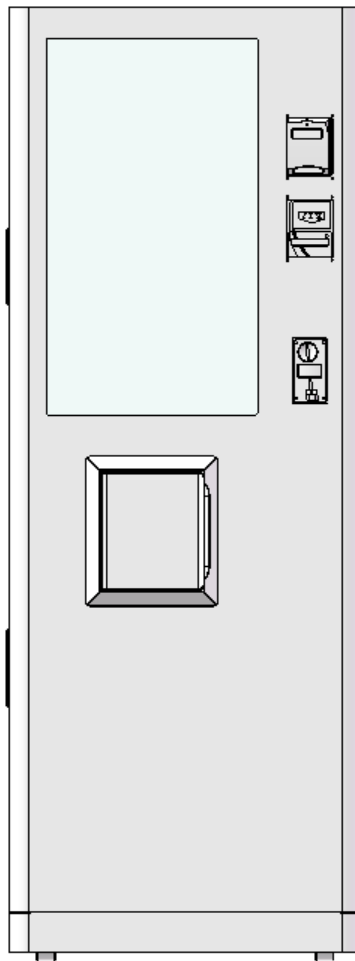


Titan Protein Vending Machine

USER MANUAL



Key Features:

- 1) Smart 32" LCD touch screen monitor.
- 2) Use the screen for advertising, photos, and video playing.
- 3) Food-grade powder canisters: 1/2 gallon or 2 liters capacity in each.
- 4) 6 canisters for ingredients. More than 20 different drinks can be made.
- 5) High speed powder dispensing.
- 6) One button auto-cleaning function, hot water cleans mixers automatically, conveniently and efficiently.
- 7) Designed for good hygiene and food safety measures.
- 8) Easy resetting work of drinking taste
- 9) Makes both hot and cold drinks.
- 10) An automatic 90 mm cup-drop is included.
- 11) Drinks are made in 20 seconds for high efficiency.
- 12) Operators can login to the back-office system cloud and remote management to check operations. including: sales report, data statistics, fault notification data analysis and exploit to find out the best sellers and solve problems in time to improve their sales performance.
- 13) Off-line operation available
- 14) Localization / remote operation
- 15) Multi-applicable scene

1. Basic Product Specifications

| | |
|-------------------------------------|--------------------------------------------------------------------|
| Model | Titan Protein |
| Voltage | AC220V/50Hz (110V a voltage converter is added) |
| Power | 1800W |
| Canister Capacity | 3.5 gallons or 1600g (6) |
| Heating pot | 1600W |
| Compressor | 110W |
| Water storage | Heating pot 1600ml, Cooling pot 2000ml, Internal water tank 2000ml |
| Water temperature adjustment | 38-210 Fahrenheit / 3-99 degree Celsius |
| Cup size | 14 ounces (diameter ≥90mm, rim≥3mm, height≥110mm) |
| Water supply | External water bottle / tap water |
| Touch screen | 32' LCD touch screen monitor (advertising function) |
| Payment options | Coin / Cash/ Card Processor |
| Size | 25.6/26.4/68.9 in or 65*67*175 cm |

2. Warning

- Please read "Safe Operation and Precautions" before use the the machine, and use the machine in correct way .
- Warnings and precautions are used to prevent injury.
- Please pay attention to the warning symbol and avoid potential hazards.



Note: Please place this manual in a **convenient** place so that users can read it at any time.

3. Safe Operation and Prevention



This manual is not applicable to individuals with physical or intellectual disabilities, or those lacking sufficient experience and cognitive abilities (including children).



The operating environment temperature should be maintained between 5°C and 40°C. If the product is damaged due to adverse environmental conditions, immediately disconnect the power and water supply and contact the manufacturer or technical support personnel.



The machine should be placed in a dry, well-ventilated area and should not be installed in a humid environment to prevent moisture from reducing its insulation performance and causing an electric leakage accident.



If temperature control failure or other malfunctions occur during use, immediately disconnect the power supply and contact technical support personnel. The machine may only be used again after repairs have been completed.



If the power cord is damaged, contact technical support personnel promptly to replace it before use to avoid danger.



The machine must be safely grounded during installation, and a corresponding leakage protection device must be installed. The power supply box for this machine must be less than 1 meter away from the machine.



If the machine leaks water or emits an unusual odor, immediately turn off the power and unplug the power cord, then contact after-sales personnel.



Regularly clean scale buildup inside the machine's inner tank. Accumulated scale can reduce the lifespan of the heating element and cause it to burn out or rupture.



Do not use chemical cleaners to clean the machine's inner tank, brewing components, or mixing components, as residue or corrosion may occur.



The machine operates at high temperatures and must be used in a safe environment. Children must not use this equipment unsupervised to prevent burns.



Avoid pulling or compressing the power cord to prevent damage, which could lead to electric shock or fire hazards.



The machine must be used indoors and must not be installed outdoors or in humid environments, and must be protected from direct sunlight.



When the machine is not used for an extended period (over 2 days), unplug the power cord to prevent fire hazards caused by overheating.



Use water sources that meet water quality standards. Do not use tap water or water sources that do not meet standards directly.



After installing a new machine or performing maintenance, ensure that water is flowing before applying power when restarting the machine.

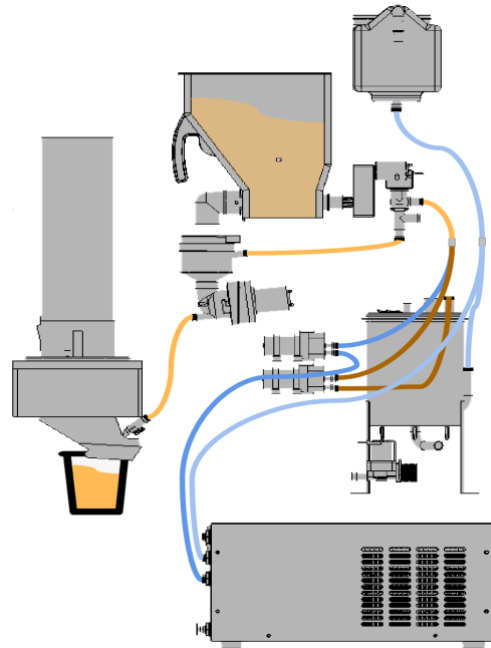


Do not plug or unplug the power cord with wet hands to avoid the risk of electric shock.

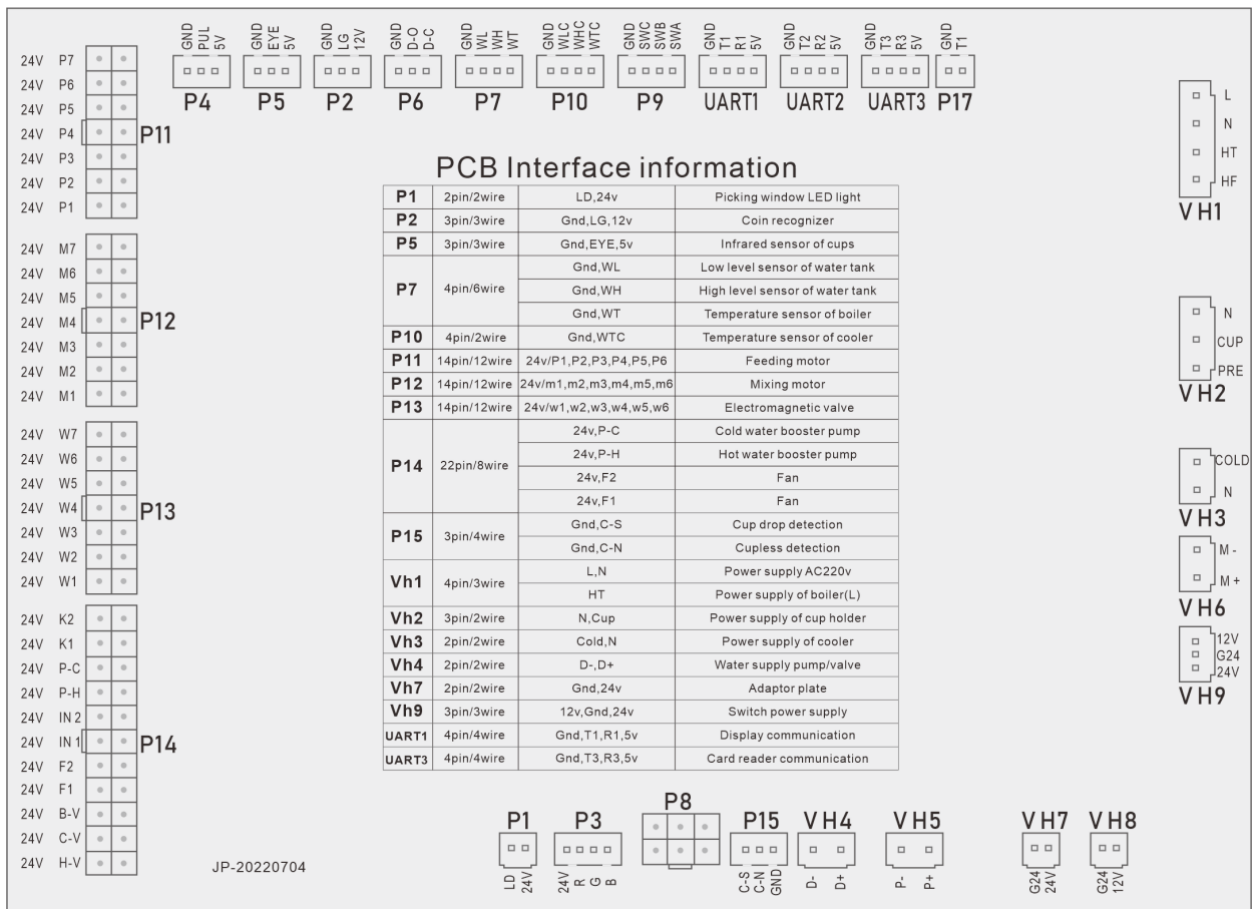
4. Working Principle

The machine controls automatic water dispensing, automatic powder dispensing, and automatic stirring through a control unit, then pours the beverage made by mixing powder and water into a paper cup. It precisely prepares a beverage with the desired taste in a short amount of time.

The machine uses an adjustable stirring system to thoroughly mix the powdered ingredients with water, creating a beverage with a smooth texture. The machine is equipped with separate hot and cold systems, enabling it to prepare cold beverages, hot beverages, or a combination of both for warm beverages. This not only expands the variety of beverages available but also enhances the flavor profile of the drinks.

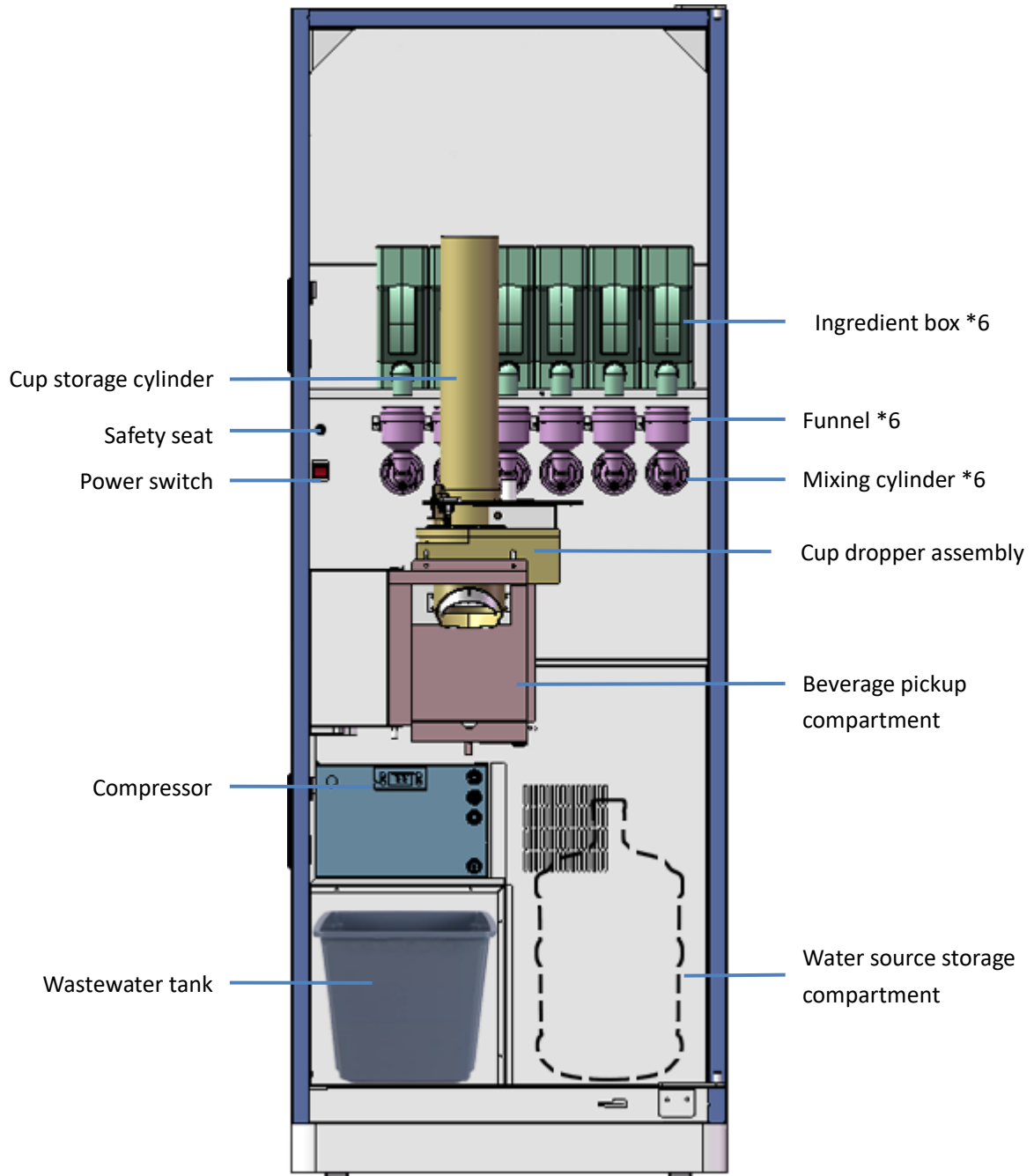


5. Control panel

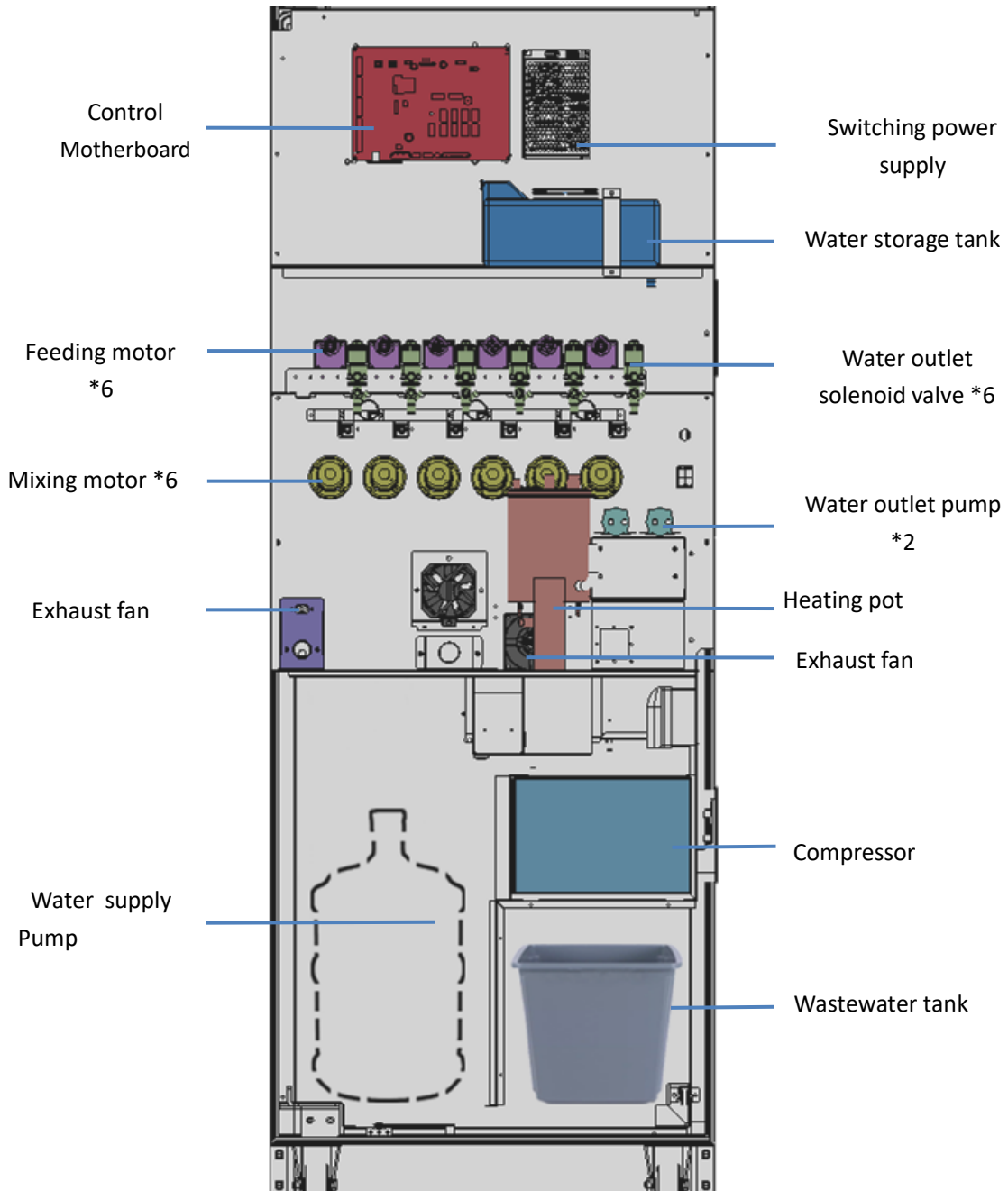


6. Product Structure

(1) Front Internal Structure



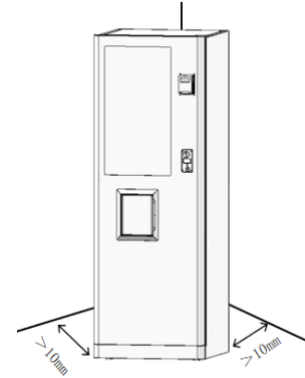
(2) Rear Internal Structure



7. Product Installation and Commissioning

(1) Installation Environment

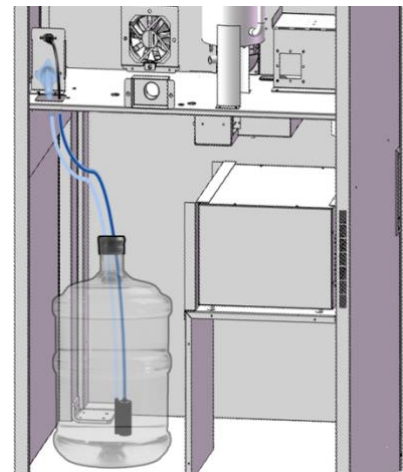
1. Place the equipment in a dry, well-ventilated area (indoor installation is optimal).
2. The machine must be placed on a flat and stable surface.
3. Avoid frequent relocation and protect the machine from external impacts.
4. Maintain at least 10 cm of clearance around the machine for proper heat dissipation and ventilation.



(2) Water Supply Installation

The water pipe and power connections are shown in the diagram on the right.

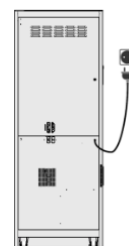
1. Open the front door of the machine and place a large-capacity water bottle inside.
2. Remove the submersible pump and place the pump body into the water container
3. Route the water pipe connector and pump power cable through the machine's upper and lower panels.
4. Open the rear door, secure the water pipe connector, and plug in the power supply.



Note: Unfiltered tap water may reduce the service life of heating components. Direct connection to tap water is not recommended.

(3) Power Supply Installation

1. Use a dedicated 220V power outlet; do not share it with other devices.
2. If voltage instability may affect normal operation, it is recommended to install a voltage stabilizer.
3. Ensure proper grounding during installation and equip with a leakage protector. The power supply box should be placed within 1 meter of the machine.



(4) Machine Debugging



Check

1. Open drink door, remove pump, door key, and other accessories
2. Use key to open front door, remove ingredient box.
3. Check for parts displaced or detached during transport.



Cleaning

1. The machine is tested before leaving the factory; small water residue may remain inside. During transport, residue may leak and form water marks.
2. Wipe inside and outside with a clean cloth



Installation

1. Take out the ingredient bucket and install it in the machine (do not add ingredients yet).
2. Connect water supply (large bottled water) and attach the pump connector (machine defaults to bottom water draw mode).
3. Place cups in the cup holder (cups should not be too tight, or dispensing may be affected)



Power On

1. Let the machine sit for 12 hours before powering on. Check power cord/plug and ensure the power switch is off (O down).
2. Plug in power, ensure connection is normal.
3. Turn on power switch (I down) and wait for the machine to start automatically.



Start

1. After power on, the machine self-checks all components (errors will show on display).
2. After checks, the machine automatically draws water and heats.
3. Close front door and wait for machine to complete preparation.



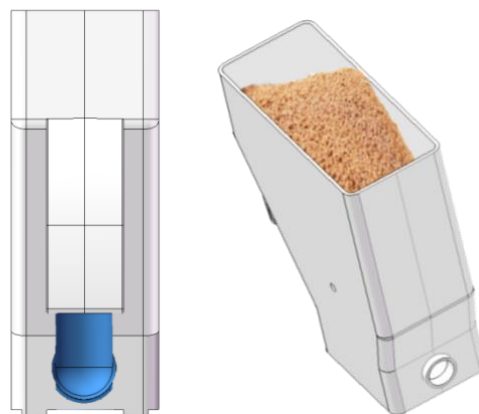
Test

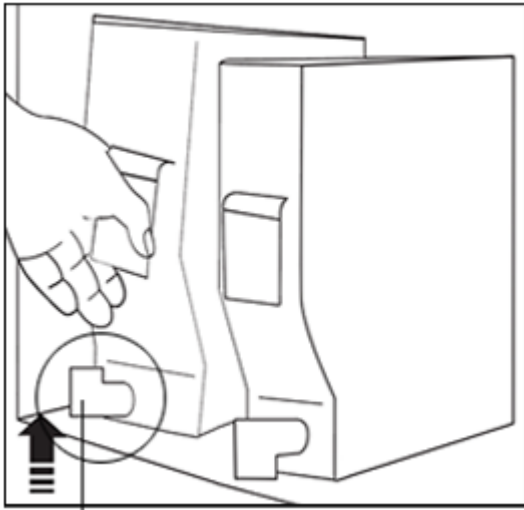
1. Tap any drink icon on the touchscreen to test scan payment.
2. Check payment, water dispensing, and cup dropping
3. After all checks pass, add powder for test use

(5) Adding Ingredients and Installation

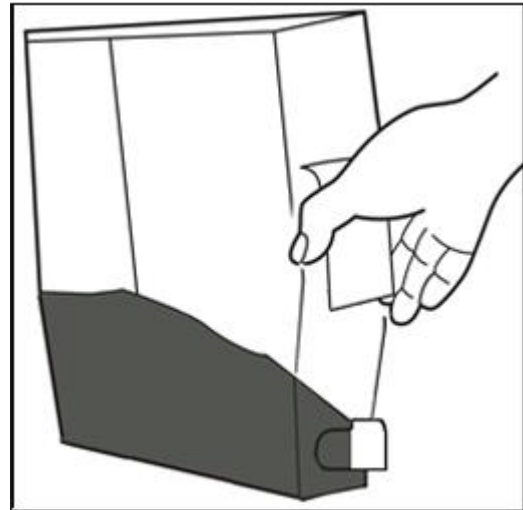
Ingredient powder: solid powder (no large particles)

1. Remove ingredient box, rotate outlet (blue part in right image) upward.
2. Remove box lid, pour powder into box.
3. Close lid, clean spilled powder.
4. Install box back, rotate outlet downward toward mixing funnel.

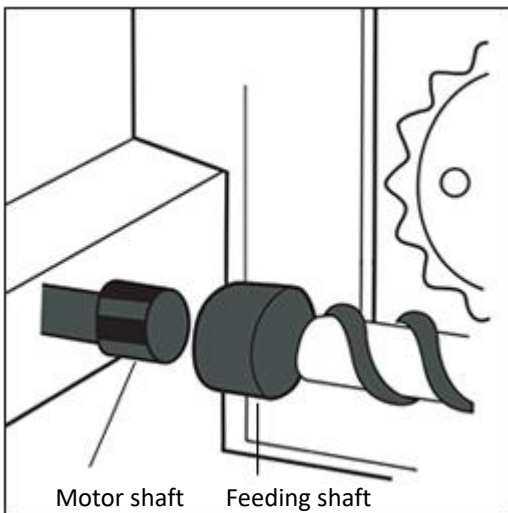




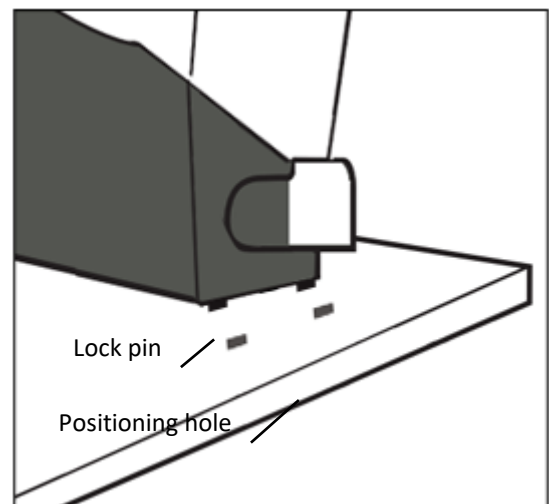
1. Remove ingredient box, rotate outlet upward



2. Remove the box lid, pour powder into the box.



3. Install the ingredient box with powder back in place.

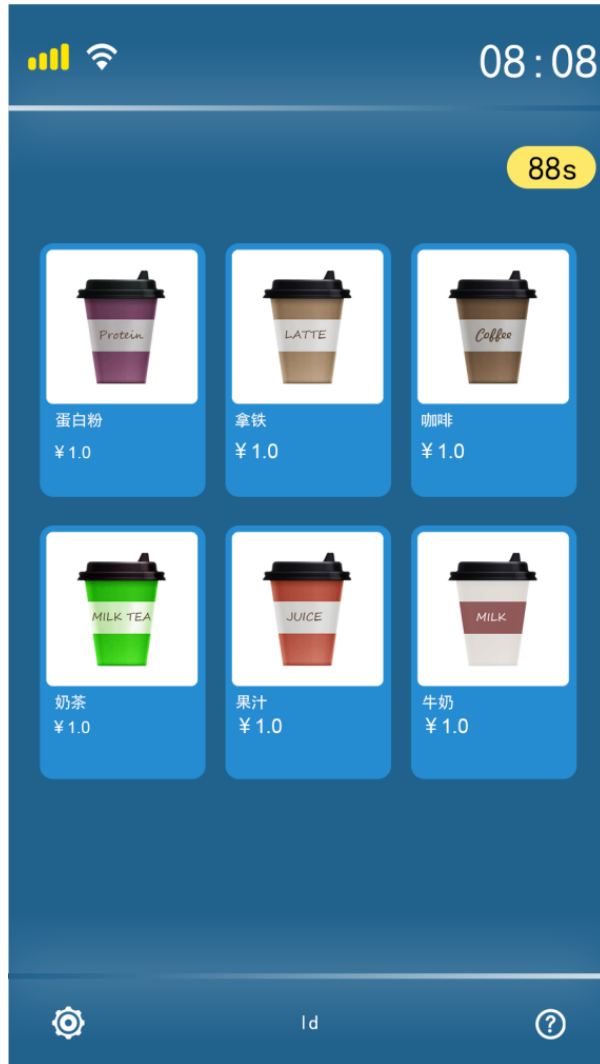


4. Insert the ingredient box into the positioning hole, rotate the outlet downward.

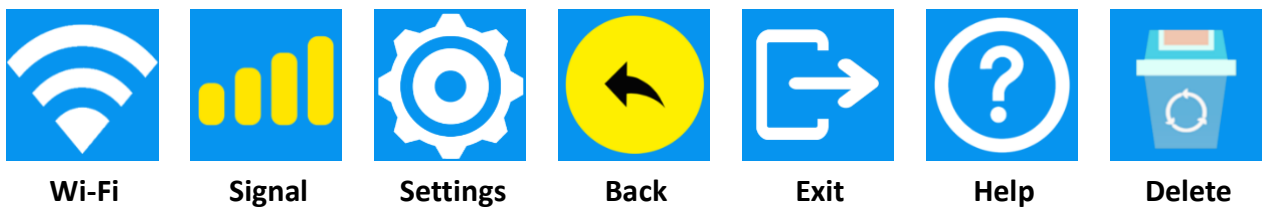
8. Machine Parameter Settings

(1) Display Icon Description

1. **Beverage Icons:** Each beverage icon corresponds to a specific drink and can be configured with multiple options such as picture, price, cost, description. (See illustration below.)



2. **Settings Icon:** This icon appears when accessing the machine settings.



Wi-Fi

Signal

Settings

Back

Exit

Help

Delete

(2) Entering and Exiting Settings

Steps to Enter and Exit the Settings Page:




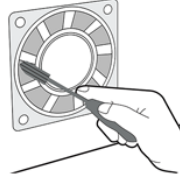




Tap the **Settings** Icon at the lower-left corner of the screen to access the Administrator page.

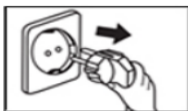
See User Interface Manual for more details on the software programming.

9. Maintenance

(1) Cleaning and maintenance

| Daily cleaning and maintenance | | Regular cleaning and maintenance | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <p>Agitator/Funnel Cleaning Soak the funnel, funnel cover, mixing drum, and beverage nozzle (tube) in a basin of water, scrub clean, and reinstall. Clean at least once a day.</p> |  | <p>Clean the ingredient container Remove the raw material box, disassemble it, and soak it in a basin of water. Scrub it clean and then reinstall it. It is recommended to clean it at least once a week.</p> |  |
| <p>Clean the wastewater tank Remove the waste bucket and empty the water. Then soak it in a basin of water, scrub it clean, and reinstall it. Clean it at least once a day.</p> |  | <p>Clean the exhaust fan Open the back cover, remove the exhaust fan, clean it with a rag, and reinstall it. We recommend cleaning it at least once a month.</p> |  |
| <p>Clean the water collection network Remove the water collection net and soak it in a basin of water. Scrub it clean and then reinstall it. Clean it at least once a day.</p> |  | <p>Clean the heating pot Turn off the appliance and wait (at least 3 hours) for the water temperature in the heating pot to cool down, then open the drain plug to drain the water. If there is calcium deposits in the water, add/drain water several times until the calcium deposits are completely removed. It is recommended to clean the appliance at least once every two months.</p> |  |

(2) Fuse replacement



Step 1: Before replacing the fuse, you must first turn off the machine power switch and unplug the power plug.



Step 2: Use a screwdriver to rotate the fuse seat cover counterclockwise and remove the fuse tube

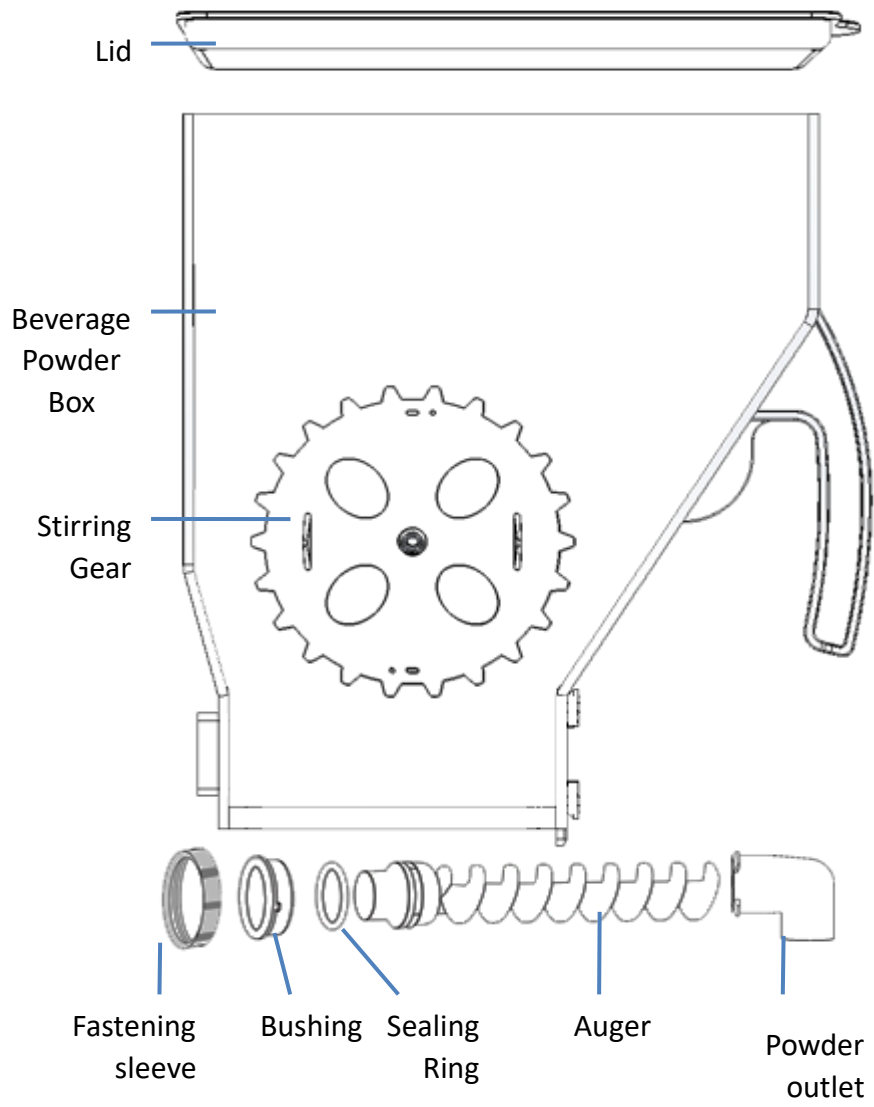


Step 3: After removing the fuse, insert the new fuse (15A) into the fuse holder cover.



Step 4: Install the fuse seat cover back to its original position and tighten it by turning it clockwise with a screwdriver.

(3) Beverage box disassembly



10. Troubleshooting & Maintenance

(1) Common Faults & Solutions

| Fault phenomena | Cause | Solution |
|-------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No Power | Power Supply Issue | <ul style="list-style-type: none"> ◆ Check if the power supply is normal. ◆ Check if the power cable is properly connected. ◆ Check if the fuse is blown. |
| Water Shortage/No Water Intake (E2) | Water Supply Issue | <ul style="list-style-type: none"> ◆ Check if the water tank is empty (avoid dry pump operation). Check if low water volume causes insufficient pressure. (squeeze the hose to increase pressure) ◆ Check if the water pump is functioning. ◆ Check if the water tank is full. ◆ Check if the pump wiring is correct. |
| Continuous Heating/Cooling | Temperature Module Issue | <ul style="list-style-type: none"> ◆ Check if the boiler is overheating. ◆ Verify temperature settings (hot water: 70–98°C). ◆ Check compressor airflow (intake/exhaust). ◆ Verify cooling settings (5–15°C; avoid ≤3°C to prevent ice from damaging the compressor). |
| Cup Dispensing Failure | Cup Dispenser Issue | <ul style="list-style-type: none"> ◆ Check if Auto Cup-Drop is enabled. ◆ Check if cups are stacked too tightly (disable Auto Cup-Drop in the system settings and place an opaque cup with a height greater than 11cm at the cup removal area for testing.). ◆ Verify cup specifications (improper rim size may cause misalignment). |
| Beverage Making Failed | Other Issues | <ul style="list-style-type: none"> ◆ Confirm successful payment. ◆ Check water temperature (insufficient heating time or continuous making leads to insufficient cold/hot water). ◆ Verify machine connectivity (master/slave communication Failure). |
| Low Beverage Output | Clogged Pipes | <ul style="list-style-type: none"> ◆ Run automatic cleaning cycle. ◆ Disassemble and clean the mixing system. |
| Weak Flavor | Mixing System Issue | <ul style="list-style-type: none"> ◆ Check canister position, stock level, and clumping. |
| Powder Residue at Outlet | Lack of Cleaning or Exhaust Fan Issue | <ul style="list-style-type: none"> ◆ Clean the outlet and check the exhaust fan. |
| No Beverage Info Display | Software Issue | <ul style="list-style-type: none"> ◆ Reinstall the latest software version (not an overwrite installation). |

| | | |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | <ul style="list-style-type: none"> ◆ Verify server settings (mainly images, delete all the drink images and reset). |
| No Advertisement Display | Background Setting Error (After successful ad upload on server, device syncs automatically after 30s countdown on main interface) | <ul style="list-style-type: none"> ◆ ◆ Check ad file size (Video≤20MB, Image≤2MB) ◆ Verify MAC address, ad slot and schedule are specified |
| Payment Method Not Showing | Configuration Error | <ul style="list-style-type: none"> ◆ Verify payment settings and MAC-bound in backend, and the device needs to be updated synchronously with the Internet. ◆ Ensure payment hardware (e.g. card reader) is properly installed |
| Software Loading Failure | Software Malfunction | <ul style="list-style-type: none"> ◆ Check whether the beverage information on the server background is complete (beverage picture information) ◆ Check whether the server background advertising content is correct ◆ Perform complete uninstall/reinstall |
| Merchant Login Failure (Web) | Other Issues | <ul style="list-style-type: none"> ◆ Try compatible browsers ◆ Check for multiple logins |
| Abnormal Transaction Data | Other Issues | <ul style="list-style-type: none"> ◆ Confirm payment completion (The customer enters the payment interface but fails to complete the payment and the payment is not displayed as successful.) ◆ Adjust Android system timezone (Change the Android system time zone on the device to the local time zone) |
| Outlet Leakage | Circuit Board Issue | <ul style="list-style-type: none"> ◆ Test solenoid valve ◆ Inspect circuit board |
| Device Not Functioning | Master/Slave Communication Failure | <ul style="list-style-type: none"> ◆ Verify serial port settings: Serial port number ttyS7, baud rate 9600. ◆ Check whether Master and Slave are communicating (select the coin value and click OK to see if there is any feedback) ◆ Isolate short circuit by reconnecting cables, if the red light on the circuit board is flashing and the green light on the power supply module is on, check if there is a short circuit (unplug all serial port cables on the circuit board, shut down the computer for 1 minute and then restart it, plug them back in one by one and check which serial port cable will turn off the red light on the circuit |

| | | |
|----------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | board or the green light on the power supply module). |
| Coin Acceptor Failure | Hardware Malfunction | <ul style="list-style-type: none"> ◆ Check power indicator (Red light is on) ◆ Swap RX/TX connections |
| Weak Concentration | Other Issues | <ul style="list-style-type: none"> ◆ Increase powder dispensing time ◆ Verify powder inventory ◆ Test powder feed motor |
| Note: Contact technical support if issues persist | | |

(2) Notes

- ① Beverage Settings:
Protein powder output: ~3.5g/s.
Water output: ~22ml/s.
Water duration > powder duration to avoid clogging.
Clean the machine every 2–3 days.
- ② Language Settings: Beverage names follow Android system language.
APP supports only Chinese/English.
- ③ MAC Address:
Android: Settings → Wi-Fi → Gear icon.
APP: DEVICE MANAGEMENT → SOFTWARE UPDATE

(3) Fault code