



# OPERATOR MANUAL

IMPORTANT INFORMATION, KEEP FOR OPERATOR

888-994-7636, fax 888-864-7636  
capkold.com

THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.

**FOR YOUR SAFETY** Instructions to be followed in the event user smells gas. This information shall be obtained by consulting your local gas supplier. As a minimum, turn off the gas and call your gas company and your authorized service agent. Evacuate all personnel from the area.

**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.

**NOTIFY CARRIER OF DAMAGE AT ONCE** It is the responsibility of the consignee to inspect the container upon receipt of same and to determine the possibility of any damage, including concealed damage. CapKold suggests that if you are suspicious of damage to make a notation on the delivery receipt. It will be the responsibility of the consignee to file a claim with the carrier. We recommend that you do so at once.

**Manufacture Service/Questions 888-994-7636.**

This manual provides information for:

## WATERJET RAPID COOKER/CHILLER TANK MODELS WJ100



### REFERENCES

NATIONAL FIRE PROTECTION ASSOCIATION  
60 Battery March Park  
Quincy, Massachusetts 02269

UNDERWRITERS LABORATORIES, INC.  
333 Pflugsten Road  
Northbrook, Illinois 60062

ECONOMICS LABORATORY, INC./  
ECOLAB PLACE  
St. Paul, Minnesota 55102

ZEP MANUFACTURING CO.  
3330 Cumberland Blvd  
Suite 700  
Atlanta, GA 30339

NSF INTERNATIONAL  
798 N. Dixboro Rd.  
P.O. Box 130140  
Ann Arbor, Michigan 48113-0140

REFRIGERATION SERVICE ENGINEERS  
SOCIETY  
1911 Rohlwing Road  
STE A  
Rolling Meadows, IL 60008

## EQUIPMENT DESCRIPTION

**NOTE:** THE CAPKOLD EQUIPMENT YOU HAVE PURCHASED HAS BEEN CONSTRUCTED FROM QUALITY MATERIALS AND HAS BEEN CAREFULLY INSPECTED AND TESTED TO ENSURE THAT YOU RECEIVE THE BEST POSSIBLE PRODUCT. WITH REASONABLE CARE AND PERIODIC MAINTENANCE, YOUR CAPKOLD UNIT SHOULD PROVIDE YEARS OF PRODUCTIVE SERVICE.

**NOTE:** PLEASE READ THIS MANUAL CAREFULLY BEFORE YOU INSTALL OR OPERATE YOUR EQUIPMENT. IT CONTAINS INFORMATION YOU WILL NEED TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT PROPERLY.

Fully automatic cook/chill unit designed to rapidly chill pumpable food products and ingredients packaged in special plastic casings in a rapid and turbulently circulating water bath. Unit to chill most products from bag fill temperature of approximately 135°F to 41°F in approximately 90-120 minutes. Also slow cooks or slacks prepackaged raw meats, vegetables and starches; or rapidly reheats cook-chill or vendor prepared foods in circulating hot water bath. Unit includes internal hoist mechanism to raise and lower product baskets, powerful water circulation pump, fully automatic operator control package, and sheathed and air gap insulated tank with splash covers.

Standard Features:

- Type 304 stainless steel tank with 1" radius corners
- Insulating, non-corroding double wall construction on exposed tank sides

- Fully enclosed and vented pump/utility housing
- 6" nominal (one inch adjustment) legs with adjustable floor mounting flange
- Stainless steel splash covers with lift assist
- Powerful 7.5 Horsepower water circulation pump:
- High volume all stainless steel water delivery/circulation system with 4" diameter piping and discharge nozzle
- Manual diverter valve to control water discharge flow and turbulence
- Patented tank bottom turbulent water deflection baffle
- Water level overflow protection
- Automatic drain with 75 GPM capacity
- Cook-to-Probe Package
- ASME stamped direct steam heating system for cooking and rethermalizing.
- NSF listed
- UL listed

## IMPORTANT - READ FIRST - IMPORTANT

- CAUTION:** BE SURE OPERATORS READ, UNDERSTAND AND FOLLOW THE OPERATING INSTRUCTIONS, CAUTIONS, AND SAFETY INSTRUCTIONS IN THIS MANUAL.
- WARNING:** THIS UNIT IS INTENDED FOR USE IN THE COMMERCIAL HEATING, COOKING AND CHILLING OF WATER AND FOOD PRODUCTS, PER THE INSTRUCTIONS CONTAINED IN THIS MANUAL. OTHER USE COULD RESULT IN PERSONAL INJURY OR DAMAGE TO EQUIPMENT AND WILL VOID WARRANTY.
- WARNING:** ELECTRICALLY GROUND THE UNIT AT THE TERMINAL PROVIDED.
- WARNING:** THE WATERJET MUST BE INSTALLED BY PERSONNEL WHO ARE CERTIFIED REFRIGERATION TECHNICIANS, AND WELL-QUALIFIED TO WORK WITH ELECTRICITY AND PLUMBING. IMPROPER INSTALLATION COULD RESULT IN PERSONAL INJURY OR EQUIPMENT DAMAGE.
- WARNING:** DO NOT HEAT EMPTY UNIT.
- WARNING:** AVOID ANY EXPOSURE TO THE STEAM ESCAPING FROM THE COVER. DIRECT CONTACT COULD RESULT IN SEVERE BURNS
- WARNING:** AVOID ALL DIRECT CONTACT WITH HOT EQUIPMENT SURFACES. DIRECT SKIN CONTACT COULD RESULT IN SEVERE BURNS.
- WARNING:** AVOID ALL DIRECT CONTACT WITH HOT FOOD OR WATER IN THE WATERJET. DIRECT CONTACT COULD RESULT IN SEVERE BURNS.

- WARNING:** USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY CAPKOLD OR ITS AUTHORIZED DISTRIBUTORS VOIDS ALL WARRANTIES AND MAY CAUSE BODILY INJURY OR EQUIPMENT DAMAGE. SERVICE PERFORMED BY OTHER THAN FACTORY AUTHORIZED PERSONNEL WILL VOID ALL WARRANTIES.
- WARNING:** TURN OFF ELECTRIC POWER BEFORE WORKING ON INTERNAL COMPONENTS.
- WARNING:** BEFORE ANY CLEANING OPERATION, TURN THE THERMOSTAT TO OFF AND CUT OFF POWER TO REFRIGERATION AND HEATING ELEMENTS. BEFORE CLEANING ANY PART OTHER THAN THE INSIDE OF THE UNIT, DISCONNECT THE ELECTRICAL SUPPLY AT THE CIRCUIT BREAKER OR FUSE BOX.
- WARNING:** BE CAREFUL TO AVOID CONTACT WITH CLEANING PRODUCTS IN ACCORDANCE WITH SUPPLIER AND MANUFACTURER RECOMMENDATIONS. MANY CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES AND CLOTHING. READ THE WARNINGS AND FOLLOW DIRECTIONS ON THE CLEANER LABEL.
- CAUTION:** NEVER LEAVE A CHLORINE SANITIZER IN CONTACT WITH STAINLESS STEEL FOR LONGER THAN 30 MINUTES. LONGER CONTACT CAN CAUSE CORROSION.
- WARNING:** DO NOT USE ANY FUSE WITH A HIGHER AMP RATING THAN THE RATING SPECIFIED FOR THAT CIRCUIT.

- Control package enclosed in a UL Listed durable fiberglass NEMA-4X water resistant enclosure, mounted on unit at convenient operator height, with controls that include a Simple Operator/Machine Interface [IAC System] which controls:
    - Cook Time setting
    - Cook Temperature setting
    - Auto Cook then Chill Mode
    - Preprogrammed THAW cycle
  - Simple to operate product loading/unloading lift system.
  - Stainless steel wire baskets for loading and separating product during cook tank mode operation.
- Optional Features:
- Remote mounted Time/Temperature controller/recorder [HACCP Compliant]
  - Product filling, packaging and labeling accessories
  - Vacuum packaging equipment

## INSPECTION & UNPACKING

**WARNING:** DO NOT ATTEMPT TO OPERATE THE UNIT UNTIL QUALIFIED CAPKOLD INSTALLERS MAKE NECESSARY REFRIGERATION ADJUSTMENTS.

**WARNING:** THE WATERJET MUST BE INSTALLED BY PERSONNEL WHO ARE QUALIFIED TO WORK ON THE EQUIPMENT. IMPROPER INSTALLATION COULD RESULT IN PERSONAL INJURY OR EQUIPMENT DAMAGE. INSTALLATION MUST COMPLY WITH LOCAL CODES.

When unit is received, immediately inspect for external or internal damage. Report any damage to the carrier. Following inspection, keep the packaging material with the unit.

Minimum door or hallway opening to move the unit is 57 inches. The unit length of 103 inches should also be considered for negotiating any corners.

When choosing a location for the unit be sure that the floor will support the unit's operational weight of 6000 lbs. Minimum clearances required are 42 inches right and left, and 12 inches at the rear.

Once the unit is in position for installation, level it front to rear and right to left by adjusting all five feet. Secure unit to the floor through the holes provided on flanges of the feet. Use at least two bolts for each foot. Before connecting utilities, remove the rear covers of the unit. Each utility connection is labeled.

## INSTALLATION

### ELECTRICAL

**WARNING:** IMPROPER INSTALLATION COULD RESULT IN ELECTRICAL SHOCK. AN ELECTRICAL GROUND IS REQUIRED.

**CAUTION:** UTILITY CONNECTIONS MUST BE MADE SO AS TO KEEP ALL UTILITY LINES AT LEAST 152 MM (6 INCHES) ABOVE THE FLOOR.

UTILITY CONNECTIONS MUST NOT BLOCK ACCESS FOR REMOVAL OF THE BOTTOM RETURN DUCT, WHICH IS LOCATED DIRECTLY UNDER THE MOTOR AND PUMP ASSEMBLY.

ELECTRICAL CONNECTIONS MUST BE MADE BY A QUALIFIED INSTALLER. IMPROPER INSTALLATION CAN CAUSE DAMAGE TO THE EQUIPMENT.

LOCAL CODES AND/OR THE NATIONAL ELECTRICAL CODE SHOULD BE OBSERVED IN ACCORDANCE WITH ANSI/NFPA-70-1987 (OR THE LATEST EDITION).

SUPPLY VOLTAGE AND UNIT VOLTAGE MUST MATCH. FAILURE TO SUPPLY UNIT WITH PROPER VOLTAGE WILL RESULT IN EQUIPMENT DAMAGE.



- The WaterJet must be supplied with power as follows:

Supply Voltage	208
Amps	35
Hertz	60
Phase	3
Amp Draw	25

- Follow local codes or the National Electrical Code (NEC) to select the proper size wire to the unit.
- Make watertight conduit connections for the electrical supply through the control panel in the rear of the unit. Be sure to maintain the watertight seal in the box.
- Attach each phase leg as shown marked inside the control panel.
- An electrical schematic of the WaterJet Control Panel connections is provided at the rear of this manual, and on the inside of the main Control Box. The refrigeration unit electrical schematic can be found on the inside panel of the control box.

6. Double-check the wiring phase legs to ensure that they are attached to the correct terminal on the terminal block.

## WATER CONNECTIONS

**CAUTION: PIPING CONNECTIONS AND INSTALLATION MUST BE MADE BY A QUALIFIED INSTALLER. IMPROPER INSTALLATION CAN CAUSE DAMAGE TO THE EQUIPMENT. LOCAL CODES AND/OR NATIONAL PLUMBING CODES MUST BE OBSERVED WHEN MAKING CONNECTIONS TO THE WATERJET. HOT WATER SUPPLY MUST NOT EXCEED 49° C (120° F). EXCESSIVE HEAT CAN DAMAGE VALVE SOLENOIDS.**

1. The WaterJet has a maximum water capacity of 350 gallons. Water pressure from the supply needs to be between 30 PSI and 60 PSI.
2. There are two 3/4 inch NPT water solenoid connections at the rear of the WaterJet. These connections are for hot and cold water as labeled.
3. If hot water is not to be used, also supply the hot water solenoid inlet with cold water. Both solenoids should be connected to cold water under such circumstances, or the unit will not work.

## DRAIN CONNECTIONS

**WARNING: BACTERIAL HAZARD! IMPROPER INSTALLATION COULD RESULT IN IMPROPER DRAINAGE, AND ALLOW DRAIN MATERIAL INTO THE UNIT.**

**CAUTION: PIPING CONNECTIONS MUST BE MADE BY A QUALIFIED INSTALLER. IMPROPER INSTALLATION CAN CAUSE EQUIPMENT DAMAGE. LOCAL CODES AND/OR NATIONAL PLUMBING CODES MUST BE OBSERVED WHEN MAKING PLUMBING CONNECTIONS TO THE UNIT.**

1. Connect the drain at the rear of the unit using a 1-1/2 inch NPT pipe. Do not use plastic or PVC-type pipe.
2. Install the drain line with a constant downward pitch. Ensure that there is a vertical air gap of at least two inches from the top of the drain unless otherwise specified by codes.
3. The WaterJet has a maximum drain rate of 75 GPM per minute. If the building drain is slower than the WaterJet drain, the two inch drain line may need to be restricted to a smaller diameter compatible with the building drain and the drain time will be lengthened.

## STEAM CONNECTIONS

**WARNING: DO NOT ATTEMPT TO OPERATE THE UNIT UNTIL QUALIFIED CAPKOLD INSTALLERS MAKE NECESSARY REFRIGERATION ADJUSTMENTS.**

Skip this section if cooking operations will not be required.

1. The steam system is ASME shop inspected, stamped (PP) and registered with the National Board for operation up to a MAWP of 90 PSIG.
2. Connect the steam supply to the labeled 3/4 NPT connection at the safety relief valve located on the rear of the WaterJet.
3. Recommended boiler capacity should be 9 BHP.
4. Connect the condensate return line to the labeled 3/4 NPT pipe connection which is found directly under the steam input line.
5. Globe valves (shut-off valves) are not provided with the unit, but should be installed as required.

## REFRIGERATION CONNECTIONS

**WARNING: DO NOT ATTEMPT TO OPERATE THE UNIT UNTIL QUALIFIED CAPKOLD INSTALLERS MAKE NECESSARY REFRIGERATION ADJUSTMENTS. (INSTALLER MUST BE R.S.E.S. CERTIFIED).**

1. Connect refrigeration lines (Suction, Liquid and Hot Gas) as labeled at the rear of the unit.
2. Refrigeration unit must be no more than 100 feet of piping.
3. The 1-5/8 suction line, 7/8 liquid line and the 7/8 hot gas line should be welded with nitrogen-purging during all brazing connections.
4. The suction line must have traps for every rise of 10 feet. In addition, all horizontal runs must have a slope of not less than one inch for every 10 feet in the direction of the condensing unit.
5. Mineral oil must be added to the unit.
6. A 39 pound pre-charge is required for the condensing unit. An additional charge must be added dependent on the line length from the condensor to the WaterJet.

Before Replacing Rear Covers on the Unit:

1. Run the WaterJet through a few cycles before replacing covers. This can be done without food being prepared or placed in the unit. These practice runs will help identify any latent installation problems such as:
  - Improper motor rotation due to improper phase wiring.
  - Loose solder connections which cause solenoid valves to stay open.
  - Leaks in any of the connections.

## INITIAL START-UP

1. Do not attempt to operate the unit until a qualified R.S.E.S. Certified CapKold installer has completed the necessary refrigeration adjustments.
2. The CapKold installer will instruct the facility supervisor on the proper start-up procedure and provide additional instructions as needed.

## OPERATION

**WARNING:** DOORS WILL BE HOT WHEN UNIT IS COOKING OR RETHERMING. CONTACT CAN CAUSE SEVERE BURNS. IMPROPER INSTALLATION OR TIGHTENING OF FITTINGS CAN RESULT IN HOT WATER LEAKS.

**WARNING:** STEAM ESCAPES WHEN THE DOORS ARE OPENED. CONTACT CAN CAUSE SEVERE BURNS.

**WARNING:** DISCONNECT POWER BEFORE SERVICING THE WATERJET. ONLY REPLACE COMPONENTS WITH CAPKOLD PARTS. NON-CAPKOLD PARTS COULD RESULT IN ELECTRICAL SHOCK.

**CAUTION:** DO NOT CLOSE SUCTION LINE VALVE. FAILURE TO KEEP VALVE OPEN DURING OPERATION WILL CAUSE THE EVAPORATION TO LEAK.



### INTENDED USE

Hot water supply is used to accelerate cooking or retherming times. Steam supply of 9 BHP minimum is required to obtain and maintain temperatures for proper and safe cooking. Retherming cycles may require some preheat time, depending on the type of food being warmed and the steam supply.

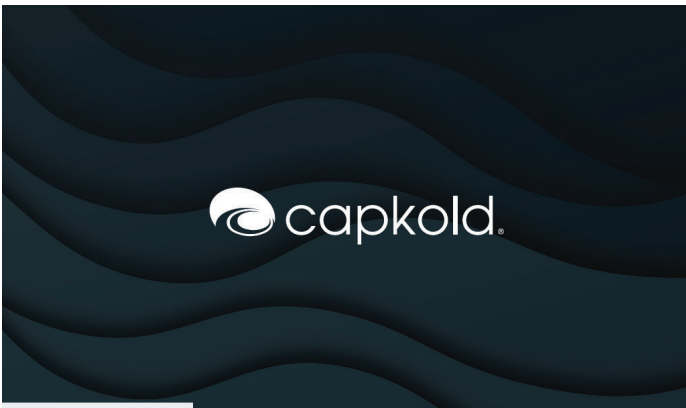
The WaterJet is intended to chill 100 gallons of casing product. It is intended to cook up to 500 lbs of meat per cycle. Individual meat size can be up to 10 lbs.

Casings should be filled and sized so that the bags may be folded around a temperature probe, to measure internal product temperatures.

### USER INTERFACE

The user interface of the WaterJet provides intuitive controls and real-time feedback for efficient operation. Designed for ease of use, it allows operators to monitor cooking parameters, adjust settings, and ensure optimal performance with minimal.

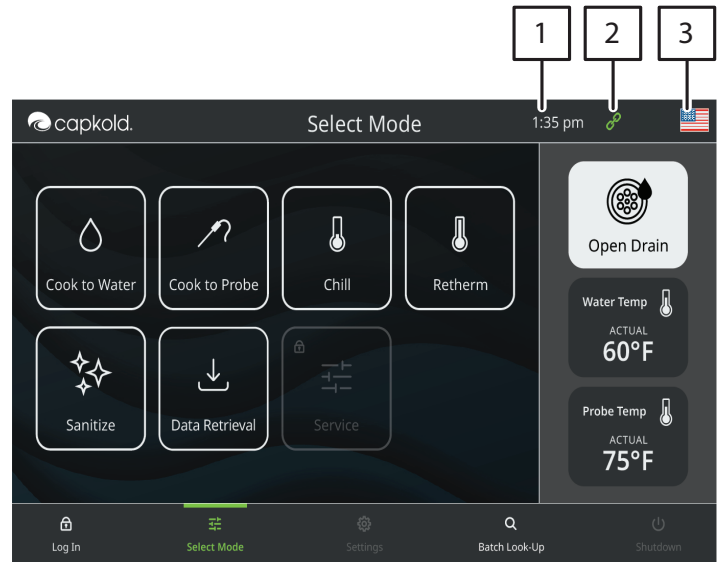
### APPLICATION LOADING SCREEN



When you power on the unit, the application loading screen will appear. The progress bar will be white during loading. Once the loading is complete, the screen will switch to the select mode screen.

### SELECT MODE SCREEN

Overview: The Select Mode Screen displays the current status of the Waterjet, including temperature and operational modes. It provides access to all main functions and settings. At the top of the Select Mode Screen, several indicators are provided. These are marked as 1, 2, and 3:



1. Real-Time Clock: Displays the current time in hours and minutes.
2. Communication Link Indicator: Green indicates a successful connection; red indicates a lost connection.
3. Language Selection: Allows the operator to view the preferred language for the interface.

### MODE SELECTION AND FUNCTIONS



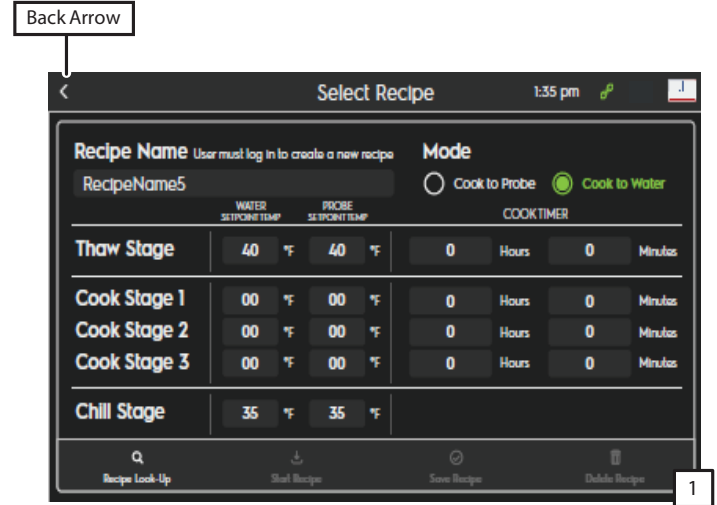
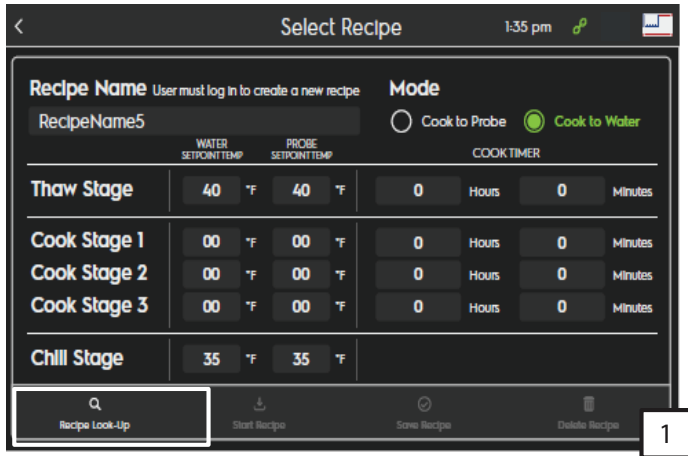
1. Cook to Water: Tap on “Cook to Water” to select recipes that require cooking with water.
2. Cook to Probe: Tap on “Cook to Probe” to select recipes that use a probe for temperature control.
3. Chill: Tap “Chill” to select recipes that chill the product to the desired temperature.
4. Retherm: Tap on “Retherm” to select recipes for reheating to the desired holding temperature.
5. Sanitize: Temperature is pre-set at 181°F for 20 minutes.
6. Data Retrieval: Tap on “Data Retrieval” to extract specific data for maintenance and troubleshooting.
7. Service: Access is granted by logging in, and a 4-digit code is required to enter service mode.
8. Open Drain: Tap on Open Drain to manage water from the tank. The button toggles to “Close Drain” after selection and vice versa.
9. Batch Lookup: Use the Batch Lookup feature to look up and manage previously saved batches for consistency and record-keeping.

**NOTE: LOG IN TO ACCESS “MANUAL MODE,” “SETTINGS,” OR “SHUTDOWN” OPTIONS. THESE FEATURES ARE PASSWORD-PROTECTED. ENSURE YOU ARE LOGGED IN TO PROCEED.**

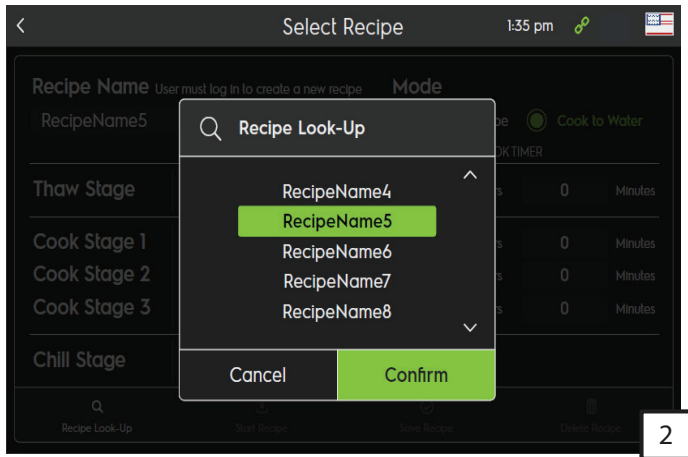
**RECIPE CREATION AND MODIFICATION (REQUIRES LOGGING IN)  
INSTRUCTIONS FOR LOGGING IN AND OUT**

**RECIPE SELECTION INSTRUCTION**

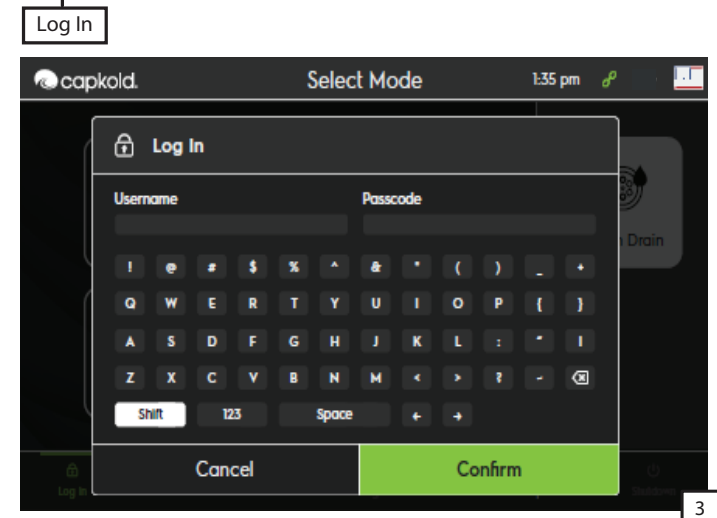
**ACCESSING PRE- SAVED RECIPES (WITHOUT LOGGING IN):**



1. If you are not logged in, you can only select existing recipes using the “Recipe Look-Up” function.
2. To create or edit a recipe, you must log in. Tap the back arrow (1) in the upper left-hand corner to return to the “Select Mode” screen (2) and select “Log In” and enter your credentials.



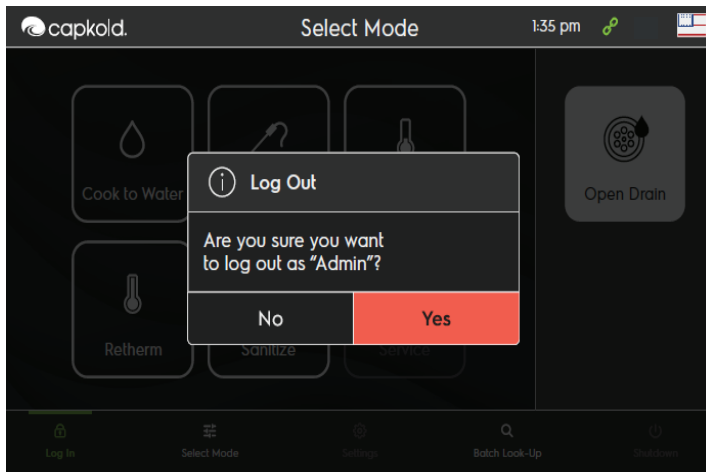
1. Tap “Recipe Look-Up”(1) to display a pop-up window with a list of available recipes.
2. Scroll (2) through the recipes using the up and down arrows.
3. Select (2) the desired recipe by tapping on it.
4. Confirm your selection by tapping “Confirm”.
5. The selected recipe will be displayed on the “Select Recipe” screen.
6. Recipes compatible with the selected mode (Cook to Water or Cook to Probe) will be available.



3. Initiate Login Process (2): On the “Select Mode” screen (at the bottom), tap on the “Log In” button.

- Enter Credentials (3): A pop-up keyboard will appear, prompting you to enter your username and passcode.
- Enter your “Username” and “Passcode,” then select “Confirm” to be redirected to the previous page.

**LOGGING OUT**



- Initiate Logout Process: To log out, tap the “Log In” button located on the bottom select mode screen.
- A pop-up window will appear asking, “Are you sure you want to log out as ‘Admin?’”.
- Select “Yes” to confirm.
- Once confirmed, you will be logged out, and the main menu will revert to “Log In”.

**ENTERING RECIPE DETAILS IN COOK TO WATER/PROBE MODE**

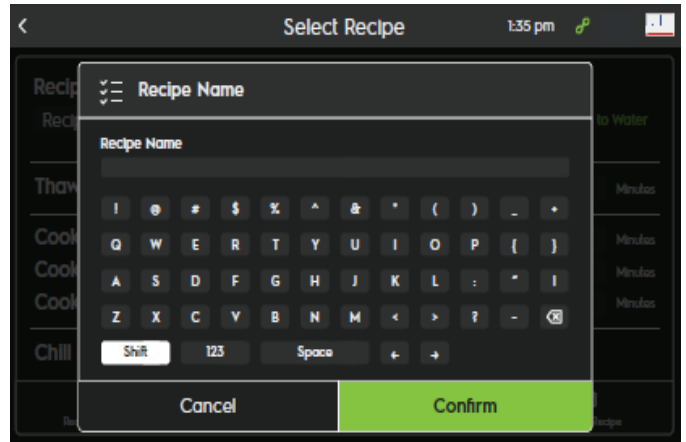
**NOTE: TO CREATE OR EDIT A RECIPE, YOU MUST LOG IN.**



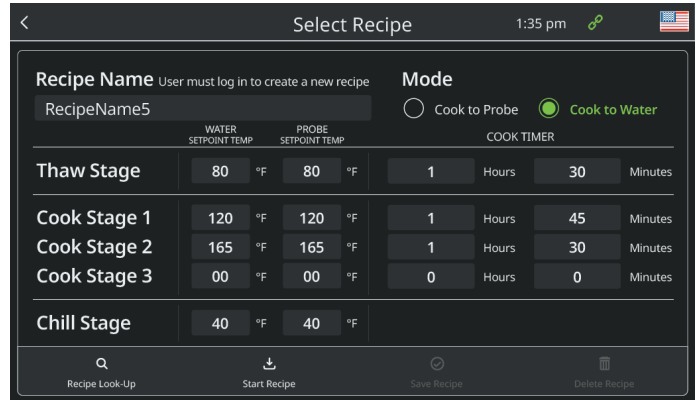
- Select Cooking Mode: On the Select Mode screen, tap “Cook to Water/Probe” to proceed to the Select Recipe screen.



- Tap into the “Recipe Name” field. A pop-up keyboard will appear. Enter the recipe name (16 character limit) and select “Confirm”.



- Enter Cooking Stages in Sequence



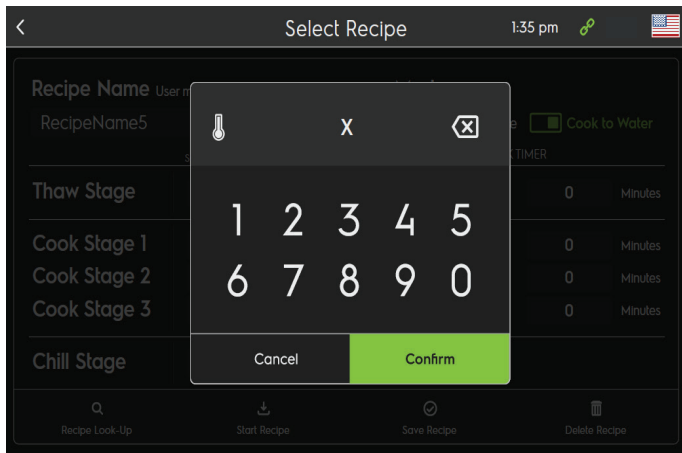
- Fill in the cooking stages in the correct order. The required stages are:
  - Thaw Stage (if needed)
  - Cook Stage 1
  - Cook Stage 2 (if needed)
  - Cook Stage 3 (if needed)

**NOTE: THE SYSTEM WILL NOT ALLOW SKIPPING A COOKING STAGE.**

- IF YOU ENTER A WATER SETPOINT TEMPERATURE FOR COOK STAGE 2 WHILE SKIPPING COOK STAGE 1, CAN'T SAVE THE RECIPE.
- MAKE SURE TO ENTER ALL STAGES IN THE CORRECT ORDER.

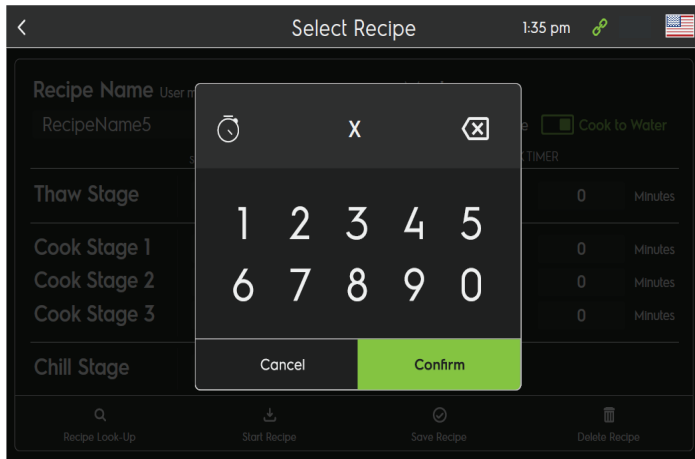
5. Set Water and Probe Temperature

- For each cooking stage, enter:
  - Water Setpoint Temperature
  - Probe Setpoint Temperature (if applicable)

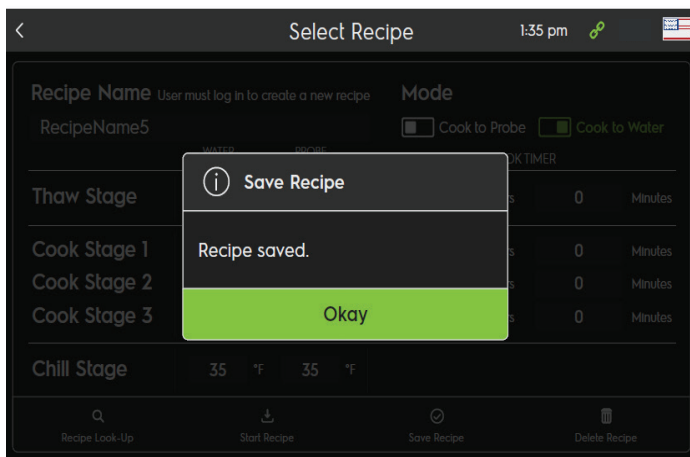


6. Tap into the water set point temperature fields. A number keypad will appear. Enter the desired temperature and select “Confirm”.

7. Set Cook Timer



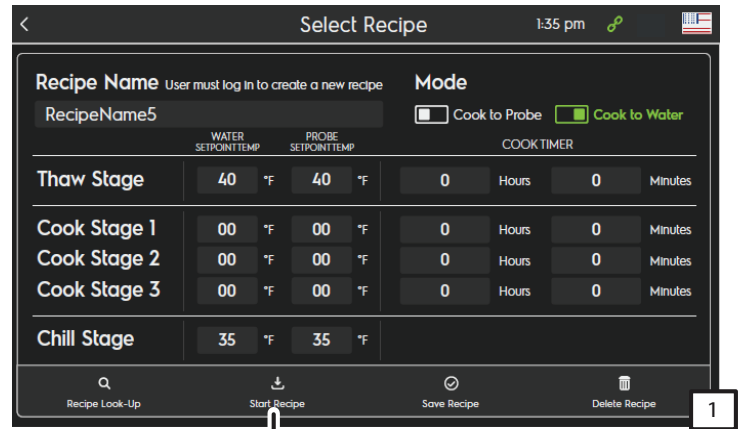
8. Tap into the cook time hours or minutes fields. A number timer keypad will appear. Enter the desired cook time and select “Confirm”. If no time is entered, hours and/or minutes will default to “zero”



9. After completing the recipe details, tap “Save Recipe” to store the new recipe.

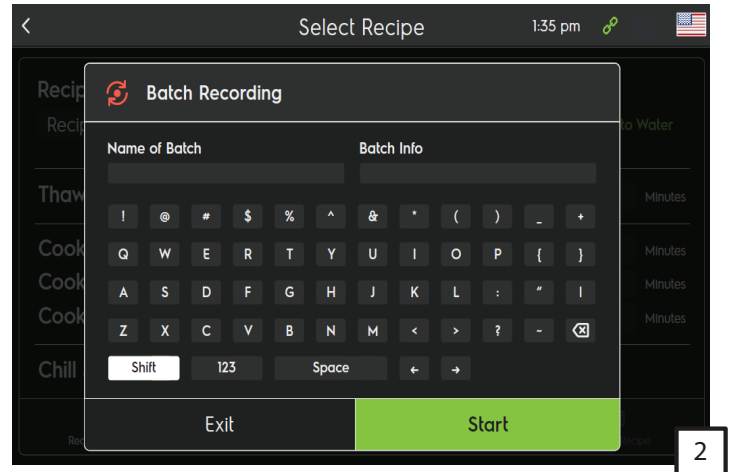
**COOK TO WATER/PROBE HEATING (THAW STAGE)**

**DETAILED OPERATIONAL STEPS**



Start Recipe

1. When ready to start, tap “Start Recipe” (1) to enter batch information.
2. After tapping “Start Recipe”, a pop-up window for Batch Recording (2) will appear.



3. Enter the name of the batch in the “Name of Batch” field 16 Character (2).
4. Add any additional information about the batch in the “Batch Info” field (2). This information will be saved as a text file.
5. Once all fields are filled, tap “Start” to record the batch details. Selecting “Exit” will return you to the select recipe screen.
6. Batch details will be saved in a file for future reference and quality control.
7. Select Start Recipe to begin the filling process. You will then be directed to the Cook Timer screen.



8. Fill and Heat: The tank begins to fill with hot water, and the heating process starts. The Hot water indicator will turn green while water filling in progress once max level reach it turn off.



9. Once the water reaches the minimum level, the Min Level indicator will turn green, as shown in the image.



10. Circulation Pump Activation: The circulation pump engages 10 seconds after the water reaches the minimum level. The circulation pump indicator will turn green.

11. Steam Valve Operation: The main steam valve opens, and its indicator turns green.



12. Max Water Level: The water continues to fill until it reaches the maximum water level. At this point, the Max Water Level indicator will turn green. The Hot water indicator will turn green(2) while water filling in progress once max level reach it turn off.

**NOTE:** THE MAIN STEAM VALVE REMAINS OPEN UNTIL THE WATER REACHES THE TEMPERATURE SETPOINT (+/- F). IF THE WATER TEMPERATURE DROPS BELOW THE SETPOINT, THE STEAM VALVE WILL REOPEN.

13. Temperature Monitoring: The actual temperature of the probe will continuously display the current reading, whether it's ambient or from the food product.



14. Setpoint Reached: When the temperature setpoint is reached, the cook timer will start.



15. When the timer reaches 15 minutes, it turns red, and the message updates to "Thaw stage almost complete."

**COOK TO WATER/PROBE HEATING (COOK STAGE 1,2 AND 3)**



16. Automatic Transition: After completing the current stage, the timer resets, and the system begins the next heating or cooling stage.

17. The message updates to "Thaw stage complete, Stage 1 heating" and the system begins heating for the next stage.

18. Probe Temperature: The probe temperature will reflect the product's temperature, ensuring accurate cooking.

**NOTE:** THE PROCEDURE FROM THAW STAGE TO ALL THREE COOK STAGES FOLLOWS THE SAME STEPS AS OUTLINED IN THE PREVIOUS SECTION UNTIL THE TRANSITION TO THE CHILL STAGE.

19. When the timer reaches 00:00:00 at the end of all cooking stages, the unit will automatically transition into chilling mode.

**COOK TO WATER/PROBE CHILLING**



1. Chilling Mode: Upon completing all cooking stages, the system automatically switches to chilling mode as soon as the timer reaches 00:00:00.
2. Interface Update: The interface changes to display chilling temperatures, and the message updates to “Water chilling.”
3. Temperature Control: The water temperature will be displayed in red until it reaches the chill setpoint temperature.
4. Draining Process:
  - The drain valve will turn on, allowing hot water to be removed from the unit
  - The maximum water level sensor will turn off to indicate water is draining.
  - The minimum water level sensor will also turn off during this process.

5. Cold Water Refill:



- The drain valve will turn off to stop the draining process.
- The cold water supply will turn on to begin refilling the unit with chilled water.
- As the water level rises, the minimum water level indicator will turn green once the minimum required level is reached.

6. Circulation and Refrigeration Activation:



- After 10 seconds, the circulation system will turn on, ensuring even distribution of chilled water.
- Simultaneously, the refrigeration system will activate to further cool the water.

7. Maximum Water Level Control



- As the water continues to fill, the cold water supply will remain on until the maximum water level is reached.
- Once the water reaches the maximum level, the system will automatically turn off the cold water supply.

8. Reaching the Setpoint Temperature

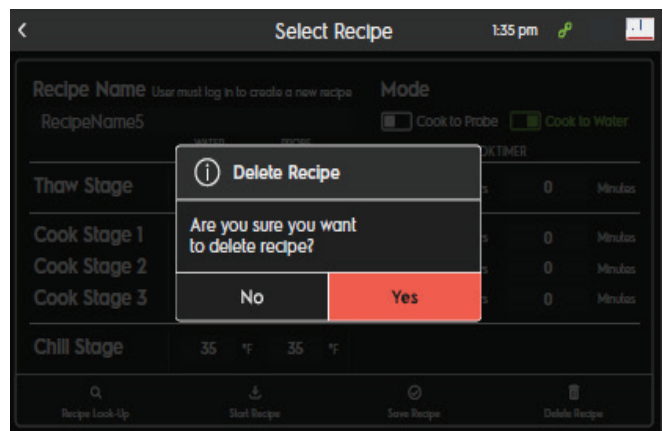


- The refrigeration system will continue operating until the water reaches the setpoint temperature.
- Once the desired temperature is achieved, the refrigeration system will turn off.

9. Completion Notification

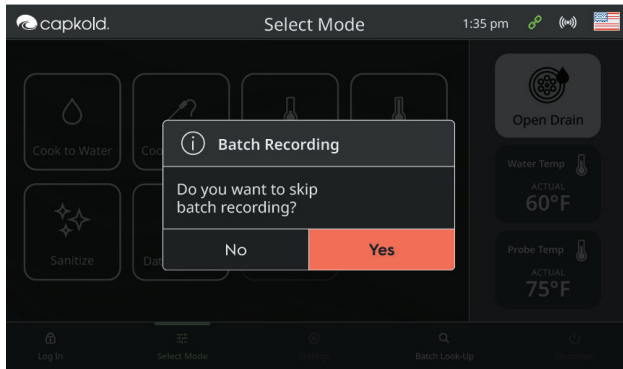
- The display screen will show the message “Recipe Complete.”
- Tapping the red “Stop” button will stop the cooling process, stop the batch recording and save the batch recording report as a PDF in the batch look-up folder.

**DELETE RECIPE DETAILS**



1. Tap into "Delete Recipe" at the bottom of the main screen.
2. Upon tapping, a pop-up window will appear.
3. Tap on "Yes" to confirm to delete recipe, "No" to cancel the process.

### SELECTION OF CHILL MODE



**NOTE: THE "SKIP" OPTION ALLOWS PROCEEDING WITHOUT RECORDING BATCH DETAILS IF NOT NEEDED.**

1. Selecting Chill Mode: After selecting "Chill" mode from the select mode screen a pop-up window appears with the option to either record or skip batch recording. Select the preferred option to proceed with the chilling process.
2. Temperature Settings: The chilling temperature can be pre-set in the settings menu (not user selectable). The default setpoint temperature range is 35°F to 40°F, with a default of 35°F.



3. Start Filling: Upon selecting "Start," the cold water filling process begins.
4. The interface changes to display chilling temperatures, and the message updates to "Product Chilling."
5. The water temperature will be displayed in red until it reaches the chill setpoint temperature.



6. As the water level rises, the minimum water level indicator will turn green once the minimum required level is reached.



### 7. Circulation and Refrigeration Activation:

- After 10 seconds, the circulation system will turn on, ensuring even distribution of chilled water.
- Simultaneously, the refrigeration system will activate to further cool the water.

### 8. Maximum Water Level Control

- As the water continues to fill, the cold water supply will remain on until the maximum water level is reached.
- Once the water reaches the maximum level, the system will automatically turn off the cold water supply.



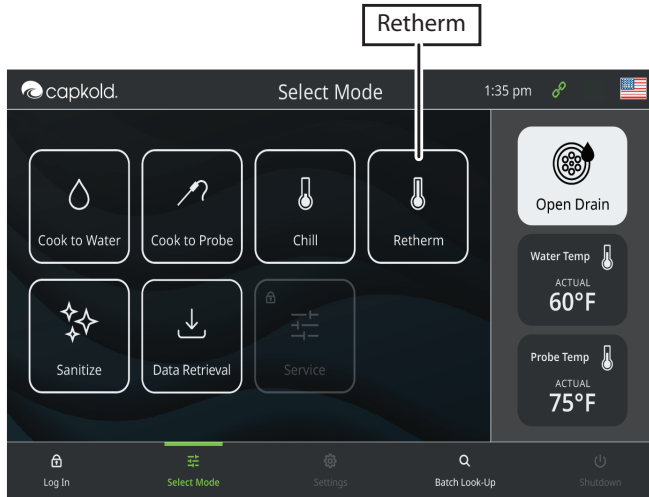
### 9. Reaching the Setpoint Temperature

- The refrigeration system will continue operating until the water reaches the setpoint temperature.
- Once the desired temperature is achieved, the refrigeration system will turn off.

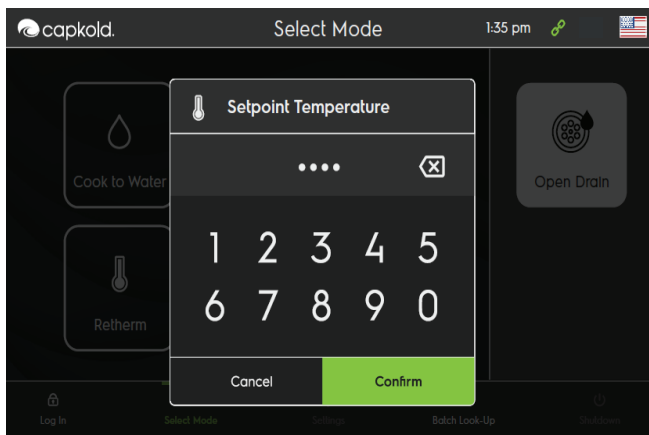
### 10. Completion Notification

- The display screen will show the message "Product Chilled".
- Tapping the red "Stop" button will stop the cooling process, stop the batch recording and save the batch recording report as a PDF in the batch look-up folder.

## RETHERM MODE

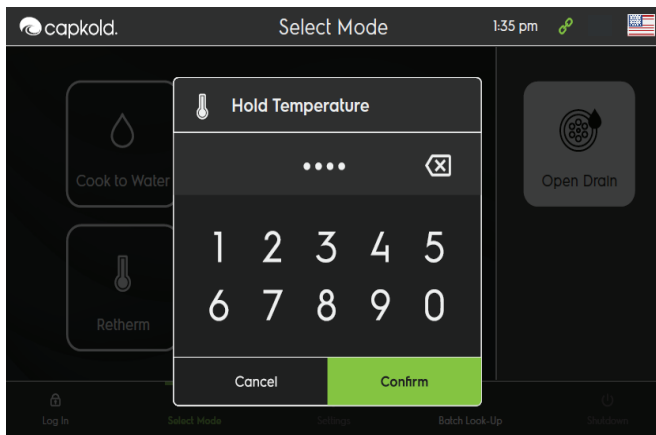


1. Navigate to and select “Retherm” mode from the “Select Mode” screen.



2. A pop-up window for setting the setpoint temperature will appear.
3. Use the numeric keypad to input the desired temperature within the range of 165°F to 180°F.
4. Tap “Confirm” to save the setpoint temperature. Selecting “Cancel” will return to the select mode screen without saving.

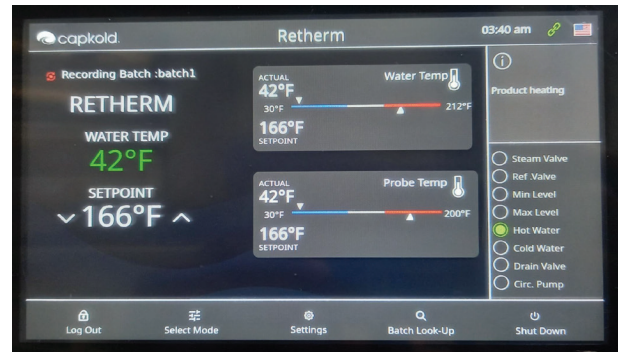
## SETTING HOLD TEMPERATURE



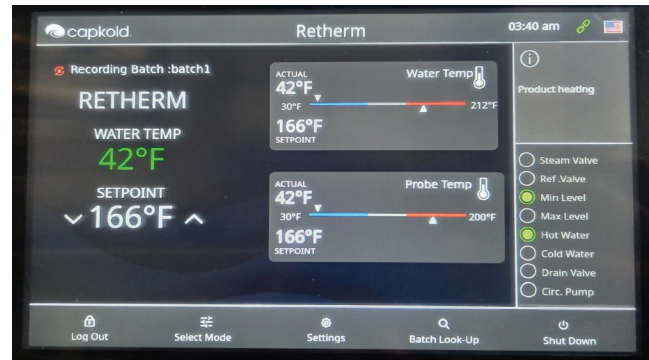
1. After setting the setpoint temperature, a new pop-up window for setting the hold temperature will appear.
2. Use the numeric keypad to input the desired hold temperature within the range of 140°F to 180°F.
3. Click “Confirm” to save the hold temperature. Selecting “Cancel” will return to the main menu without saving.

4. Once confirmed, the system begins the filling and heating processes.

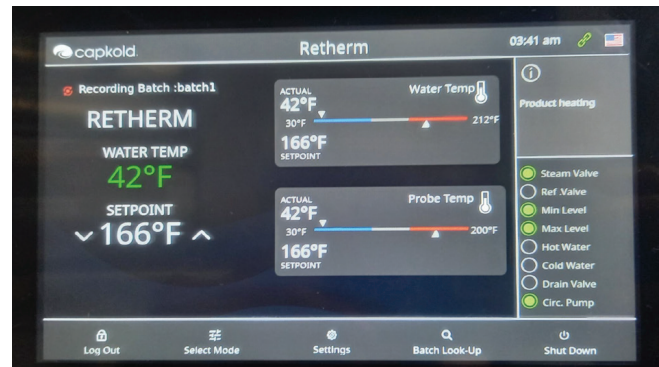
## RETHERM HEATING:



1. Fill and Heat: The tank begins to fill with hot water, and the heating process starts. The Hot water indicator will turn green while water filling in progress once max level reach it turn off.



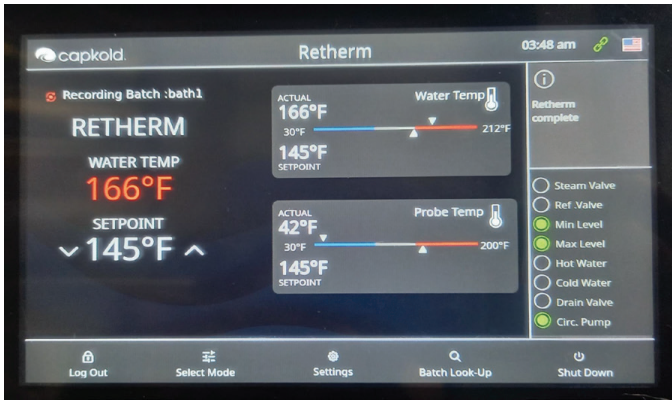
2. Once the water reaches the minimum level, the Min Level indicator will turn green, as shown in the image.



3. Circulation Pump and Steam Valve Activation: The circulation pump engages 10 seconds after the water reaches the minimum level. The circulation pump indicator will turn green. The main steam valve opens, and its indicator turns green.
4. Max Water Level: The water continues to fill until it reaches the maximum water level. At this point, the Max Water Level indicator will turn green. The Hot water indicator will turn green while water filling in progress once max level reach it turn off.

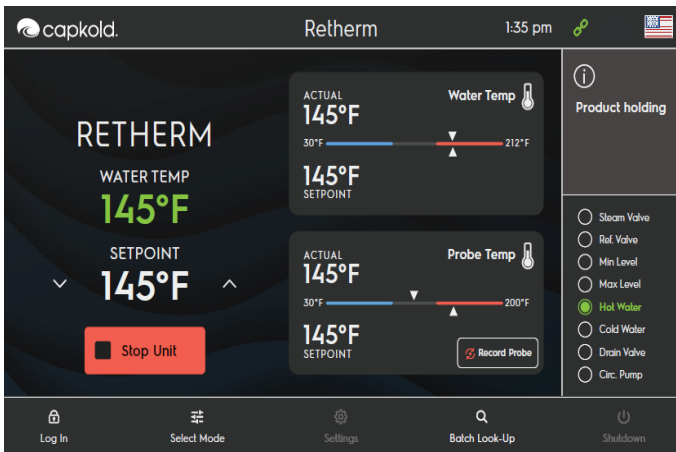


5. Setpoint Reached: Once the setpoint temperature is achieved, the system changes the setpoint to the holding temperature.



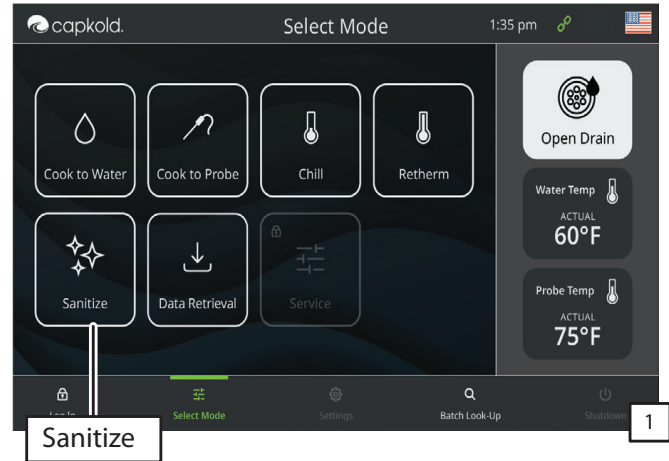
6. As soon as setpoint temperature is reached and product is heated, setpoint changes to the holding setpoint. Water temp is red until temp is reached. When reached, color changes to green.

7. The system maintains the set hold temperature, ensuring the product stays at the desired temperature.



8. Tap on the "Stop" button to stop the cooking process.

## SANITIZE HEATING



1. Select Sanitize Mode (1): Navigate to and select "Sanitize" mode from the select mode screen.

2. Fill and Heat: The tank begins to fill with hot water, and the heating process starts. The Hot water indicator will turn green while water filling in progress once max level reach it turn off.



3. Once the water reaches the minimum level, the Min Level indicator will turn green, as shown in the image.



4. Circulation Pump Activation: The circulation pump engages 10 seconds after the water reaches the minimum level. The circulation pump indicator will turn green. Steam Valve Operation: The main steam valve opens, and its indicator turns green.

5. Max Water Level: The water continues to fill until it reaches the maximum water level. At this point, the Max Water Level indicator will turn green. The Hot water indicator will turn green while water filling in progress once max level reach it turn off.

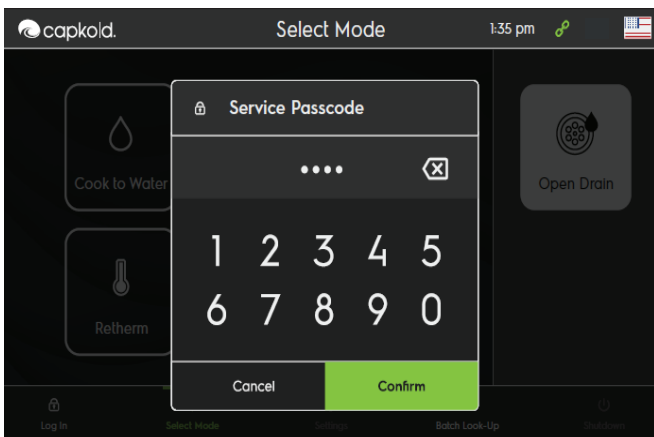
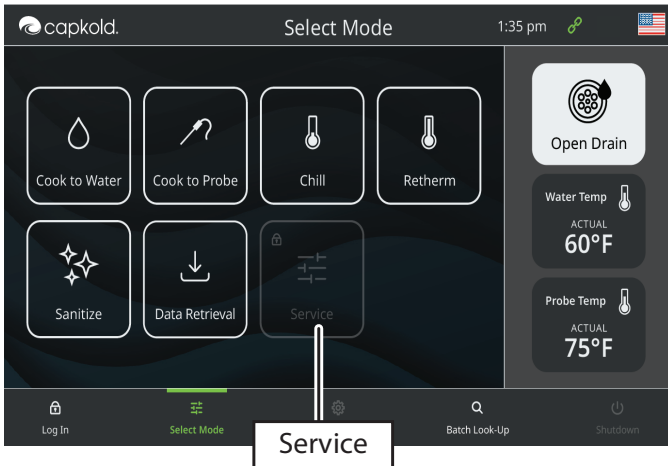
6. Timer Countdown: Once the setpoint temperature is reached, the timer count down is configurable from settings file.



- Open Drain Function: Use the “Open Drain” button to lower the water level for scrubbing the tank. The button toggles between “Open Drain” and “Close Drain.”
- End the Cycle: Press the red “Stop Unit” button to end the cycle and automatically drain the tank.

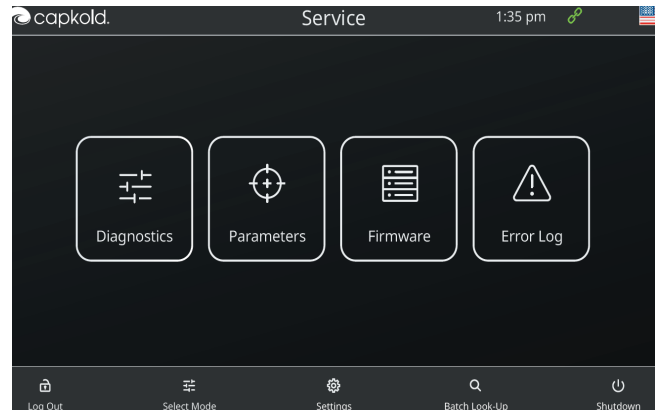
**NOTE:** COMPLETION INDICATORS: THE “STOP UNIT” AND “OPEN DRAIN” OPTIONS APPEAR ONCE THE SET POINT TEMPERATURE IS MAINTAINED, AND THE TIMER STARTS COUNTING DOWN.

### ACCESS & NAVIGATE SERVICE MODE



- Access Service Mode: Ensure you are logged in. Navigate to and select “Service” mode button from the main menu, which should be active.
- Passcode Entry: Access is granted by logging in, and a 4-digit code is required to enter service mode.
- Confirm Entry: Press “Confirm” to enter Service Mode.

### NAVIGATING SERVICE MODE MENU

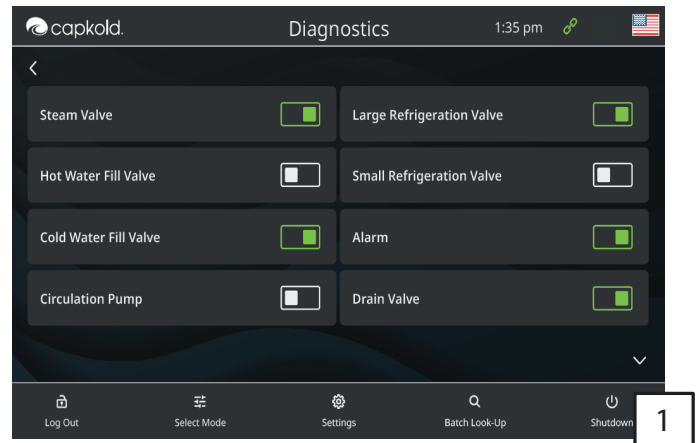


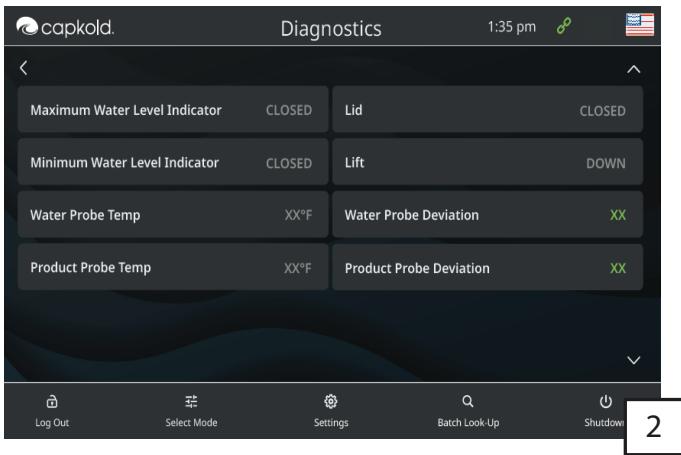
The Service Mode menu provides access to:

- Diagnostics: Monitor system components, including steam valve, refrigeration valves, water fill valves, circulation pump, and alarms.
- Parameters: Adjust system settings as required.
- Firmware: Update system firmware.
- Error Log: Access logs to review system errors for troubleshooting purposes.

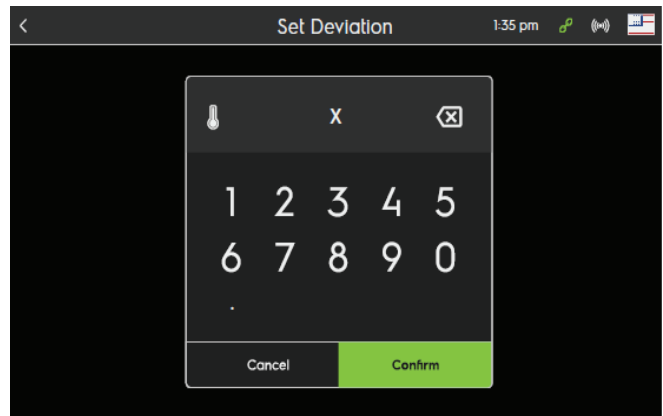
### DIAGNOSTICS INTERFACE

- Tap “Service” mode from the main menu.
- Select “Diagnostics mode” from the options.
- Toggle Controls: Toggle On/Off for various system valves and the circulation pump.
- The diagnostics screen displays real-time status for system components.
  - Maximum and minimum water level indicators
  - Water probe temperature and deviation.
  - Product probe temperature. Actions such as “Lift” and “Lid” are available for system adjustments.
- Calibration and Timers: Access calibration settings and timers for water probes and product probes, and adjust as needed.
  - Use the diagnostics screen to calibrate water probes and adjust cycle timers. Default settings include:
  - Drain Cycle Timer: 600 seconds



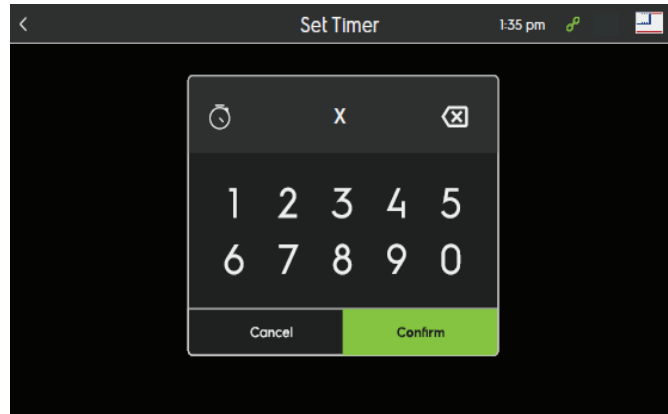


## SETTING DEVIATION



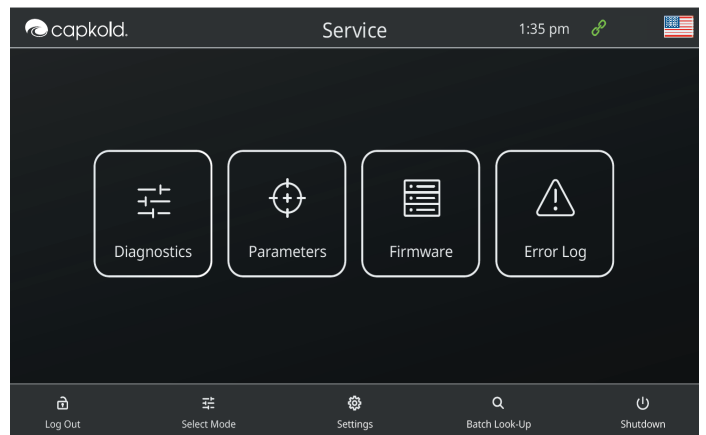
1. Access Deviation: Select the deviation option from the Diagnostic mode.
2. Enter Values: Use the numeric keypad to input the desired deviation values.
3. Save Settings: Press “Confirm” to save. Selecting “Cancel” will discard changes.

## ACCESS TIMER SETTINGS:

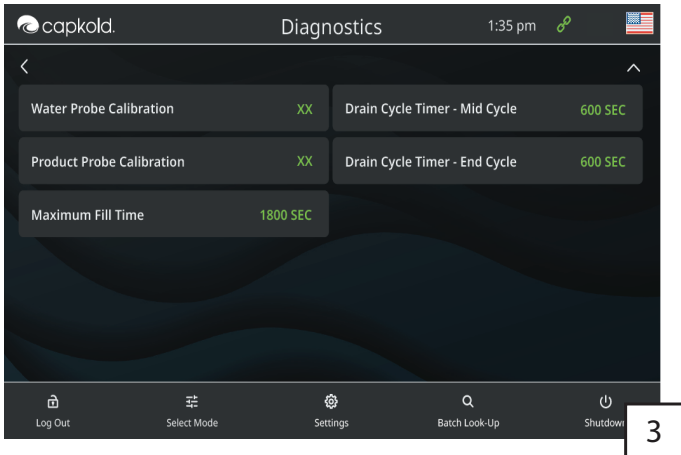


1. Select the timer option from the Diagnostic mode.
2. Enter Values: Use the numeric keypad to input the desired timer values.
3. Save Settings: Press “Confirm” to save. Selecting “Cancel” will discard changes.

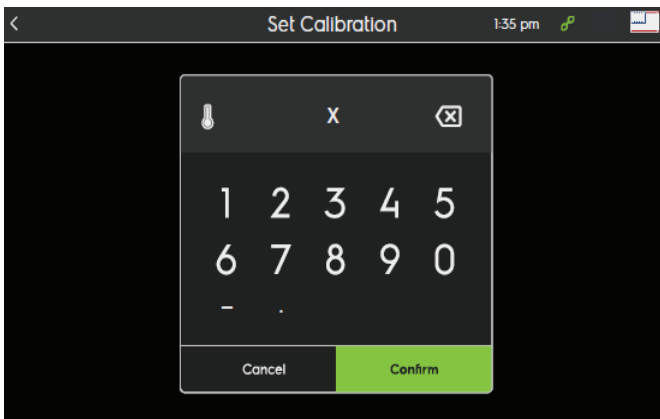
## CONFIGURING SYSTEM PARAMETERS



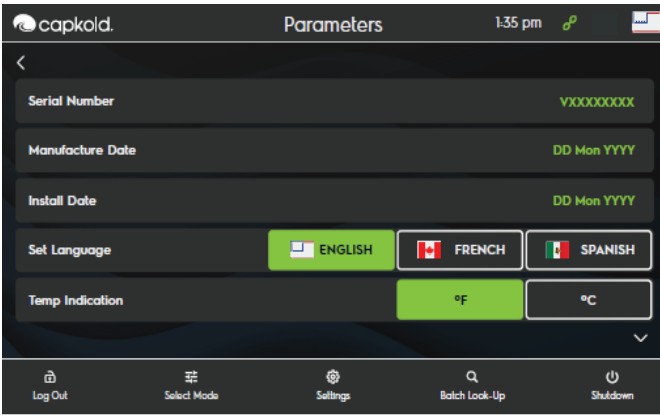
1. Access Parameters: Navigate to and select “Parameters” from the Service Mode menu.



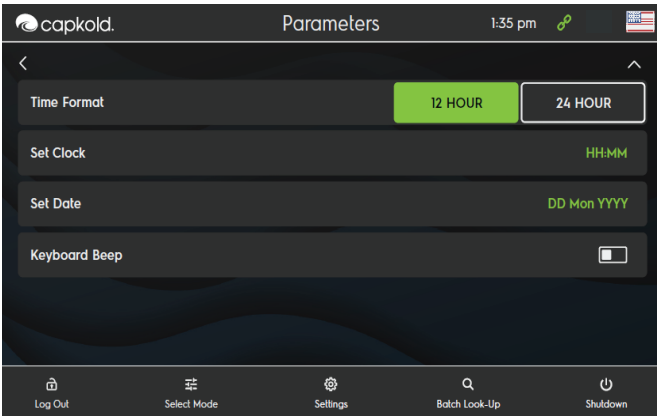
## ACCESS CALIBRATION



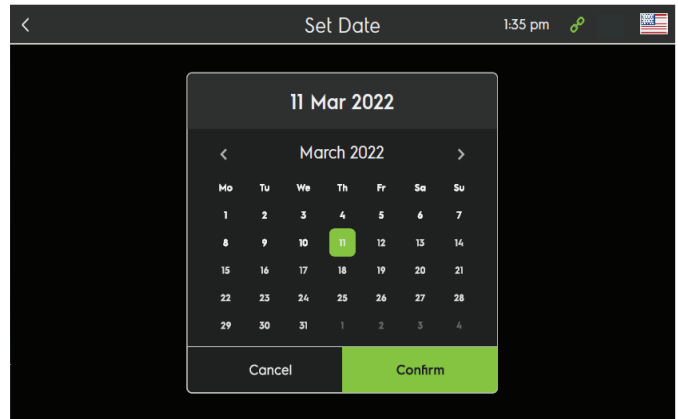
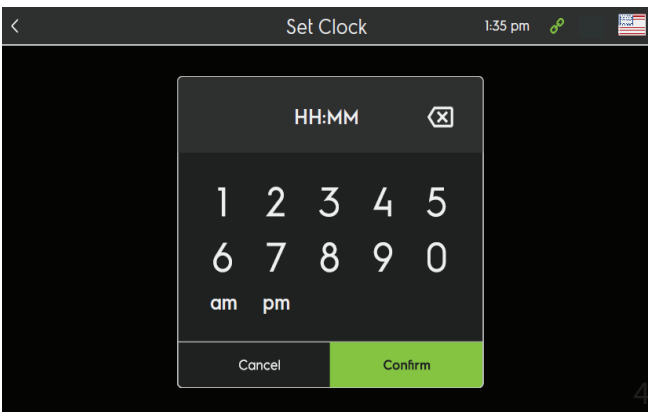
1. Select the calibration option from the Diagnostic mode.
2. Enter Values: Use the numeric keypad to input the desired calibration values.
3. Save Settings: Press “Confirm” to save. Selecting “Cancel” will discard changes.



2. Enter Serial Number: Input the serial number (8 digits) of the unit.
3. Select Language: Choose between English, French, and Spanish.
4. Temperature Unit: Select the temperature unit (°F or °C).



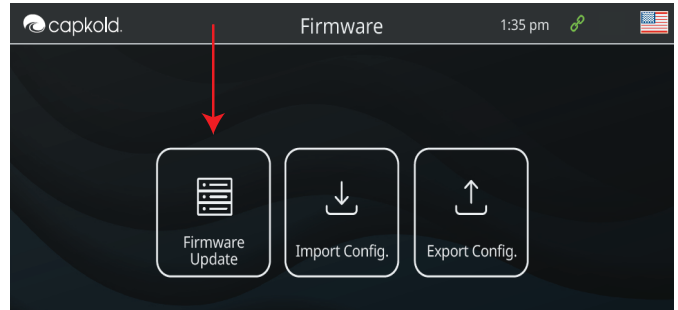
5. Date Setting: Use the calendar interface to select the desired date.
6. Choose the time format (12-hour or 24-hour). Set the current time.
7. Clock Setting: Use the numeric keypad to set the current time in HH:MM format.
8. Confirm Date: Press "Confirm" to save the date. Selecting "Cancel" will return to the previous menu without saving.



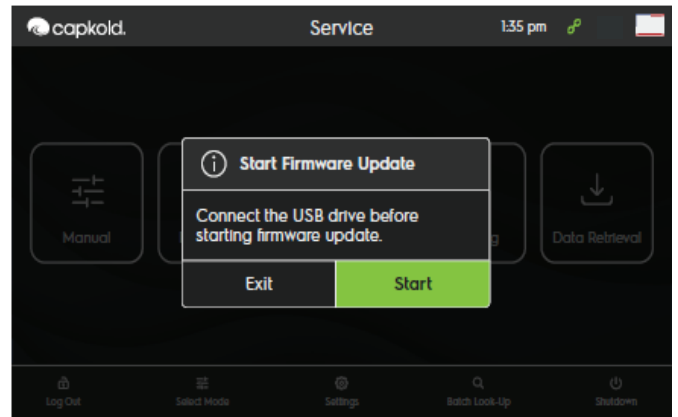
## FIRMWARE MANAGEMENT

The firmware menu allows you to update or manage system configurations. Follow the instructions below for each operation.

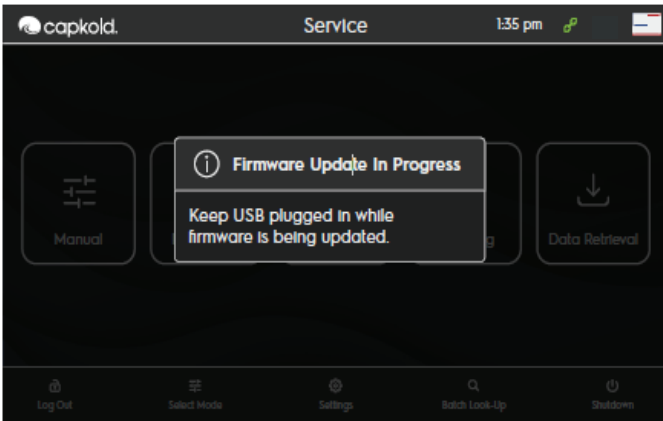
1. Starting Firmware Update: Select "Firmware Update" from the Service menu. Connect a USB drive before starting the firmware update.



2. Firmware Update Process: The update will begin, and a progress message will appear. Keep the USB drive plugged in during the update.



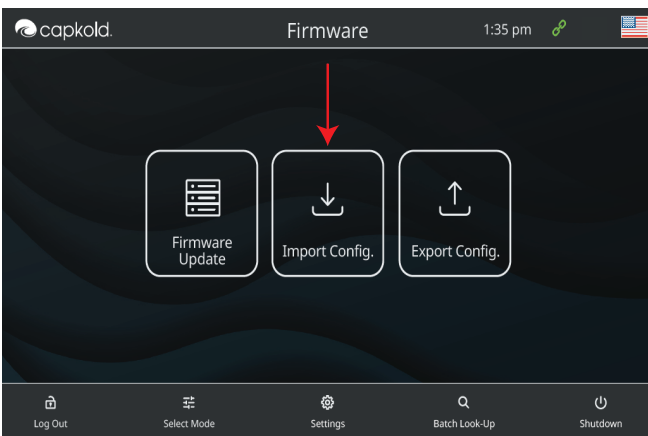
3. During the update:
  - Keep the USB drive connected.
  - Monitor progress through the status display.



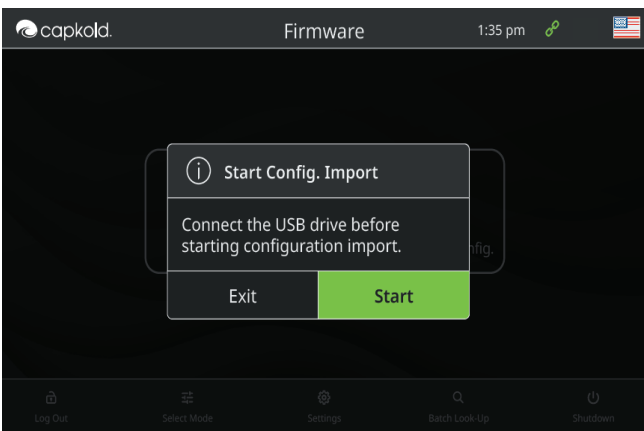
- Once the update is complete, the system will notify you with a message:
  - Firmware update complete.
  - You may now safely remove the USB drive

**CONFIGURATION IMPORT**

- Starting Configuration Import: Select "Import Config." from the Firmware menu. Connect a USB drive before starting the config import.



- Configuration Import Process: The Import will begin, and a progress message will appear. Keep the USB drive plugged in during the import.



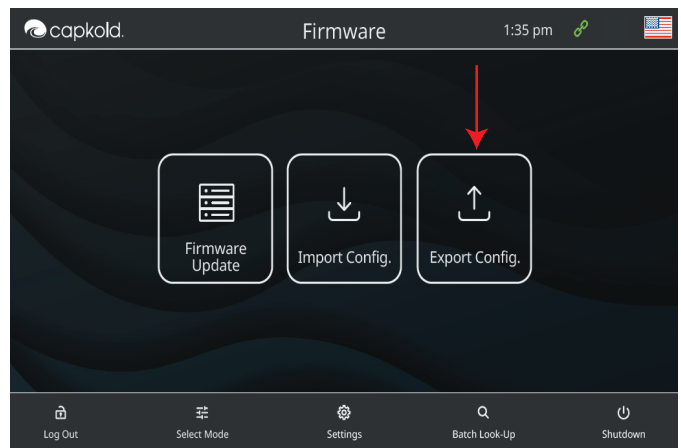
- During the update:
  - Keep the USB drive connected.
  - Monitor progress through the status display.



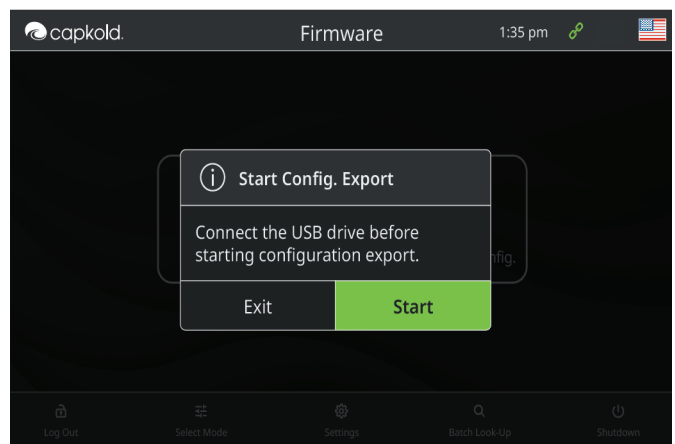
- Once the import is complete, the system will display:
  - Config import complete.
  - You may now safely remove the USB drive.

**CONFIGURATION EXPORT**

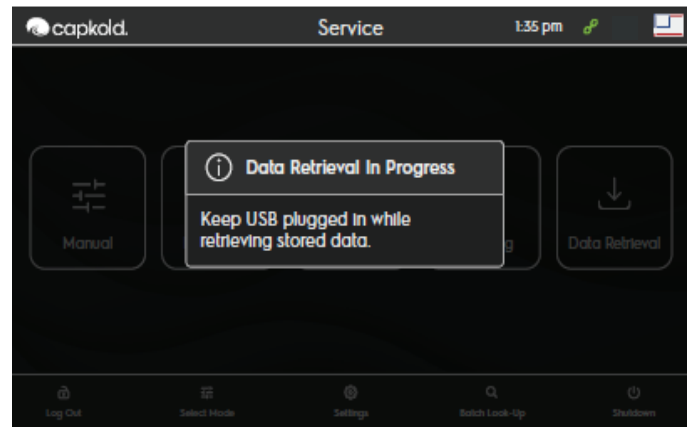
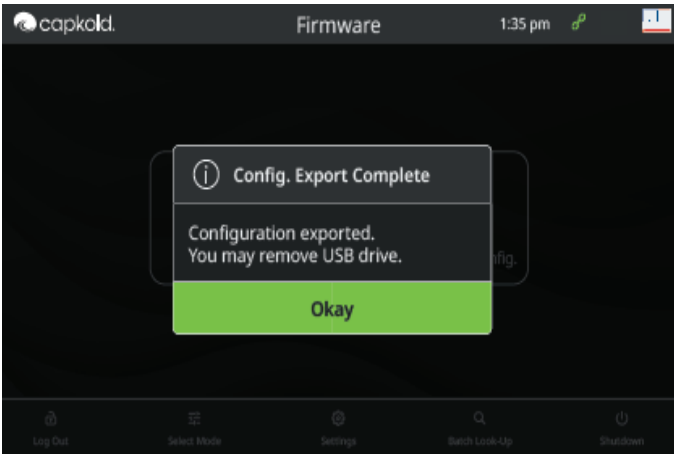
- Starting Configuration Export: Select "Export Config." from the Firmware menu. Connect a USB drive before starting the config export.



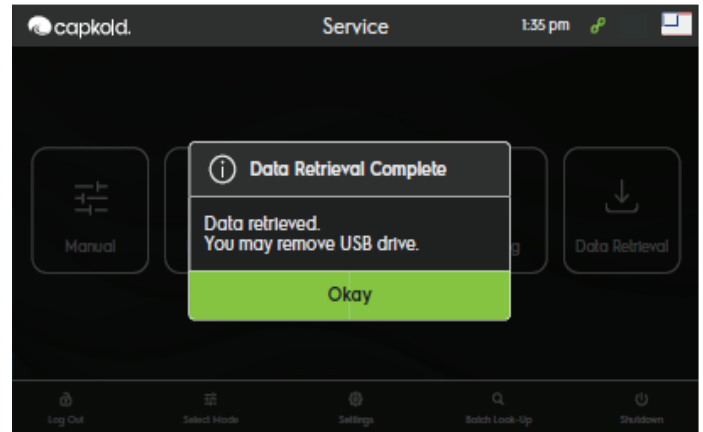
- Configuration Export Process: The Export will begin, and a progress message will appear. Keep the USB drive plugged in during the export.



- Once the export is complete, the system will display:
  - Config export complete.
  - You may now safely remove the USB drive.

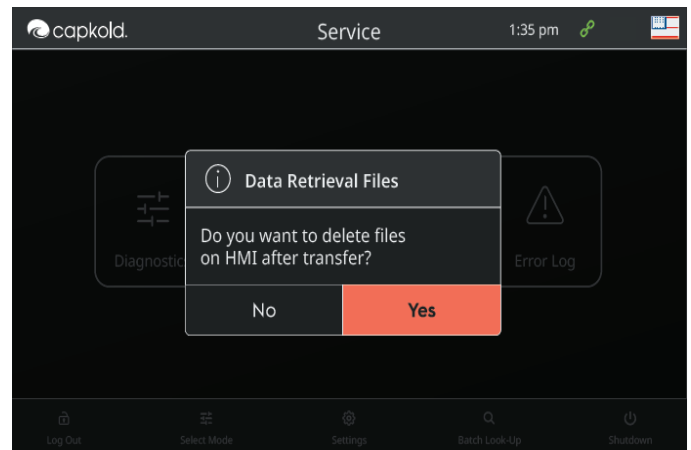


3. Completion: Once the data retrieval is complete, a message will indicate that the data has been retrieved and it is safe to remove the USB drive.



### DATA RETRIEVAL FILE DELETION

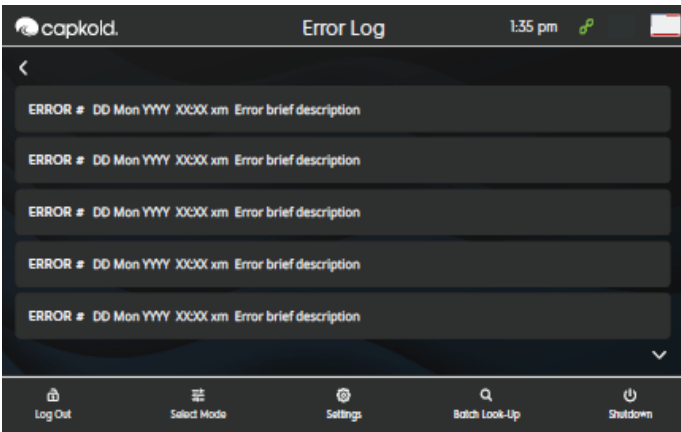
1. Once data retrieval starts, the system will prompt you to decide whether to delete the files from the HMI after transferring.
2. Select one of the following options:
  - Yes: Deletes the files from the HMI after the data transfer is complete.
  - No: Retains the files on the HMI after the data transfer.



### ERROR LOG

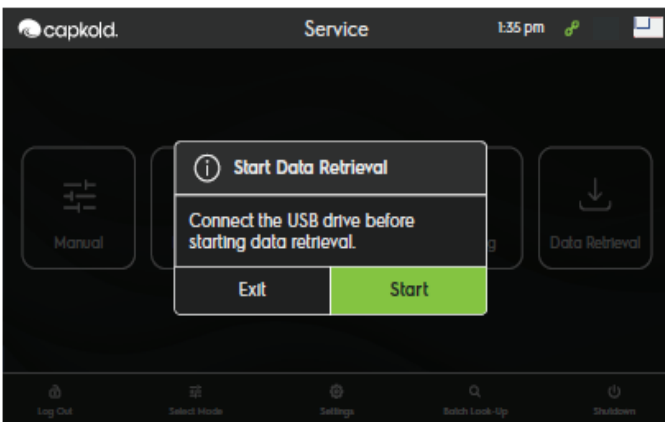
The Error Log screen displays a list of error messages with timestamps and brief descriptions.

1. Access Error Log: Navigate to and select “Error Log” from the Service Mode menu.
2. Review Errors: Scroll through the list to review error messages, including timestamps and brief descriptions of each error.



### DATA RETRIEVAL PROCEDURE

1. Start Data Retrieval: Select “Start Data Retrieval” from the main menu. Connect a USB drive before starting the data retrieval process. To cancel the operation, select “Exit”.



2. Data Retrieval Process: The system will display a progress message indicating that data retrieval is in progress. Keep the USB drive connected during this process.

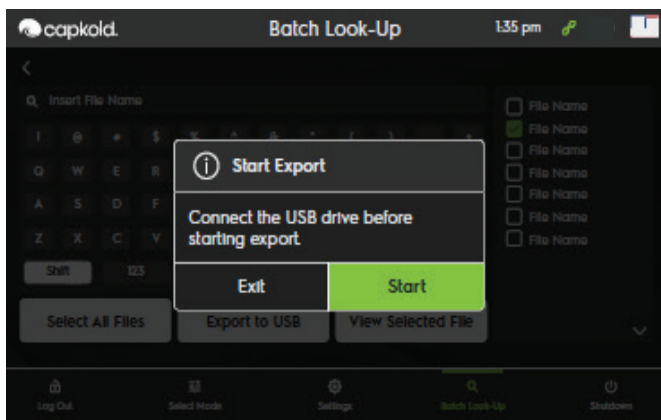
## BATCH LOOK-UP



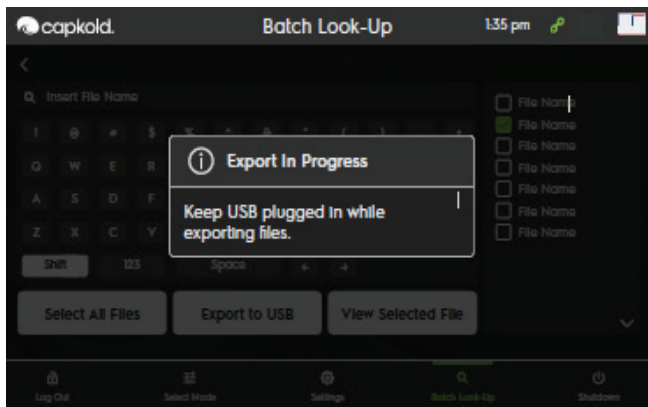
1. Search and Export Batch Files: The Batch Look-Up screen allows users to search and export batch files:
2. Search Field: Begin typing in the search field to display a list of matching files are shown in the data box on the right.
3. File List: The list narrows as more characters are typed, showing files that closely match the search term.
4. File Selection: All files are selectable for exporting. Multiple files can be selected.
5. View Selected File: Selecting this option will display the closest matching file from the list.
6. Export to USB: Select files and choose to export them to a USB drive.

### STARTING EXPORT PROCESS

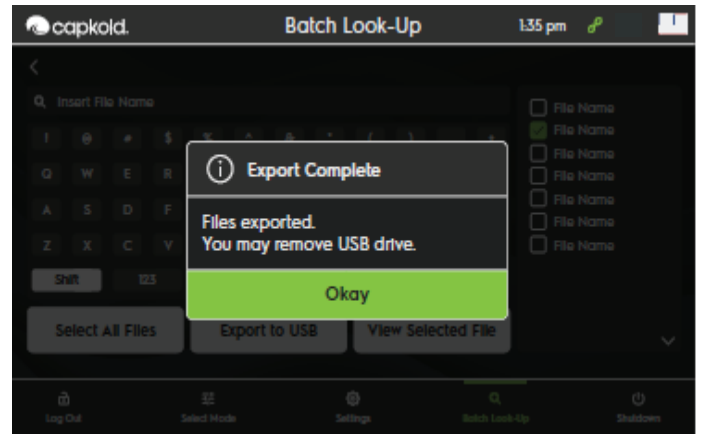
1. Select "Export to USB" and connect a USB drive before starting the export.



2. Export in Progress: A progress message will display, indicating that the export is in progress. Keep the USB drive connected during this process.

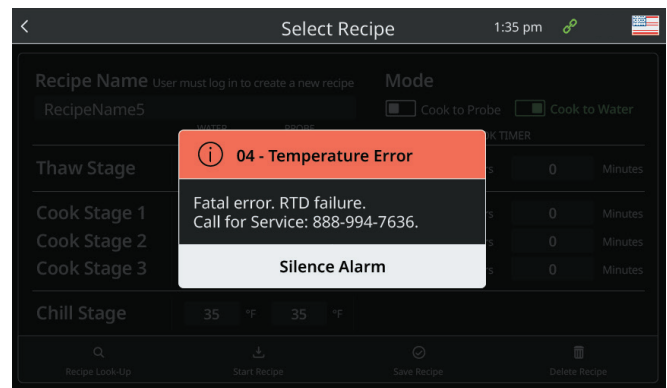


3. Completion Message: Once the export is complete, a message will indicate that the files have been exported and it is safe to remove the USB drive.



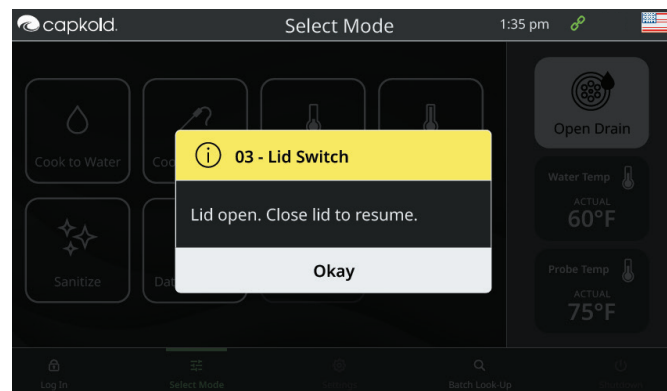
## SYSTEM ALERTS AND ERROR HANDLING

### FATAL ERROR



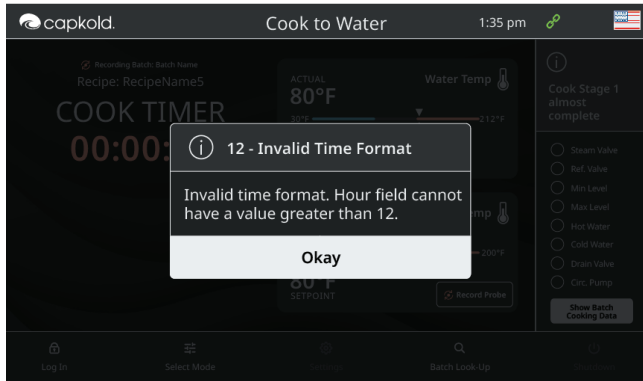
A fatal error has occurred due to RTD failure. Contact service at 888-894-7636 for assistance. Tap "Silence Alarm" to mute the alert.

### WARNING



The lid is open. Close the lid to resume operation. Tap "Okay" to acknowledge the warning.

## DATA ENTRY ERROR



Invalid time format detected. The hour field cannot exceed a value of 12. Tap “Okay” to acknowledge and correct the input.

## EMERGENCY STOP BUTTON

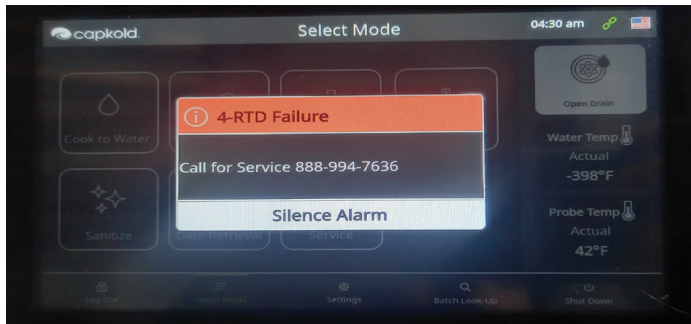
The machine is equipped with a red emergency stop button, which is a push-pull switch designed to immediately halt all operations in case of an emergency.

Operation:

- To stop in an emergency: Press the red emergency stop button.
- All ongoing processes will stop immediately.
- The screen will display “EMERGENCY STOP”.
- The machine will not allow any operation until the button is released.
- To resume operation: Pull the red emergency stop button to its original position.
- Once released, the machine will be ready for operation.

**NOTE: USE THE EMERGENCY STOP BUTTON ONLY IN CRITICAL SITUATIONS. FOR NORMAL SHUTDOWN PROCEDURES, FOLLOW THE STANDARD OPERATING INSTRUCTIONS.**

## TEMPERATURE ERROR

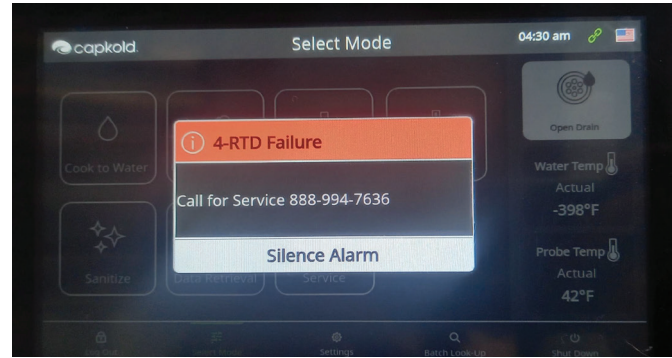


A fatal error has occurred due to RTD failure. Contact service at 888-894-7636 for assistance. Tap “Silence Alarm” to mute the alert.

Action Taken by control: Stop all function; no draining of the tank; return to select mode to allow user to drain the tank. Machine will be in a mode - cook to water or cook to probe, reterm, sanitize or chill Mode.

## TIME/TEMPERATURE ERROR

**IF NO TEMPERATURE CHANGE (1 DEGREE) DURING HEATING FOR 15 MIN OR 30 MIN FOR COOLING**



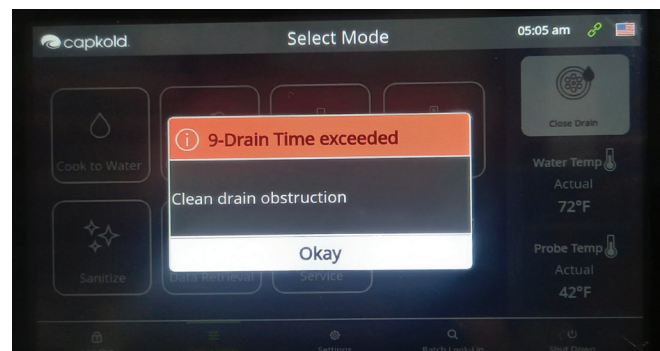
“Silence Alarm” button: Reset timer for another time sequence for 15 min for heating/30min for cooling.

## PROBE OUT SEQUENCE



“Silence Alarm” – Keep the pop-up notification displayed. On the Select Mode screen, display a notification for the audible alarm. Require acknowledgment that the probes have been cleaned before proceeding to the next mode.

## DRAIN TIME EXCEEDED



The unit has exceeded the maximum drain time. The low probe did not detect a transition when the unit started draining. The function has been running for 600 seconds, but the high probe still detects water.

User Action:

- Clear the drain blockage.
- Clean the probe or replace the part if necessary

System Response:

- An alarm notification appears with a “Silence Alarm” button.
- The notification remains active until the probe no longer detects water.
- The user can still access the Select Mode screen.

## TIME FILL EXCEEDED



The unit did not reach the high probe within 1800 seconds during the fill cycle.

User Action:

- Clean the probes.
- If the issue persists, contact service.

System Response:

- An alarm notification appears with a “Silence Alarm” button
- The notification remains active until the probe detects water.
- An audible alarm sounds.
- The user can still access the Select Mode screen.

## CLEANING

**WARNING: BEFORE HANDLING ANY CLEANING PRODUCT, WEAR RUBBER GLOVES, PROTECTIVE CLOTHING, AND A FACE SHIELD.**

**WARNING: : NEVER ADD ANY OTHER CHEMICALS TO THE TANK WHEN CIR-KLENZ IS PRESENT.**

## BROKEN BAG CLEANING

1. Drain the tank completely
2. Remove the lifting platform from the tank
3. Using a wet/dry vacuum, vacuum out large particles of food from the tank and platform
4. Use a brush to clean food particles from in between heat exchanger plates
5. Remove clean-out plate from pump supply duct
6. Use a brush to clean food particles out of the duct
7. Replace the platform in the tank
8. Replace the clean out plate on the supply duct
9. Fill to high water mark with fresh, cool water
10. 1Add Cir-Klenz II to the tank as follows:
11. WJ100-C - use 1 gallon, WJ100-CC - use 3 quarts
12. If the Water Jet has heating capability, heat the tank water to 145F
13. Run the recirculation pump for 10 minutes. (Cir-Klenz is low foaming).
14. Wearing a rubber glove, wipe all around the inside surface of the tank at water level with a soft cloth to remove any food particles
15. Drain the tank, and refill to the high water mark with fresh, cool water
16. Run the recirculation pump for at least one minute
17. Drain the tank

## ROUTINE CLEANING

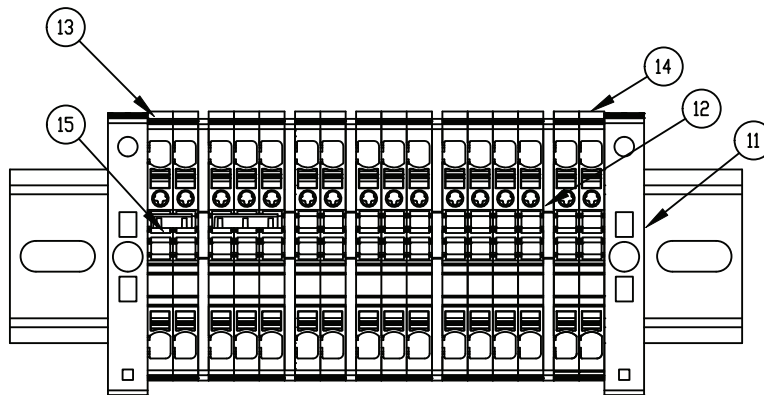
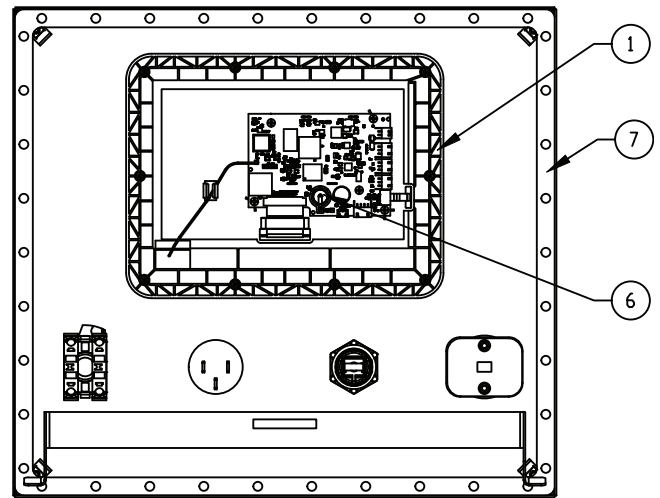
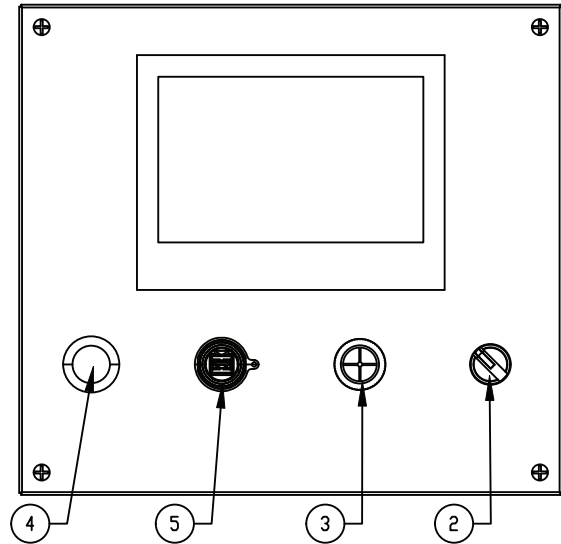
1. Weekly cleaning is recommended for regular users. For heavy users, it is recommended that routine cleaning be performed after every 20 batches.
2. Leave the tank filled to high water mark with water
3. Add Cir-Klenz II to the tank as shown WJ100-C - use 1 gallon, WJ100-CC - use 3 quarts
4. If the Water Jet has heating capability, heat the tank water to
5. Run the recirculation pump for 10 minutes. (Cir-Klenz is low foaming)
6. Wearing a rubber glove, wipe all around the inside surface of the tank at water

**179945  
CONSOLE ASSEMBLY**

**Parts List**

Key	Description	Part #
1	ASSEMBLY, HMI WITH SOFTWARE	182852
2	SWITCH, SELECTOR ON/OFF, DPST	182331
3	BUZZER, 12VDC, 80 DB	179901
4	SWITCH ASSEMBLY, EMERGENCY STOP	115342
5	CONNECTOR, PANEL MOUNT, JST TO USB A MALE PLUG	50807
6	BATTERY, LITHIUM 3V COIN 12.5MM	179898
7	GASKET, 3/8" THK X 1/2" WIDE, 3.5 FT	137588
8	HARNESS, HMI CONTROL BOX (NOT SHOWN)	179944
9	HARNESS, HMI RS485 (NOT SHOWN)	183253
10	HARNESS, HMI POWER (NOT SHOWN)	183254
11	END BRACKET, WEMID GF 30	179933
12	END PLATE, CONNECTOR TERMINAL, 2.5MM	179930
13	FEED-THRU TERMINAL, PUSH IN, 12-28 AWG	179928
14	PE TERMINAL, PUSH IN, 2.5MM, GREEN/YELLOW	179932
15	CROSS CONNECTOR, TERMINAL BLOCK, 24A	179929

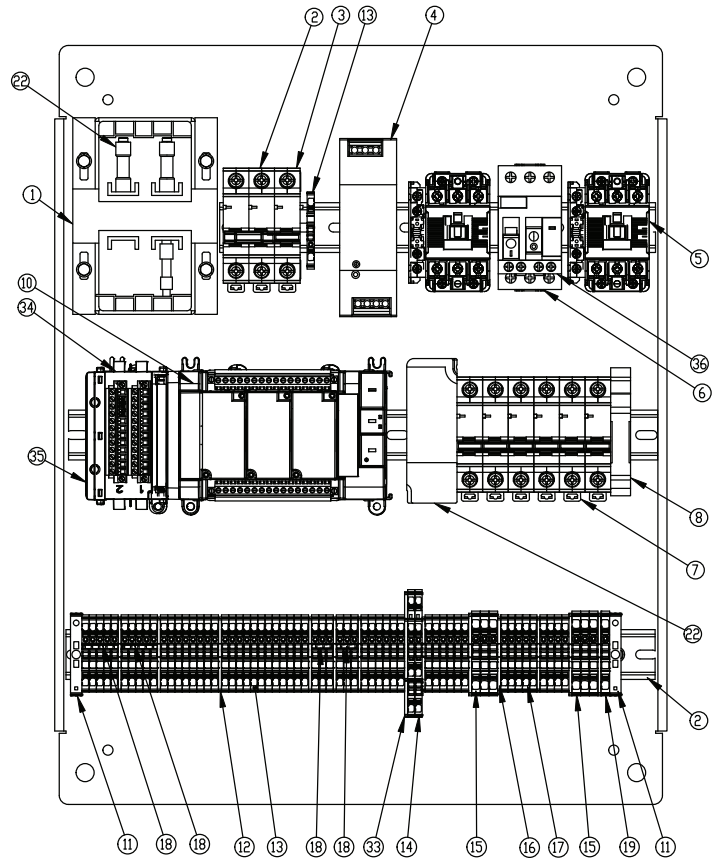
x = item not depicted/called out in drawing



**182317  
ELECTRICAL PANEL ASSEMBLY**

**Parts List**

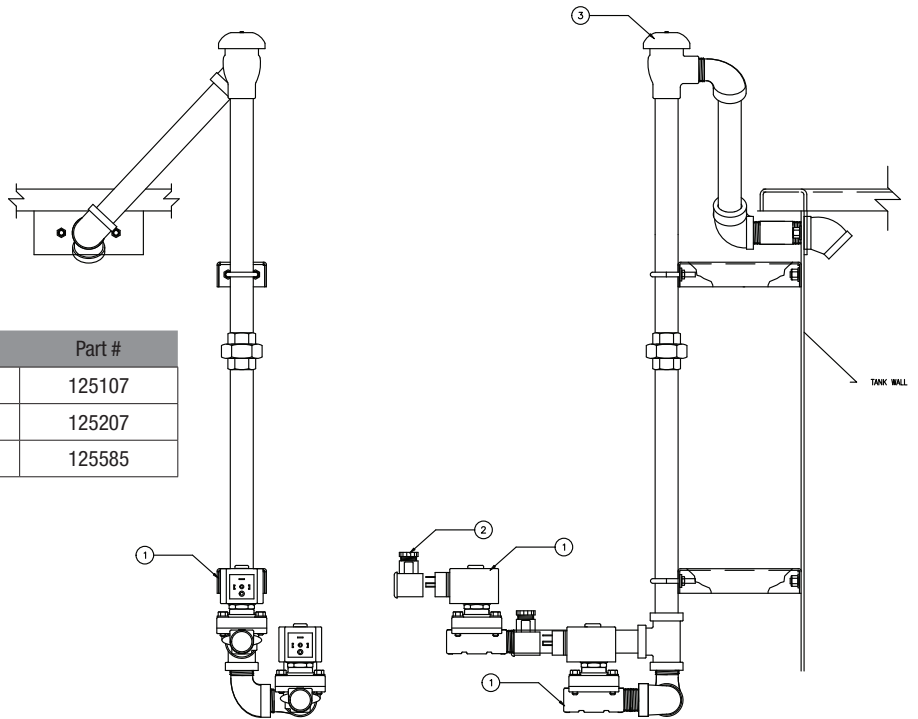
Key	Description	Part #
1	TRANSFORMER, 150VA, 240/208/480VAC	179921
2	CIRCUIT BREAKER, 2P, 5A	179910
3	CIRCUIT BREAKER, 1P, 4A	179913
4	POWER SUPPLY, 24 VDC, 120W	182321
5	CONTACTOR, 3P 24VAC; 32A	179909
6	MANUAL MOTOR STARTER, 3 POLE, 32A	179908
7	CIRCUIT BREAKER, 1P, 1A	179912
8	BLOCK RELAY, 24 VDC 2P	179918
10	ASSEMBLY, PLC WITH FIRMWARE WATERJET	182853
11	END BRACKET, WEMID GF 30	179933
12	END PLATE, CONNECTOR TERM, 2.5MM	179930
13	FEED-THROUGH TERMINAL, PUSH IN, 12-28 AWG	179928
14	PE TERMINAL, PUSH IN, 2.5 MM, GRE 12-28 AWG	182316
15	FEED-THROUGH TERMINAL, PUSH IN, 10-28 AWG	182314
16	END PLATE, CONNECTOR TERM, 4MM	182315
17	PE TERMINAL, PUSH IN, 2.5 MM, GRE/YEL	179932
18	CROSS CONNECTOR, TERMINAL BLOCK, 24A	179929
19	PE TERMINAL, PUSH IN, 4 MM, GRE, 10-28 AWG 2 POSITION	182320
20	COMMUNICATION CABLE, PLC (NOT SHOWN)	179917
21	WATER LEVEL SENSOR PCB 1 (NOT SHOWN)	179914
22	FUSE, SLOW BLOW, 3A TYPE CC	179900
25	HARNESS, PLC WATERLEVEL BOARD WATERJET (NOT SHOWN)	179943
26	HARNESS, MOTOR WIRING WATERJET (NOT SHOWN)	179936
27	HARNESS, 208VAC AND 120VAC POWER DISTRIBUTION WATERJET (NOT SHOWN)	179937
28	HARNESS, K RELAY WATERJET (NOT SHOWN)	179938
29	HARNESS, PLC INPUT WATERJET (NOT SHOWN)	179939
30	HARNESS, PLC OUTPUT WATERJET (NOT SHOWN)	179940
31	HARNESS, PLC POWER WATERJET (NOT SHOWN)	179942
32	HARNESS, PLC OUTPUT CB TO TB WATERJETB (NOT SHOWN)	179941
33	CONN TERM BLK END PLATE BEIGE	182336
34	RTD/TC INPUT MODULE, MICRO800 4 CHANNEL	179916
35	END CAP, RTD INPUT MODULE	179922
36	MOTOR STARTER AUX CONTACT, 1NO,1NC	179907
37	FILTER, OUTLET 2 INCH (NOT SHOWN)	179934
38	HARNESS, AI MODULE WATERJET (NOT SHOWN)	183252
39	HARNESS, POWER DISTRIBUTION 24DC WATERJET (NOT SHOWN)	183255



**133434  
WATER INLET ASSEMBLY**

**Parts List**

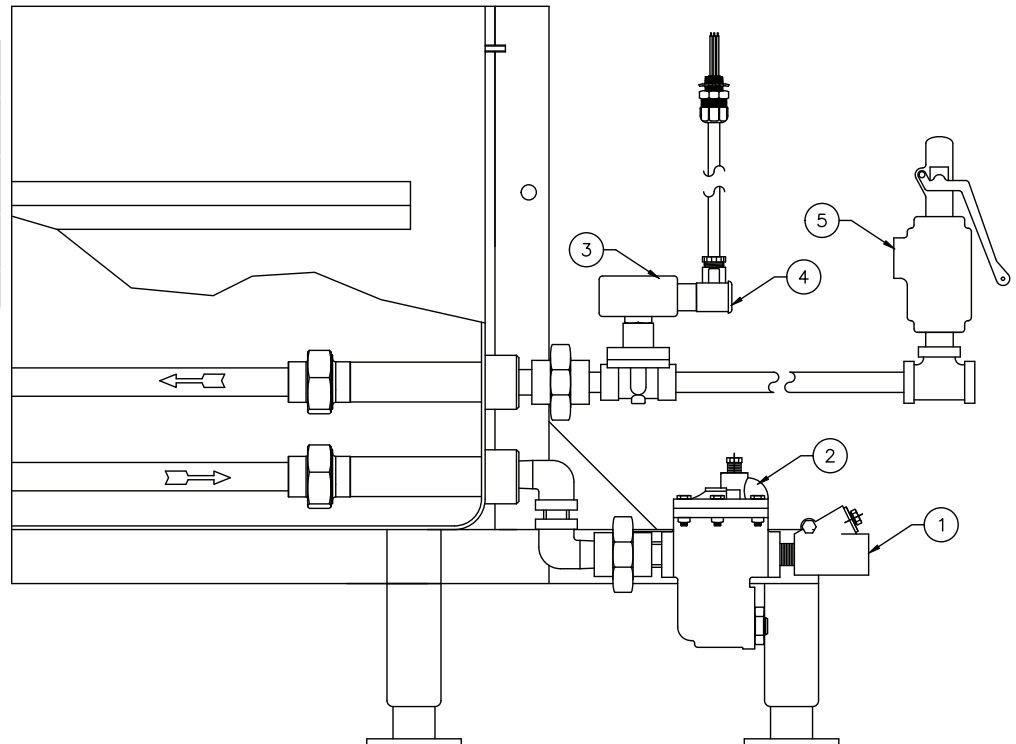
Key	Description	Part #
1	VALVE, SOLENOID 3/4" NPT 2 WAY	125107
2	CONNECTOR DIN FOR ASCO SOLENOIDS	125207
3	VACUUM BREAKER 3/4" NPT	125585



**137982  
STEAM ASSEMBLY**

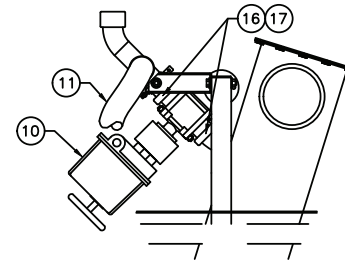
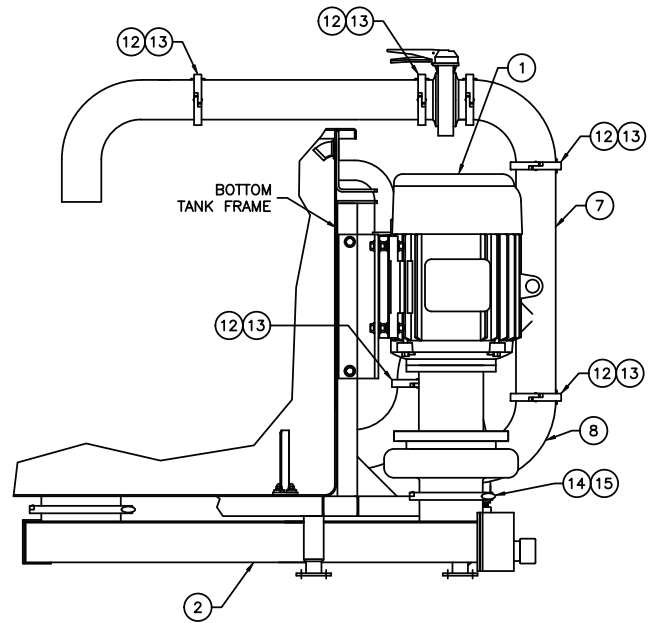
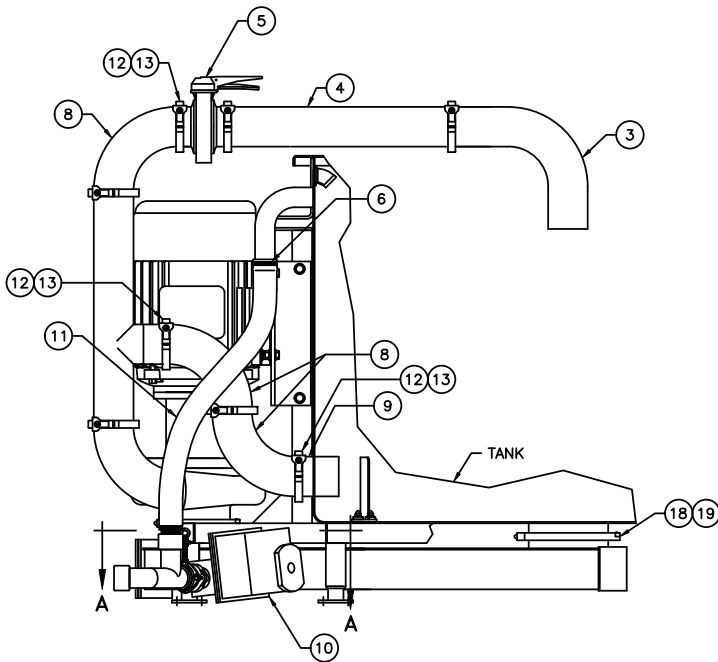
**Parts List**

Key	Description	Part #
1	VALVE, SWING CHECK, 3/4" NPT	005515
2	TRAP, BUCKET, 3/4" NPT, CAST IRON	004050
3	CONNECTOR DIN FOR ASCO SOLENOIDS	125107
4	VALVE, SOLENOID 3/4" NPT 2 WAY	125207
5	VALVE, PRESSURE RELIEF	098158



**137981  
RECIRCULATION ASSEMBLY**

**Parts List**



VIEW A-A

Key	Description	Part #
1	PUMP AND MOTOR ASSEMBLY, 7.5 HP	133693
2	BOTTOM RETURN DUCT ASSEMBLY	133662
3	TOP RECIRCULATION ELBOW	133645
4	HORIZONTAL RECIRCULATION TUBE	133644
5	DIVERTER VALVE	133600
6	CLAMP, HOSE, WORM DRIVE	100691
7	VERTICAL RECIRCULATION TEE	133646
8	ELBOW, 90°, 4"	N105123
9	FERRULE, TRI-CLAMP, 4"	N114151
10	SANITARY DRAIN VALVE ASSEMBLY, 24VDC	133684
11	OVERFLOW HOSE ASSEMBLY	133729
12	SANITARY CLAMP, TRI-CLOVER, 4"	050909
13	GASKET, TRI-CLOVER, 4", BUNA-N	053331
14	SANITARY CLAMP, TRI-CLOVER, 6"	N89740
15	GASKET, TRI-CLOVER, 6", BUNA-N	N64489
16	SANITARY CLAMP, TRI-CLOVER, 2"	053786
17	GASKET, TRI-CLOVER, 2", BUNA-N	016602
18	SANITARY CLAMP, TRI-CLOVER, 8"	133749
19	GASKET, TRI-CLOVER, 8", BUNA-N	N96054
20	ASSEMBLY, WATER LEVEL PROBE (NOT SHOWN)	133652
21	SEAL, MOTOR SHAFT (NOT SHOWN)	133700
22	PUMP CASING, SANITARY (NOT SHOWN)	133703
23	PUMP IMPELLER (NOT SHOWN)	133704
24	CASING GASKET (NOT SHOWN)	133706
25	SEAL, PUMP, CARBON (NOT SHOWN)	133709
26	O-RING FOR PUMP SEAL (NOT SHOWN)	133711

