



Portion Steamers with Digital Controls

Models: _____

177QS1800SS, 177QSHD1800A, 177QSHD3300B, 177QSHD3300D

Warning:

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

For Your Safety:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

Note:

Please read and keep these instructions. Indoor use only.

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CONFORMS TO NSF/ANSI STD. 4
 CONFORMS TO CSA C22.2 NO. 109
 CONFORMS TO UL STD. 197

Critical Information

Water Hardness: It is recommended to use distilled water. Maximum acceptable water hardness of 50ppm or 3 GCG. Using hard water can reduce the functionality and longevity of steamer.

Deliming: If there is excess buildup of minerals in the steamer, please follow the instructions in the cleaning section to properly delime. Failure to properly delime can lead to damage to steamer.

Seasoning: After deliming, it is important to re-season the portion steamer. Please reference the complete instructions under "Season Generator Surface." Failure to do so will result in a lesser steaming ability.

Safety Precautions

General Safety

1. **Read All Instructions:** Carefully read and understand all instructions before using the steamer.
2. **Commercial Use Only:** This appliance is intended for commercial use only.
3. **Hot Surface Warning:** Do not touch hot surfaces to avoid burns.
4. **Proper Plugging:** Always plug into a 3-hole grounded electrical connection.

Electrical Safety

5. **Avoid Water Exposure:** Protect against electrical shock by keeping all cords, plugs, and electrical components away from water or other liquids.
6. **Unplug When Not in Use:** Unplug the unit when not in use and before cleaning.
7. **Cool Before Handling:** Allow the unit to cool before putting on or taking off parts.
8. **Damaged Cords or Plugs:** Do not operate the appliance if the electrical cord or plug is damaged.
9. **Malfunction:** Do not operate the appliance if it has malfunctioned or has been damaged in any way.
10. **Indoor Use Only:** This appliance is for indoor use only; do not use it outdoors.
11. **Avoid Heat Sources:** Do not place the steamer on or near hot gas or electric burners.

Operational Safety

12. **Plugging Sequence:** Attach the plug to the appliance first, then plug the cord into the wall outlet.
13. **Proper Disconnection:** Disconnect the appliance by turning the temperature and timer controls to "OFF," then remove the plug from the wall outlet.
14. **Intended Use Only:** Do not use the appliance for any purpose other than its intended use.
15. **Avoid Metal Utensils:** Do not insert metal utensils or oversized foods into the unit, as they may cause a fire or increase the risk of electrical shock.
16. **No Storage During Operation:** Do not store items on top of the unit while it is in operation.
17. **Flammable Materials:** Keep the steamer away from flammable materials such as curtains, draperies, or walls during operation.
18. **Avoid Metal Scouring Pads:** Do not clean the unit with metal scouring pads, as pieces can break off and touch electrical components, increasing the risk of electrical shock.
19. **No Foreign Materials:** Never place materials like paper, cardboard, or plastic in the steamer.
20. **Professional Repairs Only:** Incorrect installation, adjustments, modifications, or improper maintenance can lead to injury or property damage. All repairs should be completed by authorized professionals.
21. **Turn Off After Use:** Turn off the appliance by turning the temperature and timer controls to "OFF."
22. **Use Manufacturer-Recommended Accessories:** Using accessories not recommended by the manufacturer may result in injury.

Supervision and Usage Precautions

23. **Supervise Children:** Children should be supervised to ensure they do not play with the steamer.
24. **Keep Animals Away:** Ensure animals are kept away from the unit during operation.
25. **Restricted Use:** This appliance is not intended for use by individuals with reduced physical, sensory, or mental capabilities, or those lacking experience and knowledge, unless supervised by someone responsible for their safety.

Environmental and Installation Guidelines

26. **Check Voltage:** When using the appliance in shops, snack bars, hotels, etc., check the voltage and outlet to ensure proper connection to the power supply.
27. **Ventilation and Surface:** Place the unit on a flat, dry surface that is well-ventilated to ensure safe and efficient operation.

Initial Setup

Inspect the Packaging

1. **Check for External Damage:** Inspect the exterior of the packaging for signs of dents, tears, or punctures.
2. **Open the Box Carefully:** Use scissors or a box cutter to carefully slice through the tape or seals on the box.
3. **Check for Damage:** Once the box is open, inspect the machine for any visible damage.
4. **If Damaged, Contact Manufacturer:** If you find damage, contact the manufacturer immediately with photos of the damage.[on.](mailto:info@avantco.com)

Unboxing

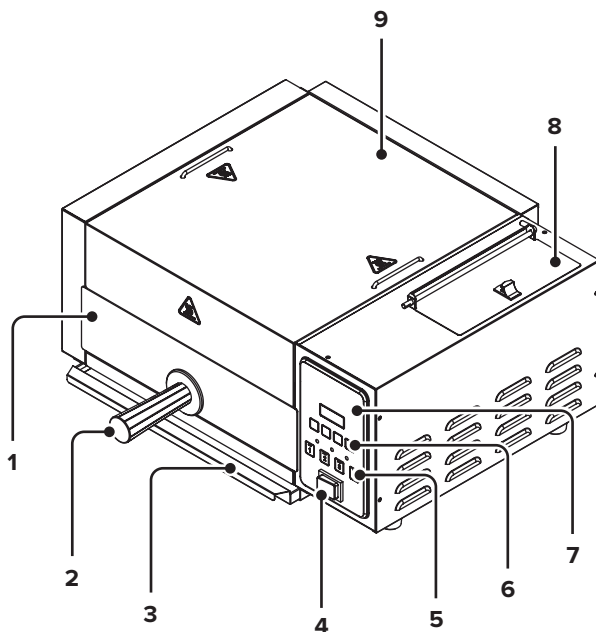
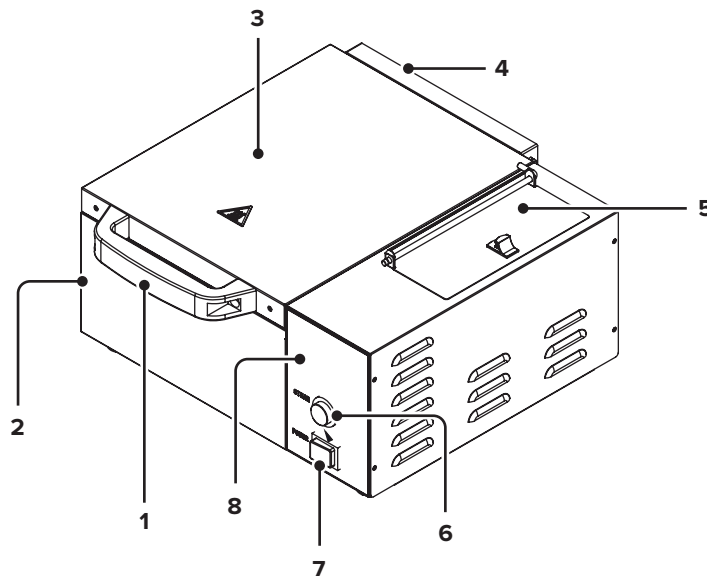
1. **Lift the Machine:** With assistance, carefully lift the machine out of the packaging.
2. **Remove Packaging Materials:** Remove foam inserts, plastic coverings, and any protective materials from the inside and outside of the equipment.
3. **Keep Important Documents:** Set aside the manual and warranty document.

Assembly

1. **Attach the Handle:** You will need to attach the handle to the spatula. Locate the spatula and handle in the box. Using the included hardware, attach the two pieces together and make sure it is secure.
2. **Component Overview:** The spatula, spatula liner, drip pan, and top cover are all essential parts of the unit. Ensure all components are properly assembled and secured before use. Using the image below, make sure that all major components are properly attached and located in the correct locations. The most important components to check are:
 - a. Spatula liner
 - b. Drop pan
 - c. Top cover

Analog

NO.	Part Name
1	Handle
2	Main Body
3	Cover
4	Rear Connecting Plate
5	Tank Cover
6	Steam Injection Button
7	Power Switch
8	Control Panel



Digital

NO.	Part Name
1	Spatula
2	Handle
3	Drip Tray
4	ON/OFF Switch
5	Quick Select Programs
6	Single Shot Steam Button
7	Control Panel
8	Water Reservoir
9	Top Cover

Cleaning & Maintenance

Daily Cleaning

- **Add Vinegar to Tank:** Pour 1 cup of white vinegar into the tank.
- **Cycle Steamer with Vinegar:** Press the steam button for 3-5 seconds, waiting 20 seconds between presses, to cycle the steamer.
- **Rinse with Distilled Water:** After vinegar is cycled through, pour 1 cup of distilled water into the tank and continue to cycle until all vinegar is cleared from the steamer's internals.
NOTE: White vinegar or a similar solvent helps eliminate calcium and mineral build-up in the steamer. Without proper maintenance, this build-up acts as a thermal insulator, leading to degraded performance and a shortened lifespan.
- **Turn Off and Unplug Steamer:** Flip the on/off switch to the "OFF" position and disconnect the power cord from the electrical outlet.
- **Allow Steamer to Cool:** Let the steamer cool for 45 minutes.
- **Clean Exterior with Soapy Water:** Use a sponge or damp cloth with hot soapy water to wipe down the unit.
- **Rinse Unit:** Rinse the unit with a clean, damp cloth.
- **Dry Unit:** Wipe the unit dry.

Weekly Maintenance

- **Repeat Daily Maintenance Steps:** Follow daily cleaning instructions first.
- **Remove Spray Tube:** Open the steamer lid, remove the pan, lift the loose end of the spray tube, and pull it out of the generator hole.
 - For Top-Load Models, Remove Spray Tube Cover and Filter: Slide off the metal spray tube cover and remove the water tank filter from the water tank.
- **Soak Components in Vinegar:** Place the spray tube and water tank filter in a container, cover them with white vinegar, and let soak for 15 minutes.
- **Clean Remaining Deposits:** Remove the spray tube and filter, examine them for calcium or mineral deposits, and use a paper clip to remove any remaining build-up. Rinse with vinegar and water.
- **Reassemble Components:** Slide the metal cover back onto the tube and replace the water tank filter inside the water tank.
- **Soak Generator Surface:** Pour 1 cup of white vinegar onto the generator surface and let it soak for 15 minutes.
- **Clean Generator Surface:** Rinse the generator surface and scrape off any remaining calcium or mineral build-up.
- **Wipe and Reassemble:** Wipe the generator clean with a damp cloth and reassemble the unit and spray tube.

If Excessive Mineral Deposits Remain

- **Apply Delimer Solution:** Treat the generator surface with a delimer solution, following all instructions and safety precautions from the manufacturer. Ensure the cleaner is safe for use on the generator surface.
- **Remove Delimer and Rinse:** Remove the delimer solution from the generator with a sponge or dry towel, then rinse the generator with clean water.

NOTE: Some calcium/mineral build-up is required on the generator surface for proper steaming. If all build-up is removed during cleaning, add distilled water to the surface and allow it to boil off. Repeat as needed until the generator surface is thinly coated in calcium/mineral deposits.

NOTE: If using soft water, it may be necessary to season the generator surface with lime to create a thin coating of calcium/mineral deposits for proper steaming.

- **Season Generator Surface:**
 - Mix 3/4 oz. baking soda, 3/4 oz. lime, and 1 quart of water.
 - For best results, use Calcium Hydroxide ($\text{Ca}(\text{OH})_2$) for longer-lasting seasoning.
 - Pour the mixture to a depth of 1/4" onto the hot generator surface.
 - Allow the mixture to boil off.
 - Remove any loose powder that remains.
- **Plug In Steamer:** Plug the power cord into the electrical outlet.
- **Preheat Steamer:** Flip the on/off switch to the "ON" position and allow the steamer to preheat for 30 minutes.
- **Purge Delimer Residue:** Press and release the steam button several times to purge any delimer residue from the generator.
- **Turn Off and Reinstall Parts:** Flip the on/off switch to the "OFF" position and reinstall all parts and accessories.

Interface Overview

- A. **Screen:** Displays temperature, time, and error codes.
- B. **DOWN (Temperature & Time):** Use this button to decrease the temperature and time settings.
- C. **UP/SET (Temperature & Time):** Use this button to increase the temperature and time settings.
- D. **Quick Select Programs:**
 1. Press the desired steam button (1, 2, 3, or 4) to begin the steaming cycle.
 2. The display will count down to zero, and an audio signal will sound at the end of the steaming cycle.
 3. Default button settings (see "Programming for Digital Steamers" if you would like to change):
 - i. **Button 1:** 60-second steam cycle.
 - ii. **Button 2:** 120-second steam cycle.
 - iii. **Button 3:** 180-second steam cycle.
 - iv. **Button 4:** 240-second steam cycle.
- E. **Power Switch:** Use the switch to turn the unit on or off.
- F. **STEAM Light:**
 - Yellow - pre-heating is finished.
 - Blue - Heating up.
- G. **Single Shot:** Press and release the single shot button, then wait several seconds before opening.
- H. **Programming:** Allows the end-user to adjust the pre-set quick select buttons (1, 2, 3, 4).



Programming for Digital Steamers

NOTE: To move between adjustments and save changes, press the “PROGRAM” button.

- **Step 1:** Enter Programming Mode:
NOTE: To move between the menus below you must click the programming button twice: once to save your selection and a second time to move to the next option.
 1. Press the “Program” button. The display will show “Prog,” and all four quick-select programs will flash.
 2. Select the button (1, 2, 3, or 4) you want to edit. The display will show “CYC,” and the LED light above the selected program will turn solid.
- **Step 2:** Set Overall Duration:
 1. Minutes will flash first. Press UP/SET “+” or DOWN “–” to change the minutes.
 2. Press “Program” again to move to seconds.
 3. Seconds will flash; press UP/SET “+” or DOWN “–” adjust.
- **Step 3:** Set Steam Injection Rate: Press “Program” to proceed. The display will show “Rate.” This determines how frequently a shot of steam will be injected into the cavity. Press “+” or “–” to adjust.
- **Step 4:** Set Steam Shot Length: Press “Program” to continue. The display will show “Shot,” which determines the length of each steam shot in seconds. Press “+” or “–” to adjust.
- **Step 5:** Save Program: Press “Program” once to display “Prog” with all options flashing. Press the “Program” button again to save the settings to the selected quick-select program.

Additional Functions

- **Temperature:** Press and hold the UP/SET “+” button. The unit will display the actual temperature.
- **Set Default Temperature:** Press the “+” button for 3 seconds until the temperature flashes. Press “+” or “–” to set the desired temperature. After 10 seconds, the machine will resume normal operation. The default and recommended temperature is 390°F.

Operation

Analog Operation

1. **Fill Water Reservoir:** Open the tank cover. Ensure the filter is properly installed. Fill unit with approximately 3 qt. of distilled water.
 - To reduce calcium/mineral build-up in internal components, it is recommended to use distilled water. Maximum acceptable water hardness of 50ppm or 3 GCG. Do not use tap water.
2. **Plug in the Steamer:** Ensure the unit is plugged into a grounded outlet before operation.
3. **Open Tank Cover:** Open the tank cover and confirm the filter is properly installed inside.
4. **Power On:** Flip the on/off switch to the "ON" position and allow the unit to preheat for 25 minutes.
5. **Load Product:** Open the top cover and place the product in the basket or half-size perforated food pan. Close the top cover after loading.
6. **Steam Operation:** Press the steam button for 2 seconds, then release. Wait 20 seconds for the steam to penetrate the product. If necessary, repeat the process. Avoid holding the steam button for more than 2 seconds, as this may cause flooding and interfere with proper steaming.
7. **Remove Product:** After steaming, carefully remove the hot product from the steamer.
8. **Power Off:** Flip the on/off switch to the "OFF" position.

CAUTION: Foods steamed in this unit will be extremely hot. Use caution when handling.

Digital Operation

1. **Fill Water Reservoir:** Open the tank cover. Ensure the filter is properly installed. Fill unit with approximately 3 quarts of distilled water.
 - To reduce calcium/mineral build-up in internal components, it is recommended to use distilled water. Maximum acceptable water hardness of 50ppm or 3 GCG. Do not use tap water.
2. **Preheat Unit:**
 - Turn the power on and allow the unit to preheat.
 - The message window will display "LO," and the yellow light will be on.
 - Once the set temperature is reached, the message window will show the actual temperature. This takes approximately 15 minutes.
3. **Load Product:** For digital, front-load spatula models, skip to step 4.
 - Open top cover, and load product into the basket or half-size perforated food pan. Close cover.
 - Operation: Press the steam button for 2 seconds. Release and wait 20 seconds for the steam to penetrate the product. Repeat as needed. Avoid pressing and holding the steam button for longer than 2 seconds, as it often floors out and hinders proper steaming.
4. **Insert Spatula:** Pull out the spatula or drawer assembly and place the product to be steamed on it. Push the spatula or drawer assembly fully into the steamer.
 - Timed Cycle: Press the desired steam button (1, 2, 3, or 4) to begin the steaming cycle. The display will count down to zero, and an audio signal will sound at the end of the steaming cycle.
 - Button 1:** 60-second steam cycle.
 - Button 2:** 120-second steam cycle.
 - Button 3:** 180-second steam cycle.
 - Button 4:** 240-second steam cycle.
 - Customize Programs: Each quick-select menu option can be programmed and customized for overall cycle duration, rate of steam injections, and length of steam shot.
5. **Remove Steamed Product:** Carefully remove the steamed product from the unit. Excess steam may occur. Wear appropriate hand coverings when unloading the product.
6. **Use Single Shot:** Press and release the single shot button when the product requires more steaming. Make sure that the drawer or spatula are properly inserted.

Troubleshooting

Error Codes

- **Lo:** Displays when the generator temperature is below 250°F (121°C). Steam cannot be added until the temperature recovers.
- **HIGH:** The actual temperature exceeds the set temperature. Allow the unit to cool slightly.
- **Er-1:** Indicates a faulty thermostat sensor.
- **Er-2:** Indicates that the water is below the minimum required level.

Hi-Limit Reset Button

A hi-limit thermostat turns off electrical power to the steam generator if it overheats. To reset this thermostat, allow approximately 45 minutes for the unit to cool down, remove the black cap, and then press the Hi-Limit Reset Button located on the rear of the unit.