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# **Shaker Touch 2**

## **Protein Vending Machine**

# **User Manual**

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# Introduction

This manual is intended for owners, operators, and technicians who install, configure, and operate Shaker Touch 2. The manual contains instructions for preparing the machine for operation, configuring it during operation, enabling payment and remote monitoring services, and describing functional errors.

Some sections are quite complex for a textual description. **The guide contains links to external resources used in the form of QRcodes – point your phone's camera to watch a video or go to the full guide.**

✦ QR codes are also available on the inside of the vending machine door for quick access to complete documentation and support.



Instructions



Contact with  
techsupport

# Description

**Shaker Touch 2** is an automated vending machine designed for the preparation and sale of cold beverages (including protein drinks) from dry powder mixtures and liquid concentrates (syrups). The machine is designed for operation in closed heated rooms at temperatures from +10°C to +40°C and air humidity of no more than 65%.

The machine is equipped with 8 containers for dry mixes, 6 peristaltic pumps for liquid concentrates, an automatic cups delivery module (up to 100 pcs. with a volume of 300 ml) and the "Own shaker" option. Management and monitoring are possible remotely via telemetry and various remote access programs.

## 2.1. General Rules

- People who have studied the manual are allowed to work. Use protective gloves when working with the machine.
- It is forbidden to allow unauthorized persons to work inside the machine.
- If there is smoke, burning smell, or abnormal noise, immediately turn off the power to the machine, then contact technical support.
- Maintenance (cleaning, replenishment) should be performed at least 2 times a week, which will depend on the intensity of operation/
- In winter, when transporting the machine in subzero temperatures, it is mandatory to warm up the equipment in a warm room. It is forbidden to turn on the machine with traces of moisture or the presence of condensation on the wiring or boards.

## 2.2. Electrical safety

- Only connect the machine to an outlet with a protective earth connection.
- **It is forbidden to turn off the automatic machine only with the main switch** — this will damage the file system. Before performing troubleshooting work, disconnect the machine from the power supply by performing a full shutdown cycle (first the computer, then the main power switch).
- Replace fuses when the machine is completely de-energized and only with the ratings specified below.
- Do not use damaged cables or extension cords.

- The fuse box is energized. Replace fuses only when the machine is completely de-energized, using fuses of strictly specified ratings.

### 2.3. Safety when working with consumables

- **Powder mixes:** Before filling, make sure that there are no measuring spoons or other objects in the bag.
- **Cups:** Use only paper cups with a diameter of up to 90 mm and a height of up to 110 mm. **Forbidden** Plastic, crumpled, red or black cups are prohibited. It is forbidden to operate without adjusting the dispenser unit for the diameter of the cup!
- **Your own shaker:** The maximum height is 18 cm. The function only works when the cup sensor is turned on.

- **Power supply:** 230V (CIS and EU)
- **Peak power:** up to 300 W (for cooking and cooler operation)
- **Monthly consumption:** ~46 kW (medium, with cooler)
- **Weight:** 137 kg (empty)
- **Size:** 600mm depth, 750mm width, 1940mm height
- **Capacity:** 8 powder containers, 6 pumps for connecting liquid concentrates
- **Payment devices:** MDB protocol support, contactless payment methods support
- **Internet connection:** LAN, WiFi, USB-modem
- **Remote monitoring:** telemetry and remote access programs
- **Functionality:** the presence of tank for waste water, a standard cooler on Peltier elements, a circulation circuit for supplying chilled water directly to the mixer, the presence of timers for automatic flushing and flushing after cooking, the option of adding CREATINE (powder) to any drink, an advertising module (images and videos), promotional promo codes (when using telemetry).








# Preparing for work, turning it on and off


## 4.1. Preparation before the first launch

1. Remove all shipping material.
2. Remove the back panel and connect the claps to the UPS battery.
3. Connect the power cable to the machine.
4. Remove the protective film from the waste sensor inside the machine and glue it to the waste tank.
5. Select and prepare the type of water supply:
  - **Water tank (internal):** Prepare a container of water.
  - **Connection to the water supply system (external):** Install the filters and connect the 6 mm hose to the input connector located on the back of the machine, a near with power outlet.
6. Prepare the products, cupss, scales and measuring cup for calibration.
7. Prepare your payment systems. It may take several business days to register an acquisition.

# Control Panel

Located inside the machine, under the mixer shelf:

<p>ON/OFF</p> 	<p><b>The main power</b> switch is the power supply of the machine 220V.</p>
<p>TURN ON</p> 	<p><b>PC power button</b> — turns the computer on/off.</p>
<p>SERVICE MODE</p> 	<p><b>SERVICE MODE</b> - enter the service settings menu.</p>
<p>FREE MODE</p> 	<p><b>FREE MODE</b> - activates the free mode for tests for 15 minutes.</p>
<p>CONTROLLER REBOOT</p> 	<p><b>CONTROLLER REBOOT</b> - restarts the controller and machine application (use it when errors occurred at display)</p>
<p>PUMP SYRUP</p> 	<p><b>PUMP SYRUP 1-6</b> - buttons for pumping liquid concentrate pumps.</p>
<p>WATER SUPPLY</p> 	<p><b>WATER SUPPLY</b> -position of the water supply toggle switch from the water pipe</p>

	<b>WATER SUPPLY</b> – position of the water supply toggle switch from the tank
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## 4.2. Turning on

1. On the control panel, turn the main switcher to the " I "position.
2. If the message "No signal" appears on the screen, click the computer power button. Normally, the computer turns on immediately when power is available, but in some situations (UPS battery is not connected, BIOS battery dead, BIOS settings failed), you need to start manually.

## 4.3. Shutdown

⚠ **Important:** Failure to follow this procedure will result in data loss!

1. Press the computer shutdown button and wait for it to stop completely (the screen will go off and "No signal" will appear).
2. Turn the main power switch to the "O"position.

## 4.4. Rebooting

- **To reset machine errors:** click **CONTROLLER REBOOT**
- **To restart your computer:** Press the power button, select **Power Off** on the screen, wait for the "No signal" message, and then press the computer power button again.

# Water supply

Two configurations are used – water supply from the tank (internal source) and water supply from the water supply system (external source). A metal toggle switch on the right side of the control panel and two taps are used to switch the feed.

## **To supply water from the tank:**

- switch the metal toggle switch to the lower position,
- close the tap on the water supply line,
- open the tap of the water supply hose from the tank,
- open the service menu and tap the "Pumping water" button on the screen. It may take several pumping cycles to fill the system until the water begins to drain from the hoses on the manipulator. Calibrate the water before making drinks. For more details, see the full guide:



## **For water supply from a water supply system:**

- switch the metal toggle switch to the upper position,
- open the tap of the water supply line,
- close the tap of the tank water supply hose,
- open the service menu and tap the "Pumping water" button on the screen. It may take several pumping cycles to fill the system until the water begins to drain from the hoses on the manipulator. Calibrate the water before making drinks. For more details, see the full guide:



The Error 1 No water is occur when some problems with water taking from source's

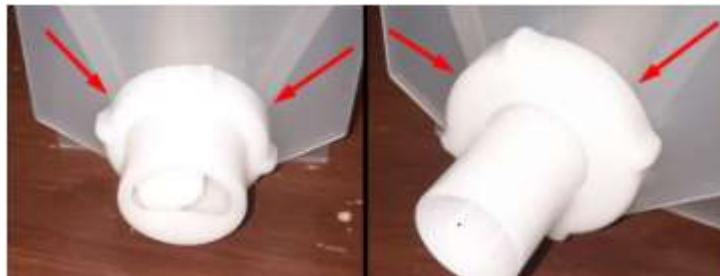
- **Paid (by default):** Activated after the controller is restarted or machine launched.
- **Free mode:** Turns on for 15 minutes with the FREE MODE button. It is disabled by pressing SERVICE MODE button or by restarting the controller.
- **Service mode:** Enter the settings menu by clicking SERVICE MODE button.

## Loading and configuring products

### 6.1. Dry mixes (powders)

**Attention! It is not recommended to use mixtures without anti-caking agent in the composition. It is forbidden to use mixtures with the presence of solid particles (dried fruits, crumbs).**

- **Removing the container:** Turn the container chute up, lift the front of the container, and pull it toward you.
  - **Download:** Fill in the powder, making sure that there are no spoons.
- ⚙ **Important:** Always check the tightening of the screw nuts before installation!



- **Installation:** Connect the rear part of the container to the dispenser motor, lower the front part so that the pin from the bottom of the container falls into the housing opening. Turn the container chute down until it touches the mixer funnel.
- **Calibration:** Must be performed if the powder has changed.

## 6.2. Liquid concentrates

1. Use the top shelf to store containers of concentrates.
2. Remove the protective label and check that the concentrate supply from the container is working properly.
3. Put the machine's hose connector on the containers valve and turn the crank all the way down from the top. The valve must be locked in the open position.
4. Pump the system **PUMP SYRUP** switches until the concentrate appears in the filling hoses.
5. In the service menu, assign brand and taste to drinks № 9-14.
6. Perform the calibration and set the remainings.

## 6.3. Cups

1. Adjust the delivery unit to match the diameter of your cups.
2. **Requirements for cups:** diameter no more than 90 mm, height no more than 110 mm, volume up to 400 ml, material-paper (cardboard).
3. Load the cups carefully, dividing the stack into 2-3 parts and holding it with your hand from the bottom. Don't tamp it down!
4. **It is forbidden to use red and black cups, crumpled and deformed cups, as well as plastic cups.** The distance between the cups in the stack should be the same, from 4.3 mm to 8 mm.
5. The capacity of the tube depends on the size of the cups used and the distance between them in the pack. When using 300 ml. cups with a distance between them of 4-8 mm. the tube holds about 100 cups.
6. If you use inappropriate cups or have problems with the delivery of cups, a message appears on the screen **Error 5**.

**i Note:** If the rest of the cups in the tube is small (the weight of the stack decreases), the machine may stop issuing them. Just loading a new stack

# Setting up drinks and assortment

1. Click **SERVICE MODE**.
2. On the screen, tap "**Developer Mode**" → "**Configurator**" tab → "**Change Drinks**".
3. Assign each powder (№1-8) and concentrates (№9-14) the desired brand and flavor. If the desired name is not available, update the beverage database via telemetry with the "Update database from server" button (requires of internet and telemetry connections)
4. On "**Drinks**" tab, set the prices and volumes of drinks. Here you can enable the sale of a small volume of drinks, or disable the sale of any drink. **When choosing the volume of the drink, keep in mind that it should be equal to the sum of the dosage of water and the product.**
5. On "**Dosages**" tab set up the recipe. Enter the product dosage and water dosage – use the manufacturer's recommendations on the product packaging. **Do not use large dosages (over 50 g of the product). Do not use dosages with zero amount of water or product.** Basic protein ratio: 220 ml of water / 30 g of powder. To achieve the best taste of the drink, prepare it, taste it and, if necessary, adjust the taste by adding a small amount of product (step 5g) or reducing water (step 10ml). **This setting is acceptable for drinks THAT DO NOT CONTAIN a STRICTLY LIMITED DAILY DOSAGE (see the manufacturer's notes).**

# Product calibration

It is made before the start of operation and at each change of powder / concentrate (different brand, different line). You will need a scale and a measuring cup.

1. Open the service menu, click "Developer Mode", go to "**Configurator**" **tab**, and open "**Conversion factor**" **menu**.
2. Follow the instructions: select water, powder (1-8), or concentrate (9-14) in the left column, and click "Enable feeding". The machine will take the dose, you need to weigh it, compare it with the set one, and enter the actual value for correction.
3. Calibrate the water, all powders and syrups sequentially.
4. Calibration is considered successful when the product dosage issued matches or differs from the prescribed one:
  - Powders: no more than 1.5 g;
  - Water – no more than 15 ml.
  - Concentrates-no more than 1 ml. Below is a video of the process:



# Enabling payment systems

**Connection of payment devices is made on a completely de-energized machine!**

- The MDB connector is located on the inside of the door, above the QR-code scanner.
- Make sure that your payment device supports the MDB protocol and supports the following settings:
  - MDB level = 3
  - Always Idle = ON
  - Ignoring vending machine prices = OFF.

# Internet and remote control

**9.2.1. LAN**-connect the cable to the slot of the machine next to the power outlet. No software settings required, the most stable and fast connection.

**9.2.2. WiFi**-basic option, with a receiver installed on the machine. Connect the antennas from the kit to the connectors on the roof of the vending machine. To connect to the network, log in to the operating system, enable network search, and enter the access password on the machine's screen:



**Attention!** Do not use open or unprotected networks. In addition to network vulnerabilities, such networks are not designed for long-term connections and will drop the connection after some time.

**9.2.3. USB modem**– use a USB extension cable to connect the mobile modem. Connect the extension cord connector to USB the machine's USB computer on the inside of the door, to the left of the cups tube. **It is forbidden to install the modem inside the enclosure to avoid signal shielding.**

- To connect to the machine remotely, use AnyDesk, RustDesk, and MyAssistent programs (shortcuts on the desktop of the machine's PC). Remote connection is also used by technical support to diagnose, update, or fix machine errors.
- Telemetry registration is performed by Shaker technical support. The service is used for remote monitoring of the state of the vending machine, tracking sales, product balances, changes assortment of drinks and their settings.
- Telemetry service-optional and serves for ease of operation. Its presence or absence does not directly affect the operation of the machine.

# Service

It is recommended to carry out maintenance (cleaning, replenishment of consumables) **at least 2 times a week**. The actual frequency depends on the intensity of sales. The maintenance process includes:

- Replenishment of the remaining powders, syrups, cups and water;
- Disassembly and cleaning of mixers and dust covers;
- Cleaning the interior of the vending machine;
- Washing of hoses and pumps of syrups;
- Draining and cleaning the waste tray;
- Cleaning the water hose (when using this type of connection);
- Replacement of the filter when using a water supply connection (at least once every six months);
- Checking the operability of the cup dispenser, manipulator, and cup sensor.

To clean the machine body (inside and out), use wipes, sponges, detergents and disinfectants. **It is forbidden to use highly active chemicals or pure alcohol to treat components or surfaces! It is forbidden to wash plastic parts with boiling water!**

**REMEMBER: the machine is designed to work with food products that have an expiration date and storage conditions. Maintain a high level of hygiene. Avoid the appearance of odors and third-party impurities in drinks. Poor-quality and untimely maintenance of the vending machine can harm the health of customers!**



# Error codes and malfunctions

If an error occurs, its number appears on the screen. First, try clicking **CONTROLLER REBOOT**. If the error persists, refer to the description:

- **Error 1:** No water (check for water, start pumping, and restart the machine to reset the error).
- **Error 5:** No cup (check the tube loading and setting of the delivery unit for your cups, as well as the cup sensor).
- **Error 7:** The error is unknown, please contact technical support.
- **Error 9:** Manipulator error. Perform a test of the manipulator and check that there is no interference during movement.
- **Error 18:** The recipe was incorrectly compiled. Drink dosages should not contain zero or too high values.
- **Error 21:** Timeout for installing your own shaker (the buyer did not install the shaker in 15 seconds, the funds will be refunded).
- **Error 22:** Your shaker is too high (>18 cm).



Inside the machine, behind the powder container No. 3, there is a status indicator for the machine controller. Below is a list of transcripts:

1. "A" – (paid mode)
2. "F" – FREE MODE-enabled free mode (drinks without payment)
3. "P"(or "П") – service mode (machine settings menu)
4. "- "- washing mode after cooking.

- **Location:** Inside the vending machine, behind container # 8.
- **Type:** Glass 5×20 mm.
- **Fault indication:** A burning diode next to the fuse or a visually blown insert.
- **Replacement:** Only on a de-energized automatic machine, strictly corresponding to the nominal value (indicated below).



**List of fuses from top to bottom:**

- Main controller power supply 24V: **4A**
- Powering mixer motors: **3.15 A**
- Power supply for electric valves: **2A**
- RGB Backlight: **2A**
- Peristaltic pumps: **2A**
- Electric door lock: **2A**
- Cup dispenser module: **2A**
- 24V - > 12V Converter (for PC): **3.15 A**
- Display power supply (24V): **3.15 A**
- Water supply electric valve: **2A**
- Cooler/boiler reserve: **2A**
- PWM Mixer power supply: **3.15 A**
- PWM of dispensers: **2A**