

*the HydroPro™ Plus*  
&  
*the HydroPro™*

Instruction Book - CSV750/CSV700



**Breville®** | PolyScience™



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## BREVILLE| POLYSCIENCE RECOMMENDS SAFETY FIRST

**At Breville | PolyScience we are very safety conscious. We design and manufacture commercial products with the safety of you, our valued customer, foremost in mind. In addition we ask that you exercise a degree of care and adhere to the following precautions.**

## IMPORTANT SAFEGUARDS

### READ ALL INSTRUCTIONS BEFORE USE AND SAVE FOR FUTURE REFERENCE

When using electrical appliances, basic safety precautions should always be followed, including the following

- Carefully review the safety section in included literature.
- Do not operate this immersion circulator with a damaged power cord or plug, or if it has been dropped, damaged, or malfunctioned. Return the immersion circulator to Breville|PolyScience for examination and/or repair.
- The immersion circulator is intended for use with water only.
- Do not let power cord touch hot surfaces or hang over the edge of table or counter.

- Unplug from electrical outlet when not in use.
- To avoid the possibility of personal injury, always unplug the immersion circulator from the electrical outlet before cleaning the unit.
- The immersion circulator is IPx7 rated so that it is protected against accidental temporary submersion in water. The immersion circulator is not intended to be used above the MAX water level. If the unit is temporarily submersed, disconnect the power and remove the unit from the water immediately, dry the unit thoroughly before using. If the unit has been submerged for an extended period, it should be inspected and electrically tested before using. Never place the power plug in the water.
- Secure the bags to the vessel using clips or weights.
- The intended cooking vessel used with conjunction with this product shall be a thermoplastic vessel with the maximum capacity of 45 L and the height no greater than 290 mm. Lid shall be used with the vessel.
- Do not use an extension cord with this immersion circulator.
- This immersion circulator is intended for indoor use only.
- Do not let this immersion circulator come in direct contact with food. All food should be packaged in a chosen bag and/or container to ensure it is separated from the water.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical sensory or mental capabilities or lack of experience and knowledge if they have

been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance.

Cleaning and user maintenance shall not be made by children without supervision.

- Children should be supervised to ensure that they do not play with the appliance.
- Do not operate in the presence of explosive and/or flammable fumes.
- Never operate the immersion circulator without the impeller and the foot secured in place
- Always turn the immersion circulator OFF, unplug the unit and wait for it to cool, before removing it from the liquid before making flow direction adjustments.
- After unplugging, the heating element will

remain hot and should not be touched or placed on combustible surfaces.

- This appliance is intended to be used in commercial environments and similar applications such as:
  - Staff kitchen areas in shops, offices, and other working environments;
  - Farm houses;
  - By clients in hotels, motels and other residential type environments;
  - Bed and breakfast type environments.
- The installation of a residual current device (safety switch) is recommended to provide additional safety protection when using electrical appliances. It is advisable that a safety switch with a rated residual operating current not exceeding 30mA be installed in the electrical circuit supplying the appliance. See your

electrician for professional advice.

- The appliance must be used on a properly grounded outlet. If you are not sure if the power outlets are properly grounded, please consult a qualified electrician.
- Do not, under any circumstances, modify the power plug or use an adapter.
- Read all instructions carefully.

#### NOTE

This immersion circulator is equipped with a grounded power cord which must be plugged into a properly grounded power outlet. Do not use the appliance if the grounding prong on the plug is missing or damaged or with a grounding adapter. Contact a qualified electrician if the plug does not fit into the electrical outlet you intend on using.

#### IMPORTANT

Your immersion circulator is equipped with an automatic over-temperature safety that will disable the heater in the event of a heater fault or if it is run with insufficient cooking liquid for too long a time period.

If this safety cannot be reset, the unit must be sent back to Breville | Polyscience.

#### IMPORTANT

Some countertop materials may not be able to withstand the prolonged exposure to heat required for sous vide cooking. To safeguard against damage to your countertop, Breville | Polyscience recommends that you always place your cooking vessel on a trivet or other insulating material before you begin heating the cooking liquid.

## **NOTICE TO CUSTOMERS REGARDING MEMORY STORAGE**

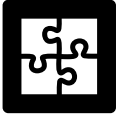
- Please note that in order to better serve our customers, internal memory storage has been imbedded into your appliance.
- This memory storage consists of a small chip to collect certain information about your appliance including the frequency of use of the appliance and the manner in which your appliance is being used. In the event your appliance is returned for service, the information collected from the chip enables us to quickly and efficiently service your appliance. The information collected also serves as a valuable resource in developing future appliances to better serve the needs of our consumers.
- The chip does not collect any information regarding the individuals who use the product or the household where the product is used.
- If you have any questions regarding the memory storage chip please contact us at [privacy@breville.com](mailto:privacy@breville.com).

 **FOOD SAFETY  
WARNING**

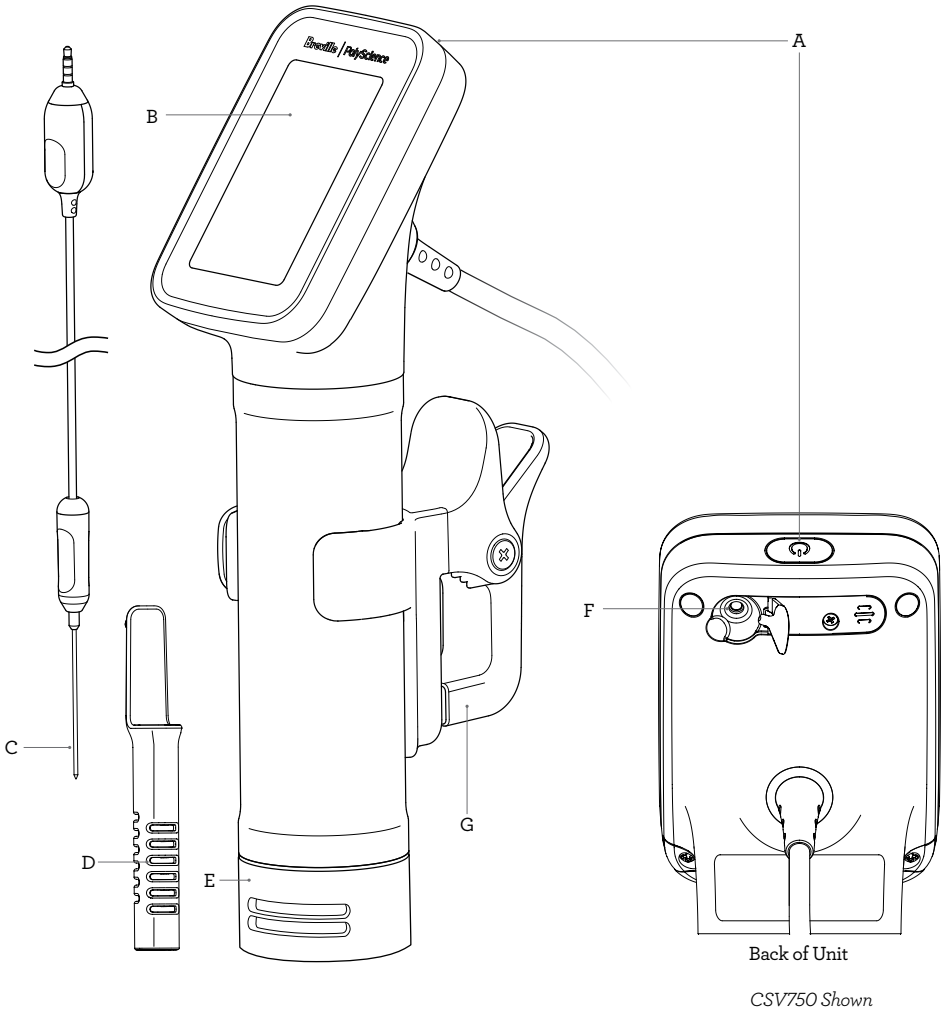
The food safety issues in cooking sous vide are different from more conventional forms of cooking. Do not start to cook before you fully understand the specified food handling practices to prevent, eliminate, or reduce the food biological, chemical, and physical hazards to a safe level. Cooking foods at low temperatures may not pasteurize and may pose a health risk to certain individuals such as pregnant women, young children, the elderly or those with compromised immune systems.

The Sous-Vide Toolbox within the immersion circulator allows you to calculate and set the cooking time of various foods so that they can be cooked to pasteurization. For Safety please select the Food Authority suggested temperature setting when selecting temperature in the Sous-Vide Toolbox which is the FDA and other regulatory approved temperature for the selected food.

**SAVE THESE INSTRUCTIONS**



## Controls & Components



- A. Power Button
- B. TFT Touchscreen
- C. Probe  
For CSV750 model only.
- D. Probe Holder

- E. Foot  
Remove to clean the impeller. Flow direction can be adjusted by rotating the foot .
- F. Temperature Probe Connection  
For CSV750 model only.
- G. Mounting Clamp





# Assembly

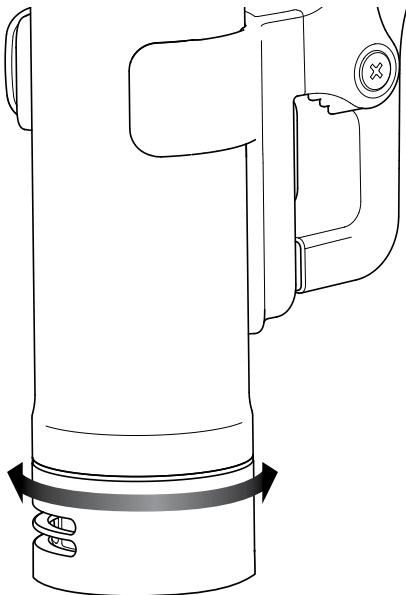
## APPROPRIATE COOKING VESSEL

An immersion circulator can be used with reservoirs of various capacities and shapes. These variables may adversely affect temperature accuracy and stability. For example, a reservoir with large surface area loses heat more quickly, which may prevent the immersion circulator from attaining the desired temperature. The maximum vessel size that the unit has been validated against is a 45L uninsulated vessel with a secure lid.

## BEFORE FIRST USE

Your immersion circulator is easy to set up:

1. Ensure the impeller and foot are in position.
2. Turn the foot on the bottom of the immersion circulator foot to the desired positions. The foot of the immersion circulator allows you to easily adjust the direction with which the water circulates.



**WARNING:** To avoid the potential for burns and/or electrical shock, do not change the position of the foot while your immersion circulator is immersed in liquid. For safety, turn power to the unit OFF, unplug from the electrical outlet, remove the immersion circulator from reservoir, and allow the housing to cool to room temperature before making adjustments.

3. Fill the vessel with water.

This immersion circulator is capable of holding 45 litres of water at a stable temperature in an uninsulated, covered vessel.

The depth of the liquid in the cooking vessel should be kept somewhere between the “MAX” and “MIN” liquid level lines indicated on the unit housing.



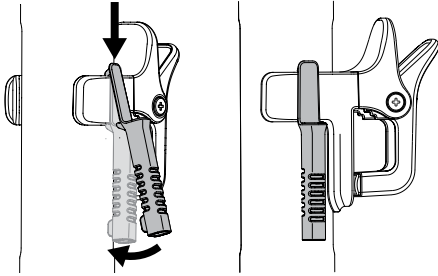
## IMPORTANT

- The water level in the cooking vessel will rise as food is added. Be sure to allow for this displacement when placing liquid in the vessel.
  - Please note that the water level might also drop while cooking due to evaporation.
4. Attach the immersion circulator to the cooking vessel. The mounting clamp provided with the unit will mount it securely to both flat and rounded vessel. The clamp can be used to rotate the unit so that the screen faces in the desired direction.



## NOTE

When using the probe holder, this can be attached directly onto the clamp by following the directions below (available for the CSV750 model only).



5. Plug the power cord into a properly grounded electrical outlet.

The TFT screen will light and the Welcome screen will come up.

The Welcome screen will enable you to configure your settings, as per:

- Language
- Time (available for CSV750 only)
- Date (available for CSV750 only)
- Temperature Units
- Measurement Units
- Data Logging Set Up - for HACCP Cooking log (setting available for the CSV750 model only).

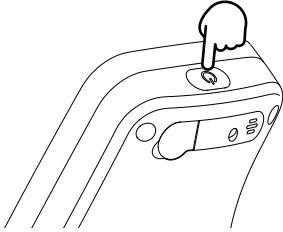
You are now ready to begin cooking with your immersion circulator!



# Functions

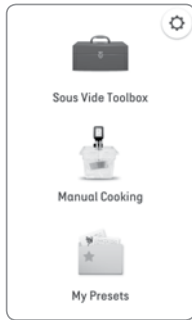
## TURNING THE UNIT ON

1. Press the Power on button (on top of the immersion circulator).



2. The immersion circulator gives you the possibility to choose between 4 menus.

- a) Sous Vide Toolbox
- b) Manual Cooking
- c) My Presets
- d) Settings



## SOUS VIDE TOOLBOX

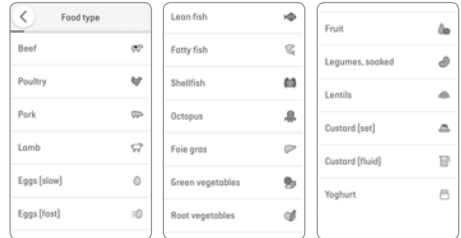
The Sous Vide Toolbox mode will guide you to a successful food-safe sous vide cooking experience. It helps determine the optimal sous vide cooking and re-heating time for a variety of foods.

The thermal conductivity (heat transfer) characteristics of proteins are different for every type of food. The Sous Vide Toolbox uses the guided inputs to calculate the time it takes at a given temperature, thickness and shape for the item to reach a core temperature and additional time for different levels of pasteurization.

This takes the guesswork out of determining the optimum cooking time at a certain temperature. It also provides guidance as to the time required to reach the selected level of pathogen reduction, and whether your choice of temperature and time is considered safe.

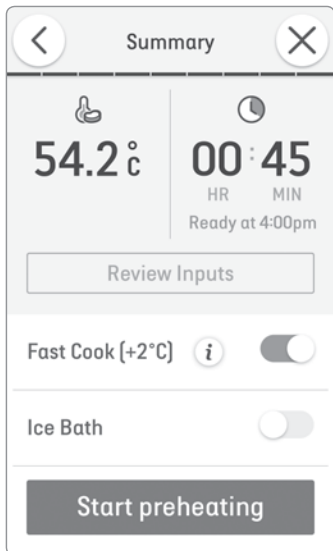
Under this mode, you will be able to select:

1. **Food type:** Beef, Poultry, Pork, Lamb, Eggs, Fish, Shellfish, Foie Gras, Vegetable, Fruit, Custard, Legumes, Lentils and Yoghurt.



2. **Cut Type:** Differentiates between 'Tender Cut' and 'Tough Cut' (depending of food type selected)
3. **Food Shape:** the selection is different depending on the type of food selected. For example, if beef is selected, the food shape will be: steak, medallion, rib rack with bones, short rib squares, cylinder, sphere, cube
4. **Thickness:** between a range of 3/16" to 3" (5mm to 127mm)
5. **Initial Temperature:** Fresh\* or Frozen
6. **Desired Final Core temperature** (temperature doneness varied depending on food type).
7. **Pasteurization Level:** Time to reach core temperature, additional time to pasteurize surface, additional time to pasteurize surface and core
8. **Additional tenderness time (only available for tough Cut Type):** The tenderness time corresponds to the additional time required for a tough cut (such as shank, shoulder, belly or brisket) to achieve a tender result. The time varies depending on the food type selected.

\*Fresh is food that is stored in a fridge environment at 5°C / 41°F



The Summary screen will display the recommended temperature and time based on the parameters that have been entered.

**NOTE**

A warning will indicate if the food item will not reach a recommended level of pasteurization in the time calculated.

The 'Fast Cook' option will allow you to reduce the cooking time by increasing the water bath by +4°F (+2°C).

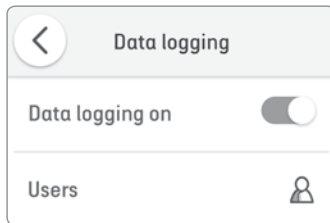
Where the food item is to be immediately cooled for storage upon completion of the cooking process, select the 'Ice Bath' option on the summary page. The time required for the food item to return to 41°F (5°C) will be calculated and displayed once cooking has finished.

**DATA LOGGING**

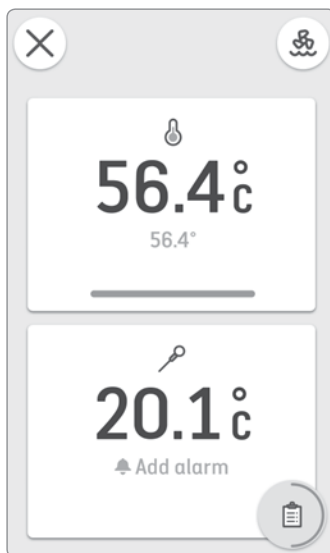
(setting available for the CSV750 model only)

The CSV750 creates a HACCP-ready cooking log using the temperature reading from the probe. The cooking logs can then be converted to a PDF that complies with HACCP requirements.

1. To enable data logging, toggle the 'Data logging on' button in the immersion circulator Settings.



2. Connect your probe and insert it correctly into the food bag using high-density foam tape. Please refer to the Help section for further information about probe use.
3. Start the cook you wish to log.
4. Press the Data Log button and fill out the information you wish to be associated with the cooking log.



- The appliance will now store a probe reading every 10 minutes.
- Once you are finished, press the Data Log button again and select 'Stop log'.
- To retrieve your cooking logs with your mobile, download the free 'PolyScience HACCP Manager' App from Google Play or the Apple App Store.
- Fill in the information about your establishment and any other relevant details.
- Select the logs you wish to export and send them your email address.

### 'POLYSCIENCE HACCP MANAGER' APP (setting available for the CSV750 model only)

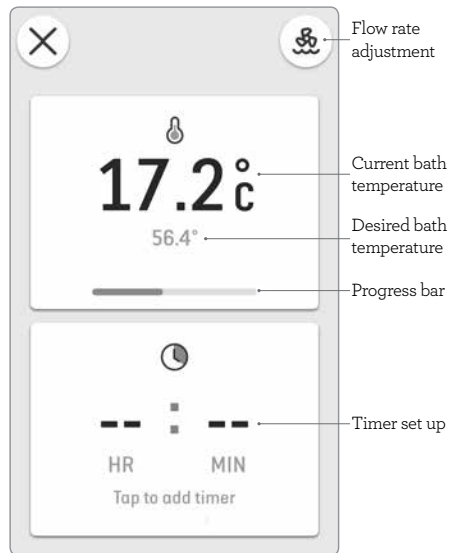
Pair and sync all of your CSV750's data to your mobile and create HACCP-ready cooking logs with ease. Email the cooking logs straight to your health inspector or for your own records. Sort and filter the logs by appliance, establishment, date range or keyword. To retrieve your cooking logs with your mobile, download the free 'PolyScience HACCP Manager' App from Google Play or the Apple App Store.

### MANUAL COOKING

The Manual Cooking mode enables you to configure the desired time, temperature and flow rate for the food item you are cooking. This mode also allows you to set probe alarms with holding timers.

- Select 'Manual Cooking' from the main menu
- Enter the desired bath temperature, to a maximum temperature of 90°C.
- When the desired temperature has been confirmed, the immersion circulator will start a priming cycle. The priming cycle is a 40sec program that removes air trapped in the heating cavity to ensure accurate temperature readings.
- By tapping on the timer area on the screen, you are able to enter either a desired cooking time to 99 hours which will count down to an alarm or start a count up timer. The immersion circulator allows to enter up to 3 different timers.

- The Manual Cooking mode allows to adjust the desired flow rate, by selecting the flow rate icon on the top right corner. The flow rate can be selected between fast, medium or slow. For many scenarios, we recommend keeping the pump flow at the maximum speed. If you're cooking delicate foods like eggs which may be moving around, you may wish to turn the output down.

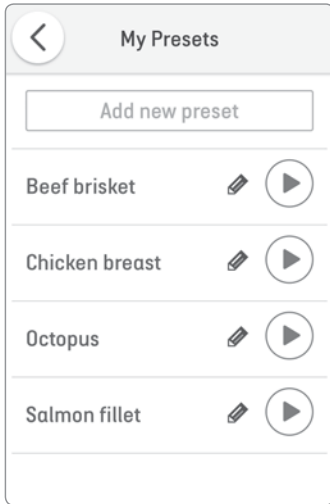


### MY PRESETS

'My Presets' mode allows you to save your regularly used temperatures and times on the appliance.

- Select 'My Presets' from the main menu
- Select 'New Preset'
- Enter the data into the different settings:
  - Preset Name
  - Bath Temperature
  - Timer
  - Probe alarm (setting available for the CSV750 model only)
  - Flow Speed

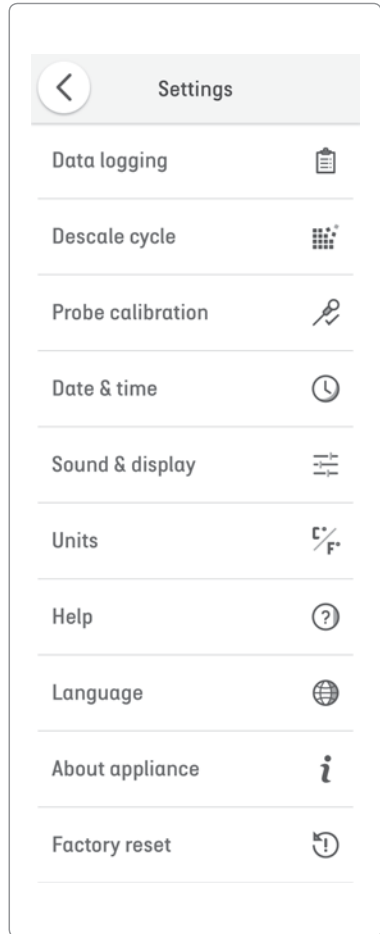
4. Select 'Save' to save your desired preset. The saved preset will appear onto the 'My Presets' menu, where you will be able to use, edit or delete them.



## SETTINGS

The settings mode allows you to configure different parameters for the immersion circulator, as:

1. Data Logging (setting available for CSV750 model only): For more information about the Data Logging setting, refer to page 12.
2. Probe Calibration (setting available for CSV750 model only) The probe comes calibrated from factory, however to ensure that the probe's accuracy does not drift over time please calibrate yearly. The guided calibration cycle can take up to 30 minutes and will allow you to add a yearly reminder.
3. Date & Time configuration.
4. Sound & Display configuration.
5. Temperature & Measurement Units configuration.
6. Help section: the help section will give you more information about using the probe; cleaning the appliance and changing the flow direction.
7. Language configuration.
8. Factory reset.



## LOSS OF POWER

In the event that electrical power is disrupted during use, your immersion circulator will begin operating automatically when power is restored. The unit will display the time when power was lost, the amount of time there was no power and the temperature at which the unit resumed back to the set temperature (for the CSV700 model, the unit will only display the temperature). Use this information to determine if the item being cooked is safe, if you are uncertain at all we recommend that you discard the cooked food.



## Cleaning & Storage

Always clean and dry your immersion circulator completely before storing. Be sure to protect it from contact with equipment or other objects that could damage the digital display.

### ROUTINE CLEANING

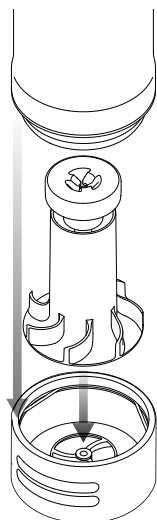
Turn the immersion circulator OFF by pressing the Power Button and unplugging the unit from the electrical.



#### WARNING

To avoid the potential for burns, allow the immersion circulator to cool to room temperature before removing it from the cooking vessel.

1. Disassemble the unit by pulling off the foot and removing the impeller from the appliance.
2. Use soapy water to clean the parts. A brush can be used to gently clean inside the appliance. Wipe the housing with a clean damp cloth or sponge. Do not use abrasive cleansers as these could scratch the housing or the touchscreen.
3. Use a clean cloth to dry the appliance. To reassemble, place the foot on a firm surface and align the impeller to stand within the foot. Place the immersion circulator over the top of the impeller, sliding the leg down to meet the foot. Align and apply a firm downwards force until the foot 'clicks' into place.



Should the immersion circulator's immersed components become coated with grease or other residue due to a cooking pouch leak or break, run the unit in clean water containing a small amount of non-sudsing dishwasher detergent for about 10 minutes at 140°F / 60°C. Rinse carefully and dry thoroughly when done.



#### WARNING

Never immerse the immersion circulator's controls or display in water or other liquids or place under running water. Do not clean the unit in a dishwasher, except for the impeller and the foot which are dishwasher safe.

### DESCALING THE APPLIANCE

To descale the appliance, prepare a cleaning solution by pouring equal amounts of water and vinegar into a bath.

Secure the appliance in the bath, and select the 'descale cycle' under the help section (in the 'Settings' menu).



#### WARNING

Do not descale with anything other than vinegar.

### REMOVING FOOD DEBRIS

Turn the immersion circulator OFF by pressing and unplug from the electrical outlet.



#### WARNING

To avoid the potential for burns, allow the immersion circulator to cool to room temperature before removing it from the cooking vessel.

In the unlikely event that food or other debris becomes lodged in the pump impeller, remove the foot and impeller from the unit and wash carefully to remove any foreign objects.

Use a soft brush to remove any lodged particles. If necessary, soak in clean water to soften before brushing. DO NOT use hard utensils or abrasive pads to remove trapped food debris.



#### WARNING

Never operate your immersion circulator without the foot in place.



# Troubleshooting

POSSIBLE PROBLEM	EASY SOLUTION
“Low Water Level” error screen appears	<ul style="list-style-type: none"><li>• Ensure the water level is above the MIN water line.</li></ul>
“No Water Detected” error screen appears	<ul style="list-style-type: none"><li>• Ensure the impeller and the foot has been inserted correctly and the water level is above the MIN water line.</li></ul>
“Tilt Alert” error screen appears	<ul style="list-style-type: none"><li>• Ensure the clamp has been installed correctly and the unit is mounted upright.</li></ul>
“Move Detected” error screen appears	<ul style="list-style-type: none"><li>• Ensure the unit has been fitted securely in the clamp and the clamp is installed against the vessel correctly.</li></ul>
“Impeller Overload” error screen appears	<ul style="list-style-type: none"><li>• Remove the foot and impeller, clearing out any foreign objects from the heating tube, impeller and foot. Inspect the foot and impeller for any damage or breakage.</li></ul>
“Unit unplugged mid-cook...” error screen appears	<ul style="list-style-type: none"><li>• The unit will return to the original temperature setting, consider if the cook that was underway is still safe for consumption.</li></ul>
“Fault detected” error screen appears <u>repeatedly</u>	<ul style="list-style-type: none"><li>• Return the unit to a service centre or service agent for your region.</li></ul>
“High Temperature Detected” error screen appears	<ul style="list-style-type: none"><li>• Ensure the water flow from beneath the unit is unobstructed and the water level is above the MIN water line but below the MAX water line and any scale build up has been removed. <b>Never wrap over the touchscreen of the unit.</b></li></ul>
My unit is not heating	<ul style="list-style-type: none"><li>• The unit always runs a 40 second priming cycle before the heater is turned on, wait until the unit has finished its priming cycle before the heater turns on.</li></ul>
My unit does not get to temperature	<ul style="list-style-type: none"><li>• The unit has been tested to be able to heat a 45L vessel with a secure lid up to 90°C (194°F). If using aluminium foil or similar covering, ensure to <b>never wrap over the touchscreen of the unit.</b></li></ul>
The temperature on my unit is fluctuating rapidly	<ul style="list-style-type: none"><li>• Ensure the water flow from beneath the unit is unobstructed and the water level is above the MIN water line but below the MAX water line.</li></ul>
There is a whirring or strange noise coming from my unit	<ul style="list-style-type: none"><li>• Remove the foot and impeller, clearing out any foreign objects from the heating tube, impeller and foot. Inspect the foot for any damage. Inspect the impeller for damage or breakage.</li></ul>
My bags are sucked up by the water inlet	<ul style="list-style-type: none"><li>• Secure the bags to the vessel using clips or weights.</li></ul>





Notes



Notes



Notes

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