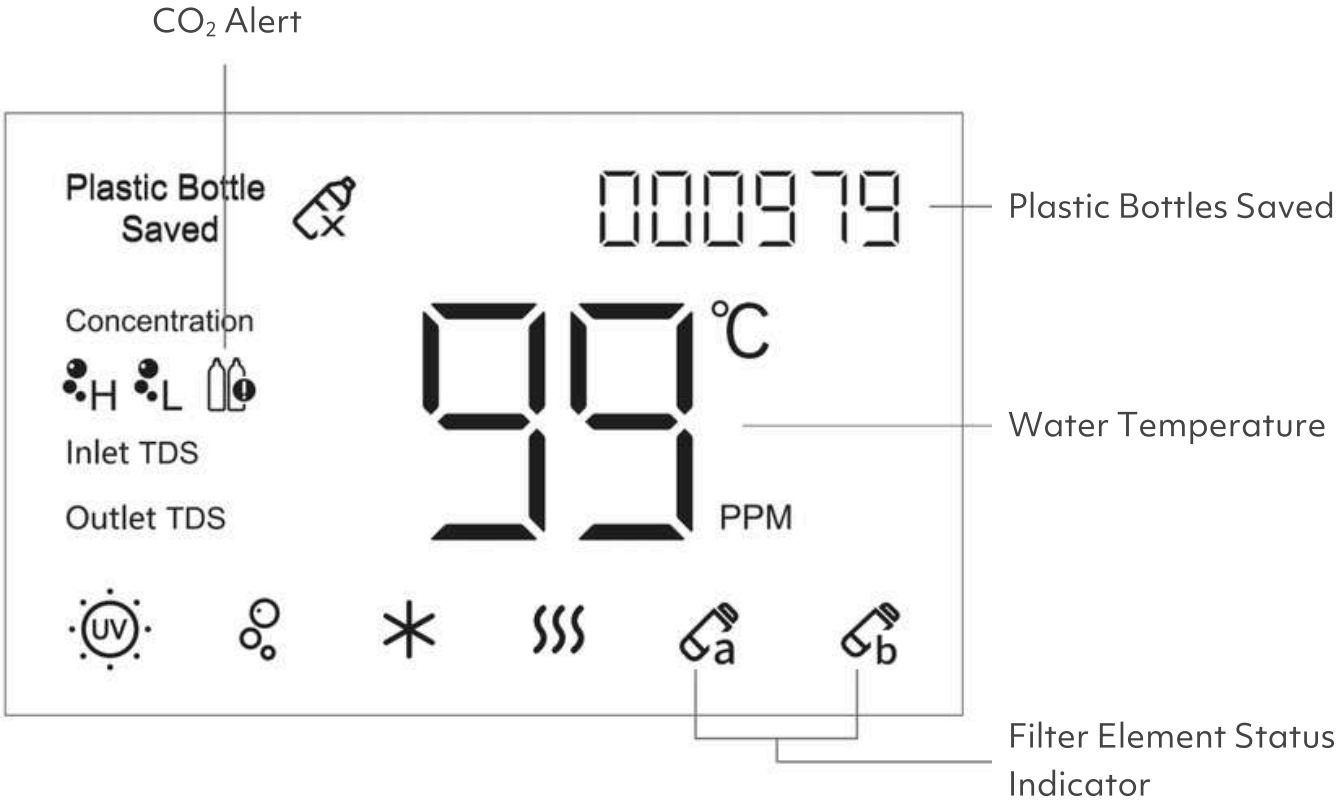
- 4-stage filters (UF) + UV sterilization.
- Four water outlet options available:
  sparking water, cold water, hot water, ambient water
- Continuous supply of chilled sparkling water.
- Adjustable bubble intensity.
- High-capacity compressor for rapid cooling.
- Active/passive safety systems.

PRODUCT DIAGRAM

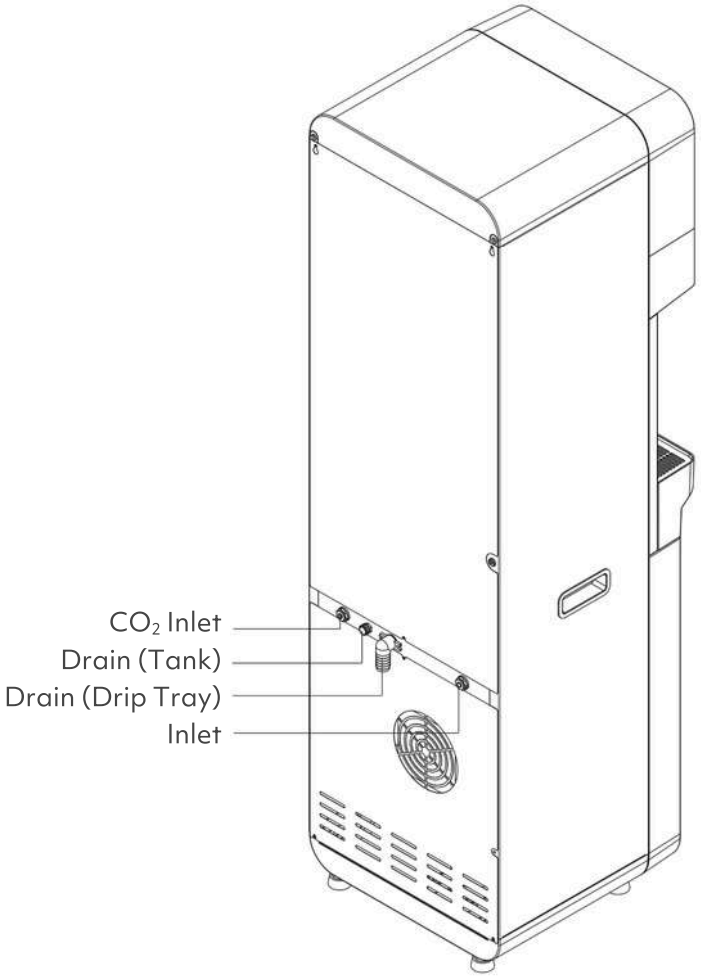
Unit: mm

DISPLAY INTRODUCTION

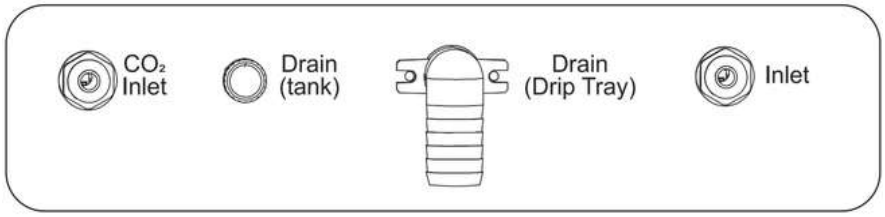




PLUMBING CONNECTIONS



Please familarize yourslef with the connections on the back of machine:



CO_2 Inlet: This connection is to connect to the pressure regulators, use 1/4" tubing.

Drain(Tank): This drainage is used to empty the water in tank.

Drain(Drip Tray): This connection is to drain the water in drip tray,use ϕ18mm tubing to connect.

Inlet: This connection is to connect to the pressure regulators, use 1/4" tubing.

SPECIFICATIONS

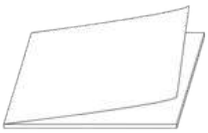
Model:	Tera Spark
Rated Voltage:	220V/50Hz
Rated Power:	1700W
Heating Power:	1500W
Cooling Power:	170W
Cold Water Tank Capacity:	8L
Hot Water Tank Capacity:	5L
Sparkling Water Tank Capacity:	2L
Cold Water Production Capacity:	6L/H (≤10°C)
Hot Water Production Capacity:	13.5L/H (≥90°C)
Sparkling Water Production Capacity:	6L/H
Hot Water Temperature:	≥90°C
Cold Water Temperature:	≤10°C
Refrigerant:	R600a
CO_2 Gas Capacity:	≥3g/L
CO_2 Inlet Type:	Food Additives - Carbon Dioxide
CO_2 Inlet Pressure:	0.8MPa
Climate Type:	Temperate (N)
Refrigerant Fill:	33g
Water Supply:	Municipal
Feed Water Pressure:	0.1~0.3MPa
Operating Pressure:	0.4~0.8MPa
Feed Water Temperature:	5~38°C
Filtered Water Flow:	≥0.5L/min
Rated Treated Water Capacity:	4000L
Safety Valve Pressure:	0.95MPa
Recovery:	≥45%
Appliance Protection Rating:	Class I
Product Net Weight:	35kg
Product Dimensions:	400x425x1400mm

NOTE

All performance parameters listed in the spefications table are tested under standard laboratory conditions. Actual performance may vary depending on usage conditions.

STANDARD ACCESSORIES

Water Dispenser



Manual

PE Pipes (White)

PE Pipes (Blue)

Inlet Valve

Drain Tubing Clamp

Drain Tray Plug

Drain Tube

PRODUCT INSTALLATION

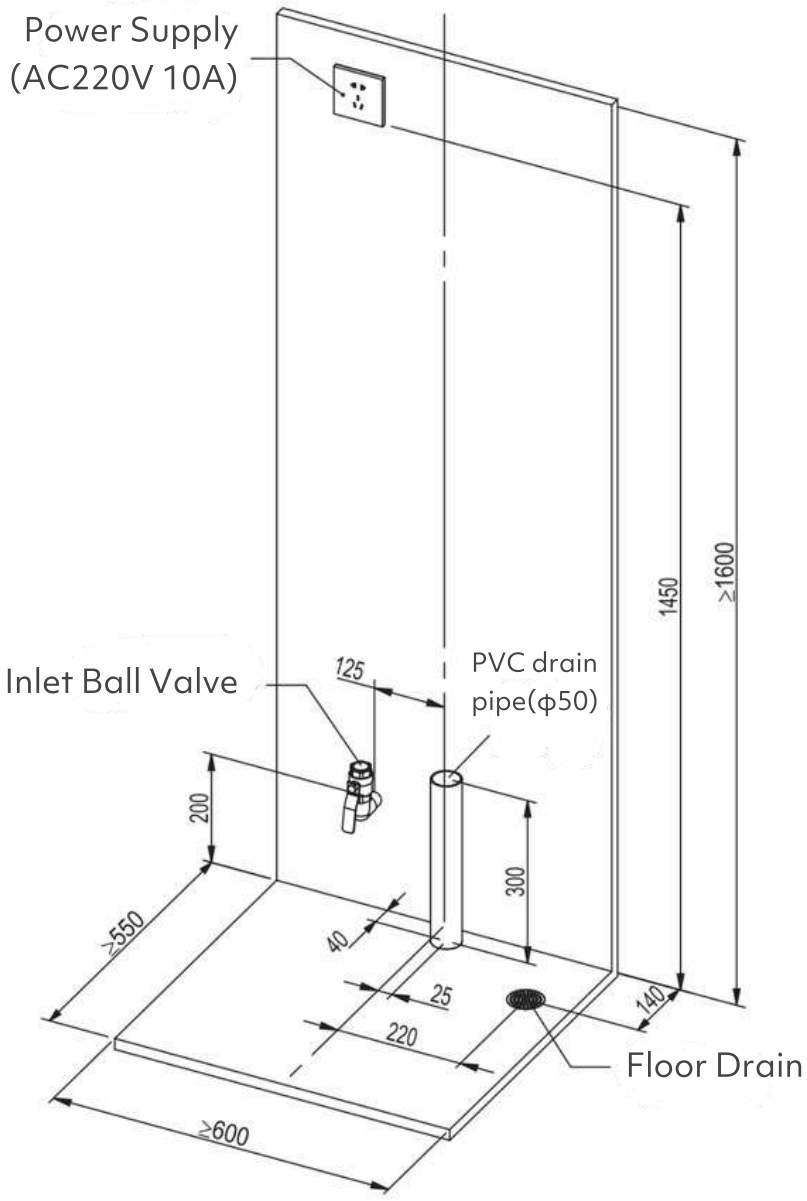
Installation Conditions & Requirements

1. Area Requirement: ≥600mm×550mm
2. Required Vertical Clearance for Installation: ≥1600mm
3. Operating Voltage/Frequency: AC220V/50Hz
4. Operating Power: 1700W
5. Ambient Temperature: 4~40°C
6. Influent Water Quality Requirements: Municipal Tap Water
7. Inlet Water Pressure: 0.1~0.3MPa
8. Floor Drain and Drain Pipe Diameter: ϕ50mm
9. The product must maintain a clearance of no less than 300mm between all surrounding walls and the unit body when installed in a recessed manner.

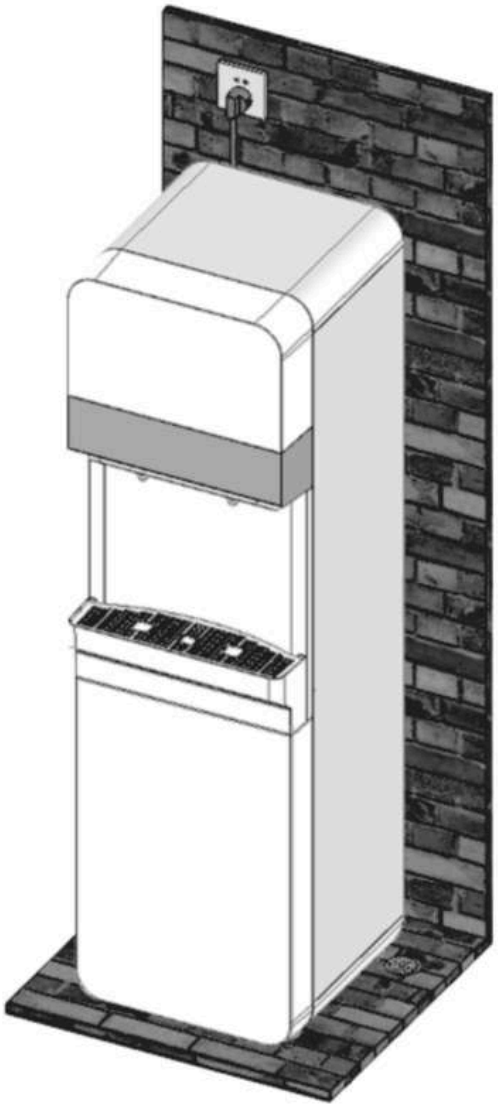
Installation Warning

1. The floor at the installation location must be flat with a load-bearing capacity exceeding 100 kg/m2.
2. During pipeline connection, ensure proper height and angle alignment. No significant stress shall be present to prevent cracks, leaks, or damage during prolonged operation.
3. All pipe fittings must be certified by provincial or higher health authorities.
4. Water and electrical circuits must adhere to national installation standards.
5. Clean pipelines thoroughly to remove debris or contaminants before connection.
6. Pipelines shall be tightly secured against walls, routed straight with clear bends, and firmly fixed.
7. Inlet water pressure must be maintained at 0.1–0.3 MPa. Install a booster pump (if pressure <0.1 MPa) or pressure-reducing valve (if pressure >0.3 MPa) to ensure normal operation.
8. The product must be vertically fixed during installation.

9. Do not lay horizontally or tilt (>45°) during transportation to avoid internal component detachment.
10. A functional floor drain with sufficient drainage capacity is mandatory at the installation site.
11. Installation in drainless areas is strictly prohibited.
12. Drainpipes must be PPR pipes resistant to 100°C water temperature.
13. Ensure unobstructed drainage and eliminate potential blockages.
14. Power supply must include a 220V/10A leakage protection circuit breaker.
15. Install the product indoors with frost-proof insulation.
16. Avoid acidic substances or gases in the installation environment to prevent corrosion.
17. Installation and commissioning must be performed by certified professionals.
18. Load-bearing capacity: Structural integrity requirement for the installation surface.
19. Debris/contaminants: Impurities that may compromise pipeline functionality.
20. Leakage protection circuit breaker: Mandatory safety device per electrical codes.



Installation Dimension Drawing



Installation Diagram

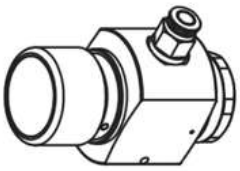
Note: Images are for illustrative purposes only.

PRODUCT COMMISSIONING

Gas Specifications:

1. Only use food-grade carbon dioxide compliant with GB 1886.228 (Chinese National Standard for Food Additives).Failure to comply may cause gas contamination or serious personal injury.
2. Inlet Pressure Range: 0.7–0.8 MPa (standard operating range)
3. Use only the following company-provided pressure regulators: (1) G5/8-14 interface (2) Tr21×4 interface. Substitute regulators may cause equipment malfunction, gas leaks, or permanent damage.

G5/8-14interface



Tr21×4interface

4. Connect the regulator outlet to the water dispenser's gas inlet using PE tubing. Ensure the tubing is fully inserted to guarantee an airtight seal.Improper insertion may result in gas leakage or pressure instability.
5. Connect the water dispenser's inlet pipe, concentrated water pipe, and discharge pipe to their designated positions as required.

6. Install T-Adaptor Valve and Flush the CTO.

    6.1. Turn off the water supply, disconnect the hose pipe, take the T-adaptor valve out from the accessory bag,install it on the pipe line as the Fig 1.

    6.2. Take out the 1/4" tubing from the accessory bag, cut it to proper length, attach one end to the T-adaptor valve (Fig 1).

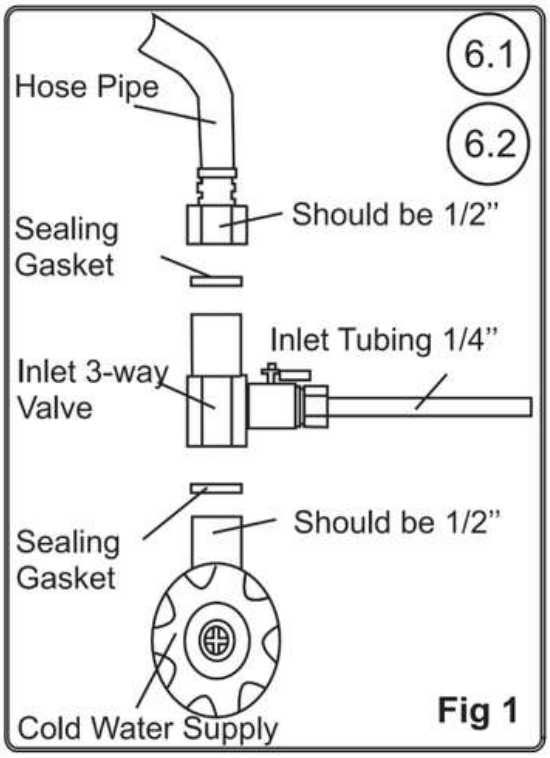
    6.3. Remove the two screws at the bottom.

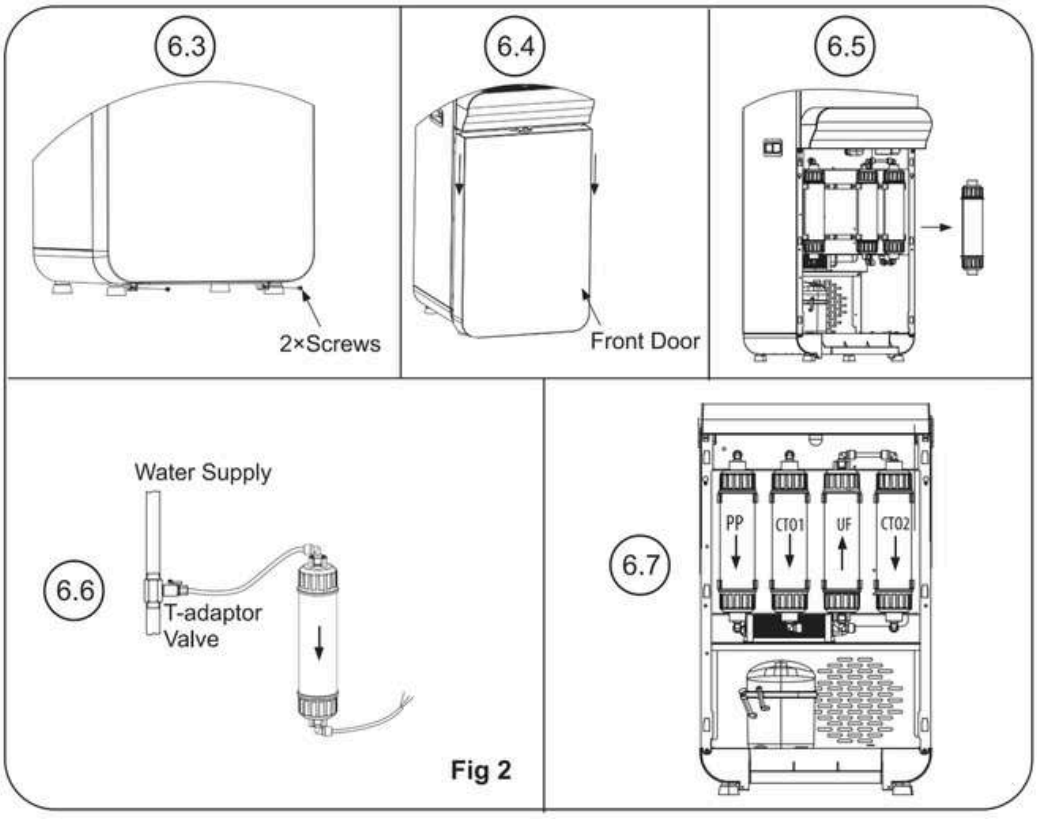
    6.4. Down press the front door,then pull the front door out.

    6.5. Take out the CTO filter,Use tubing to connect the filter to the T-adaptor valve as Fig 2 shows.

    6.6. Open the T-adaptor valve to flush the CTO filter until the outlet water is clean.

    6.7. Reassemmble the CTO filter into the machine.





7. Open the inlet ball valve and the CO_2 cylinder ball valve, then plug in the power supply. The unit will begin producing water. Simultaneously, the internal ice water tank, sparkling water tank, and hot water tank will start refilling. Wait approximately 30–40 minutes, then press the Child Lock button on the control panel, followed by the Hot Water button to release water. Note: Initial water flow may be absent, weak, or unstable —this is normal.
8. Continue draining hot water until a steady flow is achieved. At this point, press and hold the Settings button on the panel to enter setup mode. When the panel displays “99°C”, heating is complete.
9. While waiting for heating, alternate pressing the Ice Water and Sparkling Water buttons to flush the ice water tank, carbonation tank, and associated piping. Once heating is complete, press the Hot Water button repeatedly to flush the hot water tank and piping.
10. Repeat the drainage process for ice water, sparkling water, and hot water multiple times. Ensure hot water drainage is performed no fewer than 20 times (1 minute per cycle). After completing these steps, the unit will be fully debugged and ready for normal use.

Important:

In Double Press Mode, if water continues dispensing for 60 seconds without manual stoppage, the system will automatically halt. Simply repeat the dispensing action to resume. This prevents overflow due to accidental operations!

Special Notes:

- Cold Water and Sparkling Water cannot be dispensed simultaneously; only one type can be dispensed at a time.
- Ambient Water and Hot Water cannot be dispensed simultaneously; only one type can be dispensed at a time.
- Adaptive Mode adjusts dispensing behavior based on usage patterns and is preset as the default.

Touch-Sensitive Water Dispensing Instructions

Water can be dispensed by lightly touching the corresponding buttons on the panel. Three dispensing modes are available: Single Press, Double Press (default setting), and Adaptive Mode.

☑ 1. Single Press Mode

- Ambient Water: Press and hold the Ambient Water button to dispense water; release to stop.
- Hot Water: First, tap the Child Lock button to unlock. Press and hold the Hot Water button to dispense water; release to stop.
- Sparkling Water: Press and hold the Sparkling Water button to dispense water; release to stop.
- Cold Water: Press and hold the Cold Water button to dispense water; release to stop.

☑ 2. Double Press Mode

- Ambient Water: Tap the Ambient Water button once to start dispensing;tap it again to stop.
- Hot Water: First, tap the Child Lock button to unlock. Tap the Hot Water button once to start dispensing; tap it again to stop.
- Sparkling Water: Tap the Sparkling Water button once to start dispensing; tap it again to stop.
- Cold Water: Tap the Cold Water button once to start dispensing; tap it again to stop.

PRODUCT USAGE, MAINTENANCE, & CARE INSTRUCTIONS

Normal Operation

After installation and commissioning, the product is ready for normal use. No user intervention is required when the power supply remains uninterrupted.

Prohibited Actions

- Do NOT climb, move, push, or tilt the product.
- Do NOT dispose debris into the water tank.

Daily Maintenance Responsibilities

The user organization must designate a dedicated personnel for daily upkeep.

☑ 1. Cleaning Procedures

- Exterior Cleaning: Wipe the surface gently with a soft, damp cloth to maintain cleanliness.
- Outlet Nozzle Cleaning: Every 4 hours, use a clean, soft cotton cloth to rotationally clean the water outlet nozzle.
- Drip Tray Maintenance: Remove residue and debris from the drip tray to ensure it remains unblocked and dry.

2. Operational Checks

Daily Inspections:

- Verify normal water dispensing function.
- Inspect the power plug and water inlet pipe for integrity.
- Check for leakage issues.
- Before daily use, drain hot and cold water for approximately 2 minutes each.
- Document all maintenance activities.

Extended Inactivity

- If the product is unused for ≥3 days: Turn off the power and water supply.
- Before reuse: Open the heating tank drainage connector (located on the back) to empty all stored water.

Emergency Response

- In case of power/water outages, water contamination, or natural disasters (e.g., earthquakes, floods): Immediately shut off the power and water supply.

Environmental Requirements

Ensure adequate clearance around the product.

Prohibited:

- Placing flammable, explosive, or corrosive materials nearby.
- Applying external force to the product.
- Storing objects on top of the product.

NOTE

Adherence to these guidelines ensures product longevity, safety, and optimal performance. For technical support, contact authorized service providers.

FILTER REPLACEMENT

1. Replacement Cycle Notes

The recommended replacement intervals for filter cartridges in this manual are based on average water quality statistics from municipal water supplies across regions. Actual filter lifespan may vary significantly depending on local water conditions and usage frequency.

For example:

- Premature clogging or failure may occur if water quality deviates greatly from average standards.
- Always prioritize real-time usage status over estimated intervals when determining replacement needs.

2. Filter Replacement Alerts

This unit features a dual-alert system for filter expiration:

The "  " icon stays on. After about 4 months of use, the filter light starts flashing. After resetting, it flashes again after another 4 months.You can replace the PP, C1, and C2 filters as prompted.

Similarly, the "  " icon stays on.After about 12 months of use,the filter light starts flashing. After resetting, it flashes again after 12 months.You can replace the UF filter as prompted.

Action Required: Contact the manufacturer or authorized service providers promptly upon receiving alerts to ensure water safety.

3. Replacement Procedure

- Turn off the water supply and power.
- Open the lower access panel.
- Remove all the filter elements that need to be replaced and replace them with new ones. The CTO needs to be rinsed, as shown in Figure 2.

4. Critical Safety Instructions

Authorized Service Only:

Filter replacement must be performed by the manufacturer or certified technicians. Unauthorized replacements may void warranties and compromise safety. The manufacturer assumes no liability for damages caused by improper operations.

NOTE

Regular maintenance ensures optimal performance and safeguards water quality. For assistance, contact authorized service providers.

Filter Cartridge	Service Schedule
PP	4 Months
C1	8 Months
UF	12 Months
C2	8 Months

NOTE

Filter life may vary greatly depend on different water quality, UF filter life will be affected by other factors.The service schedule above is only reference

ERROR CODE REFERENCE

Code	Fault Name	Fault Phenomenon	Status Response	Judgement Condition	Fault Diagnosis & Elimination
E02	Water Shortage	No heating No cooling	1) Fault code flashes	Continuous 1H without reaching high liquid level	1) Confirm water supply;
					2) Check water inlet valve;
			2) Device stops working		3) Check liquid level switch;
					4) Restart after troubleshooting
E05	Heating Fault	No heating, hot water temperature does not rise	Fault code flashes	Heating temperature set >53°C, but temperature <50°C after continuous heating for 1H	1) Check heating element;
					2) Check control board/thermostat;
			Device stops working		3) Check temperature sensor;
					4) Restart after troubleshooting
E07	Water Leakage Fault	Water detected in device environment or sensor exposed to water stains	Fault code flashes	Sensor detects leakage signal for 15s, triggering alarm	1) Clear leakage source;
			Device stops working		2) Restart after troubleshooting
E09	Hot Water NTC Fault	Abnormal heating temperature	1) Fault code flashes	NTC data exceeds threshold for 15s; Short circuit/open circuit; Temperature <-25°C or >130°C	1) Check NTC sensor & wiring;
			2) Device stops working		2) Check control board;
					3) Restart after troubleshooting
E18	Ice Water NTC Fault	Abnormal cooling temperature	1) Fault code flashes	NTC data exceeds threshold for 15s; Short circuit/open circuit; Temperature <-25°C or >130°C	1) Check NTC sensor & wiring;
			2) Device stops working		2) Check control board;
					3) Restart after troubleshooting
E19	Cooling Fault	No cooling, ice water temperature fails to drop	1) Fault code flashes	Continuous cooling for 8H, ice water temperature >15°C	1) Check compressor;
					2) Check control board/cooling system;
			2) Device stops working		3) Check temperature sensor;
					4) Restart after troubleshooting
E22	Water Tank Level Switch Anomaly	No heating, no cooling	1) Fault code flashes	Abnormal liquid level state detected for 15s (e.g., high level closed low level open)	1) Check liquid level sensor & connector;
			2) Device stops working		2) Restart after troubleshooting

Code	Fault Name	Fault Phenomenon	Status Response	Judgement Condition	Fault Diagnosis & Elimination
E35	Communi-cation Fault	No display on power- up, buttons unresponsive	1) Fault code flashes	No communication signal received for 15s	1) Check connections;
					2) Check communication interface;
			2) Device stops working		3) Restart after troubleshooting
E41	Bubble Tank Level Fault	Bubble tank fails to refill water	1) Fault code flashes	Incorrect liquid level detection in tank	1) Check level probe & wiring harness interface;
			2) Device stops working		2) Restart after troubleshooting
E42	Bubble Tank Air Leakage Fault	Air leakage in bubble tank	1) Fault code flashes	Rapid pressure drop in bubble tank (when not draining)	1) Check for air leaks around the tank;
			2) Device stops working		2) Restart after troubleshooting
E43	Bubble Tank Refill Fault	Bubble tank refill time too long	1) Fault code flashes	Bubble tank refill pump operates continuously for 10min	1) Check pump status & refill pipeline for blockages;
			2) Device stops working		2) Restart after troubleshooting
E44	Pressure Sensor Fault	Abnormal pressure value in tank	1) Fault code flashes	Abnormal pressure sensor reading	1) Check pressure sensor & connections;
			2) Device stops working		2) Restart after troubleshooting

PARAMETER SETTINGS INSTRUCTIONS

Advanced Settings Parameters

Setup Steps:

1. Long-press the 'Ambient' Key + 'Cold' Key for 10 seconds to access the Advanced Settings Menu.
2. Short-press the 'Hot' Key/'Sparkling' Key to switch between advanced settings items.
3. Short-press the 'Ambient' Key to confirm the selected item and enter its parameter settings.

4. Short-press the 'Hot' Key (increase) or 'Sparkling' Key (decrease) to modify parameter values.
5. Short-press the 'Ambient' Key to return to the advanced settings menu.
6. Long-press the 'Ambient' Key for 10 seconds to exit the advanced menu and save data.
7. If no action is performed within 60 seconds, the system automatically exits without saving data.

The advanced menu must be accessed within 10 minutes after power-on.

Category	Setting Item	Code	Parameter Range	Default Value	Unit	Remarks
Power	RTC Time	C04	00~23	-	Hour	
		C05	00~59	-	Minute	
	Scheduled Power On/Off	C06	00, 01	00	-	00:Off ; 01:On
	Power-On Time	C07	00~23	6	Hour	Default: 06:00
	Power-Off Time	C08	00~23	22	Hour	Default: 22:00
Water Dispensing	Dispensing Mode	C11	01, 02, 03	02	-	01:single; 02:Dual; 03:Adaptive
	Child Lock	C12	00, 01	01	-	00:Off; 01:On
Heating	Heating Master Switch	C21	00, 01	01	-	00:Off; 01:On
	Heating Temperature	C22	45~99	99	°C	
Energy Saving	Energy Saving Mode	C23	00~08	00	Hour	00:Off; 02-08:On (Duration in hours)
Cooling	Cooling Master Switch	C31	00, 01	01	-	00:Off; 01:On
	Cooling Temperature	C32	05~10	06	°C	
Sparkling Water	Pressure Level	C47	01, 02	01	-	01:Lower; 02:High
	Dispensing Delay	C50	00, 01	00	-	00:No delay; 01:Delay after dispensing

Category	Setting Item	Code	Parameter Range	Default Value	Unit	Remarks
Reset	Filter Life Reset	C61	00, 01, 02	00	-	01:Perform a filter reset; 02:Perform b filter reset; Requires C98 Setting Lock set to 01 for reset
	Water Saving Bottle Count Reset	C62	00, 01	00	-	01:Perform reset;Requires C98 Setting Lock set to 01 for reset
Brightness	Backlight Brightness	C93	01~08	05	-	01:Darkest; 08:Brightest
Sound	Sound Adjustment	C95	01~04	04	-	00:Mute; 01-04:Different tones
Setting Lock	Setting Lock	C98	00, 01	00	-	Must be set to 01 to reset C61/C62
Default Settings	Factory Reset	C99	00, 01	01	-	01:Restore factory settings (resets to 00 after completion;excludes C04/C05)

K L O U D

Tera Spark

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Water, The Way It *Should* Be